FINAL

ANNUAL (FOURTH QUARTER) 2015 GROUNDWATER SAMPLING REPORT

FORT MONMOUTH, OCEANPORT, MONMOUTH COUNTY, NEW JERSEY

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and
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LIST OF ACRONYMS

ACRONYM	DEFINITION
Accutest	Accutest Laboratories
amsl	above mean sea level
BRAC	Base Closure and Realignment
CWA	Charles Wood Area
DoD	Department of Defense
ELAP	Environmental Laboratory Accreditation Program
FTMM	Fort Monmouth
FS	feasibility study
FSPM	Field Sampling Procedures Manual
GWQS	Ground Water Quality Standards
HASP	health and safety plan
LFPS	low-flow purging and sampling
MCL	Maximum Contaminant Level
MP	Main Post
MTBE	methyl tert-butyl ether
NELAP	National Environmental Laboratory Accreditation Program
NJDEP	New Jersey Department of Environmental Protection
Parsons	Parsons Government Services, Inc.
PCB	polychlorinated biphenyls
PCE	tetrachloroethene
PDB	passive diffusion bag
PVC	polyvinyl chloride
QA	quality assurance
QAPP	quality assurance project plan
QC	quality control
QSM	Quality Systems Manual
RI	remedial investigation
SAP	sampling analysis plan
SVOC	semi-volatile organic compound
TBA	tert-butyl alcohol
TCE	trichloroethene
TCL	target compound list
TIC	tentatively identified compound

TO	Task Order
TRSR	Technical Requirements for Site Remediation
USAESCH	United States Army Engineering & Support Center, Huntsville
USEPA	United States Environmental Protection Agency
VC	vinyl chloride
VOC	volatile organic compounds
WERS	Worldwide Environmental Restoration Services

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1.0 INTRODUCTION

This report presents the results for the annual (fourth quarter) 2015 groundwater sampling event performed at 12 sites within Fort Monmouth (FTMM) by Parsons Government Services, Inc. (Parsons) to support the Remedial Investigation (RI), Feasibility Study (FS), and Decision Documents project at FTMM, Oceanport, Monmouth County, New Jersey.

The work was conducted under the Worldwide Environmental Restoration Services (WERS) contract number W912DY-09-D-0062 of the United States Army Engineering & Support Center, Huntsville (USAESCH).

The activities discussed within this report were conducted in accordance with:

- New Jersey Department of Environmental Protection (NJDEP) Technical Requirements for Site Remediation (TRSR) (N.J.A.C. 7:26E); and
- New Jersey Field Sampling Procedures Manual (FSPM) (February 2006).

1.1 PURPOSE AND SCOPE

Groundwater sampling was conducted between September 30, 2015 and December 15, 2015. The sampling program implemented is consistent with the recommendations for quarterly/annual sampling made in the August 2013 Baseline Groundwater Sampling Report (Parsons, 2014), and accepted by the NJDEP in a letter dated February 5, 2015. Additional recommendations were made in the Annual (Fourth Quarter) 2014 Groundwater Sampling Report (Parsons, 2015), and accepted by the NJDEP in a letter dated January 26, 2015. Analytical results for the samples collected in 2015 were also used to evaluate the FTMM long-term groundwater sampling program and the potential for removal of monitoring wells or analytes in comparison to historical groundwater concentrations.

1.2 REPORT ORGANIZATION

This Annual (Fourth Quarter) 2015 Groundwater Sampling Report includes the following sections:

- Section 1 provides an introduction and organization to the report;
- Section 2 presents general information on the annual (fourth quarter) 2015 groundwater sampling event, a description of any significant deviations or events that may have impacted results, and the usability of laboratory analytical data;
- Section 3 provides the applicable remedial standards;
- Section 4 summarizes the findings and recommendations for the FTMM groundwater sampling program sites;
- Section 5 presents the references used in preparation of this report;
- Appendices A through L provide historical groundwater analytical results, annual 2015 groundwater analytical results, and the findings and recommendations for each site;
- Appendix M provides a memorandum regarding data validation for the 2015 annual sampling event;

- Appendix N provides the laboratory analytical reports, which are included as a CD; and
- Appendix O provides relevant communication with the NJDEP regarding groundwater sampling at the FTMM for 2015.

2.0 GROUNDWATER SAMPLING PROGRAM

2.1 INTRODUCTION

Work performed as part of the FTMM groundwater sampling program was conducted as outlined in the project's Sampling and Analysis Plan (SAP) (Parsons, 2013), and Health and Safety Plan (HASP) (Parsons, 2013). The groundwater sampling event involved depth-to-water level measurements and collection of groundwater samples from 47 monitoring wells. The monitoring wells are located at 12 sites within two areas of FTMM, the Main Post (MP) and Charles Wood Area (CWA). **Table 1** presents the site name, location area, number of wells on the site and number of wells sampled. (Table 1 also includes sites where the NJDEP agreed with the recommendation to discontinue groundwater sampling.) Prior to groundwater sampling activities, a site reconnaissance was performed to locate each monitoring well and assess its condition and accessibility. The location of FTMM and the 12 sites discussed within this report are provided on **Figure 1.1**, **Figure 1.2**, **and Figure 1.3**.

Further details regarding groundwater sampling activities and results for each individual site can be found in **Appendices A through L**.

2.1.1 Water Level Measurements

Between September 30 and December 14, 2015, depth-to-water measurements were collected from site monitoring wells prior to initiating sampling activities. Levels were obtained with an oil water interface probe from the top of the inner casing of the well. The water level probe was decontaminated in accordance with the SAP. Water level measurements were used to calculate the groundwater elevations, and confirm the previously determined groundwater flow direction. Groundwater contour figures for the 12 sites discussed within this report are provided in **Appendices A through L**.

2.1.2 Monitoring Well Assessment

During depth-to-water measurement in the monitoring wells, the condition of each monitoring well was assessed. Wells were visually inspected for physical damage, obstructions, or the presence of pump tubing in the well casing. The depth to the bottom of each monitoring well was also gauged and compared to the installed depth in order to determine if there was sediment build up in the well. The condition of the monitoring wells at each of the 12 FTMM sites is presented in Section 1.0 of the individual **Appendices A through L** for each FTMM site**.**

2.1.3 Groundwater Sampling

Groundwater samples were collected from 47 monitoring wells between September 30 and December 14 of 2015 using either low-flow purging and sampling (LFPS) or passive diffusion bag (PDB) sampling methodology. NJDEP approved the use of PDB sampling in a letter dated July 29, 2013 at FTMM-22 and FTMM-68, and at that time FTMM-53 was not approved for PBDs because of the historical presence of methyl tert-butyl ether (MTBE) in groundwater. However, the August 2013 baseline and first quarter 2014 groundwater sampling results demonstrated that MTBE was no longer present in the wells or detected at very low concentrations slightly above the detection limit on the site (FTMM-53). The NJDEP agreed that this site was deemed eligible for sampling using PDB (July 3, 2014 comment letter). PDBs were filled with laboratory-grade de-ionized water, deployed in monitoring wells and allowed to equilibrate for a minimum of two weeks prior to retrieving and collecting groundwater samples. Groundwater sampling activities

using PDBs were performed in accordance with the NJDEP FSPM (NJDEP, 2009) and the SAP. Vertical profiling of well screens for each fully saturated five foot interval was performed, where required, during the annual (fourth quarter) 2015 groundwater sampling event. If vertical profiling had previously been performed on a particular well, it was not repeated.

A groundwater sampling summary, including the Site name, well ID, analytical analysis, sampling method, and the sample date is presented in **Table 2**.

ALS Environmental of Rochester, NY (NJ cert. #NY004) served as the primary analytical laboratory for the 2015 annual (fourth quarter) groundwater sampling event. Samples were shipped on ice under chain of custody to ALS Environmental via FedEx. Accutest Laboratories (Accutest) of Dayton, NJ (NJ cert. #12129) served as the quality assurance (QA) laboratory. Five percent of groundwater samples collected were "split" and submitted to both ALS Environmental and Accutest consistent with the SAP. Both ALS Environmental and Accutest are Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP) and National Environmental Laboratory Accreditation Program (NELAP) certified laboratories that follow the project specifications of the DOD Quality Systems Manual (QSM) Version 4.1 or the latest version.

Water generated during the groundwater sampling was passed through portable granular activated carbon buckets and discharged to the ground surface adjacent to the well sampled.

2.1.4 Changes to Groundwater Sampling Program

Long term groundwater monitoring was discontinued at sites FTMM-03 and FTMM-61 in 2015 based on the recommendations contained in the Annual (Fourth Quarter) Groundwater Sampling Report (Parsons, Dec 2015), which was approved by the NJDEP in their January 26, 2016 letter. The NJDEP also agreed (in the same letter) to temporarily suspend the long term monitoring (LTM) program at FTMM-59 and evaluate the groundwater results as part of the ongoing remedial investigation for the site.

FTMM began temporary suspension the LTM program for groundwater at FTMM-22, FTMM-53, and FTMM-68 in the first quarter of 2016. These sites are currently in the remedial investigation (RI) phase and the field work has been completed or will be completed in the near future. The collective RI data provides a good characterization of the concentrations of constituents in the groundwater and allows for the evaluation of the groundwater (as a whole) in the RI/FS process. The LTM of the groundwater to date has provided sufficient understanding of the groundwater chemistry for these sites, and there is minimal benefit to continuing the LTM program while characterization of these sites is being completed under the RI process. Once the RI Reports (RIR), any necessary feasibility studies (FSs), and proposed plans have been completed and a remedy has been selected under a decision document, a revised LTM program for the groundwater will be submitted for these sites as appropriate to support the CEA. The temporary suspension of the LTM program for these four sites was approved in the NJDEP letter dated March 16, 2016.

RI reports (RIRs) have been submitted to the NJDEP for the four landfills (FTMM-02, FTMM-05, FTMM-08 and FTMM-18) which are currently sampled under this LTM groundwater program. Future groundwater sampling for these landfills will be performed and reported to support Biennial Certifications of revised existing (FTMM-2) or future (FTMM-05, FTMM-08 and FTMM-18) Classification Exemption Areas (CEAs) since the RIRs for these landfills have been completed (future sampling and reporting under a CEA is consistent with N.J.A.C 7:26E-

4.3(a)7 and 7:26E-4.9 (a)7) and the CEA has been identified as the preferred remedy. An extensive groundwater sampling history has been esta blished as part of the LTM program implemented for each landfill, and a comprehensive review of the data was performed as part of each RI for these sites, therefore the sampling performed under the current LTM, which provided data to support the investigation of the site is no longer appropriate. The CEA will include a biennial sampling frequency for select wells for an appropriate set of compounds that are representative of recent groundwater conditions. The biennial sampling frequency will provide data for the biennial certifications. This annual report references the RIRs for consistency and states that the LTM programs for these sites will be modified following the approvals of the RIRs to the future CEA programs, with biennial sampling to be performed in the same year as the biennial CEA certification.

2.1.5 QA/QC Sampling

Quality Assurance/Quality Control (QA/QC) samples were collected in accordance with the NJDEP FSPM and the Quality Assurance Project Plan (QAPP), which is included as part of the SAP.

2.2 DEVIATIONS FROM QAPP AND SAP

Deviation from the SAP for this sampling event are summarized in **Table 3**. In general, there were no significant deviations that could have adversely affected the sampling procedures or the results of the groundwater sampling presented in this report.

2.3 USABILITY OF LABORATORY ANALYTICAL DATA

A Level IV validation was performed on analytical data collected during the annual (fourth quarter) 2015 groundwater sampling event. Per the project QAPP, the validation for long term monitoring data includes a minimum of one report per sampling event or 33% of the data throughout the project, whichever is less. The data submitted by the laboratory has been reviewed and validated as per the SAP and was found to be usable for the purposes of this project. The Data Validation and the Data Verification Summary Reports are provided in **Appendix M** and complete laboratory analytical reports for groundwater samples collected are provided in **Appendix N** (on CD). The data validation performed meets the substantive requirements of the NJDEP's *Analytical Laboratory Data Generation, Assessment, and Usability Technical Guidance* (April 2014).

3.0 APPLICABLE REMEDIAL STANDARDS

For FTMM, the applicable remediation standards for groundwater are the NJDEP GWQS for Class IIA waters and the United States Environmental Protection Agency (USEPA) Maximum Contaminant Levels (MCLs) for Chemical Contaminants at Superfund Sites for Tap Water.

Both the GWQS and the USEPA MCL are provided in historical and 2015 groundwater data tables for reference purposes. If a chemical compound has a GWQS then that standard is used and the USEPA MCLs are used for those compounds where a GWQS is not established.

In a July 3, 2014 comment letter, the NJDEP agreed that metals at FTMM-02, FTMM-04, FTMM-08 (with the exception of lead), FTMM-12 (with the exception of lead), FTMM-25, FTMM-54, FTMM-55, FTMM-67, and FTMM-64, are indicative of background conditions and therefore sampling for metals was discontinued for these sites. In this Annual (Fourth Quarter) 2015 Groundwater Sampling Report, background groundwater concentrations of metals are provided in the analytical results tables for comparison where samples were submitted for metals analysis.

3.1 ANOMALOUS RESULTS

An anomaly is an exceedance of the applicable criteria that is not attributable to background concentrations and/or Site contamination. It typically succeeds and precedes non-exceedance sample results and is not representative of historical data for that location. Anomalies can be caused by sample equipment, laboratory equipment, seasonality changes, etc. For the purposes of this report, analytes noted as anomalies will not be considered part of the long term monitoring plan for that site. No anomalous results were reported during this annual sampling event.

4.0 FINDINGS AND RECOMMENDATIONS

Each of the sites are discussed as individual appendices to this report. As part of each appendix, findings and recommendations are presented for that Site. The recommendations provided are for sampling in 2016 to allow for the continued monitoring of groundwater conditions.

For each of the sites, historical data from the last four previous quarterly sampling events or the last two annual sampling events [in this case the 2013 baseline sampling event and 2014 annual (4th quarter) sampling event] along with data collected during the annual 2015 sampling event, were evaluated to determine if further sampling is warranted or maybe reduced. Analytical results were evaluated to determine if the detection was an anomaly, potentially part of an overall trend, or affected by seasonal changes. The 2015 groundwater sampling results for each of the 12 sites are discussed in individual appendices to this report. A summary of long term groundwater monitoring recommendations for 2016 is presented in **Table 4.**

5.0 REFERENCES

FTMM. *Letter from Ms. Wanda Green, BRAC Environmental Coordinator at Fort Monmouth, to Ms. Linda Range, Bureau of Case Management.* November 2014.

New Jersey Department of Environmental Protection. *Field Sampling Procedures Manual*, August 2005, Revised April 2009.

New Jersey Department of Environmental Protection. *Letter from Ms. Linda Range, Bureau of Case Management, to Ms. Wanda Green, BRAC Environmental Coordinator at Fort Monmouth.* May 2012.

New Jersey Department of Environmental Protection. *Technical Requirements for Site Remediation*, July 2013.Parsons. *Accident Prevention Plan.* February 2013

New Jersey Department of Environmental Protection. *Letter from Ms. Linda Range, Bureau of Case Management, to Ms. Wanda Green, BRAC Environmental Coordinator at Fort Monmouth.* July 2014.

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Parsons. *Sampling and Analysis Plan for Remedial Investigation/Feasibility Study/Decision Documents*. March 2013.

Parsons. *August* 2013 *Baseline Groundwater Sampling Report.* March 2014.

Parsons. *Annual (Fourth Quarter) 2014 Groundwater Sampling Report.* December 2015.

Roy F. Weston. *Final Site Investigation, Fort Monmouth, New Jersey, Main Post and Charles Wood Area.* December 1995.

TABLES

Table 1 Monitoring Well Locations
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Table 4 Summary of Long Term Groundwater Monitoring Recommendations

Table 1
Monitoring Well Locations
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site	Area	Number of Wells on the Site	Number of Wells Sampled
FTMM-02: Closed Solid Waste Landfill	MP	16	6
FTMM-03: Closed Solid Waste Landfill	MP	13	Discontinued in 2015
FTMM-04: Closed Solid Waste Landfill	MP	6	Discontinued in 2014
FTMM-05: Closed Solid Waste Landfill	MP	10	4
FTMM-08: Closed Solid Waste Landfill	MP	14	8
FTMM-12: Closed Solid Waste Landfill	MP	16	Discontinued in 2014
FTMM-14: Closed Solid Waste Landfill	MP	6	Discontinued in 2014
FTMM-18: Closed Solid Waste Landfill/Former Training Area*	MP	8	4
FTMM-22: (CWA-1) Former Waste Water Treatment Lime Pit	CW	17	6
FTMM-25: (CWA-3A) Closed Solid Waste Landfill	CW	4	Discontinued in 2014
FTMM-53: Building 699 Gasoline Storage	MP	14	8
FTMM-54: Building 296 Gasoline Storage	MP	7	Discontinued*
FTMM-55: Building 290 UST Gasoline	MP	1	Discontinued in 2014
FTMM-56: Building 80 Petroleum Release	MP	6	2
FTMM-57: Building 108 UST Gasoline Release	MP	4	1
FTMM-58: Building 2567 UST Gasoline	CW	7	2
FTMM-59: Building 1122 Unknown Discharge	MP	7	Discontinued in 2015
FTMM-61: Building 283 Gasoline Storage	MP	4	Discontinued in 2015
FTMM-64: Building 812 UST Gasoline	MP	8	1
FTMM-66: Building 886 Former AST	MP	13	3
FTMM-68: Building 700 Former UST	MP	2	2
	Total	183	47

Notes:

MP - Main Post Area

CW - Charles Wood Area

Wells have been discontinued based on recommendations in the 2013 Baseline Groundwater Sampling Report as approved by the NJDEP in the February 5, 2015 comment letter.

Wells have been discontinued based on recommendations in the Annual (Fourth Quarter) 2014 Groundwater Sampling Report as approved by the NJDEP in the January 26, 2016 comment letter.

*indicates select wells installed at FTMM-54 have been historically sampled in association with FTMM-18 since they are located in or near the boundary of FTMM-18 and now will be sampled under FTMM-18.

Table 2
Groundwater Sampling Summary
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site Name/Well ID	Analytical Analysis	Sampling Method	Sample Date
FTMM-02, Closed Solid Waste Landfill			
M2MW03	VOCs & TICs-EPA Method 8260C	LFPS	11/24/2015
M2MW10			11/24/2015
M2MW11			11/24/2015
M2MW21			11/24/2015
M2MW22			11/24/2015
M2MW24			11/24/2015
FTMM-03, Closed Solid Waste Landfill - Discontinued in 2015			
FTMM-04, Closed Solid Waste Landfill - Discontinued in 2014			
FTMM-05, Closed Solid Waste Landfill			
M5MW11	VOCs & TICs-EPA Method 8260C	PDB	10/1/15, 12/14/15
M5MW16			10/1/15, 12/14/15
M5MW20			10/1/15, 12/14/15
M5MW23			10/1/15, 12/14/15
FTMM-08, Closed Solid Waste Landfill			
697MW01	VOCs & TICS-EPA Method 8260C Pesticides-EPA Method 8081B Lead-EPA Method 6010C	LFPS	11/19/2015
M8MW11			11/25/2015
M8MW12			11/20/2015
M8MW15			11/19/2015
M8MW16			11/19/2015
M8MW17			11/19/2015
M8MW21			11/19/2015
RM8MW24			11/19/2015
FTMM-12, Closed Solid Waste Landfill - Discontinued in 2014			
FTMM-14, Closed Solid Waste Landfill - Discontinued in 2014			
FTMM-18, Closed Solid Waste Landfill			
M18MW22	VOCs & TICs-EPA Method 8260C	PDB	10/1/15, 12/14/15
M18MW23			10/1/15, 12/14/15
296MW04			10/1/15, 12/14/15
296MW06			10/1/15, 12/14/15
FTMM-22, (CWA-1) Former Waste Water Treatment Lime Pit			
CW1MW27	VOCs & TICs-EPA Method 8260C	PDB	9/30/15, 12/14/15
CW1MW28			9/30/15, 12/14/15
CW1MW29			9/30/15, 12/14/15
CW1MW31			9/30/15, 12/14/15
CW1MW37			9/30/15, 12/14/15
CW1MW281			9/30/15, 12/14/15
FTMM-25, CW-3A Closed Solid Waste Landfill - Discontinued in 2014			

Table 2
Groundwater Sampling Summary
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site Name/Well ID	Analytical Analysis	Sampling Method	Sample Date
FTMM-53, Building 699 Gasoline Storage			
699MW01	VOCs & TICs-EPA Method 8260C	LFPS	11/18/2015
699MW04			11/18/2015
699MW06			11/25/2015
699MW09			11/25/2015
699MW16			11/23/2015
699RW03			11/23/2015
699RW05			11/23/2015
699RW11			11/25/2015
FTMM-55, Building 290 - Discontinued in 2014			
FTMM-56, Building 80 Petroleum Release			
80MW02	Pb, As, Cd-EPA Method 6010C Pesticides-EPA Method 8081B	LFPS	11/20/2015
80MW05			11/20/2015
FTMM-57, Building 108 UST Gasoline Release			
108MW04	Pb-EPA Method 6010C	LFPS	11/20/2015
FTMM-58, Building 2567 UST Gasoline			
2567MW01	VOCs & TICs-EPA Method 8260C	LFPS	11/25/2015
2567MW03			11/25/2015
FTMM-59, Building 1122 Unknown Discharge- Discontinued in 2015			
FTMM-61, Building 283 Gasoline Storage- Discontinued in 2015			
FTMM-64, Building 812 UST Gasoline			
812MW04	VOCs & TICs-EPA Method 8260C	LFPS	11/25/2015
FTMM-66, FTMM-66: Building 886 Former AST			
886RW01	SVOCs-EPA Method 8270D	LFPS	11/23/2015
886RW06			11/23/2015
886RW08			11/20/2015
FTMM-68, FTMM-68: Former Dry Cleaners UST at Building 700			
565MW01	VOCs & TICs-EPA Method 8260C	LFPS	11/16/2015
565MW01D			11/17/2015

Notes:
1) LFPS = Low-Flow Purging and Sampling
2) PDB = Passive Diffusion Bags
3) For sites with the PDB sampling method, the first date is date of deployment, the second is retrieval and sample.
4) Wells have been discontinued based on recommendations in the 2013 Baseline Groundwater Sampling Report as approved by the NJDEP in the Febuary 5, 2015 comment letter.
5) Wells have been discontinued based on recommendations in the Annual (Fourth Quarter) 2014 Groundwater Sampling Report as approved by the NJDEP in the January 26, 2016 comment letter.
5) Sites FTMM-22, FTMM-53 and FTMM-68 are sampled on a quarterly basis.

Table 3
Groundwater Sampling Deviations
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Well	Site	Sampling Method	Deviation/Comments
ALL			Purged groundwater was passed through granular activated carbon bucket at the well prior to being discharged to the ground surface, instead of being staged in 55-gallon drums for offsite disposal.

Notes:
1. LFPS = Low-Flow Purging and Sampling
2. PDB = Passive Diffusion Bags
3. N/A = not applicable

Table 4
Summary of Long Term Groundwater Monitoring Recommendations
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site	Annual 2015 Sampling				Annual 2015 Exceedances[1]			LTM Groundwater Progam-Recommended Sampling in 2016[2] or 2017 if a CEA has been Proposed					Comments
	Number of MWs sampled	Monitoring wells sampled	Analysis	Sampling methodology	MWs Exhibiting Exceedances	Analytes	Historical High Concentrations[3] (µg/L)	Number of MWs to be sampled	MWs to be sampled	Analysis	Sampling Methodology	Frequency	
FTMM-2	6	M2MW03, M2MW10, M2MW11, M2MW21, M2MW22, M2MW24	VOCs-EPA Method 8260C	LFPS	M2MW22	TBA,MTBE	**TBA** Historic = 201.24 (2011) 2015 4Q= 150 **MTBE** Historic = 26 (2013) 2015 4Q= 73	4	M2MW03, M2MW10, M2MW22	VOCs - EPA Method 8260C (benzene, chlorobenzene, TBA, MBTE)	PDB/LFPS	biennial (CEA revision proposed in RI)	Once the RI/FS Report (RIR) has been accepted by the NJDEP, a revised LTM program for the groundwater will be submitted for these sites as appropriate to support the CEA (as recommended in Jan. 2016 FTMM-02 RIR). The LTM program will include implementation of a biennial sampling frequency for select wells for an appropriate set of compounds that are representative of recent groundwater conditions. It is assumed the biennial sampling frequency will be performed in the same year as the biennial certitication, 2017.
FTMM-5	4	M5MW11, M5MW16, M5MW20, M5MW23	VOCs-EPA Method 8260C	PDB	M5MW11, M5MW16, M5MW20, M5MW23	PCE, TCE	**PCE** Historic = 50 (2013) 2015 4Q = 4.8J	4	M5MW11, M5MW16, M5MW20, M5MW23	VOCs - EPA Method 8260C (PCE, TCE, VC)	PDB/LFPS	biennial	Once the RIR has been accepted by the NJDEP, a revised LTM program for the groundwater will be submitted for these sites as appropriate to support the CEA (as recommended in Oct. 2015 FTMM-05 RIR). The LTM program will include implementation of a biennial sampling frequency for select wells for an appropriate set of compounds that are representative of recent groundwater conditions. It is assumed the biennial sampling frequency will be performed in the same year as the biennial certification currently required for FTMM-02, 2017.
FTMM-8	8	M8MW11, M8MW12, M8MW15, M8MW16, M8MW17, M8MW21, M8MW24, 697MW01	Pb-EPA Method 6010C (M8MW11, M8MW17, M8MW21, and 697MW01), VOCs-EPA Method 8260C (M8MW11, M8MW12, M8MW15, M8MW16, M8MW24 and 697MW01) Pesticides-EPA Method 8081B (697MW01)	LFPS	697MW01, M8MW11, M8MW12, M8MW21	PCE, 4,4' DDD, Lead	**PCE** Historic = 9.83 (2008) 2015 4Q = 1.3 J **4,4' DDD** Historic = 1.37 (2009) 2015 4Q = 0.7 **Lead** Historic = 24.9 (2011) 2015 4Q = 211	10	M8MW11, M8MW12, M8MW14, M8MW15, M8MW16, M8MW17, M8MW18, M8MW19, M8MW23, 697MW01	VOCs - EPA Method 8260C (PCE) TBD - Pesticides - EPA Method 8081B Metals - EPA Method 6010C (lead, manganese)	LFPS	biennial	Once the RIR has been accepted by the NJDEP, a revised LTM program for the groundwater will be submitted for these sites as appropriate to support the CEA (as recommended in Apr. 2015 FTMM-08 RIR). The LTM program will include implementation of a biennial sampling frequency for select wells for an appropriate set of compounds that are representative of recent groundwater conditions. It is assumed the biennial sampling frequency will be performed in the same year as the biennial certification currently required for FTMM-02, 2017.
FTMM-18	4	M18MW22, M18MW23, 296MW04, 296MW06	VOCs-EPA Method 8260C	PDB	296MW06	Benzene	**Benzene** Historic = 1078.96 D 2015 4Q = 6	4	M18MW22, M18MW23, 296MW04, 296MW06	VOCs - EPA Method 8260C (1,2-dichloroethane, benzene, and carbon tetrachloride)	PDB/LFPS	biennial	Once the RIR has been accepted by the NJDEP, a revised LTM program for the groundwater will be submitted for these sites as appropriate to support the CEA (as recommended in Oct. 2015 FTMM-18 RIR). The LTM program will include implementation of a biennial sampling frequency for select wells for an appropriate set of compounds that are representative of recent groundwater conditions. It is assumed the biennial sampling frequency will be performed in the same year as the biennial certification currently required for FTMM-02, 2017. Metals sampling previously discontinued due to background sources.
FTMM-22	6	CW1MW27, CW1MW28, CW1MW29, CW1MW31, CW1MW37, CW1MW281	VOCs-EPA Method 8260C	PDB	CW1MW28, CW1MW29, CW1MW31, CW1MW281	TCE, VC	**TCE** Historic = 390 E (2018) 2015 4Q = 300 **VC** Historic 1.8 J (2014) 2015 4Q = 1.4 J	7	CW1MW27, CW1MW28, CW1MW29, CW1MW31, CW1MW37, CW1MW40, CW1MW281	VOCs-EPA Method 8260C	PDB	Temporarily Suspended	VOCs remain above NJDEP GWQS. Metals sampling previously discontinued due to background sources. LTM program will be temporarily suspended in 1st Q2016 as agreed by NJDEP in their March 2016 letter. Once RI/FS is completed and remedy accepted, a revised GW LTM program will be submitted. CW1MW40 added to LTM per NJDEP request.
FTMM-53	8	699MW01, 699MW04, 699MW06, 699MW09, 699MW16, 699RW03, 699RW05, 699RW11	VOCs-EPA Method 8260C	PDB	699MW04, 699MW06, 699MW09, 699MW16, 699RW03, 699RW05, 699RW11	Benzene, PCE, 1,2,4-TMB, 1,3,5-TMB, xylenes, Total Tics	**Benzene** Historic = 879 (2008) 2015 4Q = 3.3 J **1,3,5-TMB** Historic = 160 (2014) 2015 4Q = 130 **PCE** Historic = 13.5 (2010) 2015 4Q = 1.3J **Xylenes** Historic = 3,596 (2008) 2015 4Q = 1,230 **1,2,4-TMB** Historic = 790 (2014) 2015 4Q = 290 J **Total Tics** Historic = 9,140 (2009) 2015 4Q = 1,200 JN	8	699MW01, 699MW04, 699MW06, 699MW09, 699MW16, 699RW03, 699RW05, 699RW11	VOCs-EPA Method 8260C	PDB	Temporarily Suspended	VOCs remain above NJDEP GWQS. Metals sampling previously discontinued due to background sources. Wells 699MW01, 699MW04 and 699MW09 sampled using LFPS to determine if wells can be removed from the long-term monitoring program. LTM program will be temporarily suspended in 1st Q2016 as agreed by NJDEP in their March 2016 letter. Once RI/FS is completed and a remedy accepted, a revised GW LTM program will be submitted.
FTMM-56	2	80MW05, 80MW02	As, Cd, and Pb-EPA Method 6010C (80MW05), Pesticides-EPA Method 8081B (80MW02)	LFPS	80MW05	Arsenic	As Historic = 108 (2011) 2015 4Q = 3.7J	0	N/A	N/A	N/A	Discontinue	Lead and cadmium below GWQS. Arsenic is significantly below background concentration and not indicative of current site conditions. Submit NFA for groundwater to NJDEP.
FTMM-57	1	108MW04	Pb-EPA Method 6010C	LFPS	None	None	**N/A**	0	N/A	N/A	N/A	Discontinue	Lead has been below NJDEP GWQS for three sampling events. Submit NFA for groundwater to NJDEP.
FTMM-58	2	2567MW01, 2567MW03	VOC-EPA Method 8260C	LFPS	2567MW01	TBA	**TBA** Historic = 829 (2010) 2015 4Q = 240	3	2567MW01, 2567MW03, 2567MW05	VOC-EPA Method 8260C - TBA Only	LFPS	Annual, with one additional round of sampling at 2567MW03.	TBA remains above NJDEP GWQS. Addition of the down gradient well 2567MW05 from 256MW01.

Table 4
Summary of Long Term Groundwater Monitoring Recommendations
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site	Annual 2015 Sampling				Annual 2015 Exceedances[1]			LTM Groundwater Progam-Recommended Sampling in 2016[2] or 2017 if a CEA has been Proposed					Comments
	Number of MWs sampled	Monitoring wells sampled	Analysis	Sampling methodology	MWs Exhibiting Exceedances	Analytes	Historical High Concentrations[3] (µg/L)	Number of MWs to be sampled	MWs to be sampled	Analysis	Sampling Methodology	Frequency	
FTMM-59	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Temporarily Suspend	NJDEP agreed in their Jan 2016 letter to temporarily suspend LTM program and evaluate the groundwater under the RI of the site. Once RI/FS is completed and remedy accepted, a revised GW LTM program will be submitted.
FTMM-64	1	812MW04	VOCs & TICs-EPA Method 8260C	LFPS	None	None	**N/A**	1	812MW04	VOC-EPA Method 8260C	LFPS	Two additional rounds	Confirm 2015 VC non-detect. Metals analysis previously discontinued due to background conditions.
FTMM-66	3	886RW01, 886RW06, 886RW08	SVOCs-EPA Method 8270D	LFPS	None	None	**N/A**	0	N/A	N/A	N/A	Discontinue	Total SVOC TICs above NJDEP GWQS in 2013. One additional round of sampling completed to confirm 2014 non detects, approved in January 2016 comment letter. Metals sampling previously discontinued. Submit NFA for groundwater to NJDEP.
FTMM-68	2	565MW01, 565MW01D	VOCs & TICs-EPA Method 8260C	PDB	565MW01, 565MW01D	PCE, TCE, cis-1,2-DCE, VC	**PCE** Historic = 4,800 (2014) 2015 4Q = 3,800 **cis-1,2-DCE** Historic = 270 (2014) 2014 4Q = 76 **TCE** Historic = 230 (2014) 2015 4Q = 62 **VC** Historic = 18 (2014) 2014 4Q = 4.6 J	2	565MW01, 565MW01D	VOC-EPA Method 8260C	PDB	Temporarily Suspended	VOCs remain above NJDEP GWQS. LTM program will be temporarily suspended in 1st Q2016 as agreed by NJDEP in their March 2016 letter. Once RI/FS is completed and remedy accepted, a revised GW LTM program will be submitted.

Notes:

MWs = monitoring wells
N/A = not applicable
VOCs = volatile organics compounds
SVOCs = semi-volatiles organic compounds
TMB = trimethhylbenzene
VC = vinyl chloride
TCE = trichloroethene
PCE = tetrachloroethene
1,1-DCA = 1,1-dichloroethane
1,2-DCA = 1,2-dichloroethane
TBA = Tert-Butyl Alcohol

1. Exceedance is defined as a parameter that was greater than NJDEP GWQS or EPA MCL if a NJDEP GWQS has not been established for a compound.
2. The recommendations are for sampling in 2016 to allow for the continued monitoring of groundwater conditions for sites currently not in the RI process.
3. Comparison between highest historic concentrations and 2015 (Fourth Quarter) highest concentration.

Lab Qualifiers
J = Estimated (detect or non-detect) value
D = Results from dilution of sample
E = Estimated result
JN = Tentatively identified compound, estimated concentration

FIGURES

Figure 1.1 Fort Monmouth Location
Figure 1.2 Main Post Layout
Figure 1.3 Charles Wood Area Layout

Legend

Installation Boundary

Site Description:
Fort Monmouth
Main Post & Charles Wood Area
Monmouth County, NJ
Longitude: 74˚ 2' 33.39" W
Latitude: 40˚ 18' 49.33" N
Longitude and Latitude represent the center point of Main Post.

N

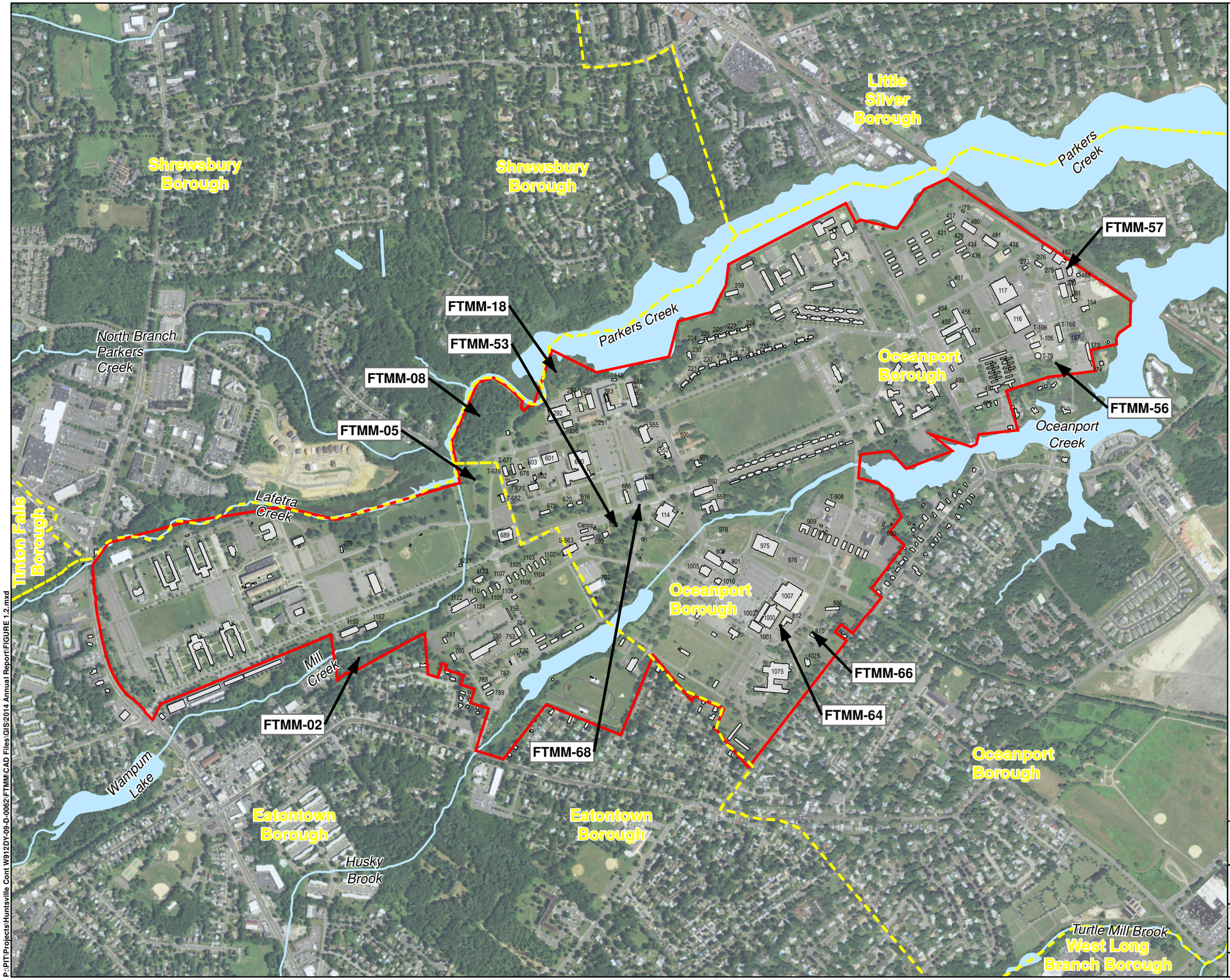
1 inch = 2,500 feet

0 0.5 1 Miles

Source: Bing Maps online imagery; ESRI Data and Maps 2011.

PARSONS 401 Diamond Drive NW, Huntsville AL	**Fort Monmouth** **New Jersey**
Fort Monmouth Location	
CREATED BY: TS	REVIEWED BY: IG
DATE: March 2013	FIGURE NUMBER: Figure 1.1
PROJECT NUMBER: 748810.01000	FILE: Figure1-1_GW_Location.mxd

J:\748\748810 Fort Monmouth\GIS\MXD\GW\Figure1-1_GW_Location.mxd



LEGEND:

- Municipal Boundary
- Installation Boundary
- Building
- Surface Water Feature

N

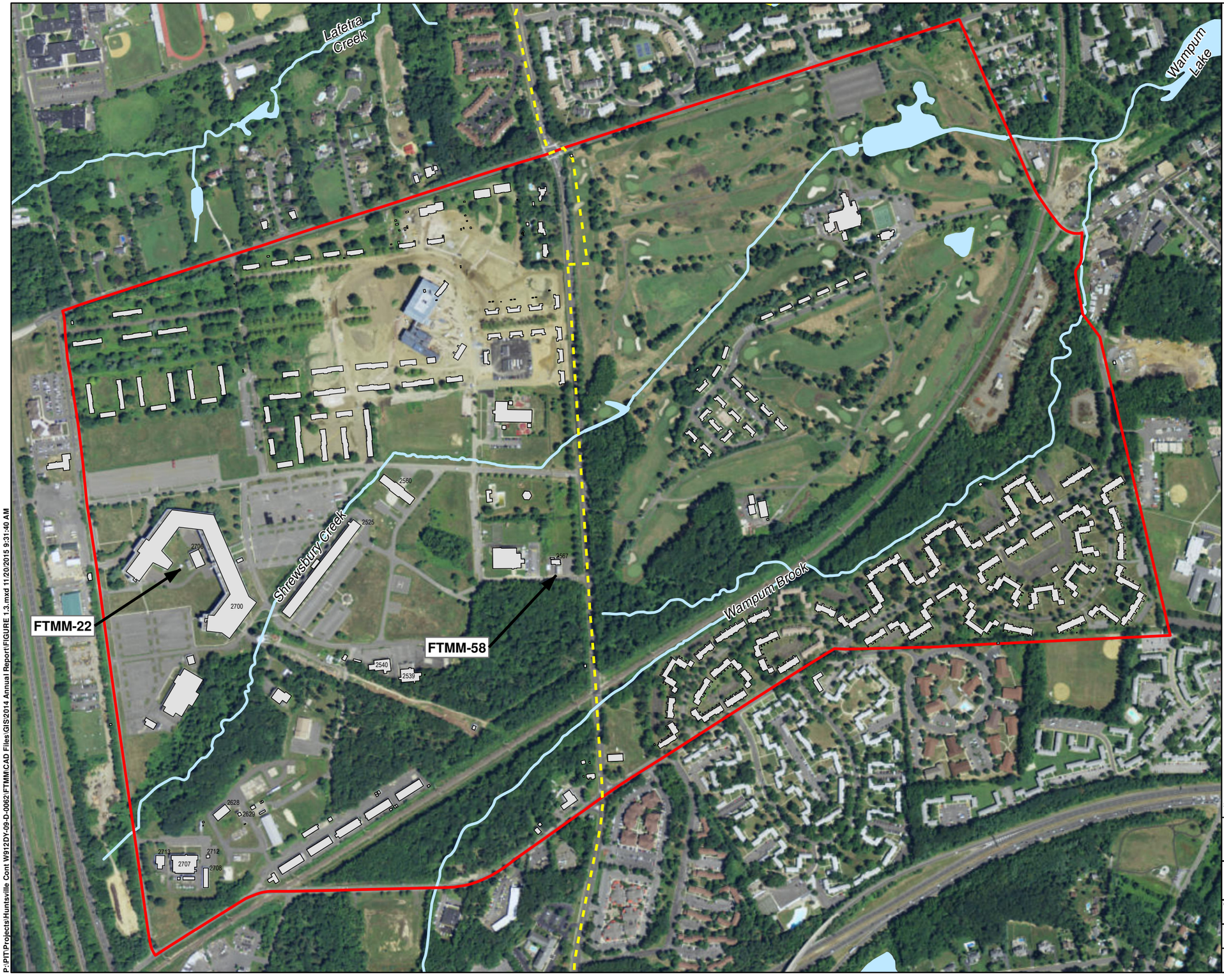
1 inch = 1,000 feet

0 500 1,000 2,000 Feet

Source: FTMM Supplied CAD, 2013; ESRI Data and Maps, 2011; USGS NHD, 2012.

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey
MAIN POST LAYOUT	
CREATED BY: RR	REVIEWED BY: ME
DATE: NOV. 2015	FIGURE NUMBER: FIGURE 1.2
PROJECT NUMBER: 748810-03000	FILE: FIGURE 1.2.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2014 Annual Report\FIGURE 1.2.mxd



LEGEND:

- Municipal Boundary
- Installation Boundary
- Building
- Surface Water Feature

N

1 inch = 600 feet

0 300 600 1,200 Feet

Source: Bing Maps online imagery; ESRI Data and Maps 2011; USGS NHD.

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey
CHARLES WOOD AREA LAYOUT	
CREATED BY: RR	REVIEWED BY: ME
DATE: NOV. 2015	FIGURE NUMBER: FIGURE 1.3
PROJECT NUMBER: 748810-03000	FILE: FIGURE 1.3.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2014 Annual Report\FIGURE 1.3.mxd 11/20/2015 9:31:40 AM

APPENDICES

Appendix A FTMM-02: Closed Solid Waste Landfill
Appendix B FTMM-05: Closed Solid Waste Landfill
Appendix C FTMM-08: Closed Solid Waste Landfill
Appendix D FTMM-18: Closed Solid Waste Landfill/Former Training Area
Appendix E FTMM-22: Former Waste Water Treatment Lime Pit (CWA-1)
Appendix F FTMM-53: Former Gas Station at Building 699
Appendix G FTMM-56: Building 80 Petroleum Release
Appendix H FTMM-57: Building 108 UST Gasoline Release
Appendix I FTMM-58: Building 2567 UST Gasoline
Appendix J FTMM-64: Building 812 UST Gasoline
Appendix K FTMM-66: Building 886 Former AST
Appendix L FTMM-68: Former Dry Cleaners UST at Building 700
Appendix M Data Validation Memorandum
Appendix N Laboratory Analytical Results (CD)
Appendix O NJDEP Correspondence

APPENDIX A

FTMM-02: CLOSED SOLID WASTE LANDFILL

APPENDIX A: FTMM-02 Closed Solid Waste Landfill

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2	Historical Groundwater Analytical Results
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4	Review of Historical Groundwater Sampling Results

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4	FTMM-02 Chemical Constituents above NJDEP GWQS 2015 Annual Sampling Event

LIST OF ATTACHMENTS

Attachment	Title
A	LFPS Field Sheets

1.0 WATER LEVEL MEASUREMENTS AND WELL ASSESSMENT

Monitoring wells located within FTMM-02 were gauged on October 6, 2015. Monitoring well locations as well as other site features are provided in **Figure 1**. Details regarding the water level measurements are provided in **Table 1**. Groundwater elevations in monitoring wells ranged from 2.54 (M2MW02) to 8.68 (M2MW17) feet above mean sea level (amsl). The inferred shallow and deep groundwater flow directions are to the north-northwest, as shown in **Figures 2 and 3**, respectively.

During the groundwater gauging, the physical condition of FTMM-02 monitoring wells were assessed. The site monitoring wells were found to be in good condition.

2.0 GROUNDWATER SAMPLING

Groundwater samples were collected from six monitoring wells located at FTMM-02 as part of the annual (fourth quarter) 2015 groundwater sampling event. FTMM-02 is sampled on an annual basis. The groundwater sampling program included measuring the depth to groundwater in monitoring wells at FTMM-02 prior to sampling and collection of groundwater samples using low-flow purging and sampling (LFPS). Groundwater samples were collected from wells M2MW03, M2MW10, M2MW11, M2MW21, M2MW22 and M2MW24 on November 24, 2015. Groundwater samples were analyzed for Target Compound List (TCL) volatile organic compounds and tentatively identified compounds (VOCs+TICs) via United States Environmental Protection Agency (USEPA) Method SW8260C.

The samples were collected in accordance with the New Jersey Department of Environmental Protection (NJDEP) Field Sampling Procedures Manual (FSPM) and the Sampling Analysis Plan (SAP). Field blanks, duplicates, matrix spike, matrix spike duplicate and quality assurance (QA) split samples were collected for every 5% of samples collected per parameter, per matrix, in accordance with the Quality Assurance Project Plan (QAPP). Trip blanks accompanied each cooler each day in which VOCs were collected for laboratory analysis.

Completed LFPS field sheets for each well sampled can be found in **Attachment A**.

3.0 HISTORICAL GROUNDWATER SAMPLING RESULTS

Groundwater monitoring has been conducted at FTMM-02 since May 1997. From May 1997 to March 2004, groundwater sampling consisted of VOCs, semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and metals. From June 2004 to December 2009, FTMM-02 monitoring wells were sampled primarily for VOCs. Since December 2010, the last four historical rounds of groundwater sampling have been carried out on a quarterly basis and were comprised of VOC and metals analysis. Historical groundwater analytical results are presented in **Table 2.**

Historically, benzene, chlorobenzene, *tert*-butyl alcohol (TBA), aluminum, arsenic, beryllium, chromium, iron, lead, manganese, sodium and vanadium were detected above their respective NJDEP Ground Water Quality Standard (GWQS). Additionally, beryllium, manganese and sodium were detected in exceedance of their background concentration and are attributed to natural sources from the glauconitic soils beneath the site and are not indicative of a release from the site.

In August 2013 during the baseline sampling event, sixteen monitoring wells were sampled for VOCs and pesticides. Benzene and chlorobenzene were the only VOCs detected in M2MW03 in exceedance of their NJDEP GWQS during the sampling event. Pesticides were not detected in FTMM-02 monitoring wells during the sampling event and groundwater monitoring for pesticides was discontinued in 2015. Results of the August 2013 Baseline Sampling Event are presented in **Table 3**.

The Final August 2013 Baseline Groundwater Sampling Report was accepted by the NJDEP in their February 5, 2015 letter. Based on this approval, 10 out of the 16 groundwater monitoring wells were removed from the long-term monitoring (LTM) program including M2MW02, M2MW04, M2MW05, M2MW06, M2MW07, M2MW08, M2MW09, M2MW12, M2MW13, and M2MW23, and monitoring for pesticides was discontinued.

During the annual (fourth quarter) 2014 groundwater sampling event, six monitoring wells were sampled for VOCs. Benzene was the only VOC detected in M2MW03 in exceedance of its NJDEP GWQS during the sampling event. Benzene was detected at M2MW03 at an estimated concentration of 2.2J µg/L which is above the NJDEP GWQS of 1 µg/L. Results of the annual (fourth quarter) 2014 groundwater sampling event are presented in **Table 3**.

The Annual (Fourth Quarter) 2014 Groundwater Sampling Report was accepted by the NJDEP in their January 26, 2016 letter. Based on this approval, four out of the six groundwater monitoring wells were sampled in 2015 for one additional sampling event using LFPS methods, including M2MW11, M2MW21, M2MW22 and M2MW24.

4.0 ANNUAL (FOURTH QUARTER) 2015 GROUNDWATER RESULTS

Groundwater analytical results from the samples collected during the annual 2015 groundwater sampling event are presented in **Table 3.** Methyl *tert*-butyl ether (MTBE) and TBA were the only two compounds detected above their respective GWQS (at monitoring well M2MW22) during this sampling event. MTBE was detected at 73 µg/L above the NJDEP GWQS of 70 µg/L and TBA was detected at 150 µg/L above the NJDEP GWQS of 100 µg/L. Concentrations of constituents detected in the groundwater above their NJDEP GWQS during the Annual 215 Sampling Event are shown on **Figure 4.**

5.0 FINDINGS AND RECOMMENDATIONS

Historically, benzene (M2MW03, M2MW11, M2MW21, and M2MW24), chlorobenzene (M2MW03) and TBA (M2MW22) were detected in exceedance of their NJDEP GWQS. Based on data from the last three rounds of annual sampling (August 2013, December 2014 and November 2015) benzene concentrations at M2MW03 have stabilized between 2.2J µg/L (December 2014) and 3.7J µg/L (August 2013) and was not detected during this sampling event (November 2015). Benzene was not detected at the other three wells in August 2013, December 2014 and November 2015. Chlorobenzene has not been detected above the NJDEP GWQS at M2MW03 since the 2014 annual sampling event.

Monitoring wells M2MW11, M2MW21, and M2MW24 did not contain VOCs above the NJDEP GWQS during this sampling event, or the 2014 annual and the August 2013 Baseline Sampling Events.

TBA exceeded the NJDEP GWQS only one in one monitoring well (M2MW22) during the annual 2015 sampling event. TBA was not analyzed during the 2013 and not detected at M2MW22 in December 2014. TBA was not detected at any other wells during the December 2014 sampling event.

Historically, MTBE has been detected at M2MW22 ranging from non-detect (December 2008) to 26 µg/L (August 2013). Until the 2015 sampling event; MTBE had not been detected above the NJDEP GWQS at any of the wells in the LTM program and there is no information to indicate it is associated with the landfill since it was closed in 1966 and the use of MTBE as a gasoline additive started in 1979. There are multiple upgradient potential sources of the MTBE and other gasoline constituents found in the groundwater at FTMM and located in the immediate area including: a gas station (Getty #56395), the Eatontown Firehouses (#92-05-27-1515 and #94-01-24-1509-41) and the Lukoil Service Station #57257 which has a Classification Exemption Area (CEA) for benzene, MBTE, TBA, ethylbenzene and xylenes. The Getty Gas Station located at the corner of Broad Street and Rose Court is on the NJDEP known contaminated sites list, and has been identified with PI number 001751 It is located upgradient of FTMM and approximately 400 feet to the south of FTMM-02, and 600 feet south of well M2MW22. The Eatontown Firehouses #92-05-27-1515 and #94-01-24-1509-41 are located at Broad Street and White Street, approximately 1,100 feet southwest of FTMM-02 and M2MW22, and is on the known contaminated sites list and has two CEAs for benzene and MBTE. The Lukoil Service Station which has a CEA for benzene, MBTE, TBA, ethylbenzene and xylenes is located at Broad Street and Tinton Avenue approximately 1,800 feet west southwest of FTMM-02 and M2MW22.

An extensive groundwater sampling history has been established as part of the LTM program implemented for FTMM-02, and a comprehensive review of the data was performed as part of the January 2016 Remedial Investigation Report (RIR) which has been submitted to the NJDEP. Data collection under this LTM program is no longer necessary to support an investigation, and will be transitioned to a program which will support the revision to the existing CEA recommended in the RIR at FTMM-02. Future groundwater sampling at FTMM-02 will be performed and reported under biennial certifications required for the existing CEA. The existing CEA accepted by the NJDEP in January 2001 (and updated in 2011) will be revised to include benzene, chlorobenzene, TBA and MTBE which exceeded the GWQS in recent groundwater events. Although TBA and MTBE are attributed to an off-site upgradient source they will be included in the CEA of the site. A biennial sampling frequency will be implemented for select wells for an appropriate set of compounds that are consistent with the existing CEA as described in **Table 4**. The biennial sampling frequency will provide data for the biennial certifications, with the sampling to be performed in the same year as the biennial CEA certification. The next biennial sampling and certification for FTMM-02 will be performed in 2017.

TABLES

Table 1 Groundwater Gauging Data and Elevations (October 6, 2015) and LFPS Sampling Summary

Table 2 Historical Groundwater Analytical Results

Table 3 Groundwater Analytical Results - 2013, 2014 and 2015

Table 4 Review of Historical Groundwater Sampling Results

Table 1
Groundwater Gauging Data and Elevations (October 6, 2015) and LFPS Sampling Summary
Site FTMM-02 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site/Well ID	Installation Date	Well Permit #	Y Coord. (North)	X Coord. (East)	Depth (ft. bgs)	Casing Length (ft)	Screen Length (ft)	TOC Elevation (ft)	Gauge Time	PID Reading (ppm)	Gauged Depth to Water (ft. TOC)	Gauged Depth to Bottom (ft. TOC)	Calculated Groundwater Elevation (ft)	Date Sampled
Shallow Monitoring Wells														
M2MW02	12/13/1994	29-32585	537763.11	616268.14	17.0	7.0	10.0	12.67	14:27	0.0	10.13	19.54	2.54	
M2MW03	12/13/1994	29-32586	538141.52	617064.12	15.0	5.0	10.0	11.16	14:07	0.0	7.52	17.15	3.64	11/24/2015
M2MW04	12/17/1997	E201008215	537932.07	616545.59	19.0	4.0	15.0	13.07	14:14	0.0	8.99	19.02	4.08	
M2MW05	8/24/1998	29-39185	537559.13	616129.66	13.0	3.0	10.0	9.61	14:21	0.0	Dry	6.19	Dry	
M2MW06	8/24/1998	29-39184	537821.58	616300.99	15.0	5.0	10.0	11.84	14:17	0.0	8.45	18.17	3.39	
M2MW07	8/24/1998	29-39183	537834.06	616291.02	15.0	5.0	10.0	11.37	14:16	0.0	6.84	16.88	4.53	
M2MW08	8/24/1998	29-39182	537955.56	616583.49	15.0	5.0	10.0	10.62	14:50	0.0	6.66	21.05	3.96	
M2MW09	8/24/1998	29-39181	538091.59	616838.68	15.0	5.0	10.0	13.00	14:12	0.0	10.20	21.64	2.80	
M2MW10	8/31/1998	29-39180	538218.28	617129.44	20.0	5.0	15.0	10.99	14:05	0.0	7.80	21.80	3.19	11/24/2015
M2MW13	5/8/2000	29-42771	538121.15	617127.23	20.0	5.0	15.0	14.99	14:08	0.0	9.84	22.47	5.15	
M2MW14	4/9/2000	29-42562	538008.08	617054.55	20.0	5.0	15.0	18.10	14:46	0.0	11.42	23.05	6.68	
M2MW15	5/8/2000	29-42773	537891.44	616841.76	20.0	5.0	15.0	18.61	14:44	0.0	9.96	22.60	8.65	
M2MW16	5/8/2000	29-42774	537753.87	616581.95	20.0	5.0	15.0	17.08	14:35	0.0	8.58	22.35	8.50	
M2MW17	5/3/2000	29-42775	537654.08	616396.95	20.0	5.0	15.0	19.03	14:31	0.0	10.35	11.80	8.68	
M2MW18	5/8/2000	29-42776	537753.87	616581.97	20.0	5.0	15.0	10.58	14:24	0.0	6.51	27.50	4.07	
M2MW21	5/3/2000	29-42779	537814.21	616510.97	20.0	5.0	15.0	15.50	14:38	0.0	10.62	22.58	4.88	11/24/2015
M2MW22	5/3/2000	29-42780	537777.23	616178.46	20.0	5.0	15.0	11.62	14:19	0.0	8.38	23.70	3.24	11/24/2015
M2MW23	5/2/2000	29-42781	538060.52	616894.50	20.0	5.0	15.0	14.77	14:11	0.0	10.80	23.10	3.97	
M2MW24	5/4/2000	29-42772	537805.30	616599.28	20.0	5.0	15.0	15.69	14:37	0.0	9.50	22.01	6.19	11/24/2015
Deep Monitoring Wells														
M2MW11	5/4/2000	29-42769	538087.71	616845.63	49.0	29.0	20.0	12.74	14:11	0.0	9.25	52.25	3.49	11/24/2015
M2MW12	5/5/2000	29-42770	538147.88	617071.68	50.0	30.0	20.0	13.28	14:09	0.0	9.14	55.20	4.14	
M2MW19	5/3/2000	29-42777	537799.46	616596.36	50.0	30.0	20.0	15.57	14:36	0.0	9.35	52.90	6.22	
M2MW20	5/2/2000	29-42778	537736.56	616336.75	50.0	30.0	20.0	15.75	14:29	0.0	11.31	53.50	4.44	

Notes:
1) The synoptic round of water levels in the wells was collected on October 6, 2015.
2) Information on well permit number, X and Y coordinates, depth, screen length, screen interval and TOC elevation were provided by FTMM in a table in June 2013.
3) ft = feet
4) DTW = depth to water (measured from the top of well casing)
5) DTB = depth to bottom of well (measured from the top of well casing)
6) bgs = below ground surface
7) ppm = parts per million (of VOCs)
8) TOC = Top of Casing
9) Elevation = feet above mean sea level
10) N/A = information not available

Table 2
Historical Groundwater Analytical Results
Site FTMM-02 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M2MW01			M2MW02																								M2MW03						
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**			Dup	44	44 Dup	45	45 Dup	46	46 Dup	47	47 Dup	LF1	LF1 Dup	49	50	51	LF2	LF3	LF4	LF4 Dup	LF5	LF6	LF6 Dup	LF7	LF8	44	45	46	47	LF1	49	50
Date Collected				12/16/2010	3/14/2011	3/14/2011	3/17/2008	3/17/2008	5/22/2008	5/22/2008	8/26/2008	8/26/2008	12/23/2008	12/23/2008	3/31/2009	3/31/2009	6/19/2009	9/22/2009	12/4/2009	3/9/2010	6/14/2010	9/24/2010	9/24/2010	12/16/2010	3/9/2011	3/9/2011	6/15/2011	8/23/2011	3/17/2008	5/22/2008	8/26/2008	12/23/2008	3/30/2009	6/19/2009	9/22/2009
ANALYTE/Lab ID				10555.08	11107.04	11085.03	80087.04	80087.03	80176.04	80176.03	80308.04	80308.03	80472.04	80472.03	90137.05	90137.03	90249.04	90394.04	90470.04	10077.07	10264.06	10410.04	10410.03	10558.07	11097.04	11088.03	11254.06	11354.06	80087.05	80176.05	80308.05	80472.05	90133.07	90249.05	90394.05
Volatile Organic Compounds (µg/L)																																				
Benzene	1	5	--	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.53	5.48	ND	6.61	ND	5.55	ND
Chlorobenzene	50	100	--	NA	ND	ND	23.95	NA	1.56 J	12.74	4.31	6.09	11.4	11.41	31.71	32.12	31.98	13.81	23.12	22.08	30.05	11.88	10.56	32.7	16.27	ND	27.78	2.1	157.16	157.28	6.05	134.62 E	6.96	151.72	14.19
Chloroethane	NLE	NLE	--	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	100	--	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	600	--	NA	ND	ND	0.47	NA	ND	ND	ND	ND	ND	ND	0.5 J	0.54 J	0.56 J	ND	ND	0.4 J	0.57	ND	ND	0.61	0.28 J	ND	0.44 J	ND	2.4	2.76	ND	2.51	ND	2.39	ND
1,3-Dichlorobenzene	600	NLE	--	NA	ND	ND	0.82	NA	ND	0.45 J	ND	0.31 J	0.47 J	0.42 J	0.97 J	1.02 J	1.09 J	0.44 J	0.78	0.78	1.04	0.53	0.45 J	1.12	0.55	ND	0.9	ND	2.59	3.19	0.4 J	2.33	ND	2.61	ND
1,4-Dichlorobenzene	75	75	--	NA	ND	ND	3.32	NA	ND	1.61 J	0.6 J	0.76 J	1.08 J	1.05 J	3.56	3.71	4.09	1.57	2.44	2.78	3.52	1.81	1.56	4.15	1.89	ND	2.81	0.46 J	6.55	7.77	0.39 J	6.74	0.36 J	6.55	0.64
1,1-Dichloroethane	50	7	--	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	3	NLE	--	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
cis -1,2-Dichloroethene	70	70	--	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2	J
Methyl *tert* -butyl ether	70	NLE	--	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.43 J	ND	0.25 J	ND	ND	
tert -Butyl alcohol	100	NLE	--	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	
Toluene	600	1000	--	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2,4-Trichlorobenzene	9	70	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	
1,1,2-Trichloroethane	3	5	--	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.43 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Total Xylenes	1000	10,000	--	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
TICs*	500	NLE	--	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	7	ND	ND	3	4	4	4	8	ND	ND	4	ND	3	ND	ND	3	ND	ND	ND	
Semi-Volatile Organic Compounds (µg/L)																																				
Acenaphthene	400	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.5 J	NA	NA	
Benzyl alcohol	2000	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 J	1 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	
1,3-Dichlorobenzene	600	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.6 J	0.6 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	
1,4-Dichlorobenzene	75	75	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2 J	2 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	
TICs*	500	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12	NA	NA	
Pesticides/PCBs (µg/L)																																				
Aldrin	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	
alpha-BHC	0.02	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.038	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.029	NA	NA	
beta-BHC	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.037	0.048	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	
delta-BHC	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.039	0.059	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	
alpha-Chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	
gamma-Chlordane	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.038	0.046	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	
4,4'-DDD	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.051	0.056	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	
4,4'-DDE	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.055	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	
4,4'-DDT	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	
Dieldrin	0.03	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.038	0.041	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	
Endosulfan I	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.033	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.027	NA	NA	
Endosulfan II	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.038	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	
Endosulfan sulfate	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	
Endrin	2	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.043	0.045	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	
Endrin aldehyde	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	
Endrin ketone	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	0.146	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	
Heptachlor	0.05	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.046	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.037	NA	NA	
Heptachlor epoxide	0.2	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.027	NA	NA	
Methoxychlor	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.047	0.054	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.043	NA	NA	
Metals (µg/L)																																				
Aluminum	200	NLE	121000	<200	238	229	NA	NA	NA	NA	NA	NA	NA	NA	12.2	15.9	NA	NA	NA	25.7	ND	ND	ND	<200	<200	<200	<200	<200	NA	NA	NA	NA	ND	NA	NA	
Antimony	6	6	20.70	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	20.3	15.3	NA	NA	NA	5.19 ER	9.56 ER	14.4	11	<6.0	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	28	NA	NA	
Arsenic	3	10	89.30	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	65.3	65.7	NA	NA	NA	1.05 ER	1.37 ER	0.72 ER	0.78 ER	<3.0	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	101	NA	NA	
Barium	6000	2000	699.00	533	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	285	297	NA	NA	NA	266	289	156	160	484	273	<200	246	224	NA	NA	NA	NA	96.1	NA	NA	
Beryllium	1	4	2.10	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	ND	0.049 ER	ND	ND	<1.0	<1.0	4.1	<1.0	<1.0	NA	NA	NA	NA	ND	NA	NA	
Cadmium	4	5	9.50	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	ND	1.62 ER	0.865 ER	1.08 ER	<3.0	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	ND	NA	NA	
Calcium	NLE	NLE	45400.00	89200	7860	7690	NA	NA	NA	NA	NA	NA	NA	NA	87700	91500	NA	NA	NA	13200	87700	60300	61500	118000	174000	49700	110000	122000	NA	NA	NA	NA	87300	NA	NA	
Chromium	70	100	191.00	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	0.353 ER	1.29 ER	NA	NA	NA	ND	ND	ND	ND	<10	<10	<10	<10	<10	NA	NA	NA	NA	0.395 ER	NA	NA	
Cobalt	NLE	NLE	18.30	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.143	NA	NA	NA	ND	ND	ND	ND	<50	<50	<50	<50	<50	NA	NA	NA	NA	ND	NA	NA	
Copper	1300	1300	65.60	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	ND	ND	1.52 ER	1.47 ER	<10	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	
Iron	300	NLE	431000	67400	<100	<100	NA	NA	NA	NA	NA	NA	NA	NA	41200	42700	NA	NA	NA	30100	54100	23800	24500	55200	14500	10000	32200	11100	NA	NA	NA	NA	15900	NA	NA	
Lead	5	15	22.70	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	7.16	ND	NA	NA	NA	ND	3.96 ER	3.32 ER	ND	<3.0	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	4.59 ER	NA	NA	
Magnesium	NLE	NLE	62700	5720	<5000	<5000	NA	NA	NA	NA	NA	NA	NA	NA	32300	33700	NA	NA	NA	37100	22100	13600	14000	43400	49200	<5000	39000	24400	NA	NA	NA	NA	7070	NA	NA	
Manganese	50	NLE	331	614	38.6	38.5	NA	NA	NA	NA	NA	NA	NA	NA	318	329	NA	NA	NA	296	312	230	236	368	255	74.7	296	1250	NA	NA	NA	NA	501	NA	NA	
Mercury	2	2	0.26	NA	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	ND	0.06 ER	ND	ND	<0.5	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	ND	NA	NA	
Nickel	100	NLE	187	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	5.64	1.55 ER	ND	ND	<10	<10	<10	<10	10.3	NA	NA	NA	NA	ND	NA	NA	
Potassium	NLE	NLE	137000	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	8580	8920	NA	NA	NA	11200	7520	6870	6990	12800	14000	<10000	<10000	11200	NA	NA	NA	NA	10100	NA	NA	
Selenium	40	50	29.60	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	41.2	51.9	NA	NA	NA	ND	NR	ND	ND	<10	<10	<10	<10	<10	NA	NA	NA	NA	102	NA	NA	
Silver	40	NLE	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	ND	8.57	1.98	2.27	<10	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	
Sodium	50000	NLE	21500	21500	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	8450	8840	NA	NA	NA	7070	8230	9230	9660	11200	10200	<10000	<10000	<10000	NA	NA	NA	NA	18000	NA	NA	
Thallium	2	2	5.50	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	ND	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	ND	NA	NA	
Vanadium	60	NLE	108	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	5.27	6	NA	NA	NA	5.14	ND	ND	ND	<50	<50	<50	<50	<50	NA	NA	NA	NA	2.39	NA	NA	
Zinc	2000	NLE	233	<20	725	721	NA	NA	NA	NA	NA	NA	NA	NA	9.95	10.6	NA	NA	NA	80.2	ND	ND	1.25	<20	76.1	<20	<20	117	NA	NA	NA	NA	5.31	NA	NA	

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

Sample M2MW01 (4th Quarter 2010) has metals results but not VOCs. Values left blank for missing data.

Sample M2MW05 Duplicate (2nd Quarter 2011) had an elevated sample detection limit due to difficult sample matrix.

Table 2
Historical Groundwater Analytical Results
Site FTMM-02 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M2MW03								M2MW04																		M2MW05									
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	51	LF2	LF3	LF4	LF5	LF6	LF7	LF8	41	42	43	44	LF1	46	47	48	LF2	LF2 Dup	LF3	LF4	LF5	LF6	LF7	LF8	39	40	41	42	42 Dup	LF1	44	44 Dup	45	45 Dup	46
Date Collected				12/4/2009	3/9/2010	6/11/2010	9/23/2010	12/16/2010	3/8/2011	6/14/2011	8/22/2011	3/17/2008	5/22/2008	8/26/2008	12/23/2008	3/30/2009	6/19/2009	9/22/2009	12/4/2009	3/10/2010	3/10/2010	6/14/2010	9/23/2010	12/16/2010	3/8/2011	6/15/2011	8/23/2011	3/17/2008	5/23/2008	8/26/2008	12/27/2008	12/27/2008	3/31/2009	6/22/2009	6/22/2009	9/22/2009	9/22/2009	12/3/2009
ANALYTE/Lab ID				90470.05	10077.08	10261.07	10409.08	10558.05	11092.06	11248.09	11352.05	80087.06	80176.06	80308.06	80472.06	90133.10	90249.06	90394.06	90470.06	10082.04	10082.03	10264.08	10409.09	10558.05	11092.07	11254.05	11354.07	80087.07	80178.04	80308.07	80473.04	80473.03	90137.04	90252.04	90252.03	90394.07	90394.03	90469.04
Volatile Organic Compounds (µg/L)																																							
Benzene	1	5	--	0.26 J	4.99	ND	0.36 J	ND	4.74	ND	3.1	ND	ND	0.34 J	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
Chlorobenzene	50	100	--	8.14	133.27	7.81	8.4	3.7	127.08 D	4.85	94.6	1.49 J	ND	7.29	1.49 J	0.61 J	ND 1.61	0.5 J	ND	0.62	ND	ND 0.32 J	0.71	0.45 J	ND	0.29	0.46 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	2.13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	6.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	600	--	ND	2.49	ND	ND	ND	2.77	ND	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
1,3-Dichlorobenzene	600	NLE	--	ND	2.59	ND	0.87	ND	3.21	ND	2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	0.52	6.39	0.49 J	0.85	ND	7.56	0.5 J	7	ND	ND	0.62 J	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
1,1-Dichloroethane	50	7	--	ND	ND	ND	ND	ND	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
Methylene chloride	3	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	NA	NA	NA	NA	NA	NA	NA	1.1 J	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.24 J	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	NA	6.23 J	ND	ND	ND	ND		ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	0.4 J	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	9	70	--	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
1,1,2-Trichloroethane	3	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
Total Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	16.2	ND	ND	3	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds (µg/L)																																							
Acenaphthene	400	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Benzyl alcohol	2000	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.9 J		NA	NA	NA	NA	NA
1,3-Dichlorobenzene	600	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	75	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
TICs*	500	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32		NA	NA	NA	NA	NA
Pesticides/PCBs (µg/L)																																							
Aldrin	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
alpha-BHC	0.02	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
beta-BHC	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
delta-BHC	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
alpha-Chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
gamma-Chlordane	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.034		NA	NA	NA	NA	NA
4,4'-DDD	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
4,4'-DDE	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
4,4'-DDT	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Dieldrin	0.03	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Endosulfan I	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Endosulfan II	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Endosulfan sulfate	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Endrin	2	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Endrin aldehyde	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Endrin ketone	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.034		NA	NA	NA	NA	NA
Heptachlor	0.05	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.038		NA	NA	NA	NA	NA
Heptachlor epoxide	0.2	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Methoxychlor	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Metals (µg/L)																																							
Aluminum	200	NLE	121000	NA	36.4	ND	18.5	<200	<200	1050	248	NA	NA	NA	NA	ND	NA	NA	NA	22.7		ND 17.2	40.7	<200	<200	<200	<200	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Antimony	6	6	20.70	NA	6.21 ER	13	20.4	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	18	NA	NA	NA	ND		ND 8.09 ER	11	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	12.8		NA	NA	NA	NA	NA
Arsenic	3	10	89.30	NA	0.75 ER	0.71 ER	2.91 ER	<3.0	<3.0	4.4	<3.0	NA	NA	NA	NA	56.9	NA	NA	NA	ND		ND 1.27 ER	0.77 ER	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	52		NA	NA	NA	NA	NA
Barium	6000	2000	699.00	NA	270	74.7	137	<200	334	<200	229	NA	NA	NA	NA	74.7	NA	NA	NA	51.8		30.6 81	116	<200	<200	<200	<200	NA	NA	NA	NA	NA	93.9		NA	NA	NA	NA	NA
Beryllium	1	4	2.10	NA	ND	ND	ND	<1.0	1.5	<1.0	<1.0	NA	NA	NA	NA	ND	NA	NA	NA	ND		ND ND	ND	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Cadmium	4	5	9.50	NA	0.6 ER	ND	0.529 ER	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	ND	NA	NA	NA	ND		ND ND	0.938 ER	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Calcium	NLE	NLE	45400.00	NA	186000	69600	133000	77800	163000	62400	112000	NA	NA	NA	NA	28800	NA	NA	NA	24100		14100 25300	30200	28100	26200	39200	37000	NA	NA	NA	NA	NA	28700		NA	NA	NA	NA	NA
Chromium	70	100	191.00	NA	ND	ND	ND	<10	<10	12.7	<10	NA	NA	NA	NA	0.538 ER	NA	NA	NA	ND		ND ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Cobalt	NLE	NLE	18.30	NA	ND	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	ND	NA	NA	NA	ND		ND ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Copper	1300	1300	65.60	NA	ND	ND	4.02 ER	<10	<10	18	<10	NA	NA	NA	NA	ND	NA	NA	NA	ND		ND ND	1.82 ER	<10	<10	<10	<10	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Iron	300	NLE	431000	NA	42200	14200	3990	16200	41000	29100	35400	NA	NA	NA	NA	13400	NA	NA	NA	9610		5641 15200	23400	23200	14700	23400	22900	NA	NA	NA	NA	NA	22800		NA	NA	NA	NA	NA
Lead	5	15	22.70	NA	ND	ND	ND	<3.0	<3.0	12.4	20.4	NA	NA	NA	NA	6.55	NA	NA	NA	ND		ND ND	<3.0	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	2.68	ER	NA	NA	NA	NA	NA
Magnesium	NLE	NLE	62700	NA	16000	5980	11500	5950	12300	6910	13700	NA	NA	NA	NA	4650	NA	NA	NA	4200		2410 4500	4730	<5000	<5000	5790	5380	NA	NA	NA	NA	NA	4770		NA	NA	NA	NA	NA
Manganese	50	NLE	331	NA	624	426	373	606	490	232	393	NA	NA	NA	NA	111	NA	NA	NA	83.9		47.2 70.6	98	93.8	67.4	163	265	NA	NA	NA	NA	NA	53.2		NA	NA	NA	NA	NA
Mercury	2	2	0.26	NA	0.07 ER	ND	ND	<0.5	<0.20	<0.20	0.37	NA	NA	NA	NA	ND	NA	NA	NA	ND		ND 0.06 ER	ND	<0.5	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Nickel	100	NLE	187	NA	ND	ND	5	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	0.786	ER	ND ND	0.555 ER	<10	<10	<10	<10	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Potassium	NLE	NLE	137000	NA	12900	8960	13000	11700	10500	<10000	14900	NA	NA	NA	NA	5920	NA	NA	NA	5820		3280 5890	6750	<10000	<10000	<10000	<10000	NA	NA	NA	NA	NA	6110		NA	NA	NA	NA	NA
Selenium	40	50	29.60	NA	ND	NR	ND	<10	<10	<10	<10	NA	NA	NA	NA	85.6	NA	NA	NA	35.8		23.6 NR	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	58.8		NA	NA	NA	NA	NA
Silver	40	NLE	ND	NA	ND	2.07	ND	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	ND		ND 4.29	2.72	<10	<10	<10	<10	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Sodium	50000	NLE	21500	NA	34900	16200	65200	19800	30800	<10000	275000	NA	NA	NA	NA	8320	NA	NA	NA	6140		4510 7610	8050	<10000	<10000	<10000	<10000	NA	NA	NA	NA	NA	8430		NA	NA	NA	NA	NA
Thallium	2	2	5.50	NA	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	ND	NA	NA	NA	ND		ND ND	ND	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA
Vanadium	60	NLE	108	NA	5.43	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	1.4	NA	NA	NA	1.59		0.974 ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	NA	1.58		NA	NA	NA	NA	NA
Zinc	2000	NLE	233	NA	2.19	2.19	21.3	<20	<20	111	32.3	NA	NA	NA	NA	ND	NA	NA	NA	4.53		2.08 1.88	2.83	<20	<20	<20	<20	NA	NA	NA	NA	NA	ND		NA	NA	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

Sample M2MW01 (4th Quarter 2010) has metals results but not VOCs. Values left blank for missing data.

Sample M2MW05 Duplicate (2nd Quarter 2011) had an elevated sample detection limit due to difficult sample matrix.

Table 2
Historical Groundwater Analytical Results
Site FTMM-02 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M2MW05																M2MW06														M2MW07			
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	46 Dup	LF2	LF2 Dup	LF3	LF3 Dup	LF4	LF4 Dup	LF5	LF5 Dup	LF6	LF6 Dup	LF7	LF7 Dup	LF8	LF8 Dup	41	42	43	44	LF1	46	47	48	LF2	LF3	LF4	LF5	LF6	LF7	LF8	39	40	40 Dup	41
Date Collected				12/3/2009	3/8/2010	3/8/2010	6/14/2010	6/14/2010	9/22/2010	9/22/2010	12/17/2010	12/17/2010	3/8/2011	3/8/2011	6/13/2011	6/13/2011	8/23/2011	8/23/2011	3/17/2008	5/23/2008	8/26/2008	12/27/2008	3/28/2009	6/22/2009	9/22/2009	12/3/2009	3/9/2010	6/11/2010	9/23/2010	12/17/2010	3/8/2011	6/14/2011	8/24/2011	3/17/2008	5/23/2008	5/23/2008	8/26/2008
ANALYTE/Lab ID				90469.03	10075.04	10075.03	10264.04	10264.03	10404.04	10404.03	10560.04	10560.03	11092.04	11092.03	11247.04	11247.03	11354.04	11354.03	80087.08	80178.05	80308.08	80473.05	90131.06	90252.05	90394.08	90469.05	10077.06	10261.06	10409.07	10560.08	11092.05	11248.08	11355.07	80087.09	80178.06	80178.03	80308.09
Volatile Organic Compounds (µg/L)																																					
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.19 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17 J	0.38 J	ND	ND	ND	ND
Chlorobenzene	50	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.83	9.47	0.89 J	20.52	3.65	3.19	ND	ND	12.58	8.11	1.37	1.7	9.62	11.45	23.1	ND	ND	ND	ND
Chloroethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.8	ND	ND	ND	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	600	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.38 J	0.42 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17 J	0.27 J	0.28 J	ND	ND	ND	ND
1,3-Dichlorobenzene	600	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.41 J	0.4 J	ND	ND	ND	ND	ND	ND	0.28 J	ND	ND	ND	ND	0.26 J	0.47 J	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.94 J	2.2	ND	0.56 J	ND	ND	ND	ND	1.35	0.86	ND	ND	0.68	0.71	1.3	ND	ND	ND	ND
1,1-Dichloroethane	50	7	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	3	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.75 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.19 J	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	9	70	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	3	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	4	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds (µg/L)																																					
Acenaphthene	400	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	2000	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	600	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	75	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TICs*	500	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides/PCBs (µg/L)																																					
Aldrin	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	0.02	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.027	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.043	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0.03	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	2	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	0.05	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	0.2	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.045	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (µg/L)																																					
Aluminum	200	NLE	121000	NA	16.2	13.8	ND	ND	48	42.8	<200	<200	<200	<200	3330	8410	9730	13700	NA	NA	NA	NA	ND	NA	NA	NA	19.6	ND	26.5	<200	<200	<200	715	NA	NA	NA	NA
Antimony	6	6	20.70	NA	ND	ND	7.58 ER	10.4	12	10.9	<6.0	<6.0	<6.0	<6.0	<6.0	<30	<6.0	<6.0	NA	NA	NA	NA	23.5	NA	NA	NA	ND	10.2	10.3	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA
Arsenic	3	10	89.30	NA	1.44 ER	1.26 ER	1.94 ER	1.59 ER	1.35 ER	1.26 ER	<3.0	<3.0	<3.0	<3.0	18	134	17.9	20.9	NA	NA	NA	NA	74.1	NA	NA	NA	0.66 ER	1.01 ER	0.67 ER	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA
Barium	6000	2000	699.00	NA	149	147	115	113	88.2	86	<200	<200	<200	<200	662	3930	573	507	NA	NA	NA	NA	95.4	NA	NA	NA	205	125	72.9	<200	304	<200	391	NA	NA	NA	NA
Beryllium	1	4	2.10	NA	ND	ND	ND	ND	ND	ND	<1.0	<1.0	1.3	1.3	<1.0	<5.0	1	1.3	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	<1.0	3.5	<1.0	<1.0	NA	NA	NA	NA
Cadmium	4	5	9.50	NA	0.677 ER	0.665 ER	0.991 ER	0.897 ER	0.981 ER	0.822 ER	<3.0	<3.0	<3.0	<3.0	<3.0	<15	<3.0	<3.0	NA	NA	NA	NA	ND	NA	NA	NA	0.614 ER	ND	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA
Calcium	NLE	NLE	45400.00	NA	61800	60500	43000	43300	31700	31800	33900	33500	29400	29200	45800	73299	44500	51000	NA	NA	NA	NA	56500	NA	NA	NA	85200	67200	47500	43900	119000	74500	77000	NA	NA	NA	NA
Chromium	70	100	191.00	NA	ND	ND	ND	ND	ND	ND	<10	<10	<10	<10	41.8	108	118	153	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA
Cobalt	NLE	NLE	18.30	NA	ND	ND	ND	ND	ND	ND	<50	<50	<50	<50	<50	<250	<50	<50	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA
Copper	1300	1300	65.60	NA	ND	ND	ND	ND	1.58 ER	1.56 ER	<10	<10	<10	<10	<10	<50	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	1.21 ER	<10	<10	<10	14.2	NA	NA	NA	NA
Iron	300	NLE	431000	NA	43800	43100	31300	31300	22500	22000	26200	27800	45600	32700	165000	1630000	121000	148000	NA	NA	NA	NA	12700	NA	NA	NA	32300	18600	9190	11600	38700	16500	61000	NA	NA	NA	NA
Lead	5	15	22.70	NA	ND	ND	2.74 ER	ND	ND	3.19 ER	<3.0	<3.0	<3.0	<3.0	6.8	<15	19.1	20.6	NA	NA	NA	NA	3.11 ER	NA	NA	NA	ND	ND	ND	<3.0	<3.0	<3.0	11	NA	NA	NA	NA
Magnesium	NLE	NLE	62700	NA	10400	10200	7390	7440	5380	5340	5220	5160	<5000	<5000	8080	<25000	9400	11000	NA	NA	NA	NA	5420	NA	NA	NA	10700	7070	5000	<5000	10200	5870	11700	NA	NA	NA	NA
Manganese	50	NLE	331	NA	113	113	80.6	80.8	56.3	55.6	67.4	66.1	58.5	58.2	108	231	124	147	NA	NA	NA	NA	83	NA	NA	NA	453	173	70.5	84.2	318	513	731	NA	NA	NA	NA
Mercury	2	2	0.26	NA	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.19	<0.20	<0.20	<1.6	0.35	0.47	NA	NA	NA	NA	ND	NA	NA	NA	0.08 ER	ND	0.31 ER	<0.5	<0.20	<0.20	<0.20	NA	NA	NA	NA
Nickel	100	NLE	187	NA	ND	0.515 ER	ND	0.711 ER	0.953 ER	ND	<10	<10	<10	<10	<10	<50	16.3	16	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA
Potassium	NLE	NLE	137000	NA	10600	10400	8330	8250	8350	8310	<10000	<10000	<10000	<10000	10400	<50000	14900	17300	NA	NA	NA	NA	6960	NA	NA	NA	8460	6900	6760	<10000	12000	<10000	<10000	NA	NA	NA	NA
Selenium	40	50	29.60	NA	ND	ND	NR	NR	ND	ND	<10	<10	<10	<10	<10	<50	<10	11.7	NA	NA	NA	NA	117	NA	NA	NA	ND	NR	ND	<10	<10	<10	<10	NA	NA	NA	NA
Silver	40	NLE	ND	NA	ND	ND	6.15	6.13	3.14	2.8	<10	<10	<10	<10	<10	<50	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	ND	3.71	ND	<10	<10	<10	<10	NA	NA	NA	NA
Sodium	50000	NLE	21500	NA	21900	20800	17900	18400	16900	17900	22000	22100	22200	22000	28000	<50000	34000	35600	NA	NA	NA	NA	9830	NA	NA	NA	9910	11300	8110	<10000	13200	18500	29700	NA	NA	NA	NA
Thallium	2	2	5.50	NA	ND	0.53 ER	ND	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA
Vanadium	60	NLE	108	NA	4.98	4.87	ND	ND	ND	ND	<50	<50	<50	<50	<50	<250	63.9	88.4	NA	NA	NA	NA	1.73	NA	NA	NA	4.05	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA
Zinc	2000	NLE	233	NA	1.43	1.45	ND	ND	1.35	ND	<20	<20	<20	<20	26	<100	111	147	NA	NA	NA	NA	3.13	NA	NA	NA	14	ND	ND	<20	<20	<20	79.7	NA	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

Sample M2MW01 (4th Quarter 2010) has metals results but not VOCs. Values left blank for missing data.

Sample M2MW05 Duplicate (2nd Quarter 2011) had an elevated sample detection limit due to difficult sample matrix.

Table 2
Historical Groundwater Analytical Results
Site FTMM-02 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M2MW07														M2MW08																		M2MW09							
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	42	LF1	44	45	46	LF2	LF3	LF4	LF3	LF4	LF5	LF6	LF6 Dup	39	40	41	42	LF1	44	45	46	LF2	LF3	LF4	LF5	LF6	LF7	LF7 Dup	LF8	41	42	43	44	LF1	46	47	48
Date Collected				12/27/2008	3/28/2009	6/22/2009	9/22/2009	12/3/2009	3/8/2010	6/10/2010	9/22/2010	12/17/2010	3/7/2011	6/13/2011	8/24/2011	8/24/2011	3/17/2008	5/23/2008	8/26/2008	12/27/2008	3/30/2009	6/22/2009	9/22/2009	12/3/2009	3/8/2010	6/10/2010	9/22/2010	12/17/2010	3/4/2011	6/14/2011	6/14/2011	8/24/2011	3/17/2008	5/23/2008	8/26/2008	12/27/2008	3/28/2009	6/22/2009	9/22/2009	12/3/2009
ANALYTE/Lab ID				80473.06	90131.07	90252.06	90394.09	90469.06	10075.05	10259.07	10404.05	10560.05	11088.06	11247.05	11355.04	11355.03	80087.10	80178.07	80308.10	80473.07	90133.09	90252.07	90394.10	90469.07	10075.06	10259.06	10404.06	10560.06	11085.06	11248.04	11248.03	11355.05	80087.11	80178.08	80308.11	80473.08	90131.04	90252.08	90394.11	90469.08
Volatile Organic Compounds (µg/L)																																										
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	50	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.24 J	ND	ND
Chloroethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	600	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	600	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	50	7	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	3	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	9	70	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	3	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds (µg/L)																																										
Acenaphthene	400	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Benzyl alcohol	2000	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
1,3-Dichlorobenzene	600	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
1,4-Dichlorobenzene	75	75	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
TICs*	500	NLE	--	NA	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19	NA	NA	NA
Pesticides/PCBs (µg/L)																																										
Aldrin	0.04	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
alpha-BHC	0.02	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
beta-BHC	0.04	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
delta-BHC	NLE	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
alpha-Chlordane	0.5	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
gamma-Chlordane	NLE	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
4,4'-DDD	0.1	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.034	NA	NA	NA
4,4'-DDE	0.1	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.034	NA	NA	NA
4,4'-DDT	0.1	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.044	NA	NA	NA
Dieldrin	0.03	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.031	NA	NA	NA
Endosulfan I	40	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.027	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.028	NA	NA	NA
Endosulfan II	40	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Endosulfan sulfate	40	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.026	NA	NA	NA
Endrin	2	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Endrin aldehyde	NLE	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.023	NA	NA	NA
Endrin ketone	NLE	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.034	NA	NA	NA
Heptachlor	0.05	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.038	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.034	NA	NA	NA
Heptachlor epoxide	0.2	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.027	NA	NA	NA
Methoxychlor	40	NLE	--	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.052	NA	NA	NA
Metals (µg/L)																																										
Aluminum	200	NLE	121000	NA	ND	NA	NA	NA	10.9	ND	ND	<200	<200	<200	362	231	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	<200	<200	1040	418	295	NA	NA	NA	NA	ND	NA	NA	NA
Antimony	6	6	20.70	NA	18.5	NA	NA	NA	6.06 ER	10.1	12.6	<6.0	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	21.9	NA	NA	NA	ND	9.29 ER	13.1	<6.0	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	13.5	NA	NA	NA
Arsenic	3	10	89.30	NA	84.3	NA	NA	NA	ND	0.9 ER	ND	<3.0	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	62.7	NA	NA	NA	ND	ND	ND	<3.0	<3.0	8.2	4	<3.0	NA	NA	NA	NA	90.1	NA	NA	NA
Barium	6000	2000	699.00	NA	85.7	NA	NA	NA	82.9	131	67.4	<200	<200	480	432	291	NA	NA	NA	NA	121	NA	NA	NA	99.8	67.4	55.3	<200	<200	1910	905	257	NA	NA	NA	NA	42.2	NA	NA	NA
Beryllium	1	4	2.10	NA	ND	NA	NA	NA	ND	ND	ND	<1.0	5.1	<1.0	<1.0	<1.0	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	<1.0	1.8	<1.0	<1.0	<1.0	NA	NA	NA	NA	ND	NA	NA	NA
Cadmium	4	5	9.50	NA	ND	NA	NA	NA	ND	ND	0.569 ER	<3.0	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	0.863 ER	<3.0	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	ND	NA	NA	NA
Calcium	NLE	NLE	45400.00	NA	47300	NA	NA	NA	48900	41800	49400	48100	51300	52000	72000	66400	NA	NA	NA	NA	39200	NA	NA	NA	38800	33400	43600	39700	37000	47400	39200	30400	NA	NA	NA	NA	50600	NA	NA	NA
Chromium	70	100	191.00	NA	ND	NA	NA	NA	ND	ND	ND	<10	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	<10	<10	13.9	<10	<10	NA	NA	NA	NA	0.442 ER	NA	NA	NA
Cobalt	NLE	NLE	18.30	NA	ND	NA	NA	NA	ND	ND	ND	<50	<50	<50	<50	<50	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	<50	<50	<50	<50	<50	NA	NA	NA	NA	ND	NA	NA	NA
Copper	1300	1300	65.60	NA	ND	NA	NA	NA	ND	ND	1.51 ER	<10	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	1.49 ER	<10	<10	<10	<10	<10	NA	NA	NA	NA	1.05 ER	NA	NA	NA
Iron	300	NLE	431000	NA	20100	NA	NA	NA	13700	14200	8310	16000	40300	116000	83700	54600	NA	NA	NA	NA	24100	NA	NA	NA	26700	12400	14500	26200	39300	310000	173000	67100	NA	NA	NA	NA	3240	NA	NA	NA
Lead	5	15	22.70	NA	5.47	NA	NA	NA	ND	ND	2.66 ER	<3.0	<3.0	<3.0	4.1	3.3	NA	NA	NA	NA	7.38	NA	NA	NA	ND	ND	ND	<3.0	<3.0	6.4	<3.0	3.2	NA	NA	NA	NA	2.01 ER	NA	NA	NA
Magnesium	NLE	NLE	62700	NA	6500	NA	NA	NA	7020	6160	6050	5660	5450	<5000	7830	7380	NA	NA	NA	NA	4890	NA	NA	NA	5130	4450	5680	<5000	<5000	<5000	<5000	<5000	NA	NA	NA	NA	4380	NA	NA	NA
Manganese	50	NLE	331	NA	77.4	NA	NA	NA	75.1	64.8	56.9	63.6	113	107	197	137	NA	NA	NA	NA	39.4	NA	NA	NA	36.8	31.8	40	50.6	39.6	121	82.8	52.7	NA	NA	NA	NA	291	NA	NA	NA
Mercury	2	2	0.26	NA	ND	NA	NA	NA	0.052	ER ND	ND	<0.5	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	<0.5	<0.20	<0.40	<0.20	<0.20	NA	NA	NA	NA	ND	NA	NA	NA
Nickel	100	NLE	187	NA	ND	NA	NA	NA	ND	ND	0.407	<10	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	<10	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA
Potassium	NLE	NLE	137000	NA	5010	NA	NA	NA	6360	4590	5070	<10000	<10000	<10000	<10000	<10000	NA	NA	NA	NA	6730	NA	NA	NA	7820	5890	7540	<10000	<10000	<10000	<10000	<10000	NA	NA	NA	NA	5260	NA	NA	NA
Selenium	40	50	29.60	NA	85.6	NA	NA	NA	22	NR	ND	<10	<10	<10	<10	<10	NA	NA	NA	NA	96.3	NA	NA	NA	ND	NR	ND	<10	<10	<10	<10	<10	NA	NA	NA	NA	117	NA	NA	NA
Silver	40	NLE	ND	NA	ND	NA	NA	NA	ND	3.08	ND	<10	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	ND	2.43	1.51	<10	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA
Sodium	50000	NLE	21500	NA	9230	NA	NA	NA	10800	7800	8130	<10000	<10000	<10000	12900	11600	NA	NA	NA	NA	8710	NA	NA	NA	8830	7960	9070	<10000	<10000	<10000	<10000	<10000	NA	NA	NA	NA	8140	NA	NA	NA
Thallium	2	2	5.50	NA	ND	NA	NA	NA	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	ND	NA	NA	NA
Vanadium	60	NLE	108	NA	2.15	NA	NA	NA	1.87	ND	ND	<50	<50	<50	<50	<50	NA	NA	NA	NA	2.39	NA	NA	NA	3.4	ND	ND	<50	<50	<50	<50	<50	NA	NA	NA	NA	1.01	NA	NA	NA
Zinc	2000	NLE	233	NA	3.22	NA	NA	NA	ND	ND	ND	<20	<20	<20	<20	<20	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	<20	<20	<20	<20	<20	NA	NA	NA	NA	21.1	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

Sample M2MW01 (4th Quarter 2010) has metals results but not VOCs. Values left blank for missing data.

Sample M2MW05 Duplicate (2nd Quarter 2011) had an elevated sample detection limit due to difficult sample matrix.

Table 2
Historical Groundwater Analytical Results
Site FTMM-02 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M2MW09							M2MW10																				M2MW11								
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF2	LF3	LF4	LF5	LF6	LF7	LF8	39	40	41	42	LF1	44	45	46	LF2	LF3	LF3 Dup	LF4	LF4 Dup	LF5	LF6	LF6 Dup	LF7	LF8	LF8 Dup	33	33 Dup	34	35	36	LF1	LF1 Dup	38	39	40
Date Collected				3/8/2010	6/10/2010	9/22/2010	12/17/2010	3/7/2011	6/14/2011	8/24/2011	3/17/2008	5/23/2008	8/26/2008	12/27/2008	3/30/2009	6/22/2009	9/22/2009	12/3/2009	3/8/2010	6/10/2010	6/10/2010	9/23/2010	9/23/2010	12/17/2010	3/7/2011	3/7/2011	6/14/2011	8/22/2011	8/22/2011	3/18/2008	3/18/2008	5/22/2008	8/26/2008	12/23/2008	3/28/2009	3/28/2009	6/22/2009	9/23/2009	12/3/2009
ANALYTE/Lab ID				10075.07	10259.05	10404.07	10555.01	11088.05	11248.05	11355.06	80087.12	80178.09	80308.12	80473.09	90133.05	90252.09	90394.12	90469.09	10075.08	10259.04	10259.03	10409.04	10409.03	10560.07	11088.04	11088.03	11248.06	11352.04	11352.03	80088.04	80088.03	80176.07	80308.13	80472.07	90131.05	90131.03	90252.10	90396.04	90469.1
Volatile Organic Compounds (µg/L)																																						
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	ND	ND	ND	ND	ND	68.23	NA	54.5	48.43	100.78 E	ND	ND	12.45	0.2 J	13.39
Chlorobenzene	50	100	--	ND	ND	ND	ND	0.28 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	600	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	600	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	50	7	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	3	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	ND	ND	NA	NA	11.96	NA	10.85	8.21	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	9	70	--	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	3	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	4	ND	ND	ND	ND	ND	ND		ND		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds (µg/L)																																						
Acenaphthene	400	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	ND	ND	NA	NA	NA
Benzyl alcohol	2000	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
1,3-Dichlorobenzene	600	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
1,4-Dichlorobenzene	75	75	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
TICs*	500	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22	28	NA	NA	NA
Pesticides/PCBs (µg/L)																																						
Aldrin	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
alpha-BHC	0.02	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
beta-BHC	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
delta-BHC	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
alpha-Chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
gamma-Chlordane	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
4,4'-DDD	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
4,4'-DDE	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
4,4'-DDT	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Dieldrin	0.03	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Endosulfan I	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.027	ND	NA	NA	NA
Endosulfan II	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Endosulfan sulfate	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Endrin	2	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Endrin aldehyde	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.025	ND	NA	NA	NA
Endrin ketone	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Heptachlor	0.05	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.033	0.033	NA	NA	NA
Heptachlor epoxide	0.2	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Methoxychlor	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.048	ND	NA	NA	NA
Metals (µg/L)																																						
Aluminum	200	NLE	121000	75.5	ND	17.2	<200	285	568	854	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND		ND		ND	<200	<200	<200	949	1610	1610	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Antimony	6	6	20.70	5.73 ER	6.82 ER	12.2	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	19.8	NA	NA	NA	ND	7.21 ER		12.7		15.6	17.9	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	27	15.8	NA	NA	NA
Arsenic	3	10	89.30	1.04 ER	ND	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	70.4	NA	NA	NA	ND	0.94	ER 0.66 ER	0.87 ER		ND		<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	56.7	66.1	NA	NA	NA
Barium	6000	2000	699.00	56.9	30.5	41.6	<200	<200	<200	<200	NA	NA	NA	NA	56.8	NA	NA	NA	27.1	22.8		28		29.1	29.9	<200	<200	<200	675	447	670	NA	NA	NA	NA	NA	28.1	28.1	NA	NA	NA
Beryllium	1	4	2.10	ND	ND	ND	<1.0	3.1	<1.0	<1.0	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND		ND		ND	ND	<1.0	3.9	4.1	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Cadmium	4	5	9.50	ND	ND	0.966 ER	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND		ND		0.503 ER	ND	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	ND	0.344 ER	NA	NA	NA
Calcium	NLE	NLE	45400.00	56400	43100	54800	53200	54700	51500	48900	NA	NA	NA	NA	47100	NA	NA	NA	50000	37100		42200		56500	56400	48900	47400	49700	56200	53800	57000	NA	NA	NA	NA	NA	34200	34100	NA	NA	NA
Chromium	70	100	191.00	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND		ND		ND	ND	<10	<10	<10	17	26.7	28	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Cobalt	NLE	NLE	18.30	ND	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND		ND		ND	ND	<50	<50	<50	<50	<50	<50	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Copper	1300	1300	65.60	ND	ND	1.32 ER	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND		ND		ND	ND	<10	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	0.916 ER	0.899	NA	NA	NA
Iron	300	NLE	431000	6010	ND	5590	6470	14700	25700	15500	NA	NA	NA	NA	3960	NA	NA	NA	1300	1170		1390		1490	1530	3730	9250	10000	70000	47100	69500	NA	NA	NA	NA	NA	86.5	63.6	NA	NA	NA
Lead	5	15	22.70	ND	ND	ND	<3.0	<3.0	<3.0	4.3	NA	NA	NA	NA	4.78	ER NA	NA	NA	ND	ND		ND		ND	ND	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	2.24	ER 14.4	NA	NA	NA
Magnesium	NLE	NLE	62700	5150	3910	5040	<5000	<5000	<5000	<5000	NA	NA	NA	NA	3420	NA	NA	NA	3760	2960		3310		4240	4270	<5000	<5000	<5000	<5000	<5000	<5000	NA	NA	NA	NA	NA	3740	3730	NA	NA	NA
Manganese	50	NLE	331	439	286	273	282	442	577	362	NA	NA	NA	NA	48.9	NA	NA	NA	45.5	40.4		45.8		58.5	58.9	84.8	69.2	74.7	163	196	241	NA	NA	NA	NA	NA	1.54	1.81	NA	NA	NA
Mercury	2	2	0.26	ND	ND	ND	<0.5	<0.20	<0.20	<0.20	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND		ND		0.29	0.31	ER <0.5	<0.20	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Nickel	100	NLE	187	ND	0.597 ER	ND	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND		ND		ND	ND	<10	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Potassium	NLE	NLE	137000	7070	4800	6080	<10000	<10000	<10000	<10000	NA	NA	NA	NA	5660	NA	NA	NA	7040	4550		5190		6830	6790	<10000	<10000	<10000	<10000	<10000	<10000	NA	NA	NA	NA	NA	5370	5300	NA	NA	NA
Selenium	40	50	29.60	35.5	NR	ND	<10	<10	<10	<10	NA	NA	NA	NA	102	NA	NA	NA	49.5	NR		NR		ND	ND	<10	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	111	84.9	NA	NA	NA
Silver	40	NLE	ND	1.39	0.818	ND	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	2.5	0.788		ND		ND	ND	<10	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Sodium	50000	NLE	21500	10900	7280	11100	10100	11400	<10000	<10000	NA	NA	NA	NA	8840	NA	NA	NA	9830	6580		8010		8870	8940	<10000	<10000	<10000	<10000	<10000	<10000	NA	NA	NA	NA	NA	3890	3980	NA	NA	NA
Thallium	2	2	5.50	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND		1.83	ER ND		ND	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Vanadium	60	NLE	108	1.78	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	0.874	NA	NA	NA	1.38	ND		ND		ND	ND	<50	<50	<50	<50	<50	<50	NA	NA	NA	NA	NA	0.226	0.324	NA	NA	NA
Zinc	2000	NLE	233	36.9	15.1	17.4	<20	104	112	118	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND		ND		ND	ND	<20	<20	<20	<20	23.1	28.7	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

Sample M2MW01 (4th Quarter 2010) has metals results but not VOCs. Values left blank for missing data.

Sample M2MW05 Duplicate (2nd Quarter 2011) had an elevated sample detection limit due to difficult sample matrix.

Table 2
Historical Groundwater Analytical Results
Site FTMM-02 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M2MW11							M2MW12																		M2MW13									
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF2	LF3	LF4	LF5	LF6	LF7	LF8	33	34	35	36	LF1	38	39	40	LF2	LF2 Dup	LF3	LF3 Dup	LF4	LF5	LF6	LF7	LF8	33	34	35	36	LF1	38	39	40	LF2	LF3	LF4	LF5
Date Collected				3/10/2010	6/14/2010	9/24/2010	12/18/2010	3/9/2011	6/15/2011	8/24/2011	3/18/2008	5/22/2008	8/26/2008	12/23/2008	3/30/2009	6/22/2009	9/23/2009	12/3/2009	3/9/2010	3/9/2010	6/11/2010	6/11/2010	9/23/2010	12/15/2010	3/4/2011	6/14/2011	8/24/2011	3/17/2008	5/22/2008	8/27/2008	12/23/2008	3/30/2009	6/19/2009	9/22/2009	12/4/2009	3/9/2010	6/11/2010	9/23/2010	12/16/2010
ANALYTE/Lab ID				10082.08	10264.09	10410.08	10562.05	11097.07	11254.09	11355.09	80088.05	80176.08	80308.14	80472.08	90133.06	90252.11	90396.05	90469.11	10077.04	10077.03	10261.04	10261.03	10409.05	10555.02	11085.05	11248.07	11355.08	80087.13	80176.09	80308.15	80472.09	90133.04	90249.07	90394.13	90470.07	10077.05	10261.05	10409.06	10558.04
Volatile Organic Compounds (µg/L)																																							
Benzene	1	5	--	ND	ND	ND	ND	ND	38.18	42.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	50	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	600	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	600	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	50	7	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	3	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	11.2	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	9	70	--	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	3	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds (µg/L)																																						
Acenaphthene	400	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	2000	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	600	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	75	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
TICs*	500	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13	NA	NA	NA	NA	NA	NA	NA
Pesticides/PCBs (µg/L)																																						
Aldrin	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	0.02	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
beta-BHC	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.042	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0.03	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.027	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Endrin	2	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.031	NA	NA	NA	NA	NA	NA	NA
Heptachlor	0.05	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.034	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.035	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	0.2	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04	NA	NA	NA	NA	NA	NA	NA
Metals (µg/L)																																						
Aluminum	200	NLE	121000	ND	ND	27.4	<200	<200	<200	<200	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	11.1	<200	<200	<200	<200	NA	NA	NA	NA	ND	NA	NA	NA	8.52	ND	11.4	<200
Antimony	6	6	20.70	7.22 ER	9.12 ER	15.4	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	22	NA	NA	NA	ND	ND	6.79 ER	7.79 ER	11.1	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	19.4	NA	NA	NA	ND	8.58 ER	13.8	<6.0
Arsenic	3	10	89.30	ND	0.93 ER	0.97 ER	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	66	NA	NA	NA	0.69 ER	ND	1.5 ER	0.7 ER	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	74.1	NA	NA	NA	2.53 ER	1.96 ER	1.57 ER	3.8
Barium	6000	2000	699.00	20.5	26.1	32.9	<200	<200	<200	<200	NA	NA	NA	NA	30.1	NA	NA	NA	30	29.4	27.2	26.6	32.8	<200	<200	<200	<200	NA	NA	NA	NA	153	NA	NA	NA	138	108	111	<200
Beryllium	1	4	2.10	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	<1.0
Cadmium	4	5	9.50	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	1.04 ER	<3.0
Calcium	NLE	NLE	45400.00	25600	29200	41600	34000	34000	37700	41800	NA	NA	NA	NA	34800	NA	NA	NA	35100	34600	30000	29500	40200	35800	34200	43200	43500	NA	NA	NA	NA	52300	NA	NA	NA	43400	37600	48400	46800
Chromium	70	100	191.00	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	<10
Cobalt	NLE	NLE	18.30	ND	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	<50
Copper	1300	1300	65.60	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	1.14 ER	NA	NA	NA	ND	ND	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	1.45 ER	<10
Iron	300	NLE	431000	130	294	431	294	103	<100	237	NA	NA	NA	NA	201	NA	NA	NA	ND	76.9	468	430	464	288	197	249	266	NA	NA	NA	NA	27300	NA	NA	NA	23600	20900	31000	35700
Lead	5	15	22.70	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	2.44 ER	NA	NA	NA	ND	ND	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	5.49	NA	NA	NA	ND	ND	3.84 ER	<3.0
Magnesium	NLE	NLE	62700	2940	3410	4700	<5000	<5000	<5000	<5000	NA	NA	NA	NA	3580	NA	NA	NA	4040	4020	3510	3450	4530	<5000	<5000	<5000	<5000	NA	NA	NA	NA	5420	NA	NA	NA	4600	4340	6390	7280
Manganese	50	NLE	331	0.763	35.5	19.2	17.3	<15	20.2	24	NA	NA	NA	NA	11.9	NA	NA	NA	7.54	7.59	57.7	53.4	18.5	17.2	<15	20.6	28	NA	NA	NA	NA	218	NA	NA	NA	178	159	198	246
Mercury	2	2	0.26	0.11 ER	ND	ND	<0.5	<0.20	<0.20	<0.20	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	0.29 ER	<0.5	<0.20	<0.20	<0.20	NA	NA	NA	NA	ND	NA	NA	NA	0.08 ER	ND	0.32 ER	<0.5
Nickel	100	NLE	187	0.701 ER	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	0.452 ER	12.8
Potassium	NLE	NLE	137000	4000	4430	6390	<10000	<10000	<10000	<10000	NA	NA	NA	NA	5570	NA	NA	NA	5980	5910	4650	4540	6130	<10000	<10000	<10000	<10000	NA	NA	NA	NA	9720	NA	NA	NA	9930	7660	8890	<10000
Selenium	40	50	29.60	42	NR	ND	<10	<10	<10	<10	NA	NA	NA	NA	101	NA	NA	NA	41	38.6	NR	NR	ND	<10	<10	<10	<10	NA	NA	NA	NA	108	NA	NA	NA	ND	NR	ND	<10
Silver	40	NLE	ND	1.08	1.18	ND	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	1.76	2.01	1.02	1.01	ND	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA	ND	4.62	3.17	<10
Sodium	50000	NLE	21500	3510	3660	4170	<10000	<10000	<10000	<10000	NA	NA	NA	NA	3560	NA	NA	NA	3170	3210	2730	2360	3410	<10000	<10000	<10000	<10000	NA	NA	NA	NA	20900	NA	NA	NA	16500	17200	34200	61500
Thallium	2	2	5.50	0.86 ER	ND	ND	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	<2.0
Vanadium	60	NLE	108	ND	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	0.629	NA	NA	NA	0.732	0.856	ND	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	2.57	NA	NA	NA	2.79	ND	ND	<50
Zinc	2000	NLE	233	ND	4.68	ND	<20	<20	<20	<20	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	<20	<20	<20	<20	NA	NA	NA	NA	5.13	NA	NA	NA	ND	ND	ND	241

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

Sample M2MW01 (4th Quarter 2010) has metals results but not VOCs. Values left blank for missing data.

Sample M2MW05 Duplicate (2nd Quarter 2011) had an elevated sample detection limit due to difficult sample matrix.

Table 2
Historical Groundwater Analytical Results
Site FTMM-02 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M2MW13						M2MW15	M2MW16	M2MW17	M2MW21																			M2MW22							
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF5 Dup	LF6	LF6 Dup	LF7	LF7 Dup	LF8	1	1	1	33	34	35	35 Dup	36	LF1	38	38 Dup	39	40	40 Dup	LF2	LF3	LF4	LF5	LF6	LF7	LF8	33	34	35	36	LF1	38	39	40
Date Collected				12/16/2010	3/4/2011	3/4/2011	6/15/2011	6/15/2011	8/22/2011	3/14/2011	3/14/2011	3/14/2011	3/17/2008	5/22/2008	8/27/2008	8/27/2008	12/23/2008	3/30/2009	6/19/2009	6/19/2009	9/23/2009	12/4/2009	12/4/2009	3/10/2010	6/11/2010	9/24/2010	12/16/2010	3/8/2011	6/15/2011	8/22/2011	3/17/2008	5/22/2008	8/27/2008	12/23/2008	3/31/2009	6/19/2009	9/23/2009	12/4/2009
ANALYTE/Lab ID				10558.03	11085.04	11085.03	11254.04	11254.03	11352.06	11107.05	11107.06	11107.07	80087.14	80176.10	80309.04	80309.03	80472.10	90133.11	90249.08	90249.03	90396.06	90470.08	90470.03	10082.05	10261.08	10410.05	10558.08	11092.08	11254.07	11352.08	80087.15	80176.11	80309.05	80472.11	90137.06	90249.09	90396.07	90470.09
Volatile Organic Compounds (µg/L)																																					
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.42 J	1.07 J	2.03	1.98 J	1.63 J	1.16 J	0.73 J	0.59 J	1.22	0.89	0.88	0.47 J	0.99	1.14	0.82	1.09	1.04	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	50	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	39.37	31.25	46.85	46.84	34.12	34.61	15.75	10.66	42.93	24.56	24.52	12.37	28.84	50.63	28.79	27.19	37.96	7.5	0.33 J	ND	ND	0.33 J	0.32 J	0.2 J	ND	0.28 J
Chloroethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	600	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.62 J	1.39 J	0.65 J	0.66 J	1.38 J	1.36 J	0.9 J	0.89 J	1.08	0.57	0.62	0.6	1.54	1.04	1.1	1.07	1.49	0.4 J	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	600	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.78	2.61	2.89	2.7	1.85 J	2.84	1.33 J	1.16 J	3.05	1.45	1.5	0.99	2.91	3.25	2.41	1.9	3.06	0.66 J	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.43	4.71	4.04	3.93	3.96	5.19	2.46	2.01	4.65	2.28	2.39	1.88	5.41	5.07	3.63	3.59	5.47	1.2	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	50	7	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	3	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.38 J	0.34 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.31 J	0.9 J	ND	0.64 J	0.95 J	3.07	3.26
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	251.4	228.05	416.66	ND	173.74	264.54	544.33	252.98
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.28 J	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	9	70	--	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.3 J	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Trichloroethane	3	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.18 J	0.18 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.8	ND	4	3	ND	ND	ND	ND	4	ND	ND	ND	14	105	16	4	16	ND	53	53	343	491	47	82	141	54
Semi-Volatile Organic Compounds (µg/L)																																					
Acenaphthene	400	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Benzyl alcohol	2000	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.9 J	NA	NA	NA
1,3-Dichlorobenzene	600	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
1,4-Dichlorobenzene	75	75	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
TICs*	500	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	450	NA	NA	NA
Pesticides/PCBs (µg/L)																																					
Aldrin	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
alpha-BHC	0.02	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.031	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.028	NA	NA	NA
beta-BHC	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
delta-BHC	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.057	NA	NA	NA
alpha-Chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
gamma-Chlordane	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
4,4'-DDD	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.093	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
4,4'-DDE	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.069	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
4,4'-DDT	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	NA	NA	NA
Dieldrin	0.03	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.031	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Endosulfan I	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Endosulfan II	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Endosulfan sulfate	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Endrin	2	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Endrin aldehyde	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Endrin ketone	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.136	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Heptachlor	0.05	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.039	NA	NA	NA
Heptachlor epoxide	0.2	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Methoxychlor	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.048	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.059	NA	NA	NA
Metals (µg/L)																																					
Aluminum	200	NLE	121000	<200	<200	<200	<200	216	459	<200	<200	238	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	154	ND	32.6	<200	<200	204	<200	NA	NA	NA	NA	ND	NA	NA	NA
Antimony	6	6	20.70	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	30	NA	NA	NA	NA	NA	ND	10.3	22.6	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	8.77 ER	NA	NA	NA
Arsenic	3	10	89.30	<3.0	3.5	<3.0	4.6	5.2	3.4	<3.0	13	<3.0	NA	NA	NA	NA	NA	81.5	NA	NA	NA	NA	NA	ND	1.3 ER	1.21 ER	<3.0	<3.0	<3.0	9	NA	NA	NA	NA	38.4	NA	NA	NA
Barium	6000	2000	699.00	<200	<200	<200	<200	<200	<200	<200	298	<200	NA	NA	NA	NA	NA	324	NA	NA	NA	NA	NA	75.5	267	467	533	279	385	<200	NA	NA	NA	NA	68.4	NA	NA	NA
Beryllium	1	4	2.10	<1.0	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	ND	NA	NA	NA
Cadmium	4	5	9.50	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	ND	1.95 ER	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	ND	NA	NA	NA
Calcium	NLE	NLE	45400.00	48600	49800	48400	45100	45500	45500	49200	173000	12300	NA	NA	NA	NA	NA	81500	NA	NA	NA	NA	NA	36700	67900	86300	89200	81200	88300	54100	NA	NA	NA	NA	32200	NA	NA	NA
Chromium	70	100	191.00	<10	<10	<10	<10	<10	19.5	<10	<10	<10	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA
Cobalt	NLE	NLE	18.30	<50	<50	<50	<50	<50	<50	<50	<50	<50	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	0.803	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	ND	NA	NA	NA
Copper	1300	1300	65.60	<10	<10	<10	<10	<10	24.4	<10	<10	<10	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	1.75 ER	ND	3.91 ER	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA
Iron	300	NLE	431000	37000	26400	25500	30400	32400	34000	990	80500	<100	NA	NA	NA	NA	NA	49100	NA	NA	NA	NA	NA	12100	37200	57000	67400	42500	49500	37000	NA	NA	NA	NA	21800	NA	NA	NA
Lead	5	15	22.70	<3.0	<3.0	<3.0	<3.0	3.5	11.1	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	13.1	NA	NA	NA	NA	NA	ND	ND	8.96	<3.0	<3.0	3.5	4.7	NA	NA	NA	NA	4.63 ER	NA	NA	NA
Magnesium	NLE	NLE	62700	7540	<5000	<5000	5070	5100	6140	<5000	24500	<5000	NA	NA	NA	NA	NA	4990	NA	NA	NA	NA	NA	2370	4390	5790	5720	<5000	5310	<5000	NA	NA	NA	NA	5070	NA	NA	NA
Manganese	50	NLE	331	253	212	205	226	223	217	<15	953	44.1	NA	NA	NA	NA	NA	513	NA	NA	NA	NA	NA	148	430	513	614	451	496	298	NA	NA	NA	NA	72.7	NA	NA	NA
Mercury	2	2	0.26	<0.5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	0.07 ER	0.07 ER	ND	<0.5	<0.20	<0.20	<0.20	NA	NA	NA	NA	ND	NA	NA	NA
Nickel	100	NLE	187	13.4	<10	<10	<10	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	6.56	ND	1.79 ER	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA
Potassium	NLE	NLE	137000	<10000	10100	<10000	<10000	<10000	<10000	<10000	14700	<10000	NA	NA	NA	NA	NA	2620	NA	NA	NA	NA	NA	2860	2530	4090	<10000	<10000	<10000	<10000	NA	NA	NA	NA	6340	NA	NA	NA
Selenium	40	50	29.60	<10	<10	<10	<10	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	78.2	NA	NA	NA	NA	NA	30.9	NR	ND	<10	<10	<10	<10	NA	NA	NA	NA	46.9	NA	NA	NA
Silver	40	NLE	ND	<10	<10	<10	<10	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	6.64	6.32	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA
Sodium	50000	NLE	21500	63600	19900	19500	36000	36800	274000	13000	1330000	<10000	NA	NA	NA	NA	NA	17600	NA	NA	NA	NA	NA	8680	17600	20700	21500	21000	62600	56900	NA	NA	NA	NA	8660	NA	NA	NA
Thallium	2	2	5.50	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	ND	NA	NA	NA
Vanadium	60	NLE	108	<50	<50	<50	<50	<50	<50	<50	<50	<50	NA	NA	NA	NA	NA	4.2	NA	NA	NA	NA	NA	1.87	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	1.27	NA	NA	NA
Zinc	2000	NLE	233	248	<20	<20	24	28.7	38.8	354	<20	315	NA	NA	NA	NA	NA	18.6	NA	NA	NA	NA	NA	50.2	19.7	50.3	<20	<20	34.7	42.9	NA	NA	NA	NA	ND	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

Sample M2MW01 (4th Quarter 2010) has metals results but not VOCs. Values left blank for missing data.

Sample M2MW05 Duplicate (2nd Quarter 2011) had an elevated sample detection limit due to difficult sample matrix.

Table 2
Historical Groundwater Analytical Results
Site FTMM-02 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M2MW22							M2MW23																		M2MW24							
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF2	LF3	LF4	LF5	LF6	LF7	LF8	33	34	35	36	LF1	LF1 Dup	38	39	39 Dup	40	LF2	LF3	LF4	LF5	LF6	LF7	LF8	33	34	35	36	LF1	38	39	40
Date Collected				3/10/2010	6/14/2010	9/24/2010	12/18/2010	3/9/2011	6/16/2011	8/23/2011	3/17/2008	5/22/2008	8/27/2008	12/23/2008	3/30/2009	3/30/2009	6/19/2009	9/23/2009	9/23/2009	12/4/2009	3/10/2010	6/11/2010	9/24/2010	12/17/2010	3/9/2011	6/15/2011	8/23/2011	3/17/2008	5/22/2008	8/27/2008	12/23/2008	3/30/2009	6/19/2009	9/23/2009	12/4/2009
ANALYTE/Lab ID				10082.09	10264.05	10410.09	10562.06	11097.08	11257.05	11354.05	80087.16	80176.12	80309.06	80472.12	90133.08	90133.03	90249.10	90396.08	90396.03	90470.10	10082.06	10261.09	10410.06	10560.09	11097.05	11254.08	11354.08	80087.17	80176.13	80309.07	80472.13	90133.12	90249.11	90396.09	90470.11
Volatile Organic Compounds (µg/L)																																			
Benzene	1	5	--	ND	0.23 J	ND	ND	ND	ND	ND	ND	0.21 J	0.61 J	0.71 J	0.5 J	0.53 J	ND	0.44 J	0.48 J	ND	0.22 J	0.88	ND	ND	ND	ND	ND	2.24	1.82 J	1.59 J	2.65	1.68 J	1.36 J	1.27	1.92
Chlorobenzene	50	100	--	ND	8.82	0.68	0.56	0.35 J	0.37 J	0.46 J	2.76	3.89	28.37	18.25	18.2	18.49	ND	34.17	39.33	3.59	6.12	28.38	19.03	12.16	0.45 J	10.72	0.4 J	7.46	7.36	4.7	7.38	7.35	5.53	4.3	6.03
Chloroethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	600	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.54 J	0.54 J	0.52 J	0.45 J	0.5 J	0.5 J	0.47 J	0.45 J
1,3-Dichlorobenzene	600	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.85 J	0.38 J	0.34 J	0.35 J	ND	0.78	0.88	ND	ND	0.75	0.54	0.29 J	ND	0.3 J	ND	0.58 J	0.6 J	0.59 J	0.62 J	0.59 J	0.53 J	0.5	0.56
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.68	1.24	1.09 J	1.07 J	ND	2.5	2.86	ND	0.57	2.45	1.73	0.83	ND	0.97	ND	3.82	3.82	3.63	3.74	3.62	3.5	3.46	3.49
1,1-Dichloroethane	50	7	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	3	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	3.95	5.44	12.1	13.08	7.43	12.48	15.6	ND	ND	0.34 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	277.36	455.06	332.94	304.32	164.35	201.24	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	9	70	--	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	3	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.18 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	196	229	458	171	168	204	75	ND	ND	35	ND	ND	ND	ND	8	12	ND	ND	3	4	ND	ND	ND	ND	187	169	264	171	136	179	127	141
Semi-Volatile Organic Compounds (µg/L)																																			
Acenaphthene	400	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Benzyl alcohol	2000	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.9 J	NA	NA	NA
1,3-Dichlorobenzene	600	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
1,4-Dichlorobenzene	75	75	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
TICs*	500	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	24	35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	29	NA	NA	NA
Pesticides/PCBs (µg/L)																																			
Aldrin	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
alpha-BHC	0.02	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.028	0.029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.031	NA	NA	NA
beta-BHC	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.034	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
delta-BHC	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
alpha-Chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.028	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.027	NA	NA	NA
gamma-Chlordane	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.028	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
4,4'-DDD	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.034	0.035	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.036	NA	NA	NA
4,4'-DDE	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.034	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.033	NA	NA	NA
4,4'-DDT	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.046	0.051	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Dieldrin	0.03	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.029	0.028	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Endosulfan I	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.028	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Endosulfan II	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.028	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Endosulfan sulfate	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.028	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Endrin	2	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Endrin aldehyde	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.028	0.032	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Endrin ketone	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.069	0.073	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.075	NA	NA	NA
Heptachlor	0.05	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.036	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Heptachlor epoxide	0.2	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Methoxychlor	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.048	0.042	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.059	NA	NA	NA
Metals (µg/L)																																			
Aluminum	200	NLE	121000	ND	ND	ND	<200	<200	<200	<200	NA	NA	NA	NA	15.8	43.4	NA	NA	NA	NA	24.5	ND	14.3	<200	249	515	2790	NA	NA	NA	NA	18.8	NA	NA	NA
Antimony	6	6	20.70	ND	11.3	10.8	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	26.3	22.1	NA	NA	NA	NA	ND	10.4	13.2	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	26.8	NA	NA	NA
Arsenic	3	10	89.30	ND	0.94 ER	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	93.9	74	NA	NA	NA	NA	ND	1.78 ER	1.18 ER	<3.0	<3.0	<3.0	5.3	NA	NA	NA	NA	71.9	NA	NA	NA
Barium	6000	2000	699.00	58.4	71.2	77	<200	<200	<200	<200	NA	NA	NA	NA	227	235	NA	NA	NA	NA	41.9	251	252	219	<200	243	<200	NA	NA	NA	NA	279	NA	NA	NA
Beryllium	1	4	2.10	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	ND	NA	NA	NA
Cadmium	4	5	9.50	ND	0.802 ER	1.32 ER	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	1.7 ER	1.28 ER	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	ND	NA	NA	NA
Calcium	NLE	NLE	45400.00	29300	39000	38300	36600	35200	32400	53300	NA	NA	NA	NA	67400	66800	NA	NA	NA	NA	34400	56600	44500	60400	31900	49800	43300	NA	NA	NA	NA	60500	NA	NA	NA
Chromium	70	100	191.00	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	0.365 ER	0.598 ER	NA	NA	NA	NA	ND	ND	ND	<10	<10	<10	31	NA	NA	NA	NA	0.346 ER	NA	NA	NA
Cobalt	NLE	NLE	18.30	ND	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	ND	NA	NA	NA
Copper	1300	1300	65.60	ND	ND	1.54 ER	<10	<10	<10	106	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	ND	1.78	<10	<10	12.5	18.8	NA	NA	NA	NA	ND	NA	NA	NA
Iron	300	NLE	431000	15900	27400	31400	26700	29700	29500	11700	NA	NA	NA	NA	27400	28200	NA	NA	NA	NA	6230	58200	37200	19500	2760	37500	11500	NA	NA	NA	NA	64300	NA	NA	NA
Lead	5	15	22.70	ND	ND	2.56 ER	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	10.7	6.39	NA	NA	NA	NA	ND	ND	3.75 ER	<3.0	<3.0	<3.0	10.8	NA	NA	NA	NA	11.9	NA	NA	NA
Magnesium	NLE	NLE	62700	4670	6560	5910	5220	5070	<5000	7060	NA	NA	NA	NA	13100	13100	NA	NA	NA	NA	7090	10600	8320	12400	5940	8800	7680	NA	NA	NA	NA	5050	NA	NA	NA
Manganese	50	NLE	331	69.8	176	85.1	92.6	113	84.4	323	NA	NA	NA	NA	157	161	NA	NA	NA	NA	35.7	231	185	121	<15	188	41.2	NA	NA	NA	NA	647	NA	NA	NA
Mercury	2	2	0.26	ND	0.06 ER	ND	<0.5	<0.20	<0.20	1.2	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	0.09 ER	0.06 ER	ND	<0.5	<0.20	<0.20	<0.20	NA	NA	NA	NA	ND	NA	NA	NA
Nickel	100	NLE	187	0.634 ER	1.55 ER	ND	<10	<10	<10	22.4	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	0.975 ER	1.46 ER	0.622 ER	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA
Potassium	NLE	NLE	137000	6090	7100	7560	<10000	<10000	<10000	<10000	NA	NA	NA	NA	4860	4780	NA	NA	NA	NA	3380	3640	3700	<10000	<10000	<10000	<10000	NA	NA	NA	NA	2830	NA	NA	NA
Selenium	40	50	29.60	31.1	NR	ND	<10	<10	<10	<10	NA	NA	NA	NA	84.2	96.7	NA	NA	NA	NA	31.2	NR	ND	<10	<10	<10	<10	NA	NA	NA	NA	76	NA	NA	NA
Silver	40	NLE	ND	ND	5.78	3.65	<10	<10	<10	<10	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	ND	10.5	4.25	<10	<10	<10	<10	NA	NA	NA	NA	ND	NA	NA	NA
Sodium	50000	NLE	21500	6900	9360	8970	<10000	<10000	<10000	55700	NA	NA	NA	NA	9660	9760	NA	NA	NA	NA	3770	10800	10200	<10000	<10000	38900	92300	NA	NA	NA	NA	14500	NA	NA	NA
Thallium	2	2	5.50	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	2.34 ER	ND	ND	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	ND	NA	NA	NA
Vanadium	60	NLE	108	2.07	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	6.06	6.17	NA	NA	NA	NA	1.49	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	4.63	NA	NA	NA
Zinc	2000	NLE	233	2.45	2.3	ND	<20	<20	<20	58.3	NA	NA	NA	NA	7.31	7.57	NA	NA	NA	NA	10.6	ND	ND	<20	<20	<20	40.2	NA	NA	NA	NA	13.7	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

Sample M2MW01 (4th Quarter 2010) has metals results but not VOCs. Values left blank for missing data.

Sample M2MW05 Duplicate (2nd Quarter 2011) had an elevated sample detection limit due to difficult sample matrix.

Table 2
Historical Groundwater Analytical Results
Site FTMM-02 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M2MW24									
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF2	LF3	LF4	LF5	LF5 Dup	LF6	LF7	LF7 Dup	LF8
Date Collected				3/10/2010	6/14/2010	9/24/2010	12/18/2010	12/18/2010	3/9/2011	6/16/2011	6/16/2011	8/22/2011
ANALYTE/Lab ID				10082.07	10264.07	10410.07	10562.04	10562.03	11097.06	11257.04	11257.03	11352.07
Volatile Organic Compounds (µg/L)												
Benzene	1	5	--	1.9	1.82	1.62	1.49	1.52	1.49	0.86	0.87	1.3
Chlorobenzene	50	100	--	7.82	6.48	8.07	8.73	8.86	6.58	4.14	4.21	4.5
Chloroethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	600	--	0.45 J	0.54	0.51	0.42 J	0.46 J	0.49 J	0.47 J	0.45 J	0.43 J
1,3-Dichlorobenzene	600	NLE	--	0.65	0.62	0.68	0.7	0.69	0.55	0.47 J	0.46 J	0.53 J
1,4-Dichlorobenzene	75	75	--	3.75	3.63	4.03	3.91	3.77	3.46	3.65	3.6	4.1
1,1-Dichloroethane	50	7	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	3	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	4.5
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	0.25 J	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	NA
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	9	70	--	NA	NA	NA	NA	NA	NA	NA	NA	ND
1,1,2-Trichloroethane	3	5	--	0.58	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	131	182	179	256	270	150	114	113	55.5
Semi-Volatile Organic Compounds (µg/L)												
Acenaphthene	400	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	2000	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	600	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	75	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
TICs*	500	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides/PCBs (µg/L)												
Aldrin	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC	0.02	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta-BHC	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-Chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-Chlordane	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0.03	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	2	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	0.05	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	0.2	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (µg/L)												
Aluminum	200	NLE	121000	36.7	ND	ND	<200	<200	<200	<200	<200	<200
Antimony	6	6	20.70	ND	11.5	16.7	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0
Arsenic	3	10	89.30	ND	0.83 ER	0.92 ER	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Barium	6000	2000	699.00	198	202	297	351	365	386	243	223	312
Beryllium	1	4	2.10	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	4	5	9.50	ND	1.11 ER	2.44 ER	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Calcium	NLE	NLE	45400.00	39900	44300	62400	62400	64600	75400	54400	50300	60200
Chromium	70	100	191.00	ND	ND	ND	<10	<10	<10	<10	<10	<10
Cobalt	NLE	NLE	18.30	ND	ND	ND	<50	<50	<50	<50	<50	<50
Copper	1300	1300	65.60	ND	ND	2.44 ER	<10	<10	<10	<10	<10	<10
Iron	300	NLE	431000	44200	47800	66300	70500	72900	79200	56100	51900	69200
Lead	5	15	22.70	ND	2.85 ER	6.24	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium	NLE	NLE	62700	3380	3720	4860	<5000	<5000	6210	<5000	<5000	<5000
Manganese	50	NLE	331	427	480	642	686	713	901	700	645	788
Mercury	2	2	0.26	0.11 ER	ND	ND	<0.5	<0.5	<0.20	<0.20	<0.20	<0.20
Nickel	100	NLE	187	1.15 ER	0.471 ER	0.629 ER	<10	<10	<10	<10	<10	<10
Potassium	NLE	NLE	137000	2680	2450	3120	<10000	<10000	<10000	<10000	<10000	<10000
Selenium	40	50	29.60	15.3	NR	ND	<10	<10	<10	<10	<10	<10
Silver	40	NLE	ND	ND	8.83	7.63	<10	<10	<10	<10	<10	<10
Sodium	50000	NLE	21500	9480	11000	14200	14800	15300	15400	15200	14200	21100
Thallium	2	2	5.50	1.17 ER	ND	ND	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Vanadium	60	NLE	108	4.71	ND	ND	<50	<50	<50	<50	<50	<50
Zinc	2000	NLE	233	7.64	2.41	ND	<20	<20	21	<20	<20	<20

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

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Sample M2MW01 (4th Quarter 2010) has metals results but not VOCs. Values left blank for missing data.

Sample M2MW05 Duplicate (2nd Quarter 2011) had an elevated sample detection limit due to difficult sample matrix.

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-02 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	M2MW02	M2MW03			M2MW04	M2MW05	M2MW06	M2MW07	M2MW08	M2MW09	M2MW10				
Sample ID			FTMM-2-GW-M2MW02	FTMM-2-GW-M2MW03	FTMM-2-GW-M2MW03-10.27	FTMM-2-GW-M2MW03-12.2	FTMM-2-GW-M2MW04	FTMM-2-GW-M2MW05	FTMM-2-GW-M2MW06	FTMM-2-GW-M2MW07	FTMM-2-GW-M2MW08	FTMM-2-GW-M2MW09	FTMM-2-GW-M2MW10	FTMM-2-GW-M2MW10	FTMM-2-GW-M2MW10-12.32	FTMM-2-GW-M2MW10-17.31	FTMM-2-GW-M2MW10-7.32
Sample Date			8/22/2013	8/21/2013	12/18/2014	11/24/2015	8/22/2013	8/22/2013	8/21/2013	8/21/2013	8/21/2013	8/21/2013	8/22/2013	8/27/2013	12/18/2014	12/18/2014	12/18/2014
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			LFPS	LFPS	PDB	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	PDB	Total	PDB
Volatile Organic Compounds (µg/l)																	
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	**0.64 J**	< 10	**1.3 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	**1.4 J**	< 10	**1 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	**4.1 J**	**5.8 J**	**3.9 J**	**0.32 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Acetone	6,000	NLE	**3.1 J**	< 50	< 5	**2.5 B**	< 5	< 5	**1.7 J**	< 5	< 5	**1.7 J**	**1.3 J**	NA	**1.7 J**	**2.2 J**	**2.5 J**
Benzene	1	5	< 1	**3.7 J**	**2.2 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Bromoform	4	80	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Chlorobenzene	50	100	**38**	**79**	**49**	**2.5 J**	**0.85 J**	< 1	**0.97 J**	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Chloroform	70	80	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Isopropylbenzene	700	NLE	**0.23 J**	< 10	**0.73 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 20	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 50	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NA	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
n-Butylbenzene	100	NLE	**0.48 J**	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	**0.72 J**	< 10	**0.35 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Styrene	100	100	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	NA	< 20 UJ	< 20	NA	NA	NA	NA	NA	NA	NA	NA	< 20 UJ	< 20 UJ	< 20 UJ
tert-Butylbenzene	100	NLE	**0.44 J**	< 10	**0.43 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 10	< 1	**0.3 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 30	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1
TIC VOCs (µg/l)																	
Total TIC, Volatile	500	NLE	**6.2**	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pesticides (µg/l)																	
4,4'-DDD	0.1	NLE	< 0.04	< 0.039	NA	NA	< 0.039	< 0.039	< 0.039	< 0.039	< 0.039	< 0.039	NA	< 0.039	NA	NA	NA
4,4'-DDE	0.1	NLE	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
4,4'-DDT	0.1	NLE	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
Aldrin	0.04	NLE	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
Alpha-BHC	0.02	NLE	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
Alpha-Chlordane	0.5	NLE	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
Beta-BHC	0.04	NLE	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
Delta-BHC	100	NLE	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
Dieldrin	0.03	NLE	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
Endosulfan I	40	NLE	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
Endosulfan II	40	NLE	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
Endosulfan sulfate	40	NLE	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
Endrin	2	2	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
Endrin aldehyde	100	2	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
Endrin ketone	100	NLE	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
Gamma-BHC/Lindane	0.03	0.2	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
gamma-Chlordane	NLE	NLE	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
Heptachlor	0.05	0.4	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
Heptachlor epoxide	0.2	0.2	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
Methoxychlor	40	40	< 0.026	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	NA	< 0.025	NA	NA	NA
Toxaphene	2	3	< 0.51	< 0.5	NA	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NA	< 0.5	NA	NA	NA

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-02 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	M2MW10	M2MW11						M2MW12	M2MW13	M2MW21				M2MW22
Sample ID			FTMM-2-GW-M2MW10-14.3	FTMM-2-GW-M2MW11	FTMM-2-GW-M2MW11-31.91	FTMM-2-GW-M2MW11-36.91	FTMM-2-GW-M2MW11-41.91	FTMM-2-GW-M2MW11-46.91	FTMM-2-GW-M2MW11-42	FTMM-2-GW-M2MW12	FTMM-2-GW-M2MW13	FTMM-2-GW-M2MW21	FTMM-2-GW-M2MW21-15.97	FTMM-2-GW-M2MW21-8.8	FTMM-2-GW-M2MW21-15.2	FTMM-2-GW-M2MW22
Sample Date			11/24/2015	8/21/2013	12/18/2014	12/18/2014	12/18/2014	12/18/2014	11/24/2015	8/21/2013	8/22/2013	8/22/2013	12/18/2014	12/18/2014	11/24/2015	8/23/2013
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			LFPS	LFPS	PDB	PDB	PDB	PDB	LFPS	LFPS	LFPS	LFPS	PDB	PDB	LFPS	LFPS
Volatile Organic Compounds (µg/l)																
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.1 J**	**0.59 J**	**0.58 J**	**0.67 J**	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.2 J**	**0.95 J**	**0.97 J**	**1.4 J**	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.92 J**	**4.6 J**	**2.1 J**	**2 J**	**2.7 J**	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1 UJ	< 1	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	< 5	< 5	**1.7 J**	< 5	< 5	**1.6 J**	< 5	**1.3 J**	**1.7 J**	**2.8 J**	< 5	< 5	**26 B**	**2.9 J**
Benzene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	**0.33 J**	< 1	< 1	**0.32 J**	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.63 J**	**25**	**22**	**16**	**20**	**3.4 J**
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.1 J**	**1 J**
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**26**
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	< 20	NA	< 20 UJ	< 20 UJ	< 20 UJ	< 20 UJ	< 20	NA	NA	NA	< 20 UJ	< 20 UJ	< 20	NA
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.24 J**	< 1	< 1	**0.27 J**	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.8 J**	< 1
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	NA	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
TIC VOCs (µg/l)																
Total TIC, Volatile	500	NLE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**48.3**
Pesticides (µg/l)																
4,4'-DDD	0.1	NLE	NA	< 0.039	NA	NA	NA	NA	NA	< 0.039	< 0.039	< 0.039	NA	NA	NA	< 0.039
4,4'-DDE	0.1	NLE	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
4,4'-DDT	0.1	NLE	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
Aldrin	0.04	NLE	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
Alpha-BHC	0.02	NLE	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
Alpha-Chlordane	0.5	NLE	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
Beta-BHC	0.04	NLE	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
Delta-BHC	100	NLE	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
Dieldrin	0.03	NLE	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
Endosulfan I	40	NLE	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
Endosulfan II	40	NLE	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
Endosulfan sulfate	40	NLE	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
Endrin	2	2	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
Endrin aldehyde	100	2	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
Endrin ketone	100	NLE	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
Gamma-BHC/Lindane	0.03	0.2	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
gamma-Chlordane	NLE	NLE	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
Heptachlor	0.05	0.4	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
Heptachlor epoxide	0.2	0.2	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
Methoxychlor	40	40	NA	< 0.025	NA	NA	NA	NA	NA	< 0.025	< 0.025	< 0.025	NA	NA	NA	< 0.025
Toxaphene	2	3	NA	< 0.5	NA	NA	NA	NA	NA	< 0.5	< 0.5	< 0.5	NA	NA	NA	< 0.5

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
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Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	M2MW22			M2MW23	M2MW24			
Sample ID			FTMM-2-GW-M2MW22-10.03	FTMM-2-GW-M2MW22-16.67	FTMM-2-GW-M2MW22-14	FTMM-2-GW-M2MW23	FTMM-2-GW-M2MW24	FTMM-2-GW-M2MW24-16.5	FTMM-2-GW-M2MW24-9.97	FTMM-2-GW-M2MW24-14.6
Sample Date			12/18/2014	12/18/2014	11/24/2015	8/22/2013	8/23/2013	12/18/2014	12/18/2014	11/24/2015
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	LFPS	LFPS	LFPS	PDB	PDB	LFPS
Volatile Organic Compounds (µg/l)										
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	**0.56 J**	**0.41 J**	**0.38 J**	**0.33 J**
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	**0.55 J**	**0.46 J**	**0.54 J**	**0.57 J**
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	**0.59 J**	**3.3 J**	**2.6 J**	**2.8 J**	**3.2 J**
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1 UJ	< 1 UJ	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**1.3 J**	< 5	**3.9 B**	**3.5 J**	**2 J**	< 5	< 5	**1.8 B**
Benzene	1	5	< 1	< 1	< 1	< 1	**0.7 J**	**0.46 J**	**0.49 J**	**0.33 J**
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	**1.5 J**	**2.8 J**	**1.6 J**	**4.9 J**	**4.4 J**	**5.1**	**5 J**	**6.2**
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	**4.2 J**	**3.5 J**	**3.7 J**	**5.9**
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	**1.9 J**	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	**23**	**17**	**73**	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	**0.24 J**	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	**1.8 J**	**0.34 J**	**0.39 J**	**1.9 J**
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	**3.1 J**	**1.7 J**	**1.4 J**	**4.4 J**
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	**3.6 J**	**1.5 J**	**1.9 J**	**4.7 J**
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	< 20 UJ	< 20 UJ	**150**	NA	NA	< 20 UJ	< 20 UJ	< 20
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	**0.9 J**	**0.6 J**	**0.75 J**	**1.1 J**
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
TIC VOCs (µg/l)										
Total TIC, Volatile	500	NLE	ND	ND	**80 J**	ND	**55.2**	**13 JN**	NA	NA
Pesticides (µg/l)										
4,4'-DDD	0.1	NLE	NA	NA	NA	< 0.039	< 0.039	NA	NA	NA
4,4'-DDE	0.1	NLE	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
4,4'-DDT	0.1	NLE	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
Aldrin	0.04	NLE	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
Alpha-BHC	0.02	NLE	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
Alpha-Chlordane	0.5	NLE	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
Beta-BHC	0.04	NLE	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
Delta-BHC	100	NLE	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
Dieldrin	0.03	NLE	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
Endosulfan I	40	NLE	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
Endosulfan II	40	NLE	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
Endosulfan sulfate	40	NLE	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
Endrin	2	2	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
Endrin aldehyde	100	2	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
Endrin ketone	100	NLE	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
Gamma-BHC/Lindane	0.03	0.2	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
gamma-Chlordane	NLE	NLE	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
Heptachlor	0.05	0.4	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
Heptachlor epoxide	0.2	0.2	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
Methoxychlor	40	40	NA	NA	NA	< 0.025	< 0.025	NA	NA	NA
Toxaphene	2	3	NA	NA	NA	< 0.5	< 0.5	NA	NA	NA

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-02 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Footnote:
1) All historical data collected prior to 2013 are reported as provided by others.
2) Number of Analyses is the number of detected and non-detected results excluding rejected results. Sample duplicate pairs have not been averaged.
3) NLE = no limit established.
4) ND = not detected in any background sample, no background concentration available.
5) Bold chemical detection

6) Chemical result qualifiers are assigned by the laboratory and are evaluated and modified (if necessary) during the data validation.
[blank] = detect, i.e. detected chemical result value.
J-DL = Elevated sample detection limit due to difficult sample matrix.
R = Rejected, data validation rejected the results.
U = non-detect, i.e. not detected at or above this value.
U-DL = Elevated sample detection limit due to difficult sample matrix.
U-ND = Analyte not detected in sample, but no detection or reporting limit provided.
E (or ER) = Estimated result.
D = Results from dilution of sample.
JN = Tentatively identified compound, estimated concentration.
J = estimated detected value due to a concentration below the reporting limit or due to discrepancies in meeting certain analyte-specific quality control.
B = Compound detected in the sample at a concentration less than or equal to 5 times (10 times for common lab contaminants) the blank concentration.

7) Chemical results greater than or equal to the action level (depending on criteria) are highlighted based on the Criteria that are present.
- Cell Shade values represent a result that is above the NJ Ground Water Quality Criteria ####

NJDEP Interim Specific GWQC values are presented for the NJ GWQS where there is not a Specific Ground Water Quality Criteria. A full list of compounds is available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

NJDEP Interim Generic GWQC values are presented for the NJ GWQS where there is not a NJDEP Interim Specific or a NJDEP Interim Specific GWQC. Available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

- Bold Outline represent a result that is above the USEPA 2015-05 MCL. ###

8) Criteria action level source document and web address.
- The NJ Ground Water Quality Criteria refers to the NJDEP Groundwater Quality Standards - Adopted July 22, 2010
- The 2015-06 USEPA MCL refers to the USEPA's Region 9 Regional Screening Levels (HQ=0.1) - 5/31/2015 (Last revised)

9) Wells sampled in the most recent fourth quarter sampling event are highlighted in yellow. Sample ID

Table 4
Review of Historical Groundwater Sampling Results
Site FTMM-02 Closed Solid Waste landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site Name/ Well ID	Interpretation of Historical and 2015 Results[1]		2015 Evaluation					Rationale for Monitoring for the Biennial Certifications for the CEA
	Are There Exceedances of the NJDEP GWQS (Yes or No) (If Yes, Identify Compound)[1]	Do Metals Exceed FTMM Background Concentration Yes or No (If Yes, identify Metal)	Seasonal Effect?[2] (Y/N)	Anomaly? (Y/N)	Exceedance part of overall trend? (Y/N)[3]	Well needed for sentinel purposes? (Y/N)	Retain Analyte/Well in the CEA (Yes or No)	
FTMM-02								
M2MW03	Benzene, Chlorobenzene	Yes	No	No	Yes	No	Yes	Monitor for benzene and chlorobenzene.
M2MW10	No	N/A	No	No	No	Yes	Yes	Well to be retained for down gradient monitoring of benzene.
M2MW11	No	N/A	No	No	Yes	No	No	Discontinue.
M2MW22	tert-butyl alcohol, MTBE	N/A	No	No	Yes	N/A	Yes	Monitor for TBA and MBTE
M2MW24	No	Yes	No	No	Yes	N/A	No	Discontinue.

Notes:

1. Have any of the analyte compounds exceeded the NJDEP GWQS in the 2015 data and the 4 previous quarterly data rounds or 2 previous annual rounds?
   a. If yes then keep analyte in the CEA, unless attributable to an off-site source.
   b. If no then remove this analyte from LTM list.
   c. a and b above may be occasionally superseded on a case-by-case basis, depending on site conditions.
2. Has any of the compounds exceeded the NJDEP GWQS seasonally (winter/spring vs. summer/fall) for the 4 previous data rounds?
3. N/A = Not Applicable, MTBE
4. Per the 2/5/15 NJDEP approval letter of the Final 2013 Baseline Groundwater Report monitoring wells M2MW02, M2MW04, M2MW05, M2MW06, M2MW07, M2MW08, M2MW09, M2MW12, M2MW13, and M2MW23 were removed from the long-term monitoring program for 2014 at FTMM-02. Groundwater monitoring for pesticides and metals were also discontinued in 2014 based on the NJDEP approval letter.

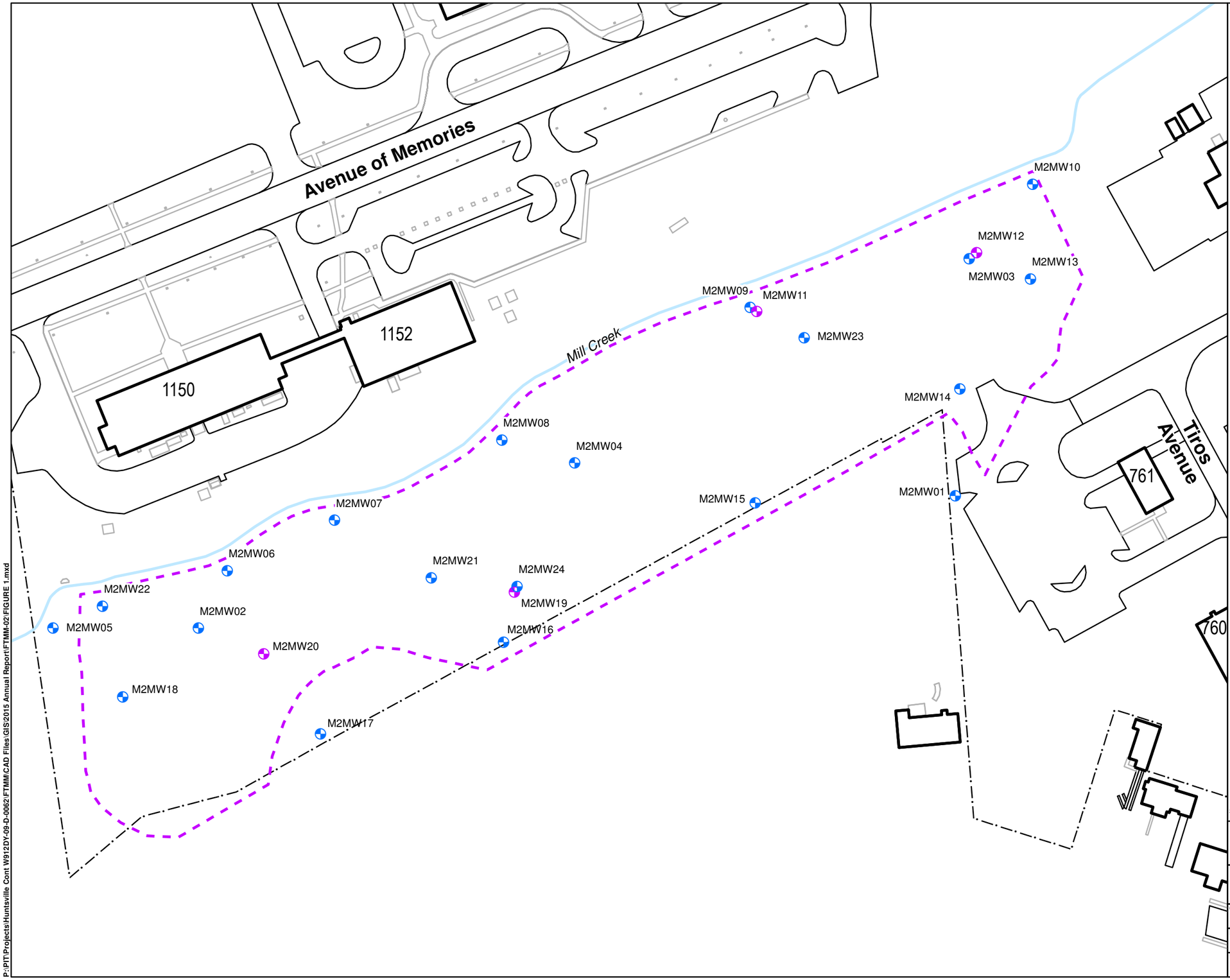
FIGURES

Figure 1 Layout of FTMM-02 Closed Solid Waste Landfill

Figure 2 FTMM-02 Shallow Groundwater Contours - October 6, 2015

Figure 3 FTMM-02 Deep Groundwater Contours - October 6, 2015

Figure 4 FTMM-02 Chemical Constituents above NJDEP GWQS 2015 Annual Sampling Event



LEGEND:

- Shallow Monitoring Well
- Depp Monitoring Well
- Surface Water Feature
- FTMM-02 Landfill Revised Boundary (2016)
- Installation Boundary

N

1 inch = 100 feet

0 50 100 200 Feet

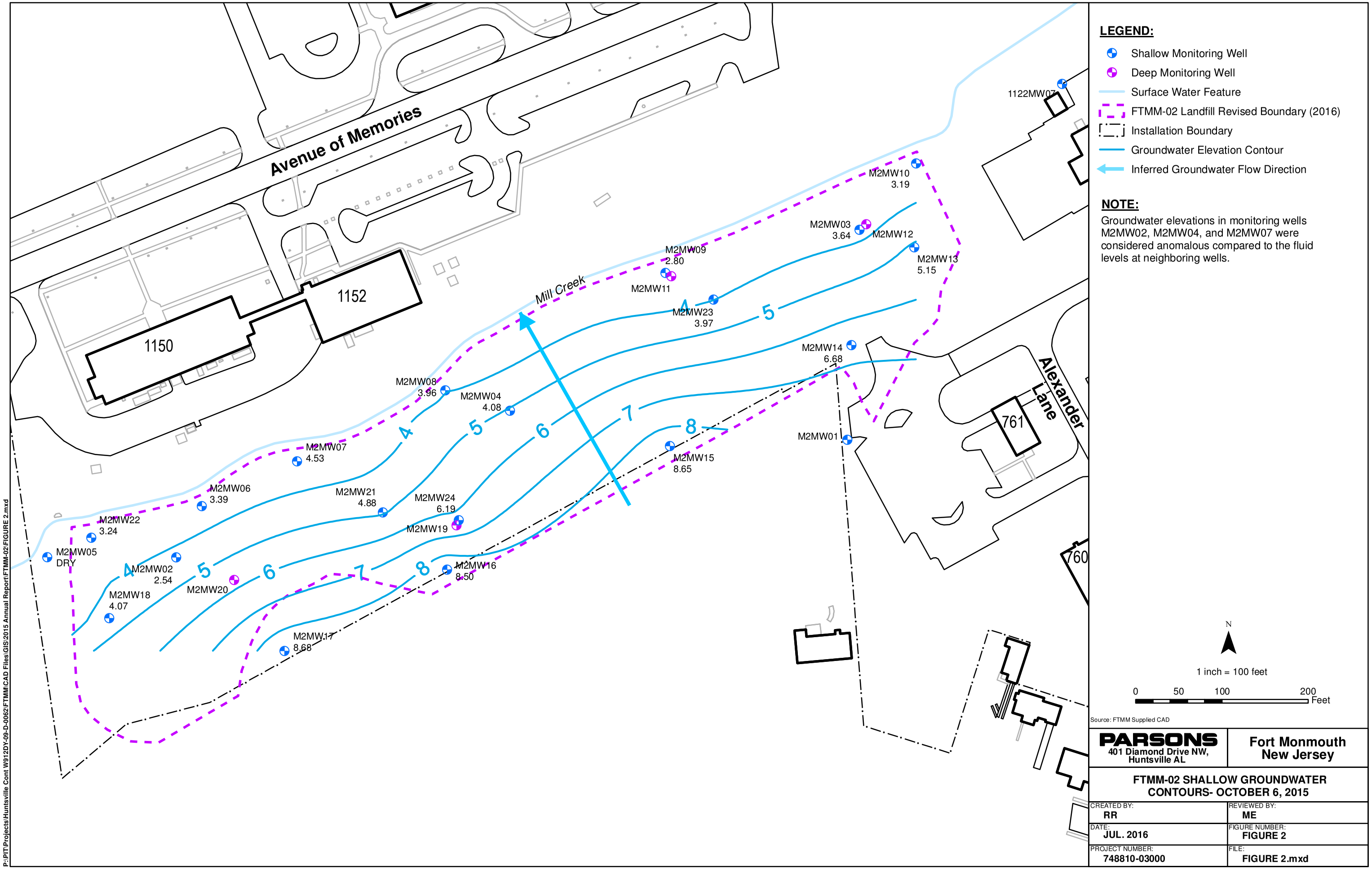
Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	**Fort Monmouth** **New Jersey**

LAYOUT OF FTMM-02
CLOSED SOLID WASTE LANDFILL

CREATED BY: RR	REVIEWED BY: ME
DATE: JUL. 2016	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-01000	FILE: FIGURE 1.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-02\FIGURE 1.mxd



LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Surface Water Feature
- FTMM-02 Landfill Revised Boundary (2016)
- Installation Boundary
- Groundwater Elevation Contour
- Inferred Groundwater Flow Direction

NOTE:

Groundwater elevations in monitoring wells M2MW02, M2MW04, and M2MW07 were considered anomalous compared to the fluid levels at neighboring wells.

N

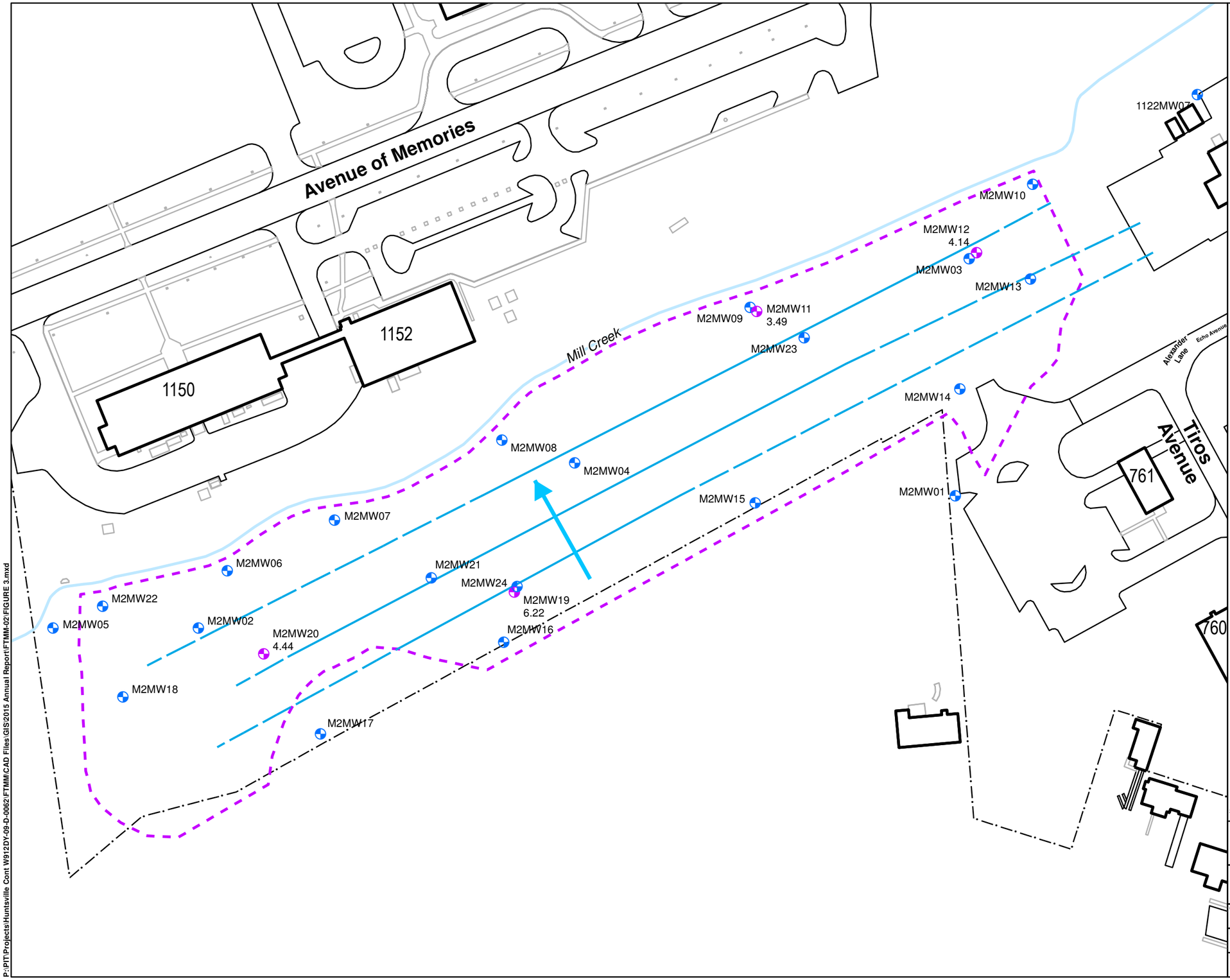
1 inch = 100 feet

0 50 100 200 Feet

Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey
FTMM-02 SHALLOW GROUNDWATER CONTOURS- OCTOBER 6, 2015	
CREATED BY: RR	REVIEWED BY: ME
DATE: JUL. 2016	FIGURE NUMBER: FIGURE 2
PROJECT NUMBER: 748810-03000	FILE: FIGURE 2.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-02\FIGURE 2.mxd



LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Surface Water Feature
- FTMM-02 Landfill Revised Boundary (2016)
- Installation Boundary
- Groundwater Elevation Contour
- Inferred Groundwater Elevation Contour
- Inferred Groundwater Flow Direction

N

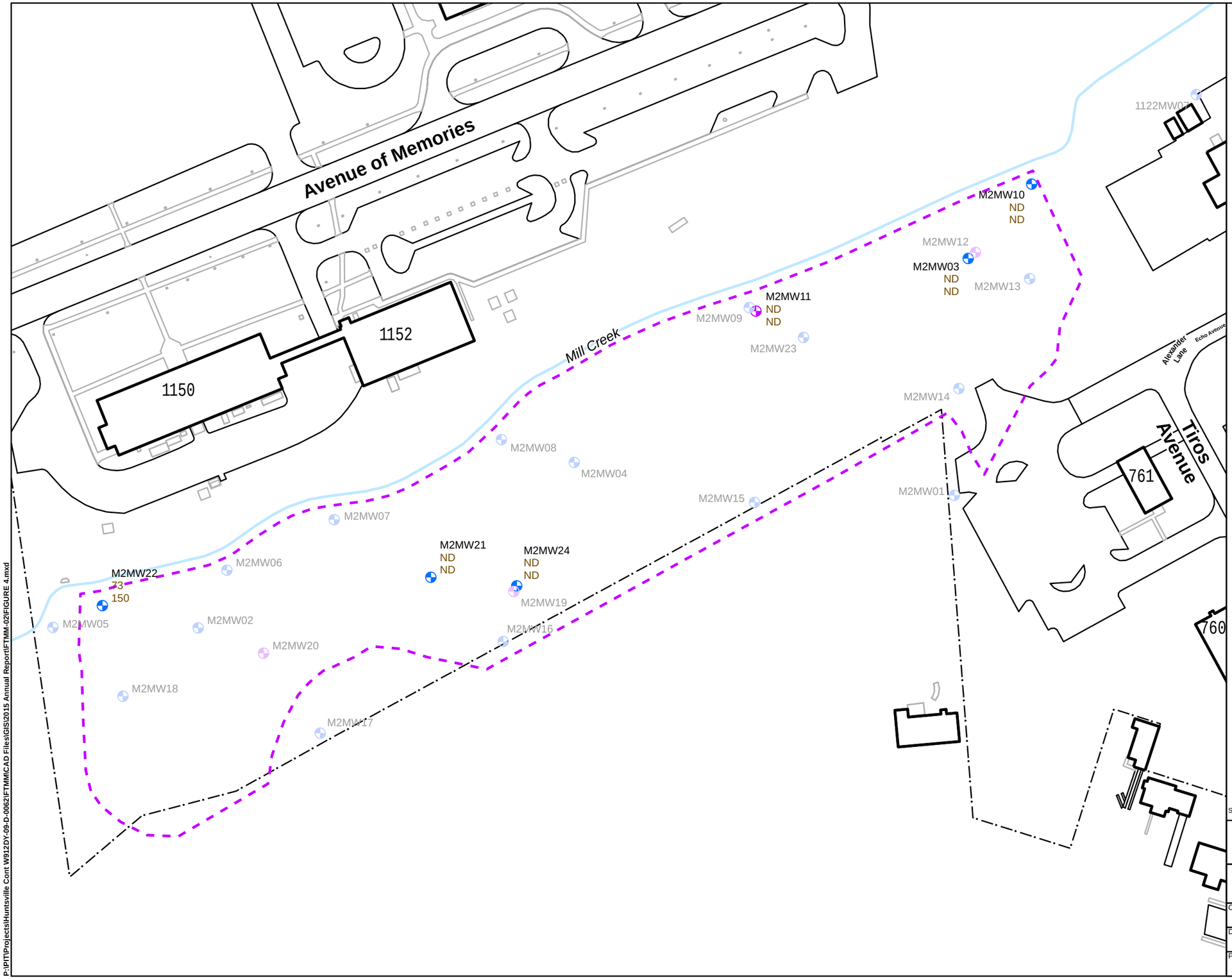
1 inch = 100 feet

0 50 100 200 Feet

Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	**Fort Monmouth** **New Jersey**
FTMM-02 DEEP GROUNDWATER CONTOURS- OCTOBER 6, 2015	
CREATED BY: **RR**	REVIEWED BY: **ME**
DATE: **JUL. 2016**	FIGURE NUMBER: **FIGURE 3**
PROJECT NUMBER: **748810-01000**	FILE: **FIGURE 3.mxd**

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-02\FIGURE 3.mxd



LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Surface Water Feature
- FTMM-02 Landfill Revised Boundary (2016)
- Installation Boundary

NOTE:

1. All concentrations are in ug/L.
2. Only those compounds with concentrations that exceed the NJDEP groundwater quality standard (GWQS) are shown on the figure.
3. Wells without values were not sampled during the 2015 Annual Sampling Event.

EXPLANATION:

M2MW11 — Sample ID
NA — Methyl Tertbutyl Ether (MBTE) Concentration
NA — Tert Butyl Alcohol (TBA) Concentration

J - Estimated Value
JN - Tentatively Identified Compound, Estimated Value
ND - Not Detected
NA - Not Analyzed
-- - Compound did not exceed the NJ GWQS this sampling round

Compound	NJDEP GWQS
Methyl Tertbutyl Ether	70
Tert Butyl Alcohol	100

N

1 inch = 100 feet

0 50 100 200 Feet

Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

FTMM-02 CHEMICAL CONSTITUENTS ABOVE NJDEP GWQS 2015 ANNUAL SAMPLING EVENT

CREATED BY: RR	REVIEWED BY: ME
DATE: JUL. 2016	FIGURE NUMBER: FIGURE 4
PROJECT NUMBER: 748810-03000	FILE: FIGURE 4.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMMCAD Files\GIS\2015 Annual Report\FTMM-02\FIGURE 4.mxd

ATTACHMENTS

Attachment A LFPS Field Sheets

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: FTMM-2
DATE: 11/24/15
WEATHER: 45°F clear

CONSULTING FIRM: PARSONS
FIELD PERSONNEL: CW

MONITOR WELL #: M2MW21
WELL PERMIT #:
WELL DEPTH: 20 feet
WELL DIAMETER: 4 inches
PUMP INTAKE DEPTH: 15.2 ft to TOC
SCREENED/OPEN INTERVAL: 5-20 ft to TOC

PID/FID READINGS:
BACKGROUND: 0 ppm
BENEATH OUTER CAP: 0 ppm
BENEATH INNER CAP: 0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 10.35 ft to TOC
DEPTH TO PRODUCT: — ft to TOC ; PRODUCT THICKNESS: — ft
MAKE/MODEL OF PUMP: QED Sample pro

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL:
SERIAL #:
TEMP. CORRECTION VALUE:

Time	PURGING	SAMPLING	pH (units) READING	pH CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN CHANGE	TURBIDITY (NTU) READING	TURBIDITY CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1255	X		6.33		0.925		-54.7		9.76		6.6		13.82		250	10.46
1300	X		6.33		0.928		-69.4		7.05		2.6		14.32		250	10.75
1305	X		6.17		0.929		-73.2		7.46		2.4		14.44		250	10.99
1310	X		6.35		0.921		-78.6		7.63		1.8		14.63		225	11.21
1315	X		6.22		0.902		-80.7		8.14		2.0		15.55		225	11.24
1320	X		6.18		0.859		-82.6		8.91		2.0		15.20		225	11.24
1325	X		6.16		0.857		-83.9		9.02		2.2		14.97		225	11.25
1330		X	6.15		0.855		-84.2		9.16		2.1		14.88		225	11.24

SAMPLING INFORMATION:
Sample ID: FTMM-2 ~~[illegible]~~ M2MW21 B2
Sample Time: 1330
Comments: —

QA/QC INFORMATION:
Duplicate Collected?: NO
MS/MSD Collected?: NO
Filtering?: NO

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: Clear
Odor: NA
Other:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: [signature] DATE: 11/25/15

REVIEWER NAME & SIGNATURE: DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: Ft Ord-2
DATE: 11/24/15
WEATHER: 48°F clear

CONSULTING FIRM: PARSONS
FIELD PERSONNEL: C. Watson

MONITOR WELL #: M2MW22
WELL PERMIT #:
WELL DEPTH: 20 feet
WELL DIAMETER: 4 inches
PUMP INTAKE DEPTH: 14 ft to TOC
SCREENED/OPEN INTERVAL: 5-20 ft to TOC

PID/FID READINGS:
BACKGROUND: 0 ppm
BENEATH OUTER CAP: 0 ppm
BENEATH INNER CAP: 0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 8.11 ft to TOC
DEPTH TO PRODUCT: — ft to TOC ; PRODUCT THICKNESS: — ft
MAKE/MODEL OF PUMP:

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL:
SERIAL #:
TEMP. CORRECTION VALUE:

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1355	X		6.33		0.514		-46.2		5.21		40.2		14.18		200	8.20
1400	X		6.39		0.515		-50.7		4.75		42.5		14.52		200	8.25
1405	X		6.26		0.517		-63.4		4.51		43.1		14.73		200	8.26
1410	X		6.24		0.517		-64.1		4.81		35.3		14.75		200	8.28
1415	X		6.23		0.517		-65.6		4.70		32.1		14.78		200	8.29
1420	X		6.23		0.516		-66.3		4.64		32.0		14.76		200	8.28
1425		X	6.23		0.516		-66.8		4.53		31.3		14.73		200	8.28

SAMPLING INFORMATION:
Sample ID: Ft Ord-2-GW-M2MW22-14
Sample Time: 1425
Comments:

QA/QC INFORMATION:
Duplicate Collected?: NO
MS/MSD Collected?:
Filtering?: NO

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: clear
Odor: organic
Other:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: C. Watson DATE: 11/24/15

REVIEWER NAME & SIGNATURE: DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF

PROJECT SITE/LOCATION: FTMM
CONSULTING FIRM: PARSONS
DATE: 11/24/15
FIELD PERSONNEL: A. Feshbach-Meiney
WEATHER: 45°F, Sunny
42.0
MONITOR WELL #: M2MW11
WELL DEPTH: 52.0 feet
PUMP INTAKE DEPTH: ~~37.0~~ ft to TOC
WELL PERMIT #: 29-42769
WELL DIAMETER: 5 inches
SCREENED/OPEN INTERVAL: 32.0 - 52.0 ft to TOC

PID/FID READINGS:
BACKGROUND: 0 ppm
BENEATH OUTER CAP: 0 ppm
BENEATH INNER CAP: ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 8.8 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP: QED Sample Pro 175" Bladder Pump

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 06G2068AB
TEMP. CORRECTION VALUE: -0.15

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1525	x		7.83		0.151		-173.4		1.40		0.0		13.07		325	9.00
1530	x		7.84		0.150		-189.3		1.06		0.02		13.07		325	9.03
1535	x		7.86		0.148		-202.9		0.49		0.05		12.99		325	9.04
1540	x		7.86		0.148		-209.6		0.37		0.01		13.01		325	9.02
1545	x		7.88		0.148		-216.4		0.34		0.05		12.98		325	9.04
1550	x		7.88		0.148		-218.3		0.34		0.06		12.92		325	9.04
1555	x		7.88		0.148		-217.2		0.34		0.08		13.01		325	9.03
1600		x	7.89		0.148		-217.9		0.34		0.09		13.03		325	9.03

SAMPLING INFORMATION:
Sample ID: FTMM-2-GW-MW11-42.0
Sample Time: 1600
Comments:

QA/QC INFORMATION:
Duplicate Collected?: no
MS/MSD Collected?: no
Filtering?: no

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity:
Odor:
Other:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Aaron Feshbach-Meiney
DATE: 11/24/15

REVIEWER NAME & SIGNATURE:
DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF

PROJECT SITE/LOCATION: FTMM
DATE: 11/24/15
WEATHER: 42°F, Sunny
CONSULTING FIRM: PARSONS
FIELD PERSONNEL: A. Feshbach-Meriney

MONITOR WELL #: M2MW03
WELL PERMIT #: 29-32586
WELL DEPTH: 17.15 feet
WELL DIAMETER: 5 inches
PUMP INTAKE DEPTH: 12.2 ft to TOC
SCREENED/OPEN INTERVAL: 7.1 - 17.1 ft to TOC

PID/FID READINGS:
BACKGROUND: 0 ppm
BENEATH OUTER CAP: 0 ppm
BENEATH INNER CAP: ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 7.2 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP: QED Sample Pro 175" Bladder Pump

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 06620688AB
TEMP. CORRECTION VALUE: -0.15

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)	
1330	x		5.99		0.719		33.8		2.87		21.6		13.73		175	7.51	
1335	x		6.03		0.754		35.0		3.20		19.5		13.87		175	7.70	
1340	x		6.08		0.754		33.6		4.04		22.5		13.96		175	7.82	
1345	x		6.14		0.757		31.2		5.57		20.8		13.95		175	7.95	
1350	x		6.19		0.756		28.9		6.08		24.5		13.96		175	8.10	
1355	x		6.23		0.757		27.5		6.19		16.8		13.88		125	8.12	
1400	x		6.24		0.757		26.4		6.54		15.9		13.77		125	8.15	✓
1405	x		6.29		0.756		24.6		6.91		13.7		13.69		150	8.15	
1410	x		6.32		0.755		23.6		7.05		11.9		13.66		150	8.16	
1415	x		6.34		0.755		22.2		7.07		11.3		13.67		150	8.18	✓
1420	x		6.36		0.755		21.5		7.22		12.8		13.61		150	8.18	✓
1425	x	x	6.38		0.753		20.1		7.23		12.6		13.64		150	8.17	✓
~~1430~~																	

SAMPLING INFORMATION:
Sample ID: FTMM - 2 - GW - MW03 - 12.2
Sample Time: 1425
Comments: no

QA/QC INFORMATION:
Duplicate Collected?: no
MS/MSD Collected?: no
Filtering?: no

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: clear
Odor: no
Other: none

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Aaron Feshbach-Meriney DATE: 11/24/15

REVIEWER NAME & SIGNATURE: DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF

PROJECT SITE/LOCATION: FTMM
DATE: 11/24/15
WEATHER: 30°F, cloudy
CONSULTING FIRM: PARSONS
FIELD PERSONNEL: A. Feshbach-Meeney

MONITOR WELL #: M2MW10
WELL PERMIT #: 29-39180
WELL DEPTH: 21.3 feet
WELL DIAMETER: 2 inches
PUMP INTAKE DEPTH: 14.35 ft to TOC
SCREENED/OPEN INTERVAL: 6.3 - 21.3 ft to TOC

PID/FID READINGS:
BACKGROUND: 0 ppm
BENEATH OUTER CAP: 0 ppm
BENEATH INNER CAP: ____ ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 7.4 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP: QED Sample Pro 175" Bladder Pump

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 06620683B
TEMP. CORRECTION VALUE: -0.15

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)	
1110	x		6.81		0.290		74.4		1.70		526.5		13.87		250	7.75	
1115	x		6.76		0.254		-140.8		0.56		549.2		14.29		250	7.81	
1120	x		6.77		0.247		-151.5		0.47		570.7		14.39		250	7.85	
1125	x		6.80		0.247		-160.6		0.37		440.0		14.32		250	7.89	
1130	x		6.80		0.245		-158.4		0.35		359.2		14.32		250	7.89	
1135	x		6.80		0.244		-153.2		0.35		310.4		14.37		250	7.87	
1140	x		6.80		0.243		-150.0		0.35		246.3		14.36		250	7.88	
1145	x		6.86		0.242		-148.8		0.34		187.3		14.35		250	7.93	
1150	x		6.80		0.241		-146.8		0.34		156.8		14.34		250	7.90	
1155	x		6.80		0.241		-145.6		0.33		139.7		14.32		250	7.90	
1200	x		6.80		0.240		-144.5		0.32		126.9		14.30		250	7.93	
1205	x		6.81		0.240		-143.0		0.32		106.1		14.30		250	7.94	
1210	x		6.81		0.240		-141.0		0.32		97.2		14.29		250	7.94	✓
1215	x		6.79		0.240		-139.2		0.32		91.0		14.27		250	7.96	✓
1220		x	6.80		0.240		-138.4		0.32		83.6		14.27		250	7.97	✓

SAMPLING INFORMATION:
Sample ID: FTMM-2-GW-MW10-14.3
Sample Time: 1220
Comments: none

QA/QC INFORMATION:
Duplicate Collected?: no
MS/MSD Collected?: no
Filtering?: no

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: clear
Odor: no
Other: none

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3% ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Aaron Feshbach-Meeney
DATE: 11/24/15

REVIEWER NAME & SIGNATURE:
DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: Frmm-2 | CONSULTING FIRM: PARSONS
DATE: 11/24/15 | FIELD PERSONNEL: C. Watson
WEATHER: 40's

MONITOR WELL #: FrmmW24 | WELL DEPTH: 20 feet | PUMP INTAKE DEPTH: 14.6 ft to TOC
WELL PERMIT #: | WELL DIAMETER: 4 inches | SCREENED/OPEN INTERVAL: 5-20 ft to TOC

PID/FID READINGS:
BACKGROUND: 0 ppm
BENEATH OUTER CAP: 0 ppm
BENEATH INNER CAP: 0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 9.14 ft to TOC
DEPTH TO PRODUCT: ft to TOC ; PRODUCT THICKNESS: — ft
MAKE/MODEL OF PUMP:

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL:
SERIAL #:
TEMP. CORRECTION VALUE:

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1505	X		6.68		0.638		-25.6		7.97		7.5		11.40		200	9.33
1510	X		6.61		0.640		-31.3		7.57		2.9		11.68		200	9.46
1515	X		6.22		0.652		-39.1		7.08		2.7		12.01		200	9.54
1520	X		6.14		0.657		-43.4		7.22		3.1		12.04		200	9.55
1525	X		6.17		0.665		-46.5		7.37		1.7		12.05		200	9.55
1530	X		6.17		0.665		-47.1		7.47		1.9		12.04		200	9.55
1535		X	6.14		0.666		-48.9		7.51		1.8		11.99		200	9.56

SAMPLING INFORMATION:
Sample ID: Frmm-2-GW-MrmW24-14.6
Sample Time: 1535
Comments: —

QA/QC INFORMATION:
Duplicate Collected?: NO
MS/MSD Collected?:
Filtering?:

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: Clear
Odor: none
Other: —

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: C. Wat — DATE: 11/24/15
REVIEWER NAME & SIGNATURE: — DATE:

APPENDIX B

FTMM-05: CLOSED SOLID WASTE LANDFILL

APPENDIX B: FTMM-05 Closed Solid Waste Landfill

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LIST OF ATTACHMENTS

Attachment	Title
A	NJDEP PDB Checklists

1.0 WATER LEVEL MEASUREMENTS AND WELL ASSESSMENT

Monitoring wells located within FTMM-05 were gauged on October 1, 2015. Monitoring well locations as well as other site features are provided in **Figure 1**. Details regarding the water level measurements are provided in **Table 1**. Groundwater elevations in monitoring wells ranged from 1.23 (M5MW09) to 9.97 (M5MW15) feet above mean sea level (amsl). The inferred shallow flow direction is to the west-northwest towards Mill and Parkers Creek, as shown in **Figure 2**.

During the groundwater gauging, the physical condition of FTMM-05 monitoring wells were assessed. The site monitoring wells were found to be in good condition.

2.0 GROUNDWATER SAMPLING

Groundwater samples were collected from four monitoring wells located at FTMM-05 as part of the annual (fourth quarter) 2015 groundwater sampling event. FTMM-05 is sampled on an annual basis. The groundwater sampling program included measuring the depths to water in monitoring wells at FTMM-05, and sample collection in selected wells using passive diffusion bags (PDBs). PDBs were deployed October 1, 2015 and samples were retrieved on December 14, 2015. A PDB sampling summary is provided in **Table 2**. Groundwater samples were analyzed for Target Compound List (TCL) volatile organic compounds and tentatively identified compounds (VOCs+TICs) via United States Environmental Protection Agency (USEPA) Method SW8260C.

The samples were collected in accordance with the New Jersey Department of Environmental Protection (NJDEP) Field Sampling Procedures Manual (FSPM) and the Sampling Analysis Plan (SAP). Field blanks, duplicates, matrix spike, matrix spike duplicate and quality assurance (QA) split samples were collected for every 5% of samples collected per parameter, per matrix, in accordance with the Quality Assurance Project Plan (QAPP). Trip blanks accompanied each cooler each day in which VOCs were collected for laboratory analysis.

Completed PDB field sheets for each well sampled are provided in **Attachment A**.

3.0 HISTORICAL GROUNDWATER SAMPLING RESULTS

From May 1997 to July 2003, groundwater monitoring wells were sampled for VOCs, semi-volatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), and metals at FTMM-05. From July 2003 to December 2009, monitoring wells were sampled solely for VOCs, and from December 2009 to June 2011, monitoring wells were sampled for VOCs and metals.

Since July 2011, the last four historical rounds of groundwater sampling were conducted on a bi-monthly basis and have been comprised of VOC and metals analysis. Several metals were detected in exceedance of their respective NJDEP Ground Water Quality Standards (GWQS) including aluminum, arsenic, iron, lead, manganese, and sodium. However, these metals did not exceed their background concentration established in the 1995 Weston Report.

FTMM-05 monitoring wells M5MW11, M5MW16, M5MW19, M5MW20, and M5MW23 exhibited detections above the NJDEP GWQS of either tetrachloroethene (PCE),

trichloroethene (TCE), vinyl chloride (VC) or a combination of these compounds within the last four historical groundwater monitoring events. Historical groundwater analytical results are presented in **Table 3**.

Groundwater analytical data from samples collected from 10 monitoring wells during the August 2013 event are presented in **Table 4**. Monitoring wells sampled in 2013 exhibited detections above the NJDEP GWQS for PCE (M5MW11, M5MW23), TCE (M5MW20, M5MW23), or VC (M5MW16). The detections from August 2013 appear to be part of a trend of low-level VOC exceedances.

The Final August 2013 Baseline Groundwater Sampling Report was approved by the NJDEP in their February 5, 2015 letter. Based on this approval, six out of the ten groundwater monitoring wells were removed from the long-term monitoring program, including M5MW10, M5MW12, M5MW13, M5MW14, M5WM18 and M5MW19.

During the annual (fourth quarter) 2014 sampling event, PCE was detected in four samples (M5MW11 [1.8J µg/L], M5MW16 [1.7J µg/L], M5MW20 [1.2J µg/L] and M5MW23 [23 µg/L]) at concentrations above the NJDEP GWQS of 1 µg/L. TCE was also detected at M5MW23 with an estimated concentration of 2J µg/L above the NJDEP GWQS of 1 µg/L. These detections are located upgradient of and limited to the northern portion of the FTMM-03 landfill.

Based on the annual 2014 results, it was recommended that groundwater sampling be continued at M5MW11, M5MW16, M5MW20, and M5MW23 for the analysis of VOCs. The Annual (Fourth Quarter) 2014 Groundwater Sampling Report was accepted by the NJDEP in their January 26, 2016 letter.

4.0 ANNUAL (FOURTH QUARTER) 2015 GROUNDWATER RESULTS

Groundwater analytical data from the four samples collected during the annual 2015 event are presented in **Table 4**. PCE continues to be detected in the four samples (M5MW11 [2.5J µg/L], M5MW16 [2.3J µg/L], M5MW20 [1.4J µg/L] and M5MW23 [4.8J µg/L]) at concentrations above the NJDEP GWQS of 1 µg/L. These detections are located upgradient of and limited to the northern portion of the FTMM-05 landfill. Concentrations of constituents detected in the groundwater above their NJDEP GWQS during the Annual 215 Sampling Event are shown on **Figure 3.**

5.0 FINDINGS AND RECOMMENDATIONS

Historically PCE (M5MW11, M5MW16, M5MW20, and M5MW23) and TCE (M5MW20 and M5MW23) have been detected in the groundwater in exceedance of their NJDEP GWQS, respectively. The concentrations appear to be part of an overall trend of low-level VOC exceedances above the NJDEP GWQS with the exception of M5MW23. While TCE concentrations at M5MW23 are part of this same trend, PCE concentrations have fluctuated over time ranging from 1.76J µg/L (December 2009) to 50 µg/L (August 2013), and back down to 4.8J µg/L during this sampling event (December 2015). These fluctuations indicate a

seasonal trend. Monitoring well MW5MW16 is located at the upgradient and outside the landfill northern boundaries, indicating an upgradient source of PCE.

An extensive groundwater sampling history has been established as part of the LTM program implemented for FTMM-05, and a comprehensive review of the data was performed as part of the October 2015 RIR which has been submitted to the NJDEP. Data collection under this LTM program is no longer necessary to support an investigation, and will be transitioned to a program which will support the Classification Exemption Area (CEA) recommended as a preferred remedy in the RIR at FTMM-05. Future groundwater sampling at FTMM-05 will be performed and reported under biennial certifications required for the future CEA. The CEA will include a biennial sampling frequency for select wells for an appropriate set of compounds that are representative of more recent groundwater conditions as shown in **Table 5**. The biennial sampling frequency will provide data for the biennial certifications with the sampling to be performed in the same year as the biennial CEA certification. The next biennial sampling for FTMM-05 is anticipated to be performed in 2017.

TABLES

Table 1 Groundwater Gauging Data and Elevations (October 1, 2015)

Table 2 PDB Sampling Summary

Table 3 Historical Groundwater Analytical Results

Table 4 Groundwater Analytical Results - 2013, 2014 and 2015

Table 5 Review of Historical Groundwater Sampling Results

Table 1
Groundwater Gauging Data and Elevations (October 1, 2015)
Site FTMM-05 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site/Well ID	Installation Date	Well Permit #	Y Coord. (North)	X Coord. (East)	Depth (ft. bgs)	Casing Length (ft)	Screen Length (ft)	TOC Elevation (ft)	Gauge Time	PID Reading (ppm)	Gauged Depth to Water (ft. TOC)	Gauged Depth to Bottom (ft. TOC)	Calculated Groundwater Elevation (ft)
Shallow Monitoring Wells													
M5MW09	12/10/2010	E201015344	539680.00	617420.00	20.0	5.0	15.0	7.90	13:24	0.0	6.67	22.00	1.23
M5MW10	12/14/1994	29-32574	539469.99	617436.96	15.0	5.0	10.0	6.05	13:03	0.0	4.16	17.45	1.89
M5MW11	12/15/1994	29-32575	539702.46	617582.95	15.0	5.0	10.0	10.61	10:50	0.0	8.01	17.05	2.60
M5MW12	8/27/1998	29-39179	539502.58	617410.72	15.0	5.0	10.0	8.58	13:00	0.0	5.21	16.20	3.37
M5MW13	8/31/1998	29-39178	539367.03	617437.99	20.0	5.0	10.0	4.33	13:07	0.0	1.03	19.03	3.30
M5MW14	8/31/1998	29-39177	539178.16	617477.33	20.0	5.0	10.0	4.66	12:44	0.0	1.83	20.40	2.83
M5MW15	3/24/1999	29-40120	539573.94	618119.39	18.0	5.0	13.0	17.40	10:18	0.0	7.43	17.00	9.97
M5MW16	3/24/1999	29-40121	539431.44	618031.86	16.0	3.0	13.0	14.08	10:05	0.0	7.49	18.10	6.59
M5MW18	3/26/1999	29-40123	539430.13	617754.75	18.0	3.0	15.0	13.35	10:22	0.0	8.30	20.52	5.05
M5MW19	3/26/1999	29-40124	539558.48	617759.52	18.0	3.0	15.0	12.93	10:25	0.0	8.04	20.33	4.89
M5MW20	3/25/1999	29-40122	539591.51	617684.12	14.0	4.0	10.0	11.55	10:55	0.0	6.83	16.36	4.72
M5MW23	3/26/1999	29-40125	539824.40	617693.49	18.0	3.0	15.0	11.91	10:42	0.0	8.91	18.25	3.00

Notes:
1) The synoptic round of water levels in the wells was collected on October 1, 2015.
2) Information on well permit number, X and Y coordinates, depth, screen length, screen interval and TOC elevation were provided by FTMM in a table in June 2013.
3) ft = feet
4) DTW = depth to water (measured from the top of well casing)
5) DTB = depth to bottom of well (measured from the top of well casing)
6) bgs = below ground surface
7) ppm = parts per million (of VOCs)
8) TOC = Top of Casing
9) Elevation = feet above mean sea level
10) N/A = information not available

Table 2
PDB Sampling Summary
Site FTMM-05 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site/Well ID	Profile Date	Depth (ft. bgs)	Screen Length (ft.)	Screen Interval (ft. bgs)	TOC Elev. (ft)	Gauge Date	Gauge Time	PID Reading (ppm)	Gauged DTW (ft. below TOC)	Gauged DTB (ft. below TOC)	GW Elevation (ft)	Saturated Screen Length (ft)	PDB Depth to Center of Bag #1 (ft. below TOC)	PDB Depth to Center of Bag #2 (ft. below TOC)	PDB Deploy Date	PDB Deploy Time	PDB Sample Date	PDB Sample Time
M5MW11	8/27/2013	15.0	10.0	5-15	10.61	10/1/2015	10:50	0.0	8.01	17.05	2.60	6.99	9.46	N/A	10/1/2015	10:50	12/14/2015	14:10
M5MW16	8/27/2013	16.0	13.0	3-16	14.08	10/1/2015	10:05	0.0	7.49	18.10	6.59	8.51	14.57	N/A	10/1/2015	10:05	12/14/2015	14:25
M5MW20	8/27/2013	14.0	10.0	4-15	11.55	10/1/2015	10:55	0.0	6.83	16.36	4.72	7.17	13.65	N/A	10/1/2015	10:55	12/14/2015	14:15
M5MW23	8/27/2013	18.0	15.0	3-18	11.91	10/1/2015	10:42	0.0	8.91	18.25	3.00	9.09	10.82	N/A	10/1/2015	10:42	12/14/2015	14:00

Notes:
1) Information on well depth, screen length, screen interval and TOC elevation were provided by FTMM in a table in June 2013.
2) DTW = depth to water (measured from the top of well casing)
3) DTB = depth to bottom of well (measured from the top of well casing)
4) TOC = Top of Casing
5) ft. AMSL = feet above mean sea level
6) LFPS = Low-Flow Purging and Sampling
7) PDB = Passive Diffusion Bag
8) N/A = not applicable
9) bgs = below ground surface

Table 3
Historical Groundwater Analytical Results
Site FTMM-05 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M5MW09			M5MW10																					
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF1	LF2	LF3	46	46 Dup	47	47 Dup	48	48 Dup	49	49 Dup	50	51		52	53	LF54		LF55		LF56		LF57	LF58	LF59	LF60
Date Collected				3/9/2011	6/8/2011	8/13/2011	3/11/2008	3/11/2008	6/3/2008	6/3/2008	8/25/2008	8/25/2008	11/10/2008	11/10/2008	2/26/2009	6/12/2009		9/18/2009	12/28/2009	3/31/2010		6/30/2010		9/26/2010		1/11/2011	2/23/2011	6/8/2011	8/13/2011
ANALYTE/Lab ID				1109501	1124305	1134008	80077.04	80077.03	80185.04	80185.03	80306.04	80306.03	80404.04	80404.03	90077.04	90235		90390.04	90490.04	10115		10298.1		10411.1		1101905	1106512	1124306	1134007
Volatile Organic Compounds (µg/L)																												
Acetone	6000	NLE	-	<0.32	<0.32	<7.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND		ND		<0.32	<0.32	<0.32	<7.6
Bromodichloromethane	1	80	-	<0.12	<0.12	<0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND		ND		<0.12	<0.12	<0.12	<0.23
2-Butanone	300	NLE	-	<0.22	<0.22	<2.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND		ND		<0.22	<0.22	<0.22	<2.9
Carbon disulfide	700	NLE	-	<0.12	<0.12	<0.18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND		ND		<0.12	<0.12	<0.12	<0.18
Chloroform	70	80	-	<0.35	<0.35	<0.21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND		ND		<0.35	<0.35	<0.35	<0.21
1,3-Dichlorobenzene	600	NLE	-	<0.16	<0.16	<0.29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND		ND		<0.16	<0.16	<0.16	<0.29
1,1-Dichloroethene	1	7	-	<0.15	<0.15	<0.28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND		ND		<0.15	<0.15	<0.15	<0.28
cis-l,2-Dichloroethene	70	70	-	<0.12	<0.12	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND		ND		<0.12	<0.12	<0.12	<0.22
trans -1,2-Dichloroethene	100	100	-	<0.14	<0.14	<0.31	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND		ND		<0.14	<0.14	<0.14	<0.31
Methylene chloride	3	5	-	<0.26	<0.26	<0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND		ND		<0.26	<0.26	<0.26	<0.2
Tetrachloroethene	1	5	-	<0.14	<0.14	<0.32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND		ND		<0.14	<0.14	<0.14	<0.32
Toluene	600	1000	-	<0.12	<0.12	<0.15	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.65	J	ND	ND	ND		ND		ND		<0.12	<0.12	<0.12	<0.15
Trichloroethene	1	5	-	<0.11	<0.11	<0.21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND		ND		<0.11	<0.11	<0.11	<0.21
Vinyl chloride	1	2	-	<0.22	<0.22	<0.27	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND		ND		<0.22	<0.22	<0.22	<0.27
TICs*	500	NLE	-	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND		ND		ND		0	0	0	0
Metals (µg/L)																												
Aluminum	200	NLE	121000	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	20.7		ND		13.8		<200	<200	<200	<200
Antimony	6	6	20.70	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	5.45	ER	ND		7.59	ER	<6.0	<6.0	<6.0	<6.0
Arsenic	3	10	89.30	<3.0	5.9	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	ND		ND		ND		<3.0	<3.0	<3.0	<3.0
Barium	6000	2000	699.00	473	817	416	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	24.6		24		36.2		<200	<200	<200	<200
Beryllium	1	4	2.10	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	ND		ND		ND		<1.0	<1.0	<1.0	<1.0
Cadmium	4	5	9.50	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	ND		ND		ND		<3.0	<3.0	<3.0	<3.0
Calcium	NLE	NLE	45400.00	94300	91600	54600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	14100		12600		14000		38800	33900	16600	13500
Chromium	70	100	191.00	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	ND		1.17	ER	1.15	ER	<10	<10	<10	<10
Cobalt	NLE	NLE	18.30	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	ND		ND		ND		<50	<50	<50	<50
Copper	1300	1300	65.60	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	ND		3.14	ER	ND		<10	<10	<10	<10
Iron	300	NLE	431000	17000	65600	29100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	4230		3660		3880		4990	4810	5190	4200
Lead	5	15	22.70	<3.0	10.4	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	ND		ND		ND		<3.0	<3.0	<3.0	<3.0
Magnesium	NLE	NLE	62700	11500	11100	8030	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	15500		17000		18800		44100	33200	20200	17800
Manganese	50	NLE	331	483	723	402	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	185		40.1		41.3		286	557	77.3	46.2
Mercury	2	2	0.26	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	ND		ND		ND		NA	<0.2	<0.2	<0.2
Nickel	100	NLE	187	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	ND		ND		0.42	ER	<10	<10	<10	<10
Potassium	NLE	NLE	137000	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	12700		17800		18800		27400	16000	17100	18600
Selenium	40	50	29.60	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	13.7		NR		ND		<10	<10	<10	<10
Silver	40	NLE	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	ND		0.81	ER	0.531		<10	<10	<10	<10
Sodium	50000	NLE	21500	39800	40100	46800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	59900		19800		25900		292000	267000	67400	37600
Thallium	2	2	5.50	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	ND		ND		ND		<2.0	<2.0	<2.0	<2.0
Vanadium	NLE	NLE	108	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	ND		ND		ND		<50	<50	<50	<50
Zinc	2000	NLE	233	589	831	175	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	3.3	ER	ND		ND		<20	<20	<20	<20

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for total VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP = NJDEP Ground Water Quality Standards as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

b - Elevated sample detection limit due to difficult sample matrix

MCLs for bromodichlormethane and chloroform are for total trihalomethanes

Table 3
Historical Groundwater Analytical Results
Site FTMM-05 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M5MW11																										
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	45	46	47	48	49	49 Dup	50	51	52	LF53	LF54	LF54 Dup	LF55	LF56	LF56 Dup	LF57	LF58	LF59	LF60	LF61	LF62	LF63
Date Collected				3/11/2008	6/3/2008	8/25/2008	11/10/2008	2/26/2009	2/26/2009	6/12/2009	9/18/2009	12/28/2009	3/30/2010	6/30/2010	6/30/2010	9/26/2010	1/5/2011	1/5/2011	2/23/2011	4/12/2011	4/15/2011	4/22/2011	4/29/2011	6/6/2011	7/5/2011
ANALYTE/Lab ID				80077	80185	80306.05	80404.05	90077.1	90077.03	90235.05	90390.05	90490.05	10113	10298	10298	10411.1	1100904	1100903	1106509	1114205	1114905	1116504	1118204	1123709	1127604
Volatile Organic Compounds (µg/L)																									
Acetone	6000	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<7.6
Bromodichloromethane	1	80	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.23
2-Butanone	300	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<2.9
Carbon disulfide	700	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.18
Chloroform	70	80	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.21
1,3-Dichlorobenzene	600	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.31 J	ND	ND	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.29
1,1-Dichloroethene	1	7	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.28
cis-l,2-Dichloroethene	70	70	-	0.4 J	0.53 J	8.4	6.93	1.55 J	1.28 J	2.6	11.56	1.62	ND	2.22	2.18	17.06	5.89	6.02	5.05	11.31	7.14	3.58	0.63	7.47	3
trans -1,2-Dichloroethene	100	100	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.31
Methylene chloride	3	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.2
Tetrachloroethene	1	5	-	2.02	2.93	ND	2.47	0.94	1.16 J	2.74	1	1.73	0.69	2.51	2.61	0.85	2.28	2.33	2.23	1.16	2.04	2.63	3.08	1.35	3.6
Toluene	600	1000	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.15
Trichloroethene	1	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.21
Vinyl chloride	1	2	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.27
TICs*	500	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	0	0	0	0	0	0	0	0
Metals (µg/L)																									
Aluminum	200	NLE	121000	NA	NA	NA	NA	NA	NA	NA	NA	NA	292	29.5	45.3	23.8	<200	<200	<200	NA	NA	NA	NA	<200	NA
Antimony	6	6	20.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	6.9 ER	9.99 ER	<6.0	<6.0	<6.0	NA	NA	NA	NA	<6.0	NA
Arsenic	3	10	89.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.04 ER	0.95 ER	1.07 ER	<3.0	<3.0	<3.0	NA	NA	NA	NA	5.2	NA
Barium	6000	2000	699.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.74	9.71	9.96	10.9	<200	<200	<200	NA	NA	NA	NA	<200	NA
Beryllium	1	4	2.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0	NA
Cadmium	4	5	9.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.555 ER	0.672 ER	1.71 ER	<3.0	<3.0	<3.0	NA	NA	NA	NA	<3.0	NA
Calcium	NLE	NLE	45400.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	13000	38000	38900	22700	20400	21000	16500	NA	NA	NA	NA	18000	NA
Chromium	70	100	191.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.7 ER	ND	ND	1.27 ER	<10	<10	<10	<0.01[1]	NA	NA	NA	<10	<0.01[a]
Cobalt	NLE	NLE	18.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	1.27	<50	<50	<50	NA	NA	NA	NA	<50	NA
Copper	1300	1300	65.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.42 ER	3.72 ER	3.86 ER	2.17 ER	<10	<10	<10	NA	NA	NA	NA	<10	NA
Iron	300	NLE	431000	NA	NA	NA	NA	NA	NA	NA	NA	NA	1670	3040	3780	38000	1500	1640	782	12600	3950	4690	2670	38600	7110
Lead	5	15	22.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	2.77 ER	4.45 ER	<3.0	<3.0	<3.0	NA	NA	NA	NA	<3.0	NA
Magnesium	NLE	NLE	62700	NA	NA	NA	NA	NA	NA	NA	NA	NA	1610	15300	15600	8810	5330	5510	<5000	NA	NA	NA	NA	6770	NA
Manganese	50	NLE	331	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.98 ER	26.4	29.8	70.5	<15	<15	<15	26.7	<15	<15	<15	63.2	25.3
Mercury	2	2	0.26	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12 ER	ND	ND	ND	NA	NA	<0.2	NA	NA	NA	NA	<0.2	NA
Nickel	100	NLE	187	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.47 ER	1.83 ER	2.05 ER	2.97 ER	<10	<10	<10	NA	NA	NA	NA	<10	NA
Potassium	NLE	NLE	137000	NA	NA	NA	NA	NA	NA	NA	NA	NA	2700	2760	2820	1580	<10000	<10000	<10000	NA	NA	NA	NA	<10000	NA
Selenium	40	50	29.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	21.4	NR	NR	ND	<10	<10	<10	NA	NA	NA	NA	<10	NA
Silver	40	NLE	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.11 ER	ND	ND	5	<10	<10	<10	NA	NA	NA	NA	<10	NA
Sodium	50000	NLE	21500	NA	NA	NA	NA	NA	NA	NA	NA	NA	3720	40400	41800	58400	22200	22800	18400	NA	NA	NA	NA	53600	NA
Thallium	2	2	5.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<2.0	<2.0	<2.0	NA	NA	NA	NA	<2.0	NA
Vanadium	NLE	NLE	108	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.15 ER	ND	0.735 ER	ND	<50	<50	<50	NA	NA	NA	NA	<50	NA
Zinc	2000	NLE	233	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.7 ER	133	139	147	86.2	89.5	82.7	NA	NA	NA	NA	88.9	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for total VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP = NJDEP Ground Water Quality Standards as per N.J.A.C. 7:9-6 (July 22, 2010)
USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)
LF = Low-flow sampling method used to collect sample
< = Analyte does not exceed the detection limit shown
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NA = Not analyzed
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NLE = No limit established
ER = Estimated Result
b - Elevated sample detection limit due to difficult sample matrix
MCLs for bromodichlormethane and chloroform are for total trihalomethanes

Table 3
Historical Groundwater Analytical Results
Site FTMM-05 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M5MW11				M5MW12																	
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF64	LF65	LF66	LF66 Dup	38	39	40	41	42	43	43 Dup	44	45	LF46	LF47	LF48	LF48 Dup	LF49	LF49 Dup	LF50	LF51
Date Collected				7/29/2011	8/13/2011	8/19/2011	8/19/2011	3/11/2008	6/3/2008	8/25/2008	11/10/2008	2/26/2009	6/12/2009	6/12/2009	9/18/2009	12/28/2009	3/31/2010	6/30/2010	9/26/2010	9/26/2010	1/11/2011	1/11/2011	2/23/2011	6/8/2011
ANALYTE/Lab ID				1131504	1134012	1134804		80077.06	80185.06	80306.06	80404.06	90077.06	90235.06	90235.03	90390.06	90490.06	10115.03	10298.1	10411.04	10411.03	1101904	1101903	1106511	1124304
Volatile Organic Compounds (µg/L)																								
Acetone	6000	NLE	-	<7.6	<7.6	<7.6	<7.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.32	<0.32	<0.32	<0.32
Bromodichloromethane	1	80	-	<0.23	<0.23	<0.23	<0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.12	<0.12	<0.12	<0.12
2-Butanone	300	NLE	-	<2.9	<2.9	<2.9	<2.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.22	<0.22	<0.22	<0.22
Carbon disulfide	700	NLE	-	<0.18	<0.18	<0.18	<0.18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.12	<0.12	<0.12	<0.12
Chloroform	70	80	-	<0.21	<0.21	<0.21	<0.21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.35	<0.35	<0.35	<0.35
1,3-Dichlorobenzene	600	NLE	-	<0.29	<0.29	<0.29	<0.29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.16	<0.16	<0.16	<0.16
1,1-Dichloroethene	1	7	-	<0.28	<0.28	<0.28	<0.28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.15	<0.15	<0.15	<0.15
cis-l,2-Dichloroethene	70	70	-	4.7	10.4	2.2	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.12	<0.12	<0.12	<0.12
trans -1,2-Dichloroethene	100	100	-	<0.31	<0.31	<0.31	<0.31	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.14	<0.14	<0.14	<0.14
Methylene chloride	3	5	-	<0.2	<0.2	<0.2	<0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.26	<0.26	<0.26	<0.26
Tetrachloroethene	1	5	-	1.1	<0.32	4.9	5.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.14	<0.14	<0.14	<0.14
Toluene	600	1000	-	<0.15	<0.15	<0.15	<0.15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.12	<0.12	<0.12	<0.12
Trichloroethene	1	5	-	<0.21	<0.21	<0.21	<0.21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.11	<0.11	<0.11	<0.11
Vinyl chloride	1	2	-	<0.27	<0.27	<0.27	<0.27	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.22	<0.22	<0.22	<0.22
TICs*	500	NLE	-	0	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	0	0	0
Metals (µg/L)																								
Aluminum	200	NLE	121000	NA	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46.6	24.2	14.6	8.4	<200	<200	<200	<200
Antimony	6	6	20.70	NA	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.31 ER	5.26 ER	27.5	24.1	<6.0	<6.0	<6.0	<6.0
Arsenic	3	10	89.30	NA	5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.03 ER	6.08	5.98	<3.0	<3.0	<3.0	<3.0
Barium	6000	2000	699.00	NA	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64.3	21.5	214	203	415	426	313	<200
Beryllium	1	4	2.10	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0
Cadmium	4	5	9.50	NA	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.692 ER	1.57 ER	1.44 ER	<3.0	<3.0	<3.0	<3.0
Calcium	NLE	NLE	45400.00	NA	19900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	26500	24700	131000	120000	99900	105000	68100	36200
Chromium	70	100	191.00	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.79 ER	ND	ND	<10	<10	<10	<10
Cobalt	NLE	NLE	18.30	NA	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<50	<50	<50	<50
Copper	1300	1300	65.60	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	4.17 ER	2.5 ER	2.57 ER	<10	<10	<10	<10
Iron	300	NLE	431000	31100	38500	6340	5720	NA	NA	NA	NA	NA	NA	NA	NA	NA	11600	9260	38800	35900	35700	37600	25400	21500
Lead	5	15	22.70	NA	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	4.43 ER	4.66 ER	<3.0	<3.0	<3.0	<3.0
Magnesium	NLE	NLE	62700	NA	7450	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32400	39000	143000	129000	76900	82200	47700	42000
Manganese	50	NLE	331	62.9	67.6	20.5	17.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	176	64.9	1230	1170	1320	1350	978	251
Mercury	2	2	0.26	NA	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	NA	NA	<0.2	<0.2
Nickel	100	NLE	187	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<10	<10	<10	<10
Potassium	NLE	NLE	137000	NA	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21000	25500	53600	47400	32200	34200	17700	23000
Selenium	40	50	29.60	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	42.9	NR	ND	ND	<10	<10	<10	<10
Silver	40	NLE	ND	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.38 ER	3.88	3.42	<10	<10	<10	<10
Sodium	50000	NLE	21500	NA	64500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	109000	89100	744000	683000	544000	625000	400000	173000
Thallium	2	2	5.50	NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<2.0	<2.0	<2.0	<2.0
Vanadium	NLE	NLE	108	NA	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.38 ER	ND	ND	ND	<50	<50	<50	<50
Zinc	2000	NLE	233	NA	109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.37 ER	ND	ND	ND	<20	<20	<20	<20

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
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MCLs for bromodichlormethane and chloroform are for total trihalomethanes

Table 3
Historical Groundwater Analytical Results
Site FTMM-05 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M5MW12			M5MW13																M5MW14		
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF51 Dup	LF52	LF52 Dup	42	43	44	45	46	47	48	49	LF50		LF51		LF52		LF53	LF54	LF55	LF56	41	42	43
Date Collected				6/8/2011	8/13/2011	8/13/2011	3/11/2008	6/3/2008	8/25/2008	11/10/2008	2/26/2009	6/12/2009	9/18/2009	12/28/2009	3/31/2010		6/30/2010		9/26/2010		1/11/2011	2/23/2011	6/8/2011	8/13/2011	3/11/2008	6/3/2008	8/25/2008
ANALYTE/Lab ID				1124303	1134004	11340	80077.07	80185.07	80306.07	80404.07	90077.07	90235.07	90390.07	90490.07	10115.05		10298.09		10411.06		1101906	1106513	1124307	1134005	80077.08	80185.08	80306.08
Volatile Organic Compounds (µg/L)																											
Acetone	6000	NLE	-	<0.32	<7.6	<7.6	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.32	<0.32	<0.32	<7.6	ND	ND	ND
Bromodichloromethane	1	80	-	<0.12	<0.23	<0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.12	<0.12	<0.12	<0.23	ND	ND	ND
2-Butanone	300	NLE	-	<0.22	<2.9	<2.9	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.22	<0.22	<0.22	<2.9	ND	ND	ND
Carbon disulfide	700	NLE	-	<0.12	<0.18	<0.18	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.12	<0.12	<0.12	<0.18	ND	ND	ND
Chloroform	70	80	-	<0.35	<0.21	<0.21	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.35	<0.35	<0.35	<0.21	ND	ND	ND
1,3-Dichlorobenzene	600	NLE	-	<0.16	<0.29	<0.29	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.16	<0.16	<0.16	<0.29	ND	ND	ND
1,1-Dichloroethene	1	7	-	<0.15	<0.28	<0.28	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.15	<0.15	<0.15	<0.28	ND	ND	ND
cis-l,2-Dichloroethene	70	70	-	<0.12	<0.22	<0.22	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.12	<0.12	<0.12	<0.22	ND	ND	ND
trans -1,2-Dichloroethene	100	100	-	<0.14	<0.31	<0.31	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.14	<0.14	<0.14	<0.31	ND	ND	ND
Methylene chloride	3	5	-	<0.26	<0.2	<0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.26	<0.26	<0.26	<0.2	ND	ND	ND
Tetrachloroethene	1	5	-	<0.14	<0.32	<0.32	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.14	<0.14	<0.14	<0.32	ND	ND	ND
Toluene	600	1000	-	<0.12	<0.15	<0.15	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.12	<0.12	<0.12	<0.15	ND	ND	ND
Trichloroethene	1	5	-	<0.11	<0.21	<0.21	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.11	<0.11	<0.11	<0.21	ND	ND	ND
Vinyl chloride	1	2	-	<0.22	<0.27	<0.27	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.22	<0.22	<0.22	<0.27	ND	ND	ND
TICs*	500	NLE	-	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		0	0	0	0	ND	ND	ND
Metals (µg/L)																											
Aluminum	200	NLE	121000	350	725	791	NA	NA	NA	NA	NA	NA	NA	NA	19.5		22.4		ND		<200	<200	<200	<200	NA	NA	NA
Antimony	6	6	20.70	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	6.28	ER	6.32	ER	30.1		<6.0	<6.0	<6.0	<6.0	NA	NA	NA
Arsenic	3	10	89.30	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		6.4		<3.0	<3.0	<3.0	<3.0	NA	NA	NA
Barium	6000	2000	699.00	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	114		91.7		359		436	238	<200	<200	NA	NA	NA
Beryllium	1	4	2.10	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<1.0	<1.0	<1.0	<1.0	NA	NA	NA
Cadmium	4	5	9.50	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	0.514	ER	ND		1.25	ER	<3.0	<3.0	<3.0	<3.0	NA	NA	NA
Calcium	NLE	NLE	45400.00	37700	33800	31900	NA	NA	NA	NA	NA	NA	NA	NA	28400		23900		154000		79500	49700	33400	29800	NA	NA	NA
Chromium	70	100	191.00	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<10	<10	<10	14.3	NA	NA	NA
Cobalt	NLE	NLE	18.30	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<50	<50	<50	<50	NA	NA	NA
Copper	1300	1300	65.60	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND		3.12	ER	1.94	ER	<10	<10	<10	<10	NA	NA	NA
Iron	300	NLE	431000	30800	28300	19700	NA	NA	NA	NA	NA	NA	NA	NA	8990		8550		24400		7830	7190	8040	8180	NA	NA	NA
Lead	5	15	22.70	<3.0	5	5.1	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		3.4	ER	<3.0	<3.0	<3.0	<3.0	NA	NA	NA
Magnesium	NLE	NLE	62700	43200	41600	40100	NA	NA	NA	NA	NA	NA	NA	NA	19200		20600		245000		82000	43700	27000	27100	NA	NA	NA
Manganese	50	NLE	331	271	192	160	NA	NA	NA	NA	NA	NA	NA	NA	320		195		1170		885	600	391	313	NA	NA	NA
Mercury	2	2	0.26	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		NA	<0.2	<0.2	<0.2	NA	NA	NA
Nickel	100	NLE	187	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<10	<10	<10	<10	NA	NA	NA
Potassium	NLE	NLE	137000	23800	25800	24400	NA	NA	NA	NA	NA	NA	NA	NA	9190		12600		68300		33300	15100	11300	14000	NA	NA	NA
Selenium	40	50	29.60	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	40.2		NR		ND		<10	<10	<10	<10	NA	NA	NA
Silver	40	NLE	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND		1.7	ER	0.529		<10	<10	<10	<10	NA	NA	NA
Sodium	50000	NLE	21500	188000	177000	171000	NA	NA	NA	NA	NA	NA	NA	NA	143000		106000		1870000		587000	378000	217000	233000	NA	NA	NA
Thallium	2	2	5.50	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<2.0	<2.0	<2.0	<2.0	NA	NA	NA
Vanadium	NLE	NLE	108	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	0.817	ER	ND		ND		<50	<50	<50	<50	NA	NA	NA
Zinc	2000	NLE	233	<20	32.9	40.3	NA	NA	NA	NA	NA	NA	NA	NA	1.26		ND		ND		<20	<20	<20	<20	NA	NA	NA

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
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MCLs for bromodichlormethane and chloroform are for total trihalomethanes

Table 3
Historical Groundwater Analytical Results
Site FTMM-05 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M5MW14														M5MW16							
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	44	45	46	47	47 Dup	LF48	LF49	LF50	LF51	LF52	LF53	LF54	LF55	38	39	40	41	42	43	44	45
Date Collected				11/10/2008	2/26/2009	6/12/2009	9/18/2009	9/18/2009	12/28/2009	3/31/2010	6/30/2010	9/26/2010	1/11/2011	2/23/2011	6/8/2011	8/13/2011	3/11/2008	6/3/2008	8/25/2008	11/10/2008	2/26/2009	6/12/2009	9/18/2009	12/28/2009
ANALYTE/Lab ID				80404.08	90077.08	90235.08	90390.08	90390.03	90490.08	10115.1	10298.1	10411.1	1101907	1106510	1124308	1134006	80077.09	80185	80306.1	80404.1	90077.1	90235.09	90390.09	90490.09
Volatile Organic Compounds (µg/L)																								
Acetone	6000	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.32	<0.32	<0.32	<7.6	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.12	<0.12	<0.12	<0.23	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.22	<0.22	<0.22	<2.9	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.12	<0.12	<0.12	<0.18	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.35	<0.35	<0.35	<0.21	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	600	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.16	<0.16	<0.16	<0.29	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1	7	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.15	<0.15	<0.15	<0.28	ND	ND	ND	ND	ND	ND	ND	ND
cis-l,2-Dichloroethene	70	70	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.12	<0.12	<0.12	<0.22	8.48	3.23	13.2	4.23	14.93	5.14	1.87	2.52
trans -1,2-Dichloroethene	100	100	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.14	<0.14	<0.14	<0.31	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	3	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.26	<0.26	<0.26	<0.2	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.14	<0.14	<0.14	<0.32	6.93	4.42	5.92	4.43	1.75 J	2.99	1.95	4.9
Toluene	600	1000	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.12	<0.12	<0.12	<0.15	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.11	<0.11	<0.11	<0.21	0.74 J	0.75 J	1.99 J	1.36 J	1.58 J	0.5 J	ND	ND
Vinyl chloride	1	2	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.22	<0.22	<0.22	<0.27	ND	ND	1.2 J	ND	1.28 J	ND	ND	ND
TICs*	500	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																								
Aluminum	200	NLE	121000	NA	NA	NA	NA	NA	NA	21.2	ND	ND	<200	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	6	6	20.70	NA	NA	NA	NA	NA	NA	10.4	6.04 ER	15.4	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	3	10	89.30	NA	NA	NA	NA	NA	NA	ND	1.24 ER	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA
Barium	6000	2000	699.00	NA	NA	NA	NA	NA	NA	26.9	25.6	30.7	<200	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	1	4	2.10	NA	NA	NA	NA	NA	NA	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4	5	9.50	NA	NA	NA	NA	NA	NA	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NLE	NLE	45400.00	NA	NA	NA	NA	NA	NA	43800	49600	63300	45600	51000	59700	54300	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	70	100	191.00	NA	NA	NA	NA	NA	NA	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NLE	NLE	18.30	NA	NA	NA	NA	NA	NA	ND	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1300	1300	65.60	NA	NA	NA	NA	NA	NA	ND	2.22 ER	1.02 ER	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	NLE	431000	NA	NA	NA	NA	NA	NA	1080	563	701	5010	1550	13900	11500	NA	NA	NA	NA	NA	NA	NA	NA
Lead	5	15	22.70	NA	NA	NA	NA	NA	NA	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NLE	NLE	62700	NA	NA	NA	NA	NA	NA	16000	16300	20600	20200	17800	18900	19800	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	50	NLE	331	NA	NA	NA	NA	NA	NA	16.5	14.7	17.4	73	27.6	112	79.3	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	2	0.26	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	<0.2	0.28	0.46	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	NLE	187	NA	NA	NA	NA	NA	NA	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NLE	NLE	137000	NA	NA	NA	NA	NA	NA	12900	12200	15700	13200	13200	12000	12700	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	40	50	29.60	NA	NA	NA	NA	NA	NA	60.8	NR	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Silver	40	NLE	ND	NA	NA	NA	NA	NA	NA	2.04	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	50000	NLE	21500	NA	NA	NA	NA	NA	NA	8060	8900	11100	42400	10200	64600	89400	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	2	2	5.50	NA	NA	NA	NA	NA	NA	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NLE	NLE	108	NA	NA	NA	NA	NA	NA	ND	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2000	NLE	233	NA	NA	NA	NA	NA	NA	1.44 ER	ND	ND	<20	<20	71.8	35.8	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for total VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP = NJDEP Ground Water Quality Standards as per N.J.A.C. 7:9-6 (July 22, 2010)
USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)
LF = Low-flow sampling method used to collect sample
< = Analyte does not exceed the detection limit shown
J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)
NA = Not analyzed
ND = Not detected
NLE = No limit established
ER = Estimated Result
b - Elevated sample detection limit due to difficult sample matrix
MCLs for bromodichlormethane and chloroform are for total trihalomethanes

Table 3
Historical Groundwater Analytical Results
Site FTMM-05 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

| | | | | M5MW16 | | | |

Table 3
Historical Groundwater Analytical Results
Site FTMM-05 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M5MW16			M5MW18																		M5MW19			
Round No.				LF58		LF59	38	39	40	41	42	43	44	45	45 Dup	LF46		LF47		LF48		LF49	LF50		LF51	LF52	38	39	40	41
Date Collected	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	8/13/2011		8/19/2011	3/11/2008	6/3/2008	8/25/2008	11/10/2008	2/26/2009	6/12/2009	9/18/2009	12/28/2009	12/28/2009	3/31/2010		6/29/2010		9/26/2010		1/4/2011	2/23/2011		6/6/2011	8/13/2011	3/11/2008	6/3/2008	8/25/2008	11/10/2008
ANALYTE/Lab ID				1134013		1134805	80077.10	80185.10	80306.10	80404.10	90077.10	90235.10	90390.10	90490.10	90490.03	10115		10294		10411.1		1100707	1106504		1123705	1134009	80077		80185		80306.1		80404.11
Volatile Organic Compounds (µg/L)																																
Acetone	6000	NLE	-	11.6		<7.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.32	<0.32		<0.32	<7.6	ND		ND		ND		ND
Bromodichloromethane	1	80	-	<0.23		<0.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.12	<0.12		<0.12	<0.23	ND		ND		ND		ND
2-Butanone	300	NLE	-	7.4		<2.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.22	<0.22		<0.22	<2.9	ND		ND		ND		ND
Carbon disulfide	700	NLE	-	<0.18		<0.18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.12	<0.12		<0.12	<0.18	ND		ND		ND		ND
Chloroform	70	80	-	1.7		0.86	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.35	<0.35		<0.35	<0.21	ND		ND		ND		ND
1,3-Dichlorobenzene	600	NLE	-	<0.29		<0.29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.16	<0.16		<0.16	<0.29	ND		ND		ND		ND
1,1-Dichloroethene	1	7	-	<0.28		<0.28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.15	<0.15		<0.15	<0.28	ND		ND		ND		ND
cis-l,2-Dichloroethene	70	70	-	50		29.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.12	<0.12		<0.12	<0.22	1.25	J	1.11	J	0.57	J	8.5
trans -1,2-Dichloroethene	100	100	-	<0.31		<0.31	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.14	<0.14		<0.14	<0.31	ND		ND		ND		ND
Methylene chloride	3	5	-	0.5	J	<0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.26	<0.26		<0.26	<0.2	ND		ND		ND		ND
Tetrachloroethene	1	5	-	3.2		3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.14	<0.14		<0.14	<0.32	0.58	J	ND		0.75	J	2.01
Toluene	600	1000	-	<0.15		<0.15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.12	<0.12		<0.12	<0.15	ND		ND		ND		ND
Trichloroethene	1	5	-	3.2		2	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.28	J	ND		ND		<0.11	0.16	J	<0.11	<0.21	1.34	J	ND		0.33	J	3.68
Vinyl chloride	1	2	-	7.1		3.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		<0.22	<0.22		<0.22	<0.27	ND		ND		ND		ND
TICs*	500	NLE	-	0		0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		0	0		0	0	ND		ND		ND		ND
Metals (µg/L)																																
Aluminum	200	NLE	121000	7510		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30.6		ND		44.2		<200	<200		<200	<200	NA		NA		NA		NA
Antimony	6	6	20.70	<6.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		9.81	ER	<6.0	<6.0		<6.0	<6.0	NA		NA		NA		NA
Arsenic	3	10	89.30	24.5		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.77	ER	3.26	ER	1.38	ER	<3.0	<3.0		9.4	3.3	NA		NA		NA		NA
Barium	6000	2000	699.00	242		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	131		112		259		<200	<200		416	229	NA		NA		NA		NA
Beryllium	1	4	2.10	1.2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<1.0	<1.0		<1.0	<1.0	NA		NA		NA		NA
Cadmium	4	5	9.50	<3.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.23	ER	1.07	ER	0.661	ER	<3.0	<3.0		<3.0	<3.0	NA		NA		NA		NA
Calcium	NLE	NLE	45400.00	30300		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27200		27200		23400		19500	27500		28300	34000	NA		NA		NA		NA
Chromium	70	100	191.00	90.4		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<10	<10		<10	<10	NA		NA		NA		NA
Cobalt	NLE	NLE	18.30	<50		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<50	<50		<50	<50	NA		NA		NA		NA
Copper	1300	1300	65.60	<10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		4.85	ER	ND		<10	<10		<10	<10	NA		NA		NA		NA
Iron	300	NLE	431000	49800		12700	NA	NA	NA	NA	NA	NA	NA	NA	NA	32400		21700		19100		4270	22800		76400	33200	NA		NA		NA		NA
Lead	5	15	22.70	12.2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		2.99	ER	ND		<3.0	<3.0		<3.0	<3.0	NA		NA		NA		NA
Magnesium	NLE	NLE	62700	13700		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4830		4770		4030		<5000	<5000		<5000	5880	NA		NA		NA		NA
Manganese	50	NLE	331	112		73.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	61.4		63.2		42.6		41.9	69.7		74.1	81.6	NA		NA		NA		NA
Mercury	2	2	0.26	<0.2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		NA	<0.2		<0.2	<0.2	NA		NA		NA		NA
Nickel	100	NLE	187	39.7		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		0.446	ER	1.1	ER	<10	<10		<10	<10	NA		NA		NA		NA
Potassium	NLE	NLE	137000	11800		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9040		8550		9820		<10000	<10000		<10000	<10000	NA		NA		NA		NA
Selenium	40	50	29.60	14.4		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21.9		NR		ND		<10	<10		<10	<10	NA		NA		NA		NA
Silver	40	NLE	ND	<10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		4.35	ER	2.09		<10	<10		<10	<10	NA		NA		NA		NA
Sodium	50000	NLE	21500	615000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9240		8930		19700		16700	10600		10700	17000	NA		NA		NA		NA
Thallium	2	2	5.50	<2.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<2.0	<2.0		<2.0	<2.0	NA		NA		NA		NA
Vanadium	NLE	NLE	108	<50		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.17	ER	ND		ND		<50	<50		<50	<50	NA		NA		NA		NA
Zinc	2000	NLE	233	144		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.9	ER	3.32	ER	5.55		<20	<20		<20	<20	NA		NA		NA		NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

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MCLs for bromodichlormethane and chloroform are for total trihalomethanes

Table 3
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Site FTMM-05 Closed Solid Waste Landfill
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Fort Monmouth, New Jersey

| | | | | M5MW19 | | | |

Table 3
Historical Groundwater Analytical Results
Site FTMM-05 Closed Solid Waste Landfill
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Fort Monmouth, New Jersey

				M5MW20										M5MW23																					
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF47		LF48		LF49	LF50	LF51		LF52		38		39	40		41	42	43	44	45	LF46		LF47		LF48		LF49	LF50	LF51		LF52	
Date Collected				6/29/2010		9/26/2010		1/4/2011	2/23/2011	6/6/2011		8/13/2011		3/11/2008		6/3/2008	8/25/2008		11/10/2008	2/26/2009	6/12/2009	9/18/2009	12/28/2009	3/30/2010		6/29/2010		9/26/2010		1/4/2011	2/23/2011	4/12/2011		4/15/2011	
ANALYTE/Lab ID				10294.03		10411.1		1100705.00	1106508	1123707		1134011		80077.13		80185.13	80306.1		80404.13	90077.13	90235.13	90390.13	90490.13	10113		10294		10411.1		1100708	1106506	1114206		1114906	
Volatile Organic Compounds (µg/L)																																			
Acetone	6000	NLE	-	ND		ND		<0.32	<0.32	<0.32		<7.6		ND		ND	ND		ND	ND	ND	ND	ND	ND		ND		ND		<0.32	<0.32	<0.32		<0.32	
Bromodichloromethane	1	80	-	ND		ND		<0.12	<0.12	<0.12		<0.23		ND		ND	ND		ND	ND	ND	ND	ND	ND		ND		ND		<0.12	<0.12	<0.12		<0.12	
2-Butanone	300	NLE	-	ND		ND		<0.22	<0.22	<0.22		<2.9		ND		ND	ND		ND	ND	ND	ND	ND	ND		ND		ND		<0.22	<0.22	<0.22		<0.22	
Carbon disulfide	700	NLE	-	ND		ND		<0.12	<0.12	<0.12		<0.18		ND		ND	ND		ND	ND	ND	ND	ND	ND		ND		ND		<0.12	<0.12	<0.12		<0.12	
Chloroform	70	80	-	ND		ND		<0.35	<0.35	0.91		1.4		ND		ND	ND		ND	ND	ND	ND	ND	ND		ND		ND		<0.35	<0.35	<0.35		<0.35	
1,3-Dichlorobenzene	600	NLE	-	ND		ND		<0.16	<0.16	<0.16		<0.29		ND		ND	ND		ND	ND	ND	ND	ND	ND		ND		ND		<0.16	<0.16	<0.16		<0.16	
1,1-Dichloroethene	1	7	-	0.36	J	ND		<0.15	<0.15	<0.15		<0.28		ND		ND	ND		ND	ND	ND	ND	ND	ND		ND		ND		<0.15	<0.15	<0.15		<0.15	
cis-l,2-Dichloroethene	70	70	-	111.95		35.5		8.79	4.65	1.23		4		ND		ND	0.29	J	ND	ND	ND	ND	ND	ND		ND		ND		<0.12	<0.12	<0.12		<0.12	
trans -1,2-Dichloroethene	100	100	-	0.29	J	ND		<0.14	<0.14	<0.14		<0.31		ND		ND	ND		ND	ND	ND	ND	ND	ND		ND		ND		<0.14	<0.14	<0.14		<0.14	
Methylene chloride	3	5	-	ND		ND		<0.26	<0.26	<0.26		<0.2		ND		ND	ND		ND	ND	ND	ND	ND	ND		ND		ND		<0.26	<0.26	<0.26		<0.26	
Tetrachloroethene	1	5	-	11.13		2.21		0.67	0.99	1.5		1.7		1.86	J	4.5	2.74		3.34	29.15	8.26	3.94	1.76	36.3		39.94		46.64		29.04	2.56	30.03		21.14	
Toluene	600	1000	-	ND		ND		<0.12	<0.12	<0.12		<0.15		ND		ND	ND		ND	ND	ND	ND	ND	ND		ND		ND		<0.12	<0.12	<0.12		<0.12	
Trichloroethene	1	5	-	51.25		6.57		1.3	0.78	0.43	J	0.99		ND		ND	ND		ND	ND	ND	ND	ND	1.77		2.15		2.62		1.82	<0.11	<0.11		<0.11	
Vinyl chloride	1	2	-	ND		ND		<0.22	<0.22	<0.22		<0.27		ND		ND	ND		ND	ND	ND	ND	ND	ND		ND		ND		<0.22	<0.22	<0.22		<0.22	
TICs*	500	NLE	-	ND		7		0	0	0		0		ND		ND	ND		ND	ND	ND	ND	ND	ND		ND		ND		0	0	0		0	
Metals (µg/L)																																			
Aluminum	200	NLE	121000	245		412		472	252	2630		1140		NA		NA	NA		NA	NA	NA	NA	NA	479		51.1		54.9		<200	<200	NA		NA	
Antimony	6	6	20.70	5.07	ER	6.68	ER	<6.0	<6.0	<6.0		<6.0		NA		NA	NA		NA	NA	NA	NA	NA	7.41	ER	ND		11.5		<6.0	<6.0	NA		NA	
Arsenic	3	10	89.30	0.78	ER	0.65	ER	<3.0	<3.0	<3.0		<3.0		NA		NA	NA		NA	NA	NA	NA	NA	2.46	ER	3.76	ER	2.85	ER	<3.0	<3.0	NA		NA	
Barium	6000	2000	699.00	28.7		13.7		<200	<200	<200		<200		NA		NA	NA		NA	NA	NA	NA	NA	15.1		19.1		37.4		<200	<200	NA		NA	
Beryllium	1	4	2.10	0.108	ER	0.068	ER	<1.0	<1.0	<1.0		<1.0		NA		NA	NA		NA	NA	NA	NA	NA	ND		ND		ND		<1.0	<1.0	NA		NA	
Cadmium	4	5	9.50	0.719	ER	ND		<3.0	<3.0	<3.0		<3.0		NA		NA	NA		NA	NA	NA	NA	NA	ND		0.764	ER	0.766	ER	<3.0	<3.0	NA		NA	
Calcium	NLE	NLE	45400.00	27200		22800		11900	28800	11300		10400		NA		NA	NA		NA	NA	NA	NA	NA	16000		15600		17700		14900	11100	NA		NA	
Chromium	70	100	191.00	1.46	ER	3.19	ER	<10	<10	23.7		10.3		NA		NA	NA		NA	NA	NA	NA	NA	1.97	ER	ND		ND		<10	<10	<0.01	a	NA	
Cobalt	NLE	NLE	18.30	3.09		0.989		<50	<50	<50		<50		NA		NA	NA		NA	NA	NA	NA	NA	ND		ND		ND		<50	<50	NA		NA	
Copper	1300	1300	65.60	3.83	ER	1.73	ER	<10	<10	<10		<10		NA		NA	NA		NA	NA	NA	NA	NA	ND		4.45	ER	1.47	ER	<10	<10	NA		NA	
Iron	300	NLE	431000	7860		2090		3790	1250	7090		3950		NA		NA	NA		NA	NA	NA	NA	NA	9070		16600		20100		10300	1150	1260		1760	
Lead	5	15	22.70	ND		2.52		<3.0	<3.0	<3.0		<3.0		NA		NA	NA		NA	NA	NA	NA	NA	ND		ND		3.1	ER	<3.0	<3.0	NA		NA	
Magnesium	NLE	NLE	62700	9310		7110		<5000	7100	<5000		<5000		NA		NA	NA		NA	NA	NA	NA	NA	2570		2570		3920		<5000	<5000	NA		NA	
Manganese	50	NLE	331	71.4		38.2		27.8	24.5	<15		18		NA		NA	NA		NA	NA	NA	NA	NA	38.4		49.9		54.4		41.8	<15	24.3		<15	
Mercury	2	2	0.26	ND		ND		NA	<0.2	<0.2		<0.2		NA		NA	NA		NA	NA	NA	NA	NA	0.13	ER	ND		ND		NA	<0.2	NA		NA	
Nickel	100	NLE	187	8.27		4.09	ER	<10	<10	<10		<10		NA		NA	NA		NA	NA	NA	NA	NA	0.514	ER	ND		ND		<10	<10	NA		NA	
Potassium	NLE	NLE	137000	4230		4150		<10000	<10000	<10000		<10000		NA		NA	NA		NA	NA	NA	NA	NA	8500		7140		8430		<10000	<10000	NA		NA	
Selenium	40	50	29.60	NR		ND		<10	<10	<10		<10		NA		NA	NA		NA	NA	NA	NA	NA	18.7		NR		ND		<10	<10	NA		NA	
Silver	40	NLE	ND	1.63	ER	ND		<10	<10	<10		<10		NA		NA	NA		NA	NA	NA	NA	NA	ND		3.25	ER	3.02		<10	<10	NA		NA	
Sodium	50000	NLE	21500	43600		77600		62300	128000	83600		79000		NA		NA	NA		NA	NA	NA	NA	NA	9990		7520		7880		<10000	59600	NA		NA	
Thallium	2	2	5.50	1.3	ER	ND		<2.0	<2.0	<2.0		<2.0		NA		NA	NA		NA	NA	NA	NA	NA	ND		ND		ND		<2.0	<2.0	NA		NA	
Vanadium	NLE	NLE	108	ND		1.85	ER	<50	<50	<50		<50		NA		NA	NA		NA	NA	NA	NA	NA	1.92	ER	ND		ND		<50	<50	NA		NA	
Zinc	2000	NLE	233	55.2		24	ER	<20	<20	<20		<20		NA		NA	NA		NA	NA	NA	NA	NA	4.63	ER	2.76	ER	2.76	ER	<20	<20	NA		NA	

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for total VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP = NJDEP Ground Water Quality Standards as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

b - Elevated sample detection limit due to difficult sample matrix

MCLs for bromodichlormethane and chloroform are for total trihalomethanes

Table 3
Historical Groundwater Analytical Results
Site FTMM-05 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M5MW23												
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF53	LF54	LF55		LF56		LF57	LF58	LF59
Date Collected				4/22/2011	4/29/2011	6/6/2011		7/5/2011		7/29/2011	8/13/2011	8/19/2011
ANALYTE/Lab ID				1116506	1118206	1123708		1E+06		1131506	1134010	1134806
Volatile Organic Compounds (µg/L)												
Acetone	6000	NLE	-	<0.32	<0.32	<0.32		<7.6		<7.6	<7.6	<7.6
Bromodichloromethane	1	80	-	<0.12	<0.12	<0.12		<0.23		<0.23	<0.23	<0.23
2-Butanone	300	NLE	-	<0.22	<0.22	<0.22		<2.9		<2.9	<2.9	<2.9
Carbon disulfide	700	NLE	-	<0.12	<0.12	<0.12		<0.18		<0.18	<0.18	<0.18
Chloroform	70	80	-	<0.35	<0.35	<0.35		<0.21		<0.21	<0.21	<0.21
1,3-Dichlorobenzene	600	NLE	-	<0.16	<0.16	<0.16		<0.29		<0.29	<0.29	<0.29
1,1-Dichloroethene	1	7	-	<0.15	<0.15	<0.15		<0.28		<0.28	<0.28	<0.28
cis-l,2-Dichloroethene	70	70	-	<0.12	<0.12	<0.12		<0.22		<0.22	<0.22	<0.22
trans -1,2-Dichloroethene	100	100	-	<0.14	<0.14	<0.14		<0.31		<0.31	<0.31	<0.31
Methylene chloride	3	5	-	<0.26	<0.26	<0.26		1.2	J	<0.2	<0.2	<0.2
Tetrachloroethene	1	5	-	18.94	22.07	47.83		12.5		7.5	5.2	3.3
Toluene	600	1000	-	<0.12	<0.12	<0.12		<0.15		<0.15	<0.15	<0.15
Trichloroethene	1	5	-	<0.11	<0.11	<0.11		<0.21		<0.21	<0.21	<0.21
Vinyl chloride	1	2	-	<0.22	<0.22	<0.22		<0.27		<0.27	<0.27	<0.27
TICs*	500	NLE	-	0	0	0		0		0	0	0
Metals (µg/L)												
Aluminum	200	NLE	121000	NA	NA	<2000	b	NA		NA	<200	NA
Antimony	6	6	20.70	NA	NA	<60	b	NA		NA	<6.0	NA
Arsenic	3	10	89.30	NA	NA	<30	b	NA		NA	<3.0	NA
Barium	6000	2000	699.00	NA	NA	<2000	b	NA		NA	<200	NA
Beryllium	1	4	2.10	NA	NA	<10	b	NA		NA	<1.0	NA
Cadmium	4	5	9.50	NA	NA	<30	b	NA		NA	<3.0	NA
Calcium	NLE	NLE	45400.00	NA	NA	135000	b	NA		NA	9070	NA
Chromium	70	100	191.00	NA	NA	<100	b	<0.01	a	NA	<10	NA
Cobalt	NLE	NLE	18.30	NA	NA	<500	b	NA		NA	<50	NA
Copper	1300	1300	65.60	NA	NA	<100	b	NA		NA	<10	NA
Iron	300	NLE	431000	1210	428	88400	b	2250		2210	1630	6670
Lead	5	15	22.70	NA	NA	<302		NA		NA	<3.0	NA
Magnesium	NLE	NLE	62700	NA	NA	<50000	b	NA		NA	<5000	NA
Manganese	50	NLE	331	<15	<15	245	b	<15		<15	<15	<15
Mercury	2	2	0.26	NA	NA	<0.2	b	NA		NA	<0.2	NA
Nickel	100	NLE	187	NA	NA	<100	b	NA		NA	<10	NA
Potassium	NLE	NLE	137000	NA	NA	<100000	b	NA		NA	<10000	NA
Selenium	40	50	29.60	NA	NA	<100	b	NA		NA	<10	NA
Silver	40	NLE	ND	NA	NA	<100	b	NA		NA	<10	NA
Sodium	50000	NLE	21500	NA	NA	474000	b	NA		NA	31000	NA
Thallium	2	2	5.50	NA	NA	<20	b	NA		NA	<2.0	NA
Vanadium	NLE	NLE	108	NA	NA	<500	b	NA		NA	<50	NA
Zinc	2000	NLE	233	NA	NA	<200	b	NA		NA	<20	NA

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for total VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP = NJDEP Ground Water Quality Standards as per N.J.A.C. 7:9-6 (July 22, 2010)
USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)
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NA = Not analyzed
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ER = Estimated Result
b - Elevated sample detection limit due to difficult sample matrix
MCLs for bromodichlormethane and chloroform are for total trihalomethanes

Table 4
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-05 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	M5MW10		M5MW11						M5MW12	
Sample ID			FTMM-5-GW-M5MW10-14.9	FTMM-5-GW-M5MW10-9.9	FTMM-5-GW-M5MW11-14.4	FTMM-5-GW-M5MW11-14.4	FTMM-5-GW-M5MW11-9.46	FTMM-5-GW-M5MW11-9.46	FTMM-5-GW-M5MW111-9.46	FTMM-5-GW-M5MW11-9.46	FTMM-5-GW-M5MW12-10.4	FTMM-5-GW-M5MW12-15.4
Sample Date			8/27/2013	8/27/2013	8/27/2013	8/27/2013	8/27/2013	12/18/2014	12/14/2015	12/14/2015	8/27/2013	8/27/2013
QA/QC			SA	SA	SA	SA	SA	SA	DU	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB	PDB	PDB	PDB	PDB	PDB	PDB
Volatile Organic Compounds (µg/l)												
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**2.1 J**	**2 J**	**1.6 J**	**1.4 J**	**2 J**	**2.5 J**	**3 B**	**3.2 B**	**1.7 J**	**1.6 J**
Benzene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	**0.33 J**	< 1	< 1	**0.47 J**	**0.53 J**	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	NA	NA	NA	NA	< 20 UJ	< 20	< 20	NA	NA
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	**1 J**	**3.5 J**	**1.1 J**	**1.8 J**	**2.4 J**	**2.5 J**	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total TIC, Volatile	500	NLE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Table 4
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Site FTMM-05 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	M5MW13		M5MW14			M5MW16				
Sample ID			FTMM-5-GW-M5MW13-12.87	FTMM-5-GW-M5MW13-7.87	FTMM-5-GW-M5MW14-13.65	FTMM-5-GW-M5MW14-18.63	FTMM-5-GW-M5MW14-8.63	FTMM-5-GW-M5MW16-14.57	FTMM-5-GW-M5MW16-8.8	FTMM-5-GW-M5MW16-14.5	FTMM-5-GW-M5MW16-14.57	FTMM-5-GW-M5MW16-14.57
Sample Date			8/27/2013	8/27/2013	8/27/2013	8/27/2013	8/27/2013	8/27/2013	8/27/2013	8/28/2013	12/18/2014	12/14/2015
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB	PDB	PDB	PDB	LFPS	PDB	PDB
Volatile Organic Compounds (µg/l)												
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**1.8 J**	**1.5 J**	**2.2 J**	**2 J**	**2.8 J**	**2.2 J**	**2.3 J**	**1.5 J**	**3.3 J**	**4.6 B**
Benzene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	**0.54 J**	**0.37 J**	**0.5 J**	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	**8**	**6**	**8.7**	**1.6 J**	**1.1 J**
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	NA	NA	NA	NA	NA	NA	NA	< 20 UJ	< 20
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	**0.3 J**	**0.67 J**	**0.86 J**	**1.7 J**	**2.3 J**
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total TIC, Volatile	500	NLE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	**0.45 J**	**0.43 J**	**0.47 J**	< 1	**0.25 J**
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	**2.2 J**	**1.2 J**	**2.6 J**	< 1	< 1

Table 4
Groundwater Analytical Results - 2013, 2014 and 2015
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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	M5MW18		M5MW19		M5MW20					M5MW23
Sample ID			FTMM-5-GW-M5MW18-16.98	FTMM-5-GW-M5MW18-8.6	FTMM-5-GW-M5MW19-10.34	FTMM-5-GW-M5MW19-16.35	FTMM-5-GW-M5MW20-13.65	FTMM-5-GW-M5MW20-8.65	FTMM-5-GW-M5MW20-13.65	FTMM-5-GW-M5MW20-13.65	FTMM-5-GW-M5MW20-13.65	FTMM-5-GW-M5MW23-10.82
Sample Date			8/27/2013	8/27/2013	8/27/2013	8/27/2013	8/27/2013	8/27/2013	8/28/2013	12/18/2014	12/14/2015	8/27/2013
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB	PDB	PDB	LFPS	PDB	PDB	PDB
Volatile Organic Compounds (µg/l)												
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**2.5 J**	**1.4 J**	**2.2 J**	**2.7 J**	**1.9 J**	**1.7 J**	< 5	**2.1 J**	**2.7 B**	**1.8 J**
Benzene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	**1.2 J**	< 1	**42**	**15**	**46**	**2.5 J**	**3.5 J**	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	NA	NA	NA	NA	NA	NA	< 20 UJ	< 20	NA
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	**0.45 J**	< 1	**0.57 J**	**1.2 J**	**1.4 J**	**50**
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total TIC, Volatile	500	NLE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	**0.72 J**	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	**0.22 J**	**0.69 J**	< 1	**5.4**	**2.8 J**	**8**	**0.73 J**	**0.88 J**	**1.3 J**
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Table 4
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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	M5MW23		
Sample ID			FTMM-5-GW-M5MW23-17.02	FTMM-5-GW-M5MW23-10.82	FTMM-5-GW-M5MW23-10.82
Sample Date			8/27/2013	12/18/2014	12/14/2015
QA/QC			SA	SA	SA
Sample Method			PDB	PDB	PDB
Volatile Organic Compounds (µg/l)					
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1
Acetone	6,000	NLE	**1.4 J**	**1.4 J**	**3.1 B**
Benzene	1	5	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	< 20 UJ	< 20
tert-Butylbenzene	100	NLE	< 1	< 1	< 1
Tetrachloroethene	1	5	**47**	**23**	**4.8 J**
Toluene	600	1,000	< 1	< 1	< 1
Total TIC, Volatile	500	NLE	ND	ND	ND
Total Xylenes	1,000	10,000	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1
Trichloroethene	1	5	**2.1 J**	**2.1 J**	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1

Table 4
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Footnote:
1) All historical data collected prior to 2013 are reported as provided by others.
2) Number of Analyses is the number of detected and non-detected results excluding rejected results. Sample duplicate pairs have not been averaged.
3) NLE = no limit established.
4) ND = not detected in any background sample, no background concentration available.

5) Chemical result qualifiers are assigned by the laboratory and is typically evaluated and modified (if necessary) by during data validation.
[blank] = detect, i.e. detected chemical result value.
B = Compound detected in the sample and its associated blank sample.
R = Rejected, data validation rejected the results.
U = non-detect, i.e. not detected equal to or above this value.
U-DL = Elevated sample detection limit due to difficult sample matrix.
U-ND = Analyte not detected in sample, but no detection or reporting limit provided.
J = estimated (detect or non-detect) value.
E (or ER) = Estimated result.
D = Results from dilution of sample.
J-DL = Elevated sample detection limit due to difficult sample matrix.
JN = Tentatively identified compound, estimated concentration.

6) Chemical results greater than or equal to the action level (depending on criteria) are highlighted based on the Criteria that are present.
- Cell Shade values represent a result that is above the NJ Ground Water Quality Criteria ####

NJDEP Interim Specific GWQC values are presented for the NJ GWQS where there is not a Specific Ground Water Quality Criteria. A full list of compounds is available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

NJDEP Interim Generic GWQC values are presented for the NJ GWQS where there is not a XXXXX or a NJDEP Interim Specific GWQC. Available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

- Bold Outline represent a result that is above the USEPA 2014-05 MCL. ###

7) Criteria action level source document and web address.
- The NJ Ground Water Quality Criteria refers to the NJDEP Groundwater Quality Standards - Adopted July 22, 2010
  http://www.state.nj.us/dep/wms/bwqsa/docs/njac79C.pdf
- The 2014-05 USEPA MCL refers to the USEPA's Region 9 Regional Screening Levels (HQ=1.0) - 5/31/2014 (Last revised)
  http://www.epa.gov/region9/superfund/prg/

8) Wells sampled in the most recent fourth quarter sampling event are highlighted in yellow. Sample ID

Table 5
Review of Historical Groundwater Sampling Results
Site FTMM-05 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site Name/ Well ID	Interpretation of Historical and 2015 Results [1]			2015 Evaluation					Rationale for Monitoring for the Biennial Certifications for the CEA
	Chem Class / Analyte	Does it Exceed NJDEP GWQS (Yes or No) (If Yes, identify compound)	Do Metals Exceed FTMM Background Concentration (Yes or No) (If Yes, identify Metal)	Seasonal Effect?[2] (Y/N)	Anomaly? (Y/N)	Exceedance part of overall trend? (Y/N)	Well needed for sentinel purposes? (Y/N)	Retain Analyte/Well in the CEA (Yes or No)	
FTMM-05									
M5MW11	VOC	PCE	N/A	No	No	Yes	N/A	Yes	PCE exceedance part of low-level trend
M5MW16		TCE, PCE,VC	N/A	No	No	Yes	N/A	Yes	Upgradient monitoring well. PCE exceedance part of low-level trend, continue to monitor for TCE, PCE, and VC
M5MW20		PCE, TCE	N/A	No	No	Yes	N/A	Yes	PCE exceedance part of low-level trend, continue to monitor for PCE and TCE
M5MW23		PCE, TCE	N/A	No	No	Yes	N/A	Yes	TCE and PCE part of overall exceedance trend., continue to monitor for PCE and TCE

Notes

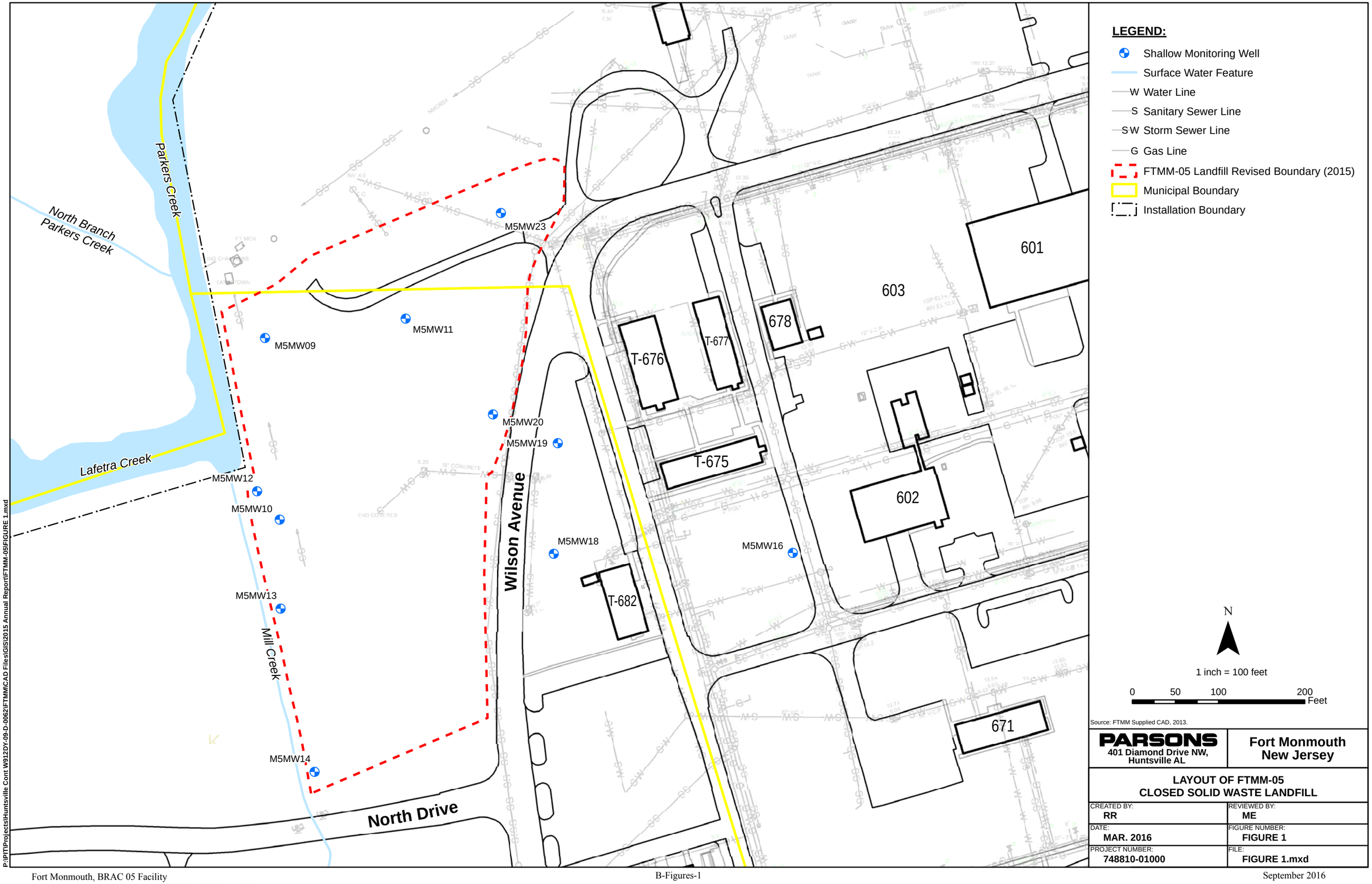
1. Has any of the compounds exceeded the NJDEP GWQS in the annual 2015 data and the 4 previous quarterly data rounds or 2 previous annual rounds?
   a. If yes then include analyte in CEA.
   b. If no then remove this analyte from LTM list.
   c. a and b above may be occasionally superceded on a case-by-case basis, depending on site conditions.
2. Has any of the compounds exceeded the NJDEP GWQS seasonally (winter/spring vs. summer/fall) for the 4 previous data rounds?
3. PCE - tetrachloroethene
4. TCE - trichloroethene
5. VC - vinyl chloride
6. N/A = Not applicable
7. Per the 2/5/15 NJDEP approval letter of the Final 2013 Baseline Groundwater Report, groundwater monitoring wells M5MW10, M5MW12, M5MW13, M5MW14, M5WM18 and M5MW19 were removed from the long-term monitoring sampling program.

FIGURES

Figure 1 Layout of FTMM-05 Closed Solid Waste Landfill

Figure 2 FTMM-05 Shallow Groundwater Contours - October 1, 2015

Figure 3 FTMM-05 Chemical Constituents above NJDEP GWQS 2015 Annual Sampling Event



LEGEND:

- Shallow Monitoring Well
- Surface Water Feature
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- FTMM-05 Landfill Revised Boundary (2015)
- Municipal Boundary
- Installation Boundary

N

1 inch = 100 feet

0 50 100 200 Feet

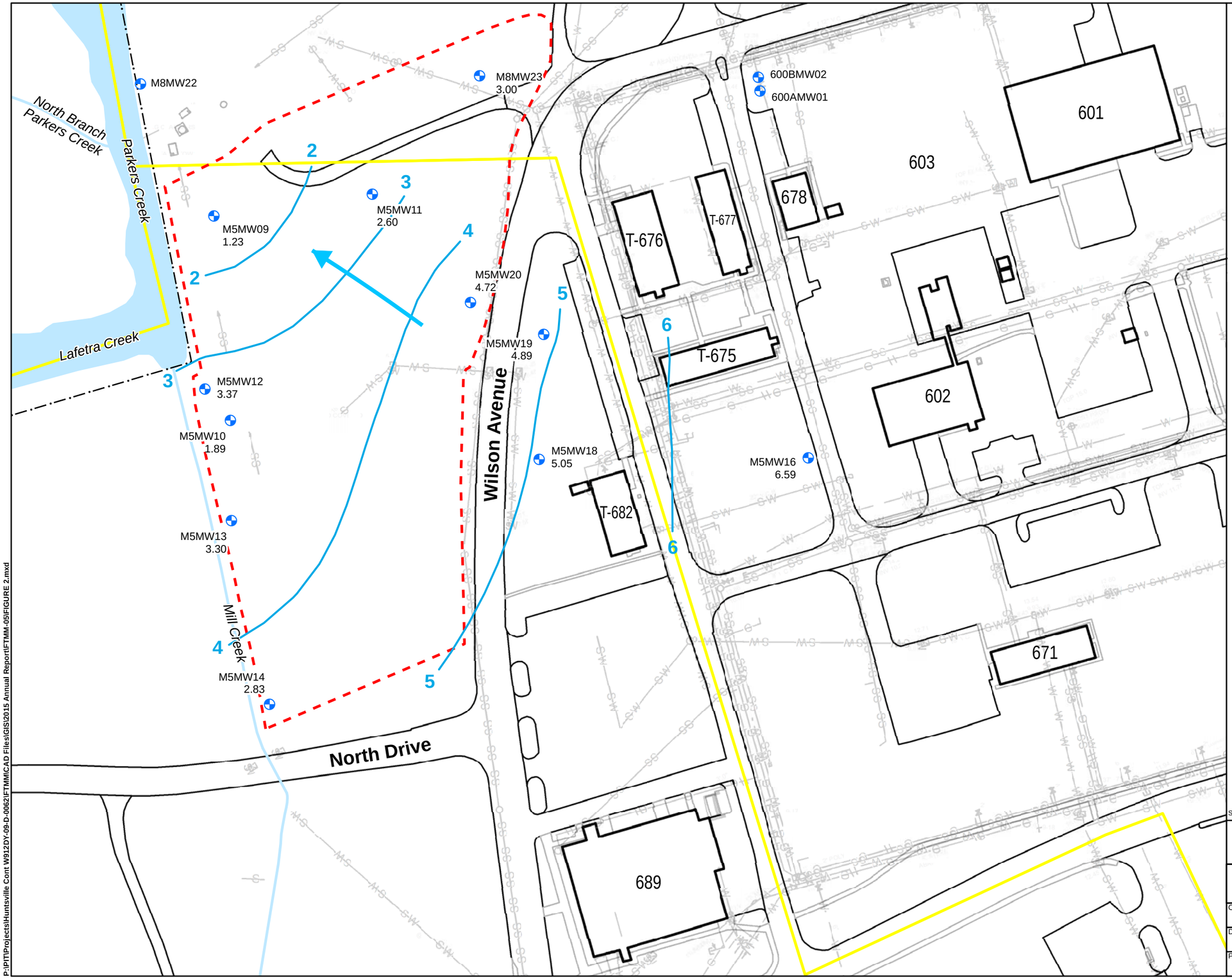
Source: FTMM Supplied CAD, 2013.

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

LAYOUT OF FTMM-05
CLOSED SOLID WASTE LANDFILL

CREATED BY: RR	REVIEWED BY: ME
DATE: MAR. 2016	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-01000	FILE: FIGURE 1.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-05\FIGURE 1.mxd



LEGEND:

- Shallow Monitoring Well
- Surface Water Feature
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- FTMM-05 Landfill Revised Boundary (2015)
- Municipal Boundary
- Installation Boundary
- Inferred Groundwater Flow Direction

NOTE:

Groundwater elevations in monitoring wells M5MW10 and M5MW14 were considered anomalous compared to the fluid level at neighboring wells.

N

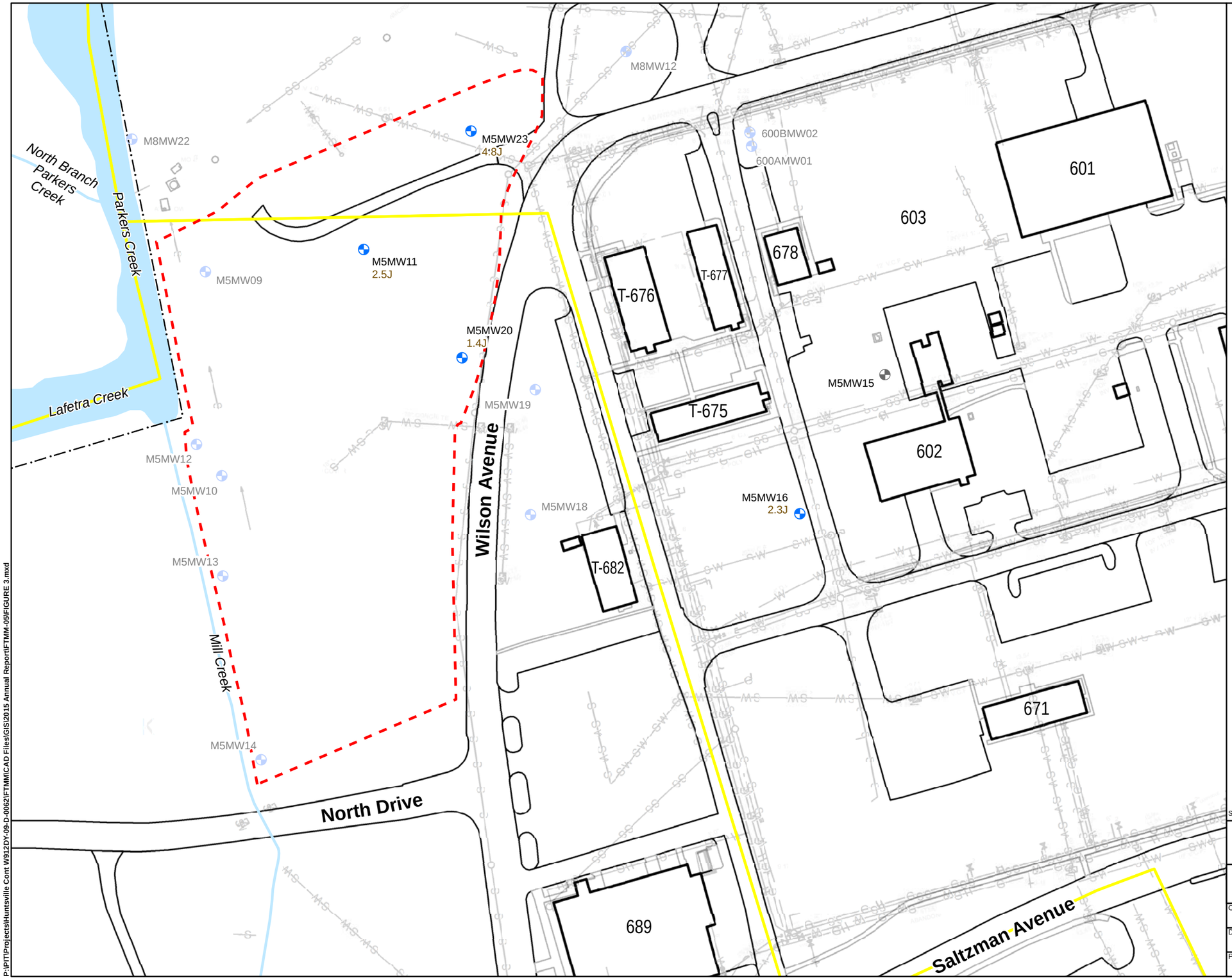
1 inch = 100 feet

0 50 100 200 Feet

Source: FTMM Supplied CAD, 2013.

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey
FTMM-05 SHALLOW GROUNDWATER CONTOURS - OCTOBER 1, 2015	
CREATED BY: RR	REVIEWED BY: ME
DATE: JUN. 2016	FIGURE NUMBER: FIGURE 2
PROJECT NUMBER: 748810-03000	FILE: FIGURE 2.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-05\FIGURE 2.mxd



LEGEND:

- Shallow Monitoring Well
- Abandoned Monitoring Well
- Surface Water Feature
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- FTMM-05 Landfill Revised Boundary (2015)
- Municipal Boundary
- Installation Boundary

NOTE:

1. All concentrations are in ug/L.
2. Only those compounds with concentrations that exceed the NJDEP groundwater quality standard (GWQS) are shown on the figure.
3. Wells without values were not sampled during the 2015 Annual Sampling Event.

EXPLANATION:

M5MW11 — Sample ID
NA
Tetrachloroethene (PCE) Concetration (ug/L)

J - Estimated Value
JN - Tentatively Identified Compound, Estimated Value
ND - Not Detected
NA - Not Analyzed
-- - Compound did not exceed the NJ GWQS this sampling round

Compound	NJDEP GWQS
Tetrachloroethene	1

N

1 inch = 100 feet

0 50 100 200 Feet

Source: FTMM Supplied CAD, 2013.

PARSONS
401 Diamond Drive NW, Huntsville AL

Fort Monmouth
New Jersey

FTMM-05 CHEMICAL CONSTITUENTS ABOVE NJDEP GWQS 2015 ANNUAL SAMPLING EVENT

CREATED BY:	REVIEWED BY:
RR	ME
DATE: JUN. 2016	FIGURE NUMBER: FIGURE 3
PROJECT NUMBER: 748810-03000	FILE: FIGURE 3.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-05\FIGURE 3.mxd

ATTACHMENTS

Attachment A NJDEP PDB Checklists

PARSONS

Checklist for the Submission of Sampling Data for Passive Diffusion Bag Samplers (PDBS)

1. Site: FTMM
2. Location: M-5 Landfill
3. Well Designation: M5MW20
4. Well Permit Number: 29-40122

5. Type of Well: ☒ Monitoring ☐ Extraction ☐ Residential ☐ Public Supply ☐ Irrigation ☐ Other
6. Well Surface Finish: ☒ Stick Up ☐ Flush Mount
7. Location of Measuring Point: ☒ Top of Casing ☐ Other (specify) _____
8. NOTE: PDBS represent a point sample within the screened interval or open hole of the well. It is critical to know the exact depth within the well where the PDBS is deployed. Well construction specifications, which are typically used to determine where to set the PDBS in the well, are measured in feet below ground surface (fbgs). If the depth interval for PDBS deployment is measured from the reference point identified above, the difference between this reference point and the ground surface must be measured and accounted for to determine the proper depth interval to set the PDBS. Please identify below, any differences between the measuring point identified above and actual ground surface at the well head.
   Distance between measuring point and ground surface (ft.): 2.00
9. Total Well Depth (fbgs): 16.36
10. Screened interval/open hole (fbgs): 6.36 - 16.36
11. Well Casing: Diameter 4 Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
12. Well Screen (or open hole diameter): Diameter 4 Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
13. Screen Size (slot): Screen Slot Size _____

14. Date and Time of Deployment: Date: 10/1/15 Time: 1055
15. Depth to Ground Water: Depth to ground water at time of deployment 6.83
16. Date and Time of Retrieval: Date: 12/14/15 Time: 1415
17. Depth to Ground Water: Depth to ground water at time of retrieval 6.20
18. Type of Deployment Line Used: Diameter: 3/16" Material: poly

19. Material and Mass (oz.) of PDBS Weight: Stainless Steel 20 oz (stainless steel recommended).
20. Type of PDBS Used
   ☐ Lab Filled. (Modified Trip Blank must be taken at time of deployment)
   ☒ Field Filled. (Modified equipment blank of fill water must be taken at time of deployment. If PDBS isn't filled at well head, blank must travel with samplers until last sampler is deployed. Blank is then taken.)
21. Dimensions of PDBS: Length (in.) 18 Diameter (in.) 1.5 Filled _____
22. Position of PDBS Weight
   ☐ Attached to bottom of PDBS and suspended in well
   ☐ Attached to bottom of deployment line and suspended in well
   ☐ Attached to bottom of deployment line and resting on bottom of well (preferred)
23. Position of PDBS in Well Screen (ft. from measuring point to center of PDBS)

1st PDBS	2nd PDBS	3rd PDBS	4th PDBS
13.65			

5th PDBS	6th PDBS	7th PDBS	8th PDBS

24. If the saturated portion of the well screen or open hole is greater than 5 feet, has the well been vertically profiled to assess the potential for contaminant stratification?
   ☐ No, this well is being profiled during this sampling round
   ☒ Yes, this well was profiled already. Date when well was profiled: 8/27/2013
25. If the saturated portion of the well screen or open hole is greater than 10 feet, has the well been flow tested to assess the potential for vertical flow to be present within the well?
   ☐ No, flow testing has not been conducted in this well
   ☐ Yes, flow testing of this well was conducted. Date of testing: _____
   Type of flow meter used: _____
   Measurements taken every _____ feet [Please Attach Results]
26. Weather Conditions During Deployment: Temp. 54°F Wind NE 10-15 mph ☐ Sunny ☒ Overcast ☒ Raining ☐ Snowing
27. Weather Conditions During Retrieval: Temp. 58°F Wind SW 0-5 ☐ Sunny ☒ Overcast ☐ Raining ☐ Snowing

28. Field Sampling Technician: Name(s) and Company (please print clearly)

Name	Company
Alex DiTonno	Parsons
Chris Watson	Parsons

PARSONS

Checklist for the Submission of Sampling Data for Passive Diffusion Bag Samplers (PDBS)

1. Site: FTMM
2. Location: M-5 Landfill
3. Well Designation: M5MW11
4. Well Permit Number: 29-32575

5. Type of Well: ☒ Monitoring ☐ Extraction ☐ Residential ☐ Public Supply ☐ Irrigation ☐ Other
6. Well Surface Finish: ☒ Stick Up ☐ Flush Mount
7. Location of Measuring Point: ☒ Top of Casing ☐ Other (specify) _____
8. NOTE: PDBS represent a point sample within the screened interval or open hole of the well. It is critical to know the exact depth within the well where the PDBS is deployed. Well construction specifications, which are typically used to determine where to set the PDBS in the well, are measured in feet below ground surface (fbgs). If the depth interval for PDBS deployment is measured from the reference point identified above, the difference between this reference point and the ground surface must be measured and accounted for to determine the proper depth interval to set the PDBS. Please identify below, any differences between the measuring point identified above and actual ground surface at the well head.
   Distance between measuring point and ground surface (ft.): 1.90
9. Total Well Depth (fbgs): 17.05
10. Screened interval/open hole (fbgs): 7.05 - 17.05
11. Well Casing: Diameter 4 Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
12. Well Screen (or open hole diameter): Diameter 4 Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
13. Screen Size (slot): Screen Slot Size 0.01

14. Date and Time of Deployment: Date: 10/1/15 Time: 1050
15. Depth to Ground Water: Depth to ground water at time of deployment 8.01
16. Date and Time of Retrieval: Date: 12/14/15 Time: 1410
17. Depth to Ground Water: Depth to ground water at time of retrieval 8.19
18. Type of Deployment Line Used: Diameter: 3/16" Material: poly

19. Material and Mass (oz.) of PDBS Weight: Stainless Steel 20 oz (stainless steel recommended)
20. Type of PDBS Used:
    ☐ Lab Filled (Modified Trip Blank must be taken at time of deployment)
    ☒ Field Filled (Modified equipment blank of fill water must be taken at time of deployment. If PDBS isn't filled at well head, blank must travel with samplers until last sampler is deployed. Blank is then taken.)
21. Dimensions of PDBS: Length (in.) 18 Diameter (in.) 1.5 Filled _____
22. Position of PDBS Weight:
    ☐ Attached to bottom of PDBS and suspended in well
    ☐ Attached to bottom of deployment line and suspended in well
    ☐ Attached to bottom of deployment line and resting on bottom of well (preferred)
23. Position of PDBS in Well Screen (ft. from measuring point to center of PDBS):

1st PDBS	2nd PDBS	3rd PDBS	4th PDBS
9.46			
5th PDBS	6th PDBS	7th PDBS	8th PDBS

↳ Deployed (2) PDB's @ 9.46

24. If the saturated portion of the well screen or open hole is greater than 5 feet, has the well been vertically profiled to assess the potential for contaminant stratification?
    ☐ No, this well is being profiled during this sampling round
    ☒ Yes, this well was profiled already. Date when well was profiled: 8/27/2013
25. If the saturated portion of the well screen or open hole is greater than 10 feet, has the well been flow tested to assess the potential for vertical flow to be present within the well?
    ☐ No, flow testing has not been conducted in this well
    ☐ Yes, flow testing of this well was conducted. Date of testing: _____
    Type of flow meter used: _____
    Measurements taken every _____ feet [Please Attach Results]
26. Weather Conditions During Deployment: Temp. 54°F Wind NE 10-15 mph ☐ Sunny ☒ Overcast ☒ Raining ☐ Snowing
27. Weather Conditions During Retrieval: Temp. 58°F Wind SW 0-5 ☐ Sunny ☐ Overcast ☐ Raining ☐ Snowing

28. Field Sampling Technician: Name(s) and Company (please print clearly)

Name	Company
Alex DiTorno	Parsons
Chris Watson	Parsons

PARSONS

Checklist for the Submission of Sampling Data for Passive Diffusion Bag Samplers (PDBS)

1. Site: FTMM
2. Location: M-5 Landfill
3. Well Designation: M5MW23
4. Well Permit Number: 29-40125

5. Type of Well: ☒ Monitoring ☐ Extraction ☐ Residential ☐ Public Supply ☐ Irrigation ☐ Other
6. Well Surface Finish: ☒ Stick Up ☐ Flush Mount
7. Location of Measuring Point: ☒ Top of Casing ☐ Other (specify) _____
8. NOTE: PDBS represent a point sample within the screened interval or open hole of the well. It is critical to know the exact depth within the well where the PDBS is deployed. Well construction specifications, which are typically used to determine where to set the PDBS in the well, are measured in feet below ground surface (fbgs). If the depth interval for PDBS deployment is measured from the reference point identified above, the difference between this reference point and the ground surface must be measured and accounted for to determine the proper depth interval to set the PDBS. Please identify below any differences between the measuring point identified above and actual ground surface at the well head.
   Distance between measuring point and ground surface (ft.) 2.41
9. Total Well Depth (fbgs) 18.25
10. Screened interval/open hole (fbgs) 3.25 - 18.25
11. Well Casing — Diameter: 4 — Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
12. Well Screen (or open hole diameter) — Diameter: 4 — Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
13. Screen Size (slot) — Screen Slot Size: 0.01

14. Date and Time of Deployment — Date: 10/1/2015 Time: 1042
15. Depth to Ground Water — Depth to ground water at time of deployment: 8.91
16. Date and Time of Retrieval — Date: 12/14/15 Time: 1400
17. Depth to Ground Water — Depth to ground water at time of retrieval: 8.22
18. Type of Deployment Line Used — Diameter: 3/16" Material: Poly

19. Material and Mass (oz.) of PDBS Weight: Stainless Steel 20 oz (stainless steel recommended)
20. Type of PDBS Used
   ☐ Lab Filled (Modified Trip Blank must be taken at time of deployment)
   ☒ Field Filled (Modified equipment blank of fill water must be taken at time of deployment. If PDBS isn't filled at well head, blank must travel with samplers until last sampler is deployed. Blank is then taken.)
21. Dimensions of PDBS — Length (in.) 18 Diameter (in.) 1.5 Filled
22. Position of PDBS Weight
   ☐ Attached to bottom of PDBS and suspended in well
   ☐ Attached to bottom of deployment line and suspended in well
   ☒ Attached to bottom of deployment line and resting on bottom of well (preferred)
23. Position of PDBS in Well Screen (ft. from measuring point to center of PDBS)

1st PDBS	2nd PDBS	3rd PDBS	4th PDBS
10.82			
5th PDBS	**6th PDBS**	**7th PDBS**	**8th PDBS**

24. If the saturated portion of the well screen or open hole is greater than 5 feet, has the well been vertically profiled to assess the potential for contaminant stratification?
   ☐ No, this well is being profiled during this sampling round
   ☒ Yes, this well was profiled already. Date when well was profiled: 8/27/2013

25. If the saturated portion of the well screen or open hole is greater than 10 feet, has the well been flow tested to assess the potential for vertical flow to be present within the well?
   ☐ No, flow testing has not been conducted in this well
   ☐ Yes, flow testing of this well was conducted. Date of testing: _____
   Type of flow meter used: _____
   Measurements taken every _____ feet [Please Attach Results]

26. Weather Conditions During Deployment — Temp. 54°F Wind NE 10-15 mph ☐ Sunny ☒ Overcast ☒ Raining ☐ Snowing
27. Weather Conditions During Retrieval — Temp. 60°F Wind ENE 0-5 ☐ Sunny ☐ Overcast ☐ Raining ☐ Snowing

28. Field Sampling Technician: Name(s) and Company (please print clearly)

Name	Company
Alex DiTomo	Parsons
Chris Watson	Parsons

PARSONS

Checklist for the Submission of Sampling Data for Passive Diffusion Bag Samplers (PDBS)

1. Site: FTMM
2. Location: M-5 Landfill
3. Well Designation: M5MW16
4. Well Permit Number: 29-40121

5. Type of Well: ☒ Monitoring ☐ Extraction ☐ Residential ☐ Public Supply ☐ Irrigation ☐ Other
6. Well Surface Finish: ☒ Stick Up ☐ Flush Mount
7. Location of Measuring Point: ☒ Top of Casing ☐ Other (specify) _____
8. NOTE: PDBS represent a point sample within the screened interval or open hole of the well. It is critical to know the exact depth within the well where the PDBS is deployed. Well construction specifications, which are typically used to determine where to set the PDBS in the well, are measured in feet below ground surface (fbgs). If the depth interval for PDBS deployment is measured from the reference point identified above, the difference between this reference point and the ground surface must be measured and accounted for to determine the proper depth interval to set the PDBS. Please identify below, any differences between the measuring point identified above and actual ground surface at the well head.
   Distance between measuring point and ground surface (ft.) 1.50
9. Total Well Depth (fbgs) 18.10
10. Screened interval/open hole (fbgs) 5-18.10
11. Well Casing: Diameter 4 Material ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
12. Well Screen (or open hole diameter): Diameter 4 Material ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
13. Screen Size (slot): Screen Slot Size 0.01

14. Date and Time of Deployment: Date: 10/1/2015 Time: 1005
15. Depth to Ground Water: Depth to ground water at time of deployment 7.49
16. Date and Time of Retrieval: Date: 12/14/15 Time: 1425
17. Depth to Ground Water: Depth to ground water at time of retrieval 7.31
18. Type of Deployment Line Used: Diameter: 3/16" Material: Poly

19. Material and Mass (oz.) of PDBS Weight: Stainless Steel 20 oz (stainless steel recommended)
20. Type of PDBS Used:
    ☐ Lab Filled (Modified Trip Blank must be taken at time of deployment)
    ☒ Field Filled (Modified equipment blank of fill water must be taken at time of deployment. If PDBS isn't filled at well head, blank must travel with samplers until last sampler is deployed. Blank is then taken.)
21. Dimensions of PDBS: Length (in.) 18 Diameter (in.) 1.5 Filled _____
22. Position of PDBS Weight:
    ☐ Attached to bottom of PDBS and suspended in well
    ☐ Attached to bottom of deployment line and suspended in well
    ☐ Attached to bottom of deployment line and resting on bottom of well (preferred)
23. Position of PDBS in Well Screen (ft. from measuring point to center of PDBS):
    1st PDBS 14.57 | 2nd PDBS _____ | 3rd PDBS _____ | 4th PDBS _____
    5th PDBS _____ | 6th PDBS _____ | 7th PDBS _____ | 8th PDBS _____

24. If the saturated portion of the well screen or open hole is greater than 5 feet, has the well been vertically profiled to assess the potential for contaminant stratification?
    ☐ No, this well is being profiled during this sampling round
    ☒ Yes, this well was profiled already. Date when well was profiled: 8/27/2013

25. If the saturated portion of the well screen or open hole is greater than 10 feet, has the well been flow tested to assess the potential for vertical flow to be present within the well?
    ☐ No, flow testing has not been conducted in this well
    ☐ Yes, flow testing of this well was conducted. Date of testing: _____
    Type of flow meter used: _____
    Measurements taken every _____ feet [Please Attach Results]

26. Weather Conditions During Deployment: Temp. 54°F Wind NE 10-15mph ☐ Sunny ☒ Overcast ☒ Raining ☐ Snowing
27. Weather Conditions During Retrieval: Temp. 58°F Wind SW 0-5 ☐ Sunny ☐ Overcast ☐ Raining ☐ Snowing

28. Field Sampling Technician Name(s) and Company (please print clearly)

Name	Company
Alex D'Ianni	Parsons
Chris Watson	Parsons

APPENDIX C

FTMM-08: CLOSED SOLID WASTE LANDFILL

APPENDIX C: FTMM-08 Closed Solid Waste Landfill

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LIST OF ATTACHMENTS

Attachment	Title
A	LFPS Field Sheets

1.0 WATER LEVEL MEASUREMENTS AND WELL ASSESSMENT

Monitoring wells located within FTMM-08 were gauged on October 1, 2015. Monitoring well locations as well as other site features are provided in **Figure 1**. Details regarding the water level measurements are provided in **Table 1**. Groundwater elevations in monitoring wells ranged from 0.93 (M8MW23) to 5.66 (M8MW11) feet above mean sea level (amsl). The inferred shallow groundwater flow direction is generally to the north and northeast towards Parkers Creek, as shown in **Figure 2**.

During the groundwater gauging, the physical condition of FTMM-08 monitoring wells were assessed. The site monitoring wells were found to be in good condition.

2.0 GROUNDWATER SAMPLING

Groundwater samples were collected from eight monitoring wells located at FTMM-08 as part of the annual (fourth quarter) 2015 groundwater sampling event. FTMM-08 is sampled on an annual basis. The groundwater sampling program included measuring the depth to groundwater in monitoring wells prior to sampling and collection of groundwater samples using low-flow purging and sampling (LFPS). Groundwater samples were collected from wells M8MW11, M8MW12, M8MW15, M8MW16, M8MW17, M8MW21, RM8MW24 and 697MW01 on November 19, 2015 and November 20, 2015. Groundwater samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) via the United States Environmental Protection Agency (USEPA) Method SW8260C at wells M8MW11, M8MW12, M8MW15, M8MW16, RM8MW24 and 697MW01. The groundwater samples from 697MW01, M8MW11, M8MW17 and M8MW21 were analyzed for lead via USEPA Method SW6010C. In addition, the groundwater sample from 697MW01 was analyzed for pesticides via EPA Method 8081B. It should be noted that M8MW11 was not located in 2014, but was located and sampled for the 2015 sampling event, however there was not enough water to collect a sample using LFPS methods, the sample was collected using a bailer and the volume averaging method. It should be noted the Annual (fourth quarter) 2014 Groundwater Sampling Report recommended to discontinue groundwater sampling at monitoring wells M8MW15, M8MW16, M8MW17, M8MW21, and RM8MW24. However, at the time of the 2015 sampling event the Annual (fourth quarter) 2014 Groundwater Sampling Report had not been approved by the NJDEP, therefore these monitoring wells were sampled.

The samples were collected in accordance with the New Jersey Department of Environmental Protection (NJDEP) Field Sampling Procedures Manual (FSPM) and the Sampling Analysis Plan (SAP). Field blanks, duplicates, matrix spike, matrix spike duplicate and quality assurance (QA) split samples were collected for every 5% of samples collected per parameter, per matrix, in accordance with the Quality Assurance Project Plan (QAPP). Trip blanks accompanied each cooler each day in which VOCs were collected for laboratory analysis.

Completed LFPS field sheets for each well sampled can be found in **Attachment A**.

3.0 HISTORICAL GROUNDWATER SAMPLING RESULTS

From June 1997 to March 2004, groundwater samples were collected for VOCs, semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs) and pesticides from

FTMM-08 monitoring wells. From June 2004 to December 2009, monitoring wells were primarily sampled for VOCs. From March 2010 to September 2010, groundwater samples were collected for VOC and metals.

From December 2010 to August 2011, the last four historical rounds of groundwater sampling conducted at the FTMM-08 site have consisted of VOC and metals analysis and were conducted on a quarterly basis. During this period, several metals including aluminum, arsenic, barium, calcium, iron, lead, manganese, magnesium and sodium were detected above of their respective NJDEP Ground Water Quality Standards (GWQS) in the majority of the Site monitoring wells. Beryllium, cadmium, chromium, calcium, magnesium, manganese, lead and sodium were detected in FTMM-08 monitoring wells above their background concentration established in the 1995 Weston Report. However, these metals are not associated with historical site operations.

Between December 2010 and August 2011, benzene (M8MW11 and M8MW15) and tetrachloroethene (PCE) (M8MW12 and 697MW01) were detected above their NJDEP GWQS of 1 µg/L. Historical groundwater analytical results are presented in **Table 2**.

Groundwater analytical data from samples collected from 13 monitoring wells during the August 2013 baseline event are presented in **Table 3**. Groundwater samples were analyzed for VOCs, pesticides, and lead. Tetrachloroethene (PCE) was detected at an estimated concentration of 1.3J µg/L in M8MW12, which is above the NJDEP GWQS of 1 µg/L for PCE. There were no pesticides or lead detections above the NJDEP GWQS in the August 2013 baseline groundwater sampling event.

The Final August 2013 Baseline Groundwater Sampling Report was approved by the NJDEP in their February 5, 2015 letter. Based on this approval, six monitoring wells out of the 14 monitoring wells on the site were removed from the long term monitoring (LTM) program; including M8MW13, M8MW14, M8MW18, M8MW19, M8MW20, and M8MW22. Additionally, groundwater monitoring for pesticides and metals other than lead were discontinued for all remaining wells, except 697MW01.

Groundwater analytical data from samples collected from seven monitoring wells during the annual (fourth quarter) 2014 groundwater sampling event are presented in **Table 3**. Groundwater samples were analyzed for VOCs at wells M8MW12, M8MW15, M8MW16, RM8MW24 and 697MW01. PCE was the only VOC detected at an estimated concentration of 1.3J µg/L and 1.6J µg/L at monitoring wells M8MW12 and 697MW01, respectively, only slightly above the NJDEP GWQS of 1 µg/L. The groundwater samples from 697MW01, M8MW17 and M8MW21, were also analyzed for lead and it was not detected in the samples. In addition, the groundwater sample from 697MW01 was analyzed for pesticides, 4'4-DDD was detected at a concentration of 0.83 µg/L, above the NJDEP GWQS of 0.1 µg/L.

Based on the annual 2014 results, it was recommended that groundwater sampling at monitoring wells M8MW15, M8MW16, M8MW17, M8MW21, and RM8MW24 be discontinued and these wells be removed from the LTM. Three monitoring wells were recommended for continued annual groundwater sampling including: M8MW11 for VOC and lead analysis, M8MW12 for VOC, and 697MW01 for pesticides and VOCs. The Annual (Fourth Quarter) 2014 Groundwater Sampling Report was accepted by the NJDEP in their January 26, 2016 letter.

4.0 ANNUAL (FOURTH QUARTER) 2015 GROUNDWATER RESULTS

Groundwater analytical data from samples collected from eight monitoring wells during the annual (fourth quarter) 2015 groundwater sampling event are presented in **Table 3**. Groundwater samples were analyzed for VOCs at wells M8MW11, M8MW12, M8MW15, M8MW16, RM8MW24 and 697MW01. PCE was the only VOC detected above the NJDEP GWQS of 1 µg/L, at an estimated concentration of 1.3J µg/L in only monitoring well M8MW12.

The groundwater samples from 697MW01, M8MW11, M8MW17 and M8MW21, were analyzed for lead and it was detected at M8MW11 and M8MW21 at a concentration of 202 µg/L and 8.1 µg/L, respectively, both above the NJDEP GWQS of 5 µg/L. A dissolved lead sample was also collected at M8MW11 (in accordance with the Standard Operating Procedures [SOP]) since the turbidity reading of 128 NTU was above the 50 NTU criteria at the time of sampling probably because the sample was collected using a bailer. Dissolved lead was not detected above the method detection limit in the filtered sample collected from M8MW11. A sample for dissolved lead analysis was not collected from M8MW21 since the turbidity reading at was 37 NTU. In addition, the groundwater sample from 697MW01 was analyzed for pesticides, 4'4-DDD was detected at a concentration of 0.7 µg/L, above the NJDEP GWQS of 0.1 µg/L. Concentrations of constituents detected in the groundwater above their NJDEP GWQS during the Annual 2015 Sampling Event are shown on **Figure 4.**

5.0 FINDINGS AND RECOMMENDATIONS

Based on the historical and annual 2015 groundwater sampling results, VOCs concentrations at M8MW11 continue to be detected below the NJDEP GWQS. Lead concentrations at M8MW11 are attributed to high turbidity and not indicative of site conditions or historical operations. PCE concentrations at M8MW12 continue to be detected slightly above the NJDEP GWQS of 1 µg/L.

The 2014 and 2015 concentrations of PCE and 4'4-DDD detected in 697MW01 exceeded their NJDEP GWQS of 1 µg/L and 0.1 µg/L, respectively. PCE concentrations have remained steady over the last three yearly sampling events; at an estimated concentration of 1.3 µg/L.

Historically, lead has been detected above the NJDEP GWQS at monitoring wells M8MW17 and M8MW21. However, lead has not been detected above its NJDEP GWQS of 5 µg/L in the previous three sampling events (2011, 2013 and 2014) at these two wells. Although, lead was detected at monitoring well M8MW21 slightly above the NJDEP GWQS during the 2015 sampling event it appears to be attributed to elevated turbidly levels and is not associated with historical site operations.

The Annual (fourth quarter) 2014 Groundwater Sampling Report recommended to discontinue groundwater sampling at monitoring wells M8MW15, M8MW16 and RM8MW24. However, at the time of the 2015 sampling event the Annual (fourth quarter) 2014 Groundwater Sampling Report had not been approved by the NJDEP, therefore these monitoring wells were sampled. Historically, benzene has been detected slightly above its NJDEP GWQS at monitoring wells M8MW15 and M8MW16. However, benzene has not been detected in the

2015 sampling event or last three sampling events above its NJDEP GWQS of 1 µg/L at M8MW15. Benzene was detected at an estimated concentration of 0.25 µg/L during the 2015 sampling event and below the NJDEP GWQS during the last two sampling events at M8MW16. In addition, VOCs have not been detected above the NJDEP GWQS in the samples collected from RM8MW24 during the last two sampling events (2013 and 2014), or the 2015 sampling event.

An extensive groundwater sampling history has been established as part of the LTM program implemented for FTMM-08, and a comprehensive review of the data was performed as part of the April 2016 RIR which has been submitted to the NJDEP. Data collection under this LTM program is no longer necessary to support an investigation, and will be transitioned to a program which will support the Classification Exemption Area (CEA) recommended as a preferred remedy in the RIR at FTMM-08. Future sampling will be performed and reported under biennial certifications required for the future CEA. LTM in support of the future CEA will include a biennial sampling frequency for select wells for an appropriate set of compounds that are representative of more recent groundwater conditions as shown in **Table 4**. The biennial sampling frequency will provide data for the biennial certifications with the sampling to be performed in the same year as the biennial CEA certification. The next biennial sampling for FTMM-08 is anticipated to be performed in 2017.

TABLES

Table 1 Groundwater Gauging Data and Elevations (October 1, 2015) and LFPS Sampling Summary

Table 2 Historical Groundwater Analytical Results

Table 3 Groundwater Analytical Results - 2013, 2014 and 2015

Table 4 Review of Historical Groundwater Sampling Results

Table 1
Groundwater Gauging Data and Elevations (October 1, 2015) and LFPS Sampling Summary
Site FTMM-08 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site/Well ID	Installation Date	Well Permit #	Y Coord. (North)	X Coord. (East)	Depth (ft. bgs)	Casing Length (ft)	Screen Length (ft)	TOC Elevation (ft)	Gauge Time	PID Reading (ppm)	Gauged Depth to Water (ft. TOC)	Gauged Depth to Bottom (ft. TOC)	Calculated Groundwater Elevation (ft)	Well Sampled this Event
Shallow Monitoring Wells														
697MW01	9/13/1994	29-31776	540045.28	617862.74	17.5	2.5	15.0	16.85	14:38	0.0	13.62	19.95	3.23	11/19/2015
M8MW11	10/18/2010	E201010528	540361.12	617765.50	20.0	5.0	15.0	26.52	15:05	0.0	20.86	22.06	5.66	11/25/2015
M8MW12	12/20/1994	29-32560	539906.21	617853.00	15.0	5.0	10.0	13.95	15:15	0.0	10.20	17.62	3.75	11/20/2015
M8MW13	1/17/1995	29-32561	540014.96	617348.99	15.0	5.0	10.0	7.11	13:42	0.0	4.50	12.30	2.61	
M8MW14	1/16/1995	29-32562	540451.09	617548.16	15.0	5.0	10.0	9.06	14:04	0.0	7.52	16.72	1.54	
M8MW15	1/17/1995	29-32563	540412.78	617974.38	14.5	4.5	10.0	6.96	14:13	0.0	4.21	16.81	2.75	11/19/2015
M8MW16	9/10/1998	29-39146	540315.41	618083.30	13.0	3.0	10.0	9.62	14:18	0.0	7.28	15.68	2.34	11/19/2015
M8MW17	8/31/1998	29-39147	540500.10	617872.41	13.0	3.0	10.0	8.15	14:10	0.0	5.08	15.50	3.07	11/19/2015
M8MW18	8/22/1998	29-39148	540556.90	617597.86	18.0	3.0	15.0	7.75	14:08	0.0	5.83	16.70	1.92	
M8MW19	8/22/1998	29-39149	540404.26	617517.43	18.0	3.0	15.0	8.62	12:58	0.0	6.14	17.70	2.48	
M8MW20	8/22/1998	29-39150	540195.12	617424.24	15.0	5.0	10.0	8.01	13:52	0.0	6.53	17.51	1.48	
M8MW21	8/20/1998	29-39151	540021.38	617350.27	20.0	5.0	15.0	6.95	13:45	0.0	3.91	15.75	3.04	11/19/2015
M8MW22	8/20/1998	29-39152	539816.01	617344.32	20.0	5.0	15.0	7.23	12:32	0.0	5.53	18.32	1.70	
M8MW23	3/30/1999	29-40128	539990.86	617686.60	15.0	3.0	12.0	10.73	14:48	0.0	9.80	16.90	0.93	
RM8MW24	3/29/1999	29-40127	540206.88	617848.22	38.0	3.0	15.0	20.76	14:28	0.0	18.54	40.90	2.22	11/19/2015

Notes:
1) The synoptic round of water levels in the wells was collected on Ocotber 1, 2015.
2) Information on well permit number, X and Y coordinates, depth, screen length, screen interval and TOC elevation were provided by FTMM in a table in June 2013.
3) ft = feet
4) DTW = depth to water (measured from the top of well casing)
5) DTB = depth to bottom of well (measured from the top of well casing)
6) bgs = below ground surface
7) ppm = parts per million (of VOCs)
8) TOC = Top of Casing
9) Elevation = feet above mean sea level
10) N/A = information not available, well not located in the field
11) LFPS = Low-Flow Purging and Sampling

Table 2
Historical Groundwater Analytical Results
Site FTMM-08 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M8MW11		M8MW12																				M8MW13					
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**		LF	44	44 Dup	45	46	46 Dup	47	47 Dup	48	49	50	51	52	LF1	LF2	LF3	LF4	LF5	LF6	LF7	44	45	45 Dup	46	47	48
Date Collected				3/9/2011	8/11/2011	3/13/2008	3/13/2008	6/5/2008	9/4/2008	9/4/2008	11/21/2008	11/21/2008	2/9/2009	2/23/2009	6/27/2009	9/21/2009	12/10/2009	3/19/2010	6/29/2010	9/29/2010	12/23/2010	3/9/2011	5/26/2011	8/11/2011	3/13/2008	6/5/2008	6/5/2008	9/4/2008	11/21/2008	2/23/2009
Volatile Organic Compounds (µg/L)																															
Tert-butyl alcohol	100	NLE	--	56.38	NA	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	<5	<5	<5	NA	ND	ND	ND	ND	ND	ND	ND
Acetone	6000	NLE	--	18.68	<10	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<10	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	0.43 J	<2	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	2.1	<10	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<10	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	0.52	1.3	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	50	100	--	4.23	10.9	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	<0.5	<5	ND	NA	ND	ND	ND	ND	ND	NA	ND	2.06	ND	ND	ND	3.72	0.81	<0.5	<0.5	<0.5	0.55 J	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	<0.5	<1	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	9.47	ND	<0.5	<0.5	<0.5	2.3	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	<0.5	<1	ND	NA	ND	ND	ND	ND	ND	NA	ND	0.28 J	ND	ND	ND	0.76	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	<0.5	<1	ND	NA	ND	2.79	2.63	5	4.88	NA	0.85 J	ND	0.38 J	ND	ND	ND	ND	<0.5	<0.5	<0.5	0.33 J	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	600	NLE	--	0.26 J	0.53 J	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	2.79	7.4	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	600	--	0.44 J	0.88 J	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	<0.5	0.43 J	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	<0.5	1.3 J	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	3	5	--	<0.5	<2	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2	ND	ND	ND	ND	ND	ND	ND
Methyl tert butyl ether	70	NLE	--	<0.5	<1	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1	5	--	<0.5	<1	ND	NA	0.71 J	2.34	2.67	9.83	9.75	NA	4.3	0.49 J	1.55	0.58	1.31	1.92	3.19	2.19	1.62	1.79	3	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	0.23 J	1.7	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	<0.5	<1	ND	NA	ND	0.52 J	0.59 J	5.12	5.06	NA	2.13	ND	0.57	ND	ND	ND	ND	<0.5	<0.5	<0.5	0.34 J	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1000	10,000	--	ND	1	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	<1	<1	<1	<1	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	1	2	--	<0.5	<1	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND
TICs	500	ND	--	ND	55.7	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pesticides/PCBs (µg/L)																															
beta-BHC	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4'-DDD	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4'-DDE	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0.03	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	2	2	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	0.05	0.4	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	40	40	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.044	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (µg/L)																															
Aluminum	200	NLE	121000	735	5540 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1480	215	179	<200	1490	<200	315	NA	NA	NA	NA	NA	NA	NA
Antimony	6	6	20.70	<6	<12 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<6	<6	<6	<6	NA	NA	NA	NA	NA	NA	NA
Arsenic	3	10	89.30	11.5	21.6 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.59 ER	1 ER	2.11 ER	<3	<3	<3	5.7	NA	NA	NA	NA	NA	NA	NA
Barium	6000	2000	699.00	299	727 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.3	12.5	2.93 ER	<200	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA
Beryllium	1	4	2.10	<1	<2 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.049 ER	ND	ND	<1	<1	<1	<1	NA	NA	NA	NA	NA	NA	NA
Cadmium	4	5	9.50	<3	<6 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<3	<3	<3	<3	NA	NA	NA	NA	NA	NA	NA
Calcium	NLE	NLE	45400.00	384000	377000 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8170	8270	3930	10200	5070	25500	<5000	NA	NA	NA	NA	NA	NA	NA
Chromium	70	100	191.00	19	48.8 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.6	2.14 ER	ND	<10	11.8	<10	<10	NA	NA	NA	NA	NA	NA	NA
Cobalt	NLE	NLE	18.30	<50	<100 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA
Copper	1300	1300	65.60	11.7	<20 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	4.64 ER	1.32 ER	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA
Iron	300	NLE	431000	33900	163000 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4640	1350	900	372	4950	7750	3270	NA	NA	NA	NA	NA	NA	NA
Lead	5	15	22.70	8.9	49.8 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<3	<3	<3	<3	NA	NA	NA	NA	NA	NA	NA
Magnesium	NLE	NLE	62700	53800	55900 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1950	1650	1130	<5000	<5000	5220	<5000	NA	NA	NA	NA	NA	NA	NA
Manganese	50	NLE	331	1620	948 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.33	3.73	6	<15	<15	54.7	<15	NA	NA	NA	NA	NA	NA	NA
Mercury	2	2	0.26	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND		<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA
Nickel	100	NLE	187	<10	26.8 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.14 ER	1.1 ER	1.9 ER	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA
Potassium	NLE	NLE	137000	56900	70600 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4590	3800	2000	<10000	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA
Selenium	40	50	29.60	<10	<20 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.5	NR	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA
Silver	40	NLE	ND	<10	<20 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.919	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA
Sodium	5000	NLE	21500	212000	269000 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	58700	68100	160000	226000	50800	269000	128000	NA	NA	NA	NA	NA	NA	NA
Thallium	2	2	5.50	<2	<4 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<2	<2	<2	<2	NA	NA	NA	NA	NA	NA	NA
Vanadium	60	NLE	108	<50	<100 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.56	1.45	1.66	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA
Zinc	2000	NLE	233	<20	111 /a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.6	3.39	2.17	<20	<20	<20	<20	NA	NA	NA	NA	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

/a = Elevated sample detection limit due to difficult sample matrix

Table 2
Historical Groundwater Analytical Results
Site FTMM-08 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M8MW13														M8MW14															
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	49	50	51	LF1	LF2	LF2 Dup	LF3	LF3 Dup	LF4	LF5	LF6	LF7	LF7 Dup	44	44	45	46	47	48	49	50	50 Dup	LF1	LF1 Dup	LF2	LF3	LF4
Date Collected				6/27/2009	9/21/2009	12/8/2009	3/17/2010	6/25/2010	6/25/2010	9/28/2010	9/28/2010	12/23/2010	3/7/2011	5/20/2011	8/10/2011	8/10/2011	3/13/2008	6/5/2008	9/4/2008	11/21/2008	2/23/2009	6/27/2009	9/21/2009	12/10/2009	12/10/2009	3/18/2010	3/18/2010	6/28/2010	9/28/2010	12/23/2010
Volatile Organic Compounds (µg/L)																																	
Tert-butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	<5	<5	<5	NA	NA	5.68	10.79	13.87	ND	ND	7.04 J	ND	ND	ND	ND	ND	ND	ND	<5
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<10	<10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2	<2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<10	<10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
Chlorobenzene	50	100	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	9.58	9.68	6.3	3.84	5.89	8.04	6.16	6.49	6.73	5.87	5.8	1.67	1.64	<0.5
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
1,3-Dichlorobenzene	600	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	2.34	2.64	1.77 J	1.14 J	1.51 J	2.2	1.76	2	2.11	1.55	1.53	0.55	0.51	<0.5
1,2-Dichlorobenzene	600	600	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
Isopropylbenzene	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2	<2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
Methylene chloride	3	5	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2	<2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
Methyl tert butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
Tetrachloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
Total Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	<1	<1	<1	<1	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1
Vinyl Chloride	1	2	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5
TICs	500	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9	7	21	ND	3	6	4	4	4	3	3	ND	ND	ND
Pesticides/PCBs (µg/L)																																	
beta-BHC	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4'-DDD	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4'-DDE	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0.03	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	2	2	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	0.05	0.4	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	40	40	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (µg/L)																																	
Aluminum	200	NLE	121000	NA	NA	NA	57.7	ND	24	255	209	<200	<200	964	544	488	NA	NA	NA	NA	NA	NA	NA	NA	NA	103	76.7	53.8	96.6	<200
Antimony	6	6	20.70	NA	NA	NA	10.2	11	11.9	15.6	15.2	<6	<6	<6	<6	<6	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6	10.8	12.7	21	<6
Arsenic	3	10	89.30	NA	NA	NA	0.73 ER	ND	ND	1.9 ER	ND	<3	<3	<3	<3	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.85	ND	ND	2.2 ER	<3
Barium	6000	2000	699.00	NA	NA	NA	52.3	78.2	84.3	58.5	56.8	<200	<200	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	547	575	167	196	<200
Beryllium	1	4	2.10	NA	NA	NA	ND	0.094 ER	0.101 ER	ND	ND	<1	<1	<1	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.105 ER	ND	<1
Cadmium	4	5	9.50	NA	NA	NA	0.991 ER	1.24 ER	1.36 ER	0.761 ER	0.596 ER	<3	<3	<3	<3	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.609	ND	1.59 ER	1.09 ER	<3
Calcium	NLE	NLE	45400.00	NA	NA	NA	138000	193000	204000	89000	85000	230000	131000	206000	169000	165000	NA	NA	NA	NA	NA	NA	NA	NA	NA	191000	200000	93300	129000	111000
Chromium	70	100	191.00	NA	NA	NA	ND	ND	ND	ND	ND	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<10
Cobalt	NLE	NLE	18.30	NA	NA	NA	1.21	ND	ND	ND	ND	<50	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.55	ND	<50
Copper	1300	1300	65.60	NA	NA	NA	6.21	6.71	6.9	17.6	16.8	<10	12.8	21.3	17.6	17.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	1.26 ER	3.66 ER	<10
Iron	300	NLE	431000	NA	NA	NA	2980	2670	3270	585	430	272	370	9400	6440	6530	NA	NA	NA	NA	NA	NA	NA	NA	NA	35400	37600	20900	24700	39100
Lead	5	15	22.70	NA	NA	NA	ND	ND	ND	3.52 ER	2.67 ER	<3	<3	16.8	8.7	9.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	3.98 ER	3.68 ER	<3
Magnesium	NLE	NLE	62700	NA	NA	NA	28200	29500	3200	21400	20500	83500	28800	42400	27200	26800	NA	NA	NA	NA	NA	NA	NA	NA	NA	38200	41300	14700	18200	15100
Manganese	50	NLE	331	NA	NA	NA	182	239	253	48.4	47.4	39	<15	146	184	181	NA	NA	NA	NA	NA	NA	NA	NA	NA	607	640	641	1030	1610
Mercury	2	2	0.26	NA	NA	NA	ND	ND	ND	0.29 ER	0.23 ER		<0.2	0.23	<0.2	0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	0.26 ER	
Nickel	100	NLE	187	NA	NA	NA	6.94	6.02	6.28	6.92	6.19	<10	<10	13.6	13.8	13.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.74 ER	2.1 ER	2.58 ER	3.37 ER	<10
Potassium	NLE	NLE	137000	NA	NA	NA	12500	14000	15100	18400	17400	34600	12600	20700	17000	16900	NA	NA	NA	NA	NA	NA	NA	NA	NA	31800	32900	15400	18000	14300
Selenium	40	50	29.60	NA	NA	NA	85.4	NR	NR	1.5	ND	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	67.1	63.9	NR	ND	<10
Silver	40	NLE	ND	NA	NA	NA	6.13	ND	ND	ND	ND	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	1.8	1.53	<10
Sodium	5000	NLE	21500	NA	NA	NA	127000	109000	116000	211000	202000	711000	153000	291000	126000	129000	NA	NA	NA	NA	NA	NA	NA	NA	NA	73900	75700	43100	47400	56400
Thallium	2	2	5.50	NA	NA	NA	ND	ND	ND	ND	ND	<2	<2	<2	<2	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<2
Vanadium	60	NLE	108	NA	NA	NA	1.91	ND	ND	1.08	0.949	<50	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.22	6.85	ND	ND	<50
Zinc	2000	NLE	233	NA	NA	NA	574	325	352	259	246	432	424	628	400	399	NA	NA	NA	NA	NA	NA	NA	NA	NA	61	40.8	14.1	132	26.1

Notes:

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NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

LF = Low-flow sampling method used to collect sample

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J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

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Table 2
Historical Groundwater Analytical Results
Site FTMM-08 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M8MW14			M8MW15																				M8MW16			
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF5	LF6	LF7	44	44 Dup	45	45 Dup	46	46 Dup	47	48	49	50	51	LF1	LF2	LF3	LF4	LF5	LF6	LF7	40	41	42	43
Date Collected				3/7/2011	5/25/2011	8/11/2011	3/14/2008	3/14/2008	6/11/2008	6/11/2008	9/5/2008	9/5/2008	11/21/2008	2/23/2009	6/27/2009	9/21/2009	12/10/2009	3/18/2010	6/28/2010	9/28/2010	12/23/2010	3/8/2011	5/25/2011	8/11/2011	3/14/2008	6/11/2008	9/5/2008	11/21/2008
Volatile Organic Compounds (µg/L)																													
Tert-butyl alcohol	100	NLE	--	<5	<5	NA	ND	NA	12.36	13.59	13.53	15.41	ND	ND	9.57 J	ND	ND	ND	ND	ND	<5	<5	<5	NA	ND	ND	ND	ND
Acetone	6000	NLE	--	<0.5	<0.5	<10	ND	NA	ND	1.32 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<10	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	<0.5	<0.5	<2	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2	ND	ND	ND	ND
2-Butanone	300	NLE	--	<0.5	<0.5	<10	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<10	ND	ND	ND	ND
Benzene	1	5	--	<0.5	<0.5	<1	0.31 J	NA	0.61 J	0.61 J	0.19 J	0.19 J	ND	ND	0.87 J	0.62	0.87	0.32 J	0.19 J	ND	0.3 J	0.82	1.19	<1	0.7 J	1.13 J	0.68 J	0.54 J
Chlorobenzene	50	100	--	2.07	6.34	6.2	13.2	NA	23.73	23.54	26.76	26.33	12.04	9.02	30.46	35.16	32.09	7.45	28.76	25.6	17.47	17.21	35.91	37.1	9.83	20.32	24.78	18.26
Bromodichloromethane	1	80	--	<0.5	<0.5	<1	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND
Chloroform	70	80	--	<0.5	<0.5	<1	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	<0.5	<0.5	<1	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	<0.5	<0.5	<1	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND
1,3-Dichlorobenzene	600	NLE	--	<0.5	<0.5	<1	1.5 J	NA	2.33	2.16	2.69	2.63	1.02 J	1.05 J	1.98 J	2.67	2.22	0.66	2.47	2.18	1.38	1.38	2.66	3.1	ND	0.58 J	0.99 J	0.57 J
1,4-Dichlorobenzene	75	75	--	0.65	1.87	2.2	2.95	NA	4.59	4.6	5.44	5.29	2.1	2.02	4.43	5.93	4.76	1.35	5.3	4.53	2.78	3.04	6.05	6.6	0.82 J	2.18	3.42	2.15
1,2-Dichlorobenzene	600	600	--	<0.5	<0.5	<1	1.02 J	NA	1.48 J	1.46 J	1.94 J	1.86 J	0.68 J	0.77 J	1.12 J	1.67	1.42	0.47 J	1.64	1.31	0.92	0.93	1.81	2	ND	ND	0.51 J	ND
Ethylbenzene	700	700	--	<0.5	<0.5	<1	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	<0.5	<0.5	<2	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	1 J	ND	ND	ND	ND
Methylene chloride	3	5	--	<0.5	<0.5	1.5 J	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	0.83 J	ND	ND	ND	ND
Methyl tert butyl ether	70	NLE	--	<0.5	<0.5	<5	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND
Tetrachloroethene	1	5	--	<0.5	<0.5	<1	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND
Toluene	600	1000	--	<0.5	<0.5	<1	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.32 J	0.47 J	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND
Trichloroethene	1	5	--	<0.5	<0.5	<1	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND
Total Xylenes	1000	10,000	--	<1	<1	<1	ND	NA	0.19 J	0.19 J	0.57 J	0.56 J	ND	ND	0.21	0.66 J	0.67 J	ND	ND	0.63 J	<1	<1	<1	0.32 J	ND	ND	ND	ND
Vinyl Chloride	1	2	--	<0.5	<0.5	<1	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND
TICs	500	ND	--	ND	7	ND	23	NA	25	25	74	76	13	9	43	51	62	9	45	30	ND	ND	53	31	ND	3	16	ND
Pesticides/PCBs (µg/L)																												
beta-BHC	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4'-DDD	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4'-DDE	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0.03	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	2	2	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	0.05	0.4	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	40	40	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (µg/L)																												
Aluminum	200	NLE	121000	<200	<200	486	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	96.4	48.9	55.9	<200	<200	<200	<200	NA	NA	NA	NA
Antimony	6	6	20.70	<6	<6	<6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.54	14.8	22.4	<6	<6	<6	<6	NA	NA	NA	NA
Arsenic	3	10	89.30	<3	<3	5.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.79	1.47 ER	2.52 ER	<3	<3	<3	<3	NA	NA	NA	NA
Barium	6000	2000	699.00	460	494	427	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	144	227	221	<200	<200	270	257	NA	NA	NA	NA
Beryllium	1	4	2.10	<1	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.094 ER	ND	<1	<1	<1	<1	NA	NA	NA	NA
Cadmium	4	5	9.50	<3	<3	3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.5 ER	0.542 ER	<3	<3	<3	<3	NA	NA	NA	NA
Calcium	NLE	NLE	45400.00	160000	186000	160000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	357000	290000	273000	257000	289000	264000	270000	NA	NA	NA	NA
Chromium	70	100	191.00	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<10	11.4	<10	<10	NA	NA	NA	NA
Cobalt	NLE	NLE	18.30	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.6	1.96	1.65	<50	<50	<50	<50	NA	NA	NA	NA
Copper	1300	1300	65.60	<10	<10	26.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	3.83 ER	2.87 ER	<10	<10	<10	<10	NA	NA	NA	NA
Iron	300	NLE	431000	43000	48800	49200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40300	15000	19400	27000	20000	16400	15400	NA	NA	NA	NA
Lead	5	15	22.70	<3	3.7	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	3 ER	3.6 ER	<3	<3	<3	<3	NA	NA	NA	NA
Magnesium	NLE	NLE	62700	33200	57300	61600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	54800	70000	74200	57600	55400	60400	59700	NA	NA	NA	NA
Manganese	50	NLE	331	740	546	434	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3390	675	744	1650	1100	563	672	NA	NA	NA	NA
Mercury	2	2	0.26	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.26 ER		<0.2	<0.2	<0.2	NA	NA	NA	NA
Nickel	100	NLE	187	<10	<10	10.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30.1	12.5	6.24	<10	<10	<10	<10	NA	NA	NA	NA
Potassium	NLE	NLE	137000	29500	42100	39500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17300	40400	38300	30300	26800	37800	39600	NA	NA	NA	NA
Selenium	40	50	29.60	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	67.8	NR	ND	<10	<10	<10	11.7	NA	NA	NA	NA
Silver	40	NLE	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.44	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA
Sodium	5000	NLE	21500	71300	211000	255000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	104000	199000	210000	182000	124000	155000	169000	NA	NA	NA	NA
Thallium	2	2	5.50	<2	<2	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<2	<2	<2	<2	NA	NA	NA	NA
Vanadium	60	NLE	108	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.45	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA
Zinc	2000	NLE	233	28.4	182	820	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.71	2.35	ND	<20	<20	<20	26.6	NA	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

/a = Elevated sample detection limit due to difficult sample matrix

Table 2
Historical Groundwater Analytical Results
Site FTMM-08 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M8MW16												M8MW17															
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	44	45	46	47	LF1	LF2	LF3	LF4	LF5	LF6	LF7		40	41	42	43	44	45	45 Dup	46	46 Dup	47	47 Dup	LF1	LF2	LF3		
Date Collected				2/23/2009	6/27/2009	9/21/2009	12/10/2009	3/19/2010	6/28/2010	9/29/2010	12/23/2010	3/8/2011	5/25/2011	8/11/2011		3/14/2008	6/11/2008	9/5/2008	11/21/2008	2/23/2009	6/27/2009	6/27/2009	9/21/2009	9/21/2009	12/8/2009	12/8/2009	3/17/2010	6/25/2010	9/28/2010		
Volatile Organic Compounds (µg/L)																															
Tert-butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	<5	<5	<5	NA		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<10		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<10		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Benzene	1	5	--	1.27 J	1.32 J	0.47 J	ND	1.41	0.68	0.28 J	0.31 J	<0.5	0.63	0.57 J		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Chlorobenzene	50	100	--	25.26	25.42	20.03	0.39 J	20.86	14	30.96	28.6	22.07	12.82	28.4		ND	0.3 J	2.62	ND	ND	0.4 J	0.3 J	0.17 J	ND	ND	ND	0.8	ND	ND		
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	0.2 J	0.17 J	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
1,3-Dichlorobenzene	600	NLE	--	0.43 J	0.54 J	0.53	ND	0.55	0.41 J	1.19	0.91	0.58	0.27 J	0.67 J		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
1,4-Dichlorobenzene	75	75	--	1.74 J	2.46	2.33	ND	3.47	1.83	4.66	4.05	3.17	3.41	3.1		ND	ND	0.67 J	ND	ND	ND	ND	ND	ND	ND	ND	0.41 J	ND	ND		
1,2-Dichlorobenzene	600	600	--	ND	ND	ND	ND	0.44 J	ND	0.76	0.56	0.45 J	0.21 J	0.39 J		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Isopropylbenzene	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Methylene chloride	3	5	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	0.97 J		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Methyl tert butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Tetrachloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Total Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	<1	<1	<1	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Vinyl Chloride	1	2	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
TICs	500	ND	--	ND	4	3	ND	8	ND	3	ND	ND	ND	ND		ND	12	42	4	ND	ND	ND	ND	ND	ND	ND	14	14	ND		
Pesticides/PCBs (µg/L)																															
beta-BHC	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Alpha-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Gamma-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
4-4'-DDD	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
4-4'-DDE	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
4,4'-DDT	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Dieldrin	0.03	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Endosulfan I	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Endrin	2	2	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Endrin aldehyde	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Endrin ketone	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Heptachlor	0.05	0.4	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Methoxychlor	40	40	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Metals (µg/L)																															
Aluminum	200	NLE	121000	NA	NA	NA	NA	71.4	ND	ND	<200	1050	3410	693		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64.6	ND	ND		
Antimony	6	6	20.70	NA	NA	NA	NA	9.81	ND	7.08	<6	<6	<6	<6		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.88 ER	12.5	25.2		
Arsenic	3	10	89.30	NA	NA	NA	NA	ND	ND	0.66 ER	<3	<3	<3	<3		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	2.73	ER	
Barium	6000	2000	699.00	NA	NA	NA	NA	87.1	ND	309	<200	<200	<200	<200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	135	138	287		
Beryllium	1	4	2.10	NA	NA	NA	NA	ND	ND	ND	<1	<1	<1	<1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.072 ER	ND		
Cadmium	4	5	9.50	NA	NA	NA	NA	5.98	0.516 ER	0.816 ER	<3	<3	8.5	11.4		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.521 ER	ND		
Calcium	NLE	NLE	45400.00	NA	NA	NA	NA	165000	ND	284000	193000	144000	136000	198000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	299000	295000	399000		
Chromium	70	100	191.00	NA	NA	NA	NA	ND	ND	1.2 ER	<10	13.6	13.7	<10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND		
Cobalt	NLE	NLE	18.30	NA	NA	NA	NA	0.608	ND	ND	<50	<50	<50	<50		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND		
Copper	1300	1300	65.60	NA	NA	NA	NA	ND	ND	5.08	<10	<10	24.5	21.8		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1	2.01		
Iron	300	NLE	431000	NA	NA	NA	NA	19000	ND	9290	12900	17200	23000	9770		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6640	1560	3550		
Lead	5	15	22.70	NA	NA	NA	NA	ND	ND	ND	<3	<3	9.7	<3		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND		
Magnesium	NLE	NLE	62700	NA	NA	NA	NA	41000	ND	3000000	78300	52600	30900	89200		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30700	32000	130000		
Manganese	50	NLE	331	NA	NA	NA	NA	477	ND	570	561	496	668	535		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	521	378	554		
Mercury	2	2	0.26	NA	NA	NA	NA	ND	ND	ND		<0.2	0.44	0.46		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.22	ER	
Nickel	100	NLE	187	NA	NA	NA	NA	15.9	ND	2.35 ER	<10	12.3	29.9	24.1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.909 ER	ND	ND		
Potassium	NLE	NLE	137000	NA	NA	NA	NA	18900	38.6	93600	35900	23200	15900	35300		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10700	11600	32800		
Selenium	40	50	29.60	NA	NA	NA	NA	71.9	NR	1.95	<10	<10	<10	<10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	91.3	NR	ND		
Silver	40	NLE	ND	NA	NA	NA	NA	1.87	ND	ND	<10	<10	<10	<10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.4	ND	ND		
Sodium	5000	NLE	21500	NA	NA	NA	NA	92800	ND	2140000	405000	165000	56100	518000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	43600	49200	931000	E	
Thallium	2	2	5.50	NA	NA	NA	NA	ND	ND	ND	<2	<2	<2	<2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND		
Vanadium	60	NLE	108	NA	NA	NA	NA	3.46	ND	ND	<50	<50	<50	<50		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.23	ND	ND		
Zinc	2000	NLE	233	NA	NA	NA	NA	274	2.09	9.27	80	125	272	183		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.8	ND	ND		

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

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NLE = No limit established

ER = Estimated Result

/a = Elevated sample detection limit due to difficult sample matrix

Table 2
Historical Groundwater Analytical Results
Site FTMM-08 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M8MW17						M8MW18																		M8MW19							
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF4	LF5	LF6	LF6 Dup	LF7		39	40	41	42	43	44	45	46	LF1		LF2	LF3	LF4	LF5	LF6	LF6 Dup	LF7		39	40	41	42	43	44	45	46
Date Collected				12/23/2010	3/8/2011	5/20/2011	5/20/2011	8/10/2011		3/13/2008	6/5/2008	9/4/2008	11/21/2008	2/23/2009	6/27/2009	9/21/2009	12/10/2009	3/19/2010		6/28/2010	9/29/2010	12/23/2010	3/8/2011	5/26/2011	5/26/2011	8/11/2011		3/13/2008	6/5/2008	9/4/2008	11/21/2008	2/23/2009	6/27/2009	9/21/2009	12/8/2009
Volatile Organic Compounds (µg/L)																																			
Tert-butyl alcohol	100	NLE	--	<5	<5	<5	<5	NA		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<5	<5	<5	<5	NA		ND	8.86	ND	ND	ND	ND	ND	ND
Acetone	6000	NLE	--	<0.5	<0.5	<0.5	<0.5	<10		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	<10		ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	<0.5	<0.5	<0.5	<0.5	<2		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	<2		ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	<0.5	<0.5	<0.5	<0.5	<10		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	<10		ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	50	100	--	0.5	0.7	<0.5	<0.5	0.41	J	11.39	6.95	13.34	8.59	13.26	7.85	11.99	0.37	J 10.23		8.92	8.8	6.34	2.68	6.7	6.22	14.8		ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	600	NLE	--	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	0.33	J	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	<0.5	<0.5	<0.5	<0.5	<1		2.42	1.87	J 4.73	2.02	3.39	1.07	J 3.15	ND	2.71		2.61	2.34	1.84	<0.5	1.2	1.03	4.1		ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600	600	--	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	0.38	J	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	<0.5	<0.5	<0.5	<0.5	<2		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	<2		ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	3	5	--	<0.5	<0.5	<0.5	<0.5	<2		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	2.1		ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert butyl ether	70	NLE	--	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1	5	--	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	<0.5	<0.5	<0.5	<0.5	0.27	J	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1000	10,000	--	<1	<1	<1	<1	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<1	<1	<1	<1	<1		ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	1	2	--	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	<0.5	<0.5	<0.5	<0.5	<1		ND	ND	ND	ND	ND	ND	ND	ND
TICs	500	ND	--	ND	ND	ND	ND	ND		9.5	ND	24	4	4	13	7	ND	3		ND	3	ND	ND	3	7	ND		14	8	10	5	ND	9	11	11
Pesticides/PCBs (µg/L)																																			
beta-BHC	0.04	NLE	--	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
4-4'-DDD	0.1	NLE	--	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
4-4'-DDE	0.1	NLE	--	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	0.1	NLE	--	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0.03	NLE	--	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	40	NLE	--	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
Endrin	2	2	--	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NLE	NLE	--	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NLE	NLE	--	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	0.05	0.4	--	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	40	40	--	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
Metals (µg/L)																																			
Aluminum	200	NLE	121000	3990	<200	<200	300	<200		NA	NA	NA	NA	NA	NA	NA	NA	23.6		ND	ND	420	<200	470	275	235		NA	NA	NA	NA	NA	NA	NA	NA
Antimony	6	6	20.70	<6	<6	<6	<6	<6		NA	NA	NA	NA	NA	NA	NA	NA	10.8		11.3	8.76	<6	<6	<6	<6	<6		NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	3	10	89.30	11.6	<3	3.1	9.6	5		NA	NA	NA	NA	NA	NA	NA	NA	0.88	ER	ND	2.61	ER <3	<3	<3	<3	<3		NA	NA	NA	NA	NA	NA	NA	NA
Barium	6000	2000	699.00	<200	<200	<200	<200	<200		NA	NA	NA	NA	NA	NA	NA	NA	277		278	406	<200	<200	356	331	453		NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	1	4	2.10	<1	<1	<1	<1	<1		NA	NA	NA	NA	NA	NA	NA	NA	ND		0.105	ER ND	<1	<1	<1	<1	<1		NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4	5	9.50	<3	<3	<3	<3	<3		NA	NA	NA	NA	NA	NA	NA	NA	0.728	ER	1.77	ER 0.618	ER <3	<3	<3	<3	5		NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NLE	NLE	45400.00	280000	264000	308000	301000	296000		NA	NA	NA	NA	NA	NA	NA	NA	152000		149000	225000	92400	117000	147000	144000	154000		NA	NA	NA	NA	NA	NA	NA	NA
Chromium	70	100	191.00	33.4	<10	<10	<10	<10		NA	NA	NA	NA	NA	NA	NA	NA	ND		ND	ND	<10	<10	<10	<10	<10		NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NLE	NLE	18.30	<50	<50	<50	<50	<50		NA	NA	NA	NA	NA	NA	NA	NA	ND		ND	ND	<50	<50	<50	<50	<50		NA	NA	NA	NA	NA	NA	NA	NA
Copper	1300	1300	65.60	41.7	<10	<10	<10	<10		NA	NA	NA	NA	NA	NA	NA	NA	ND		ND	3.22	ER 11	<10	<10	<10	<10		NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	NLE	431000	52100	7220	11300	21200	11600		NA	NA	NA	NA	NA	NA	NA	NA	15200		23500	18700	1610	1480	25000	22900	24300		NA	NA	NA	NA	NA	NA	NA	NA
Lead	5	15	22.70	33.1	<3	<3	4.4	<3		NA	NA	NA	NA	NA	NA	NA	NA	ND		ND	3.07	ER <3	<3	16.3	9.7	4.7		NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NLE	NLE	62700	39600	31000	29300	29000	33300		NA	NA	NA	NA	NA	NA	NA	NA	39700		46300	97200	100000	39200	42700	41600	48600		NA	NA	NA	NA	NA	NA	NA	NA
Manganese	50	NLE	331	947	594	489	502	520		NA	NA	NA	NA	NA	NA	NA	NA	840		604	1070	35.1	348	681	651	739		NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	2	0.26		<0.2	<0.2	<0.2	<0.2		NA	NA	NA	NA	NA	NA	NA	NA	ND		ND	ND		<0.2	<0.2	<0.2	<0.2		NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	NLE	187	16.5	<10	<10	<10	<10		NA	NA	NA	NA	NA	NA	NA	NA	1.88	ER	2.3	ER 0.565	ER <10	<10	<10	<10	<10		NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NLE	NLE	137000	13200	10500	10800	10800	13700		NA	NA	NA	NA	NA	NA	NA	NA	25300		27100	38000	44900	17700	32500	31200	37700		NA	NA	NA	NA	NA	NA	NA	NA
Selenium	40	50	29.60	<10	<10	<10	<10	<10		NA	NA	NA	NA	NA	NA	NA	NA	66.5		NR	ND	<10	<10	<10	<10	<10		NA	NA	NA	NA	NA	NA	NA	NA
Silver	40	NLE	ND	<10	<10	<10	<10	<10		NA	NA	NA	NA	NA	NA	NA	NA	3.64		0.505	ND	<10	<10	<10	<10	<10		NA	NA	NA	NA	NA	NA	NA	NA
Sodium	5000	NLE	21500	254000	98600	40600	41300	79500		NA	NA	NA	NA	NA	NA	NA	NA	118000		182000	463000	883000	147000	154000	150000	198000		NA	NA	NA	NA	NA	NA	NA	NA
Thallium	2	2	5.50	<2	<2	<2	<2	<2		NA	NA	NA	NA	NA	NA	NA	NA	ND		ND	ND	<2	<2	<2	<2	<2		NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	60	NLE	108	<50	<50	<50	<50	<50		NA	NA	NA	NA	NA	NA	NA	NA	3.82		ND	ND	<50	<50	<50	<50	<50		NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2000	NLE	233	155	<20	<20	24.9	<20		NA	NA	NA	NA	NA	NA	NA	NA	89.4		ND	ND	216	254	123	79.8	274		NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

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/a = Elevated sample detection limit due to difficult sample matrix

Table 2
Historical Groundwater Analytical Results
Site FTMM-08 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M8MW19								M8MW20															M8MW21			
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF1	LF2	LF2 Dup	LF3	LF4	LF5	LF6	LF7	39	40	41	42	43	44	45	46	LF1	LF2	LF3	LF4	LF5	LF6	LF7	LF7 Dup	39	40	41	42
Date Collected				3/17/2010	6/28/2010	6/28/2010	9/28/2010	12/23/2010	3/7/2011	5/20/2011	8/10/2011	3/13/2008	6/5/2008	9/4/2008	11/21/2008	2/23/2009	6/27/2009	9/21/2009	12/8/2009	3/17/2010	6/28/2010	9/28/2010	12/23/2010	3/7/2011	5/25/2011	8/11/2011	8/11/2011	3/13/2008	6/5/2008	9/4/2008	11/21/2008
Volatile Organic Compounds (µg/L)																															
Tert-butyl alcohol	100	NLE	--	ND	ND	ND	ND	<5	<5	<5	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5	<5	<5	NA	NA	ND	ND	ND	ND
Acetone	6000	NLE	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<10	<10	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2	<2	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<10	<10	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND
Chlorobenzene	50	100	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	1.57 J	0.3 J	2.12	1.39 J	1.83 J	1.35 J	1.45	1.06	1.16	0.45 J	0.42 J	0.34 J	0.26 J	1.84	1.8	1.9	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND
1,3-Dichlorobenzene	600	NLE	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	0.35 J	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	0.16 J	<1	<1	ND	ND	ND	ND
1,2-Dichlorobenzene	600	600	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2	<2	ND	ND	ND	ND
Methylene chloride	3	5	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	2	<2	ND	ND	ND	ND
Methyl tert butyl ether	70	NLE	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND
Tetrachloroethene	1	5	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND
Total Xylenes	1000	10,000	--	ND	ND	ND	ND	<1	<1	<1	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1	<1	<1	<1	<1	ND	ND	ND	ND
Vinyl Chloride	1	2	--	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	<1	ND	ND	ND	ND
TICs	500	ND	--	14	5	5	4	ND	ND	9	ND	ND	ND	4	ND	ND	ND	ND	ND	8	ND	ND	ND	ND	16	ND	ND	ND	ND	ND	ND
Pesticides/PCBs (µg/L)																															
beta-BHC	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4'-DDD	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4'-DDE	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0.03	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	2	2	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	0.05	0.4	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	40	40	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (µg/L)																															
Aluminum	200	NLE	121000	44.4	ND	ND	ND	<200	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	20.6	ND	37.4	<200	<200	<200	<200	<200	NA	NA	NA	NA
Antimony	6	6	20.70	11.5	9.6 ER	10.2	30.3	<6	<6	<6	<6	NA	NA	NA	NA	NA	NA	NA	NA	7.8 ER	14.2	34.1	<6	<6	<6	<6	<6	NA	NA	NA	NA
Arsenic	3	10	89.30	1.71 ER	ND	ND	4.21 ER	<3	<3	<3	<3	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	1.46 ER	<3	<3	<3	3.8	<3	NA	NA	NA	NA
Barium	6000	2000	699.00	48.8	96.1	98.3	511	<200	<200	<200	273	NA	NA	NA	NA	NA	NA	NA	NA	110	148	238	<200	<200	360	409	422	NA	NA	NA	NA
Beryllium	1	4	2.10	ND	0.117 ER	0.118 ER	0.057 ER	<1	<1	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.073 ER	ND	<1	<1	<1	<1	<1	NA	NA	NA	NA
Cadmium	4	5	9.50	ND	0.826 ER	0.932 ER	1.29 ER	<3	<3	<3	3.8	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<3	<3	<3	<3	<3	NA	NA	NA	NA
Calcium	NLE	NLE	45400.00	92500	166000	170000	607000 E	42800	135000	126000	306000	NA	NA	NA	NA	NA	NA	NA	NA	136000	184000	344000	58400	137000	318000	330000	349000	NA	NA	NA	NA
Chromium	70	100	191.00	ND	ND	ND	3.68 ER	<10	12.1	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND	7.25	4.89 ER	<10	16.5	<10	10.6	<10	NA	NA	NA	NA
Cobalt	NLE	NLE	18.30	ND	ND	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<50	<50	<50	<50	<50	NA	NA	NA	NA
Copper	1300	1300	65.60	ND	2.55 ER	2.14 ER	2.69 ER	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	1.96 ER	<10	<10	<10	<10	<10	NA	NA	NA	NA
Iron	300	NLE	431000	5850	12000	12100	30200	4440	9870	4070	13000	NA	NA	NA	NA	NA	NA	NA	NA	478	720	3310	5550	1230	3390	6990	4190	NA	NA	NA	NA
Lead	5	15	22.70	ND	ND	ND	3.34 ER	<3	<3	<3	<3	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<3	<3	<3	<3	<3	NA	NA	NA	NA
Magnesium	NLE	NLE	62700	37200	65400	67100	295000	6720	43100	44000	150000	NA	NA	NA	NA	NA	NA	NA	NA	43500	96000	293000	7700	92900	64600	110000	120000	NA	NA	NA	NA
Manganese	50	NLE	331	219	386	394	1230	1010	421	461	801	NA	NA	NA	NA	NA	NA	NA	NA	93.6	160	332	70.6	125	336	321	338	NA	NA	NA	NA
Mercury	2	2	0.26	ND	ND	ND	0.25 ER		<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.24 ER		<0.2	<0.2	<0.2	<0.2	NA	NA	NA	NA
Nickel	100	NLE	187	1.31 ER	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	0.624 ER	ND	0.506 ER	<10	<10	<10	10.1	<10	NA	NA	NA	NA
Potassium	NLE	NLE	137000	12800	20600	21000	57500	<10000	16600	21100	42300	NA	NA	NA	NA	NA	NA	NA	NA	17400	39600	90000	11300	36100	28500	43300	47200	NA	NA	NA	NA
Selenium	40	50	29.60	69.3	NR	NR	1.61	<10	<10	<10	12.4	NA	NA	NA	NA	NA	NA	NA	NA	86.5	NR	3.01	<10	<10	<10	12.1	11.5	NA	NA	NA	NA
Silver	40	NLE	ND	3.16	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	6.84	ND	ND	<10	<10	<10	<10	<10	NA	NA	NA	NA
Sodium	5000	NLE	21500	337000	445000	435000	2010000 E	69700	357000	408000	1030000	NA	NA	NA	NA	NA	NA	NA	NA	140000	570000	1890000 E	30200	533000	180000	527000	596000	NA	NA	NA	NA
Thallium	2	2	5.50	ND	ND	ND	ND	<2	<2	<2	<2	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<2		<2	<2	<2	NA	NA	NA	NA
Vanadium	60	NLE	108	3.39	ND	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	3.83	7.54	1.07	<50	<50	<50	<50	<50	NA	NA	NA	NA
Zinc	2000	NLE	233	8.02	1.25	2.57	ND	<20	117	33.7	198	NA	NA	NA	NA	NA	NA	NA	NA	16.6	ND	ND	<20	<20	39.5	71.6	33	NA	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

/a = Elevated sample detection limit due to difficult sample matrix

Table 2
Historical Groundwater Analytical Results
Site FTMM-08 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M8MW21												M8MW22															
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	43	44	45	46	LF1	LF2	LF3	LF4	LF5	LF6	LF6 Dup	LF7	39	40	41	42	43	44	45	46	LF1	LF2	LF3	LF3 Dup	LF4	LF5	LF6	LF7
Date Collected				2/23/2009	6/27/2009	9/21/2009	12/8/2009	3/17/2010	6/28/2010	9/28/2010	12/23/2010	3/7/2011	5/25/2011	5/25/2011	8/10/2011	3/13/2008	6/5/2008	9/4/2008	11/21/2008	2/23/2009	6/27/2009	9/21/2009	12/8/2009	3/17/2010	6/28/2010	9/29/2010	9/29/2010	12/23/2010	3/7/2011	5/25/2011	8/10/2011
Volatile Organic Compounds (µg/L)																															
Tert-butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	<5	<5	<5	<5	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5	<5	<5	NA
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<10
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<10
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
Chlorobenzene	50	100	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<1	0.36 J	0.27 J	0.31 J	ND	ND	0.24 J	ND	0.21 J	0.19 J	ND	0.2 J	0.22 J	0.23 J	0.18 J	0.19 J	<1
1,3-Dichlorobenzene	600	NLE	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
1,2-Dichlorobenzene	600	600	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
Isopropylbenzene	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2
Methylene chloride	3	5	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2
Methyl tert butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	0.18 J	<1
Tetrachloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
Total Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	<1	<1	<1	<1	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1	<1	<1	<1
Vinyl Chloride	1	2	--	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
TICs	500	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.1
Pesticides/PCBs (µg/L)																															
beta-BHC	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4'-DDD	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4'-DDE	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0.03	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	2	2	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	0.05	0.4	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	40	40	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (µg/L)																															
Aluminum	200	NLE	121000	NA	NA	NA	NA	857	ND	137	<200	1020	24500	8720	<200	NA	NA	NA	NA	NA	NA	NA	NA	ND	50	13.7	ND	<200	<200	785	355
Antimony	6	6	20.70	NA	NA	NA	NA	ND	11	28.2	<6	<6	<6	<6	<6	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	6.42	7.38	<6	<6	<6	<6
Arsenic	3	10	89.30	NA	NA	NA	NA	ND	ND	0.99 ER	6.4	<3	13	5.3	<3	NA	NA	NA	NA	NA	NA	NA	NA	8.49	10.63	9.23	7.79	6.9	5.2	38.1	34.2
Barium	6000	2000	699.00	NA	NA	NA	NA	10.1	36.2	72.4	<200	<200	257	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.31 ER	3.78 ER	4.33 ER	<200	<200	<200	<200
Beryllium	1	4	2.10	NA	NA	NA	NA	ND	0.067 ER	ND	<1	<1	2.4	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<1	<1	<1	<1
Cadmium	4	5	9.50	NA	NA	NA	NA	ND	1.55 ER	1.81 ER	<3	<3	14.9	5.7	<3	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<3	<3	<3	<3
Calcium	NLE	NLE	45400.00	NA	NA	NA	NA	34500	133000	158000	23400	21900	122000	124000	187000	NA	NA	NA	NA	NA	NA	NA	NA	8120	6370	67200	64400	151000	56300	14000	13000
Chromium	70	100	191.00	NA	NA	NA	NA	1.74 ER	ND	ND	<10	<10	118	43.1	<10	NA	NA	NA	NA	NA	NA	NA	NA	1.08 ER	3.99 ER	ND	ND	<10	<10	11.4	11.7
Cobalt	NLE	NLE	18.30	NA	NA	NA	NA	ND	ND	ND	<50	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<50	<50	<50	<50
Copper	1300	1300	65.60	NA	NA	NA	NA	6.73	5.27	9.08	<10	14.6	81	30	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	4.09 ER	3.3 ER	<10	<10	<10	<10
Iron	300	NLE	431000	NA	NA	NA	NA	2290	1950	1880	15700	1900	73700	31400	7380	NA	NA	NA	NA	NA	NA	NA	NA	2210	1760	11700	12800	50100	11500	56500	40300
Lead	5	15	22.70	NA	NA	NA	NA	ND	ND	ND	<3	<3	65	24.9	<3	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<3	<3	14.3	4.5
Magnesium	NLE	NLE	62700	NA	NA	NA	NA	19400	75800	166000	<5000	19900	114000	95500	141000	NA	NA	NA	NA	NA	NA	NA	NA	12000	9100	127000	121000	240000	88300	16600	15700
Manganese	50	NLE	331	NA	NA	NA	NA	39.6	132	207	57.1	17	274	202	306	NA	NA	NA	NA	NA	NA	NA	NA	14.5	15.5	326	324	663	234	92.1	88.6
Mercury	2	2	0.26	NA	NA	NA	NA	ND	ND	0.27 ER		<0.2	0.71	0.26	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND		<0.2	<0.2	<0.2
Nickel	100	NLE	187	NA	NA	NA	NA	4.66 ER	7.83	9.15	<10	<10	54.5	25.7	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	1.68 ER	2.13 ER	<10	<10	<10	<10
Potassium	NLE	NLE	137000	NA	NA	NA	NA	13800	28400	56200	<10000	13500	47100	40000	54700	NA	NA	NA	NA	NA	NA	NA	NA	15900	13500	43700	42600	69200	37800	19300	19300
Selenium	40	50	29.60	NA	NA	NA	NA	46.2	NR	ND	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	19.3	NR	1.62	2.16	<10	<10	<10	<10
Silver	40	NLE	ND	NA	NA	NA	NA	1.38	ND	ND	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.876	ND	<10	<10	<10	<10
Sodium	5000	NLE	21500	NA	NA	NA	NA	172000	426000	1160000 E	47000	243000	739000	671000	1000000	NA	NA	NA	NA	NA	NA	NA	NA	125000	124000	715000	694000 E	493000	236000	146000	153000
Thallium	2	2	5.50	NA	NA	NA	NA	ND	ND	ND	<2	<2	<2	<2	<2	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<2	<2	<2	<2
Vanadium	60	NLE	108	NA	NA	NA	NA	3.25	0.639	ND	<50	<50	60.6	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	4.23	7.11	0.704	0.674	<50	<50	<50	<50
Zinc	2000	NLE	233	NA	NA	NA	NA	86.5	200	201	<20	91.2	1300	588	127	NA	NA	NA	NA	NA	NA	NA	NA	8.09	10.4	31.1	47	128	51.5	147	124

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

/a = Elevated sample detection limit due to difficult sample matrix

Table 2
Historical Groundwater Analytical Results
Site FTMM-08 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M8MW23																M8MW24											
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	37	38	39	40	41	44	45	46	LF1	LF2	LF3	LF4	LF5	LF6	LF7	36	37	38	39	40	41	42	43	44	LF1	LF2	LF2 Dup
Date Collected				3/13/2008	6/5/2008	9/5/2008	11/21/2008	2/23/2009	6/27/2009	9/21/2009	12/10/2009	3/19/2010	6/29/2010	9/29/2010	12/23/2010	3/9/2011	5/25/2011	8/11/2011	3/14/2008	6/5/2008	9/5/2008	11/21/2008	2/9/2009	2/23/2009	6/27/2009	9/21/2009	12/8/2009	3/19/2010	6/29/2010	6/29/2010
Volatile Organic Compounds (µg/L)																														
Tert-butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5	<5	<5	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<10	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<10	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	0.74 J	ND	0.24 J	ND	NA	ND	0.26 J	0.22 J	ND	1.21	0.21 J	0.24 J
Chlorobenzene	50	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	5.08	2.35	3.68	2.3	NA	3.31	4.03	3.98	2.68	9.88	3.27	3.51
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	0.33 J	ND	11.67	5.6	2.09	ND	6.48	1.11	ND	3.07	5.06	2.58	0.32 J	1.19	6.1	ND	ND	0.31 J	ND	NA	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	600	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	0.3 J	ND	0.33 J	ND	NA	ND	ND	ND	ND	0.64	ND	0.26 J
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	1.03 J	0.53 J	1.04 J	0.53 J	NA	0.58 J	0.8 J	0.83	0.7	2.37	0.84	0.92
1,2-Dichlorobenzene	600	600	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	3	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Methyl tert butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	0.3 J	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	2.06	ND	ND	0.19 J	ND	1.02	ND	<0.5	0.17 J	0.84	0.62 J	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1	<1	<1	<1	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	1	2	--	ND	ND	2.73	0.79 J	ND	ND	0.71	ND	ND	ND	1.59	0.67	<0.5	<0.5	0.6 J	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
TICs	500	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8	ND	17	4	NA	4	5	6	ND	7	5	5
Pesticides/PCBs (µg/L)																														
beta-BHC	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA
Alpha-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA
Gamma-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.043	NA	NA	NA	NA	NA	NA
4-4'-DDD	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA	NA	NA
4-4'-DDE	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA	NA	NA
4,4'-DDT	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.156	NA	NA	NA	NA	NA	NA
Dieldrin	0.03	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.049	NA	NA	NA	NA	NA	NA
Endosulfan I	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.021	NA	NA	NA	NA	NA	NA
Endrin	2	2	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.026	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.056	NA	NA	NA	NA	NA	NA
Endrin ketone	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.055	NA	NA	NA	NA	NA	NA
Heptachlor	0.05	0.4	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA
Methoxychlor	40	40	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.15	NA	NA	NA	NA	NA	NA
Metals (µg/L)																														
Aluminum	200	NLE	121000	NA	NA	NA	NA	NA	NA	NA	NA	258	210	48.8	<200	807	312	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	34	69.6	58
Antimony	6	6	20.70	NA	NA	NA	NA	NA	NA	NA	NA	10.1	9.13 ER	ND	<6	<6	<6	<6	NA	NA	NA	NA	NA	NA	NA	NA	NA	14.4	9.82 ER	9.04 ER
Arsenic	3	10	89.30	NA	NA	NA	NA	NA	NA	NA	NA	0.67 ER	3.9 ER	0.77 ER	<3	<3	5.1	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.64 ER	0.7 ER	0.9 ER
Barium	6000	2000	699.00	NA	NA	NA	NA	NA	NA	NA	NA	7.51	33.5	37.9	<200	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	393	182	179
Beryllium	1	4	2.10	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<1	<1	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.05 ER
Cadmium	4	5	9.50	NA	NA	NA	NA	NA	NA	NA	NA	1.22 ER	ND	ND	<3	<3	<3	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.73 ER
Calcium	NLE	NLE	45400.00	NA	NA	NA	NA	NA	NA	NA	NA	62700	41200	32000	42800	18500	32800	33400	NA	NA	NA	NA	NA	NA	NA	NA	NA	141000	66400	65300
Chromium	70	100	191.00	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND
Cobalt	NLE	NLE	18.30	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.584	ND	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND
Copper	1300	1300	65.60	NA	NA	NA	NA	NA	NA	NA	NA	12	6.11	1.61 ER	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	5.7	6.23
Iron	300	NLE	431000	NA	NA	NA	NA	NA	NA	NA	NA	359	3740	5490	4440	2590	2550	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	23000	10100	9940
Lead	5	15	22.70	NA	NA	NA	NA	NA	NA	NA	NA	ND	3.06 ER	ND	<3	6	3.3	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	3.31 ER	3.89 ER
Magnesium	NLE	NLE	62700	NA	NA	NA	NA	NA	NA	NA	NA	7280	7360	6610	6720	<5000	6250	6230	NA	NA	NA	NA	NA	NA	NA	NA	NA	27300	11700	11600
Manganese	50	NLE	331	NA	NA	NA	NA	NA	NA	NA	NA	20	636	829	1010	158	439	530	NA	NA	NA	NA	NA	NA	NA	NA	NA	177	78	77
Mercury	2	2	0.26	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND		<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.08 ER
Nickel	100	NLE	187	NA	NA	NA	NA	NA	NA	NA	NA	5.26	10.6	3.82 ER	<10	<10	16.6	10.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.63 ER	0.846 ER	0.853 ER
Potassium	NLE	NLE	137000	NA	NA	NA	NA	NA	NA	NA	NA	5750	3450	3760	<10000	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	25200	12400	12100
Selenium	40	50	29.60	NA	NA	NA	NA	NA	NA	NA	NA	47.7	NR	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	65.1	NR	NR
Silver	40	NLE	ND	NA	NA	NA	NA	NA	NA	NA	NA	3.51	0.627	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.871	0.764
Sodium	5000	NLE	21500	NA	NA	NA	NA	NA	NA	NA	NA	7880	64600	54600	69700	20300	87400	79400	NA	NA	NA	NA	NA	NA	NA	NA	NA	110000	44600	44300
Thallium	2	2	5.50	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<2	<2	<2	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND
Vanadium	60	NLE	108	NA	NA	NA	NA	NA	NA	NA	NA	1.97	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.62	ND	ND
Zinc	2000	NLE	233	NA	NA	NA	NA	NA	NA	NA	NA	275	461	9.8	<20	472	1730	345	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.86	3.4	3.66

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

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Table 2
Historical Groundwater Analytical Results
Site FTMM-08 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M8MW24					697MW01															
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF3	LF4	LF5	LF6	LF7	44	45	46	47	48	48 Dup	49	50	51	LF1	LF2	LF3	LF4	LF5	LF6	LF7
Date Collected				9/29/2010	12/23/2010	3/8/2011	5/26/2011	8/11/2011	3/14/2008	6/5/2008	9/5/2008	11/21/2008	2/23/2009	2/23/2009	6/27/2009	9/21/2009	12/8/2009	3/19/2010	6/29/2010	9/29/2010	12/23/2010	3/9/2011	5/26/2011	8/11/2011
Volatile Organic Compounds (µg/L)																								
Tert-butyl alcohol	100	NLE	--	ND	<5	<5	<5	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5	<5	<5	NA
Acetone	6000	NLE	--	ND	<0.5	<0.5	<0.5	<10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19.54	<0.5	<0.5	<10
Carbon disulfide	700	NLE	--	ND	<0.5	<0.5	<0.5	<2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2
2-Butanone	300	NLE	--	ND	<0.5	<0.5	<0.5	<10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	97.04 J	<0.5	<0.5	<10
Benzene	1	5	--	0.53	<0.5	0.32 J	0.21 J	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.96	0.45 J	0.21 J	0.96	0.35 J	<0.5	<1
Chlorobenzene	50	100	--	4.76	1.43	2.25	3.47	1	0.42 J	ND	ND	ND	ND	ND	0.22 J	ND	0.26 J	5.63	2.52	1.08	3.14	1.11	<0.5	<1
Bromodichloromethane	1	80	--	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
Chloroform	70	80	--	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
Dibromochloromethane	1	NLE	--	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
cis -1,2-Dichloroethene	70	70	--	ND	<0.5	<0.5	<0.5	<1	ND	ND	0.39 J	ND	ND	ND	ND	ND	ND	0.6	0.4 J	0.19 J	0.49	0.42 J	<0.5	<1
1,3-Dichlorobenzene	600	NLE	--	0.38 J	<0.5	0.17 J	0.25 J	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
1,4-Dichlorobenzene	75	75	--	1.22	<0.5	0.55	0.79	0.43 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
1,2-Dichlorobenzene	600	600	--	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
Ethylbenzene	700	700	--	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
Isopropylbenzene	700	NLE	--	ND	<0.5	<0.5	<0.5	<2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2
Methylene chloride	3	5	--	ND	<0.5	<0.5	<0.5	<2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<2
Methyl tert butyl ether	70	NLE	--	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
Tetrachloroethene	1	5	--	ND	<0.5	<0.5	<0.5	<1	0.86 J	1.01 J	1.15 J	1.44 J	1.16 J	1.19 J	0.98 J	1.85 J	1.71	ND	ND	ND	<0.5	0.31 J	0.96	1.1
Toluene	600	1000	--	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
Trichloroethene	1	5	--	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	0.57	0.7 J
Total Xylenes	1000	10,000	--	ND	<1	<1	<1	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1	<1	<1	<1
Vinyl Chloride	1	2	--	ND	<0.5	<0.5	<0.5	<1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.5	<0.5	<0.5	<1
TICs	500	ND	--	11	ND	ND	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pesticides/PCBs (µg/L)																								
beta-BHC	0.04	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.628	0.54	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma-chlordane	0.5	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.461	0.512	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4'-DDD	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.28	1.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-4'-DDE	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.048	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	0.1	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.301	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0.03	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.055	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I	40	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	2	2	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin ketone	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor	0.05	0.4	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.071	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	40	40	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.035	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (µg/L)																								
Aluminum	200	NLE	121000	ND	<200	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	39.1	ND	9.01	<200	<200	<200	<200
Antimony	6	6	20.70	5.35	<6	<6	<6	<6	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.4	7.69 ER	ND	<6	<6	<6	<6
Arsenic	3	10	89.30	0.84 ER	<3	<3	<3	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.35	4.2 ER	2.9 ER	6.4	<3	<3	<3
Barium	6000	2000	699.00	343	<200	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	54.6	38.5	36.3	<200	<200	<200	<200
Beryllium	1	4	2.10	ND	<1	<1	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<1	<1	<1	<1
Cadmium	4	5	9.50	0.651 ER	<3	<3	<3	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.809 ER	ND	<3	<3	<3	<3
Calcium	NLE	NLE	45400.00	111000	58400	74700	58900	40200	NA	NA	NA	NA	NA	NA	NA	NA	NA	125000	51900	26900	23400	15000	13100	18400
Chromium	70	100	191.00	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<10	<10	<10	<10
Cobalt	NLE	NLE	18.30	ND	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.785	0.832	<50	<50	<50	<50
Copper	1300	1300	65.60	2.59 ER	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	6.26	ND	<10	<10	<10	<10
Iron	300	NLE	431000	23000	5550	10300	8290	4840	NA	NA	NA	NA	NA	NA	NA	NA	NA	14100	10100	3940	15700	7880	1080	568
Lead	5	15	22.70	2.92 ER	<3	<3	3.9	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<3	<3	<3	<3
Magnesium	NLE	NLE	62700	24600	7700	11100	10000	6350	NA	NA	NA	NA	NA	NA	NA	NA	NA	14400	8890	6200	<5000	<5000	<5000	<5000
Manganese	50	NLE	331	168	70.6	88.5	69.3	48.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	107	59.5	37.7	57.1	35.8	<15	<15
Mercury	2	2	0.26	ND		<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<0.2	<0.2	<0.2	<0.2
Nickel	100	NLE	187	1.1 ER	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.45 ER	4.09 ER	7.19	<10	<10	<10	<10
Potassium	NLE	NLE	137000	19400	11300	12500	12200	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	5980	3570	3410	<10000	<10000	<10000	<10000
Selenium	40	50	29.60	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	65.7	NR	1.38	<10	<10	<10	<10
Silver	40	NLE	ND	1.55	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.44	1.14	ND	<10	<10	<10	<10
Sodium	5000	NLE	21500	115000	30200	42600	44100	30300	NA	NA	NA	NA	NA	NA	NA	NA	NA	30300	50100	47400	47000	42100	57100	72800
Thallium	2	2	5.50	ND	<2	<2	<2	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<2	<2	<2	<2
Vanadium	60	NLE	108	ND	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.35	ND	ND	<50	<50	<50	<50
Zinc	2000	NLE	233	ND	<20	<20	<20	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.12	1.45	2.12	<20	<20	<20	<20

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

/a = Elevated sample detection limit due to difficult sample matrix

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-08 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID			697MW01		M8MW11		M8MW12			M8MW13	M8MW14		M8MW15			M8MW16	
Sample ID	NJDEP GWQS	2015-06 USEPA MCL	FTMM-8-GW-697MW01-16.45	FTMM-8-GW-697MW01-16.5	FTMM-8-GW-M8MW11-21.5	FTMM-8-GW-M8MW11-21.5	FTMM-8-GW-M8MW12	FTMM-8-GW-M8MW12-13.55	FTMM-8-GW-M8MW12-13.5	FTMM-8-GW-M8MW13	FTMM-8-GW-M8MW114	FTMM-8-GW-M8MW14	FTMM-8-GW-M8MW15	FTMM-8-GW-M8MW15-11.30	FTMM-8-GW-M8MW15-11.8	FTMM-8-GW-M8MW16	FTMM-8-GW-M8MW16-11.74
Sample Date			10/1/2014	11/19/2015	11/25/2015	11/25/2015	8/16/2013	10/2/2014	11/20/2015	8/15/2013	8/16/2013	8/16/2013	8/19/2013	10/1/2014	11/19/2015	8/20/2013	10/1/2014
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	DU	SA	SA	SA	SA	SA	SA
Sampling Method			LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS
Filtered			Total	Total	Total	Filtered	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
Volatile Organic Compounds (µg/l)																	
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1 UJ	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	**1.1 J**	**0.43 J**	**0.56 J**	**0.52 J**
1,2-Dichloroethane	2	5	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1 UJ	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	**1.3 J**	**0.67 J**	**0.92 J**	**0.85 J**
1,3-Dichloropropane	100	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	**0.23 J**	3.8 J	NA	< 1	< 1	< 1	< 1	**1.2 J**	**1.4 J**	**2.5 J**	**3.4 J**	**1.4 J**	**3.4 J**	**3.1 J**
2,2-Dichloropropane	100	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	< 5	< 5	26 B	NA	< 5	< 5	**1.4 J**	**2.7 J**	**3.1 J**	**2.9 J**	**14 J**	**13**	**3 J**	**2.6 J**	**3.5 J**
Benzene	1	5	**0.28 J**	**1 J**	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	**0.77 J**	**0.38 J**
Bromobenzene	100	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	**0.7 J**	< 1	< 10	NA	**0.98 J**	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	10 U	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	**1.6 J**	**4.1 J**	6.4 J	NA	< 1	< 1	< 1	< 1	**3.3 J**	**3.7 J**	**12 J**	**14**	**2.9 J**	**29**	**29**
Chlorodibromomethane	1	80	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Chloroform	70	80	**2.7 J**	**0.82 J**	3 J	NA	**7.1**	**4.7 J**	**0.35 J**	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	**0.42 J**	**0.72 J**	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	**0.29 J**	< 1
Meta/Para Xylene	1,000	NLE	< 2 UJ	< 2	< 20	NA	< 2	< 2	< 2	< 2	< 4	< 2	< 20	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 50	NA	< 5	< 5	< 5	< 5	< 10	< 5	< 50	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	**0.32 J**	< 1	< 1	**0.21 J**
Methyl ethyl ketone	300	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	**0.92 J**	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	3.2 B	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	**0.24 B**	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1 UJ	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Styrene	100	100	< 1 UJ	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	< 20	< 20	< 200	NA	NA	< 20	< 20	NA	NA	NA	NA	< 20	< 20	NA	< 20
tert-Butylbenzene	100	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	**0.24 J**	< 1
Tetrachloroethene	1	5	**1.6 J**	**0.52 J**	< 10	NA	**1.3 J**	**1.3 J**	**1.3 J**	< 1	< 2	< 1	< 10	< 1	**0.43 J**	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	**0.22 J**	< 10	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3 UJ	< 3	< 30	NA	< 3	< 3	< 3	< 3	< 6	< 3	< 30	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	< 2	< 1	< 10	< 1	< 1	< 1	< 1
TIC VOCs (µg/l)																	
Total TIC, Volatile	500	NLE	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	**7.4 JN**	ND	ND	ND
Pesticides (µg/l)																	
4,4'-DDD	0.1	NLE	**0.83**	**0.7**	NA	NA	< 0.04	NA	NA	< 0.039	< 0.039	< 0.039	< 0.039	NA	NA	< 0.039	NA
4,4'-DDE	0.1	NLE	< 0.025	< 0.025	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
4,4'-DDT	0.1	NLE	**0.042 J**	**0.048**	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Aldrin	0.04	NLE	< 0.025	< 0.025	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Alpha-BHC	0.02	NLE	< 0.025	< 0.025	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Alpha-Chlordane	0.5	NLE	**0.24**	**0.19 J**	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Beta-BHC	0.04	NLE	< 0.028	< 0.028	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Delta-BHC	100	NLE	< 0.025	< 0.048	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Dieldrin	0.03	NLE	< 0.025	< 0.025	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Endosulfan I	40	NLE	< 0.025	< 0.025	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Endosulfan II	40	NLE	< 0.025	< 0.025	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Endosulfan sulfate	40	NLE	< 0.025	< 0.025	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Endrin	2	2	< 0.025	< 0.025	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Endrin aldehyde	100	2	< 0.025 UJ	< 0.025 UJ	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Endrin ketone	100	NLE	< 0.035	< 0.025	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Gamma-BHC/Lindane	0.03	0.2	< 0.025	< 0.025	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Gamma-Chlordane	0.5	NLE	**0.23 J**	**0.19**	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Heptachlor	0.05	0.4	< 0.025	< 0.025	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Heptachlor epoxide	0.2	0.2	< 0.025	< 0.025	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Methoxychlor	40	40	< 0.025	< 0.025	NA	NA	< 0.026	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	NA
Toxaphene	2	3	< 0.5	< 0.5	NA	NA	< 0.51	NA	NA	< 0.5	< 0.5	< 0.5	< 0.5	NA	NA	< 0.5	NA
Inorganics (µg/l)																	
Lead	5	15	< 2.5	< 2.5	**211**	< 2.5	< 2	NA	NA	< 2	< 2	< 2	< 2	NA	NA	< 2	NA

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-08 Closed Solid Waste Landfill
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Loc ID			M8MW16	M8MW17			M8MW18	M8MW19	M8MW20	M8MW21			M8MW22	M8MW23	RM8MW24		
Sample ID	NJDEP GWQS	2015-06 USEPA MCL	FTMM-8-GW-M8MW16-12.07	FTMM-8-GW-M8MW17	FTMM-8-GW-M8MW17-10.90	FTMM-8-GW-M8MW17-9.75	FTMM-8-GW-M8MW18	FTMM-8-GW-M8MW19	FTMM-8-GW-M8MW20	FTMM-8-GW-M8MW21	FTMM-8-GW-M8MW21-14.31	FTMM-8-GW-M8MW21-13.0	FTMM-8-GW-M8MW22	FTMM-8-GW-M8MW23	FTMM-8-GW-M8MW24-29.68	FTMM-8-GW-RM8MW24	FTMM-8-GW-M8MW24-28.5
Sample Date			11/19/2015	8/16/2013	10/2/2014	11/19/2015	8/19/2013	8/15/2013	8/15/2013	8/15/2013	10/2/2014	11/19/2015	8/16/2013	8/19/2013	10/1/2014	8/19/2013	11/19/2015
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
Sampling Method			LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS
Filtered			Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
Volatile Organic Compounds (µg/l)																	
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	**0.43 J**	**0.34 J**	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	**0.7 J**	**0.37 J**	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	**0.22 J**	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	**2.3 J**	**1.3 J**	NA	NA	**1.2 J**	**0.33 J**	< 10	< 1	NA	NA	< 1	< 1	**0.62 J**	**0.56 J**	**0.35 J**
2,2-Dichloropropane	100	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**1.7 J**	**2.5 J**	NA	NA	**4.8 J**	**3.9 J**	< 50	**2.1 J**	NA	NA	**8.8**	< 5	< 5	**2.4 J**	**1.4 J**
Benzene	1	5	**0.25 J**	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	**20**	**4.6 J**	NA	NA	**7.7**	< 1	< 10	< 1	NA	NA	< 1	< 1	**2.1 J**	**1.5 J**	**0.66 J**
Chlorodibromomethane	1	80	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	**5.2**	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	NA	NA	< 2	< 2	< 20	< 2	NA	NA	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	NA	NA	< 5	< 5	< 50	< 5	NA	NA	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	**0.23 J**	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	< 20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 20	NA	< 20
tert-Butylbenzene	100	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	NA	NA	< 3	< 3	< 30	< 3	NA	NA	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	**0.62 J**	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	NA	NA	< 1	< 1	< 10	< 1	NA	NA	< 1	**0.68 J**	< 1	< 1	< 1
TIC VOCs (µg/l)																	
Total TIC, Volatile	500	NLE	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	ND	ND	NA	ND	NA
Pesticides (µg/l)																	
4,4'-DDD	0.1	NLE	NA	< 0.039	NA	NA	< 0.039	< 0.039	< 0.039	< 0.039	NA	NA	< 0.039	< 0.039	NA	< 0.04	NA
4,4'-DDE	0.1	NLE	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
4,4'-DDT	0.1	NLE	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Aldrin	0.04	NLE	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Alpha-BHC	0.02	NLE	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Alpha-Chlordane	0.5	NLE	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Beta-BHC	0.04	NLE	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Delta-BHC	100	NLE	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Dieldrin	0.03	NLE	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Endosulfan I	40	NLE	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Endosulfan II	40	NLE	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Endosulfan sulfate	40	NLE	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Endrin	2	2	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Endrin aldehyde	100	2	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Endrin ketone	100	NLE	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Gamma-BHC/Lindane	0.03	0.2	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Gamma-Chlordane	0.5	NLE	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Heptachlor	0.05	0.4	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Heptachlor epoxide	0.2	0.2	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Methoxychlor	40	40	NA	< 0.025	NA	NA	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA	< 0.025	< 0.025	NA	< 0.026	NA
Toxaphene	2	3	NA	< 0.5	NA	NA	< 0.5	< 0.5	< 0.5	< 0.5	NA	NA	< 0.5	< 0.5	NA	< 0.51	NA
Inorganics (µg/l)																	
Lead	5	15	NA	< 2	< 2.5	**3.9 J**	< 2	< 2	< 2	< 2	< 2.5	**8.1**	< 2	**2.4 J**	NA	< 2	NA

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
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Footnote:

1) All historical data collected prior to 2013 are reported as provided by others.

2) Number of Analyses is the number of detected and non-detected results excluding rejected results. Sample duplicate pairs have not been averaged.

3) NLE = no limit established.

4) ND = not detected in any background sample, no background concentration available.

5) Chemical result qualifiers are assigned by the laboratory and is typically evaluated and modified (if necessary) by during data validation.

[blank] = detect, i.e. detected chemical result value.
B = Compound detected in the sample and its associated blank sample.
R = Rejected, data validation rejected the results.
U = non-detect, i.e. not detected equal to or above this value.
U-DL = Elevated sample detection limit due to difficult sample matrix.
U-ND = Analyte not detected in sample, but no detection or reporting limit provided.
J = estimated (detect or non-detect) value.
E (or ER) = Estimated result.
D = Results from dilution of sample.
J-DL = Elevated sample detection limit due to difficult sample matrix.
JN = Tentatively identified compound, estimated concentration.

6) Chemical results greater than or equal to the action level (depending on criteria) are highlighted based on the Criteria that are present.

- Cell Shade values represent a result that is above the NJ Ground Water Quality Criteria ####

NJDEP Interim Specific GWQC values are presented for the NJ GWQS where there is not a Specific Ground Water Quality Criteria. A full list of compounds is available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

NJDEP Interim Generic GWQC values are presented for the NJ GWQS where there is not a XXXXX or a NJDEP Interim Specific GWQC. Available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

- Bold Outline represent a result that is above the USEPA 2014-05 MCL. ###

7) Criteria action level source document and web address.

- The NJ Ground Water Quality Criteria refers to the NJDEP Groundwater Quality Standards - Adopted July 22, 2010
  http://www.state.nj.us/dep/wms/bwqsa/docs/njac79C.pdf
- The 2014-05 USEPA MCL refers to the USEPA's Region 9 Regional Screening Levels (HQ=1.0) - 5/31/2014 (Last revised)
  http://www.epa.gov/region9/superfund/prg/

8) Wells sampled in the most recent fourth quarter sampling event are highlighted in yellow. Sample ID

Table 4
Review of Historical Groundwater Sampling Results
Site FTMM-08 Closed Solid Waste Landfill
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site Name/ Well ID	Interpretation of Historical and 2015 Results[1]		2015 Evaluation					Rationale for Monitoring for the Biennial Certifications for the CEA
	Does a Compound Exceed NJDEP GWQS (Yes or No) (If Yes, identify compound)	Do Metals Exceed FTMM Background Concentration (Yes or No) (If Yes, identify Metal)	Seasonal Effect? (Y/N)[2]	Anomaly? (Y/N)	Exceedance part of overall trend? (Y/N)	Well needed for sentinel purposes? (Y/N)	Retain Analyte/Well in the CEA (Yes or No)	
FTMM-08								
697MW01	beta-BHC, alpha- and gamma- chlordane, 4-4'-DDD, 4-4'-DDT, dieldrin, heptachlor, PCE	No	No	No	Yes	No	TBD	Well could not be located and was not sampled in August 2013. Well located and sampled in October 2014. Beta-BHC, alpha- and gamma- chlordane, 4-4'-DDT, dieldrin, and heptachlor exceed NJDEP GWQS in 2009 (last quarterly sampling event), 4-4' DDD and PCE were above GWQS in 2014.
M8MW11	lead, manganese	Yes	No	Yes	No	No	Yes	Pb detection above NJDEP GWQS due to high turbitiy in 2015. Manganese included in the CEA based on NJDEP 2016 June comments on review of FTMM-08 RIR.
M8MW12	PCE	N/A	No	No	Yes	No	Yes	PCE exceeded in 2013 and 2014.
M8MW14	manganese	Yes	No	No	No	No	Yes	Well discontinued in 2013. Manganese included in the CEA based on NJDEP 2016 June comments on review of FTMM-08 RIR.
M8MW15	manganese	Yes	No	No	No	No	Yes	Manganese included in the CEA based on NJDEP 2016 June comments on review of FTMM-08 RIR.
M8MW16	manganese	Yes	No	No	No	No	Yes	Manganese included in the CEA based on NJDEP 2016 June comments on review of FTMM-08 RIR.
M8MW17	manganese	Yes	No	No	No	No	Yes	Manganese included in the CEA based on NJDEP 2016 June comments on review of FTMM-08 RIR.
M8MW18	manganese	Yes	No	No	No	No	Yes	Manganese included in the CEA based on NJDEP 2016 June comments on review of FTMM-08 RIR.
M8MW19	manganese	Yes	No	No	No	No	Yes	Manganese included in the CEA based on NJDEP 2016 June comments on review of FTMM-08 RIR.
M8MW23	manganese	Yes	No	No	No	No	Yes	Manganese included in the CEA based on NJDEP 2016 June comments on review of FTMM-08 RIR.

Notes:

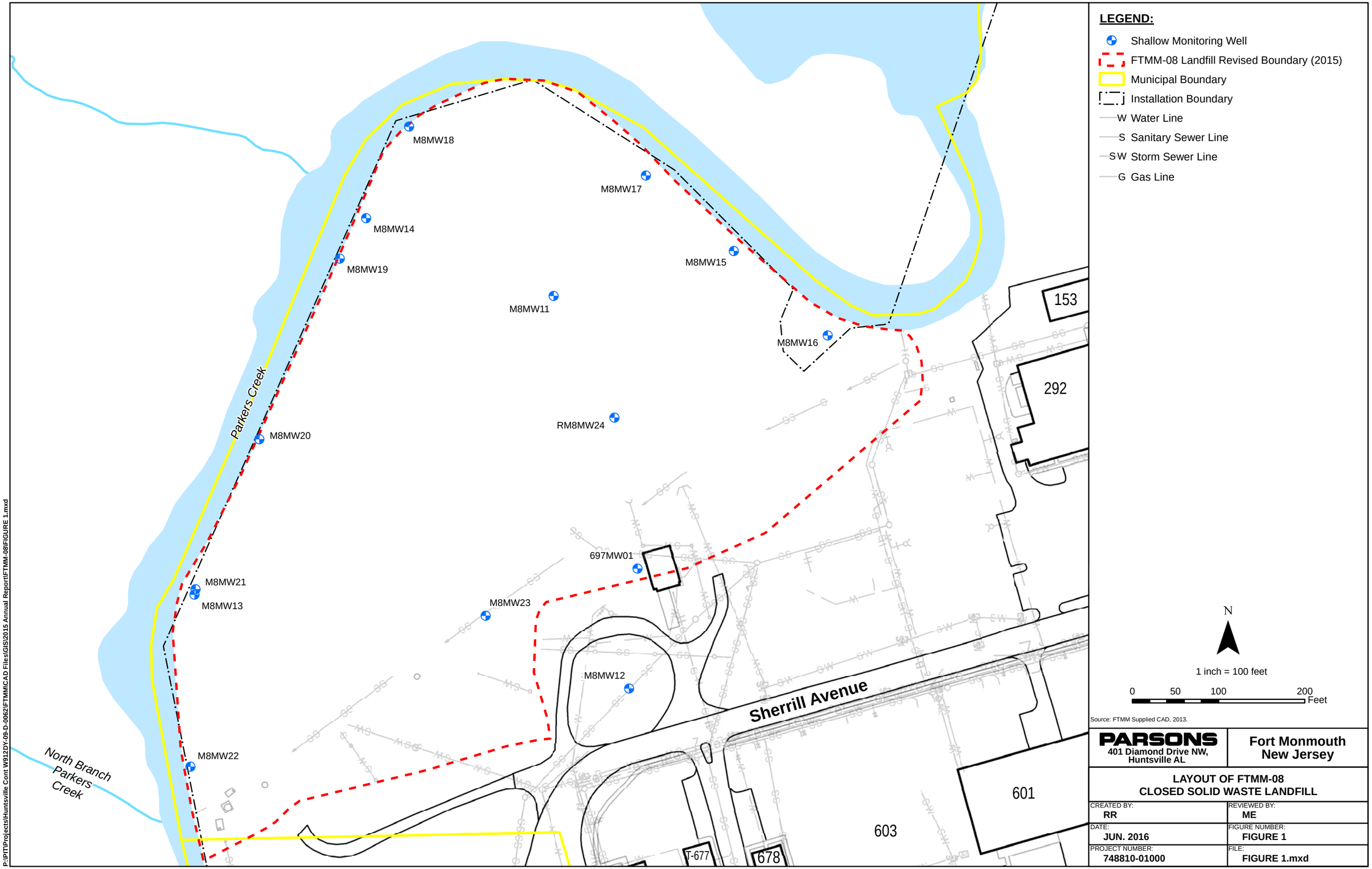
1. Has any of the compounds exceeded the NJDEP GWQS in the annual 2015 data and the 4 previous quarterly data rounds or 2 previous annual rounds?
   a. If yes then include analyte in CEA list.
   b. If no then remove this analyte from LTM list.
   c. a and b above may be occasionally superceded on a case-by-case basis, depending on site conditions.
2. Has any of the compounds exceeded the NJDEP GWQS seasonally (winter/spring vs. summer/fall) for the 4 previous data rounds?
3. N/A = Not applicable
4. Per the 2/5/15 NJDEP approval letter of the Final 2013 Baseline Groundwater Report, groundwater monitoring wells M8MW13, M8MW14, M8MW18, M8MW19, M8MW20, and M8MW22 were removed from the long-term monitoring sampling program. Additionally groundwater monitoring for pesticides and metals other than lead were discontinued for all remaining wells, except 697MW01.
5. Per the 1/26/16 NJDEP approval letter of the 2014 Annual (Fourth Quarter) Groundwater Sampling Report, groundwater monitoring wells M8MW15, M8MW16, M8MW17, M8MW21, and RM8MW24 were removed from the long-term monitoring sampling program.

FIGURES

Figure 1 Layout of FTMM-08 Closed Solid Waste Landfill

Figure 2 FTMM-08 Shallow Groundwater Contours - October 1, 2015

Figure 3 FTMM-08 Chemical Constituents above NJDEP GWQS 2015 Annual Sampling Event



LEGEND:

- Shallow Monitoring Well
- FTMM-08 Landfill Revised Boundary (2015)
- Municipal Boundary
- Installation Boundary
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line

N

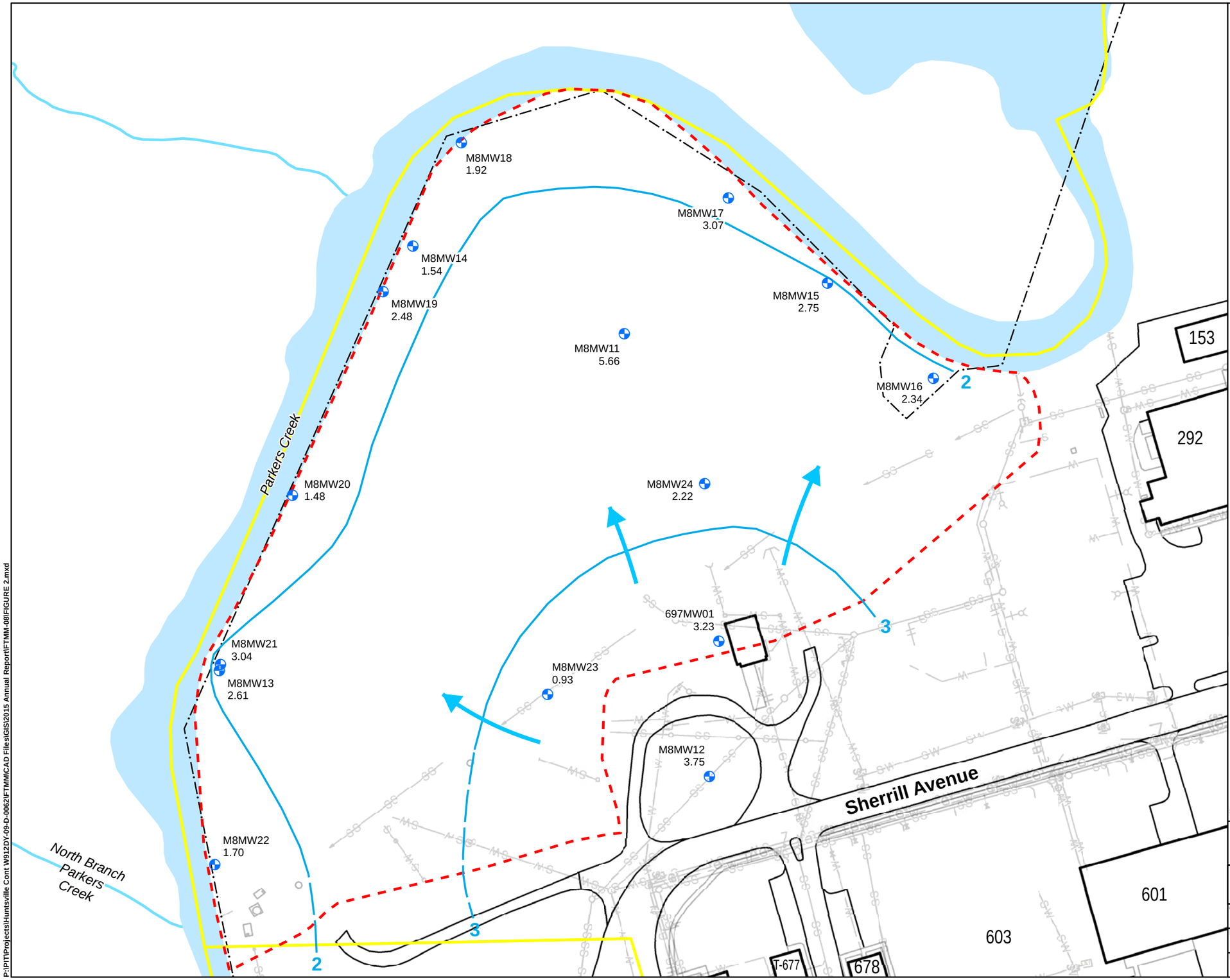
1 inch = 100 feet

0 50 100 200 Feet

Source: FTMM Supplied CAD, 2013.

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey
LAYOUT OF FTMM-08 CLOSED SOLID WASTE LANDFILL	
CREATED BY: RR	REVIEWED BY: ME
DATE: JUN. 2016	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-01000	FILE: FIGURE 1.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-08\FIGURE 1.mxd



LEGEND:

- Shallow Monitoring Well
- FTMM-08 Landfill Revised Boundary (2015)
- Municipal Boundary
- Installation Boundary
- Groundwater Elevation Contour
- Inferred Groundwater Elevation Contour
- Inferred Groundwater Flow Direction

NOTE:

The groundwater elevation at monitoring wells M8MW11, M8MW17, M8MW21and M8MW23 were considered anomalous compared to the fluid levels at neighboring wells.

N

1 inch = 100 feet

0 50 100 200 Feet

Source: FTMM Supplied CAD, 2013.

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

FTMM-08 SHALLOW GROUNDWATER CONTOURS - OCTOBER 1, 2015

CREATED BY: RR	REVIEWED BY: ME
DATE: JUN. 2016	FIGURE NUMBER: FIGURE 2
PROJECT NUMBER: 748810-01000	FILE: FIGURE 2.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-08\FIGURE 2.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-08\FIGURE 3.mxd

LEGEND:

- Shallow Monitoring Well
- FTMM-08 Landfill Revised Boundary (2015)
- Municipal Boundary
- Installation Boundary

NOTE:

1. All concentrations are in ug/L.
2. Only those compounds with concentrations that exceed the NJDEP groundwater quality standard (GWQS) are shown on the figure.
3. Wells without values were not sampled during the 2015 Annual Sampling Event.

EXPLANATION:

M8MW11 ——— Sample ID
NA —— Tetrachloroethene Concentration
NA —— 4,4-DDD Concentration
NA —— Lead Concentration

J - Estimated Value
JN - Tentatively Identified Compound, Estimated Value
ND - Not Detected
NA - Not Analyzed
-- - Compound did not exceed the NJ GWQS this sampling round

Compound	NJDEP GWQS
Tetrachloroethene	1
4,4-DDD	0.1
Lead	5

N

1 inch = 100 feet

0 50 100 200 Feet

Source: FTMM Supplied CAD, 2013.

PARSONS
401 Diamond Drive NW, Huntsville AL

Fort Monmouth
New Jersey

FTMM-08 CHEMICAL CONSTITUENTS ABOVE NJDEP GWQS 2015 ANNUAL SAMPLING EVENT

CREATED BY:	REVIEWED BY:
RR	ME
DATE:	FIGURE NUMBER:
JUN. 2016	FIGURE 3
PROJECT NUMBER:	FILE:
748810-03000	FIGURE 3.mxd

ATTACHMENTS

Attachment A LFPS Field Sheets

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: FTMM-8 | CONSULTING FIRM: PARSONS
DATE: 11/19/2015 | FIELD PERSONNEL: A. DiIonno
WEATHER: 60°F, Cloudy

MONITOR WELL #: M8MW21 | WELL DEPTH: 15.80 feet | PUMP INTAKE DEPTH: 13.0 ft to TOC
WELL PERMIT #: 29-39151 | WELL DIAMETER: 2 inches | SCREENED/OPEN INTERVAL: 5-20 ft to TOC

PID/FID READINGS:
BACKGROUND: 0.0 ppm
BENEATH OUTER CAP: 0.0 ppm
BENEATH INNER CAP: 0.0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 6.05 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP: QED Sample Pro 1.75" Bladder Pump

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 11H101388
TEMP. CORRECTION VALUE: - 0.14

Time	PURGING	SAMPLING	pH (units) READING	pH CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN CHANGE	TURBIDITY (NTU) READING	TURBIDITY CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1108	X		6.12		9.122		65.8		5.65		117.3		16.44		300	5.95
1113	X		6.21		9.252		35.7		4.31		109.2		16.35		300	6.40
1118	X		6.22		9.280		29.1		3.60		114.1		16.29		300	6.45
1123	X		6.23		9.280		24.3		2.75		116.9		16.25		300	6.45
1128	X		6.24		9.244		17.7		2.49		101.6		16.23		300	6.45
1133	X		6.26		9.269		9.6		2.76		75.5		16.26		300	6.45
1138	X		6.26		9.332		7.0		2.58		65.9		16.34		300	6.45
1143	X		6.26		9.425		3.4		2.56		57.8		16.30		300	6.45
1148	X		6.27		9.509		-5.1		2.53		43.9		16.23		300	6.45
1153	X		6.27		9.599		-10.1		2.51		40.1		16.15		300	6.45
1158	X	X	6.28		9.605		-16.7		2.45		37.3		16.14		300	6.45

SAMPLING INFORMATION:
Sample ID: FTMM-8-GW-M8MW21-13.0
Sample Time: 1158
Comments: —

QA/QC INFORMATION:
Duplicate Collected?: No
MS/MSD Collected?: No
Filtering?: No

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: Clear
Odor: None
Other: —

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Alex DiIonno Alex DiIonno | DATE: 11/19/15
REVIEWER NAME & SIGNATURE: | DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: FTMM-8
DATE: 11/19/2015
WEATHER: 60°F, Cloudy
CONSULTING FIRM: PARSONS
FIELD PERSONNEL: A.DiIonno

MONITOR WELL #: M8MW17
WELL PERMIT #: 29
WELL DEPTH: 15.58 feet
WELL DIAMETER: 2 inches
PUMP INTAKE DEPTH: 9.75 ft to TOC
SCREENED/OPEN INTERVAL: 3-13 ft to TOC

PID/FID READINGS:
BACKGROUND: 0.0 ppm
BENEATH OUTER CAP: 0.0 ppm
BENEATH INNER CAP: 0.0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 6.57 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP: QED Sample Pro 1.75" Bladder Pump

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 11H101388
TEMP. CORRECTION VALUE: -0.14° C

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1231	X		6.54		4.677		-109.8		6.51		28.1		16.23		300	6.58
1236	X		6.46		4.415		-118.3		1.06		25.9		16.66		300	6.62
1241	X		6.46		4.559		-138.1		0.45		15.0		~~16~~ 15.45		300	6.62
1246	X		6.48		4.748		-158.1		0.38		10.3		15.42		300	6.62
1251	X		6.49		4.895		-172.2		0.35		6.2		15.38		300	6.62
1256	X		6.49		4.948		-178.1		0.29		5.4		15.39		300	6.62
1301	X		6.50		5.051		-188.9		0.17		3.2		15.39		300	6.62
1306	X		6.50		5.115		-195.6		0.10		3.2		15.33		300	6.62
1311	X		6.50		5.184		-201.1		0.05		2.4		15.33		300	6.62
1316	X		6.50		5.195		-205.4		0.05		2.3		15.31		300	6.62
1321	X	X	6.50		5.198		-209.2		0.05		2.2		15.33		300	6.62

SAMPLING INFORMATION:
Sample ID: FTMM-8-GW-M8MW17-9.75
Sample Time: 1321
Comments: —

QA/QC INFORMATION:
Duplicate Collected?: No
MS/MSD Collected?: No
Filtering?: No

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: Clear
Odor: None
Other: —

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Alex DiIonno Alex DiIonno DATE: 11/19/15

REVIEWER NAME & SIGNATURE: DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: FTMM-8
DATE: 11/19/2015
WEATHER: 60°F, Cloudy

CONSULTING FIRM: PARSONS
FIELD PERSONNEL: A.D.Tonno

MONITOR WELL #: M8MW 24
WELL PERMIT #: 29-41724

WELL DEPTH: 40.85 feet
WELL DIAMETER: 4 inches

PUMP INTAKE DEPTH: 28.5 ft to TOC
SCREENED/OPEN INTERVAL: 13-38 ft to TOC

PID/FID READINGS:
BACKGROUND: 0.0 ppm
BENEATH OUTER CAP: 0.0 ppm
BENEATH INNER CAP: 0.0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 18.81 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP: QED Sample Pro 1.75" Bladder Pump

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 11H101388
TEMP. CORRECTION VALUE: -0.14°C

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1532	X		6.33		0.402		-91.6		3.35		22.9		13.64		300	18.95
1537	X		6.13		0.405		-97.2		0.97		17.6		13.55		300	19.05
1542	X		6.10		0.405		-102.9		0.46		12.6		13.50		300	19.10
1547	X		6.12		0.402		-105.9		0.37		11.8		13.49		300	19.12
1552	X		6.12		0.402		-108.8		0.26		11.1		13.48		300	19.13
1557	X		6.12		0.404		-111.8		0.18		10.2		13.46		300	19.13
1602	X		6.09		0.410		-111.9		0.17		9.3		13.46		300	19.13
1607	X	X	6.10		0.413		-113.6		0.16		9.1		13.45		300	19.13

SAMPLING INFORMATION:
Sample ID: FTMM-8-GW-M8MW24-28.5
Sample Time: 1607
Comments: —

QA/QC INFORMATION:
Duplicate Collected?: No
MS/MSD Collected?: No
Filtering?: No

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: Clear
Odor: None
Other: —

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Alex DiTonno Alex D. Tonno
DATE: 11/19/15

REVIEWER NAME & SIGNATURE:
DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF

PROJECT SITE/LOCATION: FTMM
DATE: 11/19/15
WEATHER: Slightly rainy, 60° F

CONSULTING FIRM: PARSONS
FIELD PERSONNEL: A. Feshbach-Merivey

MONITOR WELL #: MBMW15
WELL PERMIT #: 29-32563
WELL DEPTH: 16.80 feet
WELL DIAMETER: 4 inches
PUMP INTAKE DEPTH: 11.8 ft to TOC
SCREENED/OPEN INTERVAL: 6.80 - 16.80 ft to TOC

PID/FID READINGS:
BACKGROUND: 0 ppm
BENEATH OUTER CAP: 0 ppm
BENEATH INNER CAP: ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 5.50 ft to TOC
DEPTH TO PRODUCT: NA ft to TOC ; PRODUCT THICKNESS: NA ft
MAKE/MODEL OF PUMP:

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 02F0823AA
TEMP. CORRECTION VALUE: 0.02°C

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)	
1153	X		6.52		2.977		36.2		0.33		50.7		15.54		300	6.80	
1158	X		6.52		2.989		27.8		0.28		53.0		15.51		300	7.10	
1203	X		6.52		3.027		10.6		0.26		56.2		15.48		300	7.50	
1208	X		6.53		3.112		-15.6		0.23		50.6		15.49		300	7.80	
1213	X		6.54		3.210		-35.1		0.22		45.6		15.50		300	8.00	
1218	X		6.55		3.324		-50.8		0.23		40.8		15.53	275	~~300~~	8.00	
1223	X		6.56		3.493		-63.2		0.25		35.7		15.55	275	~~300~~	8.00	
1228	X		6.57		3.537		-71.1		0.26		33.8		15.56		275	8.00	✓
1233	X		6.57		3.625		-77.3		0.27		31.5		15.58		275	8.02	✓
1238	X		6.57		3.732		-83.3		0.28		29.4		15.56		275	7.95	✓
1243	X	X															

SAMPLING INFORMATION:
Sample ID: FTMM-MB-GW-MW15-11.8
Sample Time: 1243
Comments:

QA/QC INFORMATION:
Duplicate Collected?: No
MS/MSD Collected?: No
Filtering?: No

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: Clear
Odor: None
Other: NA

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Aaron Feshbach-Merivey — DATE: 11/19/15

REVIEWER NAME & SIGNATURE: — DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF ____

PROJECT SITE/LOCATION: FTMM
DATE: 11/19/15
WEATHER: Rain showers, 61°F

CONSULTING FIRM: PARSONS
FIELD PERSONNEL: A. Feshbach-Mesiney

MONITOR WELL #: MBMW16
WELL PERMIT #: 29-39146

WELL DEPTH: 15.7 feet
WELL DIAMETER: 2 inches

PUMP INTAKE DEPTH: 12.07 ft to TOC
SCREENED/OPEN INTERVAL: 5.7 - 15.7 ft to TOC

PID/FID READINGS:
BACKGROUND: 0 ppm
BENEATH OUTER CAP: 0 ppm
BENEATH INNER CAP: ____ ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 8.45 ft to TOC
DEPTH TO PRODUCT: NA ft to TOC ; PRODUCT THICKNESS: NA ft
MAKE/MODEL OF PUMP: ____

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 02F0823AA
TEMP. CORRECTION VALUE: 0.02°C

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)	
1400	x		6.71		2.538		-97.1		0.83		140.2		15.16		175	8.55	
1405	x		6.61		2.433		-73.6		0.60		62.9		15.04		175	8.60	
1410	x		6.53		2.461		-51.8		0.61		18.9		14.96		175	8.62	
1415	x		6.51		2.526		-45.6		0.57		8.3		14.93		175	8.65	
1420	x		6.49		2.654		-44.1		0.52		3.1		14.91		175	8.65	
1425	x		6.48		2.739		-44.0		0.51		0.3		14.91		175	8.67	
1430	x		6.48		2.837		-44.4		0.48		-1.4		14.90		175	8.62	
1435	x		6.47		2.927		-45.1		0.46		-2.8		14.87		175	8.64	
1440	x		6.47		3.014		-45.3		0.46		-3.6		14.89		175	8.63	✓
1445	x		6.46		3.098		-45.7		0.44		-4.1		14.87		175	8.66	✓
1450	x		6.46		3.172		-46.0		0.43		-3.4		14.88		175	8.65	✓
1455	x	x															

SAMPLING INFORMATION:
Sample ID: FTMM-MB-GW-MW16-12.07
Sample Time: 1455
Comments: none

QA/QC INFORMATION:
Duplicate Collected?: No
MS/MSD Collected?: No
Filtering?: No

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: clear
Odor: none
Other: —

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Aaron Feshbach-Mesiney — DATE: 11/19/15

REVIEWER NAME & SIGNATURE: — DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF ____

PROJECT SITE/LOCATION: FTMM
CONSULTING FIRM: PARSONS
DATE: 11/20/15
FIELD PERSONNEL: A. Feshbach-Mecinas
WEATHER: Sunny, 53°F

MONITOR WELL #: ~~MBW~~ MBMW12
WELL DEPTH: 17.5 feet
PUMP INTAKE DEPTH: 13.5 ft to TOC
WELL PERMIT #: 29-32560
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL: 7.5 - 17.5 ft to TOC

PID/FID READINGS:
BACKGROUND: 0 ppm
BENEATH OUTER CAP: 0 ppm
BENEATH INNER CAP: 0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 9.4 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP:

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: ~~02F0823AA~~ 06G2068AB
TEMP. CORRECTION VALUE: -0.15°C

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)	
1110	X		5.60		0.220		108.7		4.76		52.1		16.48		350	9.72	
1115	X		5.56		0.217		115.9		4.42		54.5		16.51		350	9.85	
1120	X		5.55		0.217		119.0		4.31		55.5		16.56		300	9.90	
1125	X		5.54		0.216		122.7		4.31		56.9		16.51		300	10.12	
1130	X		5.54		0.216		124.6		4.30		53.2		16.54		200	10.05	
1135	X		5.53		0.216		127.5		4.20		48.4		16.66		200	10.10	
1140	X		5.53		0.217		131.4		4.06		45.6		16.59		200	10.09	
1145	X		5.52		0.218		135.1		3.86		38.9		16.66		200	10.12	
1150	X		5.51		0.219		141.3		3.61		38.9		16.60		200	10.15	✓
1155	X		5.50		0.220		146.4		3.41		33.9		16.63		200	10.15	X
1200	X		5.50		0.221		152.4		3.15		31.2		16.67		200	10.14	✓
1205	X		5.49		0.220		155.7		2.99		29.9		16.70		200	10.07	✓
1210	X		5.50		0.220		158.7		2.84		28.4		16.79		200	10.15	✓
1215	X	X															

SAMPLING INFORMATION:
Sample ID: FTMM - MB - GW - MW12 - 13.5
Sample Time: 1215
Comments:

QA/QC INFORMATION:
Duplicate Collected?: no
MS/MSD Collected?: no
Filtering?: no

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: Clear
Odor: no
Other:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Aaron Feshbach-Mecinas — DATE: 11/20/15
REVIEWER NAME & SIGNATURE: — DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF

PROJECT SITE/LOCATION: FTMM
DATE: 11/19/15
WEATHER: Rainy, 61°F
CONSULTING FIRM: PARSONS
FIELD PERSONNEL: A. Feshbach-Merivey

MONITOR WELL #: 697MW01
WELL PERMIT #: 29-31726
WELL DEPTH: 20.0 feet
WELL DIAMETER: 4 inches
PUMP INTAKE DEPTH: 16.5 ft to TOC
SCREENED/OPEN INTERVAL: 5.0 - 20.0 ft to TOC

PID/FID READINGS:
BACKGROUND: 0 ppm
BENEATH OUTER CAP: 0 ppm
BENEATH INNER CAP: ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 13.40 ft to TOC
DEPTH TO PRODUCT: NA ft to TOC ; PRODUCT THICKNESS: NA ft
MAKE/MODEL OF PUMP:

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 02F0823AA
TEMP. CORRECTION VALUE: 0.02°C

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
15 57	x		5.99		0.702		-48.4		0.38		4.3		16.92		150	13.20
16 02	x		5.91		0.679		-50.6		0.39		6.5		16.93		150	13.00
16 07	x		5.90		0.672		-50.7		0.35		2.5		16.95		150	13.00
16 12	x		5.89		0.668		-50.7		0.33		2.9		16.94		150	13.25
16 17	x		5.87		0.663		-50.0		0.33		3.0		16.96		150	13.22
16 22	x		5.85		0.655		-48.8		0.34		2.8		16.89		150	13.21
16 27	x		5.84		0.652		-46.9		0.36		2.5		16.89		150	13.20
16 32	x		5.83		0.649		-45.9		0.36		2.4		16.86		150	13.22
16 37	x		5.82		0.645		-43.7		0.36		2.3		16.83		150	13.23
1642	x		5.80		0.641		-41.9		0.36		2.3		16.82		150	1324
1647	x	✓														

SAMPLING INFORMATION:
Sample ID: FTMM-MB-697MW01-16.5
Sample Time: 1647
Comments:

QA/QC INFORMATION:
Duplicate Collected?: No
MS/MSD Collected?: Yes
Filtering?: No

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity:
Odor:
Other:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Aaron Feshbach-Merivey
DATE: 11/19/15

REVIEWER NAME & SIGNATURE:
DATE:

VOLUME-AVERAGED RECORD - GROUNDWATER

PARSONS | CLIENT: FTMM ACE | WELL #: M8MW11

PROJECT: FTMM Annual Sampling
AOC # (AREA): M-8
SCREENED INTERVAL (TOC): 5-20
WELL DIAMETER (in.) 4"

WELL PERMIT #:
DATE: 11/25/15
SAMPLING PERSONNEL NAME: C. Watson
SAMPLING PERSONNEL NAME:

BOREHOLE DIAMETER FACTORS

DIAMETER (INCHES)	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2	2.61	3.3	5.87

WELL HEAD VOC CONCENTRATION (ppm):
WELL DEPTH (TOC): 22.03
FEET OF WATER IN WELL (ft): 1.13

FEET OF SATURATED SCREEN (ft):
DEPTH TO WATER(ft below TOC): ~~22.0~~ 20.9

VOLUME CALCULATION

STANDING VOLUME INSIDE WELL = WATER COLUMN (ANNULAR SPACE OUTSIDE THE WELL CASING NOT CONSIDERED)

STANDING WATER IN WELL (FEET) = 1.13 A

WELL DIAMETER FACTOR (FROM TABLE ABOVE) = 0.654 B

SINGLE STANDING WATER VOLUME (GALLONS) = A x B = 0.74 C

MINIMUM VOLUME TO BE REMOVED (GALLONS) = 3 X C 2.22

No indicator parameters are required, however, collect and measure turbidity associated with metals sample; if no metals samples, then collect turbidity with another parameter

SAMPLING INFORMATION

SAMPLING DEVICE: peristaltic pump
SAMPLE NAME (ID): FTMM-8-GW-M8MW11-21.5

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY	COMMENTS
VOC'S	1415	40mL VOA	Clear/Brown	126	
LEAD	1415	250mL	|	|	
Filtered LEAD	1415	250mL	|	|	

QA/QC SAMPLES:
DUPLICATE SAMPLE COLLECTED: YES or NO
DUPLICATE SAMPLE NAME (ID):
MS/MSD SAMPLE COLLECTED: YES or NO
MS / MSD SAMPLE NAME (ID):

PURGING AND SAMPLING COMMENTS:

INVESTIGATION DERIVED WASTE (IDW): PTGS

Date									
Volume Transfered to Drum									
Drum Number									

Scanned by CamScanner

APPENDIX D

FTMM-18: CLOSED SOLID WASTE LANDFILL/FORMER TRAINING AREA

APPENDIX D: FTMM-18 Closed Solid Waste Landfill/Former Training Area

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2	FTMM-18 Shallow Groundwater Contours - October 7, 2015
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LIST OF ATTACHMENTS

Attachment	Title
A	NJDEP PDB Checklists

1.0 WATER LEVEL MEASUREMENTS AND WELL ASSESSMENT

Monitoring wells located at or near FTMM-18 were gauged on October 1, 2015. Monitoring well locations as well as other site features are provided in **Figure 1**. Details regarding the water level measurements are provided in **Table 1**. Groundwater elevations in monitoring wells ranged from -0.92 (MP18MW24) to 6.97 (M18MW23) feet above mean sea level (amsl). The inferred shallow groundwater flow direction is to the north towards Parkers Creek, as shown in **Figure 2**.

During the groundwater gauging, the physical condition monitoring wells at or near FTMM-18 were assessed. The site monitoring wells were found to be in good condition.

2.0 GROUNDWATER SAMPLING

Groundwater samples were collected from four monitoring wells (296MW04, 296MW06, M18MW22 and M18MW23) located at FTMM-18 as part of the annual (fourth quarter) 2015 groundwater sampling event. FTMM-18 is sampled on an annual basis. The groundwater sampling program included measuring the depths to water in monitoring wells and the sample collection in selected wells using passive diffusion bags (PDBs). PDBs were deployed October 1, 2015 and samples were retrieved on December 14, 2015. A PDB sampling summary is provided in **Table 2**. Groundwater samples were analyzed for Target Compound List (TCL) volatile organic compounds and tentatively identified compounds (VOCs+TICs) via United States Environmental Protection Agency (USEPA) Method SW8260C.

The samples were collected in accordance with the New Jersey Department of Environmental Protection (NJDEP) Field Sampling Procedures Manual (FSPM) and the Sampling Analysis Plan (SAP). Field blanks, duplicates, matrix spike, matrix spike duplicate and quality assurance (QA) split samples were collected for every 5% of samples collected per parameter, per matrix, in accordance with the Quality Assurance Project Plan (QAPP). Trip blanks accompanied each cooler each day in which VOCs were collected for laboratory analysis.

Completed PDB field sheets for each well sampled are provided in **Attachment A**.

3.0 HISTORICAL GROUNDWATER SAMPLING RESULTS

From June 1997 through November 2004, FTMM-18 monitoring wells were sampled for VOCs, semi-volatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), and metals. From February 2005 to September 2010, monitoring wells were sampled primarily for metals.

In the last four historical rounds of groundwater sampling conducted on a monthly basis at FTMM-18 from October 2010 to April 2011, samples were analyzed for VOCs and metals. Several metals including aluminum, beryllium, cadmium, iron, manganese, nickel, and sodium were detected above their respective NJDEP Ground Water Quality Standards (GWQS). However, only antimony, beryllium, manganese and sodium were detected at concentrations greater than their background concentrations established in the 1995 Weston Report. The background concentration for sodium however is lower than the NJDEP GWQS. Elevated sodium concentrations are most likely attributable to the site's proximity to the ocean and other estuarine water bodies. Glauconitic sediments underlying the site are rich in antimony,

beryllium and manganese, resulting in high concentrations of these analytes in groundwater. Historical groundwater analytical results are presented in **Table 3.**

Additionally, within the four most recent historical rounds of sampling (October 2010 – April 2011), benzene was detected in M18MW22 (1.58 µg/L to 1.99 µg/L) and M18MW23 (664.44 µg/L to 1,078.96 µg/L) above its NJDEP GWQS of 1 µg/L.

Groundwater samples were collected for only VOCs analysis in August 2013. 1,2-dichloroethane (1,2-DCA) was detected in the two PDB samples collected from M18MW22 above its NJDEP GWQS of 2 µg/L; concentrations ranged from 13 µg/L to 26 µg/L. Additionally, benzene was detected in only one of the PDB samples in M18MW22 and at a concentration of 0.37 µg/L, below its NJDEP GWQS of 1 µg/L. Groundwater analytical detections from samples collected during the August 2013 sampling event are presented in **Table 4**.

The Final August 2013 Baseline Groundwater Sampling Report was accepted by the NJDEP in their February 5, 2015 letter. Based on this approval, two out of the four groundwater monitoring wells were removed from the long term monitoring (LTM) program including MP18MW24 and MP18MW25.

Four (296MW03, 296MW04, 296MW06, and 296MW07) of seven monitoring wells originally installed for FTMM-54 and have been historically sampled in association with FTMM-18 to provide groundwater quality data since the former fuel distribution piping associated with FTMM-54 extended beneath the southwestern portion of FTMM-18. One VOC (benzene) exceeded the NJDEP GWQS but the exceedance was limited to well 296MW06, which is located in the footprint of FTMM-18. In a February 4, 2015 letter, the NJDEP issued a no further action for groundwater at FTMM-54 based on the types of VOCs detected in monitoring well (296MW06). The groundwater is addressed under the FTMM-18 site since the suspected source of the impacts are attributed to the fuel spills that occurred during use of diesel and gasoline generators to support field exercises at FTMM-18.

Groundwater samples were collected for only VOCs analysis during the 2014 annual (4th quarter) sampling event. Benzene was detected in only two (296MW06 and M18MW23) of the four wells sampled at concentrations above the NJDEP GWQS of 1 µg/L. Benzene was detected in the two PDB samples collected from 296MW06 at concentrations of 1.6 µg/L (sample depth of 5.07 ft.) and 15 µg/L (sample depth of 10.1 ft.), and M18MW23 at concentrations of 6.5 µg/L (sample depth of 16.22 ft.) and 9.1 µg/L (sample depth of 9.28 ft.). Groundwater analytical results for samples collected during the annual (fourth quarter) 2014 sampling event are presented in **Table 4**.

Based on the annual 2014 results, it was recommended that annual groundwater sampling continue at monitoring wells M18MW22, M18MW23, 2964MW04, and 296MW06, The Annual (Fourth Quarter) 2014 Groundwater Sampling Report was accepted by the NJDEP in their January 26, 2016 letter.

4.0 ANNUAL (FOURTH QUARTER) 2015 GROUNDWATER RESULTS

Benzene was detected above the NJDEP GWQS of 1 µg/L in only one of the four wells (296MW06) sampled; and at a concentration of 6 µg/L. No other VOCs were detected above

their NJDEP GWQS. Groundwater analytical results for samples collected during the annual (fourth quarter) 2015 sampling event are presented in **Table 4**. Constituents detected in the groundwater above their NJDEP GWQS during the Annual 2015 Sampling Event are shown on **Figure 3.**

5.0 FINDINGS AND RECOMMENDATIONS

Historical concentrations of 1,2-DCA and benzene have been detected above the NJDEP GWQS in M18MW22. Benzene was detected above the GWQS in 2014 but not in 2015 at M18MW23, and in 2015 benzene was detected above the GWQS but not in 2014 at M18MW06.

An extensive groundwater sampling history has been established as part of the LTM program implemented for FTMM-18, and a comprehensive review of the data was performed as part of the October 2015 Remedial Investigation Report (RIR) which has been submitted to the NJDEP. Data collection under this LTM program is no longer necessary to support an investigation, and will be transitioned to a program which will support the Classification Exception Area (CEA) recommended in the RIR as the preferred remedy at FTMM-18. Future groundwater sampling at FTMM-18 will be performed and reported under biennial certifications required for the future CEA recommended in the RIR. The LTM for the CEA will include a biennial sampling frequency for select wells for an appropriate set of compounds that are representative of more recent groundwater conditions as shown in **Table 5**. The biennial sampling frequency will provide data for the biennial certifications with the sampling to be performed in the same year as the biennial CEA certification. The next biennial sampling for FTMM-18 is assumed to be performed in 2017.

TABLES

Table 1 Groundwater Gauging Data and Elevations (October 7, 2015)

Table 2 PDB Sampling Summary

Table 3 Historical Groundwater Analytical Results

Table 4 Groundwater Analytical Results - 2013, 2014 and 2015

Table 5 Review of Historical Groundwater Sampling Results

Table 1
Groundwater Gauging Data and Elevations (October 1, 2015)
Site FTMM-18 Closed Solid Waste Landfill/Former Training Area
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site/Well ID	Installation Date	Well Permit #	Y Coord. (North)	X Coord. (East)	Depth (ft. bgs)	Casing Length (ft)	Screen Length (ft)	TOC Elevation (ft)	Gauge Time	PID Reading (ppm)	Gauged Depth to Water (ft. TOC)	Gauged Depth to Bottom (ft. TOC)	Calculated Groundwater Elevation (ft)
Shallow Monitoring Wells													
M18MW22	10/14/2010	E201011280	540600.00	618880.00	20.0	5.0	15.0	12.54	9:30	0.0	9.48	20.50	3.06
M18MW23	10/14/2010	E201010529	540589.39	618871.98	20.0	5.0	15.0	12.58	9:35	0.0	5.61	19.30	6.97
MP18MW24	1/13/1995	29-32565	540648.28	618515.37	14.5	4.5	10.0	7.04	9:18	0.0	7.96	17.00	-0.92
MP18MW25	1/13/1995	29-32566	540648.91	618639.30	14.5	4.5	10.0	7.06	9:20	0.0	5.10	16.95	1.96
296MW01	7/14/1994	29-30979	540081.71	618533.76	15.0	2.0	13.0	15.28	11:39	0.0	11.31	18.00	3.97
296MW02	7/13/1994	29-30980	540193.06	618540.94	12.5	2.0	10.5	9.05	11:35	0.0	3.08	11.42	5.97
296MW03	7/14/1994	29-30975	540535.82	618291.32	12.5	2.0	10.5	7.92	9:15	--	6.34	16.50	1.58
296MW04	9/12/1995	29-33989	540596.93	618368.47	10.0	0.5	9.5	4.18	9:20	--	2.09	12.20	2.09
296MW06	7/14/1994	29-30978	540526.26	618399.81	12.5	2.0	10.5	7.97	9:10	--	5.16	15.21	2.81
296MW07	7/12/1994	29-30973	540363.85	618299.95	12.5	2.0	10.5	7.37	11:43	0.0	5.39	12.20	1.98
296MW08	7/12/1994	29-30974	540344.64	518501.44	12.5	2.0	10.5	7.61	11:28	0.0	4.59	10.65	3.02
290MW01	7/15/1994	29-30961	540254.28	618641.32	12.5	2.0	10.5	12.83	11:32	0.0	8.97	16.00	3.86

Notes:
1) The synoptic round of water levels in the wells was collected on October 7, 2015.
2) Information on well permit number, X and Y coordinates, depth, screen length, screen interval and TOC elevation were provided by FTMM in a table in June 2013.
3) ft = feet
4) DTW = depth to water (measured from the top of well casing)
5) DTB = depth to bottom of well (measured from the top of well casing)
6) bgs = below ground surface
7) ppm = parts per million (of VOCs)
8) TOC = Top of Casing
9) Elevation = feet above mean sea level
10) N/A = information not available

Table 2
PDB Sampling Summary
Site FTMM-18 Closed Solid Waste Landfill/Former Training Area
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site/Well ID	Profile Date	Depth (ft. bgs)	Screen Length (ft.)	Screen Interval (ft. bgs)	TOC Elev. (ft)	Gauge Date	Gauge Time	PID Reading (ppm)	Gauged DTW (ft. below TOC)	Gauged DTB (ft. below TOC)	GW Elevation (ft)	Saturated Screen Length (ft)	PDB Depth to Center of Bag #1 (ft. below TOC)	PDB Depth to Center of Bag #2 (ft. below TOC)	PDB Deploy Date	PDB Deploy Time	PDB Sample Date	PDB Sample Time
M18MW22	8/30/2013	20.0	15.0	5-20'	12.54	10/1/2015	9:30	0	9.48	20.50	3.06	10.52	18.91	N/A	10/1/2015	9:30	12/14/2015	13:10
M18MW23	12/19/2014	20.0	15.0	5-20'	12.58	10/1/2015	9:35	0	5.61	19.30	6.97	14.39	9.28	N/A	10/1/2015	9:35	12/14/2015	13:05
296MW04	12/18/2015	10.0	9.5	0.5-10	4.18	10/1/2015	9:20	--	2.09	12.2	2.09	9.50	6.35	N/A	10/1/2015	9:20	12/14/2015	13:35
296MW06	12/18/2015	12.5	10.5	2-12.5	7.97	10/1/2015	9:10	--	5.16	15.2	2.81	10.50	5.07	N/A	10/1/2015	9:10	12/14/2015	13:30

Notes:
1) Information on well depth, screen length, screen interval and TOC elevation were provided by FTMM in a table in June 2013.
2) DTW = depth to water (measured from the top of well casing)
3) DTB = depth to bottom of well (measured from the top of well casing)
4) TOC = Top of Casing
5) ft. AMSL = feet above mean sea level
6) LFPS = Low-Flow Purging and Sampling
7) PDB = Passive Diffusion Bag
8) N/A = not applicable
9) bgs = below ground surface

Table 3
Historical Groundwater Analytical Results
Site FTMM-18 Closed Solid Waste Landfill/Former Training Area
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M18MW22					M18MW23						M18MW24		
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF1	LF2	LF2 Dup	LF3	LF4	LF1	LF2	LF2 Dup	LF3	LF4	LF4 Dup	46	47	48
Date Collected				10/29/2010	11/12/2010	11/12/2010	2/24/2011	4/28/2011	10/29/2010	11/16/2010	11/16/2010	2/24/2011	4/28/2011	4/28/2011	3/4/2008	5/14/2008	8/13/2008
ANALYTE/Lab ID				1046704	1048204	1048203	1106801	1117805	1046705	1049304	1049303	1106802	1117804	1117803	80067.01	80162.01	80296.01
Volatile Organic Compounds (µg/L)																	
1,2-Dichloroethane	2	74	--	53.00	53.99	52.29	58.58	43.48	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	ND	ND	ND
1,2-Dichloropropane	1	5	--	0.27 J	0.24 J	0.25 J	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	ND	ND	ND
Acetone	6000	NLE	--	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	ND	ND	2.88
Benzene	1	5	--	1.99	1.70	1.58	1.81	1.65	1023.29 D	1066.87 D	1078.96 D	775.67 D	664.44 D	688.03 D	ND	ND	ND
Carbon Tetrachloride	1	5	--	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	0.60	0.58	0.95	1.02	1.02	ND	ND	ND
tert-Butyl alcohol	100	NLE	--	43.40	51.98	49.67	<1.64	<1.64	<1.64	<1.64	<1.64	<1.64	<1.64	<1.64	ND	ND	ND
Trichloroethene	1	5	--	0.46 J	0.41 J	0.43 J	0.49 J	0.40 J	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	ND	ND	ND
TICs*	500	NLE	--	276.00 J	339.00 J	320.00 J	175.00 J	106.00 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																	
Aluminum	200	NLE	121000	1970.00	2120.00	2050.00	2160.00	2350.00	551.00	461.00	421.00	656.00	2390.00	1990.00	233.00	ND	ND
Antimony	6	6	20.70	<4.70	<4.70	<4.70	<6.0	<6.0	<4.70	4.78 ER	<4.70	<6.0	<6.0	<6.0	ND	ND	ND
Arsenic	3	10	89.30	1.16 ER	1.39 ER	1.22 ER	<3.0	<3.0	5.20	7.85	7.79	11.30	7.80	6.90	ND	6.41	13.20
Barium	6000	2000	699.00	521.00	757.00	737.00	664.00	734.00	125.00	114.00	108.00	<200	<200	<200	108.00	115.00	243.00
Beryllium	1	4	2.10	2.56	2.85	2.77	2.30	2.30	0.53	<0.40	<0.40	<1.0	<1.0	<1.0	ND	0.20 ER	0.27 ER
Cadmium	4	5	9.50	4.57	6.36	6.42	5.50	5.70	0.46 ER	<0.40	<0.40	<3.0	<3.0	<3.0	0.52 ER	ND	5.04
Calcium	NLE	NLE	45400.00	21800.00	31600.00	30700.00	25300.00	27200.00	23800.00	27400.00	26100.00	25000.00	16600.00	17400.00	334000.00	348000.00 E	519000.00 E
Chromium	70	100	191.00	<0.60	<0.60	<0.60	<10	<10	<0.60	<0.60	<0.60	<10	<10	<10	1.20 ER	0.94 ER	1.61 ER
Cobalt	NLE	NLE	18.30	26.10	35.30	34.00	<50	<50	5.65	5.34	5.13	<50	<50	<50	1.97 ER	ND	ND
Copper	1300	1300	65.60	<0.80	<0.80	<0.80	<10	<10	<0.80	<0.80	<0.80	<10	<10	<10	1.93 ER	ND	ND
Iron	300	NLE	431000	499.00 ER	834.00	787.00	200.00	693.00	1060.00	756.00	658.00	647.00	10200.00	8070.00	1810.00	2820.00	49100.00
Lead	5	15	22.70	<2.10	<2.10	<2.10	<3.0	<3.0	<2.10	<2.10	<2.10	<3.0	4.50	3.40	2.48 ER	3.01 ER	3.11 ER
Magnesium	NLE	NLE	62700	9930.00	15100.00	14800.00	12400.00	15900.00	10200.00	10600.00	10100.00	10500.00	9700.00	10300.00	17600.00	20200.00	39000.00
Manganese	50	NLE	331	94.10	121.00	117.00	107.00	97.00	66.70	73.60	70.30	76.50	56.60	57.60	152.00	155.00	396.00
Mercury	2	2	0.26	<0.254	<0.254	<0.254	<0.20	<0.20	<0.254	<0.254	<0.254	<0.20	<0.20	<0.20	ND	ND	ND
Nickel	100	NLE	187	94.60	121.00	115.00	109.00	99.20	16.90	18.10	17.70	17.70	16.00	17.00	11.20	5.25	ND
Potassium	NLE	NLE	137000	11300.00	15500.00	15100.00	11100.00	<10000	9440.00	11600.00	11000.00	<10000	<10000	<10000	13000.00	12500.00	16500.00
Selenium	40	50	29.60	<1.36	<1.36	<1.36	<10	<10	<1.36	<1.36	<1.36	<10	<10	<10	ND	24.20	17.90
Silver	40	NLE	ND	<0.60	<0.60	<0.60	<10	<10	<0.60	<0.60	<0.60	<10	<10	<10	ND	ND	6.18
Sodium	50000	NLE	21500	23700.00	67200.00	66200.00	44900.00	104000.00	11300.00	13100.00	13500.00	12900.00	12900.00	13700.00	17800.00	21000.00	46300.00
Thallium	2	2	5.50	<0.53	<0.53	<0.53	<2.0	<2.0	<0.53	<0.53	<0.53	<2.0	<2.0	<2.0	5.80 ER	ND	ND
Vanadium	NLE	NLE	108	<0.50	<0.50	<0.50	<50	<50	<0.50	0.84 ER	0.73 ER	<50	<50	<50	3.71 ER	1.42 ER	3.04 ER
Zinc	2000	NLE	233	271.00	374.00	361.00	374.00	405.00	106.00	93.60	88.40	136.00	142.00	151.00	28.70	ND	ND

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

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Table 3
Historical Groundwater Analytical Results
Site FTMM-18 Closed Solid Waste Landfill/Former Training Area
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M18MW24											M18MW25		
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	49	50	51	52	53	54	LF1	LF2	LF3	LF4	LF5	46	47	48
Date Collected				10/24/2008	3/25/2009	6/2/2009	9/17/2009	11/23/2009	2/2/2010	5/14/2010	9/14/2010	11/12/2010	2/24/2011	4/20/2011	3/4/2008	5/14/2008	8/13/2008
ANALYTE/Lab ID				80387.01	90121.01	90219.01	90385.01	90458.01	10046.01	10193.05	10389.05	1048402	1106803	1116102	80067.02	80162.02	80296.02
Volatile Organic Compounds (µg/L)																	
1,2-Dichloroethane	2	74	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.11	<0.11	<0.11	ND	ND	ND
1,2-Dichloropropane	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.12	<0.12	<0.12	ND	ND	ND
Acetone	6000	NLE	--	4.04	ND	ND	ND	ND	ND	ND	ND	<0.32	<0.32	<0.32	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.12	<0.12	<0.12	ND	ND	ND
Carbon Tetrachloride	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.12	<0.12	<0.12	ND	ND	ND
tert-Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	<1.64	<1.64	<1.64	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	<0.11	<0.11	<0.11	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	5.00 JN	ND	ND	ND	ND	ND
Metals (µg/L)																	
Aluminum	200	NLE	121000	624.00	250.00	21.10	166.00	41.70 ER	179.00	ND	69.20 ER	<13.0	<200	<200	130.00	ND	ND
Antimony	6	6	20.70	ND	28.20	8.00 ER	ND	ND	ND	15.90	24.50	<4.70	<6.0	<6.0	ND	ND	ND
Arsenic	3	10	89.30	ND	140.00	ND	42.90	1.33 ER	1.86	1.25	1.64 ER	3.44 ER	<3.0	<3.0	4.61 ER	7.00	13.50
Barium	6000	2000	699.00	310.00	279.00	225.00	289.00	460.00	182.00	158.00	312.00	294.00	<200	<200	43.90	39.30	295.00
Beryllium	1	4	2.10	ND	ND	0.11 ER	ND	ND	ND	ND	ND	0.45 ER	<1.0	<1.0	ND	0.10 ER	0.12 ER
Cadmium	4	5	9.50	0.57 ER	ND	ND	3.17	ND	ND	0.94 ER	3.99	0.79 ER	<3.0	<3.0	0.26 ER	2.40	8.83
Calcium	NLE	NLE	45400.00	595000.00	495000.00	491000.00	539000.00 E	943000.00	495000.00	383000.00	623000.00 E	975000.00 E	523000.00	260000.00	117000.00	97700.00	429000.00
Chromium	70	100	191.00	2.00 ER	3.90 ER	1.85 ER	ND	ND	ND	ND	1.89 ER	<0.60	<10	<10	ND	2.20 ER	ND
Cobalt	NLE	NLE	18.30	3.69	1.27 ER	0.74 ER	1.06 ER	0.56 ER	0.78 ER	ND	ND	16.90	<50	<50	2.66	1.80 ER	ND
Copper	1300	1300	65.60	ND	25.50	ND	ND	ND	ND	ND	3.45 ER	<0.80	<10	<10	9.21	ND	ND
Iron	300	NLE	431000	46400.00	23700.00	49300.00	81400.00	18900.00	3540.00	25400.00	78700.00	13900.00	11300.00	11000.00	19100.00	25500.00	82600.00
Lead	5	15	22.70	ND	5.87	3.07 ER	ND	ND	ND	3.58 ER	8.89	<2.10	3.60	9.10	ND	3.00 ER	6.89
Magnesium	NLE	NLE	62700	44100.00	30100.00	39100.00	48200.00	60300.00	30300.00	27100.00	55500.00	63900.00	35400.00	14300.00	20100.00	16500.00	116000.00
Manganese	50	NLE	331	429.00	339.00	420.00	335.00	422.00	296.00	345.00	392.00	499.00	453.00	288.00	966.00	1090.00	694.00
Mercury	2	2	0.26	ND	ND	ND	ND	ND	ND	ND	0.09 ER	<0.254	<0.20	<0.20	ND	ND	ND
Nickel	100	NLE	187	3.60 ER	ND	ND	ND	ND	1.88 ER	0.90 ER	2.19 ER	58.90	<10	<10	20.80	3.00 ER	ND
Potassium	NLE	NLE	137000	20300.00	14700.00	15400.00	18700.00	30200.00	16000.00	13700.00	19400.00	40300.00	18500.00	10400.00	5790.00	5600.00	41500.00
Selenium	40	50	29.60	ND	36.70	ND	ND	ND	15.00	NR	1.91 ER	<1.36	<10	<10	ND	ND	7.79 ER
Silver	40	NLE	ND	ND	ND	ND	ND	35.60	26.20	ND	2.56 ER	<0.60	<10	<10	ND	2.00 ER	11.10
Sodium	50000	NLE	21500	63200.00	34600.00	42400.00	68800.00	256000.00	59900.00	62300.00	113000.00	238000.00	88500.00	21900.00	58200.00	30700.00	774000.00 E
Thallium	2	2	5.50	7.19 ER	36.50	ND	ND	ND	ND	ND	ND	<0.53	<2.0	<2.0	3.31 ER	ND	ND
Vanadium	NLE	NLE	108	2.41 ER	7.60	2.27 ER	14.40	7.20	4.95 ER	ND	ND	<0.50	<50	<50	ND	0.90 ER	3.35 ER
Zinc	2000	NLE	233	99.90	82.10	6.88 ER	10.70 ER	4.69 ER	5.45 ER	ND	ND	532.00	<20	<20	25.80	ND	ND

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

D = Diluted Sample

Table 3
Historical Groundwater Analytical Results
Site FTMM-18 Closed Solid Waste Landfill/Former Training Area
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				M18MW25																						296MW03	
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	49		50		51		52		53		54		LF1		LF1 Dup		LF2		LF2 Dup		LF3		LF4		LF5		44	
Date Collected				10/24/2008		3/25/2009		6/2/2009		9/17/2009		11/23/2009		2/2/2010		5/14/2010		5/14/2010		9/14/2010		9/14/2010		11/12/2010		2/24/2011		4/20/2011		3/4/2008	
ANALYTE/Lab ID				80387.02		90121.02		90219.02		90385.02		90458.02		10046.02		10193.04		10193.03		10389.04		10389.03		1048401		1106804		1116101		80065.06	
Volatile Organic Compounds (µg/L)																													
1,2-Dichloroethane	2	74	--	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		<0.11		<0.11		<0.11	ND	
1,2-Dichloropropane	1	5	--	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		<0.12		<0.12		<0.12	ND	
Acetone	6000	NLE	--	ND		6.86		ND		ND		ND		ND		ND		ND		ND		ND		<0.32		<0.32		<0.32	ND	
Benzene	1	5	--	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		<0.12		0.29	J	<0.12	ND	
Carbon Tetrachloride	1	5	--	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		<0.12		<0.12		<0.12	ND	
tert-Butyl alcohol	100	NLE	--	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		<1.64		<1.64		<1.64	ND	
Trichloroethene	1	5	--	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		<0.11		<0.11		<0.11	ND	
TICs*	500	NLE	--	ND		ND		ND		ND		ND		ND		ND		ND		4.00	JN	ND		ND		ND		ND		ND	
Metals (µg/L)																													
Aluminum	200	NLE	121000	745.00		81.00	ER	ND		136.00		ND		46.70	ER	ND		ND		ND		ND		<13.0		<200		<200	242	
Antimony	6	6	20.70	11.70		22.70		6.19	ER	ND		ND		6.43	ER	16.30		14.70		33.10		31.70		<4.70		<6.0		<6.0	ND	
Arsenic	3	10	89.30	ND		112.00		15.40		52.00		2.98	ER	8.11		2.15		1.28	ER	7.58		4.82	ER	<0.62		<3.0		10.80	ND	
Barium	6000	2000	699.00	376.00		147.00		133.00		352.00		170.00		44.00		118.00		109.00		459.00		441.00		526.00		230.00		<200	3.53	ER
Beryllium	1	4	2.10	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		<0.40		<1.0		<1.0	ND	
Cadmium	4	5	9.50	ND		ND		ND		2.05		ND		ND		1.20	ER	0.95	ER	2.09		2.32	ER	2.65		<3.0		<3.0	1.22	ER
Calcium	NLE	NLE	45400.00	325000.00		211000.00		ND		506000.00		295000.00	E	112000.00		214000.00		198000.00		640000.00	E	612000.00	E	661000.00	E	367000.00		71800.00	5050	
Chromium	70	100	191.00	4.29	ER	0.92	ER	ND		ND		ND		ND		ND		ND		ND		ND		<0.60		<10		<10	1.76	ER
Cobalt	NLE	NLE	18.30	2.68		0.42		0.56	ER	0.50	ER	ND		ND		ND		ND		ND		ND		<0.30		<50		<50	ND	
Copper	1300	1300	65.60	3.43	ER	2.37	ER	ND		ND		ND		ND		ND		ND		4.09	ER	3.90	ER	<0.80		<10		<10	1.31	ER
Iron	300	NLE	431000	150000.00		47500.00		48600.00		60400.00		30200.00		ND		31400.00		28500.00		48600.00		47700.00		42400.00		4860.00		7950.00	3110	
Lead	5	15	22.70	ND		11.50		ND		ND		ND		ND		3.31	ER	3.08	ER	ND		3.56	ER	2.80	ER	<3.0		<3.0	ND	
Magnesium	NLE	NLE	62700	151000.00		909000.00		153000.00		155000.00		64100.00		18700.00		39700.00		36900.00		181000.00		175000.00		177000.00		100000.00		11600.00	1800	
Manganese	50	NLE	331	477.00		451.00		419.00		1130.00		819.00		594.00		610.00		569.00		1120.00		1090.00		1120.00		912.00		543.00	14.8	
Mercury	2	2	0.26	ND		ND		ND		ND		ND		ND		ND		ND		0.07	ER	0.09	ER	<0.254		<0.20		<0.20	ND	
Nickel	100	NLE	187	ND		ND		ND		0.82	ER	ND		2.20	ER	ND		ND		1.33	ER	1.03	ER	<0.70		<10		<10	5.61	
Potassium	NLE	NLE	137000	58300.00		33000.00		50400.00		51500.00		17800.00		6750.00		14700.00		13100.00		42000.00		40600.00		67500.00		28600.00		<10000	1560	
Selenium	40	50	29.60	ND		73.40		6.19	ER	24.60		ND		ND		NR		NR		1.61	ER	2.34	ER	<1.36		<10		<10	ND	
Silver	40	NLE	ND	ND		ND		ND		ND		ND		ND		1.37	ER	1.07	ER	ND		ND		2.38	ER	<10		<10	ND	
Sodium	50000	NLE	21500	1090000.00		647000.00		1040000.00		948000.00	E	347000.00		45500.00		232000.00		214000.00		1060000.00	E	1020000.00	E	118000.00	E	608000.00		23200.00	12200	
Thallium	2	2	5.50	2.21	ER	ND		ND		ND		ND		ND		ND		ND		ND		ND		<0.53		<2.0		<2.0	ND	
Vanadium	NLE	NLE	108	12.90		10.70		3.59	ER	12.70		7.00		3.46	ER	ND		ND		ND		ND		<0.50		<50		<50	1.70	
Zinc	2000	NLE	233	38.60		16.60	ER	ND		3.81	ER	ND		2.28	ER	ND		ND		ND		ND		<2.50		<20		<20	48.2	

Notes:

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Table 3
Historical Groundwater Analytical Results
Site FTMM-18 Closed Solid Waste Landfill/Former Training Area
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				296MW03																											
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	45		46		47		48		48 Dup		49		50		51		52		LF1		LF1 Dup		LF2		LF2 Dup		LF3	LF4
Date Collected				5/14/2008		8/13/2008		10/24/2008		3/25/2009		3/25/2009		6/2/2009		9/17/2009		11/23/2009		2/2/2010		5/21/2010		5/21/2010		9/13/2010		11/26/2010		2/24/2011	4/20/2011
ANALYTE/Lab ID				80161.06		80295.06		80386.06		90122.04		90122.03		90217.06		90384.06		90456.06		10045.06		10208.04		10208.03		10386.08		1051204		1106709	1116301
Volatile Organic Compounds (µg/L)																															
1,2-Dichloroethane	2	74	--	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		<0.11		<0.11	<0.11
1,2-Dichloropropane	1	5	--	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		<0.12		<0.12	<0.12
Acetone	6000	NLE	--	ND		ND		6.89		ND		ND		ND		ND		ND		ND		ND		ND		ND		<0.32		<0.32	<0.32
Benzene	1	5	--	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		<0.12		<0.12	<0.12
Carbon Tetrachloride	1	5	--	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		<0.12		<0.12	<0.12
tert-Butyl alcohol	100	NLE	--	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		<1.64		<1.64	<1.64
Trichloroethene	1	5	--	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		<0.11		<0.11	<0.11
TICs*	500	NLE	--	ND		ND		9.00	J	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	ND
Metals (µg/L)																															
Aluminum	200	NLE	121000	131.00		372		166.00		274.00		196		166.00		263.00		174.00		157		30.6		22.3		3920.00		1310.00		<200	222.00
Antimony	6	6	20.70	ND		ND		ND		9.10	ER	9.54	ER	3.05	ER	6.05	ER	ND		ND		ND		ND		26.60		5.59	ER	<6.0	<6.0
Arsenic	3	10	89.30	ND		ND		3.55	ER	21.90		19.00		ND		8.49		0.71	ER	0.72	ER	ND		ND		7.05		2.10	ER	<3.0	<3.0
Barium	6000	2000	699.00	4.77	ER	10.40		5.71		3.55	ER	3.42	ER	2.09	ER	6.91		6.64		4.73	ER	2.10	ER	2.33	ER	102.00		115.00		<200	<200
Beryllium	1	4	2.10	0.21	ER	0.17	ER	ND		ND		ND		ND		0.12	ER	ND		ND		ND		ND		0.95		0.49	ER	<1.0	<1.0
Cadmium	4	5	9.50	1.86	ER	3.91		1.71	ER	1.39	ER	1.41	ER	0.69	ER	3.53		1.63	ER	1.18	ER	ND		0.87	ER	46.20		13.70		<3.0	<3.0
Calcium	NLE	NLE	45400.00	4980.00		28400		15900.00		8460.00		7800		4120.00		19500.00		20400.00		9810		5940		6020		488000.00		250000.00		11200.00	<5000
Chromium	70	100	191.00	0.98	ER	1.46	ER	1.85	ER	2.30	ER	1.57	ER	1.98	ER	1.45	ER	ND		1.93	ER	ND		ND		ND		<0.60		<10	<10
Cobalt	NLE	NLE	18.30	0.67	ER	0.721		0.59	ER	ND		ND		ND		1.03	ER	0.59	ER	ND		ND		ND		8.19		5.41		<50	<50
Copper	1300	1300	65.60	ND		ND		ND		ND		ND		ND		ND		ND		1.40	ER	ND		ND		3.84	ER	<0.80		<10	<10
Iron	300	NLE	431000	151.00		1760		3160.00		3780.00		1870		668.00		1530.00		1590.00		1220		119		ND		25700.00		557.00		903.00	737.00
Lead	5	15	22.70	ND		ND		ND		5.51		7.33		2.56	ER	ND		ND		ND		ND		ND		ND		<2.10		<3.0	<3.0
Magnesium	NLE	NLE	62700	1650.00		11100		6400.00		3520.00		3210		1630.00		7350.00		8000.00		3880		2470		2490		209000.00		114000.00		<5000	<5000
Manganese	50	NLE	331	22.90		27.9		27.00		16.40		15.6		7.53		37.80		30.40		20.1		6.65		6.81		680.00		279.00		<15	<15
Mercury	2	2	0.26	ND		ND		ND		ND		ND		ND		0.15	ER	ND		ND		ND		ND		ND		<0.254		<0.20	<0.20
Nickel	100	NLE	187	4.00	ER	5.59		2.81	ER	1.31	ER	2.01	ER	2.10	ER	5.51		4.52	ER	4.17	ER	0.97	ER	1.46	ER	56.70		25.60		<10	<10
Potassium	NLE	NLE	137000	2040.00		5570		4370.00		2130.00		2050		1830.00		5350.00		3650.00		4190		2390		2430		22700.00		25900.00		<10000	<10000
Selenium	40	50	29.60	4.83	ER	ND		ND		46.80		51.50		ND		22.10		ND		ND		NR		NR		1.93	ER	<1.36		<10	<10
Silver	40	NLE	ND	ND		0.56		0.71	ER	ND		ND		ND		ND		ND		0.66		0.58		ND		ND		<0.60		<10	<10
Sodium	50000	NLE	21500	9990.00		99400		53200.00		37400.00		34300		21500.00		36400.00		83700.00		36200		45300		44400		739000.00	E	694000.00	E	60400.00	16600.00
Thallium	2	2	5.50	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		<0.53		<2.0	<2.0
Vanadium	NLE	NLE	108	ND		2.13		0.97	ER	3.30	ER	2.28		1.22	ER	1.09	ER	1.64	ER	1.57		ND		ND		ND		1.03	ER	<50	<50
Zinc	2000	NLE	233	57.30		147		97.00		59.80		59.1		33.50		151.00		91.70		59.9		38.1		39.3		1580.00		833.00		54.50	35.20

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

D = Diluted Sample

Table 3
Historical Groundwater Analytical Results
Site FTMM-18 Closed Solid Waste Landfill/Former Training Area
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				296MW02																	
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	46	47	48	49	50	51	52	53	54	55	56	57	58	59	59 Dup	60
Date Collected				3/4/2008	5/14/2008	8/13/2008	10/22/2008	3/26/2009	6/2/2009	9/17/2009	11/23/2009	2/2/2010	5/21/2010	9/13/2010	11/23/2010	2/24/2011	4/20/2011	4/20/2011	8/9/2011
ANALYTE/Lab ID																			
Volatile Organic Compounds (µg/L)																			
Acetone	6000	NLE	-	ND	ND	ND	ND	5.89	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m +*p* -xylenes	100	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	70	NLE	-	ND	0.86	0.93	0.91	ND	0.36	0.24 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
o- xylene	100	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																			
Aluminum	200	NLE	121000	1340	83.8	130	327	642	294	2740	272	205000	472	200	ND	216	622	1010	2020
Antimony	6	6	20.70	ND	1.89	ND	ND	7.54	2.43	ND	ND	ND	11.8	17	ND	< 6	< 6	< 6	< 6
Arsenic	3	10	89.30	5.75	4.59	3.15	5.21	26.7	5.01	7.47	2.6	75.08	0.83	2.92	ND	< 3	< 3	< 3	< 3
Barium	6000	2000	699.00	106	7.46	7.59	6.75	8.58	14.3	39.7	15.9	1270	210	122	61.4	< 200	< 200	< 200	< 200
Beryllium	1	4	2.10	0.716	ND	ND	ND	ND	ND	0.107	ND	9.99	0.067	ND	ND	< 1	< 1	< 1	< 1
Cadmium	4	5	9.50	13.1	1.58	0.654	0.49	1.17	0.729	2.86	ND	184	8.51	1.78	0.598	3.1	3.2	3	< 3
Calcium	NLE	NLE	45400.00	10000	1820	1760	1830	4270	3910	6250	4760	93700	80900	40300	30700	42000	57400	55700	23900
Chromium	70	100	191.00	5.21	0.986	1.63	2.45	4.49	2.46	12.2	1.86	840	ND	ND	ND	< 10	< 10	< 10	10.4
Copper	1300	1300	65.60	ND	10.5	12.3	22.4	30.7	15.5	128	62.3	5440	47.1	11.6	1.55	16.3	16.5	22.3	47.7
Iron	300	NLE	431000	23200	366	398	860	3780	607	10100	1180	579000 E	7130	39600	12800	1100	4650	7100	18900
Lead	5	15	22.70	21.7	1.96	ND	ND	7.34	ND	36.1	2.73	1060	4.51	4.83		< 3	3.3	6	9.8
Magnesium	NLE	NLE	62700	2050	468	498	586	925	1010	2640	1150	77900	12900	11200	7080	6680	7370	6870	5760
Manganese	50	NLE	331	296	17	18.6	15.5	95.3	76.7	176	55.6	5590	780	510	284	282	287	269	284
Mercury	2	2	0.26	ND	ND	ND	ND	ND	ND	0.18	ND	0.69	ND	ND	ND	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	100	NLE	187	44	4.82	3.16	2.54	3.6	5.14	10.3	6.45	514	23	20.8	9.84	13.3	13.4	17.6	15.7
Potassium	NLE	NLE	137000	2450	2920	2770	3060	3650	2200	4700	3050	59700	14800	11900	32900	< 10000	10900	10500	< 10000
Selenium	40	50	29.60	ND	4.8	3.58		42.7	ND	ND	11.8	ND	NR	2.13	1.47	< 10	< 10	< 10	10.1
Silver	40	NLE	ND	ND	ND	0.708	1.08	ND	ND	ND	ND	ND	1.08	6.6	2.37	< 10	< 10	< 10	< 10
Sodium	50000	NLE	21500	128000	239000	255000	255000	317000	281000	286000	270000	475000	2670000 E	1320000 E	929000 E	818000	802000	720000	578000
Thallium	2	2	5.50	1.69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 2	< 2	< 2	< 2
Vanadium	60	NLE	108	41.9	2.19	2.65	2.85	12.2	2.2	16.9	1.74	989	1.75	ND	ND	< 50	< 50	< 50	< 50
Zinc	2000	5000	233	466	30.9	19	38	83.8	60.3	173	162	13200	458	191	89.1	2110	10800	9920	6980

Notes:
Yellow highlight indicates an exceedence of NJDEP Class IIA GWQS
TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP GWQS = NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22,
USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level
LF = Low-flow sampling method used to collect sample
< = Analyte does not exceed the detection limit shown
dup = duplicate sample collected
ER - Estimated result
J - Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)
NA - Not analyzed
ND - Not detected
NLE - No limit established
NR - Not reported

Table 3
Historical Groundwater Analytical Results
Site FTMM-18 Closed Solid Waste Landfill/Former Training Area
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				296MW03																		
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	46	47	48	49	50	50 Dup	51	52	53	54	55	55 Dup	56		57		57 Dup		58	59	60
Date Collected				3/4/2008	5/14/2008	8/13/2008	10/22/2008	3/25/2009	3/25/2009	6/2/2009	9/17/2009	11/23/2009	2/2/2010	5/21/2010	5/21/2010	9/13/2010		11/24/2010		11/24/2010		2/24/2011	4/21/2011	8/9/2011
ANALYTE/Lab ID																								
Volatile Organic Compounds (µg/L)																								
Acetone	6000	NLE	-	ND	ND	ND	6.89	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND
Benzene	1	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND
Ethylbenzene	700	700	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND
m +*p* -xylenes	100	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND
MTBE	70	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND
o- xylene	100	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND
Toluene	600	1000	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND
TICs*	500	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND
Metals (µg/L)																								
Aluminum	200	NLE	121000	242	131	372	166	274	196	166	263	174	157	30.6	22.3	3920		1310		1240		< 200	222	< 200
Antimony	6	6	20.70	ND	ND	ND	ND	9.1	9.54	3.05	6.05	ND	ND	ND	ND	26.6		5.59		9.76		< 6	< 6	< 6
Arsenic	3	10	89.30	ND	ND	ND	3.55	21.9	19	ND	8.49	0.71	0.72	ND	ND	7.05		2.1		1.3		< 3	< 3	< 3
Barium	6000	2000	699.00	3.53	4.77	10.4	5.71	3.55	3.42	2.09	6.91	6.64	4.73	2.1	2.33	102		115		115		< 200	< 200	< 200
Beryllium	1	4	2.10	ND	0.214	0.167	ND	ND	ND	ND	0.122	ND	ND	ND	ND	0.946		0.485		0.434		< 1	< 1	< 1
Cadmium	4	5	9.50	1.22	1.86	3.91	1.71	1.39	1.41	0.689	3.53	1.63	1.18	ND	0.874	46.2		13.7		13.5		< 3	< 3	< 3
Calcium	NLE	NLE	45400.00	5050	4980	28400	15900	8460	7800	4120	19500	20400	9810	5940	6020	488000		250000		242000		11200	< 5000	14700
Chromium	70	100	191.00	1.76	0.98	1.46	1.85	2.3	1.57	1.98	1.45	ND	1.93	ND	ND	ND		ND		ND		< 10	< 10	< 10
Copper	1300	1300	65.60	1.31	ND	ND	ND	ND	ND	ND	ND	ND	1.4	ND	ND	3.84		ND		ND		< 10	< 10	< 10
Iron	300	NLE	431000	3110	151	1760	3160	3780	1870	668	1530	1590	1220	119	ND	25700		557		486		903	737	1120
Lead	5	15	22.70	ND	ND	ND	ND	5.51	7.33	2.56	ND	ND	ND	ND	ND	ND		ND		ND		< 3	< 3	< 3
Magnesium	NLE	NLE	62700	1800	1650	11100	6400	3520	3210	1630	7350	8000	3880	2470	2490	209000		114000		113000		< 5000	< 5000	6660
Manganese	50	NLE	331	14.8	22.9	27.9	27	16.4	15.6	7.53	37.8	30.4	20.1	6.65	6.81	680		279		273		< 15	< 15	24.5
Mercury	2	2	0.26	ND	ND	ND	ND	ND	ND	ND	0.15	ND	ND	ND	ND	ND		ND		ND		< 0.2	< 0.2	< 0.2
Nickel	100	NLE	187	5.61	4	5.59	2.81	1.31	2.01	2.1	5.51	4.52	4.17	0.974	1.46	56.7		25.6		25.6		< 10	< 10	< 10
Potassium	NLE	NLE	137000	1560	2040	5570	4370	2130	2050	1830	5350	3650	4190	2390	2430	22700		25900		21000		< 10000	< 10000	< 10000
Selenium	40	50	29.60	ND	4.83	ND	ND	46.8	51.5	ND	22.1	ND	ND	NR	NR	1.93		ND		1.4		< 10	< 10	< 10
Silver	40	NLE	ND	ND	ND	0.564	0.707	ND	ND	ND	ND	ND	0.659	0.58	ND	ND		ND		ND		< 10	< 10	< 10
Sodium	50000	NLE	21500	12200	9990	99400	53200	37400	34300	21500	36400	83700	36200	45300	44400	739000	E	694000	E	679000	E	60400	16600	111000
Thallium	2	2	5.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		< 2	< 2	< 2
Vanadium	60	NLE	108	1.7	ND	2.13	0.971	3.3	2.28	1.22	1.09	1.64	1.57	ND	ND	ND		1.03		1.23		< 50	< 50	< 50
Zinc	2000	5000	233	48.2	57.3	147	97	59.8	59.1	33.5	151	91.7	59.9	38.1	39.3	1580		833		812		54.5	35.2	75

Notes:
Yellow highlight indicates an exceedence of NJDEP Class IIA GWQS
TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP GWQS = NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22,
USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level
LF = Low-flow sampling method used to collect sample
< = Analyte does not exceed the detection limit shown
dup = duplicate sample collected
ER - Estimated result
J - Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)
NA - Not analyzed
ND - Not detected
NLE - No limit established
NR - Not reported

Table 3
Historical Groundwater Analytical Results
Site FTMM-18 Closed Solid Waste Landfill/Former Training Area
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				296MW04																
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	46	47	48	49	50	51	52	53	54	55	56	57	58	58 Dup	59	60
Date Collected				3/4/2008	5/14/2008	8/13/2008	10/22/2008	3/26/2009	6/2/2009	9/17/2009	11/23/2009	2/2/2010	5/21/2010	9/13/2010	11/23/2010	2/24/2011	2/24/2011	4/21/2011	8/9/2011
ANALYTE/Lab ID																			
Volatile Organic Compounds (µg/L)																			
Acetone	6000	NLE	-	ND	ND	2.93	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	-	ND	0.18	ND	ND	0.39	0.38	ND	ND	0.27 J	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m +*p* -xylenes	100	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	70	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o- xylene	100	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11	ND
Metals (µg/L)																			
Aluminum	200	NLE	121000	103	83.4	ND	251	57	10.3	126	ND	441	511	ND	ND	< 200	< 200	653	< 200
Antimony	6	6	20.70	ND	1.29	ND	ND	19.4	4.06	7.82	ND	ND	ND	40.1	ND	< 6	< 6	< 6	< 6
Arsenic	3	10	89.30	ND	ND	2.57	ND	67	20.3	28	1.76	1.48	13.59	13.46	ND	< 3	< 3	< 3	< 3
Barium	6000	2000	699.00	11.2	27	112	180	26.5	33.3	62.8	71.2	21.1	5.8	379	48.9	< 200	< 200	< 200	< 200
Beryllium	1	4	2.10	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.048	ND	ND	< 1	< 1	< 1	< 1
Cadmium	4	5	9.50	0.59	0.579	0.94	0.725	ND	ND	ND	ND	ND	ND	2.63	0.789	< 3	< 3	< 3	< 3
Calcium	NLE	NLE	45400.00	28000	35100	119000	190000	49300	46300	77800	10000	34200	12400	667000 E	66600	41700	56200	11900	131000
Chromium	70	100	191.00	0.609	0.758	ND	ND	1.38	ND	ND	ND	2.1	5.79	6.61	ND	< 10	< 10	< 10	< 10
Copper	1300	1300	65.60	1.19	1.4	ND	1.81	2.23	ND	ND	ND	ND	1.17	4.92	ND	< 10	< 10	< 10	< 10
Iron	300	NLE	431000	3690	3120	9210	1.71	8810	8500	6390	15300	11500	3450	54100	13200	11000	8430	4000	14700
Lead	5	15	22.70	1.1	4.2	ND	16600	7.39	3.92	ND	ND	2.4	ND	7.24	ND	< 3	< 3	8.3	< 3
Magnesium	NLE	NLE	62700	14500	29700	108000	251000	35000	38900	71900	99100	31300	6870	830000 E	82300	41700	44300	7140	191000
Manganese	50	NLE	331	70.7	129	166	225	173	189	342	484	182	49.7	1780	347	204	185	31.9	441
Mercury	2	2	0.26	ND	ND	ND	ND	ND	ND	0.18	ND	ND	ND	0.11	ND	< 0.2	< 0.2	< 0.2	< 0.2
Nickel	100	NLE	187	4.03	1.49	2.01	1.69	ND	1.91	0.642	1.78	3.05	0.716	14	ND	< 10	< 10	< 10	< 10
Potassium	NLE	NLE	137000	3190	7540	25100	57500	6800	9610	17100	15100	10600	2930	148000	33400	11300	11400	< 10000	44000
Selenium	40	50	29.60	ND	ND	10.6	ND	117	4.8	63.2	ND	ND	NR	4.72	ND	< 10	< 10	< 10	< 10
Silver	40	NLE	ND	ND	ND	0.662	ND	ND	ND	ND	ND	ND	0.733	ND	2.08	< 10	< 10	< 10	< 10
Sodium	50000	NLE	21500	119000	232000	796000 E	1830000	272000	314000	483000	688000	268000	82400	5610000 E	814000 E	461000	472000	119000	1420000
Thallium	2	2	5.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 2	< 2	< 2	< 2
Vanadium	60	NLE	108	2.28	4.28	3.08	3.19	6.15	2.46	4.5	5.03	7.09	5.39	ND	2.12	< 50	< 50	< 50	< 50
Zinc	2000	5000	233	35.6	16.7	ND	55.6	19	9.49	12	9.38	39	12.7	3.82	ND	< 20	35.5	< 20	< 20

Notes:
Yellow highlight indicates an exceedence of NJDEP Class IIA GWQS
TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP GWQS = NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22,
USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level
LF = Low-flow sampling method used to collect sample
< = Analyte does not exceed the detection limit shown
dup = duplicate sample collected
ER - Estimated result
J - Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)
NA - Not analyzed
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Table 3
Historical Groundwater Analytical Results
Site FTMM-18 Closed Solid Waste Landfill/Former Training Area
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				296MW06																
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	46	47	47 Dup	48	49	50	51	52	53	54	55	56	57		58	59	59 Dup	60
Date Collected				3/4/2008	5/14/2008	5/14/2008	8/13/2008	10/22/2008	3/25/2009	6/2/2009	9/17/2009	11/23/2009	2/2/2010	5/21/2010	9/13/2010	11/24/2010		2/24/2011	4/21/2011	4/21/2011	8/9/2011
ANALYTE/Lab ID																					
Volatile Organic Compounds (µg/L)																					
Acetone	6000	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
Benzene	1	5	-	0.56	0.51	0.55	0.48	1.74	ND	ND	ND	ND	ND	27.45	12.81	61.13		75.98	ND	ND	ND
Ethylbenzene	700	700	-	ND	ND	ND	ND	4.98	ND	ND	ND	ND	ND	2.94	1.25	7.5		7.24	ND	ND	ND
m +*p* -xylenes	100	NLE	-	ND	ND	ND	ND	0.68	ND	ND	ND	ND	ND	2.43	1.04	6.81		5.16	ND	ND	ND
MTBE	70	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
o- xylene	100	NLE	-	ND	ND	ND	ND	1.24	ND	ND	ND	ND	ND	1.24	0.66	3.72		2.5	ND	ND	ND
Toluene	600	1000	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.58		0.53	ND	ND	ND
TICs*	500	NLE	-	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	110	71	206		258	ND	ND	ND
Metals (µg/L)																					
Aluminum	200	NLE	121000	76.3	146	142	391	126	70.6	237	226	240	150	58.9	327	ND		294	1880	1590	3050
Antimony	6	6	20.70	ND	ND	1.85	ND	ND	38.1	2.94	11	ND	ND	10.7	24.6	ND		< 6	< 6	< 6	< 6
Arsenic	3	10	89.30	ND	ND	ND	2.51	ND	67.6	6.66	35.2	1.34	ND	22.9	2.38	4.06		< 3	< 3	< 3	4
Barium	6000	2000	699.00	8.19	3.09	3.18	4.73	49.6	102	4.97	102	10	7.39	0.73	82.1	325		299	< 200	< 200	< 200
Beryllium	1	4	2.10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.044	ND	ND		< 1	< 1	< 1	< 1
Cadmium	4	5	9.50	ND	0.265	0.239	0.395	ND	ND	ND	1.41	ND	ND	2.04	1.19	4.74		< 3	< 3	< 3	< 3
Calcium	NLE	NLE	45400.00	19900	7720	7620	10900	62600	182000	8800	150000	18400	16900	133000	147000	386000		360000	< 5000	7360	8080
Chromium	70	100	191.00	0.587	1.04	1.42	4.35	ND	ND	2.24	1.13	3.21	ND	ND	ND	ND		< 10	23.2	19.4	43.5
Copper	1300	1300	65.60	2.35	7.03	7.33	3.06	0.959	ND	17.6	4.17	ND	1.22	ND	6.8	ND		< 10	25.4	30.5	31.1
Iron	300	NLE	431000	3050	1350	1320	3540	20600	56800	1740	49400	6130	4310	39700	41200	98500		111000	6360	25700	11100
Lead	5	15	22.70	ND	ND	ND	ND	ND	7.43	1.81	6.43	ND	ND	4.5	ND	12.1		< 3	< 3	< 3	3.5
Magnesium	NLE	NLE	62700	4550	1640	1620	3050	21900	59100	2280	48700	5850	4630	47400	55800	145000		146000	< 5000	< 5000	< 5000
Manganese	50	NLE	331	103	41.4	40.7	89.3	460	1560	65.9	1310	151	137	1090	1240	2700		3130	28.1	63.8	70.4
Mercury	2	2	0.26	ND	ND	ND	ND	ND	ND	ND	0.39	0.06	ND	ND	0.08	ND		< 0.2	< 0.2	< 0.2	< 0.2
Nickel	100	NLE	187	5.33	1.48	1.56	1.56	ND	ND	2.44	1.68	1.21	2.66	ND	1.59	1.27		< 10	< 10	< 10	< 10
Potassium	NLE	NLE	137000	1030	990	1560	1850	4920	7110	903	11300	1500	3040	7090	10200	28200		16400	< 10000	< 10000	< 10000
Selenium	40	50	29.60	ND	3.13	ND	ND	ND	68.9	ND	60.3	ND	ND	NR	1.98	ND		< 10	< 10	< 10	< 10
Silver	40	NLE	ND	ND	ND	ND	1.08	ND	ND	ND	ND	ND	ND	4.34	5.07	20.7		< 10	< 10	< 10	< 10
Sodium	50000	NLE	21500	58400	31200	31000	42200	4920	258000	46100	218000	48500	66800	232000	254000	697000	E	616000	28700	32400	55600
Thallium	2	2	5.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		< 2	< 2	< 2	< 2
Vanadium	60	NLE	108	2.06	2.28	2.38	8.35	3.27	7.68	6.43	9.85	5.14	2.28	ND	ND	1.09		< 50	< 50	< 50	< 50
Zinc	2000	5000	233	8.39	3.84	3.77	ND	5.37	16.6	5.24	ND	ND	2.39	ND	ND	ND		< 20	26	27.6	< 20

Notes:
Yellow highlight indicates an exceedence of NJDEP Class IIA GWQS
TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP GWQS = NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22,
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LF = Low-flow sampling method used to collect sample
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J - Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)
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Table 3
Historical Groundwater Analytical Results
Site FTMM-18 Closed Solid Waste Landfill/Former Training Area
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				296MW07														
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	46	47	48	49	50	51	52	52 Dup	53	53 Dup	54	54 Dup	55	56	56 Dup	57	58
Date Collected				3/4/2008	5/14/2008	8/13/2008	10/22/2008	3/26/2009	6/2/2009	9/17/2009	9/17/2009	11/23/2009	11/23/2009	2/2/2010	2/2/2010	5/20/2010	9/13/2010	9/13/2010	11/22/2010	2/24/2011
ANALYTE/Lab ID																				
Volatile Organic Compounds (µg/L)																				
Acetone	6000	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m +*p* -xylenes	100	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	70	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o- xylene	100	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																				
Aluminum	200	NLE	121000	165	63	104	145	175	271	225	263	109	118	382	409	48.4	45.8	46.5	14.8	< 200
Antimony	6	6	20.70	ND	ND	ND	ND	21.2	2.3	ND	ND	ND	ND	ND	ND	ND	ND	37.5	ND	< 6
Arsenic	3	10	89.30	ND	4.24	5.22	3.82	33.1	15.1	11.1	16.3	2.91	3.28	2.61	2.69	3.01	2.29	2.68	1.52	< 3
Barium	6000	2000	699.00	7.29	7.83	22.3	41.6	57.7	114	14.4	17.3	37.4	36.7	24.8	29	7.47	7.79	7.6	5.78	< 200
Beryllium	1	4	2.10	ND	0.132	ND	ND	ND	0.103	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 1
Cadmium	4	5	9.50	0.819	1	1.05	0.773	0.962	2.02	0.524	0.808	0.556	ND	ND	ND	ND	ND	ND	ND	< 3
Calcium	NLE	NLE	45400.00	12800	14000	12400	13600	15300	18900	19200	18200	31200	33000	14100	14200	14500	12900	13100	15200	13900
Chromium	70	100	191.00	1.35	1.24	0.973	ND	0.848	0.365	2.33	2.56	ND	ND	3.2	3.58	ND	ND	ND	ND	< 10
Copper	1300	1300	65.60	1.75	ND	ND	ND	ND	4.55	ND	ND	ND	ND	ND	ND	1.52	1.11	1.44	3.95	< 10
Iron	300	NLE	431000	6720	8850	7690	11200	25500	28300	7990	8730	13700	14100	10600	11700	2950	4180	4040	2200	6830
Lead	5	15	22.70	ND	ND	ND	ND	8.39	1.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 3
Magnesium	NLE	NLE	62700	2690	3180	2450	2800	2960	2580	4680	4400	7370	7730	3130	3120	3520	2830	2870	3390	< 5000
Manganese	50	NLE	331	101	79.8	49.8	62.1	72.8	92.8	83.2	79.9	128	134	69.6	68.1	46.7	51.9	53.5	50.4	47.1
Mercury	2	2	0.26	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.09	ND	0.08	ND	ND	< 0.2
Nickel	100	NLE	187	5.22	1.88	0.989	0.874	ND	1.14	0.925	1.41	3.12	3.5	3.01	2.72	0.61	1.78	1.23	1.31	< 10
Potassium	NLE	NLE	137000	5910	5860	7330	7690	6570	9340	8340	7860	8240	8460	7720	7880	6590	7460	7580	8050	< 10000
Selenium	40	50	29.60	ND	ND	ND	ND	39.9	ND	13.4	ND	ND	ND	ND	ND	NR	1.57	1.37	ND	< 10
Silver	40	NLE	ND	ND	ND	1.67	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.7	1.57	ND	< 10
Sodium	50000	NLE	21500	7820	13600	7520	10300	12200	5650	15400	13400	34100	34900	23400	22200	21200	8110	7720	15700	28800
Thallium	2	2	5.50	ND	ND	ND	ND	ND	2.41	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 2
Vanadium	60	NLE	108	0.626	1.09	1.31	ND	4.41	1.81	4.07	3.64	3.02	3	3.99	3.69	1.11	0.64	0.673	1.28	< 50
Zinc	2000	5000	233	61.8	26.5	12.5	44.9	85.5	178	58.5	56.7	84.7	90.1	36.9	372	55.2	24.5	24.9	44.1	71.5

Notes:
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Site FTMM-18 Closed Solid Waste Landfill/Former Training Area
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				296MW07					296MW08																	
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	59		59 Dup		60	46	47	48	49	50	51	52	53	54	55	56		57	57 Dup	58	59	60
Date Collected				4/19/2011		4/19/2011		8/9/2011	3/4/2008	5/14/2008	8/13/2008	10/22/2008	3/26/2009	6/2/2009	9/17/2009	11/23/2009	2/2/2010	5/21/2010	9/13/2010		11/23/2010	11/23/2010	2/24/2011	4/19/2011	8/9/2011
ANALYTE/Lab ID																									
Volatile Organic Compounds (µg/L)																									
Acetone	6000	NLE	-	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
Benzene	1	5	-	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
Ethylbenzene	700	700	-	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
m +*p* -xylenes	100	NLE	-	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
MTBE	70	NLE	-	0.21	J	0.2	J	ND	1.24	ND	ND	ND	ND	0.45	ND	ND	ND	0.81	0.46	J	ND	ND	0.39	J 0.79	ND
o- xylene	100	NLE	-	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
Toluene	600	1000	-	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND
TICs*	500	NLE	-	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		49	48	7	ND	ND
Metals (µg/L)																									
Aluminum	200	NLE	121000	315		306		902	419	88.1	ND	273	372	399	1040	452	1230	998	567		286	322	1140	1330	648
Antimony	6	6	20.70	< 6		< 6		< 6	ND	ND	ND	3.06	25	2.53	ND	ND	ND	10	9.95		ND	ND	< 6	< 6	< 6
Arsenic	3	10	89.30	< 3		< 3		7.2	18.7	48.8	135	42.3	54.3	57.1	81.1	23.8	22.53	8.84	19.4		9.18	9.54	6.1	3.4	97.1
Barium	6000	2000	699.00	< 200		< 200		< 200	56.3	40.6	23.7	30.9	56.2	64.5	63.5	53	107	133	73.2		38.5	40	< 200	< 200	< 200
Beryllium	1	4	2.10	< 1		< 1		< 1	0.109	0.193	ND	ND	ND	0.178	0.083	0.051	0.11	0.297	0.181		ND	ND	< 1	< 1	< 1
Cadmium	4	5	9.50	< 3		< 3		< 3	1.01	10.1	14.2	ND	ND	1.03	3.88		2.57	4.02	3.1		2.65	2.95	< 3	< 3	3
Calcium	NLE	NLE	45400.00	30300		29900		13500	35800	29100	27300	19800	27200	30400	27900	23600	41300	44700	25700		17600	18000	41800	46000	48000
Chromium	70	100	191.00	< 10		< 10		< 10	ND	ND	ND	ND	ND	ND	2.63	ND	ND	ND	ND		1.28	1.18	< 10	< 10	< 10
Copper	1300	1300	65.60	< 10		< 10		< 10	2.08	ND	ND	2.35	ND	0.921	ND	ND	ND	ND	4.02		ND	ND	< 10	< 10	< 10
Iron	300	NLE	431000	5450		6840		47100	96700	96700	124000	77100	47400	60200	83600	53400	59300	31700	56600		45100	46100	24900	25700	158000
Lead	5	15	22.70	< 3		< 3		< 3	ND	11.8	11.9	ND	13.2	4.25	10	6.1	8.58		3.38		8.27	6.51	< 3	< 3	< 3
Magnesium	NLE	NLE	62700	8750		8690		< 5000	25400	18700	15600	14300	20400	21000	20000	17500	31900	37700	20000		12200	12600	35100	38700	28500
Manganese	50	NLE	331	93.8		91.7		67	302	285	289	167	196	234	254	185	293	316	215		150	154	329	357	556
Mercury	2	2	0.26	< 0.2		< 0.2		< 0.2	ND	ND	ND	ND	ND	ND	0.09	ND	ND	ND	0.11		ND	ND	< 0.2	< 0.2	< 0.2
Nickel	100	NLE	187	< 10		< 10		< 10	19.6	11.2	7.24	8.24	17.2	22.6	16.7	15.3	38.4	46.7	20.6		12.5	12.5	49.2	56.6	24
Potassium	NLE	NLE	137000	< 10000		< 10000		< 10000	3540	4180	3980	4040	3790	4530	5650	4170	7390	5670	5540		6120	5770	< 10000	< 10000	< 10000
Selenium	40	50	29.60	< 10		< 10		< 10	ND	ND	ND	ND	45.1	4.46	ND	ND	ND	NR	1.57		ND	ND	< 10	< 10	< 10
Silver	40	NLE	ND	< 10		< 10		< 10	ND	9.67	18.5	ND	ND	ND	ND	ND	ND	4.73	8.12		9.61	9.35	< 10	< 10	< 10
Sodium	50000	NLE	21500	105000		103000		10800	168000	148000	157000	119000	129000	127000	148000	121000	148000	136000	131000		105000	107000	135000	124000	300000
Thallium	2	2	5.50	< 2		< 2		< 2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	< 2	< 2	< 2
Vanadium	60	NLE	108	< 50		< 50		< 50	ND	0.348	0.525	0.261	5.24	0.683	13.2	9.72	11.1	ND	ND		0.78	1.14	< 50	< 50	< 50
Zinc	2000	5000	233	177		182		115	122	69.1	17.4	58.1	128	121	122	99.4	232	262	122		71.4	73.6	309	390	183

Notes:
Yellow highlight indicates an exceedence of NJDEP Class IIA GWQS
TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP GWQS = NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22,
USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level
LF = Low-flow sampling method used to collect sample
< = Analyte does not exceed the detection limit shown
dup = duplicate sample collected
ER - Estimated result
J - Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)
NA - Not analyzed
ND - Not detected
NLE - No limit established
NR - Not reported

Table 4
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-18 Closed Solid Waste Landfill/Former Training Area
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	296MW04			296MW06					M18MW22	
Sample ID			FTMM-54-GW-296MW04	FTMM-54-GW-296MW04-6.35	FTMM-54-GW-296MW04-6.35	FTMM-54-GW-296MW06	FTMM-54-GW-296MW106	FTMM-54-GW-296MW06-10.1	FTMM-54-GW-296MW06-5.07	FTMM-54-GW-296MW06-10.1	FTMM-18-GW-M18MW22-12.33	FTMM-18-GW-M18MW22-18.98
Sample Date			8/20/2013	12/18/2014	12/14/2015	8/19/2013	8/19/2013	12/18/2014	12/18/2014	12/14/2015	8/30/2013	8/30/2013
QA/QC			SA	SA	SA	SA	DU	SA	SA	SA	SA	SA
Sample Method			LFPS	PDB	PDB	LFPS	LFPS	PDB	PDB	PDB	PDB	PDB
Volatile Organic Compounds (µg/l)												
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**13**	**26**
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	**0.2 J**	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	< 5	**2 J**	**3.1 B**	**2.2 J**	**2.4 J**	< 5	**1.9 J**	**1.9 B**	**2.4 J**	**3.5 J**
Benzene	1	5	< 1	< 1	< 1	**11**	**12**	**15**	**1.6 J**	**6**	< 1	**0.37 J**
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1 UJ	< 1	< 1	< 1	< 1 UJ	< 1 UJ	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	**0.72 J**	**0.72 J**	**0.2 J**	< 1	**0.22 J**	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	**0.8 J**	**0.85 J**	**0.76 J**	**0.34 J**	**0.51 J**	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	**0.47 J**	**0.49 J**	**0.51 J**	< 2	**0.36 J**	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1 UJ	< 1	< 1	< 1	< 1 UJ	< 1 UJ	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	**1.1 J**	**1.1 J**	**0.66 J**	**0.37 J**	**0.76 J**	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	**0.23 J**	**0.25 J**	**0.22 J**	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	**0.27 J**	**0.26 J**	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	< 20	< 20	NA	NA	< 20	< 20	< 20	NA	NA
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	**0.26 J**	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	< 3	**0.7 J**	**0.74 J**	**0.73 J**	< 3	**1.63 J**	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
TIC VOCs (µg/l)												
Total TIC, Volatile	500	NLE	ND	ND	ND	**23.9**	**24.3**	**24.3 JN**	**6.9 JN**	ND	ND	**6.9**
Inorganics (µg/l)												
Lead	5	15	< 2	NA	NA	< 2	< 2	NA	NA	NA	NA	NA

Table 4
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-18 Closed Solid Waste Landfill/Former Training Area
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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	M18MW22		M18MW23			M18MW24	M18MW25	
Sample ID			FTMM-18-GW-M18MW22-18.91	FTMM-18-GW-M18MW22-18.91	FTMM-18-GW-M18MW23-16.22	FTMM-18-GW-M18MW23-9.28	FTMM-18-GW-M18MW23-9.28	FTMM-18-GW-M18MW24-10.9	FTMM-18-GW-M18MW25-13.81	FTMM-18-GW-M18MW25-8.81
Sample Date			12/19/2014	12/14/2015	12/19/2014	12/19/2014	12/14/2015	8/30/2013	8/30/2013	8/30/2013
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB	PDB	PDB	PDB	PDB
Volatile Organic Compounds (µg/l)										
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	**0.89 J**	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**2.6 J**	**3.9 B**	< 5	< 5	**1.9 B**	**3 J**	**2.1 J**	**2.3 J**
Benzene	1	5	< 1	< 1	**6.5**	**9.1**	**0.26 J**	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	< 20 UJ	< 20	< 20 UJ	< 20 UJ	< 20	NA	NA	NA
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
TIC VOCs (µg/l)										
Total TIC, Volatile	500	NLE	ND	ND	ND	ND	ND	ND	ND	ND
Inorganics (µg/l)										
Lead	5	15	NA	NA	NA	NA	NA	NA	NA	NA

Table 4
Groundwater Analytical Results - 2013, 2014 and 2015
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Footnote:

1) All historical data collected prior to 2013 are reported as provided by others.

2) Number of Analyses is the number of detected and non-detected results excluding rejected results. Sample duplicate pairs have not been averaged.

3) NLE = no limit established.

4) ND = not detected in any background sample, no background concentration available.

5) Chemical result qualifiers are assigned by the laboratory and is typically evaluated and modified (if necessary) by during data validation.

[blank] = detect, i.e. detected chemical result value.
B = Compound detected in the sample and its associated blank sample.
R = Rejected, data validation rejected the results.
U = non-detect, i.e. not detected equal to or above this value.
U-DL = Elevated sample detection limit due to difficult sample matrix.
U-ND = Analyte not detected in sample, but no detection or reporting limit provided.
J = estimated (detect or non-detect) value.
E (or ER) = Estimated result.
D = Results from dilution of sample.
J-DL = Elevated sample detection limit due to difficult sample matrix.
JN = Tentatively identified compound, estimated concentration.

6) Chemical results greater than or equal to the action level (depending on criteria) are highlighted based on the Criteria that are present.

- Cell Shade values represent a result that is above the NJ Ground Water Quality Criteria ####

NJDEP Interim Specific GWQC values are presented for the NJ GWQS where there is not a Specific Ground Water Quality Criteria. A full list of compounds is available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

NJDEP Interim Generic GWQC values are presented for the NJ GWQS where there is not a XXXXX or a NJDEP Interim Specific GWQC. Available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

- Bold Outline represent a result that is above the USEPA 2014-05 MCL. ###

7) Criteria action level source document and web address.

- The NJ Ground Water Quality Criteria refers to the NJDEP Groundwater Quality Standards - Adopted July 22, 2010
  http://www.state.nj.us/dep/wms/bwqsa/docs/njac79C.pdf
- The 2014-05 USEPA MCL refers to the USEPA's Region 9 Regional Screening Levels (HQ=1.0) - 5/31/2014 (Last revised)
  http://www.epa.gov/region9/superfund/prg/

8) Wells sampled in the most recent fourth quarter sampling event are highlighted in yellow. Sample ID

Table 5
Review of Historical Groundwater Sampling Results
Site FTMM-18 Closed Solid Waste Landfill/Former Training Area
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site Name/ Well ID		Interpretation of Historical and 2015 Results[1]		2015 Evaluation					Rationale for Monitoring for the Biennial Certifications for the CEA
	Chem Class / Analyte	Does a Compound Exceed NJDEP GWQS (Yes or No) (If Yes, identify compound)	Do Metals Exceed FTMM Background Concentration (Yes or No) (If Yes, identify Metal)	Seasonal Effect? (Y/N)[2]	Anomaly? (Y/N)	Exceedance part of overall trend? (Y/N)	Well needed for sentinel purposes? (Y/N)	Retain Analyte/Well in the CEA (Yes or No)	
FTMM-18									
M18MW22	VOCs	1,2 DCA, Benzene	No	No	No	Yes	No	Yes	Continued 1,2DCA and benzene exceedances.
M18MW23		Benzene, carbon tetrachloride (minor detections)	No	No	No	Yes	No	Yes	Historical carbon tetrachloride exceedance (minor detections). Benzene exceedence in 2014. Well could not be located and was not sampled in August 2013.
296MW04		No	N/A	No	No	No	Yes	Yes	Monitor for benzene, 1,2-DCA, and carbon tetrachloride as a downgradient delineation point.
296MW06		Benzene	N/A	No	No	Yes	No	Yes	Continued benzene exceedances.

Notes

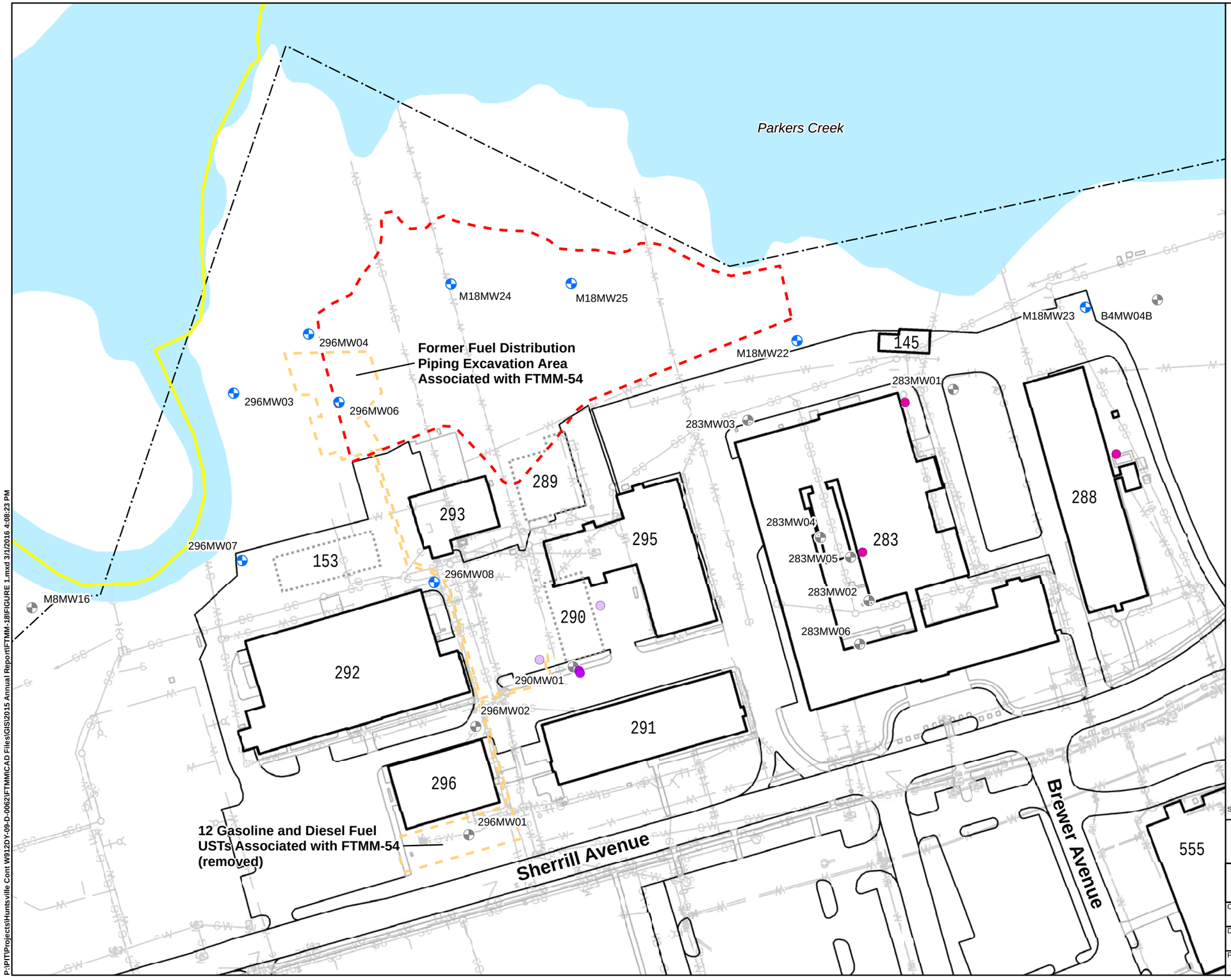
1. Have any of the analyte compounds exceeded the NJDEP GWQS in the 2015 data and the 4 previous quarterly data rounds or 2 previous annual rounds?
   a. If yes then include in CEA list
   b. If no then remove this analyte from LTM list
   c. a and b above may be occasionally superseded on a case-by-case basis, depending on site conditions.
2. Has any of the analyte compounds exceeded the NJDEP GWQS seasonally (winter spring vs. summer fall) for the 4 previous data rounds?
3. 1,2-DCA = 1,2-dichloroethane
4. Per the 2/5/15 NJDEP approval letter of the Final 2013 Baseline Groundwater Report, groundwater monitoring wells MP18MW24, MP18MW25, 296MW01, 296MW02, 296MW03, 296MW07, and 296MW08 were removed from the long-term monitoring sampling program for FTMM-18 and former FTMM-54, lead was also discontinued from the former FTMM-54 wells. Per the 2/4/15 groundwater NFA issued by the NJDEP at site FTMM-54, monitoring wells 296MW04 and 296MW06 have been incorporated into the FTMM-18 site.

FIGURES

Figure 1 Layout of FTMM-18 Closed Solid Waste Landfill/Former Training Area

Figure 2 FTMM-18 Shallow Groundwater Contours - October 7, 2015

Figure 3 FTMM-18 Chemical Constituents above NJDEP GWQS 2015Annual Sampling Event



LEGEND:

- Shallow Monitoring Well
- Shallow Monitoring Well Associated with FTMM-54 / FTMM-55 / FTMM-61
- Removed Fiberglass UST associated with FTMM-55 (Building 290)
- Removed Steel UST associated with FTMM-55 (Building 290)
- Removed Steel UST associated with FTMM-61 (Building 283)
- FTMM-18 Landfill Revised Boundary (2015)
- FTMM-54 Boundary
- Municipal Boundary
- Installation Boundary
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Former Building (Demolished)

N

1 inch = 100 feet

0 50 100 200 Feet

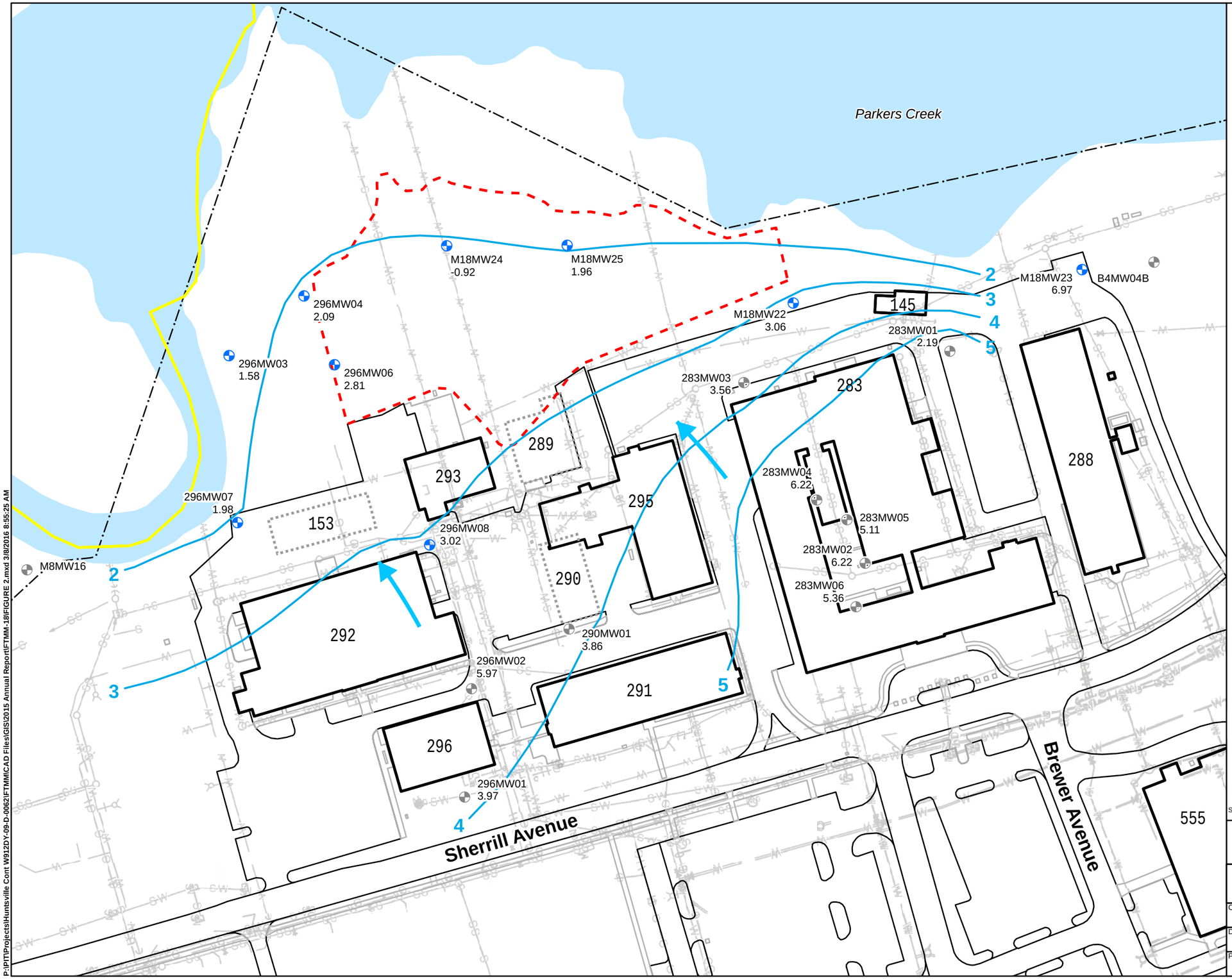
Source: FTMM Supplied CAD, 2013.

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

LAYOUT OF FTMM-18 CLOSED SOLID WASTE LANDIFLL/FORMER TRAINING AREA

CREATED BY: RR	REVIEWED BY: ME
DATE: MAR. 2016	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-01000	FILE: FIGURE 1.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-18\FIGURE 1.mxd 3/1/2016 4:08:23 PM



P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-18\FIGURE 2.mxd 3/8/2016 8:55:25 AM

LEGEND:

- Shallow Monitoring Well
- Shallow Monitoring Well Associated with FTMM-54 / FTMM-55 / FTMM-61
- FTMM-18 Landfill Revised Boundary (2015)
- Municipal Boundary
- Installation Boundary
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Groundwater Elevation Contour
- Inferred Groundwater Flow Direction
- Former Building (Demolished)

NOTE:

The groundwater elevation at monitoring wells 296MW02, 296MW03, 283MW01, M18MW23, and M18MW24 were considered anomalous compared to the fluid levels at neighboring wells.

N

1 inch = 100 feet

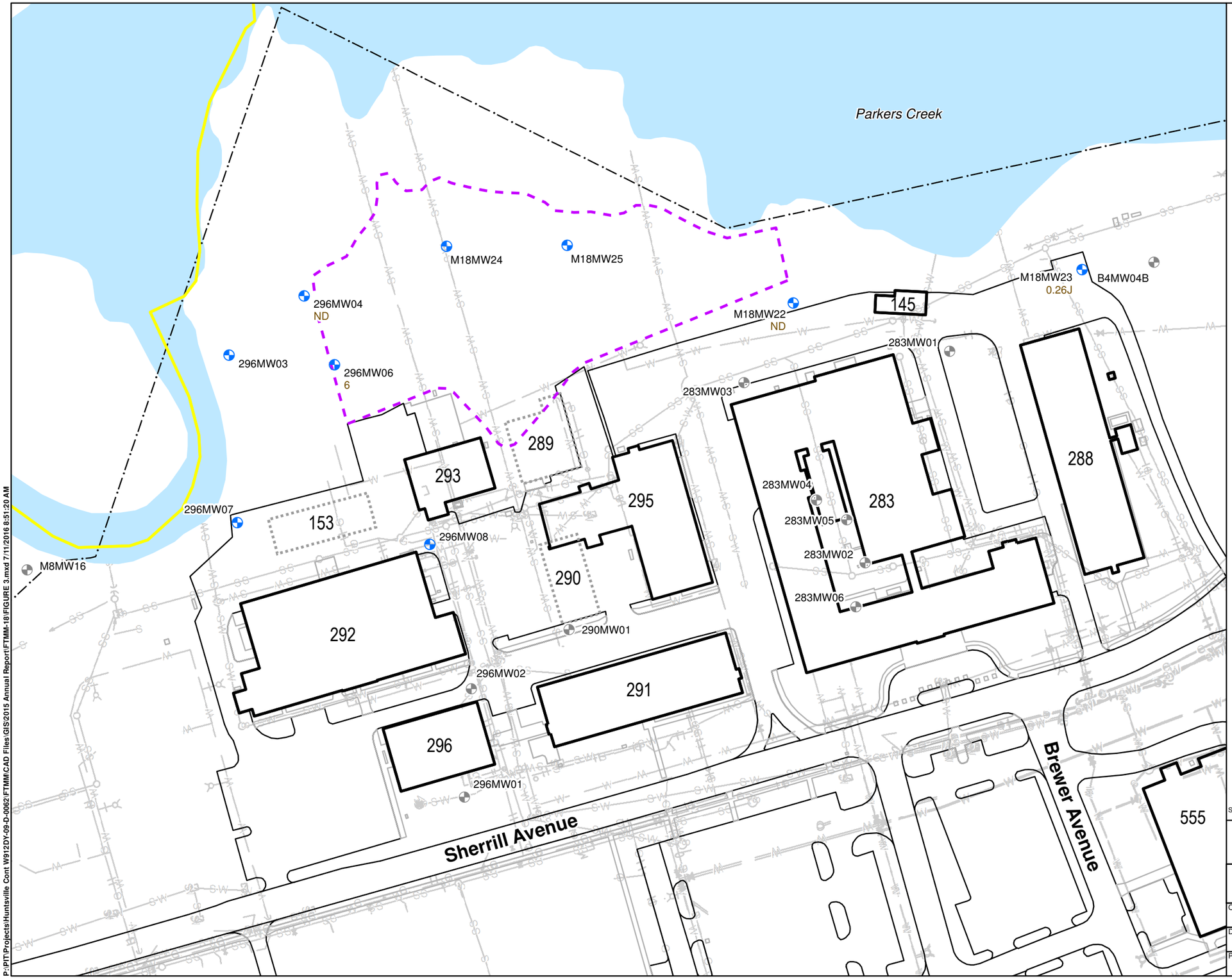
0 50 100 200 Feet

Source: FTMM Supplied CAD, 2013.

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

FTMM-18 SHALLOW GROUNDWATER CONTOURS - OCTOBER 1, 2015

CREATED BY: RR	REVIEWED BY: ME
DATE: MAR. 2016	FIGURE NUMBER: FIGURE 2
PROJECT NUMBER: 748810-03000	FILE: FIGURE 2.mxd



LEGEND:

- Shallow Monitoring Well
- Shallow Monitoring Well Associated with FTMM-54 / FTMM-55 / FTMM-61
- FTMM-18 Landfill Revised Boundary (2016)
- Municipal Boundary
- Installation Boundary
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Former Building (Demolished)

NOTE:

1. All concentrations are in ug/L.
2. Only those compounds with concentrations that exceed the NJDEP groundwater quality standard (GWQS) are shown on the figure.
3. Wells without values were not sampled during the 2015 Annual Sampling Event.

EXPLANATION:

M5MW11 ——— Sample ID
NA ——— Benzene Concentration

U - Not Detected
J - Estimated Value
JN - Tentatively Identified Compound, Estimated Value
ND - Not Detected
NA - Not Analyzed

Compound	NJDEP GWQS
Benzene	1

N

1 inch = 100 feet

0 50 100 200 Feet

Source: FTMM Supplied CAD, 2013.

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

FTMM-18 CHEMICAL CONSTITUENTS ABOVE NJDEP GWQS

CREATED BY: RR	REVIEWED BY: ME
DATE: JUL. 2016	FIGURE NUMBER: FIGURE 3
PROJECT NUMBER: 748810-03000	FILE: FIGURE 3.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-18\FIGURE 3.mxd 7/11/2016 8:51:20 AM

ATTACHMENTS

Attachment A NJDEP PDB Checklists

PARSONS

Checklist for the Submission of Sampling Data for Passive Diffusion Bag Samplers (PDBS)

1. Site: FTMM
2. Location: M-54
3. Well Designation: 296 MW04
4. Well Permit Number: 29-33989

5. Type of Well: ☒ Monitoring ☐ Extraction ☐ Residential ☐ Public Supply ☐ Irrigation ☐ Other
6. Well Surface Finish: ☒ Stick Up ☐ Flush Mount
7. Location of Measuring Point: ☒ Top of Casing ☐ Other (specify) _____
8. NOTE: PDBS represent a point sample within the screened interval or open hole of the well. It is critical to know the exact depth within the well where the PDBS is deployed. Well construction specifications, which are typically used to determine where to set the PDBS in the well, are measured in feet below ground surface (fbgs). If the depth interval for PDBS deployment is measured from the reference point identified above, the difference between this reference point and the ground surface must be measured and accounted for to determine the proper depth interval to set the PDBS. Please identify below, any differences between the measuring point identified above and actual ground surface at the well head.
   Distance between measuring point and ground surface (ft.): 1.10
9. Total Well Depth (fbgs): 12.20
10. Screened Interval/open hole (fbgs): 2.7 - 12.20
11. Well Casing: Diameter: 4 Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
12. Well Screen (or open hole diameter): Diameter: 4 Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
13. Screen Size (slot): Screen Slot Size: 0.02

14. Date and Time of Deployment: Date: 10/1/2015 Time: 0915
15. Depth to Ground Water: Depth to ground water at time of deployment: 2.09
16. Date and Time of Retrieval: Date: 12/14/15 Time: 1235
17. Depth to Ground Water: Depth to ground water at time of retrieval: 1.81
18. Type of Deployment Line Used: Diameter: 3/16" Material: Poly

19. Material and Mass (oz.) of PDBS Weight: Stainless Steel 20.2 (stainless steel recommended)
20. Type of PDBS Used:
    ☐ Lab Filled (Modified Trip Blank must be taken at time of deployment)
    ☒ Field Filled (Modified equipment blank of fill water must be taken at time of deployment. If PDBS isn't filled at well head, blank must travel with samplers until last sampler is deployed. Blank is then taken.)
21. Dimensions of PDBS: Length (in.): 18 Diameter (in.): 1.5 Filled: _____
22. Position of PDBS Weight:
    ☐ Attached to bottom of PDBS and suspended in well
    ☐ Attached to bottom of deployment line and suspended in well
    ☐ Attached to bottom of deployment line and resting on bottom of well (preferred)
23. Position of PDBS in Well Screen (ft. from measuring point to center of PDBS):

1st PDBS	2nd PDBS	3rd PDBS	4th PDBS
6.35			

5th PDBS	6th PDBS	7th PDBS	8th PDBS

24. If the saturated portion of the well screen or open hole is greater than 5 feet, has the well been vertically profiled to assess the potential for contaminant stratification?
    ☐ No, this well is being profiled during this sampling round
    ☒ Yes, this well was profiled already. Date when well was profiled: 12/18/2014
25. If the saturated portion of the well screen or open hole is greater than 10 feet, has the well been flow tested to assess the potential for vertical flow to be present within the well?
    ☐ No, flow testing has not been conducted in this well
    ☐ Yes, flow testing of this well was conducted. Date of testing: _____
    Type of flow meter used: _____
    Measurements taken every _____ feet [Please Attach Results]
26. Weather Conditions During Deployment: Temp. 54°F Wind NE 10-15 mph ☐ Sunny ☒ Overcast ☒ Raining ☐ Snowing
27. Weather Conditions During Retrieval: Temp. 55°F Wind SW 0-5 mph ☐ Sunny ☐ Overcast ☐ Raining ☐ Snowing

28. Field Sampling Technician: Name(s) and Company (please print clearly)

Name	Company
Alex DiIenno	Parsons
Chris Watson	Parsons

PARSONS

Checklist for the Submission of Sampling Data for Passive Diffusion Bag Samplers (PDBS)

1. Site: FTMM
2. Location: M-18 Landfill
3. Well Designation: M18MW23
4. Well Permit Number: E20010529

5. Type of Well: ☒ Monitoring ☐ Extraction ☐ Residential ☐ Public Supply ☐ Irrigation ☐ Other
6. Well Surface Finish: ☐ Stick Up ☒ Flush Mount
7. Location of Measuring Point: ☒ Top of Casing ☐ Other (specify) _____
8. NOTE: PDBS represent a point sample within the screened interval or open hole of the well. It is critical to know the exact depth within the well where the PDBS is deployed. Well construction specifications, which are typically used to determine where to set the PDBS in the well, are measured in feet below ground surface (fbgs). If the depth interval for PDBS deployment is measured from the reference point identified above, the difference between this reference point and the ground surface must be measured and accounted for to determine the proper depth interval to set the PDBS. Please identify below, any differences between the measuring point identified above and actual ground surface at the well head.
   Distance between measuring point and ground surface (ft.) -0.40
9. Total Well Depth (fbgs): 19.30
10. Screened interval/open hole (fbgs): 4.30 - 19.30
11. Well Casing: Diameter: 4 Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
12. Well Screen (or open hole diameter): Diameter: 4 Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
13. Screen Size (slot): Screen Slot Size: 0.01

14. Date and Time of Deployment: Date: 10/1/2015 Time: _____
15. Depth to Ground Water: Depth to ground water at time of deployment _____
16. Date and Time of Retrieval: Date: 12/14/14 Time: 1305
17. Depth to Ground Water: Depth to ground water at time of retrieval 4.93
18. Type of Deployment Line Used: Diameter: 3/16" Material: _____

19. Material and Mass (oz.) of PDBS Weight: Stainless Steel 20 oz (stainless steel recommended)
20. Type of PDBS Used:
    ☐ Lab Filled (Modified Trip Blank must be taken at time of deployment)
    ☒ Field Filled (Modified equipment blank of fill water must be taken at time of deployment. If PDBS isn't filled at well head, blank must travel with samplers until last sampler is deployed. Blank is then taken.)
21. Dimensions of PDBS: Length (in.) _____ Diameter (in.) _____ Filled _____
22. Position of PDBS Weight:
    ☐ Attached to bottom of PDBS and suspended in well
    ☐ Attached to bottom of deployment line and suspended in well
    ☐ Attached to bottom of deployment line and resting on bottom of well (preferred)
23. Position of PDBS in Well Screen (ft. from measuring point to center of PDBS)

1st PDBS	2nd PDBS	3rd PDBS	4th PDBS
9.28			

5th PDBS	6th PDBS	7th PDBS	8th PDBS

24. If the saturated portion of the well screen or open hole is greater than 5 feet, has the well been vertically profiled to assess the potential for contaminant stratification?
    ☐ No, this well is being profiled during this sampling round
    ☐ Yes, this well was profiled already. Date when well was profiled: N/A

25. If the saturated portion of the well screen or open hole is greater than 10 feet, has the well been flow tested to assess the potential for vertical flow to be present within the well?
    ☐ No, flow testing has not been conducted in this well
    ☐ Yes, flow testing of this well was conducted. Date of testing: _____
    Type of flow meter used: _____
    Measurements taken every _____ feet [Please Attach Results]

26. Weather Conditions During Deployment: Temp. 54°F Wind NE 10-15 mph ☐ Sunny ☒ Overcast ☒ Raining ☐ Snowing
27. Weather Conditions During Retrieval: Temp. 58°F Wind SW 0-5mph ☐ Sunny ☒ Overcast ☐ Raining ☐ Snowing

28. Field Sampling Technician Name(s) and Company (please print clearly)

Name	Company
Alex DiTonno	Parsons
Chris Watson	Parsons

PARSONS

Checklist for the Submission of Sampling Data for Passive Diffusion Bag Samplers (PDBS)

1. Site: FTMM
2. Location: M-54
3. Well Designation: 296MW06
4. Well Permit Number: 29-30978

5. Type of Well: ☒ Monitoring ☐ Extraction ☐ Residential ☐ Public Supply ☐ Irrigation ☐ Other
6. Well Surface Finish: ☒ Stick Up ☐ Flush Mount
7. Location of Measuring Point: ☒ Top of Casing ☐ Other (specify)
8. NOTE: PDBS represent a point sample within the screened interval or open hole of the well. It is critical to know the exact depth within the well where the PDBS is deployed. Well construction specifications, which are typically used to determine where to set the PDBS in the well, are measured in feet below ground surface (fogs). If the depth interval for PDBS deployment is measured from the reference point identified above, the difference between this reference point and the ground surface must be measured and accounted for to determine the proper depth interval to set the PDBS. Please identify below, any differences between the measuring point identified above and actual ground surface at the well head.
   Distance between measuring point and ground surface (ft.): 2.60
9. Total Well Depth (fogs): 15.21
10. Screened Interval/open hole (fogs): 4.71 - 15.21
11. Well Casing: Diameter: 4 Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
12. Well Screen (or open hole diameter): Diameter: 4 Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
13. Screen Size (slot): Screen Slot Size: 0.02

14. Date and Time of Deployment: Date: 10/1/2015 Time: 0910
15. Depth to Ground Water: Depth to ground water at time of deployment: 5.16
16. Date and Time of Retrieval: Date: 12/14/15 Time: 1320
17. Depth to Ground Water: Depth to ground water at time of retrieval: 5.14
18. Type of Deployment Line Used: Diameter: 3/16" Material: Poly

19. Material and Mass (oz.) of PDBS Weight: Stainless Steel 20 oz (stainless steel recommended)
20. Type of PDBS Used:
    ☐ Lab Filled (Modified Trip Blank must be taken at time of deployment)
    ☒ Field Filled (Modified equipment blank of fill water must be taken at time of deployment. If PDBS isn't filled at well head, blank must travel with samplers until last sampler is deployed. Blank is then taken.)
21. Dimensions of PDBS: Length (in.): 18 Diameter (in.): 1.5 Filled
22. Position of PDBS Weight:
    ☐ Attached to bottom of PDBS and suspended in well
    ☐ Attached to bottom of deployment line and suspended in well
    ☐ Attached to bottom of deployment line and resting on bottom of well (preferred)
23. Position of PDBS in Well Screen (ft. from measuring point to center of PDBS):
    1st PDBS: 10.1 2nd PDBS: 3rd PDBS: 4th PDBS:
    5th PDBS: 6th PDBS: 7th PDBS: 8th PDBS:

24. If the saturated portion of the well screen or open hole is greater than 5 feet, has the well been vertically profiled to assess the potential for contaminant stratification?
    ☐ No, this well is being profiled during this sampling round
    ☒ Yes, this well was profiled already. Date when well was profiled: 12/18/2014

25. If the saturated portion of the well screen or open hole is greater than 10 feet, has the well been flow tested to assess the potential for vertical flow to be present within the well?
    ☐ No, flow testing has not been conducted in this well
    ☐ Yes, flow testing of this well was conducted. Date of testing:
    Type of flow meter used:
    Measurements taken every feet [Please Attach Results]

26. Weather Conditions During Deployment: Temp. 54°F Wind NE 10-15 mph ☐ Sunny ☒ Overcast ☒ Raining ☐ Snowing
27. Weather Conditions During Retrieval: Temp. 55°F Wind SW 0-5 mph ☐ Sunny ☒ Overcast ☐ Raining ☐ Snowing

28. Field Sampling Technician, Name(s) and Company (please print clearly)

Name	Company
Alex DiIorio	Parsons
Chris Watson	Parsons

PARSONS

Checklist for the Submission of Sampling Data for Passive Diffusion Bag Samplers (PDBS)

1. Site: FTMM
2. Location: M-18 Landfill
3. Well Designation: M18MW22
4. Well Permit Number: E20101280

5. Type of Well: ☒ Monitoring ☐ Extraction ☐ Residential ☐ Public Supply ☐ Irrigation ☐ Other
6. Well Surface Finish: ☒ Stick Up ☐ Flush Mount
7. Location of Measuring Point: ☒ Top of Casing ☐ Other (Specify) _____
8. NOTE: PDBS represent a point sample within the screened interval or open hole of the well. It is critical to know the exact depth within the well where the PDBS is deployed. Well construction specifications, which are typically used to determine where to set the PDBS in the well, are measured in feet below ground surface (fbgs). If the depth interval for PDBS deployment is measured from the reference point identified above, the difference between this reference point and the ground surface must be measured and accounted for to determine the proper depth interval to set the PDBS. Please identify below, any differences between the measuring point identified above and actual ground surface at the well head.
   Distance between measuring point and ground surface (ft.): 2.05
9. Total Well Depth (fbgs): 20.5
10. Screened interval/open hole (fbgs): 5.5-20.5
11. Well Casing: Diameter 4 Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
12. Well Screen (or open hole diameter): Diameter 4 Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
13. Screen Size (slot): Screen Slot Size 0.01

14. Date and Time of Deployment: Date: 10/1/2015 Time: 0930
15. Depth to Ground Water: Depth to ground water at time of deployment 9.48
16. Date and Time of Retrieval: Date: 12/14/15 Time: 1310
17. Depth to Ground Water: Depth to ground water at time of retrieval 8.71
18. Type of Deployment Line Used: Diameter: 3/16" Material: poly

19. Material and Mass (oz.) of PDBS Weight: Stainless Steel 10oz (stainless steel recommended)
20. Type of PDBS Used:
    ☐ Lab Filled (Modified Trip Blank must be taken at time of deployment)
    ☒ Field Filled (Modified equipment blank of tap water must be taken at time of deployment. If PDBS isn't filled at well head, blank must travel with samplers until last sampler is deployed. Blank is then taken.)
21. Dimensions of PDBS: Length (in.) 18 Diameter (in.) 15 Filled _____
22. Position of PDBS Weight:
    ☐ Attached to bottom of PDBS and suspended in well
    ☐ Attached to bottom of deployment line and suspended in well
    ☐ Attached to bottom of deployment line and resting on bottom of well (preferred)
23. Position of PDBS in Well Screen (ft. from measuring point to center of PDBS):

1st PDBS	2nd PDBS	3rd PDBS	4th PDBS
18.91			

5th PDBS	6th PDBS	7th PDBS	8th PDBS

24. If the saturated portion of the well screen or open hole is greater than 5 feet, has the well been vertically profiled to assess the potential for contaminant stratification?
    ☐ No, this well is being profiled during this sampling round
    ☒ Yes, this well was profiled already. Date when well was profiled: 8/30/2013

25. If the saturated portion of the well screen or open hole is greater than 10 feet, has the well been flow tested to assess the potential for vertical flow to be present within the well?
    ☐ No, flow testing has not been conducted in this well
    ☐ Yes, flow testing of this well was conducted. Date of testing: _____
    Type of flow meter used: _____
    Measurements taken every _____ feet [Please Attach Results]

26. Weather Conditions During Deployment: Temp. 54°F Wind NE 10-15 mph ☐ Sunny ☒ Overcast ☒ Raining ☐ Snowing
27. Weather Conditions During Retrieval: Temp. 58°F Wind SW 0-5 ☐ Sunny ☐ Overcast ☐ Raining ☐ Snowing

28. Field Sampling Technician Name(s) and Company (please print clearly)

Name	Company
Alex DiTonno	Parsons
Chris Watson	Parsons

APPENDIX E

FTMM-22: FORMER WASTE WATER TREATMENT LIME PIT (CWA-1)

APPENDIX E: FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)

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LIST OF ATTACHMENTS

Attachment	Title
A	NJDEP PDB Checklists

1.0 WATER LEVEL MEASUREMENTS AND WELL ASSESSMENT

Monitoring wells located within FTMM-22 were gauged on September 30, 2015. Monitoring well locations as well as other site features are provided in **Figure 1**. Details regarding the water level measurements are provided in **Table 1**. Groundwater elevations in monitoring wells ranged from 46.50 (CW1MW39) to 51.41 (CW1MW26) feet above mean sea level (amsl). The inferred shallow and deep groundwater flow directions are to the east, as shown in **Figures 2 and 3**, respectively.

During the groundwater gauging, the physical condition of FTMM-22 monitoring wells were assessed. The site monitoring wells were found to be in good condition, except for CW1MW32, which remains damaged at the surface and CW1MW30 was missing an expandable plug. It is our understanding that the NJDEP agreed that CW1MW32 will be decommissioned and not be replaced; and the decommissioning of the well will be the responsibility of the Fort Monmouth Economic Revitalization Authority (FMERA). The expandable plug at monitoring well CW1MW30 will be replaced during the next field event.

Additionally, three wells (CW1MW35, CW1MW36 and CW1MW37) were found to have significant accumulations of silt within the well. These three wells, were redeveloped in April 2016.

2.0 GROUNDWATER SAMPLING

Groundwater samples were collected from six monitoring wells (CW1MW27, CW1MW28, CW1MW29, CW1MW31, CW1MW37, and CW1MW281) located at FTMM-22 as part of the annual (fourth quarter) 2015 groundwater sampling event. FTMM-22 is sampled on a quarterly basis. The groundwater sampling program included measuring the depths to water in monitoring wells at FTMM-22, and sample collection in selected wells using passive diffusion bags (PDBs). PDBs were deployed September 30, 2015 and samples were retrieved on December 14, 2015. A PDB sampling summary is provided in **Table 2**. Groundwater samples were analyzed for Target Compound List (TCL) volatile organic compounds and tentatively identified compounds (VOCs+TICs) via United States Environmental Protection Agency (USEPA) Method SW8260C.

The samples were collected in accordance with the New Jersey Department of Environmental Protection (NJDEP) Field Sampling Procedures Manual (FSPM) and the Sampling Analysis Plan (SAP). Field blanks, duplicates, matrix spike, matrix spike duplicate and quality assurance (QA) split samples were collected for every 5% of samples collected per parameter, per matrix, in accordance with the Quality Assurance Project Plan (QAPP). Trip blanks accompanied each cooler each day in which VOCs were collected for laboratory analysis.

Completed PDB field sheets for each well sampled are provided in **Attachment A**.

3.0 HISTORICAL GROUNDWATER SAMPLING RESULTS

From April 1997 through February 2004, FTMM-22 monitoring wells were sampled primarily for VOCs, semi-volatile organic compounds (SVOCs) and metals. From March 2004 to January 2010, monitoring wells were sampled for VOCs. From April 2010 to August 2010, groundwater sampling consisted of VOCs and metals analysis.

In the last four historical rounds of groundwater sampling conducted on a quarterly basis from October 2010 to July 2011, samples were analyzed for VOCs and metals. Aluminum, antimony, arsenic, beryllium, cadmium, chromium, iron, lead, manganese, sodium and vanadium were detected in exceedance of their respective NJDEP Ground Water Quality Standards (GWQS). Arsenic, selenium, and sodium were detected at concentrations greater than their background concentration as established in the 1995 Weston Report in several monitoring wells; however selenium and sodium have background concentrations lower than the NJDEP GWQS.

NJDEP approved a no further action determination for monitoring of metals in groundwater at FTMM-22, dated May 7, 2012, therefore metals analysis was discontinued at the Site.

In samples collected during the quarterly sampling events from April 2008 to July 2011, trichloroethene (TCE) was detected above its GWQS of 1 µg/L at monitoring wells CW1MW27 (1.5 µg/L), CW1MW28 (1.64J - 13.15 µg/L) CW1MW29 (1.03 - 29.08 µg/L), CW1MW31 (1.82J - 14.95 µg/L), CW1MW37 (1.29J µg/L) and CW1MW281 (1.15J - 109.9D µg/L). Historical groundwater analytical results are presented in **Table 3.**

Groundwater analytical detections from samples collected during the August 2013 Baseline Sampling Event are presented in **Table 4**. Groundwater samples were analyzed for VOCs from 16 monitoring wells. TCE was detected above its GWQS of 1 µg/L in monitoring well CW1MW29 at an estimated concentration of 2.5J µg/L.

The Final August 2013 Baseline Groundwater Sampling Report was accepted by the NJDEP in their February 5, 2015 letter. Based on this approval, 12 out of the 18 groundwater monitoring wells were removed from the long term monitoring (LTM) program including: CW1MW26, CW1MW30, CW1MW32, CW1MW33, CW1MW34, CW1MW35, CW1MW36, CW1MW38, CW1MW39, CW1MW40, CW1MW282, and CW1MW291.

Groundwater sampling at FTMM-22 was conducted on a quarterly basis for 2014 (in January, May, and September). These data are presented in reports submitted quarterly to the NJDEP. It should be noted that January 2014 and May 2014 sampling events also coincided with a remedial investigation (RI) conducted at the Site. NJDEP FSPM requires that RI related groundwater samples be collected using LFPS methods, which was done. Once the RI investigation samples were collected, PDB methods were used to collect the quarterly long term monitoring samples in September 2014, which is consistent with the NJDEP FSPM.

TCE and vinyl chloride were the only VOCs detected above their NJDEP GWQS during the 2014 quarterly sampling events. TCE was detected above its GWQS of 1 µg/L in the monitoring wells: CW1MW28 (1.5J - 8 µg/L), CW1MW29 (2.5J - 13 µg/L), CW1MW31 (0.47J - 6.8 µg/L), and CW1MW281 (8.6 - 330 µg/L). Vinyl chloride was detected above its GWQS of 1 µg/L in only one monitoring well, CW1MW281 (0.52J - 1.8J µg/L). Groundwater analytical detections from samples collected during the previous 2014 quarterly sampling events are presented in **Table 4**.

Groundwater sampling at FTMM-22 was conducted on a quarterly basis for 2015 in March, May, and September. These data are presented in reports submitted quarterly to the NJDEP. TCE was detected above its GWQS of 1 µg/L in the monitoring wells: CW1MW28 (0.43J - 2J µg/L), CW1MW29 (1.6J - 22 µg/L), CW1MW31 (< 1 - 0.37J µg/L), and CW1MW281 (250 - 390 µg/L). Vinyl chloride was detected above its GWQS of 1 µg/L in two monitoring wells,

CW1MW281 (1.1J - 1.9J µg/L) and CW1MW29 (< 1 - 2.9J µg/L). Groundwater analytical detections from samples collected during the previous 2015 quarterly sampling events are presented in **Table 4**.

Based on the annual 2014 results, it was recommended that quarterly groundwater sampling continue at monitoring wells CW1MW27, CW1MW28, CW1MW29, CW1MW31, CW1MW37, and CW1MW281. The Annual (Fourth Quarter) 2014 Groundwater Sampling Report was accepted by the NJDEP in their January 26, 2016 letter. In addition, the NJDEP has requested to add CW1MW40 to the LTM plan.

4.0 ANNUAL (FOURTH QUARTER) 2015 GROUNDWATER RESULTS

TCE and vinyl chloride were the only VOCs detected at concentrations above their NJDEP GWSQ during the 2015 Annual Sampling Event. TCE was detected in two samples collected at monitoring wells CW1MW31 (estimated concentration of 1.1J µg/L) and CW1MW281 (300 µg/L) above its NJDEP GWQS of 1 µg/L. Vinyl chloride was also detected at CW1MW281 at an estimated concentration of 1.4J µg/L which is slightly above its NJDEP GWQS of 1 µg/L. Groundwater analytical results from samples collected during the annual (fourth quarter) 2015 groundwater sampling event are presented in Table 4. Constituents detected in the groundwater above the NJDEP GWQS during the 2015 quarterly sampling event are shown on **Figures 4** through **7**.

5.0 FINDINGS AND RECOMMENDATIONS

TCE continues to be detected in monitoring wells CW1MW28, CW1MW29, CW1MW31 and CW1MW281 in exceedance of the NJDEP GWQS of 1 µg/L over the last three quarterly groundwater sampling events of 2015. Concentrations of TCE appear to have remained steady at wells CW1MW28, CW1MW29, and CWMW31. Additionally, the 2014 quarterly sampling results at CW1MW281 show TCE concentrations ranging from 8.9 µg/L (January 2014) to 300 µg/L (December 2014); and concentrations throughout 2015 were similar to the December 2014 concentration. This well has exhibited similar trends back in 2010 where the TCE concentrations increased although the high was 109 µg/L. TCE was detected in the first (estimated concentration for 0.45J µg/L) and second (estimated concentration of 0.99J µg/L) quarters of 2015 at monitoring well CW1MW27, however both detections were below the NJDEP GWQS. TCE was detected in the third (estimated concentration for 0.23J µg/L) and fourth (estimated concentration of 0.34J µg/L) quarters of 2015 at monitoring well CW1MW37, however both detections were below the NJDEP GWQS.

Vinyl chloride concentrations have been detected in only two wells (CW1MW29 and CW1MW281) during the 2015 quarterly sampling events. While the 2015 fourth quarter concentration was below the NJDEP GWQS at CW1MW29, vinyl chloride was were detected above the NJDEP GWQS of 1 µg/L during the third quarter at a concentration of 2.9 µg/L. Vinyl chloride concentrations at CW1MW281 have remained slightly above the NJDEP GWQS of 1 µg/L for all of the four sampling events of 2015 which is consistent with the third and fourth quarters of 2014.

As discussed previously (refer to Section 2.1.4 of the main body of text), the LTM program for groundwater at FTMM-22 will be temporarily suspended beginning in the first quarter of 2016 as agreed to by the NJDEP in their March 16, 2016 letter. Once the RI/FS is completed and a remedy has been accepted by the NJDEP, a revised LTM program for the groundwater will be submitted for FTMM-22.

A review of the historical groundwater sampling results is presented in **Table 5**, which provides the matrix used to determine the status of the wells relative to future groundwater sampling and analyses.

TABLES

Table 1 Groundwater Gauging Data and Elevations (September 30, 2015)

Table 2 PDB Sampling Summary

Table 3 Historical Groundwater Analytical Results

Table 4 Groundwater Analytical Results - 2013, 2014 and 2015

Table 5 Review of Historical Groundwater Sampling Results

Table 1
Groundwater Gauging Data and Elevations (September 30, 2015)
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site/Well ID	Installation Date	Well Permit #	Y Coord. (North)	X Coord. (East)	Depth (ft. bgs)	Casing Length (ft)	Screen Length (ft)	TOC Elevation (ft)	Gauge Time	Gauged Depth to Water (ft. TOC)	Gauged Depth to Bottom (ft. TOC)	Calculated Groundwater Elevation (ft)
Shallow Monitoring Wells												
CW1MW26	12/19/1994	29-32590	532932.46	607087.71	15.0	5.0	10.0	60.81	12:36	9.40	17.10	51.41
CW1MW27	12/19/1994	29-32591	532942.54	607079.91	15.0	5.0	10.0	60.85	12:35	9.76	17.11	51.09
CW1MW28	12/19/1994	29-32592	532962.81	607087.57	15.0	5.0	10.0	59.09	12:37	8.05	14.90	51.04
CW1MW29	12/19/1994	29-32593	532952.80	607110.86	15.0	5.0	10.0	58.40	12:39	7.59	14.70	50.81
CW1MW30	7/13/2000	29-43188	532932.46	607094.40	17.0	7.0	10.0	61.93	--	--	--	--
CW1MW31	7/17/2000	29-43189	532952.95	607141.85	19.0	4.0	15.0	61.47	12:41	10.90	21.80	50.57
CW1MW32	7/17/2000	29-43190	532953.17	607188.33	22.0	7.0	15.0	62.18	--	--	--	--
CW1MW33	7/17/2000	29-43191	532902.61	607196.32	20.0	5.0	15.0	62.27	13:03	11.85	23.84	50.42
CW1MW34	7/17/2000	29-43192	533014.20	607257.78	20.0	5.0	15.0	58.63	12:53	9.11	19.70	49.52
CW1MW35	7/18/2000	29-43193	532973.91	607296.71	20.0	5.0	15.0	58.09	13:00	8.87	16.75	49.22
CW1MW36	7/18/2000	29-43194	533014.49	607319.77	20.0	5.0	15.0	58.70	12:54	9.82	16.59	48.88
CW1MW37	7/18/2000	29-43195	532953.85	607335.55	20.0	5.0	15.0	59.21	12:58	9.41	13.70	49.80
CW1MW282	5/2/1996	29-35313	533064.25	607141.33	16.0	6.0	10.0	60.29	12:50	9.81	18.20	50.48
CW1MW291	5/3/1996	29-35314	532993.64	607188.15	16.0	6.0	10.0	62.21	13:05	12.00	18.30	50.21
Deep Monitoring Wells												
CW1MW25	10/12/2010	E201010535	533033.51	607133.86	48.0	38.0	10.0	61.82	12:44	14.95	50.45	46.87
CW1MW38	7/11/2000	29-43186	532922.20	607056.76	50.0	30.0	20.0	61.93	13:34	14.48	52.00	47.45
CW1MW39	7/10/2000	29-43185	533064.22	607133.58	48.0	28.0	20.0	61.51	12:49	15.01	50.00	46.50
CW1MW40	7/14/2000	29-43187	532973.22	607149.50	50.0	30.0	20.0	62.35	12:42	15.61	49.40	46.74
CW1MW281	5/2/1996	29-35312	532962.89	607103.06	41.0	31.0	10.0	58.20	12:38	11.11	40.20	47.09

Notes:
1) The synoptic round of water levels in the wells was collected on September 30, 2015.
2) Information on well permit number, X and Y coordinates, depth, screen length, screen interval and TOC elevation were provided by FTMM in a table in June 2013.
3) ft = feet
4) DTW = depth to water (measured from the top of well casing)
5) DTB = depth to bottom of well (measured from the top of well casing)
6) bgs = below ground surface
7) ppm = parts per million (of VOCs)
8) TOC = Top of Casing
9) Elevation = feet above mean sea level
10) N/A = information not available
11) -- = Well not gauged.

Table 2
PDB Sampling Summary
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site/Well ID	Profile Date	Depth (ft. bgs)	Screen Length (ft.)	Screen Interval (ft. bgs)	TOC Elev. (ft)	Gauge Date	Gauge Time	PID Reading (ppm)	Gauged DTW (ft. below TOC)	Gauged DTB (ft. below TOC)	GW Elevation (ft)	Saturated Screen Length (ft)	PDB Depth to Center of Bag #1 (ft. below TOC)	PDB Depth to Center of Bag #2 (ft. below TOC)	PDB Deploy Date	PDB Deploy Time	PDB Sample Date	PDB Sample Time
CW1MW27	8/28/2013	15.0	10.0	5-15	60.85	9/30/2015	11:54	0.0	9.76	17.11	51.09	7.35	17.63	N/A	9/30/2015	11:54	12/14/2015	12:27
CW1MW28	9/30/2014	15.0	10.0	5-15	59.09	9/30/2014	11:56	0.0	8.05	14.90	51.04	6.85	11.21	N/A	9/30/2015	11:56	12/14/2015	12:20
CW1MW29	8/28/2013	15.0	10.0	5-15	58.40	9/30/2014	11:58	0.0	7.59	14.70	50.81	7.11	10.85	N/A	9/30/2015	11:58	12/14/2015	11:20
CW1MW31	8/28/2013	19.0	15.0	4-19	61.47	9/30/2014	11:57	0.0	10.90	21.80	50.57	10.90	16.40	N/A	9/30/2015	11:57	12/14/2015	12:30
CW1MW37	8/28/2013	20.0	15.0	5-20	59.21	9/30/2014	12:05	0.0	9.41	13.70	49.80	4.29	11.78	N/A	9/30/2015	12:05	12/14/2015	11:20
CW1MW281	9/30/2014	41.0	10.0	31-41	58.20	9/30/2014	11:57	0.0	11.11	40.20	47.09	10.00	33.74	N/A	9/30/2015	11:57	12/14/2015	12:15

Notes:
1) Information on well depth, screen length, screen interval and TOC elevation were provided by FTMM in a table in June 2013.
2) DTW = depth to water (measured from the top of well casing)
3) DTB = depth to bottom of well (measured from the top of well casing)
4) TOC = Top of Casing
5) ft. AMSL = feet above mean sea level
6) LFPS = Low-Flow Purging and Sampling
7) PDB = Passive Diffusion Bag
8) N/A = not applicable
9) bgs = below ground surface

Table 3
Historical Groundwater Analytical Results
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				CW1MW25							CW1MW26													
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Charles Wood)**	LF1	LF2	LF2 Dup	LF3	LF4	LF5	LF5 Dup	80	80 Dup	81	81 Dup	82	82 Dup	83	83 Dup	84	84 Dup	85	85 Dup	86	86 Dup
Date Collected				10/28/2010	11/10/2010	11/10/2010	2/17/2011	4/27/2011	7/14/2011	7/14/2011	2/25/2008	2/25/2008	4/10/2008	4/10/2008	7/29/2008	7/29/2008	12/8/2008	12/8/2008	2/18/2009	2/18/2009	5/15/2009	5/15/2009	7/29/2009	7/29/2009
ANALYTE/Lab ID				10466.01	10479.04	10479.03	11059.07	11173.05	11297.04	11297.03	80055.04	80055.03	80121.04	80121.03	80267.04	80267.03	80450.04	80450.03	90059.04	90059.03	90198.04	90198.03	90318.04	90318.03
Volatile Organic Compounds (µg/L)																								
Acetone	6000	NLE	--	35.85	32.96	32.93	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	3.76	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	2.49	2.57	2.6	ND	ND	0.66 J	1.5 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	0.1	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	30	0.2	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																								
Aluminum	200	NLE	8210	2320	1010	1010	<200	<200	319	307	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	6	6	ND	6.91 ER	5.07 ER	ND	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	3	10	25.10	5.15	2.29 ER	2.59 ER	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	6000	2000	192.00	742	827	820	329	355	614	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	1	4	2.80	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4	5	3.70	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NLE	NLE	8700.00	206000	250000	252000	147000	128000	325000	315000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	70	100	49.60	17.4	0.8 ER	0.937 ER	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NLE	NLE	30.60	ND	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1300	1300	9.80	0.89 ER	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	NLE	19600	7700	3120	3460	1610	5590	<100	214	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	5	15	7.30	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NLE	NLE	7160	1650	500 ER	543 ER	<5000	<5000	<5000	<5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	50	NLE	232	31.7	14.4	16.1	<15	48.4	<15	<15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	2	ND	ND	ND	ND	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	NLE	48.3	3.03 ER	1.07 ER	0.773 ER	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NLE	NLE	4630	189000	120000	120000	18000	15100	19500	19200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	40	50	3.80	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	40	NLE	ND	7.56	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	50000	NLE	36400	217000	164000	163000	38400	23700	64800	63800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	2	2	ND	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	60	NLE	28.9	8.57	3.76 ER	3.37 ER	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2000	NLE	133	6.65 ER	ND	ND	<20	<20	<20	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

D = Diluted Sample

CW1MW32 - Third Quarter 2010 metals data is incomplete due to missing data sheet in the analytical data package.

Table 3
Historical Groundwater Analytical Results
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				CW1MW26																		CW1MW27			
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Charles Wood)**	87	87 Dup	88	88 Dup	LF1	LF1 Dup	LF2	LF2 Dup	LF3	LF3 Dup	LF4	LF4 Dup	LF5	LF5 Dup	LF6	LF6 Dup	80	81	82	83
Date Collected				10/14/2009	10/14/2009	1/20/2010	1/20/2010	4/19/2010	4/19/2010	8/10/2010	8/10/2010	10/20/2010	10/20/2010	2/16/2011	2/16/2011	4/26/2011	4/26/2011	7/13/2011	7/13/2011	2/25/2008	4/10/2008	7/29/2008	12/8/2008
ANALYTE/Lab ID				90415.04	90415.03	10026.04	10026.03	10150.04	10150.03	10338.04	10338.03	10449.04	10449.03	11058.04	11058.03	11169.04	11169.03	11295.04	11295.03	80055.05	80121.05	80267.05	80450.05
Volatile Organic Compounds (µg/L)																							
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	0.1	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	30	0.2	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.3 J	0.3 J	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																							
Aluminum	200	NLE	8210	NA	NA	NA	NA	2080	2270	180	189	80.8 ER	122	<200	<200	575	573	285	315	NA	NA	NA	NA
Antimony	6	6	ND	NA	NA	NA	NA	ND	ND	ND	5.09 ER	ND	ND	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA
Arsenic	3	10	25.10	NA	NA	NA	NA	0.72 ER	ND	ND	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA
Barium	6000	2000	192.00	NA	NA	NA	NA	60.4	67.9	17.7	18.2	18.1	17.1	<200	<200	<200	<200	<200	<200	NA	NA	NA	NA
Beryllium	1	4	2.80	NA	NA	NA	NA	0.892	0.987	0.223 ER	0.216 ER	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
Cadmium	4	5	3.70	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA
Calcium	NLE	NLE	8700.00	NA	NA	NA	NA	30700	34100	7660	7950	6470	6140	10700	10900	16800	15900	7960	8140	NA	NA	NA	NA
Chromium	70	100	49.60	NA	NA	NA	NA	ND	ND	2.4 ER	2.67 ER	1.27 ER	1.5 ER	<10	<10	<10	<10	<10	<10	NA	NA	NA	NA
Cobalt	NLE	NLE	30.60	NA	NA	NA	NA	2.63	2.62	0.979 ER	0.941 ER	0.55 ER	0.576 ER	<50	<50	<50	<50	<50	<50	NA	NA	NA	NA
Copper	1300	1300	9.80	NA	NA	NA	NA	ND	ND	1.51 ER	1.43 ER	ND	ND	<10	<10	<10	<10	<10	<10	NA	NA	NA	NA
Iron	300	NLE	19600	NA	NA	NA	NA	148 ER	ND	ND	ND	ND	ND	<100	<100	138	217	<100	110	NA	NA	NA	NA
Lead	5	15	7.30	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA
Magnesium	NLE	NLE	7160	NA	NA	NA	NA	3980	4350	1250	1290	1100	1050	<5000	<5000	<5000	<5000	<5000	<5000	NA	NA	NA	NA
Manganese	50	NLE	232	NA	NA	NA	NA	17.9	19.5	7.68	7.76	6.79	6.42	<15	<15	<15	<15	<15	<15	NA	NA	NA	NA
Mercury	2	2	ND	NA	NA	NA	NA	0.06 ER	ND	ND	ND	ND	ND	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA
Nickel	100	NLE	48.3	NA	NA	NA	NA	3.59 ER	4.41 ER	0.804 ER	1.33 ER	0.954 ER	1.1 ER	<10	<10	<10	<10	<10	<10	NA	NA	NA	NA
Potassium	NLE	NLE	4630	NA	NA	NA	NA	2550	2840	2980	3100	2970	2860	<10000	<10000	<10000	<10000	<10000	<10000	NA	NA	NA	NA
Selenium	40	50	3.80	NA	NA	NA	NA	NR	NR	12.9 ER	12.1 ER	ND	ND	<10	<10	<10	<10	<10	<10	NA	NA	NA	NA
Silver	40	NLE	ND	NA	NA	NA	NA	ND	ND	ND	ND	0.733 ER	0.648 ER	<10	<10	<10	<10	<10	<10	NA	NA	NA	NA
Sodium	50000	NLE	36400	NA	NA	NA	NA	9930	11800	28500	29900	21700	20300	16700	17600	<10000	<10000	<10000	<10000	NA	NA	NA	NA
Thallium	2	2	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA
Vanadium	60	NLE	28.9	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	<50	<50	<50	<50	<50	<50	NA	NA	NA	NA
Zinc	2000	NLE	133	NA	NA	NA	NA	12 ER	12.5 ER	5.64 ER	5.04 ER	3.3 ER	2.75 ER	<20	<20	<20	<20	<20	<20	NA	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

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CW1MW32 - Third Quarter 2010 metals data is incomplete due to missing data sheet in the analytical data package.

Table 3
Historical Groundwater Analytical Results
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				CW1MW27												CW1MW28									
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Charles Wood)**	84	85	86	87	88	LF1	LF2	LF3	LF4	LF5	LF6	69	70	71	72	73	74	75	76	77	LF1
Date Collected				2/18/2009	5/15/2009	7/29/2009	10/14/2009	1/20/2010	4/19/2010	8/11/2010	10/20/2010	2/16/2011	5/3/2011	7/13/2011	2/25/2008	4/10/2008	7/29/2008	12/8/2008	2/18/2009	5/15/2009	7/29/2009	10/14/2009	1/20/2010	4/23/2010
ANALYTE/Lab ID				90059.05	90198.05	90318.05	90415.05	10026.05	10150.05	10338.05	10449.05	11058.06	11189.05	11295.05	80055.06	80121.06	80267.06	80450.06	90059.06	90198.06	90318.06	90415.06	10026.06	10162.07
Volatile Organic Compounds (µg/L)																								
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	0.1	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	30	0.2	--	ND	ND	ND	ND	ND	0.3 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	0.9	0.58	1.5	2.99	1.64 J	10.53	ND	ND	2.49	ND	ND	0.25 J	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																								
Aluminum	200	NLE	8210	NA	NA	NA	NA	NA	847	267	200	12600	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	132
Antimony	6	6	ND	NA	NA	NA	NA	NA	ND	ND	ND	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Arsenic	3	10	25.10	NA	NA	NA	NA	NA	ND	ND	ND	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Barium	6000	2000	192.00	NA	NA	NA	NA	NA	68.4	20.1	26.5	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	31.2
Beryllium	1	4	2.80	NA	NA	NA	NA	NA	0.236 ER	0.179 ER	ND	1.1	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.173 ER
Cadmium	4	5	3.70	NA	NA	NA	NA	NA	ND	ND	ND	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Calcium	NLE	NLE	8700.00	NA	NA	NA	NA	NA	15500	6030	5280	166000	16500	<5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	2620
Chromium	70	100	49.60	NA	NA	NA	NA	NA	ND	3.23 ER	0.981 ER	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.09 ER
Cobalt	NLE	NLE	30.60	NA	NA	NA	NA	NA	1.67 ER	1.34 ER	0.712 ER	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.33 ER
Copper	1300	1300	9.80	NA	NA	NA	NA	NA	ND	1.94 ER	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Iron	300	NLE	19600	NA	NA	NA	NA	NA	ND	ND	9.97	<100	<100	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 ER
Lead	5	15	7.30	NA	NA	NA	NA	NA	ND	ND	ND	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Magnesium	NLE	NLE	7160	NA	NA	NA	NA	NA	2620	1400	1210	13400	<5000	<5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	1160
Manganese	50	NLE	232	NA	NA	NA	NA	NA	19	8.38	9.02	307	30	<15	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.19
Mercury	2	2	ND	NA	NA	NA	NA	NA	0.08 ER	ND	ND	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Nickel	100	NLE	48.3	NA	NA	NA	NA	NA	3.57 ER	1.39 ER	1.1 ER	22.9	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.915 ER
Potassium	NLE	NLE	4630	NA	NA	NA	NA	NA	3860	2300	2260	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	14600
Selenium	40	50	3.80	NA	NA	NA	NA	NA	NR	14.7 ER	1.44 ER	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR
Silver	40	NLE	ND	NA	NA	NA	NA	NA	ND	0.737 ER	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Sodium	50000	NLE	36400	NA	NA	NA	NA	NA	68900	48600	46500	16800	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	34200
Thallium	2	2	ND	NA	NA	NA	NA	NA	ND	ND	ND	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Vanadium	60	NLE	28.9	NA	NA	NA	NA	NA	ND	ND	ND	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Zinc	2000	NLE	133	NA	NA	NA	NA	NA	9.06 ER	7.8 ER	3.56 ER	111	<20	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	118

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

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Table 3
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Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				CW1MW28								CW1MW29																CW1MW29	
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Charles Wood)**	LF2		LF3		LF4	LF5	LF5 Dup	LF6	69	70	71	72	73	74	75	76	77	LF1		LF2		LF3		LF4	LF5	LF5 Dup	LF6	
Date Collected				8/25/2010		10/28/2010		2/18/2011	4/28/2011	4/28/2011	7/14/2011	2/25/2008	4/10/2008	7/29/2008	12/8/2008	2/18/2009	5/15/2009	7/29/2009	10/14/2009	1/20/2010	4/19/2010		8/11/2010		10/20/2010		2/16/2011	4/27/2011	4/27/2011	7/14/2011	
ANALYTE/Lab ID				10362.08		10465.10		11062.05	11175.04	11175.03	11297.10	80055.07	80121.07	80267.07	80450.07	90059.07	90198.07	90318.07	90415.07	10026.07	10150.06		10338.09		10449.06		11058.08	11173.04	11173.03	11297.11	
Volatile Organic Compounds (µg/L)																													
Acetone	6000	NLE	--	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	
Bromodichloromethane	1	80	--	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	0.85	J
2-Butanone	300	NLE	--	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	
Carbon disulfide	700	NLE	--	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	
Chloroform	70	80	--	ND		ND		ND	ND	ND	0.28	J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	
Chloromethane	NLE	NLE	--	6.09		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	
Dibromochloromethane	1	NLE	--	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	
1,4-Dichlorobenzene	75	75	--	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	
cis -1,2-Dichloroethene	70	70	--	ND		ND		ND	ND	ND	ND	ND	ND	3.83	ND	ND	ND	ND	ND	ND	ND		0.39	J	4.93		3.29	ND	ND	0.77	J
trans-1,2-Dichloroethene	100	0.1	--	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		0.26	J	ND	ND	ND	ND	
Methyl *tert* -butyl ether	70	NLE	--	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	
Toluene	600	1000	--	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	
1,1,1-Trichloroethane	30	0.2	--	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	
Trichloroethene	1	5	--	2.69		1		13.15	1.07	1.09	4.9	ND	ND	29.08	ND	ND	ND	0.55	ND	ND	0.39	J	2		7.66		4.31	1.12	1.03	24.3	
TICs*	500	NLE	--	ND		ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	
Metals (µg/L)																													
Aluminum	200	NLE	8210	72.5	ER	95.2	ER	1480	NA	NA	444	NA	NA	NA	NA	NA	NA	NA	NA	NA	108		106		212		<200	539	316	308	
Antimony	6	6	ND	ND		ND		<6.0	NA	NA	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		10.3		5.03	ER	<6.0	<6.0	<6.0	<6.0	
Arsenic	3	10	25.10	1	ER	ND		<3.0	NA	NA	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.02	ER	0.81	ER	ND		<3.0	<3.0	<3.0	<3.0	
Barium	6000	2000	192.00	18.1		17.9		<200	NA	NA	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	13.9		35.6		47.3		<200	<200	<200	<200	
Beryllium	1	4	2.80	0.095	ER	ND		<1.0	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.043	ER	0.06	ER	ND		<1.0	<1.0	<1.0	<1.0	
Cadmium	4	5	3.70	ND		ND		<3.0	NA	NA	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.29		1.55	ER	2.92		5.3	3	3.2	8.2	
Calcium	NLE	NLE	8700.00	1980		2300		21900	NA	NA	14600	NA	NA	NA	NA	NA	NA	NA	NA	NA	16100		31000		47400		48200	61300	53600	102000	
Chromium	70	100	49.60	ND		1.68	ER	<10	NA	NA	16.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.33	ER	1.81	ER	ND		<10	<10	<10	18.2	
Cobalt	NLE	NLE	30.60	1.07	ER	0.745	ER	<50	NA	NA	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		0.404	ER	ND		<50	<50	<50	<50	
Copper	1300	1300	9.80	1.02	ER	ND		<10	NA	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		2.3	ER	ND		<10	<10	<10	<10	
Iron	300	NLE	19600	ND		ND		<100	137	155	173	NA	NA	NA	NA	NA	NA	NA	NA	NA	82.3	ER	79.7	ER	147	ER	182	787	461	329	
Lead	5	15	7.30	ND		ND		<3.0	NA	NA	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<3.0	<3.0	<3.0	<3.0	
Magnesium	NLE	NLE	7160	897	ER	809	ER	<5000	NA	NA	<5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	1960		3880		6470		<5000	5590	<5000	9200	
Manganese	50	NLE	232	5.46		5.35		15.3	<15	<15	22.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.31	ER	3.95	ER	26.4		<15	<15	<15	<15	
Mercury	2	2	ND	ND		ND		<0.20	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ER	ND		ND		<0.20	<0.20	<0.20	<0.20	
Nickel	100	NLE	48.3	1.2	ER	1.12	ER	<10	NA	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.48	ER	1.83	ER	4.65	ER	<10	<10	<10	<10	
Potassium	NLE	NLE	4630	3780		3210		<10000	NA	NA	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	2710		3570		4280		<10000	<10000	<10000	<10000	
Selenium	40	50	3.80	12.4	ER	ND		<10	NA	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR		41.7		ND		<10	<10	<10	<10	
Silver	40	NLE	ND	ND		ND		<10	NA	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		2.76	ER	<10	<10	<10	<10	
Sodium	50000	NLE	36400	24600		28000		48300	NA	NA	57200	NA	NA	NA	NA	NA	NA	NA	NA	NA	14800		30200		15700		29100	36300	24400	91500	
Thallium	2	2	ND	ND		ND		<2.0	NA	NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<2.0	<2.0	<2.0	<2.0	
Vanadium	60	NLE	28.9	ND		0.73	ER	<50	NA	NA	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2	ER	2.11	ER	2.29	ER	<50	<50	<50	<50	
Zinc	2000	NLE	133	2.45	ER	ND		<20	NA	NA	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.07	ER	7.69	ER	15.8	ER	<20	<20	<20	<20	

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Table 3
Historical Groundwater Analytical Results
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				CW1MW30																CW1MW31					
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Charles Wood)**	54	55	56	57	58	59	60	61	62	LF1	LF2	LF3	LF4	LF5	LF6	54	55	56	57	58	59
Date Collected				2/25/2008	4/10/2008	7/29/2008	12/8/2008	2/18/2009	5/15/2009	7/29/2009	10/14/2009	1/20/2010	4/19/2010	8/11/2010	10/20/2010	2/17/2011	4/26/2011	7/13/2011	2/25/2008	4/10/2008	7/29/2008	12/8/2008	2/18/2009	5/15/2009
ANALYTE/Lab ID				80055.08	80121.08	80267.08	80450.08	90059.08	90198.08	90318.08	90415.08	10026.08	10150.07	10338.06	10449.07	11059.14	11169.05	11295.06	80055.09	80121.09	80267.09	80450.09	90059.09	90198.09
Volatile Organic Compounds (µg/L)																									
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	0.1	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	30	0.2	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.82 J	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																									
Aluminum	200	NLE	8210	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.8 ER	84.2 ER	162	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA
Antimony	6	6	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA
Arsenic	3	10	25.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	1.27 ER	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA
Barium	6000	2000	192.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	10	11.0	86.7	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA
Beryllium	1	4	2.80	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.09 ER	ND	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA
Cadmium	4	5	3.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA
Calcium	NLE	NLE	8700.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	518 ER	3360	3340	<5000	<5000	<5000	NA	NA	NA	NA	NA	NA	NA
Chromium	70	100	49.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.13 ER	ND	0.689 ER	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA
Cobalt	NLE	NLE	30.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	2.79	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA
Copper	1300	1300	9.80	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.69 ER	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA
Iron	300	NLE	19600	NA	NA	NA	NA	NA	NA	NA	NA	NA	119 ER	ND	59.5	<100	<100	<100	NA	NA	NA	NA	NA	NA	NA
Lead	5	15	7.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA
Magnesium	NLE	NLE	7160	NA	NA	NA	NA	NA	NA	NA	NA	NA	538 ER	496 ER	3410	<5000	<5000	<5000	NA	NA	NA	NA	NA	NA	NA
Manganese	50	NLE	232	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.86 ER	1.96 ER	23.9	19.3	<15	<15	NA	NA	NA	NA	NA	NA	NA
Mercury	2	2	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 ER	ND	ND	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA
Nickel	100	NLE	48.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.919 ER	0.636 ER	4.99 ER	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA
Potassium	NLE	NLE	4630	NA	NA	NA	NA	NA	NA	NA	NA	NA	2100	1220	5730	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA
Selenium	40	50	3.80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA
Silver	40	NLE	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.86 ER	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA
Sodium	50000	NLE	36400	NA	NA	NA	NA	NA	NA	NA	NA	NA	15800	3730 ER	73500	71000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA
Thallium	2	2	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.09 ER	ND	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA
Vanadium	60	NLE	28.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.689 ER	ND	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA
Zinc	2000	NLE	133	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.26 ER	5.67 ER	7.26 ER	<20	<20	<20	NA	NA	NA	NA	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

D = Diluted Sample

CW1MW32 - Third Quarter 2010 metals data is incomplete due to missing data sheet in the analytical data package.

Table 3
Historical Groundwater Analytical Results
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				CW1MW31													CW1MW32								
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Charles Wood)**	60	61	62	62 Dup	LF1	LF1 Dup	LF2	LF3	LF3 Dup	LF4	LF5	LF6	54	55	56	57	58	59	60	61	62
Date Collected				7/29/2009	10/14/2009	1/22/2010	1/22/2010	4/20/2010	4/20/2010	8/11/2010	10/26/2010	10/26/2010	2/17/2011	5/3/2011	7/14/2011	2/25/2008	4/10/2008	7/29/2008	12/8/2008	2/18/2009	5/15/2009	7/29/2009	10/14/2009	1/22/2010
ANALYTE/Lab ID				90318.09	90415.09	10031.04	10031.03	10154.04	10154.03	10338.08	10461.04	10461.03	11059.05	11189.06	11297.09	80055.10	80121.10	80267.10	80450.10	90059.10	90198.10	90318.10	90415.10	10031.05
Volatile Organic Compounds (µg/L)																								
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	21.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.54	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.73	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.28 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.06	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	3.26	3.27	ND	1.27	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	0.1	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	30	0.2	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	14.95	14.64	ND	5.47	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																								
Aluminum	200	NLE	8210	NA	NA	NA	NA	339	350	842	134	133	644	<2000	2410	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	6	6	ND	NA	NA	NA	NA	ND	ND	7.66 ER	ND	ND	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	3	10	25.10	NA	NA	NA	NA	ND	ND	ND	ND	ND	<3.0	98.5	38.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	6000	2000	192.00	NA	NA	NA	NA	106	117	263	61.6	61.8	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	1	4	2.80	NA	NA	NA	NA	0.23 ER	0.245 ER	0.783	ND	ND	<1.0	<10	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4	5	3.70	NA	NA	NA	NA	ND	ND	ND	ND	ND	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NLE	NLE	8700.00	NA	NA	NA	NA	9670	10600	23000	5470	5550	15100	<5000	<5000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	70	100	49.60	NA	NA	NA	NA	1.01 ER	ND	ND	ND	ND	<10	176	36.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NLE	NLE	30.60	NA	NA	NA	NA	1.7 ER	1.78 ER	4.48	0.851 ER	0.848 ER	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1300	1300	9.80	NA	NA	NA	NA	ND	ND	1.96 ER	ND	ND	<10	30.1	10.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	NLE	19600	NA	NA	NA	NA	91.4 ER	ND	ND	ND	ND	<100	3730	6250	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	5	15	7.30	NA	NA	NA	NA	ND	ND	ND	ND	ND	<3.0	<3.0	8.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NLE	NLE	7160	NA	NA	NA	NA	1270	1360	2730	593 ER	597 ER	<5000	<5000	<5000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	50	NLE	232	NA	NA	NA	NA	11	11.9	23.9	6.7	5.5	<15	<15	18.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	2	ND	NA	NA	NA	NA	0.12 ER	0.09 ER	ND	ND	ND	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	NLE	48.3	NA	NA	NA	NA	3.91 ER	3.75 ER	6.51	1.99 ER	1.84 ER	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NLE	NLE	4630	NA	NA	NA	NA	7550	8070	15500	7750	7810	14800	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	40	50	3.80	NA	NA	NA	NA	NR	NR	36.2	1.88 ER	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	40	NLE	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	50000	NLE	36400	NA	NA	NA	NA	15100	16000	41900	22100	22600	42700	1640000	173000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	2	2	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	60	NLE	28.9	NA	NA	NA	NA	ND	ND	ND	ND	0.744 ER	<50	160	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2000	NLE	133	NA	NA	NA	NA	5.3 ER	5.62 ER	13 ER	ND	ND	<20	41.6	39.3	NA	NA	NA	NA	NA	NA	NA	NA	NA

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				CW1MW32							CW1MW33												
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Charles Wood)**	LF1	LF2	LF3	LF4	LF4 Dup	LF5	LF6	57	58	59	60	61	62	63	64	65	LF1	LF2	LF2 Dup	LF3
Date Collected				4/20/2010	8/27/2010	10/26/2010	2/17/2011	2/17/2011	4/26/2011	7/13/2011	2/25/2008	4/10/2008	7/29/2008	12/8/2008	2/18/2009	5/15/2009	7/29/2009	10/14/2009	1/22/2010	4/20/2010	8/17/2010	8/17/2010	10/26/2010
ANALYTE/Lab ID				10154.05	10367.01	10461.05	11059.04	11059.03	11169.06	11295.07	80055.11	80121.11	80267.11	80450.11	90059.11	90198.11	90318.11	90415.11	10031.06	10154.06	10346.04	10346.03	10461.06
Volatile Organic Compounds (µg/L)																							
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	0.1	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	30	0.2	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	0.34 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																							
Aluminum	200	NLE	8210	364		116	636	629	724	268	NA	NA	NA	NA	NA	NA	NA	NA	NA	118	345	394	576
Antimony	6	6	ND	ND	ND	ND	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
Arsenic	3	10	25.10	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.27 ER	0.89 ER	ND
Barium	6000	2000	192.00	185	85.2	76	<200	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	22.9	45.3	47.4	54.1
Beryllium	1	4	2.80	0.252 ER	0.07 ER	ND	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.219 ER	0.401 ER	0.442 ER	0.693
Cadmium	4	5	3.70	0.65 ER	ND	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
Calcium	NLE	NLE	8700.00	9760		17300	16600	16700	24800	20100	NA	NA	NA	NA	NA	NA	NA	NA	NA	9440	9050	9620	9920
Chromium	70	100	49.60	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.33 ER	1.22 ER	2.86 ER	1.85 ER
Cobalt	NLE	NLE	30.60	7.78		2.35	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.01 ER	1.62 ER	1.64 ER	2.83
Copper	1300	1300	9.80	ND	2.18 ER	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
Iron	300	NLE	19600	82.6 ER		ND	<100	<100	<100	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	227 ER	ND	98.5 ER	234 ER
Lead	5	15	7.30	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
Magnesium	NLE	NLE	7160	10400		4770	9470	9520	8210	<5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	2360	3390	3600	4890
Manganese	50	NLE	232	67.7		22.8	64.1	63.6	46.8	22.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.71 ER	8.67	10.6	13.1
Mercury	2	2	ND	0.14 ER	ND	ND	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12 ER	ND	ND	ND
Nickel	100	NLE	48.3	11.2	4.74 ER	3.48 ER	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.04 ER	3.4 ER	4.19 ER	4.53 ER
Potassium	NLE	NLE	4630	2440		2420	<10000	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	1620	1270	1380	1800
Selenium	40	50	3.80	NR	NR	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	26.3	13.6 ER	ND
Silver	40	NLE	ND	ND		ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
Sodium	50000	NLE	36400	23700		33400	49300	48700	51600	38400	NA	NA	NA	NA	NA	NA	NA	NA	NA	3910 ER	10700	11300	14900
Thallium	2	2	ND	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
Vanadium	60	NLE	28.9	ND		0.652 ER	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	1.07 ER
Zinc	2000	NLE	133	21.7 ER		7.18 ER	24	23.3	24	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.03 ER	18.6 ER	20.4 ER	16.3 ER

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

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CW1MW32 - Third Quarter 2010 metals data is incomplete due to missing data sheet in the analytical data package.

Table 3
Historical Groundwater Analytical Results
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				CW1MW33			CW1MW34																		CW1MW35	
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Charles Wood)**	LF4	LF5	LF6	54	55	56	57	58	59	59 Dup	60	60 Dup	61	62	LF1		LF2		LF3		LF4	LF5	LF6	54	55
Date Collected				2/17/2011	4/26/2011	7/13/2011	2/25/2008	4/10/2008	7/29/2008	12/8/2008	2/18/2009	5/18/2009	5/18/2009	8/4/2009	8/4/2009	10/19/2009	1/22/2010	4/20/2010		8/17/2010		10/26/2010		2/17/2011	5/2/2011	7/14/2011	2/25/2008	4/10/2008
ANALYTE/Lab ID				11059.06	11169.07	11295.08	80055.12	80121.12	80267.12	80450.12	90059.12	90201.04	90201.03	90327.04	90327.03	90420.04	10031.07	10154.07		10346.06		10461.07		11059.08	11186.06	11297.12	80055.13	80121.13
Volatile Organic Compounds (µg/L)																											
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	ND
Chloromethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	0.1	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	ND
1,1,1-Trichloroethane	30	0.2	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND		ND		ND	ND	ND	ND	ND
Metals (µg/L)																											
Aluminum	200	NLE	8210	337	297	498	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	95.1	ER	54.7	ER	41.9	ER	<200	<200	<200	NA	NA
Antimony	6	6	ND	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<6.0	<6.0	<6.0	NA	NA
Arsenic	3	10	25.10	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<3.0	<3.0	<3.0	NA	NA
Barium	6000	2000	192.00	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.1		23		26.6		<200	<200	<200	NA	NA
Beryllium	1	4	2.80	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.111	ER	0.05	ER	ND		<1.0	<1.0	<1.0	NA	NA
Cadmium	4	5	3.70	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<3.0	<3.0	<3.0	NA	NA
Calcium	NLE	NLE	8700.00	11700	7000	7990	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3020		2490		2790		5810	<5000	<5000	NA	NA
Chromium	70	100	49.60	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<10	<10	<10	NA	NA
Cobalt	NLE	NLE	30.60	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.417	ER	ND		0.939	ER	<50	<50	<50	NA	NA
Copper	1300	1300	9.80	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<10	<10	<10	NA	NA
Iron	300	NLE	19600	156	141	218	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<100	178	<100	NA	NA
Lead	5	15	7.30	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<3.0	<3.0	<3.0	NA	NA
Magnesium	NLE	NLE	7160	<5000	<5000	<5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1610		1820		2470		<5000	<5000	<5000	NA	NA
Manganese	50	NLE	232	<15	<15	<15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.11		7.44		9.09		17.5	<15	<15	NA	NA
Mercury	2	2	ND	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.13	ER	ND		ND		<0.20	<0.20	<0.20	NA	NA
Nickel	100	NLE	48.3	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.92	ER	2.13	ER	2.2	ER	<10	<10	<10	NA	NA
Potassium	NLE	NLE	4630	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2830		3740		3560		<10000	<10000	<10000	NA	NA
Selenium	40	50	3.80	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR		12.6	ER	ND		<10	<10	<10	NA	NA
Silver	40	NLE	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<10	<10	<10	NA	NA
Sodium	50000	NLE	36400	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17200		22100		20200		47400	10600	<10000	NA	NA
Thallium	2	2	ND	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<2.0	<2.0	<2.0	NA	NA
Vanadium	60	NLE	28.9	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND		ND		ND		<50	<50	<50	NA	NA
Zinc	2000	NLE	133	<20	<20	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.31	ER	19.1	ER	4.59	ER	<20	<20	<20	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

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Table 3
Historical Groundwater Analytical Results
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				CW1MW35														CW1MW36							
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Charles Wood)**	56	57	57 Dup	58	59	60	61	62	LF1	LF2	LF3	LF4	LF5	LF6	54	55	56	57	58	59	60	61
Date Collected				7/29/2008	1/13/2009	1/13/2009	2/18/2009	5/18/2009	8/4/2009	10/19/2009	1/22/2010	4/22/2010	8/17/2010	10/26/2010	2/17/2011	5/2/2011	7/14/2011	2/25/2008	4/10/2008	7/29/2008	1/13/2009	2/18/2009	5/18/2009	8/4/2009	10/19/2009
ANALYTE/Lab ID				80267.13	90015.04	90015.03	90059.13	90201.05	90327.05	90420.05	10031.08	10160.05	10346.05	10461.08	11059.09	11186.05	11297.14	8005.14	80121.14	80267.14	90015.05	90059.14	90201.06	90327.06	90420.06
Volatile Organic Compounds (µg/L)																									
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	0.1	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	30	0.2	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																									
Aluminum	200	NLE	8210	NA	NA	NA	NA	NA	NA	NA	NA	481	184	143	204	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	6	6	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	3	10	25.10	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.68 ER	ND	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA
Barium	6000	2000	192.00	NA	NA	NA	NA	NA	NA	NA	NA	58.4	59.8	56.9	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	1	4	2.80	NA	NA	NA	NA	NA	NA	NA	NA	0.201 ER	0.283 ER	0.41 ER	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4	5	3.70	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NLE	NLE	8700.00	NA	NA	NA	NA	NA	NA	NA	NA	6650	5840	6000	6350	5080	6950	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	70	100	49.60	NA	NA	NA	NA	NA	NA	NA	NA	5.56	1.4 ER	0.712 ER	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NLE	NLE	30.60	NA	NA	NA	NA	NA	NA	NA	NA	5.35	4.03	4.36	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1300	1300	9.80	NA	NA	NA	NA	NA	NA	NA	NA	2.12 ER	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	NLE	19600	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<100	151	208	NA	NA	NA	NA	NA	NA	NA	NA
Lead	5	15	7.30	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NLE	NLE	7160	NA	NA	NA	NA	NA	NA	NA	NA	8020	6710	6850	8700	5400	<5000	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	50	NLE	232	NA	NA	NA	NA	NA	NA	NA	NA	33.8	27.6	27.2	42	24.6	<15	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	2	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	NLE	48.3	NA	NA	NA	NA	NA	NA	NA	NA	12	5.76	5.74	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NLE	NLE	4630	NA	NA	NA	NA	NA	NA	NA	NA	2600	1720	2010	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	40	50	3.80	NA	NA	NA	NA	NA	NA	NA	NA	ND	15.2 ER	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Silver	40	NLE	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	50000	NLE	36400	NA	NA	NA	NA	NA	NA	NA	NA	7610	4730 ER	5800	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	2	2	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	60	NLE	28.9	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2000	NLE	133	NA	NA	NA	NA	NA	NA	NA	NA	20.5 ER	25.7 ER	17.7 ER	29.3	<20	<20	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

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Table 3
Historical Groundwater Analytical Results
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				CW1MW36									CW1MW37									
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Charles Wood)**	62	LF1	LF1 Dup	LF2	LF3	LF4	LF5	LF5 Dup	LF6	54	55	56	56 Dup	57	58	59	60	61	62	LF1
Date Collected				1/22/2010	4/22/2010	4/22/2010	8/17/2010	10/26/2010	2/17/2011	5/3/2011	5/3/2011	7/14/2011	2/25/2008	4/10/2008	7/31/2008	7/31/2008	1/13/2009	2/18/2009	5/18/2009	8/4/2009	10/19/2009	1/22/2010	4/23/2010
ANALYTE/Lab ID				10031.09	10160.04	10160.03	10346.07	10461.09	11059.11	11189.03	11189.04	11297.13	80055.15	80121.15	80273.04	80273.03	90015.06	90059.15	90201.07	90327.07	90420.07	10031.10	10162.08
Volatile Organic Compounds (µg/L)																							
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.62	1.31 J	1.27 J	ND	0.26 J	0.43 J	2.04	ND	0.75	0.98
trans-1,2-Dichloroethene	100	0.1	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	30	0.2	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.29 J	0.71 J	0.74 J	ND	0.48 J	0.42 J	0.86	ND	0.57	0.68
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																							
Aluminum	200	NLE	8210	NA	89 ER	102	142	86.9 ER	<200	262	277	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	33.7	ER
Antimony	6	6	ND	NA	12.9	13.6	5.87 ER	6.38 ER	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.7	
Arsenic	3	10	25.10	NA	ND	0.78 ER	0.86 ER	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
Barium	6000	2000	192.00	NA	265	256	104	79.8	<200	375	368	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	57.6	
Beryllium	1	4	2.80	NA	0.102 ER	0.121 ER	0.108 ER	ND	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
Cadmium	4	5	3.70	NA	1.52 ER	1.85 ER	ND	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.565	ER
Calcium	NLE	NLE	8700.00	NA	222000	221000	55000	45500	196000	85300	94600	75700	NA	NA	NA	NA	NA	NA	NA	NA	NA	53500	
Chromium	70	100	49.60	NA	ND	ND	ND	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
Cobalt	NLE	NLE	30.60	NA	1.14 ER	1.17 ER	ND	1.06 ER	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.87	
Copper	1300	1300	9.80	NA	16.8	15.4	2.47 ER	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
Iron	300	NLE	19600	NA	ND	ND	ND	74.9	<100	<100	133	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
Lead	5	15	7.30	NA	ND	2.66 ER	ND	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
Magnesium	NLE	NLE	7160	NA	33400	32700	7950	5910	25400	22500	23200	12100	NA	NA	NA	NA	NA	NA	NA	NA	NA	13000	
Manganese	50	NLE	232	NA	71.7	69.5	16.6	13.4	19	72.1	71.4	26.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	214	
Mercury	2	2	ND	NA	ND	ND	ND	ND	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
Nickel	100	NLE	48.3	NA	12	11.5	4.34 ER	3.38 ER	<10	16.5	16.1	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	13.8	
Potassium	NLE	NLE	4630	NA	13100	12800	6900	5790	<10000	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	4640	
Selenium	40	50	3.80	NA	58.5	64.7	64.9	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	
Silver	40	NLE	ND	NA	ND	ND	ND	0.933 ER	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
Sodium	50000	NLE	36400	NA	329000	322000	116000	83500	351000	203000	210000	217000	NA	NA	NA	NA	NA	NA	NA	NA	NA	65000	
Thallium	2	2	ND	NA	ND	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
Vanadium	60	NLE	28.9	NA	0.747 ER	ND	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	
Zinc	2000	NLE	133	NA	41.6 ER	39.6 ER	20.1 ER	6.28 ER	28.2	47.9	48.7	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	36.2	ER

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

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D = Diluted Sample

CW1MW32 - Third Quarter 2010 metals data is incomplete due to missing data sheet in the analytical data package.

Table 3
Historical Groundwater Analytical Results
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				CW1MW37					CW1MW38													
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Charles Wood)**	LF2	LF3	LF4	LF5	LF6	54	55	55 Dup	56	57	58	59	60	61	62	LF1	LF2	LF2 Dup	LF3	LF3 Dup
Date Collected				8/17/2010	10/28/2010	2/17/2011	5/2/2011	7/14/2011	2/27/2008	4/11/2008	4/11/2008	7/31/2008	1/13/2009	2/25/2009	5/18/2009	7/30/2009	10/19/2009	1/22/2010	4/22/2010	8/24/2010	8/24/2010	10/28/2010	10/28/2010
ANALYTE/Lab ID				10346.09	10465.11	11059.13	11186.07	11297.15	80061.04	80127.04	80127.03	80273.05	90015.07	90074.04	90201.08	90323.04	90420.08	10031.11	10160.08	10362.04	10362.03	10465.04	10465.03
Volatile Organic Compounds (µg/L)																							
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.93	ND	4.74	ND	ND
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	0.1	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	30	0.2	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	0.17 J	0.27 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																							
Aluminum	200	NLE	8210	ND	ND	<200	677	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41.1 ER	ND	20.6 ER	ND	ND
Antimony	6	6	ND	6.58 ER	9.12 ER	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.3	9.16 ER	8.65 ER	ND	ND
Arsenic	3	10	25.10	1.13 ER	0.74 ER	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.67 ER	5.06	5.06	3.82 ER	3.65 ER
Barium	6000	2000	192.00	45.6	32.5	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	242	176	193	199	199
Beryllium	1	4	2.80	ND	ND	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Cadmium	4	5	3.70	ND	0.507 ER	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.9 ER	1.48 ER	1.87 ER	2.45	2.44
Calcium	NLE	NLE	8700.00	56600	43200	43100	40600	46200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	65700	50300	52400	47800	49000
Chromium	70	100	49.60	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Cobalt	NLE	NLE	30.60	2.68	2.18	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Copper	1300	1300	9.80	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.9 ER	2.09 ER	ND	ND
Iron	300	NLE	19600	ND	123	<100	1890	379	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	62800	41900	45000	46000	46300
Lead	5	15	7.30	ND	ND	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.33	5.29	3.58 ER	ND	ND
Magnesium	NLE	NLE	7160	12200	8790	8140	8190	8950	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10700	7990	8390	7390	7430
Manganese	50	NLE	232	159	124	84.9	198	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	353	271	283	262	261
Mercury	2	2	ND	ND	ND	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Nickel	100	NLE	48.3	11.5	8.19	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.18	4.91 ER	4.88 ER	2.73 ER	2.6 ER
Potassium	NLE	NLE	4630	4920	3830	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9440	7260	7630	7650	7870
Selenium	40	50	3.80	69.3	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32.8	7.12 ER	67.7	ND	ND
Silver	40	NLE	ND	ND	1.54 ER	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.3	5.65	6.47	ND	ND
Sodium	50000	NLE	36400	63800	65500	69100	58200	56700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18900	15800	16900	15500	15600
Thallium	2	2	ND	ND	ND	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Vanadium	60	NLE	28.9	0.79 ER	ND	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Zinc	2000	NLE	133	35.3 ER	17.7 ER	<20	<20	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

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D = Diluted Sample

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Table 3
Historical Groundwater Analytical Results
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				CW1MW38			CW1MW39															CW1MW40		
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Charles Wood)**	LF4	LF5	LF6	54	55	56	57	58	59	60	60 Dup	61	62	LF1	LF2	LF3	LF4	LF5	LF6	54	55	56
Date Collected				2/18/2011	5/3/2011	7/14/2011	2/27/2008	4/11/2008	7/31/2008	1/13/2009	2/25/2009	5/18/2009	7/30/2009	7/30/2009	10/19/2009	1/22/2010	4/22/2010	8/25/2010	10/28/2010	2/17/2011	4/27/2011	7/14/2011	2/25/2008	4/11/2008	7/31/2008
ANALYTE/Lab ID				11062.06	11189.07	11297.08	80061.05	80127.05	80273.06	90015.08	90074.05	90201.09	90323.05	90323.03	90420.09	10031.12	10160.07	10362.05	10465.05	11059.12	11173.06	11297.05	80055.16	80127.06	80273.07
Volatile Organic Compounds (µg/L)																									
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.86	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	0.1	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	0.56 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	30	0.2	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																									
Aluminum	200	NLE	8210	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	160	110	117	<200	<200	<200	NA	NA	NA
Antimony	6	6	ND	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.4	12.9	ND	<6.0	<6.0	<6.0	NA	NA	NA
Arsenic	3	10	25.10	6.4	7.2	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	25.92	36.4	30.43	17.8	5.8	28.3	NA	NA	NA
Barium	6000	2000	192.00	222	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	54.9	42.2	43.1	<200	<200	<200	NA	NA	NA
Beryllium	1	4	2.80	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.219 ER	0.118 ER	ND	<1.0	<1.0	<1.0	NA	NA	NA
Cadmium	4	5	3.70	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.75 ER	1.3 ER	2.2	<3.0	<3.0	<3.0	NA	NA	NA
Calcium	NLE	NLE	8700.00	53100	54000	41600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64700	55000	58500	56500	58100	54500	NA	NA	NA
Chromium	70	100	49.60	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<10	<10	<10	NA	NA	NA
Cobalt	NLE	NLE	30.60	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.27	3.73	4.01	<50	<50	<50	NA	NA	NA
Copper	1300	1300	9.80	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	2.31 ER	ND	<10	<10	<10	NA	NA	NA
Iron	300	NLE	19600	51000	53200	41200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46700	35700	37900	32400	59500	25700	NA	NA	NA
Lead	5	15	7.30	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.67 ER	3.83 ER	ND	<3.0	<3.0	<3.0	NA	NA	NA
Magnesium	NLE	NLE	7160	8120	8700	5610	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16000	14300	14600	13800	10900	13000	NA	NA	NA
Manganese	50	NLE	232	309	300	241	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	317	272	277	291	316	304	NA	NA	NA
Mercury	2	2	ND	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<0.20	<0.20	<0.20	NA	NA	NA
Nickel	100	NLE	48.3	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32.2	30.4	29.5	31.2	15.1	30.8	NA	NA	NA
Potassium	NLE	NLE	4630	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9130	7180	8100	<10000	<10000	<10000	NA	NA	NA
Selenium	40	50	3.80	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	34.9	75.4	ND	<10	<10	<10	NA	NA	NA
Silver	40	NLE	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.43	5.23	ND	<10	<10	<10	NA	NA	NA
Sodium	50000	NLE	36400	19300	20800	11800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	54700	51900	55900	59100	27600	57200	NA	NA	NA
Thallium	2	2	ND	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<2.0	<2.0	<2.0	NA	NA	NA
Vanadium	60	NLE	28.9	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<50	<50	<50	NA	NA	NA
Zinc	2000	NLE	133	<20	<20	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14.2 ER	13.3 ER	11.7 ER	<20	<20	32.3	NA	NA	NA

Notes:

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NLE = No limit established

ER = Estimated Result

D = Diluted Sample

CW1MW32 - Third Quarter 2010 metals data is incomplete due to missing data sheet in the analytical data package.

Table 3
Historical Groundwater Analytical Results
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				CW1MW40													CW1MW281							
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Charles Wood)**	57	58	59	60	61	62	LF1	LF1 Dup	LF2	LF3	LF4	LF5	LF6	80	81	82	83	84	84 Dup	85	86
Date Collected				1/13/2009	2/25/2009	5/18/2009	7/30/2009	10/19/2009	1/22/2010	4/23/2010	4/23/2010	8/25/2010	10/28/2010	2/16/2011	4/27/2011	7/14/2011	2/25/2008	4/11/2008	7/31/2008	1/13/2009	2/25/2009	2/25/2009	5/18/2009	7/29/2009
ANALYTE/Lab ID				90015.09	90074.06	90201.10	90323.06	90420.10	10031.13	10162.04	10162.03	10362.06	10465.06	11058.07	11173.07	11297.06	80055.17	80127.07	80273.08	90015.10	90074.07	90074.03	90201.11	90318.12
Volatile Organic Compounds (µg/L)																								
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.38	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	112.73	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	3.82	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.24 J	ND	ND
trans-1,2-Dichloroethene	100	0.1	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	30	0.2	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.65	ND	1.15 J	2.52	20.1	18.58	15.58	3.25
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9	ND	ND	ND	ND
Metals (µg/L)																								
Aluminum	200	NLE	8210	NA	NA	NA	NA	NA	NA	85.7 ER	73.1 ER	29 ER	33.6 ER	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	6	6	ND	NA	NA	NA	NA	NA	NA	7 ER	8.99 ER	6.94 ER	4.91 ER	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	3	10	25.10	NA	NA	NA	NA	NA	NA	9.69	9.61	10.21	12.33	14.2	4.9	<3.0	NA	NA	NA	NA	NA	NA	NA	NA
Barium	6000	2000	192.00	NA	NA	NA	NA	NA	NA	57.8	55.4	41.9	40	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	1	4	2.80	NA	NA	NA	NA	NA	NA	0.138 ER	0.095 ER	0.045 ER	ND	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4	5	3.70	NA	NA	NA	NA	NA	NA	0.932 ER	1.18 ER	1.11 ER	1.67 ER	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NLE	NLE	8700.00	NA	NA	NA	NA	NA	NA	43400	43100	36600	38600	33000	37300	40500	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	70	100	49.60	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NLE	NLE	30.60	NA	NA	NA	NA	NA	NA	1.75 ER	1.82 ER	1.48 ER	1.86 ER	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1300	1300	9.80	NA	NA	NA	NA	NA	NA	ND	ND	2.09 ER	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	NLE	19600	NA	NA	NA	NA	NA	NA	35000	33900	24500	26600	19600	25200	6120	NA	NA	NA	NA	NA	NA	NA	NA
Lead	5	15	7.30	NA	NA	NA	NA	NA	NA	ND	ND	2.86 ER	ND	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NLE	NLE	7160	NA	NA	NA	NA	NA	NA	10100	10100	8630	8800	8780	8160	8580	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	50	NLE	232	NA	NA	NA	NA	NA	NA	222	220	183	192	224	205	233	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	2	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	NLE	48.3	NA	NA	NA	NA	NA	NA	19.5	19.4	18.6	16.9	34.8	15.7	22.1	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NLE	NLE	4630	NA	NA	NA	NA	NA	NA	7690	7680	6030	6840	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	40	50	3.80	NA	NA	NA	NA	NA	NA	NR	NR	61.9	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Silver	40	NLE	ND	NA	NA	NA	NA	NA	NA	5	4.68 ER	3.81 ER	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	50000	NLE	36400	NA	NA	NA	NA	NA	NA	17100	17400	16500	16500	19400	15900	17400	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	2	2	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	60	NLE	28.9	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2000	NLE	133	NA	NA	NA	NA	NA	NA	2.56 ER	2.6 ER	2.94 ER	ND	<20	<20	24.3	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

D = Diluted Sample

CW1MW32 - Third Quarter 2010 metals data is incomplete due to missing data sheet in the analytical data package.

Table 3
Historical Groundwater Analytical Results
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				CW1MW281								CW1MW282											
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Charles Wood)**	87	88	89	90	LF3	LF4	LF5	LF6	80	81	82	83	84	85	86	87	88	LF1	LF2	LF3
Date Collected				10/19/2009	1/22/2010	4/23/2010	8/25/2010	10/28/2010	2/16/2011	4/27/2011	7/14/2011	2/27/2008	4/10/2008	7/31/2008	12/8/2008	2/18/2009	5/18/2009	7/29/2009	10/19/2009	1/20/2010	4/22/2010	8/11/2010	10/28/2010
ANALYTE/Lab ID				90420.11	10031.14	10162.06	10362.07	10465.09	11058.05	11173.08	11297.07	80061.06	80121.16	80273.09	80450.13	90059.16	90201.12	90318.13	90420.12	10026.09	10160.06	10338.07	10465.07
Volatile Organic Compounds (µg/L)																							
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	2.38	3.8	ND	ND	ND	0.2 J	ND	3.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NLE	NLE	--	ND	ND	ND	2.71	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	3.16	1	ND	ND	2.11	0.58	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	0.1	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	0.24 J	1.67	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	3.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	30	0.2	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	10.25	109.9 D	37.62	ND	ND	91.55	13.47	29.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																							
Aluminum	200	NLE	8210	NA	NA	65.6 ER	ND	ND	266	<200	617	NA	NA	NA	NA	NA	NA	NA	NA	NA	59.9 ER	262	420
Antimony	6	6	ND	NA	NA	7.07 ER	5.7 ER	4.9 ER	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND
Arsenic	3	10	25.10	NA	NA	1.06 ER	1.54 ER	1.02 ER	<3.0	<3.0	4.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.93 ER
Barium	6000	2000	192.00	NA	NA	94.3	115	156	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.89 ER	142	12.6
Beryllium	1	4	2.80	NA	NA	ND	ND	ND	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.139 ER	ND
Cadmium	4	5	3.70	NA	NA	1.77 ER	1.13 ER	1.27 ER	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND
Calcium	NLE	NLE	8700.00	NA	NA	433000	32000	41000	35200	50000	44400	NA	NA	NA	NA	NA	NA	NA	NA	NA	11900	6510	3660
Chromium	70	100	49.60	NA	NA	ND	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	2.05 ER
Cobalt	NLE	NLE	30.60	NA	NA	ND	ND	ND	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	4.96	ND
Copper	1300	1300	9.80	NA	NA	ND	1.79 ER	3.09 ER	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.66 ER	ND
Iron	300	NLE	19600	NA	NA	55500	29800	41400	20100	41400	34400	NA	NA	NA	NA	NA	NA	NA	NA	NA	197 ER	ND	492 ER
Lead	5	15	7.30	NA	NA	4.88 ER	2.45 ER	ND	<3.0	<3.0	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND
Magnesium	NLE	NLE	7160	NA	NA	6940	4070	5130	6510	7400	8070	NA	NA	NA	NA	NA	NA	NA	NA	NA	1400	6230	646 ER
Manganese	50	NLE	232	NA	NA	256	143	197	115	259	205	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.595 ER	47.8	3.08 ER
Mercury	2	2	ND	NA	NA	ND	ND	ND	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND
Nickel	100	NLE	48.3	NA	NA	5.38	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.463 ER	8.53	0.993 ER
Potassium	NLE	NLE	4630	NA	NA	9080	6410	7730	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	2330	7600	1550
Selenium	40	50	3.80	NA	NA	NR	52.4	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.85 ER	13.5 ER	ND
Silver	40	NLE	ND	NA	NA	7.77	4.37 ER	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND
Sodium	50000	NLE	36400	NA	NA	22900	8090	10300	231000	75800	81700	NA	NA	NA	NA	NA	NA	NA	NA	NA	6050	94700	4700 ER
Thallium	2	2	ND	NA	NA	ND	ND	ND	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.93 ER	ND
Vanadium	60	NLE	28.9	NA	NA	ND	ND	ND	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.52 ER	ND	1.2 ER
Zinc	2000	NLE	133	NA	NA	12.8 ER	ND	ND	<20	<20	25.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	17.6 ER	2.9 ER

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

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CW1MW32 - Third Quarter 2010 metals data is incomplete due to missing data sheet in the analytical data package.

Table 3
Historical Groundwater Analytical Results
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				CW1MW282			CW1MW291																	
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Charles Wood)**	LF4	LF5	LF6	80	81	82	83	84	85	86	87	87 Dup	88	LF1	LF2	LF3	LF4	LF4 Dup	LF5	LF5 Dup	LF6
Date Collected				2/17/2011	4/27/2011	7/13/2011	2/27/2008	4/10/2008	7/31/2008	12/8/2008	2/18/2009	5/18/2009	7/29/2009	10/19/2009	10/19/2009	1/20/2010	4/23/2010	8/17/2010	10/28/2010	2/18/2011	2/18/2011	5/2/2011	5/2/2011	7/13/2011
ANALYTE/Lab ID				11059.10	11173.09	11295.10	80061.07	80121.17	80273.10	80450.14	90059.17	90201.13	90318.14	90420.13	90420.03	10026.10	10162.05	10346.08	10465.08	11062.04	11062.03	11186.03	11186.04	11295.09
Volatile Organic Compounds (µg/L)																								
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75	75	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	0.1	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	30	0.2	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	0.36 J	ND	ND	ND	ND	ND	ND	0.59	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6	ND
Metals (µg/L)																								
Aluminum	200	NLE	8210	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.5 ER	172	80.5 ER	<200	<200	1120	<200	<200
Antimony	6	6	ND	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<6.0	<6.0	<6.0	<6.0	<6.0
Arsenic	3	10	25.10	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.68 ER	ND	<3.0	<3.0	<3.0	<3.0	<3.0
Barium	6000	2000	192.00	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.9	135	51.5	<200	<200	<200	<200	<200
Beryllium	1	4	2.80	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.12 ER	ND	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	4	5	3.70	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	<3.0
Calcium	NLE	NLE	8700.00	11200	7580	9940	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17500	6410	2450	7420	7240	9840	9900	5580
Chromium	70	100	49.60	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<10	<10	<10	<10	<10
Cobalt	NLE	NLE	30.60	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.93 ER	0.817 ER	<50	<50	<50	<50	<50
Copper	1300	1300	9.80	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.22 ER	ND	<10	<10	10.9	<10	<10
Iron	300	NLE	19600	184	<100	121	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<100	<100	1080	<100	<100
Lead	5	15	7.30	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	2.21 ER	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium	NLE	NLE	7160	<5000	<5000	<5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2030	3530	1350	<5000	<5000	<5000	<5000	<5000
Manganese	50	NLE	232	<15	<15	<15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.41 ER	14.8	7.08	<15	<15	<15	<15	<15
Mercury	2	2	ND	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	100	NLE	48.3	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	3.67 ER	1.99 ER	<10	<10	<10	<10	<10
Potassium	NLE	NLE	4630	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6670	20300	13100	<10000	<10000	<10000	<10000	<10000
Selenium	40	50	3.80	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	17.9 ER	ND	<10	<10	<10	<10	<10
Silver	40	NLE	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<10	<10	<10	<10	<10
Sodium	50000	NLE	36400	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	61200	76400	49000	46400	46600	46900	38200	28400
Thallium	2	2	ND	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	<2.0
Vanadium	60	NLE	28.9	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.748 ER	ND	ND	<50	<50	<50	<50	<50
Zinc	2000	NLE	133	<20	<20	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.49 ER	14.9 ER	2.97 ER	<20	<20	<20	<20	<20

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

D = Diluted Sample

CW1MW32 - Third Quarter 2010 metals data is incomplete due to missing data sheet in the analytical data package.

Table 4
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	CW1MW26	CW1MW27						
Sample ID			FTMM-22-GW-CW1MW26-12.79	FTMM-22-GW-CW1MW127-12.63	FTMM-22-GW-CW1MW27-12.63	FTMM-22-GW-CW1MW27-12.63LF	FTMM-22-GW-CW1MW27-11.9	FTMM-22-GW-CW1MW27-11.52	FTMM-22-GW-CW1MW27-12.63	FTMM-22-GW-CW1MW27-12.63
Sample Date			8/28/2013	8/28/2013	8/28/2013	8/28/2013	1/24/2014	5/8/2014	9/30/2014	12/18/2014
QA/QC			SA	DU	SA	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	LFPS	LFPS	LFPS	PDB	PDB
Volatile Organic Compounds (µg/l)										
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1 UJ
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1 UJ
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**2.4 J**	**2.1 J**	**1.7 J**	< 5	< 5	**2 J**	**7.2 B**	**1.8 J**
Benzene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1 UJ
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1 UJ
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	NA	NA	NA	NA	NA	< 20	< 20
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	**0.45 J**	**0.99 J**	< 1	**0.68 J**
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total TIC, Volatile	500	NLE	ND	ND	ND	ND	ND	ND	0 U	0 U

Table 4
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	CW1MW27				CW1MW28				
Sample ID			FTMM-22-CW1MW27-12.63	FTMM-22-GW-CW1MW27-12.63	FTMM-22-GW-CW1MW27-12.63	FTMM-22-GW-CW1MW27-12.63	FTMM-22-GW-CW1MW28-10.75	FTMM-22-GW-CW1MW28-10.6	FTMM-22-GW-CW1MW28-11.21	FTMM-22-GW-CW1MW28-11.21	FTMM-22-CW1MW28-11.21
Sample Date			3/30/2015	6/29/2015	9/30/2015	12/14/2015	1/24/2014	5/8/2014	9/30/2014	12/18/2014	3/30/2015
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB	LFPS	LFPS	PDB	PDB	PDB
Volatile Organic Compounds (µg/l)											
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**2.1 J**	< 5	**2.5 B**	**2.8 B**	< 5	< 5	**7.4 B**	**1.9 J**	**2.2 J**
Benzene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1 UJ	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1 UJ	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	**0.22 J**	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	< 20	< 20	< 20 UJ	< 20	NA	NA	< 20	< 20	< 20
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	**0.29 J**	< 1	**0.24 J**	**0.34 J**	**8**	**2.8 J**	**1.5 J**	**4.6 J**	**2 J**
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total TIC, Volatile	500	NLE	0 U	0 U	ND	ND	ND	ND	ND	0 U	0 U

Table 4
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	CW1MW28			CW1MW281				
Sample ID			FTMM-22-GW-CW1MW28-11.21	FTMM-22-GW-CW1MW28-11.21	FTMM-22-GW-CW1MW28-11.21	FTMM-22-GW-CW1MW281-33.5	FTMM-22-GW-CW1MW281-38.5	FTMM-22-GW-CW1MW281-35.8	FTMM-22-GW-CW1MW281-33.74	FTMM-22-GW-CW1MW281-38.74
Sample Date			6/29/2015	9/30/2015	12/14/2015	1/24/2014	1/24/2014	5/8/2014	9/30/2014	9/30/2014
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	LFPS	LFPS	LFPS	PDB	PDB
Volatile Organic Compounds (µg/l)										
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	**0.69 J**	**0.64 J**
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	< 5	**1.9 B**	**2.2 B**	< 5	< 5	< 5	**6.2 B**	**5.5 B**
Benzene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	**2.6 J**	**2.4 J**	**3.4 J**	**14**	**14**
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	**0.22 J**	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	< 20	< 20	< 20	NA	NA	NA	< 20	< 20
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	**0.43 J**	**0.53 J**	**0.32 J**	**8.9**	**8.6**	**14**	**150**	**160**
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	**0.52 J**	**1.1 J**	**1.1 J**
Total TIC, Volatile	500	NLE	0 U	0 U	ND	ND	ND	ND	0 U	0 U

Table 4
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	CW1MW281					CW1MW282	CW1MW29	
Sample ID			FTMM-22-GW-CW1MW281-33.74	FTMM-22-CW1MW281-33.74	FTMM-22-GW-CW1MW281-33.74	FTMM-22-GW-CW1MW281-33.71	FTMM-22-GW-CW1MW281-33.74	FTMM-22-GW-CW1MW282-12.62	FTMM-22-GW-CW1MW29-10.85	FTMM-22-GW-CW1MW29-10.9
Sample Date			12/18/2014	3/30/2015	6/29/2015	9/30/2015	12/14/2015	8/28/2013	8/28/2013	1/24/2014
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB	PDB	PDB	PDB	LFPS
Volatile Organic Compounds (µg/l)										
1,1,1,2-Tetrachloroethane	1	NLE	< 1 UJ	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	**0.82 J**	< 2.5	< 2	< 2.5	**0.9 J**	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	**0.41 J**
1,2,4-Trimethylbenzene	100	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1 UJ	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	< 5	< 13	< 10	< 13	**4 B**	**2.2 J**	**1.9 J**	< 5
Benzene	1	5	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 2.5	< 2	< 2.5 UJ	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 2.5 UJ	< 2	< 2.5	< 1	< 1	< 1	**0.33 J**
Chloroform	70	80	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	**23**	**16**	**18**	**24**	**27**	< 1	< 1	**6.5**
Cis-1,3-Dichloropropene	1	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1 UJ	< 2.5 UJ	< 2	< 2.5	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 5	< 4	< 5	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1 UJ	< 2.5 UJ	< 2	< 2.5	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 13	< 10	< 13	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 2.5	< 2	**0.68 J**	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 2.5 UJ	< 2	< 2.5	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	< 20	< 50	< 40	< 50 UJ	< 20	NA	NA	NA
tert-Butylbenzene	100	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	**0.9 J**	< 2	< 2.5	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	**0.99 J**
Trans-1,3-Dichloropropene	1	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Trichloroethene	1	5	**300**	**250**	**300**	**390**	**300**	< 1	**2.5 J**	**7.4**
Trichlorofluoromethane	2,000	NLE	< 1	< 2.5	< 2	< 2.5	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	**1.8 J**	**1.4 J**	**1.1 J**	**1.9 J**	**1.4 J**	< 1	< 1	**0.78 J**
Total TIC, Volatile	500	NLE	0 U	0 U	0 U	**17 J**	ND	ND	ND	ND

Table 4
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	CW1MW29							
Sample ID			FTMM-22-GW-CW1MW129-10.4	FTMM-22-GW-CW1MW29-10.4	FTMM-22-GW-CW1MW29-10.85	FTMM-22-GW-CW1MW29-10.85	FTMM-22-GW-CW1MW29-10.85	FTMM-22-GW-CW1MW29-10.85	FTMM-22-GW-CW1MW29-10.85	FTMM-22-GW-CW1MW29-10.85
Sample Date			5/8/2014	5/8/2014	9/30/2014	12/18/2014	3/30/2015	6/29/2015	9/30/2015	12/14/2015
QA/QC			DU	SA	SA	SA	SA	SA	SA	SA
Sample Method			LFPS	LFPS	PDB	PDB	PDB	PDB	PDB	PDB
Volatile Organic Compounds (µg/l)										
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	**0.54 J**	**0.46 J**	< 1	< 1	< 1	< 1	< 1	**0.24 J**
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	< 5	< 5	**5.6 B**	**2.1 J**	**1.9 J**	< 5	**1.9 B**	**6 B**
Benzene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1 UJ	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	**0.59 J**	**0.55 J**	**5.6**	**0.83 J**	< 1	< 1	**20**	**0.66 J**
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	NA	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	**0.26 J**	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	NA	< 20	< 20	< 20	< 20	< 20 UJ	< 20
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	**2.8 J**	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	**13**	**13**	**3.9 J**	**4.7 J**	**7.5**	**1.6 J**	**22**	**0.71 J**
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	**0.47 J**	< 1	< 1	< 1	**2.9 J**	< 1
Total TIC, Volatile	500	NLE	ND	ND	0 U	0 U	0 U	0 U	ND	ND

Table 4
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Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	CW1MW291	CW1MW30	CW1MW31						
Sample ID			FTMM-22-GW-CW1MW291-14.77	FTMM-22-GW-CW1MW30-14.27	FTMM-22-GW-CW1MW31-18.36	FTMM-22-GW-CW1MW31-8.86	FTMM-22-GW-CW1MW131-13	FTMM-22-GW-CW1MW31-13	FTMM-22-GW-CW1MW31-18.7	FTMM-22-GW-CW1MW31-14.3	FTMM-22-GW-CW1MW31-16.40
Sample Date			8/28/2013	8/28/2013	8/28/2013	8/28/2013	1/24/2014	1/24/2014	1/24/2014	5/8/2014	9/30/2014
QA/QC			SA	SA	SA	SA	DU	SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB	LFPS	LFPS	LFPS	LFPS	PDB
Volatile Organic Compounds (µg/l)											
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.26 J**
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	**0.32 J**	**0.3 J**	**0.37 J**	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**1.8 J**	**2.3 J**	**1.3 J**	**1.8 J**	< 5	< 5	< 5	< 5	**6.1 B**
Benzene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	**2.7 J**	**2.9 J**	**2.6 J**	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	NA	NA	NA	NA	NA	NA	NA	< 20
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	**5.2**	**5.1**	**5.2**	**6.8**	**0.47 J**
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total TIC, Volatile	500	NLE	ND	ND	ND	ND	ND	ND	ND	ND	0 U

Table 4
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	CW1MW31					CW1MW32	CW1MW33		
Sample ID			FTMM-22-GW-CW1MW31-16.4	FTMM-22-CW1MW31-16.4	FTMM-22-GW-CW1MW31-16.40	FTMM-22-GW-CW1MW31-16.40	FTMM-22-GW-CW1MW31-16.40	FTMM-22-GW-CW1MW32-14.72	FTMM-22-GW-CW1MW32-21.55	FTMM-22-GW-CW1MW33-14.0	FTMM-22-GW-CW1MW33-19.6
Sample Date			12/18/2014	3/30/2015	6/29/2015	9/30/2015	12/14/2015	8/28/2013	8/28/2013	8/28/2013	8/28/2013
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB	PDB	PDB	PDB	PDB	PDB
Volatile Organic Compounds (µg/l)											
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	**0.2 J**	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	< 5	**2.5 J**	< 5	**1.6 B**	**3.9 B**	**2.2 J**	**2 J**	**2.5 J**	**2.4 J**
Benzene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	**0.31 J**	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	**0.23 J**	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	**0.91 J**	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	< 20	< 20	< 20	< 20 UJ	< 20	NA	NA	NA	NA
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	**4.4 J**	**0.37 J**	< 1	**0.37 J**	**1.1 J**	< 1	**0.49 J**	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total TIC, Volatile	500	NLE	0 U	0 U	0 U	0 U	ND	ND	ND	ND	ND

Table 4
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	CW1MW34		CW1MW35		CW1MW36			CW1MW37
Sample ID			FTMM-22-GW-CW1MW34-11.43	FTMM-22-GW-CW1MW34-17.17	FTMM-22-GW-CW1MW35-11.26	FTMM-22-GW-CW1MW35-17.09	FTMM-22-GW-CW1MW136-11.86	FTMM-22-GW-CW1MW36-11.86	FTMM-22-GW-CW1MW36-17.29	FTMM-22-GW-CW1MW37-11.66
Sample Date			8/28/2013	8/28/2013	8/28/2013	8/28/2013	8/28/2013	8/28/2013	8/28/2013	8/28/2013
QA/QC			SA	SA	SA	SA	DU	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB	PDB	PDB	PDB	PDB
Volatile Organic Compounds (µg/l)										
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**2.9 J**	**3 J**	**1.9 J**	**1.7 J**	**1.5 J**	**2.6 J**	**2.3 J**	**1.6 J**
Benzene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total TIC, Volatile	500	NLE	ND	ND	ND	ND	ND	ND	ND	ND

Table 4
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	CW1MW37							CW1MW38
Sample ID			FTMM-22-GW-CW1MW37-17.15	FTMM-22-GW-CW1MW37-11.78	FTMM-22-GW-CW1MW37-11.78	FTMM-22-CW1MW37-11.78	FTMM-22-GW-CW1MW37-11.78	FTMM-22-GW-CW1MW37-11.78	FTMM-22-GW-CW1MW37-11.78	FTMM-22-GW-CW1MW38-35.18
Sample Date			8/28/2013	9/30/2014	12/18/2014	3/30/2015	6/29/2015	9/30/2015	12/14/2015	8/28/2013
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB	PDB	PDB	PDB	PDB
Volatile Organic Compounds (µg/l)										
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**2.3 J**	**6.7 B**	< 5	**2.4 J**	< 5	**1.6 B**	**4.8 B**	**2.7 J**
Benzene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1 UJ	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	**0.21 J**	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	< 20	< 20	< 20	< 20	< 20 UJ	< 20	NA
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	**0.28 J**	< 1	**0.23 J**	< 1	< 1	**0.23 J**	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total TIC, Volatile	500	NLE	ND	0 U	0 U	0 U	0 U	0 U	ND	ND

Table 4
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	CW1MW38			CW1MW39				
Sample ID			FTMM-22-GW-CW1MW38-40.18	FTMM-22-GW-CW1MW38-45.18	FTMM-22-GW-CW1MW38-50.18	FTMM-22-GW-CW1MW39-33.35	FTMM-22-GW-CW1MW39-38.35	FTMM-22-GW-CW1MW39-43.35	FTMM-22-GW-CW1MW39-48.35	FTMM-22-GW-CW1MW39-38.35LF
Sample Date			8/28/2013	8/28/2013	8/28/2013	8/28/2013	8/28/2013	8/28/2013	8/28/2013	8/29/2013
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB	PDB	PDB	PDB	LFPS
Volatile Organic Compounds (µg/l)										
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**2.9 J**	**2.1 J**	**2.1 J**	**3 J**	**2.9 J**	**2.3 J**	**3 J**	< 5
Benzene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total TIC, Volatile	500	NLE	ND	ND	ND	ND	ND	ND	ND	ND

Table 4
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	CW1MW40			
Sample ID			FTMM-22-GW-CW1MW40-35.17	FTMM-22-GW-CW1MW40-40.17	FTMM-22-GW-CW1MW40-45.17	FTMM-22-GW-CW1MW40-50.17
Sample Date			8/28/2013	8/28/2013	8/28/2013	8/28/2013
QA/QC			SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB
Volatile Organic Compounds (µg/l)						
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**2 J**	**2 J**	**2 J**	**2.6 J**
Benzene	1	5	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	NA	NA	NA
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1
Total TIC, Volatile	500	NLE	ND	ND	ND	ND

Table 4
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Footnote:

1) All historical data collected prior to 2013 are reported as provided by others.

2) Number of Analyses is the number of detected and non-detected results excluding rejected results. Sample duplicate pairs have not been averaged.

3) NLE = no limit established.

4) ND = not detected in any background sample, no background concentration available.

5) Chemical result qualifiers are assigned by the laboratory and is typically evaluated and modified (if necessary) by during data validation.

[blank] = detect, i.e. detected chemical result value.
B = Compound detected in the sample and its associated blank sample.
R = Rejected, data validation rejected the results.
U = non-detect, i.e. not detected equal to or above this value.
U-DL = Elevated sample detection limit due to difficult sample matrix.
U-ND = Analyte not detected in sample, but no detection or reporting limit provided.
J = estimated (detect or non-detect) value.
E (or ER) = Estimated result.
D = Results from dilution of sample.
J-DL = Elevated sample detection limit due to difficult sample matrix.
JN = Tentatively identified compound, estimated concentration.

6) Chemical results greater than or equal to the action level (depending on criteria) are highlighted based on the Criteria that are present.

- Cell Shade values represent a result that is above the NJ Ground Water Quality Criteria ####

NJDEP Interim Specific GWQC values are presented for the NJ GWQS where there is not a Specific Ground Water Quality Criteria. A full list of compounds is available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

NJDEP Interim Generic GWQC values are presented for the NJ GWQS where there is not a XXXXX or a NJDEP Interim Specific GWQC. Available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

- Bold Outline represent a result that is above the USEPA 2014-05 MCL. ###

7) Criteria action level source document and web address.

- The NJ Ground Water Quality Criteria refers to the NJDEP Groundwater Quality Standards - Adopted July 22, 2010
  http://www.state.nj.us/dep/wms/bwqsa/docs/njac79C.pdf
- The 2014-05 USEPA MCL refers to the USEPA's Region 9 Regional Screening Levels (HQ=1.0) - 5/31/2014 (Last revised)
  http://www.epa.gov/region9/superfund/prg/

8) Wells sampled in the most recent fourth quarter sampling event are highlighted in yellow. Sample ID

Table 5
Review of Historical Groundwater Sampling Results
Site FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site Name/ Well ID	Interpretation of Historical and 2015 Results[1]			2015 Evaluation					Rationale
	Chem Class / Analyte	Does it Exceed NJDEP GWQS (Yes or No) (If Yes, identify compound)[1]	Do Metals Exceed FTMM Background Concentration (Yes or No) (If Yes, identify Metal)	Seasonal Effect?[2] (Y/N)	Anomaly? (Y/N)	Exceedance part of overall trend? (Y/N)[3]	Well needed for sentinel purposes? (Y/N)	Retain Analyte/Well (Yes or No)	
FTMM-22, CW-1									
CW1MW27	VOC	TCE	N/A	No	No	No	No	Yes (VOCs)	TCE currently detected at levels just below the NJDEP GWQS. Will require a sampling event using LFPS methods to remove well from LTM. Metals attributed to background conditions and are not related to historical site uses, metals discontinued in 2013. LTM temporarily suspended as agreed by NJDEP (March 2016);once RI/FS completed and remedy accepted, revised LTM will be submitted.
CW1MW28		TCE	N/A	No	No	Yes	No	Yes (VOCs)	Metals discontinued in 2013. LTM temporarily suspended as agreed by NJDEP (March 2016);once RI/FS completed and remedy accepted, revised LTM will be submitted.
CW1MW29		TCE, VC	N/A	No	No	Yes	No	Yes (VOCs)	Continued monitoring for VOCs. Metals discontinued in 2013.LTM temporarily suspended as agreed by NJDEP (March 2016);once RI/FS completed and remedy accepted, revised LTM will be submitted.
CW1MW31		TCE	N/A	No	No	Yes	No	Yes (VOCs)	Continued monitoring for VOCs. Metals discontinued in 2013.LTM temporarily suspended as agreed by NJDEP (March 2016);once RI/FS completed and remedy accepted, revised LTM will be submitted.
CW1MW37		No	N/A	N/A	N/A	N/A	Yes	Yes (VOCs)	Well retained for sentinel purposes. Metals discontinued in 2013.LTM temporarily suspended as agreed by NJDEP (March 2016);once RI/FS completed and remedy accepted, revised LTM will be submitted.
CW1MW37		N/A	N/A	N/A	N/A	N/A	Yes	Yes (VOCs)	Well retained for sentinel purposes as requested by NJDEP. LTM temporarily suspended as agreed by NJDEP (March 2016);once RI/FS completed and remedy accepted, revised LTM will be submitted.
CW1MW281		TCE, VC	N/A	No	No	Yes	No	Yes (VOCs)	Continued monitoring for VOCs. Metals discontinued in 2013.LTM temporarily suspended as agreed by NJDEP (March 2016);once RI/FS completed and remedy accepted, revised LTM will be submitted.

Notes:

1. Has any of the compounds exceeded the NJDEP GWQS in the annual 2015 data and the 4 previous quarterly data rounds or 2 previous annual rounds?
   a. If yes then keep analyte in LTM list
   b. If no then remove this analyte from LTM list
   c. a and b above may be occasionally superseded on a case-by-case basis, depending on site conditions.
2. Has any of the analyte compounds exceeded the NJDEP GWQS seasonally (winter spring vs. summer fall) for the 4 previous data rounds?
3. TCE - trichloroethene
4. VC - vinyl chloride
5. Per the 2/5/15 NJDEP approval letter of the Final 2013 Baseline Groundwater Report, groundwater monitoring wells CW1MW26, CW1MW30, CW1MW32, CW1MW33, CW1MW34, CW1MW35, CW1MW36, CW1MW38, CW1MW39, CW1MW40, CW1MW282, and CW1MW291 were removed from the long-term monitoring sampling program.

FIGURES

Figure 1 Layout of FTMM-22 Former Waste Water Treatment Lime Pit (CWA-1)

Figure 2 FTMM-22 Shallow Groundwater Contours September 30, 2015

Figure 3 FTMM-22 Deep Groundwater Contours September 30, 2015

Figure 4 FTMM-22 Chemical Constituents above NJDEP GWQS First Quarter Sampling Event

Figure 5 FTMM-22 Chemical Constituents above NJDEP GWQS Second Quarter Sampling Event

Figure 6 FTMM-22 Chemical Constituents above NJDEP GWQS Third Quarter Sampling Event

Figure 7 FTMM-22 Chemical Constituents above NJDEP GWQS Fourth Quarter Sampling Event

BUILDING 2700

BUILDING 2706

BUILDING 2700

CW1MW39 CW1MW282

CW1MW25

CW1MW34

CW1MW36

Tinton Falls

CW1MW291

Location of Treatment System

Concrete Equipment Pads

CW1MW40

CW1MW35

CW1SPG04 CW1SVE02
CW1MW28 CW1SPG02 CW1SPG01
CW1RW02 CW1MW281 CW1SVE01
CW1MW31

Former CWA-1 Lime Pit

CW1MW32

CW1MW37

CW1RW01 CW1SPG03
CW1MW27 CW1MW29
CW1SVE03

CW1MW26 CW1MW30

CW1MW38

CW1MW33

CAUTION NEW HEAT, SUPPLY AND RETURN LINE BURIED IN THIS GENERAL AREA

ABANDONED 2" G.I.

NEW 1996

NEW 1997

10" STEEL

FIRE LINE

LEGEND:

- Shallow Monitoring Well
- Deep Monitoring well
- Recovery Well
- Air Sparge Well
- SVE
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Former CW1 Lime Pit
- Municipal Boundary
- Installation Boundary

N

1 inch = 30 feet

0 15 30 60 Feet

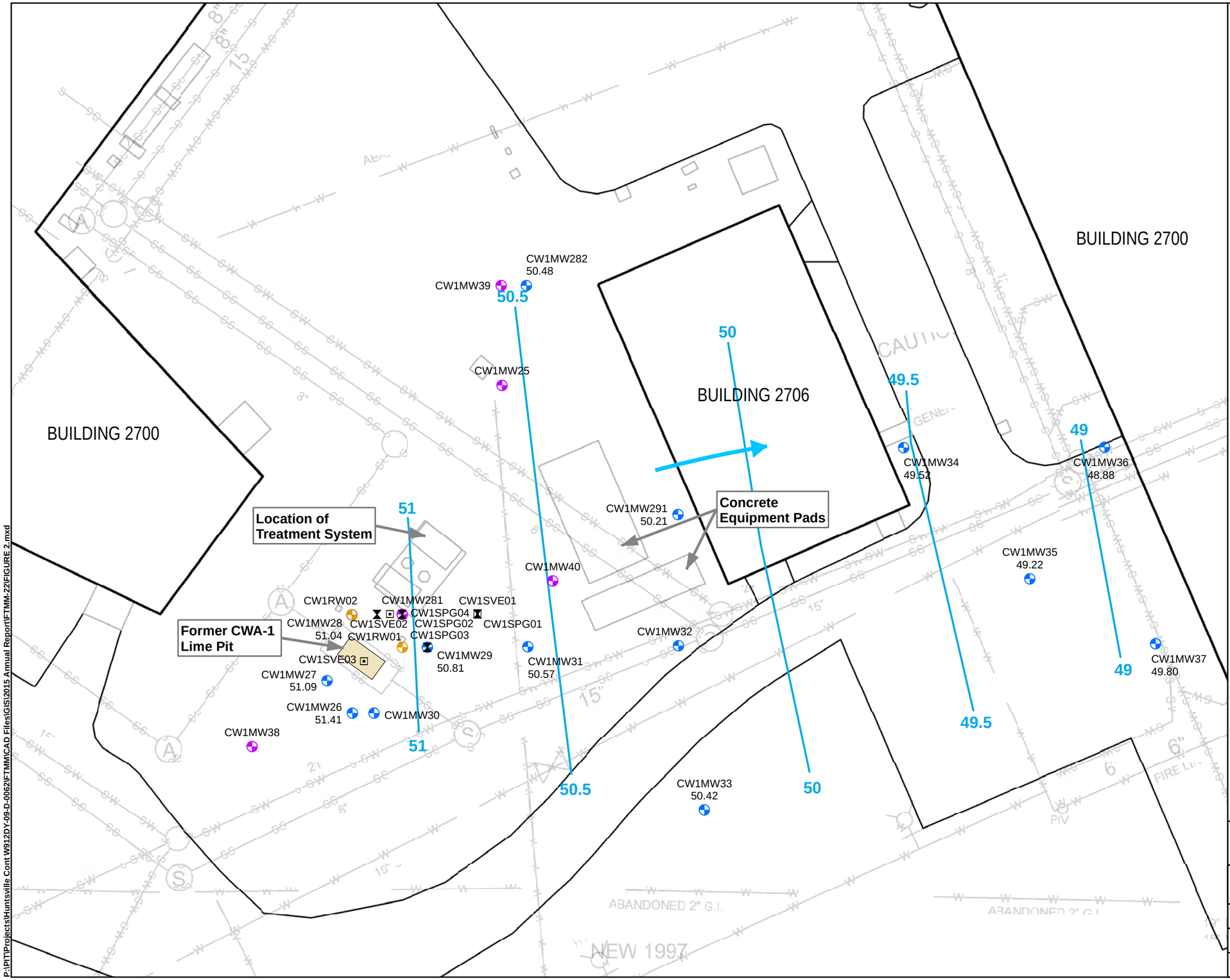
Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

LAYOUT OF FTMM-22 FORMER WASTE WATER TREATMENT LIME PIT (CWA-1)

CREATED BY: RR	REVIEWED BY: ME
DATE: OCT. 2015	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-01000	FILE: FIGURE 1.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2014 Annual Report\FTMM-22\FIGURE 1.mxd



LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Recovery Well
- Air Sparge Well
- SVE
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Former CW1 Lime Pit
- Municipal Boundary
- Installation Boundary
- Groundwater Elevation Contour
- Inferred Groundwater Flow Direction

NOTE:

The groundwater elevations at monitoring wells CW1MW30, CW1MW291, and CW1MW37 were considered anomalous and were not used to develop groudwater contours

N

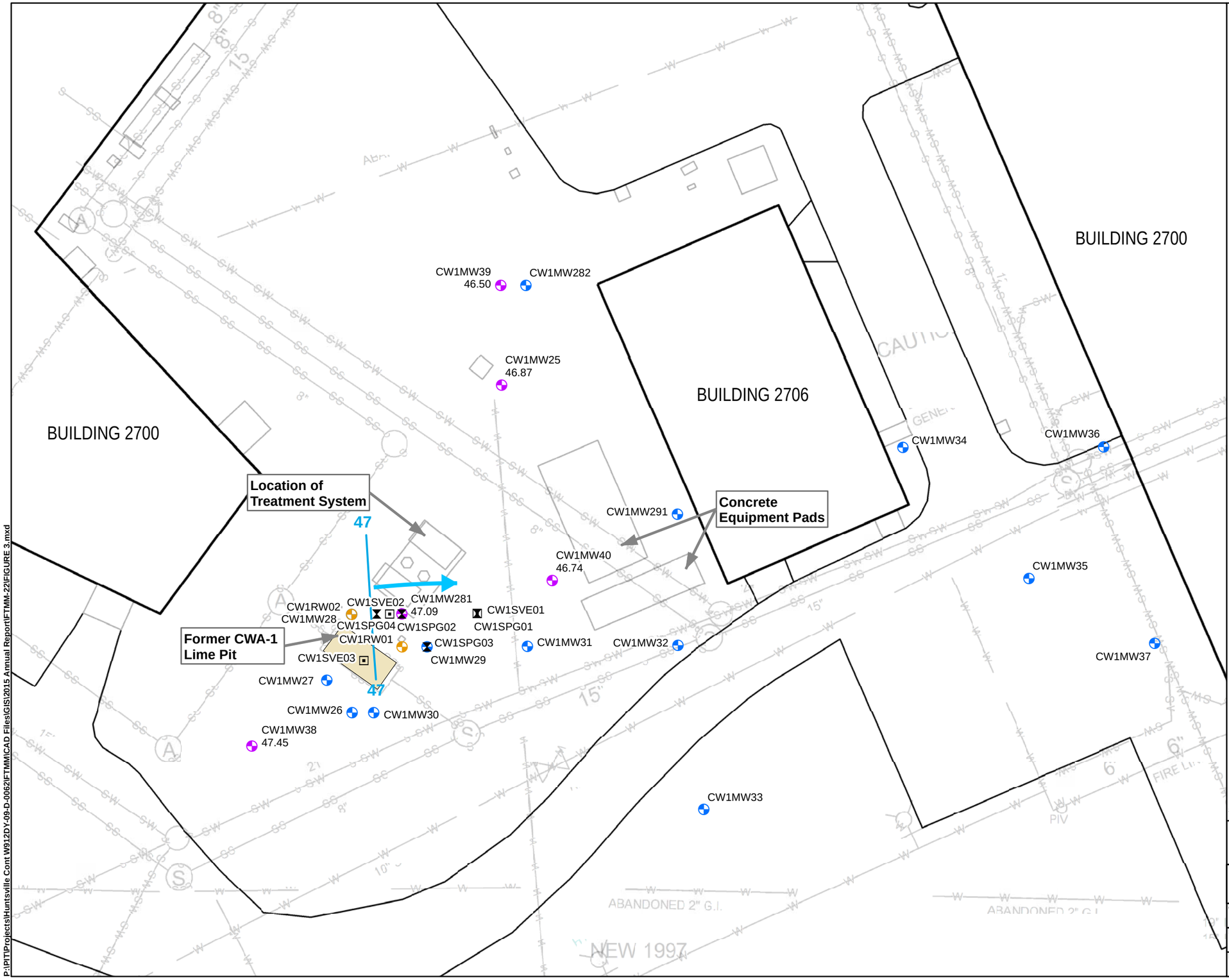
1 inch = 30 feet

0 15 30 60 Feet

Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	**Fort Monmouth New Jersey**
FTMM-22 SHALLOW GROUNDWATER CONTOURS - SEPTEMBER 30, 2015	
CREATED BY: RR	REVIEWED BY: ME
DATE: MAR. 2016	FIGURE NUMBER: FIGURE 2
PROJECT NUMBER: 748810-01000	FILE: FIGURE 2.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-22\FIGURE 2.mxd



LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Recovery Well
- Air Sparge Well
- SVE
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Former CW1 Lime Pit
- Municipal Boundary
- Groundwater Elevation Contour
- Inferred Groundwater Flow Direction

N

1 inch = 30 feet

0 15 30 60 Feet

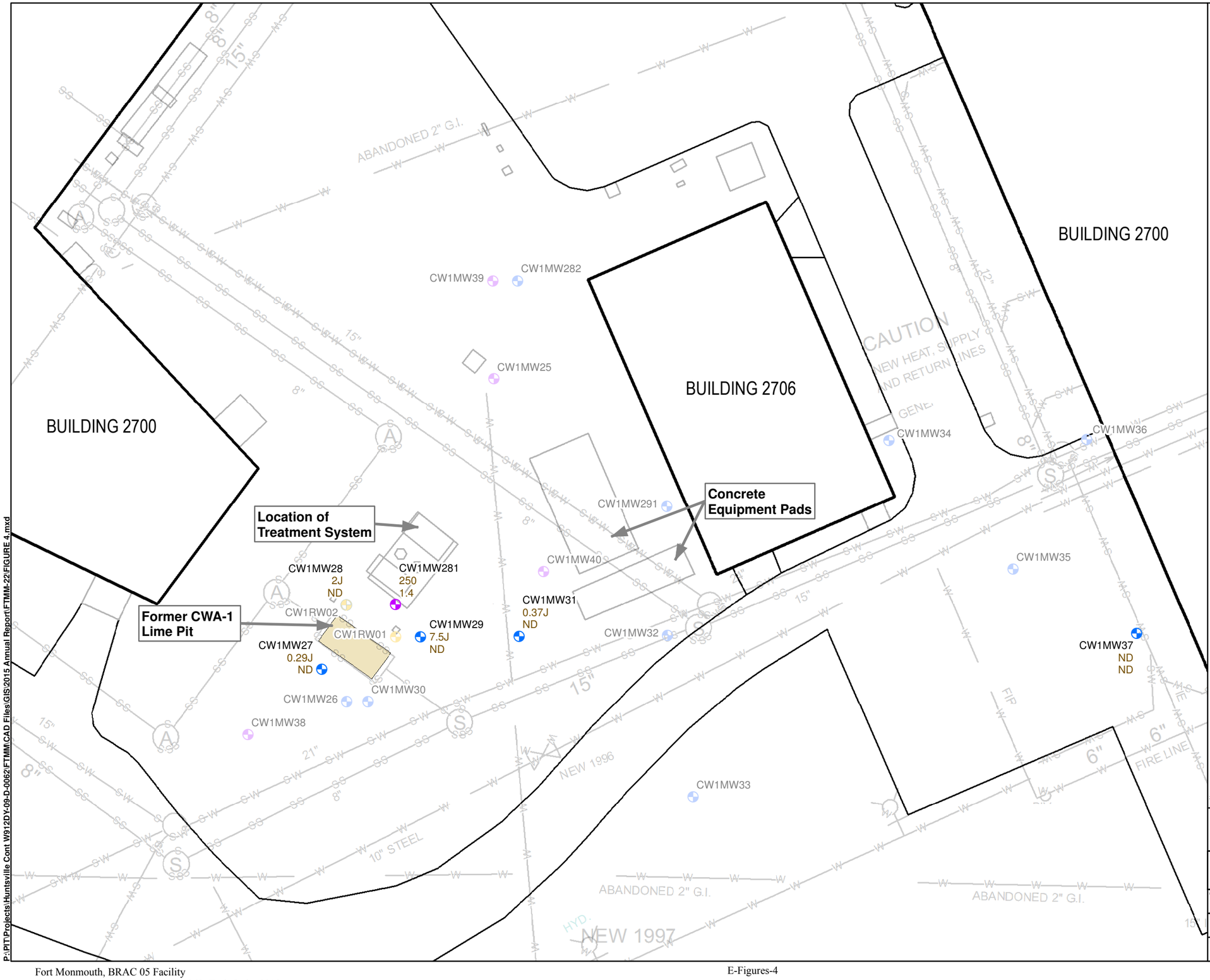
Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	**Fort Monmouth** **New Jersey**

FTMM-22 DEEP GROUNDWATER CONTOURS - SEPTEMBER 30, 2015

CREATED BY: RR	REVIEWED BY: ME
DATE: MAR. 2016	FIGURE NUMBER: FIGURE 3
PROJECT NUMBER: 748810-01000	FILE: FIGURE 3.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-22\FIGURE 3.mxd



LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Recovery Well
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Former CW1 Lime Pit
- Municipal Boundary

NOTE:

1. All concentrations are in ug/L.
2. Only those compounds with concentrations that exceed the NJDEP groundwater quality standard (GWQS) are shown on the figure.
3. Wells without values were not sampled during the Sampling Event.

EXPLANATION:

CW1MW31 ——— Sample ID
NA —— Trichloroethene Concentration
NA —— Vinyl Chloride Concentration

J - Estimated Value
JN - Tentatively Identified Compound, Estimated Value
ND - Not Detected
NA - Not Analyzed
-- - Compound did not exceed the NJ GWQS this sampling round

Compound	NJDEP GWQS
Trichloroethene	1
Vinyl chloride	1

N

1 inch = 30 feet

0 15 30 60 Feet

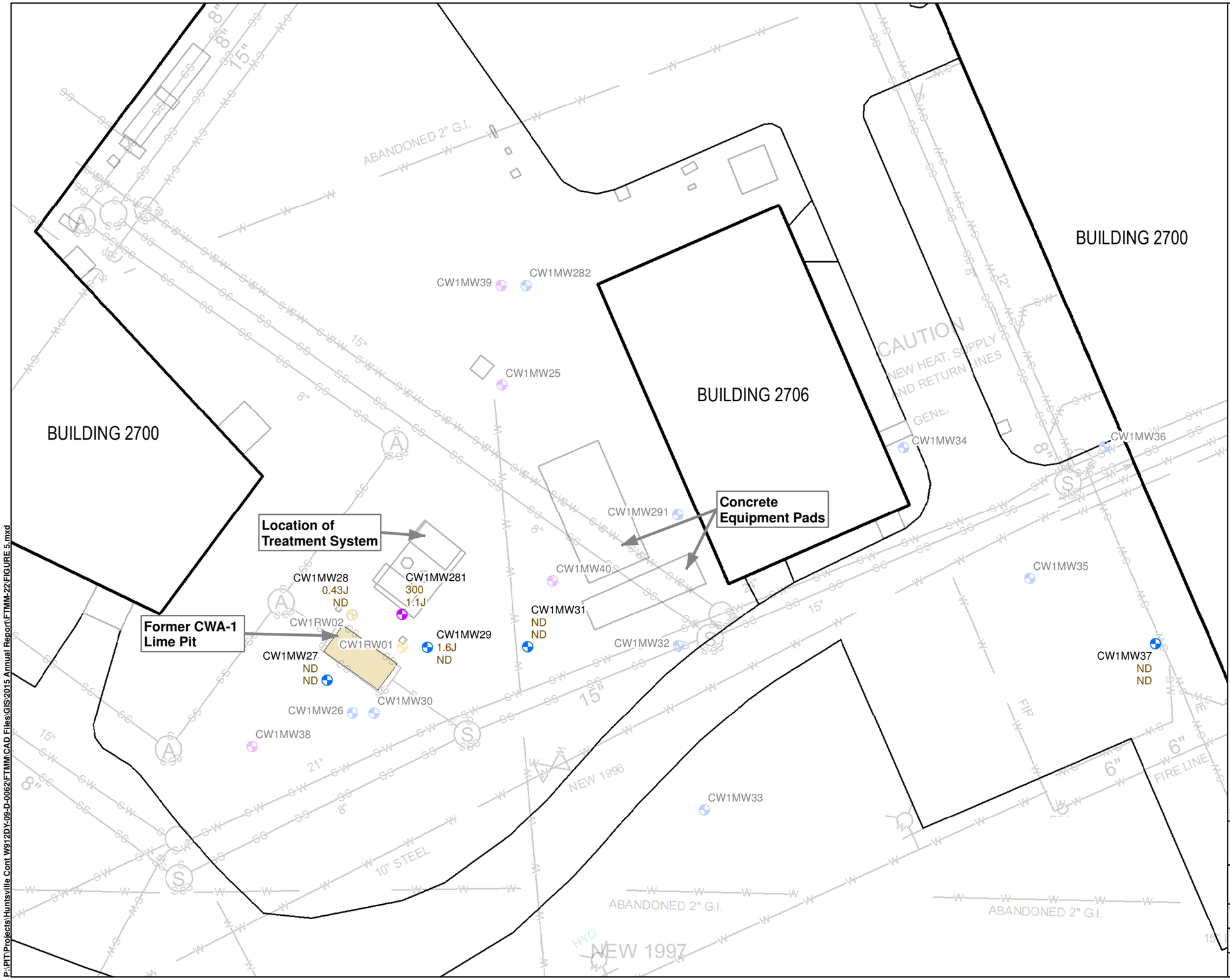
Source: FTMM Supplied CAD

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-22\FIGURE 4.mxd

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

FTMM-22 CHEMICAL CONSTITUENTS ABOVE NJDEP GWQS FIRST QUARTER 2015 SAMPLING EVENT

CREATED BY: RR	REVIEWED BY: ME
DATE: JUL. 2016	FIGURE NUMBER: FIGURE 4
PROJECT NUMBER: 748810-03000	FILE: FIGURE 4.mxd



LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Recovery Well
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Former CW1 Lime Pit
- Municipal Boundary

NOTE:

1. All concentrations are in ug/L.
2. Only those compounds with concentrations that exceed the NJDEP groundwater quality standard (GWQS) are shown on the figure.
3. Wells without values were not sampled during the Sampling Event.

EXPLANATION:

CW1MW31 ——— Sample ID
NA ——— Trichloroethene Concentration
NA ——— Vinyl Chloride Concentration

J - Estimated Value
JN - Tentatively Identified Compound, Estimated Value
ND - Not Detected
NA - Not Analyzed
-- - Compound did not exceed the NJ GWQS this sampling round

Compound	NJDEP GWQS
Trichloroethene	1
Vinyl chloride	1

N

1 inch = 30 feet

0 15 30 60 Feet

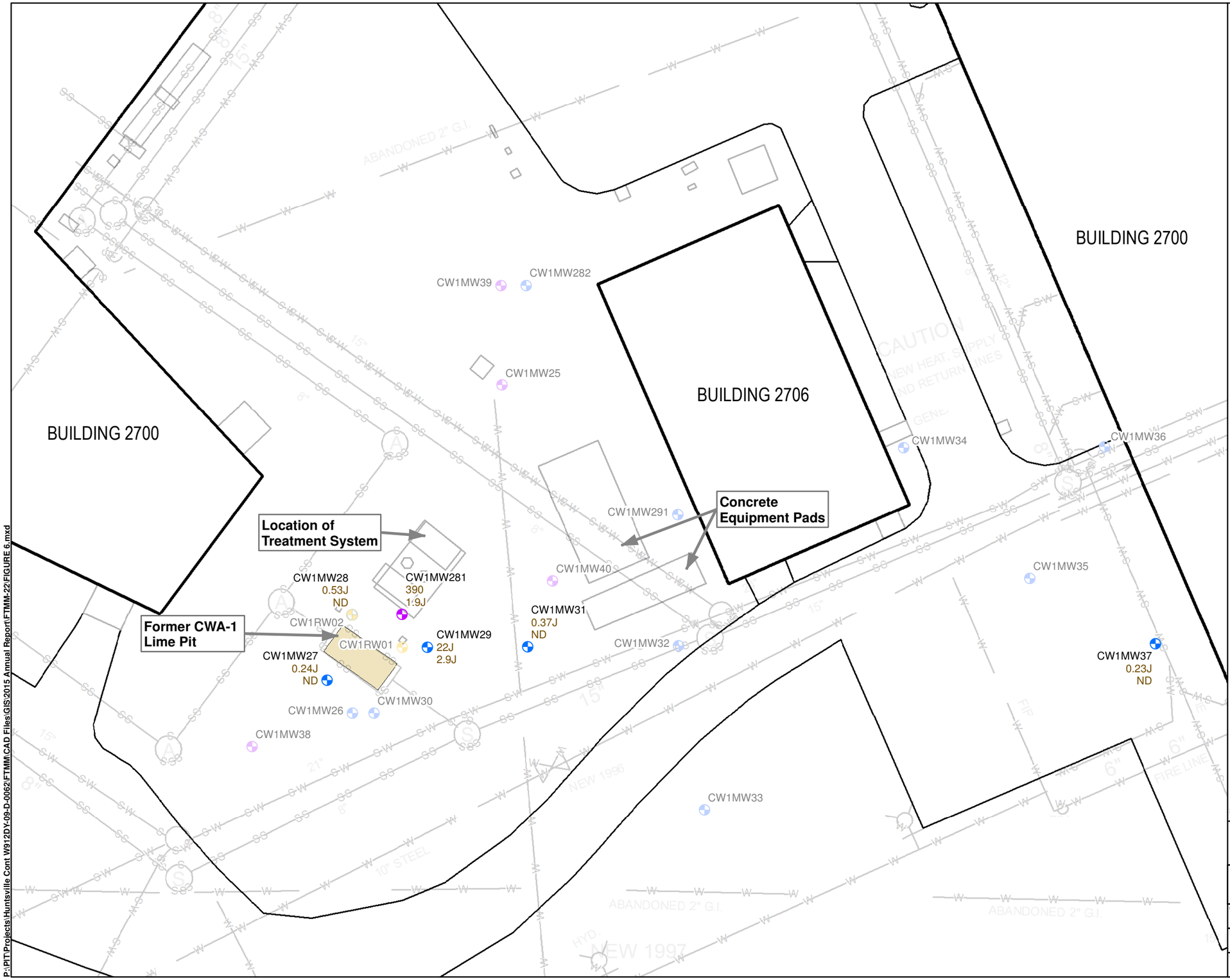
Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

FTMM-22 CHEMICAL CONSTITUENTS ABOVE NJDEP GWQS SECOND QUARTER 2015 SAMPLING EVENT

CREATED BY: RR	REVIEWED BY: ME
DATE: JUL. 2016	FIGURE NUMBER: FIGURE 5
PROJECT NUMBER: 748810-03000	FILE: FIGURE 5.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-22\FIGURE 5.mxd



P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-22\FIGURE 6.mxd

LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Recovery Well
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Former CW1 Lime Pit
- Municipal Boundary

NOTE:

1. All concentrations are in ug/L.
2. Only those compounds with concentrations that exceed the NJDEP groundwater quality standard (GWQS) are shown on the figure.
3. Wells without values were not sampled during the Sampling Event.

EXPLANATION:

CW1MW31 ——— Sample ID
NA ——— Trichloroethene Concentration
NA ——— Vinyl Chloride Concentration

J - Estimated Value
JN - Tentatively Identified Compound, Estimated Value
ND - Not Detected
NA - Not Analyzed
-- - Compound did not exceed the NJ GWQS this sampling round

Compound	NJDEP GWQS
Trichloroethene	1
Vinyl chloride	1

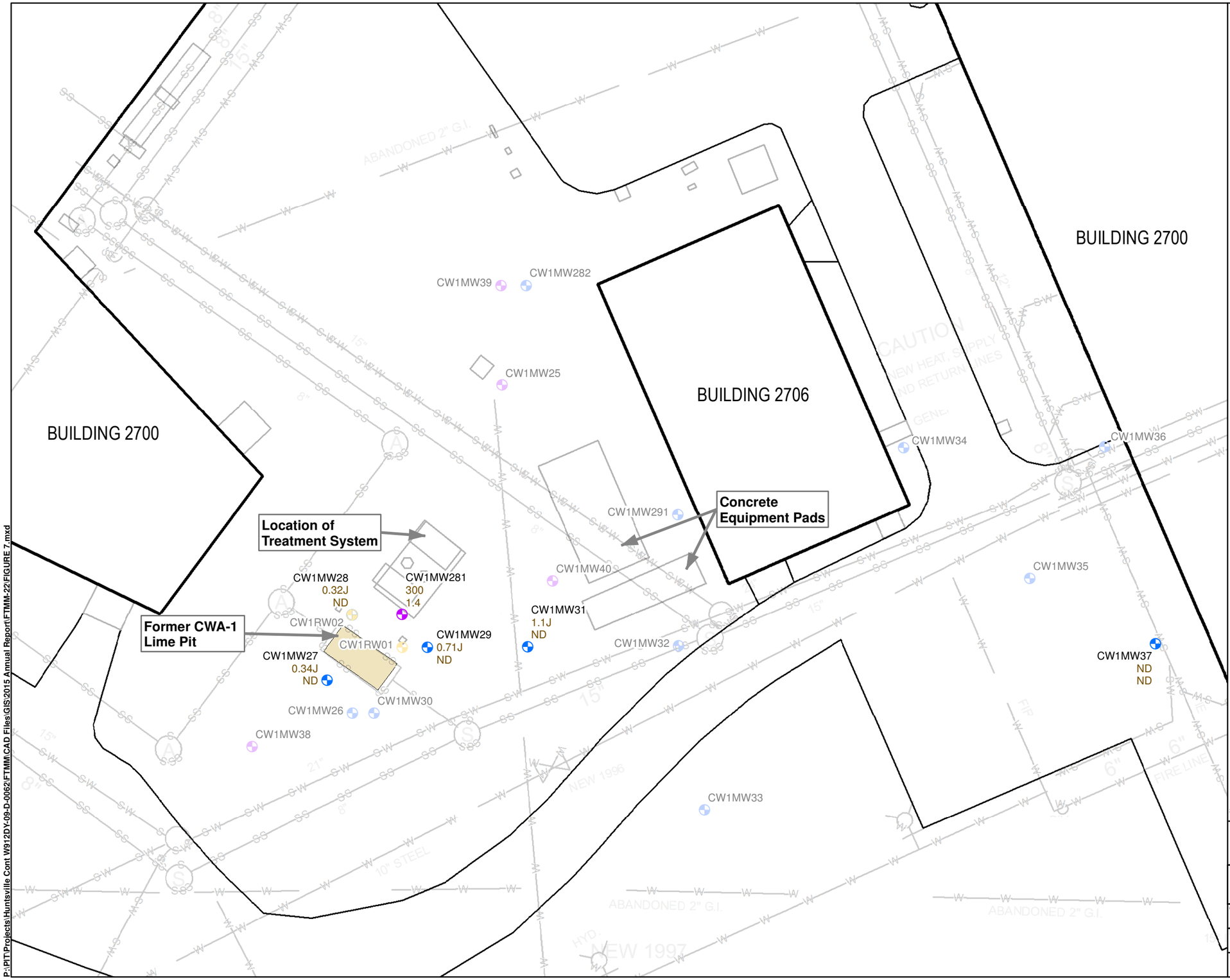
N

1 inch = 30 feet

0 15 30 60 Feet

Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey
FTMM-22 CHEMICAL CONSTITUENTS ABOVE NJDEP GWQS THIRD QUARTER 2015 SAMPLING EVENT	
CREATED BY: RR	REVIEWED BY: ME
DATE: JUL. 2016	FIGURE NUMBER: FIGURE 6
PROJECT NUMBER: 748810-03000	FILE: FIGURE 6.mxd



LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Recovery Well
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Former CW1 Lime Pit
- Municipal Boundary

NOTE:

1. All concentrations are in ug/L.
2. Only those compounds with concentrations that exceed the NJDEP groundwater quality standard (GWQS) are shown on the figure.
3. Wells without values were not sampled during the Sampling Event.

EXPLANATION:

CW1MW31——— Sample ID
NA ——Trichloroethene Concentration
NA ——Vinyl Chloride Concentration

J - Estimated Value
JN - Tentatively Identified Compound, Estimated Value
ND - Not Detected
NA - Not Analyzed
-- - Compound did not exceed the NJ GWQS this sampling round

Compound	NJDEP GWQS
Trichloroethene	1
Vinyl chloride	1

N

1 inch = 30 feet

0 15 30 60 Feet

Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

FTMM-22 CHEMICAL CONSTITUENTS ABOVE NJDEP GWQS FOURTH QUARTER 2015 SAMPLING EVENT

CREATED BY: RR	REVIEWED BY: ME
DATE: JUL. 2016	FIGURE NUMBER: FIGURE 7
PROJECT NUMBER: 748810-03000	FILE: FIGURE 7.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-22\FIGURE 7.mxd

ATTACHMENTS

Attachment A NJDEP PDB Checklists

PARSONS

Checklist for the Submission of Sampling Data for Passive Diffusion Bag Samplers (PDBS)

1. Site: FTMM
2. Location: FTMM-22 CW-1
3. Well Designation: CW1 MW29
4. Well Permit Number: 29-32593

5. Type of Well: ☒Monitoring ☐Extraction ☐Residential ☐Public Supply ☐Irrigation ☐Other
6. Well Surface Finish: ☒Stick Up ☐Flush Mount
7. Location of Measuring Point: ☒Top of Casing ☐Other (Specify) _____
8. NOTE: PDBS represent a point sample within the screened interval or openhole of the well. It is critical to know the exact depth within the well where the PDBS is deployed. Well construction specifications, which are typically used to determine where to set the PDBS in the well, are measured in feet below ground surface (bgs). If the depth interval for PDBS deployment is measured from the reference point identified above, the difference between this reference point and the ground surface must be measured and accounted for to determine the proper depth interval to set the PDBS. Please identify below, any differences between the measuring point identified above and actual ground surface at the well head.
   Distance between measuring point and ground surface (ft.) 0.80
9. Total Well Depth (bgs): 15.55
10. Screened Interval/open hole (bgs): 5.55 - 15.55
11. Well Casing: Diameter 4" Material: ☒PVC ☐Carbon Steel ☐Stainless Steel
12. Well Screen (or open hole diameter): Diameter 4" Material: ☒PVC ☐Carbon Steel ☐Stainless Steel
13. Screen Size (slot): Screen Slot Size 0.01

14. Date and Time of Deployment: Date: 9/20/15 Time: 1245
15. Depth to Ground Water: Depth to ground water at time of deployment 7.59
16. Date and Time of Retrieval: Date: 12/4/15 Time: 1120
17. Depth to Ground Water: Depth to ground water at time of retrieval 7.50
18. Type of Deployment Line Used: Diameter: 3/16" Material: poly

19. Material and Mass (oz.) of PDBS Weight: _____ (stainless steel recommended)
20. Type of PDBS Used:
    ☐Lab Filled (Modified Trip Blank must be taken at time of deployment)
    ☒Field Filled (Modified equipment blank of fill water must be taken at time of deployment. If PDBS isn't filled at well head, blank must travel with samplers until last sampler is deployed. Blank is then taken.)
21. Dimensions of PDBS: Length (in.) 18 Diameter (in.) 1.5 Filled _____
22. Position of PDBS Weight:
    ☒Attached to bottom of PDBS and suspended in well
    ☐Attached to bottom of deployment line and suspended in well
    ☐Attached to bottom of deployment line and resting on bottom of well (preferred)
23. Position of PDBS in Well Screen (ft. from measuring point to center of PDBS):
    1st PDBS 10.85 2nd PDBS _____ 3rd PDBS _____ 4th PDBS _____
    5th PDBS _____ 6th PDBS _____ 7th PDBS _____ 8th PDBS _____

24. If the saturated portion of the well screen or open hole is greater than 5 feet, has the well been vertically profiled to assess the potential for contaminant stratification?
    ☐No, this well is being profiled during this sampling round
    ☒Yes, this well was profiled already. Date when well was profiled: 8/28/13

25. If the saturated portion of the well screen or open hole is greater than 10 feet, has the well been flow tested to assess the potential for vertical flow to be present within the well?
    ☐No, flow testing has not been conducted in this well
    ☐Yes, flow testing of this well was conducted. Date of testing: _____
    Type of flow meter used: _____
    Measurements taken every _____ feet [Please Attach Results]

26. Weather Conditions During Deployment: Temp. 76°F Wind SE 5-10mph ☐Sunny ☐Overcast ☒Raining ☐Snowing
27. Weather Conditions During Retrieval: Temp. _____ Wind _____ ☐Sunny ☐Overcast ☐Raining ☐Snowing

28. Field Sampling Technician Name(s) and Company (please print clearly)
    Name: A. DiLeo, C. Watson Company: PARSONS

PARSONS

Checklist for the Submission of Sampling Data for Passive Diffusion Bag Samplers (PDBS)

1. Site: FTMM
2. Location: FTMM-22/CW-1
3. Well Designation: CW1MW37
4. Well Permit Number: 29-43195

5. Type of Well: ☒ Monitoring ☐ Extraction ☐ Residential ☐ Public Supply ☐ Irrigation ☐ Other
6. Well Surface Finish: ☒ Stick Up ☐ Flush Mount
7. Location of Measuring Point: ☒ Top of Casing ☐ Other (specify)
8. NOTE: PDBS represent a point sample within the screened interval or open hole of the well. It is critical to know the exact depth within the well where the PDBS is deployed. Well construction specifications, which are typically used to determine where to set the PDBS in the well, are measured in feet below ground surface (fbgs). If the depth interval for PDBS deployment is measured from the reference point identified above, the difference between this reference point and the ground surface must be measured and accounted for to determine the proper depth interval to set the PDBS. Please identify below, any differences between the measuring point identified above and actual ground surface at the well head.
   Distance between measuring point and ground surface (ft.) -0.54
9. Total Well Depth (fbgs) 14.24
10. Screened interval/open hole (fbgs) 4.24-14.24
11. Well Casing Diameter 4 Material ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
12. Well Screen (or open hole diameter) Diameter 4 Material ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
13. Screen Size (slot) Screen Slot Size

14. Date and Time of Deployment Date: 9/30/15 Time: 1240
15. Depth to Ground Water Depth to ground water at time of deployment 9.41
16. Date and Time of Retrieval Date: 12/14/15 Time: 1145
17. Depth to Ground Water Depth to ground water at time of retrieval 9.21
18. Type of Deployment Line Used Diameter: 3/16" Material: poly

19. Material and Mass (oz.) of PDBS Weight Stainless 20oz (stainless steel recommended)
20. Type of PDBS Used
    ☐ Lab Filled (Modified Trip Blank must be taken at time of deployment)
    ☒ Field Filled (Modified equipment blank of fill water must be taken at time of deployment. If PDBS isn't filled at well head, blank must travel with samplers until last sampler is deployed. Blank is then taken.)
21. Dimensions of PDBS Length (in.) 18 Diameter (in.) 1.5 Filled
22. Position of PDBS Weight
    ☐ Attached to bottom of PDBS and suspended in well
    ☒ Attached to bottom of deployment line and suspended in well
    ☐ Attached to bottom of deployment line and resting on bottom of well (preferred)
23. Position of PDBS in Well Screen (ft. from measuring point to center of PDBS)

1st PDBS	2nd PDBS	3rd PDBS	4th PDBS
11.78			
5th PDBS	**6th PDBS**	**7th PDBS**	**8th PDBS**

24. If the saturated portion of the well screen or open hole is greater than 5 feet, has the well been vertically profiled to assess the potential for contaminant stratification?
    ☐ No, this well is being profiled during this sampling round
    ☒ Yes, this well was profiled already. Date when well was profiled: 8/28/13
25. If the saturated portion of the well screen or open hole is greater than 10 feet, has the well been flow tested to assess the potential for vertical flow to be present within the well?
    ☐ No, flow testing has not been conducted in this well
    ☐ Yes, flow testing of this well was conducted. Date of testing:
    Type of flow meter used:
    Measurements taken every _____ feet [Please Attach Results]
26. Weather Conditions During Deployment Temp. 76°F Wind SE 5-10mph ☐ Sunny ☐ Overcast ☒ Raining ☐ Snowing
27. Weather Conditions During Retrieval Temp. _____ Wind _____ ☐ Sunny ☐ Overcast ☐ Raining ☐ Snowing

28. Field Sampling Technician: Name(s) and Company (please print clearly)

Name	Company
A. D. Iano	
C. Wilson	

PARSONS

Checklist for the Submission of Sampling Data for Passive Diffusion Bag Samplers (PDBS)

1. Site: Firma
2. Location: Firma - 28 CW, 1
3. Well Designation: CW1 MW 28
4. Well Permit Number: 29-32592

5. Type of Well: ☒ Monitoring ☐ Extraction ☒ Residential ☐ Public Supply ☐ Irrigation ☐ Other
6. Well Surface Finish: ☐ Stick Up ☐ Flush Mount
7. Location of Measuring Point: ☐ Top of Casing ☐ Other (specify) _____
8. NOTE: PDBS represent a point sample within the screened interval or open hole of the well. It is critical to know the exact depth within the well where the PDBS is deployed. Well construction specifications, which are typically used to determine where to set the PDBS in the well, are measured in feet below ground surface (fbgs). If the depth interval for PDBS deployment is measured from the reference point identified above, the difference between this reference point and the ground surface must be measured and accounted for to determine the proper depth interval to set the PDBS. Please identify below any differences between the measuring point identified above and actual ground surface at the well head.
   Distance between measuring point and ground surface (ft.): -0.3
9. Total Well Depth (fbgs): 15.11
10. Screened interval/open hole (fbgs): 5.11 - 15.11
11. Well Casing: Diameter: 4 Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
12. Well Screen (or open hole diameter): Diameter: 4 Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
13. Screen Size (slot): Screen Slot Size: 0.01

14. Date and Time of Deployment: Date: 9/30/15 Time: 1225
15. Depth to Ground Water: Depth to ground water at time of deployment: 8.05
16. Date and Time of Retrieval: Date: 12/4 Time: 1130
17. Depth to Ground Water: Depth to ground water at time of retrieval: 8.05
18. Type of Deployment Line Used: Diameter: 3/16" Material: poly

19. Material and Mass (oz.) of PDBS Weight: Stainless 20 oz (stainless steel recommended)
20. Type of PDBS Used
   ☐ Lab Filled (Modified Trip Blank must be taken at time of deployment)
   ☒ Field Filled (Modified equipment blank of fill water must be taken at time of deployment. If PDBS isn't filled at well head, blank must travel with samplers until last sampler is deployed. Blank is then taken.)
21. Dimensions of PDBS: Length (in.): 18 Diameter (in.): 1.5 Filled: _____
22. Position of PDBS Weight
   ☒ Attached to bottom of PDBS and suspended in well
   ☐ Attached to bottom of deployment line and suspended in well
   ☐ Attached to bottom of deployment line and resting on bottom of well (preferred)
23. Position of PDBS in Well Screen (ft. from measuring point to center of PDBS):
   1st PDBS: 10.21 2nd PDBS: _____ 3rd PDBS: _____ 4th PDBS: _____
   5th PDBS: _____ 6th PDBS: _____ 7th PDBS: _____ 8th PDBS: _____

24. If the saturated portion of the well screen or open hole is greater than 5 feet, has the well been vertically profiled to assess the potential for contaminant stratification?
   ☐ No, this well is being profiled during this sampling round
   ☒ Yes, this well was profiled already. Date when well was profiled: 9/30/14

25. If the saturated portion of the well screen or open hole is greater than 10 feet, has the well been flow tested to assess the potential for vertical flow to be present within the well?
   ☐ No, flow testing has not been conducted in this well
   ☐ Yes, flow testing of this well was conducted. Date of testing: _____
   Type of flow meter used: _____
   Measurements taken every _____ feet [Please Attach Results]

26. Weather Conditions During Deployment: Temp. 76°F Wind SSE 5-10mph ☐ Sunny ☐ Overcast ☒ Raining ☐ Snowing
27. Weather Conditions During Retrieval: Temp. _____ Wind _____ ☐ Sunny ☐ Overcast ☐ Raining ☐ Snowing

28. Field Sampling Technician - Name(s) and Company (please print clearly)
   Name: A. DiFranco, C. Watson Company: Parsons

PARSONS

Checklist for the Submission of Sampling Data for Passive Diffusion Bag Samplers (PDBS)

1. Site: FTMM
2. Location: FTMM -22, CW-1
3. Well Designation: CW1MW27
4. Well Permit Number: 29-32591

5. Type of Well: ☒ Monitoring ☐ Extraction ☐ Residential ☐ Public Supply ☐ Irrigation ☐ Other
6. Well Surface Finish: ☒ Stick-Up ☐ Flush Mount
7. Location of Measuring Point: ☒ Top of Casing ☐ Other (specify)
8. NOTE: PDBS represent a point sample within the screened interval or open hole of the well. It is critical to know the exact depth within the well where the PDBS is deployed. Well construction specifications, which are typically used to determine where to set the PDBS in the well, are measured in feet below ground surface (fbgs). If the depth interval for PDBS deployment is measured from the reference point identified above, the difference between this reference point and the ground surface must be measured and accounted for to determine the proper depth interval to set the PDBS. Please identify below, any differences between the measuring point identified above and actual ground surface at the well head.
   Distance between measuring point and ground surface (ft.): 1.55
9. Total Well Depth (fbgs): 15.54
10. Screened interval/open hole (fbgs): 5.54-15.54
11. Well Casing: Diameter 4 Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
12. Well Screen (or open hole diameter): Diameter 4 Material: ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
13. Screen Size (slot): Screen Slot Size 0.01

14. Date and Time of Deployment: Date: 9/30/15 Time: 1230
15. Depth to Ground Water: Depth to ground water at time of deployment 9.76
16. Date and Time of Retrieval: Date: 12/14 Time: 1120
17. Depth to Ground Water: Depth to ground water at time of retrieval 9.75
18. Type of Deployment Line Used: Diameter: 3/16" Material: poly

19. Material and Mass (oz.) of PDBS Weight: Stainless 2002 (stainless steel recommended)
20. Type of PDBS Used:
    ☐ Lab Filled (Modified Trip Blank must be taken at time of deployment)
    ☒ Field Filled (Modified equipment blank of fill water must be taken at time of deployment. If PDBS isn't filled at well head, blank must travel with samplers until last sampler is deployed. Blank is then taken.)
21. Dimensions of PDBS: Length (in.) 18 Diameter (in.) 1.5 Filled
22. Position of PDBS Weight:
    ☒ Attached to bottom of PDBS and suspended in well
    ☐ Attached to bottom of deployment line and suspended in well
    ☐ Attached to bottom of deployment line and resting on bottom of well (preferred)
23. Position of PDBS in Well Screen (ft. from measuring point to center of PDBS):

1st PDBS	2nd PDBS	3rd PDBS	4th PDBS
12.63			
5th PDBS	**6th PDBS**	**7th PDBS**	**8th PDBS**

24. If the saturated portion of the well screen or open hole is greater than 5 feet, has the well been vertically profiled to assess the potential for contaminant stratification?
    ☐ No, this well is being profiled during this sampling round
    ☒ Yes, this well was profiled already. Date when well was profiled: 8/28/13
25. If the saturated portion of the well screen or open hole is greater than 10 feet, has the well been flow tested to assess the potential for vertical flow to be present within the well?
    ☐ No, flow testing has not been conducted in this well
    ☐ Yes, flow testing of this well was conducted. Date of testing: _____
    Type of flow meter used: _____
    Measurements taken every _____ feet **[Please Attach Results]**
26. Weather Conditions During Deployment: Temp. 76°F Wind SE 10-15mph ☐ Sunny ☒ Overcast ☒ Raining ☐ Snowing
27. Weather Conditions During Retrieval: Temp. _____ Wind _____ ☐ Sunny ☐ Overcast ☐ Raining ☐ Snowing

28. Field Sampling Technician - Name(s) and Company (please print clearly)

Name	Company
A. DiLorio	PARSONS
C. Watson	

PARSONS

Checklist for the Submission of Sampling Data for Passive Diffusion Bag Samplers (PDBS)

1. Site: ftmm
2. Location: FTMM-22, CW-1
3. Well Designation: CW1MW281
4. Well Permit Number: 29-43195

5. Type of Well: ☒Monitoring ☐Extraction ☐Residential ☐Public Supply ☐Irrigation ☐Other
6. Well Surface Finish: ☒Stick Up ☒Flush Mount
7. Location of Measuring Point: ☒Top of Casing ☐Other (specify)
8. NOTE: PDBS represent a point sample within the screened interval or open hole of the well. It is critical to know the exact depth within the well where the PDBS is deployed. Well construction specifications, which are typically used to determine where to set the PDBS in the well, are measured in feet below ground surface (fbgs). If the depth interval for PDBS deployment is measured from the reference point identified above, the difference between this reference point and the ground surface must be measured and accounted for to determine the proper depth interval to set the PDBS. Please identify below, any differences between the measuring point identified above and actual ground surface at the well head.
   Distance between measuring point and ground surface (ft.) ~~0.54~~ -1.04
9. Total Well Depth (fbgs) ~~41.24~~ 41.24
10. Screened interval/open hole (fbgs) 31.24-41.24
11. Well Casing: Diameter 4 Material: ☒PVC ☐Carbon Steel ☐Stainless Steel
12. Well Screen (or open hole diameter): Diameter 4 Material: ☒PVC ☐Carbon Steel ☐Stainless Steel
13. Screen Size (slot): Screen Slot Size

14. Date and Time of Deployment: Date: 9/30/15 Time: 1220
15. Depth to Ground Water: Depth to ground water at time of deployment 11.11
16. Date and Time of Retrieval: Date: 12/14/15 Time: 1125
17. Depth to Ground Water: Depth to ground water at time of retrieval 10.25
18. Type of Deployment Line Used: Diameter: 3/16" Material: poly

19. Material and Mass (oz.) of PDBS Weight: Stainless 20oz (stainless steel recommended)
20. Type of PDBS Used: ☐Lab Filled (Modified Trip Blank must be taken at time of deployment)
    ☒Field Filled (Modified equipment blank of fill water must be taken at time of deployment. If PDBS isn't filled at well head, blank must travel with samplers until last sampler is deployed. Blank is then taken.)
21. Dimensions of PDBS: Length (in.) 18 Diameter (in.) 1.5 Filled
22. Position of PDBS Weight: ☒Attached to bottom of PDBS and suspended in well
    ☐Attached to bottom of deployment line and suspended in well
    ☐Attached to bottom of deployment line and resting on bottom of well (preferred)
23. Position of PDBS in Well Screen (ft. from measuring point to center of PDBS):

1st PDBS	2nd PDBS	3rd PDBS	4th PDBS
33.74			
5th PDBS	**6th PDBS**	**7th PDBS**	**8th PDBS**

24. If the saturated portion of the well screen or open hole is greater than 5 feet, has the well been vertically profiled to assess the potential for contaminant stratification?
    ☐No, this well is being profiled during this sampling round
    ☒Yes, this well was profiled already. Date when well was profiled: 9/30/14
25. If the saturated portion of the well screen or open hole is greater than 10 feet, has the well been flow tested to assess the potential for vertical flow to be present within the well?
    ☐No, flow testing has not been conducted in this well
    ☐Yes, flow testing of this well was conducted. Date of testing: _____
    Type of flow meter used: _____
    Measurements taken every _____ feet [Please Attach Results]
26. Weather Conditions During Deployment: Temp. 77°F Wind SE 10-15mph ☐Sunny ☐Overcast ☒Raining ☐Snowing
27. Weather Conditions During Retrieval: Temp. _____ Wind _____ ☐Sunny ☐Overcast ☐Raining ☐Snowing

28. Field Sampling Technician: Name(s) and Company (please print clearly)

Name	Company
A. DiJemo	PARSONS
C. Watson	

PARSONS

Checklist for the Submission of Sampling Data for Passive Diffusion Bag Samplers (PDBS)

1. Site: FTMM
2. Location: FTMM-22, CW-1
3. Well Designation: CW1MW31
4. Well Permit Number: 29-43189

5. Type of Well: ☒ Monitoring ☐ Extraction ☐ Residential ☐ Public Supply ☐ Irrigation ☐ Other
6. Well Surface Finish: ☒ Stick Up ☐ Flush Mount
7. Location of Measuring Point: ☒ Top of Casing ☐ Other (specify)
8. NOTE: PDBS represent a point sample within the screened interval or open hole of the well. It is critical to know the exact depth within the well where the PDBS is deployed. Well construction specifications, which are typically used to determine where to set the PDBS in the well, are measured in feet below ground surface (fbgs). If the depth interval for PDBS deployment is measured from the reference point identified above, the difference between this reference point and the ground surface must be measured and accounted for to determine the proper depth interval to set the PDBS. Please identify below, any difference, between the measuring point identified above and actual ground surface at the well head.
   Distance between measuring point and ground surface (ft.) 2.16
9. Total Well Depth (fbgs) 20.55
10. Screened interval/open hole (fbgs) 5.55 - 20.55
11. Well Casing Diameter 4 Material ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
12. Well Screen (or open hole diameter) Diameter 4 Material ☒ PVC ☐ Carbon Steel ☐ Stainless Steel
13. Screen Size (slot) Screen Slot Size 0.01

14. Date and Time of Deployment Date: 9/30/15 Time: 1235
15. Depth to Ground Water Depth to ground water at time of deployment 10.96
16. Date and Time of Retrieval Date: 12/4/15 Time: 1140
17. Depth to Ground Water Depth to ground water at time of retrieval 10.91
18. Type of Deployment Line Used Diameter: 3/16" Material: Poly

19. Material and Mass (oz.) of PDBS Weight Stainless 20oz (stainless steel recommended)
20. Type of PDBS Used ☐ Lab Filled (Modified Trip Blank must be taken at time of deployment)
    ☒ Field Filled (Modified equipment blank of fill water must be taken at time of deployment. If PDBS isn't filled at well head, blank must travel with samplers until last sampler is deployed. Blank is then taken.)
21. Dimensions of PDBS Length (in.) 18 Diameter (in.) 1.5 Filled
22. Position of PDBS Weight ☒ Attached to bottom of PDBS and suspended in well
    ☐ Attached to bottom of deployment line and suspended in well
    ☐ Attached to bottom of deployment line and resting on bottom of well (preferred)
23. Position of PDBS in Well Screen (ft. from measuring point to center of PDBS)

1st PDBS	2nd PDBS	3rd PDBS	4th PDBS
16.40			
5th PDBS	**6th PDBS**	**7th PDBS**	**8th PDBS**

24. If the saturated portion of the well screen or open hole is greater than 5 feet, has the well been vertically profiled to assess the potential for contaminant stratification?
    ☐ No, this well is being profiled during this sampling round
    ☒ Yes, this well was profiled already. Date when well was profiled: 8/28/13
25. If the saturated portion of the well screen or open hole is greater than 10 feet, has the well been flow tested to assess the potential for vertical flow to be present within the well?
    ☐ No, flow testing has not been conducted in this well
    ☐ Yes, flow testing of this well was conducted. Date of testing: _____
    Type of flow meter used: _____
    Measurements taken every _____ feet [Please Attach Results]
26. Weather Conditions During Deployment Temp. 76°F Wind SE 5-10 mph ☐ Sunny ☐ Overcast ☒ Raining ☐ Snowing
27. Weather Conditions During Retrieval Temp. _____ Wind _____ ☐ Sunny ☐ Overcast ☐ Raining ☐ Snowing

28. Field Sampling Technician - Name(s) and Company (please print clearly)

Name	Company
A. D. Iorio	PARSONS
C. Watson	

APPENDIX F

FTMM-53: FORMER GAS STATION AT BUILDING 699

APPENDIX F: FTMM-53 Former Gas Station at Building 699

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Attachment	Title
A	LFPS Sampling Forms

1.0 WATER LEVEL MEASUREMENTS AND WELL ASSESSMENT

Monitoring wells located within the FTMM-53 site were gauged on November 16, 2015. Monitoring well locations as well as other site features are provided in **Figure 1**. Details regarding the water level measurements are provided in **Table 1.** Groundwater elevations in monitoring wells ranged from 11.99 (616MW01) to 6.13 (699MW01) feet above mean sea level (amsl) and the inferred groundwater flow direction is to the east-southeast (**Figure 2**).

During the groundwater gauging, the physical condition of FTMM-53 monitoring wells were assessed. The site monitoring wells were found to be in good condition.

2.0 GROUNDWATER SAMPLING

Groundwater sampling was conducted at eight monitoring wells located in FTMM-53 as part of the annual (fourth quarter) 2015 groundwater sampling event. FTMM-53 is sampled on a quarterly basis. The groundwater sampling program included measuring the depth to groundwater in monitoring wells at FTMM-53 prior to sampling and collection of groundwater samples using low-flow purging and sampling (LFPS). Groundwater samples were collected from wells 699MW01, 699MW04, 699MW06, 699MW09, 699MW16, 699RW03, 699RW05, and 699RW11 on November 18, 2015, November 23, 2015 and November 25, 2015. Groundwater samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) via the United States Environmental Protection Agency (USEPA) Method SW8260C.

The samples were collected in accordance with the New Jersey Department of Environmental Protection (NJDEP) Field Sampling Procedures Manual (FSPM) and the SAP. Field blanks, duplicates, matrix spike, matrix spike duplicate and quality assurance (QA) split samples were collected for every 5% of samples collected per parameter, per matrix, in accordance with the Quality Assurance Project Plan (QAPP). Trip blanks accompanied each cooler each day in which VOCs were collected for laboratory analysis.

Completed LFPS field sheets for each well sampled can be found in **Attachment A**.

3.0 HISTORICAL GROUNDWATER SAMPLING RESULTS

From April 1997 through June 2010, FTMM-53 monitoring wells were sampled for VOCs and metals.

In the last four historical rounds of quarterly groundwater sampling conducted at FTMM-53 from June 2010 to June 2011, samples were submitted for VOCs and metals. Historically, several metals were detected in exceedance of both their NJDEP Ground Water Quality Standard (GWQS) and background concentrations established in the 1995 Weston Report, including beryllium, cadmium, iron, lead, manganese, nickel and sodium. However, these metals are attributed to background conditions and are not associated with historical site operations.

Historically, several VOCs have been found to exceed their respective NJDEP GWQS in FTMM-53 monitoring wells. These VOCs include benzene, tetrachloroethene (PCE),

trichloroethene (TCE), *tert*-butyl-alcohol (TBA), and tentatively identified compounds (TICs). Historical groundwater analytical results are presented in **Table 3**.

During the August 2013 Baseline Sampling Event, 14 monitoring wells were sampled for VOCs at FTMM-53. Benzene was detected above its NJDEP GWQS of 1 µg/L in monitoring wells 699MW06, 699RW03, 699RW05 and 699RW11. PCE (699MW16), 1,2,4-trimethylbenzene (699RW03, 699WR05), 1,3,5–trimethylbenzene (699RW05) and total xylenes (699RW05) were detected in exceedance of their respective NJDEP GWQS. Groundwater analytical detections from samples collected during the August 2013 sampling event are presented in **Table 3**.

The Final August 2013 Baseline Groundwater Sampling Report was accepted by the NJDEP in their February 5, 2015 letter. Based on this approval, 6 out of the 14 groundwater monitoring wells were removed from the long-term monitoring (LTM) program including 616MW01, 699MW02, 699MW05, 699MW08, 699MW12, and 699MW15, and the remaining wells were to be sampled quarterly and analyzed for VOCs.

Groundwater sampling at FTMM-53 has been conducted on a quarterly basis for 2014 (in March, May, and September). These data have been presented in reports submitted quarterly to the NJDEP. LFPS and passive diffusion bag (PDB) methods were used in the first quarterly sampling event (March 2015) to confirm that MTBE was not present in the groundwater at the wells. Based on the absence of Methyl tert-butyl ether (MTBE) using LFPS, the PDB method was employed as the sampling method for FTMM-53.

Six VOCs (benzene, 1,2,4-trimethylbenzene 1,3,5-trimethylbenzene, xylenes, total VOC TICs and PCE) were detected above their NJDEP GWQS during the previous four 2014 quarterly sampling events. Benzene was detected above its GWQS of 1 µg/L in monitoring wells 699RW03 (3.5J µg/L - 4.8J µg/L), 699RW05 (1.9 µg/L - 7.2J µg/L), 699RW11 (2.4J µg/L - 11 µg/L), and 699MW06 (9.2 µg/L). 1,2,4-trimethylbenzene was detected above its GWQS of 100 µg/L in monitoring wells 699RW03 (110 µg/L - 130 µg/L) and 699WR05 (130 µg/L - 790 µg/L). 1,3,5-trimethylbenzene was detected above its GWQS of 100 µg/L in one monitoring well, 699RW05 (160 µg/L). Xylene (total) was detected above its GWQS of 1000 µg/L in monitoring well 699WR05 (2,410 µg/L). Total VOC TICs were detected above its GWQS of 500 µg/L at monitoring wells 699RW03 (813 µg/L) and 699RW05 (1,181JN - 2,338 µg/L). PCE was detected above its NJDEP GWQS of 1 µg/L in one monitoring well, 699MW16 (1.3J µg/L). The groundwater analytical data for the samples collected during the three 2015 quarterly events are presented in **Table 4**.

Based on the annual 2014 results, it was recommended that quarterly groundwater sampling continue at monitoring wells 699MW01, 699MW04, 699MW06, 699MW09, 699MW16, 699RW03, 699RW05, and 699RW11. The Annual (Fourth Quarter) 2014 Groundwater Sampling Report was accepted by the NJDEP in their January 26, 2016 letter.

Groundwater sampling at FTMM-53 has been conducted on a quarterly basis for 2015 (in March, May, and September). These data have been presented in reports submitted quarterly to the NJDEP. Six VOCs (benzene, 1,2,4-trimethylbenzene 1,3,5-trimethylbenzene, xylenes, total VOC TICs and PCE) were detected above their NJDEP GWQS during the first three 2015 quarterly sampling events. Benzene was detected above its GWQS of 1 µg/L in monitoring wells 699RW05 (1.2J µg/L - 2.8J µg/L), 699RW11 (3J µg/L - 7.1 µg/L), 699MW04 (2.4

µg/L), and 699MW06 (2.3 µg/L). 1,2,4-trimethylbenzene was detected above its GWQS of 100 µg/L in monitoring well 699WR05 (3.9J µg/L - 690 µg/L). 1,3,5-trimethylbenzene was detected above its GWQS of 100 µg/L in one monitoring well, 699RW05 (120 µg/L). Xylene (total) was detected above its GWQS of 1000 µg/L in monitoring well 699WR05 (1,330 µg/L). Total VOC TICs were detected above its GWQS of 500 µg/L at monitoring well 699RW05 (1,217JN - 2,062 µg/L). PCE was detected above its NJDEP GWQS of 1 µg/L in two monitoring wells, 699MW09 (1.1J µg/L) and 699MW16 (1.3J µg/L). The groundwater analytical data for the samples collected during the three 2015 quarterly events are presented in **Table 4**.

4.0 ANNUAL (FOURTH QUARTER) 2015 GROUNDWATER RESULTS

Several VOCs were detected in groundwater samples collected during this annual (fourth quarter) event conducted in December 2015. Benzene, 1,2,4-trimethylbenzene, PCE and estimated total TICs were the only VOCs detected in the groundwater at FTMM-53 above their respective NJDEP GWQS; and the exceedances occurred in four monitoring wells (699MW04, 699MW16, 699RW05, and 699RW11). Benzene (2.5J µg/L), 1,2,4-trimethylbenzene (290 µg/L), and total TICs (1,200JN µg/L) were detected above their GWQS of 1 µg/L, 100 µg/L and 500 µg/L, respectively, at monitoring well 699RW05. Benzene was detected at wells 699MW04 (1.6J µg/L) and 699RW11 (3.3J µg/L) above the GWQS of 1 µg/L. PCE was detected at 699MW16 at an estimated concentration of 1.3J µg/L above the GWQS of 1 µg/L. Groundwater analytical detections from samples collected during the 2015 annual (fourth quarter) groundwater sampling event are presented in **Table 4**. Constituents detected in the groundwater above the NJDEP GWQS during the 2015 quarterly sampling events are shown on **Figures 3** through **6.**

5.0 FINDINGS AND RECOMMENDATIONS

VOCs (benzene, 1,2,4-trimethylbenzene 1,3,5-trimethylbenzene, xylenes, total VOC TICs and PCE) were detected above their NJDEP GWQS at least once during the 2015 quarterly sampling events. Benzene continues to be detected at monitoring wells 699MW04, 699MW06, 699RW05 and 699RW11 in exceedance of the NJDEP GWQS of 1 µg/L. 1,2,4-trimethylbenzene concentrations have been detected at monitoring well 699RW05 during the 2015 quarterly sampling events with exceedances occurring in the first, third and the fourth quarters. 1,3,5-trimethylbenzene concentrations have been detected at monitoring well 699RW05 during this quarterly sampling with an exceedance occurring in November 2015. Concentrations of PCE continue to fluctuate near the NJDEP GWQS of 1 µg/L at 699MW09 and 699MW16 which are both near Building 700 (also known as FTMM-68 the location of a documented PCE release to the subsurface).

As discussed previously (refer to Section 2.1.4 of the main body of text), the LTM program for groundwater at FTMM-53 will be temporarily suspended beginning in the first quarter of 2016 as agreed to by the NJDEP in their March 16, 2016 letter. Once the RI/FS is completed and a remedy has been accepted by the NJDEP, a revised LTM program for the groundwater will be submitted for FTMM-53.

A review of historical groundwater sampling results is presented **Table 5**, which provides the matrix used to determine the status of the wells relative to future groundwater sampling and analyses.

TABLES

Table 1 Groundwater Gauging Data (October 6, 2015) and LFPS Sampling Summary

Table 2 Historical Groundwater Analytical Results

Table 3 Groundwater Analytical Results - 2013, 2014 and 2015

Table 4 Review of Historical Groundwater Sampling Results

Table 1
Groundwater Gauging Data and Elevations (November 16, 2015) and LFPS Sampling Summary
Site FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site/Well ID	Installation Date	Well Permit #	Y Coord. (North)	X Coord. (East)	Depth (ft. bgs)	Casing Length (ft)	Screen Length (ft)	TOC Elevation (ft)	Gauge Time	PID Reading (ppm)	Gauged Depth to Water (ft. TOC)	Gauged Depth to Bottom (ft. TOC)	Calculated Groundwater Elevation (ft)	Well Sampled this Event
Shallow Monitoring Wells														
616MW01	8/17/1995	29-33760	539282.81	618630.81	14.0	4.0	10.0	17.64	9:51	0.0	5.65	13.35	11.99	x
699MW01	11/2/1989	29-23677-1	539094.96	618689.92	15.0	2.0	13.0	14.48	10:36	0.0	8.35	16.49	6.13	
699MW02	11/2/1989	29-23678-9	539212.46	618724.12	17.0	2.0	15.0	15.13	10:31	0.0	7.78	16.63	7.35	
699MW03	11/2/1989	29-23679	539127.36	618797.76	15.0	1.5	13..5	15.80	10:24	0.0	5.40	12.06	10.40	
699MW04	11/2/1989	29-23680-7	539111.31	618732.39	20.0	2.0	18.0	15.03	10:03	0.0	5.78	17.34	9.25	x
699MW05	11/30/1989	29-23808	539142.50	618894.90	15.0	3.0	12.0	13.22	10:28	0.0	5.61	4.98	7.61	
699MW06	12/1/1989	29-23809-1	539071.24	618810.05	15.0	2.0	13.0	16.75	10:11	0.0	7.63	14.95	9.12	x
699MW08	12/1/1989	29-23811	539060.01	618593.22	15.0	2.0	13.0	14.88	9:42	0.0	6.15	13.25	8.73	
699MW09	5/1/1990	29-24639	538950.01	618849.41	15.0	2.0	13.0	14.70	11:01	0.0	5.91	12.15	8.79	x
699MW12	10/14/1992	29-28907	538918.90	618702.39	15.0	5.0	10.0	15.50	10:45	0.0	6.55	14.80	8.95	
699MW15	8/17/1995	29-33753	539404.56	618692.15	13.5	3.5	10.0	15.70	10:38	0.0	5.22	13.95	10.48	
699MW16	8/17/1995	29-33757	538859.18	618896.35	13.5	3.5	10.0	15.27	10:56	0.0	8.85	14.09	6.42	x
699RW03	10/26/2000	29-43891	539070.64	618693.86	20.0	5.0	15.0	14.87	9:54	0.0	5.74	17.70	9.13	x
699RW04	10/26/2000	29-43892	538969.45	618694.38	19.0	4.0	15.0	15.38	10:49	0.0	6.47	15.03	8.91	
699RW05	9/18/2007	29-56509	539121.71	618786.56	15.0	4.5	10.0	13.91	10:15	0.0	4.68	12.30	9.23	x
699RW11	5/20/1992	29-28031	539063.44	618770.99	20.0	5.0	15.0	13.13	10:07	0.0	6.03	17.00	7.10	x
FTMM-53-MW01	10/5/2015	E201510+41	538906.000	618777.000	15.00	5.00	10.00	15.03	11:28	0.0	6.26	15.20	8.77	

Notes:
1) The synoptic round of water levels in the wells was collected on November 16, 2015.
2) Information on well permit number, X and Y coordinates, depth, screen length, screen interval and TOC elevation were provided by FTMM in a table in June 2013.
3) ft = feet
4) DTW = depth to water (measured from the top of well casing)
5) DTB = depth to bottom of well (measured from the top of well casing)
6) bgs = below ground surface
7) ppm = parts per million (of VOCs)
8) TOC = Top of Casing
9) Elevation = feet above mean sea level
10) N/A = information not available

Table 2
Historical Groundwater Analytical Results
Site FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				699MW01																			
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	43	43 Dup	44	45	46	46 Dup	47	48	48 Dup	49	50	LF1	LF2	LF3	LF4	LF5	LF6	LF6 Dup
Date Collected				3/30/2008	3/30/2008	6/4/2008	9/29/2008	12/30/2008	12/30/2008	3/27/2009	6/25/2009	6/25/2009	8/26/2009	11/16/2009	3/25/2010	6/16/2010	9/17/2010	1/10/2011	3/15/2011	6/3/2011	6/3/2011
ANALYTE/Lab ID				80100.04	80100.03	80190.04	80345.04	80482.04	80482.03	90129.04	90262.07	90262.03	90359.04	90444.04	10108.06	10268.06	10398.05	11017.06	11109.08	11236.04	11236.03
Volatile Organic Compounds (µg/L)																					
Acetone	6000	NLE	--	9.38	NA	1.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	7.04	NA	1.16 J	1.9 J	3.61	3.5	10.5	0.7 J	0.77 J	9.63	6.56 D	1.41	0.99	9.65	0.3 J	ND	0.35 J	0.48 J
Bromodichloromethane	1	80	--	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1		--	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	248.83	NA	44.45	146.77	195.49	190.2	419.87 D	5.68	8.35	587.78 D	376.59 D	45.63	11.97	143.24 D	16.25	1.18	12.68	17.45
4-Methyl-2-pentanone	NLE		--	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.36 J	0.3 J
Styrene	100	100	--	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1		--	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	3		--	2.62	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	39.13	NA	4.06	9.25	15.06	14.94	53.67 D	0.31 J	0.49 J	30.28	13.27 D	1.72	ND	9.9	0.31 J	ND	0.67	0.92
m +*p* -Xylenes	1000	10,000	--	571.88	NA	60.92	75.57	197.66	193.83	874.09 D	2.09 J	3.94 J	606.88 D	218.2 D	12.23	0.38 J	4.25	0.74 J	ND	13.24	18.57
o -Xylene	1000	10,000	--	462.49	NA	96.17	155	235.14	231.05	940.67 D	15.21	22.31	866.01 D	448.44 D	36.35	13.8	97.6 D	6.32	2.42	14.23	20.51
TICs*	500	NLE	--	438	NA	238	477	642	654	1018	80	106	462	9140	562	281	1983	139	7	154	188
Metals (µg/L)																					
Aluminum	200	NLE	121000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	883	1390	198	375	1620	1620	2810
Antimony	6	6	20.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.65 ER	7.44 ER	6.88 ER	<6.0	<6.0	<6.0	<6.0
Arsenic	3	10	89.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.49 ER	3.07 ER	11.79	<3.0	<3.0	9	12.1
Barium	6000	2000	699.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76	63.1	41.9	<200	<200	<200	<200
Beryllium	1	4	2.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.428 ER	1.65	0.1 ER	<1.0	<1.0	<1.0	<1.0
Cadmium	4	5	9.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.13	ND	0.835 ER	<3.0	<3.0	<3.0	<3.0
Calcium	NLE	NLE	45400.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	54000	20500	23500	114000	15700	16600	16700
Chromium	70	100	191.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<10	11.2	<10	<10
Cobalt	NLE	NLE	18.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.36	10.8	2.42	<50	<50	<50	<50
Copper	1300	1300	65.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	2.03 ER	1.28 ER	<10	13.8	<10	<10
Iron	300	NLE	431000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18600	3710	23000	3990	3880	7640	10500
Lead	5	15	22.70	0.914 ER	1.8 ER	16.6	9.2	3.72 ER	3.07 ER	7.3	5.62	6.34	ND	2.53 ER	ND	ND	ND	<3.0	6	<3.0	5.8
Magnesium	NLE	NLE	62700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19200	12400	13300	21600	<5000	6470	6620
Manganese	50	NLE	331	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	819	565	561	345	21.9	323	328
Mercury	2	2	0.26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.1 ER	ND	ND	<0.20	<0.20	<0.20
Nickel	100	NLE	187	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.24	12.4	1.49 ER	<10	<10	<10	<10
Potassium	NLE	NLE	137000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9530	5400	6520	13100	<10000	<10000	<10000
Selenium	40	50	29.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37.6	NR	2.7 ER	<10	<10	<10	<10
Silver	40	NLE	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.04 ER	3.7 ER	<10	<10	<10	<10
Sodium	50000	NLE	21500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	529000 E	285000	316000	577000	121000	248000	254000
Thallium	2	2	5.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<2.0	<2.0	<2.0	<2.0
Vanadium	60	NLE	108	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.31 ER	ND	ND	<50	<50	<50	<50
Zinc	2000	NLE	233	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	48.2 ER	74.6	ND	<20	<20	25.3	38.2

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

Third Quarter 2011 data is not included due to an incomplete analytical data package.

Table 2
Historical Groundwater Analytical Results
Site FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				699MW02																	
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	44	45	46	47	48	49	49 Dup	50	51	51 Dup	LF1	LF1 Dup	LF2	LF3	LF4	LF5	LF6	LF6 Dup
Date Collected				3/30/2008	6/4/2008	9/29/2008	12/30/2008	3/27/2009	6/24/2009	6/24/2009	8/26/2009	11/16/2009	11/16/2009	3/26/2010	3/26/2010	6/15/2010	9/16/2010	1/6/2011	3/15/2011	5/27/2011	5/27/2011
ANALYTE/Lab ID				80100.05	80190.05	80345.05	80482.05	90129.05	90261.04	90261.03	90359.05	90444.05	90444.03	10109.04	10109.03	10265.05	10396.01	11014.01	11109.04	11229.04	11229.03
Volatile Organic Compounds (µg/L)																					
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	NLE		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	3		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m +*p* -Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o -Xylene	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																					
Aluminum	200	NLE	121000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	129	139	68.2 ER	68.6 ER	<200	437	2550	1570
Antimony	6	6	20.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.66 ER	7.2 ER	7.15 ER	15.4	<6.0	<6.0	<6.0	<6.0
Arsenic	3	10	89.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.36 ER	0.67 ER	1.92 ER	2.77 ER	<3.0	<3.0	<3.0	5.7
Barium	6000	2000	699.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.46	9.43	10.4	15.1	<200	<200	<200	<200
Beryllium	1	4	2.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.158 ER	0.157 ER	<1.0	<1.0	<1.0	<1.0
Cadmium	4	5	9.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.19 ER	0.938 ER	0.572 ER	1.44 ER	<3.0	<3.0	<3.0	<3.0
Calcium	NLE	NLE	45400.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	72800	69600	52900	66600	128000	62800	<5000	109000
Chromium	70	100	191.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<10	<10	19.8	10.8
Cobalt	NLE	NLE	18.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.8 ER	0.716 ER	4.52	7.47	<50	<50	<50	<50
Copper	1300	1300	65.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.22 ER	5.74	1.64 ER	2.11 ER	<10	<10	<10	<10
Iron	300	NLE	431000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	186 ER	240 ER	3380	5800	<100	865	5000	7760
Lead	5	15	22.70	ND	ND	2.48 ER	4.18 ER	2.33 ER	1.65 ER	1.76 ER	ND	6.58	ND	ND	ND	3.05 ER	ND	<3.0	<3.0	5.3	5.7
Magnesium	NLE	NLE	62700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5110	4890	8560	12200	27500	5040	<5000	13600
Manganese	50	NLE	331	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.12	6.42	38.8	117	69.2	<15	23.7	123
Mercury	2	2	0.26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.07 ER	ND	ND	<0.20	<0.20	<0.20
Nickel	100	NLE	187	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.82	5.25	9.75	12.2	26.8	<10	10.6	20.4
Potassium	NLE	NLE	137000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2860	2880	3100	5820	10200	25900	<10000	13300
Selenium	40	50	29.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	62	59.2	NR	1.53 ER	<10	<10	<10	<10
Silver	40	NLE	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.3 ER	3.12 ER	ND	ND	<10	<10	<10	<10
Sodium	50000	NLE	21500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12700	11100	14700	18300	60200	16300	<10000	33900
Thallium	2	2	5.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.86 ER	ND	ND	ND	<2.0	<2.0	<2.0	<2.0
Vanadium	60	NLE	108	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 ER	1.64 ER	ND	0.771 ER	<50	<50	<50	<50
Zinc	2000	NLE	233	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27.5 ER	30.2 ER	49.2 ER	62.7	61.7	77.4	51	96.7

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

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ER = Estimated Result

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Table 2
Historical Groundwater Analytical Results
Site FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				699MW04																	
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	42	43	43 Dup	44	44 Dup	45	46	47	48	49	LF1	LF2	LF3	LF4	LF4 Dup	LF5	LF6
Date Collected				3/30/2008	6/4/2008	6/4/2008	9/29/2008	9/29/2008	12/30/2008	3/27/2009	6/25/2009	8/26/2009	11/16/2009	3/26/2010	6/16/2010	9/17/2010	1/10/2011	1/10/2011	3/15/2011	6/2/2011
ANALYTE/Lab ID				80100.06	80190.06	80190.03	80345.06	80345.03	80482.06	90129.06	90262.08	90359.06	90444.06	10109.05	10268.07	10398.06	11017.04	11017.03	11109.09	11236.05
Volatile Organic Compounds (µg/L)																				
Acetone	6000	NLE	--	1.47 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	9.35	32.21	45.15	25.37	25.44	13.31	20.32	21.62	4.69	7.34	ND	ND	9.07	1.62	1.8	ND	58.16
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	39.32	36.72	88.46	17.61	18.31	53.28	118.21 D	289.42 D	5.46	66.76	0.99	1.71	93.76	3.83	4.04	0.3 J	85.35
4-Methyl-2-pentanone	NLE		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	78.05	48.41	115.01	40.79	41.42	27.62	49.49	47.72	5.05	22.77	6.16	3.03	25.13	10.87	10.06	1.95	12.58
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19.67	ND	ND	ND	8.35
Tetrachloroethene	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	3		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	3.77	2.53	3.53	2.36	2.57	4.2	5.65	16.03	0.48 J	2.73	ND	ND	10.33	ND	ND	ND	7.35
m +*p* -Xylenes	1000	10,000	--	85.47	52.71	140.04	25.36	26.96	81.63	139.14 D	540.66 D	7.71	71.01	0.97 J	ND	36.73	1.92	1.95	0.46 J	100.97
o -Xylene	1000	10,000	--	48.91	35.43	43.03	15.05	16.09	71.16	141.12 D	396.44 D	4.57	70.77	1.1	1.34	30.9	0.52	0.42 J	0.3 J	63.17
TICs*	500	NLE	--	296	503	575	747	807	405	1302	923	778	626	ND	4	1219	90	108	ND	968
Metals (µg/L)																				
Aluminum	200	NLE	121000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2430	1470	161	287	262	4080	4220
Antimony	6	6	20.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.88 ER	9.37 ER	12.8	<6.0	<6.0	<6.0	<6.0
Arsenic	3	10	89.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.11 ER	1.18 ER	4.18 ER	<3.0	<3.0	<3.0	6.7
Barium	6000	2000	699.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	60.7	51.5	15.1	<200	<200	<200	<200
Beryllium	1	4	2.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.46	1.33	0.078 ER	<1.0	<1.0	1.1	1.1
Cadmium	4	5	9.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.09	1.39 ER	1.4 ER	<3.0	<3.0	4.3	<3.0
Calcium	NLE	NLE	45400.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	85100	58700	22500	24500	25200	89600	50700
Chromium	70	100	191.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<10	<10	<10	<10
Cobalt	NLE	NLE	18.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23.8	6.44	0.876 ER	<50	<50	<50	<50
Copper	1300	1300	65.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<10	<10	<10	<10
Iron	300	NLE	431000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1510	838	27700	4110	4470	1800	14600
Lead	5	15	22.70	ND	4.56 ER	4.25 ER	4.69 ER	8.37	4.31 ER	6.92	1.63 ER	ND	ND	ND	ND	ND	<3.0	<3.0	<3.0	3.5
Magnesium	NLE	NLE	62700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22300	16000	6260	6250	6390	22500	14200
Manganese	50	NLE	331	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	854	470	149	226	228	651	528
Mercury	2	2	0.26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.09 ER	ND	ND	ND	<0.20	<0.20
Nickel	100	NLE	187	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46.7	14	1.95 ER	<10	<10	34.2	19.8
Potassium	NLE	NLE	137000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8630	6000	3020	<10000	<10000	<10000	<10000
Selenium	40	50	29.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	61.9	NR	1.77 ER	<10	<10	<10	<10
Silver	40	NLE	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.03 ER	ND	4.2 ER	<10	<10	<10	<10
Sodium	50000	NLE	21500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	256000	177000	102000	111000	113000	293000	201000
Thallium	2	2	5.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<2.0	<2.0	<2.0	<2.0
Vanadium	60	NLE	108	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.42 ER	0.622 ER	ND	<50	<50	<50	<50
Zinc	2000	NLE	233	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	376	90.6	13.3 ER	20.3	<20	180	107

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

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ER = Estimated Result

Third Quarter 2011 data is not included due to an incomplete analytical data package.

Table 2
Historical Groundwater Analytical Results
Site FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				699MW05																	
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	44	45	46	47	48	49	50	51	LF1	LF1 Dup	LF2	LF3	LF4	LF5	LF5 Dup	LF6
Date Collected				3/30/2008	6/4/2008	9/29/2008	12/30/2008	3/27/2009	6/24/2009	8/26/2009	11/16/2009	3/24/2010	3/24/2010	6/16/2010	9/16/2010	1/5/2011	3/11/2011	3/11/2011	6/1/2011
ANALYTE/Lab ID				80100.07	80190.07	80345.07	80482.07	90129.07	90261.05	90359.07	90444.07	10105.04	10105.03	10268.05	10396.04	11010.01	11103.07	11103.03	11233.06
Volatile Organic Compounds (µg/L)																			
Acetone	6000	NLE	--	10.92	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	3.08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	NLE		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	3		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m +*p* -Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o -Xylene	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																			
Aluminum	200	NLE	121000	NA	NA	NA	NA	NA	NA	NA	NA	432	367	27.9 ER	4860	2650	1640	1620	3020
Antimony	6	6	20.70	NA	NA	NA	NA	NA	NA	NA	NA	5.38 ER	9.89 ER	6.14 ER	10	<6.0	<6.0	<6.0	<6.0
Arsenic	3	10	89.30	NA	NA	NA	NA	NA	NA	NA	NA	1.76 ER	0.84 ER	ND	1.44 ER	<3.0	<3.0	<3.0	<3.0
Barium	6000	2000	699.00	NA	NA	NA	NA	NA	NA	NA	NA	51.4	59.5	41.2	181	<200	<200	<200	<200
Beryllium	1	4	2.10	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	3.59	1.2	<1.0	<1.0	1.7
Cadmium	4	5	9.50	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.579 ER	1.98 ER	<3.0	<3.0	<3.0	<3.0
Calcium	NLE	NLE	45400.00	NA	NA	NA	NA	NA	NA	NA	NA	29100	35000	20700	28300	30000	21800	22000	29500
Chromium	70	100	191.00	NA	NA	NA	NA	NA	NA	NA	NA	1.87 ER	1.77 ER	ND	ND	<10	<10	<10	<10
Cobalt	NLE	NLE	18.30	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	8.46	<50	<50	<50	<50
Copper	1300	1300	65.60	NA	NA	NA	NA	NA	NA	NA	NA	8.44	9.08	2.01 ER	1.38 ER	<10	<10	<10	<10
Iron	300	NLE	431000	NA	NA	NA	NA	NA	NA	NA	NA	827	619	ND	54 ER	220	1060	983	754
Lead	5	15	22.70	ND	ND	1.99 ER	2.8 ER	ND	ND	ND	ND	ND	ND	ND	ND	<3.0	<3.0	<3.0	<3.0
Magnesium	NLE	NLE	62700	NA	NA	NA	NA	NA	NA	NA	NA	3040	3640	2990	8200	6590	<5000	<5000	6180
Manganese	50	NLE	331	NA	NA	NA	NA	NA	NA	NA	NA	51.7	59.9	46.7	268	285	127	128	288
Mercury	2	2	0.26	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.06 ER	ND	ND	<0.20	<0.20	<0.20
Nickel	100	NLE	187	NA	NA	NA	NA	NA	NA	NA	NA	4.49 ER	4.17 ER	1.37 ER	19.1	10.8	<10	<10	16.6
Potassium	NLE	NLE	137000	NA	NA	NA	NA	NA	NA	NA	NA	15000	15900	6370	4350	<10000	<10000	<10000	<10000
Selenium	40	50	29.60	NA	NA	NA	NA	NA	NA	NA	NA	29.6	42.5	NR	1.45 ER	<10	<10	<10	<10
Silver	40	NLE	ND	NA	NA	NA	NA	NA	NA	NA	NA	2.13 ER	3.01 ER	0.903 ER	ND	<10	<10	<10	<10
Sodium	50000	NLE	21500	NA	NA	NA	NA	NA	NA	NA	NA	862000 E	1030000 E	530000 E	246000	267000	192000	190000	256000
Thallium	2	2	5.50	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<2.0	<2.0	<2.0	<2.0
Vanadium	60	NLE	108	NA	NA	NA	NA	NA	NA	NA	NA	4.09 ER	3.45 ER	1.23 ER	0.679 ER	<50	<50	<50	<50
Zinc	2000	NLE	233	NA	NA	NA	NA	NA	NA	NA	NA	17.5 ER	18.8 ER	49.2 ER	137	58.1	155	142	61.9

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

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NLE = No limit established

ER = Estimated Result

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Table 2
Historical Groundwater Analytical Results
Site FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				699MW06																699MW08	
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	43	44	45	46	47	48	49	50	LF1	LF2	LF3	LF4	LF5	LF6	LF6 Dup	44	45
Date Collected				3/30/2008	6/4/2008	9/29/2008	12/30/2008	3/27/2009	6/24/2009	8/26/2009	11/16/2009	3/26/2010	6/16/2010	9/17/2010	1/5/2011	3/11/2011	6/2/2011	6/2/2011	3/30/2008	6/4/2008
ANALYTE/Lab ID				80100.08	80190.08	80345.08	80482.08	90129.08	90261.12	90359.08	90444.08	10109.06	10268.08	10398.07	11010.04	11103.05	11235.04	11235.03	80100.09	80190.09
Volatile Organic Compounds (µg/L)																				
Acetone	6000	NLE	--	2.29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	6.27	34.82	73.8	9.24	26.73	ND	13.93	2.08	0.59	1.03	4.22	ND	ND	0.69	0.78	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	22.95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	50.27	283.29	333.11	44.48	427.63 D	ND	735.48 D	31.39	26.31	11.82	3.02	ND	ND	89.43	98.65	ND	ND
4-Methyl-2-pentanone	NLE		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	6.02	2.93	0.72 J	0.58 J	0.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	3		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	2.69	13.82	5.1	1.21 J	14.15	ND	11.3	0.44 J	1.43	ND	ND	ND	ND	0.83	0.91	ND	ND
m +*p* -Xylenes	1000	10,000	--	65.44	224.14	176.29	33.93	541.18 D	ND	1047.96 D	38.73	37.9	6.55	3.32	ND	ND	78.95	88.01	ND	ND
o -Xylene	1000	10,000	--	29.01	108.41	25.77	14.49	197.76 D	ND	146.76 D	5.82	16.54	0.75	1.2	ND	ND	20.48	21.27	ND	ND
TICs*	500	NLE	--	86	210	212	123	632	ND	533	75	57	56	104	ND	ND	294	319	ND	ND
Metals (µg/L)																				
Aluminum	200	NLE	121000	NA	NA	NA	NA	NA	NA	NA	NA	12900	852	232	<200	3400	3070	2000	NA	NA
Antimony	6	6	20.70	NA	NA	NA	NA	NA	NA	NA	NA	7.69 ER	ND	13.2	<6.0	<6.0	<6.0	<6.0	NA	NA
Arsenic	3	10	89.30	NA	NA	NA	NA	NA	NA	NA	NA	10.16	2.2 ER	2.04 ER	<3.0	<3.0	16	12.7	NA	NA
Barium	6000	2000	699.00	NA	NA	NA	NA	NA	NA	NA	NA	63.1	22.5	19.9	<200	<200	<200	<200	NA	NA
Beryllium	1	4	2.10	NA	NA	NA	NA	NA	NA	NA	NA	0.819	0.066 ER	ND	<1.0	<1.0	<1.0	<1.0	NA	NA
Cadmium	4	5	9.50	NA	NA	NA	NA	NA	NA	NA	NA	1.84 ER	ND	0.552 ER	<3.0	<3.0	<3.0	<3.0	NA	NA
Calcium	NLE	NLE	45400.00	NA	NA	NA	NA	NA	NA	NA	NA	39400	18400	27900	74200	11500	20300	20400	NA	NA
Chromium	70	100	191.00	NA	NA	NA	NA	NA	NA	NA	NA	104	7.24	8.12	<10	29.3	33.5	22.8	NA	NA
Cobalt	NLE	NLE	18.30	NA	NA	NA	NA	NA	NA	NA	NA	6.02	ND	0.662 ER	<50	<50	<50	<50	NA	NA
Copper	1300	1300	65.60	NA	NA	NA	NA	NA	NA	NA	NA	1.41 ER	ND	6.86	<20	13.5	<10	<10	NA	NA
Iron	300	NLE	431000	NA	NA	NA	NA	NA	NA	NA	NA	21000	1710	2840	489	7480	12200	8590	NA	NA
Lead	5	15	22.70	ND	5.99	3.76 ER	2.53 ER	6.11	ND	ND	ND	8.68	ND	ND	<3.0	4.8	5	3.1	ND	ND
Magnesium	NLE	NLE	62700	NA	NA	NA	NA	NA	NA	NA	NA	8290	3790	4360	8660	<5000	<5000	<5000	NA	NA
Manganese	50	NLE	331	NA	NA	NA	NA	NA	NA	NA	NA	73.3	48.7	14.5	<15	23.2	36.3	34.2	NA	NA
Mercury	2	2	0.26	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.08 ER	ND	ND	<0.20	<0.20	<0.20	NA	NA
Nickel	100	NLE	187	NA	NA	NA	NA	NA	NA	NA	NA	18.7	4.11 ER	4.6 ER	<10	<10	<10	<10	NA	NA
Potassium	NLE	NLE	137000	NA	NA	NA	NA	NA	NA	NA	NA	8810	2330	2340	<10000	<10000	<10000	<10000	NA	NA
Selenium	40	50	29.60	NA	NA	NA	NA	NA	NA	NA	NA	23.8	NR	2.62 ER	<10	<10	<10	<10	NA	NA
Silver	40	NLE	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.885 ER	ND	<10	<10	<10	<10	NA	NA
Sodium	50000	NLE	21500	NA	NA	NA	NA	NA	NA	NA	NA	63100	62300	72600	78200	20500	57200	57000	NA	NA
Thallium	2	2	5.50	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	NA	NA
Vanadium	60	NLE	108	NA	NA	NA	NA	NA	NA	NA	NA	56.2	3.5 ER	2.16 ER	<50	<50	<50	<50	NA	NA
Zinc	2000	NLE	233	NA	NA	NA	NA	NA	NA	NA	NA	121	18 ER	16.7 ER	<20	21.9	36.6	30.1	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

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USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

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Table 2
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Site FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				699MW08														699MW09						
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	46	47	48	48 Dup	49	50	51	LF1	LF2	LF2 Dup	LF3	LF4	LF5	LF6	44	45	46	47	48	49	50
Date Collected				9/29/2008	12/30/2008	3/27/2009	3/27/2009	6/24/2009	8/26/2009	11/16/2009	3/24/2010	6/16/2010	6/16/2010	9/16/2010	12/30/2010	3/11/2011	6/2/2011	3/30/2008	6/4/2008	9/29/2008	12/30/2008	3/27/2009	6/24/2009	8/26/2009
ANALYTE/Lab ID				80345.09	80482.09	90129.09	90129.03	90261.06	90359.13	90444.09	10105.06	10268.04	10268.03	10396.05	10577.05	11103.08	11235.05	80100.10	80190.10	80345.10	80482.10	90129.10	90261.08	90359.09
Volatile Organic Compounds (µg/L)																								
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	NLE		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.07 J	ND	ND	ND	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.97	ND	ND	ND	1.65
1,1,2,2-Tetrachloroethane	3		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m +*p* -Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o -Xylene	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																								
Aluminum	200	NLE	121000	NA	NA	NA	NA	NA	NA	NA	2110	6020	6090	6330	6060	3780	5160	NA	NA	NA	NA	NA	NA	NA
Antimony	6	6	20.70	NA	NA	NA	NA	NA	NA	NA	9.45 ER	10.5	12.3	14.6	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA
Arsenic	3	10	89.30	NA	NA	NA	NA	NA	NA	NA	ND	1.5 ER	ND	1.19 ER	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA
Barium	6000	2000	699.00	NA	NA	NA	NA	NA	NA	NA	153	320	322	405	339	230	306	NA	NA	NA	NA	NA	NA	NA
Beryllium	1	4	2.10	NA	NA	NA	NA	NA	NA	NA	0.885	2.46	2.51	3.31	2.2	1.5	2.1	NA	NA	NA	NA	NA	NA	NA
Cadmium	4	5	9.50	NA	NA	NA	NA	NA	NA	NA	3.16	2.88	2.77	3.01	<3.0	<3.0	4	NA	NA	NA	NA	NA	NA	NA
Calcium	NLE	NLE	45400.00	NA	NA	NA	NA	NA	NA	NA	56000	50500	51200	53400	49900	48900	54800	NA	NA	NA	NA	NA	NA	NA
Chromium	70	100	191.00	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA
Cobalt	NLE	NLE	18.30	NA	NA	NA	NA	NA	NA	NA	24.5	18.6	19	22.9	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA
Copper	1300	1300	65.60	NA	NA	NA	NA	NA	NA	NA	1.25 ER	ND	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA
Iron	300	NLE	431000	NA	NA	NA	NA	NA	NA	NA	88.2 ER	ND	ND	ND	167	404	597	NA	NA	NA	NA	NA	NA	NA
Lead	5	15	22.70	ND	4.27 ER	ND	ND	ND	ND	ND	ND	2.74 ER	ND	ND	<3.0	<3.0	<3.0	ND	1.51 ER	6.44	4.34 ER	2.25 ER	ND	ND
Magnesium	NLE	NLE	62700	NA	NA	NA	NA	NA	NA	NA	22900	29900	30300	32100	26100	21100	23400	NA	NA	NA	NA	NA	NA	NA
Manganese	50	NLE	331	NA	NA	NA	NA	NA	NA	NA	1950	980	997	1280	965	1150	1500	NA	NA	NA	NA	NA	NA	NA
Mercury	2	2	0.26	NA	NA	NA	NA	NA	NA	NA	ND	0.08 ER	0.09 ER	ND	ND	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA
Nickel	100	NLE	187	NA	NA	NA	NA	NA	NA	NA	42.9	30.2	30.4	34.8	30.3	31.8	43.6	NA	NA	NA	NA	NA	NA	NA
Potassium	NLE	NLE	137000	NA	NA	NA	NA	NA	NA	NA	10600	9280	9360	13300	<10000	<10000	11800	NA	NA	NA	NA	NA	NA	NA
Selenium	40	50	29.60	NA	NA	NA	NA	NA	NA	NA	52.8	NR	NR	1.41 ER	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA
Silver	40	NLE	ND	NA	NA	NA	NA	NA	NA	NA	3.12 ER	ND	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA
Sodium	50000	NLE	21500	NA	NA	NA	NA	NA	NA	NA	248000	265000	268000	296000	265000	261000	275000	NA	NA	NA	NA	NA	NA	NA
Thallium	2	2	5.50	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA
Vanadium	60	NLE	108	NA	NA	NA	NA	NA	NA	NA	1.06 ER	ND	ND	ND	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA
Zinc	2000	NLE	233	NA	NA	NA	NA	NA	NA	NA	75	111	112	148	125	105	114	NA	NA	NA	NA	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

Third Quarter 2011 data is not included due to an incomplete analytical data package.

Table 2
Historical Groundwater Analytical Results
Site FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				699MW09							699MW12													
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	51	LF1	LF2	LF3	LF4	LF5	LF6	44	45	46	47	48	49	50	51	LF1	LF2	LF3	LF3 Dup	LF4	LF4 Dup
Date Collected				11/16/2009	3/26/2010	6/16/2010	9/17/2010	1/5/2011	3/11/2011	6/1/2011	3/30/2008	6/4/2008	9/29/2008	12/30/2008	3/27/2009	6/24/2009	8/26/2009	11/16/2009	3/24/2010	6/15/2010	9/17/2010	9/17/2010	12/30/2010	12/30/2010
ANALYTE/Lab ID				90444.10	10109.08	10268.09	10398.08	11010.03	11103.04	11233.05	80100.11	80190.11	80345.11	80482.11	90129.11	90261.07	90359.10	90444.11	10105.05	10265.07	10398.04	10398.03	10577.04	10577.03
Volatile Organic Compounds (µg/L)																								
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	0.53	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	NLE		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	1.78	2.93	ND	ND	0.51 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1		--	1.88	ND	0.51	2.32	1.09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	3		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m +*p* -Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o -Xylene	1000	10,000	--	ND	ND	ND	0.28 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																								
Aluminum	200	NLE	121000	NA	2810	3310	2700	3540	1430	5180	NA	NA	NA	NA	NA	NA	NA	NA	2650	3000	1640	1540	1310	1330
Antimony	6	6	20.70	NA	ND	ND	6.6 ER	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	5.04 ER	6.01 ER	6.33 ER	ND	<6.0	<6.0
Arsenic	3	10	89.30	NA	0.65 ER	0.77 ER	ND	<3.0	<3.0	3.6	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<3.0	<3.0
Barium	6000	2000	699.00	NA	33.4	90.9	90.5	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	101	150	137	128	<200	<200
Beryllium	1	4	2.10	NA	1.02	1.31	1.35	1.8	<1.0	1.9	NA	NA	NA	NA	NA	NA	NA	NA	1.03	1.88	1.98	1.86	1.1	1.1
Cadmium	4	5	9.50	NA	ND	0.793 ER	1.22 ER	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	1.68 ER	1.73 ER	1.67 ER	1.07 ER	<3.0	<3.0
Calcium	NLE	NLE	45400.00	NA	2250	12700	11100	13900	<5000	9230	NA	NA	NA	NA	NA	NA	NA	NA	21900	20200	10300	9690	8580	8700
Chromium	70	100	191.00	NA	2.48 ER	ND	1.95 ER	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.3 ER	ND	ND	<10	<10
Cobalt	NLE	NLE	18.30	NA	4.68	7.91	7.32	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	12.2	15.1	13	12.1	<50	<50
Copper	1300	1300	65.60	NA	ND	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	2.89 ER	<10	<10
Iron	300	NLE	431000	NA	1520	954	1640	2390	545	4150	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<100	<100
Lead	5	15	22.70	ND	ND	ND	ND	<3.0	<3.0	<3.0	ND	ND	ND	3.64 ER	2.09 ER	ND	ND	ND	ND	ND	ND	ND	<3.0	<3.0
Magnesium	NLE	NLE	62700	NA	3690	4450	3970	6680	<5000	6320	NA	NA	NA	NA	NA	NA	NA	NA	20600	24900	19300	18200	14700	14800
Manganese	50	NLE	331	NA	10.1	61.8	63.5	68.8	<15	54.9	NA	NA	NA	NA	NA	NA	NA	NA	171	121	78.5	73.8	66.3	66.9
Mercury	2	2	0.26	NA	ND	0.08 ER	ND	ND	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Nickel	100	NLE	187	NA	10.7	11.9	12.1	23.5	<10	22.3	NA	NA	NA	NA	NA	NA	NA	NA	37.5	49.4	44.3	42.7	36.6	37
Potassium	NLE	NLE	137000	NA	1250	1470	1860	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	4840	4120	4550	4280	<10000	<10000
Selenium	40	50	29.60	NA	ND	NR	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	21.5	NR	ND	1.8 ER	<10	<10
Silver	40	NLE	ND	NA	ND	0.628 ER	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	1.33 ER	ND	ND	ND	<10	<10
Sodium	50000	NLE	21500	NA	42300	97100	106000	153000	31700	141000	NA	NA	NA	NA	NA	NA	NA	NA	51800	64500	65000	62000	29400	29800
Thallium	2	2	5.50	NA	0.68 ER	ND	ND	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<2.0	<2.0
Vanadium	60	NLE	108	NA	1.01 ER	ND	1.32 ER	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<50	<50
Zinc	2000	NLE	233	NA	49.1 ER	178	159	142	37.5	187	NA	NA	NA	NA	NA	NA	NA	NA	130	167	172	165	143	144

Notes:

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Table 2
Historical Groundwater Analytical Results
Site FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				699MW12		699MW15																699MW16		
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF5	LF6	44	45	46	47	48	49	50	51	LF1	LF1 Dup	LF2	LF3	LF4	LF4 Dup	LF5	LF6	44	45	46
Date Collected				3/11/2011	6/2/2011	3/30/2008	6/4/2008	9/29/2008	12/30/2008	3/27/2009	6/24/2009	8/26/2009	11/16/2009	3/25/2010	3/25/2010	6/15/2010	9/16/2010	1/7/2011	1/7/2011	3/15/2011	5/27/2011	3/30/2008	6/4/2008	9/29/2008
ANALYTE/Lab ID				11103.06	11235.06	80100.12	80190.12	80345.12	80482.12	90129.12	90261.11	90359.11	90444.12	10108.04	10108.03	10265.06	10396.03	11016.04	11016.03	11109.06	11229.06	80100.13	80190.13	80345.13
Volatile Organic Compounds (µg/L)																								
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.41 J	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.88 J	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32.23	39.61	4.68
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	NLE		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.72 J	1.93 J
1,1,2,2-Tetrachloroethane	3		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m +*p* -Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o -Xylene	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																								
Aluminum	200	NLE	121000	2080	3160	NA	NA	NA	NA	NA	NA	NA	NA	10200	6350	273	971	903	895	2460	3620	NA	NA	NA
Antimony	6	6	20.70	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	8.17 ER	<6.0	<6.0	<6.0	<6.0	NA	NA	NA
Arsenic	3	10	89.30	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	4.64 ER	4.25 ER	2.06 ER	2.27 ER	<3.0	<3.0	<3.0	3.5	NA	NA	NA
Barium	6000	2000	699.00	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	112	90.3	61.3	63.6	<200	<200	<200	<200	NA	NA	NA
Beryllium	1	4	2.10	1	1.6	NA	NA	NA	NA	NA	NA	NA	NA	0.469 ER	0.26 ER	0.071 ER	0.088 ER	<1.0	<1.0	<1.0	<1.0	NA	NA	NA
Cadmium	4	5	9.50	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	0.649 ER	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA
Calcium	NLE	NLE	45400.00	15300	25600	NA	NA	NA	NA	NA	NA	NA	NA	20900	17900	10800	6460	6860	6790	11000	9630	NA	NA	NA
Chromium	70	100	191.00	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	53.8	32.9	1.46 ER	4.15 ER	<10	<10	14.2	19.3	NA	NA	NA
Cobalt	NLE	NLE	18.30	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	0.969 ER	0.643 ER	ND	2.88	<50	<50	<50	<50	NA	NA	NA
Copper	1300	1300	65.60	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	42.6	32.9	13.7	12.6	11.8	13.1	34.2	26.7	NA	NA	NA
Iron	300	NLE	431000	353	162	NA	NA	NA	NA	NA	NA	NA	NA	15900	9990	163 ER	1450	1390	1390	4540	6670	NA	NA	NA
Lead	5	15	22.70	<3.0	<3.0	2.29 ER	7.12	5.62	7.16	1.79 ER	3.85 ER	3.04 ER	2.71 ER	31.1	19.7	3.5 ER	ND	3	3.2	10.9	13.3	ND	ND	ND
Magnesium	NLE	NLE	62700	17500	21900	NA	NA	NA	NA	NA	NA	NA	NA	5420	4230	2300	2400	<5000	<5000	<5000	<5000	NA	NA	NA
Manganese	50	NLE	331	109	202	NA	NA	NA	NA	NA	NA	NA	NA	28	20.2	17.9	41	<15	<15	20.2	23.4	NA	NA	NA
Mercury	2	2	0.26	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.07 ER	ND	ND	ND	<0.20	<0.20	NA	NA	NA
Nickel	100	NLE	187	36.7	43	NA	NA	NA	NA	NA	NA	NA	NA	8.68	6.39	2.14 ER	4.07 ER	<10	<10	<10	<10	NA	NA	NA
Potassium	NLE	NLE	137000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	8200	6310	3330	3680	<10000	<10000	<10000	<10000	NA	NA	NA
Selenium	40	50	29.60	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	12.2 ER	15.1 ER	NR	1.75 ER	<10	<10	<10	<10	NA	NA	NA
Silver	40	NLE	ND	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.841 ER	ND	<10	<10	<10	<10	NA	NA	NA
Sodium	50000	NLE	21500	39500	66700	NA	NA	NA	NA	NA	NA	NA	NA	6230	5490	5100	4880 ER	<10000	<10000	<10000	<10000	NA	NA	NA
Thallium	2	2	5.50	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	NA	NA	NA
Vanadium	60	NLE	108	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	36.8	22.4	ND	2.84 ER	<50	<50	<50	<50	NA	NA	NA
Zinc	2000	NLE	233	130	158	NA	NA	NA	NA	NA	NA	NA	NA	135	ND	57.5	91.5	71	72.5	82.6	121	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

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ER = Estimated Result

Third Quarter 2011 data is not included due to an incomplete analytical data package.

Table 2
Historical Groundwater Analytical Results
Site FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				699MW16														699RW03					
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	47	48	49	50	50 Dup	51	LF1	LF2	LF2 Dup	LF3	LF4	LF5	LF6	LF6 Dup	1	2	3	4	5	6
Date Collected				12/30/2008	3/27/2009	6/24/2009	8/26/2009	8/26/2009	11/16/2009	3/26/2010	6/17/2010	6/17/2010	9/17/2010	1/5/2011	3/15/2011	6/1/2011	6/1/2011	12/30/2008	3/27/2009	6/25/2009	8/26/2009	11/16/2009	3/31/2010
ANALYTE/Lab ID				80482.13	90129.13	90261.09	90359.12	90359.03	90444.13	10109.07	10271.04	10271.03	10398.09	11010.02	11109.07	11233.04	11233.03	80482.14	90129.15	90262.04	90359.14	90444.15	10116.01
Volatile Organic Compounds (µg/L)																							
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	26.93	257.57 D	42.28 D	32.01	13.49	ND
Bromodichloromethane	1	80	--	ND	0.45 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	23.77	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.42 J	ND	ND	ND	ND	143.23	230.43 D	146.89 D	78.96 D	85.08	0.96
4-Methyl-2-pentanone	NLE		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	24.58	48.59	20.22	18.89	17.26	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	46.89	ND	ND
Tetrachloroethene	1		--	0.51 J	0.65 J	ND	0.93	1.04	1.09	0.96	0.99	0.97	1.71	1.06	0.59	0.42 J	0.41 J	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	3		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15.54	378.26 D	16.08	3.77	1.96	ND
m +*p* -Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	269.83	444.31 D	245.27 D	75.41	71.66	0.68 J
o -Xylene	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.22 J	ND	ND	ND	ND	115.12	201.3 D	125.01 D	39.17	51.14	0.19 J
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	646	1140	455	348	187	8
Metals (µg/L)																							
Aluminum	200	NLE	121000	NA	NA	NA	NA	NA	NA	2540	1470	1580	2160	2520	1830	1910	1910	NA	NA	NA	NA	NA	1390
Antimony	6	6	20.70	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	5.94 ER
Arsenic	3	10	89.30	NA	NA	NA	NA	NA	NA	ND	1.76 ER	1.74 ER	ND	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	ND
Barium	6000	2000	699.00	NA	NA	NA	NA	NA	NA	20.4	17.2	18.9	19.7	<200	<200	<200	<200	NA	NA	NA	NA	NA	11.4
Beryllium	1	4	2.10	NA	NA	NA	NA	NA	NA	0.654	0.524	0.544	0.682	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	0.063 ER
Cadmium	4	5	9.50	NA	NA	NA	NA	NA	NA	ND	ND	ND	0.981 ER	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	0.548 ER
Calcium	NLE	NLE	45400.00	NA	NA	NA	NA	NA	NA	7870	5230	5670	4990	5640	<5000	<5000	<5000	NA	NA	NA	NA	NA	15500
Chromium	70	100	191.00	NA	NA	NA	NA	NA	NA	ND	1.03 ER	1.21 ER	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	5.28
Cobalt	NLE	NLE	18.30	NA	NA	NA	NA	NA	NA	5.99	4.13	4.41	5.43	<50	<50	<50	<50	NA	NA	NA	NA	NA	1.9 ER
Copper	1300	1300	65.60	NA	NA	NA	NA	NA	NA	ND	ND	ND	2.31 ER	<10	<10	<10	<10	NA	NA	NA	NA	NA	12
Iron	300	NLE	431000	NA	NA	NA	NA	NA	NA	98.3 ER	2920	3080	659	183	741	607	1010	NA	NA	NA	NA	NA	2930
Lead	5	15	22.70	4 ER	ND	ND	ND	ND	ND	ND	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	2.61 ER	12.9	11.3	ND	7.14	ND
Magnesium	NLE	NLE	62700	NA	NA	NA	NA	NA	NA	19000	14500	15500	18000	16400	11700	11100	10800	NA	NA	NA	NA	NA	3770
Manganese	50	NLE	331	NA	NA	NA	NA	NA	NA	73.1	51.2	54.6	58.7	61.5	46.1	41.3	41.3	NA	NA	NA	NA	NA	45.4
Mercury	2	2	0.26	NA	NA	NA	NA	NA	NA	ND	0.12 ER	0.08 ER	ND	ND	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	ND
Nickel	100	NLE	187	NA	NA	NA	NA	NA	NA	27.5	20.1	20.7	25.6	25	18.2	19.6	21	NA	NA	NA	NA	NA	4.35 ER
Potassium	NLE	NLE	137000	NA	NA	NA	NA	NA	NA	3700	3320	3630	4260	<10000	<10000	<10000	<10000	NA	NA	NA	NA	NA	3250
Selenium	40	50	29.60	NA	NA	NA	NA	NA	NA	8.1 ER	NR	NR	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	25.4
Silver	40	NLE	ND	NA	NA	NA	NA	NA	NA	ND	1.25 ER	0.814 ER	ND	<10	<10	<10	<10	NA	NA	NA	NA	NA	ND
Sodium	50000	NLE	21500	NA	NA	NA	NA	NA	NA	16600	11600	12000	14500	12500	12100	12900	12300	NA	NA	NA	NA	NA	118000
Thallium	2	2	5.50	NA	NA	NA	NA	NA	NA	1.41 ER	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	ND
Vanadium	60	NLE	108	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	<50	<50	<50	<50	NA	NA	NA	NA	NA	3.5 ER
Zinc	2000	NLE	233	NA	NA	NA	NA	NA	NA	57.7	45.5 ER	46.6 ER	89.7	65.8	46.2	47.2	52.5	NA	NA	NA	NA	NA	357

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

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NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

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Table 2
Historical Groundwater Analytical Results
Site FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				699RW03					699RW04					699RW05								
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	7	8	9	10	11	9	10	11	12	13	1	2	3	4	5	6	7	8	9	10
Date Collected				6/17/2010	9/27/2010	1/10/2011	3/15/2011	6/3/2011	3/30/2008	6/4/2008	9/29/2008	3/27/2009	6/3/2011	6/4/2008	9/29/2008	12/30/2008	6/25/2009	8/26/2009	11/16/2009	6/17/2010	9/30/2010	1/10/2011	3/15/2011
ANALYTE/Lab ID				10271.05	10413.01	11017.07	11109.10	11236.07	80100.14	80190.15	80345.16	90129.16	11236.06	80190.16	80345.15	80482.15	90262.06	90359.15	90444.16	10271.07	10420.01	11017.08	11109.12
Volatile Organic Compounds (µg/L)																							
Acetone	6000	NLE	--	ND	ND	ND	ND	6.85	6.19	2.54	ND	ND	ND	34.42	37.06	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	11.29	1.3	9.75	16.33	4.49	23.33	28.19	0.38 J	1.43 J	ND	878.97	87.27	499.65	177.44 D	212.5 D	2.87	8.64	2.2	ND	0.19 J
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	3.88	ND	ND	ND	ND	ND	1.16 J	0.98 J	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	0.78	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	24.37	15.89	93.59	88.78	5.5	94.27	27.78	ND	0.77 J	ND	770.76	215.88	647.7	73.58 D	178.64 D	0.9	8.43	ND	0.78	7.44
4-Methyl-2-pentanone	NLE		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	8.96	1.69	5.57	10.23	8.39	24.27	30.85	9.96	2.21	ND	38.69	1.94 J	10.37	43.36	25.01	2.31	1.01	ND	ND	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	0.37 J	ND	ND	ND	ND	6.94	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	28.08	ND	8.81	21.19	108.06	106.76	183.71	33.67	ND	ND	ND	ND	ND	139.97	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1		--	ND	ND	ND	ND	5.81	ND	0.72 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	3		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	1.24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	0.58	2.21	2.39	4.14	1.45	24.81	10.11	ND	ND	ND	1338.47	1005.58	2611.43	55.93 D	235.6 D	1.74	13.16	ND	ND	4.78
m +*p* -Xylenes	1000	10,000	--	6.02	45.92	72.6	141.87	12.54	252.17	44.87	ND	1.25 J	ND	2391.41	624.26	2484.88	108.35 D	359.37 D	2.43	23.02	ND	2.47	34.85
o -Xylene	1000	10,000	--	8.02	36.84	61.47	74.75	7.35	88.98	27.17	ND	0.43 J	ND	785.91	269.99	1110.8	60.47 D	197.15 D	2.51	7.78	ND	1.34	14.91
TICs*	500	NLE	--	468	313	858	934	193	186	170	9	ND	6	400	359	189	450	748	ND	69	ND	ND	15
Metals (µg/L)																							
Aluminum	200	NLE	121000	79600	2390	19800	65900	57300	NA	NA	NA	NA	5180	NA	NA	NA	NA	NA	NA	1110	1180	10600	54700
Antimony	6	6	20.70	7.49 ER	8.4 ER	<6.0	<6.0	<6.0	NA	NA	NA	NA	<6.0	NA	NA	NA	NA	NA	NA	7.85 ER	12.8	<6.0	<12
Arsenic	3	10	89.30	19.42	1.74 ER	10.5	11.9	21.7	NA	NA	NA	NA	<3.0	NA	NA	NA	NA	NA	NA	2.02 ER	23.95	7.2	26.8
Barium	6000	2000	699.00	36.9	111	<200	<400	<200	NA	NA	NA	NA	<200	NA	NA	NA	NA	NA	NA	22.3	35	<200	<400
Beryllium	1	4	2.10	10.5	0.86	3.6	10	4.1	NA	NA	NA	NA	1.9	NA	NA	NA	NA	NA	NA	0.069 ER	0.214 ER	<1.0	4
Cadmium	4	5	9.50	13.5	3.71	<3.0	<3.0	13.7	NA	NA	NA	NA	6.5	NA	NA	NA	NA	NA	NA	ND	ND	<3.0	<6.0
Calcium	NLE	NLE	45400.00	19300	28800	23900	36900	41100	NA	NA	NA	NA	58700	NA	NA	NA	NA	NA	NA	35800	15300	80300	28600
Chromium	70	100	191.00	17.2	2.21 ER	<10	<10	86.1	NA	NA	NA	NA	<10	NA	NA	NA	NA	NA	NA	7.97	5.08	72.2	424
Cobalt	NLE	NLE	18.30	720	10.1	151	323	220	NA	NA	NA	NA	<50	NA	NA	NA	NA	NA	NA	ND	ND	<50	<100
Copper	1300	1300	65.60	ND	12	<10	<10	64.2	NA	NA	NA	NA	93.2	NA	NA	NA	NA	NA	NA	4.25 ER	15.6	31.2	122
Iron	300	NLE	431000	287000 ER	23600	84900	177000	233000	NA	NA	NA	NA	3990	NA	NA	NA	NA	NA	NA	3270	1670	17700	120000
Lead	5	15	22.70	29.3	2.82 ER	<3.0	5.5	22.9	6.87	21.8	9.68	6.02	10.6	9.22	5.84	3.96 ER	45	ND	64.1	ND	4.12 ER	11.2	82.2
Magnesium	NLE	NLE	62700	702 ER	17400	31200	48900	34100	NA	NA	NA	NA	21800	NA	NA	NA	NA	NA	NA	4150	20.1 ER	6350	13200
Manganese	50	NLE	331	15200	615	785	757	676	NA	NA	NA	NA	1600	NA	NA	NA	NA	NA	NA	95.3	28500	113	980
Mercury	2	2	0.26	0.14 ER	0.28 ER	ND	<0.20	<0.20	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	0.14 ER	ND	ND	<0.40
Nickel	100	NLE	187	1430	16.4	346	892	664	NA	NA	NA	NA	53.8	NA	NA	NA	NA	NA	NA	3.45 ER	3.37 ER	10.2	55.2
Potassium	NLE	NLE	137000	8410	5810	<10000	<20000	<10000	NA	NA	NA	NA	12600	NA	NA	NA	NA	NA	NA	4350	2380	<10000	23200
Selenium	40	50	29.60	NR	2.07 ER	<10	<10	<10	NA	NA	NA	NA	<10	NA	NA	NA	NA	NA	NA	NR	2.68 ER	<10	<20
Silver	40	NLE	ND	37.7	2.85 ER	<10	<10	<10	NA	NA	NA	NA	<10	NA	NA	NA	NA	NA	NA	1 ER	ND	<10	<20
Sodium	50000	NLE	21500	152000	286000	292000	303000	169000	NA	NA	NA	NA	308000	NA	NA	NA	NA	NA	NA	198000	28500	311000	96900
Thallium	2	2	5.50	0.94 ER	ND	<4.0	<2.0	<2.0	NA	NA	NA	NA	<2.0	NA	NA	NA	NA	NA	NA	ND	ND	<2.0	<4.0
Vanadium	60	NLE	108	40.9	ND	<50	<50	56.2	NA	NA	NA	NA	<50	NA	NA	NA	NA	NA	NA	4.6 ER	5.92	<50	213
Zinc	2000	NLE	233	3920	2300	950	2310	2430	NA	NA	NA	NA	385	NA	NA	NA	NA	NA	NA	17 ER	44.5 ER	180	624

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

Third Quarter 2011 data is not included due to an incomplete analytical data package.

Table 2
Historical Groundwater Analytical Results
Site FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				699RW05	699RW11														616MW01				
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	11	44	45	46	47	48	49	50	51	52	53	54	55	56	57	44	45	46	47	48
Date Collected				6/3/2011	3/30/2008	6/4/2008	9/29/2008	12/30/2008	3/27/2009	6/25/2009	8/26/2009	11/16/2009	3/31/2010	6/17/2010	9/27/2010	1/10/2011	3/15/2011	6/3/2011	3/30/2008	6/4/2008	9/29/2008	12/30/2008	3/27/2009
ANALYTE/Lab ID				11236.09	80100.15	80190.17	80345.17	80482.16	90129.17	90262.05	90359.16	90444.17	10116.02	10271.06	10413.02	11017.05	11109.11	11236.08	80100.16	80190.14	80345.14	80482.17	90129.14
Volatile Organic Compounds (µg/L)																							
Acetone	6000	NLE	--	ND	5.2	4.28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	0.58 J	158	2.94	248.4	0.87 J	8.41	0.25 J	4.06	0.33 J	6.11	ND	6.65	97.92	6.39	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	0.35 J	ND	2.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	0.29 J	224.45	ND	29.66	ND	5.22	ND	1	ND	3.55	ND	ND	108.63 D	0.99	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	NLE		--	ND	ND	1.29 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	7.92	16.33	4.59	13.4	0.44 J	1.8 J	ND	9.94	2.34	15.53	ND	2.97	2.96	1.52	ND	ND	ND	ND	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	165.09	ND	ND	ND	15.29	119.7	ND	185.93	112.41	237.89	ND	ND	ND	6.87	ND	ND	ND	ND	ND
Tetrachloroethene	1		--	ND	ND	ND	ND	ND	ND	0.57 J	ND	2.86	ND	13.52	ND	0.42 J	0.62	0.3 J	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	3		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	0.83	ND	2.83	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	0.41 J	ND	7.53	0.41 J	16.32	ND	1.7 J	ND	ND	ND	0.3 J	ND	0.4 J	3.81	0.39 J	ND	ND	ND	ND	ND
m +*p* -Xylenes	1000	10,000	--	0.95 J	0.38 J	302.59	0.86 J	34.32	ND	4.78	ND	ND	ND	ND	0.62 J	0.54 J	151.75	0.87 J	ND	ND	ND	ND	ND
o -Xylene	1000	10,000	--	0.54	ND	82.49	0.59 J	16.36	ND	0.68 J	ND	ND	ND	ND	0.43 J	0.42 J	25.59	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	278	136	459	ND	159	ND	182	5	436	ND	35	739	181	ND	ND	ND	ND	ND
Metals (µg/L)																							
Aluminum	200	NLE	121000	1770	NA	NA	NA	NA	NA	NA	NA	NA	26700	46600	2840	5280	9220	36100	NA	NA	NA	NA	NA
Antimony	6	6	20.70	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	ND	14	17.6	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA
Arsenic	3	10	89.30	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	ND	2.34 ER	1.61 ER	<3.0	<3.0	6.1	NA	NA	NA	NA	NA
Barium	6000	2000	699.00	<200	NA	NA	NA	NA	NA	NA	NA	NA	48.2	18.2	66.7	<200	<200	<200	NA	NA	NA	NA	NA
Beryllium	1	4	2.10	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	2.46	3.96	0.585	<1.0	<1.0	2.8	NA	NA	NA	NA	NA
Cadmium	4	5	9.50	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	17.7	14.4	4.39	3.8	4.9	8.9	NA	NA	NA	NA	NA
Calcium	NLE	NLE	45400.00	16500	NA	NA	NA	NA	NA	NA	NA	NA	49000	28300	55200	29200	67200	45300	NA	NA	NA	NA	NA
Chromium	70	100	191.00	14.8	NA	NA	NA	NA	NA	NA	NA	NA	3.75 ER	22.8	ND	<10	<10	30	NA	NA	NA	NA	NA
Cobalt	NLE	NLE	18.30	<50	NA	NA	NA	NA	NA	NA	NA	NA	144	253	30.5	<50	<50	136	NA	NA	NA	NA	NA
Copper	1300	1300	65.60	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	2.66 ER	<10	<10	<10	NA	NA	NA	NA	NA
Iron	300	NLE	431000	4090	NA	NA	NA	NA	NA	NA	NA	NA	97200	261000 E	147 ER	11700	27800	138000	NA	NA	NA	NA	NA
Lead	5	15	22.70	<3.0	ND	3.37 ER	3.54 ER	3 ER	2.47 ER	3.91 ER	ND	9.16	2.85 ER	24.2	ND	<3.0	<3.0	<3.0	ND	ND	ND	5.45	2.64 ER
Magnesium	NLE	NLE	62700	<5000	NA	NA	NA	NA	NA	NA	NA	NA	26200	39600	16200	7640	15500	24800	NA	NA	NA	NA	NA
Manganese	50	NLE	331	27.8	NA	NA	NA	NA	NA	NA	NA	NA	402	570	601	709	414	572	NA	NA	NA	NA	NA
Mercury	2	2	0.26	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.12 ER	0.26 ER	ND	<0.20	<0.20	NA	NA	NA	NA	NA
Nickel	100	NLE	187	<10	NA	NA	NA	NA	NA	NA	NA	NA	365	663	83.9	62.4	93.8	372	NA	NA	NA	NA	NA
Potassium	NLE	NLE	137000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	6540	5730	6990	<10000	<10000	<10000	NA	NA	NA	NA	NA
Selenium	40	50	29.60	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND	NR	ND	<10	<10	<10	NA	NA	NA	NA	NA
Silver	40	NLE	ND	<10	NA	NA	NA	NA	NA	NA	NA	NA	ND	41.5	ND	<10	<10	<10	NA	NA	NA	NA	NA
Sodium	50000	NLE	21500	36000	NA	NA	NA	NA	NA	NA	NA	NA	162000	158000	197000	118000	140000	185000	NA	NA	NA	NA	NA
Thallium	2	2	5.50	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA
Vanadium	60	NLE	108	<50	NA	NA	NA	NA	NA	NA	NA	NA	7.72	ND	ND	<50	<50	<50	NA	NA	NA	NA	NA
Zinc	2000	NLE	233	<20	NA	NA	NA	NA	NA	NA	NA	NA	1570	2810	432	239	367	1390	NA	NA	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

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Table 2
Historical Groundwater Analytical Results
Site FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				616MW01										
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	49	50	51	LF1	LF2	LF2 Dup	LF3	LF4	LF5	LF5 Dup	LF6
Date Collected				6/24/2009	8/26/2009	11/16/2009	3/25/2010	6/15/2010	6/15/2010	9/16/2010	1/7/2011	3/15/2011	3/15/2011	5/27/2011
ANALYTE/Lab ID				90261.10	90359.17	90444.14	10108.05	10265.04	10265.03	10396.02	11016.05	11109.05	11109.03	11229.05
Volatile Organic Compounds (µg/L)														
Acetone	6000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	70	80	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -1,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	NLE		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100	100	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	3		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m +*p* -Xylenes	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o -Xylene	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)														
Aluminum	200	NLE	121000	NA	NA	NA	681	121	122	119	508	1770	1740	2560
Antimony	6	6	20.70	NA	NA	NA	ND	ND	ND	ND	<6.0	<6.0	<6.0	<6.0
Arsenic	3	10	89.30	NA	NA	NA	0.87 ER	ND	ND	ND	<3.0	<3.0	<3.0	6.9
Barium	6000	2000	699.00	NA	NA	NA	29.8	75.6	74	80.7	<200	<200	<200	<200
Beryllium	1	4	2.10	NA	NA	NA	ND	0.331 ER	0.345 ER	0.269 ER	<1.0	<1.0	<1.0	<1.0
Cadmium	4	5	9.50	NA	NA	NA	ND	ND	ND	ND	<3.0	<3.0	<3.0	<3.0
Calcium	NLE	NLE	45400.00	NA	NA	NA	8070	1520	1600	1870	<5000	5680	5470	108000
Chromium	70	100	191.00	NA	NA	NA	5.51	ND	ND	ND	<10	14.9	14.4	16.1
Cobalt	NLE	NLE	18.30	NA	NA	NA	ND	1.12 ER	1.17 ER	1.05 ER	<50	<50	<50	<50
Copper	1300	1300	65.60	NA	NA	NA	ND	1	2.15 ER	2.75 ER	<10	14.2	<10	<10
Iron	300	NLE	431000	NA	NA	NA	1310	ND	ND	151 ER	180	4070	3930	9520
Lead	5	15	22.70	2.13 ER	3.33 ER	ND	ND	ND	ND	ND	<3.0	5	4	9.4
Magnesium	NLE	NLE	62700	NA	NA	NA	2750	2570	2600	2530	<5000	<5000	<5000	13600
Manganese	50	NLE	331	NA	NA	NA	7.31	14.3	15.2	13	24.5	<15	<15	125
Mercury	2	2	0.26	NA	NA	NA	ND	ND	ND	ND	ND	<0.20	<0.20	<0.20
Nickel	100	NLE	187	NA	NA	NA	3.05 ER	5.98	6.38	7.43	14.3	<10	<10	22.5
Potassium	NLE	NLE	137000	NA	NA	NA	2420	1570	1540	1780	<10000	<10000	<10000	13500
Selenium	40	50	29.60	NA	NA	NA	14 ER	NR	NR	ND	<10	<10	<10	<10
Silver	40	NLE	ND	NA	NA	NA	ND	1.06 ER	1.55 ER	ND	<10	<10	<10	<10
Sodium	50000	NLE	21500	NA	NA	NA	4040 ER	6270	5900	5900	<10000	<10000	<10000	33600
Thallium	2	2	5.50	NA	NA	NA	ND	ND	ND	ND	<2.0	<2.0	<2.0	<2.0
Vanadium	60	NLE	108	NA	NA	NA	3.15 ER	ND	ND	0.641 ER	<50	<50	<50	<50
Zinc	2000	NLE	233	NA	NA	NA	8.97 ER	17.3 ER	17.7 ER	20.9 ER	34.2	38.9	20.4	109

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

Third Quarter 2011 data is not included due to an incomplete analytical data package.

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	616MW01	699MW01								
Sample ID			FTMM-53-GW-616MW01	FTMM-53-GW-699MW01	FTMM-53-GW-699MW01-10.55	FTMM-53-GW-699MW101-10.5	FTMM-53-GW-699MW01-12.5	FTMM-53-GW-699MW01-7.5	FTMM-53-GW-699MW01-7.5	FTMM-53-GW-699MW01-7.5	FTMM-53-GW-699MW01-7.5	FTMM-53-699MW01-7.5
Sample Date			8/19/2013	8/21/2013	3/12/2014	3/12/2014	3/31/2014	3/31/2014	7/1/2014	9/30/2014	12/16/2014	3/30/2015
QA/QC			SA	SA	SA	DU	SA	SA	SA	SA	SA	SA
Sample Method			LFPS	LFPS	LFPS	LFPS	PDB	PDB	PDB	PDB	PDB	PDB
Volatile Organic Compounds (µg/l)												
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1 UJ	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	**4.6 J**	**0.31 J**	**0.26 J**	< 1	< 1	**0.3 J**	**1.3 J**	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	**0.21 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1 UJ	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**1.4 J**	< 5	< 5	< 5	< 5	< 5	**1.7 J**	**6.4 B**	< 5	**2.3 J**
Benzene	1	5	< 1	**0.25 J**	< 1	< 1	< 1	< 1	**0.31 J**	**0.52 J**	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1 UJ	< 1
Ethyl benzene	700	700	< 1	**7.1**	**0.55 J**	**0.59 J**	< 1	< 1	**0.27 J**	**1.6 J**	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	**2 J**	**0.25 J**	**0.28 J**	< 1	< 1	< 1	**0.29 J**	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1	**0.32 J**	< 1	< 1	< 1	< 1 UJ	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	**1.2 J**	< 1	< 1	< 1	< 1	**0.3 J**	**0.39 J**	< 1	< 1
n-Butylbenzene	100	NLE	< 1	**0.59 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	**0.28 J**	< 1	< 1	< 1	< 1	< 1	**0.4 J**	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	**4.2 J**	**0.42 J**	**0.43 J**	< 1	< 1	< 1	**0.39 J**	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	**0.71 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	NA	NA	NA	NA	NA	NA	< 20	< 20	< 20
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.27 J**	< 1	< 1
Total Xylenes	1,000	10,000	< 3	**0.28 J**	< 3	< 3	< 3	< 3	< 3	**2.4 J**	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
TIC VOCs (µg/l)												
Total TIC, Volatile	500	NLE	ND	**49.8 JN**	ND	ND	ND	ND	ND	0 U	0 U	0 U

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
FTMM-53 Former Gas Station at Building 699
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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	699MW01			699MW02	699MW04					
Sample ID			FTMM-53-GW-699MW01-7.5	FTMM-53-GW-699MW01-7.5	FTMM-53-GW-699MW01-11.0	FTMM-53-GW-699MW02	FTMM-53-GW-699MW04	FTMM-53-GW-699MW04-10.3	FTMM-53-GW-699MW04-13.85	FTMM-53-GW-699MW04-6.85	FTMM-53-GW-699MW04-6.85	FTMM-53-GW-699MW04-6.85
Sample Date			6/29/2015	9/30/2015	11/18/2015	8/19/2013	8/21/2013	3/12/2014	3/31/2014	3/31/2014	7/1/2014	9/30/2014
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	LFPS	LFPS	LFPS	LFPS	PDB	PDB	PDB	PDB
Volatile Organic Compounds (µg/l)												
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	**6.4**	**0.64 J**	< 1	**3.3 J**	< 1	**1.9 J**	**2.3 J**	< 1	**0.25 J**
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	**0.23 J**	< 1	< 1	< 1	< 1	**0.78 J**	**0.99 J**	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**2.2 J**	**4.6 B**	< 5	**2.3 J**	< 5	**1.5 J**	< 5	< 5	**2.2 J**	**11 B**
Benzene	1	5	< 1	**0.87 J**	< 1	< 1	**0.97 J**	< 1	**0.23 J**	**0.23 J**	< 1	**0.37 J**
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	**9.1**	**1.1 J**	< 1	**2.7 J**	< 1	**0.87 J**	**1.1 J**	< 1	**0.28 J**
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	**1.6 J**	**0.3 J**	< 1	**1.4 J**	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	**1.2 J**	< 2	< 2	**1.3 J**	< 2	**3 J**	**3.4 J**	< 2	< 2
Methyl bromide	10	NLE	< 1 UJ	< 1	< 1	< 1	< 1	< 1	**0.33 J**	**0.47 J**	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	**2.1 J**	**0.21 B**	< 1	**1.3 J**	< 1	**1.5 J**	**0.52 J**	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	**0.27 J**	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	**3 J**	< 1	< 1	**4.4 J**	< 1	**2.4 J**	**2.5 J**	< 1	**1 J**
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	**2.2 J**	**0.58 J**	< 1	**0.9 J**	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	**0.87 J**	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	< 20	< 20 UJ	< 20	NA	NA	NA	NA	NA	NA	< 20
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	**0.23 J**	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	**0.46 B**	< 1	< 1	**0.46 J**	< 1	< 1	< 1	< 1	**0.27 J**
Total Xylenes	1,000	10,000	< 3	**4.2 J**	< 3	< 3	**5.7 J**	< 3	**5.4 J**	**5.9 J**	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
TIC VOCs (µg/l)												
Total TIC, Volatile	500	NLE	0 U	**25.2 JN**	ND	ND	**117.8 JN**	ND	ND	ND	ND	0 U

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
FTMM-53 Former Gas Station at Building 699
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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	699MW04						699MW05	699MW06		
Sample ID			FTMM-53-GW-699MW04-8.0	FTMM-53-699MW04-8.0	FTMM-53-GW-699MW04-8.0	FTMM-53-GW-699MW04-8.0	FTMM-53-GW-699MW04-11.5	FTMM-53-GW-699MW104-11.5	FTMM-53-GW-699MW05	FTMM-53-GW-699MW06	FTMM-53-GW-699MW06-10	FTMM-53-GW-699MW06-10.20
Sample Date			12/18/2014	3/30/2015	6/29/2015	9/30/2015	11/18/2015	11/18/2015	8/20/2013	8/20/2013	3/12/2014	3/31/2014
QA/QC			SA	SA	SA	SA	SA	DU	SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB	LFPS	LFPS	LFPS	LFPS	LFPS	PDB
Volatile Organic Compounds (µg/l)												
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.26 J**
1,2,4-Trimethylbenzene	100	NLE	**4.6 J**	< 1	**2 J**	**7.5**	**4.8 J**	**6.1**	< 1	**76**	**0.8 J**	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	**3 J**	< 1	< 1	< 1	**0.48 J**	**0.61 J**	< 1	**10**	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**8.4**	**2.1 J**	< 5	**2.1 B**	**3.7 B**	**3.1 B**	< 5	< 5	< 5	**2.2 J**
Benzene	1	5	< 1	< 1	< 1	**2.4 J**	**1.6 J**	**1.6 J**	< 1	**1.5 J**	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1 UJ	< 1	< 1	**0.73 J**	**0.6 J**	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	**0.24 J**	< 1	**0.25 J**	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	**0.9 J**	**13**	**6.4**	**6.1**	< 1	**83**	**1.5 J**	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	**0.43 J**	**1 J**	**14**	**15**	< 1	**7.6**	**0.23 J**	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	**0.33 J**	**0.36 J**	**2 J**	**2.3 J**	< 2	**100**	**1.2 J**	< 2
Methyl bromide	10	NLE	< 1 UJ	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.43 J**
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	**0.42 J**	**0.41 J**	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	**3.7 J**	**3.6 J**	< 1	**2.5 J**	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	**0.25 J**	< 1	**0.61 J**	**2.5 J**	**11**	**13**	**0.23 J**	**15**	**0.23 J**	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	**1.6 J**	**2 J**	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	**0.52 J**	< 1	**1.2 J**	**4.2 J**	**2.1 J**	**2.3 J**	< 1	**5.5**	**0.31 J**	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	**0.52 J**	**1.6 J**	**19**	**21**	< 1	**12**	**0.24 J**	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	**2.9 J**	**3.2 J**	< 1	**0.71 J**	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	< 20	< 20	< 20	< 20 UJ	< 20	< 20	NA	NA	NA	NA
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	**0.56 J**	**0.57 J**	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	**1 J**	**0.47 J**	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	**0.9 B**	**1 J**	**1 J**	< 1	**0.59 J**	< 1	< 1
Total Xylenes	1,000	10,000	**2.52 J**	< 3	**1.52 J**	**4.56 J**	**4.1 J**	**4.6 J**	< 3	**105.5**	**1.51 J**	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
TIC VOCs (µg/l)												
Total TIC, Volatile	500	NLE	0 U	0 U	**5.6 JN**	**70.7 JN**	**437.9 JN**	**482 JN**	ND	**179**	ND	ND

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	699MW06								
Sample ID			FTMM-53-GW-699MW06-10.2	FTMM-53-GW-699MW06-10.2	FTMM-53-GW-699MW106-10.2	FTMM-53-GW-699MW06-10.2	FTMM-53-GW-699MW106-10.2	FTMM-53-GW-699MW06-10.2	FTMM-53-GW-699MW106-10.2	FTMM-53-GW-699MW06-10.2	FTMM-53-GW-699MW106-10.2
Sample Date			7/1/2014	9/30/2014	9/30/2014	12/18/2014	12/18/2014	3/30/2015	3/30/2015	6/29/2015	6/29/2015
QA/QC			SA	SA	DU	SA	DU	SA	DU	SA	DU
Sample Method			PDB	PDB	PDB	PDB	PDB	PDB	PDB	PDB	PDB
Volatile Organic Compounds (µg/l)											
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	**54**	**52**	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	**5.7**	**5.7**	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**2.6 J**	**12**	**12**	**2.2 J**	**2 J**	**1.6 J**	**1.6 J**	**1.9 J**	< 5
Benzene	1	5	< 1	**9**	**9.2**	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1 UJ	< 1 UJ	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	**140 J**	**150**	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	**14**	**14**	< 1	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	**120 J**	**120**	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1 UJ	< 1 UJ	< 1	< 1	< 1 UJ	< 1 UJ
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	**22**	**22**	< 1	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	**0.27 J**	**0.25 J**	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	**9.3**	**9.2**	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	**11**	**11**	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	**0.48 J**	**0.35 J**	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	**1.5 J**	**1.4 J**	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	**129.3 J**	**129.2 J**	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
TIC VOCs (µg/l)											
Total TIC, Volatile	500	NLE	ND	**138 JN**	**137.5 JN**	0 U	0 U	0 U	0 U	0 U	0 U

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
FTMM-53 Former Gas Station at Building 699
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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	699MW06			699MW08		699MW09				
Sample ID			FTMM-53-GW-699MW06-10.2	FTMM-53-GW-699MW106-10.2	FTMM-53-GW-699MW06-8.5	FTMM-53-GW-699MW08	FTMM-53-GW-699MW108	FTMM-53-GW-699MW09	FTMM-53-GW-699MW09-8	FTMM-53-GW-699MW09-7.70	FTMM-53-GW-699MW09-7.75	FTMM-53-GW-699MW09-7.75
Sample Date			9/30/2015	9/30/2015	11/25/2015	8/20/2013	8/20/2013	8/20/2013	3/12/2014	3/31/2014	7/1/2014	9/30/2014
QA/QC			SA	DU	SA	SA	DU	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	LFPS	LFPS	LFPS	LFPS	LFPS	PDB	PDB	PDB
Volatile Organic Compounds (µg/l)												
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	**32**	**29**	**3.9 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	**3.7 J**	**3.2 J**	**0.23 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**2.2 B**	< 5	**2.1 B**	< 5	**4.4 J**	< 5	< 5	**1.5 J**	**1.4 J**	**6.6 B**
Benzene	1	5	**1.7 J**	**2.3 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1 UJ	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.25 J**	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	**37**	**31**	**4 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	**4.6 J**	**4.9 J**	**0.74 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	**46**	**42**	**2.9 J**	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.34 J**	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	**0.38 J**	< 1	< 1	< 1	**0.49 J**
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	**5.3**	**5.4**	**0.64 B**	**0.49 J**	**0.56 J**	< 1	**0.26 J**	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	**2.9 J**	**2.4 J**	**0.38 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	**4.2 J**	**4.5 J**	**0.81 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	**0.48 J**	**0.51 J**	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	< 20 UJ	< 20 UJ	< 20	NA	NA	NA	NA	NA	NA	< 20
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.33 J**
Toluene	600	1,000	**0.61 B**	**0.54 B**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	**48.9 J**	**44.4 J**	**3.3 J**	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
TIC VOCs (µg/l)												
Total TIC, Volatile	500	NLE	**69.4 JN**	**67.6 JN**	0 U	**8.5**	**14.1**	ND	ND	ND	ND	0 U

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	699MW09					699MW12	699MW15	699MW16		
Sample ID			FTMM-53-GW-699MW09-7.75	FTMM-53-699MW09-7.75	FTMM-53-GW-699MW09-7.75	FTMM-53-GW-699MW09-7.75	FTMM-53-GW-699MW09-9.0	FTMM-53-GW-699MW12	FTMM-53-GW-699MW15	FTMM-53-GW-699MW16	FTMM-53-GW-699MW16-8.5	FTMM-53-GW-699MW16-11.5
Sample Date			12/18/2014	3/30/2015	6/29/2015	9/30/2015	11/25/2015	8/20/2013	8/20/2013	8/20/2013	3/12/2014	3/31/2014
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB	LFPS	LFPS	LFPS	LFPS	LFPS	PDB
Volatile Organic Compounds (µg/l)												
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	**0.25 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**1.8 J**	**2.2 J**	**1.7 J**	**2.1 B**	< 5	**2.2 J**	< 5	< 5	< 5	**1.7 J**
Benzene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.47 J**	**5.2**	**8**
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1 UJ	< 1	< 1 UJ	**0.47 J**	< 1	< 1	< 1	< 1	< 1	**0.34 J**
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	**0.45 J**	< 1	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	**0.58 J**	< 1	< 1	< 1	**1.1 J**	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	< 1	**0.31 J**	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	< 20	< 20	< 20	< 20 UJ	< 20	NA	NA	NA	NA	NA
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	**1.1 J**	**0.51 J**	< 1	< 1	**1.1 J**	**0.9 J**	**0.47 J**
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
TIC VOCs (µg/l)												
Total TIC, Volatile	500	NLE	0 U	0 U	0 U	0 U	0 U	ND	ND	ND	ND	ND

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID			699MW16								699RW03	
Sample ID	NJDEP GWQS	2015-06 USEPA MCL	FTMM-53-GW-699MW16-6.5	FTMM-53-GW-699MW16-6.5	FTMM-53-GW-699MW16-6.5	FTMM-53-GW-699MW16-7.5	FTMM-53-699MW16-7.5	FTMM-53-GW-699MW16-7.5	FTMM-53-GW-699MW16-7.5	FTMM-53-GW-699MW16-9.7	FTMM-53-GW-699RW03	FTMM-53-GW-699RW03-11.4
Sample Date			3/31/2014	7/1/2014	9/30/2014	12/18/2014	3/30/2015	6/29/2015	9/30/2015	11/23/2015	8/20/2013	3/12/2014
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB	PDB	PDB	PDB	LFPS	LFPS	LFPS
Volatile Organic Compounds (µg/l)												
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**170**	**130**
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.39 J**	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**11**	**32**
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	**1.4 J**	**2.2 J**	**6.3 B**	**2 J**	**1.4 J**	**1.8 J**	**2.4 B**	< 5	< 5	< 5
Benzene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.2 J**	**4.8 J**
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.47 J**
Chloroform	70	80	**7.7**	**3.1 J**	**1.6 J**	**7.8**	**4.5 J**	**0.44 J**	**12**	**3 J**	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**3.2 J**	**3.2 J**
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**35**	**50**
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**18**	**21**
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	**15**	**71**
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	**0.32 J**	< 1	< 1	**0.29 J**
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**33**	**29**
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**7.9**	**12**
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**42**	**90**
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**34**	**34**
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**7.6**	**7.4**
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	NA	< 20	< 20	< 20	< 20	< 20 UJ	< 20	NA	NA
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.32 J**	**0.68 J**
Tetrachloroethene	1	5	**0.34 J**	**0.48 J**	**1.3 J**	**0.89 J**	**0.95 J**	**1.3 J**	**1.3 J**	**1.3 J**	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.72 J**	**1.7 J**
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	**67**	**161**
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
TIC VOCs (µg/l)												
Total TIC, Volatile	500	NLE	ND	ND	0 U	0 U	0 U	0 U	**5.9 J**	0 U	**898.4**	**813**

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
FTMM-53 Former Gas Station at Building 699
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Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL										699RW05
Sample ID			FTMM-53-GW-699RW03-14.59	FTMM-53-GW-699RW03-8.20	FTMM-53-GW-699RW03-8.2	FTMM-53-GW-699RW03-8.2	FTMM-53-GW-699RW03-8.2	FTMM-53-GW-699RW03-8.2	FTMM-53-GW-699RW03-8.2	FTMM-53-GW-699RW03-8.2	FTMM-53-GW-699RW03-12.8	FTMM-53-GW-699RW05
Sample Date			3/31/2014	3/31/2014	7/1/2014	9/30/2014	12/18/2014	3/30/2015	6/29/2015	9/30/2015	11/23/2015	8/20/2013
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB	PDB	PDB	PDB	PDB	LFPS	LFPS
Volatile Organic Compounds (µg/l)												
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1	< 5
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
1,2,4-Trichlorobenzene	9	70	< 1	**0.27 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
1,2,4-Trimethylbenzene	100	NLE	**120**	**110**	**42**	**26**	**3 J**	**1.1 J**	**7.2**	**1.2 J**	**10**	**610**
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
1,3,5-Trimethylbenzene	100	NLE	**17**	**16**	**3.1 J**	< 1	**0.26 J**	**0.45 J**	< 1	< 1	**0.44 J**	**130**
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1	< 5
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Acetone	6,000	NLE	< 5	< 5	< 5	< 5	< 5	**1.6 J**	< 5	**3.2 B**	< 5	< 25
Benzene	1	5	**3.7 J**	**3.5 J**	**0.88 J**	**0.46 J**	< 1	< 1	< 1	**0.36 J**	**0.68 J**	**7.1 J**
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.32 J**	< 5
Chloroform	70	80	< 1	< 1	**0.28 J**	**0.29 J**	< 1	< 1	**0.53 J**	< 1	< 1	< 5
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Cymene	100	NLE	**0.91 J**	**0.8 J**	**0.59 J**	**0.63 J**	**0.29 J**	< 1	< 1	< 1	**0.75 J**	**2.4 J**
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1	< 5
Ethyl benzene	700	700	**49**	**46**	**17**	**8.4**	**0.58 J**	< 1	**0.5 J**	**1.4 J**	**5**	**370**
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Isopropylbenzene	700	NLE	**14**	**13**	**7**	**3.7 J**	**0.37 J**	< 1	**0.28 J**	**0.79 J**	**4.5 J**	**29**
Meta/Para Xylene	1,000	NLE	**62**	**59**	**9.8 J**	**0.77 J**	**0.45 J**	< 2	**0.56 J**	< 2	**0.48 J**	**840**
Methyl bromide	10	NLE	< 1	**0.33 J**	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 1	< 5
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.4 J**	< 5
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Naphthalene	300	NLE	**19**	**15**	**6.5**	**2.9 J**	< 1	< 1	**0.37 J**	**0.83 J**	**1.1 B**	**190**
n-Butylbenzene	100	NLE	< 1	< 1	**0.9 J**	**1.2 J**	< 1	< 1	< 1	< 1	**1.1 J**	**3.4 J**
Ortho Xylene	1,000	NLE	**78**	**76**	**14**	**6.4**	**0.86 J**	**2.3 J**	**1.6 J**	**1.5 J**	**2 J**	**390**
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Propylbenzene	100	NLE	**18**	**16**	**12**	**6.6**	**0.38 J**	< 1	**0.45 J**	**0.88 J**	**5.8**	**64**
sec-Butylbenzene	100	NLE	**1.9 J**	**1.6 J**	**1.3 J**	**1.5 J**	< 1	< 1	< 1	**0.32 J**	**2.5 J**	**5.1 J**
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Tert Butyl Alcohol	100	NLE	NA	NA	NA	< 20	< 20	< 20	< 20	< 20 UJ	< 20	NA
tert-Butylbenzene	100	NLE	**0.26 J**	**0.29 J**	< 1	< 1	< 1	< 1	< 1	< 1	**0.49 J**	< 5
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Toluene	600	1,000	**1.4 J**	**1.3 J**	**0.22 J**	**0.21 J**	< 1	< 1	< 1	< 1	< 1	**50**
Total Xylenes	1,000	10,000	**140**	**135**	**23.8 J**	**7.17 J**	**1.31 J**	**4.3 J**	**2.16 J**	**3.5 J**	**2.5 J**	**1,230**
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
TIC VOCs (µg/l)												
Total TIC, Volatile	500	NLE	**362**	**302**	**7.1**	**129.7 JN**	**16 JN**	0 U	0 U	0 U	**199.3 JN**	**1,703**

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	699RW05										
Sample ID			FTMM-53-GW-699RW05-8.6	FTMM-53-GW-699RW05-4.8	FTMM-53-GW-699RW05-9.80	FTMM-53-GW-699RW05-4.8	FTMM-53-GW-699RW05-4.8	FTMM-53-GW-699RW05-10	FTMM-53-699RW05-10.0	FTMM-53-GW-699RW05-10	FTMM-53-GW-699RW05-10	FTMM-53-GW-699RW05-10
Sample Date			3/12/2014	3/31/2014	3/31/2014	7/1/2014	9/30/2014	12/18/2014	3/30/2015	6/29/2015	9/30/2015	11/23/2015
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			LFPS	PDB	PDB	PDB	PDB	PDB	PDB	PDB	PDB	LFPS
Volatile Organic Compounds (µg/l)												
1,1,1,2-Tetrachloroethane	1	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
1,1,1-Trichloroethane	30	200	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
1,1,2,2-Tetrachloroethane	1	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1 UJ	< 2.5	< 1	< 1	< 2.5
1,1,2-Trichloroethane	3	5	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
1,1-Dichloroethane	50	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
1,1-Dichloroethene	1	7	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
1,1-Dichloropropene	100	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
1,2,3-Trichlorobenzene	100	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
1,2,3-Trichloropropane	0.03	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
1,2,4-Trichlorobenzene	9	70	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
1,2,4-Trimethylbenzene	100	NLE	**790**	**150**	**130**	**7.8**	**1.4 J**	**200 J**	**690**	**3.9 J**	**180**	**290**
1,2-Dibromo-3-chloropropane	0.02	0.2	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
1,2-Dibromoethane	0.03	0.05	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
1,2-Dichlorobenzene	600	600	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
1,2-Dichloroethane	2	5	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
1,2-Dichloropropane	1	5	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
1,3,5-Trimethylbenzene	100	NLE	**160**	**30**	**23**	**3.9 J**	**0.22 J**	**69**	**120**	**0.58 J**	**4.6 J**	**56**
1,3-Dichlorobenzene	600	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
1,3-Dichloropropane	100	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
1,4-Dichlorobenzene	75	75	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
2,2-Dichloropropane	100	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1 UJ	< 2.5	< 1	< 1	< 2.5
2-Chlorotoluene	100	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Acetone	6,000	NLE	< 25	< 10	< 13	< 5	**14**	< 5	< 13	< 5	**5.8 B**	**5.7 B**
Benzene	1	5	**7.2 J**	**2.8 J**	**3.1 J**	**0.21 J**	< 1	**1.9 J**	**1.2 J**	< 1	**2.8 J**	**2.5 J**
Bromobenzene	100	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Bromochloromethane	100	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Bromodichloromethane	1	80	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Bromoform	4	80	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1 UJ	< 2.5
Carbon tetrachloride	1	5	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Chlorobenzene	50	100	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Chlorodibromomethane	1	80	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Chloroethane	5	NLE	**1.6 J**	< 2	< 2.5	< 1	< 1	< 1	< 2.5 UJ	< 1	< 1	< 2.5
Chloroform	70	80	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Cis-1,2-Dichloroethene	70	70	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Cis-1,3-Dichloropropene	1	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Cymene	100	NLE	**3.7 J**	< 2	< 2.5	< 1	< 1	**1.3 J**	**2.1 J**	**0.23 J**	**0.57 J**	**2.4 J**
Dichlorodifluoromethane	1,000	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1 UJ	< 2.5	< 1	< 1	< 2.5
Ethyl benzene	700	700	**700**	**150**	**160**	**0.74 J**	**0.51 J**	**120**	**330**	**0.94 J**	**180**	**190**
Hexachlorobutadiene	1	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Isopropylbenzene	700	NLE	**52**	**7.4 J**	**8.1 J**	**0.45 J**	< 1	**7.7**	**23**	< 1	**13**	**15**
Meta/Para Xylene	1,000	NLE	**1,600**	**430**	**390**	**6.3 J**	**0.88 J**	**330**	**820**	**2.9 J**	**150**	**370**
Methyl bromide	10	NLE	< 5	< 2	**0.88 J**	< 1	< 1	< 1 UJ	< 2.5 UJ	< 1 UJ	< 1	< 2.5
Methyl butyl ketone	300	NLE	< 25	< 10	< 13	< 5	< 5	< 5	< 13	< 5	< 5	< 13
Methyl chloride	100	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Methyl ethyl ketone	300	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	**0.82 J**	**3.5 J**
Methyl isobutyl ketone	100	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Methyl Tertbutyl Ether	70	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Methylene chloride	3	5	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Naphthalene	300	NLE	**270**	**60**	**54**	**7.6**	**0.33 J**	**71**	**160**	**0.81 J**	**39**	**120**
n-Butylbenzene	100	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	**0.67 J**	**2.8 J**
Ortho Xylene	1,000	NLE	**810**	**290**	**270**	**16**	**1 J**	**290**	**510**	**3.2 J**	**210**	**280**
p-Chlorotoluene	100	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Propylbenzene	100	NLE	**100**	**8.9 J**	**9.7 J**	< 1	< 1	**9.7**	**39**	**0.27 J**	**19**	**24**
sec-Butylbenzene	100	NLE	**6.3 J**	< 2	< 2.5	< 1	< 1	**1.2 J**	**2.7 J**	< 1	**0.98 J**	**2.4 J**
Styrene	100	100	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Tert Butyl Alcohol	100	NLE	NA	NA	NA	NA	< 20	< 20	< 50	< 20	< 20 UJ	< 50
tert-Butylbenzene	100	NLE	< 5	< 2	< 2.5	< 1	< 1	**0.28 J**	< 2.5	< 1	**0.25 J**	< 2.5
Tetrachloroethene	1	5	< 5	< 2	**0.8 J**	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Toluene	600	1,000	**23 J**	**7.1 J**	**7 J**	**0.46 J**	< 1	**6.8**	**7.4 J**	< 1	**9.4**	**7.5 J**
Total Xylenes	1,000	10,000	**2,410**	**720**	**660**	**22.3 J**	**1.88 J**	**620**	**1,330**	**6.1 J**	**360**	**650**
Trans-1,2-Dichloroethene	100	100	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Trans-1,3-Dichloropropene	1	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Trichloroethene	1	5	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Trichlorofluoromethane	2,000	NLE	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
Vinyl chloride	1	2	< 5	< 2	< 2.5	< 1	< 1	< 1	< 2.5	< 1	< 1	< 2.5
TIC VOCs (µg/l)												
Total TIC, Volatile	500	NLE	**2,338**	**417.8**	**369.4**	ND	**5.7 JN**	**1,181 JN**	**2,062 JN**	**6.5 JN**	**1,217 JN**	**1,200 JN**

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
FTMM-53 Former Gas Station at Building 699
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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	699RW11										
Sample ID			FTMM-53-GW-699RW11	FTMM-53-GW-699RW11-11.1	FTMM-53-GW-699RW11-14.08	FTMM-53-GW-699RW11-8.03	FTMM-53-GW-699RW11-8.3	FTMM-53-GW-699RW11-8.3	FTMM-53-GW-699RW11-5.3	FTMM-53-699RW11-8.3	FTMM-53-GW-699RW11-8.3	FTMM-53-GW-699RW11-8.3
Sample Date			8/20/2013	3/12/2014	3/31/2014	3/31/2014	7/1/2014	9/30/2014	12/18/2014	3/30/2015	6/29/2015	9/30/2015
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			LFPS	LFPS	PDB	PDB	PDB	PDB	PDB	PDB	PDB	PDB
Volatile Organic Compounds (µg/l)												
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	**0.24 J**	< 1	< 1	**0.21 J**	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	< 5	< 5	< 5	< 5	< 5	< 5	**28**	< 5 UJ	< 5	< 5
Benzene	1	5	**3.6 J**	**11**	**6.5**	**6.5**	**2.7 J**	**2.4 J**	**3 J**	**7.1**	**4.7 J**	**3 J**
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1 UJ
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 1
Ethyl benzene	700	700	**0.21 J**	**0.45 J**	**0.26 J**	**0.25 J**	**0.28 J**	< 1	< 1	**0.3 J**	**0.35 J**	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	**6.9**	**8.9**	**1.2 J**	**1.2 J**	**4.3 J**	**6.3**	**1.3 J**	**6.1**	**12**	**7.1**
Meta/Para Xylene	1,000	NLE	**0.41 J**	**0.45 J**	**0.33 J**	**0.35 J**	< 2	< 2	< 2	**0.55 J**	**0.42 J**	**0.45 J**
Methyl bromide	10	NLE	< 1	< 1	**0.35 J**	**0.29 J**	< 1	< 1	< 1 UJ	< 1	< 1	**0.37 J**
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	**0.23 J**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.42 J**
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	**1.7 J**	**1.5 J**	**0.61 J**	**0.75 J**	**0.74 J**	**0.59 J**	**0.98 J**	**0.96 J**	**0.28 J**	**0.27 J**
n-Butylbenzene	100	NLE	**0.46 J**	< 1	< 1	< 1	< 1	**0.29 J**	< 1	< 1	**0.32 J**	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	**4.8 J**	**9.4**	**0.71 J**	**0.68 J**	**5.1**	**3.5 J**	**0.28 J**	**4.4 J**	**11**	**2.7 J**
sec-Butylbenzene	100	NLE	**2 J**	**1.6 J**	< 1	< 1	**0.33 J**	**1.1 J**	**0.6 J**	**0.89 J**	**1.3 J**	**1.2 J**
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	NA	NA	NA	NA	< 20	< 20	< 20	< 20	< 20 UJ
tert-Butylbenzene	100	NLE	**0.41 J**	**0.36 J**	< 1	< 1	< 1	< 1	**0.3 J**	**0.37 J**	**0.23 J**	**0.22 J**
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	600	1,000	**0.34 J**	**0.37 J**	**0.3 J**	**0.36 J**	**0.22 J**	< 1	< 1	< 1	**0.36 J**	**0.38 B**
Total Xylenes	1,000	10,000	**0.41 J**	**0.45 J**	**0.33 J**	**0.35 J**	< 3	< 3	< 3	**1.55 J**	**1.42 J**	**1.45 J**
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
TIC VOCs (µg/l)												
Total TIC, Volatile	500	NLE	**153.9**	**122.9**	ND	ND	ND	**83.2 JN**	**76.9 JN**	**195 JN**	**92.7 JN**	**131 JN**

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	699RW11
Sample ID			FTMM-53-GW-699RW11-12.8
Sample Date			11/25/2015
QA/QC			SA
Sample Method			LFPS
Volatile Organic Compounds (µg/l)			
1,1,1,2-Tetrachloroethane	1	NLE	< 1
1,1,1-Trichloroethane	30	200	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1
1,1,2-Trichloroethane	3	5	< 1
1,1-Dichloroethane	50	NLE	< 1
1,1-Dichloroethene	1	7	< 1
1,1-Dichloropropene	100	NLE	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1
1,2,4-Trichlorobenzene	9	70	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1
1,2-Dibromoethane	0.03	0.05	< 1
1,2-Dichlorobenzene	600	600	< 1
1,2-Dichloroethane	2	5	< 1
1,2-Dichloropropane	1	5	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1
1,3-Dichlorobenzene	600	NLE	< 1
1,3-Dichloropropane	100	NLE	< 1
1,4-Dichlorobenzene	75	75	< 1
2,2-Dichloropropane	100	NLE	< 1
2-Chlorotoluene	100	NLE	< 1
Acetone	6,000	NLE	**5.8 B**
Benzene	1	5	**3.3 J**
Bromobenzene	100	NLE	< 1
Bromochloromethane	100	NLE	< 1
Bromodichloromethane	1	80	< 1
Bromoform	4	80	< 1
Carbon tetrachloride	1	5	< 1
Chlorobenzene	50	100	< 1
Chlorodibromomethane	1	80	< 1
Chloroethane	5	NLE	< 1
Chloroform	70	80	< 1
Cis-1,2-Dichloroethene	70	70	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1
Cymene	100	NLE	< 1
Dichlorodifluoromethane	1,000	NLE	< 1
Ethyl benzene	700	700	< 1
Hexachlorobutadiene	1	NLE	< 1
Isopropylbenzene	700	NLE	**4.9 J**
Meta/Para Xylene	1,000	NLE	**0.44 J**
Methyl bromide	10	NLE	< 1
Methyl butyl ketone	300	NLE	< 5
Methyl chloride	100	NLE	< 1
Methyl ethyl ketone	300	NLE	**4 J**
Methyl isobutyl ketone	100	NLE	< 1
Methyl Tertbutyl Ether	70	NLE	< 1
Methylene chloride	3	5	< 1
Naphthalene	300	NLE	**1 B**
n-Butylbenzene	100	NLE	< 1
Ortho Xylene	1,000	NLE	< 1
p-Chlorotoluene	100	NLE	< 1
Propylbenzene	100	NLE	**2.4 J**
sec-Butylbenzene	100	NLE	**1.6 J**
Styrene	100	100	< 1
Tert Butyl Alcohol	100	NLE	< 20
tert-Butylbenzene	100	NLE	**0.34 J**
Tetrachloroethene	1	5	< 1
Toluene	600	1,000	**0.23 J**
Total Xylenes	1,000	10,000	< 3
Trans-1,2-Dichloroethene	100	100	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1
Trichloroethene	1	5	< 1
Trichlorofluoromethane	2,000	NLE	< 1
Vinyl chloride	1	2	< 1
TIC VOCs (µg/l)			
Total TIC, Volatile	500	NLE	**194 JN**

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2014 Groundwater Sampling Report
Fort Monmouth, New Jersey

Footnote:

1) All historical data collected prior to 2013 are reported as provided by others.

2) Number of Analyses is the number of detected and non-detected results excluding rejected results. Sample duplicate pairs have not been averaged.

3) NLE = no limit established.

4) ND = not detected in any background sample, no background concentration available.

5) Chemical result qualifiers are assigned by the laboratory and is typically evaluated and modified (if necessary) by during data validation.

[blank] = detect, i.e. detected chemical result value.
B = Compound detected in the sample and its associated blank sample.
R = Rejected, data validation rejected the results.
U = non-detect, i.e. not detected equal to or above this value.
U-DL = Elevated sample detection limit due to difficult sample matrix.
U-ND = Analyte not detected in sample, but no detection or reporting limit provided.
J = estimated (detect or non-detect) value.
E (or ER) = Estimated result.
D = Results from dilution of sample.
J-DL = Elevated sample detection limit due to difficult sample matrix.
JN = Tentatively identified compound, estimated concentration.

6) Chemical results greater than or equal to the action level (depending on criteria) are highlighted based on the Criteria that are present.

- Cell Shade values represent a result that is above the NJ Ground Water Quality Criteria ####

NJDEP Interim Specific GWQC values are presented for the NJ GWQS where there is not a Specific Ground Water Quality Criteria. A full list of compounds is available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

NJDEP Interim Generic GWQC values are presented for the NJ GWQS where there is not a XXXXX or a NJDEP Interim Specific GWQC. Available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

- Bold Outline represent a result that is above the USEPA 2014-05 MCL. ###

7) Criteria action level source document and web address.

- The NJ Ground Water Quality Criteria refers to the NJDEP Groundwater Quality Standards - Adopted July 22, 2010
  http://www.state.nj.us/dep/wms/bwqsa/docs/njac79C.pdf
- The 2014-05 USEPA MCL refers to the USEPA's Region 9 Regional Screening Levels (HQ=1.0) - 5/31/2014 (Last revised)
  http://www.epa.gov/region9/superfund/prg/

8) Wells sampled in the most recent fourth quarter sampling event are highlighted in yellow. Sample ID

Table 4
Review of Historical Groundwater Sampling Results
Site FTMM-53 Former Gas Station at Building 699
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site Name/ Well ID	Interpretation of Historical and 2015 Results [1]			2015 Evaluation					Rationale
	Chem Class / Analyte	Does it Exceed NJDEP GWQS (Yes or No) (If Yes, identify Compound)[1]	Do Metals Exceed FTMM Background Concentration (Yes or No) (If Yes, identify Metal)	Seasonal Effect?[2] (Y/N)	Anomaly? (Y/N)	Exceedance part of overall trend? (Y/N)[3]	Well needed for sentinel purposes? (Y/N)	Retain Analyte/Well (Yes or No)	
FTMM-53, B699									
699MW01	VOC	No	N/A	No	No	No	No	Yes	LTM temporarily suspended as agreed by NJDEP in March 2016 letter. Once RI/FS completed and remedy accepted, revised LTM program will be submitted.
699MW04		Benzene	N/A	No	No	No	No	Yes	
699MW06		Benzene	N/A	No	No	Yes	No	Yes	
699MW09		Tetrachloroethene	N/A	No	No	No	No	Yes	
699MW16		PCE	N/A	No	No	No	No	Yes	
699RW03		1,2,4-trimethylbezene, benzene, TICs	N/A	No	No	Yes	No	Yes	
699RW05		1,2,4-trimethylbezene, 1,3,5-trimethylbenzene, benzene, xylenes, TICs	N/A	No	No	Yes	No	Yes	
699RW11		Benzene	N/A	No	No	Yes	No	Yes	

Notes:

1. Has any of the compounds exceeded the NJDEP GWQS in the annual 2015 data and the 4 previous quarterly data rounds or 2 previous annual rounds?
   a. If yes then keep analyte in LTM list
   b. If no then remove this analyte from LTM list
   c. a and b above may be occasionally superceded on a case-by-case basis, depending on site conditions.
2. Has any of the analyte compounds exceeded the NJDEP GWQS seasonally (winter spring vs. summer fall) for the 4 previous data rounds?
3. PCE - tetrachloroethene
4. TICs - Tentatively identified compounds
5. Per the 2/5/15 NJDEP approval letter of the Final 2013 Baseline Groundwater Report, groundwater monitoring wells 616MW01, 699MW02, 699MW05, 699MW08, 699MW12, and 699MW15 were removed from the long-term monitoring sampling program.

FIGURES

Figure 1 Layout of FTMM-53 Former Gas Station at Building 699

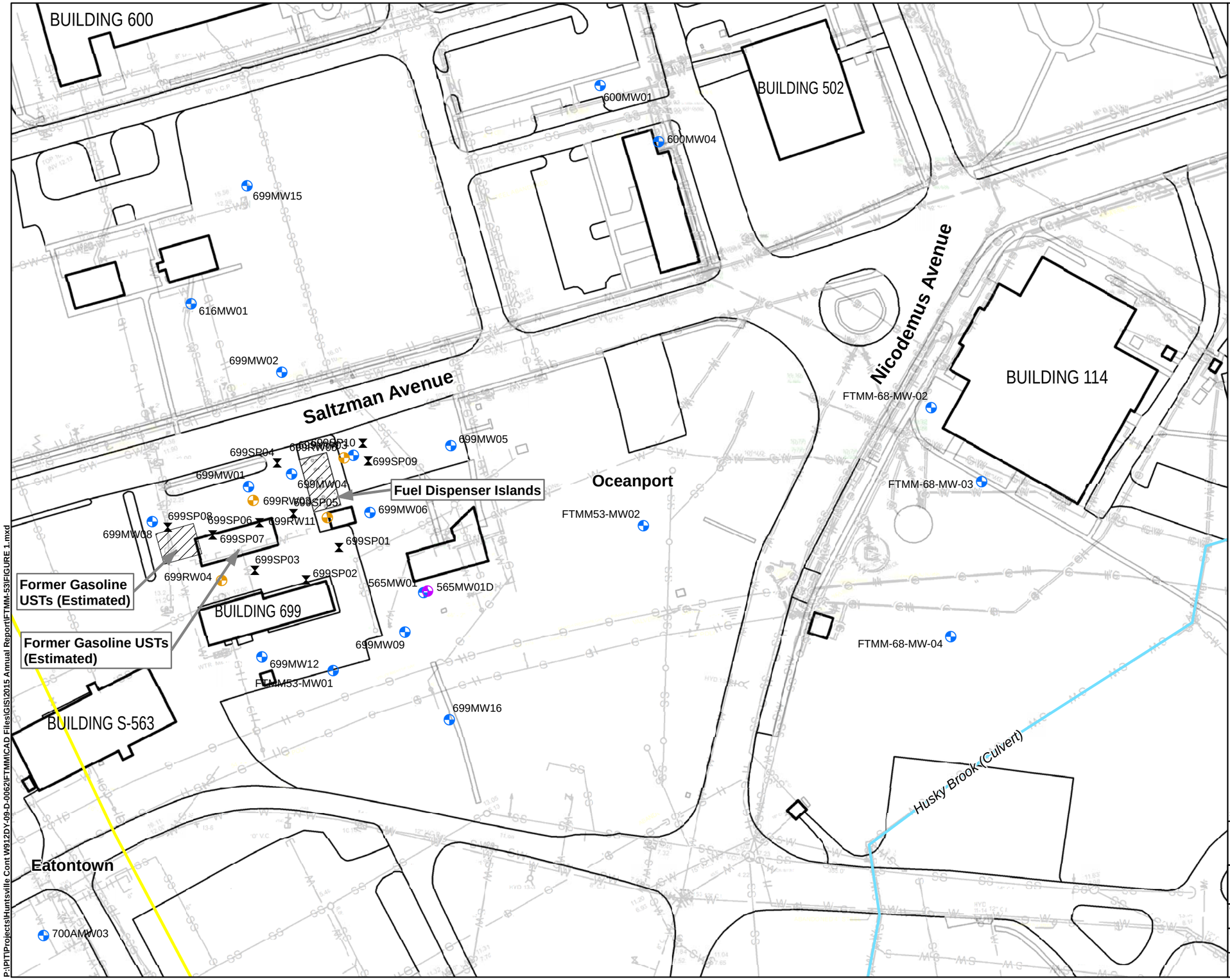
Figure 2 FTMM-53 Shallow Groundwater Contours October 6, 2015

Figure 3 FTMM-53 Chemical Constituents above NJDEP GWQS First Quarter Sampling Event

Figure 4 FTMM-53 Chemical Constituents above NJDEP GWQS Second Quarter Sampling Event

Figure 5 FTMM-53 Chemical Constituents above NJDEP GWQS Third Quarter Sampling Event

Figure 6 FTMM-53 Chemical Constituents above NJDEP GWQS Fourth Quarter Sampling Event



LEGEND:

- Deep Monitoring Well
- Shallow Monitoring Well
- Vapor Monitoring Well
- Recovery Well
- Air Sparge Well
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Municipal Boundary
- Installation Boundary

N

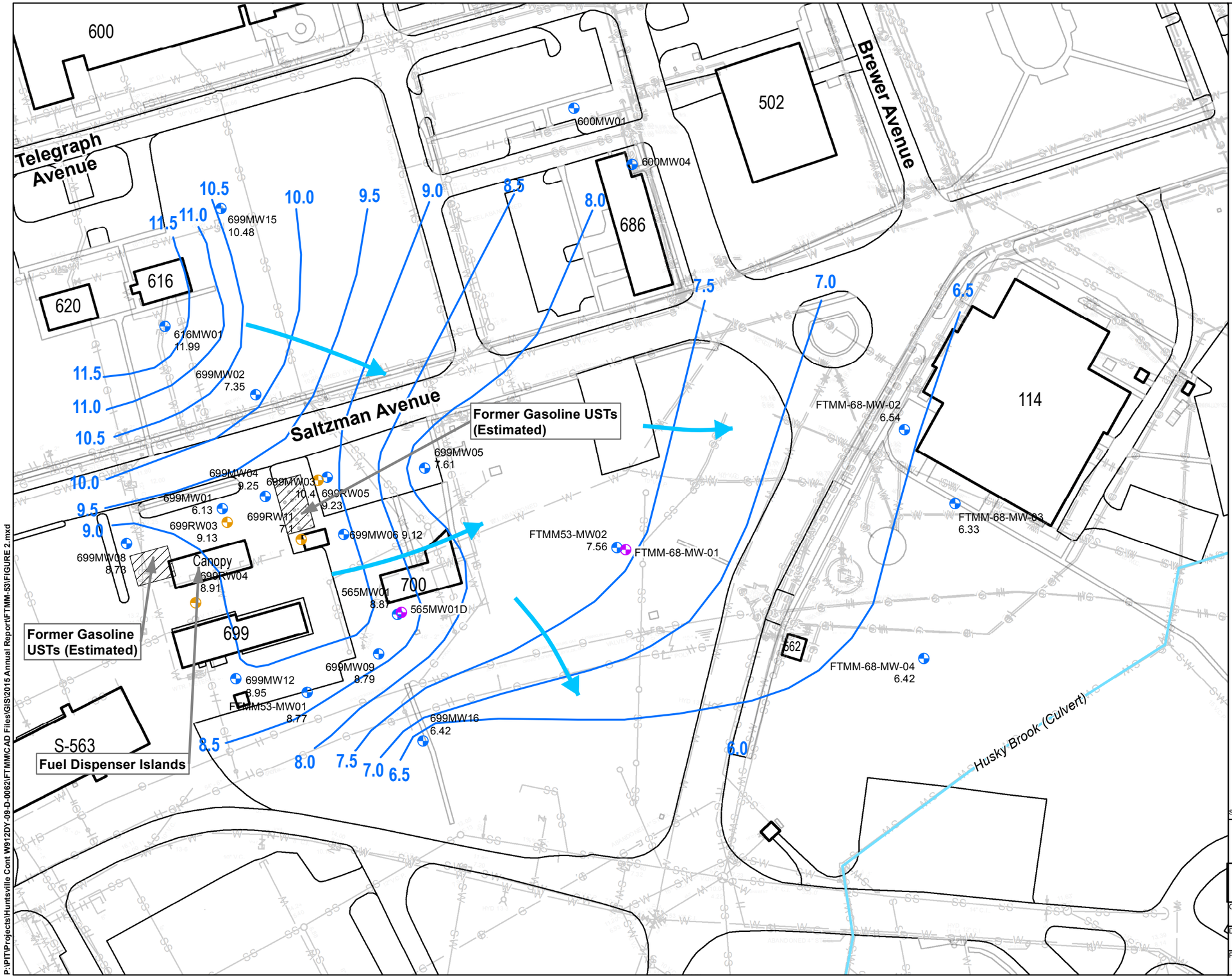
1 inch = 100 feet

0 50 100 200 Feet

Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey
LAYOUT OF FTMM-53 FORMER GAS STATION AT BUILDING 699	
CREATED BY: RR	REVIEWED BY: ME
DATE: JUN. 2016	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-01000	FILE: FIGURE 1.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMMICAD Files\GIS\2015 Annual Report\FTMM-53IFIGURE 1.mxd



LEGEND:

- Deep Monitoring Well
- Shallow Monitoring Well
- Recovery Well
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Groundwater Elevation Contour (Feet Above Mean Sea Level)
- Inferred Groundwater Flow Direction

NOTE:

The groundwater elevations at monitoring welsl 699MW01, 699MW02, 699MW03, and 699RW11 were considered anomalous compared to the elevations at neighboring wells and were not used for contouring.

N

1 inch = 100 feet

0 50 100 200 Feet

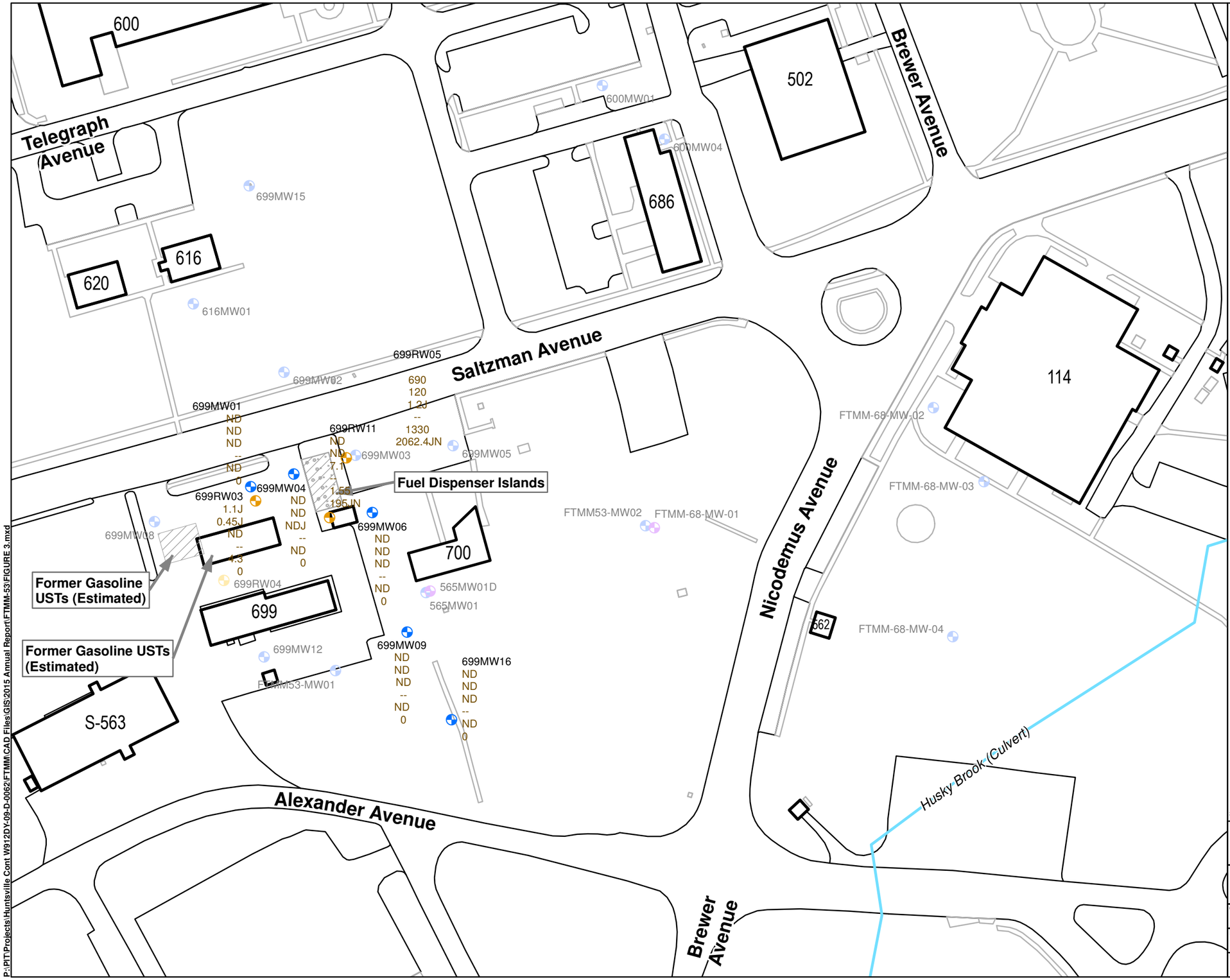
Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

FTMM-53 AND FTMM-68 SHALLOW GROUNDWATER ELEVATION CONTOURS - NOVEMBER 15, 2015

CREATED BY: RR	REVIEWED BY: ME
DATE: MAR. 2016	FIGURE NUMBER: FIGURE 2
PROJECT NUMBER: 748810-01000	FILE: FIGURE 2.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-53\FIGURE 2.mxd



LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Recovery Well

NOTE:

1. All concentrations are in ug/L.
2. Only those compounds with concentrations that exceed the NJDEP groundwater quality standard (GWQS) are shown on the figure.
3. Wells without values were not sampled during the Sampling Event.

EXPLANATION:

M5MW11 ——— Sample ID
NA —— 1,2,4-Trimethylbenzene Concentration
NA —— 1,3,5-Trimethylbenzene Concentration
NA —— Benzene Concentration
NA —— Tetrachloroethene Concentration
NA —— Total Xylenes Concentration
NA —— Total TIC Volatile Concentration

J - Estimated Value
JN - Tentatively Identified Compound, Estimated Value
ND - Not Detected
NA - Not Analyzed
-- - Compound did not exceed the NJ GWQS this sampling round

Compound	NJDEP GWQS
1,2,4-Trimethylbenzene	100
1,3,5-Trimethylbenzene	100
Benzene	1
Tetrachloroethene	1
Total Xylenes	1,000
Total TIC, Volatile	500

N

1 inch = 100 feet

0 50 100 200 Feet

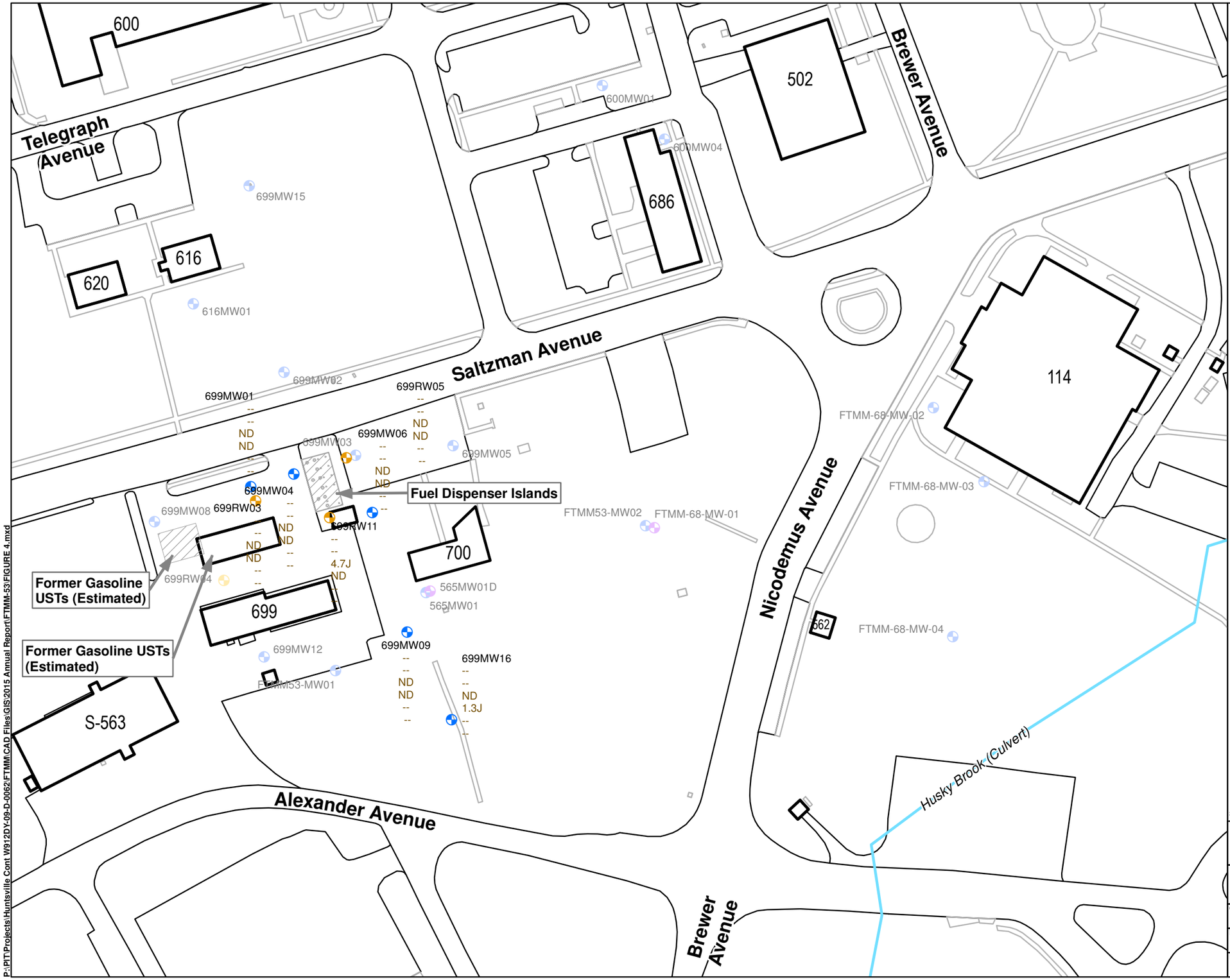
Source: FTMM Supplied CAD

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-53\FIGURE 3.mxd

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

FTMM-53 CHEMICAL CONSTITUENTS ABOVE NJDEP GWQS FIRST QUARTER 2015 SAMPLING EVENT

CREATED BY: RR	REVIEWED BY: ME
DATE: JUL. 2016	FIGURE NUMBER: FIGURE 3
PROJECT NUMBER: 748810-03000	FILE: FIGURE 3.mxd



LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Recovery Well

NOTE:

1. All concentrations are in ug/L.
2. Only those compounds with concentrations that exceed the NJDEP groundwater quality standard (GWQS) are shown on the figure.
3. Wells without values were not sampled during the Sampling Event.

EXPLANATION:

M5MW11 ——— Sample ID
NA —— 1,2,4-Trimethylbenzene Concentration
NA —— 1,3,5-Trimethylbenzene Concentration
NA —— Benzene Concentration
NA —— Tetrachloroethene Concentration
NA —— Total Xylenes Concentration
NA —— Total TIC Volatile Concentration

J - Estimated Value
JN - Tentatively Identified Compound, Estimated Value
ND - Not Detected
NA - Not Analyzed
-- - Compound did not exceed the NJ GWQS this sampling round

Compound	NJDEP GWQS
1,2,4-Trimethylbenzene	100
1,3,5-Trimethylbenzene	100
Benzene	1
Tetrachloroethene	1
Total Xylenes	1,000
Total TIC, Volatile	500

N

1 inch = 100 feet

0 50 100 200 Feet

Source: FTMM Supplied CAD

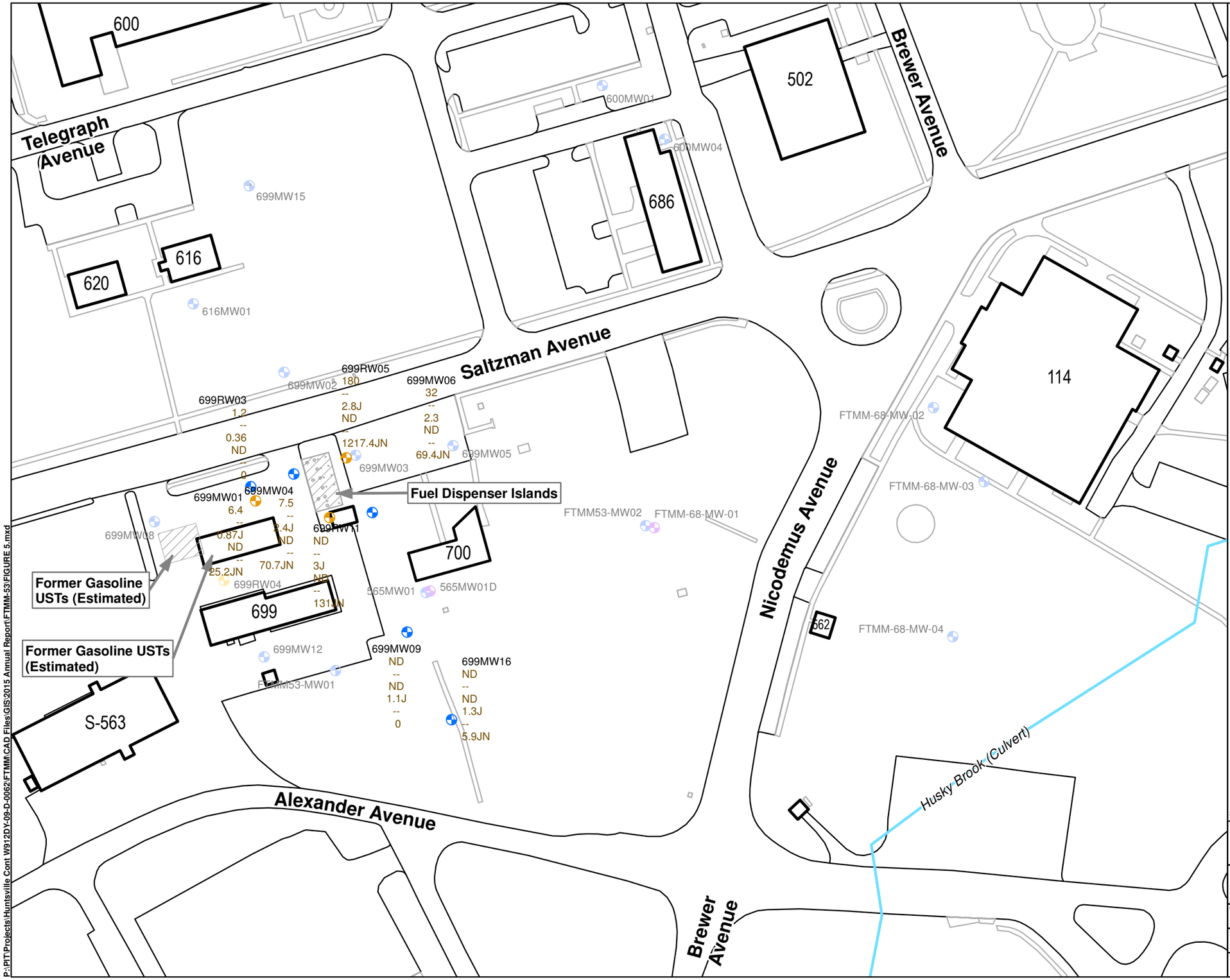
PARSONS
401 Diamond Drive NW, Huntsville AL

Fort Monmouth New Jersey

FTMM-53 CHEMICAL CONSTITUENTS ABOVE NJDEP GWQS SECOND QUARTER 2015 SAMPLING EVENT

CREATED BY:	REVIEWED BY:
RR	ME
DATE:	FIGURE NUMBER:
JUL. 2016	FIGURE 4
PROJECT NUMBER:	FILE:
748810-03000	FIGURE 4.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-53\FIGURE 4.mxd



LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Recovery Well

NOTE:

1. All concentrations are in ug/L.
2. Only those compounds with concentrations that exceed the NJDEP groundwater quality standard (GWQS) are shown on the figure.
3. Wells without values were not sampled during the Sampling Event.

EXPLANATION:

M5MW11 ——— Sample ID
NA —— 1,2,4-Trimethylbenzene Concentration
NA —— 1,3,5-Trimethylbenzene Concentration
NA —— Benzene Concentration
NA —— Tetrachloroethene Concentration
NA —— Total Xylenes Concentration
NA —— Total TIC Volatile Concentration

J - Estimated Value
JN - Tentatively Identified Compound, Estimated Value
ND - Not Detected
NA - Not Analyzed
-- - Compound did not exceed the NJ GWQS this sampling round

Compound	NJDEP GWQS
1,2,4-Trimethylbenzene	100
1,3,5-Trimethylbenzene	100
Benzene	1
Tetrachloroethene	1
Total Xylenes	1,000
Total TIC, Volatile	500

N

1 inch = 100 feet

0 50 100 200 Feet

Source: FTMM Supplied CAD

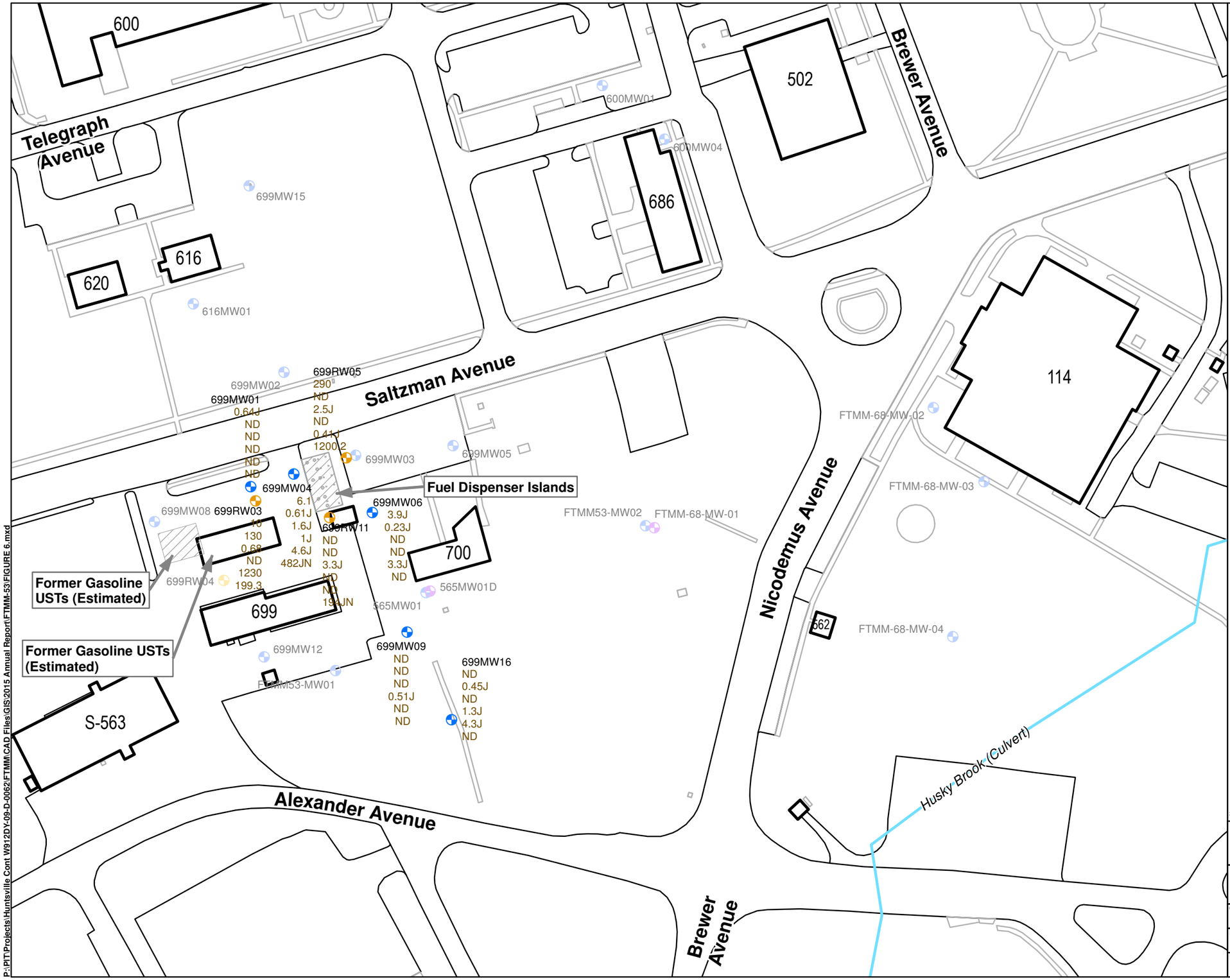
PARSONS
401 Diamond Drive NW, Huntsville AL

Fort Monmouth New Jersey

FTMM-53 CHEMICAL CONSTITUENTS ABOVE NJDEP GWQS THIRD QUARTER 2015 SAMPLING EVENT

CREATED BY:	REVIEWED BY:
RR	ME
DATE:	FIGURE NUMBER:
JUL. 2016	FIGURE 5
PROJECT NUMBER:	FILE:
748810-03000	FIGURE 5.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-53\FIGURE 5.mxd



LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Recovery Well

NOTE:

1. All concentrations are in ug/L.
2. Only those compounds with concentrations that exceed the NJDEP groundwater quality standard (GWQS) are shown on the figure.
3. Wells without values were not sampled during the Sampling Event.

EXPLANATION:

M5MW11 ——— Sample ID
NA —— 1,2,4-Trimethylbenzene Concentration
NA —— 1,3,5-Trimethylbenzene Concentration
NA —— Benzene Concentration
NA —— Tetrachloroethene Concentration
NA —— Total Xylenes Concentration
NA —— Total TIC Volatile Concentration

J - Estimated Value
JN - Tentatively Identified Compound, Estimated Value
ND - Not Detected
NA - Not Analyzed
-- - Compound did not exceed the NJ GWQS this sampling round

Compound	NJDEP GWQS
1,2,4-Trimethylbenzene	100
1,3,5-Trimethylbenzene	100
Benzene	1
Tetrachloroethene	1
Total Xylenes	1,000
Total TIC, Volatile	500

N

1 inch = 100 feet

0 50 100 200 Feet

Source: FTMM Supplied CAD

PARSONS
401 Diamond Drive NW, Huntsville AL

Fort Monmouth New Jersey

FTMM-53 CHEMICAL CONSTITUENTS ABOVE NJDEP GWQS FOURTH QUARTER 2015 SAMPLING EVENT

CREATED BY: RR	REVIEWED BY: ME
DATE: JUL. 2016	FIGURE NUMBER: FIGURE 6
PROJECT NUMBER: 748810-03000	FILE: FIGURE 6.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-53\FIGURE 6.mxd

ATTACHMENTS

Attachment A NJDEP PDB Checklists

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: FTMM
CONSULTING FIRM: PARSONS
DATE: 11/23/15
FIELD PERSONNEL: A. Feshbach-Meriney
WEATHER: 41°F, partly cloudy

MONITOR WELL #: 699MW16
WELL DEPTH: 14.0 feet
PUMP INTAKE DEPTH: 9.75 ft to TOC
WELL PERMIT #: 29-33757
WELL DIAMETER: 4 inches
SCREENED/OPEN INTERVAL: 4.0 - 14.0 ft to TOC

PID/FID READINGS:
BACKGROUND: 0 ppm
BENEATH OUTER CAP: 0 ppm
BENEATH INNER CAP: 0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 5.5 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP: QED Sample Pro 175" Bladder Pump

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 06G2068AB
TEMP. CORRECTION VALUE: -0.15

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)	
1348	x		4.44		0.203		359.9		-0.05		8.0		15.15		250	5.70	
1353	x		4.33		0.201		391.5		-0.16		-3.3		15.34		250	5.76	
1358	x		4.31		0.201		398.1		-0.16		-3.6		15.68		250	5.82	
1403	x		4.30		0.201		402.5		-0.3		-3.1		15.60		250	5.87	
1408	x		4.31		0.201		403.4		-0.01		-2.5		15.67		250	5.90	
1413	x		4.31		0.200		404.8		0.01		2.8		15.56		250	5.90	
1418	x		4.31		0.201		406.9		0.06		3.3		15.52		250	5.93	
1423	x		4.30		0.201		408.1		0.03		1.0		15.47		250	5.95	
1428	x		4.30		0.202		409.2		0.12		-3.8		15.56		250	5.95	
1433	x		4.29		0.203		409.1		0.13		-4.4		15.56		250	5.96	
1438	x		4.30		0.203		408.4		0.06		0.0		15.52		250	5.97	
1443	x		4.30		0.203		408.3		0.06		0.0		15.42		250	5.97	✓
1448	x		4.30		0.203		407.7		0.07		0.1		15.47		250	5.96	✓
1453	x		4.29		0.202		407.8		0.07		0.0		15.59		250	5.98	✓
1458	x	x															

SAMPLING INFORMATION:
Sample ID: FTMM-53-GW-699MW16-9.7
Sample Time: 1458
Comments: none

QA/QC INFORMATION:
Duplicate Collected?: no
MS/MSD Collected?: no
Filtering?:

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: clear
Odor: none
Other: no

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Aaron Feshbach-Meriney
DATE: 11/23/15

REVIEWER NAME & SIGNATURE:
DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: FTMM-53
DATE: 11/23/15
WEATHER: 40°F Clear
CONSULTING FIRM: PARSONS
FIELD PERSONNEL: Cureton

MONITOR WELL #: 699RW05
WELL PERMIT #:
WELL DEPTH: 15 feet
WELL DIAMETER: 6 inches
PUMP INTAKE DEPTH: 10 ft to TOC
SCREENED/OPEN INTERVAL: 5-15 ft to TOC

PID/FID READINGS:
BACKGROUND: 0 ppm
BENEATH OUTER CAP: 0 ppm
BENEATH INNER CAP: 0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 4.56 ft to TOC
DEPTH TO PRODUCT: NA ft to TOC ; PRODUCT THICKNESS: NA ft
MAKE/MODEL OF PUMP: QED Sample Pro

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 05G1496AB
TEMP. CORRECTION VALUE: -0.11

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1435	X		6.14	—	0.299	—	-45.6	—	2.61	—	28.4	—	16.51	—	275	4.86
1440	X		6.18	0.04	0.290	0.009	-45.3	0.3	2.09	0.52	22.6	5.8	16.98	0.47	275	5.01
1445	X		6.23	0.05	0.297	0.007	-47.8	2.5	1.24	0.85	18.2	4.4	16.56	0.42	275	5.30
1450	X		6.19	0.04	0.299	0.003	-48.8	1.0	1.32	0.08	14.5	3.7	16.58	0.02	275	5.57
1455	X		6.18	0.01	0.299	0	-50.0	1.2	1.28	0.04	12.4	2.1	16.53	0.05	275	5.69
1500	X		6.15	0.03	0.299	0	-52.5	2.0	1.26	0.02	11.9	0.5	16.42	0.11	275	5.80
1505		X	6.14	0.01	0.299	0	-54.4	2.4	1.35	0.09	12.3	0.4	16.56	0.14	275	5.91

SAMPLING INFORMATION:
Sample ID: FTMM-53-GW-699RW05-10
Sample Time: 1505
Comments: LEAD, Dissolved LEAD, VOCs

QA/QC INFORMATION:
Duplicate Collected?: No
MS/MSD Collected?: No
Filtering?: yes - LEAD

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: Clear
Odor: none
Other: —

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: [signature] DATE: 11/23/15

REVIEWER NAME & SIGNATURE: DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: FTMM-53 | CONSULTING FIRM: PARSONS
DATE: 11/23/15 | FIELD PERSONNEL: CWATSON
WEATHER: 35°F Clear

MONITOR WELL #: RW03 | WELL DEPTH: 20 feet | PUMP INTAKE DEPTH: 12.8 ft to TOC
WELL PERMIT #: | WELL DIAMETER: 6 inches | SCREENED/OPEN INTERVAL: 5-20 ft to TOC

PID/FID READINGS:
BACKGROUND: 0 ppm
BENEATH OUTER CAP: 0 ppm
BENEATH INNER CAP: 0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 5.59 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP: QED Sample Pro

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 05G1490AB
TEMP. CORRECTION VALUE: -0.11

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1040	X		5.77	—	0.486	—	-35.9	—	2.74	—	36.0	—	17.90	—	300	5.68
1045	X		5.87	0.10	0.482	0.004	-34.9	1.0	2.35	0.39	33.0	3.0	18.56	0.66	300	6.09
1050	X		5.94	0.07	0.482	⊘	-30.5	4.4	2.76	0.41	26.8		17.97		250	6.34
1055	X		5.97	0.03	0.478	0.004	-28.7	1.7	2.74	0.02	24.0	2.8	18.00	0.03	250	6.47
1100	X		5.96	0.01	0.480	0.002	-26.0	2.7	2.68	0.06	22.6	1.4	17.83	0.17	250	6.55
1105	X		5.95	0.01	0.482	0.002	-24.7	1.3	2.63	0.05	20.1	2.5	17.85	0.02	250	6.61
1110	X		5.96	0.01	0.482	⊘	-23.0	1.7	2.63	⊘	19.7	0.4	17.87	0.02	250	6.66
1115		X	5.96	⊘	0.483	0.001	-22.5	0.5	2.61	0.02	19.3	0.4	17.91	0.03	250	6.70

SAMPLING INFORMATION:
Sample ID: FTMM-53-GW-C99RW03-12.8
Sample Time: 1115
Comments: LEAD, Filtered LEAD, VOCs

QA/QC INFORMATION:
Duplicate Collected?: NO
MS/MSD Collected?: NO
Filtering?: Lead

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: Clear
Odor: Slight odor
Other: None

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: C WM | DATE: 11/23/15
REVIEWER NAME & SIGNATURE: | DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: FTMM-53 | CONSULTING FIRM: PARSONS
DATE: 11/18/15 | FIELD PERSONNEL: A. DiIonno
WEATHER: 55°F, Cloudy

MONITOR WELL #: 699MW01 | WELL DEPTH: 13.20 feet | PUMP INTAKE DEPTH: 11.0 ft to TOC
WELL PERMIT #: 29-23677-1 | WELL DIAMETER: 4 inches | SCREENED/OPEN INTERVAL: 2-15 ft to TOC

PID/FID READINGS:
BACKGROUND: 0.0 ppm
BENEATH OUTER CAP: 0.0 ppm
BENEATH INNER CAP: 0.0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 5.60 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP: QED SamplePro 1.75" Bladder Pump

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 11H101388
TEMP. CORRECTION VALUE: -0.14°C

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1227	X		6.21		0.155		122.9		2.87		25.4		20.37		250	5.75
1232	X		6.26		0.157		111.5		2.31		22.1		20.24		250	5.92
1237	X		6.28		0.158		110.7		2.50		17.5		19.88		250	5.90
1242	X		6.28		0.156		108.1		2.68		23.1		19.54		250	5.95
1247	X		6.30		0.156		94.5		2.32		21.1		19.70		250	5.95
1252	X		6.31		0.156		83.6		2.23		19.6		19.65		250	5.95
1257	X		6.30		0.157		65.5		2.23		17.3		19.64		250	5.95
1302	X		6.30		0.157		37.3		2.25		16.8		19.71		250	5.95
1307	X		6.31		0.158		24.6		2.28		16.4		19.63		250	5.95
1312	X		6.31		0.159		31.2		~~2.2~~ 2.14		14.1		19.72		250	5.95
1317	X		6.30		0.160		~~31~~ -0.9		2.28		13.5		19.76		250	5.95
1322	X		6.30		0.162		-7.3		2.20		13.2		19.71		250	5.95
1327	X		6.30		0.162		-12.8		2.14		12.7		19.81		250	5.95
1332	X	X	6.30		0.163		-17.7		2.16		12.5		19.81		250	5.95

SAMPLING INFORMATION:
Sample ID: FTMM-53-GW-699MW01
Sample Time: 1332
Comments: —

QA/QC INFORMATION:
Duplicate Collected?: No
MS/MSD Collected?: No
Filtering?: No

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: Clear
Odor: None
Other: —

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Alex DiIonno Alex DiIonno | DATE: 11/18/15
REVIEWER NAME & SIGNATURE: | DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: FTMM-53 | CONSULTING FIRM: PARSONS
DATE: 11/18/15 | FIELD PERSONNEL: A.D:Tonno
WEATHER: 55°F, Cloudy

MONITOR WELL #: 699MW04 | WELL DEPTH: 17.34 feet | PUMP INTAKE DEPTH: 11.5 ft to TOC
WELL PERMIT #: 29-23680-7 | WELL DIAMETER: 4 inches | SCREENED/OPEN INTERVAL: 2-20 ft to TOC

PID/FID READINGS:
BACKGROUND: 0.0 ppm
BENEATH OUTER CAP: 0.0 ppm
BENEATH INNER CAP: 0.0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 5.87 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP: QED Sample Pro 1.75" Bladder Pump

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 11H101388
TEMP. CORRECTION VALUE: -0.14°C

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1358	X		6.18		0.317		-5.3		3.96		24.9		19.51		250	5.96
1403	X		6.10		0.322		8.4		1.93		24.1		19.82		250	5.96
1408	X		6.10		0.321		16.7		1.67		27.1		19.79		250	5.96
1413	X		6.12		0.323		15.4		1.65		22.6		19.80		250	5.96
1418	X		6.13		0.325		12.4		1.75		18.8		19.84		250	5.96
1423	X		6.15		0.327		11.3		1.40		17.5		19.82		250	5.96
1428	X		6.16		0.330		7.0		1.55		16.5		19.81		250	5.96
1433	X		6.20		0.333		-0.7		1.08		14.5		19.82		250	5.96
1438	X		6.22		0.335		-2.3		1.05		14.0		19.81		250	5.96
1443	X	X	6.26		0.337		-6.8		1.00		13.8		19.89		250	5.96

SAMPLING INFORMATION:
Sample ID: FTMM-53-GW-699MW04
Sample Time: 1443
Comments: —

QA/QC INFORMATION:
Duplicate Collected?: Yes + Split
MS/MSD Collected?: No
Filtering?: No

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: Clear
Odor: slight hydrocarbon odor
Other:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Alex D:Tonno Alex D:Tonno | DATE: 11/18/15
REVIEWER NAME & SIGNATURE: | DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

PROJECT SITE/LOCATION: FTMM
DATE: 11/25/15
WEATHER: 49°F, Fair/Sunny
CONSULTING FIRM: PARSONS
FIELD PERSONNEL: A. Feshbach-Merrey

MONITOR WELL #: 699MW09
WELL PERMIT #: 29-24639
WELL DEPTH: 12.2 feet
WELL DIAMETER: 4 inches
PUMP INTAKE DEPTH: 9.0 ft to TOC
SCREENED/OPEN INTERVAL: 2.2 - 12.2 ft to TOC

PID/FID READINGS:
BACKGROUND: 0 ppm
BENEATH OUTER CAP: 0 ppm
BENEATH INNER CAP: 0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 5.8 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP: QED Sample Pro 175" Bladder Pump

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 06G2068AB
TEMP. CORRECTION VALUE: -0.15°C

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1350	x		4.27		0.482		335.5		3.93		17.3		16.02		225	6.17
1355	x		4.18		0.489		352.9		3.28		15.2		16.01		225	6.17
1400 ~~1350~~	x		4.18		0.490		356.5		3.06		11.7		16.04		225	6.16
1405 ~~1355~~	x		4.17		0.490		353.2		2.80		10.2		16.03		225	6.18
1410 ~~1400~~	x		4.17		0.491		~~349.7~~		2.71		10.1		15.91		225	6.18
1415 ~~1420~~	x		4.16		0.491		345.2		2.69		9.8		15.93		225	6.18 ✓
← 1420	x		4.16		0.492		341.6		2.66		9.6		15.92		225	6.19 ✓
1425		x	4.16		0.492		339.1		2.63		9.5		15.94		225	6.19 ✓

SAMPLING INFORMATION:
Sample ID: FTMM-53-GW-MW09-9.0
Sample Time: 1425
Comments: no

QA/QC INFORMATION:
Duplicate Collected?: no
MS/MSD Collected?: Yes
Filtering?: no

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: clear
Odor: none
Other: no

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Aaron Feshbach-Merrey DATE: 11/25/15

REVIEWER NAME & SIGNATURE: DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: FTMM
DATE: 11/25/15
WEATHER: 40° F, Fair, sunny

CONSULTING FIRM: PARSONS
FIELD PERSONNEL: A. Feshbach-Meriney

MONITOR WELL #: 699 RW11
WELL PERMIT #: 29-28031

WELL DEPTH: 19.56 feet
WELL DIAMETER: 11 inches

PUMP INTAKE DEPTH: 12.8 ft to TOC
SCREENED/OPEN INTERVAL: 4.5-19.5 ft to TOC

PID/FID READINGS:
BACKGROUND: 0 ppm
BENEATH OUTER CAP: 0 ppm
BENEATH INNER CAP: 0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 6.10 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP: QED Sample Pro 175" Bladder Pump

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 06G2068AB
TEMP. CORRECTION VALUE: -0.15°C

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)	
1020	x		7.03		0.290		-139.5		4.46		49.1		15.63		250	6.20	
1025	x		7.05		0.297		-139.2		2.82		63.0		16.07		250	6.21	
1030	x		7.07		0.276		-145.0		1.81		59.0		16.33		250	6.27	
1035	x		7.07		0.275		-147.0		1.49		57.5		16.41		250	6.30	
1040	x		7.05		0.274		-136.5		1.35		55.0		16.62		250	6.35	
1045	x		7.04		0.274		-134.1		1.40		20.2		16.96		250	6.36	
1050	x		7.03		0.275		-132.6		1.36		10.0		17.22		200	6.37	
1055	x		7.01		0.275		-128.3		1.33		10.8		17.31		200	6.38	✓
1100	x		7.01		0.275		-126.2		1.31		11.2		17.40		200	6.37	✓
1105		x	7.00		0.276		-125.7		1.28		11.5		17.42		200	6.38	✓

SAMPLING INFORMATION:
Sample ID: FTMM-53-GW-RW11-12.8
Sample Time: 1105
Comments: none

QA/QC INFORMATION:
Duplicate Collected?: no
MS/MSD Collected?: no
Filtering?: yes, on lead

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: cloudy
Odor: none
Other: light brown

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Aaron Feshbach-Meriney DATE: 11/25/15

REVIEWER NAME & SIGNATURE: DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: FTMM
DATE: 11/25/15
WEATHER: 46°F, Sunny
CONSULTING FIRM: PARSONS
FIELD PERSONNEL: A. Feshbach-Merino

MONITOR WELL #: 699MW06
WELL PERMIT #: 29-23809-1
WELL DEPTH: 14.97 feet
WELL DIAMETER: 4 inches
PUMP INTAKE DEPTH: 8.5 ft to TOC
SCREENED/OPEN INTERVAL: 2.0 - 14.97 ft to TOC

PID/FID READINGS:
BACKGROUND: 0 ppm
BENEATH OUTER CAP: 0 ppm
BENEATH INNER CAP: 0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 7.65 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP: QED Sample Pro 175" Bladder Pump

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 06G2068 AB
TEMP. CORRECTION VALUE: - 0.15°C

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)	
1200	x		6.60		0.104		83.8		5.75		~~27~~ 9.1		15.93		225	8.00	x
1205	x		6.54		0.102		101.7		5.70		10.6		16.09		225	8.25	✓
1210	x		6.52		0.103		108.2		5.65		8.6		15.96		225	8.50	
1215	x		6.51		0.103		108.0		5.53		6.3		16.09		175	8.52	
1220	x		6.54		0.102		103.3		6.01		6.1		16.29		175	8.55	
1225	x		6.57		0.102		95.4		6.68		5.2		16.42		175	8.54	
1230	x		6.59		0.102		71.8		7.09		4.6		16.27		175	8.55	
1235	x		6.61		0.103		77.1		7.16		3.9		16.26		175	8.52	✓
1240	x		6.62		0.102		78.7		7.10		3.7		16.29		175	8.55	✓
1245		x	6.62		0.103		76.2		7.14		3.6		16.28		175	8.54	✓

SAMPLING INFORMATION:
Sample ID: FTMM-SS-GW-MW06-8.5
Sample Time: 1245
Comments: none

QA/QC INFORMATION:
Duplicate Collected?: no
MS/MSD Collected?: no
Filtering?: Yes, on lead

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: clear
Odor: none
Other: no

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Aaron Feshbach-Merino DATE: 11/25/15

REVIEWER NAME & SIGNATURE: DATE:

APPENDIX G

FTMM-56: BUILDING 80 PETROLEUM RELEASE

APPENDIX G: FTMM-56 Building 80 Petroleum Release

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Attachment	Title
A	LFPS Field Sheets

1.0 WATER LEVEL MEASUREMENTS AND WELL ASSESSMENT

Monitoring wells located within FTMM-56 were gauged on October 7, 2015. Monitoring well locations as well as other site features are provided in **Figure 1**. Details regarding the water level measurements are provided in **Table 1**. Groundwater elevations in monitoring wells ranged from 2.73 (80MW01) to 4.46 (80MW05) feet above mean sea level (amsl). Although the hydraulic gradient is generally flat, the inferred shallow groundwater flow direction is to the north towards Oceanport Creek, as shown in **Figure 2**.

During the groundwater gauging, the physical condition of FTMM-56 monitoring wells were assessed. The site monitoring wells were found to be in good condition, however 80MW04 was not located during this gauging event.

2.0 GROUNDWATER SAMPLING

Groundwater samples were collected from two monitoring wells (80MW02 and 80MW05) located at FTMM-56 as part of the annual (fourth quarter) 2015 groundwater sampling event. The groundwater sampling program included measuring the depth to groundwater in monitoring wells prior to sampling and collection of groundwater samples using low-flow purging and sampling (LFPS). Groundwater samples were collected from wells 80MW02 and 80MW05 on November 20, 2015. The groundwater sample from 80MW05 was analyzed for only lead, arsenic and cadmium using United States Environmental Protection Agency (USEPA) Method SW6010C/SW7470A. Groundwater from monitoring well 80MW02 was analyzed for only pesticides using USEPA method 8081B.

The samples were collected in accordance with the New Jersey Department of Environmental Protection (NJDEP) Field Sampling Procedures Manual (FSPM) and the Sampling Analysis Plan (SAP). Field blanks, duplicates, matrix spike, matrix spike duplicate and quality assurance (QA) split samples were collected for every 5% of samples collected per parameter, per matrix, in accordance with the Quality Assurance Project Plan (QAPP).

Completed LFPS field sheets for each well sampled can be found in **Attachment A**.

3.0 HISTORICAL GROUNDWATER SAMPLING RESULTS

From April 1997 through September 2004, FTMM-56 monitoring wells were sampled primarily for VOCs, semi-volatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), and metals. From November 2004 to June 2010, FTMM-56 wells were sampled for pesticides, PCBs and metals.

Within the last four rounds of historical quarterly groundwater sampling conducted at FTMM-56, from August 2010 to August 2011, monitoring wells were also sampled for pesticides, PCBs and metals. Historically, several metals including antimony, arsenic, beryllium, cadmium, chromium and lead were detected at concentrations greater than their respective NJDEP Ground Water Quality Standard (GWQS). Arsenic, beryllium, cadmium, chromium and lead were detected in FTMM-56 monitoring well 80MW05 in August 2011. However, with the exception of lead, these concentrations were below the background groundwater concentrations established in the 1995 Weston Report.

Chlordane was detected in 80MW02 above its NJDEP GWQS of 0.1 µg/L in March 2011. Historical groundwater analytical results are presented in **Table 2.**

Groundwater samples collected from six monitoring wells during the August 2013 baseline sampling event were analyzed for lead only. Lead was not detected above its NJDEP GWQS of µg/L in the samples collected from FTMM-56 monitoring wells. Groundwater analytical detections from samples collected during the August 2013 Baseline Sampling Event are presented in **Table 3**.

The Final August 2013 Baseline Groundwater Sampling Report was approved by the NJDEP in their February 5, 2015 letter. Based on this approval, four monitoring wells out of the six monitoring wells were removed from the long term monitoring program including 116MW01, 80MW01, 80MW03 and 80MW04. Furthermore, the NJDEP approved one additional round of groundwater monitoring at 80MW02 (pesticides) and 80MW05 (arsenic, cadmium and lead) and then discontinuing the long-term monitoring (LTM) program. FTMM-56 was not sampled in 2014 due to an oversight.

4.0 ANNUAL (FOURTH QUARTER) 2015 GROUNDWATER RESULTS

Arsenic was the only metal detected slightly above its NJDEP GWQS of 3 µg/L at an estimated concentration of 3.7 Jµg/L at 80MW05. However, this concentration is significantly below the background concentration (Weston, 1995) for arsenic of 89.3 µg/L. Lead and cadmium were not detected above their respective NJDEP GWQS in the sample collected from monitoring well 80MW05. Pesticides were not detected above their respective NJDEP GWQS in the sample collected from monitoring well 80MW02 Groundwater analytical detections from samples collected during the annual (fourth quarter) 2015 groundwater sampling event are presented in **Table 3**.

5.0 FINDINGS AND RECOMMENDATIONS

Groundwater analytical results for lead and cadmium were not detected above NJDEP GWQS during the annual (fourth quarter) 2015 groundwater sampling event and the 2013 baseline sampling event at 80MW05. Although arsenic was detected slightly above the NJDEP GWQS it was not detected above background concentrations (Weston 1995) during the annual (fourth quarter) 2015 groundwater sampling event at 80MW05. Additionally, chlordane was not detected above the NJDEP GWQS at 80MW02 in 2015 and 2011. A review of historical groundwater sampling results is presented in **Table 4**, which also provides the matrix used to determine the status of wells relative to future groundwater sampling and analyses. Based on the collective groundwater analytical results, it is recommended that groundwater monitoring be discontinued at FTMM-56 and a no further action will be requested for groundwater at this site

TABLES

Table 1 Groundwater Gauging Data and Elevations (October 7, 2015) and LFPS Sampling Summary

Table 2 Historical Groundwater Analytical Results

Table 3 Groundwater Analytical Results - 2013 and 2015

Table 4 Review of Historical Groundwater Sampling Results

Table 1
Groundwater Gauging Data and Elevations (October 7, 2015) and LFPS Sampling Summary
Site FTMM-56 Building 80 Petroleum Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site/Well ID	Installation Date	Well Permit #	Y Coord. (North)	X Coord. (East)	Depth (ft. bgs)	Casing Length (ft)	Screen Length (ft)	TOC Elevation (ft)	Gauge Time	PID Reading (ppm)	Gauged Depth to Water (ft. TOC)	Gauged Depth to Bottom (ft. TOC)	Calculated Groundwater Elevation (ft)	Sample Date
Shallow Monitoring Wells														
80MW01	9/5/1994	29-31774	540841.11	623562.06	13.0	3.0	10.0	5.82	10:16	0.0	3.09	12.35	2.73	
80MW02	7/24/2000	29-43199	540895.44	623503.50	12.0	2.0	10.0	6.59	10:24	0.0	3.69	12.45	2.90	11/20/2015
80MW03	7/24/2000	29-43201	540896.11	623695.23	12.0	2.0	10.0	6.54	10:13	0.0	3.39	11.46	3.15	
80MW04	7/24/2000	29-43200	540770.626	623695.234	12.0	2.0	10.0	6.37	0.01	N/A	N/A	N/A	N/A	
80MW05	7/24/2000	29-43202	540786.22	623622.45	12.0	2.0	10.0	6.05	10:09	0.0	1.59	12.00	4.46	11/20/2015
166MW01	9/14/1994	29-31773	540965.79	623549.32	13.0	3.0	10.0	5.87	10:27	0.0	2.92	7.95	2.95	

Notes:
1) The synoptic round of water levels in the wells was collected on October 7, 2015. Well 80MW04 was not located this round.
2) Information on well permit number, X and Y coordinates, depth, screen length, screen interval and TOC elevation were provided by FTMM in a table in June 2013.
3) ft = feet
4) DTW = depth to water (measured from the top of well casing)
5) DTB = depth to bottom of well (measured from the top of well casing)
6) bgs = below ground surface
7) ppm = parts per million (of VOCs)
8) TOC = Top of Casing
9) Elevation = feet above mean sea level
10) N/A = information not available
11) LFPS = Low-Flow Purging and Sampling

Table 2
Historical Groundwater Analytical Results
Site FTMM-56 Building 80 Petroleum Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				80MW01										
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	44	44 Dup	45	46	47	47 Dup	48	49	50	51
Date Collected				9/14/2007	9/14/2007	12/12/2007	3/31/2008	6/12/2008	6/12/2008	8/15/2008	12/31/2008	2/9/2009	6/26/2009
ANALYTE / Lab ID				70341.03	70341.02	70529.04	80102.04	80198.04	80198.02	80300.04	80484.04	90040.04	90266.03
Pesticides/PCBs (µg/L)													
Heptachlor	0.05	0.4	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
alpha-Chlordane	NLE	NLE	-	ND	ND	ND	ND	0.0085	ND	ND	ND	ND	ND
gamma-Chlordane	NLE	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	0.5	2	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	0.1	NLE	-	0.127	0.147	ND	0.0558	ND	0.077	0.0951	ND	ND	0.048
4,4'-DDE	0.1	NLE	-	ND	ND	ND	ND	ND	ND	ND	0.1039	ND	ND
4,4'-DDT	0.1	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	40	NLE	-	ND	ND	ND	ND	0.018	ND	ND	ND	ND	ND
Methoxychlor	40	40	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)													
Antimony	6	6	20.70	ND	ND	ND	ND	ND	ND	ND	3.57 ER	ND	5.49 ER
Arsenic	3	10	89.30	15.8	16.2	9.01	8.34	11.8	14.6	26.9	ND	ND	43.9
Barium	6000	2,000	699.00	121	125	73.7	52.9	60.4	61.1	75.8	80.5	66	53
Beryllium	1	4	2.10	ND	ND	ND	0.117 ER	ND	ND	ND	ND	ND	ND
Cadmium	4	5	9.50	0.968 ER	0.558 ER	0.385 ER	1.46 ER	0.907 ER	0.796 ER	2.12	ND	ND	1.34 ER
Chromium	70	100	65.60	0.249 ER	0.327 ER	ND	0.229 ER	0.432 ER	0.54 ER	ND	ND	ND	4.1 ER
Copper	1300	1300	191.00	3.05 ER	2.4 ER	0.709 ER	1.7 ER	ND	ND	ND	6.12	3.71 ER	20.8
Lead	5	15	22.70	ND	ND	ND	1.53 ER	1.71 ER	2.62 ER	ND	ND	ND	2.63 ER
Mercury	2	2	0.26	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	100	NLE	187	ND	ND	ND	ND	ND	ND	ND	ND	1.32 ER	2.98 ER
Selenium	40	50	29.60	ND	ND	ND	4.64 ER	5.23 ER	3.67 ER	3.28 ER	ND	ND	11.1
Thallium	2	2	5.5	ND	ND	ND	ND	ND	ND	ND	ND	3.81 ER	ND

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)
LF = Low-flow sampling method used to collect sample
< = Analyte does not exceed the detection limit shown
J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)
NA = Not analyzed
ND = Not detected
NLE = No limit established
ER = Estimated Result
Sampling for VOCs and SVOCs were discontinued after the 9/3/04 sampling event as per NJDEP approval letter dated 11/2004
(1) Low-flow sampling method used to collect sample
Sampling for Volatiles and Semi-volatiles was discontinued in November 2004 as per NJDEP approval dated (11/10/04)

Table 2
Historical Groundwater Analytical Results
Site FTMM-56 Building 80 Petroleum Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				80MW01																	
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	51 Dup		52		52 Dup		53	LF3		LF4		LF5		LF6	LF6 Dup	LF7	LF8
Date Collected				6/26/2009		8/20/2009		8/20/2009		11/10/2009	3/23/2010		6/23/2010		8/31/2010		12/13/2010	12/13/2010	3/18/2011	8/12/2011
ANALYTE / Lab ID				90266.02		90350.04		90350.02		90442.04	10102.05		10282.05		10374.06		10544-03	10544-02	11113.05	11339.05
Pesticides/PCBs (µg/L)																				
Heptachlor	0.05	0.4	-	ND		ND		ND		ND	ND		ND		ND		< 0.02	< 0.02	< 0.02	< 0.01
alpha-Chlordane	NLE	NLE	-	ND		ND		ND		0.014	ND		ND		ND		< 0.02	< 0.02	< 0.02	< 0.01
gamma-Chlordane	NLE	NLE	-	ND		ND		ND		0.019	ND		ND		ND		< 0.02	< 0.02	< 0.02	< 0.01
Chlordane	0.5	2	-	NA		ND		ND		ND	ND		ND		ND		< 0.5	< 0.5	< 0.5	< 0.01
4,4'-DDD	0.1	NLE	-	0.039		0.0691		0.0891		0.852	0.0173		0.026		0.018		< 0.02	< 0.02	0.022	0.074
4,4'-DDE	0.1	NLE	-	ND		ND		ND		ND	ND		ND		ND		< 0.02	< 0.02	< 0.02	< 0.01
4,4'-DDT	0.1	NLE	-	ND		ND		ND		0.05	ND		ND		ND		< 0.02	< 0.02	< 0.02	< 0.01
Endosulfan I	40	NLE	-	ND		ND		ND		ND	ND		ND		ND		< 0.02	< 0.02	< 0.02	< 0.01
Methoxychlor	40	40	-	ND		ND		ND		ND	ND		ND		ND		< 0.02	< 0.02	< 0.02	< 0.02
Metals (µg/L)																				
Antimony	6	6	20.70	2.85	ER	9.15	ER	9.89	ER	ND	8.19	ER	13.8		19.7		ND	ND	<6	< 6
Arsenic	3	10	89.30	46.7		63.7		61.3		11.2	6.55		9.71		22.48		15.8	16.9	<3	43.2
Barium	6000	2,000	699.00	54.8		125		126		115	442		416		193		213	222	<200	< 200
Beryllium	1	4	2.10	ND		0.057	ER	0.06	ER	ND	ND		0.051	ER	ND		ND	ND	<1	< 1
Cadmium	4	5	9.50	1.84	ER	8.53		7.79		ND	2.35		1.71	ER	2	ER	5.76	5.13	8.1	< 3
Chromium	70	100	65.60	4.21	ER	2.52	ER	2.32	ER	ND	ND		ND		ND		ND	ND	< 10	< 10
Copper	1300	1300	191.00	19.5		8.86		7.94		ND	ND		6.43		2.4	ER	ND	ND	59.6	< 10
Lead	5	15	22.70	3.37	ER	7.53		8.83		ND	4.57	ER	3	ER	6.43		9.04	10.6	< 3	< 3
Mercury	2	2	0.26	ND		0.12	ER	0.1	ER	ND	ND		ND		ND		ND	ND	< 0.2	< 0.2
Nickel	100	NLE	187	3.09	ER	3.39	ER	2.74	ER	ND	1.05	ER	ND		1.01	ER	1.17	1.49	37.2	< 10
Selenium	40	50	29.60	12.9		17.8		33.4		ND	NR		NR		ND		1.39	ND	< 10	< 10
Thallium	2	2	5.5	ND		ND		ND		ND	ND		ND		ND		ND	ND	< 2	< 2

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
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LF = Low-flow sampling method used to collect sample
< = Analyte does not exceed the detection limit shown
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ER = Estimated Result
Sampling for VOCs and SVOCs were discontinued after the 9/3/04 sampling event as per NJDEP approval letter dated 11/2004
(1) Low-flow sampling method used to collect sample
Sampling for Volatiles and Semi-volatiles was discontinued in November 2004 as per NJDEP approval dated (11/10/04)

Table 2
Historical Groundwater Analytical Results
Site FTMM-56 Building 80 Petroleum Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				80MW02																	
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	32		33		34		35		36		37		38		39		LF3		LF4	
Date Collected				3/31/2008		6/12/2008		8/15/2008		12/31/2008		2/9/2009		6/26/2009		8/20/2009		11/10/2009		3/23/2010		6/23/2010	
ANALYTE / Lab ID				80102.05		80198.05		80300.05		80484.05		90040.05		90266.08		90350.05		90442.05		10103.04		10282.08	
Pesticides/PCBs (µg/L)																							
Heptachlor	0.05	0.4	-	ND		ND		0.0138		ND		ND		ND		ND		ND		ND		ND	
alpha-Chlordane	NLE	NLE	-	ND		1.1		1.19		0.3308		0.891		0.44		0.262		0.742		0.262		0.61	
gamma-Chlordane	NLE	NLE	-	ND		0.91		1.12		0.293		0.79		0.39		0.225		0.744		0.271		0.62	
Chlordane	0.5	2	-	9.72		NA		7.98		NA		NA		3.22		2.121		7.604		4.268		5.88	
4,4'-DDD	0.1	NLE	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
4,4'-DDE	0.1	NLE	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
4,4'-DDT	0.1	NLE	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
Endosulfan I	40	NLE	-	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
Methoxychlor	40	40	-	ND		ND		ND		0.0266		ND		ND		ND		ND		ND		ND	
Metals (µg/L)																							
Antimony	6	6	20.70	ND		ND		ND		ND		ND		4.73	ER	ND		ND		7.57	ER	9	ER
Arsenic	3	10	89.30	ND		ND		2.42	ER	4.98 ER	ER	ND		25.5		21.4		2.33	ER	1.73	ER	0.98	ER
Barium	6000	2,000	699.00	120		55.1		109		123		111		81.7		87.5		103		81.3		76.8	
Beryllium	1	4	2.10	2.3		0.586		1.9		2.51		1.91	ER	1.78		1.88		2.19		1.14		1.23	
Cadmium	4	5	9.50	1.48	ER	ND		1.28	ER	1.26	ER	1.59	ER	1.2	ER	1	ER	0.665	ER	0.515	ER	0.696	ER
Chromium	70	100	65.60	1.62	ER	2.5	ER	1.43	ER	ND		ND		0.452	ER	ND		ND		ND		ND	
Copper	1300	1300	191.00	ND		4.39	ER	ND		1.85	ER	1.17	ER	2.01	ER	2.33	ER	ND		1.06	ER	4.18	ER
Lead	5	15	22.70	ND		ND		ND		ND		ND		2.92	ER	2.82	ER	ND		ND		ND	
Mercury	2	2	0.26	ND		ND		ND		ND		ND		ND		ND		ND		0.06	ER	ND	
Nickel	100	NLE	187	13		5.33		11.6		10.1		13.7		9.88		9.75		10.1		9.05		8.68	
Selenium	40	50	29.60	11.6		5.88	ER	5.92	ER	ND		12.7		12.4		49.6		ND		58.2		50.1	
Thallium	2	2	5.5	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.
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Sampling for VOCs and SVOCs were discontinued after the 9/3/04 sampling event as per NJDEP approval letter dated 11/2004
(1) Low-flow sampling method used to collect sample
Sampling for Volatiles and Semi-volatiles was discontinued in November 2004 as per NJDEP approval dated (11/10/04)

Table 2
Historical Groundwater Analytical Results
Site FTMM-56 Building 80 Petroleum Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				80MW02				80MW03							
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF5	LF6	LF7	LF8	32	33	34	35	36	37	38	39
Date Collected				8/31/2010	12/13/2010	3/18/2011	8/12/2011	3/31/2008	6/12/2008	8/15/2008	12/30/2008	2/9/2009	6/26/2009	8/20/2009	11/10/2009
ANALYTE / Lab ID				10374.07	10544-05	11113.08	11339.08	80102.06	80198.06	80300.06	80483.03	90040.06	90266.04	90350.06	90442.06
Pesticides/PCBs (µg/L)															
Heptachlor	0.05	0.4	-	ND	< 0.02	< 0.02	< 0.01	ND	ND	ND	ND	ND	ND	ND	ND
alpha-Chlordane	NLE	NLE	-	0.66	0.57	0.44	1.2	ND	ND	ND	ND	ND	ND	ND	ND
gamma-Chlordane	NLE	NLE	-	0.68	0.61	0.45	1	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	0.5	2	-	7.52	4.8	7.87	< 0.01	NA	NA	NA	NA	NA	NA	ND	ND
4,4'-DDD	0.1	NLE	-	ND	< 0.02	< 0.02	< 0.01	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	0.1	NLE	-	ND	< 0.02	< 0.02	< 0.01	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	0.1	NLE	-	ND	< 0.02	< 0.02	0.026	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	40	NLE	-	ND	< 0.02	< 0.02	< 0.01	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	40	40	-	ND	< 0.02	< 0.02	< 0.02	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)															
Antimony	6	6	20.70	9.03 ER	ND	< 6	< 6	0.937 ER	ND	ND	ND	ND	4.15 ER	10.5	ND
Arsenic	3	10	89.30	1.26 ER	2.84	< 3	< 3	4.07 ER	4.36 ER	3.65 ER	4.21 ER	ND	32.3	34.3	6.53
Barium	6000	2,000	699.00	95.4	105	< 200	< 200	17.8	23.9	26.7	18.3	27.8	83	110	53.2
Beryllium	1	4	2.10	2.42	2.08	1.5	2.2	0.109 ER	ND	0.18 ER	ND	ND	ND	0.098 ER	ND
Cadmium	4	5	9.50	0.6 ER	1.04	< 3	< 3	0.356 ER	0.246 ER	0.387 ER	0.263 ER	0.384 ER	0.383 ER	ND	ND
Chromium	70	100	65.60	ND	ND	< 10	< 10	0.717 ER	2.89 ER	1.41 ER	2.77 ER	1.86 ER	1.84 ER	1.85 ER	ND
Copper	1300	1300	191.00	1.77 ER	ND	< 10	< 10	6.53	5.47	1.48 ER	7.36	3.72 ER	17.9	16.7	6.41
Lead	5	15	22.70	ND	2.59	< 3	< 3	ND	1.72 ER	ND	ND	ND	3.3 ER	7.01	ND
Mercury	2	2	0.26	ND	ND	< 0.2	< 0.2	ND	ND	ND	ND	ND	ND	0.1 ER	ND
Nickel	100	NLE	187	10.3	9.85	10.9	13	0.91 ER	ND	1.34 ER	0.728 ER	1.98 ER	3.02 ER	2.34 ER	5.58
Selenium	40	50	29.60	ND	1.57	< 10	< 10	8.32 ER	8.77 ER	4.05 ER	4.78 ER	13.3	8.86 ER	95.3	25.6
Thallium	2	2	5.5	ND	ND	< 2	< 2	ND	ND	ND	ND	1.91 ER	ND	ND	ND

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)
LF = Low-flow sampling method used to collect sample
< = Analyte does not exceed the detection limit shown
J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)
NA = Not analyzed
ND = Not detected
NLE = No limit established
ER = Estimated Result
Sampling for VOCs and SVOCs were discontinued after the 9/3/04 sampling event as per NJDEP approval letter dated 11/2004
(1) Low-flow sampling method used to collect sample
Sampling for Volatiles and Semi-volatiles was discontinued in November 2004 as per NJDEP approval dated (11/10/04)

Table 2
Historical Groundwater Analytical Results
Site FTMM-56 Building 80 Petroleum Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				80MW03																			
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	39 Dup		LF3		LF3 Dup		LF4		LF4 Dup		LF5		LF5 Dup		LF6	LF6 Dup	LF7	LF7 Dup
Date Collected				11/10/2009		3/23/2010		3/23/2010		6/23/2010		6/23/2010		8/31/2010		8/31/2010		12/10/2010	12/10/2010	3/17/2011	3/17/2011
ANALYTE / Lab ID				90442.02		10102.03		10102.02		10282.03		10282.02		10374.03		10374.02		10542-03	10542-02	11113.03	11113.02
Pesticides/PCBs (µg/L)																					
Heptachlor	0.05	0.4	-	ND														< 0.02	< 0.02	< 0.02	< 0.02
alpha-Chlordane	NLE	NLE	-	ND		ND		ND		ND		ND		ND		ND		< 0.02	< 0.02	< 0.02	< 0.02
gamma-Chlordane	NLE	NLE	-	ND		ND		ND		ND		ND		ND		ND		< 0.02	< 0.02	< 0.02	< 0.02
Chlordane	0.5	2	-	ND		ND		ND		ND		ND		ND		ND		< 0.5	< 0.5	< 0.5	< 0.5
4,4'-DDD	0.1	NLE	-	ND		ND		ND		ND		ND		ND		ND		< 0.02	< 0.02	< 0.02	< 0.02
4,4'-DDE	0.1	NLE	-	ND		ND		ND		ND		ND		ND		ND		< 0.02	< 0.02	< 0.02	< 0.02
4,4'-DDT	0.1	NLE	-	ND		ND		ND		ND		ND		ND		ND		< 0.02	< 0.02	< 0.02	< 0.02
Endosulfan I	40	NLE	-	ND		ND		ND		ND		ND		ND		ND		< 0.02	< 0.02	< 0.02	< 0.02
Methoxychlor	40	40	-	ND		ND		ND		ND		ND		ND		ND		< 0.02	< 0.02	< 0.02	< 0.02
Metals (µg/L)																					
Antimony	6	6	20.70	ND		10.9		10.8		8.63	ER	10.6		12.3		10.8		ND	6.33	< 6	< 6
Arsenic	3	10	89.30	3.29	ER	1.01	ER	1.72	ER	1.03	ER	0.83	ER	1.85	ER	2.37	ER	6.2	6.35	8.4	8.2
Barium	6000	2,000	699.00	50.6		39.2		39.8		29.8		28.4		26.9		28.3		30.1	28	< 200	< 200
Beryllium	1	4	2.10	ND		ND		ND		ND		ND		ND		ND		ND	ND	< 1	< 1
Cadmium	4	5	9.50	ND		ND		ND		ND		ND		ND		ND		0.747	ND	< 3	< 3
Chromium	70	100	65.60	ND		ND		ND		ND		ND		ND		ND		19.6	10	< 10	< 10
Copper	1300	1300	191.00	3.96	ER	7.07		7		9.15		8.89		7.44		8.12		37	35.4	53.3	51
Lead	5	15	22.70	ND		ND		ND		ND		ND		ND		ND		6.08	6.44	7.8	6.9
Mercury	2	2	0.26	ND		ND		ND		ND		ND		0.1	ER	0.08	ER	ND	ND	< 0.2	< 0.2
Nickel	100	NLE	187	1.34	ER	0.554	ER	1.47	ER	1.6	ER	1.63	ER	2.04	ER	2.23	ER	4.41	3.04	< 10	< 10
Selenium	40	50	29.60	31.1		NR		NR		NR		NR		ND		ND		2.51	2.22	< 10	< 10
Thallium	2	2	5.5	ND		ND		ND		ND		ND		ND		ND		ND	ND	< 2	< 2

Notes:
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*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
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Sampling for VOCs and SVOCs were discontinued after the 9/3/04 sampling event as per NJDEP approval letter dated 11/2004
(1) Low-flow sampling method used to collect sample
Sampling for Volatiles and Semi-volatiles was discontinued in November 2004 as per NJDEP approval dated (11/10/04)

Table 2
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Site FTMM-56 Building 80 Petroleum Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				80MW03		80MW04															
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF8	LF8 Dup	32		33		34		35		36		37		38		39	
Date Collected				8/12/2011	8/12/2011	3/31/2008		6/12/2008		8/15/2008		12/30/2008		2/9/2009		6/26/2009		8/20/2009		11/10/2009	
ANALYTE / Lab ID				11339.03	11339.02	80102.07		80198.07		80300.07		80483.04		90040.07		90266.05		90350.07		90442.07	
Pesticides/PCBs (µg/L)																					
Heptachlor	0.05	0.4	-	< 0.01	< 0.01	ND		ND		ND		ND		ND		ND		ND		ND	
alpha-Chlordane	NLE	NLE	-	< 0.01	< 0.01	ND		ND		ND		ND		ND		ND		ND		ND	
gamma-Chlordane	NLE	NLE	-	< 0.01	< 0.01	ND		ND		0.0184		ND		ND		ND		ND		ND	
Chlordane	0.5	2	-	< 0.01	< 0.01	NA		NA		NA		NA		NA		NA		ND		ND	
4,4'-DDD	0.1	NLE	-	< 0.01	< 0.01	ND		ND		ND		ND		ND		ND		ND		ND	
4,4'-DDE	0.1	NLE	-	< 0.01	< 0.01	ND		ND		ND		ND		ND		ND		ND		ND	
4,4'-DDT	0.1	NLE	-	< 0.01	< 0.01	ND		ND		ND		ND		ND		ND		ND		ND	
Endosulfan I	40	NLE	-	< 0.01	< 0.01	ND		ND		ND		ND		ND		ND		ND		ND	
Methoxychlor	40	40	-	< 0.02	< 0.02	ND		ND		ND		ND		ND		ND		ND		ND	
Metals (µg/L)																					
Antimony	6	6	20.70	< 6	< 6	ND		ND		ND		ND		ND		ND		ND		ND	
Arsenic	3	10	89.30	24.3	24.6	ND		ND		5.46		ND		ND		22		17.6		2.18	ER
Barium	6000	2,000	699.00	< 200	< 200	23.6		32.5		50.4		36.8		33.6		48.8		65.7		56.9	
Beryllium	1	4	2.10	< 1	< 1	0.176	ER	ND		0.247	ER	0.148	ER	ND		0.105	ER	0.119	ER	ND	
Cadmium	4	5	9.50	< 3	< 3	0.36	ER	ND		1.46	ER	0.528	ER	0.654	ER	0.333	ER	ND		ND	
Chromium	70	100	65.60	76.5	79.8	0.791	ER	0.951	ER	0.633	ER	0.709	ER	1.34	ER	ND		ND		ND	
Copper	1300	1300	191.00	49.9	52.8	6.41		3.99	ER	ND		3.86	ER	3.78	ER	4.16	ER	4.49	ER	1.23	ER
Lead	5	15	22.70	20.5	21.2	ND		ND		ND		ND		ND		ND		ND		ND	
Mercury	2	2	0.26	< 0.2	< 0.2	ND		ND		ND		ND		ND		ND		0.06	ER	ND	
Nickel	100	NLE	187	< 10	10.8	7.64		9.68		24.3		6.79		9.96		10.2		15.4		7.78	
Selenium	40	50	29.60	< 10	< 10	8.87	ER	7.09	ER	3.93	ER	ND		9.61	ER	13.3		40.7		23.9	
Thallium	2	2	5.5	< 2	< 2	ND		ND		ND		ND		ND		ND		ND		ND	

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
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NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
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Sampling for VOCs and SVOCs were discontinued after the 9/3/04 sampling event as per NJDEP approval letter dated 11/2004
(1) Low-flow sampling method used to collect sample
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Table 2
Historical Groundwater Analytical Results
Site FTMM-56 Building 80 Petroleum Release
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				80MW04																	
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF3		LF4		LF5		LF6	LF7	LF8	30		31		32		33		34	
Date Collected				3/23/2010		6/23/2010		8/31/2010		12/10/2010	3/18/2011	8/12/2011	9/14/2007		12/12/2007		3/31/2008		6/12/2008		8/15/2008	
ANALYTE / Lab ID				10102.06		10282.06		10374.05		10542-05	11113.06	11339.06	70341.07		70529.08		80102.08		80198.08		80300.08	
Pesticides/PCBs (µg/L)																					
Heptachlor	0.05	0.4	-	ND		ND		ND		< 0.02	< 0.02	< 0.01	0.006		ND		ND		ND		ND	
alpha-Chlordane	NLE	NLE	-	ND		ND		ND		< 0.02	< 0.02	< 0.01	ND		ND		ND		ND		ND	
gamma-Chlordane	NLE	NLE	-	ND		ND		ND		< 0.02	< 0.02	< 0.01	ND		ND		ND		ND		ND	
Chlordane	0.5	2	-	ND		ND		ND		< 0.5	< 0.5	< 0.01	NA		NA		NA		NA		NA	
4,4'-DDD	0.1	NLE	-	ND		ND		ND		< 0.02	< 0.02	< 0.01	ND		ND		ND		ND		ND	
4,4'-DDE	0.1	NLE	-	ND		ND		ND		< 0.02	< 0.02	< 0.01	ND		ND		ND		ND		ND	
4,4'-DDT	0.1	NLE	-	ND		ND		ND		< 0.02	< 0.02	< 0.01	ND		ND		ND		ND		ND	
Endosulfan I	40	NLE	-	ND		ND		ND		< 0.02	< 0.02	< 0.01	ND		ND		ND		ND		ND	
Methoxychlor	40	40	-	ND		ND		ND		< 0.02	< 0.02	< 0.02	ND		ND		ND		ND		ND	
Metals (µg/L)																					
Antimony	6	6	20.70	10.5		9.18	ER	8.29	ER	ND	< 6	< 6	ND		ND		ND		ND		ND	
Arsenic	3	10	89.30	0.94	ER	3.78	ER	5.14		1.73	< 3	20	ND		4.81	ER	23.3		19.7		12.5	
Barium	6000	2,000	699.00	33.3		26.3		28		41.9	< 200	< 200	196		266		45.2		207		237	
Beryllium	1	4	2.10	ND		0.054	ER	0.088	ER	ND	< 1	2.3	ND		ND		ND		ND		ND	
Cadmium	4	5	9.50	ND		ND		ND		ND	< 3	< 3	0.457	ER	0.405	ER	8.05		7.44		9.86	
Chromium	70	100	65.60	ND		ND		ND		ND	< 10	60.9	3.22	ER	5.56		3.62	ER	3.91	ER	4.58	ER
Copper	1300	1300	191.00	3.07	ER	6.21		2.27	ER	3.56	< 10	29.9	4.25	ER	3.89	ER	ND		ND		ND	
Lead	5	15	22.70	ND		ND		2.84	ER	ND	< 3	22.8	ND		ND		2.37	ER	8.2		ND	
Mercury	2	2	0.26	0.07	ER	ND		0.12	ER	ND	< 0.2	< 0.2	ND		ND		ND		ND		ND	
Nickel	100	NLE	187	6.1		13.8		16.4		6.57	10	38.5	4.83	ER	4.11	ER	2.75	ER	3.52	ER	4.12	ER
Selenium	40	50	29.60	NR		NR		ND		ND	< 10	< 10	ND		ND		5.56	ER	ND		ND	
Thallium	2	2	5.5	ND		ND		ND		ND	< 2	< 2	ND		ND		ND		ND		ND	

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
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Table 2
Historical Groundwater Analytical Results
Site FTMM-56 Building 80 Petroleum Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				80MW05											166MW01	
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	35	36	37	38	39	LF3	LF4	LF5	LF6	LF7	LF8	44	
Date Collected				12/30/2008	2/9/2009	6/26/2009	8/20/2009	11/10/2009	3/23/2010	6/23/2010	8/31/2010	12/10/2010	3/17/2011	8/12/2011	9/14/2007	
ANALYTE / Lab ID				80483.05	90040.08	90266.07	90350.08	90442..08	10102.04	10282.04	10374.04	10542-04	11113.04	11339.04	70341.08	
Pesticides/PCBs (µg/L)																
Heptachlor	0.05	0.4	-	ND	ND	0.013	ND	ND	ND	ND	ND	< 0.02	< 0.02	< 0.01	ND	
alpha-Chlordane	NLE	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	< 0.02	< 0.02	< 0.01	ND	
gamma-Chlordane	NLE	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	< 0.02	< 0.02	< 0.01	0.007	
Chlordane	0.5	2	-	NA	NA	NA	ND	ND	ND	ND	ND	< 0.5	< 0.5	< 0.01	NA	
4,4'-DDD	0.1	NLE	-	ND	ND	0.029	ND	0.015	ND	ND	ND	< 0.02	< 0.02	< 0.01	ND	
4,4'-DDE	0.1	NLE	-	ND	ND	0.017	ND	ND	ND	ND	ND	< 0.02	< 0.02	< 0.01	ND	
4,4'-DDT	0.1	NLE	-	ND	ND	0.02	ND	ND	ND	ND	ND	< 0.02	< 0.02	< 0.01	ND	
Endosulfan I	40	NLE	-	ND	ND	ND	ND	ND	ND	ND	ND	< 0.02	< 0.02	< 0.01	ND	
Methoxychlor	40	40	-	ND	ND	ND	ND	ND	ND	ND	ND	< 0.02	< 0.02	< 0.02	ND	
Metals (µg/L)																
Antimony	6	6	20.70	ND	ND	1.98 ER	6.91 ER	ND	11.6	8.3 ER	12.6	6.86	< 6	14.6	ND	
Arsenic	3	10	89.30	8.74	ND	53.9	29.5	22.62	4.58 ER	12.66	12.84	2.27	8.5	108	ND	
Barium	6000	2,000	699.00	64.5	68.7	729	48.1	101	24.1	24.4	39.7	58.9	< 200	< 400	16.7	
Beryllium	1	4	2.10	ND	ND	9.47	0.143 ER	0.111 ER	ND	ND	0.066 ER	ND	< 1	5	ND	
Cadmium	4	5	9.50	4.85	8.98	193	5.16	13	1.62 ER	1.88 ER	1.03 ER	1.86	< 3	134	0.764 ER	
Chromium	70	100	65.60	1.63 ER	1.86 ER	89.6	4.77 ER	2.78 ER	2.59 ER	1.47 ER	9.21	ND	< 10	454	0.571 ER	
Copper	1300	1300	191.00	4.28 ER	6.88	2.38 ER	14.9	ND	5.79	6.72	5.08	10.1	< 10	102	ND	
Lead	5	15	22.70	ND	ND	28.4	ND	9.32	2.96 ER	2.7 ER	5.15	ND	< 3	122	ND	
Mercury	2	2	0.26	ND	ND	ND	0.06 ER	ND	ND	ND	0.1 ER	ND	< 0.2	< 0.4	ND	
Nickel	100	NLE	187	ND	2.8 ER	80.1	5.13	4.37 ER	2.24 ER	3.28 ER	4.45 ER	1.04	< 10	61	1.3 ER	
Selenium	40	50	29.60	ND	13	ND	43.7	ND	NR	NR	ND	ND	< 10	< 20	ND	
Thallium	2	2	5.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 2	< 8	ND	

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)
LF = Low-flow sampling method used to collect sample
< = Analyte does not exceed the detection limit shown
J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)
NA = Not analyzed
ND = Not detected
NLE = No limit established
ER = Estimated Result
Sampling for VOCs and SVOCs were discontinued after the 9/3/04 sampling event as per NJDEP approval letter dated 11/2004
(1) Low-flow sampling method used to collect sample
Sampling for Volatiles and Semi-volatiles was discontinued in November 2004 as per NJDEP approval dated (11/10/04)

Table 2
Historical Groundwater Analytical Results
Site FTMM-56 Building 80 Petroleum Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				166MW01																			
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	45		45 Dup		46		46 Dup		47		48		48 Dup		49		49 Dup		50		50 Dup	
Date Collected				12/12/2007		12/12/2007		3/31/2008		3/31/2008		6/12/2008		8/15/2008		8/15/2008		12/31/2008		12/31/2008		2/9/2009		2/9/2009	
ANALYTE / Lab ID				70529.03		70529.02		80102.03		80102.02		80198.03		80300.03		80300.02		80484.03		80484.02		90040.03		90040.02	
Pesticides/PCBs (µg/L)																									
Heptachlor	0.05	0.4	-	ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		NA	
alpha-Chlordane	NLE	NLE	-	ND		ND		ND		NA		ND		0.00946		0.00904		ND		ND		ND		NA	
gamma-Chlordane	NLE	NLE	-	ND		ND		ND		NA		ND		0.012		0.0138		ND		ND		ND		NA	
Chlordane	0.5	2	-	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
4,4'-DDD	0.1	NLE	-	ND		ND		ND		NA		0.06		ND		ND		ND		ND		ND		NA	
4,4'-DDE	0.1	NLE	-	ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		NA	
4,4'-DDT	0.1	NLE	-	ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		NA	
Endosulfan I	40	NLE	-	ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		NA	
Methoxychlor	40	40	-	ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		NA	
Metals (µg/L)																									
Antimony	6	6	20.70	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
Arsenic	3	10	89.30	ND		ND		ND		4.94	ER	3.38	ER	3.44	ER	2.65	ER	ND		5.79		ND		ND	
Barium	6000	2,000	699.00	21.3		26.5		14		15.5		10.9		25.3		25.1		15.6		14.9		19.2		18.1	
Beryllium	1	4	2.10	ND		ND		0.128	ER	0.102	ER	ND		ND		0.124	ER	ND		ND		ND		ND	
Cadmium	4	5	9.50	0.738	ER	0.86	ER	1.29	ER	1.39	ER	1.14	ER	1.28	ER	1.11	ER	1.79	ER	1.7	ER	1.8	ER	1.68	ER
Chromium	70	100	65.60	ND		ND		0.203	ER	0.307	ER	0.318	ER	0.448	ER	ND		ND		ND		ND		0.502	ER
Copper	1300	1300	191.00	3.99	ER	4.95	ER	4.05	ER	5.21		8.09		1.49	ER	ND		6.7		4.92	ER	5.51		5.57	
Lead	5	15	22.70	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
Mercury	2	2	0.26	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
Nickel	100	NLE	187	ND		ND		0.419	ER	0.69	ER	ND		1.91	ER	1.85	ER	0.644	ER	ND		3.06	ER	2.72	ER
Selenium	40	50	29.60	ND		ND		10.3		8.13	ER	ND		5.41	ER	5.24	ER	ND		ND		15.9		16.8	
Thallium	2	2	5.5	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		1.38	ER

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)
LF = Low-flow sampling method used to collect sample
< = Analyte does not exceed the detection limit shown
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NA = Not analyzed
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NLE = No limit established
ER = Estimated Result
Sampling for VOCs and SVOCs were discontinued after the 9/3/04 sampling event as per NJDEP approval letter dated 11/2004
(1) Low-flow sampling method used to collect sample
Sampling for Volatiles and Semi-volatiles was discontinued in November 2004 as per NJDEP approval dated (11/10/04)

Table 2
Historical Groundwater Analytical Results
Site FTMM-56 Building 80 Petroleum Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				166MW01																	
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	51		52		53		LF3		LF3 Dup		LF4		LF5		LF6	LF7	LF8
Date Collected				6/26/2009		8/20/2009		11/10/2009		3/24/2010		3/24/2010		6/23/2010		8/31/2010		12/13/2010	3/18/2011	8/12/2011
ANALYTE / Lab ID				90266.06		90350.03		90442.03		10103.03		10103.02		10282.07		10374.08		10544-04	11113.07	11339.07
Pesticides/PCBs (µg/L)																					
Heptachlor	0.05	0.4	-	ND		ND		ND		ND		ND		ND		ND		< 0.02	< 0.02	< 0.01
alpha-Chlordane	NLE	NLE	-	0.0098		ND		0.015		ND		ND		ND		ND		< 0.02	< 0.02	0.042
gamma-Chlordane	NLE	NLE	-	ND		ND		0.019		0.00735		0.00798		ND		ND		< 0.02	< 0.02	< 0.01
Chlordane	0.5	2	-	NA		ND		ND		ND		ND		ND		ND		< 0.5	< 0.5	< 0.01
4,4'-DDD	0.1	NLE	-	ND		ND		ND		ND		ND		ND		ND		< 0.02	< 0.02	< 0.01
4,4'-DDE	0.1	NLE	-	ND		ND		ND		ND		ND		ND		ND		< 0.02	< 0.02	< 0.01
4,4'-DDT	0.1	NLE	-	ND		ND		ND		ND		ND		ND		ND		< 0.02	< 0.02	< 0.01
Endosulfan I	40	NLE	-	ND		ND		ND		ND		ND		ND		ND		< 0.02	< 0.02	< 0.01
Methoxychlor	40	40	-	ND		ND		ND		ND		ND		ND		ND		< 0.02	< 0.02	< 0.02
Metals (µg/L)																					
Antimony	6	6	20.70	2.45	ER	5.85	ER	ND		10.1		11.9		10.1		20		ND	< 6	< 6
Arsenic	3	10	89.30	30.3		33.9		2.76	ER	1.31	ER	1.47	ER	2.71	ER	3.94	ER	4.74	< 3	< 3
Barium	6000	2,000	699.00	23.6		52.5		22.5		20.5		20.6		40.8		40.2		28.6	< 200	< 200
Beryllium	1	4	2.10	ND		ND		ND		ND		ND		0.069	ER	ND		ND	< 1	< 1
Cadmium	4	5	9.50	0.626	ER	2.97		ND		0.524	ER	0.87	ER	0.943	ER	ND		0.693	< 3	< 3
Chromium	70	100	65.60	ND		3.21	ER	ND		ND		ND		ND		ND		ND	< 10	< 10
Copper	1300	1300	191.00	8.24		38.1		ND		5.09		4.88	ER	6.03		2.65	ER	2.88	< 10	24.2
Lead	5	15	22.70	ND		7.25		ND		ND		ND		ND		3.4	ER	ND	< 3	6.4
Mercury	2	2	0.26	ND		0.1	ER	ND		0.07	ER	0.06	ER	ND		ND		ND	< 0.2	< 0.2
Nickel	100	NLE	187	2.38	ER	2.56	ER	1.27	ER	1.43	ER	1.84	ER	2.4	ER	1.46	ER	ND	< 10	< 10
Selenium	40	50	29.60	10.4		75.1		23		NR		NR		NR		ND		ND	< 10	< 10
Thallium	2	2	5.5	ND		ND		ND		ND		ND		ND		ND		ND	< 2	< 2

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)
LF = Low-flow sampling method used to collect sample
< = Analyte does not exceed the detection limit shown
J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)
NA = Not analyzed
ND = Not detected
NLE = No limit established
ER = Estimated Result
Sampling for VOCs and SVOCs were discontinued after the 9/3/04 sampling event as per NJDEP approval letter dated 11/2004
(1) Low-flow sampling method used to collect sample
Sampling for Volatiles and Semi-volatiles was discontinued in November 2004 as per NJDEP approval dated (11/10/04)

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-56 Building 80 Petroleum Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	166MW01	80MW01	80MW02			80MW03
Sample ID			FTMM-56-GW-166MW01	FTMM-56-GW-80MW01	FTMM-56-GW-80MW02	FTMM-56-GW-80MW02-7.5	FTMM-56-GW-80MW102-7.5	FTMM-56-GW-80MW03
Sample Date			8/16/2013	8/16/2013	8/16/2013	11/20/2015	11/20/2015	8/16/2013
QA/QC			SA	SA	SA	SA	DU	SA
Sample Method			LFPS	LFPS	LFPS	LFPS	LFPS	LFPS
Filtered			Total	Total	Total	Total	Total	Total
Pesticides (µg/l)								
4,4'-DDD	0.1	NLE	NA	NA	NA	< 0.025	< 0.025	NA
4,4'-DDE	0.1	NLE	NA	NA	NA	< 0.025	< 0.025	NA
4,4'-DDT	0.1	NLE	NA	NA	NA	< 0.027	< 0.027	NA
Aldrin	0.04	NLE	NA	NA	NA	< 0.025	< 0.025	NA
Alpha-BHC	0.02	NLE	NA	NA	NA	< 0.025	< 0.025	NA
Alpha-Chlordane	0.5	NLE	NA	NA	NA	**0.28 J**	**0.28 J**	NA
Beta-BHC	0.04	NLE	NA	NA	NA	< 0.028	< 0.028	NA
Delta-BHC	100	NLE	NA	NA	NA	< 0.048	< 0.048	NA
Dieldrin	0.03	NLE	NA	NA	NA	< 0.025	< 0.025	NA
Endosulfan I	40	NLE	NA	NA	NA	< 0.025	< 0.025	NA
Endosulfan II	40	NLE	NA	NA	NA	< 0.025	< 0.025	NA
Endosulfan sulfate	40	NLE	NA	NA	NA	< 0.025	< 0.025	NA
Endrin	2	2	NA	NA	NA	< 0.025	< 0.025	NA
Endrin aldehyde	100	2	NA	NA	NA	< 0.025	< 0.025	NA
Endrin ketone	100	NLE	NA	NA	NA	< 0.025	< 0.025	NA
Gamma-BHC/Lindane	0.03	0.2	NA	NA	NA	< 0.025	< 0.025	NA
Gamma-Chlordane	0.5	NLE	NA	NA	NA	**0.29**	**0.29**	NA
Heptachlor	0.05	0.4	NA	NA	NA	< 0.025	< 0.025	NA
Heptachlor epoxide	0.2	0.2	NA	NA	NA	**0.055**	**0.055**	NA
Methoxychlor	40	40	NA	NA	NA	< 0.025	< 0.025	NA
Toxaphene	2	3	NA	NA	NA	< 0.5	< 0.5	NA
Inorganics (µg/l)								
Arsenic	3	10	NA	NA	NA	NA	NA	NA
Cadmium	4	5	NA	NA	NA	NA	NA	NA
Lead	5	15	< 2	< 2	< 2	NA	NA	**1.7 J**

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-56 Building 80 Petroleum Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	80MW04	80MW05	
Sample ID			FTMM-56-GW-80MW04	FTMM-56-GW-80MW05	FTMM-56-GW-80MW05-7.0
Sample Date			8/16/2013	8/16/2013	11/20/2015
QA/QC			SA	SA	SA
Sample Method			LFPS	LFPS	LFPS
Filtered			Total	Total	Total
Pesticides (µg/l)					
4,4'-DDD	0.1	NLE	NA	NA	NA
4,4'-DDE	0.1	NLE	NA	NA	NA
4,4'-DDT	0.1	NLE	NA	NA	NA
Aldrin	0.04	NLE	NA	NA	NA
Alpha-BHC	0.02	NLE	NA	NA	NA
Alpha-Chlordane	0.5	NLE	NA	NA	NA
Beta-BHC	0.04	NLE	NA	NA	NA
Delta-BHC	100	NLE	NA	NA	NA
Dieldrin	0.03	NLE	NA	NA	NA
Endosulfan I	40	NLE	NA	NA	NA
Endosulfan II	40	NLE	NA	NA	NA
Endosulfan sulfate	40	NLE	NA	NA	NA
Endrin	2	2	NA	NA	NA
Endrin aldehyde	100	2	NA	NA	NA
Endrin ketone	100	NLE	NA	NA	NA
Gamma-BHC/Lindane	0.03	0.2	NA	NA	NA
Gamma-Chlordane	0.5	NLE	NA	NA	NA
Heptachlor	0.05	0.4	NA	NA	NA
Heptachlor epoxide	0.2	0.2	NA	NA	NA
Methoxychlor	40	40	NA	NA	NA
Toxaphene	2	3	NA	NA	NA
Inorganics (µg/l)					
Arsenic	3	10	NA	NA	**3.7 J**
Cadmium	4	5	NA	NA	**0.42 B**
Lead	5	15	< 2	**2.4 J**	**2 J**

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-56 Building 80 Petroleum Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Footnote:
1) All historical data collected prior to 2013 are reported as provided by others.
2) Number of Analyses is the number of detected and non-detected results excluding rejected results. Sample duplicate pairs have not been averaged.
3) NLE = no limit established.
4) ND = not detected in any background sample, no background concentration available.
5) Bold chemical detection

6) Chemical result qualifiers are assigned by the laboratory and are evaluated and modified (if necessary) during the data validation.

[blank] = detect, i.e. detected chemical result value.

B = Compound detected in the sample at a concentration less than or equal to 5 times (10 times for common lab contaminants) the blank concentration.
R = Rejected, data validation rejected the results.
U = non-detect, i.e. not detected at or above this value.
U-DL = Elevated sample detection limit due to difficult sample matrix.
U-ND = Analyte not detected in sample, but no detection or reporting limit provided.

J = estimated detected value due to a concentration below the reporting limit or due to discrepancies in meeting certain analyte-specific quality control.
E (or ER) = Estimated result.

D = Results from dilution of sample.
J-DL = Elevated sample detection limit due to difficult sample matrix.
JN = Tentatively identified compound, estimated concentration.

7) Chemical results greater than or equal to the action level (depending on criteria) are highlighted based on the Criteria that are present.
- Cell Shade values represent a result that is above the NJ Ground Water Quality Criteria ####

NJDEP Interim Specific GWQC values are presented for the NJ GWQS where there is not a Specific Ground Water Quality Criteria. A full list of compounds is available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

NJDEP Interim Generic GWQC values are presented for the NJ GWQS where there is not a XXXXX or a NJDEP Interim Specific GWQC. Available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

- Bold Outline represent a result that is above the USEPA 2015-05 MCL. ###

8) Criteria action level source document and web address.
- The NJ Ground Water Quality Criteria refers to the NJDEP Groundwater Quality Standards - Adopted July 22, 2010
  http://www.state.nj.us/dep/wms/bwqsa/docs/njac79C.pdf
- The 2015-06 USEPA MCL refers to the USEPA's Region 9 Regional Screening Levels (HQ=0.1) - 5/31/2015 (Last revised)
  NA

9) Wells sampled in the most recent fourth quarter sampling event are highlighted in yellow. Sample ID

Table 4
Review of Historical Groundwater Sampling Results
Site FTMM-56 Building 80 Petroleum Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site Name/ Well ID	Interpretation of Historical and 2015 Results [1]			2015 Evaluation				Retain Analyte/Well (Yes or No)	Rationale
	Chem Class / Analyte	Does it Exceed NJDEP GWQS (Yes or No) (If Yes, identify compound)	Do Metals Exceed FTMM Background Concentration (Yes or No) (If Yes, identify Metal)	Seasonal Effect?[2] (Y/N)	Anomaly? (Y/N)	Exceedance part of overall trend? (Y/N)	Well needed for sentinel purposes? (Y/N)		
FTMM-56, B80/166									
80MW02	Pesticides	No	N/A	No	No	No	No	No	Gamma chlordane has been less than NJDEP GWQS for two annual rounds (8/2011 and 12/2015).
80MW05	Pb, As, Cd	As	No	No	No	No	No	No	As is only slightly above NDJEP GWQS and is below background conditions.

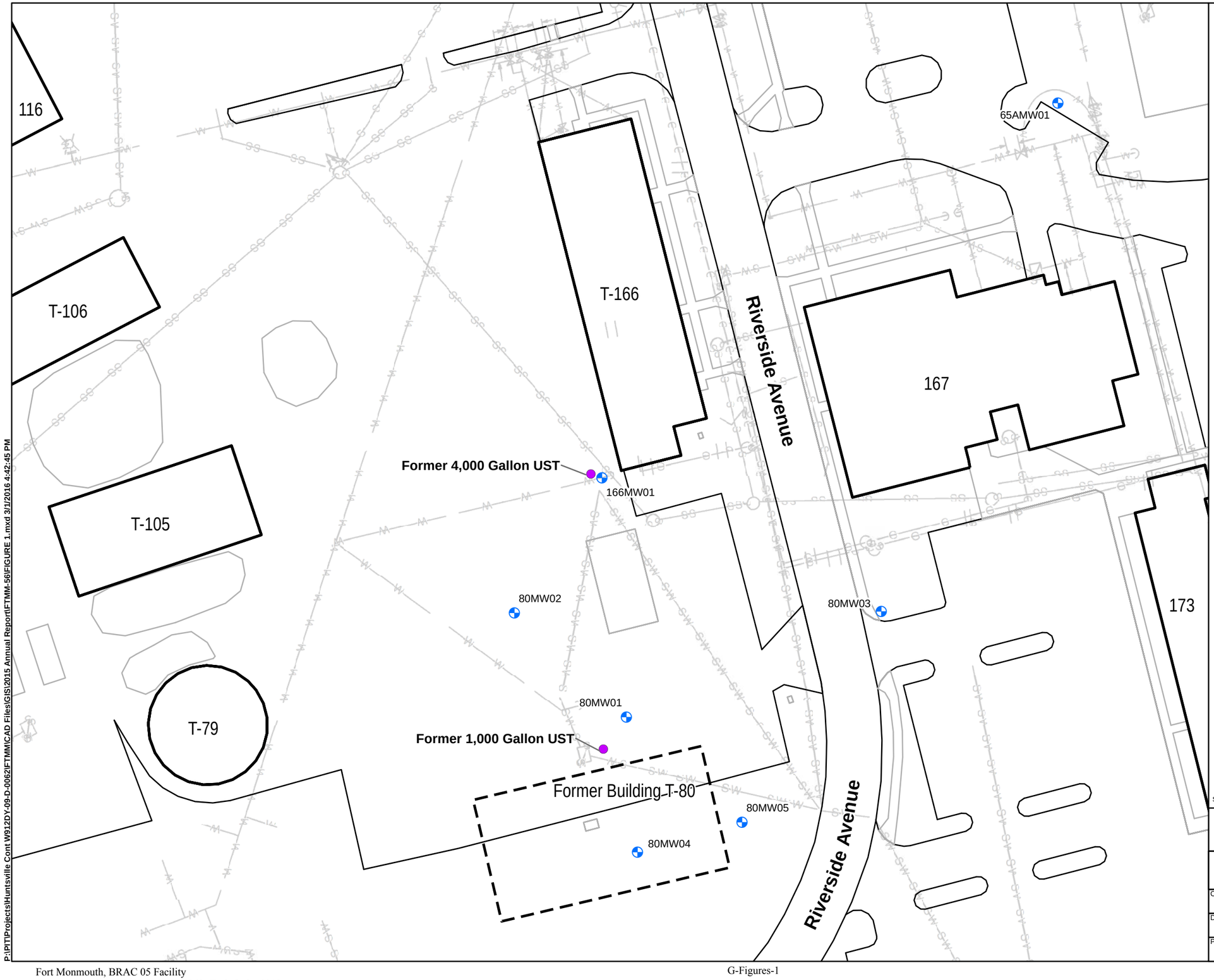
Notes

1. Has any of the analyte compounds exceeded the NJDEP GWQS in the 2015 data and the 4 previous quarterly data rounds or two previous annual rounds?
   a. If yes then keep analyte in LTM list
   b. If no then remove this analyte from LTM list
   c. a and b above may be occasionally superceded on a case-by-case basis, depending on site conditions.
2. Has any of the analyte compounds exceeded the NJDEP GWQS seasonally (winter spring vs. summer fall)?
3. N/A - Not applicable
4. Per the 2/5/15 NJDEP approval letter of the Final 2013 Baseline Groundwater Report, groundwater monitoring wells 116MW01, 80MW01, 80MW03 and 80MW04 were removed from the long-term monitoring sampling program. Furthermore, the NJDEP approved the one additional round of groundwater monitoring at 80MW02 and 80MW05.

FIGURES

Figure 1 Layout of FTMM-56 Building 80 Petroleum Release

Figure 2 FTMM-56 Shallow Groundwater Contours - October 7, 2015



LEGEND:

- Shallow Monitoring Well
- Known Removed UST
- Municipal Boundary
- Installation Boundary
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line

NOTE:

Building T-80 was demolished in 1994.

N

1 inch = 50 feet

0 25 50 100 Feet

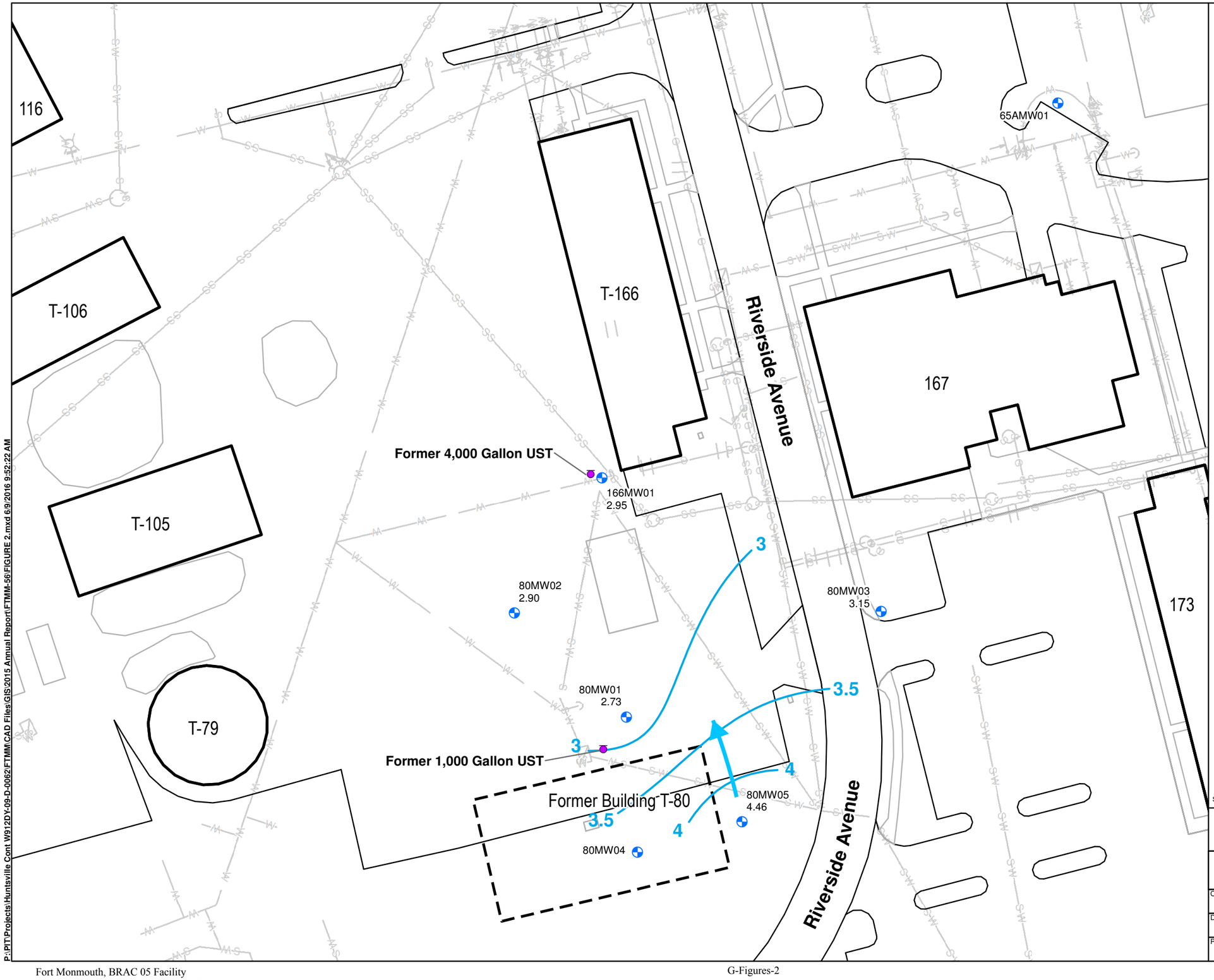
Source: FTMM Supplied CAD, 2013.

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

LAYOUT OF FTMM-56
BUILDING 80 PETROLEUM RELEASE

CREATED BY: RR	REVIEWED BY: ME
DATE: MAR. 2016	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-01000	FILE: FIGURE 1.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMMICAD Files\GIS\2015 Annual Report\FTMM-56IFIGURE 1.mxd 3/1/2016 4:42:45 PM



LEGEND:

- Shallow Monitoring Well
- Recovery Well
- Vapor Monitoring Well
- UST Location
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Groundwater Elevation Contour
- Inferred Groundwater Flow Direction

NOTE:

Monitoring well 800MW04 could not be located during the 2015 Annual Sampling Event.

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey
FTMM-56 SHALLOW GROUNDWATER CONTOURS - OCTOBER 7, 2015	
CREATED BY: RR	REVIEWED BY: ME
DATE: JUN. 2016	FIGURE NUMBER: FIGURE 2
PROJECT NUMBER: 748810-01000	FILE: FIGURE 2.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-56\FIGURE 2.mxd 6/9/2016 9:52:22 AM

ATTACHMENTS

Attachment A LFPS Field Sheets

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: FTMM-56 | CONSULTING FIRM: PARSONS
DATE: 11/20/15 | FIELD PERSONNEL: A. DiIanno
WEATHER: 55°F, Sunny

MONITOR WELL #: 80MW02 | WELL DEPTH: 12.5 feet | PUMP INTAKE DEPTH: 7.5 ft to TOC
WELL PERMIT #: 29-43199 | WELL DIAMETER: 4 inches | SCREENED/OPEN INTERVAL: 2-12 ft to TOC

PID/FID READINGS:
BACKGROUND: 0.0 ppm
BENEATH OUTER CAP: 0.0 ppm
BENEATH INNER CAP: 0.0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 3.30 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP: QED Sample Pro 1.75" Bladder Pump

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 01M0724AB
TEMP. CORRECTION VALUE: -0.11°C

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1100	X		7.31		0.421		98.1		5.52		79.0		18.79		350	3.36
1105	X		6.89		0.432		101.3		4.03		62.9		19.11		350	3.36
1110	X		6.55		0.523		113.8		3.34		45.7		19.16		350	3.36
1115	X		6.37		0.597		120.3		3.06		41.4		19.20		350	3.36
1120	X		6.27		0.669		124.1		2.84		37.5		19.24		350	3.36
1125	X		6.20		0.699		126.9		2.71		34.8		19.27		350	3.36
1130	X		6.13		0.750		129.7		2.51		33.9		19.26		350	3.36
1135	X		6.08		0.761		130.1		2.48		33.8		19.23		350	3.36
1140	X	X	5.99		0.781		134.4		2.46		31.7		19.17		350	3.36

SAMPLING INFORMATION:
Sample ID: ~~EB-MM-GW~~ FTMM-56-GW-80MW02
Sample Time: 1140
Comments:

7.5 QA/QC INFORMATION:
Duplicate Collected?: Yes, & Split
MS/MSD Collected?: No
Filtering?:

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: Clear
Odor: None
Other:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Alex D'Ianno Alex D'Ianno | DATE: 11/20/15
REVIEWER NAME & SIGNATURE: | DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: FTMM-56 | CONSULTING FIRM: PARSONS
DATE: 11/20/2015 | FIELD PERSONNEL: A.Di.Iorno
WEATHER: 60°F, Sunny

MONITOR WELL #: 80MW05 | WELL DEPTH: 11.90 feet | PUMP INTAKE DEPTH: 7.0 ft to TOC
WELL PERMIT #: 29-43202 | WELL DIAMETER: 4 inches | SCREENED/OPEN INTERVAL: 2-12 ft to TOC

PID/FID READINGS:
BACKGROUND: 0.0 ppm
BENEATH OUTER CAP: 0.0 ppm
BENEATH INNER CAP: 0.0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 0.19 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP: QED Sample Pro 1.75" Bladder Pump

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 01M0724AB
TEMP. CORRECTION VALUE: -0.11°C

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1229	X		6.57		1.482		137.9		2.73		245		15.65		400	0.25
1234	X		6.60		1.476		134.4		2.92		23.4		15.56		400	0.25
1239	X		6.61		1.469		131.9		2.20		23.4		15.57		406	0.25
1244	X		6.63		1.457		129.2		2.15		22.6		15.45		400	0.25
1249	X		6.64		1.443		126.6		2.15		22.5		15.43		400	0.25
1254	X		6.66		1.422		123.4		2.17		22.8		15.46		400	0.25
1259	X		6.71		1.48		123.2		2.13		23.4		15.25		400	0.25
1304	X	X	6.73		1.412	1.412	125.7		2.11		24.1		14.99		400	0.25

SAMPLING INFORMATION:
Sample ID: FTMM-56-GW-80MW05-7.0
Sample Time: 1304
Comments: —

QA/QC INFORMATION:
Duplicate Collected?: No
MS/MSD Collected?: No
Filtering?:

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: Clear
Odor: None
Other: —

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Alex DiIorno Alex DiIorno | DATE: 11/20/15
REVIEWER NAME & SIGNATURE: | DATE:

APPENDIX H

FTMM-57: BUILDING 108 UST GASOLINE RELEASE

APPENDIX H: FTMM-57 Building 108 UST Gasoline Release

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4	Review of Historical Groundwater Sampling Results

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2	FTMM-57 Shallow Groundwater Contours - October 2, 2015

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Attachment	Title
A	LFPS Field Sheets

1.0 WATER LEVEL MEASUREMENTS AND WELL ASSESSMENT

Monitoring wells located within FTMM-57 were gauged on October 2, 2015. Monitoring well locations as well as other site features are provided in **Figure 1**. Details regarding the water level measurements are provided in **Table 1**. Groundwater elevations in monitoring wells ranged from 3.61 (108MW03) to 8.76 (108MW01) feet above mean sea level (amsl). The inferred shallow groundwater flow direction is generally to the southeast towards Oceanport Creek, as shown in **Figure 2**.

During the groundwater gauging, the physical condition of FTMM-57 monitoring wells were assessed. The site monitoring wells were found to be in good condition.

2.0 GROUNDWATER SAMPLING

A groundwater sample was collected from one monitoring well (108MW04) located at FTMM-57 as part of the annual (fourth quarter) 2015 groundwater sampling event. FTMM-57 is sampled on an annual basis. The groundwater sampling program included measuring the depth to groundwater in monitoring wells prior to sampling and collection of groundwater samples using low-flow purging and sampling (LFPS). The groundwater sample was collected from well 108MW04 on November 20, 2015 and analyzed for lead via USEPA Method SW6010C.

The samples were collected in accordance with the New Jersey Department of Environmental Protection (NJDEP) Field Sampling Procedures Manual (FSPM) and the Sampling Analysis Plan (SAP). Field blanks, duplicates, matrix spike, matrix spike duplicate and quality assurance (QA) split samples were collected for every 5% of samples collected per parameter, per matrix, in accordance with the Quality Assurance Project Plan (QAPP).

The completed LFPS field sheets can be found in **Attachment A**.

3.0 HISTORICAL GROUNDWATER SAMPLING RESULTS

The historical quarterly groundwater sampling events conducted at FTMM-57 consisted solely of metals analysis. During the historical events, several metals including aluminum, arsenic, beryllium, chromium, iron, lead, manganese, mercury and sodium were detected in exceedance of the NJDEP Ground Water Quality Standard (GWQS). However, sodium, manganese, mercury and lead were the only metals to exceed their individual background concentration established in the 1995 Weston Report. Sodium and manganese are attributed to background conditions that typically contribute to elevated metal concentrations in groundwater, such as the glauconitic soils that underlie the site. Lead was found in exceedance of its background concentration (Weston, 1995) in site monitoring well 108MW04 during the February and August 2011 groundwater monitoring events. Lead is potentially associated with historical site operations.

Mercury exceeded its NJDEP GWQS and background concentration (Weston, 1995) in November 2010. Prior to and since this exceedance, mercury has not been detected in excess of its NJDEP GWQS. The November 2010 mercury exceedance is anomalous. Historical groundwater analytical results are presented in **Table 2**.

Aluminum, arsenic, iron, manganese and sodium were detected above their respective NJDEP GWQS. Of these metals, only manganese and sodium were the detected at concentrations greater than their background concentrations (Weston, 1995). However, manganese and sodium are found naturally in the glauconitic soil underlying the Site and are considered background conditions and not associated with historical site uses. No volatile organic compounds (VOCs) or pesticides were detected above their NJDEP GWQS.

During the August 2013 Baseline Sampling Event, four monitoring wells were sampled for VOCs plus tentatively identified VOCs, pesticides and metals. No VOCs or pesticides were detected above the NJDEP GWQS. Metals detected above the NJDEP GWQS at the four wells were attributed to site background conditions. Groundwater analytical detections from samples collected during the August 2013 sampling event are presented in **Table 3**.

The Final August 2013 Baseline Groundwater Sampling Report was accepted by the NJDEP in their February 5, 2015 letter. Based on this approval, three out of the four groundwater monitoring wells were removed from the long-term monitoring (LTM) program including: 108MW01, 108MW02 and 108MW03; and VOCs, pesticides and metals analysis were discontinued with the exception of lead.

Lead was not detected at monitoring well 108MW04 during the annual (fourth quarter) 2014 sampling event. Based on the collective data, the Annual (Fourth Quarter) 2014 Groundwater Sampling Report recommended that one additional sampling round at 108MW04 for lead be conducted to confirm the absence of lead above the NJDEP GWQS, and to support the termination of long-term monitoring at FTMM-57. This recommendation was accepted by the NJDEP in their January 26, 2016 letter.

4.0 ANNUAL (FOURTH QUARTER) 2015 GROUNDWATER RESULTS

The lead concentration detected in the groundwater sample from 108MW04 was non-detect above the method detection limit of 2.5 µg/L which is below the NJDEP GWQS of 5 µg/L during the annual (fourth quarter) 2015 sampling event.

5.0 FINDINGS AND RECOMMENDATIONS

Historically, well 108MW04 contained lead concentrations (ranging from non-detect to 101 µg/L) above the NJDEP GWQS of 5 µg/L and its background concentration (Weston, 1995), however, lead was not detected above the method detection limit during the August 2013, 2014 and 2015 sampling events in this well. A review of historical groundwater sampling results is presented in **Table 4**, which also provides the matrix used to determine the status of the wells relative to future groundwater sampling and analyses. Based on the collective groundwater sampling results, it is recommended that groundwater sampling at FTMM-57 be discontinued and a no further action determination will be requested for groundwater at this site.

TABLES

Table 1 Groundwater Gauging Data and Elevations (October 2, 2015) and LFPS Sampling Summary

Table 2 Historical Groundwater Analytical Results

Table 3 Groundwater Analytical Results - 2013, 2014 and 2015

Table 4 Review of Historical Groundwater Sampling Results

Table 1
Groundwater Gauging Data and Elevations (October 2, 2015) and LFPS Sampling Summary
Site FTMM-57 Building 108 UST Gasoline Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site/Well ID	Installation Date	Well Permit #	Y Coord. (North)	X Coord. (East)	Depth (ft. bgs)	Casing Length (ft)	Screen Length (ft)	TOC Elevation (ft)	Gauge Time	PID Reading (ppm)	Gauged Depth to Water (ft. TOC)	Gauged Depth to Bottom (ft. TOC)	Calculated Groundwater Elevation (ft)	Well Sampled this Event
Shallow Monitoring Wells														
108MW01	6/13/1993	29-29739	541684.19	623725.94	13.0	3.0	10.0	10.76	14:58	0.0	2.00	9.60	8.76	
108MW02	6/14/1993	29-29740	541706.21	623800.79	13.0	3.0	10.0	9.80	14:42	0.0	5.45	14.20	4.35	
108MW03	6/13/1993	29-29741	541636.38	623762.37	13.0	3.0	10.0	7.07	14:30	0.0	3.46	10.51	3.61	
108MW04	8/16/1995	29-33762	541737.89	623706.93	12.0	2.0	10.0	8.40	14:50	0.0	1.08	12.00	7.32	11/20/2015

Notes:
1) The synoptic round of water levels in the wells was collected on October 2, 2015.
2) Information on well permit number, X and Y coordinates, depth, screen length, screen interval and TOC elevation were provided by FTMM in a table in June 2013.
3) ft = feet
4) DTW = depth to water (measured from the top of well casing)
5) DTB = depth to bottom of well (measured from the top of well casing)
6) bgs = below ground surface
7) ppm = parts per million (of VOCs)
8) TOC = Top of Casing
9) Elevation = feet above mean sea level
10) N/A = information not available
11) LFPS = Low-Flow Purging and Sampling

Table 2
Historical Groundwater Analytical Results
Site FTMM-57 Building 108 UST Gasoline Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				108MW01																											
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	44		44 Dup		45		45 Dup		46		46 Dup		47		47 Dup		48		48 Dup		49		49 Dup		50	
Date Collected				8/3/2007		8/3/2007		12/3/2007		12/3/2007		3/6/2008		3/6/2008		4/30/2008		4/30/2008		8/6/2008		8/6/2008		10/15/2008		10/15/2008		2/17/2009	
ANALYTE / Lab ID				70293.03		70293.02		70502.03		70502.02		80070.03		80070.02		80144.03		80144.02		80282.03		80282.02		80370.03		80370.02		90057.03	
Metals (µg/L)																															
Antimony	6	6	20.7	**0.955**	ER	ND		ND		ND		ND		ND		**3.13**	ER	**1.57**	ER	**1.69**	ER	ND		ND		ND		**11.4**	
Arsenic	3	10	89.3	**10.1**		**7.67**		ND		ND		**4.32**		ND		**3.82**	ER	ND		**4.5**	ER	**5.03**		**7.7**		**6.93**		**11.7**	
Barium	6,000	2,000	699	**41.8**		**40.8**		**22.3**		**21.7**		**29.6**		**29**		**29.7**		**3.13**	ER	**46.8**		**47.6**		**62.5**		**56.1**		**41.8**	
Beryllium	1	4	2.1	ND		ND		ND		ND		ND		ND		**0.237**	ER	**0.282**	ER	ND		ND		**0.41**	ER	**0.379**	ER	ND	
Cadmium	4	5	9.5	ND		ND		ND		**0.321**	ER	**0.229**	ER	**0.235**	ER	**0.409**	ER	**0.345**	ER	**0.37**	ER	**0.447**	ER	**0.644**	ER	**0.581**	ER	ND	
Chromium	70	100	191	**0.917**	ER	**0.259**	ER	**1.29**	ER	**1.19**	ER	**1.47**	ER	**1.13**	ER	**5.39**		**1.42**	ER	**0.962**	ER	**0.96**	ER	**15.8**		**6.62**		**1.07**	ER
Copper	1,300	1,300 *	65.6	**3.49**	ER	**2.77**	ER	**1.58**	ER	**1.93**	ER	**9.84**	ER	**9.91**		**2.82**	ER	**4.49**	ER	**1.49**	ER	**2.35**	ER	**13.3**		**9.61**		**7.85**	
Lead	5	15	22.7	ND		ND		**0.955**	ER	**1.47**	ER	**4.85**	ER	**4.25**	ER	**5.43**		**10.9**		**2.45**	ER	**4.41**	ER	**30.8**		**20.9**		**16.1**	
Mercury	2	2	0.26	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
Nickel	100	NLE	187	ND		**0.336**	ER	ND		ND		**6.12**		**6.71**		**2.74**	ER	**1.97**	ER	**0.931**	ER	**0.993**	ER	**2.12**	ER	**1.18**	ER	ND	
Selenium	40	50	29.6	**9.86**	ER	**10.3**		ND		**5.03**	ER	ND		ND		**10.2**		**8.67**	ER	**11.5**		**11.2**		**5.63**	ER	**4.33**	ER	**113**	
Thallium	2	2	5.5	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	

Notes:

Detections are bolded

Shaded cells = concentrations exceed the NJDEP GWQS

NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 27, 2007)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

* Value is the USEPA Action Level.

J - Estimated concentration exceeds the MDL and is less than the RL

NLE = No limit established

ND - Not detected

NR - Not reported

ER = Estimated result

LF = Low-flow sampling method used to collect sample

DUP = field duplicate sample

Table 2
Historical Groundwater Analytical Results
Site FTMM-57 Building 108 UST Gasoline Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				108MW01																							
Round No.			**Weston 1995**	51		52		53		LF3		LF4		LF4 Dup		LF5		LF6	LF7	LF8	LF9	44		45		46	
Date Collected	**NJDEP GWQS**	**USEPA MCL**	**Background (Main Post)**	6/30/2009		8/28/2009		11/6/2009		2/19/2010		5/10/2010		5/10/2010		8/19/2010		11/22/2010	2/18/2011	5/3/2011	8/19/2011	8/3/2007		12/3/2007		3/6/2008	
ANALYTE / Lab ID				90270.03		90362.03		90439.03		10062.03		10180.03		10180.02		10352.03		1050204	1106006	1118802	1135006	70293.04		70502.04		80070.04	
Metals (µg/L)																											
Antimony	6	6	20.7	**6.94**	ER	**7.06**	ER	**6.34**	ER	ND		**12.1**		**10.7**		**8.82**	ER	< 4.7	< 6	< 6	< 6	ND		ND		ND	
Arsenic	3	10	89.3	**28.2**		**32.1**		**10.32**		**2.33**	ER	**2.61**	ER	**2.91**	ER	**3.16**	ER	**1.19**	< 3	< 3	**15.6**	**6.33**		ND		**5.52**	
Barium	6,000	2,000	699	**34.5**		**43.7**		**44.7**		**14.3**		**23.7**		**23.9**		**46.2**		**36**	< 200	< 200	< 200	**42.3**		**26.4**		**38.5**	
Beryllium	1	4	2.1	ND		**0.06**	ER	**0.108**	ER	ND		ND		ND		ND		< 0.4	< 1	< 1	< 1	ND		ND		ND	
Cadmium	4	5	9.5	ND		ND		ND		ND		ND		ND		ND		< 0.4	< 3	< 3	< 3	**0.484**	ER	ND		**0.406**	ER
Chromium	70	100	191	ND		ND		**5.77**		**2.88**	ER	**1.8**	ER	**1.75**	ER	ND		< 0.6	< 10	< 10	< 10	**1.12**	ER	**1.15**	ER	**1.14**	ER
Copper	1,300	1,300 *	65.6	**5.68**		**6.23**		**7.58**		**3.11**	ER	**1.95**	ER	**1.85**	ER	**3.95**	ER	**0.986**	< 10	**13.1**	< 10	**9.9**		**6.92**		**19.5**	
Lead	5	15	22.7	**2.9**	ER	**10.4**		**26**		ND		ND		ND		**6.91**		< 2.1	< 3	**3.3**	< 3	**2.05**	ER	**3.07**	ER	**6.73**	
Mercury	2	2	0.26	ND		ND		ND		ND		**0.12**	ER	**0.12**	ER	ND		**3.97**	< 0.2	< 0.2	< 0.2	ND		ND		ND	
Nickel	100	NLE	187	**2.78**	ER	**1.01**	ER	**2.32**	ER	**0.779**	ER	**1.02**	ER	**1.27**	ER	**1.21**	ER	**1.49**	< 10	< 10	< 10	**1.84**	ER	ND		**7.11**	
Selenium	40	50	29.6	**40.8**		**77.9**		**13.6**	ER	**45**		NR		NR		**103**		**3.97**	< 10	< 10	< 10	**7.23**	ER	ND		ND	
Thallium	2	2	5.5	ND		ND		ND		ND		ND		ND		ND		< 0.53	< 2	< 2	< 2	ND		ND		ND	

Notes:

Detections are bolded

Shaded cells = concentrations exceed the NJDEP GWQS

NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 27, 2007)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

* Value is the USEPA Action Level.

J - Estimated concentration exceeds the MDL and is less than the RL

NLE = No limit established

ND - Not detected

NR - Not reported

ER = Estimated result

LF = Low-flow sampling method used to collect sample

DUP = field duplicate sample

Table 2
Historical Groundwater Analytical Results
Site FTMM-57 Building 108 UST Gasoline Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				108MW02																				108MW03	
Round No.			**Weston 1995**	47		48		49		50		51		52		53		LF3		LF4		LF5		LF6	LF7	LF8	LF9	44	
Date Collected	**NJDEP GWQS**	**USEPA MCL**	**Background (Main Post)**	4/30/2008		8/6/2008		10/15/2008		2/17/2009		6/30/2009		8/28/2009		11/6/2009		2/19/2010		5/7/2010		8/19/2010		11/19/2010	2/18/2011	5/3/2011	8/19/2011	8/3/2007	
ANALYTE / Lab ID				80144.04		80282.04		80370.04		90057.04		90270.04		90362.04		90439.04		10062.04		10178.04		10352.02		1050104	1106004	1118803	1135004	70293.05	
Metals (µg/L)																											
Antimony	6	6	20.7	ND		ND		**1.65**	ER	**18.2**		**4.62**	ER	**5.71**	ER	ND		**6.48**	ER	**6.32**	ER	**9.33**	ER	**6.54**	< 6	< 6	< 6	ND	
Arsenic	3	10	89.3	ND		**13.8**		**19.6**		**81.2**		**25.1**		**58.2**		**6.42**		**9.18**		**2.64**	ER	**6.68**		**4.24**	< 3	**15.9**	**12.3**	**10.6**	
Barium	6,000	2,000	699	**39.5**		**53**		**74.3**		**40.1**		**55.1**		**94.1**		**67.8**		**50.2**		**47.3**		**62.1**		**74**	< 200	< 200	< 200	**24.7**	
Beryllium	1	4	2.1	**0.133**	ER	ND		**0.236**	ER	ND		ND		**0.337**	ER	ND		**0.11**	ER	ND		ND		< 0.4	< 1	< 1	< 1	ND	
Cadmium	4	5	9.5	**0.331**	ER	**1.57**	ER	**0.46**	ER	ND		ND		**2.25**		ND		**0.505**	ER	ND		**1.33**	ER	**0.888**	< 3	< 3	< 3	**0.226**	ER
Chromium	70	100	191	**0.969**	ER	**1.9**	ER	**14.3**		**3.28**	ER	**6.1**		**5.34**		ND		**16.2**		**2.61**	ER	ND		< 0.6	**15.4**	**22.7**	**12.2**	**0.758**	ER
Copper	1,300	1,300 *	65.6	**7.75**		**3.5**	ER	**18.1**		**9.93**		**11.7**		**2.72**	ER	**3.25**	ER	**9.64**		**4.26**	ER	**7.72**		**1.7**	**12.5**	**31.9**	**12.5**	**11.3**	
Lead	5	15	22.7	**2.54**	ER	**5.59**		**7.42**		**12.6**		**6.2**		**16**		**2.82**	ER	**7.6**		ND		**5**		< 2.1	**5.6**	**14.5**	**4.5**	ND	
Mercury	2	2	0.26	ND		ND		ND		ND		ND		ND		ND		ND		**0.14**	ER	ND		< 0.254	< 0.2	< 0.2	< 0.2	ND	
Nickel	100	NLE	187	**2.54**	ER	**2.55**	ER	**2.51**	ER	ND		**4.56**	ER	**4.69**	ER	**1.66**	ER	**2.89**	ER	**1.58**	ER	**4.45**	ER	**2.8**	< 10	< 10	< 10	ND	
Selenium	40	50	29.6	**6.63**	ER	**4.6**	ER	ND		**85.1**		35.5		**116**		**9.21**	ER	**55**		NR		**94.8**		< 1.36	< 10	< 10	< 10	**5.3**	ER
Thallium	2	2	5.5	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		< 0.53	< 2	< 2	< 2	ND	

Notes:

Detections are bolded

Shaded cells = concentrations exceed the NJDEP GWQS

NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 27, 2007)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

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Table 2
Historical Groundwater Analytical Results
Site FTMM-57 Building 108 UST Gasoline Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				108MW03																															
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	45		46		47		48		49		50		51		52		53		LF3		LF4		LF5		LF6	LF6 Dup	LF7						
Date Collected				12/3/2007		3/6/2008		4/30/2008		8/6/2008		10/15/2008		2/17/2009		6/30/2009		8/28/2009		11/6/2009		2/19/2010		5/7/2010		8/19/2010		11/22/2010	11/22/2010	2/18/2011						
ANALYTE / Lab ID				70502.05		80070.05		80144.05		80282.05		80370.05		90057.05		90270.05		90362.05		90439.05		10062.05		10178.05		10352.04		1050203	1050202	1106005						
Metals (µg/L)																																			
Antimony	6	6	20.7	ND		**0.804**	ER	ND		ND		ND		**19.5**		**8.73**	ER	ND		ND		**8.66**	ER	**7.64**	ER	**7.97**	ER	< 4.7	< 4.7	< 6						
Arsenic	3	10	89.3	**3.13**	ER	**5.86**		**2.47**	ER	**6.6**		**13.8**		**124**		**35.7**		**37.7**		**6.54**		**2.31**	ER	**4.13**	ER	**9.1**		**2.83**	**2.59**	< 3						
Barium	6,000	2,000	699	**13.9**		**31.8**		**14.7**		**16**		**35.7**		**36.5**		**105**		**41.3**		**27.6**		**32.7**		**33.4**		**27.4**		**14.8**	**14.7**	< 200						
Beryllium	1	4	2.1	ND		ND		**0.111**	ER	ND		**0.411**	ER	ND		ND		ND		ND		ND		ND		ND		< 0.4	< 0.4	< 1						
Cadmium	4	5	9.5	**0.394**	ER	**1.33**	ER	**0.607**	ER	**0.627**	ER	**1.97**	ER	**0.565**	ER	**0.541**	ER	ND		ND		ND		ND		ND		< 0.4	< 0.4	< 3						
Chromium	70	100	191	**0.877**	ER	**1.96**	ER	**1.32**	ER	**2.52**	ER	**26.8**		**0.583**	ER	ND		ND		ND		ND		ND		ND		**2.73**	**1.47**	< 10						
Copper	1,300	1,300 *	65.6	**18.7**		**29.5**		**19.4**		**5.32**		**60.3**		**9.81**		**8.49**		**2.22**	ER	ND		**4.27**	ER	**2.55**	ER	**4.7**	ER	**5.31**	**2.98**	< 10						
Lead	5	15	22.7	**2.69**	ER	**1.19**	ER	**5.26**		**1.39**	ER	**12.5**		**4.98**	ER	**1.61**	ER	**2.43**	ER	ND		ND		ND		ND		< 2.1	< 2.1	< 3						
Mercury	2	2	0.26	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**0.14**	ER	ND		< 0.254	< 0.254	< 0.2						
Nickel	100	NLE	187	ND		**6.37**		**2.55**	ER	**0.631**	ER	**5.43**		ND		**2.48**	ER	**0.617**	ER	**1.95**	ER	**1.12**	ER	**1.27**	ER	**1.23**	ER	**0.789**	**1.17**	< 10						
Selenium	40	50	29.6	**3.68**	ER	ND		**3.92**	ER	**4**	ER	**3.38**	ER	**107**		**46.4**		**73.1**		ND		**55.2**		NR		**70.4**		**1.67**	< 1.36	< 10						
Thallium	2	2	5.5	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		< 0.53	< 0.53	< 2						

Notes:

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NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 27, 2007)

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Table 2
Historical Groundwater Analytical Results
Site FTMM-57 Building 108 UST Gasoline Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				108MW03		108MW04																											
Round No.			**Weston 1995**	LF8	LF9	45		46		47		48		49		50		51		51 Dup		52		52 Dup		53		53 Dup		54			
Date Collected	**NJDEP GWQS**	**USEPA MCL**	**Background (Main Post)**	5/11/2011	8/19/2011	8/3/2007		12/3/2007		3/6/2008		4/30/2008		8/6/2008		10/15/2008		2/17/2009		2/17/2009		6/30/2009		6/30/2009		8/28/2009		8/28/2009		11/6/2009			
ANALYTE / Lab ID				1120401	1135005	70293.06		70502.06		80070.06		80144.06		80282.06		80370.06		90057.06		90057.02		90270.06		90270.02		90362.06		90362.02		90439.06			
Metals (µg/L)																																	
Antimony	6	6	20.7	< 6	< 6	ND		ND		ND		ND		ND		ND		**7.85**	ER	**14**		**1.35**	ER	**7.37**		**7.58**	ER	**7.4**	ER	ND			
Arsenic	3	10	89.3	**4.9**	**3.3**	**6.59**		**4.17**	ER	**4.54**	ER	**9.53**		**4.92**	ER	**3.23**	ER	**52.9**		**72.9**		**19.2**		**22.6**		**31.9**		**36.1**		**9.73**			
Barium	6,000	2,000	699	< 200	< 200	**36.5**		**9.99**		**7.68**		**8.87**		**9.76**		**18**		**14.6**		**13.8**		**33.1**		**36.9**		**40.8**		**44.8**		**10.8**			
Beryllium	1	4	2.1	< 1	< 1	ND		ND		ND		**0.147**	ER	ND		**0.281**	ER	ND		ND		**0.418**	ER	**0.669**	ER	ND		ND		ND			
Cadmium	4	5	9.5	< 3	< 3	ND		ND		ND		ND		**0.323**	ER	**0.352**	ER	ND		**0.695**	ER	**0.63**	ER	**0.377**	ER	ND		ND		ND			
Chromium	70	100	191	< 10	< 10	ND		**1.81**	ER	**1.2**	ER	**0.613**	ER	**1.91**	ER	**9.47**		**1.57**	ER	**2.76**	ER	**30.4**		**72.5**		**6.02**		**5.85**		**3.41**	ER		
Copper	1,300	1,300 *	65.6	< 10	< 10	**30.4**		**29.8**		**18.3**		**5.25**		**7.9**		**25.3**		**18.5**		**11.7**		81.8		**59.4**		**19.1**		**11.9**		**11.7**			
Lead	5	15	22.7	< 3	**4.7**	ND		**6.49**		ND		ND		ND		**5.38**		**9.74**		**1.71**	ER	**25.1**		**22.7**		**5.26**		**4.04**	ER	**3.55**	ER		
Mercury	2	2	0.26	< 0.2	< 0.2	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND			
Nickel	100	NLE	187	< 10	< 10	**0.665**	ER	ND		**5.78**		**1.58**	ER	**0.824**	ER	**1.32**	ER	ND		**1.96**	ER	**5.16**		**5.58**		**0.42**	ER	**0.572**	ER	**1.37**	ER		
Selenium	40	50	29.6	< 10	< 10	**9.78**	ER	**3.9**	ER	ND		**3.12**	ER	**3.68**	ER	**6.99**	ER	**71.8**		**43.4**		**17**		**10.4**		**89.2**		**81.4**		**8.1**	ER		
Thallium	2	2	5.5	< 2	< 2	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND			

Notes:

Detections are bolded

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NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 27, 2007)

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Table 2
Historical Groundwater Analytical Results
Site FTMM-57 Building 108 UST Gasoline Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

| | | | | 108MW04 | | | |

Table 3
Groundwater Analytical Results - 2013, 2014, 2015
Site FTMM-57 Building 108 UST Gasoline Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	108MW01	108MW02	108MW03	108MW04		
Sample ID			FTMM-57-GW-108MW01	FTMM-57-GW-108MW02	FTMM-57-GW-108MW03	FTMM-57-GW-108MW04	FTMM-57-GW-108MW04-8.25	FTMM-57-GW-108MW04-7.5
Sample Date			8/19/2013	8/19/2013	8/19/2013	8/19/2013	10/2/2014	11/20/2015
QA/QC			SA	SA	SA	SA	SA	SA
Sample Method			LFPS	LFPS	LFPS	LFPS	LFPS	LFPS
Filtered			Total	Total	Total	Total	Total	Total
Volatile Organic Compounds (µg/l)								
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	NA	NA
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	NA	NA
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	NA	NA
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	NA	NA
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	NA	NA
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	NA	NA
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	NA	NA
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	NA	NA
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	NA	NA
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	NA	NA
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	NA	NA
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	NA	NA
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	NA	NA
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	NA	NA
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	NA	NA
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	NA	NA
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	NA	NA
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	NA	NA
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	NA	NA
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	NA	NA
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	NA	NA
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	NA	NA
Acetone	6,000	NLE	< 5	**2.9 J**	< 5	**1.4 J**	NA	NA
Benzene	1	5	< 1	< 1	< 1	< 1	NA	NA
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	NA	NA
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	NA	NA
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	NA	NA
Bromoform	4	80	< 1	< 1	< 1	< 1	NA	NA
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	NA	NA
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	NA	NA
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	NA	NA
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	NA	NA
Chloroform	70	80	< 1	< 1	< 1	< 1	NA	NA
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	NA	NA
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	NA	NA
Cymene	100	NLE	< 1	< 1	< 1	< 1	NA	NA
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	NA	NA
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	NA	NA
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	NA	NA
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	NA	NA
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	NA	NA
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1	NA	NA
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	NA	NA
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	NA	NA
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	NA	NA
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	NA	NA
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	NA	NA
Methylene chloride	3	5	< 1	< 1	< 1	< 1	NA	NA
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	NA	NA
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	NA	NA
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	NA	NA
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	NA	NA
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	NA	NA
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	NA	NA
Styrene	100	100	< 1	< 1	< 1	< 1	NA	NA
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	NA	NA
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	NA	NA
Toluene	600	1,000	< 1	< 1	< 1	< 1	NA	NA
Total TIC, Volatile	500	NLE	ND	ND	ND	ND	NA	NA
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	NA	NA
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	NA	NA
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	NA	NA
Trichloroethene	1	5	< 1	< 1	< 1	< 1	NA	NA

Table 3
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Site FTMM-57 Building 108 UST Gasoline Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	108MW01	108MW02	108MW03	108MW04		
Sample ID			FTMM-57-GW-108MW01	FTMM-57-GW-108MW02	FTMM-57-GW-108MW03	FTMM-57-GW-108MW04	FTMM-57-GW-108MW04-8.25	FTMM-57-GW-108MW04-7.5
Sample Date			8/19/2013	8/19/2013	8/19/2013	8/19/2013	10/2/2014	11/20/2015
QA/QC			SA	SA	SA	SA	SA	SA
Sample Method			LFPS	LFPS	LFPS	LFPS	LFPS	LFPS
Filtered			Total	Total	Total	Total	Total	Total
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	NA	NA
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	NA	NA
Pesticides (µg/l)								
4,4'-DDD	0.1	NLE	< 0.039	< 0.039	< 0.039	< 0.039	NA	NA
4,4'-DDE	0.1	NLE	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
4,4'-DDT	0.1	NLE	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
Aldrin	0.04	NLE	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
Alpha-BHC	0.02	NLE	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
Alpha-Chlordane	0.5	NLE	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
Beta-BHC	0.04	NLE	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
Delta-BHC	100	NLE	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
Dieldrin	0.03	NLE	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
Endosulfan I	40	NLE	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
Endosulfan II	40	NLE	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
Endosulfan sulfate	40	NLE	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
Endrin	2	2	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
Endrin aldehyde	100	2	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
Endrin ketone	100	NLE	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
Gamma-BHC/Lindane	0.03	0.2	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
gamma-Chlordane	NLE	NLE	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
Heptachlor	0.05	0.4	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
Heptachlor epoxide	0.2	0.2	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
Methoxychlor	40	40	< 0.025	< 0.025	< 0.025	< 0.025	NA	NA
Toxaphene	2	3	< 0.5	< 0.5	< 0.5	< 0.5	NA	NA
Inorganics (µg/l)								
Aluminum	200	NLE	**606**	**94.8 J**	**169**	**33.6 J**	NA	NA
Antimony	6	6	**4.4 J**	< 4	**2.5 J**	< 4	NA	NA
Arsenic	3	10	< 5	**9 J**	**5.4 J**	< 5	NA	**2 J**
Barium	6,000	2,000	**38.3**	**43.1**	**22.6**	**23**	NA	NA
Beryllium	1	4	< 0.3	< 0.3	< 0.3	< 0.3	NA	NA
Cadmium	4	5	< 0.4	< 0.4	< 0.4	< 0.4	NA	< 2.5
Calcium	NLE	NLE	**67,500**	**37,700**	**31,700**	**51,200**	NA	NA
Chromium	70	100	**5.3**	**3.9**	**2**	**1.8**	NA	NA
Cobalt	100	NLE	< 1	**1.2 J**	< 1	< 1	NA	NA
Copper	1,300	1,300	**8.4 J**	**2.9 J**	**5 J**	**3.4 J**	NA	NA
Iron	300	NLE	**3,230**	**14,700**	**1,820**	**98.8 J**	NA	NA
Lead	5	15	**2.5 J**	< 2	< 2	< 2	< 2.5	< 2.5
Magnesium	NLE	NLE	**5,190**	**8,290**	**3,670**	**4,370**	NA	NA
Manganese	50	NLE	**19.8**	**363**	**52.3**	**1.5 J**	NA	NA
Mercury	2	2	< 0.08	< 0.08	< 0.08	< 0.08	NA	NA
Nickel	100	NLE	< 5	**3.5 J**	< 5	< 5	NA	NA
Potassium	NLE	NLE	**8,520**	**2,970**	**6,100**	**4,540**	NA	NA
Selenium	40	50	**6.4 J**	**3.6 J**	**4 J**	**4.4 J**	NA	NA
Silver	40	NLE	**0.893 J**	**0.545 J**	**0.773 J**	**0.601 J**	NA	NA
Sodium	50,000	NLE	**64,700**	**102,000**	**81,800**	**6,930**	NA	NA
Thallium	2	2	< 10	< 10	< 10	< 10	NA	NA
Vanadium	NLE	NLE	**6.4**	**12.3**	**11.2**	**2.3 J**	NA	NA
Zinc	2,000	NLE	**86.2**	**3 J**	**30.5**	**19 J**	NA	NA

Table 3
Groundwater Analytical Results - 2013, 2014, 2015
Site FTMM-57 Building 108 UST Gasoline Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Footnote:

1) All historical data collected prior to 2013 are reported as provided by others.

2) Number of Analyses is the number of detected and non-detected results excluding rejected results. Sample duplicate pairs have not been averaged.

3) NLE = no limit established.

4) ND = not detected in any background sample, no background concentration available.

5) Chemical result qualifiers are assigned by the laboratory and is typically evaluated and modified (if necessary) by during data validation.

[blank] = detect, i.e. detected chemical result value.
B = Compound detected in the sample and its associated blank sample.
R = Rejected, data validation rejected the results.
U = non-detect, i.e. not detected equal to or above this value.
U-DL = Elevated sample detection limit due to difficult sample matrix.
U-ND = Analyte not detected in sample, but no detection or reporting limit provided.
J = estimated (detect or non-detect) value.
E (or ER) = Estimated result.
D = Results from dilution of sample.
J-DL = Elevated sample detection limit due to difficult sample matrix.
JN = Tentatively identified compound, estimated concentration.

6) Chemical results greater than or equal to the action level (depending on criteria) are highlighted based on the Criteria that are present.

- Cell Shade values represent a result that is above the NJ Ground Water Quality Criteria ####

NJDEP Interim Specific GWQC values are presented for the NJ GWQS where there is not a Specific Ground Water Quality Criteria. A full list of compounds is available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

NJDEP Interim Generic GWQC values are presented for the NJ GWQS where there is not a XXXXX or a NJDEP Interim Specific GWQC. Available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

- Bold Outline represent a result that is above the USEPA 2014-05 MCL. ###

- Cell Style values represent a result that is above the Weston 1995 Background (Main Post). ###

n/a = all concentrations were less than the detection limit, therefore, no location of maximum value identified.

Dash (-) = only background concentrations for metals are being used as comparison criteria.

7) Criteria action level source document and web address.

- The NJ Ground Water Quality Criteria refers to the NJDEP Groundwater Quality Standards - Adopted July 22, 2010
  http://www.state.nj.us/dep/wms/bwqsa/docs/njac79C.pdf
- The 2014-05 USEPA MCL refers to the USEPA's Region 9 Regional Screening Levels (HQ=1.0) - 5/31/2014 (Last revised)
  http://www.epa.gov/region9/superfund/prg/
- The Weston 1995 Background (Main Post) refers to the FTMM reports.
  NA

8) Wells sampled in the most recent fourth quarter sampling event are highlighted in yellow. Sample ID

Table 4
Review of Historical Groundwater Sampling Results
Site FTMM-57 Building 108 UST Gasoline Release
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site Name/ Well ID	Interpretation of Historical and 2015 Results [1]			2015 Evaluation				Retain Analyte/Well (Yes or No)	Rationale
	Chem Class / Analyte	Does it Exceed NJDEP GWQS (Yes or No) (If Yes, identify compound)	Do Metals Exceed FTMM Background Concentration (Yes or No) (If Yes, identify Metal)	Seasonal Effect?[2] (Y/N)	Anomaly? (Y/N)	Exceedance part of overall trend? (Y/N)	Well needed for sentinel purposes? (Y/N)		
FTMM-57, B108									
108MW04	Pb	No	No	No	No	N/A	No	No	Pb not detected in 2015, 2014 or 2013 sampling events. Discontinue sampling.

Notes

1. Has any of the analyte compounds exceeded the NJDEP GWQS in the 2015 data and the 4 previous quarterly data rounds or 2 previous annual rounds?
   a. If yes then keep analyte in LTM list
   b. If no then remove this analyte from LTM list
   c. a and b above may be occasionally superceded on a case-by-case basis, depending on site conditions.
2. Has any of the analyte compounds exceeded the NJDEP GWQS seasonally (winter spring vs. summer fall)?
3. N/A - Not applicable
4. Per the 2/5/15 NJDEP approval letter of the Final 2013 Baseline Groundwater Report, groundwater monitoring wells 108MW01, 108MW02 and 108MW03; were removed from the long- term monitoring sampling program and VOCs, pesticides and metals analysis were discontinued in 2014 with the exception of lead.

FIGURES

Figure 1 Layout of FTMM-57 Building 108 UST Gasoline Release

Figure 2 FTMM-57 Shallow Groundwater Contours - October 2, 2015

LEGEND:

- Shallow Monitoring Well
- Former Building 108
- Municipal Boundary
- Installation Boundary
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Surface Water Feature

N

1 inch = 100 feet

0 50 100 200 Feet

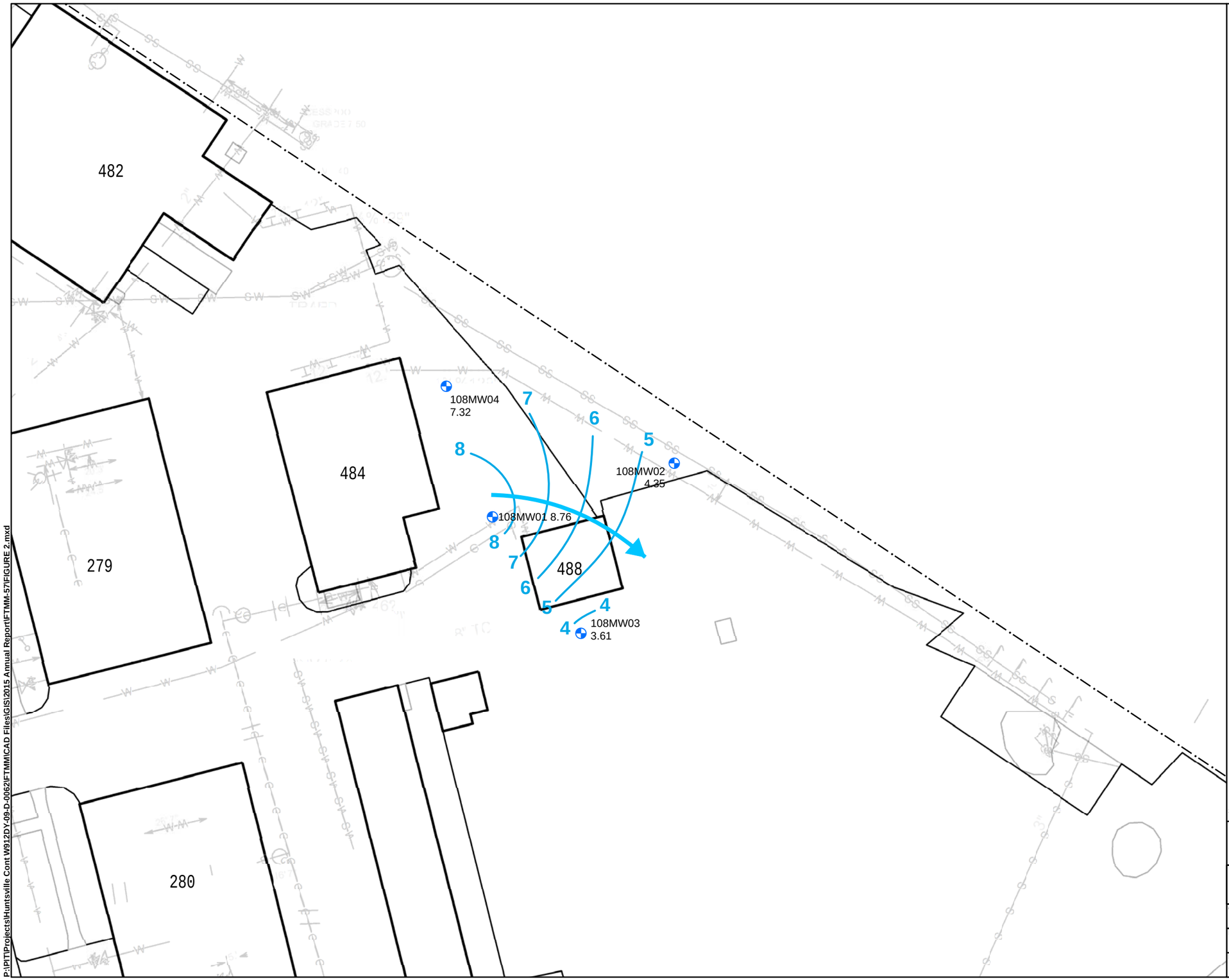
Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

LAYOUT OF FTMM-57
BUILDING 108 UST GASOLINE RELEASE

CREATED BY: RR	REVIEWED BY: ME
DATE: OCT. 2015	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-01000	FILE: FIGURE 1.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2014 Annual Report\FTMM-57\FIGURE 1.mxd



LEGEND:

- Shallow Monitoring Well
- Former Building 108
- Installation Boundary
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Surface Water Feature
- Groundwater Elevation Contour
- Inferred Groundwater Flow Direction

N

1 inch = 40 feet

0 20 40 80 Feet

Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

FTMM-57 SHALLOW GROUNDWATER CONTOURS - OCTOBER 2, 2015

CREATED BY: RR	REVIEWED BY: ME
DATE: MAR. 2016	FIGURE NUMBER: FIGURE 2
PROJECT NUMBER: 748810-01000	FILE: FIGURE 2.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-57\FIGURE 2.mxd

ATTACHMENTS

Attachment A LFPS Field Sheets

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: FTMM-57 | CONSULTING FIRM: PARSONS
DATE: 11/20/15 | FIELD PERSONNEL: A. DiIonno
WEATHER: 60°F, Sunny

MONITOR WELL #: 108MW04 | WELL DEPTH: 12.0' feet | PUMP INTAKE DEPTH: 7.5 ft to TOC
WELL PERMIT #: 29-33762 | WELL DIAMETER: 4 inches | SCREENED/OPEN INTERVAL: 2-12 ft to TOC

PID/FID READINGS:
BACKGROUND: 0.0 ppm
BENEATH OUTER CAP: 0.0 ppm
BENEATH INNER CAP: 0.0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 3.09 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP:

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 01M0724AC
TEMP. CORRECTION VALUE: -0.11°C

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1543	X		7.11		0.153		121.2		9.89		19.2		16.78		300	3.07
1548	X		7.06		0.135		120.8		8.95		13.4		16.93		300	3.18
1553	X		6.97		0.133		116.5		8.78		13.2		16.97		300	3.19
1558	X		6.99		0.135		112.0		8.75		12.3		16.88		300	3.22
1603	X		6.95		0.142		114.9		8.79		10.3		16.80		300	3.24
1608	X		6.91		0.148		116.8		8.77		10.6		16.79		300	3.25
1613	X	X	6.87		0.149		120.1		8.74		10.8		16.72		300	3.26

SAMPLING INFORMATION:
Sample ID: FTMM-57-GW-108MW04-7.5
Sample Time: 1613
Comments: —

QA/QC INFORMATION:
Duplicate Collected?: NO
MS/MSD Collected?: NO
Filtering?:

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: Clear
Odor: None
Other: —

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Alex DiIonno Alex DiIonno | DATE: 11/20/15
REVIEWER NAME & SIGNATURE: | DATE:

APPENDIX I

FTMM-58: BUILDING 2567 UST GASOLINE

APPENDIX I: FTMM-58 Building 2567 UST Gasoline

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Attachment	Title
A	LFPS Field Sheets

1.0 WATER LEVEL MEASUREMENTS AND WELL ASSESSMENT

Monitoring wells located within FTMM-58 were gauged on October 7, 2015. Monitoring well locations as well as other site features are provided in **Figure 1**. Details regarding the water level measurements are provided in **Table 1**. Groundwater elevations in monitoring wells ranged from 26.53 (2567MW05) to 30.32 (2567MW02) feet above mean sea level (amsl). The inferred shallow groundwater flow direction is generally to the southeast, as shown in **Figure 2**.

During the groundwater gauging, the physical condition of FTMM-58 monitoring wells were assessed. The site monitoring wells were found to be in good condition.

2.0 GROUNDWATER SAMPLING

Groundwater samples were collected from two monitoring wells (2567MW01 and 2567MW03) located at FTMM-58 as part of the annual (fourth quarter) 2015 groundwater sampling event. FTMM-58 is sampled on an annual basis. The groundwater sampling program included measuring the depth to groundwater in monitoring wells prior to sampling and collection of groundwater samples using low-flow purging and sampling (LFPS). Groundwater samples were collected from wells 2567MW01 and 2567MW03 on November 25, 2015. The groundwater samples were analyzed for only tert-butyl alcohol (TBA) via the United States Environmental Protection Agency (USEPA) Method SW8260C.

The samples were collected in accordance with the New Jersey Department of Environmental Protection (NJDEP) Field Sampling Procedures Manual (FSPM) and the Sampling Analysis Plan (SAP). Field blanks, duplicates, matrix spike, matrix spike duplicate and quality assurance (QA) split samples were collected for every 5% of samples collected per parameter, per matrix, in accordance with the Quality Assurance Project Plan (QAPP). Trip blanks accompanied each cooler each day in which VOCs were collected for laboratory analysis.

Completed LFPS field sheets for each well sampled can be found in **Attachment A**.

3.0 HISTORICAL GROUNDWATER SAMPLING RESULTS

Groundwater monitoring has been conducted at FTMM-58 beginning in April 1997. Groundwater monitoring has consisted of sampling for select VOCs, semi-volatile organic compounds (SVOCs), and metals. The four most recent historical quarterly groundwater sampling events consisted of sampling for VOCs and metals.

Tert-butyl alcohol (TBA) was detected in FTMM-58 monitoring well 2567MW01 above the NJDEP Ground Water Quality Standards (GWQS) in March and June 2010, but was not detected in the subsequent groundwater sampling event conducted in September 2010. TBA was also detected in 2567MW03 at a concentration of 486.99 µg/L in September 2010. The NJDEP GWQS for TBA is 100 µg/L.

The November 2011 Remedial Action Progress Report for FTMM-58 prepared by CALIBRE Systems, Inc. stated that in an effort to reduce the TBA exceedances exhibited in monitoring wells 2567MW01 and 2567MW03, *in-situ* chemical oxidation injections would be performed in this area. Three injections of RegenOx®/ORC Advanced™ were conducted between

November 2010 and June 2011 under an approved NJDEP Permit by Rule letter dated October 28, 2010.

Antimony was detected in monitoring wells 2567MW01, 2567MW02, 2567MW03, 2567MW04 and 2567MW05 above the NJDEP GWQS in at least one of the last four historical sampling rounds. Lead was also detected above the NJDEP GWQS in the September and June 2010 sampling events. Both antimony and lead were well below the background conditions for each compound and are not related to former site operations. Historical groundwater analytical data are presented in **Table 2**.

During the August 2013 Baseline Sampling Event, seven monitoring wells were sampled for VOCs. No VOCs were detected above their respective NJDEP GWQS during August 2013 sampling event. Results of the August 2013 sampling event are presented in **Table 3.**

The Final August 2013 Baseline Groundwater Sampling Report was accepted by the NJDEP in their February 5, 2015 letter. Based on this approval, five out of the seven groundwater monitoring wells were removed from the long term monitoring (LTM) program including 2567MW02, 2567MW04, 2567MW05, 2567MW06 and 2567MW07. Also, the volatile organic compound list was reduced to TBA only.

During the 2014 sampling event, TBA was detected in only monitoring well 2567MW01, at a concentration of 260 µg/L which is above the NJDEP GWQS of 100 µg/L. Groundwater analytical results from samples collected during the annual (fourth quarter) 2014 groundwater sampling event are presented in **Table 3**.

Based on the annual 2014 results, it was recommended that annual groundwater sampling continue at monitoring wells 2567MW01 and 2567MW03 for TBA. The Annual (Fourth Quarter) 2014 Groundwater Sampling Report was accepted by the NJDEP in their January 26, 2016 letter.

4.0 ANNUAL (FOURTH QUARTER) 2015 GROUNDWATER RESULTS

TBA was detected in only monitoring well 2567MW01, at a concentration of 240 µg/L which is above the NJDEP GWQS of 100 µg/L. Groundwater analytical results from samples collected during the annual (fourth quarter) 2015 groundwater sampling event are presented in **Table 3**. Constituents detected in the groundwater above the NJDEP GWQS during the 2015 Sampling Event are shown on **Figure 3.**

5.0 FINDINGS AND RECOMMENDATIONS

Overall, concentrations of TBA detected at monitoring well 2567MW01 have been decreasing from a high of 829.45 µg/L (June 2010) to 240 µg/L (November 2015); concentrations remain above the NJDEP GWQS (100 µg/L). Concentrations of TBA detected at monitoring well 2567MW03 have fluctuated and have ranged from 486.99 µg/L in September 2010 to non-detect in December 2014 and November 2015 annual sampling events. Based on the collective groundwater analytical results, continued groundwater monitoring for TBA in 2567MW01 is recommended as well as the addition of down gradient well 2567MW05. Only one additional round of groundwater sampling at monitoring well 2567MW03 is recommended to confirm

that TBA is below the NJDEP GWQS. A review of historical groundwater sampling results is presented in **Table 4**, which also provides the matrix used to determine the status of wells relative to future groundwater sampling and analyses.

TABLES

Table 1 Groundwater Gauging Data and Elevations (October 7, 2015) and LFPS Sampling Summary

Table 2 Historical Groundwater Analytical Results

Table 3 Groundwater Analytical Results - 2013, 2014 and 2015

Table 4 Review of Historical Groundwater Sampling Results

Table 1
Groundwater Gauging Data and Elevations (October 7, 2015) and LFPS Sampling Summary
Site FTMM-58 Building 2567 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site/Well ID	Installation Date	Well Permit #	Y Coord. (North)	X Coord. (East)	Depth (ft. bgs)	Casing Length (ft)	Screen Length (ft)	TOC Elevation (ft)	Gauge Time	PID Reading (ppm)	Gauged Depth to Water (ft. TOC)	Gauged Depth to Bottom (ft. TOC)	Calculated Groundwater Elevation (ft)	Date Sampled
Shallow Monitoring Wells														
2567MW01	9/30/1991	29-26925	532956.75	609537.78	13.0	3.0	10.0	32.86	11:02	0.0	4.28	13.15	28.58	11/25/2015
2567MW02	10/1/1991	29-26926	533016.73	609468.76	13.0	3.0	10.0	34.17	11:07	0.0	3.85	12.53	30.32	
2567MW03	10/1/1991	29-26927	532929.32	609472.36	13.0	3.0	10.0	32.79	11:10	0.0	3.20	12.75	29.59	11/25/2015
2567MW04	9/30/1991	29-26928	533042.70	609544.26	12.0	2.0	10.0	32.42	11:05	0.0	2.62	11.80	29.80	
2567MW05	9/23/1994	29-31783	532871.13	609697.52	12.5	2.5	10.0	33.90	11:28	0.0	7.37	15.15	26.53	
2567MW06	5/12/2000	29-42585	532869.38	609542.57	13.0	3.0	10.0	34.01	11:12	0.0	7.39	16.05	26.62	
2567MW07	5/12/2000	29-42586	532879.49	609473.42	13.0	3.0	10.0	35.25	11:15	0.0	6.59	16.05	28.66	

Notes:
1) The synoptic round of water levels in the wells was collected on October 7, 2015.
2) Information on well permit number, X and Y coordinates, depth, screen length, screen interval and TOC elevation were provided by FTMM in a table in June 2013.
3) ft = feet
4) DTW = depth to water (measured from the top of well casing)
5) DTB = depth to bottom of well (measured from the top of well casing)
6) bgs = below ground surface
7) ppm = parts per million (of VOCs)
8) TOC = Top of Casing
9) Elevation = feet above mean sea level
10) N/A = information not available
11) LFPS = Low-Flow Purging and Sampling

Table 2
Historical Groundwater Analytical Results
Site FTMM-58 Building 2567 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				2567MW01										2567MW02											
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	51		51 Dup		LF1		LF2		LF2 Dup		LF3		51		LF1		LF1 Dup		LF2		LF2 Dup		LF3		LF3 Dup	
Date Collected				10/26/2009		10/26/2009		3/4/2010		6/9/2010		6/9/2010		9/16/2010		10/26/2009		3/4/2010		3/4/2010		6/8/2010		6/8/2010		9/15/2010		9/15/2010	
ANALYTE / Lab ID				90428.04		90428.03		10069.08		10251.04		10251.03		10395.05		90428.05		10069.04		10069.03		10248.04		10248.03		10392.04		10392.03	
Volatile Organic Compounds (µg/L)																													
Acetone	6,000	NLE	--	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
Benzene	1	5	--	ND		ND		ND		ND		ND		ND		ND		--		--		ND		--		--		--	
2-Butanone	300	NLE	--	ND		ND		--		--		--		--		ND		ND		ND		ND		ND		ND		ND	
Methyl *tert* -butyl ether	70	NLE	--	**0.90**		**0.92**		**1.28**		**1.15**		**1.11**		ND		ND		**--**		**--**		ND		**--**		**--**		**--**	
tert -Butyl alcohol	100	NLE	--	**13.13**		**13.13**		**662.11**		**829.45**		**736.09**		ND		ND		--		--		ND		--		--		--	
Toluene	600	1,000	--	ND		ND		ND		ND		ND		ND		ND		--		--		ND		--		--		--	
Xylenes (total)	1,000	10,000	--	ND		ND		ND		ND		ND		ND		ND		--		--		ND		--		--		--	
TICs*	NLE	NLE	--	ND		ND		ND		**9**		**6**		**234**		**15**		ND		ND		ND		ND		**20**		**26**	
Metals (µg/L)																													
Antimony	6	6	20.7	NA		NA		**6.88**	ER	**10.7**		**12.6**		**18.7**		NA		ND		**6.13**	ER	**9.73**	ER	**9.89**	ER	**13.2**		**11.1**	
Arsenic	3	10	89.3	NA		NA		**1.14**	ER	ND		**0.69**	ER	ND		NA		**1.01**	ER	**0.91**	ER	**0.70**	ER	**1.00**	ER	**1.46**	ER	**1.06**	ER
Barium	6,000	2,000	699	NA		NA		**845**		**1120**		**1110**		**885**		NA		**377**		**407**		**340**		**339**		**434**		**443**	
Beryllium	1	4	2.1	NA		NA		ND		**0.06**	ER	**0.07**	ER	ND		NA		ND		ND		**0.136**	ER	**0.15**	ER	ND		ND	
Cadmium	4	5	9.5	NA		NA		ND		ND		ND		ND		NA		ND		ND		ND		ND		--		--	
Chromium	70	100	191	NA		NA		ND		ND		ND		ND		NA		ND		ND		ND		ND		ND		ND	
Copper	1,300	1,300 **	65.6	NA		NA		ND		ND		ND		**1.54**	ER	NA		ND		ND		ND		ND		**3.02**	ER	**2.32**	ER
Lead	5	15	22.7	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
Mercury	2	2	0.26	NA		NA		ND		ND		ND		ND		NA		ND		ND		ND		ND		**0.08**	ER	**0.08**	ER
Nickel	100	NLE	187	NA		NA		**1.02**	ER	ND		ND		ND		NA		ND		ND		ND		ND		**1.07**	ER	**1.63**	ER
Selenium	40	50	29.6	NA		NA		NR		NR		NR		ND		NA		NR		NR		NR		NR		**1.96**		ND	
Thallium	2	2	5.5	NA		NA		ND		ND		ND		ND		NA		ND		ND		ND		ND		ND		ND	

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

** Value is the USEPA Action Level.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

LF = Low flow sampling method used to collect sample

DUP = field duplicate sample

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

Table 2
Historical Groundwater Analytical Results
Site FTMM-58 Building 2567 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				2567MW03	2567MW03						2567MW04						2567MW05											
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	51	LF1		LF2		LF3		51	LF1		LF2		LF3	51	LF1		LF1 Dup		LF2		LF3		LF3 Dup	
Date Collected				10/26/2009	3/5/2010		6/9/2010		9/15/2010		10/26/2009	3/4/2010		6/8/2010		9/15/2010	10/26/2009	3/5/2010		3/5/2010		6/8/2010		9/16/2010		9/16/2010	
ANALYTE / Lab ID				90428.06	10073.05		10251.05		10392.08		90428.07	10069.05		10248.05		10392.05	90428.08	10073.04		10073.03		10248.08		10395.04		10395.03	
Volatile Organic Compounds (µg/L)																												
Acetone	6,000	NLE	--	ND	ND		ND		ND		ND	ND		ND		ND	ND	ND		ND		ND		ND		ND	
Benzene	1	5	--	ND	ND		ND		ND		ND	--		--		--	ND	--		--		--		--		--	
2-Butanone	300	NLE	--	ND	ND		ND		ND		ND	ND		ND		ND	ND	ND		ND		ND		ND		ND	
Methyl *tert* -butyl ether	70	NLE	--	**0.74**	**0.42**	J	**0.25**	J	**1.26**		ND	ND		ND		ND	ND	--		--		--		--		--	
tert -Butyl alcohol	100	NLE	--	ND	ND		ND		**486.99**		ND	--		--		--	ND	--		--		--		--		--	
Toluene	600	1,000	--	ND	ND		ND		ND		ND	--		--		--	ND	ND		ND		ND		ND		ND	
Xylenes (total)	1,000	10,000	--	ND	ND		ND		ND		ND	--		--		--	ND	--		--		--		--		--	
TICs*	NLE	NLE	--	**227**	**53**		**5**		**18**		ND	ND		ND		ND	ND	ND		ND		ND		ND		ND	
Metals (µg/L)																												
Antimony	6	6	20.7	NA	ND		**9.45**	ER	**16.5**		NA	**5.51**	ER	**6.42**		**8.64**	ER	NA	ND		ND		ND		ND		**7.31**	ER
Arsenic	3	10	89.3	NA	ND		ND		--		NA	**2.37**	ER	**1.80**	ER	**2.22**	ER	NA	ND		**0.71**	ER	**1.30**	ER	**2.57**	ER	**2.41**	ER
Barium	6,000	2,000	699	NA	**195**		**382**		**1120**		NA	**74.3**		**136**		**175**		NA	**105**		**106**		**49.5**		**41.5**		**38.1**	
Beryllium	1	4	2.1	NA	ND		**0.04**	ER	ND		NA	**0.38**	ER	**0.32**	ER	**0.20**	ER	NA	**0.24**	ER	**0.20**	ER	**0.44**	ER	**0.36**	ER	**0.33**	ER
Cadmium	4	5	9.5	NA	ND		ND		--		NA	**0.58**	ER	ND		ND		NA	**1.48**	ER	**1.36**	ER	ND		ND		ND	
Chromium	70	100	191	NA	ND		ND		ND		NA	**1.78**	ER	ND		ND		NA	ND		ND		**11.4**		**7.39**		**6.77**	
Copper	1,300	1,300 **	65.6	NA	ND		ND		**2.46**	ER	NA	**1.39**	ER	ND		**2.15**	ER	NA	**5.22**		**5.22**		**16.6**		**13.1**		**12.5**	
Lead	5	15	22.7	ND	ND		ND		ND		ND	ND		ND		ND		ND	ND		ND		**11.9**		**7.02**		**6.19**	
Mercury	2	2	0.26	NA	ND		ND		**0.07**	ER	NA	ND		ND		**0.07**	ER	NA	ND		ND		ND		ND		ND	
Nickel	100	NLE	187	NA	ND		ND		**3.11**	ER	NA	**11.4**		**10.9**		**3.7**	ER	NA	**11.1**		**11.7**		**6.93**		**6.1**	ER	**5.34**	
Selenium	40	50	29.6	NA	NR		NR		ND		NA	NR		NR		ND		NA	NR		NR		NR		**1.7**		ND	
Thallium	2	2	5.5	NA	ND		ND		ND		NA	ND		ND		ND		NA	ND		ND		ND		ND		ND	

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

** Value is the USEPA Action Level.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

LF = Low flow sampling method used to collect sample

DUP = field duplicate sample

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

Table 2
Historical Groundwater Analytical Results
Site FTMM-58 Building 2567 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				2567MW07	2567MW07					
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	38	LF1		LF2		LF3	
Date Collected				10/26/2009	3/4/2010		6/8/2010		9/15/2010	
ANALYTE / Lab ID				90428.10	10069.07		10248.07		10392.07	
Volatile Organic Compounds (µg/L)										
Acetone	6,000	NLE	--	ND	ND		ND		ND	
Benzene	1	5	--	ND	--		--		--	
2-Butanone	300	NLE	--	ND	--		--		--	
Methyl *tert* -butyl ether	70	NLE	--	ND	ND		ND		ND	
tert -Butyl alcohol	100	NLE	--	ND	ND		ND		ND	
Toluene	600	1,000	--	ND	--		--		--	
Xylenes (total)	1,000	10,000	--	ND	--		--		--	
TICs*	NLE	NLE	--	ND	ND		ND		ND	
Metals (µg/L)										
Antimony	6	6	20.7	NA	ND		**5.50**	ER	**7.47**	ER
Arsenic	3	10	89.3	NA	**0.64**	ER	**2.71**	ER	**8.20**	
Barium	6,000	2,000	699	NA	**223**		**71.5**		**172**	
Beryllium	1	4	2.1	NA	**0.22**	ER	**0.19**	ER	**0.04**	ER
Cadmium	4	5	9.5	NA	ND		ND		ND	
Chromium	70	100	191	NA	ND		ND		ND	
Copper	1,300	1,300 **	65.6	NA	**4.06**	ER	**2.15**	ER	**2.39**	ER
Lead	5	15	22.7	**3.05**	ND		ND		ND	
Mercury	2	2	0.26	NA	NA		ND		**0.06**	ER
Nickel	100	NLE	187	NA	**15.6**		**5.22**		**9.89**	
Selenium	40	50	29.6	NA	NR		NR		**1.43**	
Thallium	2	2	5.5	NA	ND		ND		ND	

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for VOCs and SVOCs. No individual compound can exceed 100 µg/L.

** Value is the USEPA Action Level.

NJDEP GWQS = Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

USEPA MCL = U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

< = Analyte does not exceed the detection limit shown

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

NA = Not analyzed

ND = Not detected

NLE = No limit established

ER = Estimated Result

LF = Low flow sampling method used to collect sample

DUP = field duplicate sample

J = Estimated concentration exceeds the method detection limit (MDL) and is less than the reporting limit (RL)

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-58 Building 2567 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	2567MW01			2567MW02	2567MW03					2567MW04	2567MW05
Sample ID			FTMM-58-GW-2567MW01-8.33	FTMM-58-GW-2567MW01-8.73	FTMM-58-GW-2567MW01-8.3	FTMM-58-GW-2567MW02-8.06	FTMM-58-GW-2567MW03-10.5	FTMM-58-GW-2567MW03-10.5	FTMM-58-GW-2567MW03-5.11	FTMM-58-GW-2567MW03-8.03	FTMM-58-GW-2567MW03-8	FTMM-58-GW-2567MW04-7.09	FTMM-58-GW-2567MW05-9.65
Sample Date			8/29/2013	10/2/2014	11/25/2015	8/29/2013	8/29/2013	8/29/2013	8/29/2013	10/2/2014	11/25/2015	8/29/2013	8/29/2013
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			PDB	LFPS	LFPS	PDB	PDB	LFPS	PDB	LFPS	LFPS	PDB	PDB
Volatile Organic Compounds (µg/l)													
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Acetone	6,000	NLE	**2.5 J**	**1.7 J**	NA	**2.9 J**	**2.8 J**	< 5	**3.5 BJ**	< 5	NA	**2.8 J**	**2.9 J**
Benzene	1	5	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Bromoform	4	80	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Chloroform	70	80	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Cymene	100	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	**2 J**	NA	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	NA	< 2	< 2	< 2	< 2	< 2	NA	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	NA	< 5	< 5	< 5	< 5	< 5	NA	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	**0.34 J**	**0.8 J**	NA	< 1	< 1	**0.3 J**	< 1	< 1	NA	< 1	< 1
Methylene chloride	3	5	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	**1.9 J**	NA	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Styrene	100	100	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	**260**	**240**	NA	NA	NA	NA	< 20	< 20	NA	NA
tert-Butylbenzene	100	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Toluene	600	1,000	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	NA	< 3	< 3	< 3	< 3	< 3	NA	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Trichloroethene	1	5	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1
TIC VOCs (µg/l)													
Total TIC, Volatile	500	NLE	ND	ND	NA	ND	ND	ND	ND	**10.1 J**	NA	ND	ND

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-58 Building 2567 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	2567MW05	2567MW06	2567MW07
Sample ID			FTMM-58-GW-2567MW105-9	FTMM-58-GW-2567MW06-11.48	FTMM-58-GW-2567MW07-10.99
Sample Date			8/29/2013	8/29/2013	8/29/2013
QA/QC			DU	SA	SA
Sample Method			PDB	PDB	PDB
Volatile Organic Compounds (µg/l)					
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1
Acetone	6,000	NLE	**2.7 J**	**2.1 J**	**3.3 J**
Benzene	1	5	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1
Tert Butyl Alcohol	100	NLE	NA	NA	NA
tert-Butylbenzene	100	NLE	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1
Total Xylenes	1,000	10,000	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1
TIC VOCs (µg/l)					
Total TIC, Volatile	500	NLE	ND	ND	ND

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-58 Building 2567 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Footnote:

1) All historical data collected prior to 2013 are reported as provided by others.

2) Number of Analyses is the number of detected and non-detected results excluding rejected results. Sample duplicate pairs have not been averaged.

3) NLE = no limit established.

4) ND = not detected in any background sample, no background concentration available.

5) Chemical result qualifiers are assigned by the laboratory and is typically evaluated and modified (if necessary) by during data validation.

[blank] = detect, i.e. detected chemical result value.
B = Compound detected in the sample and its associated blank sample.
R = Rejected, data validation rejected the results.
U = non-detect, i.e. not detected equal to or above this value.
U-DL = Elevated sample detection limit due to difficult sample matrix.
U-ND = Analyte not detected in sample, but no detection or reporting limit provided.
J = estimated (detect or non-detect) value.
E (or ER) = Estimated result.
D = Results from dilution of sample.
J-DL = Elevated sample detection limit due to difficult sample matrix.
JN = Tentatively identified compound, estimated concentration.

6) Chemical results greater than or equal to the action level (depending on criteria) are highlighted based on the Criteria that are present.

- Cell Shade values represent a result that is above the NJ Ground Water Quality Criteria ####

NJDEP Interim Specific GWQC values are presented for the NJ GWQS where there is not a Specific Ground Water Quality Criteria. A full list of compounds is available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

NJDEP Interim Generic GWQC values are presented for the NJ GWQS where there is not a XXXXX or a NJDEP Interim Specific GWQC. Available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

- Bold Outline represent a result that is above the USEPA 2014-05 MCL. ###

- Cell Style values represent a result that is above the Weston 1995 Background (Main Post). ###

n/a = all concentrations were less than the detection limit, therefore, no location of maximum value identified.

Dash (-) = only background concentrations for metals are being used as comparison criteria.

7) Criteria action level source document and web address.

- The NJ Ground Water Quality Criteria refers to the NJDEP Groundwater Quality Standards - Adopted July 22, 2010
  http://www.state.nj.us/dep/wms/bwqsa/docs/njac79C.pdf
- The 2014-05 USEPA MCL refers to the USEPA's Region 9 Regional Screening Levels (HQ=1.0) - 5/31/2014 (Last revised)
  http://www.epa.gov/region9/superfund/prg/
- The Weston 1995 Background (Main Post) refers to the FTMM reports.
  NA

8) Wells sampled in the most recent fourth quarter sampling event are highlighted in yellow. Sample ID

Table 4
Review of Historical Groundwater Sampling Results
Site FTMM-58 Building 2567 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site Name/ Well ID	Interpretation of Historical and 2015 Results [1]			2015 Evaluation				Retain Analyte/Well (Yes or No)	Rationale
	Chem Class / Analyte	Does it Exceed NJDEP GWQS (Yes or No) (If Yes, identify compound)	Do Metals Exceed FTMM Background Concentration (Yes or No) (If Yes, identify Metal)	Seasonal Effect?[2] (Y/N)	Anomaly? (Y/N)	Exceedance part of overall trend? (Y/N)	Well needed for sentinel purposes? (Y/N)		
FTMM-58, B2567									
2567MW01	VOC	TBA	N/A	N/A	N/A	N/A	NO	Yes	
2567MW03		NO	N/A	N/A	N/A	N/A	NO	Yes	Well will be analyzed for TBA for one additional round to confirm presence or lack of contaminant.
2567MW05		NO	N/A	N/A	N/A	N/A	Yes	Yes	Well will be retained as a downgradient well.

Notes

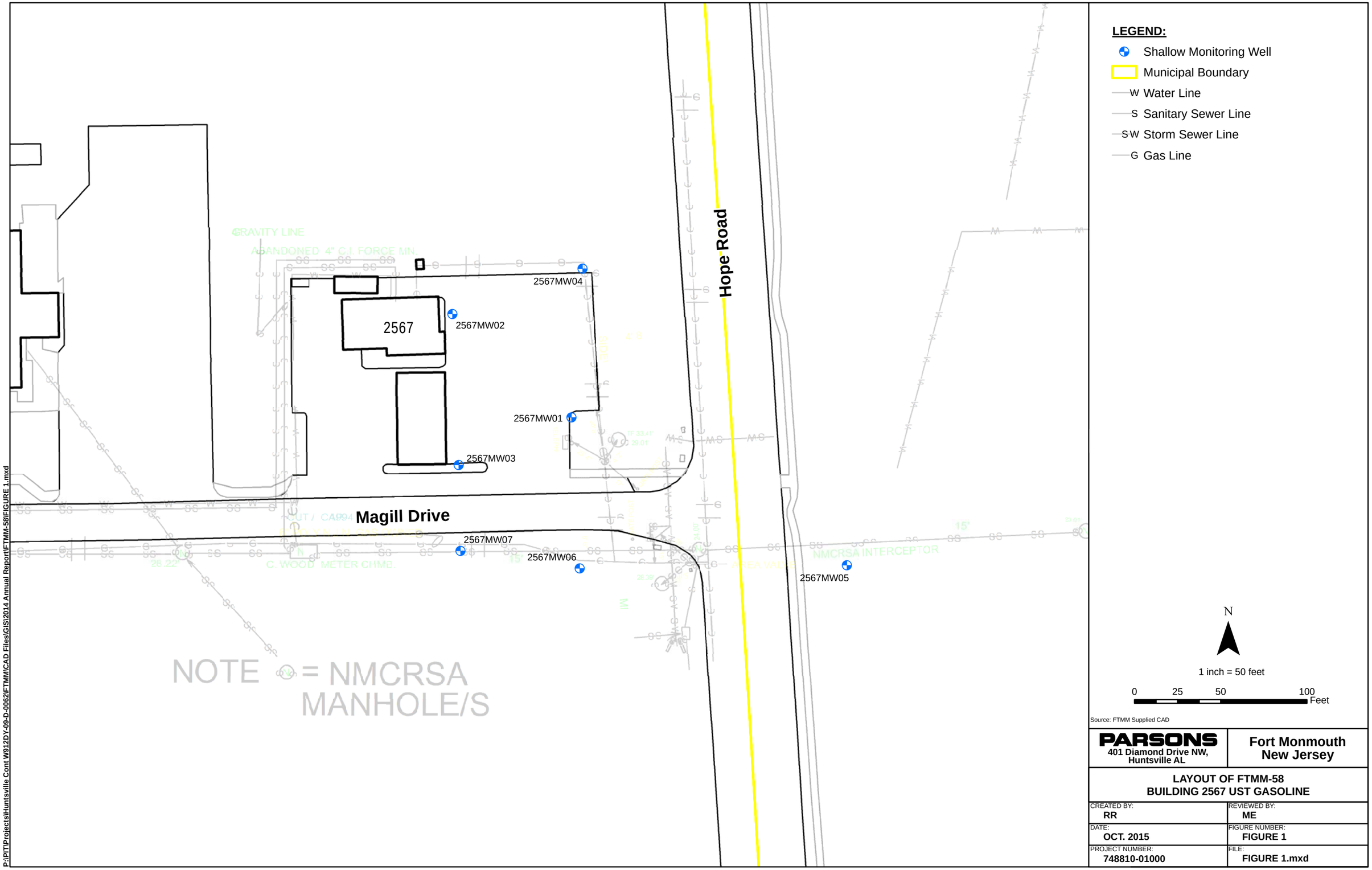
1. Has any of the analyte compounds exceeded the NJDEP GWQS in the 2015 data and the 4 previous quarterly data rounds or 2 previous annual rounds?
   a. If yes then keep analyte in LTM list
   b. If no then remove this analyte from LTM list
   c. a and b above may be occasionally superseded on a case-by-case basis, depending on site conditions.
2. Has any of the analyte compounds exceeded the NJDEP GWQS seasonally (winter spring vs. summer fall)?
3. TBA - Tert-butyl-alcohol
4. N/A - Not applicable
5. Per the 2/5/15 NJDEP approval letter of the Final 2013 Baseline Groundwater Report, groundwater monitoring wells 2567MW02, 2567MW04, 2567MW05, 2567MW06 and 2567MW07 were removed from the long-term monitoring sampling program and the volatile organic compound list has been reduced to TBA only.

FIGURES

Figure 1 Layout of FTMM-58 Building 2567 UST Gasoline

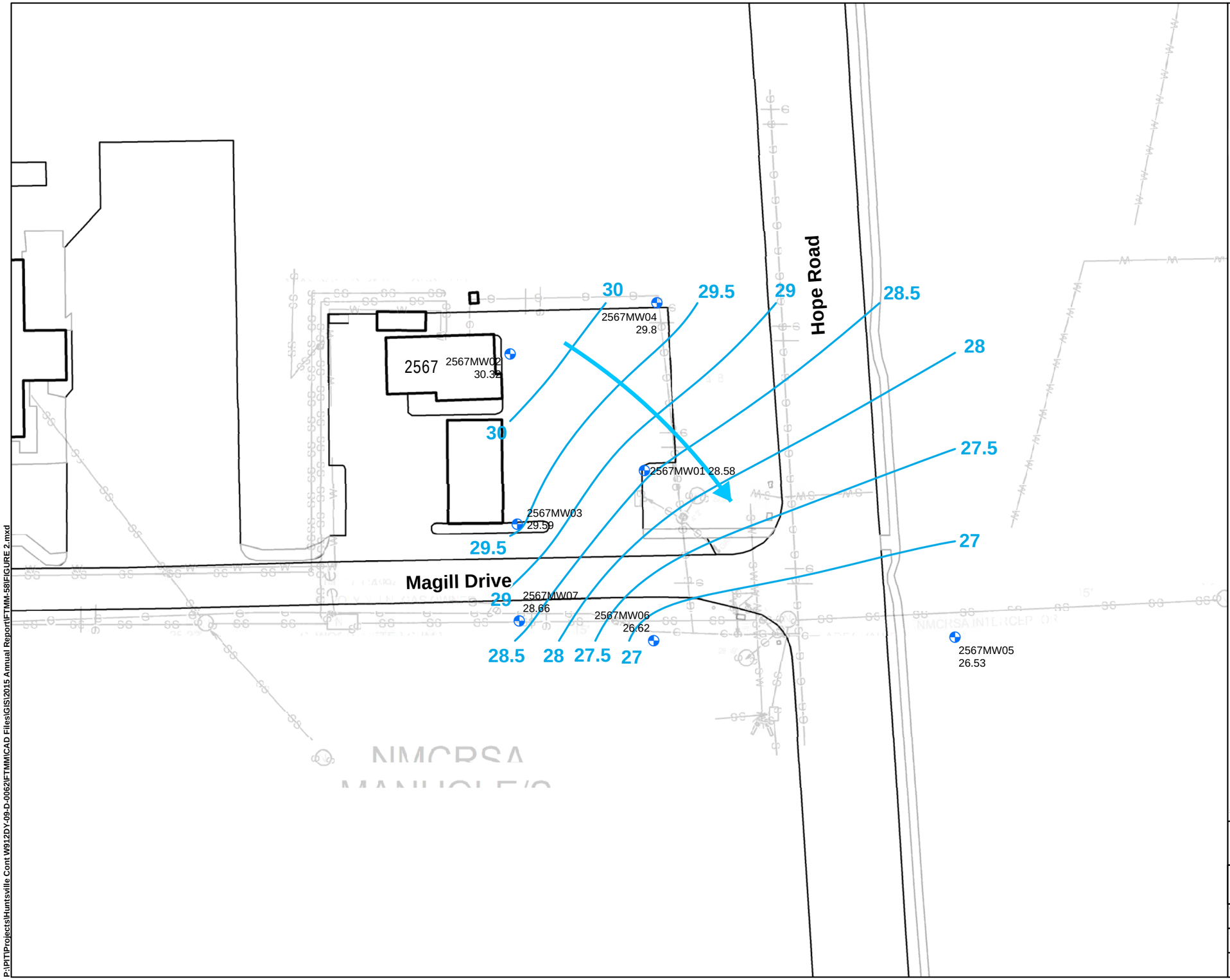
Figure 2 FTMM-58 Shallow Groundwater Contours – October 7, 2015

Figure 3 FTMM-58 Chemical Constituents above NJDEP GWQS 2015 Annual Sampling Event



P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2014 Annual Report\FTMM-58\FIGURE 1.mxd

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey
LAYOUT OF FTMM-58 BUILDING 2567 UST GASOLINE	
CREATED BY: RR	REVIEWED BY: ME
DATE: OCT. 2015	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-01000	FILE: FIGURE 1.mxd



LEGEND:

- Shallow Monitoring Well
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Groundwater Elevation Contour
- Inferred Groundwater Flow Direction

N

1 inch = 50 feet

0 25 50 100 Feet

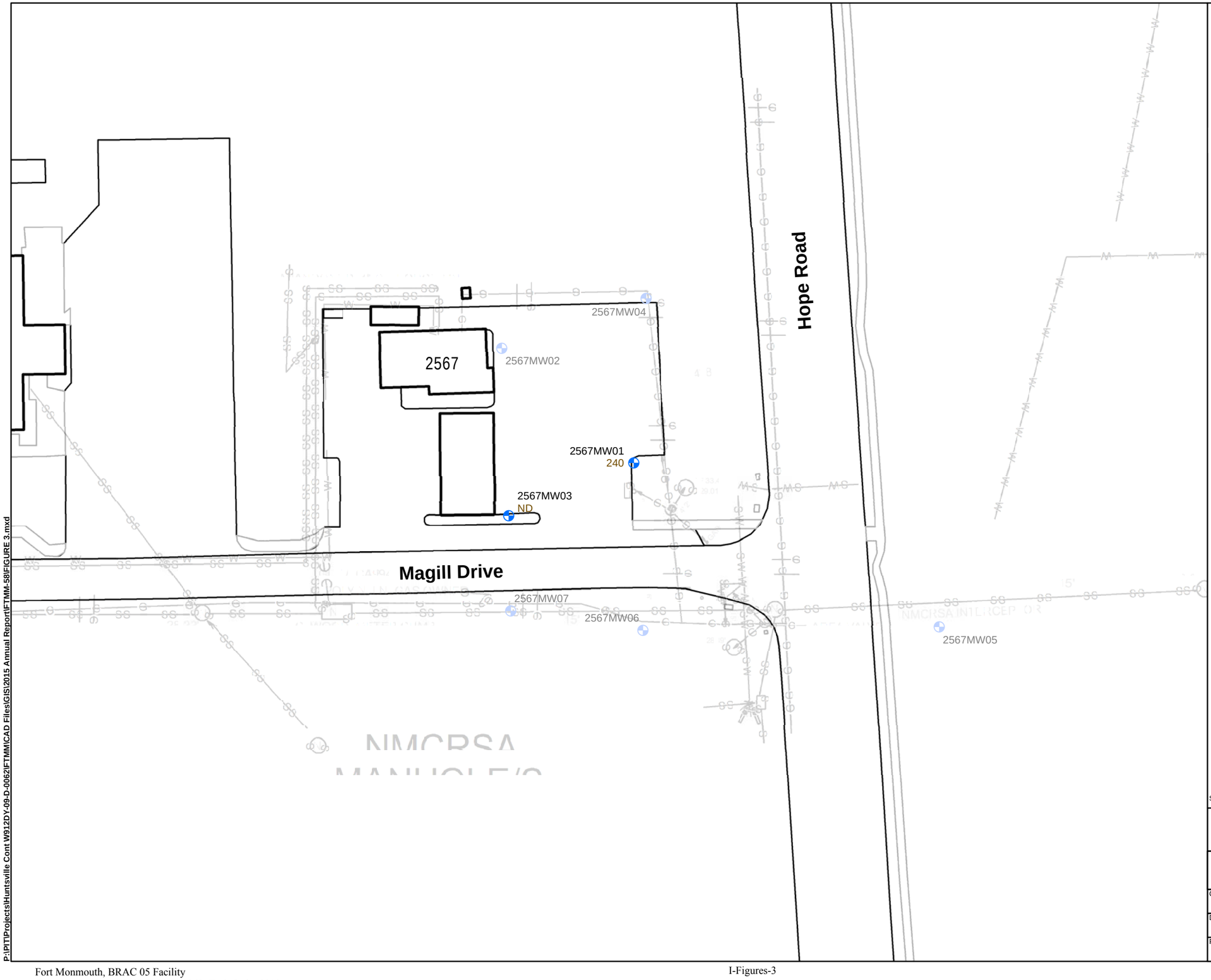
Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	**Fort Monmouth** **New Jersey**

FTMM-58 SHALLOW GROUNDWATER CONTOURS - OCTOBER 7, 2015

CREATED BY: RR	REVIEWED BY: ME
DATE: MAR. 2016	FIGURE NUMBER: FIGURE 2
PROJECT NUMBER: 748810-01000	FILE: FIGURE 2.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-58\FIGURE 2.mxd



LEGEND:

- Shallow Monitoring Well
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line

NOTES:

1. All concentrations are in ug/L.
2. Only those compounds with concentrations that exceed the NJDEP groundwater quality standard (GWQS) are shown on the figure.
3. Wells without values were not sampled during the 2015 Annual Sampling Event.

EXPLANATION:

2567MW03 ——— Sample ID
NA ——— Tert Butyl Alcohol Concentration

J - Estimated Value
JN - Tentatively Identified Compound, Estimated Value
ND - Not Detected
NA - Not Analyzed
-- - Compound did not exceed the NJ GWQS this sampling round

Compound	NJDEP GWQS
Tert Butyl Alcohol	100

N

1 inch = 50 feet

0 25 50 100 Feet

Source: FTMM Supplied CAD

PARSONS
401 Diamond Drive NW, Huntsville AL

Fort Monmouth New Jersey

FTMM-58 CHEMICAL CONSTITUENTS ABOVE NJDEP GWQS 2015 ANNUAL SAMPLING EVENT

CREATED BY:	REVIEWED BY:
RR	ME
DATE:	FIGURE NUMBER:
JUN. 2016	FIGURE 3
PROJECT NUMBER:	FILE:
748810-03000	FIGURE 3.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-58\FIGURE 3.mxd

ATTACHMENTS

Attachment A LFPS Field Sheets

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: FTMM-58
DATE: 11/25/15
WEATHER: 25°F clear

CONSULTING FIRM: PARSONS
FIELD PERSONNEL: C. Watson

MONITOR WELL #: 2567MW03
WELL PERMIT #:
WELL DEPTH: 13 feet
WELL DIAMETER: 4 inches
PUMP INTAKE DEPTH: 8 ft to TOC
SCREENED/OPEN INTERVAL: 3-13 ft to TOC

PID/FID READINGS:
BACKGROUND: 0.0 ppm
BENEATH OUTER CAP: 0.0 ppm
BENEATH INNER CAP: 0.0 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 2.26 ft to TOC
DEPTH TO PRODUCT: — ft to TOC ; PRODUCT THICKNESS: — ft
MAKE/MODEL OF PUMP: QED Sample pro

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL:
SERIAL #:
TEMP. CORRECTION VALUE:

Time	PURGING	SAMPLING	pH (units) READING	pH CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN CHANGE	TURBIDITY (NTU) READING	TURBIDITY CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1115	X		6.67		0.977		0.3		9.77		198.1		15.47		225	2.60
1120	X		6.52		0.982		1.5		8.72		188.7		15.97		225	3.00
1125	X		6.55		1.001		-3.9		7.74		115.4		16.25		175	3.05
1130	X		6.55		1.009		-6.6		7.62		75.6		16.37		175	3.09
1135	X		6.54		1.026		-8.6		7.68		66.4		16.46		175	3.12
1140	X		6.59		1.045		-10.3		7.32		44.6		16.49		175	3.13
1145	X		6.56		1.051		-12.6		7.21		30.2		16.50		175	3.12
1150	X		6.54		1.051		-14.9		7.19		26.5		16.53		175	3.12
1155	X		6.55		1.053		-15.6		7.16		25.9		16.54		175	3.14
1200		X	6.54		1.052		-16.0		7.10		24.8		16.58		175	3.12

SAMPLING INFORMATION:	QA/QC INFORMATION:	ADDITIONAL OBSERVATIONS/COMMENTS:
Sample ID: FTMM-58-~~2567~~GW-2567MW03-8	Duplicate Collected?:	Clarity: clear / tan
Sample Time: 1200	MS/MSD Collected?:	Odor: None
Comments: —	Filtering?:	Other: —

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: [signature] DATE: 11/25/15

REVIEWER NAME & SIGNATURE: DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: Ramp-58 | CONSULTING FIRM: PARSONS
DATE: 11/25/15 | FIELD PERSONNEL: CW
WEATHER: Hot

MONITOR WELL #: 2567MW01 | WELL DEPTH: 13 feet | PUMP INTAKE DEPTH: 8.3 ft to TOC
WELL PERMIT #: | WELL DIAMETER: inches | SCREENED/OPEN INTERVAL: 3-13 ft to TOC

PID/FID READINGS:
BACKGROUND: 0 ppm
BENEATH OUTER CAP: 6 ppm
BENEATH INNER CAP: 6 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 3.63 ft to TOC
DEPTH TO PRODUCT: — ft to TOC ; PRODUCT THICKNESS: — ft
MAKE/MODEL OF PUMP: QED Sample pro

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL:
SERIAL #:
TEMP. CORRECTION VALUE:

Time	PURGING	SAMPLING	pH (units) READING	pH CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN CHANGE	TURBIDITY (NTU) READING	TURBIDITY CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1020	X		6.58		1.011		-23.9		6.23		11.6		15.60		200	3.71
1025	X		6.60		1.022		-51.7		7.78		6.2		16.30		200	3.86
1030	X		6.60		1.031		-57.0		7.15		4.2		16.54		200	3.99
1035	X		6.60		1.040		-51.1		8.27		3.3		16.44		200	4.11
1040	X		6.58		1.053		-48.7		9.41		2.3		16.45		200	4.16
1045	X		6.55		1.053		-46.4		9.08		2.5		16.49		200	4.19
1050		X	6.54		1.054		-44.1		8.96		2.6		16.49		200	4.21

SAMPLING INFORMATION:
Sample ID: Ramp-58-GW-2567MW01-8.3
Sample Time: 1050
Comments: None

QA/QC INFORMATION:
Duplicate Collected?:
MS/MSD Collected?:
Filtering?:

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: Clear
Odor: —
Other: —

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: CW | DATE: 11/25/15

REVIEWER NAME & SIGNATURE: | DATE:

APPENDIX J

FTMM-64: BUILDING 812 UST GASOLINE

APPENDIX J: FTMM-64 Building 812 UST Gasoline

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4.0 ANNUAL (FOURTH QUARTER) 2015 GROUNDWATER RESULTS J-2
5.0 FINDINGS AND RECOMMENDATIONS J-2

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Table No.	Title
1	Groundwater Gauging Data and Elevations (October 7, 2015) and LFPS Sampling Summary
2	Historical Groundwater Analytical Results
3	Groundwater Analytical Results - 2013, 2014 and 2015
4	Review of Historical Groundwater Sampling Results

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Figure No.	Title
1	Layout of FTMM-64 Building 812 UST Gasoline
2	FTMM-64 Shallow Groundwater Contours - October 7, 2015

LIST OF ATTACHMENTS

Attachment	Title
A	LFPS Field Sheets

1.0 WATER LEVEL MEASUREMENTS AND WELL ASSESSMENT

Monitoring wells located within FTMM-64 were gauged on October 7, 2015. Monitoring well locations as well as other site features are provided in **Figure 1**. Details regarding the water level measurements are provided in **Table 1**. Groundwater elevations in monitoring wells ranged from 17.51 (812MW04) to 8.17 (812MW10) feet above mean sea level (amsl). The inferred shallow and deep groundwater flow direction is generally to the northeast. **Figure 2** shows the shallow groundwater flow direction; groundwater contours were not drawn for the deep groundwater.

During the groundwater gauging, the physical condition of FTMM-64 monitoring wells were assessed. The site monitoring wells were found to be in good condition.

2.0 GROUNDWATER SAMPLING

One groundwater sample was collected from monitoring well 812MW04 located at FTMM-64 as part of the annual (fourth quarter) 2015 groundwater sampling event. FTMM-64 is sampled on an annual basis. The groundwater sampling program included measuring the depth to groundwater in monitoring wells prior to sampling and collection of a groundwater sample using low-flow purging and sampling (LFPS). The groundwater sample was collected on November 25, 2015. The groundwater sample was analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) via the United States Environmental Protection Agency (USEPA) Method SW8260C.

This sample was collected in accordance with the New Jersey Department of Environmental Protection (NJDEP) Field Sampling Procedures Manual (FSPM) and the Sampling Analysis Plan (SAP). Field blanks, duplicates, matrix spike, matrix spike duplicate and quality assurance (QA) split samples were collected for every 5% of samples collected per parameter, per matrix, in accordance with the Quality Assurance Project Plan (QAPP). Trip blanks accompanied each cooler each day in which VOCs were collected for laboratory analysis.

The completed LFPS field sheets can be found in **Attachment A**.

3.0 HISTORICAL GROUNDWATER SAMPLING RESULTS

From February 2008 through July 2011, FTMM-64 monitoring wells were sampled for volatile organic compounds (VOCs) and metals.

In the last four historical groundwater sampling events conducted at FTMM-64 from November 2010 to July 2011, samples were submitted for VOCs and metals. Monitoring wells within FTMM-64 were sampled on a staggered quarterly basis during this period. Within the last four events of groundwater sampling at FTMM-64, aluminum, antimony, arsenic, beryllium, cadmium, iron, lead, manganese and sodium were detected above their respective NJDEP Ground Water Quality Standard (GWQS). However, only sodium, manganese, and cadmium were detected above the background concentrations (Weston, 1995). Monitoring wells 812MW04, 812MW05, 812MW06 812MW07, 812MW08, and 812MW14 contained detections of sodium above the background concentration of 21,500 µg/l (Weston, 1995). Monitoring wells 812MW05 (419 - 32 µg/L), 812MW07 (374 - 771 µg/L), and 812MW08 (348 µg/L) contained detections of manganese above the background concentration of 331 µg/l

(Weston, 1995). Cadmium was detected in 812MW08 (10.6 - 54 µg/L) above the background concentration of 9.5 µg/L (Weston, 1995).

In the last four historical quarterly groundwater sampling events, vinyl chloride (1.05 - 4.9 µg/L) has historically been detected in 812MW04 above the NJDEP GWQS of 1 µg/L. Historical groundwater analytical results are presented in **Table 2**.

During the August 2013 baseline sampling event, eight monitoring wells were sampled for VOCs and lead. Lead was detected in monitoring well 812MW04 at a concentration of 7.5 µg/L, above the NJDEP GWQS of 5 µg/L. However, this result is below the background concentration of 22.7 µg/L for lead (Weston, 1995). Concentrations of VOCs were non-detect during the August 2013 baseline groundwater sampling event. Groundwater analytical detections from samples collected during the August 2013 sampling event are presented in **Table 3.**

The Final August 2013 Baseline Groundwater Sampling Report was accepted by the NJDEP in their February 5, 2015 letter. Based on this approval, seven out of the eight groundwater monitoring wells were removed from the long term monitoring (LTM) program including: 812MW01, 812MW02, 812MW05, 812MW06, 812MW07, 812MW08 and 812MW14; lead analysis was discontinued.

During the annual (fourth quarter) 2014 sampling event vinyl chloride was the only VOC detected in monitoring well 812MW04 at a concentration of 7.8 µg/L, above the NJDEP GWQS of 1 µg/L. Groundwater analytical results for this well are presented in **Table 3**. Based on the annual (fourth quarter) 2014 results, it was recommended that annual groundwater sampling continue at monitoring well 812MW04. The Annual (Fourth Quarter) 2014 Groundwater Sampling Report was accepted by the NJDEP in their January 26, 2016 letter.

4.0 ANNUAL (FOURTH QUARTER) 2015 GROUNDWATER RESULTS

Acetone, common laboratory contaminate was the only VOC detected in monitoring well 812MW04; andwas also detected in the blank for this sample set, therefore it is not representative of site conditions. Groundwater analytical results for this well are presented in **Table 3**.

5.0 FINDINGS AND RECOMMENDATIONS

Vinyl chloride has previously been detected in well 812MW04 at concentrations above the NJDEP GWQS of 1 µg/L, however, it was non-detect during the 2015 Annual Sampling Event. While vinyl chloride concentrations appear to be decreasing based on the historical data, concentrations remain variable during the previous six sampling events (e.g., last four quarterly and two annual events) in this well. Vinyl chloride concentrations during this period ranged from 1.05 µg/L (April 2011) to 7.8 µg/L (October 2014). Based on the collective groundwater analytical results, annual groundwater monitoring for VOCs will continue for well 812MW04. A review of historical groundwater sampling results is presented in **Table 4**, which also provides the matrix used to determine the status of wells relative to future groundwater sampling and analyses.

TABLES

Table 1 Groundwater Gauging Data and Elevations (October 7, 2015) and LFPS Sampling Summary

Table 2 Historical Groundwater Analytical Results

Table 3 Groundwater Analytical Results - 2013, 2014 and 2015

Table 4 Review of Historical Groundwater Sampling Results

Table 1
Groundwater Gauging Data and Elevations (October 7, 2015) and LFPS Sampling Summary
Site FTMM-64 Building 812 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site/Well ID	Installation Date	Well Permit #	Y Coord. (North)	X Coord. (East)	Depth (ft. bgs)	Casing Length (ft)	Screen Length (ft)	TOC Elevation (ft)	Gauge Time	PID Reading (ppm)	Gauged Depth to Water (ft. TOC)	Gauged Depth to Bottom (ft. TOC)	Calculated Groundwater Elevation (ft)	Sample Date
Shallow Monitoring Wells														
812MW04	4/26/2000	29-42575	537927.03	620620.87	7.0	2.0	5.0	19.90	9:28	0.0	2.39	6.61	17.51	11/25/2015
812MW05	5/4/2000	29-42576	537893.36	620502.25	18.0	8.0	10.0	21.64	12:16	0.0	9.66	17.71	11.98	
812MW06	4/26/2000	29-42577	537917.09	620674.17	16.0	6.0	10.0	18.18	9:31	0.0	7.05	15.42	11.13	
812MW07	5/3/2000	29-42578	537966.22	620504.46	18.0	8.0	10.0	20.60	9:34	0.0	9.97	17.45	10.63	
812MW08	5/2/2000	29-42579	537955.95	620658.94	16.0	6.0	10.0	17.13	9:10	0.0	6.23	15.40	10.90	
812MW09	5/2/2000	29-42580	538025.14	620745.02	16.0	6.0	10.0	14.98	8:49	0.0	4.96	17.71	10.02	
812MW10	5/3/2000	29-42581	538060.18	620800.53	16.0	6.0	10.0	14.42	8:59	0.0	6.25	15.55	8.17	
812MW11	5/2/2000	29-42582	538010.79	620911.32	15.0	5.0	10.0	14.02	9:02	0.0	4.73	14.70	9.29	
812MW12	5/3/2000	29-42583	537833.43	620758.45	16.0	6.0	10.0	16.11	--	0.0	--	--	--	
812MW13	5/4/2000	29-42584	537800.11	620386.04	19.0	9.0	10.0	24.15	12:20	0.0	10.70	18.84	13.45	
812MW14	5/12/2000	29-42888	538042.22	620663.45	15.0	5.0	10.0	16.43	8:45	0.0	6.27	14.25	10.16	
Deep Monitoring Wells														
812MW01	5/4/2000	29-42572	537928.67	620621.94	50.0	30.0	20.0	19.05	9:25	0.0	8.18	46.80	10.87	
812MW02	4/26/2000	29-42573	537983.57	620692.55	50.0	30.0	20.0	16.38	9:07	0.0	6.44	48.20	9.94	
812MW03	5/5/2000	29-42574	537893.56	620721.26	50.0	30.0	20.0	17.07	12:09	0.0	6.51	47.20	10.56	

Notes:
1) The synoptic round of water levels in the wells was collected on October 7, 2015.
2) Information on well permit number, X and Y coordinates, depth, screen length, screen interval and TOC elevation were provided by FTMM in a table in June 2013.
3) ft = feet
4) DTW = depth to water (measured from the top of well casing)
5) DTB = depth to bottom of well (measured from the top of well casing)
6) bgs = below ground surface
7) ppm = parts per million (of VOCs)
8) TOC = Top of Casing
9) Elevation = feet above mean sea level
10) N/A = information not available
11) LFPS = Low-Flow Purging and Sampling
12) -- = Unable to locate monitoring well 812MW12

Table 2
Historical Groundwater Analytical Results
Site FTMM-64 Building 812 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				812MW01																	
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main)**	31	32	32 Dup	33	34	34 Dup	35	36	37	38	39	LF1	LF1 Dup	LF2	LF2 Dup		Dup			Dup
Date Collected				2/20/2008	4/9/2008	4/9/2008	7/25/2008	10/22/2008	10/22/2008	2/6/2009	4/28/2009	8/10/2009	10/9/2009	1/14/2010	5/13/2010	5/13/2010	7/28/2010	7/28/2010	11/3/2010	11/3/2010	2/14/2011	4/14/2011	4/14/2011
ANALYTE/Lab ID				80051.04	80120.04	80120.03	80256.04	80383.04	80383.03	90039.04	90171.04	90336.04	90412.04	10018.04	10191.04	10191.03	10323.04	10323.03	10471.04	10471.03	11051.01	11148.04	11148.03
Volatile Organic Compounds (µg/L)																							
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -l,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans -l,2-Dichloroethene	100			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	1			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																							
Aluminum	200	NLE	121000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	40.0 ER	ND	15.0 ER	15.6 ER	<200	<200	<200
Antimony	6	6	20.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.7	6.21 ER	11.0	8.04 ER	ND	5.26 ER	<6.0	<6.0	<6.0
Arsenic	3	10	89.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.24 ER	0.780 ER	0.910 ER	6.04	2.24 ER	2.01 ER	<3.0	<3.0	<3.0
Barium	6000	2000	699.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.68	6.78	8.60	6.84	11.3	10.6	<200	<200	<200
Beryllium	1	4	2.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0
Cadmium	4	5	9.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	<3.0	<3.0	<3.0
Calcium	NLE	NLE	45400.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	53700	47400	59900	52800	63700	58900	60400	59000	60400
Chromium	70	100	191.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	<10	<10	<10
Cobalt	NLE	NLE	18.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	<50	<50	<50
Copper	1300	1300	65.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.09 ER	ND	3.00 ER	ND	ND	ND	<10	13.0	20.7
Iron	300	NLE	431000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	387 ER	218 ER	640	131 ER	3870	3530	2070	2660	4610
Lead	5	15	22.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	<3.0	<3.0	<3.0
Magnesium	NLE	NLE	62700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2430	2230	2850	2460	3160	2940	<5000	<5000	<5000
Manganese	50	NLE	331	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14.5	12.6	68.1	57.6	258	238	176	191	207
Mercury	2	2	0.26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.210 ER	0.150 ER	ND	ND	ND	ND	<0.20	<0.20	<0.20
Nickel	100	NLE	187	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.15 ER	0.855 ER	1.00 ER	0.712 ER	ND	ND	<10	<10	<10
Potassium	NLE	NLE	137000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3780	3540	3590	2700	3240	3040	<10000	<10000	<10000
Selenium	40	50	29.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NR	67.0	70.6	ND	ND	<10	<10	<10
Silver	40	NLE	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	1.41 ER	1.32 ER	<10	<10	<10
Sodium	50000	NLE	21500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6040	7570	7500	5680	6660	5940	<10000	<10000	<10000
Thallium	2	2	5.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	<2.0	<2.0	<2.0
Vanadium	60	NLE	108	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.840 ER	ND	ND	ND	ND	ND	<50	<50	<50
Zinc	2000	NLE	233	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.42 ER	2.18 ER	6.00 ER	ND	ND	ND	<20	<20	<20

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

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NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

ER - Estimated result

J - Estimated concentration exceeds the MDL and is less than the RL

NA - Not analyzed NR - Not reported

ND - Not detected

NLE - No limit established

a/ Elevated sample detection limit due to difficult sample matrix.

Table 2
Historical Groundwater Analytical Results
Site FTMM-64 Building 812 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				812MW01	812MW02														812MW04			
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main)**		31	32	33	34	35	36	37	38	39	40	41				31	32	33	34
Date Collected				7/8/2011	2/20/2008	4/9/2008	7/25/2008	10/22/2008	2/6/2009	4/28/2009	8/10/2009	10/9/2009	1/14/2010	5/13/2010	7/28/2010	11/3/2010	2/14/2011	4/14/2011	7/8/2011	2/20/2008	4/9/2008	7/25/2008	10/22/2008
ANALYTE/Lab ID				11287.10	80051.05	80120.05	80256.05	80383.05	90039.05	90171.05	90336.05	90412.05	10018.05	10191.05	10323.05	10471.05	11051.02	11148.05	11287.11	80051.06	80120.06	80256.06	80383.06
Volatile Organic Compounds (µg/L)																						
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.49 J	2.19
tert -Butyl alcohol	100	NLE	--	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	10.66	ND
1,1-Dichloroethane				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -l,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.11 J	0.44 J
trans -l,2-Dichloroethene	100			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.05 J	1.07 J
Chloroethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	29.01	37.12
Isopropylbenzene	700	NLE	--	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.99	7.36
Vinyl chloride	1			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22.47	40.41
Xylenes (Total)	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	45.47	33.86
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	133	104
Metals (µg/L)																						
Aluminum	200	NLE	121000	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	99.2 ER	ND	<200	<200	<200	NA	NA	NA	NA
Antimony	6	6	20.70	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.56 ER	9.96 ER	6.80 ER	<6.0	<6.0	<6.0	NA	NA	NA	NA
Arsenic	3	10	89.30	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.41 ER	1.36 ER	2.83 ER	<3.0	4.0	<3.0	NA	NA	NA	NA
Barium	6000	2000	699.00	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.0	19.1	20.0	<200	<200	<200	NA	NA	NA	NA
Beryllium	1	4	2.10	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<1.0	<1.0	<1.0	NA	NA	NA	NA
Cadmium	4	5	9.50	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<3.0	<3.0	<3.0	NA	NA	NA	NA
Calcium	NLE	NLE	45400.00	55300	NA	NA	NA	NA	NA	NA	NA	NA	NA	52900	58500	57100	60400	57600	57100	NA	NA	NA	NA
Chromium	70	100	191.00	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<10	<10	<10	NA	NA	NA	NA
Cobalt	NLE	NLE	18.30	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<50	<50	<50	NA	NA	NA	NA
Copper	1300	1300	65.60	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.71 ER	ND	<10	<10	<10	NA	NA	NA	NA
Iron	300	NLE	431000	2030	NA	NA	NA	NA	NA	NA	NA	NA	NA	128 ER	297 ER	646	588	2080	254	NA	NA	NA	NA
Lead	5	15	22.70	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<3.0	<3.0	<3.0	NA	NA	NA	NA
Magnesium	NLE	NLE	62700	<5000	NA	NA	NA	NA	NA	NA	NA	NA	NA	2540	3200	3320	<5000	<5000	<5000	NA	NA	NA	NA
Manganese	50	NLE	331	158	NA	NA	NA	NA	NA	NA	NA	NA	NA	63.2	32.6	204	132	62.3	102	NA	NA	NA	NA
Mercury	2	2	0.26	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.210 ER	ND	ND	<0.20	<0.20	<0.20	NA	NA	NA	NA
Nickel	100	NLE	187	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<10	<10	<10	NA	NA	NA	NA
Potassium	NLE	NLE	137000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	5360	5380	4670	<10000	<10000	<10000	NA	NA	NA	NA
Selenium	40	50	29.60	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	55.0	ND	<10	<10	<10	NA	NA	NA	NA
Silver	40	NLE	ND	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	1.56 ER	<10	<10	<10	NA	NA	NA	NA
Sodium	50000	NLE	21500	19500	NA	NA	NA	NA	NA	NA	NA	NA	NA	10200	16100	11300	12400	12500	<10000	NA	NA	NA	NA
Thallium	2	2	5.50	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	<2.0	<2.0	<2.0	NA	NA	NA	NA
Vanadium	60	NLE	108	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.668 ER	ND	<50	<50	<50	NA	NA	NA	NA
Zinc	2000	NLE	233	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	7.23 ER	ND	<20	<20	<20	NA	NA	NA	NA

Notes:

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NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

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NA - Not analyzed NR - Not reported

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a/ Elevated sample detection limit due to difficult sample matrix.

Table 2
Historical Groundwater Analytical Results
Site FTMM-64 Building 812 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				812MW04											812MW05							
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main)**	35	36	37	38	39	LF1	LF2					31	32	33	34	35	36	37	38
Date Collected				2/6/2009	4/28/2009	8/10/2009	10/9/2009	1/14/2010	5/13/2010	8/3/2010	11/5/2010	2/15/2011	4/14/2011	7/8/2011	2/20/2008	4/9/2008	7/25/2008	10/22/2008	2/6/2009	4/28/2009	8/10/2009	10/9/2009
ANALYTE/Lab ID				90039.06	90171.06	90336.06	90412.06	10018.06	10191.07	10326.07	10474.06	11053.08	11148.09	11287.09	80051.07	80120.07	80256.07	80383.07	90039.07	90171.07	90336.07	90412.06
Volatile Organic Compounds (µg/L)																						
Benzene	1	5	--	ND	ND	0.27 J	ND	ND	ND	0.31 J	ND	ND	ND	0.25 J	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.31 J	18.89	7.32	2.02	13.86	7.27	8.36	22.57
1,1-Dichloroethene				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.37 J
cis -l,2-Dichloroethene	70	70	--	ND	ND	0.89	0.51	ND	ND	1.67	ND	ND	ND	0.49 J	ND	ND	ND	ND	ND	ND	ND	ND
trans -l,2-Dichloroethene	100			ND	ND	0.66	0.26 J	ND	ND	0.70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.69	3.63	ND	8.14	1.68 J	0.64	1.83
Ethylbenzene	700	700	--	0.98 J	ND	4.89	0.30 J	ND	ND	0.33 J	ND	ND	ND	0.62 J	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.60 J	NA	NA	NA	NA	NA	NA	NA	NA
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.44 J
1,1,1-Trichloroethane				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.49 J	1.62 J	1.02 J	3.43	2.44	2.07	3.34
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.31 J
Toluene	600	1000	--	ND	ND	0.55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	1			ND	ND	12.25	5.11	1.95	1.77	9.79	ND	ND	1.05	4.9	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	1000	10,000	--	0.38 J	ND	3.06	0.40 J	ND	ND	0.87	ND	ND	ND	0.74 J	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	26	3	ND	ND	13	ND	ND	ND	5.6	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																						
Aluminum	200	NLE	121000	NA	NA	NA	NA	NA	65.2 ER	49.0 ER	2490	8070	1240	<200	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	6	6	20.70	NA	NA	NA	NA	NA	8.73 ER	13.0	5.24 ER	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	3	10	89.30	NA	NA	NA	NA	NA	3.34 ER	5.49	4.33 ER	9.6	3.1	9.4	NA	NA	NA	NA	NA	NA	NA	NA
Barium	6000	2000	699.00	NA	NA	NA	NA	NA	23.2	34.7	27.0	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	1	4	2.10	NA	NA	NA	NA	NA	ND	ND	ND	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4	5	9.50	NA	NA	NA	NA	NA	ND	1.10 ER	0.723 ER	4.3	7.4	<3.0	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NLE	NLE	45400.00	NA	NA	NA	NA	NA	41300	92300	50100	19400	37500	95200	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	70	100	191.00	NA	NA	NA	NA	NA	ND	ND	12.8	41.9	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NLE	NLE	18.30	NA	NA	NA	NA	NA	ND	ND	0.544 ER	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1300	1300	65.60	NA	NA	NA	NA	NA	16.1	11.0	13.0	27.2	61.2	11.0	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	NLE	431000	NA	NA	NA	NA	NA	ND	1630	5670	17300	3900	1280	NA	NA	NA	NA	NA	NA	NA	NA
Lead	5	15	22.70	NA	NA	NA	NA	NA	ND	ND	6.98	21.0	18.4	<3.0	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NLE	NLE	62700	NA	NA	NA	NA	NA	2750	5070	2740	<5000	<5000	<5000	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	50	NLE	331	NA	NA	NA	NA	NA	12.1	64.2	13.8	35.5	34.9	66.1	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	2	0.26	NA	NA	NA	NA	NA	0.210 ER	ND	ND	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	NLE	187	NA	NA	NA	NA	NA	1.06 ER	2.46 ER	2.66 ER	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NLE	NLE	137000	NA	NA	NA	NA	NA	8370	12600	8210	<10000	<10000	10900	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	40	50	29.60	NA	NA	NA	NA	NA	NR	73.4	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Silver	40	NLE	ND	NA	NA	NA	NA	NA	ND	ND	0.708 ER	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	50000	NLE	21500	NA	NA	NA	NA	NA	43800	59900	34800	30300	32100	75100	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	2	2	5.50	NA	NA	NA	NA	NA	ND	ND	0.870 ER	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	60	NLE	108	NA	NA	NA	NA	NA	3.63 ER	2.68 ER	11.1	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2000	NLE	233	NA	NA	NA	NA	NA	21.3 ER	24.0 ER	31.8 ER	74.5	95.5	48.3	NA	NA	NA	NA	NA	NA	NA	NA

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Shaded cells = concentrations exceed the NJDEP GWQS

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NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

ER - Estimated result

J - Estimated concentration exceeds the MDL and is less than the RL

NA - Not analyzed NR - Not reported

ND - Not detected

NLE - No limit established

a/ Elevated sample detection limit due to difficult sample matrix.

Table 2
Historical Groundwater Analytical Results
Site FTMM-64 Building 812 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				812MW05							812MW06									
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main)**	39	LF1	LF2					31	32	33	34	35	36	37	38	39	LF1
Date Collected				1/14/2010	5/13/2010	8/3/2010	11/5/2010	2/15/2011	4/14/2011	7/8/2011	2/20/2008	4/9/2008	7/25/2008	10/22/2008	2/6/2009	4/28/2009	8/10/2009	10/9/2009	1/14/2010	5/11/2010
ANALYTE/Lab ID				10018.07	10191.06	10326.06	10474.05	11053.07	11148.08	11287.08	80051.08	80120.08	80256.08	80383.08	90039.08	90171.08	90336.08	90412.08	10018.08	10186.04
Volatile Organic Compounds (µg/L)																				
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane				2.44	2.01	ND	ND	4.58	3.81	15.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -l,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans -l,2-Dichloroethene	100			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NLE	NLE	--	ND	ND	ND	ND	0.67	ND	0.54 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.75
Tetrachloroethene	1		--	ND	ND	ND	ND	ND	ND	0.34 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane				1.11	1.53	ND	ND	2.41	1.33	5.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	1			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																				
Aluminum	200	NLE	121000	NA	5370	5590	4250	2690	3740	3810	NA	NA	NA	NA	NA	NA	NA	NA	NA	2590
Antimony	6	6	20.70	NA	6.29 ER	8.09 ER	ND	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Arsenic	3	10	89.30	NA	ND	ND	ND	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Barium	6000	2000	699.00	NA	287	322	239	<200	227	217	NA	NA	NA	NA	NA	NA	NA	NA	NA	97.0
Beryllium	1	4	2.10	NA	1.10	1.56	1.46	<1.0	1.0	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.481 ER
Cadmium	4	5	9.50	NA	ND	ND	ND	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Calcium	NLE	NLE	45400.00	NA	39900	46100	36400	24000	32500	30500	NA	NA	NA	NA	NA	NA	NA	NA	NA	29000
Chromium	70	100	191.00	NA	ND	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Cobalt	NLE	NLE	18.30	NA	18.7	22.0	16.5	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.2
Copper	1300	1300	65.60	NA	8.54	4.50 ER	1.91 ER	11.2	<10	16.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Iron	300	NLE	431000	NA	ND	620	728	927	1250	1930	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Lead	5	15	22.70	NA	ND	ND	2.24 ER	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Magnesium	NLE	NLE	62700	NA	30800	32400	22000	11300	18400	18200	NA	NA	NA	NA	NA	NA	NA	NA	NA	19100
Manganese	50	NLE	331	NA	255	432	330	220	419	425	NA	NA	NA	NA	NA	NA	NA	NA	NA	182
Mercury	2	2	0.26	NA	0.170 ER	ND	ND	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.150 ER
Nickel	100	NLE	187	NA	31.9	32.4	24.8	13.9	19.7	23.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.6
Potassium	NLE	NLE	137000	NA	5120	5490	12900	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	6280
Selenium	40	50	29.60	NA	NR	56.0	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR
Silver	40	NLE	ND	NA	ND	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Sodium	50000	NLE	21500	NA	401000	374000	349000	348000	348000	339000	NA	NA	NA	NA	NA	NA	NA	NA	NA	108000
Thallium	2	2	5.50	NA	ND	ND	ND	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Vanadium	60	NLE	108	NA	0.887 ER	ND	0.817 ER	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Zinc	2000	NLE	233	NA	129	135	99.8	82.3	98.7	102	NA	NA	NA	NA	NA	NA	NA	NA	NA	63.7

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

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NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

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NA - Not analyzed NR - Not reported

ND - Not detected

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a/ Elevated sample detection limit due to difficult sample matrix.

Table 2
Historical Groundwater Analytical Results
Site FTMM-64 Building 812 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				812MW06								812MW07									
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main)**	LF1 Dup	LF2			Dup			Dup	31	32	33	34	35	36	37	38	39	LF1
Date Collected				5/11/2010	7/28/2010	11/3/2010	2/15/2011	2/15/2011	4/14/2011	7/8/2011	7/8/2011	2/20/2008	4/9/2008	7/25/2008	10/22/2008	2/6/2009	4/28/2009	8/10/2009	10/9/2009	1/14/2010	5/11/2010
ANALYTE/Lab ID				10186.03	10323.07	10471.06	11053.04	11053.03	11148.06	11287.04	11287.03	80051.09	80120.09	80256.09	80383.09	90039.09	90171.09	90336.09	90412.09	10018.09	10186.07
Volatile Organic Compounds (µg/L)																					
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane				ND	ND	ND	ND	ND	ND	ND	ND	ND	1.16 J	12.02	5.0	0.41 J	1.39 J	0.96	0.77	ND	ND
1,1-Dichloroethene				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -l,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans -l,2-Dichloroethene	100			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.58	1.89 J	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl *tert* -butyl ether	70	NLE	--	0.73	0.56	0.34 J	0.34 J	0.33 J	0.21 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	1			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																					
Aluminum	200	NLE	121000	2620	2140	2670	2620	2590	2920	2120	2160	NA	NA	NA	NA	NA	NA	NA	NA	NA	2720
Antimony	6	6	20.70	7.91 ER	7.00 ER	ND	<6.0	<6.0	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.97 ER
Arsenic	3	10	89.30	ND	ND	1.08 ER	<3.0	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.61 ER
Barium	6000	2000	699.00	96.5	102	122	<200	<200	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	154
Beryllium	1	4	2.10	0.462 ER	0.500	0.890	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.483 ER
Cadmium	4	5	9.50	ND	ND	0.652 ER	<3.0	<3.0	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Calcium	NLE	NLE	45400.00	28500	26500	27600	30800	30200	25700	29900	27300	NA	NA	NA	NA	NA	NA	NA	NA	NA	23600
Chromium	70	100	191.00	ND	ND	0.861 ER	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Cobalt	NLE	NLE	18.30	11.3	10.8	12.3	<50	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	14.3
Copper	1300	1300	65.60	ND	2.00 ER	ND	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Iron	300	NLE	431000	ND	ND	84.9	<100	<100	1320	838	1400	NA	NA	NA	NA	NA	NA	NA	NA	NA	4280
Lead	5	15	22.70	ND	ND	ND	<3.0	<3.0	<3.0	<3.0	4.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Magnesium	NLE	NLE	62700	19100	18600	20400	18700	18400	15600	17000	15500	NA	NA	NA	NA	NA	NA	NA	NA	NA	27900
Manganese	50	NLE	331	179	169	175	202	195	188	239	218	NA	NA	NA	NA	NA	NA	NA	NA	NA	453
Mercury	2	2	0.26	0.180 ER	ND	ND	<0.20	<0.20	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.160 ER
Nickel	100	NLE	187	17.8	17.0	19.9	21.3	20.8	19.4	17.9	18.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	38.4
Potassium	NLE	NLE	137000	6100	6670	6460	<10000	<10000	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	6020
Selenium	40	50	29.60	NR	31.0	ND	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR
Silver	40	NLE	ND	ND	ND	ND	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Sodium	50000	NLE	21500	106000	114000	122000	126000	123000	115000	130000	119000	NA	NA	NA	NA	NA	NA	NA	NA	NA	157000
Thallium	2	2	5.50	ND	ND	ND	<2.0	<2.0	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Vanadium	60	NLE	108	ND	ND	ND	<50	<50	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Zinc	2000	NLE	233	63.2	62.0	71.8	70.4	70.0	66.2	65.1	94.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.2

Notes:

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Historical Groundwater Analytical Results
Site FTMM-64 Building 812 UST Gasoline
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Fort Monmouth, New Jersey

				812MW07						812MW08													
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main)**	LF2		Dup				31	31 Dup	32	33	34	35	35 Dup	36	36 Dup	37	37 Dup	38	38 Dup	39
Date Collected				8/3/2010	11/5/2010	11/5/2010	2/15/2011	4/14/2011	7/8/2011	2/20/2008	2/20/2008	4/9/2008	7/25/2008	10/22/2008	2/6/2009	2/6/2009	4/28/2009	4/28/2009	8/10/2009	8/10/2009	10/9/2009	10/9/2009	1/14/2010
ANALYTE/Lab ID				10326.05	10474.04	10474.03	11053.06	11148.07	11287.07	80051.10	80051.03	80120.10	80256.10	80383.10	90039.10	90039.03	90171.10	90171.03	90336.10	90336.03	90412.10	90412.03	10018.10
Volatile Organic Compounds (µg/L)																							
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane				ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene				ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -l,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans -l,2-Dichloroethene	100			ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	NA	0.42 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1		--	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane				ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	1			ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																							
Aluminum	200	NLE	121000	3980	3570	3460	8790	3160	4060	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	6	6	20.70	7.94 ER	ND	ND	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	3	10	89.30	1.12 ER	0.930 ER	0.690 ER	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	6000	2000	699.00	174	182	184	462	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	1	4	2.10	0.702	0.800	0.799	1.3	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4	5	9.50	1.09 ER	5.09	4.55	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NLE	NLE	45400.00	23200	20200	19500	21100	11000	20900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	70	100	191.00	ND	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	NLE	NLE	18.30	17.0	61.8	59.1	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1300	1300	65.60	1.58 ER	2.07 ER	1.66 ER	13.1	<10	24.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	NLE	431000	1650	2360	2030	10900	19300	32800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	5	15	22.70	4.22 ER	3.33 ER	5.37	3.8	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NLE	NLE	62700	42900	28600	28000	26900	13000	23000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	50	NLE	331	771	376	359	374	324	530	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	2	2	0.26	ND	ND	ND	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	NLE	187	59.1	65.0	61.9	56.4	14.7	21.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NLE	NLE	137000	5860	8330	7280	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	40	50	29.60	35.9	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	40	NLE	ND	ND	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	50000	NLE	21500	189000	185000	181000	175000	158000	263000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	2	2	5.50	ND	ND	0.900 ER	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	60	NLE	108	ND	0.520 ER	0.871 ER	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2000	NLE	233	144	547	542	708	111	186	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

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NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

ER - Estimated result

J - Estimated concentration exceeds the MDL and is less than the RL

NA - Not analyzed NR - Not reported

ND - Not detected

NLE - No limit established

a/ Elevated sample detection limit due to difficult sample matrix.

Table 2
Historical Groundwater Analytical Results
Site FTMM-64 Building 812 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				812MW08							812MW14											
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main)**	39 Dup	LF1	LF2					31	32	33	33 Dup	34	35	36	37	38	39	LF1	LF2
Date Collected				1/14/2010	5/11/2010	7/28/2010	11/3/2010	2/14/2011	4/13/2011	7/8/2011	2/20/2008	4/9/2008	7/25/2008	7/25/2008	10/22/2008	2/6/2009	4/28/2009	8/10/2009	10/9/2009	1/14/2010	5/11/2010	8/3/2010
ANALYTE/Lab ID				10018.03	10186.05	10323.06	10471.07	11051.03	11145.05	11287.05	80051.11	80120.11	80256.11	80256.03	80383.11	90039.11	90171.11	90336.11	90412.11	10018.11	10186.06	10326.04
Volatile Organic Compounds (µg/L)																						
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis -l,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans -l,2-Dichloroethene	100			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	0.38 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1		--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	1			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	1000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																						
Aluminum	200	NLE	121000	NA	4910	4400	3950	5610	4180	3760	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	39.4 ER	135
Antimony	6	6	20.70	NA	12.3	8.69 ER	ND	<6.0	<6.0	<6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	9.83 ER
Arsenic	3	10	89.30	NA	1.10 ER	0.630 ER	0.870 ER	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.650 ER
Barium	6000	2000	699.00	NA	90.6	108	102	<200	<200	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27.5	44.2
Beryllium	1	4	2.10	NA	1.34	1.59	1.54	1.3	1.2	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Cadmium	4	5	9.50	NA	54.0	3.09	12.5	17.1	10.6	5.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13.7	1.22 ER
Calcium	NLE	NLE	45400.00	NA	53500	43400	32000	44500	42300	35200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	25700	33400
Chromium	70	100	191.00	NA	ND	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Cobalt	NLE	NLE	18.30	NA	13.7	12.9	12.8	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Copper	1300	1300	65.60	NA	3.22 ER	3.89 ER	1.90 ER	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.55 ER
Iron	300	NLE	431000	NA	320 ER	325 ER	124	453	1350	1160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	216 ER
Lead	5	15	22.70	NA	2.48 ER	3.41 ER	2.20 ER	<3.0	<3.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Magnesium	NLE	NLE	62700	NA	21000	19700	17300	23800	19900	17700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7040	11100
Manganese	50	NLE	331	NA	290	235	192	302	348	293	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14.7	74.1
Mercury	2	2	0.26	NA	0.210 ER	ND	ND	<0.20	<0.20	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.210 ER	ND
Nickel	100	NLE	187	NA	15.5	16.1	18.5	19.7	15.3	22.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.32 ER	0.928 ER
Potassium	NLE	NLE	137000	NA	4840	5300	5300	<10000	<10000	<10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4320	4350
Selenium	40	50	29.60	NA	NR	55.2	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	47.3
Silver	40	NLE	ND	NA	ND	ND	ND	<10	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Sodium	50000	NLE	21500	NA	239000	226000	160000	236000	249000	233000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	223000	257000
Thallium	2	2	5.50	NA	ND	ND	ND	<2.0	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Vanadium	60	NLE	108	NA	ND	ND	ND	<50	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.77 ER	3.32 ER
Zinc	2000	NLE	233	NA	104	100	103	116	96.2	88.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.31 ER	2.31 ER

Notes:

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Table 2
Historical Groundwater Analytical Results
Site FTMM-64 Building 812 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				812MW14					
Round No.	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main)**	LF2 Dup				Dup	
Date Collected				8/3/2010	11/3/2010	2/15/2011	4/13/2011	4/13/2011	7/8/2011
ANALYTE/Lab ID				10326.03	10471.08	11053.05	11145.04	11145.03	11287.06
Volatile Organic Compounds (µg/L)									
Benzene	1	5	--	ND	ND	ND	ND	ND	ND
tert -Butyl alcohol	100	NLE	--	ND	ND	ND	ND	ND	NA
1,1-Dichloroethane				ND	ND	ND	ND	ND	ND
1,1-Dichloroethene				ND	ND	ND	ND	ND	ND
cis -l,2-Dichloroethene	70	70	--	ND	ND	ND	ND	ND	ND
trans -l,2-Dichloroethene	100			ND	ND	ND	ND	ND	ND
Chloroethane	NLE	NLE	--	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND
Isopropylbenzene	700	NLE	--	NA	NA	NA	NA	NA	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1		--	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane				ND	ND	ND	ND	ND	ND
Trichloroethene	1	5	--	ND	ND	ND	ND	ND	ND
Toluene	600	1000	--	ND	ND	ND	ND	ND	ND
Vinyl chloride	1			ND	ND	ND	ND	ND	ND
Xylenes (Total)	1000	10,000	--	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	ND	ND
Metals (µg/L)									
Aluminum	200	NLE	121000	284	1030	293	4790	5990	2770
Antimony	6	6	20.70	9.31 ER	5.21 ER	<6.0	<6.0	<6.0	<6.0
Arsenic	3	10	89.30	0.650 ER	2.16 ER	<3.0	3.8	5.0	3.3
Barium	6000	2000	699.00	45.7	31.3	<200	<200	<200	<200
Beryllium	1	4	2.10	ND	ND	<1.0	<1.0	<1.0	<1.0
Cadmium	4	5	9.50	1.15 ER	ND	<3.0	<3.0	<3.0	<3.0
Calcium	NLE	NLE	45400.00	35700	27300	50400	34900	35800	37200
Chromium	70	100	191.00	ND	5.34	<10	24.4	29.7	16.2
Cobalt	NLE	NLE	18.30	ND	ND	<50	<50	<50	<50
Copper	1300	1300	65.60	1.76 ER	ND	<10	<10	<10	<10
Iron	300	NLE	431000	450 ER	2000	553	11000	13700	6580
Lead	5	15	22.70	ND	ND	<3.0	3.8	4.4	<3.0
Magnesium	NLE	NLE	62700	11300	8530	8290	10100	10600	14300
Manganese	50	NLE	331	92.3	46.7	<15	353	466	318
Mercury	2	2	0.26	ND	ND	<0.20	<0.20	<0.20	<0.20
Nickel	100	NLE	187	1.00 ER	ND	<10	<10	<10	<10
Potassium	NLE	NLE	137000	4710	3670	<10000	<10000	<10000	<10000
Selenium	40	50	29.60	44.3	ND	<10	<10	<10	<10
Silver	40	NLE	ND	ND	ND	<10	<10	<10	<10
Sodium	50000	NLE	21500	263000	189000	309000	235000	241000	237000
Thallium	2	2	5.50	ND	ND	<2.0	<2.0	<2.0	<2.0
Vanadium	60	NLE	108	4.10 ER	5.09	<50	<50	<50	<50
Zinc	2000	NLE	233	3.09 ER	2.61 ER	<20	24.3	27.7	22.4

Notes:

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Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-64 Building 812 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	812MW01	812MW02	812MW04			812MW05	812MW06	812MW07	812MW08	812MW14
Sample ID			FTMM-64-GW-812MW01	FTMM-64-GW-812MW02	FTMM-64-GW-812MW04	FTMM-64-GW-812MW04-5.53	FTMM-64-GW-812MW04-4.7	FTMM-64-GW-812MW05	FTMM-64-GW-812MW06	FTMM-64-GW-812MW07	FTMM-64-GW-812MW08	FTMM-64-GW-812MW14
Sample Date			8/16/2013	8/15/2013	8/16/2013	10/2/2014	11/25/2015	8/15/2013	8/15/2013	8/15/2013	8/15/2013	8/15/2013
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS
Volatile Organic Compounds (µg/l)												
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	**0.52 J**	< 1	< 1	< 1	< 1	< 10	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Acetone	6,000	NLE	< 5	< 5	< 5	**3.2 J**	**2.2 B**	< 5	**1.4 J**	**1.4 J**	< 50	< 5
Benzene	1	5	< 1	< 1	< 1	**0.32 J**	< 1	< 1	< 1	< 1	< 10	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	**0.93 J**	< 1	< 1	< 1	< 1	< 10	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	**0.77 J**	< 1	< 1	< 1	< 1	< 10	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	**1.4 J**	< 1	< 1	< 1	< 1	< 10	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	**0.48 J**	< 1	< 1	< 1	< 1	< 10	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	**1.1 J**	< 2	< 2	< 2	< 2	< 20	< 2
Methyl bromide	10	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 50	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	**0.38 B**	< 1	< 1	< 1	< 1	< 10	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	**0.23 J**	< 1	< 1	< 1	< 1	< 10	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	**0.59 J**	< 1	< 1	< 1	< 1	< 10	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	**0.65 J**	< 1	< 1	< 1	< 1	< 10	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Tert Butyl Alcohol	100	NLE	NA	NA	NA	< 20	< 20	NA	NA	NA	NA	NA
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	**0.23 J**	< 1	< 1	< 1	< 1	< 10	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Toluene	600	1,000	< 1	< 1	< 1	**0.37 J**	< 1	< 1	< 1	< 1	< 10	< 1
Total TIC, Volatile	500	NLE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	1,000	10,000	< 3	< 3	< 3	**1.69 J**	< 3	< 3	< 3	< 3	< 30	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	**7.8**	< 1	< 1	< 1	< 1	< 10	< 1
Inorganics (µg/l)												
Lead	5	15	< 2	< 2	**7.5**	NA	NA	**0.855 J**	**2.1 J**	< 2	< 2	< 2

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-64 Building 812 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Footnote:

1) All historical data collected prior to 2013 are reported as provided by others.

2) Number of Analyses is the number of detected and non-detected results excluding rejected results. Sample duplicate pairs have not been averaged.

3) NLE = no limit established.

4) ND = not detected in any background sample, no background concentration available.

5) Chemical result qualifiers are assigned by the laboratory and is typically evaluated and modified (if necessary) by during data validation.

[blank] = detect, i.e. detected chemical result value.
B = Compound detected in the sample and its associated blank sample.
R = Rejected, data validation rejected the results.
U = non-detect, i.e. not detected equal to or above this value.
U-DL = Elevated sample detection limit due to difficult sample matrix.
U-ND = Analyte not detected in sample, but no detection or reporting limit provided.
J = estimated (detect or non-detect) value.
E (or ER) = Estimated result.
D = Results from dilution of sample.
J-DL = Elevated sample detection limit due to difficult sample matrix.
JN = Tentatively identified compound, estimated concentration.

6) Chemical results greater than or equal to the action level (depending on criteria) are highlighted based on the Criteria that are present.

- Cell Shade values represent a result that is above the NJ Ground Water Quality Criteria ####

NJDEP Interim Specific GWQC values are presented for the NJ GWQS where there is not a Specific Ground Water Quality Criteria. A full list of compounds is available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

NJDEP Interim Generic GWQC values are presented for the NJ GWQS where there is not a XXXXX or a NJDEP Interim Specific GWQC. Available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

- Bold Outline represent a result that is above the USEPA 2014-05 MCL. ###

- Cell Style values represent a result that is above the Weston 1995 Background (Main Post). ###

n/a = all concentrations were less than the detection limit, therefore, no location of maximum value identified.

Dash (-) = only background concentrations for metals are being used as comparison criteria.

7) Criteria action level source document and web address.

- The NJ Ground Water Quality Criteria refers to the NJDEP Groundwater Quality Standards - Adopted July 22, 2010
  http://www.state.nj.us/dep/wms/bwqsa/docs/njac79C.pdf
- The 2014-05 USEPA MCL refers to the USEPA's Region 9 Regional Screening Levels (HQ=1.0) - 5/31/2014 (Last revised)
  http://www.epa.gov/region9/superfund/prg/
- The Weston 1995 Background (Main Post) refers to the FTMM reports.
  NA

8) Wells sampled in the most recent fourth quarter sampling event are highlighted in yellow. Sample ID

Table 4
Review of Historical Groundwater Sampling Results
Site FTMM-64 Building 812 UST Gasoline
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site Name/ Well ID	Interpretation of Historical and 2015 Results [1]			2014 Evaluation				Retain Analyte/Well (Yes or No)	Rationale
	Chem Class / Analyte	Does it Exceed NJDEP GWQS (Yes or No) (If Yes, identify compound)	Do Metals Exceed FTMM Background Concentration (Yes or No) (If Yes, identify Metal)	Seasonal Effect?[2] (Y/N)	Anomaly? (Y/N)	Exceedance part of overall trend? (Y/N)	Well needed for sentinel purposes? (Y/N)		
FTMM-64,B812									
812MW04	VOC	VC	N/A	No	No	Yes	No	Yes	VC was found above GWQS in 2014. VOCs will continue to be monitored.

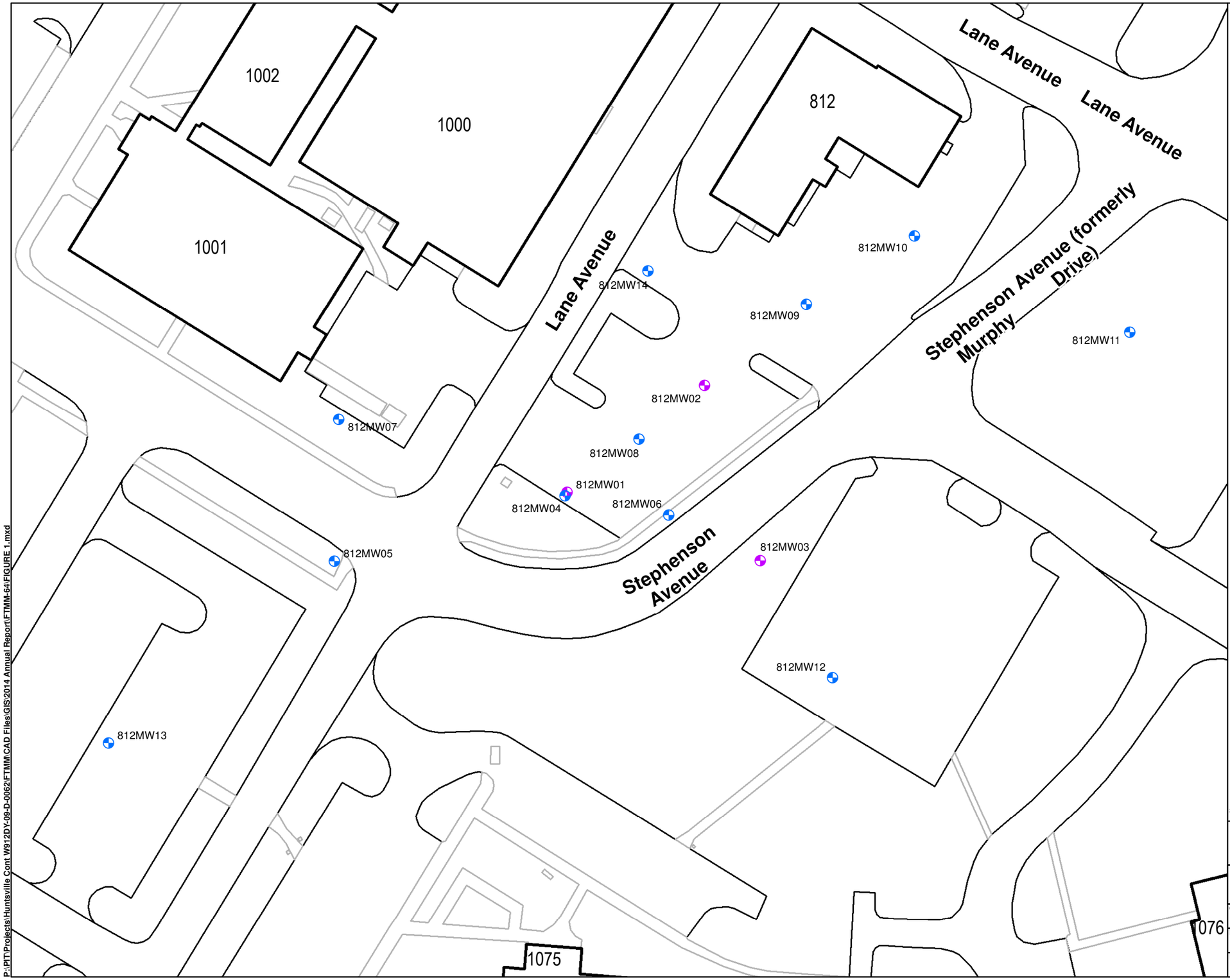
Notes

1. Has any of the analyte compounds exceeded the NJDEP GWQS in the 2015 data and the 4 previous quarterly data rounds or two previous annual rounds?
   a. If yes then keep analyte in LTM list
   b. If no then remove this analyte from LTM list
   c. a and b above may be occasionally superseded on a case-by-case basis, depending on site conditions.
2. Has any of the analyte compounds exceeded the NJDEP GWQS seasonally (winter spring vs. summer fall)?
3. VC - vinyl chloride
4. N/A - Not applicable
5. Per the 2/5/15 NJDEP approval letter of the Final 2013 Baseline Groundwater Report, groundwater monitoring wells 812MW01, 812MW02, 812MW05, 812MW06, 812MW07, 812MW08 and 812MW14, were removed from the long-term monitoring sampling program and lead was discontinued in 2014.

FIGURES

Figure 1 Layout of FTMM-64 Building 812 UST Gasoline

Figure 2 FTMM-64 Shallow Groundwater Contours - October 7, 2015



LEGEND:

- Deep Monitoring Well
- Shallow Monitoring Well
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Surface Water Feature

N

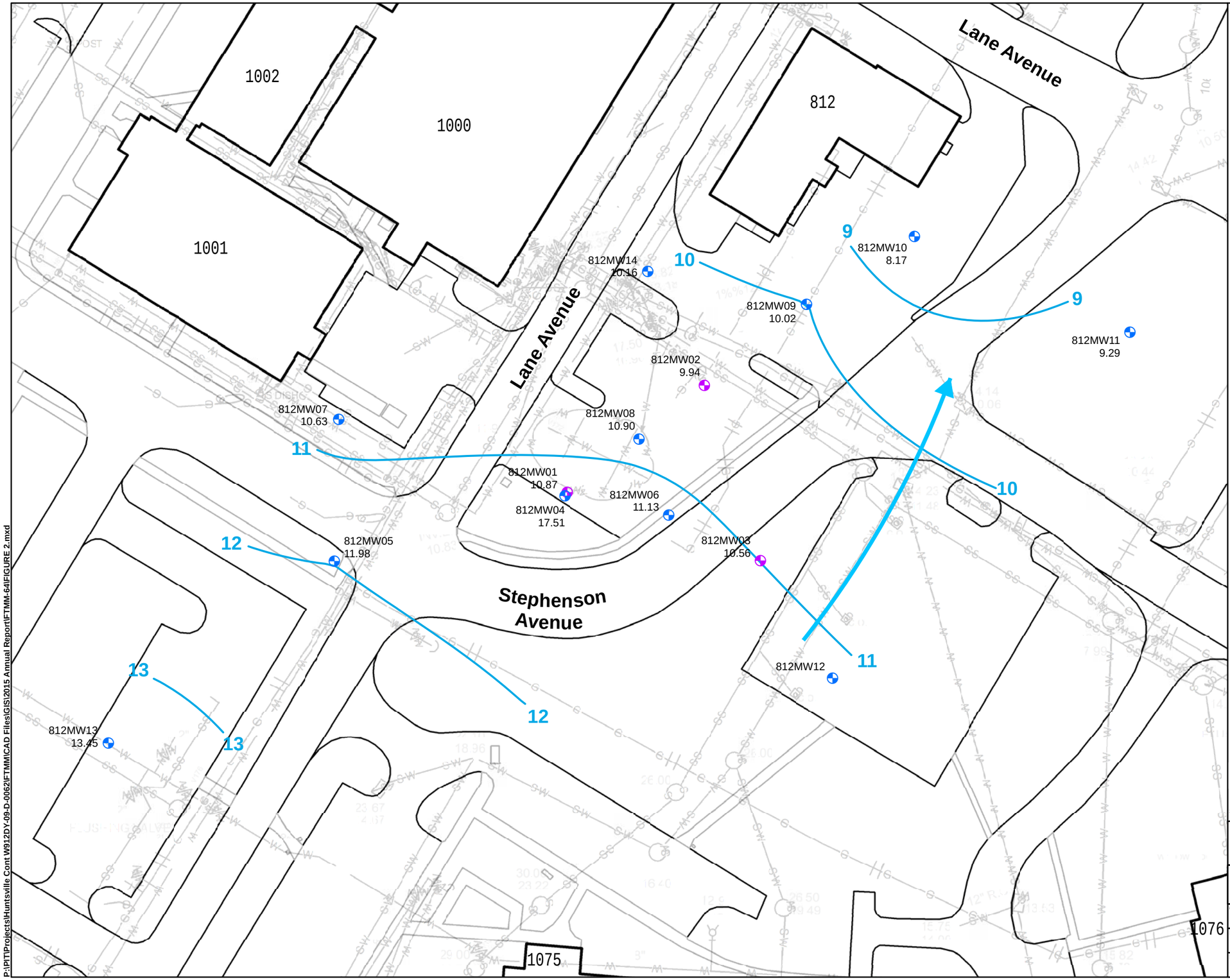
1 inch = 50 feet

0 25 50 100 Feet

Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey
LAYOUT OF FTMM-64 BUILDING 812 UST GASOLINE	
CREATED BY: RR	REVIEWED BY: ME
DATE: NOV. 2015	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-01000	FILE: FIGURE 1.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2014 Annual Report\FTMM-64\FIGURE 1.mxd



LEGEND:

- Deep Monitoring Well
- Shallow Monitoring Well
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Surface Water Feature
- Groundwater Elevation Contour
- Inferred Groundwater Flow Direction

NOTE:

The groundwater elevation at monitoring well 812MW04 was considered anomalous compared to the fluid levels at neighboring wells.

N

1 inch = 50 feet

0 25 50 100 Feet

Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	**Fort Monmouth New Jersey**
FTMM-64 SHALLOW GROUNDWATER CONTOURS - OCTOBER 7, 2015	
CREATED BY: RR	REVIEWED BY: ME
DATE: MAR. 2016	FIGURE NUMBER: FIGURE 2
PROJECT NUMBER: 748810-03000	FILE: FIGURE 2.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-64\FIGURE 2.mxd

ATTACHMENTS

Attachment A LFPS Field Sheets

LOW FLOW PURGE AND SAMPLING (LFPS) RECORD - GROUNDWATER

PARSONS

CLIENT: FTMM - USACE

WELL #: 812MW04

PROJECT: Q4 GW Sampling

AOC # (AREA): M-64

SCREENED INTERVAL (TOC): 2-7

WELL DIAMETER (in.): 4

WELL PERMIT #: 294425 TS

DATE: 11/25/15

SAMPLING PERSONNEL NAME: C. Watson

SAMPLING PERSONNEL NAME: —

BOREHOLE DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2	2.61	3.3	5.87

WELL HEAD VOC CONCENTRATION (ppm): 0

WELL DEPTH (TOC): 7

FEET OF WATER IN WELL (ft): 4.7

FEET OF SATURATED SCREEN (ft): 5

DEPTH TO WATER BEFORE PUMP INSTALLATION (ft below TOC): 2.30

PUMP INTAKE DEPTH (ft below TOC): 4.7

PURGING AND SAMPLING

TIME	PURGING	SAMPLING	pH (pH units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1245	X		7.19	NA	0.430	NA	69.9	NA	7.72	NA	249.4	NA	12.97	NA	225	2.51
1250	X		7.02		0.420		79		6.61		234.2		13.49		225	2.86
1255	X		6.99		0.418		86.5		6.55		212.0		13.43		225	3.00
1300	X		6.90		0.421		91.2		7.14		200.2		13.47		200	3.36
1305	X		6.97		0.423		91.1		6.65		55.8		14.04		200	3.68
1310	X		6.96		0.425		90.8		7.00		56.0		14.16		200	3.82
1315	X		6.95		0.426		91.7		7.34		51.0		14.25		200	3.93
1320	X		6.93		0.426		92.8		7.29		51.8		14.28		200	4.02
1325		X	6.92		0.426		93.9		7.22		53.0		14.22		200	4.12

*Indicator readings have stabilized when 3 consecutive readings are within: +/- 0.1 for pH; =+/- 3% for Specific Conductivity and Temperature; +/- 10 mv for Redox Potential; and +/- 10% for Dissolved Oxygen and Turbidity

LOW FLOW PURGE AND SAMPLING (LFPS) RECORD - GROUNDWATER

PARSONS	CLIENT: USACE	WELL #: 812MW04

SAMPLING INFORMATION

SAMPLING DEVICE: LFPS

SAMPLE NAME (ID): FTMM-64-GW-812MW04-4.7

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY	COMMENTS
VOCs	1325	40mL VOAs	Clear	53.0	

QA\QC SAMPLES:

DUPLICATE SAMPLE COLLECTED: YES or (NO)

DUPLICATE SAMPLE NAME (ID):

MS/MSD SAMPLE COLLECTED: YES or (NO)

MS / MSD SAMPLE NAME (ID):

PURGING AND SAMPLING COMMENTS:

INVESTIGATION DERIVED WASTE (IDW): PTCs

Date:								
Volume Transfered to Drum:								
Drum Number:								

APPENDIX K

FTMM-66: BUILDING 886 FORMER AST

APPENDIX K: FTMM-66 Building 886 Former AST

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1.0 WATER LEVEL MEASUREMENTS AND WELL ASSESSMENT K-1
2.0 GROUNDWATER SAMPLING K-1
3.0 HISTORICAL GROUNDWATER SAMPLING RESULTS K-1
4.0 ANNUAL (FOURTH QUARTER) 2015 GROUNDWATER RESULTS K-2
5.0 FINDINGS AND RECOMMENDATIONS K-2

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Table No.	Title
1	Groundwater Gauging Data and Elevations (October 2, 2015) and LFPS Sampling Summary
2	Historical Groundwater Analytical Results
3	Groundwater Analytical Results - 2013, 2014 and 2015
4	Review of Historical Groundwater Sampling Results

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Figure No.	Title
1	Layout of FTMM-66 Building 886 Former AST
2	FTMM-66 Shallow Groundwater Contours - October 2, 2015

LIST OF ATTACHMENTS

Attachment	Title
A	LFPS Field Sheets

1.0 WATER LEVEL MEASUREMENTS AND WELL ASSESSMENT

Monitoring wells located within FTMM-66 were gauged on October 2, 2015. Monitoring well locations as well as other site features are provided in **Figure 1**. Details regarding the water level measurements are provided in **Table 1**. Groundwater elevations in monitoring wells ranged from 5.35 (886MW01) to 9.48 (886RW06) feet above mean sea level (amsl). The inferred shallow groundwater flow direction is generally to the north-northwest, as shown in **Figure 2**.

During the groundwater gauging, the physical condition of FTMM-66 monitoring wells were assessed. The site monitoring wells were found to be in good condition.

2.0 GROUNDWATER SAMPLING

Groundwater samples were collected from three monitoring wells located at FTMM-66 as part of the annual (fourth quarter) 2015 groundwater sampling event. The groundwater sampling program included measuring the depth to groundwater in monitoring wells prior to sampling and collection of groundwater samples using low-flow purging and sampling (LFPS). Groundwater samples were collected from wells 886RW01, 886RW06 and 886RW08 on November 20 and 23, 2015. Groundwater samples were analyzed for Target Compound List (TCL) semi-volatile organic compounds (SVOCs) plus Tentatively Identified Compounds (TICs) via USEPA method SW8270D.

The samples were collected in accordance with the New Jersey Department of Environmental Protection (NJDEP) Field Sampling Procedures Manual (FSPM) and the Sampling Analysis Plan (SAP). Field blanks, duplicates, matrix spike, matrix spike duplicate and quality assurance (QA) split samples were collected for every 5% of samples collected per parameter, per matrix, in accordance with the Quality Assurance Project Plan (QAPP). Trip blanks accompanied each cooler each day in which VOCs were collected for laboratory analysis.

The completed LFPS field sheets can be found in **Attachment A**.

3.0 HISTORICAL GROUNDWATER SAMPLING RESULTS

From February 2003 through October 2004, FTMM-66 monitoring wells were sampled for volatile organic compounds (VOCs), SVOCs, total petroleum hydrocarbons (TPH) and metals. From January 2005 to December 2009, FTMM-66 wells were sampled for VOCs and SVOCs. From February 2010 to May 2010, monitoring wells were sampled for VOCs, SVOCs and metals.

In the last four rounds of quarterly groundwater sampling conducted at FTMM-66 from August 2010 to April 2011, samples were also analyzed for VOCs, SVOCs and metals. Within the last four rounds of groundwater sampling at FTMM-66, bis(2-ethylhexyl) phthalate, antimony, arsenic, beryllium and lead were detected above their respective NJDEP Ground Water Quality Standard (GWQS) in monitoring well 886MW01. The bis(2-ethylhexyl) phthalate detections appear to be anomalous as there is no historical trend of bis(2-ethylhexyl) phthalate detections above the GWQS. The detection of phthalates is attributed to the laboratory; it is considered a common laboratory contaminant since it is present in all

laboratory equipment and reagents. The concentrations of antimony, arsenic, beryllium and lead were all below site background conditions (Weston, 1995).

No VOCs or SVOCs were detected in exceedance of any NJDEP GWQS within the last four rounds of historical groundwater sampling. Historical groundwater analytical results are presented in **Table 2**.

During the August 2013 Baseline Sampling Event, thirteen monitoring wells were sampled for VOCs, SVOCs and lead. One parameter, SVOC total tentatively identified compounds (TICs) was detected above its NJDEP GWQS of 500 µg/L at monitoring wells 886RW01 (879 µg/L) and 886RW08 (707 JN µg/L). Groundwater analytical results from samples collected during the August 2013 sampling event are presented in **Table 3**.

The Final August 2013 Baseline Groundwater Sampling Report was accepted by the NJDEP in their February 5, 2015 letter. Based on this approval, 10 out of the 13 groundwater monitoring wells were removed from the long-term monitoring (LTM) program including 886MW01, 886MW02, 886MW03, 886MW04, 886MW05, 886RW02, 886RW03, 886RW04, 886RW05 and 886RW07; and VOC and lead analyses were discontinued.

SVOC total TICs was the only parameter detected in monitoring wells 886RW01 and 886RW08 during the 2014 annual sampling event. Concentrations (15.4J µg/L and 46.4J µg/L respectively) were below the NJDEP GWQS of 500 µg/L. SVOCs were non-detect in the sample collected from 886RW06. Groundwater analytical results from 2014 sampling event are presented in **Table 3**. Based on the collective data, the Annual (Fourth Quarter) 2014 Groundwater Sampling Report recommended that one additional sampling round was needed to demonstrate that SVOC total TICs are below the NJDEP GWQS and discontinue the long-term monitoring program for the site. This was accepted by the NJDEP in their January 26, 2016 letter.

4.0 ANNUAL (FOURTH QUARTER) 2015 GROUNDWATER RESULTS

SVOC total TICs were only detected in monitoring well 886RW01 during the 2015 Annual Sampling Event. The estimated concentration (18JN µg/L) is below the NJDEP GWQS of 500 µg/L. SVOCs were non-detect in the samples collected from 886RW06 and 886RW08. Groundwater analytical results from 2015 sampling event are presented in **Table 3**.

5.0 FINDINGS AND RECOMMENDATIONS

Historically, SVOCs (including total TICs) have been detected below the NJDEP GWQS with only a few instances in 2009 and 2010 where bis(2-ethylhexyl)phthalate and total TICs have been above the GWQS. Concentrations of SVOCs (including total TICs) detected during the 2014 and 2015 sampling events were non-detect or below their NJDEP GWQS in wells 886RW01, 886RW06 and 886RW08. Based on the available data, it is recommended to discontinue the LTM sampling s at 886RW01, 886RW06 and 886RW08 and a no further action determination will be requested for groundwater at this site. A review of the historical groundwater sampling results is presented in **Table 4,** which provides the matrix used to determine the status of the wells relative to future groundwater sampling and analyses.

TABLES

Table 1 Groundwater Gauging Data and Elevations (October 2, 2015) and LFPS Sampling Summary

Table 2 Historical Groundwater Analytical Results

Table 3 Groundwater Analytical Results - 2013, 2014 and 2015

Table 4 Review of Historical Groundwater Sampling Results

Table 1
Groundwater Gauging Data and Elevations (October 2, 2015) and LFPS Sampling Summary
Site FTMM-66 Building 886 Former AST
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site/Well ID	Installation Date	Well Permit #	Y Coord. (North)	X Coord. (East)	Depth (ft. bgs)	Casing Length (ft)	Screen Length (ft)	TOC Elevation (ft)	Gauge Time	PID Reading (ppm)	Gauged Depth to Water (ft. TOC)	Gauged Depth to Bottom (ft. TOC)	Calculated Groundwater Elevation (ft)	Date Sampled
Shallow Monitoring Wells														
886MW01	1/8/2003	29-47835	538325.48	620981.00	17.0	2.0	15.0	12.95	11:58	0.0	7.60	17.30	5.35	
886MW02	1/8/2003	29-47836	538217.44	620928.79	17.0	2.0	15.0	12.90	10:49	0.0	5.87	16.95	7.03	
886MW03	1/8/2003	29-47837	538302.92	621071.25	17.0	2.0	15.0	13.70	12:22	0.0	7.25	17.20	6.45	
886MW04	1/8/2003	29-47838	538089.47	621100.44	17.0	2.0	15.0	18.22	12:30	0.0	8.86	20.35	9.36	
886MW05	1/8/2003	29-47839	538253.49	621193.80	17.0	2.0	15.0	18.29	12:26	0.0	11.63	19.45	6.66	
886MW06	12/9/2010	E201012412	538300.00	620950.00	20.0	5.0	15.0	13.84	11:46	0.0	6.13	19.80	7.71	
886RW01	1/7/2003	29-47840	538241.42	620972.44	17.0	2.0	15.0	13.62	11:13	0.0	6.97	16.18	6.65	11/23/2015
886RW02	1/7/2003	29-47841	538251.08	620895.34	17.0	2.0	15.0	13.92	11:19	0.0	7.32	17.00	6.60	
886RW03	1/7/2003	29-47842	538274.31	620998.04	17.0	2.0	15.0	13.96	11:27	0.0	6.55	16.15	7.41	
886RW04	1/7/2003	29-47843	538263.45	620990.21	17.0	2.0	15.0	13.80	11:24	0.0	7.20	16.82	6.60	
886RW05	1/7/2003	29-47844	538280.46	620985.98	17.0	2.0	15.0	13.71	11:23	0.0	7.23	15.00	6.48	
886RW06	1/7/2003	29-47845	538273.33	621052.87	17.0	2.0	15.0	15.00	12:19	0.0	5.52	15.22	9.48	11/23/2015
886RW07	1/9/2003	29-47846	538252.30	621047.21	17.0	2.0	15.0	14.32	12:14	0.0	7.81	16.15	6.51	
886RW08	1/10/2003	29-47847	538229.91	621038.87	17.0	2.0	15.0	13.84	12:11	0.0	7.22	15.70	6.62	11/20/2015

Notes:
1) The synoptic round of water levels in the wells was collected on October 2, 2015.
2) Information on well permit number, X and Y coordinates, depth, screen length, screen interval and TOC elevation were provided by FTMM in a table in June 2013.
3) ft = feet
4) DTW = depth to water (measured from the top of well casing)
5) DTB = depth to bottom of well (measured from the top of well casing)
6) bgs = below ground surface
7) ppm = parts per million (of VOCs)
8) TOC = Top of Casing
9) Elevation = feet above mean sea level
10) N/A = information not available
11) LFPS = Low-Flow Purging and Sampling

Table 2
Historical Groundwater Analytical Results
Site FTMM-66 Building 886 Former AST
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				886MW01																	
WELL ID	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	886MW01	MW01 Dup	886MW01	MW01 Dup	886MW01	MW01 Dup	886MW01	MW01 Dup	886MW01	886MW01	MW01 Dup	886MW01	886MW01	MW01 Dup	886MW01	886MW01	MW01 Dup	LF1
Date Collected				8/2/2007	8/2/2007	10/12/2007	10/12/2007	3/27/2008	3/27/2008	6/25/2008	6/25/2008	9/16/2008	11/12/2008	11/12/2008	2/11/2009	6/10/2009	6/10/2009	9/28/2009	12/15/2009	12/15/2009	2/24/2010
Volatile Organic Compounds (µg/L)																					
Acetone	6,000	NLE	--	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone (2-Butanone)	300	NLE	--	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	700	NLE	--	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	3.86	4.46	2.48	NA	16.76	17.05	3.88	2.21	2.29	ND	0.24 J	0.26 J	4.85	0.92	0.85	1.44
Tetrachloroethylene	1	5	--	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1,000	--	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	1,000	10,000	--	ND	ND	ND	ND	0.38 J	NA	ND	ND	ND	ND	ND	ND	0.26 J	0.26 J	ND	0.31 J	0.31 J	ND
TICs*	500	NLE		ND	ND	ND	ND	242	NA	ND	ND	ND	13	11	200	119	124	ND	84	82	41
Total Petroleum Hydrocarbons (mg/L)																					
Total Petroleum Hydrocarbons	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semi-Volatile Organic Compounds (µg/L)																					
Acenaphthene	400	NLE	--	ND	ND	ND	ND	6.18	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.91	1.93	2.08
Anthracene	2,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	3	NLE	--	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.5	1.3 J	ND
1,1'-Biphenyl	400	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	NLE	NLE	--	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.7 J	1.8 J	2.2 J
Diethyl phthalate	6,000	NLE	--	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-*n* -octyl phthalate	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	300	NLE	--	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.96	1.91	2.31
2-Methylnaphthalene	NLE	NLE	--	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6 J	1.6 J	ND
4-Methylphenol	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	300	NLE	--	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	NLE	NLE	--	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	200	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	170.46	NA	ND	ND	61	19	4	15	96	90	ND	84.9	78.9	43.5
Metals (µg/L)																					
Antimony	6	6	20.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Arsenic	3	10	89.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.00 ER
Barium	6,000	2,000	699.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.7
Beryllium	1	4	2.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Cadmium	4	5	9.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Chromium	70	100	191.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Copper	1,300	1,300	65.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Lead	5	15	22.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Nickel	100	NLE	187	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.90 ER
Selenium	40	50	29.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for total VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
U.S. Environmental Protection Agency Maximum Contaminant Level (2012)
LF = Low-flow sampling method used to collect sample
ER - Estimated result
J - Estimated concentration exceeds the MDL and is less than the RL
NA - Not analyzed NR - Not reported
ND - Not detected
NLE - No limit established
a/ Elevated sample detection limit due to difficult sample matrix.

Table 2
Historical Groundwater Analytical Results
Site FTMM-66 Building 886 Former AST
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				886MW01						886MW02									
WELL ID	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF2	LF3	LF4	LF5	LF5 Dup	LF6	886MW02	886MW02	886MW02	886MW02	886MW02	886MW02	886MW02	MW02 Dup	886MW02	886MW02	886MW02
Date Collected				5/24/2010	8/5/2010	10/13/2010	2/11/2011	2/11/2011	4/7/2011	8/2/2007	10/12/2007	3/27/2008	6/25/2008	9/16/2008	11/12/2008	2/11/2009	2/11/2009	6/10/2009	9/28/2009	12/15/2009
Volatile Organic Compounds (µg/L)																				
Acetone	6,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone (2-Butanone)	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	1	1.98	0.73	0.32 J	0.3 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.35 J	ND	ND
Tetrachloroethylene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	1,000	10,000	--	ND	ND	ND	ND	ND	0.3 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE		27	ND	ND	99	99	123	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)																				
Total Petroleum Hydrocarbons	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semi-Volatile Organic Compounds (µg/L)																				
Acenaphthene	400	NLE	--	0.535	ND	ND	4	3.85	3.65	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	2,000	NLE	--	ND	ND	ND	0.166	0.164	0.179	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	3	NLE	--	1.4 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl	400	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	NLE	NLE	--	1.9 J	ND	ND	2.6 J	2.6 J	3.4 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	6,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-*n* -octyl phthalate	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	300	NLE	--	1.65	ND	ND	3.17	3.19	3.71	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	300	NLE	--	ND	ND	ND	ND	ND	1.39	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	NLE	NLE	--	ND	ND	ND	0.345	0.339	0.241	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	200	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	9	ND	ND	97	105.6	167.9	ND	15	39.3	ND	23	4	11	14	6	10	ND
Metals (µg/L)																				
Antimony	6	6	20.70	5.01 ER	9.32 ER	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	3	10	89.30	9.1	2.81 ER	2.25	9.8	10.3	19.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	6,000	2,000	699.00	8.79	40.2	82.3	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	1	4	2.10	0.051 ER	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4	5	9.50	0.511 ER	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	70	100	191.00	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1,300	1,300	65.60	1.27 ER	1.98 ER	ND	ND	ND	93.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	5	15	22.70	3.68 ER	ND	ND	ND	ND	6.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	NLE	187	ND	4.37 ER	13.6	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	40	50	29.60	NR	NR	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for total VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
U.S. Environmental Protection Agency Maximum Contaminant Level (2012)
LF = Low-flow sampling method used to collect sample
ER - Estimated result
J - Estimated concentration exceeds the MDL and is less than the RL
NA - Not analyzed NR - Not reported
ND - Not detected
NLE - No limit established
a/ Elevated sample detection limit due to difficult sample matrix.

Table 2
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				886MW02												886MW03							
WELL ID	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF1	LF1 Dup	LF2	LF2 Dup	LF3	LF3 Dup	LF4	LF4 Dup	LF5	LF5 Dup	LF6	LF6 Dup	886MW03	886MW03	886MW03	MW03 Dup	886MW03	886MW03	886MW03	886MW03
Date Collected				2/22/2010	2/22/2010	5/24/2010	5/24/2010	8/4/2010	8/4/2010	10/12/2010	10/12/2010	2/9/2011	2/9/2011	4/7/2011	4/7/2011	8/2/2007	10/12/2007	3/28/2008	3/28/2008	6/25/2008	9/16/2008	11/12/2008	2/11/2009
Volatile Organic Compounds (µg/L)																							
Acetone	6,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Methyl ethyl ketone (2-Butanone)	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Carbon Disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	0.27 J	0.28 J	0.32 J	0.28 J	0.28 J	0.31 J	0.26 J	0.24 J	0.23 J	0.23 J	0.31 J	0.33 J	ND	ND	ND	NA	ND	ND	ND	ND
Tetrachloroethylene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Toluene	600	1,000	--	0.43 J	0.48 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Xylenes (total)	1,000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
TICs*	500	NLE		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)																							
Total Petroleum Hydrocarbons	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semi-Volatile Organic Compounds (µg/L)																							
Acenaphthene	400	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Anthracene	2,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	3	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
1,1'-Biphenyl	400	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	6,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-*n* -octyl phthalate	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
2-Methylnaphthalene	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
4-Methylphenol	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Phenanthrene	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Pyrene	200	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	5.9	5.8	ND	ND	ND	ND	ND	5.8	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	8	10
Metals (µg/L)																							
Antimony	6	6	20.70	6.62 ER	ND	10.6	12.1	10.5	12.6	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	3	10	89.30	2.80 ER	2.73 ER	2.82 ER	3.01 ER	3.01 ER	3.51 ER	1.71	1.63	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
Barium	6,000	2,000	699.00	130	141	118	114	139	144	141	134	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	1	4	2.10	0.0446 ER	ND	0.141 ER	0.139 ER	0.0887 ER	0.092 ER	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4	5	9.50	5.53	5.33	0.973 ER	0.903 ER	1.28 ER	1.21 ER	1.68	1.15	3.7	3.8	4.7	4.6	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	70	100	191.00	1.55 ER	1.68 ER	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1,300	1,300	65.60	ND	ND	ND	1.26 ER	ND	1.27 ER	ND	ND	ND	ND	15.7	ND	NA	NA	NA	NA	NA	NA	NA	NA
Lead	5	15	22.70	ND	ND	2.95 ER	ND	ND	ND	ND	ND	ND	ND	ND	3.2	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	NLE	187	31.7	34.3	25.3	23.4	29.7	31.2	27.8	26	27.9	28.5	28.5	27.1	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	40	50	29.60	NR	NR	NR	NR	NR	NR	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for total VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

ER - Estimated result

J - Estimated concentration exceeds the MDL and is less than the RL

NA - Not analyzed NR - Not reported

ND - Not detected

NLE - No limit established

a/ Elevated sample detection limit due to difficult sample matrix.

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Site FTMM-66 Building 886 Former AST
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				886MW03									886MW04										
WELL ID	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	886MW03	886MW03	886MW03	LF1	LF2	LF3	LF4	LF5	LF6	886MW04	886MW04	886MW04	886MW04	886MW04	886MW04	886MW04	886MW04	886MW04	LF1	LF2
Date Collected				6/10/2009	9/28/2009	12/15/2009	2/22/2010	5/24/2010	8/5/2010	10/12/2010	2/10/2011	4/7/2011	8/2/2007	10/12/2007	3/28/2008	6/25/2008	9/16/2008	11/12/2008	2/11/2009	6/10/2009	9/28/2009	12/15/2009	2/24/2010	5/24/2010
Volatile Organic Compounds (µg/L)																							
Acetone	6,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone (2-Butanone)	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.26	ND	ND	ND	ND	ND
Tetrachloroethylene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	1,000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)																							
Total Petroleum Hydrocarbons	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semi-Volatile Organic Compounds (µg/L)																							
Acenaphthene	400	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	2,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	3	NLE	--	ND	1.4 J	1.8 J	ND	1.9 J	ND	ND	1.1 J	ND	ND	3.76 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl	400	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	6,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-*n* -octyl phthalate	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	43.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	112	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	200	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	7	ND	ND	ND	8.1	ND	ND	327	ND	ND	4	ND	ND	14	12	12	6	ND	ND	ND	64.2
Metals (µg/L)																							
Antimony	6	6	20.70	NA	NA	NA	9.92 ER	9.76 ER	10.7	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	5.56 ER
Arsenic	3	10	89.30	NA	NA	NA	1.77 ER	5.86	9.07	8.57	ND	8.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.750 ER
Barium	6,000	2,000	699.00	NA	NA	NA	47.2	20.3	22.1	38.6	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.38 ER	15
Beryllium	1	4	2.10	NA	NA	NA	ND	0.122 ER	0.135 ER	0.673	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.091 ER	0.195 ER
Cadmium	4	5	9.50	NA	NA	NA	1.72 ER	0.531 ER	1.12 ER	1.5	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Chromium	70	100	191.00	NA	NA	NA	ND	1.08 ER	10.2	59.2	ND	44.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.52	ND
Copper	1,300	1,300	65.60	NA	NA	NA	9.33	28.1	23	154	21.2	50.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.38 ER	ND
Lead	5	15	22.70	NA	NA	NA	ND	5.09	7.09	19.3	4.4	11.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Nickel	100	NLE	187	NA	NA	NA	1.81 ER	2.46 ER	6.52	15.4	ND	11.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.66 ER	1.81 ER
Selenium	40	50	29.60	NA	NA	NA	NR	NR	NR	1.67	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NR

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for total VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
U.S. Environmental Protection Agency Maximum Contaminant Level (2012)
LF = Low-flow sampling method used to collect sample
ER - Estimated result
J - Estimated concentration exceeds the MDL and is less than the RL
NA - Not analyzed NR - Not reported
ND - Not detected
NLE - No limit established
a/ Elevated sample detection limit due to difficult sample matrix.

Table 2
Historical Groundwater Analytical Results
Site FTMM-66 Building 886 Former AST
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				886MW04				886MW05																
WELL ID	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF3	LF4	LF5	LF6	886MW05	886MW05	886MW05	886MW05	886MW05	886MW05	886MW05	886MW05	886MW05	886MW05	LF1	LF1 Dup	LF2	LF3	LF4	LF5	LF6
Date Collected				8/5/2010	10/13/2010	2/11/2011	4/7/2011	8/2/2007	10/12/2007	3/28/2008	6/25/2008	9/16/2008	11/12/2008	2/11/2009	6/10/2009	9/28/2009	12/15/2009	2/24/2010	2/24/2010	5/24/2010	8/4/2010	10/12/2010	2/10/2011	4/7/2011
Volatile Organic Compounds (µg/L)																								
Acetone	6,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone (2-Butanone)	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	1,000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE		ND	ND	ND	ND	28	35	6	23	17	60	ND	3	95	ND	ND	ND	6	22	9	ND	ND
Total Petroleum Hydrocarbons (mg/L)																								
Total Petroleum Hydrocarbons	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semi-Volatile Organic Compounds (µg/L)																								
Acenaphthene	400	NLE	--	ND	ND	ND	ND	ND	2.88 J	ND	ND	ND	ND	ND	ND	1.72	ND	ND	ND	0.414	1.34	ND	ND	ND
Anthracene	2,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.401	ND	ND	ND	ND	0.268	ND	ND	ND
Bis(2-ethylhexyl) phthalate	3	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.7 B	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl	400	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	NLE	NLE	--	ND	ND	ND	ND	ND	2.05 J	ND	ND	ND	ND	ND	ND	1.9 J	ND	ND	ND	0.41 J	1.5 J	ND	ND	ND
Diethyl phthalate	6,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-*n* -octyl phthalate	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	300	NLE	--	ND	ND	ND	ND	ND	3.29 J	ND	ND	ND	ND	ND	ND	2.67	ND	ND	ND	0.552	2.13	ND	ND	ND
2-Methylnaphthalene	NLE	NLE	--	ND	ND	ND	ND	13.7	24.29	ND	ND	ND	11	ND	ND	0.91 J	ND	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	300	NLE	--	ND	ND	ND	ND	1.15 J	1.02 J	ND	ND	ND	ND	ND	ND	0.439	ND	ND	ND	ND	0.167	ND	ND	ND
Phenanthrene	NLE	NLE	--	ND	ND	ND	ND	ND	1.44 J	ND	ND	ND	ND	ND	ND	1.35	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	200	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	21	100	10.1	34	90	67	17	7	103.6	12.4	ND	ND	7.5	9.2	187.9	ND	4.3
Metals (µg/L)																								
Antimony	6	6	20.70	5.10 ER	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND
Arsenic	3	10	89.30	1.20 ER	0.66	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	2.78 ER	3.57 ER	ND	ND	3.2
Barium	6,000	2,000	699.00	34.8	53.4	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.69	6.95	3.83 ER	4.14 ER	15.2	ND	ND
Beryllium	1	4	2.10	0.229 ER	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.044 ER	ND	0.053 ER	ND	ND	ND	ND
Cadmium	4	5	9.50	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND
Chromium	70	100	191.00	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.46 ER	1.61 ER	ND	ND	ND	ND	ND
Copper	1,300	1,300	65.60	1.31 ER	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	2.27 ER	1.36	ND	ND
Lead	5	15	22.70	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	2.82 ER	ND	ND	ND	ND
Nickel	100	NLE	187	5.28	8.35	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.25 ER	1.85 ER	ND	ND	ND	ND	ND
Selenium	40	50	29.60	NR	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NR	NR	NR	ND	ND	ND

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for total VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

ER - Estimated result

J - Estimated concentration exceeds the MDL and is less than the RL

NA - Not analyzed NR - Not reported

ND - Not detected

NLE - No limit established

a/ Elevated sample detection limit due to difficult sample matrix.

Table 2
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Site FTMM-66 Building 886 Former AST
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Fort Monmouth, New Jersey

				886MW06		886RW01															886RW02		
WELL ID	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF5	LF6	886RW01	886RW01	886RW01	886RW01	886RW01	886RW01	886RW01	886RW01	886RW01	886RW01	LF1	LF2	LF3	LF4	LF5	LF6	886RW02	886RW02	886RW02
Date Collected				1/6/2011	4/7/2011	8/2/2007	10/11/2007	3/27/2008	6/25/2008	9/16/2008	11/12/2008	2/11/2009	6/10/2009	9/28/2009	12/16/2009	3/2/2010	5/25/2010	8/10/2010	10/14/2010	2/14/2011	4/11/2011	8/2/2007	10/11/2007	3/27/2008
Volatile Organic Compounds (µg/L)																							
Acetone	6,000	NLE	--	ND	ND	ND	ND	4.16	8.98	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	0.65 J	1.75 J	0.67 J	1.14	0.87	0.56	0.68	0.51	1.63	0.94	ND	0.30 J	ND	ND	ND	0.46 J	0.79 J	0.31 J	0.84 J
Methyl ethyl ketone (2-Butanone)	300	NLE	--	ND	ND	ND	ND	0.93 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	700	NLE	--	ND	0.68J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	5.81	9	3.34	3.05	1.84	1.5	0.29 J	1.32	2.5	ND	ND	ND	ND	ND	ND	ND	ND	0.46 J
Methyl *tert* -butyl ether	70	NLE	--	0.25J	0.54	ND	3.86	ND	10.14	4.3	4.83	2.86	7.13	1.11	0.33 J	ND	0.67	1.63	1.8	ND	ND	4.14	2.75	5.03
Tetrachloroethylene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1,000	--	ND	ND	ND	ND	ND	ND	ND	0.27	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	1,000	10,000	--	ND	ND	ND	1.92 J	2.09 J	1.02	1.16	0.97	ND	0.30 J	ND	0.27 J	ND	0.30 J	ND	0.27 J	ND	ND	ND	ND	0.88 J
TICs*	500	NLE		ND	ND	519	93	333	271	169	159	176	160	216	190	ND	179	100	75	ND	123	77	35	97
Total Petroleum Hydrocarbons (mg/L)																								
Total Petroleum Hydrocarbons	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semi-Volatile Organic Compounds (µg/L)																								
Acenaphthene	400	NLE	--	ND	0.123	3.21 J	3.59 J	ND	ND	ND	ND	ND	ND	2.07	2.74	ND	2.47	1.9	1.98	ND	2.13	ND	ND	ND
Anthracene	2,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.136	0.153	0.15	ND	0.149	ND	ND	ND
Bis(2-ethylhexyl) phthalate	3	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl	400	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	NLE	NLE	--	ND	ND	2.43 J	2.84 J	ND	ND	ND	ND	ND	ND	1.9 J	1.6 J	ND	2.5 J	2.1 J	2.1 J	ND	1.4 J	2.0 J	ND	ND
Diethyl phthalate	6,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-*n* -octyl phthalate	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.8	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	300	NLE	--	ND	ND	3.60 J	4.04 J	ND	ND	ND	ND	ND	ND	2.93	2.73	ND	2.88	2.46	2.38	ND	1.96	1.8 J	ND	ND
2-Methylnaphthalene	NLE	NLE	--	ND	ND	35.03	18.28	ND	ND	ND	ND	15	ND	4.4	9.6	ND	1.6	ND	ND	ND	18.3	16.05	18.48	ND
4-Methylphenol	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	300	NLE	--	0.167	0.275	1.67 J	1.34 J	ND	ND	ND	ND	ND	ND	0.994	0.871	ND	0.627	ND	ND	ND	0.663	ND	ND	ND
Phenanthrene	NLE	NLE	--	ND	ND	2.71 J	2.91 J	ND	ND	ND	ND	ND	ND	0.82	1.01	ND	0.875	0.224	0.171	ND	1.53	ND	ND	ND
Pyrene	200	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.347	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	313	301	516.23	30	135	391	424	433	776	441.4	7.2	135.3	46.1	69	ND	246.3	71	99	51.08
Metals (µg/L)																								
Antimony	6	6	20.70	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	8.67 ER	10.2	ND	ND	ND	NA	NA	NA
Arsenic	3	10	89.30	10.2 /a	16.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.39 ER	10.75	ND	5.9	ND	5.3	NA	NA	NA
Barium	6,000	2,000	699.00	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	24.8	41.7	59.8	54	ND	ND	NA	NA	NA
Beryllium	1	4	2.10	ND	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.080 ER	ND	ND	ND	ND	NA	NA	NA
Cadmium	4	5	9.50	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.789 ER	1.05 ER	0.812 ER	0.724	ND	ND	NA	NA	NA
Chromium	70	100	191.00	62.4 /a	61.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.40 ER	1.33 ER	1.87 ER	1.5	ND	ND	NA	NA	NA
Copper	1,300	1,300	65.60	ND	77.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.60 ER	ND	2.68 ER	1.64	ND	ND	NA	NA	NA
Lead	5	15	22.70	11 /a	11.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	2.50 ER	ND	ND	ND	ND	NA	NA	NA
Nickel	100	NLE	187	42.8 /a	33.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.95 ER	ND	1.61 ER	ND	ND	ND	NA	NA	NA
Selenium	40	50	29.60	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NR	NR	ND	ND	ND	NA	NA	NA

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for total VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
U.S. Environmental Protection Agency Maximum Contaminant Level (2012)
LF = Low-flow sampling method used to collect sample
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NA - Not analyzed NR - Not reported
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Site FTMM-66 Building 886 Former AST
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				886RW02														886RW03					
WELL ID	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	886RW02	886RW02	RW02 Dup	886RW02	886RW02	886RW02	886RW02	886RW02	LF1	LF2	LF3	LF4	LF5	LF5 Dup	LF6	886RW03	886RW03	886RW03	886RW03	886RW03	886RW03
Date Collected				6/25/2008	9/16/2008	9/16/2008	11/12/2008	2/11/2009	6/10/2009	9/28/2009	12/16/2009	3/2/2010	5/25/2010	8/10/2010	10/14/2010	2/14/2011	2/14/2011	4/11/2011	8/2/2007	10/11/2007	3/27/2008	6/25/2008	9/16/2008	11/12/2008
Volatile Organic Compounds (µg/L)																							
Acetone	6,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	0.3	0.98	ND	ND	0.35 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone (2-Butanone)	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	1.32	5.26	5.62	2.9	4.07	0.52	1.07	0.75	ND	ND	0.45 J	1.22	ND	ND	ND	ND	1.71 J	ND	ND	ND	ND
Tetrachloroethylene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	1,000	10,000	--	ND	ND	ND	ND	ND	ND	ND	0.22 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE		ND	46	30	36	41	ND	29	75	ND	ND	ND	ND	ND	ND	ND	ND	7	ND	ND	12	ND
Total Petroleum Hydrocarbons (mg/L)																								
Total Petroleum Hydrocarbons	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semi-Volatile Organic Compounds (µg/L)																								
Acenaphthene	400	NLE	--	ND	ND	ND	ND	ND	ND	2.12	2.03	ND	0.146	ND	0.166	0.126	ND	0.207	ND	ND	ND	ND	ND	ND
Anthracene	2,000	NLE	--	ND	ND	ND	ND	ND	ND	0.139	0.22	ND	ND	ND	0.17	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	3	NLE	--	ND	ND	ND	ND	ND	ND	ND	1.6 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl	400	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	NLE	NLE	--	ND	ND	ND	ND	ND	ND	0.98 J	0.90 J	ND	ND	ND	0.64 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	6,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-*n* -octyl phthalate	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	3.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	300	NLE	--	ND	ND	ND	ND	ND	ND	2.05	2.38	ND	ND	ND	0.222	ND	ND	0.218	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NLE	NLE	--	ND	ND	ND	ND	15	ND	3.6	7.9	ND	ND	ND	ND	ND	ND	1.1	ND	ND	ND	ND	ND	ND
4-Methylphenol	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	300	NLE	--	ND	ND	ND	ND	ND	ND	0.328	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	NLE	NLE	--	ND	ND	ND	ND	ND	ND	0.204	0.351	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	200	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	14	132	185	50	400	ND	68.6	94.7	ND	5.7	ND	5.3	ND	ND	4.2	ND	ND	ND	ND	ND	7
Metals (µg/L)																								
Antimony	6	6	20.70	NA	NA	NA	NA	NA	NA	NA	NA	ND	8.76 ER	12.8	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Arsenic	3	10	89.30	NA	NA	NA	NA	NA	NA	NA	NA	4.46 ER	9.68	ND	18.56	ND	ND	5.5	NA	NA	NA	NA	NA	NA
Barium	6,000	2,000	699.00	NA	NA	NA	NA	NA	NA	NA	NA	41	42.1	45.7	42.8	ND	ND	ND	NA	NA	NA	NA	NA	NA
Beryllium	1	4	2.10	NA	NA	NA	NA	NA	NA	NA	NA	0.065 ER	0.238 ER	0.085 ER	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Cadmium	4	5	9.50	NA	NA	NA	NA	NA	NA	NA	NA	ND	2.42	2.00 ER	1.38	ND	ND	ND	NA	NA	NA	NA	NA	NA
Chromium	70	100	191.00	NA	NA	NA	NA	NA	NA	NA	NA	3.97 ER	4.52 ER	5.72	2.13	ND	ND	ND	NA	NA	NA	NA	NA	NA
Copper	1,300	1,300	65.60	NA	NA	NA	NA	NA	NA	NA	NA	6.66	16.1	5.82	3.32	ND	ND	ND	NA	NA	NA	NA	NA	NA
Lead	5	15	22.70	NA	NA	NA	NA	NA	NA	NA	NA	ND	5.42	4.96 ER	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Nickel	100	NLE	187	NA	NA	NA	NA	NA	NA	NA	NA	10.5	12.4	11	5.41	ND	ND	11.5	NA	NA	NA	NA	NA	NA
Selenium	40	50	29.60	NA	NA	NA	NA	NA	NA	NA	NA	NR	NR	NR	1.68	ND	ND	ND	NA	NA	NA	NA	NA	NA

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for total VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
U.S. Environmental Protection Agency Maximum Contaminant Level (2012)
LF = Low-flow sampling method used to collect sample
ER - Estimated result
J - Estimated concentration exceeds the MDL and is less than the RL
NA - Not analyzed NR - Not reported
ND - Not detected
NLE - No limit established
a/ Elevated sample detection limit due to difficult sample matrix.

Table 2
Historical Groundwater Analytical Results
Site FTMM-66 Building 886 Former AST
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Fort Monmouth, New Jersey

				886RW03												886RW04								
WELL ID	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	886RW03	886RW03	886RW03	886RW03	LF1	LF2	LF2 Dup	LF3	LF4	LF5	LF6	LF6 Dup	886RW04	886RW04	RW04 Dup	886RW04	886RW04	886RW04	886RW04	886RW04	886RW04
Date Collected				2/11/2009	6/10/2009	9/28/2009	12/16/2009	2/22/2010	5/25/2010	5/25/2010	8/5/2010	10/12/2010	2/10/2011	4/8/2011	4/8/2011	8/2/2007	10/11/2007	10/11/2007	3/27/2008	6/25/2008	9/16/2008	11/12/2008	2/11/2009	6/10/2009
Volatile Organic Compounds (µg/L)																								
Acetone	6,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone (2-Butanone)	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.28	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	1.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.22	4.71	4.78	15.92	11.48	6.65	4.62	9.93	6.85
Tetrachloroethylene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.31	ND	ND	ND
Xylenes (total)	1,000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.18	0.65	ND	ND	ND
TICs*	500	NLE		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	102	23	14	97	81	72	59	35	54
Total Petroleum Hydrocarbons (mg/L)																								
Total Petroleum Hydrocarbons	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semi-Volatile Organic Compounds (µg/L)																								
Acenaphthene	400	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.20 J	ND	ND	ND	ND	ND
Anthracene	2,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	3	NLE	--	ND	ND	ND	ND	18.5 B	ND	4.2	ND	ND	ND	ND	ND	ND	ND	ND	2.68 J	ND	ND	ND	ND	ND
1,1'-Biphenyl	400	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	6,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-*n* -octyl phthalate	100	NLE	--	ND	ND	ND	3.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.30 J	ND	ND	ND	ND	ND	ND	1	ND
2-Methylnaphthalene	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15.63	7.14 J	10.23	ND	ND	ND	ND	ND	ND
4-Methylphenol	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	200	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	19	6	ND	ND	ND	ND	4.2	ND	ND	54.6	ND	ND	201	62	106	196.46	ND	339	6	68	161
Metals (µg/L)																								
Antimony	6	6	20.70	NA	NA	NA	NA	9.54 ER	5.92 ER	ND	6.76 ER	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	3	10	89.30	NA	NA	NA	NA	ND	1.65 ER	1.61 ER	1.17 ER	1.46	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	6,000	2,000	699.00	NA	NA	NA	NA	128	18.4	17.6	28	35.2	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	1	4	2.10	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4	5	9.50	NA	NA	NA	NA	ND	ND	ND	ND	0.409	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	70	100	191.00	NA	NA	NA	NA	ND	ND	ND	2.90 ER	19.1	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1,300	1,300	65.60	NA	NA	NA	NA	ND	ND	ND	3.38 ER	2.22	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	5	15	22.70	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	NLE	187	NA	NA	NA	NA	3.04 ER	ND	ND	0.973 ER	2.92	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	40	50	29.60	NA	NA	NA	NA	NR	NR	NR	NR	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for total VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
U.S. Environmental Protection Agency Maximum Contaminant Level (2012)
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Table 2
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Fort Monmouth, New Jersey

				886RW04								886RW05													
WELL ID	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	886RW04	886RW04	LF1	LF2	LF3	LF4	LF5	LF6	886RW05	886RW05	886RW05	886RW05	886RW05	886RW05	886RW05	886RW05	886RW05	RW05 Dup	886RW05	RW05 Dup	LF1	LF2
Date Collected				9/28/2009	12/16/2009	3/2/2010	5/25/2010	8/9/2010	10/14/2010	2/11/2011	4/11/2011	8/2/2007	10/11/2007	3/27/2008	6/25/2008	9/16/2008	11/12/2008	2/11/2009	6/10/2009	9/28/2009	9/28/2009	12/16/2009	12/16/2009	2/24/2010	5/25/2010
Volatile Organic Compounds (µg/L)																									
Acetone	6,000	NLE	--	ND	ND	ND	ND	ND	8.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone (2-Butanone)	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	4.93	1.65	ND	0.51	0.73	1.01	ND	0.81	ND	ND	2.36	ND	0.36	0.33	1.3	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1,000	--	ND	ND	ND	ND	ND	0.46 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	1,000	10,000	--	ND	ND	ND	ND	ND	0.25 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE		68	36	ND	ND	31	49	13	22	ND	ND	4	ND	4	ND	4	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)																									
Total Petroleum Hydrocarbons	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semi-Volatile Organic Compounds (µg/L)																									
Acenaphthene	400	NLE	--	0.665	0.656	ND	0.441	0.804	1	ND	0.636	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	2,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	3	NLE	--	ND	2.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl	400	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	NLE	NLE	--	0.58 J	0.65 J	ND	ND	0.86 J	0.89 J	ND	0.50 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	6,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-*n* -octyl phthalate	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.8	ND	ND
Fluorene	300	NLE	--	0.622	0.945	ND	0.351	1.19	1.09	ND	0.769	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.53 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	300	NLE	--	ND	ND	ND	ND	0.118	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	0.176	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	200	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	159.5	64.9	4.2	ND	10.9	62.5	108.9	4.7	ND	20	10	ND	60	13	69	21	ND	4	ND	ND	ND	ND
Metals (µg/L)																									
Antimony	6	6	20.70	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.21 ER	ND
Arsenic	3	10	89.30	NA	NA	5.02	6.6	ND	4.8	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	5.28
Barium	6,000	2,000	699.00	NA	NA	28.5	27.6	23.1	31.9	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.66 ER	18.4
Beryllium	1	4	2.10	NA	NA	0.104 ER	0.307 ER	0.117 ER	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.058 ER	0.174 ER
Cadmium	4	5	9.50	NA	NA	1.36 ER	1.08 ER	0.864 ER	1.01	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	1.08 ER
Chromium	70	100	191.00	NA	NA	5.99	22.2	9.06	3.25	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.22	13.7
Copper	1,300	1,300	65.60	NA	NA	6.12	5.61	4.99 ER	3.04	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.7	18.9
Lead	5	15	22.70	NA	NA	3.70 ER	5.56	2.93 ER	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	4.79 ER
Nickel	100	NLE	187	NA	NA	6.01	8.32	4.61 ER	18.5	18.4	11.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.59 ER	1.31 ER
Selenium	40	50	29.60	NA	NA	NR	NR	NR	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NR

Notes:

Shaded cells = concentrations exceed the NJDEP GWQS

*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for total VOCs and SVOCs. No individual compound can exceed 100 µg/L.

NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)

U.S. Environmental Protection Agency Maximum Contaminant Level (2012)

LF = Low-flow sampling method used to collect sample

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NA - Not analyzed NR - Not reported

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Site FTMM-66 Building 886 Former AST
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				886RW05						886RW06													
WELL ID	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF3	LF3 Dup	LF4	LF4 Dup	LF5	LF6	886RW06	886RW06	886RW06	886RW06	886RW06	886RW06	886RW06	886RW06	886RW06	886RW06	LF1	LF2	LF3	LF4	LF4 Dup
Date Collected				8/9/2010	8/9/2010	10/14/2010	10/14/2010	2/11/2011	4/8/2011	8/2/2007	10/11/2007	3/28/2008	6/25/2008	9/16/2008	11/12/2008	2/11/2009	6/10/2009	9/28/2009	12/15/2009	2/22/2010	5/25/2010	8/5/2010	10/13/2010	10/13/2010
Volatile Organic Compounds (µg/L)																								
Acetone	6,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone (2-Butanone)	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	0.27 J	0.26 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	1,000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)																								
Total Petroleum Hydrocarbons	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semi-Volatile Organic Compounds (µg/L)																								
Acenaphthene	400	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	2,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	3	NLE	--	ND	10.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.7 J	ND	ND	ND	ND	ND
1,1'-Biphenyl	400	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	6,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-*n* -octyl phthalate	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	200	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	ND	ND	9.3	ND	ND	17	ND	ND	100	37	23	14	ND	ND	ND	ND	ND	4.9	ND
Metals (µg/L)																								
Antimony	6	6	20.70	6.83 ER	9.38 ER	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Arsenic	3	10	89.30	6.5	6	10.42	11.13	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.35 ER	4.14 ER	5.3	2.22	2.27
Barium	6,000	2,000	699.00	19.4	21.6	44.6	45.1	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	28.1	20.7	31.1	26.8	27
Beryllium	1	4	2.10	0.120 ER	0.124 ER	1.23	1.2	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.124 ER	0.259 ER	ND	ND
Cadmium	4	5	9.50	2.68	3	3.66	3.45	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
Chromium	70	100	191.00	8.45	9.68	81	79.1	ND	15.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.47 ER	9.82	26.5	7.9	7.71
Copper	1,300	1,300	65.60	13.7	15.4	54	55.4	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.20 ER	6.45	16.1	4.92	5.02
Lead	5	15	22.70	ND	2.91 ER	15.1	12.2	ND	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	4.78 ER	9.54	ND	3.45
Nickel	100	NLE	187	2.94 ER	2.87 ER	8.44	8.73	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.60 ER	2.02 ER	4.63 ER	2.7	2.96
Selenium	40	50	29.60	NR	NR	1.43	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NR	NR	1.5	ND

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for total VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
U.S. Environmental Protection Agency Maximum Contaminant Level (2012)
LF = Low-flow sampling method used to collect sample
ER - Estimated result
J - Estimated concentration exceeds the MDL and is less than the RL
NA - Not analyzed NR - Not reported
ND - Not detected
NLE - No limit established
a/ Elevated sample detection limit due to difficult sample matrix.

Table 2
Historical Groundwater Analytical Results
Site FTMM-66 Building 886 Former AST
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

				886RW06		886RW07																886RW08	
WELL ID	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	LF5	LF6	886RW07	886RW07	886RW07	886RW07	886RW07	886RW07	886RW07	886RW07	886RW07	886RW07	LF1	LF2	LF3	LF4	LF5	LF6	LF6 Dup	886RW08	886RW08
Date Collected				2/11/2011	4/8/2011	8/2/2007	10/12/2007	3/28/2008	6/25/2008	9/16/2008	11/12/2008	2/11/2009	6/10/2009	9/28/2009	12/15/2009	3/2/2010	5/25/2010	8/9/2010	10/13/2010	2/11/2011	4/11/2011	4/11/2011	8/2/2007	10/12/2007
Volatile Organic Compounds (µg/L)																								
Acetone	6,000	NLE	--	ND	ND	ND	ND	ND	2.33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.11
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone (2-Butanone)	300	NLE	--	ND	ND	ND	ND	ND	3.37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	0.49 J	ND	0.37	0.36	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1,000	--	ND	ND	ND	ND	ND	0.73	1.13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	1,000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE		ND	ND	ND	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)																								
Total Petroleum Hydrocarbons	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semi-Volatile Organic Compounds (µg/L)																								
Acenaphthene	400	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	2,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	3	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl	400	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	6,000	NLE	--	ND	ND	ND	ND	ND	3.0 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-*n* -octyl phthalate	100	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	200	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	ND	ND	9	ND	ND	7	5	32	33	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	6	17
Metals (µg/L)																								
Antimony	6	6	20.70	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	5.32 ER	7.46 ER	ND	ND	ND	ND	NA	NA
Arsenic	3	10	89.30	ND	4.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.28 ER	3.16 ER	ND	4.27	ND	3.7	4.3	NA	NA
Barium	6,000	2,000	699.00	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.79	6.28	7.66	20.1	ND	ND	ND	NA	NA
Beryllium	1	4	2.10	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.045 ER	0.113 ER	ND	ND	ND	ND	NA	NA
Cadmium	4	5	9.50	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.09 ER	1.09 ER	0.503 ER	0.859	ND	ND	ND	NA	NA
Chromium	70	100	191.00	ND	27.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.65 ER	2.78 ER	8.57	24.1	ND	22.6	23.7	NA	NA
Copper	1,300	1,300	65.60	ND	10.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.2	14.1	11.3	31.9	10.4	18.4	19.8	NA	NA
Lead	5	15	22.70	ND	7.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	2.62 ER	8.3	ND	5.4	5.5	NA	NA
Nickel	100	NLE	187	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.52 ER	0.556 ER	4.60 ER	4.93	ND	ND	ND	NA	NA
Selenium	40	50	29.60	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NR	NR	ND	ND	ND	ND	NA	NA

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for total VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
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Table 2
Historical Groundwater Analytical Results
Site FTMM-66 Building 886 Former AST
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Fort Monmouth, New Jersey

				886RW08														
WELL ID	**NJDEP GWQS**	**USEPA MCL**	**Weston 1995 Background (Main Post)**	886RW08	886RW08	886RW08	886RW08	886RW08	886RW08	886RW08	886RW08	LF1	LF1 Dup	LF2	LF3	LF4	LF5	LF6
Date Collected				3/28/2008	6/25/2008	9/16/2008	11/12/2008	2/11/2009	6/10/2009	9/28/2009	12/15/2009	3/2/2010	3/2/2010	5/25/2010	8/5/2010	10/13/2010	2/11/2011	4/8/2011
Volatile Organic Compounds (µg/L)																		
Acetone	6,000	NLE	--	2.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone (2-Butanone)	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	700	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	700	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl *tert* -butyl ether	70	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	1	5	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	600	1,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	1,000	10,000	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (mg/L)																		
Total Petroleum Hydrocarbons	NLE	NLE	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semi-Volatile Organic Compounds (µg/L)																		
Acenaphthene	400	NLE	--	ND	ND	ND	ND	ND	ND	0.158	ND	ND	ND	ND	ND	ND	ND	0.232
Anthracene	2,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	3	NLE	--	ND	ND	ND	ND	ND	ND	3.4	ND	ND	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl	400	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	6,000	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-*n* -octyl phthalate	100	NLE	--	ND	ND	ND	ND	ND	ND	2.5	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	300	NLE	--	ND	ND	ND	ND	ND	ND	0.137	ND	ND	ND	ND	ND	ND	ND	0.219
2-Methylnaphthalene	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	300	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	NLE	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	200	NLE	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TICs*	500	NLE	--	241.85	ND	36	34	19	22	4.1	4.1	ND	ND	ND	ND	ND	ND	ND
Metals (µg/L)																		
Antimony	6	6	20.70	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	8.41 ER	7.60 ER	ND	ND	ND
Arsenic	3	10	89.30	NA	NA	NA	NA	NA	NA	NA	NA	1.06 ER	1.10 ER	3.59 ER	3.72 ER	4.88	ND	3.6
Barium	6,000	2,000	699.00	NA	NA	NA	NA	NA	NA	NA	NA	8.95	8.65	10.4	22.8	19.4	ND	ND
Beryllium	1	4	2.10	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.080 ER	0.261 ER	ND	ND	ND
Cadmium	4	5	9.50	NA	NA	NA	NA	NA	NA	NA	NA	0.861 ER	0.759 ER	0.984 ER	1.39 ER	1.12	ND	ND
Chromium	70	100	191.00	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	5.85	18.8	26.4	10.5	ND
Copper	1,300	1,300	65.60	NA	NA	NA	NA	NA	NA	NA	NA	10.6	9.99	12	30.4	13.7	ND	ND
Lead	5	15	22.70	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	3.75 ER	5.89	5.87	ND	ND
Nickel	100	NLE	187	NA	NA	NA	NA	NA	NA	NA	NA	0.717 ER	0.793 ER	2.49 ER	5.43	6.04	ND	ND
Selenium	40	50	29.60	NA	NA	NA	NA	NA	NA	NA	NA	NR	NR	NR	NR	ND	ND	ND

Notes:
Shaded cells = concentrations exceed the NJDEP GWQS
*TICs - Tentatively identified compounds, cannot exceed 500 µg/L for total VOCs and SVOCs. No individual compound can exceed 100 µg/L.
NJDEP Ground Water Quality Criteria as per N.J.A.C. 7:9-6 (July 22, 2010)
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LF = Low-flow sampling method used to collect sample
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NA - Not analyzed NR - Not reported
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Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-66 Building 886 Former AST
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	886MW01	886MW02	886MW03	886MW04	886MW05	886RW01			886RW02	886RW03	886RW04	886RW05
Sample ID			FTMM-66-GW-886MW01	FTMM-66-GW-886MW02	FTMM-66-GW-886MW03	FTMM-66-GW-886MW04	FTMM-66-GW-886MW05	FTMM-66-GW-886RW01	FTMM-66-GW-886RW01-11.55	FTMM-66-GW-886RW01-11.9	FTMM-66-GW-886RW02	FTMM-66-GW-886RW03	FTMM-66-GW-886RW04	FTMM-66-GW-886RW05
Sample Date			8/23/2013	8/22/2013	8/22/2013	8/22/2013	8/22/2013	8/23/2013	10/3/2014	11/23/2015	8/22/2013	8/22/2013	8/22/2013	8/22/2013
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS
Volatile Organic Compounds (µg/l)														
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	30	200	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	3	5	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,1-Dichloroethane	50	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,1-Dichloroethene	1	7	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,1-Dichloropropene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	9	70	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,2-Dibromoethane	0.03	0.05	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	600	600	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,2-Dichloroethane	2	5	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,2-Dichloropropane	1	5	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	600	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,3-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	75	75	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
2,2-Dichloropropane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
2-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Acetone	6,000	NLE	< 5	< 5	**1.8 J**	**1.4 J**	**1.6 J**	**2.1 J**	NA	NA	**1.4 J**	< 5	**3.3 J**	< 5
Benzene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Bromobenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Bromochloromethane	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Bromodichloromethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Bromoform	4	80	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Carbon tetrachloride	1	5	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Chlorobenzene	50	100	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Chlorodibromomethane	1	80	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Chloroethane	5	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Chloroform	70	80	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Cis-1,2-Dichloroethene	70	70	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Cymene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Ethyl benzene	700	700	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Hexachlorobutadiene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Isopropylbenzene	700	NLE	< 1	< 1	< 1	< 1	**0.34 J**	**0.32 J**	NA	NA	< 1	< 1	< 1	< 1
Meta/Para Xylene	1,000	NLE	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	< 2	< 2	< 2	< 2
Methyl bromide	10	NLE	**0.3 J**	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Methyl butyl ketone	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	NA	NA	< 5	< 5	< 5	< 5
Methyl chloride	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Methyl ethyl ketone	300	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Methyl isobutyl ketone	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Methylene chloride	3	5	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Naphthalene	300	NLE	< 1	< 1	< 1	< 1	**0.21 J**	< 1	NA	NA	< 1	< 1	< 1	< 1
n-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Ortho Xylene	1,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
p-Chlorotoluene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Propylbenzene	100	NLE	< 1	< 1	< 1	< 1	**0.46 J**	**0.3 J**	NA	NA	< 1	< 1	< 1	< 1
sec-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Styrene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
tert-Butylbenzene	100	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Tetrachloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Toluene	600	1,000	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Total TIC, Volatile	500	NLE	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND
Total Xylenes	1,000	10,000	< 3	< 3	< 3	< 3	< 3	< 3	NA	NA	< 3	< 3	< 3	< 3
Trans-1,2-Dichloroethene	100	100	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Trichloroethene	1	5	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Trichlorofluoromethane	2,000	NLE	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1
Vinyl chloride	1	2	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA	< 1	< 1	< 1	< 1

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-66 Building 886 Former AST
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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	886MW01	886MW02	886MW03	886MW04	886MW05	886RW01			886RW02	886RW03	886RW04	886RW05
Sample ID			FTMM-66-GW-886MW01	FTMM-66-GW-886MW02	FTMM-66-GW-886MW03	FTMM-66-GW-886MW04	FTMM-66-GW-886MW05	FTMM-66-GW-886RW01	FTMM-66-GW-886RW01-11.55	FTMM-66-GW-886RW01-11.9	FTMM-66-GW-886RW02	FTMM-66-GW-886RW03	FTMM-66-GW-886RW04	FTMM-66-GW-886RW05
Sample Date			8/23/2013	8/22/2013	8/22/2013	8/22/2013	8/22/2013	8/23/2013	10/3/2014	11/23/2015	8/22/2013	8/22/2013	8/22/2013	8/22/2013
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS
Semivolatile Organic Compounds (µg/l)														
1,2,4-Trichlorobenzene	9	70	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
1,2-Dichlorobenzene	600	600	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
1,2-Diphenylhydrazine	20	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
1,3-Dichlorobenzene	600	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
1,4-Dichlorobenzene	75	75	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
2,4,5-Trichlorophenol	700	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
2,4,6-Trichlorophenol	20	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
2,4-Dichlorophenol	20	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
2,4-Dimethylphenol	100	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
2,4-Dinitrophenol	40	NLE	< 25	< 25	< 25	< 25	< 25	< 25	< 26	< 25 UJ	< 25	< 25	< 25	< 25
2,4-Dinitrotoluene	10	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
2,6-Dinitrotoluene	10	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
2-Chloronaphthalene	600	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
2-Chlorophenol	40	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
2-Methylnaphthalene	30	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
2-Methylphenol	100	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
2-Nitroaniline	100	NLE	< 25	< 25	< 25	< 25	< 25	< 25	< 26	< 25	< 25	< 25	< 25	< 25
2-Nitrophenol	100	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
3,3'-Dichlorobenzidine	30	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3 UJ	< 5	< 5	< 5	< 5	< 5
3+4-Methylphenol	NLE	NLE	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	< 10	< 10	< 10	< 10
3-Nitroaniline	100	NLE	< 25	< 25	< 25	< 25	< 25	< 25	< 26	< 25 UJ	< 25	< 25	< 25	< 25
4,6-Dinitro-2-methylphenol	1	NLE	< 25	< 25	< 25	< 25	< 25	< 25	< 26	< 25 UJ	< 25	< 25	< 25	< 25
4-Bromophenyl phenyl ether	100	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
4-Chloro-3-methylphenol	100	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
4-Chloroaniline	30	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5 UJ	< 5	< 5	< 5	< 5
4-Chlorophenyl phenyl ether	100	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
4-Methylphenol	NLE	NLE	NA	NA	NA	NA	NA	NA	< 11	NA	NA	NA	NA	NA
4-Nitroaniline	5	NLE	< 25	< 25	< 25	< 25	< 25	< 25	< 26	< 25	< 25	< 25	< 25	< 25
4-Nitrophenol	100	NLE	< 25	< 25	< 25	< 25	< 25	< 25	< 26	< 25	< 25	< 25	< 25	< 25
Acenaphthene	400	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Acenaphthylene	100	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Anthracene	2,000	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Benzidine	20	NLE	< 100	< 100	< 100	< 100	< 100	< 100	< 110 UJ	< 100	< 100	< 100	< 100	< 100
Benzo(a)anthracene	0.1	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Benzo(a)pyrene	0.1	0.2	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Benzo(b)fluoranthene	0.2	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Benzo(ghi)perylene	100	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Benzo(k)fluoranthene	0.5	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Benzyl alcohol	2,000	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Bis(2-Chloroethoxy)methane	100	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Bis(2-Chloroethyl)ether	7	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Bis(2-Chloroisopropyl)ether	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Bis(2-Ethylhexyl)phthalate	3	6	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Butyl benzyl phthalate	100	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Carbazole	100	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Chrysene	5	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Cresol	NLE	NLE	NA	NA	NA	NA	NA	NA	NA	< 10	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.3	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Dibenzofuran	100	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Diethyl phthalate	6,000	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Dimethyl phthalate	100	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Di-n-butylphthalate	700	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Di-n-octylphthalate	100	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Fluoranthene	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Fluorene	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Hexachlorobenzene	0.02	1	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Hexachlorobutadiene	1	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Hexachlorocyclopentadiene	40	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Hexachloroethane	7	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Indeno(1,2,3-cd)pyrene	0.2	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Isophorone	40	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Naphthalene	300	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Nitrobenzene	6	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
N-Nitrosodimethylamine	0.8	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
N-Nitroso-di-n-propylamine	10	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
N-Nitrosodiphenylamine	10	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Pentachlorophenol	0.3	1	< 25	< 25	< 25	< 25	< 25	< 25	< 26	< 25	< 25	< 25	< 25	< 25
Phenanthrene	100	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Phenol	2,000	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
Pyrene	200	NLE	< 5	< 5	< 5	< 5	< 5	< 5	< 5.3	< 5	< 5	< 5	< 5	< 5
TIC SVOCs (mg/l)														
Total TIC, Semi-Volatile	500	NLE	**64.2**	**14 J**	**12 J**	**65 JN**	**18.3 J**	**878.9**	**15.4 J**	**18 JN**	**39.7 J**	ND	**15 J**	ND
Inorganics (µg/l)														
Lead	5	15	< 2	< 2	**1.9 J**	< 2	< 2	< 2	NA	NA	< 2	**1.9 J**	**0.863 J**	**2.2 J**

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	886RW05	886RW06				886RW07	886RW08		
Sample ID			FTMM-66-GW-886RW105	FTMM-66-GW-886RW06	FTMM-66-GW-886RW06-10.12	FTMM-66-GW-886RW106-10.12	FTMM-66-GW-886RW06-8.75	FTMM-66-GW-886RW07	FTMM-66-GW-886RW08	FTMM-66-GW-886RW08-11.22	FTMM-66-GW-886RW08-11.2
Sample Date			8/22/2013	8/22/2013	10/3/2014	10/3/2014	11/23/2015	8/22/2013	8/22/2013	10/3/2014	11/20/2015
QA/QC			DU	SA	SA	DU	SA	SA	SA	SA	SA
Sample Method			LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS
Volatile Organic Compounds (µg/l)											
1,1,1,2-Tetrachloroethane	1	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,1,1-Trichloroethane	30	200	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,1,2,2-Tetrachloroethane	1	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,1,2-Trichloroethane	3	5	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,1-Dichloroethane	50	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,1-Dichloroethene	1	7	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,1-Dichloropropene	100	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,2,3-Trichlorobenzene	100	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,2,3-Trichloropropane	0.03	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,2,4-Trichlorobenzene	9	70	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,2,4-Trimethylbenzene	100	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,2-Dibromo-3-chloropropane	0.02	0.2	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,2-Dibromoethane	0.03	0.05	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,2-Dichlorobenzene	600	600	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,2-Dichloroethane	2	5	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,2-Dichloropropane	1	5	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,3,5-Trimethylbenzene	100	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,3-Dichlorobenzene	600	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,3-Dichloropropane	100	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
1,4-Dichlorobenzene	75	75	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
2,2-Dichloropropane	100	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
2-Chlorotoluene	100	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Acetone	6,000	NLE	< 5	< 5	NA	NA	NA	< 5	**1.6 J**	NA	NA
Benzene	1	5	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Bromobenzene	100	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Bromochloromethane	100	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Bromodichloromethane	1	80	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Bromoform	4	80	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Carbon tetrachloride	1	5	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Chlorobenzene	50	100	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Chlorodibromomethane	1	80	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Chloroethane	5	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Chloroform	70	80	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Cis-1,2-Dichloroethene	70	70	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Cis-1,3-Dichloropropene	1	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Cymene	100	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Dichlorodifluoromethane	1,000	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Ethyl benzene	700	700	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Hexachlorobutadiene	1	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Isopropylbenzene	700	NLE	< 1	< 1	NA	NA	NA	< 1	**0.31 J**	NA	NA
Meta/Para Xylene	1,000	NLE	< 2	< 2	NA	NA	NA	< 2	< 2	NA	NA
Methyl bromide	10	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Methyl butyl ketone	300	NLE	< 5	< 5	NA	NA	NA	< 5	< 5	NA	NA
Methyl chloride	100	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Methyl ethyl ketone	300	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Methyl isobutyl ketone	100	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Methyl Tertbutyl Ether	70	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Methylene chloride	3	5	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Naphthalene	300	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
n-Butylbenzene	100	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Ortho Xylene	1,000	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
p-Chlorotoluene	100	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Propylbenzene	100	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
sec-Butylbenzene	100	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Styrene	100	100	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
tert-Butylbenzene	100	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Tetrachloroethene	1	5	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Toluene	600	1,000	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Total TIC, Volatile	500	NLE	ND	ND	NA	NA	NA	ND	ND	NA	NA
Total Xylenes	1,000	10,000	< 3	< 3	NA	NA	NA	< 3	< 3	NA	NA
Trans-1,2-Dichloroethene	100	100	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Trans-1,3-Dichloropropene	1	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Trichloroethene	1	5	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Trichlorofluoromethane	2,000	NLE	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA
Vinyl chloride	1	2	< 1	< 1	NA	NA	NA	< 1	< 1	NA	NA

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Loc ID	NJDEP GWQS	2015-06 USEPA MCL	886RW05	886RW06				886RW07	886RW08		
Sample ID			FTMM-66-GW-886RW105	FTMM-66-GW-886RW06	FTMM-66-GW-886RW06-10.12	FTMM-66-GW-886RW106-10.12	FTMM-66-GW-886RW06-8.75	FTMM-66-GW-886RW07	FTMM-66-GW-886RW08	FTMM-66-GW-886RW08-11.22	FTMM-66-GW-886RW08-11.2
Sample Date			8/22/2013	8/22/2013	10/3/2014	10/3/2014	11/23/2015	8/22/2013	8/22/2013	10/3/2014	11/20/2015
QA/QC			DU	SA	SA	DU	SA	SA	SA	SA	SA
Sample Method			LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS	LFPS
Semivolatile Organic Compounds (µg/l)											
1,2,4-Trichlorobenzene	9	70	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
1,2-Dichlorobenzene	600	600	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
1,2-Diphenylhydrazine	20	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
1,3-Dichlorobenzene	600	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
1,4-Dichlorobenzene	75	75	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
2,4,5-Trichlorophenol	700	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
2,4,6-Trichlorophenol	20	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
2,4-Dichlorophenol	20	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
2,4-Dimethylphenol	100	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
2,4-Dinitrophenol	40	NLE	< 25	< 25	< 28	< 28	< 25 UJ	< 25	< 25	< 28	< 25
2,4-Dinitrotoluene	10	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
2,6-Dinitrotoluene	10	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
2-Chloronaphthalene	600	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
2-Chlorophenol	40	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
2-Methylnaphthalene	30	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
2-Methylphenol	100	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
2-Nitroaniline	100	NLE	< 25	< 25	< 28	< 28	< 25	< 25	< 25	< 28	< 25
2-Nitrophenol	100	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
3,3'-Dichlorobenzidine	30	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
3+4-Methylphenol	NLE	NLE	< 10	< 10	NA	NA	NA	< 10	< 10	NA	NA
3-Nitroaniline	100	NLE	< 25	< 25	< 28	< 28	< 25 UJ	< 25	< 25	< 28	< 25
4,6-Dinitro-2-methylphenol	1	NLE	< 25	< 25	< 28	< 28	< 25 UJ	< 25	< 25	< 28	< 25
4-Bromophenyl phenyl ether	100	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
4-Chloro-3-methylphenol	100	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
4-Chloroaniline	30	NLE	< 5	< 5	< 5.6	< 5.6	< 5 UJ	< 5	< 5	< 5.6	< 5
4-Chlorophenyl phenyl ether	100	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
4-Methylphenol	NLE	NLE	NA	NA	< 11	< 11	NA	NA	NA	< 11	NA
4-Nitroaniline	5	NLE	< 25	< 25	< 28	< 28	< 25	< 25	< 25	< 28	< 25
4-Nitrophenol	100	NLE	< 25	< 25	< 28	< 28	< 25	< 25	< 25	< 28	< 25
Acenaphthene	400	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Acenaphthylene	100	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Anthracene	2,000	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Benzidine	20	NLE	< 100	< 100	< 110 UJ	< 110 UJ	< 100	< 100	< 100	< 110	< 100 UJ
Benzo(a)anthracene	0.1	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Benzo(a)pyrene	0.1	0.2	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Benzo(b)fluoranthene	0.2	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Benzo(ghi)perylene	100	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Benzo(k)fluoranthene	0.5	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Benzyl alcohol	2,000	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Bis(2-Chloroethoxy)methane	100	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Bis(2-Chloroethyl)ether	7	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Bis(2-Chloroisopropyl)ether	300	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Bis(2-Ethylhexyl)phthalate	3	6	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Butyl benzyl phthalate	100	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Carbazole	100	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Chrysene	5	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Cresol	NLE	NLE	NA	NA	NA	NA	< 10	NA	NA	NA	< 10
Dibenz(a,h)anthracene	0.3	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Dibenzofuran	100	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Diethyl phthalate	6,000	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Dimethyl phthalate	100	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Di-n-butylphthalate	700	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Di-n-octylphthalate	100	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Fluoranthene	300	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Fluorene	300	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Hexachlorobenzene	0.02	1	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Hexachlorobutadiene	1	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Hexachlorocyclopentadiene	40	50	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Hexachloroethane	7	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Indeno(1,2,3-cd)pyrene	0.2	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Isophorone	40	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Naphthalene	300	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Nitrobenzene	6	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
N-Nitrosodimethylamine	0.8	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
N-Nitroso-di-n-propylamine	10	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
N-Nitrosodiphenylamine	10	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Pentachlorophenol	0.3	1	< 25	< 25	< 28	< 28	< 25	< 25	< 25	< 28	< 25
Phenanthrene	100	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Phenol	2,000	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
Pyrene	200	NLE	< 5	< 5	< 5.6	< 5.6	< 5	< 5	< 5	< 5.6	< 5
TIC SVOCs (mg/l)											
Total TIC, Semi-Volatile	500	NLE	ND	**468.7**	ND	ND	ND	**13**	**707 JN**	**46.4 J**	ND
Inorganics (µg/l)											
Lead	5	15	**1.4 J**	**1.4 J**	NA	NA	NA	**1.7 J**	< 2	NA	NA

Table 3
Groundwater Analytical Results - 2013, 2014 and 2015
Site FTMM-66 Building 886 Former AST
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Footnote:

1) All historical data collected prior to 2013 are reported as provided by others.

2) Number of Analyses is the number of detected and non-detected results excluding rejected results. Sample duplicate pairs have not been averaged.

3) NLE = no limit established.

4) ND = not detected in any background sample, no background concentration available.

5) Chemical result qualifiers are assigned by the laboratory and is typically evaluated and modified (if necessary) by during data validation.

[blank] = detect, i.e. detected chemical result value.
B = Compound detected in the sample and its associated blank sample.
R = Rejected, data validation rejected the results.
U = non-detect, i.e. not detected equal to or above this value.
U-DL = Elevated sample detection limit due to difficult sample matrix.
U-ND = Analyte not detected in sample, but no detection or reporting limit provided.
J = estimated (detect or non-detect) value.
E (or ER) = Estimated result.
D = Results from dilution of sample.
J-DL = Elevated sample detection limit due to difficult sample matrix.
JN = Tentatively identified compound, estimated concentration.

6) Chemical results greater than or equal to the action level (depending on criteria) are highlighted based on the Criteria that are present.

- Cell Shade values represent a result that is above the NJ Ground Water Quality Criteria ####

NJDEP Interim Specific GWQC values are presented for the NJ GWQS where there is not a Specific Ground Water Quality Criteria. A full list of compounds is available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

NJDEP Interim Generic GWQC values are presented for the NJ GWQS where there is not a XXXXX or a NJDEP Interim Specific GWQC. Available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

- Bold Outline represent a result that is above the USEPA 2014-05 MCL. ###

- Cell Style values represent a result that is above the Weston 1995 Background (Main Post). ###

n/a = all concentrations were less than the detection limit, therefore, no location of maximum value identified.

Dash (-) = only background concentrations for metals are being used as comparison criteria.

7) Criteria action level source document and web address.

- The NJ Ground Water Quality Criteria refers to the NJDEP Groundwater Quality Standards - Adopted July 22, 2010
  http://www.state.nj.us/dep/wms/bwqsa/docs/njac79C.pdf
- The 2014-05 USEPA MCL refers to the USEPA's Region 9 Regional Screening Levels (HQ=1.0) - 5/31/2014 (Last revised)
  http://www.epa.gov/region9/superfund/prg/
- The Weston 1995 Background (Main Post) refers to the FTMM reports.
  NA

8) Wells sampled in the most recent fourth quarter sampling event are highlighted in yellow. Sample ID

Table 4
Review of Historical Groundwater Sampling Results
Site FTMM-66 Building 886 Former AST
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site Name/ Well ID	Interpretation of Historical and 2015 Results [1]			2015 Evaluation				Retain Analyte/Well (Yes or No)	Rationale
	Chem Class / Analyte	Does it Exceed NJDEP GWQS (Yes or No) (If Yes, identify compound)	Do Metals Exceed FTMM Background Concentration (Yes or No) (If yes, identify compound)	Seasonal Effect?[2] (Y/N)	Anomaly? (Y/N)	Exceedance part of overall trend? (Y/N)	Well needed for sentinel purposes? (Y/N)		
FTMM-66, B886									
886RW01	SVOC	SVOC Total TICs	No	No	No	No	No	Yes	Metals and VOCs discontinued in 2013. Groundwater sampling results are below NJDEP GWQS, discontinue sampling.
886RW06		As, Pb	No	N/A	N/A	N/A	Yes	Yes	Metals and VOCs discontinued in 2013. Groundwater sampling results are below NJDEP GWQS, discontinue sampling.
886RW08		SVOC Total TICs	No	No	No	No	No	Yes	Metals and VOCs discontinued in 2013. Groundwater sampling results are below NJDEP GWQS, discontinue sampling.

Notes

1. Has any of the analyte compounds exceeded the NJDEP GWQS in the 2015 data and the 4 previous quarterly data rounds or 2 previous annual rounds?
   a. If yes then keep analyte in LTM list
   b. If no then remove this analyte from LTM list
   c. a and b above may be occasionally superseded on a case-by-case basis, depending on site conditions.
2. Has any of the analyte compounds exceeded the NJDEP GWQS seasonally (winter spring vs. summer fall)?
3. TIC - Tentatively Identified Compound
4. N/A - Not applicable
5. Per the 2/5/15 NJDEP approval letter of the Final 2013 Baseline Groundwater Report, groundwater monitoring wells 886MW01, 886MW02, 886MW03, 886MW04, 886MW05, 886RW02, 886RW03, 886RW04, 886RW05 and 886RW07 were removed from the long-term monitoring sampling program and VOC and lead analysis were discontinued in 2014.

FIGURES

Figure 1 Layout of FTMM-66 Building 886 Former AST

Figure 2 FTMM-66 Shallow Groundwater Contours - October 2, 2015

886MW01
886MW06
886MW03
886RW05
886RW03
886RW04
886RW06
886RW07
886RW01
886RW08
886MW02
886MW05
886MW04
Former 1,000-gallon No. 2 Fuel Oil UST
Former 250,000-gallon No. 2 Fuel Oil AST
Lane Avenue
Stephenson Avenue (formerly Murphy Dr.)

LEGEND:

- Shallow Monitoring Well
- Recovery Well
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line

N

1 inch = 40 feet

0 20 40 80 Feet

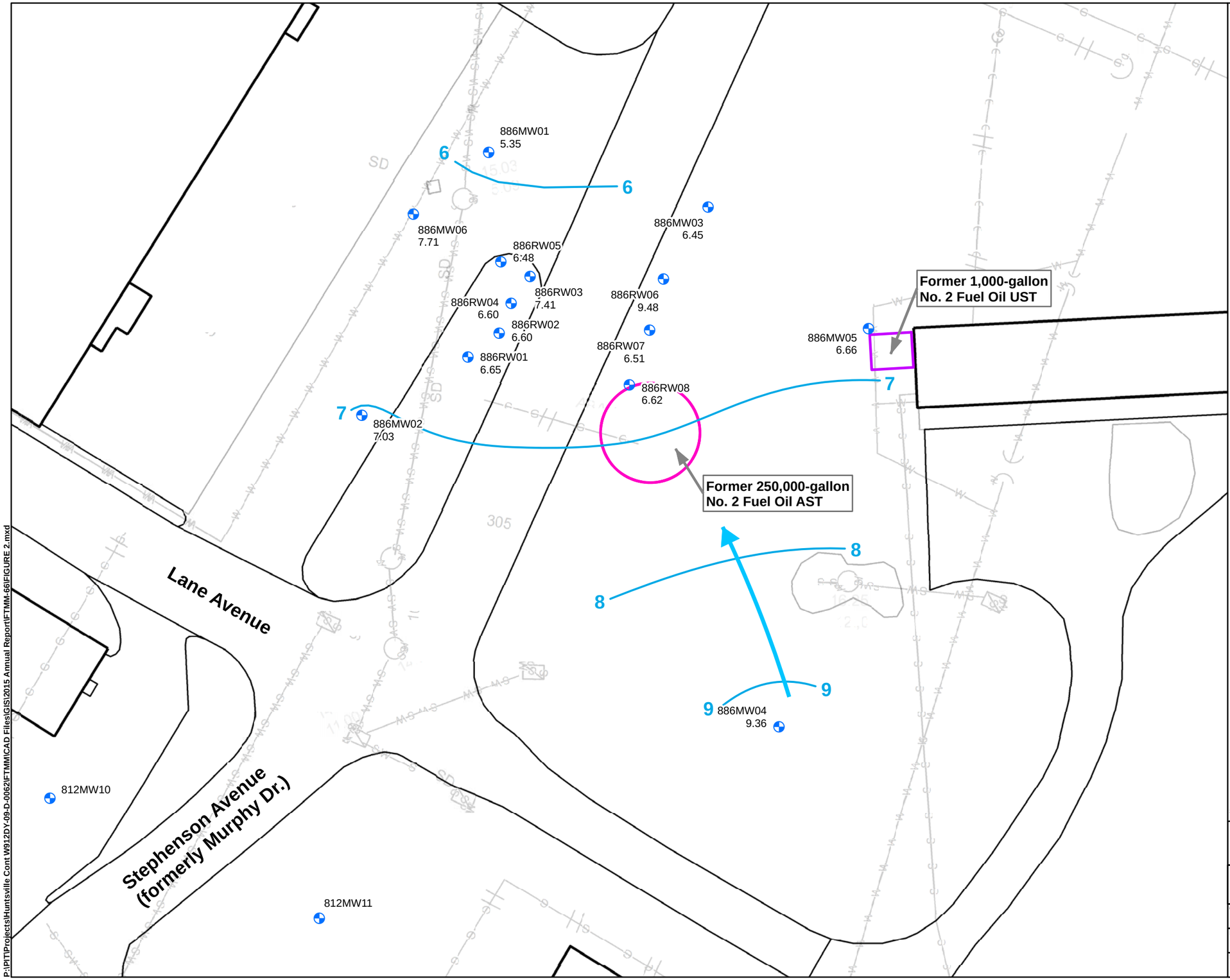
Source: FTMM Supplied CAD, 2013.

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

LAYOUT OF FTMM-66
BUILDING 886 FORMER AST

CREATED BY: RR	REVIEWED BY: ME
DATE: NOV. 2015	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-01000	FILE: FIGURE 1.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2014 Annual Report\FTMM-66\FIGURE 1.mxd



LEGEND:

- Shallow Monitoring Well
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Groundwater Elevation Contour
- Inferred Groundwater Flow Direction

NOTE:

The groundwater elevations at monitoring wells 886MW06, 886RW03 and 886RW06 were considered anomalous compared to the fluid levels at neighboring wells.

N

1 inch = 40 feet

0 20 40 80 Feet

Source: FTMM Supplied CAD, 2013.

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

FTMM-66 SHALLOW GROUNDWATER CONTOURS - OCTOBER 2, 2015

CREATED BY:	REVIEWED BY:
RR	ME
DATE:	FIGURE NUMBER:
MAR. 2016	FIGURE 2
PROJECT NUMBER:	FILE:
748810-03000	FIGURE 2.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-66\FIGURE 2.mxd

ATTACHMENTS

Attachment A LFPS Field Sheets

LOW FLOW PURGE AND SAMPLING (LFPS) RECORD - GROUNDWATER

PARSONS

CLIENT: FTMM - USACE

WELL #: 812MW04

PROJECT: Q4 GW Sampling

AOC # (AREA): M-64

SCREENED INTERVAL (TOC): 2-7

WELL DIAMETER (in.): 4

WELL PERMIT #: 294425 TS

DATE: 11/25/15

SAMPLING PERSONNEL NAME: C. Watson

SAMPLING PERSONNEL NAME: —

BOREHOLE DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2	2.61	3.3	5.87

WELL HEAD VOC CONCENTRATION (ppm): 0

WELL DEPTH (TOC): 7

FEET OF WATER IN WELL (ft): 4.7

FEET OF SATURATED SCREEN (ft): 5

DEPTH TO WATER BEFORE PUMP INSTALLATION (ft below TOC): 2.30

PUMP INTAKE DEPTH (ft below TOC): 4.7

PURGING AND SAMPLING

TIME	PURGING	SAMPLING	pH (pH units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mv) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (degrees C) READING	TEMPERATURE CHANGE*	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1245	X		7.19	NA	0.430	NA	69.9	NA	7.72	NA	249.4	NA	12.97	NA	225	2.51
1250	X		7.02		0.420		79		6.61		234.2		13.49		225	2.86
1255	X		6.99		0.418		86.5		6.55		212.0		13.43		225	3.00
1300	X		6.90		0.421		91.2		7.14		200.2		13.47		200	3.36
1305	X		6.97		0.423		91.1		6.65		55.8		14.04		200	3.68
1310	X		6.96		0.425		90.8		7.00		56.0		14.16		200	3.82
1315	X		6.95		0.426		91.7		7.34		51.0		14.25		200	3.93
1320	X		6.93		0.426		92.8		7.29		51.8		14.28		200	4.02
1325		X	6.92		0.426		93.9		7.22		53.0		14.22		200	4.12

*Indicator readings have stabilized when 3 consecutive readings are within: +/- 0.1 for pH; =+/- 3% for Specific Conductivity and Temperature; +/- 10 mv for Redox Potential; and +/- 10% for Dissolved Oxygen and Turbidity

LOW FLOW PURGE AND SAMPLING (LFPS) RECORD - GROUNDWATER

PARSONS	CLIENT: USACE	WELL #: 812MW04

SAMPLING INFORMATION

SAMPLING DEVICE: LFPS

SAMPLE NAME (ID): FTMM-64-GW-812MW04-4.7

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY	COMMENTS
VOCs	1325	40mL VOAs	Clear	53.0	

QA\QC SAMPLES:

DUPLICATE SAMPLE COLLECTED: YES or (NO)

DUPLICATE SAMPLE NAME (ID):

MS/MSD SAMPLE COLLECTED: YES or (NO)

MS / MSD SAMPLE NAME (ID):

PURGING AND SAMPLING COMMENTS:

INVESTIGATION DERIVED WASTE (IDW): PTCs

Date:								
Volume Transfered to Drum:								
Drum Number:								

APPENDIX L

FTMM-68: BUILDING 886 FORMER AST

APPENDIX L: FTMM-68 Former Dry Cleaners UST at Building 700

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6	FTMM-68 Chemical Constituents above NJDEP GWQS Fourth Quarter 2015 Sampling Event

LIST OF ATTACHMENTS

Attachment	Title
A	LFPS Field Sheets

1.0 WATER LEVEL MEASUREMENTS AND WELL ASSESSMENT

Monitoring wells located within FTMM-68 were gauged on November 15, 2015. Monitoring well locations as well as other site features are provided in **Figure 1**. Details regarding the water level measurements are provided in **Table 1**. Groundwater elevations in monitoring wells ranged from 6.33 (FTMM-68-MW02) to 8.87 (565MW01) feet above mean sea level (amsl). The inferred shallow groundwater flow direction is generally to the east-southeast, toward Husky Brook, as shown in **Figure 2**. In order to develop a better understanding of groundwater flow, new wells installed at both FTMM-53 and FTMM-68 as part of the remedial investigations were used to develop the contour plan.

Additionally, monitoring wells were inspected for their physical condition during the groundwater gauging. FTMM-68 monitoring wells were found to be in good condition upon inspection.

2.0 GROUNDWATER SAMPLING

Groundwater samples were collected from two monitoring wells located within FTMM-68 as part of the annual (fourth quarter) 2015 groundwater sampling event. FTMM-68 is sampled on a quarterly basis. The groundwater sampling program included measuring the depth to groundwater in the two FTMM-68 monitoring wells prior to sampling and collection of groundwater samples using low-flow purging and sampling (LFPS). Groundwater samples were collected from wells 65MW01 and 565MW01D on November 16, 2015 and November 17, 2015. Groundwater samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) via the United States Environmental Protection Agency (USEPA) Method SW8260C.

The samples were collected in accordance with the New Jersey Department of Environmental Protection (NJDEP) Field Sampling Procedures Manual (FSPM) and the Sampling Analysis Plan (SAP). Field blanks, duplicates, matrix spike, matrix spike duplicate and quality assurance (QA) split samples were collected for every 5% of samples collected per parameter, per matrix, in accordance with the Quality Assurance Project Plan (QAPP). Trip blanks accompanied each cooler each day in which VOCs were collected for laboratory analysis.

Completed LFPS field sheets for each well sampled are provided in **Attachment A**.

3.0 HISTORICAL GROUNDWATER SAMPLING RESULTS

The groundwater sampling event conducted in August 2013 was the initial sampling event for monitoring wells 565MW01 and 565MW01D since they were installed.

Groundwater analytical results from samples collected from the two wells for VOC analysis during the August 2013 sampling event are presented in **Table 2**. The compounds cis-1,2-dichloroethene (cis-1,2-DCE), tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride (VC) were detected in exceedance of their respective NJDEP Ground Water Quality Standards (GWQS) in monitoring well 565MW01 at FTMM-68. Additionally, PCE and TCE were detected above their respective NJDEP GWQS in 565MW01D.

Groundwater sampling at FTMM-68 has been conducted on a quarterly basis for 2014 (in March, May, September and December). This data has been presented in reports submitted quarterly to the NJDEP. In the 2014 quarterly groundwater sampling events, 1,1-dichloroethene (1,1 DCE), cis-1,2-DCE, PCE, TCE, and VC were detected above their respective NJDEP GWQS in monitoring well 565MW01. 1,1 DCE was detected above its GWQS (1 µg/L) at concentrations ranging from 2 µg/L to 3.2J µg/L. Cis-1,2-DCE was detected above its GWQS (70 µg/L) at concentrations ranging from 110 µg/L to 270 µg/L. PCE was detected above its GWQS (1 µg/L) at concentrations ranging from 180 µg/L to 700 µg/L. TCE was detected above its GWQS (1 µg/L) at concentrations ranging from 86 µg/L to 230 µg/L. VC was detected above its GWQS (1 µg/L) at concentrations ranging from 1.3J µg/L to 18 µg/L.

Additionally, cis-1,2-DCE, PCE, TCE and VC were detected in 565MW01D above their respective NJDEP GWQS. Cis-1,2-DCE was detected above its GWQS (70µg/L) at concentrations ranging from 120 µg/L to 140 µg/L. PCE was detected above its GWQS (1 µg/L) at concentrations ranging from 1,500 µg/L to 4,800 µg/L. TCE was detected above its GWQS of (1 µg/L) at concentrations ranging from 18J µg/L to 110 µg/L. VC was detected above its GWQS (1 µg/L) at concentrations ranging from 5.5 µg/L to 6.1J µg/L.

Groundwater sampling at FTMM-68 has been conducted on a quarterly basis for 2015, in March, May, and September. This data has been presented in reports submitted quarterly to the NJDEP. In the 2014 quarterly groundwater sampling events, 1,1 DCE, cis-1,2-DCE, PCE, TCE, and VC were detected above their respective NJDEP GWQS in monitoring well 565MW01. 1,1 DCE was detected above its GWQS (1 µg/L) at concentrations ranging from 1.9h µg/L to 7J µg/L. Cis-1,2-DCE was detected above its GWQS (70 µg/L) at concentrations ranging from 130 µg/L to 600 µg/L. PCE was detected above its GWQS (1 µg/L) at concentrations ranging from 94 µg/L to 1,300 µg/L. TCE was detected above its GWQS (1 µg/L) at concentrations ranging from 25 µg/L to 550 µg/L. VC was detected above its GWQS (1 µg/L) at concentrations ranging from 1.7J µg/L to 53 µg/L.

Additionally, PCE, TCE and VC were detected in 565MW01D above their respective NJDEP GWQS. PCE was detected above its GWQS (1 µg/L) at concentrations ranging from 860 µg/L to 3,600 µg/L. TCE was detected above its GWQS of (1 µg/L) at concentrations ranging from 19J µg/L to 45 µg/L. VC was detected above its GWQS (1 µg/L) at a concentration of 2.5J µg/L.Based on the annual 2014 results, it was recommended that quarterly groundwater sampling continue at monitoring wells 565MW01 and 565MW01D. The Annual (Fourth Quarter) 2014 Groundwater Sampling Report was accepted by the NJDEP in their January 26, 2016 letter. In addition, the NJDEP has requested to add CW1MW40 to the long-term monitoring (LTM) plan.

4.0 ANNUAL (FOURTH QUARTER) 2015 GROUNDWATER RESULTS

Four chlorinated VOCs (cis-1,2-DCE, PCE, TCE, and VC) were detected in groundwater samples collected from the two wells during the 2015 annual (fourth quarter) sampling event at concentrations above their respective NJDEP GWQS of 70 µg/L, 1 µg/L, 1 µg/L and 1 µg/L. Cis-1,2-DCE (76 µg/L), PCE (220 µg/L) TCE (62 µg/L), and VC (4.6J µg/L) were detected at well 565MW01. PCE and TCE were detected at concentrations of 3,800 µg/L and

15J µg/L at monitoring well 565MW01D. Groundwater analytical results for the annual (fourth quarter) 2015 groundwater sampling event is presented in **Table 2**. Constituents detected in the groundwater above the NJDEP GWQS for the 2015 quarterly sampling events are shown on **Figures 3** through **6.**

5.0 FINDINGS AND RECOMMENDATIONS

Concentrations of five VOCs (1,1-DCE, cis-1,2-DCE, TCE, PCE and VC) were detected above their NJDEP GWQS at least once during the 2015 quarterly sampling events. 1,1-DCE concentrations have been detected at well 565MW01 during the quarterly sampling with exceedences occurring in second and third quarter of 2015. Cis-1,2-DCE and VC concentrations have been detected above their NJDEP GWQS in the last three quarters of 2015 at well 565MW01. TCE and PCE were detected above the NJDEP GWQS in all four quarters of 2015 at both wells. The detection of PCE degradation byproducts (e.g. TCE, 1,1 DCE, cis-1,2 DCE and vinyl chloride) indicates that natural attenuation is taking place at both of the wells.

As discussed previously (refer to Section 2.1.4 of the main body of text), the LTM program for groundwater at FTMM-68 will be temporarily suspended beginning in the first quarter of 2016 as agreed to by the NJDEP in their March 16, 2016 letter. Once the RI/FS is completed and a remedy has been accepted by the NJDEP, a revised LTM program for the groundwater will be submitted for FTMM-68.

A review of the historical groundwater sampling results is presented in **Table 3**, which also provides the matrix used to determine the status of wells relative to future groundwater sampling and analyses.

TABLES

Table 1 Groundwater Gauging Data and Elevations (November 15, 2015) and LFPS Sampling Summary

Table 2 Groundwater Analytical Results - 2013, 2014 and 2015

Table 3 Review of Historical Groundwater Sampling Results

Table 1
Groundwater Gauging Data and Elevations (November 15, 2015) and LFPS Sampling Summary
Site FTMM-68 Former Dry Cleaners UST at Building 700
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site/Well ID	Installation Date	Well Permit #	Y Coord. (North)	X Coord. (East)	Depth (ft. bgs)	Casing Length (ft)	Screen Length (ft)	TOC Elevation (ft)	Gauge Time	PID Reading (ppm)	Gauged Depth to Water (ft. TOC)	Gauged Depth to Bottom (ft. TOC)	Calculated Groundwater Elevation (ft)	Date Sampled
Shallow Monitoring Wells														
FTMM-53-MW02	10/7/2015	E201510642	539055	619096	25	15	10	15.43	12:59	0.0	7.87	24.2	7.56	
FTMM-68-MW02	10/6/2015	E201510650	539176	619392	25	18	10	14.28	12:43	0.0	7.74	28.43	6.54	
FTMM-68-MW03	10/6/2015	E201510651	539100	619444	25	15	10	14.33	12:55	0.0	8.00	25.27	6.33	
FTMM-68-MW04	10/5/2015	E201510652	538941	619412	25	18	10	14.12	12:58	0.0	7.70	28.35	6.42	
565MW01	8/16/2011	E201113246	538986	618870	15	5	10	17.6	11:45	6.9	8.73	17.12	8.87	11/6/2015
Deep Monitoring Wells														
FTMM-68-MW01	10/7/2015	E201510642	539053	619105	40.00	33.7	10.0	15.37	12:40	0.0	7.90	43.70	7.47	
565MW01D	8/16/2011	E201113247	538988	618874	23.0	18.0	5.0	17.46	11:47	16.2	9.07	24.40	8.39	11/17/2015

Notes:
1) The synoptic round of water levels in the wells was collected on November 15, 2015
2) Information on well permit number, X and Y coordinates, depth, screen length, screen interval and TOC elevation were provided by FTMM in a table in June 2013.
3) ft = feet
4) DTW = depth to water (measured from the top of well casing)
5) DTB = depth to bottom of well (measured from the top of well casing)
6) bgs = below ground surface
7) ppm = parts per million (of VOCs)
8) TOC = Top of Casing
9) Elevation = feet above mean sea level
10) N/A = information not available

Table 2
Groundwater Analytical Results - 2013, 2014, and 2015
Site FTMM-68 Former Dry Cleaners UST at Building 700
Annual (Fourth Quarter) 2015 Groundwater Sampling Event
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	565MW01								
Sample ID			FTMM-68-GW-565MW01-11.99	FTMM-68-GW-565MW01-11.99	FTMM-68-GW-565MW01-11.99	FTMM-68-GW-565MW01-11.99	FTMM-68-GW-565MW01-11.99	FTMM-68-565MW01-11.99	FTMM-68-GW-565MW01-11.99	FTMM-68-GW-565MW01-11.99	FTMM-68-GW-565MW01-13.0
Sample Date			8/29/2013	3/31/2014	7/1/2014	9/30/2014	12/18/2014	3/30/2015	6/29/2015	9/30/2015	11/16/2015
QA/QC			SA	SA	SA	SA	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB	PDB	PDB	PDB	PDB	LFPS
Volatile Organic Compounds (µg/l)											
1,1,1,2-Tetrachloroethane	1	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
1,1,1-Trichloroethane	30	200	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
1,1,2,2-Tetrachloroethane	1	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
1,1,2-Trichloroethane	3	5	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
1,1-Dichloroethane	50	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
1,1-Dichloroethene	1	7	< 2.5	**2 J**	**2.1 J**	**3.2 J**	< 2	< 1	**1.9 J**	**7 J**	< 2.5
1,1-Dichloropropene	100	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
1,2,3-Trichlorobenzene	100	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
1,2,3-Trichloropropane	0.03	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
1,2,4-Trichlorobenzene	9	70	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
1,2,4-Trimethylbenzene	100	NLE	< 2.5	**0.83 J**	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
1,2-Dibromo-3-chloropropane	0.02	0.2	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
1,2-Dibromoethane	0.03	0.05	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
1,2-Dichlorobenzene	600	600	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
1,2-Dichloroethane	2	5	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
1,2-Dichloropropane	1	5	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
1,3,5-Trimethylbenzene	100	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
1,3-Dichlorobenzene	600	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
S	100	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
1,4-Dichlorobenzene	75	75	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
2,2-Dichloropropane	100	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
2-Chlorotoluene	100	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Acetone	6,000	NLE	**7 BJ**	< 13	**3.2 J**	**13 J**	< 10	**1.7 J**	< 5	< 13	< 13
Benzene	1	5	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Bromobenzene	100	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Bromochloromethane	100	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Bromodichloromethane	1	80	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Bromoform	4	80	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Carbon tetrachloride	1	5	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Chlorobenzene	50	100	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Chlorodibromomethane	1	80	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Chloroethane	5	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	**0.31 J**	< 2.5	< 2.5
Chloroform	70	80	< 2.5	**0.85 J**	< 2.5	< 5	< 2	< 1	< 1	< 2.5	**0.8 J**
Cis-1,2-Dichloroethene	70	70	**150**	**270**	**190**	**210**	**110**	**40**	**130**	**600**	**76**
Cis-1,3-Dichloropropene	1	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Cymene	100	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Dichlorodifluoromethane	1,000	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2 UJ	< 1	< 1	< 2.5	< 2.5
Ethyl benzene	700	700	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Hexachlorobutadiene	1	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Isopropylbenzene	700	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Meta/Para Xylene	1,000	NLE	< 5	< 5	< 5	< 10	< 4	< 2	< 2	< 5	< 5
Methyl bromide	10	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2 UJ	< 1	< 1	< 2.5	< 2.5
Methyl butyl ketone	300	NLE	< 13	< 13	< 13	< 25	< 10	< 5	< 5	< 13	< 13
Methyl chloride	100	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	**0.55 J**	< 2.5
Methyl ethyl ketone	300	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Methyl isobutyl ketone	100	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Methyl Tertbutyl Ether	70	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Methylene chloride	3	5	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Naphthalene	300	NLE	< 2.5	**4.8 J**	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
n-Butylbenzene	100	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Ortho Xylene	1,000	NLE	< 2.5	**0.58 J**	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
p-Chlorotoluene	100	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Propylbenzene	100	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
sec-Butylbenzene	100	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Styrene	100	100	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Tert Butyl Alcohol	100	NLE	NA	NA	NA	< 100	< 40	< 20	< 20	< 50 UJ	< 50
tert-Butylbenzene	100	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Tetrachloroethene	1	5	**300**	**440**	**350**	**700**	**180**	**94**	**350**	**1,300**	**220**
Toluene	600	1,000	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Total Xylenes	1,000	10,000	< 7.5	**0.58 J**	< 7.5	< 15	< 6	< 3	< 3	< 7.5	< 7.5
Trans-1,2-Dichloroethene	100	100	< 2.5	**1.9 J**	**1.3 J**	< 5	**0.78 J**	< 1	**1 J**	**2.7 J**	< 2.5
Trans-1,3-Dichloropropene	1	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Trichloroethene	1	5	**120**	**230**	**160**	**210**	**86**	**25**	**110**	**550**	**62**
Trichlorofluoromethane	2,000	NLE	< 2.5	< 2.5	< 2.5	< 5	< 2	< 1	< 1	< 2.5	< 2.5
Vinyl chloride	1	2	**11 J**	**18**	**13**	**16 J**	**1.3 J**	**1.7 J**	**11**	**53**	**4.6 J**
TIC VOCs (µg/l)											
Total TIC, Volatile	500	NLE	ND	ND	ND	ND	0 U	0 U	0 U	**57.9 J**	ND

Table 2
Groundwater Analytical Results - 2013, 2014, and 2015
Site FTMM-68 Former Dry Cleaners UST at Building 700
Annual (Fourth Quarter) 2015 Groundwater Sampling Event
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	565MW01D								
Sample ID			FTMM-68-GW-565MW01D-22.31	FTMM-68-GW-565MW01D-22.31	FTMM-68-GW-565MW101D-22.31	FTMM-68-GW-565MW01D-22.31	FTMM-68-GW-565MW01D-22.31	FTMM-68-GW-565MW01D-22.31	FTMM-68-565MW01D-22.31	FTMM-68-GW-565MW01D-22.31	FTMM-68-GW-565MW01D-22.31
Sample Date			8/29/2013	3/31/2014	3/31/2014	7/1/2014	9/30/2014	12/18/2014	3/30/2015	6/29/2015	9/30/2015
QA/QC			SA	SA	DU	SA	SA	SA	SA	SA	SA
Sample Method			PDB	PDB	PDB	PDB	PDB	PDB	PDB	PDB	PDB
Volatile Organic Compounds (µg/l)											
1,1,1,2-Tetrachloroethane	1	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
1,1,1-Trichloroethane	30	200	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
1,1,2,2-Tetrachloroethane	1	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
1,1,2-Trichloroethane	3	5	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
1,1-Dichloroethane	50	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
1,1-Dichloroethene	1	7	< 50	**0.67 J**	< 10	< 10	< 50	< 20	< 5	< 5	< 20
1,1-Dichloropropene	100	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
1,2,3-Trichlorobenzene	100	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
1,2,3-Trichloropropane	0.03	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
1,2,4-Trichlorobenzene	9	70	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
1,2,4-Trimethylbenzene	100	NLE	< 50	< 1	**4.6 J**	< 10	< 50	< 20	< 5	< 5	< 20
1,2-Dibromo-3-chloropropane	0.02	0.2	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
1,2-Dibromoethane	0.03	0.05	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
1,2-Dichlorobenzene	600	600	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
1,2-Dichloroethane	2	5	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
1,2-Dichloropropane	1	5	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
1,3,5-Trimethylbenzene	100	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
1,3-Dichlorobenzene	600	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
S	100	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
1,4-Dichlorobenzene	75	75	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
2,2-Dichloropropane	100	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
2-Chlorotoluene	100	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Acetone	6,000	NLE	**200 J**	**1.5 J**	< 50	< 50	< 250	< 100	< 25	< 25	< 100
Benzene	1	5	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Bromobenzene	100	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Bromochloromethane	100	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Bromodichloromethane	1	80	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Bromoform	4	80	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Carbon tetrachloride	1	5	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Chlorobenzene	50	100	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Chlorodibromomethane	1	80	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Chloroethane	5	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5 UJ	< 5	< 20
Chloroform	70	80	< 50	< 1	**2.7 J**	< 10	< 50	< 20	< 5	< 5	< 20
Cis-1,2-Dichloroethene	70	70	< 50	**140**	**120**	**34 J**	< 50	**49 J**	**53**	**7.4 J**	**15 J**
Cis-1,3-Dichloropropene	1	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Cymene	100	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Dichlorodifluoromethane	1,000	NLE	< 50	< 1	< 10	< 10	< 50	< 20 UJ	< 5 UJ	< 5	< 20
Ethyl benzene	700	700	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Hexachlorobutadiene	1	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Isopropylbenzene	700	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Meta/Para Xylene	1,000	NLE	< 100	< 2	< 20	< 20	< 100	< 40	< 10	< 10	< 40
Methyl bromide	10	NLE	< 50	**0.33 J**	< 10	< 10	< 50	< 20 UJ	< 5 UJ	< 5	< 20
Methyl butyl ketone	300	NLE	< 250	< 5	< 50	< 50	< 250	< 100	< 25	< 25	< 100
Methyl chloride	100	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5 UJ	< 5	**4.6 J**
Methyl ethyl ketone	300	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Methyl isobutyl ketone	100	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Methyl Tertbutyl Ether	70	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Methylene chloride	3	5	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Naphthalene	300	NLE	< 50	< 1	**12 J**	< 10	< 50	< 20	< 5	< 5	< 20
n-Butylbenzene	100	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Ortho Xylene	1,000	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
p-Chlorotoluene	100	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Propylbenzene	100	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
sec-Butylbenzene	100	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Styrene	100	100	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Tert Butyl Alcohol	100	NLE	NA	NA	NA	NA	< 1000	< 400	< 100	< 100	< 400 UJ
tert-Butylbenzene	100	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Tetrachloroethene	1	5	**4,600**	**1,500**	**1,500**	**1,800**	**4,800**	**2,400**	**860**	**2,100**	**3,600**
Toluene	600	1,000	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Total Xylenes	1,000	10,000	< 150	< 3	< 30	< 30	< 150	< 60	< 15	< 15	< 60
Trans-1,2-Dichloroethene	100	100	< 50	**1.4 J**	< 10	< 10	< 50	< 20	**1.9 J**	< 5	< 20
Trans-1,3-Dichloropropene	1	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Trichloroethene	1	5	**44 J**	**110**	**96**	**42 J**	**18 J**	**41 J**	**45**	**19 J**	**32 J**
Trichlorofluoromethane	2,000	NLE	< 50	< 1	< 10	< 10	< 50	< 20	< 5	< 5	< 20
Vinyl chloride	1	2	< 50	**6.1**	**5.5 J**	< 10	< 50	< 20	**2.5 J**	< 5	< 20
TIC VOCs (µg/l)											
Total TIC, Volatile	500	NLE	ND	ND	ND	ND	ND	0 U	0 U	0 U	0 U

Table 2
Groundwater Analytical Results - 2013, 2014, and 2015
Site FTMM-68 Former Dry Cleaners UST at Building 700
Annual (Fourth Quarter) 2015 Groundwater Sampling Event
Fort Monmouth, New Jersey

Loc ID	NJDEP GWQS	2015-06 USEPA MCL	565MW01D
Sample ID			FTMM-68-GW-565MW01D-20.5
Sample Date			11/17/2015
QA/QC			SA
Sample Method			LFPS
Volatile Organic Compounds (µg/l)			
1,1,1,2-Tetrachloroethane	1	NLE	< 25
1,1,1-Trichloroethane	30	200	< 25
1,1,2,2-Tetrachloroethane	1	NLE	< 25
1,1,2-Trichloroethane	3	5	< 25
1,1-Dichloroethane	50	NLE	< 25
1,1-Dichloroethene	1	7	< 25
1,1-Dichloropropene	100	NLE	< 25
1,2,3-Trichlorobenzene	100	NLE	< 25
1,2,3-Trichloropropane	0.03	NLE	< 25
1,2,4-Trichlorobenzene	9	70	< 25
1,2,4-Trimethylbenzene	100	NLE	< 25
1,2-Dibromo-3-chloropropane	0.02	0.2	< 25
1,2-Dibromoethane	0.03	0.05	< 25
1,2-Dichlorobenzene	600	600	< 25
1,2-Dichloroethane	2	5	< 25
1,2-Dichloropropane	1	5	< 25
1,3,5-Trimethylbenzene	100	NLE	< 25
1,3-Dichlorobenzene	600	NLE	< 25
S	100	NLE	< 25
1,4-Dichlorobenzene	75	75	< 25
2,2-Dichloropropane	100	NLE	< 25
2-Chlorotoluene	100	NLE	< 25
Acetone	6,000	NLE	< 130
Benzene	1	5	< 25
Bromobenzene	100	NLE	< 25
Bromochloromethane	100	NLE	< 25
Bromodichloromethane	1	80	< 25
Bromoform	4	80	< 25
Carbon tetrachloride	1	5	< 25
Chlorobenzene	50	100	< 25
Chlorodibromomethane	1	80	< 25
Chloroethane	5	NLE	< 25
Chloroform	70	80	< 25
Cis-1,2-Dichloroethene	70	70	**11 J**
Cis-1,3-Dichloropropene	1	NLE	< 25
Cymene	100	NLE	< 25
Dichlorodifluoromethane	1,000	NLE	< 25
Ethyl benzene	700	700	< 25
Hexachlorobutadiene	1	NLE	< 25
Isopropylbenzene	700	NLE	< 25
Meta/Para Xylene	1,000	NLE	< 50
Methyl bromide	10	NLE	< 25
Methyl butyl ketone	300	NLE	< 130
Methyl chloride	100	NLE	< 25
Methyl ethyl ketone	300	NLE	< 25
Methyl isobutyl ketone	100	NLE	< 25
Methyl Tertbutyl Ether	70	NLE	< 25
Methylene chloride	3	5	< 25
Naphthalene	300	NLE	**5.5 J**
n-Butylbenzene	100	NLE	< 25
Ortho Xylene	1,000	NLE	< 25
p-Chlorotoluene	100	NLE	< 25
Propylbenzene	100	NLE	< 25
sec-Butylbenzene	100	NLE	< 25
Styrene	100	100	< 25
Tert Butyl Alcohol	100	NLE	< 500
tert-Butylbenzene	100	NLE	< 25
Tetrachloroethene	1	5	**3,800**
Toluene	600	1,000	< 25
Total Xylenes	1,000	10,000	< 75
Trans-1,2-Dichloroethene	100	100	< 25
Trans-1,3-Dichloropropene	1	NLE	< 25
Trichloroethene	1	5	**15 J**
Trichlorofluoromethane	2,000	NLE	< 25
Vinyl chloride	1	2	< 25
TIC VOCs (µg/l)			
Total TIC, Volatile	500	NLE	ND

Table 2
Groundwater Analytical Results - 2013, 2014, and 2015
Site FTMM-68 Former Dry Cleaners UST at Building 700
Annual (Fourth Quarter) 2015 Groundwater Sampling Event
Fort Monmouth, New Jersey

Footnote:

1) All historical data collected prior to 2013 are reported as provided by others.

2) Number of Analyses is the number of detected and non-detected results excluding rejected results. Sample duplicate pairs have not been averaged.

3) NLE = no limit established.

4) ND = not detected in any background sample, no background concentration available.

5) Chemical result qualifiers are assigned by the laboratory and is typically evaluated and modified (if necessary) by during data validation.

[blank] = detect, i.e. detected chemical result value.
B = Compound detected in the sample and its associated blank sample.
R = Rejected, data validation rejected the results.
U = non-detect, i.e. not detected equal to or above this value.
U-DL = Elevated sample detection limit due to difficult sample matrix.
U-ND = Analyte not detected in sample, but no detection or reporting limit provided.
J = estimated (detect or non-detect) value.
E (or ER) = Estimated result.
D = Results from dilution of sample.
J-DL = Elevated sample detection limit due to difficult sample matrix.
JN = Tentatively identified compound, estimated concentration.

6) Chemical results greater than or equal to the action level (depending on criteria) are highlighted based on the Criteria that are present.

- Cell Shade values represent a result that is above the NJ Ground Water Quality Criteria ####

NJDEP Interim Specific GWQC values are presented for the NJ GWQS where there is not a Specific Ground Water Quality Criteria. A full list of compounds is available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

NJDEP Interim Generic GWQC values are presented for the NJ GWQS where there is not a XXXXX or a NJDEP Interim Specific GWQC. Available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

- Bold Outline represent a result that is above the USEPA 2014-05 MCL. ###

7) Criteria action level source document and web address.

- The NJ Ground Water Quality Criteria refers to the NJDEP Groundwater Quality Standards - Adopted July 22, 2010
  http://www.state.nj.us/dep/wms/bwqsa/docs/njac79C.pdf
- The 2014-05 USEPA MCL refers to the USEPA's Region 9 Regional Screening Levels (HQ=1.0) - 5/31/2014 (Last revised)
  http://www.epa.gov/region9/superfund/prg/

8) Wells sampled in the most recent fourth quarter sampling event are highlighted in yellow. Sample ID

Table 3
Review of Historical Groundwater Sampling Results
Site FTMM-68 Former Dry Cleaners UST at Building 700
Annual (Fourth Quarter) 2015 Groundwater Sampling Report
Fort Monmouth, New Jersey

Site Name/ Well ID	Interpretation of Historical and 2015 Results [1]			2015 Evaluation				Retain Analyte/ Well (Yes or No)	Rationale
	Chem Class / Analyte	Does it Exceed NJDEP GWQS (Yes or No) (If Yes, identify compound)	Do Metals Exceed FTMM Background Concentration (Yes or No) (If Yes, identify Metal)	Seasonal Effect?[2] (Y/N)	Anomaly? (Y/N)	Exceedance part of overall trend? (Y/N)	Well needed for sentinel purposes? (Y/N)		
FTMM-68, B700									
565MW01	VOC	1,1 DCE, cis-1,2-DCE, PCE, TCE, VC	N/A	No	No	Yes	Yes	Yes	VOCs were detected in the 2014 quarterly events. LTM temporarily suspended as agreed by NJDEP (March 2016);once RI/FS completed and remedy accepted, revised LTM will be submitted.
565MW01D		Cis-1,2-DCE, PCE, TCE, Cis-1,2-DCE, VC	N/A	No	No	Yes	Yes	Yes	

Notes

1. Has any of the analyte compounds exceeded the NJDEP GWQS in the 2015 data and the 4 previous quarterly data rounds or two previous annual rounds?
   a. If yes then keep analyte in LTM list
   b. If no then remove this analyte from LTM list
   c. a and b above may be occasionally superseded on a case-by-case basis, depending on site conditions.
2. Has any of the analyte compounds exceeded the NJDEP GWQS seasonally (winter spring vs. summer fall)?
3. 1,1 DCE = 1,1-Dichloroethene
4. cis-1,2-DCE = cis-1,2-dichloroethene
5. PCE = tetrachloroethene
6. TCE = trichloroethene
7. VC = vinyl chloride

FIGURES

Figure 1 Layout of FTMM-68 Former Dry Cleaners UST at Building 700

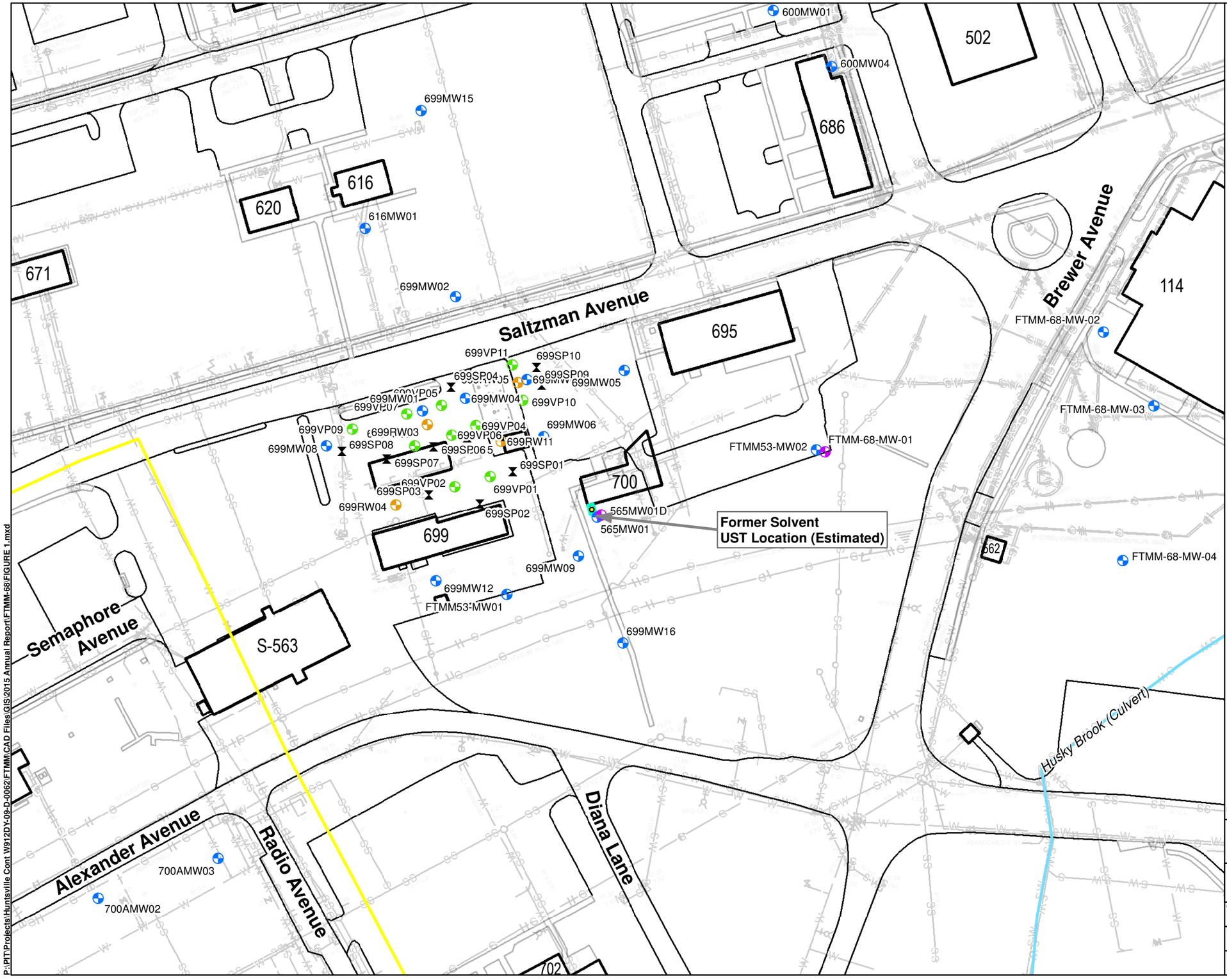
Figure 2 FTMM-53 and FTMM-68 Shallow Groundwater Contours - November 15, 2015

Figure 3 FTMM-68 Chemical Constituents above NJDEP GWQS First Quarter Sampling Event

Figure 4 FTMM-68 Chemical Constituents above NJDEP GWQS Second Quarter Sampling Event

Figure 5 FTMM-68 Chemical Constituents above NJDEP GWQS Third Quarter Sampling Event

Figure 6 FTMM-68 Chemical Constituents above NJDEP GWQS Fourth Quarter Sampling Event



LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Vapor Monitoring Well
- Recovery Well
- Air Sparge Well
- UST Excavation Footprint
- Municipal Boundary
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line

N

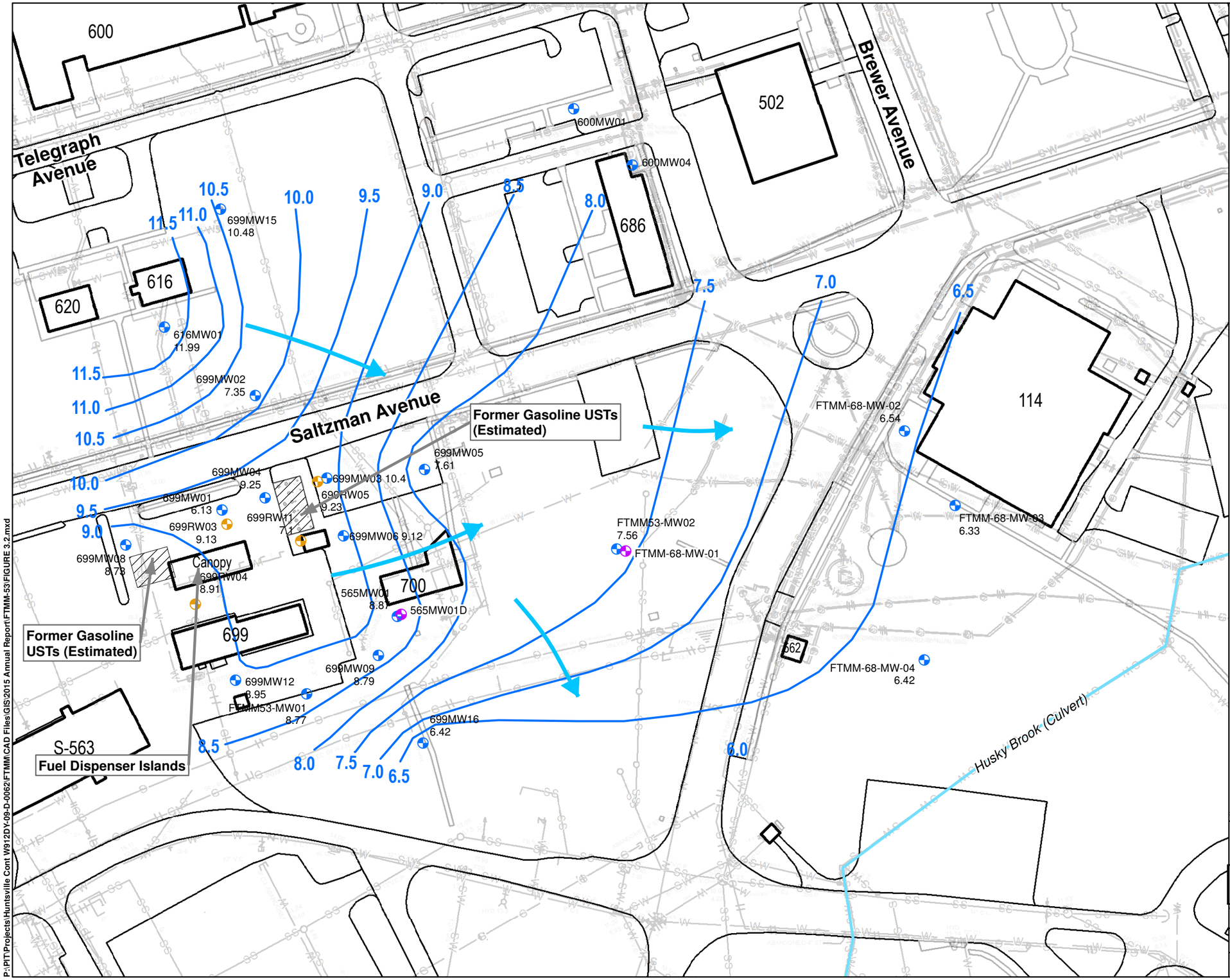
1 inch = 100 feet

0 50 100 200 Feet

Source: FTMM Supplied CAD

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-68\FIGURE 1.mxd

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey
LAYOUT OF FTMM-68 FORMER DRY CLEANERS UST AT BUILDING 700	
CREATED BY: RR	REVIEWED BY: ME
DATE: JUN. 2016	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-01000	FILE: FIGURE 1.mxd



LEGEND:

- Deep Monitoring Well
- Shallow Monitoring Well
- Recovery Well
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Groundwater Elevation Contour (Feet Above Mean Sea Level)
- Inferred Groundwater Flow Direction

NOTE:

The groundwater elevations at monitoring wells 699MW01, 699MW02, 699MW03, and 699RW11 were considered anomalous compared to the elevations at neighboring wells and were not used for contouring.

N

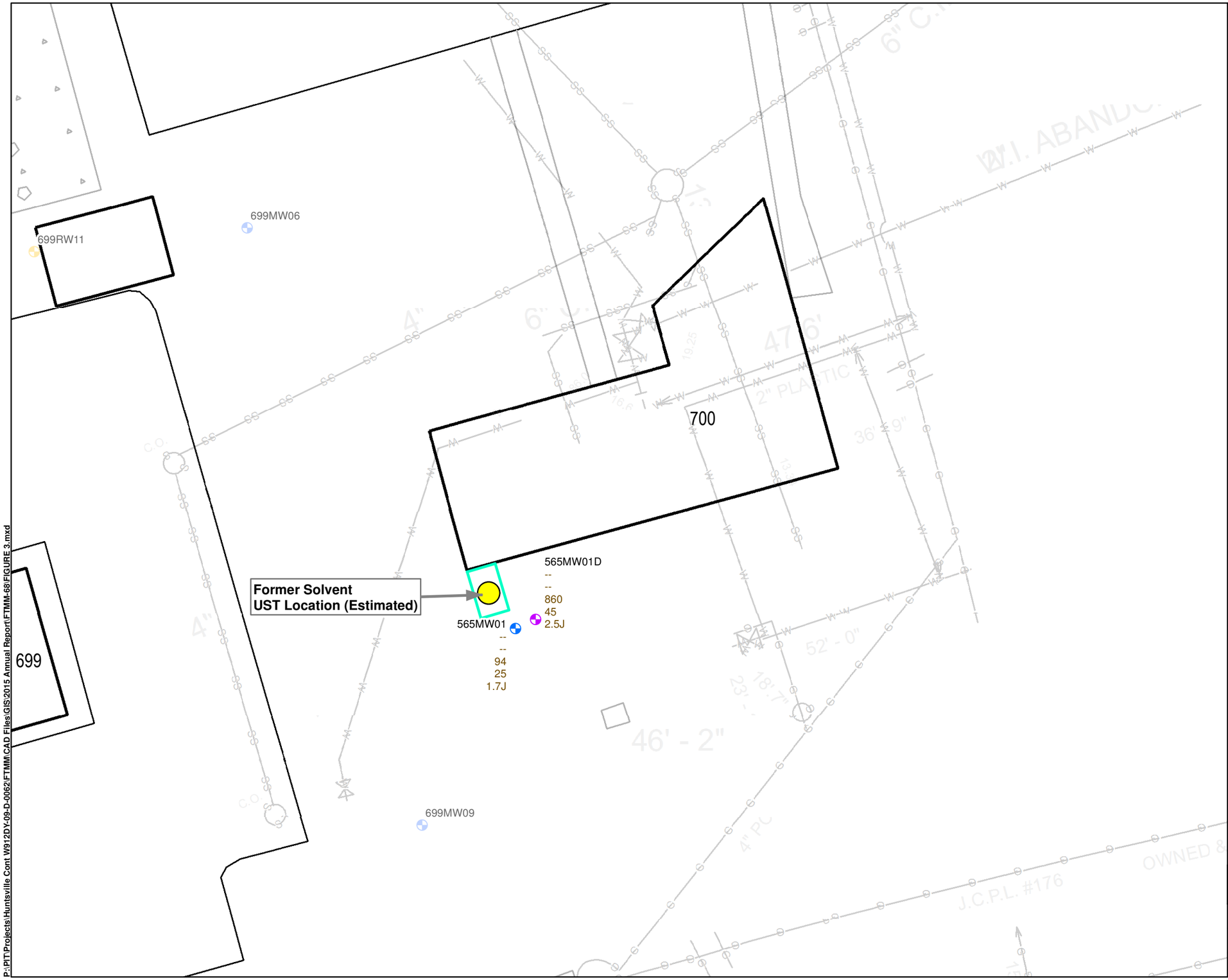
1 inch = 100 feet

0 50 100 200 Feet

Source: FTMM Supplied CAD

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey
FTMM-53 AND FTMM-68 SHALLOW GROUNDWATER ELEVATION CONTOURS - NOVEMBER 15, 2015	
CREATED BY: RR	REVIEWED BY: ME
DATE: APR. 2016	FIGURE NUMBER: FIGURE 2
PROJECT NUMBER: 748810-01000	FILE: FIGURE 3.2.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-53\FIGURE 3.2.mxd



LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Recovery Well
- UST Excavation Footprint
- Municipal Boundary

NOTE:

1. All concentrations are in ug/L.
2. Only those compounds with concentrations that exceed the NJDEP groundwater quality standard (GWQS) are shown on the figure.
3. Wells without values were not sampled during the Sampling Event.

EXPLANATION:

565MW01——— Sample ID
NA ——1,1-Dichloroethene Concentration
NA —— Cis-1,2-Dichloroethene Concentration
NA —— Tetrachloroethene Concentration
NA —— Trichloroethene Concentration
NA —— Vinyl Chloride Concentration

J - Estimated Value
JN - Tentatively Identified Compound, Estimated Value
ND - Not Detected
NA - Not Analyzed
-- - Compound did not exceed the NJ GWQS this sampling round

Compound	NJDEP GWQS
1,1-Dichloroethene	1
Cis-1,2-Dichloroethene	70
Tetrachloroethene	1
Trichloroethene	1
Vinyl chloride	1

N

1 inch = 20 feet

0 10 20 40 Feet

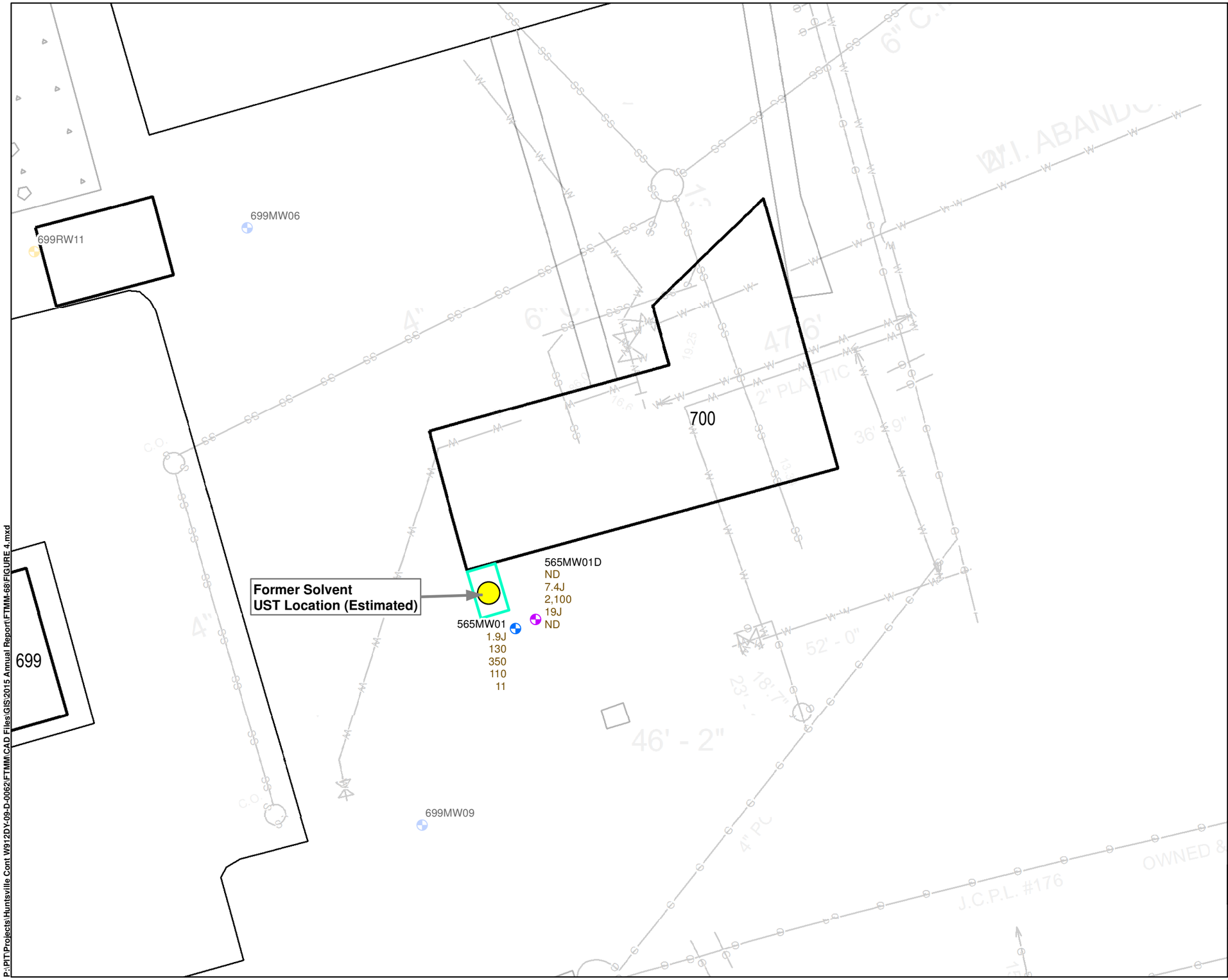
Source: FTMM Supplied CAD

PARSONS
401 Diamond Drive NW,
Huntsville AL

**Fort Monmouth
New Jersey**

FTMM-68 CHEMICAL CONSTITUENTS ABOVE NJDEP GWQS FIRST QUARTER 2015 SAMPLING EVENT

CREATED BY:	REVIEWED BY:
RR	ME
DATE:	FIGURE NUMBER:
JUL. 2016	FIGURE 3
PROJECT NUMBER:	FILE:
748810-03000	FIGURE 3.mxd



LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Recovery Well
- UST Excavation Footprint
- Municipal Boundary

NOTE:

1. All concentrations are in ug/L.
2. Only those compounds with concentrations that exceed the NJDEP groundwater quality standard (GWQS) are shown on the figure.
3. Wells without values were not sampled during the Sampling Event.

EXPLANATION:

565MW01——— Sample ID
NA ——1,1-Dichloroethene Concentration
NA —— Cis-1,2-Dichloroethene Concentration
NA —— Tetrachloroethene Concentration
NA —— Trichloroethene Concentration
NA —— Vinyl Chloride Concentration

J - Estimated Value
JN - Tentatively Identified Compound, Estimated Value
ND - Not Detected
NA - Not Analyzed
-- - Compound did not exceed the NJ GWQS this sampling round

Compound	NJDEP GWQS
1,1-Dichloroethene	1
Cis-1,2-Dichloroethene	70
Tetrachloroethene	1
Trichloroethene	1
Vinyl chloride	1

N

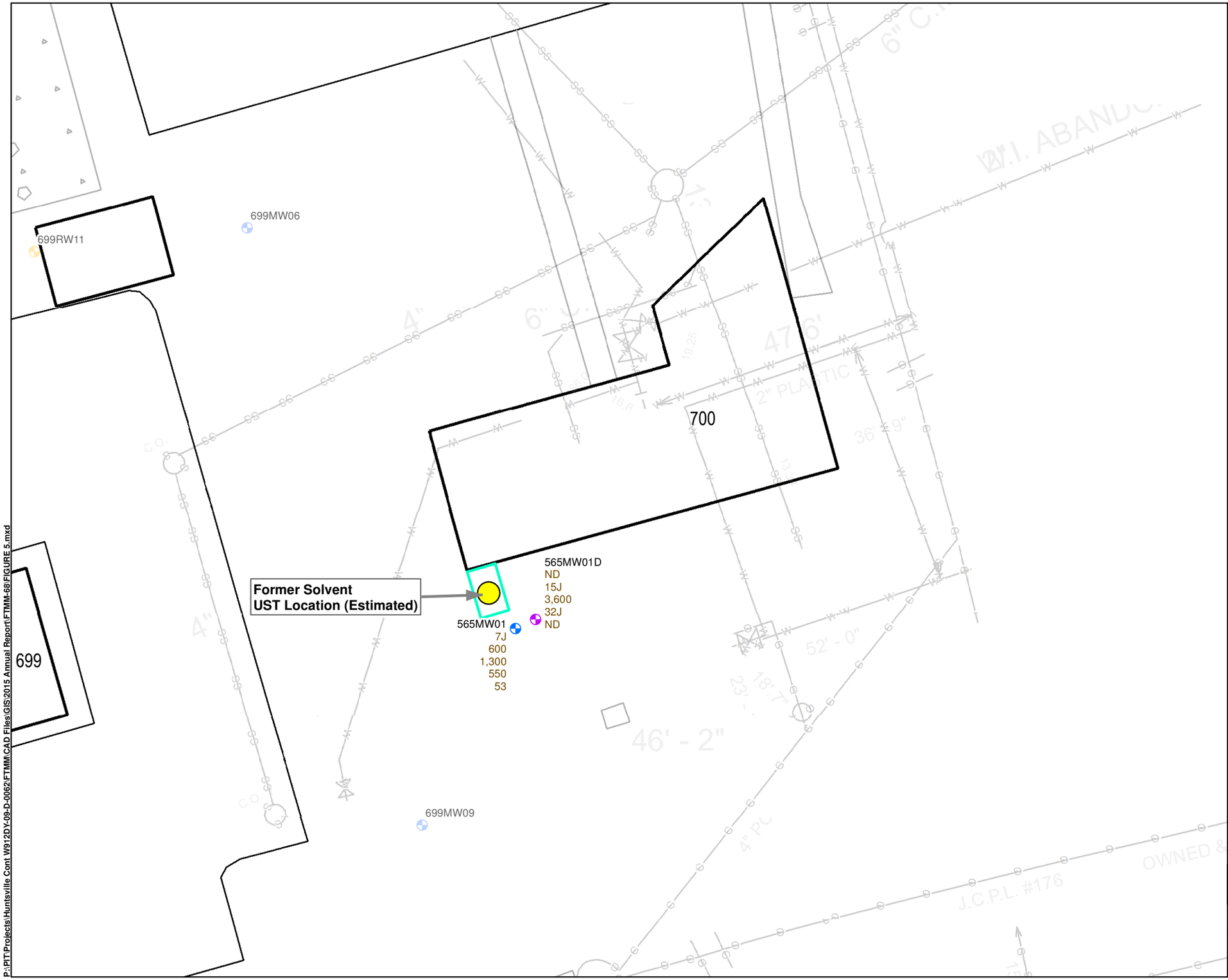
1 inch = 20 feet

0 10 20 40 Feet

Source: FTMM Supplied CAD

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-68\FIGURE 4.mxd

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey
FTMM-68 CHEMICAL CONSTITUENTS ABOVE NJDEP GWQS SECOND QUARTER 2015 SAMPLING EVENT	
CREATED BY: RR	REVIEWED BY: ME
DATE: JUL. 2016	FIGURE NUMBER: FIGURE 4
PROJECT NUMBER: 748810-03000	FILE: FIGURE 4.mxd



LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Recovery Well
- UST Excavation Footprint
- Municipal Boundary

NOTE:

1. All concentrations are in ug/L.
2. Only those compounds with concentrations that exceed the NJDEP groundwater quality standard (GWQS) are shown on the figure.
3. Wells without values were not sampled during the Sampling Event.

EXPLANATION:

565MW01——— Sample ID
NA ——1,1-Dichloroethene Concentration
NA —— Cis-1,2-Dichloroethene Concentration
NA —— Tetrachloroethene Concentration
NA —— Trichloroethene Concentration
NA —— Vinyl Chloride Concentration

J - Estimated Value
JN - Tentatively Identified Compound, Estimated Value
ND - Not Detected
NA - Not Analyzed
-- - Compound did not exceed the NJ GWQS this sampling round

Compound	NJDEP GWQS
1,1-Dichloroethene	1
Cis-1,2-Dichloroethene	70
Tetrachloroethene	1
Trichloroethene	1
Vinyl chloride	1

N

1 inch = 20 feet

0 10 20 40 Feet

Source: FTMM Supplied CAD

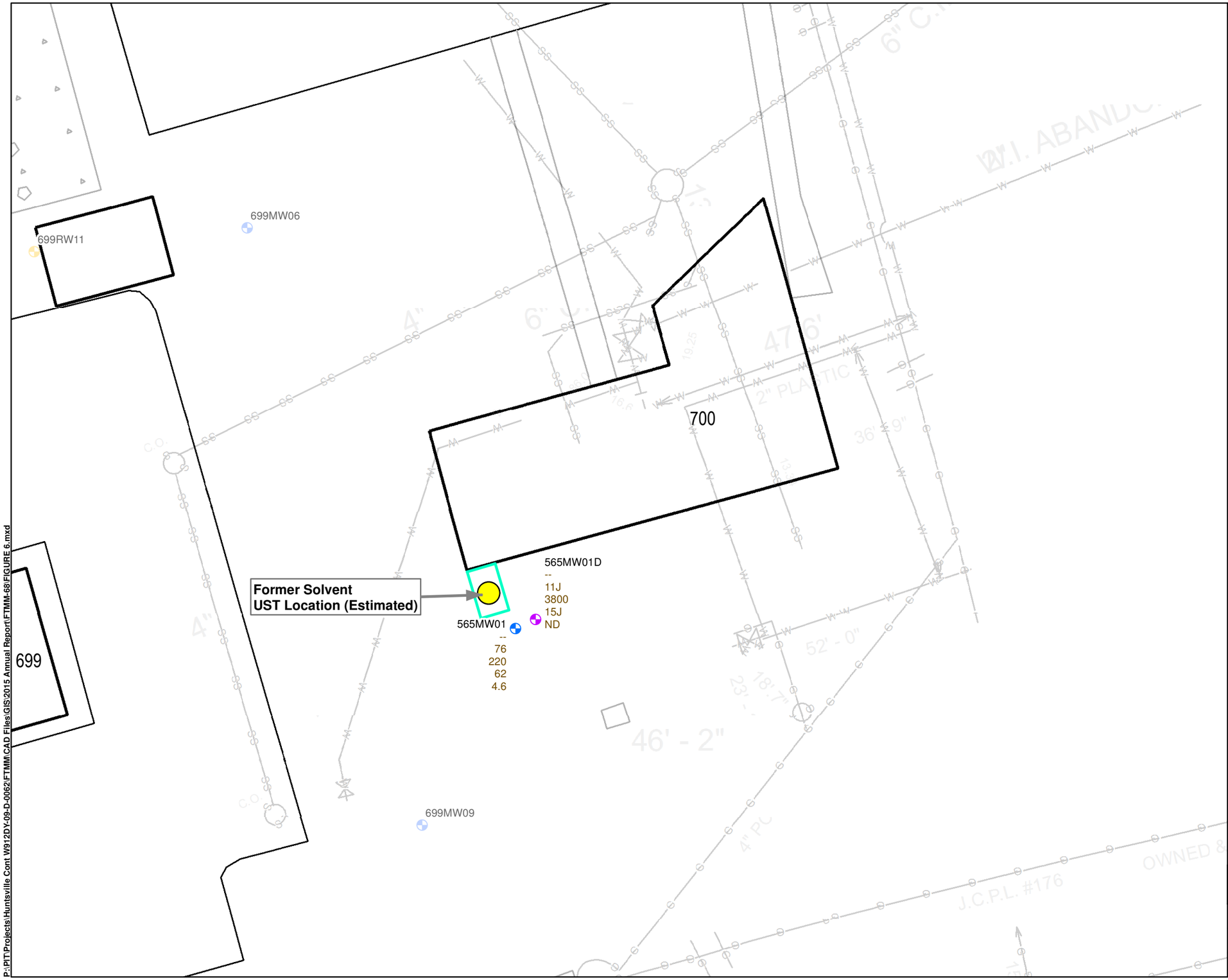
P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-68\FIGURE 5.mxd

PARSONS
401 Diamond Drive NW, Huntsville AL

Fort Monmouth
New Jersey

FTMM-68 CHEMICAL CONSTITUENTS ABOVE NJDEP GWQS THIRD QUARTER 2015 SAMPLING EVENT

CREATED BY:	REVIEWED BY:
RR	ME
DATE:	FIGURE NUMBER:
JUL. 2016	FIGURE 5
PROJECT NUMBER:	FILE:
748810-03000	FIGURE 5.mxd



P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2015 Annual Report\FTMM-68\FIGURE 6.mxd

LEGEND:

- Shallow Monitoring Well
- Deep Monitoring Well
- Recovery Well
- UST Excavation Footprint
- Municipal Boundary

NOTE:

1. All concentrations are in ug/L.
2. Only those compounds with concentrations that exceed the NJDEP groundwater quality standard (GWQS) are shown on the figure.
3. Wells without values were not sampled during the Sampling Event.

EXPLANATION:

565MW01——— Sample ID
NA ——1,1-Dichloroethene Concentration
NA —— Cis-1,2-Dichloroethene Concentration
NA —— Tetrachloroethene Concentration
NA —— Trichloroethene Concentration
NA —— Vinyl Chloride Concentration

J - Estimated Value
JN - Tentatively Identified Compound, Estimated Value
ND - Not Detected
NA - Not Analyzed
-- - Compound did not exceed the NJ GWQS this sampling round

Compound	NJDEP GWQS
1,1-Dichloroethene	1
Cis-1,2-Dichloroethene	70
Tetrachloroethene	1
Trichloroethene	1
Vinyl chloride	1

N

1 inch = 20 feet

0 10 20 40 Feet

Source: FTMM Supplied CAD

PARSONS
401 Diamond Drive NW, Huntsville AL

Fort Monmouth
New Jersey

FTMM-68 CHEMICAL CONSTITUENTS ABOVE NJDEP GWQS FOURTH QUARTER 2015 SAMPLING EVENT

CREATED BY:	REVIEWED BY:
RR	ME
DATE:	FIGURE NUMBER:
JUL. 2016	FIGURE 6
PROJECT NUMBER:	FILE:
748810-03000	FIGURE 6.mxd

ATTACHMENTS

Attachment A LFPS Field Sheets

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: FTMM
DATE: 11/16/15
WEATHER: 60°F, Partly sunny

CONSULTING FIRM: PARSONS
FIELD PERSONNEL: A. DiTonno, A. Foshbach-Meaney

MONITOR WELL #: 565MW01
WELL PERMIT #: —
WELL DEPTH: 17.12 feet
WELL DIAMETER: 4 inches
PUMP INTAKE DEPTH: 13.0 ft to TOC
SCREENED/OPEN INTERVAL: 5-15 ft to TOC

PID/FID READINGS:
BACKGROUND: 0.0 ppm
BENEATH OUTER CAP: 0.0 ppm
BENEATH INNER CAP: 6.9 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): 8.73 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP: QED Sample Pro 1.75" Bladder Pump

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 6920
SERIAL #: 11H101386
TEMP. CORRECTION VALUE: -0.14°C

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
3:24	X		5.00		0.780		182.7		2.85		8.7		16.52		275	8.83
3:29	X		5.01		0.781		185.9		2.37		8.6		16.48		275	8.83
3:34	X		5.02		0.780		191.0		1.88		8.2		16.40		275	8.84
3:39	X		5.03		0.784		196.9		1.47		8.1		16.36		275	8.85
3:44	X		5.02		0.786		200.8		1.21		7.9		16.33		275	8.85
3:49	X		5.03		0.790		204.5		1.01		7.5		16.31		275	8.85
3:54	X		5.03		0.793		208.8		0.88		7.4		16.31		275	8.85
3:59	X		5.03		0.795		212.1		0.79		7.2		16.27		275	8.85
4:04	X		5.03		0.797		214.9		0.68		7.1		16.26		275	8.85
4:09	X		5.03		0.798		217.6		0.62		7.0		16.24		275	8.86
4:14	X		5.02		0.799		219.5		0.58		7.1		16.20		275	8.86
4:19	X		5.03		0.799		221.3		0.54		6.9		16.17		275	8.86
4:24	X		5.03		0.800		223.1		0.52		6.8		16.13		275	8.86

SAMPLING INFORMATION:
Sample ID: FTMM-68-GW-565MW01
Sample Time: 1624
Comments: —

QA/QC INFORMATION:
Duplicate Collected?: No
MS/MSD Collected?: No
Filtering?: No

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: Clear
Odor: None
Other: —

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Alex DiTonno Alex DiTonno — DATE: 11/16/15

REVIEWER NAME & SIGNATURE: — DATE:

LOW FLOW GROUND WATER SAMPLING - DATA SHEET

SHEET 1 OF 1

PROJECT SITE/LOCATION: FTMM
DATE: ~~11/16/15~~ 11/17/15
WEATHER: ~~60°F~~, Partly Sunny, 29°F

CONSULTING FIRM: PARSONS
FIELD PERSONNEL: A.D.Jonno, A. Feshbach-Mecinej

MONITOR WELL #: 565MW01D
WELL PERMIT #: —
WELL DEPTH: 25.40 feet
WELL DIAMETER: 4 inches
PUMP INTAKE DEPTH: 20.5 ft to TOC
SCREENED/OPEN INTERVAL: 18-23 ft to TOC

PID/FID READINGS:
BACKGROUND: 0.0 ppm
BENEATH OUTER CAP: 0.0 ppm
BENEATH INNER CAP: 16.20 ppm

GAUGING/PUMPING INFORMATION:
INITIAL DEPTH TO WATER (BEFORE PUMP INSTALLATION): ~~9.07~~ 9.22 ft to TOC
DEPTH TO PRODUCT: N/A ft to TOC ; PRODUCT THICKNESS: N/A ft
MAKE/MODEL OF PUMP: QED SamplePro 1.75" Bladder Pump

WATER QUALITY METER INFORMATION:
INSTRUMENT MAKE/MODEL: YSI 0920
SERIAL #: 02F0823AA
TEMP. CORRECTION VALUE: 0.2°C

Time	PURGING	SAMPLING	pH (units) READING	pH (units) CHANGE	SPECIFIC CONDUCTIVITY (mS/cm) READING	SPECIFIC CONDUCTIVITY (mS/cm) CHANGE	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL (mV) CHANGE	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN (mg/L) CHANGE	TURBIDITY (NTU) READING	TURBIDITY (NTU) CHANGE	TEMPERATURE (degrees C) READING	TEMPERATURE (degrees C) CHANGE	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)	
10:05	X		5.17	0.613			116.9		0.49		20.3		15.23		300	9.44	
10 10	X		5.19		0.611		123.0		0.37		18.0		15.21		300	9.44	
10 15	X		5.19		0.610		127.5		0.31		16.6		15.16		300	9.43	
10 20	X		5.17		0.611		130.3		0.28		14.9		15.18		300	9.44	
10 25	X		5.18		0.610		132.0		0.27		14.2		15.11		300	9.44	
10 30	X		5.18		0.608		133.8		0.25		13.0		15.09		300	9.43	
10 35	X		5.19		0.605		135.6		0.25		12.7		15.14		300	9.44	
10 40	X		5.19		0.603		135.1		0.24		12.7		15.08		300	9.45	✓
10 45	X		5.20		0.600		135.7		0.24		11.7		15.16		300	9.45	✓
10 50	X		5.20		0.599		135.2		0.24		11.7		15.13		300	9.45	✓
1055	X	X															

SAMPLING INFORMATION:
Sample ID: FTMM-55-GW-565MW01D
Sample Time: 1055 68
Comments: none

QA/QC INFORMATION:
Duplicate Collected?: No
MS/MSD Collected?: No
Filtering?: No

ADDITIONAL OBSERVATIONS/COMMENTS:
Clarity: Clear
Odor: None
Other:

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:
pH: ± 0.1 units ; Spec. Conductivity: ± 3% ; ORP: ± 10mV ; D.O.: ± 10% ; Turbidity: ± 10% (or <1 NTU) ; Temperature: ± 3%. ; Water Level Change: < 0.3 ft

ANALYST NAME & SIGNATURE: Aaron Feshbach-Mecinej — DATE: 11/17/15

REVIEWER NAME & SIGNATURE: — DATE:

APPENDIX M

DATA VALIDATION MEMORANDUM

DATA VALIDATION SUMMARY REPORT

for samples collected from

FORT MONMOUTH

OCEANPORT, NEW JERSEY

Data Validation by: Sandra de las Fuentes

Date: January 19, 2016

Parsons - Austin

INTRODUCTION

The following data validation summary report covers water samples and the associated field quality control (QC) samples collected from Fort Monmouth in Oceanport, New Jersey on October 1 and December 14, 2015 as part of the 4th GW Quarterly event for 2015. Samples were logged in under the following Sample Delivery Groups (SDGs):

R150298, R1511019

The samples in this SDG were analyzed for volatile organic compounds (VOCs) plus tentatively identified compounds (TICs). The field QC samples collected included a trip blank (TB) sample, field blank, distilled water blank, a field duplicate (FD) sample and a matrix spike/matrix spike duplicate (MS/MSD) pair. The following table details the samples included in this SDG and the associated parameters.

All samples were collected by Parsons and shipped to ALS Environmental in Rochester, New York. The coolers shipped and they were received by the laboratory at temperatures slightly below the 2-6°C range recommended by the project-specific UFP-QAPP. Since none of the water samples showed signs of freezing, sample integrity was not compromised.

The laboratory is DOD ELAP and NELAP certified. All samples were prepared and analyzed following the procedures outlined in the Department of Defense (DoD) Quality Systems Manual (QSM) version 4.2, and the procedures outlined in the Standard Subcontract and the project-specific Uniform Federal Policy for Quality Assurance Project Plan (UFP-QAPP).

SAMPLE IDs AND REQUESTED PARAMETERS

SAMPLE ID	LAB ID	MATRIX	COLLECTED	ANALYSIS	COMMENTS
FTMM-TB-20151001	R1508298-001	Water	10/01/2015	VOCs	Trip Blank
FTMM-FB-20151001	R1508298-002	Water	10/01/2015	VOCs	Field Blank
FTMM-DI-20151001	R1508298-003	Water	10/01/2015	VOCs	Distilled Water Blank
FTMM-5-GW-M5MW16-14.57	R1511019-001	Water	12/14/2015	VOCs	
FTMM-5-GW-M5MW20-13.65	R1511019-002	Water	12/14/2015	VOCs	
FTMM-5-GW-M5MW23-10.82	R1511019-003	Water	12/14/2015	VOCs	
FTMM-5-GW-M5MW11-9.46	R1511019-004	Water	12/14/2015	VOCs	MS/MSD
FTMM-5-GW-M5MW111-9.46	R1511019-005	Water	12/14/2015	VOCs	FD of FTMM-5-GW-M5MW11-9.46
FTMM-18-GW-M18MW22-18.91	R1511019-006	Water	12/14/2015	VOCs	
FTMM-18-GW-M18MW23-9.28	R1511019-007	Water	12/14/2015	VOCs	
FTMM-54-GW-296MW04-6.35	R1511019-008	Water	12/14/2015	VOCs	
FTMM-54-GW-296MW06-10.1	R1511019-009	Water	12/14/2015	VOCs	
FTMM-22-GW-CW1MW281-33.74	R1511019-010	Water	12/14/2015	VOCs	
FTMM-22-GW-CW1MW28-11.21	R1511019-011	Water	12/14/2015	VOCs	
FTMM-22-GW-CW1MW27-12.63	R1511019-012	Water	12/14/2015	VOCs	
FTMM-22-GW-CW1MW31-16.40	R1511019-013	Water	12/14/2015	VOCs	
FTMM-22-GW-CW1MW29-10.85	R1511019-014	Water	12/14/2015	VOCs	
FTMM-22-GW-CW1MW37-11.78	R1511019-015	Water	12/14/2015	VOCs	

W = Water

***** - TB-2015-12-14 was included in the same cooler as the samples listed in R1511019 above; although logged in under WO R1510911. All VOC analytes results were non-detect to the MDLs for the TB sample.

EXTRACTION AND ANALYTICAL METHODS:

PARAMETER	MATRIX	EXTRACTION METHOD	ANALYTICAL METHOD	UNITS	DRY WT. VS. WET WT
VOCs	W	5030	8260C	µg/L	NA

EVALUATION CRITERIA

The data submitted by the laboratory has been validated following the guidelines outlined in the project-specific UFP-QAPP. A "Level IV" validation was performed and the information reviewed in the data packages included sample results; field and laboratory quality control results; calibrations; case narratives; raw data; cooler receipt forms; and chain-of-custody (COC) forms. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the UFP-QAPP were met.

The precision criterion for the relative percent difference (RPD) of the field duplicate samples is RPD $\leq$ 40 for water, as per the project-specific UFP-QAPP.

VOLATILE ORGANIC COMPOUNDS

General

The VOC portion of this SDG consisted of the samples listed in the table above, including one (1) field duplicate, (1) trip blank, one (1) field blank, one (1) distilled water blank, one (1) MS and one (1) MSD sample. The samples were collected on October 1, and December 14, 2015 and were analyzed for the full list of VOCs plus TICs as specified in the project-specific UFP-QAPP.

The VOCs analyses were performed according to USEPA SW846 Method 8260C. All samples in this SDG were analyzed following the procedures outlined in the project-specific UFP-QAPP. All samples were prepared and analyzed within the holding time required by the method. There were no TICs reported in any of the samples.

All analyses were performed undiluted, except as follows:

FTMM-22-GW-CW1MW28-33.74 was analyzed at 2.5x for trichloroethene only.

Accuracy

Accuracy was evaluated using the percent recovery obtained from LCSs, MS and MSD samples, and the surrogate spikes. Sample FTMM-5-GW-M5M11-9.46 was selected on the COC for MS/MSD purposes.

All LCSs and surrogate recoveries were within acceptance criteria.

All MS/MSD RPDs were within acceptance criteria, except as follows:

Analyte	MS %R	MSD %R	Criteria
Acetone	(140)	145	40-140

( ) = indicated criteria was met

No action was required since the Acetone recovery was within limits for the MS and only slightly high in the MSD sample.

Precision

Precision was evaluated using the RPD obtained from the MS/MSD concentrations. Precision was further evaluated by comparing the field duplicate analyte results. Sample FTMM-5-GW-M5MW111-9.46 was collected as the field duplicate of FTMM-5-GW-M5MW11-9.46.

All MS/MSD RPDs were within acceptance criteria.

There were no target VOCs detect above the Limit of Quantitation (LOQ) in either the parent or FD samples; therefore precision could not be evaluated.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the Work Plan;
- Comparing actual analytical procedures to those described in the Work Plan;
- Evaluating holding times; and
- Examining the laboratory blank for cross contamination of samples during sample analysis.

The samples in this SDG were analyzed following the COC and the analytical procedures described in the QAPP. All samples were prepared and analyzed within the holding time required by the method.

- All initial calibration criteria were met.
- All SSV criteria were met.
- GC/MS tuning criteria for BFB were within QC criteria for all batches.
- All CCV criteria were met.
- All internal standard (IS) criteria were met.
- All manual integrations performed by the laboratory were reviewed and verified.
- The MDLs were compliant with the requirements of the DOD QSM Version 4.2.

Three method blanks, one trip blank, one field blank and one distilled water blank were analyzed for VOCs. The method blanks reported 1,2,4-trichlorobenzene and naphthalene at concentrations less than one-half the LOQs, therefore no corrective action was required, as per the project-specific UFP-QAPP. The trip blank was non-detect at the LOD for all analytes except chloromethane was reported at 0.26 µg/L (LOW 5.0 µg/L). No action was required since there were no chloromethane detections in the associated samples.

Acetone was detected in FTMM-FB-20151001 and FTMM-DI-20151001 at 1.6 ug/L and 1.3 ug/L, respectively.

The following samples required adding a “B” flag to the acetone results due to the detections in the FB and DI blank samples. If the associated samples were non-detect, or had concentrations greater than 5x that found in the EB, no qualifying was required.

FTMM-5-GW-M5MW16-14.57
FTMM-5-GW-M5MW20-13.65
FTMM-5-GW-M5MW23-10.82
FTMM-5-GW-M5MW11-9.46
FTMM-5-GW-M5MW111-9.46

FTMM-18-GW-M18MW22-18.91
FTMM-18-GW-M18MW23-9.28
FTMM-54-GW-296MW04-6.35
FTMM-54-GW-296MW06-10.1
FTMM-22-GW-CW1MW281-33.74
FTMM-22-GW-CW1MW28-11.21
FTMM-22-GW-CW1MW27-12.63
FTMM-22-GW-CW1MW31-16.40
FTMM-22-GW-CW1MW29-10.85
FTMM-22-GW-CW1MW37-11.78

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All VOC results for the samples in this SDG were considered usable. The completeness for the VOC portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

COMPARABILITY

All data was generated using contract-specific standard methods and reported with known data quality, type of analysis, units, etc.

DATA USABILITY

The purpose of this data validation report is to ensure the integrity and reliability of analytical laboratory data. The data quality is evaluated based on precision, accuracy, representativeness, comparability, and completeness (PARCC) characteristics of the data. The validated data indicated that the laboratory correctly performed the analyses. Based on the data quality assessment, none of the data were qualified as rejected. All data in this SDG are considered usable for the purposes of this project. All sample LODs and LOQs met the requirements listed in the project QAPP. All Method Quality Objectives have been met.

DATA VALIDATION SUMMARY REPORT

for samples collected from

FORT MONMOUTH

OCEANPORT, NEW JERSEY

Data Validation by: Sandra de las Fuentes

Date: January 15, 2016

Parsons - Austin

INTRODUCTION

The following data validation summary report covers water samples and the associated field quality control (QC) samples collected from Fort Monmouth in Oceanport, New Jersey on November 16-18, 2015. Samples were logged in under the following Sample Delivery Groups (SDGs):

R1510063

The samples in these SDGs were analyzed for volatile organic compounds (VOCs) plus tentatively identified compounds (TICs). The field QC samples collected a trip blank, two matrix spike/matrix spike duplicate (MS/MSD) pairs, three field duplicate (FD) samples and three equipment blank (EB) samples.

All samples were collected by Parsons and shipped to ALS Environmental in Rochester, New York. All the coolers with the samples listed in the table below were received within the 2-6°C range recommended by the Department of Defense Quality System Manual (DoD QSM) version 4.2.

The laboratory is DOD ELAP and NELAP certified. All samples were prepared and analyzed following the procedures outlined in the Department of Defense (DoD) Quality Systems Manual (QSM) version 4.2, and the procedures outlined in the Standard Subcontract and the project-specific Uniform Federal Policy for Quality Assurance Project Plan (UFP-QAPP).

SAMPLE IDs AND REQUESTED PARAMETERS

SAMPLE ID	LAB ID	MATRIX	COLLECTED	ANALYSIS	COMMENTS
FTMM-68-GW-565MW01-13.0	R1510063-001	Water	11/16/2015	VOCs	
EB-2015-11-16	R1510063-002	Water	11/16/2015	VOCs	Equipment Blank
FTMM-68-GW-MW02-17.5	R1510063-003	Water	11/17/2015	VOCs	
FTMM-68-GW-MW102-17.5	R1510063-004	Water	11/17/2015	VOCs	FD of FTMM-68-GW-MW02-17.5
FTMM-68-GW-MW02-22.5	R1510063-005	Water	11/17/2015	VOCs	
FTMM-68-GW-MW03-17.5	R1510063-006	Water	11/17/2015	VOCs	MS/MSD
FTMM-68-GW-MW03-22.5	R1510063-007	Water	11/17/2015	VOCs	
FTMM-68-GW-MW04-20.25	R1510063-008	Water	11/17/2015	VOCs	MS/MSD
FTMM-68-GW-MW04-25.25	R1510063-009	Water	11/17/2015	VOCs	
TB-2015-11-18	R1510063-010	Water	11/18/2015	VOCs	Trip Blank
EB-2015-11-17	R1510063-011	Water	11/17/2015	VOCs	Equipment Blank
EB-2015-11-18	R1510063-012	Water	11/18/2015	VOCs	Equipment Blank
FTMM-68-GW-565MW01D-20.5	R1510063-013	Water	11/17/2015	VOCs	
FTMM-53-GW-MW02-20.25	R1510063-014	Water	11/17/2015	VOCs	
FTMM-53-GW-MW02-25.25	R1510063-015	Water	11/17/2015	VOCs	
FTMM-53-GW-699MW01-11.0	R1510063-016	Water	11/18/2015	VOCs	
FTMM-53-GW-699MW04-11.5	R1510063-017	Water	11/18/2015	VOCs	
FTMM-53-GW-699MW104-11.5	R1510063-018	Water	11/18/2015	VOCs	FD of FTMM-53-GW-699MW04-11.5
FTMM-68-GW-MW01-32.5	R1510063-019	Water	11/18/2015	VOCs	
FTMM-68-GW-MW101-32.5	R1510063-020	Water	11/18/2015	VOCs	FD of FTMM-68-GW-MW01-32.5
FTMM-68-GW-MW01-37.5	R1510063-021	Water	11/18/2015	VOCs	

W = Water

EXTRACTION AND ANALYTICAL METHODS:

PARAMETER	MATRIX	EXTRACTION METHOD	ANALYTICAL METHOD	UNITS	DRY WT. VS. WET WT
VOCs	W	5030C	8260C	µg/L	NA

EVALUATION CRITERIA

The data submitted by the laboratory has been validated following the guidelines outlined in the project-specific UFP-QAPP. A "Level IV" validation was performed and the information reviewed in the data packages included sample results; field and laboratory quality control results; calibrations; case narratives; raw data; cooler receipt forms; and chain-of-custody (COC) forms. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the UFP-QAPP were met.

The precision criterion for the relative percent difference (RPD) of the field duplicate samples is RPD $\leq$ 40 for waters, as per the project-specific UFP-QAPP.

VOLATILE ORGANIC COMPOUNDS

General

The VOC portion consisted of the samples listed in the Sample ID table above. The samples were collected on November 16-18, 2015 and were analyzed for the full list of VOCs as specified in the project-specific UFP-QAPP.

The VOCs analyses were performed according to USEPA SW846 Method 8260C. All samples in this SDG were analyzed following the procedures outlined in the project-specific UFP-QAPP. All samples were prepared and analyzed within the holding time required by the method.

All analyses were performed undiluted, except as follows:

FTMM-68-GW-565MW01-13.0 at 2.5x for all VOCs;
FTMM-68-GW-565MW01D-20.5 at 25x for all VOCs;
FTMM-68-GW-MW01-32.5 at 2.5x for all VOCs;
FTMM-68-GW-MW101-32.5 at 5x for tetrachloroethene only;
FTMM-68-GW-MW01-37.5 at 5x for tetrachloroethene only.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCSs, MSs, MSDs, and the surrogate spikes. FTMM-68-GW-MW03-17.5 and FTMM-68-GW-MW04-20.25 were selected for MS/MSD purposes.

All LCSs and surrogate recoveries were within acceptance criteria.

The MS and MSD recoveries were within acceptance criteria, except for the following:

FTMM-68-GW-MW03-17.5

Analyte	MS %R	MSD %R	Criteria
1,2,4-Trimethylbenzene	67	56	75-130
1,3,5-Trimethylbenzene	60	46	75-130
m/p-Xylene	(78)	72	75-130
o-Xylene	(81)	77	80-120
Styrene	47	34	65-135

All non-compliant analytes listed above, except m/p-Xylene and o-Xylene, were flagged “J/UJ” in the parent sample due to the low MS/MSD recoveries. No action was taken for the slightly low MSD recoveries for m/p-Xylene and o-Xylene.

FTMM-68-GW-MW04-20.25

Analyte	MS %R	MSD %R	Criteria
1,2,4-Trimethylbenzene	32	30	75-130
1,3,5-Trimethylbenzene	26	25	75-130

Analyte	MS %R	MSD %R	Criteria
p-Isopropyltoluene	73	73	75-130
m/p-Xylene	58	58	75-130
o-Xylene	64	64	80-120
Styrene	15	13	65-135

All non-compliant analytes listed above, except Isopropyltoluene, were flagged "J/UJ" in the parent sample due to the low MS/MSD recoveries. No action was taken for the slightly low MS/MSD recoveries for Isopropyltoluene.

Precision

Precision was evaluated using the RPD obtained from the MS/MSD concentrations. Precision was further evaluated by using the parent and field duplicate results.

All MS/MSD RPDs were within acceptance criteria, except Styrene was slightly above control limits for FTMM-68-GW-MW03-17.5. Since styrene was previously flagged due to the low recoveries in the MS/MSD, no further action was required.

All target VOCs were non-detect above the Limit of Quantitation (LOQ) in each pair of parent and field duplicate samples, except as follows:

Parent: FTMM-68-GW-MW02-17.5

Analyte	Parent (µg/L)	FD (µg/L)	RPD	Criteria
Methyl tert-Butyl Ether	14	14	0	RPD ≤ 40

Parent: FTMM-53-GW-699MW04-11.5

Analyte	Parent (µg/L)	FD (µg/L)	RPD	Criteria
Ethylbenzene	6.4	6.1	4.8	RPD ≤ 40
Isopropylbenzene (Cumene)	14	15	6.9	
Naphthalene	11	13	17	
n-Propylbenzene	19	21	10	

Parent: FTMM-68-GW-MW01-32.5

Analyte	Parent (µg/L)	FD (µg/L)	RPD	Criteria
Tetrachloroethane	660	640	3.1	RPD ≤ 40
Trichloroethene	17	19	11	

All RPDs met acceptance criteria in all three parent/FD pairs; therefore, no qualifiers were necessary.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the Work Plan;
- Comparing actual analytical procedures to those described in the Work Plan;
- Evaluating holding times; and
- Examining the laboratory blank for cross contamination of samples during sample analysis.

The samples in this SDG were analyzed following the COC and the analytical procedures described in the QAPP. All samples were prepared and analyzed within the holding time required by the method.

- All initial calibration criteria were met.
- All SSV criteria were met.
- All instrument performance check criteria were met.
- All CCV criteria were met.
- All internal standard (IS) criteria were met.
- All manual integrations performed by the laboratory were reviewed and verified.
- The MDLs were compliant with the requirements of the DOD QSM Version 4.2.

There was one method blank associated with each batch for VOCs and one trip blank per cooler. All method blanks were less than one-half the LOQs, as required by the project-specific UFP-QAPP, so no corrective action was required. It should be noted that low concentrations of 1,2,4-Trichlorobenzene, Hexachlorobutadiene, Naphthalene and n-Butylbenzene were detected in one or more MBs. None of these VOCs were considered common laboratory contaminants at the time of analyses.

In addition to the analytical method blanks analyzed in this data package, a trip blank and two equipment blanks were also analyzed.

The trip blanks were non-detect for all target VOCs, except as follows:

TB ID	Analyte	Conc. (µg/L)	LOQ (µg/L)
TB-2015-11-18	1,2,4-Trichloroebnzene	0.27	5.0
TB-2015-11-18	Naphthalene	0.27	5.0

The following samples were flagged “B” for possible blank contamination as indicated in the trip blank sample:

Sample ID	Analyte	Conc. (µg/L)	Applied Flag
FTMM-53-GW-699MW01-11.0	Naphthalene	0.21	B

Sample ID	Analyte	Conc. (µg/L)	Applied Flag
FTMM-53-GW-MW01-32.5	Naphthalene	0.83	B

There were no 1,2,4-Trichlorobenzene or hexachlorobutadiene detections in any of the associated samples.

The equipment blanks were non-detect for all analytes, except for the following:

Blank ID	Analyte	Conc. (µg/L)	LOQ (µg/L)
EB-2015-11-17	Acetone	4.7	5.0
EB-2015-11-18	Acetone	5.1	5.0
EB-2015-11-18	Naphthalene	0.21	5.0

The following samples were flagged "B" for possible blank contamination as indicted in the equipment blank sample:

Sample ID	Analyte	Conc. (µg/L)	Applied Flag
FTMM-53-GW-699MW01-11.0	Naphthalene	0.21	B
FTMM-53-GW-699MW04-11.5	Acetone	3.7	B
FTMM-53-GW-699MW104-11.5	Acetone	3.1	B
FTMM-68-GW-MW01-32.5	Naphthalene	0.83	B

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All VOC results for the samples in this SDG were considered usable. The completeness for the VOC portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

COMPARABILITY

All data was generated using contract-specific standard methods and reported with known data quality, type of analysis, units, etc.

DATA USABILITY

The purpose of this data validation report is to ensure the integrity and reliability of analytical laboratory data. The data quality is evaluated based on precision, accuracy, representativeness, comparability, and completeness (PARCC) characteristics of the data. The validated data indicated that the laboratory correctly performed the analyses. Based on the data quality assessment, none of the data were qualified as rejected. All data in this SDG are considered usable for the purposes of this project. All sample LODs and LOQs met the requirements listed in the project QAPP. All Method Quality Objectives have been met.

DATA VALIDATION SUMMARY REPORT

for samples collected from

FORT MONMOUTH

OCEANPORT, NEW JERSEY

Data Validation by: Sandra de las Fuentes

Date: January 15, 2016

Parsons - Austin

INTRODUCTION

The following data validation summary report covers water samples and the associated field quality control (QC) samples collected from Fort Monmouth in Oceanport, New Jersey on November 19 and 20, 2015. Samples were logged in under the following Sample Delivery Groups (SDGs):

R1510161

The samples in these SDGs were analyzed for volatile organic compounds (VOCs) plus tentatively identified compounds (TICs), semivolatile organic compounds (SVOCs) plus TICs, metals and Pesticides. The field QC samples collected are a trip blank (TB) sample, a matrix spike/matrix spike duplicate (MS/MSD) pair, one field duplicate (FD) sample and two equipment blank (EB) samples.

All samples were collected by Parsons and shipped to ALS Environmental in Rochester, New York. The coolers with the samples listed in the table below were received within the 2-6°C range recommended by the Department of Defense Quality System Manual (DoD QSM) version 4.2.

The laboratory is DOD ELAP and NELAP certified. All samples were prepared and analyzed following the procedures outlined in the Department of Defense (DoD) Quality Systems Manual (QSM) version 4.2, and the procedures outlined in the Standard Subcontract and the project-specific Uniform Federal Policy for Quality Assurance Project Plan (UFP-QAPP).

SAMPLE IDs AND REQUESTED PARAMETERS

SAMPLE ID	LAB ID	MATRIX	COLLECTED	ANALYSIS	COMMENTS
FTMM-8-GW-M8MW21-13.0	R1510161-001	Water	11/19/2015	Metals	Pb only
FTMM-8-GW-M8MW17-9.75	R1510161-002	Water	11/19/2015	Metals	Pb only
FTMM-8-GW-M8MW24-28.5	R1510161-003	Water	11/19/2015	VOCs	
EB-2015-11-19	R1510161-004	Water	11/19/2015	VOCs, Pest, Metals	Equipment Blank (Metal: Pb only)
TB-2015-11-19	R1510161-005	Water	11/19/2015	VOCs	Trip Blank
FTMM-56-GW-80MW02-7.5	R1510161-006	Water	11/20/2015	Pest	
FTMM-56-GW-80MW05-7.0	R1510161-007	Water	11/20/2015	Metals	Pd, As, Cd
FTMM-56-GW-80MW102-7.5	R1510161-008	Water	11/20/2015	Pest	FD of FTMM-56-GW-80MW02-7.5
FTMM-57-GW-108MW04-7.5	R1510161-009	Water	11/20/2015	Metals	Pd, As, Cd
FTMM-M8-GW-MW15-11.8	R1510161-010	Water	11/19/2015	VOCs	
FTMM-M8-GW-MW16-12.07	R1510161-011	Water	11/19/2015	VOCs	
FTMM-M8-GW-697MW01-16.5	R1510161-012	Water	11/19/2015	VOCs, Pest, Metals	Pb only; MS/MSD for Pesticides
FTMM-M8-GW-MW12-13.5	R1510161-015	Water	11/20/2015	VOCs	
FTMM-66-GW-886RW08-11.2	R1510161-016	Water	11/20/2015	SVOCs	
EB-2015-11-20	R1510161-017	Water	11/20/2015	VOCs, SVOCs, Pest, Metals	Equipment Blank (Metals: Pd, As, Cd)

W = Water

EXTRACTION AND ANALYTICAL METHODS:

PARAMETER	MATRIX	EXTRACTION METHOD	ANALYTICAL METHOD	UNITS	DRY WT. VS. WET WT
VOCs	W	5030C	8260C	µg/L	NA
SVOCs	W	3541	8270D	µg/L	NA
Pesticides	W	3510C	8081B	µg/L	NA
Metals	W	3010A	6010C	µg/L	NA
Mercury	W	7470A	7470A	µg/L	NA

EVALUATION CRITERIA

The data submitted by the laboratory has been validated following the guidelines outlined in the project-specific UFP-QAPP. A "Level IV" validation was performed and the information reviewed in the data packages included sample results; field and laboratory quality control results; calibrations; case narratives; raw data; cooler receipt forms; and chain-of-custody (COC) forms. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the UFP-QAPP were met.

The precision criterion for the relative percent difference (RPD) of the field duplicate samples is RPD $\leq$ 40 for waters, as per the project-specific UFP-QAPP.

VOLATILE ORGANIC COMPOUNDS

General

The VOC portion consisted of the samples listed in the Sample ID table above. The samples were collected on November 16-20 and 23, 2015 and were analyzed for the full list of VOCs as specified in the project-specific UFP-QAPP.

The VOCs analyses were performed according to USEPA SW846 Method 8260C. All samples in this SDG were analyzed following the procedures outlined in the project-specific UFP-QAPP. All samples were prepared and analyzed within the holding time required by the method. All analyses were performed undiluted.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCSs and the surrogate spikes. There were no samples selected on the COC for MS/MSD purposes.

All LCSs and surrogate recoveries were within acceptance criteria.

Precision

Precision is typically evaluated using the RPDs obtained from the LCS/LCSD, MS/MSD and field duplicate samples. In the absence of these QC samples, precision could not be evaluated.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the Work Plan;
- Comparing actual analytical procedures to those described in the Work Plan;
- Evaluating holding times; and
- Examining the laboratory blank for cross contamination of samples during sample analysis.

The samples in this SDG were analyzed following the COC and the analytical procedures described in the QAPP. All samples were prepared and analyzed within the holding time required by the method.

- All initial calibration criteria were met.
- All SSV criteria were met.
- All instrument performance check criteria were met.

- All CCV criteria were met.
- All internal standard (IS) criteria were met.
- All manual integrations performed by the laboratory were reviewed and verified.
- The MDLs were compliant with the requirements of the DOD QSM Version 4.2.

There was one method blank associated with each batch for VOCs and one trip blank per cooler. All method blanks were less than one-half the LOQs, as required by the project-specific UFP-QAPP, so no corrective action was required. It should be noted that low concentrations of 1,2,4-Trichlorobenzene, Hexachlorobutadiene, Naphthalene and n-Butylbenzene were detected in one or more MBs. None of these VOCs were considered common laboratory contaminants at the time of analyses.

In addition to the analytical method blanks analyzed in this data package, a trip blank and two equipment blanks were also analyzed.

The trip blanks were non-detect for all target VOCs, except as follows:

TB ID	Analyte	Conc. (µg/L)	LOQ (µg/L)
TB-2015-11-19	1,2,4-Trichlorobenzene	0.29	5.0
TB-2015-11-19	Hexachlorobutadiene	0.65	5.0
TB-2015-11-19	Naphthalene	0.22	5.0

There were no detections above the MDL in any of the associated samples; therefore qualifying the data was unnecessary.

The equipment blanks were non-detect for all analytes, except for the following:

Blank ID	Analyte	Conc. (µg/L)	LOQ (µg/L)
EB-2015-11-19	Tert-butyl-alcohol	29	100

There were no detections above the MDL in any of the associated samples; therefore qualifying the data was unnecessary.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All VOC results for the samples in this SDG were considered usable. The completeness for the VOC portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

SEMIVOLATILE ORGANIC COMPOUNDS

General

The SVOC portion of SDG R1510161 consisted of the samples listed in the table above. The samples were collected on November 19 and 20, 2015 and were analyzed for the full list of semivolatiles as listed in the project-specific UFP-QAPP.

The SVOC analyses were performed according to USEPA SW846 Method 8270D. The samples were prepared and analyzed following the procedures outlined in the UFP-QAPP. The samples were prepared and analyzed within the holding time required by the method.

All analyses were performed undiluted and there were no TICs reports in any of the samples.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCS, LCSD, and the surrogate spikes. There were no samples designated on the COC for MS/MSD purposes.

The LCS, LCSD were analyzed for SVOCs and all spike recoveries were within acceptance criteria, except as follows:

LCS ID	Analyte	LCS %R	LCSD %R	Criteria
LCS/LCSD Batch # 250879	Benzidine	9.0	(15)	10-130

( ) = indicated criteria was met

Although Benzidine met criteria in the LCSD and was only slightly low in the LCS; the very low recoveries warranted qualifying the associated sample FTMM-66-GW-886RW08-11.2 with a “UJ”.

All surrogate spike recoveries were within acceptance criteria.

Precision

Precision was evaluated using the RPD obtained from the LCS/LCSD concentrations. There were no field duplicate samples designated on the COC.

All LCS/LCSD RPDs were within acceptance criteria, except as follows:

LCS/LCSD ID	Analyte	MS/MSD % RPD	RPD Criteria
LCS/LCSD Batch # 250879	Benzidine	53	+/-30

Benzidine was previously qualified with a "UJ" due to the low recovery in the LCS, therefore no further corrective action was necessary.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the Work Plan;
- Comparing actual analytical procedures to those described in the Work Plan;
- Evaluating holding times; and
- Examining laboratory blanks for cross contamination of samples during analysis.

All samples were analyzed following the COC and the analytical procedures described in the QAPP. All samples were prepared and analyzed within the holding time required by the method.

- All initial calibration criteria were met.
- All SSV criteria were met.
- All instrument performance check criteria were met.
- All CCV criteria were met.
- All internal standard criteria were met.
- All manual integrations performed by the laboratory were reviewed and verified.
- The MDLs were compliant with the requirements of the DOD QSM Version 4.2.

One method blank was analyzed for SVOCs for each batch, plus two equipment blanks. The method blanks were non-detect for all analytes.

The equipment blanks were non-detect for all analytes, except for the following:

Blank ID	Analyte	Conc. (µg/L)	LOQ (µg/L)
EB-2015-11-19	tert-Butyl Alcohol	29	100

There were no tert-Butyl Alcohol detections in any of the associated samples; therefore no corrective action was required.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All SVOC results for the sample in this SDG were considered usable. Thus, the completeness for the SVOC portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

PESTICIDES

General

The pesticide portion of SDG R1510161 consisted of the samples listed in the table above. The samples were collected on November 19 and 20, 2015 and were analyzed for the full list of pesticides as specified in the UFP-QAPP.

The pesticide analyses were performed according to the United States Environmental Protection Agency (USEPA) SW846 Method 8082A. All samples in this SDG were analyzed following the procedures outlined in the project-specific UFP-QAPP. All samples were prepared and analyzed within the holding time required by the method. The analysis was performed undiluted.

It should be noted that the laboratory applied a "P" qualifier to the alpha-chlordane results for FTMM-56-GW-80MW02-7.5 and FTMM-56-GW-80MW102-7.5 due to the variance between results on the different columns. The data validator changed the "P" to "J" as estimated.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the LCS, LCSD, MS, MSD and the surrogate spikes. FTMM-M8-GW-697-MW01-16.5 was selected on the COC for MS/MSD purposes.

All LCS, LCSD and surrogate recoveries were within acceptance criteria.

The MS and MSD recoveries were within acceptance criteria, except for the following:

FTMM-M8-GW-697MW01-16.5

Analyte	MS %R	MSD %R	Criteria
Endrin Aldehyde	49	48	55-135
alpha-Chlordane	(102)	141	65-125
gamma-Chlordane	(114)	158	60-125

All non-compliant analytes listed above, were flagged "J/UJ" in the parent sample due to the non-compliant MS/MSD recoveries.

Precision

Precision was evaluated using the RPD obtained from the LCS/LCSD and MS/MSD concentrations. Precision was further evaluated using the parent and field duplicate results.

All LCS/LCSD and MS/MSD RPDs were within acceptance criteria.

All target pesticides were non-detect above the Limit of Quantitation (LOQ) in the parent and field duplicate samples, except as follows:

Parent: FTMM-56-GW-80MW02-7.5

Analyte	Parent (µg/L)	FD (µg/L)	RPD	Criteria
Heptachlor Epoxide	0.055	0.055	0	RPD ≤ 40
alpha-Chlordane	0.28	0.28	0	
gamma-Chlordane	0.29	0.29	0	

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the Work Plan;
- Comparing actual analytical procedures to those described in the Work Plan;
- Evaluating holding times; and
- Examining the laboratory blanks for cross contamination of samples during sample analysis.

The samples in this SDG were analyzed following the COC and the analytical procedures described in the Work Plan. All samples were prepared and analyzed within the holding time required by the method.

- All initial calibration criteria were met.
- All secondary source verification (SSV) criteria were met.
- All continuing calibration verification (CCV) criteria were met.
- All breakdown criteria were met.
- The MDLs met the requirements listed in the DoD QSM version 4.2.

There was one method blank for pesticides analyses. The method blank was non-detect for all target pesticides.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All pesticides results for the samples in this SDG were considered usable. The completeness for the pesticides portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

METALS

General

The metals portion consisted of R1510161 consisted of the samples listed in the table above. The metals were analyzed for one or more of the following metals: lead, arsenic and/or cadmium. The samples were collected on November 19 and 20, 2015.

The metals analyses were performed using USEPA SW846 Method 6010C. All samples in this SDG were analyzed following the procedures outlined in the project-specific UFP-QAPP. All samples were prepared and analyzed within the holding time required by the method. The samples for metals analyses were performed undiluted.

It should be noted that several metals were reported at different LOQs than as stated in the UFP-QAPP. The LOQs are routinely updated by the laboratory, and are generally done so annually.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the laboratory control sample (LCS). There were no samples designated on the COC for MS/MSD purposes.

All LCS recoveries were within acceptance criteria.

Precision

Precision is typically evaluated by comparing the LCS/LCSD, MS/MSD and field duplicate analyte values. In the absence of these QC samples, precision evaluation was not possible.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the Work Plan;
- Comparing actual analytical procedures to those described in the Work Plan;
- Evaluating preservation and holding times; and
- Examining laboratory blanks for cross contamination of samples during analysis.

The samples in this SDG were analyzed following the COC and the analytical procedures described in the QAPP. The samples were prepared and analyzed within the holding times required by the method.

- All instrument calibration criteria were met.
- All second source criteria were met. The ICV samples were prepared using a secondary source.
- All continuing calibration verification (CCV) criteria were met.
- All interference check (ICSA/ICSAB) criteria were met.
- The MDLs met the requirements listed in the DoD QSM version 4.2.
- The dilution test (DT) was performed on FTMM-56-GW-80-MW05-7.0. The DT was not applicable since there were no metals reported at than 50 times the method detection limit (MDL).
- The post digestion spike (PDS) was performed on a non-project sample and therefore not applicable to this data set.

There was one (1) method blank, and several calibration blanks associated with the metals analyses in this SDG. All blanks were compliant, although cadmium had detections below one-half the Project quantitation Limit (PQL), as required by the UFP-QAPP. There were also an equipment blank associated with this SDG. EB-2015-11-20 reported cadmium at 0.317 µg/L with an LOQ of 5.0 µg/L. FTMM-56-GW-80MW05-7.0 was flagged “B” for possible cadmium contamination.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All metals results for the samples in this SDG were considered usable. Therefore, the completeness for the metals portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

COMPARABILITY

All data was generated using contract-specific standard methods and reported with known data quality, type of analysis, units, etc.

DATA USABILITY

The purpose of this data validation report is to ensure the integrity and reliability of analytical laboratory data. The data quality is evaluated based on precision, accuracy, representativeness, comparability, and completeness (PARCC) characteristics of the data. The validated data indicated that the laboratory correctly performed the analyses. Based on the data quality assessment, none of the data were qualified as rejected. All data in this SDG are considered usable for the purposes of this project. All sample LODs and LOQs met the requirements listed in the project QAPP. All Method Quality Objectives have been met.

DATA VALIDATION SUMMARY REPORT

for samples collected from

FORT MONMOUTH

OCEANPORT, NEW JERSEY

Data Validation by: Sandra de las Fuentes

Date: January 15, 2016

Parsons - Austin

INTRODUCTION

The following data validation summary report covers water samples and the associated field quality control (QC) samples collected from Fort Monmouth in Oceanport, New Jersey on November 23, 2015. Samples were logged in under the following Sample Delivery Groups (SDGs):

R1510266

The samples in these SDGs were analyzed for volatile organic compounds (VOCs) plus tentatively identified compounds (TICs), semivolatile organic compounds (SVOCs) plus TICs, and Pesticides. The field QC samples collected are three trip blank (TB) samples, two matrix spike/matrix spike duplicate (MS/MSD) pairs, four field duplicate (FD) samples and six equipment blank (EB) samples.

All samples were collected by Parsons and shipped to ALS Environmental in Rochester, New York. All the coolers with the samples listed in the table below were received within the 2-6°C range recommended by the Department of Defense Quality System Manual (DoD QSM) version 4.2.

The laboratory is DOD ELAP and NELAP certified. All samples were prepared and analyzed following the procedures outlined in the Department of Defense (DoD) Quality Systems Manual (QSM) version 4.2, and the procedures outlined in the Standard Subcontract and the project-specific Uniform Federal Policy for Quality Assurance Project Plan (UFP-QAPP).

SAMPLE IDs AND REQUESTED PARAMETERS

SAMPLE ID	LAB ID	MATRIX	COLLECTED	ANALYSIS	COMMENTS
FTMM-66-GW-886RW06-8.75	R1510266-001	Water	11/23/2015	VOCs, SVOCs	
FTMM-66-GW-886RW01-11.9	R1510266-002	Water	11/23/2015	VOCs, SVOCs	
FTMM-53-GW-699RW03-12.8	R1510266-003	Water	11/23/2015	VOCs	
FTMM-53-GW-699RW05-10	R1510266-004	Water	11/23/2015	VOCs	
FTMM-53-GW-699RW16-9.7	R1510266-005	Water	11/23/2015	VOCs	
FTMM-53-GW-MW01-12.9	R1510266-006	Water	11/23/2015	VOCs	
FTMM-53-WW-MW01-8.4	R1510266-007	Water	11/23/2015	VOCs	Should be FTMM-53-GW-MW01-8.4
EB-2015-11-23	R1510266-008	Water	11/23/2015	VOCs, SVOCs	Equipment Blank
TB-2015-11-23	R1510266-009	Water	11/23/2015	VOCs	Trip Blank

W = Water

EXTRACTION AND ANALYTICAL METHODS:

PARAMETER	MATRIX	EXTRACTION METHOD	ANALYTICAL METHOD	UNITS	DRY WT. VS. WET WT
VOCs	W	5030C	8260C	µg/L	NA
SVOCs	W	3541	8270D	µg/L	NA

EVALUATION CRITERIA

The data submitted by the laboratory has been validated following the guidelines outlined in the project-specific UFP-QAPP. A “Level IV” validation was performed and the information reviewed in the data packages included sample results; field and laboratory quality control results; calibrations; case narratives; raw data; cooler receipt forms; and chain-of-custody (COC) forms. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the UFP-QAPP were met.

The precision criterion for the relative percent difference (RPD) of the field duplicate samples is RPD $\leq$ 40 for waters, as per the project-specific UFP-QAPP.

VOLATILE ORGANIC COMPOUNDS

General

The VOC portion consisted of the samples listed in the Sample ID table above. The samples were collected on November 23, 2015 and were analyzed for the full list of VOCs as specified in the project-specific UFP-QAPP.

The VOCs analyses were performed according to USEPA SW846 Method 8260C. All samples in this SDG were analyzed following the procedures outlined in the project-specific UFP-QAPP. All samples were prepared and analyzed within the holding time required by the method.

All analyses were performed undiluted, except as follows:

FTMM-53-GW-699RW05-10 at 2.5x for all VOCs.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCSs, MSs, MSDs, and the surrogate spikes. There were no samples selected on the COC for MS/MSD purposes.

All LCSs and surrogate recoveries were within acceptance criteria.

Precision

Precision is typically evaluated using the RPDs obtained from the LCS/LCSD, MS/MSD and field duplicate samples. In the absence of these QC samples, precision could not be evaluated.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the Work Plan;
- Comparing actual analytical procedures to those described in the Work Plan;
- Evaluating holding times; and
- Examining the laboratory blank for cross contamination of samples during sample analysis.

The samples in this SDG were analyzed following the COC and the analytical procedures described in the QAPP. All samples were prepared and analyzed within the holding time required by the method.

- All initial calibration criteria were met.
- All SSV criteria were met.
- All instrument performance check criteria were met.
- All CCV criteria were met.
- All internal standard (IS) criteria were met.
- All manual integrations performed by the laboratory were reviewed and verified.
- The MDLs were compliant with the requirements of the DOD QSM Version 4.2.

There was one method blank associated with each batch for VOCs and one trip blank per cooler. All method blanks were less than one-half the LOQs, as required by the project-specific UFP-QAPP, so no corrective action was required. It should be noted that low concentrations of 1,2,4-Trichlorobenzene, Hexachlorobutadiene, Naphthalene and n-Butylbenzene were detected in one or more MBs. None of these VOCs were considered common laboratory contaminants at the time of analyses.

In addition to the analytical method blanks analyzed in this data package, trip blanks and equipment blanks were also analyzed.

The trip blanks were non-detect for all target VOCs, except as follows:

TB ID	Analyte	Conc. (µg/L)	LOQ (µg/L)
TB-2015-11-23	1,2,4-Trichloroebnzene	0.24	5.0
TB-2015-11-23	Naphthalene	0.22	5.0

The following samples were flagged “B” for possible blank contamination as indicated in the trip blank sample:

Sample ID	Analyte	Conc. (µg/L)	Applied Flag
FTMM-53-GW-699RW03-12.8	Naphthalene	1.1	B
FTMM-53-GW-699RW05-10	Acetone	5.7	B

There were no 1,2,4-Trichlorobenzene or hexachlorobutadiene detections in any of the associated samples.

The equipment blanks were non-detect for all analytes, except for the following:

Blank ID	Analyte	Conc. (µg/L)	LOQ (µg/L)
EB-2015-11-23	Acetone	7.7	5.0
EB-2015-11-23	Naphthalene	0.22	5.0

The following samples were flagged “B” for possible blank contamination as indicted in the trip blank sample:

Sample ID	Analyte	Conc. (µg/L)	Applied Flag
FTMM-53-GW-699RW03-12.8	Naphthalene	1.1	B

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All VOC results for the samples in this SDG were considered usable. The completeness for the VOC portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

SEMIVOLATILE ORGANIC COMPOUNDS

General

The SVOC portion of R1510266 consisted of the samples listed in the table above. The samples were collected on November 23, 2015 and were analyzed for the full list of semivolatiles as listed in the project-specific UFP-QAPP.

The SVOC analyses were performed according to USEPA SW846 Method 8270D. The samples were prepared and analyzed following the procedures outlined in the UFP-QAPP. The samples were prepared and analyzed within the holding time required by the method.

All analyses were performed undiluted. Only FTMM-66-GW-886RW01-11.9 contained one known TIC.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCS, LCSD, and the surrogate spikes. There were no samples designated on the COC for MS/MSD purposes.

The LCS, LCSD were analyzed for SVOCs and all spike recoveries were within acceptance criteria, except as follows:

LCS ID	Analyte	LCS %R	LCSD %R	Criteria
LCS/LCSD Batch # 250969	2,4-Dinitrotoluene	(116)	122	50-120

( ) = indicated criteria was met

No action was required for the slightly high recovery for 2,4-Dinitrotoluene since there were no detections in the associated samples.

All surrogate spike recoveries were within acceptance criteria.

Precision

Precision was evaluated using the RPD obtained from the LCS/LCSD concentrations. There were no field duplicate samples designated on the COC.

All LCS/LCSD RPDs were within acceptance criteria.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the Work Plan;
- Comparing actual analytical procedures to those described in the Work Plan;
- Evaluating holding times; and
- Examining laboratory blanks for cross contamination of samples during analysis.

All samples were analyzed following the COC and the analytical procedures described in the QAPP. All samples were prepared and analyzed within the holding time required by the method.

- All initial calibration criteria were met.
- All SSV criteria were met, except as follows:

Inst / ICV Date	Analyte	%R	Criteria (%D)
5973-A 12/4/15 3:26	4-Chloroaniline 3-Nitroaniline	33 53	85-115%

The ICV indicated a low bias for both analytes listed above, therefore the associated samples were flagged "UJ" for both analytes: FTMM-66-GW-886RW06-8.75 and FTMM-66-GW-886RW01-11.9.

- All instrument performance check criteria were met.
- All CCV criteria were met, except as follows:

Inst / CCV Date	Analyte	%R	Criteria (%D)
5973-A 12/9/15 7:27	4,6-Dinitro2-methylphenol 2,4-Dinitrophenol	68 58	80-120%

The CCV indicated a low bias for both analytes listed above, therefore the associated samples were flagged "UJ" for both analytes: FTMM-66-GW-886RW06-8.75 and FTMM-66-GW-886RW01-11.9.

- All internal standard criteria were met.
- All manual integrations performed by the laboratory were reviewed and verified.

- The MDLs were compliant with the requirements of the DOD QSM Version 4.2.

One method blank was analyzed for SVOCs for each batch, plus one equipment blank. The method blanks were non-detect for all analytes. The equipment blank EB-2015-11-23 reported a low concentration of diethyl phthalate at 4.0 µg/L with an LOQ of 9.4 µg/L. No action was required since there were no detections for this analyte in the associated samples.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All SVOC results for the sample in this SDG were considered usable. Thus, the completeness for the SVOC portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

COMPARABILITY

All data was generated using contract-specific standard methods and reported with known data quality, type of analysis, units, etc.

DATA USABILITY

The purpose of this data validation report is to ensure the integrity and reliability of analytical laboratory data. The data quality is evaluated based on precision, accuracy, representativeness, comparability, and completeness (PARCC) characteristics of the data. The validated data indicated that the laboratory correctly performed the analyses. Based on the data quality assessment, none of the data were qualified as rejected. All data in this SDG are considered usable for the purposes of this project. All sample LODs and LOQs met the requirements listed in the project QAPP. All Method Quality Objectives have been met.

DATA VALIDATION SUMMARY REPORT

for samples collected from

FORT MONMOUTH

OCEANPORT, NEW JERSEY

Data Validation by: Sandra de las Fuentes

Date: January 22, 2016

Parsons - Austin

INTRODUCTION

The following data validation summary report covers water samples and the associated field quality control (QC) samples collected from Fort Monmouth in Oceanport, New Jersey on November 23-25 and December 14 and 15, 2015. Samples were logged in under the following Sample Delivery Groups (SDGs):

R1510346, R1510909

The samples in these SDGs were analyzed for volatile organic compounds (VOCs) plus tentatively identified compounds (TICs) and metals. The field QC samples collected are a matrix spike/matrix spike duplicate (MS/MSD) pair, a trip blank (TB) sample and two equipment blanks (EB) samples. The samples were collected by Parsons and shipped to ALS Environmental in Rochester, New York. All the coolers with the samples listed in the table below were received within the 2-6°C range recommended by the Department of Defense Quality System Manual (DoD QSM) version 4.2.

The laboratory is DOD ELAP and NELAP certified. All samples were prepared and analyzed following the procedures outlined in the Department of Defense (DoD) Quality Systems Manual (QSM) version 4.2, and the procedures outlined in the Standard Subcontract and the project-specific Uniform Federal Policy for Quality Assurance Project Plan (UFP-QAPP).

SAMPLE IDS AND REQUESTED PARAMETERS

SAMPLE ID	LAB ID	MATRIX	COLLECTED	ANALYSIS	COMMENTS
FTMM-2-GW-M2MW10-14.3	R1510346-001	Water	11/24/2015	VOCs	
FTMM-2-GW-M2MW03-12.2	R1510346-002	Water	11/24/2015	VOCs	
FTMM-2-GW-M2MW11-42	R1510346-003	Water	11/24/2015	VOCs	
FTMM-2-GW-M2MW22-14	R1510346-004	Water	11/24/2015	VOCs	
FTMM-2-GW-M2MW21-15.2	R1510346-005	Water	11/24/2015	VOCs	
FTMM-2-GW-M2MW24-14.6	R1510346-006	Water	11/24/2015	VOCs	
FTMM-53-GW-699MW09-9.0	R1510346-007	Water	11/25/2015	VOCs	MS/MSD
FTMM-53-GW-699RW11-12.8	R1510346-008	Water	11/25/2015	VOCs; total Pb	
FTMM-53-GW-699RW11-12.8 Dissolved	R1510346-009	Water	11/25/2015	VOCs; dissolved Pb	
FTMM-53-GW-699MW06-8.5	R1510346-010	Water	11/25/2015	VOCs; total Pb	
FTMM-53-GW-699MW06-8.5 Dissolved	R1510346-011	Water	11/25/2015	VOCs; dissolved Pb	
FTMM-58-GW-2567MW03-8	R1510346-012	Water	11/25/2015	VOCs	TBA only
FTMM-58-GW-2567MW01-8.3	R1510346-013	Water	11/25/2015	VOCs	TBA only
FTMM-8-GW-M2MW11-21.5	R1510346-014	Water	11/25/2015	VOCs; total Pb	
FTMM-8-GW-M2MW11-21.5 Dissolved	R1510346-015	Water	11/25/2015	VOCs; dissolved Pb	
FTMM-64-GW-812MW04-4.7	R1510346-016	Water	11/25/2015	VOCs	
EB-2015-11-24	R1510346-017	Water	11/24/2015	VOCs; total Pb	Equipment Blank
EB-2015-11-24 Dissolved	R1510346-018	Water	11/24/2015	VOCs; dissolved Pb	Equipment Blank
EB-2015-11-25	R1510346-019	Water	11/25/2015	VOCs; total Pb	Equipment Blank
EB-2015-11-25 Dissolved	R1510346-020	Water	11/25/2015	VOCs; dissolved Pb	Equipment Blank
TB-2015-11-25	R1510346-021	Water	11/25/2015	VOCs	Trip Blank
FTMM-3-GW-M3MW07-12.05*	R1510909-001	Water	12/15/2015	VOCs	
FTMM-61-GW-283MW02-13.06*	R1510909-002	Water	12/15/2015	VOCs	

W = Water

***** - TB-2015-12-14 was included in the same cooler as these samples; although logged in under WO R1510911. All VOC analytes results were non-detect to the MDLs for the TB sample.

EXTRACTION AND ANALYTICAL METHODS:

PARAMETER	MATRIX	EXTRACTION METHOD	ANALYTICAL METHOD	UNITS	DRY WT. VS. WET WT
VOCs	W	5030C	8260C	µg/L	NA
Metals	W	3010A	6010C	µg/L	NA

EVALUATION CRITERIA

The data submitted by the laboratory has been validated following the guidelines outlined in the project-specific UFP-QAPP. A "Level IV" validation was performed and the information reviewed in the data packages included sample results; field and laboratory quality control results; calibrations; case narratives; raw data; cooler receipt forms; and chain-of-custody (COC) forms. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the UFP-QAPP were met.

The precision criterion for the relative percent difference (RPD) of the field duplicate samples is RPD ≤ 40 for waters, as per the project-specific UFP-QAPP.

VOLATILE ORGANIC COMPOUNDS

General

The VOC portion consisted of the samples listed in the Sample ID table above. The samples were collected on November 24 and 25 and December 15, 2015 and were analyzed for the full list of VOCs as specified in the project-specific UFP-QAPP.

The VOCs analyses were performed according to USEPA SW846 Method 8260C. All samples in this SDG were analyzed following the procedures outlined in the project-specific UFP-QAPP. All samples were prepared and analyzed within the holding time required by the method.

All analyses were performed undiluted, except as follows:

FTMM-8-GW-M2MW11-21.5 at 10x for all VOCs.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the LCSs, MS, MSD, and the surrogate spikes. FTMM-53-GW-699MW09-9.0 was selected for MS/MSD purposes.

All LCSs and surrogate recoveries were within acceptance criteria.

The MS and MSD recoveries were within acceptance criteria, except for the following:

FTMM-53-GW-699MW09-9.0

Analyte	MS %R	MSD %R	Criteria
Styrene	60	(78)	65-135

( ) = Indicates criteria was met.

Styrene was qualified "UJ" in the parent sample due to the low recovery in the MS.

Precision

Precision was evaluated using the RPD obtained from the MS/MSD concentrations. There were no field duplicate samples associated with the VOCs sections of the SDGs.

All MS/MSD RPDs were within acceptance criteria, except bromomethane was slightly above control limits for FTMM-53-GW-699MW09-9.0 at 36% with criteria of 30%. Since the recoveries for bromomethane were within control limits, no action was deemed necessary.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the Work Plan;
- Comparing actual analytical procedures to those described in the Work Plan;
- Evaluating holding times; and
- Examining the laboratory blank for cross contamination of samples during sample analysis.

The samples in this SDG were analyzed following the COC and the analytical procedures described in the QAPP. All samples were prepared and analyzed within the holding time required by the method.

- All initial calibration criteria were met.
- All SSV criteria were met.
- All instrument performance check criteria were met.
- All CCV criteria were met.
- All internal standard (IS) criteria were met.
- All manual integrations performed by the laboratory were reviewed and verified.
- The MDLs were compliant with the requirements of the DOD QSM Version 4.2.

There was one method blank associated with each batch for VOCs and one trip blank per cooler. All method blanks were less than one-half the LOQs, as required by the project-specific UFP-QAPP, so no corrective action was required. It should be noted that low concentrations of 1,2,4-Trichlorobenzene, Hexachlorobutadiene and Naphthalene were detected in one or more MBs. None of these VOCs were considered common laboratory contaminants at the time of analyses.

In addition to the analytical method blanks analyzed in this data package, a trip blank and two equipment blanks were also analyzed.

The trip blanks were non-detect for all target VOCs, except as follows:

TB ID	Analyte	Conc. (µg/L)	LOQ (µg/L)
TB-2015-11-25	1,2,4-Trichloroebnzene	0.25	5.0
TB-2015-11-25	Naphthalene	0.23	5.0

The following samples were flagged “B” for possible blank contamination as indicated in the trip blank sample:

Sample ID	Analyte	Conc. (µg/L)	Applied Flag
FTMM-53-GW-699RW11-12.8	Naphthalene	1.0	B

FTMM-53-GW-699MW06-8.5	Naphthalene	0.64	B
FTMM-8-GW-M2MW11-21.5	Naphthalene	3.2	B

There were no 1,2,4-Trichlorobenzene or hexachlorobutadiene detections in any of the associated samples.

The equipment blanks were non-detect for all analytes, except for the following:

Blank ID	Analyte	Conc. (µg/L)	LOQ (µg/L)
EB-2015-11-24	Acetone	12	10
EB-2015-11-25	Acetone	12	10

The following samples were flagged "B" for possible blank contamination as indicted in the equipment blank sample:

Sample ID	Analyte	Conc. (µg/L)	Applied Flag
FTMM-2-GW-M2MW03-12.2	Acetone	2.5	B
FTMM-2-GW-M2MW22-14	Acetone	3.9	B
FTMM-2-GW-M2MW21-15.2	Acetone	26	B
FTMM-2-GW-M2MW24-14.6	Acetone	1.8	B
FTMM-53-GW-699RW11-12.8	Acetone	5.8	B
FTMM-53-GW-699MW06-8.5	Acetone	2.1	B
FTMM-8-GW-M2MW11-21.5	Acetone	26	B
FTMM-64-GW-812MW04-4.7	Acetone	2.2	B

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All VOC results for the samples in this SDG were considered usable. The completeness for the VOC portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

METALS

General

The metals portion consisted of the samples listed in the table above. The samples were analyzed for lead only. The samples were collected on November 24 and 25, 2015. It should be noted that equipment blanks were mistakenly analyzed for the full TAL metal suite, although only lead was required.

The lead analyses were performed using USEPA SW846 Method 6010C. All samples in this SDG were analyzed following the procedures outlined in the project-

specific UFP-QAPP. All samples were prepared and analyzed within the holding time required by the method. The samples for metals analyses were performed undiluted.

It should be noted that lead was reported at a different LOQ than as stated in the UFP-QAPP. The LOQs are routinely updated by the laboratory, and are generally done so annually.

Accuracy

Accuracy was evaluated using the percent recovery (%R) obtained from the laboratory control sample (LCS). There were no samples designated on the COC for MS/MSD purposes, although the lab randomly chose FTMM-53-GW-RW11-12.8 for MS analysis.

The LCS and MS recoveries were within acceptance criteria.

Precision

Precision is typically evaluated by comparing the LCS/LCSD, MS/MSD and field duplicate analyte values. In the absence of these QC samples, precision evaluation was not possible.

Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the COC procedures to those described in the Work Plan;
- Comparing actual analytical procedures to those described in the Work Plan;
- Evaluating preservation and holding times; and
- Examining laboratory blanks for cross contamination of samples during analysis.

The samples in this SDG were analyzed following the COC and the analytical procedures described in the QAPP. The samples were prepared and analyzed within the holding times required by the method.

- All instrument calibration criteria were met.
- All second source criteria were met. The ICV samples were prepared using a secondary source.
- All continuing calibration verification (CCV) criteria were met.
- All interference check (ICSA/ICSAB) criteria were met.
- The MDLs met the requirements listed in the DoD QSM version 4.2.
- The dilution test (DT) was performed on FTMM-53-GW-699RW11-12.8. The DT was not applicable since there were no metals reported at than 50 times the method detection limit (MDL).

- The post digestion spike (PDS) was performed on the same sample as the DT. The PDS for lead met the criteria of 90-110% at 96%.

There was one (1) method blank, and several calibration blanks associated with the metals analyses in this SDG. All blanks were compliant.

Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All metals results for the samples in this SDG were considered usable. Therefore, the completeness for the metals portion of this SDG is 100%, which meets the minimum acceptance criteria of 95%.

COMPARABILITY

All data was generated using contract-specific standard methods and reported with known data quality, type of analysis, units, etc.

DATA USABILITY

The purpose of this data validation report is to ensure the integrity and reliability of analytical laboratory data. The data quality is evaluated based on precision, accuracy, representativeness, comparability, and completeness (PARCC) characteristics of the data. The validated data indicated that the laboratory correctly performed the analyses. Based on the data quality assessment, none of the data were qualified as rejected. All data in this SDG are considered usable for the purposes of this project. All sample LODs and LOQs met the requirements listed in the project QAPP. All Method Quality Objectives have been met.

APPENDIX N

LABORATORY ANALYTICAL RESULTS

(Appendix N is provided electronically on the CD of this report)

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

October 28, 2015

Analytical Report for Service Request No: R1508298

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: FTMM Q4 GW Sampling/748810-03000

Dear Sandra:

Enclosed are the results of the sample(s) submitted to our laboratory on October 2, 2015. For your reference, these analyses have been assigned our service request number **R1508298.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Project Manager

ALS Environmental

Client:	Parsons, Inc.
Service Request No.:	R1508298
Project:	Fort Monmouth Q4 Sampling
Date Received:	10/2/15
Sample Matrix:	Water
Project/Case No.:	748810-03000

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Control Sample (LCS). A review to the EDD to the signed report has been performed and the EDD is correct and complete.

Sample Receipt

Water samples were received for analysis at ALS Environmental on 10/2/15. The samples were received in good condition except as noted on the Cooler Receipt and Preservation Check Form immediately following the Chain of Custody in the report. The samples were consistent with the Chain of Custody. The Cooler temperature upon receipt was within the proper guidelines. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

General Comments

The DOD QSM 4.2 requires detections reported to the Method Detection Limit (MDL). Values greater than the MDL and less than the Limit of Quantitation (LOQ) were flagged as estimates (J). Values less than the MDL and Limit of Detection (LOD) were reported as non-detect (ND). The LOD for each analyte is verified quarterly by the laboratory using procedures defined in DOD Quality Systems Manual Version 4.2.

Volatile Organics

Three water samples were analyzed for TCL Volatile organics by SW-846 method 5030/8260C. Any value detected between the LOQ and MDL was flagged with a "J" as estimated.

Library Searches against the NBS/EPA library were conducted on all samples. The 20 largest peaks, within 10 % of the nearest Internal Standard, were searched. A summary of detected peaks is included following the Target data. Any analytes detected are quantitated based on the closest internal standard and are reported flagged with a "J" as estimated. The flag "N" on a TIC compound indicates presumptive evidence of a particular compound.

All Tuning criteria for BFB were and within QC limits.

Internal Standard Areas were within QC limits.

All the initial calibration criteria for Bromoform and n-Propylbenzene exceeded 15%. There were no hits for these compounds and all other QC were within QC limits. All Continuing Calibration Verification (CCV) standards were within 20% Difference (D) except tert-Butyl Alcohol, Bromomethane, Chloromethane and Vinyl Chloride on the 10/13/15 CCV. No data was affected.

All surrogate standard recoveries were within acceptance limits for all samples.

The Blank Spike (LCS) recoveries were all acceptable with the exception of Chloromethane. This was outside of the control limits high and has been flagged with a "*". The high bias allows for appropriate sensitivity of detection.

Site QC was not requested on these samples.

00002

The Method Blanks associated with these samples were free of contamination.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 748810-03000	Batch Complete: Yes	Date Revised:
Submission: R1508298	Diskette Requested: No	Date Due: 10/23/15
Client: Parsons Engineering Science	Date: 10/2/15	Protocol: SW846
Client Rep: JJAEGER	Custody Seal: Present/Absent:	Shipping No.:
Project: FTMM Q4 GW Sampling	Chain of Custody: Present/Absent:	SDG #: FTMM-TB-20151001

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1508298-001	FTMM-TB-20151001	Water	8260C	10/1/15	10/2/15			
R1508298-002	FTMM-FB-20151001	Water	8260C	10/1/15	10/2/15			
R1508298-003	FTMM-DI-20151001	Water	8260C	10/1/15	10/2/15			

Folder Comments: DoD reporting ERPTOOLS LOD

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

31289

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: FTMM Q4 GW Sampling	Project Number:
Project Manager: Cris Grill	Report CC:
Company/Address: 100 High Street 4th Floor, Boston, MA 02110	
Phone #: (617) 449-1583	Email: cris.grill@parsons.com
Sampler's Signature:	Sampler's Printed Name: A. DiIanno

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ◦ 8260 ◦ 624 ◦ CLP + TICs	GC/MS SVOAs ◦ 8270 ◦ 625	GC VOAs ◦ 8021 ◦ 601/602	PESTICIDES ◦ 8081 ◦ 608	PCBs ◦ 8082 ◦ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)
FTMM-TB-20151001		10/1/2015	—	TB	3	X						
FTMM-FB-20151001		10/1/2015	1530	FB	3	X						
FTMM-DI-20151001		10/1/2015	1545	DI	3	X						

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: New Jersey

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
REQUESTED REPORT DATE: _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ____Yes ____No

INVOICE INFORMATION
PO #:
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Alex DiIanno	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Alex DiIanno	Printed Name:	Printed Name:	Printed Name:	Printed Name:	
Firm: Parsons	Firm: ALS	Firm:	Firm:	Firm:	
Date/Time: 10/1/15; 1745	Date/Time: 10/2/15 0730	Date/Time:	Date/Time:	Date/Time:	

R1508298 5
Parsons, Inc.
FTMM Baseline

Distribution: White - Lab Copy; Yellow - Return to Originator

Cooler Receipt and Preservation Check Form

Project/Client Parsons Folder Number R15-8289

Cooler received on 10/2/15 by: @

COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y (N) NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 10/2/15 Time: 0740 ID: (IR#3) IR#5 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	0.9						
Correction Factor (°C)	-						
Corrected Temp (°C)	0.9						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by @ on 10/2/15 at 0745
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: JW 10/6/15

Cooler Breakdown: Date: 10/2/15 Time: 10:46 by: MK

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 5120-002

Other Comments:

PC Secondary Review: JW 10/6/15

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r9.doc 9/24/15

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/ 1/15
Sample Matrix:	Water	**Date Received:**	10/ 2/15
		Date Analyzed:	10/13/15 17:37
Sample Name:	FTMM-TB-20151001	**Units:**	µg/L
Lab Code:	R1508298-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3089.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
630-20-6	1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	
71-55-6	1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	
79-34-5	1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	
79-00-5	1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	
75-34-3	1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	
563-58-6	1,1-Dichloropropene	ND	U	5.0	1.0	0.29	
87-61-6	1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	
96-18-4	1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	
120-82-1	1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	
95-63-6	1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	
106-93-4	1,2-Dibromoethane	ND	U	5.0	1.0	0.24	
95-50-1	1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	
107-06-2	1,2-Dichloroethane	ND	U	5.0	1.0	0.36	
78-87-5	1,2-Dichloropropane	ND	U	5.0	1.0	0.20	
108-67-8	1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	
541-73-1	1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	
142-28-9	1,3-Dichloropropane	ND	U	5.0	1.0	0.27	
106-46-7	1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	
594-20-7	2,2-Dichloropropane	ND	U	5.0	1.0	0.27	
78-93-3	2-Butanone (MEK)	ND	U	5.0	1.0	0.81	
95-49-8	2-Chlorotoluene	ND	U	5.0	1.0	0.20	
591-78-6	2-Hexanone	ND	U	5.0	5.0	1.7	
75-65-0	tert-Butyl Alcohol	ND	U	100	20	11	
106-43-4	4-Chlorotoluene	ND	U	5.0	1.0	0.24	
99-87-6	p-Isopropyltoluene	ND	U	5.0	1.0	0.20	
108-10-1	4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	
67-64-1	Acetone	ND	U	5.0	5.0	1.3	
71-43-2	Benzene	ND	U	5.0	1.0	0.20	
108-86-1	Bromobenzene	ND	U	5.0	1.0	0.28	
74-97-5	Bromochloromethane	ND	U	5.0	1.0	0.32	
75-27-4	Bromodichloromethane	ND	U	5.0	1.0	0.32	
75-25-2	Bromoform	ND	U	5.0	1.0	0.42	
74-83-9	Bromomethane	ND	U	5.0	1.0	0.29	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/ 1/15
Sample Matrix:	Water	**Date Received:**	10/ 2/15
		Date Analyzed:	10/13/15 17:37
Sample Name:	FTMM-TB-20151001	**Units:**	µg/L
Lab Code:	R1508298-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3089.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
56-23-5	Carbon Tetrachloride	ND	U	5.0	1.0	0.45	
108-90-7	Chlorobenzene	ND	U	5.0	1.0	0.29	
75-00-3	Chloroethane	ND	U	5.0	1.0	0.24	
67-66-3	Chloroform	ND	U	5.0	1.0	0.25	
74-87-3	Chloromethane	**0.26**	J	5.0	1.0	0.21	
124-48-1	Dibromochloromethane	ND	U	5.0	1.0	0.31	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	
75-09-2	Methylene Chloride	ND	U	5.0	1.0	0.60	
100-41-4	Ethylbenzene	ND	U	5.0	1.0	0.20	
87-68-3	Hexachlorobutadiene	ND	U	5.0	1.0	0.62	
98-82-8	Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	
1634-04-4	Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	
91-20-3	Naphthalene	ND	U	5.0	1.0	0.20	
100-42-5	Styrene	ND	U	5.0	1.0	0.20	
127-18-4	Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	
108-88-3	Toluene	ND	U	5.0	1.0	0.20	
79-01-6	Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	
75-01-4	Vinyl Chloride	ND	U	5.0	1.0	0.32	
156-59-2	cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	
10061-01-5	cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	
179601-23-1	m,p-Xylenes	ND	U	10	2.0	0.33	
104-51-8	n-Butylbenzene	ND	U	5.0	1.0	0.21	
103-65-1	n-Propylbenzene	ND	U	5.0	1.0	0.20	
95-47-6	o-Xylene	ND	U	5.0	1.0	0.20	
135-98-8	sec-Butylbenzene	ND	U	5.0	1.0	0.27	
98-06-6	tert-Butylbenzene	ND	U	5.0	1.0	0.20	
156-60-5	trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	
10061-02-6	trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/ 1/15
Sample Matrix:	Water	**Date Received:**	10/ 2/15
		Date Analyzed:	10/13/15 17:37
Sample Name:	FTMM-TB-20151001	**Units:**	Percent
Lab Code:	R1508298-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3089.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	75-120	10/13/15 17:37	
Dibromofluoromethane	92	85-115	10/13/15 17:37	
Toluene-d8	99	85-120	10/13/15 17:37	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/1/15
Sample Matrix:	Water	**Date Received:**	10/2/15
		Date Analyzed:	10/13/15 1737

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-TB-20151001	**Units:**	µg/L
Lab Code:	R1508298-001	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

00010

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/ 1/15 1530
Sample Matrix:	Water	**Date Received:**	10/ 2/15
		Date Analyzed:	10/13/15 18:01
Sample Name:	FTMM-FB-20151001	**Units:**	µg/L
Lab Code:	R1508298-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3090.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
630-20-6	1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	
71-55-6	1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	
79-34-5	1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	
79-00-5	1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	
75-34-3	1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	
563-58-6	1,1-Dichloropropene	ND	U	5.0	1.0	0.29	
87-61-6	1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	
96-18-4	1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	
120-82-1	1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	
95-63-6	1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	
106-93-4	1,2-Dibromoethane	ND	U	5.0	1.0	0.24	
95-50-1	1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	
107-06-2	1,2-Dichloroethane	ND	U	5.0	1.0	0.36	
78-87-5	1,2-Dichloropropane	ND	U	5.0	1.0	0.20	
108-67-8	1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	
541-73-1	1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	
142-28-9	1,3-Dichloropropane	ND	U	5.0	1.0	0.27	
106-46-7	1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	
594-20-7	2,2-Dichloropropane	ND	U	5.0	1.0	0.27	
78-93-3	2-Butanone (MEK)	ND	U	5.0	1.0	0.81	
95-49-8	2-Chlorotoluene	ND	U	5.0	1.0	0.20	
591-78-6	2-Hexanone	ND	U	5.0	5.0	1.7	
75-65-0	tert-Butyl Alcohol	ND	U	100	20	11	
106-43-4	4-Chlorotoluene	ND	U	5.0	1.0	0.24	
99-87-6	p-Isopropyltoluene	ND	U	5.0	1.0	0.20	
108-10-1	4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	
67-64-1	Acetone	**1.6**	J	5.0	5.0	1.3	
71-43-2	Benzene	ND	U	5.0	1.0	0.20	
108-86-1	Bromobenzene	ND	U	5.0	1.0	0.28	
74-97-5	Bromochloromethane	ND	U	5.0	1.0	0.32	
75-27-4	Bromodichloromethane	ND	U	5.0	1.0	0.32	
75-25-2	Bromoform	ND	U	5.0	1.0	0.42	
74-83-9	Bromomethane	ND	U	5.0	1.0	0.29	

00011

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/ 1/15 1530
Sample Matrix:	Water	**Date Received:**	10/ 2/15
		Date Analyzed:	10/13/15 18:01
Sample Name:	FTMM-FB-20151001	**Units:**	µg/L
Lab Code:	R1508298-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3090.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
56-23-5	Carbon Tetrachloride	ND	U	5.0	1.0	0.45	
108-90-7	Chlorobenzene	ND	U	5.0	1.0	0.29	
75-00-3	Chloroethane	ND	U	5.0	1.0	0.24	
67-66-3	Chloroform	ND	U	5.0	1.0	0.25	
74-87-3	Chloromethane	ND	U	5.0	1.0	0.21	
124-48-1	Dibromochloromethane	ND	U	5.0	1.0	0.31	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	
75-09-2	Methylene Chloride	ND	U	5.0	1.0	0.60	
100-41-4	Ethylbenzene	ND	U	5.0	1.0	0.20	
87-68-3	Hexachlorobutadiene	ND	U	5.0	1.0	0.62	
98-82-8	Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	
1634-04-4	Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	
91-20-3	Naphthalene	ND	U	5.0	1.0	0.20	
100-42-5	Styrene	ND	U	5.0	1.0	0.20	
127-18-4	Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	
108-88-3	Toluene	ND	U	5.0	1.0	0.20	
79-01-6	Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	
75-01-4	Vinyl Chloride	ND	U	5.0	1.0	0.32	
156-59-2	cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	
10061-01-5	cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	
179601-23-1	m,p-Xylenes	ND	U	10	2.0	0.33	
104-51-8	n-Butylbenzene	ND	U	5.0	1.0	0.21	
103-65-1	n-Propylbenzene	ND	U	5.0	1.0	0.20	
95-47-6	o-Xylene	ND	U	5.0	1.0	0.20	
135-98-8	sec-Butylbenzene	ND	U	5.0	1.0	0.27	
98-06-6	tert-Butylbenzene	ND	U	5.0	1.0	0.20	
156-60-5	trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	
10061-02-6	trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	

00012

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/ 1/15 1530
Sample Matrix:	Water	**Date Received:**	10/ 2/15
		Date Analyzed:	10/13/15 18:01
Sample Name:	FTMM-FB-20151001	**Units:**	Percent
Lab Code:	R1508298-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3090.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	75-120	10/13/15 18:01	
Dibromofluoromethane	92	85-115	10/13/15 18:01	
Toluene-d8	97	85-120	10/13/15 18:01	

00013

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/1/15
Sample Matrix:	Water	**Date Received:**	10/2/15
		Date Analyzed:	10/13/15 1801

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-FB-20151001	**Units:**	µg/L
Lab Code:	R1508298-002	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

00014

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/ 1/15 1545
Sample Matrix:	Water	**Date Received:**	10/ 2/15
		Date Analyzed:	10/13/15 18:26
Sample Name:	FTMM-DI-20151001	**Units:**	µg/L
Lab Code:	R1508298-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3091.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
630-20-6	1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	
71-55-6	1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	
79-34-5	1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	
79-00-5	1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	
75-34-3	1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	
563-58-6	1,1-Dichloropropene	ND	U	5.0	1.0	0.29	
87-61-6	1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	
96-18-4	1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	
120-82-1	1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	
95-63-6	1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	
106-93-4	1,2-Dibromoethane	ND	U	5.0	1.0	0.24	
95-50-1	1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	
107-06-2	1,2-Dichloroethane	ND	U	5.0	1.0	0.36	
78-87-5	1,2-Dichloropropane	ND	U	5.0	1.0	0.20	
108-67-8	1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	
541-73-1	1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	
142-28-9	1,3-Dichloropropane	ND	U	5.0	1.0	0.27	
106-46-7	1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	
594-20-7	2,2-Dichloropropane	ND	U	5.0	1.0	0.27	
78-93-3	2-Butanone (MEK)	ND	U	5.0	1.0	0.81	
95-49-8	2-Chlorotoluene	ND	U	5.0	1.0	0.20	
591-78-6	2-Hexanone	ND	U	5.0	5.0	1.7	
75-65-0	tert-Butyl Alcohol	ND	U	100	20	11	
106-43-4	4-Chlorotoluene	ND	U	5.0	1.0	0.24	
99-87-6	p-Isopropyltoluene	ND	U	5.0	1.0	0.20	
108-10-1	4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	
67-64-1	Acetone	**1.3**	J	5.0	5.0	1.3	
71-43-2	Benzene	ND	U	5.0	1.0	0.20	
108-86-1	Bromobenzene	ND	U	5.0	1.0	0.28	
74-97-5	Bromochloromethane	ND	U	5.0	1.0	0.32	
75-27-4	Bromodichloromethane	ND	U	5.0	1.0	0.32	
75-25-2	Bromoform	ND	U	5.0	1.0	0.42	
74-83-9	Bromomethane	ND	U	5.0	1.0	0.29	

00015

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/ 1/15 1545
Sample Matrix:	Water	**Date Received:**	10/ 2/15
		Date Analyzed:	10/13/15 18:26
Sample Name:	FTMM-DI-20151001	**Units:**	Percent
Lab Code:	R1508298-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3091.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	75-120	10/13/15 18:26	
Dibromofluoromethane	93	85-115	10/13/15 18:26	
Toluene-d8	99	85-120	10/13/15 18:26	

00016

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/1/15
Sample Matrix:	Water	**Date Received:**	10/2/15
		Date Analyzed:	10/13/15 1826

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-DI-20151001	**Units:**	µg/L
Lab Code:	R1508298-003	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

00017

Printed 10/28/2015 17:36

Form 1B

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/13/15 16:00
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1512564-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3085.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
630-20-6	1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	
71-55-6	1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	
79-34-5	1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	
79-00-5	1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	
75-34-3	1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	
563-58-6	1,1-Dichloropropene	ND	U	5.0	1.0	0.29	
87-61-6	1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	
96-18-4	1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	
120-82-1	1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	
95-63-6	1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	
106-93-4	1,2-Dibromoethane	ND	U	5.0	1.0	0.24	
95-50-1	1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	
107-06-2	1,2-Dichloroethane	ND	U	5.0	1.0	0.36	
78-87-5	1,2-Dichloropropane	ND	U	5.0	1.0	0.20	
108-67-8	1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	
541-73-1	1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	
142-28-9	1,3-Dichloropropane	ND	U	5.0	1.0	0.27	
106-46-7	1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	
594-20-7	2,2-Dichloropropane	ND	U	5.0	1.0	0.27	
78-93-3	2-Butanone (MEK)	ND	U	5.0	1.0	0.81	
95-49-8	2-Chlorotoluene	ND	U	5.0	1.0	0.20	
591-78-6	2-Hexanone	ND	U	5.0	5.0	1.7	
75-65-0	tert-Butyl Alcohol	ND	U	100	20	11	
106-43-4	4-Chlorotoluene	ND	U	5.0	1.0	0.24	
99-87-6	p-Isopropyltoluene	ND	U	5.0	1.0	0.20	
108-10-1	4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	
67-64-1	Acetone	ND	U	5.0	5.0	1.3	
71-43-2	Benzene	ND	U	5.0	1.0	0.20	
108-86-1	Bromobenzene	ND	U	5.0	1.0	0.28	
74-97-5	Bromochloromethane	ND	U	5.0	1.0	0.32	
75-27-4	Bromodichloromethane	ND	U	5.0	1.0	0.32	
75-25-2	Bromoform	ND	U	5.0	1.0	0.42	
74-83-9	Bromomethane	ND	U	5.0	1.0	0.29	

00018

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/13/15 16:00
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1512564-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3085.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
56-23-5	Carbon Tetrachloride	ND	U	5.0	1.0	0.45	
108-90-7	Chlorobenzene	ND	U	5.0	1.0	0.29	
75-00-3	Chloroethane	ND	U	5.0	1.0	0.24	
67-66-3	Chloroform	ND	U	5.0	1.0	0.25	
74-87-3	Chloromethane	ND	U	5.0	1.0	0.21	
124-48-1	Dibromochloromethane	ND	U	5.0	1.0	0.31	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	
75-09-2	Methylene Chloride	ND	U	5.0	1.0	0.60	
100-41-4	Ethylbenzene	ND	U	5.0	1.0	0.20	
87-68-3	Hexachlorobutadiene	ND	U	5.0	1.0	0.62	
98-82-8	Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	
1634-04-4	Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	
91-20-3	Naphthalene	ND	U	5.0	1.0	0.20	
100-42-5	Styrene	ND	U	5.0	1.0	0.20	
127-18-4	Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	
108-88-3	Toluene	ND	U	5.0	1.0	0.20	
79-01-6	Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	
75-01-4	Vinyl Chloride	ND	U	5.0	1.0	0.32	
156-59-2	cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	
10061-01-5	cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	
179601-23-1	m,p-Xylenes	ND	U	10	2.0	0.33	
104-51-8	n-Butylbenzene	ND	U	5.0	1.0	0.21	
103-65-1	n-Propylbenzene	ND	U	5.0	1.0	0.20	
95-47-6	o-Xylene	ND	U	5.0	1.0	0.20	
135-98-8	sec-Butylbenzene	ND	U	5.0	1.0	0.27	
98-06-6	tert-Butylbenzene	ND	U	5.0	1.0	0.20	
156-60-5	trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	
10061-02-6	trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	

00019

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/13/15 16:00
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	RQ1512564-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3085.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	75-120	10/13/15 16:00	
Dibromofluoromethane	93	85-115	10/13/15 16:00	
Toluene-d8	98	85-120	10/13/15 16:00	

00020

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/13/15 1600

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1512564-01	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

00021

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1508298
Date Analyzed: 10/13/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 466785

Lab Control Sample
RQ1512564-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	18.7	20.0	94	80 - 130
1,1,1-Trichloroethane (TCA)	17.7	20.0	89	65 - 130
1,1,2,2-Tetrachloroethane	20.7	20.0	103	65 - 130
1,1,2-Trichloroethane	19.4	20.0	97	75 - 125
1,1-Dichloroethane (1,1-DCA)	20.0	20.0	100	70 - 135
1,1-Dichloroethene (1,1-DCE)	19.9	20.0	100	70 - 130
1,1-Dichloropropene	19.7	20.0	99	75 - 130
1,2,3-Trichlorobenzene	20.6	20.0	103	75 - 125
1,2,3-Trichloropropane	19.6	20.0	98	75 - 125
1,2,4-Trichlorobenzene	19.8	20.0	99	65 - 135
1,2,4-Trimethylbenzene	21.6	20.0	108	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	18.0	20.0	90	50 - 130
1,2-Dibromoethane	18.6	20.0	93	80 - 120
1,2-Dichlorobenzene	19.8	20.0	99	70 - 120
1,2-Dichloroethane	18.9	20.0	94	70 - 130
1,2-Dichloropropane	20.8	20.0	104	75 - 125
1,3,5-Trimethylbenzene	21.1	20.0	106	75 - 130
1,3-Dichlorobenzene	20.2	20.0	101	75 - 125
1,3-Dichloropropane	19.8	20.0	99	75 - 125
1,4-Dichlorobenzene	19.1	20.0	96	75 - 125
2,2-Dichloropropane	16.6	20.0	83	70 - 135
2-Butanone (MEK)	22.8	20.0	114	30 - 150
2-Chlorotoluene	20.0	20.0	100	75 - 125
2-Hexanone	22.9	20.0	115	55 - 130
tert-Butyl Alcohol	317	400	79	50 - 150
4-Chlorotoluene	20.4	20.0	102	75 - 130
p-Isopropyltoluene	22.5	20.0	112	75 - 130
4-Methyl-2-pentanone	22.4	20.0	112	60 - 135
Acetone	22.3	20.0	111	40 - 140
Benzene	20.0	20.0	100	80 - 120
Bromobenzene	20.2	20.0	101	75 - 125
Bromochloromethane	19.2	20.0	96	65 - 130
Bromodichloromethane	17.2	20.0	86	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

00022

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1508298
Date Analyzed: 10/13/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 466785

Lab Control Sample
RQ1512564-02

Analyte Name	Result	Spike Amount	% Rec		% Rec Limits
Bromoform	16.8	20.0	84		70 - 130
Bromomethane	27.5	20.0	137		30 - 145
Carbon Tetrachloride	17.6	20.0	88		65 - 140
Chlorobenzene	20.1	20.0	100		80 - 120
Chloroethane	25.6	20.0	128		60 - 135
Chloroform	18.7	20.0	94		65 - 135
Chloromethane	31.7	20.0	158	*	40 - 125
Dibromochloromethane	18.7	20.0	94		60 - 135
Dichlorodifluoromethane (CFC 12)	26.8	20.0	134		30 - 155
Methylene Chloride	18.6	20.0	93		55 - 140
Ethylbenzene	18.6	20.0	93		75 - 125
Hexachlorobutadiene	21.5	20.0	107		50 - 140
Isopropylbenzene (Cumene)	20.4	20.0	102		75 - 125
Methyl tert-Butyl Ether	19.7	20.0	99		65 - 125
Naphthalene	22.2	20.0	111		55 - 140
Styrene	20.6	20.0	103		65 - 135
Tetrachloroethene (PCE)	19.0	20.0	95		45 - 150
Toluene	19.7	20.0	98		75 - 120
Trichloroethene (TCE)	17.5	20.0	87		70 - 125
Trichlorofluoromethane (CFC 11)	21.9	20.0	110		60 - 145
Vinyl Chloride	28.6	20.0	143		50 - 145
cis-1,2-Dichloroethene	19.4	20.0	97		70 - 125
cis-1,3-Dichloropropene	19.7	20.0	98		70 - 130
m,p-Xylenes	40.5	40.0	101		75 - 130
n-Butylbenzene	21.2	20.0	106		70 - 135
n-Propylbenzene	20.6	20.0	103		70 - 130
o-Xylene	19.8	20.0	99		80 - 120
sec-Butylbenzene	20.8	20.0	104		70 - 125
tert-Butylbenzene	21.6	20.0	108		70 - 130
trans-1,2-Dichloroethene	20.1	20.0	100		60 - 140
trans-1,3-Dichloropropene	19.2	20.0	96		55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

00023

ALS Environmental
ALS Group USA, Corp
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Rochester, NY 14623
T: 585-288-5380
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October 28, 2015

Analytical Report for Service Request No: R1508298

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: FTMM Q4 GW Sampling/748810-03000

Dear Sandra:

Enclosed are the results of the sample(s) submitted to our laboratory on October 2, 2015. For your reference, these analyses have been assigned our service request number **R1508298.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Project Manager

Parsons, Inc.
R1508298

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00001A

ALS Environmental

SDG NARRATIVE

ALS Environmental - Rochester, NY
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00002

ALS Environmental

Client:	Parsons, Inc.
Service Request No.:	R1508298
Project:	Fort Monmouth Q4 Sampling
Date Received:	10/2/15
Sample Matrix:	Water
Project/Case No.:	748810-03000

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Control Sample (LCS). A review to the EDD to the signed report has been performed and the EDD is correct and complete.

Sample Receipt

Water samples were received for analysis at ALS Environmental on 10/2/15. The samples were received in good condition except as noted on the Cooler Receipt and Preservation Check Form immediately following the Chain of Custody in the report. The samples were consistent with the Chain of Custody. The Cooler temperature upon receipt was within the proper guidelines. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

General Comments

The DOD QSM 4.2 requires detections reported to the Method Detection Limit (MDL). Values greater than the MDL and less than the Limit of Quantitation (LOQ) were flagged as estimates (J). Values less than the MDL and Limit of Detection (LOD) were reported as non-detect (ND). The LOD for each analyte is verified quarterly by the laboratory using procedures defined in DOD Quality Systems Manual Version 4.2.

Volatile Organics

Three water samples were analyzed for TCL Volatile organics by SW-846 method 5030/8260C. Any value detected between the LOQ and MDL was flagged with a "J" as estimated.

Library Searches against the NBS/EPA library were conducted on all samples. The 20 largest peaks, within 10 % of the nearest Internal Standard, were searched. A summary of detected peaks is included following the Target data. Any analytes detected are quantitated based on the closest internal standard and are reported flagged with a "J" as estimated. The flag "N" on a TIC compound indicates presumptive evidence of a particular compound.

All Tuning criteria for BFB were and within QC limits.

Internal Standard Areas were within QC limits.

All the initial calibration criteria for Bromoform and n-Propylbenzene exceeded 15%. There were no hits for these compounds and all other QC were within QC limits. All Continuing Calibration Verification (CCV) standards were within 20% Difference (D) except tert-Butyl Alcohol, Bromomethane, Chloromethane and Vinyl Chloride on the 10/13/15 CCV. No data was affected.

All surrogate standard recoveries were within acceptance limits for all samples.

The Blank Spike (LCS) recoveries were all acceptable with the exception of Chloromethane. This was outside of the control limits high and has been flagged with a "*". The high bias allows for appropriate sensitivity of detection.

Site QC was not requested on these samples.

00003

The Method Blanks associated with these samples were free of contamination.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #:	748810-03000	Batch Complete:	Yes	Date Revised:	
Submission:	R1508298	Diskette Requested:	No	Date Due:	10/23/15
Client:	Parsons Engineering Science	Date:	10/2/15	Protocol:	SW846
Client Rep:	JJAEGER	Custody Seal: Present/Absent:		Shipping No.:	
Project:	FTMM Q4 GW Sampling	Chain of Custody: Present/Absent:		SDG #:	FTMM-TB-20151001

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1508298-001	FTMM-TB-20151001	Water	8260C	10/1/15	10/2/15			
R1508298-002	FTMM-FB-20151001	Water	8260C	10/1/15	10/2/15			
R1508298-003	FTMM-DI-20151001	Water	8260C	10/1/15	10/2/15			

Folder Comments: DoD reporting ERPTOOLS LOD

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Environmental

CHAINS OF CUSTODY

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00006

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

31289

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: FTMM Q4 GW Sampling	Project Number:
Project Manager: Cris Grill	Report CC:
Company/Address: 100 High Street, 4th Floor, Boston, MA 02110	
Phone #: (617) 449-1583	Email: cris.grill@parsons.com
Sampler's Signature:	Sampler's Printed Name: A. DiIonno

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GCMS VOAs • 8260 • 624 • CLP + TICs	GCMS SVOAs • 8270 • 625	GC VOAs • 8021 • 601/602	PESTICIDES • 8081 • 608	PCBs • 8082 • 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	REMARKS/ ALTERNATE DESCRIPTION
FTMM-TB-20151001		10/1/2015	—	TB	3	X							
FTMM-FB-20151001		10/1/2015	1530	FB	3	X							
FTMM-DI-20151001		10/1/2015	1545	DI	3	X							

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: New Jersey

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
REQUESTED REPORT DATE: _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ____Yes ____No

INVOICE INFORMATION
PO #:
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Alex DiIonno	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Alex DiIonno	Printed Name:	Printed Name:	Printed Name:	Printed Name:	
Firm: Parsons	Firm: ALS	Firm:	Firm:	Firm:	
Date/Time: 10/1/15; 1745	Date/Time: 10/2/15 0730	Date/Time:	Date/Time:	Date/Time:	

R1508298 5
Persons, Inc.
FTMM Baseline

Distribution: White - Lab Copy; Yellow - Return to Originator

Cooler Receipt and Preservation Check Form

Project/Client Parsons Folder Number R15-8288

Cooler received on 10/2/15 by: @

COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y (N) NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 10/2/15 Time: 0740 ID: (IR#3) IR#5 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	0.9						
Correction Factor (°C)	–						
Corrected Temp (°C)	0.9c						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by @ on 10/2/15 at 0745
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: JMV 10/6/15

Cooler Breakdown: Date: 10/2/15 Time: 10:46 by: MJR

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 5120-002

Other Comments:

PC Secondary Review: JMV 10/6/15

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r9.doc 9/24/15

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Q4 GW Sampling/748810-03000

Service Request: R1508298

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1508298-001.01					
	8260C				
		10/2/15	1054	SMO / GLAFORCE	
		10/2/15	1054	R-001 / GLAFORCE	
		10/13/15	1725	In Lab / FNAEGLER	
		10/13/15	1725	R-001-S10 / BWOJTASIEWICZ	
R1508298-001.02					
		10/2/15	1054	SMO / GLAFORCE	
		10/2/15	1054	R-001 / GLAFORCE	
R1508298-001.03					
		10/2/15	1054	SMO / GLAFORCE	
		10/2/15	1054	R-001 / GLAFORCE	
R1508298-002.01					
	8260C				
		10/2/15	1054	SMO / GLAFORCE	
		10/2/15	1054	R-001 / GLAFORCE	
		10/13/15	1725	In Lab / FNAEGLER	
		10/13/15	1725	R-001-S10 / BWOJTASIEWICZ	
R1508298-002.02					
		10/2/15	1054	SMO / GLAFORCE	
		10/2/15	1054	R-001 / GLAFORCE	
R1508298-002.03					
		10/2/15	1054	SMO / GLAFORCE	
		10/2/15	1054	R-001 / GLAFORCE	
R1508298-003.01					
	8260C				
		10/2/15	1054	SMO / GLAFORCE	
		10/2/15	1054	R-001 / GLAFORCE	
		10/13/15	1725	In Lab / FNAEGLER	
		10/13/15	1725	R-001-S10 / BWOJTASIEWICZ	
R1508298-003.02					
		10/2/15	1054	SMO / GLAFORCE	
		10/2/15	1054	R-001 / GLAFORCE	
R1508298-003.03					
		10/2/15	1054	SMO / GLAFORCE	
		10/2/15	1054	R-001 / GLAFORCE	

00009

ALS Environmental

VOLATILE ORGANICS QC SUMMARY

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

00010

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1508298
Date Analyzed: 10/13/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 466785

Lab Control Sample
RQ1512564-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	18.7	20.0	94	80 - 130
1,1,1-Trichloroethane (TCA)	17.7	20.0	89	65 - 130
1,1,2,2-Tetrachloroethane	20.7	20.0	103	65 - 130
1,1,2-Trichloroethane	19.4	20.0	97	75 - 125
1,1-Dichloroethane (1,1-DCA)	20.0	20.0	100	70 - 135
1,1-Dichloroethene (1,1-DCE)	19.9	20.0	100	70 - 130
1,1-Dichloropropene	19.7	20.0	99	75 - 130
1,2,3-Trichlorobenzene	20.6	20.0	103	75 - 125
1,2,3-Trichloropropane	19.6	20.0	98	75 - 125
1,2,4-Trichlorobenzene	19.8	20.0	99	65 - 135
1,2,4-Trimethylbenzene	21.6	20.0	108	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	18.0	20.0	90	50 - 130
1,2-Dibromoethane	18.6	20.0	93	80 - 120
1,2-Dichlorobenzene	19.8	20.0	99	70 - 120
1,2-Dichloroethane	18.9	20.0	94	70 - 130
1,2-Dichloropropane	20.8	20.0	104	75 - 125
1,3,5-Trimethylbenzene	21.1	20.0	106	75 - 130
1,3-Dichlorobenzene	20.2	20.0	101	75 - 125
1,3-Dichloropropane	19.8	20.0	99	75 - 125
1,4-Dichlorobenzene	19.1	20.0	96	75 - 125
2,2-Dichloropropane	16.6	20.0	83	70 - 135
2-Butanone (MEK)	22.8	20.0	114	30 - 150
2-Chlorotoluene	20.0	20.0	100	75 - 125
2-Hexanone	22.9	20.0	115	55 - 130
tert-Butyl Alcohol	317	400	79	50 - 150
4-Chlorotoluene	20.4	20.0	102	75 - 130
p-Isopropyltoluene	22.5	20.0	112	75 - 130
4-Methyl-2-pentanone	22.4	20.0	112	60 - 135
Acetone	22.3	20.0	111	40 - 140
Benzene	20.0	20.0	100	80 - 120
Bromobenzene	20.2	20.0	101	75 - 125
Bromochloromethane	19.2	20.0	96	65 - 130
Bromodichloromethane	17.2	20.0	86	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

00011

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1508298
Date Analyzed: 10/13/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 466785

Lab Control Sample
RQ1512564-02

Analyte Name	Result	Spike Amount	% Rec		% Rec Limits
Bromoform	16.8	20.0	84		70 - 130
Bromomethane	27.5	20.0	137		30 - 145
Carbon Tetrachloride	17.6	20.0	88		65 - 140
Chlorobenzene	20.1	20.0	100		80 - 120
Chloroethane	25.6	20.0	128		60 - 135
Chloroform	18.7	20.0	94		65 - 135
Chloromethane	31.7	20.0	158	*	40 - 125
Dibromochloromethane	18.7	20.0	94		60 - 135
Dichlorodifluoromethane (CFC 12)	26.8	20.0	134		30 - 155
Methylene Chloride	18.6	20.0	93		55 - 140
Ethylbenzene	18.6	20.0	93		75 - 125
Hexachlorobutadiene	21.5	20.0	107		50 - 140
Isopropylbenzene (Cumene)	20.4	20.0	102		75 - 125
Methyl tert-Butyl Ether	19.7	20.0	99		65 - 125
Naphthalene	22.2	20.0	111		55 - 140
Styrene	20.6	20.0	103		65 - 135
Tetrachloroethene (PCE)	19.0	20.0	95		45 - 150
Toluene	19.7	20.0	98		75 - 120
Trichloroethene (TCE)	17.5	20.0	87		70 - 125
Trichlorofluoromethane (CFC 11)	21.9	20.0	110		60 - 145
Vinyl Chloride	28.6	20.0	143		50 - 145
cis-1,2-Dichloroethene	19.4	20.0	97		70 - 125
cis-1,3-Dichloropropene	19.7	20.0	98		70 - 130
m,p-Xylenes	40.5	40.0	101		75 - 130
n-Butylbenzene	21.2	20.0	106		70 - 135
n-Propylbenzene	20.6	20.0	103		70 - 130
o-Xylene	19.8	20.0	99		80 - 120
sec-Butylbenzene	20.8	20.0	104		70 - 125
tert-Butylbenzene	21.6	20.0	108		70 - 130
trans-1,2-Dichloroethene	20.1	20.0	100		60 - 140
trans-1,3-Dichloropropene	19.2	20.0	96		55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

00012

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Analyzed:**	10/13/15 16:00
Sample Matrix:	Water		

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Instrument ID:**	R-MS-10
Lab Code:	RQ1512564-01	**File ID:**	I:\ACQUDATA\msvoa10\data\101315\F3085.D\
Analytical Method:	8260C		
Prep Method:	EPA 5030C		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1512564-02	I:\ACQUDATA\msvoa10\data\101315\F3082.D\	10/13/15 14:32
FTMM-TB-20151001	R1508298-001	I:\ACQUDATA\msvoa10\data\101315\F3089.D\	10/13/15 17:37
FTMM-FB-20151001	R1508298-002	I:\ACQUDATA\msvoa10\data\101315\F3090.D\	10/13/15 18:01
FTMM-DI-20151001	R1508298-003	I:\ACQUDATA\msvoa10\data\101315\F3091.D\	10/13/15 18:26

00013

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q$ GW Sampling/748810-03000

Service Request: R1508298
Date Analyzed: 09/10/15 16:35

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\091015\F1989.D\
Instrument ID: R-MS-10

Analytical Method: 8260C
Analysis Lot:

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	26.1	90187	Pass
75	95	30	60	53.2	183984	Pass
95	95	100	100	100.0	345664	Pass
96	95	5	9	6.5	22627	Pass
173	174	0	2	1.6	4127	Pass
174	95	50	120	75.9	262392	Pass
175	174	5	9	8.0	20933	Pass
176	174	95	101	97.1	254869	Pass
177	176	5	9	6.5	16443	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Initial CalibrationICAL	0.5 ppb	I:\ACQUDATA\msvoa10\data\091015\F1991.D\	09/10/15 17:41	
Initial CalibrationICAL	1.0 ppb	I:\ACQUDATA\msvoa10\data\091015\F1992.D\	09/10/15 18:05	
Initial CalibrationICAL	2.0 ppb	I:\ACQUDATA\msvoa10\data\091015\F1993.D\	09/10/15 18:29	
Initial CalibrationICAL	5.0 ppb	I:\ACQUDATA\msvoa10\data\091015\F1994.D\	09/10/15 18:54	
Initial CalibrationICAL	20 ppb	I:\ACQUDATA\msvoa10\data\091015\F1995.D\	09/10/15 19:18	
Initial CalibrationICAL	50 ppb	I:\ACQUDATA\msvoa10\data\091015\F1996.D\	09/10/15 19:42	
Initial CalibrationICAL	100 ppb	I:\ACQUDATA\msvoa10\data\091015\F1997.D\	09/10/15 20:06	
Initial CalibrationICAL	150 ppb	I:\ACQUDATA\msvoa10\data\091015\F1998.D\	09/10/15 20:31	
Initial CalibrationICAL	200 ppb	I:\ACQUDATA\msvoa10\data\091015\F1999.D\	09/10/15 20:55	

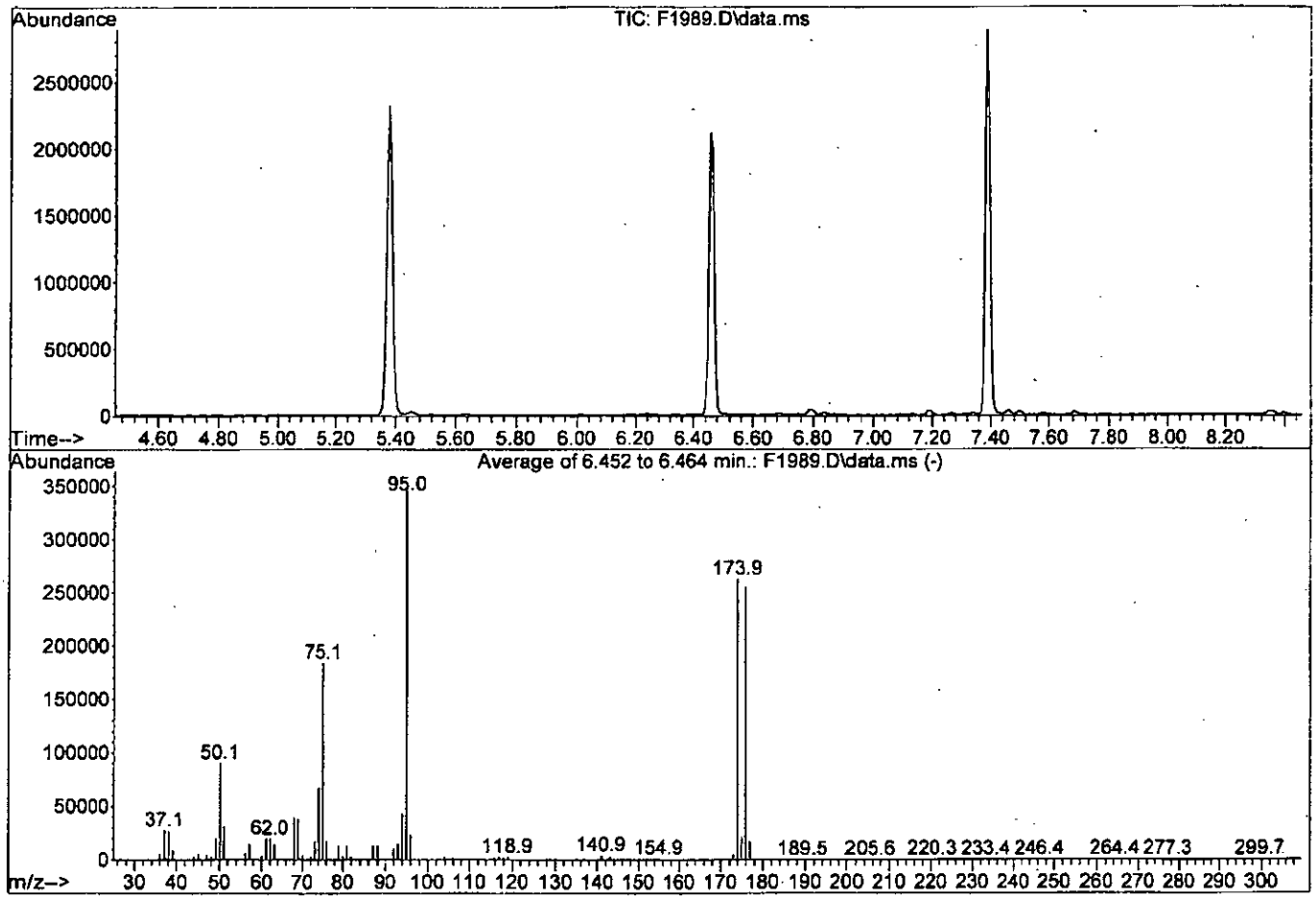
00014

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1989.D
Acq On : 10 Sep 2015 4:35 pm
Operator : F. Naegler
Sample : TUNE Inst : MSVOA10
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: CPD4.P

FJ 9/11/15

Method : I:\ACQUDATA\MSVOA10\METHODS\T091015.M
Title : 8260B WATERS
Last Update : Wed Sep 27 14:33:13 2006



AutoFind: Scans 388, 389, 390; Background Corrected with Scan 383

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.1	90187	PASS
75	95	30	60	53.2	183984	PASS
95	95	100	100	100.0	345664	PASS
96	95	5	9	6.5	22627	PASS
173	174	0.00	2	1.6	4127	PASS
174	95	50	120	75.9	262392	PASS
175	174	5	9	8.0	20933	PASS
176	174	95	101	97.1	254869	PASS
177	176	5	9	6.5	16443	PASS

T091015.M Fri Sep 11 08:42:07 2015 MSVO10

00015

Page: 1

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 GW Sampling/748810-03000

Service Request: R1508298
Date Analyzed: 10/13/15 12:59

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\101315\F3079.D\
Instrument ID: R-MS-10

Analytical Method: 8260C
Analysis Lot: 466785

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	26.44	23124	Pass
75	95	30	60	49.13	42965	Pass
95	95	100	100	100.00	87455	Pass
96	95	5	9	7.13	6238	Pass
173	174	0	2	0.51	392	Pass
174	95	50	120	87.08	76156	Pass
175	174	5	9	8.14	6202	Pass
176	174	95	101	95.07	72404	Pass
177	176	5	9	6.75	4887	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1512564-04	I:\ACQUDATA\msvoa10\data\101315\F3080.D\	10/13/15 13:24	
Lab Control Sample	RQ1512564-02	I:\ACQUDATA\msvoa10\data\101315\F3082.D\	10/13/15 14:32	
Method Blank	RQ1512564-01	I:\ACQUDATA\msvoa10\data\101315\F3085.D\	10/13/15 16:00	
FTMM-TB-20151001	R1508298-001	I:\ACQUDATA\msvoa10\data\101315\F3089.D\	10/13/15 17:37	
FTMM-FB-20151001	R1508298-002	I:\ACQUDATA\msvoa10\data\101315\F3090.D\	10/13/15 18:01	
FTMM-DI-20151001	R1508298-003	I:\ACQUDATA\msvoa10\data\101315\F3091.D\	10/13/15 18:26	

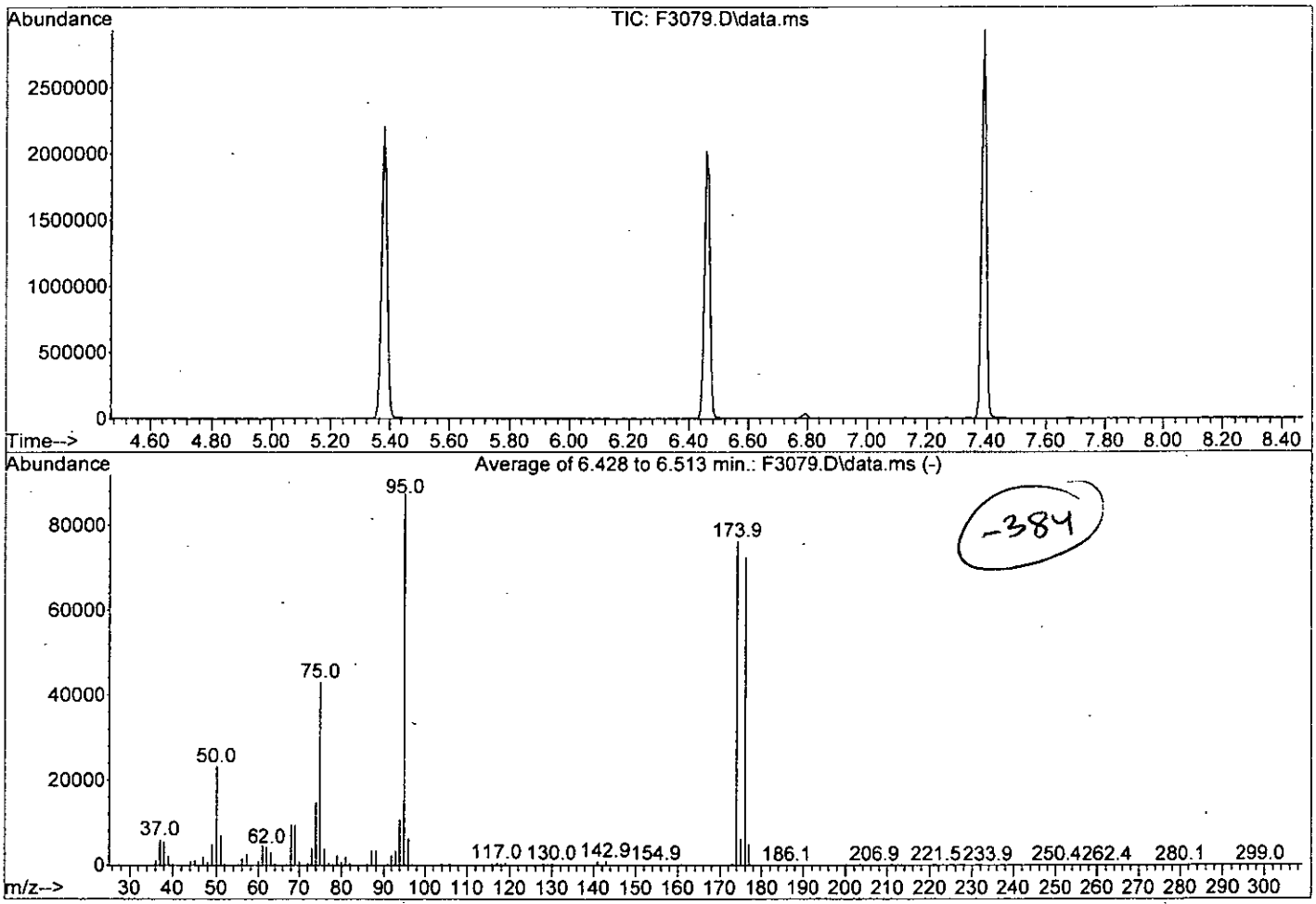
00016

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3079.D
Acq On : 13 Oct 2015 12:59 pm
Operator : F. Naegler
Sample : TUNE
Inst : MSVOA10
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: CPD4.P

FW 10/13/15

Method : I:\ACQUDATA\MSVOA10\METHODS\T091015.M
Title : 8260B WATERS
Last Update : Wed Sep 27 14:33:13 2006



Spectrum Information: Average of 6.428 to 6.513 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.4	23124	PASS
75	95	30	60	49.1	42965	PASS
95	95	100	100	100.0	87455	PASS
96	95	5	9	7.1	6238	PASS
173	174	0.00	2	0.5	392	PASS
174	95	50	120	87.1	76156	PASS
175	174	5	9	8.1	6202	PASS
176	174	95	101	95.1	72404	PASS
177	176	5	9	6.7	4887	PASS

00017

T091015.M Tue Oct 13 13:11:16 2015 MSVO10 Page: 1

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 GW Sampling/748810-03000

Service Request: R1508298
Date Analyzed: 10/13/15 13:24

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\101315\F3080.D\
Instrument ID: R-MS-10
Analytical Method: 8260C

Lab Code: RQ1512564-04
Analysis Lot: 466785
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	RT	Area	RT	Area	RT
	Results ==>	519,554	11.99	1,070,338	6.71	976,378	9.96
	Upper Limit ==>	1,039,108	12.49	2,140,676	7.21	1,952,756	10.46
	Lower Limit ==>	259,777	11.49	535,169	6.21	488,189	9.46
	ICAL Result ==>	558,318	11.99	1,119,978	6.72	995,526	9.96
Associated Analyses							
Lab Control Sample	RQ1512564-02	510,662	11.99	1,057,237	6.72	953,069	9.96
Method Blank	RQ1512564-01	485,274	11.99	1,031,622	6.71	908,079	9.96
FTMM-TB-20151001	R1508298-001	485,348	11.99	1,007,698	6.71	902,861	9.96
FTMM-FB-20151001	R1508298-002	483,827	11.99	998,369	6.71	898,013	9.96
FTMM-DI-20151001	R1508298-003	493,258	11.99	1,012,673	6.71	899,855	9.96

Results flagged with an asterisk (*) indicate values outside control criteria.

00018

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 GW Sampling/748810-03000

Service Request: R1508298
Date Analyzed: 10/13/15 13:24

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\101315\F3080.D\
Instrument ID: R-MS-10
Analytical Method: 8260C

Lab Code: RQ1512564-04
Analysis Lot: 466785
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	744,944	5.67
	Upper Limit ==>	1,489,888	6.17
	Lower Limit ==>	372,472	5.17
	ICAL Result ==>	783,952	5.67
Associated Analyses			
Lab Control Sample	RQ1512564-02	742,085	5.67
Method Blank	RQ1512564-01	709,198	5.67
FTMM-TB-20151001	R1508298-001	708,374	5.67
FTMM-FB-20151001	R1508298-002	692,259	5.67
FTMM-DI-20151001	R1508298-003	706,727	5.67

Results flagged with an asterisk (*) indicate values outside control criteria.

00019

ALS Environmental

VOLATILE ORGANICS SAMPLE DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/ 1/15
Sample Matrix:	Water	**Date Received:**	10/ 2/15
		Date Analyzed:	10/13/15 17:37
Sample Name:	FTMM-TB-20151001	**Units:**	µg/L
Lab Code:	R1508298-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3089.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
630-20-6	1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	
71-55-6	1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	
79-34-5	1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	
79-00-5	1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	
75-34-3	1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	
563-58-6	1,1-Dichloropropene	ND	U	5.0	1.0	0.29	
87-61-6	1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	
96-18-4	1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	
120-82-1	1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	
95-63-6	1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	
106-93-4	1,2-Dibromoethane	ND	U	5.0	1.0	0.24	
95-50-1	1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	
107-06-2	1,2-Dichloroethane	ND	U	5.0	1.0	0.36	
78-87-5	1,2-Dichloropropane	ND	U	5.0	1.0	0.20	
108-67-8	1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	
541-73-1	1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	
142-28-9	1,3-Dichloropropane	ND	U	5.0	1.0	0.27	
106-46-7	1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	
594-20-7	2,2-Dichloropropane	ND	U	5.0	1.0	0.27	
78-93-3	2-Butanone (MEK)	ND	U	5.0	1.0	0.81	
95-49-8	2-Chlorotoluene	ND	U	5.0	1.0	0.20	
591-78-6	2-Hexanone	ND	U	5.0	5.0	1.7	
75-65-0	tert-Butyl Alcohol	ND	U	100	20	11	
106-43-4	4-Chlorotoluene	ND	U	5.0	1.0	0.24	
99-87-6	p-Isopropyltoluene	ND	U	5.0	1.0	0.20	
108-10-1	4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	
67-64-1	Acetone	ND	U	5.0	5.0	1.3	
71-43-2	Benzene	ND	U	5.0	1.0	0.20	
108-86-1	Bromobenzene	ND	U	5.0	1.0	0.28	
74-97-5	Bromochloromethane	ND	U	5.0	1.0	0.32	
75-27-4	Bromodichloromethane	ND	U	5.0	1.0	0.32	
75-25-2	Bromoform	ND	U	5.0	1.0	0.42	
74-83-9	Bromomethane	ND	U	5.0	1.0	0.29	

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/ 1/15
Sample Matrix:	Water	**Date Received:**	10/ 2/15
		Date Analyzed:	10/13/15 17:37
Sample Name:	FTMM-TB-20151001	**Units:**	µg/L
Lab Code:	R1508298-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3089.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
56-23-5	Carbon Tetrachloride	ND	U	5.0	1.0	0.45	
108-90-7	Chlorobenzene	ND	U	5.0	1.0	0.29	
75-00-3	Chloroethane	ND	U	5.0	1.0	0.24	
67-66-3	Chloroform	ND	U	5.0	1.0	0.25	
74-87-3	Chloromethane	**0.26**	J	5.0	1.0	0.21	
124-48-1	Dibromochloromethane	ND	U	5.0	1.0	0.31	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	
75-09-2	Methylene Chloride	ND	U	5.0	1.0	0.60	
100-41-4	Ethylbenzene	ND	U	5.0	1.0	0.20	
87-68-3	Hexachlorobutadiene	ND	U	5.0	1.0	0.62	
98-82-8	Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	
1634-04-4	Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	
91-20-3	Naphthalene	ND	U	5.0	1.0	0.20	
100-42-5	Styrene	ND	U	5.0	1.0	0.20	
127-18-4	Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	
108-88-3	Toluene	ND	U	5.0	1.0	0.20	
79-01-6	Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	
75-01-4	Vinyl Chloride	ND	U	5.0	1.0	0.32	
156-59-2	cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	
10061-01-5	cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	
179601-23-1	m,p-Xylenes	ND	U	10	2.0	0.33	
104-51-8	n-Butylbenzene	ND	U	5.0	1.0	0.21	
103-65-1	n-Propylbenzene	ND	U	5.0	1.0	0.20	
95-47-6	o-Xylene	ND	U	5.0	1.0	0.20	
135-98-8	sec-Butylbenzene	ND	U	5.0	1.0	0.27	
98-06-6	tert-Butylbenzene	ND	U	5.0	1.0	0.20	
156-60-5	trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	
10061-02-6	trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	

00022

Printed 10/28/15 17:34

Form 1A

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/ 1/15
Sample Matrix:	Water	**Date Received:**	10/ 2/15
		Date Analyzed:	10/13/15 17:37
Sample Name:	FTMM-TB-20151001	**Units:**	Percent
Lab Code:	R1508298-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3089.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	75-120	10/13/15 17:37	
Dibromofluoromethane	92	85-115	10/13/15 17:37	
Toluene-d8	99	85-120	10/13/15 17:37	

00023

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/1/15
Sample Matrix:	Water	**Date Received:**	10/2/15
		Date Analyzed:	10/13/15 1737

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-TB-20151001	**Units:**	µg/L
Lab Code:	R1508298-001	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

00024

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3089.D
Acq On : 13 Oct 2015 5:37 pm
Operator : F. Naegler
Sample : R1508298-001|1.0 Inst : MSVOA10
Misc : PARSONS 11603 T4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 16 15:02:46 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.671	168	708374	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.714	114	1007698	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.957	117	902861	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.987	152	485348	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.519	113	299955	46.13	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 92.26%			
46) surr1,1,2-dichloroetha...	6.031	65	423285	45.92	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 91.84%			
64) SURR3,Toluene-d8	8.488	98	1167434	49.26	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.52%			
69) SURR2,BFB	11.018	95	451838	46.17	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 92.34%			
Target Compounds						Qvalue
3) Chloromethane	1.300	50	2259	0.26	ug/L	94
15) Acetone	2.422	43	4218	0.70	ug/L	74
71) Tetrachloroethene	9.140	164	1707	0.29	ug/L #	69

(#) = qualifier out of range (m) = manual integration (+) = signals summed

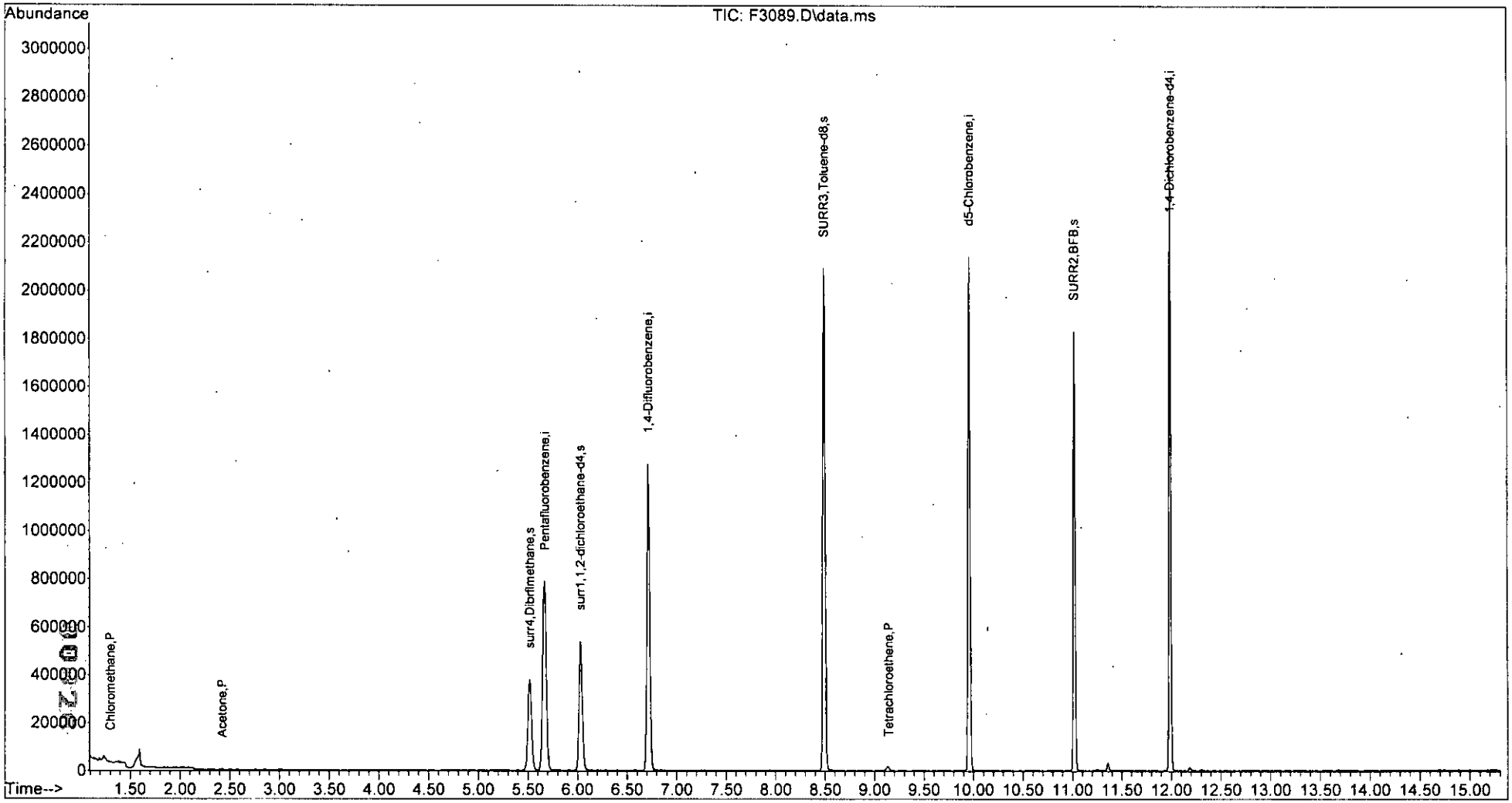
FD 10/16/15

00025

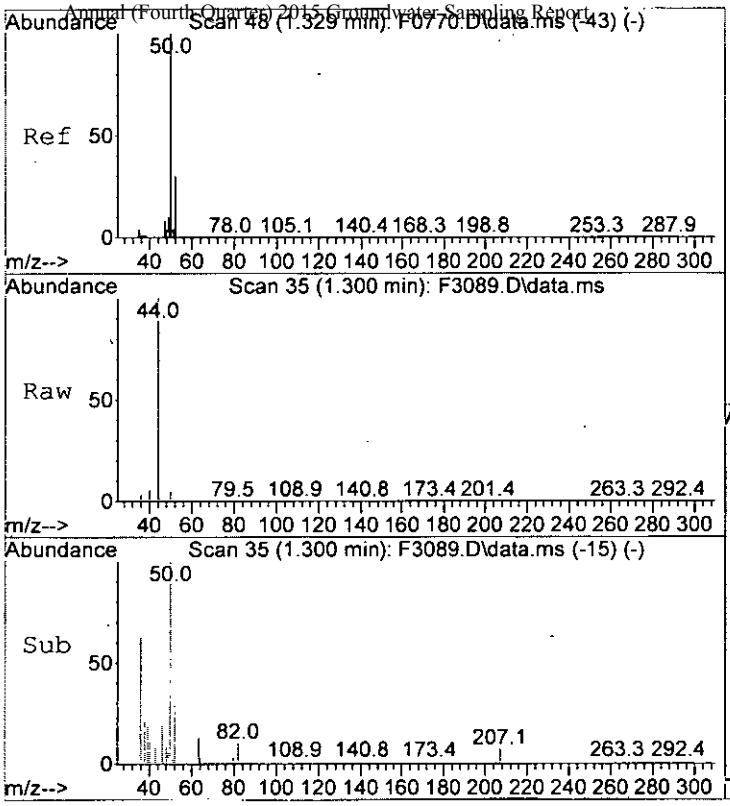
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3089.D
Acq On : 13 Oct 2015 5:37 pm
Operator : F. Naegler
Sample : R1508298-001|1.0 Inst : MSVOA10
Misc : PARSONS 11603 T4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 16 15:02:46 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration



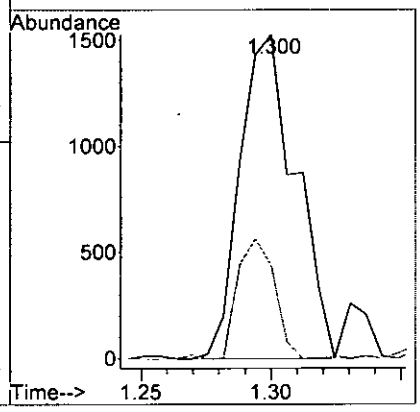
W091015.M Fri Oct 16 15:04:01 2015 MSVO10 Page: 2

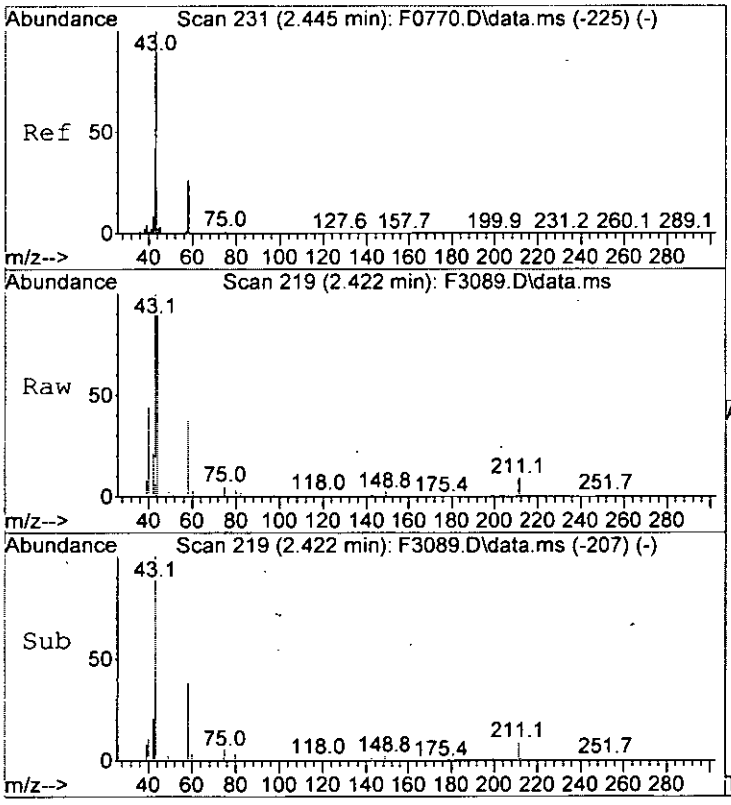


#3
Chloromethane
Concen: 0.26 ug/L
RT: 1.300 min Scan# 35
Delta R.T. 0.006 min
Lab File: F3089.D
Acq: 13 Oct 2015 5:37 pm

Tgt Ion: 50 Resp: 2259

Ion	Ratio	Lower	Upper
50	100		
52	28.6	12.0	52.0

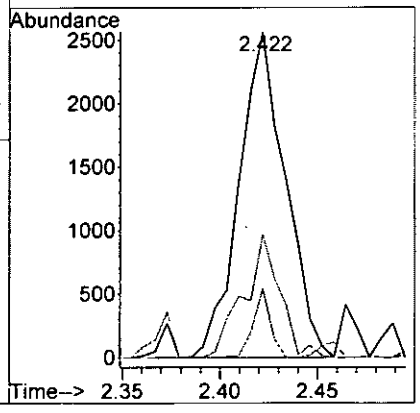




#15
Acetone
Concen: 0.70 ug/L
RT: 2.422 min Scan# 219
Delta R.T. 0.001 min
Lab File: F3089.D
Acq: 13 Oct 2015 5:37 pm

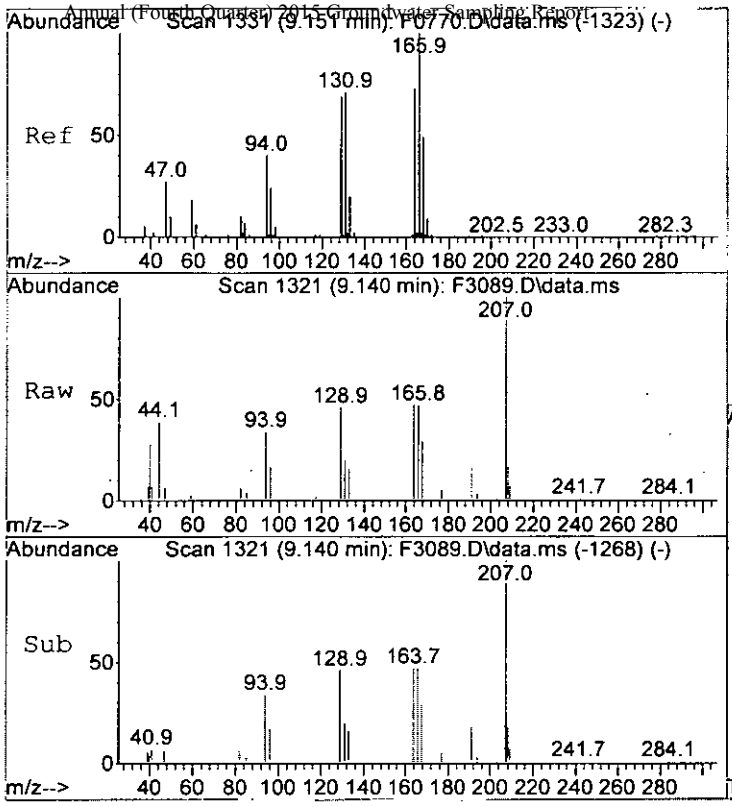
Tgt Ion: 43 Resp: 4218

Ion	Ratio	Lower	Upper
43	100		
58	37.8	6.1	46.1
42	21.0	0.0	28.3



00027

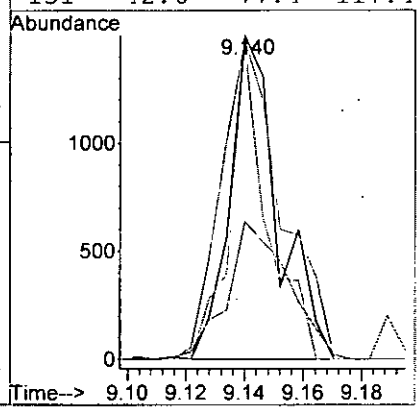
F3089.D W091015.M Fri Oct 16 15:04:05 2015 MSVO10 Page 3



#71
Tetrachloroethene
Concen: 0.29 ug/L
RT: 9.140 min Scan# 1321
Delta R.T. -0.006 min
Lab File: F3089.D
Acq: 13 Oct 2015 5:37 pm

Tgt Ion:164 Resp: 1707

Ion	Ratio	Lower	Upper
164	100		
166	98.4	117.3	157.3#
129	96.9	74.9	114.9
131	42.6	77.4	117.4#



00028

F3089.D W091015.M Fri Oct 16 15:04:06 2015 MSVO10 Page 4

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3089.D
Acq On : 13 Oct 2015 5:37 pm
Operator : F. Naegler
Sample : R1508298-001|1.0 Inst : MSVOA10
Misc : PARSONS 11603 T4
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: CPD4.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Title : MS#10 - 8260B WATERS 10mL Purge

Signal : TIC: F3089.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.233	22	24	32	rVB3	26158	43276	1.29%	0.232%
2	1.593	69	83	90	rBV4	78180	184758	5.49%	0.990%
3	5.519	716	727	739	rBV2	378795	973228	28.92%	5.217%
4	5.665	739	751	768	rVV	789825	1979986	58.84%	10.613%
5	6.031	800	811	825	rBV	536976	1213544	36.06%	6.505%
6	6.714	913	923	935	rBV	1277358	2468449	73.35%	13.232%
7	8.488	1206	1214	1223	rBV	2091112	3365202	100.00%	18.038%
8	9.134	1313	1320	1328	rVB4	15895	34871	1.04%	0.187%
9	9.957	1449	1455	1462	rBV	2138689	2951754	87.71%	15.822%
10	11.018	1622	1629	1635	rBV	1831580	2282727	67.83%	12.236%
11	11.359	1679	1685	1690	rBV3	31420	38550	1.15%	0.207%
12	11.987	1783	1788	1795	rVB	2584188	3119388	92.70%	16.721%

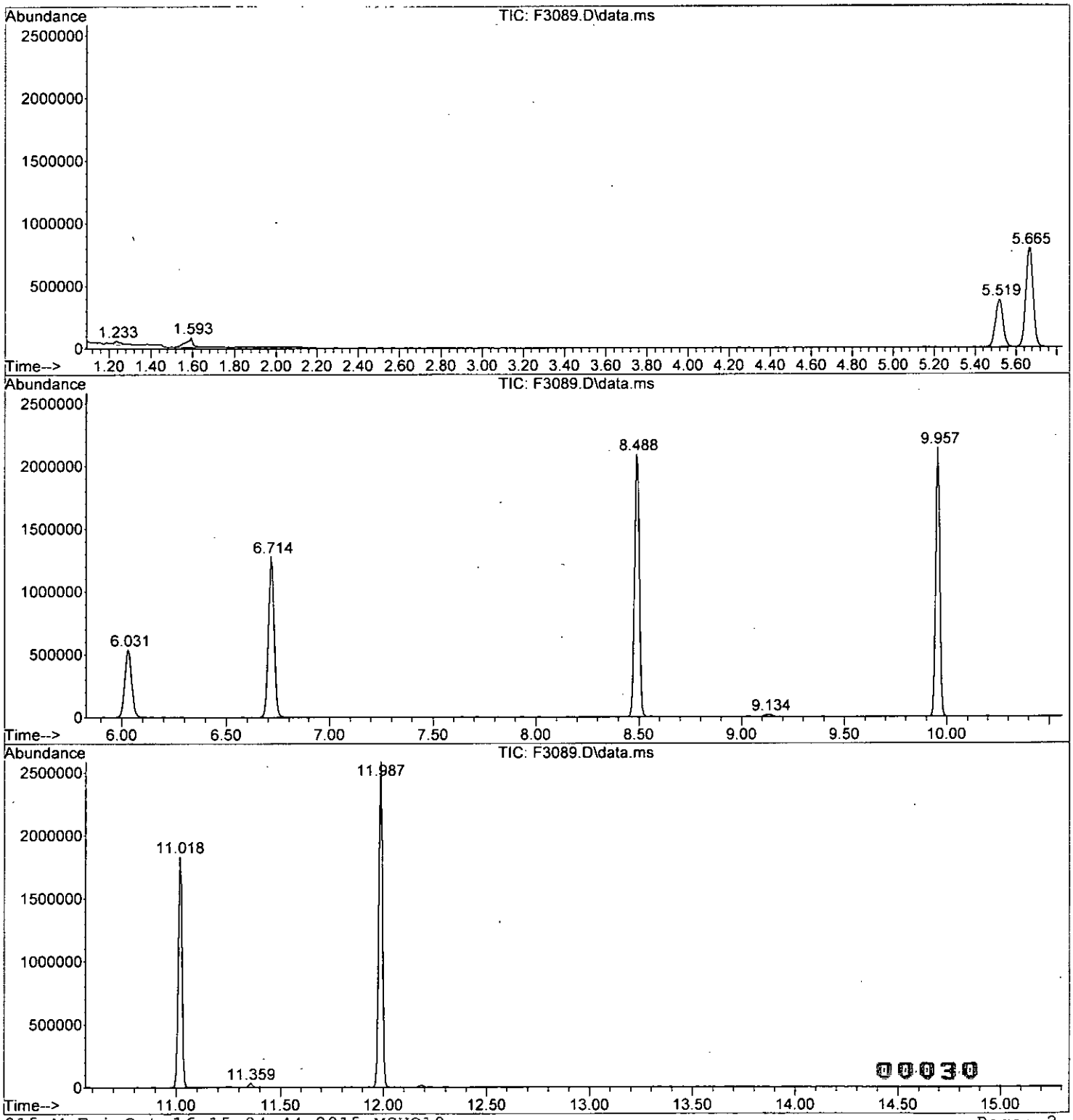
Sum of corrected areas: 18655733

00029

```
Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3089.D
Acq On    : 13 Oct 2015   5:37 pm
Operator  : F. Naegler
Sample    : R1508298-001|1.0                    Inst    : MSVOA10
Misc      : PARSONS 11603 T4
ALS Vial  : 9   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title  : MS#10 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```




```
W091015.M Fri Oct 16 15:04:44 2015 MSVO10                    Page: 2
```

Tentatively Identified Compound (LSC) summary

```
Data Path : I:\ACQUDATA\msvoa10\data\101315\\
Data File : F3089.D
Acq On    : 13 Oct 2015    5:37 pmm
Operator  : F. Naeglerr
Sample    : R1508298-001|1.0                          Inst    : MSVOA100
Misc      : PARSONS 11603 T44
ALS Vial  : 9   Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.MM
Quant Title  : MS#10 - 8260B WATERS 10mL Purgee

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP
```

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected

****

00031

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/ 1/15 1530
Sample Matrix:	Water	**Date Received:**	10/ 2/15
		Date Analyzed:	10/13/15 18:01
Sample Name:	FTMM-FB-20151001	**Units:**	µg/L
Lab Code:	R1508298-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3090.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
630-20-6	1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	
71-55-6	1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	
79-34-5	1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	
79-00-5	1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	
75-34-3	1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	
563-58-6	1,1-Dichloropropene	ND	U	5.0	1.0	0.29	
87-61-6	1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	
96-18-4	1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	
120-82-1	1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	
95-63-6	1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	
106-93-4	1,2-Dibromoethane	ND	U	5.0	1.0	0.24	
95-50-1	1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	
107-06-2	1,2-Dichloroethane	ND	U	5.0	1.0	0.36	
78-87-5	1,2-Dichloropropane	ND	U	5.0	1.0	0.20	
108-67-8	1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	
541-73-1	1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	
142-28-9	1,3-Dichloropropane	ND	U	5.0	1.0	0.27	
106-46-7	1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	
594-20-7	2,2-Dichloropropane	ND	U	5.0	1.0	0.27	
78-93-3	2-Butanone (MEK)	ND	U	5.0	1.0	0.81	
95-49-8	2-Chlorotoluene	ND	U	5.0	1.0	0.20	
591-78-6	2-Hexanone	ND	U	5.0	5.0	1.7	
75-65-0	tert-Butyl Alcohol	ND	U	100	20	11	
106-43-4	4-Chlorotoluene	ND	U	5.0	1.0	0.24	
99-87-6	p-Isopropyltoluene	ND	U	5.0	1.0	0.20	
108-10-1	4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	
67-64-1	Acetone	**1.6**	J	5.0	5.0	1.3	
71-43-2	Benzene	ND	U	5.0	1.0	0.20	
108-86-1	Bromobenzene	ND	U	5.0	1.0	0.28	
74-97-5	Bromochloromethane	ND	U	5.0	1.0	0.32	
75-27-4	Bromodichloromethane	ND	U	5.0	1.0	0.32	
75-25-2	Bromoform	ND	U	5.0	1.0	0.42	
74-83-9	Bromomethane	ND	U	5.0	1.0	0.29	

00032

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/ 1/15 1530
Sample Matrix:	Water	**Date Received:**	10/ 2/15
		Date Analyzed:	10/13/15 18:01
Sample Name:	FTMM-FB-20151001	**Units:**	µg/L
Lab Code:	R1508298-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3090.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
56-23-5	Carbon Tetrachloride	ND	U	5.0	1.0	0.45	
108-90-7	Chlorobenzene	ND	U	5.0	1.0	0.29	
75-00-3	Chloroethane	ND	U	5.0	1.0	0.24	
67-66-3	Chloroform	ND	U	5.0	1.0	0.25	
74-87-3	Chloromethane	ND	U	5.0	1.0	0.21	
124-48-1	Dibromochloromethane	ND	U	5.0	1.0	0.31	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	
75-09-2	Methylene Chloride	ND	U	5.0	1.0	0.60	
100-41-4	Ethylbenzene	ND	U	5.0	1.0	0.20	
87-68-3	Hexachlorobutadiene	ND	U	5.0	1.0	0.62	
98-82-8	Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	
1634-04-4	Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	
91-20-3	Naphthalene	ND	U	5.0	1.0	0.20	
100-42-5	Styrene	ND	U	5.0	1.0	0.20	
127-18-4	Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	
108-88-3	Toluene	ND	U	5.0	1.0	0.20	
79-01-6	Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	
75-01-4	Vinyl Chloride	ND	U	5.0	1.0	0.32	
156-59-2	cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	
10061-01-5	cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	
179601-23-1	m,p-Xylenes	ND	U	10	2.0	0.33	
104-51-8	n-Butylbenzene	ND	U	5.0	1.0	0.21	
103-65-1	n-Propylbenzene	ND	U	5.0	1.0	0.20	
95-47-6	o-Xylene	ND	U	5.0	1.0	0.20	
135-98-8	sec-Butylbenzene	ND	U	5.0	1.0	0.27	
98-06-6	tert-Butylbenzene	ND	U	5.0	1.0	0.20	
156-60-5	trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	
10061-02-6	trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	

00033

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/ 1/15 1530
Sample Matrix:	Water	**Date Received:**	10/ 2/15
		Date Analyzed:	10/13/15 18:01
Sample Name:	FTMM-FB-20151001	**Units:**	Percent
Lab Code:	R1508298-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3090.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	75-120	10/13/15 18:01	
Dibromofluoromethane	92	85-115	10/13/15 18:01	
Toluene-d8	97	85-120	10/13/15 18:01	

00034

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/1/15
Sample Matrix:	Water	**Date Received:**	10/2/15
		Date Analyzed:	10/13/15 1801

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-FB-20151001	**Units:**	µg/L
Lab Code:	R1508298-002	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

00035

Printed 10/28/2015 17:34

Form 1B

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3090.D
Acq On : 13 Oct 2015 6:01 pm
Operator : F. Naegler
Sample : R1508298-002|1.0 Inst : MSVOA10
Misc : PARSONS 11603 T4
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 16 15:05:38 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.671	168	692259	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.714	114	998369	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.957	117	898013	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.987	152	483827	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.519	113	297587	46.20	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 92.40%			
46) surr1,1,2-dichloroetha...	6.031	65	407580	44.63	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 89.26%			
64) SURR3,Toluene-d8	8.488	98	1141781	48.63	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.26%			
69) SURR2,BFB	11.018	95	441174	45.50	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 91.00%			
Target Compounds						Qvalue
5) Bromomethane	1.611	94	318	Below Cal	#	66
15) Acetone	2.416	43	9174	1.55	ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

FN 10/16/15

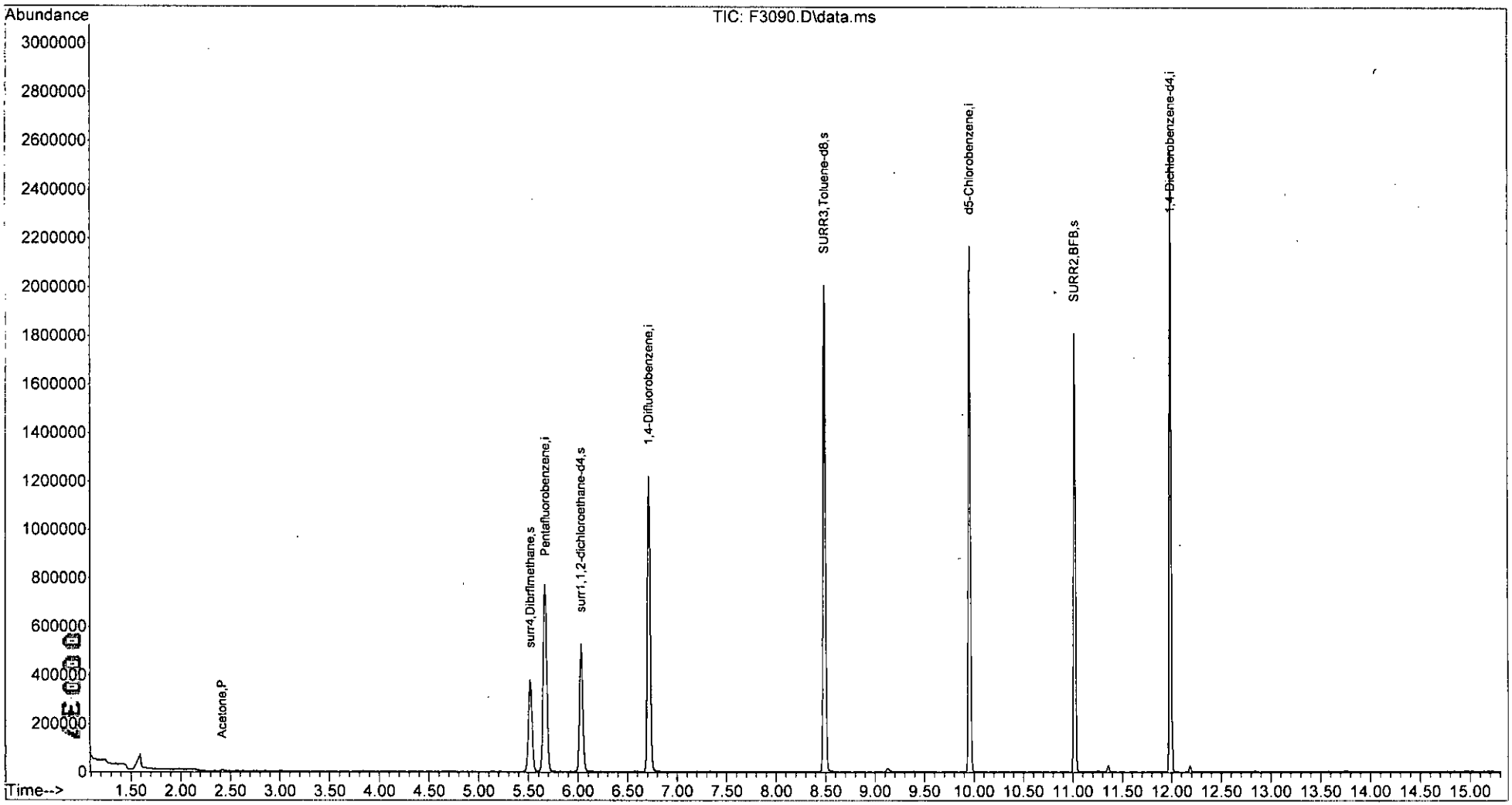
00036

W091015.M Fri Oct 16 15:06:55 2015 MSVO10 Page: 1

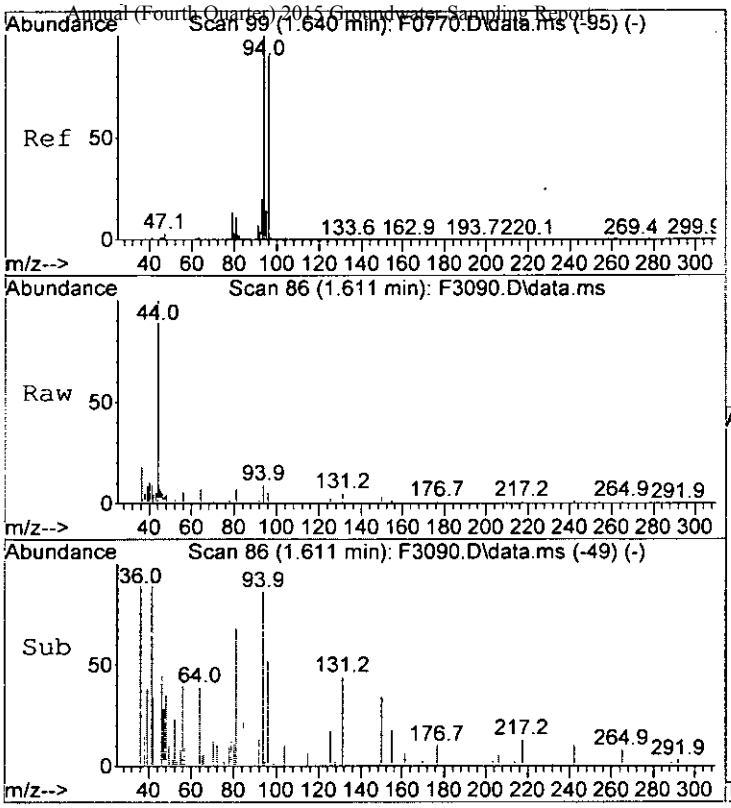
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3090.D
Acq On : 13 Oct 2015 6:01 pm
Operator : F. Naegler
Sample : R1508298-002|1.0 Inst : MSVOA10
Misc : PARSONS 11603 T4
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 16 15:05:38 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration



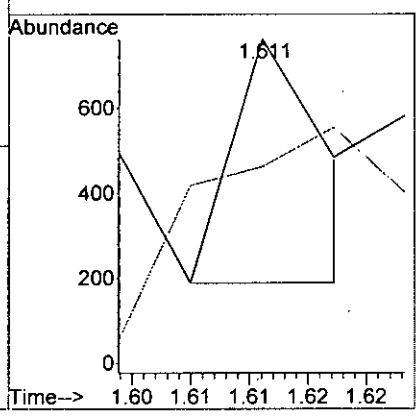
W091015.M Fri Oct 16 15:06:58 2015 MSVO10 Page: 2

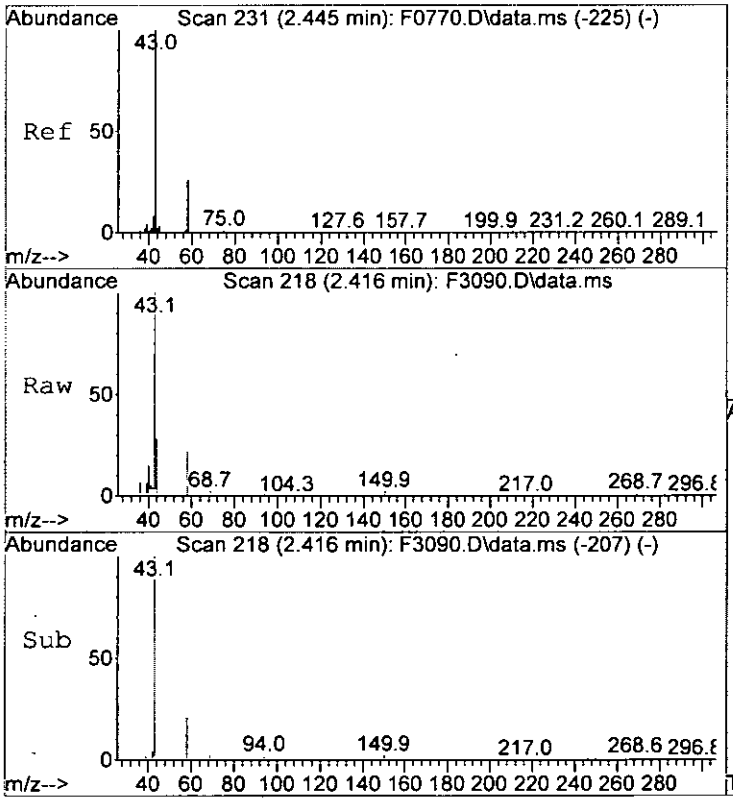


#5
Bromomethane
Concen: Below Cal
RT: 1.611 min Scan# 86
Delta R.T. 0.000 min
Lab File: F3090.D
Acq: 13 Oct 2015 6:01 pm

Tgt Ion: 94 Resp: 318

Ion	Ratio	Lower	Upper
94	100		
96	60.6	73.0	113.0#

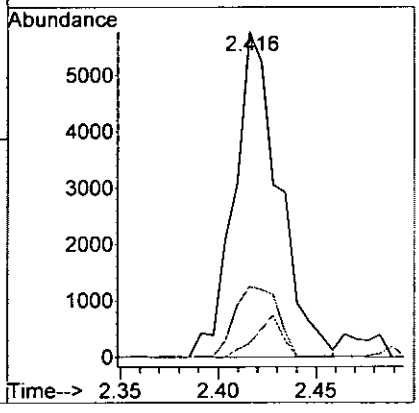




#15
Acetone
Concen: 1.55 ug/L
RT: 2.416 min Scan# 218
Delta R.T. -0.005 min
Lab File: F3090.D
Acq: 13 Oct 2015 6:01 pm

Tgt Ion: 43 Resp: 9174

Ion	Ratio	Lower	Upper
43	100		
58	21.6	6.1	46.1
42	4.2	0.0	28.3



00038

F3090.D W091015.M Fri Oct 16 15:07:00 2015 MSVO10 Page 3

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3090.D
Acq On : 13 Oct 2015 6:01 pm
Operator : F. Naegler
Sample : R1508298-002|1.0 Inst : MSVOA10
Misc : PARSONS 11603 T4
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: CPD4.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Title : MS#10 - 8260B WATERS 10mL Purge

Signal : TIC: F3090.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.593	68	83	88	rBV4	65780	174237	5.33%	0.952%
2	5.519	718	727	738	rVB2	380929	946747	28.95%	5.171%
3	5.665	741	751	765	rVB	772574	1925485	58.89%	10.518%
4	6.031	801	811	824	rBV	527023	1172328	35.85%	6.404%
5	6.714	914	923	936	rBV	1221139	2447102	74.84%	13.367%
6	8.488	1206	1214	1225	rBV	2009254	3269784	100.00%	17.861%
7	9.134	1310	1320	1327	rBV5	15130	33167	1.01%	0.181%
8	9.957	1448	1455	1462	rBV	2172980	2927197	89.52%	15.989%
9	11.018	1624	1629	1635	rBV	1811135	2258577	69.07%	12.337%
10	11.359	1681	1685	1690	rBV4	27753	35124	1.07%	0.192%
11	11.987	1782	1788	1797	rVB	2561661	3084599	94.34%	16.849%
12	12.182	1817	1820	1824	rBV2	26300	32936	1.01%	0.180%

Sum of corrected areas: 18307283

00039

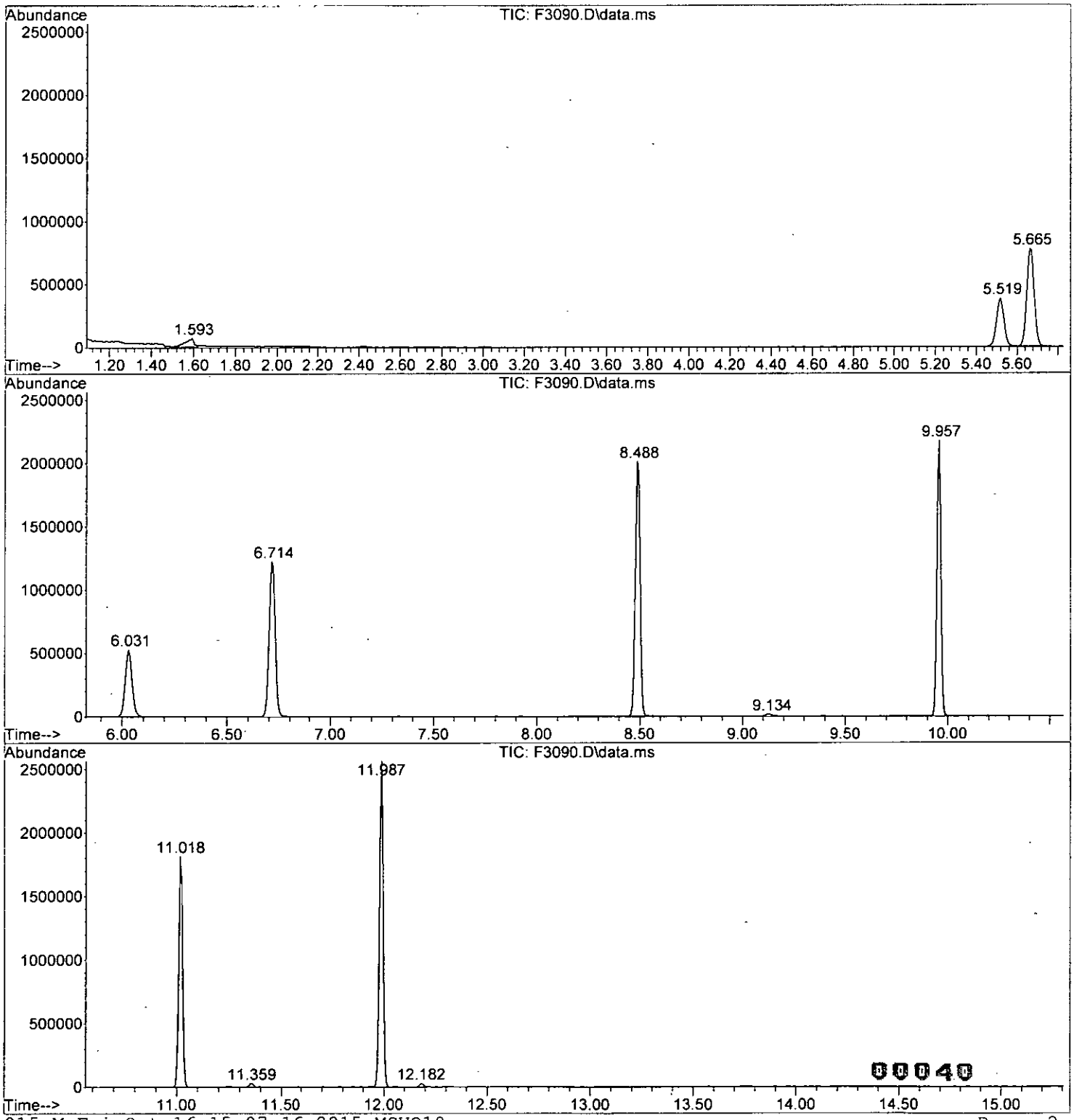
W091015.M Fri Oct 16 15:07:13 2015 MSVO10 Page: 1

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3090.D
Acq On : 13 Oct 2015 6:01 pm
Operator : F. Naegler
Sample : R1508298-002|1.0 Inst : MSVOA10
Misc : PARSONS 11603 T4
ALS Vial : 10 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



W091015.M Fri Oct 16 15:07:16 2015 MSVO10 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa10\data\101315\\
Data File : F3090.D
Acq On : 13 Oct 2015 6:01 pmm
Operator : F. Naeglerr
Sample : R1508298-002|1.0 Inst : MSVOA100
Misc : PARSONS 11603 T44
ALS Vial : 10 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.MM
Quant Title : MS#10 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected

00041

W091015.M Fri Oct 16 15:07:16 2015 MSVO10 Page: 3

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/ 1/15 1545
Sample Matrix:	Water	**Date Received:**	10/ 2/15
		Date Analyzed:	10/13/15 18:26
Sample Name:	FTMM-DI-20151001	**Units:**	µg/L
Lab Code:	R1508298-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3091.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
630-20-6	1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	
71-55-6	1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	
79-34-5	1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	
79-00-5	1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	
75-34-3	1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	
563-58-6	1,1-Dichloropropene	ND	U	5.0	1.0	0.29	
87-61-6	1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	
96-18-4	1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	
120-82-1	1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	
95-63-6	1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	
106-93-4	1,2-Dibromoethane	ND	U	5.0	1.0	0.24	
95-50-1	1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	
107-06-2	1,2-Dichloroethane	ND	U	5.0	1.0	0.36	
78-87-5	1,2-Dichloropropane	ND	U	5.0	1.0	0.20	
108-67-8	1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	
541-73-1	1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	
142-28-9	1,3-Dichloropropane	ND	U	5.0	1.0	0.27	
106-46-7	1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	
594-20-7	2,2-Dichloropropane	ND	U	5.0	1.0	0.27	
78-93-3	2-Butanone (MEK)	ND	U	5.0	1.0	0.81	
95-49-8	2-Chlorotoluene	ND	U	5.0	1.0	0.20	
591-78-6	2-Hexanone	ND	U	5.0	5.0	1.7	
75-65-0	tert-Butyl Alcohol	ND	U	100	20	11	
106-43-4	4-Chlorotoluene	ND	U	5.0	1.0	0.24	
99-87-6	p-Isopropyltoluene	ND	U	5.0	1.0	0.20	
108-10-1	4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	
67-64-1	Acetone	**1.3**	J	5.0	5.0	1.3	
71-43-2	Benzene	ND	U	5.0	1.0	0.20	
108-86-1	Bromobenzene	ND	U	5.0	1.0	0.28	
74-97-5	Bromochloromethane	ND	U	5.0	1.0	0.32	
75-27-4	Bromodichloromethane	ND	U	5.0	1.0	0.32	
75-25-2	Bromoform	ND	U	5.0	1.0	0.42	
74-83-9	Bromomethane	ND	U	5.0	1.0	0.29	

00042

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/ 1/15 1545
Sample Matrix:	Water	**Date Received:**	10/ 2/15
		Date Analyzed:	10/13/15 18:26
Sample Name:	FTMM-DI-20151001	**Units:**	µg/L
Lab Code:	R1508298-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3091.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
56-23-5	Carbon Tetrachloride	ND	U	5.0	1.0	0.45	
108-90-7	Chlorobenzene	ND	U	5.0	1.0	0.29	
75-00-3	Chloroethane	ND	U	5.0	1.0	0.24	
67-66-3	Chloroform	ND	U	5.0	1.0	0.25	
74-87-3	Chloromethane	**0.21**	**J**	5.0	1.0	0.21	
124-48-1	Dibromochloromethane	ND	U	5.0	1.0	0.31	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	
75-09-2	Methylene Chloride	ND	U	5.0	1.0	0.60	
100-41-4	Ethylbenzene	ND	U	5.0	1.0	0.20	
87-68-3	Hexachlorobutadiene	ND	U	5.0	1.0	0.62	
98-82-8	Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	
1634-04-4	Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	
91-20-3	Naphthalene	ND	U	5.0	1.0	0.20	
100-42-5	Styrene	ND	U	5.0	1.0	0.20	
127-18-4	Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	
108-88-3	Toluene	ND	U	5.0	1.0	0.20	
79-01-6	Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	
75-01-4	Vinyl Chloride	ND	U	5.0	1.0	0.32	
156-59-2	cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	
10061-01-5	cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	
179601-23-1	m,p-Xylenes	ND	U	10	2.0	0.33	
104-51-8	n-Butylbenzene	ND	U	5.0	1.0	0.21	
103-65-1	n-Propylbenzene	ND	U	5.0	1.0	0.20	
95-47-6	o-Xylene	ND	U	5.0	1.0	0.20	
135-98-8	sec-Butylbenzene	ND	U	5.0	1.0	0.27	
98-06-6	tert-Butylbenzene	ND	U	5.0	1.0	0.20	
156-60-5	trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	
10061-02-6	trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	

00043

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/ 1/15 1545
Sample Matrix:	Water	**Date Received:**	10/ 2/15
		Date Analyzed:	10/13/15 18:26
Sample Name:	FTMM-DI-20151001	**Units:**	Percent
Lab Code:	R1508298-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3091.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	75-120	10/13/15 18:26	
Dibromofluoromethane	93	85-115	10/13/15 18:26	
Toluene-d8	99	85-120	10/13/15 18:26	

00044

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	10/1/15
Sample Matrix:	Water	**Date Received:**	10/2/15
		Date Analyzed:	10/13/15 1826

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-DI-20151001	**Units:**	µg/L
Lab Code:	R1508298-003	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3091.D
Acq On : 13 Oct 2015 6:26 pm
Operator : F. Naegler
Sample : R1508298-003|1.0 Inst : MSVOA10
Misc : PARSONS 11603 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 16 15:08:44 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.665	168	706727	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.714	114	1012673	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.957	117	899855	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.987	152	493258	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.519	113	302917	46.36	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 92.72%			
46) surr1,1,2-dichloroetha...	6.031	65	417982	45.12	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 90.24%			
64) SURR3,Toluene-d8	8.488	98	1173636	49.28	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.56%			
69) SURR2,BFB	11.018	95	444201	45.17	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 90.34%			
Target Compounds						Qvalue
3) Chloromethane	1.300	50	1796	0.21	ug/L	67
5) Bromomethane	1.623	94	339	Below Cal	#	3
15) Acetone	2.410	43	7868	1.30	ug/L	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

FN 10/16/15

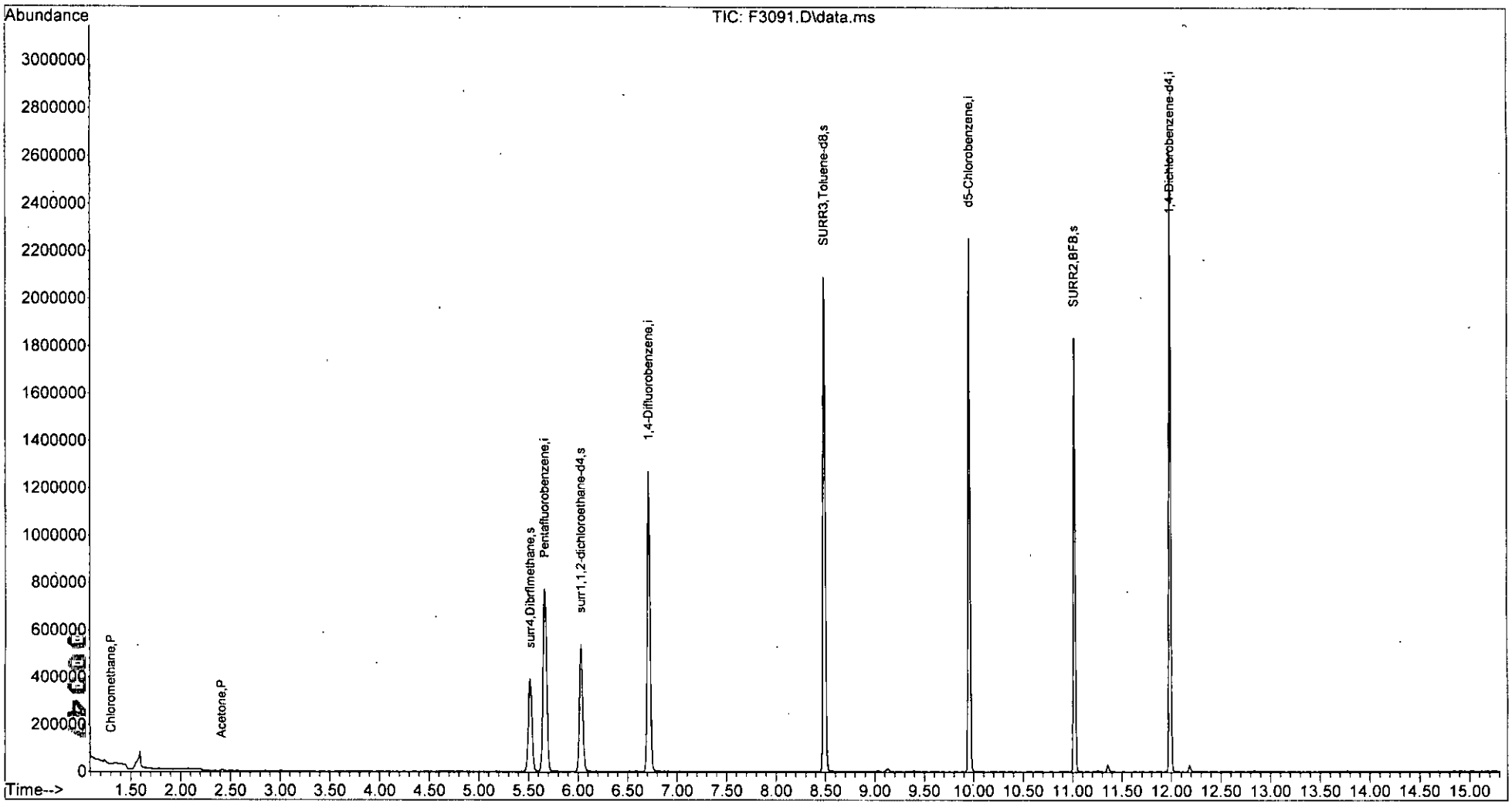
00046

W091015.M Fri Oct 16 15:09:27 2015 MSVO10 Page: 1

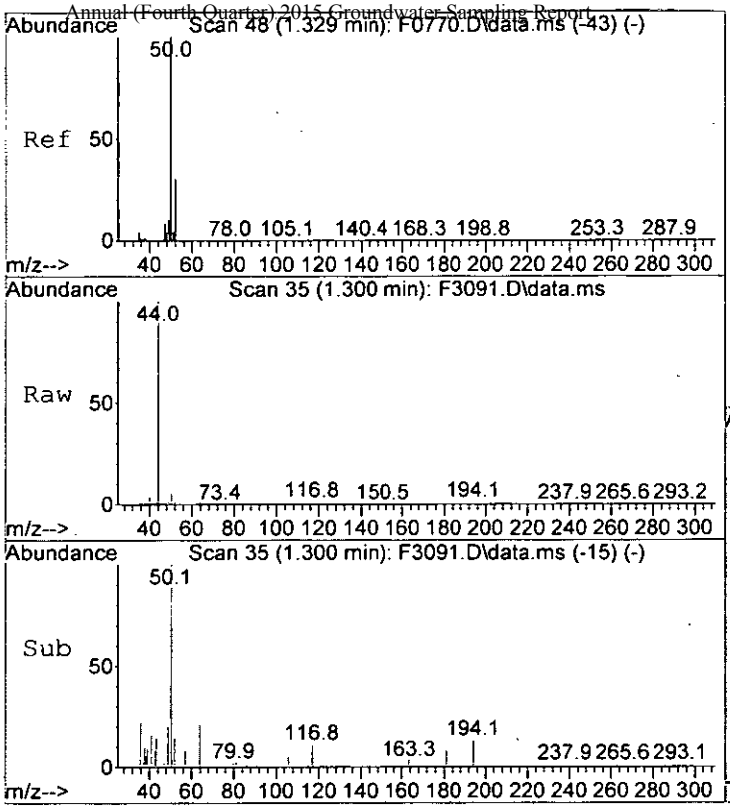
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3091.D
Acq On : 13 Oct 2015 6:26 pm
Operator : F. Naegler
Sample : R1508298-003|1.0 Inst : MSVOA10
Misc : PARSONS 11603 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 16 15:08:44 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration



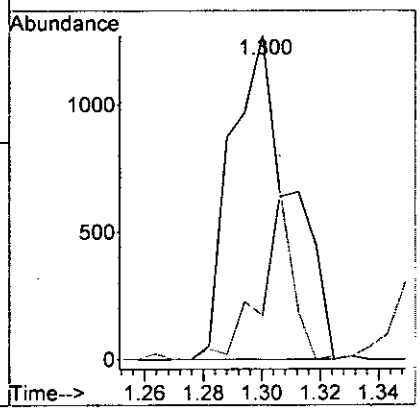
W091015.M Fri Oct 16 15:09:29 2015 MSVO10 Page: 2

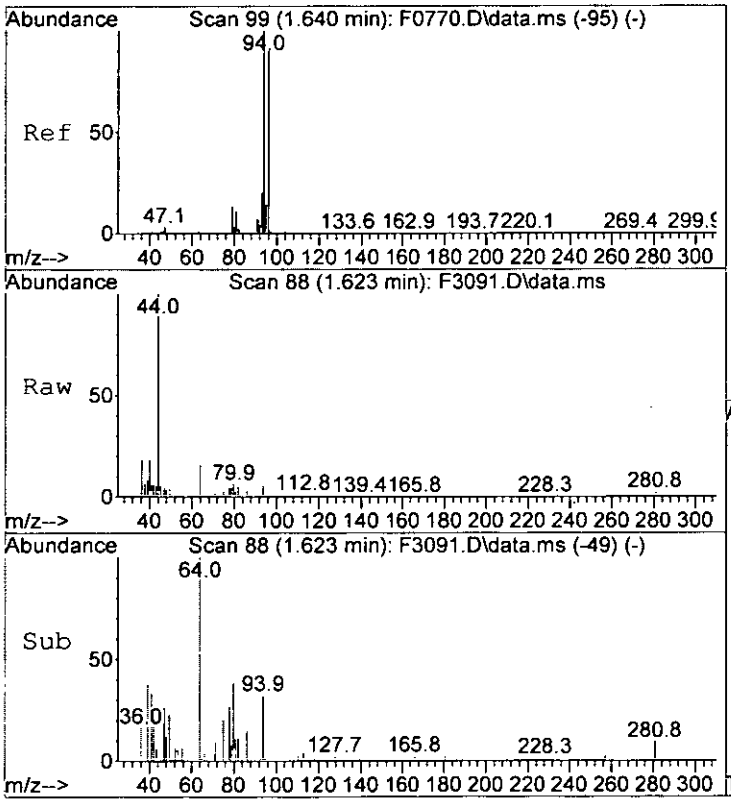


#3
Chloromethane
Concen: 0.21 ug/L
RT: 1.300 min Scan# 35
Delta R.T. 0.006 min
Lab File: F3091.D
Acq: 13 Oct 2015 6:26 pm

Tgt Ion: 50 Resp: 1796

Ion	Ratio	Lower	Upper
50	100		
52	13.5	12.0	52.0

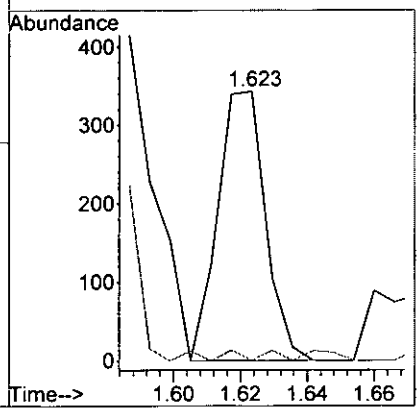




#5
Bromomethane
Concen: Below Cal
RT: 1.623 min Scan# 88
Delta R.T. 0.012 min
Lab File: F3091.D
Acq: 13 Oct 2015 6:26 pm

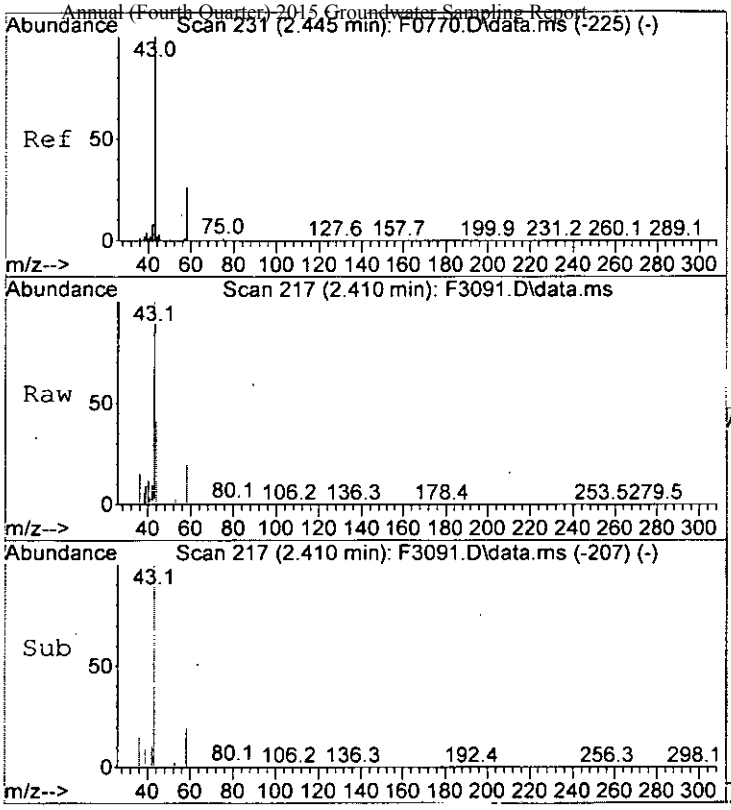
Tgt Ion: 94 Resp: 339

Ion	Ratio	Lower	Upper
94	100		
96	0.0	73.0	113.0#



00048

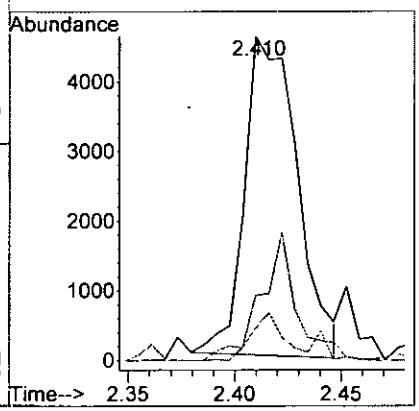
F3091.D W091015.M Fri Oct 16 15:09:31 2015 MSVO10 Page 3



#15
Acetone
Concen: 1.30 ug/L
RT: 2.410 min Scan# 217
Delta R.T. -0.011 min
Lab File: F3091.D
Acq: 13 Oct 2015 6:26 pm

Tgt Ion: 43 Resp: 7868

Ion	Ratio	Lower	Upper
43	100		
58	20.0	6.1	46.1
42	10.0	0.0	28.3



00049

F3091.D W091015.M Fri Oct 16 15:09:32 2015 MSVO10 Page 4

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3091.D
Acq On : 13 Oct 2015 6:26 pm
Operator : F. Naegler
Sample : R1508298-003|1.0 Inst : MSVOA10
Misc : PARSONS 11603 T4
ALS Vial : 11 Sample Multiplier: 1

Integration Parameters: CPD4.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Title : MS#10 - 8260B WATERS 10mL Purge

Signal : TIC: F3091.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.593	71	83	86	rBV3	73451	158100	4.71%	0.852%
2	5.519	715	727	741	rBV	390769	998144	29.74%	5.376%
3	5.665	741	751	765	rVB	770988	1949578	58.09%	10.501%
4	6.031	801	811	821	rBV	538384	1199287	35.73%	6.459%
5	6.714	913	923	936	rBV	1268618	2473124	73.69%	13.320%
6	8.488	1206	1214	1224	rBV	2091543	3356082	100.00%	18.076%
7	9.957	1448	1455	1465	rBV	2254191	2940368	87.61%	15.837%
8	11.018	1624	1629	1637	rVB	1834394	2280168	67.94%	12.281%
9	11.359	1680	1685	1690	rBV	30404	42632	1.27%	0.230%
10	11.987	1783	1788	1795	rVB	2620302	3134201	93.39%	16.881%
11	12.182	1816	1820	1827	rBV	28034	34684	1.03%	0.187%

Sum of corrected areas: 18566368

00050

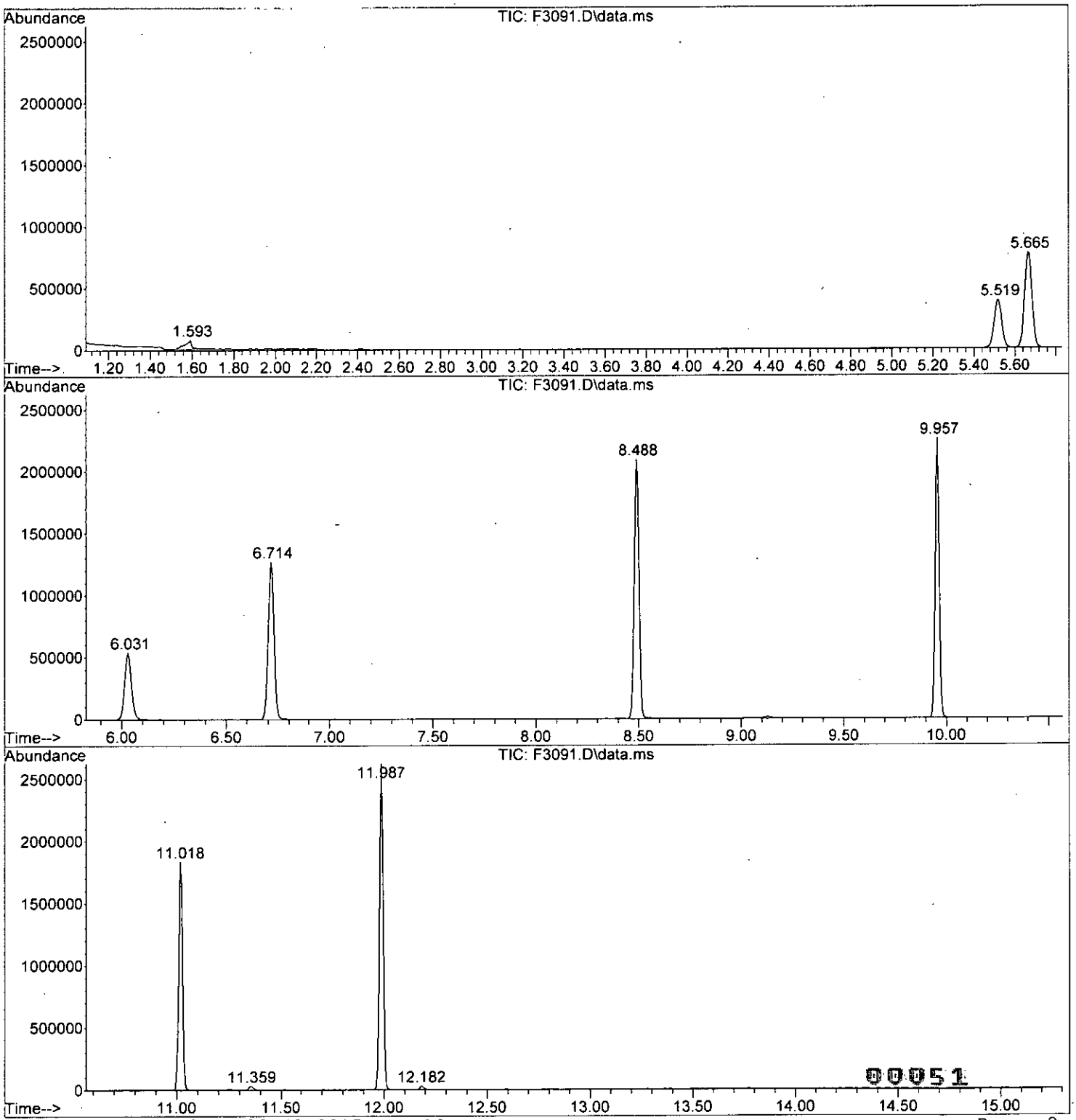
W091015.M Fri Oct 16 15:09:37 2015 MSVO10 Page: 1

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3091.D
Acq On : 13 Oct 2015 6:26 pm
Operator : F. Naegler
Sample : R1508298-003|1.0 Inst : MSVOA10
Misc : PARSONS 11603 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



W091015.M Fri Oct 16 15:09:40 2015 MSVO10 Page: 2

Tentatively Identified Compound (LSC) summary

```
Data Path : I:\ACQUDATA\msvoa10\data\101315\\
Data File : F3091.D
Acq On    : 13 Oct 2015   6:26 pmm
Operator  : F. Naeglerr
Sample    : R1508298-003|1.0                          Inst    : MSVOA100
Misc      : PARSONS 11603 T44
ALS Vial  : 11   Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.MM
Quant Title  : MS#10 - 8260B WATERS 10mL Purgee

TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

                                                   |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-----------------------------------------------------------------------------



 No Library Search Compounds Detected
 ************************************************************************
```

00052

W091015.M Fri Oct 16 15:09:40 2015 MSVO10 Page: 3

ALS Environmental

VOLATILE ORGANICS STANDARDS DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

00053

RIGHT SOLUTIONS | RIGHT PARTNER

Initial Calibration - Summary Report

Calibration ID: RC1500091 9/10/15 **Instrument ID:** R-MS-10
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
1,1,1,2-Tetrachloroethane	T	Average RF			0.3582	<=20	11.6
1,1,1-Trichloroethane (TCA)	T	Average RF		0.100	0.7563	<=20	4.0
1,1,2,2-Tetrachloroethane	T	Linear	1/X2	0.300	0.8529	>=0.99	0.9959
1,1,2-Trichloroethane	T	Average RF		0.100	0.3308	<=20	7.5
1,1,2-Trichlorotrifluoroethane	T	Average RF		0.100	0.4565	<=20	9.9
1,1-Dichloroethane (1,1-DCA)	T	Average RF		0.200	0.9591	<=20	6.1
1,1-Dichloroethene (1,1-DCE)	T	Average RF		0.100	0.4091	<=20	6.5
1,1-Dichloropropene	T	Average RF			0.4503	<=20	5.3
1,2,3-Trichlorobenzene	T	Average RF			1.260	<=20	8.1
1,2,3-Trichloropropane	T	Average RF			0.3313	<=20	6.0
1,2,4-Trichlorobenzene	T	Average RF		0.200	1.272	<=20	10.5
1,2,4-Trimethylbenzene	T	Average RF			2.604	<=20	12.9
1,2-Dibromo-3-chloropropane (DBCP)	T	Average RF		0.050	0.2540	<=20	11.9
1,2-Dibromoethane	T	Average RF		0.100	0.4077	<=20	4.5
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	T	Average RF			0.5881	<=20	7.0
1,2-Dichlorobenzene	T	Average RF		0.400	1.591	<=20	8.4
1,2-Dichloroethane	T	Average RF		0.100	0.6042	<=20	4.0
1,2-Dichloropropane	T	Average RF		0.100	0.3899	<=20	4.7
1,3,5-Trichlorobenzene	T	Average RF			1.293	<=20	9.6
1,3,5-Trimethylbenzene	T	Average RF			2.553	<=20	12.4
1,3-Dichlorobenzene	T	Average RF		0.600	1.577	<=20	7.7
1,3-Dichloropropane	T	Average RF			0.6616	<=20	6.0
1,4-Dichlorobenzene	T	Average RF		0.500	1.691	<=20	13.0
1,4-Dioxane	T	Average RF			0.008469	<=20	7.7
1-Butanol	T	Average RF			0.02417	<=20	15.2
1-Chloro-4-(trifluoromethyl)benzene	T	Average RF			0.5369	<=20	9.4
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	T	Average RF			0.6050	<=20	6.0
2,2-Dichloropropane	T	Average RF			0.7109	<=20	4.8
2,3,6-Trichlorotoluene	T	Average RF			0.8839	<=20	11.2
2,4,5-Trichlorotoluene	T	Average RF			0.9763	<=20	7.0
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	T	Average RF			1.427	<=20	10.9
2,4-Dichlorobenzotrifluoride	T	Average RF			0.8332	<=20	16.0
2,5-Dichlorobenzotrifluoride	T	Average RF			0.8980	<=20	12.5
2-Butanone (MEK)	T	Average RF		0.05	0.5384	<=20	2.9
2-Chloro-1,3-butadiene	T	Average RF			1.050	<=20	2.7
2-Chlorobenzotrifluoride	T	Average RF			0.6002	<=20	6.2
2-Chloroethyl Vinyl Ether	T	Average RF			0.2903	<=20	4.4
2-Chlorotoluene	T	Average RF			2.205	<=20	10.7
2-Hexanone	T	Average RF		0.05	0.6051	<=20	9.2
2-Methyl-1-propanol	T	Average RF			0.04562	<=20	11.1
2-Methyl-2-propanol	T	Average RF			0.1253	<=20	8.5
2-Nitropropane	T	Average RF			0.1656	<=20	15.6
2-Propanol	T	Average RF			0.09072	<=20	7.5
3,4- and 2,3-Dichlorotoluene Coelution	T	Average RF			1.576	<=20	12.6
3,4-Dichlorobenzotrifluoride	T	Average RF			0.8969	<=20	16.5
3-Chloro-1-propene	T	Average RF			0.2608	<=20	9.8
3-Chlorobenzotrifluoride	T	Average RF			0.6049	<=20	7.8
3-Chlorotoluene	T	Average RF			2.291	<=20	9.2
4-Chlorotoluene	T	Average RF			2.615	<=20	13.2
4-Isopropyltoluene	T	Average RF			2.686	<=20	12.7
4-Methyl-2-pentanone	T	Average RF		0.05	0.7046	<=20	6.3
Acetone	T	Average RF		0.05	0.4277	<=20	7.2

00054

Initial Calibration - Summary Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
Acetonitrile	T	Average RF			0.08955	<=20	13.7
Acrolein	T	Average RF			0.1599	<=20	4.4
Acrylonitrile	T	Average RF			0.3354	<=20	8.7
Benzene	T	Average RF		0.500	1.339	<=20	6.1
Bromobenzene	T	Average RF			0.8371	<=20	8.0
Bromochloromethane	T	Average RF			0.3268	<=20	2.9
Bromodichloromethane	T	Average RF		0.200	0.4587	<=20	4.6
Bromoform	T	Average RF		0.100	0.2925	<=20	17.7
Bromomethane	T	Quadratic	1/X	0.100	0.2948	>=0.99	0.9996
Carbon Disulfide	T	Average RF		0.100	1.249	<=20	8.4
Carbon Tetrachloride	T	Average RF		0.05	0.1347	<=20	8.0
Chlorobenzene	T	Average RF		0.500	1.039	<=20	7.7
Chloroethane	T	Average RF		0.100	0.3129	<=20	7.4
Chloroform	T	Average RF		0.200	0.8646	<=20	5.5
Chloromethane	T	Average RF		0.100	0.6035	<=20	9.3
Cyclohexane	T	Average RF		0.100	0.4989	<=20	15.1
Cyclohexanone	T	Average RF			0.1151	<=20	12.5
Dibromochloromethane	T	Average RF		0.100	0.3832	<=20	13.0
Dibromomethane	T	Average RF			0.2371	<=20	5.1
Dichlorodifluoromethane (CFC 12)	T	Average RF		0.100	0.4428	<=20	8.6
Dichlorofluoromethane (CFC 21)	T	Average RF			0.8860	<=20	4.1
Dichloromethane	T	Average RF		0.100	0.5125	<=20	10.0
Diethyl Ether	T	Average RF			0.4916	<=20	3.2
Diisopropyl Ether	T	Average RF			2.200	<=20	3.9
Ethyl Methacrylate	T	Average RF			0.5591	<=20	6.6
Ethyl tert-Butyl Ether	T	Average RF			1.835	<=20	3.0
Ethylbenzene	T	Average RF		0.100	0.5528	<=20	4.3
Hexachlorobutadiene	T	Average RF			0.5282	<=20	11.1
Iodomethane	T	Quadratic	1/X		0.5227	>=0.99	0.9995
Isopropylbenzene (Cumene)	T	Average RF		0.100	1.667	<=20	9.2
Methacrylonitrile	T	Average RF			0.3144	<=20	7.9
Methyl Acetate	T	Average RF		0.100	0.7730	<=20	6.3
Methyl Methacrylate	T	Average RF			0.3242	<=20	5.3
Methyl tert-Butyl Ether	T	Average RF		0.100	1.697	<=20	5.1
Methylcyclohexane	T	Average RF		0.100	0.5532	<=20	8.3
Naphthalene	T	Average RF			3.522	<=20	14.9
Propionitrile	T	Average RF			0.1444	<=20	6.3
Styrene	T	Average RF		0.300	1.104	<=20	5.0
Tetrachloroethene (PCE)	T	Average RF		0.200	0.3223	<=20	9.7
Tetrahydrofuran (THF)	T	Average RF			0.3707	<=20	14.7
Toluene	T	Average RF		0.400	1.394	<=20	7.4
Trichloroethene (TCE)	T	Average RF		0.200	0.3973	<=20	10.1
Trichlorofluoromethane (CFC 11)	T	Average RF		0.100	0.6721	<=20	6.6
Vinyl Acetate	T	Average RF			0.09690	<=20	17.5
Vinyl Chloride	T	Average RF		0.100	0.5223	<=20	9.5
cis-1,2-Dichloroethene	T	Average RF		0.100	0.5234	<=20	12.1
cis-1,3-Dichloropropene	T	Average RF		0.200	0.5394	<=20	7.2
m,p-Xylenes	T	Average RF		0.100	0.6504	<=20	7.0
n-Butyl Acetate	T	Average RF			1.087	<=20	7.7
n-Butylbenzene	T	Average RF			2.636	<=20	11.3
n-Heptane	T	Average RF			0.6365	<=20	18.6
n-Propylbenzene	T	Average RF			3.601	<=20	17.2

00055

Initial Calibration - Summary Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
o-Xylene	T	Average RF		0.300	0.6773	<=20	6.3
sec-Butylbenzene	T	Average RF			3.162	<=20	13.8
tert-Amyl Methyl Ether	T	Average RF			1.094	<=20	3.2
tert-Butylbenzene	T	Average RF			2.171	<=20	9.7
trans-1,2-Dichloroethene	T	Average RF		0.100	0.4501	<=20	6.3
trans-1,3-Dichloropropene	T	Average RF		0.100	0.4982	<=20	11.1
trans-1,4-Dichloro-2-butene	T	Average RF			0.2069	<=20	17.0
1,2-Dichloroethane-d4	S	Average RF			0.4574	<=20	6.1
4-Bromofluorobenzene	S	Average RF			0.4856	<=20	5.6
Dibromofluoromethane	S	Average RF			0.3226	<=20	1.7
Toluene-d8	S	Average RF			1.176	<=20	6.5

00056

Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	RC1500091-01	0.5 PPB STD	I:\ACQUDATA\msvoa10\data\091015\F1991.D	9/10/15 17:41
02	RC1500091-02	1.0 PPB STD	I:\ACQUDATA\msvoa10\data\091015\F1992.D	9/10/15 18:05
03	RC1500091-03	2.0 PPB STD	I:\ACQUDATA\msvoa10\data\091015\F1993.D	9/10/15 18:29
04	RC1500091-04	5.0 PPB STD	I:\ACQUDATA\msvoa10\data\091015\F1994.D	9/10/15 18:54
05	RC1500091-05	20 PPB STD	I:\ACQUDATA\msvoa10\data\091015\F1995.D	9/10/15 19:18
06	RC1500091-06	50 PPB STD	I:\ACQUDATA\msvoa10\data\091015\F1996.D	9/10/15 19:42
07	RC1500091-07	100 PPB STD	I:\ACQUDATA\msvoa10\data\091015\F1997.D	9/10/15 20:06
08	RC1500091-08	150 PPB STD	I:\ACQUDATA\msvoa10\data\091015\F1998.D	9/10/15 20:31
09	RC1500091-09	200 PPB STD	I:\ACQUDATA\msvoa10\data\091015\F1999.D	9/10/15 20:55

Analyte **Curve Fit** **Weighting**

1,1,1,2-Tetrachloroethane Average RF RSD = 11.6 Average RF = 0.3582

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3054	02	1.000	0.2852	03	2.000	0.3367	04	5.000	0.3497
05	20.000	0.3877	06	50.000	0.4017	07	100.000	0.3942	08	150.000	0.3811
09	200.000	0.3819									

1,1,1-Trichloroethane (TCA) Average RF RSD = 4.0 Average RF = 0.7563

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7653	02	1.000	0.7165	03	2.000	0.7402	04	5.000	0.7376
05	20.000	0.7945	06	50.000	0.8103	07	100.000	0.7639	08	150.000	0.7330
09	200.000	0.7456									

1,1,2,2-Tetrachloroethane Linear 1/X2 R2 = 0.9959 Y = 0.9532 X + -0.004762

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5119	02	1.000	0.6748	03	2.000	0.8203	04	5.000	0.7832
05	20.000	0.9515	06	50.000	1.001	07	100.000	0.9825	08	150.000	0.9944
09	200.000	0.9572									

1,1,2-Trichloroethane Average RF RSD = 7.5 Average RF = 0.3308

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2727	02	1.000	0.3365	03	2.000	0.3538	04	5.000	0.3140
05	20.000	0.3433	06	50.000	0.3500	07	100.000	0.3341	08	150.000	0.3417
09	200.000	0.3310									

1,1,2-Trichlorotrifluoroethane Average RF RSD = 9.9 Average RF = 0.4565

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5657	02	1.000	0.4352	03	2.000	0.4733	04	5.000	0.4357
05	20.000	0.4588	06	50.000	0.4656	07	100.000	0.4261	08	150.000	0.4206
09	200.000	0.4277									

1,1-Dichloroethane (1,1-DCA) Average RF RSD = 6.1 Average RF = 0.9591

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.043	02	1.000	1.014	03	2.000	1.021	04	5.000	0.9414
05	20.000	0.9441	06	50.000	0.9775	07	100.000	0.9161	08	150.000	0.8827
09	200.000	0.8908									

1,1-Dichloroethene (1,1-DCE) Average RF RSD = 6.5 Average RF = 0.4091

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4464	02	1.000	0.4541	03	2.000	0.4083	04	5.000	0.4072
05	20.000	0.4037	06	50.000	0.4128	07	100.000	0.3900	08	150.000	0.3766
09	200.000	0.3827									

00057

Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte **Curve Fit** **Weighting**

1,1-Dichloropropene Average RF RSD = 5.3 Average RF = 0.4503

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4367	02	1.000	0.4986	03	2.000	0.4625	04	5.000	0.4373
05	20.000	0.4585	06	50.000	0.4661	07	100.000	0.4419	08	150.000	0.4219
09	200.000	0.4289									

1,2,3-Trichlorobenzene Average RF RSD = 8.1 Average RF = 1.260

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.216	02	1.000	1.413	03	2.000	1.310	04	5.000	1.345
05	20.000	1.314	06	50.000	1.307	07	100.000	1.196	08	150.000	1.129
09	200.000	1.112									

1,2,3-Trichloropropane Average RF RSD = 6.0 Average RF = 0.3313

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3685	03	2.000	0.3077	04	5.000	0.3417	05	20.000	0.3455
06	50.000	0.3318	07	100.000	0.3155	08	150.000	0.3204	09	200.000	0.3194

1,2,4-Trichlorobenzene Average RF RSD = 10.5 Average RF = 1.272

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.494	02	1.000	1.454	03	2.000	1.283	04	5.000	1.262
05	20.000	1.268	06	50.000	1.281	07	100.000	1.179	08	150.000	1.126
09	200.000	1.101									

1,2,4-Trimethylbenzene Average RF RSD = 12.9 Average RF = 2.604

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.769	02	1.000	3.064	03	2.000	2.749	04	5.000	2.716
05	20.000	2.785	06	50.000	2.749	07	100.000	2.427	08	150.000	2.149
09	200.000	2.026									

1,2-Dibromo-3-chloropropane (DBCP) Average RF RSD = 11.9 Average RF = 0.2540

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2056	02	1.000	0.2595	03	2.000	0.2300	04	5.000	0.2191
05	20.000	0.2470	06	50.000	0.2767	07	100.000	0.2764	08	150.000	0.2827
09	200.000	0.2891									

1,2-Dibromoethane Average RF RSD = 4.5 Average RF = 0.4077

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3806	02	1.000	0.4244	03	2.000	0.3809	04	5.000	0.4065
05	20.000	0.4310	06	50.000	0.4275	07	100.000	0.4123	08	150.000	0.4054
09	200.000	0.4009									

1,2-Dichloro-1,1,2-trifluoroethane (CFC Average RF RSD = 7.0 Average RF = 0.5881

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5548	02	1.000	0.6337	03	2.000	0.6688	04	5.000	0.5958
05	20.000	0.5543	06	50.000	0.6029	07	100.000	0.5593	08	150.000	0.5645
09	200.000	0.5584									

1,2-Dichlorobenzene Average RF RSD = 8.4 Average RF = 1.591

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.812	02	1.000	1.688	03	2.000	1.625	04	5.000	1.630
05	20.000	1.622	06	50.000	1.622	07	100.000	1.522	08	150.000	1.415
09	200.000	1.382									

00058

Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte **Curve Fit** **Weighting**

1,2-Dichloroethane Average RF RSD = 4.0 Average RF = 0.6042

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6183	02	1.000	0.5873	03	2.000	0.6101	04	5.000	0.5858
05	20.000	0.6410	06	50.000	0.6371	07	100.000	0.6009	08	150.000	0.5788
09	200.000	0.5783									

1,2-Dichloroethane-d4 Average RF RSD = 6.1 Average RF = 0.4574

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	0.4973	05	20.000	0.4270	06	50.000	0.4678	07	100.000	0.4585
08	200.000	0.4364									

1,2-Dichloropropane Average RF RSD = 4.7 Average RF = 0.3899

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3608	02	1.000	0.4112	03	2.000	0.3831	04	5.000	0.4119
05	20.000	0.4011	06	50.000	0.4057	07	100.000	0.3857	08	150.000	0.3719
09	200.000	0.3779									

1,3,5-Trichlorobenzene Average RF RSD = 9.6 Average RF = 1.293

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.513	02	1.000	1.468	03	2.000	1.300	04	5.000	1.320
05	20.000	1.268	06	50.000	1.215	07	100.000	1.216	08	150.000	1.170
09	200.000	1.166									

1,3,5-Trimethylbenzene Average RF RSD = 12.4 Average RF = 2.553

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.722	02	1.000	2.690	03	2.000	2.819	04	5.000	2.793
05	20.000	2.764	06	50.000	2.715	07	100.000	2.390	08	150.000	2.109
09	200.000	1.979									

1,3-Dichlorobenzene Average RF RSD = 7.7 Average RF = 1.577

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.595	02	1.000	1.690	03	2.000	1.737	04	5.000	1.627
05	20.000	1.650	06	50.000	1.598	07	100.000	1.506	08	150.000	1.409
09	200.000	1.383									

1,3-Dichloropropane Average RF RSD = 6.0 Average RF = 0.6616

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6022	02	1.000	0.7026	03	2.000	0.6999	04	5.000	0.6361
05	20.000	0.7132	06	50.000	0.6817	07	100.000	0.6578	08	150.000	0.6376
09	200.000	0.6238									

1,4-Dichlorobenzene Average RF RSD = 13.0 Average RF = 1.691

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.067	02	1.000	1.993	03	2.000	1.666	04	5.000	1.745
05	20.000	1.674	06	50.000	1.650	07	100.000	1.538	08	150.000	1.458
09	200.000	1.423									

1,4-Dioxane Average RF RSD = 7.7 Average RF = 0.008469

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	40.000	0.007616	04	100.000	0.008310	05	400.000	0.008081	06	1000.000	0.008230
07	2000.000	0.008528	08	3000.000	0.009691	09	4000.000	0.008825			

1-Butanol Average RF RSD = 15.2 Average RF = 0.02417

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	50.000	0.01817	03	100.000	0.02046	04	250.000	0.02238	05	1000.000	0.02383
06	2500.000	0.02615	07	5000.000	0.02702	08	7500.000	0.02928	09	10000.000	0.02605

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Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte	Curve Fit	Weighting									
1-Chloro-4-(trifluoromethyl)benzene	Average RF			RSD = 9.4		Average RF = 0.5369					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6632	02	1.000	0.5558	03	2.000	0.5250	04	5.000	0.5369
05	20.000	0.5090	06	50.000	0.5057	07	100.000	0.5113	08	150.000	0.5216
09	200.000	0.5038									
2,2-Dichloro-1,1,1-trifluoroethane (CFC	Average RF			RSD = 6.0		Average RF = 0.6050					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5385	02	1.000	0.6397	03	2.000	0.6277	04	5.000	0.5764
05	20.000	0.5667	06	50.000	0.6472	07	100.000	0.6135	08	150.000	0.6247
09	200.000	0.6104									
2,2-Dichloropropane	Average RF			RSD = 4.8		Average RF = 0.7109					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7223	02	1.000	0.7534	03	2.000	0.7238	04	5.000	0.7164
05	20.000	0.7256	06	50.000	0.7472	07	100.000	0.6886	08	150.000	0.6604
09	200.000	0.6601									
2,3,6-Trichlorotoluene	Average RF			RSD = 11.2		Average RF = 0.8839					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.107	02	1.000	0.8722	03	2.000	0.8716	04	5.000	0.9352
05	20.000	0.9306	06	50.000	0.8485	07	100.000	0.8103	08	150.000	0.7881
09	200.000	0.7919									
2,4,5-Trichlorotoluene	Average RF			RSD = 7.0		Average RF = 0.9763					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.080	02	1.000	1.068	03	2.000	0.9696	04	5.000	0.9692
05	20.000	1.028	06	50.000	0.9455	07	100.000	0.9283	08	150.000	0.8978
09	200.000	0.9010									
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelut	Average RF			RSD = 10.9		Average RF = 1.427					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.500	1.619	02	3.000	1.621	03	6.000	1.461	04	15.000	1.503
05	60.000	1.480	06	150.000	1.403	07	300.000	1.348	08	450.000	1.255
09	600.000	1.154									
2,4-Dichlorobenzotrifluoride	Average RF			RSD = 16.0		Average RF = 0.8332					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.165	02	1.000	0.8336	03	2.000	0.8384	04	5.000	0.8641
05	20.000	0.8024	06	50.000	0.7256	07	100.000	0.7513	08	150.000	0.7444
09	200.000	0.7736									
2,5-Dichlorobenzotrifluoride	Average RF			RSD = 12.5		Average RF = 0.8980					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.179	02	1.000	0.8336	03	2.000	0.9037	04	5.000	0.9347
05	20.000	0.8833	06	50.000	0.8384	07	100.000	0.8439	08	150.000	0.8452
09	200.000	0.8198									
2-Butanone (MEK)	Average RF			RSD = 2.9		Average RF = 0.5384					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.5144	03	2.000	0.5294	04	5.000	0.5352	05	20.000	0.5325
06	50.000	0.5384	07	100.000	0.5437	08	150.000	0.5700	09	200.000	0.5433

Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte **Curve Fit** **Weighting**

2-Chloro-1,3-butadiene Average RF RSD = 2.7 Average RF = 1.050

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.038	02	1.000	0.9949	03	2.000	1.062	04	5.000	1.035
05	20.000	1.075	06	50.000	1.095	07	100.000	1.053	08	150.000	1.063
09	200.000	1.037									

2-Chlorobenzotrifluoride Average RF RSD = 6.2 Average RF = 0.6002

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5907	02	1.000	0.6845	03	2.000	0.6133	04	5.000	0.6115
05	20.000	0.5850	06	50.000	0.5499	07	100.000	0.5817	08	150.000	0.6043
09	200.000	0.5811									

2-Chloroethyl Vinyl Ether Average RF RSD = 4.4 Average RF = 0.2903

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2805	02	1.000	0.2799	03	2.000	0.2691	04	5.000	0.2838
05	20.000	0.2935	06	50.000	0.3066	07	100.000	0.2985	08	150.000	0.3049
09	200.000	0.2961									

2-Chlorotoluene Average RF RSD = 10.7 Average RF = 2.205

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.490	02	1.000	2.252	03	2.000	2.351	04	5.000	2.281
05	20.000	2.377	06	50.000	2.334	07	100.000	2.090	08	150.000	1.873
09	200.000	1.800									

2-Hexanone Average RF RSD = 9.2 Average RF = 0.6051

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5083	02	1.000	0.5509	03	2.000	0.5583	04	5.000	0.6044
05	20.000	0.6285	06	50.000	0.6246	07	100.000	0.6444	08	150.000	0.6848
09	200.000	0.6417									

2-Methyl-1-propanol Average RF RSD = 11.1 Average RF = 0.04562

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	10.000	0.03996	02	20.000	0.04032	03	40.000	0.04491	04	100.000	0.04131
05	400.000	0.04331	06	1000.000	0.04693	07	2000.000	0.04867	08	3000.000	0.05511
09	4000.000	0.05004									

2-Methyl-2-propanol Average RF RSD = 8.5 Average RF = 0.1253

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	10.000	0.1066	02	20.000	0.1181	03	40.000	0.1183	04	100.000	0.1279
05	400.000	0.1251	06	1000.000	0.1304	07	2000.000	0.1301	08	3000.000	0.1452
09	4000.000	0.1262									

2-Nitropropane Average RF RSD = 15.6 Average RF = 0.1656

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	0.1375	03	4.000	0.1630	04	10.000	0.1279	05	40.000	0.1505
06	100.000	0.1713	07	200.000	0.1807	08	300.000	0.2001	09	400.000	0.1938

2-Propanol Average RF RSD = 7.5 Average RF = 0.09072

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	10.000	0.08120	02	20.000	0.08618	03	40.000	0.08736	04	100.000	0.08969
05	400.000	0.08566	06	1000.000	0.09501	07	2000.000	0.09464	08	3000.000	0.1043
09	4000.000	0.09237									

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Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte **Curve Fit** **Weighting**

3,4- and 2,3-Dichlorotoluene Coelution Average RF RSD = 12.6 Average RF = 1.576

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	1.736	02	2.000	1.759	03	4.000	1.620	04	10.000	1.762
05	40.000	1.693	06	100.000	1.601	07	200.000	1.477	08	300.000	1.322
09	400.000	1.211									

3,4-Dichlorobenzotrifluoride Average RF RSD = 16.5 Average RF = 0.8969

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.224	02	1.000	1.008	03	2.000	0.9605	04	5.000	0.8960
05	20.000	0.8250	06	50.000	0.8004	07	100.000	0.7792	08	150.000	0.7939
09	200.000	0.7859									

3-Chloro-1-propene Average RF RSD = 9.8 Average RF = 0.2608

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2900	02	1.000	0.3120	03	2.000	0.2695	04	5.000	0.2387
05	20.000	0.2460	06	50.000	0.2604	07	100.000	0.2457	08	150.000	0.2416
09	200.000	0.2430									

3-Chlorobenzotrifluoride Average RF RSD = 7.8 Average RF = 0.6049

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.6996	03	2.000	0.6408	04	5.000	0.6248	05	20.000	0.5886
06	50.000	0.5684	07	100.000	0.5751	08	150.000	0.5785	09	200.000	0.5632

3-Chlorotoluene Average RF RSD = 9.2 Average RF = 2.291

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.460	02	1.000	2.548	03	2.000	2.464	04	5.000	2.427
05	20.000	2.374	06	50.000	2.223	07	100.000	2.149	08	150.000	1.995
09	200.000	1.983									

4-Bromofluorobenzene Average RF RSD = 5.6 Average RF = 0.4856

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	0.4647	05	20.000	0.4494	06	50.000	0.4950	07	100.000	0.5057
08	200.000	0.5131									

4-Chlorotoluene Average RF RSD = 13.2 Average RF = 2.615

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.733	02	1.000	3.078	03	2.000	2.691	04	5.000	2.757
05	20.000	2.864	06	50.000	2.776	07	100.000	2.457	08	150.000	2.203
09	200.000	1.975									

4-Isopropyltoluene Average RF RSD = 12.7 Average RF = 2.686

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	3.084	02	1.000	3.015	03	2.000	2.650	04	5.000	2.861
05	20.000	2.873	06	50.000	2.836	07	100.000	2.526	08	150.000	2.240
09	200.000	2.088									

4-Methyl-2-pentanone Average RF RSD = 6.3 Average RF = 0.7046

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7371	02	1.000	0.6644	03	2.000	0.6287	04	5.000	0.6769
05	20.000	0.7089	06	50.000	0.7099	07	100.000	0.7201	08	150.000	0.7818
09	200.000	0.7135									

Acetone Average RF RSD = 7.2 Average RF = 0.4277

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.4853	05	20.000	0.4385	06	50.000	0.4137	07	100.000	0.4096
08	150.000	0.4144	09	200.000	0.4044						

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Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Acetonitrile Average RF RSD = 13.7 Average RF = 0.08955

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.08957	02	5.000	0.08192	03	10.000	0.1198	04	25.000	0.07686
05	100.000	0.08831	06	250.000	0.08804	07	500.000	0.08904	08	750.000	0.08203
09	1000.000	0.09041									

Acrolein Average RF RSD = 4.4 Average RF = 0.1599

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.1551	02	5.000	0.1731	03	10.000	0.1647	04	25.000	0.1568
05	100.000	0.1593	06	250.000	0.1651	07	500.000	0.1553	08	750.000	0.1603
09	1000.000	0.1492									

Acrylonitrile Average RF RSD = 8.7 Average RF = 0.3354

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.2708	02	5.000	0.3329	03	10.000	0.3181	04	25.000	0.3470
05	100.000	0.3594	06	250.000	0.3694	07	500.000	0.3457	08	750.000	0.3512
09	1000.000	0.3242									

Benzene Average RF RSD = 6.1 Average RF = 1.339

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.475	02	1.000	1.333	03	2.000	1.374	04	5.000	1.306
05	20.000	1.384	06	50.000	1.405	07	100.000	1.318	08	150.000	1.242
09	200.000	1.213									

Bromobenzene Average RF RSD = 8.0 Average RF = 0.8371

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.9002	03	2.000	0.8822	04	5.000	0.9043	05	20.000	0.8790
06	50.000	0.8533	07	100.000	0.7817	08	150.000	0.7390	09	200.000	0.7571

Bromochloromethane Average RF RSD = 2.9 Average RF = 0.3268

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3202	02	1.000	0.3308	03	2.000	0.3404	04	5.000	0.3126
05	20.000	0.3343	06	50.000	0.3374	07	100.000	0.3249	08	150.000	0.3218
09	200.000	0.3189									

Bromodichloromethane Average RF RSD = 4.6 Average RF = 0.4587

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4198	02	1.000	0.4501	03	2.000	0.4547	04	5.000	0.4365
05	20.000	0.4737	06	50.000	0.4915	07	100.000	0.4688	08	150.000	0.4679
09	200.000	0.4654									

Bromoform Average RF RSD = 17.7 Average RF = 0.2925

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2351	03	2.000	0.2327	04	5.000	0.2343	05	20.000	0.2891
06	50.000	0.3234	07	100.000	0.3276	08	150.000	0.3514	09	200.000	0.3461

Bromomethane Quadratic 1/X COD = 0.9996 $Y = -0.06602 X^2 + 0.3052 X + 8.599E-4$

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3380	02	1.000	0.3635	03	2.000	0.3511	04	5.000	0.3182
05	20.000	0.2829	06	50.000	0.2350	07	100.000	0.1748			

Carbon Disulfide Average RF RSD = 8.4 Average RF = 1.249

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.502	02	1.000	1.205	03	2.000	1.327	04	5.000	1.224
05	20.000	1.193	06	50.000	1.224	07	100.000	1.205	08	150.000	1.201
09	200.000	1.159									

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Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Carbon Tetrachloride Average RF RSD = 8.0 Average RF = 0.1347

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1301	02	1.000	0.1090	03	2.000	0.1360	04	5.000	0.1369
05	20.000	0.1400	06	50.000	0.1470	07	100.000	0.1413	08	150.000	0.1331
09	200.000	0.1393									

Chlorobenzene Average RF RSD = 7.7 Average RF = 1.039

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9794	02	1.000	1.151	03	2.000	1.112	04	5.000	1.071
05	20.000	1.084	06	50.000	1.082	07	100.000	1.004	08	150.000	0.9553
09	200.000	0.9122									

Chloroethane Average RF RSD = 7.4 Average RF = 0.3129

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3424	02	1.000	0.3193	03	2.000	0.3253	04	5.000	0.3128
05	20.000	0.3323	06	50.000	0.3271	07	100.000	0.2991	08	150.000	0.2693
09	200.000	0.2889									

Chloroform Average RF RSD = 5.5 Average RF = 0.8646

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7698	02	1.000	0.8253	03	2.000	0.8834	04	5.000	0.8992
05	20.000	0.9100	06	50.000	0.9240	07	100.000	0.8716	08	150.000	0.8522
09	200.000	0.8462									

Chloromethane Average RF RSD = 9.3 Average RF = 0.6035

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6992	02	1.000	0.6859	03	2.000	0.5747	04	5.000	0.5465
05	20.000	0.6040	06	50.000	0.6227	07	100.000	0.5821	08	150.000	0.5667
09	200.000	0.5497									

Cyclohexane Average RF RSD = 15.1 Average RF = 0.4989

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5053	02	1.000	0.6970	03	2.000	0.4782	04	5.000	0.4628
05	20.000	0.4741	06	50.000	0.4771	07	100.000	0.4667	08	150.000	0.4669
09	200.000	0.4623									

Cyclohexanone Average RF RSD = 12.5 Average RF = 0.1151

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	10.000	0.09903	02	20.000	0.1116	03	40.000	0.1201	04	100.000	0.1306
05	400.000	0.1289	06	1000.000	0.1281	07	2000.000	0.1212	08	3000.000	0.1065
09	4000.000	0.08976									

Dibromochloromethane Average RF RSD = 13.0 Average RF = 0.3832

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3123	02	1.000	0.3205	03	2.000	0.3335	04	5.000	0.3663
05	20.000	0.4124	06	50.000	0.4290	07	100.000	0.4264	08	150.000	0.4233
09	200.000	0.4249									

Dibromofluoromethane Average RF RSD = 1.7 Average RF = 0.3226

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	0.3203	05	20.000	0.3158	06	50.000	0.3310	07	100.000	0.3240
08	200.000	0.3220									

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Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Dibromomethane Average RF RSD = 5.1 Average RF = 0.2371

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2424	02	1.000	0.2457	03	2.000	0.2208	04	5.000	0.2153
05	20.000	0.2497	06	50.000	0.2502	07	100.000	0.2365	08	150.000	0.2371
09	200.000	0.2358									

Dichlorodifluoromethane (CFC 12) Average RF RSD = 8.6 Average RF = 0.4428

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4337	02	1.000	0.4133	03	2.000	0.3818	04	5.000	0.4193
05	20.000	0.4815	06	50.000	0.5084	07	100.000	0.4603	08	150.000	0.4519
09	200.000	0.4353									

Dichlorofluoromethane (CFC 21) Average RF RSD = 4.1 Average RF = 0.8860

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9213	02	1.000	0.9392	03	2.000	0.8771	04	5.000	0.9018
05	20.000	0.9037	06	50.000	0.8928	07	100.000	0.8445	08	150.000	0.8700
09	200.000	0.8231									

Dichloromethane Average RF RSD = 10.0 Average RF = 0.5125

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6028	02	1.000	0.5391	03	2.000	0.5862	04	5.000	0.4806
05	20.000	0.4895	06	50.000	0.5012	07	100.000	0.4788	08	150.000	0.4707
09	200.000	0.4638									

Diethyl Ether Average RF RSD = 3.2 Average RF = 0.4916

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5025	02	1.000	0.4943	03	2.000	0.4858	04	5.000	0.4620
05	20.000	0.4890	06	50.000	0.5202	07	100.000	0.5003	08	150.000	0.4862
09	200.000	0.4835									

Diisopropyl Ether Average RF RSD = 3.9 Average RF = 2.200

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.157	02	1.000	2.341	03	2.000	2.238	04	5.000	2.252
05	20.000	2.266	06	50.000	2.231	07	100.000	2.105	08	150.000	2.145
09	200.000	2.070									

Ethyl Methacrylate Average RF RSD = 6.6 Average RF = 0.5591

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5362	02	1.000	0.5230	03	2.000	0.5201	04	5.000	0.5122
05	20.000	0.5702	06	50.000	0.6011	07	100.000	0.5815	08	150.000	0.6112
09	200.000	0.5762									

Ethyl tert-Butyl Ether Average RF RSD = 3.0 Average RF = 1.835

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.755	02	1.000	1.875	03	2.000	1.818	04	5.000	1.886
05	20.000	1.898	06	50.000	1.897	07	100.000	1.783	08	150.000	1.811
09	200.000	1.793									

Ethylbenzene Average RF RSD = 4.3 Average RF = 0.5528

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5256	02	1.000	0.5577	03	2.000	0.5850	04	5.000	0.5634
05	20.000	0.5721	06	50.000	0.5762	07	100.000	0.5476	08	150.000	0.5246
09	200.000	0.5234									

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Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Hexachlorobutadiene Average RF RSD = 11.1 Average RF = 0.5282

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6686	02	1.000	0.4922	03	2.000	0.5003	04	5.000	0.5223
05	20.000	0.5243	06	50.000	0.5638	07	100.000	0.5179	08	150.000	0.4735
09	200.000	0.4914									

Iodomethane Quadratic 1/X COD = 0.9995 $Y = 0.009147 X^2 + 0.6255 X + -0.02062$

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.2305	04	5.000	0.2943	05	20.000	0.5589	06	50.000	0.6470
07	100.000	0.6309	08	150.000	0.6356	09	200.000	0.6617			

Isopropylbenzene (Cumene) Average RF RSD = 9.2 Average RF = 1.667

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.745	02	1.000	1.733	03	2.000	1.777	04	5.000	1.709
05	20.000	1.800	06	50.000	1.781	07	100.000	1.617	08	150.000	1.482
09	200.000	1.356									

Methacrylonitrile Average RF RSD = 7.9 Average RF = 0.3144

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3762	02	1.000	0.3227	03	2.000	0.3024	04	5.000	0.2947
05	20.000	0.3102	06	50.000	0.3060	07	100.000	0.3018	08	150.000	0.3165
09	200.000	0.2992									

Methyl Acetate Average RF RSD = 6.3 Average RF = 0.7730

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7603	02	1.000	0.6532	03	2.000	0.8121	04	5.000	0.7827
05	20.000	0.7839	06	50.000	0.8171	07	100.000	0.7920	08	150.000	0.7848
09	200.000	0.7712									

Methyl Methacrylate Average RF RSD = 5.3 Average RF = 0.3242

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3248	02	1.000	0.2887	03	2.000	0.3190	04	5.000	0.3060
05	20.000	0.3316	06	50.000	0.3380	07	100.000	0.3317	08	150.000	0.3438
09	200.000	0.3338									

Methyl tert-Butyl Ether Average RF RSD = 5.1 Average RF = 1.697

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.564	02	1.000	1.619	03	2.000	1.727	04	5.000	1.748
05	20.000	1.809	06	50.000	1.811	07	100.000	1.703	08	150.000	1.678
09	200.000	1.611									

Methylcyclohexane Average RF RSD = 8.3 Average RF = 0.5532

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6433	02	1.000	0.6155	03	2.000	0.5561	04	5.000	0.5347
05	20.000	0.5427	06	50.000	0.5384	07	100.000	0.5128	08	150.000	0.5221
09	200.000	0.5134									

Naphthalene Average RF RSD = 14.9 Average RF = 3.522

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	3.945	02	1.000	3.704	03	2.000	3.544	04	5.000	3.934
05	20.000	4.031	06	50.000	3.834	07	100.000	3.320	08	150.000	2.857
09	200.000	2.531									

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Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Propionitrile Average RF RSD = 6.3 Average RF = 0.1444

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.1340	02	5.000	0.1430	03	10.000	0.1290	04	25.000	0.1409
05	100.000	0.1462	06	250.000	0.1509	07	500.000	0.1472	08	750.000	0.1595
09	1000.000	0.1484									

Styrene Average RF RSD = 5.0 Average RF = 1.104

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.081	02	1.000	1.121	03	2.000	1.066	04	5.000	1.092
05	20.000	1.177	06	50.000	1.179	07	100.000	1.133	08	150.000	1.076
09	200.000	1.008									

Tetrachloroethene (PCE) Average RF RSD = 9.7 Average RF = 0.3223

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3374	02	1.000	0.3948	03	2.000	0.3111	04	5.000	0.3204
05	20.000	0.3227	06	50.000	0.3246	07	100.000	0.3058	08	150.000	0.2866
09	200.000	0.2971									

Tetrahydrofuran (THF) Average RF RSD = 14.7 Average RF = 0.3707

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.4240	03	2.000	0.4743	04	5.000	0.3880	05	20.000	0.3247
06	50.000	0.3371	07	100.000	0.3325	08	150.000	0.3580	09	200.000	0.3268

Toluene Average RF RSD = 7.4 Average RF = 1.394

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.430	02	1.000	1.507	03	2.000	1.445	04	5.000	1.369
05	20.000	1.475	06	50.000	1.476	07	100.000	1.375	08	150.000	1.283
09	200.000	1.189									

Toluene-d8 Average RF RSD = 6.5 Average RF = 1.176

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	1.262	05	20.000	1.149	06	50.000	1.233	07	100.000	1.168
08	200.000	1.068									

Trichloroethene (TCE) Average RF RSD = 10.1 Average RF = 0.3973

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4633	02	1.000	0.4461	03	2.000	0.4055	04	5.000	0.4061
05	20.000	0.3976	06	50.000	0.3930	07	100.000	0.3711	08	150.000	0.3426
09	200.000	0.3502									

Trichlorofluoromethane (CFC 11) Average RF RSD = 6.6 Average RF = 0.6721

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6693	02	1.000	0.7493	03	2.000	0.6550	04	5.000	0.6644
05	20.000	0.7115	06	50.000	0.7135	07	100.000	0.6452	08	150.000	0.6213
09	200.000	0.6195									

Vinyl Acetate Average RF RSD = 17.5 Average RF = 0.09690

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.07382	03	2.000	0.1247	04	5.000	0.08038	05	20.000	0.1062
06	50.000	0.1052	07	100.000	0.09594	08	150.000	0.1060	09	200.000	0.08292

Vinyl Chloride Average RF RSD = 9.5 Average RF = 0.5223

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6352	02	1.000	0.4991	03	2.000	0.4696	04	5.000	0.5198
05	20.000	0.5365	06	50.000	0.5526	07	100.000	0.5089	08	150.000	0.4992
09	200.000	0.4800									

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Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte **Curve Fit** **Weighting**

cis-1,2-Dichloroethene Average RF RSD = 12.1 Average RF = 0.5234

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6844	02	1.000	0.5302	03	2.000	0.4991	04	5.000	0.4862
05	20.000	0.5266	06	50.000	0.5252	07	100.000	0.4898	08	150.000	0.4811
09	200.000	0.4878									

cis-1,3-Dichloropropene Average RF RSD = 7.2 Average RF = 0.5394

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4627	02	1.000	0.5023	03	2.000	0.5488	04	5.000	0.5127
05	20.000	0.5723	06	50.000	0.5847	07	100.000	0.5631	08	150.000	0.5592
09	200.000	0.5486									

m,p-Xylenes Average RF RSD = 7.0 Average RF = 0.6504

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.6791	02	2.000	0.6319	03	4.000	0.6838	04	10.000	0.6628
05	40.000	0.6907	06	100.000	0.6966	07	200.000	0.6469	08	300.000	0.5966
09	400.000	0.5651									

n-Butyl Acetate Average RF RSD = 7.7 Average RF = 1.087

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	1.009	03	2.000	0.9518	04	5.000	1.050	05	20.000	1.096
06	50.000	1.185	07	100.000	1.169	08	150.000	1.168	09	200.000	1.069

n-Butylbenzene Average RF RSD = 11.3 Average RF = 2.636

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.897	02	1.000	2.765	03	2.000	2.756	04	5.000	2.808
05	20.000	2.827	06	50.000	2.847	07	100.000	2.529	08	150.000	2.227
09	200.000	2.069									

n-Heptane Average RF RSD = 18.6 Average RF = 0.6365

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9172	02	1.000	0.7108	03	2.000	0.6361	04	5.000	0.5746
05	20.000	0.6156	06	50.000	0.6272	07	100.000	0.5715	08	150.000	0.5361
09	200.000	0.5397									

n-Propylbenzene Average RF RSD = 17.2 Average RF = 3.601

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	4.018	02	1.000	4.128	03	2.000	4.004	04	5.000	3.910
05	20.000	4.003	06	50.000	3.870	07	100.000	3.262	08	150.000	2.724
09	200.000	2.486									

o-Xylene Average RF RSD = 6.3 Average RF = 0.6773

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7250	02	1.000	0.7545	03	2.000	0.6704	04	5.000	0.6783
05	20.000	0.6832	06	50.000	0.6820	07	100.000	0.6554	08	150.000	0.6286
09	200.000	0.6187									

sec-Butylbenzene Average RF RSD = 13.8 Average RF = 3.162

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	3.362	02	1.000	3.429	03	2.000	3.465	04	5.000	3.445
05	20.000	3.478	06	50.000	3.421	07	100.000	2.951	08	150.000	2.551
09	200.000	2.354									

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Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte	Curve Fit	Weighting									
tert-Amyl Methyl Ether	Average RF			RSD = 3.2		Average RF = 1.094					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.046	02	1.000	1.115	03	2.000	1.141	04	5.000	1.069
05	20.000	1.133	06	50.000	1.121	07	100.000	1.067	08	150.000	1.089
09	200.000	1.061									
tert-Butylbenzene	Average RF			RSD = 9.7		Average RF = 2.171					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.318	02	1.000	2.388	03	2.000	2.207	04	5.000	2.265
05	20.000	2.315	06	50.000	2.307	07	100.000	2.066	08	150.000	1.862
09	200.000	1.810									
trans-1,2-Dichloroethene	Average RF			RSD = 6.3		Average RF = 0.4501					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4448	02	1.000	0.5170	03	2.000	0.4488	04	5.000	0.4397
05	20.000	0.4612	06	50.000	0.4570	07	100.000	0.4360	08	150.000	0.4214
09	200.000	0.4248									
trans-1,3-Dichloropropene	Average RF			RSD = 11.1		Average RF = 0.4982					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4024	02	1.000	0.4577	03	2.000	0.4577	04	5.000	0.4541
05	20.000	0.5384	06	50.000	0.5501	07	100.000	0.5448	08	150.000	0.5476
09	200.000	0.5307									
trans-1,4-Dichloro-2-butene	Average RF			RSD = 17.0		Average RF = 0.2069					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2378	02	1.000	0.1481	03	2.000	0.1922	04	5.000	0.1675
05	20.000	0.1875	06	50.000	0.2104	07	100.000	0.2317	08	150.000	0.2460
09	200.000	0.2407									

00069

Initial Calibration - Detailed Report

Calibration ID:	RC1500091	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

1,1,1,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-14.7	02	1.000	0.80	-20.4	03	2.000	1.88	-6.0
04	5.000	4.88	-2.4	05	20.000	21.65	8.2	06	50.000	56.08	12.2
07	100.000	110.06	10.1	08	150.000	159.61	6.4	09	200.000	213.26	6.6

1,1,1-Trichloroethane (TCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.2	02	1.000	0.95	-5.3	03	2.000	1.96	-2.1
04	5.000	4.88	-2.5	05	20.000	21.01	5.0	06	50.000	53.57	7.1
07	100.000	101.00	1.0	08	150.000	145.38	-3.1	09	200.000	197.17	-1.4

1,1,2,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.7	02	1.000	0.96	-4.2	03	2.000	1.97	-1.5
04	5.000	4.36	-12.8	05	20.000	20.21	1.1	06	50.000	52.74	5.5
07	100.000	103.32	3.3	08	150.000	156.73	4.5	09	200.000	201.07	0.5

1,1,2-Trichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.41	-17.6	02	1.000	1.02	1.7	03	2.000	2.14	7.0
04	5.000	4.75	-5.1	05	20.000	20.76	3.8	06	50.000	52.91	5.8
07	100.000	100.99	1.0	08	150.000	154.94	3.3	09	200.000	200.11	0.1

1,1,2-Trichlorotrifluoroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.62	23.9	02	1.000	0.95	-4.7	03	2.000	2.07	3.7
04	5.000	4.77	-4.6	05	20.000	20.10	0.5	06	50.000	50.99	2.0
07	100.000	93.34	-6.7	08	150.000	138.19	-7.9	09	200.000	187.39	-6.3

1,1-Dichloroethane (1,1-DCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.8	02	1.000	1.06	5.8	03	2.000	2.13	6.5
04	5.000	4.91	-1.8	05	20.000	19.69	-1.6	06	50.000	50.96	1.9
07	100.000	95.52	-4.5	08	150.000	138.06	-8.0	09	200.000	185.75	-7.1

1,1-Dichloroethene (1,1-DCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.1	02	1.000	1.11	11.0	03	2.000	2.00	-0.2
04	5.000	4.98	-0.5	05	20.000	19.74	-1.3	06	50.000	50.45	0.9
07	100.000	95.33	-4.7	08	150.000	138.09	-7.9	09	200.000	187.11	-6.4

1,1-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.0	02	1.000	1.11	10.7	03	2.000	2.05	2.7
04	5.000	4.86	-2.9	05	20.000	20.36	1.8	06	50.000	51.75	3.5
07	100.000	98.14	-1.9	08	150.000	140.56	-6.3	09	200.000	190.49	-4.8

00070

Initial Calibration - Detailed Report

Calibration ID:	RC1500091	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

1,2,3-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.5	02	1.000	1.12	12.1	03	2.000	2.08	4.0
04	5.000	5.34	6.7	05	20.000	20.86	4.3	06	50.000	51.86	3.7
07	100.000	94.88	-5.1	08	150.000	134.37	-10.4	09	200.000	176.55	-11.7

1,2,3-Trichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.11	11.2	03	2.000	1.86	-7.1	04	5.000	5.16	3.1
05	20.000	20.85	4.3	06	50.000	50.08	0.2	07	100.000	95.22	-4.8
08	150.000	145.06	-3.3	09	200.000	192.83	-3.6				

1,2,4-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.4	02	1.000	1.14	14.3	03	2.000	2.02	0.9
04	5.000	4.96	-0.8	05	20.000	19.95	-0.3	06	50.000	50.34	0.7
07	100.000	92.69	-7.3	08	150.000	132.77	-11.5	09	200.000	173.17	-13.4

1,2,4-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.3	02	1.000	1.18	17.7	03	2.000	2.11	5.6
04	5.000	5.22	4.3	05	20.000	21.39	7.0	06	50.000	52.79	5.6
07	100.000	93.23	-6.8	08	150.000	123.81	-17.5	09	200.000	155.59	-22.2

1,2-Dibromo-3-chloropropane (DBCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.40	-19.1	02	1.000	1.02	2.1	03	2.000	1.81	-9.4
04	5.000	4.31	-13.7	05	20.000	19.45	-2.8	06	50.000	54.47	8.9
07	100.000	108.83	8.8	08	150.000	166.91	11.3	09	200.000	227.66	13.8

1,2-Dibromoethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-6.7	02	1.000	1.04	4.1	03	2.000	1.87	-6.6
04	5.000	4.99	-0.3	05	20.000	21.14	5.7	06	50.000	52.42	4.8
07	100.000	101.13	1.1	08	150.000	149.14	-0.6	09	200.000	196.66	-1.7

1,2-Dichloro-1,1,2-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.7	02	1.000	1.08	7.8	03	2.000	2.27	13.7
04	5.000	5.07	1.3	05	20.000	18.85	-5.7	06	50.000	51.26	2.5
07	100.000	95.12	-4.9	08	150.000	143.99	-4.0	09	200.000	189.91	-5.0

1,2-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	13.9	02	1.000	1.06	6.1	03	2.000	2.04	2.2
04	5.000	5.12	2.5	05	20.000	20.39	2.0	06	50.000	50.97	1.9
07	100.000	95.68	-4.3	08	150.000	133.42	-11.1	09	200.000	173.77	-13.1

00071

Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte

1,2-Dichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.3	02	1.000	0.97	-2.8	03	2.000	2.02	1.0
04	5.000	4.85	-3.0	05	20.000	21.22	6.1	06	50.000	52.73	5.5
07	100.000	99.46	-0.5	08	150.000	143.69	-4.2	09	200.000	191.45	-4.3

1,2-Dichloroethane-d4

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	10.000	10.87	8.7	05	20.000	18.67	-6.6	06	50.000	51.14	2.3
07	100.000	100.24	0.2	08	200.000	190.83	-4.6				

1,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.5	02	1.000	1.05	5.5	03	2.000	1.96	-1.8
04	5.000	5.28	5.6	05	20.000	20.57	2.9	06	50.000	52.02	4.0
07	100.000	98.93	-1.1	08	150.000	143.06	-4.6	09	200.000	193.84	-3.1

1,3,5-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.1	02	1.000	1.14	13.6	03	2.000	2.01	0.6
04	5.000	5.11	2.1	05	20.000	19.61	-2.0	06	50.000	46.98	-6.0
07	100.000	94.02	-6.0	08	150.000	135.73	-9.5	09	200.000	180.34	-9.8

1,3,5-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.6	02	1.000	1.05	5.4	03	2.000	2.21	10.4
04	5.000	5.47	9.4	05	20.000	21.65	8.2	06	50.000	53.17	6.3
07	100.000	93.59	-6.4	08	150.000	123.90	-17.4	09	200.000	155.01	-22.5

1,3-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.1	02	1.000	1.07	7.2	03	2.000	2.20	10.1
04	5.000	5.16	3.2	05	20.000	20.92	4.6	06	50.000	50.66	1.3
07	100.000	95.47	-4.5	08	150.000	133.98	-10.7	09	200.000	175.39	-12.3

1,3-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-9.0	02	1.000	1.06	6.2	03	2.000	2.12	5.8
04	5.000	4.81	-3.9	05	20.000	21.56	7.8	06	50.000	51.51	3.0
07	100.000	99.42	-0.6	08	150.000	144.54	-3.6	09	200.000	188.56	-5.7

1,4-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	22.2	02	1.000	1.18	17.9	03	2.000	1.97	-1.4
04	5.000	5.16	3.2	05	20.000	19.81	-1.0	06	50.000	48.80	-2.4
07	100.000	91.00	-9.0	08	150.000	129.40	-13.7	09	200.000	168.39	-15.8

00072

Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte

1,4-Dioxane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	40.000	35.97	-10.1	04	100.000	98.13	-1.9	05	400.000	381.69	-4.6
06	1000.000	971.82	-2.8	07	2000.000	2,013.87	0.7	08	3000.000	3,433.06	14.4
09	4000.000	4,168.25	4.2								

1-Butanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	50.000	37.60	-24.8	03	100.000	84.65	-15.4	04	250.000	231.46	-7.4
05	1000.000	986.24	-1.4	06	2500.000	2,704.96	8.2	07	5000.000	5,590.70	11.8
08	7500.000	9,086.49	21.2	09	10000.000	10,778.42	7.8				

1-Chloro-4-(trifluoromethyl)benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.62	23.5	02	1.000	1.04	3.5	03	2.000	1.96	-2.2
04	5.000	5.00	0.0	05	20.000	18.96	-5.2	06	50.000	47.10	-5.8
07	100.000	95.23	-4.8	08	150.000	145.72	-2.9	09	200.000	187.66	-6.2

2,2-Dichloro-1,1,1-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-11.0	02	1.000	1.06	5.7	03	2.000	2.08	3.8
04	5.000	4.76	-4.7	05	20.000	18.73	-6.3	06	50.000	53.49	7.0
07	100.000	101.41	1.4	08	150.000	154.90	3.3	09	200.000	201.81	0.9

2,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.6	02	1.000	1.06	6.0	03	2.000	2.04	1.8
04	5.000	5.04	0.8	05	20.000	20.41	2.1	06	50.000	52.55	5.1
07	100.000	96.87	-3.1	08	150.000	139.36	-7.1	09	200.000	185.73	-7.1

2,3,6-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.63	25.2	02	1.000	0.99	-1.3	03	2.000	1.97	-1.4
04	5.000	5.29	5.8	05	20.000	21.06	5.3	06	50.000	48.00	-4.0
07	100.000	91.67	-8.3	08	150.000	133.74	-10.8	09	200.000	179.19	-10.4

2,4,5-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.6	02	1.000	1.09	9.3	03	2.000	1.99	-0.7
04	5.000	4.96	-0.7	05	20.000	21.05	5.2	06	50.000	48.42	-3.2
07	100.000	95.08	-4.9	08	150.000	137.94	-8.0	09	200.000	184.57	-7.7

2,4-, 2,5-, and 2,6-Dichlorotoluene Coelut

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.500	1.70	13.4	02	3.000	3.41	13.6	03	6.000	6.14	2.4
04	15.000	15.80	5.3	05	60.000	62.23	3.7	06	150.000	147.44	-1.7
07	300.000	283.40	-5.5	08	450.000	395.73	-12.1	09	600.000	485.09	-19.2

00073

Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte

2,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.70	39.8	02	1.000	1.00	0.0	03	2.000	2.01	0.6
04	5.000	5.19	3.7	05	20.000	19.26	-3.7	06	50.000	43.55	-12.9
07	100.000	90.17	-9.8	08	150.000	134.01	-10.7	09	200.000	185.71	-7.1

2,5-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.66	31.3	02	1.000	0.93	-7.2	03	2.000	2.01	0.6
04	5.000	5.20	4.1	05	20.000	19.67	-1.6	06	50.000	46.68	-6.6
07	100.000	93.97	-6.0	08	150.000	141.18	-5.9	09	200.000	182.59	-8.7

2-Butanone (MEK)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.96	-4.4	03	2.000	1.97	-1.7	04	5.000	4.97	-0.6
05	20.000	19.78	-1.1	06	50.000	50.01	0.0	07	100.000	100.99	1.0
08	150.000	158.82	5.9	09	200.000	201.82	0.9				

2-Chloro-1,3-butadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-1.2	02	1.000	0.95	-5.3	03	2.000	2.02	1.1
04	5.000	4.93	-1.4	05	20.000	20.47	2.3	06	50.000	52.14	4.3
07	100.000	100.28	0.3	08	150.000	151.76	1.2	09	200.000	197.44	-1.3

2-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-1.6	02	1.000	1.14	14.0	03	2.000	2.04	2.2
04	5.000	5.09	1.9	05	20.000	19.49	-2.5	06	50.000	45.81	-8.4
07	100.000	96.91	-3.1	08	150.000	151.02	0.7	09	200.000	193.63	-3.2

2-Chloroethyl Vinyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.4	02	1.000	0.96	-3.6	03	2.000	1.85	-7.3
04	5.000	4.89	-2.2	05	20.000	20.22	1.1	06	50.000	52.81	5.6
07	100.000	102.83	2.8	08	150.000	157.54	5.0	09	200.000	203.97	2.0

2-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.9	02	1.000	1.02	2.1	03	2.000	2.13	6.6
04	5.000	5.17	3.4	05	20.000	21.56	7.8	06	50.000	52.93	5.9
07	100.000	94.76	-5.2	08	150.000	127.42	-15.1	09	200.000	163.24	-18.4

2-Hexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.42	-16.0	02	1.000	0.91	-9.0	03	2.000	1.85	-7.7
04	5.000	4.99	-0.1	05	20.000	20.77	3.9	06	50.000	51.61	3.2
07	100.000	106.49	6.5	08	150.000	169.76	13.2	09	200.000	212.10	6.0

00074

Initial Calibration - Detailed Report

Calibration ID:	RC1500091	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

2-Methyl-1-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	10.000	8.76	-12.4	02	20.000	17.68	-11.6	03	40.000	39.38	-1.5
04	100.000	90.56	-9.4	05	400.000	379.81	-5.0	06	1000.000	1,028.69	2.9
07	2000.000	2,133.71	6.7	08	3000.000	3,624.18	20.8	09	4000.000	4,387.47	9.7

2-Methyl-2-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	10.000	8.51	-14.9	02	20.000	18.85	-5.7	03	40.000	37.75	-5.6
04	100.000	102.05	2.0	05	400.000	399.35	-0.2	06	1000.000	1,040.28	4.0
07	2000.000	2,076.53	3.8	08	3000.000	3,475.43	15.8	09	4000.000	4,027.39	0.7

2-Nitropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	2.000	1.66	-16.9	03	4.000	3.94	-1.6	04	10.000	7.72	-22.8
05	40.000	36.35	-9.1	06	100.000	103.45	3.4	07	200.000	218.19	9.1
08	300.000	362.47	20.8	09	400.000	468.08	17.0				

2-Propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	10.000	8.95	-10.5	02	20.000	19.00	-5.0	03	40.000	38.52	-3.7
04	100.000	98.87	-1.1	05	400.000	377.69	-5.6	06	1000.000	1,047.35	4.7
07	2000.000	2,086.50	4.3	08	3000.000	3,450.48	15.0	09	4000.000	4,072.92	1.8

3,4- and 2,3-Dichlorotoluene Coelution

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.10	10.2	02	2.000	2.23	11.6	03	4.000	4.11	2.8
04	10.000	11.19	11.9	05	40.000	42.98	7.5	06	100.000	101.60	1.6
07	200.000	187.48	-6.3	08	300.000	251.74	-16.1	09	400.000	307.34	-23.2

3,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.68	36.4	02	1.000	1.12	12.3	03	2.000	2.14	7.1
04	5.000	4.99	-0.1	05	20.000	18.40	-8.0	06	50.000	44.62	-10.8
07	100.000	86.87	-13.1	08	150.000	132.77	-11.5	09	200.000	175.25	-12.4

3-Chloro-1-propene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.2	02	1.000	1.20	19.6	03	2.000	2.07	3.4
04	5.000	4.58	-8.5	05	20.000	18.87	-5.7	06	50.000	49.94	-0.1
07	100.000	94.20	-5.8	08	150.000	138.99	-7.3	09	200.000	186.35	-6.8

3-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.16	15.7	03	2.000	2.12	5.9	04	5.000	5.16	3.3
05	20.000	19.46	-2.7	06	50.000	46.98	-6.0	07	100.000	95.08	-4.9
08	150.000	143.46	-4.4	09	200.000	186.21	-6.9				

00075

Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte

3-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	7.3	02	1.000	1.11	11.2	03	2.000	2.15	7.5
04	5.000	5.30	5.9	05	20.000	20.72	3.6	06	50.000	48.50	-3.0
07	100.000	93.80	-6.2	08	150.000	130.63	-12.9	09	200.000	173.10	-13.4

4-Bromofluorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	10.000	9.57	-4.3	05	20.000	18.51	-7.5	06	50.000	50.97	1.9
07	100.000	104.15	4.1	08	200.000	211.35	5.7				

4-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.5	02	1.000	1.18	17.7	03	2.000	2.06	2.9
04	5.000	5.27	5.4	05	20.000	21.91	9.5	06	50.000	53.09	6.2
07	100.000	93.95	-6.1	08	150.000	126.36	-15.8	09	200.000	151.08	-24.5

4-Isopropyltoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	14.8	02	1.000	1.12	12.2	03	2.000	1.97	-1.4
04	5.000	5.33	6.5	05	20.000	21.40	7.0	06	50.000	52.80	5.6
07	100.000	94.05	-6.0	08	150.000	125.10	-16.6	09	200.000	155.49	-22.3

4-Methyl-2-pentanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.6	02	1.000	0.94	-5.7	03	2.000	1.78	-10.8
04	5.000	4.80	-3.9	05	20.000	20.12	0.6	06	50.000	50.38	0.8
07	100.000	102.20	2.2	08	150.000	166.43	11.0	09	200.000	202.53	1.3

Acetone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	5.000	5.67	13.5	05	20.000	20.51	2.5	06	50.000	48.37	-3.3
07	100.000	95.77	-4.2	08	150.000	145.37	-3.1	09	200.000	189.13	-5.4

Acetonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.50	0.0	02	5.000	4.57	-8.5	03	10.000	13.38	33.8
04	25.000	21.46	-14.2	05	100.000	98.61	-1.4	06	250.000	245.77	-1.7
07	500.000	497.16	-0.6	08	750.000	686.97	-8.4	09	1000.000	1,009.52	1.0

Acrolein

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.43	-3.0	02	5.000	5.41	8.2	03	10.000	10.30	3.0
04	25.000	24.51	-2.0	05	100.000	99.66	-0.3	06	250.000	258.22	3.3
07	500.000	485.75	-2.8	08	750.000	752.03	0.3	09	1000.000	933.02	-6.7

00076

Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte

Acrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.02	-19.3	02	5.000	4.96	-0.7	03	10.000	9.48	-5.2
04	25.000	25.86	3.4	05	100.000	107.15	7.2	06	250.000	275.30	10.1
07	500.000	515.37	3.1	08	750.000	785.38	4.7	09	1000.000	966.68	-3.3

Benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.2	02	1.000	1.00	-0.4	03	2.000	2.05	2.6
04	5.000	4.88	-2.5	05	20.000	20.67	3.3	06	50.000	52.48	5.0
07	100.000	98.42	-1.6	08	150.000	139.18	-7.2	09	200.000	181.18	-9.4

Bromobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.08	7.5	03	2.000	2.11	5.4	04	5.000	5.40	8.0
05	20.000	21.00	5.0	06	50.000	50.97	1.9	07	100.000	93.39	-6.6
08	150.000	132.42	-11.7	09	200.000	180.87	-9.6				

Bromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.0	02	1.000	1.01	1.2	03	2.000	2.08	4.2
04	5.000	4.78	-4.3	05	20.000	20.46	2.3	06	50.000	51.62	3.2
07	100.000	99.40	-0.6	08	150.000	147.70	-1.5	09	200.000	195.15	-2.4

Bromodichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-8.5	02	1.000	0.98	-1.9	03	2.000	1.98	-0.9
04	5.000	4.76	-4.8	05	20.000	20.65	3.3	06	50.000	53.57	7.1
07	100.000	102.21	2.2	08	150.000	153.01	2.0	09	200.000	202.91	1.5

Bromoform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.80	-19.6	03	2.000	1.59	-20.4	04	5.000	4.01	-19.9
05	20.000	19.77	-1.1	06	50.000	55.28	10.6	07	100.000	112.00	12.0
08	150.000	180.23	20.2	09	200.000	236.70	18.3				

Bromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.41	-17.3	02	1.000	1.05	5.5	03	2.000	2.18	9.0
04	5.000	5.19	3.7	05	20.000	20.15	0.8	06	50.000	48.56	-2.9
07	100.000	103.09	3.1								

Carbon Disulfide

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	20.3	02	1.000	0.97	-3.5	03	2.000	2.13	6.3
04	5.000	4.90	-2.0	05	20.000	19.11	-4.5	06	50.000	49.00	-2.0
07	100.000	96.50	-3.5	08	150.000	144.24	-3.8	09	200.000	185.58	-7.2

00077

Initial Calibration - Detailed Report

Calibration ID:	RC1500091	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

Carbon Tetrachloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.5	02	1.000	0.81	-19.1	03	2.000	2.02	0.9
04	5.000	5.08	1.6	05	20.000	20.78	3.9	06	50.000	54.54	9.1
07	100.000	104.90	4.9	08	150.000	148.20	-1.2	09	200.000	206.72	3.4

Chlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.7	02	1.000	1.11	10.8	03	2.000	2.14	7.0
04	5.000	5.15	3.0	05	20.000	20.87	4.4	06	50.000	52.08	4.2
07	100.000	96.63	-3.4	08	150.000	137.93	-8.0	09	200.000	175.61	-12.2

Chloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.4	02	1.000	1.02	2.0	03	2.000	2.08	4.0
04	5.000	5.00	0.0	05	20.000	21.24	6.2	06	50.000	52.26	4.5
07	100.000	95.56	-4.4	08	150.000	129.08	-13.9	09	200.000	184.66	-7.7

Chloroform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-11.0	02	1.000	0.95	-4.6	03	2.000	2.04	2.2
04	5.000	5.20	4.0	05	20.000	21.05	5.2	06	50.000	53.44	6.9
07	100.000	100.81	0.8	08	150.000	147.84	-1.4	09	200.000	195.74	-2.1

Chloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.9	02	1.000	1.14	13.7	03	2.000	1.90	-4.8
04	5.000	4.53	-9.5	05	20.000	20.02	0.1	06	50.000	51.59	3.2
07	100.000	96.45	-3.5	08	150.000	140.86	-6.1	09	200.000	182.17	-8.9

Cyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.3	02	1.000	1.40	39.7	03	2.000	1.92	-4.1
04	5.000	4.64	-7.2	05	20.000	19.01	-5.0	06	50.000	47.82	-4.4
07	100.000	93.54	-6.5	08	150.000	140.36	-6.4	09	200.000	185.32	-7.3

Cyclohexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	10.000	8.60	-14.0	02	20.000	19.40	-3.0	03	40.000	41.75	4.4
04	100.000	113.44	13.4	05	400.000	447.91	12.0	06	1000.000	1,112.97	11.3
07	2000.000	2,106.59	5.3	08	3000.000	2,776.04	-7.5	09	4000.000	3,119.79	-22.0

Dibromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.41	-18.5	02	1.000	0.84	-16.4	03	2.000	1.74	-13.0
04	5.000	4.78	-4.4	05	20.000	21.52	7.6	06	50.000	55.98	12.0
07	100.000	111.28	11.3	08	150.000	165.71	10.5	09	200.000	221.79	10.9

00078

Initial Calibration - Detailed Report

Calibration ID:	RC1500091	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

Dibromofluoromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	10.000	9.93	-0.7	05	20.000	19.58	-2.1	06	50.000	51.30	2.6
07	100.000	100.41	0.4	08	200.000	199.60	-0.2				

Dibromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.3	02	1.000	1.04	3.6	03	2.000	1.86	-6.9
04	5.000	4.54	-9.2	05	20.000	21.07	5.3	06	50.000	52.77	5.5
07	100.000	99.76	-0.2	08	150.000	150.01	0.0	09	200.000	198.95	-0.5

Dichlorodifluoromethane (CFC 12)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.1	02	1.000	0.93	-6.7	03	2.000	1.72	-13.8
04	5.000	4.73	-5.3	05	20.000	21.75	8.7	06	50.000	57.40	14.8
07	100.000	103.94	3.9	08	150.000	153.06	2.0	09	200.000	196.60	-1.7

Dichlorofluoromethane (CFC 21)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.0	02	1.000	1.06	6.0	03	2.000	1.98	-1.0
04	5.000	5.09	1.8	05	20.000	20.40	2.0	06	50.000	50.38	0.8
07	100.000	95.33	-4.7	08	150.000	147.30	-1.8	09	200.000	185.81	-7.1

Dichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.6	02	1.000	1.05	5.2	03	2.000	2.29	14.4
04	5.000	4.69	-6.2	05	20.000	19.10	-4.5	06	50.000	48.90	-2.2
07	100.000	93.43	-6.6	08	150.000	137.74	-8.2	09	200.000	180.99	-9.5

Diethyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.2	02	1.000	1.01	0.6	03	2.000	1.98	-1.2
04	5.000	4.70	-6.0	05	20.000	19.90	-0.5	06	50.000	52.92	5.8
07	100.000	101.79	1.8	08	150.000	148.37	-1.1	09	200.000	196.74	-1.6

Diisopropyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.0	02	1.000	1.06	6.4	03	2.000	2.03	1.7
04	5.000	5.12	2.3	05	20.000	20.60	3.0	06	50.000	50.69	1.4
07	100.000	95.64	-4.4	08	150.000	146.25	-2.5	09	200.000	188.14	-5.9

Ethyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.1	02	1.000	0.94	-6.5	03	2.000	1.86	-7.0
04	5.000	4.58	-8.4	05	20.000	20.40	2.0	06	50.000	53.76	7.5
07	100.000	104.01	4.0	08	150.000	163.99	9.3	09	200.000	206.15	3.1

00079

Initial Calibration - Detailed Report

Calibration ID:	RC1500091	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

Ethyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.3	02	1.000	1.02	2.2	03	2.000	1.98	-1.0
04	5.000	5.14	2.8	05	20.000	20.68	3.4	06	50.000	51.69	3.4
07	100.000	97.16	-2.8	08	150.000	148.07	-1.3	09	200.000	195.43	-2.3

Ethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.9	02	1.000	1.01	0.9	03	2.000	2.12	5.8
04	5.000	5.10	1.9	05	20.000	20.70	3.5	06	50.000	52.11	4.2
07	100.000	99.06	-0.9	08	150.000	142.34	-5.1	09	200.000	189.35	-5.3

Hexachlorobutadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.63	26.6	02	1.000	0.93	-6.8	03	2.000	1.89	-5.3
04	5.000	4.94	-1.1	05	20.000	19.85	-0.8	06	50.000	53.37	6.7
07	100.000	98.03	-2.0	08	150.000	134.44	-10.4	09	200.000	186.05	-7.0

Iodomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.38	19.2	04	5.000	4.00	-20.1	05	20.000	19.41	-3.0
06	50.000	52.56	5.1	07	100.000	99.62	-0.4	08	150.000	147.68	-1.5
09	200.000	201.36	0.7								

Isopropylbenzene (Cumene)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.7	02	1.000	1.04	4.0	03	2.000	2.13	6.7
04	5.000	5.13	2.5	05	20.000	21.60	8.0	06	50.000	53.42	6.8
07	100.000	97.01	-3.0	08	150.000	133.40	-11.1	09	200.000	162.67	-18.7

Methacrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	19.7	02	1.000	1.03	2.6	03	2.000	1.92	-3.8
04	5.000	4.69	-6.3	05	20.000	19.73	-1.4	06	50.000	48.66	-2.7
07	100.000	96.00	-4.0	08	150.000	151.02	0.7	09	200.000	190.30	-4.9

Methyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-1.7	02	1.000	0.84	-15.5	03	2.000	2.10	5.1
04	5.000	5.06	1.3	05	20.000	20.28	1.4	06	50.000	52.85	5.7
07	100.000	102.46	2.5	08	150.000	152.28	1.5	09	200.000	199.52	-0.2

Methyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.2	02	1.000	0.89	-10.9	03	2.000	1.97	-1.6
04	5.000	4.72	-5.6	05	20.000	20.46	2.3	06	50.000	52.14	4.3
07	100.000	102.32	2.3	08	150.000	159.08	6.1	09	200.000	205.92	3.0

00080

Initial Calibration - Detailed Report

Calibration ID:	RC1500091	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

Methyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.8	02	1.000	0.95	-4.6	03	2.000	2.04	1.8
04	5.000	5.15	3.0	05	20.000	21.32	6.6	06	50.000	53.39	6.8
07	100.000	100.36	0.4	08	150.000	148.36	-1.1	09	200.000	189.88	-5.1

Methylcyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	16.3	02	1.000	1.11	11.3	03	2.000	2.01	0.5
04	5.000	4.83	-3.4	05	20.000	19.62	-1.9	06	50.000	48.66	-2.7
07	100.000	92.69	-7.3	08	150.000	141.55	-5.6	09	200.000	185.62	-7.2

Naphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.0	02	1.000	1.05	5.2	03	2.000	2.01	0.6
04	5.000	5.58	11.7	05	20.000	22.89	14.5	06	50.000	54.43	8.9
07	100.000	94.26	-5.7	08	150.000	121.68	-18.9	09	200.000	143.70	-28.2

Propionitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.32	-7.1	02	5.000	4.95	-0.9	03	10.000	8.94	-10.6
04	25.000	24.39	-2.4	05	100.000	101.27	1.3	06	250.000	261.32	4.5
07	500.000	509.96	2.0	08	750.000	828.70	10.5	09	1000.000	1,028.21	2.8

Styrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.0	02	1.000	1.02	1.5	03	2.000	1.93	-3.4
04	5.000	4.95	-1.0	05	20.000	21.33	6.6	06	50.000	53.40	6.8
07	100.000	102.62	2.6	08	150.000	146.30	-2.5	09	200.000	182.72	-8.6

Tetrachloroethene (PCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.7	02	1.000	1.22	22.5	03	2.000	1.93	-3.5
04	5.000	4.97	-0.6	05	20.000	20.03	0.1	06	50.000	50.36	0.7
07	100.000	94.88	-5.1	08	150.000	133.38	-11.1	09	200.000	184.40	-7.8

Tetrahydrofuran (THF)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.14	14.4	03	2.000	2.56	28.0	04	5.000	5.23	4.7
05	20.000	17.52	-12.4	06	50.000	45.47	-9.1	07	100.000	89.69	-10.3
08	150.000	144.86	-3.4	09	200.000	176.33	-11.8				

Toluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.6	02	1.000	1.08	8.1	03	2.000	2.07	3.7
04	5.000	4.91	-1.8	05	20.000	21.15	5.8	06	50.000	52.92	5.8
07	100.000	98.63	-1.4	08	150.000	138.01	-8.0	09	200.000	170.54	-14.7

00081

Initial Calibration - Detailed Report

Calibration ID:	RC1500091	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

Toluene-d8

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	10.000	10.74	7.4	05	20.000	19.55	-2.3	06	50.000	52.42	4.8
07	100.000	99.29	-0.7	08	200.000	181.57	-9.2				

Trichloroethene (TCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	16.6	02	1.000	1.12	12.3	03	2.000	2.04	2.1
04	5.000	5.11	2.2	05	20.000	20.01	0.1	06	50.000	49.46	-1.1
07	100.000	93.41	-6.6	08	150.000	129.36	-13.8	09	200.000	176.30	-11.9

Trichlorofluoromethane (CFC 11)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.4	02	1.000	1.11	11.5	03	2.000	1.95	-2.5
04	5.000	4.94	-1.1	05	20.000	21.17	5.9	06	50.000	53.08	6.2
07	100.000	96.00	-4.0	08	150.000	138.66	-7.6	09	200.000	184.35	-7.8

Vinyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.76	-23.8	03	2.000	2.57	28.6	04	5.000	4.15	-17.0
05	20.000	21.92	9.6	06	50.000	54.30	8.6	07	100.000	99.01	-1.0
08	150.000	164.10	9.4	09	200.000	171.16	-14.4				

Vinyl Chloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	21.6	02	1.000	0.96	-4.4	03	2.000	1.80	-10.1
04	5.000	4.98	-0.5	05	20.000	20.54	2.7	06	50.000	52.90	5.8
07	100.000	97.43	-2.6	08	150.000	143.35	-4.4	09	200.000	183.80	-8.1

cis-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.65	30.8	02	1.000	1.01	1.3	03	2.000	1.91	-4.6
04	5.000	4.64	-7.1	05	20.000	20.12	0.6	06	50.000	50.17	0.3
07	100.000	93.59	-6.4	08	150.000	137.89	-8.1	09	200.000	186.41	-6.8

cis-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-14.2	02	1.000	0.93	-6.9	03	2.000	2.03	1.7
04	5.000	4.75	-5.0	05	20.000	21.22	6.1	06	50.000	54.20	8.4
07	100.000	104.40	4.4	08	150.000	155.52	3.7	09	200.000	203.41	1.7

m,p-Xylenes

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.04	4.4	02	2.000	1.94	-2.8	03	4.000	4.21	5.1
04	10.000	10.19	1.9	05	40.000	42.48	6.2	06	100.000	107.10	7.1
07	200.000	198.92	-0.5	08	300.000	275.20	-8.3	09	400.000	347.56	-13.1

00082

Initial Calibration - Detailed Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Signal ID: 1

Analyte

n-Butyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.93	-7.2	03	2.000	1.75	-12.5	04	5.000	4.83	-3.5
05	20.000	20.17	0.8	06	50.000	54.51	9.0	07	100.000	107.54	7.5
08	150.000	161.07	7.4	09	200.000	196.68	-1.7				

n-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.9	02	1.000	1.05	4.9	03	2.000	2.09	4.5
04	5.000	5.33	6.5	05	20.000	21.45	7.2	06	50.000	54.01	8.0
07	100.000	95.95	-4.1	08	150.000	126.69	-15.5	09	200.000	156.97	-21.5

n-Heptane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.72	44.1	02	1.000	1.12	11.7	03	2.000	2.00	-0.1
04	5.000	4.51	-9.7	05	20.000	19.34	-3.3	06	50.000	49.27	-1.5
07	100.000	89.79	-10.2	08	150.000	126.33	-15.8	09	200.000	169.57	-15.2

n-Propylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.6	02	1.000	1.15	14.6	03	2.000	2.22	11.2
04	5.000	5.43	8.6	05	20.000	22.24	11.2	06	50.000	53.74	7.5
07	100.000	90.61	-9.4	08	150.000	113.50	-24.3	09	200.000	138.06	-31.0

o-Xylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	7.0	02	1.000	1.11	11.4	03	2.000	1.98	-1.0
04	5.000	5.01	0.1	05	20.000	20.17	0.9	06	50.000	50.35	0.7
07	100.000	96.76	-3.2	08	150.000	139.20	-7.2	09	200.000	182.68	-8.7

sec-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.3	02	1.000	1.08	8.4	03	2.000	2.19	9.6
04	5.000	5.45	8.9	05	20.000	22.00	10.0	06	50.000	54.10	8.2
07	100.000	93.32	-6.7	08	150.000	121.02	-19.3	09	200.000	148.89	-25.6

tert-Amyl Methyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-4.4	02	1.000	1.02	2.0	03	2.000	2.09	4.3
04	5.000	4.89	-2.3	05	20.000	20.72	3.6	06	50.000	51.27	2.5
07	100.000	97.56	-2.4	08	150.000	149.38	-0.4	09	200.000	194.07	-3.0

tert-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.8	02	1.000	1.10	10.0	03	2.000	2.03	1.6
04	5.000	5.22	4.3	05	20.000	21.33	6.6	06	50.000	53.14	6.3
07	100.000	95.17	-4.8	08	150.000	128.68	-14.2	09	200.000	166.75	-16.6

00083

Initial Calibration - Detailed Report

Calibration ID:	RC1500091	**Instrument ID:**	R-MS-10
		Signal ID:	1

Analyte

trans-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-1.2	02	1.000	1.15	14.9	03	2.000	1.99	-0.3
04	5.000	4.88	-2.3	05	20.000	20.49	2.5	06	50.000	50.77	1.5
07	100.000	96.87	-3.1	08	150.000	140.45	-6.4	09	200.000	188.75	-5.6

trans-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.40	-19.2	02	1.000	0.92	-8.1	03	2.000	1.84	-8.1
04	5.000	4.56	-8.8	05	20.000	21.62	8.1	06	50.000	55.22	10.4
07	100.000	109.35	9.4	08	150.000	164.89	9.9	09	200.000	213.06	6.5

trans-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	15.0	02	1.000	0.72	-28.4	03	2.000	1.86	-7.1
04	5.000	4.05	-19.0	05	20.000	18.12	-9.4	06	50.000	50.84	1.7
07	100.000	111.99	12.0	08	150.000	178.37	18.9	09	200.000	232.71	16.4

00084

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 08:55:26 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

FD 9/11/15

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.671	168	753822	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.720	114	1083955	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.957	117	928832	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.987	152	489365	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.519	113	74005	10.48	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 20.96%#				
46) surr1,1,2-dichloroetha...	6.031	65	105194	10.96	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 21.92%#				
64) SURR3,Toluene-d8	8.494	98	271673	10.78	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 21.56%#				
69) SURR2,BFB	11.018	95	103470	9.73	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 19.46%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.160	85	3269	0.51	ug/L		85
3) Chloromethane	1.294	50	5271	0.62	ug/L		94
4) Vinyl Chloride	1.379	62	4788	0.64	ug/L		98
5) Bromomethane	1.623	94	2548	0.61	ug/L		83
6) Chloroethane	1.709	64	2581	0.61	ug/L		73
7) Freon 21	1.861	67	6945	0.57	ug/L		77
8) Trichlorofluoromethane	1.910	101	5045	0.54	ug/L		79
9) Diethyl Ether	2.166	59	3788	0.51	ug/L	#	73
10) Freon 123a	2.178	67	4182	0.52	ug/L	#	69
11) Freon 123	2.227	83	4059	0.46	ug/L		87
12) Acrolein	2.270	56	5846	2.39	ug/L		87
13) 1,1-Diclethene	2.361	96	3365	0.55	ug/L	#	73
14) Freon 113	2.373	101	4264	0.65	ug/L		87
15) Acetone	2.416	43	7663	1.22	ug/L		82
16) 2-Propanol	2.574	45	12242	8.63	ug/L		79
17) Iodomethane	2.513	142	2210m	0.33	ug/L		
18) Carbon Disulfide	2.568	76	11320	0.64	ug/L		93
19) Acetonitrile	2.708	40	3376m	2.93	ug/L		
20) Allyl Chloride	2.721	76	2186	0.61	ug/L	#	43
21) Methyl Acetate	2.763	43	5731	0.49	ug/L		87
22) Methylene Chloride	2.849	84	4544m	0.61	ug/L		
23) TBA	3.001	59	16076	8.20	ug/L		99
24) Acrylonitrile	3.141	53	10205	1.94	ug/L		84
25) Methyl-t-Butyl Ether	3.184	73	11788	0.46	ug/L		88
26) trans-1,2-Dichloroethene	3.178	96	3353m	0.51	ug/L		
27) 1,1-Diclethane	3.708	63	7865	0.59	ug/L		93
29) DIPE	3.861	45	16257	0.51	ug/L		90
30) 2-Chloro-1,3-Butadiene	3.855	53	7824m	0.54	ug/L		
31) ETBE	4.434	59	13233m	0.49	ug/L		
32) 2,2-Dichloropropane	4.604	77	5445m	0.53	ug/L		
33) cis-1,2-Dichloroethene	4.617	96	5159m	0.69	ug/L		
35) Propionitrile	4.775	54	5052m	2.36	ug/L		
36) Bromochloromethane	5.043	130	2414m	0.50	ug/L		
37) Methacrylonitrile	5.056	67	2836m	0.60	ug/L		

00085

W091015.M Fri Sep 11 10:50:14 2015 MSVO10 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 08:55:26 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) Tetrahydrofuran	5.171	42	4219	0.81	ug/L		66
39) Chloroform	5.251	83	5803	0.45	ug/L		78
40) 1,1,1-Trichloroethane	5.513	97	5769m	0.53	ug/L		
42) Cyclohexane	5.592	41	5477m	0.59	ug/L		
44) Carbontetrachloride	5.793	121	1410	0.53	ug/L	#	23
45) 1,1-Dichloropropene	5.799	75	4734	0.51	ug/L		80
47) Benzene	6.110	78	15986	0.59	ug/L		78
48) 1,2-Dichloroethane	6.153	62	6702	0.54	ug/L		88
49) Iso-Butyl Alcohol	6.141	43	8662	8.84	ug/L		93
50) TAME	6.342	73	11337	0.50	ug/L		99
51) n-Heptane	6.592	43	9942	0.81	ug/L		90
52) 1-Butanol	7.073	56	8745m	16.58	ug/L		
53) Trichloroethene	7.031	130	5022	0.60	ug/L		91
54) Methylcyclohexane	7.256	55	6973	0.66	ug/L		91
55) 1,2-Diclpropane	7.317	63	3911m	0.48	ug/L		
56) Dibromomethane	7.445	93	2628	0.50	ug/L	#	69
57) 1,4-Dioxane	7.519	88	1194	6.31	ug/L		88
58) Methyl Methacrylate	7.531	69	3521	0.50	ug/L	#	81
59) Bromodichloromethane	7.671	83	4550	0.45	ug/L		92
60) 2-Nitropropane	7.945	41	2651m	0.78	ug/L		
61) 2-Chloroethylvinyl Ether	8.073	63	3040	0.49	ug/L		86
62) cis-1,3-Dichloropropene	8.195	75	5016	0.44	ug/L		95
63) 4-Methyl-2-pentanone	8.409	43	7990	0.54	ug/L		98
65) Toluene	8.567	91	15504	0.54	ug/L		83
66) trans-1,3-Dichloropropene	8.829	75	4362	0.39	ug/L		88
67) Ethyl Methacrylate	8.963	69	5812	0.48	ug/L		100
68) 1,1,2-Trichloroethane	9.018	97	2956	0.41	ug/L		81
71) Tetrachloroethene	9.146	164	3134	0.55	ug/L	#	79
72) 2-Hexanone	9.299	43	4721	0.42	ug/L		89
73) 1,3-Dichloropropane	9.177	76	5593	0.46	ug/L		82
74) Dibromochloromethane	9.396	129	2901	0.40	ug/L	#	61
75) N-Butyl Acetate	9.451	43	7589	0.40	ug/L	#	62
76) 1,2-Dibromoethane	9.500	107	3535	0.46	ug/L	#	76
77) 3-Chlorobenzotrifluoride	10.000	180	7235	0.65	ug/L	#	86
78) Chlorobenzene	9.988	112	9097	0.49	ug/L		97
79) 4-Chlorobenzotrifluoride	10.055	180	6160	0.63	ug/L		88
80) 1,1,1,2-Tetrachloroethane	10.073	131	2837	0.42	ug/L		89
81) Ethylbenzene	10.097	106	4882	0.50	ug/L	#	79
82) (m+p)Xylene	10.213	106	12616	1.07	ug/L	#	61
83) o-Xylene	10.567	106	6734	0.57	ug/L	#	84
84) Styrene	10.573	104	10041	0.50	ug/L		80
85) Bromoform	10.731	173	1969	0.36	ug/L	#	20
86) 2-Chlorobenzotrifluoride	10.811	180	5487	0.51	ug/L		84
87) Isopropylbenzene	10.896	105	16207	0.55	ug/L		94
88) Cyclohexanone	10.957	55	18397	8.52	ug/L		81
89) trans-1,4-Dichloro-2-B...	11.207	53	2209m	0.61	ug/L		
91) 1,1,2,2-Tetrachloroethane	11.146	83	2505	0.30	ug/L	#	67
92) Bromobenzene	11.146	156	5735	0.69	ug/L	#	66
93) 1,2,3-Trichloropropane	11.182	110	2283	0.70	ug/L	#	36
94) n-Propylbenzene	11.249	91	19662	0.59	ug/L		98
95) 2-Chlorotoluene	11.310	91	12183	0.57	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 08:55:26 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

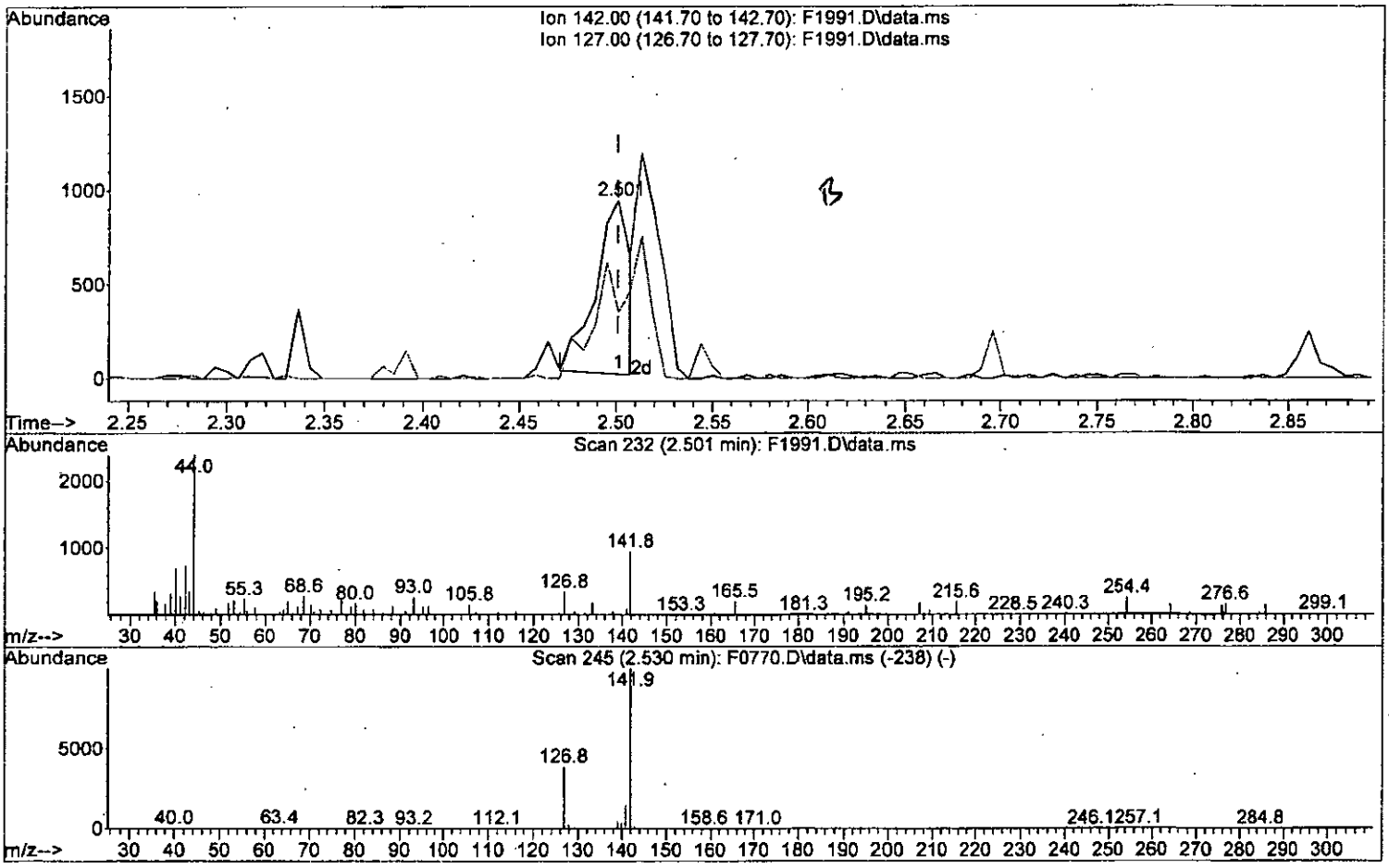
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
96)	3-Chlorotoluene	11.365	91	12036	0.55	ug/L		95
97)	4-Chlorotoluene	11.402	91	13376	0.54	ug/L		95
98)	1,3,5-Trimethylbenzene	11.402	105	13319	0.58	ug/L		93
99)	tert-Butylbenzene	11.676	119	11343	0.55	ug/L		98
100)	1,2,4-Trimethylbenzene	11.713	105	13550	0.57	ug/L		99
101)	3,4-Dichlorobenzotrifl...	11.774	214	5988	0.69	ug/L		93
102)	sec-Butylbenzene	11.853	105	16454	0.56	ug/L		85
103)	p-Isopropyltoluene	11.975	119	15091	0.62	ug/L		94
104)	1,3-Dclbenz	11.926	146	7805	0.52	ug/L		79
105)	1,4-Dclbenz	12.005	146	10113	0.63	ug/L		94
106)	2,4-Dichlorobenzotrifl...	12.060	214	5702	0.73	ug/L		96
107)	2,5-Dichlorobenzotrifl...	12.103	214	5772m	0.67	ug/L		
108)	n-Butylbenzene	12.304	91	14179	0.57	ug/L		98
109)	1,2-Dclbenz	12.310	146	8868	0.58	ug/L		96
110)	1,2-Dibromo-3-chloropr...	12.932	157	1006	0.41	ug/L	#	83
111)	Trielution Dichlorotol...	13.048	125	23768	1.75	ug/L		94
112)	1,3,5-Trichlorobenzene	13.097	180	7406	0.61	ug/L		89
113)	Coelution Dichlorotoluene	13.377	125	16988	1.14	ug/L		89
114)	1,2,4-Tcbenzene	13.584	180	7310	0.61	ug/L		97
115)	Hexachlorobt	13.712	225	3272	0.66	ug/L	#	68
116)	Naphthalen	13.773	128	19305	0.56	ug/L		96
117)	1,2,3-Tclbenzene	13.962	180	5949	0.49	ug/L	#	81
118)	2,4,5-Trichlorotoluene	14.548	159	5286	0.55	ug/L		94
119)	2,3,6-Trichlorotoluene	14.633	159	5415m	0.64	ug/L		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(17) Iodomethane

2.501min (+0.000) 0.17 ug/L

response 1154

Ion	Exp%	Act%
142.00	100	100
127.00	38.60	36.96
0.00	0.00	0.00
0.00	0.00	0.00

W091015.M Fri Sep 11 08:45:11 2015 MSVO10

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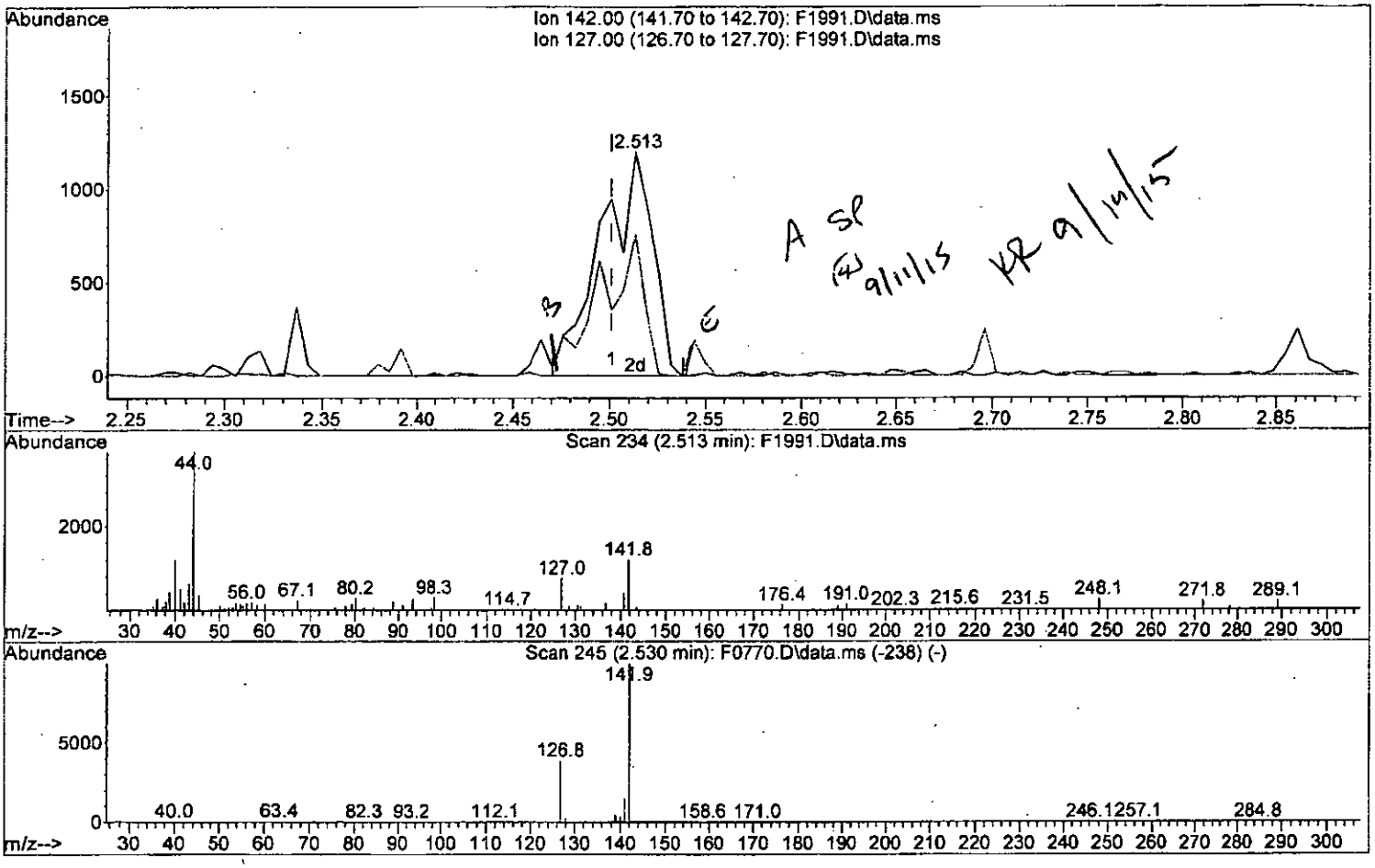
Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(17) Iodomethane

2.513min (+0.012) 0.33 ug/L m

response 2210

Ion	Exp%	Act%
142.00	100	100
127.00	38.60	62.97#
0.00	0.00	0.00
0.00	0.00	0.00

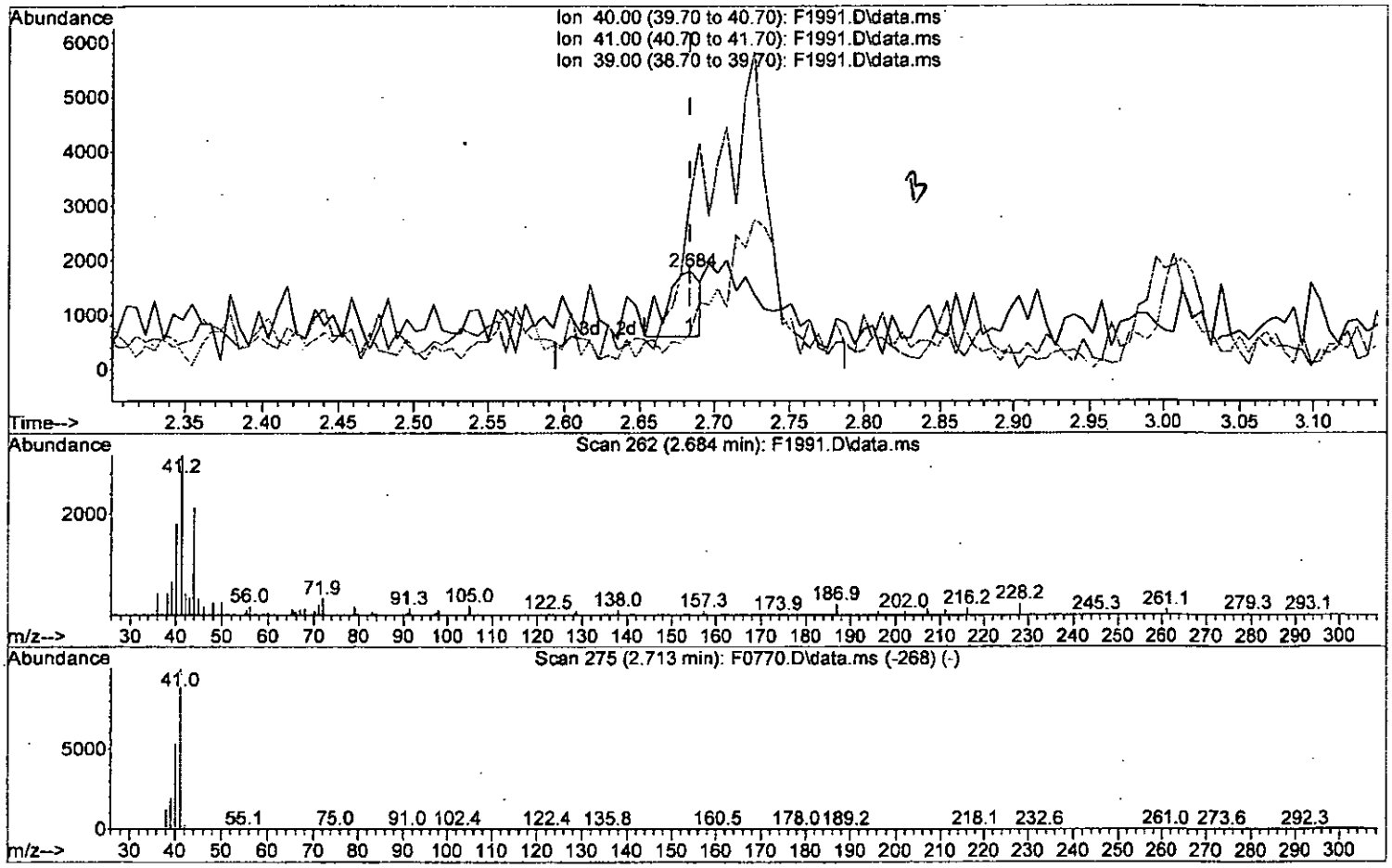
00089

W091015.M Fri Sep 11 08:45:40 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(19) Acetonitrile

2.684min (+0.000) 1.64 ug/L

response 1893

Ion	Exp%	Act%
40.00	100	100
41.00	185.70	175.79
39.00	35.30	36.45
0.00	0.00	0.00

W091015.M Fri Sep 11 08:46:01 2015 MSVO10

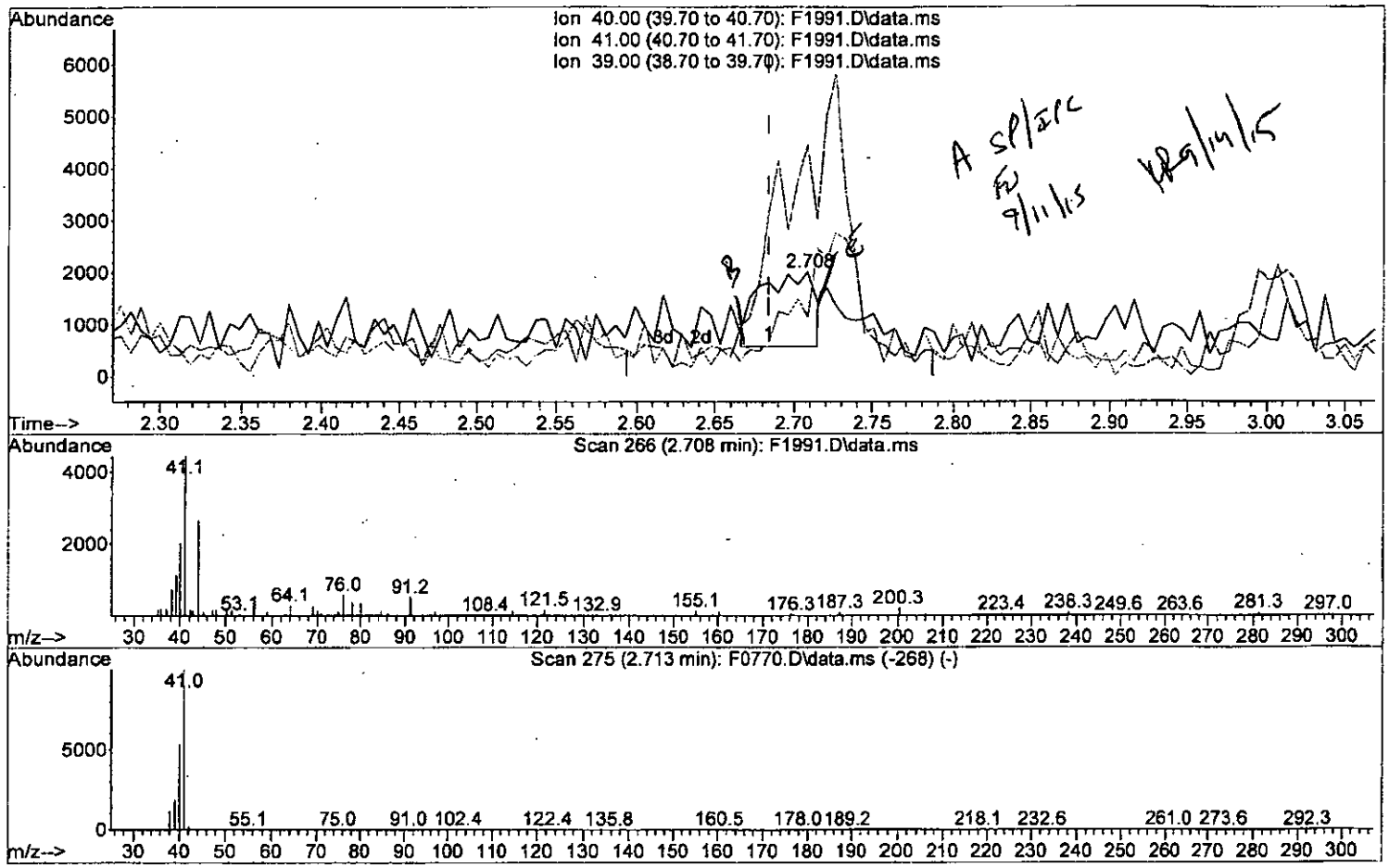
00090

Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(19) Acetonitrile

2.708min (+0.024) 2.93 ug/L m

response 3376

Ion	Exp%	Act%
40.00	100	100
41.00	185.70	221.74#
39.00	35.30	56.92#
0.00	0.00	0.00

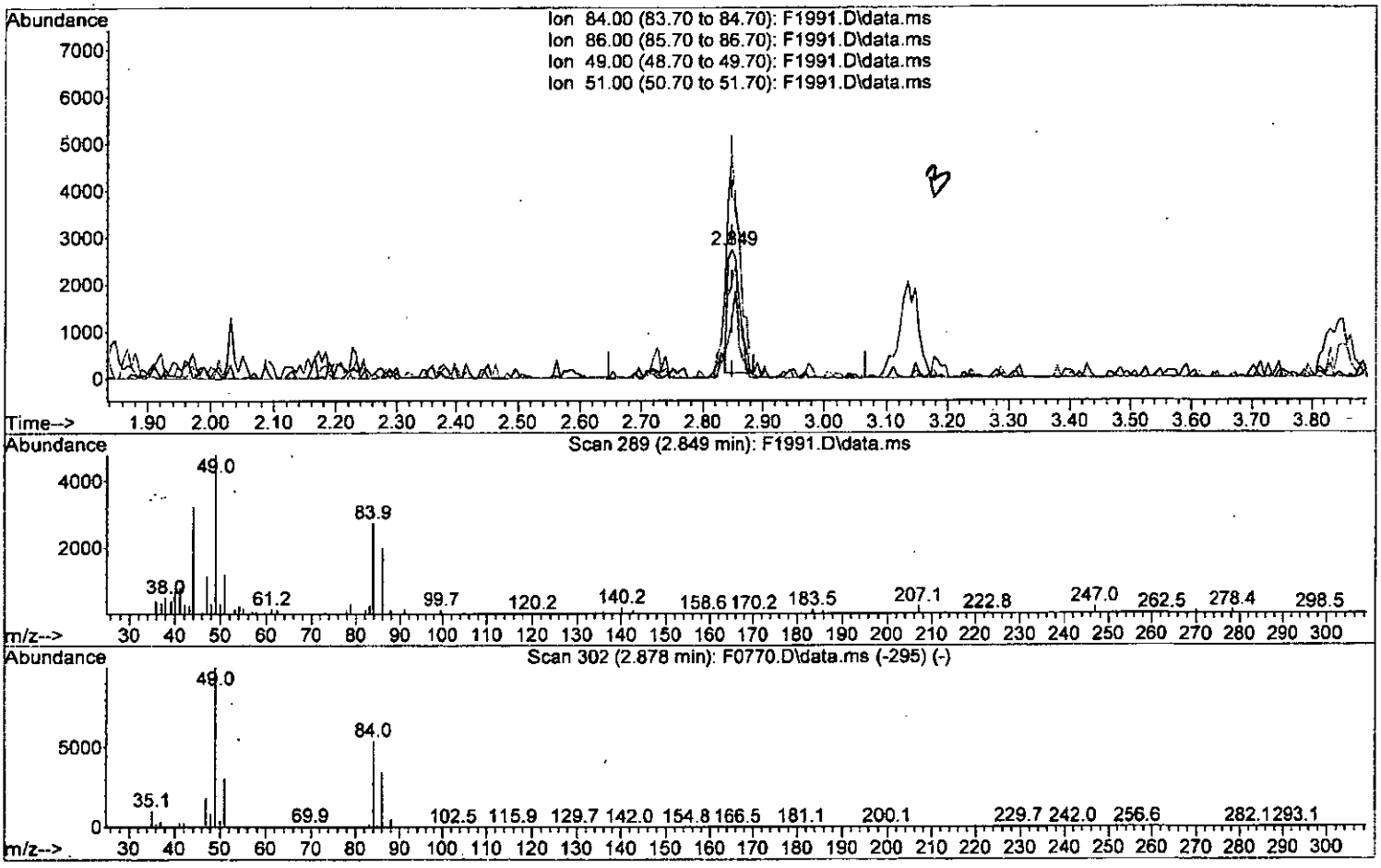
00091

W091015.M Fri Sep 11 08:46:39 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(22) Methylene Chloride (P)

2.849min (+0.000) 0.50 ug/L

response 3739

Ion	Exp%	Act%
84.00	100	100
86.00	63.40	72.54
49.00	185.00	175.10
51.00	56.30	44.02

W091015.M Fri Sep 11 08:47:29 2015 MSVO10

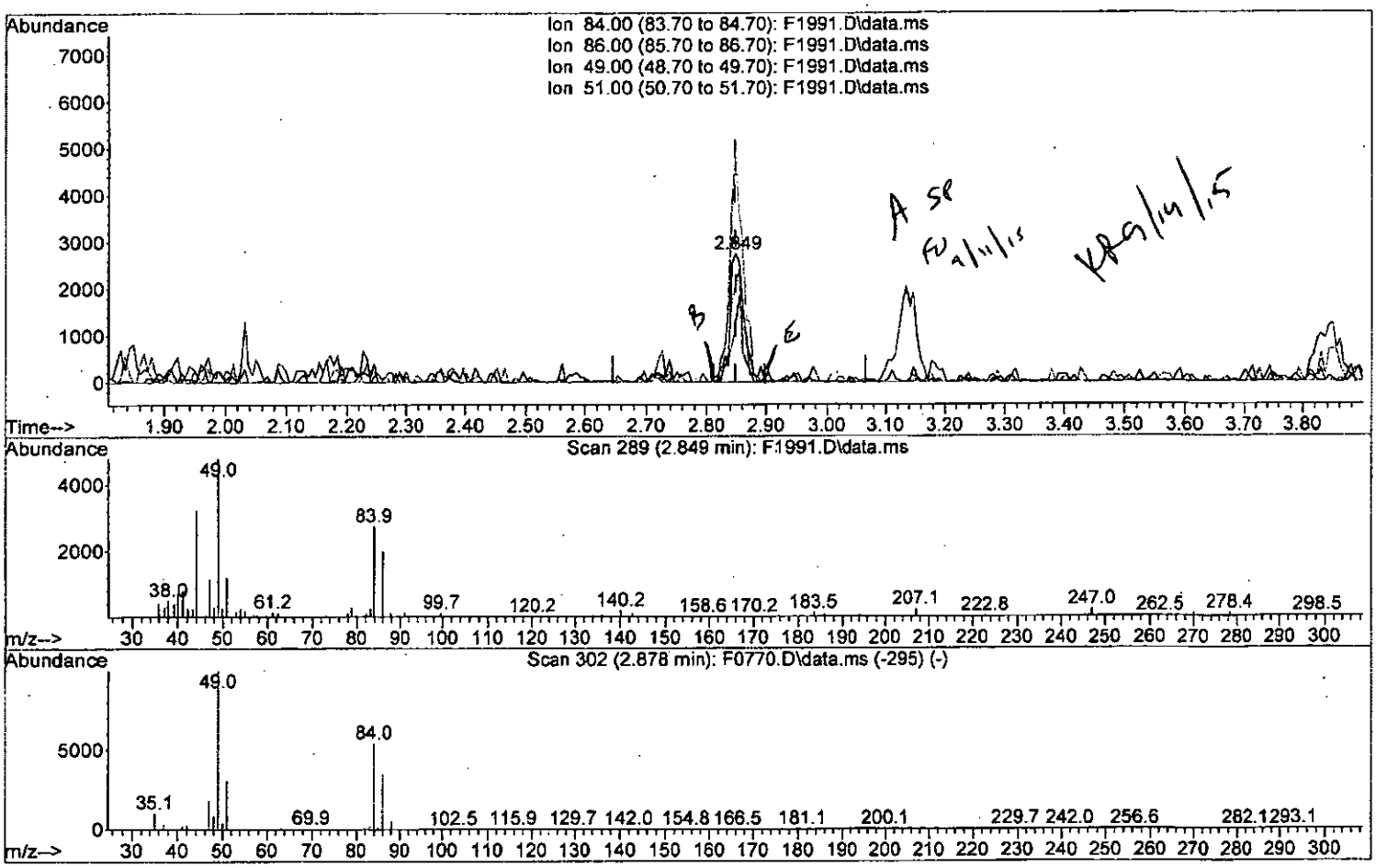
00092

Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(22) Methylene Chloride (P)

2.849min (+0.000) 0.61 ug/L m

response 4544

Ion	Exp%	Act%
84.00	100	100
86.00	63.40	72.54
49.00	185.00	175.10
51.00	56.30	44.02

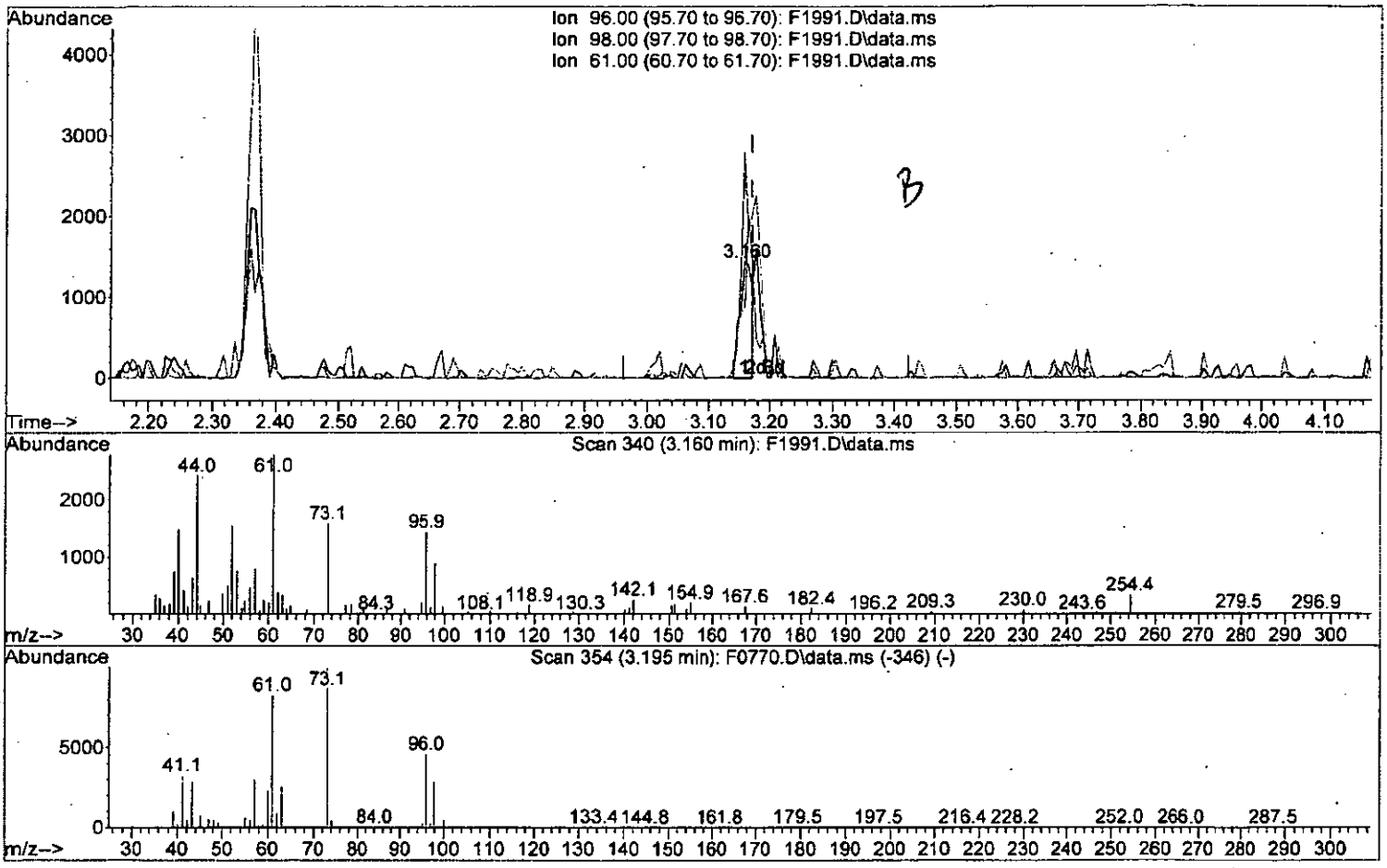
W091015.M Fri Sep 11 08:47:43 2015 MSVO10

00093

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(26) trans-1,2-Dichloroethene (P)

3.160min (-0.012) 0.30 ug/L

response 1978

Ion	Exp%	Act%
96.00	100	100
98.00	62.90	61.85
61.00	180.60	194.14
0.00	0.00	0.00

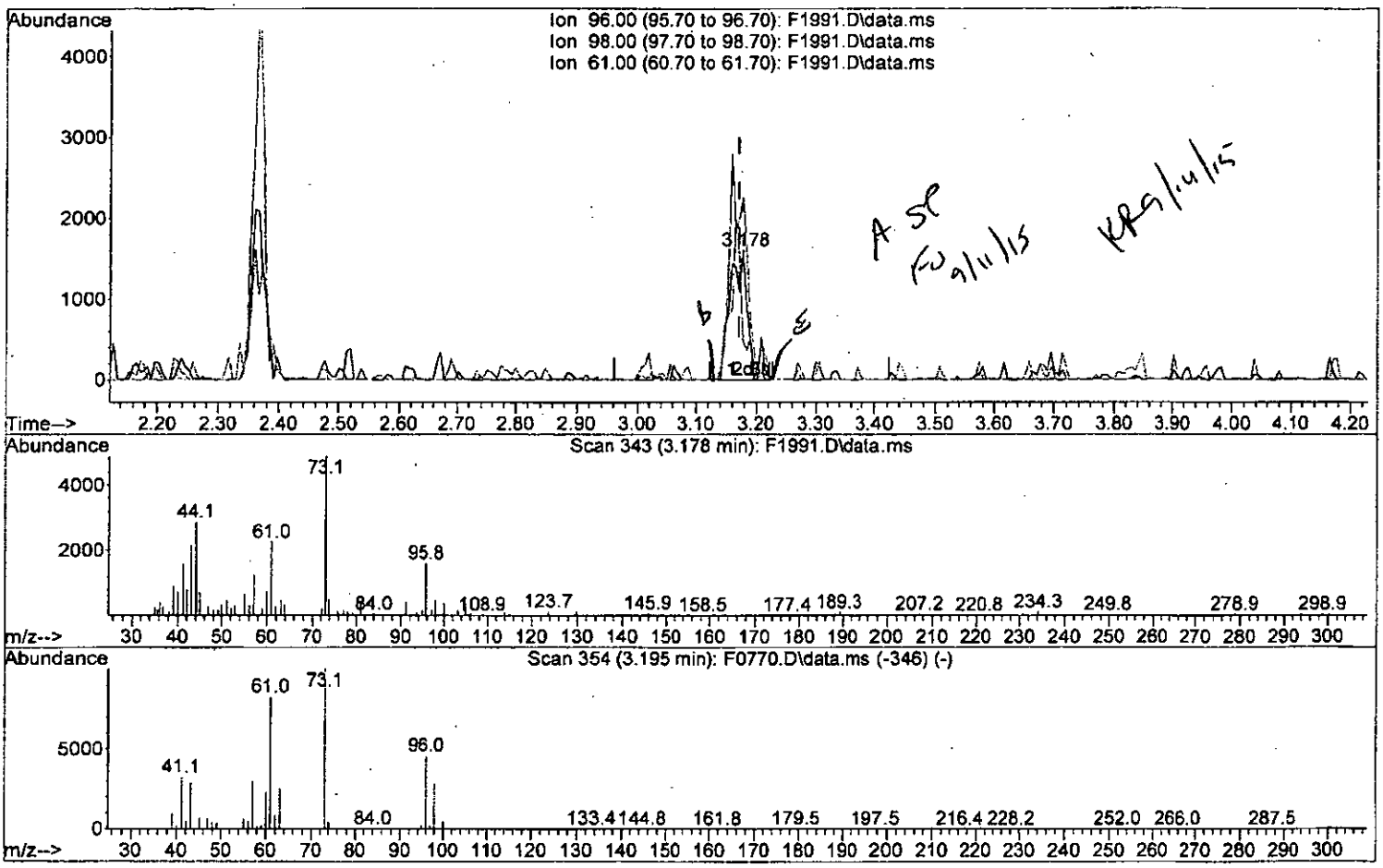
00094

W091015.M Fri Sep 11 08:47:54 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



A SC 9/11/15 KPS 9/11/15

TIC: F1991.D\data.ms

(26) trans-1,2-Dichloroethene (P)

3.178min (+0.006) 0.51 ug/L m

response 3353

Ion	Exp%	Act%
96.00	100	100
98.00	62.90	30.08#
61.00	180.60	140.71#
0.00	0.00	0.00

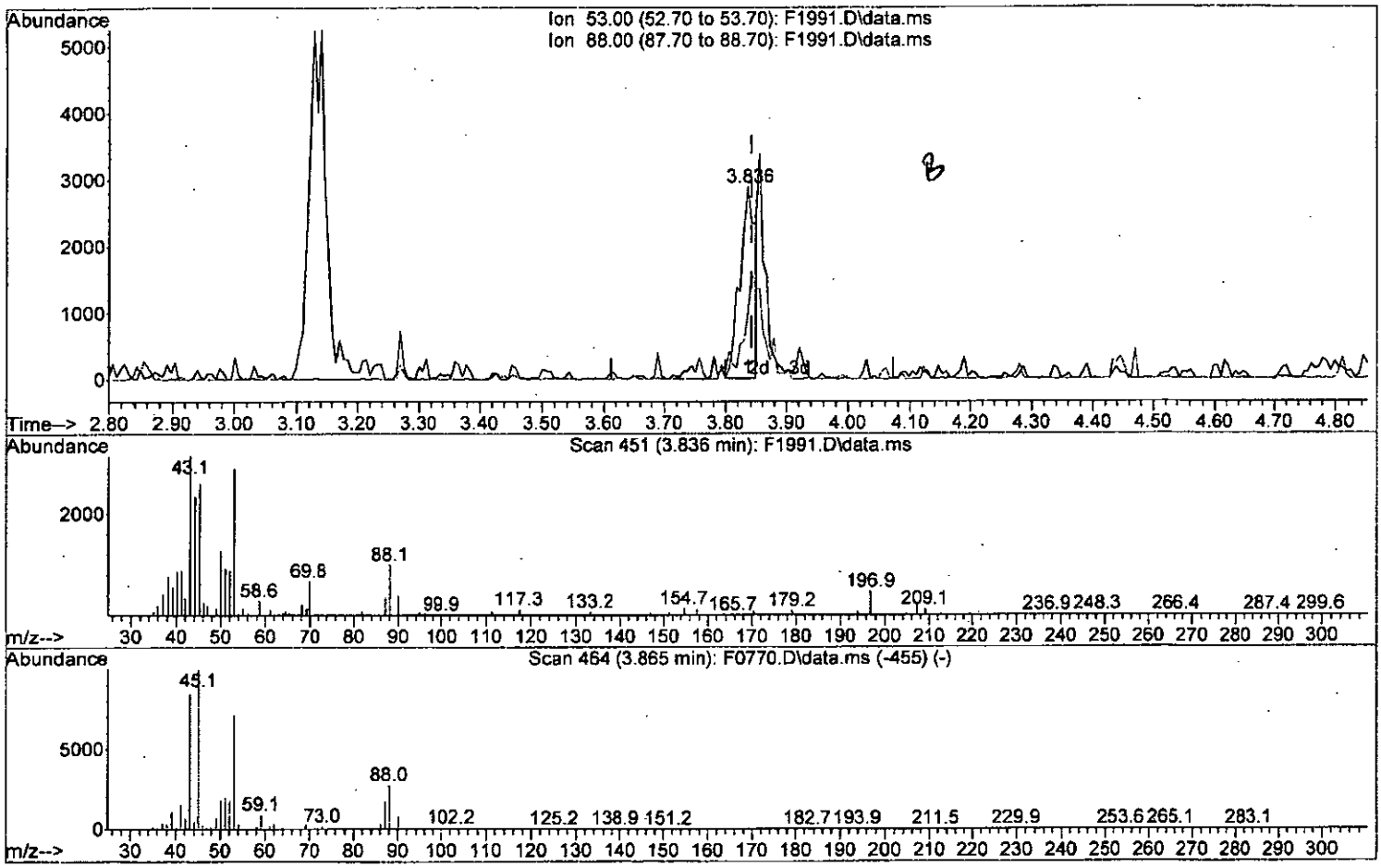
W091015.M Fri Sep 11 08:48:04 2015 MSVO10

00095

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(30) 2-Chloro-1,3-Butadiene

3.836min (-0.006) 0.33 ug/L

response 4793

Ion	Exp%	Act%
53.00	100	100
88.00	38.50	34.52
0.00	0.00	0.00
0.00	0.00	0.00

W091015.M Fri Sep 11 08:48:27 2015 MSVO10

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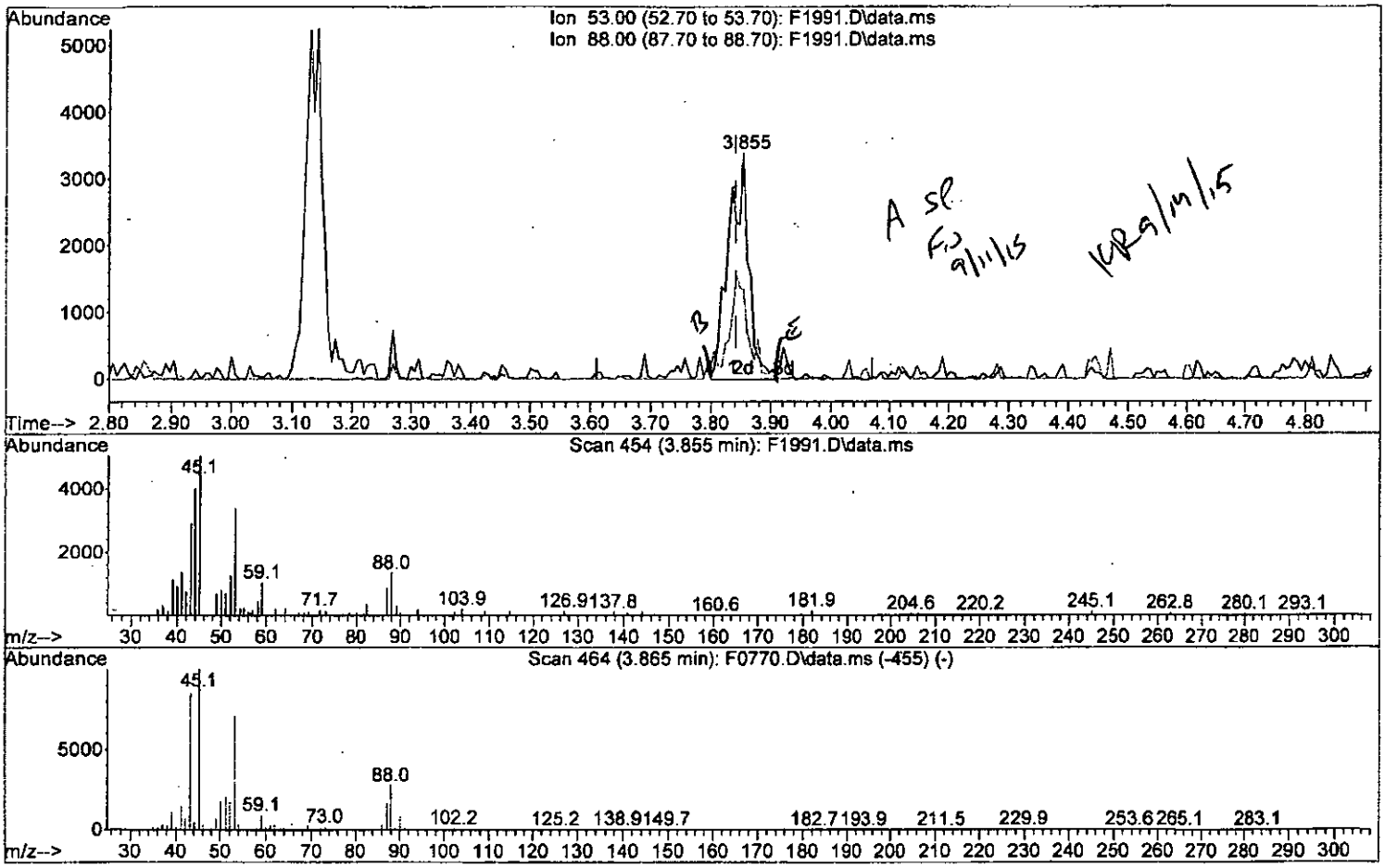
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 08:55:26 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(30) 2-Chloro-1,3-Butadiene

3.855min (+0.012) 0.54 ug/L m

response 7824

Ion	Exp%	Act%
53.00	100	100
88.00	38.50	39.67
0.00	0.00	0.00
0.00	0.00	0.00

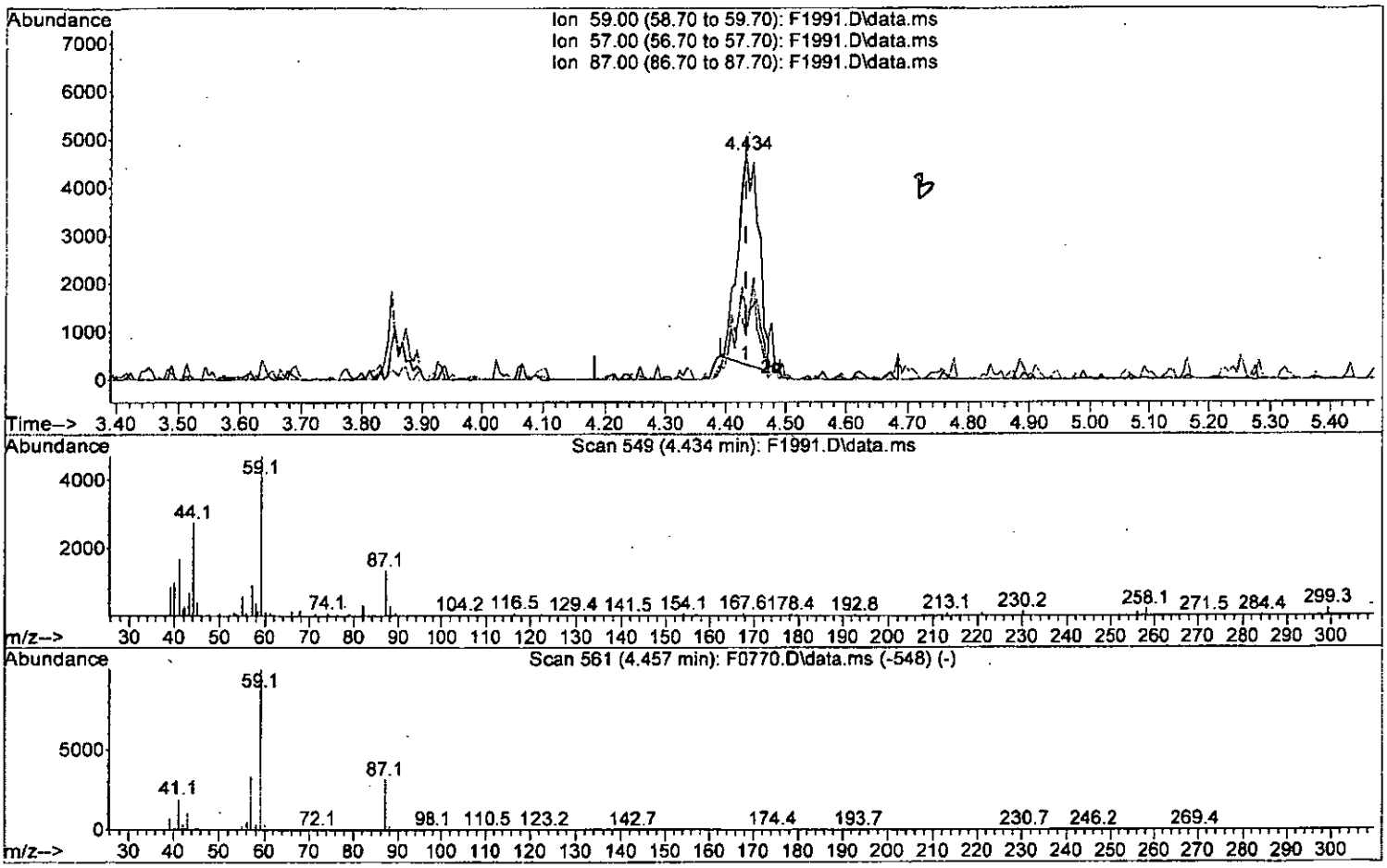
W091015.M Fri Sep 11 11:04:46 2015 MSVO10

00097
Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(31) ETBE

4.434min (+0.000) 0.39 ug/L

response 10652

Ion	Exp%	Act%
59.00	100	100
57.00	33.10	19.19
87.00	31.20	28.46
0.00	0.00	0.00

W091015.M Fri Sep 11 08:48:52 2015 MSVO10

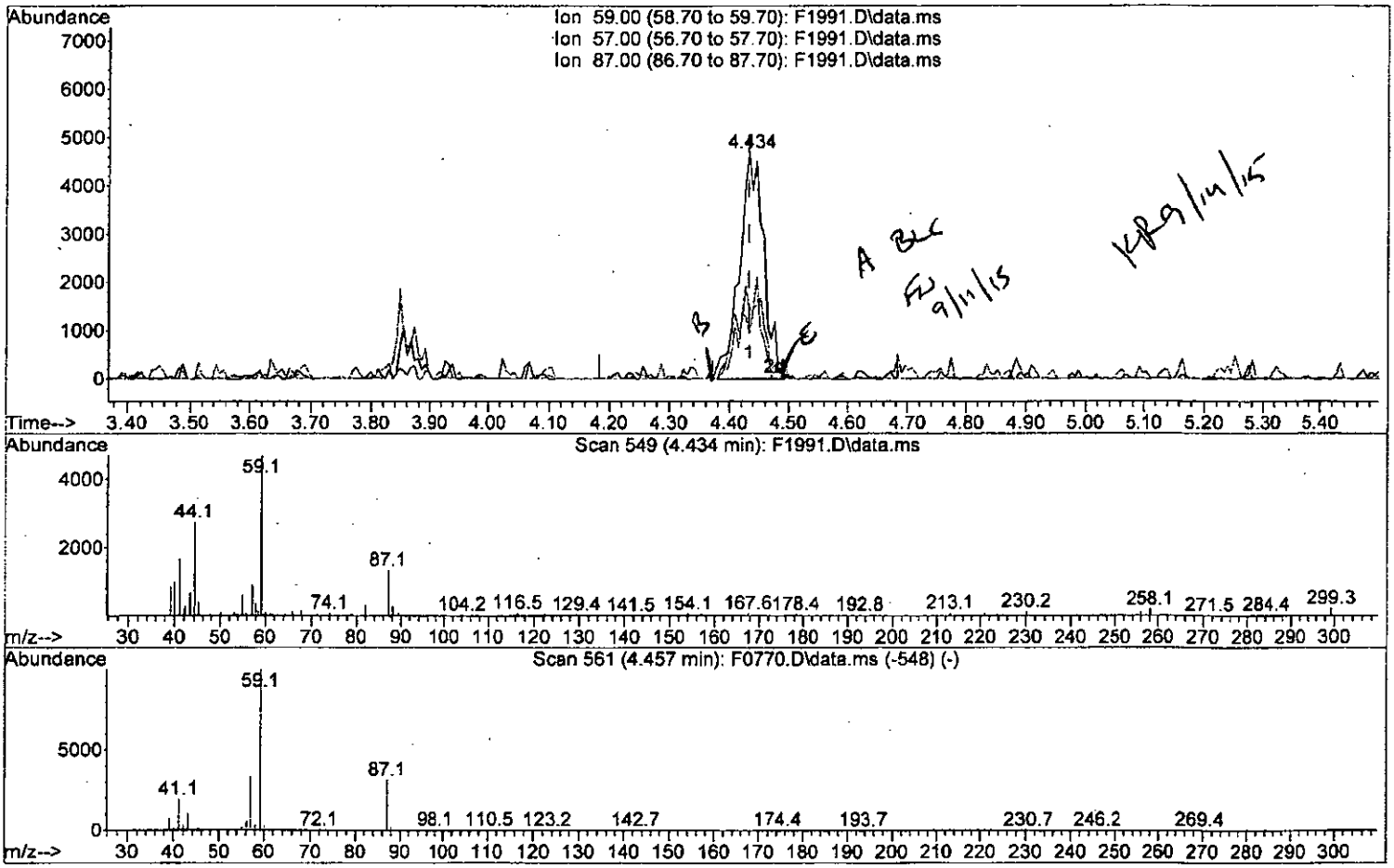
00098

Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(31) ETBE

4.434min (+0.000) 0.49 ug/L m

response 13233

Ion	Exp%	Act%
59.00	100	100
57.00	33.10	19.19
87.00	31.20	28.46
0.00	0.00	0.00

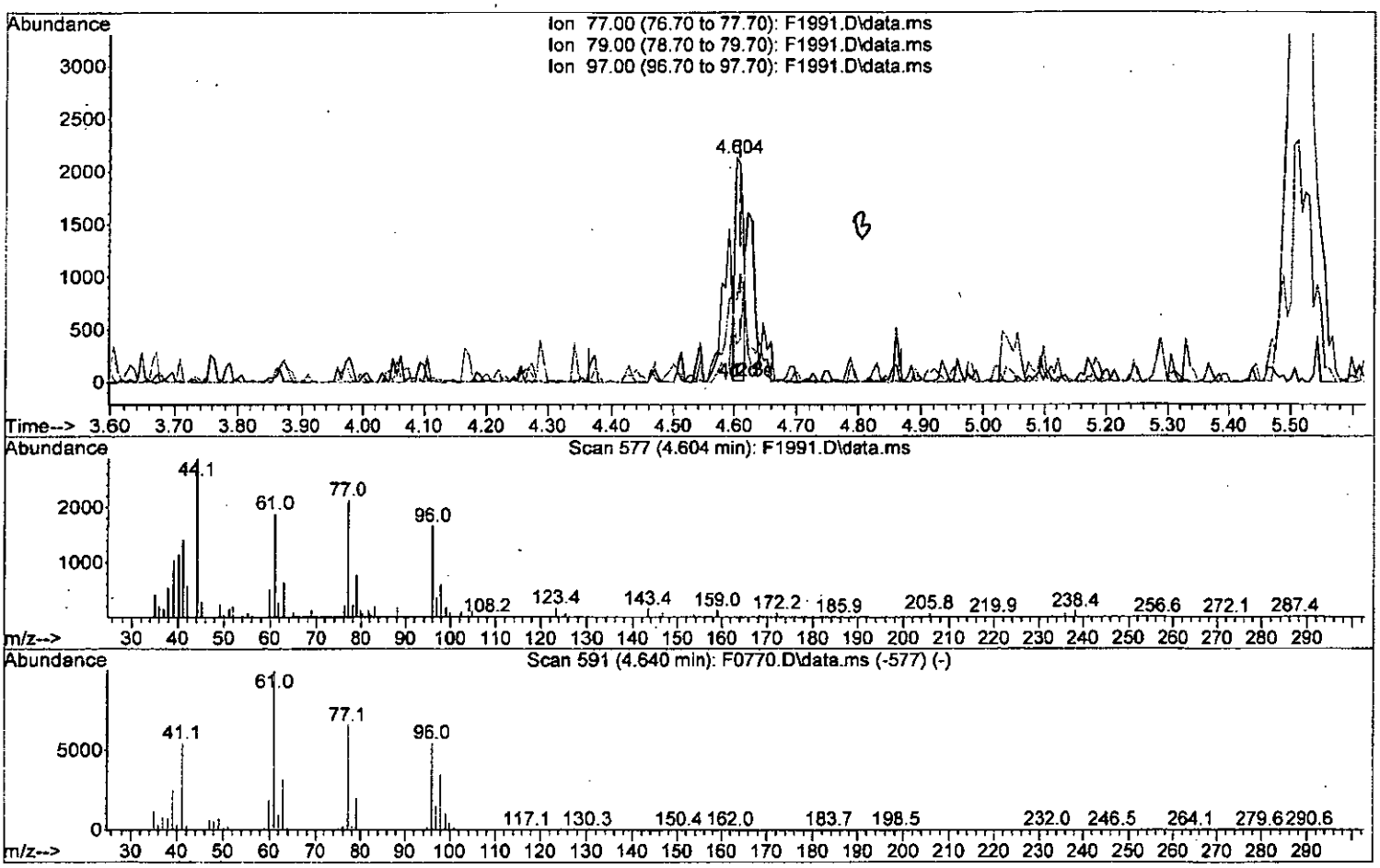
00099

W091015.M Fri Sep 11 08:49:09 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(32) 2,2-Dichloropropane

4.604min (-0.006) 0.19 ug/L

response 1931

Ion	Exp%	Act%
77.00	100	100
79.00	30.40	36.18
97.00	22.40	16.78
0.00	0.00	0.00

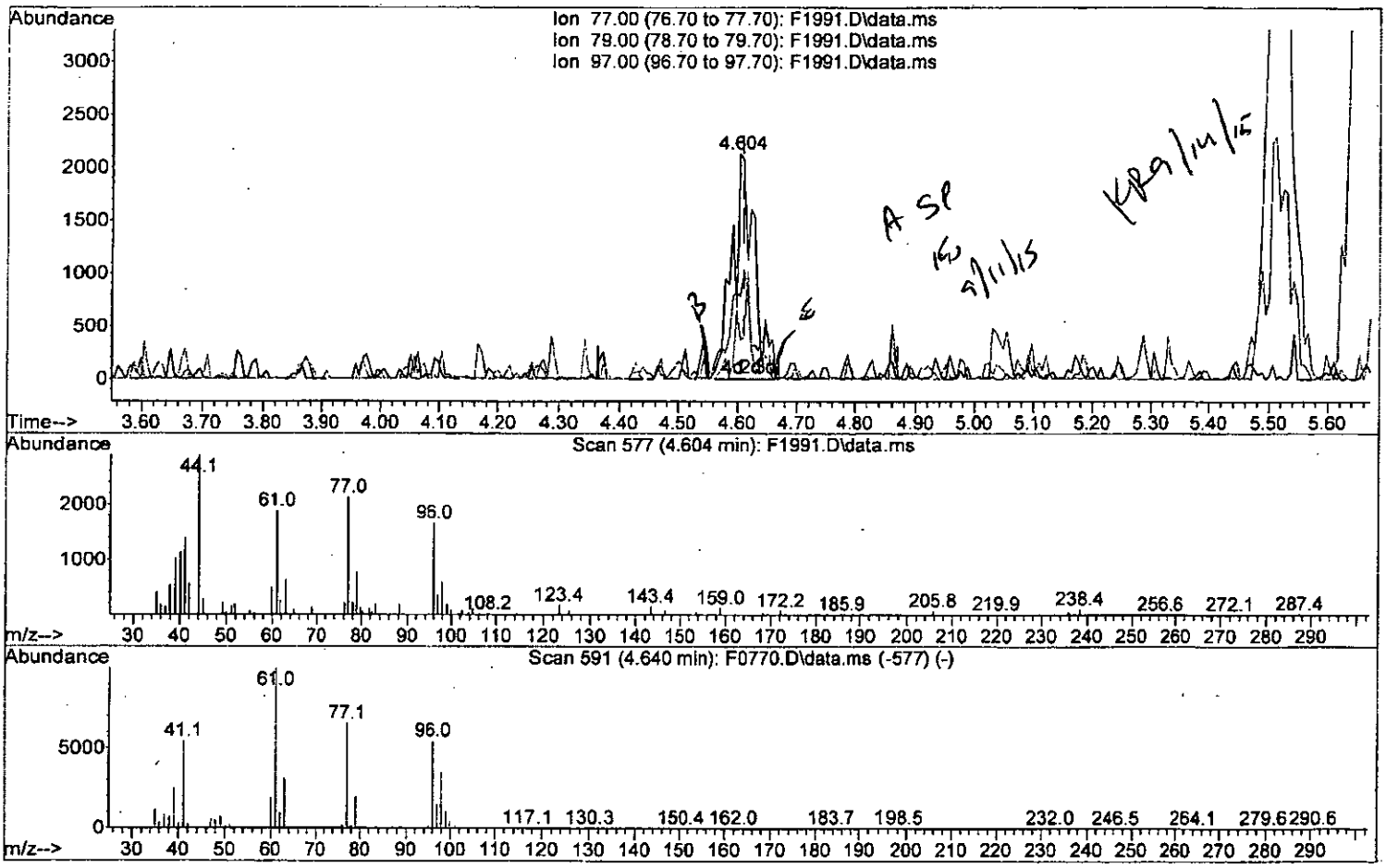
00100

W091015.M Fri Sep 11 08:49:15 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(32) 2,2-Dichloropropane

4.604min (-0.006) 0.53 ug/L m

response 5445

Ion	Exp%	Act%
77.00	100	100
79.00	30.40	36.18
97.00	22.40	16.78
0.00	0.00	0.00

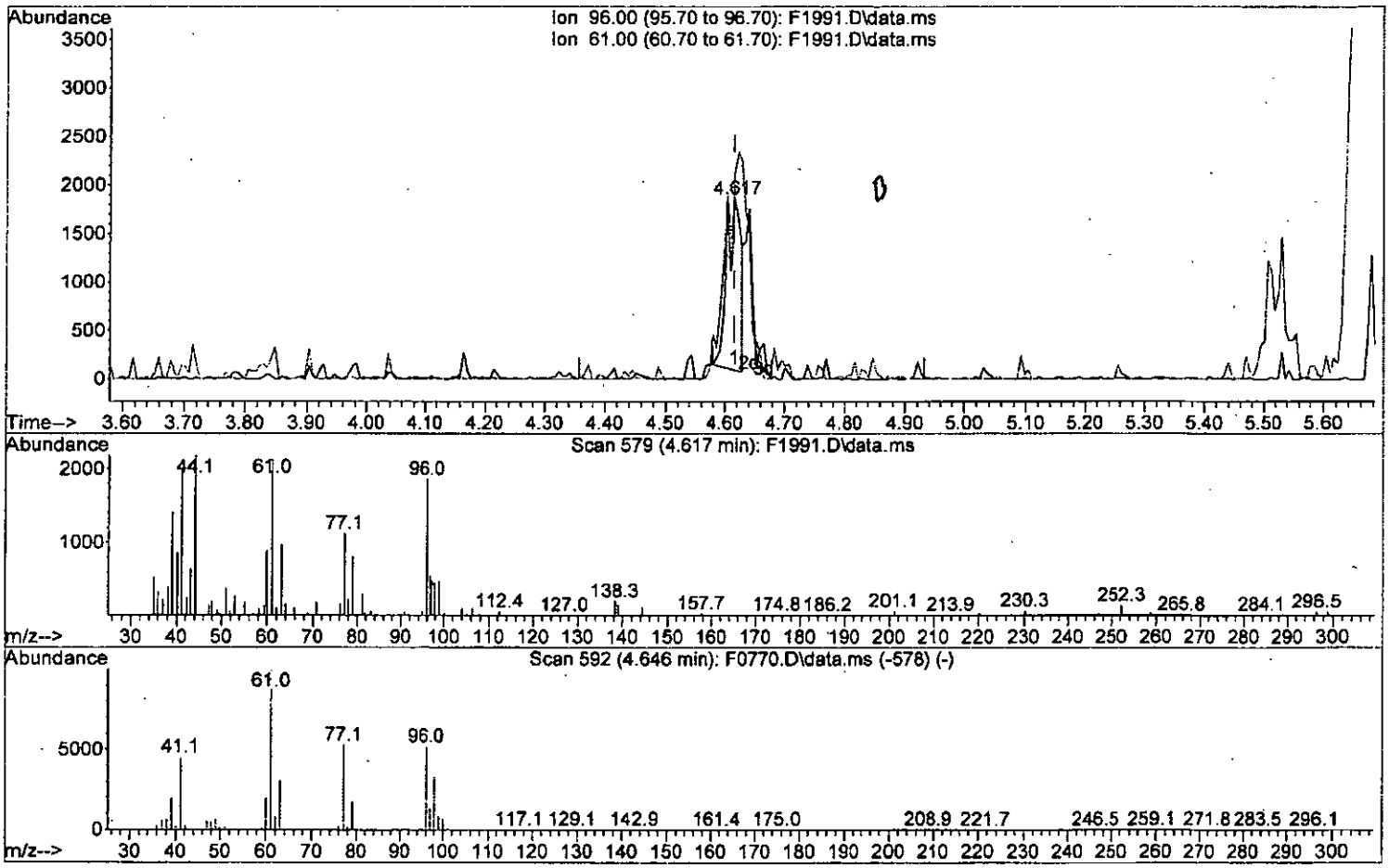
W091015.M Fri Sep 11 08:49:30 2015 MSVO10

00101
Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.617min (+0.000) 0.39 ug/L

response 2908

Ion	Exp%	Act%
96.00	100	100
61.00	193.00	114.43#
0.00	0.00	0.00
0.00	0.00	0.00

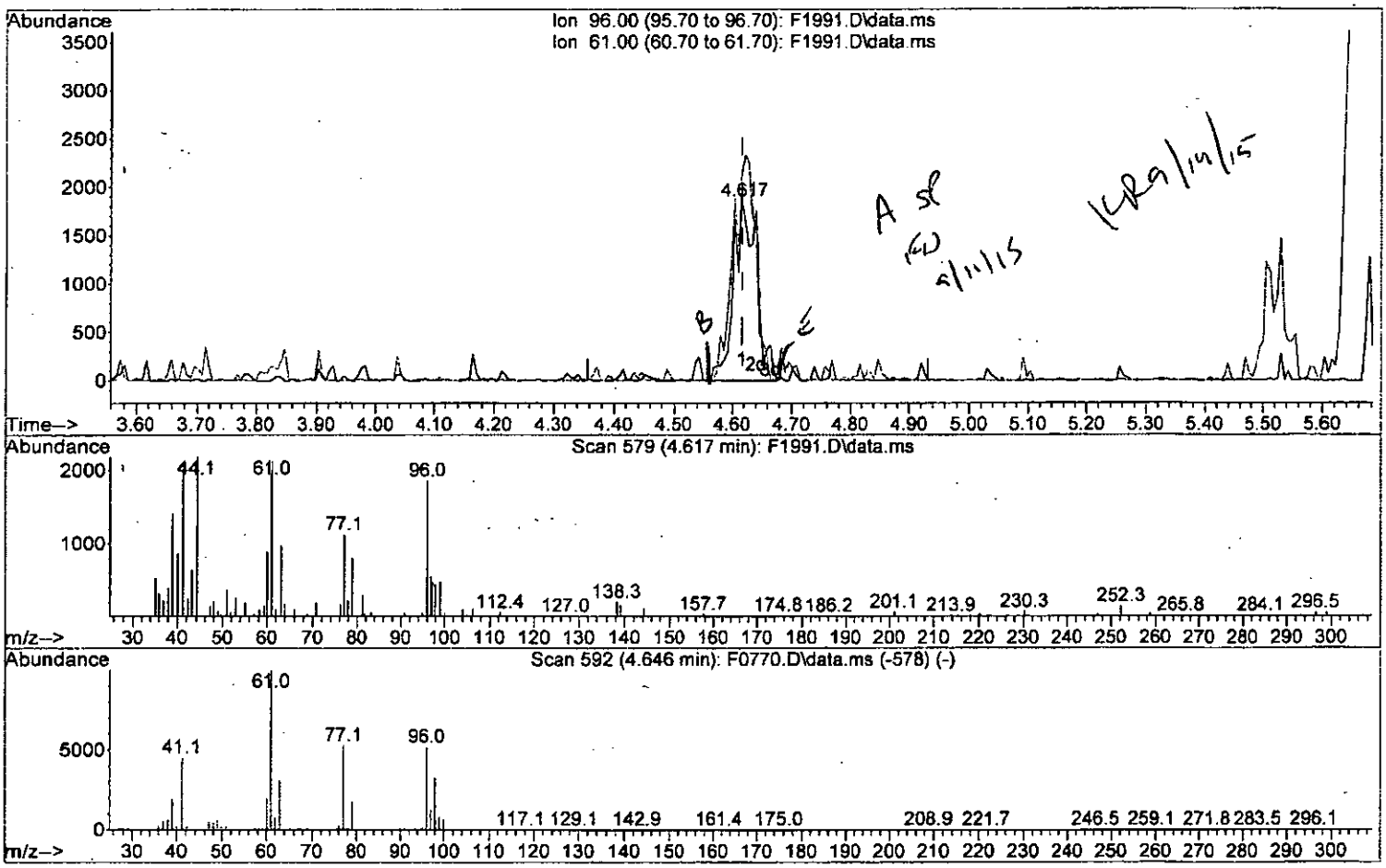
W091015.M Fri Sep 11 08:49:41 2015 MSVO10

00102
Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD. Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 08:55:26 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.617min (+0.000) 0.69 ug/L m

response 5159

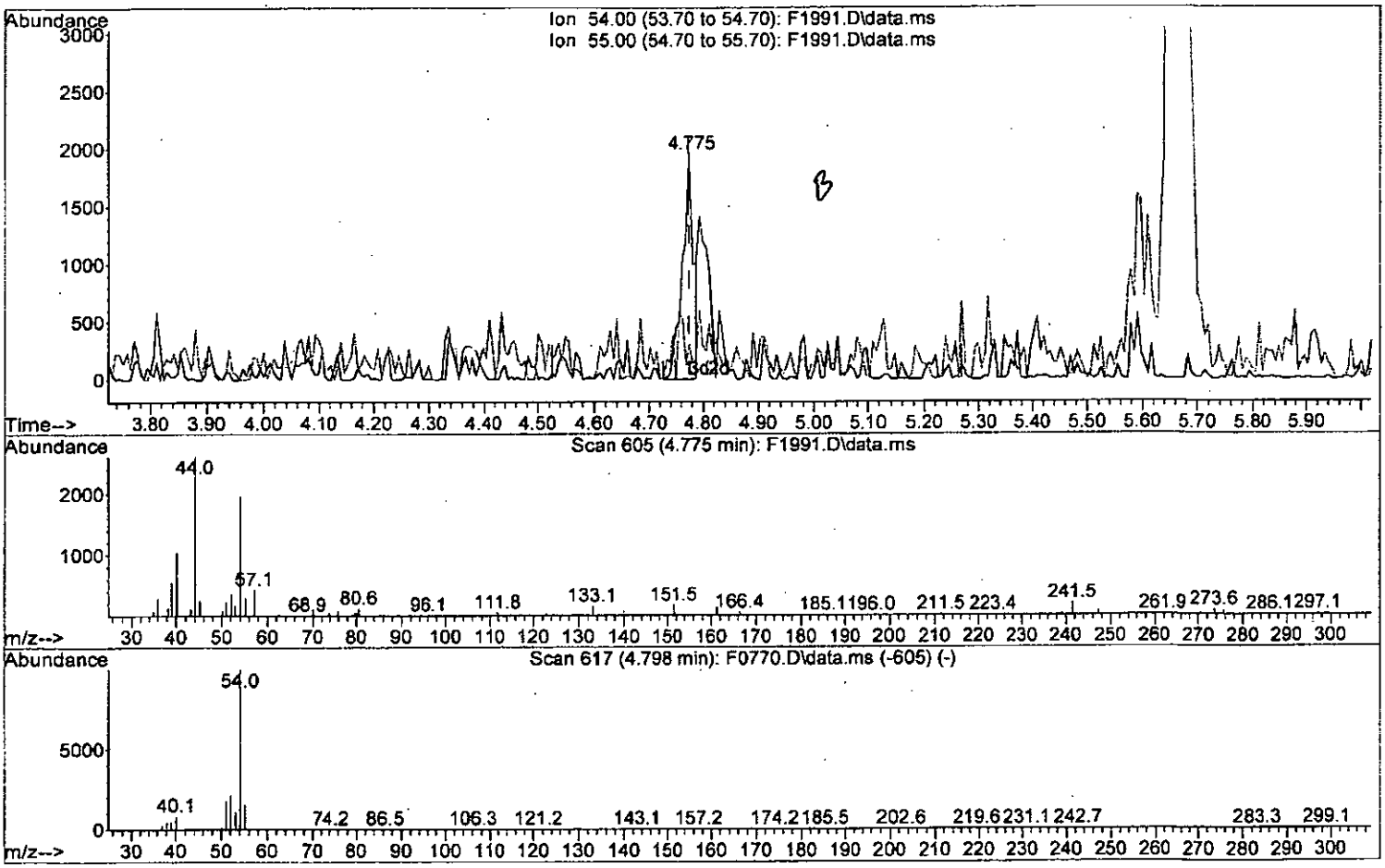
Ion	Exp%	Act%
96.00	100	100
61.00	193.00	114.43#
0.00	0.00	0.00
0.00	0.00	0.00

W091015.M Fri Sep 11 11:06:49 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(35) Propionitrile

4.775min (+0.000) 1.27 ug/L

response 2723

Ion	Exp%	Act%
54.00	100	100
55.00	16.30	15.24
0.00	0.00	0.00
0.00	0.00	0.00

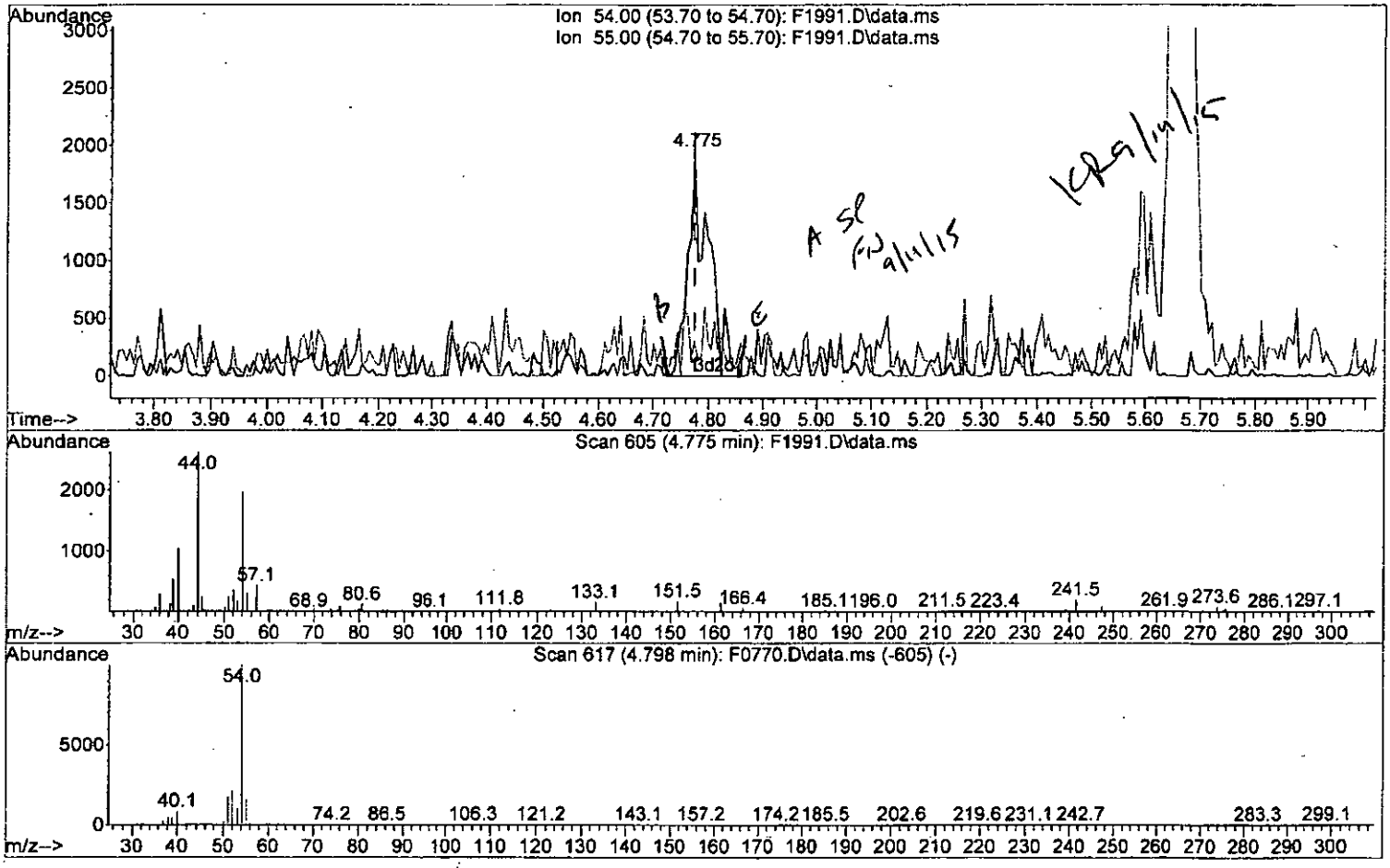
00104

W091015.M Fri Sep 11 08:50:01 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(35) Propionitrile

4.775min (+0.000) 2.36 ug/L m

response 5052

Ion	Exp%	Act%
54.00	100	100
55.00	16.30	15.24
0.00	0.00	0.00
0.00	0.00	0.00

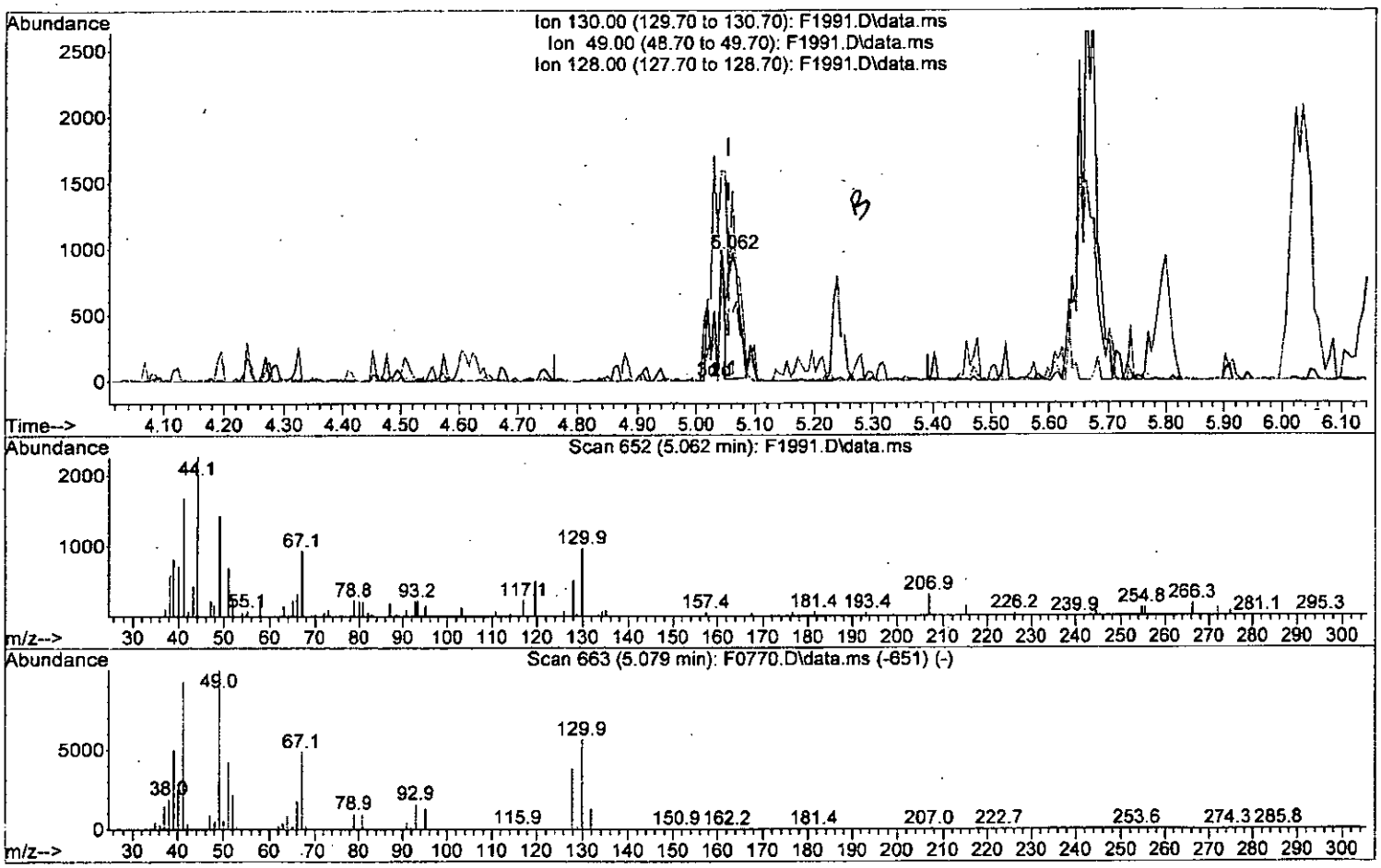
00105

W091015.M Fri Sep 11 08:50:21 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(36) Bromochloromethane

5.062min (+0.006) 0.25 ug/L

response 1216

Ion	Exp%	Act%
130.00	100	100
49.00	177.90	148.70#
128.00	68.20	56.49
0.00	0.00	0.00

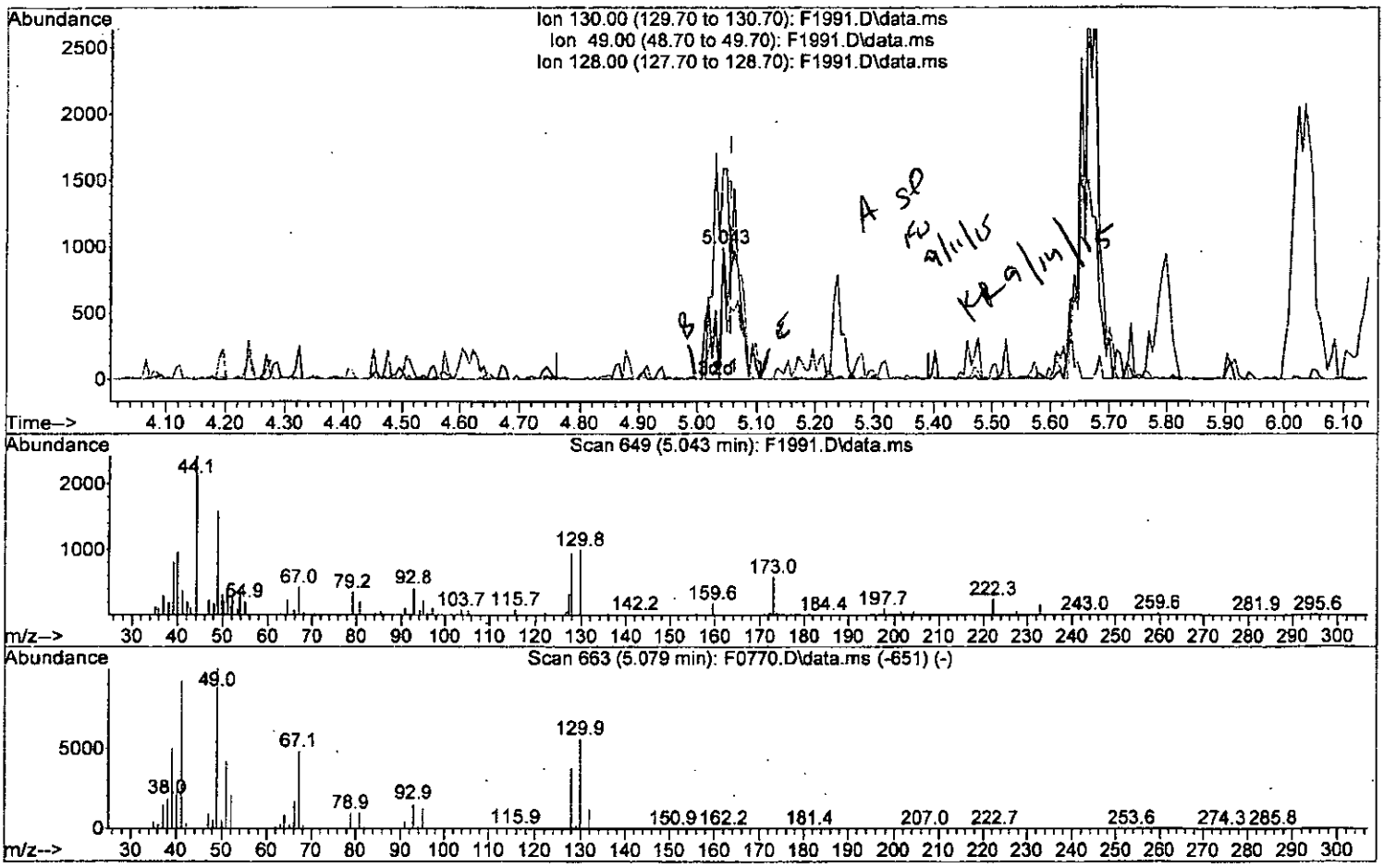
00106

W091015.M Fri Sep 11 08:50:27 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(36) Bromochloromethane

5.043min (-0.012) 0.50 ug/L m

response 2414

Ion	Exp%	Act%
130.00	100	100
49.00	177.90	160.22
128.00	68.20	96.05#
0.00	0.00	0.00

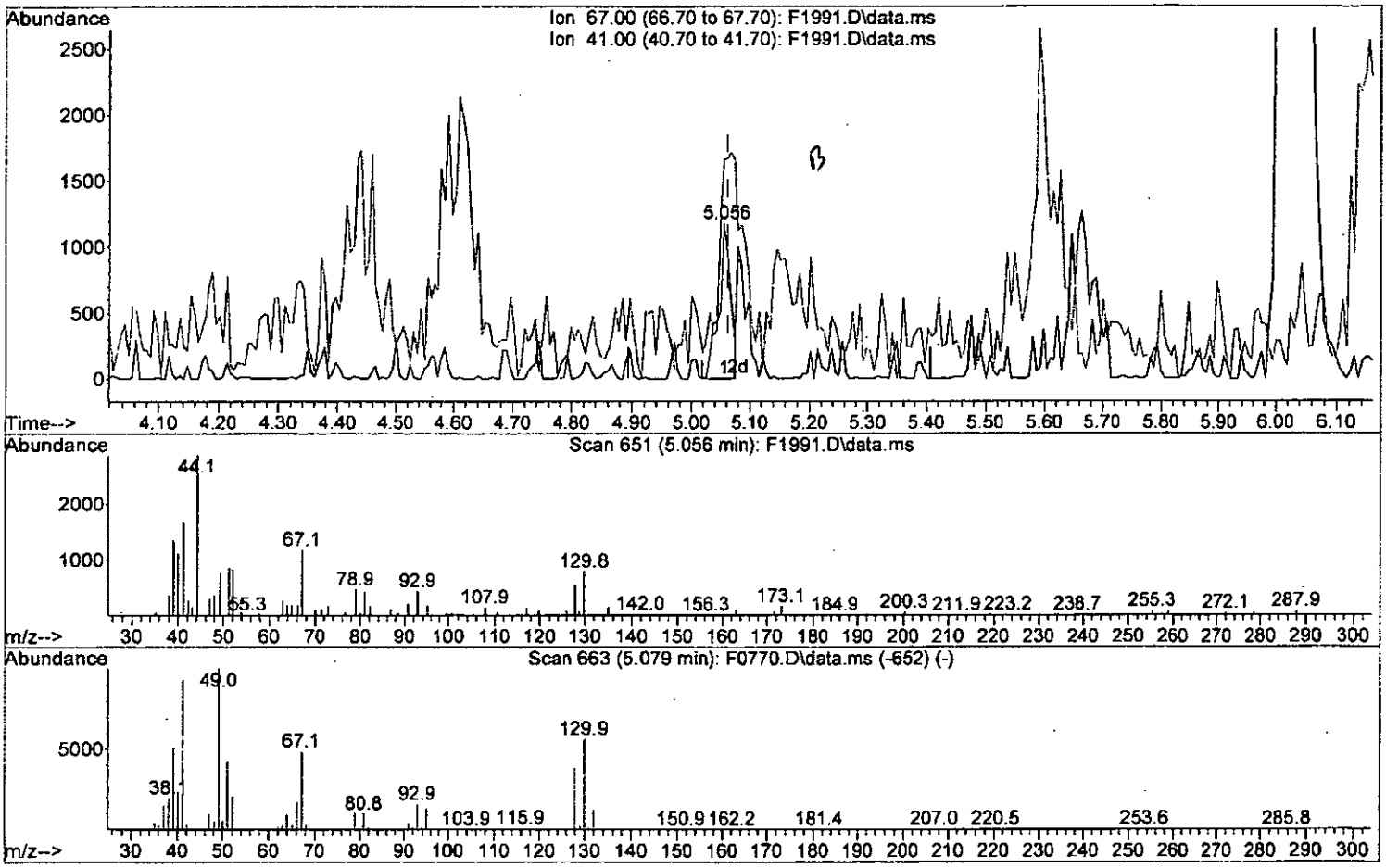
00107

W091015.M Fri Sep 11 08:50:39 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(37) Methacrylonitrile

5.056min (-0.006) 0.35 ug/L

response 1671

Ion	Exp%	Act%
67.00	100	100
41.00	191.80	140.90#
0.00	0.00	0.00
0.00	0.00	0.00

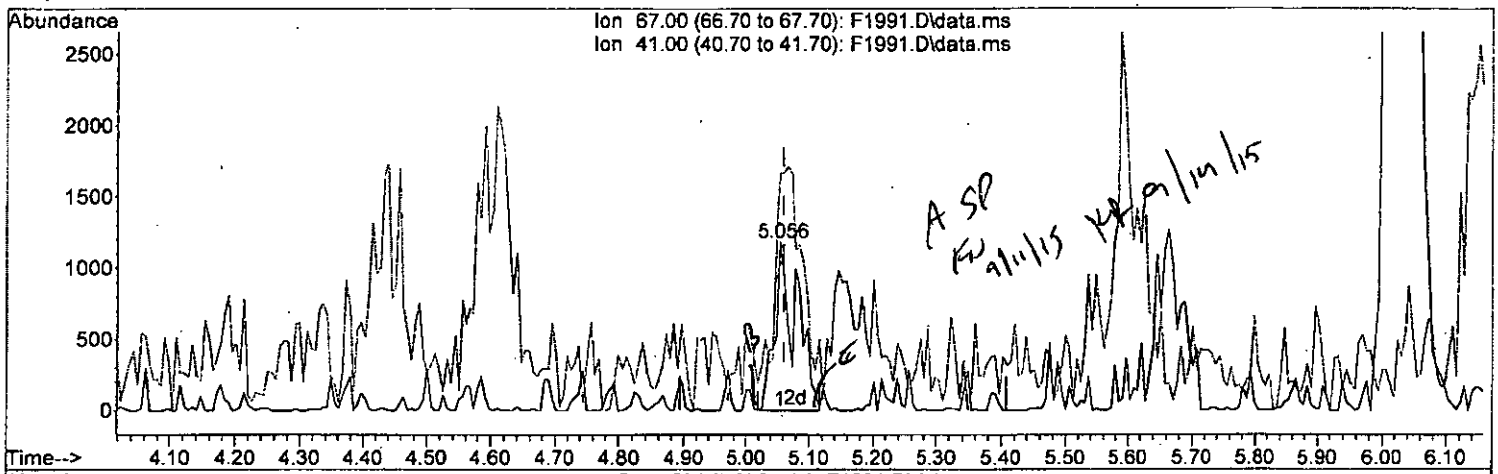
00108

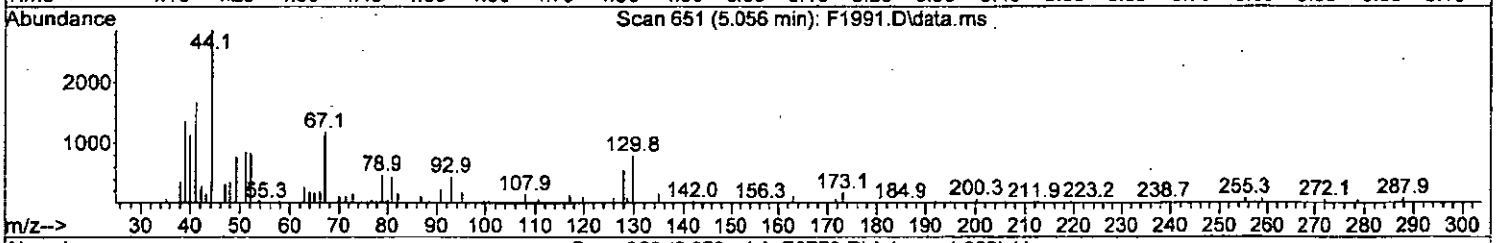
W091015.M Fri Sep 11 08:50:53 2015 MSVO10 Page: 1

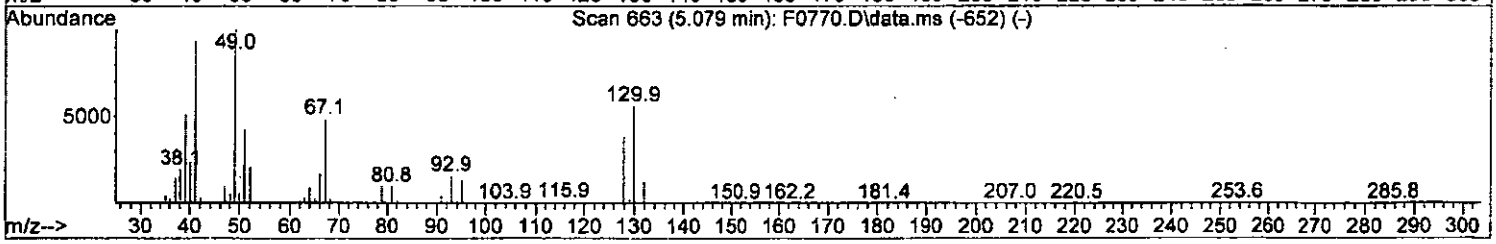
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration







TIC: F1991.D\data.ms

(37) Methacrylonitrile

5.056min (-0.006) 0.60 ug/L m

response 2836

Ion	Exp%	Act%
67.00	100	100
41.00	191.80	140.90#
0.00	0.00	0.00
0.00	0.00	0.00

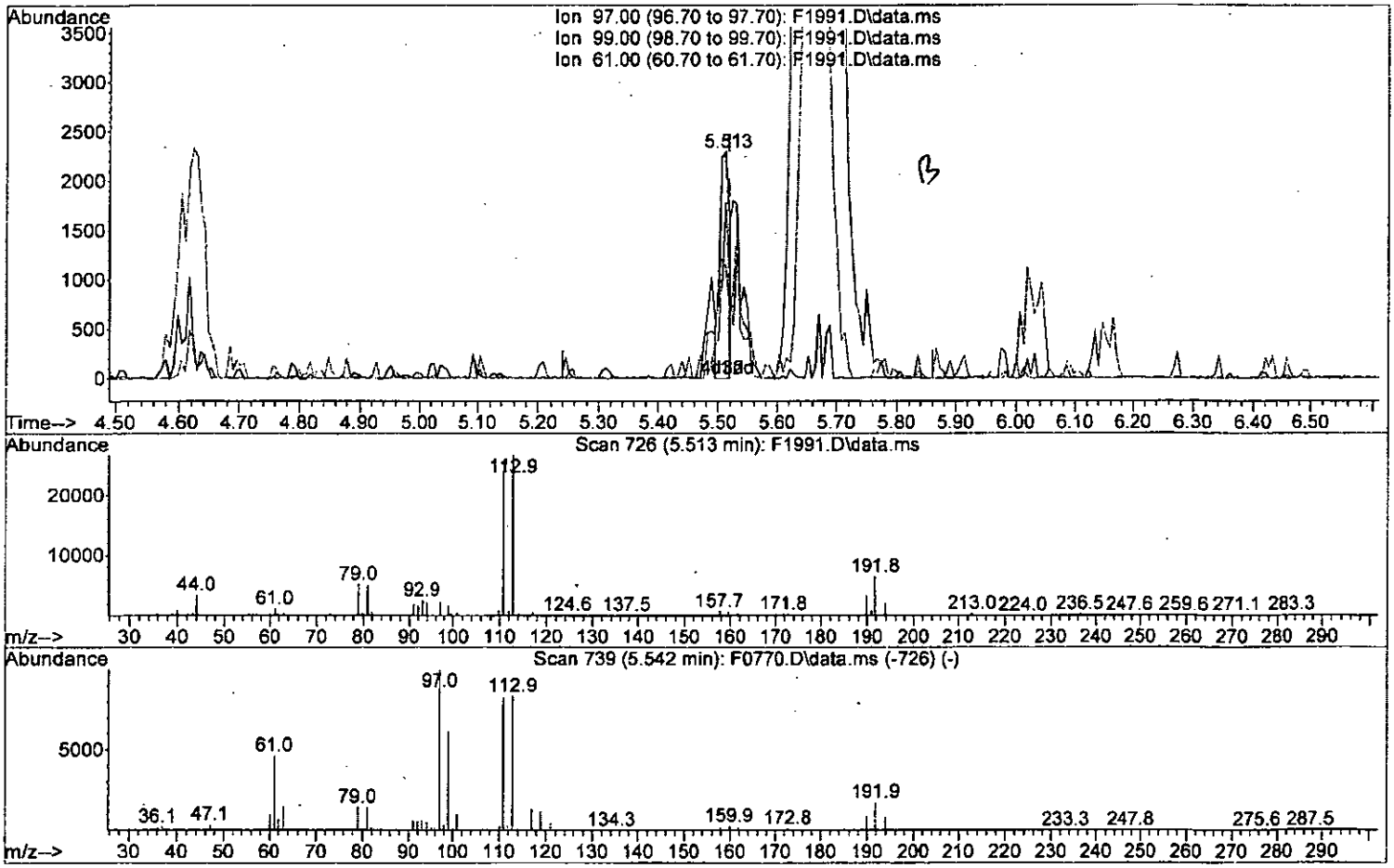
00109

W091015.M Fri Sep 11 08:51:07 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.513min (-0.006) 0.23 ug/L

response 2511

Ion	Exp%	Act%
97.00	100	100
99.00	61.50	77.48
61.00	46.40	54.95
0.00	0.00	0.00

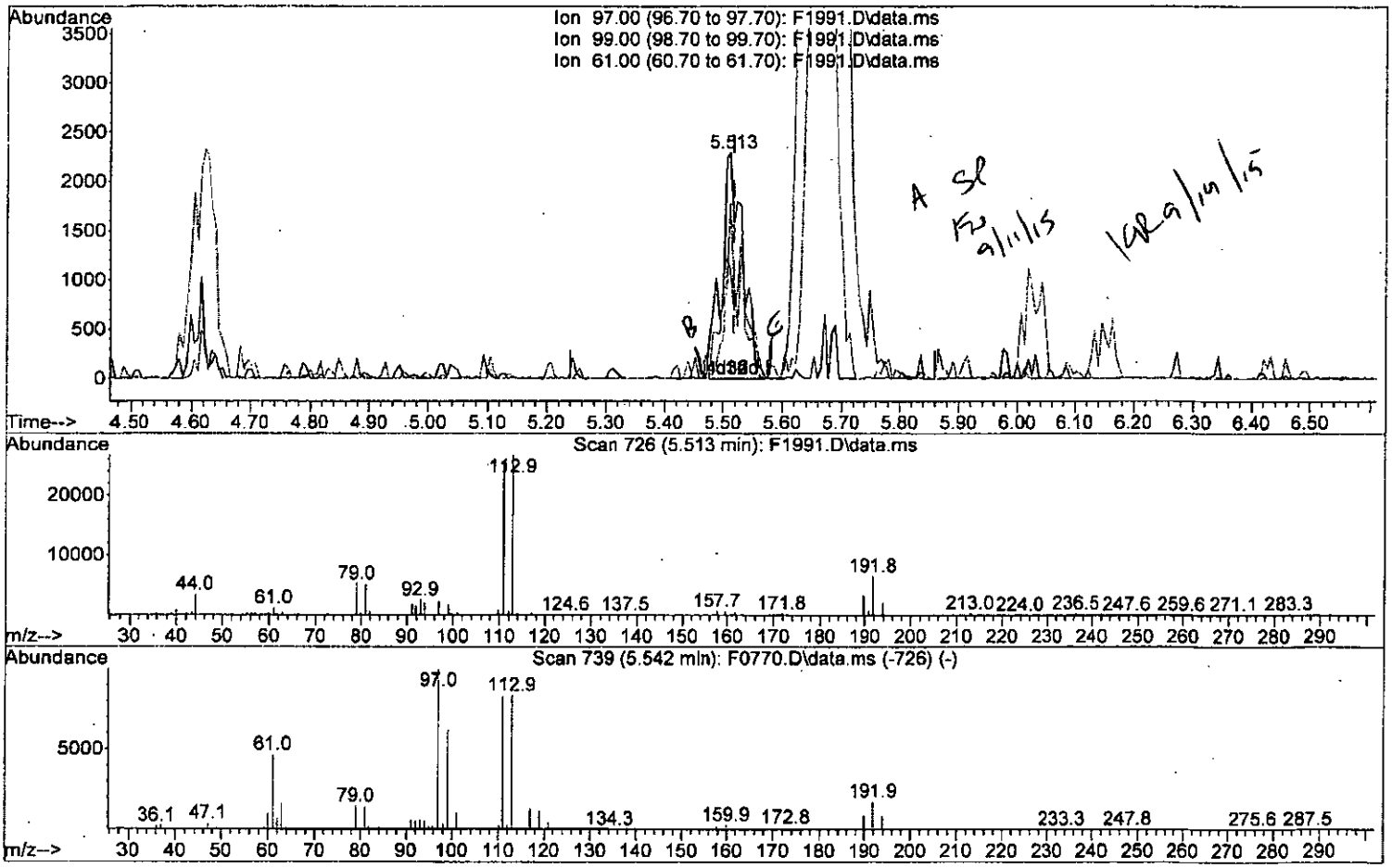
00110

W091015.M Fri Sep 11 08:51:17 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.513min (-0.006) 0.53 ug/L m

response 5769

Ion	Exp%	Act%
97.00	100	100
99.00	61.50	66.87
61.00	46.40	48.67
0.00	0.00	0.00

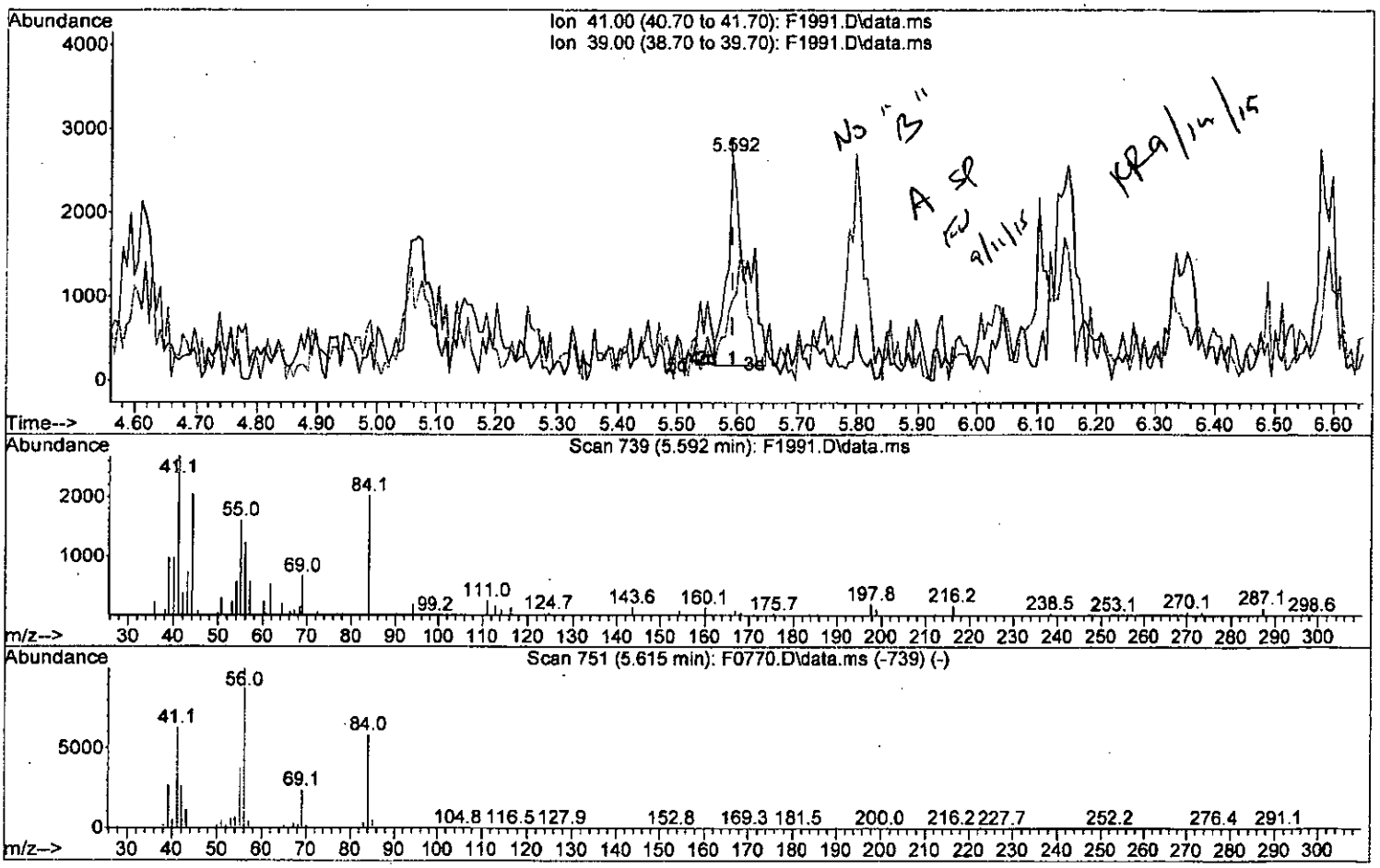
00111

W091015.M Fri Sep 11 08:51:33 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(42) Cyclohexane (P)

5.592min (+0.000) 0.59 ug/L m

response 5477

Ion	Exp%	Act%
41.00	100	100
39.00	42.40	35.86
0.00	0.00	0.00
0.00	0.00	0.00

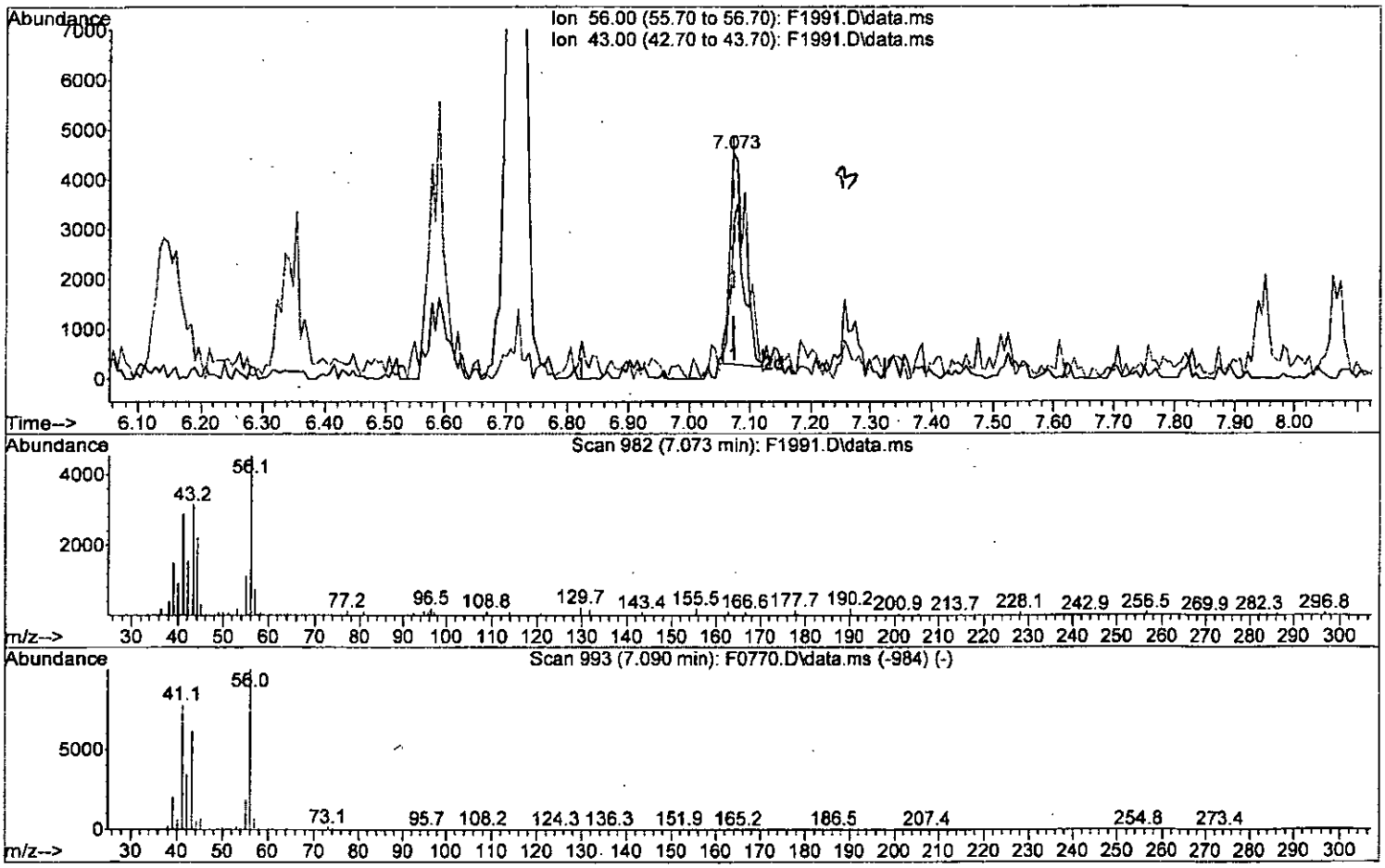
00112

W091015.M Fri Sep 11 08:52:06 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(52) 1-Butanol

7.073min (+0.000) 13.86 ug/L

response 7312

Ion	Exp%	Act%
56.00	100	100
43.00	62.00	69.26
0.00	0.00	0.00
0.00	0.00	0.00

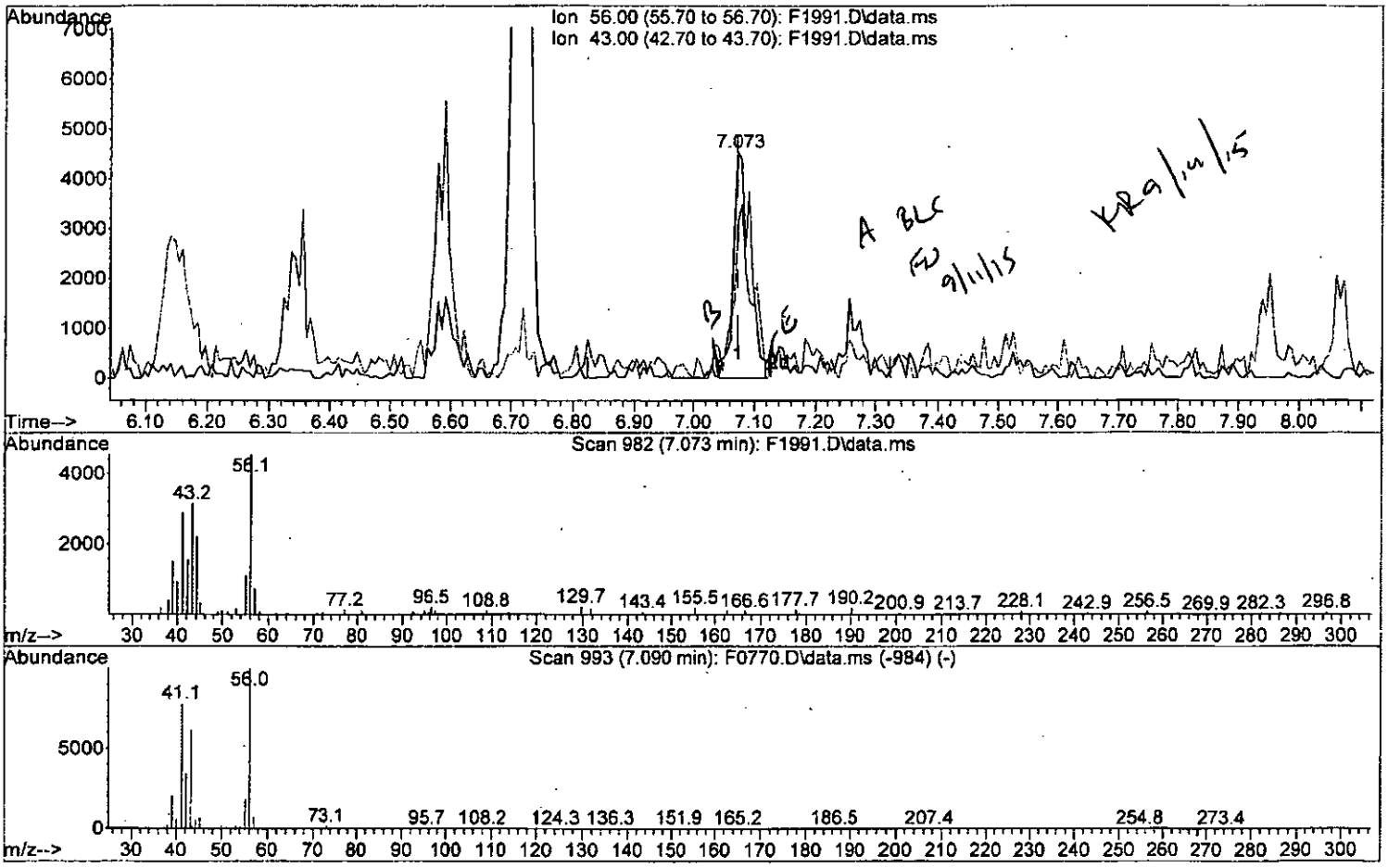
00113

W091015.M Fri Sep 11 08:52:24 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(52) 1-Butanol

7.073min (+0.000) 16.58 ug/L m

response 8745

Ion	Exp%	Act%
56.00	100	100
43.00	62.00	69.26
0.00	0.00	0.00
0.00	0.00	0.00

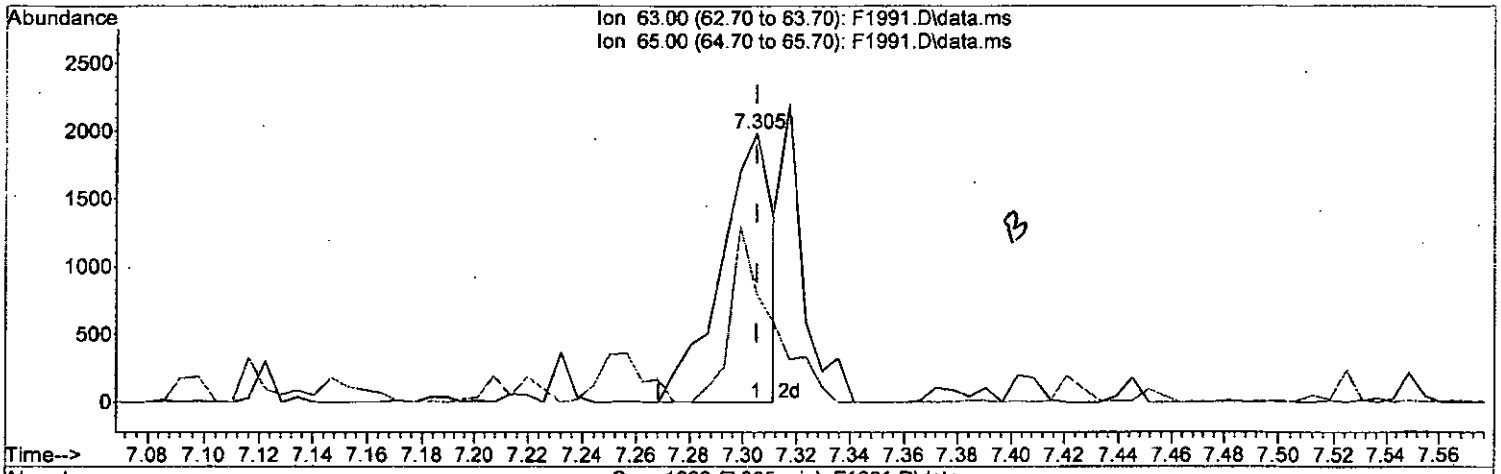
00114

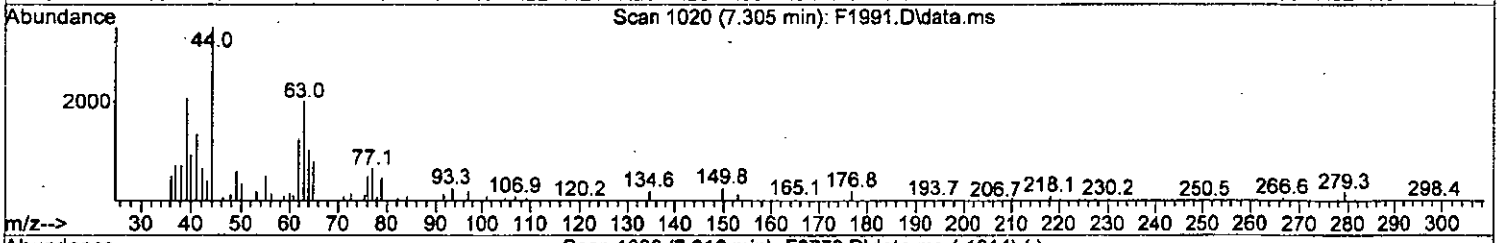
W091015.M Fri Sep 11 08:52:38 2015 MSVO10 Page: 1

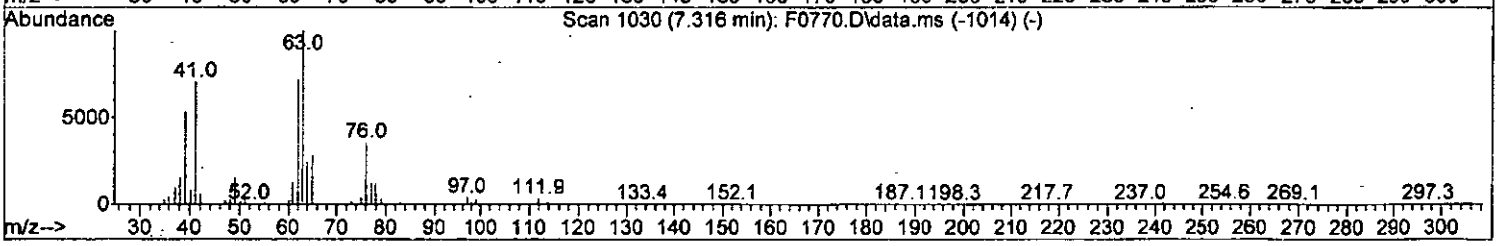
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration







TIC: F1991.D\data.ms

(55) 1,2-Dichloropane (P)

7.305min (+0.000) 0.33 ug/L

response 2686

Ion	Exp%	Act%
63.00	100	100
65.00	28.60	39.93
0.00	0.00	0.00
0.00	0.00	0.00

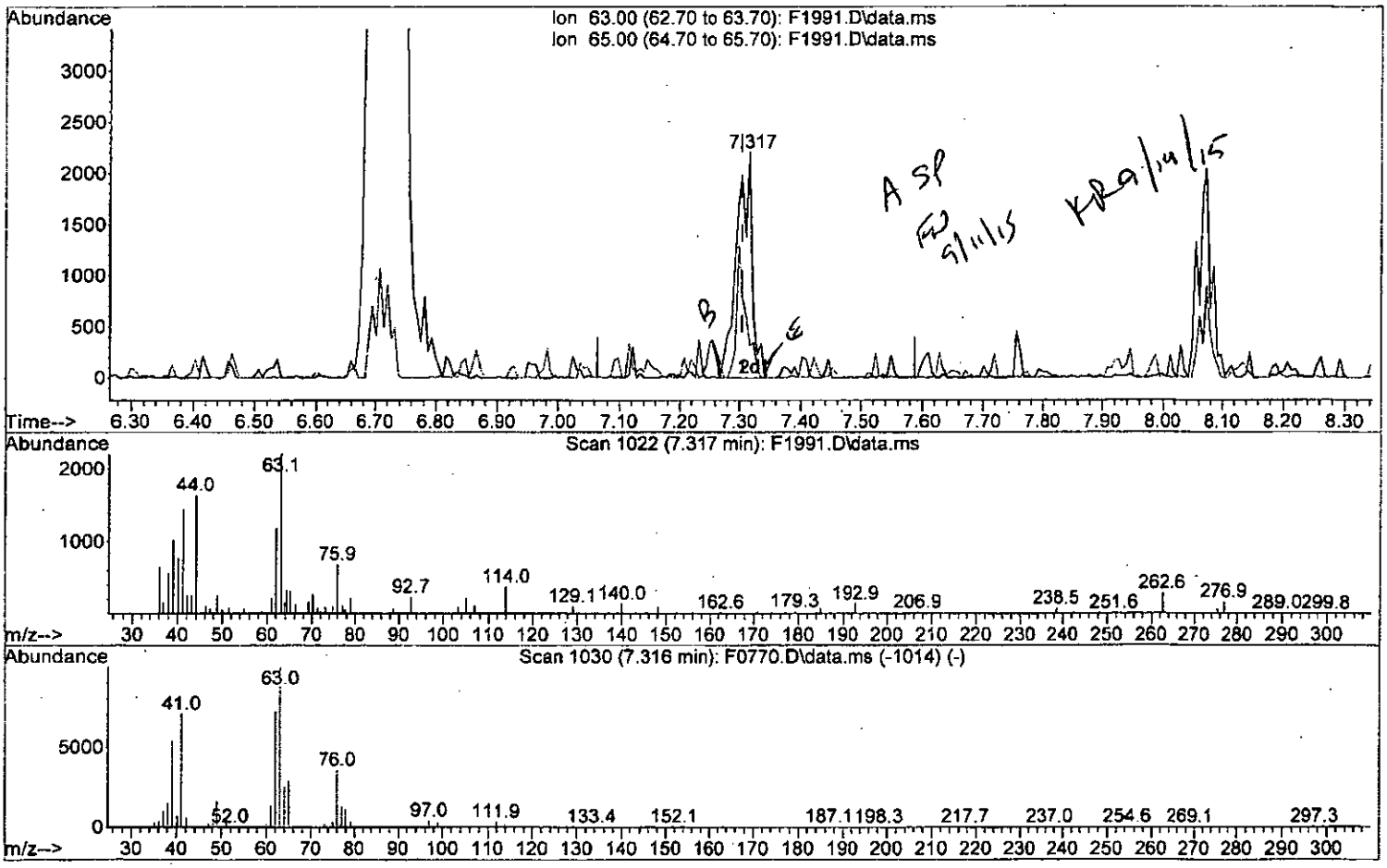
00115

W091015.M Fri Sep 11 08:53:00 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(55) 1,2-Dichlpropane (P)

7.317min (+0.012) 0.48 ug/L m

response 3911

Ion	Exp%	Act%
63.00	100	100
65.00	28.60	14.22
0.00	0.00	0.00
0.00	0.00	0.00

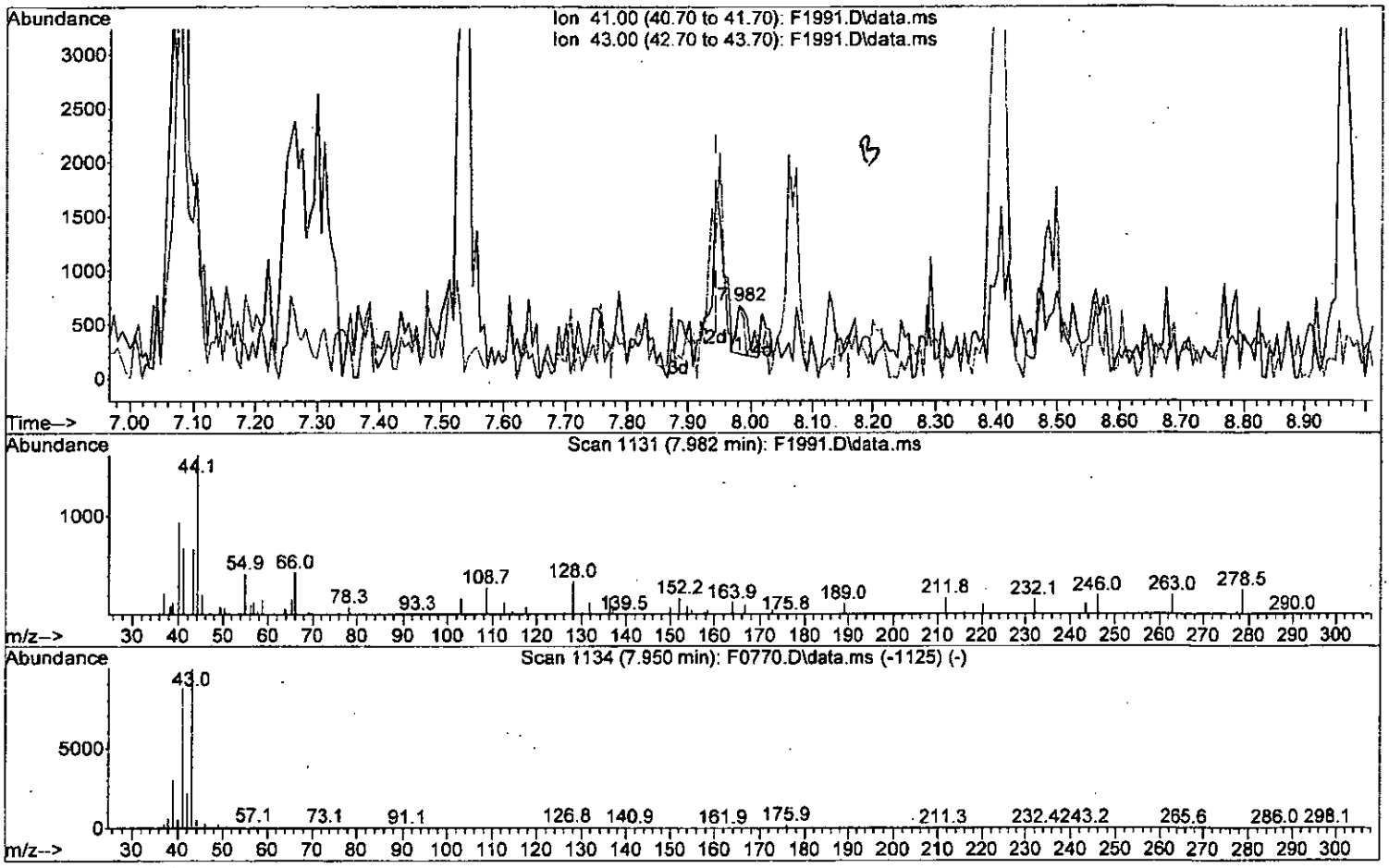
00116

W091015.M Fri Sep 11 08:53:11 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(60) 2-Nitropropane

7.982min (+0.037) 0.18 ug/L

response 623

Ion	Exp%	Act%
41.00	100	100
43.00	113.90	98.52
0.00	0.00	0.00
0.00	0.00	0.00

W091015.M Fri Sep 11 08:53:22 2015 MSVO10

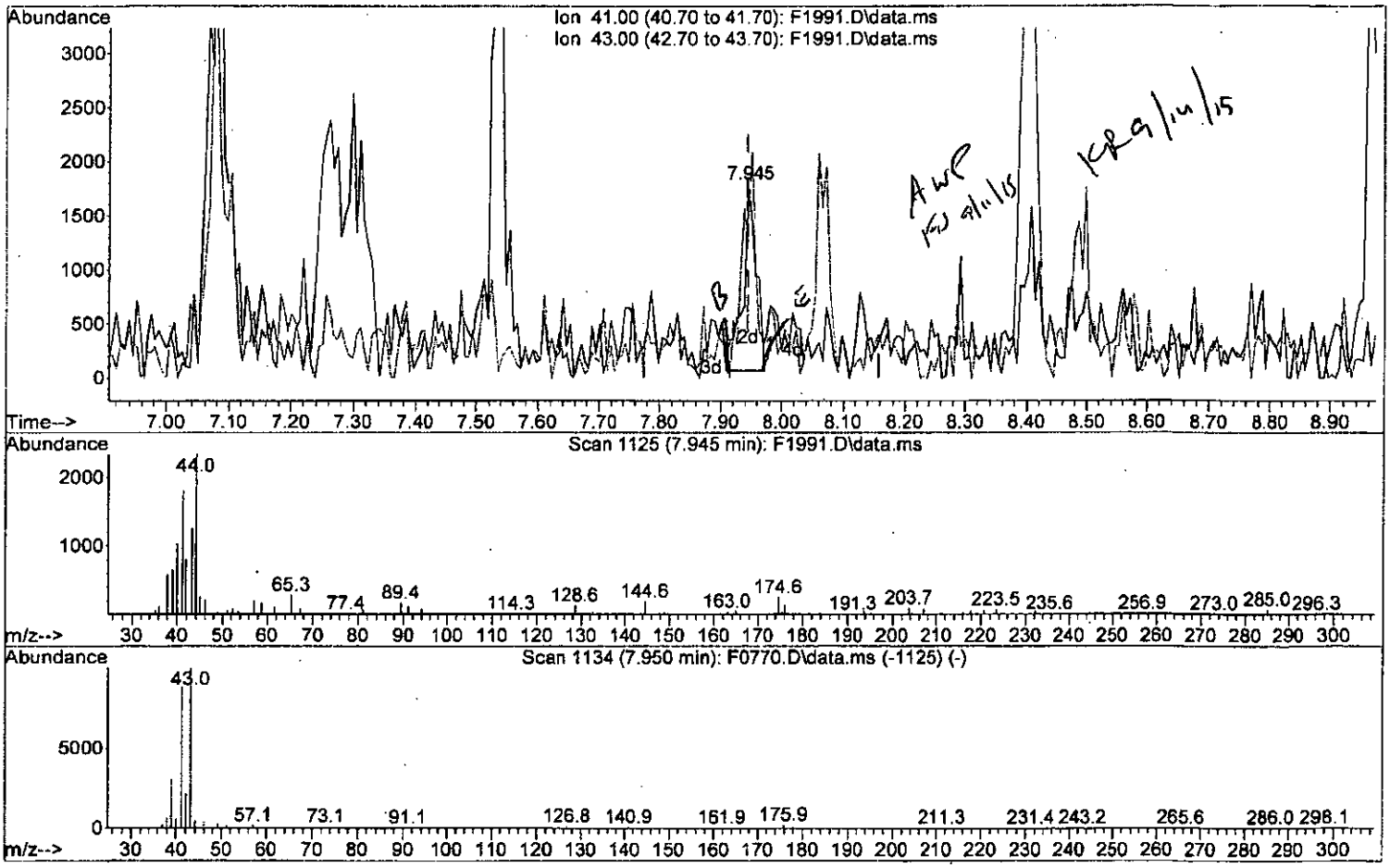
09117

Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(60) 2-Nitropropane

7.945min (+0.000) 0.78 ug/L m

response 2651

Ion	Exp%	Act%
41.00	100	100
43.00	113.90	69.75#
0.00	0.00	0.00
0.00	0.00	0.00

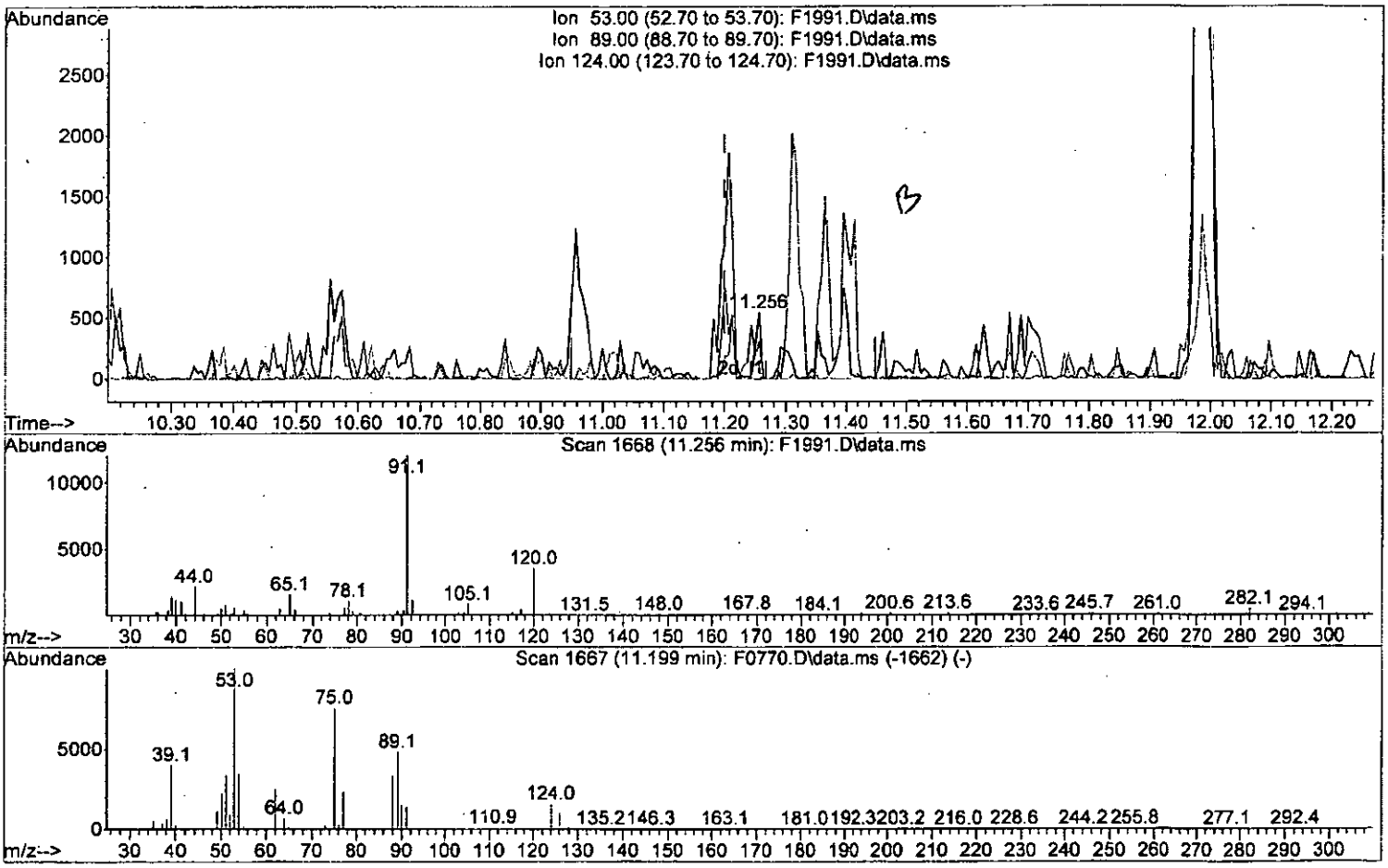
W091015.M Fri Sep 11 08:53:41 2015 MSVO10

00118
Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(89) trans-1,4-Dichloro-2-Butene

11.256min (+0.055) 0.08 ug/L

response 304

Ion	Exp%	Act%
53.00	100	100
89.00	48.00	56.83
124.00	15.80	0.00
0.00	0.00	0.00

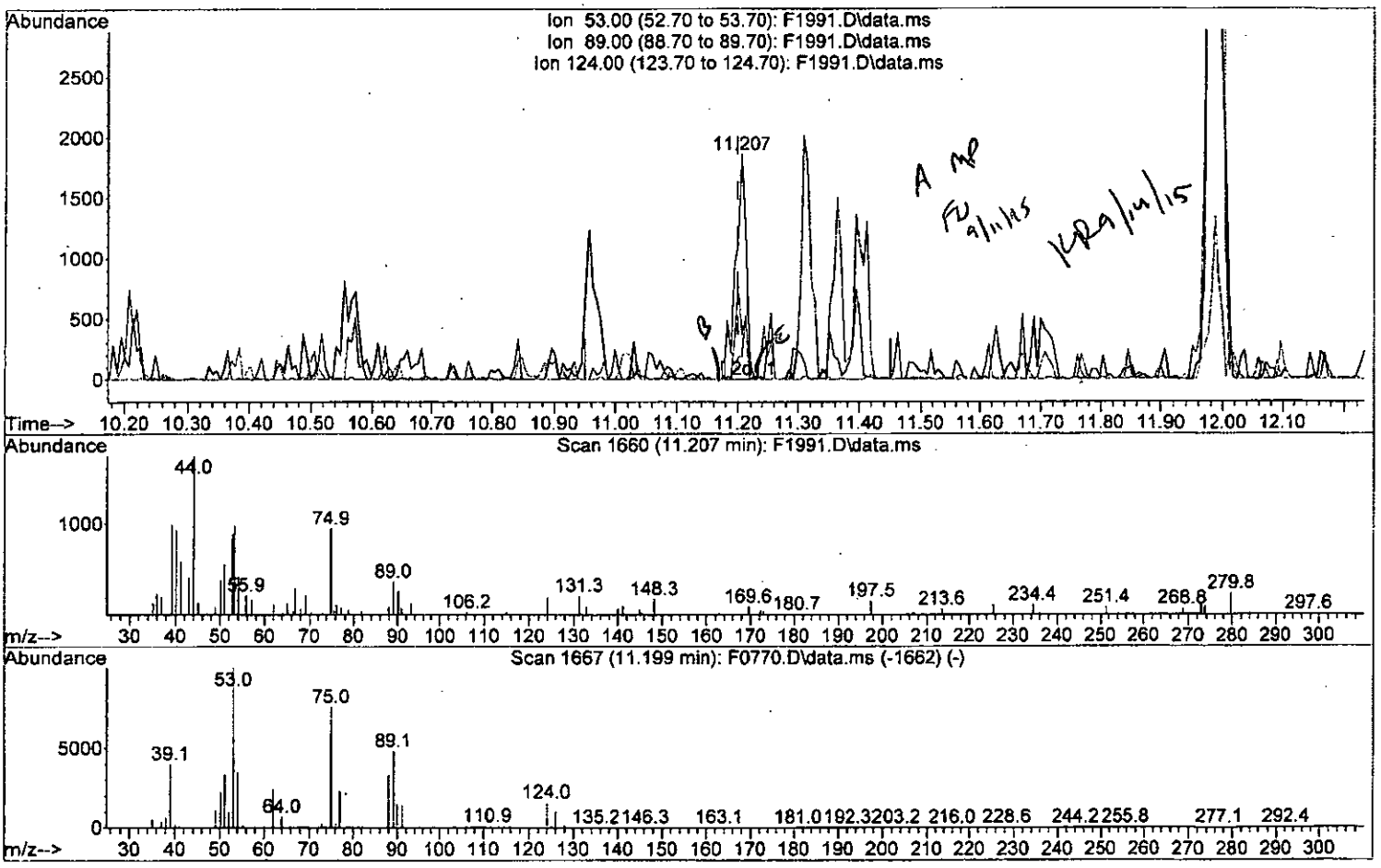
W091015.M Fri Sep 11 08:54:27 2015 MSVO10

00119 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(89) trans-1,4-Dichloro-2-Butene

11.207min (+0.006) 0.61 ug/L m

response 2209

Ion	Exp%	Act%
53.00	100	100
89.00	48.00	37.76
124.00	15.80	19.44
0.00	0.00	0.00

W091015.M Fri Sep 11 08:54:38 2015 MSVO10

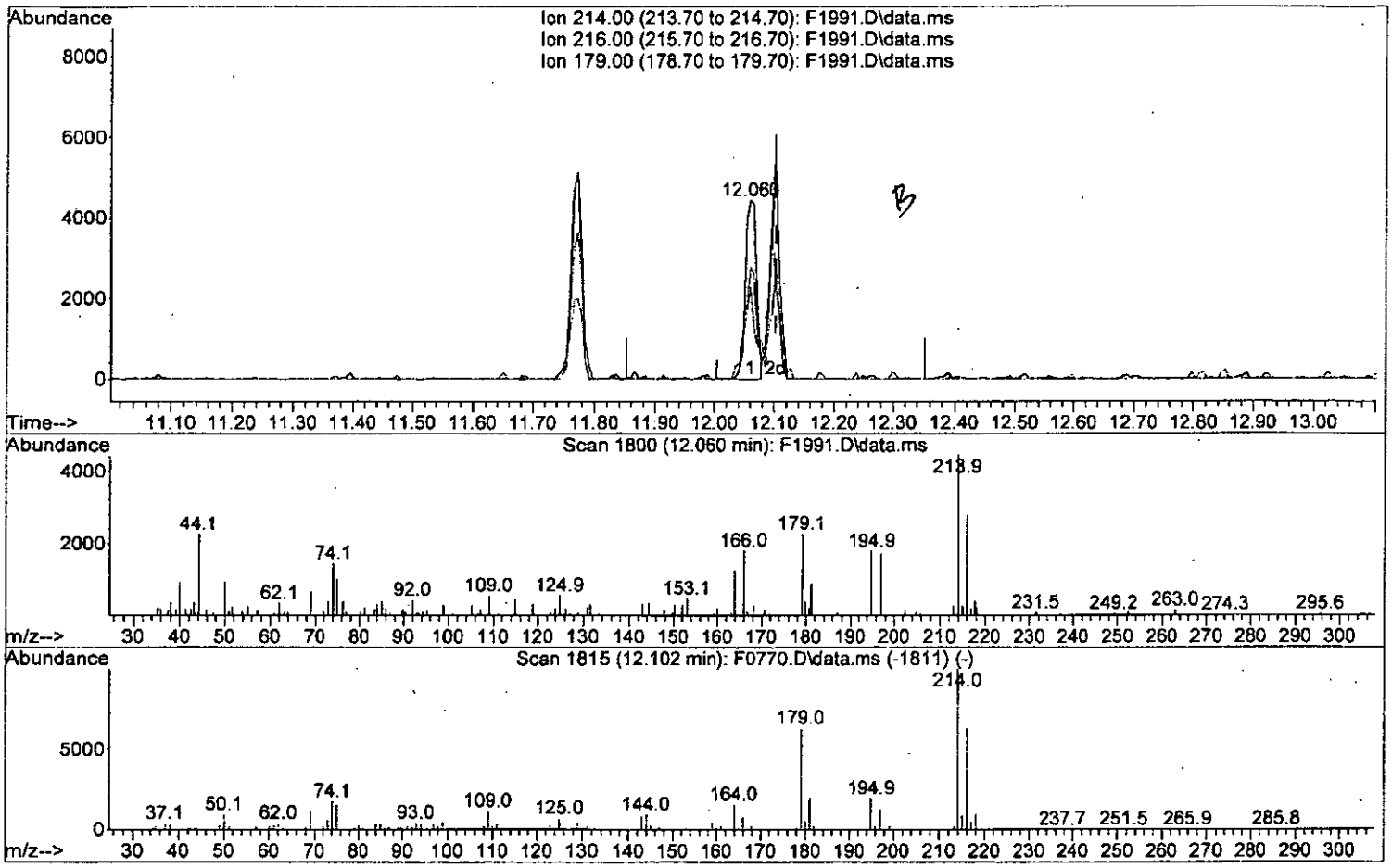
00120

Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(107) 2,5-Dichlorobenzotrifluoride

12.060min (-0.043) 0.66 ug/L

response 5702

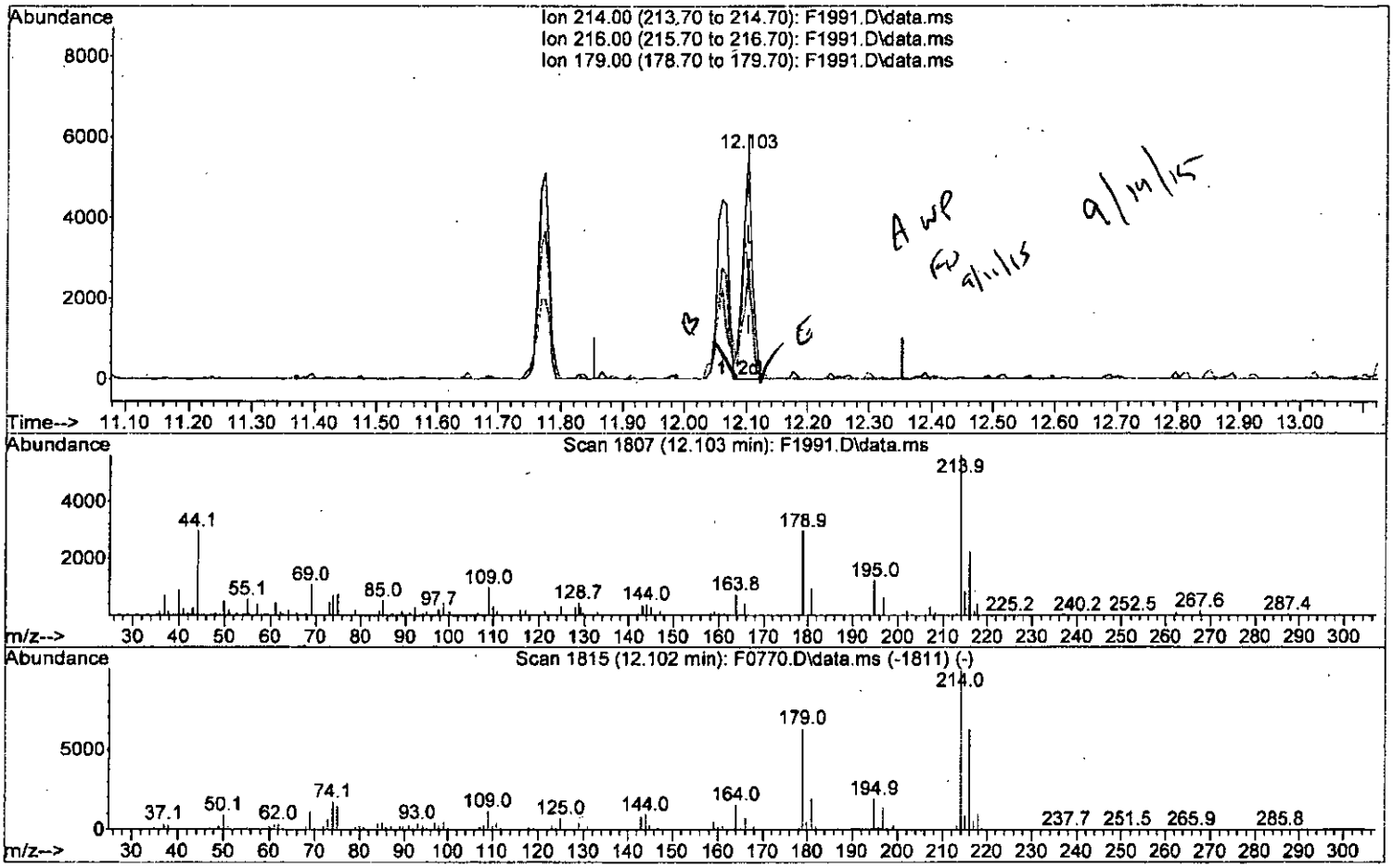
Ion	Exp%	Act%
214.00	100	100
216.00	62.80	62.47
179.00	63.10	51.10
0.00	0.00	0.00

W091015.M Fri Sep 11 08:54:56 2015 MSVO10 00121 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(107) 2,5-Dichlorobenzotrifluoride

12.103min (+0.000) 0.67 ug/L m

response 5772

Ion	Exp%	Act%
214.00	100	100
216.00	62.80	39.83#
179.00	63.10	52.71
0.00	0.00	0.00

W091015.M Fri Sep 11 08:55:06 2015 MSVO10

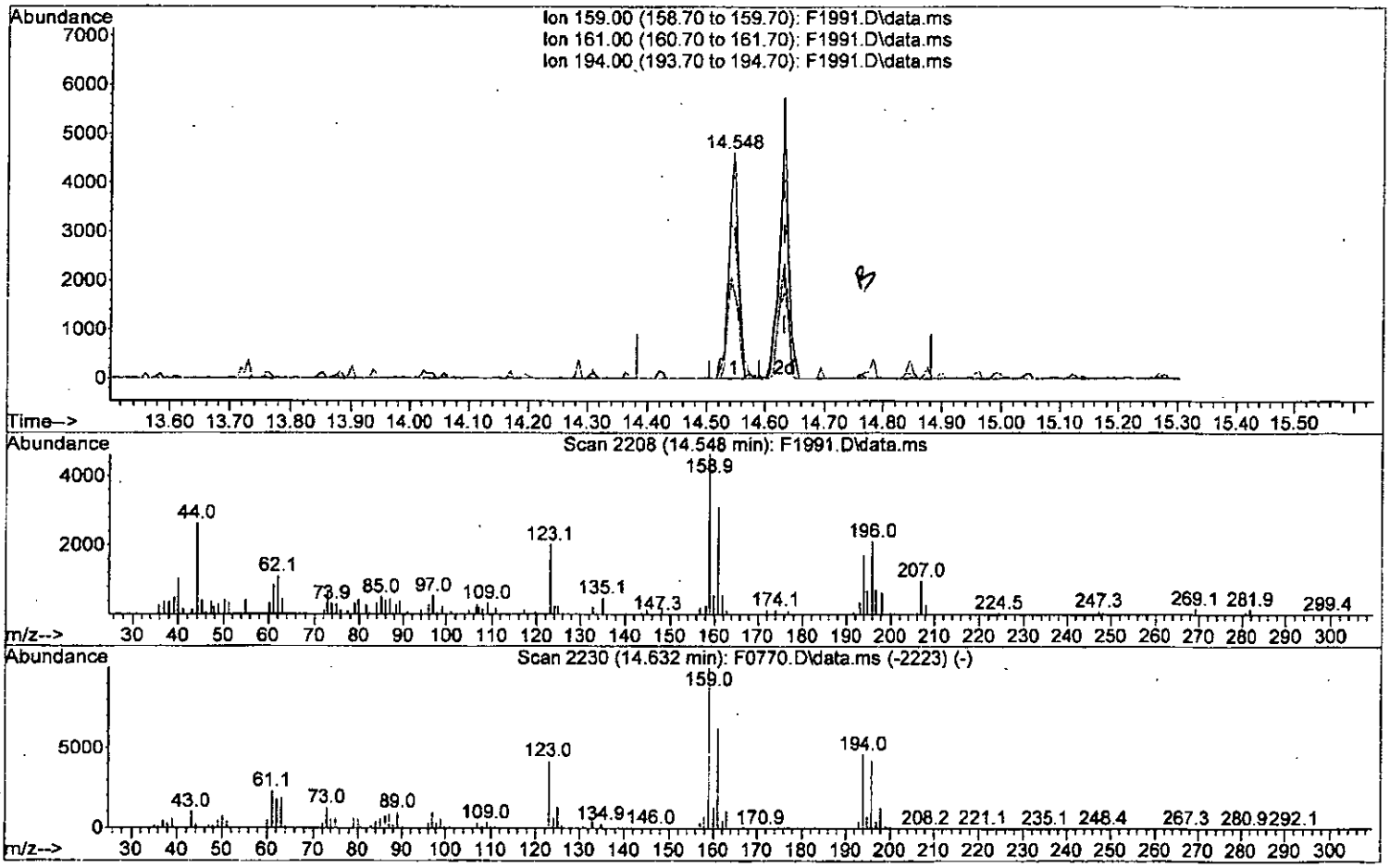
00122

Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(119) 2,3,6-Trichlorotoluene

14.548min (-0.085) 0.62 ug/L

response 5286

Ion	Exp%	Act%
159.00	100	100
161.00	62.00	66.88
194.00	46.40	37.44
0.00	0.00	0.00

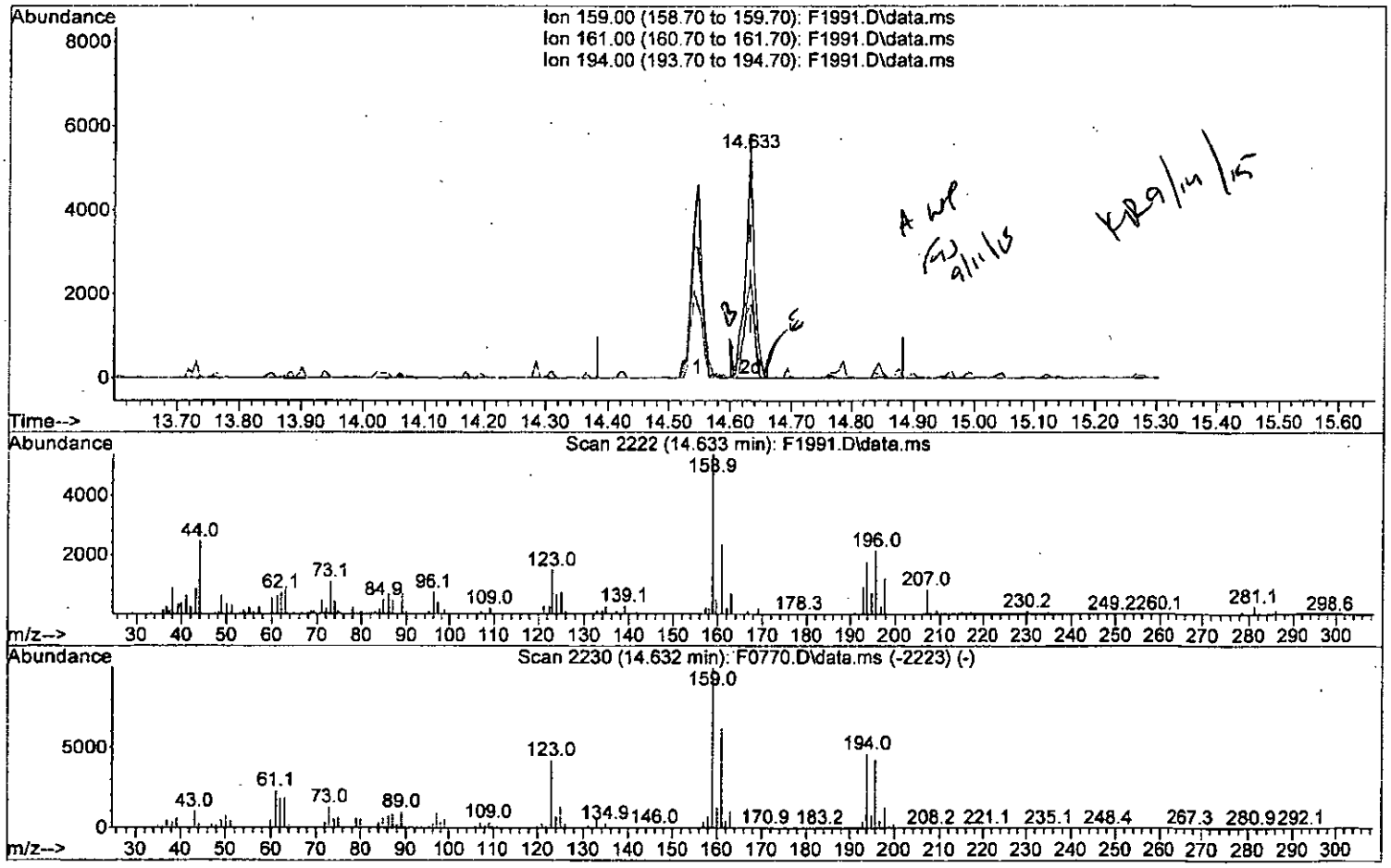
W091015.M Fri Sep 11 08:55:20 2015 MSVO10

00123

Page: 1

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 17:55:41 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1991.D\data.ms

(119) 2,3,6-Trichlorotoluene

14.633min (+0.000) 0.64 ug/L m

response 5415

Ion	Exp%	Act%
159.00	100	100
161.00	62.00	43.27
194.00	46.40	32.53
0.00	0.00	0.00

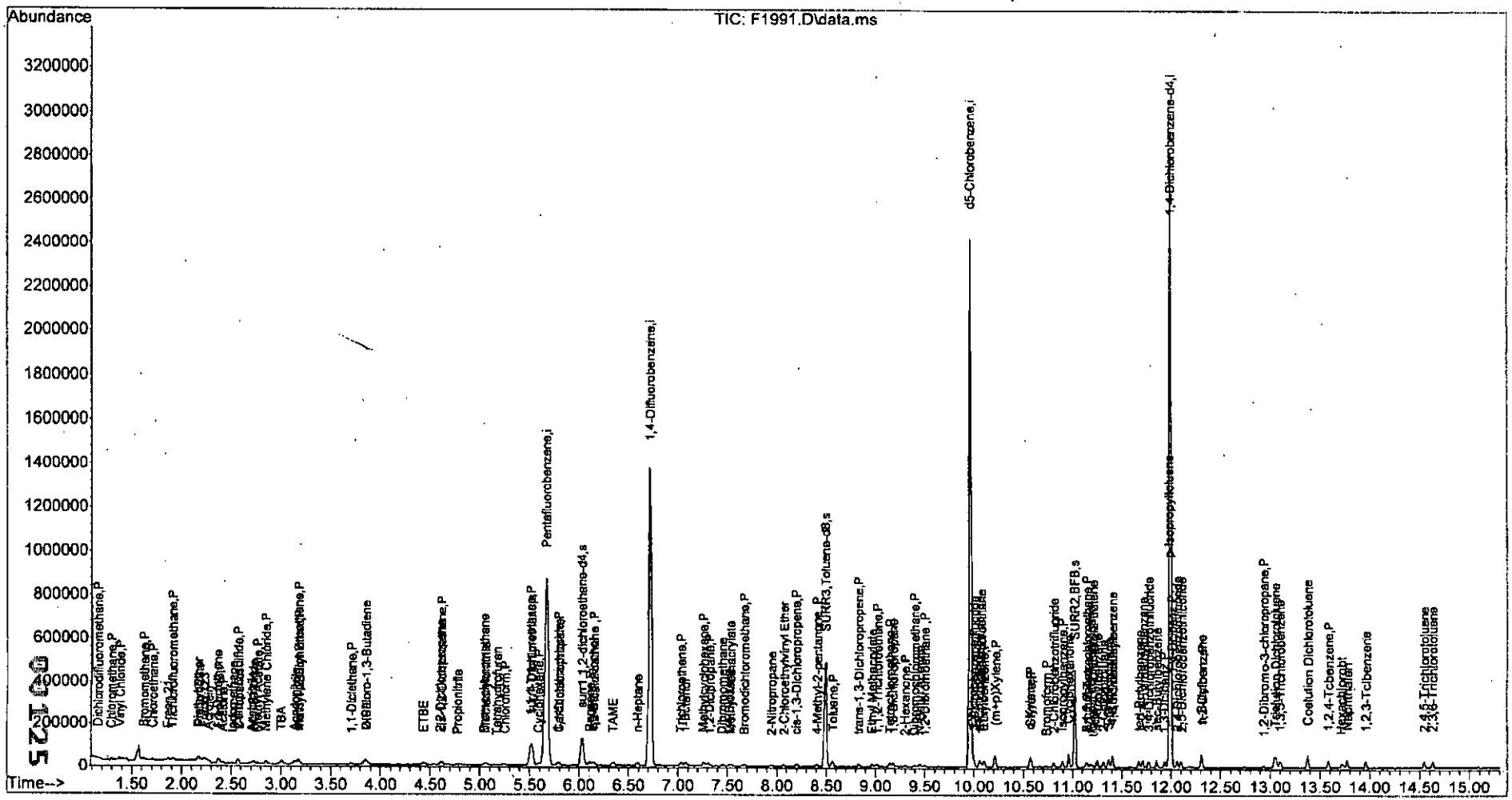
W091015.M Fri Sep 11 08:55:31 2015 MSVO10

00124

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1991.D
Acq On : 10 Sep 2015 5:41 pm
Operator : F. Naegler
Sample : 0.5 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 08:55:26 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



W091015.M Fri Sep 11 10:50:19 2015 MSVO10 Page: 4

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1992.D
Acq On : 10 Sep 2015 6:05 pm
Operator : F. Naegler
Sample : 1.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 09:02:22 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

FW 9/11/15

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.671	168	736249	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.720	114	1054557	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.957	117	914502	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.987	152	479625	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.519	113	71482	10.40	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 20.80%#				
46) surr1,1,2-dichloroetha...	6.031	65	100123	10.72	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 21.44%#				
64) SURR3,Toluene-d8	8.488	98	266106	10.85	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 21.70%#				
69) SURR2,BFB	11.018	95	104622	10.11	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 20.22%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.160	85	6086	0.97	ug/L		96
3) Chloromethane	1.294	50	10100	1.22	ug/L		85
4) Vinyl Chloride	1.380	62	7349	1.01	ug/L		94
5) Bromomethane	1.617	94	5352	1.30	ug/L		91
6) Chloroethane	1.703	64	4701	1.15	ug/L		100
7) Freon 21	1.867	67	13830	1.15	ug/L		94
8) Trichlorofluoromethane	1.916	101	11033	1.22	ug/L		98
9) Diethyl Ether	2.166	59	7279	1.01	ug/L	#	79
10) Freon 123a	2.172	67	9331m	1.19	ug/L		
11) Freon 123	2.239	83	9419	1.09	ug/L		92
12) Acrolein	2.270	56	12742m	5.34	ug/L		
13) 1,1-Diclethene	2.373	96	6686	1.12	ug/L	#	62
14) Freon 113	2.373	101	6409	0.99	ug/L		84
15) Acetone	2.416	43	10232	1.67	ug/L		82
16) 2-Propanol	2.568	45	25381	18.33	ug/L		92
17) Iodomethane	2.501	142	3358	0.51	ug/L		75
18) Carbon Disulfide	2.568	76	17750	1.02	ug/L		82
19) Acetonitrile	2.684	40	6031	5.36	ug/L	#	58
20) Allyl Chloride	2.727	76	4594	1.31	ug/L	#	73
21) Methyl Acetate	2.757	43	9618	0.85	ug/L		80
22) Methylene Chloride	2.855	84	7938	1.09	ug/L	#	62
23) TBA	3.007	59	34790	18.16	ug/L		83
24) Acrylonitrile	3.129	53	24512	4.77	ug/L		97
25) Methyl-t-Butyl Ether	3.184	73	23835	0.95	ug/L		86
26) trans-1,2-Dichloroethene	3.166	96	7613	1.19	ug/L	#	70
27) 1,1-Diclethane	3.702	63	14938	1.16	ug/L		99
28) Vinyl Acetate	3.812	86	1087m	0.81	ug/L		
29) DIPE	3.855	45	34469	1.11	ug/L		92
30) 2-Chloro-1,3-Butadiene	3.836	53	14650	1.04	ug/L		99
31) ETBE	4.434	59	27607	1.04	ug/L		79
32) 2,2-Dichloropropane	4.623	77	11094m	1.11	ug/L		
33) cis-1,2-Dichloroethene	4.623	96	7807m	1.06	ug/L		
34) 2-Butanone	4.696	43	7575	0.91	ug/L		84
35) Propionitrile	4.794	54	10531	5.04	ug/L		90

W091015.M Fri Sep 11 10:50:32 2015 MSVO10

00126

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1992.D
Acq On : 10 Sep 2015 6:05 pm
Operator : F. Naegler
Sample : 1.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 09:02:22 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
36) Bromochloromethane	5.050	130	4871	1.03 ug/L #	82
37) Methacrylonitrile	5.068	67	4752	1.02 ug/L #	68
38) Tetrahydrofuran	5.159	42	6243	1.23 ug/L	82
39) Chloroform	5.245	83	12152	0.97 ug/L	89
40) 1,1,1-Trichloroethane	5.519	97	10550	0.99 ug/L	89
42) Cyclohexane	5.598	41	14700	1.64 ug/L	100
44) Carbontetrachloride	5.781	121	2299	0.89 ug/L	78
45) 1,1-Dichloropropene	5.793	75	10517	1.16 ug/L	82
47) Benzene	6.110	78	28122	1.07 ug/L	88
48) 1,2-Dichloroethane	6.153	62	12386	1.02 ug/L	99
49) Iso-Butyl Alcohol	6.159	43	17009	17.84 ug/L	99
50) TAME	6.342	73	23518	1.06 ug/L	89
51) n-Heptane	6.592	43	14991	1.25 ug/L	82
52) 1-Butanol	7.074	56	19164	37.35 ug/L	86
53) Trichloroethene	7.031	130	9409	1.15 ug/L	91
54) Methylcyclohexane	7.263	55	12981	1.26 ug/L #	79
55) 1,2-Diclpropane	7.311	63	8673	1.09 ug/L	90
56) Dibromomethane	7.439	93	5182	1.02 ug/L	84
57) 1,4-Dioxane	7.519	88	2649	14.39 ug/L	93
58) Methyl Methacrylate	7.531	69	6090	0.89 ug/L	93
59) Bromodichloromethane	7.677	83	9493	0.97 ug/L	90
60) 2-Nitropropane	7.951	41	5802m	1.75 ug/L	
61) 2-Chloroethylvinyl Ether	8.067	63	5904	0.98 ug/L	65
62) cis-1,3-Dichloropropene	8.201	75	10595	0.95 ug/L	89
63) 4-Methyl-2-pentanone	8.403	43	14013	0.97 ug/L	97
65) Toluene	8.561	91	31788	1.13 ug/L	86
66) trans-1,3-Dichloropropene	8.829	75	9654	0.90 ug/L	81
67) Ethyl Methacrylate	8.970	69	11030	0.94 ug/L	98
68) 1,1,2-Trichloroethane	9.012	97	7097	1.02 ug/L	89
71) Tetrachloroethene	9.146	164	7220	1.29 ug/L #	68
72) 2-Hexanone	9.299	43	10076	0.92 ug/L	87
73) 1,3-Dichloropropane	9.177	76	12851	1.08 ug/L	97
74) Dibromochloromethane	9.408	129	5862	0.81 ug/L	96
75) N-Butyl Acetate	9.451	43	18454	0.98 ug/L	87
76) 1,2-Dibromoethane	9.500	107	7762	1.04 ug/L #	79
77) 3-Chlorobenzotrifluoride	10.000	180	12795	1.17 ug/L #	94
78) Chlorobenzene	9.982	112	21047	1.14 ug/L	97
79) 4-Chlorobenzotrifluoride	10.055	180	10165	1.06 ug/L	83
80) 1,1,1,2-Tetrachloroethane	10.067	131	5216	0.78 ug/L	92
81) Ethylbenzene	10.103	106	10200	1.06 ug/L #	80
82) (m+p)Xylene	10.213	106	23116	2.00 ug/L	92
83) o-Xylene	10.567	106	13800	1.19 ug/L #	81
84) Styrene	10.579	104	20498	1.03 ug/L	91
85) Bromoform	10.725	173	4300	0.80 ug/L	98
86) 2-Chlorobenzotrifluoride	10.805	180	12519	1.19 ug/L #	78
87) Isopropylbenzene	10.896	105	31689	1.10 ug/L	97
88) Cyclohexanone	10.957	55	40833	19.20 ug/L	98
89) trans-1,4-Dichloro-2-B...	11.195	53	2709	0.77 ug/L	93
91) 1,1,2,2-Tetrachloroethane	11.152	83	6473	0.80 ug/L	95
92) Bromobenzene	11.140	156	8635	1.07 ug/L	97
93) 1,2,3-Trichloropropane	11.183	110	3535	1.11 ug/L #	87

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1992.D
Acq On : 10 Sep 2015 6:05 pm
Operator : F. Naegler
Sample : 1.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 09:02:22 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

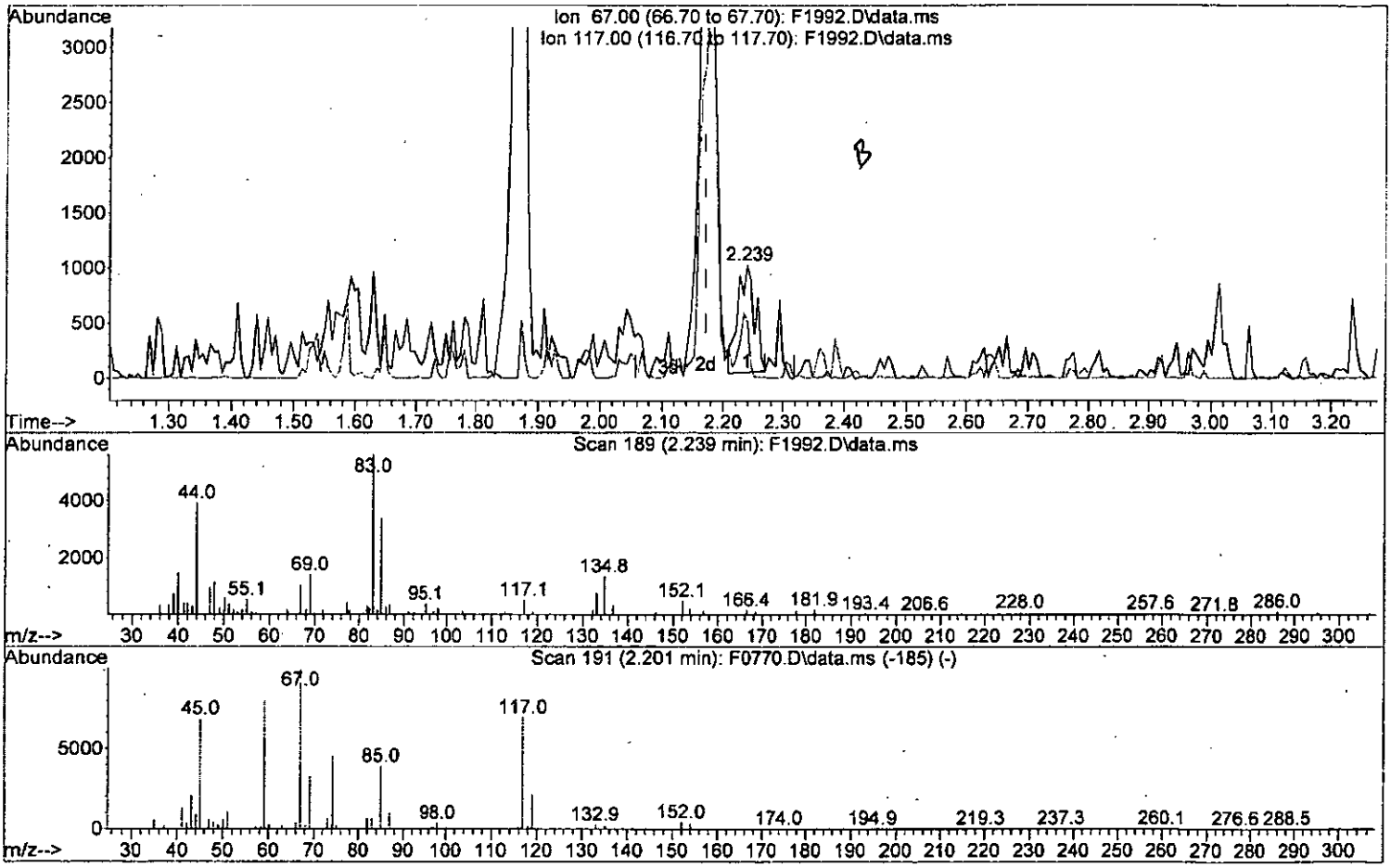
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
94)	n-Propylbenzene	11.250	91	39596	1.22	ug/L		93
95)	2-Chlorotoluene	11.311	91	21603	1.04	ug/L		90
96)	3-Chlorotoluene	11.365	91	24439	1.14	ug/L		99
97)	4-Chlorotoluene	11.408	91	29528	1.22	ug/L		91
98)	1,3,5-Trimethylbenzene	11.402	105	25805	1.15	ug/L		89
99)	tert-Butylbenzene	11.670	119	22911	1.13	ug/L		97
100)	1,2,4-Trimethylbenzene	11.713	105	29389	1.26	ug/L		99
101)	3,4-Dichlorobenzotrifl...	11.774	214	9666	1.14	ug/L		97
102)	sec-Butylbenzene	11.853	105	32892	1.15	ug/L		95
103)	p-Isopropyltoluene	11.969	119	28917	1.21	ug/L		90
104)	1,3-Dclbenz	11.938	146	16214	1.09	ug/L		91
105)	1,4-Dclbenz	12.006	146	19114	1.22	ug/L		99
106)	2,4-Dichlorobenzotrifl...	12.060	214	7996	1.04	ug/L		87
107)	2,5-Dichlorobenzotrifl...	12.060	214	7996	0.95	ug/L		92
108)	n-Butylbenzene	12.304	91	26527	1.09	ug/L		82
109)	1,2-Dclbenz	12.310	146	16188	1.08	ug/L		90
110)	1,2-Dibromo-3-chloropr...	12.926	157	2489	1.03	ug/L	#	78
111)	Trielution Dichlorotol...	13.048	125	46634	3.50	ug/L		87
112)	1,3,5-Trichlorobenzene	13.097	180	14085	1.19	ug/L	#	73
113)	Coelution Dichlorotoluene	13.377	125	33741	2.31	ug/L		98
114)	1,2,4-Tcbenzene	13.585	180	13944	1.18	ug/L		91
115)	Hexachlorobt	13.719	225	4721	0.98	ug/L		90
116)	Naphthalen	13.774	128	35529	1.05	ug/L		100
117)	1,2,3-Tclbenzene	13.962	180	13551	1.14	ug/L		84
118)	2,4,5-Trichlorotoluene	14.548	159	10240	1.09	ug/L		93
119)	2,3,6-Trichlorotoluene	14.633	159	8367	1.01	ug/L		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1992.D
Acq On : 10 Sep 2015 6:05 pm
Operator : F. Naegler
Sample : 1.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 10 18:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1992.D\data.ms

(10) Freon 123a

2.239min (+0.067) 0.24 ug/L

response 1909

Ion	Exp%	Act%
67.00	100	100
117.00	69.30	50.05
0.00	0.00	0.00
0.00	0.00	0.00

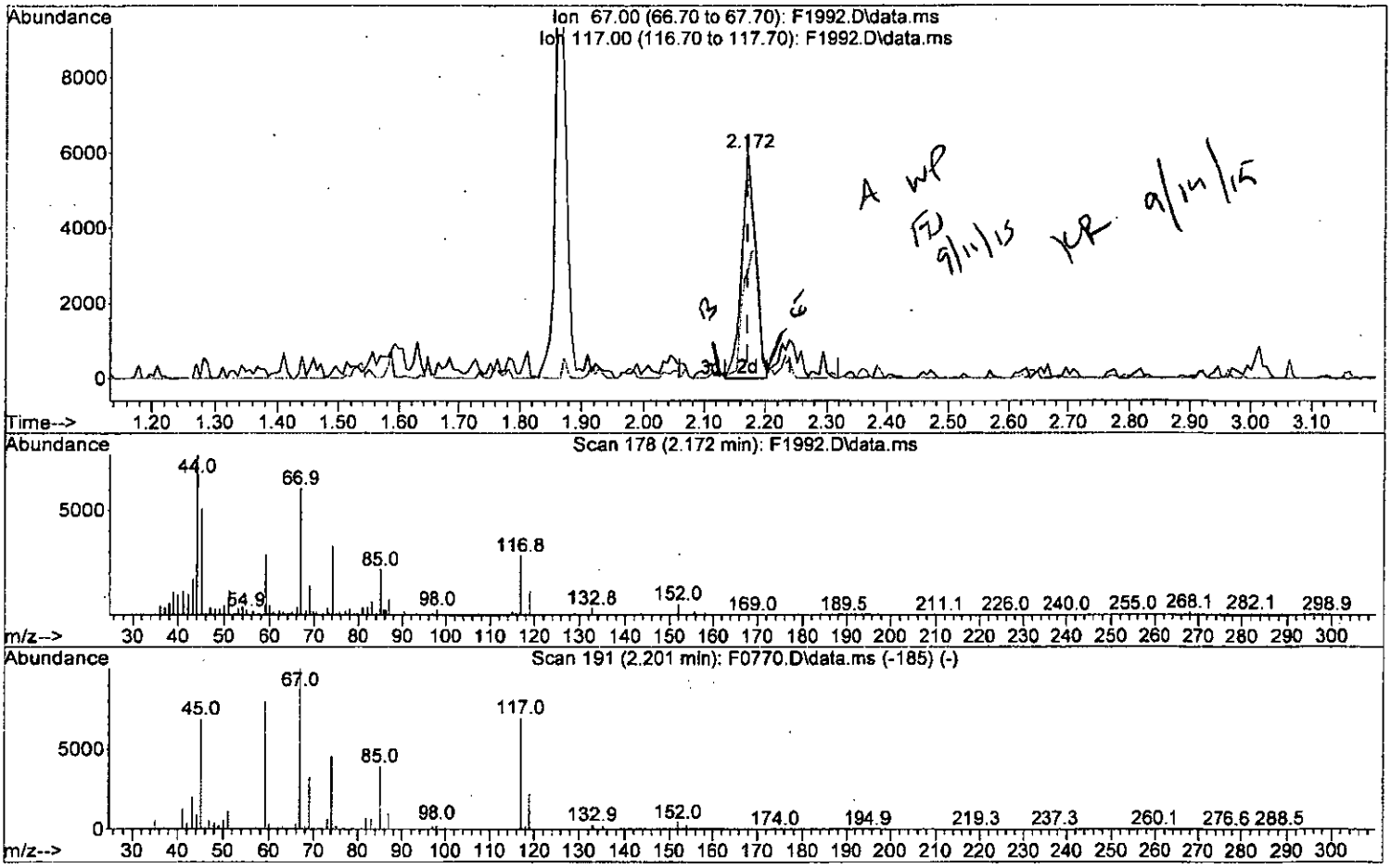
W091015.M Fri Sep 11 08:56:15 2015 MSVO10

00129
Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1992.D
Acq On : 10 Sep 2015 6:05 pm
Operator : F. Naegler
Sample : 1.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 10 18:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1992.D\data.ms

(10) Freon 123a

2.172min (+0.000) 1.19 ug/L m

response 9331

Ion	Exp%	Act%
67.00	100	100
117.00	69.30	46.66#
0.00	0.00	0.00
0.00	0.00	0.00

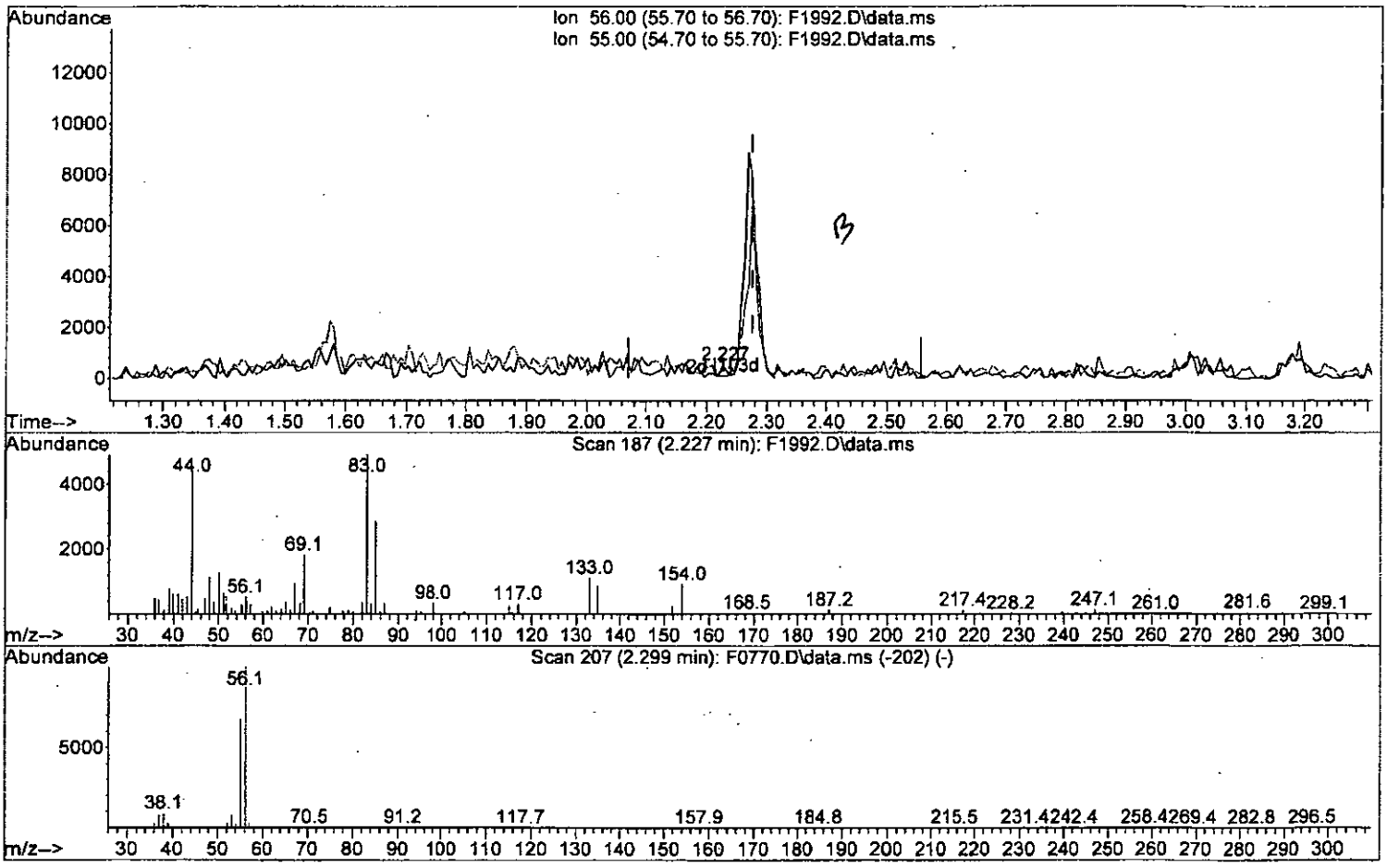
00130

W091015.M Fri Sep 11 08:56:30 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1992.D
Acq On : 10 Sep 2015 6:05 pm
Operator : F. Naegler
Sample : 1.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 10 18:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1992.D\data.ms

(12) Acrolein

2.227min (-0.049) 0.10 ug/L

response 236

Ion	Exp%	Act%
56.00	100	100
55.00	67.90	56.19
0.00	0.00	0.00
0.00	0.00	0.00

W091015.M Fri Sep 11 08:59:05 2015 MSVO10

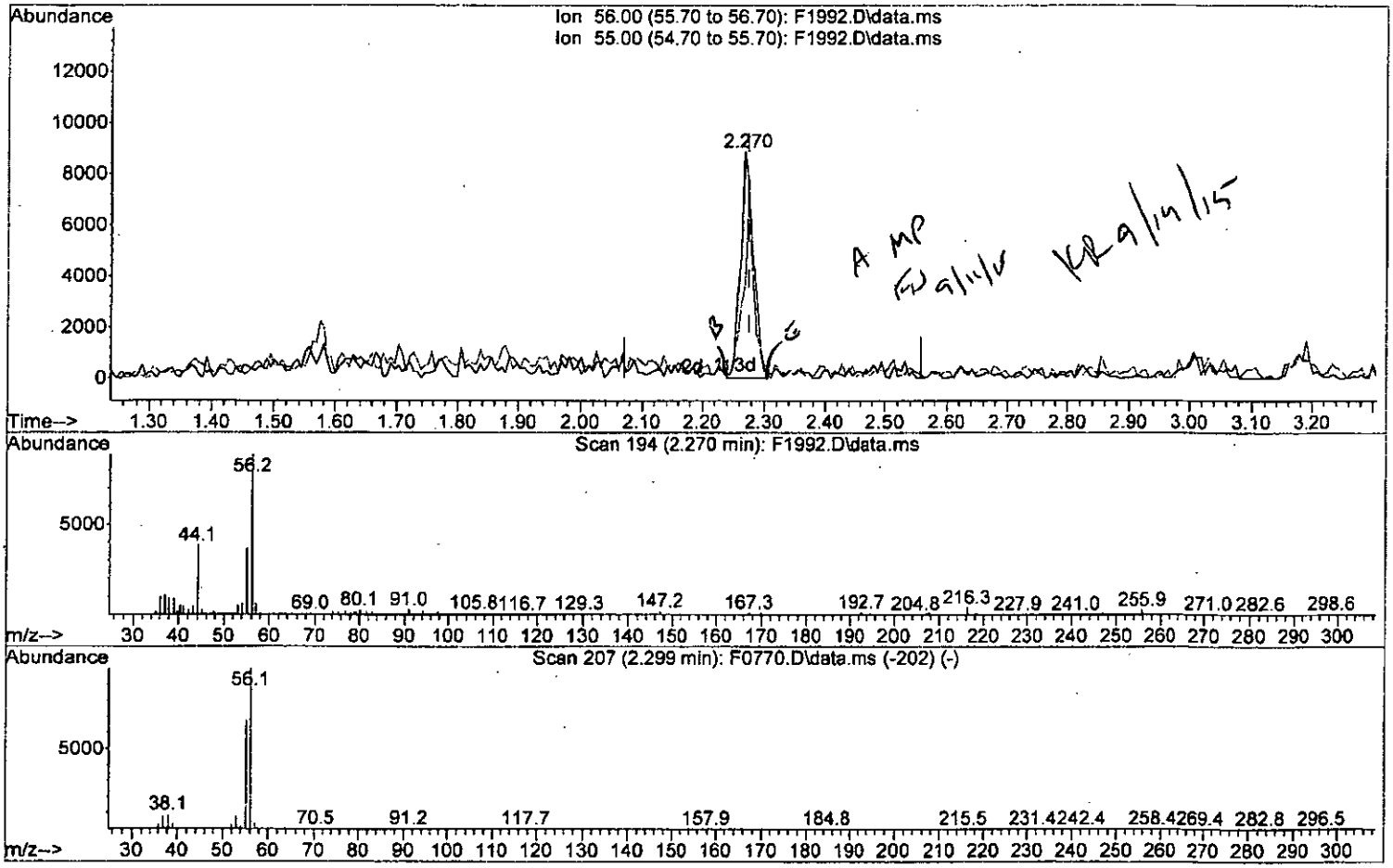
00131

Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1992.D
Acq On : 10 Sep 2015 6:05 pm
Operator : F. Naegler
Sample : 1.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 10 18:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1992.D\data.ms

(12) Acrolein

2.270min (-0.006) 5.34 ug/L m

response 12742

Ion	Exp%	Act%
56.00	100	100
55.00	67.90	41.18#
0.00	0.00	0.00
0.00	0.00	0.00

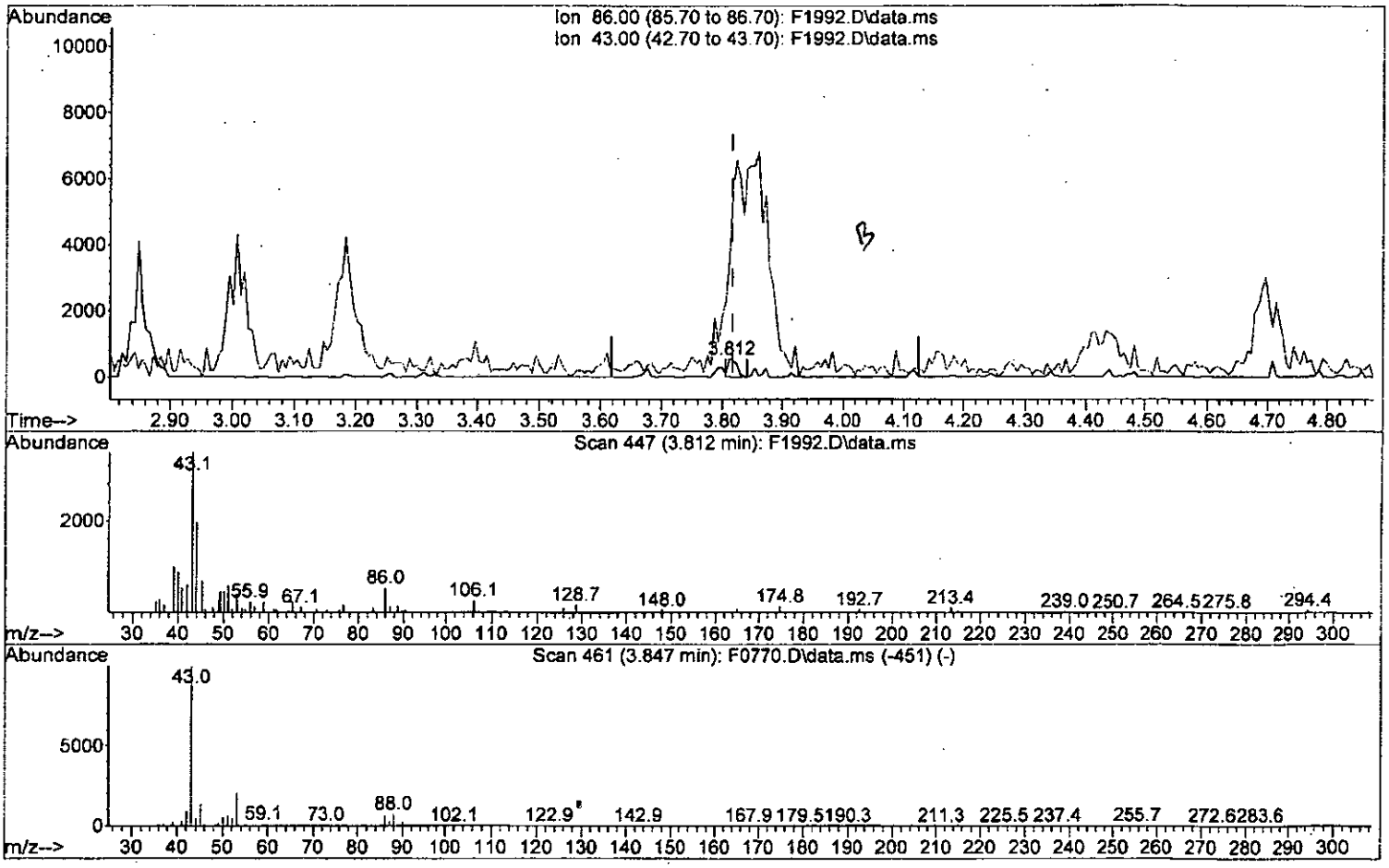
W091015.M Fri Sep 11 08:59:32 2015 MSVO10

00132

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1992.D
Acq On : 10 Sep 2015 6:05 pm
Operator : F. Naegler
Sample : 1.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 10 18:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1992.D\data.ms

(28) Vinyl Acetate

3.812min (-0.006) 0.42 ug/L

response 558

Ion	Exp%	Act%
86.00	100	100
43.00	1655.60	644.24#
0.00	0.00	0.00
0.00	0.00	0.00

W091015.M Fri Sep 11 09:00:07 2015 MSVO10

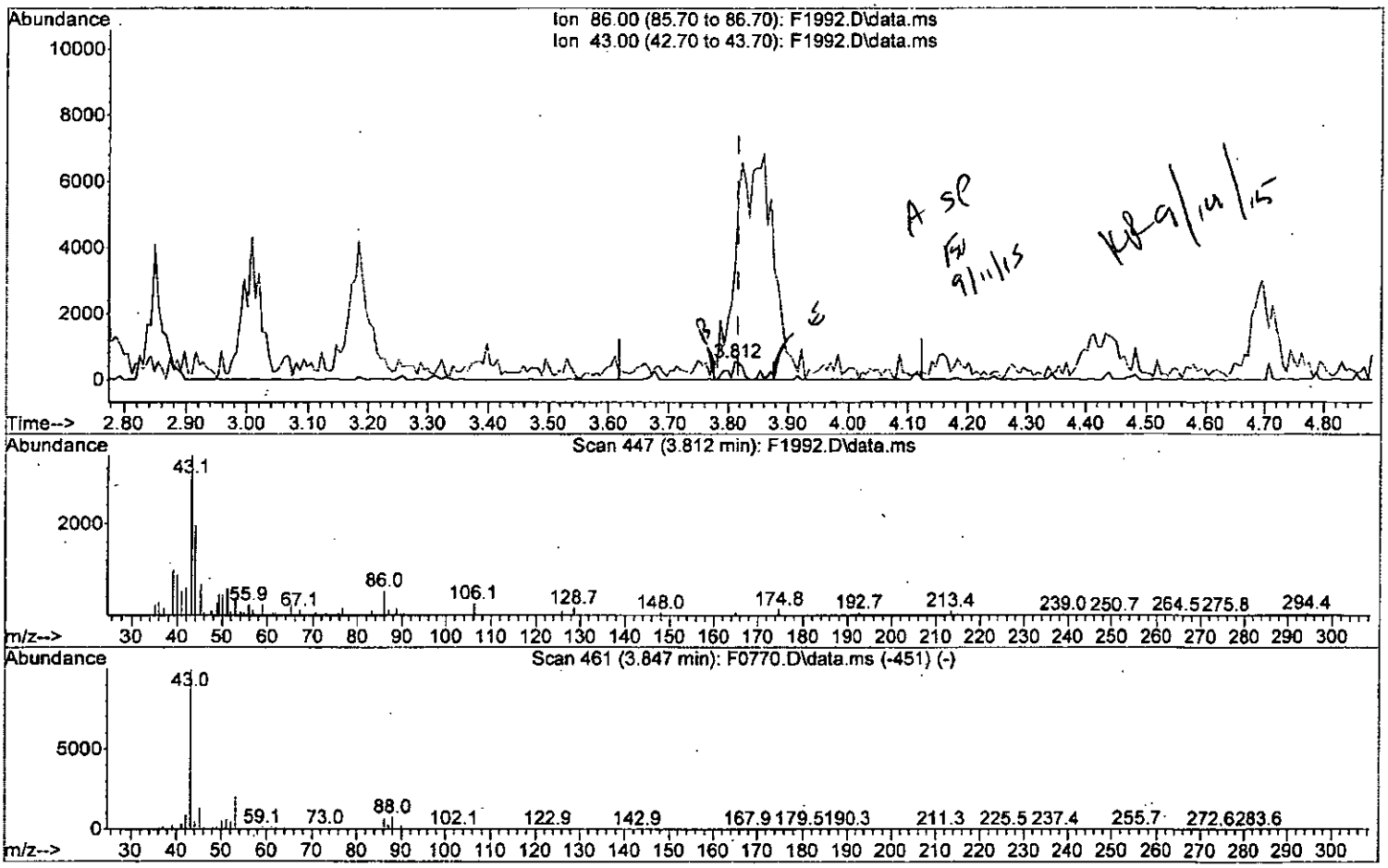
00133

Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1992.D
Acq On : 10 Sep 2015 6:05 pm
Operator : F. Naegler
Sample : 1.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 10 18:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1992.D\data.ms

(28) Vinyl Acetate

3.812min (-0.006) 0.81 ug/L m

response 1087

Ion	Exp%	Act%
86.00	100	100
43.00	1655.60	644.24#
0.00	0.00	0.00
0.00	0.00	0.00

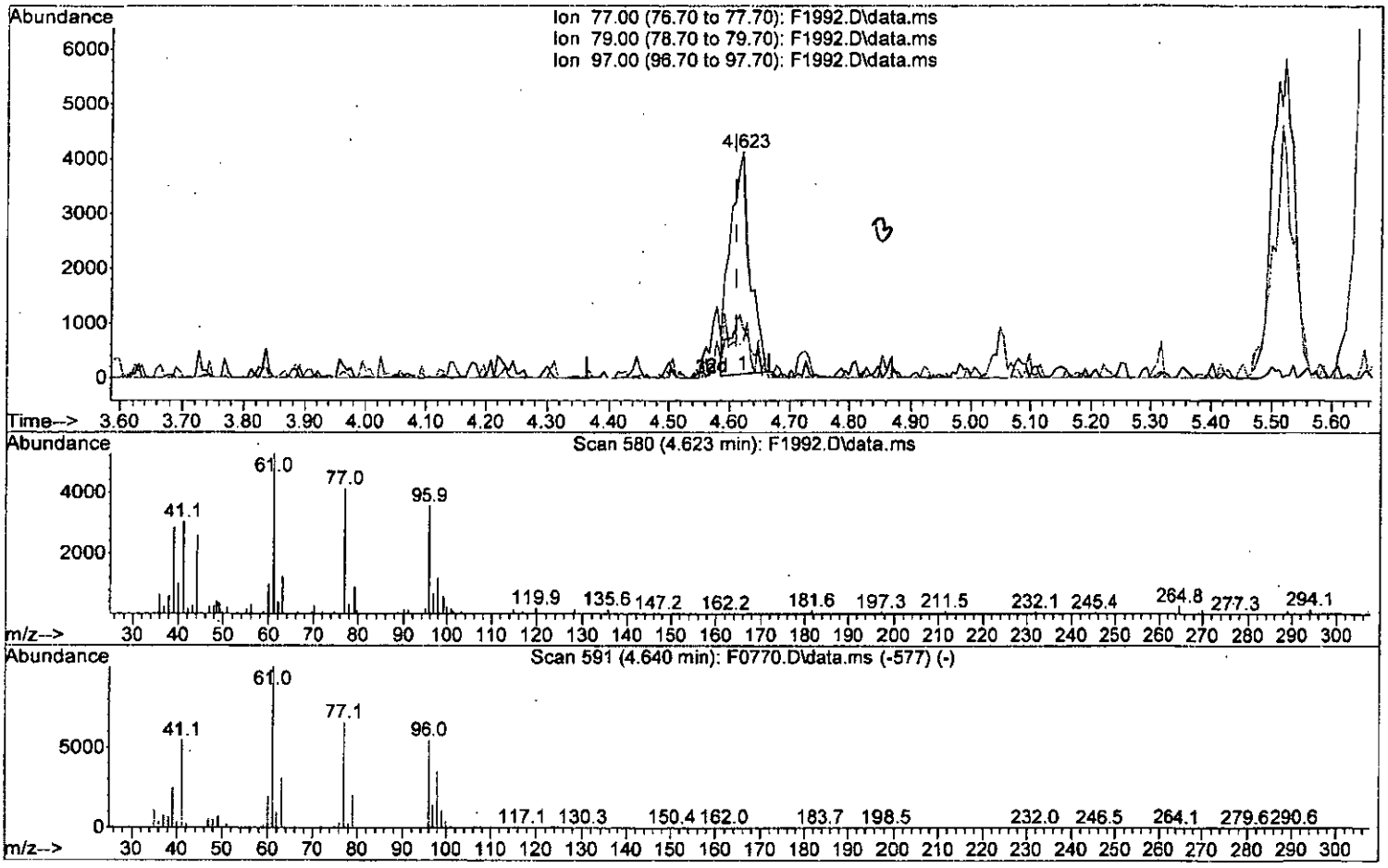
W091015.M Fri Sep 11 09:00:34 2015 MSVO10

00134

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1992.D
Acq On : 10 Sep 2015 6:05 pm
Operator : F. Naegler
Sample : 1.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 10 18:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1992.D\data.ms

(32) 2,2-Dichloropropane

4.623min (+0.012) 0.91 ug/L

response 9085

Ion	Exp%	Act%
77.00	100	100
79.00	30.40	24.37
97.00	22.40	15.97
0.00	0.00	0.00

W091015.M Fri Sep 11 09:01:03 2015 MSVO10

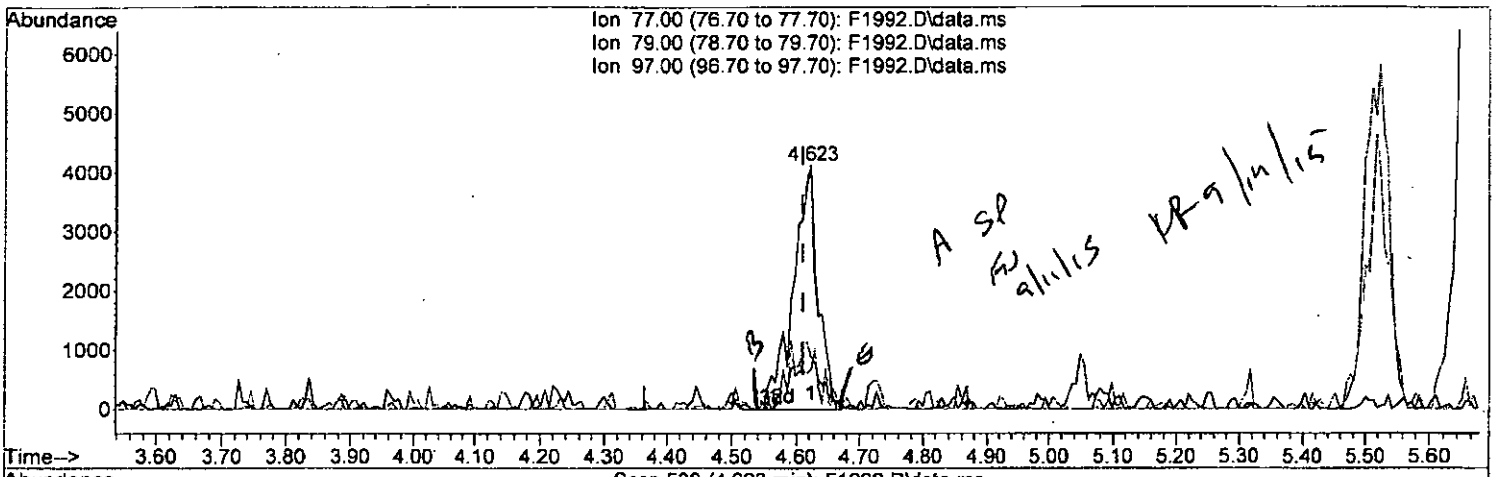
00135

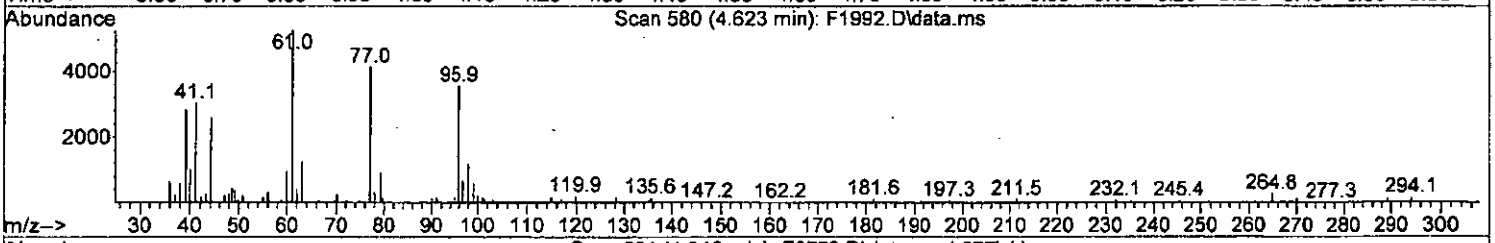
Page: 1

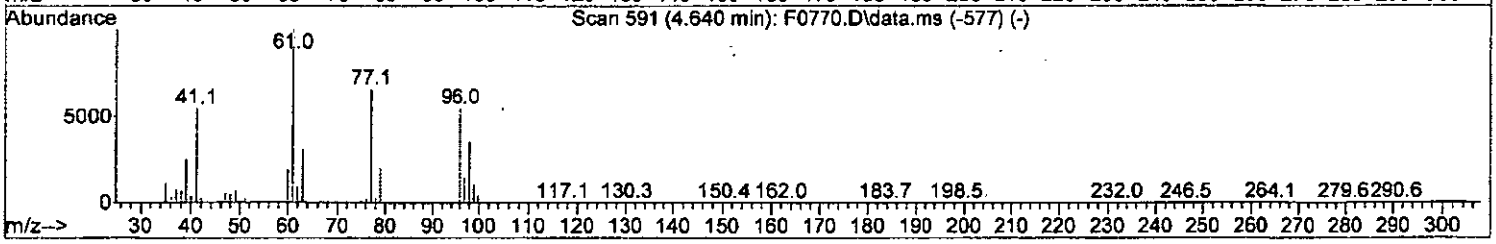
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1992.D
Acq On : 10 Sep 2015 6:05 pm
Operator : F. Naegler
Sample : 1.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 10 18:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration







TIC: F1992.D\data.ms

(32) 2,2-Dichloropropane

4.623min (+0.012) 1.11 ug/L m

response 11094

Ion	Exp%	Act%
77.00	100	100
79.00	30.40	21.66
97.00	22.40	15.97
0.00	0.00	0.00

W091015.M Fri Sep 11 09:01:21 2015 MSVO10

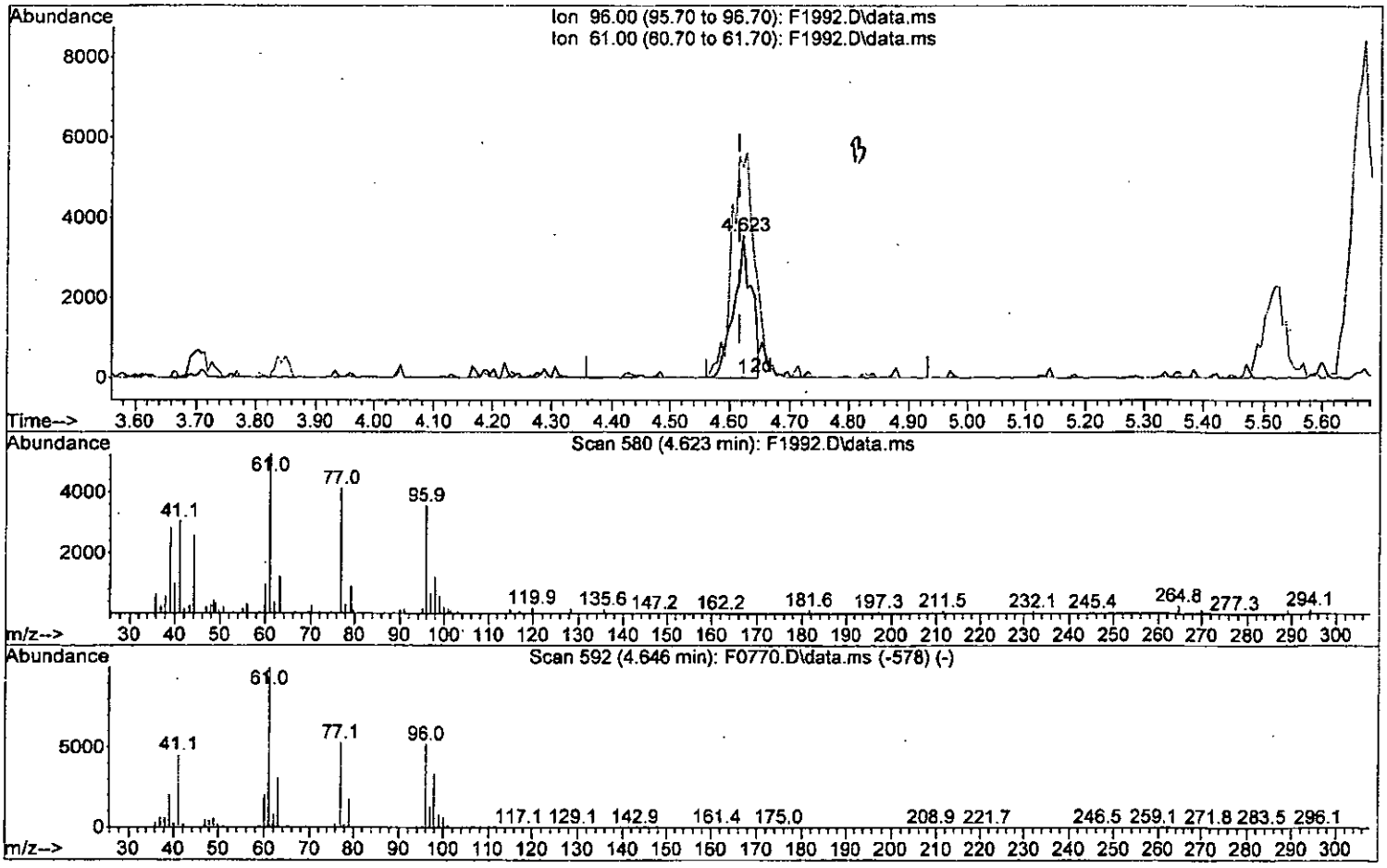
00136

Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1992.D
Acq On : 10 Sep 2015 6:05 pm
Operator : F. Naegler
Sample : 1.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 10 18:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1992.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.623min (+0.006) 0.96 ug/L

response 7046

Ion	Exp%	Act%
96.00	100	100
61.00	193.00	148.02#
0.00	0.00	0.00
0.00	0.00	0.00

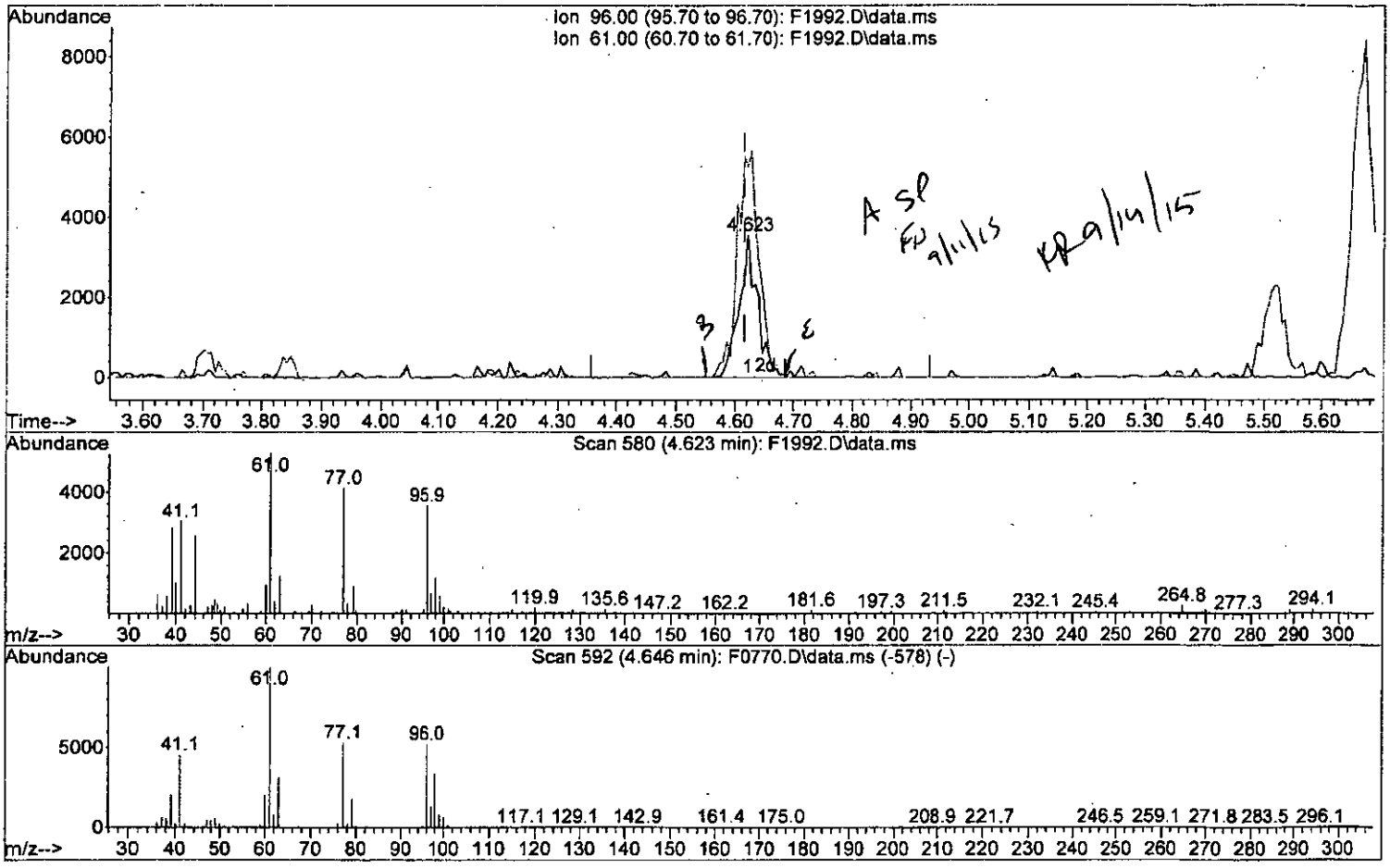
00137

W091015.M Fri Sep 11 09:01:33 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1992.D
Acq On : 10 Sep 2015 6:05 pm
Operator : F. Naegler
Sample : 1.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 10 18:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1992.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.623min (+0.006) 1.06 ug/L m

response 7807

Ion	Exp%	Act%
96.00	100	100
61.00	193.00	148.02#
0.00	0.00	0.00
0.00	0.00	0.00

W091015.M Fri Sep 11 09:01:43 2015 MSVO10

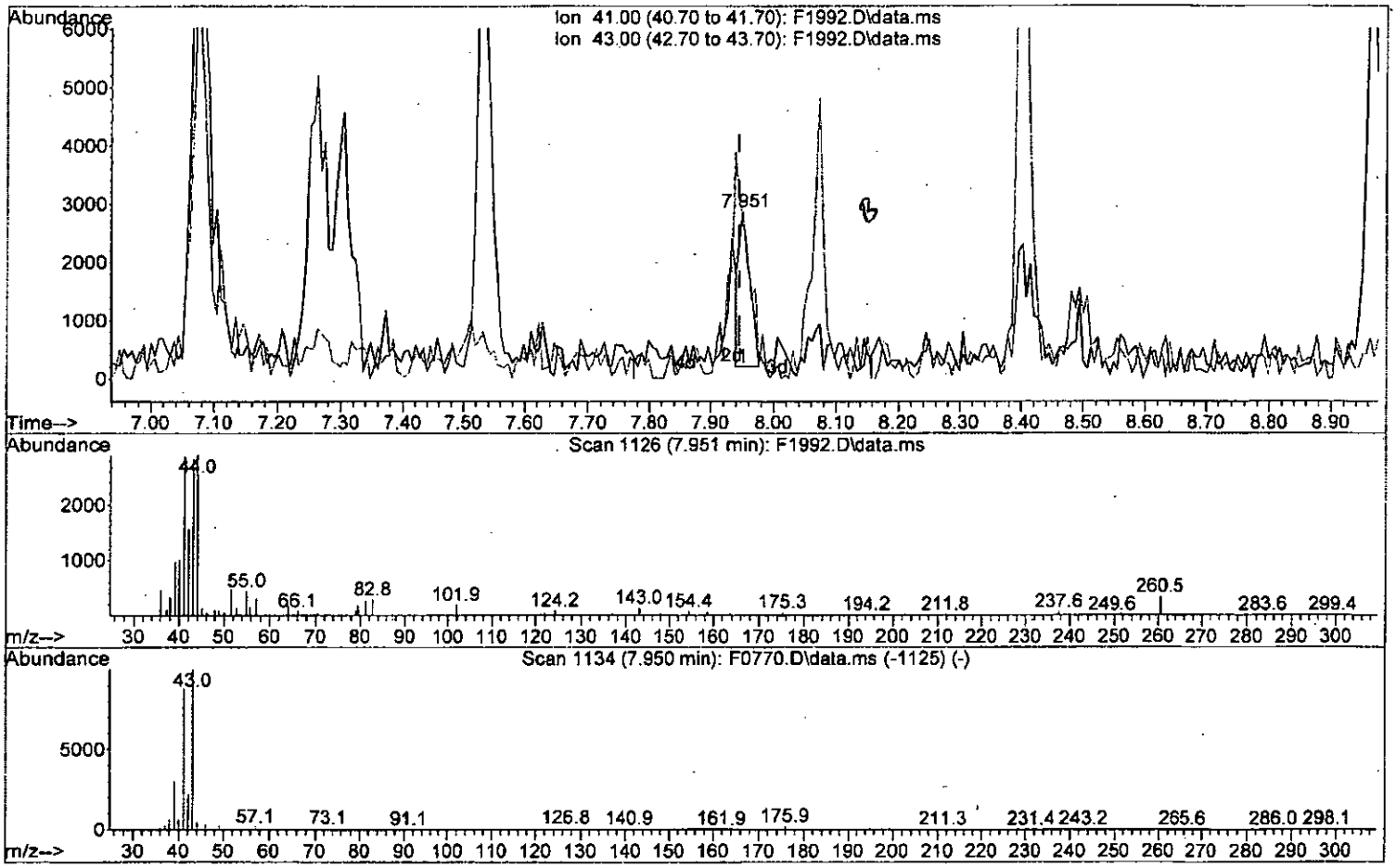
00138

Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1992.D
Acq On : 10 Sep 2015 6:05 pm
Operator : F. Naegler
Sample : 1.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 10 18:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1992.D\data.ms

(60) 2-Nitropropane

7.951min (+0.006) 0.96 ug/L

response 3183

Ion	Exp%	Act%
41.00	100	100
43.00	113.90	98.22
0.00	0.00	0.00
0.00	0.00	0.00

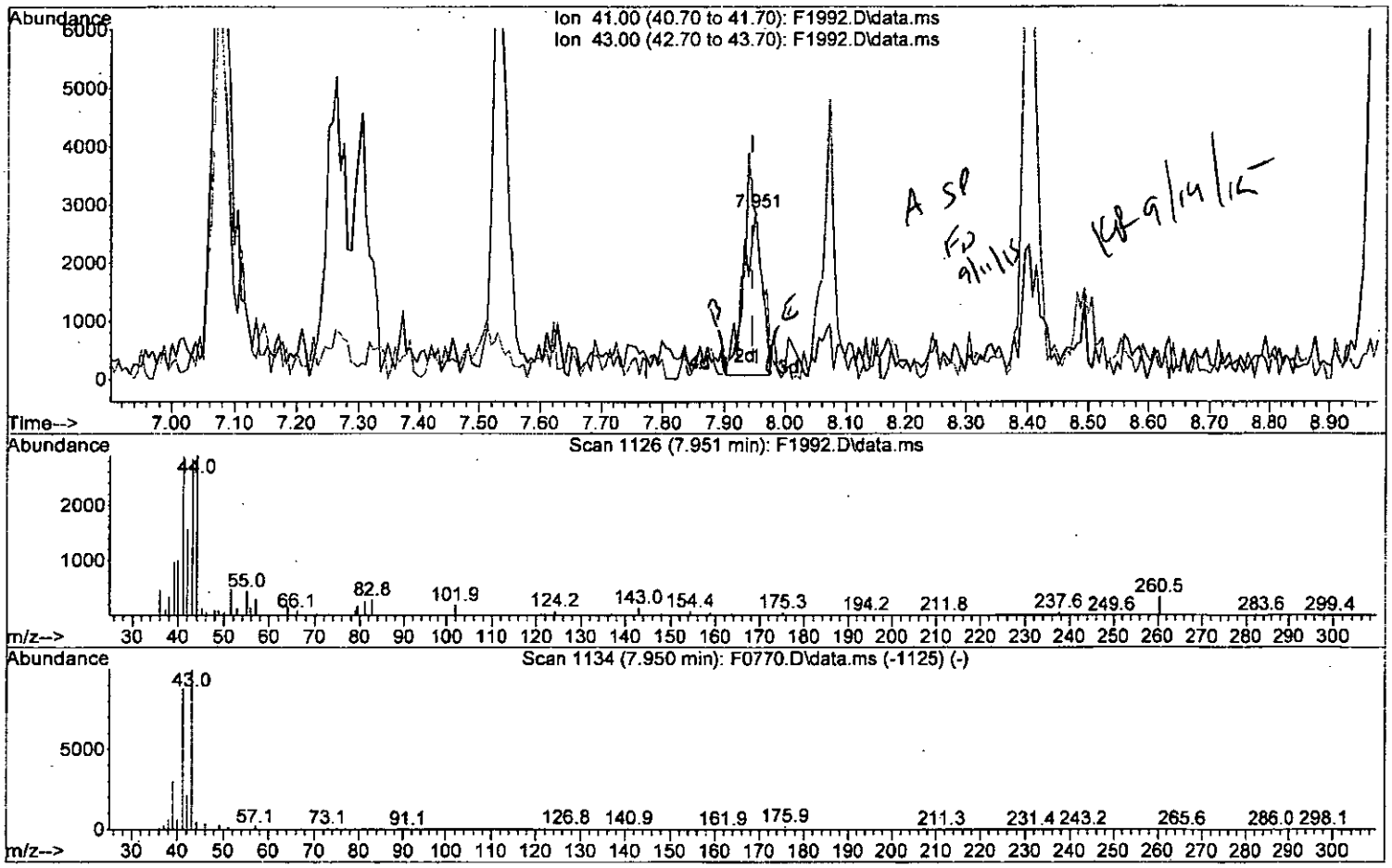
00139

W091015.M Fri Sep 11 09:02:11 2015 MSVO10 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1992.D
Acq On : 10 Sep 2015 6:05 pm
Operator : F. Naegler
Sample : 1.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 10 18:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1992.D\data.ms

(60) 2-Nitropropane

7.951min (+0.006) 1.75 ug/L m

response 5802

Ion	Exp%	Act%
41.00	100	100
43.00	113.90	98.22
0.00	0.00	0.00
0.00	0.00	0.00

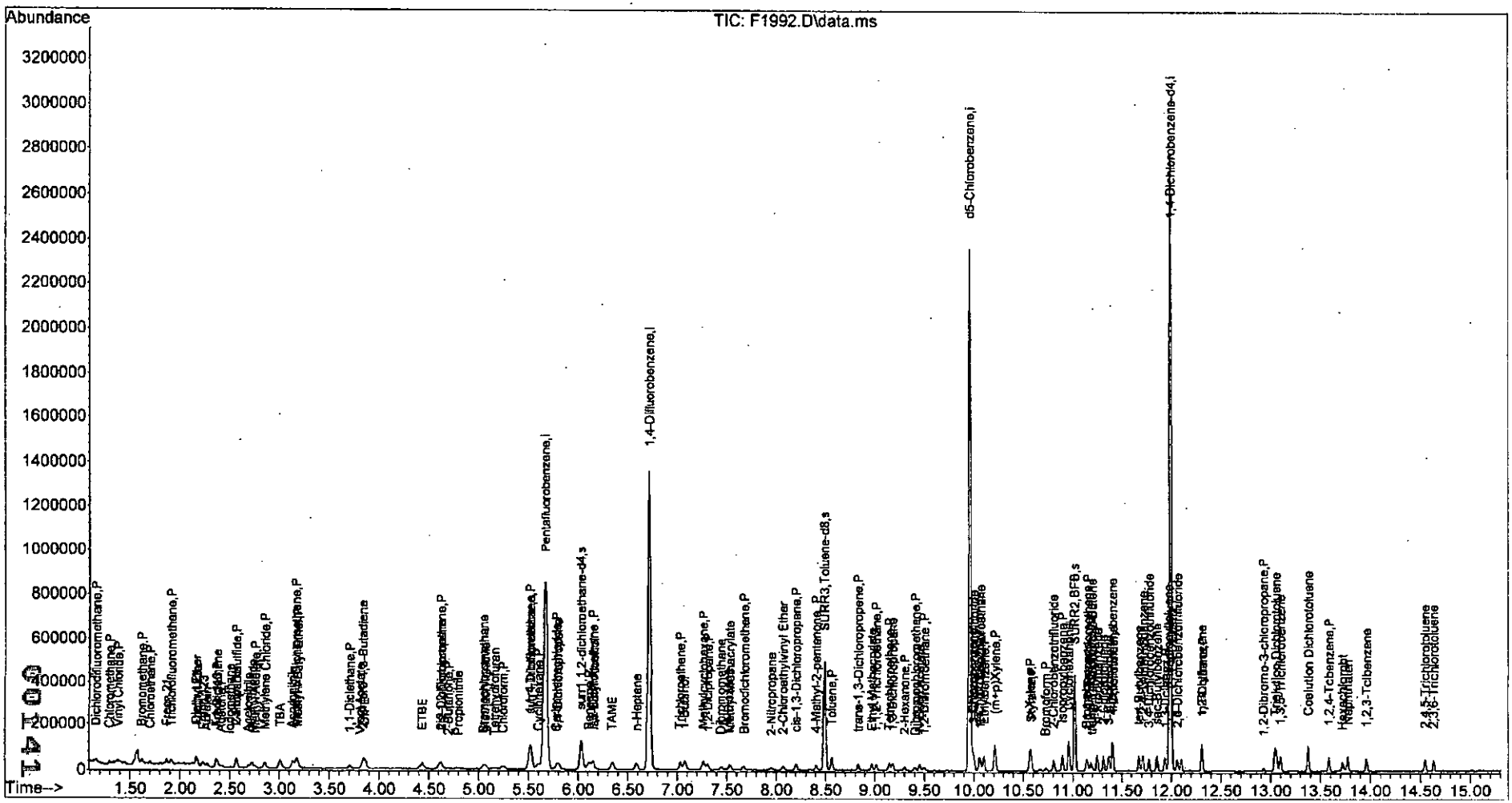
00140

W091015.M Fri Sep 11 09:02:49 2015 MSVO10 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1992.D
Acq On : 10 Sep 2015 6:05 pm
Operator : F. Naegler
Sample : 1.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 09:02:22 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



W091015.M Fri Sep 11 10:50:37 2015 MSVO10

Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1993.D
Acq On : 10 Sep 2015 6:29 pm
Operator : F. Naegler
Sample : 2.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 09:59:15 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

FW 9/11/15
KB 9/14/15

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.671	168	792996	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.720	114	1129647	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.957	117	982948	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.987	152	528125	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.519	113	70908	9.63	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 19.26%#			
46) surr1,1,2-dichloroetha...	6.031	65	105866	10.58	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 21.16%#			
64) SURR3,Toluene-d8	8.488	98	268749	10.23	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 20.46%#			
69) SURR2,BFB	11.018	95	106689	9.63	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 19.26%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.160	85	12110m	1.79	ug/L	
3) Chloromethane	1.294	50	18230	2.04	ug/L	93
4) Vinyl Chloride	1.373	62	14896	1.90	ug/L	90
5) Bromomethane	1.617	94	11137	2.52	ug/L	91
6) Chloroethane	1.703	64	10320	2.34	ug/L	79
7) Freon 21	1.867	67	27821	2.15	ug/L	92
8) Trichlorofluoromethane	1.910	101	20778	2.13	ug/L	87
9) Diethyl Ether	2.166	59	15411	1.98	ug/L	98
10) Freon 123a	2.172	67	21213	2.51	ug/L	93
11) Freon 123	2.233	83	19911	2.13	ug/L	93
12) Acrolein	2.276	56	26120	10.17	ug/L	89
13) 1,1-Diclethene	2.367	96	12951	2.02	ug/L	89
14) Freon 113	2.373	101	15013	2.16	ug/L	89
15) Acetone	2.416	43	16780	2.55	ug/L	90
16) 2-Propanol	2.574	45	55420	37.16	ug/L	81
17) Iodomethane	2.501	142	7312	1.03	ug/L #	53
18) Carbon Disulfide	2.562	76	42093	2.25	ug/L	94
19) Acetonitrile	2.690	40	19002	15.67	ug/L #	78
20) Allyl Chloride	2.721	76	8550	2.26	ug/L #	68
21) Methyl Acetate	2.757	43	25759	2.11	ug/L	98
22) Methylene Chloride	2.855	84	18595	2.37	ug/L #	72
23) TBA	3.013	59	75024	36.37	ug/L	85
24) Acrylonitrile	3.129	53	50453	9.12	ug/L	95
25) Methyl-t-Butyl Ether	3.178	73	54769	2.03	ug/L	92
26) trans-1,2-Dichloroethene	3.172	96	14236	2.07	ug/L	92
27) 1,1-Diclethane	3.714	63	32399	2.33	ug/L	86
28) Vinyl Acetate	3.818	86	3954m	2.74	ug/L	
29) DIPE	3.855	45	70980	2.12	ug/L	87
30) 2-Chloro-1,3-Butadiene	3.836	53	33671	2.23	ug/L	98
31) ETBE	4.434	59	57652	2.01	ug/L	94
32) 2,2-Dichloropropane	4.604	77	22959	2.13	ug/L	84
33) cis-1,2-Dichloroethene	4.617	96	15830	2.00	ug/L	88
34) 2-Butanone	4.702	43	16791	1.88	ug/L	84
35) Propionitrile	4.775	54	20464	9.08	ug/L	82

00142

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1993.D
Acq On : 10 Sep 2015 6:29 pm
Operator : F. Naegler
Sample : 2.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 09:59:15 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Bromochloromethane	5.050	130	10798m	2.12	ug/L		
37) Methacrylonitrile	5.068	67	9592	1.92	ug/L		95
38) Tetrahydrofuran	5.159	42	15045	2.75	ug/L		97
39) Chloroform	5.239	83	28020m	2.08	ug/L		
40) 1,1,1-Trichloroethane	5.525	97	23478	2.05	ug/L		95
42) Cyclohexane	5.592	41	21610	2.24	ug/L		92
44) Carbontetrachloride	5.781	121	6145	2.21	ug/L	#	68
45) 1,1-Dichloropropene	5.799	75	20900	2.16	ug/L		88
47) Benzene	6.104	78	62076	2.20	ug/L		76
48) 1,2-Dichloroethane	6.147	62	27569	2.12	ug/L		92
49) Iso-Butyl Alcohol	6.147	43	40590	39.74	ug/L		92
50) TAME	6.342	73	51560	2.17	ug/L		90
51) n-Heptane	6.592	43	28742	2.25	ug/L		97
52) 1-Butanol	7.080	56	46219	84.08	ug/L		99
53) Trichloroethene	7.031	130	18323	2.10	ug/L	#	79
54) Methylcyclohexane	7.263	55	25128	2.27	ug/L		87
55) 1,2-Diclpropane	7.305	63	17310	2.03	ug/L		97
56) Dibromomethane	7.445	93	9975	1.82	ug/L		78
57) 1,4-Dioxane	7.506	88	6883	34.92	ug/L		84
58) Methyl Methacrylate	7.537	69	14415	1.97	ug/L	#	81
59) Bromodichloromethane	7.671	83	20548	1.96	ug/L		96
60) 2-Nitropropane	7.945	41	14734	4.14	ug/L		89
61) 2-Chloroethylvinyl Ether	8.073	63	12159	1.89	ug/L		88
62) cis-1,3-Dichloropropene	8.201	75	24796	2.07	ug/L		90
63) 4-Methyl-2-pentanone	8.403	43	28407	1.84	ug/L		93
65) Toluene	8.561	91	65305	2.17	ug/L		96
66) trans-1,3-Dichloropropene	8.829	75	20680	1.80	ug/L		95
67) Ethyl Methacrylate	8.963	69	23499	1.87	ug/L		95
68) 1,1,2-Trichloroethane	9.012	97	15987	2.14	ug/L		84
71) Tetrachloroethene	9.146	164	12231	2.04	ug/L	#	63
72) 2-Hexanone	9.299	43	21950	1.86	ug/L		90
73) 1,3-Dichloropropane	9.183	76	27519	2.15	ug/L		91
74) Dibromochloromethane	9.396	129	13111	1.69	ug/L		87
75) N-Butyl Acetate	9.451	43	37423	1.84	ug/L		99
76) 1,2-Dibromoethane	9.500	107	14976	1.86	ug/L		93
77) 3-Chlorobenzotrifluoride	10.000	180	25196	2.15	ug/L		98
78) Chlorobenzene	9.982	112	43708	2.21	ug/L		95
79) 4-Chlorobenzotrifluoride	10.055	180	20640m	2.00	ug/L		
80) 1,1,1,2-Tetrachloroethane	10.067	131	13237	1.84	ug/L		89
81) Ethylbenzene	10.097	106	23001	2.23	ug/L	#	81
82) (m+p)Xylene	10.213	106	53770	4.33	ug/L		97
83) o-Xylene	10.561	106	26357	2.12	ug/L		99
84) Styrene	10.579	104	41897	1.96	ug/L		92
85) Bromoform	10.731	173	9151	1.58	ug/L		96
86) 2-Chlorobenzotrifluoride	10.805	180	24113	2.13	ug/L		100
87) Isopropylbenzene	10.896	105	69886	2.25	ug/L		99
88) Cyclohexanone	10.957	55	94472	41.34	ug/L		87
89) trans-1,4-Dichloro-2-B...	11.201	53	7556	1.99	ug/L		86
91) 1,1,2,2-Tetrachloroethane	11.152	83	17328	1.95	ug/L		97
92) Bromobenzene	11.140	156	18637	2.09	ug/L	#	73
93) 1,2,3-Trichloropropane	11.182	110	6500	1.85	ug/L	#	86

W091015.M Fri Sep 11 10:50:47 2015 MSVO10

00143

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1993.D
Acq On : 10 Sep 2015 6:29 pm
Operator : F. Naegler
Sample : 2.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 09:59:15 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

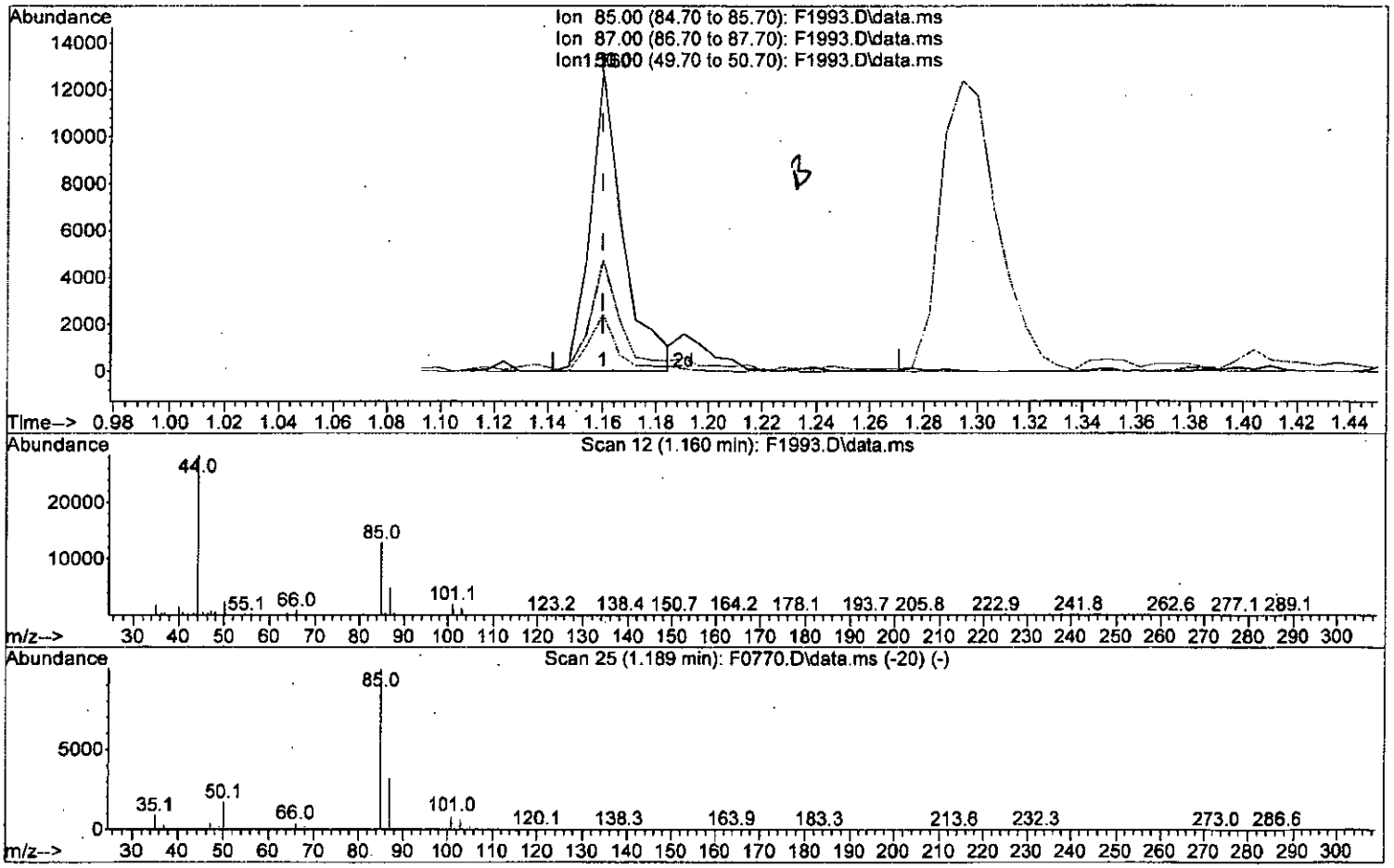
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	n-Propylbenzene	11.250	91	84593	2.37	ug/L	97
95)	2-Chlorotoluene	11.310	91	49657	2.17	ug/L	95
96)	3-Chlorotoluene	11.365	91	52056	2.21	ug/L	95
97)	4-Chlorotoluene	11.408	91	56843	2.13	ug/L	93
98)	1,3,5-Trimethylbenzene	11.402	105	59543	2.42	ug/L	98
99)	tert-Butylbenzene	11.676	119	46613	2.09	ug/L	93
100)	1,2,4-Trimethylbenzene	11.707	105	58065	2.25	ug/L	88
101)	3,4-Dichlorobenzotrifl...	11.774	214	20290	2.17	ug/L	92
102)	sec-Butylbenzene	11.853	105	73204	2.32	ug/L	99
103)	p-Isopropyltoluene	11.975	119	55973	2.12	ug/L	95
104)	1,3-Dclbenz	11.932	146	36692	2.25	ug/L	96
105)	1,4-Dclbenz	12.005	146	35201	2.03	ug/L	94
106)	2,4-Dichlorobenzotrifl...	12.060	214	17712	2.10	ug/L	96
107)	2,5-Dichlorobenzotrifl...	12.103	214	19091	2.06	ug/L	89
108)	n-Butylbenzene	12.304	91	58220	2.17	ug/L	94
109)	1,2-Dclbenz	12.310	146	34333	2.08	ug/L	95
110)	1,2-Dibromo-3-chloropr...	12.932	157	4859	1.83	ug/L	87
111)	Trielution Dichlorotol...	13.048	125	92607	6.32	ug/L	94
112)	1,3,5-Trichlorobenzene	13.097	180	27471	2.11	ug/L	99
113)	Coelution Dichlorotoluene	13.371	125	68436	4.26	ug/L	94
114)	1,2,4-Tcbenzene	13.584	180	27105	2.09	ug/L	98
115)	Hexachlorobt	13.725	225	10569	1.99	ug/L	93
116)	Naphthalen	13.773	128	74869	2.01	ug/L	95
117)	1,2,3-Tclbenzene	13.962	180	27675	2.12	ug/L	92
118)	2,4,5-Trichlorotoluene	14.542	159	20483	1.97	ug/L	97
119)	2,3,6-Trichlorotoluene	14.633	159	18413	2.02	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1993.D
Acq On : 10 Sep 2015 6:29 pm
Operator : F. Naegler
Sample : 2.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 09:10:11 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1993.D\data.ms

(2) Dichlorodifluoromethane (P)

1.160min (+0.000) 1.57 ug/L

response 10646

Ion	Exp%	Act%
85.00	100	100
87.00	32.20	36.88
50.00	17.40	18.90
0.00	0.00	0.00

W091015.M Fri Sep 11 09:59:09 2015 MSVO10

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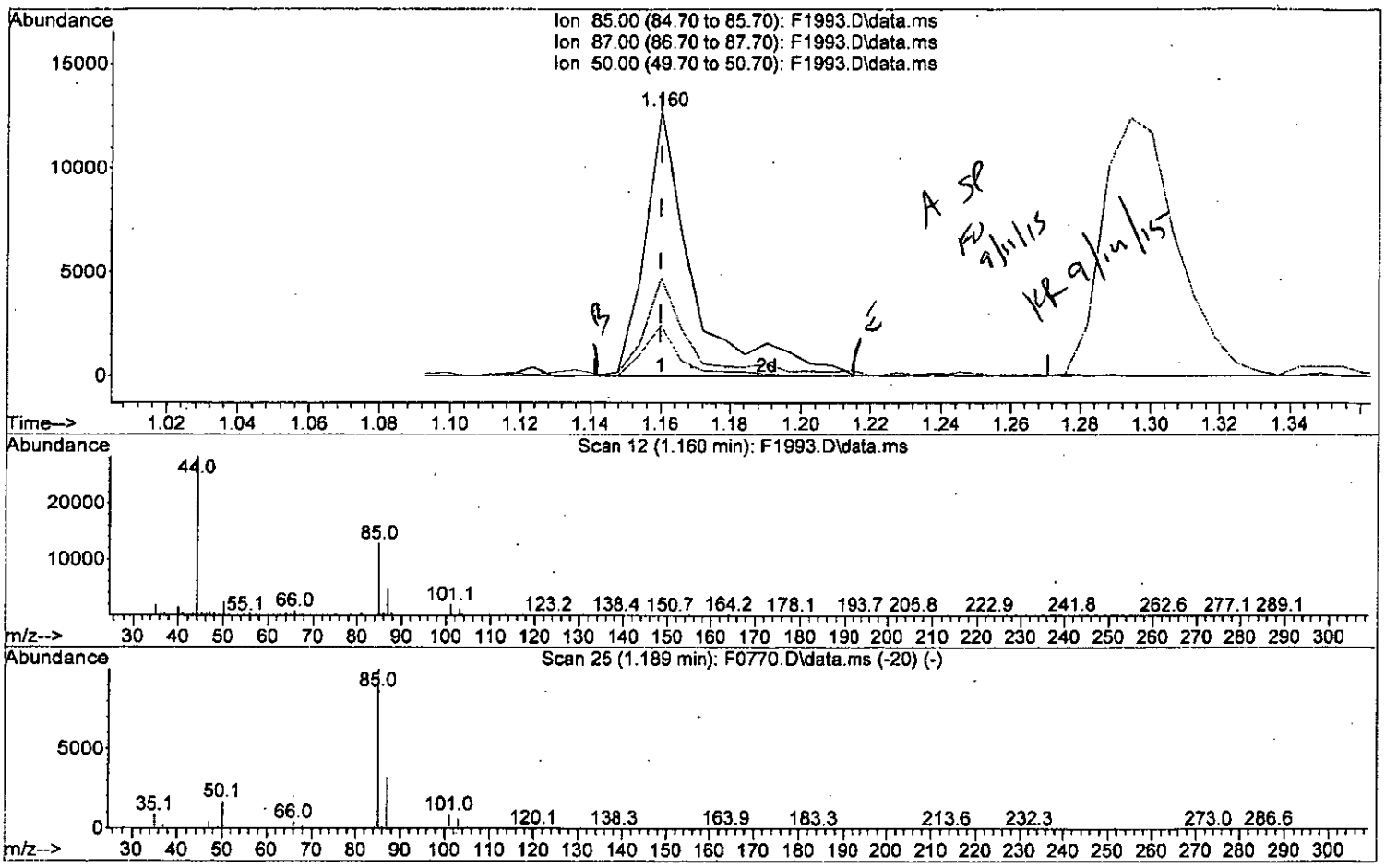
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1993.D
Acq On : 10 Sep 2015 6:29 pm
Operator : F. Naegler
Sample : 2.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 09:10:11 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1993.D\data.ms

(2) Dichlorodifluoromethane (P)

1.160min (+0.000) 1.79 ug/L m

response 12110

Ion	Exp%	Act%
85.00	100	100
87.00	32.20	36.88
50.00	17.40	18.90
0.00	0.00	0.00

W091015.M Fri Sep 11 09:59:34 2015 MSVO10

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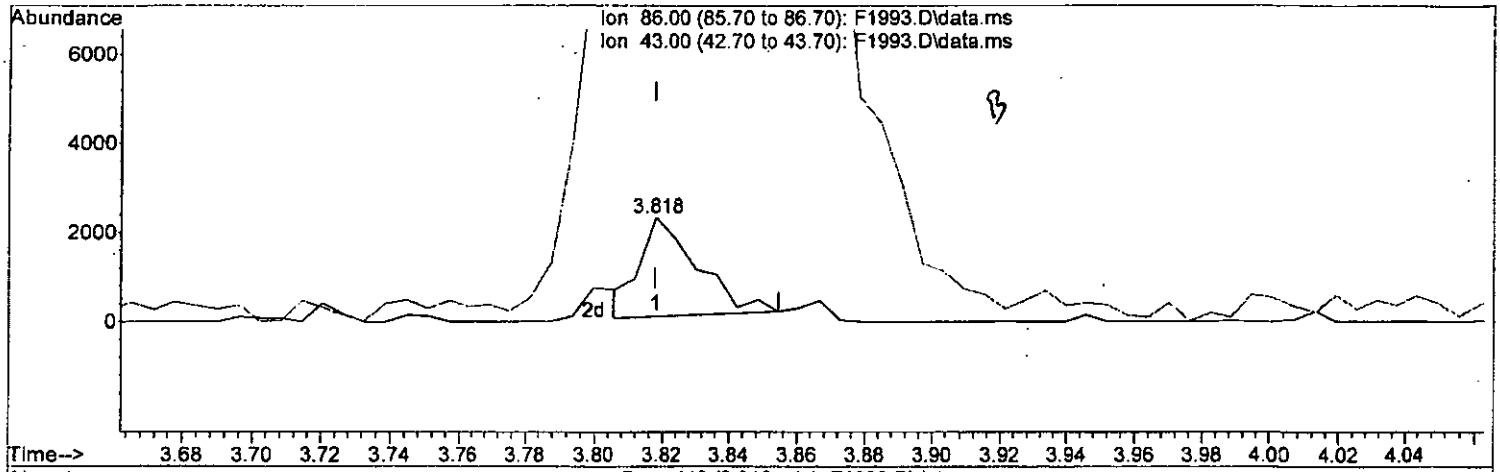
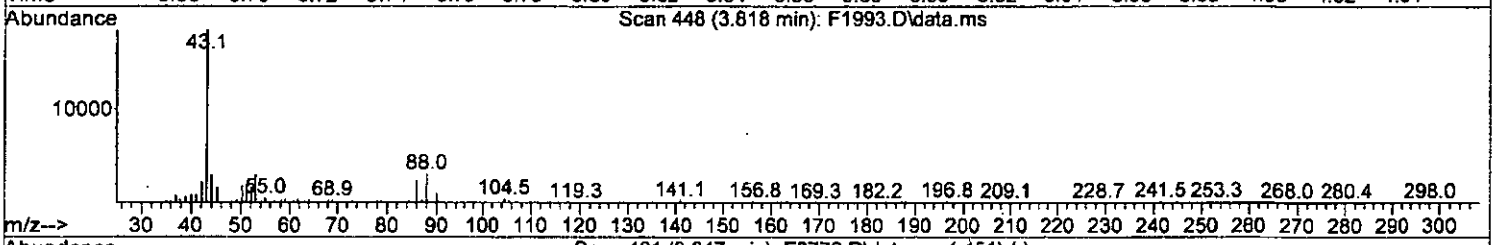
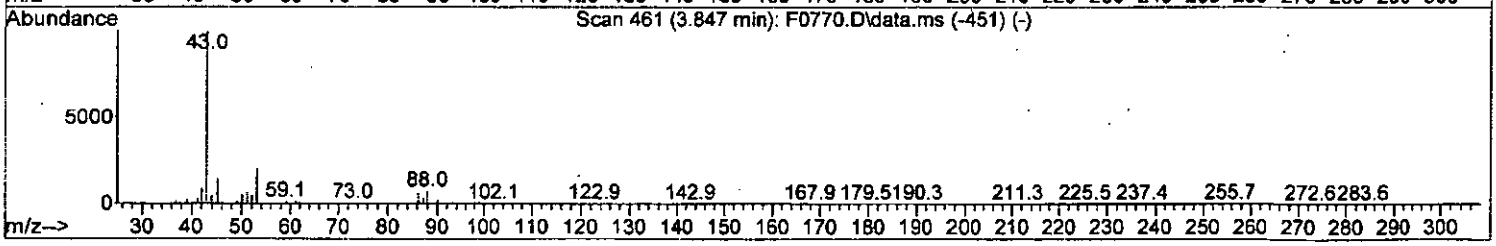
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1993.D
Acq On : 10 Sep 2015 6:29 pm
Operator : F. Naegler
Sample : 2.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 10 18:44:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration







TIC: F1993.D\data.ms

(28) Vinyl Acetate

3.818min (+0.000) 1.82 ug/L

response 2624

Ion	Exp%	Act%
86.00	100	100
43.00	1655.60	792.80#
0.00	0.00	0.00
0.00	0.00	0.00

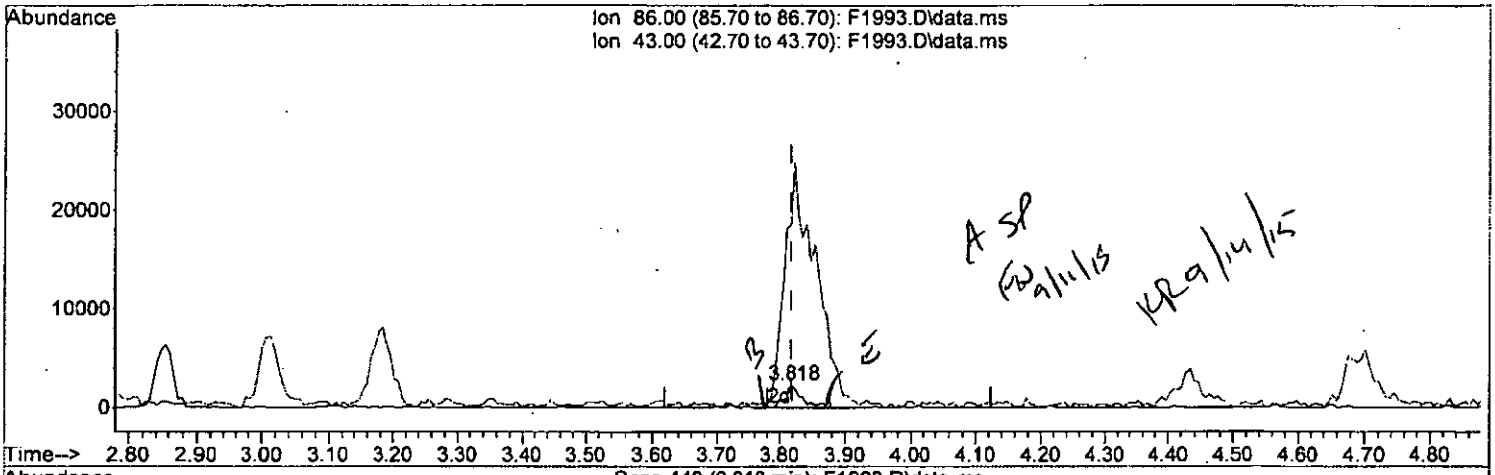
00147

W091015.M Fri Sep 11 09:08:11 2015 MSVO10 Page

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1993.D
Acq On : 10 Sep 2015 6:29 pm
Operator : F. Naegler
Sample : 2.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 10 18:44:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1993.D\data.ms

(28) Vinyl Acetate

3.818min (+0.000) 2.74 ug/L m

response 3954

Ion	Exp%	Act%
86.00	100	100
43.00	1655.60	792.80#
0.00	0.00	0.00
0.00	0.00	0.00

W091015.M Fri Sep 11 09:08:25 2015 MSVO10

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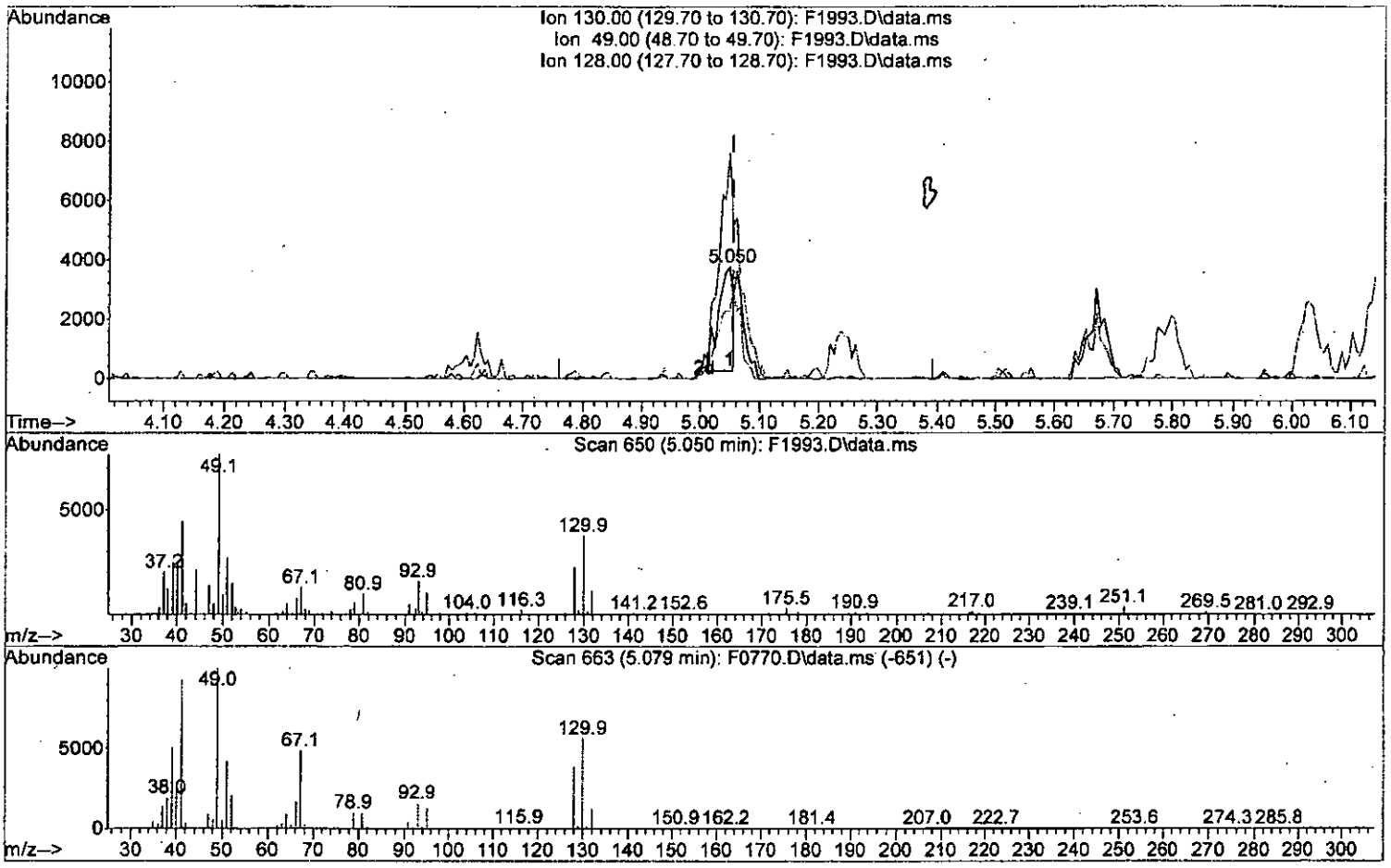
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1993.D
Acq On : 10 Sep 2015 6:29 pm
Operator : F. Naegler
Sample : 2.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 10 18:44:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1993.D\data.ms

(36) Bromochloromethane

5.050min (-0.006) 1.17 ug/L

response 5977

Ion	Exp%	Act%
130.00	100	100
49.00	177.90	202.15#
128.00	68.20	60.33
0.00	0.00	0.00

W091015.M Fri Sep 11 09:08:41 2015 MSVO10

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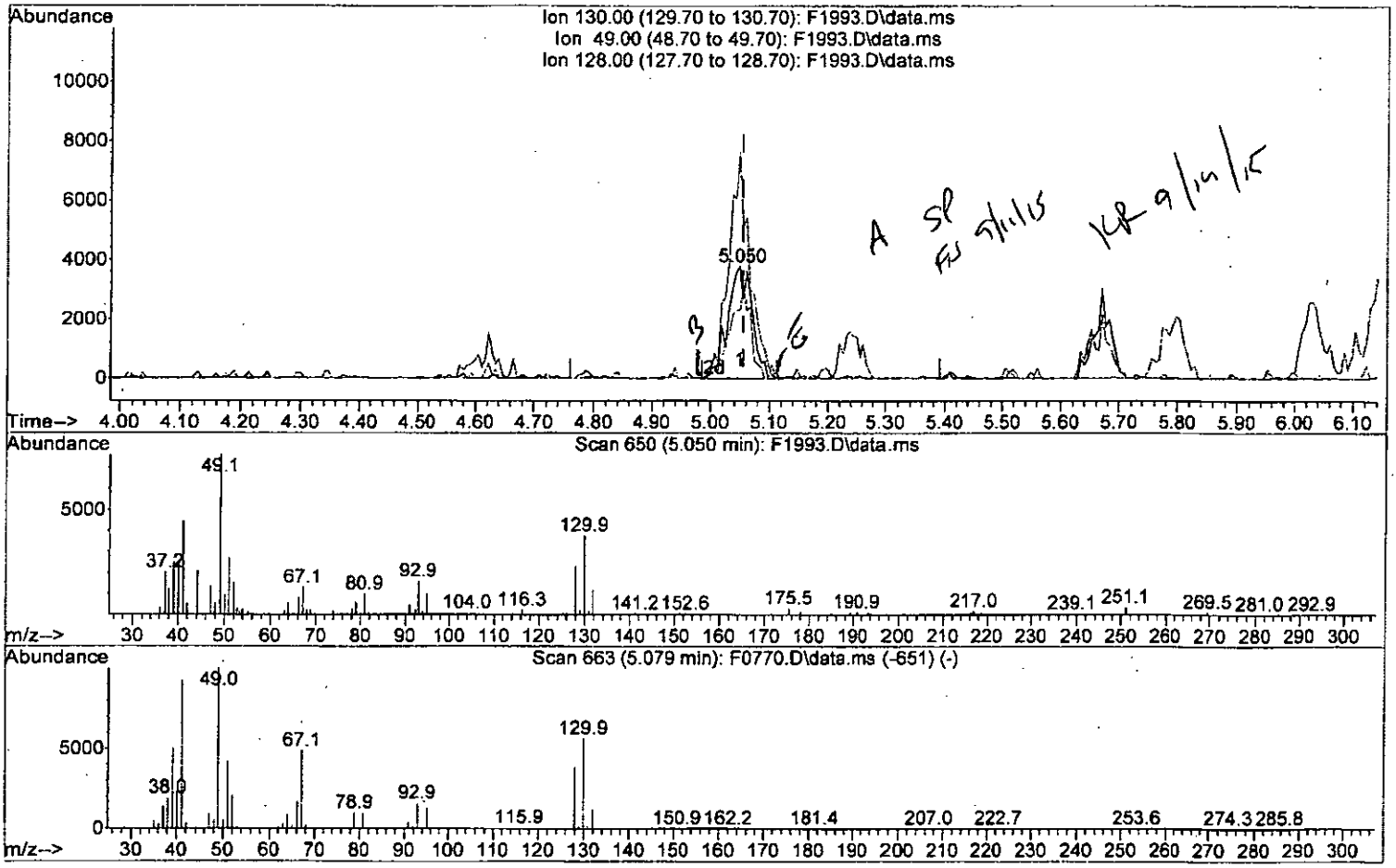
Page

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1993.D
Acq On : 10 Sep 2015 6:29 pm
Operator : F. Naegler
Sample : 2.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 10 18:44:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1993.D\data.ms

(36) Bromochloromethane

5.050min (-0.006) 2.12 ug/L m

response 10798

Ion	Exp%	Act%
130.00	100	100
49.00	177.90	202.15#
128.00	68.20	60.33
0.00	0.00	0.00

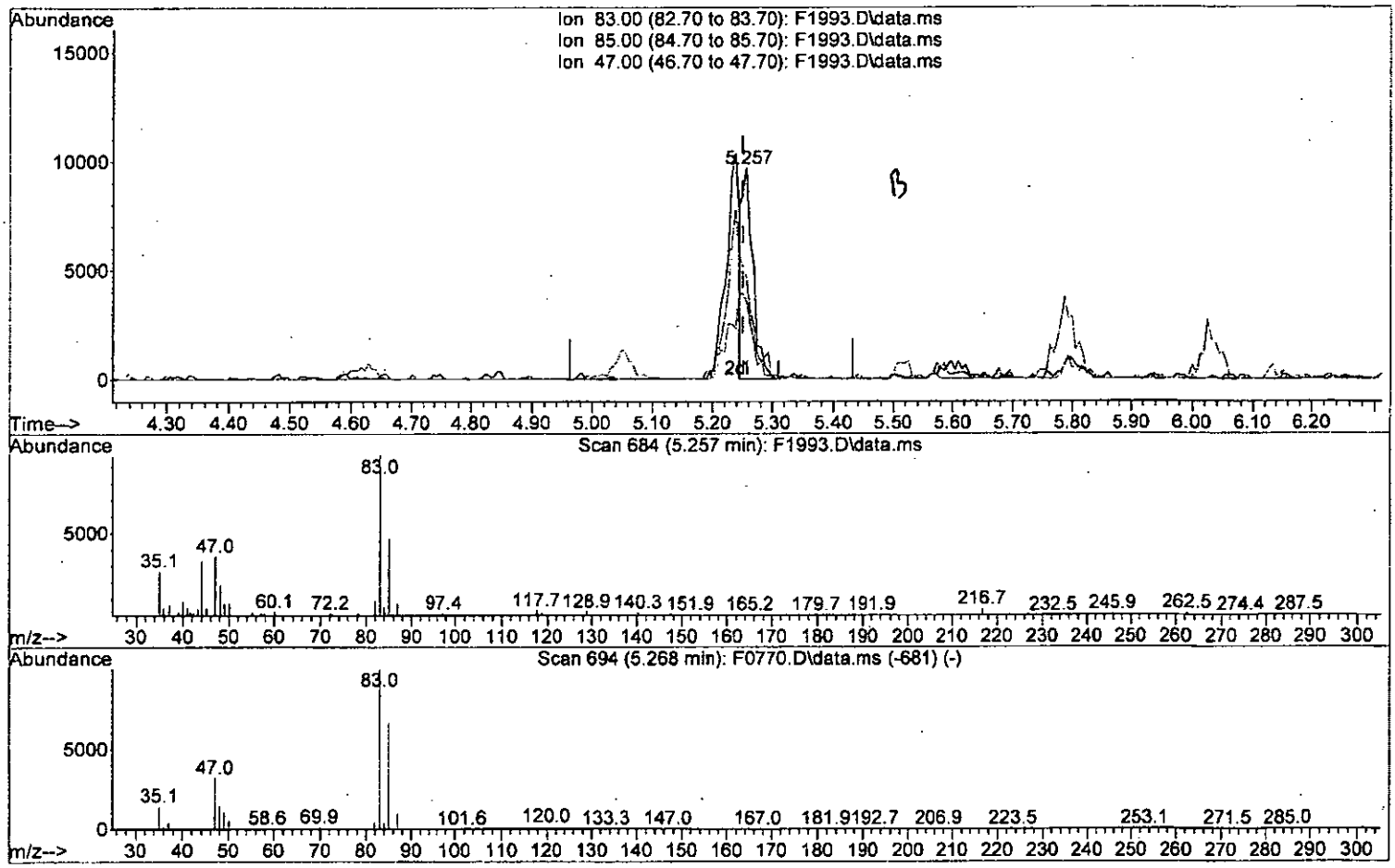
W091015.M Fri Sep 11 09:08:58 2015 MSVO10

00150

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1993.D
Acq On : 10 Sep 2015 6:29 pm
Operator : F. Naegler
Sample : 2.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 10 18:44:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1993.D\data.ms

(39) Chloroform (P)

5.257min (+0.006) 0.92 ug/L

response 12356

Ion	Exp%	Act%
83.00	100	100
85.00	66.10	47.67
47.00	31.90	36.88
0.00	0.00	0.00

W091015.M Fri Sep 11 09:09:15 2015 MSVO10

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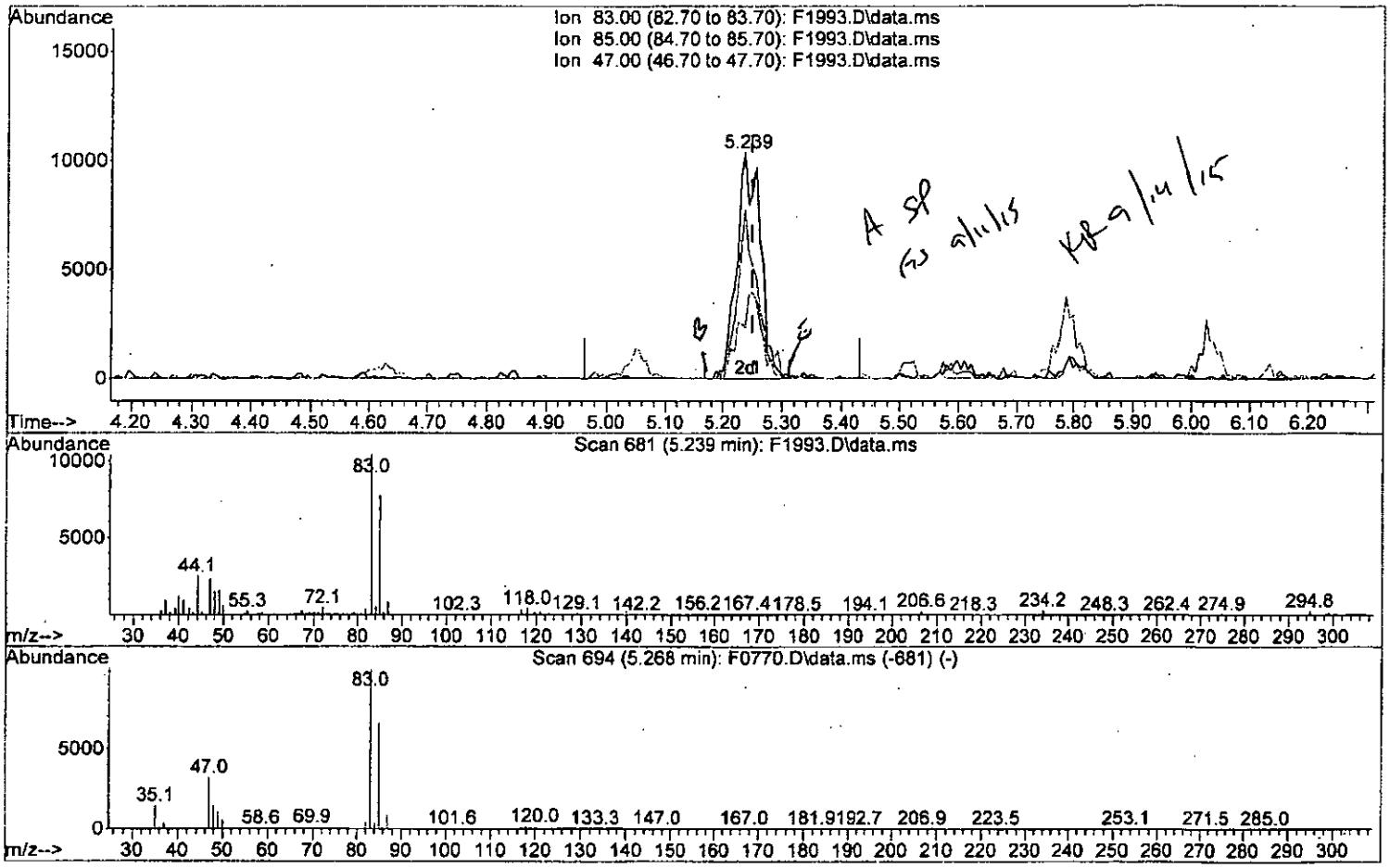
Page

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1993.D
Acq On : 10 Sep 2015 6:29 pm
Operator : F. Naegler
Sample : 2.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 10 18:44:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1993.D\data.ms

(39) Chloroform (P)

5.239min (-0.012) 2.08 ug/L m

response 28020

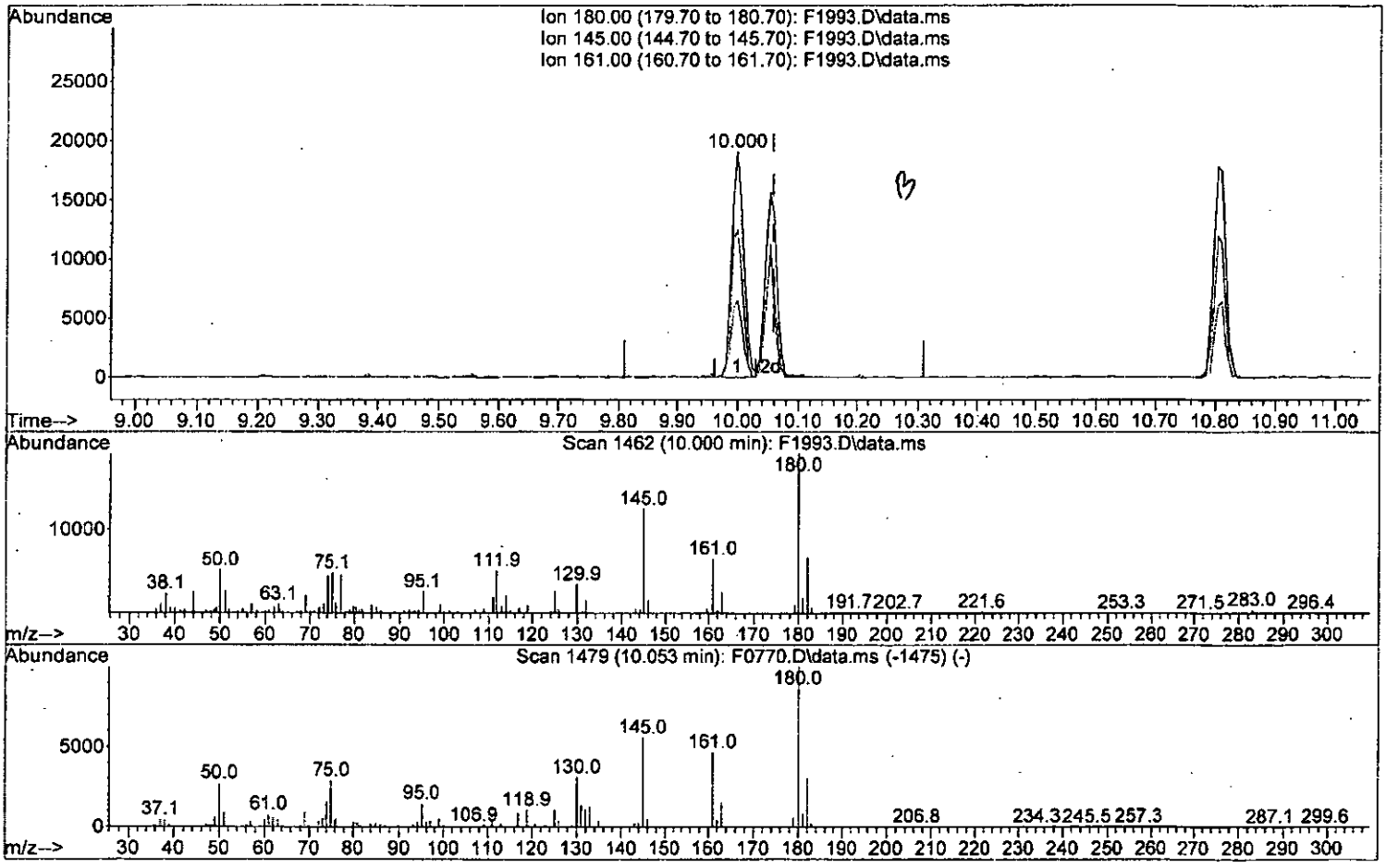
Ion	Exp%	Act%
83.00	100	100
85.00	66.10	74.68
47.00	31.90	22.24
0.00	0.00	0.00

W091015.M Fri Sep 11 09:09:26 2015 MSVO10 00152 Page

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1993.D
Acq On : 10 Sep 2015 6:29 pm
Operator : F. Naegler
Sample : 2.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 10 18:44:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1993.D\data.ms

(79) 4-Chlorobenzotrifluoride

10.000min (-0.060) 2.44 ug/L

response 25196

Ion	Exp%	Act%
180.00	100	100
145.00	55.90	65.26
161.00	46.60	33.93
0.00	0.00	0.00

W091015.M Fri Sep 11 09:10:04 2015 MSVO10

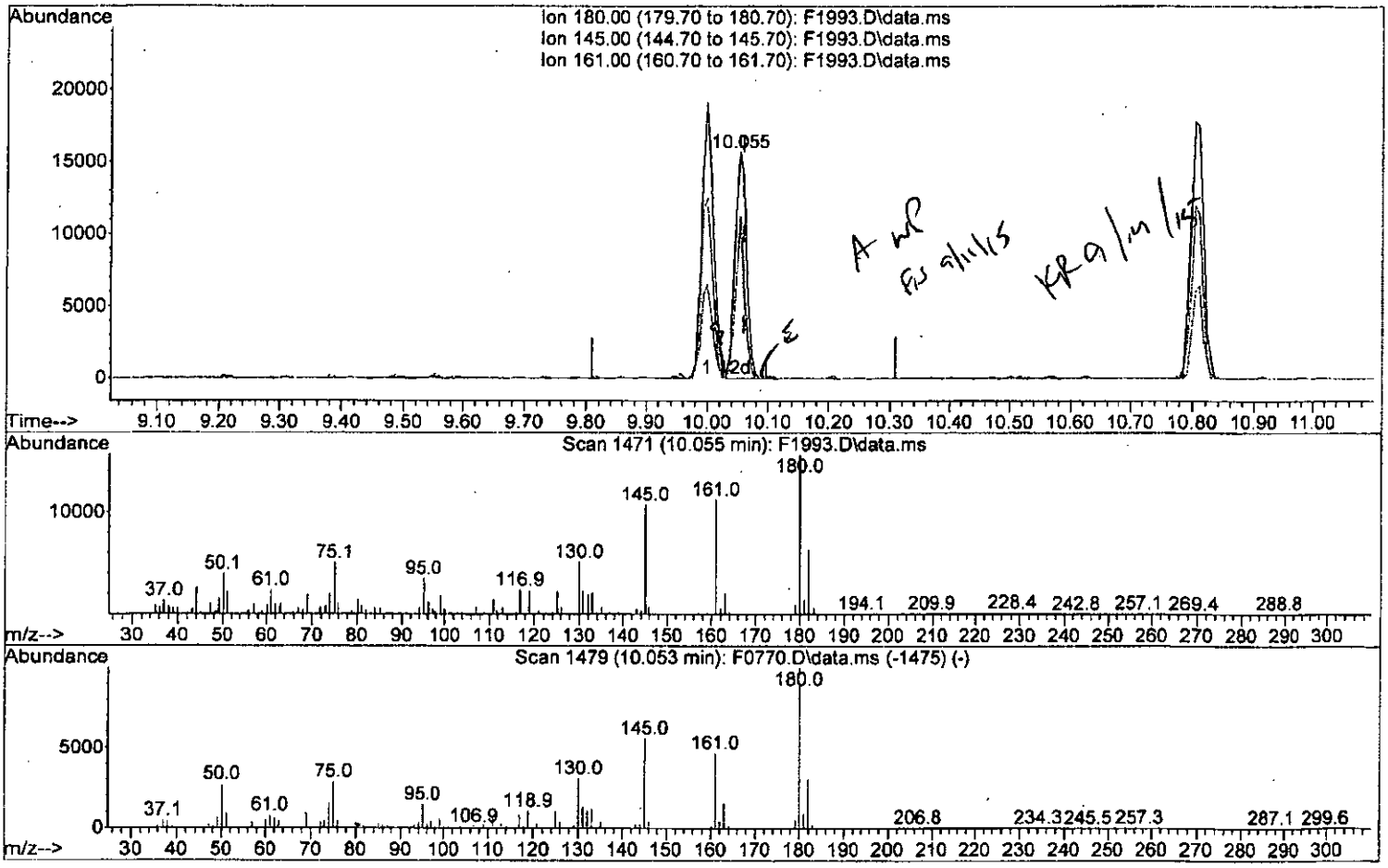
00153

Page

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1993.D
Acq On : 10 Sep 2015 6:29 pm
Operator : F. Naegler
Sample : 2.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 10 18:44:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1993.D\data.ms

(79) 4-Chlorobenzotrifluoride

10.055min (-0.005) 2.00 ug/L m

response 20640

Ion	Exp%	Act%
180.00	100	100
145.00	55.90	68.52
161.00	46.60	71.61#
0.00	0.00	0.00

W091015.M Fri Sep 11 09:10:21 2015 MSVO10

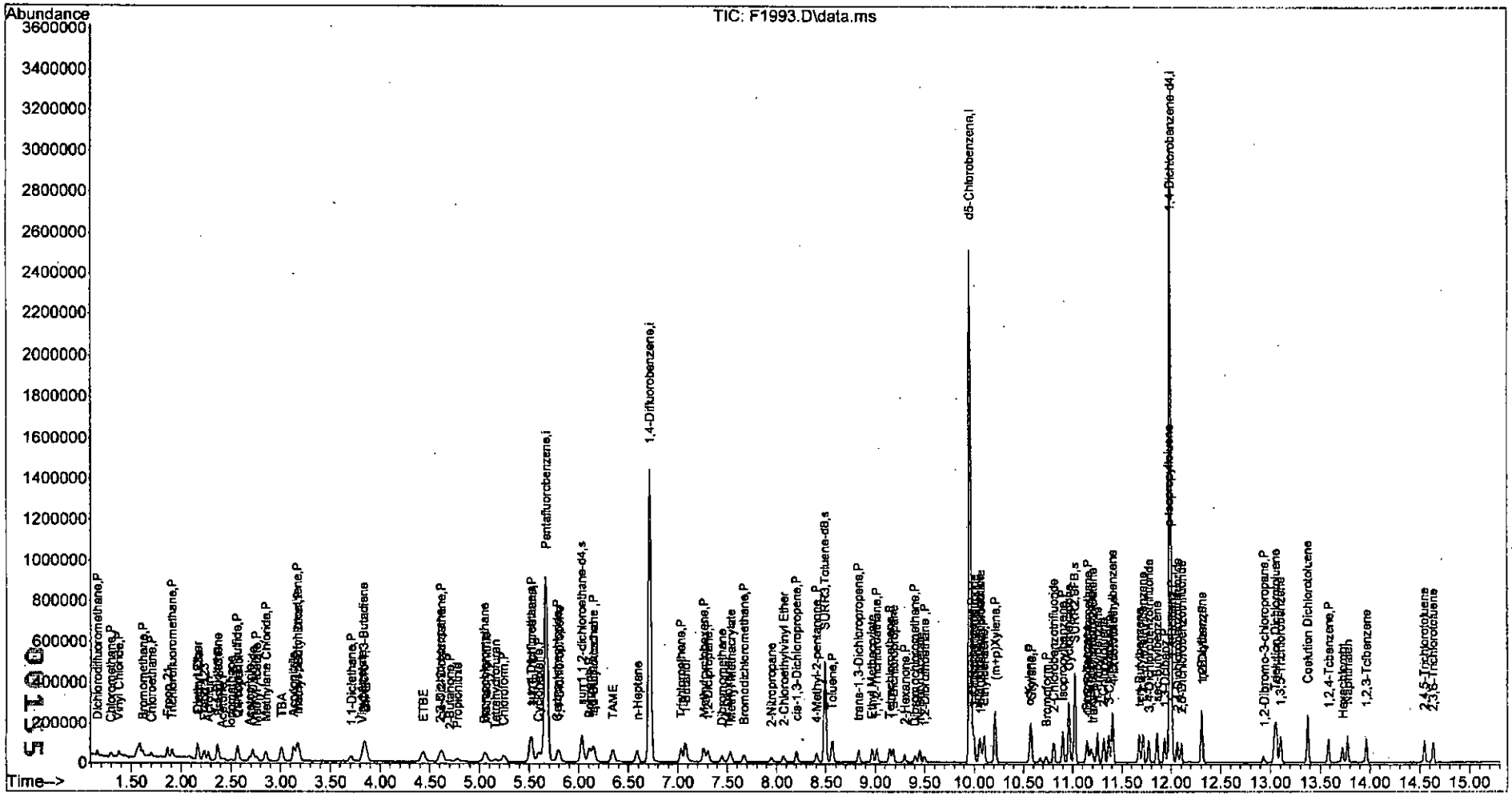
00154

Page

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1993.D
Acq On : 10 Sep 2015 6:29 pm
Operator : F. Naegler
Sample : 2.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 09:59:15 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



W091015.M Fri Sep 11 10:50:52 2015 MSVO10 Page: 4

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1994.D
Acq On : 10 Sep 2015 6:54 pm
Operator : F. Naegler
Sample : 5.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 09:12:48 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

FV 9/11/15
KH 9/14/15

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.665	168	766712	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.714	114	1116140	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.957	117	965097	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.987	152	506071	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.519	113	71508	9.83	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 19.66%#				
46) surr1,1,2-dichloroetha...	6.031	65	111005	11.23	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 22.46%#				
64) SURR3,Toluene-d8	8.488	98	281811	10.86	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 21.72%#				
69) SURR2,BFB	11.018	95	103728	9.47	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 18.94%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.160	85	32152	4.91	ug/L		98
3) Chloromethane	1.294	50	41898	4.86	ug/L		94
4) Vinyl Chloride	1.379	62	39855	5.26	ug/L		88
5) Bromomethane	1.617	94	24394	5.70	ug/L		95
6) Chloroethane	1.703	64	23985	5.61	ug/L		93
7) Freon 21	1.867	67	69145	5.53	ug/L		99
8) Trichlorofluoromethane	1.910	101	50941	5.39	ug/L		96
9) Diethyl Ether	2.166	59	35422	4.72	ug/L		86
10) Freon 123a	2.172	67	45682	5.59	ug/L		89
11) Freon 123	2.233	83	44193	4.89	ug/L		92
12) Acrolein	2.276	56	60095	24.20	ug/L		94
13) 1,1-Diclethene	2.367	96	31222	5.03	ug/L		93
14) Freon 113	2.373	101	33403	4.97	ug/L		97
15) Acetone	2.416	43	37207	5.84	ug/L		89
16) 2-Propanol	2.580	45	137539	95.38	ug/L		89
17) Iodomethane	2.501	142	22565	3.28	ug/L		99
18) Carbon Disulfide	2.562	76	93809	5.18	ug/L		98
19) Acetonitrile	2.696	40	29466m	25.14	ug/L		
20) Allyl Chloride	2.727	76	18301	5.01	ug/L	#	70
21) Methyl Acetate	2.757	43	60010	5.08	ug/L		96
22) Methylene Chloride	2.849	84	36851	4.85	ug/L	#	85
23) TBA	3.013	59	196099	98.32	ug/L		98
24) Acrylonitrile	3.129	53	133015	24.86	ug/L		96
25) Methyl-t-Butyl Ether	3.184	73	134024	5.14	ug/L		93
26) trans-1,2-Dichloroethene	3.172	96	33711	5.08	ug/L		93
27) 1,1-Diclethane	3.708	63	72178	5.36	ug/L		92
28) Vinyl Acetate	3.812	86	6163	4.41	ug/L	#	1
29) DIPE	3.861	45	172644	5.33	ug/L		96
30) 2-Chloro-1,3-Butadiene	3.842	53	79376	5.44	ug/L		98
31) ETBE	4.434	59	144596	5.22	ug/L		94
32) 2,2-Dichloropropane	4.604	77	54925	5.26	ug/L		87
33) cis-1,2-Dichloroethene	4.617	96	37274	4.87	ug/L	#	66
34) 2-Butanone	4.684	43	41033	4.75	ug/L		94
35) Propionitrile	4.775	54	53996	24.79	ug/L		98

W091015.M Fri Sep 11 10:51:00 2015 MSVO10

00156

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1994.D
Acq On : 10 Sep 2015 6:54 pm
Operator : F. Naegler
Sample : 5.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 09:12:48 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Bromochloromethane	5.056	130	23968	4.86	ug/L		95
37) Methacrylonitrile	5.062	67	22594	4.67	ug/L		90
38) Tetrahydrofuran	5.159	42	29752	5.62	ug/L		87
39) Chloroform	5.245	83	68939	5.30	ug/L		95
40) 1,1,1-Trichloroethane	5.525	97	56553	5.10	ug/L		91
42) Cyclohexane	5.598	41	51651	5.43	ug/L		92
44) Carbontetrachloride	5.781	121	15279	5.57	ug/L		98
45) 1,1-Dichloropropene	5.799	75	48809	5.10	ug/L		86
47) Benzene	6.110	78	145735	5.22	ug/L		87
48) 1,2-Dichloroethane	6.147	62	65386	5.09	ug/L		94
49) Iso-Butyl Alcohol	6.147	43	92214	91.38	ug/L		83
50) TAME	6.342	73	119285	5.07	ug/L		95
51) n-Heptane	6.586	43	64131	5.07	ug/L		97
52) 1-Butanol	7.073	56	124869	229.91	ug/L		98
53) Trichloroethene	7.037	130	45328	5.25	ug/L		89
54) Methylcyclohexane	7.262	55	59676	5.46	ug/L		96
55) 1,2-Diclpropane	7.305	63	45971	5.45	ug/L		84
56) Dibromomethane	7.445	93	24032	4.45	ug/L		91
57) 1,4-Dioxane	7.506	88	18551	95.24	ug/L		86
58) Methyl Methacrylate	7.537	69	34151	4.73	ug/L		97
59) Bromodichloromethane	7.671	83	48722	4.70	ug/L		96
60) 2-Nitropropane	7.945	41	28555	8.13	ug/L	#	80
61) 2-Chloroethylvinyl Ether	8.067	63	31677	4.98	ug/L		97
62) cis-1,3-Dichloropropene	8.201	75	57219	4.84	ug/L		96
63) 4-Methyl-2-pentanone	8.402	43	75546	4.95	ug/L		91
65) Toluene	8.567	91	152764	5.13	ug/L		98
66) trans-1,3-Dichloropropene	8.829	75	50688	4.46	ug/L		95
67) Ethyl Methacrylate	8.963	69	57165	4.60	ug/L		96
68) 1,1,2-Trichloroethane	9.018	97	35043	4.74	ug/L		88
71) Tetrachloroethene	9.146	164	30919	5.24	ug/L		90
72) 2-Hexanone	9.299	43	58330	5.04	ug/L		88
73) 1,3-Dichloropropane	9.177	76	61387	4.88	ug/L		88
74) Dibromochloromethane	9.402	129	35349	4.64	ug/L		88
75) N-Butyl Acetate	9.451	43	101304	5.09	ug/L		91
76) 1,2-Dibromoethane	9.494	107	39231	4.96	ug/L		97
77) 3-Chlorobenzotrifluoride	10.000	180	60297	5.25	ug/L		98
78) Chlorobenzene	9.981	112	103314	5.33	ug/L		96
79) 4-Chlorobenzotrifluoride	10.055	180	51818	5.10	ug/L		88
80) 1,1,1,2-Tetrachloroethane	10.073	131	33745	4.78	ug/L		93
81) Ethylbenzene	10.103	106	54371	5.36	ug/L		95
82) (m+p)Xylene	10.213	106	127939	10.48	ug/L		93
83) o-Xylene	10.567	106	65467	5.35	ug/L		93
84) Styrene	10.579	104	105435	5.03	ug/L		91
85) Bromoform	10.731	173	22615	3.98	ug/L		97
86) 2-Chlorobenzotrifluoride	10.811	180	59013	5.30	ug/L		86
87) Isopropylbenzene	10.896	105	164931	5.40	ug/L		93
88) Cyclohexanone	10.957	55	252002	112.30	ug/L		89
89) trans-1,4-Dichloro-2-B...	11.201	53	16163	4.33	ug/L		86
91) 1,1,2,2-Tetrachloroethane	11.158	83	39633	4.64	ug/L		95
92) Bromobenzene	11.140	156	45763	5.36	ug/L		89
93) 1,2,3-Trichloropropane	11.182	110	17294	5.13	ug/L		93

W091015.M Fri Sep 11 10:51:00 2015 MSVO10

00157

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1994.D
Acq On : 10 Sep 2015 6:54 pm
Operator : F. Naegler
Sample : 5.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 09:12:48 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

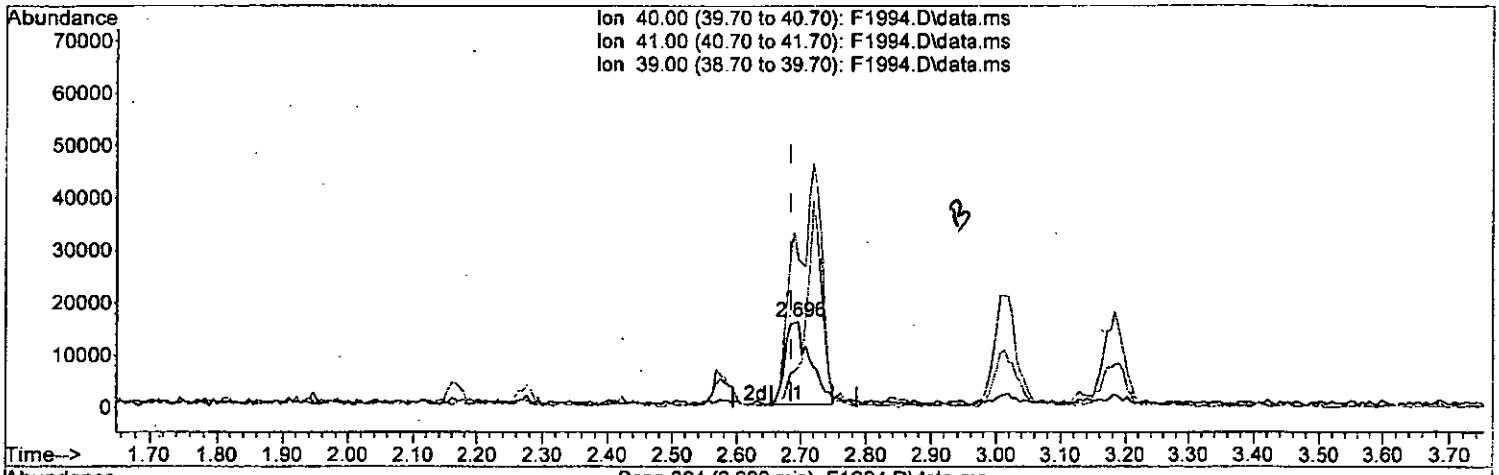
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	n-Propylbenzene	11.249	91	197875	5.79	ug/L	96
95)	2-Chlorotoluene	11.310	91	115416	5.26	ug/L	97
96)	3-Chlorotoluene	11.365	91	122820	5.43	ug/L	96
97)	4-Chlorotoluene	11.402	91	139521	5.45	ug/L	98
98)	1,3,5-Trimethylbenzene	11.402	105	141342	5.99	ug/L	97
99)	tert-Butylbenzene	11.670	119	114637	5.37	ug/L	95
100)	1,2,4-Trimethylbenzene	11.713	105	137432	5.57	ug/L	90
101)	3,4-Dichlorobenzotrifl...	11.774	214	45344	5.07	ug/L	94
102)	sec-Butylbenzene	11.853	105	174333	5.76	ug/L	97
103)	p-Isopropyltoluene	11.975	119	144800	5.73	ug/L	96
104)	1,3-Dclbenz	11.932	146	82347	5.26	ug/L	97
105)	1,4-Dclbenz	12.005	146	88325	5.33	ug/L	98
106)	2,4-Dichlorobenzotrifl...	12.060	214	43729	5.41	ug/L	96
107)	2,5-Dichlorobenzotrifl...	12.097	214	47303	5.33	ug/L	95
108)	n-Butylbenzene	12.304	91	142089	5.52	ug/L	95
109)	1,2-Dclbenz	12.310	146	82489	5.22	ug/L	93
110)	1,2-Dibromo-3-chloropr...	12.932	157	11088	4.35	ug/L	99
111)	Trielution Dichlorotol...	13.048	125	228233	16.25	ug/L	96
112)	1,3,5-Trichlorobenzene	13.103	180	66811	5.35	ug/L	94
113)	Coelution Dichlorotoluene	13.371	125	178374	11.58	ug/L	97
114)	1,2,4-Tcbenzene	13.584	180	63855	5.13	ug/L	93
115)	Hexachlorobt	13.725	225	26434	5.19	ug/L	86
116)	Naphthalen	13.773	128	199071	5.58	ug/L	98
117)	1,2,3-Tclbenzene	13.962	180	68042	5.43	ug/L	93
118)	2,4,5-Trichlorotoluene	14.548	159	49050	4.93	ug/L	95
119)	2,3,6-Trichlorotoluene	14.627	159	47329	5.41	ug/L	90

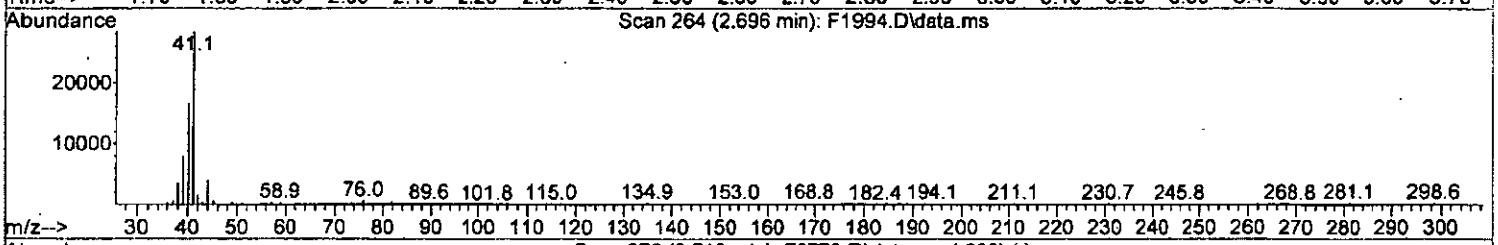
(#) = qualifier out of range (m) = manual integration (+) = signals summed

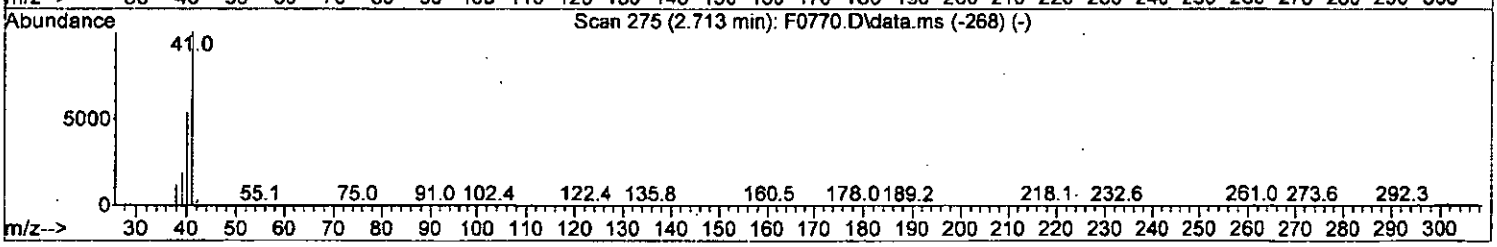
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1994.D
Acq On : 10 Sep 2015 6:54 pm
Operator : F. Naegler
Sample : 5.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 10 19:08:28 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration







TIC: F1994.D\data.ms

(19) Acetonitrile

2.696min (+0.012) 37.45 ug/L

response 43895

Ion	Exp%	Act%
40.00	100	100
41.00	185.70	171.88
39.00	35.30	47.54
0.00	0.00	0.00

W091015.M Fri Sep 11 09:12:38 2015 MSVO10

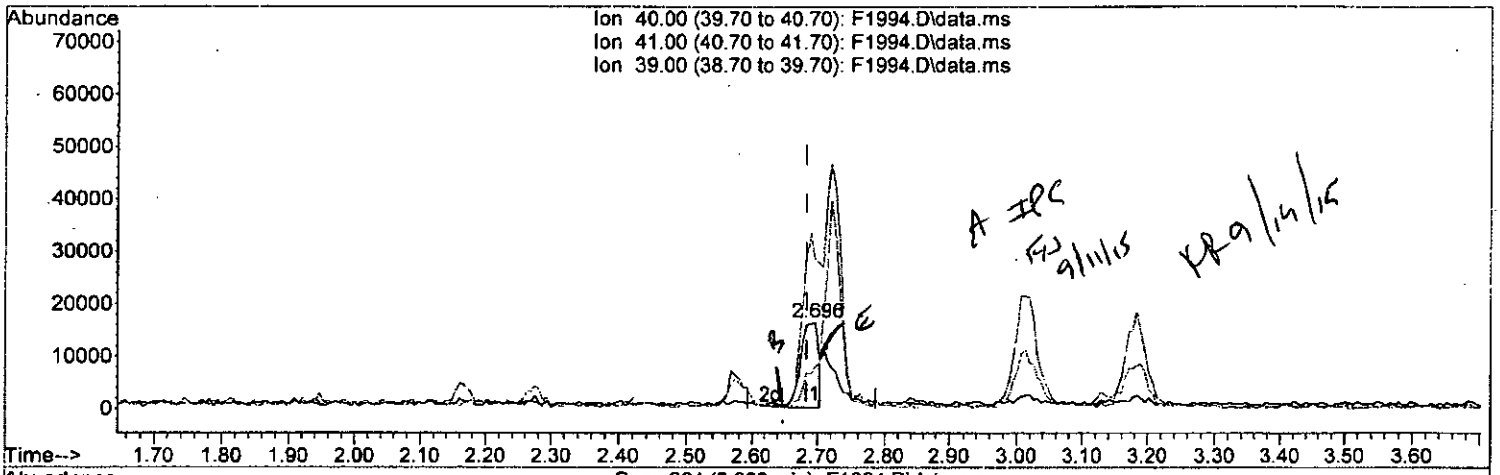
00159

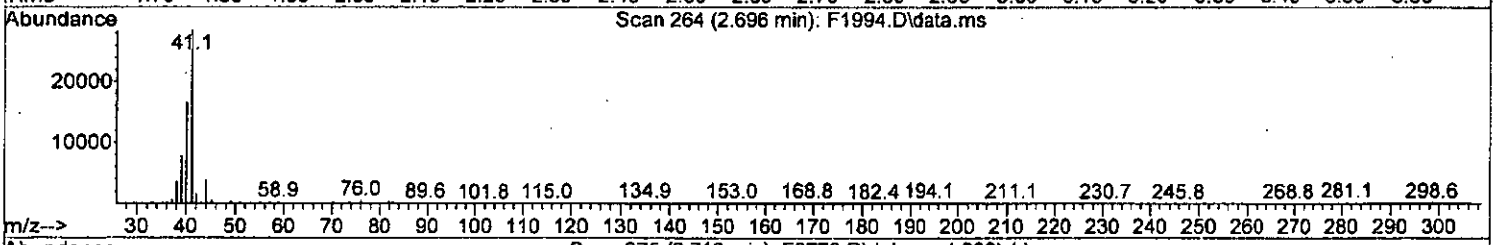
Page

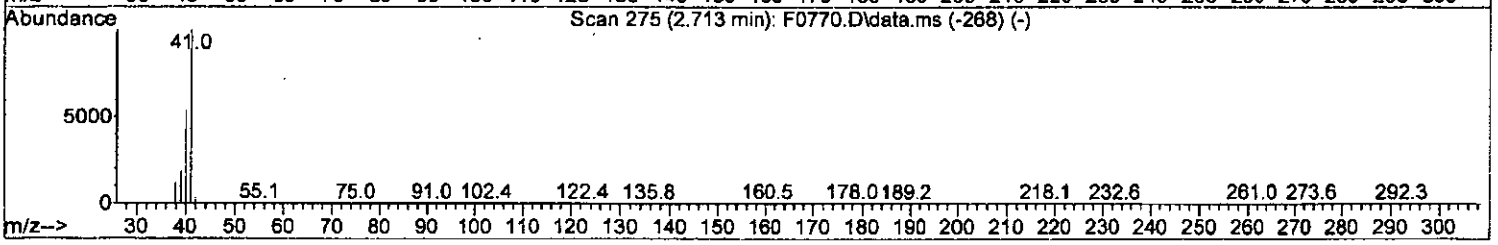
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1994.D
Acq On : 10 Sep 2015 6:54 pm
Operator : F. Naegler
Sample : 5.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 10 19:08:28 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration







TIC: F1994.D\data.ms

(19) Acetonitrile

2.698min (+0.012) 25.14 ug/L m

response 29466

Ion	Exp%	Act%
40.00	100	100
41.00	185.70	171.88
39.00	35.30	47.54
0.00	0.00	0.00

W091015.M Fri Sep 11 09:12:57 2015 MSVO10

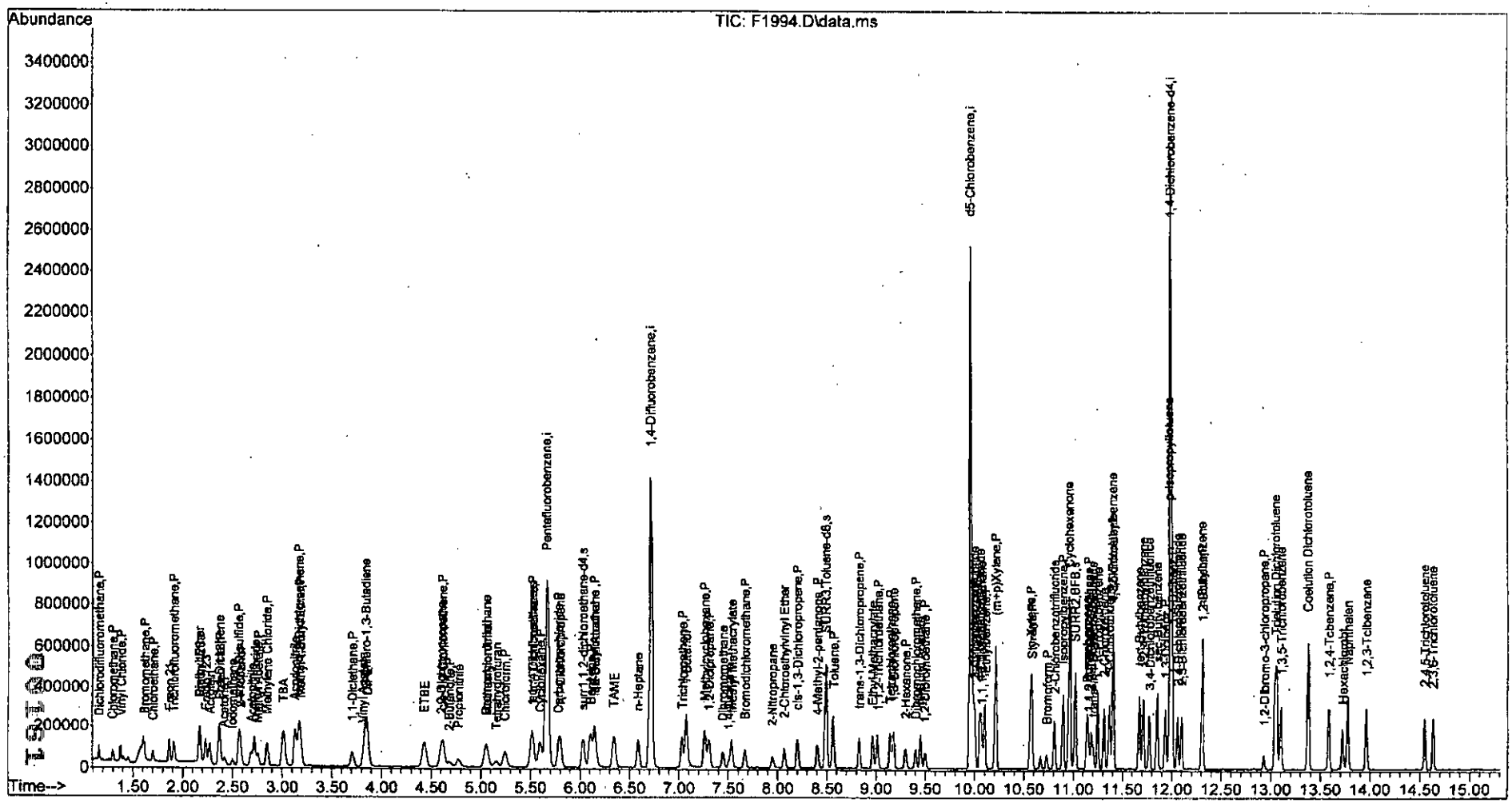
00160

Page

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1994.D
Acq On : 10 Sep 2015 6:54 pm
Operator : F. Naegler
Sample : 5.0 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 09:12:48 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



W091015.M Fri Sep 11 10:51:05 2015 MSVO10 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1995.D
Acq On : 10 Sep 2015 7:18 pm
Operator : F. Naegler
Sample : 20 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 10 19:32:51 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

FU 9/11/15
KF 9/14/15

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.671	168	786265	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.720	114	1119309	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.957	117	969415	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.987	152	526341	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.519	113	141407	19.39	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 38.78%#				
46) surr1,1,2-dichloroetha...	6.031	65	191173	19.28	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 38.56%#				
64) SURR3,Toluene-d8	8.494	98	514485	19.77	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 39.54%#				
69) SURR2,BFB	11.018	95	201208	18.32	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 36.64%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.160	85	151442	22.54	ug/L		97
3) Chloromethane	1.294	50	189973	21.48	ug/L		96
4) Vinyl Chloride	1.380	62	168732	21.74	ug/L		98
5) Bromomethane	1.623	94	88973	20.27	ug/L		99
6) Chloroethane	1.703	64	104520	23.86	ug/L		97
7) Freon 21	1.867	67	284218	22.18	ug/L		100
8) Trichlorofluoromethane	1.916	101	223784	23.10	ug/L		95
9) Diethyl Ether	2.166	59	153804	19.97	ug/L		93
10) Freon 123a	2.172	67	174335	20.79	ug/L		95
11) Freon 123	2.233	83	178222	19.23	ug/L		98
12) Acrolein	2.270	56	250571	98.40	ug/L		93
13) 1,1-Diclethene	2.367	96	126954	19.94	ug/L		90
14) Freon 113	2.373	101	144289	20.93	ug/L		100
15) Acetone	2.416	43	137914	21.11	ug/L		93
16) 2-Propanol	2.568	45	538801	364.35	ug/L		87
17) Iodomethane	2.501	142	175770	24.94	ug/L		93
18) Carbon Disulfide	2.568	76	375174	20.19	ug/L		100
19) Acetonitrile	2.684	40	138864	115.53	ug/L		91
20) Allyl Chloride	2.721	76	77371	20.67	ug/L	#	20
21) Methyl Acetate	2.757	43	246530	20.34	ug/L		99
22) Methylene Chloride	2.849	84	153960	19.77	ug/L		88
23) TBA	3.007	59	786965	384.74	ug/L		100
24) Acrylonitrile	3.129	53	565161	102.99	ug/L		96
25) Methyl-t-Butyl Ether	3.184	73	568911	21.28	ug/L		93
26) trans-1,2-Dichloroethene	3.166	96	145050	21.30	ug/L		90
27) 1,1-Diclethane	3.708	63	296930	21.52	ug/L		98
28) Vinyl Acetate	3.818	86	33408	23.31	ug/L	#	52
29) DIPE	3.855	45	712813	21.46	ug/L		97
30) 2-Chloro-1,3-Butadiene	3.842	53	338046	22.57	ug/L		99
31) ETBE	4.434	59	596843	21.00	ug/L		97
32) 2,2-Dichloropropane	4.604	77	228199	21.32	ug/L		97
33) cis-1,2-Dichloroethene	4.617	96	165627	21.10	ug/L	#	71
34) 2-Butanone	4.678	43	167473	18.92	ug/L		95
35) Propionitrile	4.769	54	229882	102.92	ug/L		97

00162

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1995.D
Acq On : 10 Sep 2015 7:18 pm
Operator : F. Naegler
Sample : 20 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 10 19:32:51 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Bromochloromethane	5.056	130	105147	20.77	ug/L	#	87
37) Methacrylonitrile	5.062	67	97545	19.65	ug/L		93
38) Tetrahydrofuran	5.147	42	102134	18.81	ug/L		86
39) Chloroform	5.245	83	286198	21.46	ug/L		97
40) 1,1,1-Trichloroethane	5.519	97	249870	21.96	ug/L		96
42) Cyclohexane	5.598	41	212279	22.25	ug/L		87
44) Carbontetrachloride	5.787	121	62682	22.80	ug/L		84
45) 1,1-Dichloropropene	5.805	75	205278	21.40	ug/L		93
47) Benzene	6.104	78	619444	22.14	ug/L		88
48) 1,2-Dichloroethane	6.147	62	286977	22.28	ug/L		95
49) Iso-Butyl Alcohol	6.147	43	387853	383.26	ug/L		93
50) TAME	6.342	73	507232	21.51	ug/L		99
51) n-Heptane	6.586	43	275602	21.73	ug/L		93
52) 1-Butanol	7.074	56	533571	979.64	ug/L		91
53) Trichloroethene	7.031	130	178000	20.55	ug/L		95
54) Methylcyclohexane	7.263	55	242984	22.18	ug/L		88
55) 1,2-Diclpropane	7.305	63	179560	21.24	ug/L		96
56) Dibromomethane	7.445	93	111817	20.64	ug/L		97
57) 1,4-Dioxane	7.506	88	72362	370.47	ug/L		91
58) Methyl Methacrylate	7.531	69	148457	20.49	ug/L		89
59) Bromodichloromethane	7.671	83	212086	20.39	ug/L		98
60) 2-Nitropropane	7.945	41	134779	38.24	ug/L		83
61) 2-Chloroethylvinyl Ether	8.067	63	131413	20.62	ug/L		99
62) cis-1,3-Dichloropropene	8.201	75	256220	21.62	ug/L		98
63) 4-Methyl-2-pentanone	8.403	43	317401	20.72	ug/L		96
65) Toluene	8.561	91	660292	22.12	ug/L		96
66) trans-1,3-Dichloropropene	8.829	75	241074	21.14	ug/L		95
67) Ethyl Methacrylate	8.963	69	255279	20.47	ug/L		95
68) 1,1,2-Trichloroethane	9.012	97	153718	20.75	ug/L		90
71) Tetrachloroethene	9.146	164	125148	21.13	ug/L	#	87
72) 2-Hexanone	9.299	43	243708	20.97	ug/L		97
73) 1,3-Dichloropropane	9.177	76	276553	21.88	ug/L		97
74) Dibromochloromethane	9.402	129	159909	20.89	ug/L		95
75) N-Butyl Acetate	9.451	43	425136	21.25	ug/L		95
76) 1,2-Dibromoethane	9.500	107	167115	21.04	ug/L		97
77) 3-Chlorobenzotrifluoride	10.000	180	228245	19.77	ug/L		100
78) Chlorobenzene	9.982	112	420452	21.58	ug/L		98
79) 4-Chlorobenzotrifluoride	10.055	180	197373	19.36	ug/L		94
80) 1,1,1,2-Tetrachloroethane	10.067	131	150341	21.18	ug/L		97
81) Ethylbenzene	10.103	106	221822	21.79	ug/L		98
82) (m+p)Xylene	10.213	106	535677	43.69	ug/L		92
83) o-Xylene	10.567	106	264906	21.56	ug/L		97
84) Styrene	10.579	104	456413	21.69	ug/L		99
85) Bromoform	10.731	173	112117	19.67	ug/L		97
86) 2-Chlorobenzotrifluoride	10.805	180	226832	20.29	ug/L		98
87) Isopropylbenzene	10.896	105	697943	22.77	ug/L		99
88) Cyclohexanone	10.957	55	999455	443.41	ug/L		90
89) trans-1,4-Dichloro-2-B...	11.201	53	72692	19.37	ug/L		97
91) 1,1,2,2-Tetrachloroethane	11.152	83	200329	22.57	ug/L		97
92) Bromobenzene	11.140	156	185070	20.84	ug/L		90
93) 1,2,3-Trichloropropane	11.182	110	72731	20.75	ug/L	#	81

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1995.D
Acq On : 10 Sep 2015 7:18 pm
Operator : F. Naegler
Sample : 20 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 10 19:32:51 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	n-Propylbenzene	11.250	91	842880	23.71	ug/L	98
95)	2-Chlorotoluene	11.311	91	500430	21.95	ug/L	96
96)	3-Chlorotoluene	11.365	91	499779	21.25	ug/L	97
97)	4-Chlorotoluene	11.408	91	603008	22.64	ug/L	99
98)	1,3,5-Trimethylbenzene	11.402	105	581849	23.73	ug/L	97
99)	tert-Butylbenzene	11.670	119	487405	21.95	ug/L	98
100)	1,2,4-Trimethylbenzene	11.713	105	586360	22.84	ug/L	97
101)	3,4-Dichlorobenzotrifl...	11.774	214	173697	18.68	ug/L	99
102)	sec-Butylbenzene	11.853	105	732325	23.27	ug/L	98
103)	p-Isopropyltoluene	11.975	119	604973	23.03	ug/L	98
104)	1,3-Dclbenz	11.932	146	347391	21.34	ug/L	96
105)	1,4-Dclbenz	12.006	146	352481	20.44	ug/L	94
106)	2,4-Dichlorobenzotrifl...	12.060	214	168935	20.08	ug/L	97
107)	2,5-Dichlorobenzotrifl...	12.103	214	185969	20.14	ug/L	99
108)	n-Butylbenzene	12.304	91	595258	22.22	ug/L	100
109)	1,2-Dclbenz	12.310	146	341559	20.78	ug/L	99
110)	1,2-Dibromo-3-chloropr...	12.932	157	52002	19.63	ug/L	91
111)	Trielution Dichlorotol...	13.048	125	934852	64.01	ug/L	96
112)	1,3,5-Trichlorobenzene	13.103	180	266859	20.56	ug/L	93
113)	Coelution Dichlorotoluene	13.377	125	712896	44.48	ug/L	99
114)	1,2,4-Tcbenzene	13.584	180	267062	20.63	ug/L	95
115)	Hexachlorobt	13.719	225	110376	20.82	ug/L	96
116)	Naphthalen	13.773	128	848721	22.89	ug/L	98
117)	1,2,3-Tclbenzene	13.962	180	276673	21.24	ug/L	99
118)	2,4,5-Trichlorotoluene	14.548	159	216331	20.92	ug/L	92
119)	2,3,6-Trichlorotoluene	14.633	159	195924	21.52	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

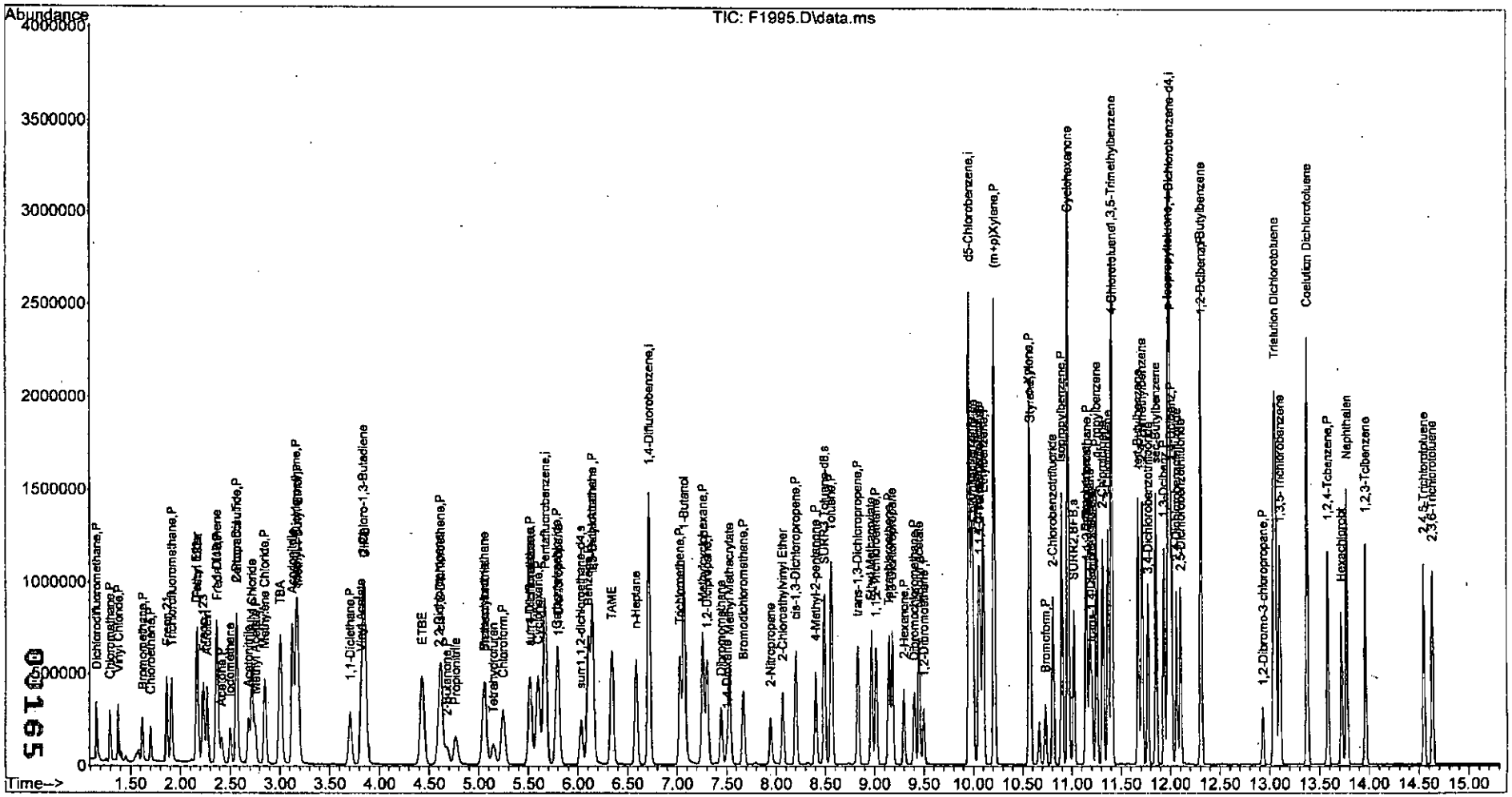
00164

W091015.M Fri Sep 11 10:51:14 2015 MSVO10 Page: 3

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1995.D
Acq On : 10 Sep 2015 7:18 pm
Operator : F. Naegler
Sample : 20 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 10 19:32:51 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



W091015.M Fri Sep 11 10:51:19 2015 MSVO10 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1996.D
Acq On : 10 Sep 2015 7:42 pm
Operator : F. Naegler
Sample : 50 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 09:19:23 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

FN 9/11/15

KF 9/14/15

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.665	168	783952	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.720	114	1119978	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.957	117	995526	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.987	152	558318	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.519	113	370719	50.79	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.58%				
46) surr1,1,2-dichloroetha...	6.031	65	523952	52.81	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 105.62%				
64) SURR3,Toluene-d8	8.494	98	1380567	53.01	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 106.02%				
69) SURR2,BFB	11.018	95	554363	50.45	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.160	85	398542	59.50	ug/L		98
3) Chloromethane	1.294	50	488159	55.37	ug/L		99
4) Vinyl Chloride	1.379	62	433237	55.97	ug/L		96
5) Bromomethane	1.611	94	184251	42.11	ug/L		94
6) Chloroethane	1.696	64	256399	58.70	ug/L		94
7) Freon 21	1.867	67	699876	54.78	ug/L		95
8) Trichlorofluoromethane	1.910	101	559313	57.92	ug/L		97
9) Diethyl Ether	2.166	59	407833	53.10	ug/L		97
10) Freon 123a	2.172	67	472668	56.53	ug/L		93
11) Freon 123	2.233	83	507372	54.91	ug/L		98
12) Acrolein	2.269	56	647301	254.95	ug/L		96
13) 1,1-Diclethene	2.361	96	323598	50.98	ug/L		95
14) Freon 113	2.373	101	364986	53.10	ug/L		94
15) Acetone	2.416	43	324323	49.78	ug/L		97
16) 2-Propanol	2.574	45	1489723	1010.35	ug/L		92
17) Iodomethane	2.501	142	507212	72.17	ug/L		87
18) Carbon Disulfide	2.562	76	959340	51.77	ug/L		99
19) Acetonitrile	2.684	40	345083m	287.94	ug/L		
20) Allyl Chloride	2.727	76	204169	54.70	ug/L	#	47
21) Methyl Acetate	2.757	43	640596	53.00	ug/L		98
22) Methylene Chloride	2.849	84	392936	50.60	ug/L		93
23) TBA	3.013	59	2043967	1002.22	ug/L		94
24) Acrylonitrile	3.129	53	1447765	264.60	ug/L		98
25) Methyl-t-Butyl Ether	3.184	73	1420034	53.27	ug/L		97
26) trans-1,2-Dichloroethene	3.166	96	358257	52.76	ug/L		96
27) 1,1-Diclethane	3.708	63	766323	55.71	ug/L		97
28) Vinyl Acetate	3.818	86	82497	57.72	ug/L	#	84
29) DIPE	3.855	45	1748826	52.80	ug/L		94
30) 2-Chloro-1,3-Butadiene	3.842	53	858606	57.50	ug/L		89
31) ETBE	4.434	59	1487217	52.48	ug/L		95
32) 2,2-Dichloropropane	4.610	77	585758	54.88	ug/L		98
33) cis-1,2-Dichloroethene	4.617	96	411737	52.60	ug/L	#	79
34) 2-Butanone	4.678	43	422093	47.82	ug/L		96
35) Propionitrile	4.769	54	591461	265.59	ug/L		99

00166

W091015.M Fri Sep 11 10:51:29 2015 MSVO10 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1996.D
Acq On : 10 Sep 2015 7:42 pm
Operator : F. Naegler
Sample : 50 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 09:19:23 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36)	Bromochloromethane	5.056	130	264522	52.41	ug/L		93
37)	Methacrylonitrile	5.056	67	239887	48.46	ug/L		97
38)	Tetrahydrofuran	5.147	42	264296	48.81	ug/L		85
39)	Chloroform	5.245	83	724398	54.47	ug/L		95
40)	1,1,1-Trichloroethane	5.519	97	635250	55.99	ug/L		94
42)	Cyclohexane	5.598	41	534382	55.98	ug/L		88
44)	Carbontetrachloride	5.787	121	164602	59.83	ug/L		79
45)	1,1-Dichloropropene	5.799	75	521995	54.37	ug/L		98
47)	Benzene	6.104	78	1573816	56.22	ug/L		85
48)	1,2-Dichloroethane	6.147	62	713564	55.36	ug/L		99
49)	Iso-Butyl Alcohol	6.147	43	1051115	1038.05	ug/L		91
50)	TAME	6.342	73	1255850	53.23	ug/L		100
51)	n-Heptane	6.586	43	702460	55.35	ug/L		95
52)	1-Butanol	7.080	56	1464303	2686.85	ug/L		92
53)	Trichloroethene	7.031	130	440106	50.77	ug/L		97
54)	Methylcyclohexane	7.262	55	602994	55.00	ug/L		88
55)	1,2-Diclpropane	7.305	63	454363	53.72	ug/L		98
56)	Dibromomethane	7.445	93	280232	51.70	ug/L		94
57)	1,4-Dioxane	7.506	88	184352	943.26	ug/L		92
58)	Methyl Methacrylate	7.531	69	378594	52.21	ug/L		95
59)	Bromodichloromethane	7.671	83	550425	52.89	ug/L		97
60)	2-Nitropropane	7.945	41	383769	108.83	ug/L		91
61)	2-Chloroethylvinyl Ether	8.067	63	343435	53.84	ug/L		91
62)	cis-1,3-Dichloropropene	8.201	75	654832	55.23	ug/L		99
63)	4-Methyl-2-pentanone	8.402	43	795125	51.87	ug/L		97
65)	Toluene	8.561	91	1652772	55.34	ug/L		97
66)	trans-1,3-Dichloropropene	8.829	75	616155	53.99	ug/L		99
67)	Ethyl Methacrylate	8.969	69	673194	53.94	ug/L		97
68)	1,1,2-Trichloroethane	9.012	97	392040	52.90	ug/L	#	88
71)	Tetrachloroethene	9.146	164	323140	53.13	ug/L		89
72)	2-Hexanone	9.299	43	621778	52.11	ug/L		94
73)	1,3-Dichloropropane	9.177	76	678620	52.28	ug/L		99
74)	Dibromochloromethane	9.402	129	427065	54.34	ug/L		99
75)	N-Butyl Acetate	9.451	43	1179936	57.42	ug/L		95
76)	1,2-Dibromoethane	9.500	107	425557	52.17	ug/L		98
77)	3-Chlorobenzotrifluoride	10.000	180	565855	47.73	ug/L		98
78)	Chlorobenzene	9.981	112	1077322	53.84	ug/L		96
79)	4-Chlorobenzotrifluoride	10.055	180	503475	48.08	ug/L		97
80)	1,1,1,2-Tetrachloroethane	10.073	131	399900	54.87	ug/L		99
81)	Ethylbenzene	10.103	106	573583	54.86	ug/L		97
82)	(m+p)Xylene	10.213	106	1386918	110.16	ug/L		93
83)	o-Xylene	10.567	106	678997	53.81	ug/L		94
84)	Styrene	10.579	104	1173510	54.30	ug/L		98
85)	Bromoform	10.731	173	321914	54.99	ug/L		95
86)	2-Chlorobenzotrifluoride	10.810	180	547414	47.68	ug/L		99
87)	Isopropylbenzene	10.896	105	1772693	56.31	ug/L		97
88)	Cyclohexanone	10.957	55	2550354	1101.80	ug/L		88
89)	trans-1,4-Dichloro-2-B...	11.201	53	209416	54.34	ug/L		98
91)	1,1,2,2-Tetrachloroethane	11.152	83	558701	59.33	ug/L		95
92)	Bromobenzene	11.140	156	476411	50.57	ug/L		91
93)	1,2,3-Trichloropropane	11.182	110	185268	49.82	ug/L	#	87

00167

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1996.D
Acq On : 10 Sep 2015 7:42 pm
Operator : F. Naegler
Sample : 50 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 09:19:23 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	n-Propylbenzene	11.249	91	2160769	57.30	ug/L	96
95)	2-Chlorotoluene	11.310	91	1303371	53.89	ug/L	98
96)	3-Chlorotoluene	11.365	91	1240874	49.73	ug/L	99
97)	4-Chlorotoluene	11.408	91	1550083	54.86	ug/L	97
98)	1,3,5-Trimethylbenzene	11.402	105	1516028	58.28	ug/L	98
99)	tert-Butylbenzene	11.670	119	1288131	54.68	ug/L	98
100)	1,2,4-Trimethylbenzene	11.713	105	1534888	56.37	ug/L	96
101)	3,4-Dichlorobenzotrifl...	11.774	214	446871	45.30	ug/L	99
102)	sec-Butylbenzene	11.853	105	1910238	57.22	ug/L	96
103)	p-Isopropyltoluene	11.975	119	1583655	56.84	ug/L	95
104)	1,3-Dclbenz	11.932	146	892171	51.67	ug/L	97
105)	1,4-Dclbenz	12.005	146	921271	50.36	ug/L	98
106)	2,4-Dichlorobenzotrifl...	12.060	214	405137	45.40	ug/L	98
107)	2,5-Dichlorobenzotrifl...	12.103	214	468105	47.79	ug/L	97
108)	n-Butylbenzene	12.304	91	1589793	55.95	ug/L	98
109)	1,2-Dclbenz	12.310	146	905529	51.95	ug/L	96
110)	1,2-Dibromo-3-chloropr...	12.932	157	154510	55.00	ug/L	98
111)	Trielution Dichlorotol...	13.048	125	2349468	151.65	ug/L	96
112)	1,3,5-Trichlorobenzene	13.103	180	678158	49.26	ug/L	99
113)	Coelution Dichlorotoluene	13.377	125	1787438	105.14	ug/L	96
114)	1,2,4-Tcbenzene	13.584	180	714996	52.06	ug/L	97
115)	Hexachlorobt	13.718	225	314793	55.97	ug/L	99
116)	Naphthalen	13.773	128	2140524	54.42	ug/L	97
117)	1,2,3-Tclbenzene	13.962	180	729669	52.82	ug/L	99
118)	2,4,5-Trichlorotoluene	14.548	159	527867	48.12	ug/L	94
119)	2,3,6-Trichlorotoluene	14.633	159	473717	49.06	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

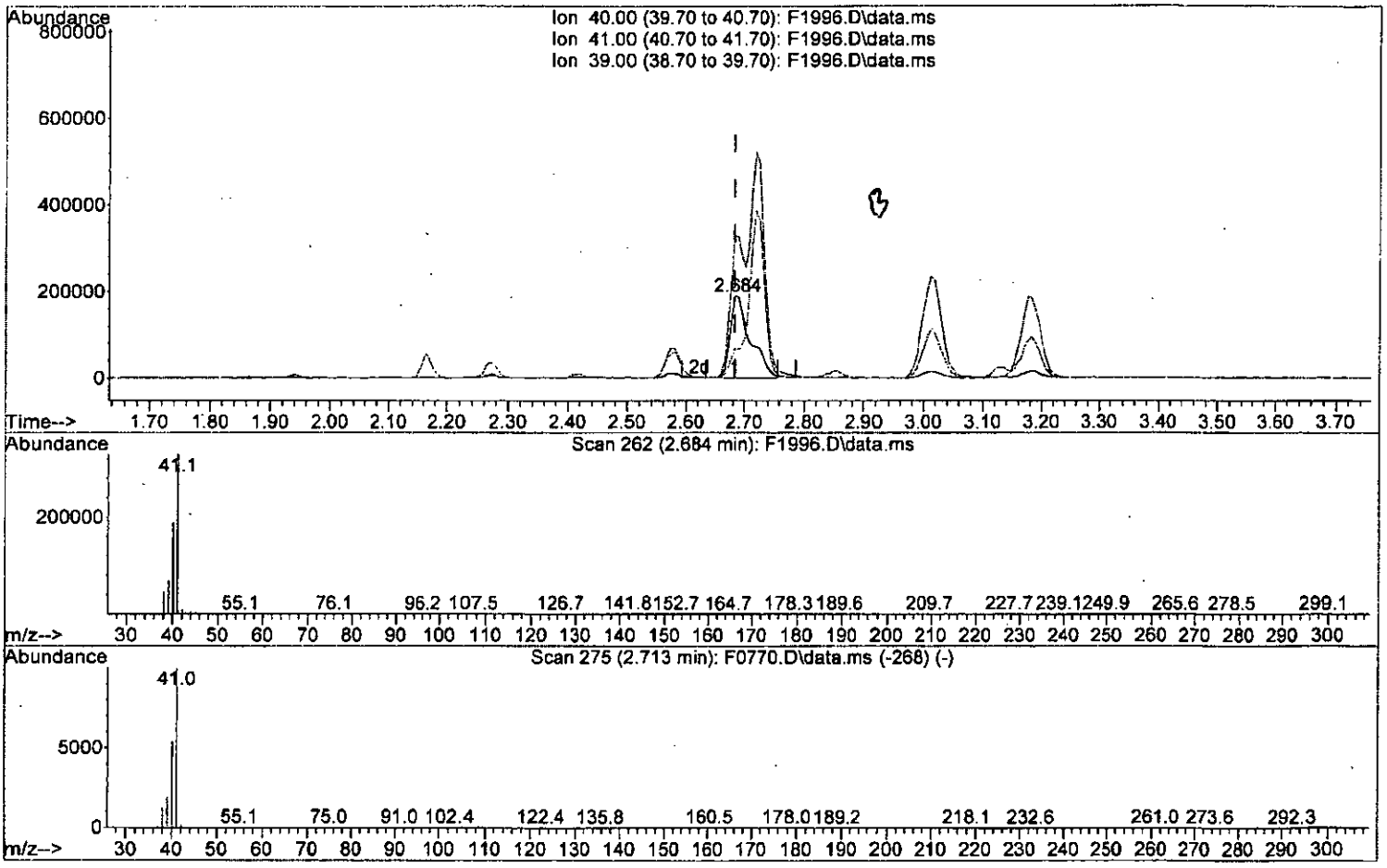
W091015.M Fri Sep 11 10:51:29 2015 MSVO10

00168

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1996.D
Acq On : 10 Sep 2015 7:42 pm
Operator : F. Naegler
Sample : 50 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 10 19:57:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1996.D\data.ms

(19) Acetonitrile

2.684min (-0.000) 382.90 ug/L

response 458880

Ion	Exp%	Act%
40.00	100	100
41.00	185.70	173.98
39.00	35.30	36.40
0.00	0.00	0.00

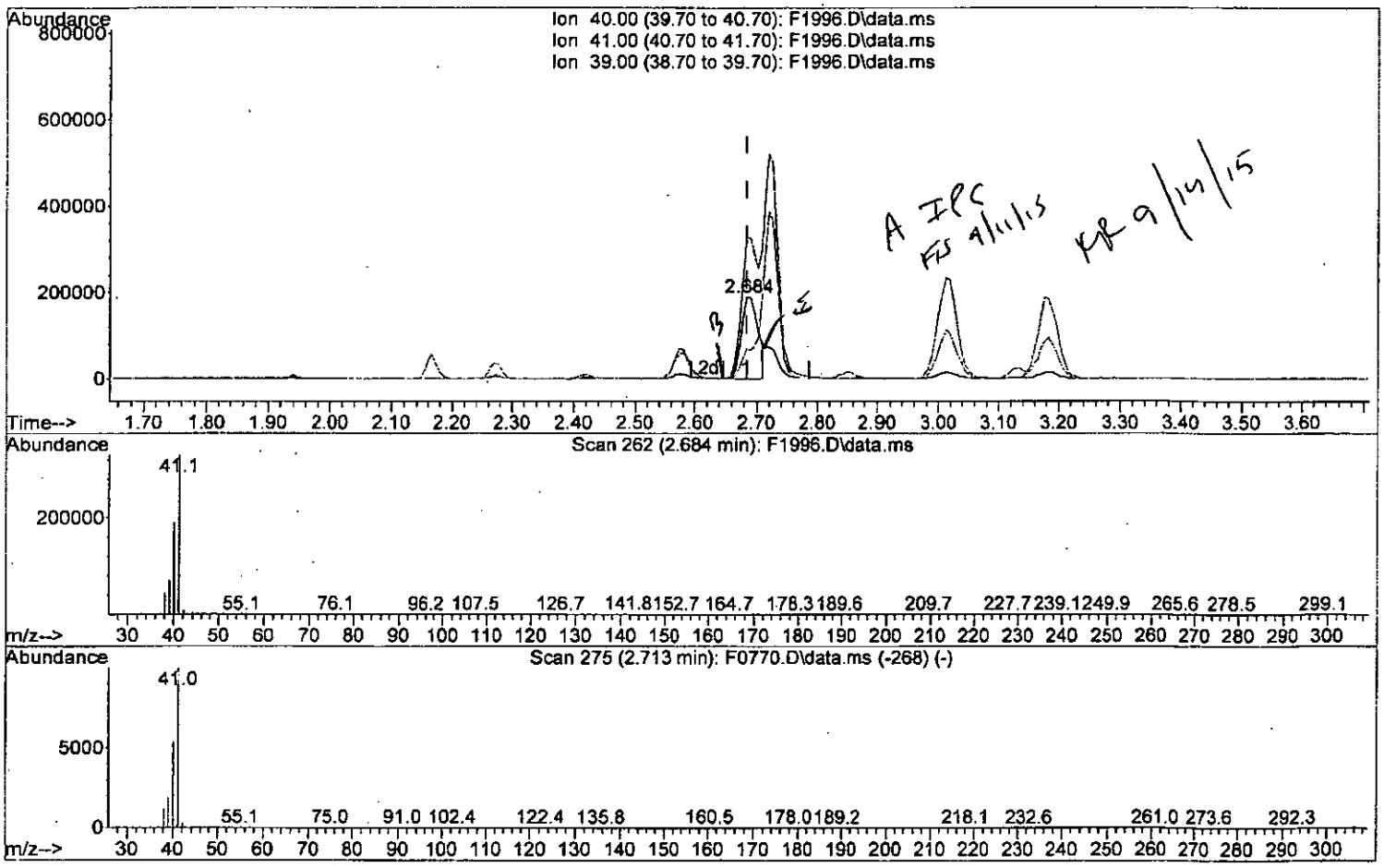
00169

W091015.M Fri Sep 11 09:19:16 2015 MSVO10 Page

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1996.D
Acq On : 10 Sep 2015 7:42 pm
Operator : F. Naegler
Sample : 50 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 10 19:57:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1996.D\data.ms

(19) Acetonitrile

2.684min (-0.000) 287.94 ug/L m

response 345083

Ion	Exp%	Act%
40.00	100	100
41.00	185.70	173.98
39.00	35.30	36.40
0.00	0.00	0.00

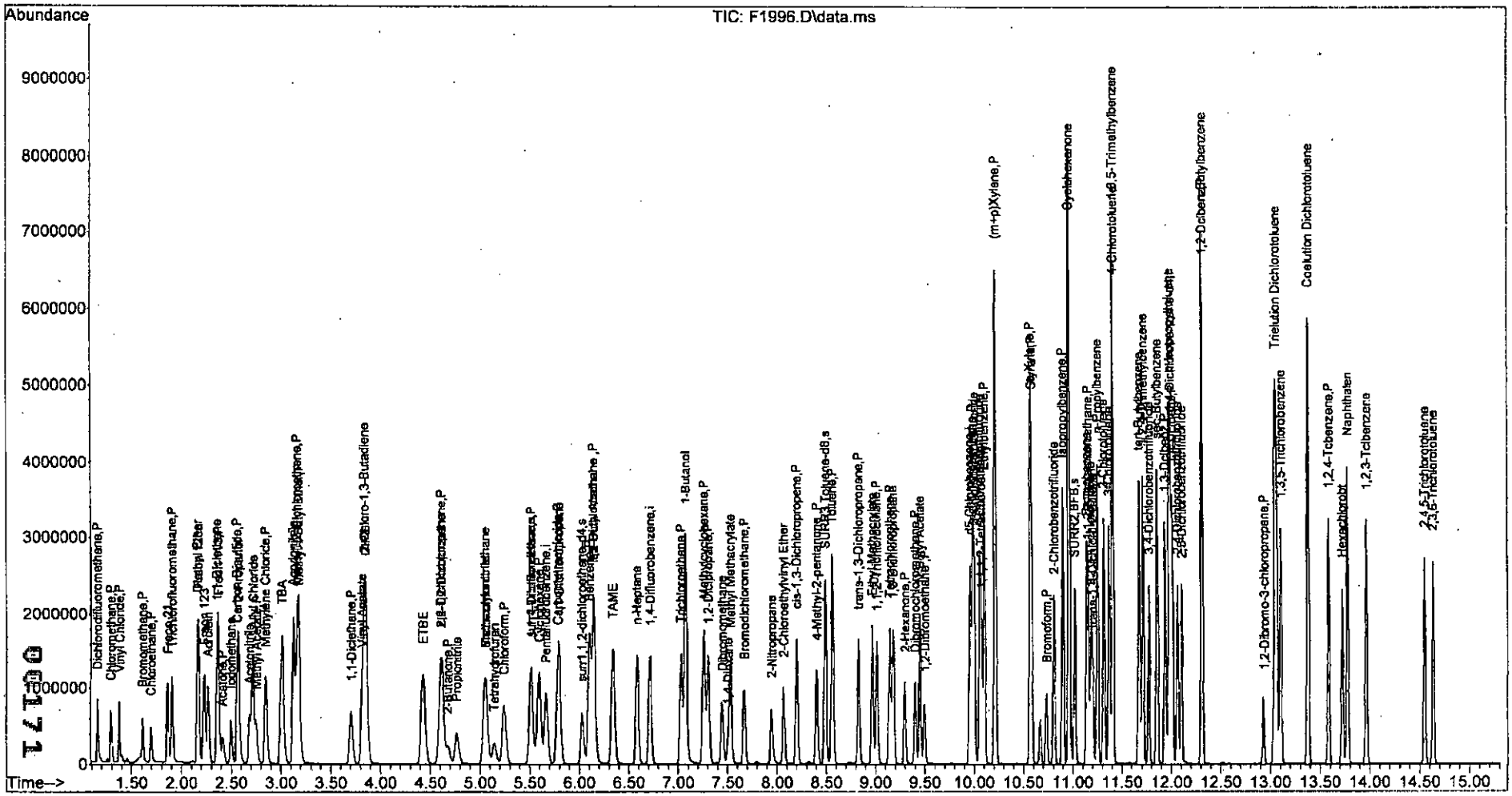
00170

W091015.M Fri Sep 11 09:19:31 2015 MSVO10 Page

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1996.D
Acq On : 10 Sep 2015 7:42 pm
Operator : F. Naegler
Sample : 50 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 09:19:23 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



W091015.M Fri Sep 11 10:51:34 2015 MSVO10 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1997.D
Acq On : 10 Sep 2015 8:06 pm
Operator : F. Naegler
Sample : 100 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 11 09:25:15 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

FW 9/11/15 KR 9/14/15

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.665	168	819279	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.720	114	1159307	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.957	117	1026873	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.987	152	608298	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.519	113	751121	99.43	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 198.86%#				
46) surr1,1,2-dichloroetha...	6.031	65	1063065	103.52	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 207.04%#				
64) SURR3,Toluene-d8	8.494	98	2707005	100.41	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 200.82%#				
69) SURR2,BFB	11.018	95	1172559	103.08	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 206.16%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.160	85	754181m	107.74	ug/L		
3) Chloromethane	1.294	50	953834	103.52	ug/L		98
4) Vinyl Chloride	1.380	62	833818	103.08	ug/L		97
5) Bromomethane	1.611	94	286352	62.62	ug/L		100
6) Chloroethane	1.690	64	490023	107.34	ug/L		93
7) Freon 21	1.861	67	1383825	103.64	ug/L		94
8) Trichlorofluoromethane	1.910	101	1057214	104.75	ug/L		99
9) Diethyl Ether	2.166	59	819834	102.15	ug/L		97
10) Freon 123a	2.172	67	916498	104.89	ug/L		97
11) Freon 123	2.233	83	1005264	104.10	ug/L		96
12) Acrolein	2.276	56	1272526	479.59	ug/L		93
13) 1,1-Diclethene	2.361	96	638980	96.33	ug/L		98
14) Freon 113	2.367	101	698194	97.19	ug/L		95
15) Acetone	2.422	43	671100	98.57	ug/L		97
16) 2-Propanol	2.593	45	3101511	2012.78	ug/L		89
17) Iodomethane	2.501	142	1033846	140.77	ug/L		91
18) Carbon Disulfide	2.562	76	1974453	101.96	ug/L		99
19) Acetonitrile	2.690	40	729517m	582.47	ug/L		
20) Allyl Chloride	2.721	76	402512	103.19	ug/L	#	29
21) Methyl Acetate	2.757	43	1297815	102.75	ug/L		97
22) Methylene Chloride	2.849	84	784618	96.69	ug/L		93
23) TBA	3.032	59	4263889	2000.56	ug/L		94
24) Acrylonitrile	3.135	53	2832415	495.34	ug/L		94
25) Methyl-t-Butyl Ether	3.184	73	2789846	100.15	ug/L		96
26) trans-1,2-Dichloroethene	3.166	96	714395	100.66	ug/L		92
27) 1,1-Diclethane	3.708	63	1501163	104.42	ug/L		96
28) Vinyl Acetate	3.818	86	157208	105.26	ug/L	#	87
29) DIPE	3.855	45	3448447	99.63	ug/L		90
30) 2-Chloro-1,3-Butadiene	3.842	53	1725824	110.59	ug/L		88
31) ETBE	4.434	59	2921713	98.66	ug/L		95
32) 2,2-Dichloropropane	4.611	77	1128313	101.16	ug/L		95
33) cis-1,2-Dichloroethene	4.623	96	802597	98.11	ug/L	#	83
34) 2-Butanone	4.684	43	890882	96.58	ug/L		95
35) Propionitrile	4.775	54	1206214	518.28	ug/L		99

00172

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1997.D
Acq On : 10 Sep 2015 8:06 pm
Operator : F. Naegler
Sample : 100 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 11 09:25:15 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Bromochloromethane	5.050	130	532322	100.92	ug/L		97
37) Methacrylonitrile	5.068	67	494565	95.59	ug/L		91
38) Tetrahydrofuran	5.147	42	544776	96.28	ug/L		87
39) Chloroform	5.245	83	1428225	102.77	ug/L		98
40) 1,1,1-Trichloroethane	5.519	97	1251678	105.57	ug/L		97
42) Cyclohexane	5.598	41	1082091	109.51	ug/L		87
44) Carbontetrachloride	5.787	121	327709	115.07	ug/L		82
45) 1,1-Dichloropropene	5.799	75	1024594	103.11	ug/L		99
47) Benzene	6.104	78	3054975	105.42	ug/L		86
48) 1,2-Dichloroethane	6.147	62	1393223	104.41	ug/L		96
49) Iso-Butyl Alcohol	6.159	43	2256783	2153.12	ug/L		91
50) TAME	6.342	73	2473785	101.30	ug/L		96
51) n-Heptane	6.586	43	1325139	100.87	ug/L		95
52) 1-Butanol	7.086	56	3132749	5553.28	ug/L		91
53) Trichloroethene	7.031	130	860401	95.89	ug/L		96
54) Methylcyclohexane	7.263	55	1188902	104.77	ug/L		90
55) 1,2-Diclpropane	7.305	63	894371	102.15	ug/L		95
56) Dibromomethane	7.445	93	548354	97.74	ug/L		93
57) 1,4-Dioxane	7.506	88	395442	1954.68	ug/L		95
58) Methyl Methacrylate	7.531	69	769058	102.46	ug/L		95
59) Bromodichloromethane	7.671	83	1087080	100.91	ug/L		99
60) 2-Nitropropane	7.945	41	837860	229.55	ug/L		97
61) 2-Chloroethylvinyl Ether	8.067	63	692199	104.84	ug/L		98
62) cis-1,3-Dichloropropene	8.201	75	1305602	106.37	ug/L		99
63) 4-Methyl-2-pentanone	8.403	43	1669554	105.23	ug/L		98
65) Toluene	8.561	91	3188620	103.14	ug/L		95
66) trans-1,3-Dichloropropene	8.829	75	1263111	106.93	ug/L		97
67) Ethyl Methacrylate	8.970	69	1348233	104.36	ug/L		100
68) 1,1,2-Trichloroethane	9.012	97	774588	100.96	ug/L		88
71) Tetrachloroethene	9.146	164	627936	100.08	ug/L		93
72) 2-Hexanone	9.299	43	1323336	107.52	ug/L		96
73) 1,3-Dichloropropane	9.183	76	1351010	100.90	ug/L		96
74) Dibromochloromethane	9.402	129	875690	108.02	ug/L		97
75) N-Butyl Acetate	9.451	43	2401296	113.30	ug/L		97
76) 1,2-Dibromoethane	9.500	107	846798	100.64	ug/L		99
77) 3-Chlorobenzotrifluoride	10.000	180	1181165	96.60	ug/L		98
78) Chlorobenzene	9.981	112	2061708	99.89	ug/L		95
79) 4-Chlorobenzotrifluoride	10.055	180	1050038	97.21	ug/L		97
80) 1,1,1,2-Tetrachloroethane	10.073	131	809603	107.70	ug/L		99
81) Ethylbenzene	10.103	106	1124684	104.28	ug/L	#	83
82) (m+p)Xylene	10.213	106	2657078	204.61	ug/L	#	81
83) o-Xylene	10.567	106	1346082	103.41	ug/L		100
84) Styrene	10.579	104	2325901	104.33	ug/L		95
85) Bromoform	10.731	173	672767	111.41	ug/L		99
86) 2-Chlorobenzotrifluoride	10.811	180	1194615	100.87	ug/L		99
87) Isopropylbenzene	10.896	105	3320493	102.26	ug/L		93
88) Cyclohexanone	10.963	55	4979234	2085.46	ug/L		82
89) trans-1,4-Dichloro-2-B...	11.201	53	475802	119.69	ug/L		99
91) 1,1,2,2-Tetrachloroethane	11.158	83	1195295	116.51	ug/L		98
92) Bromobenzene	11.140	156	951065	92.66	ug/L	#	88
93) 1,2,3-Trichloropropane	11.189	110	383810	94.73	ug/L	#	90

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1997.D
Acq On : 10 Sep 2015 8:06 pm
Operator : F. Naegler
Sample : 100 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 11 09:25:15 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

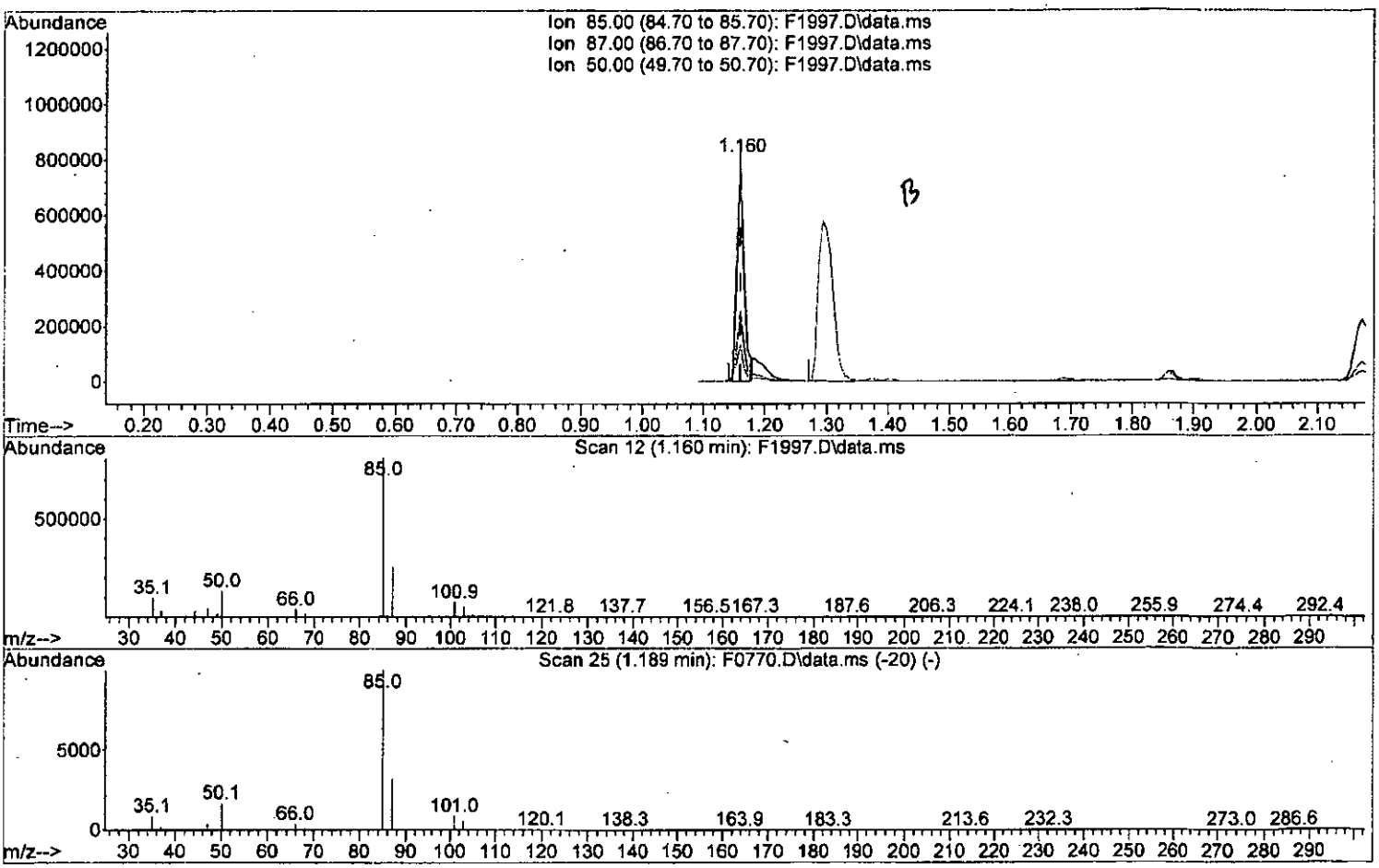
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	n-Propylbenzene	11.250	91	3969020	96.60	ug/L	93
95)	2-Chlorotoluene	11.310	91	2542190	96.47	ug/L	97
96)	3-Chlorotoluene	11.365	91	2614762	96.19	ug/L	98
97)	4-Chlorotoluene	11.408	91	2988763	97.08	ug/L	94
98)	1,3,5-Trimethylbenzene	11.402	105	2907285	102.59	ug/L	93
99)	tert-Butylbenzene	11.670	119	2513584	97.93	ug/L	99
100)	1,2,4-Trimethylbenzene	11.713	105	2953143	99.54	ug/L	91
101)	3,4-Dichlorobenzotrifl...	11.774	214	947940	88.19	ug/L	98
102)	sec-Butylbenzene	11.853	105	3589816	98.69	ug/L	92
103)	p-Isopropyltoluene	11.975	119	3073282	101.24	ug/L	90
104)	1,3-Dclbenz	11.938	146	1831808	97.38	ug/L	99
105)	1,4-Dclbenz	12.012	146	1871581	93.90	ug/L	96
106)	2,4-Dichlorobenzotrifl...	12.060	214	914039	94.01	ug/L	100
107)	2,5-Dichlorobenzotrifl...	12.103	214	1026682	96.19	ug/L	97
108)	n-Butylbenzene	12.304	91	3077274	99.40	ug/L	95
109)	1,2-Dclbenz	12.310	146	1851897	97.51	ug/L	96
110)	1,2-Dibromo-3-chloropr...	12.926	157	336307	109.87	ug/L	89
111)	Trielution Dichlorotol...	13.048	125	4920249	291.50	ug/L	93
112)	1,3,5-Trichlorobenzene	13.103	180	1478842	98.59	ug/L	98
113)	Coelution Dichlorotoluene	13.377	125	3593549	194.01	ug/L	89
114)	1,2,4-Tcbenzene	13.584	180	1434319	95.86	ug/L	100
115)	Hexachlorobt	13.719	225	630018	102.82	ug/L	95
116)	Naphthalen	13.773	128	4039019	94.25	ug/L	91
117)	1,2,3-Tclbenzene	13.962	180	1454451	96.63	ug/L	99
118)	2,4,5-Trichlorotoluene	14.548	159	1129342	94.50	ug/L	96
119)	2,3,6-Trichlorotoluene	14.633	159	985816	93.71	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1997.D
Acq On : 10 Sep 2015 8:06 pm
Operator : F. Naegler
Sample : 100 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 10 20:21:25 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1997.D\data.ms

(2) Dichlorodifluoromethane (P)

1.160min (+0.000) 90.59 ug/L

response 634138

Ion	Exp%	Act%
85.00	100	100
87.00	32.20	31.13
50.00	17.40	16.20
0.00	0.00	0.00

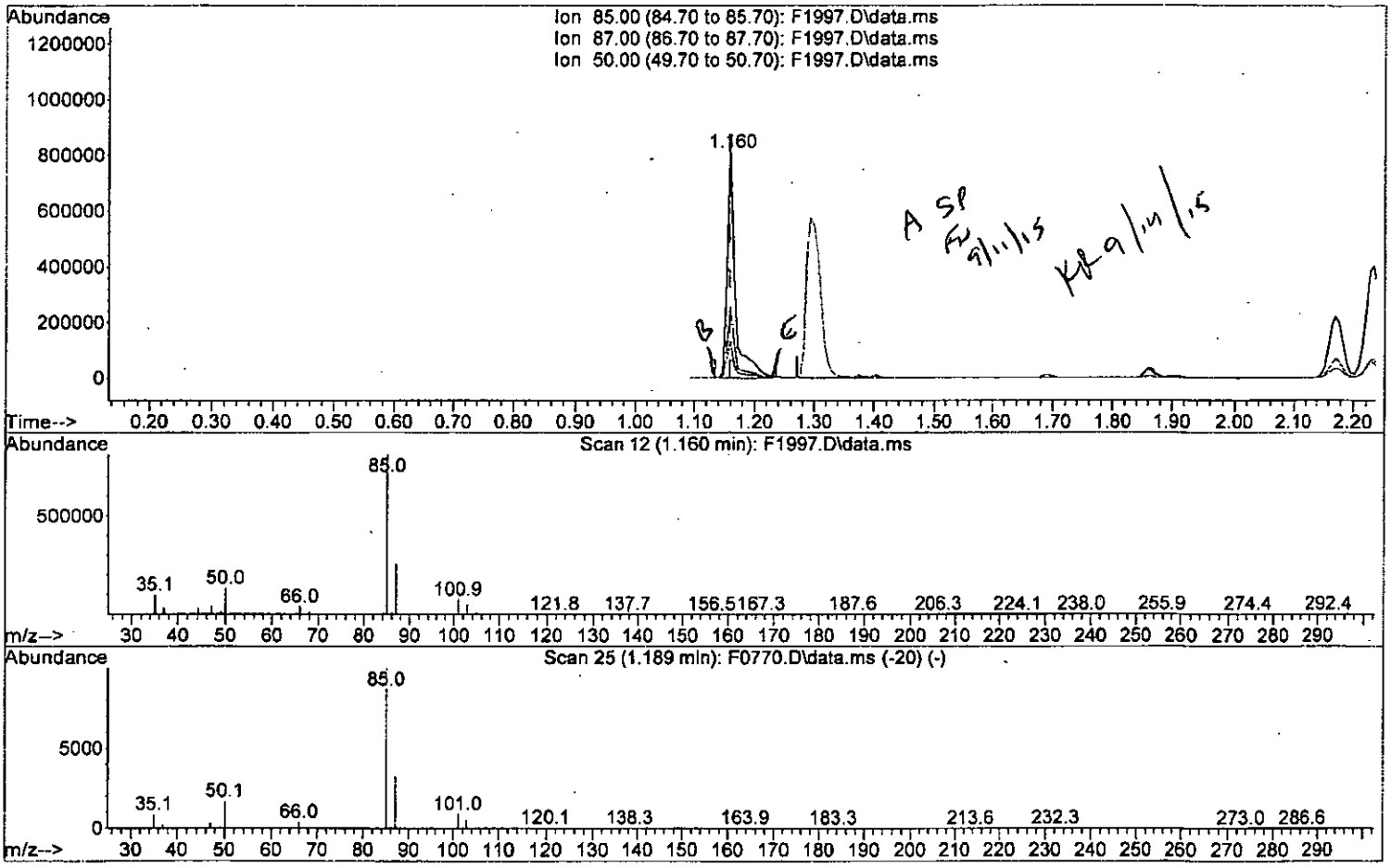
00175

W091015.M Fri Sep 11 09:24:33 2015 MSVO10 Page

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1997.D
Acq On : 10 Sep 2015 8:06 pm
Operator : F. Naegler
Sample : 100 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 10 20:21:25 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1997.D\data.ms

(2) Dichlorodifluoromethane (P)

1.160min (+0.000) 107.74 ug/L m

response 754181

Ion	Exp%	Act%
85.00	100	100
87.00	32.20	31.13
50.00	17.40	16.20
0.00	0.00	0.00

W091015.M Fri Sep 11 09:24:46 2015 MSVO10

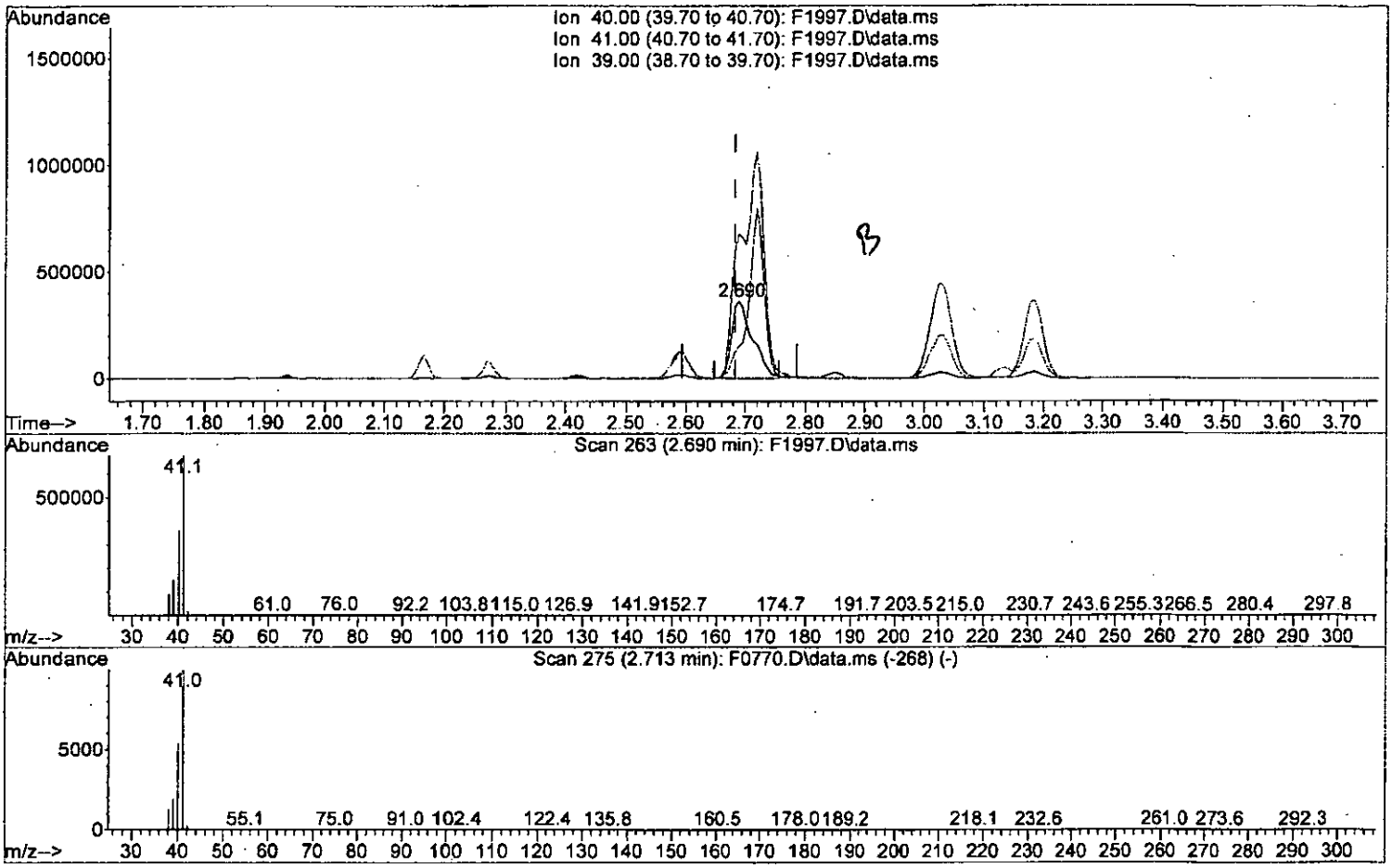
00176

Page

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1997.D
Acq On : 10 Sep 2015 8:06 pm
Operator : F. Naegler
Sample : 100 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 10 20:21:25 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1997.D\data.ms

(19) Acetonitrile

2.690min (+0.006) 714.60 ug/L

response 894996

Ion	Exp%	Act%
40.00	100	100
41.00	185.70	187.02
39.00	35.30	41.33
0.00	0.00	0.00

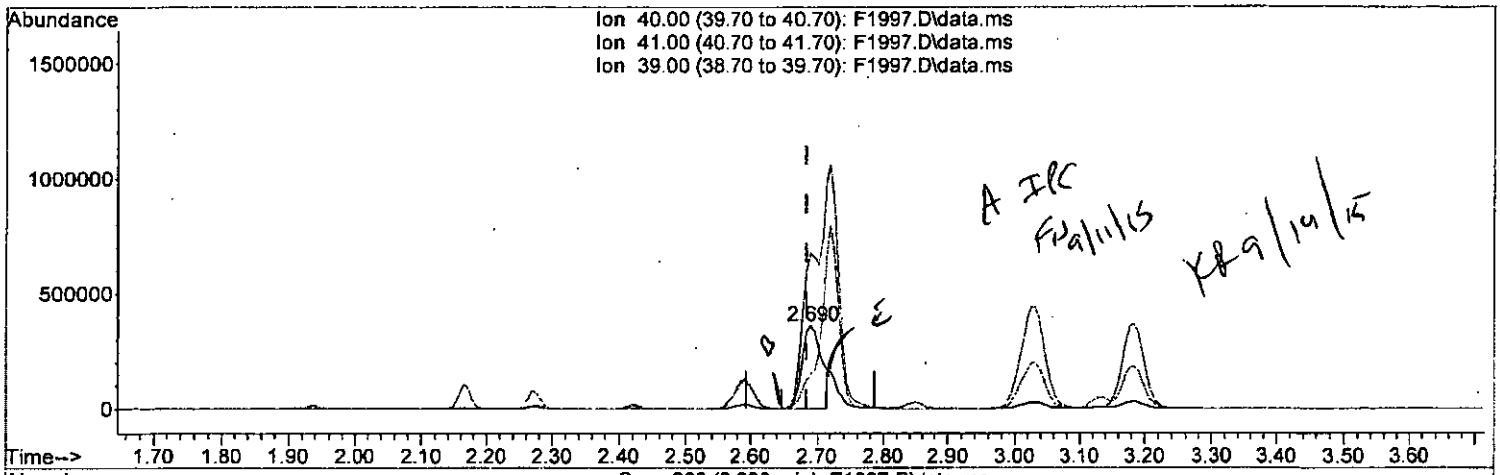
00177

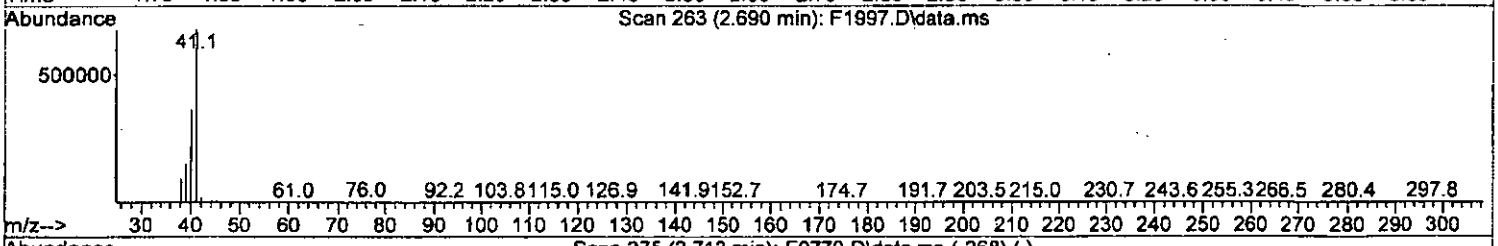
W091015.M Fri Sep 11 09:25:08 2015 MSVO10 Page

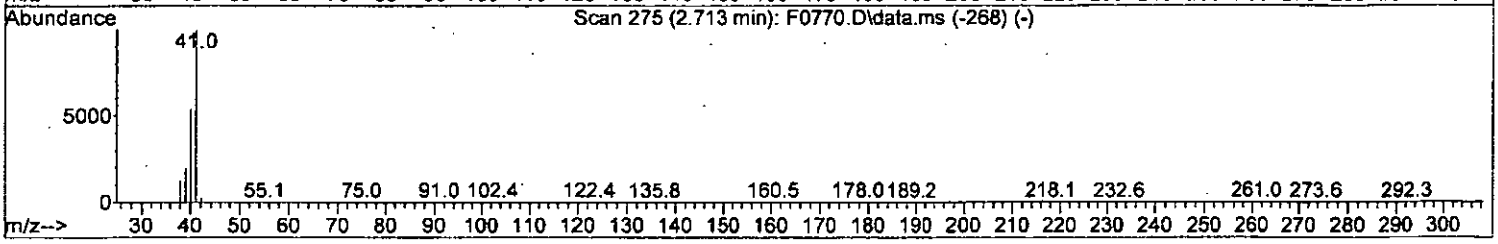
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1997.D
Acq On : 10 Sep 2015 8:06 pm
Operator : F. Naegler
Sample : 100 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 10 20:21:25 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration







TIC: F1997.D\data.ms

(19) Acetonitrile

2.690min (+0.006) 582.47 ug/L m

response 729517

Ion	Exp%	Act%
40.00	100	100
41.00	185.70	187.02
39.00	35.30	41.33
0.00	0.00	0.00

W091015.M Fri Sep 11 09:25:24 2015 MSVO10

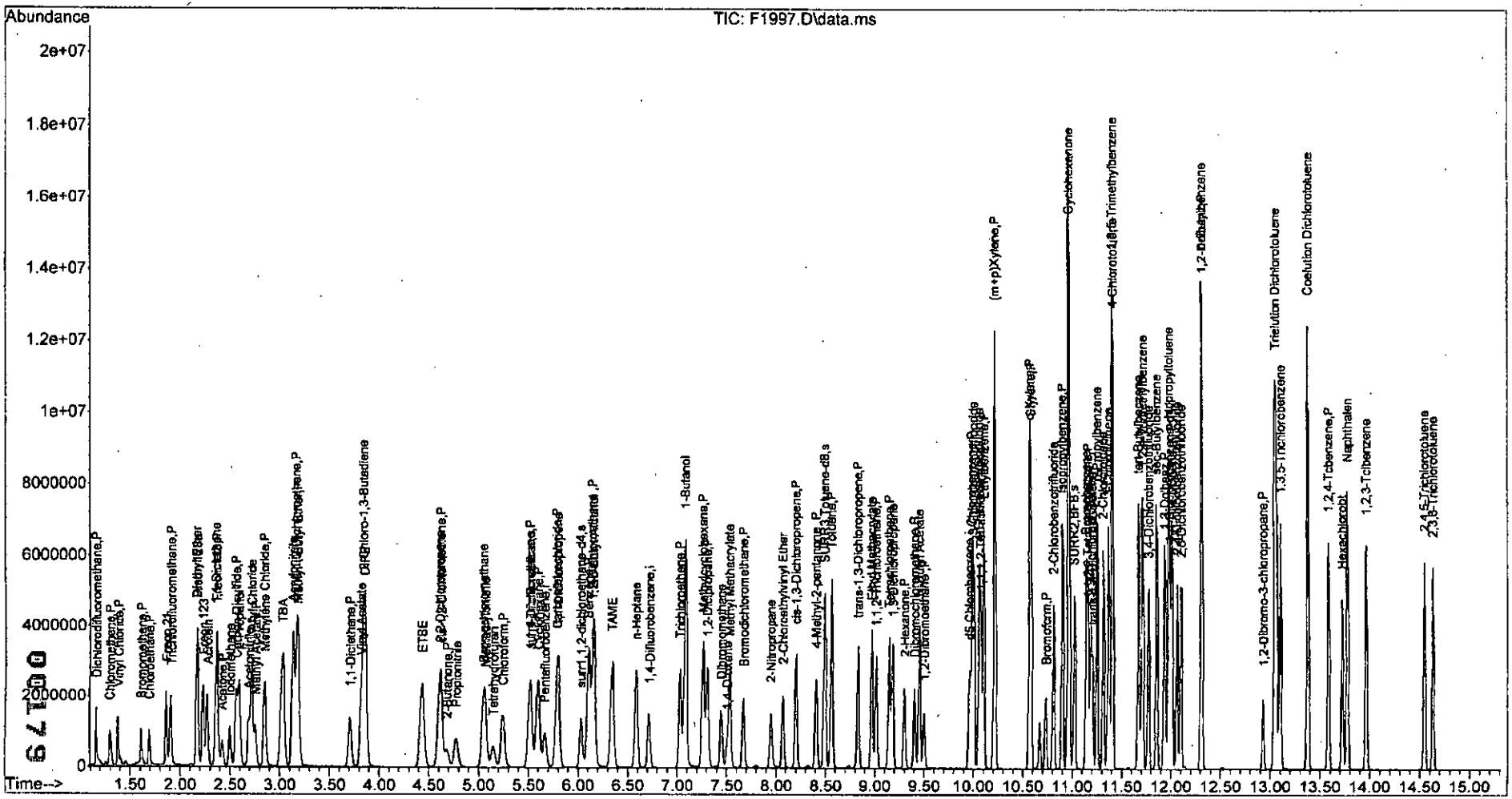
00178

Page

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1997.D
Acq On : 10 Sep 2015 8:06 pm
Operator : F. Naegler
Sample : 100 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 11 09:25:15 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



W091015.M Fri Sep 11 10:51:55 2015 MSVO10 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1998.D
Acq On : 10 Sep 2015 8:31 pm
Operator : F. Naegler
Sample : 150 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 11 09:27:47 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

FN 9/11/15
LB 9/14/15

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.665	168	771381	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.720	114	1101623	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.957	117	1012343	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.987	152	632461	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.519	113	1418787	197.64	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 395.28%#				
46) surr1,1,2-dichloroetha...	6.031	65	1923070	197.07	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 394.14%#				
64) SURR3,Toluene-d8	8.494	98	4703963	183.63	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 367.26%#				
69) SURR2,BFB	11.024	95	2261186	209.20	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 418.40%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.160	85	1045655	158.65	ug/L		97
3) Chloromethane	1.294	50	1311524	151.17	ug/L		98
4) Vinyl Chloride	1.379	62	1155173	151.68	ug/L		99
5) Bromomethane	1.611	94	385146	89.45	ug/L		99
6) Chloroethane	1.684	64	623179	144.98	ug/L		94
7) Freon 21	1.861	67	2013337	160.15	ug/L		95
8) Trichlorofluoromethane	1.898	101	1437813	151.31	ug/L		98
9) Diethyl Ether	2.166	59	1125182	148.90	ug/L		96
10) Freon 123a	2.172	67	1306271	158.78	ug/L		96
11) Freon 123	2.233	83	1445724	159.01	ug/L		96
12) Acrolein	2.276	56	1854905	742.49	ug/L		94
13) 1,1-Diclethene	2.361	96	871483	139.53	ug/L		96
14) Freon 113	2.367	101	973256	143.90	ug/L		97
15) Acetone	2.422	43	959077	149.62	ug/L		96
16) 2-Propanol	2.617	45	4829152	3328.57	ug/L		88
17) Iodomethane	2.495	142	1470781	212.69	ug/L		90
18) Carbon Disulfide	2.556	76	2778778	152.40	ug/L		99
19) Acetonitrile	2.696	40	949112m	804.86	ug/L		
20) Allyl Chloride	2.721	76	559148	152.24	ug/L	#	19
21) Methyl Acetate	2.757	43	1816104	152.71	ug/L		99
22) Methylene Chloride	2.849	84	1089154	142.55	ug/L		91
23) TBA	3.056	59	6719115	3348.27	ug/L		91
24) Acrylonitrile	3.135	53	4064020	754.86	ug/L		96
25) Methyl-t-Butyl Ether	3.184	73	3882969	148.04	ug/L		96
26) trans-1,2-Dichloroethene	3.166	96	975209	145.95	ug/L		90
27) 1,1-Diclethane	3.702	63	2042778	150.91	ug/L		97
28) Vinyl Acetate	3.818	86	245323	174.46	ug/L	#	76
29) DIPE	3.861	45	4964965	152.36	ug/L		93
30) 2-Chloro-1,3-Butadiene	3.836	53	2459058	167.36	ug/L		91
31) ETBE	4.434	59	4192028	150.35	ug/L		95
32) 2,2-Dichloropropane	4.610	77	1528371	145.53	ug/L		99
33) cis-1,2-Dichloroethene	4.623	96	1113427	144.55	ug/L	#	79
34) 2-Butanone	4.690	43	1319101	151.89	ug/L		93
35) Propionitrile	4.781	54	1845550	842.22	ug/L		99

00180

W091015.M Fri Sep 11 10:52:34 2015 MSVO10 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1998.D
Acq On : 10 Sep 2015 8:31 pm
Operator : F. Naegler
Sample : 150 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 11 09:27:47 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Bromochloromethane	5.049	130	744694	149.95	ug/L		94
37) Methacrylonitrile	5.068	67	732531	150.38	ug/L		96
38) Tetrahydrofuran	5.147	42	828454	155.51	ug/L		85
39) Chloroform	5.244	83	1972014	150.71	ug/L		96
40) 1,1,1-Trichloroethane	5.519	97	1696294	151.96	ug/L		97
42) Cyclohexane	5.598	41	1542893	164.32	ug/L		87
44) Carbontetrachloride	5.787	121	439946	162.57	ug/L		80
45) 1,1-Dichloropropene	5.799	75	1394463	147.68	ug/L		99
47) Benzene	6.104	78	4105343	149.09	ug/L		87
48) 1,2-Dichloroethane	6.147	62	1912760	150.86	ug/L		98
49) Iso-Butyl Alcohol	6.177	43	3642485	3657.15	ug/L		93
50) TAME	6.348	73	3599127	155.09	ug/L		97
51) n-Heptane	6.586	43	1771713	141.93	ug/L		95
52) 1-Butanol	7.098	56	4838264	9025.66	ug/L		87
53) Trichloroethene	7.031	130	1132248	132.79	ug/L		98
54) Methylcyclohexane	7.262	55	1725340	160.00	ug/L		91
55) 1,2-Diclpropane	7.305	63	1229034	147.73	ug/L		97
56) Dibromomethane	7.445	93	783527	146.97	ug/L		93
57) 1,4-Dioxane	7.512	88	640573	3332.17	ug/L		96
58) Methyl Methacrylate	7.537	69	1136161	159.30	ug/L		98
59) Bromodichloromethane	7.671	83	1546376	151.06	ug/L		99
60) 2-Nitropropane	7.951	41	1322621	381.33	ug/L		99
61) 2-Chloroethylvinyl Ether	8.073	63	1007770	160.63	ug/L		89
62) cis-1,3-Dichloropropene	8.201	75	1848134	158.46	ug/L		99
63) 4-Methyl-2-pentanone	8.408	43	2583625	171.37	ug/L		98
65) Toluene	8.567	91	4239886	144.33	ug/L		94
66) trans-1,3-Dichloropropene	8.829	75	1809908	161.25	ug/L		97
67) Ethyl Methacrylate	8.969	69	2019940	164.54	ug/L		99
68) 1,1,2-Trichloroethane	9.012	97	1129212	154.90	ug/L		90
71) Tetrachloroethene	9.146	164	870291	140.70	ug/L		93
72) 2-Hexanone	9.299	43	2079669	171.39	ug/L		93
73) 1,3-Dichloropropane	9.183	76	1936295	146.68	ug/L		98
74) Dibromochloromethane	9.402	129	1285610	160.86	ug/L		100
75) N-Butyl Acetate	9.451	43	3545778	169.70	ug/L		97
76) 1,2-Dibromoethane	9.500	107	1231170	148.41	ug/L		100
77) 3-Chlorobenzotrifluoride	10.000	180	1756902	145.75	ug/L		95
78) Chlorobenzene	9.987	112	2901273	142.58	ug/L		96
79) 4-Chlorobenzotrifluoride	10.054	180	1584051	148.76	ug/L		97
80) 1,1,1,2-Tetrachloroethane	10.073	131	1157483	156.19	ug/L		95
81) Ethylbenzene	10.103	106	1593248	149.84	ug/L	#	72
82) (m+p)Xylene	10.213	106	3623942	283.06	ug/L	#	71
83) o-Xylene	10.567	106	1909054	148.77	ug/L		88
84) Styrene	10.579	104	3269040	148.74	ug/L		90
85) Bromoform	10.731	173	1067256	179.28	ug/L		100
86) 2-Chlorobenzotrifluoride	10.810	180	1835272	157.19	ug/L		99
87) Isopropylbenzene	10.902	105	4501352	140.61	ug/L		90
88) Cyclohexanone	10.963	55	6468725	2748.19	ug/L		80
89) trans-1,4-Dichloro-2-B...	11.207	53	747087	190.63	ug/L		90
91) 1,1,2,2-Tetrachloroethane	11.158	83	1886754	176.88	ug/L		97
92) Bromobenzene	11.146	156	1402189	131.39	ug/L		98
93) 1,2,3-Trichloropropane	11.188	110	607914	144.31	ug/L	#	87

W091015.M Fri Sep 11 10:52:34 2015 MSVO10

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1998.D
Acq On : 10 Sep 2015 8:31 pm
Operator : F. Naegler
Sample : 150 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 11 09:27:47 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	n-Propylbenzene	11.249	91	5169280	121.01	ug/L	84
95)	2-Chlorotoluene	11.316	91	3554387	129.73	ug/L	93
96)	3-Chlorotoluene	11.365	91	3786113	133.96	ug/L	92
97)	4-Chlorotoluene	11.408	91	4179494	130.58	ug/L	88
98)	1,3,5-Trimethylbenzene	11.402	105	4001796	135.81	ug/L	88
99)	tert-Butylbenzene	11.676	119	3533575	132.41	ug/L	94
100)	1,2,4-Trimethylbenzene	11.713	105	4077491	132.19	ug/L	83
101)	3,4-Dichlorobenzotrifl...	11.774	214	1506282	134.78	ug/L	98
102)	sec-Butylbenzene	11.853	105	4840318	127.98	ug/L	86
103)	p-Isopropyltoluene	11.975	119	4250381	134.67	ug/L	83
104)	1,3-Dclbenz	11.938	146	2672969	136.67	ug/L	94
105)	1,4-Dclbenz	12.011	146	2767250	133.53	ug/L	96
106)	2,4-Dichlorobenzotrifl...	12.060	214	1412381	139.72	ug/L	99
107)	2,5-Dichlorobenzotrifl...	12.103	214	1603668	144.51	ug/L	98
108)	n-Butylbenzene	12.304	91	4224611	131.24	ug/L	89
109)	1,2-Dclbenz	12.310	146	2684977	135.97	ug/L	91
110)	1,2-Dibromo-3-chloropr...	12.932	157	536299	168.52	ug/L	95
111)	Trielution Dichlorotol...	13.054	125	7143568	407.04	ug/L	84
112)	1,3,5-Trichlorobenzene	13.103	180	2219721	142.33	ug/L	96
113)	Coelution Dichlorotoluene	13.377	125	5017053	260.51	ug/L	79
114)	1,2,4-Tcbenzene	13.584	180	2136171	137.31	ug/L	99
115)	Hexachlorobt	13.724	225	898327	141.01	ug/L	97
116)	Naphthalen	13.773	128	5420905	121.66	ug/L	83
117)	1,2,3-Tclbenzene	13.962	180	2141662	136.86	ug/L	98
118)	2,4,5-Trichlorotoluene	14.547	159	1703501	137.10	ug/L	96
119)	2,3,6-Trichlorotoluene	14.633	159	1495317	136.72	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

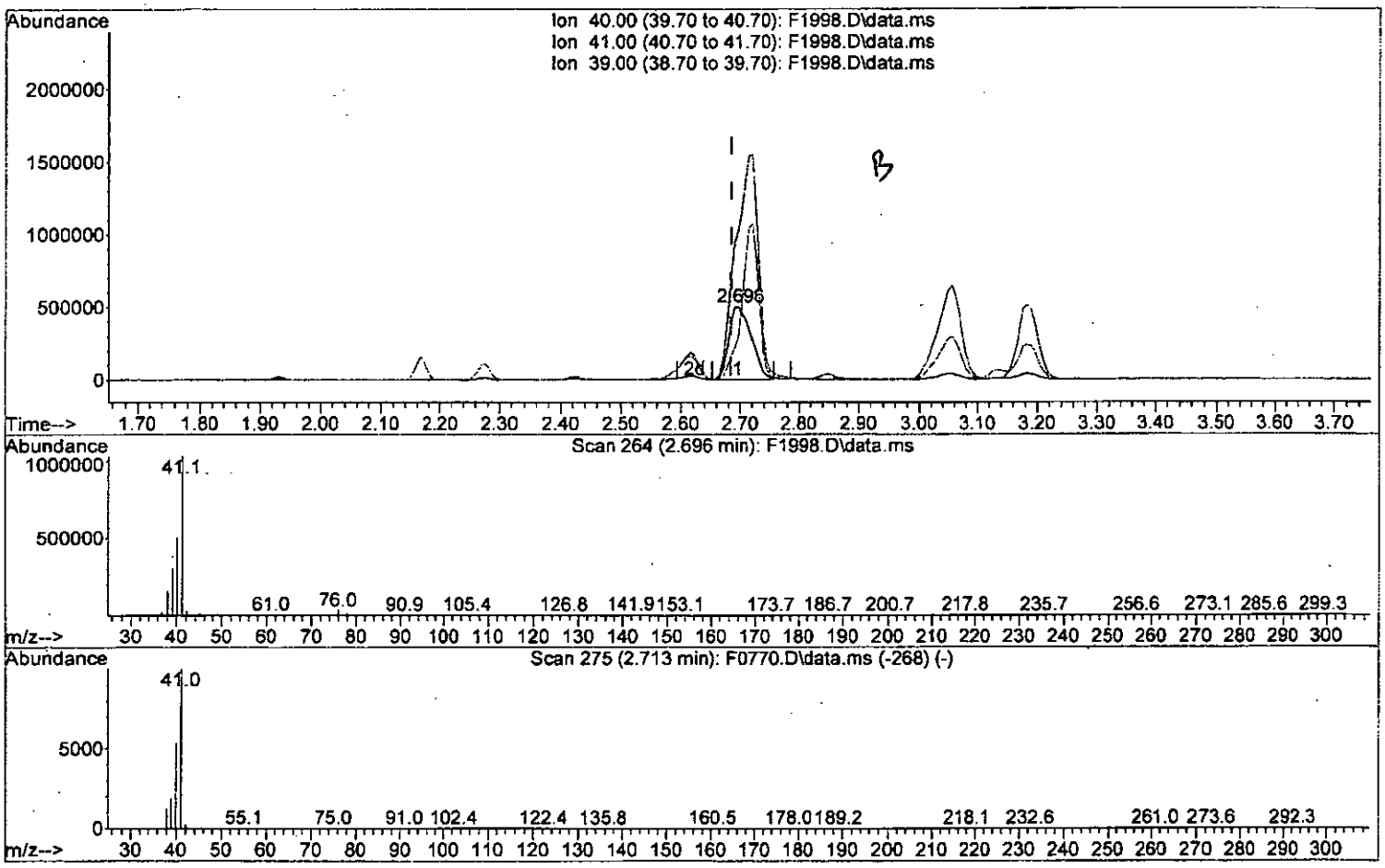
W091015.M Fri Sep 11 10:52:34 2015 MSVO10

00182

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1998.D
Acq On : 10 Sep 2015 8:31 pm
Operator : F. Naegler
Sample : 150 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 10 20:45:58 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1998.D\data.ms

(19) Acetonitrile

2.696min (+0.012) 1126.05 ug/L

response 1327870

Ion	Exp%	Act%
40.00	100	100
41.00	185.70	205.00
39.00	35.30	59.32#
0.00	0.00	0.00

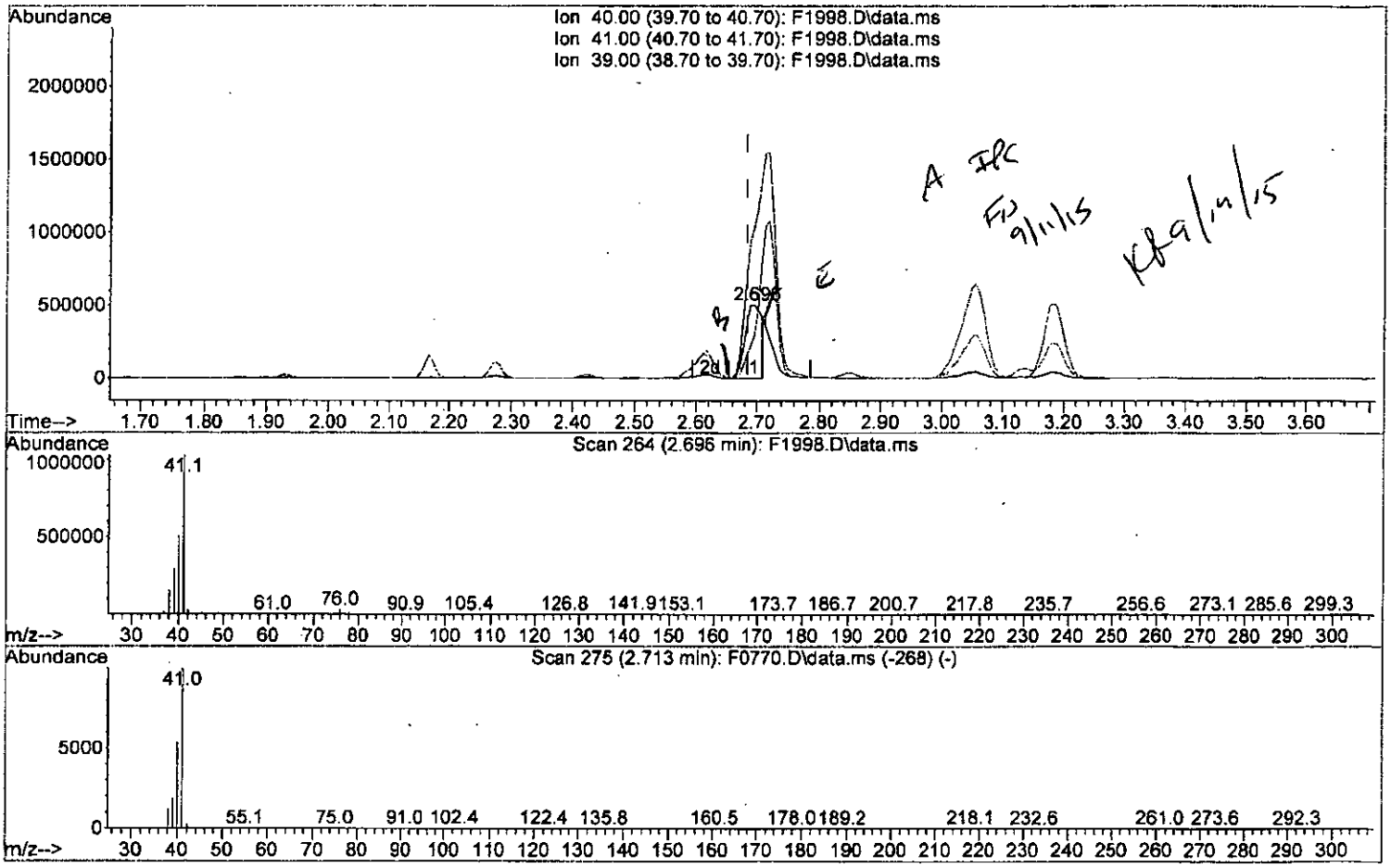
00183

W091015.M Fri Sep 11 09:27:37 2015 MSVO10 Page

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1998.D
Acq On : 10 Sep 2015 8:31 pm
Operator : F. Naegler
Sample : 150 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 10 20:45:58 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1998.D\data.ms

(19) Acetonitrile

2.696min (+0.012) 804.86 ug/L m

response 949112

Ion	Exp%	Act%
40.00	100	100
41.00	185.70	205.00
39.00	35.30	59.32#
0.00	0.00	0.00

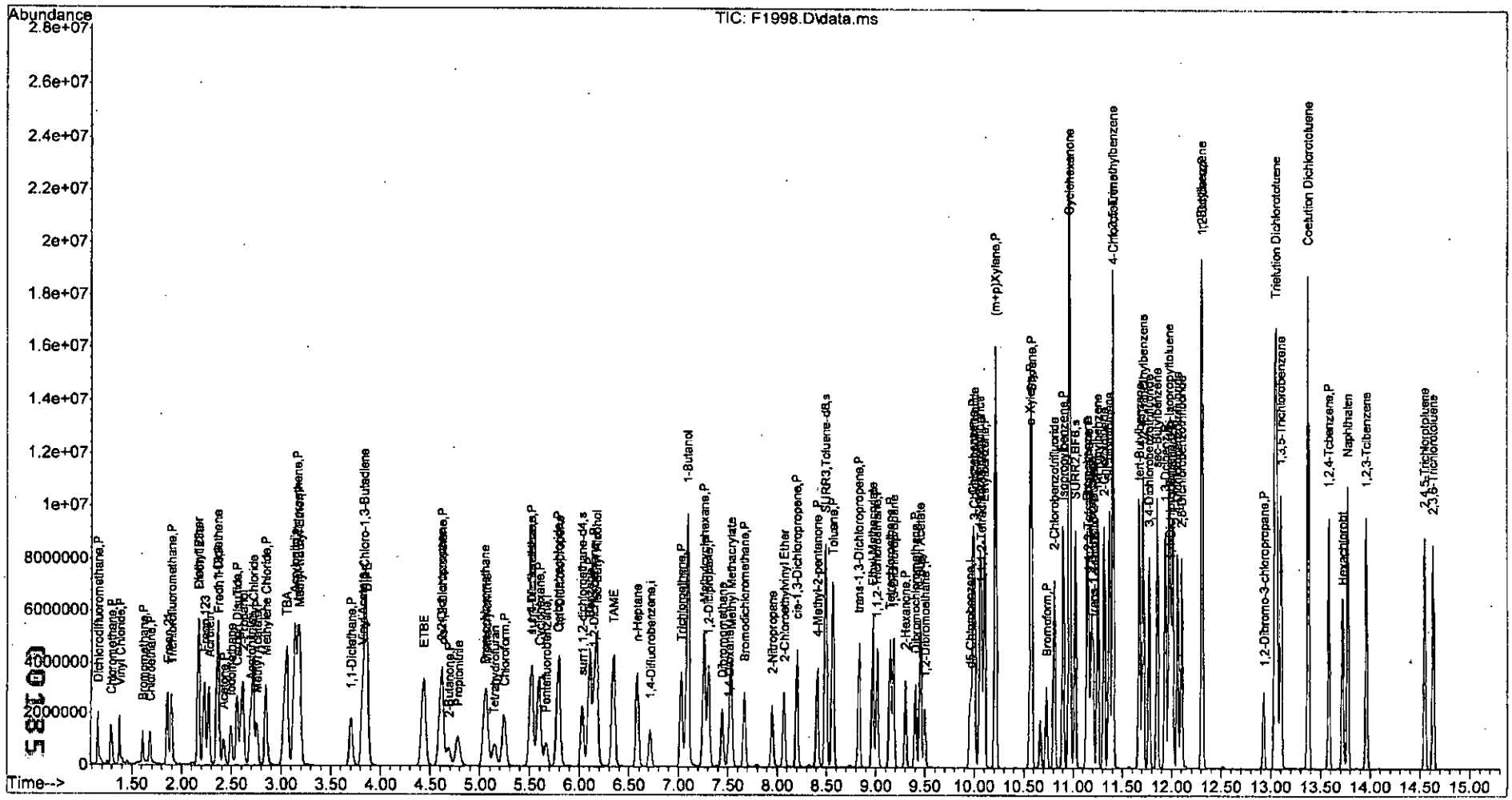
00184

W091015.M Fri Sep 11 09:28:03 2015 MSVO10 Page

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1998.D
Acq On : 10 Sep 2015 8:31 pm
Operator : F. Naegler
Sample : 150 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 11 09:27:47 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



W091015.M Fri Sep 11 10:52:38 2015 MSVO10 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1999.D
Acq On : 10 Sep 2015 8:55 pm
Operator : F. Naegler
Sample : 200 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 11 09:31:10 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

FN 9/11/15
KR 9/14/15

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.671	168	844953	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.720	114	1200598	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.957	117	1072720	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.987	152	639567	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.519	113	397572	50.82	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.64%				
46) surr1,1,2-dichloroetha...	6.031	65	542203	50.98	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 101.96%				
64) SURR3,Toluene-d8	8.494	98	1435472	51.42	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.84%				
69) SURR2,BFB	11.024	95	616420	52.33	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 104.66%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.160	85	1471248	203.79	ug/L		97
3) Chloromethane	1.294	50	1857909	195.51	ug/L		98
4) Vinyl Chloride	1.379	62	1622354	194.47	ug/L		100
5) Bromomethane	1.611	94	565776	119.97	ug/L		99
6) Chloroethane	1.690	64	976581	207.42	ug/L		93
7) Freon 21	1.861	67	2781927	202.02	ug/L		92
8) Trichlorofluoromethane	1.904	101	2093821	201.16	ug/L		98
9) Diethyl Ether	2.166	59	1634299	197.44	ug/L		97
10) Freon 123a	2.172	67	1887234	209.43	ug/L		98
11) Freon 123	2.233	83	2063198	207.16	ug/L		98
12) Acrolein	2.276	56	2520828	921.18	ug/L		94
13) 1,1-Diclethene	2.361	96	1293498	189.07	ug/L		95
14) Freon 113	2.373	101	1445631	195.13	ug/L		96
15) Acetone	2.422	43	1366818	194.66	ug/L		96
16) 2-Propanol	2.599	45	6243983	3929.02	ug/L		86
17) Iodomethane	2.501	142	2236401	295.25	ug/L		88
18) Carbon Disulfide	2.562	76	3916346	196.09	ug/L		98
19) Acetonitrile	2.690	40	1527767m	1182.76	ug/L		
20) Allyl Chloride	2.721	76	821169	204.11	ug/L	#	34
21) Methyl Acetate	2.757	43	2606427	200.08	ug/L		97
22) Methylene Chloride	2.849	84	1567636	187.31	ug/L		93
23) TBA	3.038	59	8528859	3880.03	ug/L		88
24) Acrylonitrile	3.135	53	5479288	929.12	ug/L		93
25) Methyl-t-Butyl Ether	3.184	73	5443619	189.47	ug/L		99
26) trans-1,2-Dichloroethene	3.166	96	1435583	196.14	ug/L		92
27) 1,1-Diclethane	3.708	63	3010653	203.05	ug/L		97
28) Vinyl Acetate	3.818	86	280268	181.95	ug/L	#	85
29) DIPE	3.861	45	6996115	195.99	ug/L		90
30) 2-Chloro-1,3-Butadiene	3.842	53	3504325	217.74	ug/L		86
31) ETBE	4.434	59	6060887	198.45	ug/L		95
32) 2,2-Dichloropropane	4.604	77	2231153	193.96	ug/L		97
33) cis-1,2-Dichloroethene	4.623	96	1648745	195.41	ug/L	#	84
34) 2-Butanone	4.684	43	1836119	193.01	ug/L		93
35) Propionitrile	4.781	54	2508264	1044.98	ug/L		100

00186

W091015.M Fri Sep 11 10:53:24 2015 MSVO10 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1999.D
Acq On : 10 Sep 2015 8:55 pm
Operator : F. Naegler
Sample : 200 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 11 09:31:10 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Bromochloromethane	5.056	130	1077798	198.13	ug/L		90
37) Methacrylonitrile	5.068	67	1011089	189.49	ug/L	#	84
38) Tetrahydrofuran	5.147	42	1104579	189.29	ug/L		86
39) Chloroform	5.245	83	2859986	199.54	ug/L		97
40) 1,1,1-Trichloroethane	5.519	97	2519978	206.09	ug/L		95
42) Cyclohexane	5.598	41	2220190	216.97	ug/L		88
44) Carbontetrachloride	5.787	121	668816	226.77	ug/L		86
45) 1,1-Dichloropropene	5.799	75	2059576	200.13	ug/L		99
47) Benzene	6.110	78	5824392	194.08	ug/L		86
48) 1,2-Dichloroethane	6.147	62	2777397	200.99	ug/L		98
49) Iso-Butyl Alcohol	6.171	43	4805816	4427.38	ug/L		91
50) TAME	6.348	73	5096072	201.50	ug/L		94
51) n-Heptane	6.586	43	2591669	190.50	ug/L		97
52) 1-Butanol	7.098	56	6254798	10706.27	ug/L		85
53) Trichloroethene	7.031	130	1681752	180.98	ug/L		97
54) Methylcyclohexane	7.262	55	2465775	209.82	ug/L		90
55) 1,2-Diclpropane	7.305	63	1814882	200.17	ug/L		99
56) Dibromomethane	7.445	93	1132486	194.92	ug/L		98
57) 1,4-Dioxane	7.512	88	847627	4045.75	ug/L		89
58) Methyl Methacrylate	7.537	69	1602826	206.20	ug/L		96
59) Bromodichloromethane	7.671	83	2234922	200.32	ug/L		98
60) 2-Nitropropane	7.951	41	1861442	492.43	ug/L		98
61) 2-Chloroethylvinyl Ether	8.073	63	1421995	207.97	ug/L		93
62) cis-1,3-Dichloropropene	8.201	75	2634386	207.25	ug/L		99
63) 4-Methyl-2-pentanone	8.409	43	3426449	208.53	ug/L		99
65) Toluene	8.567	91	5709920	178.34	ug/L		87
66) trans-1,3-Dichloropropene	8.829	75	2548682	208.35	ug/L		98
67) Ethyl Methacrylate	8.969	69	2767350	206.84	ug/L		100
68) 1,1,2-Trichloroethane	9.018	97	1589427	200.05	ug/L		90
71) Tetrachloroethene	9.146	164	1274906	194.52	ug/L		94
72) 2-Hexanone	9.299	43	2753371	214.14	ug/L		96
73) 1,3-Dichloropropane	9.183	76	2676627	191.35	ug/L		98
74) Dibromochloromethane	9.402	129	1823249	215.30	ug/L		99
75) N-Butyl Acetate	9.451	43	4587796	207.21	ug/L		94
76) 1,2-Dibromoethane	9.500	107	1720208	195.70	ug/L		98
77) 3-Chlorobenzotrifluoride	10.006	180	2416540	189.18	ug/L		97
78) Chlorobenzene	9.988	112	3914118	181.53	ug/L		92
79) 4-Chlorobenzotrifluoride	10.055	180	2161708	191.58	ug/L		97
80) 1,1,1,2-Tetrachloroethane	10.073	131	1638765	208.68	ug/L		95
81) Ethylbenzene	10.103	106	2245768	199.32	ug/L	#	54
82) (m+p)Xylene	10.213	106	4849872m	357.50	ug/L		
83) o-Xylene	10.567	106	2654694	195.23	ug/L	#	77
84) Styrene	10.579	104	4326479	185.77	ug/L		85
85) Bromoform	10.731	173	1485241	235.45	ug/L		99
86) 2-Chlorobenzotrifluoride	10.811	180	2493343	201.53	ug/L		99
87) Isopropylbenzene	10.902	105	5816299	171.46	ug/L		81
88) Cyclohexanone	10.963	55	7703312	3088.49	ug/L		78
89) trans-1,4-Dichloro-2-B...	11.207	53	1032777	248.70	ug/L		89
91) 1,1,2,2-Tetrachloroethane	11.158	83	2448652	227.01	ug/L		96
92) Bromobenzene	11.146	156	1936742	179.47	ug/L		98
93) 1,2,3-Trichloropropane	11.189	110	817221	191.84	ug/L		92

00187

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1999.D
Acq On : 10 Sep 2015 8:55 pm
Operator : F. Naegler
Sample : 200 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 11 09:31:10 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration

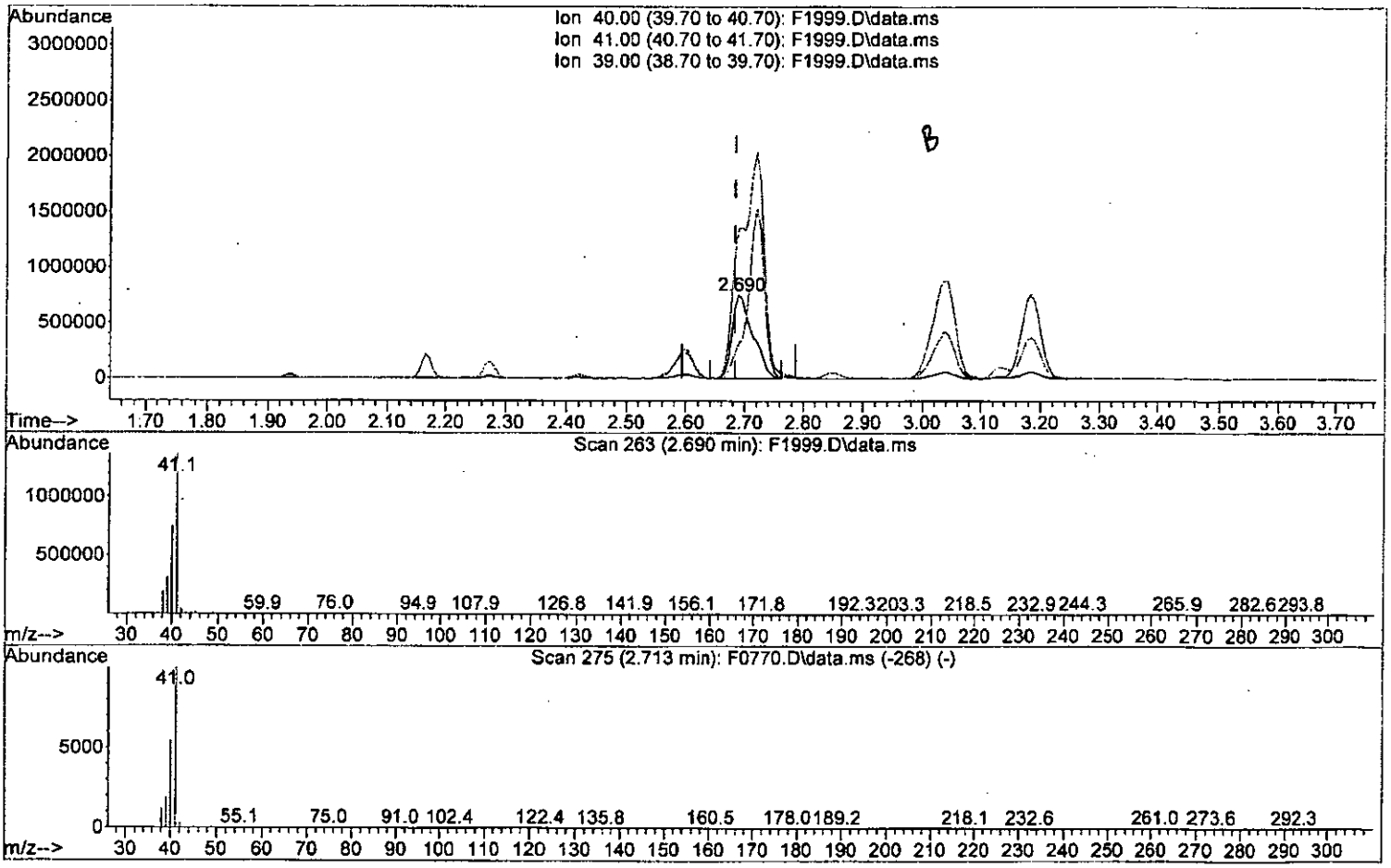
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	n-Propylbenzene	11.249	91	6358621	147.19	ug/L	73
95)	2-Chlorotoluene	11.317	91	4604605	166.20	ug/L	85
96)	3-Chlorotoluene	11.365	91	5073631	177.52	ug/L	87
97)	4-Chlorotoluene	11.408	91	5053499	156.13	ug/L	80
98)	1,3,5-Trimethylbenzene	11.402	105	5062768	169.91	ug/L	79
99)	tert-Butylbenzene	11.676	119	4630575	171.59	ug/L	88
100)	1,2,4-Trimethylbenzene	11.713	105	5181875	166.13	ug/L	73
101)	3,4-Dichlorobenzotrifl...	11.774	214	2010549	177.91	ug/L	97
102)	sec-Butylbenzene	11.853	105	6021843	157.45	ug/L	77
103)	p-Isopropyltoluene	11.975	119	5342153	167.38	ug/L	74
104)	1,3-Dclbenz	11.938	146	3538358	178.90	ug/L	91
105)	1,4-Dclbenz	12.012	146	3641397	173.75	ug/L	92
106)	2,4-Dichlorobenzotrifl...	12.060	214	1979192	193.62	ug/L	99
107)	2,5-Dichlorobenzotrifl...	12.103	214	2097393	186.91	ug/L	98
108)	n-Butylbenzene	12.304	91	5293134	162.61	ug/L	80
109)	1,2-Dclbenz	12.310	146	3536271	177.09	ug/L	89
110)	1,2-Dibromo-3-chloropr...	12.932	157	739715	229.85	ug/L	97
111)	Trielution Dichlorotol...	13.054	125	8854967	498.96	ug/L	76
112)	1,3,5-Trichlorobenzene	13.103	180	2982261	189.10	ug/L	96
113)	Coelution Dichlorotoluene	13.377	125	6193824	318.05	ug/L	68
114)	1,2,4-Tcbenzene	13.584	180	2817391	179.08	ug/L	97
115)	Hexachlorobt	13.725	225	1257125	195.13	ug/L	94
116)	Naphthalen	13.773	128	6474089	143.68	ug/L	74
117)	1,2,3-Tclbenzene	13.962	180	2845664	179.82	ug/L	98
118)	2,4,5-Trichlorotoluene	14.548	159	2304934	183.44	ug/L	94
119)	2,3,6-Trichlorotoluene	14.633	159	2025992	183.18	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1999.D
Acq On : 10 Sep 2015 8:55 pm
Operator : F. Naegler
Sample : 200 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 10 21:10:12 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1999.D\data.ms

(19) Acetonitrile

2.690min (+0.006) 1443.51 ug/L

response 1864588

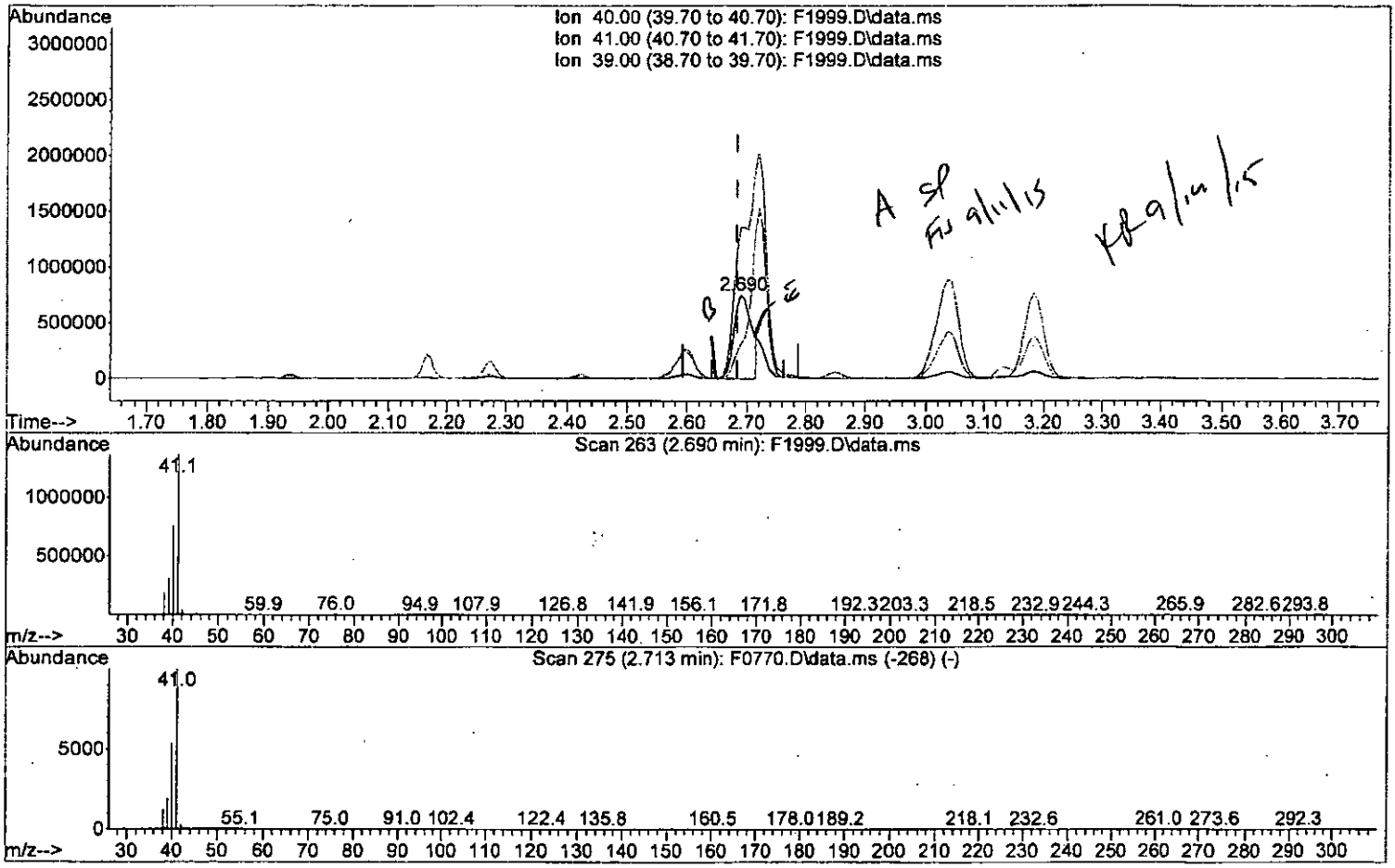
Ion	Exp%	Act%
40.00	100	100
41.00	185.70	180.88
39.00	35.30	41.57
0.00	0.00	0.00

W091015.M Fri Sep 11 09:29:54 2015 MSVO10 00189 Page

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1999.D
Acq On : 10 Sep 2015 8:55 pm
Operator : F. Naegler
Sample : 200 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 10 21:10:12 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1999.D\data.ms

(19) Acetonitrile

2.690min (+0.006) 1182.76 ug/L m

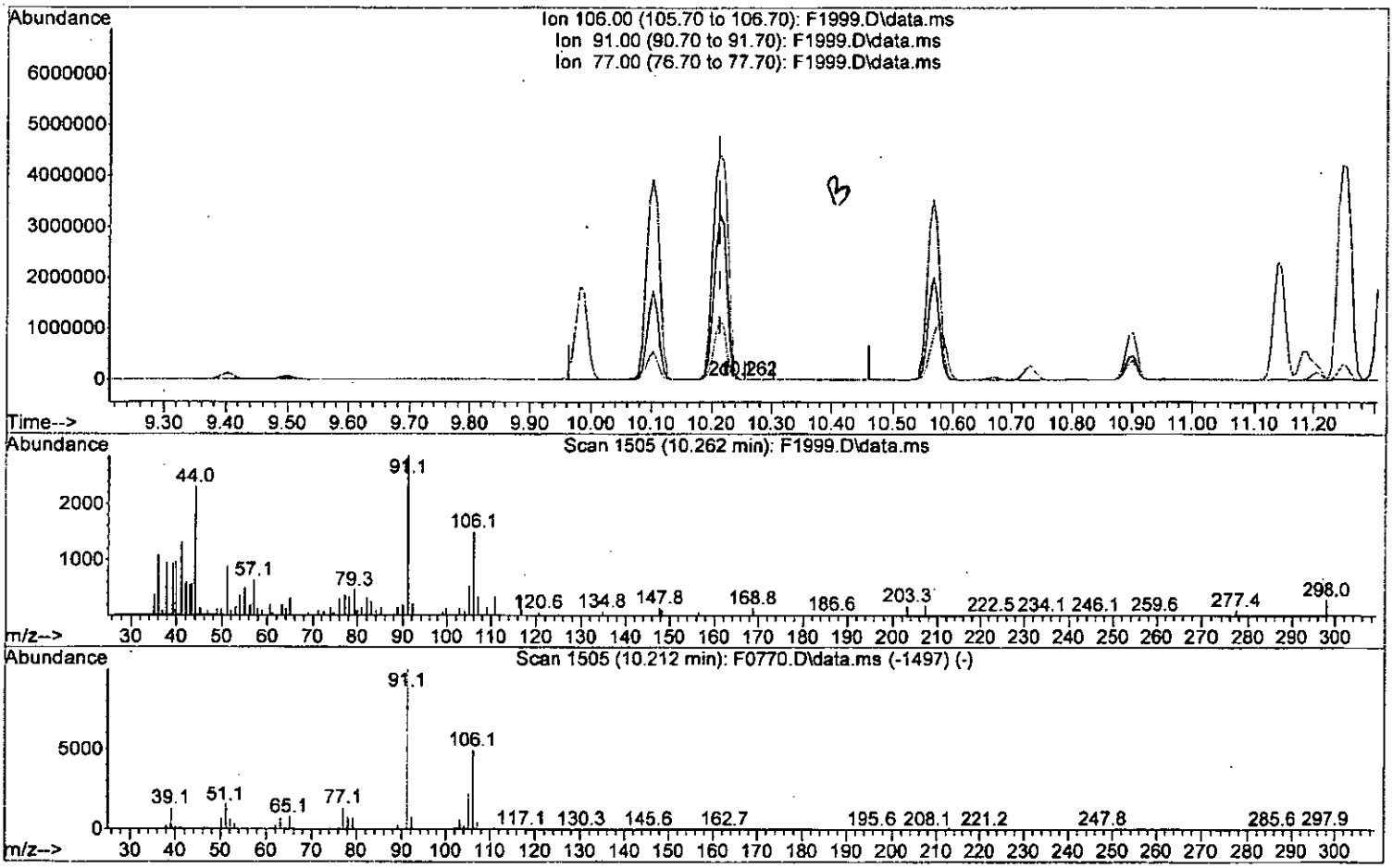
response 1527767

Ion	Exp%	Act%
40.00	100	100
41.00	185.70	180.88
39.00	35.30	41.57
0.00	0.00	0.00

W091015.M Fri Sep 11 09:30:13 2015 MSVO10 00190 Page

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1999.D
Acq On : 10 Sep 2015 8:55 pm
Operator : F. Naegler
Sample : 200 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 10 21:10:12 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1999.D\data.ms

(82) (m+p)Xylene (P)

10.262min (+0.049) 0.10 ug/L

response 1409

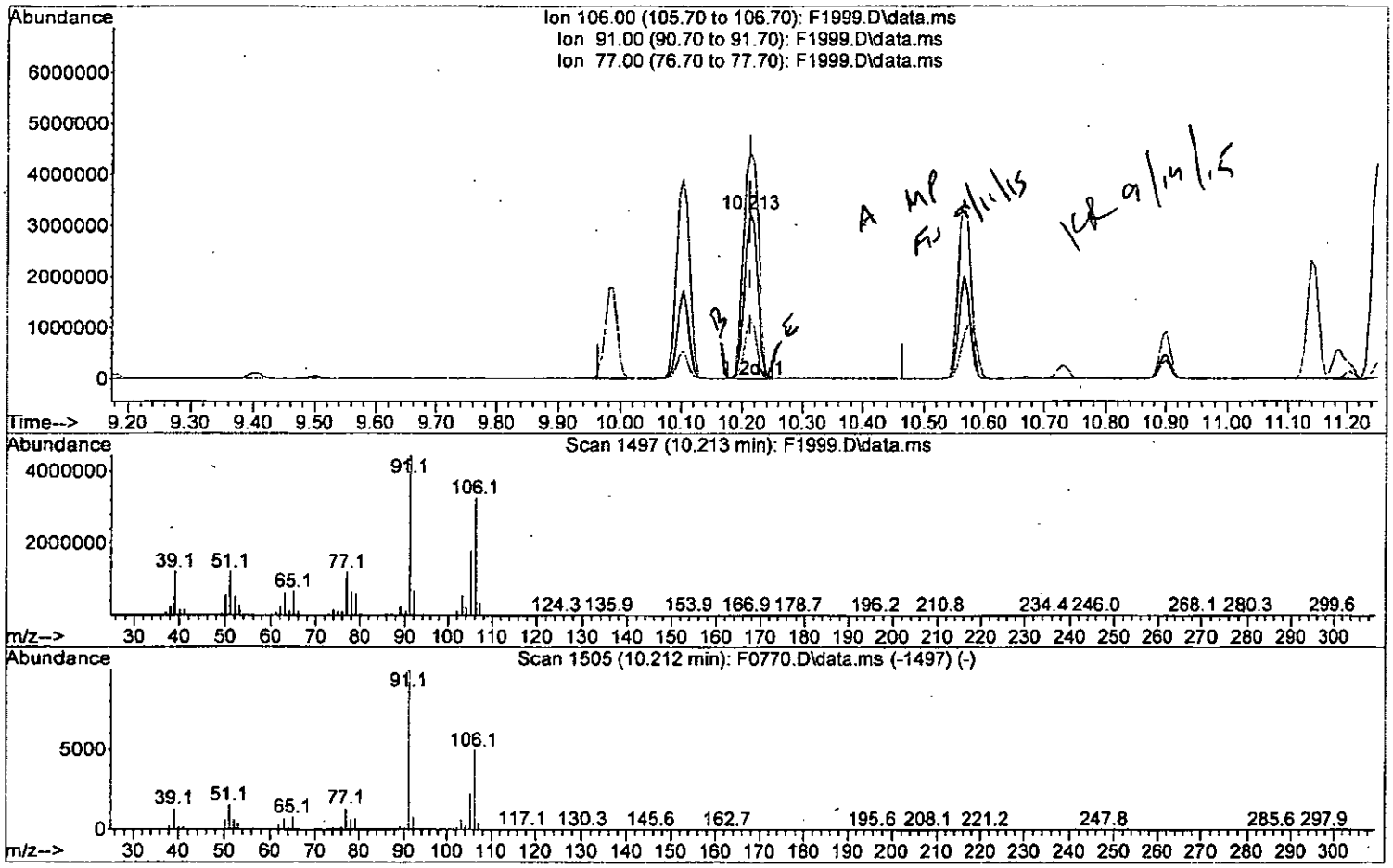
Ion	Exp%	Act%
106.00	100	100
91.00	203.10	191.10
77.00	26.90	24.30
0.00	0.00	0.00

W091015.M Fri Sep 11 09:31:04 2015 MSVO10 00131 Page

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1999.D
Acq On : 10 Sep 2015 8:55 pm
Operator : F. Naegler
Sample : 200 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 10 21:10:12 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



TIC: F1999.D\data.ms

(82) (m+p)Xylene (P)

10.213min (+0.000) 357.50 ug/L m

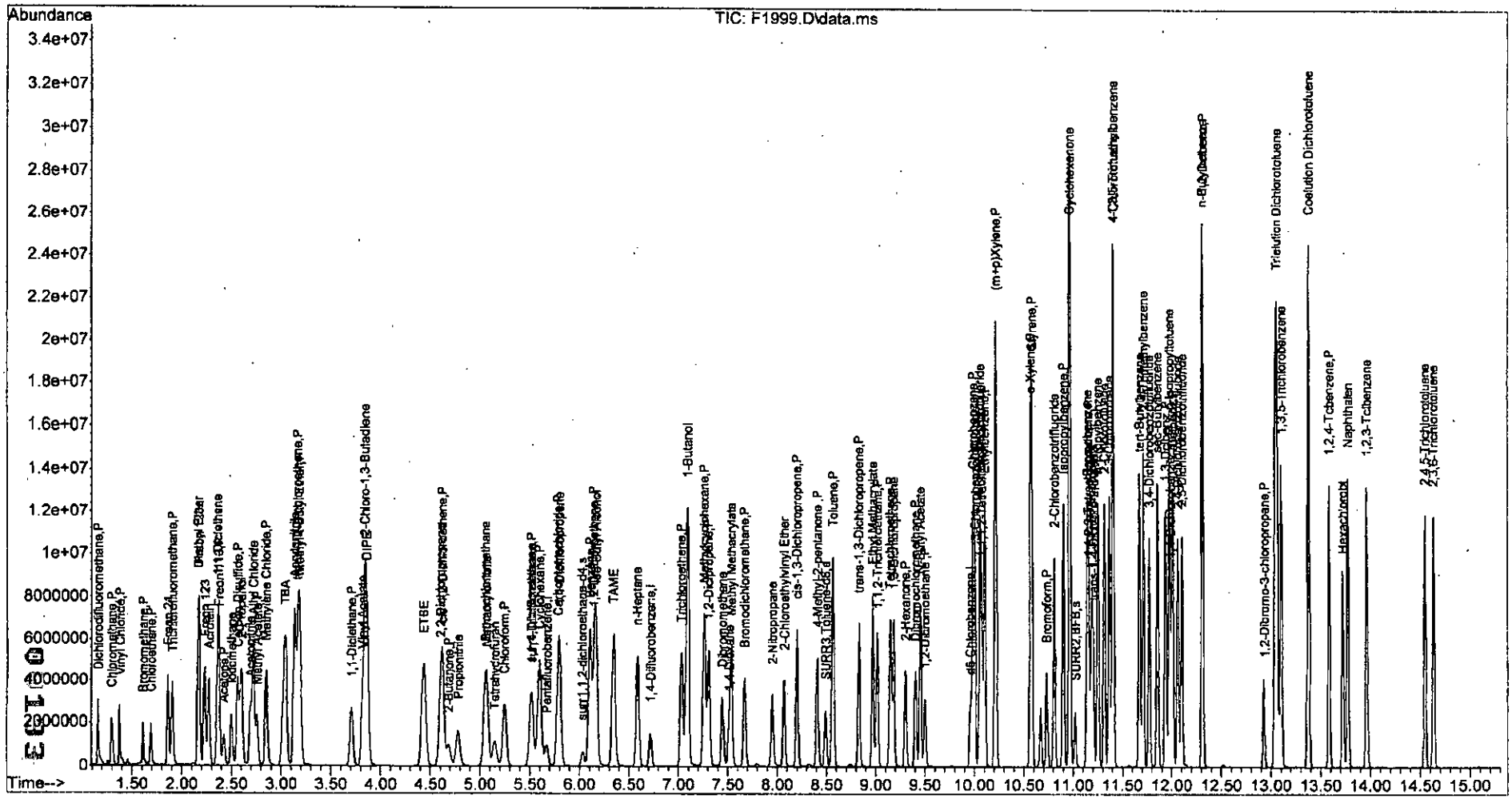
response 4849872

Ion	Exp%	Act%
106.00	100	100
91.00	203.10	136.70#
77.00	26.90	36.66
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1999.D
Acq On : 10 Sep 2015 8:55 pm
Operator : F. Naegler
Sample : 200 PPB STD Inst : MSVOA10
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 11 09:31:10 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Thu Sep 10 16:21:06 2015
Response via : Initial Calibration



W091015.M Fri Sep 11 10:53:29 2015 MSVO10 Page: 4

Initial Calibration Verification Summary Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1,1,1,2-Tetrachloroethane	RC1500091-10	T	Average RF	50	53.11	ppm	6.2	<=30
1,1,1-Trichloroethane (TCA)	RC1500091-10	T	Average RF	50	52.99	ppm	6.0	<=30
1,1,2,2-Tetrachloroethane	RC1500091-10	T	Linear	50	52.86	ppm	5.7	<=30
1,1,2-Trichloroethane	RC1500091-10	T	Average RF	50	50.29	ppm	0.6	<=30
1,1,2-Trichlorotrifluoroethane	RC1500091-10	T	Average RF	50	45.79	ppm	-8.4	<=30
1,1-Dichloroethane (1,1-DCA)	RC1500091-10	T	Average RF	50	51.32	ppm	2.6	<=30
1,1-Dichloroethene (1,1-DCE)	RC1500091-10	T	Average RF	50	51.35	ppm	2.7	<=30
1,1-Dichloropropene	RC1500091-10	T	Average RF	50	48.38	ppm	-3.2	<=30
1,2,3-Trichlorobenzene	RC1500091-10	T	Average RF	50	51.20	ppm	2.4	<=30
1,2,3-Trichloropropane	RC1500091-10	T	Average RF	50	51.86	ppm	3.7	<=30
1,2,4-Trichlorobenzene	RC1500091-10	T	Average RF	50	50.30	ppm	0.6	<=30
1,2,4-Trimethylbenzene	RC1500091-10	T	Average RF	50	50.88	ppm	1.8	<=30
1,2-Dibromo-3-chloropropane (DBCP)	RC1500091-10	T	Average RF	50	55.34	ppm	10.7	<=30
1,2-Dibromoethane	RC1500091-10	T	Average RF	50	51.01	ppm	2.0	<=30
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	RC1500091-10	T	Average RF	50	56.84	ppm	13.7	<=30
1,2-Dichlorobenzene	RC1500091-10	T	Average RF	50	49.44	ppm	-1.1	<=30
1,2-Dichloroethane	RC1500091-10	T	Average RF	50	51.36	ppm	2.7	<=30
1,2-Dichloropropane	RC1500091-10	T	Average RF	50	50.81	ppm	1.6	<=30
1,3,5-Trichlorobenzene	RC1500091-10	T	Average RF	50	49.64	ppm	-0.7	<=30
1,3,5-Trimethylbenzene	RC1500091-10	T	Average RF	50	51.06	ppm	2.1	<=30
1,3-Dichlorobenzene	RC1500091-10	T	Average RF	50	49.53	ppm	-0.9	<=30
1,3-Dichloropropane	RC1500091-10	T	Average RF	50	50.24	ppm	0.5	<=30
1,4-Dichlorobenzene	RC1500091-10	T	Average RF	50	46.99	ppm	-6.0	<=30
1,4-Dioxane	RC1500091-10	T	Average RF	1000	1047	ppm	4.7	<=30
1-Butanol	RC1500091-10	T	Average RF	2500	2810	ppm	12.4	<=30
1-Chloro-4-(trifluoromethyl)benzene	RC1500091-10	T	Average RF	50	49.29	ppm	-1.4	<=30
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	RC1500091-10	T	Average RF	50	56.84	ppm	13.7	<=30
2,2-Dichloropropane	RC1500091-10	T	Average RF	50	46.91	ppm	-6.2	<=30
2,3,6-Trichlorotoluene	RC1500091-10	T	Average RF	50	51.58	ppm	3.2	<=30
2,4,5-Trichlorotoluene	RC1500091-10	T	Average RF	50	53.26	ppm	6.5	<=30
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	RC1500091-10	T	Average RF	150	156.9	ppm	4.6	<=30
2,4-Dichlorobenzotrifluoride	RC1500091-10	T	Average RF	50	47.64	ppm	-4.7	<=30
2,5-Dichlorobenzotrifluoride	RC1500091-10	T	Average RF	50	49.60	ppm	-0.8	<=30
2-Butanone (MEK)	RC1500091-10	T	Average RF	50	56.00	ppm	12.0	<=30
2-Chloro-1,3-butadiene	RC1500091-10	T	Average RF	50	49.43	ppm	-1.1	<=30
2-Chlorobenzotrifluoride	RC1500091-10	T	Average RF	50	50.01	ppm	0.0	<=30
2-Chloroethyl Vinyl Ether	RC1500091-10	T	Average RF	50	54.09	ppm	8.2	<=30
2-Chlorotoluene	RC1500091-10	T	Average RF	50	50.64	ppm	1.3	<=30
2-Hexanone	RC1500091-10	T	Average RF	50	55.79	ppm	11.6	<=30
2-Methyl-1-propanol	RC1500091-10	T	Average RF	1000	1082	ppm	8.2	<=30
2-Methyl-2-propanol	RC1500091-10	T	Average RF	1000	1115	ppm	11.5	<=30
2-Nitropropane	RC1500091-10	T	Average RF	100	107.7	ppm	7.7	<=30
2-Propanol	RC1500091-10	T	Average RF	1000	1093	ppm	9.3	<=30
3,4- and 2,3-Dichlorotoluene Coelution	RC1500091-10	T	Average RF	100	106.8	ppm	6.8	<=30
3,4-Dichlorobenzotrifluoride	RC1500091-10	T	Average RF	50	47.31	ppm	-5.4	<=30
3-Chloro-1-propene	RC1500091-10	T	Average RF	50	48.51	ppm	-3.0	<=30
3-Chlorobenzotrifluoride	RC1500091-10	T	Average RF	50	49.83	ppm	-0.3	<=30
3-Chlorotoluene	RC1500091-10	T	Average RF	50	51.67	ppm	3.3	<=30
4-Chlorotoluene	RC1500091-10	T	Average RF	50	50.89	ppm	1.8	<=30
4-Isopropyltoluene	RC1500091-10	T	Average RF	50	51.80	ppm	3.6	<=30
4-Methyl-2-pentanone	RC1500091-10	T	Average RF	50	53.34	ppm	6.7	<=30

00194

Initial Calibration Verification Summary Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Acetone	RC1500091-10	T	Average RF	50	58.43	ppm	16.9	<=30
Acetonitrile	RC1500091-10	T	Average RF	250	242.8	ppm	-2.9	<=30
Acrolein	RC1500091-10	T	Average RF	100	96.74	ppm	-3.3	<=30
Acrylonitrile	RC1500091-10	T	Average RF	250	270.8	ppm	8.3	<=30
Benzene	RC1500091-10	T	Average RF	50	50.30	ppm	0.6	<=30
Bromobenzene	RC1500091-10	T	Average RF	50	50.16	ppm	0.3	<=30
Bromochloromethane	RC1500091-10	T	Average RF	50	52.93	ppm	5.9	<=30
Bromodichloromethane	RC1500091-10	T	Average RF	50	53.09	ppm	6.2	<=30
Bromoform	RC1500091-10	T	Average RF	50	55.50	ppm	11.0	<=30
Bromomethane	RC1500091-10	T	Quadratic	50	45.77	ppm	-8.5	<=30
Carbon Disulfide	RC1500091-10	T	Average RF	50	56.76	ppm	13.5	<=30
Carbon Tetrachloride	RC1500091-10	T	Average RF	50	52.96	ppm	5.9	<=30
Chlorobenzene	RC1500091-10	T	Average RF	50	50.26	ppm	0.5	<=30
Chloroethane	RC1500091-10	T	Average RF	50	52.35	ppm	4.7	<=30
Chloroform	RC1500091-10	T	Average RF	50	53.04	ppm	6.1	<=30
Chloromethane	RC1500091-10	T	Average RF	50	49.16	ppm	-1.7	<=30
Cyclohexane	RC1500091-10	T	Average RF	50	49.16	ppm	-1.7	<=30
Cyclohexanone	RC1500091-10	T	Average RF	1000	1162	ppm	16.2	<=30
Dibromochloromethane	RC1500091-10	T	Average RF	50	54.16	ppm	8.3	<=30
Dibromomethane	RC1500091-10	T	Average RF	50	50.43	ppm	0.9	<=30
Dichlorodifluoromethane (CFC 12)	RC1500091-10	T	Average RF	50	57.98	ppm	16.0	<=30
Dichlorofluoromethane (CFC 21)	RC1500091-10	T	Average RF	50	59.52	ppm	19.0	<=30
Dichloromethane	RC1500091-10	T	Average RF	50	49.47	ppm	-1.1	<=30
Diethyl Ether	RC1500091-10	T	Average RF	50	51.51	ppm	3.0	<=30
Diisopropyl Ether	RC1500091-10	T	Average RF	50	48.68	ppm	-2.6	<=30
Ethyl Methacrylate	RC1500091-10	T	Average RF	50	53.63	ppm	7.3	<=30
Ethyl tert-Butyl Ether	RC1500091-10	T	Average RF	50	48.12	ppm	-3.8	<=30
Ethylbenzene	RC1500091-10	T	Average RF	50	46.06	ppm	-7.9	<=30
Hexachlorobutadiene	RC1500091-10	T	Average RF	50	50.78	ppm	1.6	<=30
Iodomethane	RC1500091-10	T	Quadratic	50	48.60	ppm	-2.8	<=30
Isopropylbenzene (Cumene)	RC1500091-10	T	Average RF	50	51.33	ppm	2.7	<=30
Methacrylonitrile	RC1500091-10	T	Average RF	50	51.23	ppm	2.5	<=30
Methyl Acetate	RC1500091-10	T	Average RF	50	54.83	ppm	9.7	<=30
Methyl Methacrylate	RC1500091-10	T	Average RF	50	52.56	ppm	5.1	<=30
Methyl tert-Butyl Ether	RC1500091-10	T	Average RF	50	53.47	ppm	6.9	<=30
Methylcyclohexane	RC1500091-10	T	Average RF	50	48.68	ppm	-2.6	<=30
Naphthalene	RC1500091-10	T	Average RF	50	55.62	ppm	11.2	<=30
Propionitrile	RC1500091-10	T	Average RF	250	273.5	ppm	9.4	<=30
Styrene	RC1500091-10	T	Average RF	50	51.27	ppm	2.5	<=30
Tetrachloroethene (PCE)	RC1500091-10	T	Average RF	50	49.51	ppm	-1.0	<=30
Tetrahydrofuran (THF)	RC1500091-10	T	Average RF	50	49.56	ppm	-0.9	<=30
Toluene	RC1500091-10	T	Average RF	50	50.56	ppm	1.1	<=30
Trichloroethene (TCE)	RC1500091-10	T	Average RF	50	47.63	ppm	-4.7	<=30
Trichlorofluoromethane (CFC 11)	RC1500091-10	T	Average RF	50	53.57	ppm	7.1	<=30
Vinyl Acetate	RC1500091-10	T	Average RF	50	56.10	ppm	12.2	<=30
Vinyl Chloride	RC1500091-10	T	Average RF	50	56.49	ppm	13.0	<=30
cis-1,2-Dichloroethene	RC1500091-10	T	Average RF	50	49.35	ppm	-1.3	<=30
cis-1,3-Dichloropropene	RC1500091-10	T	Average RF	50	51.50	ppm	3.0	<=30
m,p-Xylenes	RC1500091-10	T	Average RF	100	103.3	ppm	3.3	<=30
n-Butyl Acetate	RC1500091-10	T	Average RF	50	57.65	ppm	15.3	<=30
n-Butylbenzene	RC1500091-10	T	Average RF	50	52.43	ppm	4.9	<=30

00195

Initial Calibration Verification Summary Report

Calibration ID: RC1500091 **Instrument ID:** R-MS-10
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
n-Heptane	RC1500091-10	T	Average RF	50	43.99	ppm	-12.0	<=30
n-Propylbenzene	RC1500091-10	T	Average RF	50	52.07	ppm	4.1	<=30
o-Xylene	RC1500091-10	T	Average RF	50	50.13	ppm	0.3	<=30
sec-Butylbenzene	RC1500091-10	T	Average RF	50	52.63	ppm	5.3	<=30
tert-Amyl Methyl Ether	RC1500091-10	T	Average RF	50	49.23	ppm	-1.5	<=30
tert-Butylbenzene	RC1500091-10	T	Average RF	50	51.46	ppm	2.9	<=30
trans-1,2-Dichloroethene	RC1500091-10	T	Average RF	50	50.95	ppm	1.9	<=30
trans-1,3-Dichloropropene	RC1500091-10	T	Average RF	50	53.42	ppm	6.8	<=30
trans-1,4-Dichloro-2-butene	RC1500091-10	T	Average RF	50	52.56	ppm	5.1	<=30
1,2-Dichloroethane-d4	RC1500091-10	S	Average RF	50	51.03	ppm	2.1	<=30
4-Bromofluorobenzene	RC1500091-10	S	Average RF	50	49.86	ppm	-0.3	<=30
Dibromofluoromethane	RC1500091-10	S	Average RF	50	50.62	ppm	1.2	<=30
Toluene-d8	RC1500091-10	S	Average RF	50	51.14	ppm	2.3	<=30

00196

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F2002.D
Acq On : 10 Sep 2015 10:08 pm
Operator : F. Naegler
Sample : 50 PPB ICV Inst : MSVOA10
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 11 10:29:26 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration

FV 9/11/15

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.665	168	772305	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.720	114	1123887	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.957	117	996869	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.987	152	554080	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.519	113	367059	50.62	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.24%			
46) surr1,1,2-dichloroetha...	6.037	65	524676	51.03	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 102.06%			
64) SURR3,Toluene-d8	8.494	98	1351777	51.14	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.28%			
69) SURR2,BFB	11.018	95	544228	49.86	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.72%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.160	85	396584	57.98	ug/L	99
3) Chloromethane	1.294	50	458293	49.16	ug/L	98
4) Vinyl Chloride	1.373	62	455760	56.49	ug/L	99
5) Bromomethane	1.611	94	173719	45.77	ug/L	99
6) Chloroethane	1.697	64	253030	52.35	ug/L	93
7) Freon 21	1.861	67	814510	59.52	ug/L	96
8) Trichlorofluoromethane	1.910	101	556121	53.57	ug/L	99
9) Diethyl Ether	2.166	59	391129	51.51	ug/L	96
10) Freon 123a	2.172	67	516258	56.84	ug/L	99
11) Freon 123	2.233	83	531138	56.84	ug/L	97
12) Acrolein	2.276	56	238910	96.74	ug/L	94
13) 1,1-Diclethene	2.361	96	324438	51.35	ug/L	98
14) Freon 113	2.373	101	322848	45.79	ug/L	99
15) Acetone	2.416	43	385991	58.43	ug/L	95
16) 2-Propanol	2.581	45	1531250	1092.78	ug/L	90
17) Iodomethane	2.501	142	460279	48.60	ug/L	92
18) Carbon Disulfide	2.562	76	1094745	56.76	ug/L	98
19) Acetonitrile	2.690	40	335848m	242.80	ug/L	
20) Allyl Chloride	2.727	76	195392	48.51	ug/L #	49
21) Methyl Acetate	2.757	43	654651	54.83	ug/L	98
22) Methylene Chloride	2.849	84	391669	49.47	ug/L	95
23) TBA	3.019	59	2158389	1115.08	ug/L	97
24) Acrylonitrile	3.129	53	1403092	270.82	ug/L	97
25) Methyl-t-Butyl Ether	3.184	73	1401037	53.47	ug/L	95
26) trans-1,2-Dichloroethene	3.166	96	354181	50.95	ug/L #	89
27) 1,1-Diclethane	3.708	63	760303	51.32	ug/L	97
28) Vinyl Acetate	3.812	86	83961	56.10	ug/L #	73
29) DIPE	3.861	45	1654627	48.68	ug/L	96
30) 2-Chloro-1,3-Butadiene	3.842	53	801839	49.43	ug/L	87
31) ETBE	4.434	59	1363898	48.12	ug/L	95
32) 2,2-Dichloropropane	4.611	77	515063	46.91	ug/L	96
33) cis-1,2-Dichloroethene	4.623	96	398977	49.35	ug/L #	83
34) 2-Butanone	4.684	43	465690	56.00	ug/L	97
35) Propionitrile	4.769	54	609766	273.47	ug/L	99

00197

W091015.M Fri Sep 11 10:30:24 2015 MSVO10 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F2002.D
Acq On : 10 Sep 2015 10:08 pm
Operator : F. Naegler
Sample : 50 PPB ICV Inst : MSVOA10
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 11 10:29:26 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Mih)
36) Bromochloromethane	5.050	130	267198	52.93	ug/L		89
37) Methacrylonitrile	5.068	67	248818	51.23	ug/L		89
38) Tetrahydrofuran	5.141	42	283780	49.56	ug/L		99
39) Chloroform	5.245	83	708381	53.04	ug/L		96
40) 1,1,1-Trichloroethane	5.513	97	619035	52.99	ug/L		96
42) Cyclohexane	5.592	41	551341	49.16	ug/L		93
44) Carbontetrachloride	5.787	121	160387	52.96	ug/L		92
45) 1,1-Dichloropropene	5.799	75	489685	48.38	ug/L		95
47) Benzene	6.104	78	1513534	50.30	ug/L		87
48) 1,2-Dichloroethane	6.147	62	697542	51.36	ug/L		98
49) Iso-Butyl Alcohol	6.153	43	1109565	1082.12	ug/L		91
50) TAME	6.342	73	1210122	49.23	ug/L		99
51) n-Heptane	6.586	43	629347	43.99	ug/L		96
52) 1-Butanol	7.080	56	1526419	2809.90	ug/L		93
53) Trichloroethene	7.031	130	425286	47.63	ug/L		97
54) Methylcyclohexane	7.263	55	605282	48.68	ug/L		86
55) 1,2-Diclpropane	7.305	63	445319	50.81	ug/L		97
56) Dibromomethane	7.445	93	268708	50.43	ug/L		93
57) 1,4-Dioxane	7.506	88	199298	1046.95	ug/L		93
58) Methyl Methacrylate	7.531	69	382957	52.56	ug/L		90
59) Bromodichloromethane	7.671	83	547414	53.09	ug/L		98
60) 2-Nitropropane	7.945	41	401069	107.74	ug/L		94
61) 2-Chloroethylvinyl Ether	8.067	63	352965	54.09	ug/L		99
62) cis-1,3-Dichloropropene	8.201	75	624361	51.50	ug/L		99
63) 4-Methyl-2-pentanone	8.403	43	844747	53.34	ug/L		96
65) Toluene	8.561	91	1584616	50.56	ug/L		99
66) trans-1,3-Dichloropropene	8.829	75	598189	53.42	ug/L		98
67) Ethyl Methacrylate	8.970	69	673977	53.63	ug/L		95
68) 1,1,2-Trichloroethane	9.012	97	373955	50.29	ug/L	#	88
71) Tetrachloroethene	9.146	164	318096	49.51	ug/L		93
72) 2-Hexanone	9.299	43	673083	55.79	ug/L		96
73) 1,3-Dichloropropane	9.177	76	662699	50.24	ug/L		98
74) Dibromochloromethane	9.402	129	413726	54.16	ug/L		96
75) N-Butyl Acetate	9.451	43	1249738	57.65	ug/L		95
76) 1,2-Dibromoethane	9.500	107	414638	51.01	ug/L		99
77) 3-Chlorobenzotrifluoride	10.000	180	600919	49.83	ug/L		97
78) Chlorobenzene	9.982	112	1040951	50.26	ug/L		96
79) 4-Chlorobenzotrifluoride	10.055	180	527589	49.29	ug/L		97
80) 1,1,1,2-Tetrachloroethane	10.067	131	379234	53.11	ug/L		97
81) Ethylbenzene	10.103	106	507694	46.06	ug/L		97
82) (m+p)Xylene	10.213	106	1338960	103.26	ug/L		96
83) o-Xylene	10.567	106	677027	50.13	ug/L		96
84) Styrene	10.579	104	1128220	51.27	ug/L		98
85) Bromoform	10.731	173	323632	55.50	ug/L		95
86) 2-Chlorobenzotrifluoride	10.811	180	598407	50.01	ug/L		98
87) Isopropylbenzene	10.896	105	1705354	51.33	ug/L		98
88) Cyclohexanone	10.957	55	2665271	1161.55	ug/L		85
89) trans-1,4-Dichloro-2-B...	11.201	53	216771	52.56	ug/L		98
91) 1,1,2,2-Tetrachloroethane	11.152	83	555758	52.86	ug/L		97
92) Bromobenzene	11.140	156	465329	50.16	ug/L	#	88
93) 1,2,3-Trichloropropane	11.183	110	190403	51.86	ug/L	#	80

00198

W091015.M Fri Sep 11 10:30:24 2015 MSVO10 Page: 2

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F2002.D
Acq On : 10 Sep 2015 10:08 pm
Operator : F. Naegler
Sample : 50 PPB ICV Inst : MSVOA10
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 11 10:29:26 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration

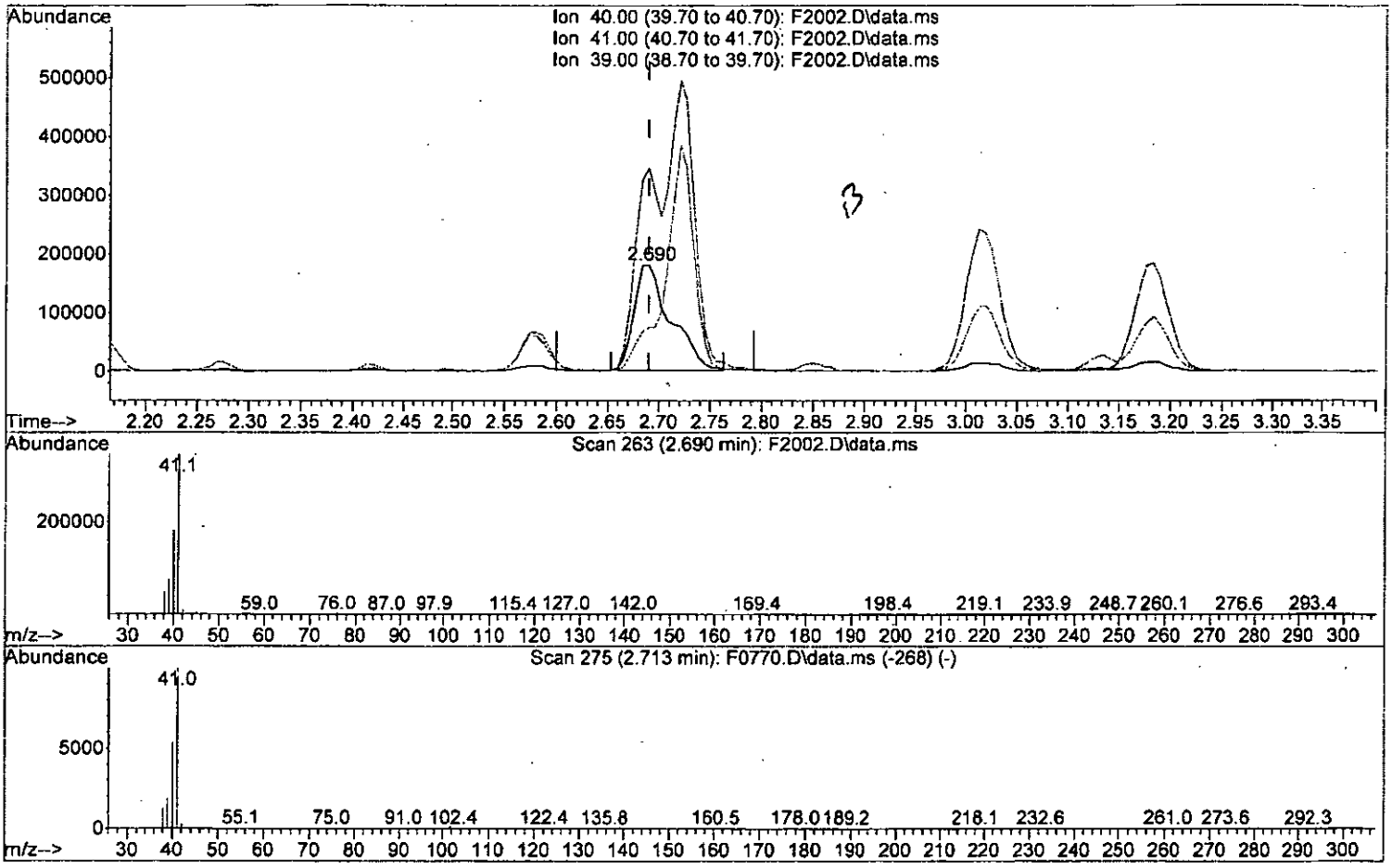
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	n-Propylbenzene	11.250	91	2077714	52.07	ug/L	98
95)	2-Chlorotoluene	11.311	91	1237513	50.64	ug/L	99
96)	3-Chlorotoluene	11.365	91	1312132	51.67	ug/L	99
97)	4-Chlorotoluene	11.408	91	1474818	50.89	ug/L	96
98)	1,3,5-Trimethylbenzene	11.402	105	1444690	51.06	ug/L	96
99)	tert-Butylbenzene	11.670	119	1238103	51.46	ug/L	98
100)	1,2,4-Trimethylbenzene	11.713	105	1468007	50.88	ug/L	95
101)	3,4-Dichlorobenzotrifl...	11.774	214	470234	47.31	ug/L	96
102)	sec-Butylbenzene	11.853	105	1844227	52.63	ug/L	98
103)	p-Isopropyltoluene	11.975	119	1541663	51.80	ug/L	95
104)	1,3-Dclbenz	11.932	146	865612	49.53	ug/L	98
105)	1,4-Dclbenz	12.006	146	880248	46.99	ug/L	95
106)	2,4-Dichlorobenzotrifl...	12.060	214	439881	47.64	ug/L	97
107)	2,5-Dichlorobenzotrifl...	12.103	214	493602	49.60	ug/L	96
108)	n-Butylbenzene	12.304	91	1531681	52.43	ug/L	97
109)	1,2-Dclbenz	12.310	146	871600	49.44	ug/L	97
110)	1,2-Dibromo-3-chloropr...	12.932	157	155782	55.34	ug/L	94
111)	Trielution Dichlorotol...	13.048	125	2481738	156.93	ug/L	97
112)	1,3,5-Trichlorobenzene	13.103	180	711246	49.64	ug/L	95
113)	Coelution Dichlorotoluene	13.377	125	1864229	106.77	ug/L	96
114)	1,2,4-Tcbenzene	13.584	180	708940	50.30	ug/L	96
115)	Hexachlorobt	13.719	225	297246	50.78	ug/L	99
116)	Naphthalen	13.773	128	2171036	55.62	ug/L	97
117)	1,2,3-Tclbenzene	13.962	180	714906	51.20	ug/L	97
118)	2,4,5-Trichlorotoluene	14.548	159	576225	53.26	ug/L	95
119)	2,3,6-Trichlorotoluene	14.633	159	505265	51.58	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F2002.D
Acq On : 10 Sep 2015 10:08 pm
Operator : F. Naegler
Sample : 50 PPB ICV Inst : MSVOA10
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 11 10:28:56 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration



TIC: F2002.D\data.ms

(19) Acetonitrile

2.690min (+0.000) 318.42 ug/L

response 440457

Ion	Exp%	Act%
40.00	100	100
41.00	185.70	190.48
39.00	35.30	40.96
0.00	0.00	0.00

W091015.M Fri Sep 11 10:29:24 2015 MSVO10

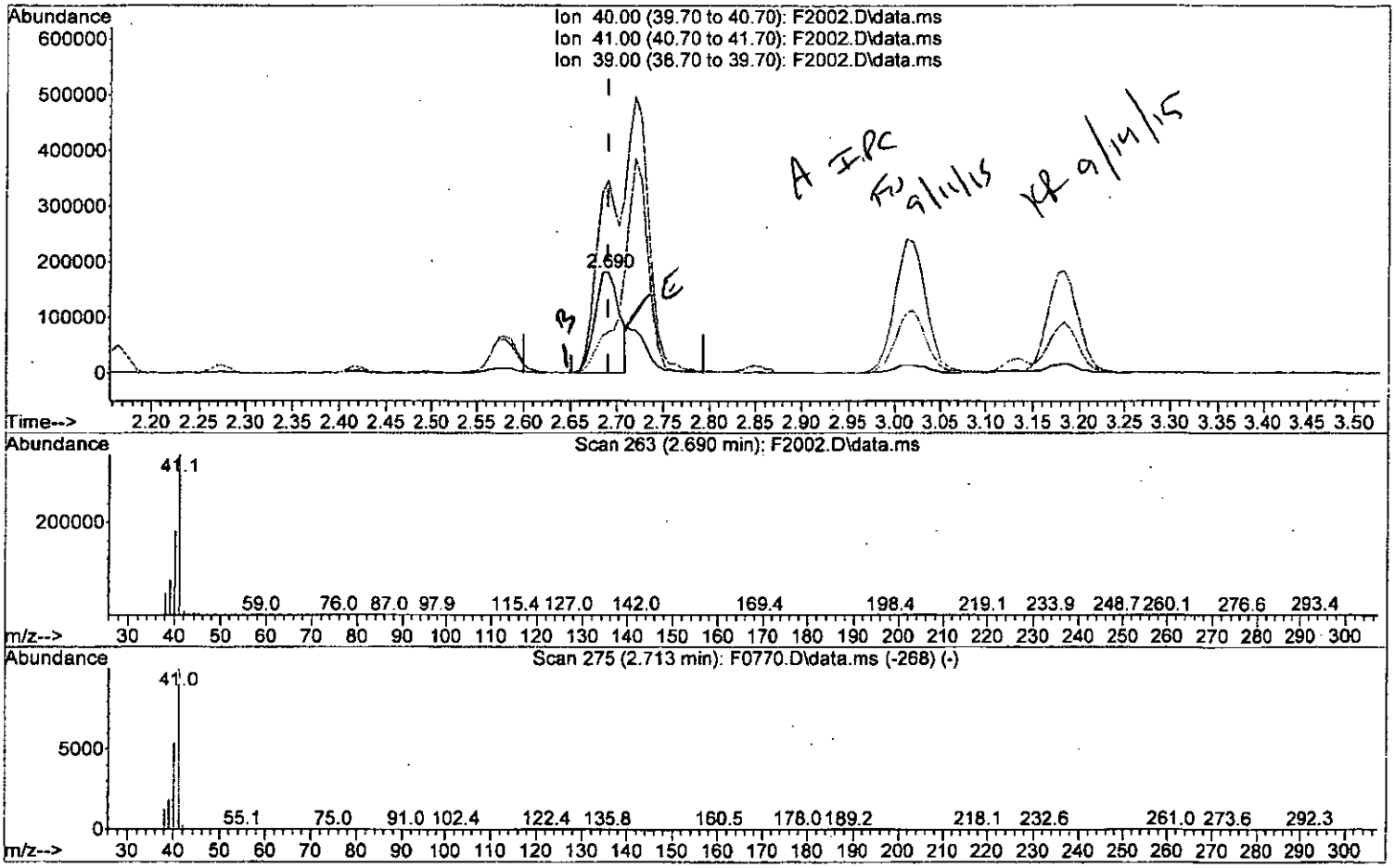
00208

Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F2002.D
Acq On : 10 Sep 2015 10:08 pm
Operator : F. Naegler
Sample : 50 PPB ICV Inst : MSVOA10
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 11 10:28:56 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration



TIC: F2002.D\data.ms

(19) Acetonitrile

2.690min (+0.000) 242.80 ug/L m

response 335848

Ion	Exp%	Act%
40.00	100	100
41.00	185.70	190.48
39.00	35.30	40.96
0.00	0.00	0.00

W091015.M Fri Sep 11 10:29:37 2015 MSVO10

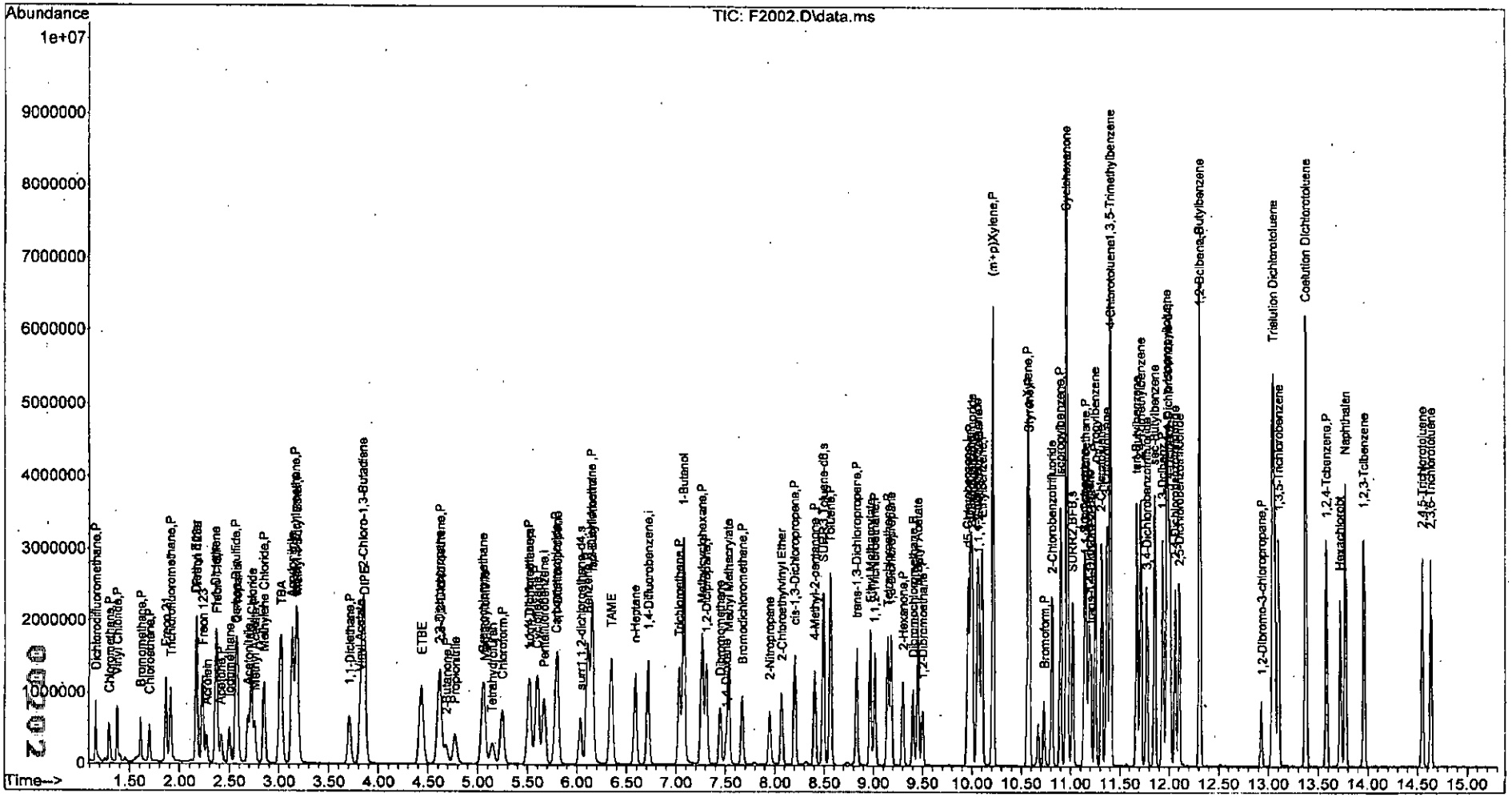
00201

Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F2002.D
Acq On : 10 Sep 2015 10:08 pm
Operator : F. Naegler
Sample : 50 PPB ICV Inst : MSVOA10
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 11 10:29:26 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration



W091015.M Fri Sep 11 10:30:28 2015 MSVO10 Page: 4

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 GW Sampling/748810-03000

Service Request: R1508298
Date Analyzed: 10/13/15

Continuing Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

File ID: I:\ACQUDATA\msvoa10\data\101315\F3080.D\

Calibration Date: 9/10/15
Calibration ID: RC1500091
Analysis Lot: 466785
Units: µg/L

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,1,1,2-Tetrachloroethane	50.0	46.2	0.3582	0.3310	-7.6	NA	± 20 %	Average RF
1,1,1-Trichloroethane (TCA)	50.0	44.5	0.7563	0.6734	-11.0	NA	± 20 %	Average RF
1,1,2,2-Tetrachloroethane	50.0	51.1	NA	NA	NA	2.2	± 20 %	Linear
1,1,2-Trichloroethane	50.0	48.1	0.3308	0.3181	-3.8	NA	± 20 %	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	50.4	0.9591	0.9660	0.7	NA	± 20 %	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	45.6	0.4091	0.3730	-8.8	NA	± 20 %	Average RF
1,1-Dichloropropene	50.0	48.8	0.4503	0.4392	-2.5	NA	± 20 %	Average RF
1,2,3-Trichlorobenzene	50.0	50.0	1.260	1.259	-0.1	NA	± 20 %	Average RF
1,2,3-Trichloropropane	50.0	46.9	0.3313	0.3111	-6.1	NA	± 20 %	Average RF
1,2,4-Trichlorobenzene	50.0	49.2	1.272	1.251	-1.6	NA	± 20 %	Average RF
1,2,4-Trimethylbenzene	50.0	51.7	2.604	2.692	3.4	NA	± 20 %	Average RF
1,2-Dibromo-3-chloropropane (DBCP)	50.0	48.3	0.2540	0.2455	-3.4	NA	± 20 %	Average RF
1,2-Dibromoethane	50.0	45.0	0.4077	0.3671	-10.0	NA	± 20 %	Average RF
1,2-Dichlorobenzene	50.0	48.6	1.591	1.545	-2.9	NA	± 20 %	Average RF
1,2-Dichloroethane	50.0	46.2	0.6042	0.5583	-7.6	NA	± 20 %	Average RF
1,2-Dichloropropane	50.0	50.5	0.3899	0.3938	1.0	NA	± 20 %	Average RF
1,3,5-Trimethylbenzene	50.0	52.3	2.553	2.669	4.5	NA	± 20 %	Average RF
1,3-Dichlorobenzene	50.0	49.7	1.577	1.566	-0.7	NA	± 20 %	Average RF
1,3-Dichloropropane	50.0	46.1	0.6616	0.6097	-7.9	NA	± 20 %	Average RF
1,4-Dichlorobenzene	50.0	47.1	1.691	1.594	-5.7	NA	± 20 %	Average RF
2,2-Dichloropropane	50.0	44.6	0.7109	0.6346	-10.7	NA	± 20 %	Average RF
2-Butanone (MEK)	50.0	56.1	0.5384	0.6042	12.2	NA	± 20 %	Average RF
2-Chlorotoluene	50.0	49.3	2.205	2.175	-1.4	NA	± 20 %	Average RF
2-Hexanone	50.0	53.4	0.6051	0.6458	6.7	NA	± 20 %	Average RF
tert-Butyl Alcohol	1000	798	0.1253	0.1001	-20.2 *	NA	± 20 %	Average RF
4-Chlorotoluene	50.0	49.6	2.615	2.596	-0.7	NA	± 20 %	Average RF
p-Isopropyltoluene	50.0	54.6	2.686	2.934	9.2	NA	± 20 %	Average RF
4-Methyl-2-pentanone	50.0	54.2	0.7046	0.7640	8.4	NA	± 20 %	Average RF
Acetone	50.0	50.3	0.4277	0.4301	0.6	NA	± 20 %	Average RF
Benzene	50.0	48.3	1.339	1.293	-3.5	NA	± 20 %	Average RF
Bromobenzene	50.0	48.2	0.8371	0.8070	-3.6	NA	± 20 %	Average RF
Bromochloromethane	50.0	49.9	0.3268	0.3263	-0.1	NA	± 20 %	Average RF
Bromodichloromethane	50.0	43.5	0.4587	0.3994	-12.9	NA	± 20 %	Average RF
Bromoform	50.0	43.3	0.2925	0.2530	-13.5	NA	± 20 %	Average RF
Bromomethane	50.0	63.4	NA	NA	NA	26.9 *	± 20 %	Quadratic
Carbon Tetrachloride	50.0	46.5	0.1347	0.1252	-7.1	NA	± 20 %	Average RF
Chlorobenzene	50.0	46.9	1.039	0.9751	-6.1	NA	± 20 %	Average RF
Chloroethane	50.0	57.2	0.3129	0.3579	14.4	NA	± 20 %	Average RF
Chloroform	50.0	46.7	0.8646	0.8070	-6.7	NA	± 20 %	Average RF
Chloromethane	50.0	64.5	0.6035	0.7781	28.9 *	NA	± 20 %	Average RF
Dibromochloromethane	50.0	46.4	0.3832	0.3558	-7.2	NA	± 20 %	Average RF

00203

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 GW Sampling/748810-03000

Service Request: R1508298
Date Analyzed: 10/13/15

Continuing Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

File ID: I:\ACQUDATA\msvoa10\data\101315\F3080.D\

Calibration Date: 9/10/15
Calibration ID: RC1500091
Analysis Lot: 466785
Units: µg/L

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Dichlorodifluoromethane (CFC 12)	50.0	51.9	0.4428	0.4598	3.8	NA	± 20 %	Average RF
Methylene Chloride	50.0	46.1	0.5125	0.4728	-7.8	NA	± 20 %	Average RF
Ethylbenzene	50.0	48.0	0.5528	0.5309	-4.0	NA	± 20 %	Average RF
Hexachlorobutadiene	50.0	53.6	0.5282	0.5664	7.2	NA	± 20 %	Average RF
Isopropylbenzene (Cumene)	50.0	50.5	1.667	1.684	1.0	NA	± 20 %	Average RF
Methyl tert-Butyl Ether	50.0	46.8	1.697	1.589	-6.3	NA	± 20 %	Average RF
Naphthalene	50.0	53.1	3.522	3.737	6.1	NA	± 20 %	Average RF
Styrene	50.0	49.5	1.104	1.093	-1.0	NA	± 20 %	Average RF
Tetrachloroethene (PCE)	50.0	47.5	0.3223	0.3062	-5.0	NA	± 20 %	Average RF
Toluene	50.0	49.0	1.394	1.366	-2.0	NA	± 20 %	Average RF
Trichloroethene (TCE)	50.0	43.9	0.3973	0.3487	-12.2	NA	± 20 %	Average RF
Trichlorofluoromethane (CFC 11)	50.0	52.7	0.6721	0.7078	5.3	NA	± 20 %	Average RF
Vinyl Chloride	50.0	60.3	0.5223	0.6303	20.7 *	NA	± 20 %	Average RF
cis-1,2-Dichloroethene	50.0	47.3	0.5234	0.4946	-5.5	NA	± 20 %	Average RF
cis-1,3-Dichloropropene	50.0	47.9	0.5394	0.5171	-4.1	NA	± 20 %	Average RF
m,p-Xylenes	100	99.8	0.6504	0.6490	-0.2	NA	± 20 %	Average RF
n-Butylbenzene	50.0	52.9	2.636	2.790	5.8	NA	± 20 %	Average RF
n-Propylbenzene	50.0	51.2	3.601	3.686	2.4	NA	± 20 %	Average RF
o-Xylene	50.0	46.9	0.6773	0.6348	-6.3	NA	± 20 %	Average RF
sec-Butylbenzene	50.0	54.3	3.162	3.435	8.6	NA	± 20 %	Average RF
tert-Butylbenzene	50.0	54.0	2.171	2.342	7.9	NA	± 20 %	Average RF
trans-1,2-Dichloroethene	50.0	48.6	0.4501	0.4373	-2.8	NA	± 20 %	Average RF
trans-1,3-Dichloropropene	50.0	46.2	0.4982	0.4600	-7.7	NA	± 20 %	Average RF
4-Bromofluorobenzene	50.0	45.5	0.4856	0.4414	-9.1	NA	± 20 %	Average RF
Dibromofluoromethane	50.0	48.3	0.3226	0.3115	-3.4	NA	± 20 %	Average RF
Toluene-d8	50.0	49.5	1.176	1.163	-1.1	NA	± 20 %	Average RF

00204

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3080.D
Acq On : 13 Oct 2015 1:24 pm
Operator : F. Naegler
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 13 15:00:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration

FU 10/16/15

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	i	Pentafluorobenzene	1.0000	1.0000	0.0	95	0.00	
2	P	Dichlorodifluoromethane	0.4428	0.4598	-3.8	86	0.00	
3	P	Chloromethane	0.6035	0.7781	-28.9#	119	0.00	#1
4	P	Vinyl Chloride	0.5223	0.6303	-20.7#	108	0.00	(2)
5	P	Bromomethane	0.2948	0.2819	-26.9 ~~4.4~~	114	0.00	(3)
6	P	Chloroethane	0.3129	0.3579	-14.4	104	0.01	
7		Freon 21	0.8860	0.9447	-6.6	101	0.00	
8	P	Trichlorofluoromethane	0.6721	0.7078	-5.3	94	0.00	
9		Diethyl Ether	0.4916	0.5544	-12.8	101	0.00	
10		Freon 123a	0.5881	0.5767	1.9	91	0.00	
11		Freon 123	0.6050	0.6064	-0.2	89	0.00	
12		Acrolein	0.1599	0.1440	9.9	83	0.00	
13		1,1-Diclethene	0.4091	0.3730	8.8	86	0.00	
14	P	Freon 113	0.4565	0.4533	0.7	93	0.00	
15	P	Acetone	0.4277	0.4301	-0.6	99	0.00	
16		2-Propanol	0.0907	0.0821	9.5	82	-0.02	
17		Iodomethane	0.5227	0.6519	-5.9 ~~-24.7#~~	96	0.00	
18	P	Carbon Disulfide	1.2488	1.1924	4.5	93	0.00	
19		Acetonitrile	0.0896	0.0982	-9.6	106	0.00	
20		Allyl Chloride	0.2608	0.2357	9.6	86	0.00	
21	P	Methyl Acetate	0.7730	0.8586	-11.1	100	0.00	
22	P	Methylene Chloride	0.5125	0.4728	7.7	90	0.00	
23		TBA	0.1253	0.1001	20.1#	73	-0.03	(4)
24		Acrylonitrile	0.3354	0.4068	-21.3#	105	0.00	NT
25	P	Methyl-t-Butyl Ether	1.6965	1.5893	6.3	83	0.00	
26	P	trans-1,2-Dichloroethene	0.4501	0.4373	2.8	91	0.00	
27	P	1,1-Diclethane	0.9591	0.9660	-0.7	94	0.00	
28		Vinyl Acetate	0.0969	0.1046	-7.9	94	0.00	
29		DIPE	~~2.2005~~	~~0.0007~~	~~100.0#~~	~~0#~~	~~0.00~~	
30		2-Chloro-1,3-Butadiene	1.0503	1.1467	-9.2	99	0.00	
31		ETBE	~~1.8352~~	~~0.0008~~	~~100.0#~~	~~0#~~	~~0.00~~	
32		2,2-Dichloropropane	0.7109	0.6346	10.7	81	0.00	
33	P	cis-1,2-Dichloroethene	0.5234	0.4946	5.5	89	0.00	
34	P	2-Butanone	0.5384	0.6042	-12.2	107	-0.01	
35		Propionitrile	0.1444	0.1594	-10.4	100	-0.01	
36		Bromochloromethane	0.3268	0.3263	0.2	92	0.00	
37		Methacrylonitrile	0.3144	0.2950	6.2	92	0.00	
38		Tetrahydrofuran	0.3707	0.3736	-0.8	105	0.00	
39	P	Chloroform	0.8646	0.8070	6.7	83	0.00	
40	P	1,1,1-Trichloroethane	0.7563	0.6734	11.0	79	0.00	
41	i	1,4-Difluorobenzene	1.0000	1.0000	0.0	96	0.00	
42	P	Cyclohexane	0.4989	0.5217	-4.6	104	0.00	
43	s	surr4,Dibrflmethane	0.3226	0.3115	3.4	90	0.00	
44	P	Carbontetrachloride	0.1347	0.1252	7.1	81	0.00	
45		1,1-Dichloropropene	0.4503	0.4392	2.5	90	0.00	
46	s	surr1,1,2-dichloroethane-d4	0.4574	0.4196	8.3	86	0.00	

00205

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3080.D
Acq On : 13 Oct 2015 1:24 pm
Operator : F. Naegler
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 13 15:00:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
47	P	Benzene	1.3388	1.2925	3.5	88	0.00	
48	P	1,2-Dichloroethane	0.6042	0.5583	7.6	84	0.00	
49		Iso-Butyl Alcohol	0.0456	0.0422	7.5	86	-0.02	
50		TAME	1.0936	0.0000	100.0#	0#	-6.35#	
51		n-Heptane	0.6365	0.8137	-27.8#	124	0.00	NT
52		1-Butanol	0.0242	0.0000	100.0#	0#	-0.01	
53	P	Trichloroethene	0.3973	0.3487	12.2	85	0.00	
54	P	Methylcyclohexane	0.5532	0.6053	-9.4	107	0.00	
55	P	1,2-Diclpropane	0.3899	0.3938	-1.0	93	0.00	
56		Dibromomethane	0.2371	0.2092	11.8	80	0.00	
57		1,4-Dioxane	0.0085	0.0075	11.8	87	-0.01	
58		Methyl Methacrylate	0.3242	0.2990	7.8	85	0.00	
59	P	Bromodichloromethane	0.4587	0.3994	12.9	78	0.00	
60		2-Nitropropane	0.1656	0.0810	51.1#	45#	0.00	NT
61		2-Chloroethylvinyl Ether	0.2903	0.2978	-2.6	93	0.00	
62	P	cis-1,3-Dichloropropene	0.5394	0.5171	4.1	85	0.00	
63	P	4-Methyl-2-pentanone	0.7046	0.7640	-8.4	103	0.00	
64	s	SURR3,Toluene-d8	1.1758	1.1628	1.1	90	0.00	
65	P	Toluene	1.3943	1.3658	2.0	88	0.00	
66	P	trans-1,3-Dichloropropene	0.4982	0.4600	7.7	80	0.00	
67		Ethyl Methacrylate	0.5591	0.5104	8.7	81	0.00	
68	P	1,1,2-Trichloroethane	0.3308	0.3181	3.8	87	0.00	
69	s	SURR2,BFB	0.4856	0.4414	9.1	85	0.00	
70	i	d5-Chlorobenzene	1.0000	1.0000	0.0	98	0.00	
71	P	Tetrachloroethene	0.3223	0.3062	5.0	93	0.00	
72	P	2-Hexanone	0.6051	0.6458	-6.7	101	0.00	
73		1,3-Dichloropropane	0.6616	0.6097	7.8	88	0.00	
74	P	Dibromochloromethane	0.3832	0.3558	7.2	81	0.00	
75		N-Butyl Acetate	1.0872	1.0617	2.3	88	0.00	
76	P	1,2-Dibromoethane	0.4077	0.3671	10.0	84	0.00	
77		3-Chlorobenzotrifluoride	0.6049	0.0001	100.0#	0#	-0.08	
78	P	Chlorobenzene	1.0389	0.9751	6.1	88	0.00	
79		4-Chlorobenzotrifluoride	0.5369	0.0001	100.0#	0#	-0.03	
80		1,1,1,2-Tetrachloroethane	0.3582	0.3310	7.6	81	0.00	
81	P	Ethylbenzene	0.5528	0.5309	4.0	90	0.00	
82	P	(m+p)Xylene	0.6504	0.6490	0.2	91	0.00	
83	P	o-Xylene	0.6773	0.6348	6.3	91	0.00	
84	P	Styrene	1.1037	1.0927	1.0	91	0.00	
85	P	Bromoform	0.2925	0.2530	13.5	77	0.00	
86		2-Chlorobenzotrifluoride	0.6002	0.0001	100.0#	0#	0.00	
87	P	Isopropylbenzene	1.6665	1.6836	-1.0	93	0.00	
88		Cyclohexanone	0.1151	0.1201	-4.3	92	0.00	
89		trans-1,4-Dichloro-2-Butene	0.2069	0.1993	3.7	93	0.00	
90	i	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	93	0.00	
91	P	1,1,2,2-Tetrachloroethane	0.8529	0.9699	-13.7	90	0.00	

-2,2

00206

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3080.D
Acq On : 13 Oct 2015 1:24 pm
Operator : F. Naegler
Sample : CCV
Misc :
Inst : MSVOA10
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 13 15:00:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
47	P	Benzene	1.3388	1.2925	3.5	88	0.00	
48	P	1,2-Dichloroethane	0.6042	0.5583	7.6	84	0.00	
49		Iso-Butyl Alcohol	0.0456	0.0422	7.5	86	-0.02	
50		TAME	~~1.0936~~	~~0.0000~~	~~100.0#~~	~~0#~~	~~-6.35#~~	
51		n-Heptane	0.6365	0.8137	-27.8#	124	0.00	NT
52		1-Butanol	~~0.0242~~	~~0.0000~~	~~100.0#~~	~~0#~~	~~-0.01~~	
53	P	Trichloroethene	0.3973	0.3487	12.2	85	0.00	
54	P	Methylcyclohexane	0.5532	0.6053	-9.4	107	0.00	
55	P	1,2-Diclpropane	0.3899	0.3938	-1.0	93	0.00	
56		Dibromomethane	0.2371	0.2092	11.8	80	0.00	
57		1,4-Dioxane	0.0085	0.0075	11.8	87	-0.01	
58		Methyl Methacrylate	0.3242	0.2990	7.8	85	0.00	
59	P	Bromodichloromethane	0.4587	0.3994	12.9	78	0.00	
60		2-Nitropropane	0.1656	0.0810	51.1#	45#	0.00	NT
61		2-Chloroethylvinyl Ether	0.2903	0.2978	-2.6	93	0.00	
62	P	cis-1,3-Dichloropropene	0.5394	0.5171	4.1	85	0.00	
63	P	4-Methyl-2-pentanone	0.7046	0.7640	-8.4	103	0.00	
64	s	SURR3,Toluene-d8	1.1758	1.1628	1.1	90	0.00	
65	P	Toluene	1.3943	1.3658	2.0	88	0.00	
66	P	trans-1,3-Dichloropropene	0.4982	0.4600	7.7	80	0.00	
67		Ethyl Methacrylate	0.5591	0.5104	8.7	81	0.00	
68	P	1,1,2-Trichloroethane	0.3308	0.3181	3.8	87	0.00	
69	s	SURR2,BFB	0.4856	0.4414	9.1	85	0.00	
70	i	d5-Chlorobenzene	1.0000	1.0000	0.0	98	0.00	
71	P	Tetrachloroethene	0.3223	0.3062	5.0	93	0.00	
72	P	2-Hexanone	0.6051	0.6458	-6.7	101	0.00	
73		1,3-Dichloropropane	0.6616	0.6097	7.8	88	0.00	
74	P	Dibromochloromethane	0.3832	0.3558	7.2	81	0.00	
75		N-Butyl Acetate	1.0872	1.0617	2.3	88	0.00	
76	P	1,2-Dibromoethane	0.4077	0.3671	10.0	84	0.00	
77		3-Chlorobenzotrifluoride	~~0.6049~~	~~0.0001~~	~~100.0#~~	~~0#~~	~~0.08~~	
78	P	Chlorobenzene	1.0389	0.9751	6.1	88	0.00	
79		4-Chlorobenzotrifluoride	~~0.5369~~	~~0.0001~~	~~100.0#~~	~~0#~~	~~0.03~~	
80		1,1,1,2-Tetrachloroethane	0.3582	0.3310	7.6	81	0.00	
81	P	Ethylbenzene	0.5528	0.5309	4.0	90	0.00	
82	P	(m+p)Xylene	0.6504	0.6490	0.2	91	0.00	
83	P	o-Xylene	0.6773	0.6348	6.3	91	0.00	
84	P	Styrene	1.1037	1.0927	1.0	91	0.00	
85	P	Bromoform	0.2925	0.2530	13.5	77	0.00	
86		2-Chlorobenzotrifluoride	~~0.6002~~	~~0.0001~~	~~100.0#~~	~~0#~~	~~0.00~~	
87	P	Isopropylbenzene	1.6665	1.6836	-1.0	93	0.00	
88		Cyclohexanone	0.1151	0.1201	-4.3	92	0.00	
89		trans-1,4-Dichloro-2-Butene	0.2069	0.1993	3.7	93	0.00	
90	i	1,4-Dichlorobenzene-d4	1:0000	1.0000	0.0	93	0.00	
91	P	1,1,2,2-Tetrachloroethane	0.8529	0.9699	-2.2	~~13.7~~ 90	0.00	

00207

91015.M Tue Oct 13 15:00:54 2015 MSVO10

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3080.D
Acq On : 13 Oct 2015 1:24 pm
Operator : F. Naegler
Sample : CCV
Misc : Inst : MSVOA10
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 13 15:00:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
92		Bromobenzene	0.8371	0.8070	3.6	88	0.00
93		1,2,3-Trichloropropane	0.3313	0.3111	6.1	87	0.00
94		n-Propylbenzene	3.6007	3.6857	-2.4	89	0.00
95		2-Chlorotoluene	2.2052	2.1749	1.4	87	0.00
96		3-Chlorotoluene	2.2914	0.0000	100.0#	0#	-11.37#
97		4-Chlorotoluene	2.6150	2.5959	0.7	87	0.00
98		1,3,5-Trimethylbenzene	2.5533	2.6693	-4.5	91	0.00
99		tert-Butylbenzene	2.1710	2.3423	-7.9	94	0.00
100		1,2,4-Trimethylbenzene	2.6037	2.6919	-3.4	91	0.00
101		3,4-Dichlorobenzotrifluorid	0.8969	0.0000	100.0#	0#	0.04
102		sec-Butylbenzene	3.1619	3.4349	-8.6	93	0.00
103		p-Isopropyltoluene	2.6860	2.9338	-9.2	96	0.00
104	P	1,3-Dclbenz	1.5772	1.5662	0.7	91	0.00
105	P	1,4-Dclbenz	1.6906	1.5938	5.7	90	0.00
106		2,4-Dichlorobenzotrifluorid	0.8332	0.0000	100.0#	0#	-0.02
107		2,5-Dichlorobenzotrifluorid	0.8980	0.0002	100.0#	0#	0.00
108		n-Butylbenzene	2.6363	2.7896	-5.8	91	0.00
109	P	1,2-Dclbenz	1.5910	1.5452	2.9	89	0.00
110	P	1,2-Dibromo-3-chloropropane	0.2540	0.2455	3.3	83	0.00
111		Trielution Dichlorotoluene	1.4271	0.0000	100.0#	0#	0.00
112		1,3,5-Trichlorobenzene	1.2929	0.0003	100.0#	0#	0.01
113		Coelution Dichlorotoluene	1.5755	0.0001	100.0#	0#	0.00
114	P	1,2,4-Tcbenzene	1.2719	1.2512	1.6	91	0.00
115		Hexachlorobt	0.5282	0.5664	-7.2	93	0.00
116		Naphthalen	3.5221	3.7370	-6.1	91	0.00
117		1,2,3-Tclbenzene	1.2601	1.2588	0.1	90	0.00
118		2,4,5-Trichlorotoluene	0.9763	0.0001	100.0#	0#	0.02
119		2,3,6-Trichlorotoluene	0.8839	0.0005	99.9#	0#	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

00208

91015.M Tue Oct 13 15:00:54 2015 MSVO10

Data Path : I:\ACQUDATA\MSVOA10\data\101315\
Data File : F3080.D
Acq On : 13 Oct 2015 1:24 pm
Operator : F. Naegler
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 13 15:00:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration

FU 10/16/15

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.665	168	744944	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.714	114	1070338	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.957	117	976378	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.987	152	519554	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.519	113	333445	48.28	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.56%				
46) surr1,1,2-dichloroetha...	6.031	65	449157	45.87	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 91.74%				
64) SURR3,Toluene-d8	8.488	98	1244590	49.45	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.90%				
69) SURR2,BFB	11.018	95	472419	45.45	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 90.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.160	85	342531	51.92	ug/L		96
3) Chloromethane	1.294	50	579615	64.46	ug/L		99
4) Vinyl Chloride	1.379	62	469533	60.34	ug/L		96
5) Bromomethane	1.611	94	209964	63.44	ug/L		98
6) Chloroethane	1.702	64	266592	57.18	ug/L		93
7) Freon 21	1.867	67	703730	53.31	ug/L		97
8) Trichlorofluoromethane	1.910	101	527267	52.65	ug/L		95
9) Diethyl Ether	2.166	59	412979	56.39	ug/L		89
10) Freon 123a	2.172	67	429576	49.03	ug/L		98
11) Freon 123	2.233	83	451762	50.12	ug/L		97
12) Acrolein	2.269	56	536258	225.13	ug/L		96
13) 1,1-Diclethene	2.361	96	277895	45.60	ug/L	#	86
14) Freon 113	2.373	101	337701	49.65	ug/L		97
15) Acetone	2.416	43	320426	50.29	ug/L		98
16) 2-Propanol	2.574	45	1223499	905.23	ug/L		96
17) Iodomethane	2.501	142	485624	52.94	ug/L		94
18) Carbon Disulfide	2.562	76	888246	47.74	ug/L		100
19) Acetonitrile	2.684	40	365942m	274.27	ug/L		
20) Allyl Chloride	2.721	76	175556	45.19	ug/L	#	17
21) Methyl Acetate	2.751	43	639640	55.54	ug/L		97
22) Methylene Chloride	2.849	84	352203	46.12	ug/L		91
23) TBA	3.007	59	1490715	798.43	ug/L		86
24) Acrylonitrile	3.129	53	1515086	303.18	ug/L		99
25) Methyl-t-Butyl Ether	3.184	73	1183941	46.84	ug/L		97
26) trans-1,2-Dichloroethene	3.166	96	325767	48.58	ug/L		98
27) 1,1-Diclethane	3.702	63	719630	50.36	ug/L		99
28) Vinyl Acetate	3.818	86	77952	54.00	ug/L	#	91
30) 2-Chloro-1,3-Butadiene	3.842	53	854216	54.59	ug/L		97
32) 2,2-Dichloropropane	4.610	77	472723	44.63	ug/L		99
33) cis-1,2-Dichloroethene	4.623	96	368485	47.26	ug/L		88
34) 2-Butanone	4.671	43	450106	56.12	ug/L		97
35) Propionitrile	4.769	54	593900	276.14	ug/L		97
36) Bromochloromethane	5.049	130	243109	49.93	ug/L	#	84
37) Methacrylonitrile	5.062	67	219763	46.91	ug/L	#	84

00209

W091015.M Tue Oct 13 15:00:41 2015 MSVO10 Page: 1

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3080.D
Acq On : 13 Oct 2015 1:24 pm
Operator : F. Naegler
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 13 15:00:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38)	Tetrahydrofuran	5.141	42	278298	50.39	ug/L		96
39)	Chloroform	5.244	83	601151	46.67	ug/L		96
40)	1,1,1-Trichloroethane	5.519	97	501656	44.52	ug/L		92
42)	Cyclohexane	5.598	41	558416	52.28	ug/L		96
44)	Carbontetrachloride	5.787	121	134038	46.47	ug/L		100
45)	1,1-Dichloropropene	5.799	75	470095	48.77	ug/L		99
47)	Benzene	6.104	78	1383463	48.27	ug/L		86
48)	1,2-Dichloroethane	6.147	62	597535	46.20	ug/L		97
49)	Iso-Butyl Alcohol	6.147	43	903087	924.81	ug/L		99
51)	n-Heptane	6.586	43	870902	63.92	ug/L		94
52)	1-Butanol	7.086	56	1418	2.74	ug/L		96
53)	Trichloroethene	7.031	130	373203	43.88	ug/L		92
54)	Methylcyclohexane	7.262	55	647889	54.71	ug/L		97
55)	1,2-Diclpropane	7.305	63	421475	50.49	ug/L		98
56)	Dibromomethane	7.445	93	223874	44.12	ug/L	#	79
57)	1,4-Dioxane	7.500	88	161227	889.33	ug/L		95
58)	Methyl Methacrylate	7.531	69	320064	46.12	ug/L	#	83
59)	Bromodichloromethane	7.671	83	427515	43.54	ug/L		98
60)	2-Nitropropane	7.945	41	173304	48.88	ug/L		100
61)	2-Chloroethylvinyl Ether	8.067	63	318705	51.28	ug/L		96
62)	cis-1,3-Dichloropropene	8.201	75	553465	47.94	ug/L		98
63)	4-Methyl-2-pentanone	8.402	43	817747	54.22	ug/L		96
65)	Toluene	8.561	91	1461882	48.98	ug/L		98
66)	trans-1,3-Dichloropropene	8.829	75	492378	46.17	ug/L		99
67)	Ethyl Methacrylate	8.963	69	546282	45.65	ug/L		86
68)	1,1,2-Trichloroethane	9.012	97	340425	48.08	ug/L		85
71)	Tetrachloroethene	9.146	164	298932	47.50	ug/L		92
72)	2-Hexanone	9.299	43	630583	53.37	ug/L		98
73)	1,3-Dichloropropane	9.177	76	595277	46.07	ug/L		95
74)	Dibromochloromethane	9.402	129	347369	46.42	ug/L		99
75)	N-Butyl Acetate	9.451	43	1036580	48.82	ug/L		94
76)	1,2-Dibromoethane	9.494	107	358389	45.01	ug/L		92
78)	Chlorobenzene	9.981	112	952098	46.93	ug/L		98
80)	1,1,1,2-Tetrachloroethane	10.067	131	323185	46.21	ug/L		98
81)	Ethylbenzene	10.103	106	518319	48.01	ug/L	#	89
82)	(m+p)Xylene	10.213	106	1267266	99.78	ug/L		96
83)	o-Xylene	10.567	106	619833	46.86	ug/L		96
84)	Styrene	10.579	104	1066926	49.51	ug/L		97
85)	Bromoform	10.731	173	247050	43.26	ug/L		98
87)	Isopropylbenzene	10.896	105	1643798	50.51	ug/L		98
88)	Cyclohexanone	10.957	55	2344370	1043.14	ug/L		88
89)	trans-1,4-Dichloro-2-B...	11.201	53	194590	48.17	ug/L		88
91)	1,1,2,2-Tetrachloroethane	11.152	83	503893	51.12	ug/L		94
92)	Bromobenzene	11.140	156	419293	48.20	ug/L		93
93)	1,2,3-Trichloropropane	11.182	110	161609	46.94	ug/L		96
94)	n-Propylbenzene	11.249	91	1914931	51.18	ug/L		97
95)	2-Chlorotoluene	11.310	91	1129980	49.31	ug/L		99
97)	4-Chlorotoluene	11.408	91	1348720	49.64	ug/L		96
98)	1,3,5-Trimethylbenzene	11.402	105	1386853	52.27	ug/L		97
99)	tert-Butylbenzene	11.670	119	1216977	53.95	ug/L		99
100)	1,2,4-Trimethylbenzene	11.713	105	1398613	51.70	ug/L		94

00210

W091015.M Tue Oct 13 15:00:41 2015 MSVO10

Data Path : I:\ACQUDATA\MSVOA10\data\101315\
Data File : F3080.D
Acq On : 13 Oct 2015 1:24 pm
Operator : F. Naegler
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 13 15:00:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) sec-Butylbenzene	11.853	105	1784607	54.32	ug/L	97
103) p-Isopropyltoluene	11.975	119	1524286	54.61	ug/L	98
104) 1,3-Dclbenz	11.932	146	813747	49.65	ug/L	99
105) 1,4-Dclbenz	12.005	146	828082	47.14	ug/L	99
108) n-Butylbenzene	12.304	91	1449338	52.91	ug/L	97
109) 1,2-Dclbenz	12.310	146	802821	48.56	ug/L	97
110) 1,2-Dibromo-3-chloropr...	12.932	157	127538	48.32	ug/L	91
114) 1,2,4-Tcbenzene	13.584	180	650042	49.18	ug/L	98
115) Hexachlorobt	13.718	225	294295	53.61	ug/L	98
116) Naphthalen	13.773	128	1941555	53.05	ug/L	98
117) 1,2,3-Tclbenzene	13.962	180	654004	49.95	ug/L	97

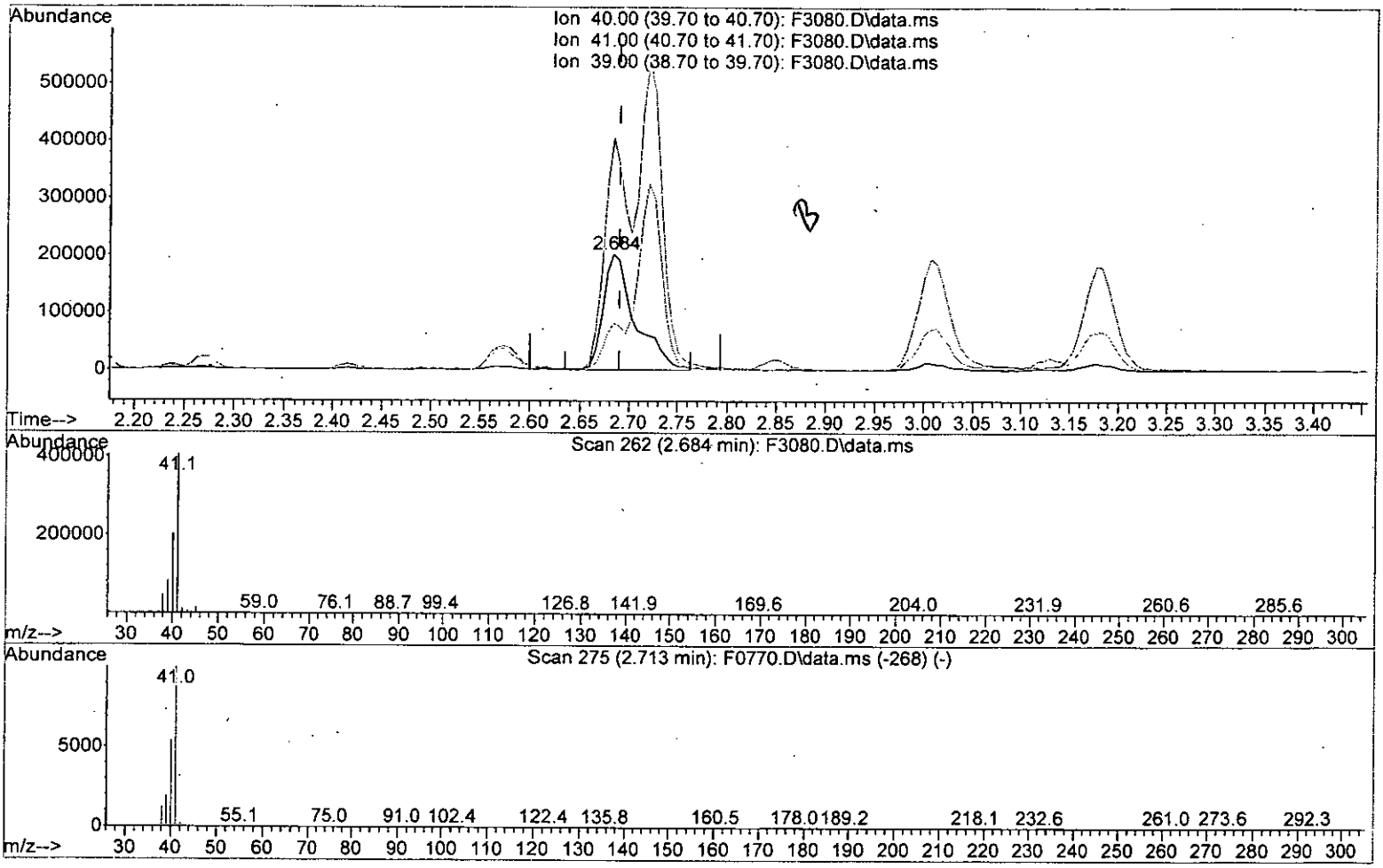
(#) = qualifier out of range (m) = manual integration (+) = signals summed

00211

W091015.M Tue Oct 13 15:00:41 2015 MSVO10

```
Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3080.D
Acq On    : 13 Oct 2015    1:24 pm
Operator  : F. Naegler
Sample    : CCV                                    Inst    : MSVOA10
Misc      :
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Oct 13 13:39:00 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title  : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration
```



TIC: F3080.D\data.ms

(19) Acetonitrile

2.684min (-0.006) 345.88 ug/L

response 461484

Ion	Exp%	Act%
40.00	100	100
41.00	185.70	199.87
39.00	35.30	40.35
0.00	0.00	0.00

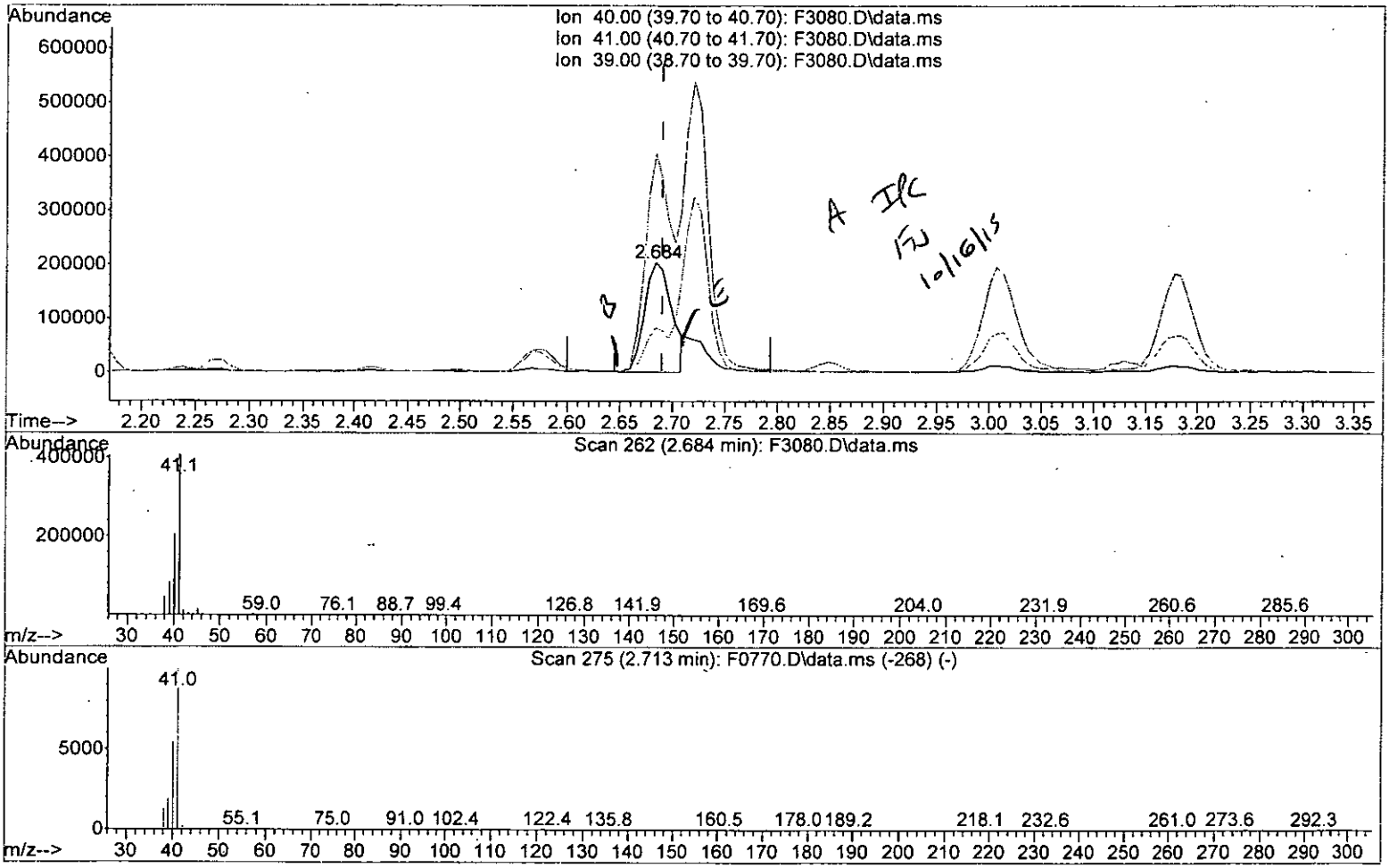
00212

W091015.M Tue Oct 13 14:59:19 2015 MSVO10

Page: 1

```
Data Path : I:\ACQUDATA\MSVOA10\DATA\101315\
Data File : F3080.D
Acq On    : 13 Oct 2015    1:24 pm
Operator  : F. Naegler
Sample    : CCV                                    Inst    : MSVOA10
Misc      :
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Oct 13 13:39:00 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title  : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration
```



TIC: F3080.D\data.ms

(19) Acetonitrile

2.684min (-0.006) 274.27 ug/L m

response 365942

Ion	Exp%	Act%
40.00	100	100
41.00	185.70	199.87
39.00	35.30	40.35
0.00	0.00	0.00

mc 10/19

00213

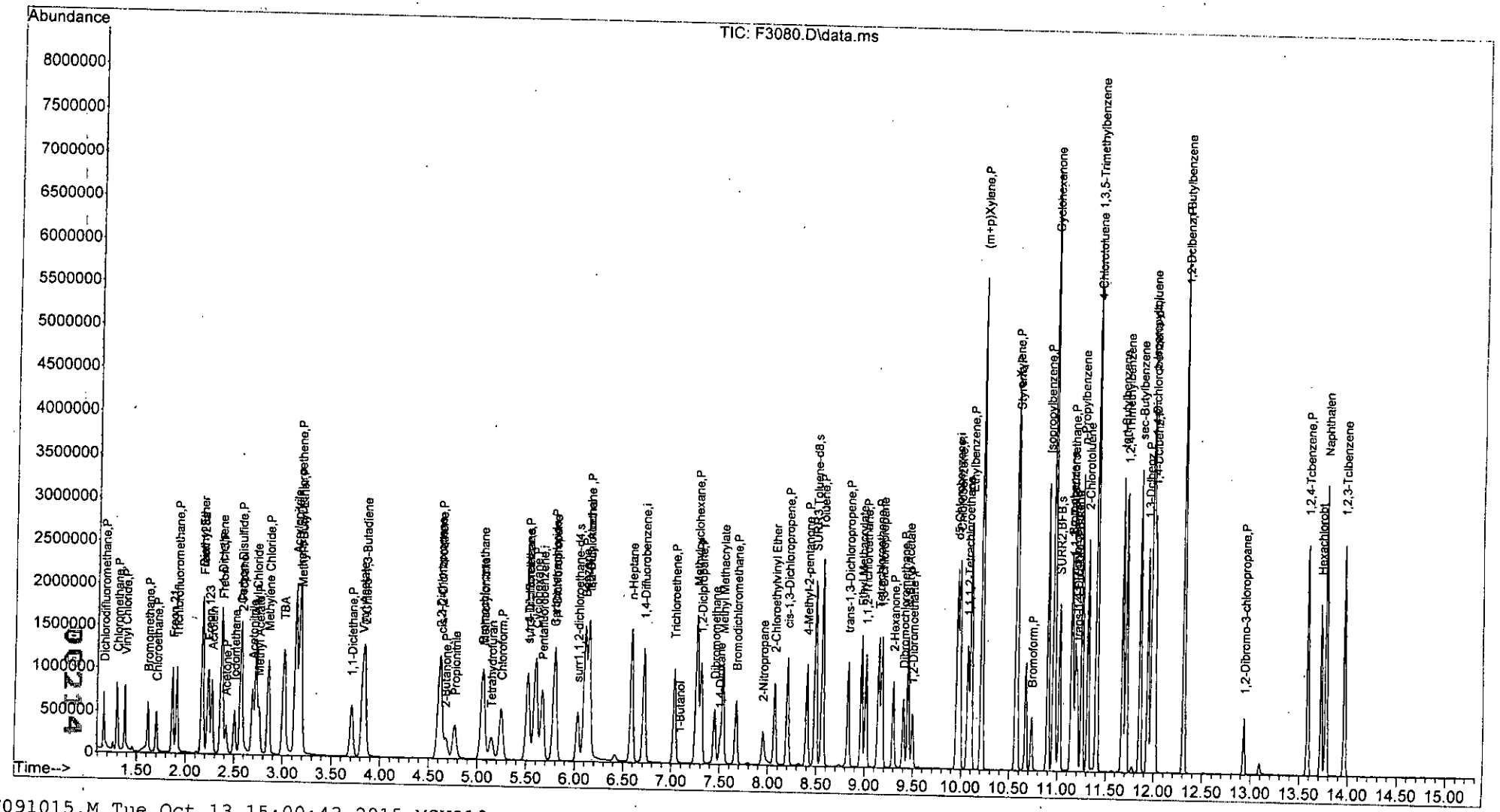
W091015.M Tue Oct 13 14:59:34 2015 MSVO10 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3080.D
Acq On : 13 Oct 2015 1:24 pm
Operator : F. Naegler
Sample : CCV
Misc :
ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Oct 13 15:00:08 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration



W091015.M Tue Oct 13 15:00:43 2015 MSVO10

Page: 4

ALS Environmental

VOLATILE ORGANICS
RAW QC DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

00215

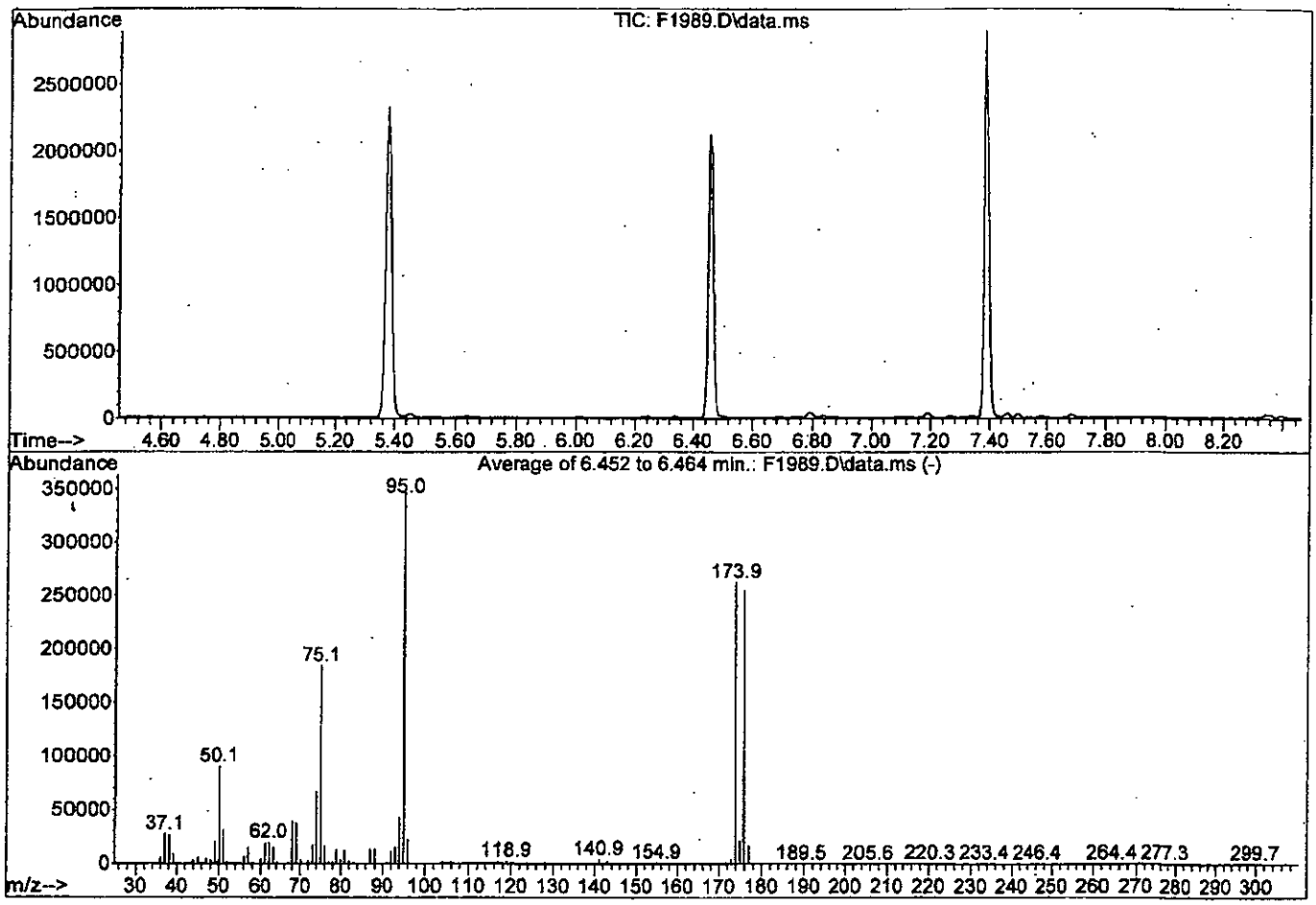
RIGHT SOLUTIONS | RIGHT PARTNER

Data Path : I:\ACQUDATA\msvoa10\data\091015\
Data File : F1989.D
Acq On : 10 Sep 2015 4:35 pm
Operator : F. Naegler
Sample : TUNE Inst : MSVOA10
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: CPD4.P

FJ 9/11/15

Method : I:\ACQUDATA\MSVOA10\METHODS\T091015.M
Title : 8260B WATERS
Last Update : Wed Sep 27 14:33:13 2006



AutoFind: Scans 388, 389, 390; Background Corrected with Scan 383

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.1	90187	PASS
75	95	30	60	53.2	183984	PASS
95	95	100	100	100.0	345664	PASS
96	95	5	9	6.5	22627	PASS
173	174	0.00	2	1.6	4127	PASS
174	95	50	120	75.9	262392	PASS
175	174	5	9	8.0	20933	PASS
176	174	95	101	97.1	254869	PASS
177	176	5	9	6.5	16443	PASS

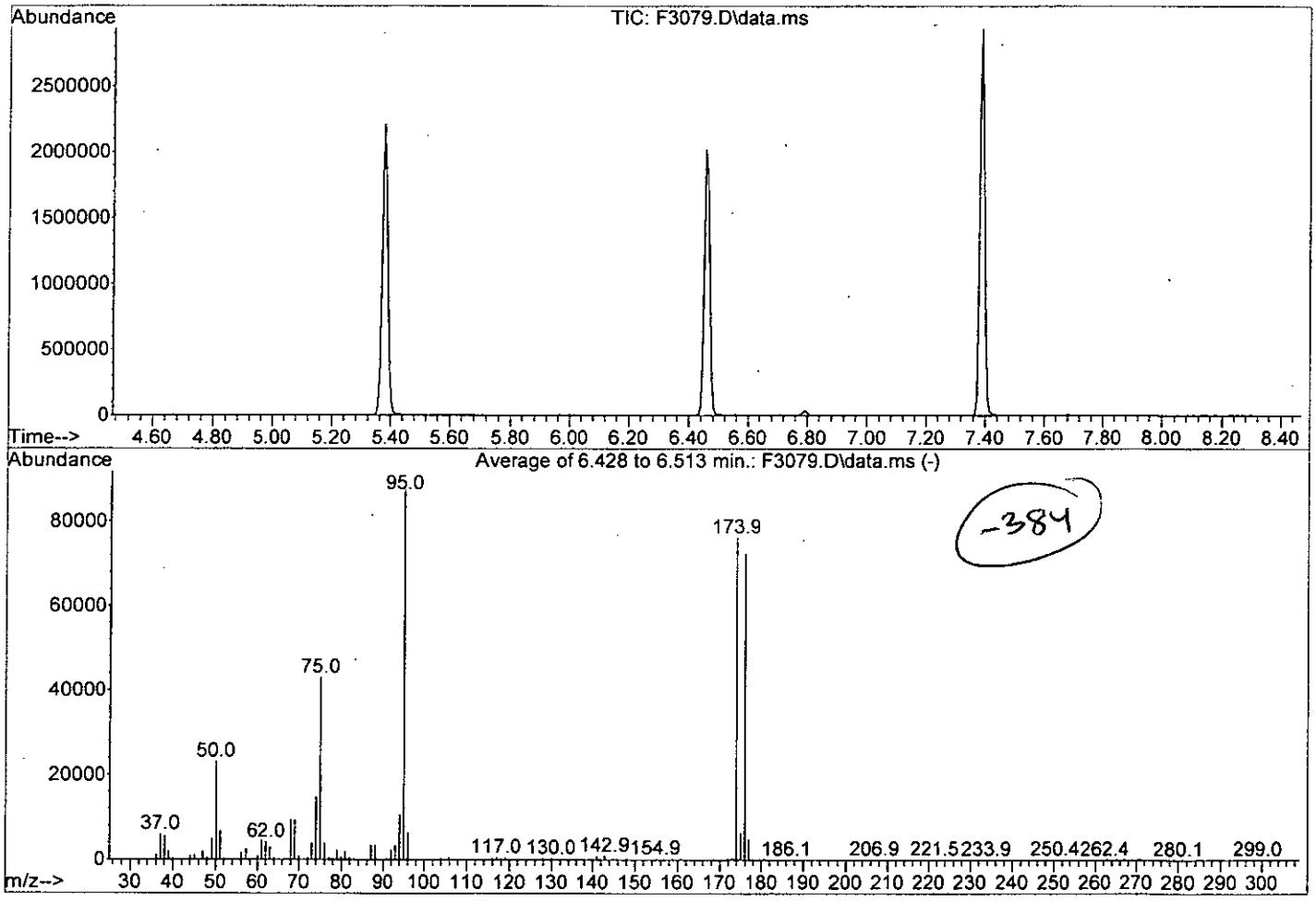
T091015.M Fri Sep 11 08:42:07 2015 MSVO10 0021 Page: 1

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3079.D
Acq On : 13 Oct 2015 12:59 pm
Operator : F. Naegler
Sample : TUNE
Inst : MSVOA10
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: CPD4.P

FW 10/13/15

Method : I:\ACQUDATA\MSVOA10\METHODS\T091015.M
Title : 8260B WATERS
Last Update : Wed Sep 27 14:33:13 2006



Spectrum Information: Average of 6.428 to 6.513 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.4	23124	PASS
75	95	30	60	49.1	42965	PASS
95	95	100	100	100.0	87455	PASS
96	95	5	9	7.1	6238	PASS
173	174	0.00	2	0.5	392	PASS
174	95	50	120	87.1	76156	PASS
175	174	5	9	8.1	6202	PASS
176	174	95	101	95.1	72404	PASS
177	176	5	9	6.7	4887	PASS

00217

T091015.M Tue Oct 13 13:11:16 2015 MSVO10

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/13/15 16:00
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1512564-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3085.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
630-20-6	1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	
71-55-6	1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	
79-34-5	1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	
79-00-5	1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	
75-34-3	1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	
563-58-6	1,1-Dichloropropene	ND	U	5.0	1.0	0.29	
87-61-6	1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	
96-18-4	1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	
120-82-1	1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	
95-63-6	1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	
106-93-4	1,2-Dibromoethane	ND	U	5.0	1.0	0.24	
95-50-1	1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	
107-06-2	1,2-Dichloroethane	ND	U	5.0	1.0	0.36	
78-87-5	1,2-Dichloropropane	ND	U	5.0	1.0	0.20	
108-67-8	1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	
541-73-1	1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	
142-28-9	1,3-Dichloropropane	ND	U	5.0	1.0	0.27	
106-46-7	1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	
594-20-7	2,2-Dichloropropane	ND	U	5.0	1.0	0.27	
78-93-3	2-Butanone (MEK)	ND	U	5.0	1.0	0.81	
95-49-8	2-Chlorotoluene	ND	U	5.0	1.0	0.20	
591-78-6	2-Hexanone	ND	U	5.0	5.0	1.7	
75-65-0	tert-Butyl Alcohol	ND	U	100	20	11	
106-43-4	4-Chlorotoluene	ND	U	5.0	1.0	0.24	
99-87-6	p-Isopropyltoluene	ND	U	5.0	1.0	0.20	
108-10-1	4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	
67-64-1	Acetone	ND	U	5.0	5.0	1.3	
71-43-2	Benzene	ND	U	5.0	1.0	0.20	
108-86-1	Bromobenzene	ND	U	5.0	1.0	0.28	
74-97-5	Bromochloromethane	ND	U	5.0	1.0	0.32	
75-27-4	Bromodichloromethane	ND	U	5.0	1.0	0.32	
75-25-2	Bromoform	ND	U	5.0	1.0	0.42	
74-83-9	Bromomethane	ND	U	5.0	1.0	0.29	

00218

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/13/15 16:00
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1512564-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3085.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
56-23-5	Carbon Tetrachloride	ND	U	5.0	1.0	0.45	
108-90-7	Chlorobenzene	ND	U	5.0	1.0	0.29	
75-00-3	Chloroethane	ND	U	5.0	1.0	0.24	
67-66-3	Chloroform	ND	U	5.0	1.0	0.25	
74-87-3	Chloromethane	ND	U	5.0	1.0	0.21	
124-48-1	Dibromochloromethane	ND	U	5.0	1.0	0.31	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	
75-09-2	Methylene Chloride	ND	U	5.0	1.0	0.60	
100-41-4	Ethylbenzene	ND	U	5.0	1.0	0.20	
87-68-3	Hexachlorobutadiene	ND	U	5.0	1.0	0.62	
98-82-8	Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	
1634-04-4	Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	
91-20-3	Naphthalene	ND	U	5.0	1.0	0.20	
100-42-5	Styrene	ND	U	5.0	1.0	0.20	
127-18-4	Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	
108-88-3	Toluene	ND	U	5.0	1.0	0.20	
79-01-6	Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	
75-01-4	Vinyl Chloride	ND	U	5.0	1.0	0.32	
156-59-2	cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	
10061-01-5	cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	
179601-23-1	m,p-Xylenes	ND	U	10	2.0	0.33	
104-51-8	n-Butylbenzene	ND	U	5.0	1.0	0.21	
103-65-1	n-Propylbenzene	ND	U	5.0	1.0	0.20	
95-47-6	o-Xylene	ND	U	5.0	1.0	0.20	
135-98-8	sec-Butylbenzene	ND	U	5.0	1.0	0.27	
98-06-6	tert-Butylbenzene	ND	U	5.0	1.0	0.20	
156-60-5	trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	
10061-02-6	trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	

00219

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1508298
Date Collected: NA
Date Received: NA
Date Analyzed: 10/13/15 16:00

Sample Name: Method Blank
Lab Code: RQ1512564-01

Units: Percent
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C
Data File Name: I:\ACQUDATA\msvoa10\data\101315\F3085.D\

Analysis Lot: 466785
Instrument Name: R-MS-10
Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	75-120	10/13/15 16:00	
Dibromofluoromethane	93	85-115	10/13/15 16:00	
Toluene-d8	98	85-120	10/13/15 16:00	

00220

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/13/15 1600

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1512564-01	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

00221

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3085.D
Acq On : 13 Oct 2015 4:00 pm
Operator : F. Naegler
Sample : MBLK Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 16 14:52:54 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.665	168	709198	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.714	114	1031622	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.957	117	908079	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.987	152	485274	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.519	113	308096	46.29	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 92.58%			
46) surr1,1,2-dichloroetha...	6.031	65	426318	45.17	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 90.34%			
64) SURR3,Toluene-d8	8.488	98	1184759	48.83	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.66%			
69) SURR2,BFB	11.018	95	447032	44.62	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 89.24%			
Target Compounds						Qvalue
5) Bromomethane	1.617	94	435	Below Cal		# 43

(#) = qualifier out of range (m) = manual integration (+) = signals summed

FW
10/16/15

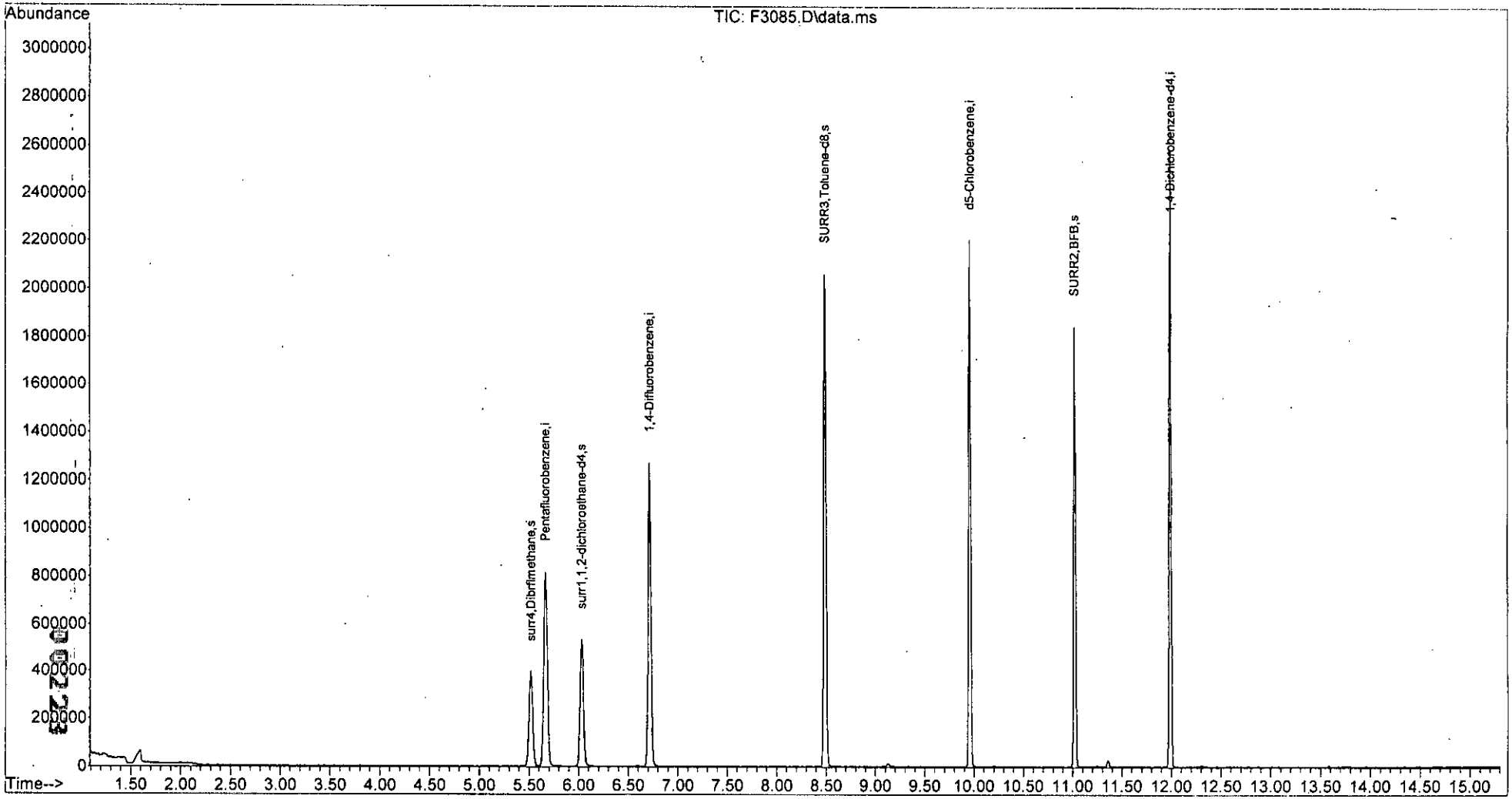
00222

W091015.M Fri Oct 16 14:53:53 2015 MSVO10 Page: 1

Quantitation Report (QT Reviewed)

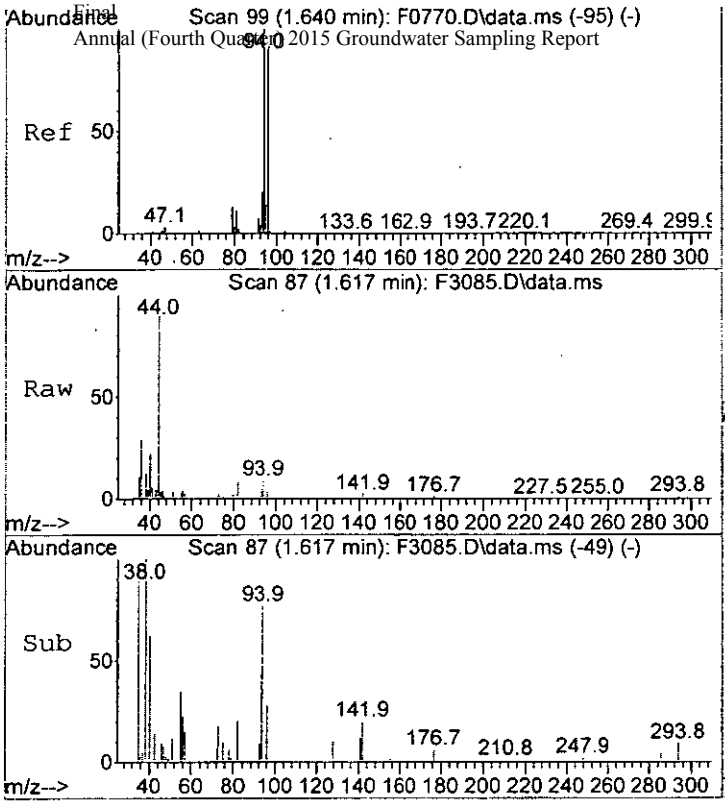
Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3085.D
Acq On : 13 Oct 2015 4:00 pm
Operator : F. Naegler
Sample : MBLK Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 16 14:52:54 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration



W091015.M Fri Oct 16 14:53:56 2015 MSVO10

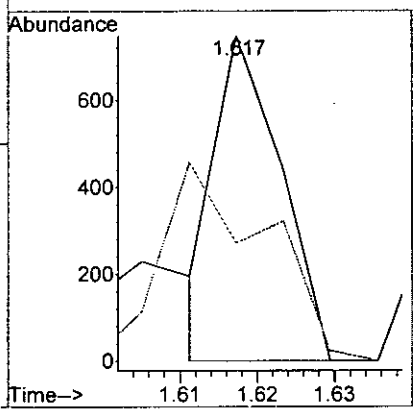
Page: 2



#5
Bromomethane
Concen: Below Cal
RT: 1.617 min Scan# 87
Delta R.T. 0.006 min
Lab File: F3085.D
Acq: 13 Oct 2015 4:00 pm

Tgt Ion: 94 Resp: 435

Ion	Ratio	Lower	Upper
94	100		
96	38.4	73.0	113.0#



00224

F3085.D W091015.M Fri Oct 16 14:53:58 2015 MSVO10 Page 3

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3085.D
Acq On : 13 Oct 2015 4:00 pm
Operator : F. Naegler
Sample : MBLK Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: CPD4.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Title : MS#10 - 8260B WATERS 10mL Purge

Signal : TIC: F3085.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.593	70	83	90	rBV4	57450	172254	5.06%	0.920%
2	5.519	716	727	737	rBV	393626	998674	29.36%	5.332%
3	5.665	742	751	768	rVB	810661	1991937	58.56%	10.635%
4	6.031	802	811	824	rVB	528690	1221036	35.90%	6.519%
5	6.714	915	923	937	rBV	1269813	2501461	73.54%	13.356%
6	8.488	1207	1214	1224	rBV	2058997	3401640	100.00%	18.162%
7	9.957	1449	1455	1462	rBV	2204365	2975536	87.47%	15.887%
8	11.018	1621	1629	1635	rBV	1843557	2318036	68.14%	12.377%
9	11.359	1680	1685	1689	rBV2	27432	38876	1.14%	0.208%
10	11.987	1782	1788	1796	rVB	2583822	3109769	91.42%	16.604%

Sum of corrected areas: 18729219

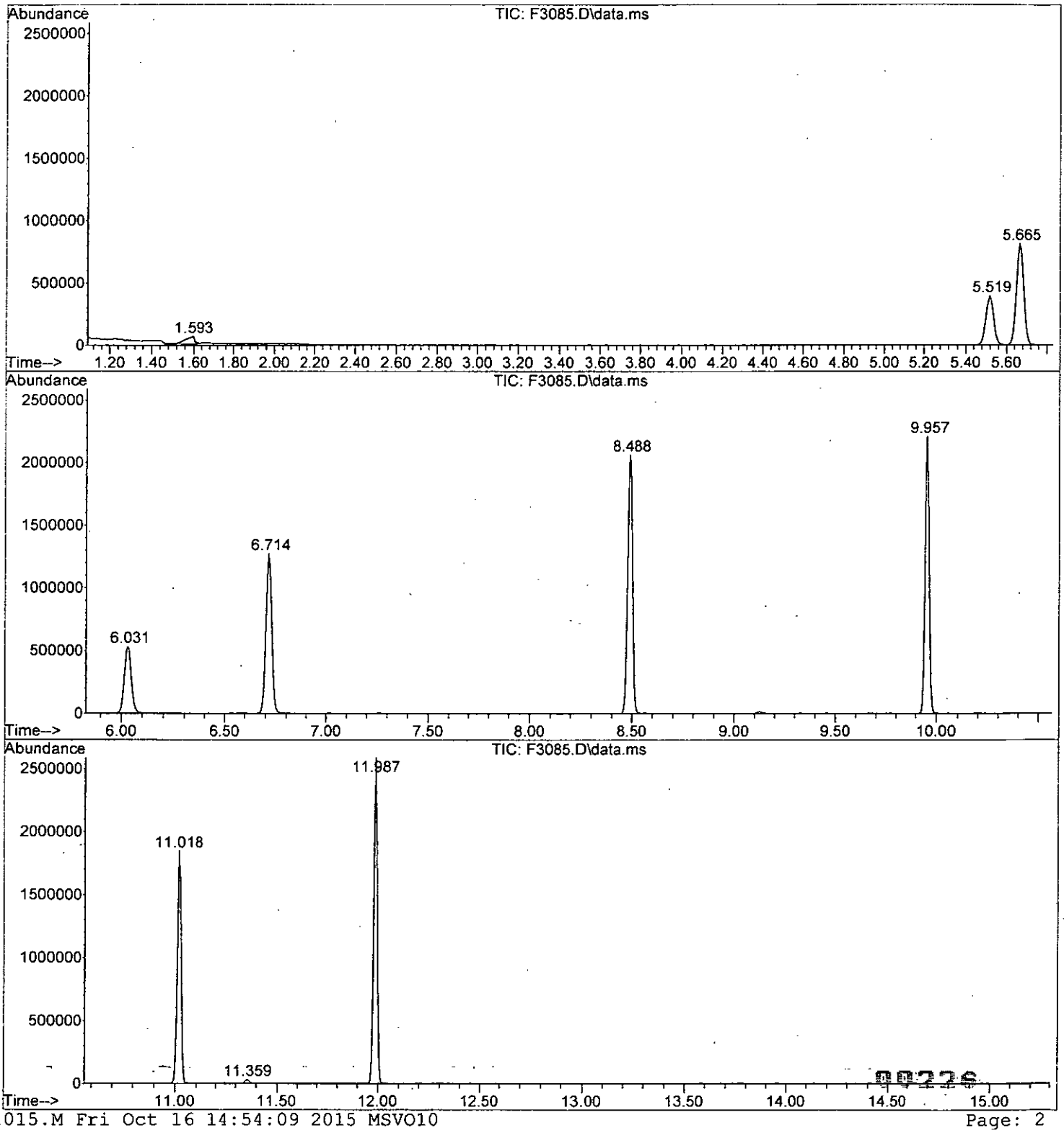
00225

W091015.M Fri Oct 16 14:54:05 2015 MSVO10 Page: 1

```
Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3085.D
Acq On    : 13 Oct 2015    4:00 pm
Operator  : F. Naegler
Sample    : MBLK                                    Inst    : MSVOA10
Misc      :
ALS Vial  : 5   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title  : MS#10 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```




```
W091015.M Fri Oct 16 14:54:09 2015 MSVO10                    Page: 2
```

Data Path : I:\ACQUDATA\MSVOA10\DATA\091315\\
Data File : F3085.D
Acq On : 13 Oct 2015 4:00 pmm
Operator : F. Naeglerr
Sample : MBLK Inst : MSVOA100
Misc :
ALS Vial : 5 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.MM
Quant Title : MS#10 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/13/15 14:32
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1512564-02	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3082.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
630-20-6	1,1,1,2-Tetrachloroethane	**18.7**		5.0	1.0	0.22	
71-55-6	1,1,1-Trichloroethane (TCA)	**17.7**		5.0	1.0	0.36	
79-34-5	1,1,2,2-Tetrachloroethane	**20.7**		5.0	1.0	0.25	
79-00-5	1,1,2-Trichloroethane	**19.4**		5.0	1.0	0.34	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**20.0**		5.0	1.0	0.20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**19.9**		5.0	1.0	0.57	
563-58-6	1,1-Dichloropropene	**19.7**		5.0	1.0	0.29	
87-61-6	1,2,3-Trichlorobenzene	**20.6**		5.0	1.0	0.82	
96-18-4	1,2,3-Trichloropropane	**19.6**		5.0	1.0	0.70	
120-82-1	1,2,4-Trichlorobenzene	**19.8**		5.0	1.0	0.23	
95-63-6	1,2,4-Trimethylbenzene	**21.6**		5.0	1.0	0.20	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	**18.0**		5.0	1.0	0.74	
106-93-4	1,2-Dibromoethane	**18.6**		5.0	1.0	0.24	
95-50-1	1,2-Dichlorobenzene	**19.8**		5.0	1.0	0.21	
107-06-2	1,2-Dichloroethane	**18.9**		5.0	1.0	0.36	
78-87-5	1,2-Dichloropropane	**20.8**		5.0	1.0	0.20	
108-67-8	1,3,5-Trimethylbenzene	**21.1**		5.0	1.0	0.20	
541-73-1	1,3-Dichlorobenzene	**20.2**		5.0	1.0	0.20	
142-28-9	1,3-Dichloropropane	**19.8**		5.0	1.0	0.27	
106-46-7	1,4-Dichlorobenzene	**19.1**		5.0	1.0	0.20	
594-20-7	2,2-Dichloropropane	**16.6**		5.0	1.0	0.27	
78-93-3	2-Butanone (MEK)	**22.8**		5.0	1.0	0.81	
95-49-8	2-Chlorotoluene	**20.0**		5.0	1.0	0.20	
591-78-6	2-Hexanone	**22.9**		5.0	5.0	1.7	
75-65-0	tert-Butyl Alcohol	**317**		100	20	11	
106-43-4	4-Chlorotoluene	**20.4**		5.0	1.0	0.24	
99-87-6	p-Isopropyltoluene	**22.5**		5.0	1.0	0.20	
108-10-1	4-Methyl-2-pentanone	**22.4**		5.0	1.0	0.67	
67-64-1	Acetone	**22.3**		5.0	5.0	1.3	
71-43-2	Benzene	**20.0**		5.0	1.0	0.20	
108-86-1	Bromobenzene	**20.2**		5.0	1.0	0.28	
74-97-5	Bromochloromethane	**19.2**		5.0	1.0	0.32	
75-27-4	Bromodichloromethane	**17.2**		5.0	1.0	0.32	
75-25-2	Bromoform	**16.8**		5.0	1.0	0.42	
74-83-9	Bromomethane	**27.5**		5.0	1.0	0.29	

00228

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/13/15 14:32
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1512564-02	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3082.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	LOQ	LOD	MDL	Note
56-23-5	Carbon Tetrachloride	**17.6**		5.0	1.0	0.45	
108-90-7	Chlorobenzene	**20.1**		5.0	1.0	0.29	
75-00-3	Chloroethane	**25.6**		5.0	1.0	0.24	
67-66-3	Chloroform	**18.7**		5.0	1.0	0.25	
74-87-3	Chloromethane	**31.7**		5.0	1.0	0.21	
124-48-1	Dibromochloromethane	**18.7**		5.0	1.0	0.31	
75-71-8	Dichlorodifluoromethane (CFC 12)	**26.8**		5.0	1.0	0.46	
75-09-2	Methylene Chloride	**18.6**		5.0	1.0	0.60	
100-41-4	Ethylbenzene	**18.6**		5.0	1.0	0.20	
87-68-3	Hexachlorobutadiene	**21.5**		5.0	1.0	0.62	
98-82-8	Isopropylbenzene (Cumene)	**20.4**		5.0	1.0	0.20	
1634-04-4	Methyl tert-Butyl Ether	**19.7**		5.0	1.0	0.29	
91-20-3	Naphthalene	**22.2**		5.0	1.0	0.20	
100-42-5	Styrene	**20.6**		5.0	1.0	0.20	
127-18-4	Tetrachloroethene (PCE)	**19.0**		5.0	1.0	0.30	
108-88-3	Toluene	**19.7**		5.0	1.0	0.20	
79-01-6	Trichloroethene (TCE)	**17.5**		5.0	1.0	0.22	
75-69-4	Trichlorofluoromethane (CFC 11)	**21.9**		5.0	1.0	0.20	
75-01-4	Vinyl Chloride	**28.6**		5.0	1.0	0.32	
156-59-2	cis-1,2-Dichloroethene	**19.4**		5.0	1.0	0.30	
10061-01-5	cis-1,3-Dichloropropene	**19.7**		5.0	1.0	0.24	
179601-23-1	m,p-Xylenes	**40.5**		10	2.0	0.33	
104-51-8	n-Butylbenzene	**21.2**		5.0	1.0	0.21	
103-65-1	n-Propylbenzene	**20.6**		5.0	1.0	0.20	
95-47-6	o-Xylene	**19.8**		5.0	1.0	0.20	
135-98-8	sec-Butylbenzene	**20.8**		5.0	1.0	0.27	
98-06-6	tert-Butylbenzene	**21.6**		5.0	1.0	0.20	
156-60-5	trans-1,2-Dichloroethene	**20.1**		5.0	1.0	0.33	
10061-02-6	trans-1,3-Dichloropropene	**19.2**		5.0	1.0	0.20	

00229

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1508298
Project:	FTMM Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/13/15 14:32
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	RQ1512564-02	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	466785
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\msvoa10\data\101315\F3082.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	75-120	10/13/15 14:32	
Dibromofluoromethane	98	85-115	10/13/15 14:32	
Toluene-d8	101	85-120	10/13/15 14:32	

00230

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3082.D
Acq On : 13 Oct 2015 2:32 pm
Operator : F. Naegler
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 13 15:04:15 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.665	168	742085	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.720	114	1057237	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.957	117	953069	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.987	152	510662	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.519	113	334744	49.07	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.14%			
46) surr1,1,2-dichloroetha...	6.031	65	446929	46.21	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 92.42%			
64) SURR3,Toluene-d8	8.488	98	1252676	50.38	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.76%			
69) SURR2,BFB	11.018	95	483809	47.12	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 94.24%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.160	85	176137	26.80	ug/L	98
3) Chloromethane	1.294	50	283659	31.67	ug/L	98
4) Vinyl Chloride	1.380	62	221297	28.55	ug/L	96
5) Bromomethane	1.617	94	110302	27.47	ug/L	97
6) Chloroethane	1.703	64	118810	25.58	ug/L	95
7) Freon 21	1.867	67	311662	23.70	ug/L	98
8) Trichlorofluoromethane	1.916	101	218737	21.93	ug/L	96
9) Diethyl Ether	2.166	59	168451	23.09	ug/L	90
10) Freon 123a	2.172	67	182889	20.96	ug/L	98
11) Freon 123	2.233	83	180887	20.15	ug/L	92
12) Acrolein	2.270	56	85653	36.10	ug/L	94
13) 1,1-Diclethene	2.367	96	120808	19.90	ug/L	93
14) Freon 113	2.373	101	116683	17.22	ug/L	91
15) Acetone	2.416	43	141328	22.27	ug/L	95
16) 2-Propanol	2.568	45	453160	336.57	ug/L	96
17) Iodomethane	2.501	142	189124	21.88	ug/L	92
18) Carbon Disulfide	2.562	76	378809	20.44	ug/L	99
19) Acetonitrile	2.684	40	144214m	108.50	ug/L	
20) Allyl Chloride	2.727	76	67866	17.54	ug/L #	27
21) Methyl Acetate	2.757	43	232714	20.28	ug/L	99
22) Methylene Chloride	2.855	84	141778	18.64	ug/L	91
23) TBA	3.007	59	589620	317.02	ug/L	89
24) Acrylonitrile	3.129	53	607378	122.01	ug/L	97
25) Methyl-t-Butyl Ether	3.184	73	496731	19.73	ug/L	96
26) trans-1,2-Dichloroethene	3.172	96	134225	20.09	ug/L	91
27) 1,1-Diclethane	3.708	63	284013	19.95	ug/L	96
28) Vinyl Acetate	3.824	86	32063	22.29	ug/L #	80
30) 2-Chloro-1,3-Butadiene	3.842	53	317984	20.40	ug/L	95
32) 2,2-Dichloropropane	4.605	77	174969	16.58	ug/L	98
33) cis-1,2-Dichloroethene	4.617	96	150749	19.41	ug/L #	82
34) 2-Butanone	4.678	43	182533	22.84	ug/L	96
35) Propionitrile	4.769	54	239583	111.83	ug/L	93
36) Bromochloromethane	5.050	130	93285	19.23	ug/L #	85
37) Methacrylonitrile	5.062	67	85076	18.23	ug/L #	64

00231

W091015.M Tue Oct 13 15:05:26 2015 MSVO10

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3082.D
Acq On : 13 Oct 2015 2:32 pm
Operator : F. Naegler
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 13 15:04:15 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38)	Tetrahydrofuran	5.147	42	112955	20.53	ug/L		90
39)	Chloroform	5.245	83	240028	18.70	ug/L		94
40)	1,1,1-Trichloroethane	5.519	97	198939	17.72	ug/L		97
42)	Cyclohexane	5.598	41	211958	20.09	ug/L		95
44)	Carbontetrachloride	5.787	121	50108	17.59	ug/L		99
45)	1,1-Dichloropropene	5.799	75	187943	19.74	ug/L		98
47)	Benzene	6.104	78	565293	19.97	ug/L		86
48)	1,2-Dichloroethane	6.147	62	241090	18.87	ug/L		94
49)	Iso-Butyl Alcohol	6.141	43	330574	342.72	ug/L		93
51)	n-Heptane	6.586	43	318082	23.63	ug/L		92
52)	1-Butanol	7.110	56	467	0.91	ug/L	#	49
53)	Trichloroethene	7.031	130	146624	17.45	ug/L		98
54)	Methylcyclohexane	7.263	55	250291	21.40	ug/L		91
55)	1,2-Diclpropane	7.305	63	171628	20.82	ug/L		96
56)	Dibromomethane	7.445	93	94964	18.94	ug/L		92
57)	1,4-Dioxane	7.506	88	61427	343.03	ug/L		93
58)	Methyl Methacrylate	7.531	69	129517	18.90	ug/L	#	80
59)	Bromodichloromethane	7.671	83	166500	17.17	ug/L		96
60)	2-Nitropropane	7.945	41	64940	18.54	ug/L		92
61)	2-Chloroethylvinyl Ether	8.067	63	139990	22.80	ug/L		96
62)	cis-1,3-Dichloropropene	8.201	75	224387	19.67	ug/L		97
63)	4-Methyl-2-pentanone	8.403	43	333462	22.38	ug/L		94
65)	Toluene	8.561	91	580776	19.70	ug/L		95
66)	trans-1,3-Dichloropropene	8.829	75	201713	19.15	ug/L		96
67)	Ethyl Methacrylate	8.963	69	229951	19.45	ug/L		91
68)	1,1,2-Trichloroethane	9.012	97	135448	19.37	ug/L		88
71)	Tetrachloroethene	9.146	164	116437	18.96	ug/L		93
72)	2-Hexanone	9.299	43	264324	22.92	ug/L		95
73)	1,3-Dichloropropane	9.177	76	249842	19.81	ug/L		96
74)	Dibromochloromethane	9.402	129	136757	18.72	ug/L		97
75)	N-Butyl Acetate	9.451	43	437584	21.11	ug/L		97
76)	1,2-Dibromoethane	9.494	107	144344	18.57	ug/L		99
78)	Chlorobenzene	9.982	112	397410	20.07	ug/L		98
80)	1,1,1,2-Tetrachloroethane	10.067	131	127750	18.71	ug/L		97
81)	Ethylbenzene	10.103	106	195852	18.59	ug/L		96
82)	(m+p)Xylene	10.213	106	502262	40.51	ug/L		100
83)	o-Xylene	10.567	106	255884	19.82	ug/L		97
84)	Styrene	10.579	104	433966	20.63	ug/L		98
85)	Bromoform	10.731	173	93556	16.78	ug/L		98
87)	Isopropylbenzene	10.896	105	646905	20.36	ug/L		98
88)	Cyclohexanone	10.957	55	894622	407.80	ug/L		89
89)	trans-1,4-Dichloro-2-B...	11.201	53	81076	20.56	ug/L		87
91)	1,1,2,2-Tetrachloroethane	11.152	83	198927	20.68	ug/L		96
92)	Bromobenzene	11.140	156	173085	20.24	ug/L		98
93)	1,2,3-Trichloropropane	11.183	110	66419	19.63	ug/L	#	88
94)	n-Propylbenzene	11.250	91	759062	20.64	ug/L		97
95)	2-Chlorotoluene	11.311	91	449909	19.98	ug/L		98
97)	4-Chlorotoluene	11.402	91	544960	20.41	ug/L		97
98)	1,3,5-Trimethylbenzene	11.402	105	550348	21.10	ug/L		97
99)	tert-Butylbenzene	11.670	119	479779	21.64	ug/L		99
100)	1,2,4-Trimethylbenzene	11.713	105	573428	21.56	ug/L		95

00232

W091015.M Tue Oct 13 15:05:26 2015 MSVO10

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3082.D
Acq On : 13 Oct 2015 2:32 pm
Operator : F. Naegler
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 13 15:04:15 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) sec-Butylbenzene	11.853	105	672473	20.82	ug/L	99
103) p-Isopropyltoluene	11.975	119	615817	22.45	ug/L	96
104) 1,3-Dclbenz	11.932	146	324794	20.16	ug/L	97
105) 1,4-Dclbenz	12.006	146	329709	19.10	ug/L	98
108) n-Butylbenzene	12.304	91	570879	21.20	ug/L	98
109) 1,2-Dclbenz	12.310	146	322395	19.84	ug/L	97
110) 1,2-Dibromo-3-chloropr...	12.926	157	46625	17.97	ug/L	96
114) 1,2,4-Tcbenzene	13.585	180	257509	19.82	ug/L	96
115) Hexachlorobt	13.719	225	115941	21.49	ug/L	97
116) Naphthalen	13.773	128	797558	22.17	ug/L	98
117) 1,2,3-Tclbenzene	13.962	180	264995	20.59	ug/L	98

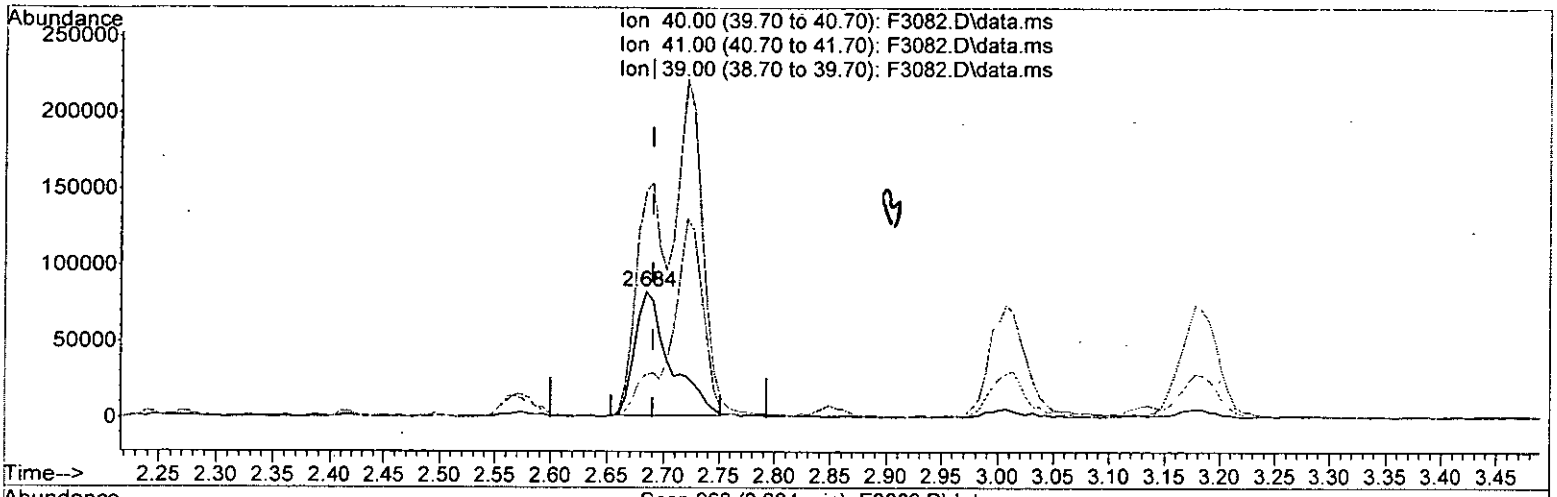
(#) = qualifier out of range (m) = manual integration (+) = signals summed

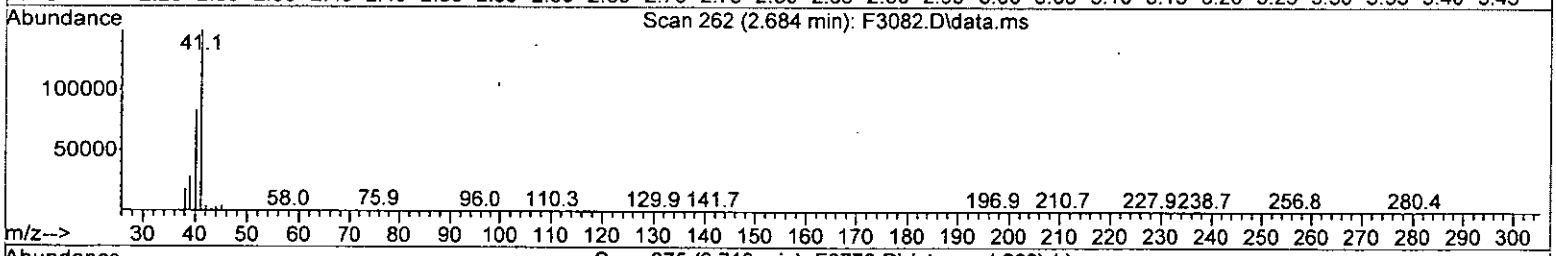
00233

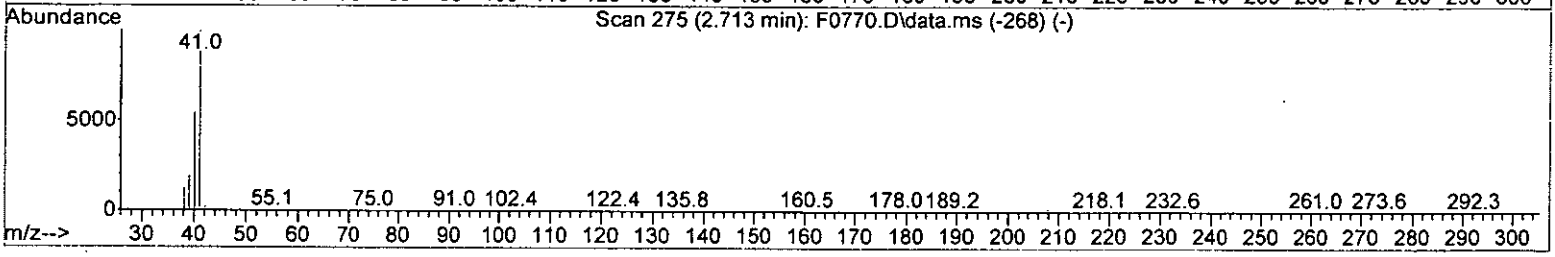
W091015.M Tue Oct 13 15:05:26 2015 MSVO10 Page: 3

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3082.D
Acq On : 13 Oct 2015 2:32 pm
Operator : F. Naegler
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 13 14:47:16 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration







TIC: F3082.D\data.ms

(19) Acetonitrile

2.684min (-0.006) 132.82 ug/L

response 176538

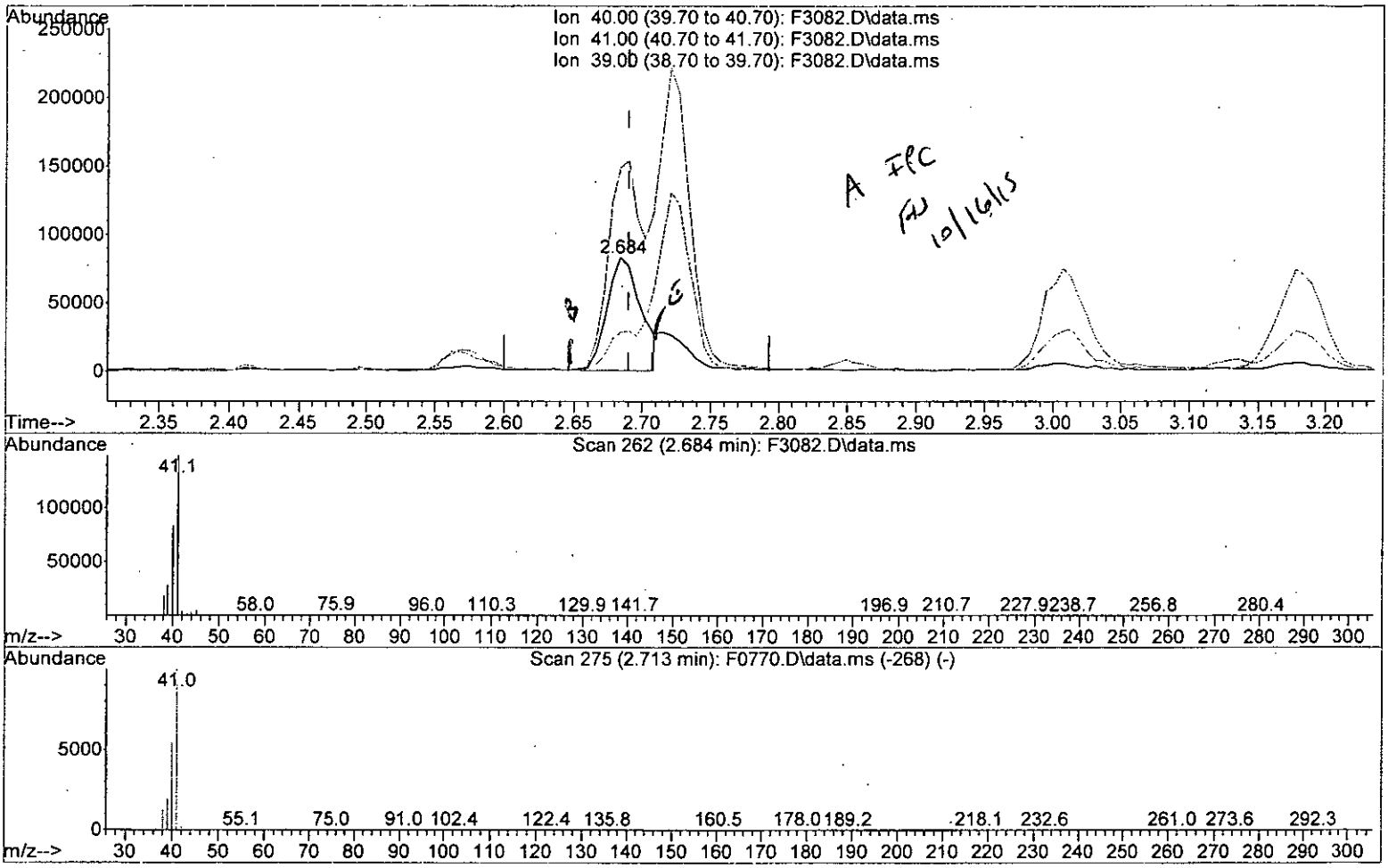
Ion	Exp%	Act%
40.00	100	100
41.00	185.70	179.29
39.00	35.30	33.87
0.00	0.00	0.00

00234

W091015.M Tue Oct 13 15:02:55 2015 MSVO10 Page: 1

```
Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3082.D
Acq On    : 13 Oct 2015    2:32 pm
Operator  : F. Naegler
Sample    : LCS                                    Inst    : MSVOA10
Misc      :
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Oct 13 14:47:16 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title  : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration
```



TIC: F3082.D\data.ms

(19) Acetonitrile

2.684min (-0.006) 108.50 ug/L m

response 144214

Ion	Exp%	Act%
40.00	100	100
41.00	185.70	179.29
39.00	35.30	33.87
0.00	0.00	0.00

mw 1/14

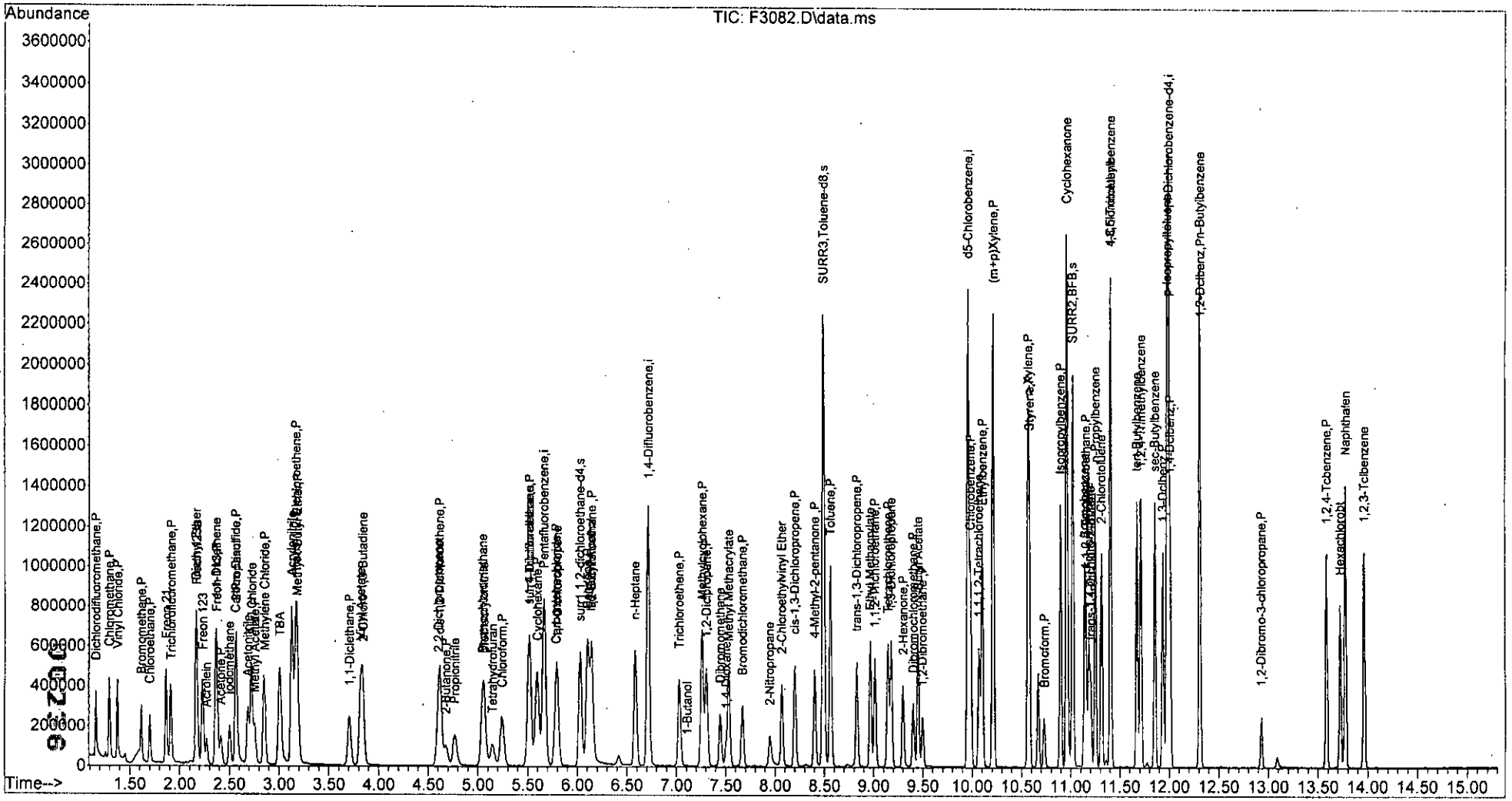
00235

W091015.M Tue Oct 13 15:03:27 2015 MSVO10 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\101315\
Data File : F3082.D
Acq On : 13 Oct 2015 2:32 pm
Operator : F. Naegler
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 13 15:04:15 2015
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W091015.M
Quant Title : MS#10 - 8260B WATERS 10mL Purge
QLast Update : Fri Sep 11 10:25:18 2015
Response via : Initial Calibration



W091015.M Tue Oct 13 15:05:31 2015 MSVO10

Analysis: 8260C | Analyst: F. Nagle | Tune Method: T091015.M
Date: 9/10/15 | Data Path: j:\acqudata\msvoa10\091015 | Run Method: W091015.M
Instr. MS #10 | LIMS Run#: —

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								F1988	Y	
1	TUNE								89	Y	
2	ICAL BLK								90	Y	
3	0.5 ppb Std								91	Y	
4	1.0								92	Y	
5	2.0								93	Y	
6	5.0								94	Y	
7	20								95	Y	
8	50								96	Y	
9	100								97	Y	
10	150								98	Y	
11	200								99	Y	
12	BLK								F2000	Y	
13	BLK								01	Y	
14	50 ppb ICV								02	Y	
15	BLK								03	Y	
16	BLK								04	Y	

WATER ICAL TABLE

CONC (PPB)	0.5	1.0	2.0	5.0	20	50	100	150	200
1° T|G = 83998	10mL/1mL 5mL/50mL	10mL/50mL	20mL/50mL	50mL/50mL	2mL/50mL	5mL/50mL	10mL/50mL	15mL/50mL	20mL/50mL
1° HSL = 84071	↓	↓	↓	↓	↓	↓	↓	↓	↓
1° Fr = 83938	↓	↓	↓	↓	↓	↓	↓	↓	↓
1° HBO = 84086	↓	↓	↓	↓	↓	↓	↓	↓	↓
1° OCC = 83964	↓	↓	↓	↓	↓	↓	↓	↓	↓

All samples = 5 mL + 5 uL combined IS/Surr + 5 mL purged

Primary :
Primary :
Primary :
Primary :
Primary :

Fr Secondary 200 : 84037 - 12.5uL
TIG Secondary 50 : 83536 - 5uL
HSL Secondary : 84120 -
HBO Secondary : 83224 -
OCC Secondary : 83965 -

50mL (ICV)

Combined IS/Surr : —
Surrogate 50 : 83690
Internal Std 50 : 83689

Runlog-MSVOAr2 9/20/13
Page 102

Analysis:	8260C	Analyst:	F. Naegler	Tune Method:	T091015.M
Date:	10/13/15	Data Path:	j:\acqudata\msvoa 1d 101315	Run Method:	W091015.M
Instr.	MS #10			LIMS Run#:	ML-466788/466785

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								F3078	Y	
1	TUNE								79	Y	
1	CCV								80	Y	
2	LCS								81	N	
2	LCS								82	Y	mL
3	MBLK								83	N	
4	MEDBLK	50.0	1/50mL						84	Y	RQ1512563-01 /
5	MBLK								85	Y	564-01
6	R1508306-001	1.0		[redacted]	13267	2	1	<2	86	Y	
7	R1508151-001	180.0	500mL/50mL	[redacted]	8043	4	—	—	87	Y	
8	BLK								88	Y	
9	R1508298-001	1.0		PARSONS	11603	4	1	<2	89	Y	
10	-002	1.0					1	<2	90	Y	
11	-003	1.0					1	<2	91	Y	
12	R1508459-017	1.0		[redacted]	11603	4	1	<2	92	Y	
13	-018	1.0					1	<2	93	Y	
14	-015	1.0					1	<2	94	Y	
15	R1508313-005	85.5	1/50mL	[redacted]	11603	4	—	—	95	Y	
16	-003	90.0					—	—	96	Y	
17	-001	465.0	200mL/50mL				—	—	97	Y	
18	R1508512-005	137.00	10mL/50mL	[redacted]	8043	4	—	—	98	Y	Rpt 1/10,000
19	-006	100.50					—	—	99	Y	Rpt 1/25,000
20	-007	445.0	200mL/50mL				—	—	F3100	N	Rpt ~~1/25,000~~ 1/1000 vc hit
21	-016	91.0	1/50mL				—	—	01	N	not needed
22	-020	427.5	200mL/50mL				—	—	02	N	Rpt 1/100
23	-021	1600.0	50mL/50mL				—	—	03	N	Rpt 1/100
24	R1508313-005MS	85.5	1/50mL	[redacted]	11603	4	—	—	04	N	no MSD, Rpt 1/50
25	-005MSD	85.5					—	—	05	—	inst stopped
26	BLK								06	—	
27	BLK								07	—	
											FW 10/13/15

All samples = 5 mL + 5 uL combined IS/Surr. 5 mL purged

T/G Primary 500	: 84560 - 5mL/50mL	Fr Secondary 200	: 84751 - 5mL	50mL	-12.5mL	50mL	Combined IS/Surr — :
HSL Primary	: 84562 -	T/G Secondary 500	: 84402 - 2mL		-5mL		Surrogate 50 : 84399
Fr Primary	: 84564 - (CCV)	HSL Secondary	: 84587 -	(LCS)	-5mL	(SPK)	Internal Std 50 : 84398
Primary	:	Secondary	:				
Primary	:	Secondary	:				

Runlog-MSVOAr2 9/20/13
Page 137

December 22, 2015 Service Request No:R1510063

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: FTMM Baseline

Dear Sandra,

Enclosed are the results of the sample(s) submitted to our laboratory November 19, 2015
For your reference, these analyses have been assigned our service request number **R1510063.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7478. You may also contact me via email at Vanessa.Badman@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Vanessa Badman

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

ALS Environmental

Client:	Parsons, Inc.
Service Request No.:	R1510063
Project:	FTMM Baseline
Date Received:	November 19, 2015
Sample Matrix:	Water
Project/Case No.:	

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Samples were received for analysis at ALS Environmental on 11/19/15. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

Volatile Organics

Samples were analyzed for a site list of Volatile Organics by Methods 5030C/8260C from SW-846.

All Tuning criteria for BFB were within QC limits.

All the initial calibration criteria were met for all analytes.

All Continuing Calibration Verification (CCV) standards were within limits.

All Internal Standard Areas (IS) were within QC limits.

All surrogate standard recoveries were acceptable.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries were within limits..

Site specific QC was within limits except:

R1510063-006
1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, and Styrene were recovered low outside method acceptance limits for the MS and MSD. The RPD associated with these results were within method acceptance limits.
m,p-Xylene and o-Xylene were recovered low outside method acceptance limits for the MSD. The MS and RPD associated with these results were within method acceptance limits.

R1510063-008
1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene,Styrene, m,p-Xylene, and o-Xylene were recovered low outside method acceptance limits for the MS and MSD. The RPD associated with these results were within method acceptance limits

The Method Blanks associated with these samples were free of contamination, except for low level concentrations between the MDL and MRL for the following analytes from the 11/24/15 run; n-Butylbenzene, 1,2,4-Trichlorobenzene, Hexachlorobutadiene, and Napthalnene. The following analytes from the 11/30/15 run had hits between the MDL and MRL; 1,2,4-Trichlorobenzene, Hexachlorobutadiene, and Napthalnene. All affected samples are marked with a J flag.

No other analytical or QC problems were encountered.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 748810-03000	Batch Complete: Yes	Date Revised:
Submission: R1510063	Diskette Requested: No	Date Due: 12/10/15
Client: Parsons Engineering Science	Date: 12/13/15	Protocol: SW846
Client Rep: VBADMAN	Custody Seal: Present/Absent:	Shipping No.:
Project: FTMM Baseline	Chain of Custody: Present/Absent:	SDG #:

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1510063-001	FTMM-68-GW-565MW01-13.0	Water	8260C	11/16/15	11/19/15			
R1510063-002	EB-2015-11-16	Water	8260C	11/16/15	11/19/15			
R1510063-003	FTMM-68-GW-MW02-17.5	Water	8260C	11/17/15	11/19/15			
R1510063-004	FTMM-68-GW-MW102-17.5	Water	8260C	11/17/15	11/19/15			
R1510063-005	FTMM-68-GW-MW02-22.5	Water	8260C	11/17/15	11/19/15			
R1510063-006QC	FTMM-68-GW-MW03-17.5	Water	8260C	11/17/15	11/19/15			
R1510063-007	FTMM-68-GW-MW03-22.5	Water	8260C	11/17/15	11/19/15			
R1510063-008QC	FTMM-68-GW-MW04-20.25	Water	8260C	11/17/15	11/19/15			
R1510063-009	FTMM-68-GW-MW04-25.25	Water	8260C	11/17/15	11/19/15			
R1510063-010	TB-2015-11-18	Water	8260C	11/18/15	11/19/15			
R1510063-011	EB-2015-11-17	Water	8260C	11/17/15	11/19/15			
R1510063-012	EB-2015-11-18	Water	8260C	11/18/15	11/19/15			
R1510063-013	FTMM-68-GW-565MW01D-20.5	Water	8260C	11/17/15	11/19/15			
R1510063-014	FTMM-53-GW-MW02-20.25	Water	8260C	11/17/15	11/19/15			
R1510063-015	FTMM-53-GW-MW02-25.25	Water	8260C	11/17/15	11/19/15			
R1510063-016	FTMM-53-GW-699MW01-11.0	Water	8260C	11/18/15	11/19/15			
R1510063-017	FTMM-53-GW-699MW04-11.5	Water	8260C	11/18/15	11/19/15			
R1510063-018	FTMM-53-GW-699MW104-11.5	Water	8260C	11/18/15	11/19/15			
R1510063-019	FTMM-68-GW-MW01-32.5	Water	8260C	11/18/15	11/19/15			
R1510063-019.R01	FTMM-68-GW-MW01-32.5	Water	8260C	11/18/15	11/19/15			
R1510063-020	FTMM-68-GW-MW101-32.5	Water	8260C	11/18/15	11/19/15			
R1510063-020.R01	FTMM-68-GW-MW101-32.5	Water	8260C	11/18/15	11/19/15			
R1510063-021	FTMM-68-GW-MW01-37.5	Water	8260C	11/18/15	11/19/15			
R1510063-021.R01	FTMM-68-GW-MW01-37.5	Water	8260C	11/18/15	11/19/15			

Folder Comments: DoD reporting ERPTOOLS LOD

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

\# Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

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P:\INTRANET\QAQC\Forms Controlled\QUALIF_ routine rev 3.doc 5/14/15

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

32370

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 3

Project Name: FTMM - 2015 Q4 GW Sampling	Project Number: 748810-03000
Project Manager: Cris Grill	Report CC:
Company/Address: Parsons, 100 High Street, Boston, MA 02210	
Phone #: (617) 449-1583	Email: cris.grill@parsons.com
Sampler's Signature: Alex DiIonno	Sampler's Printed Name: Alex DiIonno

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs • 8260 • 624 • CLP	GC/MS SVOAs • 8270 • 625	GC VOAs • 8021 • 601/602	PESTICIDES • 8081 • 608	PCBs • 8082 • 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOCs+TICs (including EDB+1,2-DCA EPA Method 8260C)							REMARKS/ ALTERNATE DESCRIPTION
FTMM-68-GW-565MW01		11/16/15	1624	GW	3								X							
EB-2015-11-16		11/16/15	1700	EB	3								X							
FTMM-68-GW-MW-02-17.5		11/17/15	1528	GW	3								X							
FTMM-68-GW-MW-102-17.5		11/17/15	1528	GW	3								X							
~~FTMM-68-GW-MW-02-17.5-QA~~		~~11/17/15~~	~~1528~~	~~GW~~									X							
FTMM-68-GW-MW-02-22.5		11/17/15	1613	GW	3								X							
FTMM-68-GW-MW-03-17.5		11/17/15	1317	GW	3								X							
FTMM-68-GW-MW-03-17.5-MS		11/17/15	1317	GW	3								X							
FTMM-68-GW-MW-03-17.5-MSD		11/17/15	1317	GW	3								X							
FTMM-68-GW-MW-03-22.5		11/17/15	1403	GW	3								X							
FTMM-68-GW-MW-04-20.25		11/17/15	1051	GW	3								X							

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: New Jersey

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report w

Edata _____ Yes _____

INVOICE INFORMATION
PO #
BILL TO:

R1510063 5
Parsons, Inc.
FTMM Baseline

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Alex DiIonno	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: Alex DiIonno	Printed Name: [signature]	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Parsons	Firm: AWI	Firm	Firm	Firm	Firm
Date/Time: 11/18/15; 1740	Date/Time: 11/19/15 0745	Date/Time	Date/Time	Date/Time	Date/Time

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ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 3

Project Name: FTMM-2015Q4 GW Sampling	Project Number: 748810-03000
Project Manager: Cris Grill	Report CC:
Company/Address: Parsons, 100 High Street, Boston, MA 02210	
Phone #: (617) 449-1583	Email: cris.grill@Parsons.com
Sampler's Signature: Alex DiTonno	Sampler's Printed Name: Alex DiTonno

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOCs+TICs (including EDB+1,2 DCA) Ext Method 8260C							REMARKS/ ALTERNATE DESCRIPTION
FTMM-68-GW-MW-04-20.25-MS		11/17/15	1051	GW	3								X							
FTMM-68-GW-MW-04-20.25-MSD		11/17/15	1051	GW	3								X							
FTMM-68-GW-MW-04-25.25		11/17/15	1158	GW	3								X							
TB-2015-11-18		11/18/15	—	TB	3								X							
EB-2015-11-17		11/17/15	1700	EB	3								X							
EB-2015-11-18		11/18/15	0900	EB	3								X							
FTMM-68-GW-565MW01D		11/17/15	1055	GW	3								X							
FTMM-53-GW-MW02-20.25		11/17/15	1615	GW	3								X							
FTMM-53-GW-MW02-25.25		11/17/15	1424	GW	3								X							
FTMM-53-GW-699MW01		11/18/15	1332	GW	3								X							
FTMM-53-GW-699MW04		11/18/15	1443	GW	3								X							

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED New Jersey

TURNAROUND REQUIREMENTS
✓ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day

REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Rep

Edata ____ Yes

INVOICE INFORMATION
PO #
BILL TO:

R1510063 5
Parsons, Inc.
FTMM Baseline

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Alex DiTonno	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: Alex DiTonno	Printed Name: [signature]	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Parsons	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time: 11/18/15; 1740	Date/Time: 11/19/15 0945	Date/Time	Date/Time	Date/Time	Date/Time

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

ALS Environmental
1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 3 OF 3

Project Name: FTMM-2015 Q4 GW Sampling	Project Number: 748810-03000
Project Manager: Cris Grill	Report CC:
Company/Address: Parsons 100 High Street Boston, MA 02210	
Phone #: (617) 449-1583	Email: cris.grill@parsons.com
Sampler's Signature: Alex DiTonno	Sampler's Printed Name: Alex DiTonno

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	VOCs+TICs (including EDB+1,2 DCA) EPA Method 8260C
FTMM-53-GW-699MW104		11/18/15	1443	GW	3	X
FTMM-68-GW-MW01-32.5		11/18/15	1425	GW	3	X
FTMM-68-GW-MW101-32.5		11/18/15	1425	GW	3	X
FTMM-68-GW-MW01-37.5		11/18/15	1545	GW	3	X

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation f
Edata ____ Yes

INVOICE INFORMATION
PO #
BILL TO:
R1510063 5
Parsons, Inc.
FTMM Baseline

STATE WHERE SAMPLES WERE COLLECTED: New Jersey

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Alex DiTonno	Signature:	Signature	Signature	Signature	Signature
Printed Name: Alex DiTonno	Printed Name:	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Parsons	Firm:	Firm	Firm	Firm	Firm
Date/Time: 11/18/15; 1740	Date/Time: 11/19/15 0741	Date/Time	Date/Time	Date/Time	Date/Time

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R1510063
Parsons, Inc.
FTMM Baseline
5

Cooler Receipt and Preservation Check Form

Project/Client Parsons Folder Number .

Cooler received on 11/19/15 by: @

COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y (N) NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 11/19/15 Time: 0808 ID: IR#3 (IR#5) From: Temp Blank (Sample Bottle)

Observed Temp (°C)	5.4						
Correction Factor (°C)	-1.8						
Corrected Temp (°C)	3.6°						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by @ on 11/19/15 at 0813
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: VNB

Cooler Breakdown: Date: 11/19/15 Time: 1237 by: MAR

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	4114070	10/16				

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: S-211-002

Other Comments:

PC Secondary Review: VNB 11/19/15

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r9.doc 9/24/15

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/16/15 1624
Date Received: 11/19/15

Sample Name: FTMM-68-GW-565MW01-13.0
Lab Code: R1510063-001

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	13	2.5	0.55	2.5	NA	11/25/15 07:32		473760	
1,1,1-Trichloroethane (TCA)	ND	U	13	2.5	0.90	2.5	NA	11/25/15 07:32		473760	
1,1,2,2-Tetrachloroethane	ND	U	13	2.5	0.63	2.5	NA	11/25/15 07:32		473760	
1,1,2-Trichloroethane	ND	U	13	2.5	0.86	2.5	NA	11/25/15 07:32		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	13	2.5	1.5	2.5	NA	11/25/15 07:32		473760	
1,1-Dichloropropene	ND	U	13	2.5	0.73	2.5	NA	11/25/15 07:32		473760	
1,2,3-Trichlorobenzene	ND	U	13	2.5	2.1	2.5	NA	11/25/15 07:32		473760	
1,2,3-Trichloropropane	ND	U	13	2.5	1.8	2.5	NA	11/25/15 07:32		473760	
1,2,4-Trichlorobenzene	ND	U	13	2.5	0.58	2.5	NA	11/25/15 07:32		473760	
1,2,4-Trimethylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	13	2.5	1.9	2.5	NA	11/25/15 07:32		473760	
1,2-Dibromoethane	ND	U	13	2.5	0.60	2.5	NA	11/25/15 07:32		473760	
1,2-Dichlorobenzene	ND	U	13	2.5	0.53	2.5	NA	11/25/15 07:32		473760	
1,2-Dichloroethane	ND	U	13	2.5	0.90	2.5	NA	11/25/15 07:32		473760	
1,2-Dichloropropane	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
1,3,5-Trimethylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
1,3-Dichlorobenzene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
1,3-Dichloropropane	ND	U	13	2.5	0.68	2.5	NA	11/25/15 07:32		473760	
1,4-Dichlorobenzene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
2,2-Dichloropropane	ND	U	13	2.5	0.68	2.5	NA	11/25/15 07:32		473760	
2-Butanone (MEK)	ND	U	13	2.5	2.1	2.5	NA	11/25/15 07:32		473760	
2-Chlorotoluene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
2-Hexanone	ND	U	13	13	4.2	2.5	NA	11/25/15 07:32		473760	
tert-Butyl Alcohol	ND	U	250	50	27	2.5	NA	11/25/15 07:32		473760	
4-Chlorotoluene	ND	U	13	2.5	0.60	2.5	NA	11/25/15 07:32		473760	
p-Isopropyltoluene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
4-Methyl-2-pentanone	ND	U	13	2.5	1.7	2.5	NA	11/25/15 07:32		473760	
Acetone	ND	U	13	13	3.1	2.5	NA	11/25/15 07:32		473760	
Benzene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
Bromobenzene	ND	U	13	2.5	0.71	2.5	NA	11/25/15 07:32		473760	
Bromochloromethane	ND	U	13	2.5	0.80	2.5	NA	11/25/15 07:32		473760	
Bromodichloromethane	ND	U	13	2.5	0.80	2.5	NA	11/25/15 07:32		473760	
Bromoform	ND	U	13	2.5	1.1	2.5	NA	11/25/15 07:32		473760	
Bromomethane	ND	U	13	2.5	0.73	2.5	NA	11/25/15 07:32		473760	
Carbon Tetrachloride	ND	U	13	2.5	1.2	2.5	NA	11/25/15 07:32		473760	
Chlorobenzene	ND	U	13	2.5	0.73	2.5	NA	11/25/15 07:32		473760	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/16/15 1624
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-565MW01-13.0	**Units:**	µg/L
Lab Code:	R1510063-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	13	2.5	0.60	2.5	NA	11/25/15 07:32		473760	
Chloroform	**0.80**	J	13	2.5	0.63	2.5	NA	11/25/15 07:32		473760	
Chloromethane	ND	U	13	2.5	0.53	2.5	NA	11/25/15 07:32		473760	
Dibromochloromethane	ND	U	13	2.5	0.78	2.5	NA	11/25/15 07:32		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	13	2.5	1.2	2.5	NA	11/25/15 07:32		473760	
Methylene Chloride	ND	U	13	2.5	1.5	2.5	NA	11/25/15 07:32		473760	
Ethylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
Hexachlorobutadiene	ND	U	13	2.5	1.6	2.5	NA	11/25/15 07:32		473760	
Isopropylbenzene (Cumene)	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
Methyl tert-Butyl Ether	ND	U	13	2.5	0.73	2.5	NA	11/25/15 07:32		473760	
Naphthalene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
Styrene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
Tetrachloroethene (PCE)	**220**		13	2.5	0.75	2.5	NA	11/25/15 07:32		473760	
Toluene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
Trichloroethene (TCE)	**62**		13	2.5	0.55	2.5	NA	11/25/15 07:32		473760	
Trichlorofluoromethane (CFC 11)	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
Vinyl Chloride	**4.6**	J	13	2.5	0.80	2.5	NA	11/25/15 07:32		473760	
cis-1,2-Dichloroethene	**76**		13	2.5	0.75	2.5	NA	11/25/15 07:32		473760	
cis-1,3-Dichloropropene	ND	U	13	2.5	0.60	2.5	NA	11/25/15 07:32		473760	
m,p-Xylenes	ND	U	25	5.0	0.83	2.5	NA	11/25/15 07:32		473760	
n-Butylbenzene	ND	U	13	2.5	0.53	2.5	NA	11/25/15 07:32		473760	
n-Propylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
o-Xylene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
sec-Butylbenzene	ND	U	13	2.5	0.68	2.5	NA	11/25/15 07:32		473760	
tert-Butylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
trans-1,2-Dichloroethene	ND	U	13	2.5	0.83	2.5	NA	11/25/15 07:32		473760	
trans-1,3-Dichloropropene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/25/15 07:32	
Dibromofluoromethane	109	85-115	11/25/15 07:32	
Toluene-d8	111	85-120	11/25/15 07:32	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/16/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0732

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-565MW01-13.0	**Units:**	µg/L
Lab Code:	R1510063-001	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/16/15 1700
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	EB-2015-11-16	**Units:**	µg/L
Lab Code:	R1510063-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 01:30		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 01:30		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 01:30		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 01:30		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 01:30		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 01:30		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 01:30		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 01:30		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 01:30		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 01:30		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 01:30		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 01:30		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 01:30		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 01:30		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 01:30		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 01:30		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 01:30		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 01:30		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 01:30		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 01:30		473760	
Acetone	**5.5**		5.0	5.0	1.3	1	NA	11/25/15 01:30		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 01:30		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 01:30		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 01:30		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 01:30		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 01:30		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 01:30		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 01:30		473760	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/16/15 1700
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	EB-2015-11-16	**Units:**	µg/L
Lab Code:	R1510063-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 01:30		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 01:30		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 01:30		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 01:30		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 01:30		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 01:30		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 01:30		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 01:30		473760	
Naphthalene	**0.23**	J	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 01:30		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 01:30		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 01:30		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 01:30		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 01:30		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 01:30		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 01:30		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 01:30		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 01:30		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	75-120	11/25/15 01:30	
Dibromofluoromethane	111	85-115	11/25/15 01:30	
Toluene-d8	110	85-120	11/25/15 01:30	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/16/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0130

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-16	**Units:**	µg/L
Lab Code:	R1510063-002	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1528
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW02-17.5
Lab Code: R1510063-003

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 03:00		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 03:00		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 03:00		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 03:00		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 03:00		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 03:00		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 03:00		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 03:00		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 03:00		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 03:00		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 03:00		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 03:00		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 03:00		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 03:00		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 03:00		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 03:00		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 03:00		473760	
tert-Butyl Alcohol	**28**	J	100	20	11	1	NA	11/25/15 03:00		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 03:00		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 03:00		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 03:00		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 03:00		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 03:00		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 03:00		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 03:00		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 03:00		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 03:00		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 03:00		473760	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1528
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW02-17.5	**Units:**	µg/L
Lab Code:	R1510063-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 03:00		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 03:00		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 03:00		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 03:00		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 03:00		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 03:00		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 03:00		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
Methyl tert-Butyl Ether	14		5.0	1.0	0.29	1	NA	11/25/15 03:00		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 03:00		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 03:00		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 03:00		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 03:00		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 03:00		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 03:00		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 03:00		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 03:00		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 03:00		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/25/15 03:00	
Dibromofluoromethane	109	85-115	11/25/15 03:00	
Toluene-d8	104	85-120	11/25/15 03:00	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0300

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW02-17.5	**Units:**	µg/L
Lab Code:	R1510063-003	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1528
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW102-17.5
Lab Code: R1510063-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 03:30		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 03:30		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 03:30		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 03:30		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 03:30		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 03:30		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 03:30		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 03:30		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 03:30		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 03:30		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 03:30		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 03:30		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 03:30		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 03:30		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 03:30		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 03:30		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 03:30		473760	
tert-Butyl Alcohol	**26**	J	100	20	11	1	NA	11/25/15 03:30		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 03:30		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 03:30		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 03:30		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 03:30		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 03:30		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 03:30		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 03:30		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 03:30		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 03:30		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 03:30		473760	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1528
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW102-17.5	**Units:**	µg/L
Lab Code:	R1510063-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 03:30		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 03:30		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 03:30		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 03:30		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 03:30		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 03:30		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 03:30		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
Methyl tert-Butyl Ether	14		5.0	1.0	0.29	1	NA	11/25/15 03:30		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 03:30		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 03:30		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 03:30		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 03:30		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 03:30		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 03:30		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 03:30		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 03:30		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 03:30		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	11/25/15 03:30	
Dibromofluoromethane	112	85-115	11/25/15 03:30	
Toluene-d8	105	85-120	11/25/15 03:30	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0330

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW102-17.5	**Units:**	µg/L
Lab Code:	R1510063-004	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1613
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW02-22.5	**Units:**	µg/L
Lab Code:	R1510063-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 04:01		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 04:01		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 04:01		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 04:01		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 04:01		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 04:01		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 04:01		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 04:01		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 04:01		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 04:01		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 04:01		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 04:01		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 04:01		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 04:01		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 04:01		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 04:01		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 04:01		473760	
tert-Butyl Alcohol	**28**	J	100	20	11	1	NA	11/25/15 04:01		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 04:01		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 04:01		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 04:01		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 04:01		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 04:01		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 04:01		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 04:01		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 04:01		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 04:01		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 04:01		473760	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1613
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW02-22.5	**Units:**	µg/L
Lab Code:	R1510063-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 04:01		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 04:01		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 04:01		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 04:01		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 04:01		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 04:01		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 04:01		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
Methyl tert-Butyl Ether	**15**		5.0	1.0	0.29	1	NA	11/25/15 04:01		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 04:01		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 04:01		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 04:01		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 04:01		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 04:01		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 04:01		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 04:01		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 04:01		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 04:01		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/25/15 04:01	
Dibromofluoromethane	111	85-115	11/25/15 04:01	
Toluene-d8	104	85-120	11/25/15 04:01	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0401

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW02-22.5	**Units:**	µg/L
Lab Code:	R1510063-005	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1317
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW03-17.5	**Units:**	µg/L
Lab Code:	R1510063-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 04:31		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 04:31		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 04:31		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 04:31		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 04:31		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 04:31		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 04:31		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 04:31		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 04:31		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 04:31		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 04:31		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 04:31		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 04:31		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 04:31		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 04:31		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 04:31		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 04:31		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 04:31		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 04:31		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 04:31		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 04:31		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 04:31		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 04:31		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 04:31		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 04:31		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 04:31		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 04:31		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 04:31		473760	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1317
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW03-17.5	**Units:**	µg/L
Lab Code:	R1510063-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 04:31		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 04:31		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 04:31		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 04:31		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 04:31		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 04:31		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 04:31		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 04:31		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 04:31		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 04:31		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 04:31		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 04:31		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 04:31		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 04:31		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 04:31		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 04:31		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 04:31		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	11/25/15 04:31	
Dibromofluoromethane	112	85-115	11/25/15 04:31	
Toluene-d8	105	85-120	11/25/15 04:31	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0431

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW03-17.5	**Units:**	µg/L
Lab Code:	R1510063-006	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1403
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW03-22.5	**Units:**	µg/L
Lab Code:	R1510063-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 05:01		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 05:01		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 05:01		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 05:01		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 05:01		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 05:01		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 05:01		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 05:01		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 05:01		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 05:01		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 05:01		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 05:01		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 05:01		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 05:01		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 05:01		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 05:01		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 05:01		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 05:01		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 05:01		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 05:01		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 05:01		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 05:01		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 05:01		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 05:01		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 05:01		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 05:01		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 05:01		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 05:01		473760	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1403
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW03-22.5	**Units:**	µg/L
Lab Code:	R1510063-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 05:01		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 05:01		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 05:01		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 05:01		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 05:01		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 05:01		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 05:01		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 05:01		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 05:01		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 05:01		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 05:01		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 05:01		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 05:01		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 05:01		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 05:01		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 05:01		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 05:01		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/25/15 05:01	
Dibromofluoromethane	111	85-115	11/25/15 05:01	
Toluene-d8	104	85-120	11/25/15 05:01	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0501

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW03-22.5	**Units:**	µg/L
Lab Code:	R1510063-007	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1051
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW04-20.25	**Units:**	µg/L
Lab Code:	R1510063-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 14:36		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 14:36		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 14:36		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 14:36		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 14:36		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 14:36		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 14:36		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 14:36		474104	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/30/15 14:36		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 14:36		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 14:36		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 14:36		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 14:36		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 14:36		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 14:36		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 14:36		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 14:36		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 14:36		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 14:36		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 14:36		474104	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/30/15 14:36		474104	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 14:36		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 14:36		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 14:36		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 14:36		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 14:36		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 14:36		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 14:36		474104	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1051
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW04-20.25	**Units:**	µg/L
Lab Code:	R1510063-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 14:36		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 14:36		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 14:36		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 14:36		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 14:36		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 14:36		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/30/15 14:36		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 14:36		474104	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/30/15 14:36		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 14:36		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 14:36		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 14:36		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 14:36		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 14:36		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 14:36		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 14:36		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 14:36		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	11/30/15 14:36	
Dibromofluoromethane	111	85-115	11/30/15 14:36	
Toluene-d8	101	85-120	11/30/15 14:36	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/30/15 1436

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW04-20.25	**Units:**	µg/L
Lab Code:	R1510063-008	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1158
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW04-25.25	**Units:**	µg/L
Lab Code:	R1510063-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 05:31		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 05:31		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 05:31		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 05:31		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 05:31		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 05:31		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 05:31		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 05:31		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 05:31		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 05:31		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 05:31		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 05:31		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 05:31		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 05:31		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 05:31		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 05:31		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 05:31		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 05:31		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 05:31		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 05:31		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 05:31		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 05:31		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 05:31		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 05:31		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 05:31		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 05:31		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 05:31		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 05:31		473760	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1158
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW04-25.25
Lab Code: R1510063-009

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 05:31		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 05:31		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 05:31		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 05:31		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 05:31		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 05:31		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 05:31		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 05:31		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 05:31		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 05:31		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 05:31		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 05:31		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 05:31		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 05:31		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 05:31		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 05:31		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 05:31		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/25/15 05:31	
Dibromofluoromethane	110	85-115	11/25/15 05:31	
Toluene-d8	99	85-120	11/25/15 05:31	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0531

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW04-25.25	**Units:**	µg/L
Lab Code:	R1510063-009	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15
Date Received: 11/19/15

Sample Name: TB-2015-11-18
Lab Code: R1510063-010

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 01:00		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 01:00		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 01:00		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 01:00		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 01:00		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 01:00		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 01:00		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 01:00		473760	
1,2,4-Trichlorobenzene	**0.27**	J	5.0	1.0	0.23	1	NA	11/25/15 01:00		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 01:00		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 01:00		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 01:00		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 01:00		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 01:00		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 01:00		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 01:00		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 01:00		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 01:00		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 01:00		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 01:00		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 01:00		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 01:00		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 01:00		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 01:00		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 01:00		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 01:00		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 01:00		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 01:00		473760	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	TB-2015-11-18	**Units:**	µg/L
Lab Code:	R1510063-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 01:00		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 01:00		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 01:00		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 01:00		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 01:00		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 01:00		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 01:00		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 01:00		473760	
Naphthalene	**0.27**	J	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 01:00		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 01:00		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 01:00		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 01:00		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 01:00		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 01:00		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 01:00		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 01:00		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 01:00		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/25/15 01:00	
Dibromofluoromethane	109	85-115	11/25/15 01:00	
Toluene-d8	108	85-120	11/25/15 01:00	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0100

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	TB-2015-11-18	**Units:**	µg/L
Lab Code:	R1510063-010	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1700
Date Received: 11/19/15

Sample Name: EB-2015-11-17
Lab Code: R1510063-011

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 02:00		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 02:00		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 02:00		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 02:00		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 02:00		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 02:00		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 02:00		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 02:00		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 02:00		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 02:00		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 02:00		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 02:00		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 02:00		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 02:00		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 02:00		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 02:00		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 02:00		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 02:00		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 02:00		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 02:00		473760	
Acetone	4.7	J	5.0	5.0	1.3	1	NA	11/25/15 02:00		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 02:00		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 02:00		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 02:00		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 02:00		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 02:00		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 02:00		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 02:00		473760	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1700
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	EB-2015-11-17	**Units:**	µg/L
Lab Code:	R1510063-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 02:00		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 02:00		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 02:00		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 02:00		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 02:00		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 02:00		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 02:00		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 02:00		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 02:00		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 02:00		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 02:00		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 02:00		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 02:00		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 02:00		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 02:00		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 02:00		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 02:00		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/25/15 02:00	
Dibromofluoromethane	109	85-115	11/25/15 02:00	
Toluene-d8	110	85-120	11/25/15 02:00	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0200

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-17	**Units:**	µg/L
Lab Code:	R1510063-011	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15 0900
Date Received: 11/19/15

Sample Name: EB-2015-11-18
Lab Code: R1510063-012

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 02:30		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 02:30		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 02:30		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 02:30		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 02:30		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 02:30		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 02:30		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 02:30		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 02:30		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 02:30		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 02:30		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 02:30		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 02:30		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 02:30		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 02:30		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 02:30		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 02:30		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 02:30		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 02:30		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 02:30		473760	
Acetone	**5.1**		5.0	5.0	1.3	1	NA	11/25/15 02:30		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 02:30		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 02:30		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 02:30		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 02:30		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 02:30		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 02:30		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 02:30		473760	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15 0900
Date Received: 11/19/15

Sample Name: EB-2015-11-18
Lab Code: R1510063-012

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 02:30		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 02:30		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 02:30		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 02:30		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 02:30		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 02:30		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 02:30		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 02:30		473760	
Naphthalene	**0.21**	J	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 02:30		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 02:30		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 02:30		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 02:30		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 02:30		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 02:30		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 02:30		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 02:30		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 02:30		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/25/15 02:30	
Dibromofluoromethane	111	85-115	11/25/15 02:30	
Toluene-d8	111	85-120	11/25/15 02:30	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0230

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-18	**Units:**	µg/L
Lab Code:	R1510063-012	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1055
Date Received: 11/19/15

Sample Name: FTMM-68-GW-565MW01D-20.5
Lab Code: R1510063-013

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	130	25	5.5	25	NA	11/25/15 08:32		473760	
1,1,1-Trichloroethane (TCA)	ND	U	130	25	9.0	25	NA	11/25/15 08:32		473760	
1,1,2,2-Tetrachloroethane	ND	U	130	25	6.3	25	NA	11/25/15 08:32		473760	
1,1,2-Trichloroethane	ND	U	130	25	8.5	25	NA	11/25/15 08:32		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	130	25	15	25	NA	11/25/15 08:32		473760	
1,1-Dichloropropene	ND	U	130	25	7.3	25	NA	11/25/15 08:32		473760	
1,2,3-Trichlorobenzene	ND	U	130	25	21	25	NA	11/25/15 08:32		473760	
1,2,3-Trichloropropane	ND	U	130	25	18	25	NA	11/25/15 08:32		473760	
1,2,4-Trichlorobenzene	ND	U	130	25	5.8	25	NA	11/25/15 08:32		473760	
1,2,4-Trimethylbenzene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	130	25	19	25	NA	11/25/15 08:32		473760	
1,2-Dibromoethane	ND	U	130	25	6.0	25	NA	11/25/15 08:32		473760	
1,2-Dichlorobenzene	ND	U	130	25	5.3	25	NA	11/25/15 08:32		473760	
1,2-Dichloroethane	ND	U	130	25	9.0	25	NA	11/25/15 08:32		473760	
1,2-Dichloropropane	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
1,3,5-Trimethylbenzene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
1,3-Dichlorobenzene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
1,3-Dichloropropane	ND	U	130	25	6.8	25	NA	11/25/15 08:32		473760	
1,4-Dichlorobenzene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
2,2-Dichloropropane	ND	U	130	25	6.8	25	NA	11/25/15 08:32		473760	
2-Butanone (MEK)	ND	U	130	25	21	25	NA	11/25/15 08:32		473760	
2-Chlorotoluene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
2-Hexanone	ND	U	130	130	42	25	NA	11/25/15 08:32		473760	
tert-Butyl Alcohol	ND	U	2500	500	270	25	NA	11/25/15 08:32		473760	
4-Chlorotoluene	ND	U	130	25	6.0	25	NA	11/25/15 08:32		473760	
p-Isopropyltoluene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
4-Methyl-2-pentanone	ND	U	130	25	17	25	NA	11/25/15 08:32		473760	
Acetone	ND	U	130	130	31	25	NA	11/25/15 08:32		473760	
Benzene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
Bromobenzene	ND	U	130	25	7.1	25	NA	11/25/15 08:32		473760	
Bromochloromethane	ND	U	130	25	8.0	25	NA	11/25/15 08:32		473760	
Bromodichloromethane	ND	U	130	25	8.0	25	NA	11/25/15 08:32		473760	
Bromoform	ND	U	130	25	11	25	NA	11/25/15 08:32		473760	
Bromomethane	ND	U	130	25	7.3	25	NA	11/25/15 08:32		473760	
Carbon Tetrachloride	ND	U	130	25	12	25	NA	11/25/15 08:32		473760	
Chlorobenzene	ND	U	130	25	7.3	25	NA	11/25/15 08:32		473760	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1055
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-565MW01D-20.5	**Units:**	µg/L
Lab Code:	R1510063-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	130	25	6.0	25	NA	11/25/15 08:32		473760	
Chloroform	ND	U	130	25	6.3	25	NA	11/25/15 08:32		473760	
Chloromethane	ND	U	130	25	5.3	25	NA	11/25/15 08:32		473760	
Dibromochloromethane	ND	U	130	25	7.8	25	NA	11/25/15 08:32		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	130	25	12	25	NA	11/25/15 08:32		473760	
Methylene Chloride	ND	U	130	25	15	25	NA	11/25/15 08:32		473760	
Ethylbenzene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
Hexachlorobutadiene	ND	U	130	25	16	25	NA	11/25/15 08:32		473760	
Isopropylbenzene (Cumene)	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
Methyl tert-Butyl Ether	ND	U	130	25	7.3	25	NA	11/25/15 08:32		473760	
Naphthalene	**5.5**	J	130	25	5.0	25	NA	11/25/15 08:32		473760	
Styrene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
Tetrachloroethene (PCE)	**3800**		130	25	7.5	25	NA	11/25/15 08:32		473760	
Toluene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
Trichloroethene (TCE)	**15**	J	130	25	5.5	25	NA	11/25/15 08:32		473760	
Trichlorofluoromethane (CFC 11)	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
Vinyl Chloride	ND	U	130	25	8.0	25	NA	11/25/15 08:32		473760	
cis-1,2-Dichloroethene	**11**	J	130	25	7.5	25	NA	11/25/15 08:32		473760	
cis-1,3-Dichloropropene	ND	U	130	25	6.0	25	NA	11/25/15 08:32		473760	
m,p-Xylenes	ND	U	250	50	8.3	25	NA	11/25/15 08:32		473760	
n-Butylbenzene	ND	U	130	25	5.3	25	NA	11/25/15 08:32		473760	
n-Propylbenzene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
o-Xylene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
sec-Butylbenzene	ND	U	130	25	6.8	25	NA	11/25/15 08:32		473760	
tert-Butylbenzene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
trans-1,2-Dichloroethene	ND	U	130	25	8.3	25	NA	11/25/15 08:32		473760	
trans-1,3-Dichloropropene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/25/15 08:32	
Dibromofluoromethane	110	85-115	11/25/15 08:32	
Toluene-d8	113	85-120	11/25/15 08:32	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0832

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-565MW01D-20.5	**Units:**	µg/L
Lab Code:	R1510063-013	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1615
Date Received: 11/19/15

Sample Name: FTMM-53-GW-MW02-20.25
Lab Code: R1510063-014

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 06:01		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 06:01		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 06:01		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 06:01		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 06:01		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 06:01		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 06:01		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 06:01		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 06:01		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 06:01		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 06:01		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 06:01		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 06:01		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 06:01		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 06:01		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 06:01		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 06:01		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 06:01		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 06:01		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 06:01		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 06:01		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 06:01		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 06:01		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 06:01		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 06:01		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 06:01		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 06:01		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 06:01		473760	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1615
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-53-GW-MW02-20.25	**Units:**	µg/L
Lab Code:	R1510063-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 06:01		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 06:01		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 06:01		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 06:01		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 06:01		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 06:01		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 06:01		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 06:01		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
Tetrachloroethene (PCE)	**29**		5.0	1.0	0.30	1	NA	11/25/15 06:01		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
Trichloroethene (TCE)	**0.67**	J	5.0	1.0	0.22	1	NA	11/25/15 06:01		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 06:01		473760	
cis-1,2-Dichloroethene	**0.57**	J	5.0	1.0	0.30	1	NA	11/25/15 06:01		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 06:01		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 06:01		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 06:01		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 06:01		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 06:01		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/25/15 06:01	
Dibromofluoromethane	108	85-115	11/25/15 06:01	
Toluene-d8	109	85-120	11/25/15 06:01	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0601

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-MW02-20.25	**Units:**	µg/L
Lab Code:	R1510063-014	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1424
Date Received: 11/19/15

Sample Name: FTMM-53-GW-MW02-25.25
Lab Code: R1510063-015

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 06:31		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 06:31		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 06:31		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 06:31		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 06:31		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 06:31		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 06:31		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 06:31		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 06:31		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 06:31		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 06:31		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 06:31		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 06:31		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 06:31		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 06:31		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 06:31		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 06:31		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 06:31		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 06:31		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 06:31		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 06:31		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 06:31		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 06:31		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 06:31		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 06:31		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 06:31		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 06:31		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 06:31		473760	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1424
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-53-GW-MW02-25.25	**Units:**	µg/L
Lab Code:	R1510063-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 06:31		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 06:31		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 06:31		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 06:31		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 06:31		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 06:31		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 06:31		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 06:31		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
Tetrachloroethene (PCE)	**28**		5.0	1.0	0.30	1	NA	11/25/15 06:31		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
Trichloroethene (TCE)	**0.68**	J	5.0	1.0	0.22	1	NA	11/25/15 06:31		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 06:31		473760	
cis-1,2-Dichloroethene	**0.74**	J	5.0	1.0	0.30	1	NA	11/25/15 06:31		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 06:31		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 06:31		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 06:31		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 06:31		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 06:31		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/25/15 06:31	
Dibromofluoromethane	111	85-115	11/25/15 06:31	
Toluene-d8	108	85-120	11/25/15 06:31	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0631

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-MW02-25.25	**Units:**	µg/L
Lab Code:	R1510063-015	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15 1332
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-53-GW-699MW01-11.0	**Units:**	µg/L
Lab Code:	R1510063-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 07:01		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 07:01		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 07:01		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 07:01		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 07:01		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 07:01		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 07:01		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 07:01		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 07:01		473760	
1,2,4-Trimethylbenzene	**0.64**	J	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 07:01		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 07:01		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 07:01		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 07:01		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 07:01		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 07:01		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 07:01		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 07:01		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 07:01		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 07:01		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 07:01		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 07:01		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 07:01		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 07:01		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 07:01		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 07:01		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 07:01		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 07:01		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 07:01		473760	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15 1332
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-53-GW-699MW01-11.0	**Units:**	µg/L
Lab Code:	R1510063-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 07:01		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 07:01		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 07:01		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 07:01		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 07:01		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 07:01		473760	
Ethylbenzene	**1.1**	J	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 07:01		473760	
Isopropylbenzene (Cumene)	**0.30**	J	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 07:01		473760	
Naphthalene	**0.21**	J	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 07:01		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 07:01		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 07:01		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 07:01		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 07:01		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 07:01		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 07:01		473760	
n-Propylbenzene	**0.58**	J	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 07:01		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 07:01		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/25/15 07:01	
Dibromofluoromethane	110	85-115	11/25/15 07:01	
Toluene-d8	109	85-120	11/25/15 07:01	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0701

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-699MW01-11.0	**Units:**	µg/L
Lab Code:	R1510063-016	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15 1443
Date Received: 11/19/15

Sample Name: FTMM-53-GW-699MW04-11.5
Lab Code: R1510063-017

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 17:41		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 17:41		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 17:41		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 17:41		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 17:41		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 17:41		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 17:41		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 17:41		474104	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/30/15 17:41		474104	
1,2,4-Trimethylbenzene	**4.8**	J	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 17:41		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 17:41		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 17:41		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 17:41		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
1,3,5-Trimethylbenzene	**0.48**	J	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 17:41		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 17:41		474104	
2-Butanone (MEK)	**3.7**	J	5.0	1.0	0.81	1	NA	11/30/15 17:41		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 17:41		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 17:41		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 17:41		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 17:41		474104	
Acetone	**3.7**	J	5.0	5.0	1.3	1	NA	11/30/15 17:41		474104	
Benzene	**1.6**	J	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 17:41		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 17:41		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 17:41		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 17:41		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 17:41		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 17:41		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 17:41		474104	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15 1443
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-53-GW-699MW04-11.5	**Units:**	µg/L
Lab Code:	R1510063-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**0.73**	J	5.0	1.0	0.24	1	NA	11/30/15 17:41		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 17:41		474104	
Chloromethane	**0.42**	J	5.0	1.0	0.21	1	NA	11/30/15 17:41		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 17:41		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 17:41		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 17:41		474104	
Ethylbenzene	**6.4**		5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/30/15 17:41		474104	
Isopropylbenzene (Cumene)	**14**		5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 17:41		474104	
Naphthalene	**11**		5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
Tetrachloroethene (PCE)	**1.0**	J	5.0	1.0	0.30	1	NA	11/30/15 17:41		474104	
Toluene	**1.0**	J	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 17:41		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 17:41		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 17:41		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 17:41		474104	
m,p-Xylenes	**2.0**	J	10	2.0	0.33	1	NA	11/30/15 17:41		474104	
n-Butylbenzene	**1.6**	J	5.0	1.0	0.21	1	NA	11/30/15 17:41		474104	
n-Propylbenzene	**19**		5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
o-Xylene	**2.1**	J	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
sec-Butylbenzene	**2.9**	J	5.0	1.0	0.27	1	NA	11/30/15 17:41		474104	
tert-Butylbenzene	**0.56**	J	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 17:41		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	11/30/15 17:41	
Dibromofluoromethane	110	85-115	11/30/15 17:41	
Toluene-d8	102	85-120	11/30/15 17:41	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15
Date Received: 11/19/15
Date Analyzed: 11/30/15 1741

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-53-GW-699MW04-11.5
Lab Code: R1510063-017

Units: µg/L
Basis: NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q
000078-78-4	Butane, 2-methyl-	1.83	**46.3**	JN
000109-66-0	Pentane	2.05	**8.6**	JN
000079-29-8	Butane, 2,3-dimethyl-	2.91	**26.8**	JN
	unknown	2.96	**22.7**	J
	unknown	3.01	**7.6**	J
000096-14-0	Pentane, 3-methyl-	3.26	**38.1**	JN
000108-08-7	Pentane, 2,4-dimethyl-	4.42	**13.2**	JN
	unknown	4.52	**59.6**	J
000565-59-3	Pentane, 2,3-dimethyl-	5.80	**32.8**	JN
001759-58-6	Cyclopentane, 1,3-dimethyl-, trans	6.27	**12.5**	JN
	unknown	6.35	**26.9**	J
	unknown	7.30	**12.7**	J
	unknown	7.86	**9.1**	J
	unknown	7.99	**12.4**	J
000622-96-8	Benzene, 1-ethyl-4-methyl-	11.60	**5.4**	JN
	unknown	12.24	**52.8**	J
000933-98-2	Benzene, 1-ethyl-2,3-dimethyl-	12.62	**8.4**	JN
000767-58-8	Indan, 1-methyl-	12.71	**16.8**	JN
000095-93-2	Benzene, 1,2,4,5-tetramethyl-	12.93	**14.3**	JN
000874-35-1	1H-Indene, 2,3-dihydro-5-methyl-	13.31	**10.9**	JN

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15 1443
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-53-GW-699MW104-11.5	**Units:**	µg/L
Lab Code:	R1510063-018	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 18:11		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 18:11		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 18:11		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 18:11		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 18:11		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 18:11		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 18:11		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 18:11		474104	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/30/15 18:11		474104	
1,2,4-Trimethylbenzene	**6.1**		5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 18:11		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 18:11		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 18:11		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 18:11		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
1,3,5-Trimethylbenzene	**0.61**	J	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 18:11		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 18:11		474104	
2-Butanone (MEK)	**3.6**	J	5.0	1.0	0.81	1	NA	11/30/15 18:11		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 18:11		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 18:11		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 18:11		474104	
p-Isopropyltoluene	**0.24**	J	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 18:11		474104	
Acetone	**3.1**	J	5.0	5.0	1.3	1	NA	11/30/15 18:11		474104	
Benzene	**1.6**	J	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 18:11		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 18:11		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 18:11		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 18:11		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 18:11		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 18:11		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 18:11		474104	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15 1443
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-53-GW-699MW104-11.5	**Units:**	µg/L
Lab Code:	R1510063-018	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**0.60**	J	5.0	1.0	0.24	1	NA	11/30/15 18:11		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 18:11		474104	
Chloromethane	**0.41**	J	5.0	1.0	0.21	1	NA	11/30/15 18:11		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 18:11		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 18:11		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 18:11		474104	
Ethylbenzene	**6.1**		5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/30/15 18:11		474104	
Isopropylbenzene (Cumene)	**15**		5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 18:11		474104	
Naphthalene	**13**		5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
Tetrachloroethene (PCE)	**0.47**	J	5.0	1.0	0.30	1	NA	11/30/15 18:11		474104	
Toluene	**1.0**	J	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 18:11		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 18:11		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 18:11		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 18:11		474104	
m,p-Xylenes	**2.3**	J	10	2.0	0.33	1	NA	11/30/15 18:11		474104	
n-Butylbenzene	**2.0**	J	5.0	1.0	0.21	1	NA	11/30/15 18:11		474104	
n-Propylbenzene	**21**		5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
o-Xylene	**2.3**	J	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
sec-Butylbenzene	**3.2**	J	5.0	1.0	0.27	1	NA	11/30/15 18:11		474104	
tert-Butylbenzene	**0.57**	J	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 18:11		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	11/30/15 18:11	
Dibromofluoromethane	110	85-115	11/30/15 18:11	
Toluene-d8	104	85-120	11/30/15 18:11	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15
Date Received: 11/19/15
Date Analyzed: 11/30/15 1811

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-53-GW-699MW104-11.5
Lab Code: R1510063-018

Units: µg/L
Basis: NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q
000078-78-4	Butane, 2-methyl-	1.83	**48.4**	JN
000109-66-0	Pentane	2.05	**9.7**	JN
000079-29-8	Butane, 2,3-dimethyl-	2.91	**29.7**	JN
000107-83-5	Pentane, 2-methyl-	2.96	**22.2**	JN
	unknown	3.01	**6.2**	J
000096-14-0	Pentane, 3-methyl-	3.25	**41.3**	JN
	unknown	4.43	**13.2**	J
	unknown	4.52	**62.1**	J
000110-82-7	Cyclohexane	5.68	**13.8**	JN
000565-59-3	Pentane, 2,3-dimethyl-	5.80	**35.2**	JN
002532-58-3	Cyclopentane, 1,3-dimethyl-, cis-	6.27	**13.1**	JN
	unknown	6.35	**28.0**	J
	unknown	7.30	**13.4**	J
000565-75-3	Pentane, 2,3,4-trimethyl-	7.86	**9.5**	JN
000560-21-4	Pentane, 2,3,3-trimethyl-	7.99	**12.6**	JN
	unknown	12.24	**60.8**	J
000099-87-6	Benzene, 1-methyl-4-(1-methylethyl	12.62	**10.5**	JN
000768-49-0	Benzene, (2-methyl-1-propenyl)-	12.71	**19.2**	JN
000527-53-7	Benzene, 1,2,3,5-tetramethyl-	12.93	**18.2**	JN
000824-22-6	1H-Indene, 2,3-dihydro-4-methyl-	13.31	**14.9**	JN

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15 1425
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW01-32.5
Lab Code: R1510063-019

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	13	2.5	0.55	2.5	NA	11/30/15 15:38		474104	
1,1,1-Trichloroethane (TCA)	ND	U	13	2.5	0.90	2.5	NA	11/30/15 15:38		474104	
1,1,2,2-Tetrachloroethane	ND	U	13	2.5	0.63	2.5	NA	11/30/15 15:38		474104	
1,1,2-Trichloroethane	ND	U	13	2.5	0.86	2.5	NA	11/30/15 15:38		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	13	2.5	1.5	2.5	NA	11/30/15 15:38		474104	
1,1-Dichloropropene	ND	U	13	2.5	0.73	2.5	NA	11/30/15 15:38		474104	
1,2,3-Trichlorobenzene	ND	U	13	2.5	2.1	2.5	NA	11/30/15 15:38		474104	
1,2,3-Trichloropropane	ND	U	13	2.5	1.8	2.5	NA	11/30/15 15:38		474104	
1,2,4-Trichlorobenzene	ND	U	13	2.5	0.58	2.5	NA	11/30/15 15:38		474104	
1,2,4-Trimethylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	13	2.5	1.9	2.5	NA	11/30/15 15:38		474104	
1,2-Dibromoethane	ND	U	13	2.5	0.60	2.5	NA	11/30/15 15:38		474104	
1,2-Dichlorobenzene	ND	U	13	2.5	0.53	2.5	NA	11/30/15 15:38		474104	
1,2-Dichloroethane	ND	U	13	2.5	0.90	2.5	NA	11/30/15 15:38		474104	
1,2-Dichloropropane	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
1,3,5-Trimethylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
1,3-Dichlorobenzene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
1,3-Dichloropropane	ND	U	13	2.5	0.68	2.5	NA	11/30/15 15:38		474104	
1,4-Dichlorobenzene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
2,2-Dichloropropane	ND	U	13	2.5	0.68	2.5	NA	11/30/15 15:38		474104	
2-Butanone (MEK)	ND	U	13	2.5	2.1	2.5	NA	11/30/15 15:38		474104	
2-Chlorotoluene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
2-Hexanone	ND	U	13	13	4.2	2.5	NA	11/30/15 15:38		474104	
tert-Butyl Alcohol	ND	U	250	50	27	2.5	NA	11/30/15 15:38		474104	
4-Chlorotoluene	ND	U	13	2.5	0.60	2.5	NA	11/30/15 15:38		474104	
p-Isopropyltoluene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
4-Methyl-2-pentanone	ND	U	13	2.5	1.7	2.5	NA	11/30/15 15:38		474104	
Acetone	ND	U	13	13	3.1	2.5	NA	11/30/15 15:38		474104	
Benzene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
Bromobenzene	ND	U	13	2.5	0.71	2.5	NA	11/30/15 15:38		474104	
Bromochloromethane	ND	U	13	2.5	0.80	2.5	NA	11/30/15 15:38		474104	
Bromodichloromethane	ND	U	13	2.5	0.80	2.5	NA	11/30/15 15:38		474104	
Bromoform	ND	U	13	2.5	1.1	2.5	NA	11/30/15 15:38		474104	
Bromomethane	ND	U	13	2.5	0.73	2.5	NA	11/30/15 15:38		474104	
Carbon Tetrachloride	ND	U	13	2.5	1.2	2.5	NA	11/30/15 15:38		474104	
Chlorobenzene	ND	U	13	2.5	0.73	2.5	NA	11/30/15 15:38		474104	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15 1425
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW01-32.5	**Units:**	µg/L
Lab Code:	R1510063-019	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	13	2.5	0.60	2.5	NA	11/30/15 15:38		474104	
Chloroform	ND	U	13	2.5	0.63	2.5	NA	11/30/15 15:38		474104	
Chloromethane	ND	U	13	2.5	0.53	2.5	NA	11/30/15 15:38		474104	
Dibromochloromethane	ND	U	13	2.5	0.78	2.5	NA	11/30/15 15:38		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	13	2.5	1.2	2.5	NA	11/30/15 15:38		474104	
Methylene Chloride	ND	U	13	2.5	1.5	2.5	NA	11/30/15 15:38		474104	
Ethylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
Hexachlorobutadiene	ND	U	13	2.5	1.6	2.5	NA	11/30/15 15:38		474104	
Isopropylbenzene (Cumene)	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
Methyl tert-Butyl Ether	**1.9**	J	13	2.5	0.73	2.5	NA	11/30/15 15:38		474104	
Naphthalene	**0.83**	J	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
Styrene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
Tetrachloroethene (PCE)	**660**	D	25	5.0	1.5	5	NA	11/30/15 18:42		474104	
Toluene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
Trichloroethene (TCE)	**17**		13	2.5	0.55	2.5	NA	11/30/15 15:38		474104	
Trichlorofluoromethane (CFC 11)	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
Vinyl Chloride	ND	U	13	2.5	0.80	2.5	NA	11/30/15 15:38		474104	
cis-1,2-Dichloroethene	ND	U	13	2.5	0.75	2.5	NA	11/30/15 15:38		474104	
cis-1,3-Dichloropropene	ND	U	13	2.5	0.60	2.5	NA	11/30/15 15:38		474104	
m,p-Xylenes	ND	U	25	5.0	0.83	2.5	NA	11/30/15 15:38		474104	
n-Butylbenzene	ND	U	13	2.5	0.53	2.5	NA	11/30/15 15:38		474104	
n-Propylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
o-Xylene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
sec-Butylbenzene	ND	U	13	2.5	0.68	2.5	NA	11/30/15 15:38		474104	
tert-Butylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
trans-1,2-Dichloroethene	ND	U	13	2.5	0.83	2.5	NA	11/30/15 15:38		474104	
trans-1,3-Dichloropropene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/30/15 15:38	
Dibromofluoromethane	113	85-115	11/30/15 15:38	
Toluene-d8	94	85-120	11/30/15 15:38	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/30/15 1538

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW01-32.5	**Units:**	µg/L
Lab Code:	R1510063-019	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15 1425
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW101-32.5	**Units:**	µg/L
Lab Code:	R1510063-020	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 16:08		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 16:08		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 16:08		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 16:08		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
1,1-Dichloroethene (1,1-DCE)	**0.61**	J	5.0	1.0	0.57	1	NA	11/30/15 16:08		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 16:08		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 16:08		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 16:08		474104	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/30/15 16:08		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 16:08		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 16:08		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 16:08		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 16:08		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 16:08		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 16:08		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 16:08		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 16:08		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 16:08		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 16:08		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 16:08		474104	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/30/15 16:08		474104	
Benzene	**0.35**	J	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 16:08		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 16:08		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 16:08		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 16:08		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 16:08		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 16:08		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 16:08		474104	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15 1425
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW101-32.5	**Units:**	µg/L
Lab Code:	R1510063-020	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 16:08		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 16:08		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 16:08		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 16:08		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 16:08		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 16:08		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/30/15 16:08		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
Methyl tert-Butyl Ether	**2.0**	J	5.0	1.0	0.29	1	NA	11/30/15 16:08		474104	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
Tetrachloroethene (PCE)	**640**	D	25	5.0	1.5	5	NA	11/30/15 19:13		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
Trichloroethene (TCE)	**19**		5.0	1.0	0.22	1	NA	11/30/15 16:08		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 16:08		474104	
cis-1,2-Dichloroethene	**0.61**	J	5.0	1.0	0.30	1	NA	11/30/15 16:08		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 16:08		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 16:08		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 16:08		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 16:08		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 16:08		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/30/15 16:08	
Dibromofluoromethane	110	85-115	11/30/15 16:08	
Toluene-d8	104	85-120	11/30/15 16:08	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/30/15 1608

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW101-32.5	**Units:**	µg/L
Lab Code:	R1510063-020	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15 1545
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW01-37.5	**Units:**	µg/L
Lab Code:	R1510063-021	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 16:39		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 16:39		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 16:39		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 16:39		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 16:39		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 16:39		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 16:39		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 16:39		474104	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/30/15 16:39		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 16:39		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 16:39		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 16:39		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 16:39		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 16:39		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 16:39		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 16:39		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 16:39		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 16:39		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 16:39		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 16:39		474104	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/30/15 16:39		474104	
Benzene	**0.44**	J	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 16:39		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 16:39		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 16:39		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 16:39		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 16:39		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 16:39		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 16:39		474104	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15 1545
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW01-37.5	**Units:**	µg/L
Lab Code:	R1510063-021	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 16:39		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 16:39		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 16:39		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 16:39		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 16:39		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 16:39		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/30/15 16:39		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
Methyl tert-Butyl Ether	**2.5**	J	5.0	1.0	0.29	1	NA	11/30/15 16:39		474104	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
Tetrachloroethene (PCE)	**690**	D	25	5.0	1.5	5	NA	11/30/15 19:43		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
Trichloroethene (TCE)	**23**		5.0	1.0	0.22	1	NA	11/30/15 16:39		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 16:39		474104	
cis-1,2-Dichloroethene	**0.60**	J	5.0	1.0	0.30	1	NA	11/30/15 16:39		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 16:39		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 16:39		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 16:39		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 16:39		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 16:39		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	11/30/15 16:39	
Dibromofluoromethane	112	85-115	11/30/15 16:39	
Toluene-d8	108	85-120	11/30/15 16:39	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/30/15 1639

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW01-37.5	**Units:**	µg/L
Lab Code:	R1510063-021	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514665-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 00:29		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 00:29		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 00:29		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 00:29		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 00:29		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 00:29		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 00:29		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 00:29		473760	
1,2,4-Trichlorobenzene	**0.54**	J	5.0	1.0	0.23	1	NA	11/25/15 00:29		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 00:29		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 00:29		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 00:29		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 00:29		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 00:29		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 00:29		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 00:29		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 00:29		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 00:29		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 00:29		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 00:29		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 00:29		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 00:29		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 00:29		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 00:29		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 00:29		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 00:29		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 00:29		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 00:29		473760	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514665-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 00:29		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 00:29		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 00:29		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 00:29		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 00:29		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 00:29		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
Hexachlorobutadiene	**0.74**	J	5.0	1.0	0.62	1	NA	11/25/15 00:29		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 00:29		473760	
Naphthalene	**0.43**	J	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 00:29		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 00:29		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 00:29		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 00:29		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 00:29		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 00:29		473760	
n-Butylbenzene	**0.23**	J	5.0	1.0	0.21	1	NA	11/25/15 00:29		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 00:29		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 00:29		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/25/15 00:29	
Dibromofluoromethane	111	85-115	11/25/15 00:29	
Toluene-d8	111	85-120	11/25/15 00:29	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	11/25/15 0029

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514665-04	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1514764-04

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 12:34		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 12:34		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 12:34		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 12:34		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 12:34		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 12:34		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 12:34		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 12:34		474104	
1,2,4-Trichlorobenzene	0.28	J	5.0	1.0	0.23	1	NA	11/30/15 12:34		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 12:34		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 12:34		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 12:34		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 12:34		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 12:34		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 12:34		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 12:34		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 12:34		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 12:34		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 12:34		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 12:34		474104	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/30/15 12:34		474104	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 12:34		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 12:34		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 12:34		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 12:34		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 12:34		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 12:34		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 12:34		474104	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514764-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 12:34		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 12:34		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 12:34		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 12:34		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 12:34		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 12:34		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Hexachlorobutadiene	**0.75**	J	5.0	1.0	0.62	1	NA	11/30/15 12:34		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 12:34		474104	
Naphthalene	**0.32**	J	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/30/15 12:34		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 12:34		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 12:34		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 12:34		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 12:34		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 12:34		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 12:34		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 12:34		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 12:34		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	11/30/15 12:34	
Dibromofluoromethane	112	85-115	11/30/15 12:34	
Toluene-d8	111	85-120	11/30/15 12:34	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	11/30/15 1234

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514764-04	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15
Date Received: 11/19/15
Date Analyzed: 11/25/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-68-GW-MW03-17.5
Lab Code: R1510063-006

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		FTMM-68-GW-MW03-17.5MS				FTMM-68-GW-MW03-17.5DMS					
		Matrix Spike RQ1514665-05				Duplicate Matrix Spike RQ1514665-06					
Analyte Name	Sample Result	Result	Spike Amount	% Rec		Result	Spike Amount	% Rec		% Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND	46.5	50.0	93		47.9	50.0	96		80 - 130	3	30
1,1,1-Trichloroethane (TCA)	ND	50.8	50.0	102		52.7	50.0	105		65 - 130	4	30
1,1,2,2-Tetrachloroethane	ND	47.7	50.0	95		48.9	50.0	98		65 - 130	3	30
1,1,2-Trichloroethane	ND	47.6	50.0	95		49.5	50.0	99		75 - 125	4	30
1,1-Dichloroethane (1,1-DCA)	ND	53.1	50.0	106		53.9	50.0	108		70 - 135	2	30
1,1-Dichloroethene (1,1-DCE)	ND	49.3	50.0	99		49.3	50.0	99		70 - 130	<1	30
1,1-Dichloropropene	ND	50.6	50.0	101		50.5	50.0	101		75 - 130	<1	30
1,2,3-Trichlorobenzene	ND	41.4	50.0	83		49.0	50.0	98		75 - 125	17	30
1,2,3-Trichloropropane	ND	48.3	50.0	97		51.1	50.0	102		75 - 125	6	30
1,2,4-Trichlorobenzene	ND	43.1	50.0	86		48.4	50.0	97		65 - 135	11	30
1,2,4-Trimethylbenzene	ND	33.3	50.0	67	*	27.8	50.0	56	*	75 - 130	18	30
1,2-Dibromo-3-chloropropane (DBC	ND	42.2	50.0	84		45.1	50.0	90		50 - 130	7	30
1,2-Dibromoethane	ND	46.4	50.0	93		47.5	50.0	95		80 - 120	2	30
1,2-Dichlorobenzene	ND	47.7	50.0	95		49.5	50.0	99		70 - 120	4	30
1,2-Dichloroethane	ND	49.9	50.0	100		51.2	50.0	102		70 - 130	3	30
1,2-Dichloropropane	ND	51.5	50.0	103		54.2	50.0	108		75 - 125	5	30
1,3,5-Trimethylbenzene	ND	29.8	50.0	60	*	23.1	50.0	46	*	75 - 130	26	30
1,3-Dichlorobenzene	ND	47.4	50.0	95		50.1	50.0	100		75 - 125	5	30
1,3-Dichloropropane	ND	48.7	50.0	97		49.5	50.0	99		75 - 125	2	30
1,4-Dichlorobenzene	ND	49.6	50.0	99		51.5	50.0	103		75 - 125	4	30
2,2-Dichloropropane	ND	36.0	50.0	72		37.0	50.0	74		70 - 135	3	30
2-Butanone (MEK)	ND	43.6	50.0	87		44.2	50.0	88		30 - 150	1	30
2-Chlorotoluene	ND	50.3	50.0	101		51.8	50.0	104		75 - 125	3	30
2-Hexanone	ND	43.6	50.0	87		41.9	50.0	84		55 - 130	4	30
tert-Butyl Alcohol	ND	930	1000	93		967	1000	97		50 - 150	4	30
4-Chlorotoluene	ND	47.6	50.0	95		48.0	50.0	96		75 - 130	<1	30
p-Isopropyltoluene	ND	44.0	50.0	88		42.7	50.0	85		75 - 130	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15
Date Received: 11/19/15
Date Analyzed: 11/25/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-68-GW-MW03-17.5
Lab Code: R1510063-006

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		FTMM-68-GW-MW03-17.5MS				FTMM-68-GW-MW03-17.5DMS					
		Matrix Spike RQ1514665-05				Duplicate Matrix Spike RQ1514665-06					
Analyte Name	Sample Result	Result	Spike Amount	% Rec		Result	Spike Amount	% Rec		% Rec Limits	RPD	RPD Limit
4-Methyl-2-pentanone	ND	47.1	50.0	94		47.4	50.0	95		60 - 135	<1	30
Acetone	ND	40.4	50.0	81		42.9	50.0	86		40 - 140	6	30
Benzene	ND	50.5	50.0	101		52.3	50.0	105		80 - 120	3	30
Bromobenzene	ND	49.8	50.0	100		51.4	50.0	103		75 - 125	3	30
Bromochloromethane	ND	47.3	50.0	95		49.1	50.0	98		65 - 130	4	30
Bromodichloromethane	ND	45.5	50.0	91		47.8	50.0	96		75 - 120	5	30
Bromoform	ND	36.0	50.0	72		38.4	50.0	77		70 - 130	6	30
Bromomethane	ND	44.6	50.0	89		47.9	50.0	96		30 - 145	7	30
Carbon Tetrachloride	ND	46.8	50.0	94		46.2	50.0	92		65 - 140	1	30
Chlorobenzene	ND	47.8	50.0	96		49.6	50.0	99		80 - 120	4	30
Chloroethane	ND	51.6	50.0	103		52.6	50.0	105		60 - 135	2	30
Chloroform	ND	48.3	50.0	97		49.0	50.0	98		65 - 135	1	30
Chloromethane	ND	47.1	50.0	94		49.2	50.0	98		40 - 125	4	30
Dibromochloromethane	ND	41.0	50.0	82		44.1	50.0	88		60 - 135	7	30
Dichlorodifluoromethane (CFC 12)	ND	51.8	50.0	104		54.3	50.0	109		30 - 155	5	30
Methylene Chloride	ND	47.4	50.0	95		48.6	50.0	97		55 - 140	2	30
Ethylbenzene	ND	45.7	50.0	91		45.9	50.0	92		75 - 125	<1	30
Hexachlorobutadiene	ND	46.6	50.0	93		52.1	50.0	104		50 - 140	11	30
Isopropylbenzene (Cumene)	ND	47.1	50.0	94		46.9	50.0	94		75 - 125	<1	30
Methyl tert-Butyl Ether	ND	45.5	50.0	91		46.6	50.0	93		65 - 125	2	30
Naphthalene	ND	40.9	50.0	82		47.6	50.0	95		55 - 140	15	30
Styrene	ND	23.4	50.0	47	*	16.9	50.0	34	*	65 - 135	32 *	30
Tetrachloroethene (PCE)	ND	49.1	50.0	98		50.6	50.0	101		45 - 150	3	30
Toluene	ND	46.6	50.0	93		46.4	50.0	93		75 - 120	<1	30
Trichloroethene (TCE)	ND	46.3	50.0	93		48.6	50.0	97		70 - 125	5	30
Trichlorofluoromethane (CFC 11)	ND	52.7	50.0	105		53.7	50.0	107		60 - 145	2	30
Vinyl Chloride	ND	50.1	50.0	100		49.6	50.0	99		50 - 145	1	30

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Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15
Date Received: 11/19/15
Date Analyzed: 11/25/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-68-GW-MW03-17.5
Lab Code: R1510063-006

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		FTMM-68-GW-MW03-17.5MS			FTMM-68-GW-MW03-17.5DMS					
		Matrix Spike RQ1514665-05			Duplicate Matrix Spike RQ1514665-06					
Analyte Name	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	ND	50.8	50.0	102	51.9	50.0	104	70 - 125	2	30
cis-1,3-Dichloropropene	ND	43.9	50.0	88	46.4	50.0	93	70 - 130	6	30
m,p-Xylenes	ND	78.1	100	78	71.8	100	72 *	75 - 130	8	30
n-Butylbenzene	ND	45.5	50.0	91	46.2	50.0	92	70 - 135	2	30
n-Propylbenzene	ND	46.3	50.0	93	46.0	50.0	92	70 - 130	<1	30
o-Xylene	ND	40.4	50.0	81	38.3	50.0	77 *	80 - 120	5	30
sec-Butylbenzene	ND	46.9	50.0	94	47.8	50.0	96	70 - 125	2	30
tert-Butylbenzene	ND	48.8	50.0	98	50.2	50.0	100	70 - 130	3	30
trans-1,2-Dichloroethene	ND	50.0	50.0	100	50.7	50.0	101	60 - 140	1	30
trans-1,3-Dichloropropene	ND	44.7	50.0	89	46.6	50.0	93	55 - 140	4	30

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15
Date Received: 11/19/15
Date Analyzed: 11/30/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-68-GW-MW04-20.25
Lab Code: R1510063-008

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		FTMM-68-GW-MW04-20.25MS Matrix Spike RQ1514764-05				FTMM-68-GW-MW04-20.25D MS Duplicate Matrix Spike RQ1514764-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**		**Result**	**Spike Amount**	**% Rec**		**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1,2-Tetrachloroethane	ND	47.2	50.0	94		49.0	50.0	98		80 - 130	4	30
1,1,1-Trichloroethane (TCA)	ND	50.8	50.0	102		52.6	50.0	105		65 - 130	3	30
1,1,2,2-Tetrachloroethane	ND	48.9	50.0	98		50.8	50.0	102		65 - 130	4	30
1,1,2-Trichloroethane	ND	51.5	50.0	103		52.8	50.0	106		75 - 125	2	30
1,1-Dichloroethane (1,1-DCA)	ND	52.5	50.0	105		54.8	50.0	110		70 - 135	4	30
1,1-Dichloroethene (1,1-DCE)	ND	47.5	50.0	95		48.4	50.0	97		70 - 130	2	30
1,1-Dichloropropene	ND	48.8	50.0	98		50.4	50.0	101		75 - 130	3	30
1,2,3-Trichlorobenzene	ND	48.0	50.0	96		52.3	50.0	105		75 - 125	9	30
1,2,3-Trichloropropane	ND	51.2	50.0	102		53.1	50.0	106		75 - 125	4	30
1,2,4-Trichlorobenzene	ND	47.8	50.0	96		49.5	50.0	99		65 - 135	4	30
1,2,4-Trimethylbenzene	ND	15.9	50.0	32	*	14.9	50.0	30	*	75 - 130	7	30
1,2-Dibromo-3-chloropropane (DBC	ND	47.4	50.0	95		49.1	50.0	98		50 - 130	4	30
1,2-Dibromoethane	ND	48.1	50.0	96		50.2	50.0	100		80 - 120	4	30
1,2-Dichlorobenzene	ND	49.1	50.0	98		50.9	50.0	102		70 - 120	4	30
1,2-Dichloroethane	ND	50.0	50.0	100		53.2	50.0	106		70 - 130	6	30
1,2-Dichloropropane	ND	51.9	50.0	104		54.5	50.0	109		75 - 125	5	30
1,3,5-Trimethylbenzene	ND	12.9	50.0	26	*	12.4	50.0	25	*	75 - 130	4	30
1,3-Dichlorobenzene	ND	48.9	50.0	98		51.1	50.0	102		75 - 125	4	30
1,3-Dichloropropane	ND	51.0	50.0	102		51.3	50.0	103		75 - 125	<1	30
1,4-Dichlorobenzene	ND	50.0	50.0	100		52.5	50.0	105		75 - 125	5	30
2,2-Dichloropropane	ND	47.0	50.0	94		48.4	50.0	97		70 - 135	3	30
2-Butanone (MEK)	ND	48.0	50.0	96		47.7	50.0	95		30 - 150	<1	30
2-Chlorotoluene	ND	49.3	50.0	99		51.4	50.0	103		75 - 125	4	30
2-Hexanone	ND	46.5	50.0	93		47.0	50.0	94		55 - 130	1	30
tert-Butyl Alcohol	ND	1000	1000	100		1030	1000	103		50 - 150	3	30
4-Chlorotoluene	ND	43.3	50.0	87		45.7	50.0	91		75 - 130	5	30
p-Isopropyltoluene	ND	36.3	50.0	73	*	36.4	50.0	73	*	75 - 130	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15
Date Received: 11/19/15
Date Analyzed: 11/30/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-68-GW-MW04-20.25
Lab Code: R1510063-008

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Sample Result	FTMM-68-GW-MW04-20.25MS Matrix Spike RQ1514764-05 Result	Spike Amount	% Rec		FTMM-68-GW-MW04-20.25D MS Duplicate Matrix Spike RQ1514764-06 Result	Spike Amount	% Rec		% Rec Limits	RPD	RPD Limit
4-Methyl-2-pentanone	ND	51.3	50.0	103		52.0	50.0	104		60 - 135	1	30
Acetone	ND	41.3	50.0	83		41.8	50.0	84		40 - 140	1	30
Benzene	ND	50.5	50.0	101		53.4	50.0	107		80 - 120	6	30
Bromobenzene	ND	48.9	50.0	98		52.4	50.0	105		75 - 125	7	30
Bromochloromethane	ND	47.8	50.0	96		48.9	50.0	98		65 - 130	2	30
Bromodichloromethane	ND	46.6	50.0	93		49.1	50.0	98		75 - 120	5	30
Bromoform	ND	37.5	50.0	75		40.2	50.0	80		70 - 130	7	30
Bromomethane	ND	46.1	50.0	92		49.4	50.0	99		30 - 145	7	30
Carbon Tetrachloride	ND	46.8	50.0	94		49.0	50.0	98		65 - 140	5	30
Chlorobenzene	ND	49.2	50.0	98		51.4	50.0	103		80 - 120	4	30
Chloroethane	ND	54.3	50.0	109		54.8	50.0	110		60 - 135	<1	30
Chloroform	ND	48.2	50.0	96		49.4	50.0	99		65 - 135	2	30
Chloromethane	ND	49.1	50.0	98		51.9	50.0	104		40 - 125	6	30
Dibromochloromethane	ND	43.6	50.0	87		45.3	50.0	91		60 - 135	4	30
Dichlorodifluoromethane (CFC 12)	ND	53.5	50.0	107		55.2	50.0	110		30 - 155	3	30
Methylene Chloride	ND	49.0	50.0	98		49.1	50.0	98		55 - 140	<1	30
Ethylbenzene	ND	42.5	50.0	85		42.4	50.0	85		75 - 125	<1	30
Hexachlorobutadiene	ND	46.9	50.0	94		51.5	50.0	103		50 - 140	9	30
Isopropylbenzene (Cumene)	ND	42.2	50.0	84		43.7	50.0	87		75 - 125	3	30
Methyl tert-Butyl Ether	ND	49.1	50.0	98		49.8	50.0	100		65 - 125	1	30
Naphthalene	ND	49.6	50.0	99		52.7	50.0	105		55 - 140	6	30
Styrene	ND	7.50	50.0	15	*	6.65	50.0	13	*	65 - 135	12	30
Tetrachloroethene (PCE)	ND	50.4	50.0	101		51.9	50.0	104		45 - 150	3	30
Toluene	ND	43.0	50.0	86		44.6	50.0	89		75 - 120	4	30
Trichloroethene (TCE)	ND	47.5	50.0	95		49.5	50.0	99		70 - 125	4	30
Trichlorofluoromethane (CFC 11)	ND	53.7	50.0	107		54.7	50.0	109		60 - 145	2	30
Vinyl Chloride	ND	48.9	50.0	98		50.4	50.0	101		50 - 145	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15
Date Received: 11/19/15
Date Analyzed: 11/30/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-68-GW-MW04-20.25
Lab Code: R1510063-008

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		FTMM-68-GW-MW04-20.25MS Matrix Spike RQ1514764-05				FTMM-68-GW-MW04-20.25D MS Duplicate Matrix Spike RQ1514764-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**		**Result**	**Spike Amount**	**% Rec**		**% Rec Limits**	**RPD**	**RPD Limit**
cis-1,2-Dichloroethene	ND	51.1	50.0	102		52.3	50.0	104		70 - 125	2	30
cis-1,3-Dichloropropene	ND	47.7	50.0	95		49.6	50.0	99		70 - 130	4	30
m,p-Xylenes	ND	58.3	100	58	*	58.1	100	58	*	75 - 130	<1	30
n-Butylbenzene	ND	42.2	50.0	84		43.4	50.0	87		70 - 135	3	30
n-Propylbenzene	ND	41.7	50.0	83		43.1	50.0	86		70 - 130	3	30
o-Xylene	ND	32.1	50.0	64	*	32.2	50.0	64	*	80 - 120	<1	30
sec-Butylbenzene	ND	43.2	50.0	86		44.7	50.0	89		70 - 125	3	30
tert-Butylbenzene	ND	47.5	50.0	95		49.5	50.0	99		70 - 130	4	30
trans-1,2-Dichloroethene	ND	48.2	50.0	96		48.8	50.0	98		60 - 140	1	30
trans-1,3-Dichloropropene	ND	48.3	50.0	96		50.6	50.0	101		55 - 140	5	30

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Analyzed: 11/24/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 473760

Lab Control Sample
RQ1514665-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	19.9	20.0	99	80 - 130
1,1,1-Trichloroethane (TCA)	20.9	20.0	104	65 - 130
1,1,2,2-Tetrachloroethane	20.5	20.0	103	65 - 130
1,1,2-Trichloroethane	21.4	20.0	107	75 - 125
1,1-Dichloroethane (1,1-DCA)	22.2	20.0	111	70 - 135
1,1-Dichloroethene (1,1-DCE)	21.9	20.0	109	70 - 130
1,1-Dichloropropene	22.4	20.0	112	75 - 130
1,2,3-Trichlorobenzene	23.1	20.0	116	75 - 125
1,2,3-Trichloropropane	21.2	20.0	106	75 - 125
1,2,4-Trichlorobenzene	22.8	20.0	114	65 - 135
1,2,4-Trimethylbenzene	21.9	20.0	109	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	18.8	20.0	94	50 - 130
1,2-Dibromoethane	20.2	20.0	101	80 - 120
1,2-Dichlorobenzene	22.0	20.0	110	70 - 120
1,2-Dichloroethane	20.8	20.0	104	70 - 130
1,2-Dichloropropane	22.3	20.0	111	75 - 125
1,3,5-Trimethylbenzene	22.8	20.0	114	75 - 130
1,3-Dichlorobenzene	21.3	20.0	107	75 - 125
1,3-Dichloropropane	21.5	20.0	108	75 - 125
1,4-Dichlorobenzene	21.7	20.0	108	75 - 125
2,2-Dichloropropane	19.5	20.0	98	70 - 135
2-Butanone (MEK)	21.1	20.0	106	30 - 150
2-Chlorotoluene	22.2	20.0	111	75 - 125
2-Hexanone	19.0	20.0	95	55 - 130
tert-Butyl Alcohol	414	400	104	50 - 150
4-Chlorotoluene	22.7	20.0	114	75 - 130
p-Isopropyltoluene	22.5	20.0	113	75 - 130
4-Methyl-2-pentanone	20.0	20.0	100	60 - 135
Acetone	18.9	20.0	95	40 - 140
Benzene	21.9	20.0	109	80 - 120
Bromobenzene	21.6	20.0	108	75 - 125
Bromochloromethane	20.4	20.0	102	65 - 130
Bromodichloromethane	20.5	20.0	102	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Analyzed: 11/24/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 473760

Lab Control Sample
RQ1514665-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	19.0	20.0	95	70 - 130
Bromomethane	20.6	20.0	103	30 - 145
Carbon Tetrachloride	19.9	20.0	100	65 - 140
Chlorobenzene	20.7	20.0	103	80 - 120
Chloroethane	21.7	20.0	108	60 - 135
Chloroform	20.3	20.0	101	65 - 135
Chloromethane	20.3	20.0	102	40 - 125
Dibromochloromethane	20.3	20.0	102	60 - 135
Dichlorodifluoromethane (CFC 12)	22.2	20.0	111	30 - 155
Methylene Chloride	20.1	20.0	100	55 - 140
Ethylbenzene	21.0	20.0	105	75 - 125
Hexachlorobutadiene	23.7	20.0	118	50 - 140
Isopropylbenzene (Cumene)	22.0	20.0	110	75 - 125
Methyl tert-Butyl Ether	20.5	20.0	103	65 - 125
Naphthalene	22.4	20.0	112	55 - 140
Styrene	20.8	20.0	104	65 - 135
Tetrachloroethene (PCE)	21.5	20.0	107	45 - 150
Toluene	21.4	20.0	107	75 - 120
Trichloroethene (TCE)	20.9	20.0	104	70 - 125
Trichlorofluoromethane (CFC 11)	22.3	20.0	111	60 - 145
Vinyl Chloride	21.2	20.0	106	50 - 145
cis-1,2-Dichloroethene	22.0	20.0	110	70 - 125
cis-1,3-Dichloropropene	20.3	20.0	101	70 - 130
m,p-Xylenes	41.6	40.0	104	75 - 130
n-Butylbenzene	22.9	20.0	114	70 - 135
n-Propylbenzene	22.1	20.0	110	70 - 130
o-Xylene	20.6	20.0	103	80 - 120
sec-Butylbenzene	22.0	20.0	110	70 - 125
tert-Butylbenzene	21.9	20.0	109	70 - 130
trans-1,2-Dichloroethene	21.6	20.0	108	60 - 140
trans-1,3-Dichloropropene	20.8	20.0	104	55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Analyzed: 11/30/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474104

Lab Control Sample
RQ1514764-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	20.5	20.0	102	80 - 130
1,1,1-Trichloroethane (TCA)	21.3	20.0	106	65 - 130
1,1,2,2-Tetrachloroethane	19.2	20.0	96	65 - 130
1,1,2-Trichloroethane	20.2	20.0	101	75 - 125
1,1-Dichloroethane (1,1-DCA)	21.6	20.0	108	70 - 135
1,1-Dichloroethene (1,1-DCE)	21.7	20.0	109	70 - 130
1,1-Dichloropropene	22.3	20.0	111	75 - 130
1,2,3-Trichlorobenzene	22.4	20.0	112	75 - 125
1,2,3-Trichloropropane	19.3	20.0	97	75 - 125
1,2,4-Trichlorobenzene	22.4	20.0	112	65 - 135
1,2,4-Trimethylbenzene	21.6	20.0	108	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	18.2	20.0	91	50 - 130
1,2-Dibromoethane	19.5	20.0	97	80 - 120
1,2-Dichlorobenzene	21.2	20.0	106	70 - 120
1,2-Dichloroethane	20.8	20.0	104	70 - 130
1,2-Dichloropropane	22.3	20.0	111	75 - 125
1,3,5-Trimethylbenzene	22.0	20.0	110	75 - 130
1,3-Dichlorobenzene	21.3	20.0	106	75 - 125
1,3-Dichloropropane	20.2	20.0	101	75 - 125
1,4-Dichlorobenzene	21.6	20.0	108	75 - 125
2,2-Dichloropropane	21.6	20.0	108	70 - 135
2-Butanone (MEK)	19.7	20.0	98	30 - 150
2-Chlorotoluene	22.3	20.0	112	75 - 125
2-Hexanone	18.0	20.0	90	55 - 130
tert-Butyl Alcohol	406	400	102	50 - 150
4-Chlorotoluene	21.3	20.0	107	75 - 130
p-Isopropyltoluene	22.5	20.0	113	75 - 130
4-Methyl-2-pentanone	19.6	20.0	98	60 - 135
Acetone	17.1	20.0	85	40 - 140
Benzene	21.4	20.0	107	80 - 120
Bromobenzene	22.0	20.0	110	75 - 125
Bromochloromethane	20.4	20.0	102	65 - 130
Bromodichloromethane	20.8	20.0	104	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Analyzed: 11/30/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474104

Lab Control Sample
RQ1514764-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	19.0	20.0	95	70 - 130
Bromomethane	19.9	20.0	100	30 - 145
Carbon Tetrachloride	21.3	20.0	107	65 - 140
Chlorobenzene	20.6	20.0	103	80 - 120
Chloroethane	20.9	20.0	105	60 - 135
Chloroform	19.9	20.0	100	65 - 135
Chloromethane	19.8	20.0	99	40 - 125
Dibromochloromethane	20.3	20.0	102	60 - 135
Dichlorodifluoromethane (CFC 12)	21.8	20.0	109	30 - 155
Methylene Chloride	19.6	20.0	98	55 - 140
Ethylbenzene	20.5	20.0	102	75 - 125
Hexachlorobutadiene	25.7	20.0	128	50 - 140
Isopropylbenzene (Cumene)	21.4	20.0	107	75 - 125
Methyl tert-Butyl Ether	19.9	20.0	99	65 - 125
Naphthalene	21.5	20.0	108	55 - 140
Styrene	20.8	20.0	104	65 - 135
Tetrachloroethene (PCE)	21.5	20.0	107	45 - 150
Toluene	21.6	20.0	108	75 - 120
Trichloroethene (TCE)	20.3	20.0	102	70 - 125
Trichlorofluoromethane (CFC 11)	22.7	20.0	114	60 - 145
Vinyl Chloride	20.7	20.0	103	50 - 145
cis-1,2-Dichloroethene	20.9	20.0	104	70 - 125
cis-1,3-Dichloropropene	21.1	20.0	105	70 - 130
m,p-Xylenes	41.9	40.0	105	75 - 130
n-Butylbenzene	23.3	20.0	116	70 - 135
n-Propylbenzene	21.5	20.0	108	70 - 130
o-Xylene	20.6	20.0	103	80 - 120
sec-Butylbenzene	21.9	20.0	109	70 - 125
tert-Butylbenzene	21.4	20.0	107	70 - 130
trans-1,2-Dichloroethene	21.2	20.0	106	60 - 140
trans-1,3-Dichloropropene	20.9	20.0	105	55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

December 22, 2015 Service Request No:R1510063

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: FTMM Baseline

Dear Sandra,

Enclosed are the results of the sample(s) submitted to our laboratory November 19, 2015
For your reference, these analyses have been assigned our service request number **R1510063.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7478. You may also contact me via email at Vanessa.Badman@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Vanessa Badman

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

Parsons, Inc.
R1510063

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SDG NARRATIVE

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ALS Environmental

Client:	Parsons, Inc.
Service Request No.:	R1510063
Project:	FTMM Baseline
Date Received:	November 19, 2015
Sample Matrix:	Water
Project/Case No.:	

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Samples were received for analysis at ALS Environmental on 11/19/15. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

Volatile Organics

Samples were analyzed for a site list of Volatile Organics by Methods 5030C/8260C from SW-846.

All Tuning criteria for BFB were within QC limits.

All the initial calibration criteria were met for all analytes.

All Continuing Calibration Verification (CCV) standards were within limits.

All Internal Standard Areas (IS) were within QC limits.

All surrogate standard recoveries were acceptable.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries were within limits..

Site specific QC was within limits except:

R1510063-006
1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, and Styrene were recovered low outside method acceptance limits for the MS and MSD. The RPD associated with these results were within method acceptance limits.
m,p-Xylene and o-Xylene were recovered low outside method acceptance limits for the MSD. The MS and RPD associated with these results were within method acceptance limits.

R1510063-008
1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene,Styrene, m,p-Xylene, and o-Xylene were recovered low outside method acceptance limits for the MS and MSD. The RPD associated with these results were within method acceptance limits

The Method Blanks associated with these samples were free of contamination, except for low level concentrations between the MDL and MRL for the following analytes from the 11/24/15 run; n-Butylbenzene, 1,2,4-Trichlorobenzene, Hexachlorobutadiene, and Napthalnene. The following analytes from the 11/30/15 run had hits between the MDL and MRL; 1,2,4-Trichlorobenzene, Hexachlorobutadiene, and Napthalnene. All affected samples are marked with a J flag.

No other analytical or QC problems were encountered.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 748810-03000	Batch Complete: Yes	Date Revised:
Submission: R1510063	Diskette Requested: No	Date Due: 12/10/15
Client: Parsons Engineering Science	Date: 12/13/15	Protocol: SW846
Client Rep: VBADMAN	Custody Seal: Present/Absent:	Shipping No.:
Project: FTMM Baseline	Chain of Custody: Present/Absent:	SDG #:

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1510063-001	FTMM-68-GW-565MW01-13.0	Water	8260C	11/16/15	11/19/15			
R1510063-002	EB-2015-11-16	Water	8260C	11/16/15	11/19/15			
R1510063-003	FTMM-68-GW-MW02-17.5	Water	8260C	11/17/15	11/19/15			
R1510063-004	FTMM-68-GW-MW102-17.5	Water	8260C	11/17/15	11/19/15			
R1510063-005	FTMM-68-GW-MW02-22.5	Water	8260C	11/17/15	11/19/15			
R1510063-006QC	FTMM-68-GW-MW03-17.5	Water	8260C	11/17/15	11/19/15			
R1510063-007	FTMM-68-GW-MW03-22.5	Water	8260C	11/17/15	11/19/15			
R1510063-008QC	FTMM-68-GW-MW04-20.25	Water	8260C	11/17/15	11/19/15			
R1510063-009	FTMM-68-GW-MW04-25.25	Water	8260C	11/17/15	11/19/15			
R1510063-010	TB-2015-11-18	Water	8260C	11/18/15	11/19/15			
R1510063-011	EB-2015-11-17	Water	8260C	11/17/15	11/19/15			
R1510063-012	EB-2015-11-18	Water	8260C	11/18/15	11/19/15			
R1510063-013	FTMM-68-GW-565MW01D-20.5	Water	8260C	11/17/15	11/19/15			
R1510063-014	FTMM-53-GW-MW02-20.25	Water	8260C	11/17/15	11/19/15			
R1510063-015	FTMM-53-GW-MW02-25.25	Water	8260C	11/17/15	11/19/15			
R1510063-016	FTMM-53-GW-699MW01-11.0	Water	8260C	11/18/15	11/19/15			
R1510063-017	FTMM-53-GW-699MW04-11.5	Water	8260C	11/18/15	11/19/15			
R1510063-018	FTMM-53-GW-699MW104-11.5	Water	8260C	11/18/15	11/19/15			
R1510063-019	FTMM-68-GW-MW01-32.5	Water	8260C	11/18/15	11/19/15			
R1510063-019.R01	FTMM-68-GW-MW01-32.5	Water	8260C	11/18/15	11/19/15			
R1510063-020	FTMM-68-GW-MW101-32.5	Water	8260C	11/18/15	11/19/15			
R1510063-020.R01	FTMM-68-GW-MW101-32.5	Water	8260C	11/18/15	11/19/15			
R1510063-021	FTMM-68-GW-MW01-37.5	Water	8260C	11/18/15	11/19/15			
R1510063-021.R01	FTMM-68-GW-MW01-37.5	Water	8260C	11/18/15	11/19/15			

Folder Comments: DoD reporting ERPTOOLS LOD

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

CHAINS OF CUSTODY

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

32370

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Project Name: FTMM - 2015 Q4 GW Sampling	Project Number: 748810-03000
Project Manager: Cris Grill	Report CC:
Company/Address: Parsons, 100 High Street, Boston, MA 02210	
Phone #: (617) 449-1583	Email: cris.grill@parsons.com
Sampler's Signature: Alex DiIonno	Sampler's Printed Name: Alex DiIonno

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ∘ 8260 ∘ 624 ∘ CLP	GC/MS SVOAs ∘ 8270 ∘ 625	GC VOAs ∘ 8021 ∘ 601/602	PESTICIDES ∘ 8081 ∘ 608	PCBs ∘ 8082 ∘ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOCs+TICs (including EDB+1,2-DCA EPA Method 8260C)							REMARKS/ ALTERNATE DESCRIPTION
FTMM-68-GW-565MW01		11/16/15	1624	GW	3								X							
EB-2015-11-16		11/16/15	1700	EB	3								X							
FTMM-68-GW-MW-02-17.5		11/17/15	1528	GW	3								X							
FTMM-68-GW-MW-102-17.5		11/17/15	1528	GW	3								X							
~~FTMM-68-GW-MW-02-17.5-QA~~		~~11/17/15~~	~~1528~~	~~GW~~									X							
FTMM-68-GW-MW-02-22.5		11/17/15	1613	GW	3								X							
FTMM-68-GW-MW-03-17.5		11/17/15	1317	GW	3								X							
FTMM-68-GW-MW-03-17.5-MS		11/17/15	1317	GW	3								X							
FTMM-68-GW-MW-03-17.5-MSD		11/17/15	1317	GW	3								X							
FTMM-68-GW-MW-03-22.5		11/17/15	1403	GW	3								X							
FTMM-68-GW-MW-04-20.25		11/17/15	1051	GW	3								X							

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: New Jersey

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report w

Edata _____ Yes _____

INVOICE INFORMATION
PO #
BILL TO:

R1510063 5
Parsons, Inc.
FTMM Baseline

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Alex DiIonno	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: Alex DiIonno	Printed Name: [signature]	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Parsons	Firm: AW	Firm	Firm	Firm	Firm
Date/Time: 11/18/15; 1740	Date/Time: 11/19/15 0745	Date/Time	Date/Time	Date/Time	Date/Time

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

32371

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Project Name: FTMM-2015 Q4 GW Sampling	Project Number: 748810-03000
Project Manager: Cris Grill	Report CC:
Company/Address: Parsons 100 High Street Boston, MA 02210	
Phone #: (617) 449-1583	Email: cris.grill@parsons.com
Sampler's Signature: Alex DiTonno	Sampler's Printed Name: Alex DiTonno

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	VOCs+TICs (including EDB+1,2 DCA) @ 4 (attached list)	REMARKS/ ALTERNATE DESCRIPTION
FTMM-68-GW-MW-04-20.25-MS		11/17/15	1051	GW	3	X	
FTMM-68-GW-MW-04-20.25-MSD		11/17/15	1051	GW	3	X	
FTMM-68-GW-MW-04-25.25		11/17/15	1158	GW	3	X	
TB-2015-11-18		11/18/15	—	TB	3	X	
EB-2015-11-17		11/17/15	1700	EB	3	X	
EB-2015-11-18		11/18/15	0900	EB	3	X	
FTMM-68-GW-565MW01D		11/17/15	1055	GW	3	X	
FTMM-53-GW-MW02-20.25		11/17/15	1615	GW	3	X	
FTMM-53-GW-MW02-25.25		11/17/15	1424	GW	3	X	
FTMM-53-GW-699MW01		11/18/15	1332	GW	3	X	
FTMM-53-GW-699MW04		11/18/15	1443	GW	3	X	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Rep
Edata ____ Yes

INVOICE INFORMATION
PO #
BILL TO:

R1510063 5
Parsons, Inc.
FTMM Baseline

STATE WHERE SAMPLES WERE COLLECTED New Jersey

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Alex DiTonno	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Alex DiTonno	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: Parsons	Firm: ALS	Firm:	Firm:	Firm:	Firm:
Date/Time: 11/18/15; 1740	Date/Time: 11/19/15 0945	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Distribution: White - Lab Copy; Yellow - Return to Originator

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ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 3 OF 3

Project Name: FTMM-2015 Q4 GW Sampling
Project Number: 748810-03000
Project Manager: Cris Grill
Report CC:
Company/Address: Parsons, 100 High Street, Boston, MA 02210
Phone #: (617) 449-1583
Email: cris.grill@parsons.com
Sampler's Signature: Alex DiJonno
Sampler's Printed Name: Alex DiJonno

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs • 8260 • 624 • CLP	GC/MS SVOAs • 8270 • 625	GC VOAs • 8021 • 601/602	PESTICIDES • 8081 • 608	PCBs • 8082 • 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOCs+TICs (including EDB+1,2-DCA) EPA Method 8260C							REMARKS/ ALTERNATE DESCRIPTION
FTMM-53-GW-699MW104		11/18/15	1443	GW	3								X							
FTMM-68-GW-MW01-32.5		11/18/15	1425	GW	3								X							
FTMM-68-GW-MW101-32.5		11/18/15	1425	GW	3								X							
FTMM-68-GW-MW01-37.5		11/18/15	1545	GW	3								X							

Alex DiJonno

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: New Jersey

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day

REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation F

Edata ____ Yes

INVOICE INFORMATION
PO #
BILL TO:

R1510063 5
Parsons, Inc.
FTMM Baseline

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Alex DiJonno	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: Alex DiJonno	Printed Name: Gary Lefer	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Parsons	Firm: AS	Firm	Firm	Firm	Firm
Date/Time: 11/18/15; 1740	Date/Time: 11/19/15 0745	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

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R1510063 5
Parsons, Inc.
FTMM Baseline

Cooler Receipt and Preservation Check Form

Project/Client Parsons Folder Number .

Cooler received on 11/19/15 by: Q COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y (N) NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 11/19/15 Time: 0808 ID: IR#3 (IR#5) From: Temp Blank (Sample Bottle)

Observed Temp (°C)	5.4						
Correction Factor (°C)	-1.8						
Corrected Temp (°C)	3.6°						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: Standing Approval Client aware at drop-off Client notified by:

All samples held in storage location: R-002 by Q on 11/19/15 at 0813
5035 samples placed in storage location: by on at

PC Secondary Review: VNB

Cooler Breakdown: Date: 11/19/15 Time: 1237 by: MAR

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	4114070	10/16				

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust:

Bottle lot numbers: S-211-002
Other Comments:

PC Secondary Review: VNB 11/19/15 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r9.doc 9/24/15

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Baseline/748810-03000

Service Request: R1510063

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1510063-001.01					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-001.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-001.03					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1716	In Lab / KRUEST	
		11/24/15	1734	R-001-S12 / BWOJTASIEWICZ	
R1510063-002.01					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-002.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-002.03					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1716	In Lab / KRUEST	
		11/24/15	1734	R-001-S12 / BWOJTASIEWICZ	
R1510063-003.01					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1716	In Lab / KRUEST	
		11/24/15	1734	R-001-S12 / BWOJTASIEWICZ	
R1510063-003.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-003.03					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-004.01					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-004.02					

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Baseline/748810-03000

Service Request: R1510063

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-004.03					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1716	In Lab / KRUEST	
		11/24/15	1734	R-001-S12 / BWOJTASIEWICZ	
R1510063-005.01					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-005.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-005.03					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1716	In Lab / KRUEST	
		11/24/15	1734	R-001-S12 / BWOJTASIEWICZ	
R1510063-006.01					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-006.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-006.03					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1717	In Lab / KRUEST	
		11/24/15	1734	R-001-S12 / BWOJTASIEWICZ	
R1510063-006.04					
		11/19/15	1242	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-006.05					
		11/19/15	1242	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-006.06					
		11/19/15	1242	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Baseline/748810-03000

Service Request: R1510063

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1510063-006.07					
		11/19/15	1242	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-006.08					
		11/19/15	1242	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-006.09					
		11/19/15	1242	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-007.01					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-007.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-007.03					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1716	In Lab / KRUEST	
		11/24/15	1734	R-001-S12 / BWOJTASIEWICZ	
R1510063-008.01					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/30/15	1225	In Lab / KRUEST	
		11/30/15	1721	R-001-S12 / BWOJTASIEWICZ	
R1510063-008.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-008.03					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-008.04					
		11/19/15	1242	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1717	R-001-S12 / BWOJTASIEWICZ	
R1510063-008.05					
		11/19/15	1242	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Baseline/748810-03000

Service Request: R1510063

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1510063-008.06					
		11/19/15	1242	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-008.07					
		11/19/15	1242	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-008.08					
		11/19/15	1242	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-008.09					
		11/19/15	1242	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-009.01					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-009.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-009.03					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1716	In Lab / KRUEST	
		11/24/15	1734	R-001-S12 / BWOJTASIEWICZ	
R1510063-010.01					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-010.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-010.03					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1716	In Lab / KRUEST	
		11/24/15	1734	R-001-S12 / BWOJTASIEWICZ	
R1510063-011.01					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Baseline/748810-03000

Service Request: R1510063

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1510063-011.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-011.03					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1716	In Lab / KRUEST	
		11/24/15	1734	R-001-S12 / BWOJTASIEWICZ	
R1510063-012.01					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-012.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-012.03					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1716	In Lab / KRUEST	
		11/24/15	1734	R-001-S12 / BWOJTASIEWICZ	
R1510063-013.01					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-013.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-013.03					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1716	In Lab / KRUEST	
		11/24/15	1734	R-001-S12 / BWOJTASIEWICZ	
R1510063-014.01					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-014.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-014.03					
	8260C				

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Baseline/748810-03000
Service Request: R1510063

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1717	In Lab / KRUEST	
		11/24/15	1734	R-001-S12 / BWOJTASIEWICZ	
R1510063-015.01					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-015.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-015.03					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1717	In Lab / KRUEST	
		11/24/15	1734	R-001-S12 / BWOJTASIEWICZ	
R1510063-016.01					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-016.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-016.03					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1717	In Lab / KRUEST	
		11/24/15	1734	R-001-S12 / BWOJTASIEWICZ	
R1510063-017.01					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-017.02					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/30/15	1225	In Lab / KRUEST	
		11/30/15	1721	R-001-S12 / BWOJTASIEWICZ	
R1510063-017.03					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1717	In Lab / KRUEST	

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Baseline/748810-03000
Service Request: R1510063

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		11/24/15	1734	R-001-S12 / BWOJTASIEWICZ	
R1510063-018.01					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/30/15	1225	In Lab / KRUEST	
		11/30/15	1721	R-001-S12 / BWOJTASIEWICZ	
R1510063-018.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-018.03					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1717	R-001-S12 / BWOJTASIEWICZ	
R1510063-019.01					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/30/15	1225	In Lab / KRUEST	
		11/30/15	1721	R-001-S12 / BWOJTASIEWICZ	
R1510063-019.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-019.03					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1717	R-001-S12 / BWOJTASIEWICZ	
R1510063-020.01					
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/30/15	1225	In Lab / KRUEST	
		11/30/15	1721	R-001-S12 / BWOJTASIEWICZ	
R1510063-020.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-020.03					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1717	R-001-S12 / BWOJTASIEWICZ	
R1510063-021.01					

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Baseline/748810-03000

Service Request: R1510063

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
	8260C				
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/30/15	1225	In Lab / KRUEST	
		11/30/15	1721	R-001-S12 / BWOJTASIEWICZ	
R1510063-021.02					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
R1510063-021.03					
		11/19/15	1241	SMO / ROCHESTER SMO	
		11/19/15	1243	R-001 / ROCHESTER SMO	
		11/24/15	1717	R-001-S12 / BWOJTASIEWICZ	

ALS Environmental

VOLATILE ORGANICS QC SUMMARY

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15
Date Received: 11/19/15
Date Analyzed: 11/25/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-68-GW-MW03-17.5
Lab Code: R1510063-006

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		FTMM-68-GW-MW03-17.5MS				FTMM-68-GW-MW03-17.5DMS					
		Matrix Spike RQ1514665-05				Duplicate Matrix Spike RQ1514665-06					
Analyte Name	Sample Result	Result	Spike Amount	% Rec		Result	Spike Amount	% Rec		% Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND	46.5	50.0	93		47.9	50.0	96		80 - 130	3	30
1,1,1-Trichloroethane (TCA)	ND	50.8	50.0	102		52.7	50.0	105		65 - 130	4	30
1,1,2,2-Tetrachloroethane	ND	47.7	50.0	95		48.9	50.0	98		65 - 130	3	30
1,1,2-Trichloroethane	ND	47.6	50.0	95		49.5	50.0	99		75 - 125	4	30
1,1-Dichloroethane (1,1-DCA)	ND	53.1	50.0	106		53.9	50.0	108		70 - 135	2	30
1,1-Dichloroethene (1,1-DCE)	ND	49.3	50.0	99		49.3	50.0	99		70 - 130	<1	30
1,1-Dichloropropene	ND	50.6	50.0	101		50.5	50.0	101		75 - 130	<1	30
1,2,3-Trichlorobenzene	ND	41.4	50.0	83		49.0	50.0	98		75 - 125	17	30
1,2,3-Trichloropropane	ND	48.3	50.0	97		51.1	50.0	102		75 - 125	6	30
1,2,4-Trichlorobenzene	ND	43.1	50.0	86		48.4	50.0	97		65 - 135	11	30
1,2,4-Trimethylbenzene	ND	33.3	50.0	67	*	27.8	50.0	56	*	75 - 130	18	30
1,2-Dibromo-3-chloropropane (DBC	ND	42.2	50.0	84		45.1	50.0	90		50 - 130	7	30
1,2-Dibromoethane	ND	46.4	50.0	93		47.5	50.0	95		80 - 120	2	30
1,2-Dichlorobenzene	ND	47.7	50.0	95		49.5	50.0	99		70 - 120	4	30
1,2-Dichloroethane	ND	49.9	50.0	100		51.2	50.0	102		70 - 130	3	30
1,2-Dichloropropane	ND	51.5	50.0	103		54.2	50.0	108		75 - 125	5	30
1,3,5-Trimethylbenzene	ND	29.8	50.0	60	*	23.1	50.0	46	*	75 - 130	26	30
1,3-Dichlorobenzene	ND	47.4	50.0	95		50.1	50.0	100		75 - 125	5	30
1,3-Dichloropropane	ND	48.7	50.0	97		49.5	50.0	99		75 - 125	2	30
1,4-Dichlorobenzene	ND	49.6	50.0	99		51.5	50.0	103		75 - 125	4	30
2,2-Dichloropropane	ND	36.0	50.0	72		37.0	50.0	74		70 - 135	3	30
2-Butanone (MEK)	ND	43.6	50.0	87		44.2	50.0	88		30 - 150	1	30
2-Chlorotoluene	ND	50.3	50.0	101		51.8	50.0	104		75 - 125	3	30
2-Hexanone	ND	43.6	50.0	87		41.9	50.0	84		55 - 130	4	30
tert-Butyl Alcohol	ND	930	1000	93		967	1000	97		50 - 150	4	30
4-Chlorotoluene	ND	47.6	50.0	95		48.0	50.0	96		75 - 130	<1	30
p-Isopropyltoluene	ND	44.0	50.0	88		42.7	50.0	85		75 - 130	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15
Date Received: 11/19/15
Date Analyzed: 11/25/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-68-GW-MW03-17.5
Lab Code: R1510063-006

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		FTMM-68-GW-MW03-17.5MS				FTMM-68-GW-MW03-17.5DMS					
		Matrix Spike RQ1514665-05				Duplicate Matrix Spike RQ1514665-06					
Analyte Name	Sample Result	Result	Spike Amount	% Rec		Result	Spike Amount	% Rec		% Rec Limits	RPD	RPD Limit
4-Methyl-2-pentanone	ND	47.1	50.0	94		47.4	50.0	95		60 - 135	<1	30
Acetone	ND	40.4	50.0	81		42.9	50.0	86		40 - 140	6	30
Benzene	ND	50.5	50.0	101		52.3	50.0	105		80 - 120	3	30
Bromobenzene	ND	49.8	50.0	100		51.4	50.0	103		75 - 125	3	30
Bromochloromethane	ND	47.3	50.0	95		49.1	50.0	98		65 - 130	4	30
Bromodichloromethane	ND	45.5	50.0	91		47.8	50.0	96		75 - 120	5	30
Bromoform	ND	36.0	50.0	72		38.4	50.0	77		70 - 130	6	30
Bromomethane	ND	44.6	50.0	89		47.9	50.0	96		30 - 145	7	30
Carbon Tetrachloride	ND	46.8	50.0	94		46.2	50.0	92		65 - 140	1	30
Chlorobenzene	ND	47.8	50.0	96		49.6	50.0	99		80 - 120	4	30
Chloroethane	ND	51.6	50.0	103		52.6	50.0	105		60 - 135	2	30
Chloroform	ND	48.3	50.0	97		49.0	50.0	98		65 - 135	1	30
Chloromethane	ND	47.1	50.0	94		49.2	50.0	98		40 - 125	4	30
Dibromochloromethane	ND	41.0	50.0	82		44.1	50.0	88		60 - 135	7	30
Dichlorodifluoromethane (CFC 12)	ND	51.8	50.0	104		54.3	50.0	109		30 - 155	5	30
Methylene Chloride	ND	47.4	50.0	95		48.6	50.0	97		55 - 140	2	30
Ethylbenzene	ND	45.7	50.0	91		45.9	50.0	92		75 - 125	<1	30
Hexachlorobutadiene	ND	46.6	50.0	93		52.1	50.0	104		50 - 140	11	30
Isopropylbenzene (Cumene)	ND	47.1	50.0	94		46.9	50.0	94		75 - 125	<1	30
Methyl tert-Butyl Ether	ND	45.5	50.0	91		46.6	50.0	93		65 - 125	2	30
Naphthalene	ND	40.9	50.0	82		47.6	50.0	95		55 - 140	15	30
Styrene	ND	23.4	50.0	47	*	16.9	50.0	34	*	65 - 135	32 *	30
Tetrachloroethene (PCE)	ND	49.1	50.0	98		50.6	50.0	101		45 - 150	3	30
Toluene	ND	46.6	50.0	93		46.4	50.0	93		75 - 120	<1	30
Trichloroethene (TCE)	ND	46.3	50.0	93		48.6	50.0	97		70 - 125	5	30
Trichlorofluoromethane (CFC 11)	ND	52.7	50.0	105		53.7	50.0	107		60 - 145	2	30
Vinyl Chloride	ND	50.1	50.0	100		49.6	50.0	99		50 - 145	1	30

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15
Date Received: 11/19/15
Date Analyzed: 11/25/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-68-GW-MW03-17.5
Lab Code: R1510063-006

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		FTMM-68-GW-MW03-17.5MS				FTMM-68-GW-MW03-17.5DMS					
		Matrix Spike RQ1514665-05				Duplicate Matrix Spike RQ1514665-06					
Analyte Name	Sample Result	Result	Spike Amount	% Rec		Result	Spike Amount	% Rec		% Rec Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	ND	50.8	50.0	102		51.9	50.0	104		70 - 125	2	30
cis-1,3-Dichloropropene	ND	43.9	50.0	88		46.4	50.0	93		70 - 130	6	30
m,p-Xylenes	ND	78.1	100	78		71.8	100	72	*	75 - 130	8	30
n-Butylbenzene	ND	45.5	50.0	91		46.2	50.0	92		70 - 135	2	30
n-Propylbenzene	ND	46.3	50.0	93		46.0	50.0	92		70 - 130	<1	30
o-Xylene	ND	40.4	50.0	81		38.3	50.0	77	*	80 - 120	5	30
sec-Butylbenzene	ND	46.9	50.0	94		47.8	50.0	96		70 - 125	2	30
tert-Butylbenzene	ND	48.8	50.0	98		50.2	50.0	100		70 - 130	3	30
trans-1,2-Dichloroethene	ND	50.0	50.0	100		50.7	50.0	101		60 - 140	1	30
trans-1,3-Dichloropropene	ND	44.7	50.0	89		46.6	50.0	93		55 - 140	4	30

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15
Date Received: 11/19/15
Date Analyzed: 11/30/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-68-GW-MW04-20.25
Lab Code: R1510063-008

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		FTMM-68-GW-MW04-20.25MS Matrix Spike RQ1514764-05				FTMM-68-GW-MW04-20.25DMS Duplicate Matrix Spike RQ1514764-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**		**Result**	**Spike Amount**	**% Rec**		**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1,2-Tetrachloroethane	ND	47.2	50.0	94		49.0	50.0	98		80 - 130	4	30
1,1,1-Trichloroethane (TCA)	ND	50.8	50.0	102		52.6	50.0	105		65 - 130	3	30
1,1,2,2-Tetrachloroethane	ND	48.9	50.0	98		50.8	50.0	102		65 - 130	4	30
1,1,2-Trichloroethane	ND	51.5	50.0	103		52.8	50.0	106		75 - 125	2	30
1,1-Dichloroethane (1,1-DCA)	ND	52.5	50.0	105		54.8	50.0	110		70 - 135	4	30
1,1-Dichloroethene (1,1-DCE)	ND	47.5	50.0	95		48.4	50.0	97		70 - 130	2	30
1,1-Dichloropropene	ND	48.8	50.0	98		50.4	50.0	101		75 - 130	3	30
1,2,3-Trichlorobenzene	ND	48.0	50.0	96		52.3	50.0	105		75 - 125	9	30
1,2,3-Trichloropropane	ND	51.2	50.0	102		53.1	50.0	106		75 - 125	4	30
1,2,4-Trichlorobenzene	ND	47.8	50.0	96		49.5	50.0	99		65 - 135	4	30
1,2,4-Trimethylbenzene	ND	15.9	50.0	32	*	14.9	50.0	30	*	75 - 130	7	30
1,2-Dibromo-3-chloropropane (DBC	ND	47.4	50.0	95		49.1	50.0	98		50 - 130	4	30
1,2-Dibromoethane	ND	48.1	50.0	96		50.2	50.0	100		80 - 120	4	30
1,2-Dichlorobenzene	ND	49.1	50.0	98		50.9	50.0	102		70 - 120	4	30
1,2-Dichloroethane	ND	50.0	50.0	100		53.2	50.0	106		70 - 130	6	30
1,2-Dichloropropane	ND	51.9	50.0	104		54.5	50.0	109		75 - 125	5	30
1,3,5-Trimethylbenzene	ND	12.9	50.0	26	*	12.4	50.0	25	*	75 - 130	4	30
1,3-Dichlorobenzene	ND	48.9	50.0	98		51.1	50.0	102		75 - 125	4	30
1,3-Dichloropropane	ND	51.0	50.0	102		51.3	50.0	103		75 - 125	<1	30
1,4-Dichlorobenzene	ND	50.0	50.0	100		52.5	50.0	105		75 - 125	5	30
2,2-Dichloropropane	ND	47.0	50.0	94		48.4	50.0	97		70 - 135	3	30
2-Butanone (MEK)	ND	48.0	50.0	96		47.7	50.0	95		30 - 150	<1	30
2-Chlorotoluene	ND	49.3	50.0	99		51.4	50.0	103		75 - 125	4	30
2-Hexanone	ND	46.5	50.0	93		47.0	50.0	94		55 - 130	1	30
tert-Butyl Alcohol	ND	1000	1000	100		1030	1000	103		50 - 150	3	30
4-Chlorotoluene	ND	43.3	50.0	87		45.7	50.0	91		75 - 130	5	30
p-Isopropyltoluene	ND	36.3	50.0	73	*	36.4	50.0	73	*	75 - 130	<1	30

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Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15
Date Received: 11/19/15
Date Analyzed: 11/30/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-68-GW-MW04-20.25
Lab Code: R1510063-008

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		FTMM-68-GW-MW04-20.25MS Matrix Spike RQ1514764-05				FTMM-68-GW-MW04-20.25DMS Duplicate Matrix Spike RQ1514764-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**		**Result**	**Spike Amount**	**% Rec**		**% Rec Limits**	**RPD**	**RPD Limit**
4-Methyl-2-pentanone	ND	51.3	50.0	103		52.0	50.0	104		60 - 135	1	30
Acetone	ND	41.3	50.0	83		41.8	50.0	84		40 - 140	1	30
Benzene	ND	50.5	50.0	101		53.4	50.0	107		80 - 120	6	30
Bromobenzene	ND	48.9	50.0	98		52.4	50.0	105		75 - 125	7	30
Bromochloromethane	ND	47.8	50.0	96		48.9	50.0	98		65 - 130	2	30
Bromodichloromethane	ND	46.6	50.0	93		49.1	50.0	98		75 - 120	5	30
Bromoform	ND	37.5	50.0	75		40.2	50.0	80		70 - 130	7	30
Bromomethane	ND	46.1	50.0	92		49.4	50.0	99		30 - 145	7	30
Carbon Tetrachloride	ND	46.8	50.0	94		49.0	50.0	98		65 - 140	5	30
Chlorobenzene	ND	49.2	50.0	98		51.4	50.0	103		80 - 120	4	30
Chloroethane	ND	54.3	50.0	109		54.8	50.0	110		60 - 135	<1	30
Chloroform	ND	48.2	50.0	96		49.4	50.0	99		65 - 135	2	30
Chloromethane	ND	49.1	50.0	98		51.9	50.0	104		40 - 125	6	30
Dibromochloromethane	ND	43.6	50.0	87		45.3	50.0	91		60 - 135	4	30
Dichlorodifluoromethane (CFC 12)	ND	53.5	50.0	107		55.2	50.0	110		30 - 155	3	30
Methylene Chloride	ND	49.0	50.0	98		49.1	50.0	98		55 - 140	<1	30
Ethylbenzene	ND	42.5	50.0	85		42.4	50.0	85		75 - 125	<1	30
Hexachlorobutadiene	ND	46.9	50.0	94		51.5	50.0	103		50 - 140	9	30
Isopropylbenzene (Cumene)	ND	42.2	50.0	84		43.7	50.0	87		75 - 125	3	30
Methyl tert-Butyl Ether	ND	49.1	50.0	98		49.8	50.0	100		65 - 125	1	30
Naphthalene	ND	49.6	50.0	99		52.7	50.0	105		55 - 140	6	30
Styrene	ND	7.50	50.0	15	*	6.65	50.0	13	*	65 - 135	12	30
Tetrachloroethene (PCE)	ND	50.4	50.0	101		51.9	50.0	104		45 - 150	3	30
Toluene	ND	43.0	50.0	86		44.6	50.0	89		75 - 120	4	30
Trichloroethene (TCE)	ND	47.5	50.0	95		49.5	50.0	99		70 - 125	4	30
Trichlorofluoromethane (CFC 11)	ND	53.7	50.0	107		54.7	50.0	109		60 - 145	2	30
Vinyl Chloride	ND	48.9	50.0	98		50.4	50.0	101		50 - 145	3	30

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Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15
Date Received: 11/19/15
Date Analyzed: 11/30/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-68-GW-MW04-20.25
Lab Code: R1510063-008

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		FTMM-68-GW-MW04-20.25MS Matrix Spike RQ1514764-05				FTMM-68-GW-MW04-20.25DMS Duplicate Matrix Spike RQ1514764-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**		**Result**	**Spike Amount**	**% Rec**		**% Rec Limits**	**RPD**	**RPD Limit**
cis-1,2-Dichloroethene	ND	51.1	50.0	102		52.3	50.0	104		70 - 125	2	30
cis-1,3-Dichloropropene	ND	47.7	50.0	95		49.6	50.0	99		70 - 130	4	30
m,p-Xylenes	ND	58.3	100	58	*	58.1	100	58	*	75 - 130	<1	30
n-Butylbenzene	ND	42.2	50.0	84		43.4	50.0	87		70 - 135	3	30
n-Propylbenzene	ND	41.7	50.0	83		43.1	50.0	86		70 - 130	3	30
o-Xylene	ND	32.1	50.0	64	*	32.2	50.0	64	*	80 - 120	<1	30
sec-Butylbenzene	ND	43.2	50.0	86		44.7	50.0	89		70 - 125	3	30
tert-Butylbenzene	ND	47.5	50.0	95		49.5	50.0	99		70 - 130	4	30
trans-1,2-Dichloroethene	ND	48.2	50.0	96		48.8	50.0	98		60 - 140	1	30
trans-1,3-Dichloropropene	ND	48.3	50.0	96		50.6	50.0	101		55 - 140	5	30

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Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Analyzed: 11/24/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 473760

Lab Control Sample
RQ1514665-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	19.9	20.0	99	80 - 130
1,1,1-Trichloroethane (TCA)	20.9	20.0	104	65 - 130
1,1,2,2-Tetrachloroethane	20.5	20.0	103	65 - 130
1,1,2-Trichloroethane	21.4	20.0	107	75 - 125
1,1-Dichloroethane (1,1-DCA)	22.2	20.0	111	70 - 135
1,1-Dichloroethene (1,1-DCE)	21.9	20.0	109	70 - 130
1,1-Dichloropropene	22.4	20.0	112	75 - 130
1,2,3-Trichlorobenzene	23.1	20.0	116	75 - 125
1,2,3-Trichloropropane	21.2	20.0	106	75 - 125
1,2,4-Trichlorobenzene	22.8	20.0	114	65 - 135
1,2,4-Trimethylbenzene	21.9	20.0	109	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	18.8	20.0	94	50 - 130
1,2-Dibromoethane	20.2	20.0	101	80 - 120
1,2-Dichlorobenzene	22.0	20.0	110	70 - 120
1,2-Dichloroethane	20.8	20.0	104	70 - 130
1,2-Dichloropropane	22.3	20.0	111	75 - 125
1,3,5-Trimethylbenzene	22.8	20.0	114	75 - 130
1,3-Dichlorobenzene	21.3	20.0	107	75 - 125
1,3-Dichloropropane	21.5	20.0	108	75 - 125
1,4-Dichlorobenzene	21.7	20.0	108	75 - 125
2,2-Dichloropropane	19.5	20.0	98	70 - 135
2-Butanone (MEK)	21.1	20.0	106	30 - 150
2-Chlorotoluene	22.2	20.0	111	75 - 125
2-Hexanone	19.0	20.0	95	55 - 130
tert-Butyl Alcohol	414	400	104	50 - 150
4-Chlorotoluene	22.7	20.0	114	75 - 130
p-Isopropyltoluene	22.5	20.0	113	75 - 130
4-Methyl-2-pentanone	20.0	20.0	100	60 - 135
Acetone	18.9	20.0	95	40 - 140
Benzene	21.9	20.0	109	80 - 120
Bromobenzene	21.6	20.0	108	75 - 125
Bromochloromethane	20.4	20.0	102	65 - 130
Bromodichloromethane	20.5	20.0	102	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Analyzed: 11/24/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 473760

Analyte Name	Lab Control Sample RQ1514665-03 Result	Spike Amount	% Rec	% Rec Limits
Bromoform	19.0	20.0	95	70 - 130
Bromomethane	20.6	20.0	103	30 - 145
Carbon Tetrachloride	19.9	20.0	100	65 - 140
Chlorobenzene	20.7	20.0	103	80 - 120
Chloroethane	21.7	20.0	108	60 - 135
Chloroform	20.3	20.0	101	65 - 135
Chloromethane	20.3	20.0	102	40 - 125
Dibromochloromethane	20.3	20.0	102	60 - 135
Dichlorodifluoromethane (CFC 12)	22.2	20.0	111	30 - 155
Methylene Chloride	20.1	20.0	100	55 - 140
Ethylbenzene	21.0	20.0	105	75 - 125
Hexachlorobutadiene	23.7	20.0	118	50 - 140
Isopropylbenzene (Cumene)	22.0	20.0	110	75 - 125
Methyl tert-Butyl Ether	20.5	20.0	103	65 - 125
Naphthalene	22.4	20.0	112	55 - 140
Styrene	20.8	20.0	104	65 - 135
Tetrachloroethene (PCE)	21.5	20.0	107	45 - 150
Toluene	21.4	20.0	107	75 - 120
Trichloroethene (TCE)	20.9	20.0	104	70 - 125
Trichlorofluoromethane (CFC 11)	22.3	20.0	111	60 - 145
Vinyl Chloride	21.2	20.0	106	50 - 145
cis-1,2-Dichloroethene	22.0	20.0	110	70 - 125
cis-1,3-Dichloropropene	20.3	20.0	101	70 - 130
m,p-Xylenes	41.6	40.0	104	75 - 130
n-Butylbenzene	22.9	20.0	114	70 - 135
n-Propylbenzene	22.1	20.0	110	70 - 130
o-Xylene	20.6	20.0	103	80 - 120
sec-Butylbenzene	22.0	20.0	110	70 - 125
tert-Butylbenzene	21.9	20.0	109	70 - 130
trans-1,2-Dichloroethene	21.6	20.0	108	60 - 140
trans-1,3-Dichloropropene	20.8	20.0	104	55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Analyzed: 11/30/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474104

Lab Control Sample
RQ1514764-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	20.5	20.0	102	80 - 130
1,1,1-Trichloroethane (TCA)	21.3	20.0	106	65 - 130
1,1,2,2-Tetrachloroethane	19.2	20.0	96	65 - 130
1,1,2-Trichloroethane	20.2	20.0	101	75 - 125
1,1-Dichloroethane (1,1-DCA)	21.6	20.0	108	70 - 135
1,1-Dichloroethene (1,1-DCE)	21.7	20.0	109	70 - 130
1,1-Dichloropropene	22.3	20.0	111	75 - 130
1,2,3-Trichlorobenzene	22.4	20.0	112	75 - 125
1,2,3-Trichloropropane	19.3	20.0	97	75 - 125
1,2,4-Trichlorobenzene	22.4	20.0	112	65 - 135
1,2,4-Trimethylbenzene	21.6	20.0	108	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	18.2	20.0	91	50 - 130
1,2-Dibromoethane	19.5	20.0	97	80 - 120
1,2-Dichlorobenzene	21.2	20.0	106	70 - 120
1,2-Dichloroethane	20.8	20.0	104	70 - 130
1,2-Dichloropropane	22.3	20.0	111	75 - 125
1,3,5-Trimethylbenzene	22.0	20.0	110	75 - 130
1,3-Dichlorobenzene	21.3	20.0	106	75 - 125
1,3-Dichloropropane	20.2	20.0	101	75 - 125
1,4-Dichlorobenzene	21.6	20.0	108	75 - 125
2,2-Dichloropropane	21.6	20.0	108	70 - 135
2-Butanone (MEK)	19.7	20.0	98	30 - 150
2-Chlorotoluene	22.3	20.0	112	75 - 125
2-Hexanone	18.0	20.0	90	55 - 130
tert-Butyl Alcohol	406	400	102	50 - 150
4-Chlorotoluene	21.3	20.0	107	75 - 130
p-Isopropyltoluene	22.5	20.0	113	75 - 130
4-Methyl-2-pentanone	19.6	20.0	98	60 - 135
Acetone	17.1	20.0	85	40 - 140
Benzene	21.4	20.0	107	80 - 120
Bromobenzene	22.0	20.0	110	75 - 125
Bromochloromethane	20.4	20.0	102	65 - 130
Bromodichloromethane	20.8	20.0	104	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Analyzed: 11/30/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474104

Lab Control Sample
RQ1514764-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	19.0	20.0	95	70 - 130
Bromomethane	19.9	20.0	100	30 - 145
Carbon Tetrachloride	21.3	20.0	107	65 - 140
Chlorobenzene	20.6	20.0	103	80 - 120
Chloroethane	20.9	20.0	105	60 - 135
Chloroform	19.9	20.0	100	65 - 135
Chloromethane	19.8	20.0	99	40 - 125
Dibromochloromethane	20.3	20.0	102	60 - 135
Dichlorodifluoromethane (CFC 12)	21.8	20.0	109	30 - 155
Methylene Chloride	19.6	20.0	98	55 - 140
Ethylbenzene	20.5	20.0	102	75 - 125
Hexachlorobutadiene	25.7	20.0	128	50 - 140
Isopropylbenzene (Cumene)	21.4	20.0	107	75 - 125
Methyl tert-Butyl Ether	19.9	20.0	99	65 - 125
Naphthalene	21.5	20.0	108	55 - 140
Styrene	20.8	20.0	104	65 - 135
Tetrachloroethene (PCE)	21.5	20.0	107	45 - 150
Toluene	21.6	20.0	108	75 - 120
Trichloroethene (TCE)	20.3	20.0	102	70 - 125
Trichlorofluoromethane (CFC 11)	22.7	20.0	114	60 - 145
Vinyl Chloride	20.7	20.0	103	50 - 145
cis-1,2-Dichloroethene	20.9	20.0	104	70 - 125
cis-1,3-Dichloropropene	21.1	20.0	105	70 - 130
m,p-Xylenes	41.9	40.0	105	75 - 130
n-Butylbenzene	23.3	20.0	116	70 - 135
n-Propylbenzene	21.5	20.0	108	70 - 130
o-Xylene	20.6	20.0	103	80 - 120
sec-Butylbenzene	21.9	20.0	109	70 - 125
tert-Butylbenzene	21.4	20.0	107	70 - 130
trans-1,2-Dichloroethene	21.2	20.0	106	60 - 140
trans-1,3-Dichloropropene	20.9	20.0	105	55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Analyzed: 11/25/15 00:29

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1514665-04
Instrument ID: R-MS-12
File ID: I:\ACQUDATA\msvoa12\Data\112415\MM8367.D\

Analytical Method: 8260C
Prep Method: EPA 5030C

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1514665-03	I:\ACQUDATA\msvoa12\Data\112415\MM8365.D\	11/24/15 23:29
TB-2015-11-18	R1510063-010	I:\ACQUDATA\msvoa12\Data\112415\MM8368.D\	11/25/15 01:00
EB-2015-11-16	R1510063-002	I:\ACQUDATA\msvoa12\Data\112415\MM8369.D\	11/25/15 01:30
EB-2015-11-17	R1510063-011	I:\ACQUDATA\msvoa12\Data\112415\MM8370.D\	11/25/15 02:00
EB-2015-11-18	R1510063-012	I:\ACQUDATA\msvoa12\Data\112415\MM8371.D\	11/25/15 02:30
FTMM-68-GW-MW02-17.5	R1510063-003	I:\ACQUDATA\msvoa12\Data\112415\MM8372.D\	11/25/15 03:00
FTMM-68-GW-MW102-17.5	R1510063-004	I:\ACQUDATA\msvoa12\Data\112415\MM8373.D\	11/25/15 03:30
FTMM-68-GW-MW02-22.5	R1510063-005	I:\ACQUDATA\msvoa12\Data\112415\MM8374.D\	11/25/15 04:01
FTMM-68-GW-MW03-17.5	R1510063-006	I:\ACQUDATA\msvoa12\Data\112415\MM8375.D\	11/25/15 04:31
FTMM-68-GW-MW03-22.5	R1510063-007	I:\ACQUDATA\msvoa12\Data\112415\MM8376.D\	11/25/15 05:01
FTMM-68-GW-MW04-25.25	R1510063-009	I:\ACQUDATA\msvoa12\Data\112415\MM8377.D\	11/25/15 05:31
FTMM-53-GW-MW02-20.25	R1510063-014	I:\ACQUDATA\msvoa12\Data\112415\MM8378.D\	11/25/15 06:01
FTMM-53-GW-MW02-25.25	R1510063-015	I:\ACQUDATA\msvoa12\Data\112415\MM8379.D\	11/25/15 06:31
FTMM-53-GW-699MW01-11.0	R1510063-016	I:\ACQUDATA\msvoa12\Data\112415\MM8380.D\	11/25/15 07:01
FTMM-68-GW-565MW01-13.0	R1510063-001	I:\ACQUDATA\msvoa12\Data\112415\MM8381.D\	11/25/15 07:32
FTMM-68-GW-565MW01D-20.5	R1510063-013	I:\ACQUDATA\msvoa12\Data\112415\MM8383.D\	11/25/15 08:32
FTMM-68-GW-MW03-17.5MS	RQ1514665-05	I:\ACQUDATA\msvoa12\Data\112415\MM8384.D\	11/25/15 09:02
FTMM-68-GW-MW03-17.5DMS	RQ1514665-06	I:\ACQUDATA\msvoa12\Data\112415\MM8385.D\	11/25/15 09:32

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Analyzed: 11/30/15 12:34

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1514764-04
Instrument ID: R-MS-12
File ID: I:\ACQUDATA\MSVOA12\DATA\113015\MM8394.D\

Analytical Method: 8260C
Prep Method: EPA 5030C

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1514764-03	I:\ACQUDATA\MSVOA12\DATA\113015\MM8392.D\	11/30/15 11:33
FTMM-68-GW-MW04-20.25	R1510063-008	I:\ACQUDATA\MSVOA12\DATA\113015\MM8398.D\	11/30/15 14:36
FTMM-68-GW-MW01-32.5	R1510063-019	I:\ACQUDATA\MSVOA12\DATA\113015\MM8400.D\	11/30/15 15:38
FTMM-68-GW-MW101-32.5	R1510063-020	I:\ACQUDATA\MSVOA12\DATA\113015\MM8401.D\	11/30/15 16:08
FTMM-68-GW-MW01-37.5	R1510063-021	I:\ACQUDATA\MSVOA12\DATA\113015\MM8402.D\	11/30/15 16:39
FTMM-53-GW-699MW04-11.5	R1510063-017	I:\ACQUDATA\MSVOA12\DATA\113015\MM8404.D\	11/30/15 17:41
FTMM-53-GW-699MW104-11.5	R1510063-018	I:\ACQUDATA\MSVOA12\DATA\113015\MM8405.D\	11/30/15 18:11
FTMM-68-GW-MW01-32.5	R1510063-019	I:\ACQUDATA\MSVOA12\DATA\113015\MM8406.D\	11/30/15 18:42
FTMM-68-GW-MW101-32.5	R1510063-020	I:\ACQUDATA\MSVOA12\DATA\113015\MM8407.D\	11/30/15 19:13
FTMM-68-GW-MW01-37.5	R1510063-021	I:\ACQUDATA\MSVOA12\DATA\113015\MM8408.D\	11/30/15 19:43
FTMM-68-GW-MW04-20.25MS	RQ1514764-05	I:\ACQUDATA\MSVOA12\DATA\113015\MM8411.D\	11/30/15 21:15
FTMM-68-GW-MW04-20.25DMS	RQ1514764-06	I:\ACQUDATA\MSVOA12\DATA\113015\MM8412.D\	11/30/15 21:46

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000

Service Request: R1510063
Date Analyzed: 11/18/15 15:38

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\111815\MM8183.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot:

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	18.3	72096	Pass
75	95	30	60	46.3	182827	Pass
95	95	100	100	100.0	394581	Pass
96	95	5	9	6.6	26025	Pass
173	174	0	2	1.3	3492	Pass
174	95	50	120	69.7	275072	Pass
175	174	5	9	7.4	20478	Pass
176	174	95	101	96.8	266389	Pass
177	176	5	9	6.9	18350	Pass

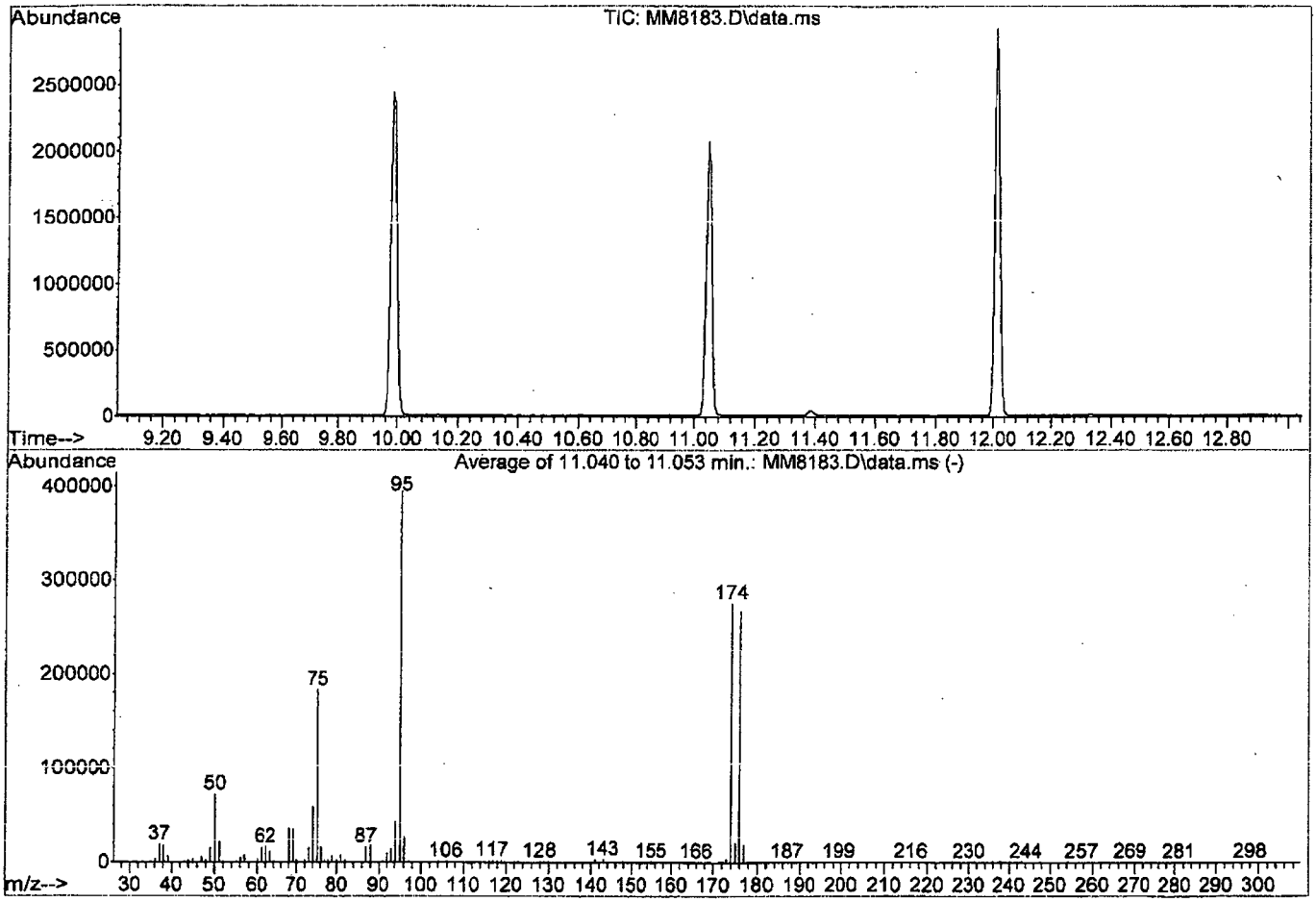
Sample Name	Lab Code	File ID	Date Analyzed	Q
Initial CalibrationICAL	0.5 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8185.D\	11/18/15 16:40	
Initial CalibrationICAL	1.0 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8186.D\	11/18/15 17:10	
Initial CalibrationICAL	2.0 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8187.D\	11/18/15 17:41	
Initial CalibrationICAL	5.0 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8188.D\	11/18/15 18:11	
Initial CalibrationICAL	20 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8189.D\	11/18/15 18:42	
Initial CalibrationICAL	50 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8190.D\	11/18/15 19:12	
Initial CalibrationICAL	100 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8191.D\	11/18/15 19:43	
Initial CalibrationICAL	150 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8192.D\	11/18/15 20:14	
Initial CalibrationICAL	200 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8193.D\	11/18/15 20:45	

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8183.D
Acq On : 18 Nov 2015 3:38 pm
Operator : K.Ruest
Sample : TUNE Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Thu Aug 27 10:55:02 2015

KR 11/18/15



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	72096	PASS
75	95	30	60	46.3	182827	PASS
95	95	100	100	100.0	394581	PASS
96	95	5	9	6.6	26025	PASS
173	174	0.00	2	1.3	3492	PASS
174	95	50	120	69.7	275072	PASS
175	174	5	9	7.4	20478	PASS
176	174	95	101	96.8	266389	PASS
177	176	5	9	6.9	18350	PASS

W111815.M Wed Nov 18 16:27:30 2015 Page: 1

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000

Service Request: R1510063
Date Analyzed: 11/24/15 22:28

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\112415\MM8363.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 473760

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	18.81	76027	Pass
75	95	30	60	48.05	194197	Pass
95	95	100	100	100.00	404117	Pass
96	95	5	9	7.00	28293	Pass
173	174	0	2	1.22	3574	Pass
174	95	50	120	72.27	292075	Pass
175	174	5	9	7.64	22320	Pass
176	174	95	101	96.58	282091	Pass
177	176	5	9	6.39	18036	Pass

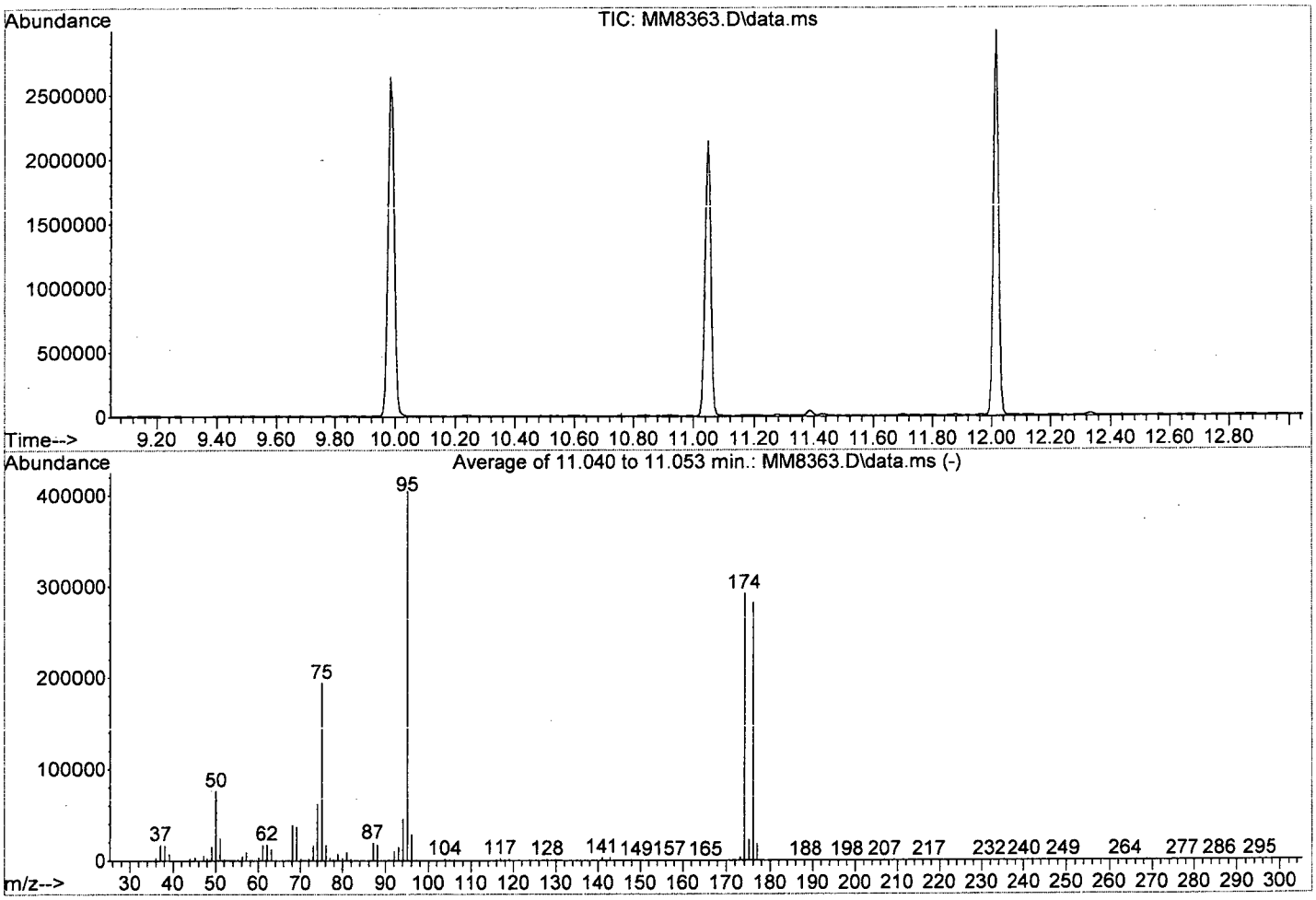
Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1514665-02	I:\ACQUDATA\msvoa12\Data\112415\MM8364.D\	11/24/15 23:01	
Lab Control Sample	RQ1514665-03	I:\ACQUDATA\msvoa12\Data\112415\MM8365.D\	11/24/15 23:29	
Method Blank	RQ1514665-04	I:\ACQUDATA\msvoa12\Data\112415\MM8367.D\	11/25/15 00:29	
TB-2015-11-18	R1510063-010	I:\ACQUDATA\msvoa12\Data\112415\MM8368.D\	11/25/15 01:00	
EB-2015-11-16	R1510063-002	I:\ACQUDATA\msvoa12\Data\112415\MM8369.D\	11/25/15 01:30	
EB-2015-11-17	R1510063-011	I:\ACQUDATA\msvoa12\Data\112415\MM8370.D\	11/25/15 02:00	
EB-2015-11-18	R1510063-012	I:\ACQUDATA\msvoa12\Data\112415\MM8371.D\	11/25/15 02:30	
FTMM-68-GW-MW02-17.5	R1510063-003	I:\ACQUDATA\msvoa12\Data\112415\MM8372.D\	11/25/15 03:00	
FTMM-68-GW-MW102-17.5	R1510063-004	I:\ACQUDATA\msvoa12\Data\112415\MM8373.D\	11/25/15 03:30	
FTMM-68-GW-MW02-22.5	R1510063-005	I:\ACQUDATA\msvoa12\Data\112415\MM8374.D\	11/25/15 04:01	
FTMM-68-GW-MW03-17.5	R1510063-006	I:\ACQUDATA\msvoa12\Data\112415\MM8375.D\	11/25/15 04:31	
FTMM-68-GW-MW03-22.5	R1510063-007	I:\ACQUDATA\msvoa12\Data\112415\MM8376.D\	11/25/15 05:01	
FTMM-68-GW-MW04-25.25	R1510063-009	I:\ACQUDATA\msvoa12\Data\112415\MM8377.D\	11/25/15 05:31	
FTMM-53-GW-MW02-20.25	R1510063-014	I:\ACQUDATA\msvoa12\Data\112415\MM8378.D\	11/25/15 06:01	
FTMM-53-GW-MW02-25.25	R1510063-015	I:\ACQUDATA\msvoa12\Data\112415\MM8379.D\	11/25/15 06:31	
FTMM-53-GW-699MW01-11.0	R1510063-016	I:\ACQUDATA\msvoa12\Data\112415\MM8380.D\	11/25/15 07:01	
FTMM-68-GW-565MW01-13.0	R1510063-001	I:\ACQUDATA\msvoa12\Data\112415\MM8381.D\	11/25/15 07:32	
FTMM-68-GW-565MW01D-20.5	R1510063-013	I:\ACQUDATA\msvoa12\Data\112415\MM8383.D\	11/25/15 08:32	
FTMM-68-GW-MW03-17.5MS	RQ1514665-05	I:\ACQUDATA\msvoa12\Data\112415\MM8384.D\	11/25/15 09:02	
FTMM-68-GW-MW03-17.5DMS	RQ1514665-06	I:\ACQUDATA\msvoa12\Data\112415\MM8385.D\	11/25/15 09:32	

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8363.D
Acq On : 24 Nov 2015 10:28 pm
Operator : K.Ruest
Sample : TUNE 280-114665-01 Inst : MSVOA-12
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Nov 25 09:49:52 2015

KR 11/25/15



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1625

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.8	76027	PASS
75	95	30	60	48.1	194197	PASS
95	95	100	100	100.0	404117	PASS
96	95	5	9	7.0	28293	PASS
173	174	0.00	2	1.2	3574	PASS
174	95	50	120	72.3	292075	PASS
175	174	5	9	7.6	22320	PASS
176	174	95	101	96.6	282091	PASS
177	176	5	9	6.4	18036	PASS

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000

Service Request: R1510063
Date Analyzed: 11/30/15 10:32

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\113015\MM8390.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 474104

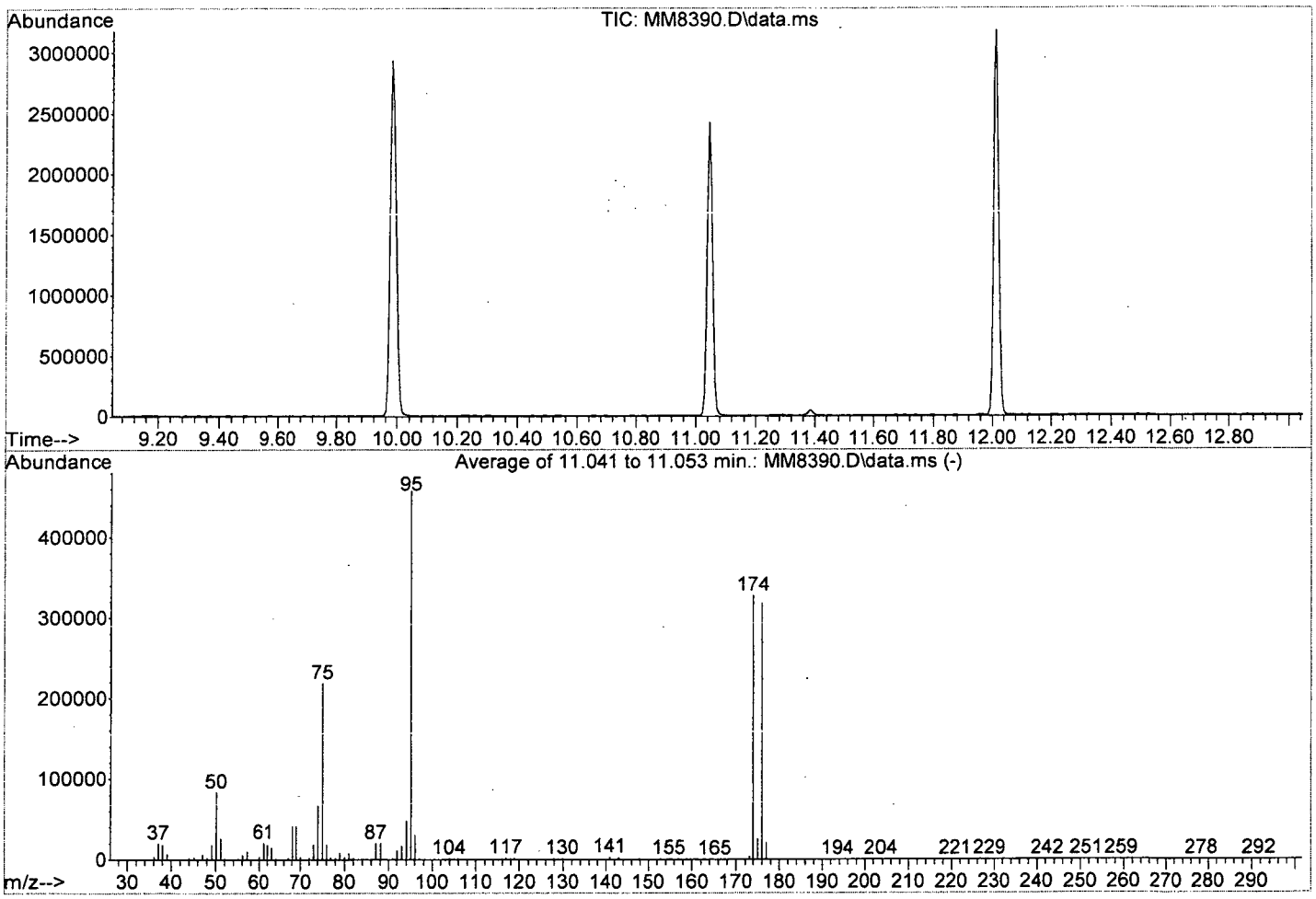
Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	18.14	83051	Pass
75	95	30	60	47.73	218496	Pass
95	95	100	100	100.00	457749	Pass
96	95	5	9	6.61	30259	Pass
173	174	0	2	1.17	3826	Pass
174	95	50	120	71.53	327424	Pass
175	174	5	9	7.61	24928	Pass
176	174	95	101	96.98	317547	Pass
177	176	5	9	6.50	20646	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1514764-02	I:\ACQUDATA\MSVOA12\DATA\113015\MM8391.D\	11/30/15 11:02	
Lab Control Sample	RQ1514764-03	I:\ACQUDATA\MSVOA12\DATA\113015\MM8392.D\	11/30/15 11:33	
Method Blank	RQ1514764-04	I:\ACQUDATA\MSVOA12\DATA\113015\MM8394.D\	11/30/15 12:34	
FTMM-68-GW-MW04-20.25	R1510063-008	I:\ACQUDATA\MSVOA12\DATA\113015\MM8398.D\	11/30/15 14:36	
FTMM-68-GW-MW01-32.5	R1510063-019	I:\ACQUDATA\MSVOA12\DATA\113015\MM8400.D\	11/30/15 15:38	
FTMM-68-GW-MW101-32.5	R1510063-020	I:\ACQUDATA\MSVOA12\DATA\113015\MM8401.D\	11/30/15 16:08	
FTMM-68-GW-MW01-37.5	R1510063-021	I:\ACQUDATA\MSVOA12\DATA\113015\MM8402.D\	11/30/15 16:39	
FTMM-53-GW-699MW04-11.5	R1510063-017	I:\ACQUDATA\MSVOA12\DATA\113015\MM8404.D\	11/30/15 17:41	
FTMM-53-GW-699MW104-11.5	R1510063-018	I:\ACQUDATA\MSVOA12\DATA\113015\MM8405.D\	11/30/15 18:11	
FTMM-68-GW-MW01-32.5	R1510063-019	I:\ACQUDATA\MSVOA12\DATA\113015\MM8406.D\	11/30/15 18:42	
FTMM-68-GW-MW101-32.5	R1510063-020	I:\ACQUDATA\MSVOA12\DATA\113015\MM8407.D\	11/30/15 19:13	
FTMM-68-GW-MW01-37.5	R1510063-021	I:\ACQUDATA\MSVOA12\DATA\113015\MM8408.D\	11/30/15 19:43	
FTMM-68-GW-MW04-20.25MS	RQ1514764-05	I:\ACQUDATA\MSVOA12\DATA\113015\MM8411.D\	11/30/15 21:15	
FTMM-68-GW-MW04-20.25DMS	RQ1514764-06	I:\ACQUDATA\MSVOA12\DATA\113015\MM8412.D\	11/30/15 21:46	

Data Path : I:\ACQUDATA\MSVOA12\Data\113015\
Data File : MM8390.D
Acq On : 30 Nov 2015 10:32 am
Operator : K.Ruest
Sample : TUNE RQ1514764-01 Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Nov 25 09:49:52 2015



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1625

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.1	83051	PASS
75	95	30	60	47.7	218496	PASS
95	95	100	100	100.0	457749	PASS
96	95	5	9	6.6	30259	PASS
173	174	0.00	2	1.2	3826	PASS
174	95	50	120	71.5	327424	PASS
175	174	5	9	7.6	24928	PASS
176	174	95	101	97.0	317547	PASS
177	176	5	9	6.5	20646	PASS

W111815A.M Mon Nov 30 11:22:58 2015 Page: 1

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000

Service Request: R1510063
Date Analyzed: 11/24/15 23:01

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\112415\MM8364.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1514665-02
Analysis Lot: 473760
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	565,535	12.02	1,290,657	6.77	1,209,495	9.99
	Upper Limit ==>	1,131,070	12.52	2,581,314	7.27	2,418,990	10.49
	Lower Limit ==>	282,768	11.52	645,329	6.27	604,748	9.49
	ICAL Result ==>	553,929	12.02	1,221,940	6.77	1,154,458	9.99
Associated Analyses							
Lab Control Sample	RQ1514665-03	562,911	12.02	1,293,508	6.77	1,206,845	9.99
Method Blank	RQ1514665-04	575,789	12.02	1,333,340	6.77	1,217,326	9.99
TB-2015-11-18	R1510063-010	555,005	12.02	1,344,647	6.77	1,212,657	9.99
EB-2015-11-16	R1510063-002	572,382	12.02	1,350,113	6.77	1,212,042	9.99
EB-2015-11-17	R1510063-011	571,192	12.02	1,342,650	6.77	1,229,598	9.99
EB-2015-11-18	R1510063-012	576,617	12.02	1,346,517	6.77	1,219,402	9.99
FTMM-68-GW-MW02-17.5	R1510063-003	573,794	12.02	1,337,661	6.77	1,209,122	9.99
FTMM-68-GW-MW102-17.5	R1510063-004	578,385	12.02	1,326,487	6.77	1,216,881	9.99
FTMM-68-GW-MW02-22.5	R1510063-005	582,183	12.02	1,324,373	6.77	1,218,034	9.99
FTMM-68-GW-MW03-17.5	R1510063-006	580,263	12.02	1,317,071	6.77	1,212,488	9.99
FTMM-68-GW-MW03-22.5	R1510063-007	583,158	12.02	1,331,600	6.77	1,218,175	9.99
FTMM-68-GW-MW04-25.25	R1510063-009	579,666	12.02	1,318,056	6.77	1,203,938	9.99
FTMM-53-GW-MW02-20.25	R1510063-014	581,475	12.02	1,337,936	6.77	1,207,818	9.99
FTMM-53-GW-MW02-25.25	R1510063-015	578,719	12.02	1,344,776	6.77	1,211,823	9.99
FTMM-53-GW-699MW01-11.0	R1510063-016	585,777	12.02	1,353,515	6.77	1,218,076	9.99
FTMM-68-GW-565MW01-13.0	R1510063-001	578,238	12.02	1,339,722	6.77	1,210,278	9.99
FTMM-68-GW-565MW01D-20.5	R1510063-013	569,911	12.02	1,326,511	6.77	1,210,759	9.99
FTMM-68-GW-MW03-17.5MS	RQ1514665-05	560,504	12.02	1,303,781	6.77	1,211,110	9.99
FTMM-68-GW-MW03-17.5DMS	RQ1514665-06	560,531	12.02	1,283,779	6.77	1,200,729	9.99

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000

Service Request: R1510063
Date Analyzed: 11/24/15 23:01

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\112415\MM8364.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1514665-02
Analysis Lot: 473760
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	770,893	5.74
	Upper Limit ==>	1,541,786	6.24
	Lower Limit ==>	385,447	5.24
	ICAL Result ==>	733,125	5.74
Associated Analyses			
Lab Control Sample	RQ1514665-03	774,066	5.74
Method Blank	RQ1514665-04	803,317	5.74
TB-2015-11-18	R1510063-010	805,141	5.74
EB-2015-11-16	R1510063-002	819,413	5.74
EB-2015-11-17	R1510063-011	803,297	5.74
EB-2015-11-18	R1510063-012	805,300	5.74
FTMM-68-GW-MW02-17.5	R1510063-003	803,332	5.74
FTMM-68-GW-MW102-17.5	R1510063-004	810,901	5.74
FTMM-68-GW-MW02-22.5	R1510063-005	797,585	5.74
FTMM-68-GW-MW03-17.5	R1510063-006	810,738	5.74
FTMM-68-GW-MW03-22.5	R1510063-007	798,425	5.74
FTMM-68-GW-MW04-25.25	R1510063-009	789,689	5.74
FTMM-53-GW-MW02-20.25	R1510063-014	806,390	5.74
FTMM-53-GW-MW02-25.25	R1510063-015	809,774	5.74
FTMM-53-GW-699MW01-11.0	R1510063-016	810,129	5.74
FTMM-68-GW-565MW01-13.0	R1510063-001	799,433	5.74
FTMM-68-GW-565MW01D-20.5	R1510063-013	803,856	5.73
FTMM-68-GW-MW03-17.5MS	RQ1514665-05	760,022	5.74
FTMM-68-GW-MW03-17.5DMS	RQ1514665-06	761,225	5.74

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000

Service Request: R1510063
Date Analyzed: 11/30/15 11:02

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA12\DATA\113015\MM8391.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1514764-02
Analysis Lot: 474104
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	RT	Area	RT	Area	RT
	Results ==>	618,347	12.02	1,390,239	6.77	1,285,134	9.99
	Upper Limit ==>	1,236,694	12.52	2,780,478	7.27	2,570,268	10.49
	Lower Limit ==>	309,174	11.52	695,120	6.27	642,567	9.49
	ICAL Result ==>	553,929	12.02	1,221,940	6.77	1,154,458	9.99
Associated Analyses							
Lab Control Sample	RQ1514764-03	609,474	12.02	1,375,414	6.77	1,285,950	9.99
Method Blank	RQ1514764-04	630,849	12.02	1,396,437	6.77	1,271,410	9.99
FTMM-68-GW-MW04-20.25	R1510063-008	602,123	12.02	1,350,566	6.77	1,245,951	9.99
FTMM-68-GW-MW01-32.5	R1510063-019	594,300	12.02	1,312,001	6.77	1,196,513	9.99
FTMM-68-GW-MW101-32.5	R1510063-020	613,886	12.02	1,343,246	6.77	1,219,371	9.99
FTMM-68-GW-MW01-37.5	R1510063-021	605,896	12.02	1,336,542	6.77	1,218,730	9.99
FTMM-53-GW-699MW04-11.5	R1510063-017	597,098	12.02	1,306,876	6.77	1,224,865	9.99
FTMM-53-GW-699MW104-11.5	R1510063-018	592,639	12.02	1,319,453	6.77	1,212,134	9.99
FTMM-68-GW-MW01-32.5	R1510063-019	580,830	12.02	1,295,334	6.77	1,156,656	9.99
FTMM-68-GW-MW101-32.5	R1510063-020	587,771	12.02	1,302,709	6.77	1,186,718	9.99
FTMM-68-GW-MW01-37.5	R1510063-021	590,809	12.02	1,293,731	6.77	1,165,426	9.99
FTMM-68-GW-MW04-20.25MS	RQ1514764-05	593,381	12.02	1,280,058	6.77	1,204,617	9.99
FTMM-68-GW-MW04-20.25DMS	RQ1514764-06	587,065	12.02	1,273,657	6.77	1,203,711	9.99

Results flagged with an asterisk (*) indicate values outside control criteria.

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QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000

Service Request: R1510063
Date Analyzed: 11/30/15 11:02

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA12\DATA\113015\MM8391.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1514764-02
Analysis Lot: 474104
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	832,235	5.74
	Upper Limit ==>	1,664,470	6.24
	Lower Limit ==>	416,118	5.24
	ICAL Result ==>	733,125	5.74
Associated Analyses			
Lab Control Sample	RQ1514764-03	831,780	5.74
Method Blank	RQ1514764-04	853,488	5.74
FTMM-68-GW-MW04-20.25	R1510063-008	835,644	5.74
FTMM-68-GW-MW01-32.5	R1510063-019	823,707	5.74
FTMM-68-GW-MW101-32.5	R1510063-020	819,282	5.74
FTMM-68-GW-MW01-37.5	R1510063-021	824,149	5.74
FTMM-53-GW-699MW04-11.5	R1510063-017	792,453	5.74
FTMM-53-GW-699MW104-11.5	R1510063-018	791,446	5.74
FTMM-68-GW-MW01-32.5	R1510063-019	811,354	5.74
FTMM-68-GW-MW101-32.5	R1510063-020	824,643	5.74
FTMM-68-GW-MW01-37.5	R1510063-021	830,761	5.74
FTMM-68-GW-MW04-20.25MS	RQ1514764-05	756,341	5.74
FTMM-68-GW-MW04-20.25DMS	RQ1514764-06	765,314	5.74

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Environmental

VOLATILE ORGANICS SAMPLE DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/16/15 1624
Date Received: 11/19/15

Sample Name: FTMM-68-GW-565MW01-13.0
Lab Code: R1510063-001

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	13	2.5	0.55	2.5	NA	11/25/15 07:32		473760	
1,1,1-Trichloroethane (TCA)	ND	U	13	2.5	0.90	2.5	NA	11/25/15 07:32		473760	
1,1,2,2-Tetrachloroethane	ND	U	13	2.5	0.63	2.5	NA	11/25/15 07:32		473760	
1,1,2-Trichloroethane	ND	U	13	2.5	0.86	2.5	NA	11/25/15 07:32		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	13	2.5	1.5	2.5	NA	11/25/15 07:32		473760	
1,1-Dichloropropene	ND	U	13	2.5	0.73	2.5	NA	11/25/15 07:32		473760	
1,2,3-Trichlorobenzene	ND	U	13	2.5	2.1	2.5	NA	11/25/15 07:32		473760	
1,2,3-Trichloropropane	ND	U	13	2.5	1.8	2.5	NA	11/25/15 07:32		473760	
1,2,4-Trichlorobenzene	ND	U	13	2.5	0.58	2.5	NA	11/25/15 07:32		473760	
1,2,4-Trimethylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	13	2.5	1.9	2.5	NA	11/25/15 07:32		473760	
1,2-Dibromoethane	ND	U	13	2.5	0.60	2.5	NA	11/25/15 07:32		473760	
1,2-Dichlorobenzene	ND	U	13	2.5	0.53	2.5	NA	11/25/15 07:32		473760	
1,2-Dichloroethane	ND	U	13	2.5	0.90	2.5	NA	11/25/15 07:32		473760	
1,2-Dichloropropane	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
1,3,5-Trimethylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
1,3-Dichlorobenzene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
1,3-Dichloropropane	ND	U	13	2.5	0.68	2.5	NA	11/25/15 07:32		473760	
1,4-Dichlorobenzene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
2,2-Dichloropropane	ND	U	13	2.5	0.68	2.5	NA	11/25/15 07:32		473760	
2-Butanone (MEK)	ND	U	13	2.5	2.1	2.5	NA	11/25/15 07:32		473760	
2-Chlorotoluene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
2-Hexanone	ND	U	13	13	4.2	2.5	NA	11/25/15 07:32		473760	
tert-Butyl Alcohol	ND	U	250	50	27	2.5	NA	11/25/15 07:32		473760	
4-Chlorotoluene	ND	U	13	2.5	0.60	2.5	NA	11/25/15 07:32		473760	
p-Isopropyltoluene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
4-Methyl-2-pentanone	ND	U	13	2.5	1.7	2.5	NA	11/25/15 07:32		473760	
Acetone	ND	U	13	13	3.1	2.5	NA	11/25/15 07:32		473760	
Benzene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
Bromobenzene	ND	U	13	2.5	0.71	2.5	NA	11/25/15 07:32		473760	
Bromochloromethane	ND	U	13	2.5	0.80	2.5	NA	11/25/15 07:32		473760	
Bromodichloromethane	ND	U	13	2.5	0.80	2.5	NA	11/25/15 07:32		473760	
Bromoform	ND	U	13	2.5	1.1	2.5	NA	11/25/15 07:32		473760	
Bromomethane	ND	U	13	2.5	0.73	2.5	NA	11/25/15 07:32		473760	
Carbon Tetrachloride	ND	U	13	2.5	1.2	2.5	NA	11/25/15 07:32		473760	
Chlorobenzene	ND	U	13	2.5	0.73	2.5	NA	11/25/15 07:32		473760	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/16/15 1624
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-565MW01-13.0	**Units:**	µg/L
Lab Code:	R1510063-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	13	2.5	0.60	2.5	NA	11/25/15 07:32		473760	
Chloroform	**0.80**	J	13	2.5	0.63	2.5	NA	11/25/15 07:32		473760	
Chloromethane	ND	U	13	2.5	0.53	2.5	NA	11/25/15 07:32		473760	
Dibromochloromethane	ND	U	13	2.5	0.78	2.5	NA	11/25/15 07:32		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	13	2.5	1.2	2.5	NA	11/25/15 07:32		473760	
Methylene Chloride	ND	U	13	2.5	1.5	2.5	NA	11/25/15 07:32		473760	
Ethylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
Hexachlorobutadiene	ND	U	13	2.5	1.6	2.5	NA	11/25/15 07:32		473760	
Isopropylbenzene (Cumene)	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
Methyl tert-Butyl Ether	ND	U	13	2.5	0.73	2.5	NA	11/25/15 07:32		473760	
Naphthalene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
Styrene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
Tetrachloroethene (PCE)	**220**		13	2.5	0.75	2.5	NA	11/25/15 07:32		473760	
Toluene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
Trichloroethene (TCE)	**62**		13	2.5	0.55	2.5	NA	11/25/15 07:32		473760	
Trichlorofluoromethane (CFC 11)	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
Vinyl Chloride	**4.6**	J	13	2.5	0.80	2.5	NA	11/25/15 07:32		473760	
cis-1,2-Dichloroethene	**76**		13	2.5	0.75	2.5	NA	11/25/15 07:32		473760	
cis-1,3-Dichloropropene	ND	U	13	2.5	0.60	2.5	NA	11/25/15 07:32		473760	
m,p-Xylenes	ND	U	25	5.0	0.83	2.5	NA	11/25/15 07:32		473760	
n-Butylbenzene	ND	U	13	2.5	0.53	2.5	NA	11/25/15 07:32		473760	
n-Propylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
o-Xylene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
sec-Butylbenzene	ND	U	13	2.5	0.68	2.5	NA	11/25/15 07:32		473760	
tert-Butylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	
trans-1,2-Dichloroethene	ND	U	13	2.5	0.83	2.5	NA	11/25/15 07:32		473760	
trans-1,3-Dichloropropene	ND	U	13	2.5	0.50	2.5	NA	11/25/15 07:32		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/25/15 07:32	
Dibromofluoromethane	109	85-115	11/25/15 07:32	
Toluene-d8	111	85-120	11/25/15 07:32	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/16/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0732

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-565MW01-13.0	**Units:**	µg/L
Lab Code:	R1510063-001	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8381.D
Acq On : 25 Nov 2015 7:32 am
Operator : K.Ruest 001 (KR)
Sample : R1510063-~~010~~|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Dec 03 10:04:22 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	799433	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1339722	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1210278	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	578238	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	380548	54.63	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery =	109.26%			
48) surr1,1,2-dichloroetha...	6.096	65	412938	53.67	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery =	107.34%			
65) SURR3,Toluene-d8	8.529	98	1620380	55.28	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery =	110.56%			
70) SURR2,BFB	11.047	95	608581	55.00	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery =	110.00%			
Target Compounds							Qvalue
4) Vinyl Chloride	1.433	62	22801	1.82	ppb		97
13) 1,1-Diclethene	2.432	96	3485	0.52	ppb	#	79
26) trans-1,2-Dichloroethene	3.237	96	2080m	0.29	ppb		
34) cis-1,2-Dichloroethene	4.719	96	243296	30.53	ppb		89
40) Chloroform	5.316	83	3949m	0.32	ppb		
54) Trichloroethene	7.078	130	186396	24.88	ppb		93
72) Tetrachloroethene	9.181	164	438643	87.38	ppb		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

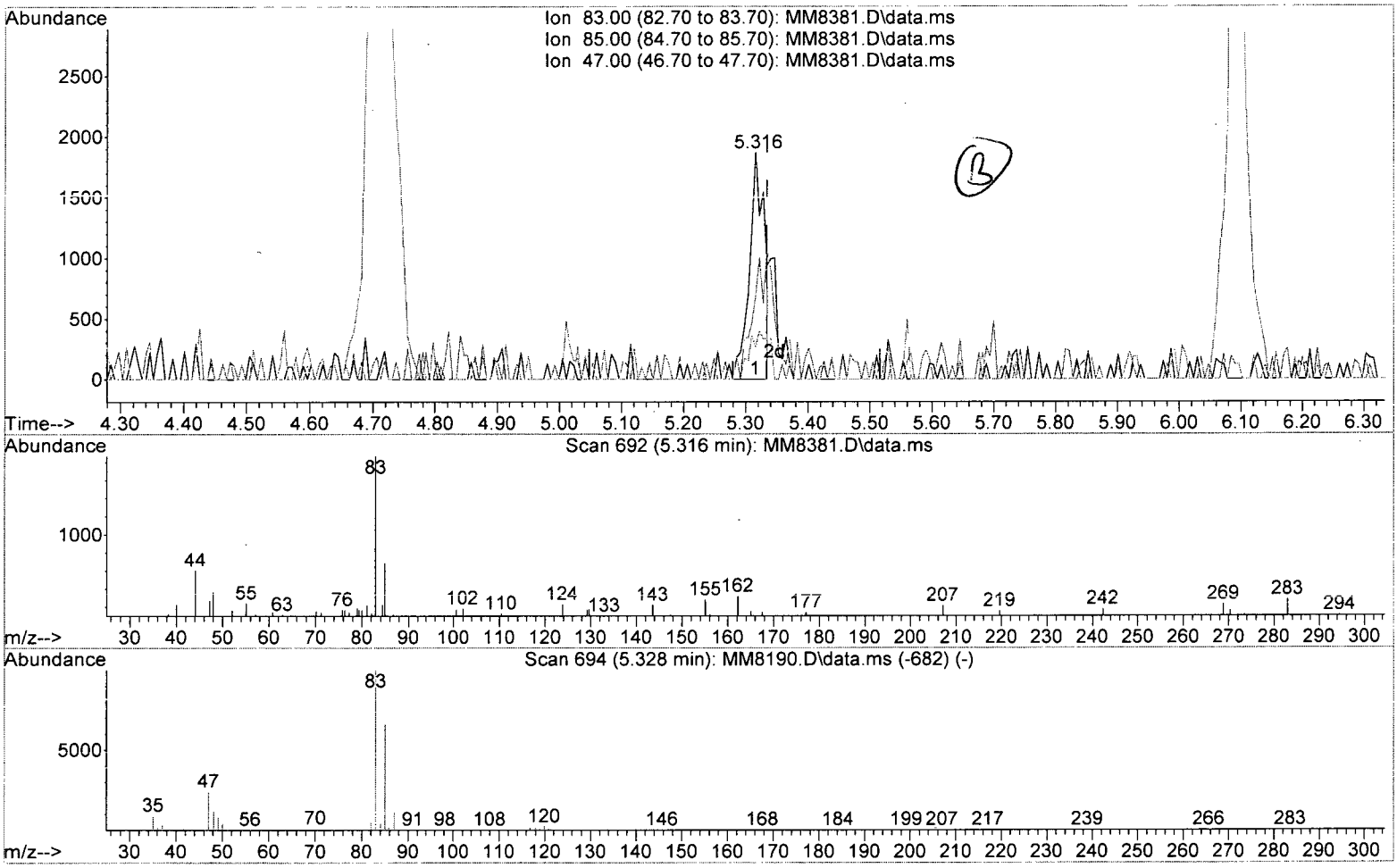
KR 12/3/15

KR 12/3/15

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8381.D
Acq On : 25 Nov 2015 7:32 am
Operator : K.Ruest 001 (KP)
Sample : R1510063-~~010~~|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Nov 25 10:20:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8381.D\data.ms

(40) Chloroform (P)

5.316min (-0.018) 0.25 ppb

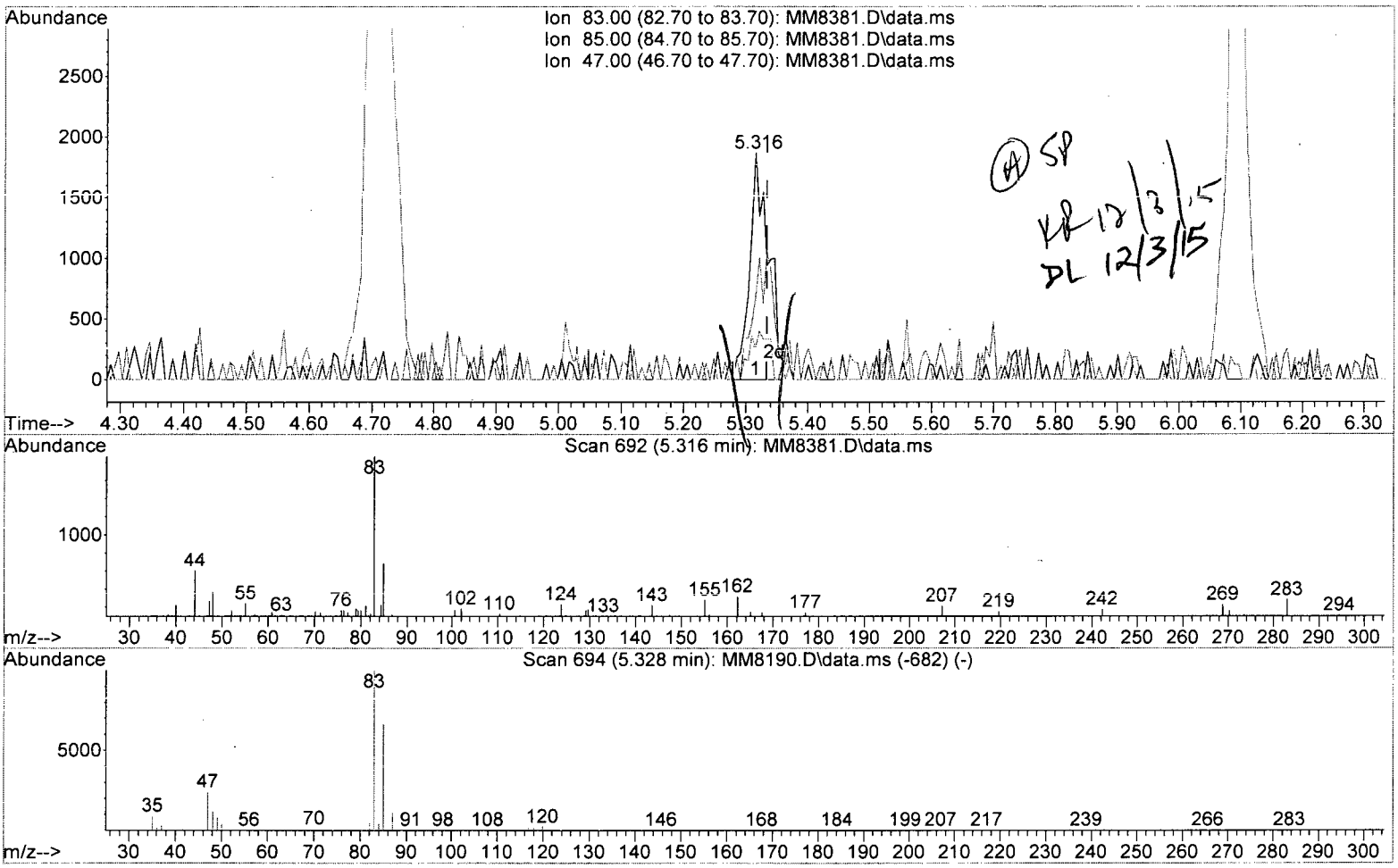
response 3084

Ion	Exp%	Act%
83.00	100	100
85.00	66.10	36.66#
47.00	23.90	14.26
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8381.D
Acq On : 25 Nov 2015 7:32 am
Operator : K.Ruest
Sample : R1510063-~~010~~|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Nov 25 10:20:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8381.D\data.ms

(40) Chloroform (P)

5.316min (-0.018) 0.32 ppb m

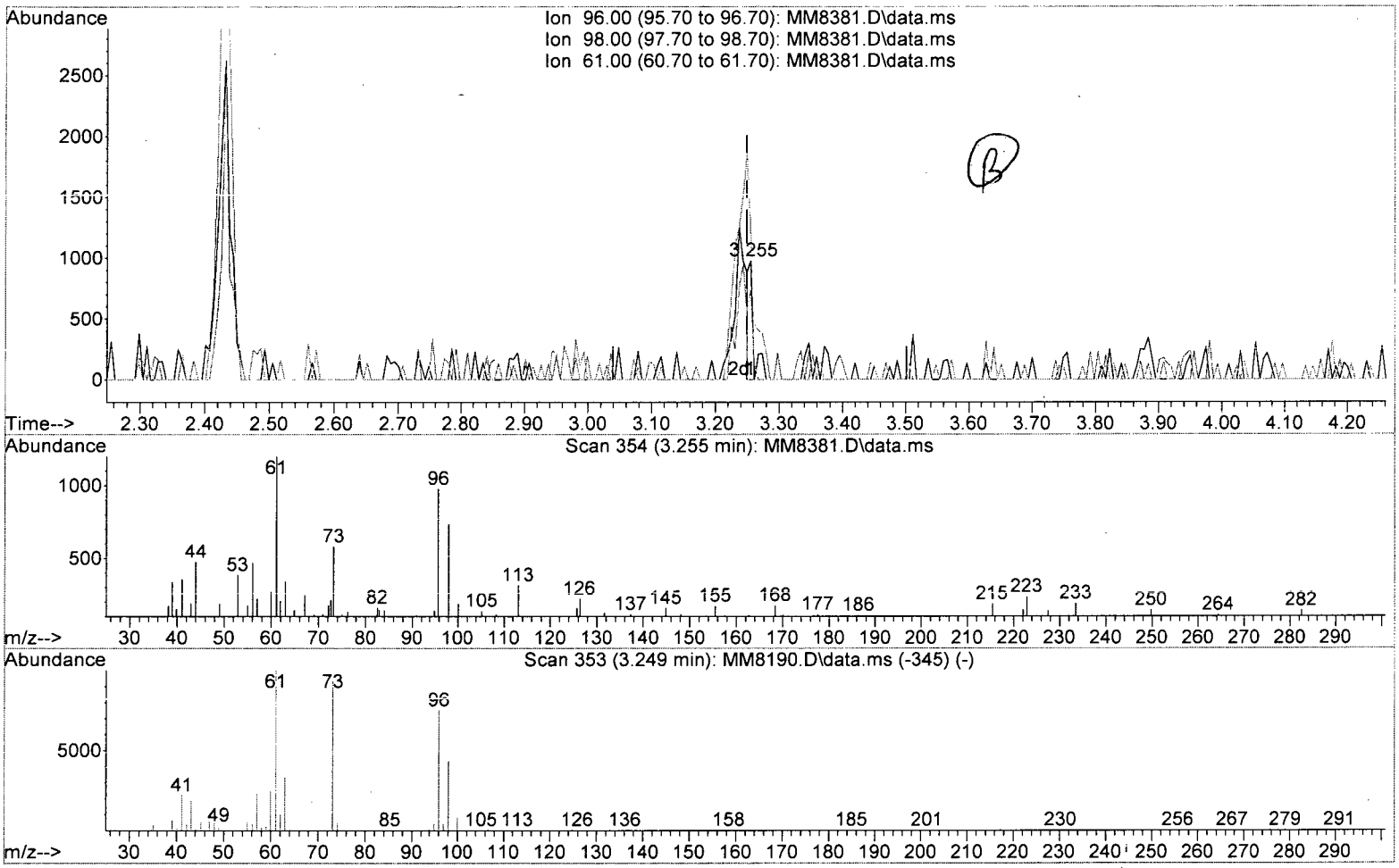
response 3949

Ion	Exp%	Act%
83.00	100	100
85.00	66.10	36.66#
47.00	23.90	14.26
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8381.D
Acq On : 25 Nov 2015 7:32 am
Operator : K.Ruest 001 KR
Sample : R1510063-~~010~~|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Nov 25 10:20:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8381.D\data.ms

(26) trans-1,2-Dichloroethene (P)

3.255min (+0.006) 0.05 ppb

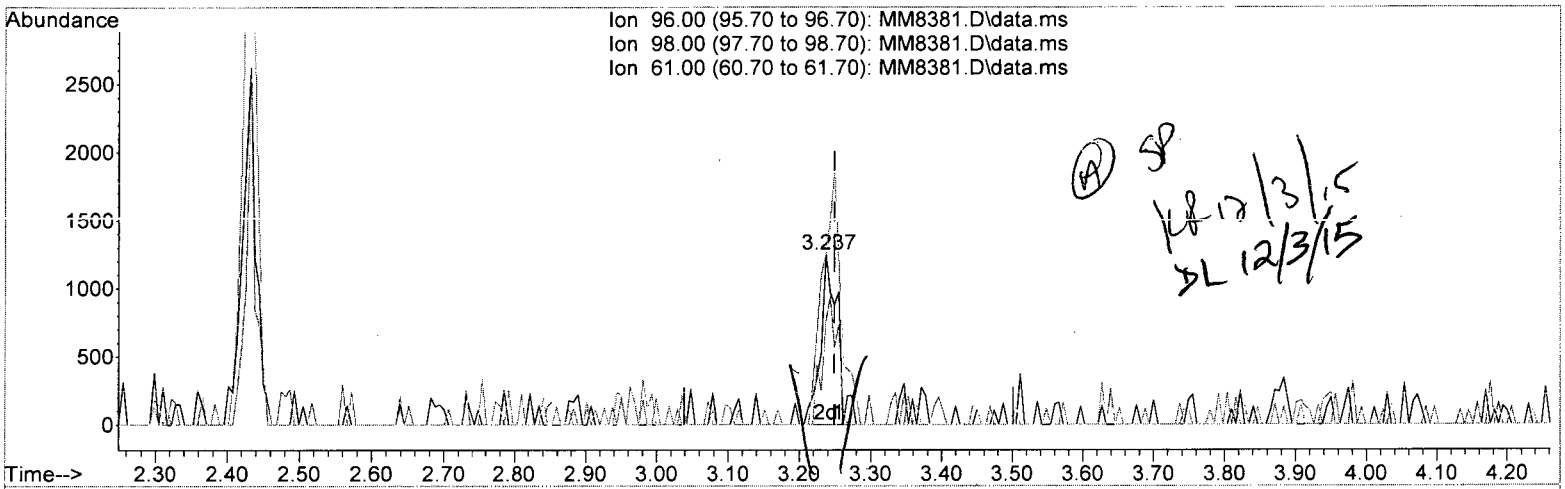
response 357

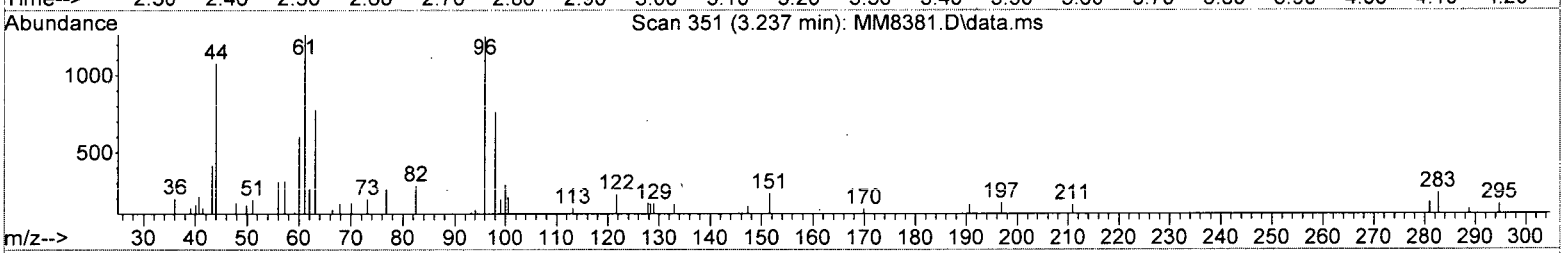
Ion	Exp%	Act%
96.00	100	100
98.00	57.60	75.00
61.00	133.00	122.85
0.00	0.00	0.00

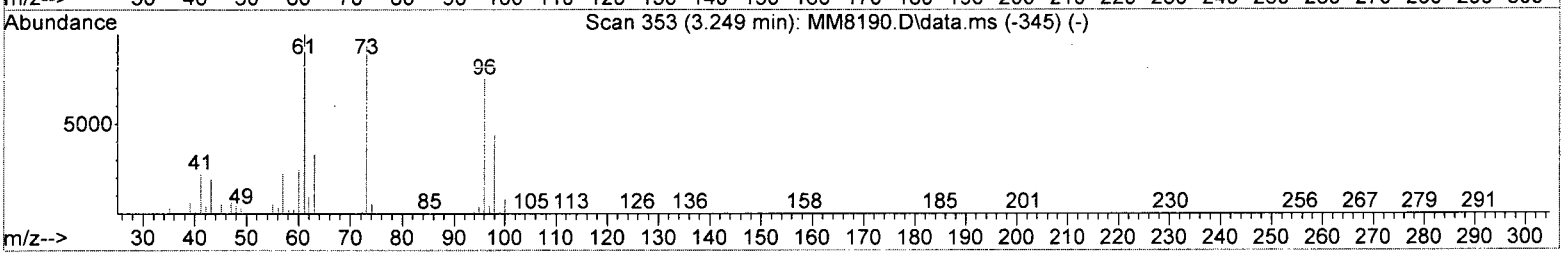
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8381.D
Acq On : 25 Nov 2015 7:32 am
Operator : K.Ruest
Sample : R1510063-~~010~~|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Nov 25 10:20:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8381.D\data.ms

(26) trans-1,2-Dichloroethene (P)

3.237min (-0.012) 0.29 ppb m

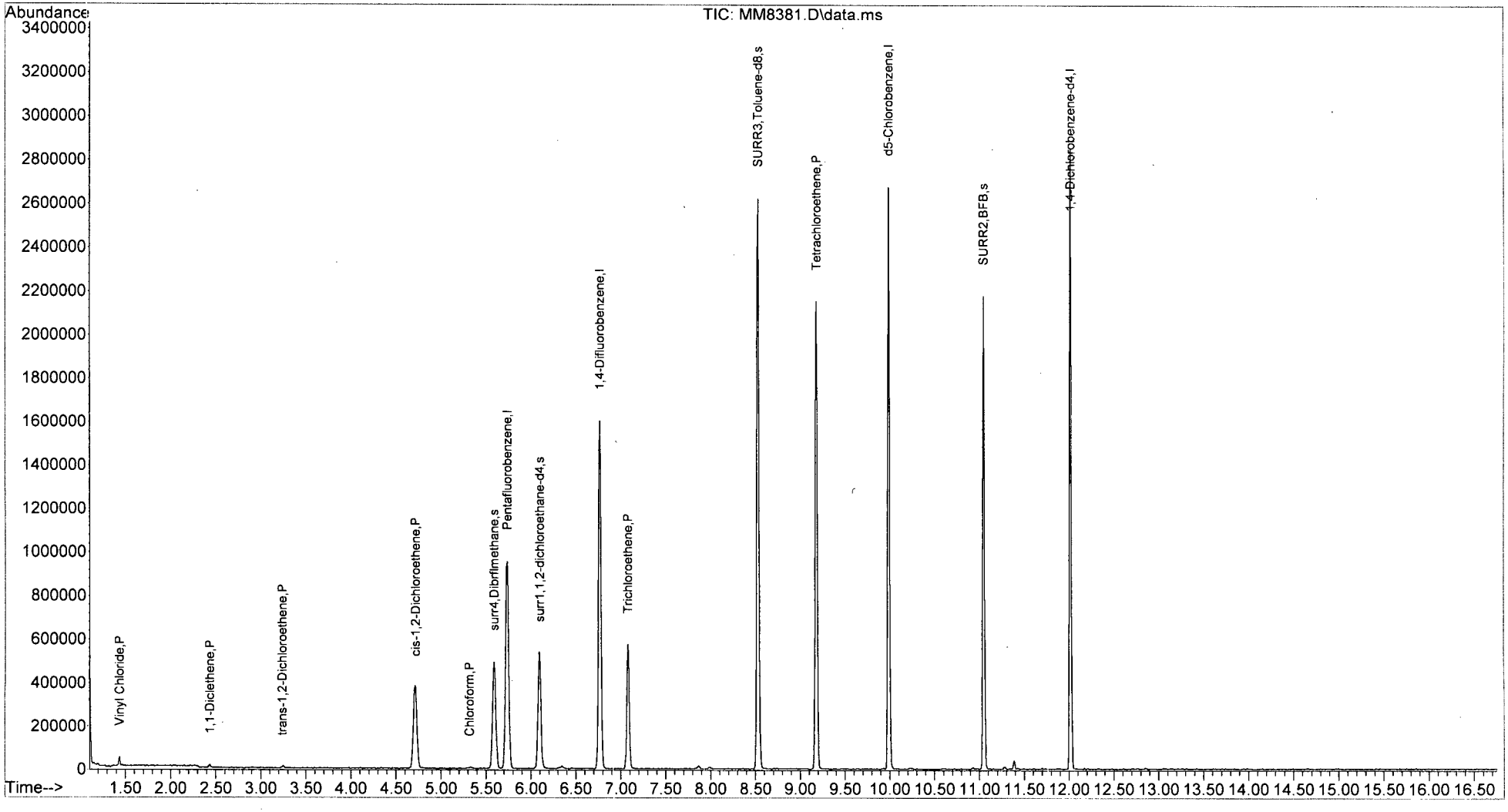
response 2080

Ion	Exp%	Act%
96.00	100	100
98.00	57.60	60.93
61.00	133.00	101.04#
0.00	0.00	0.00

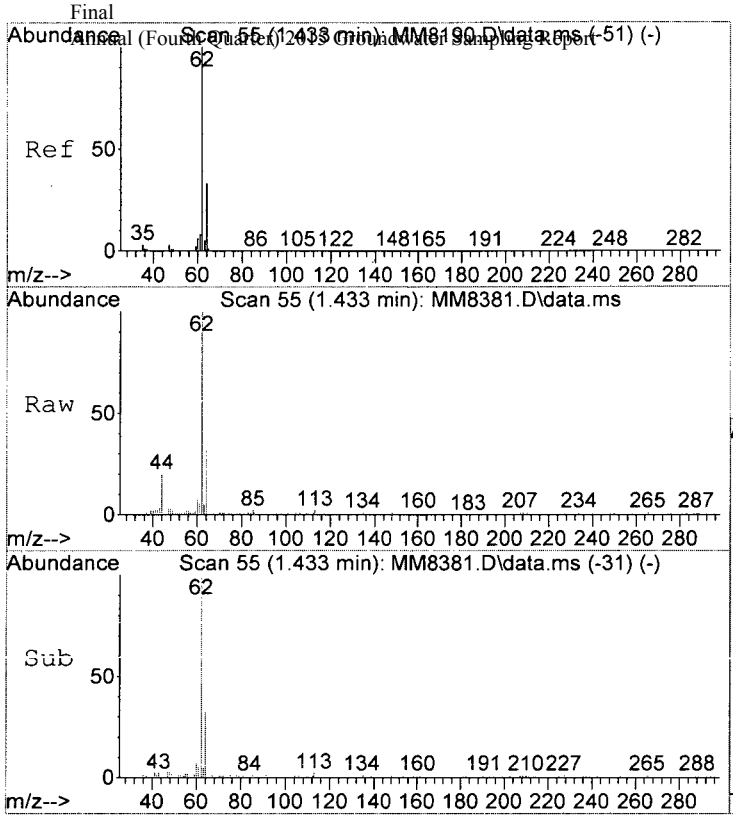
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8381.D
Acq On : 25 Nov 2015 7:32 am
Operator : K.Ruest
Sample : R1510063-~~010~~|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Dec 03 10:04:22 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



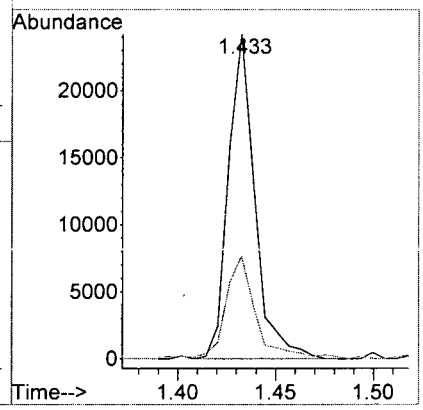
W111815A.M Thu Dec 03 10:05:35 2015 Page: 2

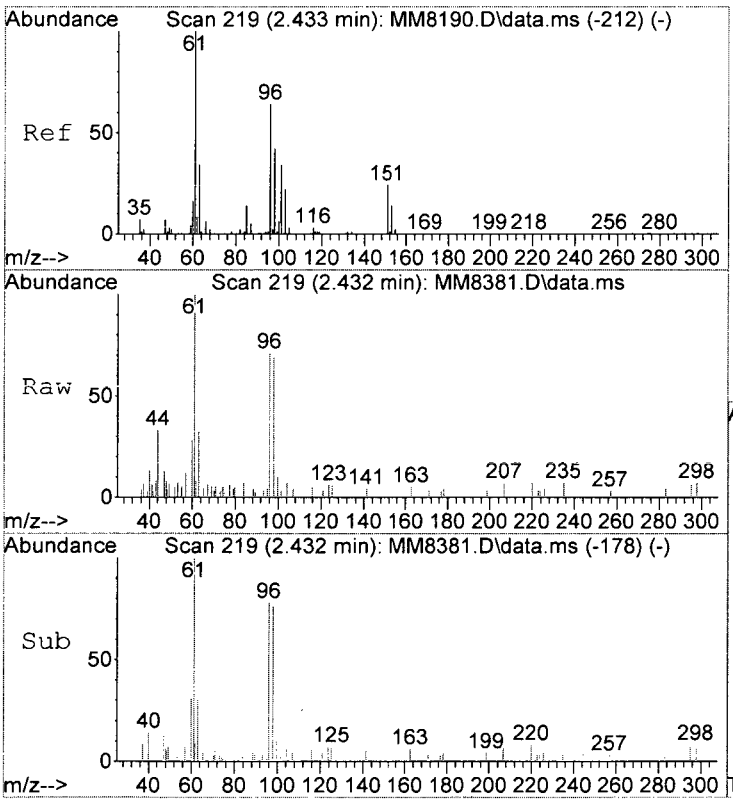


#4
Vinyl Chloride
Concen: 1.82 ppb
RT: 1.433 min Scan# 55
Delta R.T. -0.000 min
Lab File: MM8381.D
Acq: 25 Nov 2015 7:32 am

Tgt Ion: 62 Resp: 22801

Ion	Ratio	Lower	Upper
62	100		
64	31.6	13.4	53.4

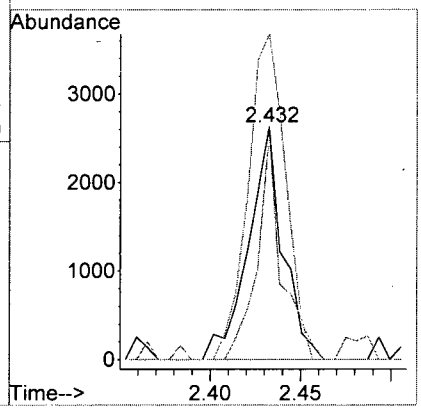


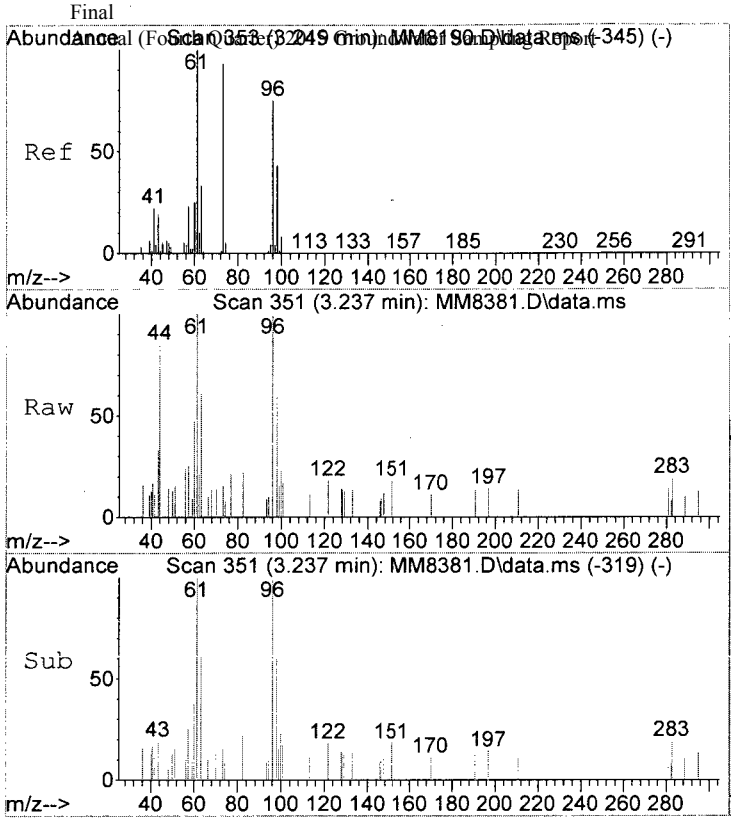


#13
1,1-Diclethene
Concen: 0.52 ppb
RT: 2.432 min Scan# 219
Delta R.T. -0.000 min
Lab File: MM8381.D
Acq: 25 Nov 2015 7:32 am

Tgt Ion: 96 Resp: 3485

Ion	Ratio	Lower	Upper
96	100		
98	97.2	45.0	85.0#
61	140.1	136.2	176.2

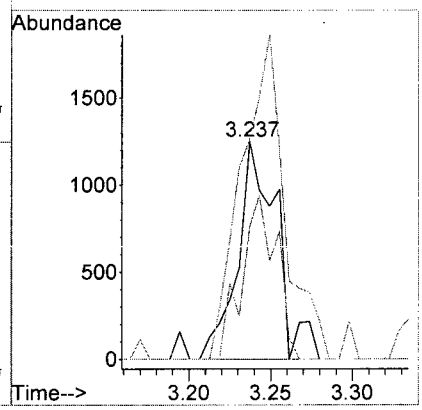


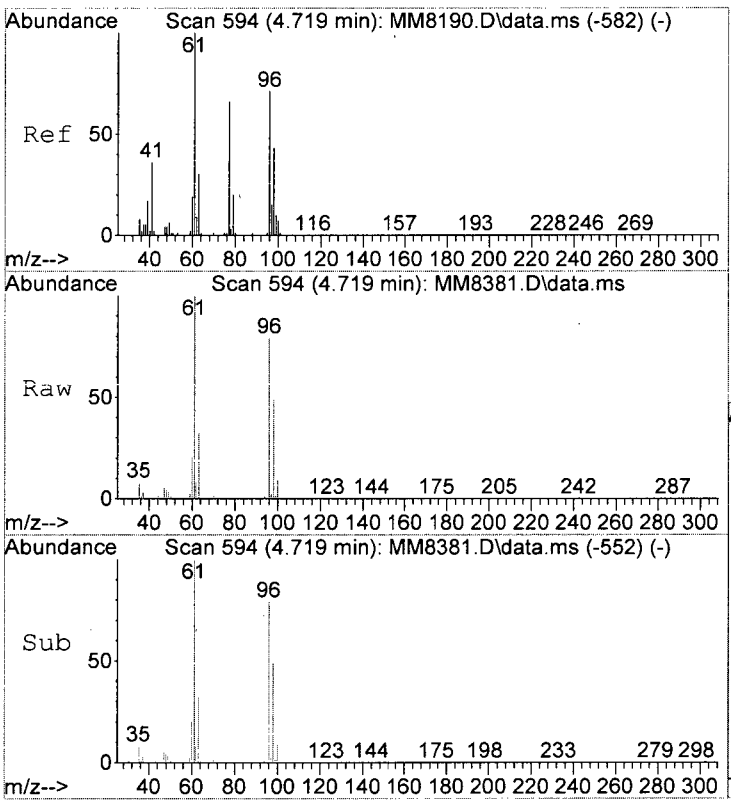


#26
trans-1,2-Dichloroethene
Concen: 0.29 ppb m
RT: 3.237 min Scan# 351
Delta R.T. -0.012 min
Lab File: MM8381.D
Acq: 25 Nov 2015 7:32 am

Tgt Ion: 96 Resp: 2080

Ion	Ratio	Lower	Upper
96	100		
98	60.9	37.6	77.6
61	101.0	113.0	153.0#

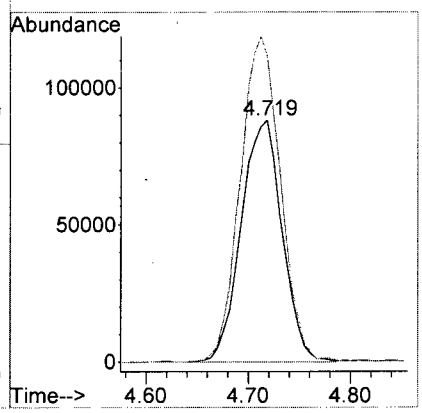


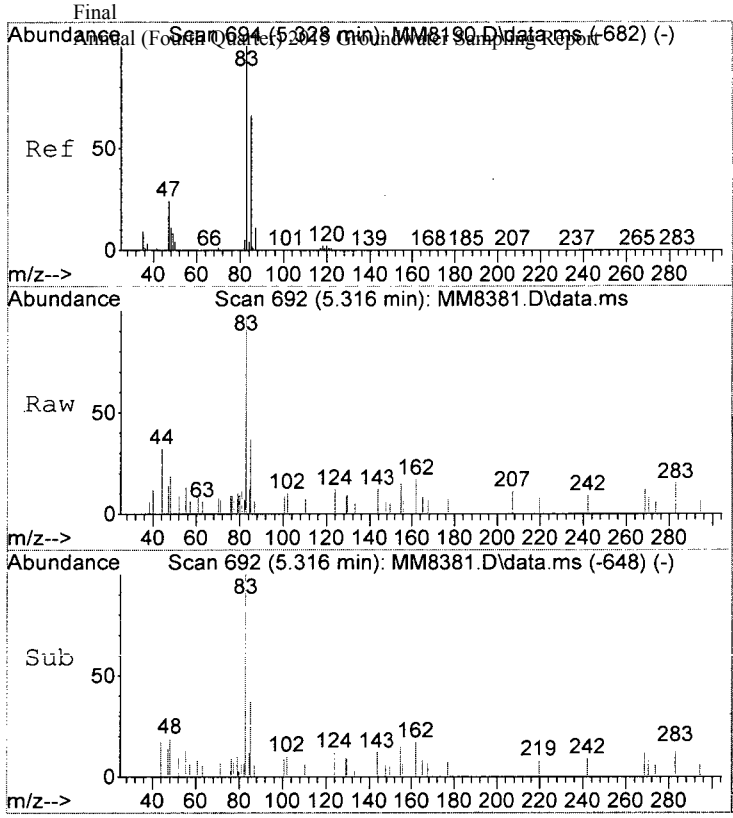


#34
cis-1,2-Dichloroethene
Concen: 30.53 ppb
RT: 4.719 min Scan# 594
Delta R.T. -0.000 min
Lab File: MM8381.D
Acq: 25 Nov 2015 7:32 am

Tgt Ion: 96 Resp: 243296

Ion	Ratio	Lower	Upper
96	100		
61	126.7	120.7	160.7

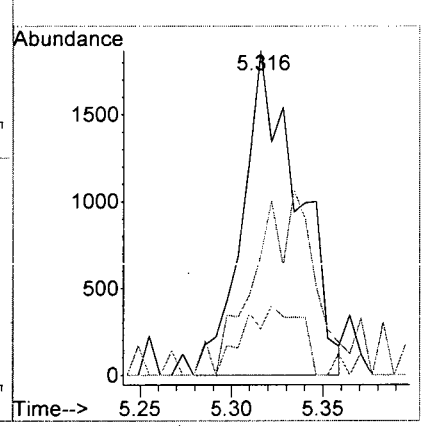


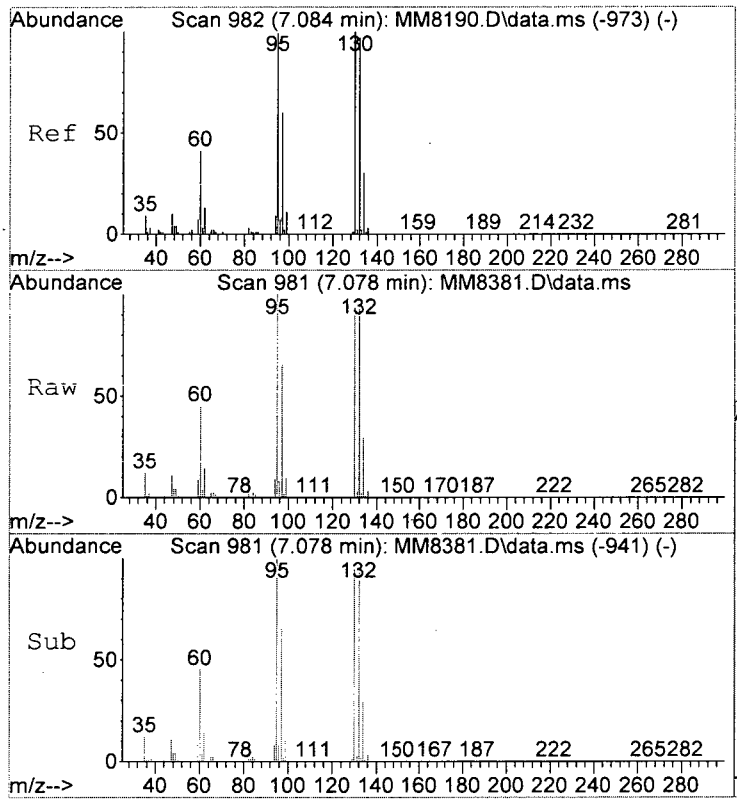


#40
Chloroform
Concen: 0.32 ppb m
RT: 5.316 min Scan# 692
Delta R.T. -0.018 min
Lab File: MM8381.D
Acq: 25 Nov 2015 7:32 am

Tgt Ion: 83 Resp: 3949

Ion	Ratio	Lower	Upper
83	100		
85	36.7	46.1	86.1#
47	14.3	3.9	43.9

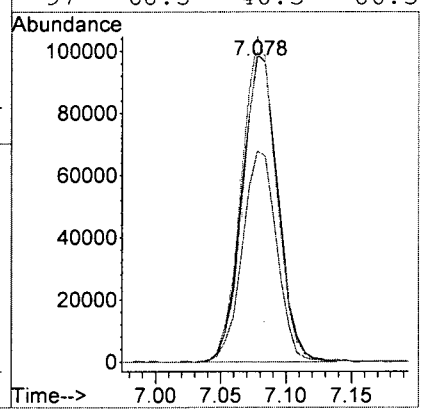




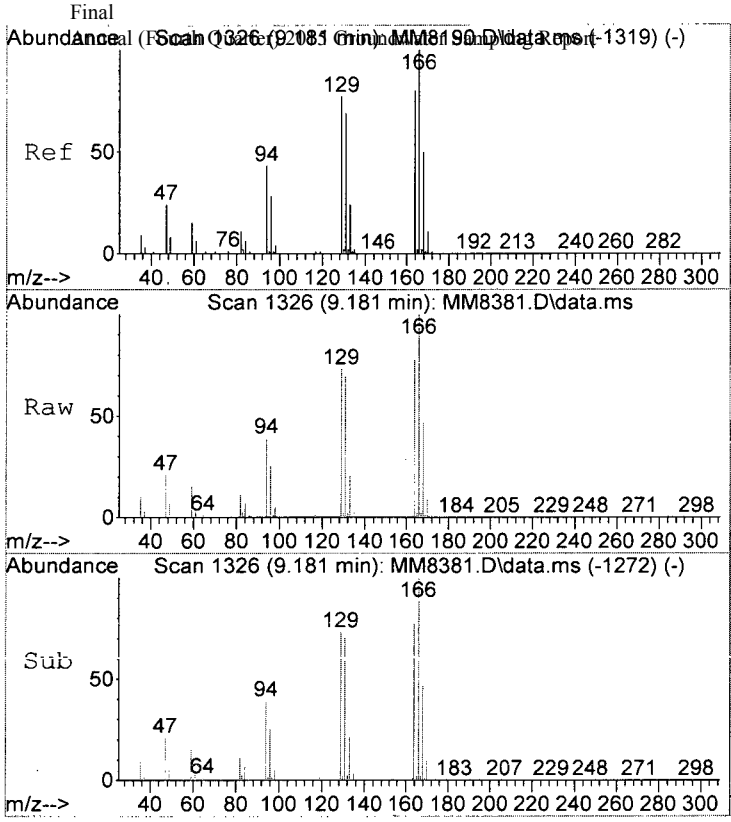
#54
Trichloroethene
Concen: 24.88 ppb
RT: 7.078 min Scan# 981
Delta R.T. -0.006 min
Lab File: MM8381.D
Acq: 25 Nov 2015 7:32 am

Tgt Ion:130 Resp: 186396

Ion	Ratio	Lower	Upper
130	100		
132	101.2	77.4	117.4
95	105.9	79.2	119.2
97	68.5	40.3	80.3



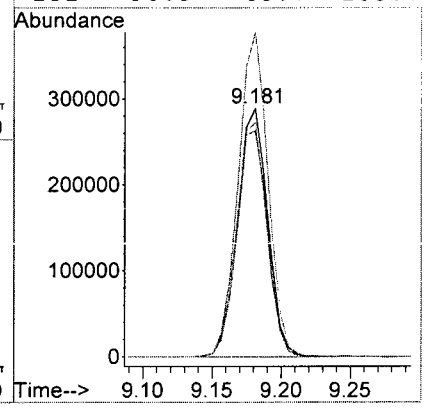
MM8381.D W111815A.M Thu Dec 03 10:05:40 2015 Page 5



#72
Tetrachloroethene
Concen: 87.38 ppb
RT: 9.181 min Scan# 1326
Delta R.T. -0.000 min
Lab File: MM8381.D
Acq: 25 Nov 2015 7:32 am

Tgt Ion:164 Resp: 438643

Ion	Ratio	Lower	Upper
164	100		
166	130.5	104.3	144.3
129	94.7	75.4	115.4
131	90.9	65.7	105.7



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8381.D
Acq On : 25 Nov 2015 7:32 am
Operator : K.Ruest 001(x2)
Sample : R1510063-~~010~~|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 44 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8381.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.712	581	593	604	rBV2	383584	1072472	25.26%	3.889%
2	5.590	726	737	750	rBV	490873	1215182	28.62%	4.407%
3	5.737	750	761	771	rVV	952156	2282392	53.75%	8.277%
4	6.090	808	819	831	rBV	540370	1219508	28.72%	4.422%
5	6.767	922	930	941	rVB	1600436	3084345	72.63%	11.185%
6	7.078	972	981	990	rBV	572750	1052168	24.78%	3.816%
7	8.529	1211	1219	1229	rBV	2621631	4246566	100.00%	15.400%
8	9.181	1315	1326	1338	rBV	2151232	3335479	78.55%	12.096%
9	9.986	1452	1458	1469	rBV	2673624	3667039	86.35%	13.298%
10	11.047	1627	1632	1641	rVB	2174997	2744392	64.63%	9.952%
11	11.382	1683	1687	1692	rBV2	37346	46387	1.09%	0.168%
12	12.016	1785	1791	1797	rBV	2849074	3610043	85.01%	13.091%

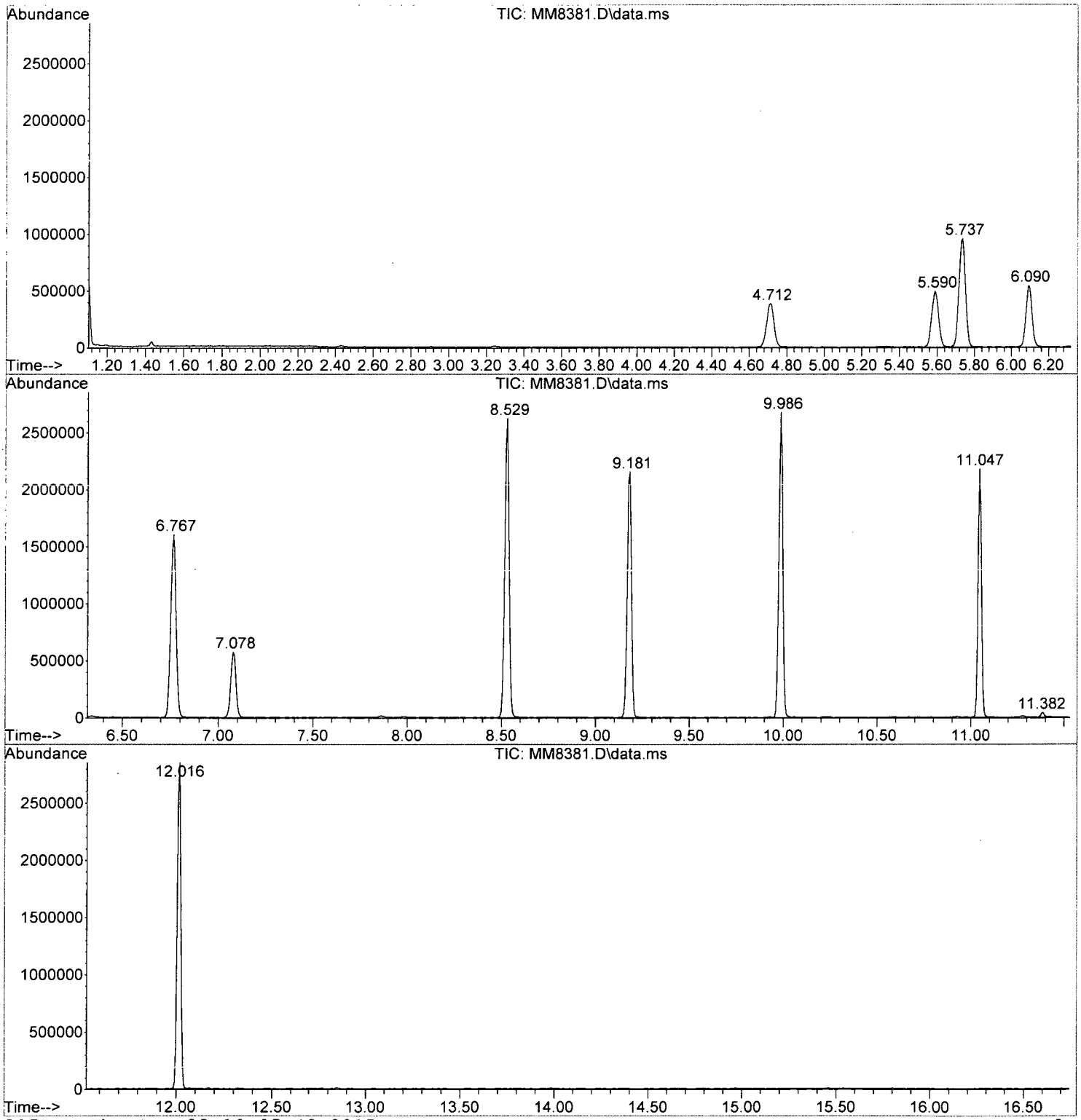
Sum of corrected areas: 27575973

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8381.D
Acq On : 25 Nov 2015 7:32 am
Operator : K.Ruest
Sample : R1510063-~~010~~|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 44 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



W111815A.M Thu Dec 03 10:05:49 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\112415\\
Data File : MM8381.D
Acq On : 25 Nov 2015 7:32 amm
Operator : K.Ruestt
Sample : R1510063-~~010~~|2.5 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD**
ALS Vial : 44 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/16/15 1700
Date Received: 11/19/15

Sample Name: EB-2015-11-16
Lab Code: R1510063-002

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 01:30		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 01:30		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 01:30		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 01:30		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 01:30		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 01:30		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 01:30		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 01:30		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 01:30		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 01:30		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 01:30		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 01:30		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 01:30		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 01:30		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 01:30		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 01:30		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 01:30		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 01:30		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 01:30		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 01:30		473760	
Acetone	**5.5**		5.0	5.0	1.3	1	NA	11/25/15 01:30		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 01:30		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 01:30		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 01:30		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 01:30		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 01:30		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 01:30		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 01:30		473760	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/16/15 1700
Date Received: 11/19/15

Sample Name: EB-2015-11-16
Lab Code: R1510063-002

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 01:30		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 01:30		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 01:30		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 01:30		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 01:30		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 01:30		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 01:30		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 01:30		473760	
Naphthalene	**0.23**	J	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 01:30		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 01:30		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 01:30		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 01:30		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 01:30		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 01:30		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 01:30		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 01:30		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 01:30		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:30		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	75-120	11/25/15 01:30	
Dibromofluoromethane	111	85-115	11/25/15 01:30	
Toluene-d8	110	85-120	11/25/15 01:30	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/16/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0130

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-16	**Units:**	µg/L
Lab Code:	R1510063-002	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8369.D
Acq On : 25 Nov 2015 1:30 am
Operator : K.Ruest
Sample : R1510063-002|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Dec 02 17:34:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	819413	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1350113	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1212042	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	572382	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	389309	55.46	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 110.92%				
48) surr1,1,2-dichloroetha...	6.096	65	419240	54.07	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.14%				
65) SURR3,Toluene-d8	8.529	98	1623541	54.96	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 109.92%				
70) SURR2,BFB	11.046	95	609741	54.68	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 109.36%				
Target Compounds							Qvalue
15) Acetone	2.487	43	9586	5.49	ppb		93
116) Hexachlorobt	13.753	225	963	0.33	ppb		80
117) Naphthalen	13.802	128	3534	0.23	ppb		83
118) 1,2,3-Tclbenzene	13.985	180	1750	0.28	ppb	#	71

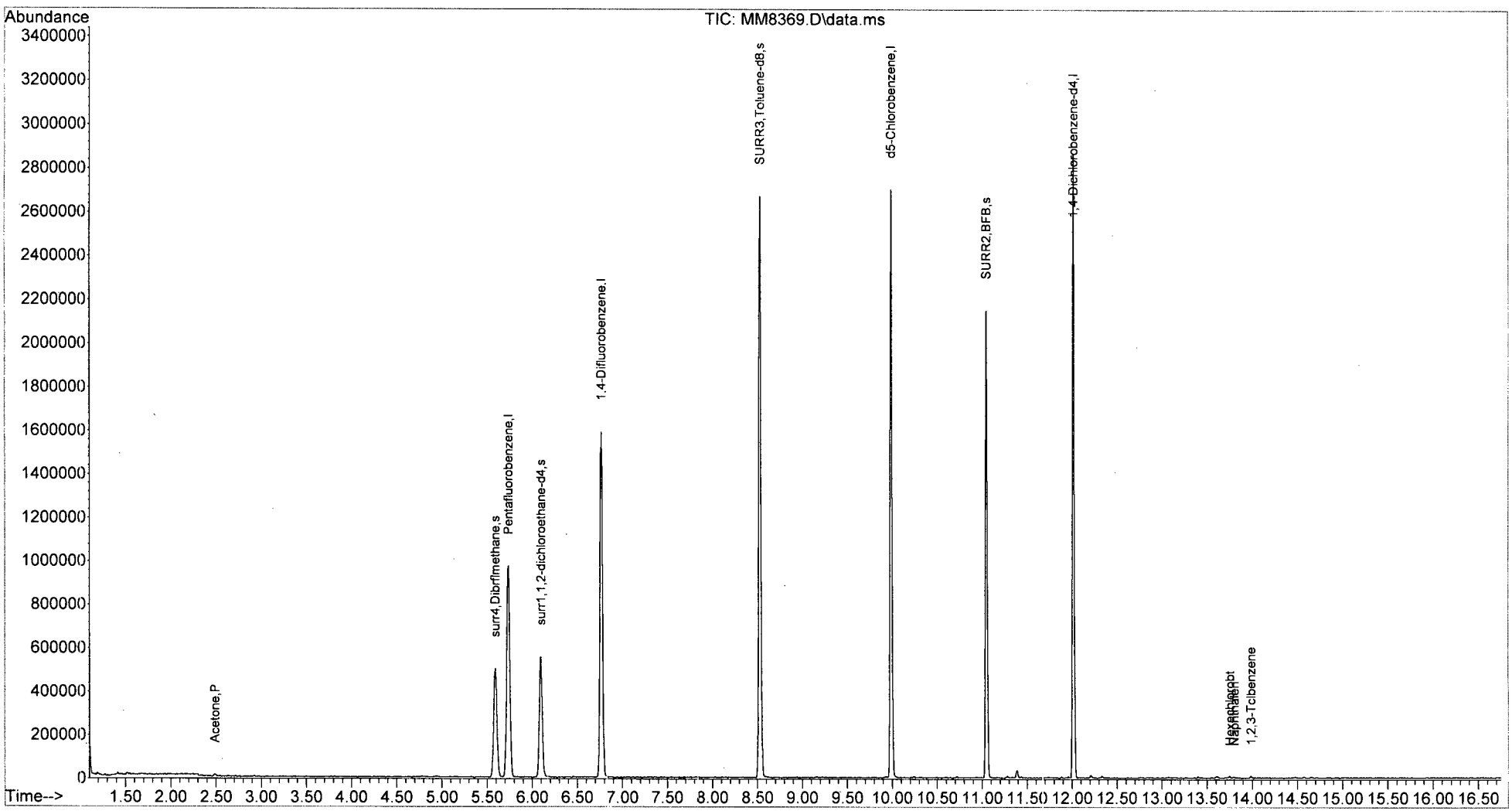
KB 12/2/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed

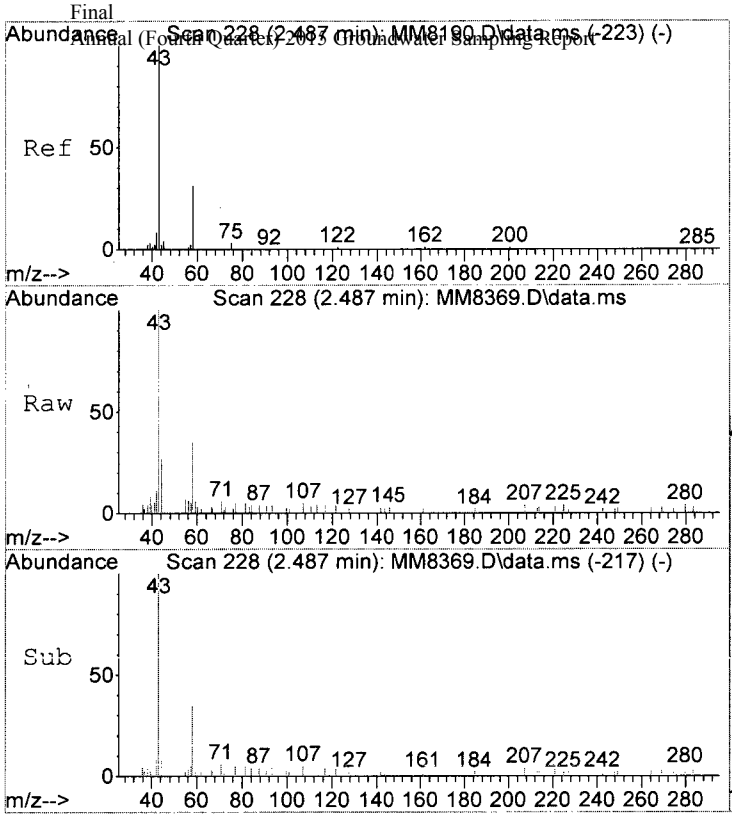
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8369.D
Acq On : 25 Nov 2015 1:30 am
Operator : K.Ruest
Sample : R1510063-002|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Dec 02 17:34:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



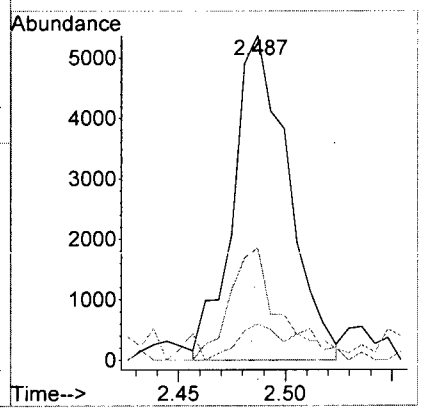
W111815A.M Wed Dec 02 17:34:44 2015 Page: 2

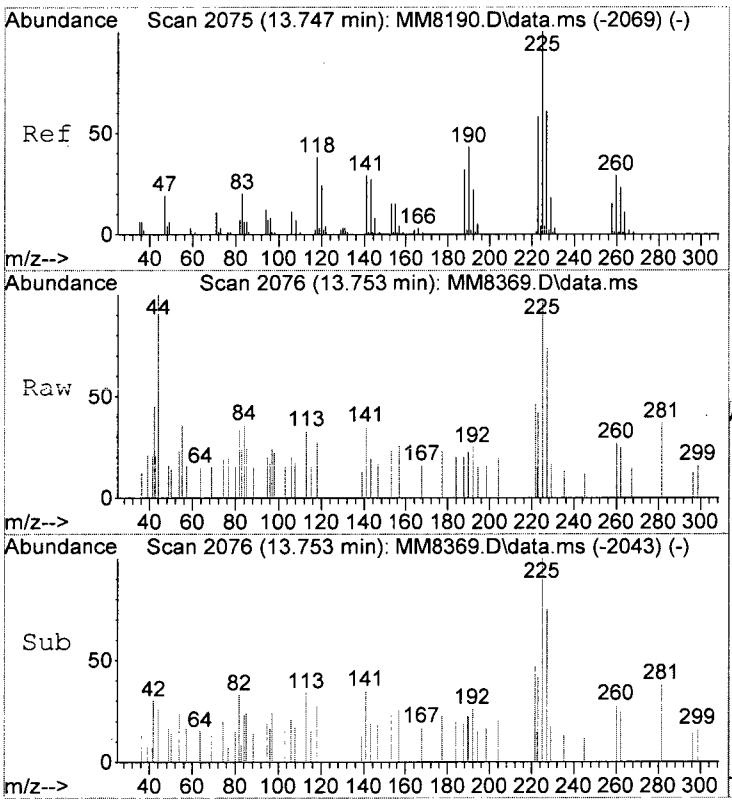


#15
Acetone
Concen: 5.49 ppb
RT: 2.487 min Scan# 228
Delta R.T. -0.006 min
Lab File: MM8369.D
Acq: 25 Nov 2015 1:30 am

Tgt Ion: 43 Resp: 9586

Ion	Ratio	Lower	Upper
43	100		
58	34.5	10.9	50.9
42	11.1	0.0	28.5

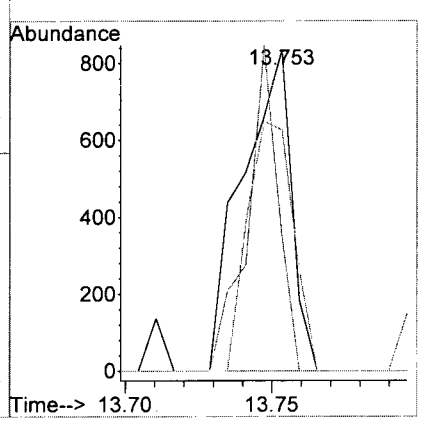


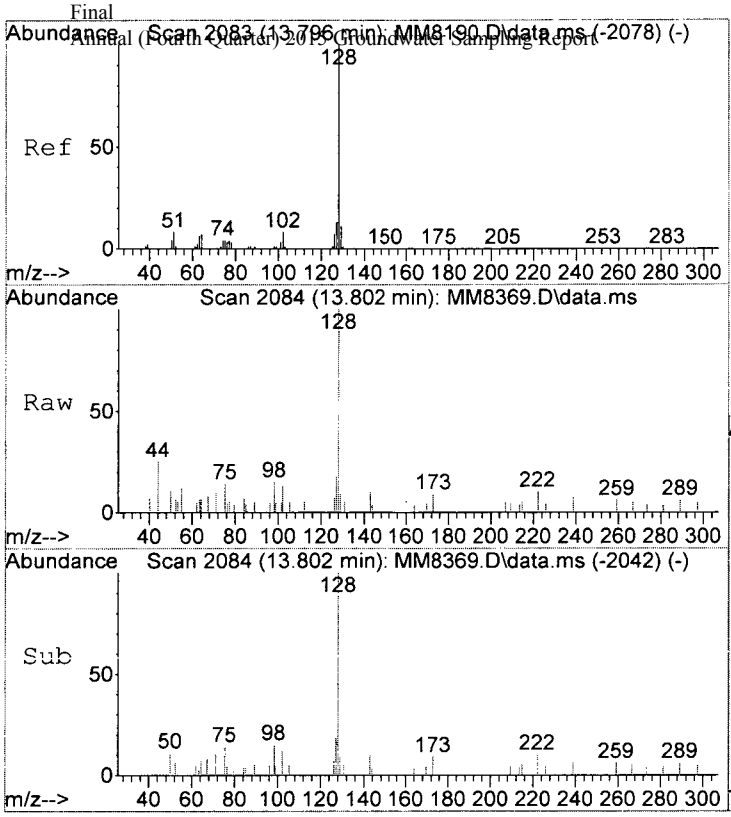


#116
Hexachlorobt
Concen: 0.33 ppb
RT: 13.753 min Scan# 2076
Delta R.T. 0.006 min
Lab File: MM8369.D
Acq: 25 Nov 2015 1:30 am

Tgt Ion:225 Resp: 963

Ion	Ratio	Lower	Upper
225	100		
223	42.3	38.1	78.1
227	75.1	41.1	81.1

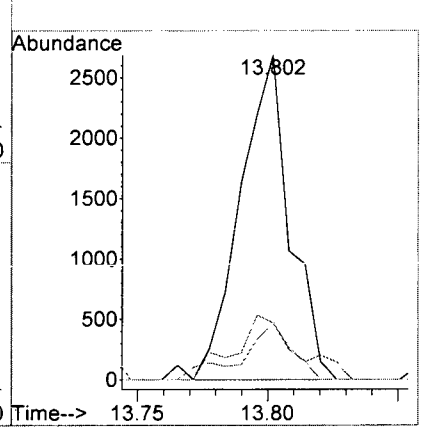


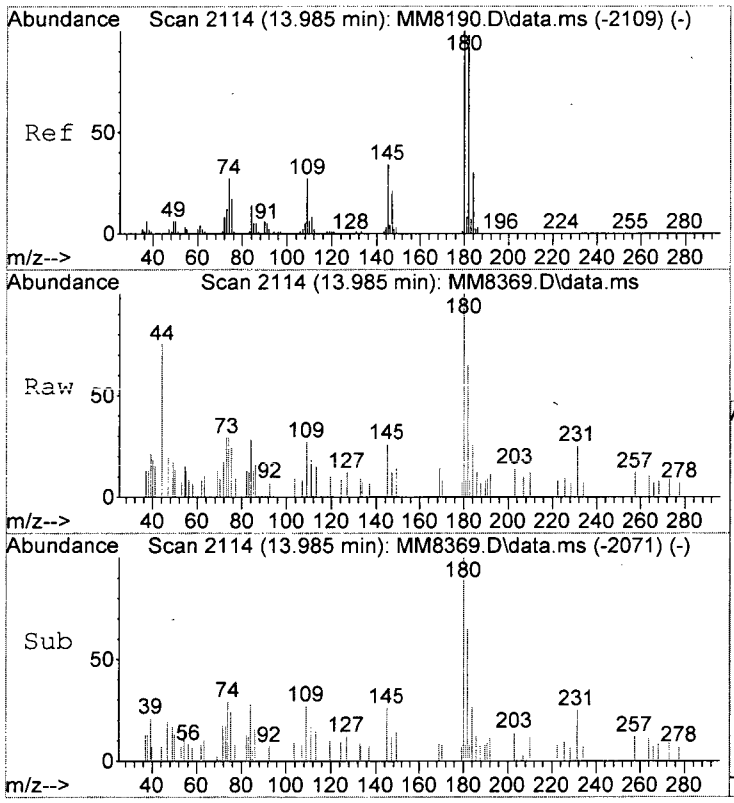


#117
Naphthalen
Concen: 0.23 ppb
RT: 13.802 min Scan# 2084
Delta R.T. -0.000 min
Lab File: MM8369.D
Acq: 25 Nov 2015 1:30 am

Tgt Ion:128 Resp: 3534

Ion	Ratio	Lower	Upper
128	100		
127	17.6	0.0	33.1
102	17.7	0.0	28.3

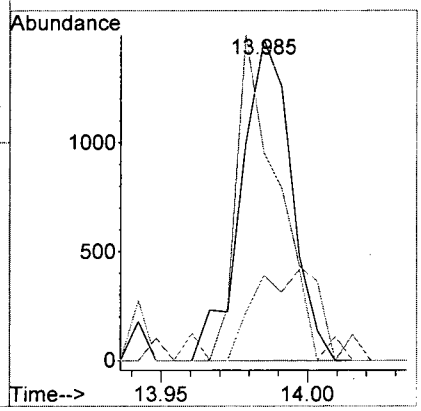




#118
1,2,3-Tclbenzene
Concen: 0.28 ppb
RT: 13.985 min Scan# 2114
Delta R.T. -0.006 min
Lab File: MM8369.D
Acq: 25 Nov 2015 1:30 am

Tgt Ion:180 Resp: 1750

Ion	Ratio	Lower	Upper
180	100		
182	64.8	78.5	118.5#
145	26.5	14.2	54.2



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8369.D
Acq On : 25 Nov 2015 1:30 am
Operator : K.Ruest
Sample : R1510063-002|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 32 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8369.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.590	725	737	747	rBV	501421	1244108	29.26%	5.583%
2	5.737	751	761	774	rVB	972513	2336307	54.95%	10.485%
3	6.096	811	820	829	rBV	555791	1231599	28.97%	5.527%
4	6.767	919	930	942	rBV	1589622	3117893	73.33%	13.992%
5	8.529	1212	1219	1228	rBV	2669255	4251710	100.00%	19.081%
6	9.986	1452	1458	1471	rVB	2699074	3699345	87.01%	16.602%
7	11.046	1626	1632	1641	rBV	2147550	2759538	64.90%	12.384%
8	11.388	1683	1688	1692	rBV	35403	48659	1.14%	0.218%
9	12.016	1785	1791	1798	rBV	2861529	3593465	84.52%	16.127%

Sum of corrected areas: 22282624

LSC Report - Integrated Chromatogram

```
Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8369.D
Acq On    : 25 Nov 2015    1:30 am
Operator  : K.Ruest
Sample    : R1510063-002|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD*
ALS Vial  : 32   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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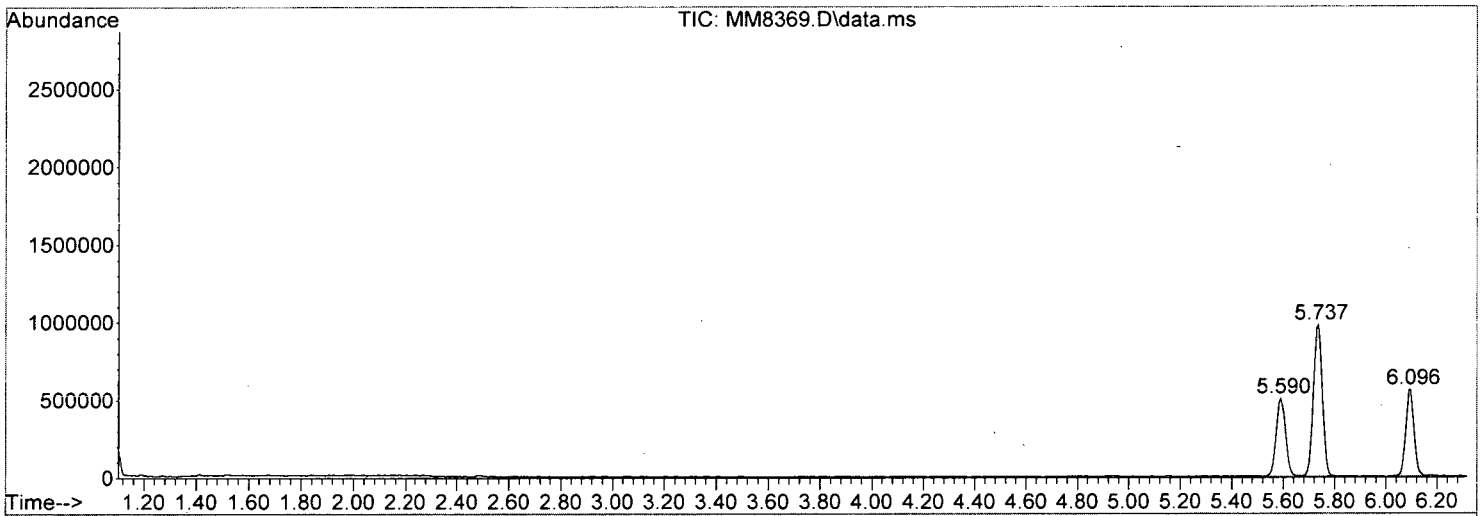
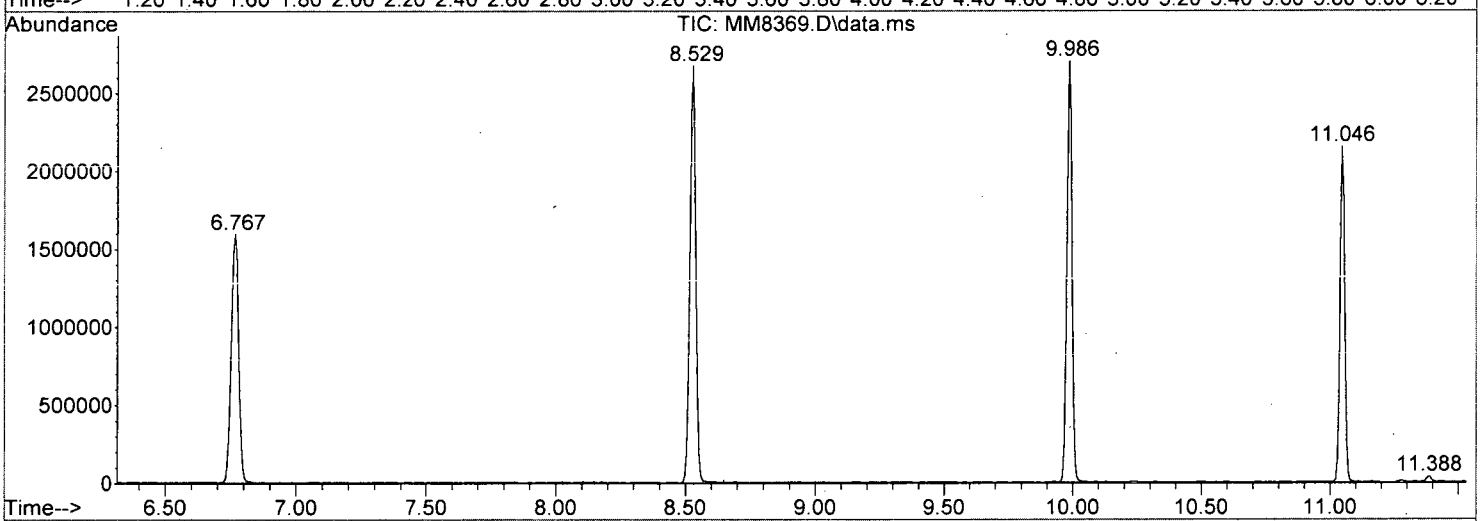
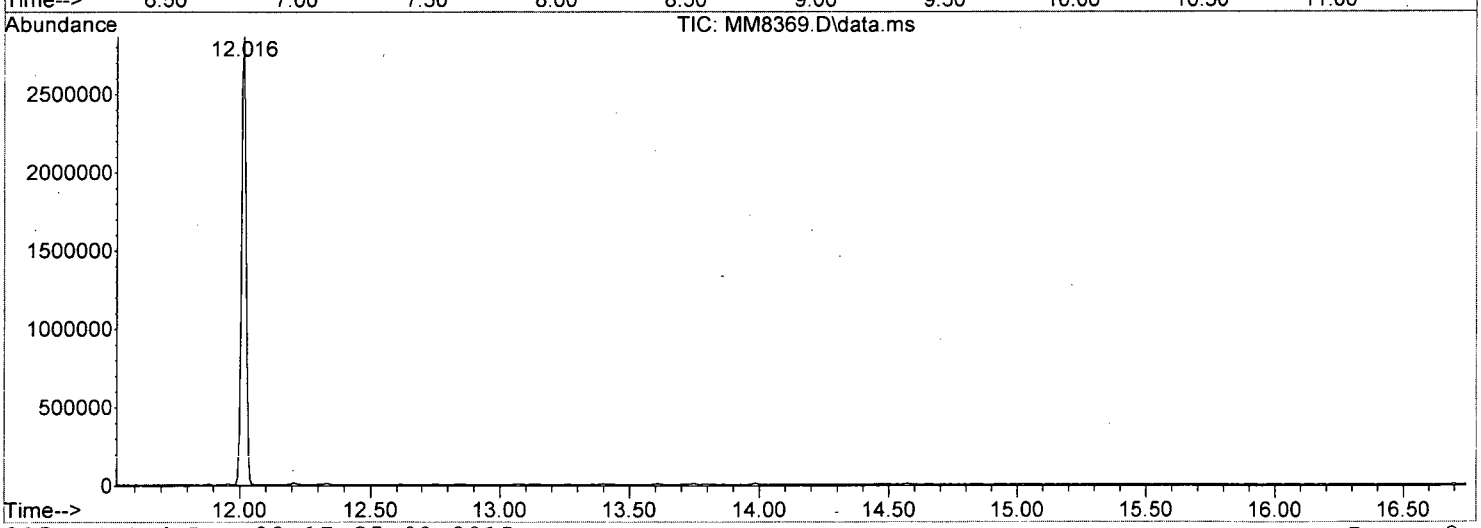






W111815A.M Wed Dec 02 17:35:00 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\112415\\
Data File : MM8369.D
Acq On : 25 Nov 2015 1:30 amm
Operator : K.Ruestt
Sample : R1510063-002|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD**
ALS Vial : 32 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1528
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW02-17.5
Lab Code: R1510063-003

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 03:00		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 03:00		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 03:00		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 03:00		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 03:00		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 03:00		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 03:00		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 03:00		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 03:00		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 03:00		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 03:00		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 03:00		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 03:00		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 03:00		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 03:00		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 03:00		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 03:00		473760	
tert-Butyl Alcohol	**28**	J	100	20	11	1	NA	11/25/15 03:00		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 03:00		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 03:00		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 03:00		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 03:00		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 03:00		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 03:00		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 03:00		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 03:00		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 03:00		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 03:00		473760	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1528
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW02-17.5	**Units:**	µg/L
Lab Code:	R1510063-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 03:00		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 03:00		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 03:00		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 03:00		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 03:00		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 03:00		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 03:00		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
Methyl tert-Butyl Ether	**14**		5.0	1.0	0.29	1	NA	11/25/15 03:00		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 03:00		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 03:00		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 03:00		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 03:00		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 03:00		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 03:00		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 03:00		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 03:00		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 03:00		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:00		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/25/15 03:00	
Dibromofluoromethane	109	85-115	11/25/15 03:00	
Toluene-d8	104	85-120	11/25/15 03:00	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0300

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW02-17.5	**Units:**	µg/L
Lab Code:	R1510063-003	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8372.D
Acq On : 25 Nov 2015 3:00 am
Operator : K.Ruest
Sample : R1510063-003|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Dec 02 17:40:28 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

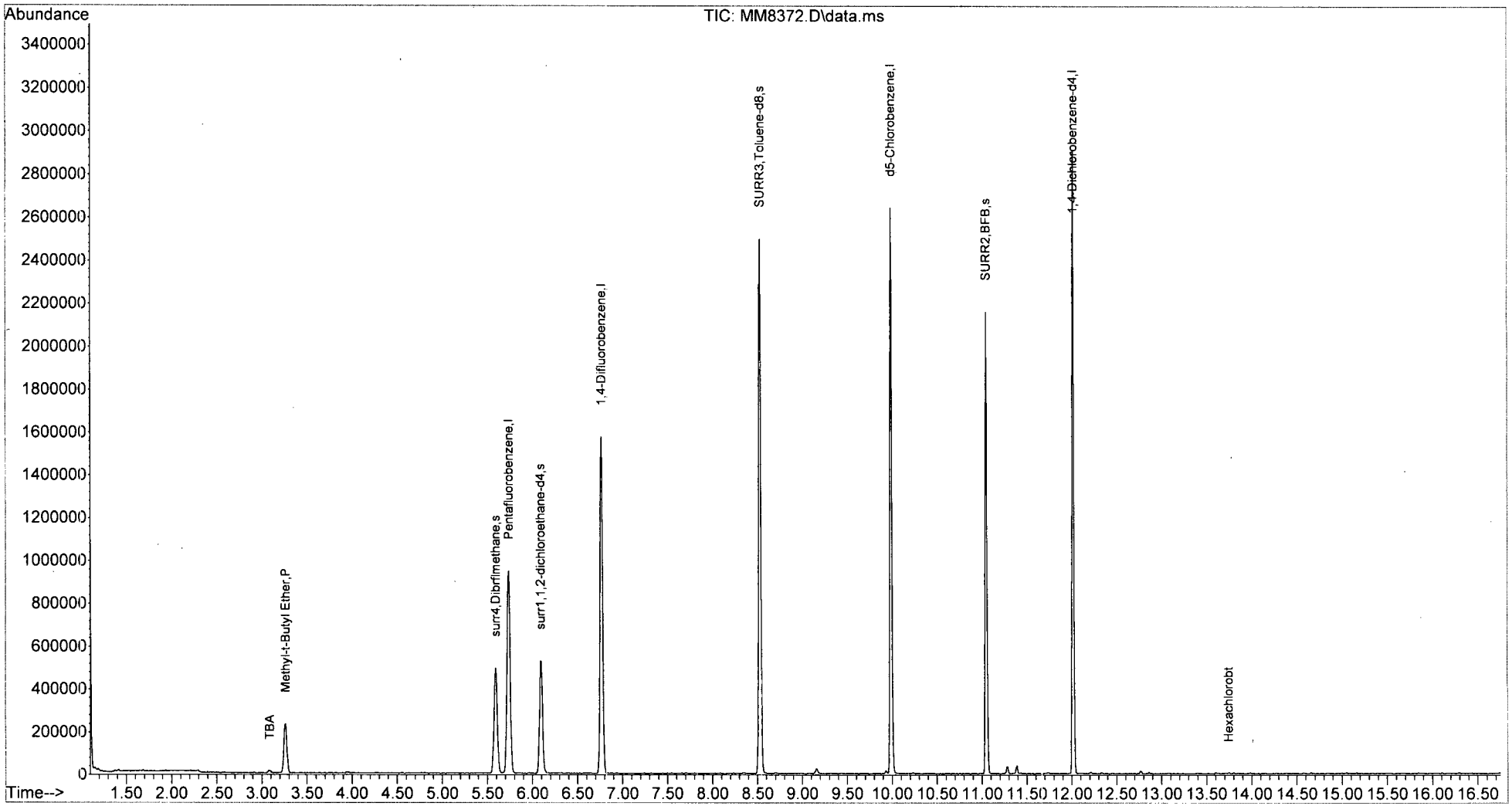
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	803332	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1337661	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1209122	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	573794	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	380213	54.67	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.34%				
48) surr1,1,2-dichloroetha...	6.090	65	413415	53.82	ppb		-0.01
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.64%				
65) SURR3,Toluene-d8	8.529	98	1523662	52.06	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 104.12%				
70) SURR2,BFB	11.047	95	612564	55.44	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.88%				
Target Compounds							Qvalue
23) TBA	3.085	59	14874	28.20	ppb		96
25) Methyl-t-Butyl Ether	3.262	73	264691	14.16	ppb		96
116) Hexachlorobt	13.741	225	657	0.22	ppb	#	40

(#) = qualifier out of range (m) = manual integration (+) = signals summed

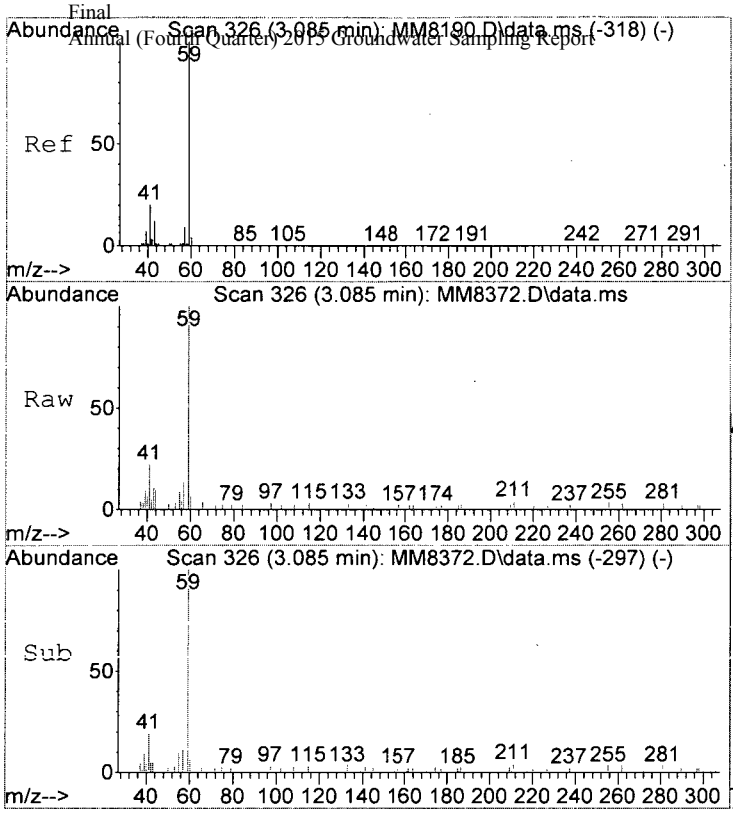
12/2/15

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8372.D
Acq On : 25 Nov 2015 3:00 am
Operator : K.Ruest
Sample : R1510063-003|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Dec 02 17:40:28 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



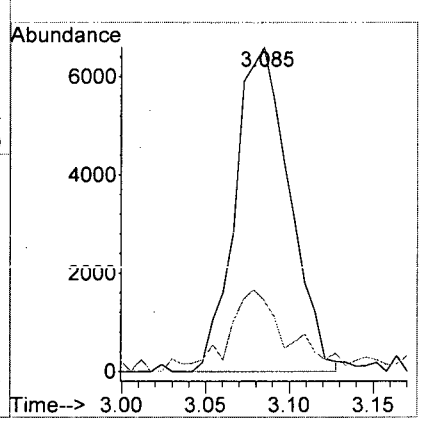
W111815A.M Wed Dec 02 17:41:56 2015 Page: 2

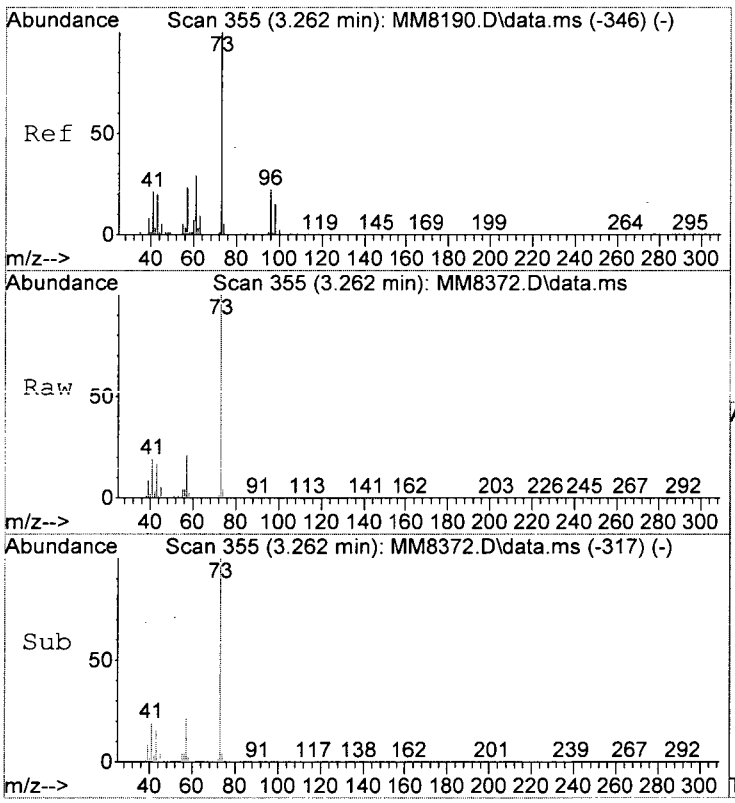


#23
TBA
Concen: 28.20 ppb
RT: 3.085 min Scan# 326
Delta R.T. -0.012 min
Lab File: MM8372.D
Acq: 25 Nov 2015 3:00 am

Tgt Ion: 59 Resp: 14874

Ion	Ratio	Lower	Upper
59	100		
41	21.9	0.0	40.0

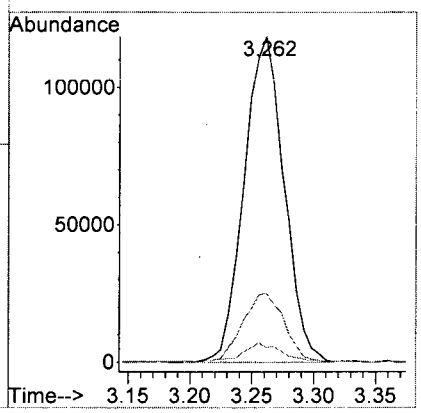


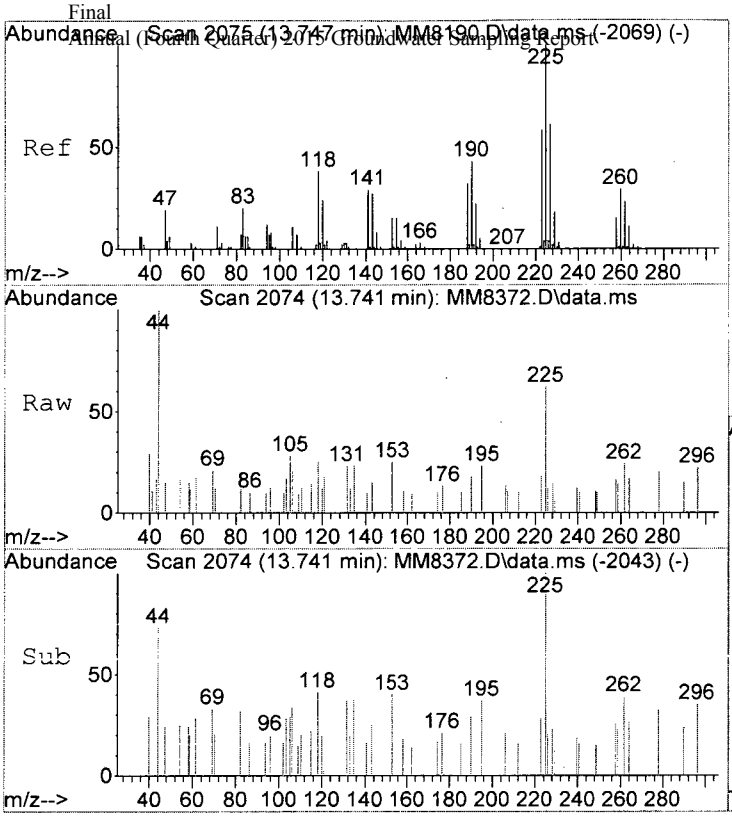


#25
Methyl-t-Butyl Ether
Concen: 14.16 ppb
RT: 3.262 min Scan# 355
Delta R.T. -0.006 min
Lab File: MM8372.D
Acq: 25 Nov 2015 3:00 am

Tgt Ion: 73 Resp: 264691

Ion	Ratio	Lower	Upper
73	100		
57	21.0	3.3	43.3
55	4.4	0.0	24.8

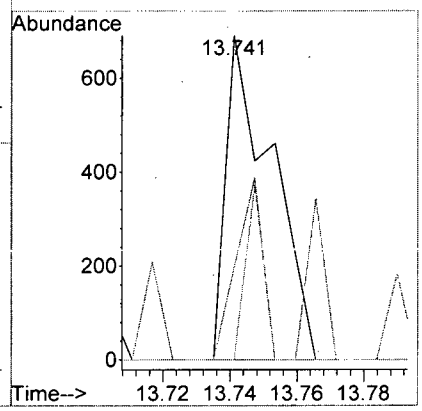




#116
Hexachlorobt
Concen: 0.22 ppb
RT: 13.741 min Scan# 2074
Delta R.T. -0.006 min
Lab File: MM8372.D
Acq: 25 Nov 2015 3:00 am

Tgt Ion:225 Resp: 657

Ion	Ratio	Lower	Upper
225	100		
223	28.4	38.1	78.1#
227	0.0	41.1	81.1#



MM8372.D W111815A.M Wed Dec 02 17:41:59 2015 Page 4

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8372.D
Acq On : 25 Nov 2015 3:00 am
Operator : K.Ruest
Sample : R1510063-003|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 35 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8372.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.255	346	354	363	rVB2	231922	538181	13.47%	2.402%
2	5.590	726	737	747	rBV2	493489	1230722	30.81%	5.494%
3	5.737	749	761	773	rVB	947350	2309342	57.82%	10.308%
4	6.096	810	820	831	rBV	528688	1216383	30.45%	5.430%
5	6.767	921	930	939	rBV	1574764	3071723	76.90%	13.711%
6	8.529	1210	1219	1232	rBV	2495755	3994276	100.00%	17.829%
7	9.986	1452	1458	1469	rVB	2638348	3660099	91.63%	16.338%
8	11.047	1627	1632	1641	rBV	2156600	2728426	68.31%	12.179%
9	11.278	1664	1670	1677	rBV2	35218	55443	1.39%	0.247%
10	11.388	1683	1688	1692	rBV2	37820	48039	1.20%	0.214%
11	12.016	1785	1791	1799	rVB	2904852	3550325	88.89%	15.848%

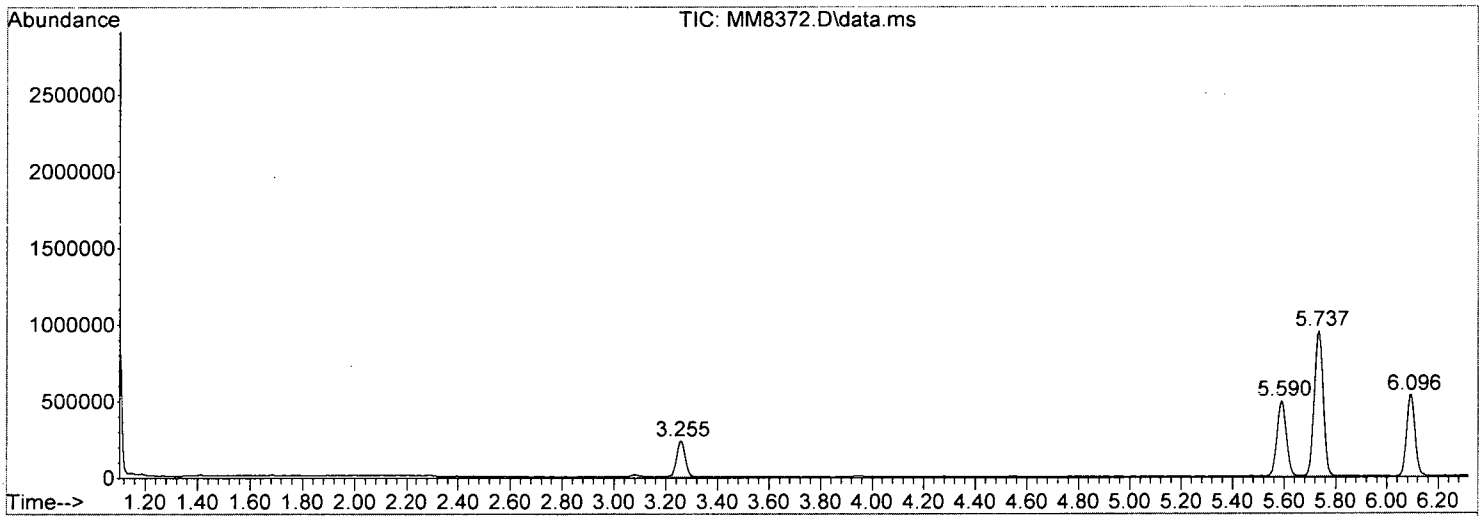
Sum of corrected areas: 22402959

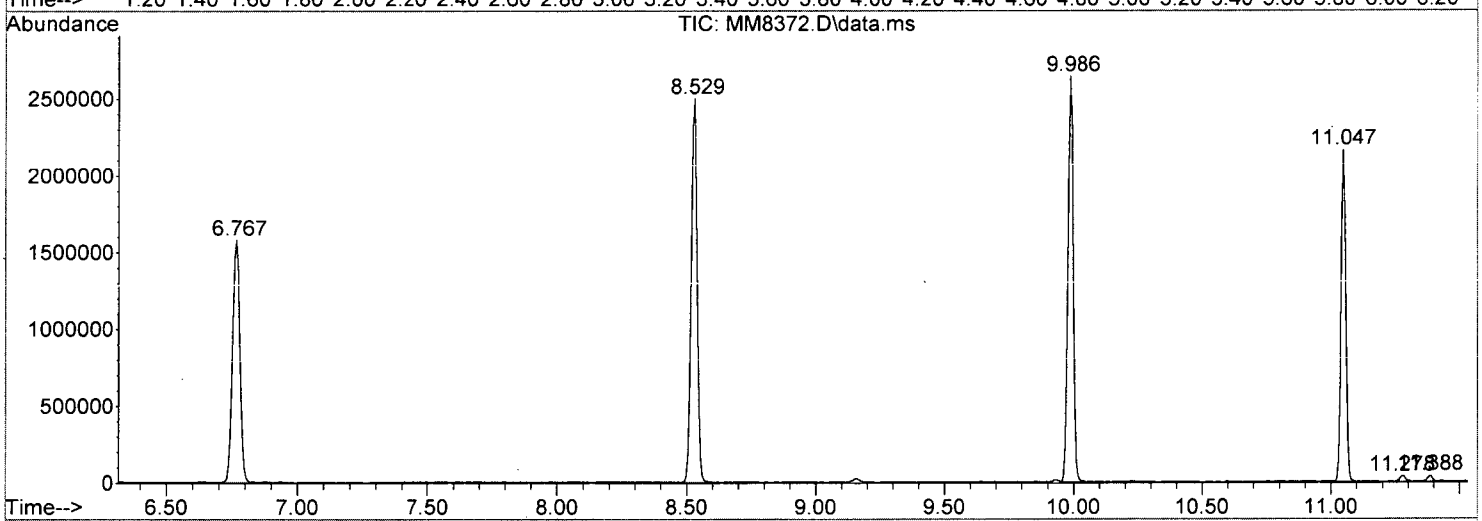
LSC Report - Integrated Chromatogram

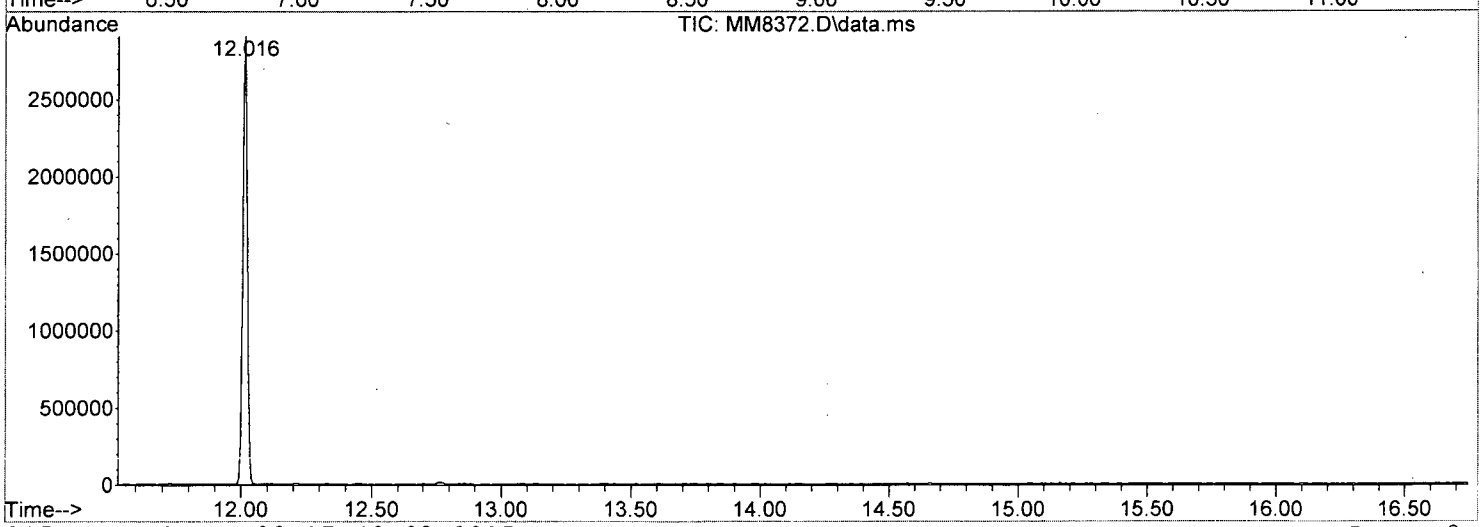
Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8372.D
Acq On : 25 Nov 2015 3:00 am
Operator : K.Ruest
Sample : R1510063-003|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 35 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P







W111815A.M Wed Dec 02 17:42:08 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\112415\\
Data File : MM8372.D
Acq On : 25 Nov 2015 3:00 amm
Operator : K.Ruestt
Sample : R1510063-003|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD**
ALS Vial : 35 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1528
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW102-17.5
Lab Code: R1510063-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 03:30		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 03:30		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 03:30		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 03:30		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 03:30		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 03:30		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 03:30		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 03:30		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 03:30		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 03:30		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 03:30		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 03:30		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 03:30		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 03:30		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 03:30		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 03:30		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 03:30		473760	
tert-Butyl Alcohol	**26**	J	100	20	11	1	NA	11/25/15 03:30		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 03:30		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 03:30		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 03:30		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 03:30		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 03:30		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 03:30		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 03:30		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 03:30		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 03:30		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 03:30		473760	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1528
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW102-17.5
Lab Code: R1510063-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 03:30		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 03:30		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 03:30		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 03:30		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 03:30		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 03:30		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 03:30		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
Methyl tert-Butyl Ether	**14**		5.0	1.0	0.29	1	NA	11/25/15 03:30		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 03:30		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 03:30		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 03:30		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 03:30		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 03:30		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 03:30		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 03:30		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 03:30		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 03:30		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 03:30		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	11/25/15 03:30	
Dibromofluoromethane	112	85-115	11/25/15 03:30	
Toluene-d8	105	85-120	11/25/15 03:30	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0330

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW102-17.5	**Units:**	µg/L
Lab Code:	R1510063-004	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8373.D
Acq On : 25 Nov 2015 3:30 am
Operator : K.Ruest
Sample : R1510063-004|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Dec 02 17:43:11 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	810901	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1326487	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1216881	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	578385	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.590	113	385060	55.83	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 111.66%			
48) surr1,1,2-dichloroetha...	6.090	65	414453	54.41	ppb	-0.01
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.82%			
65) SURR3,Toluene-d8	8.529	98	1529468	52.70	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.40%			
70) SURR2,BFB	11.047	95	613215	55.97	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.94%			
Target Compounds						Qvalue
23) TBA	3.085	59	13886	26.08	ppb	92
25) Methyl-t-Butyl Ether	3.261	73	265598	14.08	ppb	99

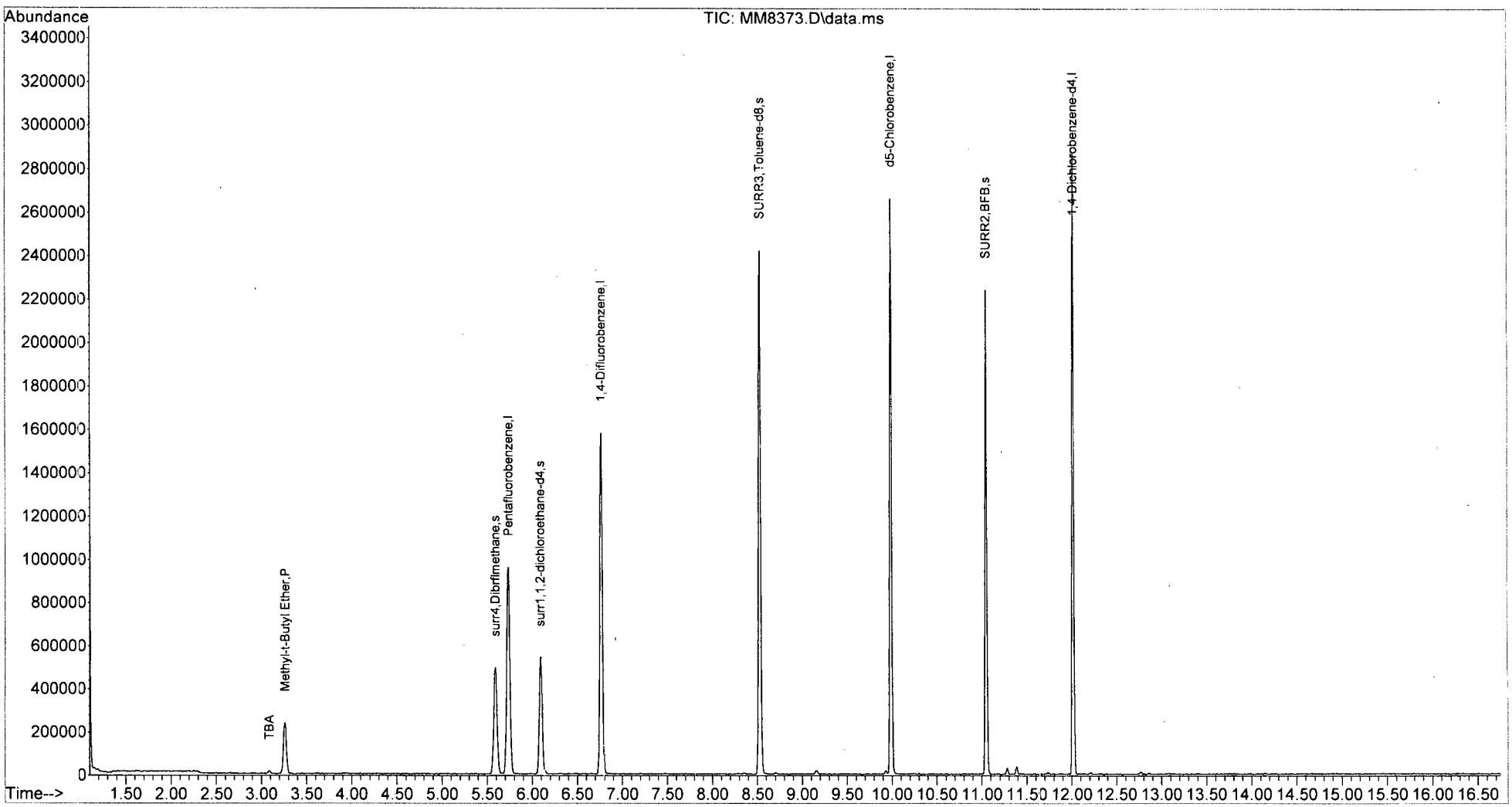
KR 12/2/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed

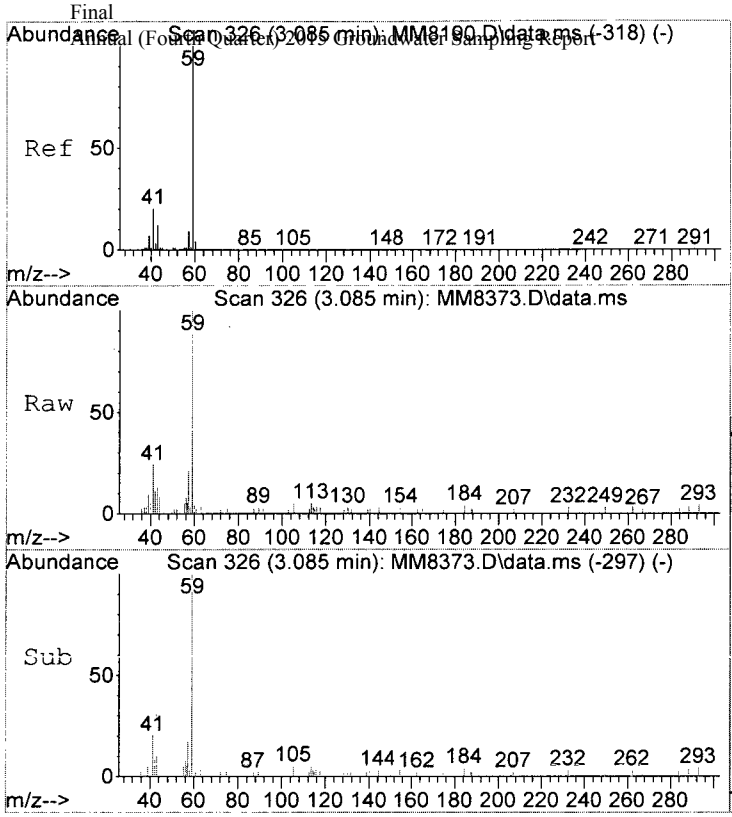
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8373.D
Acq On : 25 Nov 2015 3:30 am
Operator : K.Ruest
Sample : R1510063-004|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Dec 02 17:43:11 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



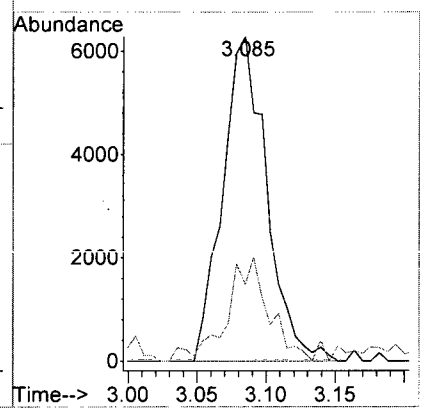
W111815A.M Wed Dec 02 17:44:26 2015 Page: 2

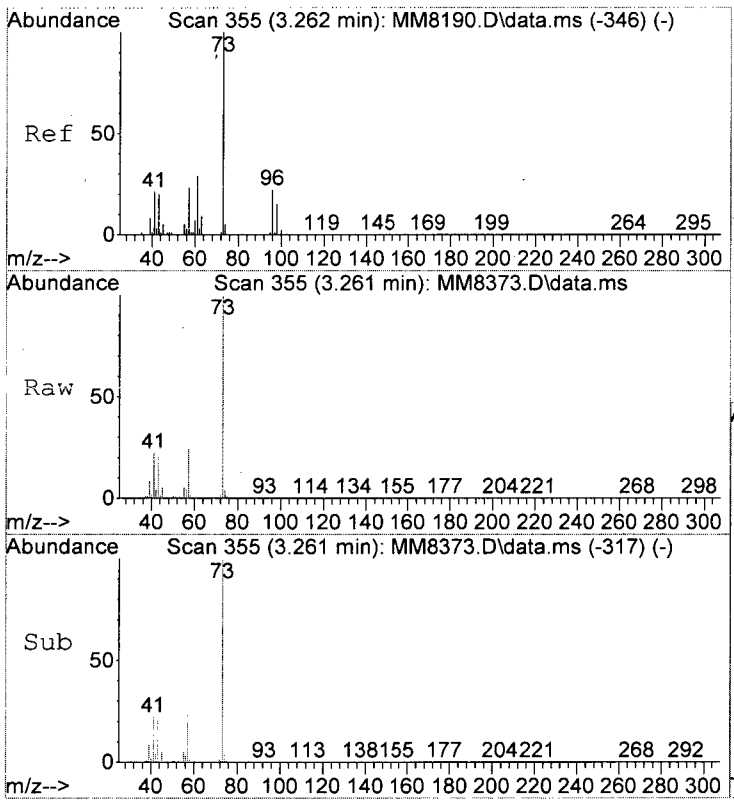


#23
TBA
Concen: 26.08 ppb
RT: 3.085 min Scan# 326
Delta R.T. -0.012 min
Lab File: MM8373.D
Acq: 25 Nov 2015 3:30 am

Tgt Ion: 59 Resp: 13886

Ion	Ratio	Lower	Upper
59	100		
41	23.7	0.0	40.0

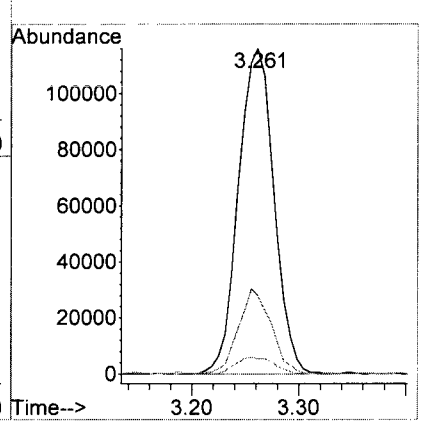




#25
Methyl-t-Butyl Ether
Concen: 14.08 ppb
RT: 3.261 min Scan# 355
Delta R.T. -0.006 min
Lab File: MM8373.D
Acq: 25 Nov 2015 3:30 am

Tgt Ion: 73 Resp: 265598

Ion	Ratio	Lower	Upper
73	100		
57	24.1	3.3	43.3
55	4.8	0.0	24.8



MM8373.D W111815A.M Wed Dec 02 17:44:28 2015 Page 3

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8373.D
Acq On : 25 Nov 2015 3:30 am
Operator : K.Ruest
Sample : R1510063-004|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 36 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8373.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.261	346	355	364	rVB	236468	543936	13.67%	2.419%
2	5.590	726	737	748	rBV2	493443	1232079	30.97%	5.479%
3	5.737	751	761	775	rVB	959614	2314397	58.18%	10.291%
4	6.096	809	820	833	rBV	543857	1237498	31.11%	5.503%
5	6.767	921	930	941	rBV	1579016	3067906	77.13%	13.642%
6	8.529	1212	1219	1229	rBV	2420804	3977772	100.00%	17.688%
7	9.986	1452	1458	1469	rVB	2658945	3677020	92.44%	16.350%
8	11.047	1627	1632	1640	rVB	2241316	2760734	69.40%	12.276%
9	11.284	1663	1671	1676	rVB3	29682	43634	1.10%	0.194%
10	11.388	1684	1688	1693	rBV2	36573	47583	1.20%	0.212%
11	12.016	1785	1791	1797	rBV	2871632	3586558	90.16%	15.948%

Sum of corrected areas: 22489117

LSC Report - Integrated Chromatogram

```
Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8373.D
Acq On    : 25 Nov 2015    3:30 am
Operator  : K.Ruest
Sample    : R1510063-004|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD*
ALS Vial  : 36   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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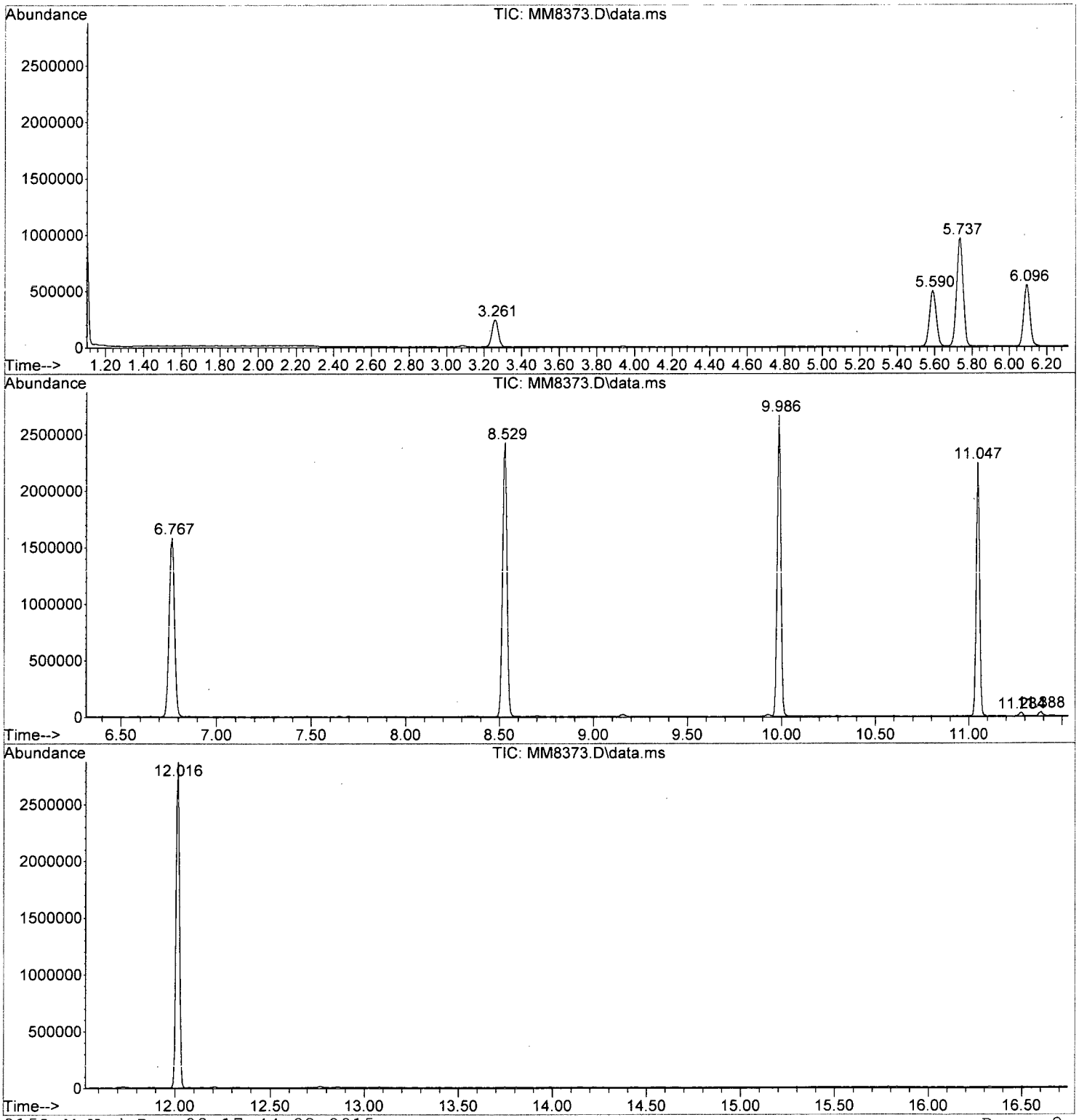


W111815A.M Wed Dec 02 17:44:38 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\112415\\
Data File : MM8373.D
Acq On : 25 Nov 2015 3:30 amm
Operator : K.Ruestt
Sample : R1510063-004|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD**
ALS Vial : 36 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1613
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW02-22.5
Lab Code: R1510063-005

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 04:01		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 04:01		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 04:01		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 04:01		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 04:01		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 04:01		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 04:01		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 04:01		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 04:01		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 04:01		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 04:01		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 04:01		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 04:01		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 04:01		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 04:01		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 04:01		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 04:01		473760	
tert-Butyl Alcohol	**28**	J	100	20	11	1	NA	11/25/15 04:01		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 04:01		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 04:01		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 04:01		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 04:01		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 04:01		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 04:01		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 04:01		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 04:01		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 04:01		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 04:01		473760	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1613
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW02-22.5
Lab Code: R1510063-005

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 04:01		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 04:01		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 04:01		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 04:01		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 04:01		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 04:01		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 04:01		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
Methyl tert-Butyl Ether	15		5.0	1.0	0.29	1	NA	11/25/15 04:01		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 04:01		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 04:01		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 04:01		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 04:01		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 04:01		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 04:01		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 04:01		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 04:01		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 04:01		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:01		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/25/15 04:01	
Dibromofluoromethane	111	85-115	11/25/15 04:01	
Toluene-d8	104	85-120	11/25/15 04:01	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0401

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW02-22.5	**Units:**	µg/L
Lab Code:	R1510063-005	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8374.D
Acq On : 25 Nov 2015 4:01 am
Operator : K.Ruest
Sample : R1510063-005|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Dec 02 17:45:12 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	797585	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1324373	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1218034	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	582183	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.590	113	381007	55.33	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 110.66%			
48) surr1,1,2-dichloroetha...	6.090	65	411902	54.16	ppb	-0.01
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.32%			
65) SURR3,Toluene-d8	8.529	98	1500765	51.79	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.58%			
70) SURR2,BFB	11.047	95	602619	55.09	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.18%			
Target Compounds						Qvalue
23) TBA	3.091	59	14797	28.26	ppb	94
25) Methyl-t-Butyl Ether	3.262	73	273261	14.73	ppb	99
94) 1,2,3-Trichloropropane	11.278	110	275	Below Cal	#	1

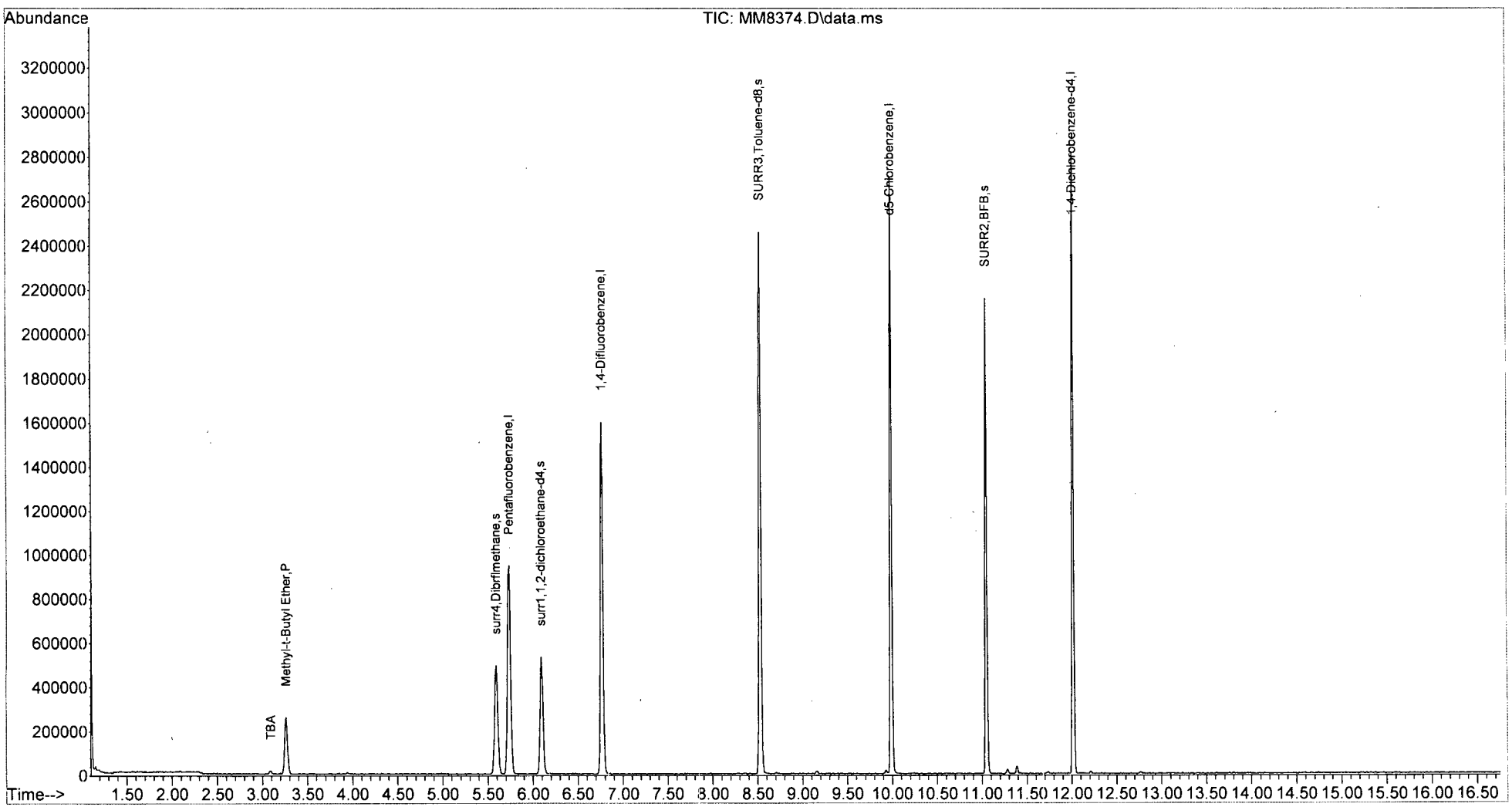
(#) = qualifier out of range (m) = manual integration (+) = signals summed

KR 12/2/15

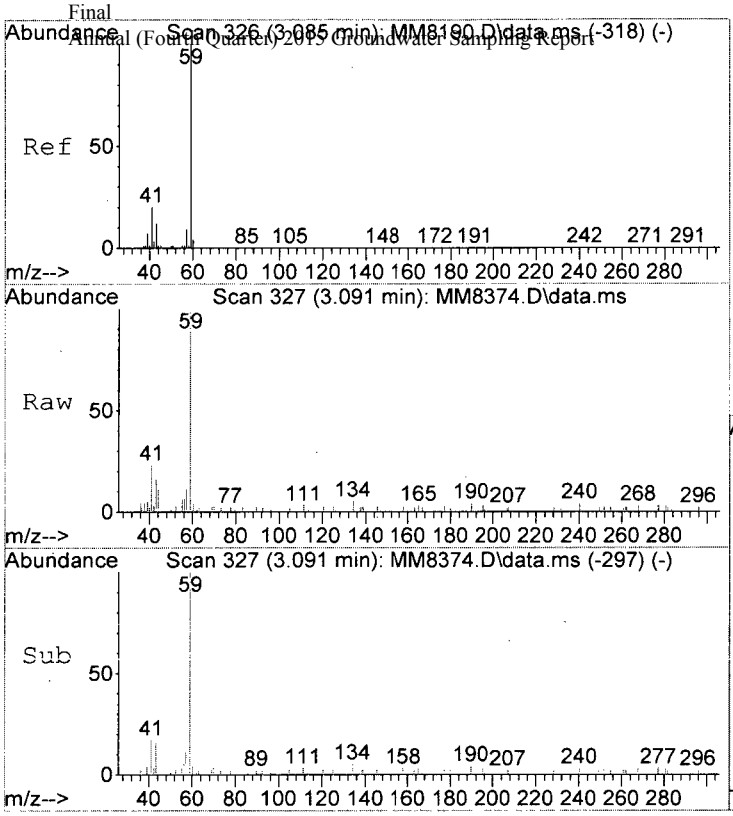
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8374.D
Acq On : 25 Nov 2015 4:01 am
Operator : K.Ruest
Sample : R1510063-005|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Dec 02 17:45:12 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



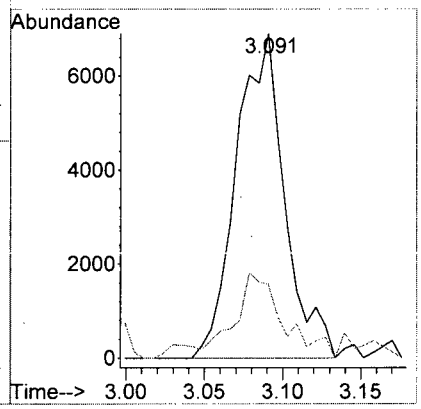
W111815A.M Wed Dec 02 17:46:42 2015 Page: 2

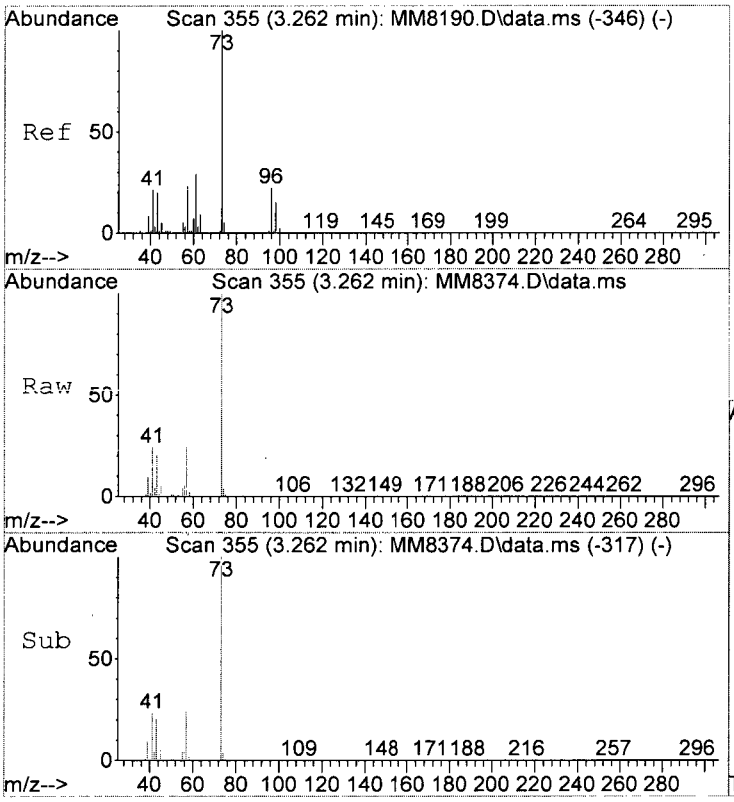


#23
TBA
Concen: 28.26 ppb
RT: 3.091 min Scan# 327
Delta R.T. -0.006 min
Lab File: MM8374.D
Acq: 25 Nov 2015 4:01 am

Tgt Ion: 59 Resp: 14797

Ion	Ratio	Lower	Upper
59	100		
41	22.8	0.0	40.0

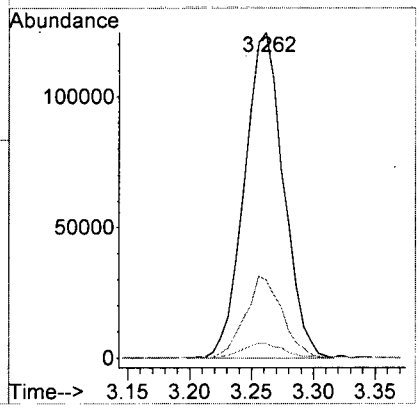




#25
Methyl-t-Butyl Ether
Concen: 14.73 ppb
RT: 3.262 min Scan# 355
Delta R.T. -0.006 min
Lab File: MM8374.D
Acq: 25 Nov 2015 4:01 am

Tgt Ion: 73 Resp: 273261

Ion	Ratio	Lower	Upper
73	100		
57	24.0	3.3	43.3
55	4.5	0.0	24.8



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8374.D
Acq On : 25 Nov 2015 4:01 am
Operator : K.Ruest
Sample : R1510063-005|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 37 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8374.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.262	346	355	364	rBV	257607	570503	14.58%	2.557%
2	5.590	725	737	749	rVB2	494138	1224846	31.30%	5.489%
3	5.737	749	761	772	rBV	946615	2291192	58.55%	10.268%
4	6.096	809	820	831	rBV	531907	1199789	30.66%	5.377%
5	6.767	919	930	941	rBV	1599744	3068940	78.43%	13.754%
6	8.529	1211	1219	1230	rBV	2455828	3913127	100.00%	17.537%
7	9.986	1452	1458	1468	rVB	2705594	3682146	94.10%	16.502%
8	11.047	1627	1632	1641	rVB	2155830	2740138	70.02%	12.280%
9	11.388	1683	1688	1691	rBV2	35053	49649	1.27%	0.223%
10	12.016	1785	1791	1799	rVB	2812360	3573105	91.31%	16.013%

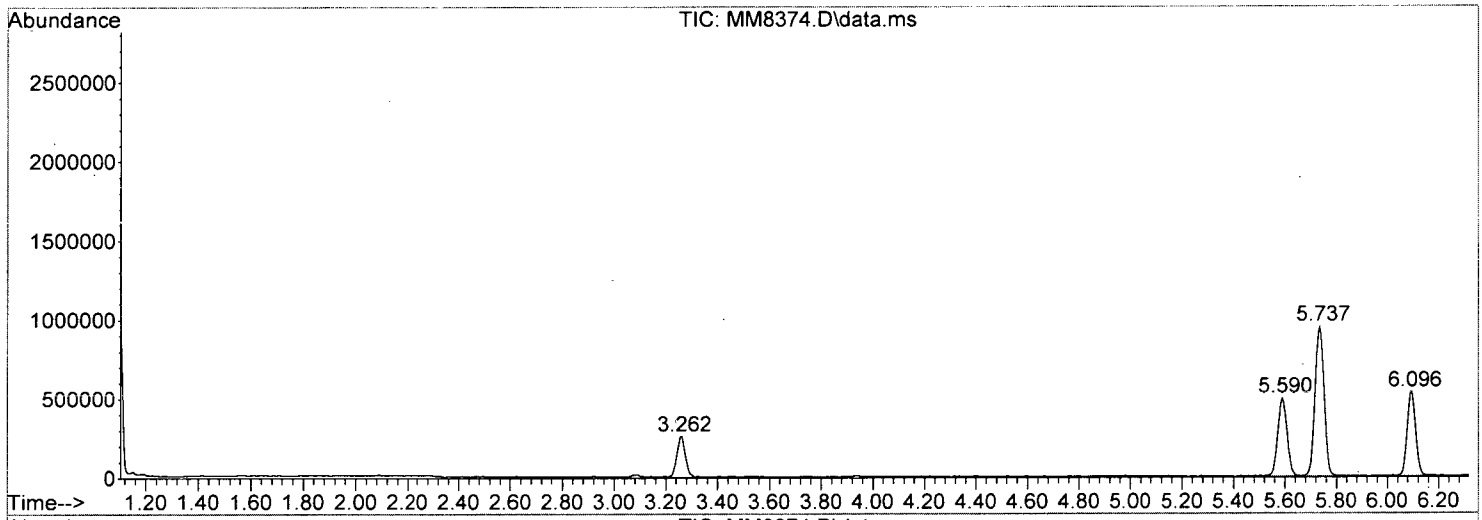
Sum of corrected areas: 22313435

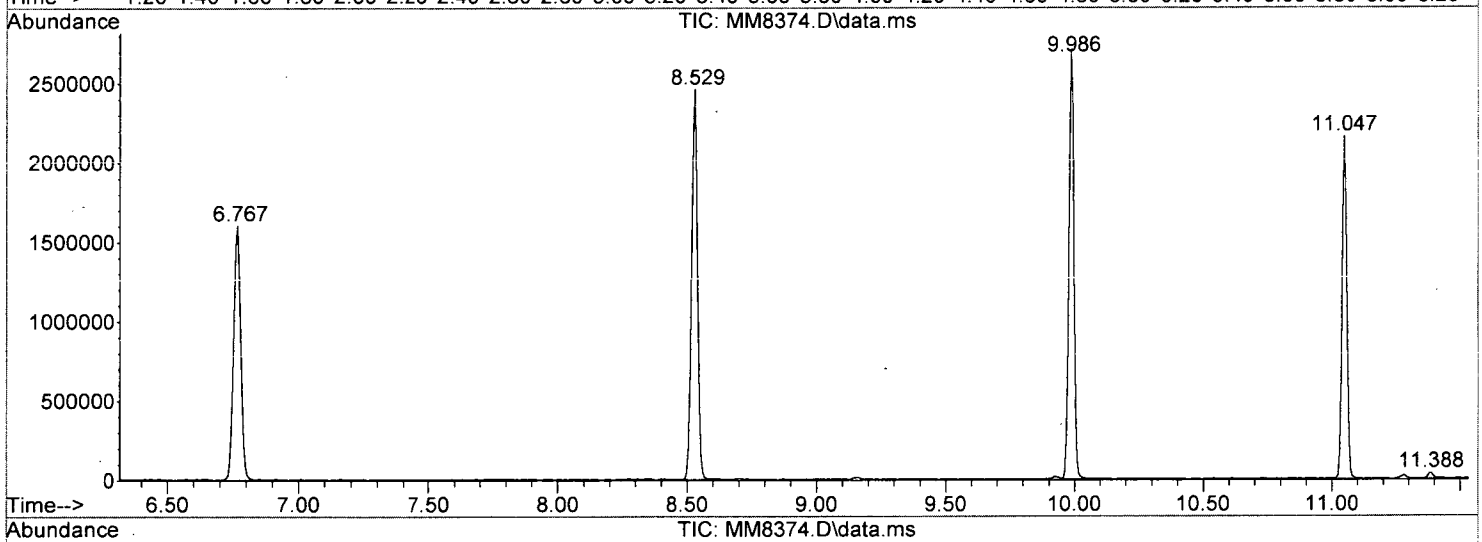
LSC Report - Integrated Chromatogram

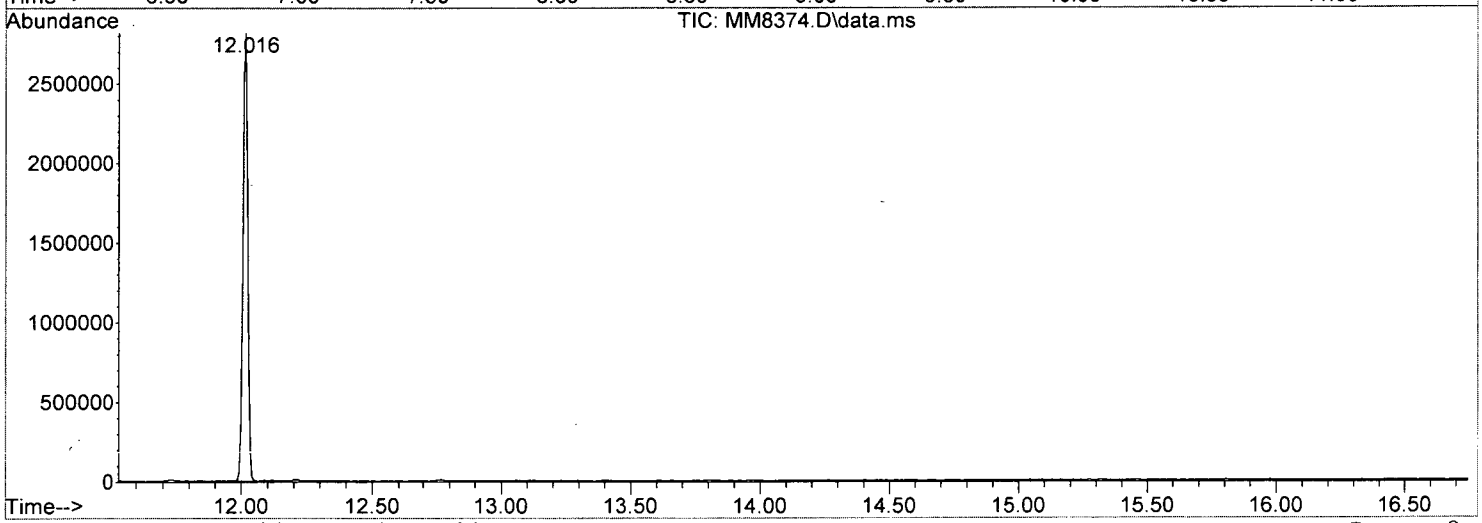
Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8374.D
Acq On : 25 Nov 2015 4:01 am
Operator : K.Ruest
Sample : R1510063-005|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 37 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P







W111815A.M Wed Dec 02 17:46:54 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\112415\\
Data File : MM8374.D
Acq On : 25 Nov 2015 4:01 amm
Operator : K.Ruestt
Sample : R1510063-005|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD**
ALS Vial : 37 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1317
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW03-17.5
Lab Code: R1510063-006

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 04:31		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 04:31		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 04:31		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 04:31		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 04:31		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 04:31		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 04:31		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 04:31		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 04:31		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 04:31		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 04:31		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 04:31		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 04:31		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 04:31		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 04:31		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 04:31		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 04:31		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 04:31		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 04:31		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 04:31		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 04:31		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 04:31		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 04:31		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 04:31		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 04:31		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 04:31		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 04:31		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 04:31		473760	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1317
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW03-17.5	**Units:**	µg/L
Lab Code:	R1510063-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 04:31		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 04:31		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 04:31		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 04:31		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 04:31		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 04:31		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 04:31		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 04:31		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 04:31		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 04:31		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 04:31		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 04:31		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 04:31		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 04:31		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 04:31		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 04:31		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 04:31		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 04:31		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	11/25/15 04:31	
Dibromofluoromethane	112	85-115	11/25/15 04:31	
Toluene-d8	105	85-120	11/25/15 04:31	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0431

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW03-17.5	**Units:**	µg/L
Lab Code:	R1510063-006	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8375.D
Acq On : 25 Nov 2015 4:31 am
Operator : K.Ruest
Sample : R1510063-006|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Dec 03 09:54:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	810738	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1317071	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1212488	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	580263	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.590	113	382837	55.91	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 111.82%			
48) surr1,1,2-dichloroetha...	6.096	65	416978	55.13	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 110.26%			
65) SURR3,Toluene-d8	8.529	98	1515165	52.58	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.16%			
70) SURR2,BFB	11.047	95	607376	55.83	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.66%			
Target Compounds						Qvalue
23) TBA	3.085	59	1407	2.64	ppb	84

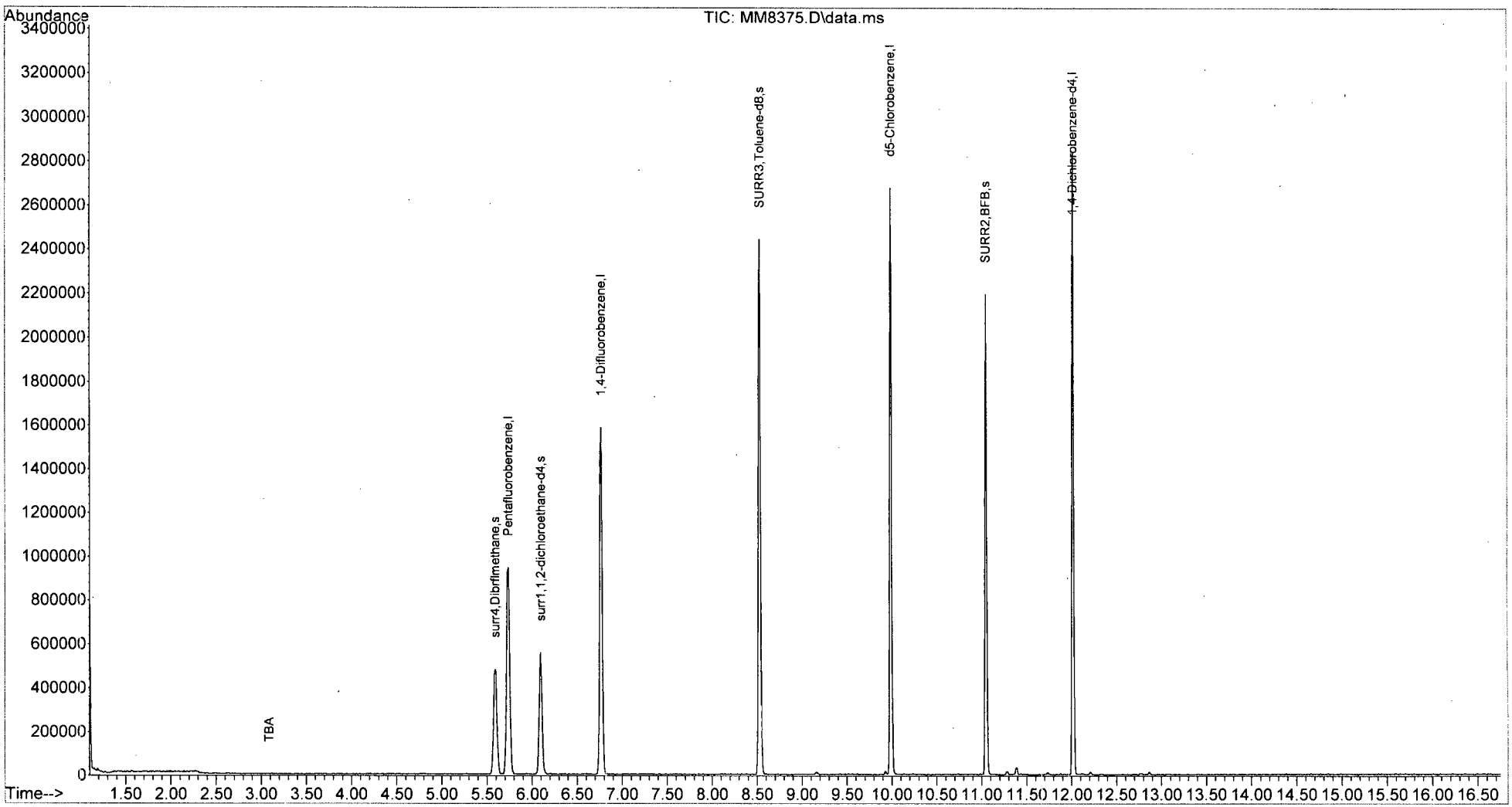
(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/3/15

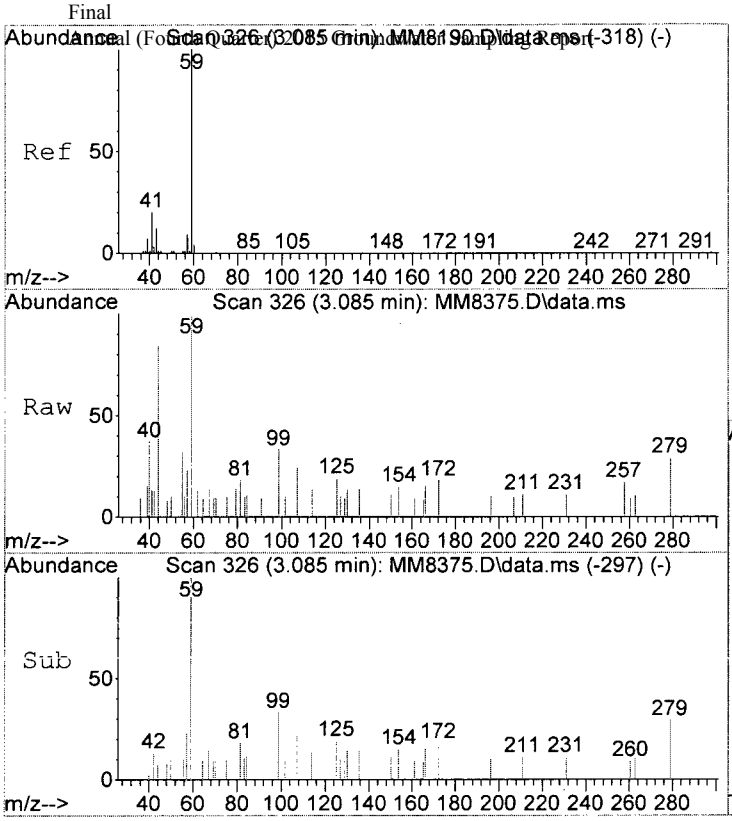
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8375.D
Acq On : 25 Nov 2015 4:31 am
Operator : K.Ruest
Sample : R1510063-006|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Dec 03 09:54:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



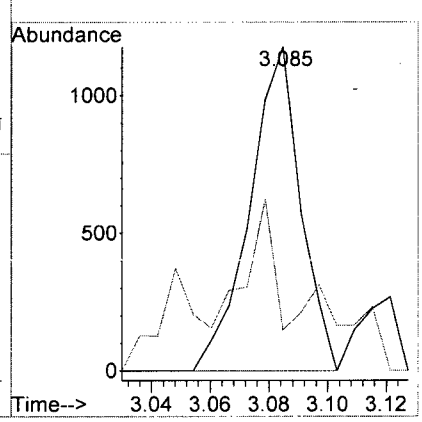
W111815A.M Thu Dec 03 09:55:30 2015 Page: 2



#23
TBA
Concen: 2.64 ppb
RT: 3.085 min Scan# 326
Delta R.T. -0.012 min
Lab File: MM8375.D
Acq: 25 Nov 2015 4:31 am

Tgt Ion: 59 Resp: 1407

Ion	Ratio	Lower	Upper
59	100		
41	12.6	0.0	40.0



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8375.D
Acq On : 25 Nov 2015 4:31 am
Operator : K.Ruest
Sample : R1510063-006|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 38 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8375.D\data.ms

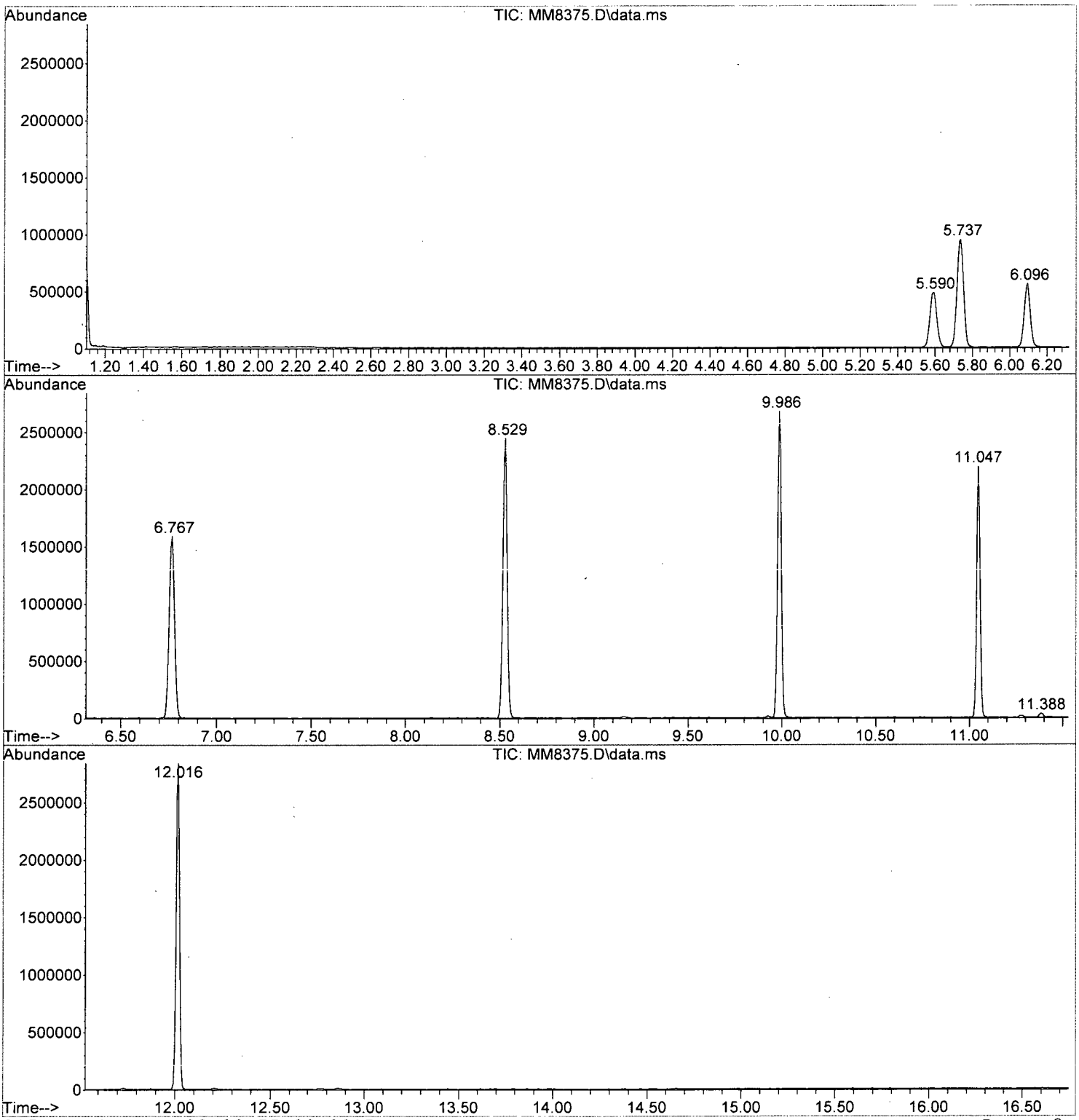
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.590	727	737	747	rBV2	479599	1225714	31.16%	5.630%
2	5.737	751	761	771	rVB	944298	2305247	58.60%	10.588%
3	6.096	811	820	832	rBV	555292	1217138	30.94%	5.590%
4	6.767	922	930	939	rBV	1583669	3032026	77.08%	13.926%
5	8.529	1211	1219	1227	rBV	2442187	3933654	100.00%	18.067%
6	9.986	1452	1458	1472	rVB	2675106	3695422	93.94%	16.973%
7	11.047	1627	1632	1641	rVB	2190929	2731228	69.43%	12.544%
8	11.388	1681	1688	1692	rBV	32593	48323	1.23%	0.222%
9	12.016	1785	1791	1798	rBV	2837818	3583871	91.11%	16.460%

Sum of corrected areas: 21772623

```
Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8375.D
Acq On    : 25 Nov 2015    4:31 am
Operator  : K.Ruest
Sample    : R1510063-006|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD*
ALS Vial  : 38   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



W111815A.M Thu Dec 03 09:55:39 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\112415\\
Data File : MM8375.D
Acq On : 25 Nov 2015 4:31 amm
Operator : K.Ruestt
Sample : R1510063-006|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD**
ALS Vial : 38 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1403
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW03-22.5
Lab Code: R1510063-007

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 05:01		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 05:01		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 05:01		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 05:01		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 05:01		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 05:01		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 05:01		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 05:01		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 05:01		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 05:01		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 05:01		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 05:01		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 05:01		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 05:01		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 05:01		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 05:01		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 05:01		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 05:01		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 05:01		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 05:01		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 05:01		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 05:01		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 05:01		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 05:01		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 05:01		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 05:01		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 05:01		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 05:01		473760	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1403
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW03-22.5	**Units:**	µg/L
Lab Code:	R1510063-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 05:01		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 05:01		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 05:01		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 05:01		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 05:01		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 05:01		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 05:01		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 05:01		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 05:01		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 05:01		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 05:01		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 05:01		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 05:01		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 05:01		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 05:01		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 05:01		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 05:01		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:01		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/25/15 05:01	
Dibromofluoromethane	111	85-115	11/25/15 05:01	
Toluene-d8	104	85-120	11/25/15 05:01	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0501

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW03-22.5	**Units:**	µg/L
Lab Code:	R1510063-007	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8376.D
Acq On : 25 Nov 2015 5:01 am
Operator : K.Ruest
Sample : R1510063-007|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Dec 03 09:36:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	798425	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1331600	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1218175	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	583158	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.591	113	385594	55.70	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 111.40%			
48) surr1,1,2-dichloroetha...	6.097	65	413937	54.13	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.26%			
65) SURR3,Toluene-d8	8.529	98	1518553	52.12	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 104.24%			
70) SURR2,BFB	11.047	95	609397	55.41	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.82%			
Target Compounds						Qvalue

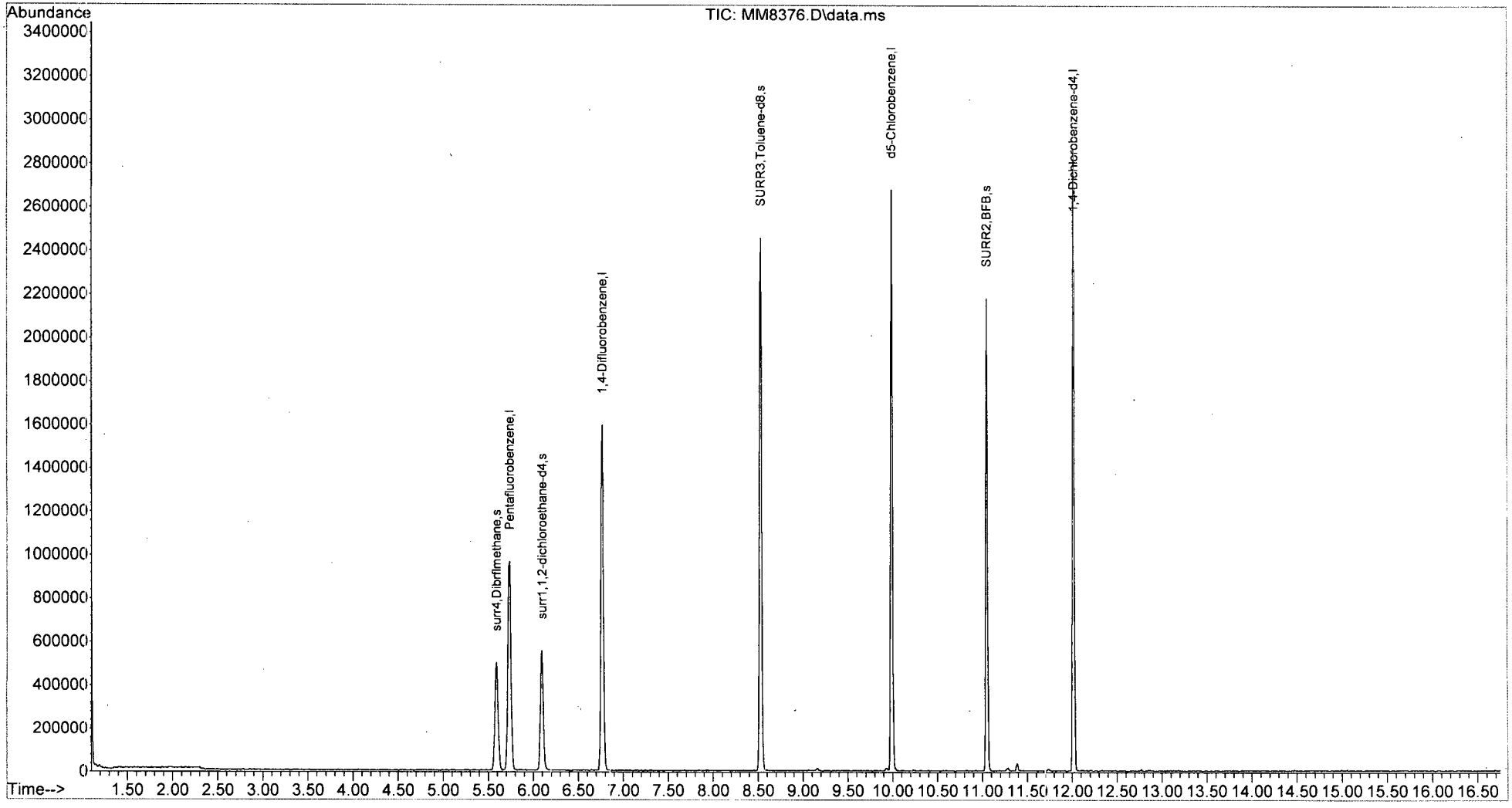
(#) = qualifier out of range (m) = manual integration (+) = signals summed

KP 12/3/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8376.D
Acq On : 25 Nov 2015 5:01 am
Operator : K.Ruest
Sample : R1510063-007|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Dec 03 09:36:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Thu Dec 03 09:37:52 2015 Page: 2

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8376.D
Acq On : 25 Nov 2015 5:01 am
Operator : K.Ruest
Sample : R1510063-007|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 39 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8376.D\data.ms

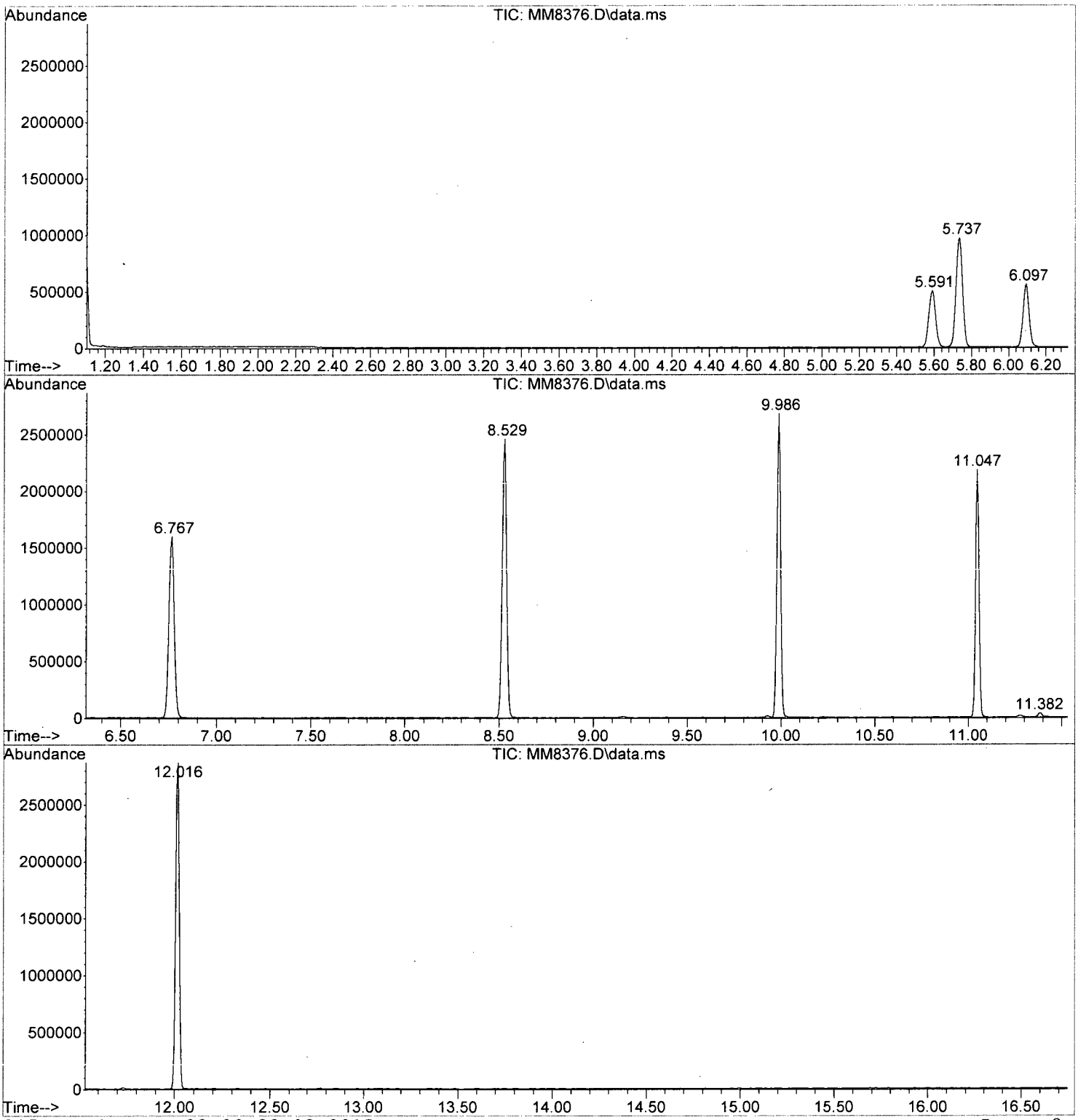
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.591	728	737	748	rVB2	500027	1238882	31.13%	5.654%
2	5.737	750	761	771	rBV	964157	2312168	58.09%	10.551%
3	6.097	810	820	830	rBV	554563	1219584	30.64%	5.565%
4	6.767	922	930	940	rVB	1592603	3054860	76.75%	13.941%
5	8.529	1209	1219	1233	rBV	2455355	3980073	100.00%	18.163%
6	9.986	1452	1458	1469	rVB	2676292	3696515	92.88%	16.869%
7	11.047	1627	1632	1643	rVB	2178230	2751938	69.14%	12.558%
8	11.382	1681	1687	1692	rBV2	35685	54718	1.37%	0.250%
9	12.016	1785	1791	1798	rVB	2861249	3604714	90.57%	16.450%

Sum of corrected areas: 21913452

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8376.D
Acq On : 25 Nov 2015 5:01 am
Operator : K.Ruest
Sample : R1510063-007|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 39 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



W111815A.M Thu Dec 03 09:38:03 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\112415\\
Data File : MM8376.D
Acq On : 25 Nov 2015 5:01 amm
Operator : K.Ruestt
Sample : R1510063-007|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD**
ALS Vial : 39 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1051
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW04-20.25	**Units:**	µg/L
Lab Code:	R1510063-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 14:36		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 14:36		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 14:36		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 14:36		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 14:36		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 14:36		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 14:36		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 14:36		474104	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/30/15 14:36		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 14:36		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 14:36		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 14:36		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 14:36		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 14:36		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 14:36		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 14:36		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 14:36		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 14:36		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 14:36		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 14:36		474104	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/30/15 14:36		474104	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 14:36		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 14:36		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 14:36		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 14:36		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 14:36		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 14:36		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 14:36		474104	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1051
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW04-20.25	**Units:**	µg/L
Lab Code:	R1510063-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 14:36		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 14:36		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 14:36		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 14:36		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 14:36		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 14:36		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/30/15 14:36		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 14:36		474104	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/30/15 14:36		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 14:36		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 14:36		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 14:36		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 14:36		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 14:36		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 14:36		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 14:36		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 14:36		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:36		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	11/30/15 14:36	
Dibromofluoromethane	111	85-115	11/30/15 14:36	
Toluene-d8	101	85-120	11/30/15 14:36	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/30/15 1436

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW04-20.25	**Units:**	µg/L
Lab Code:	R1510063-008	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8398.D
Acq On : 30 Nov 2015 2:36 pm
Operator : K.Ruest
Sample : R1510063-008|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 30 14:52:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

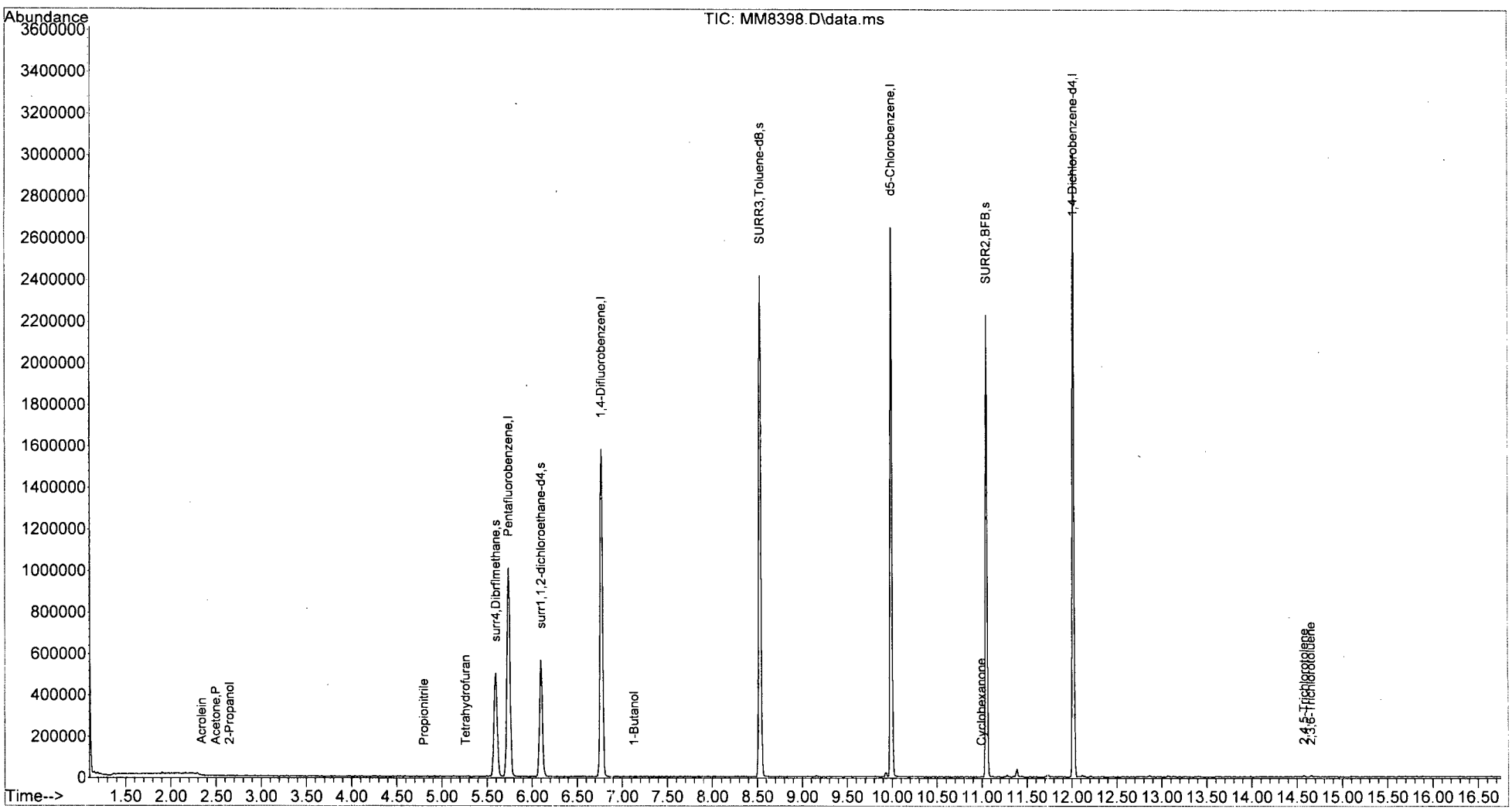
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	835644	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1350566	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1245951	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	602123	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	390253	55.58	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 111.16%				
48) surr1,1,2-dichloroetha...	6.096	65	420410	54.20	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.40%				
65) SURR3,Toluene-d8	8.529	98	1493480	50.54	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.08%				
70) SURR2,BFB	11.047	95	623383	55.88	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.76%				
Target Compounds							Qvalue
12) Acrolein	2.335	56	588	0.83	ppb		~~78~~
15) Acetone	2.494	43	723	~~0.41~~	ppb		70
16) 2-Propanol	2.646	45	~~178~~	0.53	ppb		89
36) Propionitrile	~~4.798~~	54	493	0.66	ppb		57
39) Tetrahydrofuran	5.261	42	551	0.35	ppb		83
53) ~~1-Butanol~~	7.127	56	213	1.36	ppb	#	24
~~90) Cyclohexanone~~	~~10.992~~	~~55~~	~~601~~	~~1.32~~	~~ppb~~		~~76~~
119) 2,4,5-Trichlorotolene	14.577	159	1350	0.28	ppb	#	69 MD
120) 2,3,6-Trichlorotoluene	14.650	159	854	0.20	ppb	#	75 ↓

(#) = qualifier out of range (m) = manual integration (+) = signals summed

KR 12/3/15

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8398.D
Acq On : 30 Nov 2015 2:36 pm
Operator : K.Ruest
Sample : R1510063-008|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 30 14:52:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Mon Nov 30 14:52:45 2015 Page: 2

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8398.D
Acq On : 30 Nov 2015 2:36 pm
Operator : K.Ruest
Sample : R1510063-008|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8398.D\data.ms

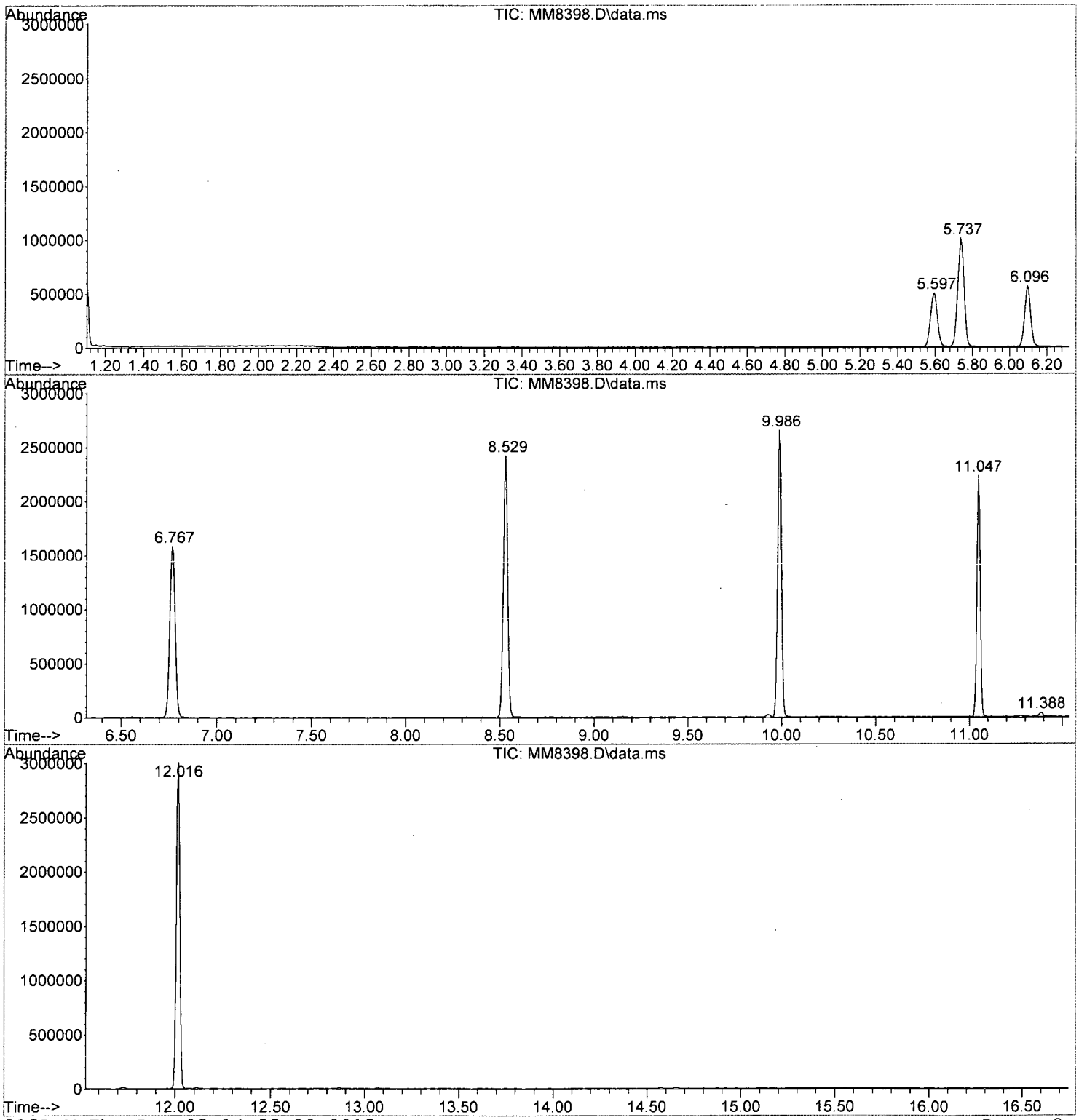
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.597	728	738	750	rBV	501463	1261327	32.62%	5.675%
2	5.737	750	761	772	rBV	1007452	2375769	61.44%	10.689%
3	6.096	810	820	830	rBV	566516	1239237	32.05%	5.576%
4	6.767	922	930	941	rBV	1579178	3093915	80.01%	13.920%
5	8.529	1211	1219	1229	rBV	2419020	3866791	100.00%	17.397%
6	9.986	1452	1458	1469	rVV	2650428	3776131	97.66%	16.989%
7	11.047	1626	1632	1641	rBV	2229480	2819195	72.91%	12.684%
8	11.388	1683	1688	1694	rVB2	38383	50404	1.30%	0.227%
9	12.016	1786	1791	1798	rVB	3002318	3743598	96.81%	16.843%

Sum of corrected areas: 22226367

```
Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8398.D
Acq On    : 30 Nov 2015    2:36 pm
Operator  : K.Ruest
Sample    : R1510063-008|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 12   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\113015\\
Data File : MM8398.D
Acq On : 30 Nov 2015 2:36 pmm
Operator : K.Ruestt
Sample : R1510063-008¦1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 12 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1158
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW04-25.25
Lab Code: R1510063-009

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 05:31		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 05:31		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 05:31		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 05:31		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 05:31		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 05:31		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 05:31		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 05:31		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 05:31		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 05:31		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 05:31		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 05:31		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 05:31		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 05:31		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 05:31		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 05:31		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 05:31		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 05:31		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 05:31		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 05:31		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 05:31		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 05:31		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 05:31		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 05:31		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 05:31		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 05:31		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 05:31		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 05:31		473760	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1158
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW04-25.25
Lab Code: R1510063-009

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 05:31		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 05:31		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 05:31		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 05:31		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 05:31		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 05:31		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 05:31		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 05:31		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 05:31		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 05:31		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 05:31		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 05:31		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 05:31		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 05:31		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 05:31		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 05:31		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 05:31		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 05:31		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/25/15 05:31	
Dibromofluoromethane	110	85-115	11/25/15 05:31	
Toluene-d8	99	85-120	11/25/15 05:31	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0531

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW04-25.25	**Units:**	µg/L
Lab Code:	R1510063-009	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8377.D
Acq On : 25 Nov 2015 5:31 am
Operator : K.Ruest
Sample : R1510063-009|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Dec 03 09:38:40 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	789689	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1318056	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1203938	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	579666	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.590	113	377177	55.04	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 110.08%			
48) surr1,1,2-dichloroetha...	6.096	65	409886	54.15	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.30%			
65) SURR3,Toluene-d8	8.529	98	1433697	49.71	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.42%			
70) SURR2,BFB	11.047	95	599620	55.08	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.16%			
Target Compounds						Qvalue

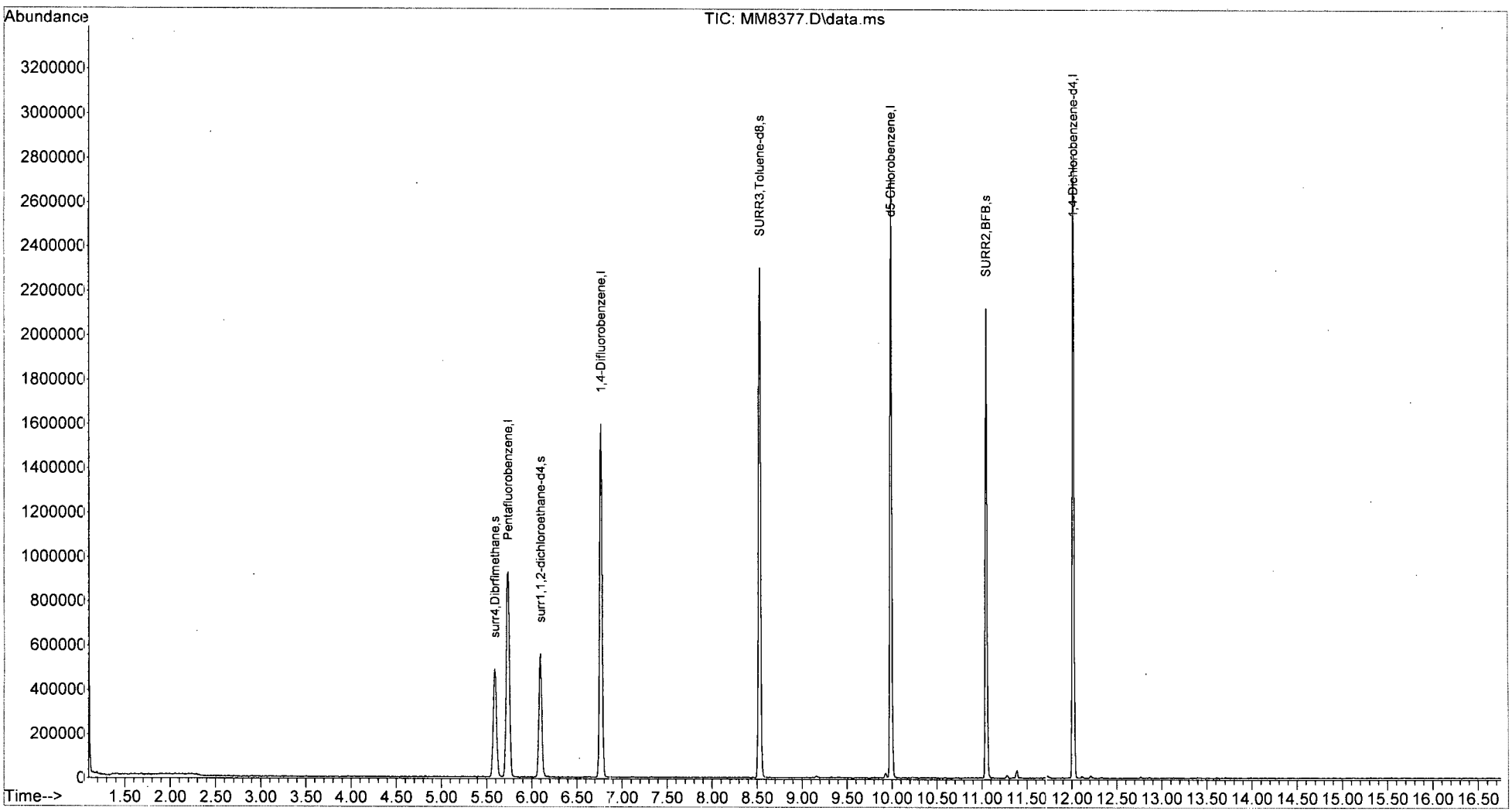
(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/3/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8377.D
Acq On : 25 Nov 2015 5:31 am
Operator : K.Ruest
Sample : R1510063-009|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Dec 03 09:38:40 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Thu Dec 03 09:39:58 2015

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8377.D
Acq On : 25 Nov 2015 5:31 am
Operator : K.Ruest
Sample : R1510063-009|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 40 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8377.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.590	726	737	749	rBV2	488110	1219839	32.60%	5.667%
2	5.737	751	761	776	rVB	929191	2284322	61.05%	10.613%
3	6.096	811	820	831	rBV	557961	1216574	32.52%	5.652%
4	6.767	920	930	944	rBV	1597352	3053830	81.62%	14.188%
5	8.529	1210	1219	1228	rBV	2304058	3741559	100.00%	17.384%
6	9.986	1452	1458	1467	rVV	2701575	3655525	97.70%	16.984%
7	11.047	1627	1632	1641	rVB	2121814	2704489	72.28%	12.565%
8	11.388	1683	1688	1692	rBV2	35149	44856	1.20%	0.208%
9	12.016	1785	1791	1801	rVB	2814226	3602545	96.28%	16.738%

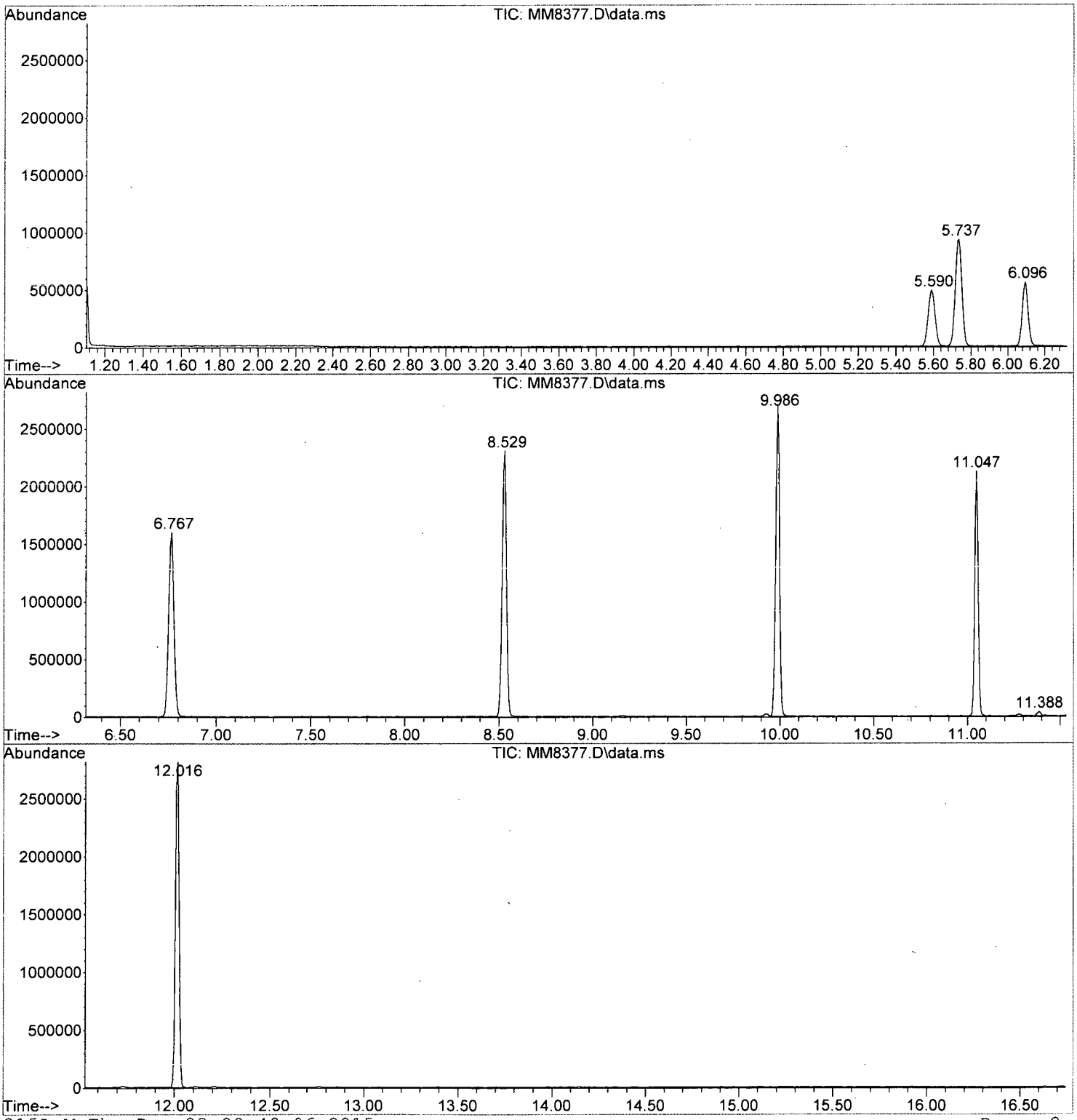
Sum of corrected areas: 21523539

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8377.D
Acq On : 25 Nov 2015 5:31 am
Operator : K.Ruest
Sample : R1510063-009|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 40 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



W111815A.M Thu Dec 03 09:40:06 2015 Page: 2

Tentatively Identified Compound (LSC) summary


```
Data Path : I:\ACQUDATA\msvoa12\Data\112415\\
Data File : MM8377.D
Acq On    : 25 Nov 2015    5:31 amm
Operator  : K.Ruestt
Sample    : R1510063-009|1.0                          Inst    : MSVOA-122
Misc      : PARSONS 11603 T4*DOD**
ALS Vial  : 40   Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title  : MS#12 - 8260B WATERS 10mL Purgee

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP
```

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected

****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15
Date Received: 11/19/15

Sample Name: TB-2015-11-18
Lab Code: R1510063-010

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 01:00		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 01:00		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 01:00		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 01:00		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 01:00		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 01:00		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 01:00		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 01:00		473760	
1,2,4-Trichlorobenzene	**0.27**	J	5.0	1.0	0.23	1	NA	11/25/15 01:00		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 01:00		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 01:00		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 01:00		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 01:00		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 01:00		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 01:00		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 01:00		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 01:00		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 01:00		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 01:00		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 01:00		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 01:00		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 01:00		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 01:00		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 01:00		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 01:00		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 01:00		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 01:00		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 01:00		473760	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	TB-2015-11-18	**Units:**	µg/L
Lab Code:	R1510063-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 01:00		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 01:00		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 01:00		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 01:00		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 01:00		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 01:00		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 01:00		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 01:00		473760	
Naphthalene	**0.27**	J	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 01:00		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 01:00		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 01:00		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 01:00		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 01:00		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 01:00		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 01:00		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 01:00		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 01:00		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 01:00		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/25/15 01:00	
Dibromofluoromethane	109	85-115	11/25/15 01:00	
Toluene-d8	108	85-120	11/25/15 01:00	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0100

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	TB-2015-11-18	**Units:**	µg/L
Lab Code:	R1510063-010	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8368.D
Acq On : 25 Nov 2015 1:00 am
Operator : K.Ruest
Sample : R1510063-010|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 02 17:30:40 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	805141	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1344647	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1212657	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	555005	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	381674	54.59	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.18%				
48) surr1,1,2-dichloroetha...	6.090	65	421226	54.55	ppb		-0.01
Spiked Amount 50.000	Range 73 - 125		Recovery = 109.10%				
65) SURR3,Toluene-d8	8.529	98	1588731	54.00	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 108.00%				
70) SURR2,BFB	11.047	95	615468	55.42	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.84%				
Target Compounds							Qvalue
115) 1,2,4-Tcbenzene	13.607	180	1952	0.27	ppb	#	68
116) Hexachlorobt	13.754	225	1408	0.49	ppb	#	56
117) Naphthalen	13.796	128	4052	0.27	ppb		86
118) 1,2,3-Tclbenzene	13.991	180	3385	0.57	ppb	#	69

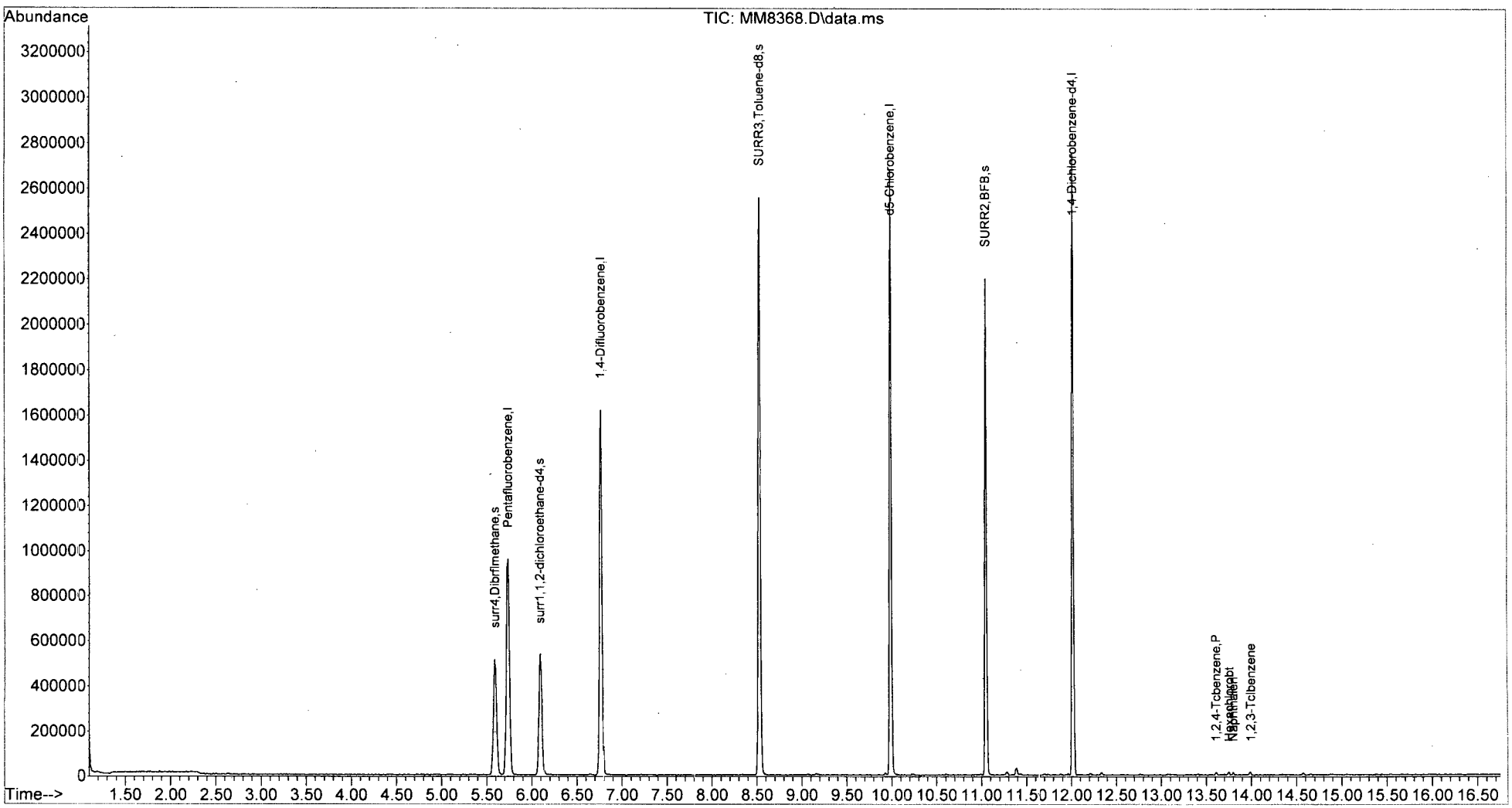
(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/2/15

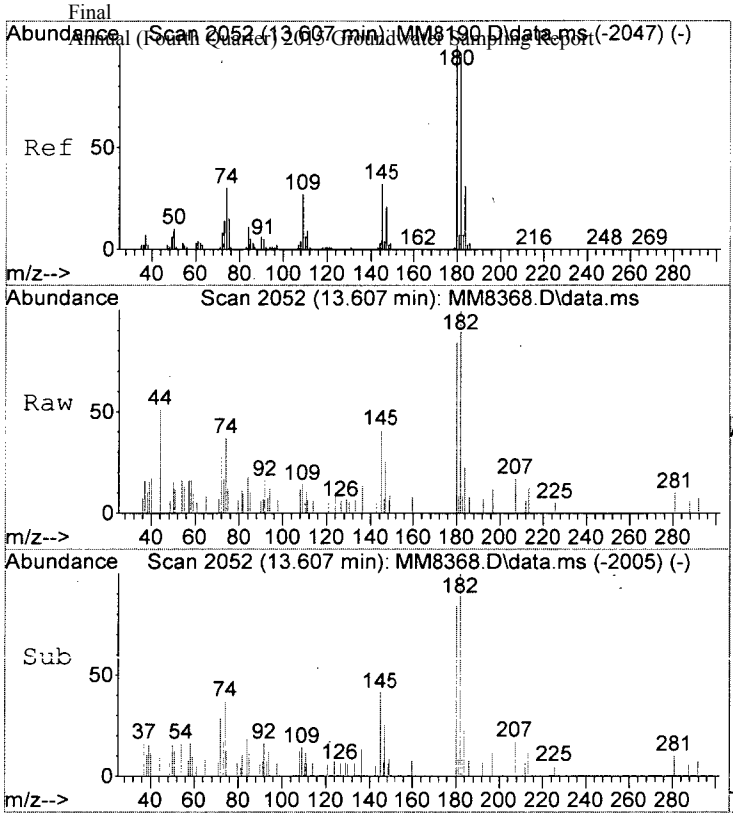
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8368.D
Acq On : 25 Nov 2015 1:00 am
Operator : K.Ruest
Sample : R1510063-010|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 02 17:30:40 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



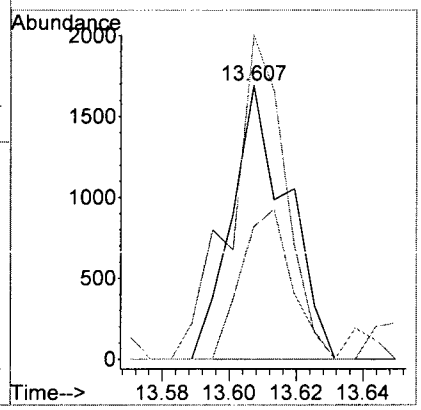
W111815A.M Wed Dec 02 17:31:54 2015 Page: 2

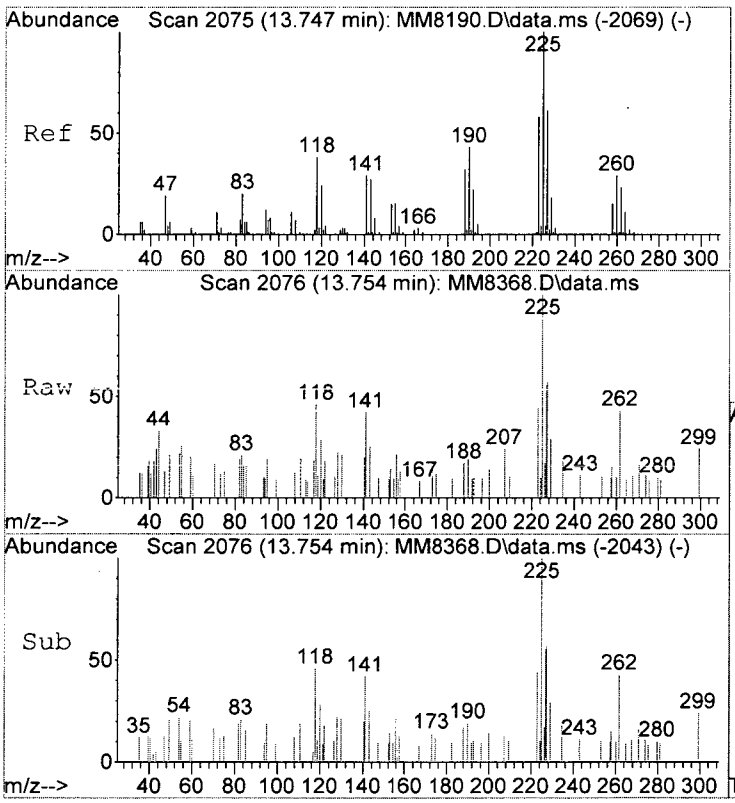


#115
1,2,4-Tcbenzene
Concen: 0.27 ppb
RT: 13.607 min Scan# 2052
Delta R.T. -0.006 min
Lab File: MM8368.D
Acq: 25 Nov 2015 1:00 am

Tgt Ion:180 Resp: 1952

Ion	Ratio	Lower	Upper
180	100		
182	128.4	75.7	115.7#
145	48.3	12.1	52.1

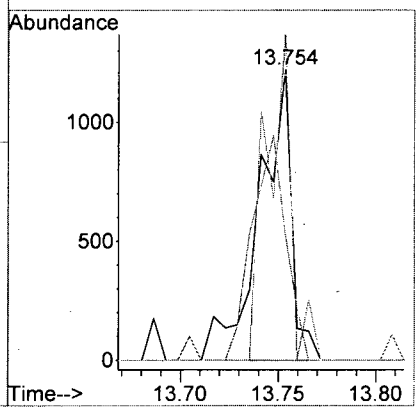


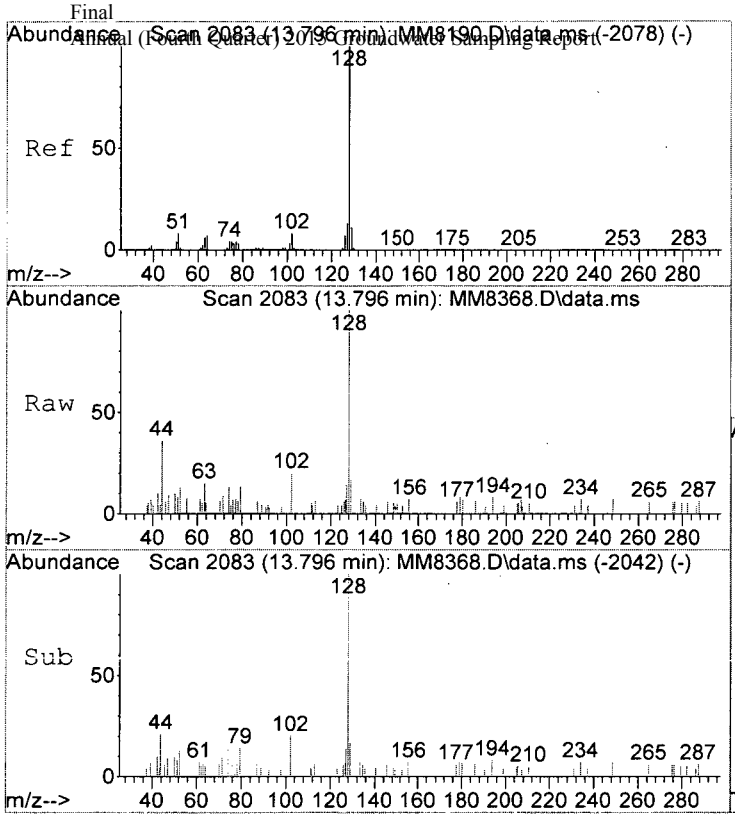


#116
Hexachlorobt
Concen: 0.49 ppb
RT: 13.754 min Scan# 2076
Delta R.T. 0.007 min
Lab File: MM8368.D
Acq: 25 Nov 2015 1:00 am

Tgt Ion:225 Resp: 1408

Ion	Ratio	Lower	Upper
225	100		
223	43.7	38.1	78.1
227	112.0	41.1	81.1#

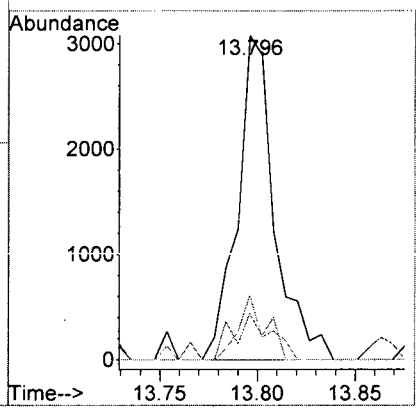


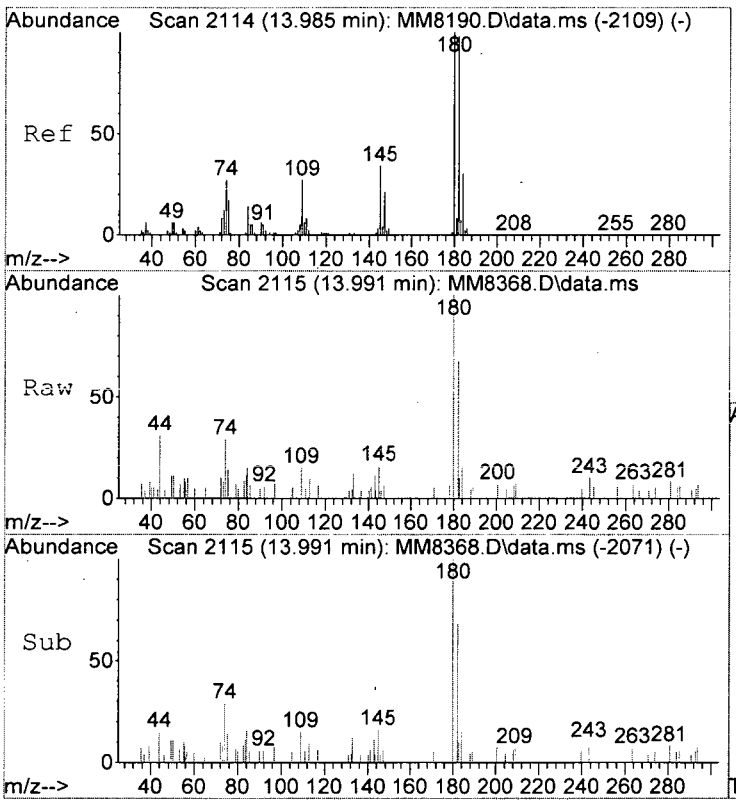


#117
Naphthalen
Concen: 0.27 ppb
RT: 13.796 min Scan# 2083
Delta R.T. -0.006 min
Lab File: MM8368.D
Acq: 25 Nov 2015 1:00 am

Tgt Ion:128 Resp: 4052

Ion	Ratio	Lower	Upper
128	100		
127	14.2	0.0	33.1
102	20.0	0.0	28.3

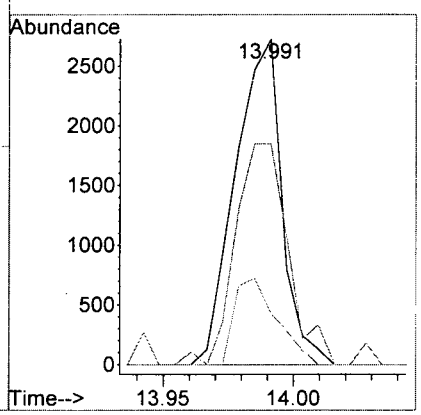




#118
1,2,3-Tclbenzene
Concen: 0.57 ppb
RT: 13.991 min Scan# 2115
Delta R.T. -0.000 min
Lab File: MM8368.D
Acq: 25 Nov 2015 1:00 am

Tgt Ion:180 Resp: 3385

Ion	Ratio	Lower	Upper
180	100		
182	67.9	78.5	118.5#
145	15.9	14.2	54.2



MM8368.D W111815A.M Wed Dec 02 17:31:58 2015 Page 4

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8368.D
Acq On : 25 Nov 2015 1:00 am
Operator : K.Ruest
Sample : R1510063-010|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 31 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8368.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.590	727	737	750	rBV2	512533	1240221	29.80%	5.650%
2	5.737	750	761	773	rVB	958200	2314891	55.62%	10.547%
3	6.096	810	820	831	rBV	538996	1232692	29.62%	5.616%
4	6.767	919	930	941	rBV	1619568	3101584	74.52%	14.131%
5	8.529	1211	1219	1228	rBV	2556821	4161822	100.00%	18.961%
6	9.986	1452	1458	1468	rBV	2680286	3667050	88.11%	16.707%
7	11.047	1626	1632	1642	rBV	2199428	2745873	65.98%	12.510%
8	11.388	1683	1688	1691	rBV3	32491	47247	1.14%	0.215%
9	12.016	1785	1791	1798	rBV	2752146	3437663	82.60%	15.662%

Sum of corrected areas: 21949043

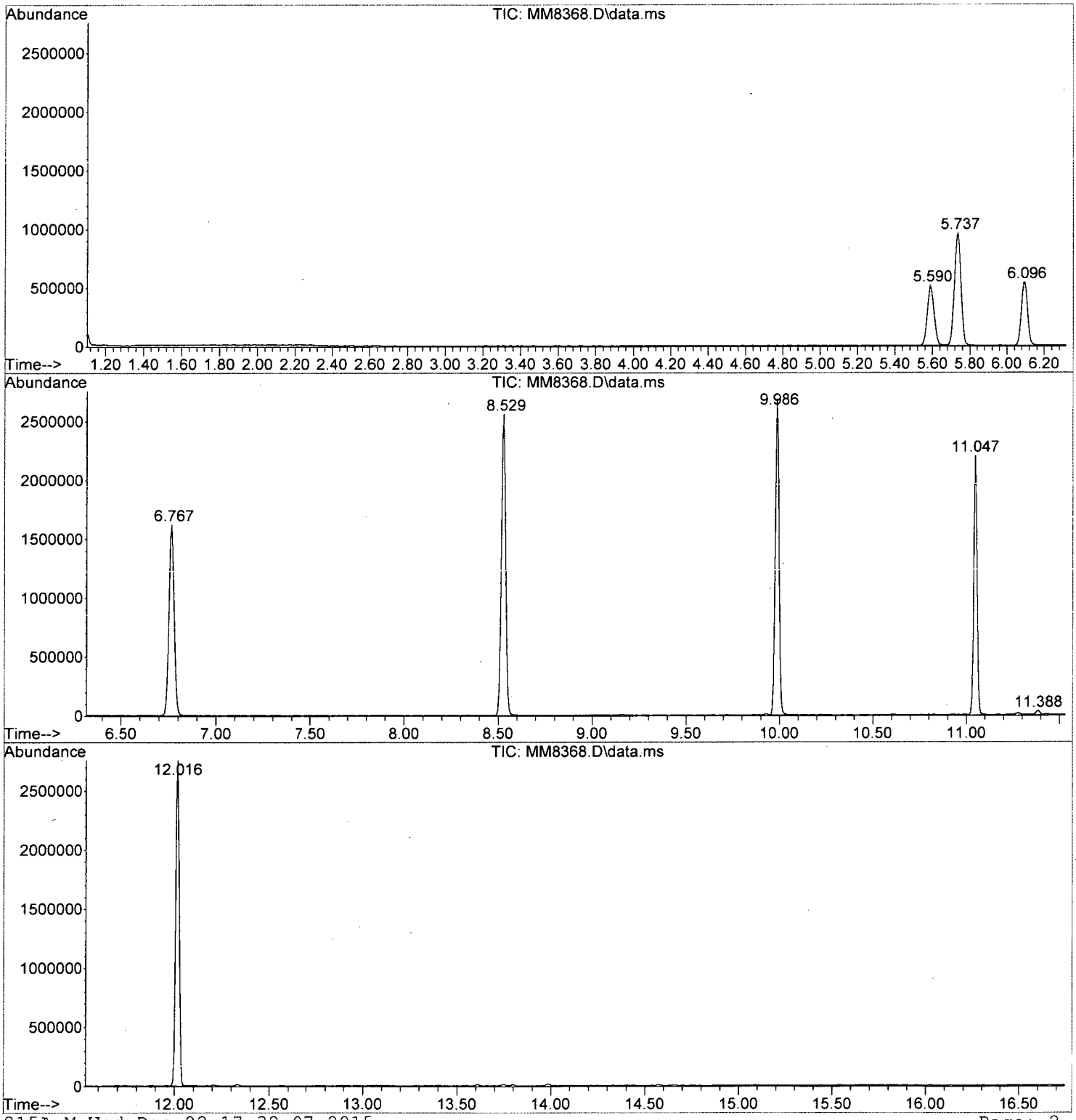
W111815A.M Wed Dec 02 17:32:03 2015 Page: 1

LSC Report - Integrated Chromatogram

```
Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8368.D
Acq On    : 25 Nov 2015    1:00 am
Operator  : K.Ruest
Sample    : R1510063-010|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD*
ALS Vial  : 31   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



W111815A.M Wed Dec 02 17:32:07 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\112415\\
Data File : MM8368.D
Acq On : 25 Nov 2015 1:00 amm
Operator : K.Ruestt
Sample : R1510063-010|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD**
ALS Vial : 31 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1700
Date Received: 11/19/15

Sample Name: EB-2015-11-17
Lab Code: R1510063-011

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 02:00		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 02:00		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 02:00		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 02:00		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 02:00		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 02:00		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 02:00		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 02:00		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 02:00		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 02:00		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 02:00		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 02:00		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 02:00		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 02:00		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 02:00		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 02:00		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 02:00		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 02:00		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 02:00		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 02:00		473760	
Acetone	**4.7**	J	5.0	5.0	1.3	1	NA	11/25/15 02:00		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 02:00		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 02:00		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 02:00		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 02:00		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 02:00		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 02:00		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 02:00		473760	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1700
Date Received: 11/19/15

Sample Name: EB-2015-11-17
Lab Code: R1510063-011

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 02:00		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 02:00		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 02:00		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 02:00		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 02:00		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 02:00		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 02:00		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 02:00		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 02:00		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 02:00		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 02:00		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 02:00		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 02:00		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 02:00		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 02:00		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 02:00		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 02:00		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:00		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/25/15 02:00	
Dibromofluoromethane	109	85-115	11/25/15 02:00	
Toluene-d8	110	85-120	11/25/15 02:00	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0200

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-17	**Units:**	µg/L
Lab Code:	R1510063-011	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8370.D
Acq On : 25 Nov 2015 2:00 am
Operator : K.Ruest
Sample : R1510063-011|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Dec 02 17:35:34 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

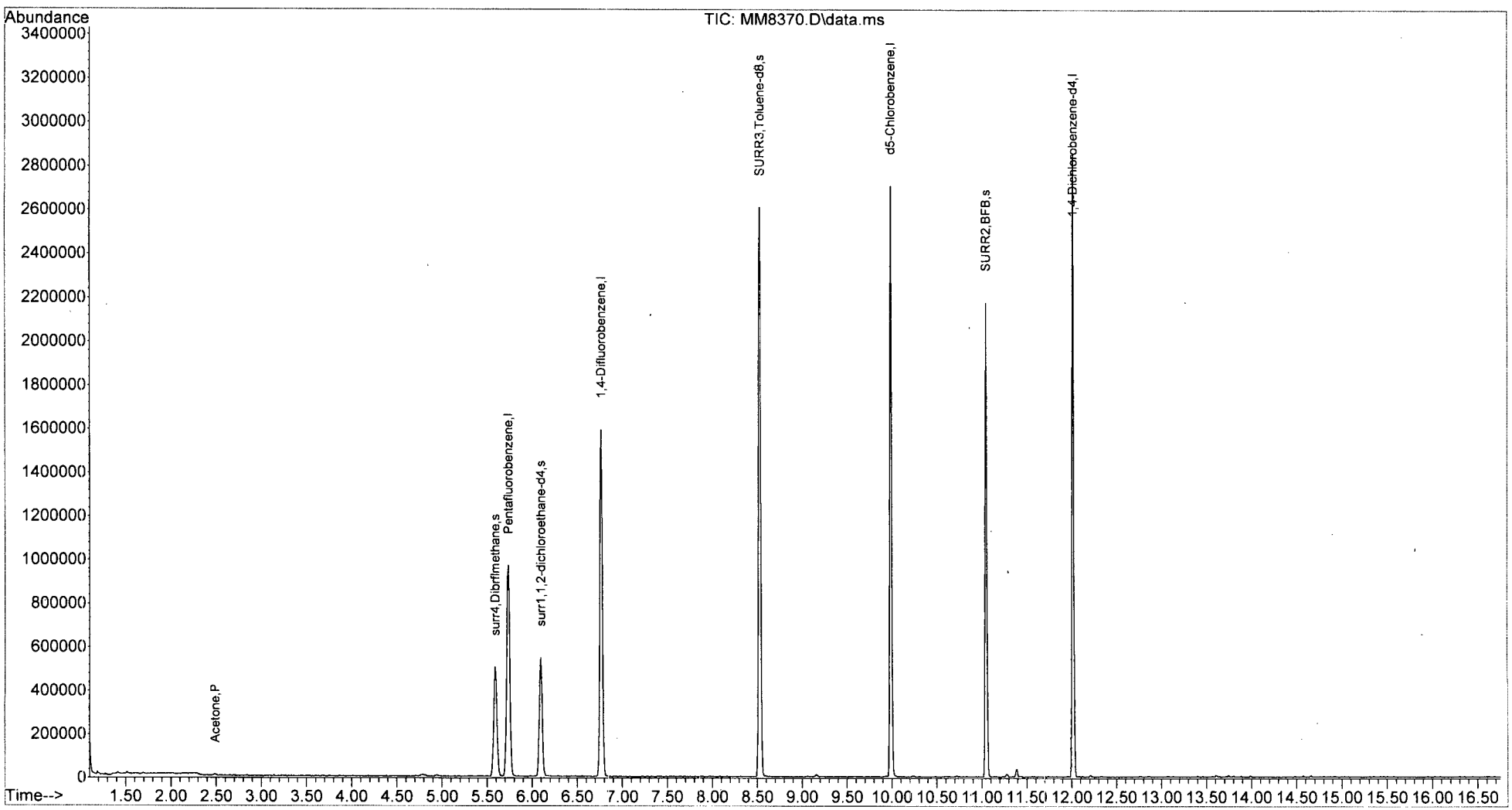
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	803297	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1342650	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1229598	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	571192	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.590	113	379652	54.39	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.78%			
48) surr1,1,2-dichloroetha...	6.096	65	421109	54.62	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 109.24%			
65) SURR3,Toluene-d8	8.529	98	1613678	54.93	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 109.86%			
70) SURR2,BFB	11.047	95	610135	55.02	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.04%			
Target Compounds						Qvalue
15) Acetone	2.487	43	8049	4.70	ppb	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

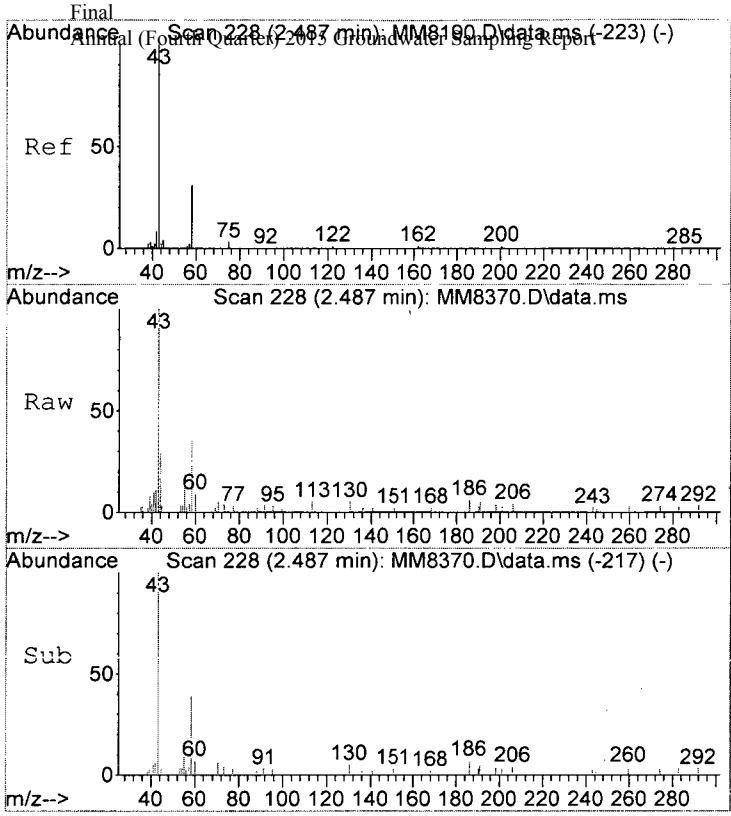
KR 12/3/15

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8370.D
Acq On : 25 Nov 2015 2:00 am
Operator : K.Ruest
Sample : R1510063-011|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Dec 02 17:35:34 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



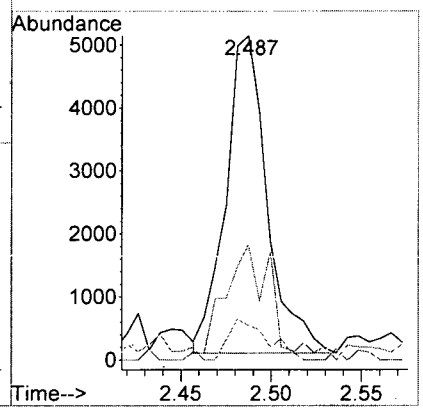
W111815A.M Wed Dec 02 17:36:53 2015 Page: 2



#15
Acetone
Concen: 4.70 ppb
RT: 2.487 min Scan# 228
Delta R.T. -0.006 min
Lab File: MM8370.D
Acq: 25 Nov 2015 2:00 am

Tgt Ion: 43 Resp: 8049

Ion	Ratio	Lower	Upper
43	100		
58	35.4	10.9	50.9
42	10.6	0.0	28.5



MM8370.D W111815A.M Wed Dec 02 17:36:55 2015 Page 3

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8370.D
Acq On : 25 Nov 2015 2:00 am
Operator : K.Ruest
Sample : R1510063-011|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 33 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8370.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.590	728	737	747	rBV	503074	1227509	29.10%	5.541%
2	5.737	751	761	771	rBV	968098	2298058	54.47%	10.374%
3	6.096	810	820	831	rBV	543786	1216348	28.83%	5.491%
4	6.767	920	930	941	rBV	1590825	3090210	73.25%	13.950%
5	8.529	1212	1219	1228	rBV	2606068	4218960	100.00%	19.046%
6	9.986	1452	1458	1470	rVB	2705974	3705346	87.83%	16.727%
7	11.047	1626	1632	1641	rVB	2174108	2752150	65.23%	12.424%
8	11.388	1681	1688	1692	rBV2	36362	50824	1.20%	0.229%
9	12.016	1785	1791	1798	rBV	2852692	3592525	85.15%	16.218%

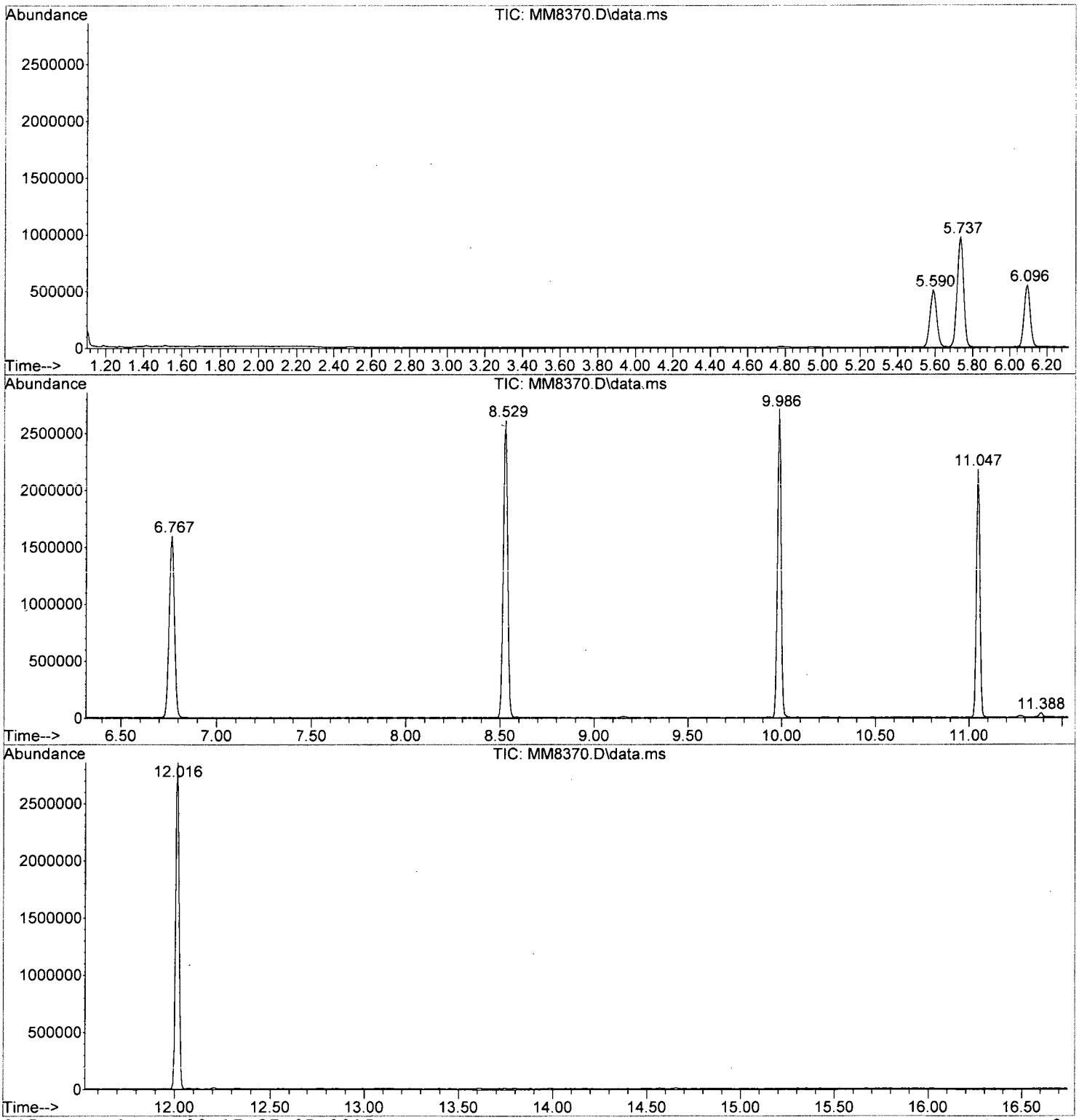
Sum of corrected areas: 22151930

LSC Report - Integrated Chromatogram

```
Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8370.D
Acq On    : 25 Nov 2015    2:00 am
Operator  : K.Ruest
Sample    : R1510063-011|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD*
ALS Vial  : 33   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



W111815A.M Wed Dec 02 17:37:05 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\112415\\
Data File : MM8370.D
Acq On : 25 Nov 2015 2:00 amm
Operator : K.Ruestt
Sample : R1510063-011|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD**
ALS Vial : 33 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15 0900
Date Received: 11/19/15

Sample Name: EB-2015-11-18
Lab Code: R1510063-012

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 02:30		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 02:30		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 02:30		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 02:30		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 02:30		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 02:30		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 02:30		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 02:30		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 02:30		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 02:30		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 02:30		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 02:30		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 02:30		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 02:30		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 02:30		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 02:30		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 02:30		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 02:30		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 02:30		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 02:30		473760	
Acetone	**5.1**		5.0	5.0	1.3	1	NA	11/25/15 02:30		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 02:30		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 02:30		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 02:30		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 02:30		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 02:30		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 02:30		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 02:30		473760	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15 0900
Date Received: 11/19/15

Sample Name: EB-2015-11-18
Lab Code: R1510063-012

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 02:30		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 02:30		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 02:30		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 02:30		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 02:30		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 02:30		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 02:30		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 02:30		473760	
Naphthalene	**0.21**	J	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 02:30		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 02:30		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 02:30		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 02:30		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 02:30		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 02:30		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 02:30		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 02:30		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 02:30		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 02:30		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/25/15 02:30	
Dibromofluoromethane	111	85-115	11/25/15 02:30	
Toluene-d8	111	85-120	11/25/15 02:30	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0230

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-18	**Units:**	µg/L
Lab Code:	R1510063-012	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8371.D
Acq On : 25 Nov 2015 2:30 am
Operator : K.Ruest
Sample : R1510063-012|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Dec 02 17:37:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

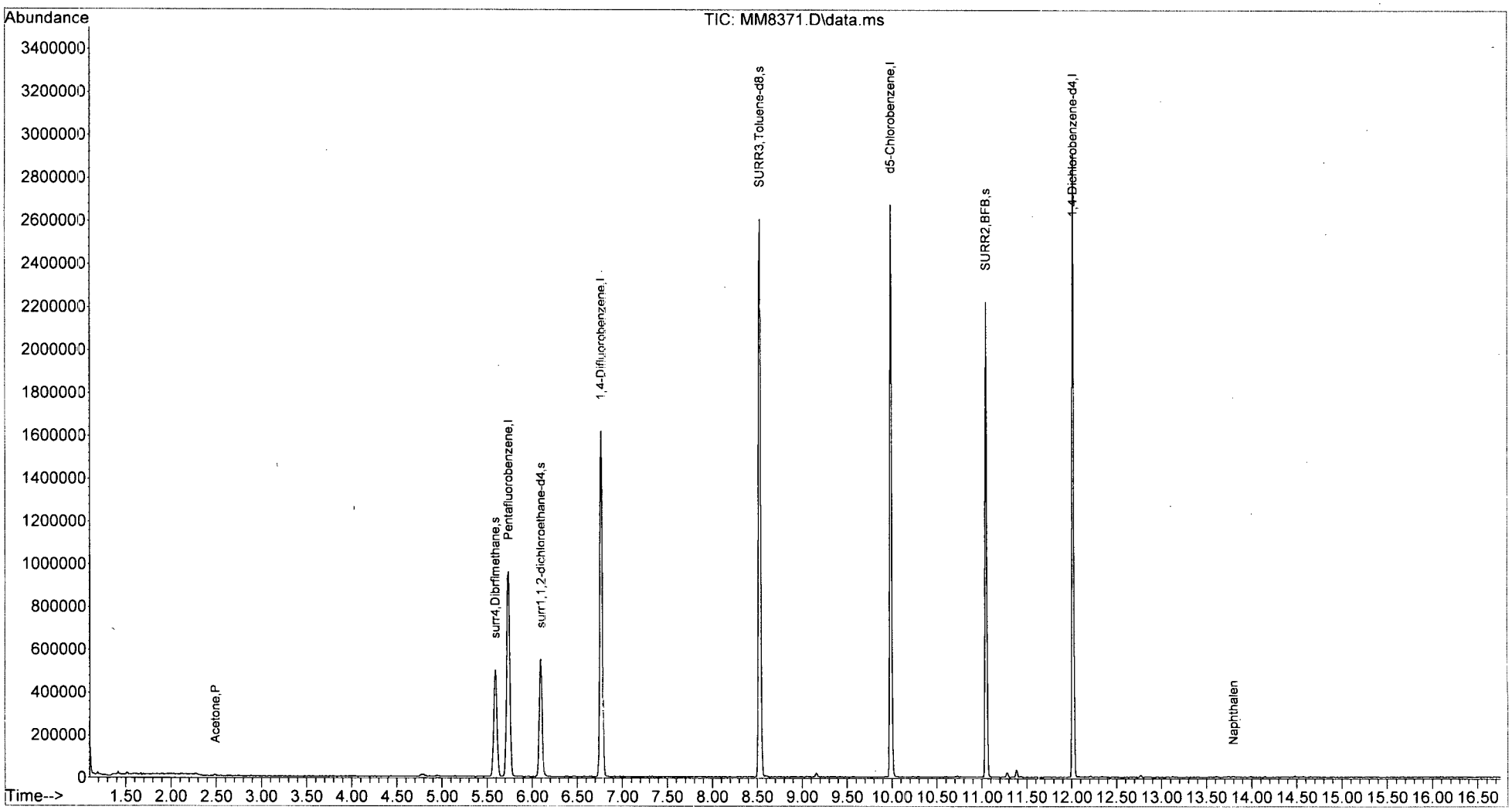
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	805300	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1346517	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1219402	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	576617	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.590	113	387367	55.33	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 110.66%			
48) surr1,1,2-dichloroetha...	6.096	65	419285	54.22	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.44%			
65) SURR3,Toluene-d8	8.529	98	1642231	55.74	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 111.48%			
70) SURR2,BFB	11.047	95	616812	55.46	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.92%			
Target Compounds						Qvalue
15) Acetone	2.487	43	8780	5.11	ppb	97
117) Naphthalen	13.796	128	3240	0.21	ppb	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

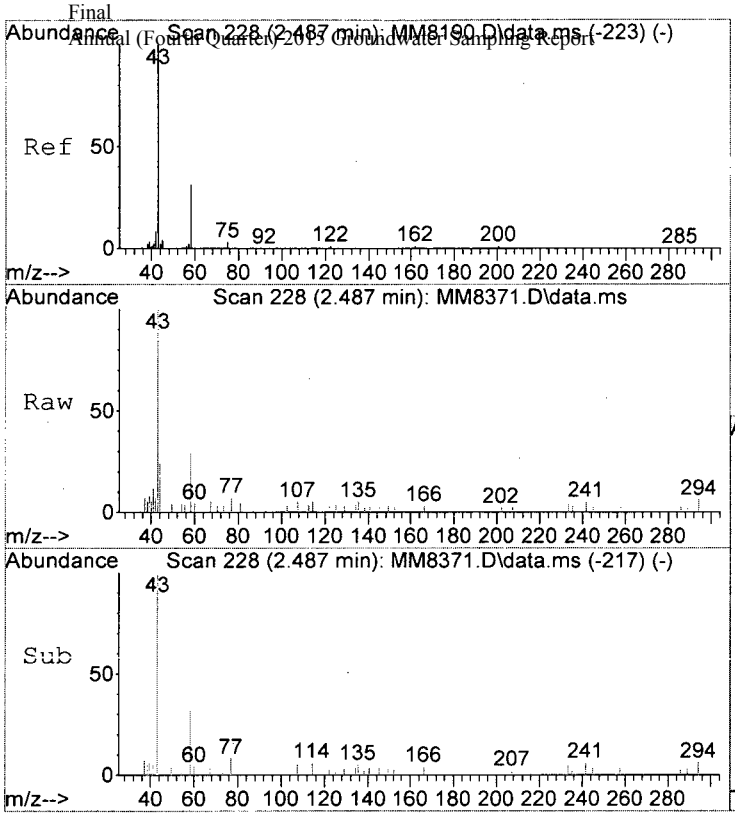
KB 12/2/15

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8371.D
Acq On : 25 Nov 2015 2:30 am
Operator : K.Ruest
Sample : R1510063-012|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Dec 02 17:37:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



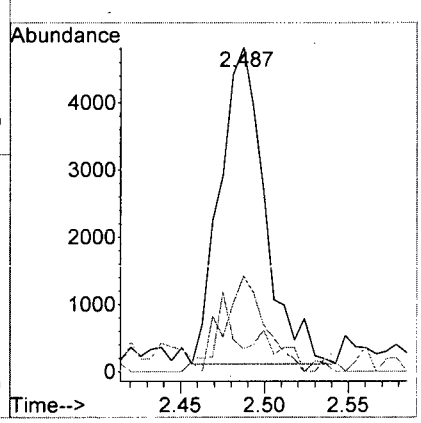
W111815A.M Wed Dec 02 17:39:12 2015 Page: 2

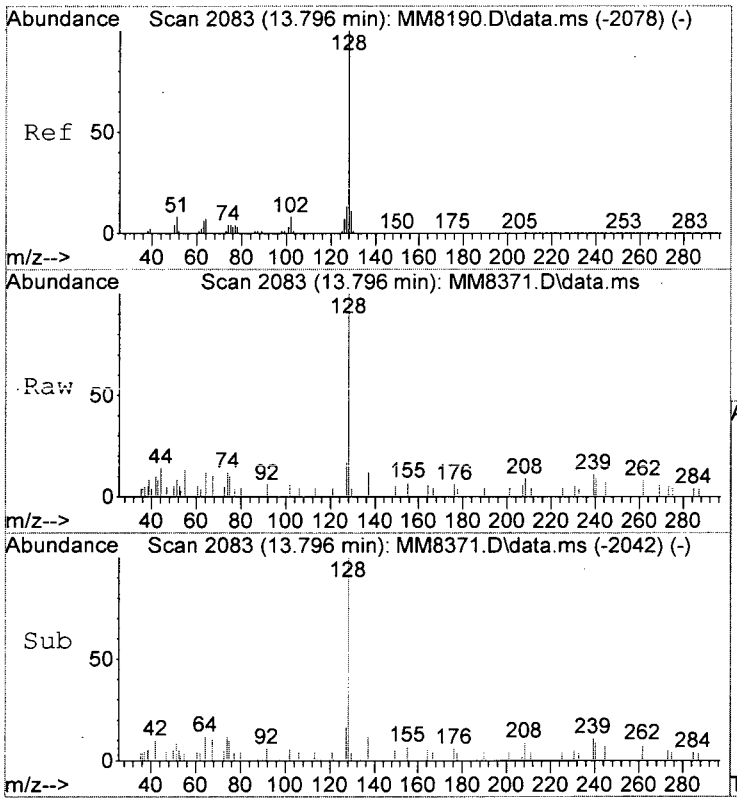


#15
Acetone
Concen: 5.11 ppb
RT: 2.487 min Scan# 228
Delta R.T. -0.006 min
Lab File: MM8371.D
Acq: 25 Nov 2015 2:30 am

Tgt Ion: 43 Resp: 8780

Ion	Ratio	Lower	Upper
43	100		
58	29.5	10.9	50.9
42	7.0	0.0	28.5

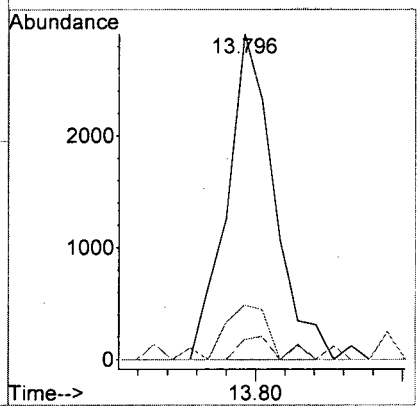




#117
Naphthalen
Concen: 0.21 ppb
RT: 13.796 min Scan# 2083
Delta R.T. -0.006 min
Lab File: MM8371.D
Acq: 25 Nov 2015 2:30 am

Tgt Ion:128 Resp: 3240

Ion	Ratio	Lower	Upper
128	100		
127	16.6	0.0	33.1
102	6.1	0.0	28.3



MM8371.D W111815A.M Wed Dec 02 17:39:15 2015 Page 3

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8371.D
Acq On : 25 Nov 2015 2:30 am
Operator : K.Ruest
Sample : R1510063-012|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 34 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8371.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.590	727	737	748	rBV	499262	1236277	29.02%	5.564%
2	5.737	751	761	771	rBV	958829	2313779	54.32%	10.413%
3	6.096	810	820	832	rBV	550475	1231408	28.91%	5.542%
4	6.767	918	930	941	rBV	1618061	3100612	72.79%	13.955%
5	8.529	1212	1219	1227	rBV	2602880	4259771	100.00%	19.172%
6	9.986	1452	1458	1467	rBV	2669546	3683575	86.47%	16.578%
7	11.047	1627	1632	1643	rVB	2222402	2760469	64.80%	12.424%
8	11.382	1683	1687	1692	rBV	33735	48032	1.13%	0.216%
9	12.016	1785	1791	1799	rBV	2908916	3585317	84.17%	16.136%

Sum of corrected areas: 22219240

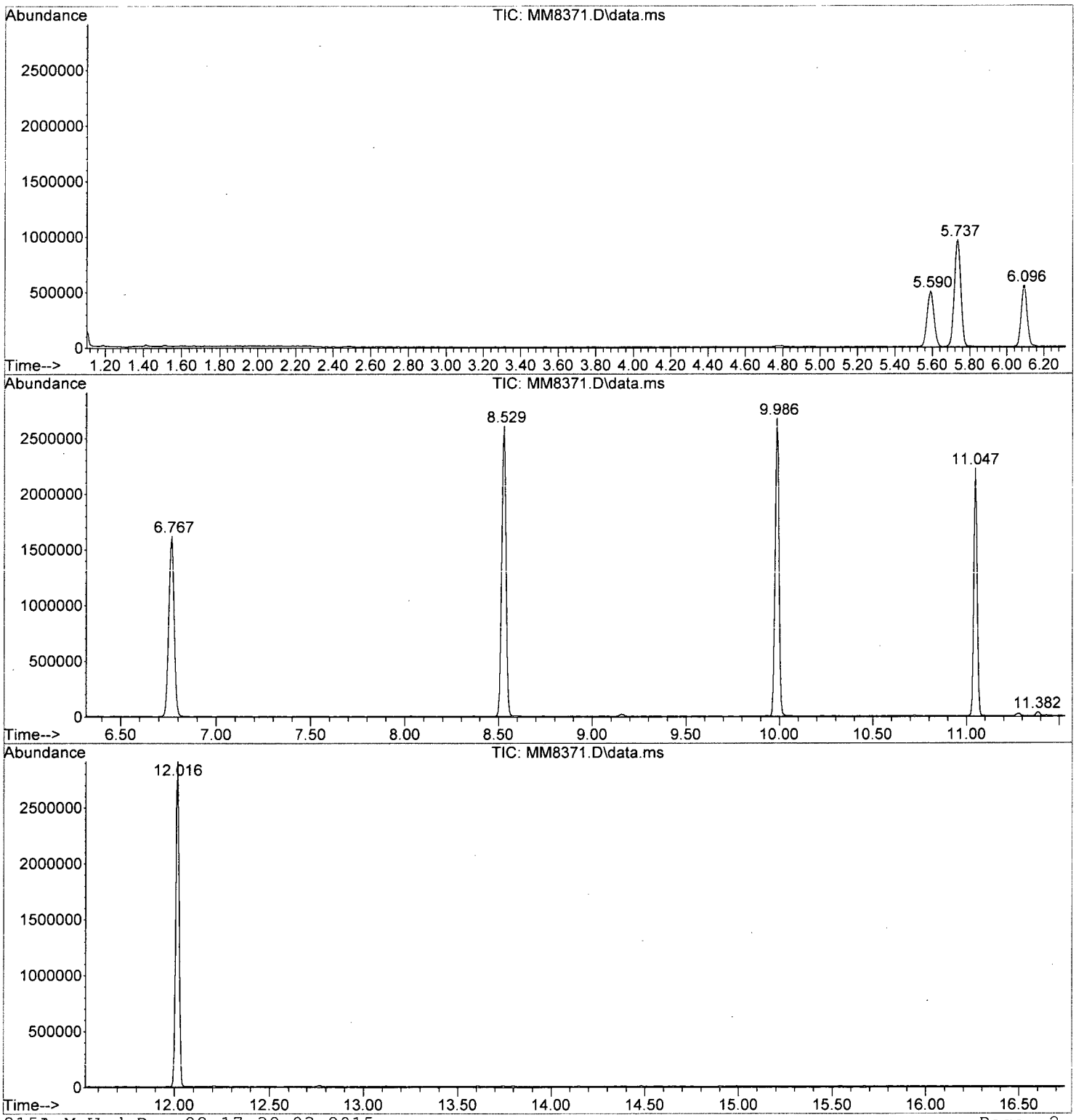
W111815A.M Wed Dec 02 17:39:20 2015 Page: 1

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8371.D
Acq On : 25 Nov 2015 2:30 am
Operator : K.Ruest
Sample : R1510063-012|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 34 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



W111815A.M Wed Dec 02 17:39:23 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\112415\\
Data File : MM8371.D
Acq On : 25 Nov 2015 2:30 amm
Operator : K.Ruestt
Sample : R1510063-012|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD**
ALS Vial : 34 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1055
Date Received: 11/19/15

Sample Name: FTMM-68-GW-565MW01D-20.5
Lab Code: R1510063-013

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	130	25	5.5	25	NA	11/25/15 08:32		473760	
1,1,1-Trichloroethane (TCA)	ND	U	130	25	9.0	25	NA	11/25/15 08:32		473760	
1,1,2,2-Tetrachloroethane	ND	U	130	25	6.3	25	NA	11/25/15 08:32		473760	
1,1,2-Trichloroethane	ND	U	130	25	8.5	25	NA	11/25/15 08:32		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	130	25	15	25	NA	11/25/15 08:32		473760	
1,1-Dichloropropene	ND	U	130	25	7.3	25	NA	11/25/15 08:32		473760	
1,2,3-Trichlorobenzene	ND	U	130	25	21	25	NA	11/25/15 08:32		473760	
1,2,3-Trichloropropane	ND	U	130	25	18	25	NA	11/25/15 08:32		473760	
1,2,4-Trichlorobenzene	ND	U	130	25	5.8	25	NA	11/25/15 08:32		473760	
1,2,4-Trimethylbenzene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	130	25	19	25	NA	11/25/15 08:32		473760	
1,2-Dibromoethane	ND	U	130	25	6.0	25	NA	11/25/15 08:32		473760	
1,2-Dichlorobenzene	ND	U	130	25	5.3	25	NA	11/25/15 08:32		473760	
1,2-Dichloroethane	ND	U	130	25	9.0	25	NA	11/25/15 08:32		473760	
1,2-Dichloropropane	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
1,3,5-Trimethylbenzene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
1,3-Dichlorobenzene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
1,3-Dichloropropane	ND	U	130	25	6.8	25	NA	11/25/15 08:32		473760	
1,4-Dichlorobenzene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
2,2-Dichloropropane	ND	U	130	25	6.8	25	NA	11/25/15 08:32		473760	
2-Butanone (MEK)	ND	U	130	25	21	25	NA	11/25/15 08:32		473760	
2-Chlorotoluene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
2-Hexanone	ND	U	130	130	42	25	NA	11/25/15 08:32		473760	
tert-Butyl Alcohol	ND	U	2500	500	270	25	NA	11/25/15 08:32		473760	
4-Chlorotoluene	ND	U	130	25	6.0	25	NA	11/25/15 08:32		473760	
p-Isopropyltoluene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
4-Methyl-2-pentanone	ND	U	130	25	17	25	NA	11/25/15 08:32		473760	
Acetone	ND	U	130	130	31	25	NA	11/25/15 08:32		473760	
Benzene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
Bromobenzene	ND	U	130	25	7.1	25	NA	11/25/15 08:32		473760	
Bromochloromethane	ND	U	130	25	8.0	25	NA	11/25/15 08:32		473760	
Bromodichloromethane	ND	U	130	25	8.0	25	NA	11/25/15 08:32		473760	
Bromoform	ND	U	130	25	11	25	NA	11/25/15 08:32		473760	
Bromomethane	ND	U	130	25	7.3	25	NA	11/25/15 08:32		473760	
Carbon Tetrachloride	ND	U	130	25	12	25	NA	11/25/15 08:32		473760	
Chlorobenzene	ND	U	130	25	7.3	25	NA	11/25/15 08:32		473760	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1055
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-565MW01D-20.5	**Units:**	µg/L
Lab Code:	R1510063-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	130	25	6.0	25	NA	11/25/15 08:32		473760	
Chloroform	ND	U	130	25	6.3	25	NA	11/25/15 08:32		473760	
Chloromethane	ND	U	130	25	5.3	25	NA	11/25/15 08:32		473760	
Dibromochloromethane	ND	U	130	25	7.8	25	NA	11/25/15 08:32		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	130	25	12	25	NA	11/25/15 08:32		473760	
Methylene Chloride	ND	U	130	25	15	25	NA	11/25/15 08:32		473760	
Ethylbenzene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
Hexachlorobutadiene	ND	U	130	25	16	25	NA	11/25/15 08:32		473760	
Isopropylbenzene (Cumene)	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
Methyl tert-Butyl Ether	ND	U	130	25	7.3	25	NA	11/25/15 08:32		473760	
Naphthalene	**5.5**	J	130	25	5.0	25	NA	11/25/15 08:32		473760	
Styrene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
Tetrachloroethene (PCE)	**3800**		130	25	7.5	25	NA	11/25/15 08:32		473760	
Toluene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
Trichloroethene (TCE)	**15**	J	130	25	5.5	25	NA	11/25/15 08:32		473760	
Trichlorofluoromethane (CFC 11)	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
Vinyl Chloride	ND	U	130	25	8.0	25	NA	11/25/15 08:32		473760	
cis-1,2-Dichloroethene	**11**	J	130	25	7.5	25	NA	11/25/15 08:32		473760	
cis-1,3-Dichloropropene	ND	U	130	25	6.0	25	NA	11/25/15 08:32		473760	
m,p-Xylenes	ND	U	250	50	8.3	25	NA	11/25/15 08:32		473760	
n-Butylbenzene	ND	U	130	25	5.3	25	NA	11/25/15 08:32		473760	
n-Propylbenzene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
o-Xylene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
sec-Butylbenzene	ND	U	130	25	6.8	25	NA	11/25/15 08:32		473760	
tert-Butylbenzene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	
trans-1,2-Dichloroethene	ND	U	130	25	8.3	25	NA	11/25/15 08:32		473760	
trans-1,3-Dichloropropene	ND	U	130	25	5.0	25	NA	11/25/15 08:32		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/25/15 08:32	
Dibromofluoromethane	110	85-115	11/25/15 08:32	
Toluene-d8	113	85-120	11/25/15 08:32	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0832

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-565MW01D-20.5	**Units:**	µg/L
Lab Code:	R1510063-013	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8383.D
Acq On : 25 Nov 2015 8:32 am
Operator : K.Ruest 013 KR
Sample : R1510063-010|25 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Dec 03 10:07:21 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.731	168	803856	50.00	ppb	-0.01
43) 1,4-Difluorobenzene	6.767	114	1326511	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1210759	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	569911	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.590	113	380474	55.17	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery =	110.34%		
48) surr1,1,2-dichloroetha...	6.096	65	415277	54.51	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery =	109.02%		
65) SURR3,Toluene-d8	8.529	98	1642110	56.58	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery =	113.16%		
70) SURR2,BFB	11.047	95	602729	55.01	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery =	110.02%		
Target Compounds						Qvalue
34) cis-1,2-Dichloroethene	4.712	96	3450m	0.43	ppb	
40) Chloroform	5.322	83	3158m	0.25	ppb	
54) Trichloroethene	7.078	130	4449	0.60	ppb	# 84
72) Tetrachloroethene	9.181	164	769204	153.17	ppb	95
117) Naphthalen	13.802	128	3406	0.22	ppb	90

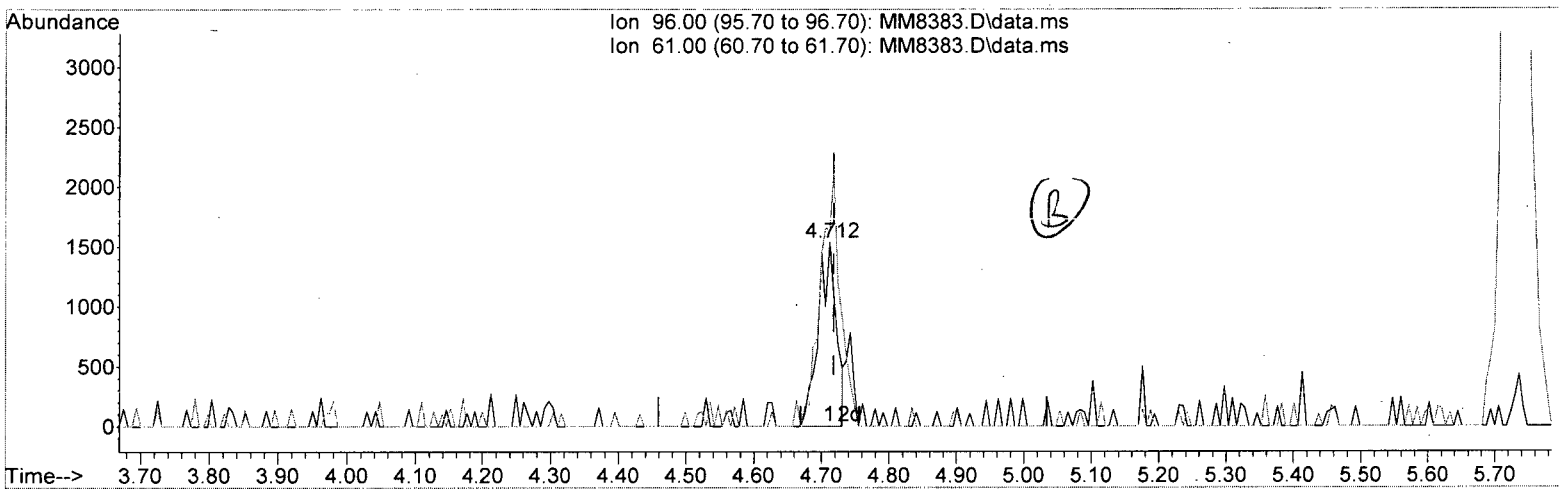
(#) = qualifier out of range (m) = manual integration (+) = signals summed

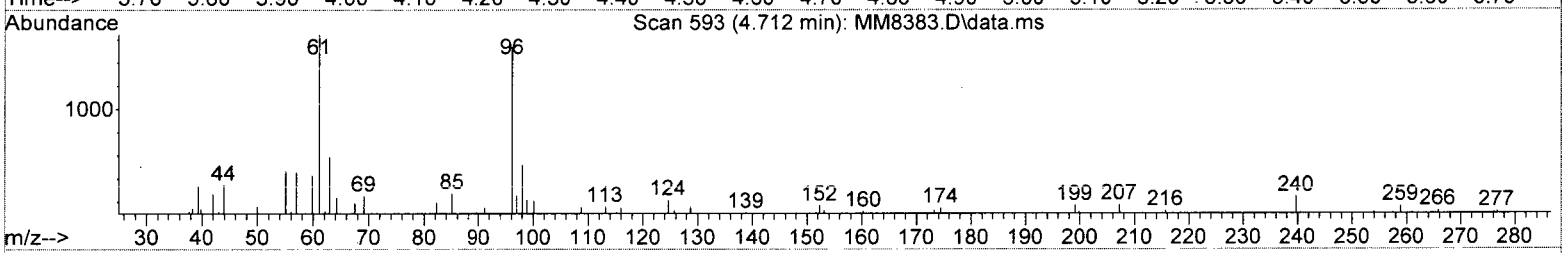
KR 12/3/15

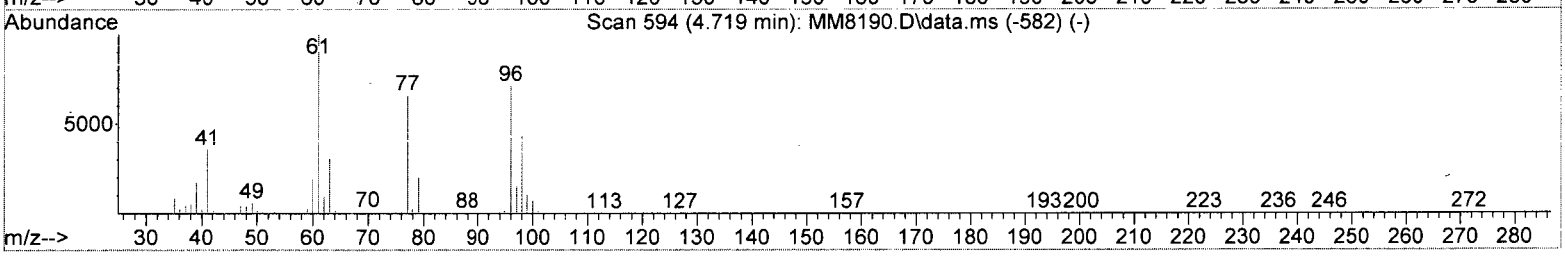
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8383.D
Acq On : 25 Nov 2015 8:32 am
Operator : K.Ruest 013 KR
Sample : R1510063-~~010~~|25 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Nov 25 10:21:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8383.D\data.ms

(34) cis-1,2-Dichloroethene (P)

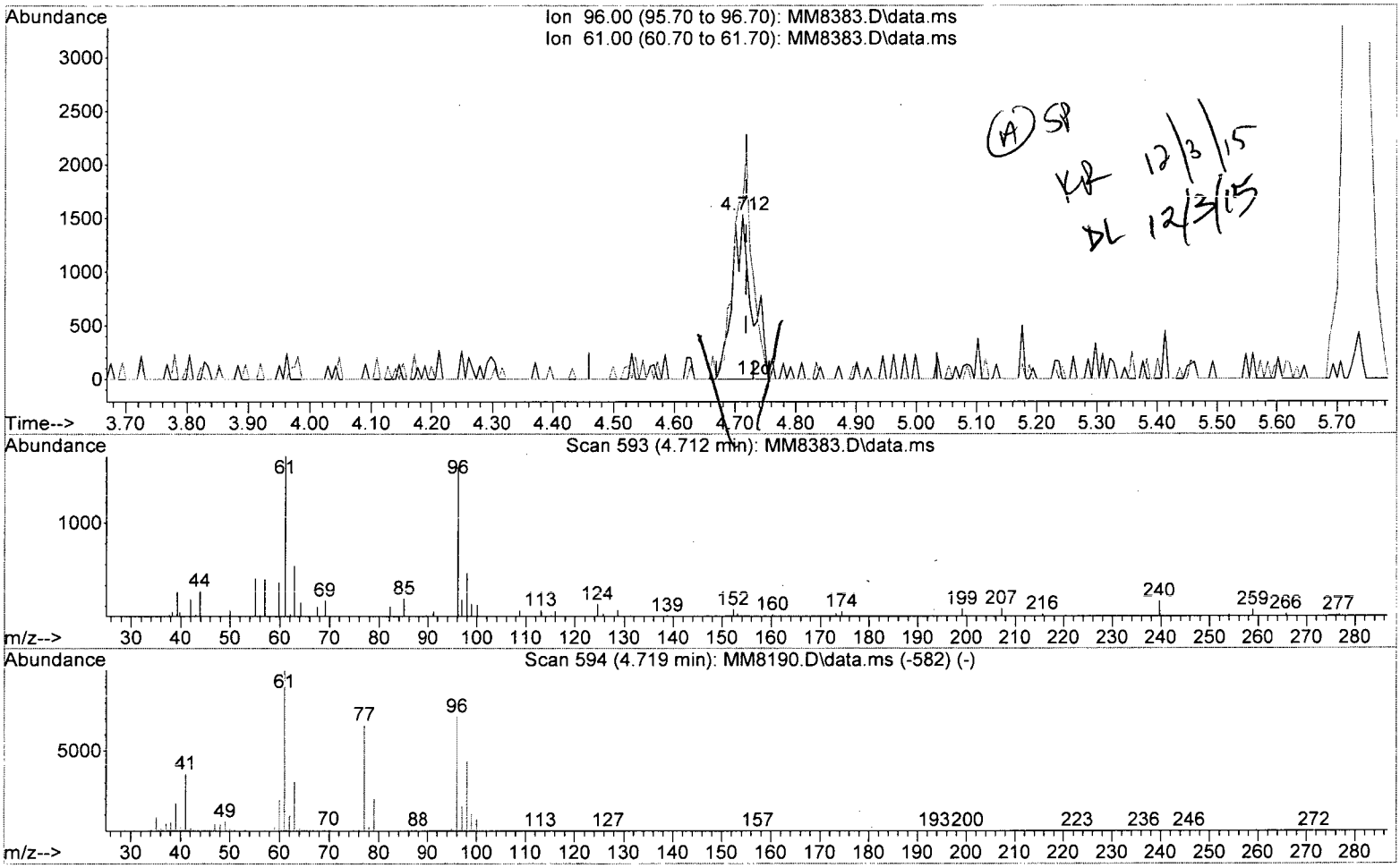
4.712min (-0.006) 0.35 ppb

response 2837

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	107.05#
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8383.D
Acq On : 25 Nov 2015 8:32 am
Operator : K.Ruest 0,3 KR
Sample : R1510063-~~010~~|25 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Nov 25 10:21:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



(A) SP KR 12/3/15 DL 12/3/15

TIC: MM8383.D\data.ms

(34) cis-1,2-Dichloroethene (P)

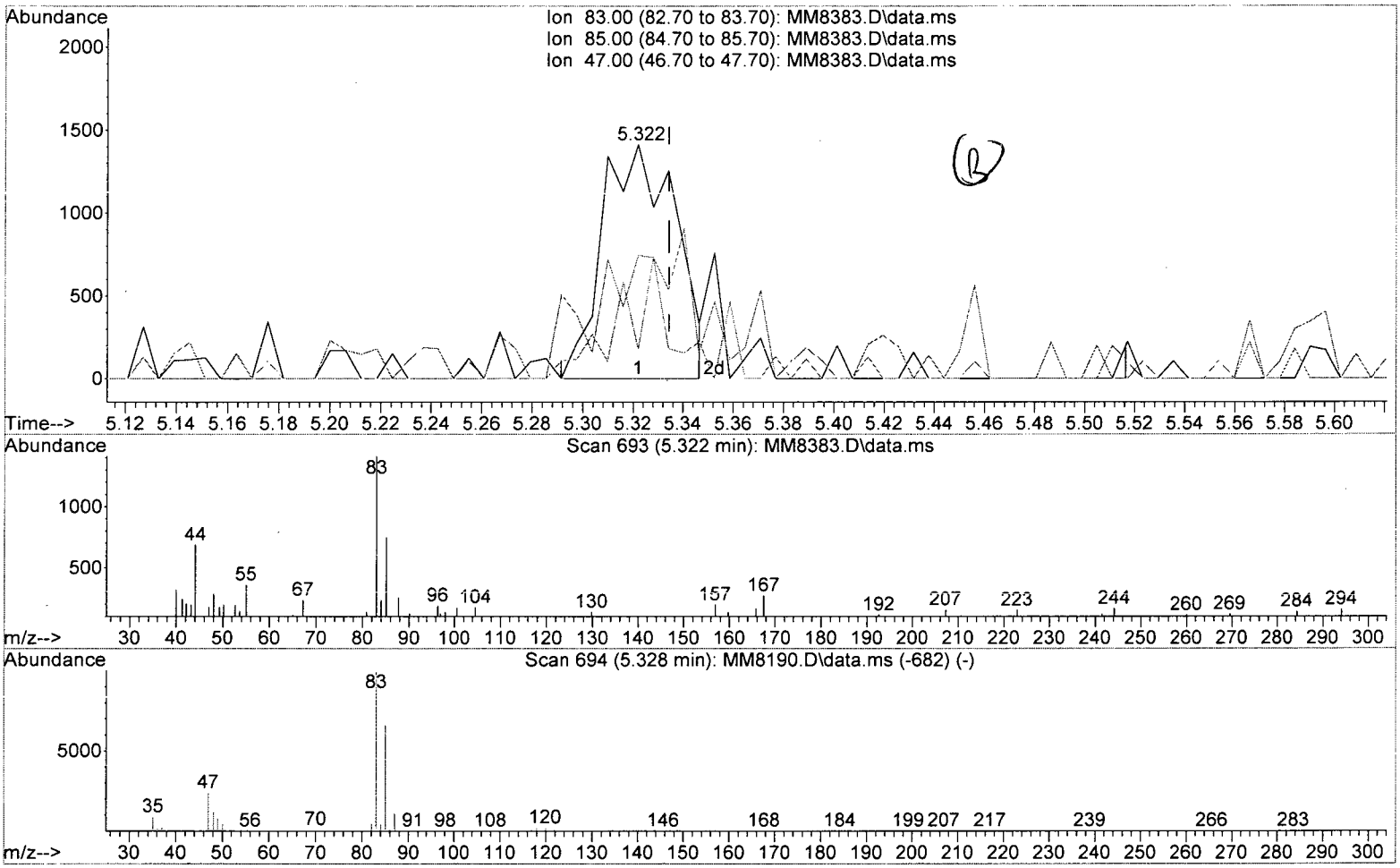
4.712min (-0.006) 0.43 ppb m

response 3450

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	107.05#
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8383.D
Acq On : 25 Nov 2015 8:32 am
Operator : K.Ruest 013 KR
Sample : R1510063-~~010~~|25 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Nov 25 10:21:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8383.D\data.ms

(40) Chloroform (P)

5.322min (-0.012) 0.23 ppb

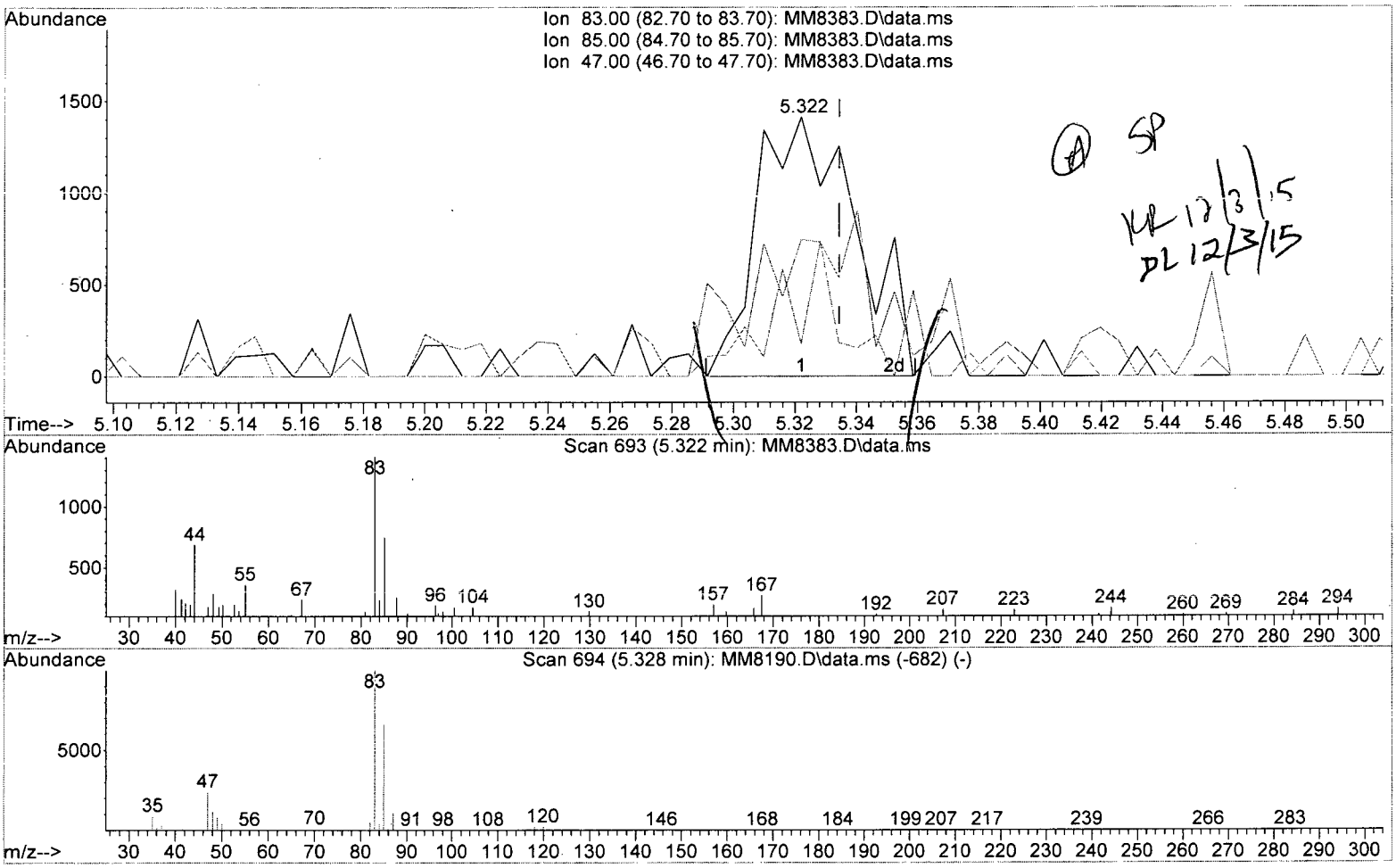
response 2881

Ion	Exp%	Act%
83.00	100	100
85.00	66.10	52.70
47.00	23.90	12.48
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8383.D
Acq On : 25 Nov 2015 8:32 am
Operator : K.Ruest 013 KR
Sample : R1510063-010|25 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Nov 25 10:21:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8383.D\data.ms

(40) Chloroform (P)

5.322min (-0.012) 0.25 ppb m

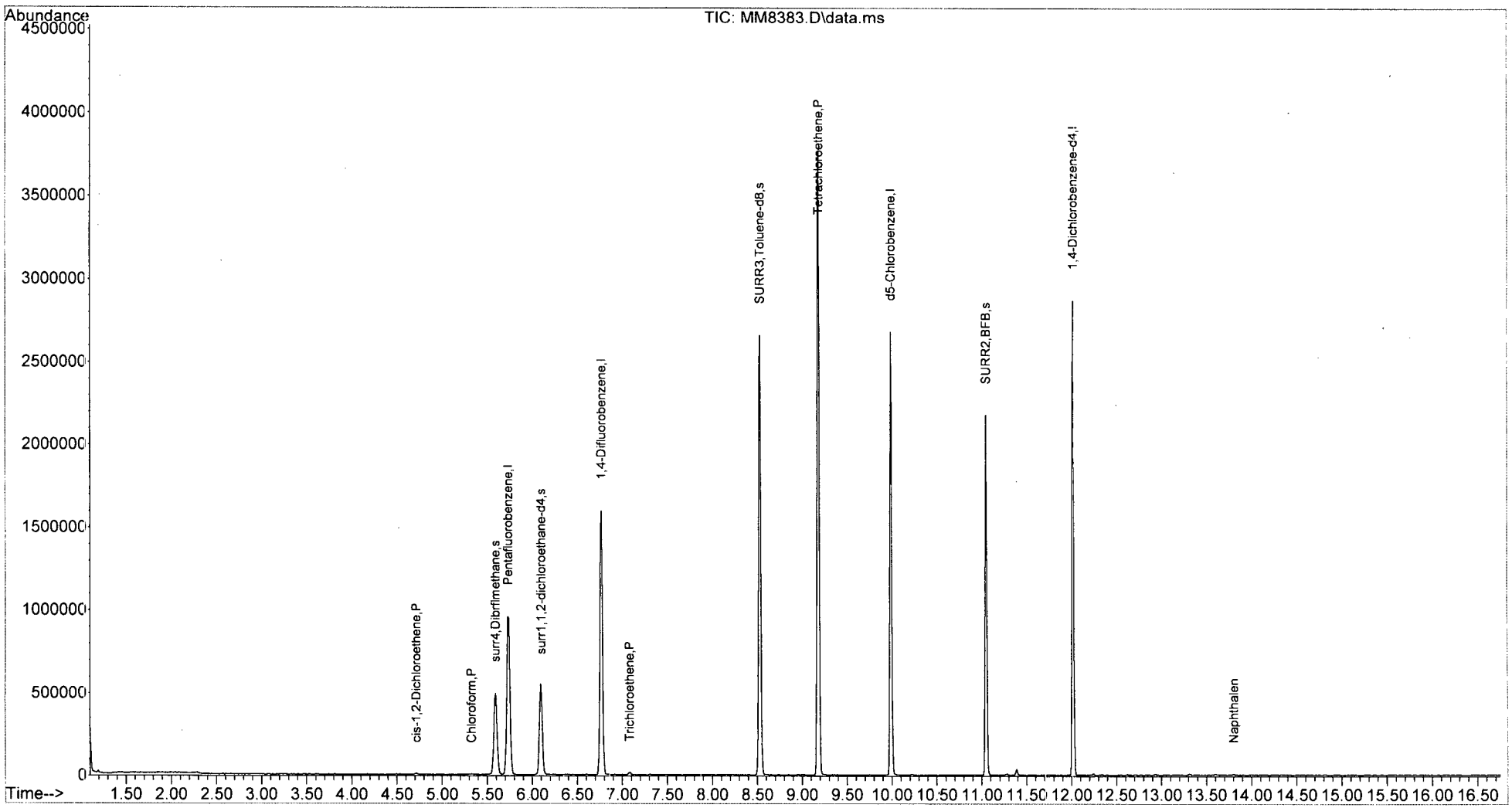
response 3158

Ion	Exp%	Act%
83.00	100	100
85.00	66.10	52.70
47.00	23.90	12.48
0.00	0.00	0.00

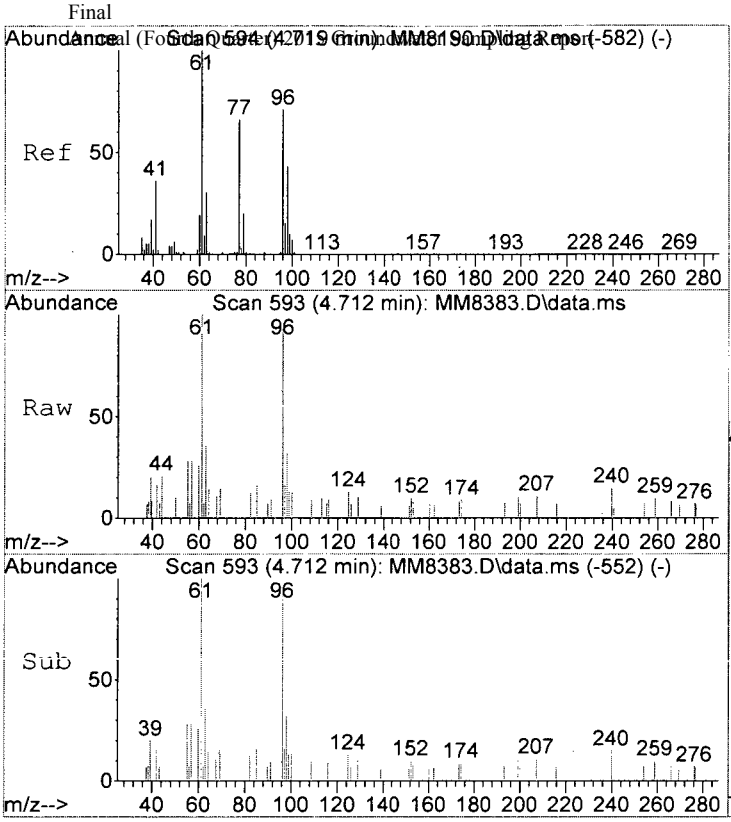
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8383.D
Acq On : 25 Nov 2015 8:32 am
Operator : K.Ruest 013 KR
Sample : R1510063-~~0~~10|25 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Dec 03 10:07:21 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



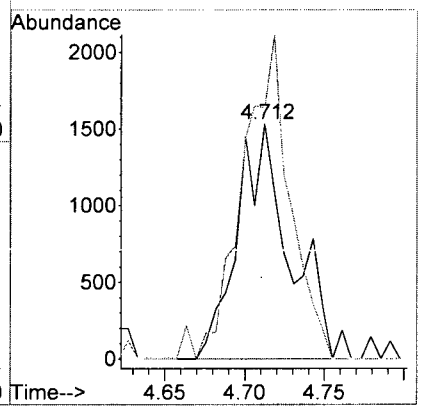
W111815A.M Thu Dec 03 10:08:52 2015 Page: 2

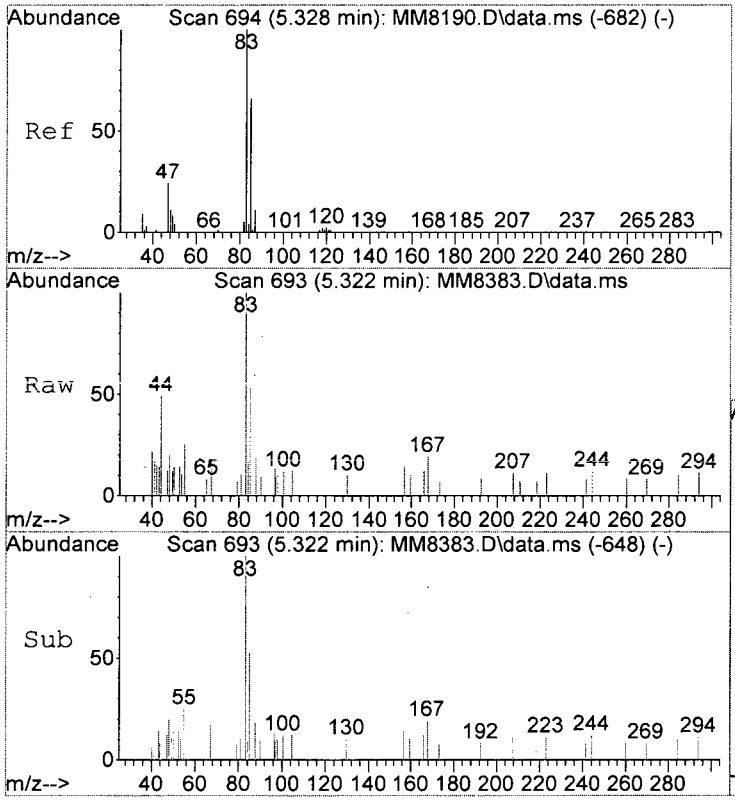


#34
cis-1,2-Dichloroethene
Concen: 0.43 ppb m
RT: 4.712 min Scan# 593
Delta R.T. -0.006 min
Lab File: MM8383.D
Acq: 25 Nov 2015 8:32 am

Tgt Ion: 96 Resp: 3450

Ion	Ratio	Lower	Upper
96	100		
61	107.0	120.7	160.7#

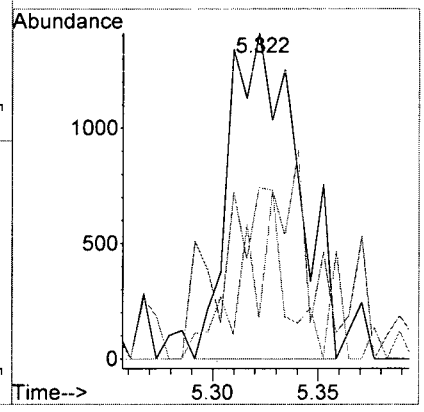


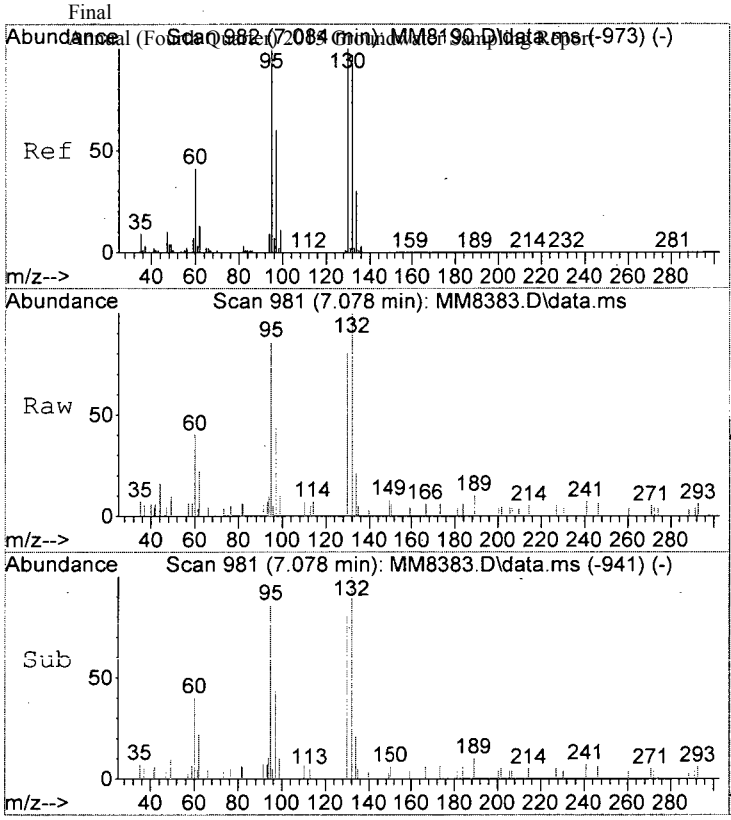


#40
Chloroform
Concen: 0.25 ppb m
RT: 5.322 min Scan# 693
Delta R.T. -0.012 min
Lab File: MM8383.D
Acq: 25 Nov 2015 8:32 am

Tgt Ion: 83 Resp: 3158

Ion	Ratio	Lower	Upper
83	100		
85	52.7	46.1	86.1
47	12.5	3.9	43.9

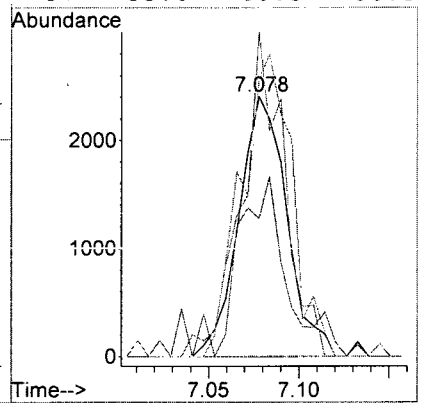


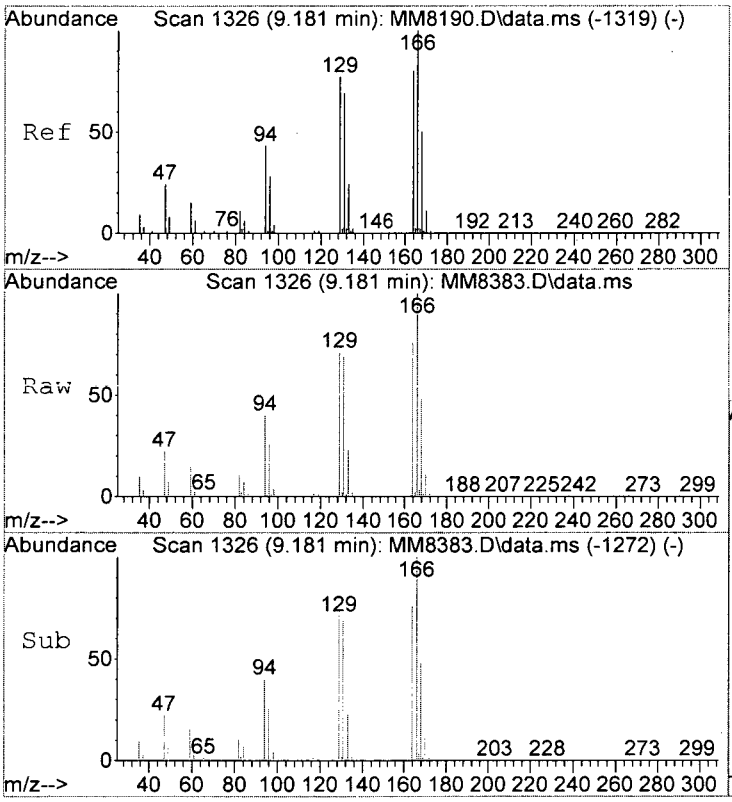


#54
Trichloroethene
Concen: 0.60 ppb
RT: 7.078 min Scan# 981
Delta R.T. -0.006 min
Lab File: MM8383.D
Acq: 25 Nov 2015 8:32 am

Tgt Ion:130 Resp: 4449

Ion	Ratio	Lower	Upper
130	100		
132	124.7	77.4	117.4#
95	106.9	79.2	119.2
97	53.0	40.3	80.3

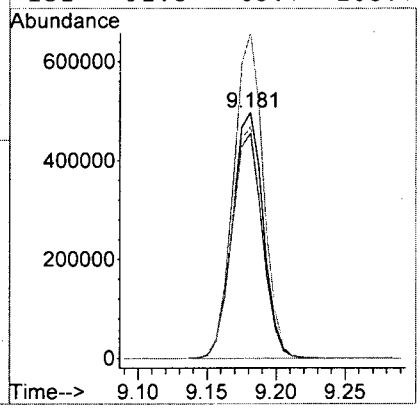


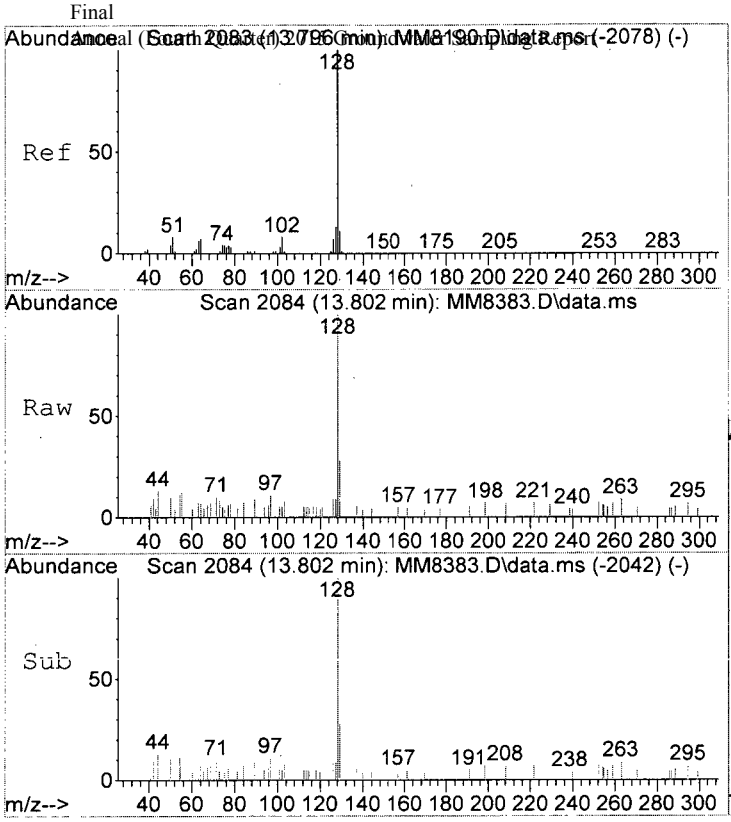


#72
Tetrachloroethene
Concen: 153.17 ppb
RT: 9.181 min Scan# 1326
Delta R.T. -0.000 min
Lab File: MM8383.D
Acq: 25 Nov 2015 8:32 am

Tgt Ion:164 Resp: 769204

Ion	Ratio	Lower	Upper
164	100		
166	132.4	104.3	144.3
129	94.0	75.4	115.4
131	91.5	65.7	105.7

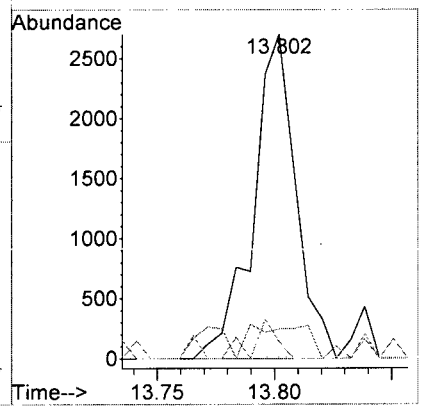




#117
Naphthalen
Concen: 0.22 ppb
RT: 13.802 min Scan# 2084
Delta R.T. -0.000 min
Lab File: MM8383.D
Acq: 25 Nov 2015 8:32 am

Tgt Ion:128 Resp: 3406

Ion	Ratio	Lower	Upper
128	100		
127	9.0	0.0	33.1
102	5.1	0.0	28.3



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8383.D
Acq On : 25 Nov 2015 8:32 am
Operator : K.Ruest 013 KR
Sample : R1510063-~~010~~25 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 46 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8383.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.590	725	737	748	rVB2	492130	1217609	21.02%	4.372%
2	5.731	748	760	771	rBV	956285	2314936	39.97%	8.313%
3	6.090	806	819	832	rBV	548960	1230497	21.24%	4.419%
4	6.767	921	930	941	rBV	1595120	3060596	52.84%	10.990%
5	8.529	1210	1219	1228	rBV	2659296	4285281	73.98%	15.388%
6	9.181	1315	1326	1338	rBV	3761072	5792379	100.00%	20.800%
7	9.986	1452	1458	1469	rBV	2680740	3663103	63.24%	13.154%
8	11.047	1626	1632	1640	rBV	2178595	2750633	47.49%	9.877%
9	12.016	1784	1791	1798	rVB	2867904	3532712	60.99%	12.686%

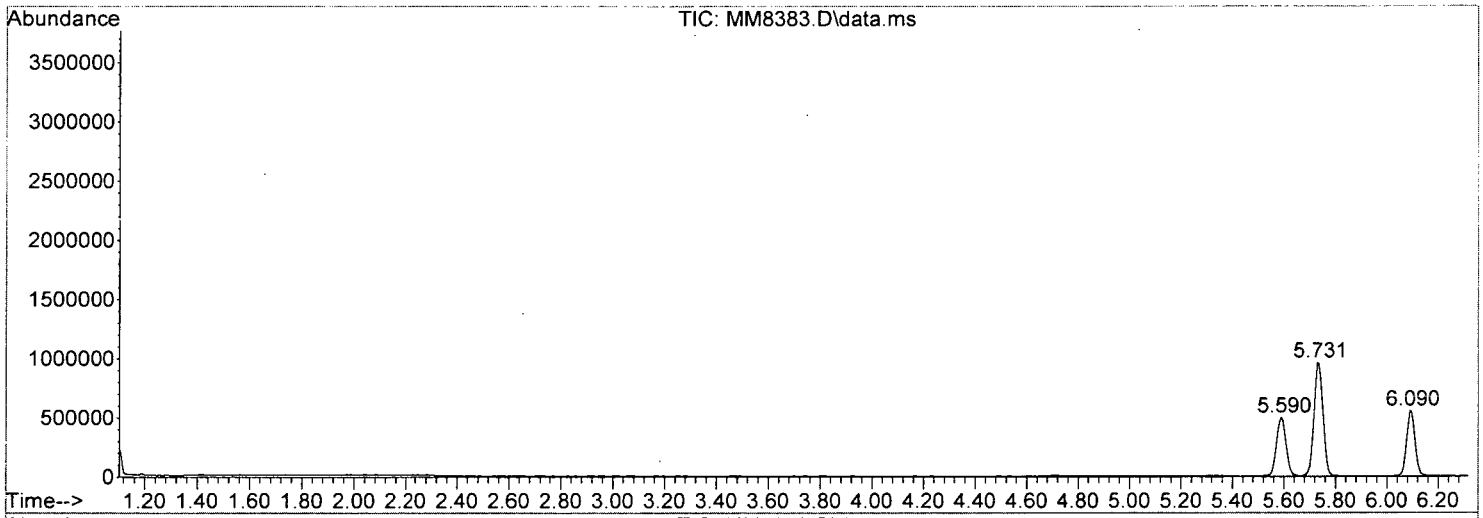
Sum of corrected areas: 27847746

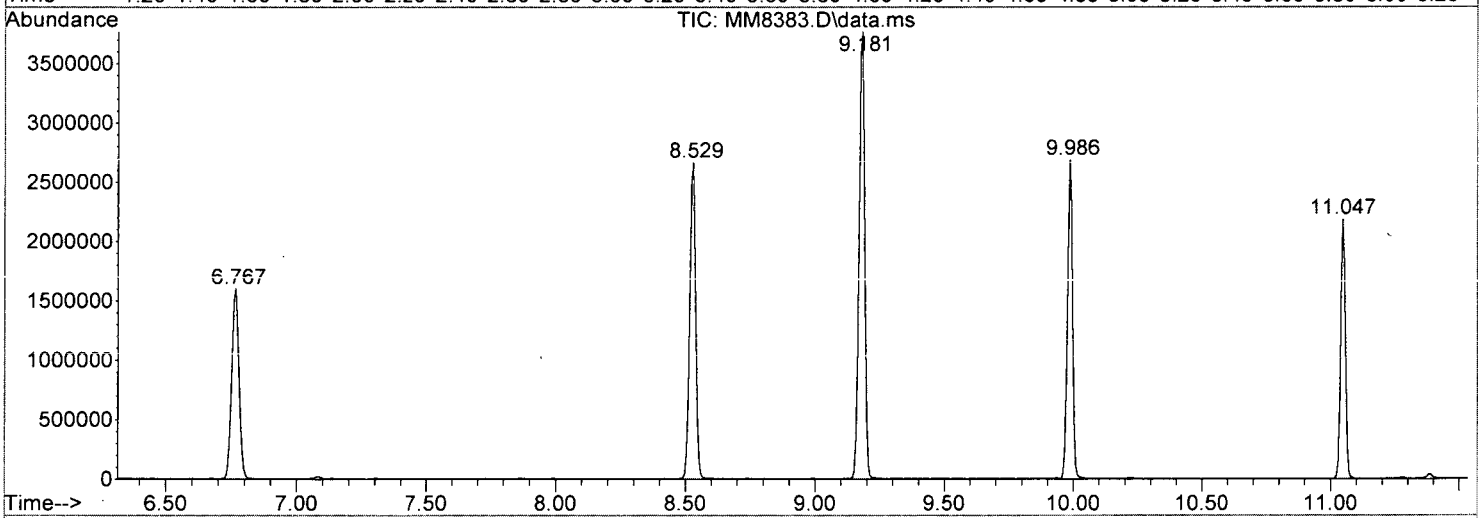
LSC Report - Integrated Chromatogram

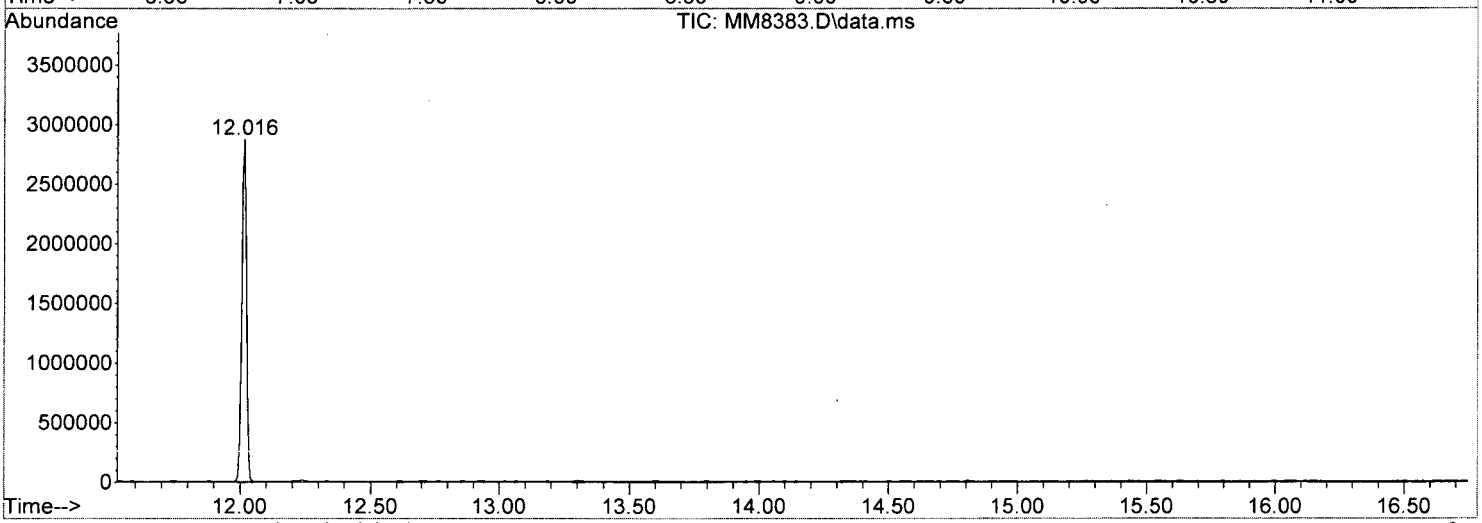
Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8383.D
Acq On : 25 Nov 2015 8:32 am
Operator : K.Ruest
Sample : R1510063-~~010~~|25 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 46 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P







W111815A.M Thu Dec 03 10:09:05 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\112415\\
Data File : MM8383.D
Acq On : 25 Nov 2015 8:32 amm
Operator : K.Ruestt 03 (LB)
Sample : R1510063-~~010~~|25 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD**
ALS Vial : 46 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1615
Date Received: 11/19/15

Sample Name: FTMM-53-GW-MW02-20.25
Lab Code: R1510063-014

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 06:01		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 06:01		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 06:01		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 06:01		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 06:01		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 06:01		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 06:01		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 06:01		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 06:01		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 06:01		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 06:01		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 06:01		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 06:01		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 06:01		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 06:01		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 06:01		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 06:01		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 06:01		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 06:01		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 06:01		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 06:01		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 06:01		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 06:01		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 06:01		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 06:01		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 06:01		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 06:01		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 06:01		473760	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1615
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-53-GW-MW02-20.25	**Units:**	µg/L
Lab Code:	R1510063-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 06:01		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 06:01		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 06:01		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 06:01		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 06:01		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 06:01		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 06:01		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 06:01		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
Tetrachloroethene (PCE)	**29**		5.0	1.0	0.30	1	NA	11/25/15 06:01		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
Trichloroethene (TCE)	**0.67**	J	5.0	1.0	0.22	1	NA	11/25/15 06:01		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 06:01		473760	
cis-1,2-Dichloroethene	**0.57**	J	5.0	1.0	0.30	1	NA	11/25/15 06:01		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 06:01		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 06:01		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 06:01		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 06:01		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 06:01		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:01		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/25/15 06:01	
Dibromofluoromethane	108	85-115	11/25/15 06:01	
Toluene-d8	109	85-120	11/25/15 06:01	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0601

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-MW02-20.25	**Units:**	µg/L
Lab Code:	R1510063-014	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8378.D
Acq On : 25 Nov 2015 6:01 am
Operator : K.Ruest
Sample : R1510063-014|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Dec 03 09:41:16 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	806390	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1337936	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1207818	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	581475	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.590	113	377182	54.22	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.44%			
48) surr1,1,2-dichloroetha...	6.090	65	413545	53.82	ppb	-0.01
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.64%			
65) SURR3,Toluene-d8	8.529	98	1600743	54.68	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 109.36%			
70) SURR2,BFB	11.047	95	605661	54.81	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 109.62%			
Target Compounds						Qvalue
34) cis-1,2-Dichloroethene	4.713	96	4598m	0.57	ppb	
54) Trichloroethene	7.072	130	5031	0.67	ppb	90
72) Tetrachloroethene	9.181	164	144350	28.81	ppb	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

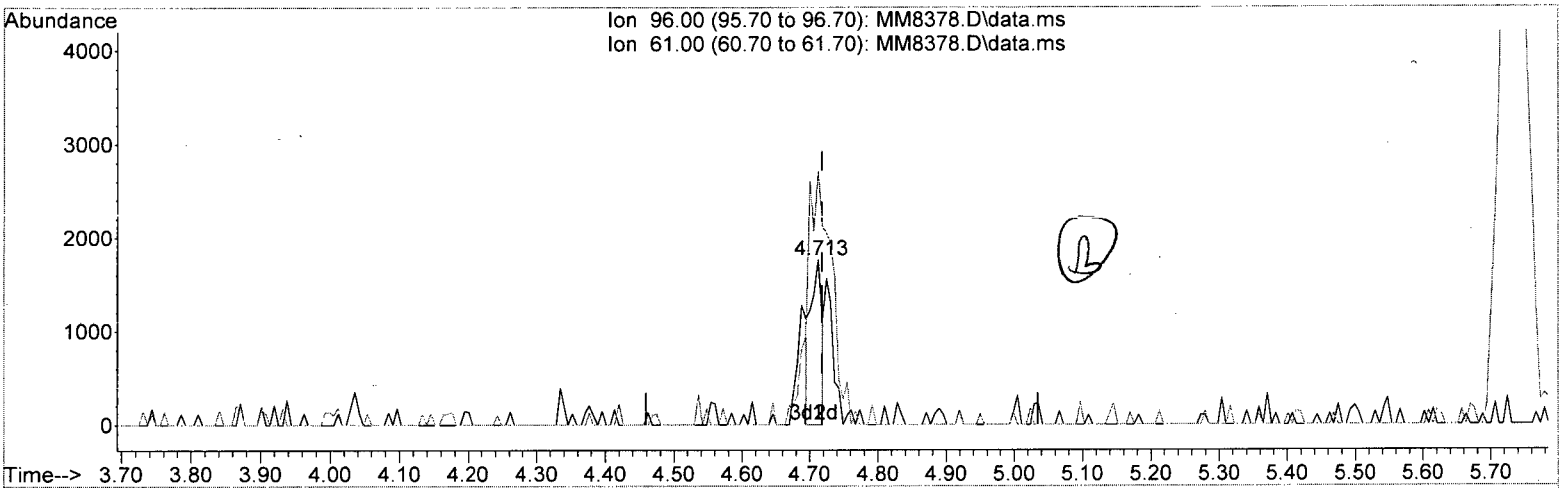
KR 12/3/15

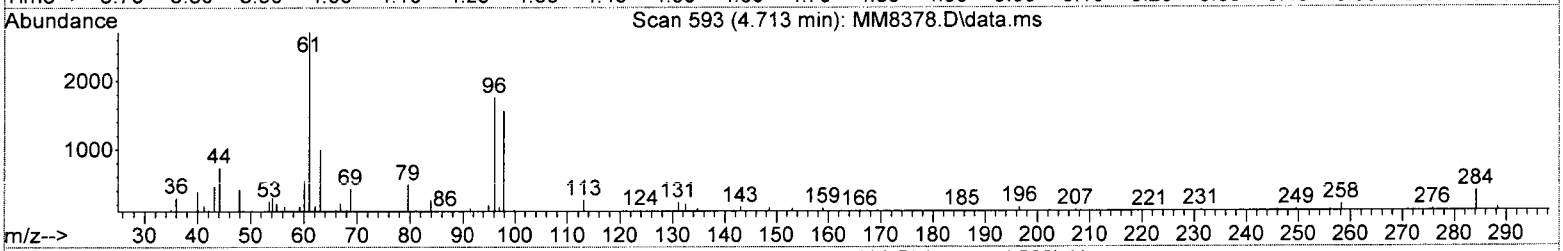
DL 12/3/15

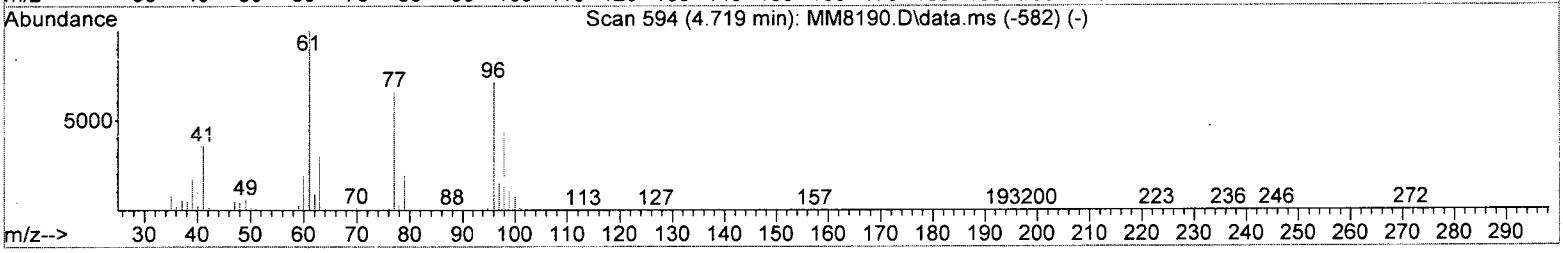
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8378.D
Acq On : 25 Nov 2015 6:01 am
Operator : K.Ruest
Sample : R1510063-014|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Nov 25 10:20:49 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8378.D\data.ms

(34) cis-1,2-Dichloroethene (P)

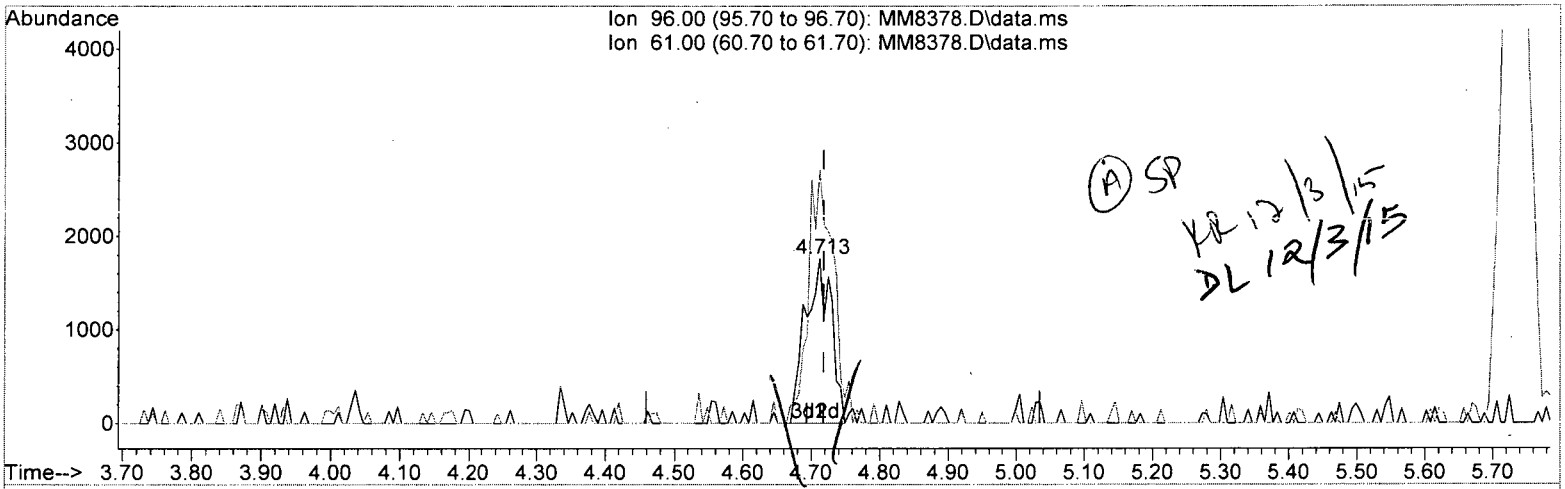
4.713min (-0.006) 0.25 ppb

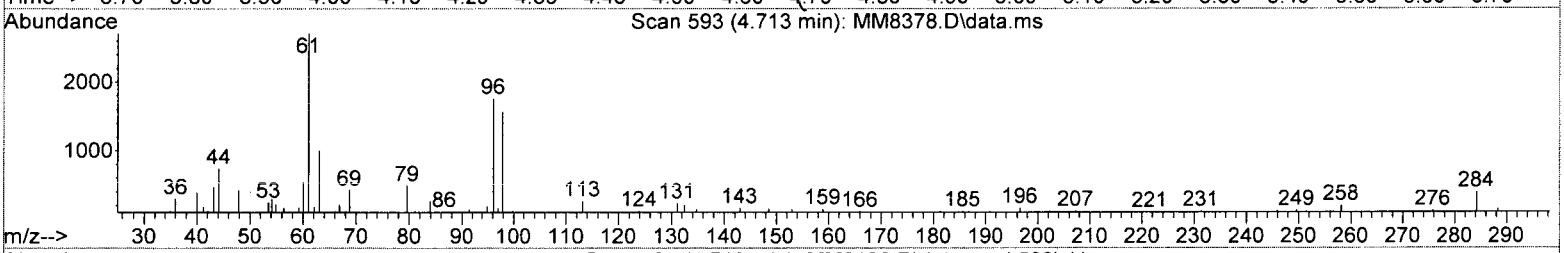
response 2003

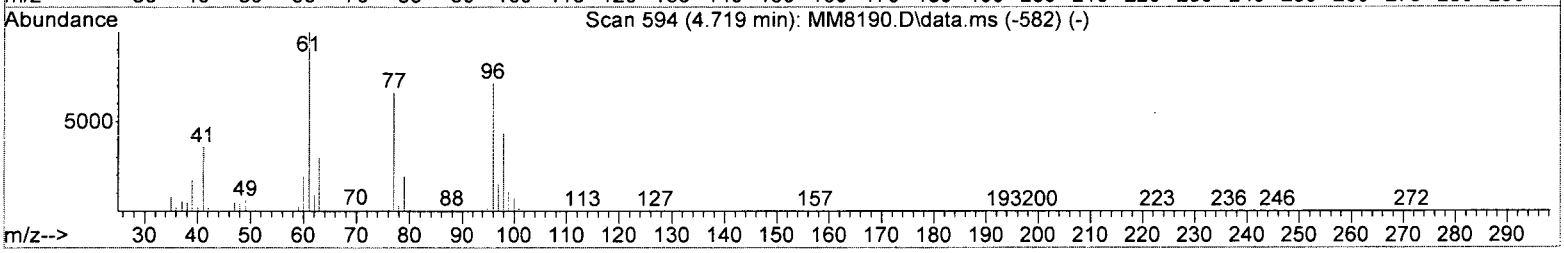
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	154.16
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8378.D
Acq On : 25 Nov 2015 6:01 am
Operator : K.Ruest
Sample : R1510063-014|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Nov 25 10:20:49 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8378.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.713min (-0.006) 0.57 ppb m

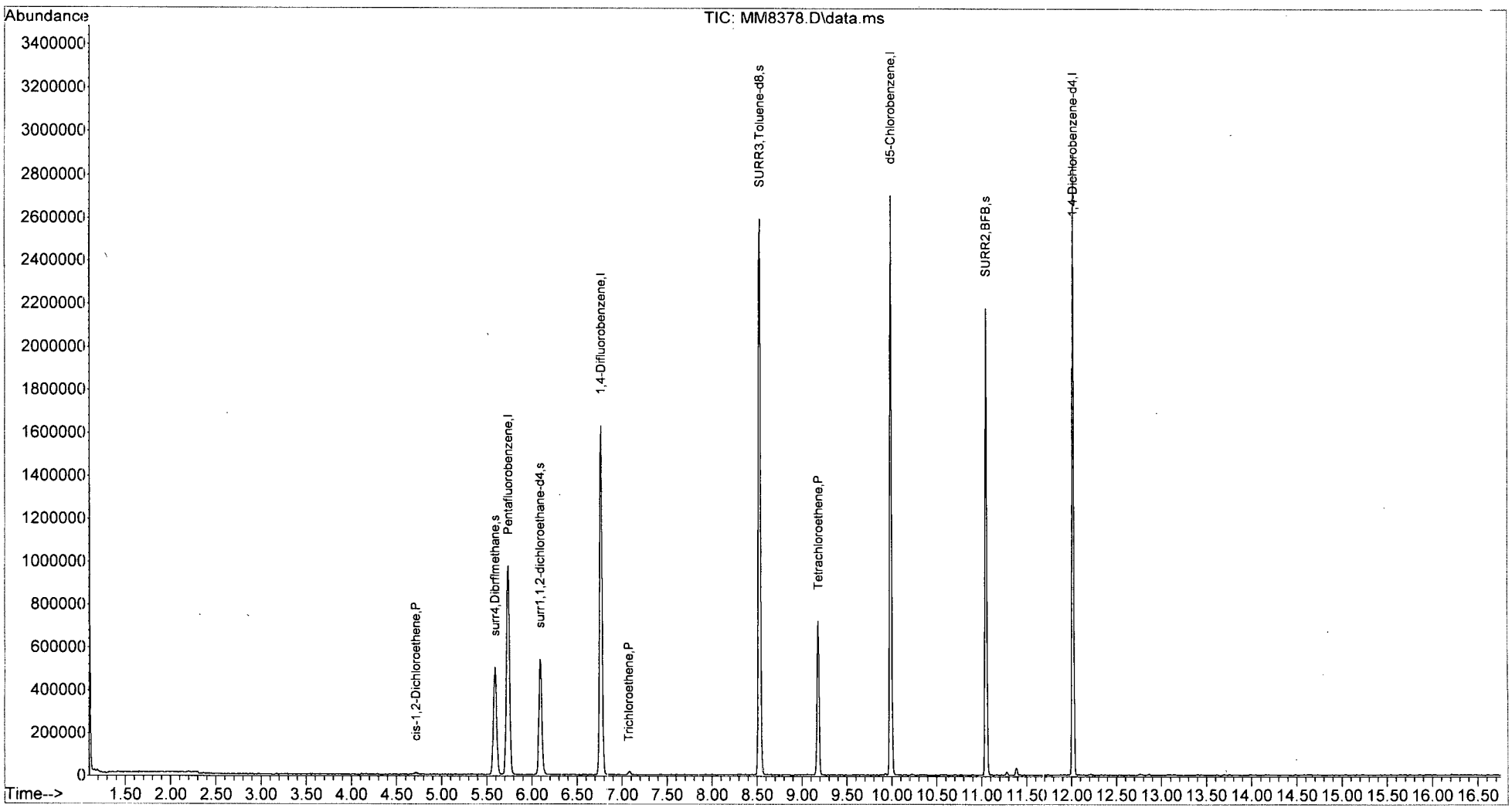
response 4598

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	154.16
0.00	0.00	0.00
0.00	0.00	0.00

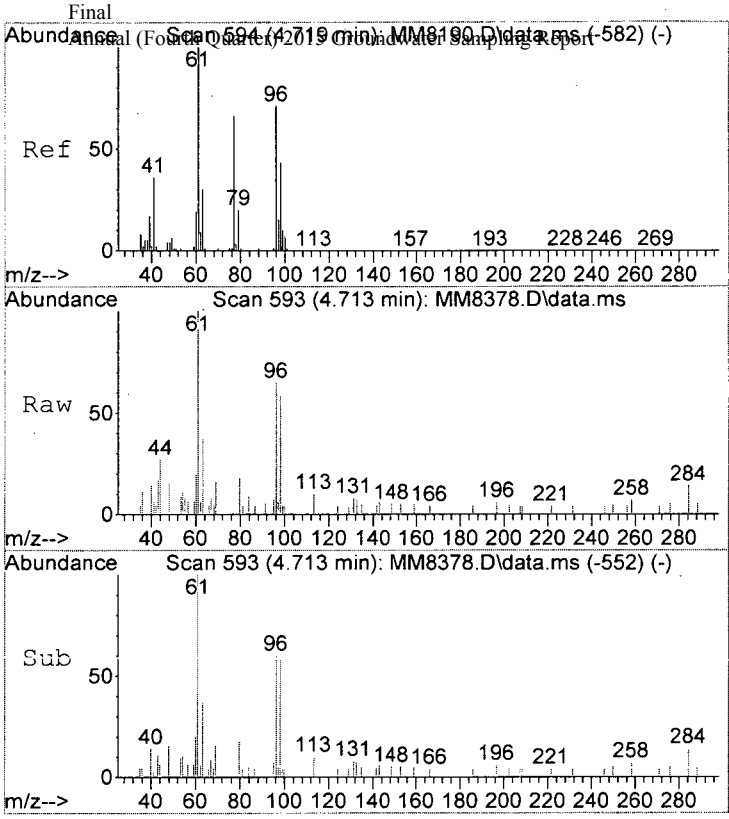
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8378.D
Acq On : 25 Nov 2015 6:01 am
Operator : K.Ruest
Sample : R1510063-014|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Dec 03 09:41:16 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



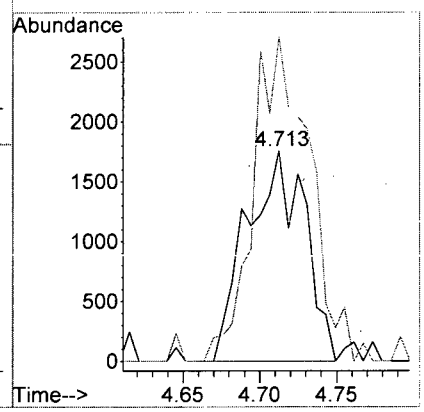
W111815A.M Thu Dec 03 09:42:48 2015 Page: 2

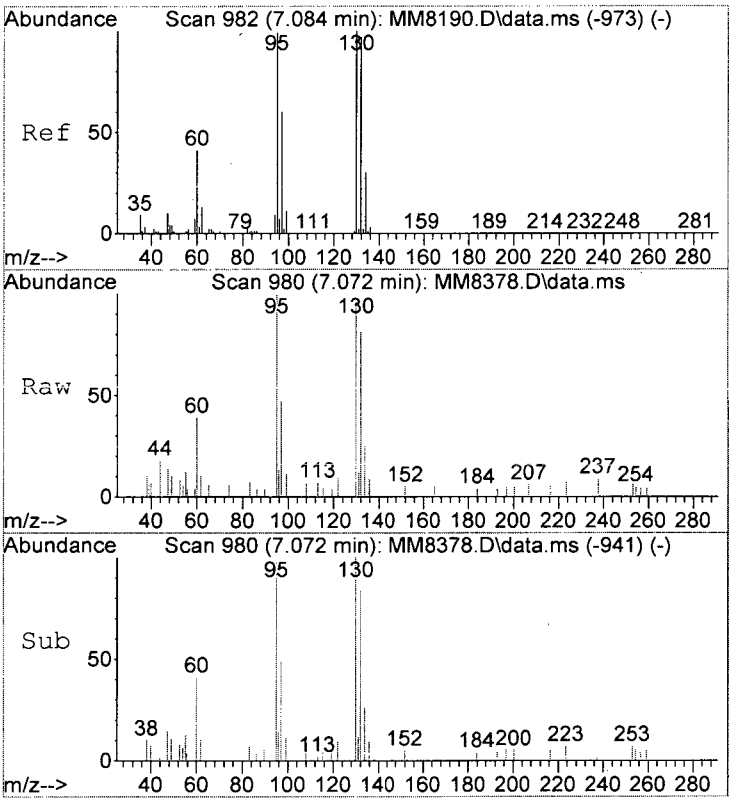


#34
cis-1,2-Dichloroethene
Concen: 0.57 ppb m
RT: 4.713 min Scan# 593
Delta R.T. -0.006 min
Lab File: MM8378.D
Acq: 25 Nov 2015 6:01 am

Tgt Ion: 96 Resp: 4598

Ion	Ratio	Lower	Upper
96	100		
61	154.2	120.7	160.7

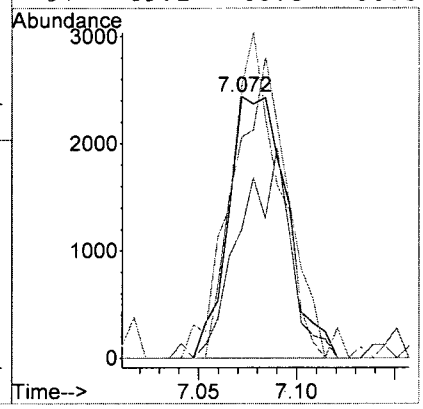


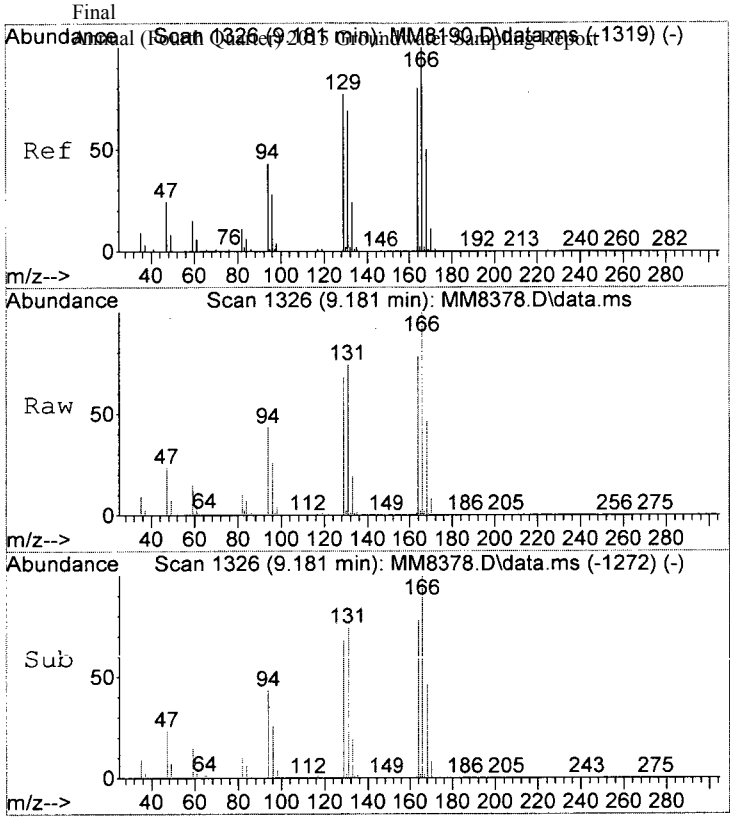


#54
Trichloroethene
Concen: 0.67 ppb
RT: 7.072 min Scan# 980
Delta R.T. -0.012 min
Lab File: MM8378.D
Acq: 25 Nov 2015 6:01 am

Tgt Ion:130 Resp: 5031

Ion	Ratio	Lower	Upper
130	100		
132	84.5	77.4	117.4
95	104.4	79.2	119.2
97	49.1	40.3	80.3

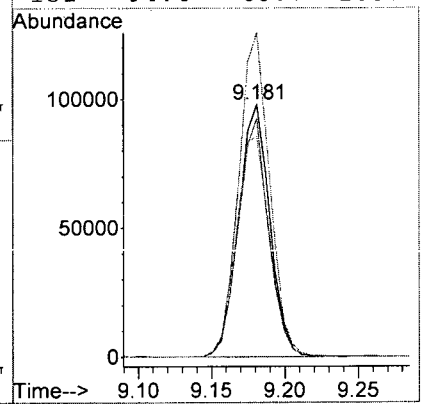




#72
Tetrachloroethene
Concen: 28.81 ppb
RT: 9.181 min Scan# 1326
Delta R.T. -0.000 min
Lab File: MM8378.D
Acq: 25 Nov 2015 6:01 am

Tgt Ion:164 Resp: 144350

Ion	Ratio	Lower	Upper
164	100		
166	128.3	104.3	144.3
129	87.3	75.4	115.4
131	94.6	65.7	105.7



MM8378.D W111815A.M Thu Dec 03 09:42:51 2015 Page 4

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8378.D
Acq On : 25 Nov 2015 6:01 am
Operator : K.Ruest
Sample : R1510063-014|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 41 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8378.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.590	727	737	747	rBV2	499829	1214362	29.12%	5.256%
2	5.737	750	761	773	rVB	973169	2307216	55.33%	9.987%
3	6.090	811	819	831	rVB	537796	1197637	28.72%	5.184%
4	6.767	920	930	943	rBV	1627514	3082622	73.93%	13.343%
5	8.529	1211	1219	1230	rBV	2592153	4169760	100.00%	18.049%
6	9.181	1318	1326	1337	rVB	720246	1093666	26.23%	4.734%
7	9.986	1452	1458	1468	rBV	2701218	3663964	87.87%	15.860%
8	11.047	1627	1632	1642	rVB	2174125	2742968	65.78%	11.873%
9	11.388	1682	1688	1693	rBV2	34830	52009	1.25%	0.225%
10	12.016	1785	1791	1797	rBV	2894104	3577936	85.81%	15.487%

Sum of corrected areas: 23102140

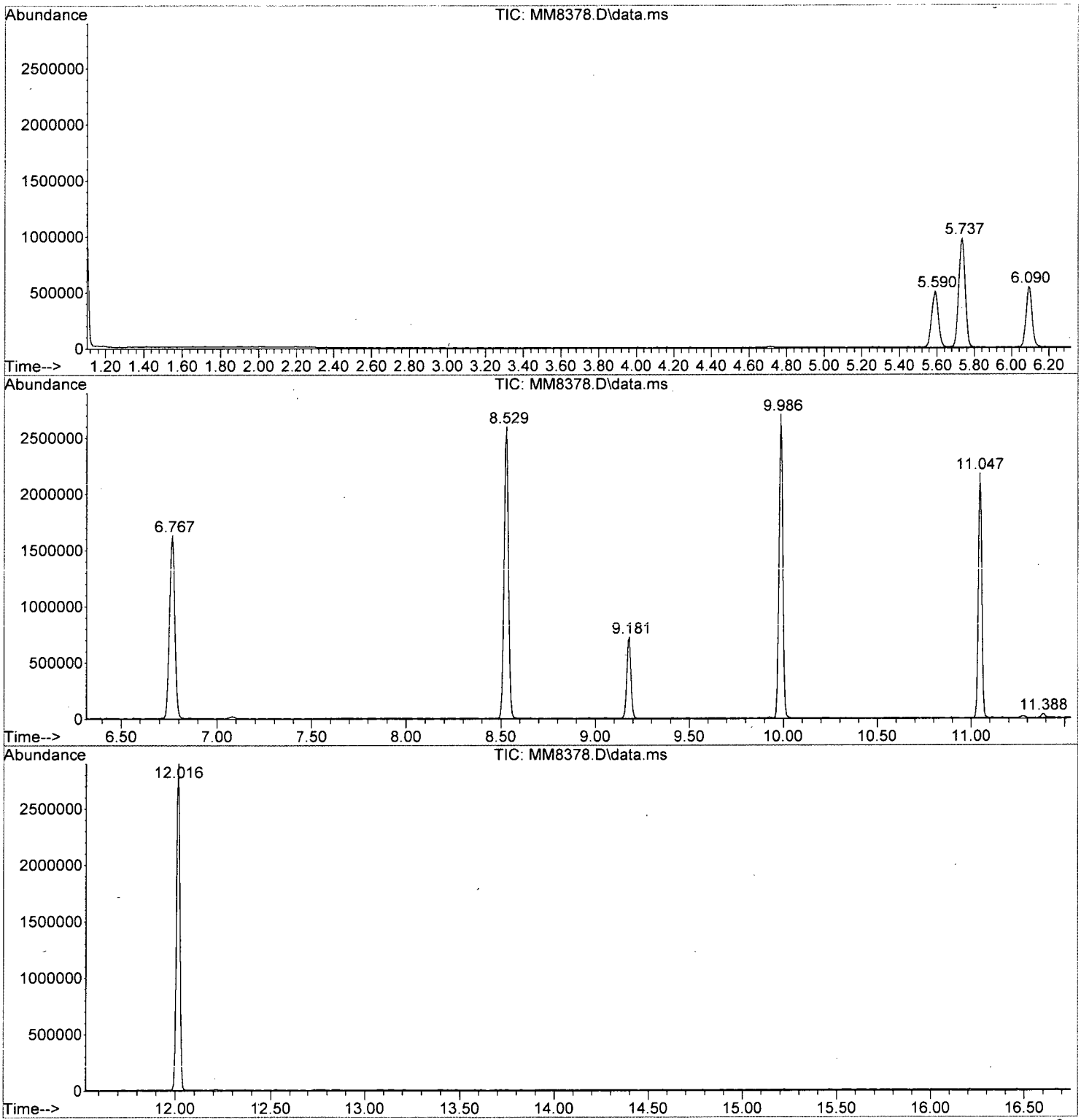
W111815A.M Thu Dec 03 09:42:58 2015 Page: 1

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8378.D
Acq On : 25 Nov 2015 6:01 am
Operator : K.Ruest
Sample : R1510063-014|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 41 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



W111815A.M Thu Dec 03 09:43:01 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\112415\\
Data File : MM8378.D
Acq On : 25 Nov 2015 6:01 amm
Operator : K.Ruestt
Sample : R1510063-014|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD**
ALS Vial : 41 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1424
Date Received: 11/19/15

Sample Name: FTMM-53-GW-MW02-25.25
Lab Code: R1510063-015

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 06:31		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 06:31		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 06:31		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 06:31		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 06:31		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 06:31		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 06:31		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 06:31		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 06:31		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 06:31		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 06:31		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 06:31		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 06:31		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 06:31		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 06:31		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 06:31		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 06:31		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 06:31		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 06:31		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 06:31		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 06:31		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 06:31		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 06:31		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 06:31		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 06:31		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 06:31		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 06:31		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 06:31		473760	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1424
Date Received: 11/19/15

Sample Name: FTMM-53-GW-MW02-25.25
Lab Code: R1510063-015

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 06:31		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 06:31		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 06:31		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 06:31		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 06:31		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 06:31		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 06:31		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 06:31		473760	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
Tetrachloroethene (PCE)	**28**		5.0	1.0	0.30	1	NA	11/25/15 06:31		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
Trichloroethene (TCE)	**0.68**	J	5.0	1.0	0.22	1	NA	11/25/15 06:31		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 06:31		473760	
cis-1,2-Dichloroethene	**0.74**	J	5.0	1.0	0.30	1	NA	11/25/15 06:31		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 06:31		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 06:31		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 06:31		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 06:31		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 06:31		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 06:31		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/25/15 06:31	
Dibromofluoromethane	111	85-115	11/25/15 06:31	
Toluene-d8	108	85-120	11/25/15 06:31	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0631

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-MW02-25.25	**Units:**	µg/L
Lab Code:	R1510063-015	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8379.D
Acq On : 25 Nov 2015 6:31 am
Operator : K.Ruest
Sample : R1510063-015|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Dec 03 09:44:35 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	809774	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1344776	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1211823	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	578719	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.590	113	387923	55.48	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 110.96%			
48) surr1,1,2-dichloroetha...	6.090	65	415475	53.80	ppb	-0.01
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.60%			
65) SURR3,Toluene-d8	8.529	98	1588118	53.97	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 107.94%			
70) SURR2,BFB	11.047	95	613169	55.20	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.40%			
Target Compounds						Qvalue
34) cis-1,2-Dichloroethene	4.713	96	6009m	0.74	ppb	
54) Trichloroethene	7.084	130	5127	0.68	ppb	93
72) Tetrachloroethene	9.181	164	142208	28.29	ppb	97

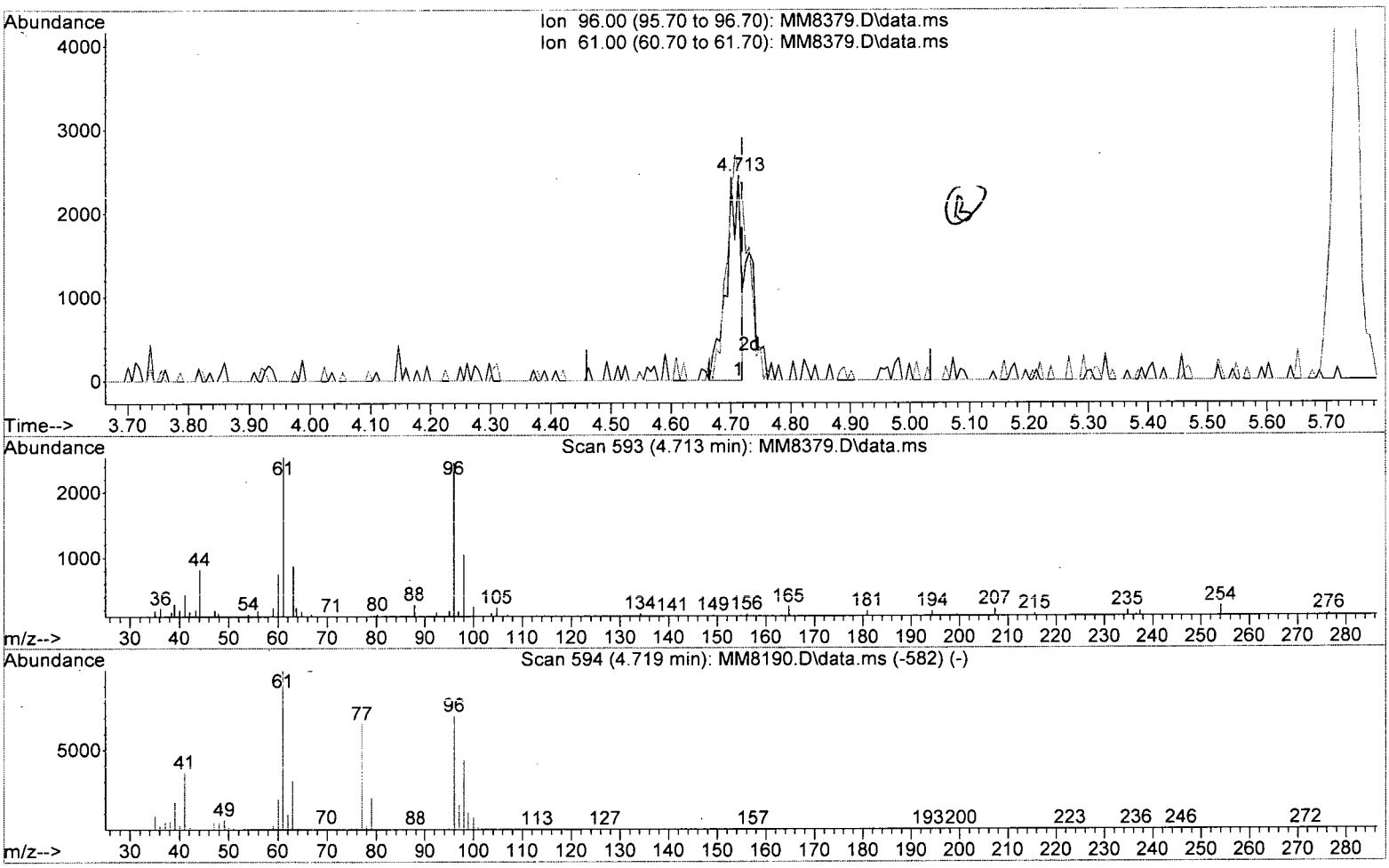
KR 12/3/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8379.D
Acq On : 25 Nov 2015 6:31 am
Operator : K.Ruest
Sample : R1510063-015|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Nov 25 10:20:52 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8379.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.713min (-0.006) 0.49 ppb

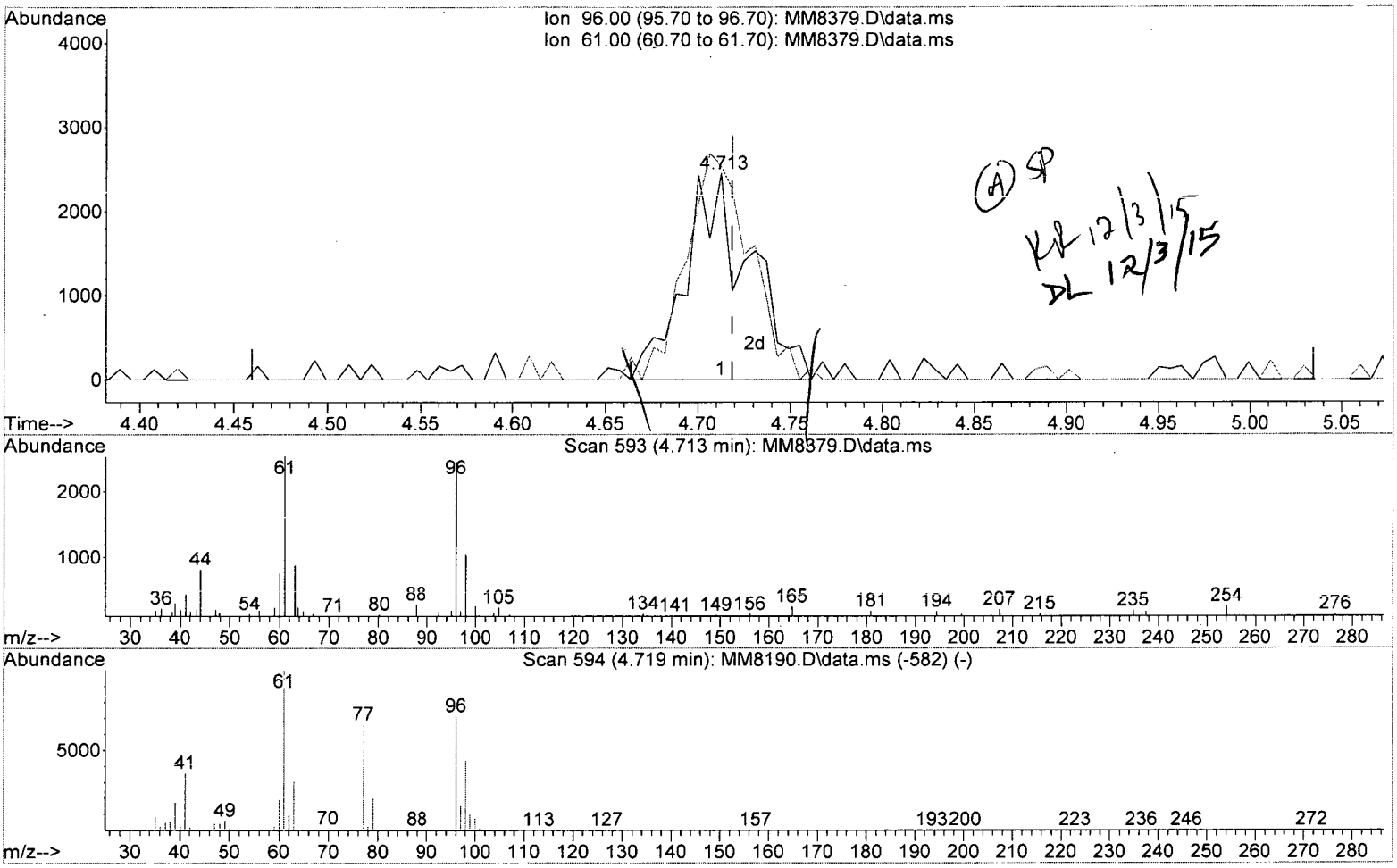
response 3978

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	103.56#
0.00	0.00	0.00
0.00	0.00	0.00

W111815A.M Thu Dec 03 09:43:22 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8379.D
Acq On : 25 Nov 2015 6:31 am
Operator : K.Ruest
Sample : R1510063-015|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Nov 25 10:20:52 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



(A) SP
KR 12/3/15
DL 12/3/15

TIC: MM8379.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.713min (-0.006) 0.74 ppb m

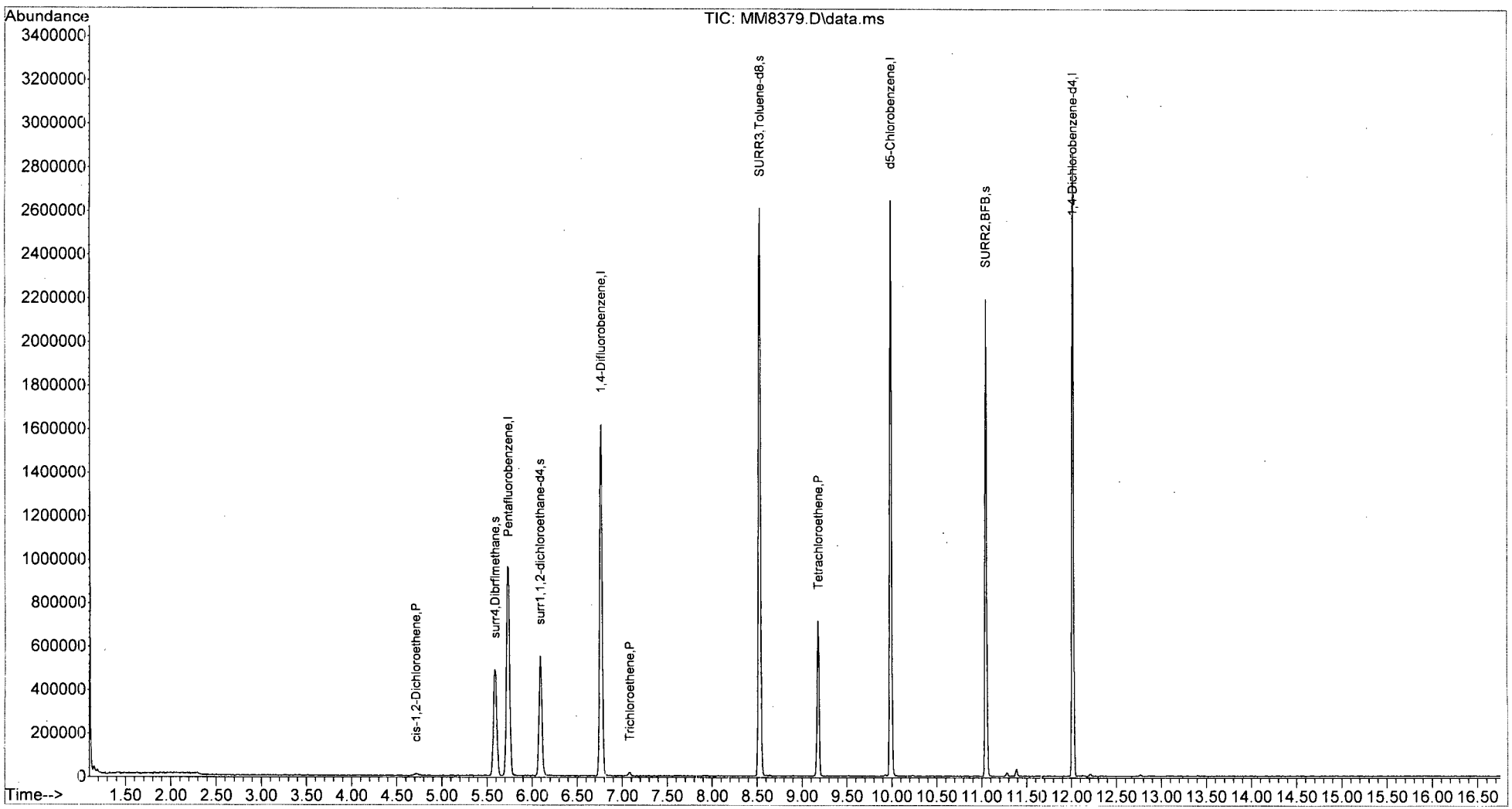
response 6009

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	103.56#
0.00	0.00	0.00
0.00	0.00	0.00

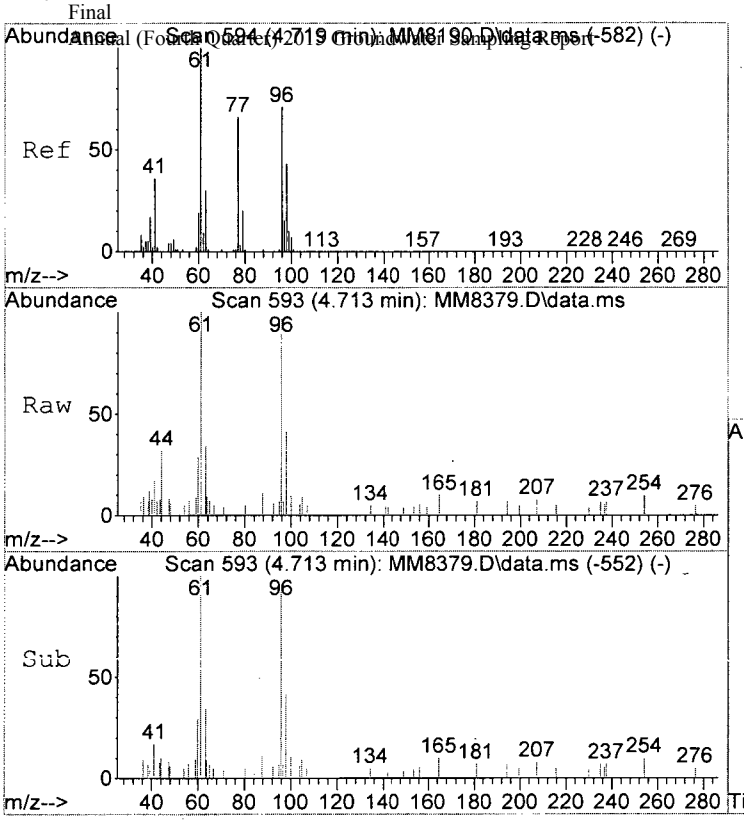
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8379.D
Acq On : 25 Nov 2015 6:31 am
Operator : K.Ruest
Sample : R1510063-015|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Dec 03 09:44:35 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



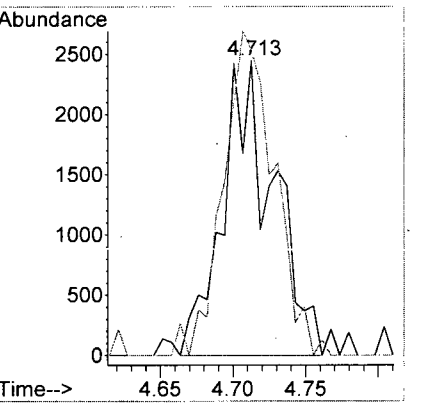
W111815A.M Thu Dec 03 09:45:57 2015 Page: 2

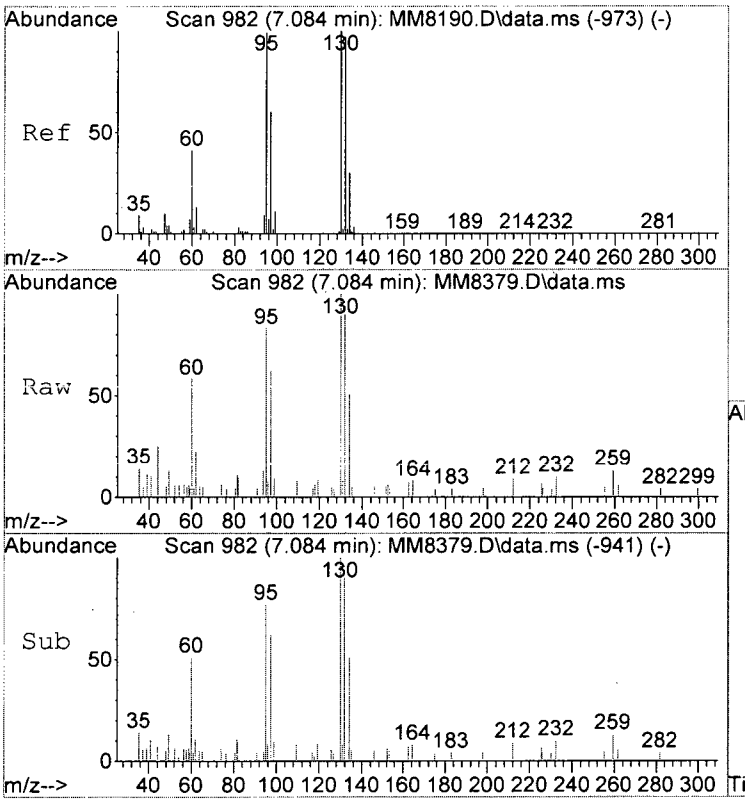


#34
cis-1,2-Dichloroethene
Concen: 0.74 ppb m
RT: 4.713 min Scan# 593
Delta R.T. -0.006 min
Lab File: MM8379.D
Acq: 25 Nov 2015 6:31 am

Tgt Ion: 96 Resp: 6009

Ion	Ratio	Lower	Upper
96	100		
61	103.6	120.7	160.7#

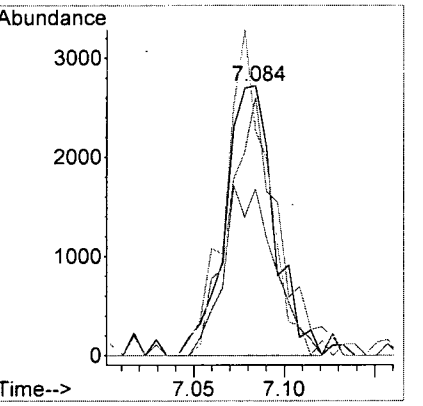


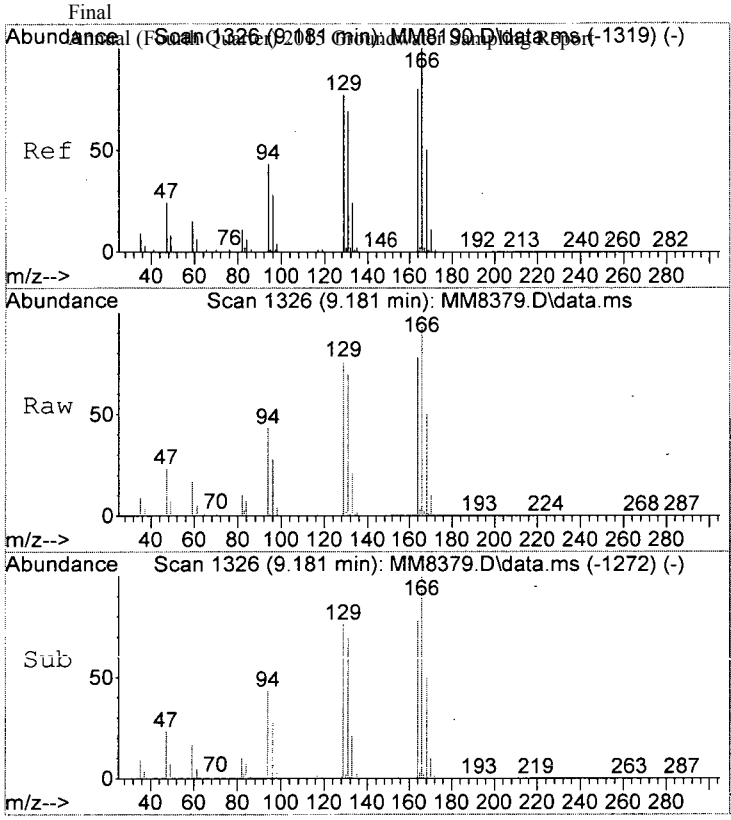


#54
Trichloroethene
Concen: 0.68 ppb
RT: 7.084 min Scan# 982
Delta R.T. -0.000 min
Lab File: MM8379.D
Acq: 25 Nov 2015 6:31 am

Tgt Ion:130 Resp: 5127

Ion	Ratio	Lower	Upper
130	100		
132	95.6	77.4	117.4
95	83.3	79.2	119.2
97	61.7	40.3	80.3

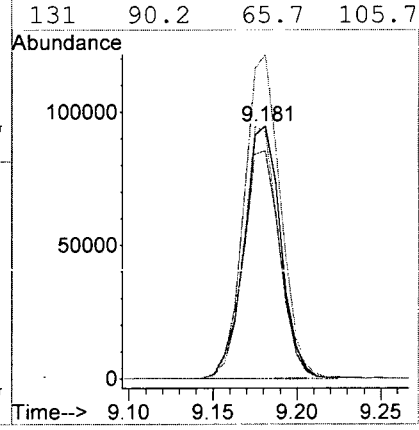




#72
Tetrachloroethene
Concen: 28.29 ppb
RT: 9.181 min Scan# 1326
Delta R.T. -0.000 min
Lab File: MM8379.D
Acq: 25 Nov 2015 6:31 am

Tgt Ion:164 Resp: 142208

Ion	Ratio	Lower	Upper
164	100		
166	128.3	104.3	144.3
129	97.4	75.4	115.4
131	90.2	65.7	105.7



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8379.D
Acq On : 25 Nov 2015 6:31 am
Operator : K.Ruest
Sample : R1510063-015|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 42 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8379.D\data.ms

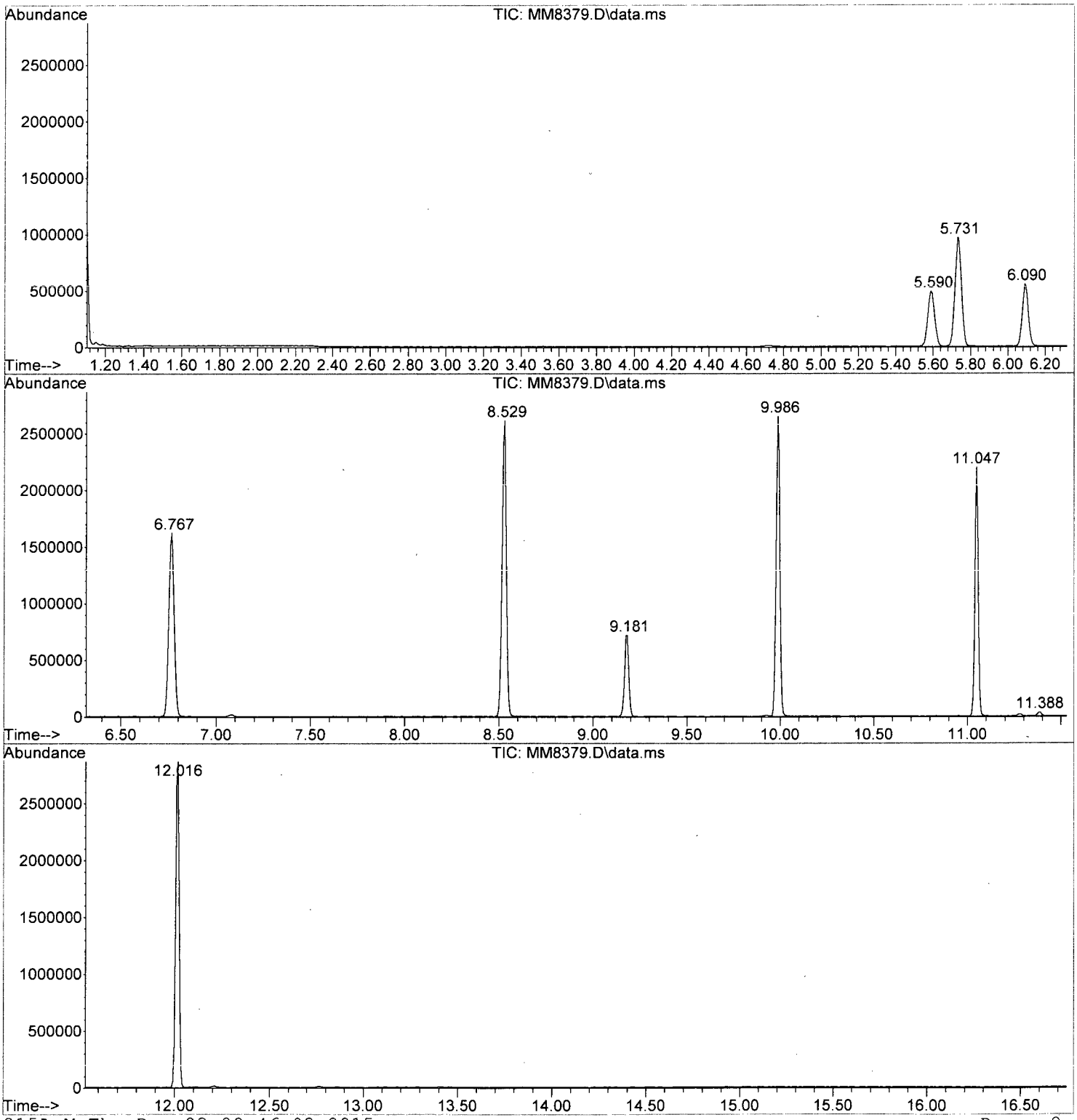
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.591	726	737	747	rBV	488826	1234340	29.68%	5.313%
2	5.731	750	760	770	rBV	963195	2317925	55.73%	9.977%
3	6.090	809	819	832	rBV	552807	1238276	29.77%	5.330%
4	6.767	921	930	939	rBV	1617303	3094838	74.41%	13.322%
5	8.529	1210	1219	1230	rBV	2610541	4159272	100.00%	17.903%
6	9.181	1318	1326	1332	rBV	713616	1092098	26.26%	4.701%
7	9.986	1452	1458	1466	rBV	2646327	3677466	88.42%	15.830%
8	11.047	1627	1632	1640	rBV	2193703	2758623	66.32%	11.874%
9	11.388	1683	1688	1693	rBV2	32827	44819	1.08%	0.193%
10	12.016	1785	1791	1798	rBV	2863942	3614017	86.89%	15.556%

Sum of corrected areas: 23231674

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8379.D
Acq On : 25 Nov 2015 6:31 am
Operator : K.Ruest
Sample : R1510063-015|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 42 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



W111815A.M Thu Dec 03 09:46:08 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\112415\\
Data File : MM8379.D
Acq On : 25 Nov 2015 6:31 amm
Operator : K.Ruestt
Sample : R1510063-015|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD**
ALS Vial : 42 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8380.D
Acq On : 25 Nov 2015 7:01 am
Operator : K.Ruest
Sample : R1510063-016|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Dec 03 10:00:33 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	810129	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1353515	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1218076	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	585777	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.590	113	386100	54.87	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.74%			
48) surr1,1,2-dichloroetha...	6.096	65	415949	53.51	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.02%			
65) SURR3,Toluene-d8	8.529	98	1615469	54.55	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 109.10%			
70) SURR2,BFB	11.047	95	614966	55.01	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.02%			
Target Compounds						Qvalue
82) Ethylbenzene	10.132	106	10958	1.07	ppb	# 80
89) Isopropylbenzene	10.925	105	9126	0.30	ppb	82
94) 1,2,3-Trichloropropane	11.284	110	268	Below Cal		# 1
95) n-Propylbenzene	11.278	91	20294	0.58	ppb	91
101) 1,2,4-Trimethylbenzene	11.735	105	15851	0.64	ppb	94
117) Naphthalen	13.802	128	3274	0.21	ppb	97

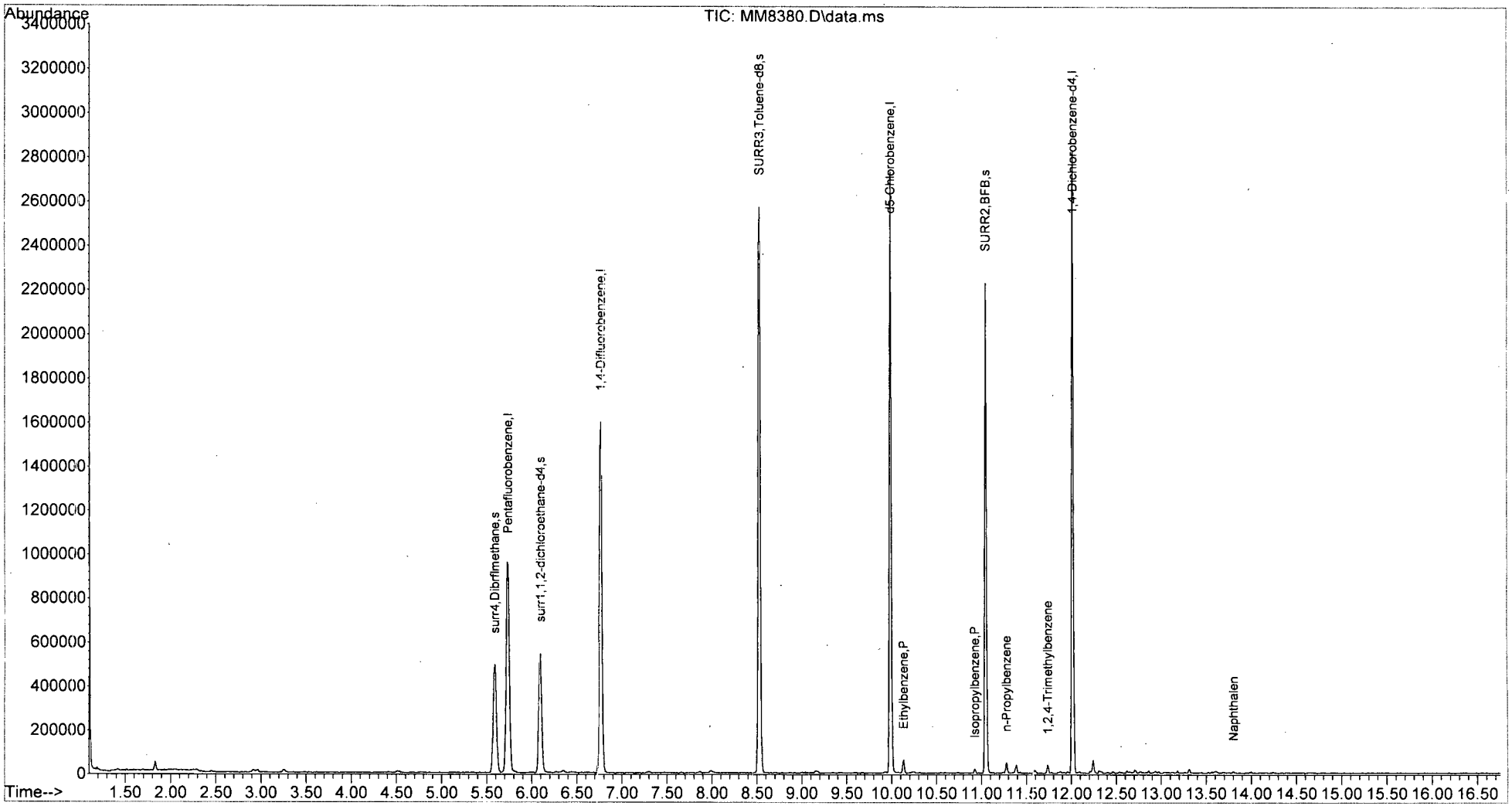
KR 12/3/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed

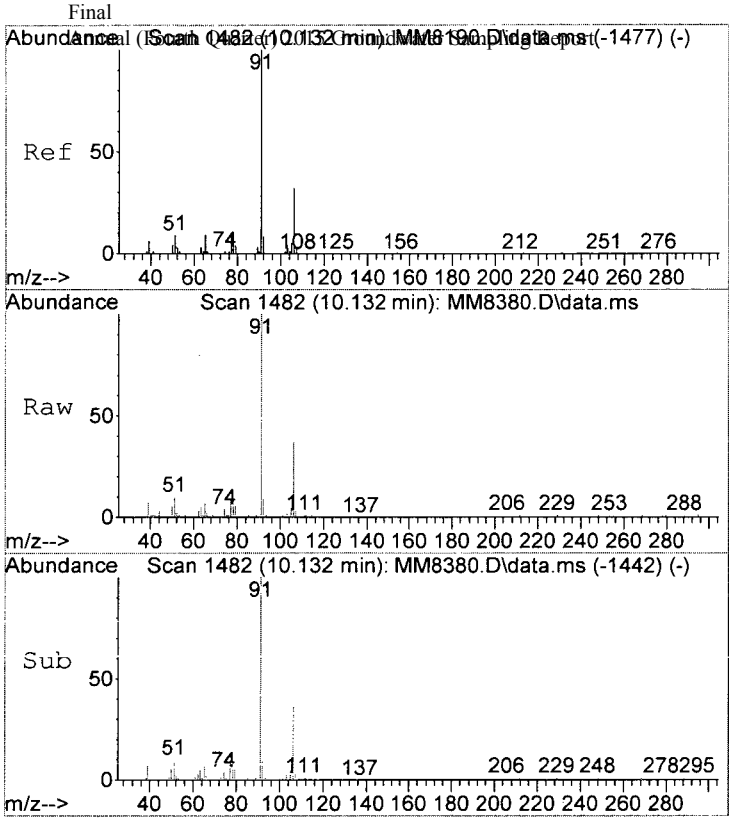
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8380.D
Acq On : 25 Nov 2015 7:01 am
Operator : K.Ruest
Sample : R1510063-016|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Dec 03 10:00:33 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



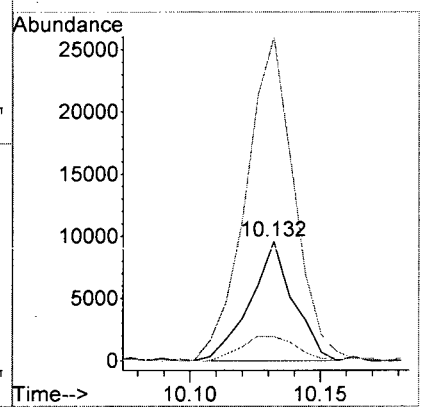
W111815A.M Thu Dec 03 10:02:26 2015

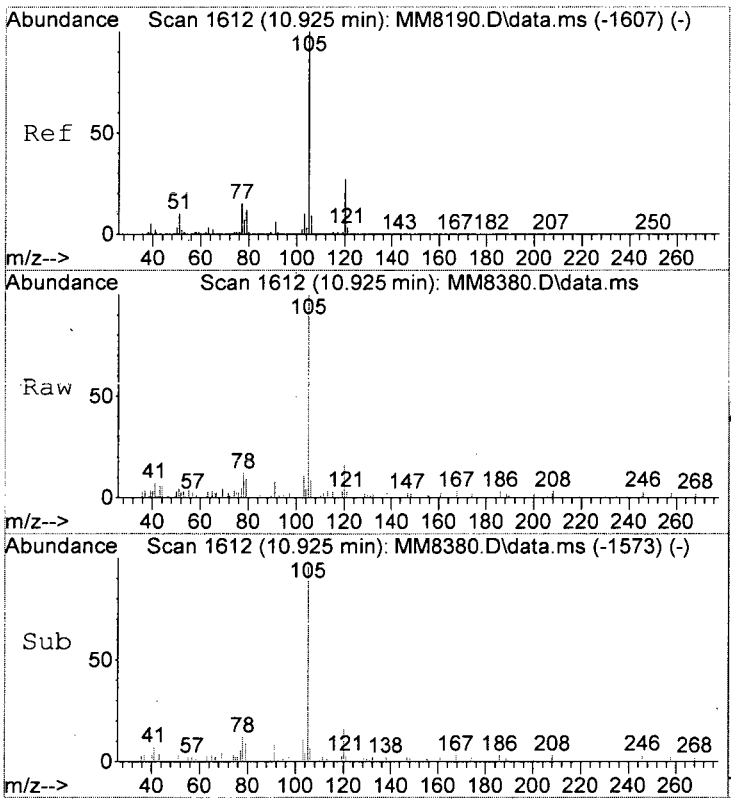


#82
Ethylbenzene
Concen: 1.07 ppb
RT: 10.132 min Scan# 1482
Delta R.T. -0.006 min
Lab File: MM8380.D
Acq: 25 Nov 2015 7:01 am

Tgt Ion:106 Resp: 10958

Ion	Ratio	Lower	Upper
106	100		
91	271.9	293.8	333.8#
65	20.1	7.2	47.2

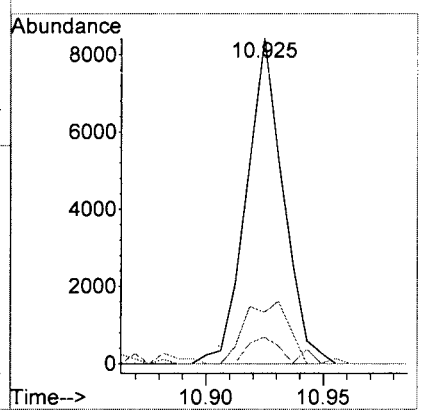


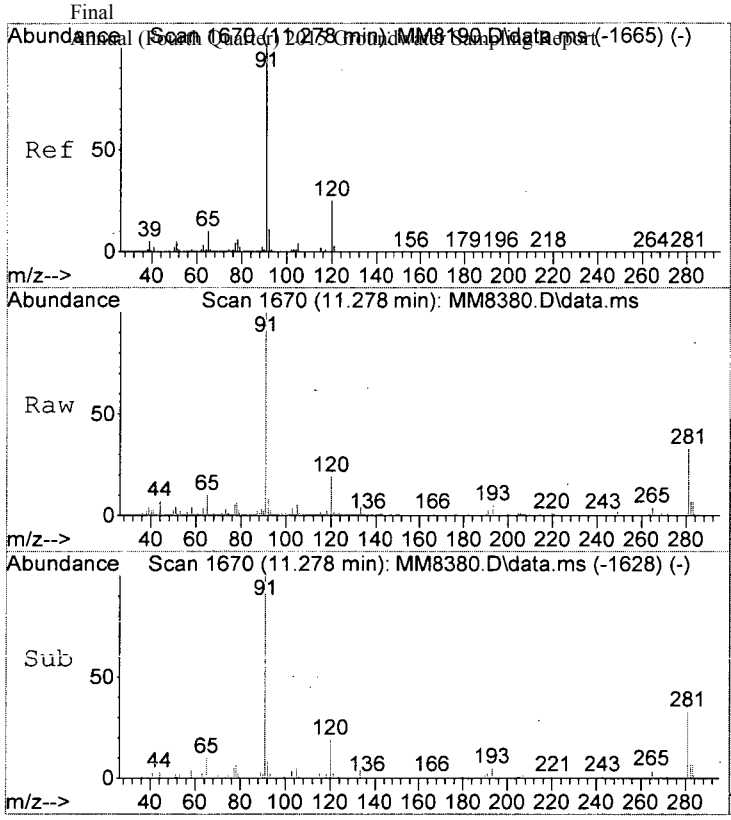


#89
Isopropylbenzene
Concen: 0.30 ppb
RT: 10.925 min Scan# 1612
Delta R.T. -0.006 min
Lab File: MM8380.D
Acq: 25 Nov 2015 7:01 am

Tgt Ion:105 Resp: 9126

Ion	Ratio	Lower	Upper
105	100		
120	15.7	7.4	47.4
106	8.0	0.0	29.1

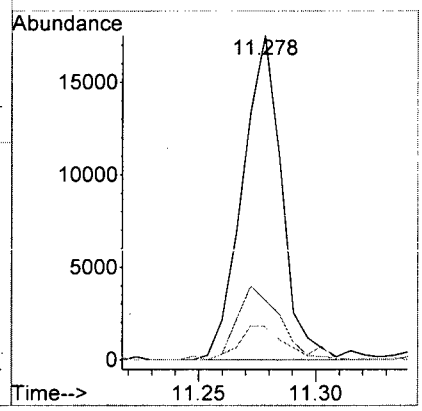


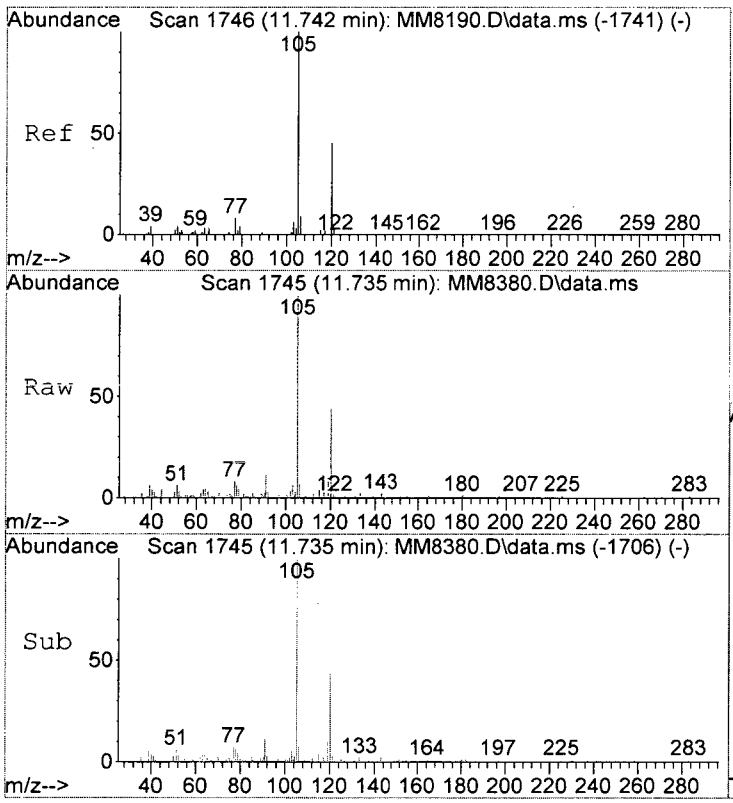


#95
n-Propylbenzene
Concen: 0.58 ppb
RT: 11.278 min Scan# 1670
Delta R.T. -0.006 min
Lab File: MM8380.D
Acq: 25 Nov 2015 7:01 am

Tgt Ion: 91 Resp: 20294

Ion	Ratio	Lower	Upper
91	100		
120	18.5	4.8	44.8
65	10.3	0.0	30.5

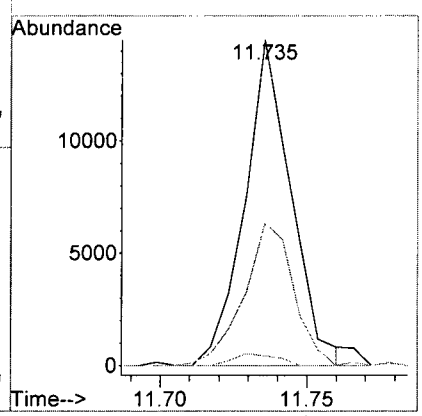


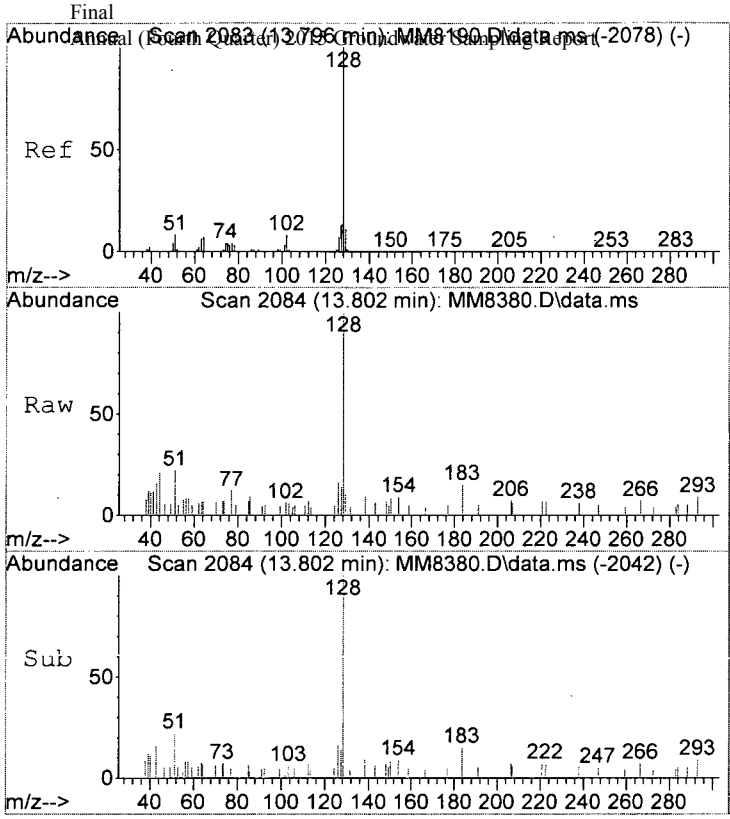


#101
1,2,4-Trimethylbenzene
Concen: 0.64 ppb
RT: 11.735 min Scan# 1745
Delta R.T. -0.006 min
Lab File: MM8380.D
Acq: 25 Nov 2015 7:01 am

Tgt Ion:105 Resp: 15851

Ion	Ratio	Lower	Upper
105	100		
120	43.6	28.1	68.1
65	2.9	0.0	24.3

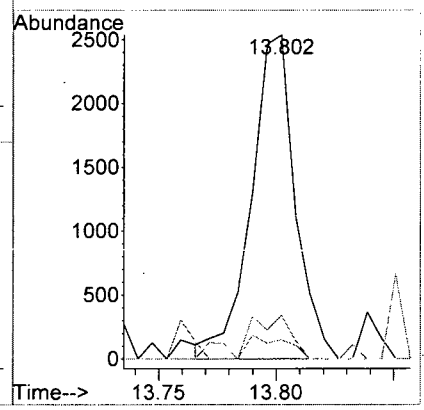




#117
Naphthalen
Concen: 0.21 ppb
RT: 13.802 min Scan# 2084
Delta R.T. -0.000 min
Lab File: MM8380.D
Acq: 25 Nov 2015 7:01 am

Tgt Ion:128 Resp: 3274

Ion	Ratio	Lower	Upper
128	100		
127	13.5	0.0	33.1
102	5.9	0.0	28.3



Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15 1332
Date Received: 11/19/15

Sample Name: FTMM-53-GW-699MW01-11.0
Lab Code: R1510063-016

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 07:01		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 07:01		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 07:01		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 07:01		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 07:01		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 07:01		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 07:01		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 07:01		473760	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/25/15 07:01		473760	
1,2,4-Trimethylbenzene	**0.64**	J	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 07:01		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 07:01		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 07:01		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 07:01		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 07:01		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 07:01		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 07:01		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 07:01		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 07:01		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 07:01		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 07:01		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 07:01		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 07:01		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 07:01		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 07:01		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 07:01		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 07:01		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 07:01		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 07:01		473760	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15 1332
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-53-GW-699MW01-11.0	**Units:**	µg/L
Lab Code:	R1510063-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 07:01		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 07:01		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 07:01		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 07:01		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 07:01		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 07:01		473760	
Ethylbenzene	**1.1**	J	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/25/15 07:01		473760	
Isopropylbenzene (Cumene)	**0.30**	J	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 07:01		473760	
Naphthalene	**0.21**	J	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 07:01		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 07:01		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 07:01		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 07:01		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 07:01		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 07:01		473760	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 07:01		473760	
n-Propylbenzene	**0.58**	J	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 07:01		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 07:01		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 07:01		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/25/15 07:01	
Dibromofluoromethane	110	85-115	11/25/15 07:01	
Toluene-d8	109	85-120	11/25/15 07:01	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/25/15 0701

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-699MW01-11.0	**Units:**	µg/L
Lab Code:	R1510063-016	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8380.D
Acq On : 25 Nov 2015 7:01 am
Operator : K.Ruest
Sample : R1510063-016|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 43 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8380.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.829	115	120	125	rBV3	40503	49463	1.18%	0.220%
2	5.590	728	737	748	rBV2	493294	1231619	29.38%	5.473%
3	5.731	750	760	772	rBV	958303	2316717	55.26%	10.296%
4	6.096	809	820	830	rBV	544800	1231883	29.39%	5.475%
5	6.767	920	930	942	rBV	1599061	3106006	74.09%	13.804%
6	8.529	1211	1219	1226	rBV	2570266	4192021	100.00%	18.630%
7	9.986	1452	1458	1467	rBV	2732928	3687863	87.97%	16.389%
8	10.132	1477	1482	1488	rVB	61973	86266	2.06%	0.383%
9	11.047	1626	1632	1641	rBV	2229747	2756075	65.75%	12.248%
10	11.278	1666	1670	1677	rVB2	48345	63896	1.52%	0.284%
11	11.388	1684	1688	1692	rVB3	37078	47746	1.14%	0.212%
12	11.735	1741	1745	1749	rVB	37398	43442	1.04%	0.193%
13	12.016	1785	1791	1798	rBV	2826693	3614815	86.23%	16.065%
14	12.241	1824	1828	1833	rVB2	57607	73708	1.76%	0.328%

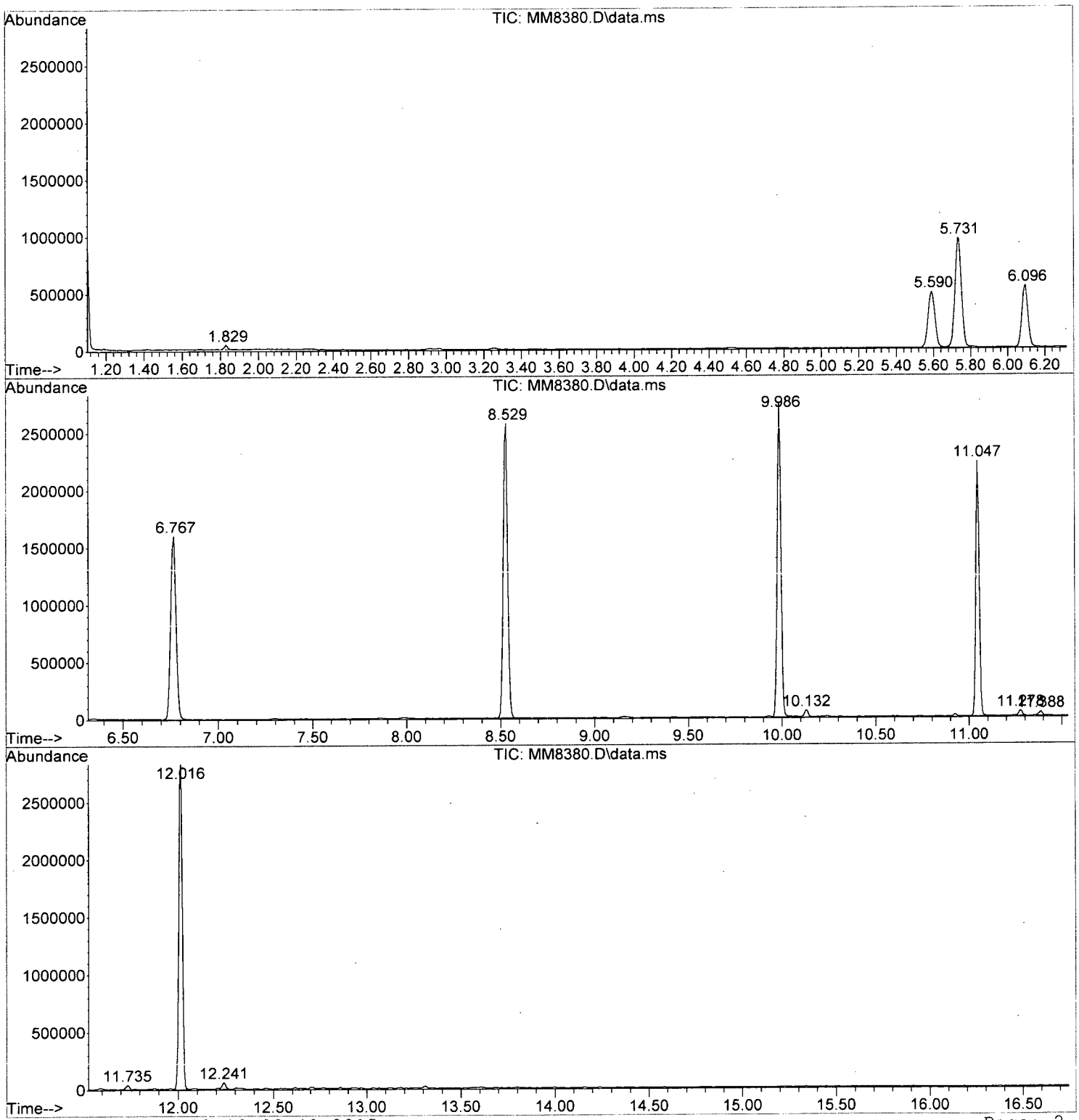
Sum of corrected areas: 22501520

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8380.D
Acq On : 25 Nov 2015 7:01 am
Operator : K.Ruest
Sample : R1510063-016|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 43 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\112415\\
Data File : MM8380.D
Acq On : 25 Nov 2015 7:01 amm
Operator : K.Ruestt
Sample : R1510063-016|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD**
ALS Vial : 43 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15 1443
Date Received: 11/19/15

Sample Name: FTMM-53-GW-699MW04-11.5
Lab Code: R1510063-017

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 17:41		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 17:41		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 17:41		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 17:41		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 17:41		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 17:41		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 17:41		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 17:41		474104	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/30/15 17:41		474104	
1,2,4-Trimethylbenzene	**4.8**	J	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 17:41		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 17:41		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 17:41		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 17:41		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
1,3,5-Trimethylbenzene	**0.48**	J	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 17:41		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 17:41		474104	
2-Butanone (MEK)	**3.7**	J	5.0	1.0	0.81	1	NA	11/30/15 17:41		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 17:41		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 17:41		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 17:41		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 17:41		474104	
Acetone	**3.7**	J	5.0	5.0	1.3	1	NA	11/30/15 17:41		474104	
Benzene	**1.6**	J	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 17:41		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 17:41		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 17:41		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 17:41		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 17:41		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 17:41		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 17:41		474104	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15 1443
Date Received: 11/19/15

Sample Name: FTMM-53-GW-699MW04-11.5
Lab Code: R1510063-017

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**0.73**	J	5.0	1.0	0.24	1	NA	11/30/15 17:41		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 17:41		474104	
Chloromethane	**0.42**	J	5.0	1.0	0.21	1	NA	11/30/15 17:41		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 17:41		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 17:41		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 17:41		474104	
Ethylbenzene	**6.4**		5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/30/15 17:41		474104	
Isopropylbenzene (Cumene)	**14**		5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 17:41		474104	
Naphthalene	**11**		5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
Tetrachloroethene (PCE)	**1.0**	J	5.0	1.0	0.30	1	NA	11/30/15 17:41		474104	
Toluene	**1.0**	J	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 17:41		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 17:41		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 17:41		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 17:41		474104	
m,p-Xylenes	**2.0**	J	10	2.0	0.33	1	NA	11/30/15 17:41		474104	
n-Butylbenzene	**1.6**	J	5.0	1.0	0.21	1	NA	11/30/15 17:41		474104	
n-Propylbenzene	**19**		5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
o-Xylene	**2.1**	J	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
sec-Butylbenzene	**2.9**	J	5.0	1.0	0.27	1	NA	11/30/15 17:41		474104	
tert-Butylbenzene	**0.56**	J	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 17:41		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 17:41		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	11/30/15 17:41	
Dibromofluoromethane	110	85-115	11/30/15 17:41	
Toluene-d8	102	85-120	11/30/15 17:41	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/30/15 1741

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-699MW04-11.5	**Units:**	µg/L
Lab Code:	R1510063-017	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q
000078-78-4	Butane, 2-methyl-	1.83	**46.3**	JN
000109-66-0	Pentane	2.05	**8.6**	JN
000079-29-8	Butane, 2,3-dimethyl-	2.91	**26.8**	JN
	unknown	2.96	**22.7**	J
	unknown	3.01	**7.6**	J
000096-14-0	Pentane, 3-methyl-	3.26	**38.1**	JN
000108-08-7	Pentane, 2,4-dimethyl-	4.42	**13.2**	JN
	unknown	4.52	**59.6**	J
000565-59-3	Pentane, 2,3-dimethyl-	5.80	**32.8**	JN
001759-58-6	Cyclopentane, 1,3-dimethyl-, trans	6.27	**12.5**	JN
	unknown	6.35	**26.9**	J
	unknown	7.30	**12.7**	J
	unknown	7.86	**9.1**	J
	unknown	7.99	**12.4**	J
000622-96-8	Benzene, 1-ethyl-4-methyl-	11.60	**5.4**	JN
	unknown	12.24	**52.8**	J
000933-98-2	Benzene, 1-ethyl-2,3-dimethyl-	12.62	**8.4**	JN
000767-58-8	Indan, 1-methyl-	12.71	**16.8**	JN
000095-93-2	Benzene, 1,2,4,5-tetramethyl-	12.93	**14.3**	JN
000874-35-1	1H-Indene, 2,3-dihydro-5-methyl-	13.31	**10.9**	JN

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8404.D
Acq On : 30 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : R1510063-017|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 03 15:11:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

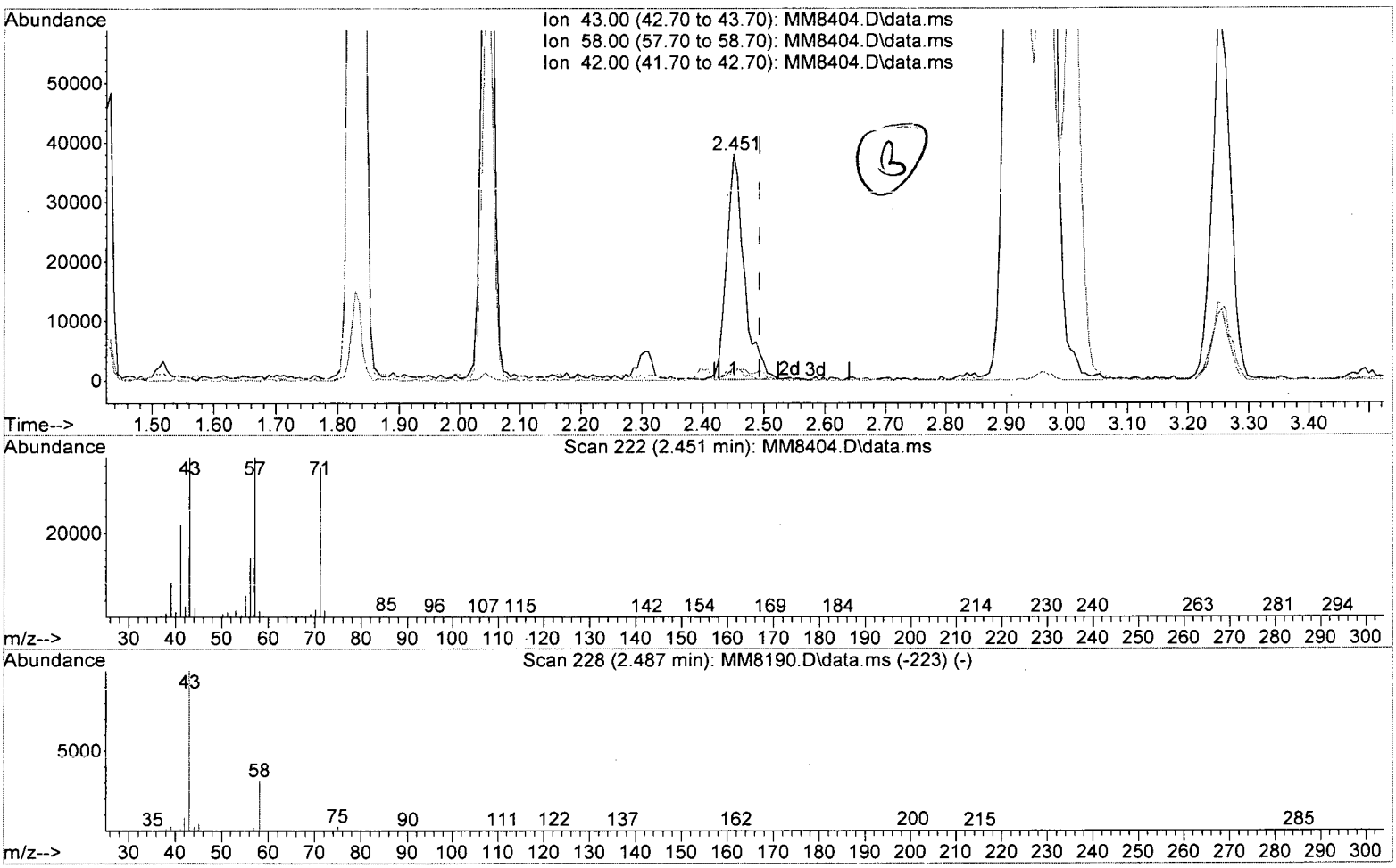
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	792453	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1306876	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1224865	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	597098	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	372211	54.78	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.56%				
48) surr1,1,2-dichloroetha...	6.096	65	406921	54.22	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.44%				
65) SURR3,Toluene-d8	8.529	98	1459905	51.05	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.10%				
70) SURR2,BFB	11.047	95	611806	56.68	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 113.36%				
Target Compounds							Qvalue
3) Chloromethane	1.347	50	5573	0.42	ppb		80
6) Chloroethane	1.768	64	5006	0.73	ppb		98
15) Acetone	2.487	43	6316m	3.74	ppb		
35) 2-Butanone	4.792	43	8627	3.73	ppb		72
44) Cyclohexane	5.676	41	90420	12.66	ppb		98
49) Benzene	6.170	78	46056	1.60	ppb		95
66) Toluene	8.602	91	29844	1.00	ppb		98
72) Tetrachloroethene	9.181	164	5104	1.00	ppb	#	89
82) Ethylbenzene	10.132	106	65172	6.35	ppb		98
83) (m+p)Xylene	10.242	106	25744	2.03	ppb		97
84) o-Xylene	10.596	106	26973	2.08	ppb		90
89) Isopropylbenzene	10.925	105	428651	13.80	ppb		98
95) n-Propylbenzene	11.278	91	677821	18.94	ppb		97
99) 1,3,5-Trimethylbenzene	11.431	105	11279	0.48	ppb		95
100) tert-Butylbenzene	11.699	119	11837	0.56	ppb		83
101) 1,2,4-Trimethylbenzene	11.736	105	121897	4.83	ppb		98
103) sec-Butylbenzene	11.882	105	84127	2.87	ppb		99
109) n-Butylbenzene	12.333	91	34644	1.61	ppb		93
117) Naphthalen	13.802	128	183849	11.48	ppb		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

KB 12/8/15

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8404.D
Acq On : 30 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : R1510063-017|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 30 17:56:56 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8404.D\data.ms

(15) Acetone (P)

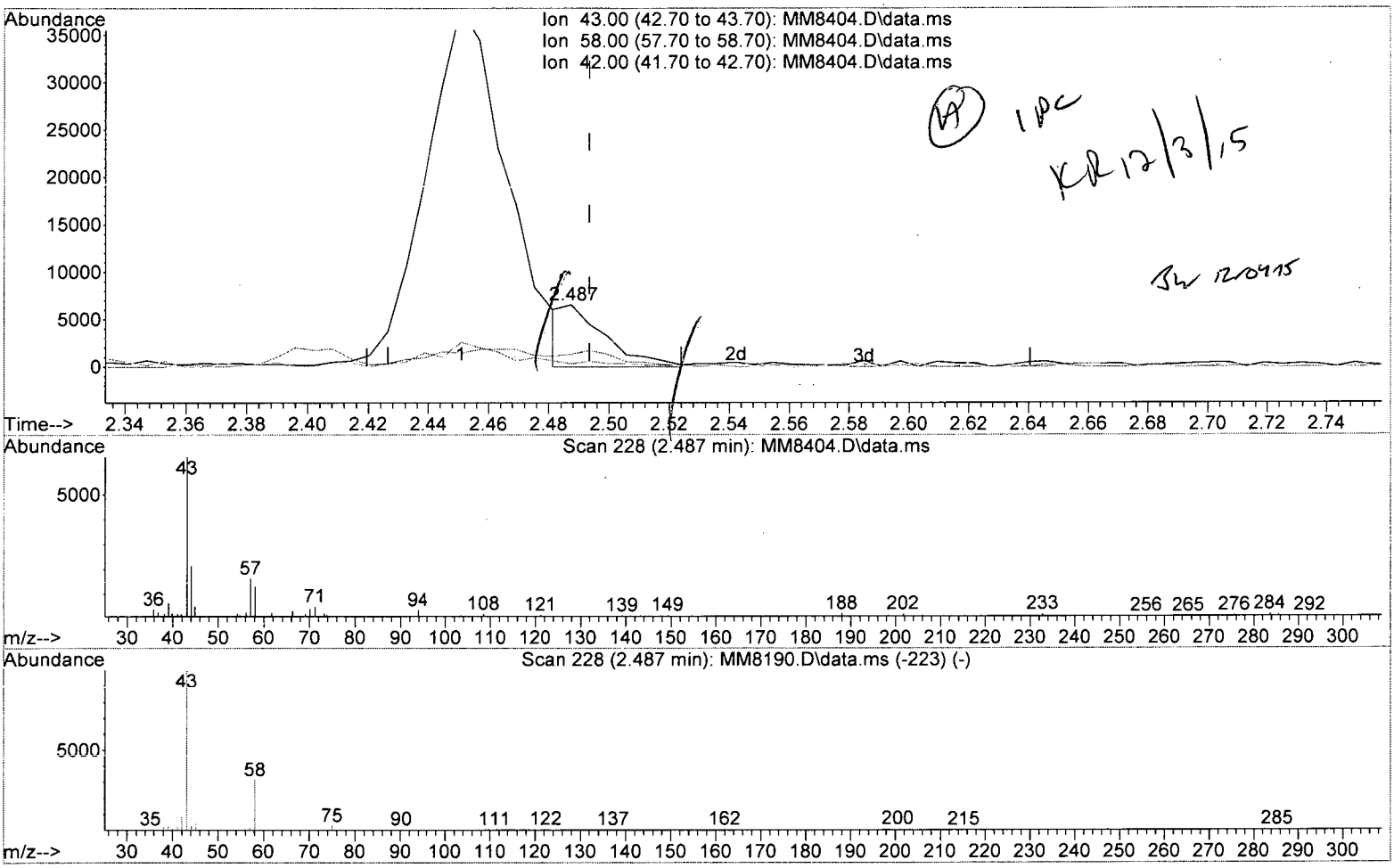
2.451min (-0.043) 43.65 ppb

response 73750

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	3.77#
42.00	8.50	6.81
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8404.D
Acq On : 30 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : R1510063-017|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 30 17:56:56 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8404.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 3.74 ppb m

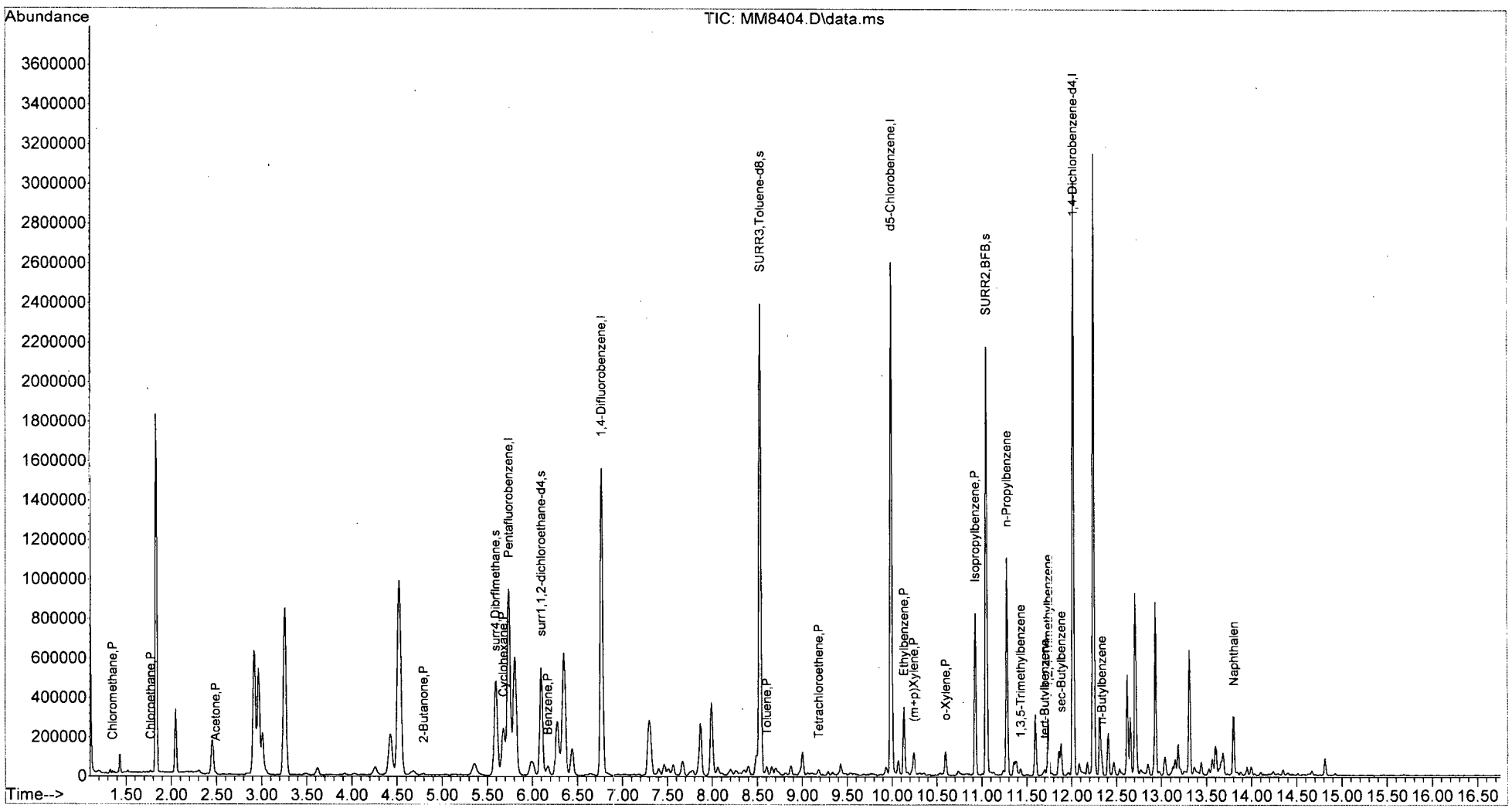
response 6316

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	19.86
42.00	8.50	2.93
0.00	0.00	0.00

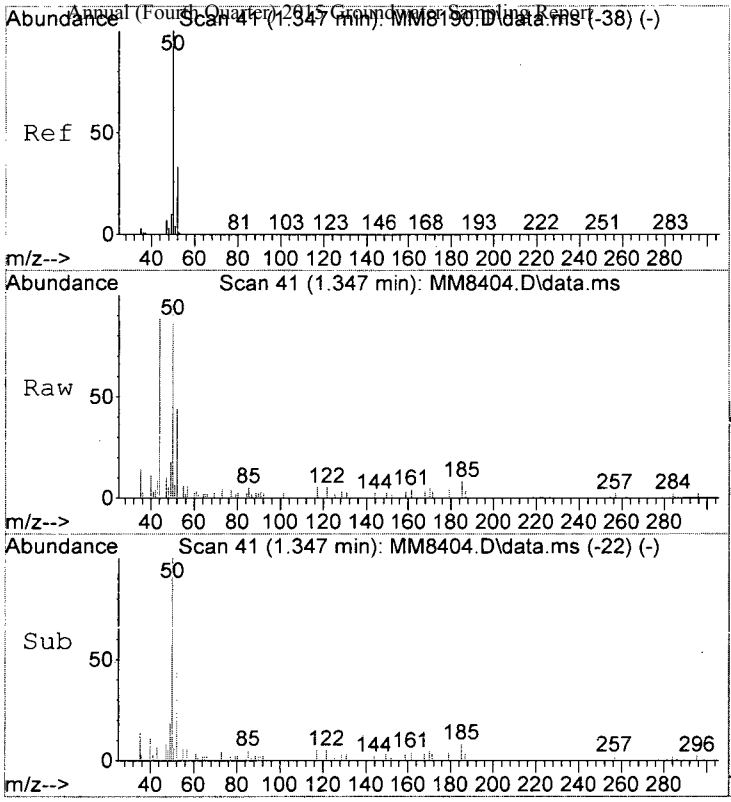
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8404.D
Acq On : 30 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : R1510063-017|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 03 15:11:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



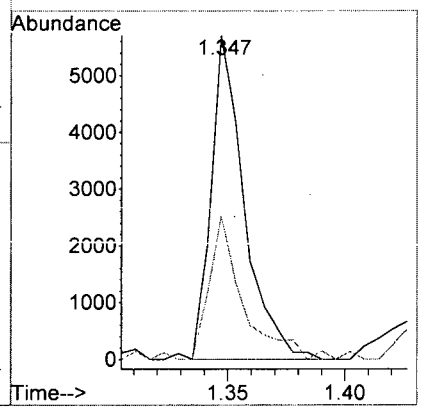
W111815A.M Thu Dec 03 15:13:16 2015 Page: 2

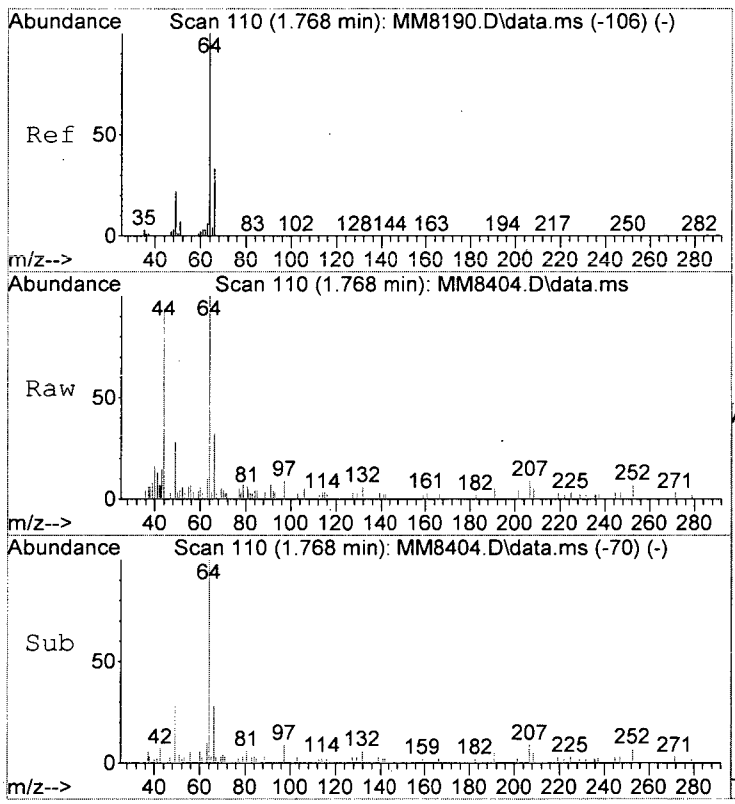


#3
Chloromethane
Concen: 0.42 ppb
RT: 1.347 min Scan# 41
Delta R.T. -0.000 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion: 50 Resp: 5573

Ion	Ratio	Lower	Upper
50	100		
52	44.3	12.9	52.9

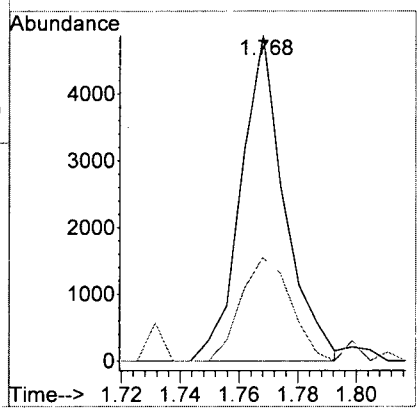


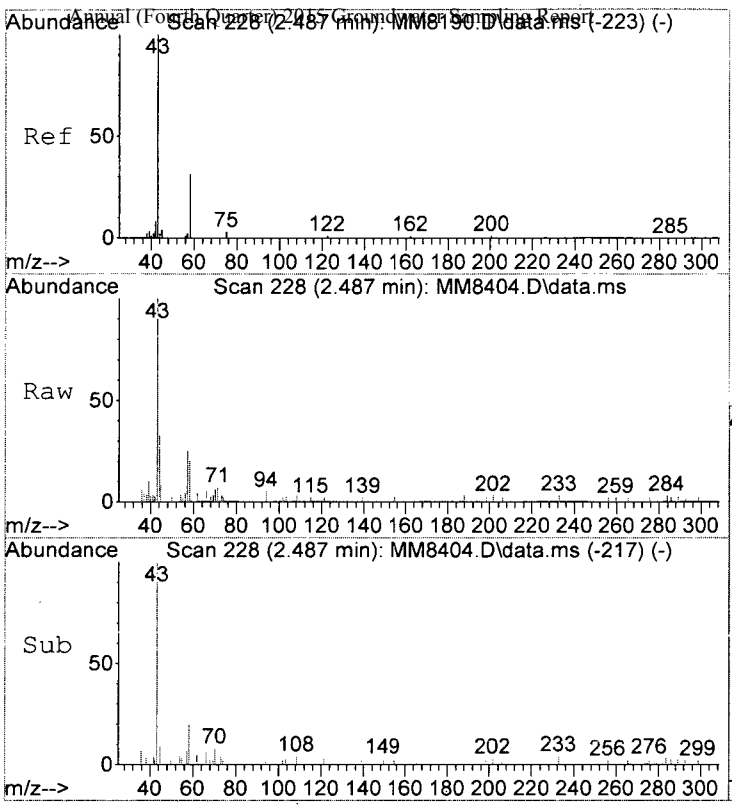


#6
Chloroethane
Concen: 0.73 ppb
RT: 1.768 min Scan# 110
Delta R.T. -0.000 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion: 64 Resp: 5006

Ion	Ratio	Lower	Upper
64	100		
66	31.8	12.9	52.9

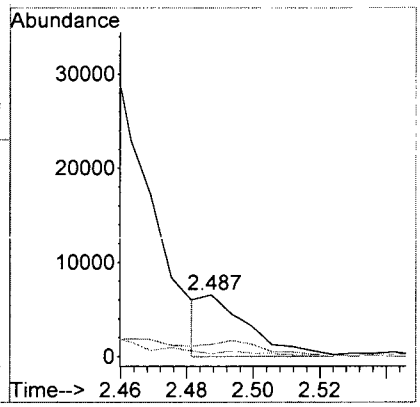


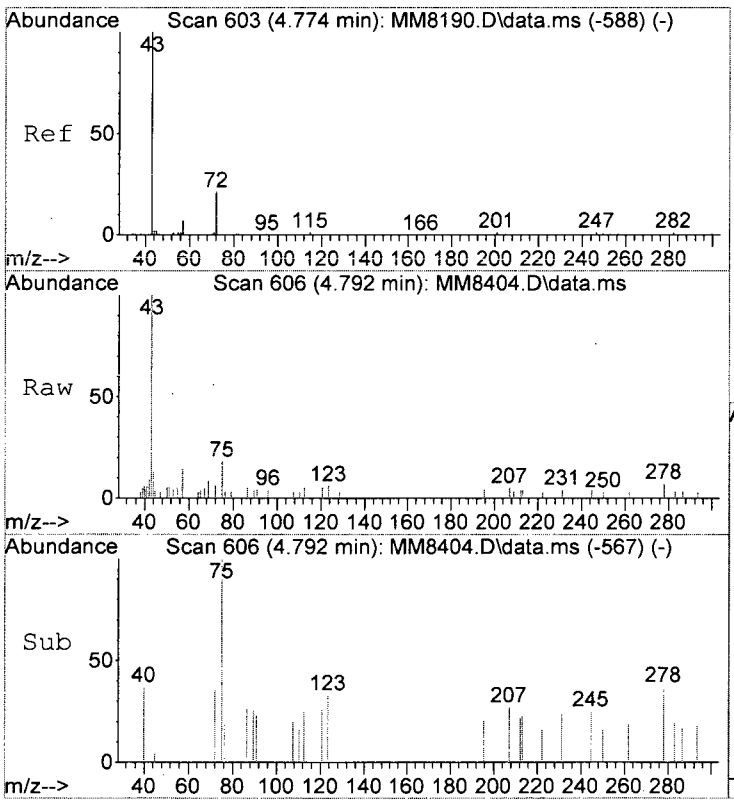


#15
Acetone
Concen: 3.74 ppb m
RT: 2.487 min Scan# 228
Delta R.T. -0.006 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion: 43 Resp: 6316

Ion	Ratio	Lower	Upper
43	100		
58	19.9	10.9	50.9
42	2.9	0.0	28.5

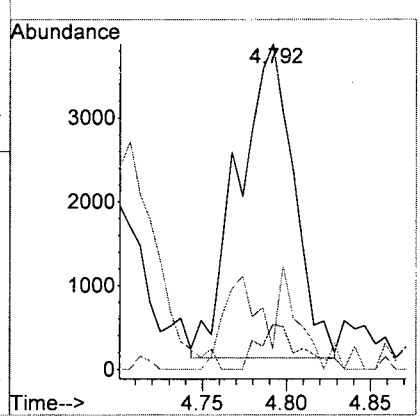


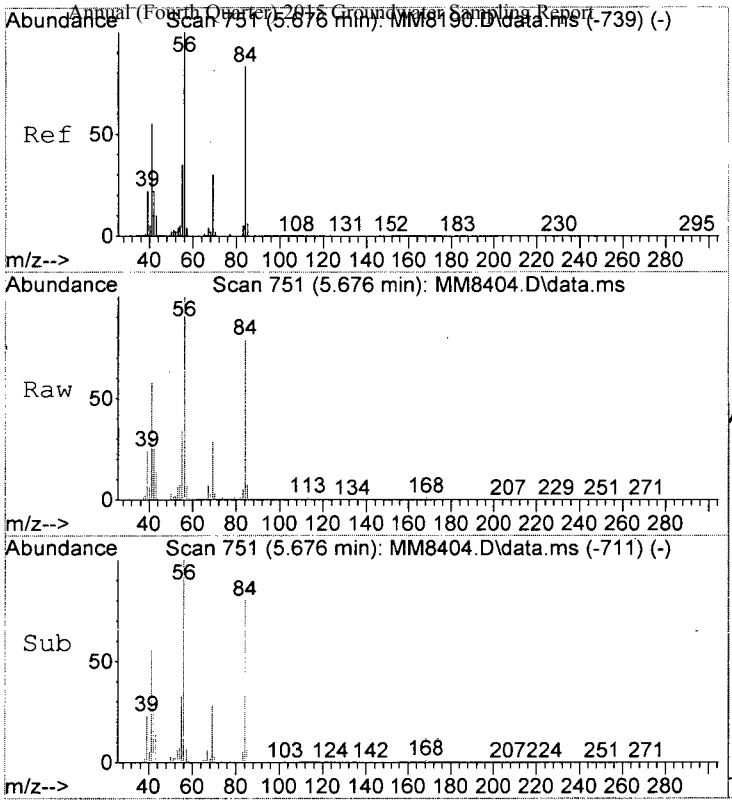


#35
2-Butanone
Concen: 3.73 ppb
RT: 4.792 min Scan# 606
Delta R.T. 0.012 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion: 43 Resp: 8627

Ion	Ratio	Lower	Upper
43	100		
57	13.7	0.0	27.5
72	6.2	1.2	41.2

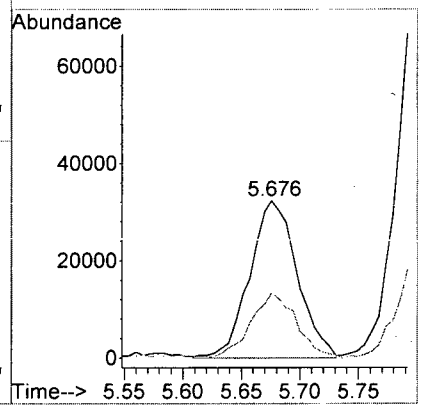


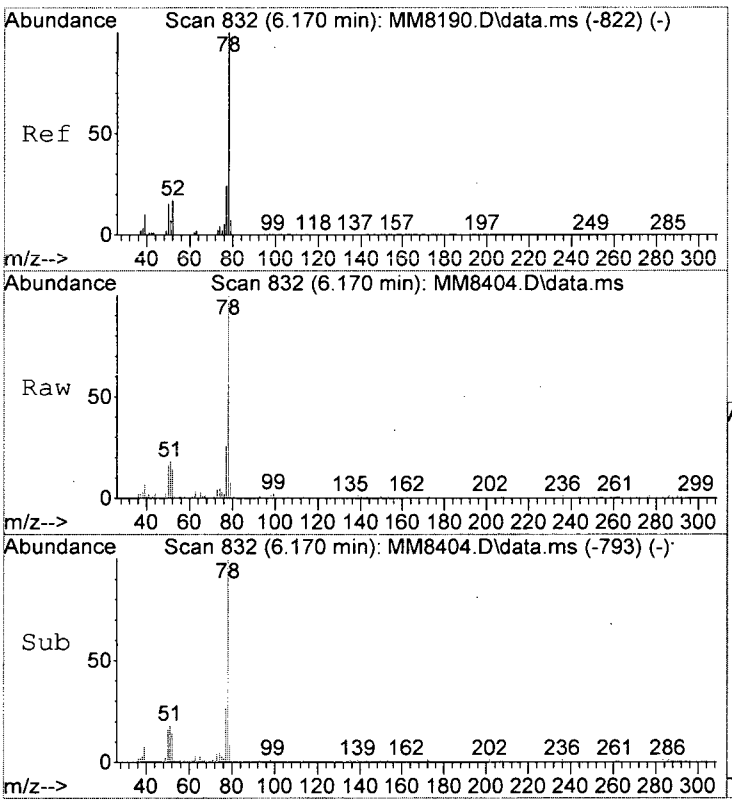


#44
Cyclohexane
Concen: 12.66 ppb
RT: 5.676 min Scan# 751
Delta R.T. -0.006 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion: 41 Resp: 90420

Ion	Ratio	Lower	Upper
41	100		
39	41.2	20.0	60.0

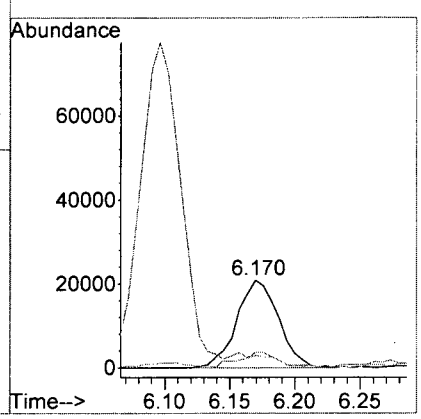


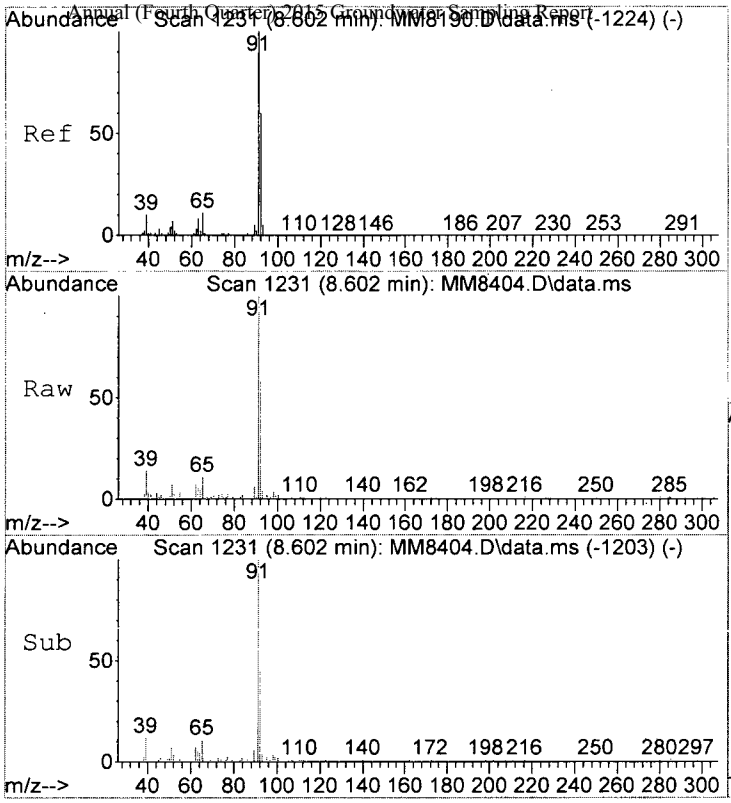


#49
Benzene
Concen: 1.60 ppb
RT: 6.170 min Scan# 832
Delta R.T. -0.006 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion: 78 Resp: 46056

Ion	Ratio	Lower	Upper
78	100		
51	17.7	0.0	36.1
52	14.0	0.0	36.8

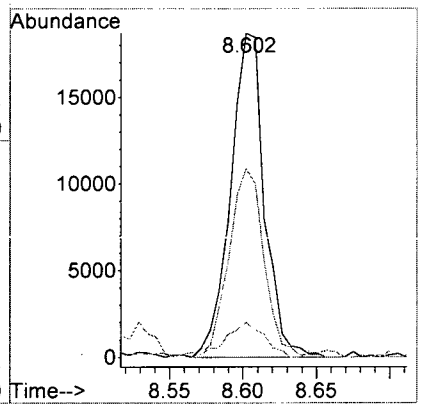


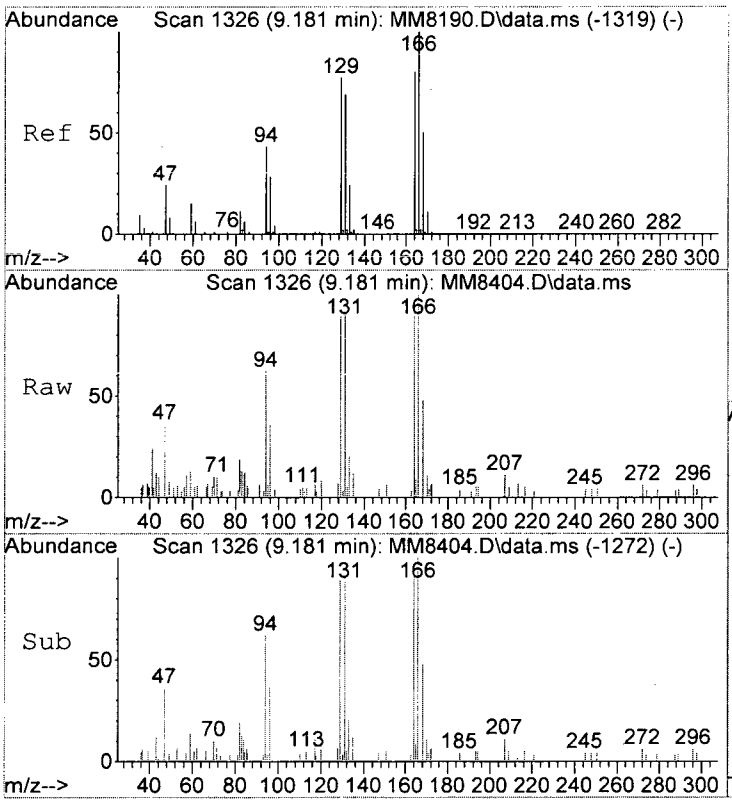


#66
Toluene
Concen: 1.00 ppb
RT: 8.602 min Scan# 1231
Delta R.T. -0.000 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion: 91 Resp: 29844

Ion	Ratio	Lower	Upper
91	100		
92	58.2	39.7	79.7
65	10.7	0.0	30.9

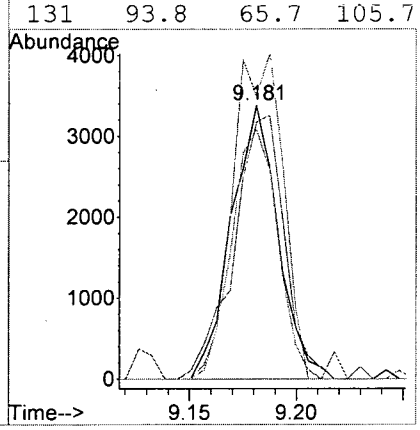


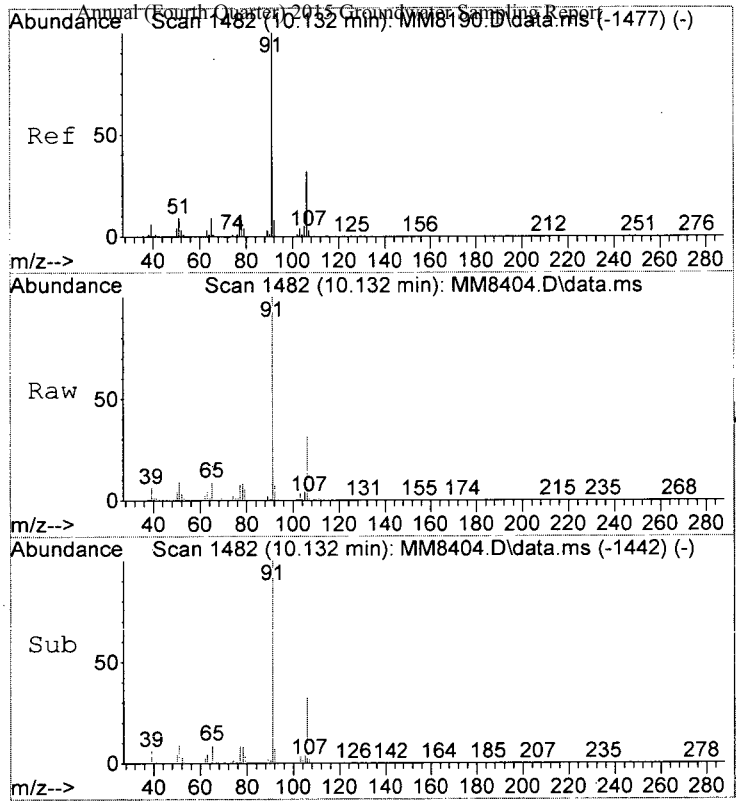


#72
Tetrachloroethene
Concen: 1.00 ppb
RT: 9.181 min Scan# 1326
Delta R.T. -0.000 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion:164 Resp: 5104

Ion	Ratio	Lower	Upper
164	100		
166	103.1	104.3	144.3#
129	91.3	75.4	115.4
131	93.8	65.7	105.7

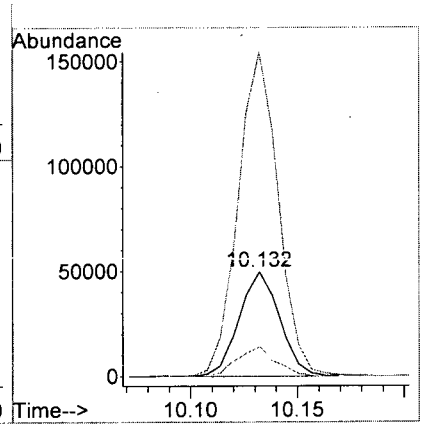


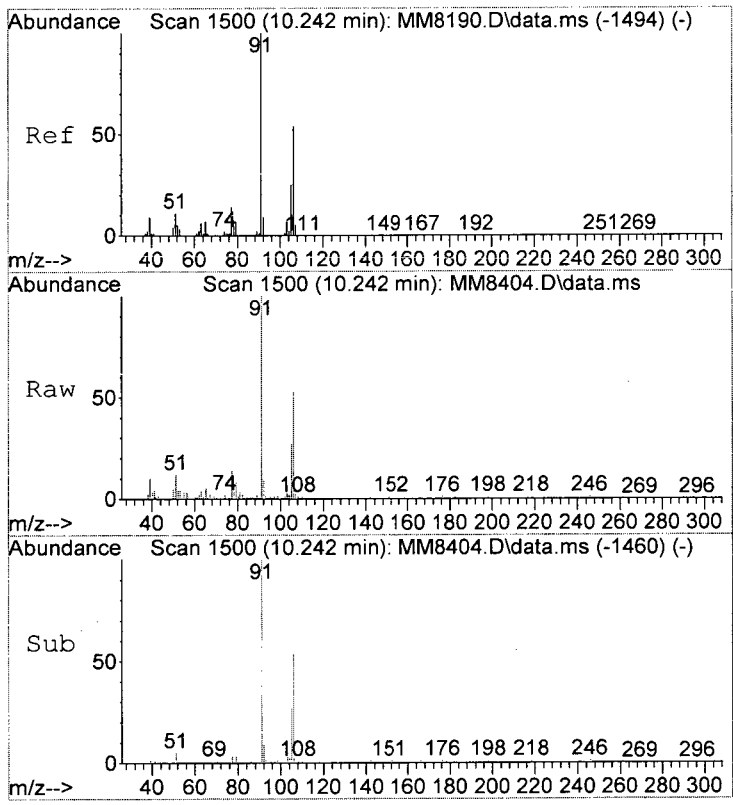


#82
Ethylbenzene
Concen: 6.35 ppb
RT: 10.132 min Scan# 1482
Delta R.T. -0.006 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion:106 Resp: 65172

Ion	Ratio	Lower	Upper
106	100		
91	310.3	293.8	333.8
65	28.0	7.2	47.2

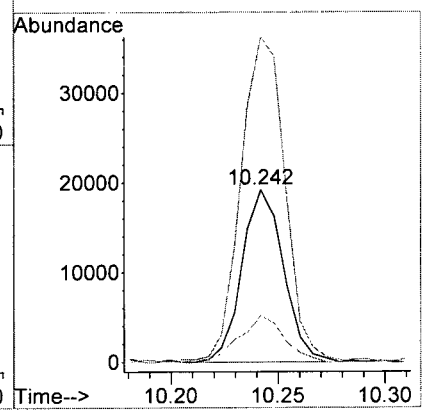


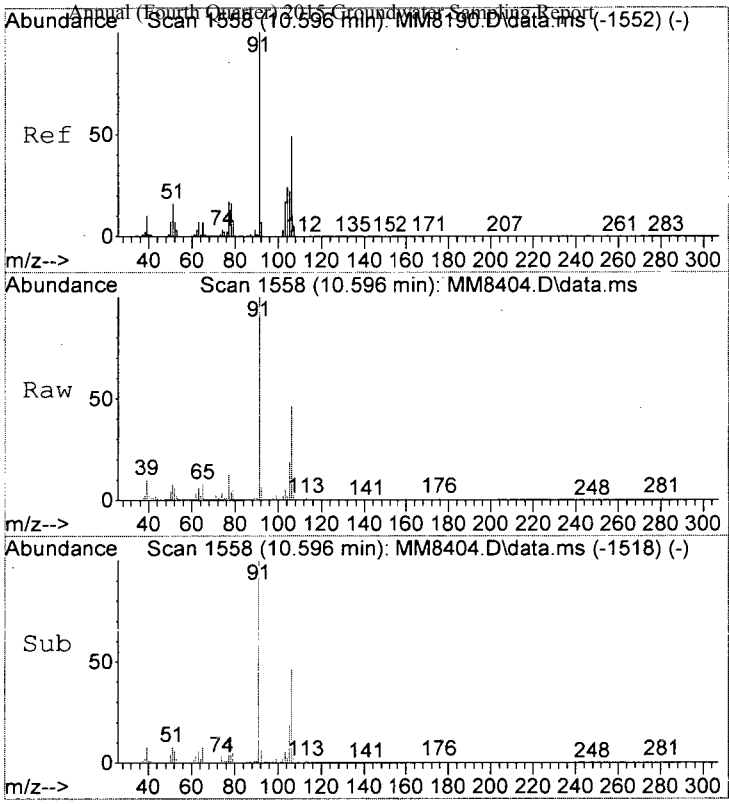


#83
(m+p)Xylene
Concen: 2.03 ppb
RT: 10.242 min Scan# 1500
Delta R.T. -0.006 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion:106 Resp: 25744

Ion	Ratio	Lower	Upper
106	100		
91	188.7	163.6	203.6
77	26.7	5.5	45.5

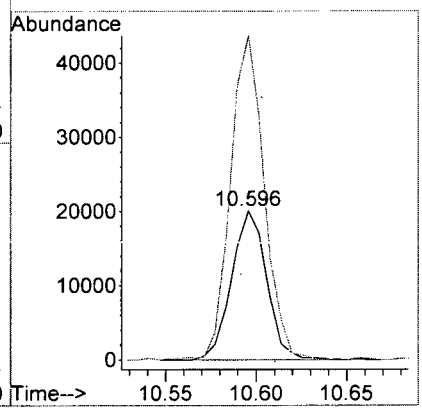


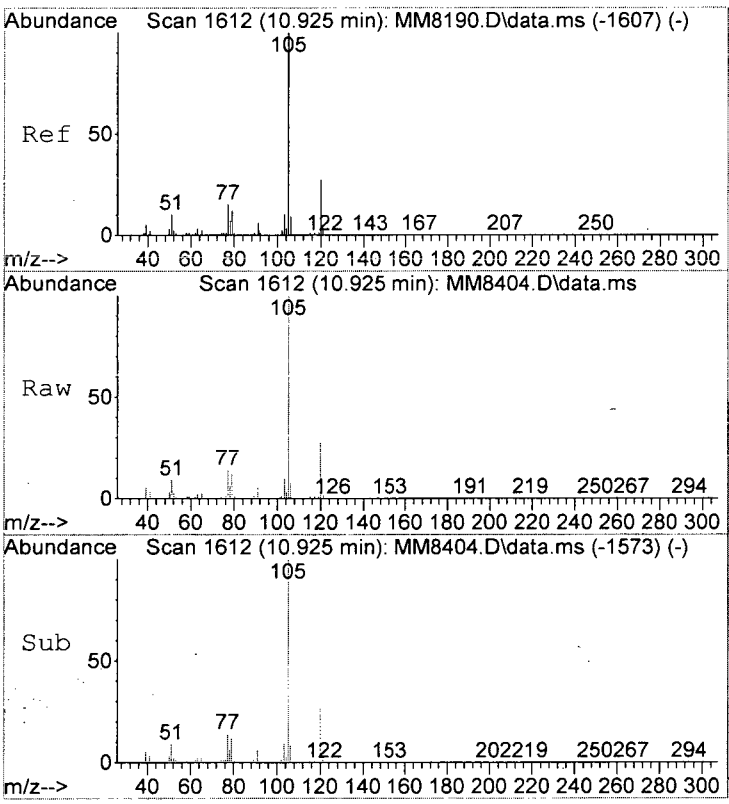


#84
o-Xylene
Concen: 2.08 ppb
RT: 10.596 min Scan# 1558
Delta R.T. -0.006 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion:106 Resp: 26973

Ion	Ratio	Lower	Upper
106	100		
91	217.6	182.5	222.5

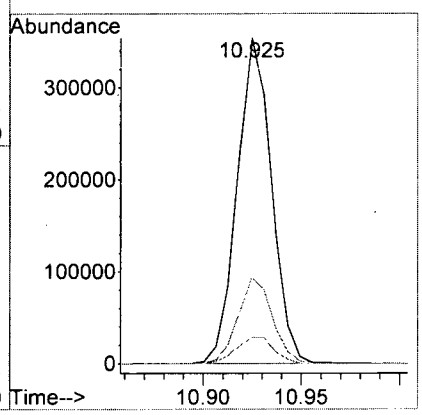


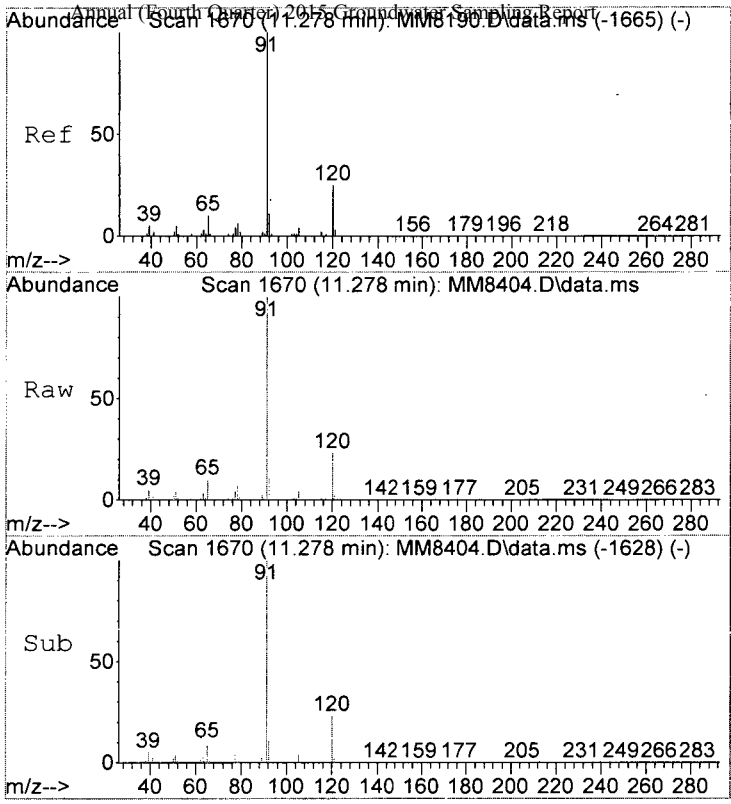


#89
Isopropylbenzene
Concen: 13.80 ppb
RT: 10.925 min Scan# 1612
Delta R.T. -0.006 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion:105 Resp: 428651

Ion	Ratio	Lower	Upper
105	100		
120	26.7	7.4	47.4
106	8.1	0.0	29.1

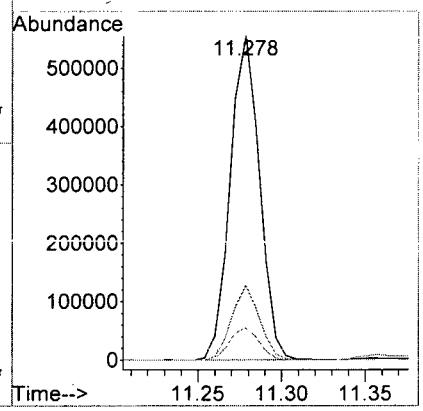


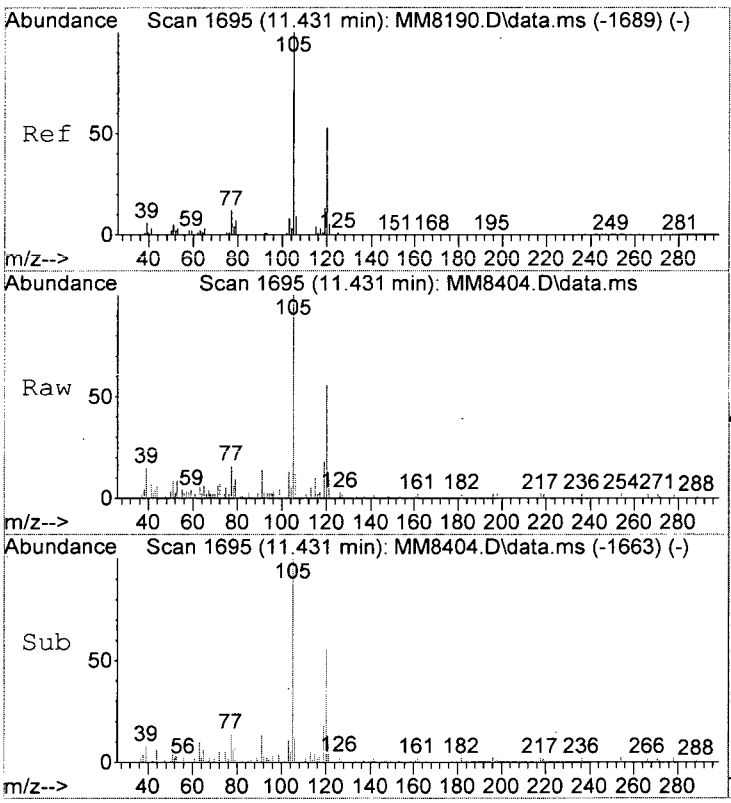


#95
n-Propylbenzene
Concen: 18.94 ppb
RT: 11.278 min Scan# 1670
Delta R.T. -0.006 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion: 91 Resp: 677821

Ion	Ratio	Lower	Upper
91	100		
120	22.9	4.8	44.8
65	9.9	0.0	30.5

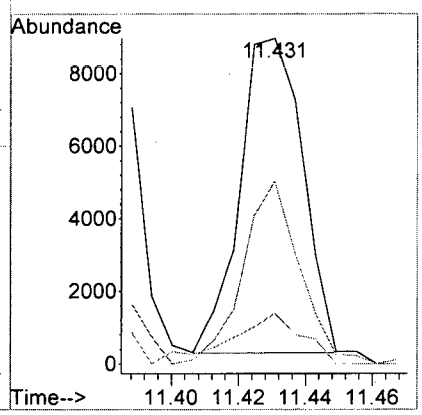


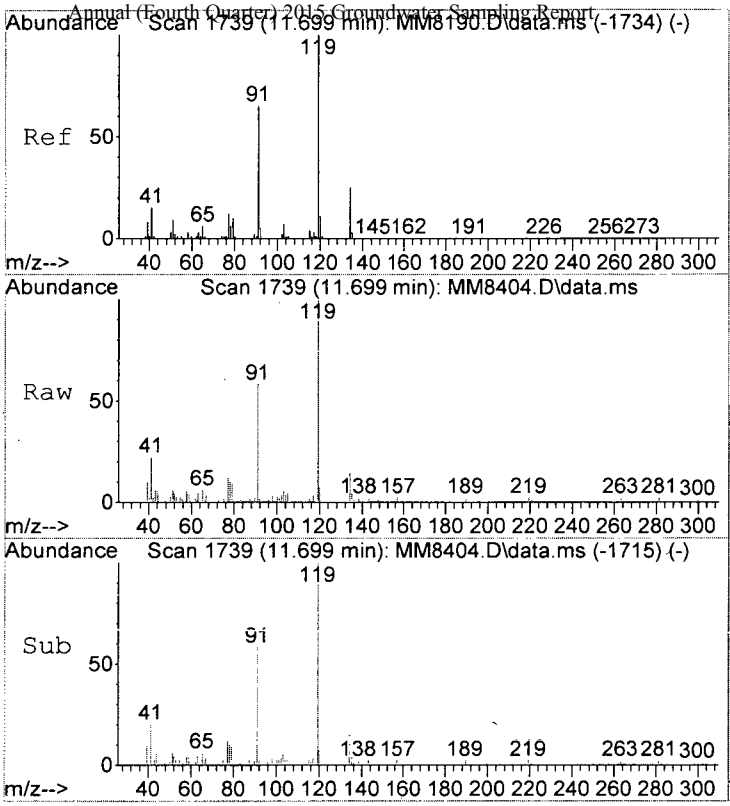


#99
1,3,5-Trimethylbenzene
Concen: 0.48 ppb
RT: 11.431 min Scan# 1695
Delta R.T. -0.000 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion:105 Resp: 11279

Ion	Ratio	Lower	Upper
105	100		
120	56.1	33.0	73.0
77	15.5	0.0	32.5

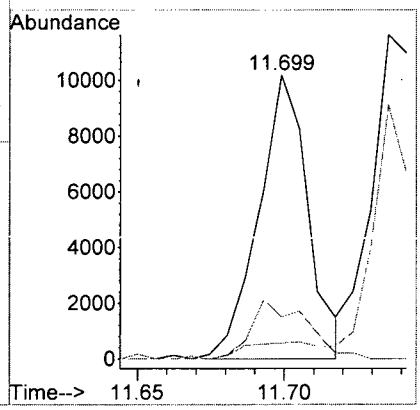


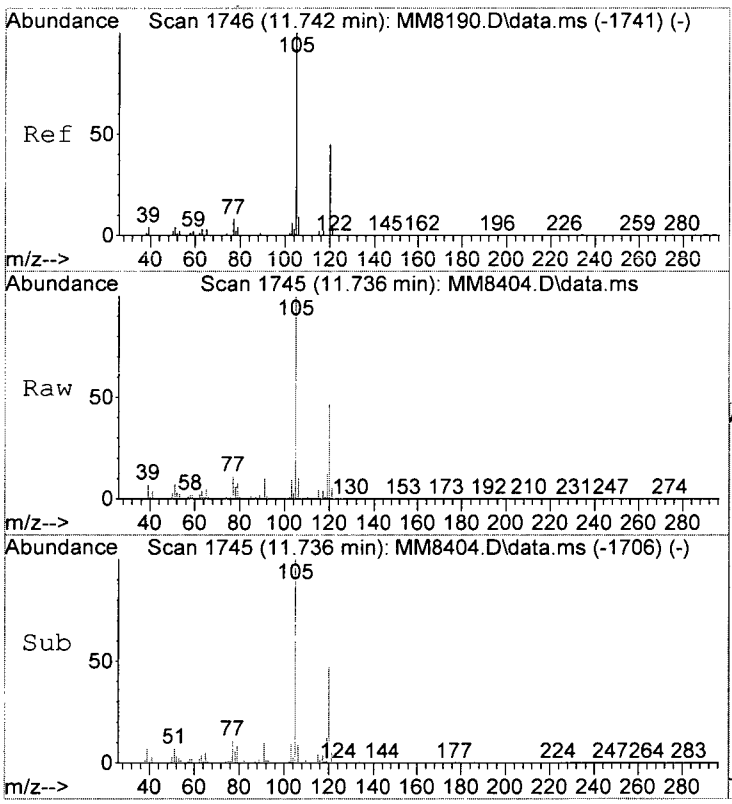


#100
tert-Butylbenzene
Concen: 0.56 ppb
RT: 11.699 min Scan# 1739
Delta R.T. -0.006 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion:119 Resp: 11837

Ion	Ratio	Lower	Upper
119	100		
134	14.7	5.0	45.0
103	5.5	0.0	26.6

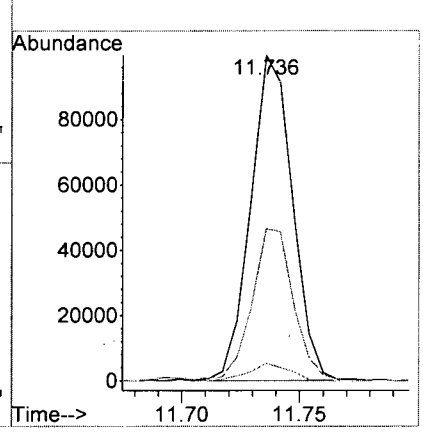


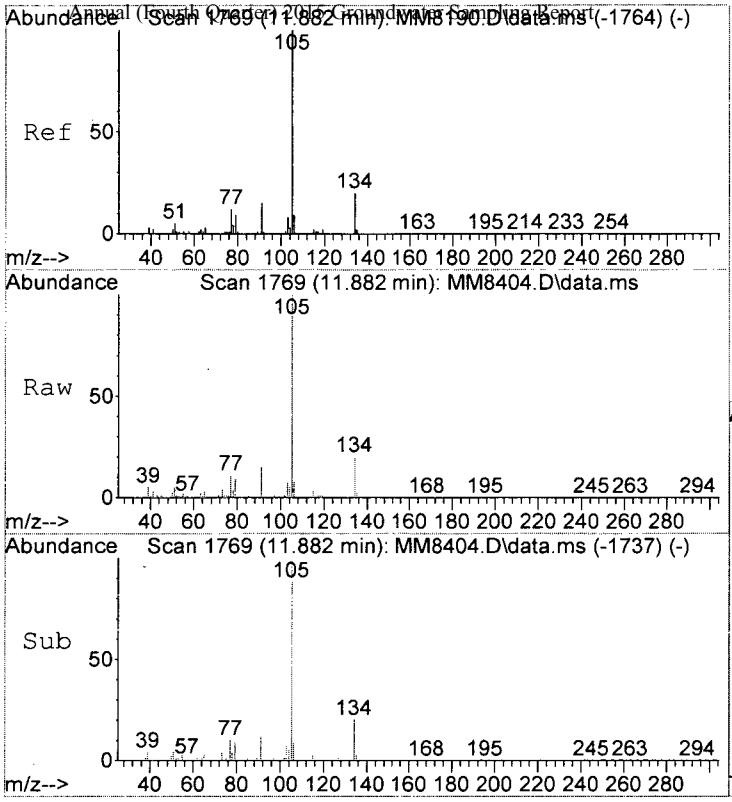


#101
1,2,4-Trimethylbenzene
Concen: 4.83 ppb
RT: 11.736 min Scan# 1745
Delta R.T. -0.006 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion:105 Resp: 121897

Ion	Ratio	Lower	Upper
105	100		
120	46.8	28.1	68.1
65	5.3	0.0	24.3

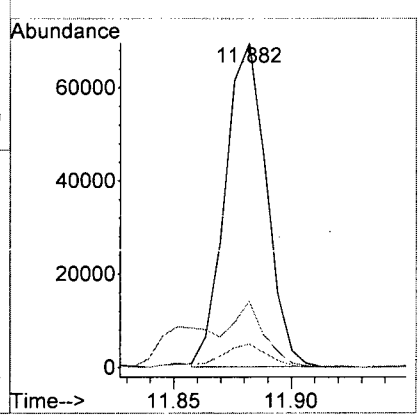


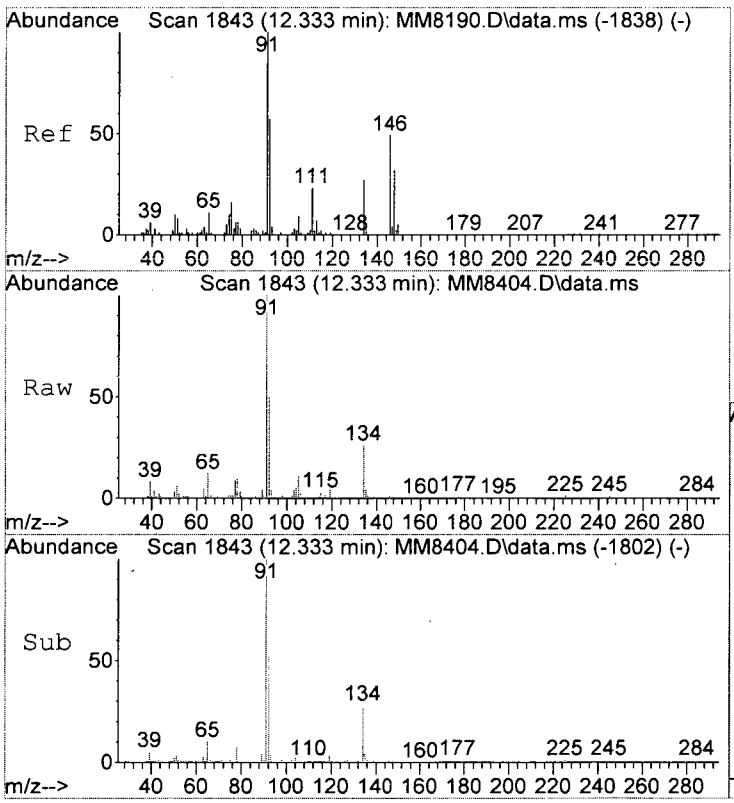


#103
sec-Butylbenzene
Concen: 2.87 ppb
RT: 11.882 min Scan# 1769
Delta R.T. -0.000 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion:105 Resp: 84127

Ion	Ratio	Lower	Upper
105	100		
134	20.4	0.2	40.2
103	7.2	0.0	27.7

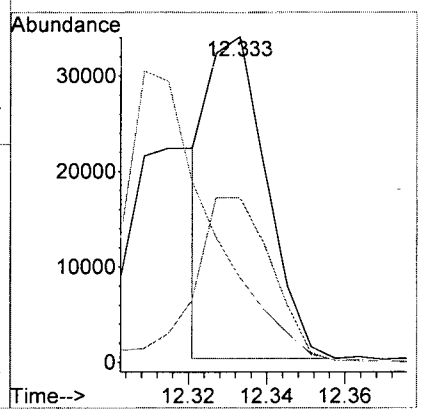


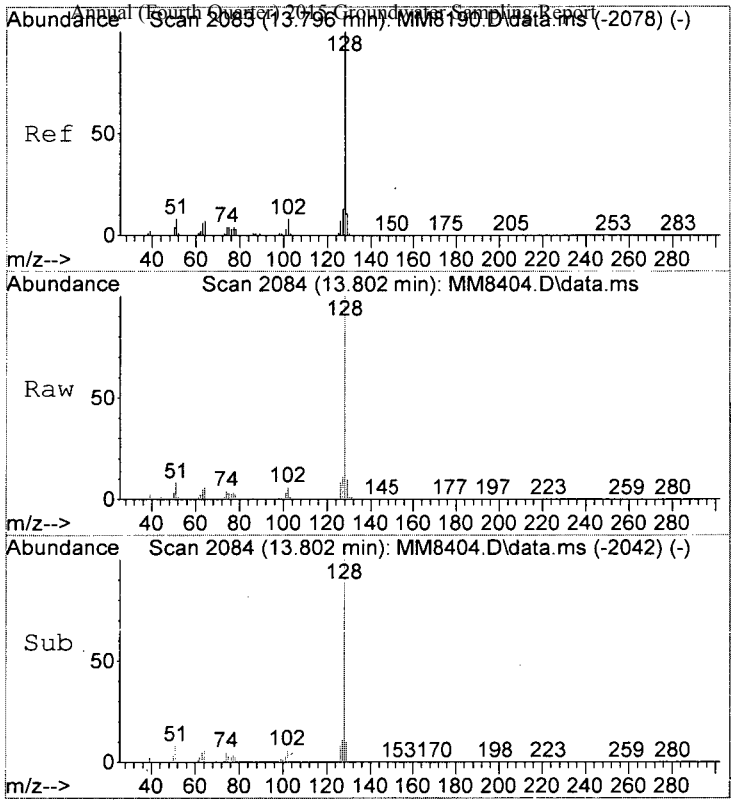


#109
n-Butylbenzene
Concen: 1.61 ppb
RT: 12.333 min Scan# 1843
Delta R.T. -0.000 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion: 91 Resp: 34644

Ion	Ratio	Lower	Upper
91	100		
92	50.5	37.0	77.0
134	26.1	7.2	47.2

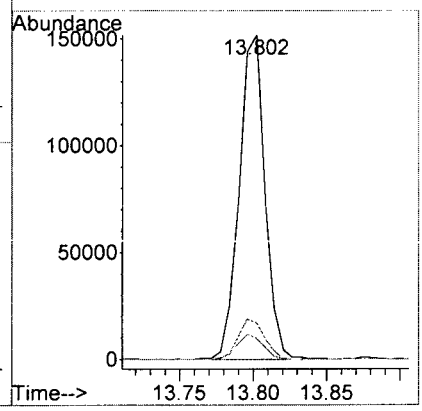




#117
Naphthalen
Concen: 11.48 ppb
RT: 13.802 min Scan# 2084
Delta R.T. -0.000 min
Lab File: MM8404.D
Acq: 30 Nov 2015 5:41 pm

Tgt Ion:128 Resp: 183849

Ion	Ratio	Lower	Upper
128	100		
127	11.1	0.0	33.1
102	6.4	0.0	28.3



MM8404.D W111815A.M Thu Dec 03 15:13:31 2015 Page 12

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8404.D
Acq On : 30 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : R1510063-017|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 18 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8404.D\data.ms

KB 12/3/15

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.433	47	55	57	rBV	93604	95053	2.43%	0.164%
2	1.829	115	120	126	rBV	1815610	2200680	56.34%	3.797%
3	2.049	151	156	161	rVB	321938	411061	10.52%	0.709%
4	2.451	216	222	232	rVB	174073	333794	8.55%	0.576%
5	2.914	290	298	302	rBV	625747	1273037	32.59%	2.196%
6	2.963	302	306	311	rVV	537225	1080689	27.67%	1.864%
7	3.006	311	313	324	rVB	210896	361281	9.25%	0.623%
8	3.256	345	354	365	rVB	846732	1814500	46.45%	3.130%
9	3.615	405	413	420	rBV3	37351	79778	2.04%	0.138%
10	4.255	510	518	528	rBV2	39353	111967	2.87%	0.193%
11	4.420	531	545	553	rBV3	207233	627254	16.06%	1.082%
12	4.524	553	562	574	rVB2	986924	2833402	72.54%	4.888%
13	4.676	579	587	598	rVB6	22525	77790	1.99%	0.134%
14	5.359	686	699	710	rBV3	60233	213152	5.46%	0.368%
15	5.597	726	738	745	rBV	480715	1237675	31.69%	2.135%
16	5.676	745	751	755	rVV2	240918	629121	16.11%	1.085%
17	5.737	755	761	767	rVV	946703	2378936	60.90%	4.104%
18	5.804	767	772	786	rVB2	600692	1561413	39.97%	2.694%
19	5.987	792	802	812	rBV4	72329	246807	6.32%	0.426%
20	6.096	812	820	828	rVV	547156	1197378	30.65%	2.066%
21	6.170	828	832	838	rVV	47936	100590	2.58%	0.174%
22	6.273	840	849	855	rVV3	274287	756966	19.38%	1.306%
23	6.346	855	861	870	rVV2	622594	1627730	41.67%	2.808%
24	6.444	870	877	887	rVB2	135078	315765	8.08%	0.545%
25	6.767	921	930	938	rBV	1561372	3021713	77.36%	5.213%
26	7.297	1008	1017	1027	rBV2	280794	769069	19.69%	1.327%
27	7.401	1029	1034	1039	rVB2	29818	52582	1.35%	0.091%
28	7.462	1039	1044	1047	rBV2	53921	92057	2.36%	0.159%
29	7.560	1056	1060	1066	rVB	54398	94083	2.41%	0.162%
30	7.669	1071	1078	1084	rBV3	72332	150232	3.85%	0.259%
31	7.779	1092	1096	1100	rVB6	21040	39062	1.00%	0.067%
32	7.864	1100	1110	1120	rVB	266299	549127	14.06%	0.947%
33	7.986	1120	1130	1138	rBV	370305	746430	19.11%	1.288%
34	8.060	1138	1142	1147	rVB2	36271	55160	1.41%	0.095%
35	8.200	1158	1165	1170	rBV5	30115	65647	1.68%	0.113%

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8404.D
Acq On : 30 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : R1510063-017|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 18 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

36	8.352	1185	1190	1193	rVV5	25923	56017	1.43%	0.097%
37	8.395	1193	1197	1202	rVV	46476	84257	2.16%	0.145%
38	8.492	1206	1213	1214	rVV3	100466	180294	4.62%	0.311%
39	8.529	1214	1219	1227	rVV	2392446	3835046	98.18%	6.616%
40	8.602	1227	1231	1236	rVV	46355	76369	1.96%	0.132%
41	8.657	1236	1240	1244	rVV2	44341	76922	1.97%	0.133%
42	8.706	1244	1248	1260	rVB5	38872	95829	2.45%	0.165%
43	8.870	1270	1275	1280	rVB3	46668	72142	1.85%	0.124%
44	9.004	1287	1297	1302	rBV2	117136	222392	5.69%	0.384%
45	9.181	1319	1326	1332	rVB6	27910	49193	1.26%	0.085%
46	9.425	1361	1366	1373	rBV3	53444	74312	1.90%	0.128%
47	9.931	1443	1449	1453	rBV3	41366	70066	1.79%	0.121%
48	9.986	1453	1458	1467	rVV	2596070	3698112	94.68%	6.380%
49	10.065	1467	1471	1477	rVB	69138	96447	2.47%	0.166%
50	10.132	1477	1482	1487	rBV	341933	448715	11.49%	0.774%
51	10.242	1493	1500	1505	rBV	113964	194407	4.98%	0.335%
52	10.596	1554	1558	1564	rVB	120322	164447	4.21%	0.284%
53	10.736	1577	1581	1588	rBV4	20621	43989	1.13%	0.076%
54	10.925	1607	1612	1618	rBV	820247	1002047	25.65%	1.729%
55	11.047	1627	1632	1639	rBV	2173241	2758460	70.62%	4.759%
56	11.278	1666	1670	1678	rVB	1105767	1347988	34.51%	2.326%
57	11.358	1678	1683	1684	rBV	70011	89181	2.28%	0.154%
58	11.376	1684	1686	1692	rVV3	72165	119682	3.06%	0.206%
59	11.431	1692	1695	1700	rVB	34942	42990	1.10%	0.074%
60	11.595	1715	1722	1730	rBV	312959	396652	10.15%	0.684%
61	11.699	1732	1739	1741	rBV3	31329	49535	1.27%	0.085%
62	11.736	1741	1745	1750	rVB	281367	339592	8.69%	0.586%
63	11.858	1759	1765	1766	rBV	124633	150233	3.85%	0.259%
64	11.882	1766	1769	1773	rVB	162148	201309	5.15%	0.347%
65	12.016	1785	1791	1798	rVB	3007773	3701823	94.77%	6.386%
66	12.083	1798	1802	1809	rBV2	61116	106351	2.72%	0.183%
67	12.175	1813	1817	1820	rVV	62499	70788	1.81%	0.122%
68	12.242	1820	1828	1835	rVB	3145701	3906081	100.00%	6.739%
69	12.309	1835	1839	1848	rVB2	295347	477097	12.21%	0.823%
70	12.406	1850	1855	1860	rBV	214209	264764	6.78%	0.457%
71	12.467	1860	1865	1871	rVB2	69075	105931	2.71%	0.183%
72	12.534	1871	1876	1880	rBV	36866	51074	1.31%	0.088%
73	12.620	1885	1890	1893	rBV	508540	624482	15.99%	1.077%

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8404.D
Acq On : 30 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : R1510063-017|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 18 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

74	12.650	1893	1895	1899	rVV	290142	322312	8.25%	0.556%
75	12.705	1899	1904	1911	rVB	920130	1246118	31.90%	2.150%
76	12.851	1922	1928	1933	rVB3	58026	96898	2.48%	0.167%
77	12.931	1934	1941	1946	rBV	880348	1057189	27.07%	1.824%
78	13.040	1952	1959	1967	rBV2	93058	159267	4.08%	0.275%
79	13.132	1967	1974	1975	rBV3	47649	76438	1.96%	0.132%
80	13.150	1975	1977	1980	rVV2	53153	59345	1.52%	0.102%
81	13.187	1980	1983	1986	rVB	125911	134803	3.45%	0.233%
82	13.309	1998	2003	2008	rVB2	630796	804485	20.60%	1.388%
83	13.363	2008	2012	2016	rBV3	37439	57802	1.48%	0.100%
84	13.443	2022	2025	2030	rVB	66030	79399	2.03%	0.137%
85	13.528	2034	2039	2041	rBV3	33523	45361	1.16%	0.078%
86	13.565	2041	2045	2048	rVV	80437	125671	3.22%	0.217%
87	13.601	2048	2051	2055	rVV2	146228	221801	5.68%	0.383%
88	13.662	2055	2061	2062	rVV2	71862	117342	3.00%	0.202%
89	13.686	2062	2065	2070	rVB	111697	145549	3.73%	0.251%
90	13.796	2076	2083	2088	rBV	299539	399482	10.23%	0.689%
91	13.949	2102	2108	2111	rBV3	44257	58430	1.50%	0.101%
92	13.997	2112	2116	2120	rVB2	44012	57403	1.47%	0.099%
93	14.351	2170	2174	2179	rBV	28889	40583	1.04%	0.070%
94	14.814	2246	2250	2256	rVB	84060	113393	2.90%	0.196%

Sum of corrected areas: 57965068

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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8404.D
Acq On    : 30 Nov 2015    5:41 pm
Operator  : K.Ruest
Sample    : R1510063-017|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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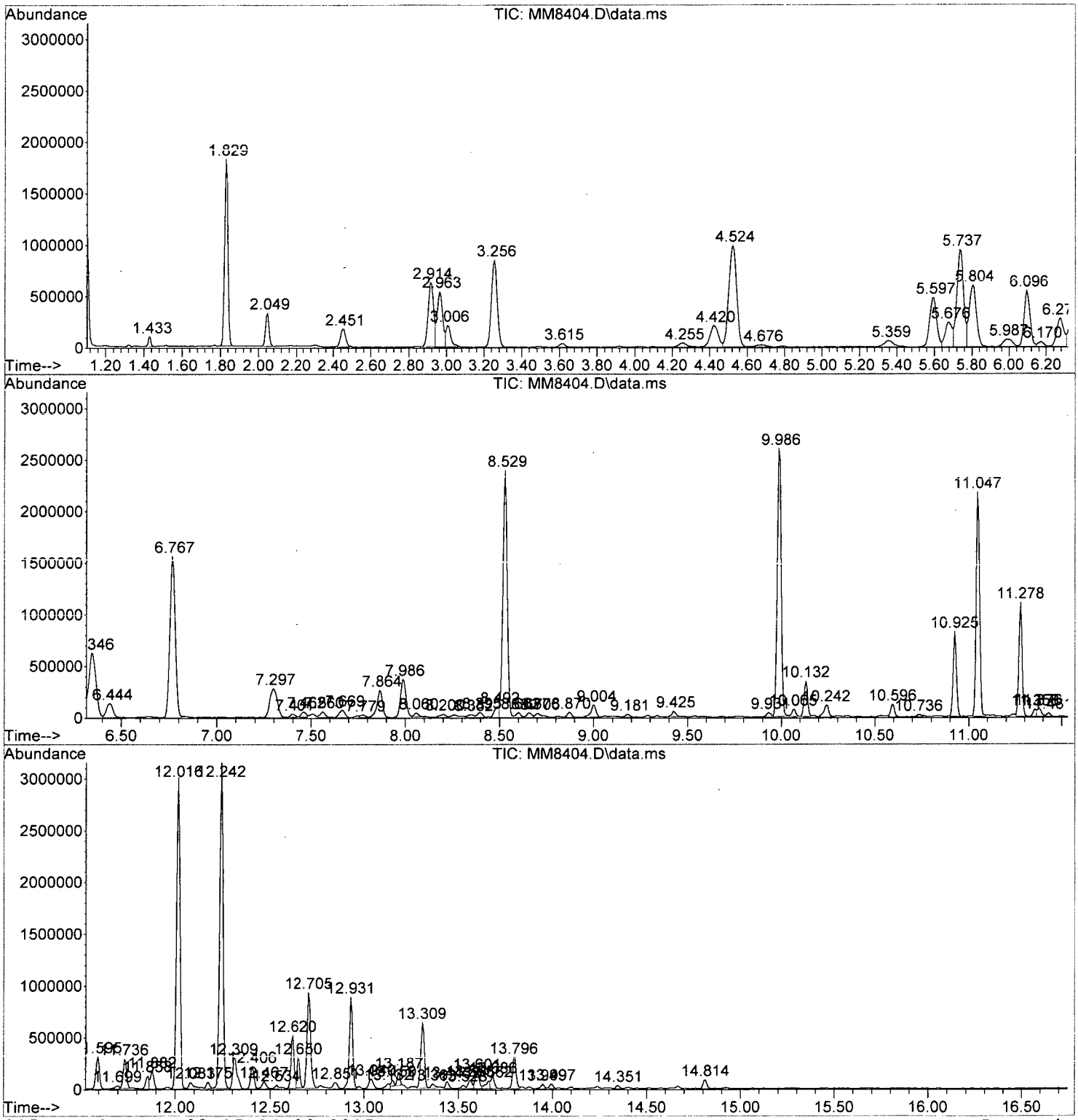


Library Search Compound Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8404.D
Acq On : 30 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : R1510063-017|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 18 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

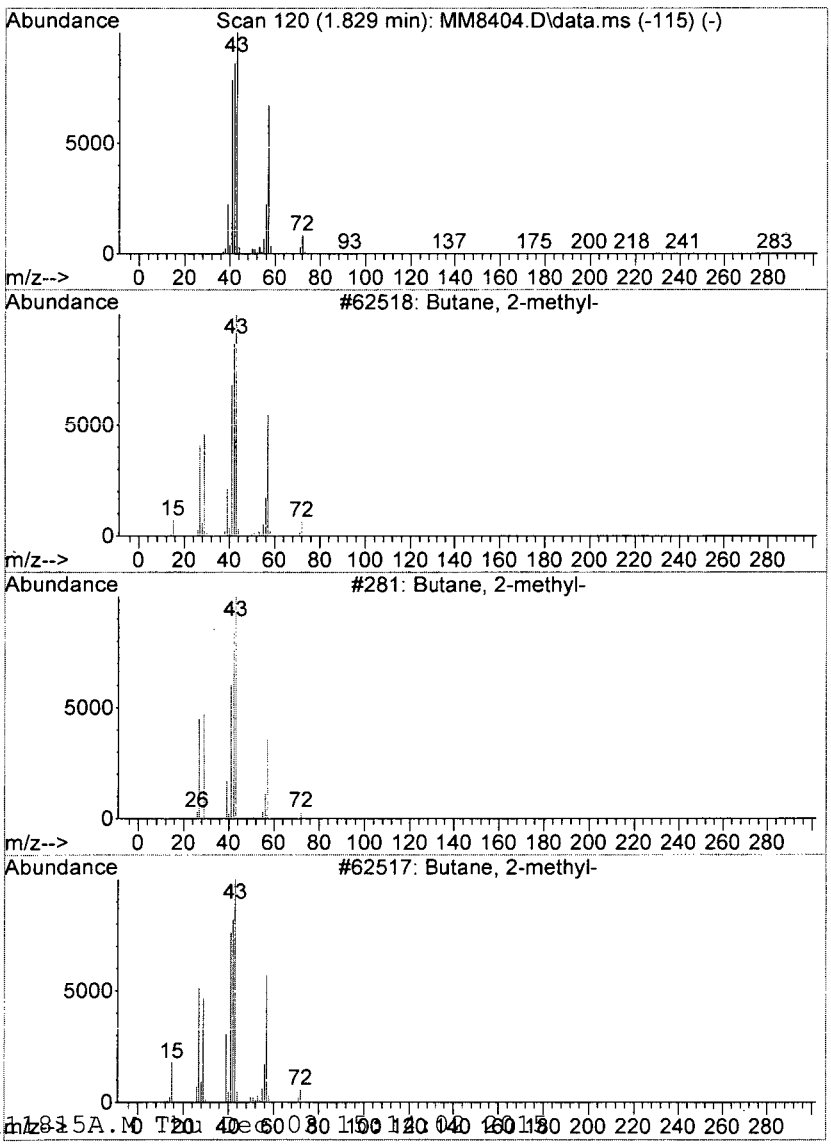
TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

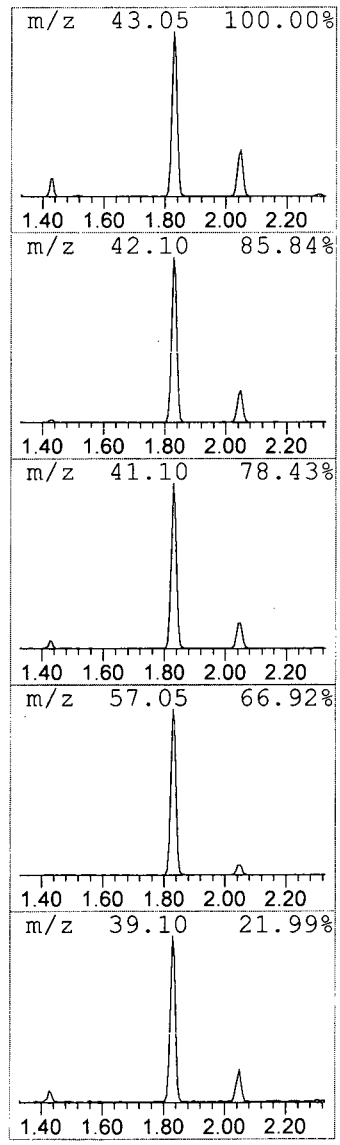
****

Peak Number 1 Butane, 2-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.829	46.25 ppb	2200680	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	91
2	Butane, 2-methyl-	72	C5H12	000078-78-4	90
3	Butane, 2-methyl-	72	C5H12	000078-78-4	90
4	3-Buten-1-ol	72	C4H8O	000627-27-0	43
5	Pentane	72	C5H12	000109-66-0	9





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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8404.D
Acq On    : 30 Nov 2015    5:41 pm
Operator  : K.Ruest
Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

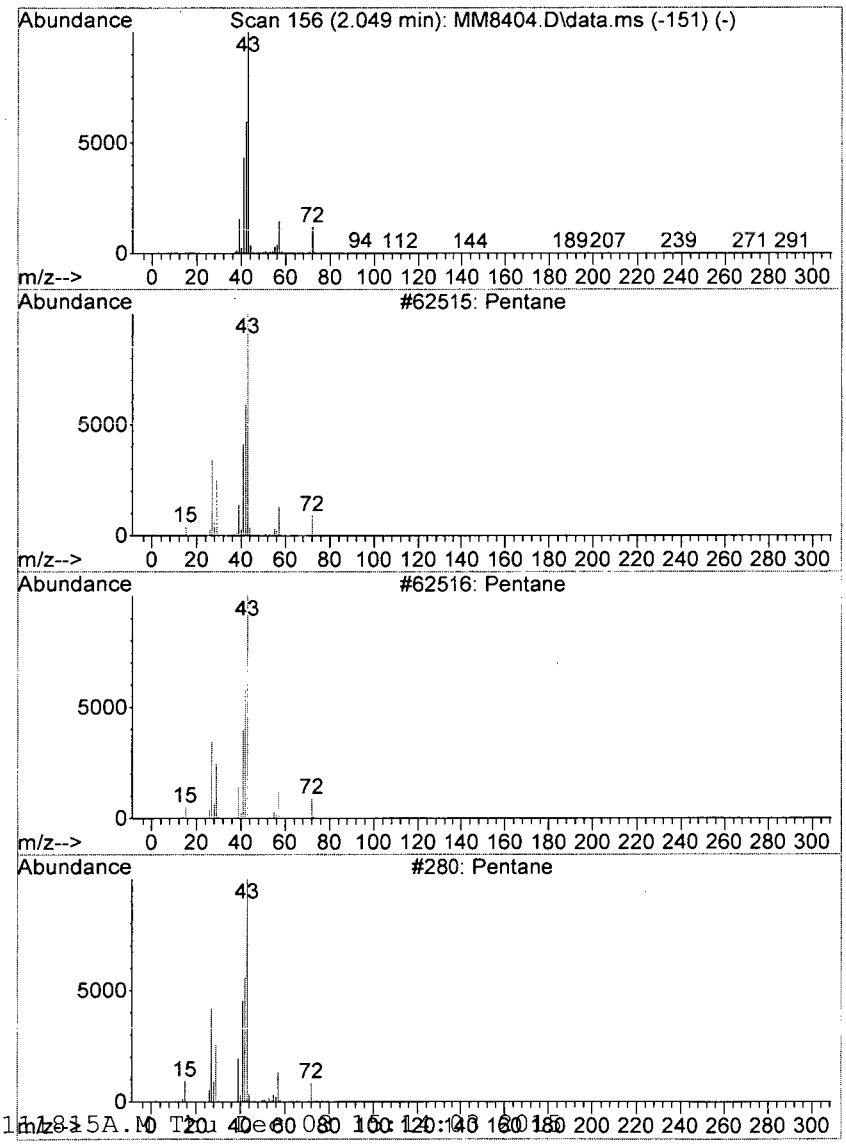
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```

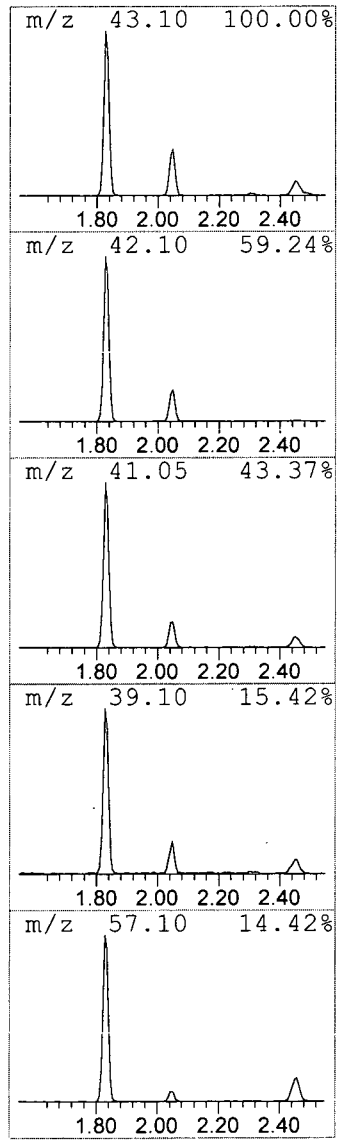
****

Peak Number 2 Pentane Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.049	8.64 ppb	411061	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	90
2	Pentane	72	C5H12	000109-66-0	90
3	Pentane	72	C5H12	000109-66-0	86
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	42
5	Furan, tetrahydro-	72	C4H8O	000109-99-9	9





Library Search Compound Report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Data File : MM8404.D
Acq On    : 30 Nov 2015    5:41 pm
Operator  : K.Ruest
Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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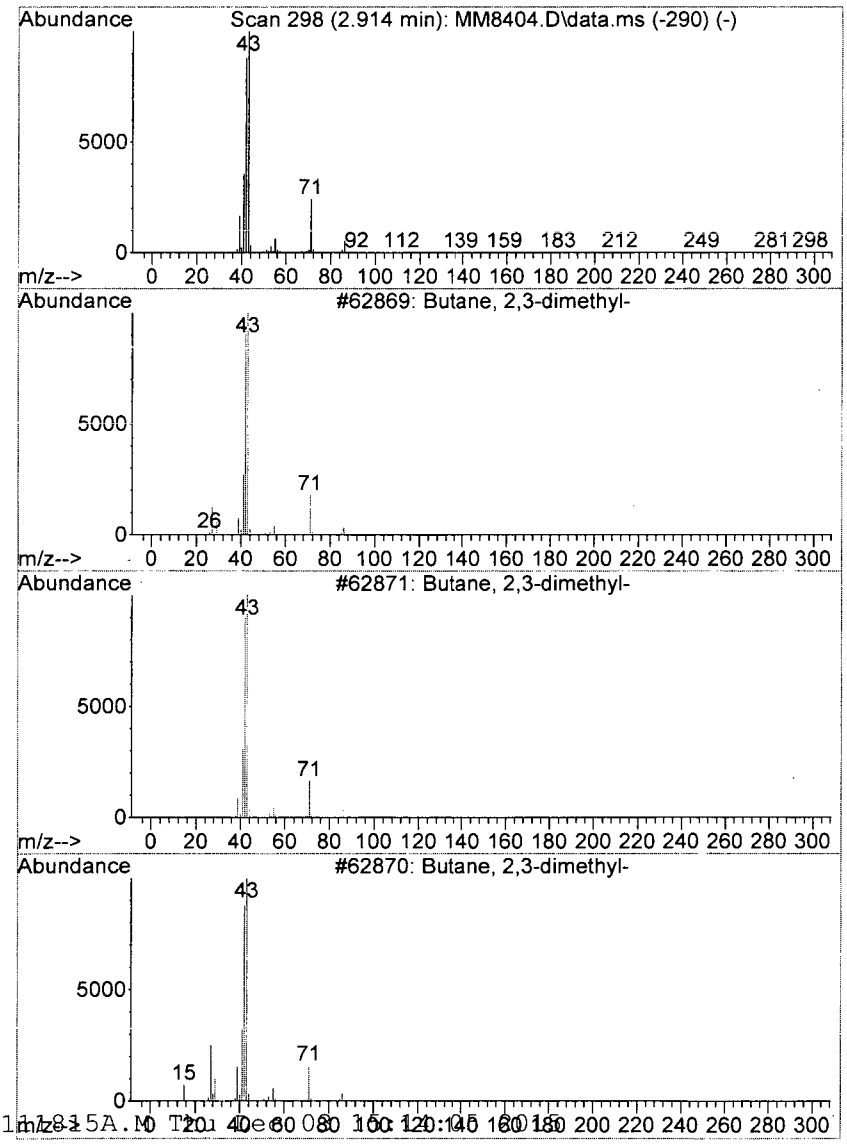
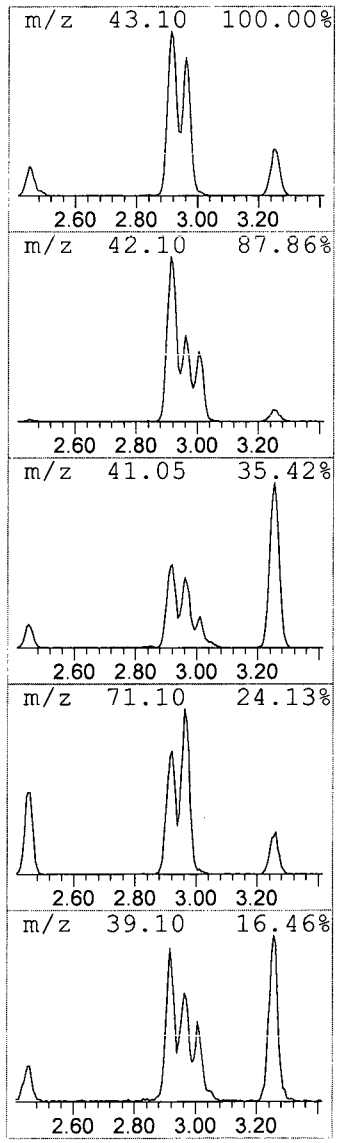
****

Peak Number 3 Butane, 2,3-dimethyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.914	26.76 ppb	1273040	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	90
2	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	87
3	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	86
4	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	52
5	Pentane, 2-methyl-	86	C6H14	000107-83-5	50





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Operator  : K.Ruest
Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

*********************************************************************
Peak Number  4  Pentane, 2-methyl-              Concentration Rank  8
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.963	22.71 ppb	1080690	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	74
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	53
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	50
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	50
5	Pentane, 3,3-dimethyl-	100	C7H16	000562-49-2	45

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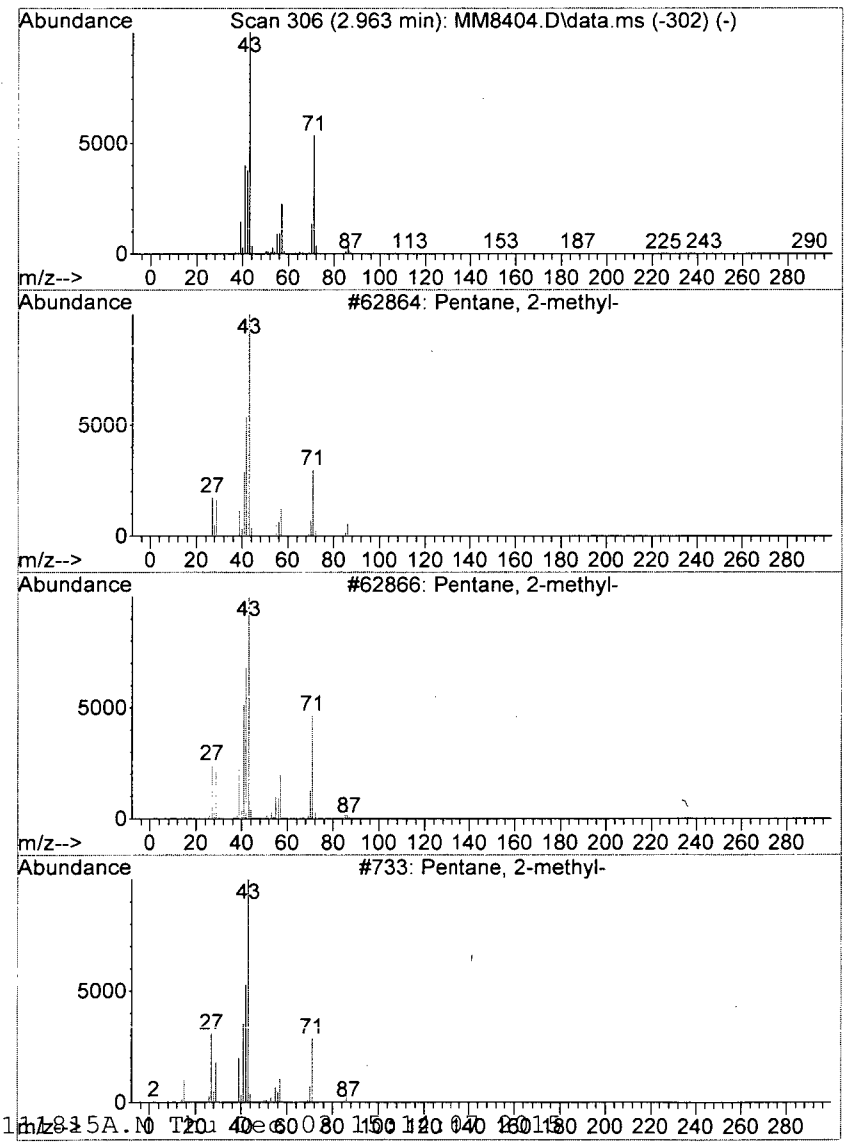

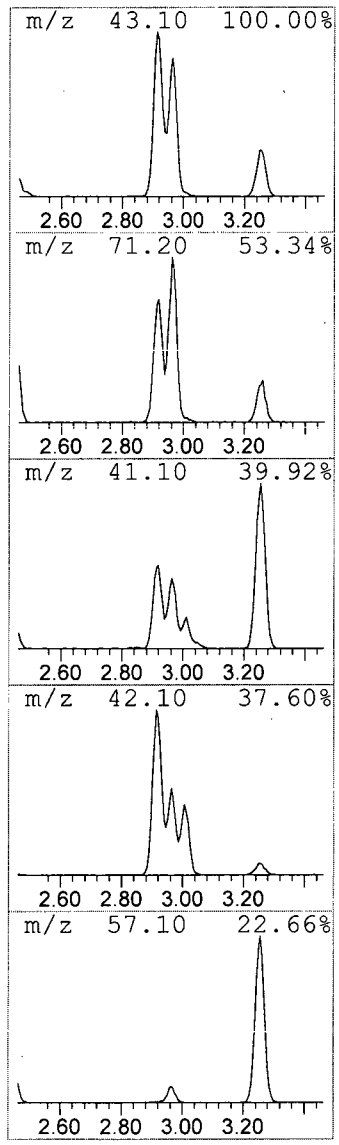

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Operator  : K.Ruest
Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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****

Peak Number 5 Cyclobutanone Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.006	7.59 ppb	361281	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclobutanone	70	C4H6O	001191-95-3	64
2	Cyclopropane, ethyl-	70	C5H10	001191-96-4	39
3	1-Pentene	70	C5H10	000109-67-1	39
4	Cyclopentane	70	C5H10	000287-92-3	9
5	1-Pentene	70	C5H10	000109-67-1	9

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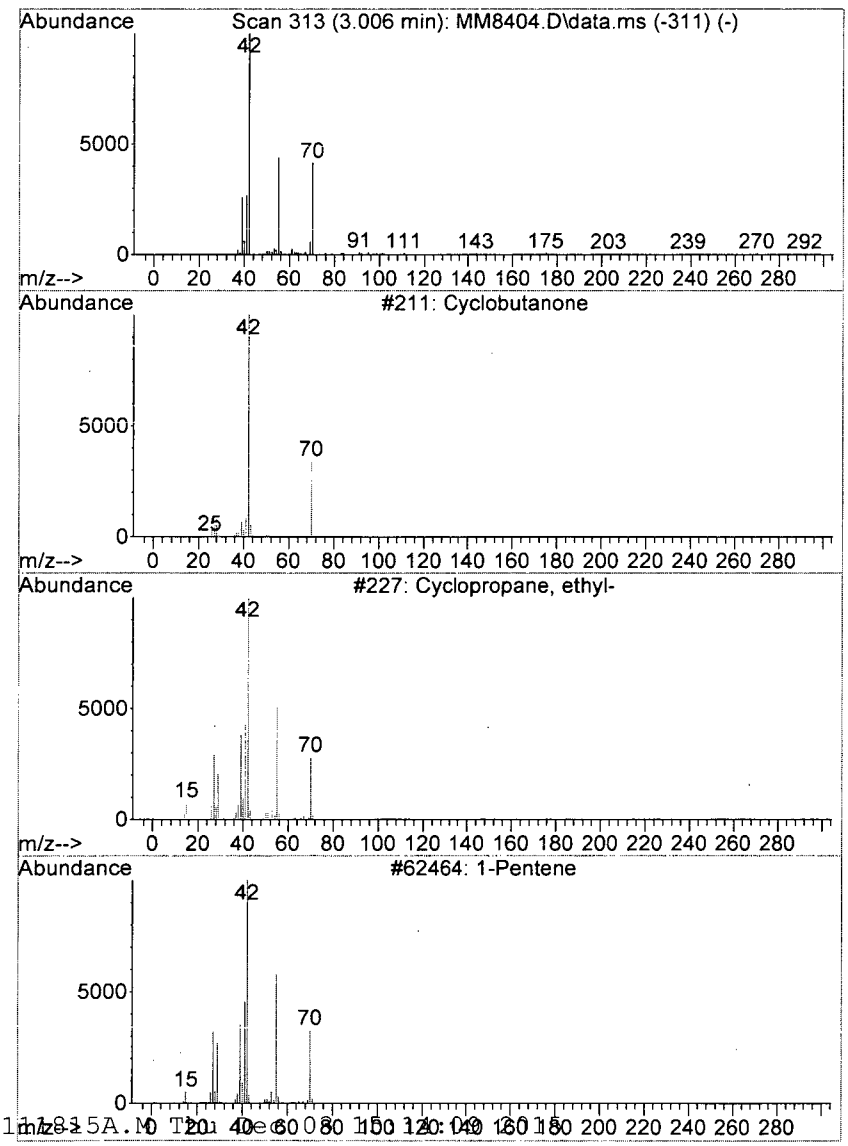

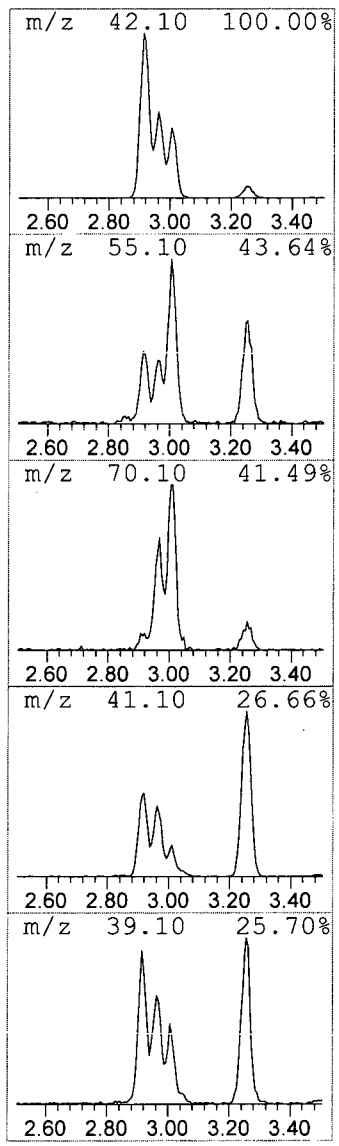

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Operator  : K.Ruest
Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

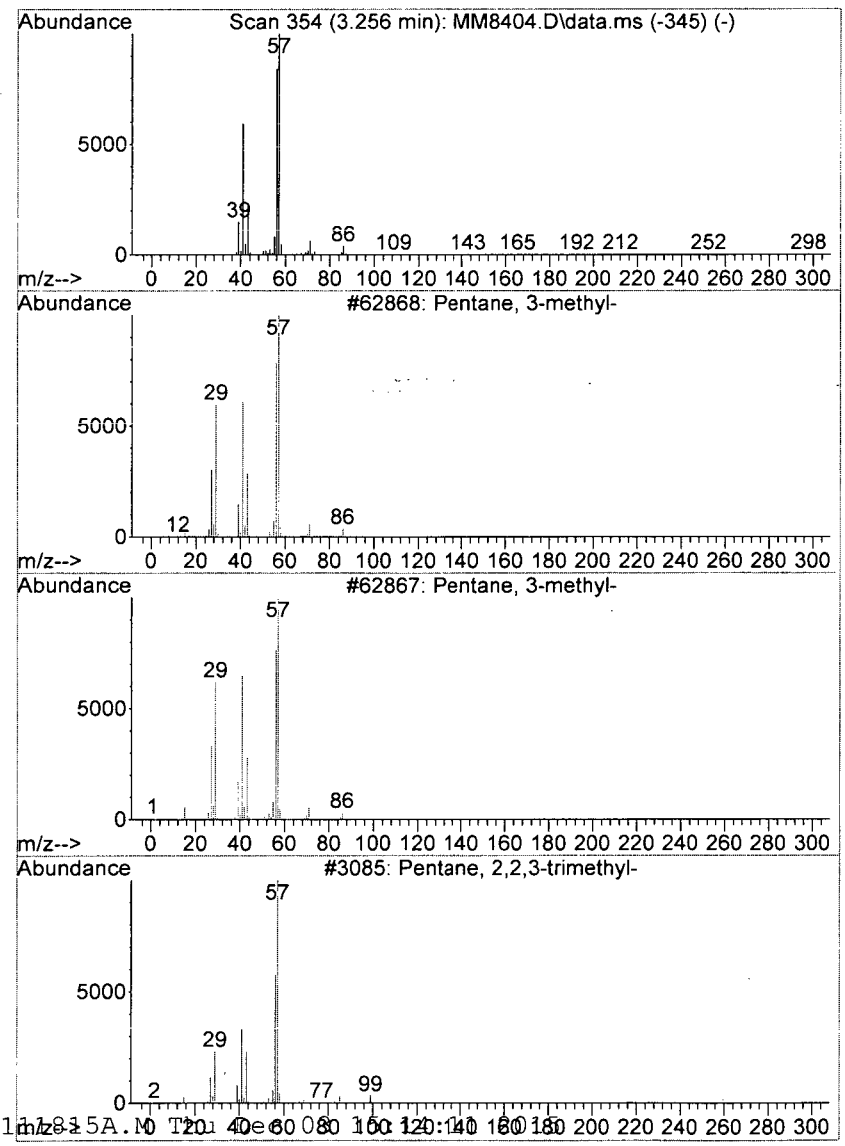
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

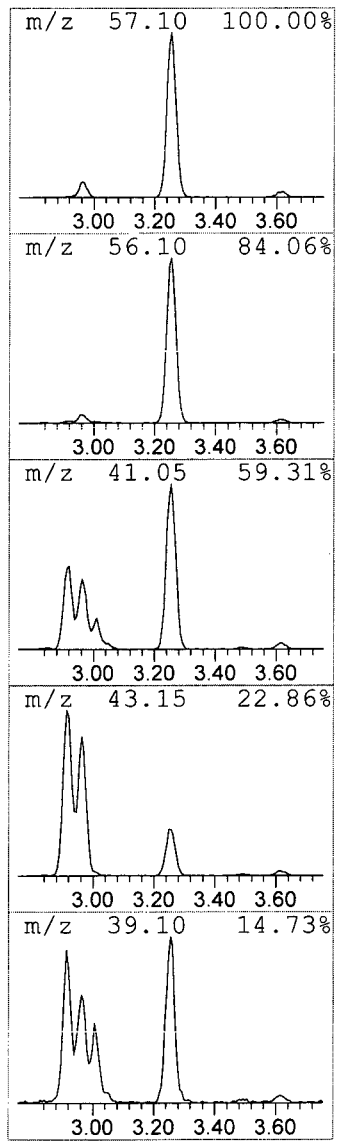
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  6  Pentane, 3-methyl-              Concentration Rank  4
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.256	38.14 ppb	1814500	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 3-methyl-	86	C6H14	000096-14-0	91
2	Pentane, 3-methyl-	86	C6H14	000096-14-0	91
3	Pentane, 2,2,3-trimethyl-	114	C8H18	000564-02-3	56
4	Pentane, 3-methyl-	86	C6H14	000096-14-0	52
5	Butane, 1-chloro-	92	C4H9Cl	000109-69-3	45





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Operator  : K.Ruest
Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

*********************************************************************
Peak Number  7  Pentane, 2,4-dimethyl-          Concentration Rank 11

  R.T.     EstConc          Area       Relative to ISTD          R.T.
---------------------------------------------------------------------
  4.420   13.18 ppb        627254   Pentafluorobenzene           5.737

 Hit# of  5    Tentative ID              MW  MolForm        CAS#        Qual
---------------------------------------------------------------------
 1 Pentane, 2,4-dimethyl-                100 C7H16          000108-08-7 91
 2 Pentane, 2,4-dimethyl-                100 C7H16          000108-08-7 74
 3 Pentane, 2,4-dimethyl-                100 C7H16          000108-08-7 58
 4 Butane, 2,2,3-trimethyl-              100 C7H16          000464-06-2 53
 5 Hexane, 2-methyl-                     100 C7H16          000591-76-4 43
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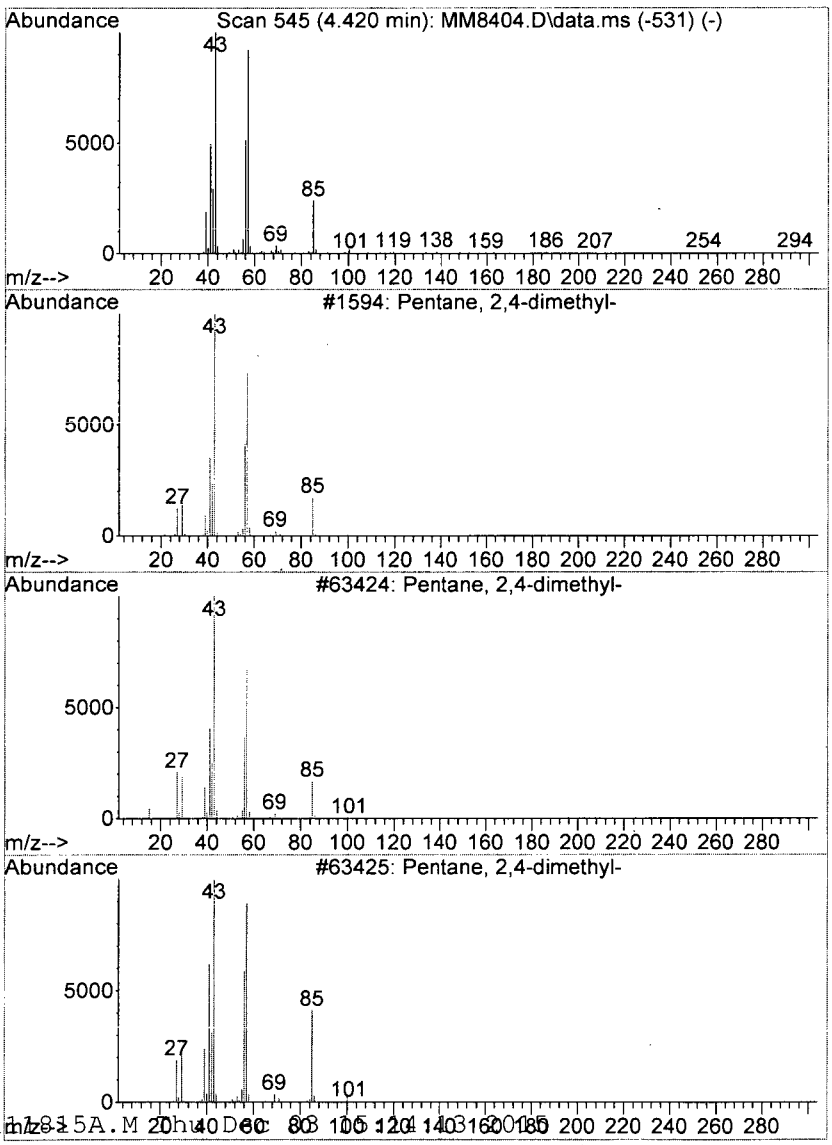

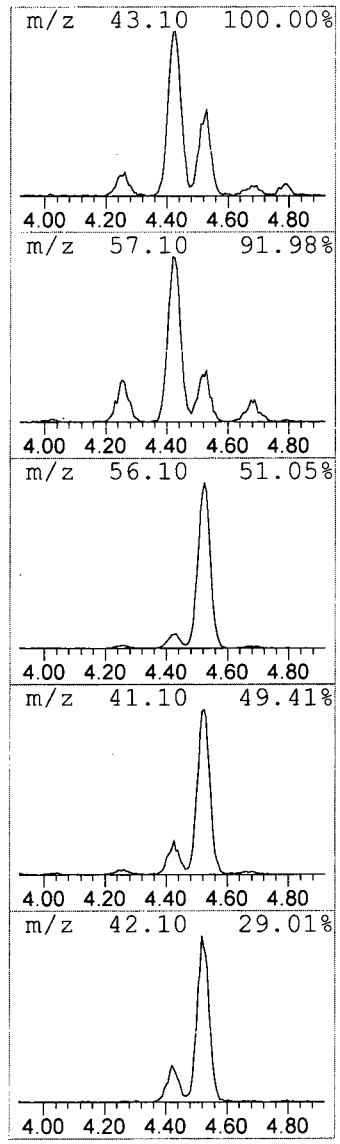

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Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  8  1H-Tetrazole, 5-methyl-         Concentration Rank  1
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.524	59.55 ppb	2833400	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Tetrazole, 5-methyl-	84	C2H4N4	004076-36-2	64
2	Cyclopentane, methyl-	84	C6H12	000096-37-7	52
3	Cyclopentane, methyl-	84	C6H12	000096-37-7	52
4	1-Pentene, 2-methyl-	84	C6H12	000763-29-1	46
5	2H-Pyran-2-one, tetrahydro-5,6-d...	128	C7H12O2	024405-16-1	39

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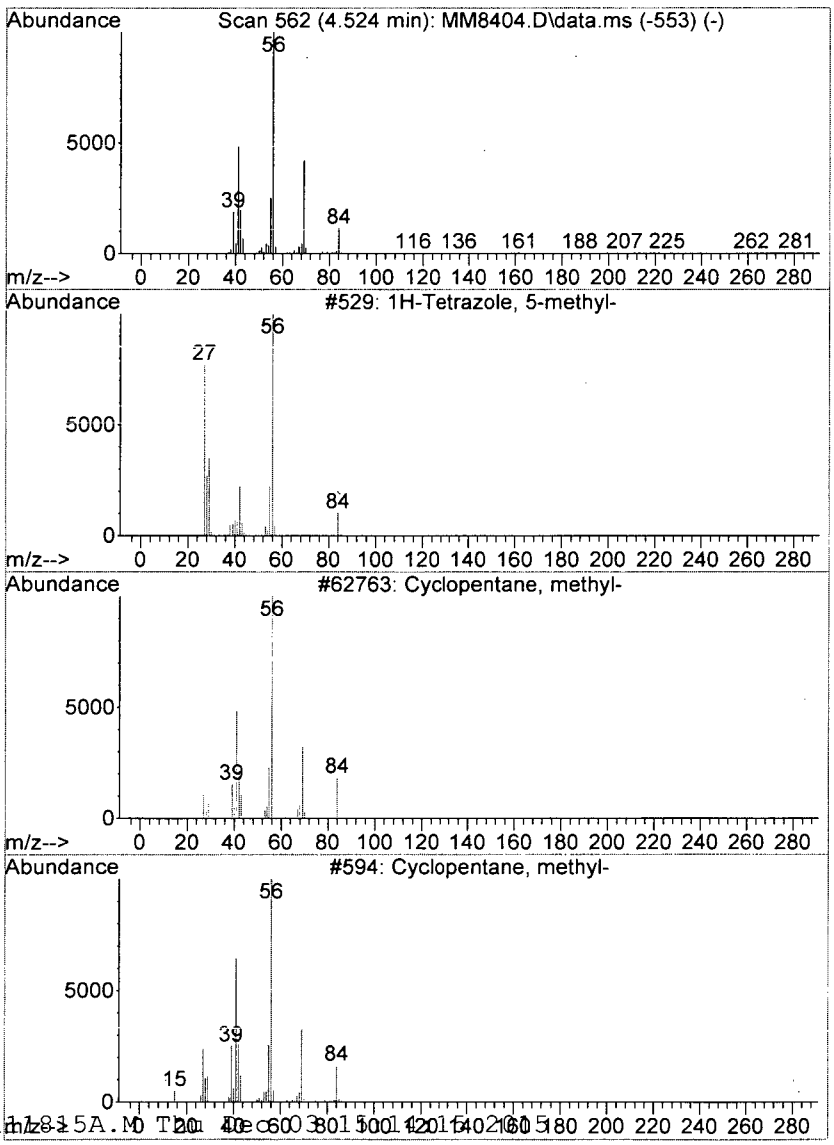

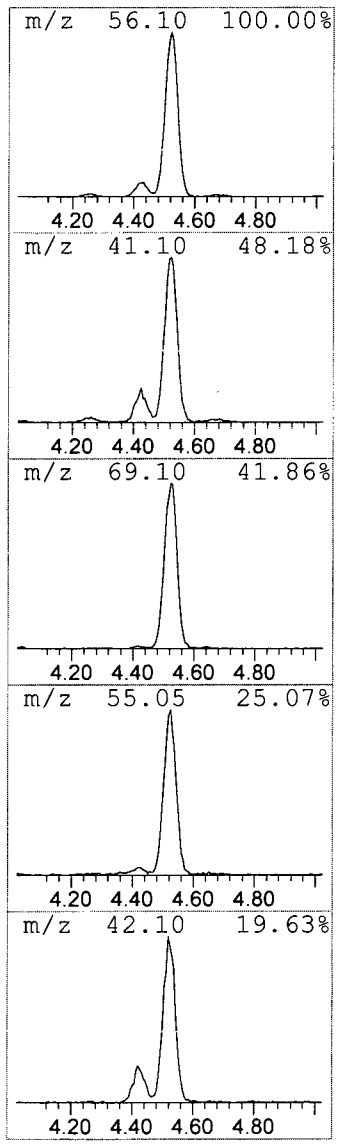

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Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

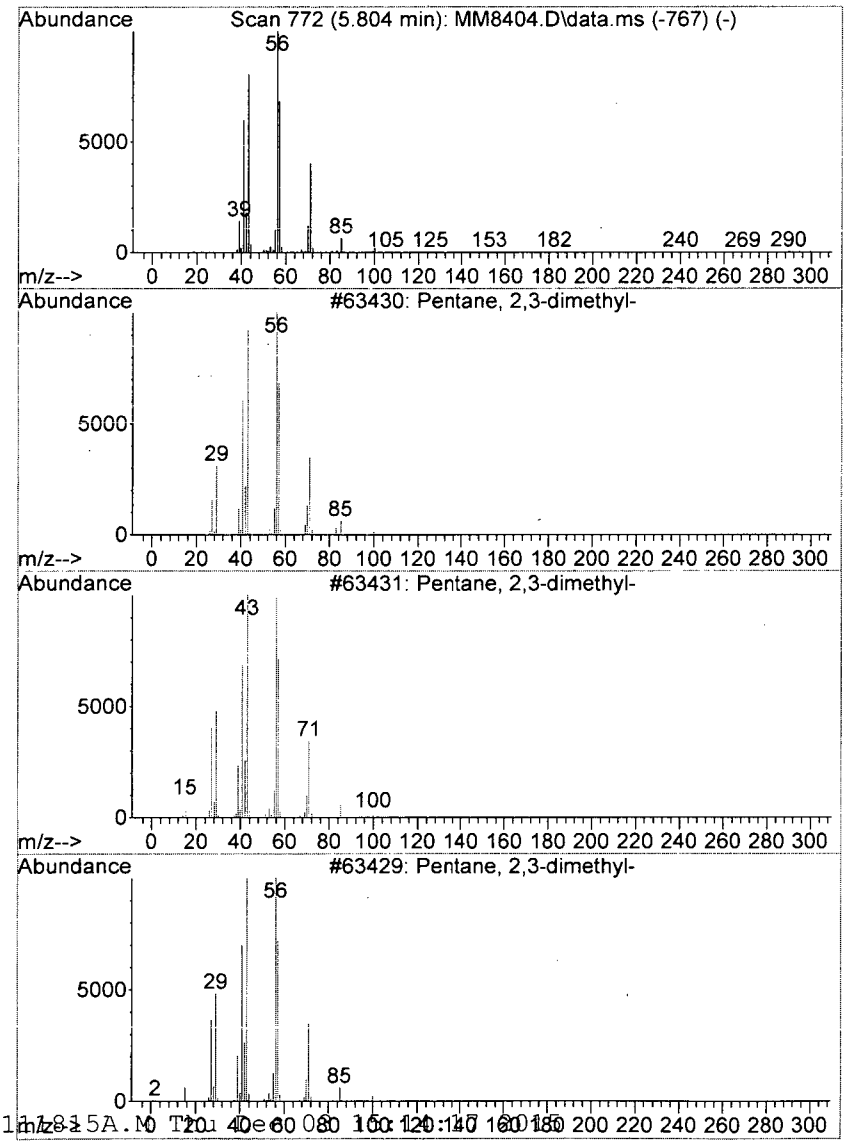
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

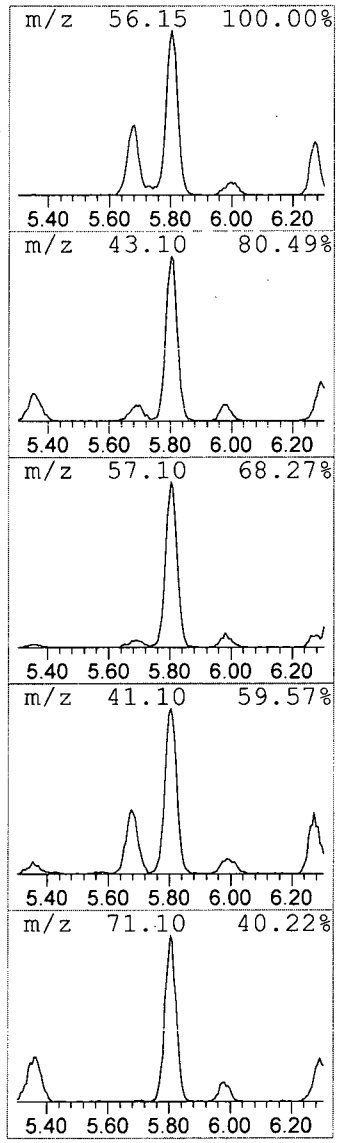
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  9  Pentane, 2,3-dimethyl-          Concentration Rank  5
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.804	32.82 ppb	1561410	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	91
2	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	83
3	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	83
4	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	49
5	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	46





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Operator  : K.Ruest
Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

*********************************************************************
Peak Number 10  Cyclopentane, 1,3-dimethyl-...  Concentration Rank 13
```
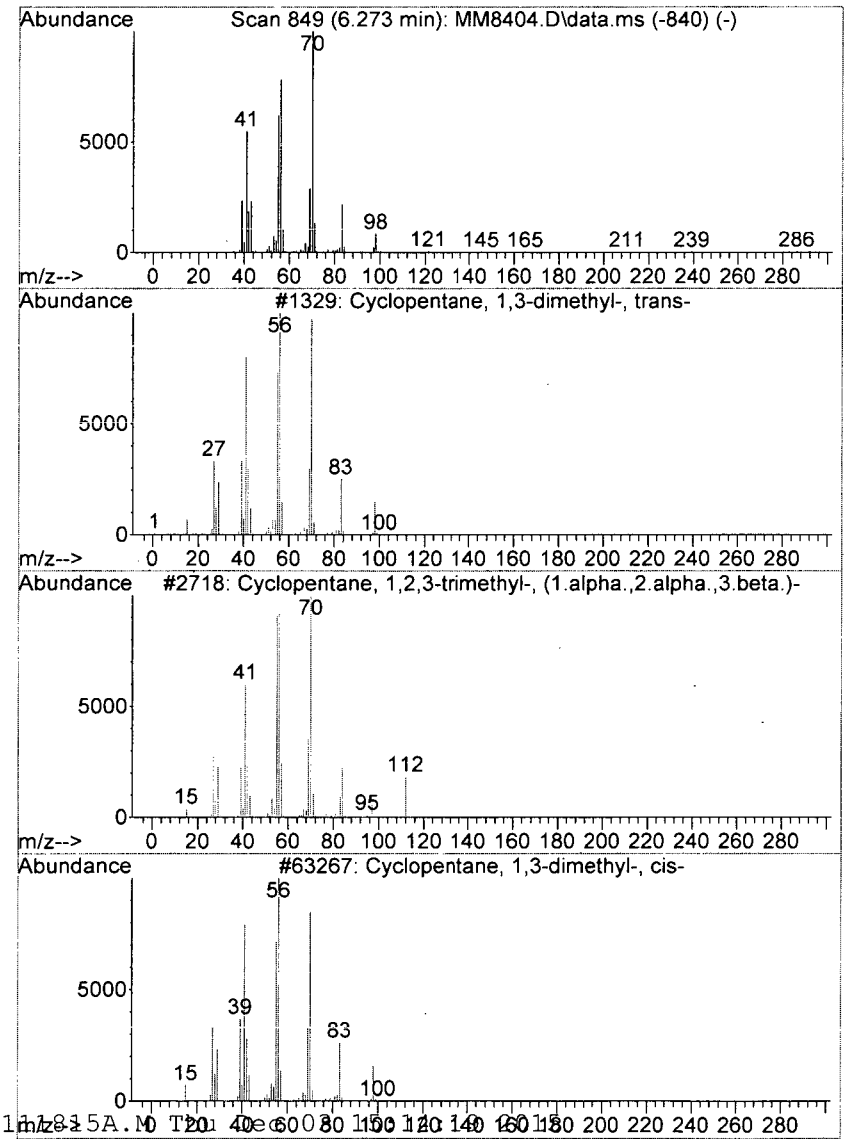
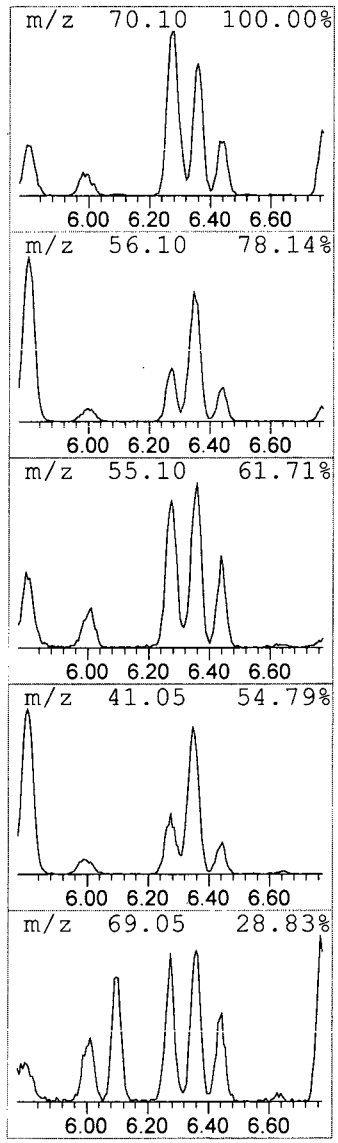

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.273	12.53 ppb	756966	1,4-Difluorobenzene	6.767

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, 1,3-dimethyl-, trans-	98	C7H14	001759-58-6	91
2	Cyclopentane, 1,2,3-trimethyl-, ...	112	C8H16	015890-40-1	72
3	Cyclopentane, 1,3-dimethyl-, cis-	98	C7H14	002532-58-3	64
4	Cyclopentane, 1,2,3-trimethyl-	112	C8H16	002815-57-8	64
5	2H-Pyran-2,6(3H)-dione, dihydro-...	142	C7H10O3	004160-82-1	64





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Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 11  Pentane, 3-ethyl-2,2-dimethyl-  Concentration Rank  6
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.346	26.93 ppb	1627730	1,4-Difluorobenzene	6.767

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 3-ethyl-2,2-dimethyl-	128	C9H20	016747-32-3	64
2	Pentane, 3-ethyl-2,2-dimethyl-	128	C9H20	016747-32-3	50
3	Pentane, 3-ethyl-2,2-dimethyl-	128	C9H20	016747-32-3	50
4	2,2,7,7-Tetramethyloctane	170	C12H26	001071-31-4	39
5	Pentane, 2,2,3,4-tetramethyl-	128	C9H20	001186-53-4	39

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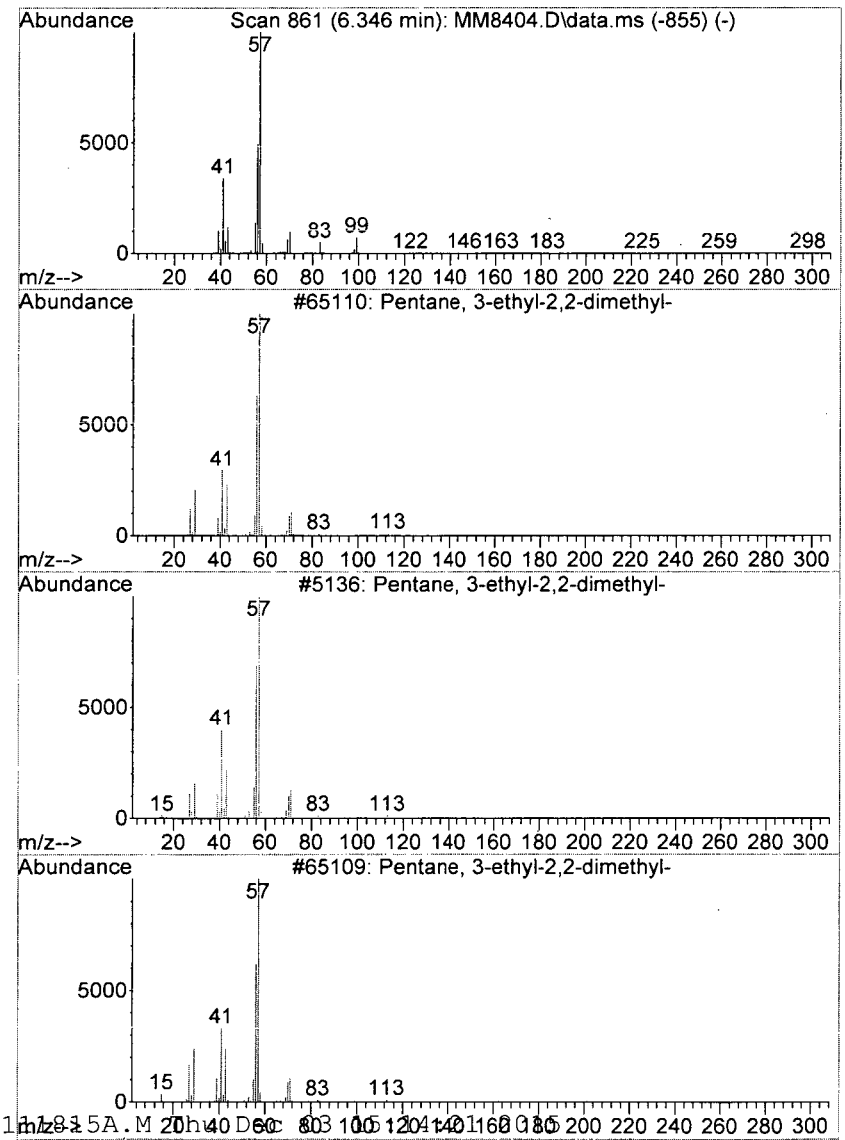

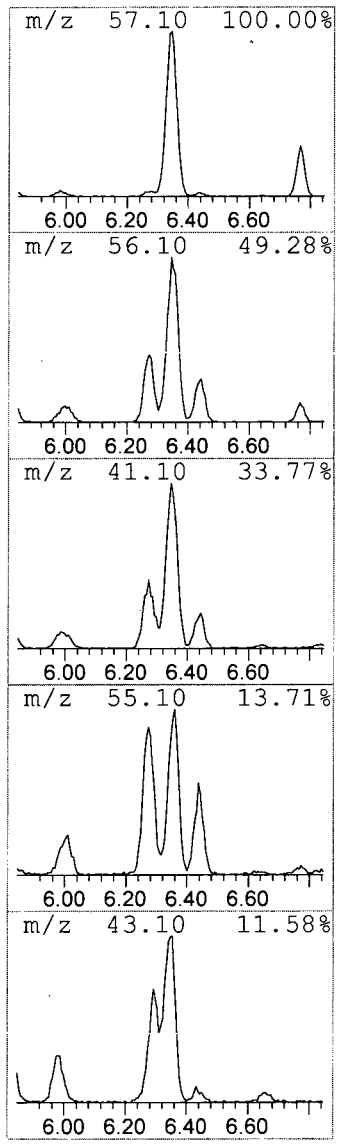

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Operator  : K.Ruest
Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

*********************************************************************
Peak Number 12  Cycloheptane                    Concentration Rank 12

  R.T.     EstConc          Area       Relative to ISTD          R.T.
---------------------------------------------------------------------
  7.297   12.73 ppb        769069   1,4-Difluorobenzene          6.767

 Hit# of  5    Tentative ID              MW  MolForm        CAS#        Qual
---------------------------------------------------------------------
 1 Cycloheptane                           98 C7H14          000291-64-5 80
 2 1-Heptene                              98 C7H14          000592-76-7 76
 3 1-Heptene                              98 C7H14          000592-76-7 64
 4 2-Heptene                              98 C7H14          000592-77-8 58
 5 2-Heptene, (E)-                        98 C7H14          014686-13-6 53
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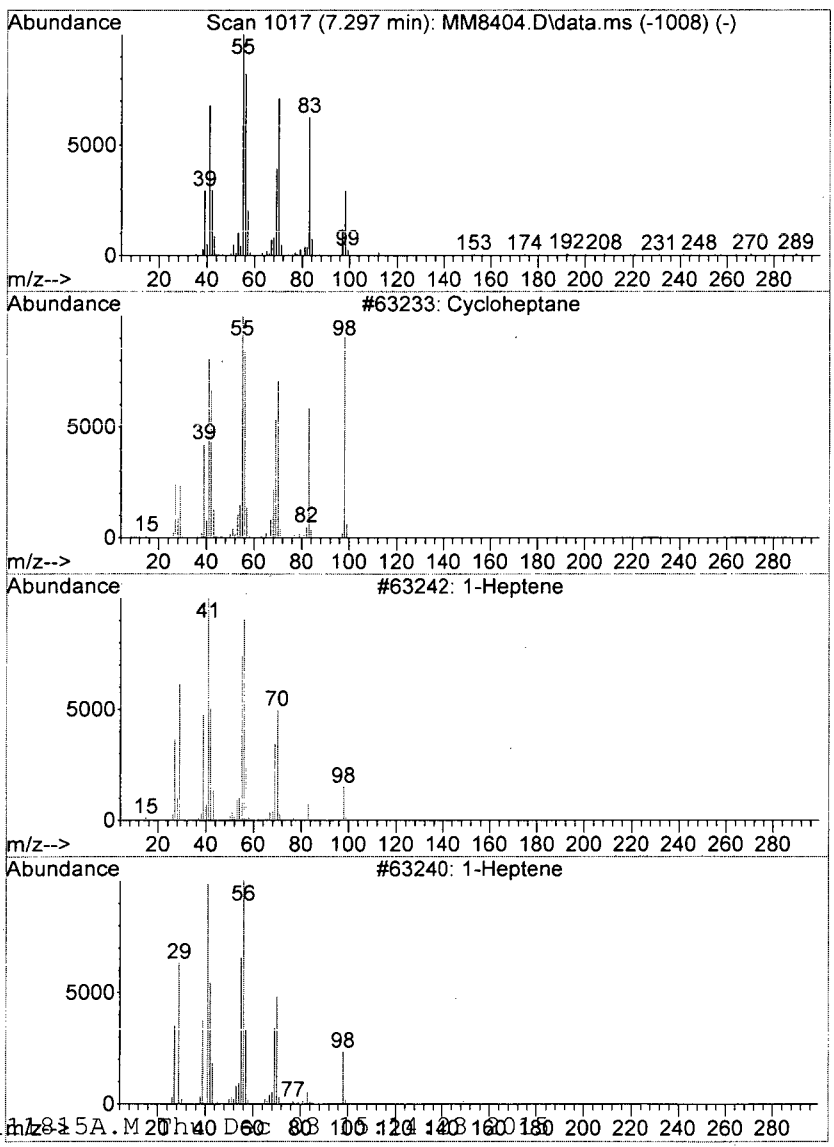

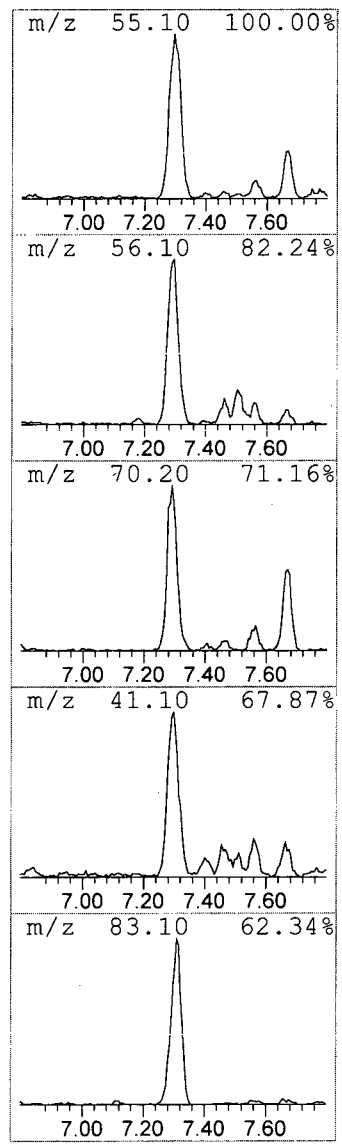

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Data File : MM8404.D
Acq On    : 30 Nov 2015    5:41 pm
Operator  : K.Ruest
Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 13  Pentane, 2,3,4-trimethyl-       Concentration Rank 16
```
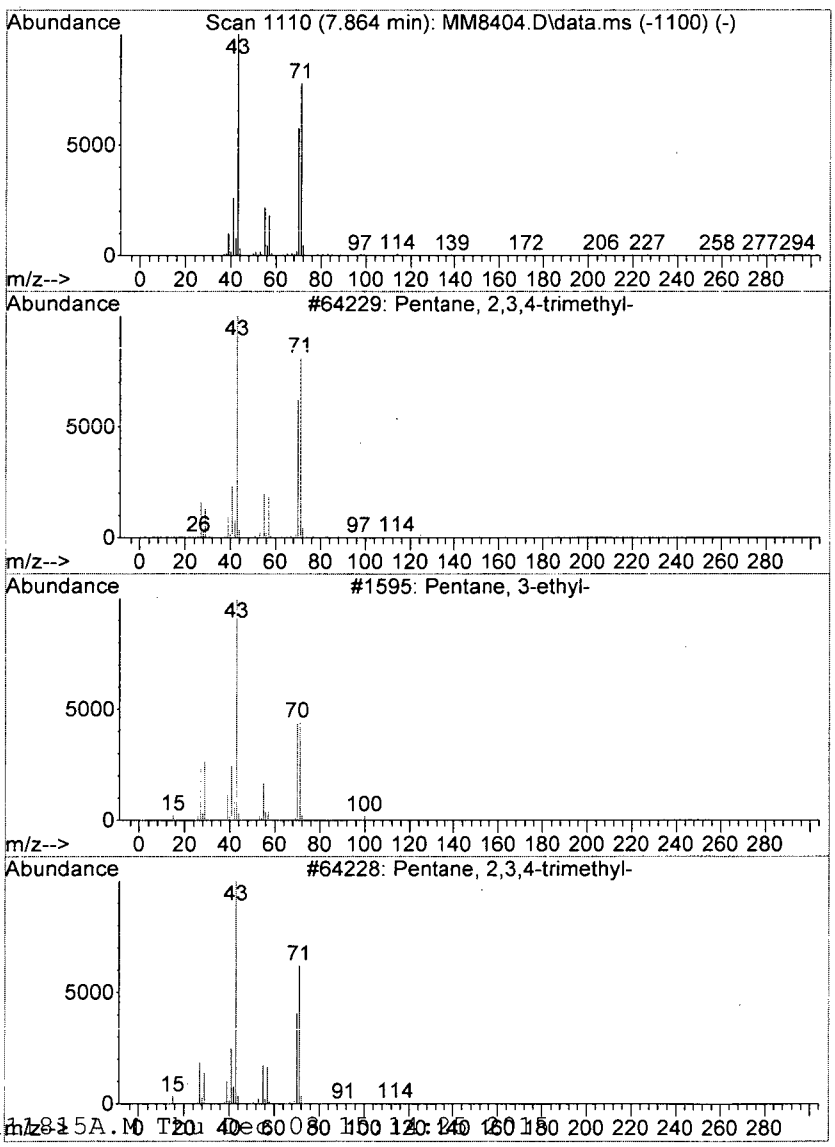
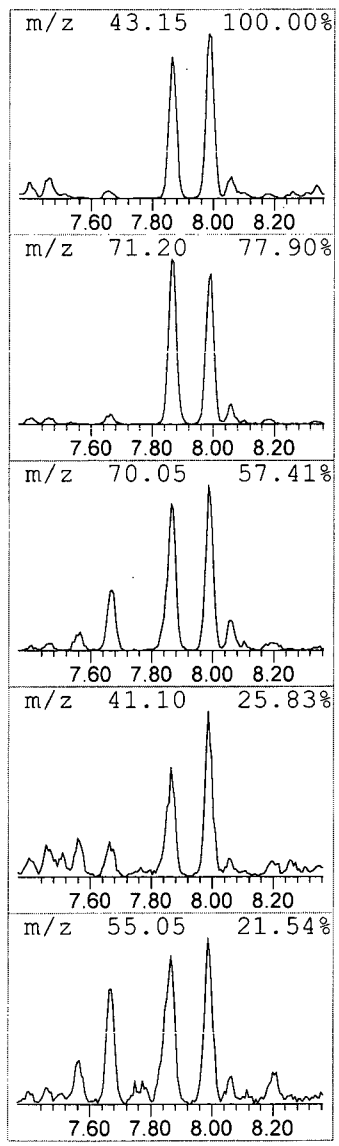

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.864	9.09 ppb	549127	1,4-Difluorobenzene	6.767

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2,3,4-trimethyl-	114	C8H18	000565-75-3	80
2	Pentane, 3-ethyl-	100	C7H16	000617-78-7	78
3	Pentane, 2,3,4-trimethyl-	114	C8H18	000565-75-3	72
4	Hexane, 3,3,4-trimethyl-	128	C9H20	016747-31-2	72
5	Decane, 3,3,4-trimethyl-	184	C13H28	049622-18-6	56

unknown





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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8404.D
Acq On    : 30 Nov 2015    5:41 pm
Operator  : K.Ruest
Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 14  Pentane, 2,3,3-trimethyl-       Concentration Rank 14
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.986	12.35 ppb	746430	1,4-Difluorobenzene	6.767

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2,3,3-trimethyl-	114	C8H18	000560-21-4	83
2	Heptane, 4-methyl-	114	C8H18	000589-53-7	64
3	Hexane, 3,3-dimethyl-	114	C8H18	000563-16-6	59
4	Hexane, 2,3,4-trimethyl-	128	C9H20	000921-47-1	59
5	Pentane, 2,3,4-trimethyl-	114	C8H18	000565-75-3	59

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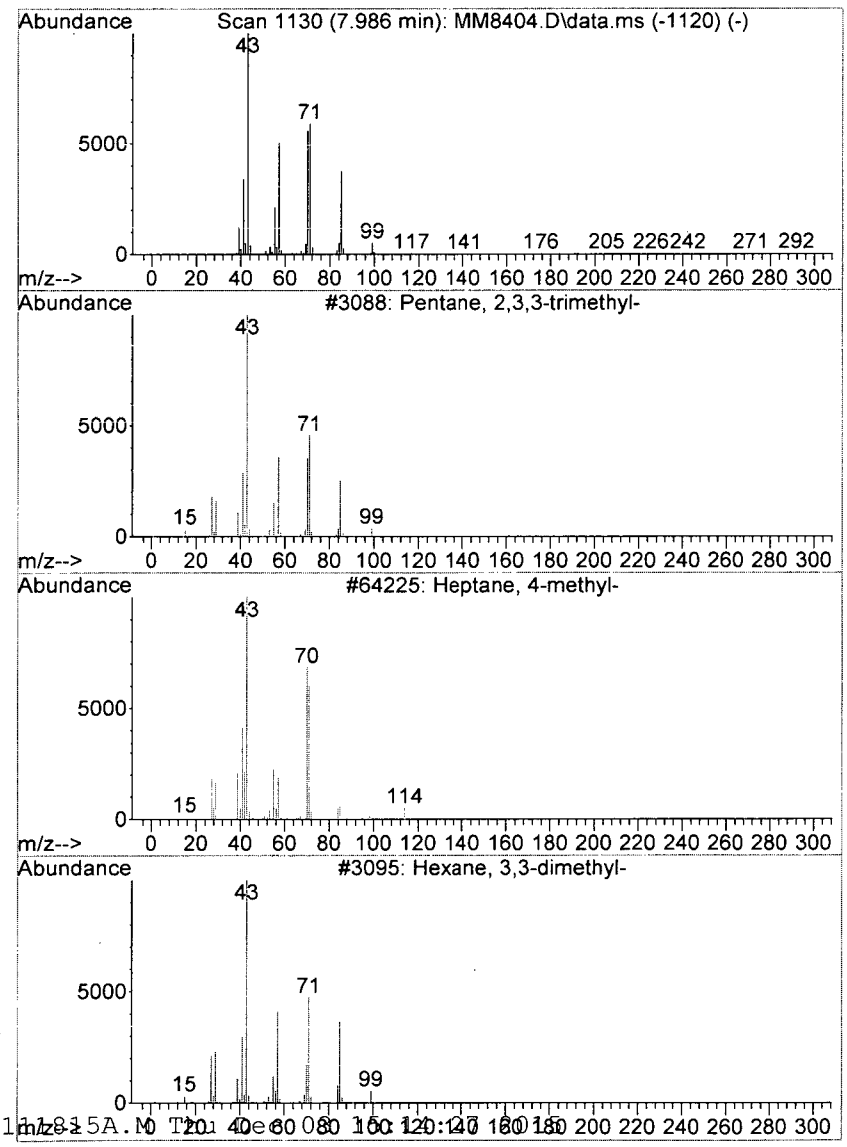

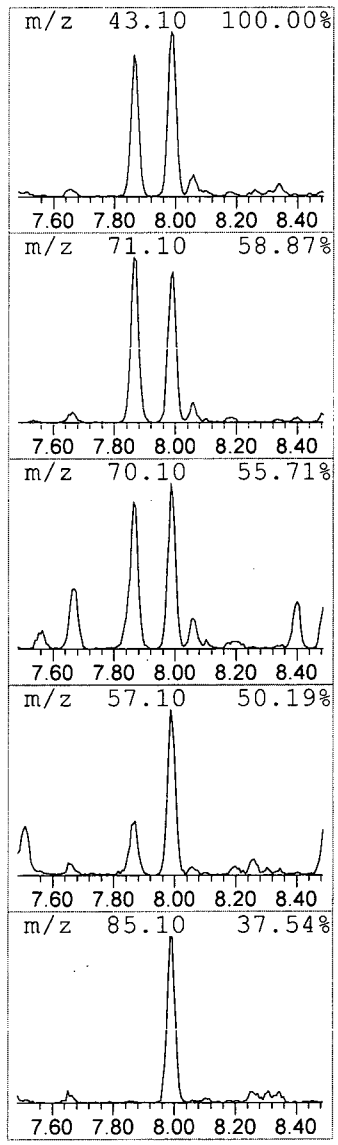

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Data File : MM8404.D
Acq On    : 30 Nov 2015   5:41 pm
Operator  : K.Ruest
Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

*********************************************************************
Peak Number 15  Benzene, 1-ethyl-4-methyl-      Concentration Rank 20

  R.T.      EstConc          Area       Relative to ISTD          R.T.
-------------------------------------------------------------------
 11.595    5.36 ppb        396652   1,4-Dichlorobenzene-d4      12.016

 Hit# of  5    Tentative ID              MW  MolForm        CAS#        Qual
-------------------------------------------------------------------
 1 Benzene, 1-ethyl-4-methyl-            120 C9H12          000622-96-8 94
 2 Benzene, 1-ethyl-2-methyl-            120 C9H12          000611-14-3 94
 3 Benzene, 1-ethyl-2-methyl-            120 C9H12          000611-14-3 94
 4 Benzene, 1-ethyl-2-methyl-            120 C9H12          000611-14-3 93
 5 Benzene, 1-ethyl-2-methyl-            120 C9H12          000611-14-3 93
```

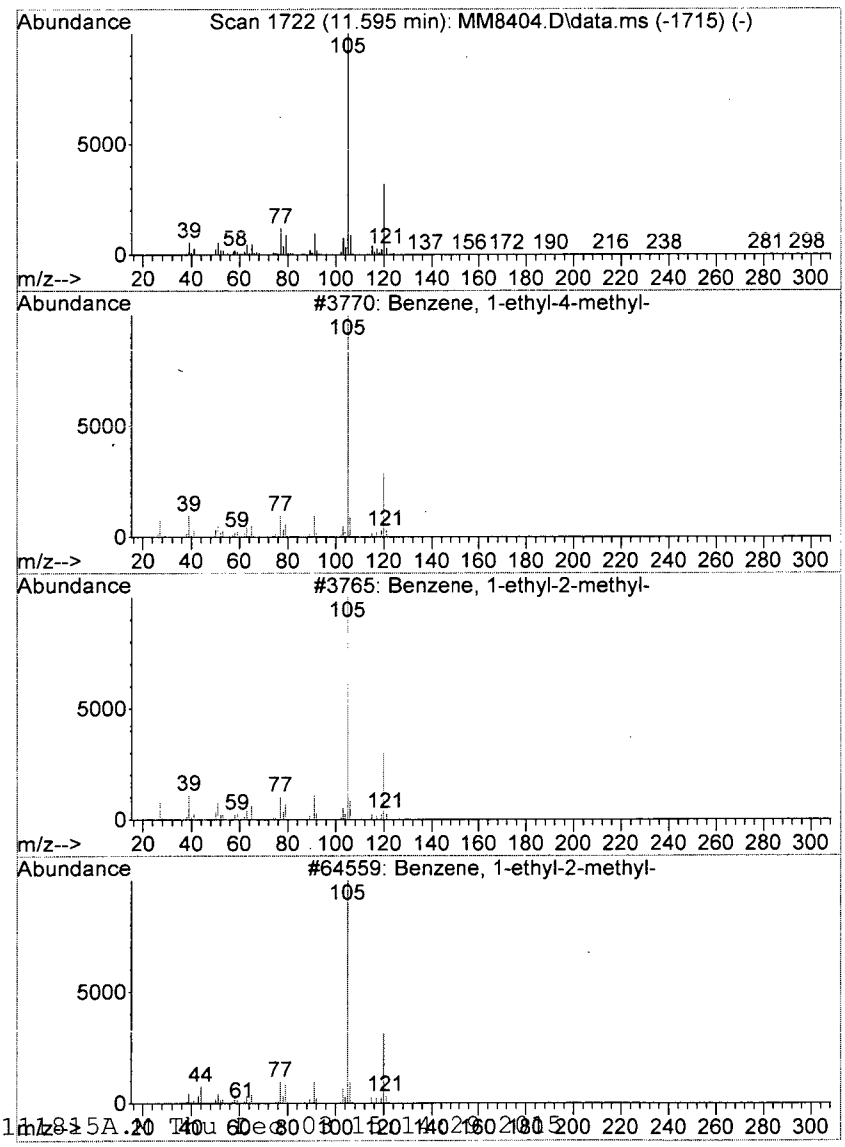

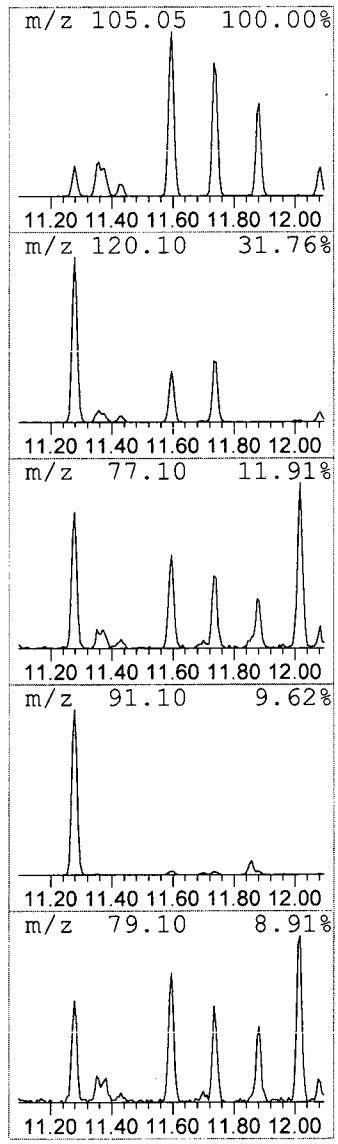

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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8404.D
Acq On    : 30 Nov 2015    5:41 pm
Operator  : K.Ruest
Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

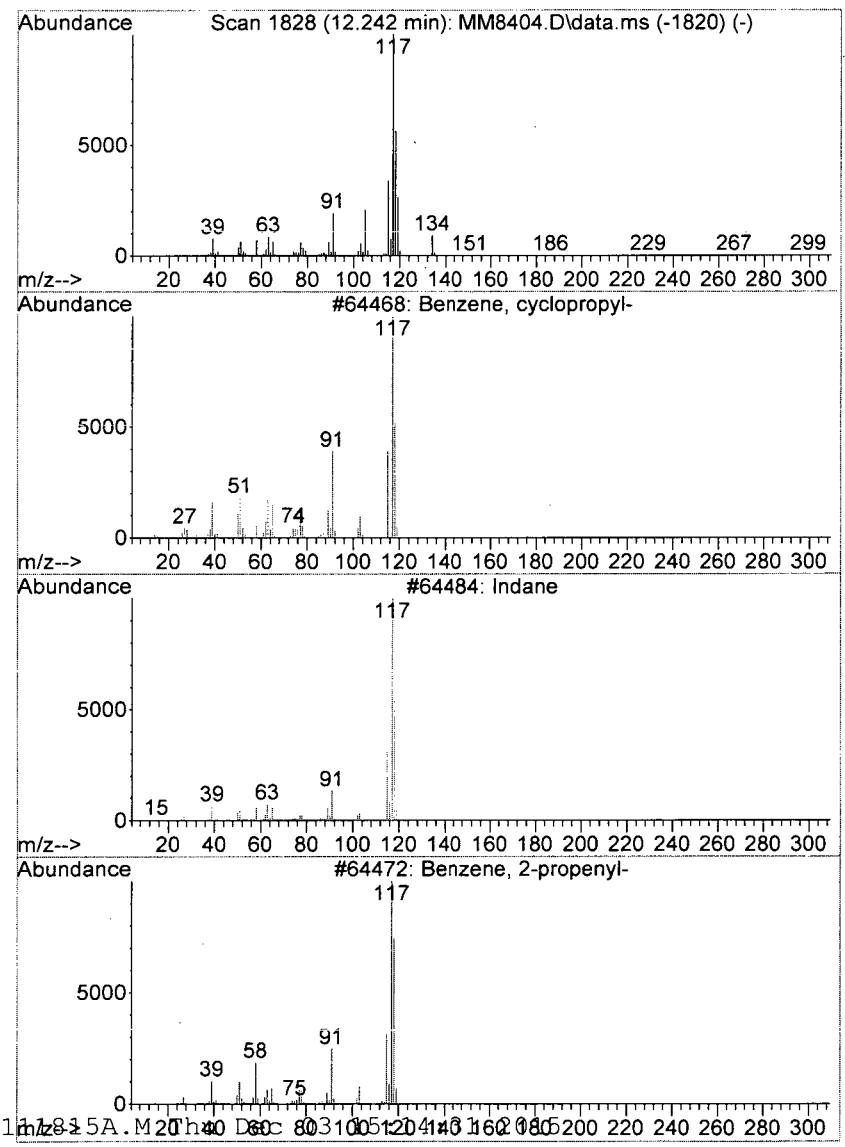
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

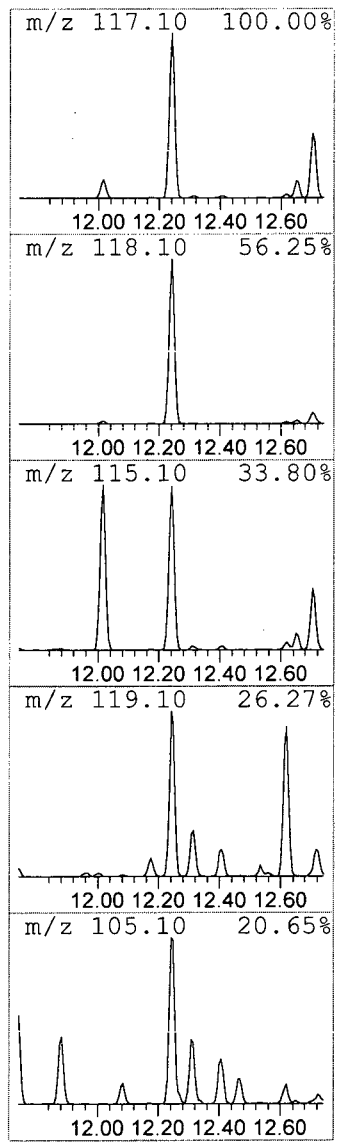
**********************************************************************
Peak Number 16  Benzene, cyclopropyl-          Concentration Rank  2
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.242	52.76 ppb	3906080	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, cyclopropyl-	118	C9H10	000873-49-4	60
2	Indane	118	C9H10	000496-11-7	60
3	Benzene, 2-propenyl-	118	C9H10	000300-57-2	50
4	Benzene, 1-ethenyl-4-methyl-	118	C9H10	000622-97-9	46
5	Benzene, 1-propenyl-	118	C9H10	000637-50-3	46

Unknown





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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8404.D
Acq On    : 30 Nov 2015    5:41 pm
Operator  : K.Ruest
Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```
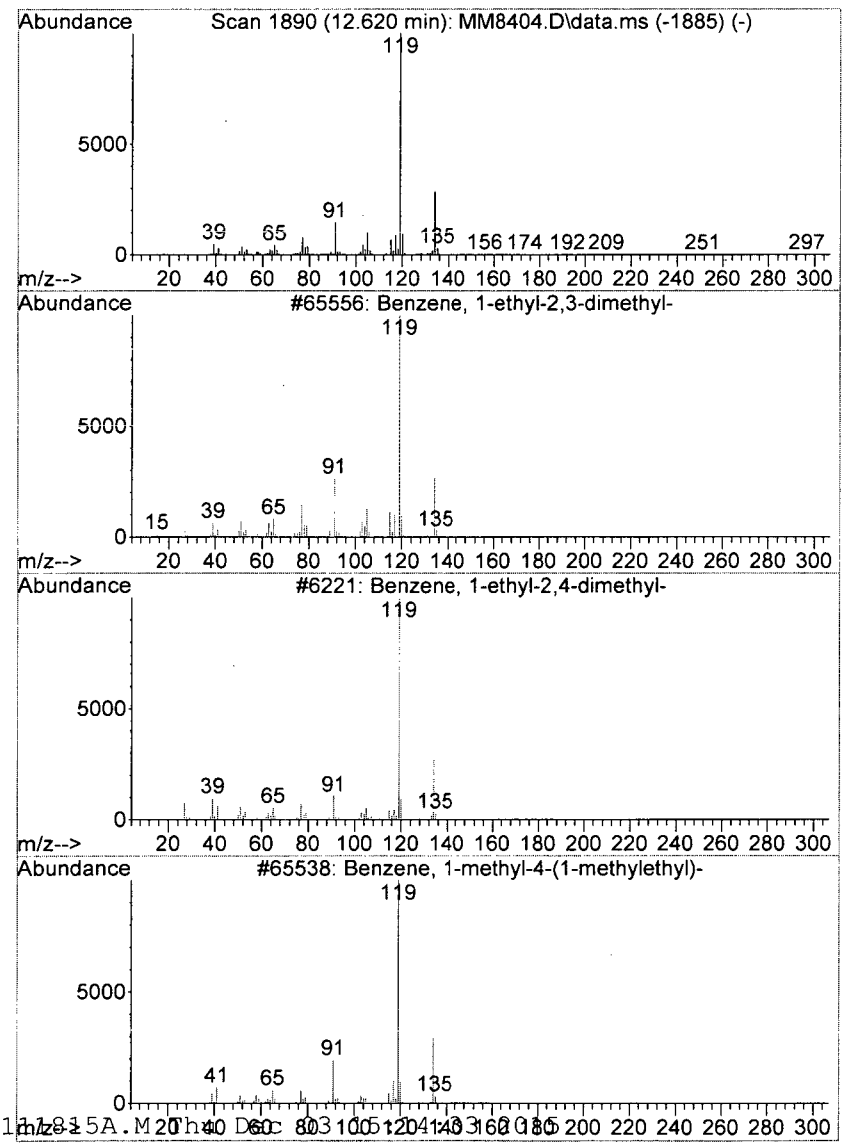
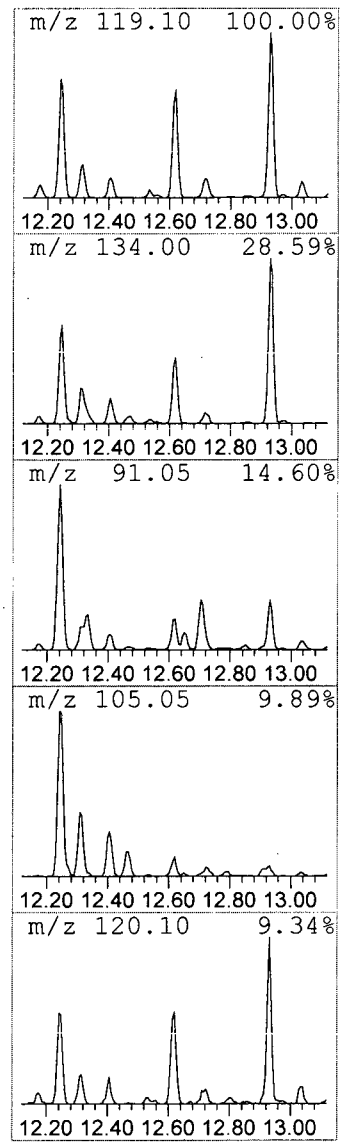

****

Peak Number 17 Benzene, 1-ethyl-2,3-dimethyl- Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.620	8.43 ppb	624482	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	96
2	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	95
3	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	94
4	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	93
5	Benzene, 1-ethyl-3,5-dimethyl-	134	C10H14	000934-74-7	91





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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8404.D
Acq On    : 30 Nov 2015   5:41 pm
Operator  : K.Ruest
Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

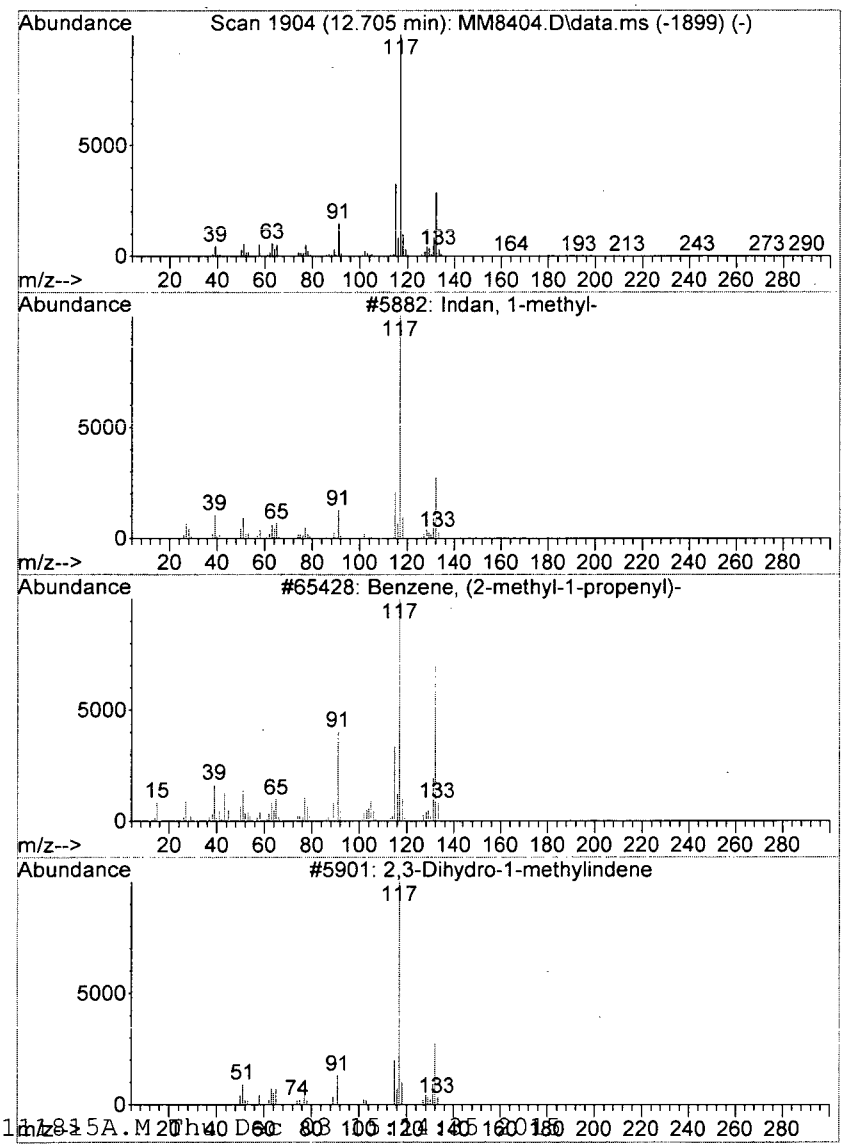
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

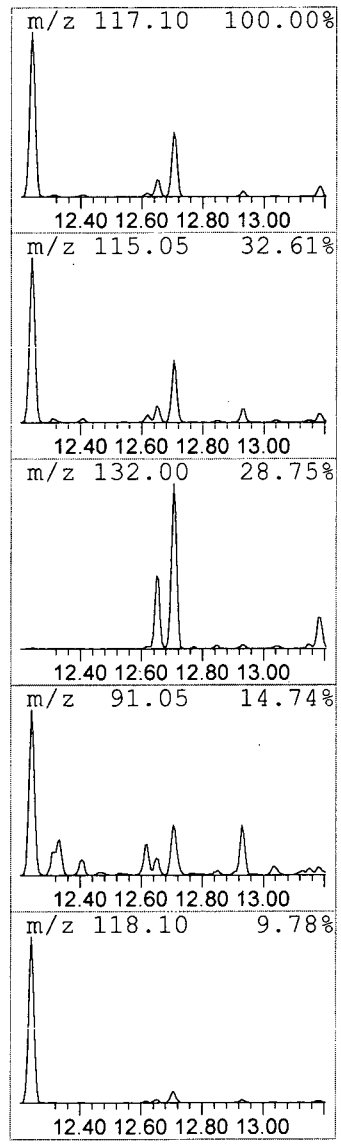
TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

*********************************************************************
Peak Number 18  Indan, 1-methyl-                 Concentration Rank  9
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.705	16.83 ppb	1246120	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indan, 1-methyl-	132	C10H12	000767-58-8	90
2	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	86
3	2,3-Dihydro-1-methylindene	132	C10H12	027133-93-3	83
4	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	78
5	Benzene, 1-ethenyl-3-ethyl-, mix...	264	C20H24	055319-72-7	72





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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8404.D
Acq On    : 30 Nov 2015    5:41 pm
Operator  : K.Ruest
Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 19  Benzene, 1,2,4,5-tetramethyl-   Concentration Rank 10
```
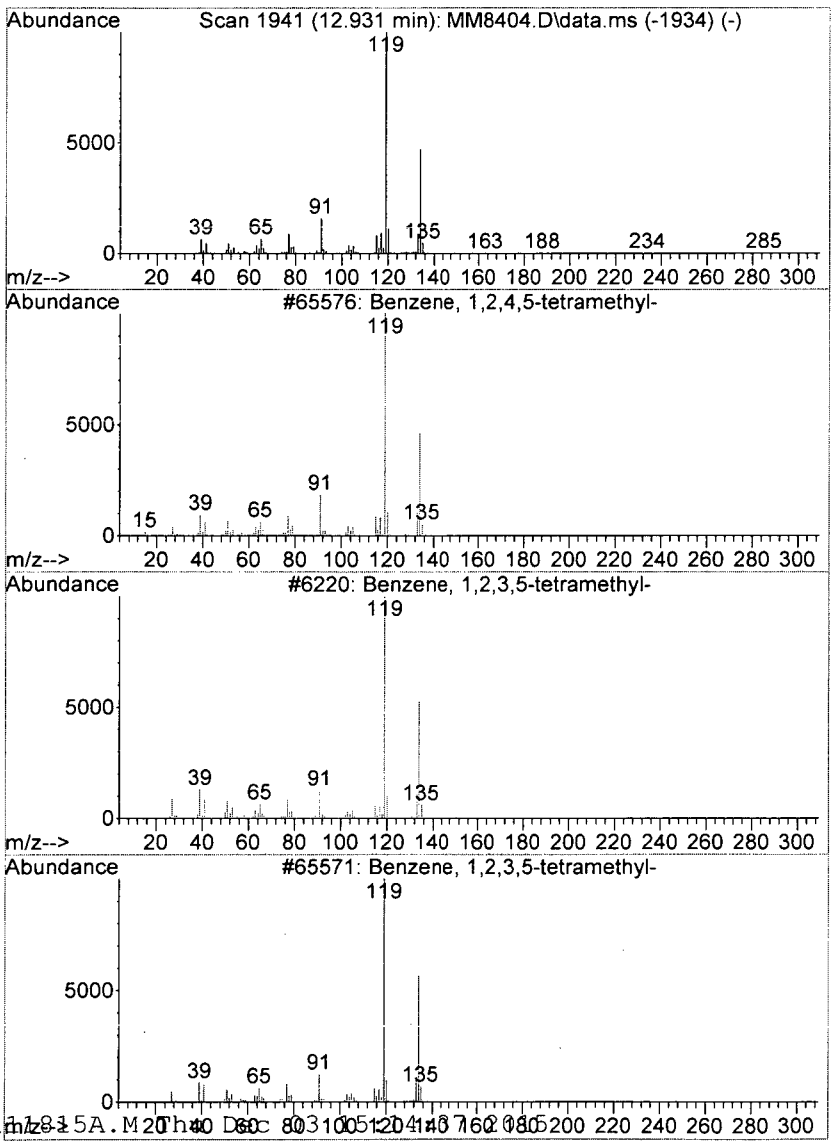
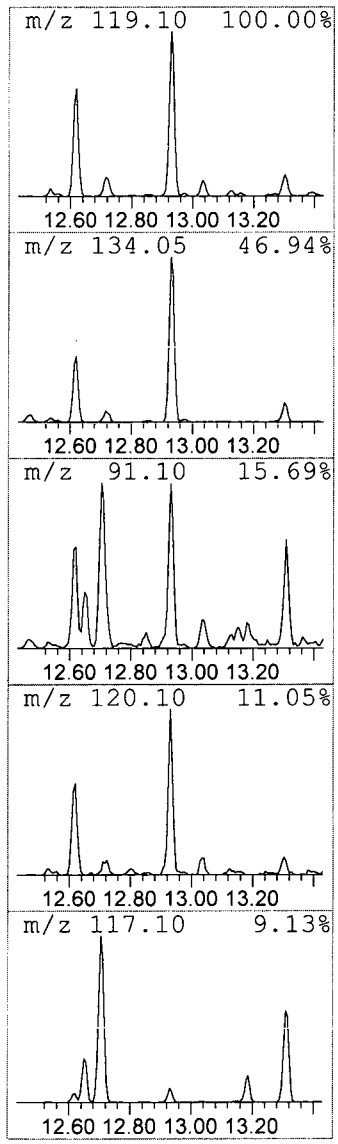

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.931	14.28 ppb	1057190	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	97
2	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	94
3	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	94
4	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000488-23-3	94
5	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	94





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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8404.D
Acq On    : 30 Nov 2015    5:41 pm
Operator  : K.Ruest
Sample    : R1510063-017|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 18   Sample Multiplier: 1

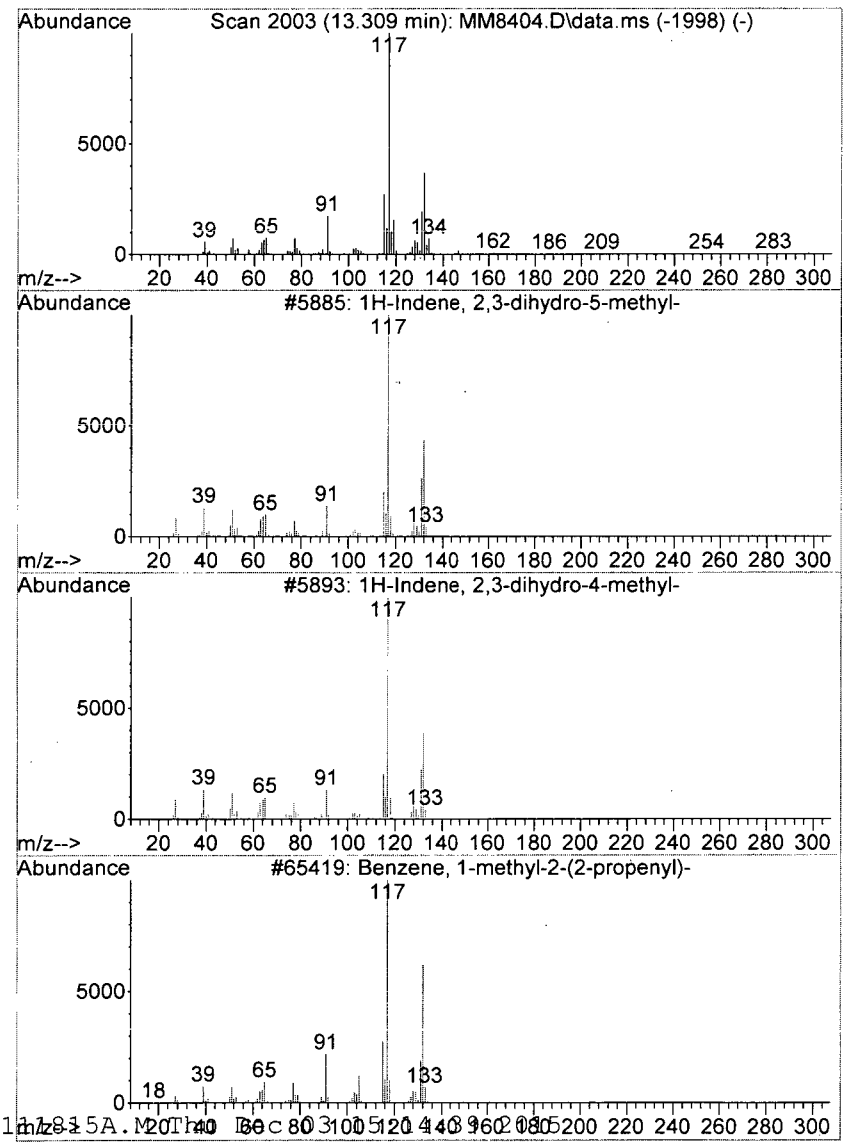
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

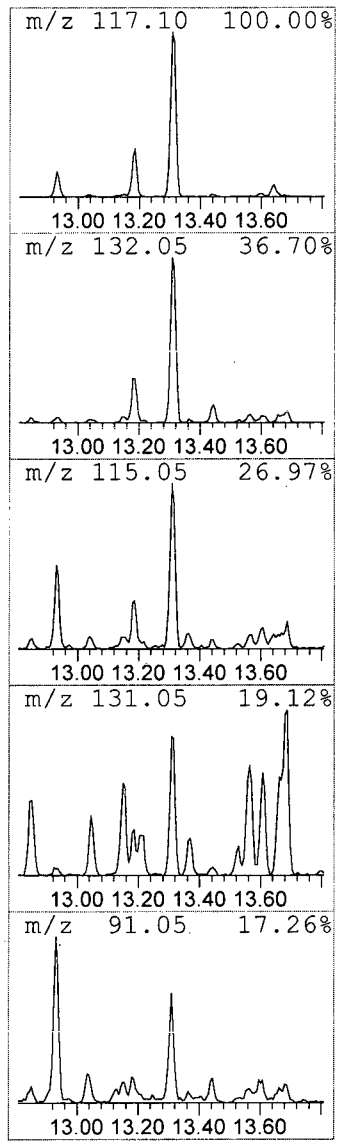
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 20  1H-Indene, 2,3-dihydro-5-me...  Concentration Rank 15
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.309	10.87 ppb	804485	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	93
2	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	87
3	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	83
4	Indan, 1-methyl-	132	C10H12	000767-58-8	81
5	2,3-Dihydro-1-methylindene	132	C10H12	027133-93-3	81





Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15 1443
Date Received: 11/19/15

Sample Name: FTMM-53-GW-699MW104-11.5
Lab Code: R1510063-018

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 18:11		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 18:11		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 18:11		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 18:11		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 18:11		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 18:11		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 18:11		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 18:11		474104	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/30/15 18:11		474104	
1,2,4-Trimethylbenzene	**6.1**		5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 18:11		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 18:11		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 18:11		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 18:11		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
1,3,5-Trimethylbenzene	**0.61**	J	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 18:11		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 18:11		474104	
2-Butanone (MEK)	**3.6**	J	5.0	1.0	0.81	1	NA	11/30/15 18:11		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 18:11		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 18:11		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 18:11		474104	
p-Isopropyltoluene	**0.24**	J	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 18:11		474104	
Acetone	**3.1**	J	5.0	5.0	1.3	1	NA	11/30/15 18:11		474104	
Benzene	**1.6**	J	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 18:11		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 18:11		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 18:11		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 18:11		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 18:11		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 18:11		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 18:11		474104	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15 1443
Date Received: 11/19/15

Sample Name: FTMM-53-GW-699MW104-11.5
Lab Code: R1510063-018

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**0.60**	J	5.0	1.0	0.24	1	NA	11/30/15 18:11		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 18:11		474104	
Chloromethane	**0.41**	J	5.0	1.0	0.21	1	NA	11/30/15 18:11		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 18:11		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 18:11		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 18:11		474104	
Ethylbenzene	**6.1**		5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/30/15 18:11		474104	
Isopropylbenzene (Cumene)	**15**		5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 18:11		474104	
Naphthalene	**13**		5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
Tetrachloroethene (PCE)	**0.47**	J	5.0	1.0	0.30	1	NA	11/30/15 18:11		474104	
Toluene	**1.0**	J	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 18:11		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 18:11		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 18:11		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 18:11		474104	
m,p-Xylenes	**2.3**	J	10	2.0	0.33	1	NA	11/30/15 18:11		474104	
n-Butylbenzene	**2.0**	J	5.0	1.0	0.21	1	NA	11/30/15 18:11		474104	
n-Propylbenzene	**21**		5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
o-Xylene	**2.3**	J	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
sec-Butylbenzene	**3.2**	J	5.0	1.0	0.27	1	NA	11/30/15 18:11		474104	
tert-Butylbenzene	**0.57**	J	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 18:11		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 18:11		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	11/30/15 18:11	
Dibromofluoromethane	110	85-115	11/30/15 18:11	
Toluene-d8	104	85-120	11/30/15 18:11	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15
Date Received: 11/19/15
Date Analyzed: 11/30/15 1811

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-53-GW-699MW104-11.5
Lab Code: R1510063-018

Units: µg/L
Basis: NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q
000078-78-4	Butane, 2-methyl-	1.83	**48.4**	JN
000109-66-0	Pentane	2.05	**9.7**	JN
000079-29-8	Butane, 2,3-dimethyl-	2.91	**29.7**	JN
000107-83-5	Pentane, 2-methyl-	2.96	**22.2**	JN
	unknown	3.01	**6.2**	J
000096-14-0	Pentane, 3-methyl-	3.25	**41.3**	JN
	unknown	4.43	**13.2**	J
	unknown	4.52	**62.1**	J
000110-82-7	Cyclohexane	5.68	**13.8**	JN
000565-59-3	Pentane, 2,3-dimethyl-	5.80	**35.2**	JN
002532-58-3	Cyclopentane, 1,3-dimethyl-, cis-	6.27	**13.1**	JN
	unknown	6.35	**28.0**	J
	unknown	7.30	**13.4**	J
000565-75-3	Pentane, 2,3,4-trimethyl-	7.86	**9.5**	JN
000560-21-4	Pentane, 2,3,3-trimethyl-	7.99	**12.6**	JN
	unknown	12.24	**60.8**	J
000099-87-6	Benzene, 1-methyl-4-(1-methylethyl	12.62	**10.5**	JN
000768-49-0	Benzene, (2-methyl-1-propenyl)-	12.71	**19.2**	JN
000527-53-7	Benzene, 1,2,3,5-tetramethyl-	12.93	**18.2**	JN
000824-22-6	1H-Indene, 2,3-dihydro-4-methyl-	13.31	**14.9**	JN

Comments:

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On : 30 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : R1510063-018|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 03 15:17:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	791446	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1319453	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1212134	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	592639	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	375925	54.80	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.60%				
48) surr1,1,2-dichloroetha...	6.096	65	410543	54.18	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.36%				
65) SURR3,Toluene-d8	8.529	98	1499392	51.94	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.88%				
70) SURR2,BFB	11.047	95	611444	56.11	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 112.22%				
Target Compounds							Qvalue
3) Chloromethane	1.353	50	5464	0.41	ppb		75
6) Chloroethane	1.768	64	4066	0.60	ppb		97
15) Acetone	2.481	43	5224m	3.10	ppb		
35) 2-Butanone	4.792	43	8295m	3.59	ppb		
49) Benzene	6.170	78	45406	1.56	ppb		94
66) Toluene	8.602	91	30691	1.02	ppb		99
72) Tetrachloroethene	9.181	164	2373	0.47	ppb	#	83
82) Ethylbenzene	10.132	106	61829	6.09	ppb		96
83) (m+p)Xylene	10.242	106	28410	2.27	ppb	#	73
84) o-Xylene	10.595	106	29045	2.26	ppb	#	85
89) Isopropylbenzene	10.925	105	464524	15.07	ppb		98
95) n-Propylbenzene	11.278	91	756477	21.30	ppb		95
99) 1,3,5-Trimethylbenzene	11.431	105	14249	0.61	ppb		94
100) tert-Butylbenzene	11.705	119	11808	0.57	ppb		87
101) 1,2,4-Trimethylbenzene	11.736	105	151962	6.07	ppb		98
103) sec-Butylbenzene	11.882	105	91765	3.15	ppb		99
104) p-Isopropyltoluene	12.004	119	5491m	0.24	ppb		
109) n-Butylbenzene	12.333	91	42557	2.00	ppb		93
117) Naphthalen	13.796	128	204564	12.87	ppb		99

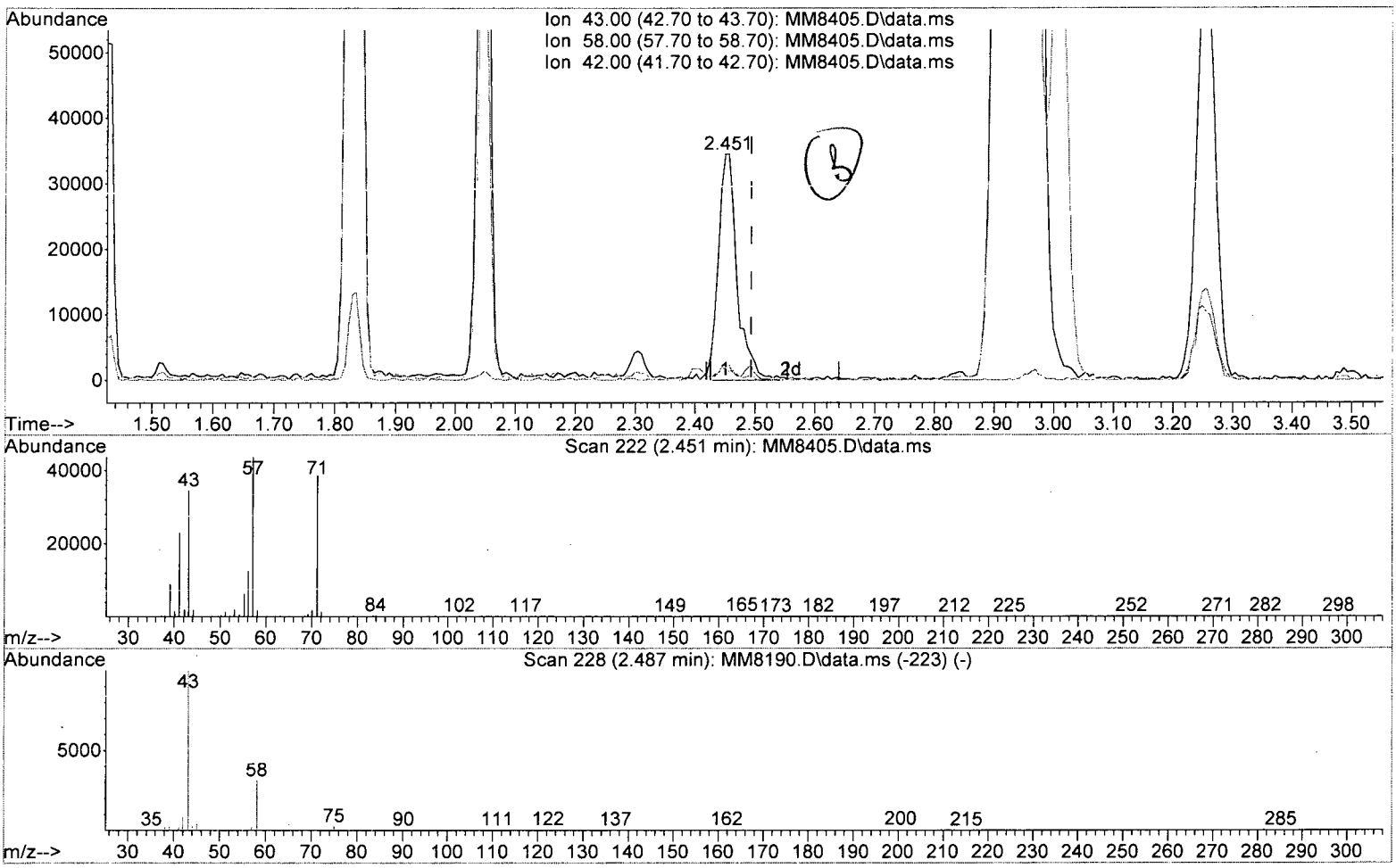
(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/3/15

12/2/15

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On : 30 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : R1510063-018|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 30 18:27:30 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8405.D\data.ms

(15) Acetone (P)

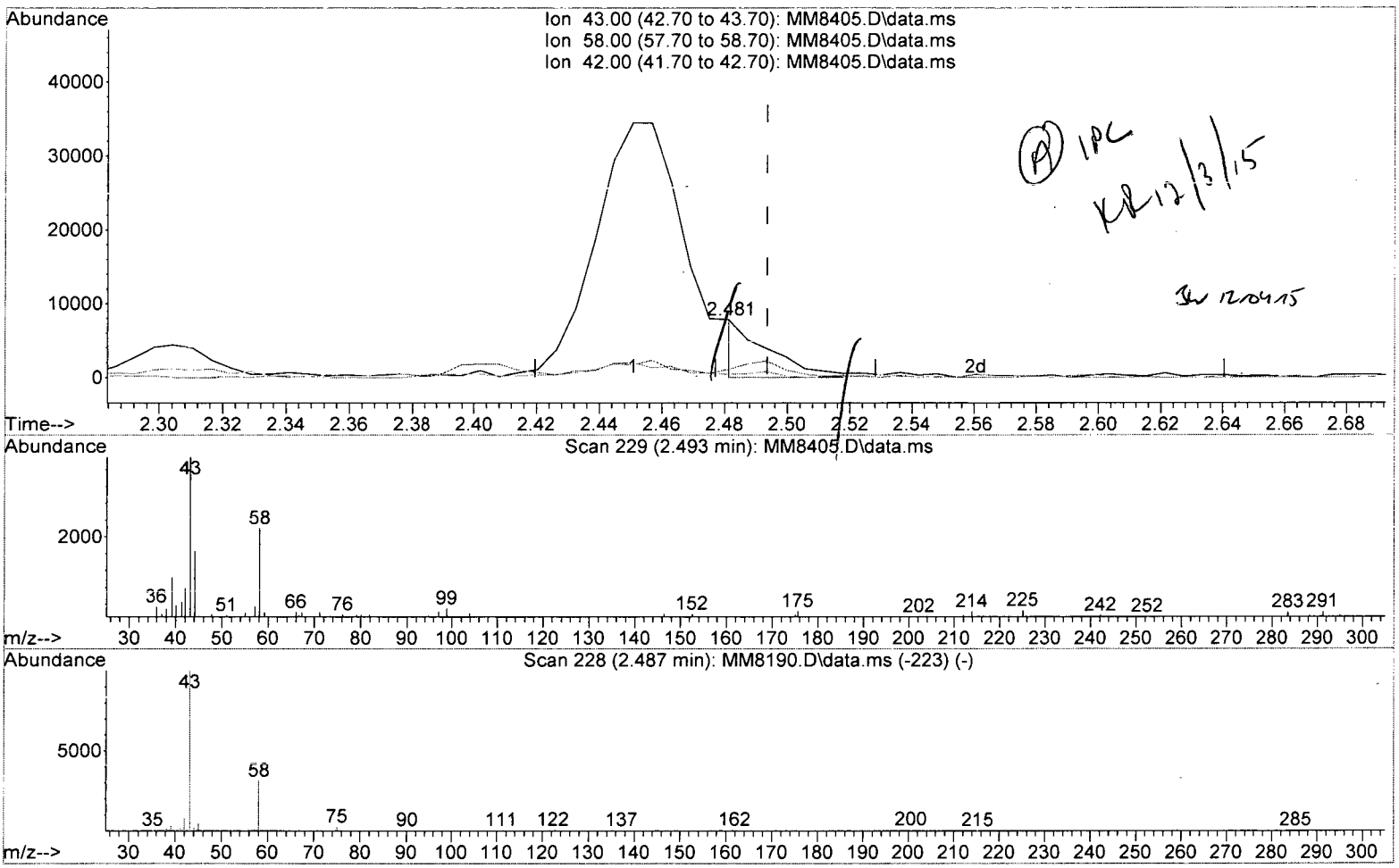
2.451min (-0.043) 43.31 ppb

response 73080

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	4.87#
42.00	8.50	5.82
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On : 30 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : R1510063-018|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 30 18:27:30 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8405.D\data.ms

(15) Acetone (P)

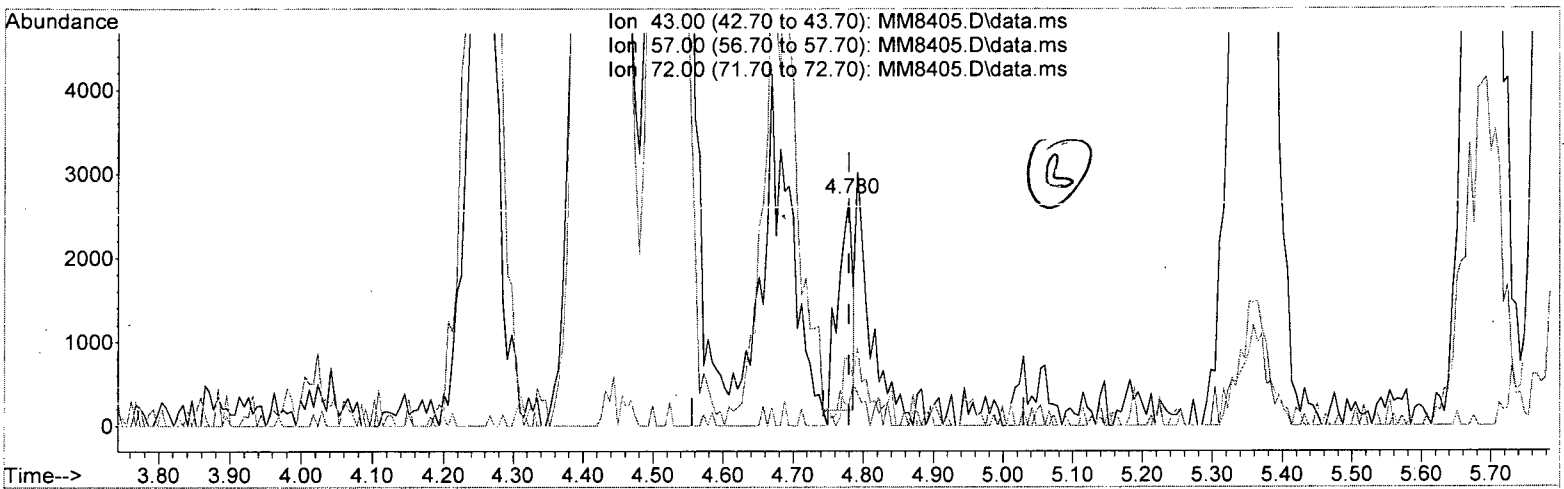
2.481min (-0.012) 3.10 ppb m

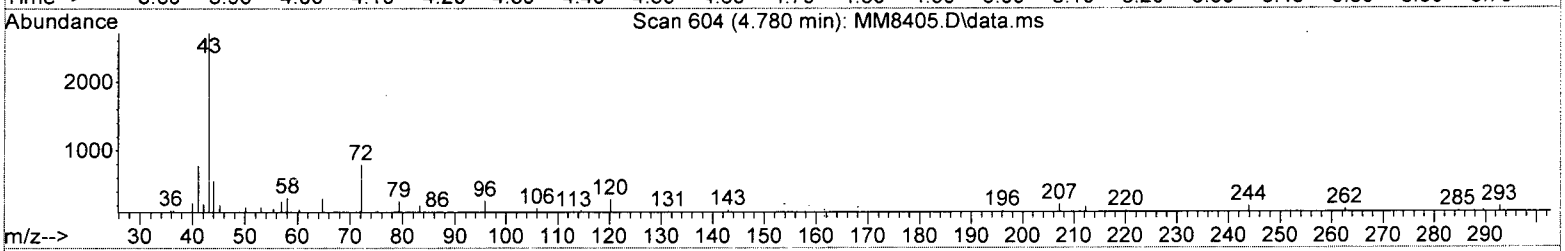
response 5224

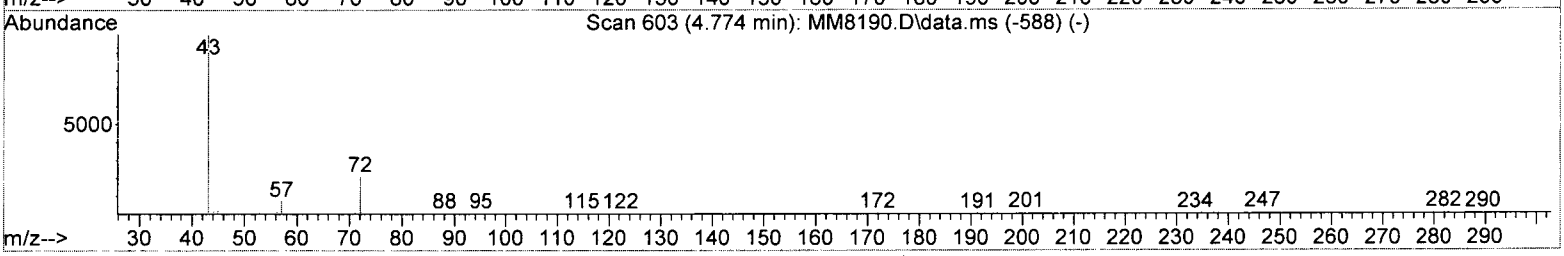
Ion	Exp%	Act%
43.00	100	100
58.00	30.90	13.78
42.00	8.50	5.05
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On : 30 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : R1510063-018|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 30 18:27:30 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8405.D\data.ms

(35) 2-Butanone (P)

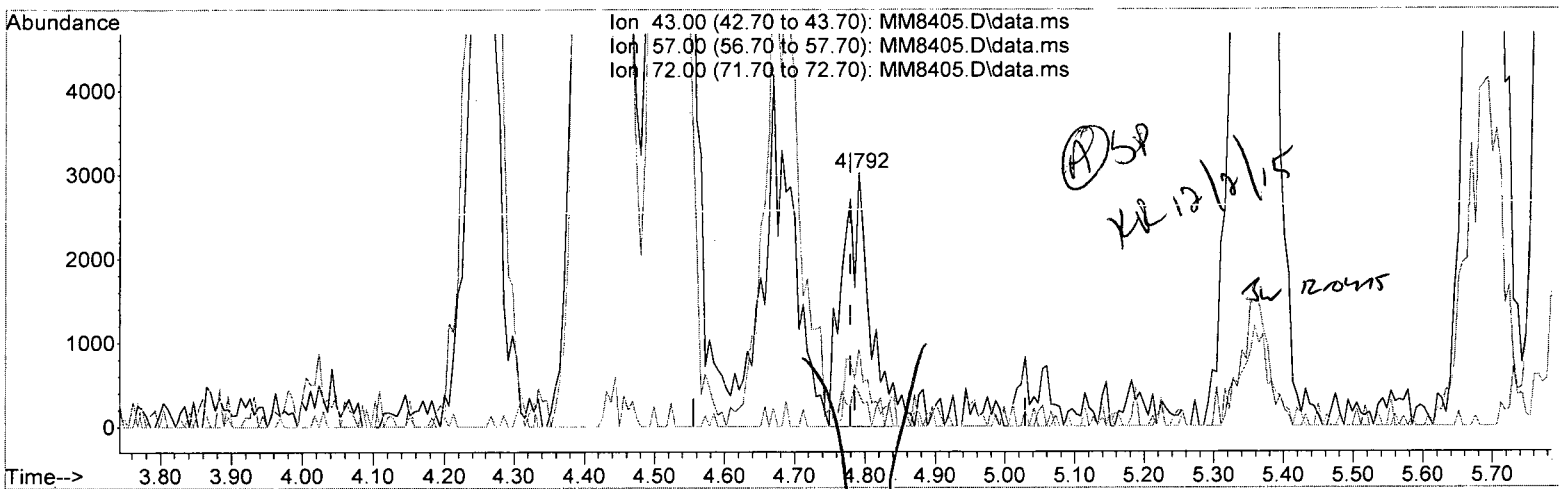
4.780min (-0.000) 1.54 ppb

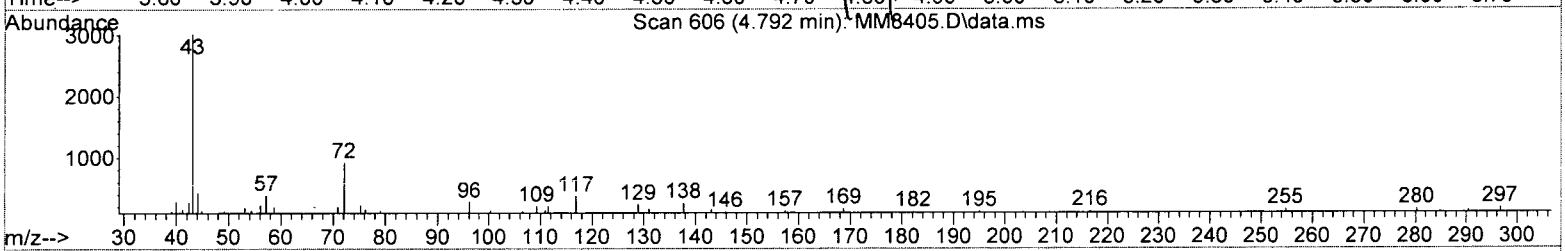
response 3549

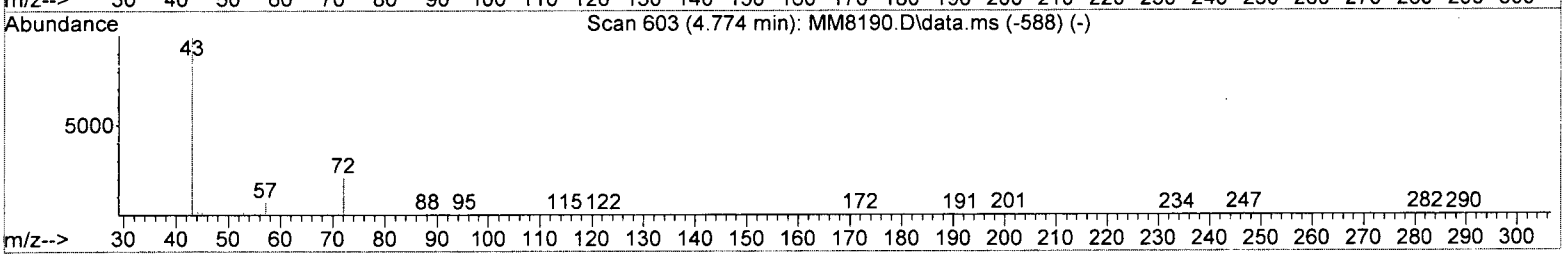
Ion	Exp%	Act%
43.00	100	100
57.00	7.50	9.38
72.00	21.20	29.11
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On : 30 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : R1510063-018|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 30 18:27:30 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8405.D\data.ms

(35) 2-Butanone (P)

4.792min (+0.012) 3.59 ppb m

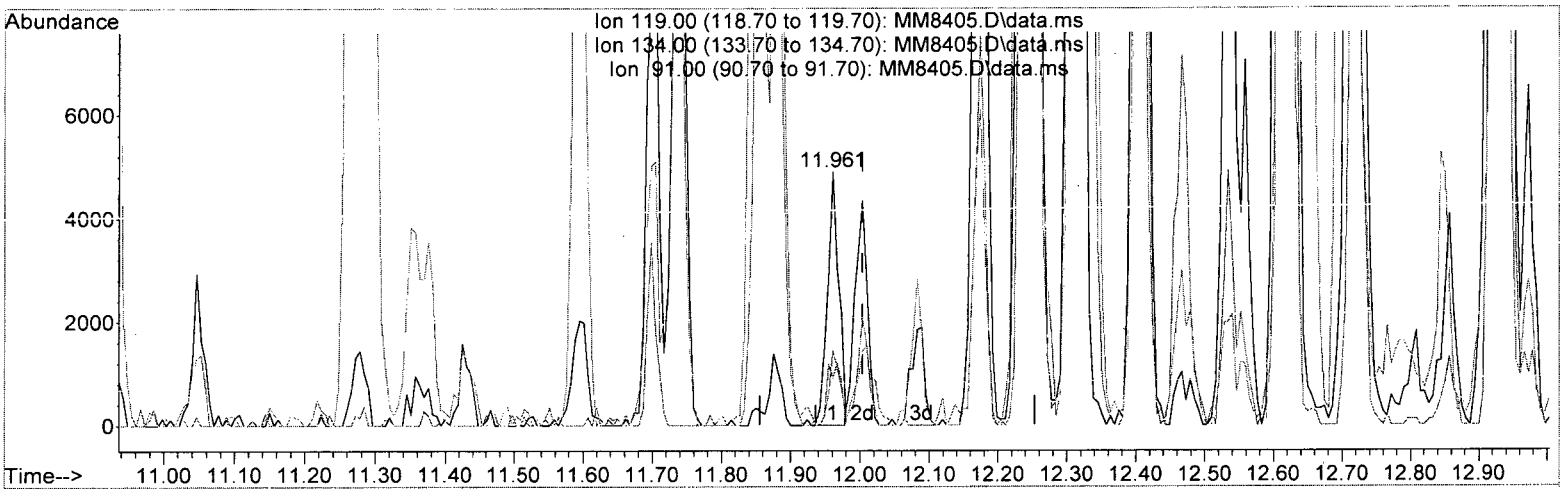
response 8295

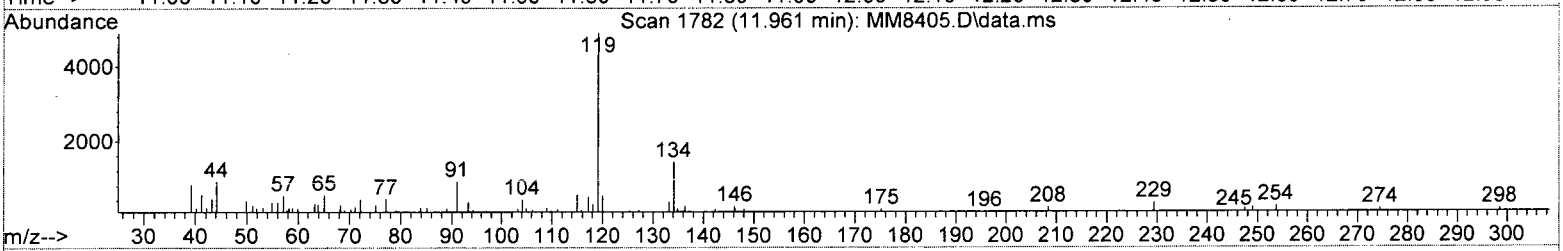
Ion	Exp%	Act%
43.00	100	100
57.00	7.50	12.97
72.00	21.20	30.68
0.00	0.00	0.00

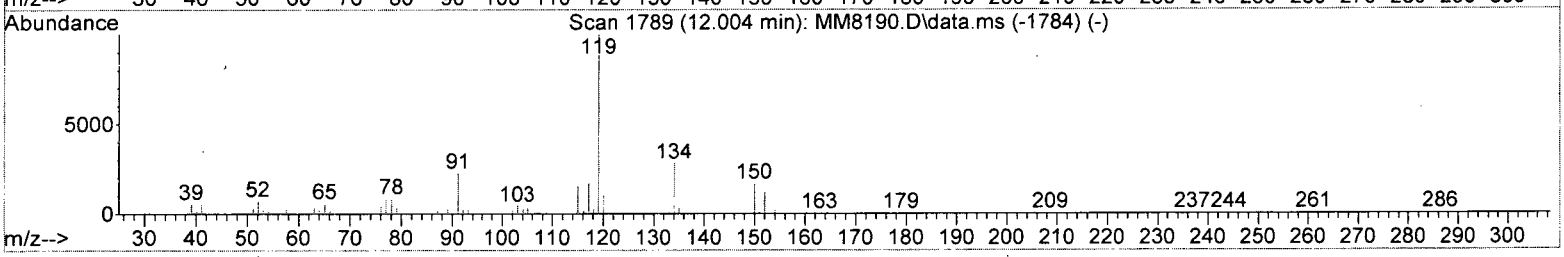
Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On : 30 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : R1510063-018|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 30 18:27:30 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

b







TIC: MM8405.D\data.ms

(104) p-Isopropyltoluene

11.961min (-0.043) 0.25 ppb

response 5519

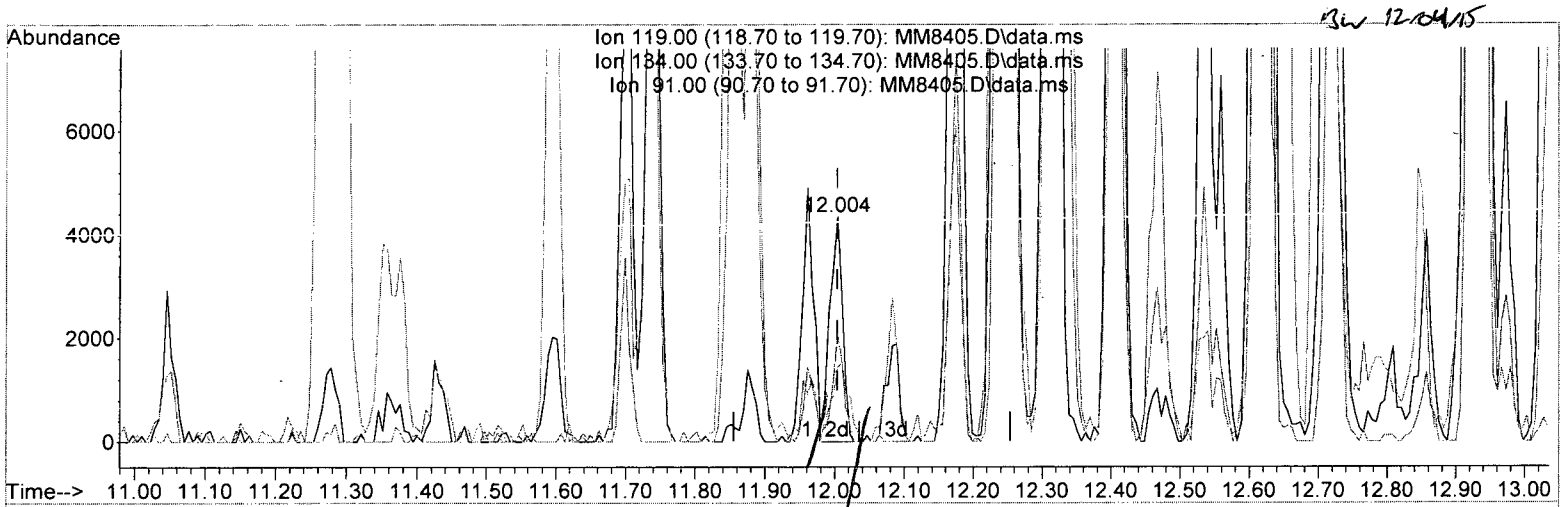
Ion	Exp%	Act%
119.00	100	100
134.00	27.90	29.25
91.00	22.50	18.72
0.00	0.00	0.00

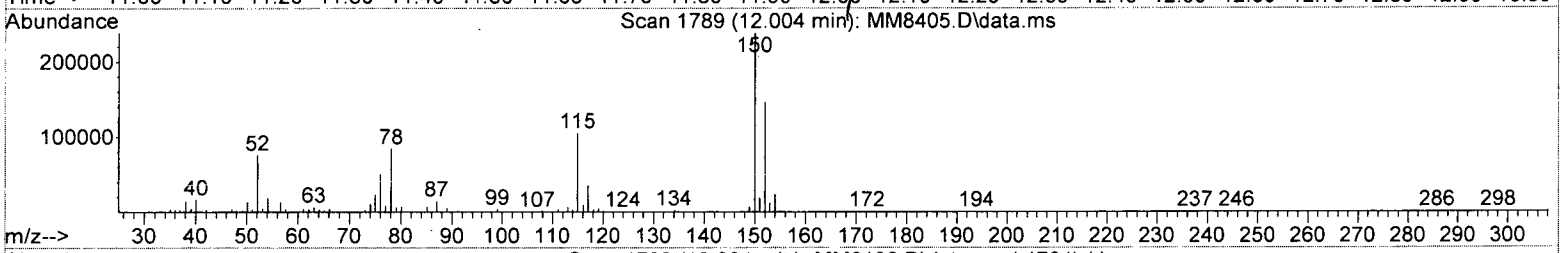
Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On : 30 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : R1510063-018|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 19 Sample Multiplier: 1

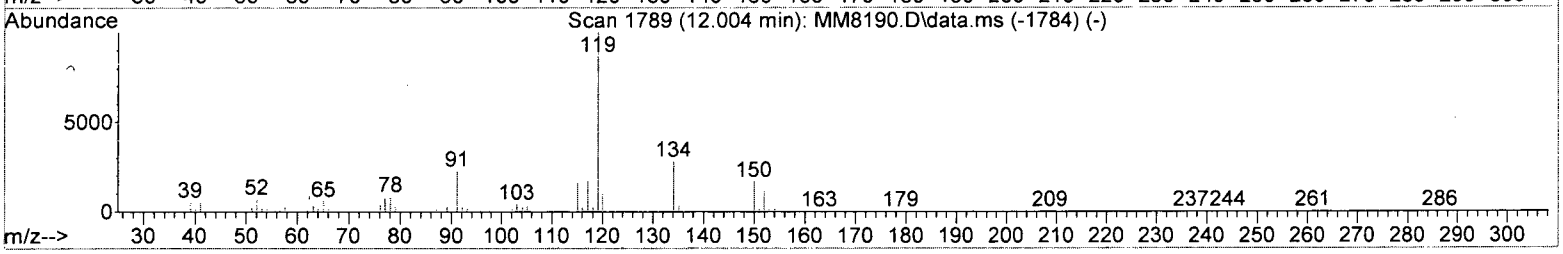
Quant Time: Nov 30 18:27:30 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

@ WP KR 12/3/15

SW 12/04/15







TIC: MM8405.D\data.ms

(104) p-Isopropyltoluene

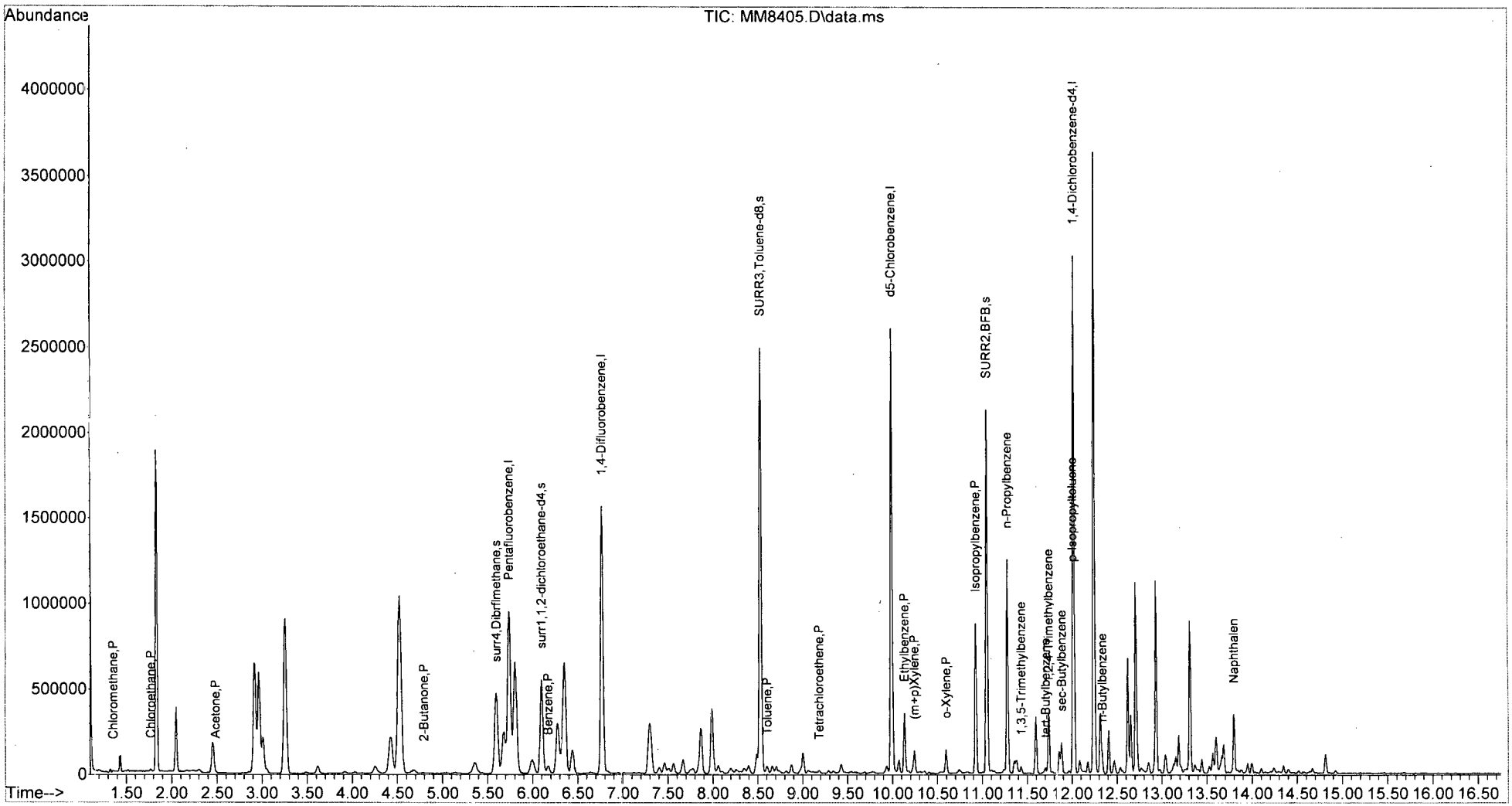
12.004min (-0.000) 0.24 ppb m

response 5491

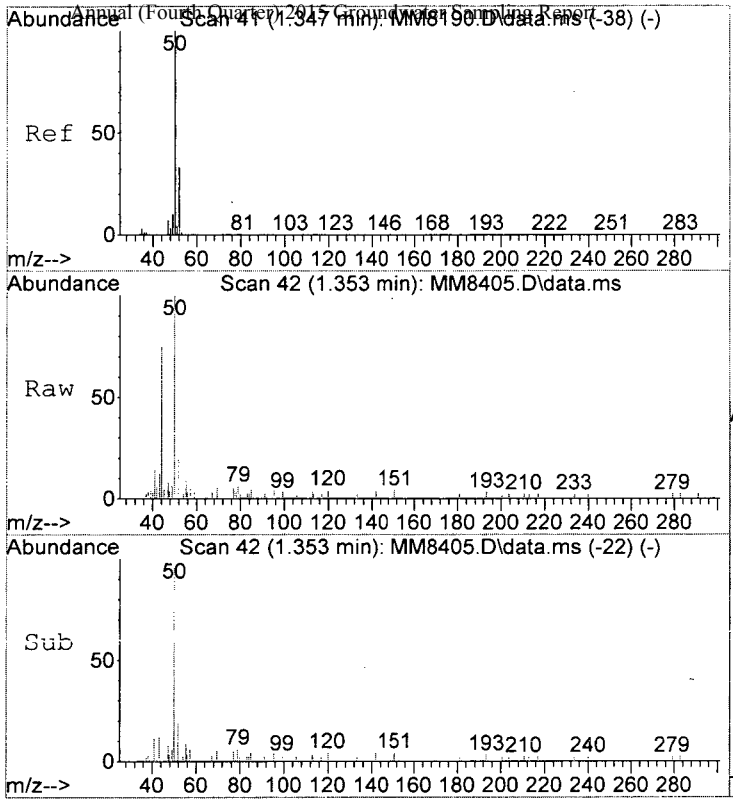
Ion	Exp%	Act%
119.00	100	100
134.00	27.90	48.41#
91.00	22.50	32.77
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On : 30 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : R1510063-018|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 03 15:17:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



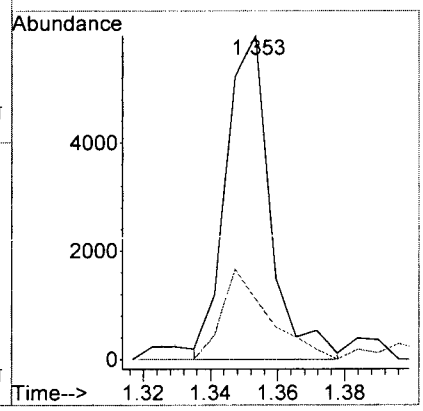
W111815A.M Thu Dec 03 15:19:27 2015 Page: 2

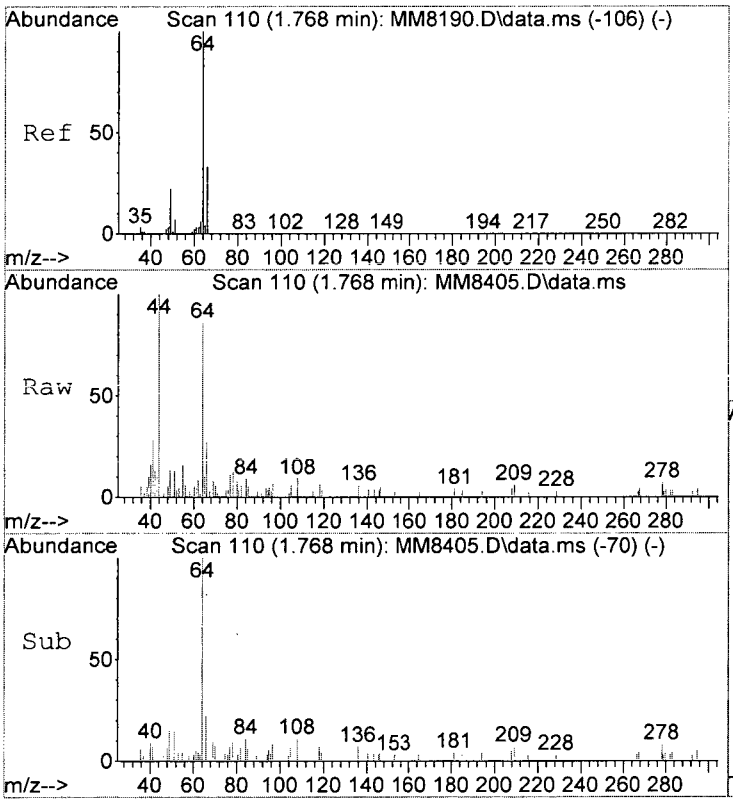


#3
Chloromethane
Concen: 0.41 ppb
RT: 1.353 min Scan# 42
Delta R.T. 0.006 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion: 50 Resp: 5464

Ion	Ratio	Lower	Upper
50	100		
52	18.7	12.9	52.9

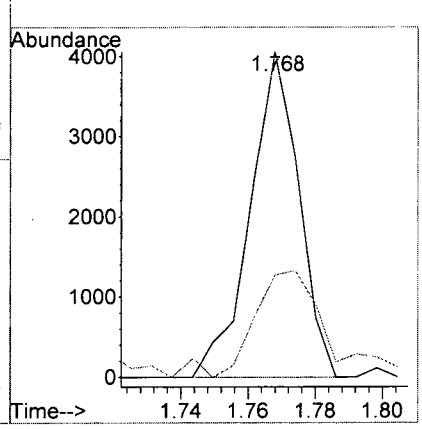


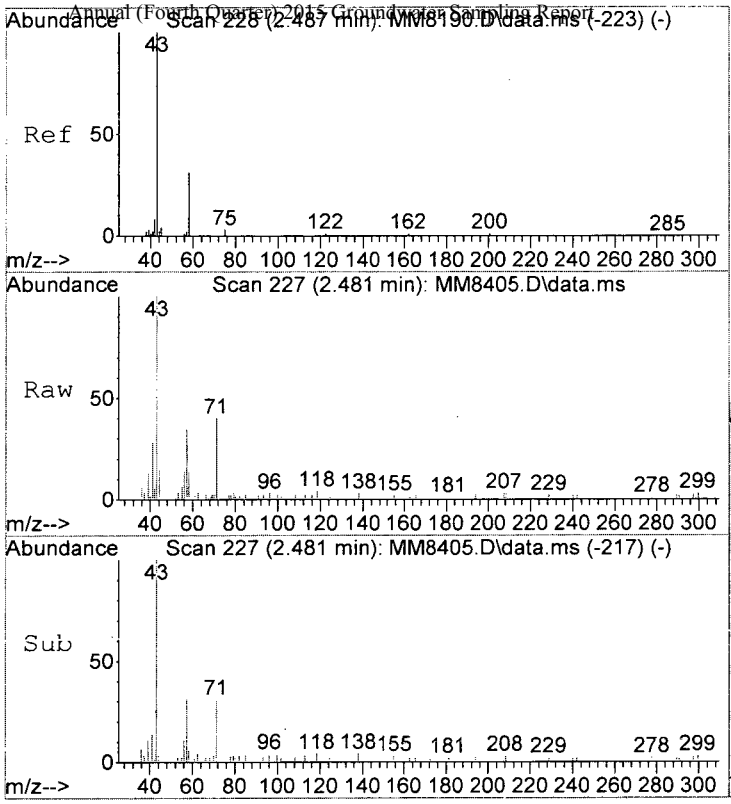


#6
Chloroethane
Concen: 0.60 ppb
RT: 1.768 min Scan# 110
Delta R.T. -0.000 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion: 64 Resp: 4066

Ion	Ratio	Lower	Upper
64	100		
66	31.3	12.9	52.9

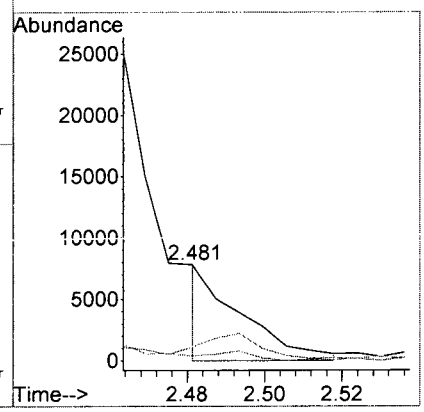


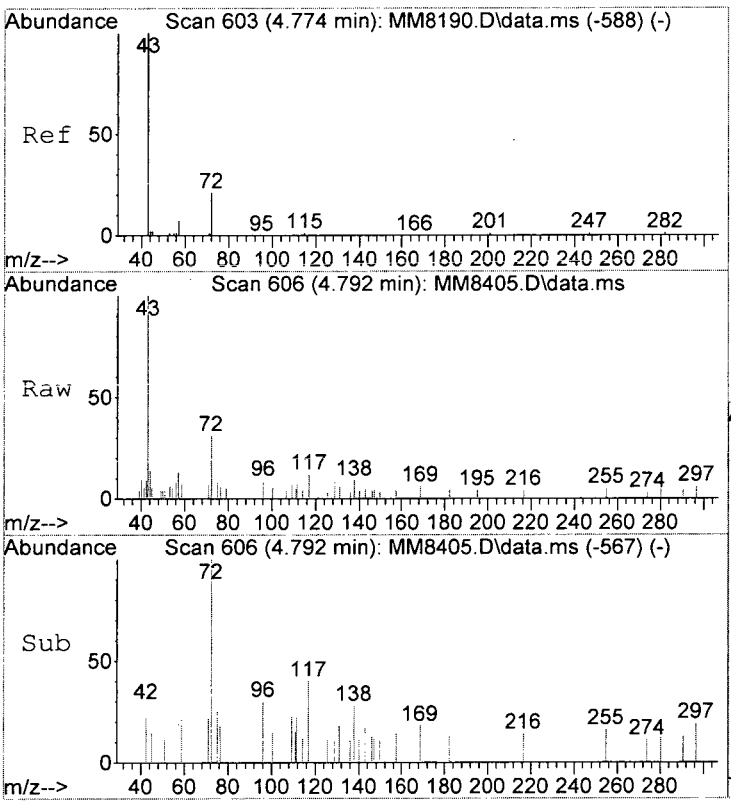


#15
Acetone
Concen: 3.10 ppb m
RT: 2.481 min Scan# 227
Delta R.T. -0.012 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion: 43 Resp: 5224

Ion	Ratio	Lower	Upper
43	100		
58	13.8	10.9	50.9
42	5.1	0.0	28.5

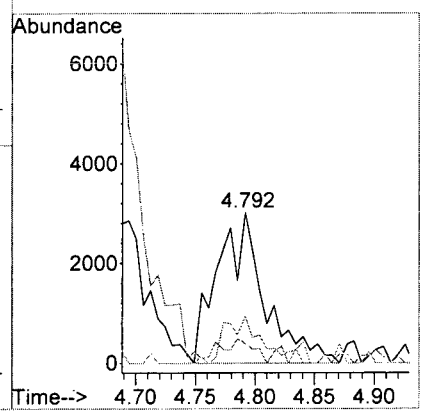


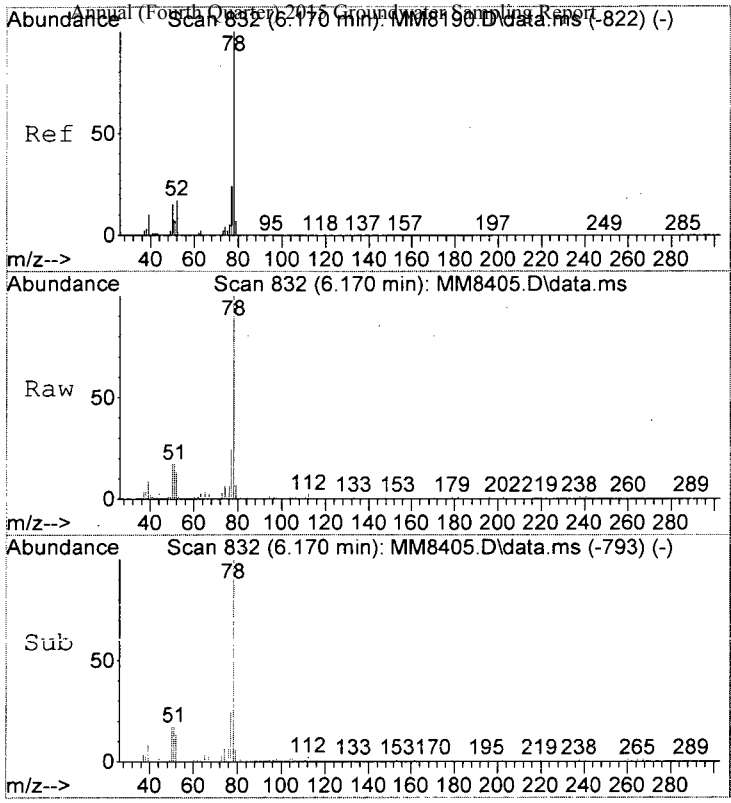


#35
2-Butanone
Concen: 3.59 ppb m
RT: 4.792 min Scan# 606
Delta R.T. 0.012 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion: 43 Resp: 8295

Ion	Ratio	Lower	Upper
43	100		
57	13.0	0.0	27.5
72	30.7	1.2	41.2

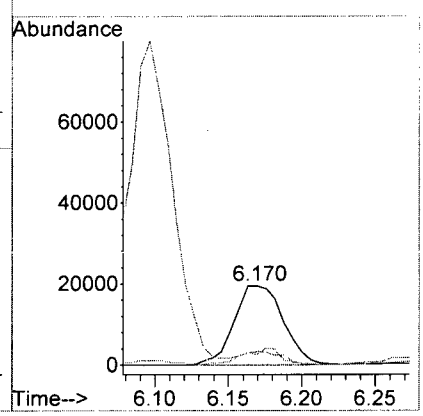


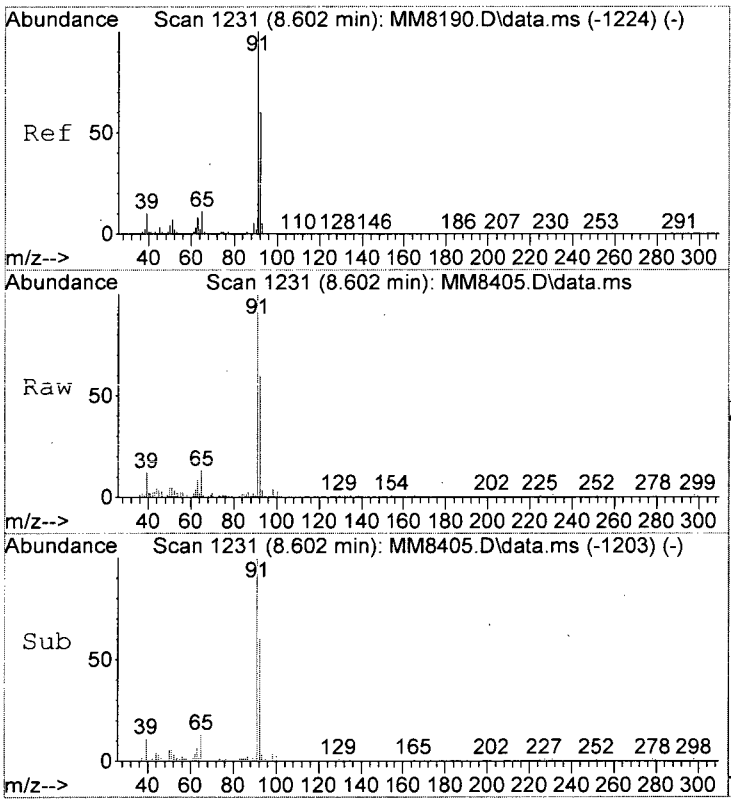


#49
Benzene
Concen: 1.56 ppb
RT: 6.170 min Scan# 832
Delta R.T. -0.006 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion: 78 Resp: 45406

Ion	Ratio	Lower	Upper
78	100		
51	16.8	0.0	36.1
52	12.8	0.0	36.8

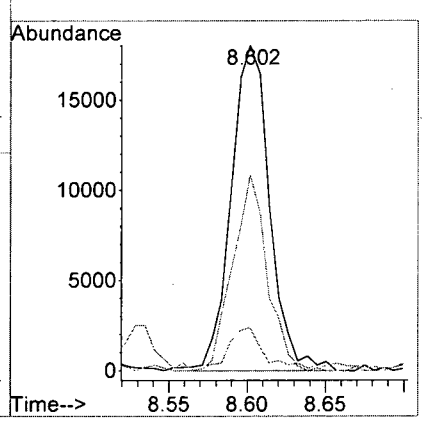




#66
Toluene
Concen: 1.02 ppb
RT: 8.602 min Scan# 1231
Delta R.T. -0.000 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion: 91 Resp: 30691

Ion	Ratio	Lower	Upper
91	100		
92	60.1	39.7	79.7
65	13.2	0.0	30.9



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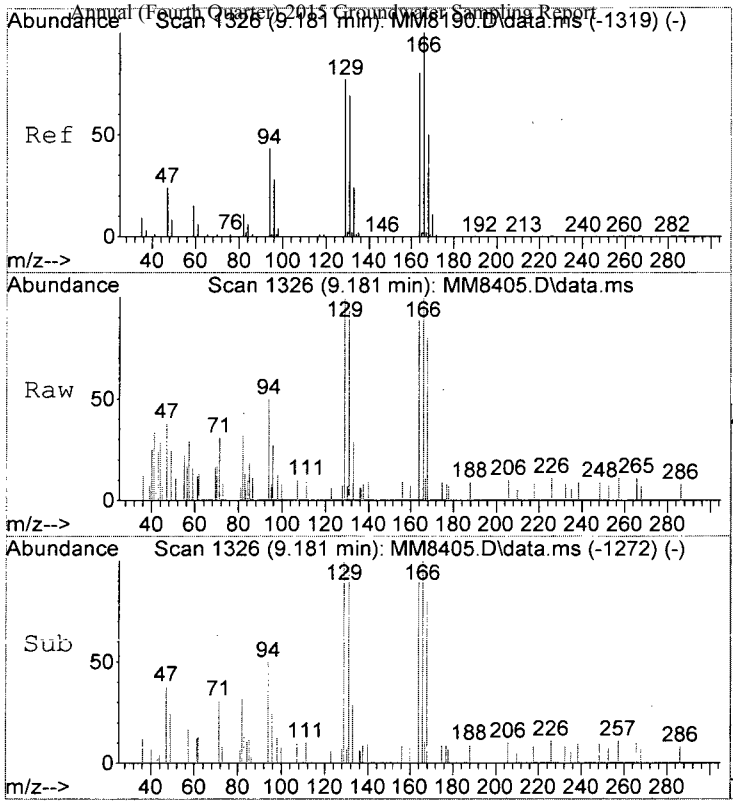
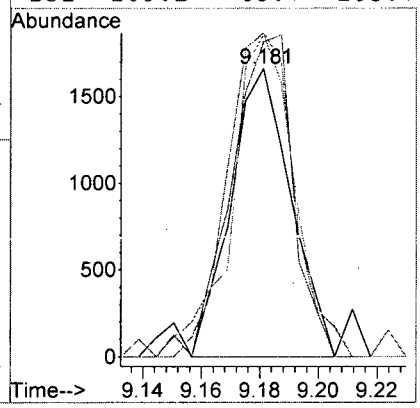
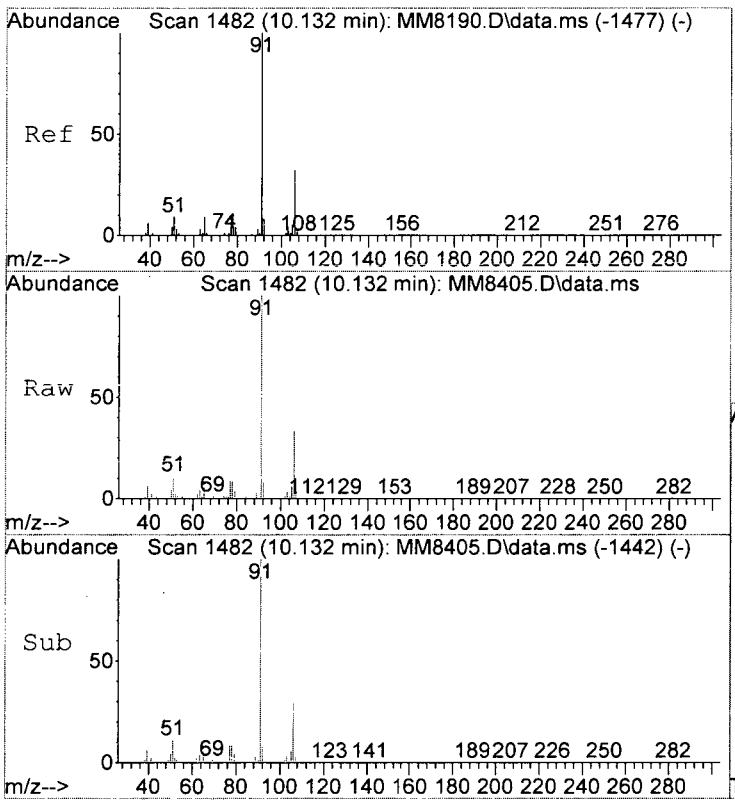


#72
Tetrachloroethene
Concen: 0.47 ppb
RT: 9.181 min Scan# 1326
Delta R.T. -0.000 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion:164 Resp: 2373

Ion	Ratio	Lower	Upper
164	100		
166	112.3	104.3	144.3
129	111.7	75.4	115.4
131	109.2	65.7	105.7#

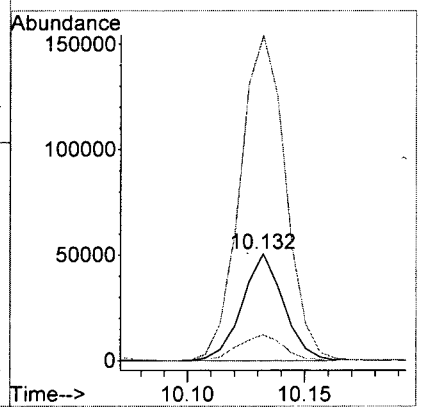


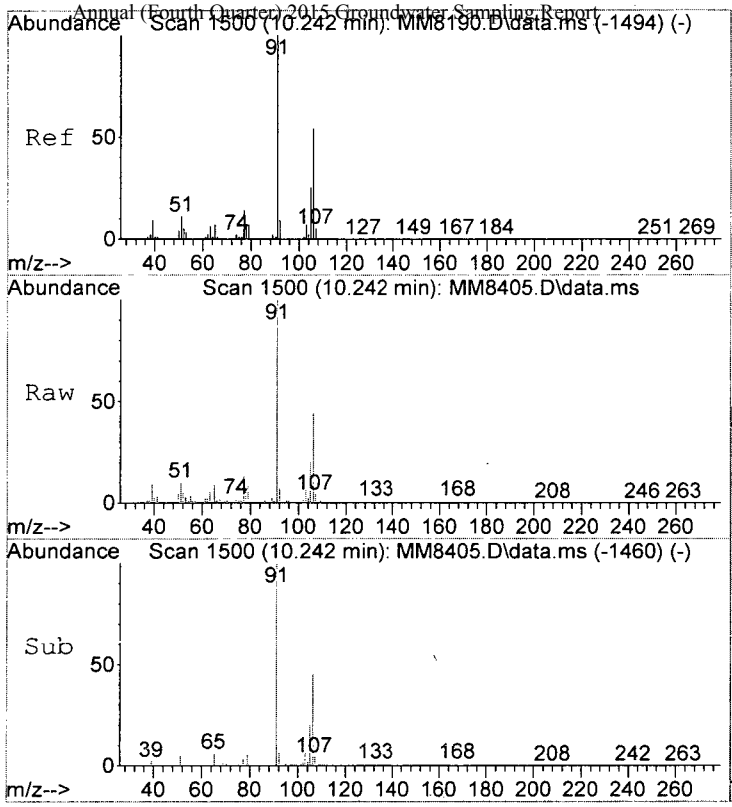


#82
Ethylbenzene
Concen: 6.09 ppb
RT: 10.132 min Scan# 1482
Delta R.T. -0.006 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion:106 Resp: 61829

Ion	Ratio	Lower	Upper
106	100		
91	305.2	293.8	333.8
65	24.2	7.2	47.2

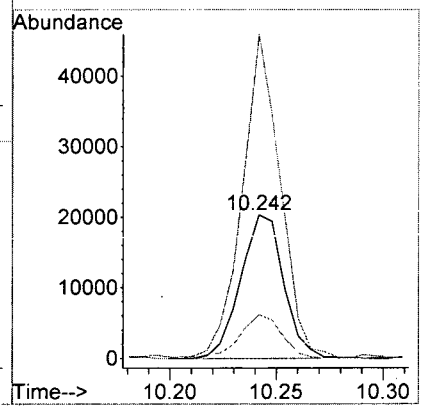


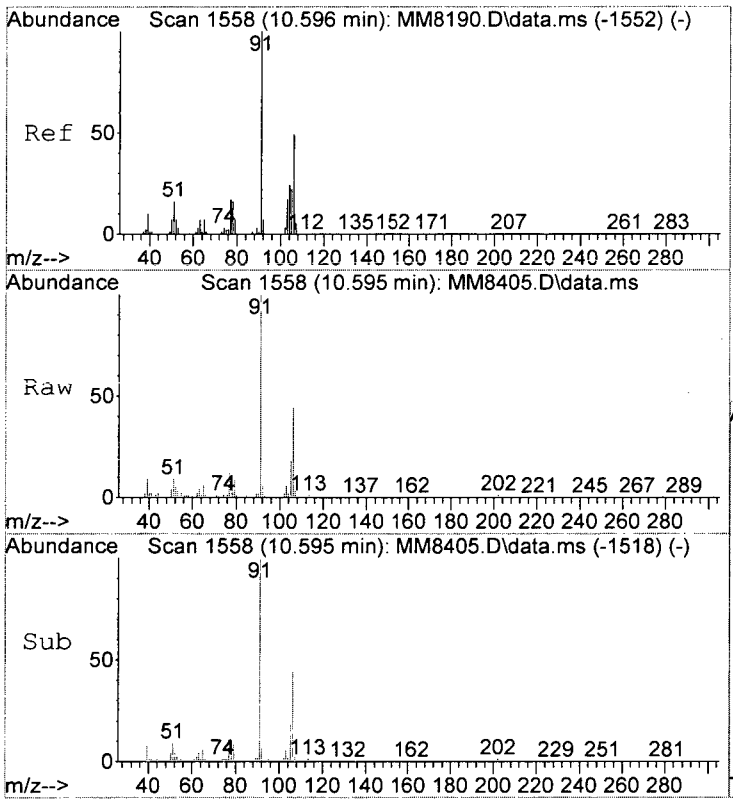


#83
(m+p)Xylene
Concen: 2.27 ppb
RT: 10.242 min Scan# 1500
Delta R.T. -0.006 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion:106 Resp: 28410

Ion	Ratio	Lower	Upper
106	100		
91	226.2	163.6	203.6#
77	30.3	5.5	45.5

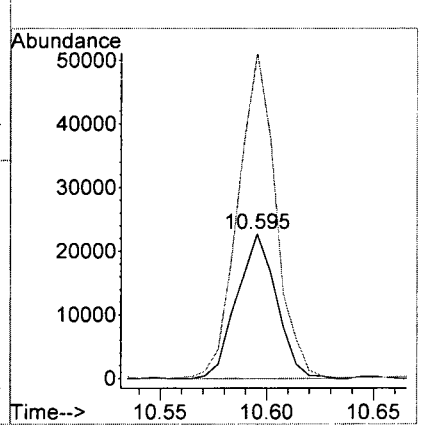


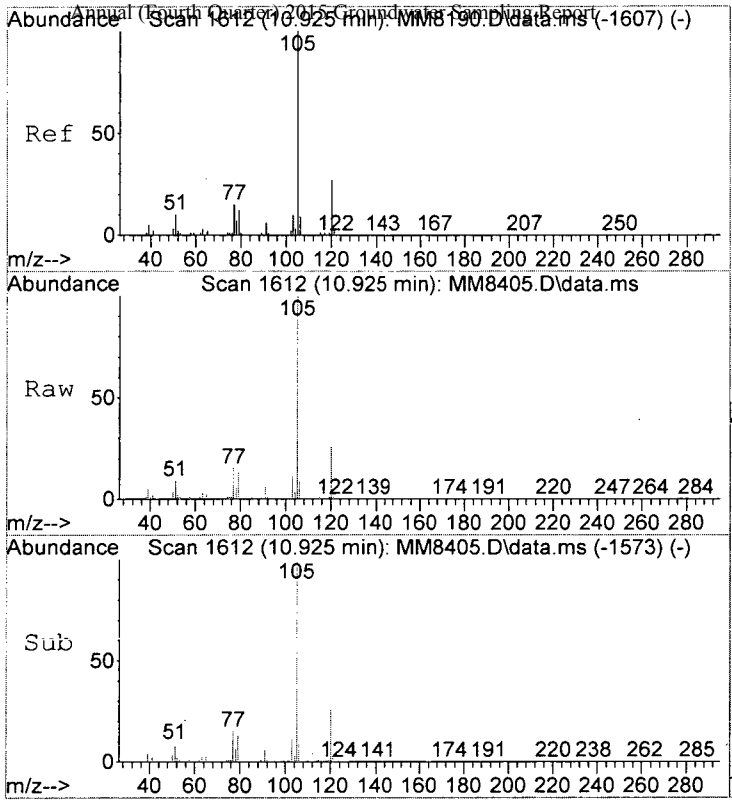


#84
o-Xylene
Concen: 2.26 ppb
RT: 10.595 min Scan# 1558
Delta R.T. -0.006 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion:106 Resp: 29045

Ion	Ratio	Lower	Upper
106	100		
91	225.3	182.5	222.5#

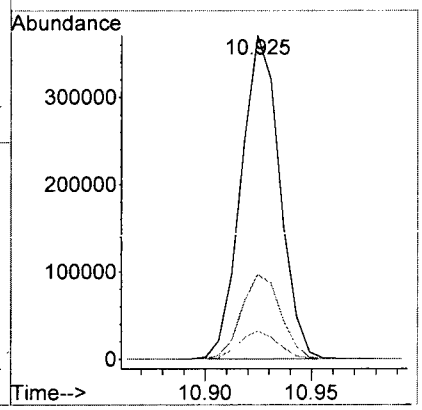


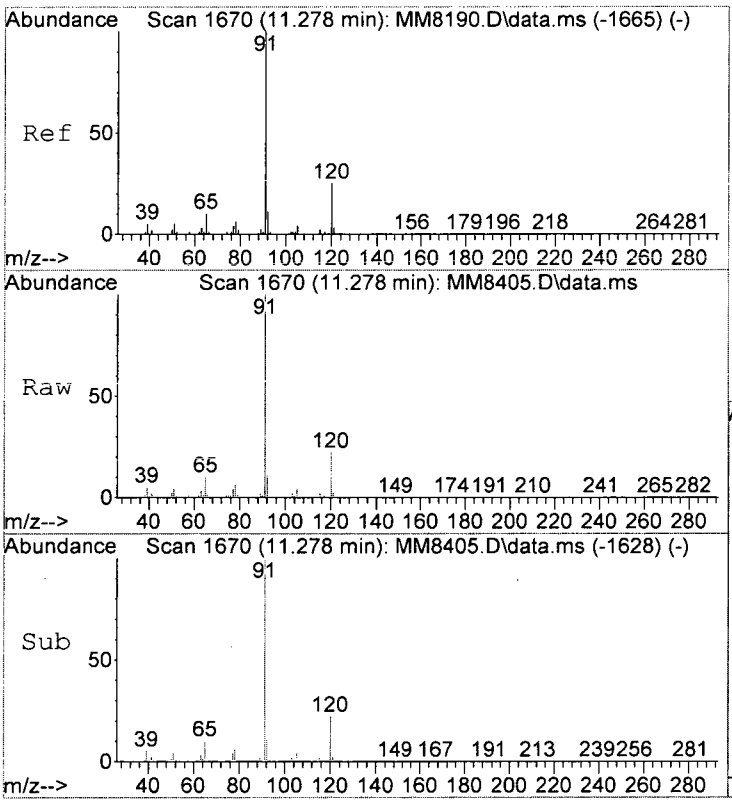


#89
Isopropylbenzene
Concen: 15.07 ppb
RT: 10.925 min Scan# 1612
Delta R.T. -0.006 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion:105 Resp: 464524

Ion	Ratio	Lower	Upper
105	100		
120	26.0	7.4	47.4
106	8.6	0.0	29.1

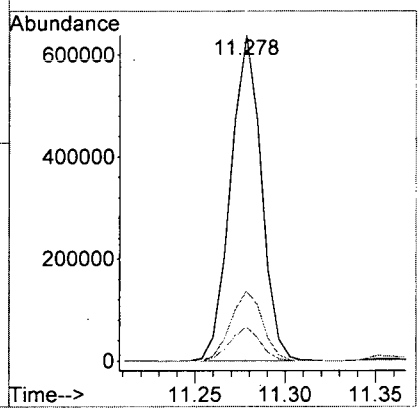


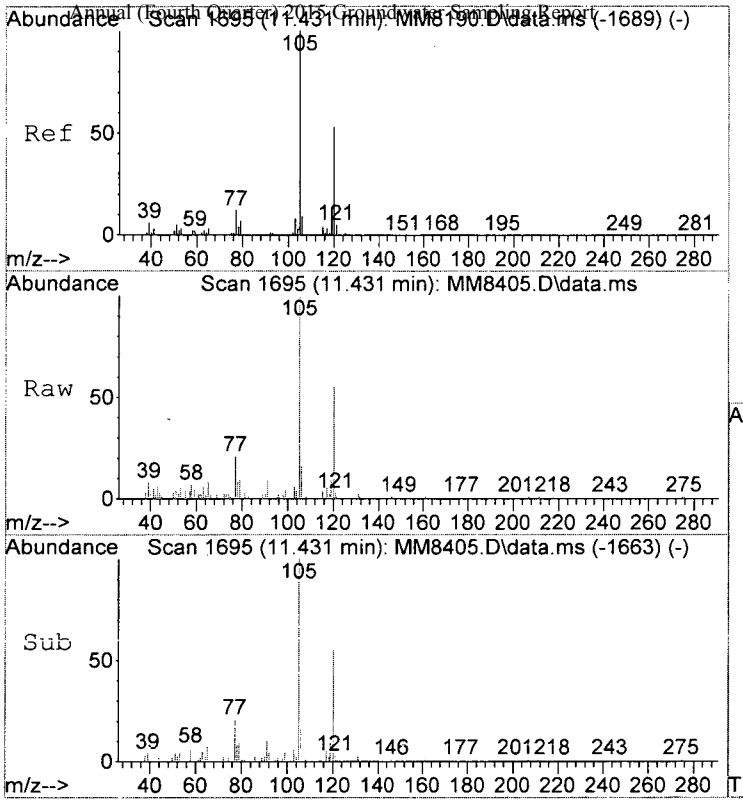


#95
n-Propylbenzene
Concen: 21.30 ppb
RT: 11.278 min Scan# 1670
Delta R.T. -0.006 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion: 91 Resp: 756477

Ion	Ratio	Lower	Upper
91	100		
120	21.6	4.8	44.8
65	10.4	0.0	30.5

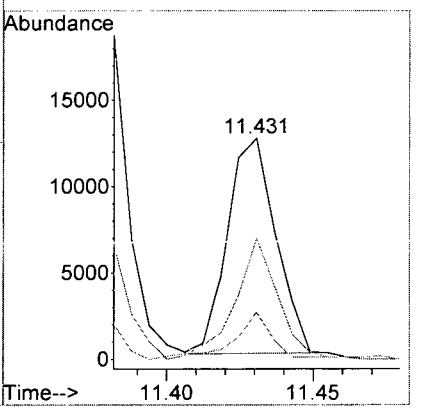


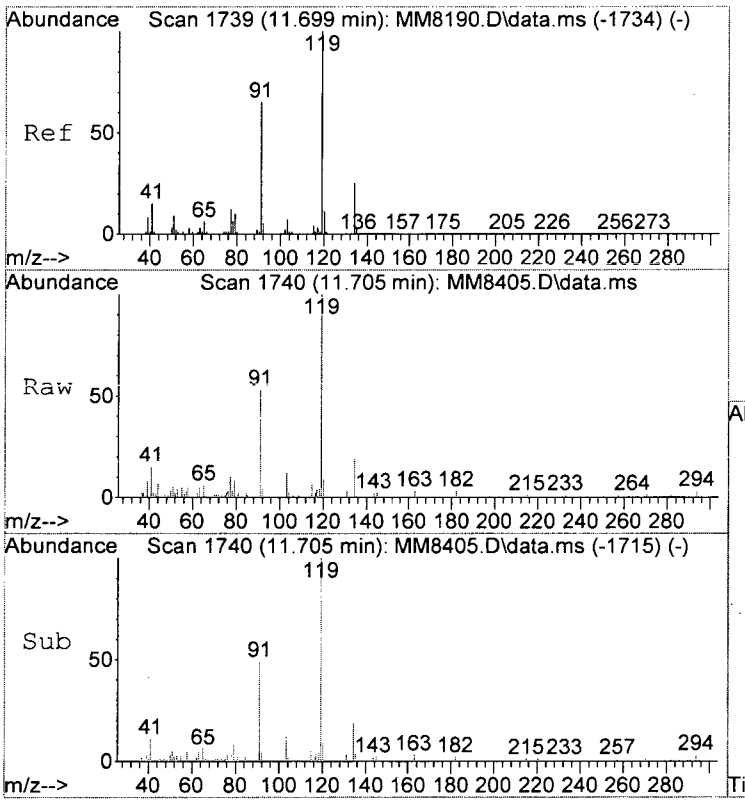


#99
1,3,5-Trimethylbenzene
Concen: 0.61 ppb
RT: 11.431 min Scan# 1695
Delta R.T. -0.000 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion:105 Resp: 14249

Ion	Ratio	Lower	Upper
105	100		
120	54.7	33.0	73.0
77	21.3	0.0	32.5

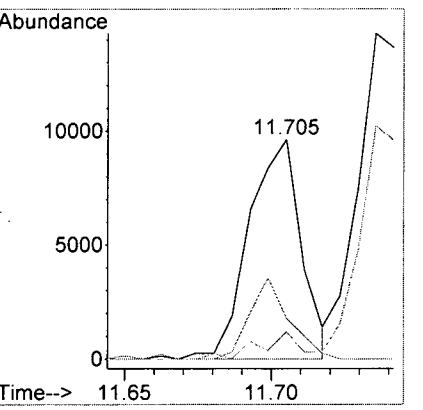


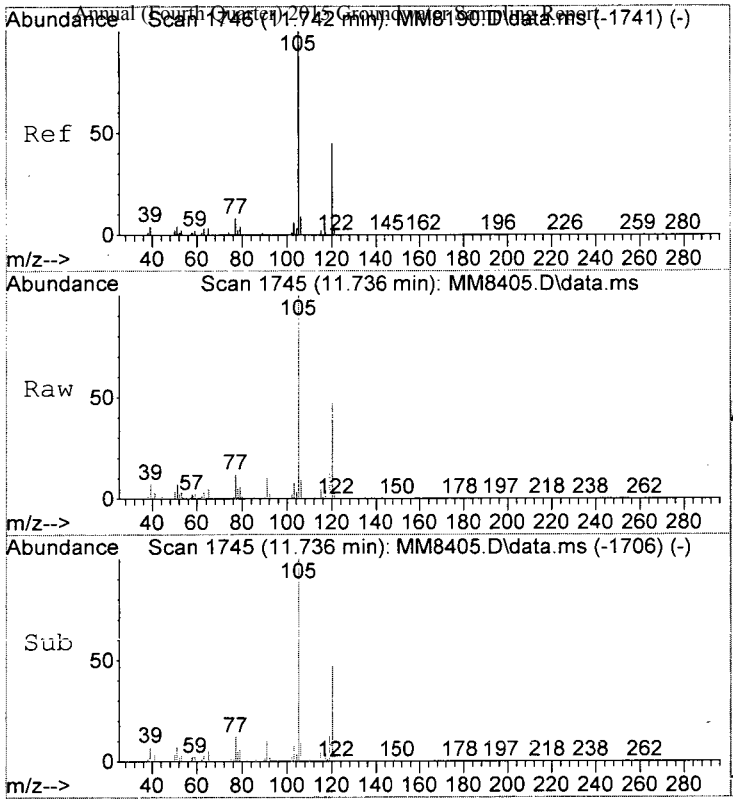


#100
tert-Butylbenzene
Concen: 0.57 ppb
RT: 11.705 min Scan# 1740
Delta R.T. -0.000 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion:119 Resp: 11808

Ion	Ratio	Lower	Upper
119	100		
134	18.7	5.0	45.0
103	12.3	0.0	26.6

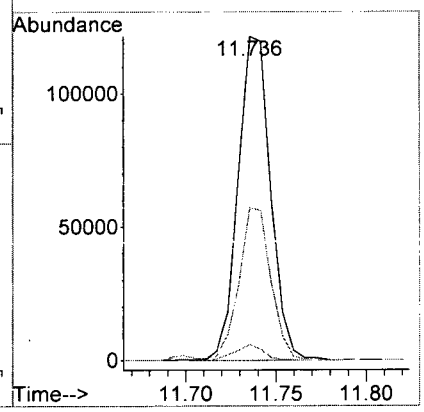


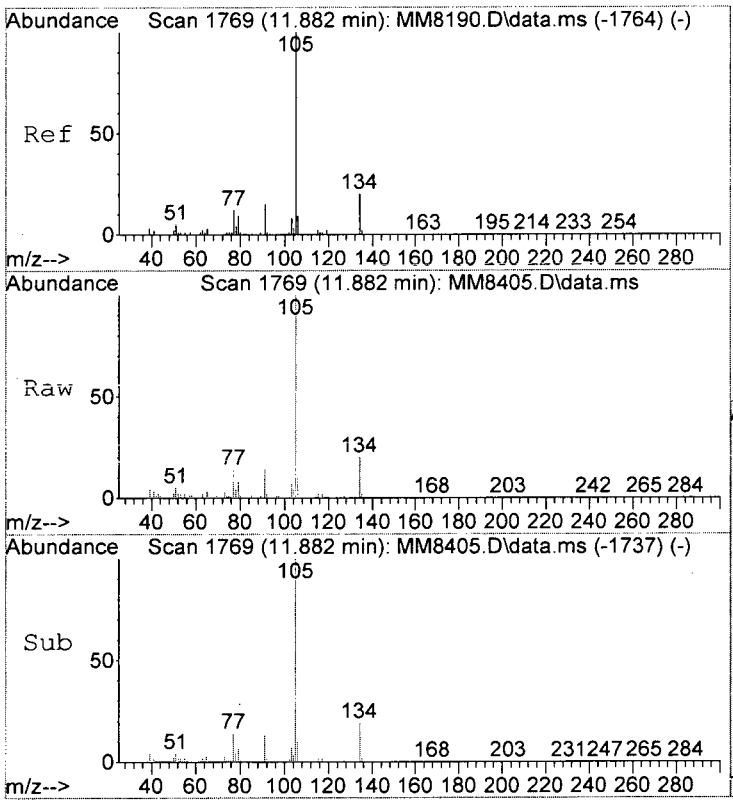


#101
1,2,4-Trimethylbenzene
Concen: 6.07 ppb
RT: 11.736 min Scan# 1745
Delta R.T. -0.006 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion:105 Resp: 151962

Ion	Ratio	Lower	Upper
105	100		
120	47.1	28.1	68.1
65	4.9	0.0	24.3

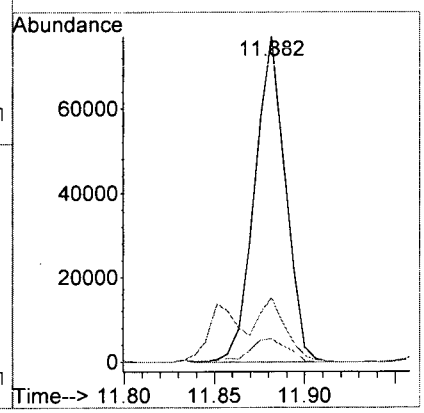


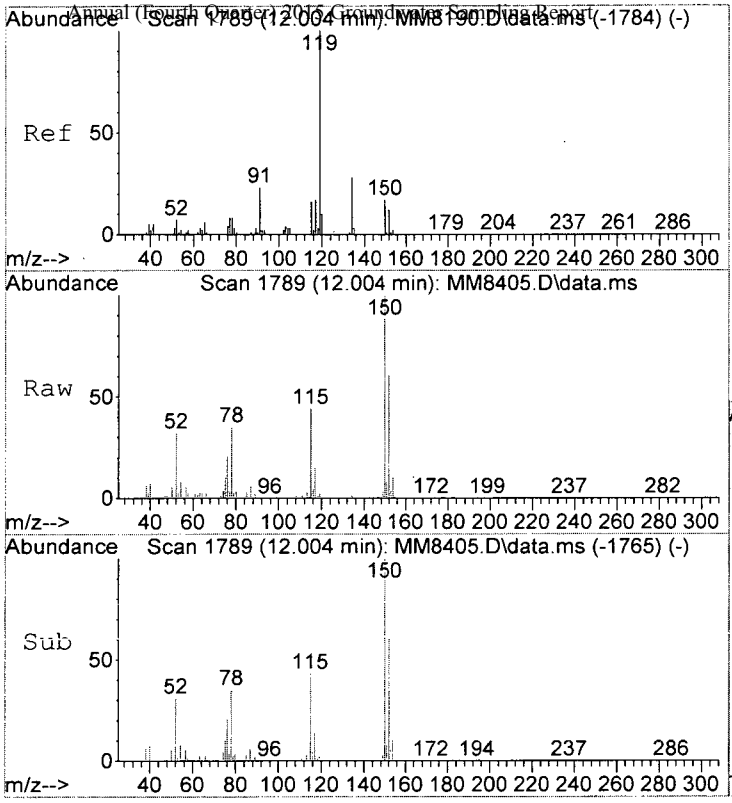


#103
sec-Butylbenzene
Concen: 3.15 ppb
RT: 11.882 min Scan# 1769
Delta R.T. -0.000 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion:105 Resp: 91765

Ion	Ratio	Lower	Upper
105	100		
134	19.8	0.2	40.2
103	7.1	0.0	27.7

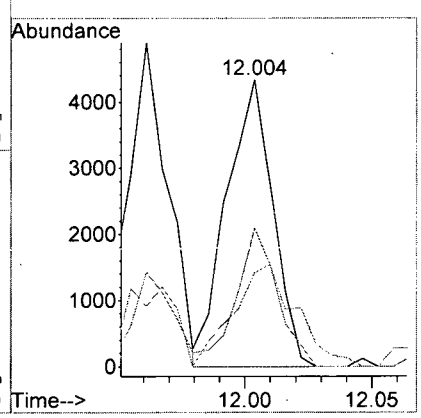


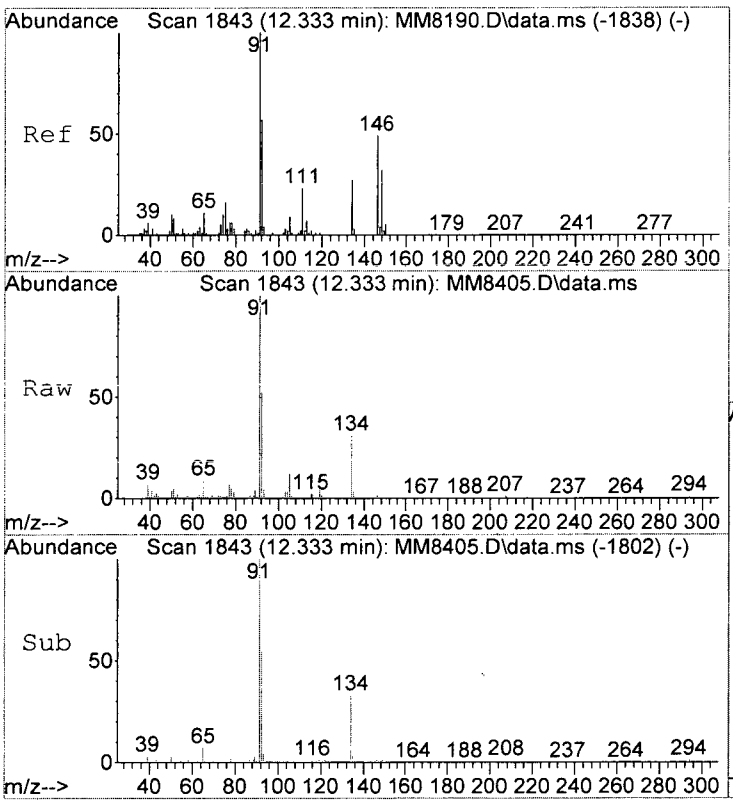


#104
p-Isopropyltoluene
Concen: 0.24 ppb m
RT: 12.004 min Scan# 1789
Delta R.T. -0.000 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion:119 Resp: 5491

Ion	Ratio	Lower	Upper
119	100		
134	48.4	7.9	47.9#
91	32.8	2.5	42.5

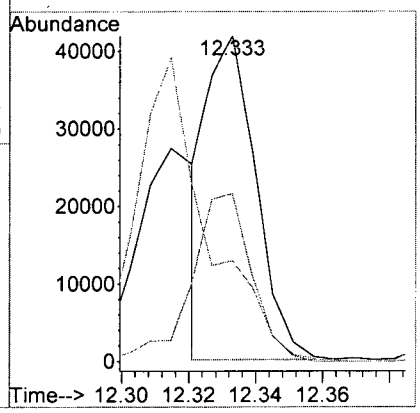


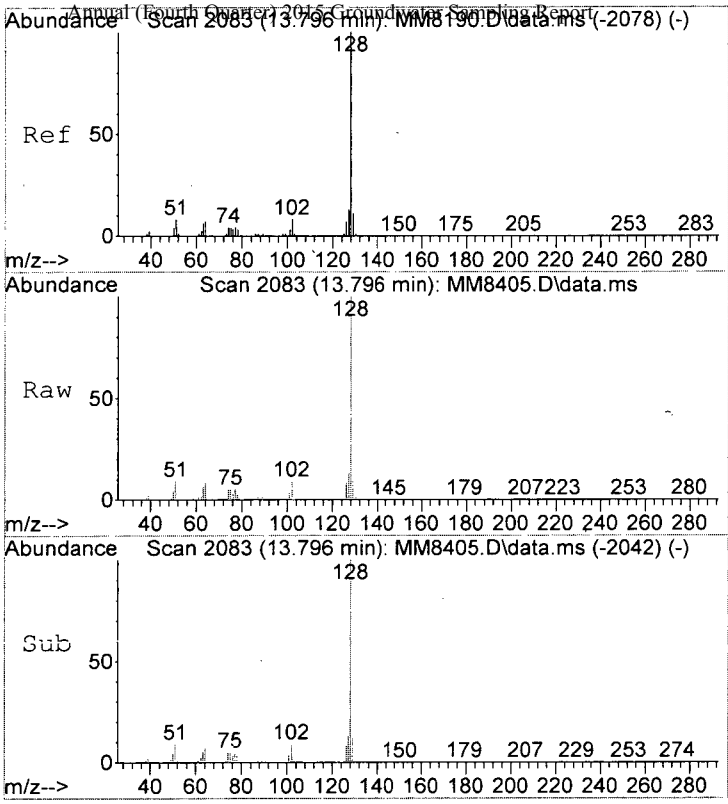


#109
n-Butylbenzene
Concen: 2.00 ppb
RT: 12.333 min Scan# 1843
Delta R.T. -0.000 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion: 91 Resp: 42557

Ion	Ratio	Lower	Upper
91	100		
92	51.6	37.0	77.0
134	30.9	7.2	47.2

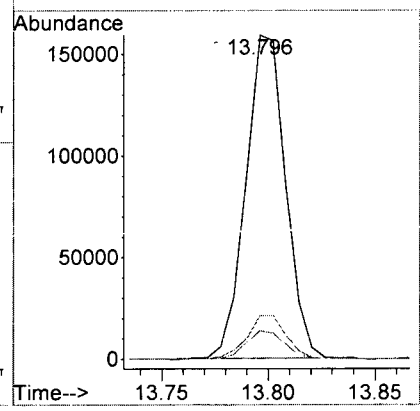




#117
Naphthalen
Concen: 12.87 ppb
RT: 13.796 min Scan# 2083
Delta R.T. -0.006 min
Lab File: MM8405.D
Acq: 30 Nov 2015 6:11 pm

Tgt Ion:128 Resp: 204564

Ion	Ratio	Lower	Upper
128	100		
127	13.3	0.0	33.1
102	8.6	0.0	28.3



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LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On : 30 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : R1510063-018|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 19 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8405.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.433	50	55	59	rBV	95575	95168	2.10%	0.155%
2	1.829	115	120	126	rBV	1877911	2305552	50.79%	3.754%
3	2.048	150	156	162	rVB	375612	462415	10.19%	0.753%
4	2.451	216	222	232	rVB	180246	343011	7.56%	0.559%
5	2.914	290	298	303	rBV	639656	1415948	31.20%	2.306%
6	2.963	303	306	311	rVV	573768	1055108	23.25%	1.718%
7	3.006	311	313	319	rVB	188148	296210	6.53%	0.482%
8	3.255	344	354	363	rBV	905664	1967187	43.34%	3.203%
9	3.615	406	413	422	rBV3	40863	88408	1.95%	0.144%
10	4.249	508	517	528	rBV3	39384	110599	2.44%	0.180%
11	4.426	536	546	553	rBV3	208551	626916	13.81%	1.021%
12	4.524	553	562	575	rVB	1036199	2956653	65.14%	4.814%
13	5.353	685	698	711	rBV4	63614	224292	4.94%	0.365%
14	5.596	727	738	744	rBV	470702	1206103	26.57%	1.964%
15	5.682	744	752	755	rVV2	245096	658936	14.52%	1.073%
16	5.737	755	761	767	rVV	947703	2381692	52.47%	3.878%
17	5.804	767	772	787	rVB2	653564	1674841	36.90%	2.727%
18	5.993	793	803	812	rBV5	81109	254337	5.60%	0.414%
19	6.096	812	820	828	rVV2	549235	1189288	26.20%	1.936%
20	6.176	828	833	840	rVV2	45093	98987	2.18%	0.161%
21	6.273	840	849	855	rVV3	292302	792975	17.47%	1.291%
22	6.352	855	862	870	rVV2	648364	1703768	37.54%	2.774%
23	6.438	870	876	885	rVB2	136317	320568	7.06%	0.522%
24	6.767	921	930	939	rBV	1563643	3037657	66.92%	4.946%
25	7.297	1007	1017	1028	rBV4	293992	815074	17.96%	1.327%
26	7.401	1029	1034	1039	rBV3	33821	59257	1.31%	0.096%
27	7.462	1039	1044	1048	rBV2	58040	102831	2.27%	0.167%
28	7.560	1056	1060	1068	rVB2	60557	108509	2.39%	0.177%
29	7.669	1070	1078	1085	rVB4	81380	158451	3.49%	0.258%
30	7.864	1100	1110	1121	rVB	267463	579287	12.76%	0.943%
31	7.986	1121	1130	1138	rBV	380455	764958	16.85%	1.246%
32	8.059	1138	1142	1147	rVB	39220	57807	1.27%	0.094%
33	8.200	1158	1165	1171	rBV8	31018	72633	1.60%	0.118%
34	8.395	1193	1197	1203	rVB4	48098	86922	1.92%	0.142%
35	8.486	1206	1212	1214	rBV2	111834	187381	4.13%	0.305%

KB 12/3/15

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On : 30 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : R1510063-018|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 19 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

36	8.529	1214	1219	1227	rVB	2478405	3898625	85.89%	6.348%
37	8.602	1227	1231	1236	rVB	39446	63034	1.39%	0.103%
38	8.657	1236	1240	1244	rBV3	41225	67667	1.49%	0.110%
39	8.876	1271	1276	1281	rVB3	48093	76798	1.69%	0.125%
40	8.998	1288	1296	1302	rBV2	119474	229371	5.05%	0.373%
41	9.425	1357	1366	1372	rBV3	53372	97399	2.15%	0.159%
42	9.931	1442	1449	1453	rBV4	43346	78405	1.73%	0.128%
43	9.986	1453	1458	1467	rVV	2600323	3705550	81.64%	6.034%
44	10.071	1467	1472	1476	rVB	77386	108340	2.39%	0.176%
45	10.132	1476	1482	1487	rBV	350484	469170	10.34%	0.764%
46	10.242	1493	1500	1506	rVB	131179	202951	4.47%	0.330%
47	10.596	1554	1558	1568	rVB	140422	185335	4.08%	0.302%
48	10.925	1607	1612	1618	rBV	876227	1100197	24.24%	1.791%
49	11.047	1627	1632	1638	rBV	2126710	2742596	60.42%	4.466%
50	11.278	1665	1670	1677	rVB	1253168	1513562	33.35%	2.464%
51	11.358	1678	1683	1684	rVV	74539	97043	2.14%	0.158%
52	11.382	1684	1687	1692	rVV3	79113	128073	2.82%	0.209%
53	11.431	1692	1695	1700	rVB	43286	54205	1.19%	0.088%
54	11.595	1717	1722	1729	rBV	331941	425849	9.38%	0.693%
55	11.699	1731	1739	1741	rBV5	33485	53420	1.18%	0.087%
56	11.736	1741	1745	1750	rVB	343126	421628	9.29%	0.687%
57	11.851	1760	1764	1766	rBV	126616	158309	3.49%	0.258%
58	11.882	1766	1769	1775	rVB	180172	220990	4.87%	0.360%
59	12.016	1785	1791	1797	rBV	3027920	3736056	82.31%	6.083%
60	12.083	1797	1802	1810	rBV2	72955	114376	2.52%	0.186%
61	12.174	1813	1817	1821	rVB	65529	76184	1.68%	0.124%
62	12.242	1821	1828	1835	rBV	3633460	4539007	100.00%	7.391%
63	12.315	1835	1840	1848	rVB2	352726	554113	12.21%	0.902%
64	12.406	1850	1855	1859	rBV	250527	296794	6.54%	0.483%
65	12.467	1859	1865	1871	rVB2	75945	121002	2.67%	0.197%
66	12.534	1871	1876	1878	rBV	35129	48132	1.06%	0.078%
67	12.620	1885	1890	1893	rBV	668947	782551	17.24%	1.274%
68	12.650	1893	1895	1900	rVV	335214	372043	8.20%	0.606%
69	12.705	1900	1904	1911	rVB	1110189	1430722	31.52%	2.330%
70	12.772	1911	1915	1922	rVB6	24041	48292	1.06%	0.079%
71	12.851	1922	1928	1933	rVB3	63530	100636	2.22%	0.164%
72	12.930	1933	1941	1946	rBV	1126157	1361489	30.00%	2.217%
73	13.034	1952	1958	1964	rBV2	108267	168220	3.71%	0.274%

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On : 30 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : R1510063-018|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 19 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

74	13.132	1966	1974	1975	rBV3	54484	87994	1.94%	0.143%
75	13.150	1975	1977	1980	rVV2	68365	72018	1.59%	0.117%
76	13.186	1980	1983	1986	rVB	183186	199960	4.41%	0.326%
77	13.308	1998	2003	2009	rVB2	884014	1114332	24.55%	1.814%
78	13.363	2009	2012	2017	rVV3	45855	77425	1.71%	0.126%
79	13.443	2021	2025	2029	rVB	83974	101356	2.23%	0.165%
80	13.522	2034	2038	2041	rBV2	39933	57144	1.26%	0.093%
81	13.564	2041	2045	2047	rVV	113304	143959	3.17%	0.234%
82	13.601	2047	2051	2055	rVV2	208386	308739	6.80%	0.503%
83	13.662	2055	2061	2062	rVV2	101748	144640	3.19%	0.236%
84	13.686	2062	2065	2070	rVB	164986	196975	4.34%	0.321%
85	13.796	2076	2083	2089	rBV	342331	454635	10.02%	0.740%
86	13.949	2102	2108	2112	rVB4	55544	71390	1.57%	0.116%
87	13.997	2112	2116	2119	rBV	57330	69941	1.54%	0.114%
88	14.345	2169	2173	2178	rVB	46424	57480	1.27%	0.094%
89	14.814	2245	2250	2255	rVB	111373	148978	3.28%	0.243%

Sum of corrected areas: 61414829

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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On    : 30 Nov 2015    6:11 pm
Operator  : K.Ruest
Sample    : R1510063-018|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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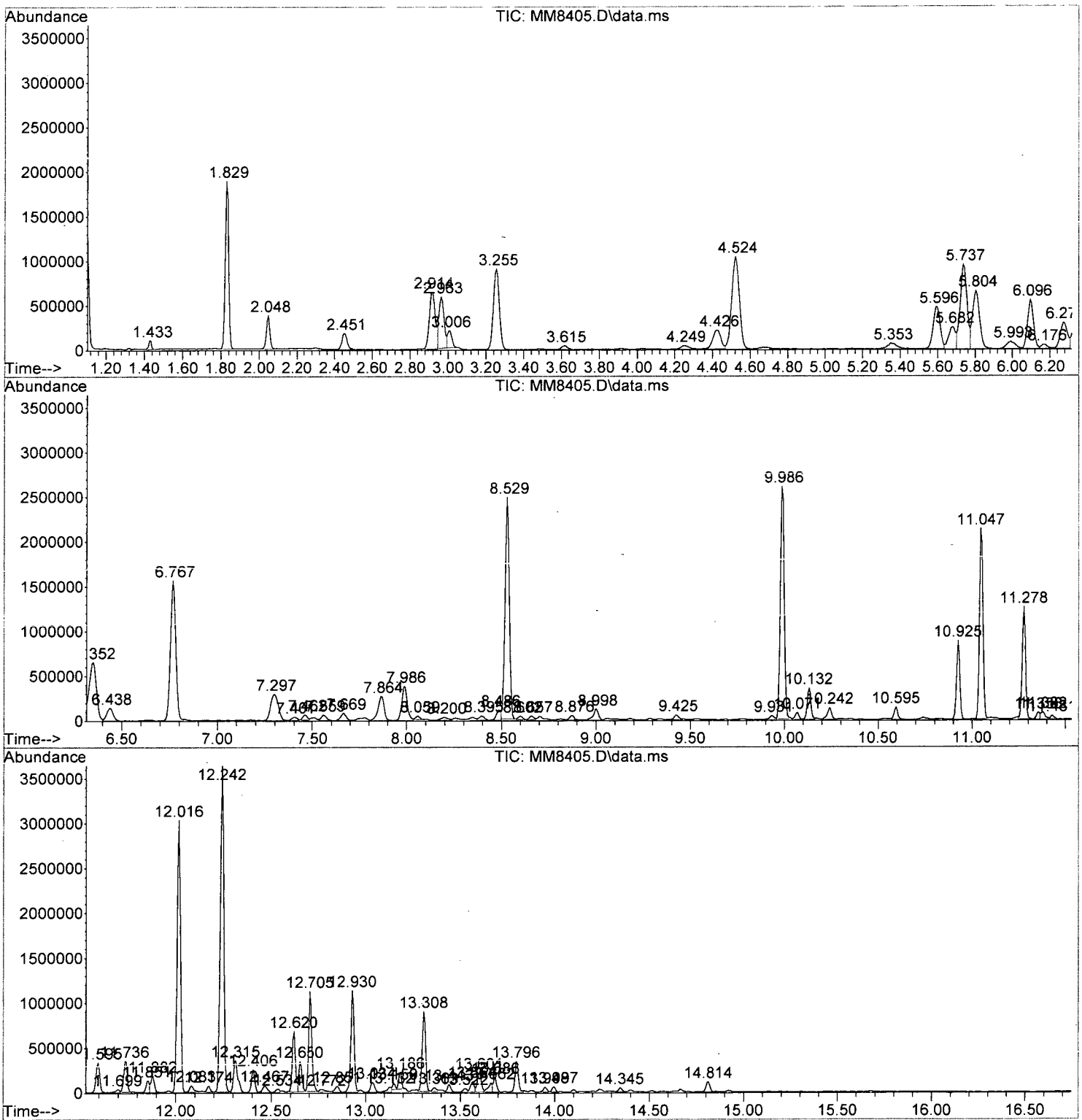


Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On : 30 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : R1510063-018|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 19 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

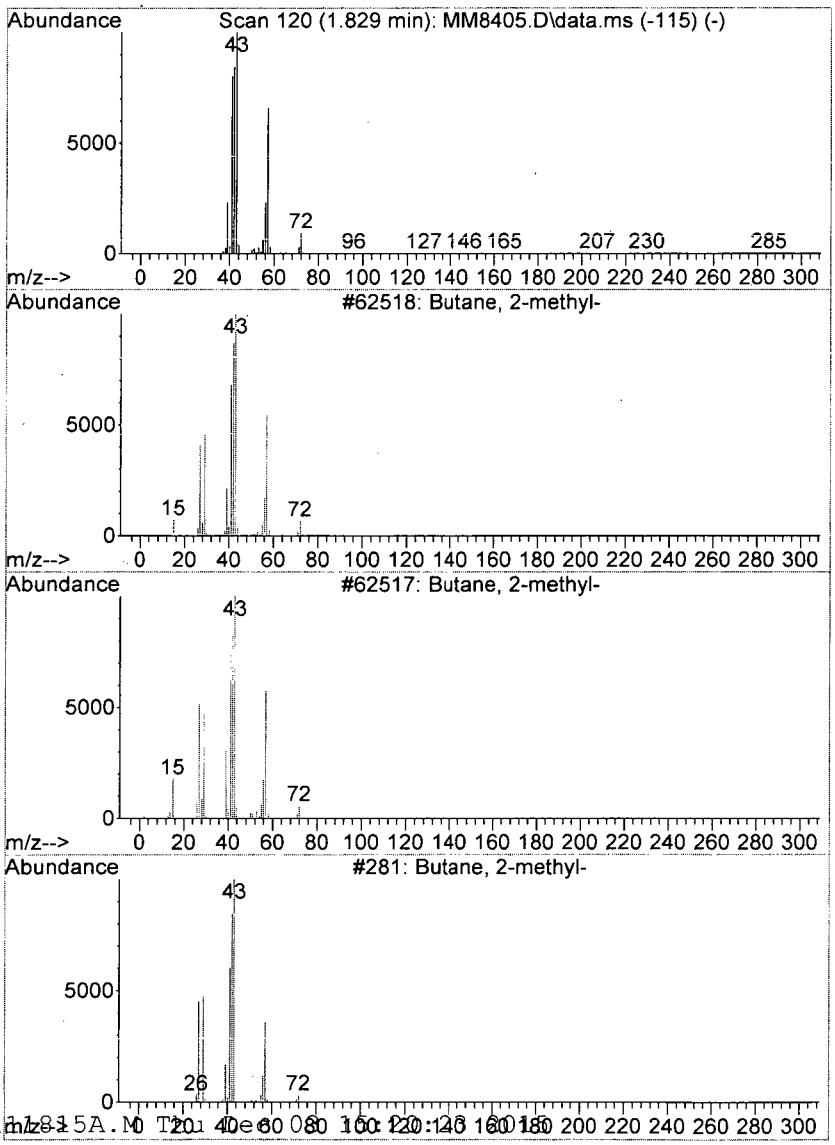
TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

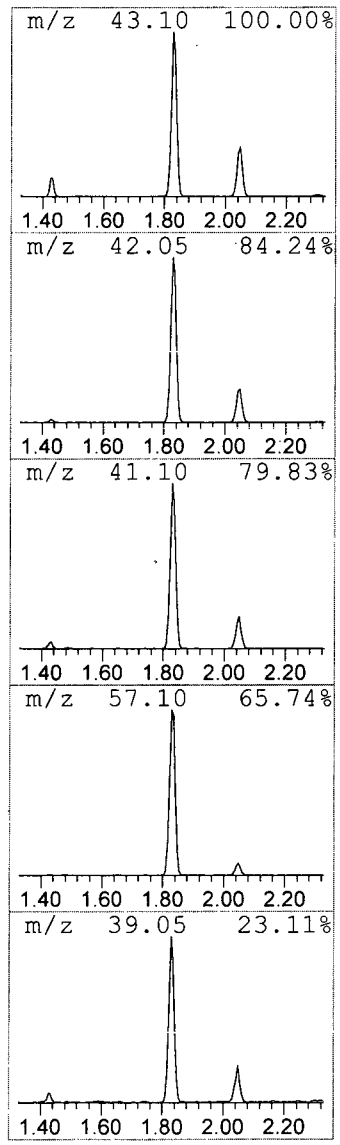
****

Peak Number 1 Butane, 2-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.829	48.40 ppb	2305550	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	91
2	Butane, 2-methyl-	72	C5H12	000078-78-4	90
3	Butane, 2-methyl-	72	C5H12	000078-78-4	90
4	Pentane	72	C5H12	000109-66-0	64
5	Pentane	72	C5H12	000109-66-0	50





Library Search Compound Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On : 30 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : R1510063-018|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 19 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

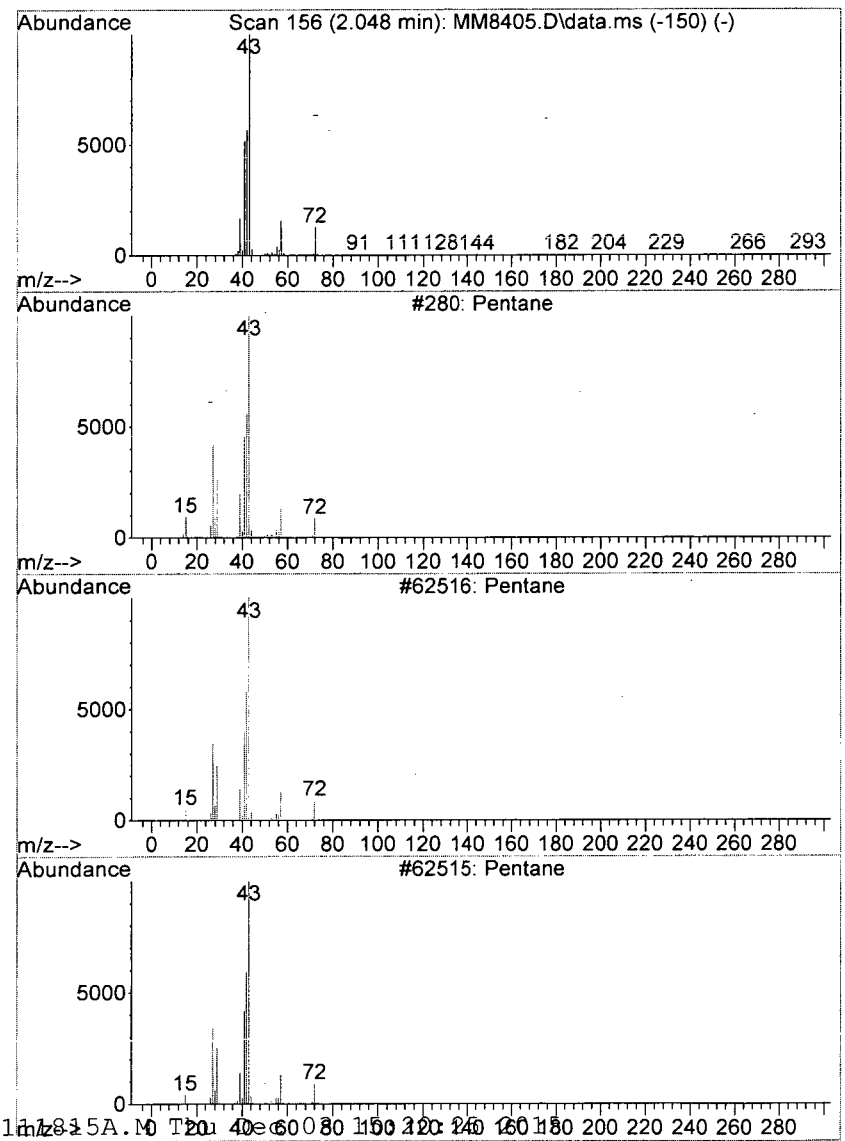
TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

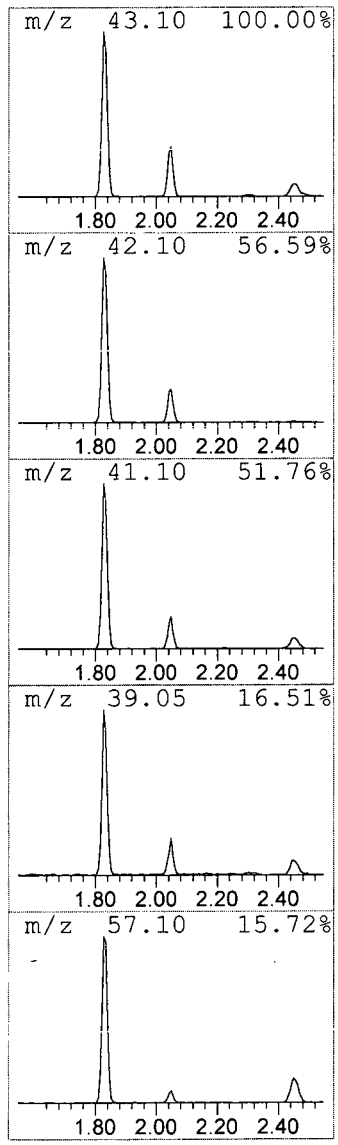
****

Peak Number 2 Pentane Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.048	9.71 ppb	462415	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	Molform	CAS#	Qual
1	Pentane	72	C5H12	000109-66-0	90
2	Pentane	72	C5H12	000109-66-0	86
3	Pentane	72	C5H12	000109-66-0	86
4	Oxirane, ethyl-	72	C4H8O	000106-88-7	42
5	1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	38





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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On    : 30 Nov 2015    6:11 pm
Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  3  Butane, 2,3-dimethyl-          Concentration Rank  6
```
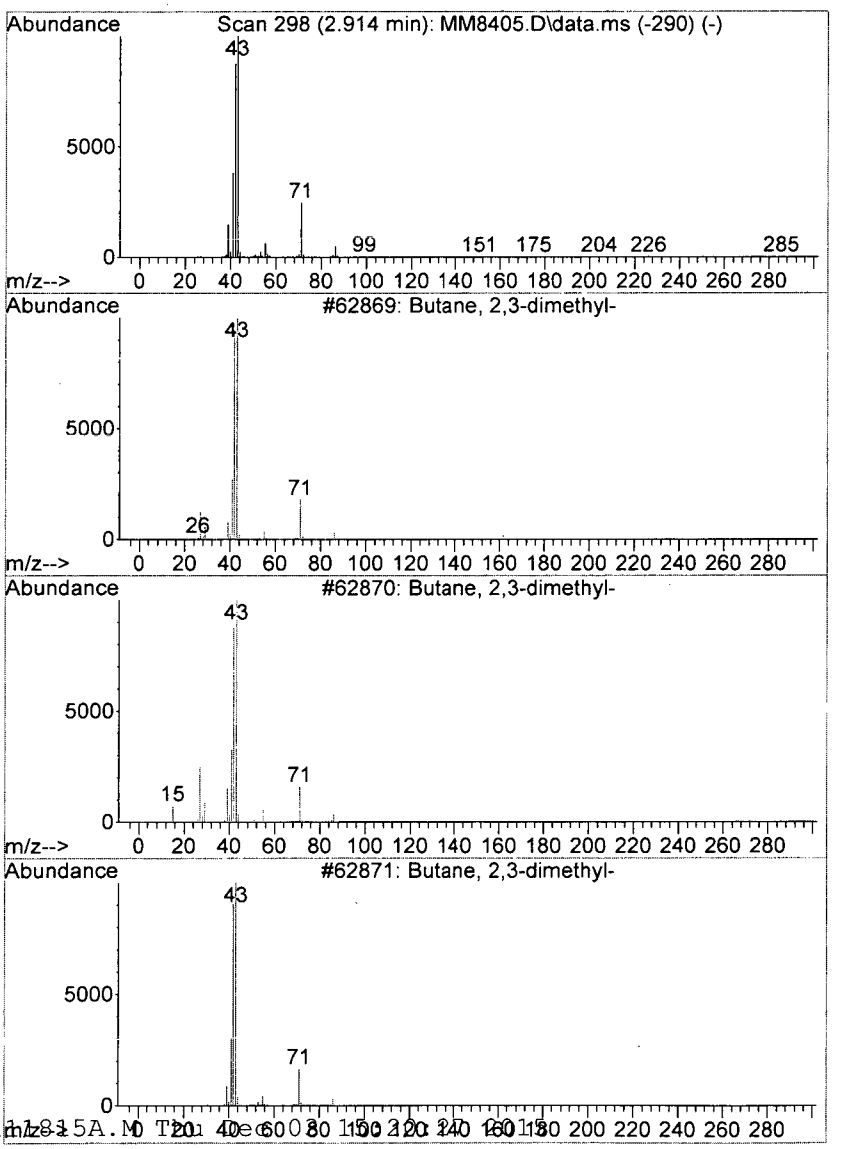
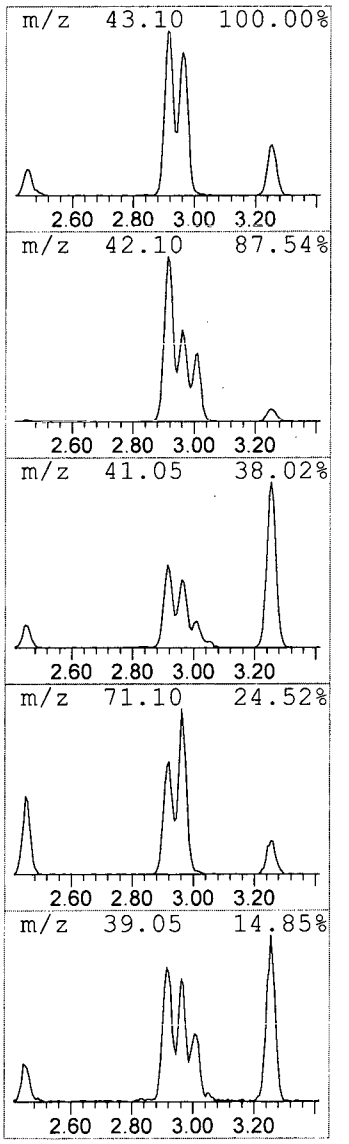

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.914	29.73 ppb	1415950	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	90
2	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	80
3	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	80
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	47
5	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	40





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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On    : 30 Nov 2015    6:11 pm
Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

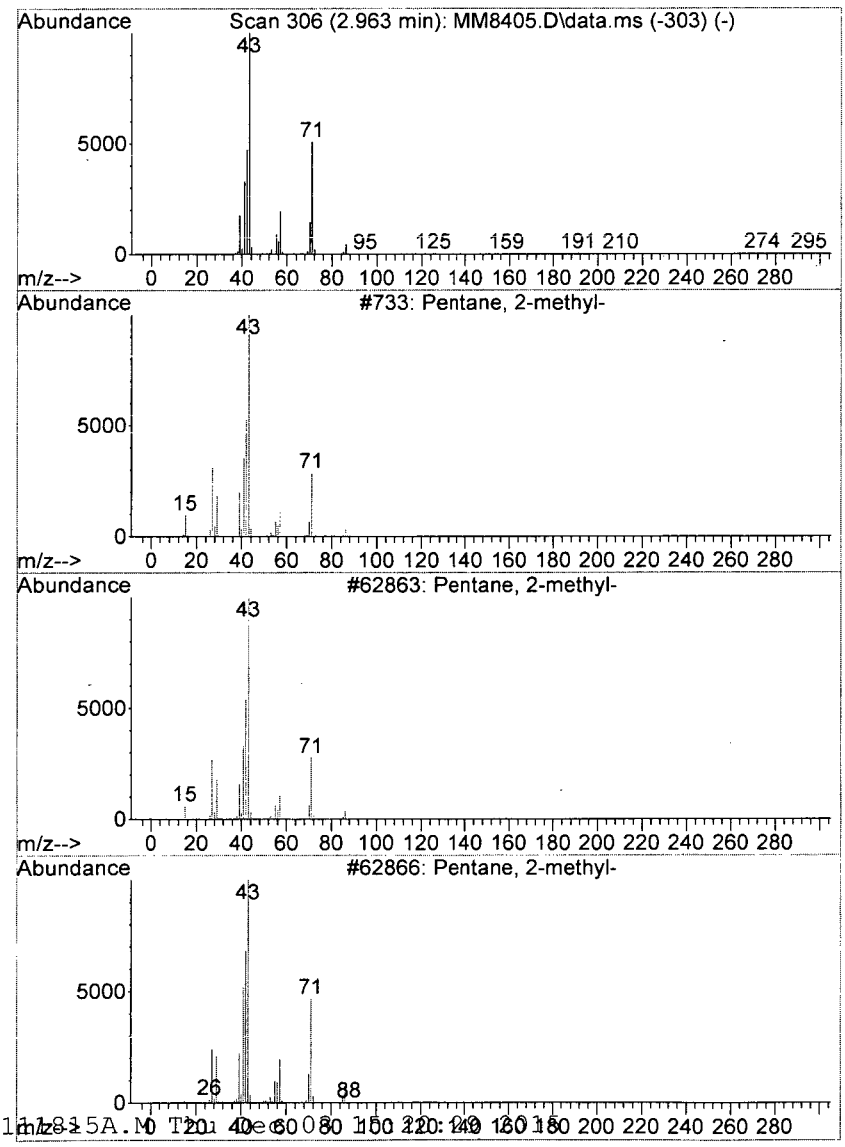
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

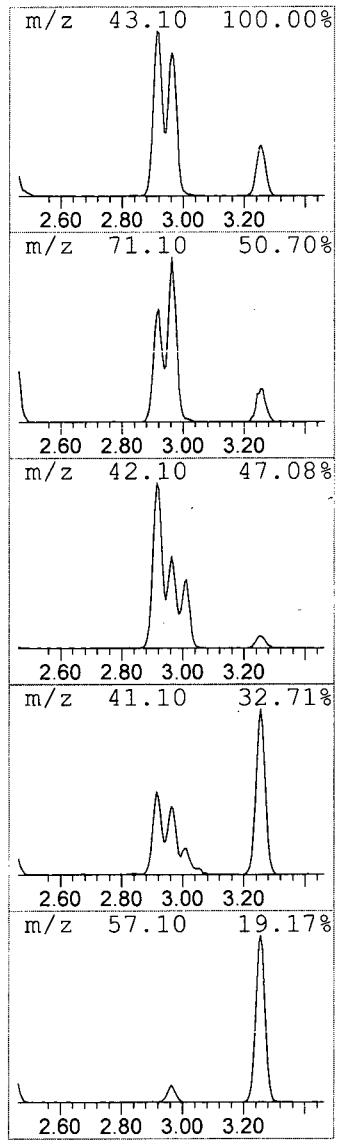
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  4  Pentane, 2-methyl-              Concentration Rank  8
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.963	22.15 ppb	1055110	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	91
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	90
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	87
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	72
5	Pentane, 2-methyl-	86	C6H14	000107-83-5	64





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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On    : 30 Nov 2015    6:11 pm
Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  5  Cyclobutanone                    Concentration Rank 20
```
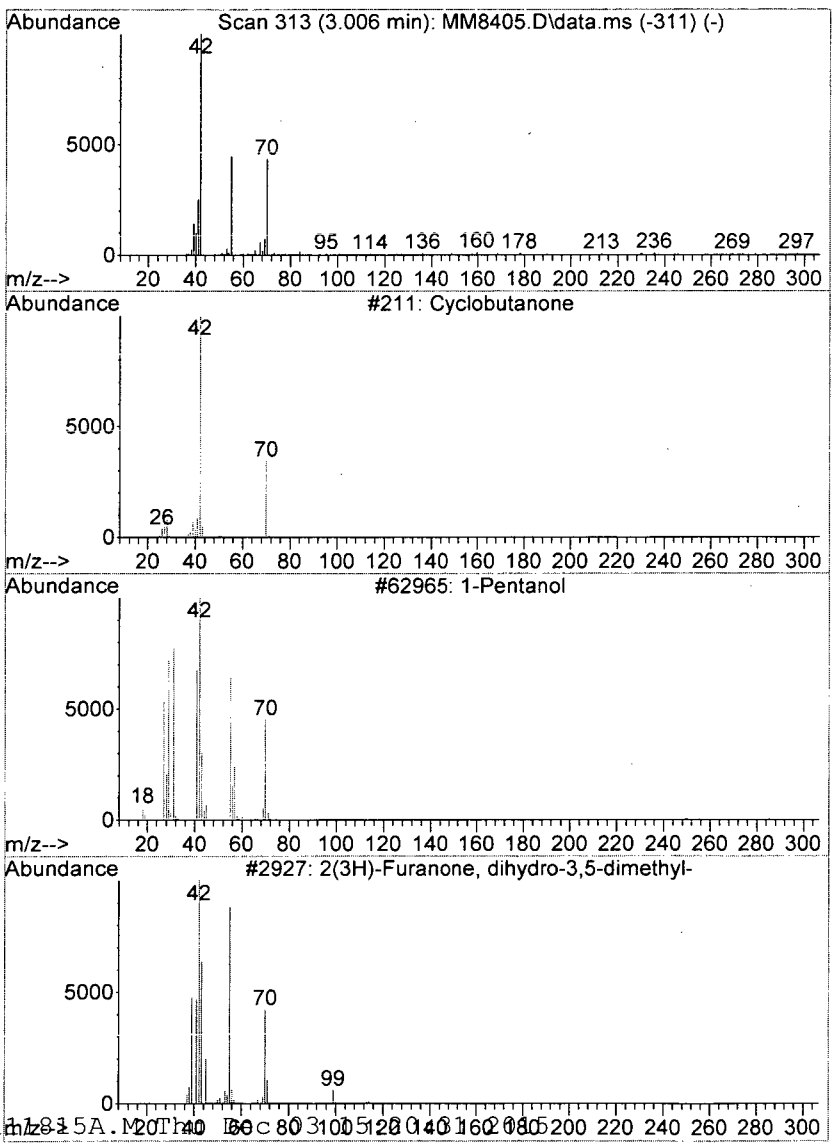
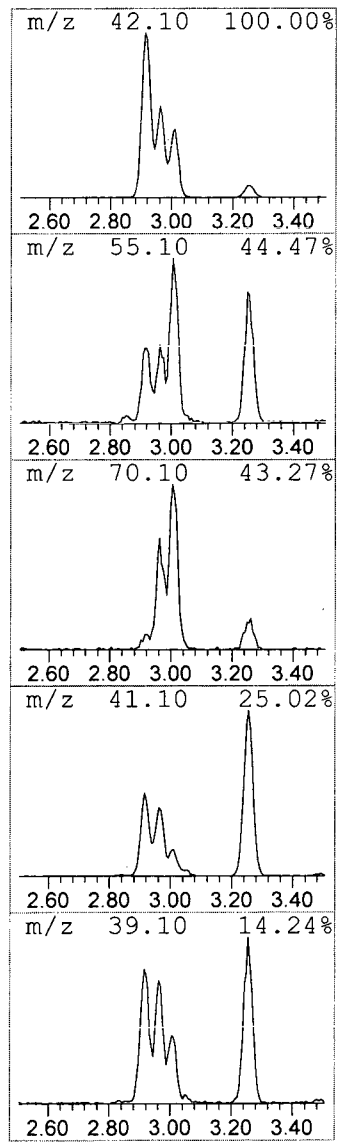

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.006	6.22 ppb	296210	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclobutanone	70	C4H6O	001191-95-3	9
2	1-Pentanol	88	C5H12O	000071-41-0	9
3	2(3H)-Furanone, dihydro-3,5-dime...	114	C6H10O2	005145-01-7	7
4	Cyclopentane	70	C5H10	000287-92-3	5
5	1-Pentene	70	C5H10	000109-67-1	4

unknown





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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On    : 30 Nov 2015    6:11 pm
Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

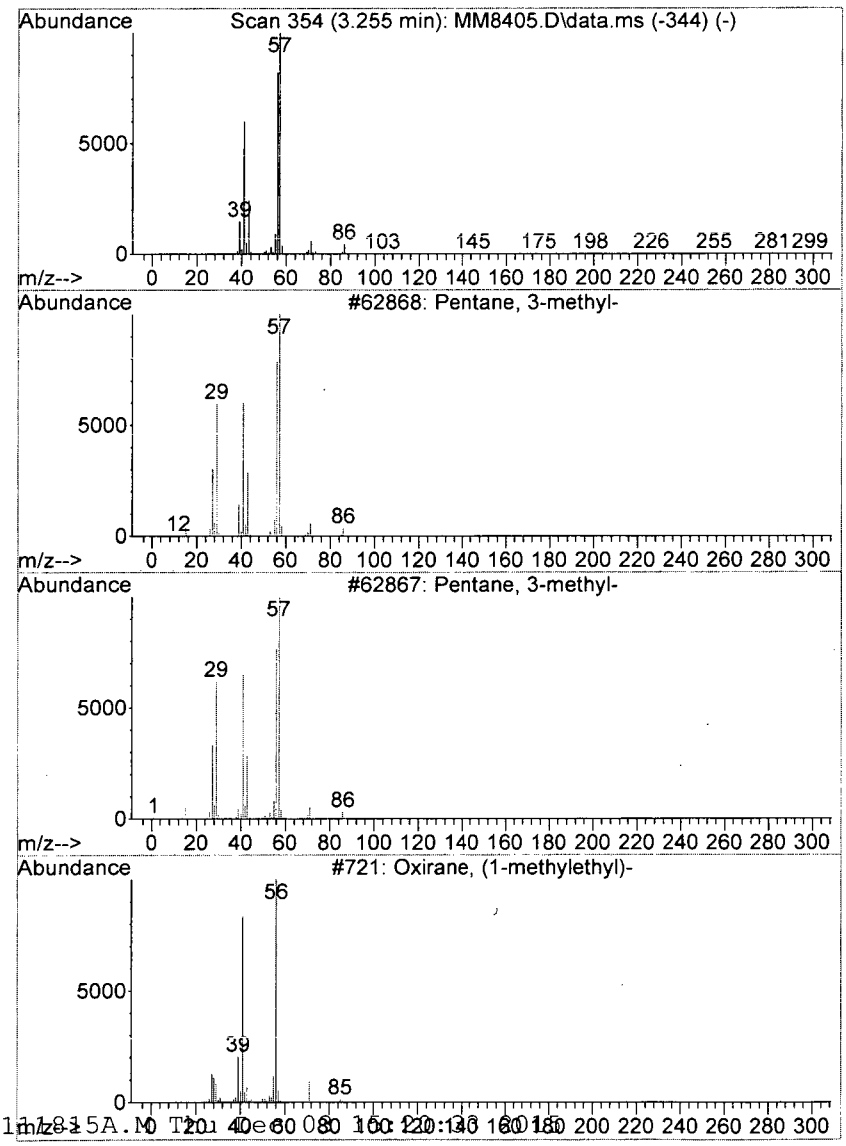
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

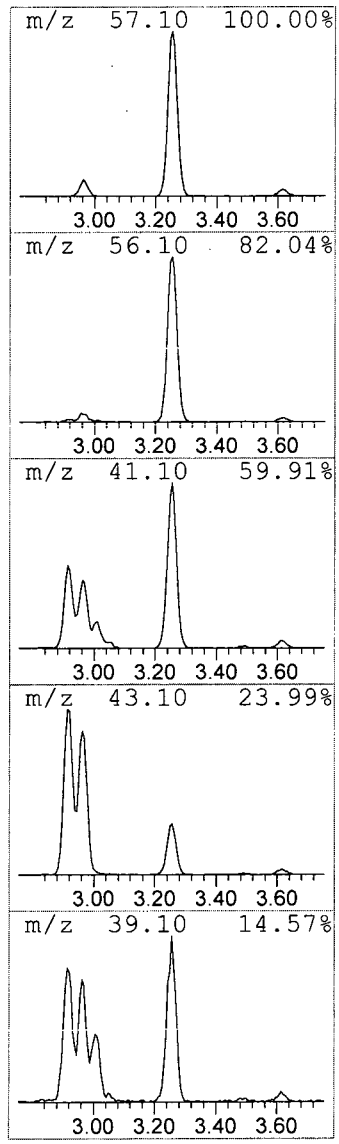
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  6  Pentane, 3-methyl-              Concentration Rank  4
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.255	41.30 ppb	1967190	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 3-methyl-	86	C6H14	000096-14-0	91
2	Pentane, 3-methyl-	86	C6H14	000096-14-0	91
3	Oxirane, (1-methylethyl)-	86	C5H10O	001438-14-8	59
4	Pentane, 3-methyl-	86	C6H14	000096-14-0	52
5	Hexane, 2,2,3-trimethyl-	128	C9H20	016747-25-4	40





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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On    : 30 Nov 2015   6:11 pm
Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

*********************************************************************
Peak Number  7  Pentane, 2,4-dimethyl-          Concentration Rank 14
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.426	13.16 ppb	626916	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2,4-dimethyl-	100	C7H16	000108-08-7	78
2	Hexane, 1-(hexyloxy)-5-methyl-	200	C13H28O	074421-19-5	56
3	Butane, 2,2,3-trimethyl-	100	C7H16	000464-06-2	53
4	Pentane, 2,4-dimethyl-	100	C7H16	000108-08-7	45
5	Butane, 2,2,3-trimethyl-	100	C7H16	000464-06-2	42

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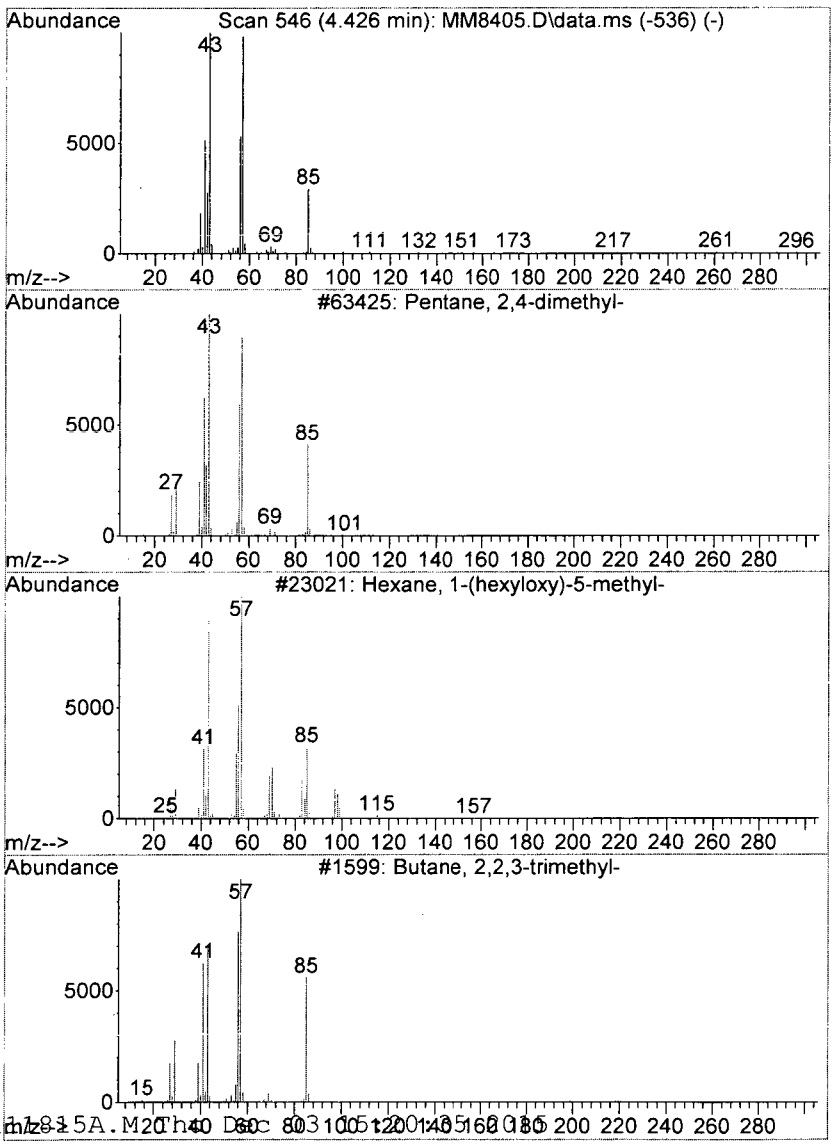

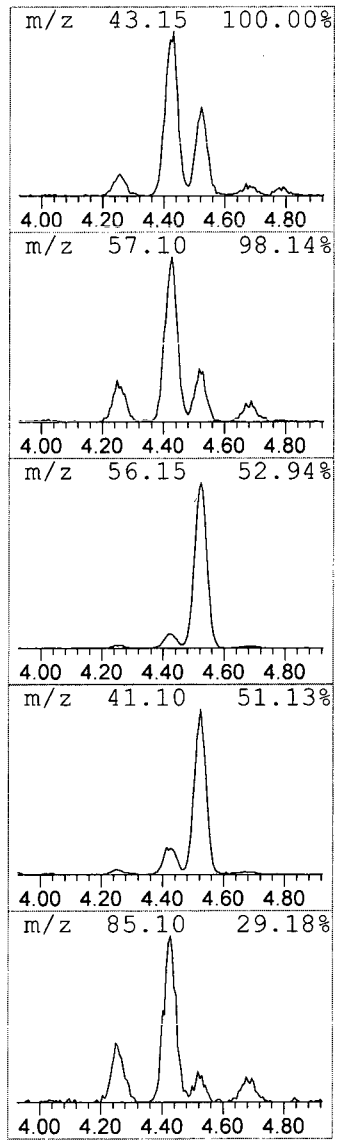

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Data File : MM8405.D
Acq On    : 30 Nov 2015    6:11 pm
Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  8  Cyclobutane, ethyl-              Concentration Rank  1
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.524	62.07 ppb	2956650	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclobutane, ethyl-	84	C6H12	004806-61-5	72
2	1H-Tetrazole, 5-methyl-	84	C2H4N4	004076-36-2	64
3	Cyclopentane, methyl-	84	C6H12	000096-37-7	52
4	Cyclopentane, methyl-	84	C6H12	000096-37-7	49
5	Cyclohexane	84	C6H12	000110-82-7	43

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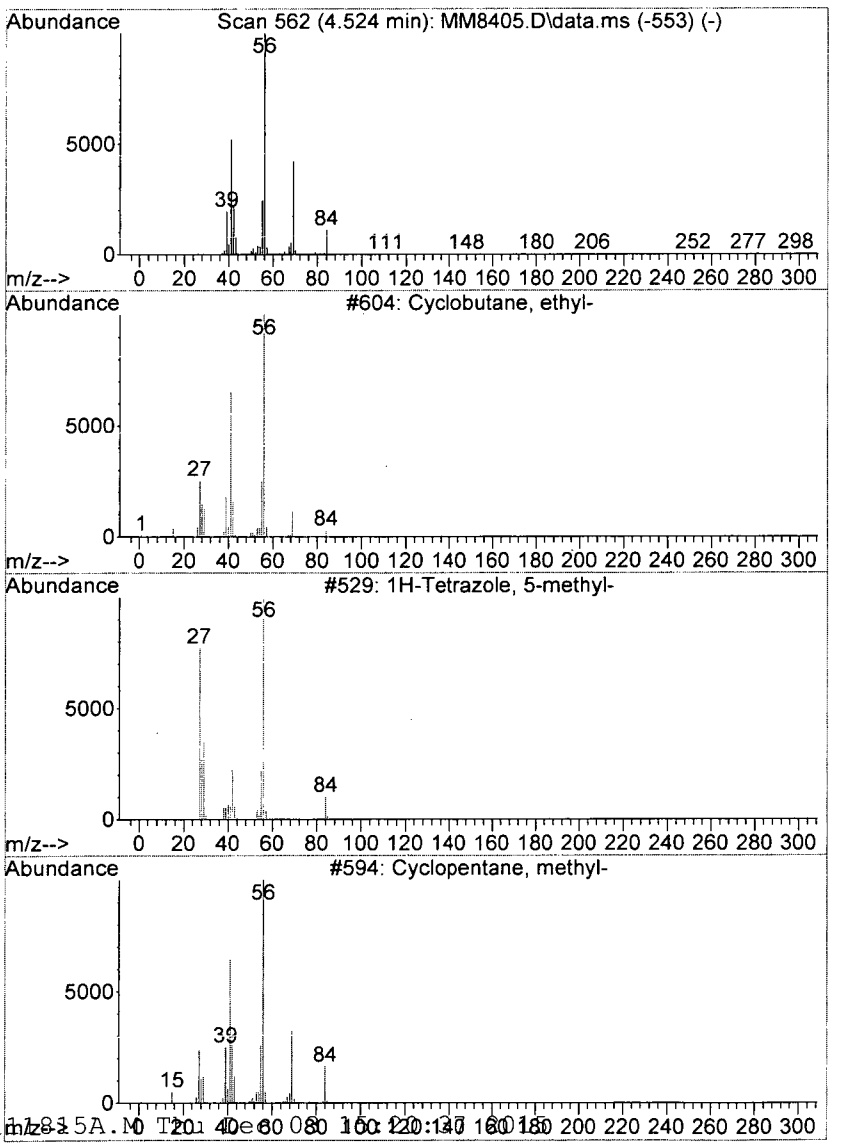

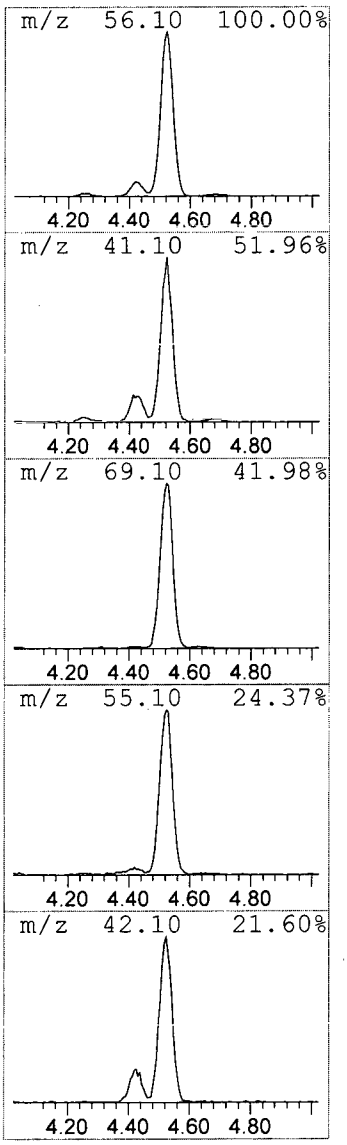

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Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```
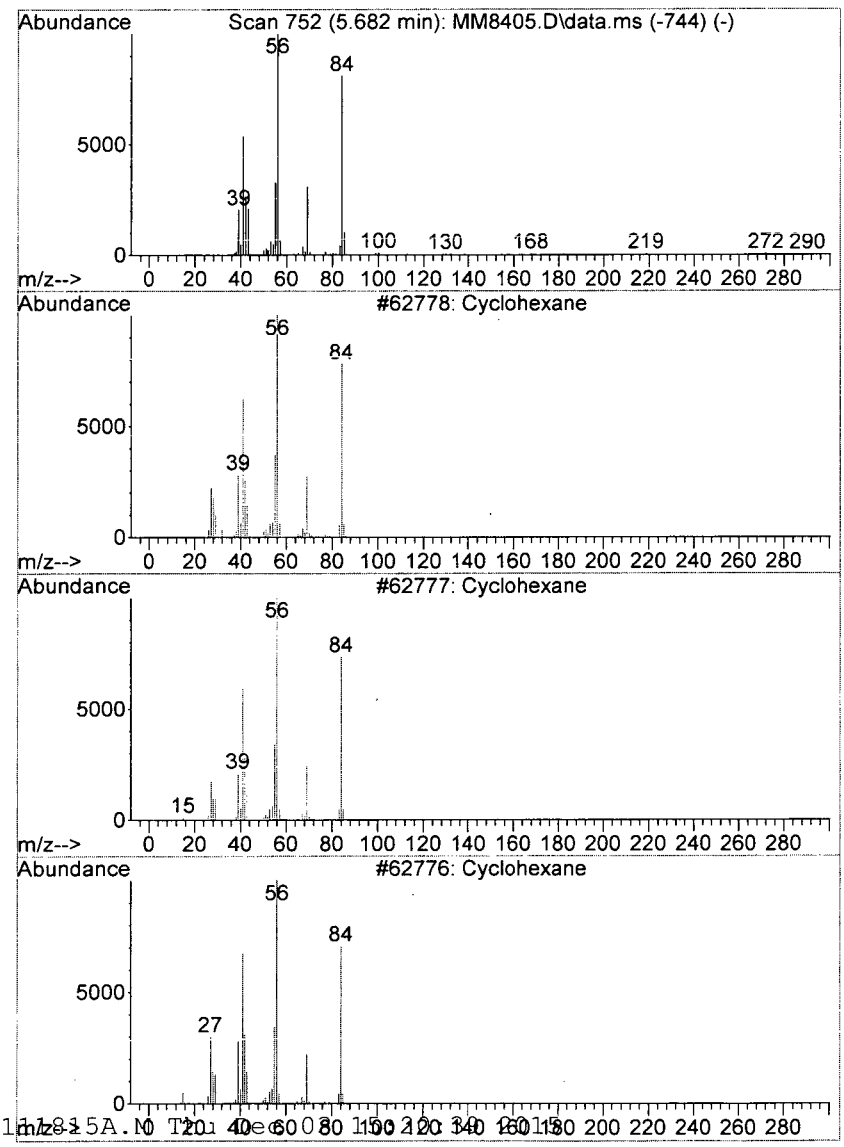
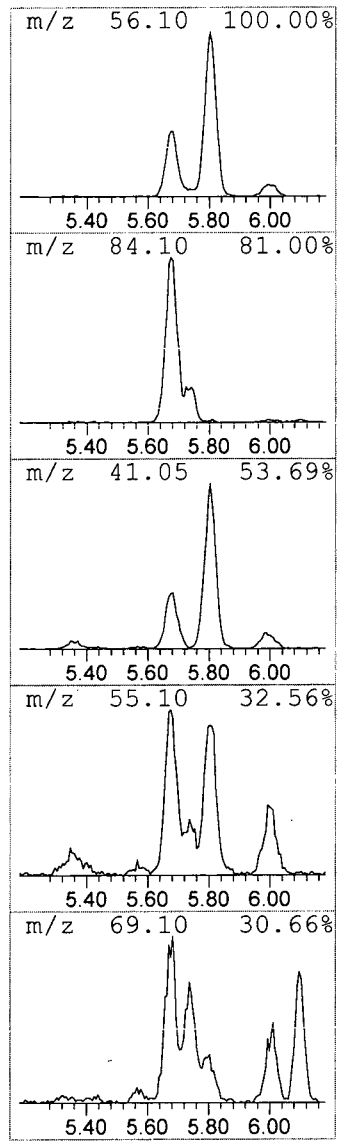

****

Peak Number 9 Cyclohexane Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.682	13.83 ppb	658936	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane	84	C6H12	000110-82-7	91
2	Cyclohexane	84	C6H12	000110-82-7	91
3	Cyclohexane	84	C6H12	000110-82-7	78
4	Cyclohexane	84	C6H12	000110-82-7	78
5	Cyclopentane, methyl-	84	C6H12	000096-37-7	43





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Data File : MM8405.D
Acq On    : 30 Nov 2015    6:11 pm
Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

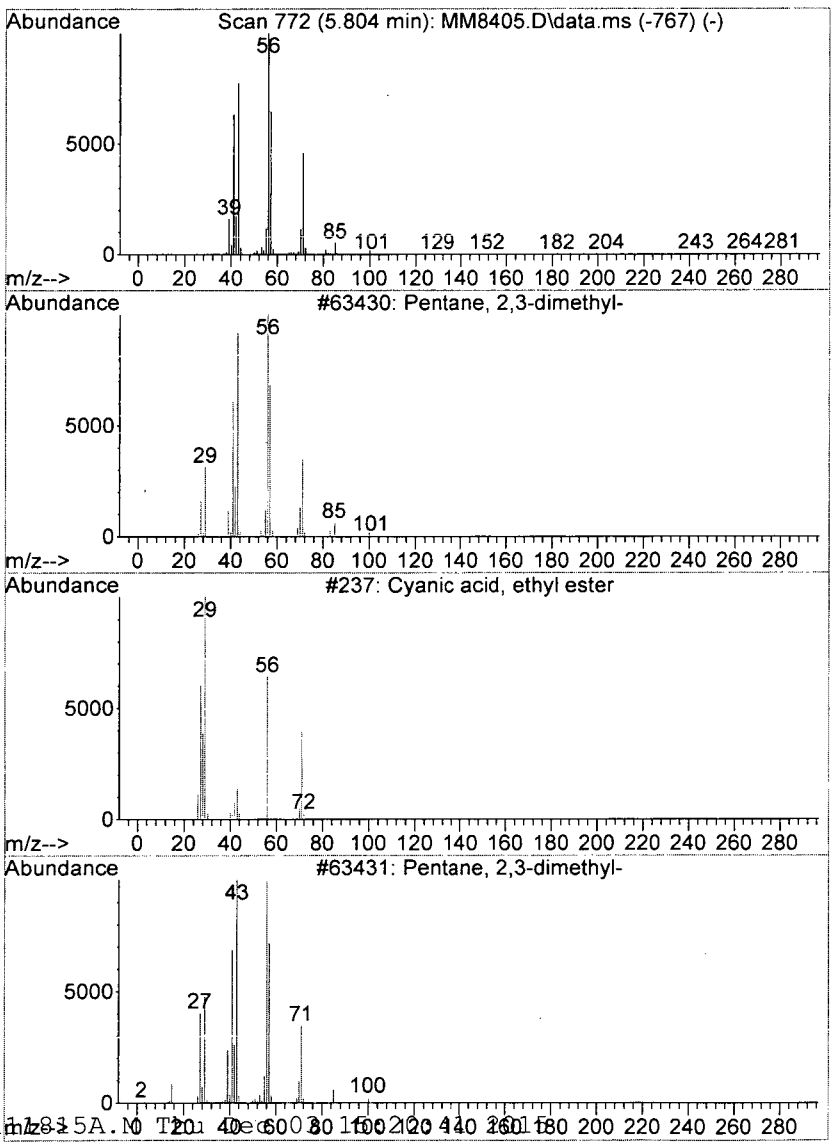
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

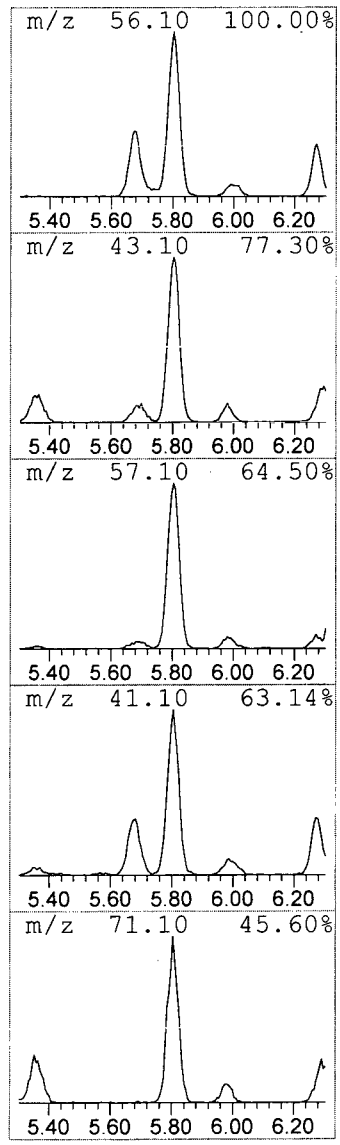
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 10  Pentane, 2,3-dimethyl-          Concentration Rank  5
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.804	35.16 ppb	1674840	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	90
2	Cyanic acid, ethyl ester	71	C3H5NO	000627-48-5	64
3	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	52
4	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	52
5	Hexane, 2,2,5-trimethyl-	128	C9H20	003522-94-9	45





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Data File : MM8405.D
Acq On    : 30 Nov 2015    6:11 pm
Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 11  Cyclopentane, 1,3-dimethyl-...  Concentration Rank 15
```
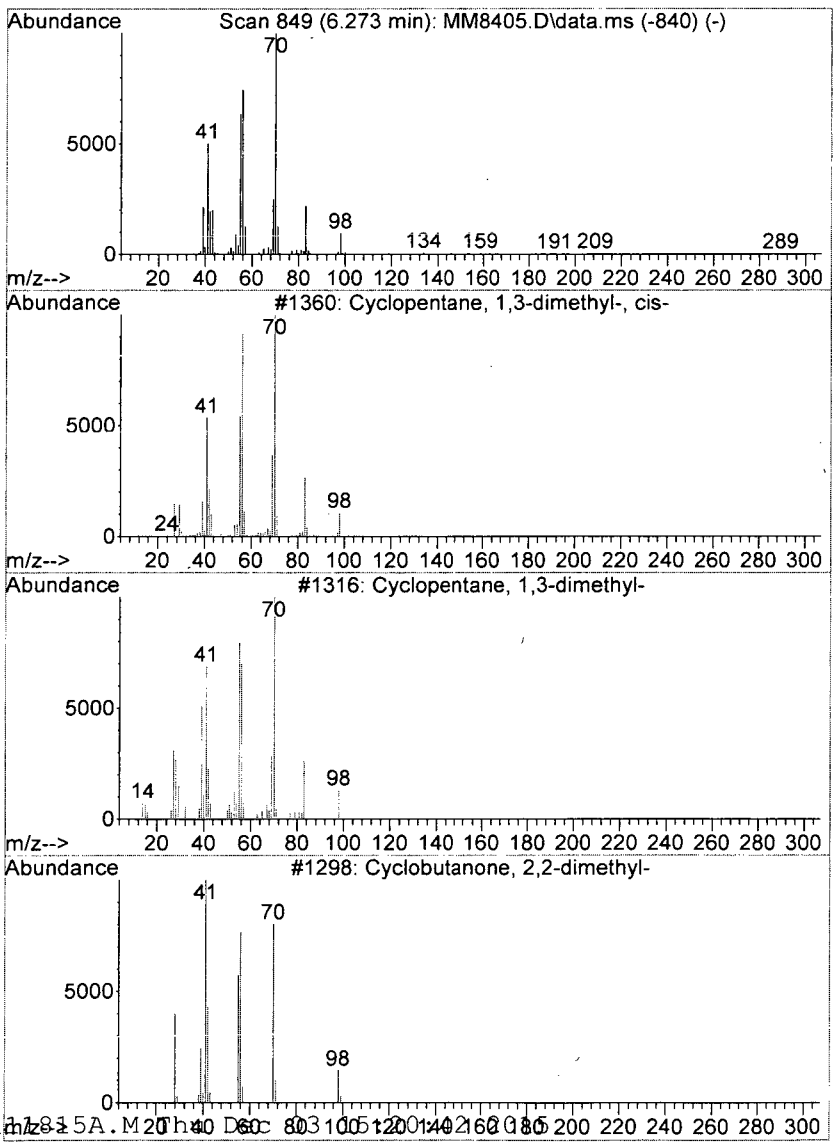
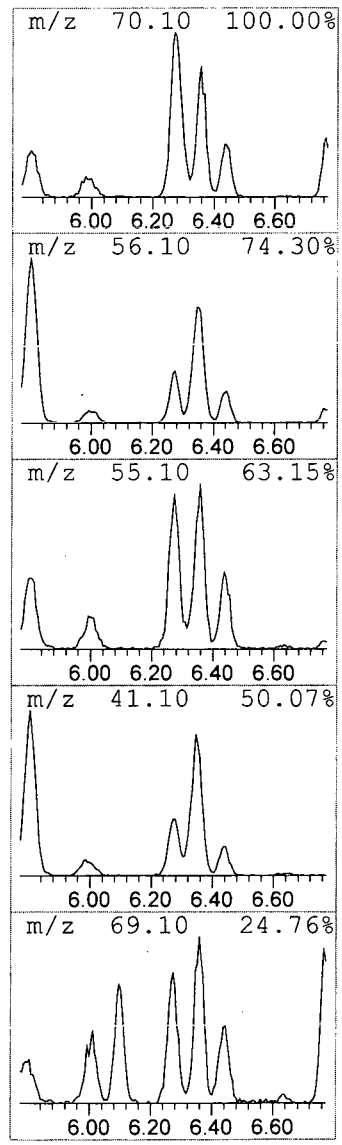

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.273	13.05 ppb	792975	1,4-Difluorobenzene	6.767

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, 1,3-dimethyl-, cis-	98	C7H14	002532-58-3	91
2	Cyclopentane, 1,3-dimethyl-	98	C7H14	002453-00-1	90
3	Cyclobutanone, 2,2-dimethyl-	98	C6H10O	001192-14-9	86
4	Cyclopentane, 1,3-dimethyl-, trans-	98	C7H14	001759-58-6	81
5	Cyclopentane, 1,3-dimethyl-, cis-	98	C7H14	002532-58-3	76





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Acq On    : 30 Nov 2015    6:11 pm
Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 12  Pentane, 2,2,3,4-tetramethyl-   Concentration Rank  7
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.352	28.04 ppb	1703770	1,4-Difluorobenzene	6.767

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2,2,3,4-tetramethyl-	128	C9H20	001186-53-4	50
2	Pentane, 2,2,3,4-tetramethyl-	128	C9H20	001186-53-4	45
3	Pentane, 2,2,4-trimethyl-	114	C8H18	000540-84-1	42
4	Hexane, 2,2,5,5-tetramethyl-	142	C10H22	001071-81-4	42
5	Pentane, 2,2,4,4-tetramethyl-	128	C9H20	001070-87-7	40

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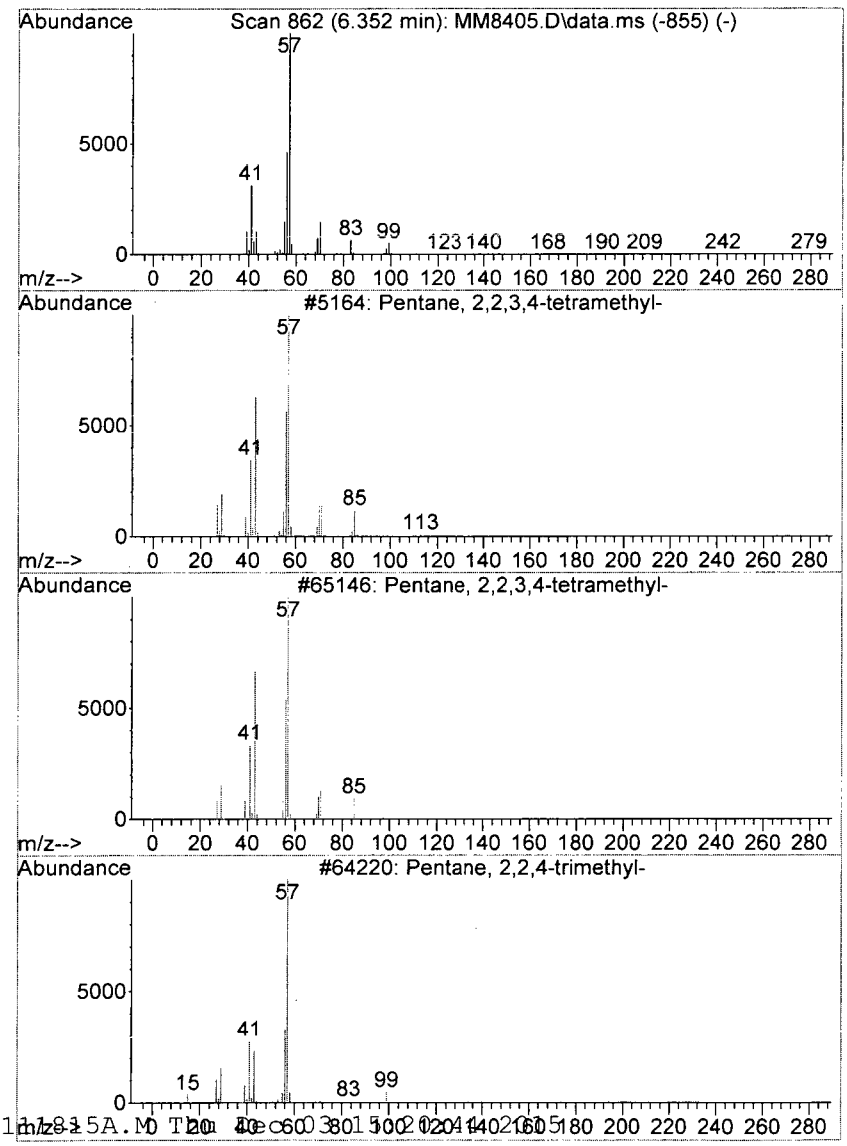

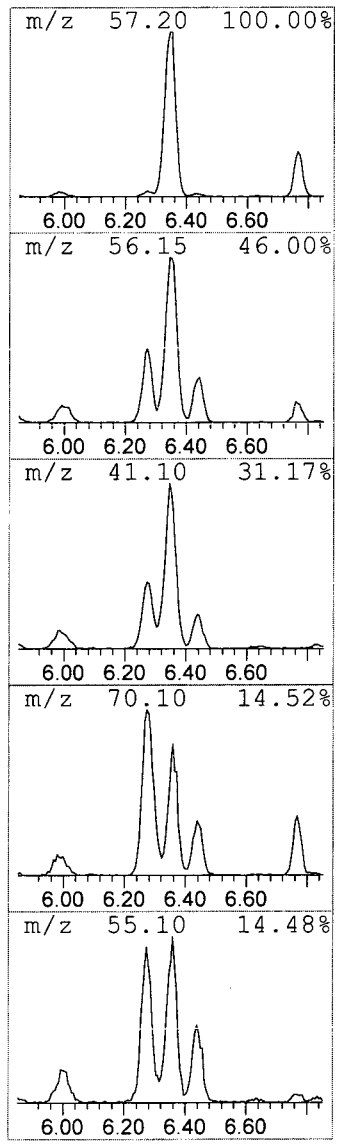

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Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 13  Cyclopentane, 1,2-dimethyl-...  Concentration Rank 13
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.297	13.42 ppb	815074	1,4-Difluorobenzene	6.767

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, 1,2-dimethyl-, cis-	98	C7H14	001192-18-3	68
2	Cyclobutanone, 3-ethyl-	98	C6H10O	056335-73-0	58
3	Cyclobutanone, 2,3,3-trimethyl-	112	C7H12O	028290-01-9	53
4	Cyclopentane, 1,2-dimethyl-, trans-	98	C7H14	000822-50-4	52
5	1-Heptene	98	C7H14	000592-76-7	50

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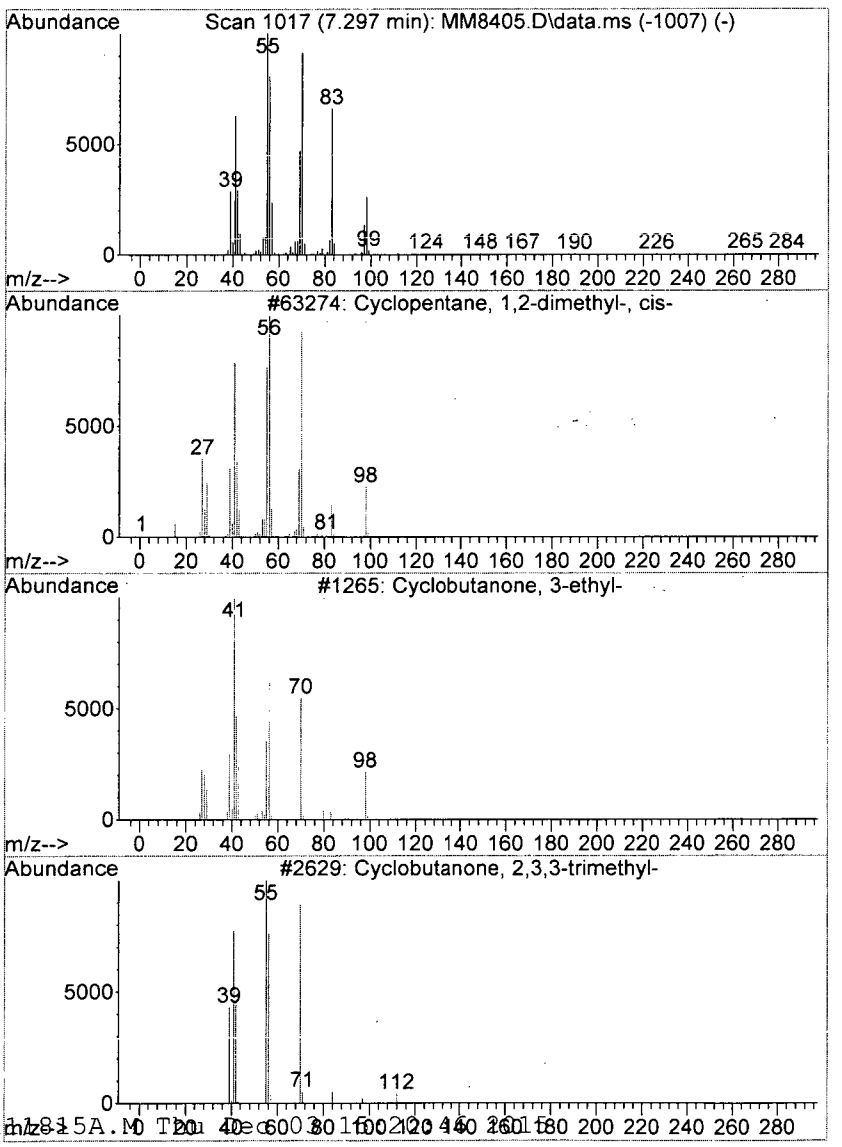

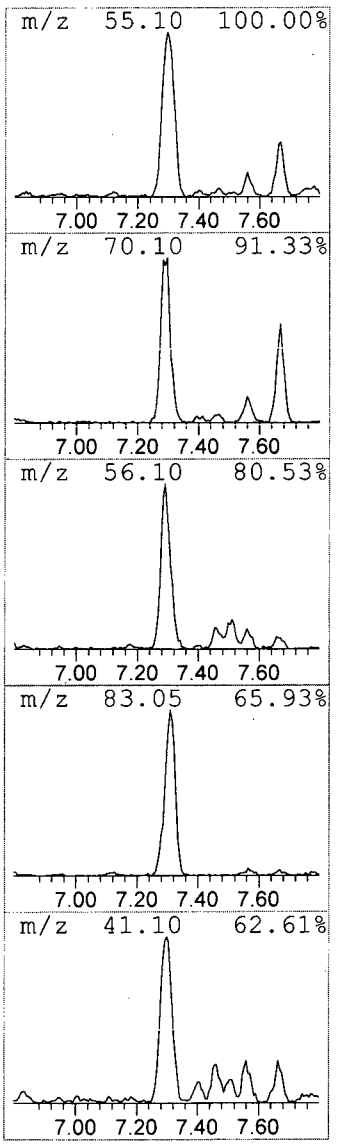

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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On    : 30 Nov 2015    6:11 pm
Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

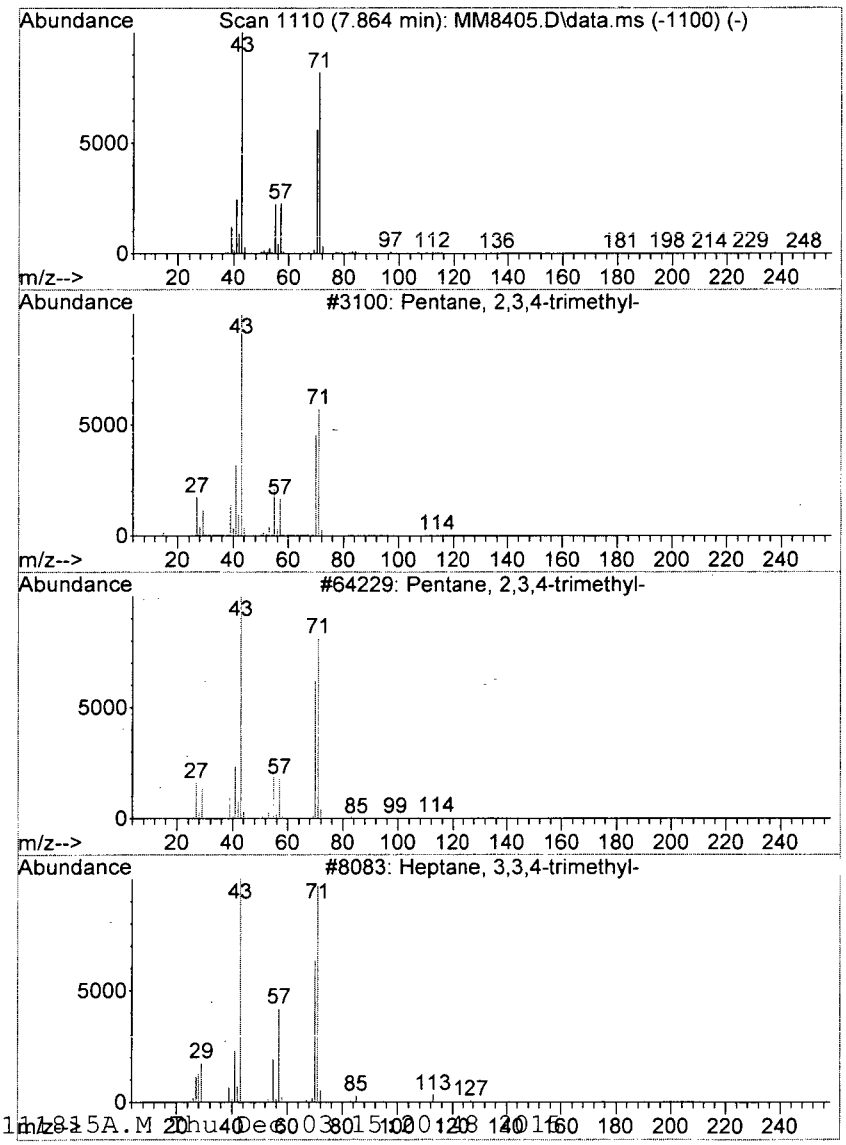
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```

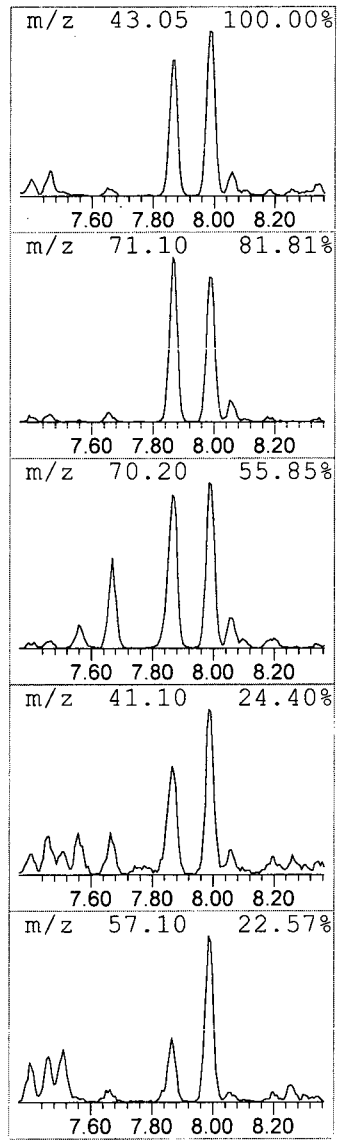
****

Peak Number 14 Pentane, 2,3,4-trimethyl- Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.864	9.54 ppb	579287	1,4-Difluorobenzene	6.767

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2,3,4-trimethyl-	114	C8H18	000565-75-3	90
2	Pentane, 2,3,4-trimethyl-	114	C8H18	000565-75-3	83
3	Heptane, 3,3,4-trimethyl-	142	C10H22	020278-87-9	78
4	Decane, 3,3,4-trimethyl-	184	C13H28	049622-18-6	74
5	Hexane, 3,3,4-trimethyl-	128	C9H20	016747-31-2	74





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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On    : 30 Nov 2015    6:11 pm
Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 15  Pentane, 2,3,3-trimethyl-       Concentration Rank 16
```
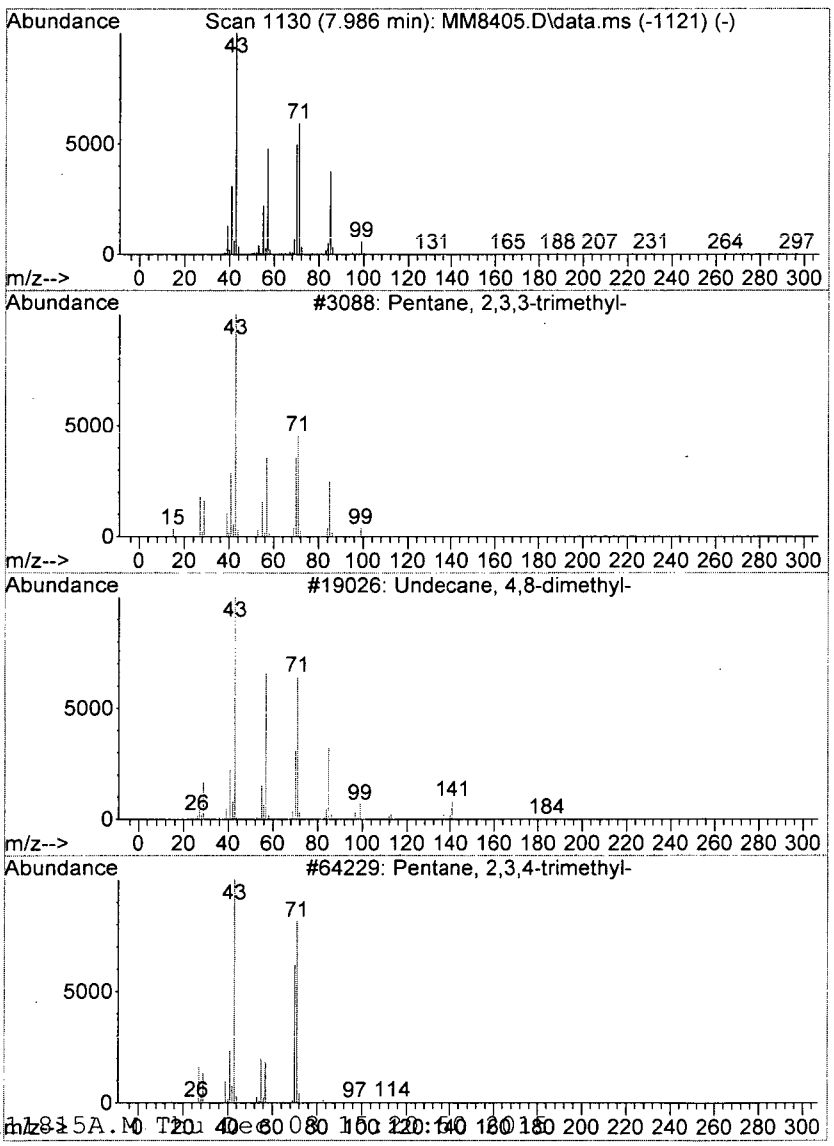
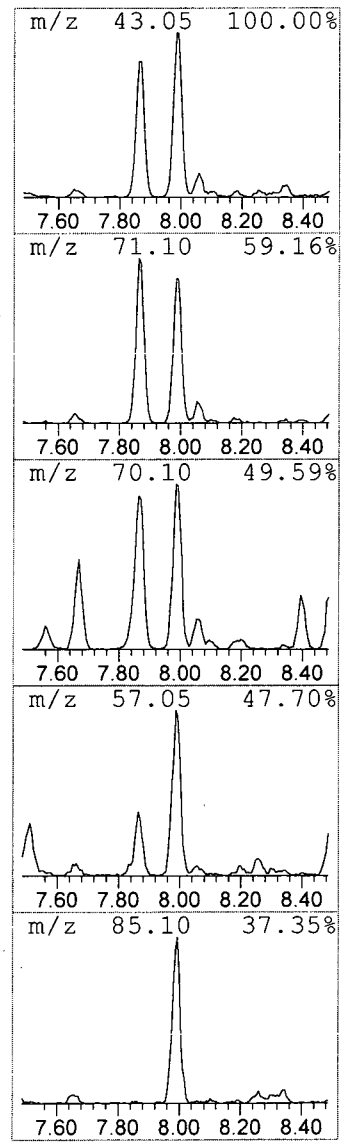

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.986	12.59 ppb	764958	1,4-Difluorobenzene	6.767

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2,3,3-trimethyl-	114	C8H18	000560-21-4	90
2	Undecane, 4,8-dimethyl-	184	C13H28	017301-33-6	64
3	Pentane, 2,3,4-trimethyl-	114	C8H18	000565-75-3	59
4	Hexane, 3-methyl-	100	C7H16	000589-34-4	59
5	Hexane, 2,3,4-trimethyl-	128	C9H20	000921-47-1	59





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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On    : 30 Nov 2015    6:11 pm
Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 16  Benzene, 1,1'-(1-ethenyl-1,...  Concentration Rank  2
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.242	60.75 ppb	4539010	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,1'-(1-ethenyl-1,3-pro...	222	C17H18	061141-97-7	59
2	Benzene, 2-propenyl-	118	C9H10	000300-57-2	53
3	Indane	118	C9H10	000496-11-7	53
4	Benzene, 2-propenyl-	118	C9H10	000300-57-2	50
5	Indane	118	C9H10	000496-11-7	46

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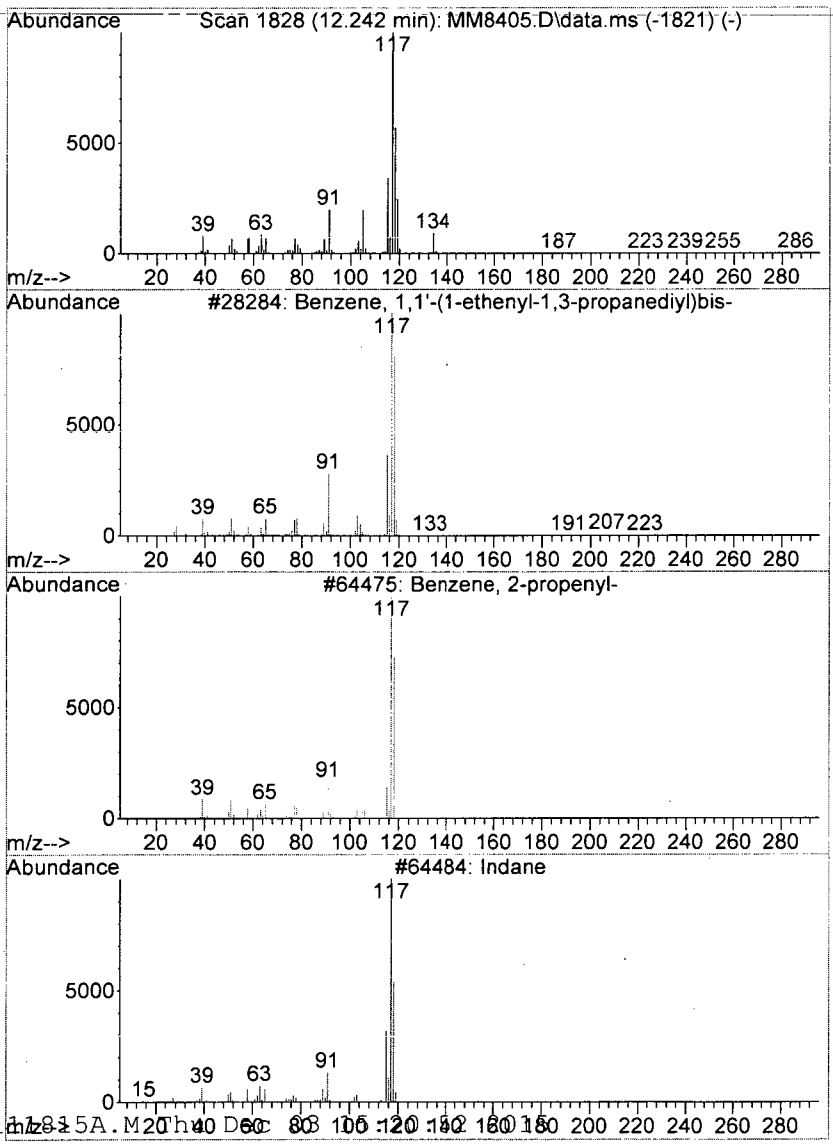

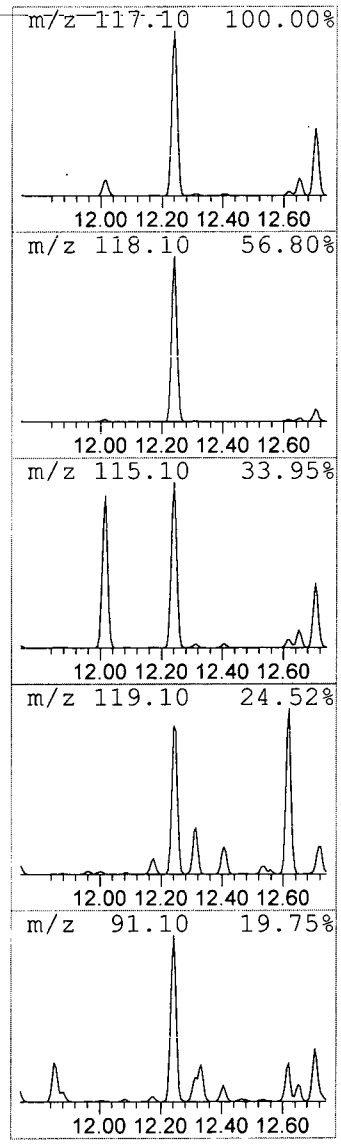

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Data File : MM8405.D
Acq On    : 30 Nov 2015    6:11 pm
Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 17  Benzene, 1-methyl-4-(1-meth...  Concentration Rank 17
```
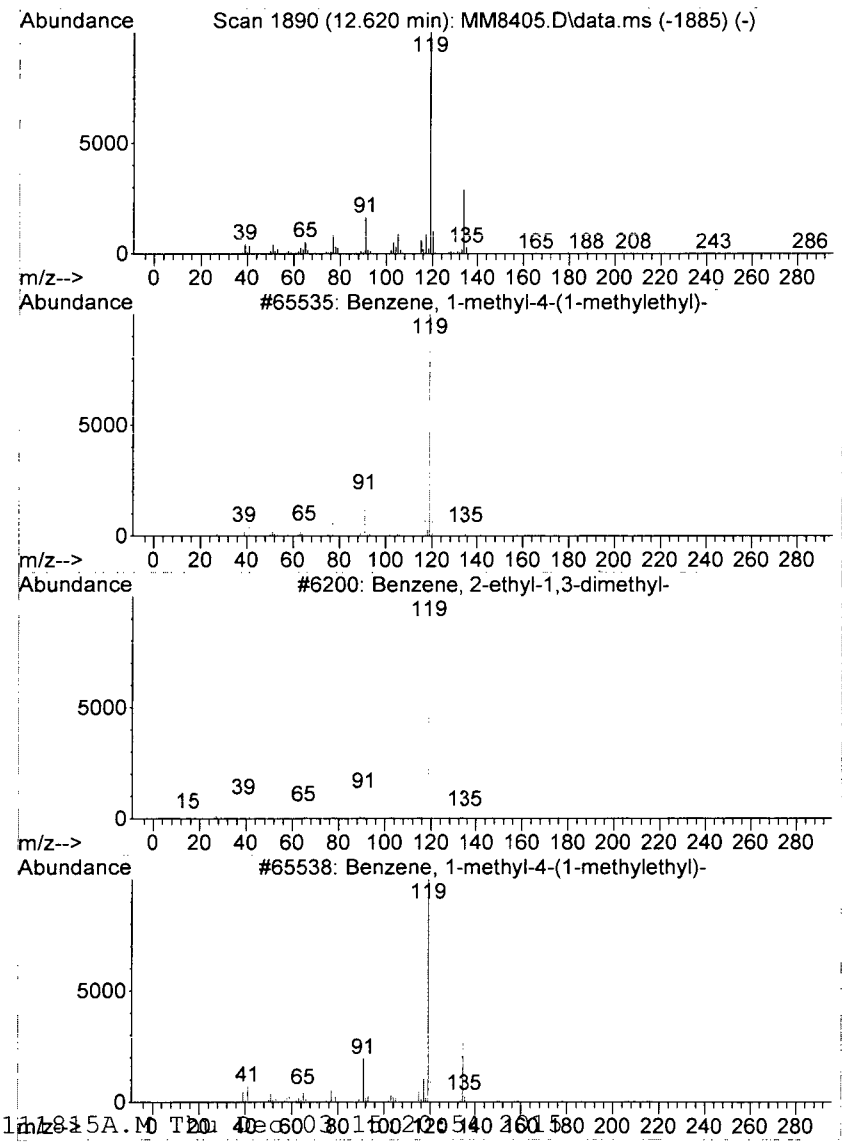
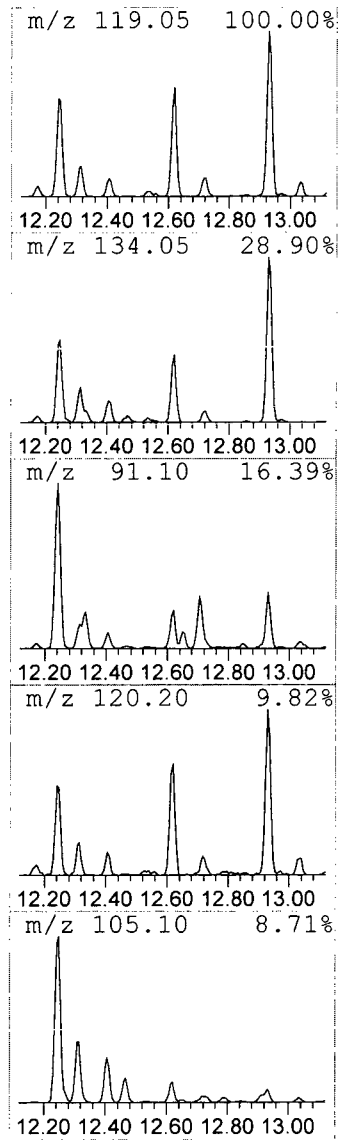

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.620	10.47 ppb	782551	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	95
2	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	95
3	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	95
4	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	94
5	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	94





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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On    : 30 Nov 2015    6:11 pm
Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

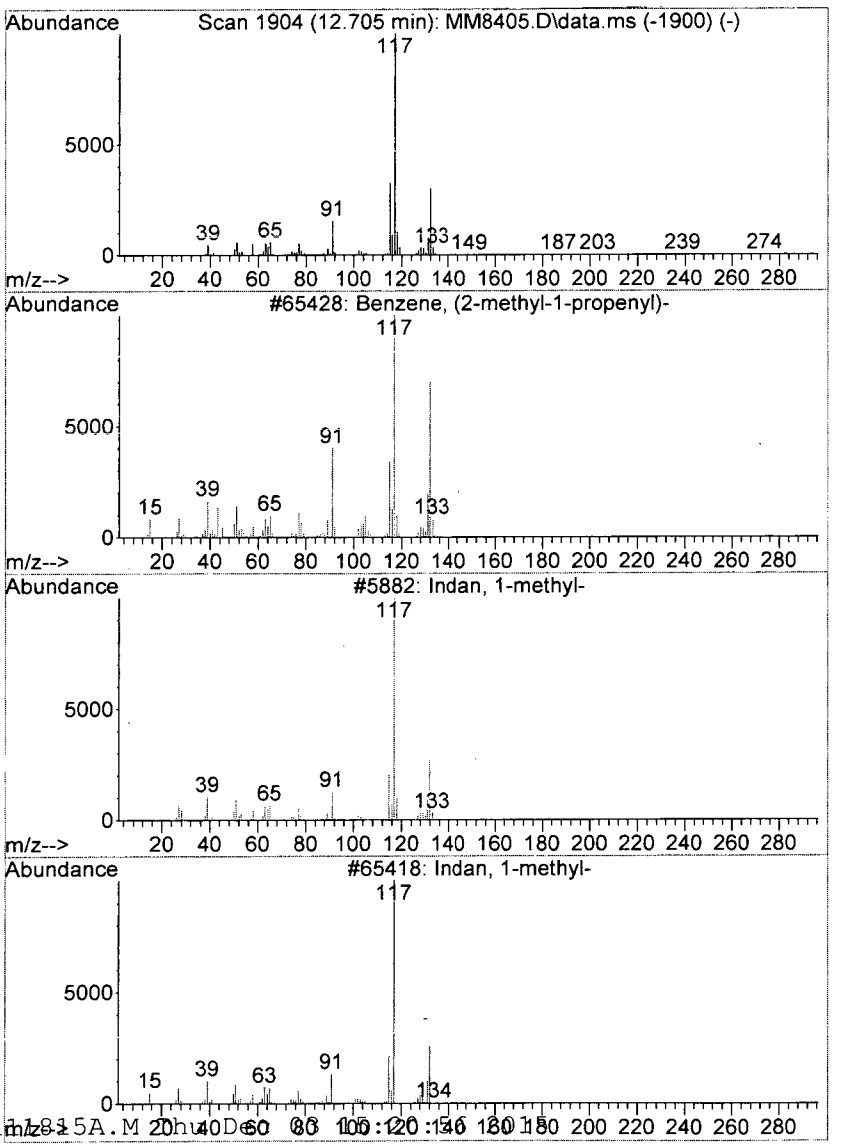
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

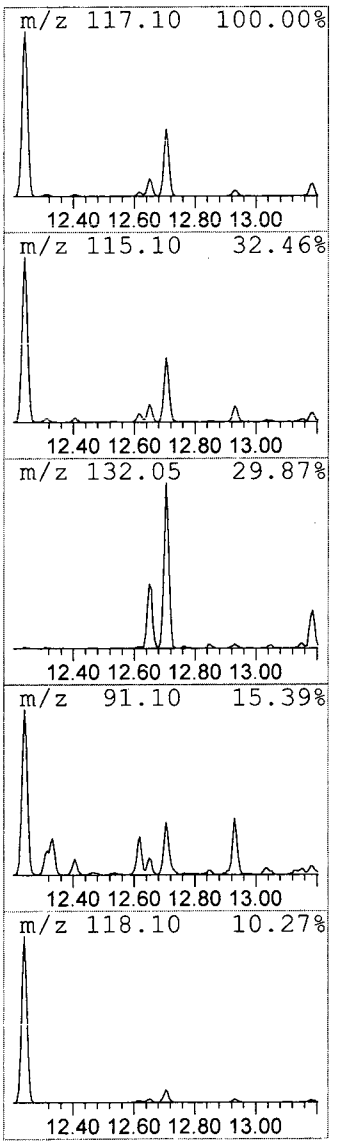
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 18  Benzene, (2-methyl-1-propen...  Concentration Rank  9
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.705	19.15 ppb	1430720	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	90
2	Indan, 1-methyl-	132	C10H12	000767-58-8	90
3	Indan, 1-methyl-	132	C10H12	000767-58-8	87
4	Benzene, 1-ethenyl-3-ethyl-	132	C10H12	007525-62-4	86
5	Benzene, (2-methyl-2-propenyl)-	132	C10H12	003290-53-7	86





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Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On    : 30 Nov 2015   6:11 pm
Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

*********************************************************************
Peak Number 19  Benzene, 1,2,3,5-tetramethyl-   Concentration Rank 10
```
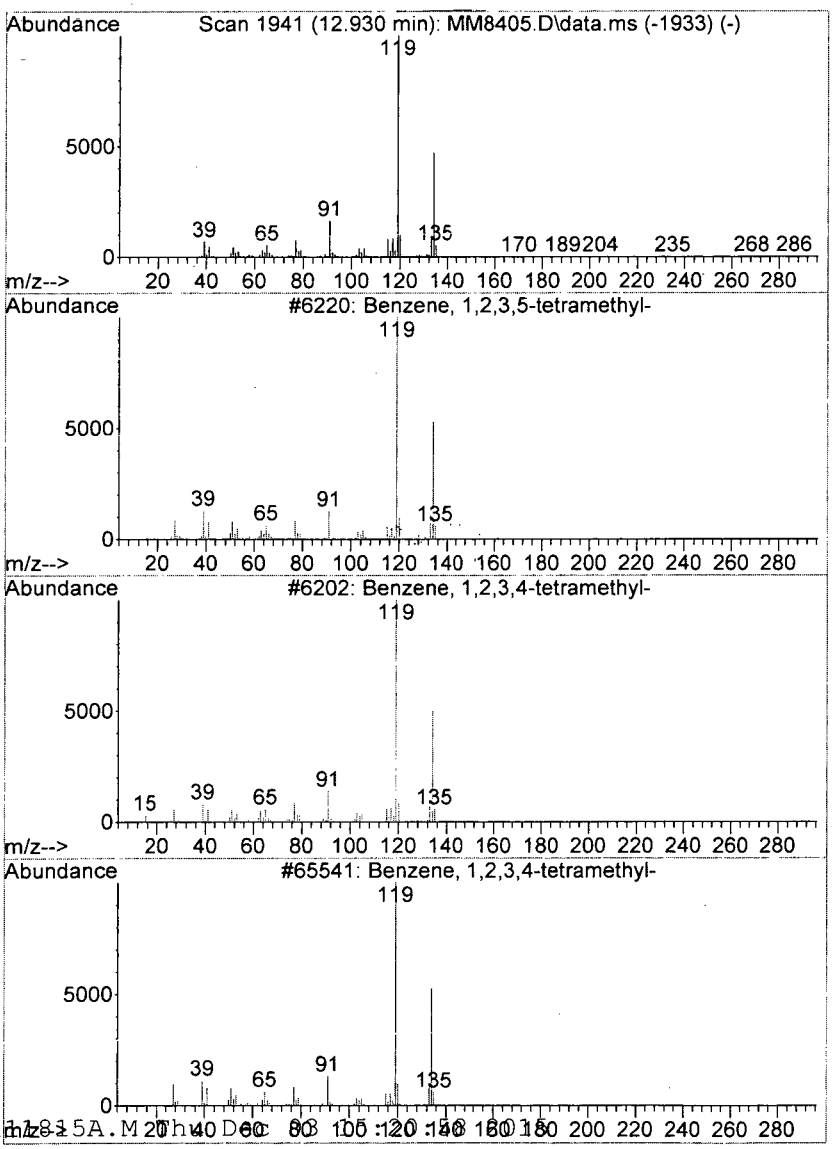
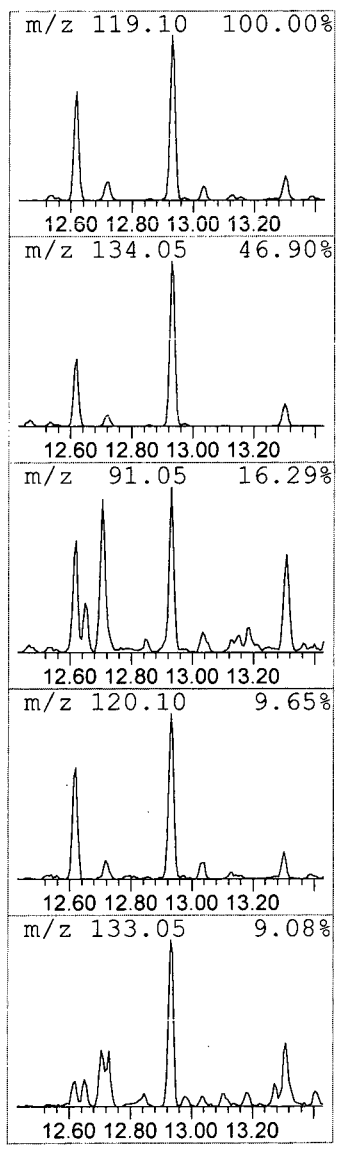

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.930	18.22 ppb	1361490	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	97
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	95
3	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	95
4	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	95
5	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	94



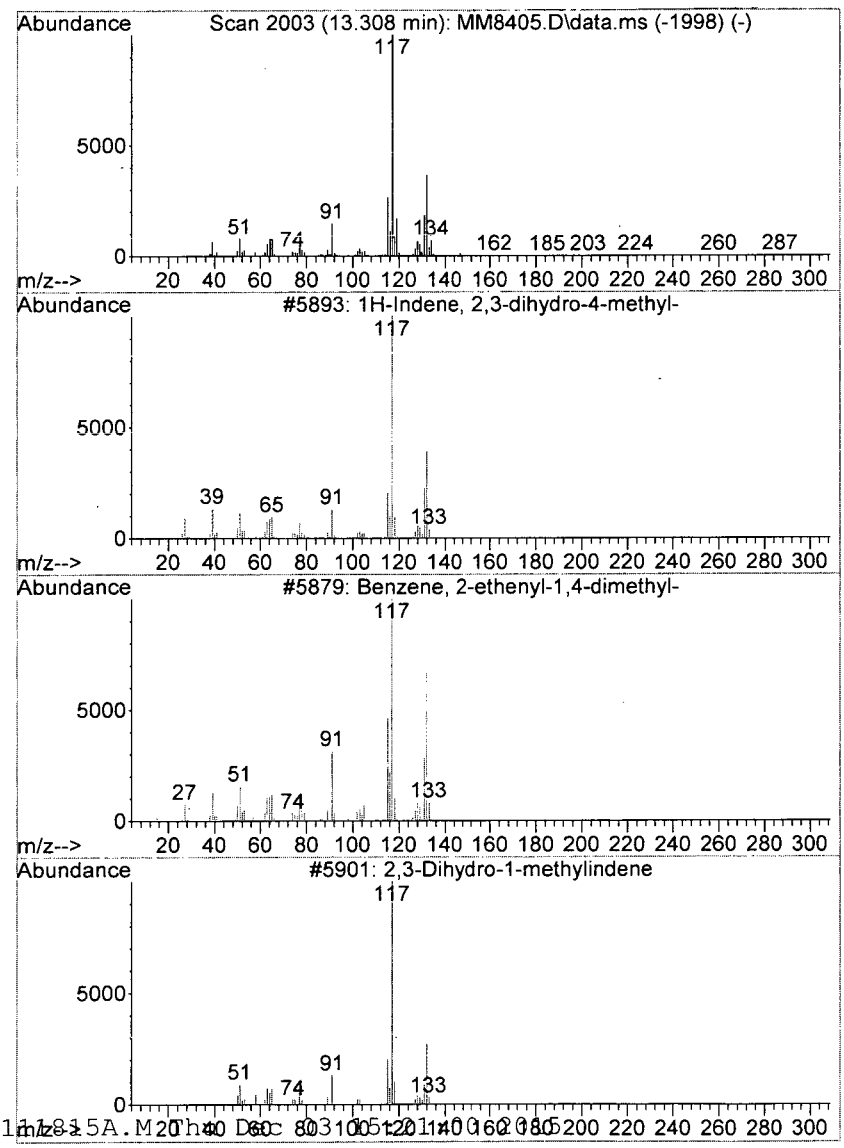


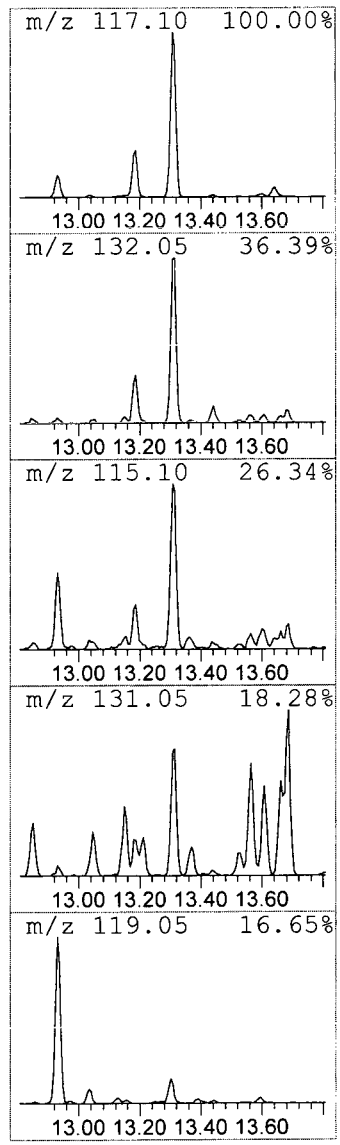
Library Search Compound Report


```
Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8405.D
Acq On    : 30 Nov 2015    6:11 pm
Operator  : K.Ruest
Sample    : R1510063-018|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 19   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 20  1H-Indene, 2,3-dihydro-4-me...  Concentration Rank 11
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.308	14.91 ppb	1114330	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	93
2	Benzene, 2-ethenyl-1,4-dimethyl-	132	C10H12	002039-89-6	91
3	2,3-Dihydro-1-methylindene	132	C10H12	027133-93-3	87
4	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000767-99-7	87
5	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	83





Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15 1425
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW01-32.5	**Units:**	µg/L
Lab Code:	R1510063-019	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	13	2.5	0.55	2.5	NA	11/30/15 15:38		474104	
1,1,1-Trichloroethane (TCA)	ND	U	13	2.5	0.90	2.5	NA	11/30/15 15:38		474104	
1,1,2,2-Tetrachloroethane	ND	U	13	2.5	0.63	2.5	NA	11/30/15 15:38		474104	
1,1,2-Trichloroethane	ND	U	13	2.5	0.86	2.5	NA	11/30/15 15:38		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	13	2.5	1.5	2.5	NA	11/30/15 15:38		474104	
1,1-Dichloropropene	ND	U	13	2.5	0.73	2.5	NA	11/30/15 15:38		474104	
1,2,3-Trichlorobenzene	ND	U	13	2.5	2.1	2.5	NA	11/30/15 15:38		474104	
1,2,3-Trichloropropane	ND	U	13	2.5	1.8	2.5	NA	11/30/15 15:38		474104	
1,2,4-Trichlorobenzene	ND	U	13	2.5	0.58	2.5	NA	11/30/15 15:38		474104	
1,2,4-Trimethylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	13	2.5	1.9	2.5	NA	11/30/15 15:38		474104	
1,2-Dibromoethane	ND	U	13	2.5	0.60	2.5	NA	11/30/15 15:38		474104	
1,2-Dichlorobenzene	ND	U	13	2.5	0.53	2.5	NA	11/30/15 15:38		474104	
1,2-Dichloroethane	ND	U	13	2.5	0.90	2.5	NA	11/30/15 15:38		474104	
1,2-Dichloropropane	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
1,3,5-Trimethylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
1,3-Dichlorobenzene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
1,3-Dichloropropane	ND	U	13	2.5	0.68	2.5	NA	11/30/15 15:38		474104	
1,4-Dichlorobenzene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
2,2-Dichloropropane	ND	U	13	2.5	0.68	2.5	NA	11/30/15 15:38		474104	
2-Butanone (MEK)	ND	U	13	2.5	2.1	2.5	NA	11/30/15 15:38		474104	
2-Chlorotoluene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
2-Hexanone	ND	U	13	13	4.2	2.5	NA	11/30/15 15:38		474104	
tert-Butyl Alcohol	ND	U	250	50	27	2.5	NA	11/30/15 15:38		474104	
4-Chlorotoluene	ND	U	13	2.5	0.60	2.5	NA	11/30/15 15:38		474104	
p-Isopropyltoluene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
4-Methyl-2-pentanone	ND	U	13	2.5	1.7	2.5	NA	11/30/15 15:38		474104	
Acetone	ND	U	13	13	3.1	2.5	NA	11/30/15 15:38		474104	
Benzene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
Bromobenzene	ND	U	13	2.5	0.71	2.5	NA	11/30/15 15:38		474104	
Bromochloromethane	ND	U	13	2.5	0.80	2.5	NA	11/30/15 15:38		474104	
Bromodichloromethane	ND	U	13	2.5	0.80	2.5	NA	11/30/15 15:38		474104	
Bromoform	ND	U	13	2.5	1.1	2.5	NA	11/30/15 15:38		474104	
Bromomethane	ND	U	13	2.5	0.73	2.5	NA	11/30/15 15:38		474104	
Carbon Tetrachloride	ND	U	13	2.5	1.2	2.5	NA	11/30/15 15:38		474104	
Chlorobenzene	ND	U	13	2.5	0.73	2.5	NA	11/30/15 15:38		474104	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15 1425
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW01-32.5
Lab Code: R1510063-019

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	13	2.5	0.60	2.5	NA	11/30/15 15:38		474104	
Chloroform	ND	U	13	2.5	0.63	2.5	NA	11/30/15 15:38		474104	
Chloromethane	ND	U	13	2.5	0.53	2.5	NA	11/30/15 15:38		474104	
Dibromochloromethane	ND	U	13	2.5	0.78	2.5	NA	11/30/15 15:38		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	13	2.5	1.2	2.5	NA	11/30/15 15:38		474104	
Methylene Chloride	ND	U	13	2.5	1.5	2.5	NA	11/30/15 15:38		474104	
Ethylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
Hexachlorobutadiene	ND	U	13	2.5	1.6	2.5	NA	11/30/15 15:38		474104	
Isopropylbenzene (Cumene)	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
Methyl tert-Butyl Ether	**1.9**	J	13	2.5	0.73	2.5	NA	11/30/15 15:38		474104	
Naphthalene	**0.83**	J	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
Styrene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
Tetrachloroethene (PCE)	**660**	D	25	5.0	1.5	5	NA	11/30/15 18:42		474104	
Toluene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
Trichloroethene (TCE)	**17**		13	2.5	0.55	2.5	NA	11/30/15 15:38		474104	
Trichlorofluoromethane (CFC 11)	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
Vinyl Chloride	ND	U	13	2.5	0.80	2.5	NA	11/30/15 15:38		474104	
cis-1,2-Dichloroethene	ND	U	13	2.5	0.75	2.5	NA	11/30/15 15:38		474104	
cis-1,3-Dichloropropene	ND	U	13	2.5	0.60	2.5	NA	11/30/15 15:38		474104	
m,p-Xylenes	ND	U	25	5.0	0.83	2.5	NA	11/30/15 15:38		474104	
n-Butylbenzene	ND	U	13	2.5	0.53	2.5	NA	11/30/15 15:38		474104	
n-Propylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
o-Xylene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
sec-Butylbenzene	ND	U	13	2.5	0.68	2.5	NA	11/30/15 15:38		474104	
tert-Butylbenzene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	
trans-1,2-Dichloroethene	ND	U	13	2.5	0.83	2.5	NA	11/30/15 15:38		474104	
trans-1,3-Dichloropropene	ND	U	13	2.5	0.50	2.5	NA	11/30/15 15:38		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/30/15 15:38	
Dibromofluoromethane	113	85-115	11/30/15 15:38	
Toluene-d8	94	85-120	11/30/15 15:38	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/30/15 1538

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW01-32.5	**Units:**	µg/L
Lab Code:	R1510063-019	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8400.D
Acq On : 30 Nov 2015 3:38 pm
Operator : K.Ruest
Sample : R1510063-019|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 03 15:01:16 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

vpt 5.0

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	823707	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1312001	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1196513	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	594300	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.597	113	384176	56.32	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 112.64%			
48) surr1,1,2-dichloroetha...	6.096	65	416668	55.30	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 110.60%			
65) SURR3,Toluene-d8	8.529	98	1344389	46.83	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 93.66%			
70) SURR2,BFB	11.047	95	603840	55.72	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.44%			
Target Compounds						Qvalue
23) TBA	3.097	59	1399	2.59	ppb	# 25
25) Methyl-t-Butyl Ether	3.268	73	14500	0.76	ppb	82
54) Trichloroethene	7.078	130	48487	6.61	ppb	96
72) Tetrachloroethene	9.181	164	1159382	233.62	ppb	95 (E)
117) Naphthalen	13.802	128	5281	0.33	ppb	87

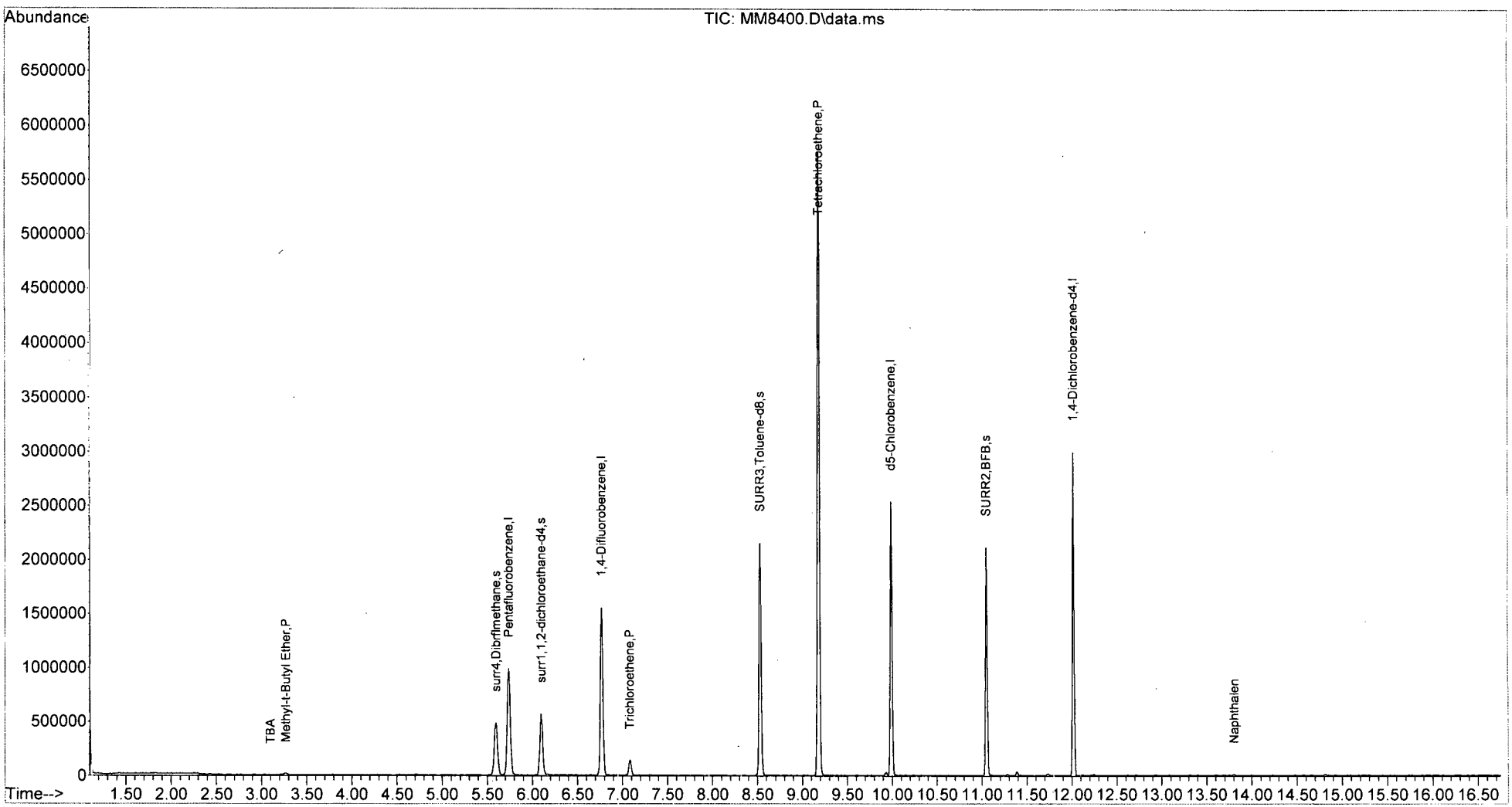
KL 12/3/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed

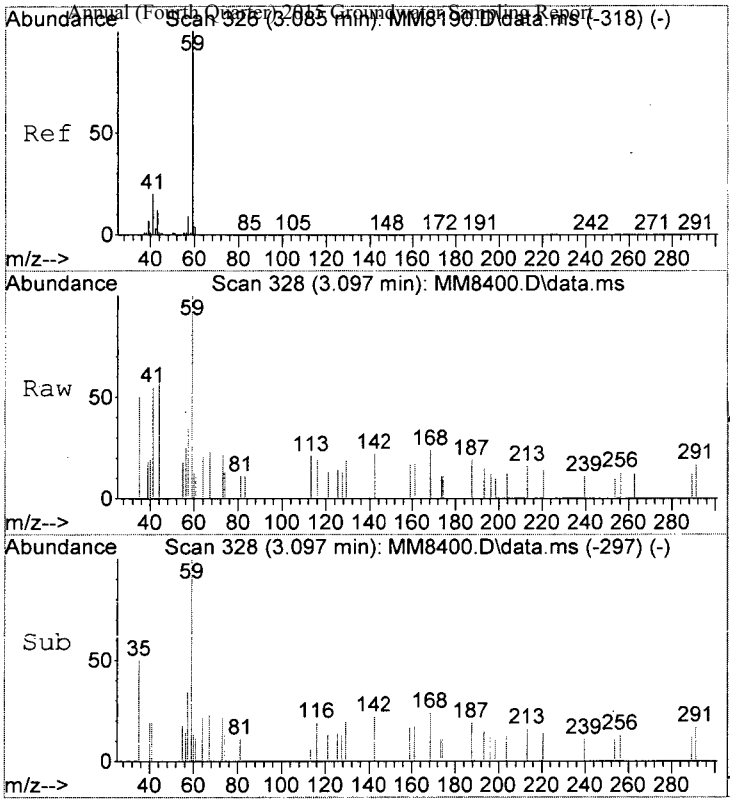
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8400.D
Acq On : 30 Nov 2015 3:38 pm
Operator : K.Ruest
Sample : R1510063-019|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 03 15:01:16 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



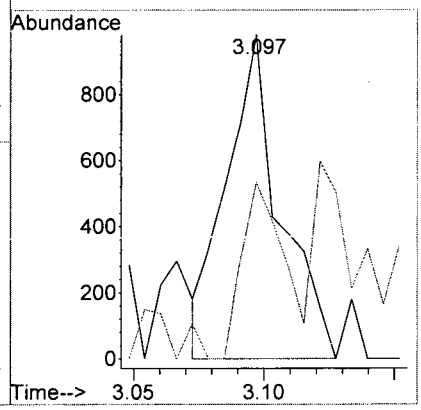
W111815A.M Thu Dec 03 15:01:50 2015 Page: 2

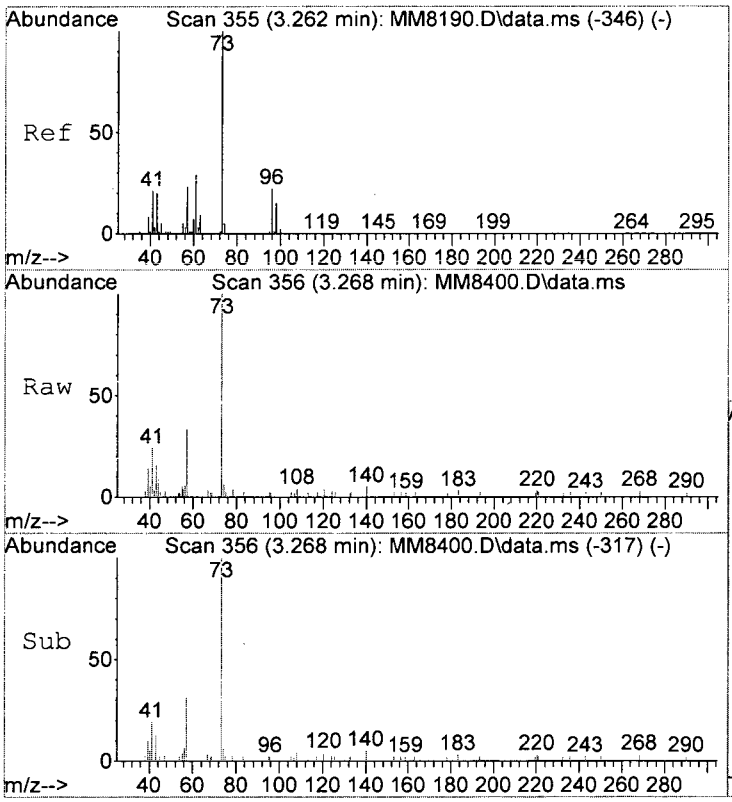


#23
TBA
Concen: 2.59 ppb
RT: 3.097 min Scan# 328
Delta R.T. -0.000 min
Lab File: MM8400.D
Acq: 30 Nov 2015 3:38 pm

Tgt Ion: 59 Resp: 1399

Ion	Ratio	Lower	Upper
59	100		
41	54.6	0.0	40.0#

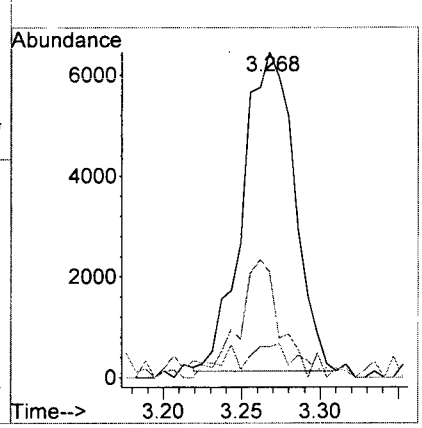


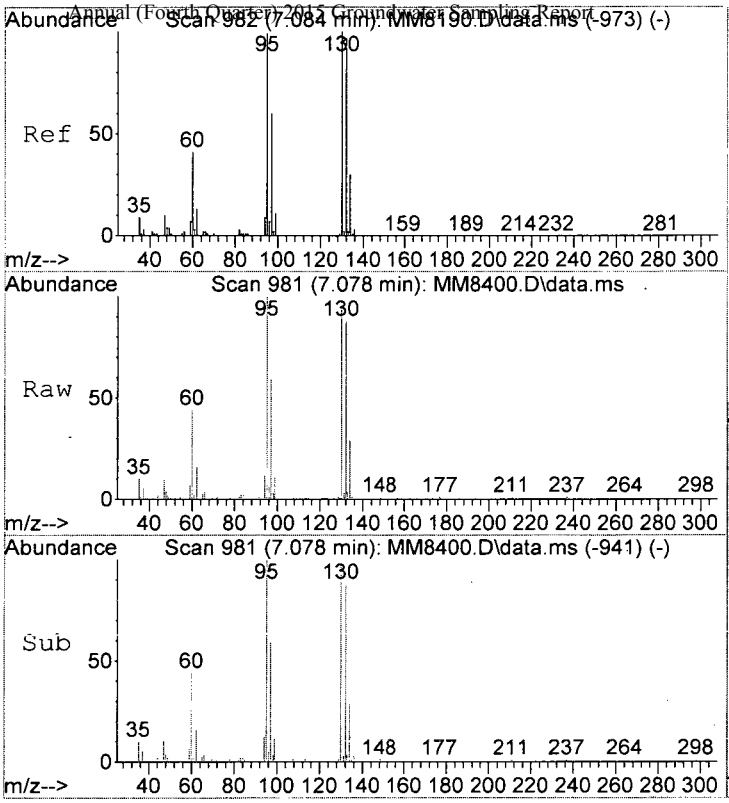


#25
Methyl-t-Butyl Ether
Concen: 0.76 ppb
RT: 3.268 min Scan# 356
Delta R.T. -0.000 min
Lab File: MM8400.D
Acq: 30 Nov 2015 3:38 pm

Tgt Ion: 73 Resp: 14500

Ion	Ratio	Lower	Upper
73	100		
57	32.5	3.3	43.3
55	9.4	0.0	24.8

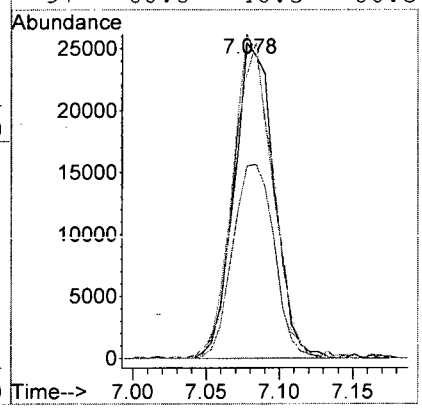


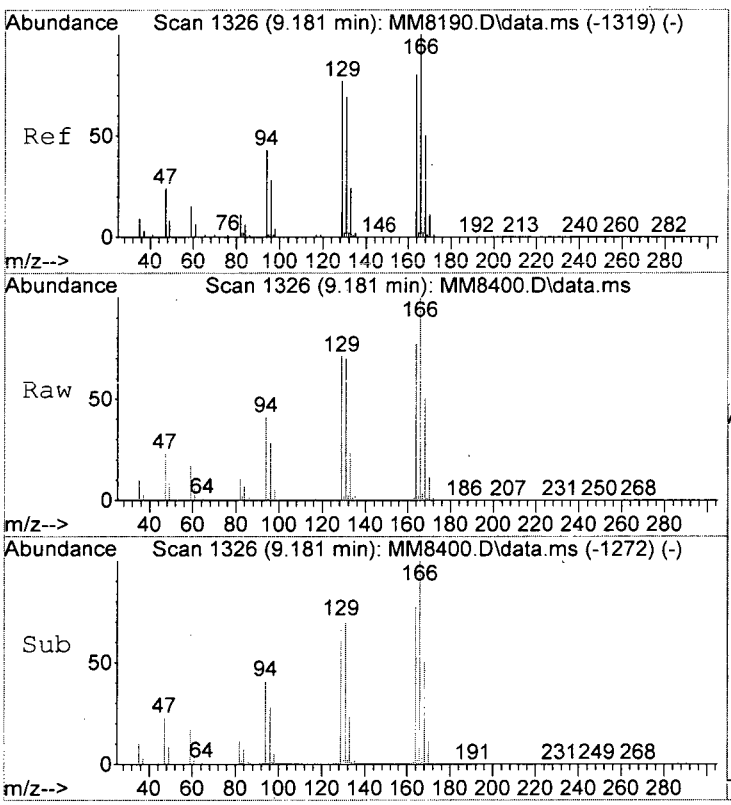


#54
Trichloroethene
Concen: 6.61 ppb
RT: 7.078 min Scan# 981
Delta R.T. -0.006 min
Lab File: MM8400.D
Acq: 30 Nov 2015 3:38 pm

Tgt Ion:130 Resp: 48487

Ion	Ratio	Lower	Upper
130	100		
132	89.9	77.4	117.4
95	102.6	79.2	119.2
97	60.8	40.3	80.3

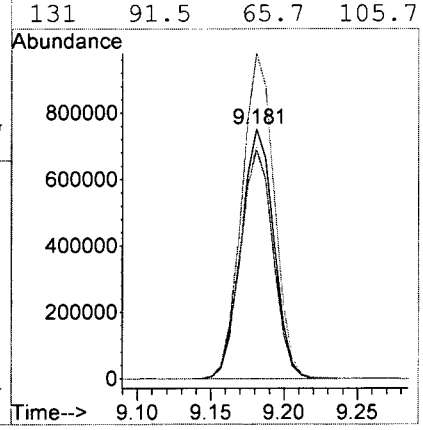


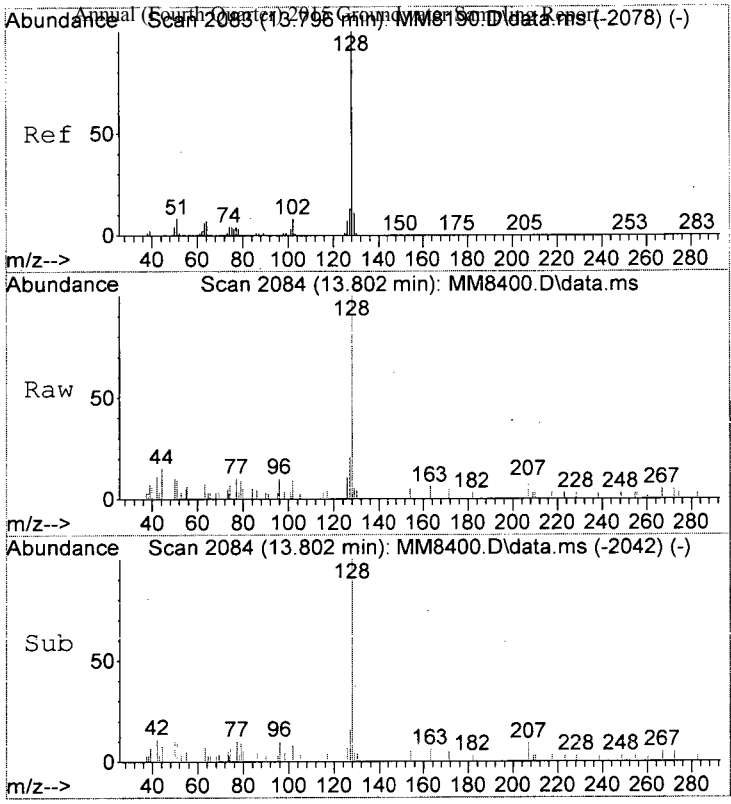


#72
Tetrachloroethene
Concen: 233.62 ppb
RT: 9.181 min Scan# 1326
Delta R.T. -0.000 min
Lab File: MM8400.D
Acq: 30 Nov 2015 3:38 pm

Tgt Ion:164 Resp: 1159382

Ion	Ratio	Lower	Upper
164	100		
166	130.4	104.3	144.3
129	93.1	75.4	115.4
131	91.5	65.7	105.7

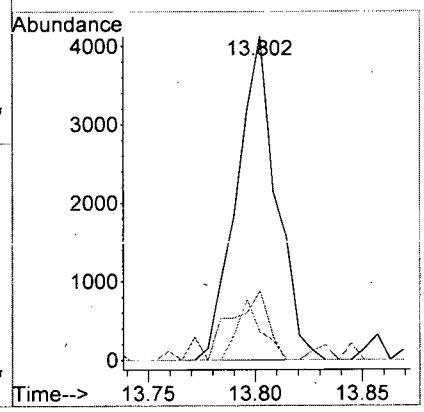




#117
Naphthalen
Concen: 0.33 ppb
RT: 13.802 min Scan# 2084
Delta R.T. -0.000 min
Lab File: MM8400.D
Acq: 30 Nov 2015 3:38 pm

Tgt Ion:128 Resp: 5281

Ion	Ratio	Lower	Upper
128	100		
127	21.3	0.0	33.1
102	8.5	0.0	28.3



MM8400.D W111815A.M Thu Dec 03 15:01:55 2015 Page 5

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8400.D
Acq On : 30 Nov 2015 3:38 pm
Operator : K.Ruest
Sample : R1510063-019|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 14 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8400.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.597	726	738	749	rBV	483383	1247325	14.14%	4.105%
2	5.737	751	761	776	rVB	986018	2335912	26.48%	7.687%
3	6.096	811	820	830	rBV	564527	1214191	13.76%	3.996%
4	6.767	920	930	943	rBV	1550269	3009896	34.12%	9.905%
5	7.084	975	982	989	rVB	140254	272023	3.08%	0.895%
6	8.529	1212	1219	1233	rVB	2150047	3484767	39.50%	11.468%
7	9.181	1318	1326	1335	rBV	5748658	8821100	100.00%	29.029%
8	9.986	1453	1458	1469	rVB	2534085	3620093	41.04%	11.913%
9	11.047	1627	1632	1645	rBV	2111344	2717981	30.81%	8.944%
10	12.016	1786	1791	1797	rVB	2990914	3664349	41.54%	12.059%

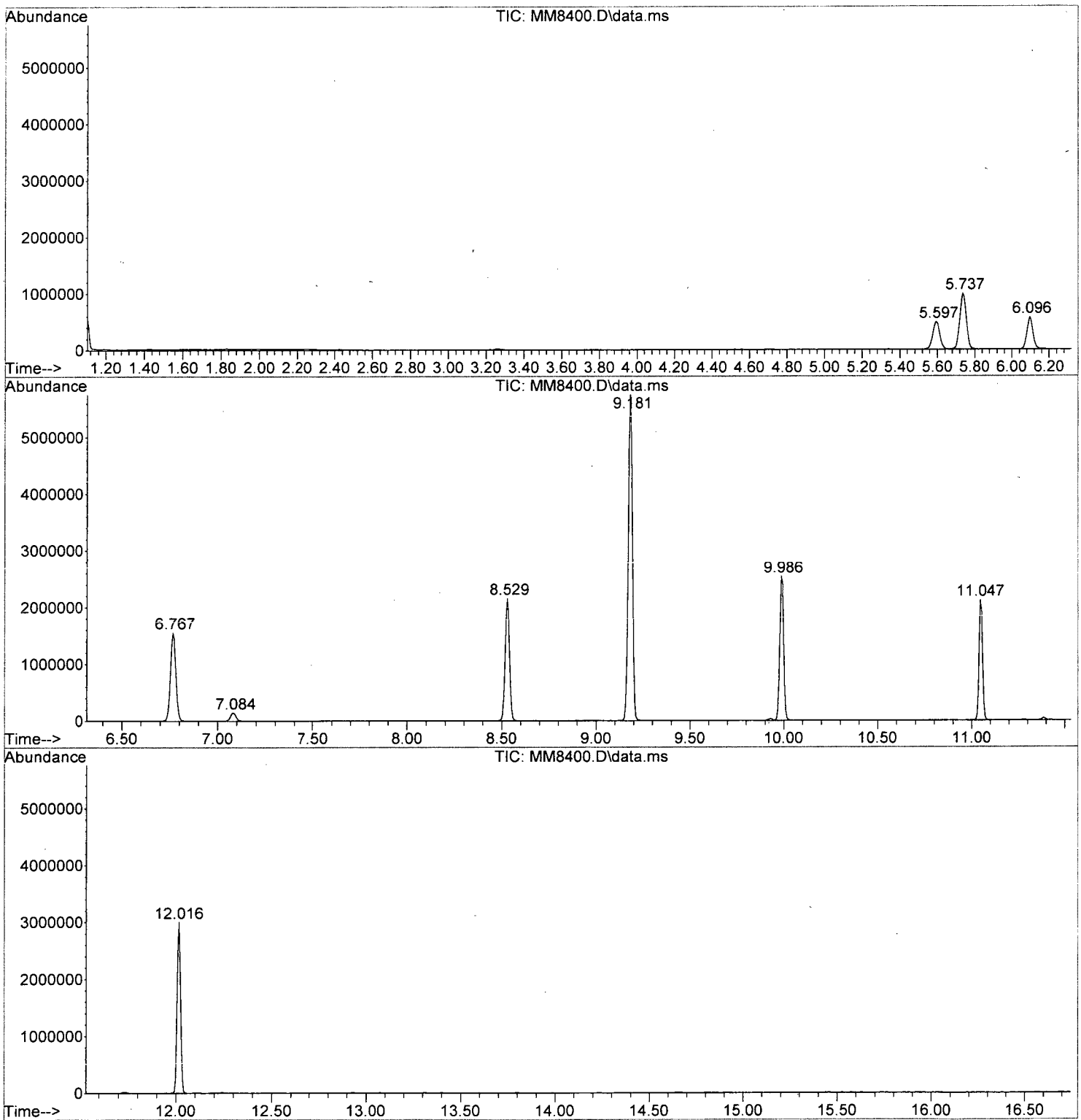
Sum of corrected areas: 30387637

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8400.D
Acq On : 30 Nov 2015 3:38 pm
Operator : K.Ruest
Sample : R1510063-019|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 14 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



W111815A.M Thu Dec 03 15:02:15 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\113015\\
Data File : MM8400.D
Acq On : 30 Nov 2015 3:38 pmm
Operator : K.Ruestt
Sample : R1510063-019|2.5 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 14 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8406.D
Acq On : 30 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : R1510063-019|5.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 03 15:47:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

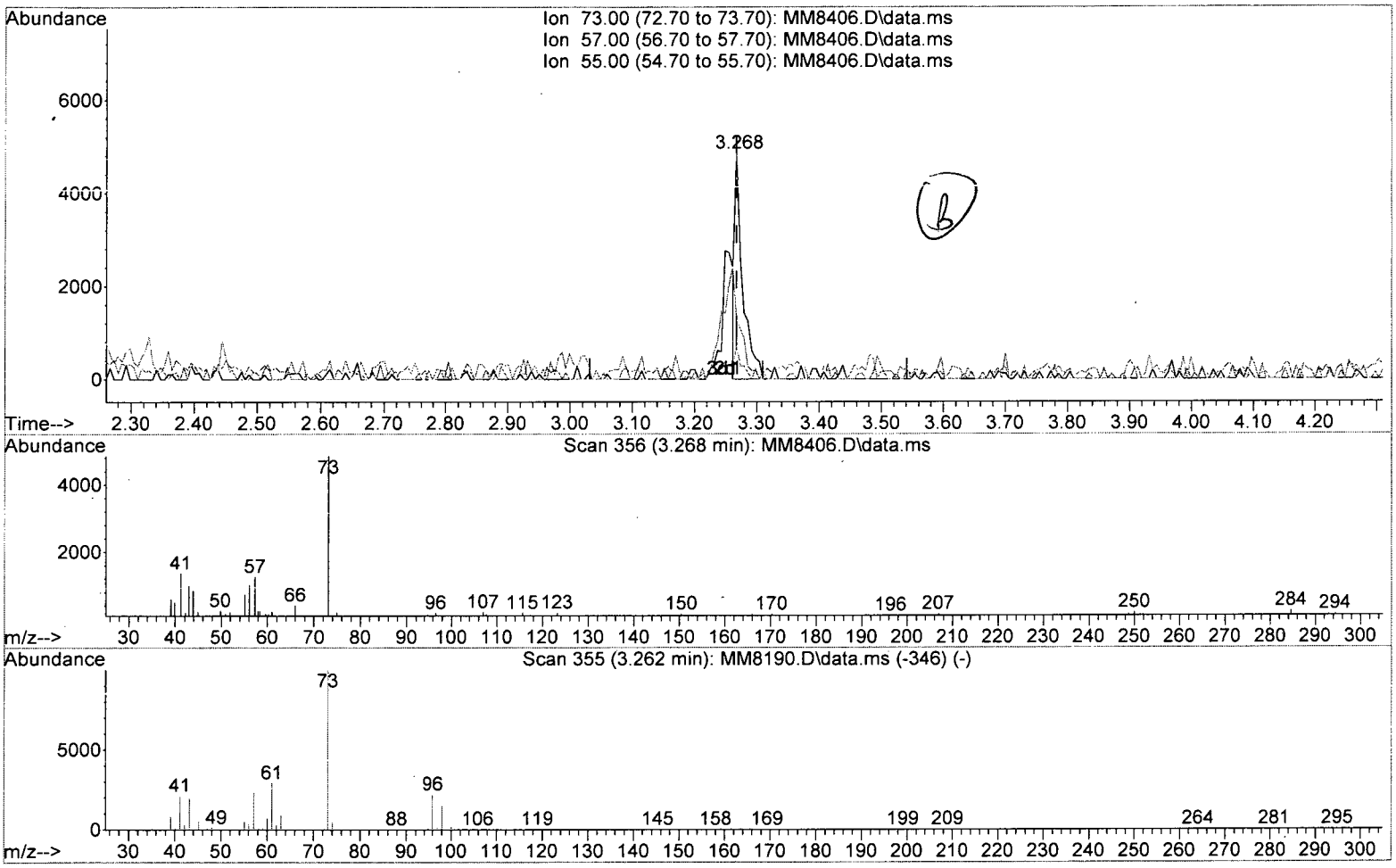
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	811354	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1295334	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1156656	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	580830	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.596	113	382413	56.78	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 113.56%			
48) surr1,1,2-dichloroetha...	6.096	65	415231	55.82	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 111.64%			
65) SURR3,Toluene-d8	8.529	98	1396586	49.28	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.56%			
70) SURR2,BFB	11.047	95	594255	55.54	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.08%			
Target Compounds						Qvalue
25) Methyl-t-Butyl Ether	3.268	73	7723m	0.41	ppb	
54) Trichloroethene	7.078	130	24731	3.41	ppb	# 86
72) Tetrachloroethene	9.181	164	631497	131.63	ppb	98
117) Naphthalen	13.802	128	12855	0.83	ppb	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

KB 12/3/15

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8406.D
Acq On : 30 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : R1510063-019|5.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 30 18:58:12 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8406.D\data.ms

(25) Methyl-t-Butyl Ether (P)

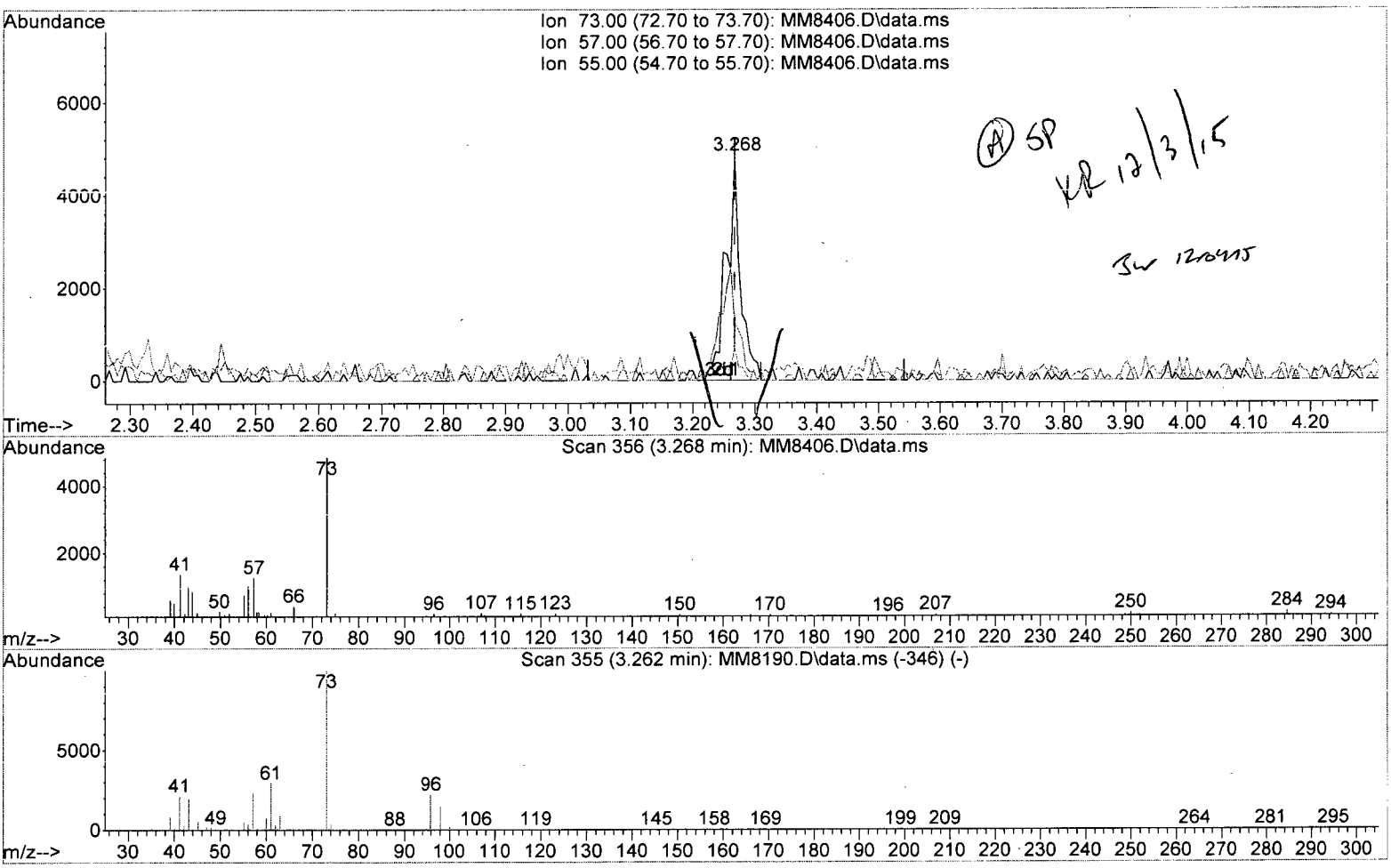
3.268min (-0.000) 0.22 ppb

response 4223

Ion	Exp%	Act%
73.00	100	100
57.00	23.30	25.87
55.00	4.80	15.06
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8406.D
Acq On : 30 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : R1510063-019|5.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 30 18:58:12 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8406.D\data.ms

(25) Methyl-t-Butyl Ether (P)

3.268min (-0.000) 0.41 ppb m

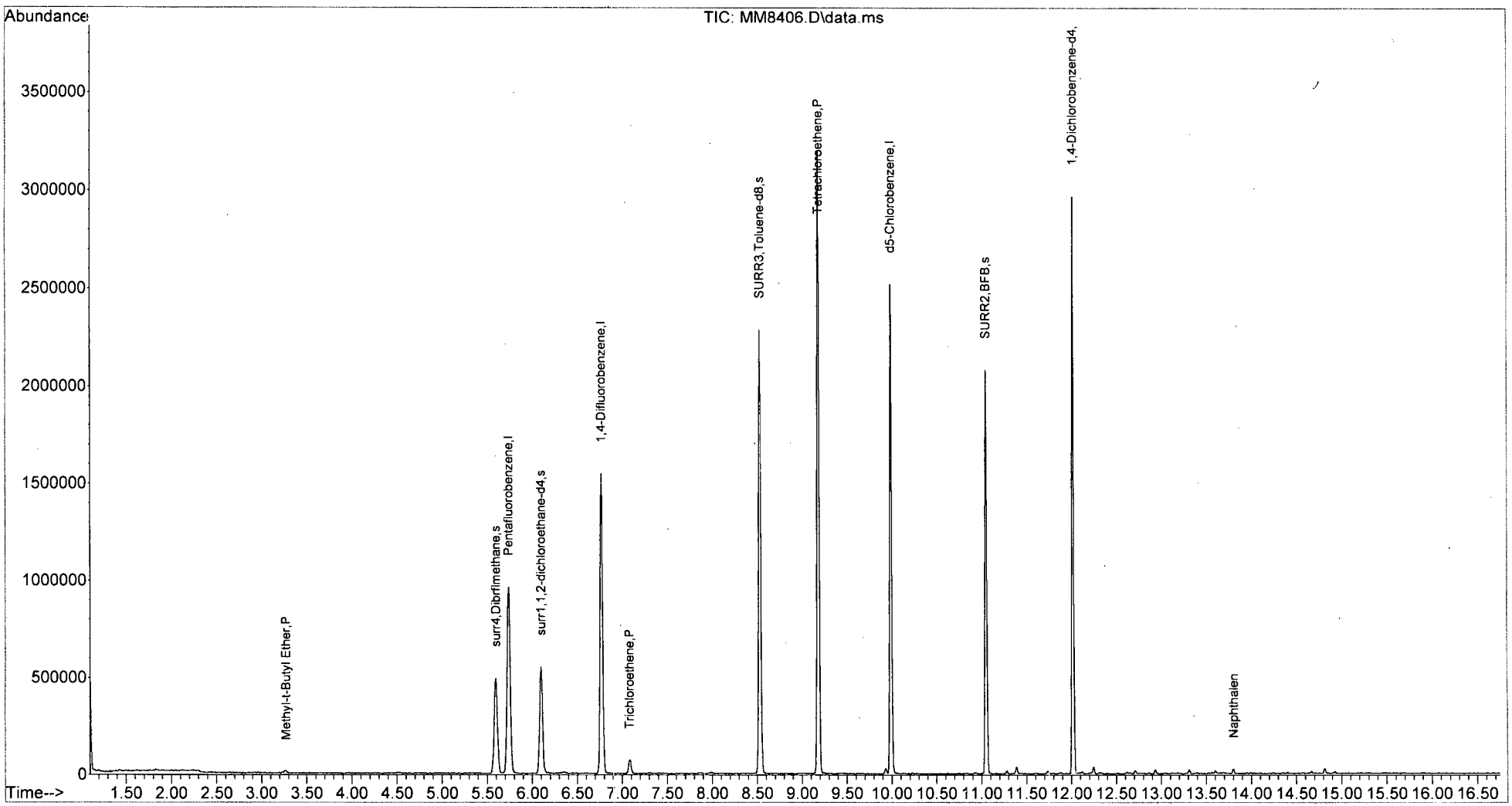
response 7723

Ion	Exp%	Act%
73.00	100	100
57.00	23.30	25.87
55.00	4.80	15.06
0.00	0.00	0.00

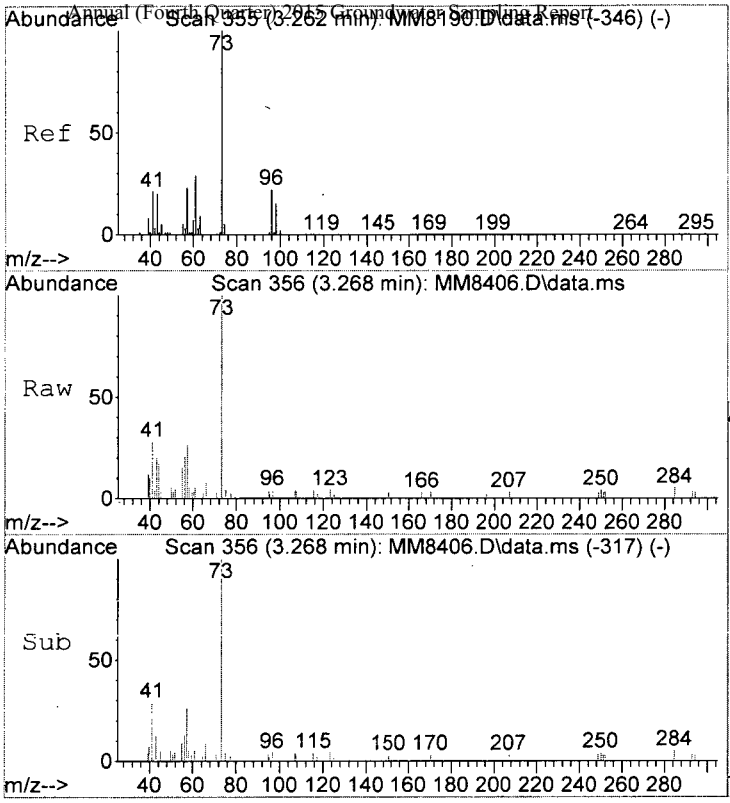
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8406.D
Acq On : 30 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : R1510063-019|5.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 03 15:47:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



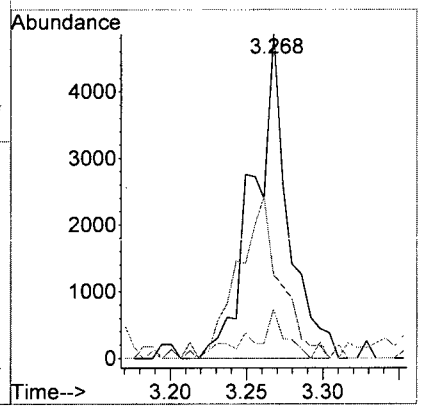
W111815A.M Thu Dec 03 15:48:43 2015 Page: 2

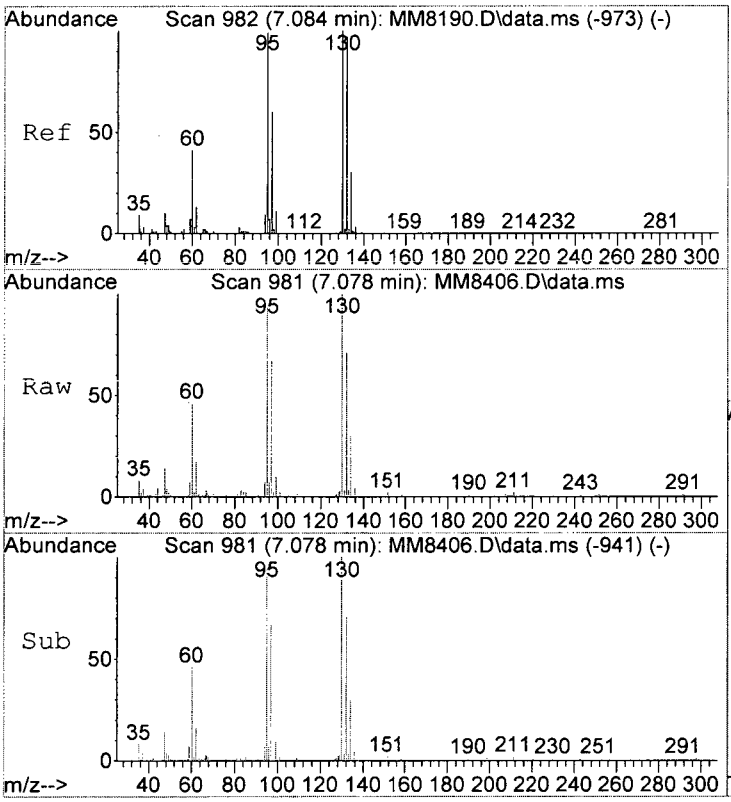


#25
Methyl-t-Butyl Ether
Concen: 0.41 ppb m
RT: 3.268 min Scan# 356
Delta R.T. -0.000 min
Lab File: MM8406.D
Acq: 30 Nov 2015 6:42 pm

Tgt Ion: 73 Resp: 7723

Ion	Ratio	Lower	Upper
73	100		
57	25.9	3.3	43.3
55	15.1	0.0	24.8

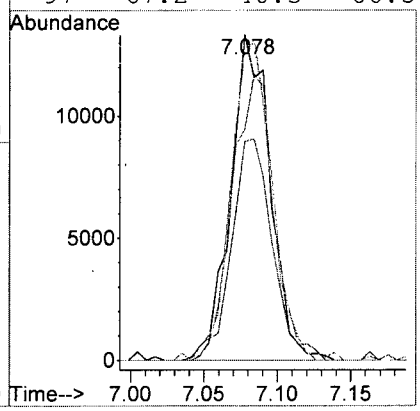


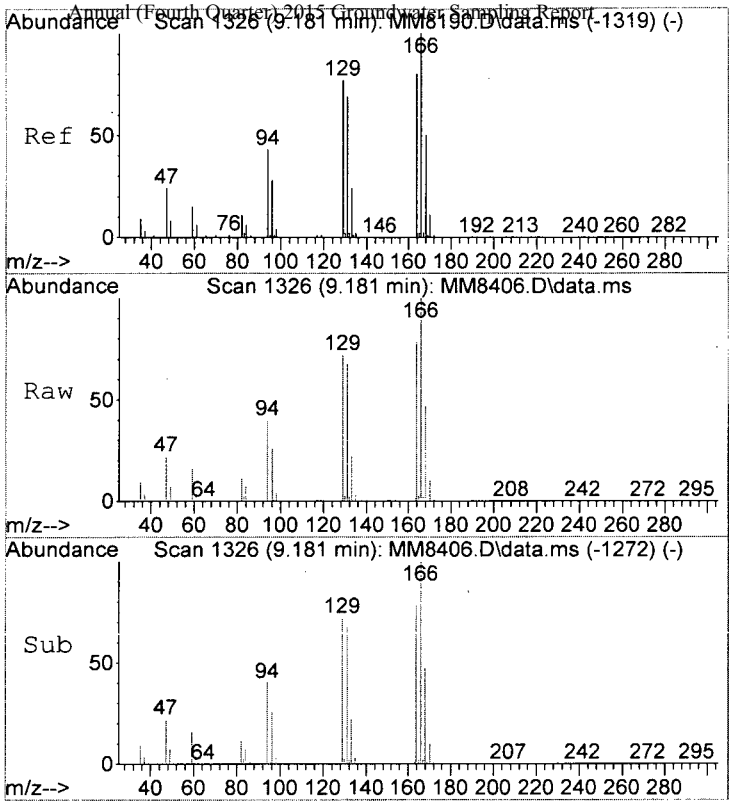


#54
Trichloroethene
Concen: 3.41 ppb
RT: 7.078 min Scan# 981
Delta R.T. -0.006 min
Lab File: MM8406.D
Acq: 30 Nov 2015 6:42 pm

Tgt Ion:130 Resp: 24731

Ion	Ratio	Lower	Upper
130	100		
132	71.0	77.4	117.4#
95	93.7	79.2	119.2
97	67.2	40.3	80.3

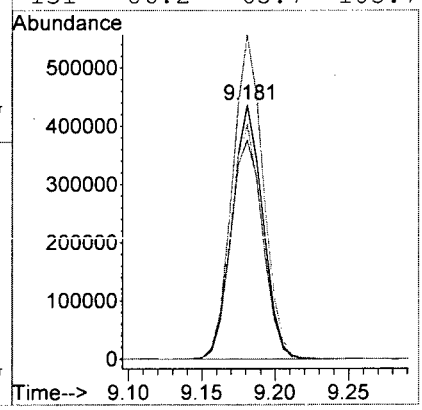


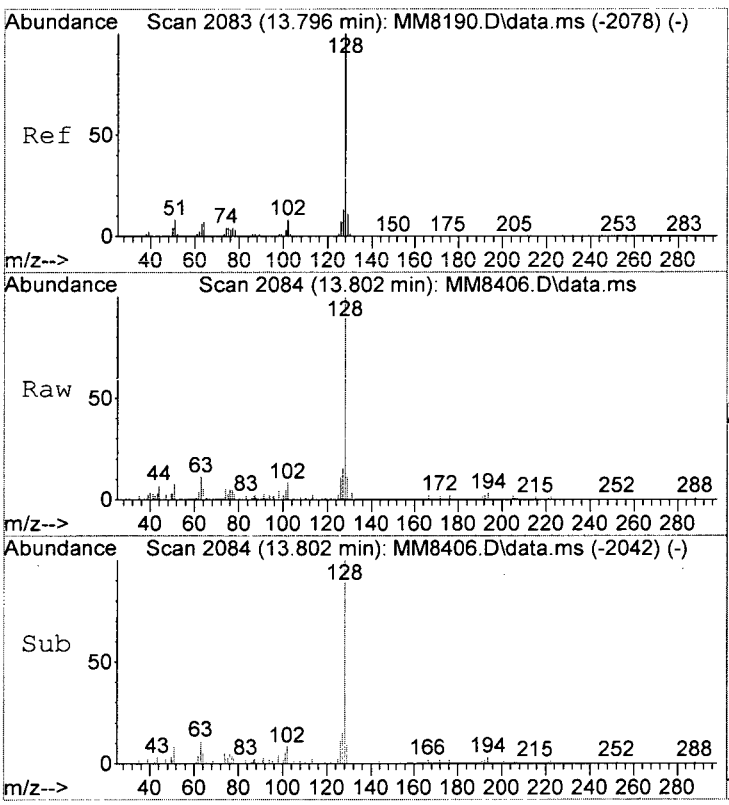


#72
Tetrachloroethene
Concen: 131.63 ppb
RT: 9.181 min Scan# 1326
Delta R.T. -0.000 min
Lab File: MM8406.D
Acq: 30 Nov 2015 6:42 pm

Tgt Ion:164 Resp: 631497

Ion	Ratio	Lower	Upper
164	100		
166	127.5	104.3	144.3
129	92.2	75.4	115.4
131	86.2	65.7	105.7

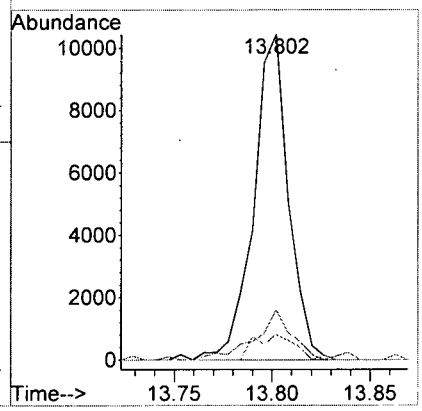




#117
Naphthalen
Concen: 0.83 ppb
RT: 13.802 min Scan# 2084
Delta R.T. -0.000 min
Lab File: MM8406.D
Acq: 30 Nov 2015 6:42 pm

Tgt Ion:128 Resp: 12855

Ion	Ratio	Lower	Upper
128	100		
127	15.3	0.0	33.1
102	7.6	0.0	28.3



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8406.D
Acq On : 30 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : R1510063-019|5.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 20 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

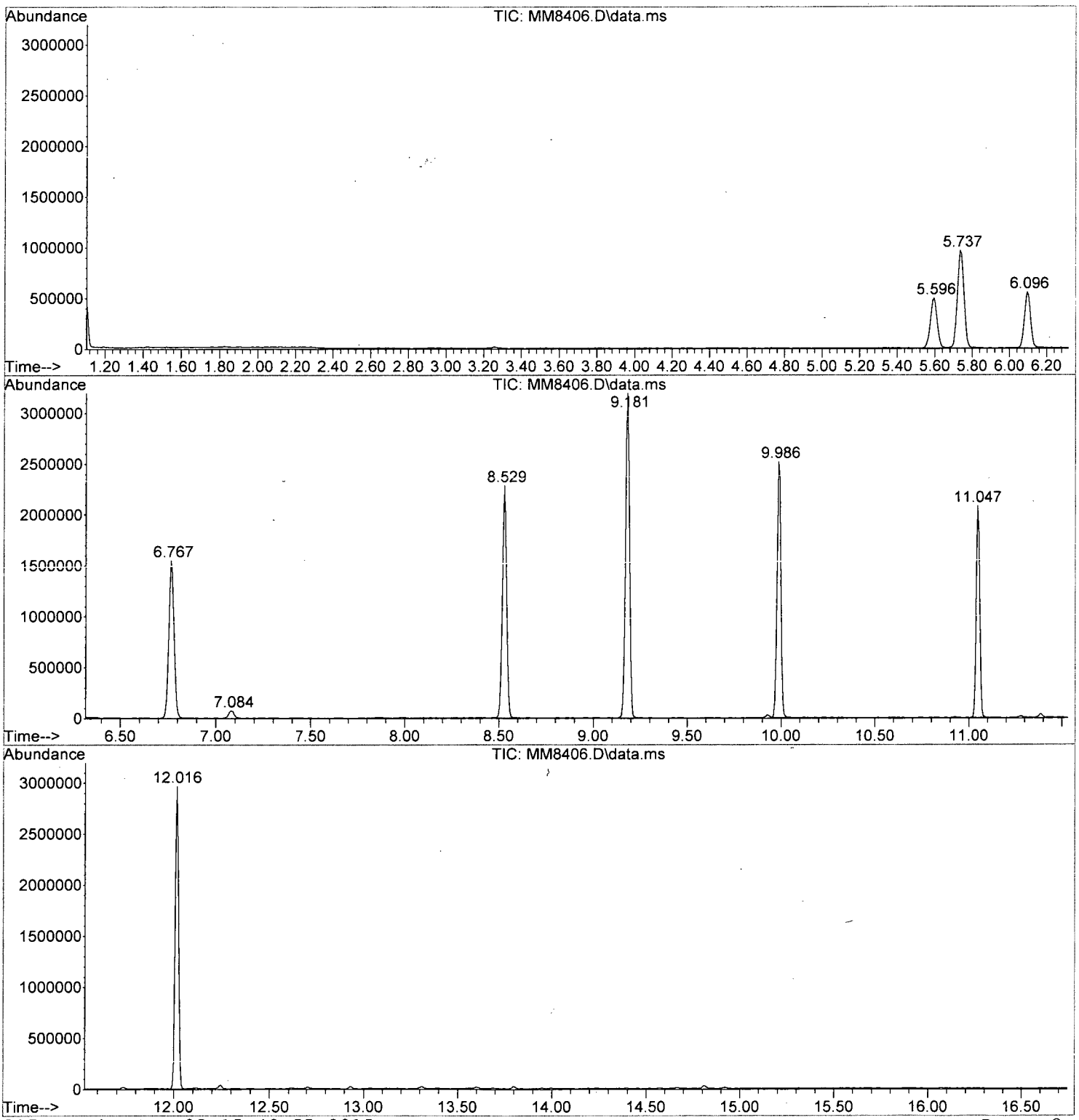
Signal : TIC: MM8406.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.596	726	738	749	rBV	491188	1214124	25.54%	4.671%
2	5.737	751	761	771	rBV	959007	2295398	48.29%	8.832%
3	6.096	812	820	831	rBV	549364	1220718	25.68%	4.697%
4	6.767	919	930	942	rBV	1545016	2970699	62.50%	11.430%
5	7.084	975	982	990	rBV2	71138	147350	3.10%	0.567%
6	8.529	1208	1219	1227	rBV	2281475	3595397	75.64%	13.833%
7	9.181	1318	1326	1336	rBV	3190745	4753442	100.00%	18.289%
8	9.986	1452	1458	1467	rVV	2513382	3524835	74.15%	13.562%
9	11.047	1627	1632	1640	rBV	2075865	2669170	56.15%	10.270%
10	12.016	1785	1791	1797	rBV	2961084	3599781	75.73%	13.850%

Sum of corrected areas: 25990914

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8406.D
Acq On    : 30 Nov 2015    6:42 pm
Operator  : K.Ruest
Sample    : R1510063-019|5.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 20   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\113015\\
Data File : MM8406.D
Acq On : 30 Nov 2015 6:42 pmm
Operator : K.Ruestt
Sample : R1510063-019|5.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 20 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15 1425
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW101-32.5	**Units:**	µg/L
Lab Code:	R1510063-020	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 16:08		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 16:08		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 16:08		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 16:08		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
1,1-Dichloroethene (1,1-DCE)	**0.61**	J	5.0	1.0	0.57	1	NA	11/30/15 16:08		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 16:08		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 16:08		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 16:08		474104	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/30/15 16:08		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 16:08		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 16:08		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 16:08		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 16:08		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 16:08		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 16:08		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 16:08		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 16:08		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 16:08		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 16:08		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 16:08		474104	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/30/15 16:08		474104	
Benzene	**0.35**	J	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 16:08		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 16:08		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 16:08		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 16:08		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 16:08		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 16:08		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 16:08		474104	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15 1425
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW101-32.5	**Units:**	µg/L
Lab Code:	R1510063-020	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 16:08		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 16:08		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 16:08		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 16:08		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 16:08		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 16:08		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/30/15 16:08		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
Methyl tert-Butyl Ether	**2.0**	J	5.0	1.0	0.29	1	NA	11/30/15 16:08		474104	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
Tetrachloroethene (PCE)	**640**	D	25	5.0	1.5	5	NA	11/30/15 19:13		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
Trichloroethene (TCE)	**19**		5.0	1.0	0.22	1	NA	11/30/15 16:08		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 16:08		474104	
cis-1,2-Dichloroethene	**0.61**	J	5.0	1.0	0.30	1	NA	11/30/15 16:08		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 16:08		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 16:08		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 16:08		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 16:08		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 16:08		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:08		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/30/15 16:08	
Dibromofluoromethane	110	85-115	11/30/15 16:08	
Toluene-d8	104	85-120	11/30/15 16:08	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/30/15 1608

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW101-32.5	**Units:**	µg/L
Lab Code:	R1510063-020	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8401.D
Acq On : 30 Nov 2015 4:08 pm
Operator : K.Ruest
Sample : R1510063-020|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 03 15:04:18 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

wpts.0

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	819282	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1343246	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1219371	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	613886	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.597	113	384334	55.03	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 110.06%			
48) surr1,1,2-dichloroetha...	6.096	65	421781	54.68	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 109.36%			
65) SURR3,Toluene-d8	8.529	98	1533771	52.19	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 104.38%			
70) SURR2,BFB	11.047	95	617119	55.62	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.24%			
Target Compounds						Qvalue
13) 1,1-Diclethene	2.426	96	4185	0.61	ppb	# 73
18) Carbon Disulfide	2.634	76	5203	0.23	ppb	91
23) TBA	3.097	59	3678m	6.84	ppb	
25) Methyl-t-Butyl Ether	3.262	73	38977	2.04	ppb	98
34) cis-1,2-Dichloroethene	4.725	96	4986m	0.61	ppb	
49) Benzene	6.170	78	10220	0.35	ppb	77
54) Trichloroethene	7.084	130	140148	18.66	ppb	95
72) Tetrachloroethene	9.187	164	3047928	602.64	ppb	95 (E)

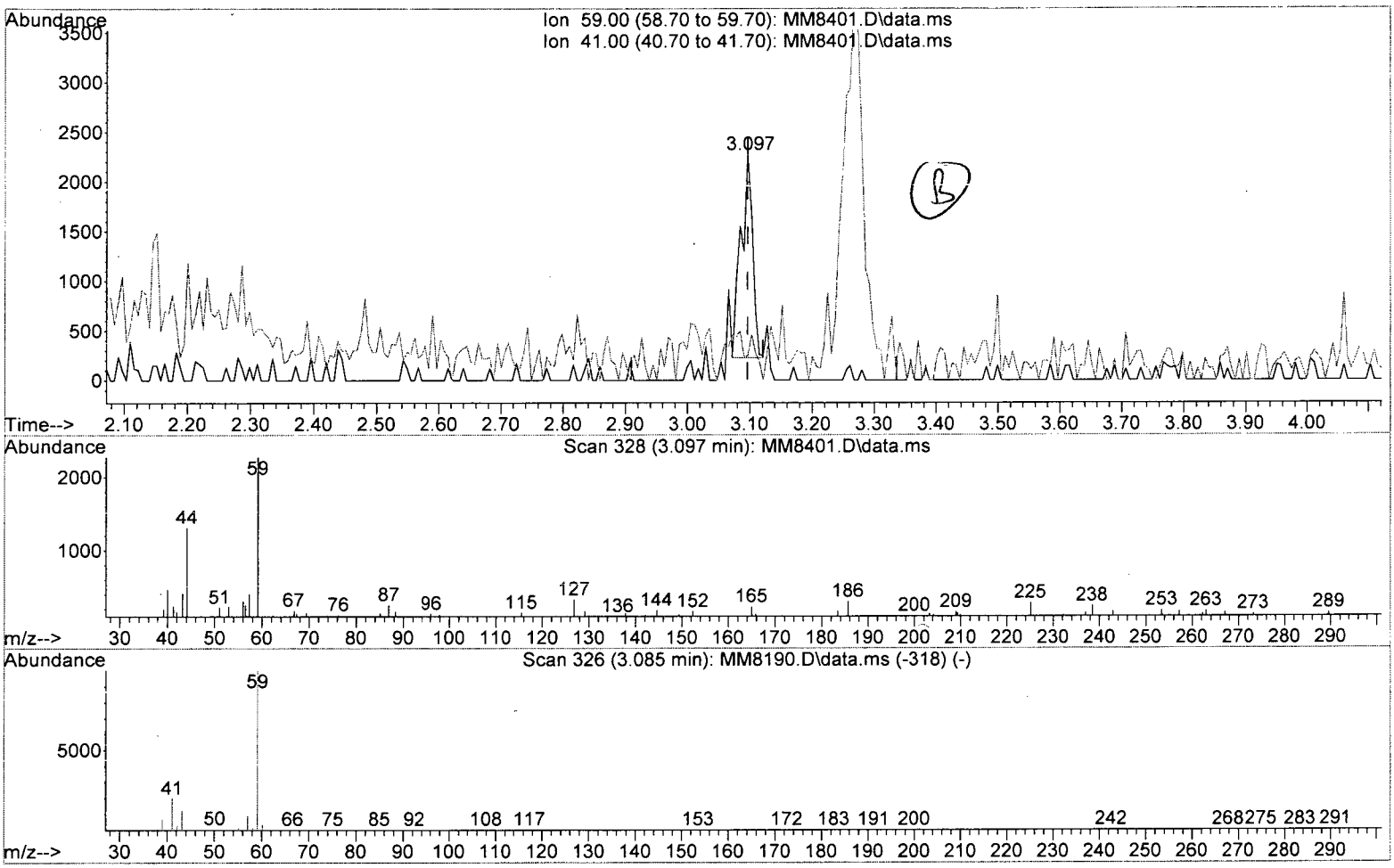
KP 12/3/15

JV 12/04/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8401.D
Acq On : 30 Nov 2015 4:08 pm
Operator : K.Ruest
Sample : R1510063-020|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 30 16:24:42 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8401.D\data.ms

(23) TBA

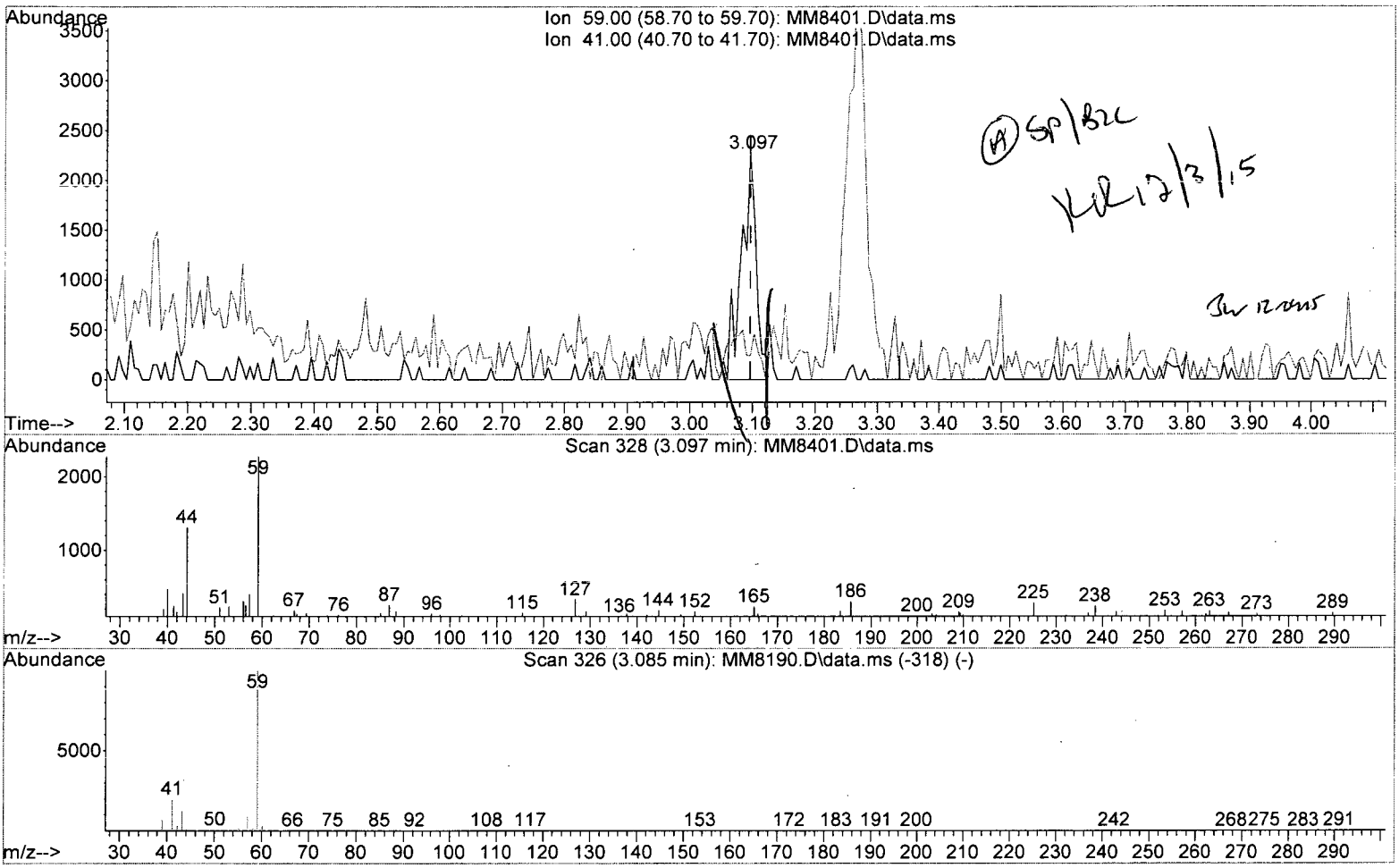
3.097min (-0.000) 4.84 ppb

response 2605

Ion	Exp%	Act%
59.00	100	100
41.00	20.00	10.66
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8401.D
Acq On : 30 Nov 2015 4:08 pm
Operator : K.Ruest
Sample : R1510063-020|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 30 16:24:42 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8401.D\data.ms

(23) TBA

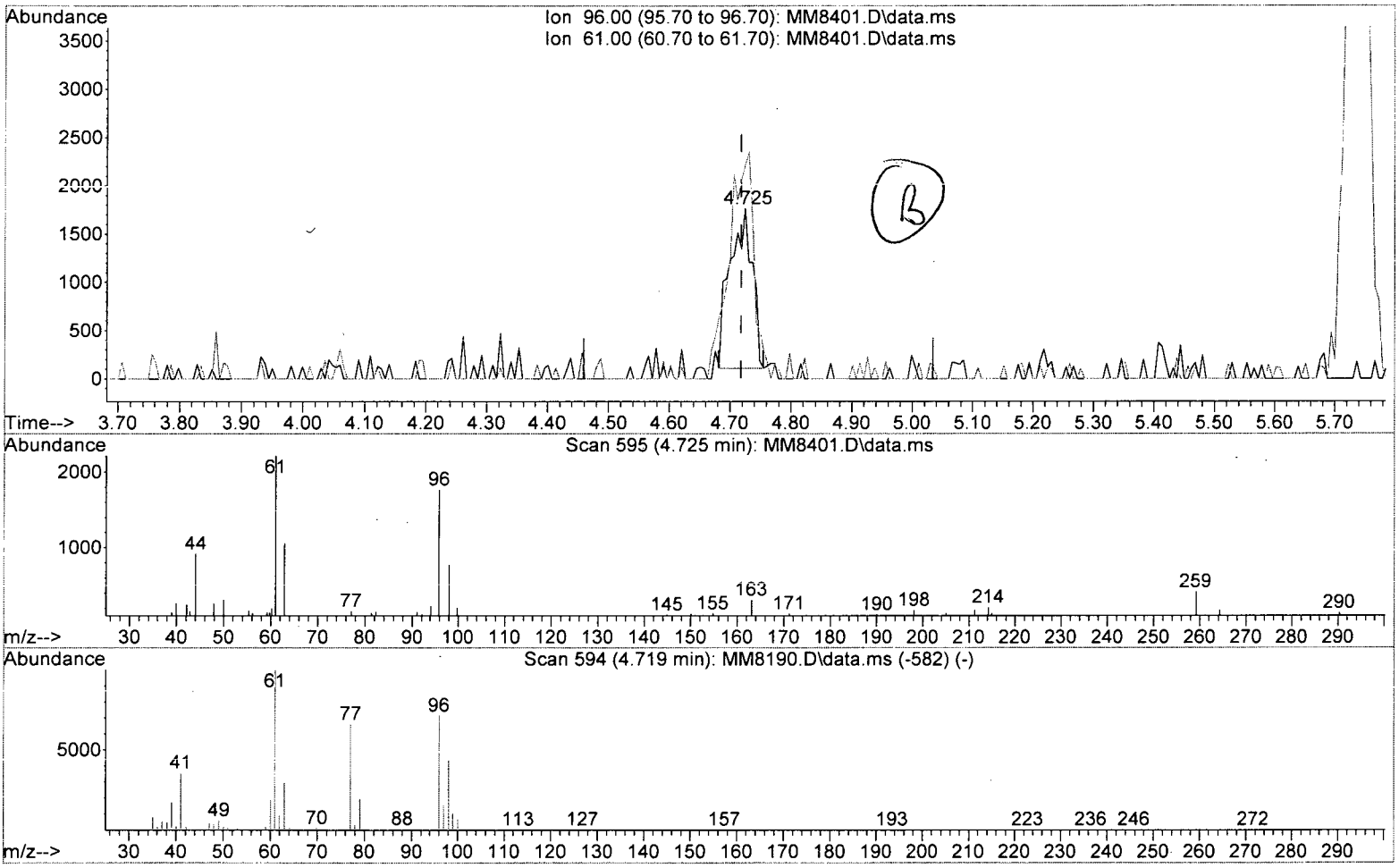
3.097min (-0.000) 6.84 ppb m

response 3678

Ion	Exp%	Act%
59.00	100	100
41.00	20.00	10.66
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8401.D
Acq On : 30 Nov 2015 4:08 pm
Operator : K.Ruest
Sample : R1510063-020|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 30 16:24:42 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8401.D\data.ms

(34) cis-1,2-Dichloroethene (P)

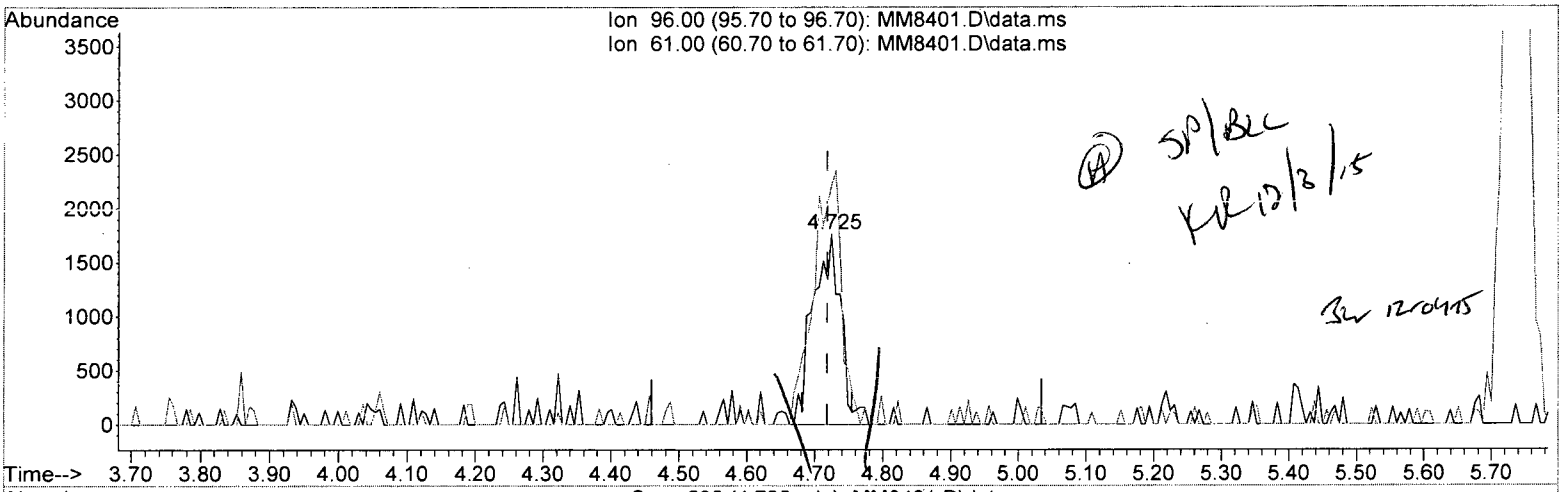
4.725min (+0.006) 0.51 ppb

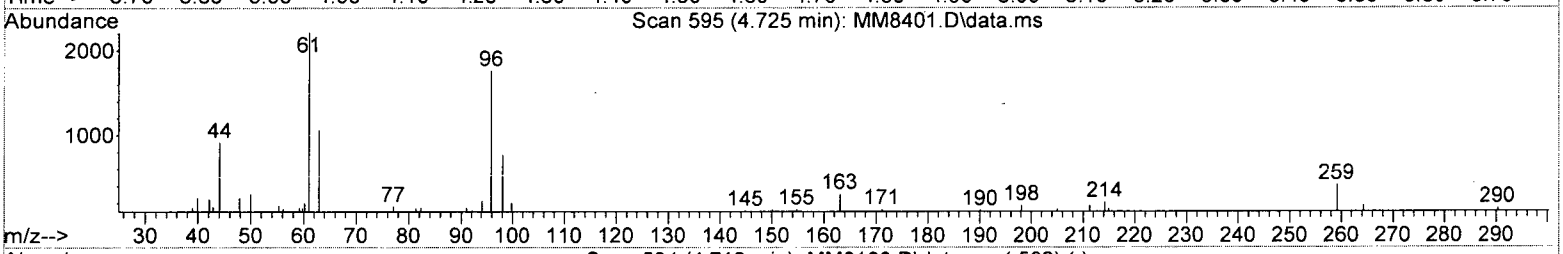
response 4199

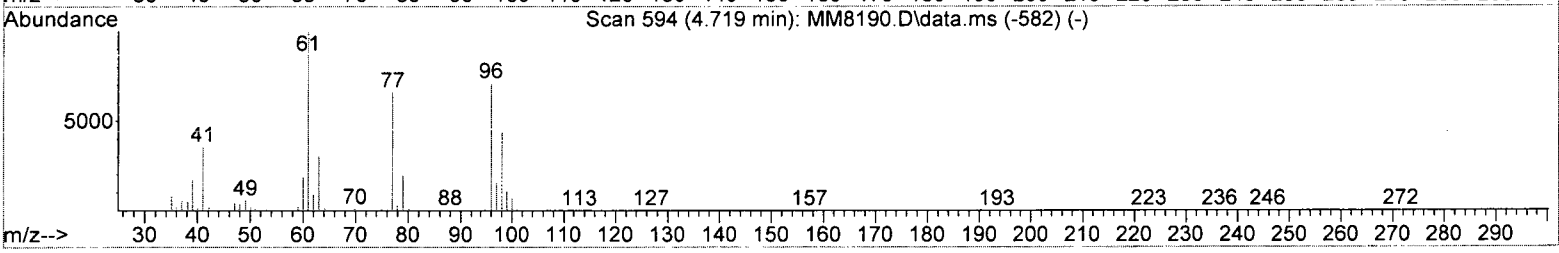
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	125.54
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8401.D
Acq On : 30 Nov 2015 4:08 pm
Operator : K.Ruest
Sample : R1510063-020|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 30 16:24:42 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8401.D\data.ms

(34) cis-1,2-Dichloroethene (P)

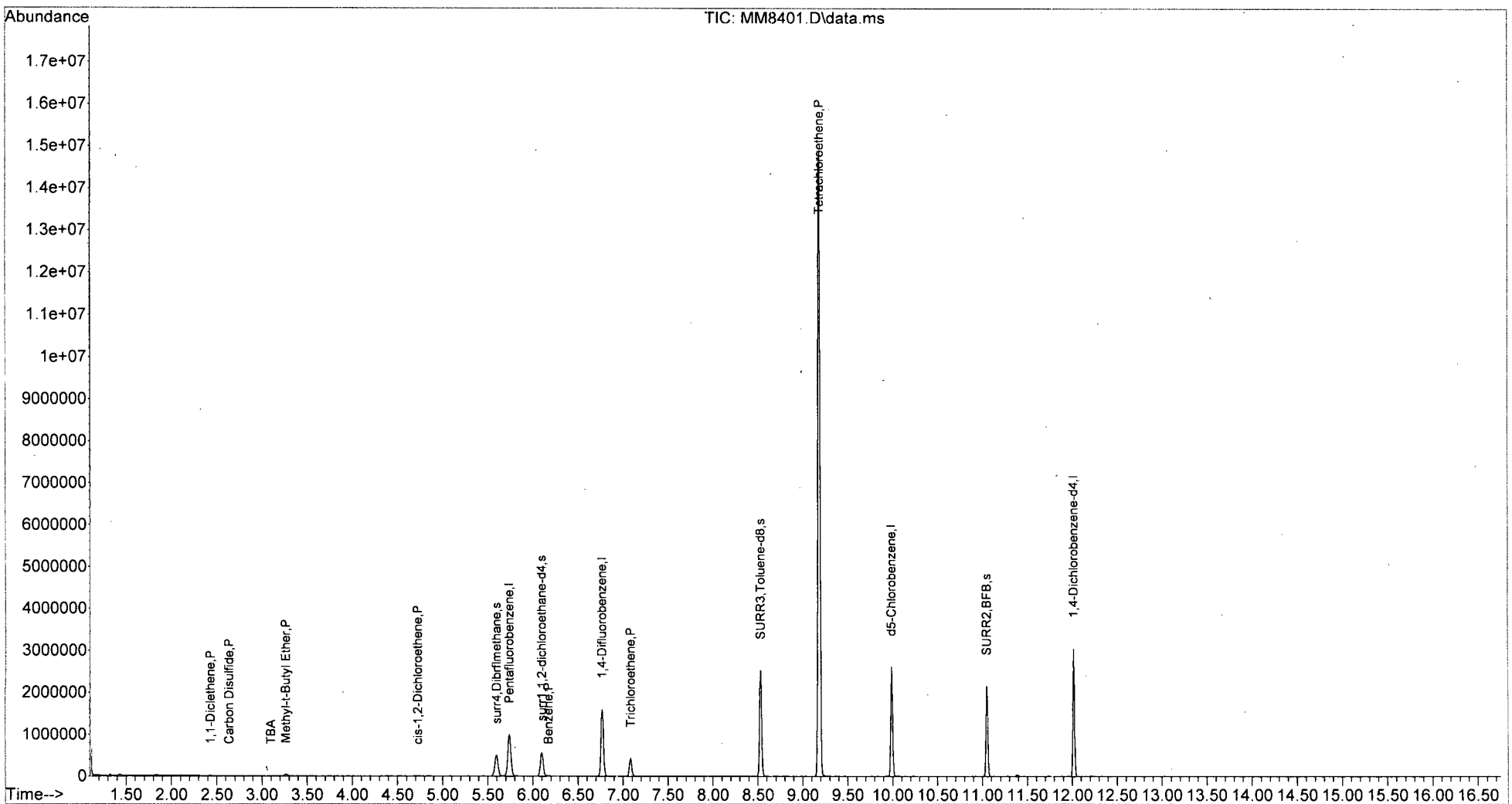
4.725min (+0.006) 0.61 ppb m

response 4986

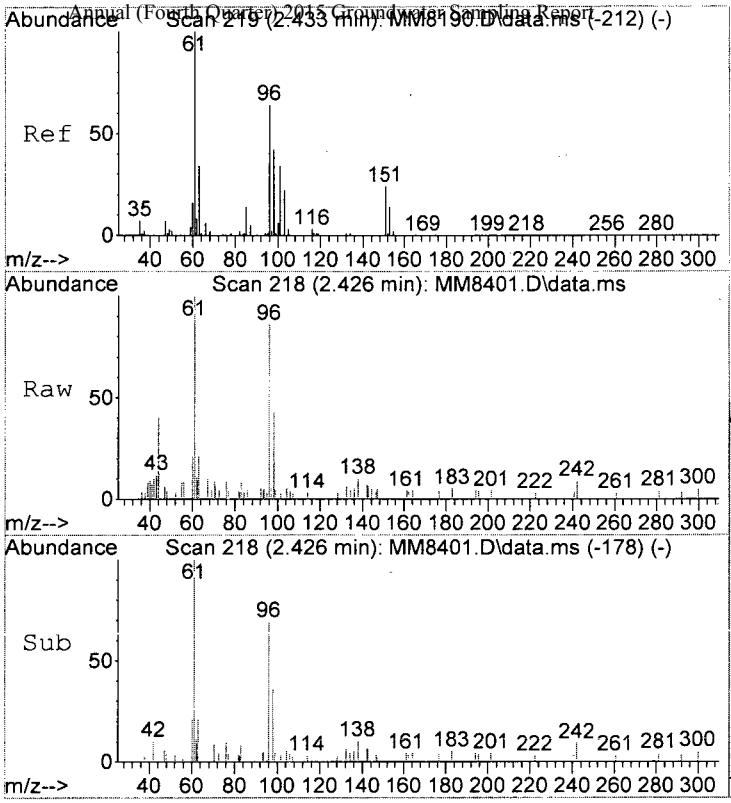
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	125.54
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8401.D
Acq On : 30 Nov 2015 4:08 pm
Operator : K.Ruest
Sample : R1510063-020|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 03 15:04:18 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



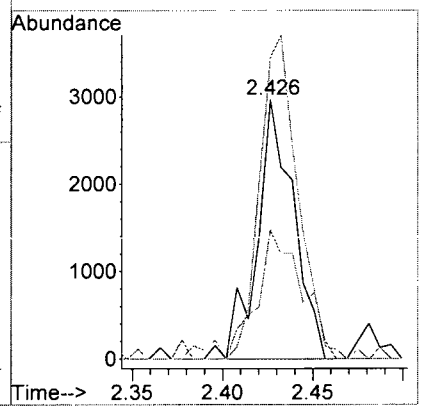
W111815A.M Thu Dec 03 15:05:32 2015 Page: 2

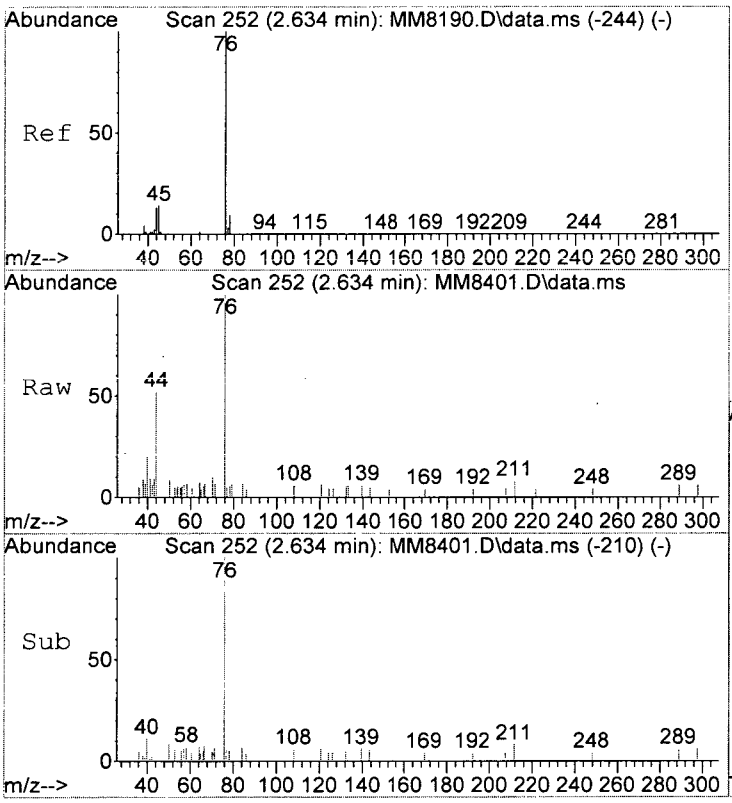


#13
1,1-Diclethene
Concen: 0.61 ppb
RT: 2.426 min Scan# 218
Delta R.T. -0.006 min
Lab File: MM8401.D
Acq: 30 Nov 2015 4:08 pm

Tgt Ion: 96 Resp: 4185

Ion	Ratio	Lower	Upper
96	100		
98	49.8	45.0	85.0
61	116.1	136.2	176.2#

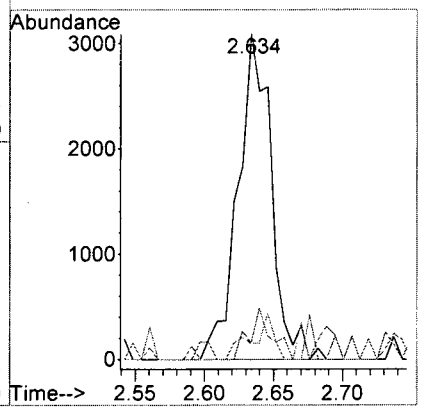


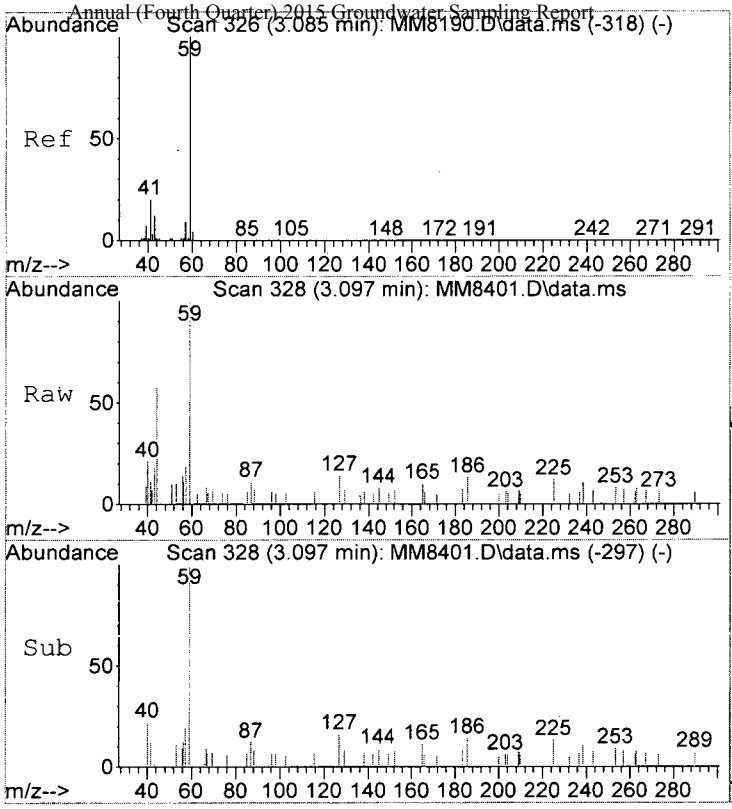


#18
Carbon Disulfide
Concen: 0.23 ppb
RT: 2.634 min Scan# 252
Delta R.T. -0.000 min
Lab File: MM8401.D
Acq: 30 Nov 2015 4:08 pm

Tgt Ion: 76 Resp: 5203

Ion	Ratio	Lower	Upper
76	100		
78	5.0	0.0	28.7
77	4.8	0.0	23.0

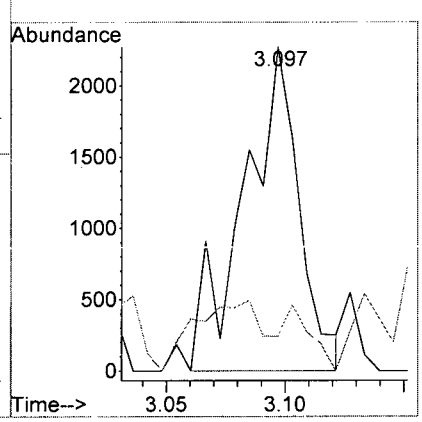


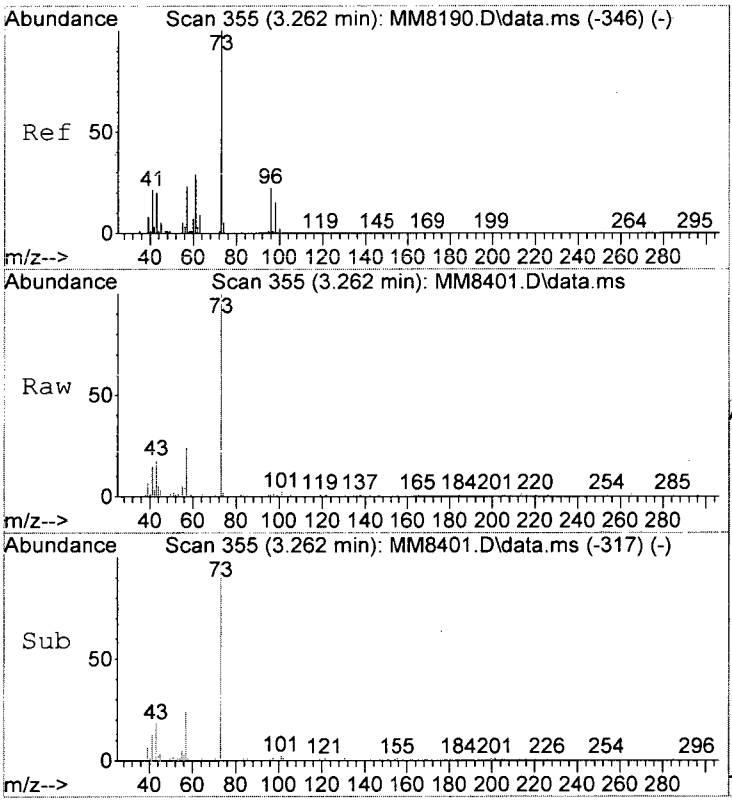


#23
TBA
Concen: 6.84 ppb m
RT: 3.097 min Scan# 328
Delta R.T. -0.000 min
Lab File: MM8401.D
Acq: 30 Nov 2015 4:08 pm

Tgt Ion: 59 Resp: 3678

Ion	Ratio	Lower	Upper
59	100		
41	10.7	0.0	40.0

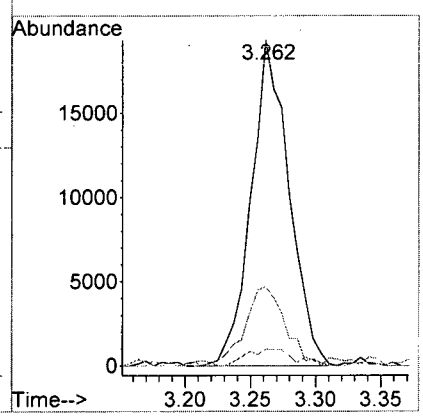


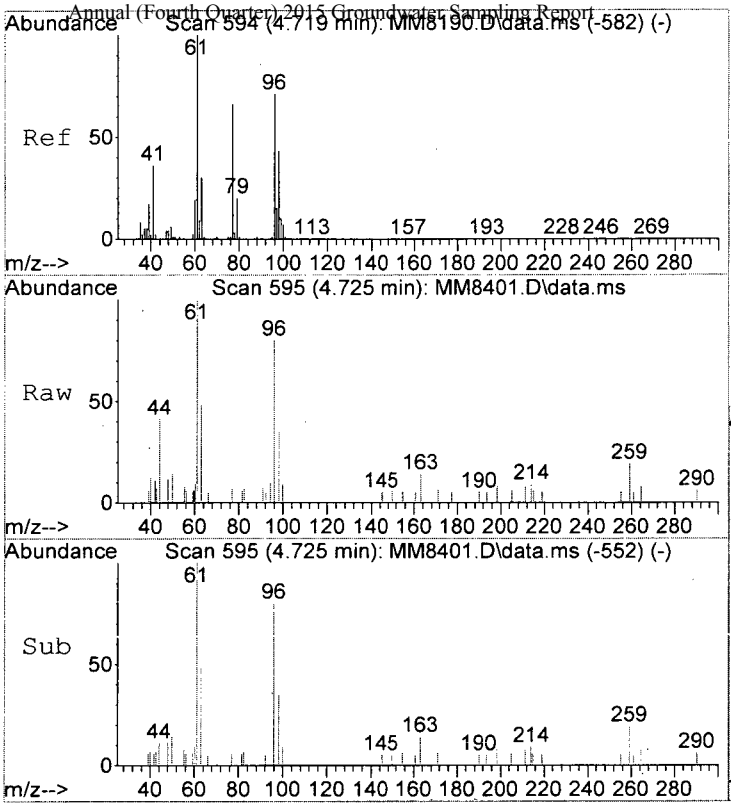


#25
Methyl-t-Butyl Ether
Concen: 2.04 ppb
RT: 3.262 min Scan# 355
Delta R.T. -0.006 min
Lab File: MM8401.D
Acq: 30 Nov 2015 4:08 pm

Tgt Ion: 73 Resp: 38977

Ion	Ratio	Lower	Upper
73	100		
57	24.3	3.3	43.3
55	5.1	0.0	24.8

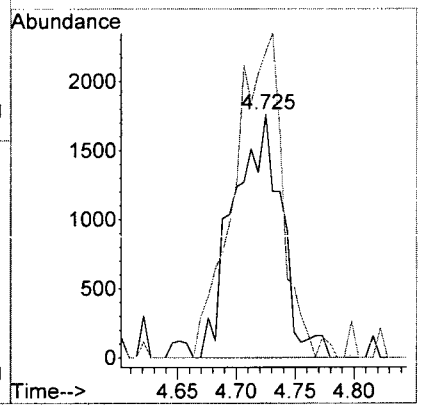


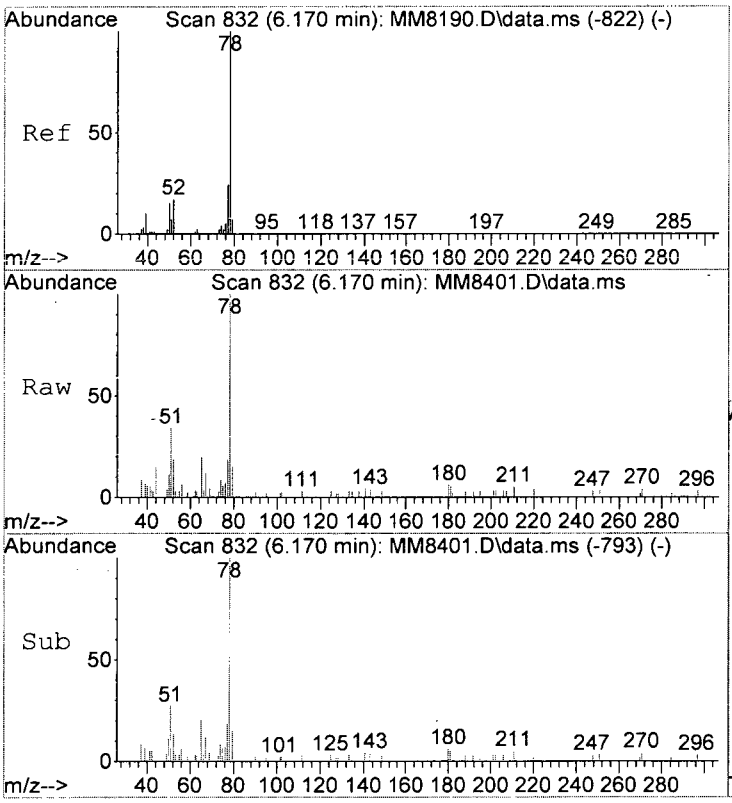


#34
cis-1,2-Dichloroethene
Concen: 0.61 ppb m
RT: 4.725 min Scan# 595
Delta R.T. 0.006 min
Lab File: MM8401.D
Acq: 30 Nov 2015 4:08 pm

Tgt Ion: 96 Resp: 4986

Ion	Ratio	Lower	Upper
96	100		
61	125.5	120.7	160.7

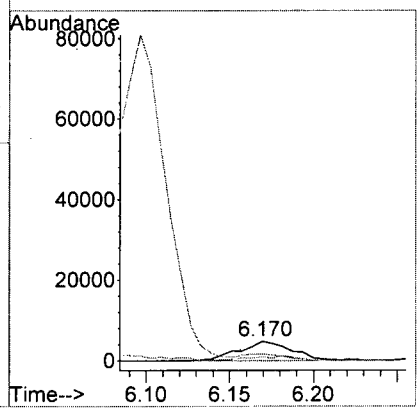


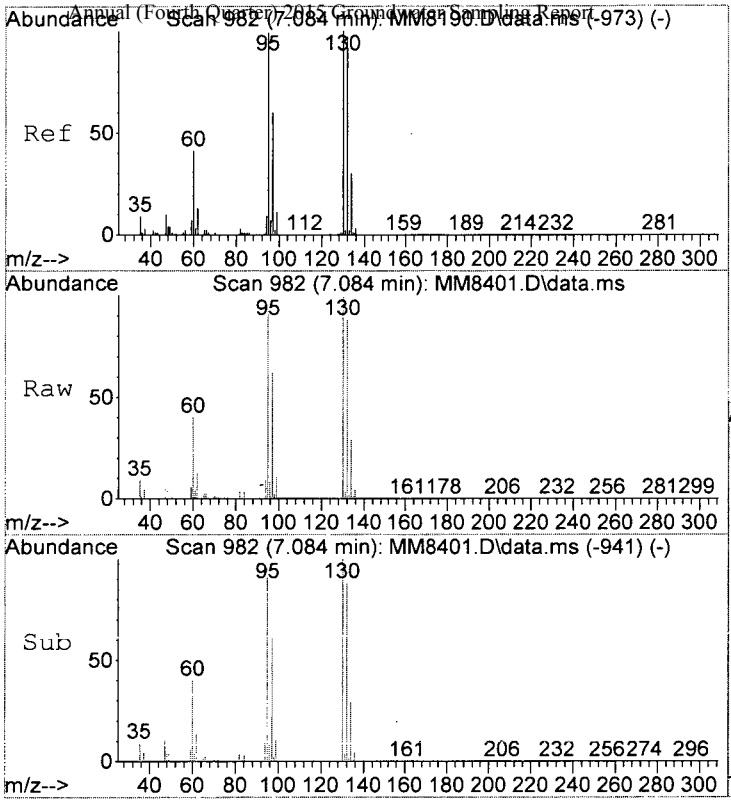


#49
Benzene
Concen: 0.35 ppb
RT: 6.170 min Scan# 832
Delta R.T. -0.006 min
Lab File: MM8401.D
Acq: 30 Nov 2015 4:08 pm

Tgt Ion: 78 Resp: 10220

Ion	Ratio	Lower	Upper
78	100		
51	33.8	0.0	36.1
52	18.8	0.0	36.8

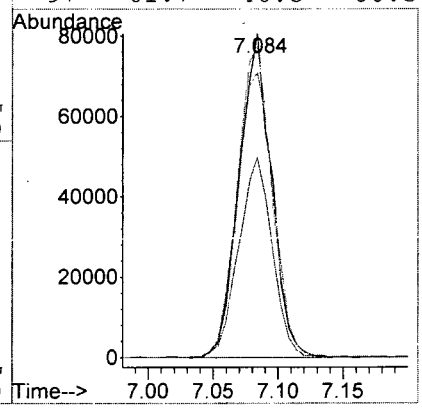


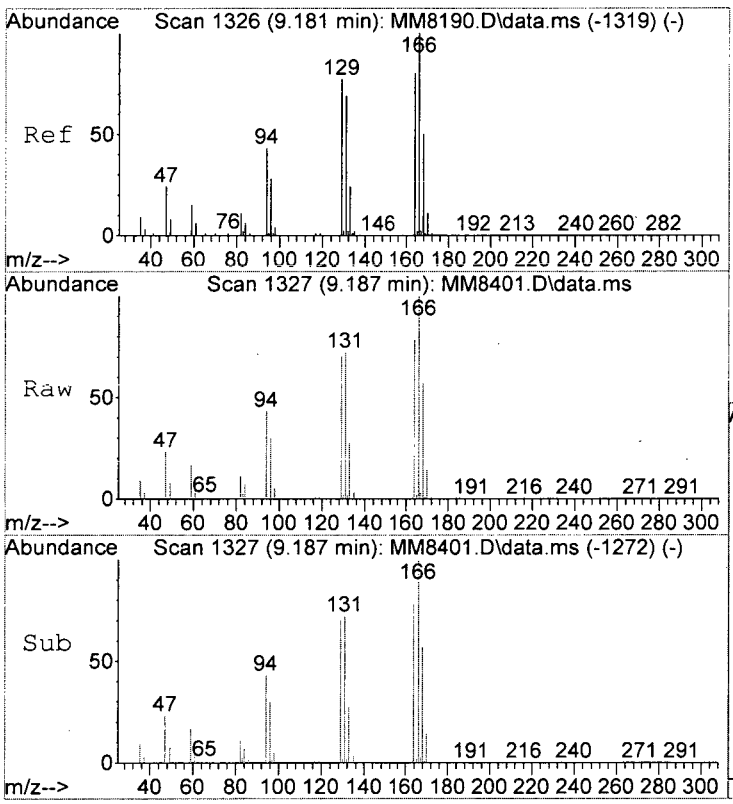


#54
Trichloroethene
Concen: 18.66 ppb
RT: 7.084 min Scan# 982
Delta R.T. -0.000 min
Lab File: MM8401.D
Acq: 30 Nov 2015 4:08 pm

Tgt Ion:130 Resp: 140148

Ion	Ratio	Lower	Upper
130	100		
132	88.1	77.4	117.4
95	96.3	79.2	119.2
97	61.7	40.3	80.3

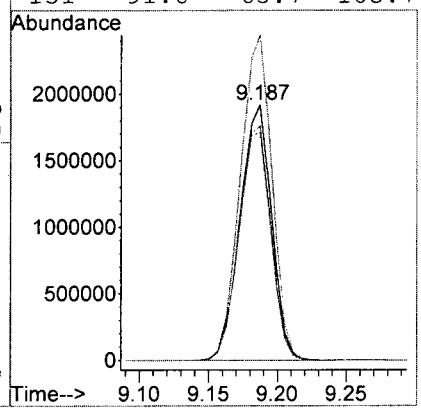




#72
Tetrachloroethene
Concen: 602.64 ppb
RT: 9.187 min Scan# 1327
Delta R.T. 0.006 min
Lab File: MM8401.D
Acq: 30 Nov 2015 4:08 pm

Tgt Ion:164 Resp: 3047928

Ion	Ratio	Lower	Upper
164	100		
166	127.4	104.3	144.3
129	89.3	75.4	115.4
131	91.8	65.7	105.7



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8401.D
Acq On : 30 Nov 2015 4:08 pm
Operator : K.Ruest
Sample : R1510063-020|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

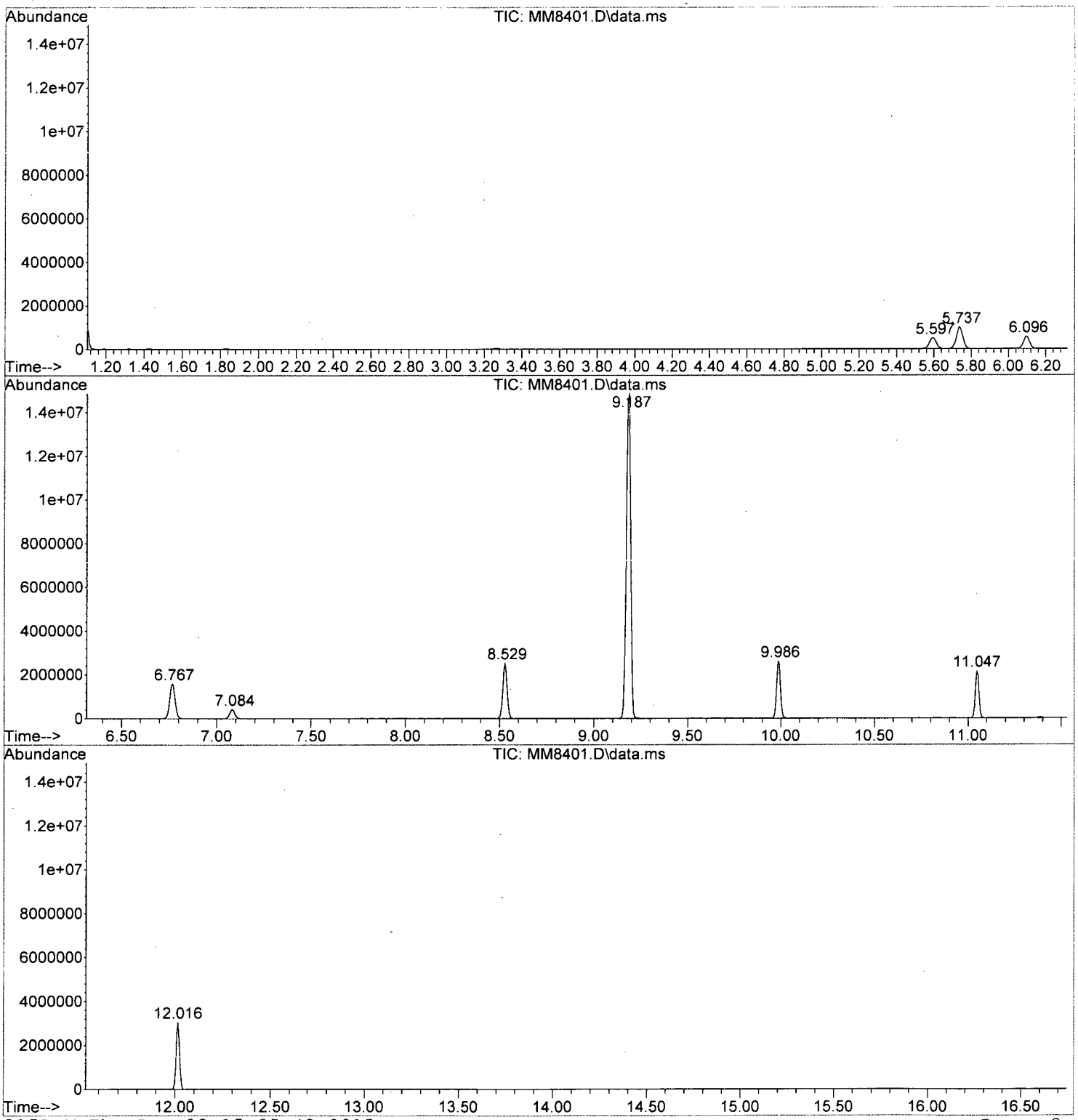
Signal : TIC: MM8401.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.597	728	738	747	rBV	496486	1235990	5.21%	2.646%
2	5.737	752	761	772	rVV	989966	2343082	9.88%	5.017%
3	6.096	809	820	828	rBV	564136	1242869	5.24%	2.661%
4	6.767	920	930	943	rBV	1591229	3103941	13.09%	6.646%
5	7.084	973	982	994	rVB	425121	786646	3.32%	1.684%
6	8.529	1211	1219	1227	rBV	2526775	3999175	16.87%	8.563%
7	9.187	1319	1327	1340	rVB	14856353	23707518	100.00%	50.762%
8	9.986	1452	1458	1468	rVB	2608931	3706131	15.63%	7.935%
9	11.047	1626	1632	1641	rBV	2149287	2799009	11.81%	5.993%
10	12.016	1786	1791	1797	rVB	3044271	3779133	15.94%	8.092%

Sum of corrected areas: 46703494

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8401.D
Acq On    : 30 Nov 2015    4:08 pm
Operator  : K.Ruest
Sample    : R1510063-020|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 15   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



W111815A.M Thu Dec 03 15:05:48 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\113015\\
Data File : MM8401.D
Acq On : 30 Nov 2015 4:08 pmm
Operator : K.Ruestt
Sample : R1510063-020|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 15 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8407.D
Acq On : 30 Nov 2015 7:13 pm
Operator : K.Ruest
Sample : R1510063-020|5.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 03 15:49:33 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	824643	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1302709	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1186718	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	587771	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.597	113	389721	57.54	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 115.08%			
48) surr1,1,2-dichloroetha...	6.096	65	417704	55.83	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 111.66%			
65) SURR3,Toluene-d8	8.529	98	1408713	49.42	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.84%			
70) SURR2,BFB	11.047	95	586669	54.52	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 109.04%			
Target Compounds						Qvalue
25) Methyl-t-Butyl Ether	3.262	73	6584	0.34	ppb	# 55
54) Trichloroethene	7.084	130	23826	3.27	ppb	86
72) Tetrachloroethene	9.181	164	626994	127.38	ppb	94

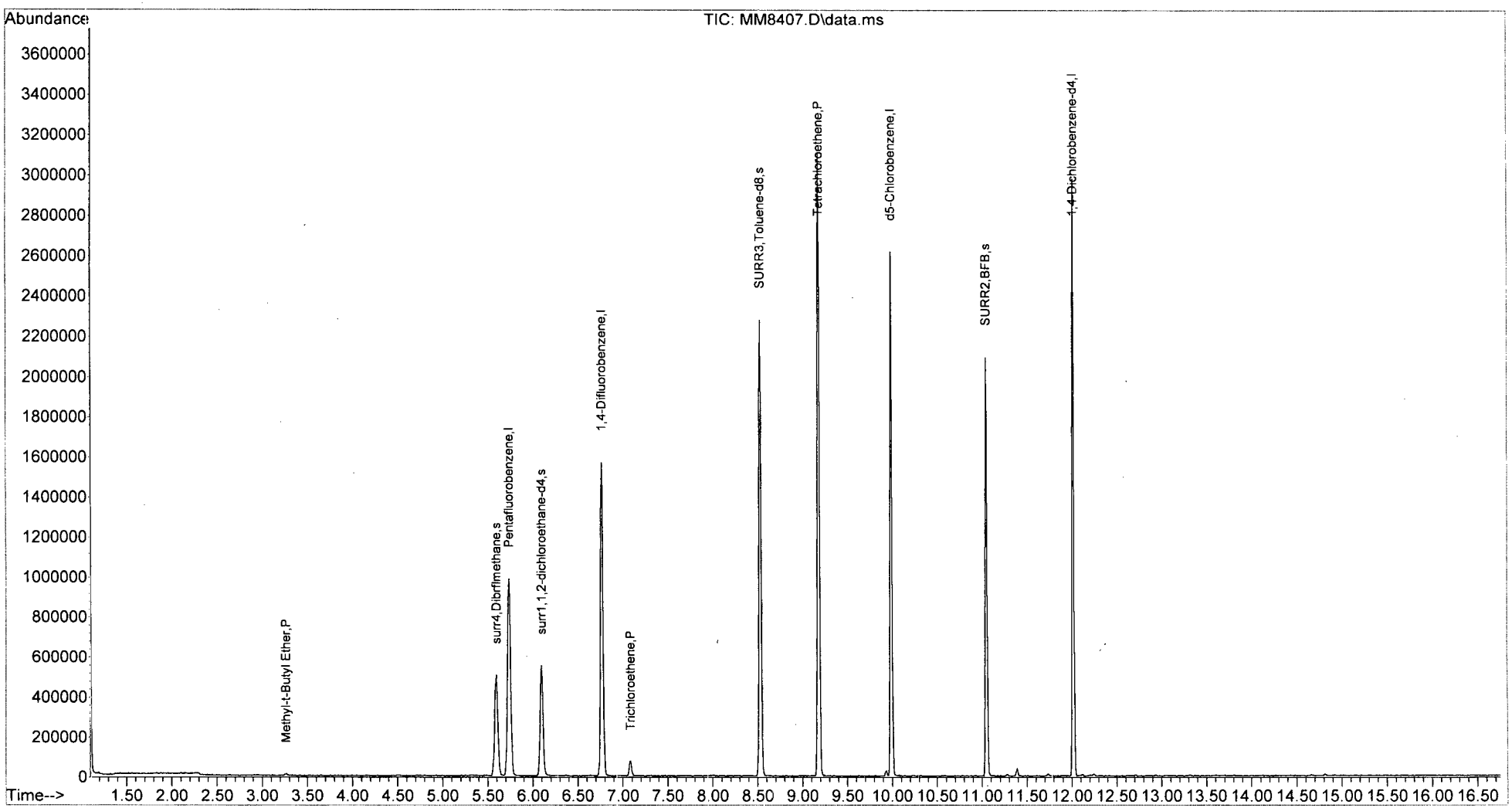
(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/3/15

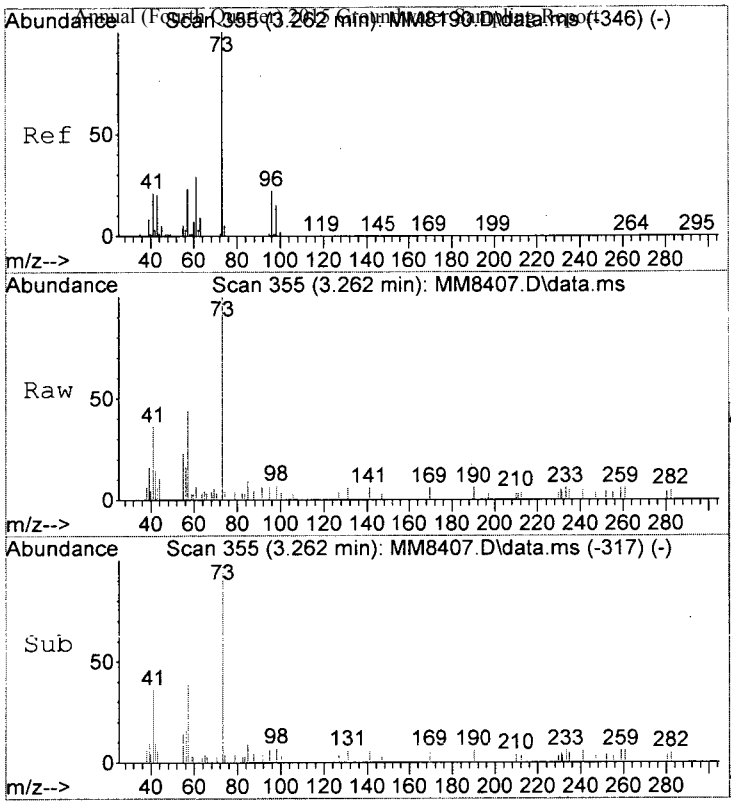
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8407.D
Acq On : 30 Nov 2015 7:13 pm
Operator : K.Ruest
Sample : R1510063-020|5.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 03 15:49:33 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



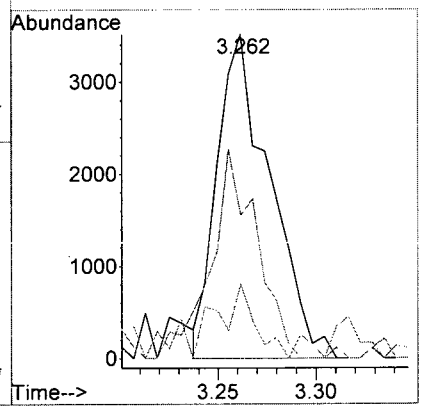
W111815A.M Thu Dec 03 15:50:45 2015 Page: 2

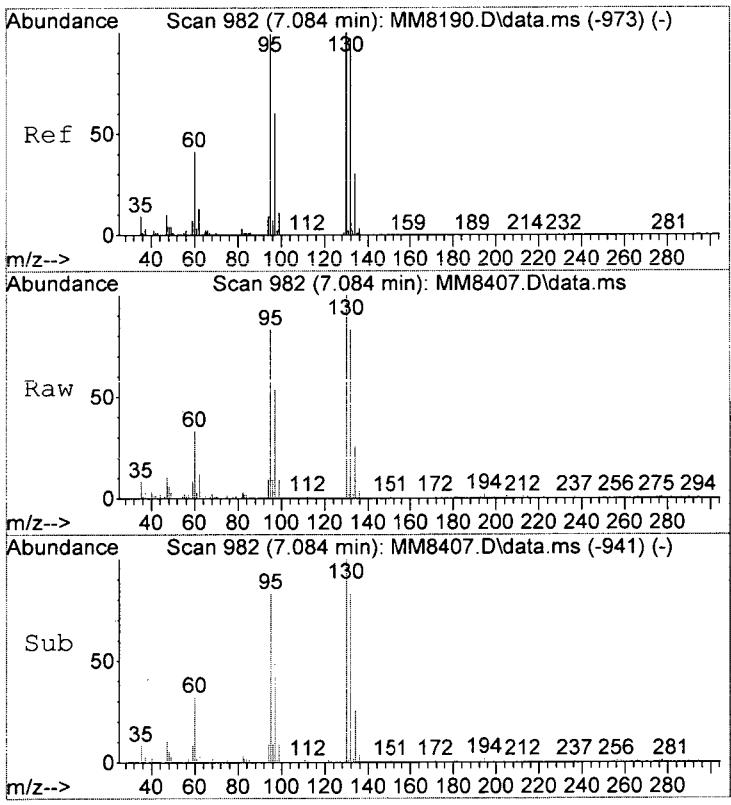


#25
Methyl-t-Butyl Ether
Concen: 0.34 ppb
RT: 3.262 min Scan# 355
Delta R.T. -0.006 min
Lab File: MM8407.D
Acq: 30 Nov 2015 7:13 pm

Tgt Ion: 73 Resp: 6584

Ion	Ratio	Lower	Upper
73	100		
57	44.3	3.3	43.3#
55	22.8	0.0	24.8

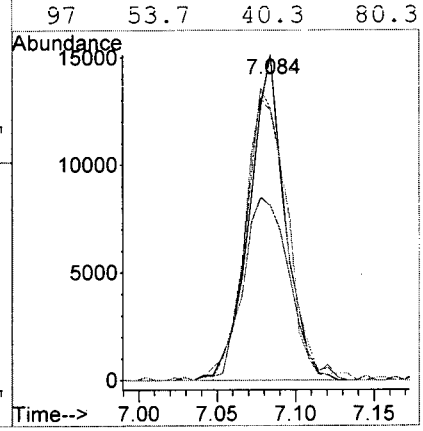


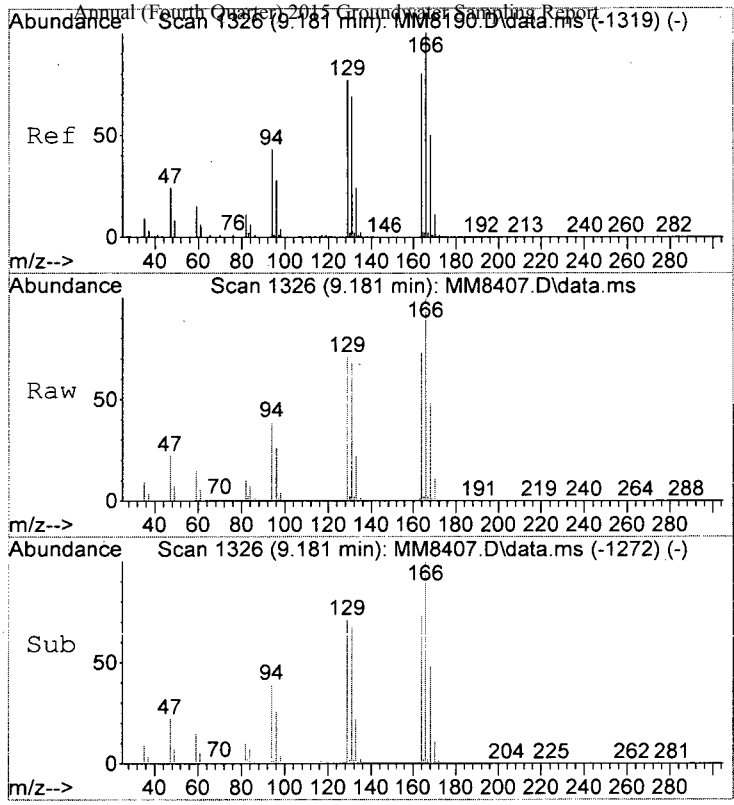


#54
Trichloroethene
Concen: 3.27 ppb
RT: 7.084 min Scan# 982
Delta R.T. -0.000 min
Lab File: MM8407.D
Acq: 30 Nov 2015 7:13 pm

Tgt Ion:130 Resp: 23826

Ion	Ratio	Lower	Upper
130	100		
132	83.4	77.4	117.4
95	82.8	79.2	119.2
97	53.7	40.3	80.3

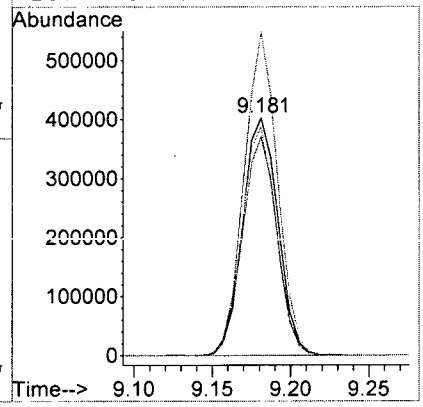




#72
Tetrachloroethene
Concen: 127.38 ppb
RT: 9.181 min Scan# 1326
Delta R.T. -0.000 min
Lab File: MM8407.D
Acq: 30 Nov 2015 7:13 pm

Tgt Ion:164 Resp: 626994

Ion	Ratio	Lower	Upper
164	100		
166	136.1	104.3	144.3
129	96.3	75.4	115.4
131	92.0	65.7	105.7



MM8407.D W111815A.M Thu Dec 03 15:50:48 2015 Page 4

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8407.D
Acq On : 30 Nov 2015 7:13 pm
Operator : K.Ruest
Sample : R1510063-020|5.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 21 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

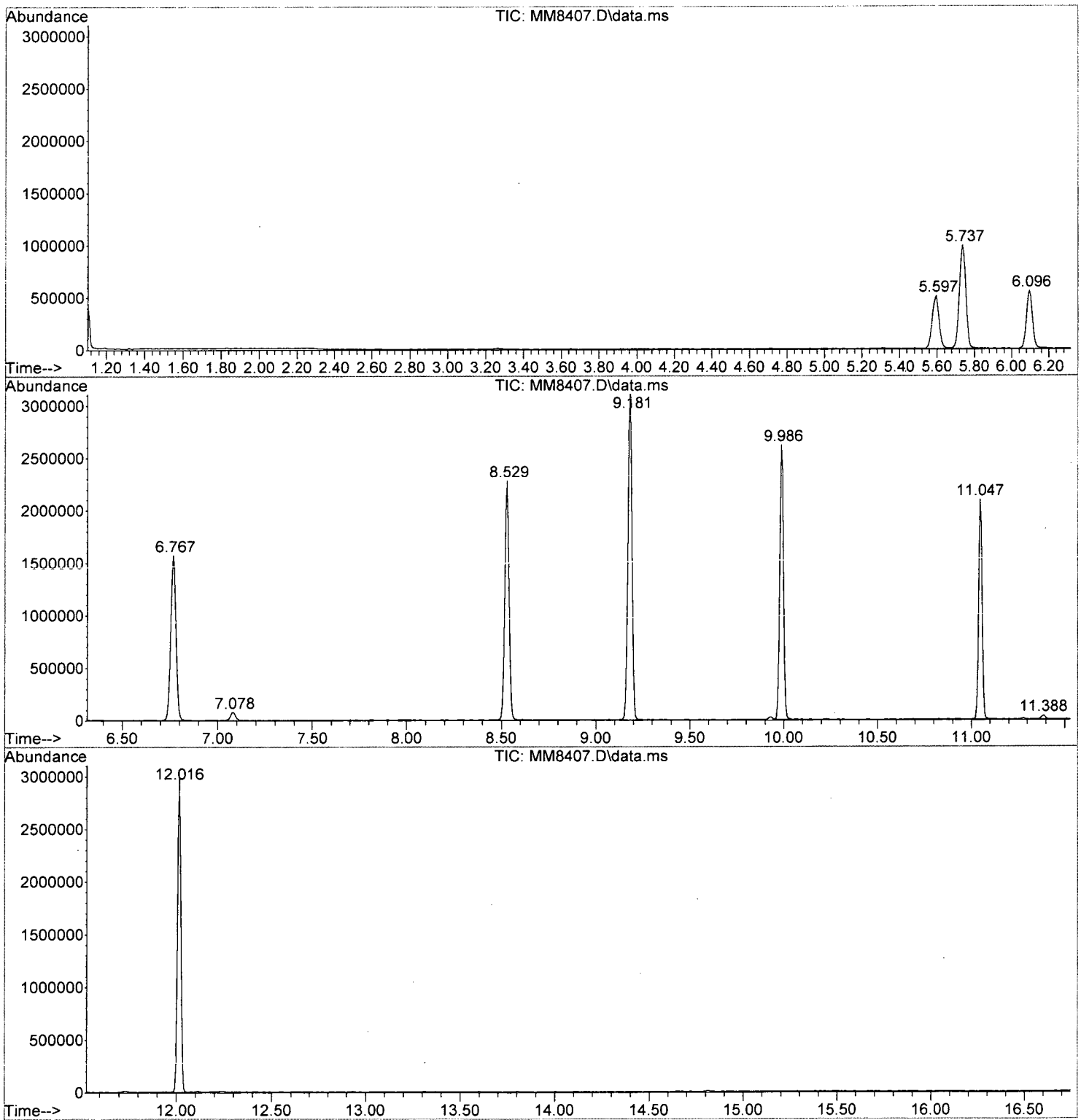
Signal : TIC: MM8407.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.597	727	738	747	rBV	505452	1244974	26.42%	4.730%
2	5.737	751	761	775	rVB	985614	2364399	50.18%	8.982%
3	6.096	811	820	832	rBV	553489	1239243	26.30%	4.708%
4	6.767	921	930	941	rBV	1568056	2998010	63.63%	11.389%
5	7.078	974	981	987	rBV	75818	142992	3.03%	0.543%
6	8.529	1211	1219	1230	rBV	2278208	3649463	77.45%	13.864%
7	9.181	1319	1326	1335	rVB	3102748	4711774	100.00%	17.900%
8	9.986	1452	1458	1469	rVB	2614075	3600458	76.41%	13.678%
9	11.047	1627	1632	1643	rVB	2093944	2691351	57.12%	10.224%
10	11.388	1683	1688	1692	rBV	37308	50019	1.06%	0.190%
11	12.016	1785	1791	1797	rVB	2978956	3630221	77.05%	13.791%

Sum of corrected areas: 26322904

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8407.D
Acq On    : 30 Nov 2015   7:13 pm
Operator  : K.Ruest
Sample    : R1510063-020|5.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 21   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



W111815A.M Thu Dec 03 15:50:56 2015 Page: 2

Data Path : I:\ACQUDATA\msvoa12\Data\113015\\
Data File : MM8407.D
Acq On : 30 Nov 2015 7:13 pmm
Operator : K.Ruestt
Sample : R1510063-020|5.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 21 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15 1545
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW01-37.5
Lab Code: R1510063-021

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 16:39		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 16:39		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 16:39		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 16:39		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 16:39		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 16:39		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 16:39		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 16:39		474104	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/30/15 16:39		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 16:39		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 16:39		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 16:39		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 16:39		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 16:39		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 16:39		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 16:39		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 16:39		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 16:39		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 16:39		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 16:39		474104	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/30/15 16:39		474104	
Benzene	**0.44**	J	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 16:39		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 16:39		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 16:39		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 16:39		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 16:39		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 16:39		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 16:39		474104	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/18/15 1545
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW01-37.5
Lab Code: R1510063-021

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 16:39		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 16:39		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 16:39		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 16:39		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 16:39		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 16:39		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/30/15 16:39		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
Methyl tert-Butyl Ether	**2.5**	J	5.0	1.0	0.29	1	NA	11/30/15 16:39		474104	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
Tetrachloroethene (PCE)	**690**	D	25	5.0	1.5	5	NA	11/30/15 19:43		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
Trichloroethene (TCE)	**23**		5.0	1.0	0.22	1	NA	11/30/15 16:39		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 16:39		474104	
cis-1,2-Dichloroethene	**0.60**	J	5.0	1.0	0.30	1	NA	11/30/15 16:39		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 16:39		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 16:39		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 16:39		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 16:39		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 16:39		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 16:39		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	11/30/15 16:39	
Dibromofluoromethane	112	85-115	11/30/15 16:39	
Toluene-d8	108	85-120	11/30/15 16:39	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/18/15
Sample Matrix:	Water	**Date Received:**	11/19/15
		Date Analyzed:	11/30/15 1639

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-68-GW-MW01-37.5	**Units:**	µg/L
Lab Code:	R1510063-021	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8402.D
Acq On : 30 Nov 2015 4:39 pm
Operator : K.Ruest
Sample : R1510063-021|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 03 15:07:45 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

wp 5.0

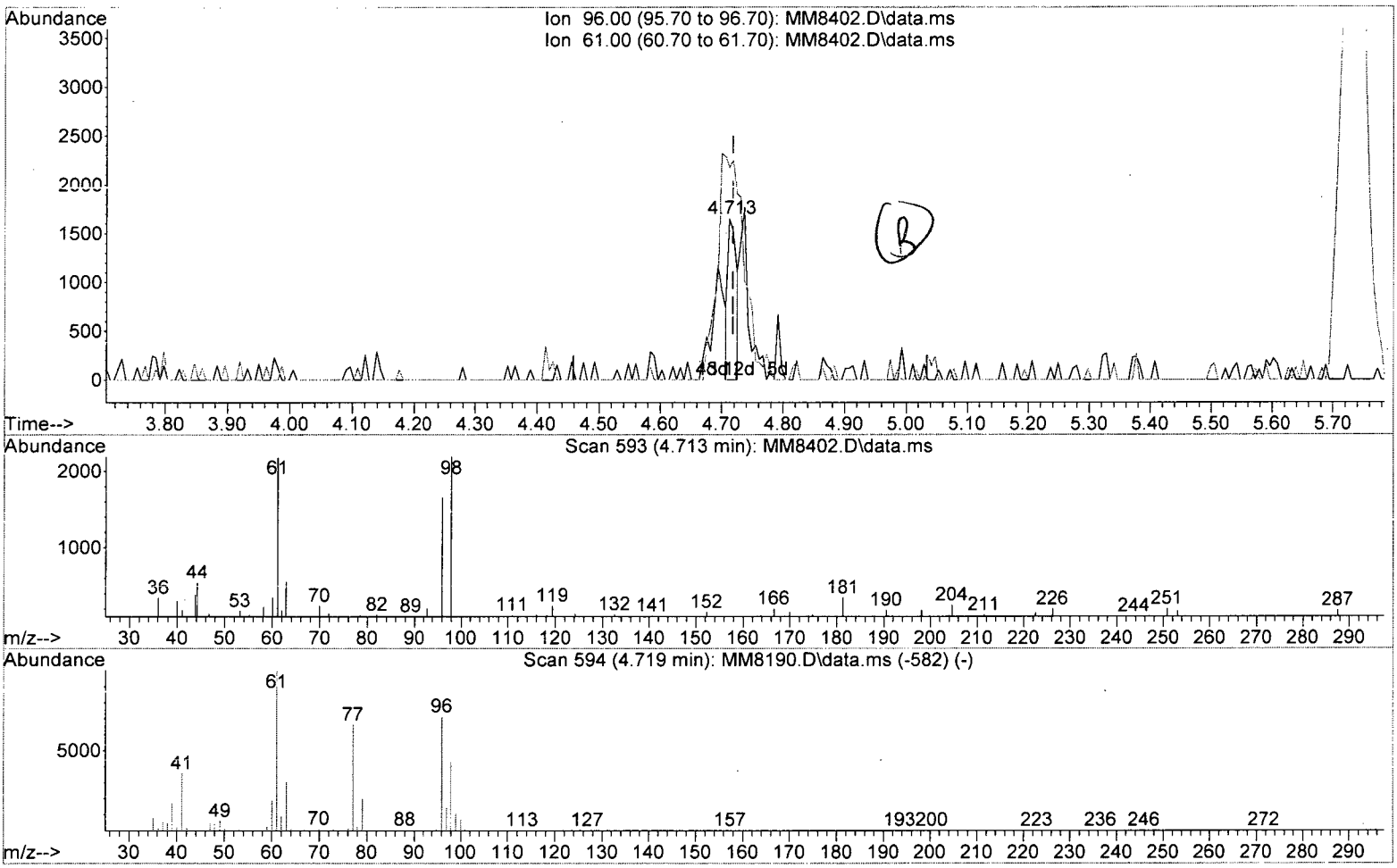
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	824149	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1336542	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1218730	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	605896	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	389432	56.04	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 112.08%				
48) surr1,1,2-dichloroetha...	6.096	65	416787	54.30	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.60%				
65) SURR3,Toluene-d8	8.529	98	1571727	53.75	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 107.50%				
70) SURR2,BFB	11.047	95	624421	56.56	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 113.12%				
Target Compounds							Qvalue
13) 1,1-Diclethene	2.426	96	3352	0.49	ppb	#	75
18) Carbon Disulfide	2.634	76	6724	0.29	ppb		87
23) TBA	3.091	59	5064	9.36	ppb	#	27
25) Methyl-t-Butyl Ether	3.268	73	47824	2.49	ppb		96
34) cis-1,2-Dichloroethene	4.737	96	4963m	0.60	ppb		
49) Benzene	6.176	78	13011	0.44	ppb		98
54) Trichloroethene	7.084	130	168929	22.60	ppb		96
72) Tetrachloroethene	9.187	164	3250778	643.09	ppb		95 (E)

KR 12/3/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8402.D
Acq On : 30 Nov 2015 4:39 pm
Operator : K.Ruest
Sample : R1510063-021|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 30 16:55:25 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8402.D\data.ms

(34) cis-1,2-Dichloroethene (P)

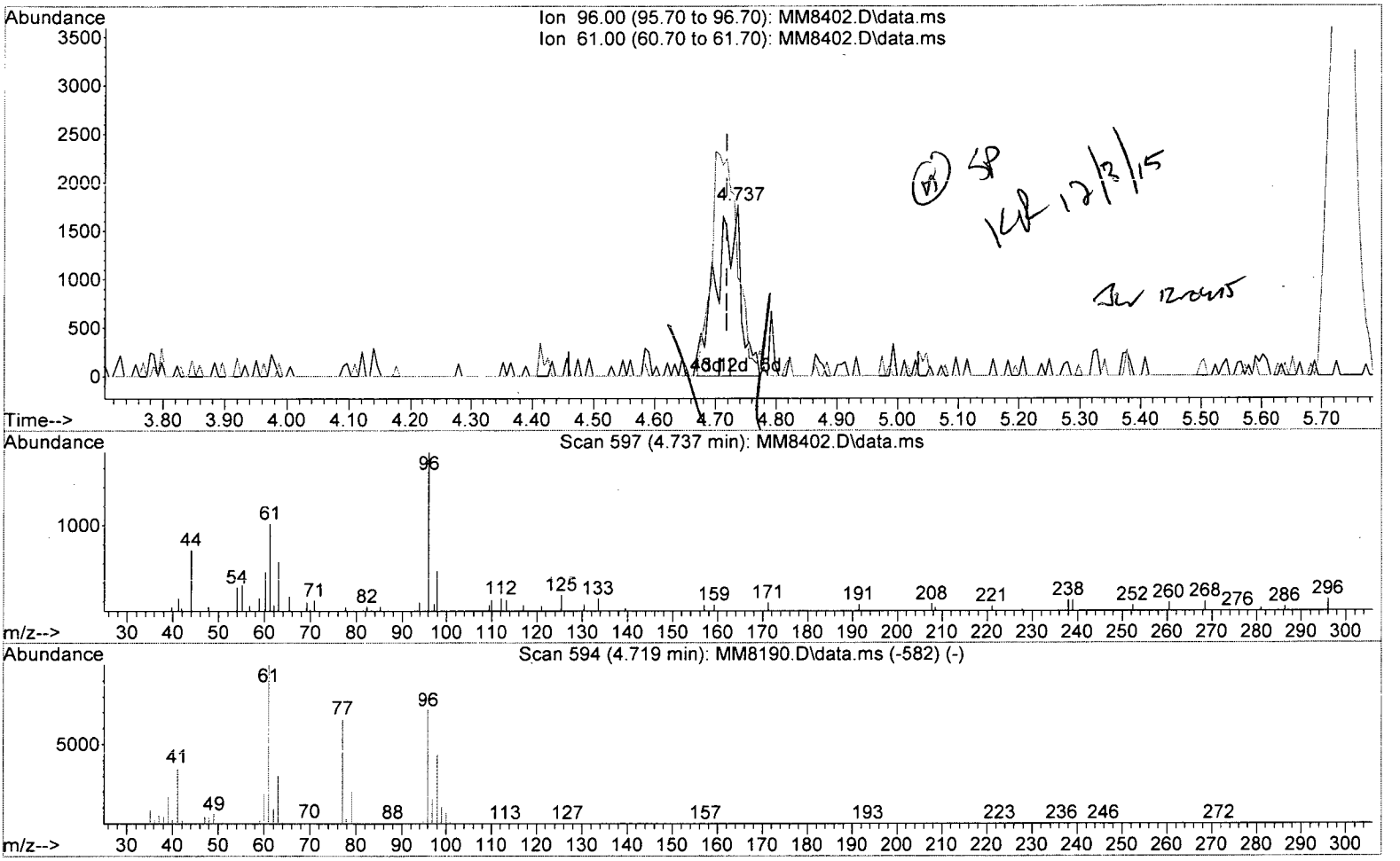
4.713min (-0.006) 0.19 ppb

response 1561

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	131.50
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8402.D
Acq On : 30 Nov 2015 4:39 pm
Operator : K.Ruest
Sample : R1510063-021|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 30 16:55:25 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8402.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.737min (+0.018) 0.60 ppb m

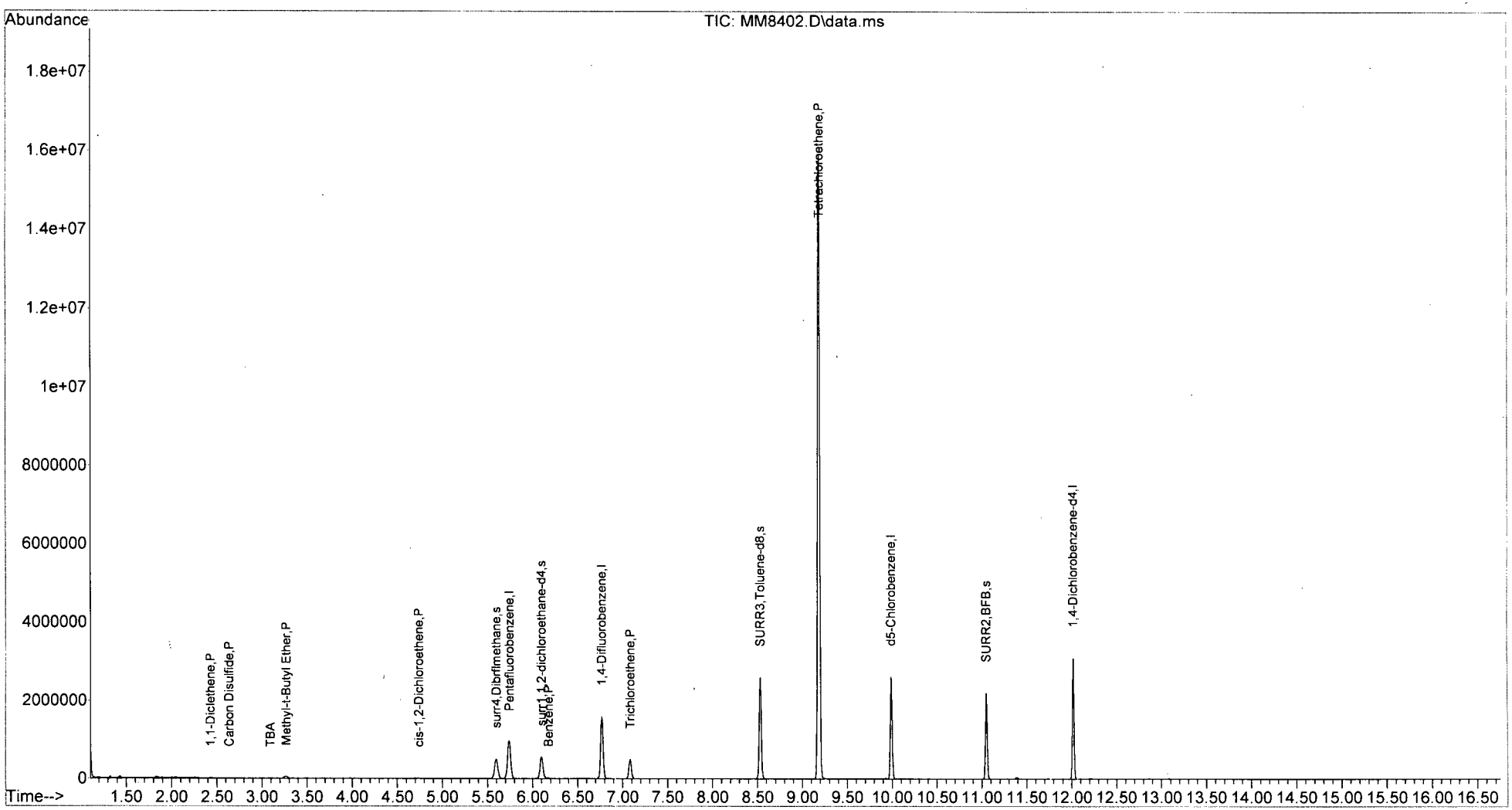
response 4963

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	57.60#
0.00	0.00	0.00
0.00	0.00	0.00

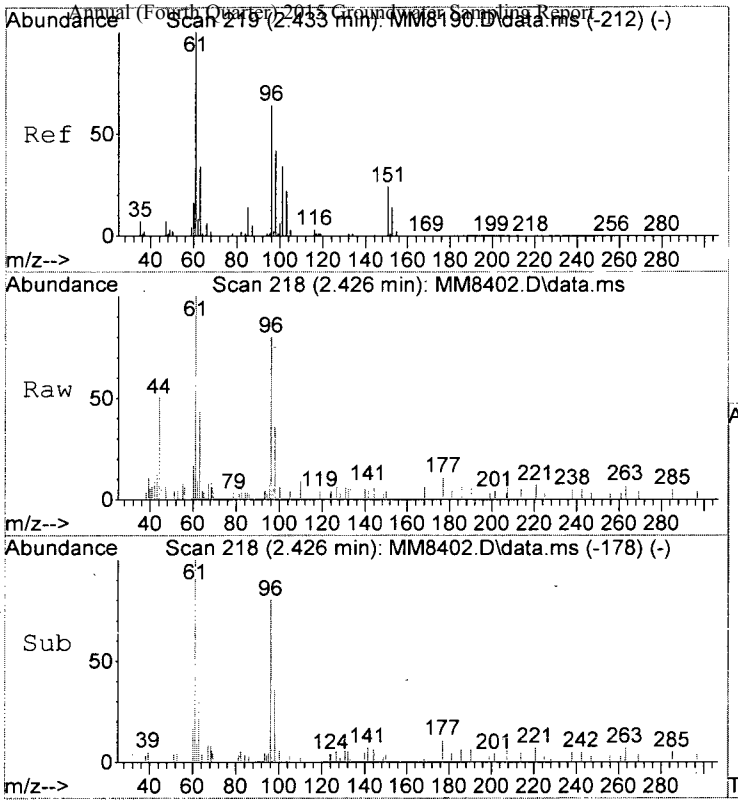
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8402.D
Acq On : 30 Nov 2015 4:39 pm
Operator : K.Ruest
Sample : R1510063-021|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 03 15:07:45 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



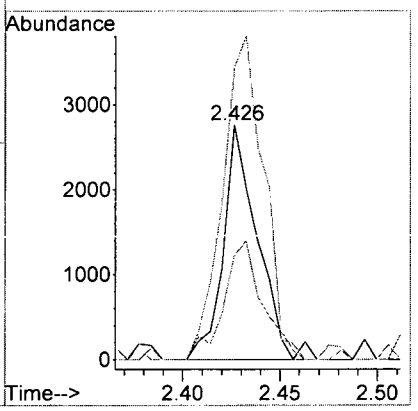
W111815A.M Thu Dec 03 15:08:50 2015 Page: 2

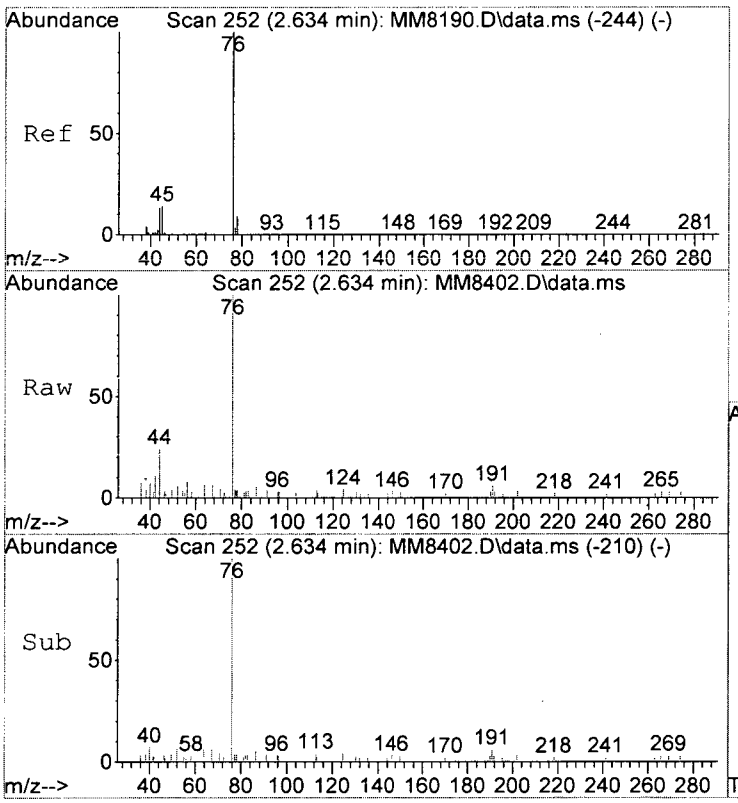


#13
1,1-Diclethene
Concen: 0.49 ppb
RT: 2.426 min Scan# 218
Delta R.T. -0.006 min
Lab File: MM8402.D
Acq: 30 Nov 2015 4:39 pm

Tgt Ion: 96 Resp: 3352

Ion	Ratio	Lower	Upper
96	100		
98	44.4	45.0	85.0#
61	124.7	136.2	176.2#

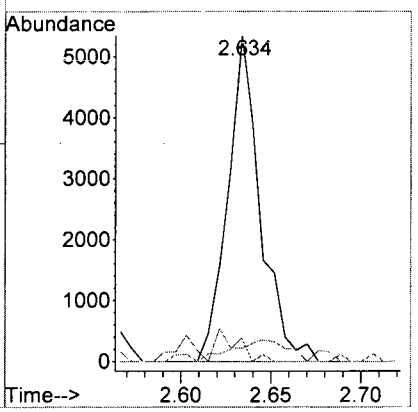


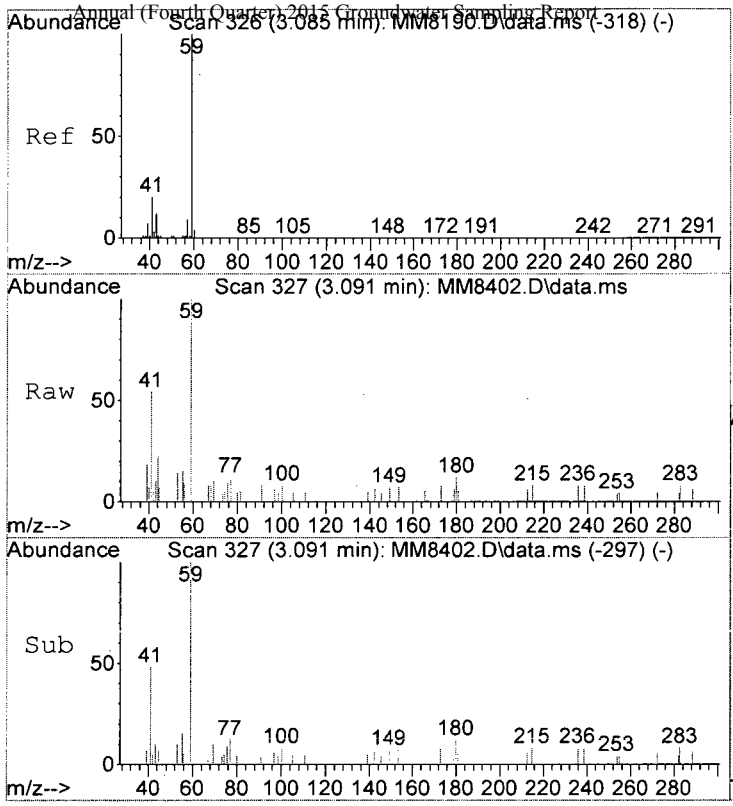


#18
Carbon Disulfide
Concen: 0.29 ppb
RT: 2.634 min Scan# 252
Delta R.T. -0.000 min
Lab File: MM8402.D
Acq: 30 Nov 2015 4:39 pm

Tgt Ion: 76 Resp: 6724

Ion	Ratio	Lower	Upper
76	100		
78	4.0	0.0	28.7
77	7.1	0.0	23.0

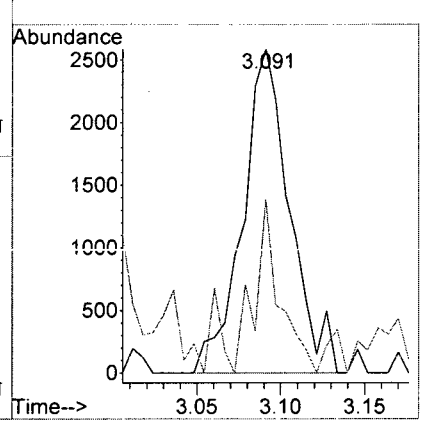


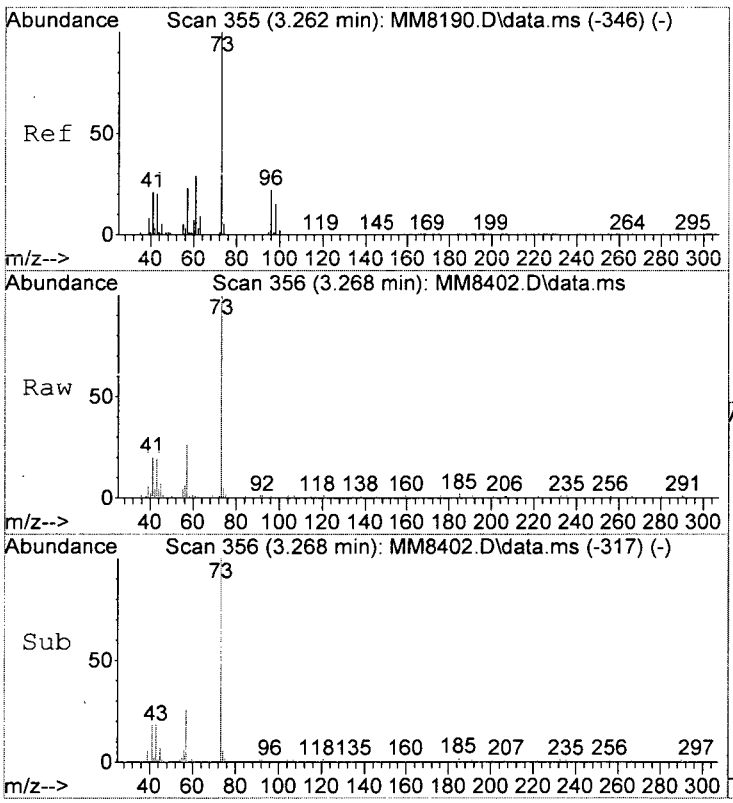


#23
TBA
Concen: 9.36 ppb
RT: 3.091 min Scan# 327
Delta R.T. -0.006 min
Lab File: MM8402.D
Acq: 30 Nov 2015 4:39 pm

Tgt Ion: 59 Resp: 5064

Ion	Ratio	Lower	Upper
59	100		
41	53.6	0.0	40.0#

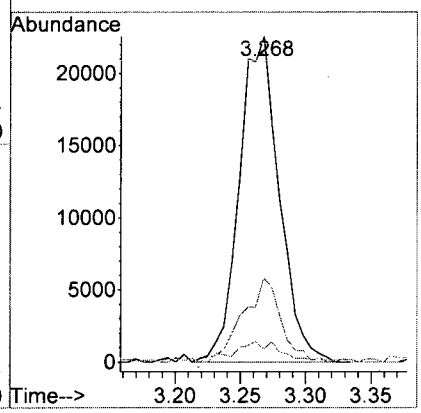


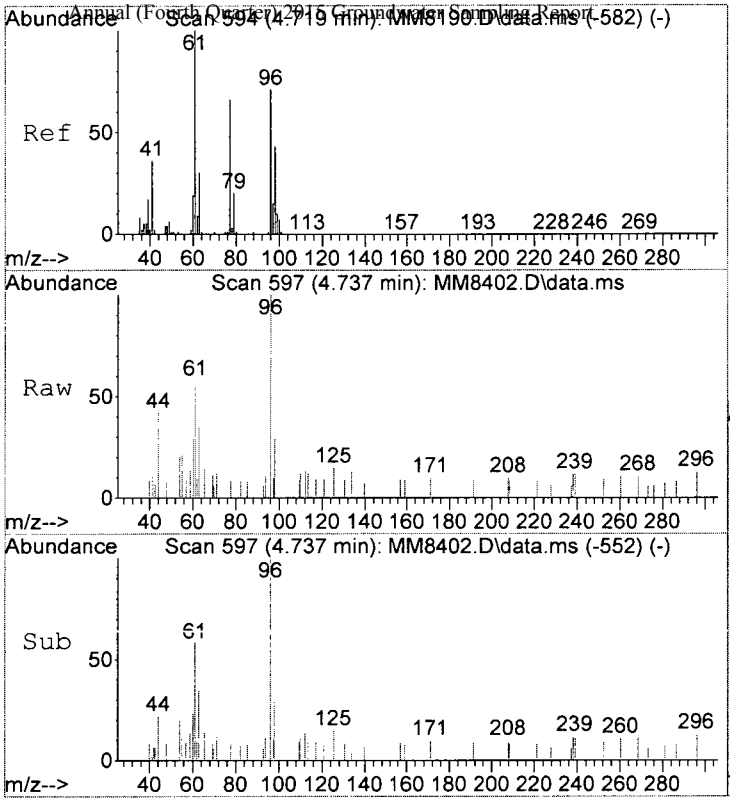


#25
Methyl-t-Butyl Ether
Concen: 2.49 ppb
RT: 3.268 min Scan# 356
Delta R.T. -0.000 min
Lab File: MM8402.D
Acq: 30 Nov 2015 4:39 pm

Tgt Ion: 73 Resp: 47824

Ion	Ratio	Lower	Upper
73	100		
57	25.6	3.3	43.3
55	4.1	0.0	24.8

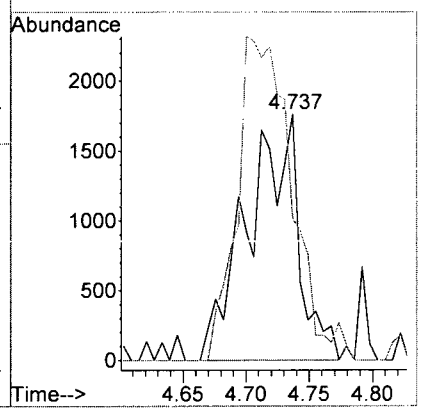


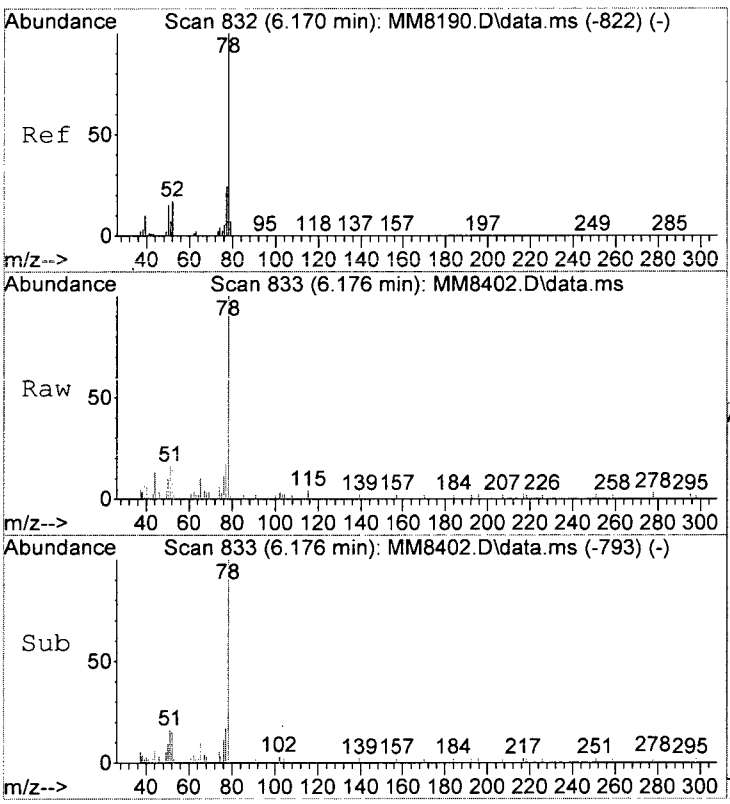


#34
cis-1,2-Dichloroethene
Concen: 0.60 ppb m
RT: 4.737 min Scan# 597
Delta R.T. 0.018 min
Lab File: MM8402.D
Acq: 30 Nov 2015 4:39 pm

Tgt Ion: 96 Resp: 4963

Ion	Ratio	Lower	Upper
96	100		
61	57.6	120.7	160.7#

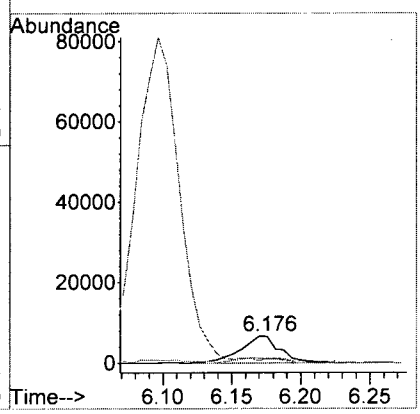


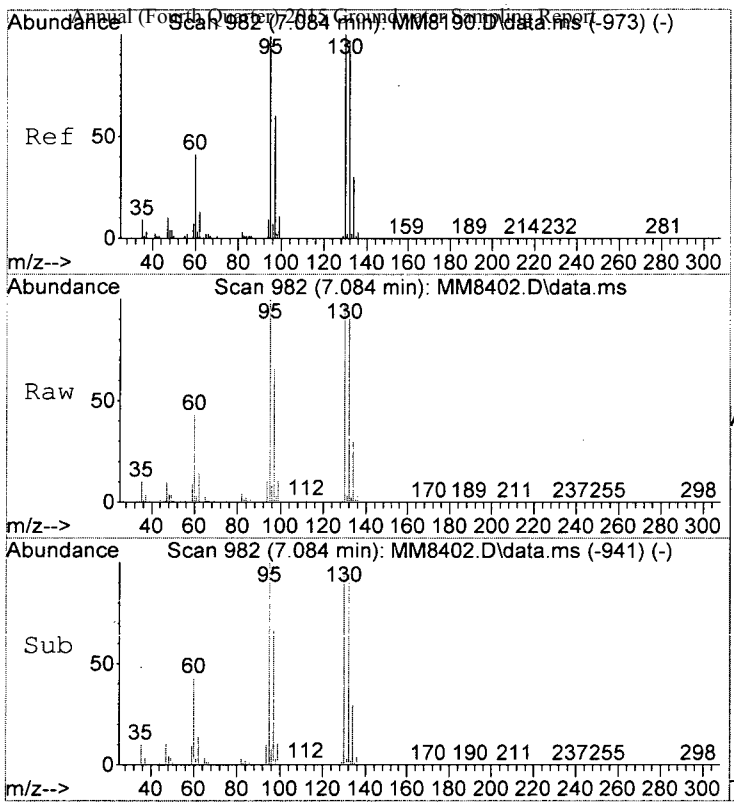


#49
Benzene
Concen: 0.44 ppb
RT: 6.176 min Scan# 833
Delta R.T. -0.000 min
Lab File: MM8402.D
Acq: 30 Nov 2015 4:39 pm

Tgt Ion: 78 Resp: 13011

Ion	Ratio	Lower	Upper
78	100		
51	15.7	0.0	36.1
52	15.4	0.0	36.8

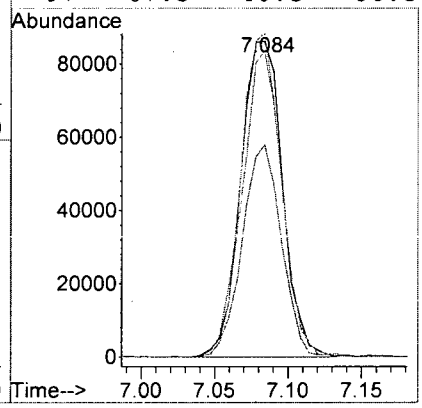


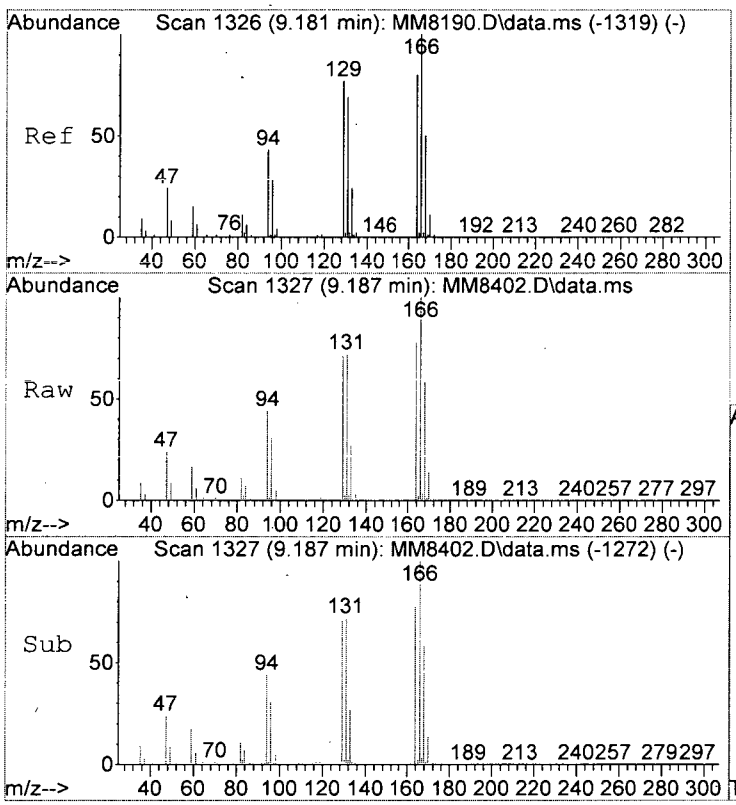


#54
Trichloroethene
Concen: 22.60 ppb
RT: 7.084 min Scan# 982
Delta R.T. -0.000 min
Lab File: MM8402.D
Acq: 30 Nov 2015 4:39 pm

Tgt Ion:130 Resp: 168929

Ion	Ratio	Lower	Upper
130	100		
132	96.8	77.4	117.4
95	102.7	79.2	119.2
97	67.3	40.3	80.3

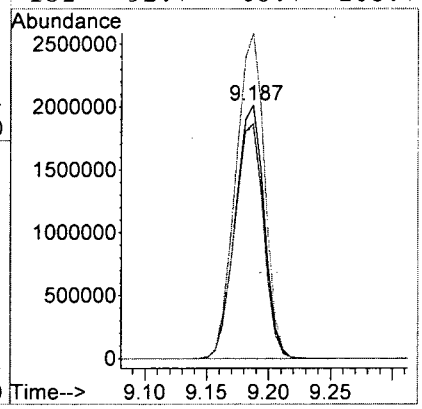




#72
Tetrachloroethene
Concen: 643.09 ppb
RT: 9.187 min Scan# 1327
Delta R.T. 0.006 min
Lab File: MM8402.D
Acq: 30 Nov 2015 4:39 pm

Tgt Ion:164 Resp: 3250778

Ion	Ratio	Lower	Upper
164	100		
166	128.5	104.3	144.3
129	91.1	75.4	115.4
131	92.7	65.7	105.7



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8402.D
Acq On : 30 Nov 2015 4:39 pm
Operator : K.Ruest
Sample : R1510063-021|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8402.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.597	728	738	748	rBV	495086	1235578	4.84%	2.536%
2	5.737	750	761	775	rVB	974395	2352797	9.21%	4.829%
3	6.096	809	820	829	rBV	549490	1233675	4.83%	2.532%
4	6.767	921	930	940	rBV	1583457	3064595	12.00%	6.290%
5	7.084	973	982	990	rBV	486744	922966	3.61%	1.895%
6	8.529	1211	1219	1228	rBV	2587396	4086925	16.00%	8.389%
7	9.187	1319	1327	1338	rBV	15888866	25539602	100.00%	52.423%
8	9.986	1452	1458	1466	rBV	2606768	3692750	14.46%	7.580%
9	11.047	1627	1632	1643	rBV	2197405	2829557	11.08%	5.808%
10	12.016	1785	1791	1799	rBV	3087657	3759545	14.72%	7.717%

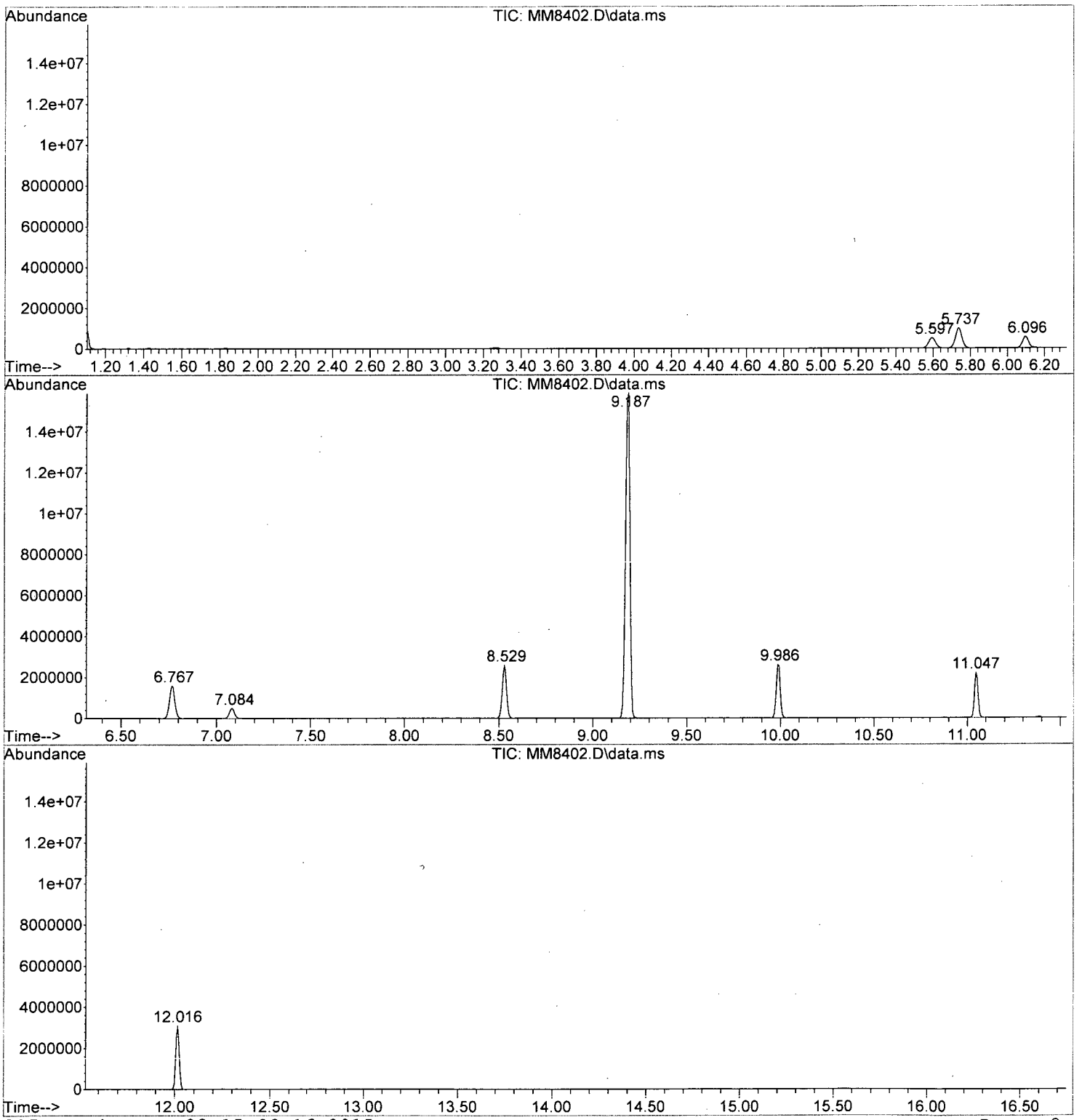
Sum of corrected areas: 48717990

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8402.D
Acq On : 30 Nov 2015 4:39 pm
Operator : K.Ruest
Sample : R1510063-021|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 16 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



Tentatively Identified Compound (LSC) summary

```
Data Path : I:\ACQUDATA\msvoa12\Data\113015\\
Data File : MM8402.D
Acq On    : 30 Nov 2015   4:39 pmm
Operator  : K.Ruestt
Sample    : R1510063-021|1.0                        Inst    : MSVOA-122
Misc      : PARSONS 11603 T4*DOD4**
ALS Vial  : 16   Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title  : MS#12 - 8260B WATERS 10mL Purgee

TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

                                                  |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-----------------------------------------------------------------------------



 No Library Search Compounds Detected
 ************************************************************************
```

W111815A.M Thu Dec 03 15:09:16 2015 Page: 3

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8408.D
Acq On : 30 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : R1510063-021|5.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 03 15:52:08 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	830761	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1293731	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1165426	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	590809	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.590	113	384002	57.09	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 114.18%			
48) surr1,1,2-dichloroetha...	6.096	65	424453	57.13	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 114.26%			
65) SURR3,Toluene-d8	8.529	98	1422854	50.26	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.52%			
70) SURR2,BFB	11.047	95	598530	56.01	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 112.02%			
Target Compounds						Qvalue
15) Acetone	2.487	43	1805	1.02	ppb	72
25) Methyl-t-Butyl Ether	3.262	73	8688	0.45	ppb	95
54) Trichloroethene	7.084	130	27747	3.84	ppb	93
72) Tetrachloroethene	9.181	164	671081	138.83	ppb	95

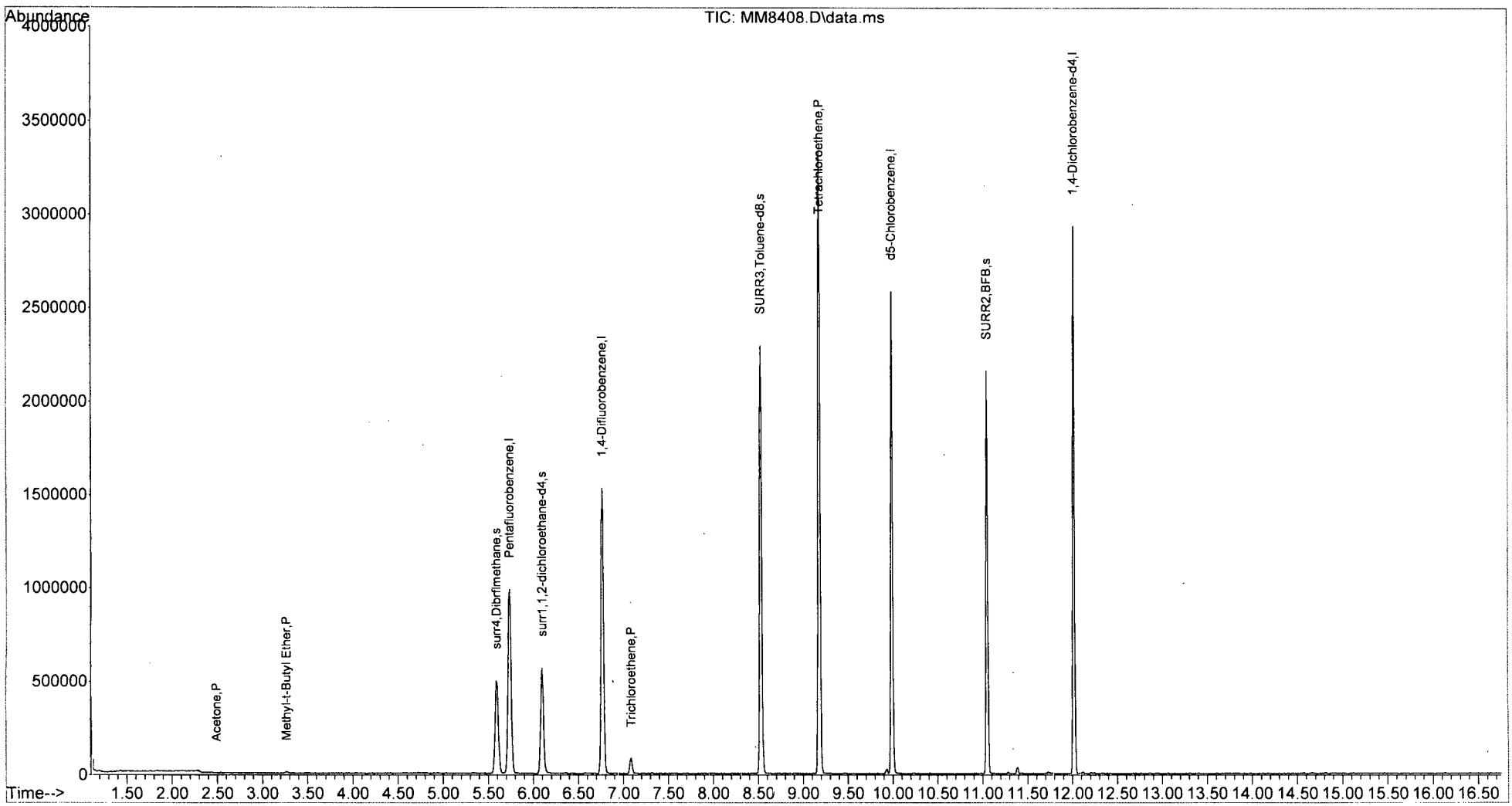
(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/3/15

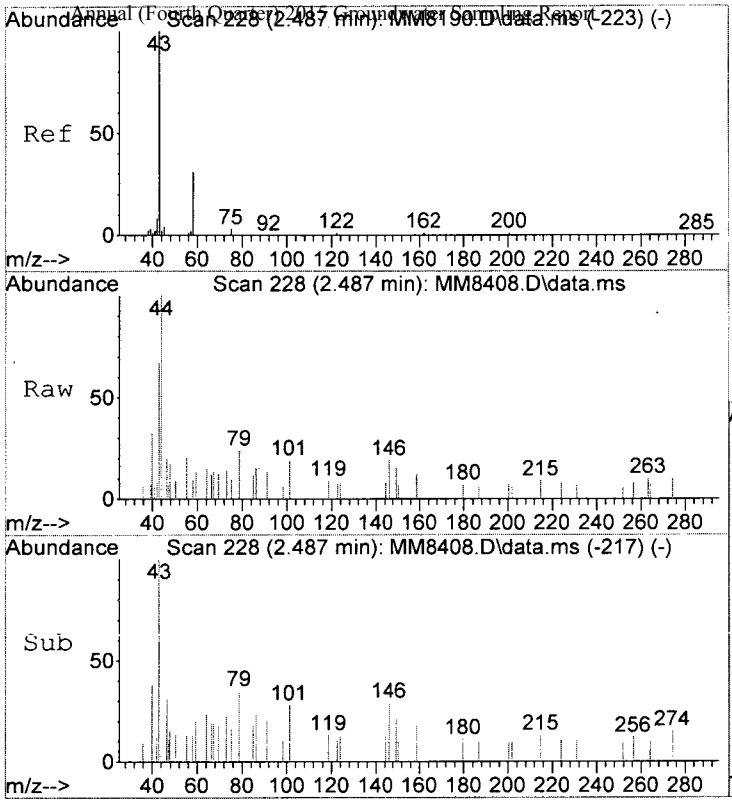
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8408.D
Acq On : 30 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : R1510063-021|5.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 03 15:52:08 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



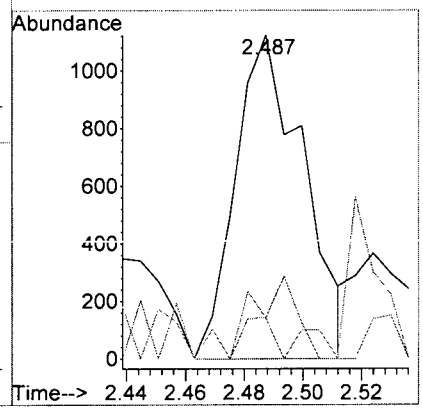
W111815A.M Thu Dec 03 15:59:02 2015 Page: 2

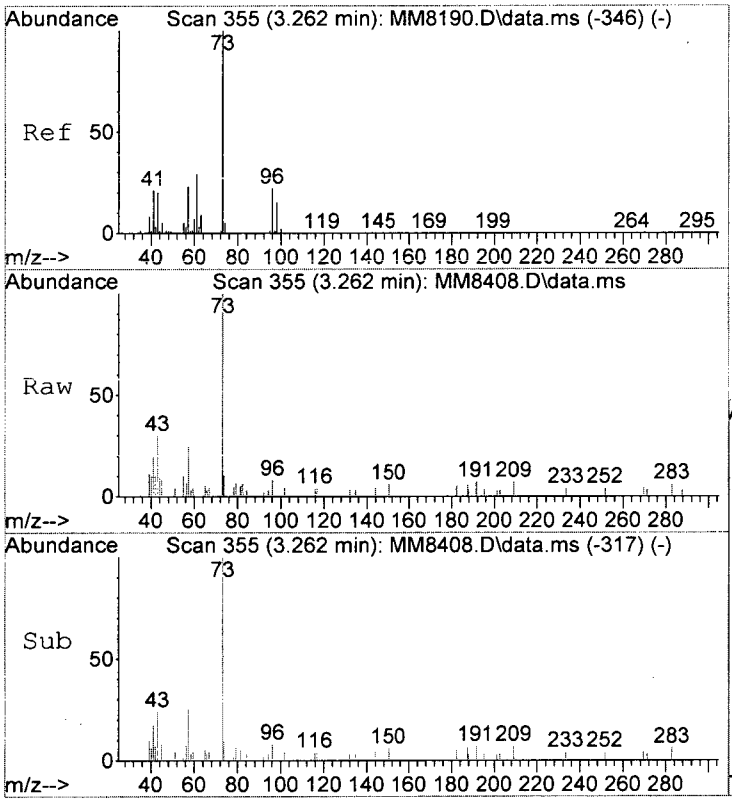


#15
Acetone
Concen: 1.02 ppb
RT: 2.487 min Scan# 228
Delta R.T. -0.006 min
Lab File: MM8408.D
Acq: 30 Nov 2015 7:43 pm

Tgt Ion: 43 Resp: 1805

Ion	Ratio	Lower	Upper
43	100		
58	12.8	10.9	50.9
42	12.5	0.0	28.5

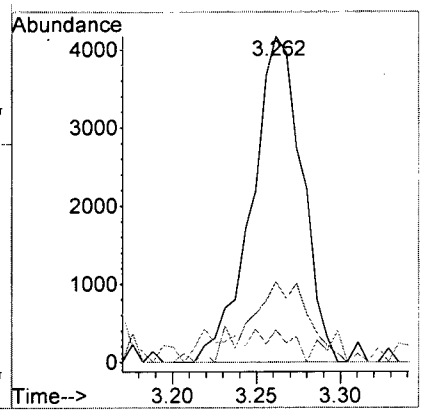


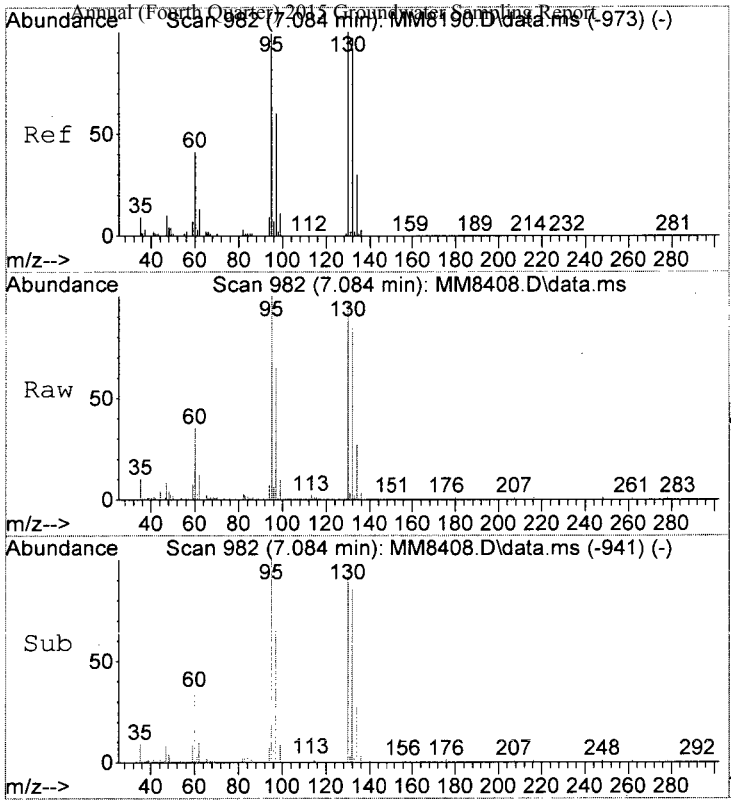


#25
Methyl-t-Butyl Ether
Concen: 0.45 ppb
RT: 3.262 min Scan# 355
Delta R.T. -0.006 min
Lab File: MM8408.D
Acq: 30 Nov 2015 7:43 pm

Tgt Ion: 73 Resp: 8688

Ion	Ratio	Lower	Upper
73	100		
57	24.5	3.3	43.3
55	9.9	0.0	24.8

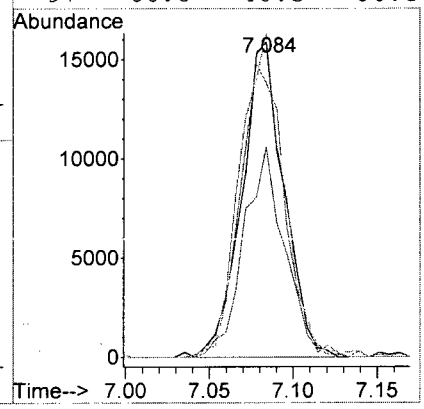


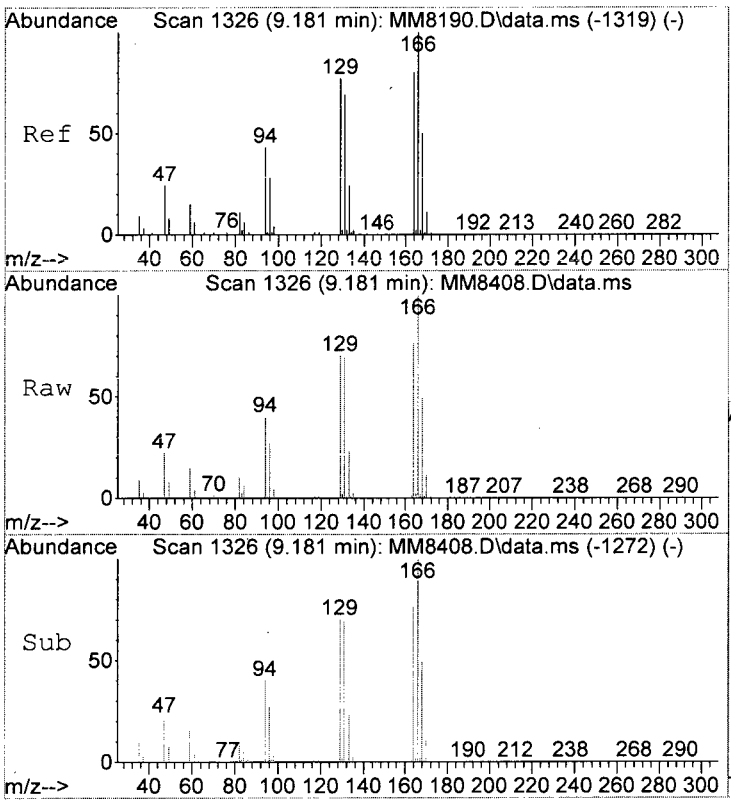


#54
Trichloroethene
Concen: 3.84 ppb
RT: 7.084 min Scan# 982
Delta R.T. -0.000 min
Lab File: MM8408.D
Acq: 30 Nov 2015 7:43 pm

Tgt Ion:130 Resp: 27747

Ion	Ratio	Lower	Upper
130	100		
132	87.1	77.4	117.4
95	102.8	79.2	119.2
97	66.8	40.3	80.3

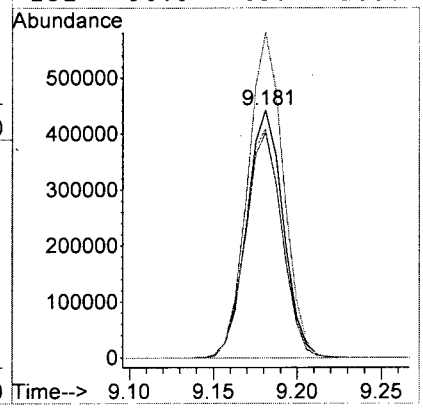




#72
Tetrachloroethene
Concen: 138.83 ppb
RT: 9.181 min Scan# 1326
Delta R.T. -0.000 min
Lab File: MM8408.D
Acq: 30 Nov 2015 7:43 pm

Tgt Ion:164 Resp: 671081

Ion	Ratio	Lower	Upper
164	100		
166	131.4	104.3	144.3
129	92.4	75.4	115.4
131	90.9	65.7	105.7



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8408.D
Acq On : 30 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : R1510063-021|5.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 22 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8408.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.591	727	737	747	rBV2	497140	1231461	24.43%	4.615%
2	5.737	750	761	772	rVV	983286	2352456	46.67%	8.817%
3	6.097	808	820	830	rBV2	567503	1267478	25.14%	4.750%
4	6.767	922	930	943	rBV	1531673	2993490	59.38%	11.219%
5	7.084	973	982	988	rBV2	83956	166012	3.29%	0.622%
6	8.529	1212	1219	1228	rBV	2290807	3674438	72.89%	13.771%
7	9.181	1317	1326	1334	rBV	3330187	5040831	100.00%	18.892%
8	9.986	1452	1458	1466	rBV	2583656	3572654	70.87%	13.390%
9	11.047	1624	1632	1642	rVB	2160059	2711512	53.79%	10.162%
10	11.388	1682	1688	1692	rVB	34686	50464	1.00%	0.189%
11	12.016	1785	1791	1798	rVB	2933354	3621353	71.84%	13.572%

Sum of corrected areas: 26682149

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8408.D
Acq On    : 30 Nov 2015    7:43 pm
Operator  : K.Ruest
Sample    : R1510063-021|5.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 22   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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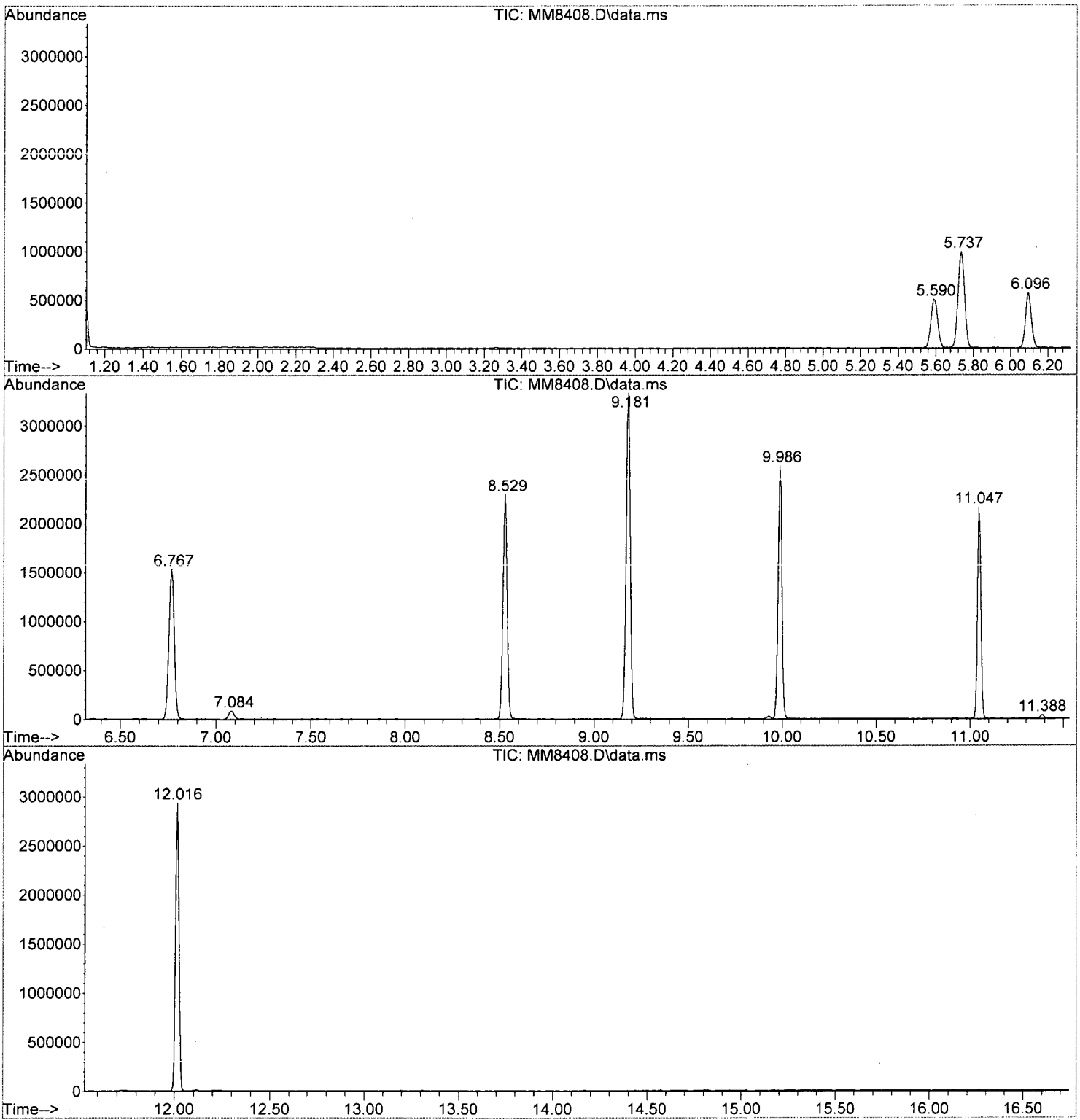

W111815A.M Thu Dec 03 15:53:44 2015 Page: 2

Data Path : I:\ACQUDATA\msvoa12\Data\113015\\
Data File : MM8408.D
Acq On : 30 Nov 2015 7:43 pmm
Operator : K.Ruestt
Sample : R1510063-021|5.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 22 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

ALS Environmental

VOLATILE ORGANICS STANDARDS DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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Initial Calibration - Summary Report

KR 11/30/15

Calibration ID: RC1500127
W111615A. 8260 Waters

Instrument ID: R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
1,1,1,2-Tetrachloroethane	T	Average RF			0.2556	<=15	7.6
1,1,1,2-Tetrachloroethane	T	Average RF			0.2556	<=20	7.6
1,1,1-Trichloroethane (TCA)	T	Average RF		0.100	0.6115	<=15	8.3
1,1,1-Trichloroethane (TCA)	T	Average RF		0.100	0.6115	<=20	8.3
1,1,2,2-Tetrachloroethane	T	Average RF		0.300	0.5254	<=15	9.7
1,1,2,2-Tetrachloroethane	T	Average RF		0.300	0.5254	<=20	9.7
1,1,2-Trichloroethane	T	Average RF		0.100	0.1927	<=15	4.1
1,1,2-Trichloroethane	T	Average RF		0.100	0.1927	<=20	4.1
1,1,2-Trichlorotrifluoroethane	T	Average RF		0.100	0.3806	<=15	10.6
1,1,2-Trichlorotrifluoroethane	T	Average RF		0.100	0.3806	<=20	10.6
1,1-Dichloroethane (1,1-DCA)	T	Average RF		0.200	0.8010	<=15	6.4
1,1-Dichloroethane (1,1-DCA)	T	Average RF		0.200	0.8010	<=20	6.4
1,1-Dichloroethene (1,1-DCE)	T	Average RF		0.100	0.4182	<=15	9.7
1,1-Dichloroethene (1,1-DCE)	T	Average RF		0.100	0.4182	<=20	9.7
1,1-Dichloropropene	T	Average RF			0.3528	<=15	10.8
1,1-Dichloropropene	T	Average RF			0.3528	<=20	10.8
1,2,3-Trichlorobenzene	T	Average RF			0.5379	<=15	6.4
1,2,3-Trichlorobenzene	T	Average RF			0.5379	<=20	6.4
1,2,3-Trichloropropane	T	Linear	1/X		0.1547	>=0.99	0.9998
1,2,3-Trichloropropane	T	Linear	1/X		0.1547	>=0.995	0.9998
1,2,3-Trichloropropane	T	Linear	1/X		0.1547	>=0.99	0.9998
1,2,4-Trichlorobenzene	T	Average RF		0.200	0.6467	<=15	7.9
1,2,4-Trichlorobenzene	T	Average RF		0.200	0.6467	<=20	7.9
1,2,4-Trimethylbenzene	T	Average RF			2.111	<=15	10.7
1,2,4-Trimethylbenzene	T	Average RF			2.111	<=20	10.7
1,2-Dibromo-3-chloropropane (DBCP)	T	Average RF		0.050	0.1014	<=15	8.1
1,2-Dibromo-3-chloropropane (DBCP)	T	Average RF		0.050	0.1014	<=20	8.1
1,2-Dibromoethane	T	Average RF		0.100	0.2026	<=15	4.7
1,2-Dibromoethane	T	Average RF		0.100	0.2026	<=20	4.7
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	T	Average RF			0.5453	<=15	10.0
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	T	Average RF			0.5453	<=20	10.0
1,2-Dichlorobenzene	T	Average RF		0.400	1.048	<=15	5.3
1,2-Dichlorobenzene	T	Average RF		0.400	1.048	<=20	5.3
1,2-Dichloroethane	T	Average RF		0.100	0.2821	<=15	6.5
1,2-Dichloroethane	T	Average RF		0.100	0.2821	<=20	6.5
1,2-Dichloropropane	T	Average RF		0.100	0.2727	<=15	6.9
1,2-Dichloropropane	T	Average RF		0.100	0.2727	<=20	6.9
1,3,5-Trichlorobenzene	T	Average RF			0.7046	<=15	10.1
1,3,5-Trichlorobenzene	T	Average RF			0.7046	<=20	10.1
1,3,5-Trimethylbenzene	T	Average RF			1.968	<=15	9.4
1,3,5-Trimethylbenzene	T	Average RF			1.968	<=20	9.4
1,3-Dichlorobenzene	T	Average RF		0.600	1.139	<=15	6.9
1,3-Dichlorobenzene	T	Average RF		0.600	1.139	<=20	6.9
1,3-Dichloropropane	T	Average RF			0.3801	<=15	8.1
1,3-Dichloropropane	T	Average RF			0.3801	<=20	8.1
1,4-Dichlorobenzene	T	Average RF		0.500	1.067	<=15	4.7
1,4-Dichlorobenzene	T	Average RF		0.500	1.067	<=20	4.7
1,4-Dioxane	T	Average RF			0.002000	<=15	7.3
1,4-Dioxane	T	Average RF			0.002000	<=20	7.3
1-Butanol	T	Average RF			0.005782	<=15	7.9
1-Butanol	T	Average RF			0.005782	<=20	7.9
1-Chloro-4-(trifluoromethyl)benzene	T	Average RF			0.3410	<=15	8.0

Initial Calibration - Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
1-Chloro-4-(trifluoromethyl)benzene	T	Average RF			0.3410	<=20	8.0
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	T	Average RF			0.6287	<=15	11.4
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	T	Average RF			0.6287	<=20	11.4
2,2-Dichloropropane	T	Average RF			0.6407	<=15	11.5
2,2-Dichloropropane	T	Average RF			0.6407	<=20	11.5
2,3,6-Trichlorotoluene	T	Average RF			0.3513	<=15	8.7
2,3,6-Trichlorotoluene	T	Average RF			0.3513	<=20	8.7
2,4,5-Trichlorotoluene	T	Average RF			0.3990	<=15	2.2
2,4,5-Trichlorotoluene	T	Average RF			0.3990	<=20	2.2
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	T	Average RF			0.8846	<=15	8.1
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	T	Average RF			0.8846	<=20	8.1
2,4-Dichlorobenzotrifluoride	T	Average RF			0.4432	<=15	3.7
2,4-Dichlorobenzotrifluoride	T	Average RF			0.4432	<=20	3.7
2,5-Dichlorobenzotrifluoride	T	Average RF			0.5013	<=15	4.1
2,5-Dichlorobenzotrifluoride	T	Average RF			0.5013	<=20	4.1
2-Bromo-2-chloro-1,1,1-trifluoroethane	T	Average RF				<=15	
2-Bromo-2-chloro-1,1,1-trifluoroethane	T	Average RF				<=20	
2-Butanone (MEK)	T	Average RF		0.05	0.1460	<=15	8.5
2-Butanone (MEK)	T	Average RF		0.05	0.1460	<=20	8.5
2-Chloro-1,3-butadiene	T	Average RF			0.8055	<=15	7.5
2-Chloro-1,3-butadiene	T	Average RF			0.8055	<=20	7.5
2-Chlorobenzotrifluoride	T	Average RF			0.7581	<=15	6.2
2-Chlorobenzotrifluoride	T	Average RF			0.7581	<=20	6.2
2-Chloroethyl Vinyl Ether	T	Average RF			0.1504	<=15	14.6
2-Chloroethyl Vinyl Ether	T	Average RF			0.1504	<=20	14.6
2-Chlorotoluene	T	Average RF			1.757	<=15	8.1
2-Chlorotoluene	T	Average RF			1.757	<=20	8.1
2-Hexanone	T	Average RF		0.05	0.1531	<=15	8.4
2-Hexanone	T	Average RF		0.05	0.1531	<=20	8.4
2-Methyl-1-propanol	T	Average RF			0.009224	<=15	7.5
2-Methyl-1-propanol	T	Average RF			0.009224	<=20	7.5
2-Methyl-2-propanol	T	Average RF			0.03283	<=15	4.1
2-Methyl-2-propanol	T	Average RF			0.03283	<=20	4.1
2-Nitropropane	T	Average RF			0.04924	<=15	8.3
2-Nitropropane	T	Average RF			0.04924	<=20	8.3
2-Propanol	T	Average RF			0.02023	<=15	6.8
2-Propanol	T	Average RF			0.02023	<=20	6.8
3,4- and 2,3-Dichlorotoluene Coelution	T	Average RF			0.9348	<=15	7.9
3,4- and 2,3-Dichlorotoluene Coelution	T	Average RF			0.9348	<=20	7.9
3,4-Dichlorobenzotrifluoride	T	Average RF			0.5078	<=15	7.5
3,4-Dichlorobenzotrifluoride	T	Average RF			0.5078	<=20	7.5
3-Chloro-1-propene	T	Average RF			0.2328	<=15	12.9
3-Chloro-1-propene	T	Average RF			0.2328	<=20	12.9
3-Chlorobenzotrifluoride	T	Average RF			0.3664	<=15	6.5
3-Chlorobenzotrifluoride	T	Average RF			0.3664	<=20	6.5
3-Chlorotoluene	T	Average RF			1.844	<=15	5.4
3-Chlorotoluene	T	Average RF			1.844	<=20	5.4
4-Chlorotoluene	T	Average RF			1.982	<=15	12.0
4-Chlorotoluene	T	Average RF			1.982	<=20	12.0
4-Isopropyltoluene	T	Average RF			1.899	<=15	8.5
4-Isopropyltoluene	T	Average RF			1.899	<=20	8.5
4-Methyl-2-pentanone	T	Average RF		0.05	0.1994	<=15	1.7

Initial Calibration - Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
4-Methyl-2-pentanone	T	Average RF		0.05	0.1994	<=20	1.7
Acetone	T	Average RF		0.05	0.1066	<=15	7.0
Acetone	T	Average RF		0.05	0.1066	<=20	7.0
Acetonitrile	T	Average RF			0.01478	<=15	12.7
Acetonitrile	T	Average RF			0.01478	<=20	12.7
Acrolein	T	Average RF			0.04260	<=15	6.6
Acrolein	T	Average RF			0.04260	<=20	6.6
Acrylonitrile	T	Average RF			0.1207	<=15	3.8
Acrylonitrile	T	Average RF			0.1207	<=20	3.8
Benzene	T	Average RF		0.500	1.100	<=15	7.5
Benzene	T	Average RF		0.500	1.100	<=20	7.5
Bromobenzene	T	Average RF			0.5883	<=15	5.4
Bromobenzene	T	Average RF			0.5883	<=20	5.4
Bromochloromethane	T	Average RF			0.2575	<=15	7.6
Bromochloromethane	T	Average RF			0.2575	<=20	7.6
Bromodichloromethane	T	Average RF		0.200	0.3343	<=15	6.9
Bromodichloromethane	T	Average RF		0.200	0.3343	<=20	6.9
Bromoform	T	Average RF		0.100	0.2840	<=15	5.6
Bromoform	T	Average RF		0.100	0.2840	<=20	5.6
Bromomethane	T	Average RF		0.100	0.3826	<=15	9.9
Bromomethane	T	Average RF		0.100	0.3826	<=20	9.9
Carbon Disulfide	T	Average RF		0.100	1.397	<=15	7.2
Carbon Disulfide	T	Average RF		0.100	1.397	<=20	7.2
Carbon Tetrachloride	T	Average RF		0.05	0.09574	<=15	5.1
Carbon Tetrachloride	T	Average RF		0.05	0.09574	<=20	5.1
Chlorobenzene	T	Average RF		0.500	0.7396	<=15	9.5
Chlorobenzene	T	Average RF		0.500	0.7396	<=20	9.5
Chloroethane	T	Average RF		0.100	0.4308	<=15	9.3
Chloroethane	T	Average RF		0.100	0.4308	<=20	9.3
Chloroform	T	Average RF		0.200	0.7785	<=15	14.6
Chloroform	T	Average RF		0.200	0.7785	<=20	14.6
Chloromethane	T	Average RF		0.100	0.8409	<=15	6.8
Chloromethane	T	Average RF		0.100	0.8409	<=20	6.8
Cyclohexane	T	Average RF		0.100	0.2733	<=15	15.0
Cyclohexane	T	Average RF		0.100	0.2733	<=20	15.0
Cyclohexanone	T	Average RF			0.03770	<=15	5.0
Cyclohexanone	T	Average RF			0.03770	<=20	5.0
Dibromochloromethane	T	Average RF		0.100	0.2365	<=15	3.1
Dibromochloromethane	T	Average RF		0.100	0.2365	<=20	3.1
Dibromomethane	T	Average RF			0.1343	<=15	11.7
Dibromomethane	T	Average RF			0.1343	<=20	11.7
Dichlorodifluoromethane (CFC 12)	T	Average RF		0.100	0.7043	<=15	9.5
Dichlorodifluoromethane (CFC 12)	T	Average RF		0.100	0.7043	<=20	9.5
Dichlorofluoromethane (CFC 21)	T	Average RF			0.8341	<=15	3.5
Dichlorofluoromethane (CFC 21)	T	Average RF			0.8341	<=20	3.5
Dichloromethane	T	Average RF		0.100	0.4829	<=15	10.7
Dichloromethane	T	Average RF		0.100	0.4829	<=20	10.7
Diethyl Ether	T	Average RF			0.3829	<=15	7.7
Diethyl Ether	T	Average RF			0.3829	<=20	7.7
Diisopropyl Ether	T	Average RF			1.562	<=15	8.6
Diisopropyl Ether	T	Average RF			1.562	<=20	8.6
Ethyl Methacrylate	T	Average RF			0.3152	<=15	2.7

Initial Calibration - Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
Ethyl Methacrylate	T	Average RF			0.3152	<=20	2.7
Ethyl tert-Butyl Ether	T	Average RF			1.467	<=15	5.3
Ethyl tert-Butyl Ether	T	Average RF			1.467	<=20	5.3
Ethylbenzene	T	Average RF		0.100	0.4189	<=15	6.0
Ethylbenzene	T	Average RF		0.100	0.4189	<=20	6.0
Hexachlorobutadiene	T	Average RF			0.2582	<=15	10.2
Hexachlorobutadiene	T	Average RF			0.2582	<=20	10.2
Iodomethane	T	Average RF			0.4751	<=15	9.8
Iodomethane	T	Average RF			0.4751	<=20	9.8
Isopropylbenzene (Cumene)	T	Average RF		0.100	2.600	<=15	11.9
Isopropylbenzene (Cumene)	T	Average RF		0.100	2.600	<=20	11.9
Methacrylonitrile	T	Average RF			0.1413	<=15	5.0
Methacrylonitrile	T	Average RF			0.1413	<=20	5.0
Methyl Acetate	T	Average RF		0.100	0.2484	<=15	13.5
Methyl Acetate	T	Average RF		0.100	0.2484	<=20	13.5
Methyl Methacrylate	T	Average RF			0.1578	<=15	7.3
Methyl Methacrylate	T	Average RF			0.1578	<=20	7.3
Methyl tert-Butyl Ether	T	Average RF		0.100	1.163	<=15	8.1
Methyl tert-Butyl Ether	T	Average RF		0.100	1.163	<=20	8.1
Methylcyclohexane	T	Average RF		0.100	0.3371	<=15	13.9
Methylcyclohexane	T	Average RF		0.100	0.3371	<=20	13.9
Naphthalene	T	Average RF			1.341	<=15	6.1
Naphthalene	T	Average RF			1.341	<=20	6.1
Propionitrile	T	Average RF			0.04459	<=15	6.6
Propionitrile	T	Average RF			0.04459	<=20	6.6
Styrene	T	Average RF		0.300	0.8627	<=15	8.9
Styrene	T	Average RF		0.300	0.8627	<=20	8.9
Tetrachloroethene (PCE)	T	Average RF		0.200	0.2074	<=15	9.6
Tetrachloroethene (PCE)	T	Average RF		0.200	0.2074	<=20	9.6
Tetrahydrofuran (THF)	T	Average RF			0.09390	<=15	6.9
Tetrahydrofuran (THF)	T	Average RF			0.09390	<=20	6.9
Toluene	T	Average RF		0.400	1.140	<=15	10.5
Toluene	T	Average RF		0.400	1.140	<=20	10.5
Trichloroethene (TCE)	T	Average RF		0.200	0.2796	<=15	8.1
Trichloroethene (TCE)	T	Average RF		0.200	0.2796	<=20	8.1
Trichlorofluoromethane (CFC 11)	T	Average RF		0.100	0.6103	<=15	5.3
Trichlorofluoromethane (CFC 11)	T	Average RF		0.100	0.6103	<=20	5.3
Vinyl Acetate	T	Average RF			0.08343	<=15	13.7
Vinyl Acetate	T	Average RF			0.08343	<=20	13.7
Vinyl Chloride	T	Average RF		0.100	0.7834	<=15	6.9
Vinyl Chloride	T	Average RF		0.100	0.7834	<=20	6.9
cis-1,2-Dichloroethene	T	Average RF		0.100	0.4985	<=15	10.0
cis-1,2-Dichloroethene	T	Average RF		0.100	0.4985	<=20	10.0
cis-1,3-Dichloropropene	T	Average RF		0.200	0.4481	<=15	6.3
cis-1,3-Dichloropropene	T	Average RF		0.200	0.4481	<=20	6.3
m,p-Xylenes	T	Average RF		0.100	0.5171	<=15	9.4
m,p-Xylenes	T	Average RF		0.100	0.5171	<=20	9.4
n-Butyl Acetate	T	Average RF			0.3657	<=15	3.3
n-Butyl Acetate	T	Average RF			0.3657	<=20	3.3
n-Butylbenzene	T	Average RF			1.799	<=15	11.8
n-Butylbenzene	T	Average RF			1.799	<=20	11.8
n-Heptane	T	Average RF			0.3028	<=15	12.2

Initial Calibration - Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
n-Heptane	T	Average RF			0.3028	<=20	12.2
n-Propylbenzene	T	Average RF			2.997	<=15	12.7
n-Propylbenzene	T	Average RF			2.997	<=20	12.7
o-Xylene	T	Average RF		0.300	0.5296	<=15	5.4
o-Xylene	T	Average RF		0.300	0.5296	<=20	5.4
sec-Butylbenzene	T	Average RF			2.456	<=15	10.7
sec-Butylbenzene	T	Average RF			2.456	<=20	10.7
tert-Amyl Methyl Ether	T	Average RF			1.247	<=15	5.5
tert-Amyl Methyl Ether	T	Average RF			1.247	<=20	5.5
tert-Butylbenzene	T	Average RF			1.755	<=15	8.4
tert-Butylbenzene	T	Average RF			1.755	<=20	8.4
trans-1,2-Dichloroethene	T	Average RF		0.100	0.4503	<=15	9.8
trans-1,2-Dichloroethene	T	Average RF		0.100	0.4503	<=20	9.8
trans-1,3-Dichloropropene	T	Average RF		0.100	0.3560	<=15	4.0
trans-1,3-Dichloropropene	T	Average RF		0.100	0.3560	<=20	4.0
trans-1,4-Dichloro-2-butene	T	Linear	1/X		0.1645	>=0.99	0.9996
trans-1,4-Dichloro-2-butene	T	Linear	1/X		0.1645	>=0.995	0.9996
trans-1,4-Dichloro-2-butene	T	Linear	1/X		0.1645	>=0.99	0.9996
1,2-Dichloroethane-d4	S	Average RF			0.2871	<=15	7.9
1,2-Dichloroethane-d4	S	Average RF			0.2871	<=20	7.9
4-Bromofluorobenzene	S	Average RF			0.4130	<=15	10.2
4-Bromofluorobenzene	S	Average RF			0.4130	<=20	10.2
Dibromofluoromethane	S	Average RF			0.2600	<=15	9.2
Dibromofluoromethane	S	Average RF			0.2600	<=20	9.2
Toluene-d8	S	Average RF			1.094	<=15	12.3
Toluene-d8	S	Average RF			1.094	<=20	12.3

Initial Calibration - Detailed Report

KR 11/30/15

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
L211815A - 8260 Waters **Signal ID:** 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	RC1500127-01	0.5ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8185.D	11/18/15 16:40
02	RC1500127-02	1.0ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8186.D	11/18/15 17:10
03	RC1500127-03	2.0ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8187.D	11/18/15 17:41
04	RC1500127-04	5.0ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8188.D	11/18/15 18:11
05	RC1500127-05	20ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8189.D	11/18/15 18:42
06	RC1500127-06	50ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8190.D	11/18/15 19:12
07	RC1500127-07	100ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8191.D	11/18/15 19:43
08	RC1500127-08	150ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8192.D	11/18/15 20:14
09	RC1500127-09	200ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8193.D	11/18/15 20:45

Analyte **Curve Fit** **Weighting**

1,1,1,2-Tetrachloroethane Average RF RSD = 7.6 Average RF = 0.2556

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2766	02	1.000	0.2733	03	2.000	0.2639	04	5.000	0.2787
05	20.000	0.2623	06	50.000	0.2465	07	100.000	0.2321	08	150.000	0.2325
09	200.000	0.2348									

1,1,1-Trichloroethane (TCA) Average RF RSD = 8.3 Average RF = 0.6115

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7243	02	1.000	0.5697	03	2.000	0.6349	04	5.000	0.6153
05	20.000	0.6322	06	50.000	0.6112	07	100.000	0.5635	08	150.000	0.5694
09	200.000	0.5828									

1,1,2,2-Tetrachloroethane Average RF RSD = 9.7 Average RF = 0.5254

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6253	02	1.000	0.5619	03	2.000	0.5722	04	5.000	0.5046
05	20.000	0.5252	06	50.000	0.4939	07	100.000	0.4855	08	150.000	0.4831
09	200.000	0.4764									

1,1,2-Trichloroethane Average RF RSD = 4.1 Average RF = 0.1927

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1857	02	1.000	0.1923	03	2.000	0.1966	04	5.000	0.2063
05	20.000	0.2025	06	50.000	0.1931	07	100.000	0.1860	08	150.000	0.1833
09	200.000	0.1886									

1,1,2-Trichlorotrifluoroethane Average RF RSD = 10.6 Average RF = 0.3806

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4485	02	1.000	0.4102	03	2.000	0.4140	04	5.000	0.3782
05	20.000	0.3941	06	50.000	0.3737	07	100.000	0.3305	08	150.000	0.3379
09	200.000	0.3379									

1,1-Dichloroethane (1,1-DCA) Average RF RSD = 6.4 Average RF = 0.8010

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9109	02	1.000	0.7655	03	2.000	0.8254	04	5.000	0.7995
05	20.000	0.8368	06	50.000	0.7989	07	100.000	0.7611	08	150.000	0.7526
09	200.000	0.7580									

1,1-Dichloroethene (1,1-DCE) Average RF RSD = 9.7 Average RF = 0.4182

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4905	02	1.000	0.4600	03	2.000	0.4260	04	5.000	0.4220
05	20.000	0.4301	06	50.000	0.4153	07	100.000	0.3758	08	150.000	0.3694
09	200.000	0.3745									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte	Curve Fit	Weighting			
1,1-Dichloropropene	Average RF		RSD = 10.8	Average RF = 0.3528	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4316	02	1.000	0.3673	03	2.000	0.3709	04	5.000	0.3483
05	20.000	0.3647	06	50.000	0.3531	07	100.000	0.3159	08	150.000	0.3107
09	200.000	0.3124									

1,2,3-Trichlorobenzene	Average RF		RSD = 6.4	Average RF = 0.5379	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4648	02	1.000	0.5889	03	2.000	0.5303	04	5.000	0.5597
05	20.000	0.5605	06	50.000	0.5526	07	100.000	0.5303	08	150.000	0.5285
09	200.000	0.5256									

1,2,3-Trichloropropane	Linear	1/X	R2 = 0.9998	Y = 0.1390 X + 7.469E-4	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2170	02	1.000	0.1728	03	2.000	0.1564	04	5.000	0.1540
05	20.000	0.1370	06	50.000	0.1358	07	100.000	0.1404	08	150.000	0.1387
09	200.000	0.1402									

1,2,4-Trichlorobenzene	Average RF		RSD = 7.9	Average RF = 0.6467	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7505	02	1.000	0.6856	03	2.000	0.6451	04	5.000	0.6332
05	20.000	0.6649	06	50.000	0.6513	07	100.000	0.6134	08	150.000	0.5904
09	200.000	0.5856									

1,2,4-Trimethylbenzene	Average RF		RSD = 10.7	Average RF = 2.111	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.434	02	1.000	2.250	03	2.000	2.186	04	5.000	2.161
05	20.000	2.298	06	50.000	2.161	07	100.000	1.928	08	150.000	1.830
09	200.000	1.752									

1,2-Dibromo-3-chloropropane (DBCP)	Average RF		RSD = 8.1	Average RF = 0.1014	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1169	02	1.000	0.08762	03	2.000	0.1052	04	5.000	0.09484
05	20.000	0.1000	06	50.000	0.09653	07	100.000	0.1019	08	150.000	0.1047
09	200.000	0.1046									

1,2-Dibromoethane	Average RF		RSD = 4.7	Average RF = 0.2026	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2193	02	1.000	0.2070	03	2.000	0.2034	04	5.000	0.2093
05	20.000	0.2088	06	50.000	0.1965	07	100.000	0.1922	08	150.000	0.1902
09	200.000	0.1965									

1,2-Dichloro-1,1,2-trifluoroethane (CFC	Average RF		RSD = 10.0	Average RF = 0.5453	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6171	02	1.000	0.6052	03	2.000	0.5960	04	5.000	0.5707
05	20.000	0.5226	06	50.000	0.5370	07	100.000	0.5039	08	150.000	0.4842
09	200.000	0.4705									

1,2-Dichlorobenzene	Average RF		RSD = 5.3	Average RF = 1.048	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.061	02	1.000	1.145	03	2.000	1.018	04	5.000	1.038
05	20.000	1.115	06	50.000	1.068	07	100.000	1.015	08	150.000	0.9945
09	200.000	0.9783									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

1,2-Dichloroethane Average RF RSD = 6.5 Average RF = 0.2821

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2799	02	1.000	0.2745	03	2.000	0.2939	04	5.000	0.3187
05	20.000	0.2988	06	50.000	0.2762	07	100.000	0.2675	08	150.000	0.2605
09	200.000	0.2689									

1,2-Dichloroethane-d4 Average RF RSD = 7.9 Average RF = 0.2871

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.3157	03	60.000	0.3053	04	70.000	0.2982	05	100.000	0.2763
07	125.000	0.2694	08	150.000	0.2579						

1,2-Dichloropropane Average RF RSD = 6.9 Average RF = 0.2727

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3069	02	1.000	0.2895	03	2.000	0.2685	04	5.000	0.2673
05	20.000	0.2866	06	50.000	0.2745	07	100.000	0.2557	08	150.000	0.2497
09	200.000	0.2552									

1,3,5-Trichlorobenzene Average RF RSD = 10.1 Average RF = 0.7046

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8493	02	1.000	0.6796	03	2.000	0.7834	04	5.000	0.6781
05	20.000	0.7257	06	50.000	0.6873	07	100.000	0.6725	08	150.000	0.6462
09	200.000	0.6195									

1,3,5-Trimethylbenzene Average RF RSD = 9.4 Average RF = 1.968

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.098	02	1.000	2.047	03	2.000	2.146	04	5.000	2.097
05	20.000	2.123	06	50.000	2.007	07	100.000	1.798	08	150.000	1.726
09	200.000	1.667									

1,3-Dichlorobenzene Average RF RSD = 6.9 Average RF = 1.139

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.251	02	1.000	1.195	03	2.000	1.188	04	5.000	1.120
05	20.000	1.203	06	50.000	1.152	07	100.000	1.075	08	150.000	1.038
09	200.000	1.027									

1,3-Dichloropropane Average RF RSD = 8.1 Average RF = 0.3801

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3950	02	1.000	0.4291	03	2.000	0.4048	04	5.000	0.3984
05	20.000	0.3938	06	50.000	0.3612	07	100.000	0.3491	08	150.000	0.3435
09	200.000	0.3463									

1,4-Dichlorobenzene Average RF RSD = 4.7 Average RF = 1.067

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.033	02	1.000	1.024	03	2.000	1.119	04	5.000	1.090
05	20.000	1.151	06	50.000	1.108	07	100.000	1.048	08	150.000	1.020
09	200.000	1.015									

1,4-Dioxane Average RF RSD = 7.3 Average RF = 0.002000

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	40.000	0.002204	04	100.000	0.002067	05	400.000	0.001944	06	1000.000	0.001765
07	2000.000	0.001913	08	3000.000	0.001978	09	4000.000	0.002125			

1-Butanol Average RF RSD = 7.9 Average RF = 0.005782

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	50.000	0.005580	03	100.000	0.006691	04	250.000	0.005644	05	1000.000	0.005267
06	2500.000	0.005306	07	5000.000	0.005834	08	7500.000	0.005896	09	10000.000	0.006037

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

1-Chloro-4-(trifluoromethyl)benzene Average RF RSD = 8.0 Average RF = 0.3410

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3992	02	1.000	0.3564	03	2.000	0.3518	04	5.000	0.3490
05	20.000	0.3362	06	50.000	0.3231	07	100.000	0.3268	08	150.000	0.3162
09	200.000	0.3102									

2,2-Dichloro-1,1,1-trifluoroethane (CFC Average RF RSD = 11.4 Average RF = 0.6287

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7446	02	1.000	0.7318	03	2.000	0.6731	04	5.000	0.6209
05	20.000	0.5878	06	50.000	0.6105	07	100.000	0.5764	08	150.000	0.5550
09	200.000	0.5584									

2,2-Dichloropropane Average RF RSD = 11.5 Average RF = 0.6407

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.7892	03	2.000	0.6750	04	5.000	0.6285	05	20.000	0.6750
06	50.000	0.6374	07	100.000	0.5770	08	150.000	0.5733	09	200.000	0.5701

2,3,6-Trichlorotoluene Average RF RSD = 8.7 Average RF = 0.3513

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3537	03	2.000	0.4190	04	5.000	0.3638	05	20.000	0.3528
06	50.000	0.3298	07	100.000	0.3307	08	150.000	0.3304	09	200.000	0.3301

2,4,5-Trichlorotoluene Average RF RSD = 2.2 Average RF = 0.3990

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3817	03	2.000	0.3981	04	5.000	0.4134	05	20.000	0.4044
06	50.000	0.3949	07	100.000	0.4012	08	150.000	0.4009	09	200.000	0.3973

2,4-, 2,5-, and 2,6-Dichlorotoluene Coelut Average RF RSD = 8.1 Average RF = 0.8846

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.500	0.9654	02	3.000	0.9029	03	6.000	0.9376	04	15.000	0.9277
05	60.000	0.9370	06	150.000	0.8890	07	300.000	0.8561	08	450.000	0.7971
09	600.000	0.7488									

2,4-Dichlorobenzotrifluoride Average RF RSD = 3.7 Average RF = 0.4432

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4721	02	1.000	0.4291	03	2.000	0.4455	04	5.000	0.4403
05	20.000	0.4561	06	50.000	0.4421	07	100.000	0.4538	08	150.000	0.4339
09	200.000	0.4156									

2,5-Dichlorobenzotrifluoride Average RF RSD = 4.1 Average RF = 0.5013

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5474	02	1.000	0.5032	03	2.000	0.5047	04	5.000	0.5028
05	20.000	0.4996	06	50.000	0.4918	07	100.000	0.5039	08	150.000	0.4870
09	200.000	0.4717									

2-Butanone (MEK) Average RF RSD = 8.5 Average RF = 0.1460

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1700	04	5.000	0.1397	05	20.000	0.1301	06	50.000	0.1395
07	100.000	0.1490	08	150.000	0.1451	09	200.000	0.1487			

2-Chloro-1,3-butadiene Average RF RSD = 7.5 Average RF = 0.8055

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8914	02	1.000	0.8645	03	2.000	0.8551	04	5.000	0.8410
05	20.000	0.7674	06	50.000	0.8031	07	100.000	0.7667	08	150.000	0.7427
09	200.000	0.7173									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

2-Chlorobenzotrifluoride Average RF RSD = 6.2 Average RF = 0.7581

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7559	02	1.000	0.8402	03	2.000	0.8224	04	5.000	0.7565
05	20.000	0.7595	06	50.000	0.7344	07	100.000	0.7414	08	150.000	0.7266
09	200.000	0.6859									

2-Chloroethyl Vinyl Ether Average RF RSD = 14.6 Average RF = 0.1504

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2024	02	1.000	0.1367	03	2.000	0.1648	04	5.000	0.1559
05	20.000	0.1379	06	50.000	0.1420	07	100.000	0.1431	08	150.000	0.1363
09	200.000	0.1349									

2-Chlorotoluene Average RF RSD = 8.1 Average RF = 1.757

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.960	02	1.000	1.695	03	2.000	1.829	04	5.000	1.793
05	20.000	1.922	06	50.000	1.814	07	100.000	1.649	08	150.000	1.589
09	200.000	1.560									

2-Hexanone Average RF RSD = 8.4 Average RF = 0.1531

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1793	04	5.000	0.1559	05	20.000	0.1391	06	50.000	0.1441
07	100.000	0.1492	08	150.000	0.1524	09	200.000	0.1514			

2-Methyl-1-propanol Average RF RSD = 7.5 Average RF = 0.009224

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.009577	03	40.000	0.01062	04	100.000	0.009398	05	400.000	0.008872
06	1000.000	0.008304	07	2000.000	0.008899	08	3000.000	0.008819	09	4000.000	0.009299

2-Methyl-2-propanol Average RF RSD = 4.1 Average RF = 0.03283

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.03151	03	40.000	0.03269	04	100.000	0.03343	05	400.000	0.03186
06	1000.000	0.03092	07	2000.000	0.03333	08	3000.000	0.03407	09	4000.000	0.03480

2-Nitropropane Average RF RSD = 8.3 Average RF = 0.04924

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	0.04620	03	4.000	0.05546	04	10.000	0.05570	05	40.000	0.04829
06	100.000	0.04502	07	200.000	0.04658	08	300.000	0.04770	09	400.000	0.04894

2-Propanol Average RF RSD = 6.8 Average RF = 0.02023

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.02227	03	40.000	0.02129	04	100.000	0.02106	05	400.000	0.01845
06	1000.000	0.01842	07	2000.000	0.01936	08	3000.000	0.02027	09	4000.000	0.02069

3,4- and 2,3-Dichlorotoluene Coelution Average RF RSD = 7.9 Average RF = 0.9348

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.8887	02	2.000	1.000	03	4.000	0.9940	04	10.000	1.005
05	40.000	0.9943	06	100.000	0.9588	07	200.000	0.9140	08	300.000	0.8566
09	400.000	0.8013									

3,4-Dichlorobenzotrifluoride Average RF RSD = 7.5 Average RF = 0.5078

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5658	02	1.000	0.5119	03	2.000	0.5742	04	5.000	0.4891
05	20.000	0.4994	06	50.000	0.4977	07	100.000	0.4902	08	150.000	0.4798
09	200.000	0.4616									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: I

Analyte **Curve Fit** Average RF **Weighting** Weighting

3-Chloro-1-propene Average RF RSD = 12.9 Average RF = 0.2328

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2592	02	1.000	0.2897	03	2.000	0.2221	04	5.000	0.2380
05	20.000	0.2474	06	50.000	0.2333	07	100.000	0.2105	08	150.000	0.2014
09	200.000	0.1940									

3-Chlorobenzotrifluoride Average RF RSD = 6.5 Average RF = 0.3664

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4058	02	1.000	0.3846	03	2.000	0.3911	04	5.000	0.3697
05	20.000	0.3649	06	50.000	0.3532	07	100.000	0.3517	08	150.000	0.3451
09	200.000	0.3319									

3-Chlorotoluene Average RF RSD = 5.4 Average RF = 1.844

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.885	02	1.000	1.869	03	2.000	1.946	04	5.000	1.933
05	20.000	1.920	06	50.000	1.849	07	100.000	1.808	08	150.000	1.755
09	200.000	1.633									

4-Bromofluorobenzene Average RF RSD = 10.2 Average RF = 0.4130

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.4702	03	60.000	0.4502	04	70.000	0.4242	05	100.000	0.3855
07	125.000	0.3860	08	150.000	0.3618						

4-Chlorotoluene Average RF RSD = 12.0 Average RF = 1.982

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.344	02	1.000	2.064	03	2.000	2.164	04	5.000	2.030
05	20.000	2.132	06	50.000	2.004	07	100.000	1.798	08	150.000	1.666
09	200.000	1.633									

4-Isopropyltoluene Average RF RSD = 8.5 Average RF = 1.899

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.996	02	1.000	1.954	03	2.000	2.049	04	5.000	1.951
05	20.000	2.090	06	50.000	1.962	07	100.000	1.760	08	150.000	1.700
09	200.000	1.630									

4-Methyl-2-pentanone Average RF RSD = 1.7 Average RF = 0.1994

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1965	04	5.000	0.2002	05	20.000	0.1963	06	50.000	0.1956
07	100.000	0.2046	08	150.000	0.2004	09	200.000	0.2024			

Acetone Average RF RSD = 7.0 Average RF = 0.1066

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.1206	05	20.000	0.1026	06	50.000	0.09956	07	100.000	0.1038
08	150.000	0.1045	09	200.000	0.1085						

Acetonitrile Average RF RSD = 12.7 Average RF = 0.01478

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	10.000	0.01481	04	25.000	0.01768	05	100.000	0.01435	06	250.000	0.01274
07	500.000	0.01230	08	750.000	0.01558	09	1000.000	0.01603			

Acrolein Average RF RSD = 6.6 Average RF = 0.04260

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	4.000	0.04614	04	10.000	0.04627	05	40.000	0.03997	06	100.000	0.03934
07	200.000	0.04079	08	300.000	0.04281	09	400.000	0.04292			

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Acrylonitrile Average RF RSD = 3.8 Average RF = 0.1207

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.1250	02	5.000	0.1206	03	10.000	0.1308	04	25.000	0.1179
05	100.000	0.1190	06	250.000	0.1157	07	500.000	0.1189	08	750.000	0.1177
09	1000.000	0.1203									

Benzene Average RF RSD = 7.5 Average RF = 1.100

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.202	02	1.000	1.164	03	2.000	1.151	04	5.000	1.131
05	20.000	1.152	06	50.000	1.120	07	100.000	1.016	08	150.000	0.9768
09	200.000	0.9917									

Bromobenzene Average RF RSD = 5.4 Average RF = 0.5883

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5566	02	1.000	0.5966	03	2.000	0.6448	04	5.000	0.5726
05	20.000	0.6286	06	50.000	0.6028	07	100.000	0.5649	08	150.000	0.5648
09	200.000	0.5633									

Bromochloromethane Average RF RSD = 7.6 Average RF = 0.2575

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2922	02	1.000	0.2747	03	2.000	0.2713	04	5.000	0.2621
05	20.000	0.2540	06	50.000	0.2528	07	100.000	0.2404	08	150.000	0.2309
09	200.000	0.2391									

Bromodichloromethane Average RF RSD = 6.9 Average RF = 0.3343

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3706	02	1.000	0.3685	03	2.000	0.3325	04	5.000	0.3297
05	20.000	0.3414	06	50.000	0.3336	07	100.000	0.3110	08	150.000	0.3075
09	200.000	0.3141									

Bromoform Average RF RSD = 5.6 Average RF = 0.2840

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3238	02	1.000	0.2804	03	2.000	0.2882	04	5.000	0.2750
05	20.000	0.2769	06	50.000	0.2740	07	100.000	0.2718	08	150.000	0.2802
09	200.000	0.2861									

Bromomethane Average RF RSD = 9.9 Average RF = 0.3826

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4747	02	1.000	0.3800	03	2.000	0.4089	04	5.000	0.3635
05	20.000	0.3644	06	50.000	0.3715	07	100.000	0.3576	08	150.000	0.3577
09	200.000	0.3651									

Carbon Disulfide Average RF RSD = 7.2 Average RF = 1.397

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.520	02	1.000	1.419	03	2.000	1.514	04	5.000	1.473
05	20.000	1.371	06	50.000	1.420	07	100.000	1.345	08	150.000	1.279
09	200.000	1.231									

Carbon Tetrachloride Average RF RSD = 5.1 Average RF = 0.09574

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1013	02	1.000	0.1007	03	2.000	0.09723	04	5.000	0.09918
05	20.000	0.09811	06	50.000	0.09633	07	100.000	0.08822	08	150.000	0.08961
09	200.000	0.09097									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Chlorobenzene Average RF RSD = 9.5 Average RF = 0.7396

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8436	02	1.000	0.7725	03	2.000	0.8041	04	5.000	0.7669
05	20.000	0.7771	06	50.000	0.7211	07	100.000	0.6765	08	150.000	0.6528
09	200.000	0.6418									

Chloroethane Average RF RSD = 9.3 Average RF = 0.4308

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5222	02	1.000	0.4020	03	2.000	0.4535	04	5.000	0.4210
05	20.000	0.4456	06	50.000	0.4314	07	100.000	0.4013	08	150.000	0.3980
09	200.000	0.4022									

Chloroform Average RF RSD = 14.6 Average RF = 0.7785

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.055	02	1.000	0.8003	03	2.000	0.7870	04	5.000	0.7939
05	20.000	0.7658	06	50.000	0.7353	07	100.000	0.6882	08	150.000	0.6858
09	200.000	0.6946									

Chloromethane Average RF RSD = 6.8 Average RF = 0.8409

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9472	02	1.000	0.8222	03	2.000	0.8659	04	5.000	0.7777
05	20.000	0.9082	06	50.000	0.8460	07	100.000	0.7987	08	150.000	0.7944
09	200.000	0.8072									

Cyclohexane Average RF RSD = 15.0 Average RF = 0.2733

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3763	02	1.000	0.2791	03	2.000	0.2717	04	5.000	0.2692
05	20.000	0.2606	06	50.000	0.2690	07	100.000	0.2512	08	150.000	0.2403
09	200.000	0.2421									

Cyclohexanone Average RF RSD = 5.0 Average RF = 0.03770

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.03844	03	40.000	0.03846	04	100.000	0.03515	05	400.000	0.03553
06	1000.000	0.03579	07	2000.000	0.03914	08	3000.000	0.03927	09	4000.000	0.03980

Dibromochloromethane Average RF RSD = 3.1 Average RF = 0.2365

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2372	02	1.000	0.2511	03	2.000	0.2405	04	5.000	0.2399
05	20.000	0.2384	06	50.000	0.2361	07	100.000	0.2281	08	150.000	0.2268
09	200.000	0.2307									

Dibromofluoromethane Average RF RSD = 9.2 Average RF = 0.2600

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.2885	03	60.000	0.2816	04	70.000	0.2688	05	100.000	0.2532
07	125.000	0.2410	08	150.000	0.2267						

Dibromomethane Average RF RSD = 11.7 Average RF = 0.1343

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1651	02	1.000	0.1533	03	2.000	0.1411	04	5.000	0.1270
05	20.000	0.1307	06	50.000	0.1244	07	100.000	0.1231	08	150.000	0.1187
09	200.000	0.1248									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Dichlorodifluoromethane (CFC 12) Average RF RSD = 9.5 Average RF = 0.7043

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6362	02	1.000	0.6553	03	2.000	0.6447	04	5.000	0.6142
05	20.000	0.7894	06	50.000	0.7843	07	100.000	0.7374	08	150.000	0.7343
09	200.000	0.7431									

Dichlorofluoromethane (CFC 21) Average RF RSD = 3.5 Average RF = 0.8341

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8546	02	1.000	0.8481	03	2.000	0.8835	04	5.000	0.8253
05	20.000	0.8317	06	50.000	0.8491	07	100.000	0.8319	08	150.000	0.7926
09	200.000	0.7905									

Dichloromethane Average RF RSD = 10.7 Average RF = 0.4829

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5779	02	1.000	0.5249	03	2.000	0.5344	04	5.000	0.4713
05	20.000	0.4747	06	50.000	0.4579	07	100.000	0.4347	08	150.000	0.4312
09	200.000	0.4389									

Diethyl Ether Average RF RSD = 7.7 Average RF = 0.3829

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.4427	03	2.000	0.3602	04	5.000	0.4003	05	20.000	0.3985
06	50.000	0.3781	07	100.000	0.3666	08	150.000	0.3584	09	200.000	0.3582

Diisopropyl Ether Average RF RSD = 8.6 Average RF = 1.562

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.702	02	1.000	1.676	03	2.000	1.725	04	5.000	1.660
05	20.000	1.526	06	50.000	1.528	07	100.000	1.465	08	150.000	1.399
09	200.000	1.372									

Ethyl Methacrylate Average RF RSD = 2.7 Average RF = 0.3152

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3229	02	1.000	0.2994	03	2.000	0.3035	04	5.000	0.3178
05	20.000	0.3251	06	50.000	0.3172	07	100.000	0.3190	08	150.000	0.3123
09	200.000	0.3195									

Ethyl tert-Butyl Ether Average RF RSD = 5.3 Average RF = 1.467

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.527	02	1.000	1.532	03	2.000	1.566	04	5.000	1.553
05	20.000	1.408	06	50.000	1.441	07	100.000	1.433	08	150.000	1.382
09	200.000	1.364									

Ethylbenzene Average RF RSD = 6.0 Average RF = 0.4189

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4464	02	1.000	0.4276	03	2.000	0.4457	04	5.000	0.4296
05	20.000	0.4425	06	50.000	0.4121	07	100.000	0.3857	08	150.000	0.3867
09	200.000	0.3942									

Hexachlorobutadiene Average RF RSD = 10.2 Average RF = 0.2582

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2962	03	2.000	0.2947	04	5.000	0.2493	05	20.000	0.2641
06	50.000	0.2636	07	100.000	0.2347	08	150.000	0.2321	09	200.000	0.2311

Iodomethane Average RF RSD = 9.8 Average RF = 0.4751

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.4144	04	5.000	0.4129	05	20.000	0.4856	06	50.000	0.5369
07	100.000	0.5128	08	150.000	0.4867	09	200.000	0.4762			

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Isopropylbenzene (Cumene) Average RF RSD = 11.9 Average RF = 2.600

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.932	02	1.000	2.911	03	2.000	2.782	04	5.000	2.715
05	20.000	2.803	06	50.000	2.620	07	100.000	2.310	08	150.000	2.224
09	200.000	2.103									

Methacrylonitrile Average RF RSD = 5.0 Average RF = 0.1413

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.1380	03	2.000	0.1556	04	5.000	0.1479	05	20.000	0.1406
06	50.000	0.1340	07	100.000	0.1395	08	150.000	0.1362	09	200.000	0.1389

Methyl Acetate Average RF RSD = 13.5 Average RF = 0.2484

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3231	03	2.000	0.2642	04	5.000	0.2510	05	20.000	0.2190
06	50.000	0.2256	07	100.000	0.2309	08	150.000	0.2335	09	200.000	0.2394

Methyl Methacrylate Average RF RSD = 7.3 Average RF = 0.1578

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1827	02	1.000	0.1479	03	2.000	0.1717	04	5.000	0.1565
05	20.000	0.1540	06	50.000	0.1527	07	100.000	0.1505	08	150.000	0.1520
09	200.000	0.1520									

Methyl tert-Butyl Ether Average RF RSD = 8.1 Average RF = 1.163

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.349	02	1.000	1.197	03	2.000	1.200	04	5.000	1.226
05	20.000	1.184	06	50.000	1.104	07	100.000	1.079	08	150.000	1.061
09	200.000	1.070									

Methylcyclohexane Average RF RSD = 13.9 Average RF = 0.3371

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4454	02	1.000	0.3389	03	2.000	0.3673	04	5.000	0.3407
05	20.000	0.3184	06	50.000	0.3239	07	100.000	0.3070	08	150.000	0.2947
09	200.000	0.2974									

Naphthalene Average RF RSD = 6.1 Average RF = 1.341

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.240	02	1.000	1.188	03	2.000	1.452	04	5.000	1.323
05	20.000	1.395	06	50.000	1.384	07	100.000	1.388	08	150.000	1.364
09	200.000	1.338									

Propionitrile Average RF RSD = 6.6 Average RF = 0.04459

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	5.000	0.04921	03	10.000	0.04745	04	25.000	0.04126	05	100.000	0.04224
06	250.000	0.04136	07	500.000	0.04441	08	750.000	0.04434	09	1000.000	0.04643

Styrene Average RF RSD = 8.9 Average RF = 0.8627

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9522	02	1.000	0.9356	03	2.000	0.9260	04	5.000	0.8800
05	20.000	0.9069	06	50.000	0.8594	07	100.000	0.7921	08	150.000	0.7646
09	200.000	0.7472									

Tetrachloroethene (PCE) Average RF RSD = 9.6 Average RF = 0.2074

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2514	02	1.000	0.1948	03	2.000	0.2169	04	5.000	0.2047
05	20.000	0.2191	06	50.000	0.2071	07	100.000	0.1918	08	150.000	0.1901
09	200.000	0.1905									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Tetrahydrofuran (THF) Average RF RSD = 6.9 Average RF = 0.09390

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1024	04	5.000	0.09978	05	20.000	0.08783	06	50.000	0.08504
07	100.000	0.09461	08	150.000	0.08996	09	200.000	0.09771			

Toluene Average RF RSD = 10.5 Average RF = 1.140

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.311	02	1.000	1.147	03	2.000	1.202	04	5.000	1.225
05	20.000	1.229	06	50.000	1.161	07	100.000	1.036	08	150.000	0.9823
09	200.000	0.9641									

Toluene-d8 Average RF RSD = 12.3 Average RF = 1.094

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	1.272	03	60.000	1.201	04	70.000	1.142	05	100.000	1.040
07	125.000	0.9945	08	150.000	0.9158						

Trichloroethene (TCE) Average RF RSD = 8.1 Average RF = 0.2796

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3231	02	1.000	0.3027	03	2.000	0.2684	04	5.000	0.2854
05	20.000	0.2859	06	50.000	0.2765	07	100.000	0.2556	08	150.000	0.2541
09	200.000	0.2646									

Trichlorofluoromethane (CFC 11) Average RF RSD = 5.3 Average RF = 0.6103

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5999	02	1.000	0.6241	03	2.000	0.6351	04	5.000	0.5983
05	20.000	0.6727	06	50.000	0.6272	07	100.000	0.5890	08	150.000	0.5727
09	200.000	0.5732									

Vinyl Acetate Average RF RSD = 13.7 Average RF = 0.08343

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.08232	03	2.000	0.09504	04	5.000	0.1044	05	20.000	0.07963
06	50.000	0.07988	07	100.000	0.07962	08	150.000	0.08008	09	200.000	0.06651

Vinyl Chloride Average RF RSD = 6.9 Average RF = 0.7834

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8677	02	1.000	0.8044	03	2.000	0.7629	04	5.000	0.7438
05	20.000	0.8615	06	50.000	0.8048	07	100.000	0.7399	08	150.000	0.7296
09	200.000	0.7358									

cis-1,2-Dichloroethene Average RF RSD = 10.0 Average RF = 0.4985

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5914	02	1.000	0.5359	03	2.000	0.5321	04	5.000	0.5156
05	20.000	0.4947	06	50.000	0.4772	07	100.000	0.4456	08	150.000	0.4446
09	200.000	0.4495									

cis-1,3-Dichloropropene Average RF RSD = 6.3 Average RF = 0.4481

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4777	02	1.000	0.4720	03	2.000	0.4602	04	5.000	0.4643
05	20.000	0.4728	06	50.000	0.4477	07	100.000	0.4221	08	150.000	0.4062
09	200.000	0.4099									

m,p-Xylenes Average RF RSD = 9.4 Average RF = 0.5171

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.5958	02	2.000	0.5253	03	4.000	0.5526	04	10.000	0.5395
05	40.000	0.5471	06	100.000	0.5129	07	200.000	0.4694	08	300.000	0.4604
09	400.000	0.4511									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

n-Butyl Acetate Average RF RSD = 3.3 Average RF = 0.3657

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3780	02	1.000	0.3877	03	2.000	0.3755	04	5.000	0.3557
05	20.000	0.3621	06	50.000	0.3569	07	100.000	0.3625	08	150.000	0.3611
09	200.000	0.3520									

n-Butylbenzene Average RF RSD = 11.8 Average RF = 1.799

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.101	02	1.000	1.782	03	2.000	1.941	04	5.000	1.891
05	20.000	1.982	06	50.000	1.855	07	100.000	1.618	08	150.000	1.542
09	200.000	1.476									

n-Heptane Average RF RSD = 12.2 Average RF = 0.3028

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3672	03	2.000	0.3330	04	5.000	0.3134	05	20.000	0.3164
06	50.000	0.2952	07	100.000	0.2721	08	150.000	0.2630	09	200.000	0.2622

n-Propylbenzene Average RF RSD = 12.7 Average RF = 2.997

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	3.473	02	1.000	3.119	03	2.000	3.284	04	5.000	3.071
05	20.000	3.326	06	50.000	3.096	07	100.000	2.706	08	150.000	2.543
09	200.000	2.352									

o-Xylene Average RF RSD = 5.4 Average RF = 0.5296

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5272	02	1.000	0.5122	03	2.000	0.5633	04	5.000	0.5694
05	20.000	0.5582	06	50.000	0.5362	07	100.000	0.5009	08	150.000	0.4969
09	200.000	0.5021									

sec-Butylbenzene Average RF RSD = 10.7 Average RF = 2.456

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.755	02	1.000	2.628	03	2.000	2.597	04	5.000	2.548
05	20.000	2.680	06	50.000	2.524	07	100.000	2.230	08	150.000	2.132
09	200.000	2.013									

tert-Amyl Methyl Ether Average RF RSD = 5.5 Average RF = 1.247

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.329	02	1.000	1.310	03	2.000	1.355	04	5.000	1.253
05	20.000	1.185	06	50.000	1.211	07	100.000	1.211	08	150.000	1.185
09	200.000	1.180									

tert-Butylbenzene Average RF RSD = 8.4 Average RF = 1.755

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.970	02	1.000	1.688	03	2.000	1.829	04	5.000	1.815
05	20.000	1.910	06	50.000	1.818	07	100.000	1.624	08	150.000	1.584
09	200.000	1.561									

trans-1,2-Dichloroethene Average RF RSD = 9.8 Average RF = 0.4503

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5440	02	1.000	0.4261	03	2.000	0.4861	04	5.000	0.4457
05	20.000	0.4700	06	50.000	0.4477	07	100.000	0.4136	08	150.000	0.4102
09	200.000	0.4096									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte	Curve Fit	Weighting									
trans-1,3-Dichloropropene	Average RF			RSD = 4.0		Average RF = 0.3560					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3485	02	1.000	0.3329	03	2.000	0.3598	04	5.000	0.3762
05	20.000	0.3735	06	50.000	0.3669	07	100.000	0.3531	08	150.000	0.3448
09	200.000	0.3481									
trans-1,4-Dichloro-2-butene	Linear	1/X		R2 = 0.9996		Y = 0.1536 X + 5.212E-4					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2429	02	1.000	0.1773	03	2.000	0.1591	04	5.000	0.1371
05	20.000	0.1496	06	50.000	0.1529	07	100.000	0.1524	08	150.000	0.1539
09	200.000	0.1557									

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,1,1,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.2	02	1.000	1.07	6.9	03	2.000	2.06	3.2
04	5.000	5.45	9.0	05	20.000	20.52	2.6	06	50.000	48.21	-3.6
07	100.000	90.80	-9.2	08	150.000	136.43	-9.0	09	200.000	183.70	-8.2

1,1,1-Trichloroethane (TCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.5	02	1.000	0.93	-6.8	03	2.000	2.08	3.8
04	5.000	5.03	0.6	05	20.000	20.68	3.4	06	50.000	49.98	0.0
07	100.000	92.16	-7.8	08	150.000	139.69	-6.9	09	200.000	190.62	-4.7

1,1,2,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	19.0	02	1.000	1.07	7.0	03	2.000	2.18	8.9
04	5.000	4.80	-4.0	05	20.000	19.99	0.0	06	50.000	47.00	-6.0
07	100.000	92.42	-7.6	08	150.000	137.95	-8.0	09	200.000	181.38	-9.3

1,1,2-Trichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.7	02	1.000	1.00	-0.2	03	2.000	2.04	2.0
04	5.000	5.35	7.0	05	20.000	21.02	5.1	06	50.000	50.10	0.2
07	100.000	96.52	-3.5	08	150.000	142.70	-4.9	09	200.000	195.69	-2.2

1,1,2-Trichlorotrifluoroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.9	02	1.000	1.08	7.8	03	2.000	2.18	8.8
04	5.000	4.97	-0.6	05	20.000	20.71	3.6	06	50.000	49.10	-1.8
07	100.000	86.84	-13.2	08	150.000	133.18	-11.2	09	200.000	177.56	-11.2

1,1-Dichloroethane (1,1-DCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	13.7	02	1.000	0.96	-4.4	03	2.000	2.06	3.0
04	5.000	4.99	-0.2	05	20.000	20.89	4.5	06	50.000	49.87	-0.3
07	100.000	95.02	-5.0	08	150.000	140.95	-6.0	09	200.000	189.26	-5.4

1,1-Dichloroethene (1,1-DCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.3	02	1.000	1.10	10.0	03	2.000	2.04	1.9
04	5.000	5.05	0.9	05	20.000	20.57	2.9	06	50.000	49.65	-0.7
07	100.000	89.86	-10.1	08	150.000	132.52	-11.7	09	200.000	179.10	-10.4

1,1-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	22.3	02	1.000	1.04	4.1	03	2.000	2.10	5.1
04	5.000	4.94	-1.3	05	20.000	20.68	3.4	06	50.000	50.05	0.1
07	100.000	89.56	-10.4	08	150.000	132.11	-11.9	09	200.000	177.13	-11.4

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,2,3-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-13.6	02	1.000	1.09	9.5	03	2.000	1.97	-1.4
04	5.000	5.20	4.1	05	20.000	20.84	4.2	06	50.000	51.37	2.7
07	100.000	98.59	-1.4	08	150.000	147.38	-1.7	09	200.000	195.43	-2.3

1,2,3-Trichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.4	02	1.000	0.97	-2.5	03	2.000	1.98	-0.9
04	5.000	5.27	5.5	05	20.000	19.45	-2.7	06	50.000	48.58	-2.8
07	100.000	100.78	0.8	08	150.000	149.45	-0.4	09	200.000	201.50	0.7

1,2,4-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	16.1	02	1.000	1.06	6.0	03	2.000	2.00	-0.2
04	5.000	4.90	-2.1	05	20.000	20.56	2.8	06	50.000	50.36	0.7
07	100.000	94.85	-5.1	08	150.000	136.96	-8.7	09	200.000	181.12	-9.4

1,2,4-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.3	02	1.000	1.07	6.6	03	2.000	2.07	3.6
04	5.000	5.12	2.4	05	20.000	21.77	8.8	06	50.000	51.18	2.4
07	100.000	91.33	-8.7	08	150.000	130.03	-13.3	09	200.000	165.94	-17.0

1,2-Dibromo-3-chloropropane (DBCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.3	02	1.000	0.86	-13.6	03	2.000	2.08	3.8
04	5.000	4.68	-6.4	05	20.000	19.73	-1.3	06	50.000	47.62	-4.8
07	100.000	100.52	0.5	08	150.000	155.01	3.3	09	200.000	206.41	3.2

1,2-Dibromoethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.2	02	1.000	1.02	2.2	03	2.000	2.01	0.4
04	5.000	5.17	3.3	05	20.000	20.61	3.1	06	50.000	48.49	-3.0
07	100.000	94.90	-5.1	08	150.000	140.87	-6.1	09	200.000	193.97	-3.0

1,2-Dichloro-1,1,2-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	13.2	02	1.000	1.11	11.0	03	2.000	2.19	9.3
04	5.000	5.23	4.7	05	20.000	19.17	-4.2	06	50.000	49.25	-1.5
07	100.000	92.41	-7.6	08	150.000	133.19	-11.2	09	200.000	172.59	-13.7

1,2-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.3	02	1.000	1.09	9.3	03	2.000	1.94	-2.9
04	5.000	4.95	-1.0	05	20.000	21.27	6.4	06	50.000	50.97	1.9
07	100.000	96.85	-3.1	08	150.000	142.33	-5.1	09	200.000	186.68	-6.7

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,2-Dichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.8	02	1.000	0.97	-2.7	03	2.000	2.08	4.2
04	5.000	5.65	13.0	05	20.000	21.18	5.9	06	50.000	48.96	-2.1
07	100.000	94.83	-5.2	08	150.000	138.50	-7.7	09	200.000	190.63	-4.7

1,2-Dichloroethane-d4

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	54.97	9.9	03	60.000	63.80	6.3	04	70.000	72.70	3.9
05	100.000	96.23	-3.8	07	125.000	117.27	-6.2	08	150.000	134.71	-10.2

1,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.6	02	1.000	1.06	6.2	03	2.000	1.97	-1.5
04	5.000	4.90	-2.0	05	20.000	21.02	5.1	06	50.000	50.34	0.7
07	100.000	93.78	-6.2	08	150.000	137.38	-8.4	09	200.000	187.18	-6.4

1,3,5-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	20.5	02	1.000	0.96	-3.5	03	2.000	2.22	11.2
04	5.000	4.81	-3.8	05	20.000	20.60	3.0	06	50.000	48.77	-2.5
07	100.000	95.44	-4.6	08	150.000	137.58	-8.3	09	200.000	175.84	-12.1

1,3,5-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.6	02	1.000	1.04	4.0	03	2.000	2.18	9.1
04	5.000	5.33	6.6	05	20.000	21.58	7.9	06	50.000	51.00	2.0
07	100.000	91.40	-8.6	08	150.000	131.55	-12.3	09	200.000	169.40	-15.3

1,3-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.9	02	1.000	1.05	4.9	03	2.000	2.09	4.3
04	5.000	4.92	-1.6	05	20.000	21.13	5.6	06	50.000	50.57	1.1
07	100.000	94.39	-5.6	08	150.000	136.71	-8.9	09	200.000	180.39	-9.8

1,3-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.9	02	1.000	1.13	12.9	03	2.000	2.13	6.5
04	5.000	5.24	4.8	05	20.000	20.72	3.6	06	50.000	47.51	-5.0
07	100.000	91.83	-8.2	08	150.000	135.54	-9.6	09	200.000	182.20	-8.9

1,4-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.3	02	1.000	0.96	-4.1	03	2.000	2.10	4.8
04	5.000	5.10	2.1	05	20.000	21.56	7.8	06	50.000	51.91	3.8
07	100.000	98.19	-1.8	08	150.000	143.36	-4.4	09	200.000	190.17	-4.9

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,4-Dioxane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	40.000	44.09	10.2	04	100.000	103.35	3.4	05	400.000	388.97	-2.8
06	1000.000	882.89	-11.7	07	2000.000	1,913.57	-4.3	08	3000.000	2,967.55	-1.1
09	4000.000	4,251.30	6.3								

1-Butanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	50.000	48.25	-3.5	03	100.000	115.72	15.7	04	250.000	244.04	-2.4
05	1000.000	910.99	-8.9	06	2500.000	2,294.23	-8.2	07	5000.000	5,045.29	0.9
08	7500.000	7,648.32	2.0	09	10000.000	10,441.01	4.4				

1-Chloro-4-(trifluoromethyl)benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.1	02	1.000	1.05	4.5	03	2.000	2.06	3.2
04	5.000	5.12	2.3	05	20.000	19.72	-1.4	06	50.000	47.38	-5.2
07	100.000	95.82	-4.2	08	150.000	139.09	-7.3	09	200.000	181.95	-9.0

2,2-Dichloro-1,1,1-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.4	02	1.000	1.16	16.4	03	2.000	2.14	7.1
04	5.000	4.94	-1.2	05	20.000	18.70	-6.5	06	50.000	48.55	-2.9
07	100.000	91.68	-8.3	08	150.000	132.41	-11.7	09	200.000	177.63	-11.2

2,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.23	23.2	03	2.000	2.11	5.3	04	5.000	4.90	-1.9
05	20.000	21.07	5.4	06	50.000	49.75	-0.5	07	100.000	90.06	-9.9
08	150.000	134.22	-10.5	09	200.000	177.96	-11.0				

2,3,6-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.01	0.7	03	2.000	2.39	19.3	04	5.000	5.18	3.6
05	20.000	20.09	0.4	06	50.000	46.95	-6.1	07	100.000	94.14	-5.9
08	150.000	141.09	-5.9	09	200.000	187.91	-6.0				

2,4,5-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.96	-4.3	03	2.000	2.00	-0.2	04	5.000	5.18	3.6
05	20.000	20.27	1.4	06	50.000	49.48	-1.0	07	100.000	100.54	0.5
08	150.000	150.73	0.5	09	200.000	199.18	-0.4				

2,4-, 2,5-, and 2,6-Dichlorotoluene Coelut

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.500	1.64	9.1	02	3.000	3.06	2.1	03	6.000	6.36	6.0
04	15.000	15.73	4.9	05	60.000	63.56	5.9	06	150.000	150.74	0.5
07	300.000	290.33	-3.2	08	450.000	405.46	-9.9	09	600.000	507.89	-15.4

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

2,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.5	02	1.000	0.97	-3.2	03	2.000	2.01	0.5
04	5.000	4.97	-0.7	05	20.000	20.59	2.9	06	50.000	49.88	-0.2
07	100.000	102.40	2.4	08	150.000	146.86	-2.1	09	200.000	187.55	-6.2

2,5-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.2	02	1.000	1.00	0.4	03	2.000	2.01	0.7
04	5.000	5.01	0.3	05	20.000	19.93	-0.4	06	50.000	49.05	-1.9
07	100.000	100.51	0.5	08	150.000	145.73	-2.8	09	200.000	188.17	-5.9

2-Butanone (MEK)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.33	16.4	04	5.000	4.78	-4.3	05	20.000	17.82	-10.9
06	50.000	47.75	-4.5	07	100.000	102.07	2.1	08	150.000	149.11	-0.6
09	200.000	203.61	1.8								

2-Chloro-1,3-butadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.7	02	1.000	1.07	7.3	03	2.000	2.12	6.2
04	5.000	5.22	4.4	05	20.000	19.06	-4.7	06	50.000	49.85	-0.3
07	100.000	95.18	-4.8	08	150.000	138.32	-7.8	09	200.000	178.10	-10.9

2-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.3	02	1.000	1.11	10.8	03	2.000	2.17	8.5
04	5.000	4.99	-0.2	05	20.000	20.04	0.2	06	50.000	48.44	-3.1
07	100.000	97.80	-2.2	08	150.000	143.77	-4.2	09	200.000	180.96	-9.5

2-Chloroethyl Vinyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.67	**34.5**	02	1.000	0.91	-9.1	03	2.000	2.19	9.5
04	5.000	5.18	3.7	05	20.000	18.34	-8.3	06	50.000	47.19	-5.6
07	100.000	95.11	-4.9	08	150.000	135.88	-9.4	09	200.000	179.30	-10.4

2-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.6	02	1.000	0.96	-3.5	03	2.000	2.08	4.1
04	5.000	5.10	2.1	05	20.000	21.88	9.4	06	50.000	51.62	3.2
07	100.000	93.85	-6.2	08	150.000	135.69	-9.5	09	200.000	177.63	-11.2

2-Hexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.34	17.2	04	5.000	5.09	1.9	05	20.000	18.18	-9.1
06	50.000	47.07	-5.9	07	100.000	97.45	-2.6	08	150.000	149.39	-0.4
09	200.000	197.86	-1.1								

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

2-Methyl-1-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	20.76	3.8	03	40.000	46.07	15.2	04	100.000	101.88	1.9
05	400.000	384.74	-3.8	06	1000.000	900.31	-10.0	07	2000.000	1,929.52	-3.5
08	3000.000	2,868.37	-4.4	09	4000.000	4,032.64	0.8				

2-Methyl-2-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	19.20	-4.0	03	40.000	39.84	-0.4	04	100.000	101.85	1.9
05	400.000	388.20	-2.9	06	1000.000	941.93	-5.8	07	2000.000	2,030.61	1.5
08	3000.000	3,113.23	3.8	09	4000.000	4,240.70	6.0				

2-Nitropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	2.000	1.88	-6.2	03	4.000	4.51	12.6	04	10.000	11.31	13.1
05	40.000	39.23	-1.9	06	100.000	91.43	-8.6	07	200.000	189.21	-5.4
08	300.000	290.65	-3.1	09	400.000	397.59	-0.6				

2-Propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	22.02	10.1	03	40.000	42.11	5.3	04	100.000	104.11	4.1
05	400.000	364.95	-8.8	06	1000.000	910.90	-8.9	07	2000.000	1,913.86	-4.3
08	3000.000	3,006.21	0.2	09	4000.000	4,090.98	2.3				

3,4- and 2,3-Dichlorotoluene Coelution

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.95	-4.9	02	2.000	2.14	7.0	03	4.000	4.25	6.3
04	10.000	10.75	7.5	05	40.000	42.55	6.4	06	100.000	102.57	2.6
07	200.000	195.55	-2.2	08	300.000	274.91	-8.4	09	400.000	342.89	-14.3

3,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.4	02	1.000	1.01	0.8	03	2.000	2.26	13.1
04	5.000	4.82	-3.7	05	20.000	19.67	-1.6	06	50.000	49.01	-2.0
07	100.000	96.54	-3.5	08	150.000	141.75	-5.5	09	200.000	181.82	-9.1

3-Chloro-1-propene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.3	02	1.000	1.24	24.4	03	2.000	1.91	-4.6
04	5.000	5.11	2.2	05	20.000	21.25	6.2	06	50.000	50.11	0.2
07	100.000	90.42	-9.6	08	150.000	129.74	-13.5	09	200.000	166.67	-16.7

3-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.7	02	1.000	1.05	5.0	03	2.000	2.13	6.7
04	5.000	5.04	0.9	05	20.000	19.92	-0.4	06	50.000	48.19	-3.6
07	100.000	95.98	-4.0	08	150.000	141.26	-5.8	09	200.000	181.15	-9.4

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

3-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.2	02	1.000	1.01	1.3	03	2.000	2.11	5.5
04	5.000	5.24	4.8	05	20.000	20.82	4.1	06	50.000	50.12	0.2
07	100.000	98.05	-1.9	08	150.000	142.71	-4.9	09	200.000	177.08	-11.5

4-Bromofluorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	56.93	13.9	03	60.000	65.41	9.0	04	70.000	71.90	2.7
05	100.000	93.35	-6.7	07	125.000	116.83	-6.5	08	150.000	131.40	-12.4

4-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.3	02	1.000	1.04	4.2	03	2.000	2.18	9.2
04	5.000	5.12	2.4	05	20.000	21.52	7.6	06	50.000	50.57	1.1
07	100.000	90.72	-9.3	08	150.000	126.08	-15.9	09	200.000	164.77	-17.6

4-Isopropyltoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	5.1	02	1.000	1.03	2.9	03	2.000	2.16	7.9
04	5.000	5.14	2.7	05	20.000	22.01	10.1	06	50.000	51.66	3.3
07	100.000	92.67	-7.3	08	150.000	134.28	-10.5	09	200.000	171.62	-14.2

4-Methyl-2-pentanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.97	-1.5	04	5.000	5.02	0.4	05	20.000	19.69	-1.6
06	50.000	49.04	-1.9	07	100.000	102.59	2.6	08	150.000	150.76	0.5
09	200.000	202.96	1.5								

Acetone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	5.000	5.66	13.1	05	20.000	19.25	-3.7	06	50.000	46.70	-6.6
07	100.000	97.39	-2.6	08	150.000	147.04	-2.0	09	200.000	203.60	1.8

Acetonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	10.000	10.02	0.2	04	25.000	29.90	19.6	05	100.000	97.04	-3.0
06	250.000	215.42	-13.8	07	500.000	415.85	-16.8	08	750.000	790.58	5.4
09	1000.000	1,084.29	8.4								

Acrolein

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	4.000	4.33	8.3	04	10.000	10.86	8.6	05	40.000	37.52	-6.2
06	100.000	92.35	-7.7	07	200.000	191.46	-4.3	08	300.000	301.41	0.5
09	400.000	402.93	0.7								

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Acrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.59	3.6	02	5.000	5.00	0.0	03	10.000	10.84	8.4
04	25.000	24.44	-2.3	05	100.000	98.60	-1.4	06	250.000	239.84	-4.1
07	500.000	492.60	-1.5	08	750.000	731.60	-2.5	09	1000.000	997.02	-0.3

Benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.2	02	1.000	1.06	5.8	03	2.000	2.09	4.6
04	5.000	5.14	2.7	05	20.000	20.93	4.7	06	50.000	50.87	1.7
07	100.000	92.36	-7.6	08	150.000	133.15	-11.2	09	200.000	180.25	-9.9

Bromobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.4	02	1.000	1.01	1.4	03	2.000	2.19	9.6
04	5.000	4.87	-2.7	05	20.000	21.37	6.8	06	50.000	51.23	2.5
07	100.000	96.01	-4.0	08	150.000	143.99	-4.0	09	200.000	191.49	-4.3

Bromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	13.5	02	1.000	1.07	6.7	03	2.000	2.11	5.4
04	5.000	5.09	1.8	05	20.000	19.73	-1.4	06	50.000	49.09	-1.8
07	100.000	93.35	-6.6	08	150.000	134.52	-10.3	09	200.000	185.72	-7.1

Bromodichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.9	02	1.000	1.10	10.2	03	2.000	1.99	-0.5
04	5.000	4.93	-1.4	05	20.000	20.42	2.1	06	50.000	49.89	-0.2
07	100.000	93.03	-7.0	08	150.000	137.96	-8.0	09	200.000	187.91	-6.0

Bromoform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	14.0	02	1.000	0.99	-1.3	03	2.000	2.03	1.5
04	5.000	4.84	-3.2	05	20.000	19.50	-2.5	06	50.000	48.24	-3.5
07	100.000	95.69	-4.3	08	150.000	147.99	-1.3	09	200.000	201.42	0.7

Bromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.62	24.1	02	1.000	0.99	-0.7	03	2.000	2.14	6.9
04	5.000	4.75	-5.0	05	20.000	19.05	-4.8	06	50.000	48.55	-2.9
07	100.000	93.46	-6.5	08	150.000	140.24	-6.5	09	200.000	190.86	-4.6

Carbon Disulfide

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.8	02	1.000	1.02	1.6	03	2.000	2.17	8.4
04	5.000	5.27	5.4	05	20.000	19.63	-1.9	06	50.000	50.82	1.6
07	100.000	96.29	-3.7	08	150.000	137.35	-8.4	09	200.000	176.24	-11.9

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte

Carbon Tetrachloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	5.8	02	1.000	1.05	5.2	03	2.000	2.03	1.6
04	5.000	5.18	3.6	05	20.000	20.50	2.5	06	50.000	50.31	0.6
07	100.000	92.15	-7.9	08	150.000	140.41	-6.4	09	200.000	190.05	-5.0

Chlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	14.1	02	1.000	1.04	4.4	03	2.000	2.17	8.7
04	5.000	5.18	3.7	05	20.000	21.02	5.1	06	50.000	48.75	-2.5
07	100.000	91.46	-8.5	08	150.000	132.40	-11.7	09	200.000	173.57	-13.2

Chloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	21.2	02	1.000	0.93	-6.7	03	2.000	2.11	5.3
04	5.000	4.89	-2.3	05	20.000	20.69	3.4	06	50.000	50.06	0.1
07	100.000	93.16	-6.8	08	150.000	138.58	-7.6	09	200.000	186.71	-6.6

Chloroform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.68	**35.6**	02	1.000	1.03	2.8	03	2.000	2.02	1.1
04	5.000	5.10	2.0	05	20.000	19.67	-1.6	06	50.000	47.23	-5.5
07	100.000	88.41	-11.6	08	150.000	132.15	-11.9	09	200.000	178.46	-10.8

Chloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.7	02	1.000	0.98	-2.2	03	2.000	2.06	3.0
04	5.000	4.62	-7.5	05	20.000	21.60	8.0	06	50.000	50.31	0.6
07	100.000	94.99	-5.0	08	150.000	141.72	-5.5	09	200.000	191.99	-4.0

Cyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.69	**37.7**	02	1.000	1.02	2.1	03	2.000	1.99	-0.6
04	5.000	4.93	-1.5	05	20.000	19.07	-4.6	06	50.000	49.22	-1.6
07	100.000	91.93	-8.1	08	150.000	131.90	-12.1	09	200.000	177.18	-11.4

Cyclohexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	20.39	2.0	03	40.000	40.81	2.0	04	100.000	93.25	-6.8
05	400.000	376.99	-5.8	06	1000.000	949.43	-5.1	07	2000.000	2,076.61	3.8
08	3000.000	3,125.33	4.2	09	4000.000	4,222.87	5.6				

Dibromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.3	02	1.000	1.06	6.2	03	2.000	2.03	1.7
04	5.000	5.07	1.4	05	20.000	20.16	0.8	06	50.000	49.91	-0.2
07	100.000	96.44	-3.6	08	150.000	143.83	-4.1	09	200.000	195.05	-2.5

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Dibromofluoromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	55.49	11.0	03	60.000	65.00	8.3	04	70.000	72.39	3.4
05	100.000	97.39	-2.6	07	125.000	115.86	-7.3	08	150.000	130.79	-12.8

Dibromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	23.0	02	1.000	1.14	14.2	03	2.000	2.10	5.1
04	5.000	4.73	-5.4	05	20.000	19.48	-2.6	06	50.000	46.34	-7.3
07	100.000	91.72	-8.3	08	150.000	132.66	-11.6	09	200.000	185.93	-7.0

Dichlorodifluoromethane (CFC 12)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-9.7	02	1.000	0.93	-7.0	03	2.000	1.83	-8.5
04	5.000	4.36	-12.8	05	20.000	22.42	12.1	06	50.000	55.68	11.4
07	100.000	104.70	4.7	08	150.000	156.39	4.3	09	200.000	211.01	5.5

Dichlorofluoromethane (CFC 21)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.5	02	1.000	1.02	1.7	03	2.000	2.12	5.9
04	5.000	4.95	-1.1	05	20.000	19.94	-0.3	06	50.000	50.90	1.8
07	100.000	99.73	-0.3	08	150.000	142.52	-5.0	09	200.000	189.55	-5.2

Dichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	19.7	02	1.000	1.09	8.7	03	2.000	2.21	10.7
04	5.000	4.88	-2.4	05	20.000	19.66	-1.7	06	50.000	47.42	-5.2
07	100.000	90.02	-10.0	08	150.000	133.95	-10.7	09	200.000	181.78	-9.1

Diethyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.16	15.6	03	2.000	1.88	-5.9	04	5.000	5.23	4.6
05	20.000	20.82	4.1	06	50.000	49.37	-1.3	07	100.000	95.74	-4.3
08	150.000	140.42	-6.4	09	200.000	187.13	-6.4				

Diisopropyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	9.0	02	1.000	1.07	7.3	03	2.000	2.21	10.5
04	5.000	5.32	6.3	05	20.000	19.55	-2.3	06	50.000	48.94	-2.1
07	100.000	93.83	-6.2	08	150.000	134.38	-10.4	09	200.000	175.70	-12.1

Ethyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.4	02	1.000	0.95	-5.0	03	2.000	1.93	-3.7
04	5.000	5.04	0.8	05	20.000	20.63	3.2	06	50.000	50.32	0.6
07	100.000	101.20	1.2	08	150.000	148.63	-0.9	09	200.000	202.71	1.4

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte

Ethyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.1	02	1.000	1.04	4.4	03	2.000	2.13	6.7
04	5.000	5.29	5.8	05	20.000	19.19	-4.0	06	50.000	49.08	-1.8
07	100.000	97.66	-2.3	08	150.000	141.27	-5.8	09	200.000	185.96	-7.0

Ethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.5	02	1.000	1.02	2.1	03	2.000	2.13	6.4
04	5.000	5.13	2.6	05	20.000	21.12	5.6	06	50.000	49.18	-1.6
07	100.000	92.06	-7.9	08	150.000	138.47	-7.7	09	200.000	188.19	-5.9

Hexachlorobutadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.15	14.7	03	2.000	2.28	14.1	04	5.000	4.83	-3.4
05	20.000	20.45	2.3	06	50.000	51.04	2.1	07	100.000	90.89	-9.1
08	150.000	134.84	-10.1	09	200.000	178.97	-10.5				

Iodomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.74	-12.8	04	5.000	4.35	-13.1	05	20.000	20.45	2.2
06	50.000	56.50	13.0	07	100.000	107.93	7.9	08	150.000	153.67	2.4
09	200.000	200.49	0.2								

Isopropylbenzene (Cumene)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.8	02	1.000	1.12	12.0	03	2.000	2.14	7.0
04	5.000	5.22	4.4	05	20.000	21.56	7.8	06	50.000	50.39	0.8
07	100.000	88.85	-11.1	08	150.000	128.31	-14.5	09	200.000	161.80	-19.1

Methacrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.98	-2.4	03	2.000	2.20	10.1	04	5.000	5.23	4.6
05	20.000	19.89	-0.5	06	50.000	47.40	-5.2	07	100.000	98.74	-1.3
08	150.000	144.58	-3.6	09	200.000	196.53	-1.7				

Methyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.30	30.1	03	2.000	2.13	6.4	04	5.000	5.05	1.1
05	20.000	17.63	-11.8	06	50.000	45.43	-9.1	07	100.000	92.96	-7.0
08	150.000	141.05	-6.0	09	200.000	192.83	-3.6				

Methyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.8	02	1.000	0.94	-6.3	03	2.000	2.18	8.8
04	5.000	4.96	-0.8	05	20.000	19.52	-2.4	06	50.000	48.39	-3.2
07	100.000	95.39	-4.6	08	150.000	144.51	-3.7	09	200.000	192.68	-3.7

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Methyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.9	02	1.000	1.03	2.9	03	2.000	2.06	3.1
04	5.000	5.27	5.4	05	20.000	20.36	1.8	06	50.000	47.45	-5.1
07	100.000	92.72	-7.3	08	150.000	136.82	-8.8	09	200.000	183.90	-8.1

Methylcyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.66	**32.1**	02	1.000	1.01	0.5	03	2.000	2.18	9.0
04	5.000	5.05	1.1	05	20.000	18.89	-5.5	06	50.000	48.05	-3.9
07	100.000	91.07	-8.9	08	150.000	131.13	-12.6	09	200.000	176.47	-11.8

Naphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.6	02	1.000	0.89	-11.4	03	2.000	2.16	8.2
04	5.000	4.93	-1.4	05	20.000	20.81	4.0	06	50.000	51.59	3.2
07	100.000	103.48	3.5	08	150.000	152.52	1.7	09	200.000	199.53	-0.2

Propionitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	5.000	5.52	10.4	03	10.000	10.64	6.4	04	25.000	23.14	-7.5
05	100.000	94.74	-5.3	06	250.000	231.89	-7.2	07	500.000	497.97	-0.4
08	750.000	745.83	-0.6	09	1000.000	1,041.30	4.1				

Styrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.4	02	1.000	1.08	8.5	03	2.000	2.15	7.3
04	5.000	5.10	2.0	05	20.000	21.02	5.1	06	50.000	49.81	-0.4
07	100.000	91.81	-8.2	08	150.000	132.95	-11.4	09	200.000	173.24	-13.4

Tetrachloroethene (PCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	21.2	02	1.000	0.94	-6.0	03	2.000	2.09	4.6
04	5.000	4.93	-1.3	05	20.000	21.13	5.7	06	50.000	49.93	-0.1
07	100.000	92.49	-7.5	08	150.000	137.48	-8.3	09	200.000	183.72	-8.1

Tetrahydrofuran (THF)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.18	9.0	04	5.000	5.31	6.3	05	20.000	18.71	-6.5
06	50.000	45.28	-9.4	07	100.000	100.76	0.8	08	150.000	143.70	-4.2
09	200.000	208.11	4.1								

Toluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.1	02	1.000	1.01	0.7	03	2.000	2.11	5.4
04	5.000	5.37	7.5	05	20.000	21.57	7.8	06	50.000	50.93	1.9
07	100.000	90.90	-9.1	08	150.000	129.29	-13.8	09	200.000	169.20	-15.4

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Toluene-d8

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	58.14	16.3	03	60.000	65.85	9.7	04	70.000	73.04	4.3
05	100.000	95.02	-5.0	07	125.000	113.63	-9.1	08	150.000	125.57	-16.3

Trichloroethene (TCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.6	02	1.000	1.08	8.3	03	2.000	1.92	-4.0
04	5.000	5.10	2.1	05	20.000	20.45	2.3	06	50.000	49.44	-1.1
07	100.000	91.41	-8.6	08	150.000	136.35	-9.1	09	200.000	189.29	-5.4

Trichlorofluoromethane (CFC 11)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-1.7	02	1.000	1.02	2.3	03	2.000	2.08	4.1
04	5.000	4.90	-2.0	05	20.000	22.05	10.2	06	50.000	51.39	2.8
07	100.000	96.52	-3.5	08	150.000	140.76	-6.2	09	200.000	187.87	-6.1

Vinyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.99	-1.3	03	2.000	2.28	13.9	04	5.000	6.26	25.1
05	20.000	19.09	-4.6	06	50.000	47.87	-4.3	07	100.000	95.43	-4.6
08	150.000	143.96	-4.0	09	200.000	159.42	-20.3				

Vinyl Chloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.8	02	1.000	1.03	2.7	03	2.000	1.95	-2.6
04	5.000	4.75	-5.0	05	20.000	22.00	10.0	06	50.000	51.36	2.7
07	100.000	94.45	-5.6	08	150.000	139.71	-6.9	09	200.000	187.85	-6.1

cis-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.6	02	1.000	1.07	7.5	03	2.000	2.13	6.7
04	5.000	5.17	3.4	05	20.000	19.85	-0.8	06	50.000	47.86	-4.3
07	100.000	89.39	-10.6	08	150.000	133.79	-10.8	09	200.000	180.34	-9.8

cis-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.6	02	1.000	1.05	5.3	03	2.000	2.05	2.7
04	5.000	5.18	3.6	05	20.000	21.10	5.5	06	50.000	49.95	-0.1
07	100.000	94.19	-5.8	08	150.000	135.98	-9.3	09	200.000	182.96	-8.5

m,p-Xylenes

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.15	15.2	02	2.000	2.03	1.6	03	4.000	4.27	6.9
04	10.000	10.43	4.3	05	40.000	42.32	5.8	06	100.000	99.19	-0.8
07	200.000	181.55	-9.2	08	300.000	267.09	-11.0	09	400.000	348.90	-12.8

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

n-Butyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.4	02	1.000	1.06	6.0	03	2.000	2.05	2.7
04	5.000	4.86	-2.7	05	20.000	19.80	-1.0	06	50.000	48.80	-2.4
07	100.000	99.12	-0.9	08	150.000	148.11	-1.3	09	200.000	192.51	-3.7

n-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	16.8	02	1.000	0.99	-0.9	03	2.000	2.16	7.9
04	5.000	5.26	5.1	05	20.000	22.04	10.2	06	50.000	51.57	3.1
07	100.000	89.98	-10.0	08	150.000	128.58	-14.3	09	200.000	164.18	-17.9

n-Heptane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.21	21.3	03	2.000	2.20	10.0	04	5.000	5.17	3.5
05	20.000	20.90	4.5	06	50.000	48.75	-2.5	07	100.000	89.85	-10.1
08	150.000	130.27	-13.2	09	200.000	173.21	-13.4				

n-Propylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.9	02	1.000	1.04	4.1	03	2.000	2.19	9.6
04	5.000	5.12	2.5	05	20.000	22.20	11.0	06	50.000	51.66	3.3
07	100.000	90.30	-9.7	08	150.000	127.29	-15.1	09	200.000	156.99	-21.5

o-Xylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.5	02	1.000	0.97	-3.3	03	2.000	2.13	6.4
04	5.000	5.38	7.5	05	20.000	21.08	5.4	06	50.000	50.63	1.3
07	100.000	94.58	-5.4	08	150.000	140.75	-6.2	09	200.000	189.61	-5.2

sec-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.1	02	1.000	1.07	7.0	03	2.000	2.11	5.7
04	5.000	5.19	3.7	05	20.000	21.82	9.1	06	50.000	51.38	2.8
07	100.000	90.78	-9.2	08	150.000	130.19	-13.2	09	200.000	163.94	-18.0

tert-Amyl Methyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.6	02	1.000	1.05	5.1	03	2.000	2.17	8.7
04	5.000	5.02	0.5	05	20.000	19.01	-4.9	06	50.000	48.58	-2.8
07	100.000	97.13	-2.9	08	150.000	142.61	-4.9	09	200.000	189.31	-5.3

tert-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.2	02	1.000	0.96	-3.8	03	2.000	2.08	4.2
04	5.000	5.17	3.4	05	20.000	21.76	8.8	06	50.000	51.79	3.6
07	100.000	92.49	-7.5	08	150.000	135.35	-9.8	09	200.000	177.85	-11.1

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

trans-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	20.8	02	1.000	0.95	-5.4	03	2.000	2.16	7.9
04	5.000	4.95	-1.0	05	20.000	20.87	4.4	06	50.000	49.71	-0.6
07	100.000	91.85	-8.1	08	150.000	136.63	-8.9	09	200.000	181.93	-9.0

trans-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.1	02	1.000	0.94	-6.5	03	2.000	2.02	1.1
04	5.000	5.28	5.7	05	20.000	20.99	4.9	06	50.000	51.53	3.1
07	100.000	99.19	-0.8	08	150.000	145.28	-3.1	09	200.000	195.57	-2.2

trans-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.62	24.2	02	1.000	0.99	-1.5	03	2.000	1.90	-4.9
04	5.000	4.29	-14.1	05	20.000	19.31	-3.5	06	50.000	49.61	-0.8
07	100.000	99.06	-0.9	08	150.000	150.14	0.1	09	200.000	202.57	1.3

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:53:37 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	764325	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1268968	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1157078	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	575084	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	372379	49.01	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.02%				
48) surr1,1,2-dichloroetha...	6.096	65	392390	47.39	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 94.78%				
65) SURR3,Toluene-d8	8.529	98	1587219	47.01	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 94.02%				
70) SURR2,BFB	11.047	95	581975	47.84	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 95.68%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	4863	0.45	ppb		87
3) Chloromethane	1.347	50	7240	0.56	ppb		84
4) Vinyl Chloride	1.433	62	6632m	0.55	ppb		
5) Bromomethane	1.689	94	3628	0.61	ppb		87
6) Chloroethane	1.768	64	3991	0.60	ppb		70
7) Freon 21	1.926	67	6532m	0.51	ppb		
8) Trichlorofluoromethane	1.975	101	4585	0.49	ppb		76
9) Diethyl Ether	2.231	59	3589	0.61	ppb		85
10) Freon 123a	2.237	67	4717m	0.56	ppb		
11) Freon 123	2.292	83	5691m	0.58	ppb		
13) 1,1-Diclethene	2.432	96	3749m	0.57	ppb		
14) Freon 113	2.445	101	3428	0.59	ppb	#	65
17) Iodomethane	2.579	142	3304m	0.46	ppb		
18) Carbon Disulfide	2.634	76	11619	0.54	ppb		90
20) Allyl Chloride	2.804	76	1981	0.56	ppb	#	86
21) Methyl Acetate	2.841	43	2130	0.56	ppb		80
22) Methylene Chloride	2.926	84	4417	0.60	ppb	#	81
23) TBA	3.097	59	4748m	9.46	ppb		
24) Acrylonitrile	3.225	53	4777m	2.57	ppb		
25) Methyl-t-Butyl Ether	3.261	73	10309	0.58	ppb		86
26) trans-1,2-Dichloroethene	3.255	96	4158	0.61	ppb	#	83
28) 1,1-Diclethane	3.798	63	6962	0.57	ppb		80
29) Vinyl Acetate	3.895	86	611	0.46	ppb	#	1
30) DIPE	3.950	45	13005	0.54	ppb		95
31) 2-Chloro-1,3-Butadiene	3.926	53	6813	0.55	ppb		98
32) ETBE	4.536	59	11673	0.52	ppb		86
33) 2,2-Dichloropropane	4.700	77	6855m	0.70	ppb		
34) cis-1,2-Dichloroethene	4.718	96	4520m	0.59	ppb		
37) Bromochloromethane	5.133	130	2233m	0.56	ppb		
40) Chloroform	5.334	83	8066m	0.68	ppb		
41) 1,1,1-Trichloroethane	5.596	97	5536m	0.59	ppb		
42) TAME	6.401	73	10160	0.53	ppb		93
44) Cyclohexane	5.682	41	4775m	0.69	ppb		
46) Carbontetrachloride	5.852	121	1285m	0.52	ppb		

11/19/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:53:37 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47)	1,1-Dichloropropene	5.877	75	5477m	0.61	ppb		
49)	Benzene	6.169	78	15250	0.55	ppb		82
50)	1,2-Dichloroethane	6.218	62	3552	0.50	ppb	#	60
51)	Iso-Butyl Alcohol	6.212	43	2679	11.44	ppb	#	68
52)	n-Heptane	6.645	43	5643	0.73	ppb		78
53)	1-Butanol	7.127	56	5628m	38.45	ppb		
54)	Trichloroethene	7.084	130	4100m	0.58	ppb		
55)	Methylcyclohexane	7.303	55	5652m	0.67	ppb		
56)	1,2-Diclpropane	7.352	63	3895	0.56	ppb		98
57)	Dibromomethane	7.486	93	2095	0.61	ppb	#	66
59)	Methyl Methacrylate	7.578	69	2318	0.58	ppb		93
60)	Bromodichloromethane	7.712	83	4703	0.55	ppb		86
62)	2-Chloroethylvinyl Ether	8.120	63	2568	0.67	ppb	#	63
63)	cis-1,3-Dichloropropene	8.242	75	6062	0.53	ppb		95
64)	4-Methyl-2-pentanone	8.443	43	2936	0.58	ppb		91
66)	Toluene	8.602	91	16639	0.58	ppb		98
67)	trans-1,3-Dichloropropene	8.864	75	4422	0.49	ppb	#	72
68)	Ethyl Methacrylate	8.998	69	4097	0.51	ppb		91
69)	1,1,2-Trichloroethane	9.041	97	2356	0.48	ppb		87
72)	Tetrachloroethene	9.181	164	2909	0.61	ppb		90
73)	2-Hexanone	9.333	43	2259	0.64	ppb		75
74)	1,3-Dichloropropane	9.218	76	4570	0.52	ppb		83
75)	Dibromochloromethane	9.437	129	2745	0.50	ppb		93
76)	N-Butyl Acetate	9.486	43	4374m	0.52	ppb		
77)	1,2-Dibromoethane	9.529	107	2537m	0.54	ppb		
78)	Chlorobenzene	10.016	112	9761	0.57	ppb		93
79)	3-CBTF	10.028	180	4695	0.55	ppb		99
80)	4-CBTF	10.083	180	4619	0.58	ppb		82
81)	1,1,1,2-Tetrachloroethane	10.102	131	3201	0.54	ppb	#	76
82)	Ethylbenzene	10.132	106	5165	0.53	ppb	#	56
83)	(m+p)Xylene	10.242	106	13787	1.15	ppb	#	81
84)	o-Xylene	10.595	106	6100	0.50	ppb		97
85)	Styrene	10.608	104	11018	0.55	ppb		89
87)	Bromoform	10.760	173	1862m	0.57	ppb		
88)	2-CBTF	10.839	180	4347	0.50	ppb	#	79
89)	Isopropylbenzene	10.925	105	16861	0.56	ppb		95
90)	Cyclohexanone	10.986	55	4945	11.41	ppb		96
91)	trans-1,4-Dichloro-2-B...	11.236	53	1397m	0.74	ppb		
92)	1,1,2,2-Tetrachloroethane	11.181	83	3596	0.60	ppb		93
93)	Bromobenzene	11.175	156	3201	0.47	ppb	#	75
94)	1,2,3-Trichloropropane	11.205	110	1248	0.70	ppb	#	74
95)	n-Propylbenzene	11.278	91	19975	0.58	ppb		97
96)	2-Chlorotoluene	11.339	91	11270	0.56	ppb		91
97)	3-Chlorotoluene	11.394	91	10843	0.51	ppb		98
98)	4-Chlorotoluene	11.431	91	13481	0.59	ppb		95
99)	1,3,5-Trimethylbenzene	11.431	105	12064	0.53	ppb		93
100)	tert-Butylbenzene	11.699	119	11331	0.56	ppb		99
101)	1,2,4-Trimethylbenzene	11.742	105	14000	0.58	ppb		87
102)	3,4-DCBTF	11.796	214	3254	0.56	ppb	#	78
103)	sec-Butylbenzene	11.882	105	15842	0.56	ppb		86
104)	p-Isopropyltoluene	12.004	119	11480	0.53	ppb		78

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:53:37 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

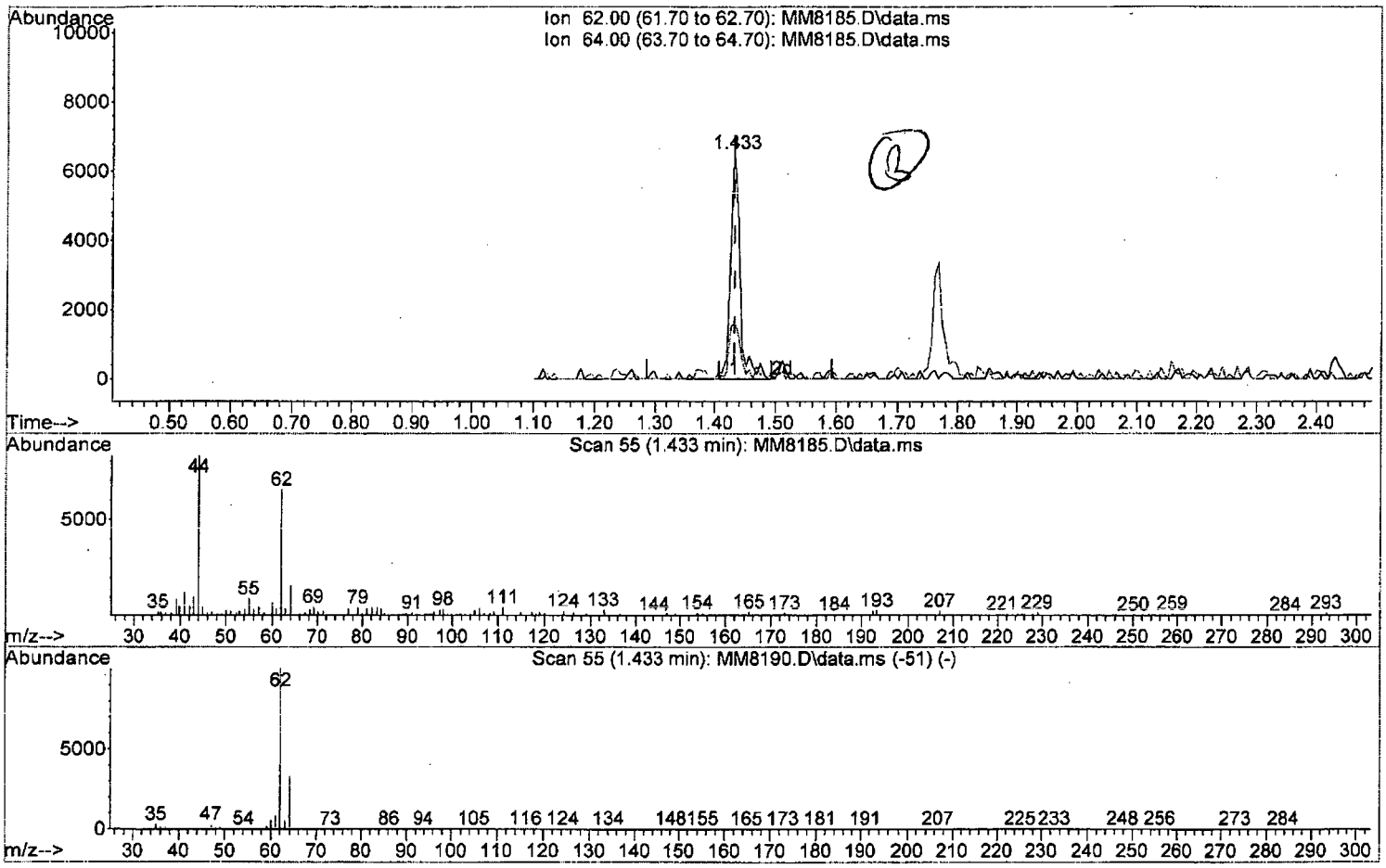
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
105) 1,3-Dclbenz	11.961	146	7197	0.55	ppb		87
106) 1,4-Dclbenz	12.040	146	5939	0.48	ppb		88
107) 2,4-DCBTF	12.083	214	2715	0.53	ppb	#	68
108) 2,5-DCBTF	12.126	214	3148	0.55	ppb	#	85
109) n-Butylbenzene	12.327	91	12081	0.58	ppb		85
110) 1,2-Dclbenz	12.333	146	6104	0.51	ppb		83
111) 1,2-Dibromo-3-chloropr...	12.955	157	672	0.57	ppb	#	65
112) Trielution Dichlorotol...	13.083	125	16655	1.64	ppb	#	88
113) 1,3,5 Trichlorobenzene	13.125	180	4884	0.60	ppb		96
114) Coelution Dichlorotoluene	13.400	125	10221	0.95	ppb	#	93
115) 1,2,4-Tcbenzene	13.613	180	4316	0.58	ppb	#	79
116) Hexachlorobt	13.747	225	2390	0.75	ppb		92
117) Naphthalen	13.796	128	7130	0.46	ppb		86
118) 1,2,3-Tclbenzene	13.985	180	2673	0.43	ppb		89
119) 2,4,5-Trichlorotolene	14.570	159	2775	0.59	ppb	#	78
120) 2,3,6-Trichlorotoluene	14.656	159	2515	0.61	ppb		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(4) Vinyl Chloride (P)

1.433min (-0.000) 0.57 ppb

response 6846

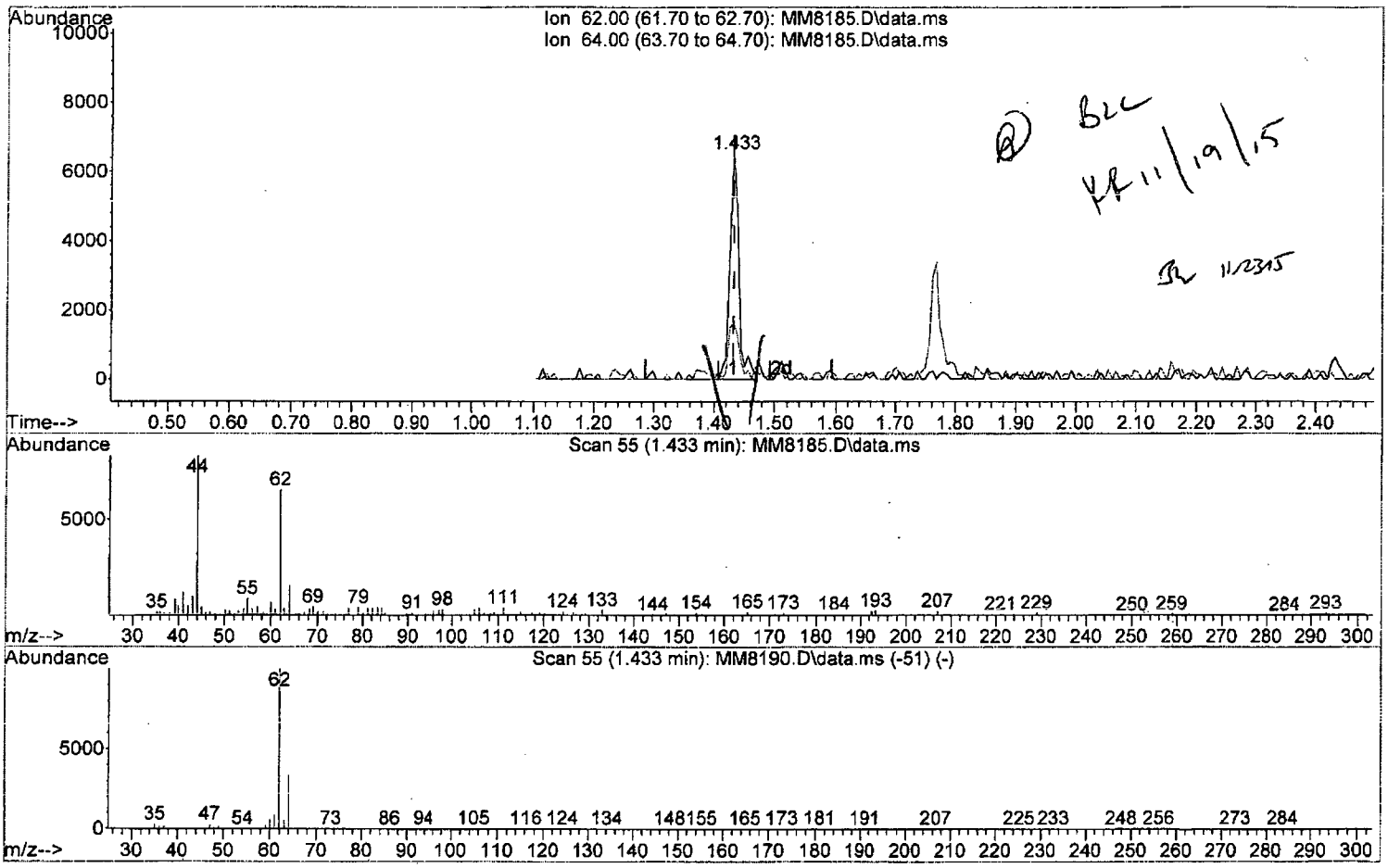
Ion	Exp%	Act%
62.00	100	100
64.00	33.40	24.76
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:37:15 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(4) Vinyl Chloride (P)

1.433min (-0.000) 0.55 ppb m

response 6632

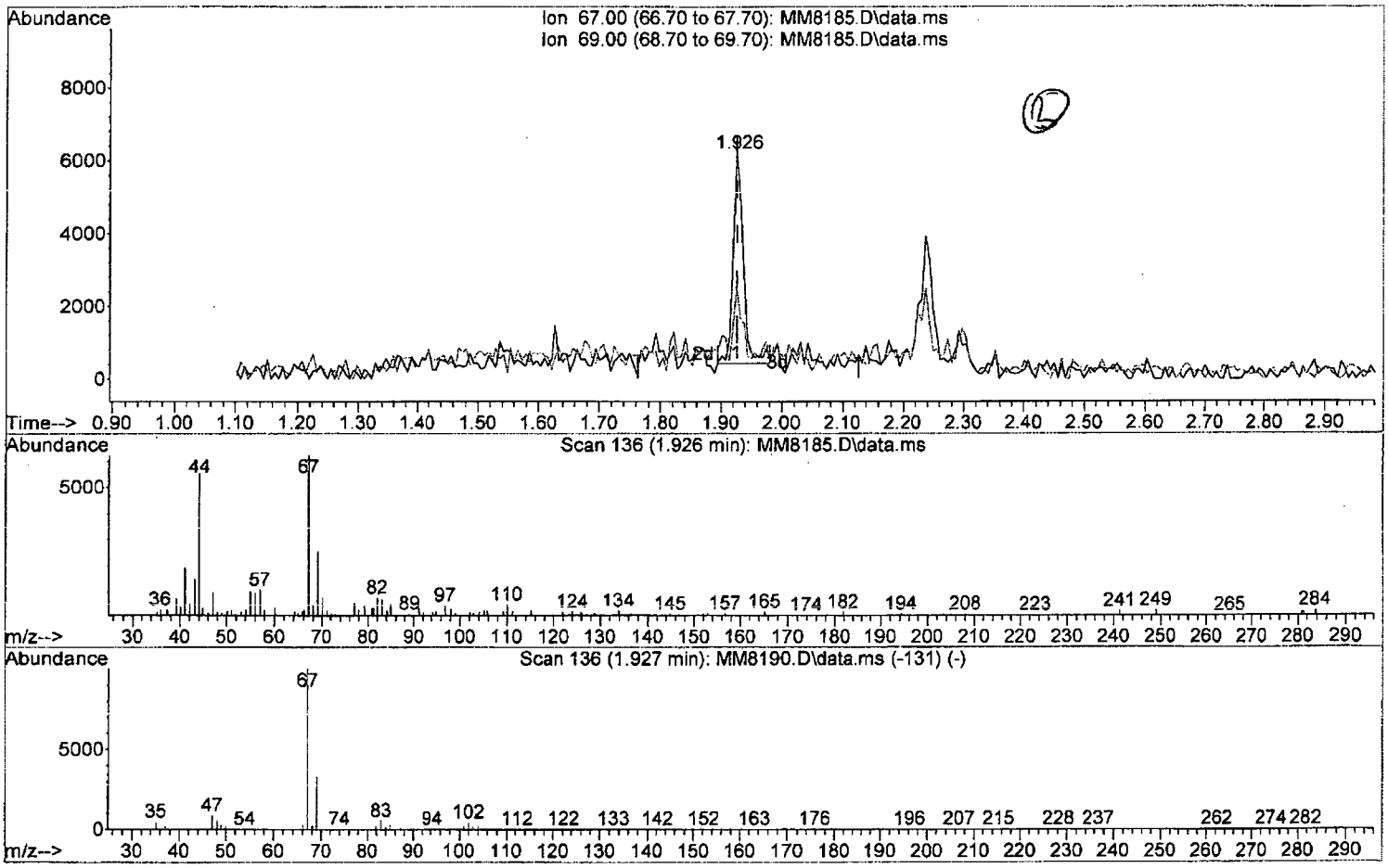
Ion	Exp%	Act%
62.00	100	100
64.00	33.40	24.76
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:37:26 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(7) Freon 21

1.926min (-0.000) 0.53 ppb

response 6797

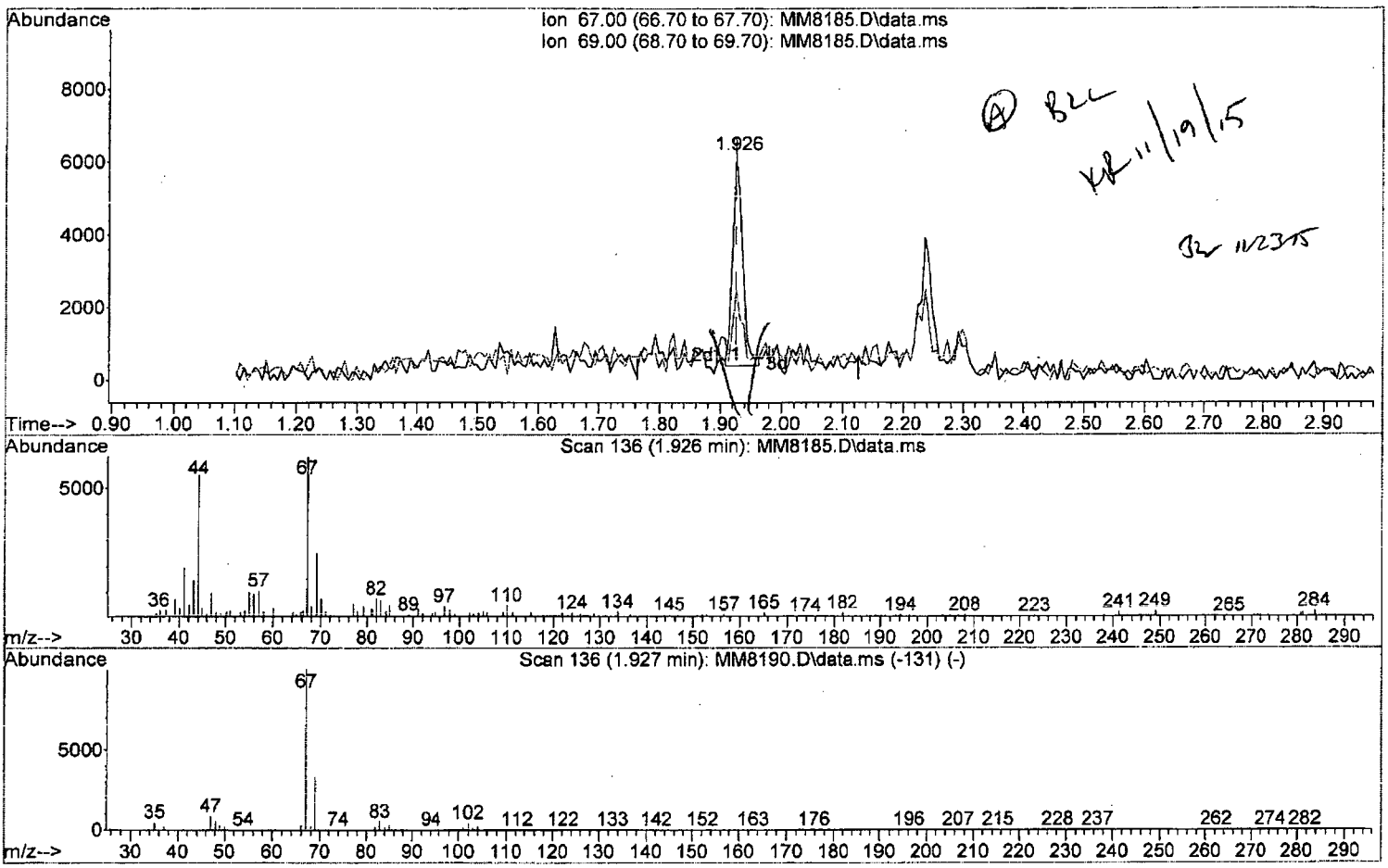
Ion	Exp%	Act%
67.00	100	100
69.00	33.10	40.44
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:37:42 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(7) Freon 21

1.926min (-0.000) 0.51 ppb m

response 6532

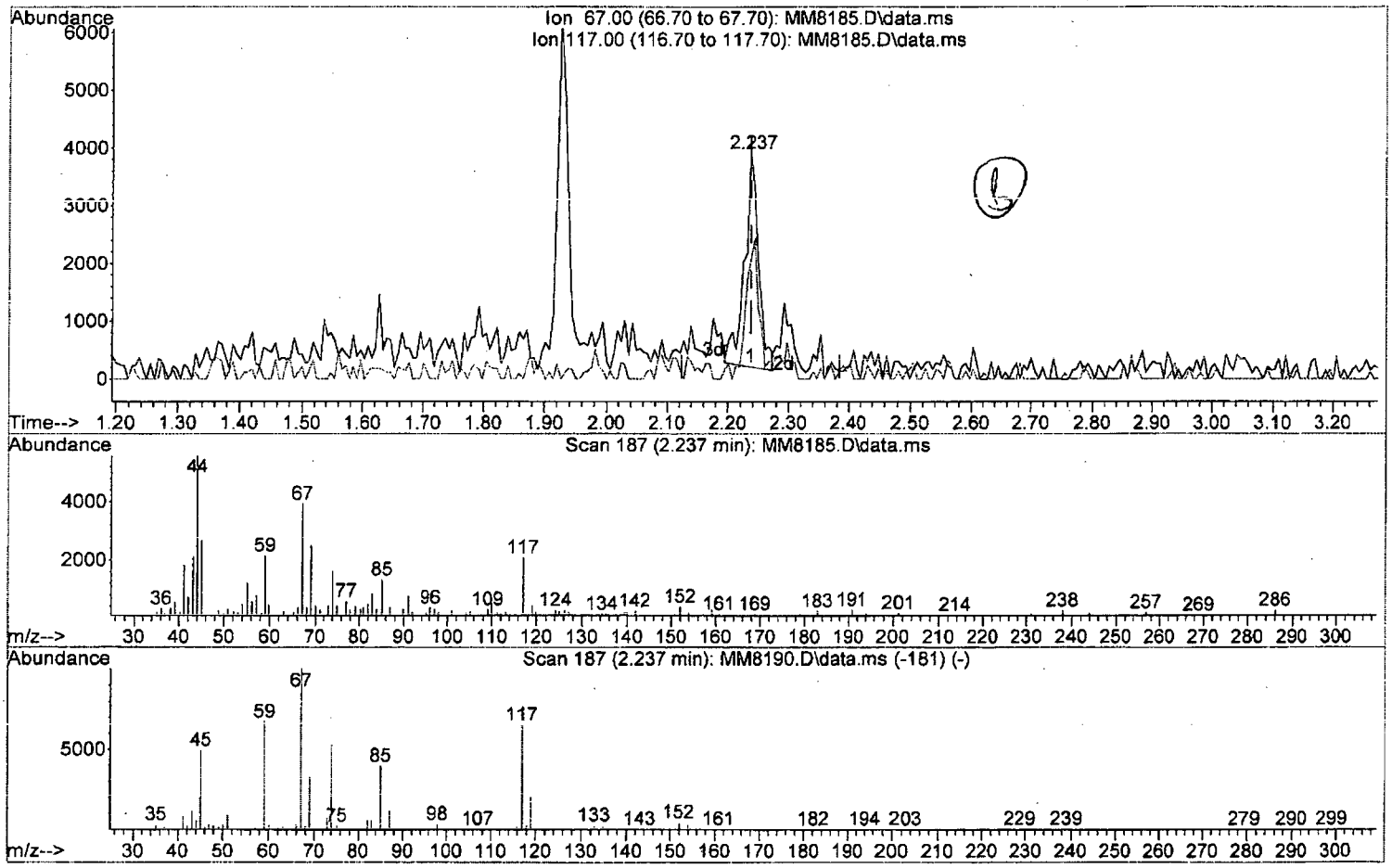
Ion	Exp%	Act%
67.00	100	100
69.00	33.10	40.44
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:37:51 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(10) Freon 123a

2.237min (-0.000) 0.70 ppb

response 5939

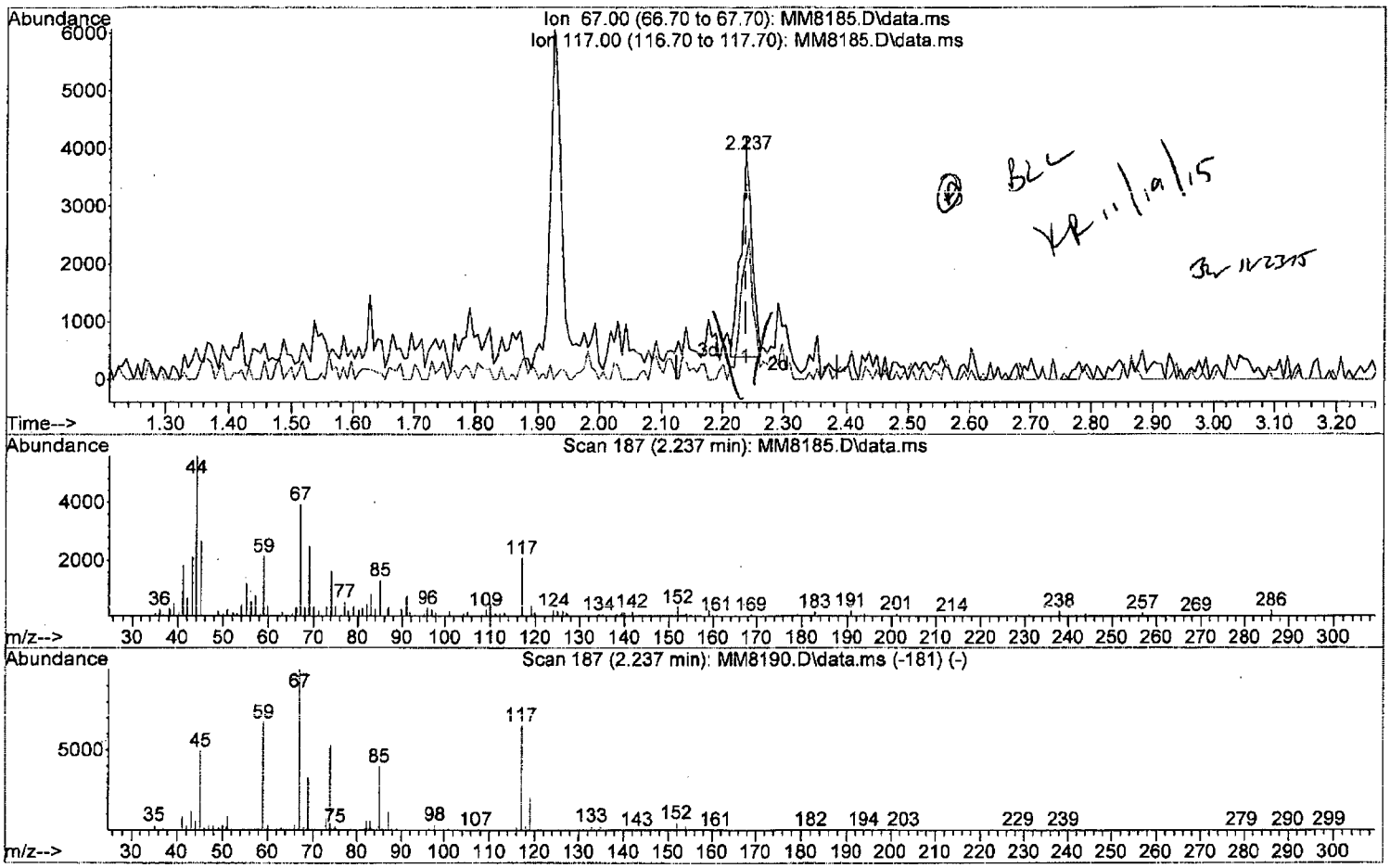
Ion	Exp%	Act%
67.00	100	100
117.00	65.50	52.87
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:38:00 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(10) Freon 123a

2.237min (-0.000) 0.56 ppb m

response 4717

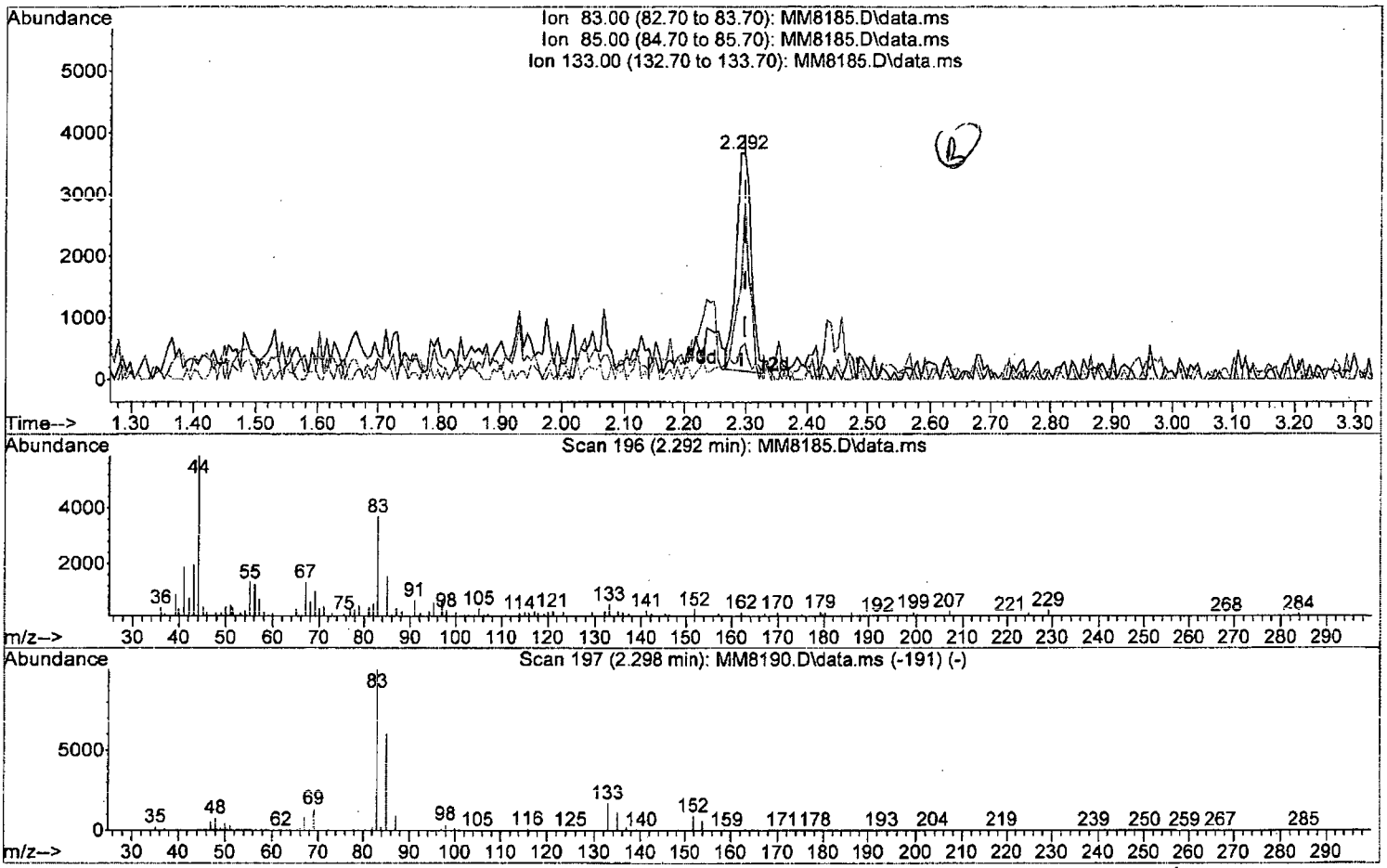
Ion	Exp%	Act%
67.00	100	100
117.00	65.50	52.87
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:38:27 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(11) Freon 123

2.292min (-0.006) 0.61 ppb

response 5962

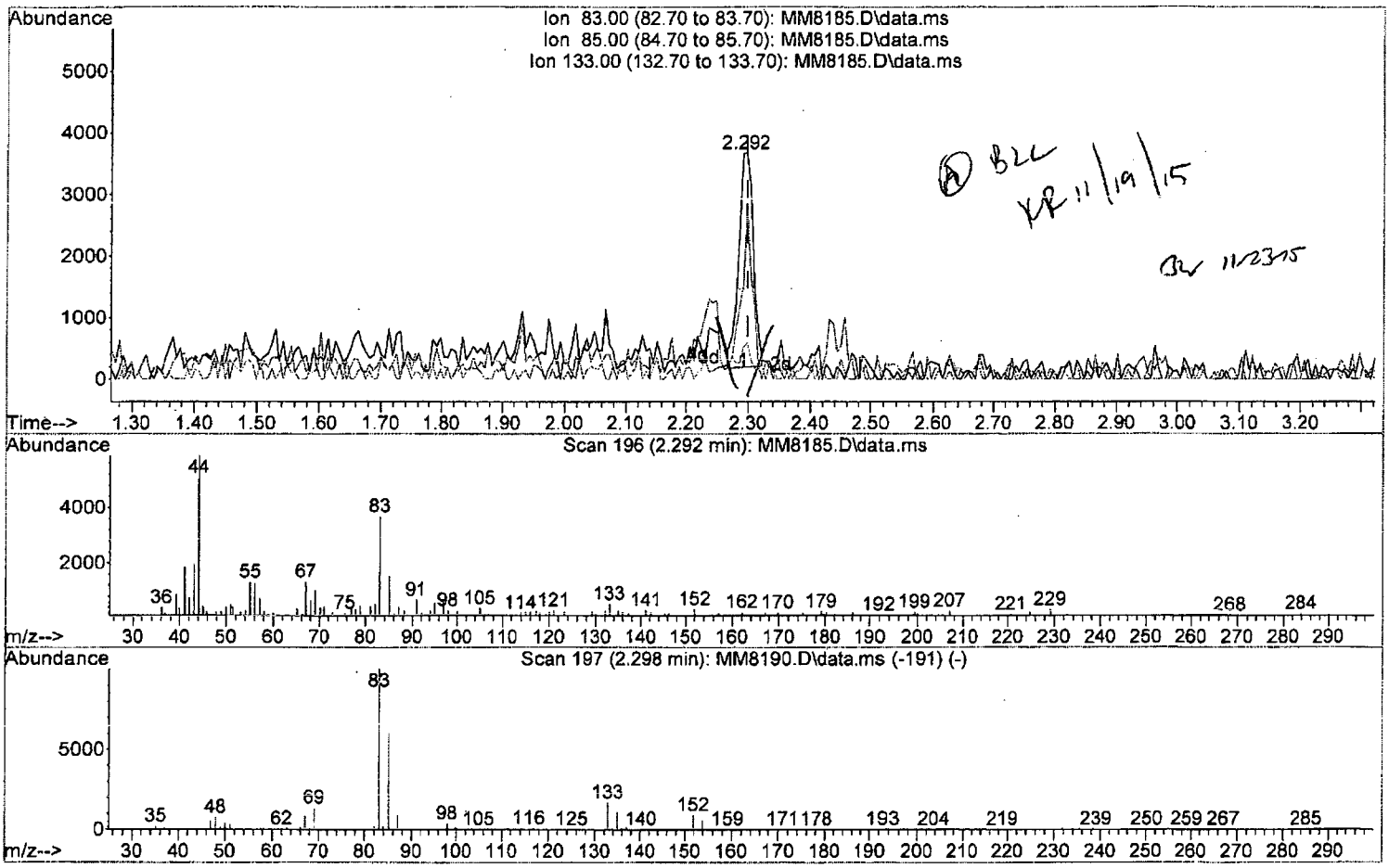
Ion	Exp%	Act%
83.00	100	100
85.00	62.90	41.14#
133.00	16.90	14.03
0.00	0.00	0.00

W111815.M Thu Nov 19 09:38:45 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(11) Freon 123

2.292min (-0.006) 0.58 ppb m

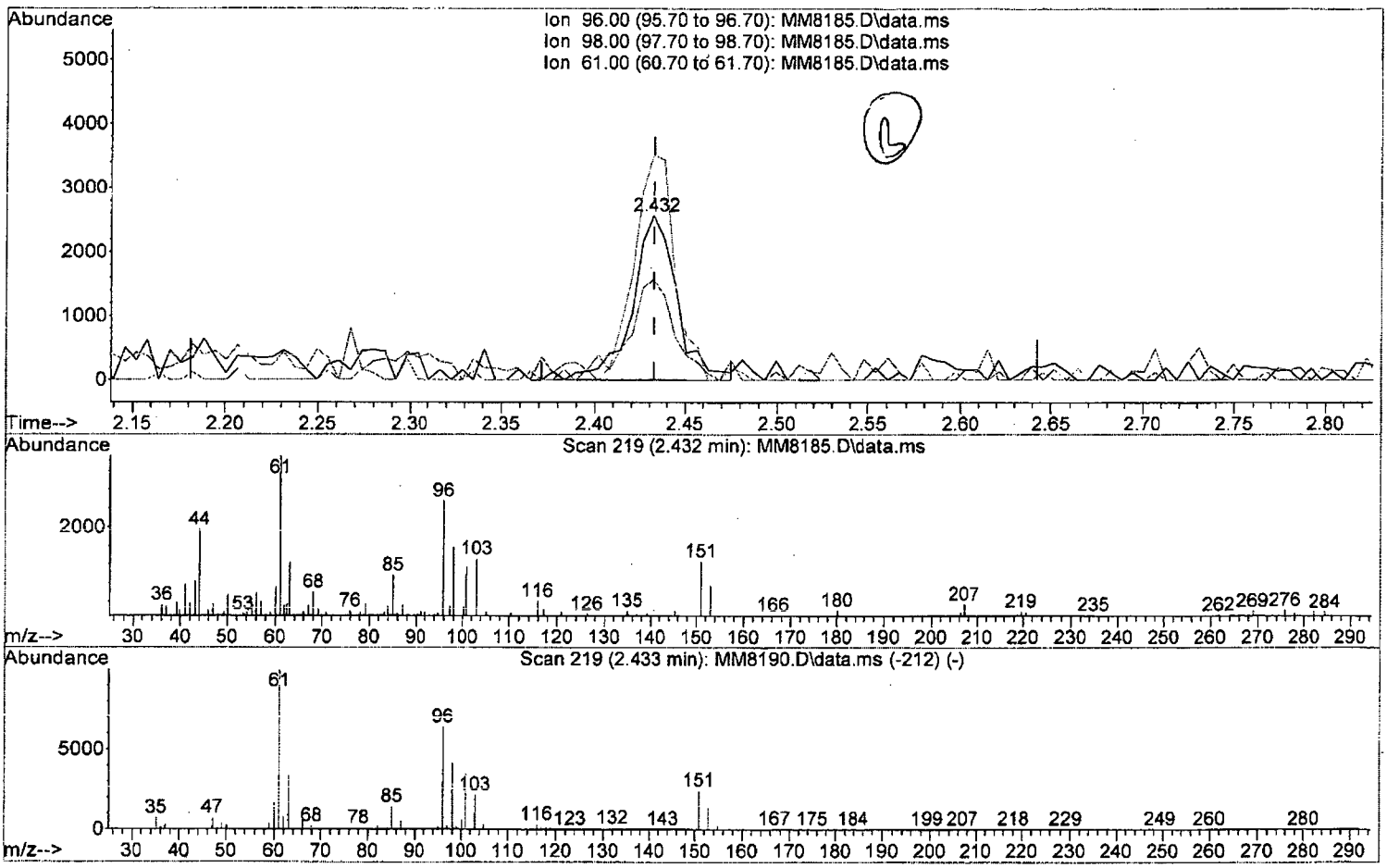
response 5691

Ion	Exp%	Act%
83.00	100	100
85.00	62.90	41.14#
133.00	16.90	14.03
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(13) 1,1-Diclethene (P)

2.432min (-0.000) 0.68 ppb

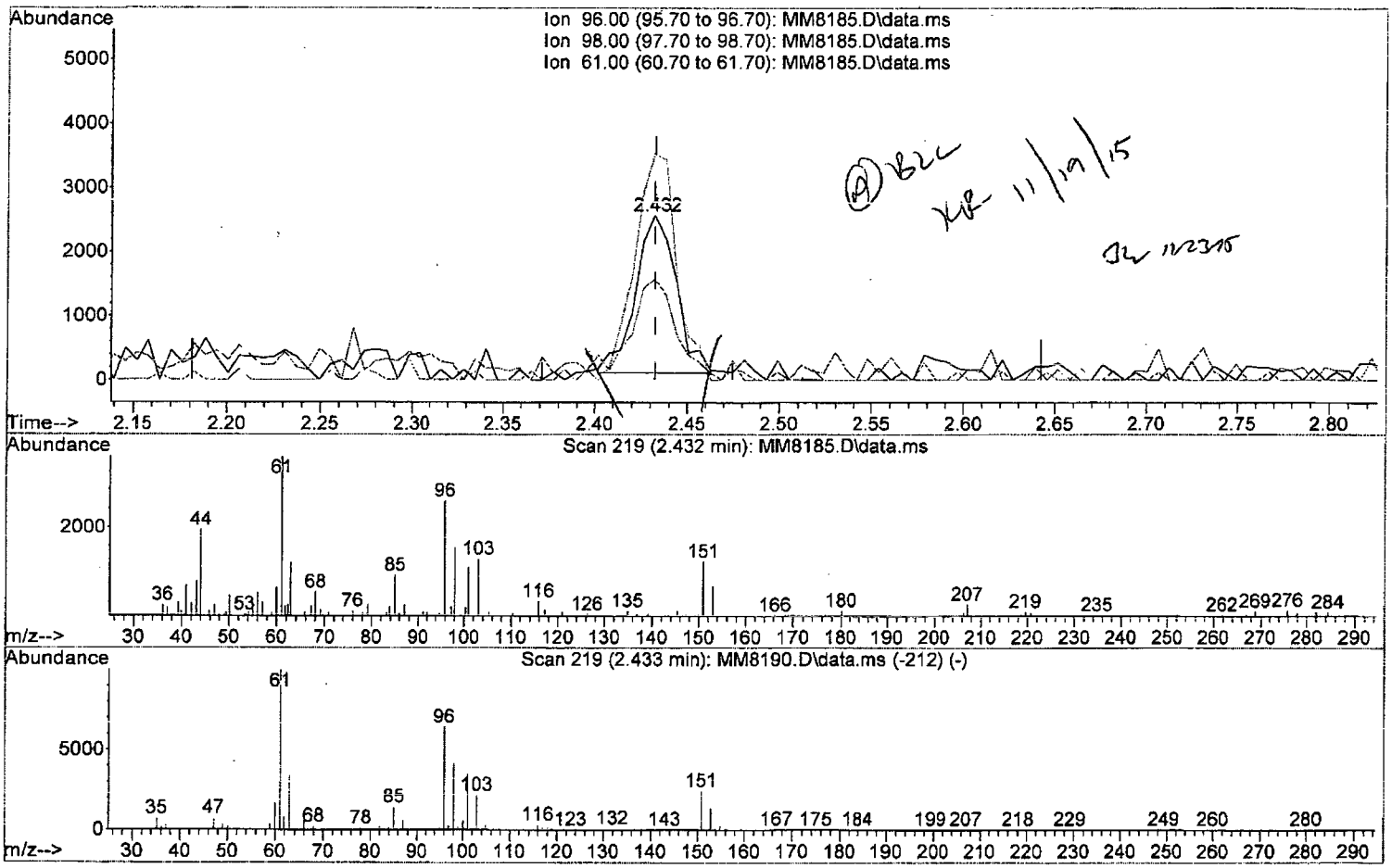
response 4440

Ion	Exp%	Act%
96.00	100	100
98.00	65.00	61.16
61.00	156.20	137.31
0.00	0.00	0.00

W111815.M Thu Nov 19 09:39:27 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(13) 1,1-Diclethene (P)

2.432min (-0.000) 0.57 ppb m

response 3749

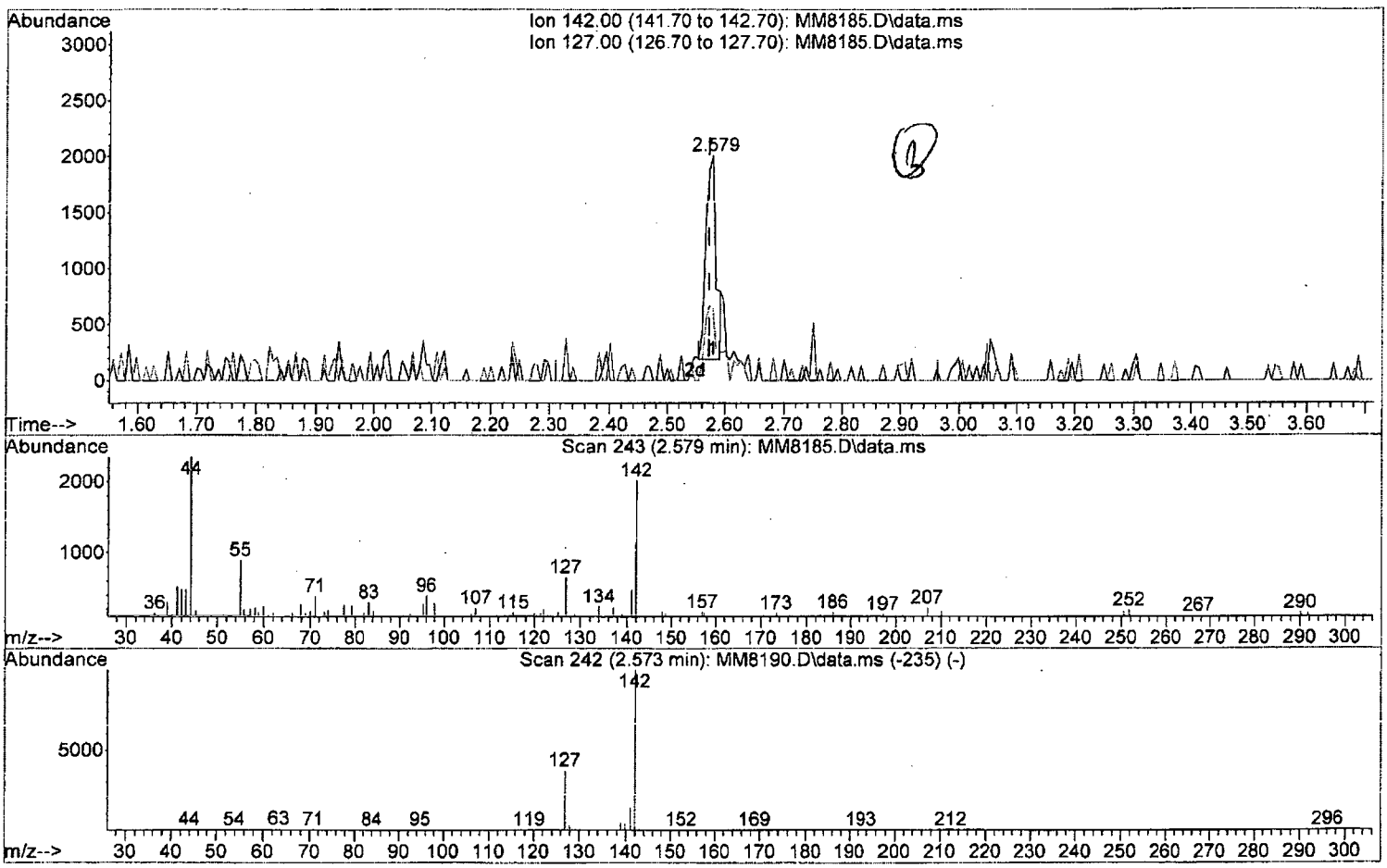
Ion	Exp%	Act%
96.00	100	100
98.00	65.00	61.16
61.00	156.20	137.31
0.00	0.00	0.00

W111815.M Thu Nov 19 09:39:41 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(17) Iodomethane

2.579min (+0.007) 0.32 ppb

response 2266

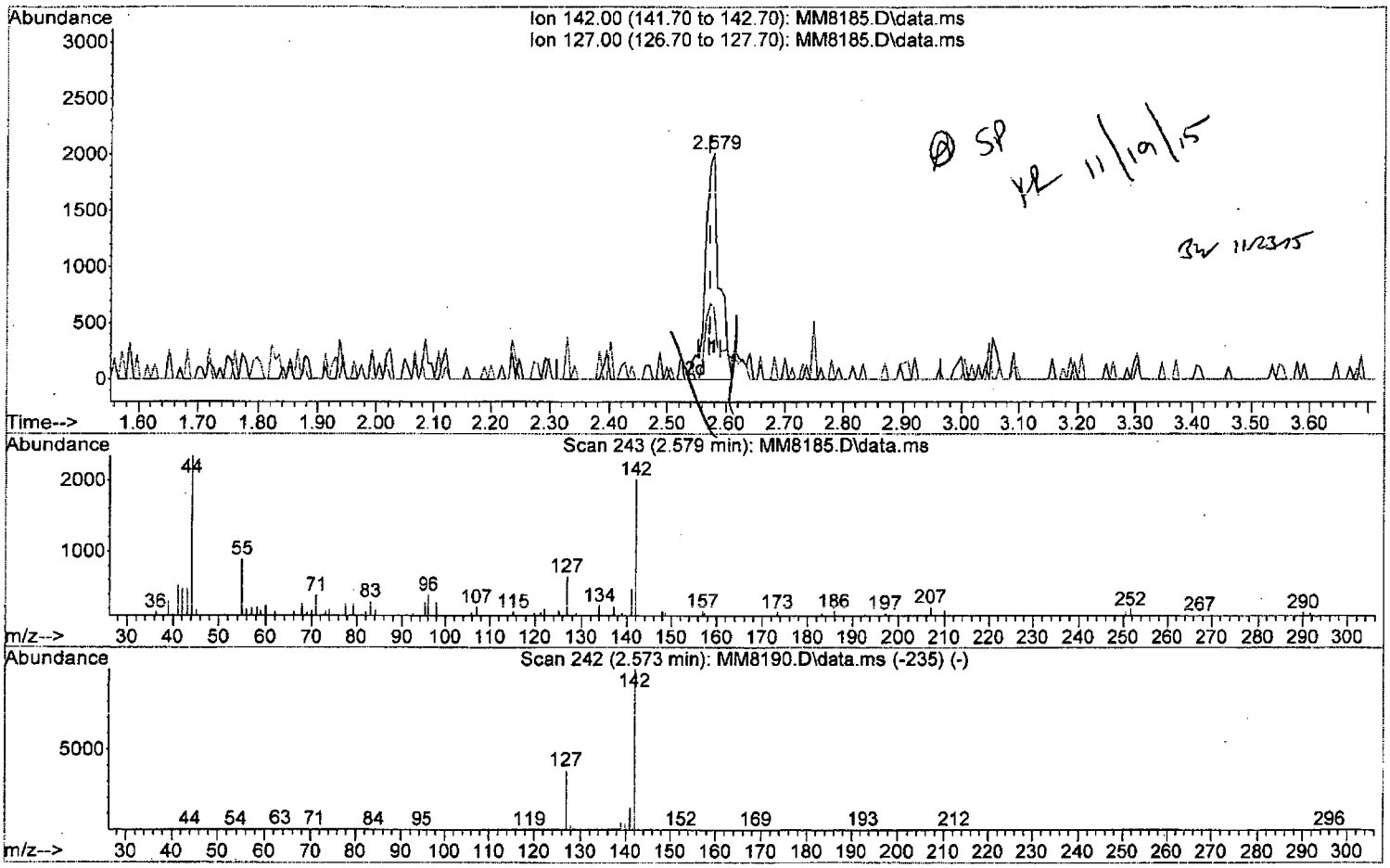
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	32.24
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:40:05 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(17) Iodomethane

2.579min (+0.007) 0.46 ppb m

response 3304

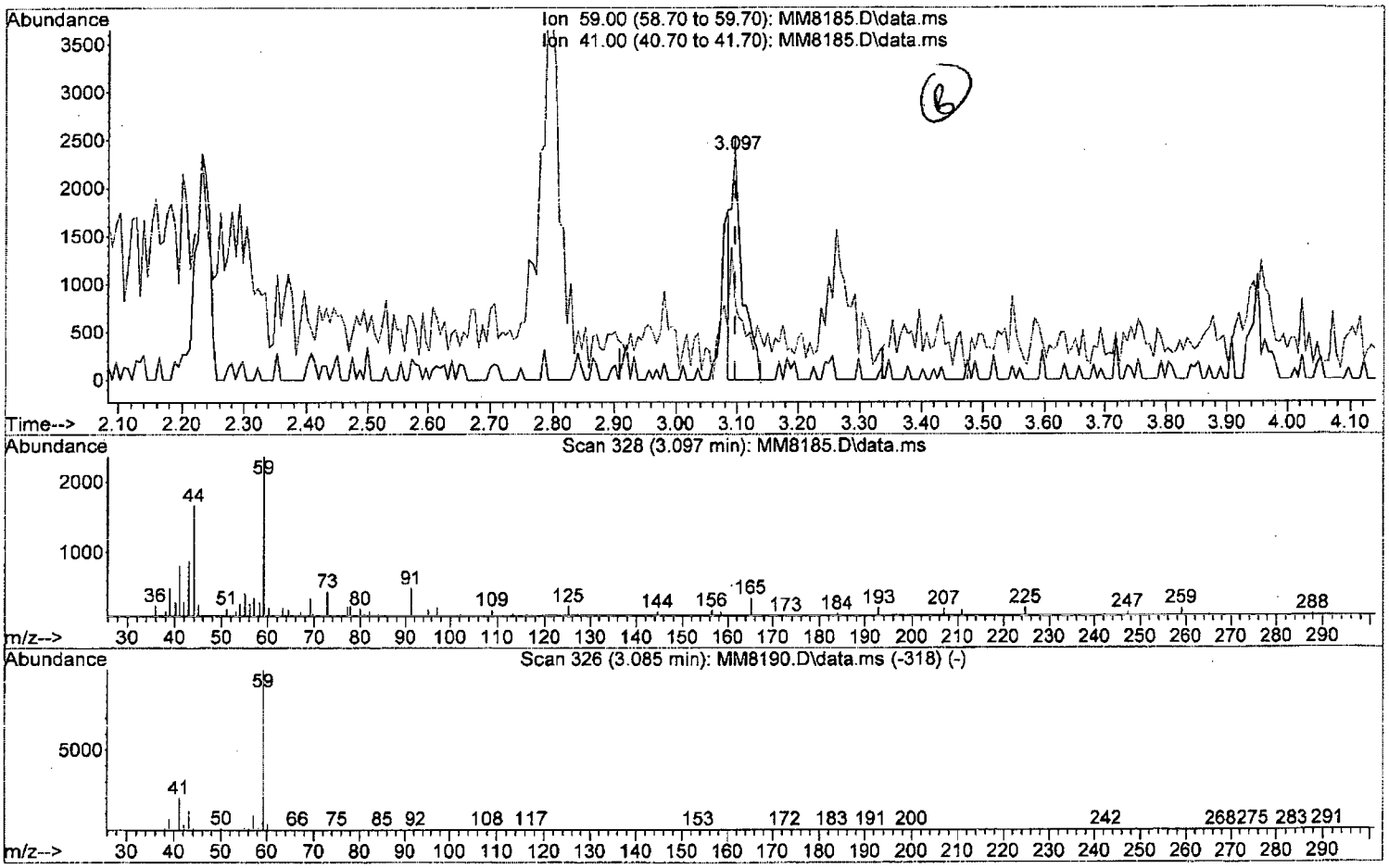
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	32.24
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:40:16 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(23) TBA

3.097min (-0.000) 6.28 ppb

response 3153

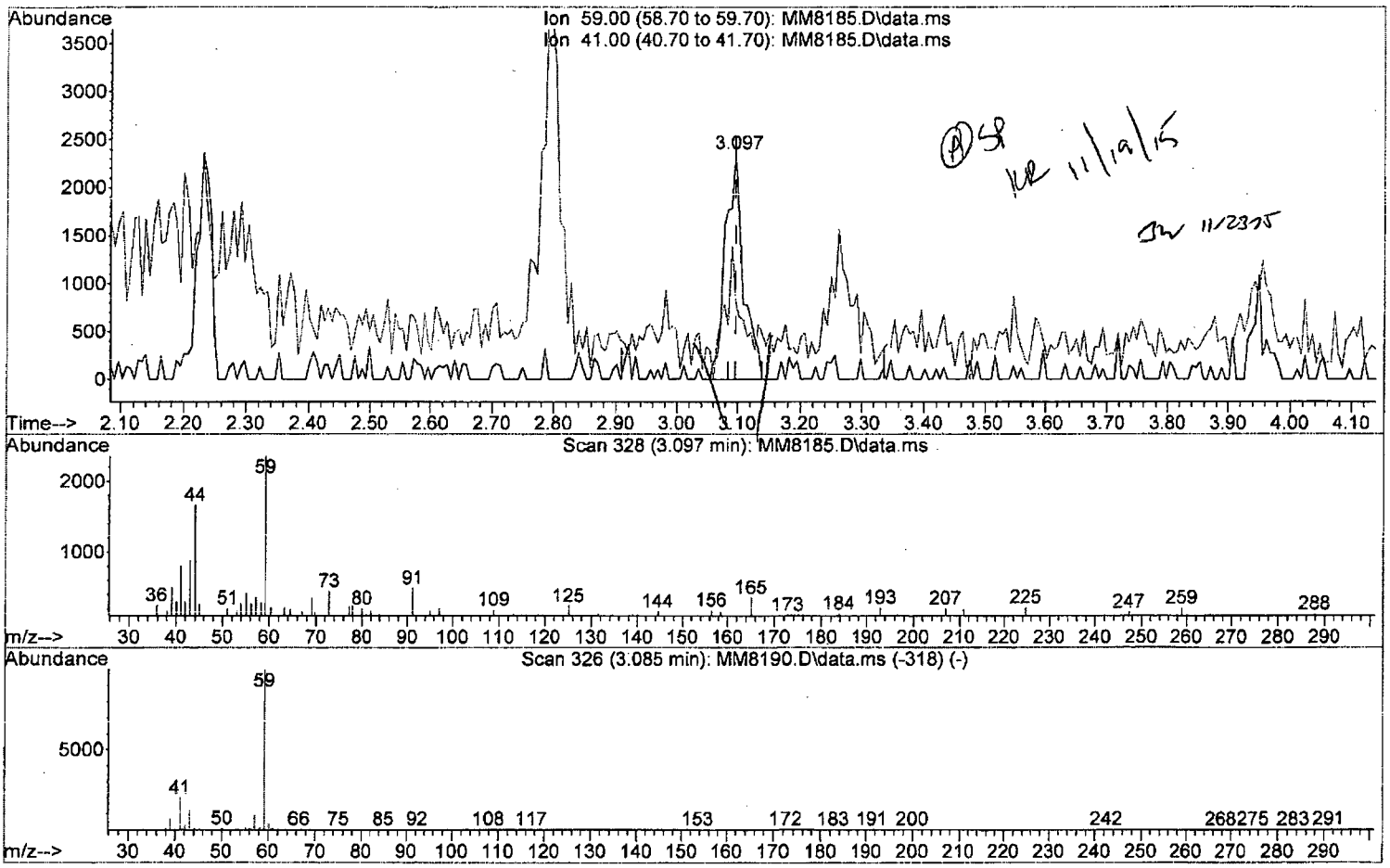
Ion	Exp%	Act%
59.00	100	100
41.00	20.00	33.98
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:40:55 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(23) TBA

3.097min (-0.000) 9.46 ppb m

response 4748

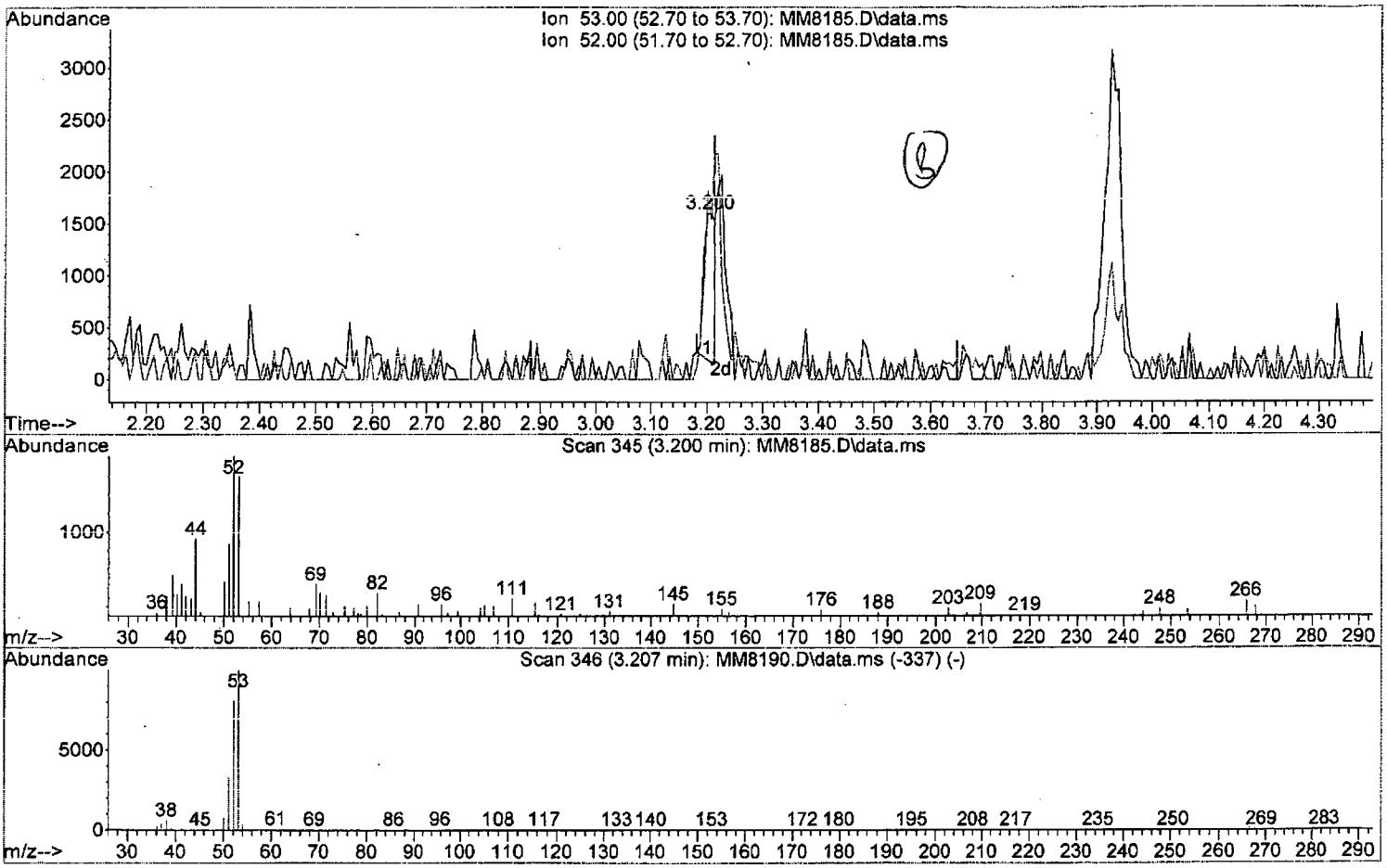
Ion	Exp%	Act%
59.00	100	100
41.00	20.00	33.98
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:41:02 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(24) Acrylonitrile

3.200min (-0.012) 1.03 ppb

response 1912

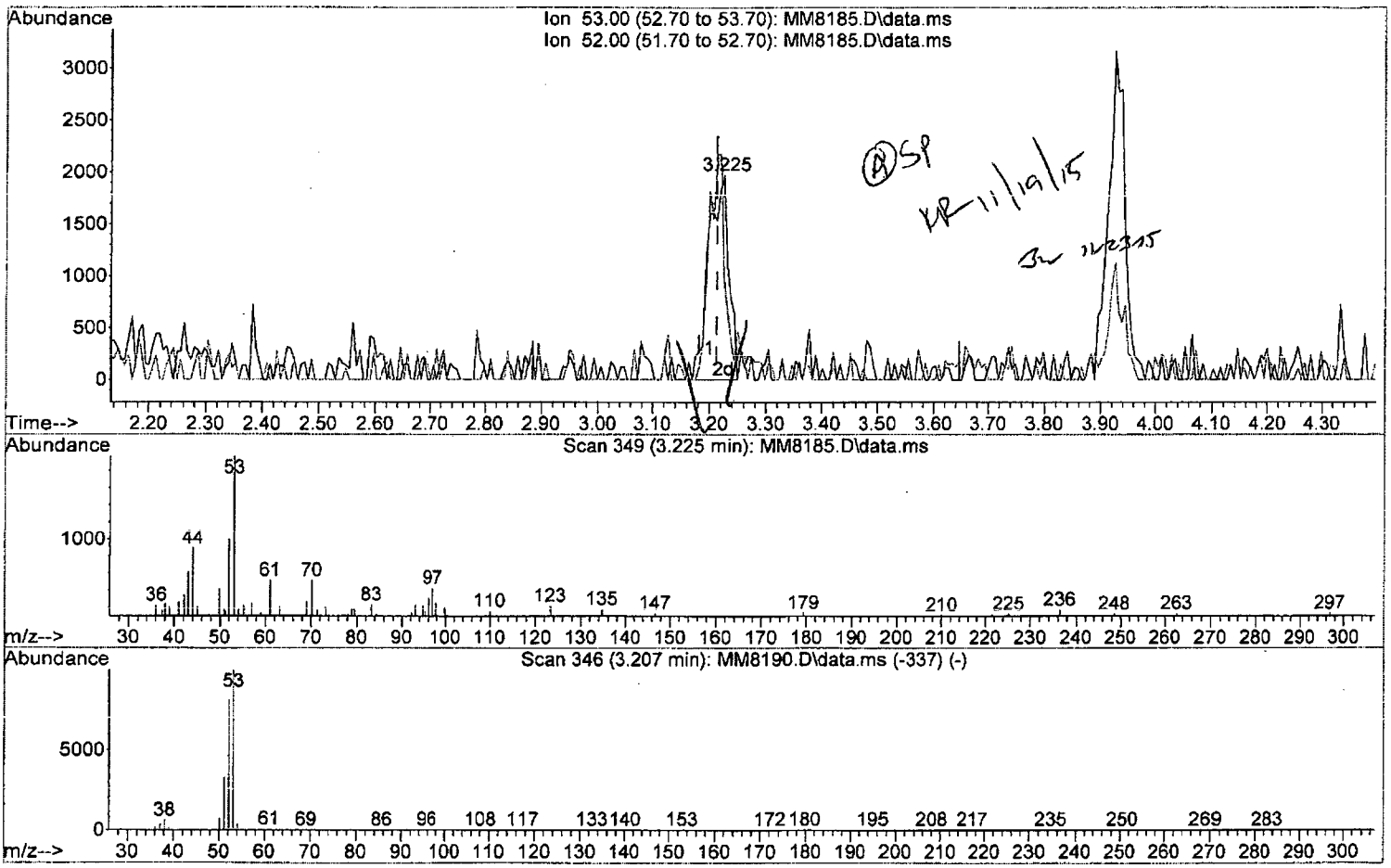
Ion	Exp%	Act%
53.00	100	100
52.00	81.00	113.38#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:41:09 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(24) Acrylonitrile

3.225min (+0.012) 2.57 ppb m

response 4777

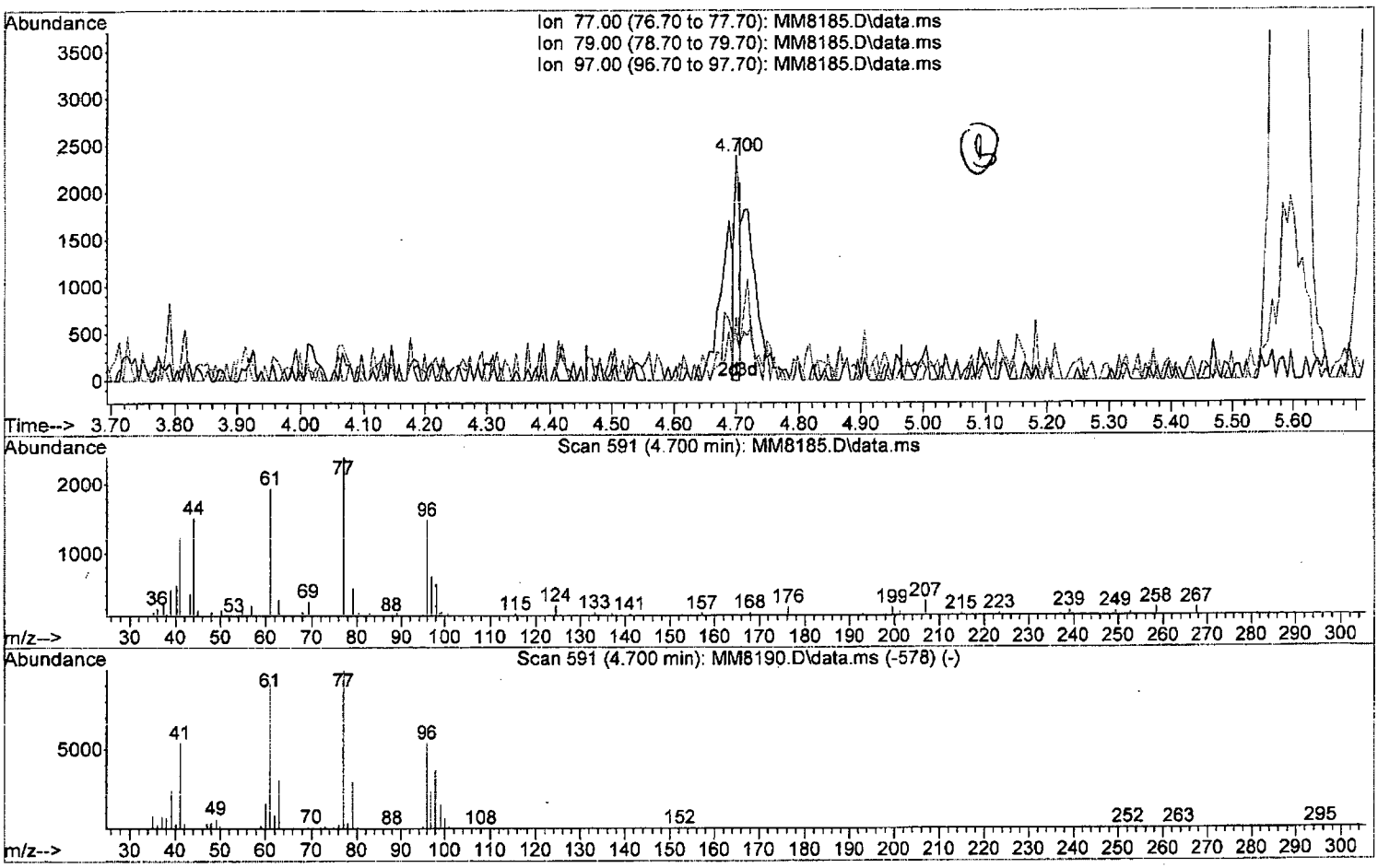
Ion	Exp%	Act%
53.00	100	100
52.00	81.00	50.58#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:41:18 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(33) 2,2-Dichloropropane

4.700min (-0.006) 0.15 ppb

response 1474

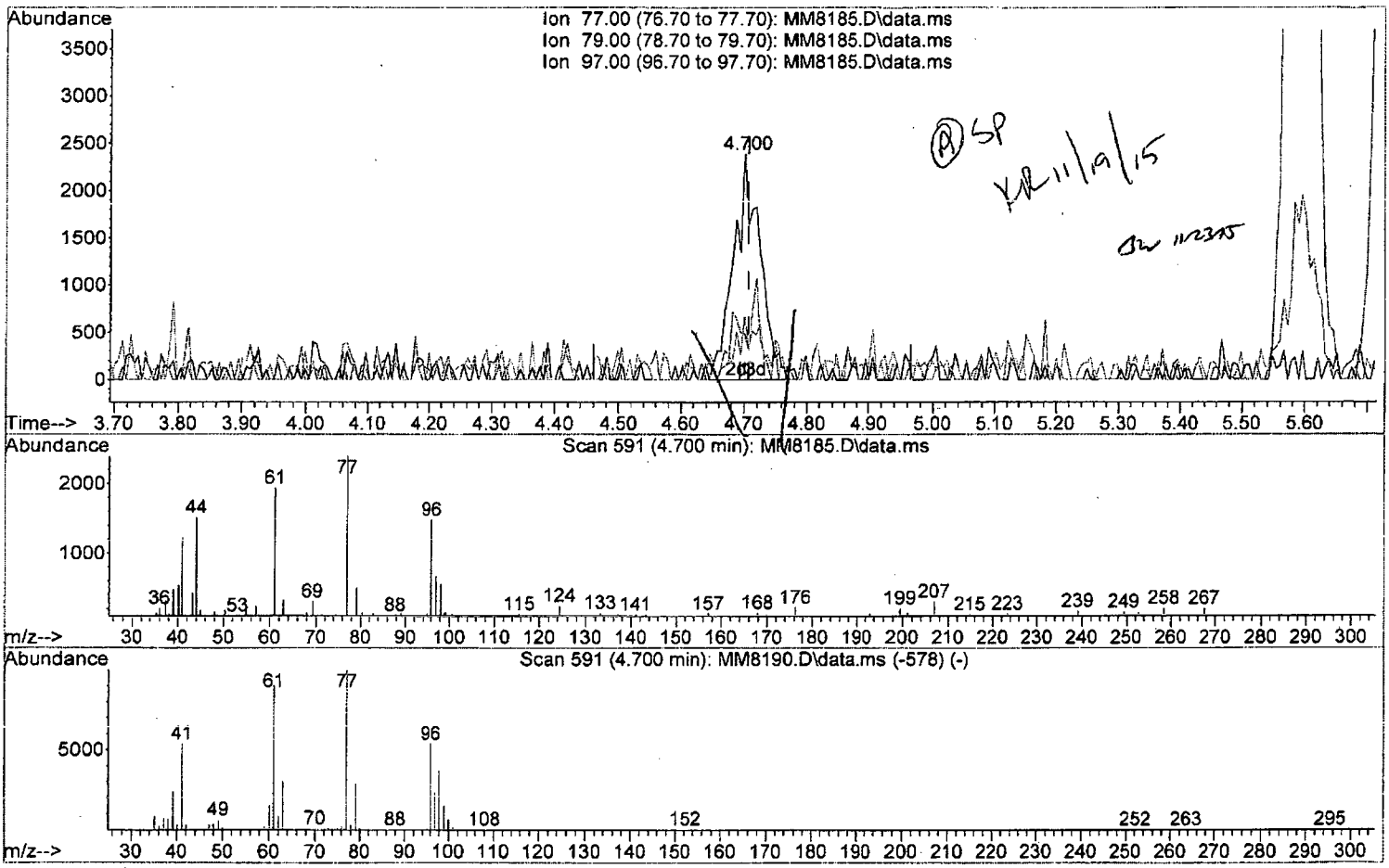
Ion	Exp%	Act%
77.00	100	100
79.00	28.80	20.85
97.00	24.00	27.68
0.00	0.00	0.00

W111815.M Thu Nov 19 09:41:56 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(33) 2,2-Dichloropropane

4.700min (-0.006) 0.70 ppb m

response 6855

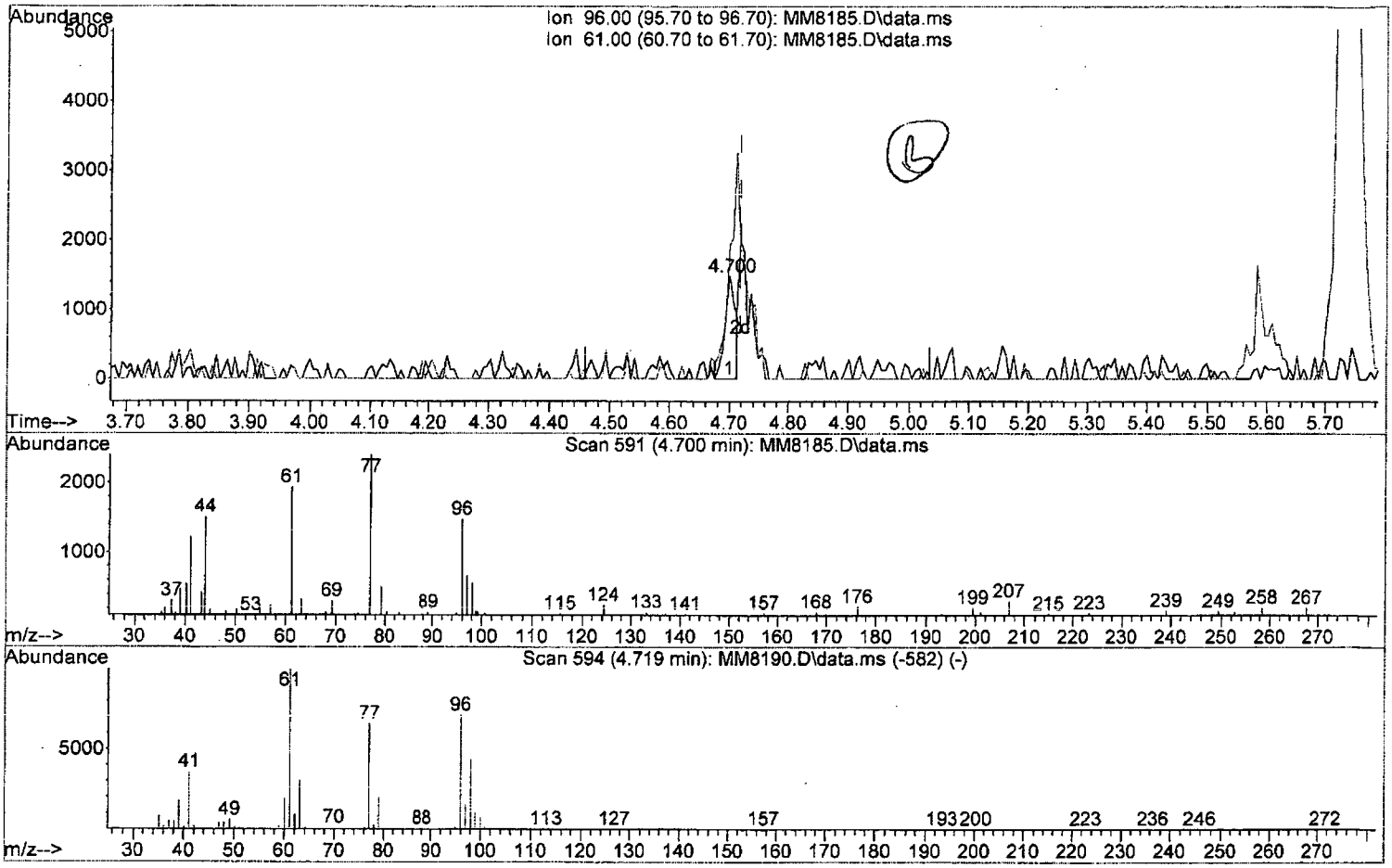
Ion	Exp%	Act%
77.00	100	100
79.00	28.80	20.85
97.00	24.00	27.68
0.00	0.00	0.00

W111815.M Thu Nov 19 09:42:09 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.700min (-0.019) 0.24 ppb

response 1837

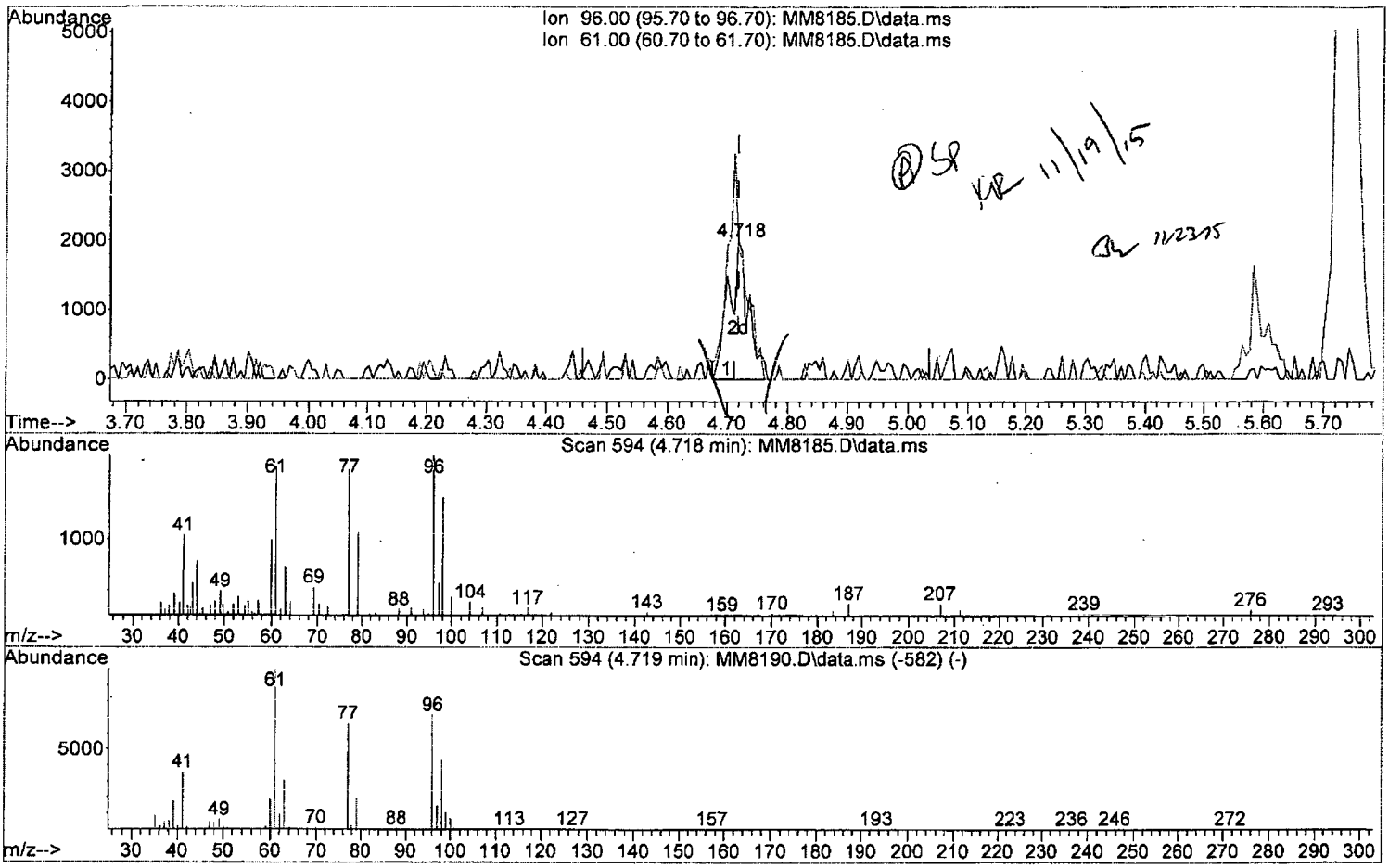
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	130.87
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:42:23 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.718min (-0.000) 0.59 ppb m

response 4520

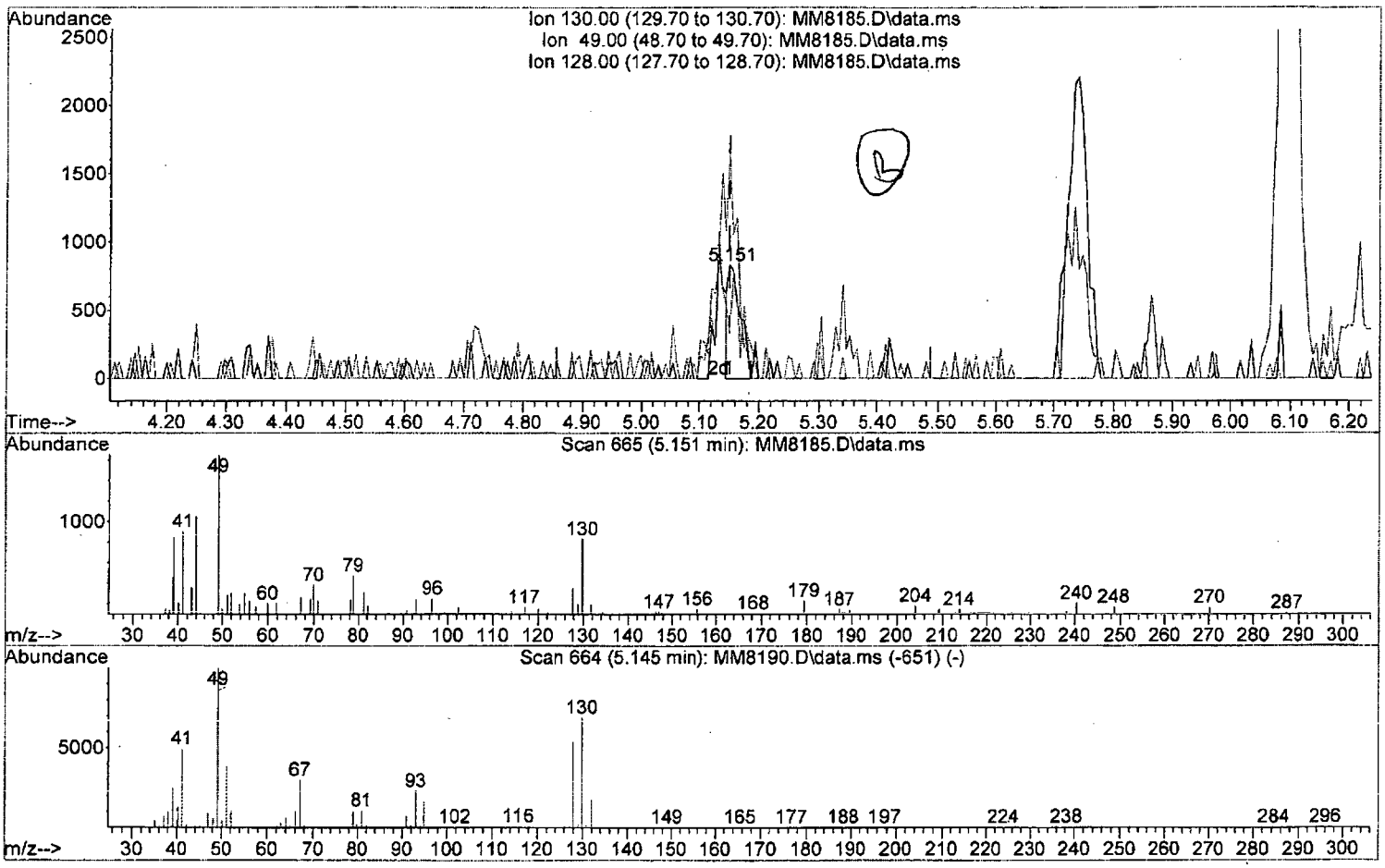
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	93.31#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:42:31 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(37) Bromochloromethane

5.151min (-0.000) 0.30 ppb

response 1181

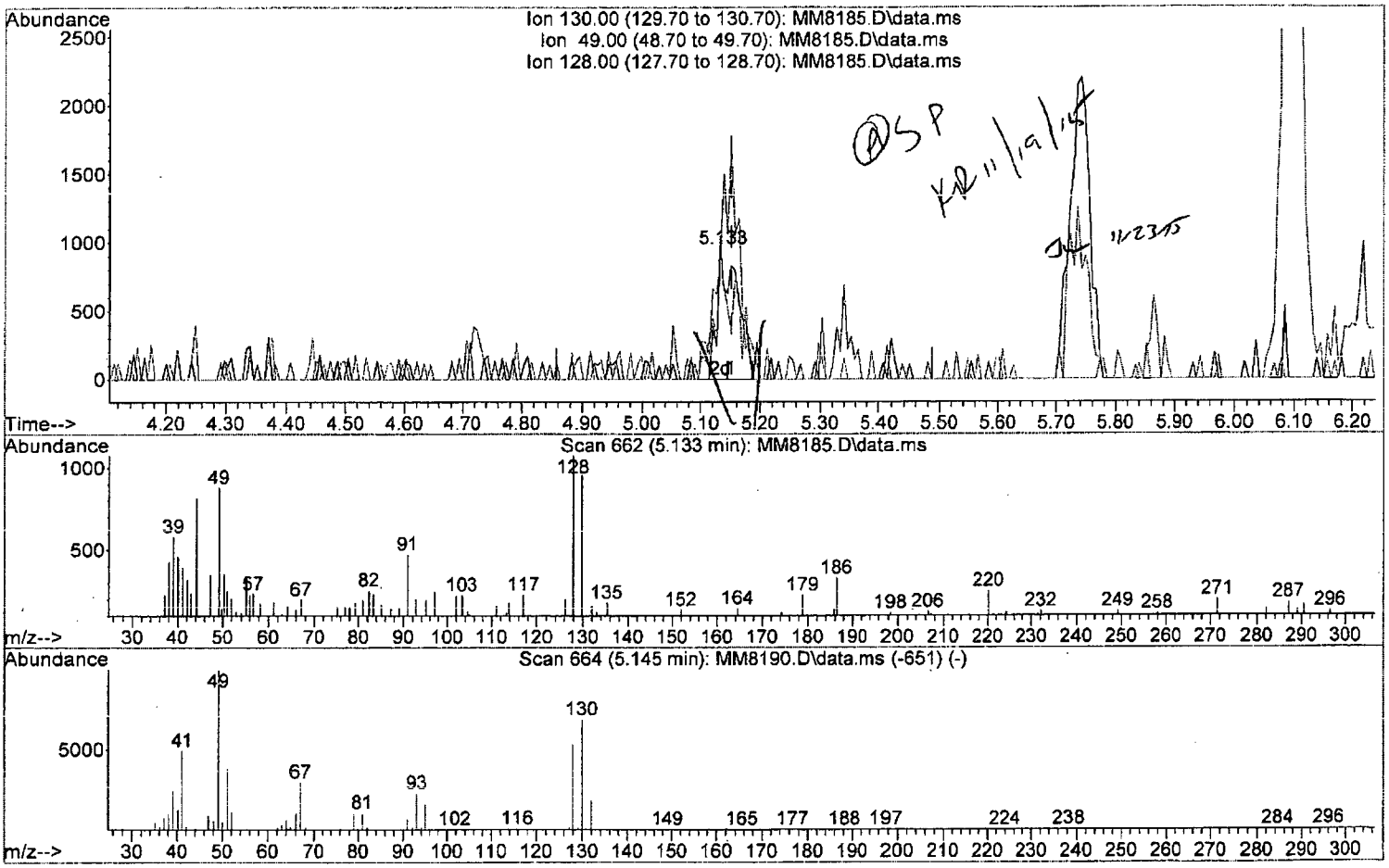
Ion	Exp%	Act%
130.00	100	100
49.00	145.50	199.15#
128.00	77.50	41.91#
0.00	0.00	0.00

W111815.M Thu Nov 19 09:42:49 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(37) Bromochloromethane

5.133min (-0.019) 0.56 ppb m

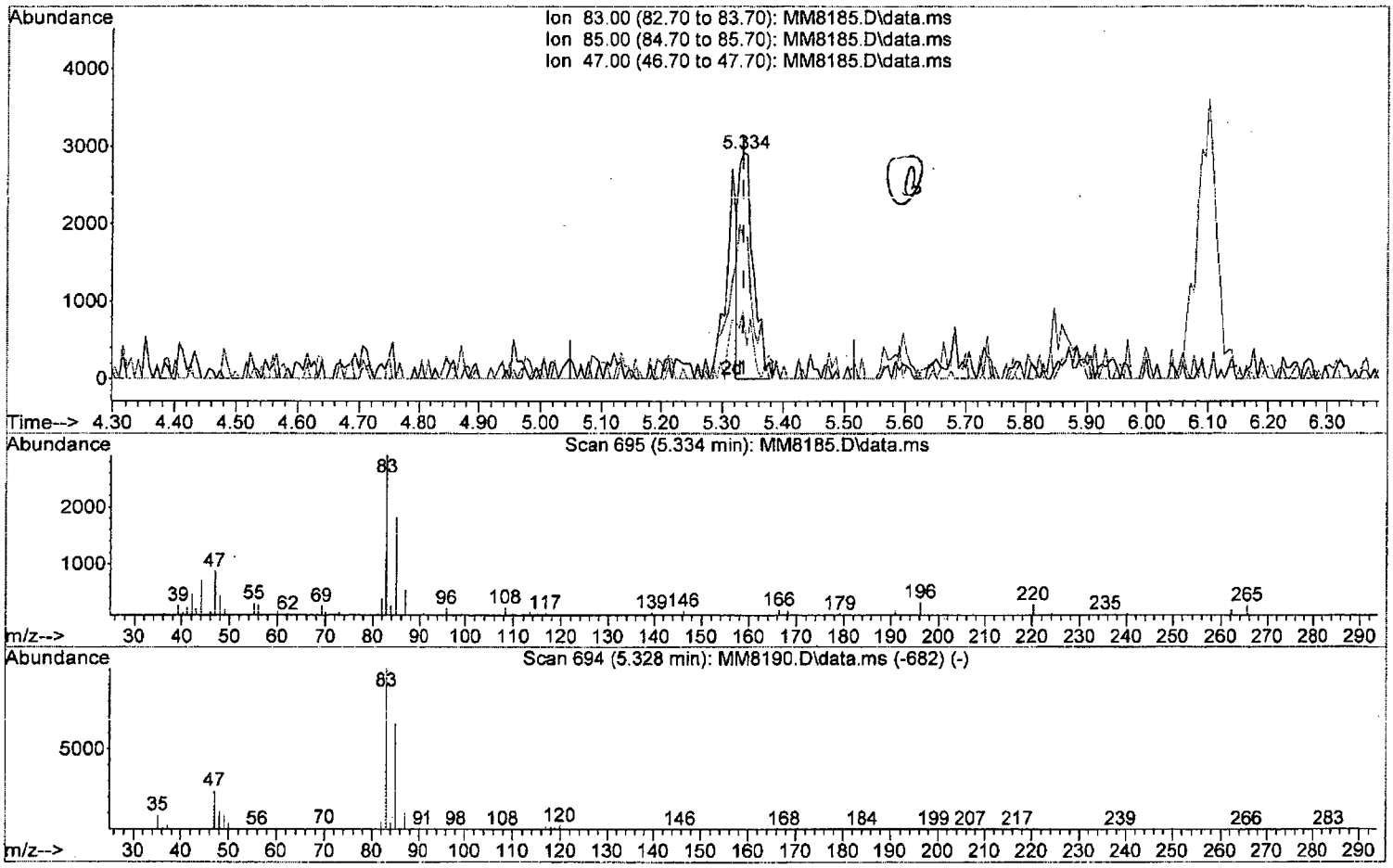
response 2233

Ion	Exp%	Act%
130.00	100	100
49.00	145.50	91.94#
128.00	77.50	112.15#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(40) Chloroform (P)

5.334min (-0.000) 0.41 ppb

response 4893

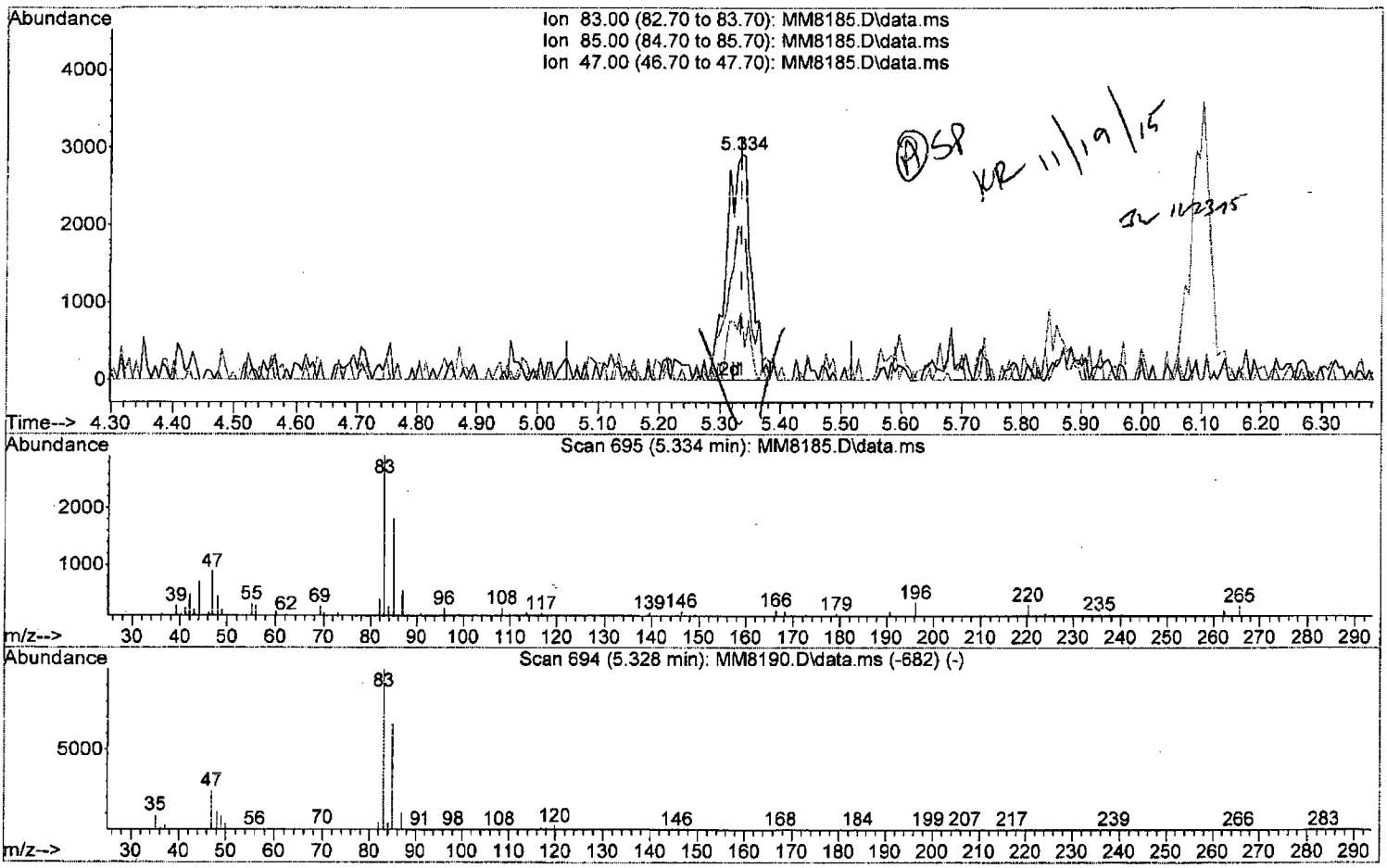
Ion	Exp%	Act%
83.00	100	100
85.00	66.10	62.14
47.00	23.90	29.97
0.00	0.00	0.00

W111815.M Thu Nov 19 09:45:57 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(40) Chloroform (P)

5.334min (-0.000) 0.68 ppb m

response 8066

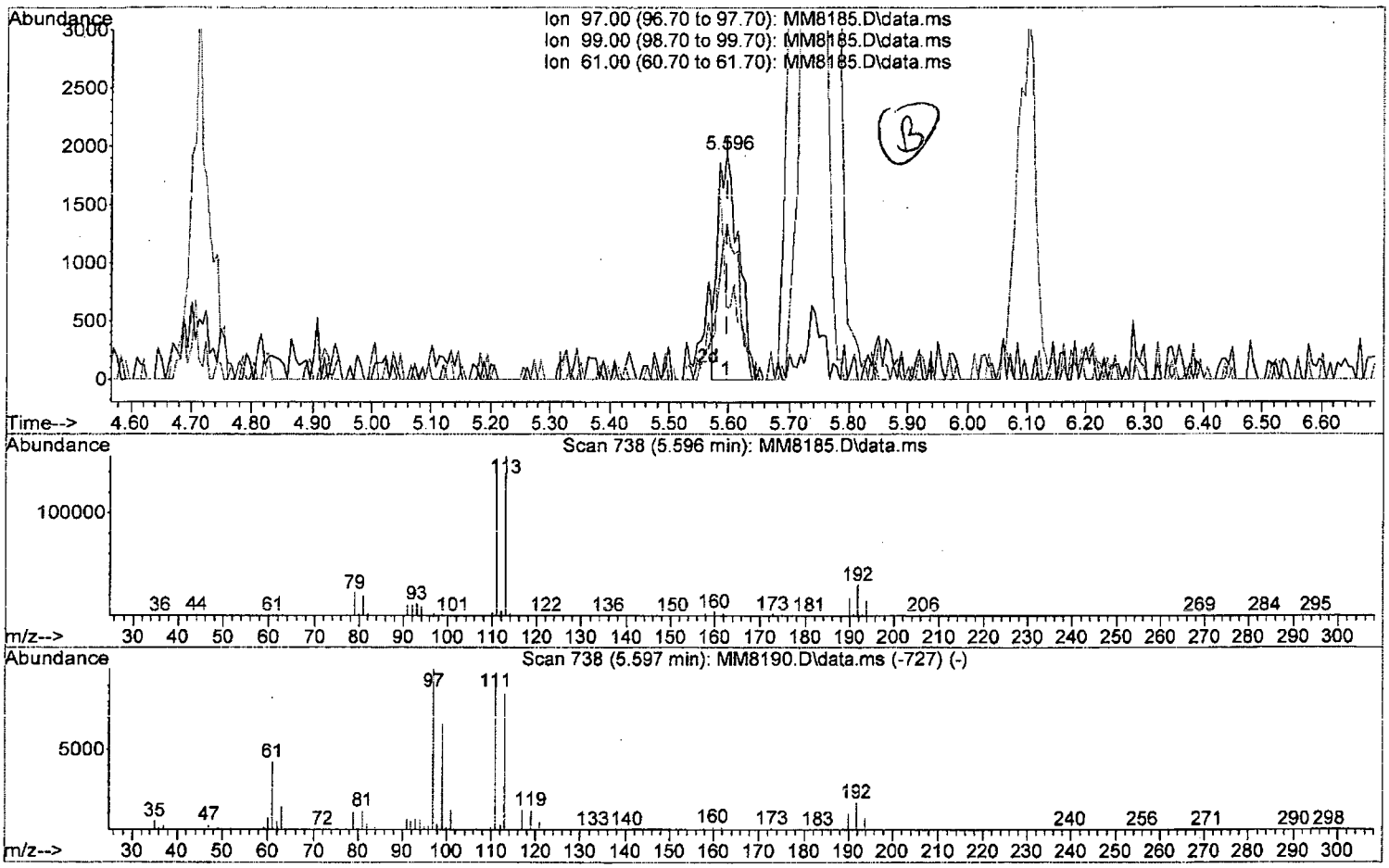
Ion	Exp%	Act%
83.00	100	100
85.00	66.10	62.14
47.00	23.90	29.97
0.00	0.00	0.00

W111815.M Thu Nov 19 09:46:08 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(41) 1,1,1-Trichloroethane (P)

5.596min (-0.000) 0.50 ppb

response 4638

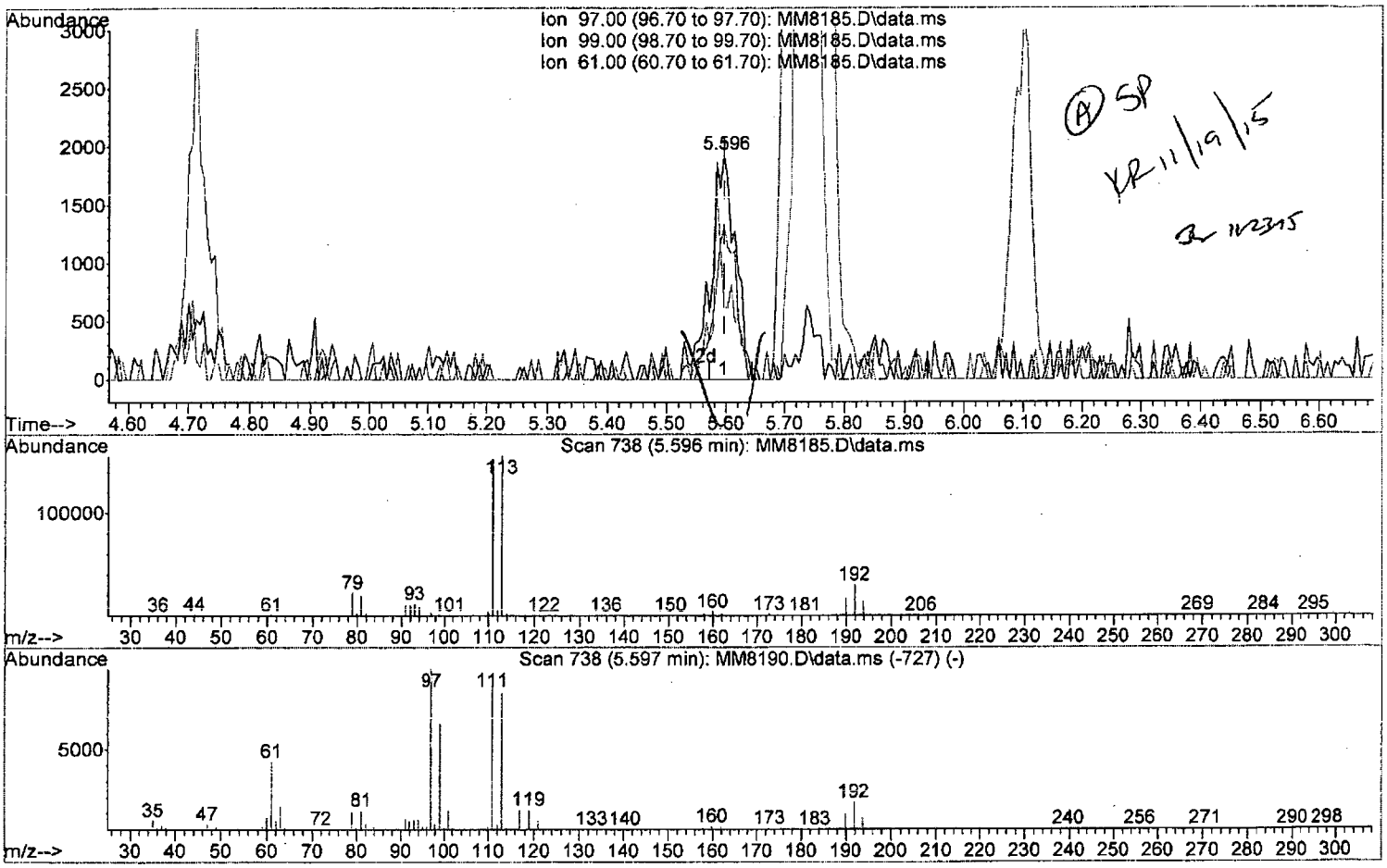
Ion	Exp%	Act%
97.00	100	100
99.00	65.60	68.66
61.00	42.20	32.16
0.00	0.00	0.00

W111815.M Thu Nov 19 09:47:02 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(41) 1,1,1-Trichloroethane (P)

5.596min (-0.000) 0.59 ppb m

response 5536

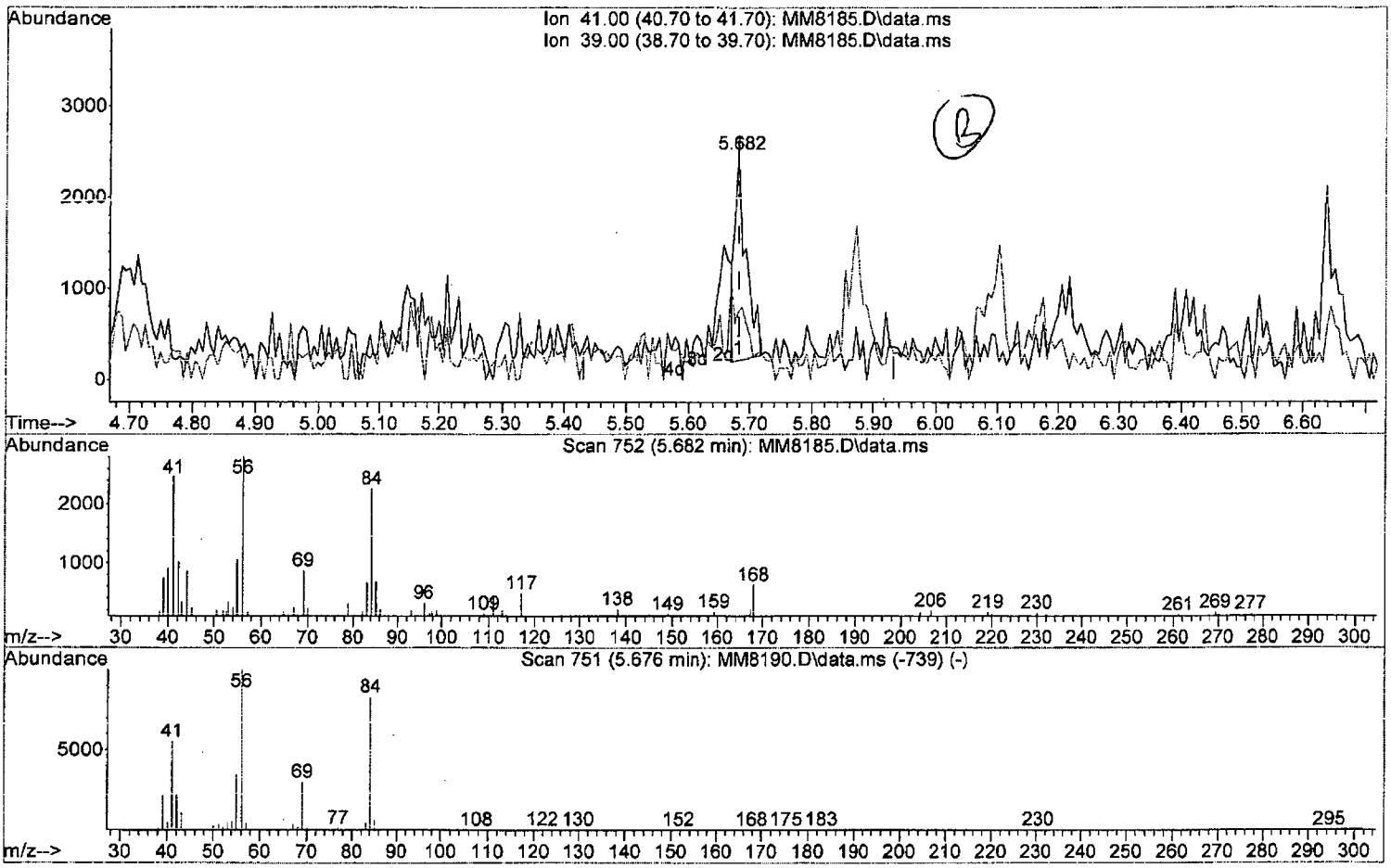
Ion	Exp%	Act%
97.00	100	100
99.00	65.60	68.66
61.00	42.20	32.16
0.00	0.00	0.00

W111815.M Thu Nov 19 09:47:17 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(44) Cyclohexane (P)

5.682min (-0.000) 0.41 ppb

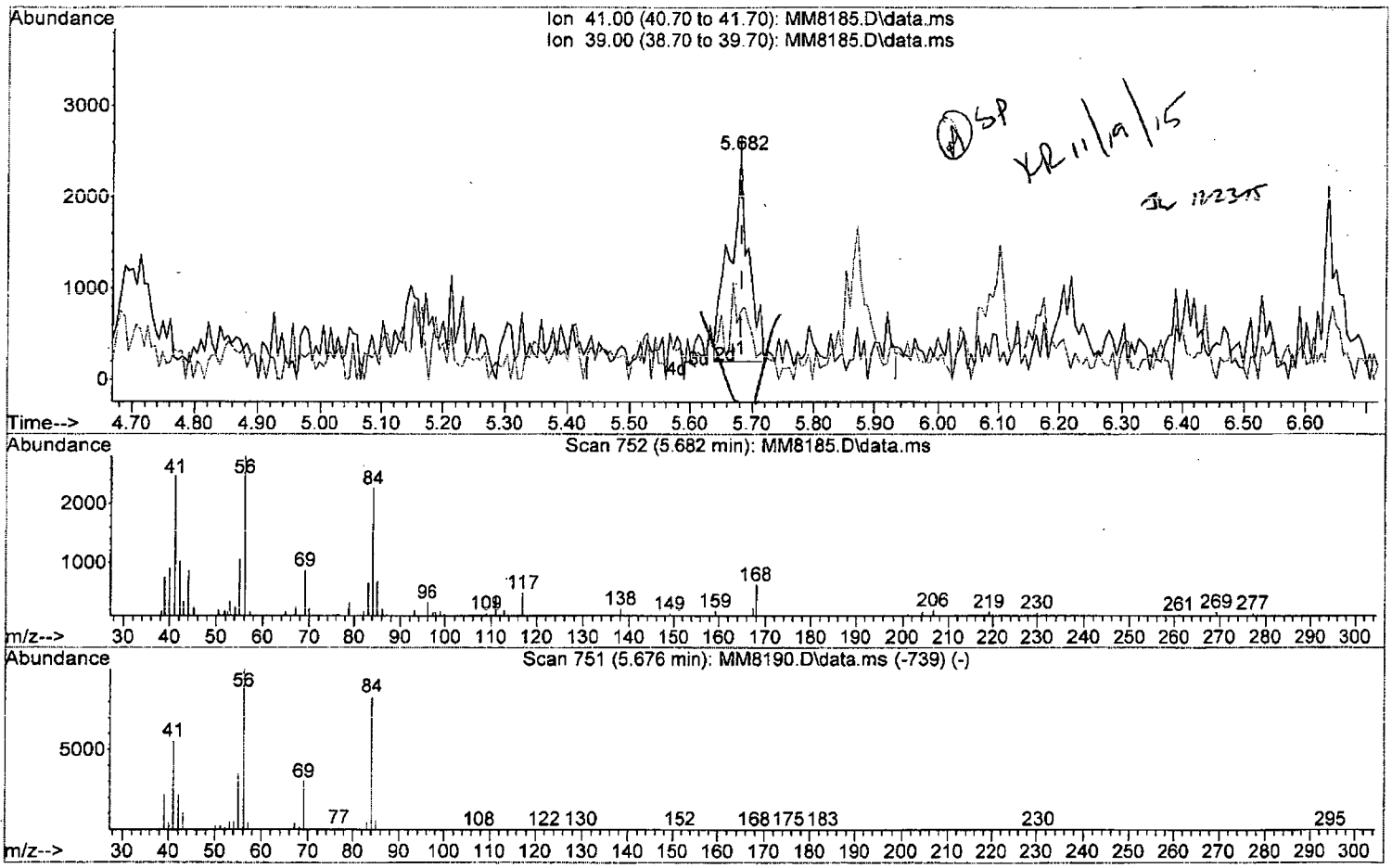
response 2859

Ion	Exp%	Act%
41.00	100	100
39.00	40.00	30.10
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:47:31 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(44) Cyclohexane (P)

5.682min (-0.000) 0.69 ppb m

response 4775

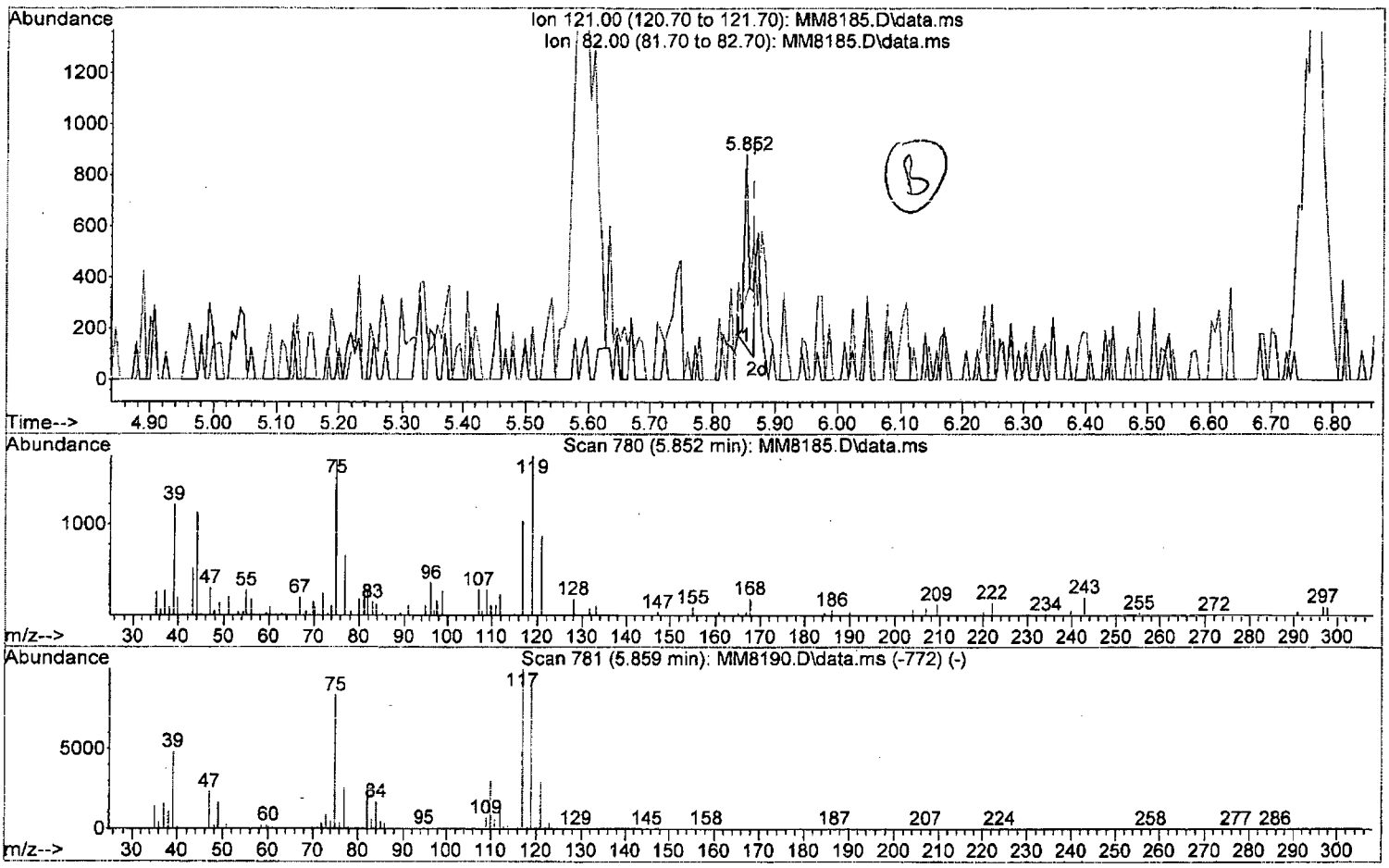
Ion	Exp%	Act%
41.00	100	100
39.00	40.00	30.10
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:47:49 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(46) Carbontetrachloride (P)

5.852min (-0.012) 0.19 ppb

response 459

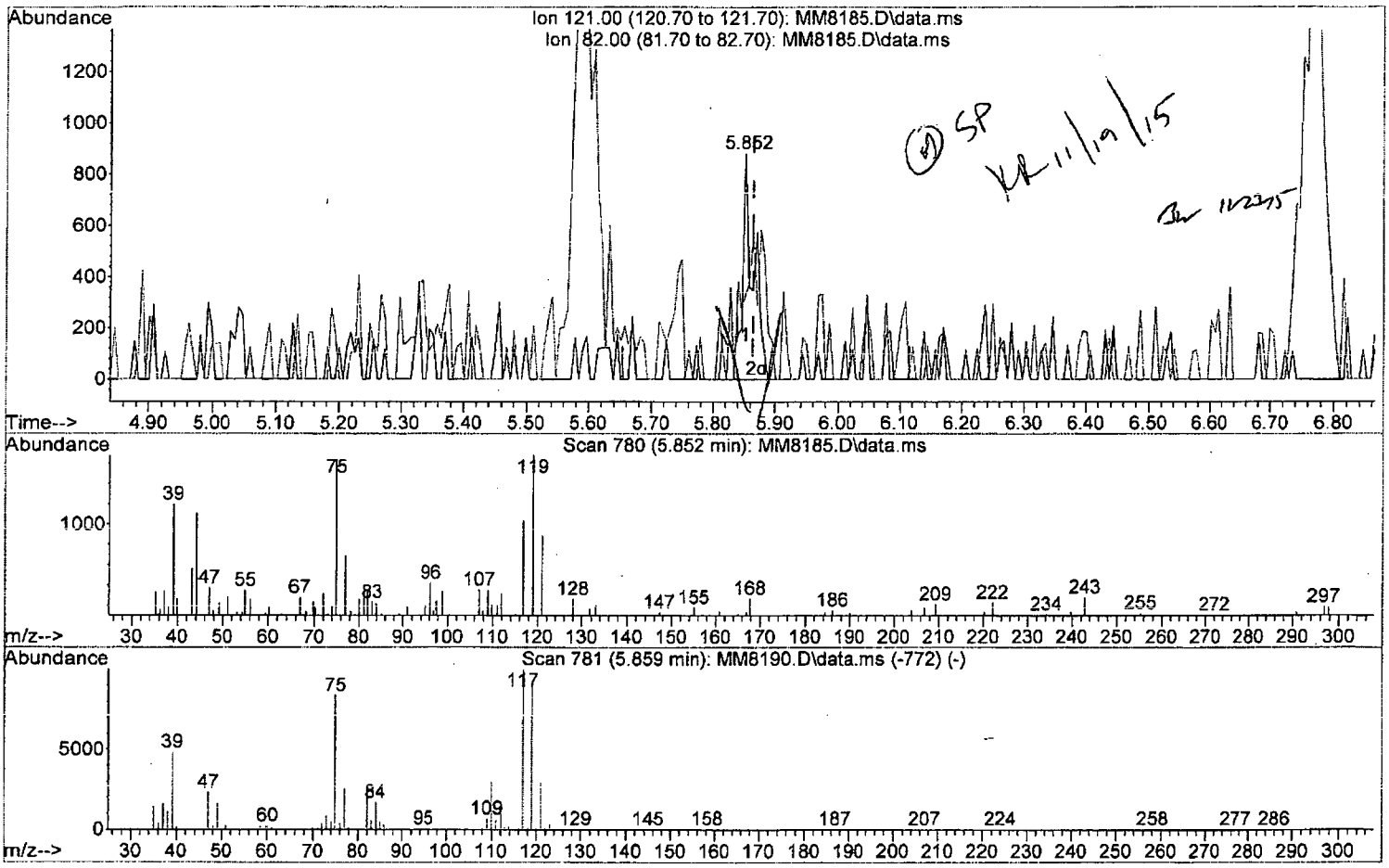
Ion	Exp%	Act%
121.00	100	100
82.00	85.40	37.00#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:48:07 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(46) Carbontetrachloride (P)

5.852min (-0.012) 0.52 ppb m

response 1285

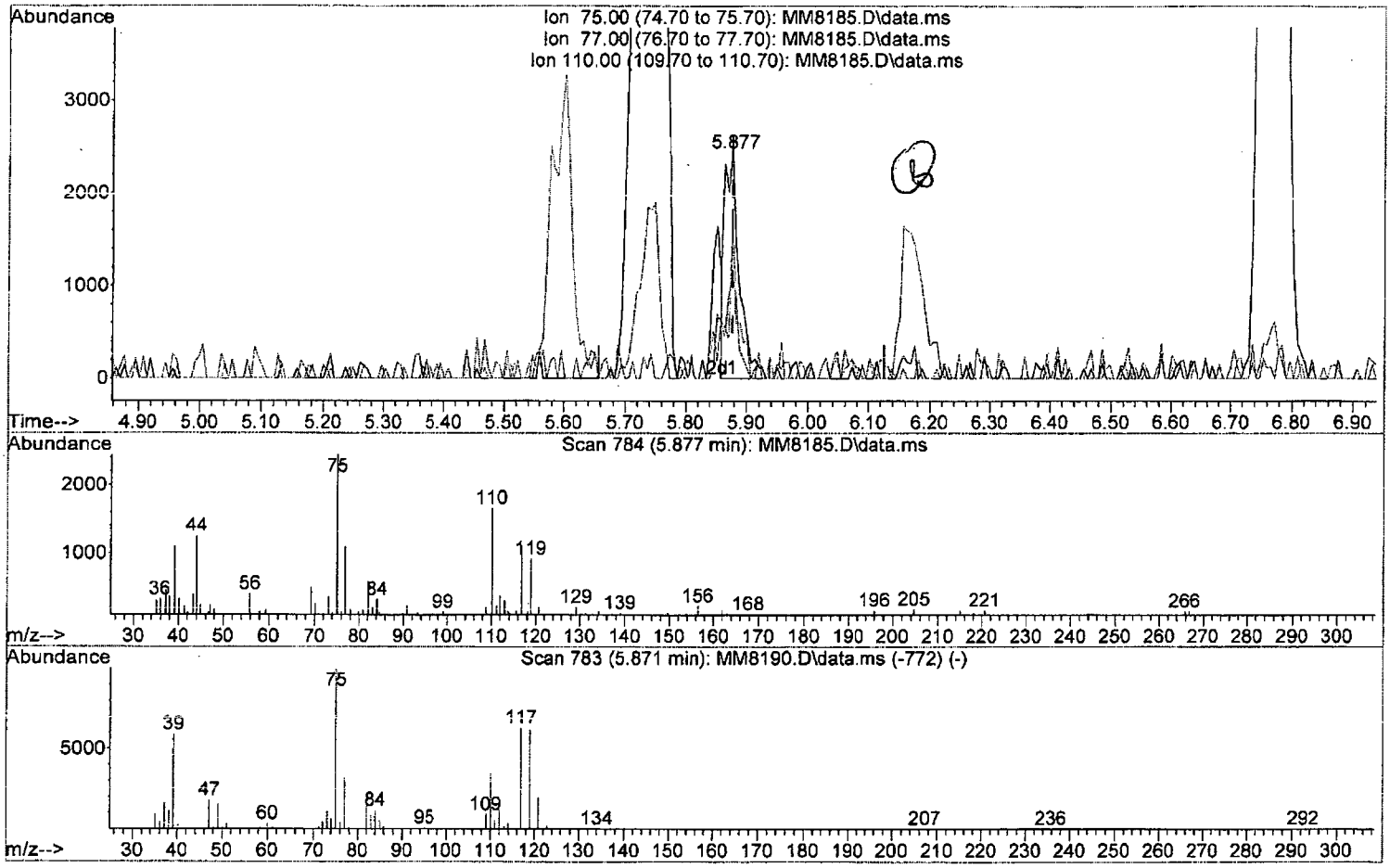
Ion	Exp%	Act%
121.00	100	100
82.00	85.40	37.00#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:48:37 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(47) 1,1-Dichloropropene

5.877min (-0.000) 0.44 ppb

response 3996

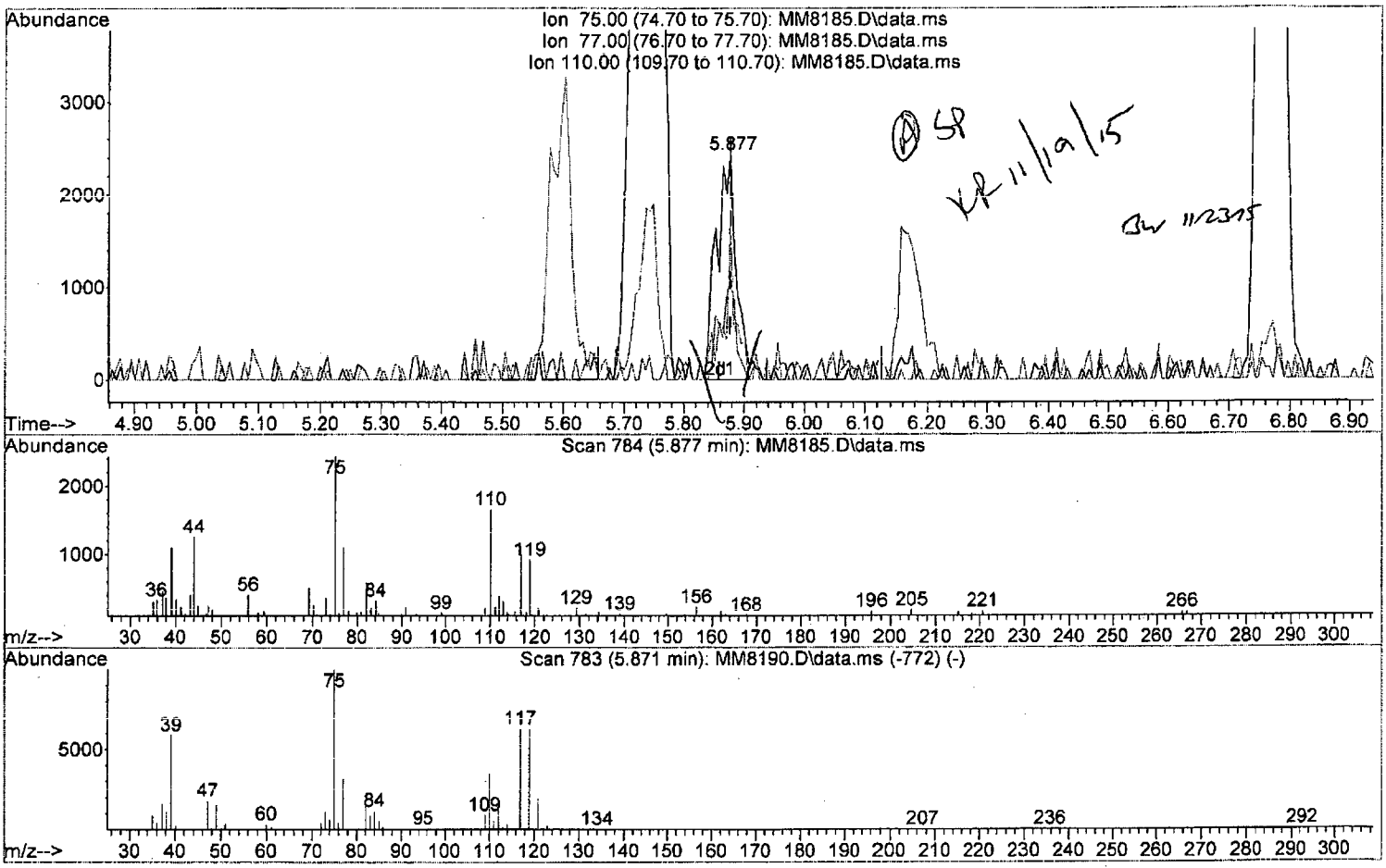
Ion	Exp%	Act%
75.00	100	100
77.00	31.20	44.85
110.00	35.00	67.97#
0.00	0.00	0.00

W111815.M Thu Nov 19 09:48:47 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(47) 1,1-Dichloropropene

5.877min (-0.000) 0.61 ppb m

response 5477

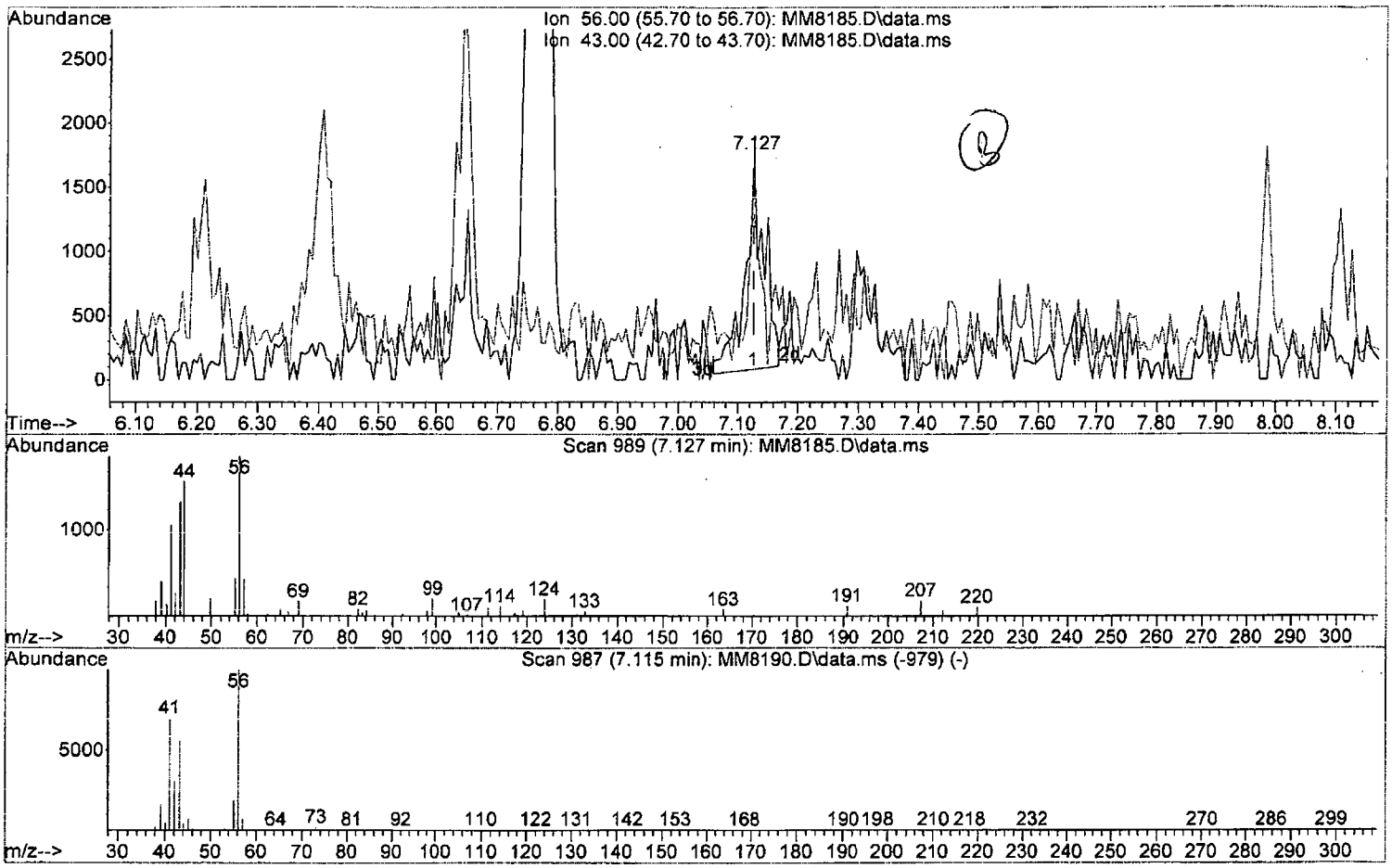
Ion	Exp%	Act%
75.00	100	100
77.00	31.20	44.85
110.00	35.00	67.97#
0.00	0.00	0.00

W111815.M Thu Nov 19 09:49:03 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(53) 1-Butanol

7.127min (-0.000) 25.67 ppb

response 3757

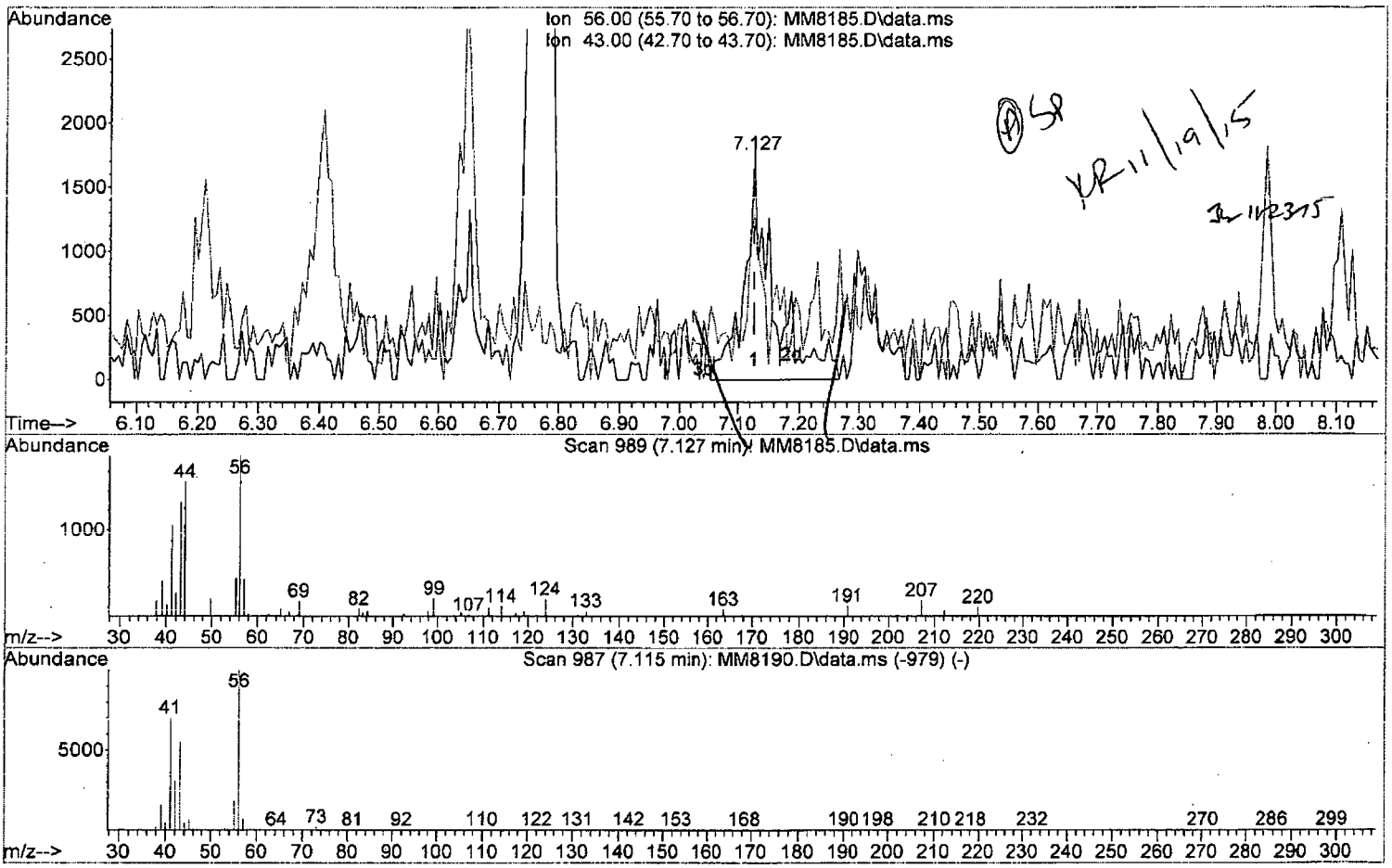
Ion	Exp%	Act%
56.00	100	100
43.00	54.90	51.21
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:49:40 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(53) 1-Butanol

7.127min (-0.000) 38.45 ppb m

response 5628

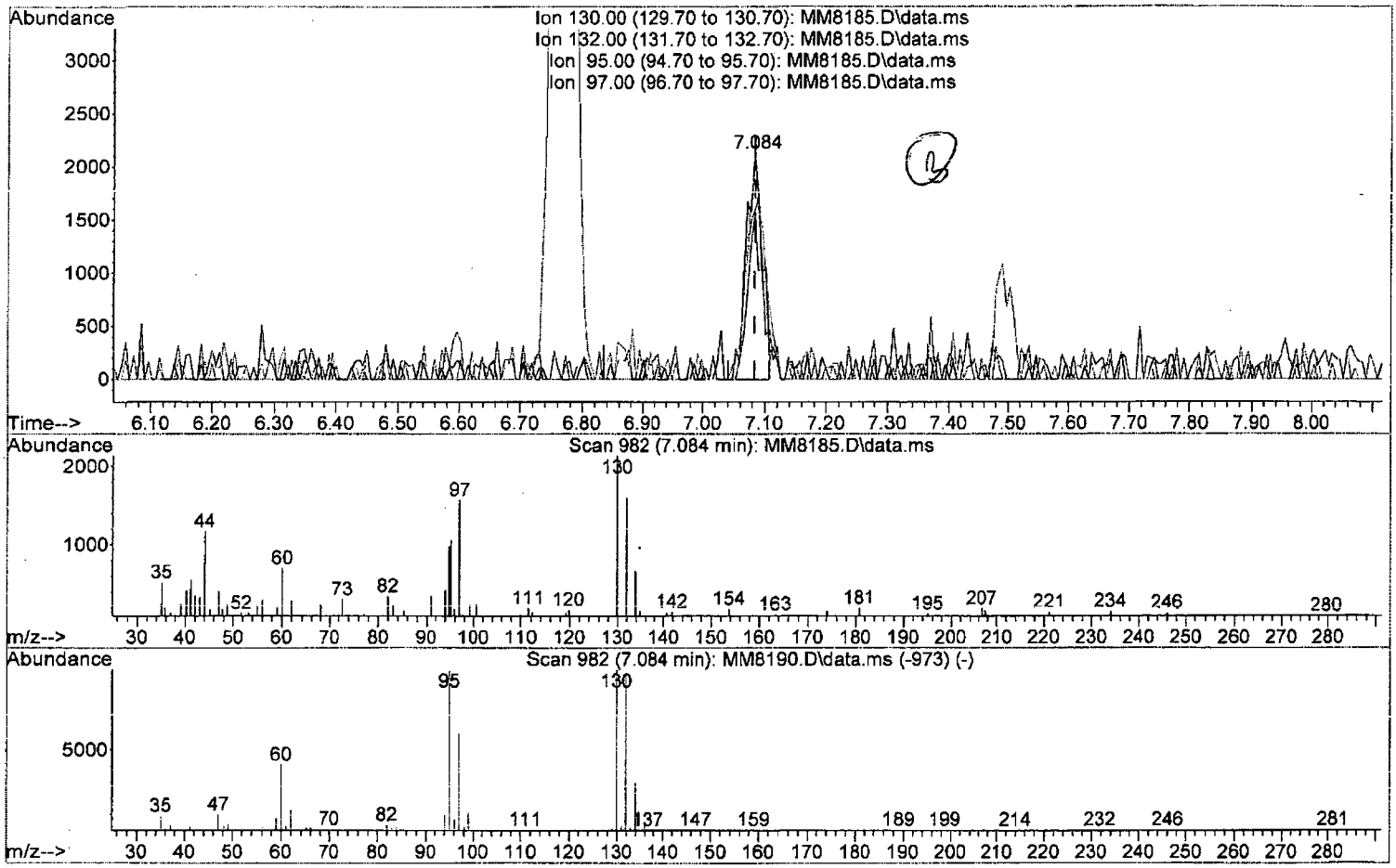
Ion	Exp%	Act%
56.00	100	100
43.00	54.90	34.19#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:49:57 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(54) Trichloroethene (P)

7.084min (-0.000) 0.55 ppb

response 3932

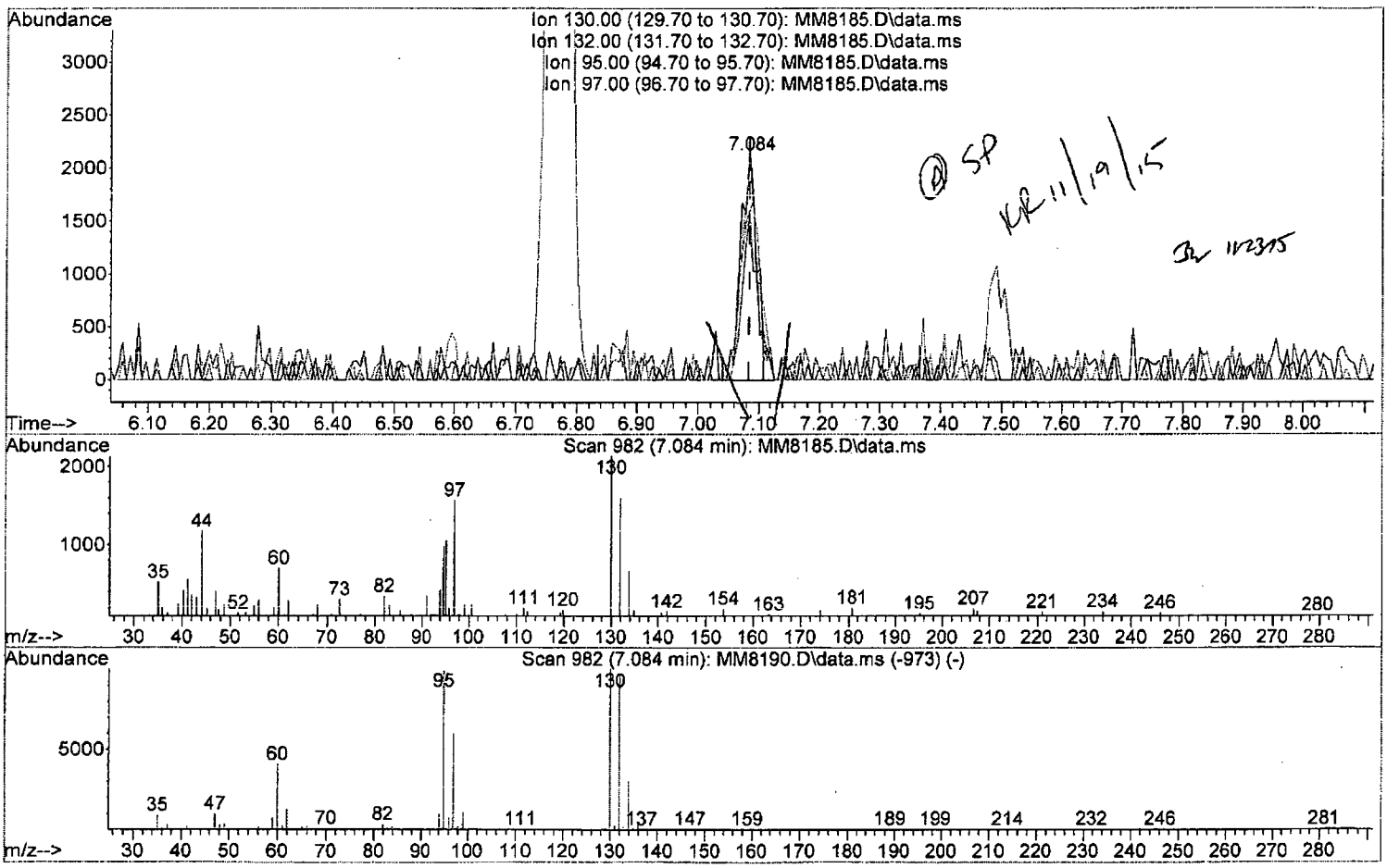
Ion	Exp%	Act%
130.00	100	100
132.00	97.40	74.85#
95.00	99.20	95.44
97.00	60.30	78.51

W111815.M Thu Nov 19 09:50:10 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(54) Trichloroethene (P)

7.084min (-0.000) 0.58 ppb m

response 4100

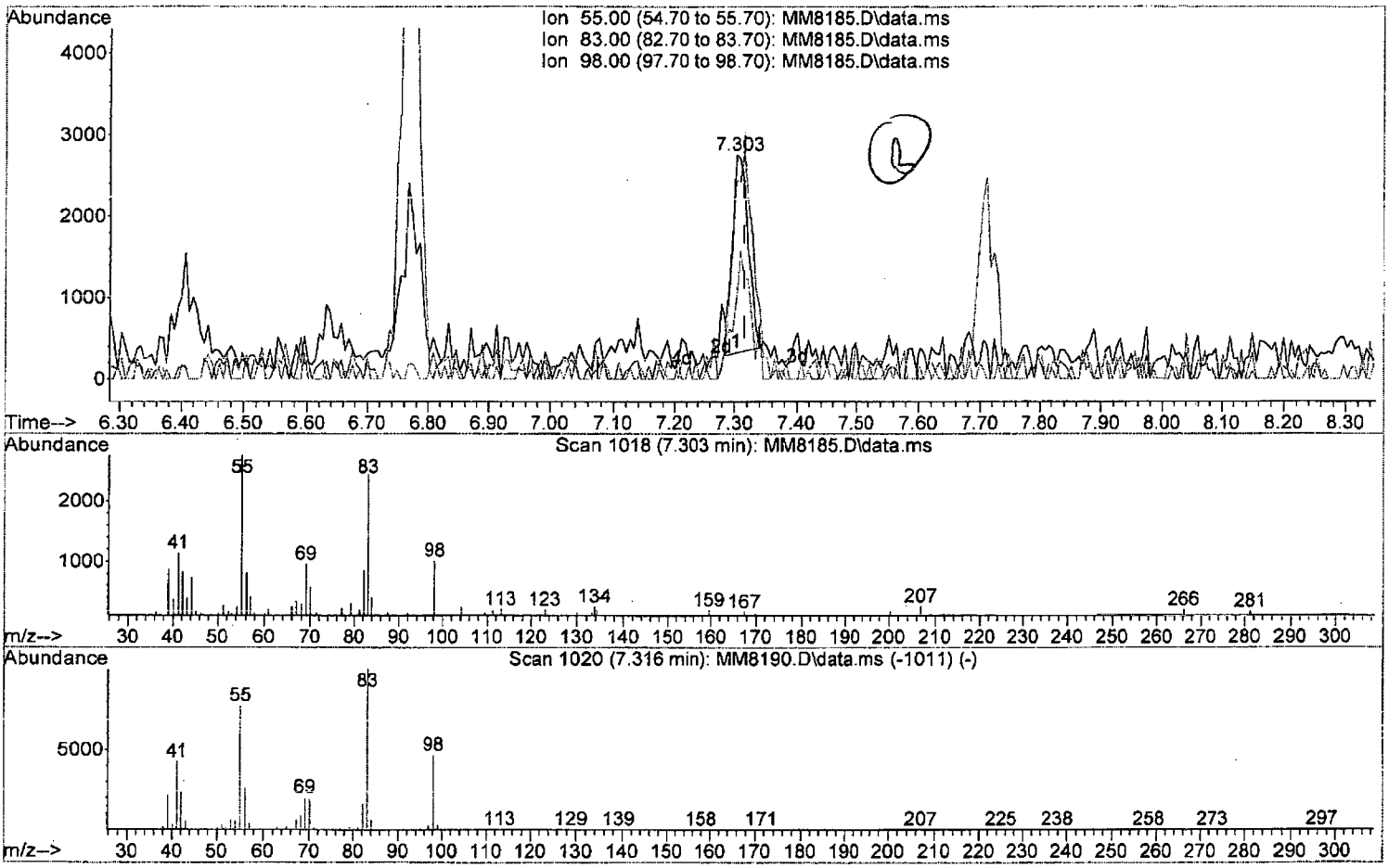
Ion	Exp%	Act%
130.00	100	100
132.00	97.40	74.85#
95.00	99.20	49.65#
97.00	60.30	73.53

W111815.M Thu Nov 19 09:50:17 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(55) Methylcyclohexane (P)

7.303min (-0.012) 0.50 ppb

response 4238

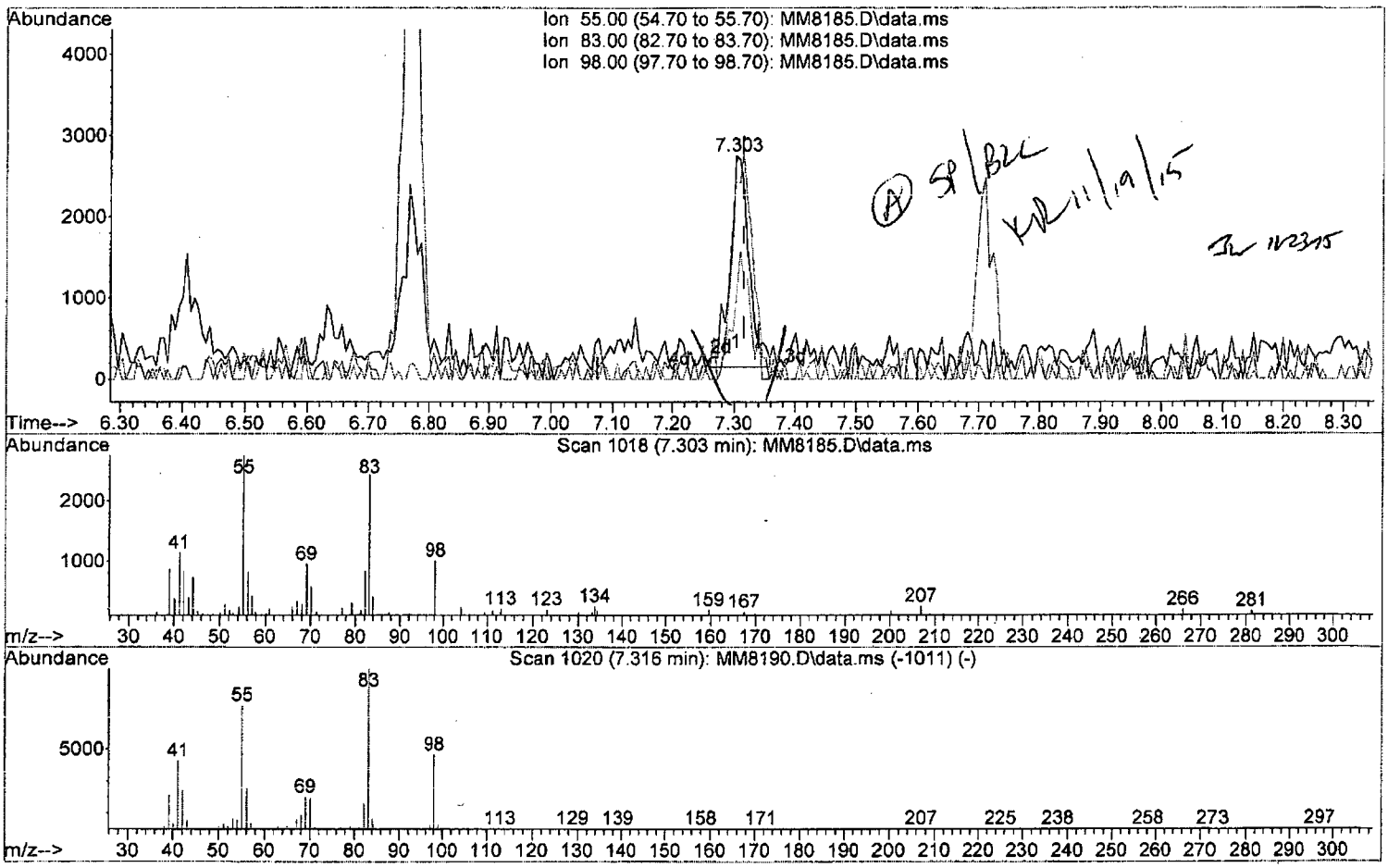
Ion	Exp%	Act%
55.00	100	100
83.00	129.00	88.48#
98.00	60.10	36.53#
0.00	0.00	0.00

W111815.M Thu Nov 19 09:50:39 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(55) Methylcyclohexane (P)

7.303min (-0.012) 0.67 ppb m

response 5652

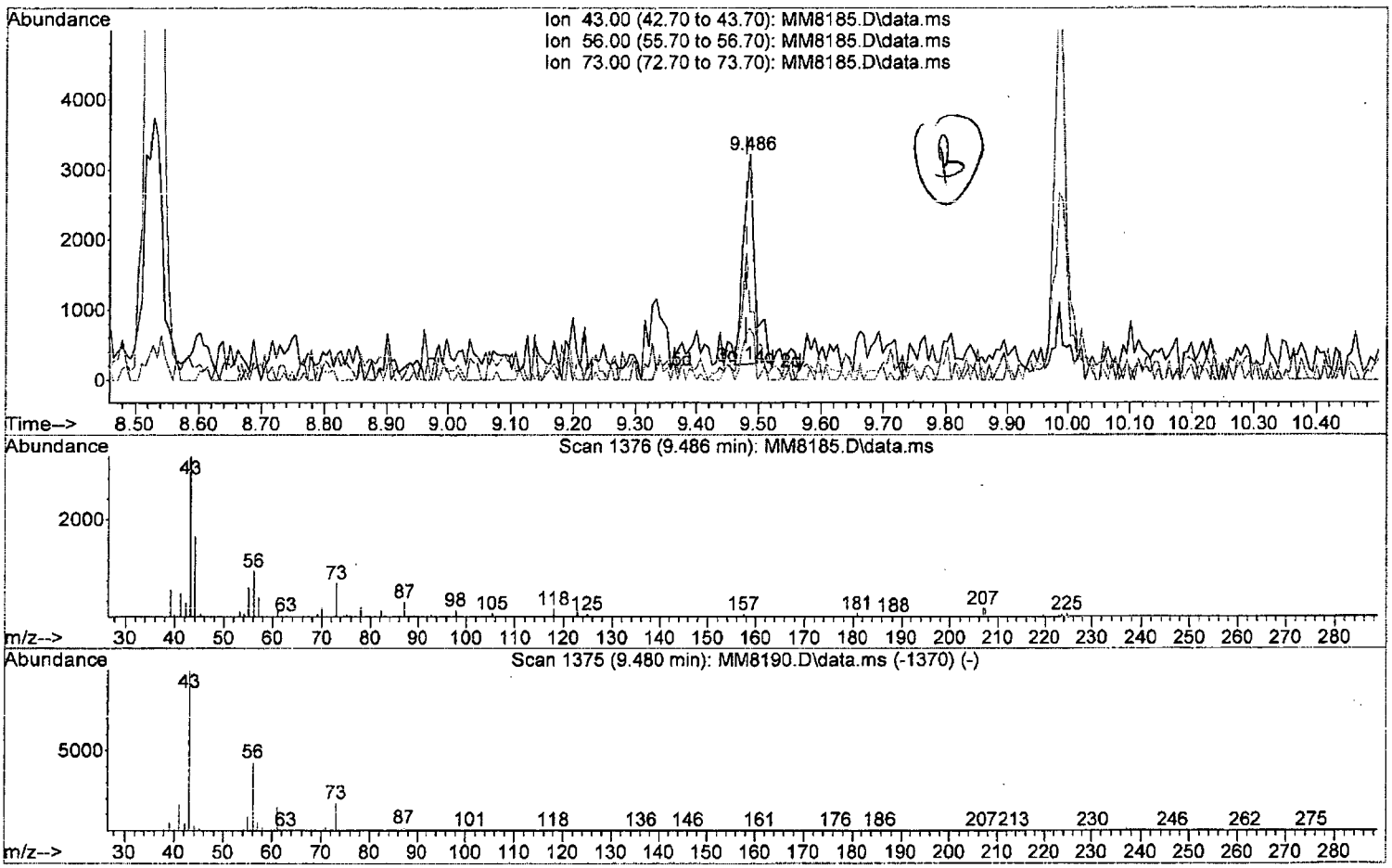
Ion	Exp%	Act%
55.00	100	100
83.00	129.00	88.48#
98.00	60.10	36.53#
0.00	0.00	0.00

W111815.M Thu Nov 19 09:50:51 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(76) N-Butyl Acetate

9.486min (+0.006) 0.41 ppb

response 3490

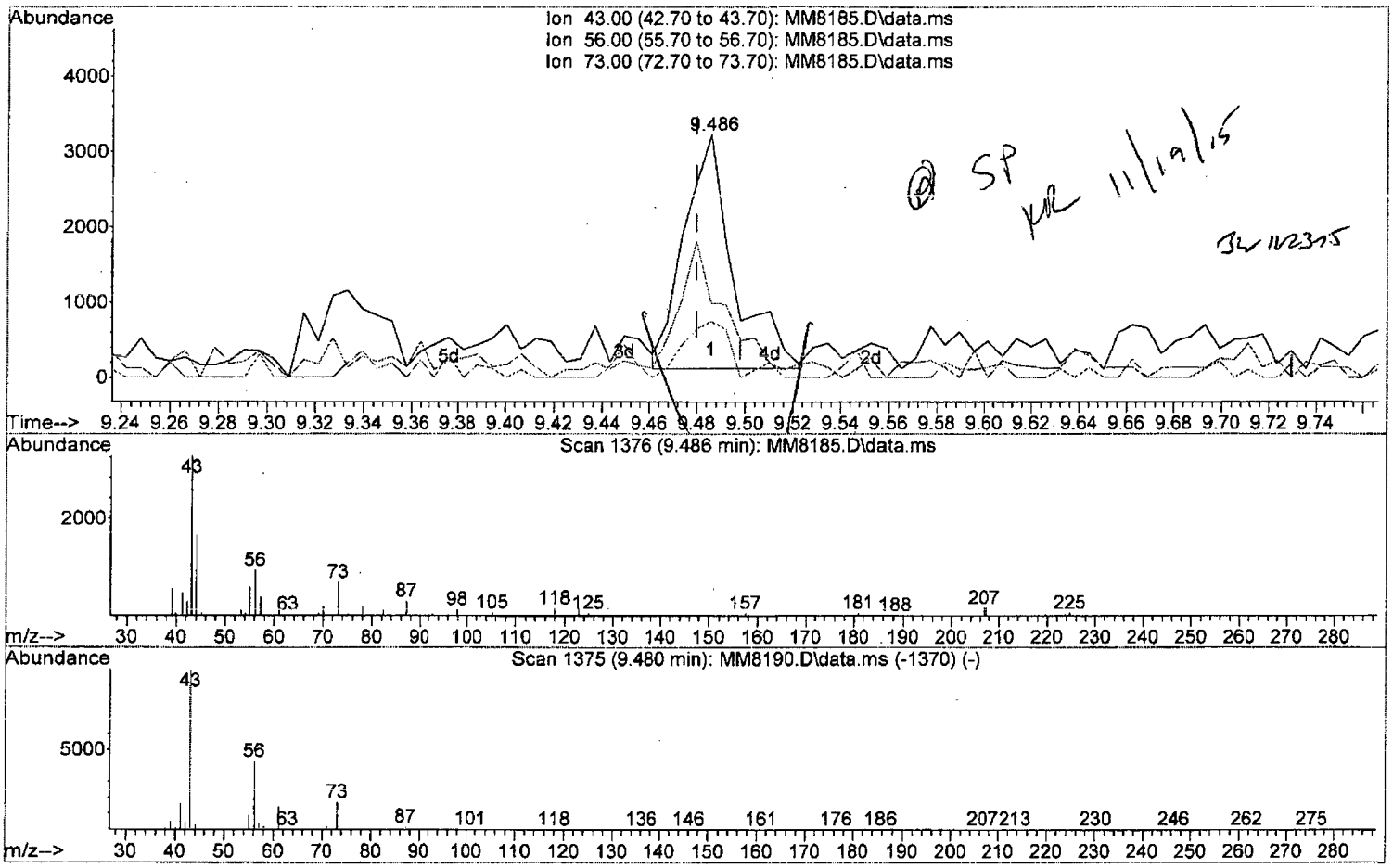
Ion	Exp%	Act%
43.00	100	100
56.00	42.50	30.55
73.00	17.20	23.19
0.00	0.00	0.00

W111815.M Thu Nov 19 09:51:49 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



@ SP 11/19/15
JL 11/23/15

TIC: MM8185.D\data.ms

(76) N-Butyl Acetate

9.486min (+0.006) 0.52 ppb m

response 4374

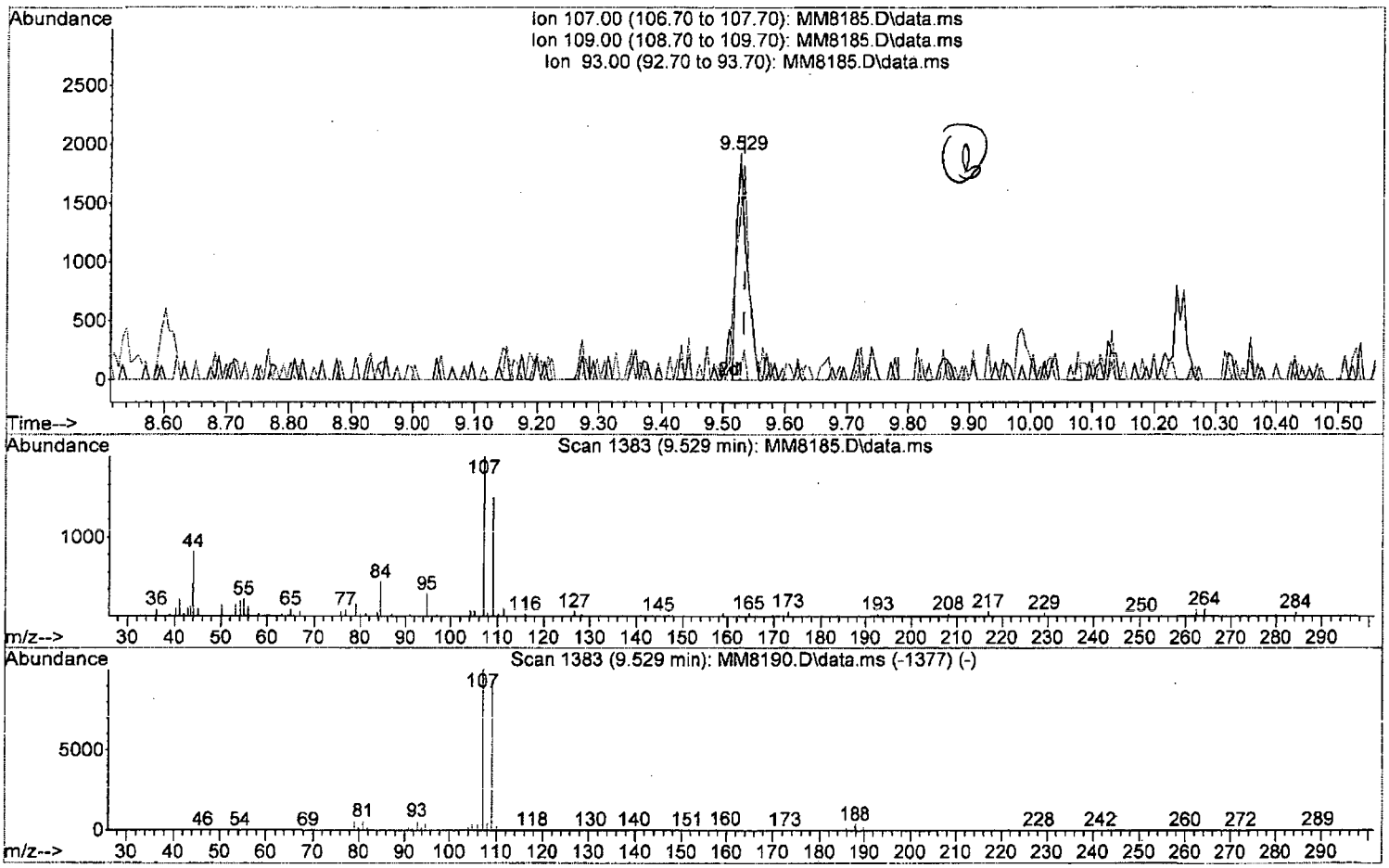
Ion	Exp%	Act%
43.00	100	100
56.00	42.50	30.55
73.00	17.20	23.19
0.00	0.00	0.00

W111815.M Thu Nov 19 09:52:30 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(77) 1,2-Dibromoethane (P)

9.529min (-0.006) 0.48 ppb

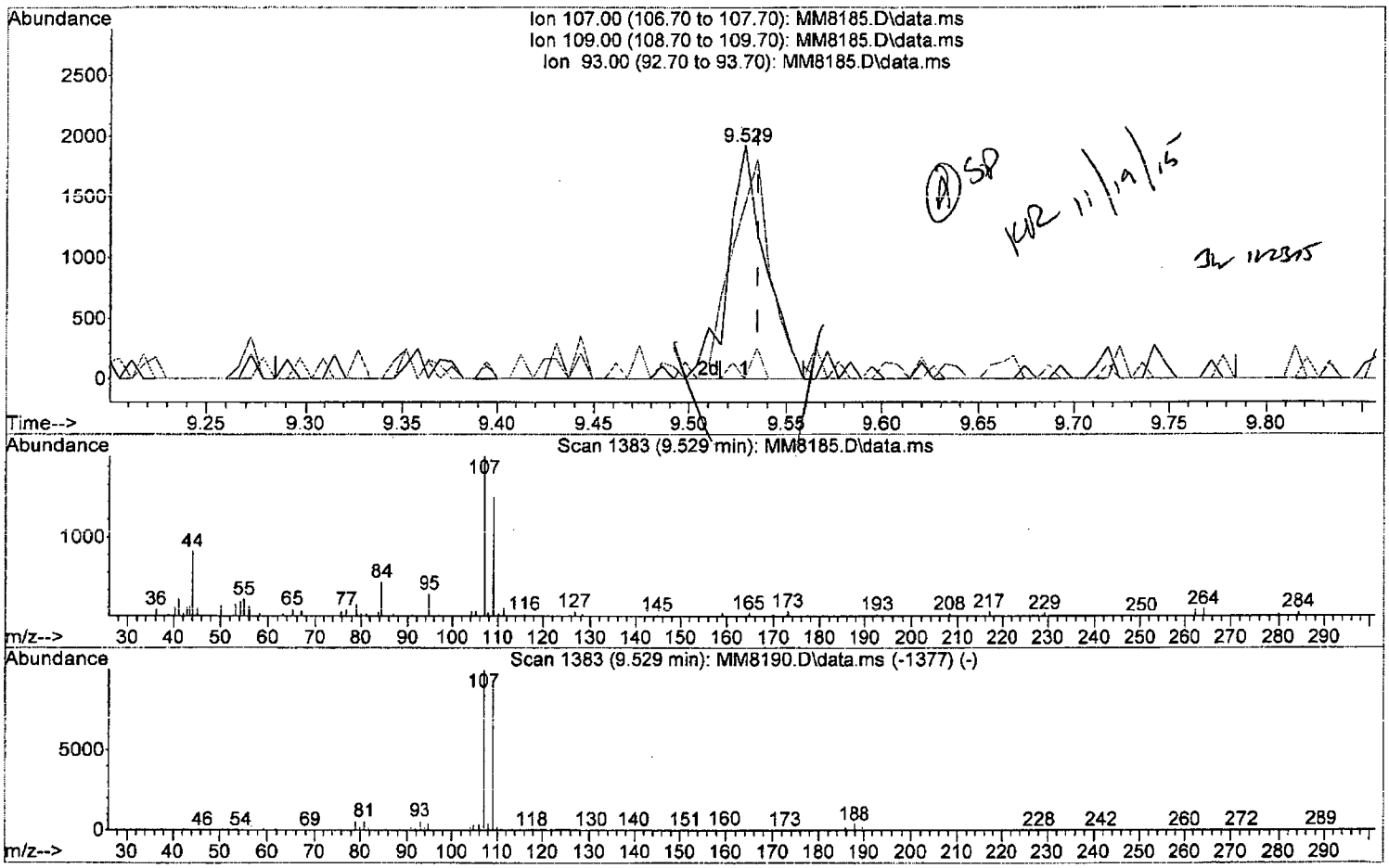
response 2238

Ion	Exp%	Act%
107.00	100	100
109.00	93.40	75.44
93.00	5.70	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:52:38 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(77) 1,2-Dibromoethane (P)

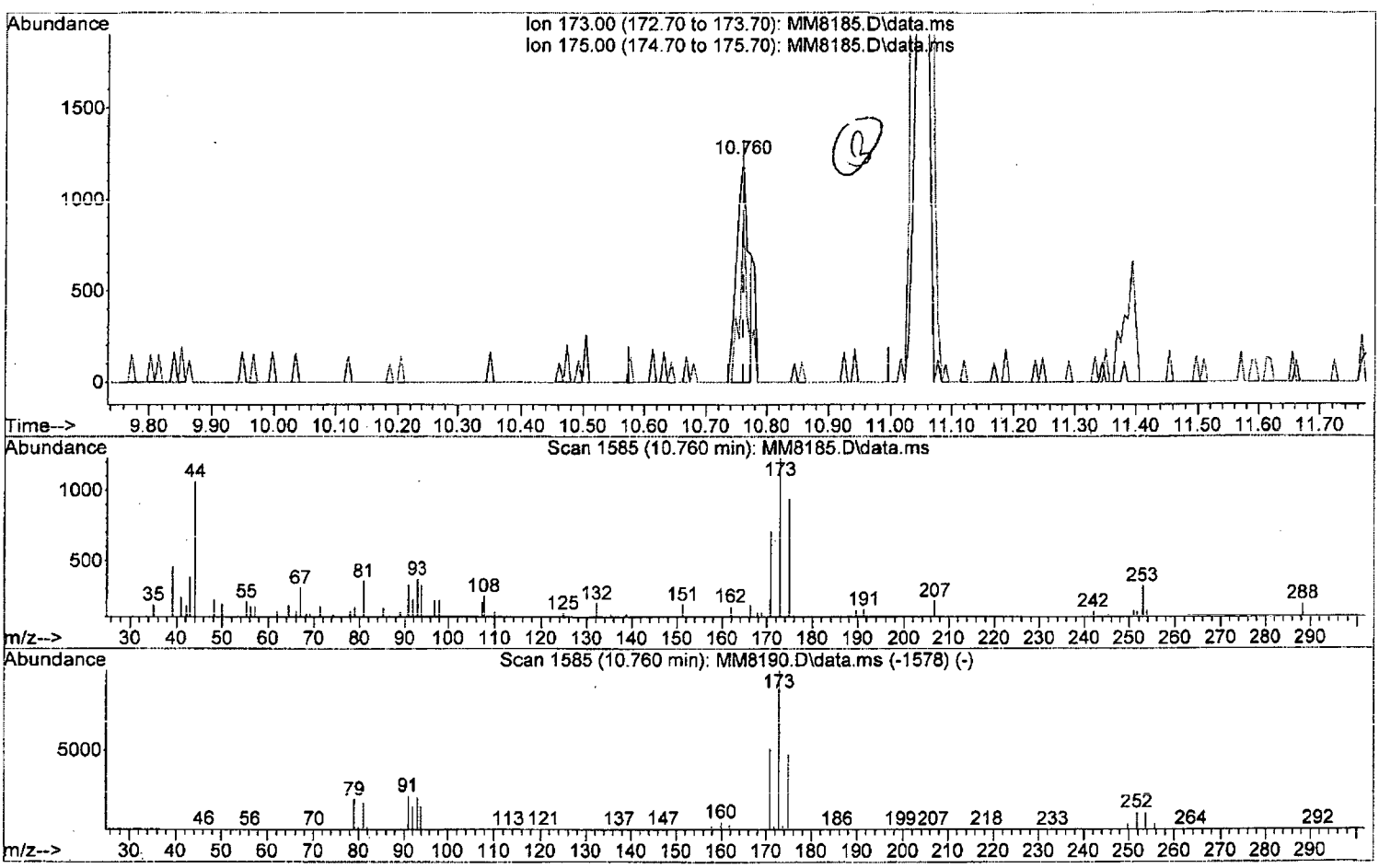
9.529min (-0.006) 0.54 ppb m

response 2537

Ion	Exp%	Act%
107.00	100	100
109.00	93.40	75.44
93.00	5.70	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(87) Bromoform (P)

10.760min (-0.000) 0.50 ppb

response 1628

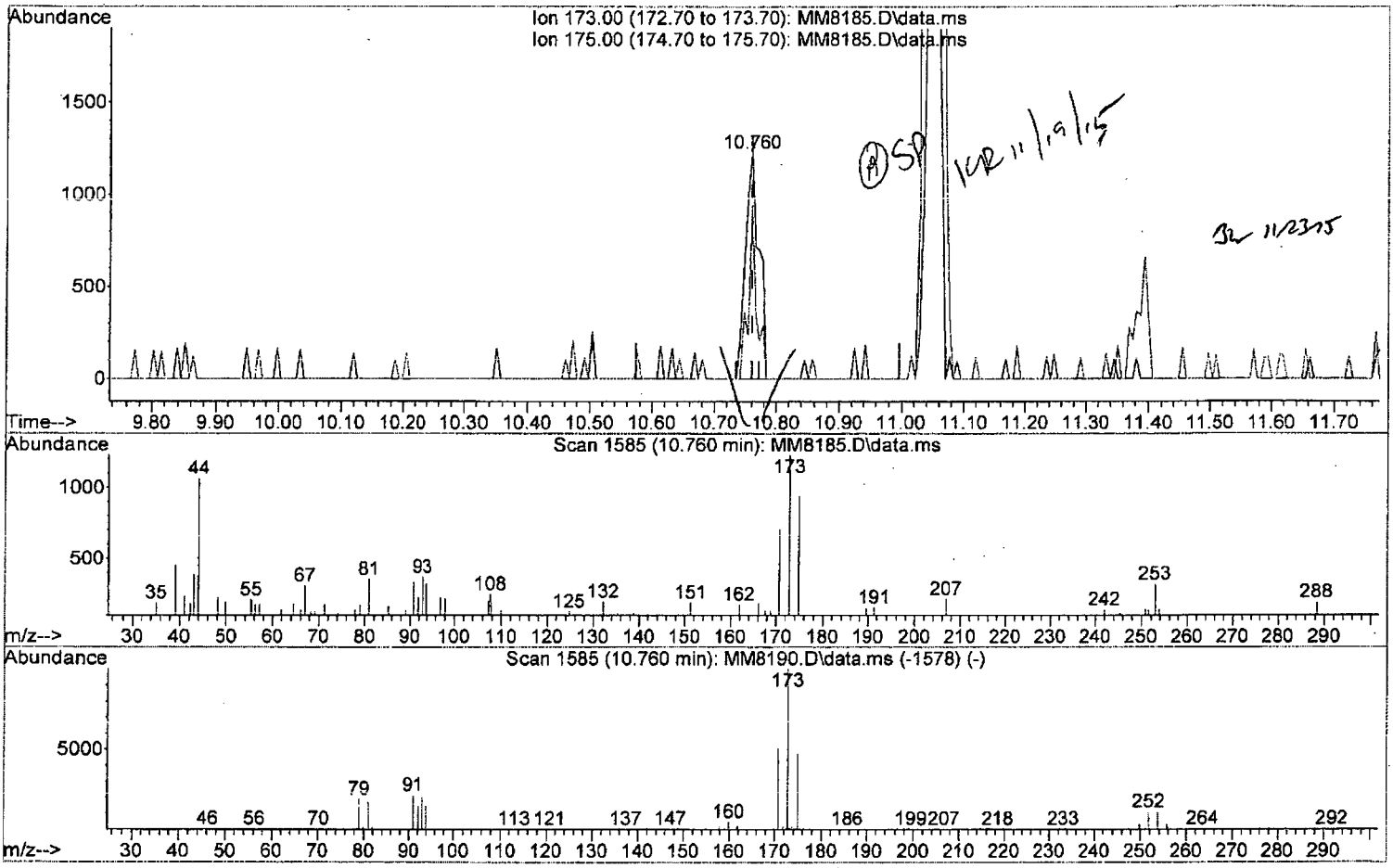
Ion	Exp%	Act%
173.00	100	100
175.00	47.50	76.49#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:53:02 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(87) Bromoform (P)

10.760min (-0.000) 0.57 ppb m

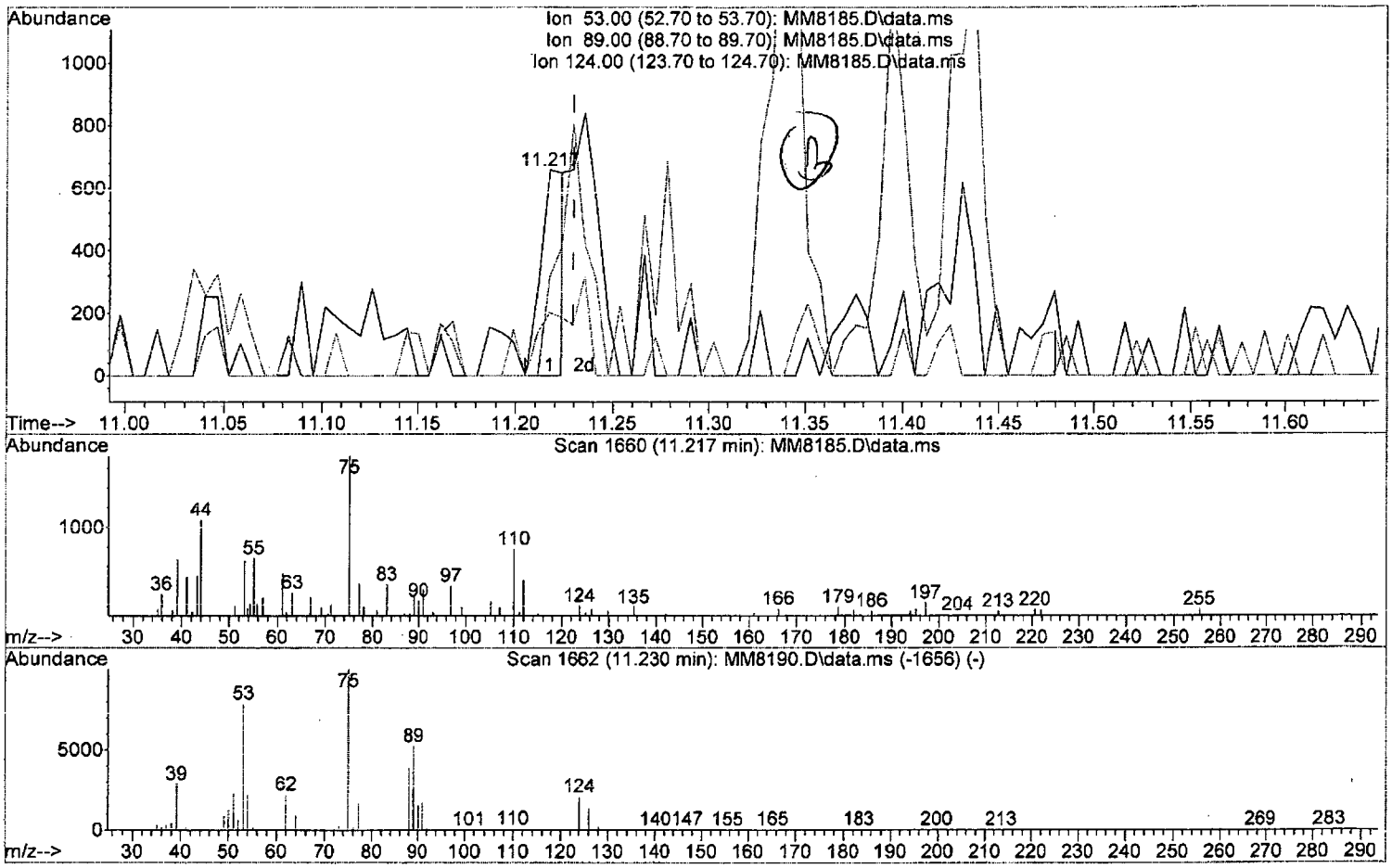
response 1862

Ion	Exp%	Act%
173.00	100	100
175.00	47.50	76.49#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(91) trans-1,4-Dichloro-2-Butene

11.217min (-0.012) 0.31 ppb

response 578

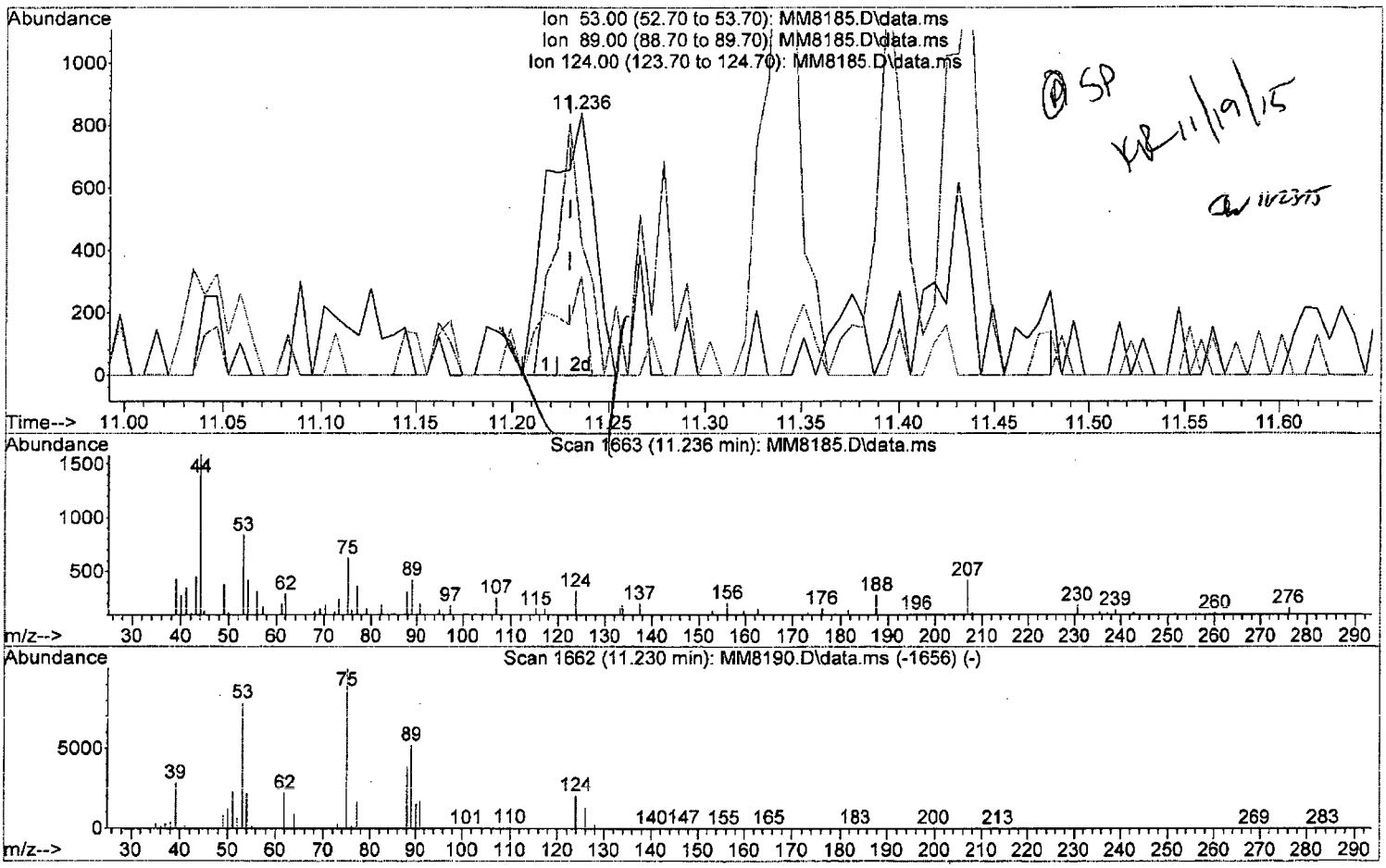
Ion	Exp%	Act%
53.00	100	100
89.00	66.30	48.25
124.00	26.20	30.75
0.00	0.00	0.00

W111815.M Thu Nov 19 09:53:23 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(91) trans-1,4-Dichloro-2-Butene

11.236min (+0.006) 0.74 ppb m

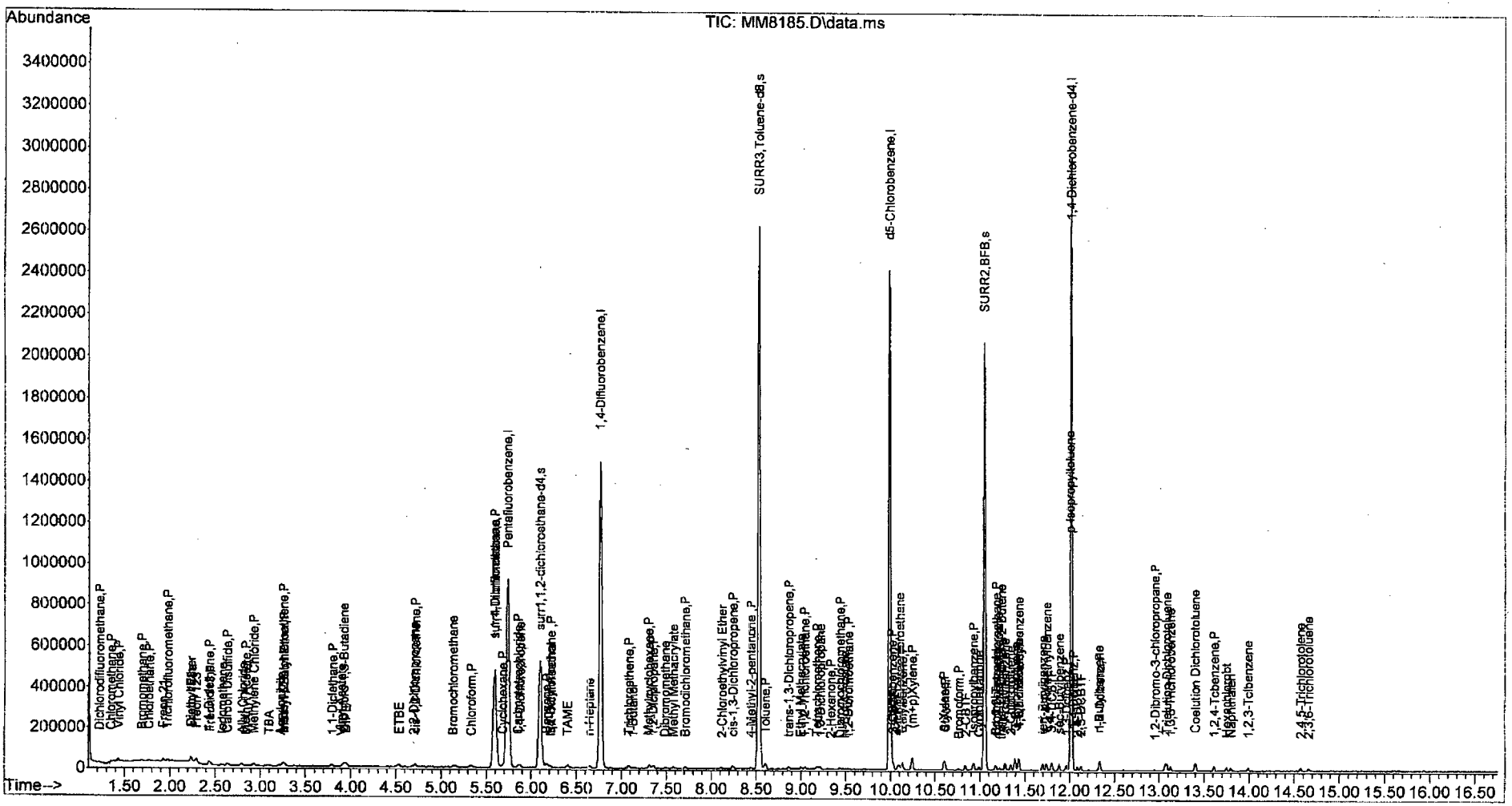
response 1397

Ion	Exp%	Act%
53.00	100	100
89.00	66.30	50.48
124.00	26.20	37.86
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:53:37 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 09:54:14 2015 Page: 4

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	770178	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1273925	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1155799	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	572378	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	363057	46.86	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 93.72%				
48) surr1,1,2-dichloroetha...	6.097	65	391455	46.97	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 93.94%				
65) SURR3,Toluene-d8	8.529	98	1594345	47.06	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 94.12%				
70) SURR2,BFB	11.047	95	588371	48.36	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.72%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	10094m	0.93	ppb		
3) Chloromethane	1.347	50	12665	0.98	ppb		93
4) Vinyl Chloride	1.433	62	12390	1.03	ppb		100
5) Bromomethane	1.683	94	5854m	0.98	ppb		
6) Chloroethane	1.768	64	6193	0.92	ppb		88
7) Freon 21	1.927	67	13063	1.00	ppb		95
8) Trichlorofluoromethane	1.981	101	9613	1.02	ppb		93
9) Diethyl Ether	2.231	59	6819	1.16	ppb		90
10) Freon 123a	2.238	67	9323m	1.10	ppb		
11) Freon 123	2.292	83	11273	1.14	ppb		93
12) Acrolein	2.341	56	1746	2.66	ppb	#	41
13) 1,1-Diclethene	2.433	96	7085	1.07	ppb		96
14) Freon 113	2.445	101	6318	1.08	ppb		94
16) 2-Propanol	2.652	45	6862	22.02	ppb		97
17) Iodomethane	2.567	142	5251	0.73	ppb		94
18) Carbon Disulfide	2.640	76	21855	1.02	ppb		92
20) Allyl Chloride	2.798	76	4462	1.24	ppb	#	37
21) Methyl Acetate	2.829	43	4977	1.30	ppb		77
22) Methylene Chloride	2.933	84	8085	1.09	ppb	#	81
23) TBA	3.097	59	9708	19.20	ppb		97
24) Acrylonitrile	3.207	53	9288	4.96	ppb		97
25) Methyl-t-Butyl Ether	3.262	73	18444	1.03	ppb		89
26) trans-1,2-Dichloroethene	3.250	96	6563m	0.95	ppb		
28) 1,1-Diclethane	3.792	63	11792	0.96	ppb		92
29) Vinyl Acetate	3.920	86	1268m	0.95	ppb		
30) DIPE	3.951	45	25821	1.07	ppb		91
31) 2-Chloro-1,3-Butadiene	3.926	53	13316	1.08	ppb		87
32) ETBE	4.524	59	23601	1.04	ppb		85
33) 2,2-Dichloropropane	4.707	77	12157m	1.23	ppb		
34) cis-1,2-Dichloroethene	4.725	96	8254m	1.07	ppb		
36) Propionitrile	4.889	54	3790m	5.52	ppb		
37) Bromochloromethane	5.146	130	4232m	1.06	ppb		
38) Methacrylonitrile	5.164	67	2125m	0.91	ppb		
40) Chloroform	5.334	83	12327	1.03	ppb		88

KP 11/19/15

W111815.M Thu Nov 19 14:18:48 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) 1,1,1-Trichloroethane	5.584	97	8775	0.93	ppb	#	74
42) TAME	6.401	73	20180	1.05	ppb		80
44) Cyclohexane	5.682	41	7112	1.03	ppb		84
46) Carbontetrachloride	5.865	121	2566m	1.04	ppb		
47) 1,1-Dichloropropene	5.871	75	9357	1.04	ppb		89
49) Benzene	6.176	78	29669	1.06	ppb		95
50) 1,2-Dichloroethane	6.206	62	6994	0.97	ppb		93
51) Iso-Butyl Alcohol	6.206	43	4880	20.76	ppb		95
52) n-Heptane	6.645	43	9356	1.21	ppb		89
53) 1-Butanol	7.121	56	7108m	48.37	ppb		
54) Trichloroethene	7.078	130	7713	1.08	ppb	#	77
55) Methylcyclohexane	7.304	55	8635	1.02	ppb		97
56) 1,2-Diclpropane	7.352	63	7376	1.06	ppb		100
57) Dibromomethane	7.487	93	3907	1.14	ppb	#	76
59) Methyl Methacrylate	7.578	69	3768m	0.94	ppb		
60) Bromodichloromethane	7.712	83	9389	1.10	ppb		85
61) 2-Nitropropane	7.986	41	2354m	1.86	ppb		
62) 2-Chloroethylvinyl Ether	8.108	63	3482	0.91	ppb		77
63) cis-1,3-Dichloropropene	8.236	75	12027	1.05	ppb		87
64) 4-Methyl-2-pentanone	8.438	43	4664	0.92	ppb		77
66) Toluene	8.602	91	29226	1.01	ppb		96
67) trans-1,3-Dichloropropene	8.858	75	8481	0.94	ppb		89
68) Ethyl Methacrylate	8.998	69	7627	0.95	ppb		88
69) 1,1,2-Trichloroethane	9.047	97	4900	1.00	ppb	#	83
72) Tetrachloroethene	9.181	164	4504	0.94	ppb		90
73) 2-Hexanone	9.328	43	3994	1.13	ppb		87
74) 1,3-Dichloropropane	9.212	76	9920	1.13	ppb		90
75) Dibromochloromethane	9.431	129	5804	1.06	ppb		100
76) N-Butyl Acetate	9.480	43	8961	1.07	ppb		95
77) 1,2-Dibromoethane	9.535	107	4785	1.02	ppb		98
78) Chlorobenzene	10.010	112	17857	1.04	ppb		91
79) 3-CBTF	10.035	180	8890	1.05	ppb	#	82
80) 4-CBTF	10.084	180	8238m	1.04	ppb		
81) 1,1,1,2-Tetrachloroethane	10.102	131	6317	1.07	ppb		98
82) Ethylbenzene	10.138	106	9885	1.02	ppb	#	86
83) (m+p)Xylene	10.242	106	24285	2.03	ppb		89
84) o-Xylene	10.596	106	11839	0.97	ppb		98
85) Styrene	10.608	104	21628	1.08	ppb		96
87) Bromoform	10.754	173	3210	0.99	ppb	#	69
88) 2-CBTF	10.833	180	9618	1.11	ppb		97
89) Isopropylbenzene	10.925	105	33324	1.12	ppb		86
90) Cyclohexanone	10.986	55	8800	20.39	ppb		99
91) trans-1,4-Dichloro-2-B...	11.224	53	2030	1.09	ppb		86
92) 1,1,2,2-Tetrachloroethane	11.181	83	6432m	1.07	ppb		
93) Bromobenzene	11.169	156	6830	1.01	ppb	#	80
94) 1,2,3-Trichloropropane	11.217	110	1978	1.12	ppb	#	51
95) n-Propylbenzene	11.278	91	35704	1.04	ppb		93
96) 2-Chlorotoluene	11.345	91	19406	0.96	ppb		96
97) 3-Chlorotoluene	11.394	91	21392m	1.01	ppb		
98) 4-Chlorotoluene	11.431	91	23630	1.04	ppb		89
99) 1,3,5-Trimethylbenzene	11.431	105	23434	1.04	ppb		96

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

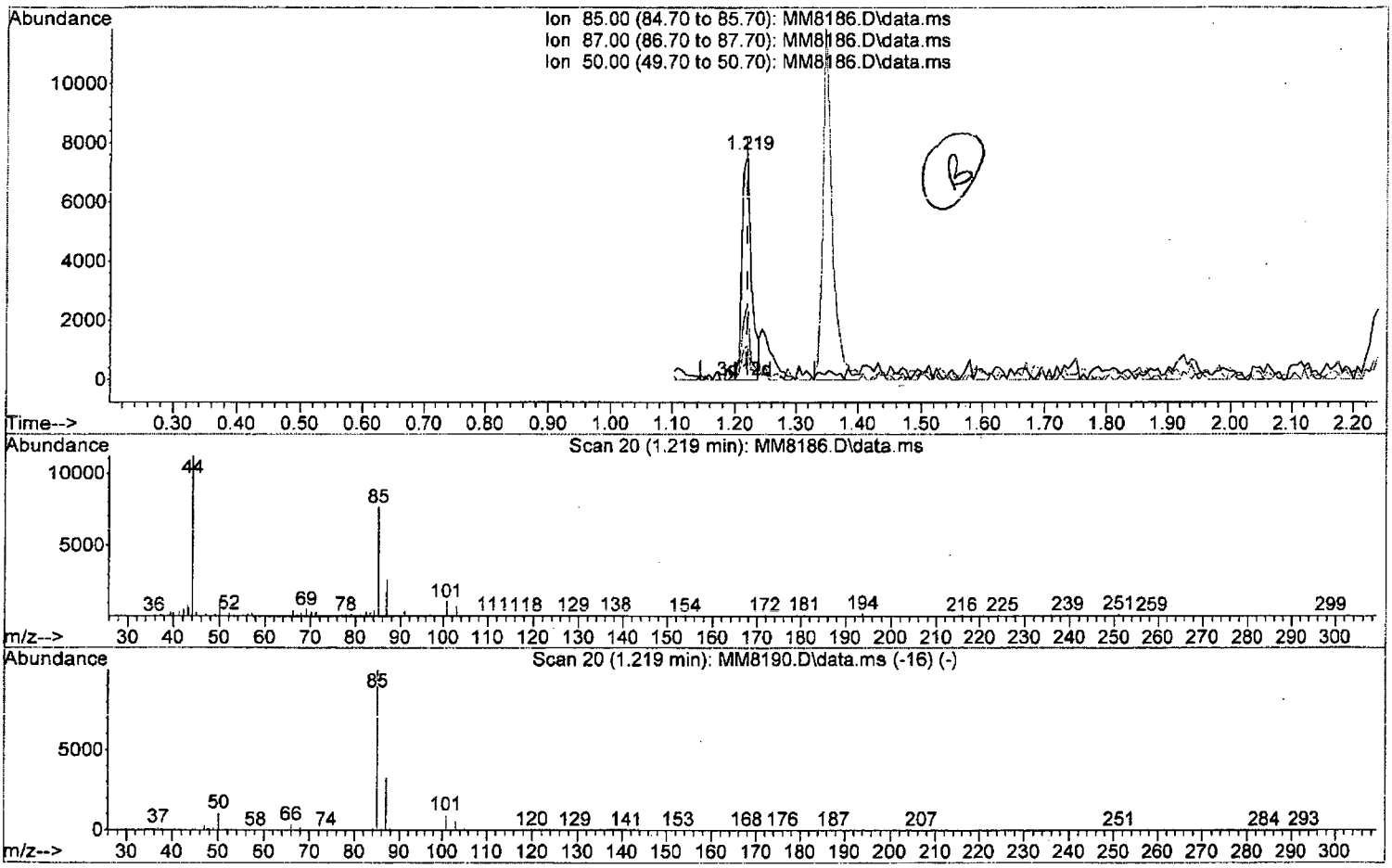
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
100) tert-Butylbenzene	11.699	119	19326	0.96	ppb		98
101) 1,2,4-Trimethylbenzene	11.742	105	25761	1.07	ppb		93
102) 3,4-DCBTF	11.803	214	5860	1.01	ppb		91
103) sec-Butylbenzene	11.882	105	30086	1.07	ppb		91
104) p-Isopropyltoluene	12.004	119	22364	1.03	ppb		95
105) 1,3-Dclbenz	11.961	146	13676	1.05	ppb		98
106) 1,4-Dclbenz	12.034	146	11720	0.96	ppb		84
107) 2,4-DCBTF	12.089	214	4912	0.97	ppb	#	81
108) 2,5-DCBTF	12.126	214	5760	1.00	ppb		98
109) n-Butylbenzene	12.333	91	20401	0.99	ppb		92
110) 1,2-Dclbenz	12.339	146	13110	1.09	ppb		88
111) 1,2-Dibromo-3-chloropr...	12.961	157	1003	0.85	ppb	#	57
112) Trielution Dichlorotol...	13.083	125	31009	3.06	ppb	#	87
113) 1,3,5 Trichlorobenzene	13.126	180	7780	0.96	ppb	#	92
114) Coelution Dichlorotoluene	13.400	125	22904	2.14	ppb		98
115) 1,2,4-Tcbenzene	13.607	180	7848	1.06	ppb		86
116) Hexachlorobt	13.747	225	3391	1.07	ppb		90
117) Naphthalen	13.802	128	13597	0.89	ppb		94
118) 1,2,3-Tclbenzene	13.985	180	6741	1.09	ppb		86
119) 2,4,5-Trichlorotolene	14.570	159	4370	0.94	ppb	#	85
120) 2,3,6-Trichlorotoluene	14.656	159	4049	0.98	ppb	#	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(2) Dichlorodifluoromethane (P)

1.219min (0.000) 0.73 ppb

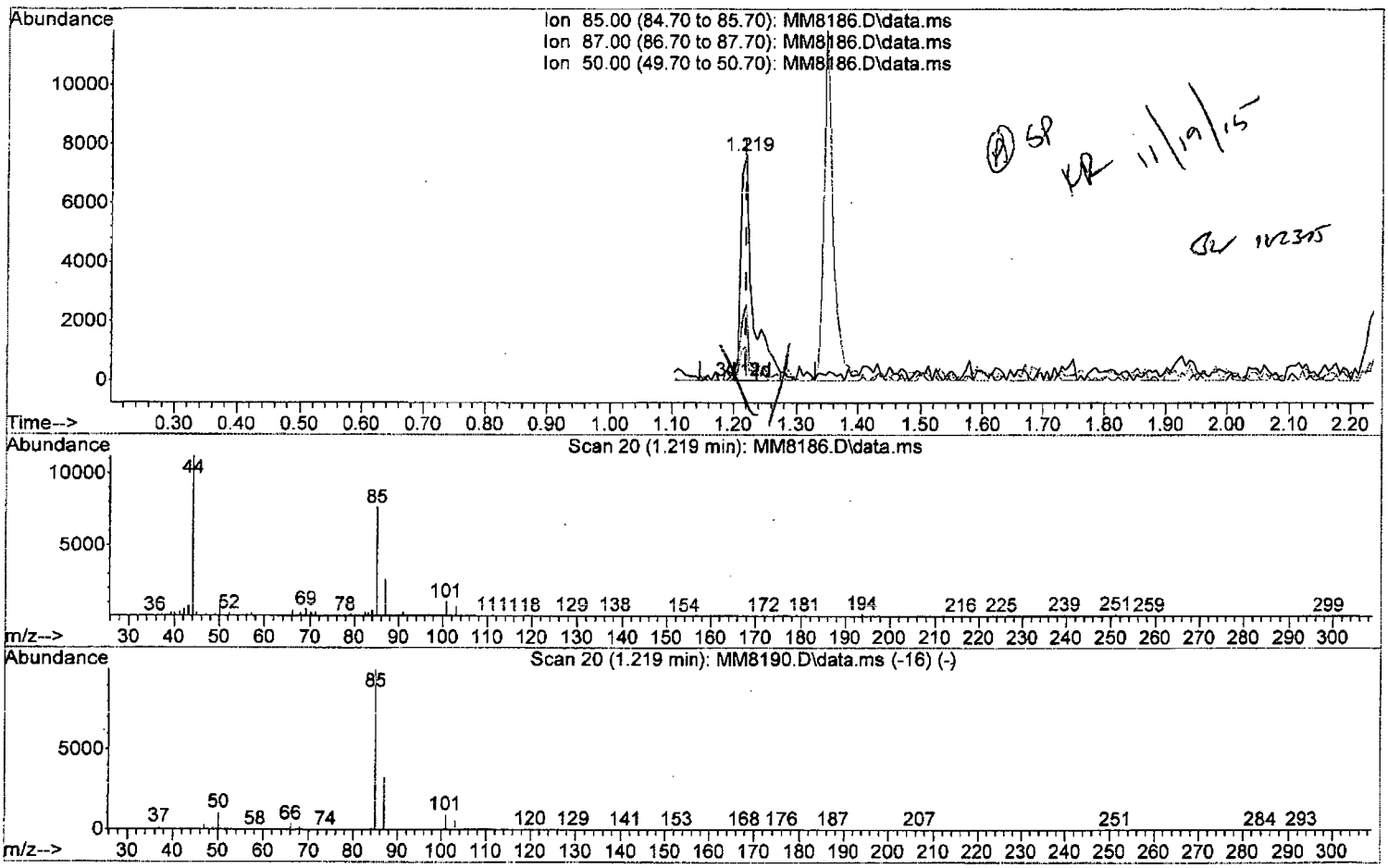
response 7969

Ion	Exp%	Act%
85.00	100	100
87.00	32.70	33.97
50.00	10.60	15.05
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(2) Dichlorodifluoromethane (P)

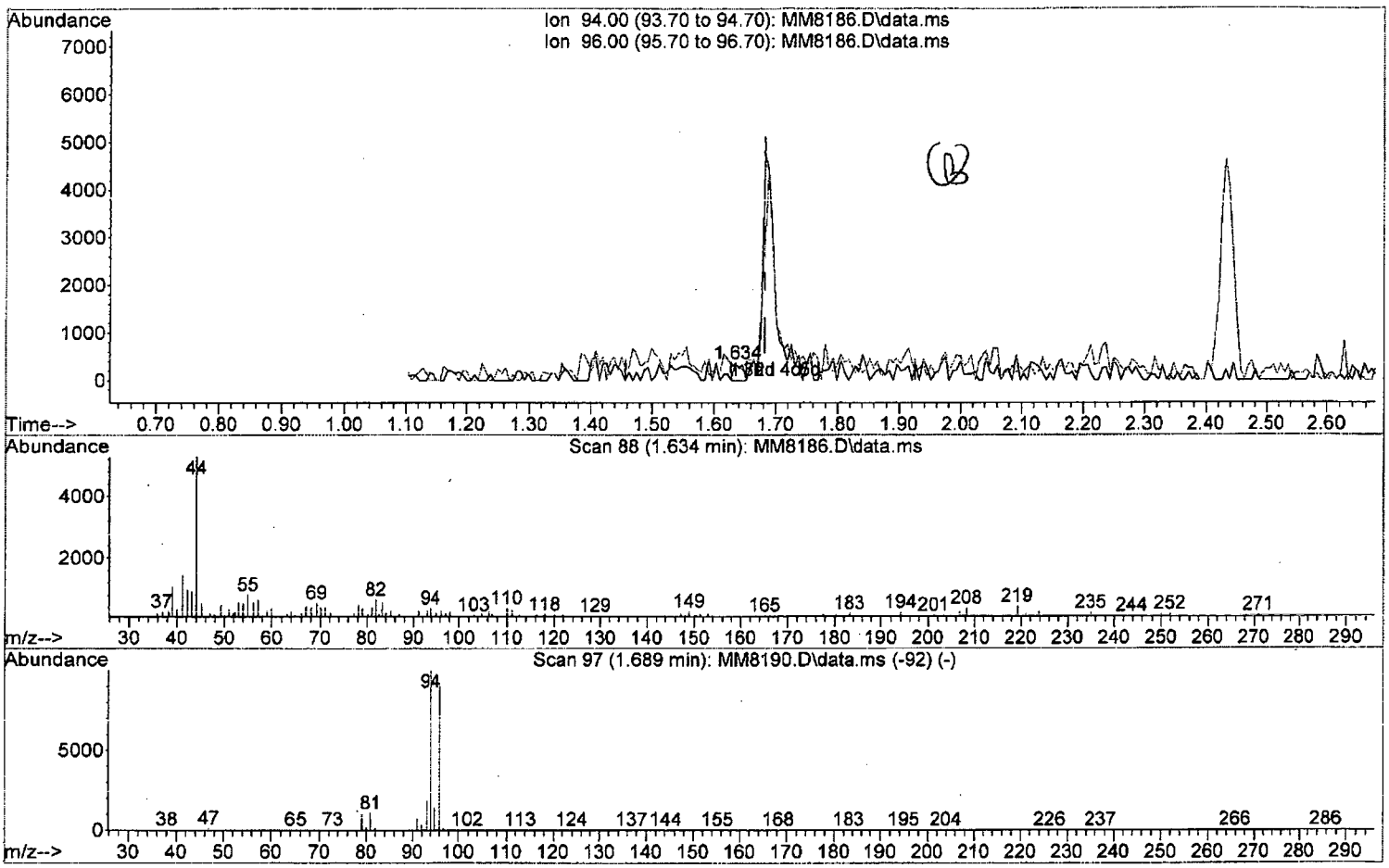
1.219min (0.000) 0.93 ppb m

response 10094

Ion	Exp%	Act%
85.00	100	100
87.00	32.70	33.97
50.00	10.60	15.05
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(5) Bromomethane (P)

1.634min (-0.049) 0.06 ppb

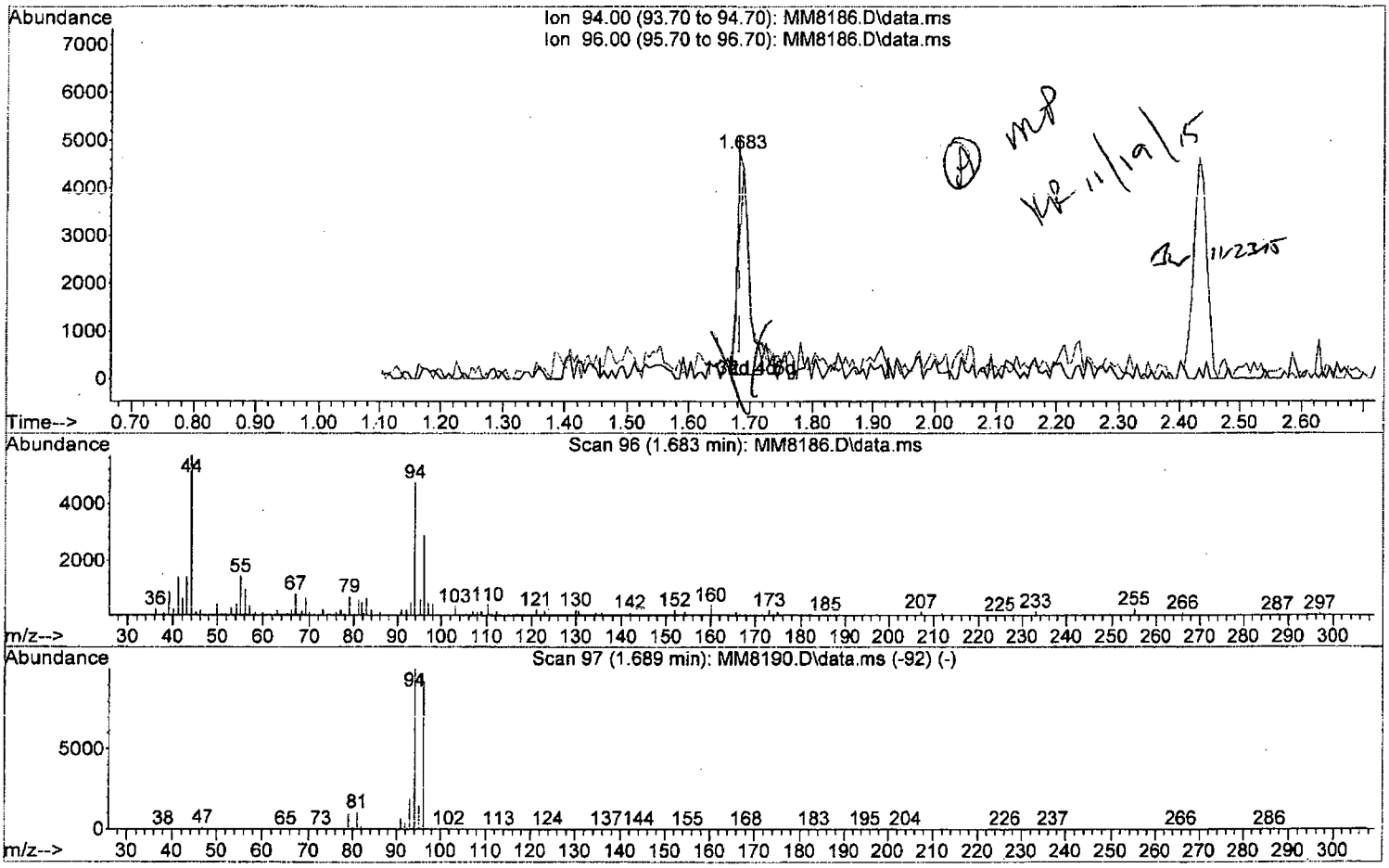
response 343

Ion	Exp%	Act%
94.00	100	100
96.00	92.80	74.72
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(5) Bromomethane (P)

1.683min (-0.000) 0.98 ppb m

response 5854

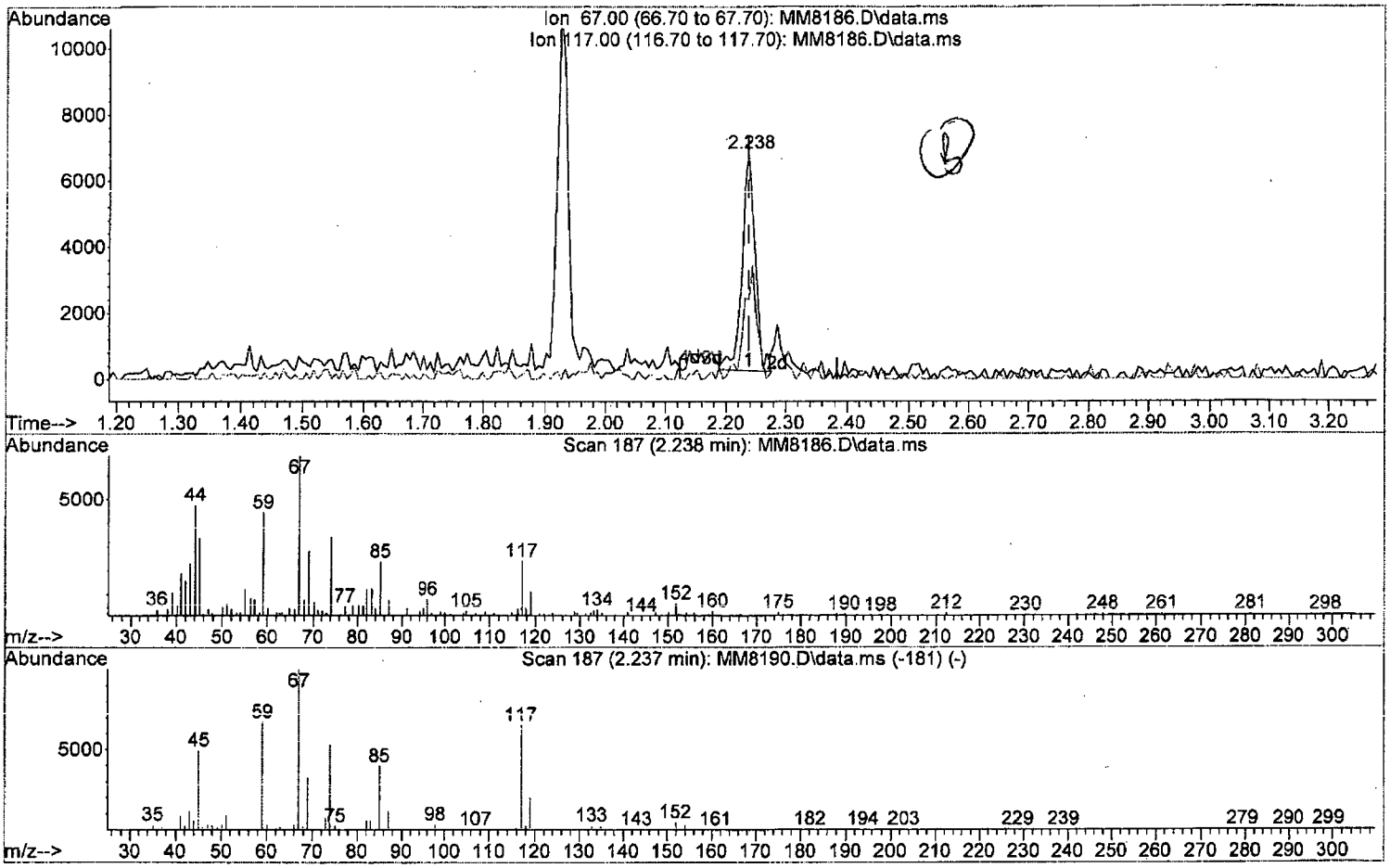
Ion	Exp%	Act%
94.00	100	100
96.00	92.80	60.76#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:59:18 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(10) Freon 123a

2.238min (0.000) 1.19 ppb

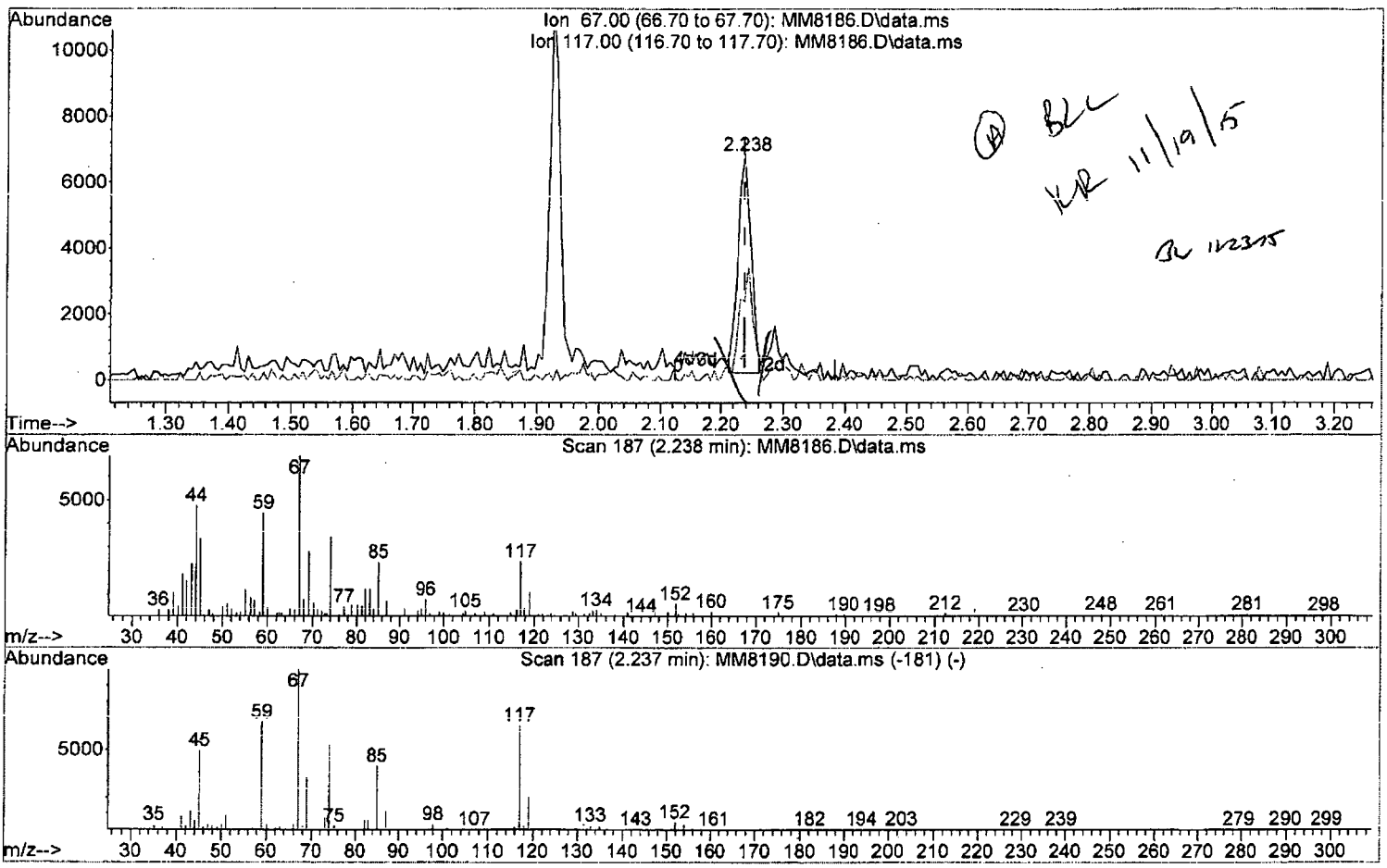
response 10134

Ion	Exp%	Act%
67.00	100	100
117.00	65.50	34.95#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(10) Freon 123a

2.238min (0.000) 1.10 ppb m

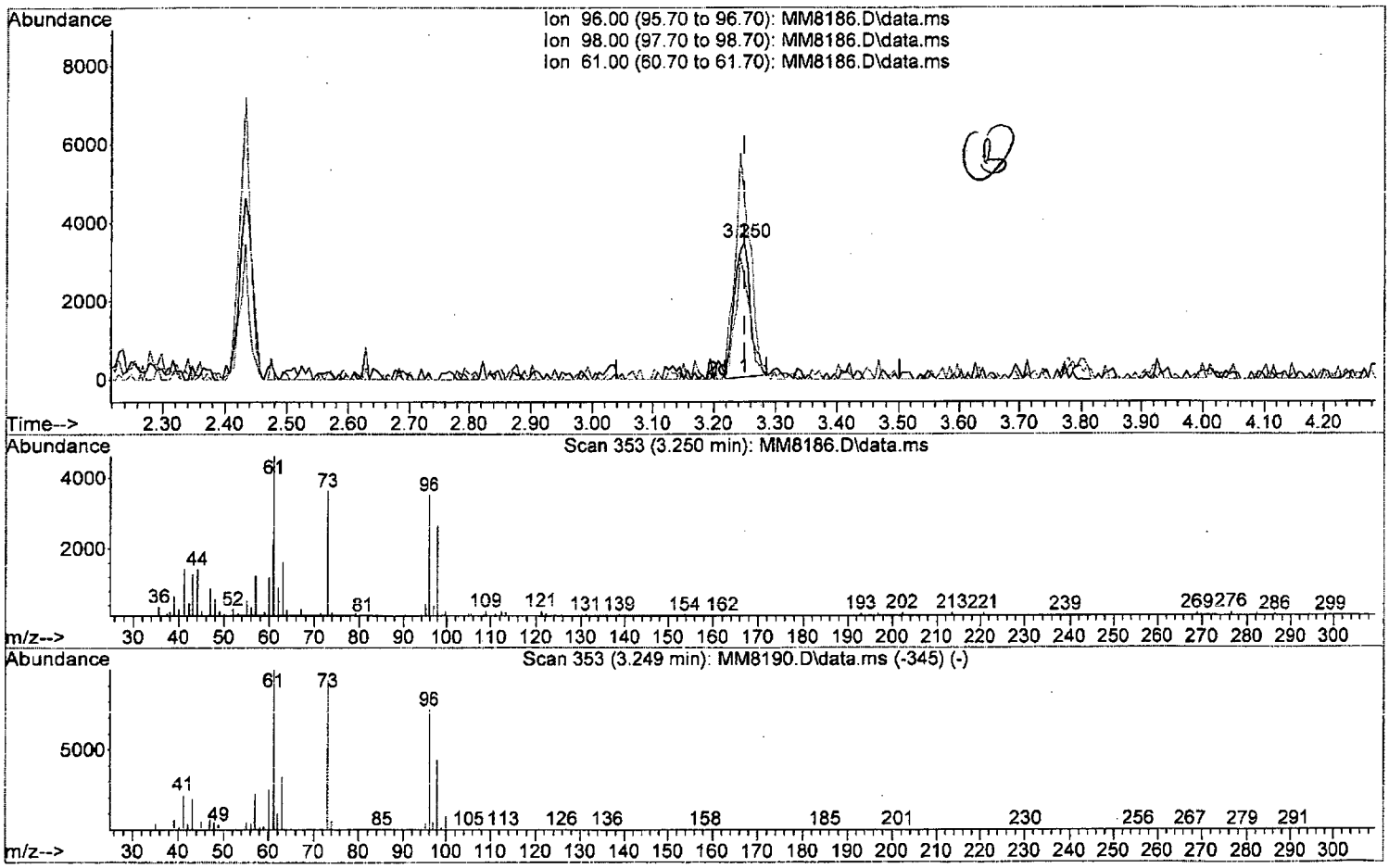
response 9323

Ion	Exp%	Act%
67.00	100	100
117.00	65.50	34.95#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(26) trans-1,2-Dichloroethene (P)

3.250min (0.000) 0.90 ppb

response 6211

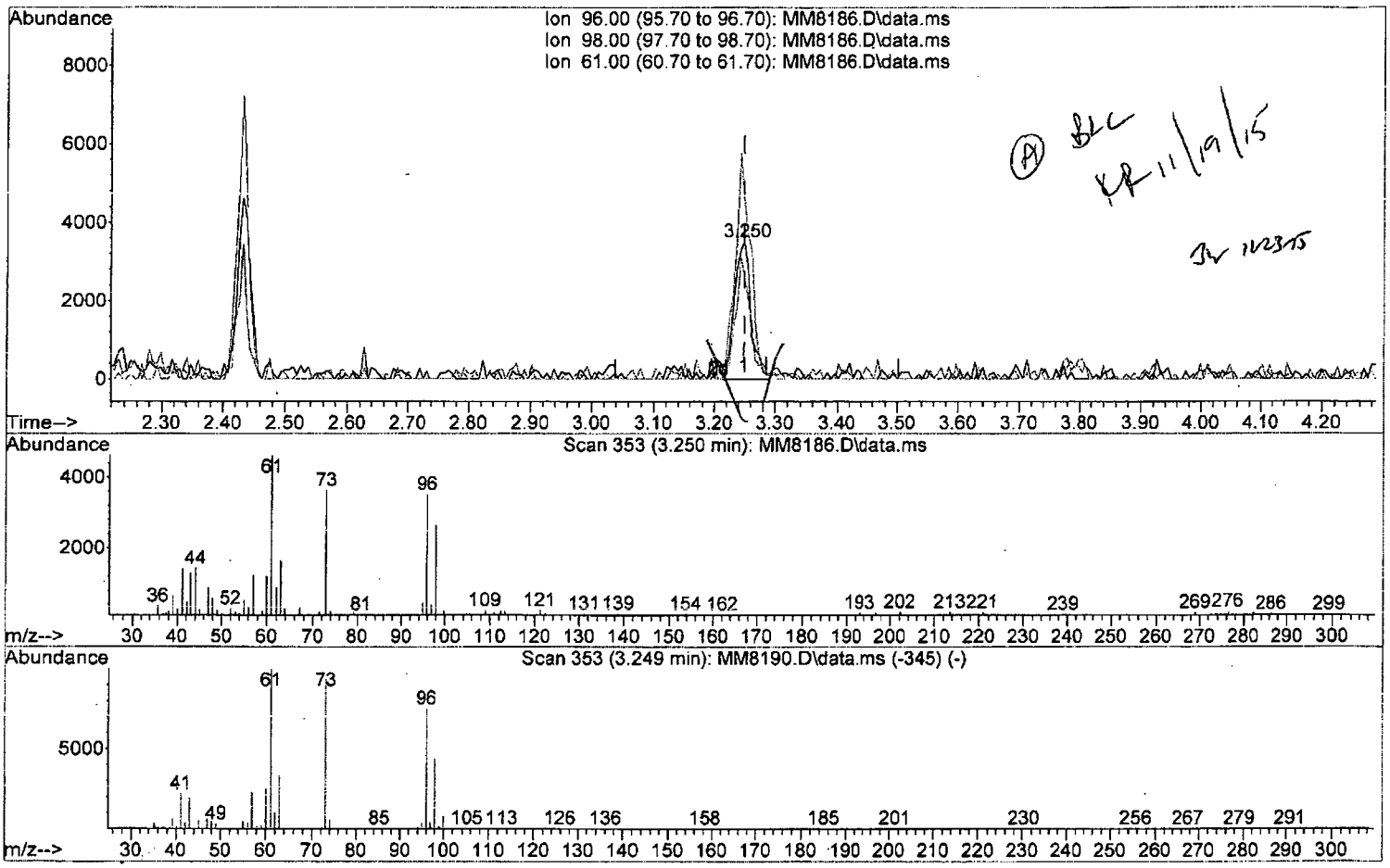
Ion	Exp%	Act%
96.00	100	100
98.00	57.60	74.85
61.00	133.00	131.57
0.00	0.00	0.00

W111815.M Thu Nov 19 10:01:23 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(26) trans-1,2-Dichloroethene (P)

3.250min (0.000) 0.95 ppb m

response 6563

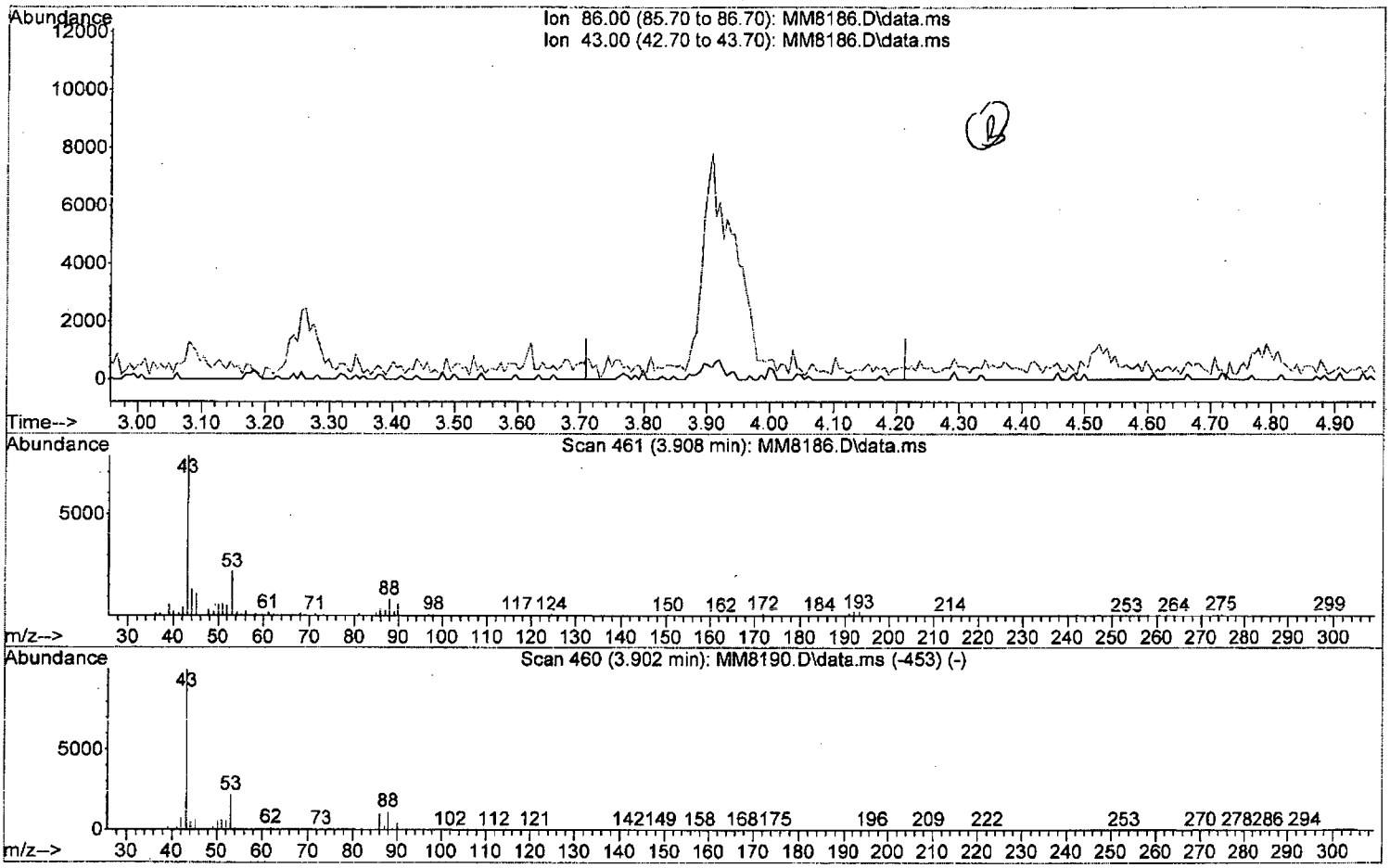
Ion	Exp%	Act%
96.00	100	100
98.00	57.60	74.85
61.00	133.00	131.57
0.00	0.00	0.00

W111815.M Thu Nov 19 10:01:31 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(29) Vinyl Acetate

3.908min (-3.908) 0.00 ppb

response 0

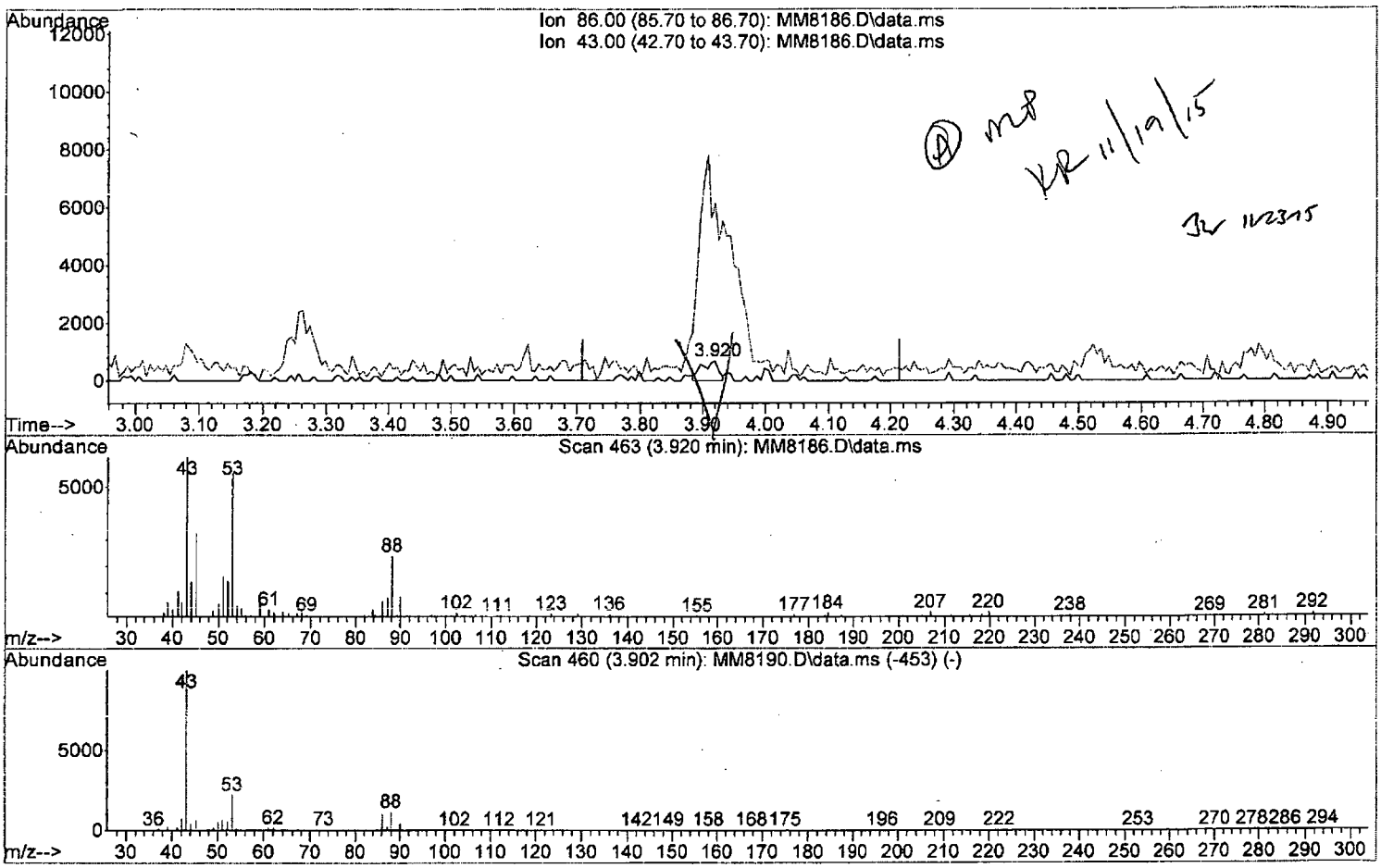
Ion	Exp%	Act%
86.00	100	0.00
43.00	979.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:01:52 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(29) Vinyl Acetate

3.920min (+0.012) 0.95 ppb m

response 1268

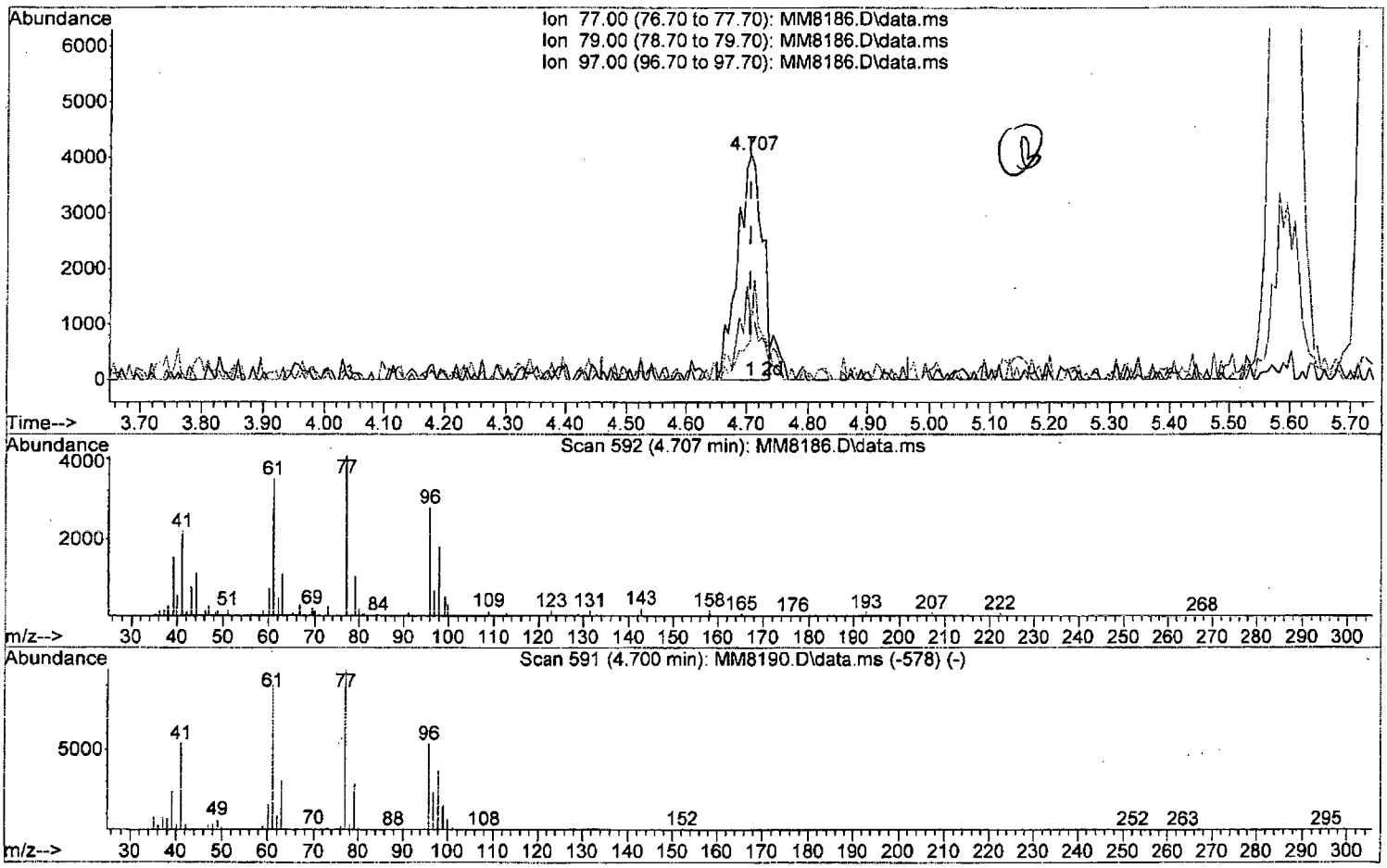
Ion	Exp%	Act%
86.00	100	100
43.00	979.70	913.13#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:02:11 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(33) 2,2-Dichloropropane

4.707min (+0.001) 1.15 ppb

response 11367

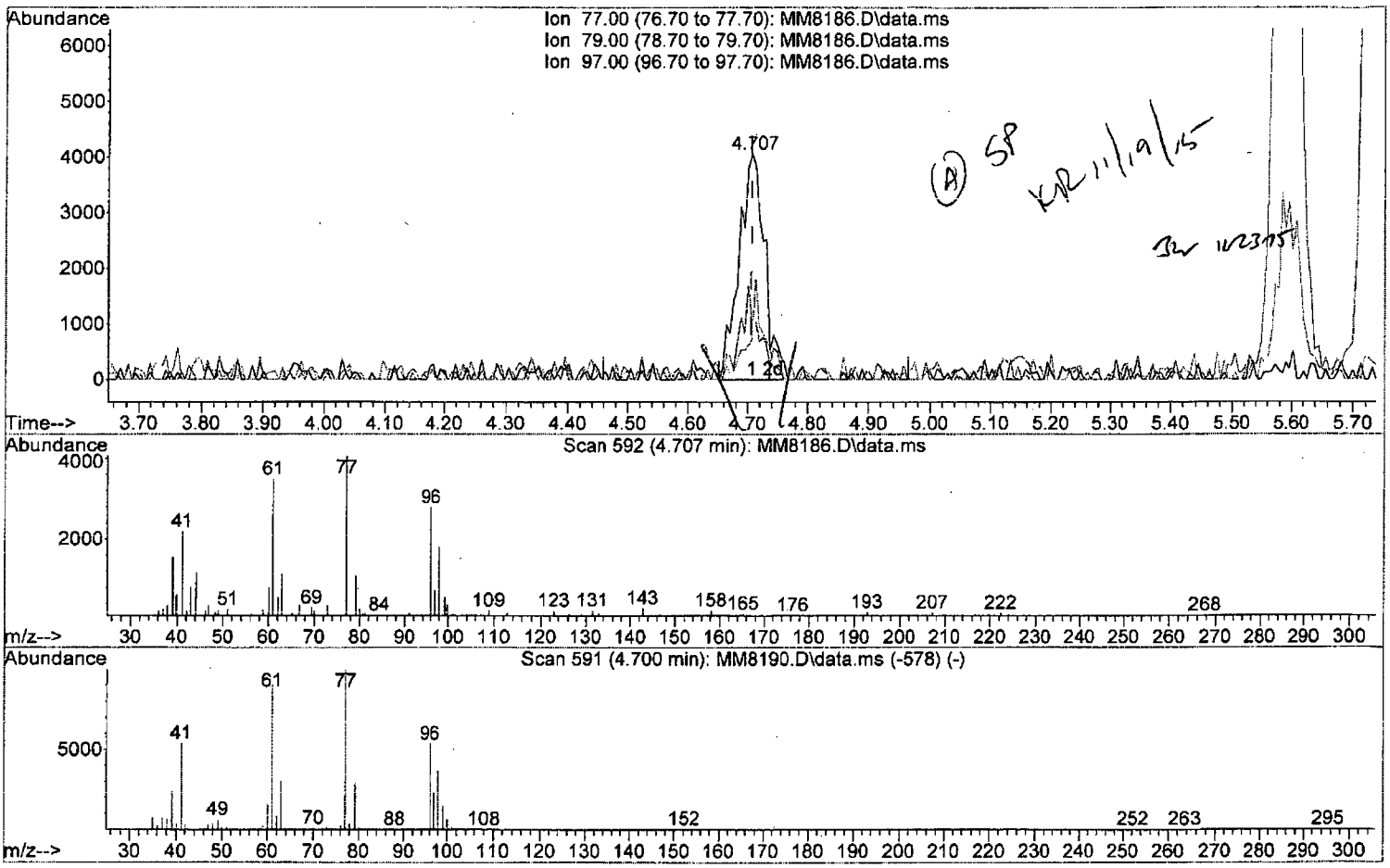
Ion	Exp%	Act%
77.00	100	100
79.00	28.80	26.63
97.00	24.00	17.64
0.00	0.00	0.00

W111815.M Thu Nov 19 10:02:36 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(33) 2,2-Dichloropropane

4.707min (+0.001) 1.23 ppb m

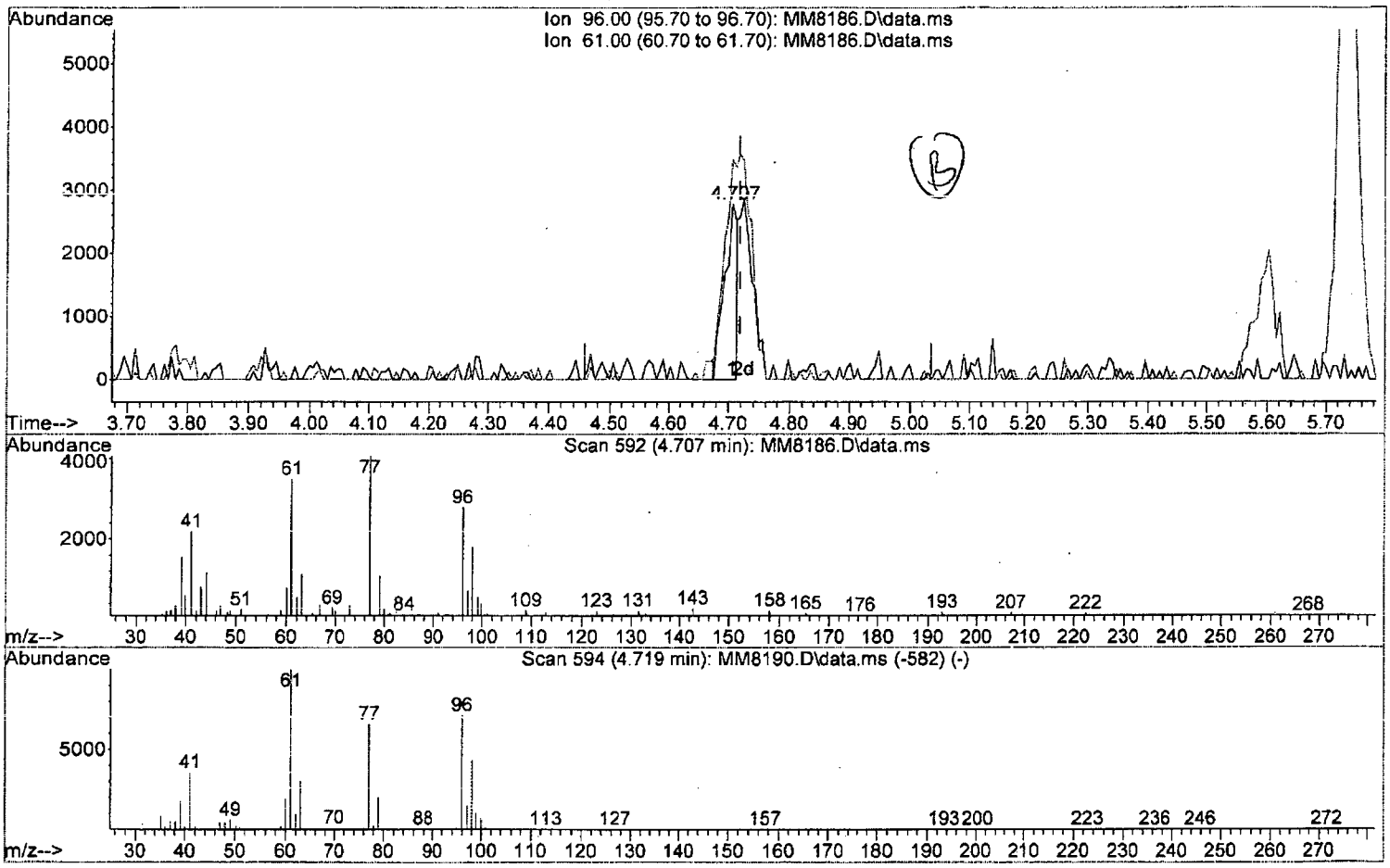
response 12157

Ion	Exp%	Act%
77.00	100	100
79.00	28.80	26.63
97.00	24.00	17.64
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.707min (-0.012) 0.51 ppb

response 3913

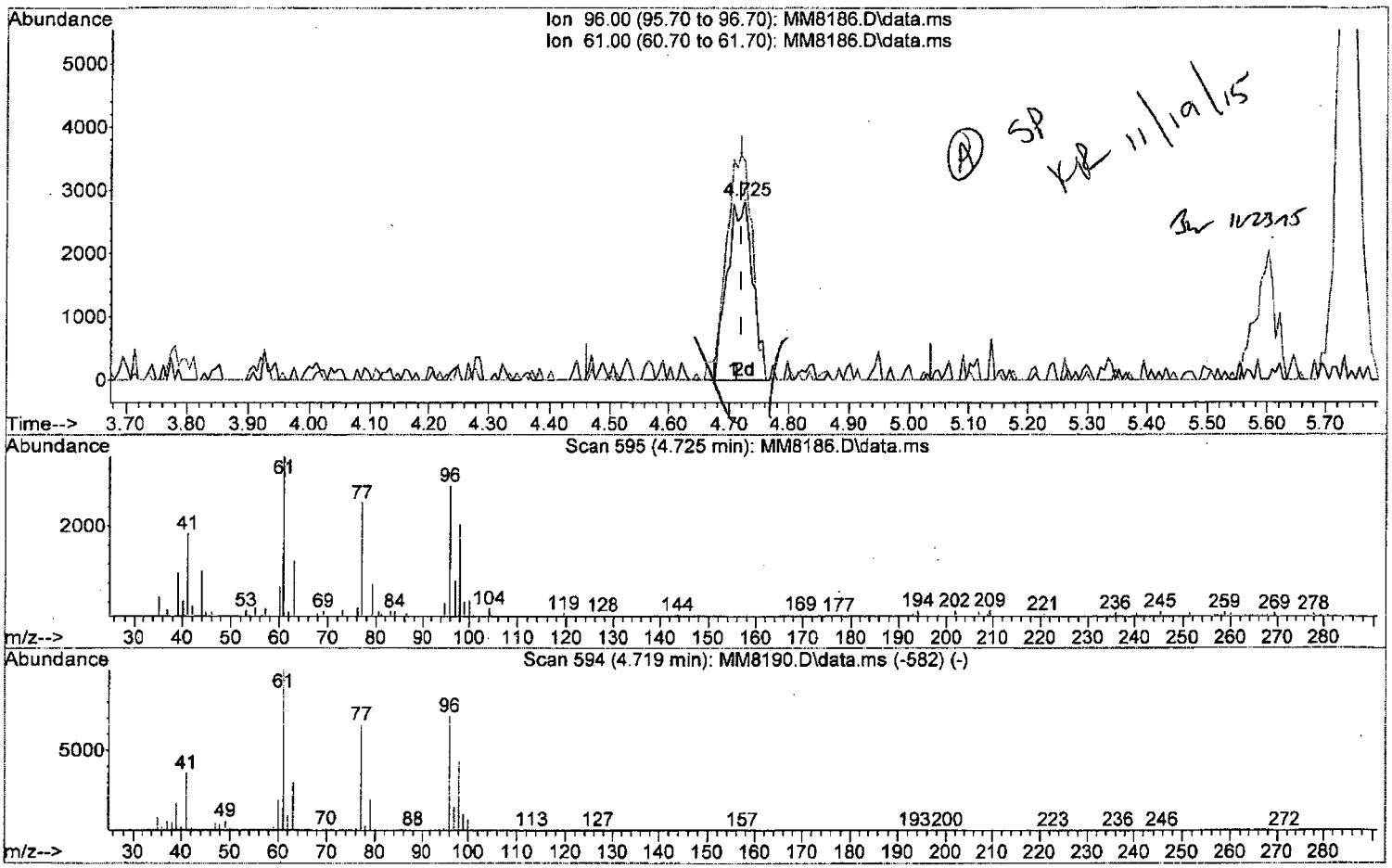
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	125.40
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:02:49 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.725min (+0.006) 1.07 ppb m

response 8254

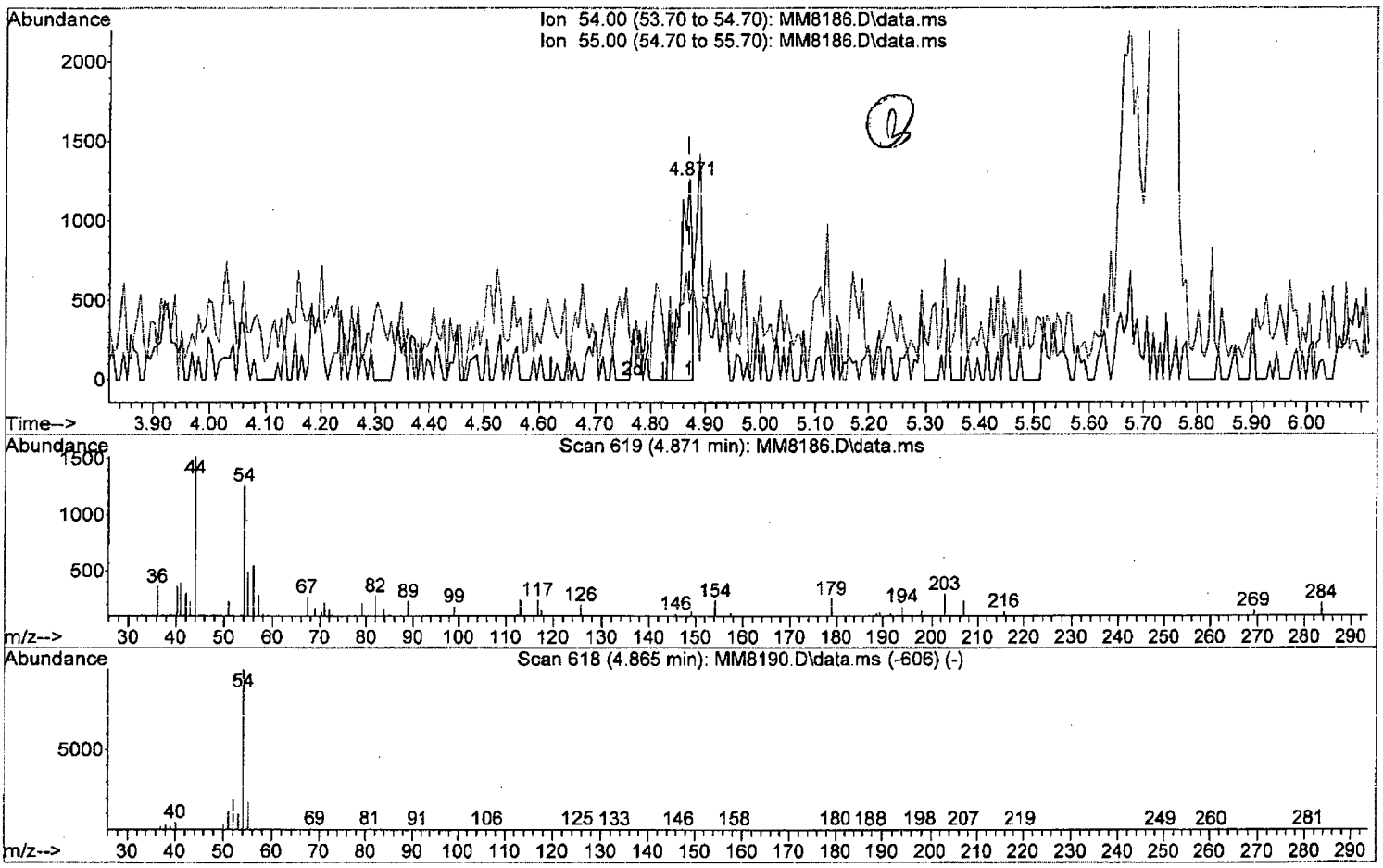
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	121.62
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:02:56 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(36) Propionitrile

4.871min (0.000) 2.75 ppb

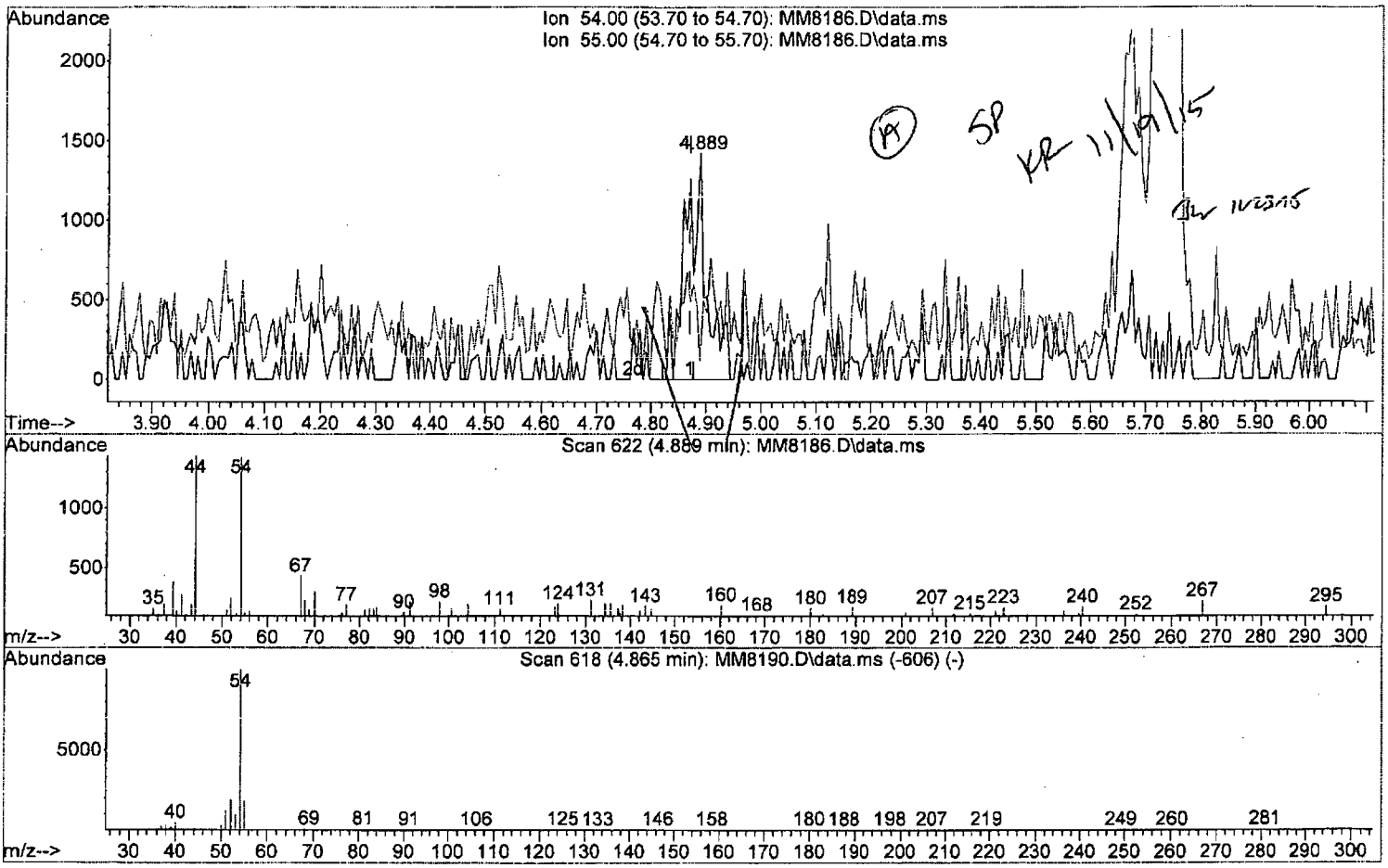
response 1890

Ion	Exp%	Act%
54.00	100	100
55.00	19.40	38.63
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(36) Propionitrile

4.889min (+0.018) 5.52 ppb m

response 3790

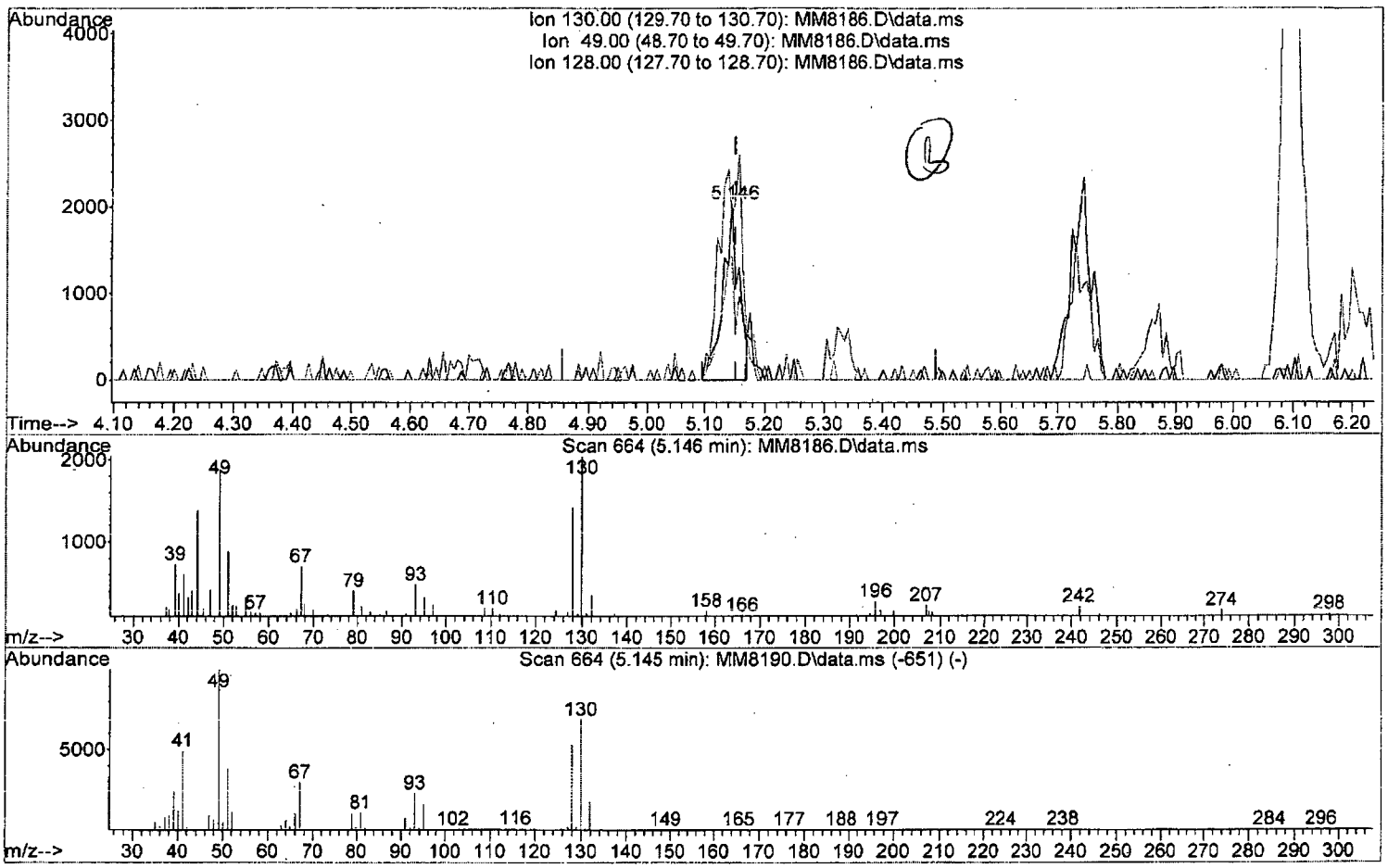
Ion	Exp%	Act%
54.00	100	100
55.00	19.40	8.32
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:03:19 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(37) Bromochloromethane

5.146min (-0.006) 0.95 ppb

response 3786

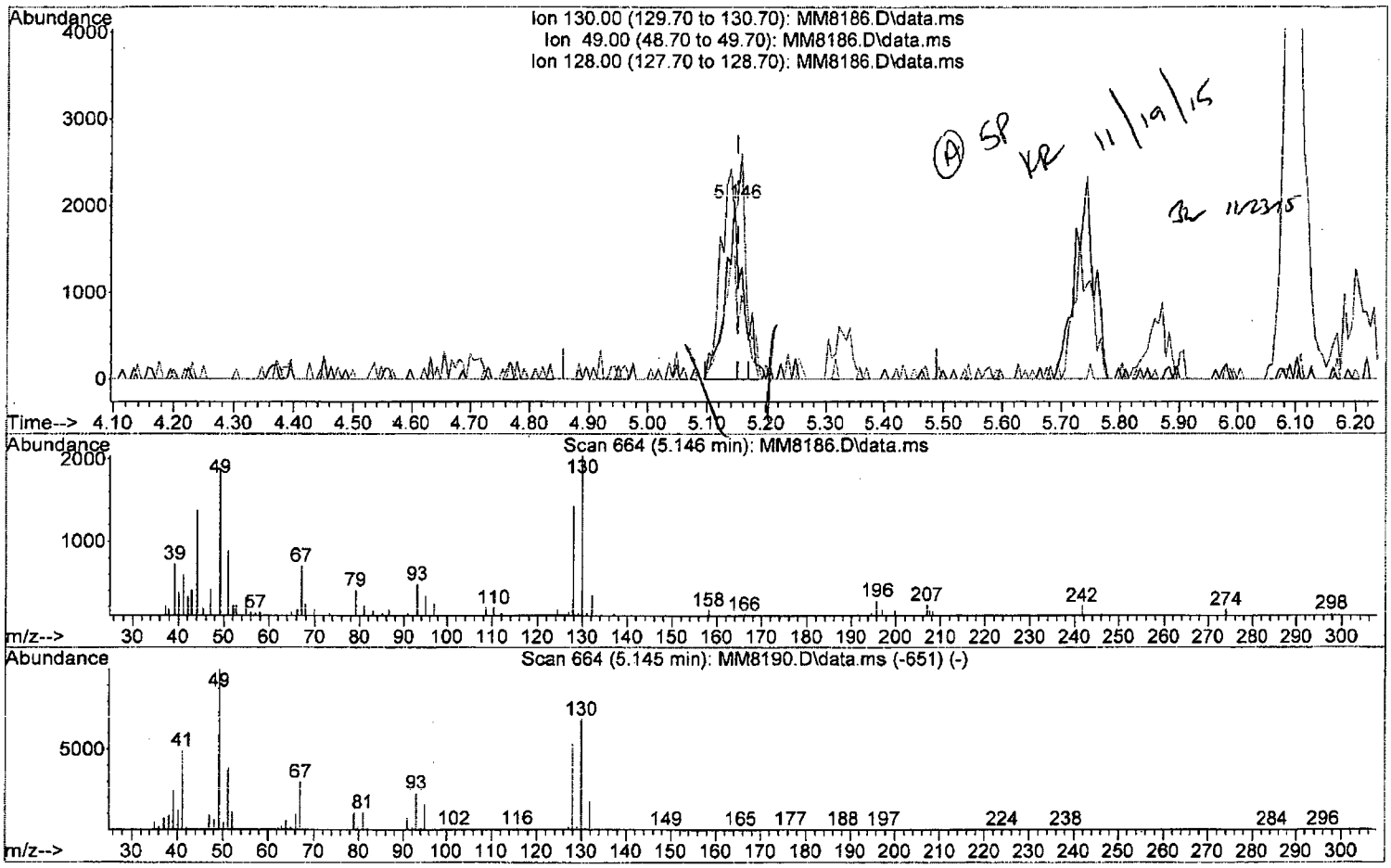
Ion	Exp%	Act%
130.00	100	100
49.00	145.50	92.39#
128.00	77.50	69.86
0.00	0.00	0.00

W111815.M Thu Nov 19 10:03:25 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(37) Bromochloromethane

5.146min (-0.006) 1.06 ppb m

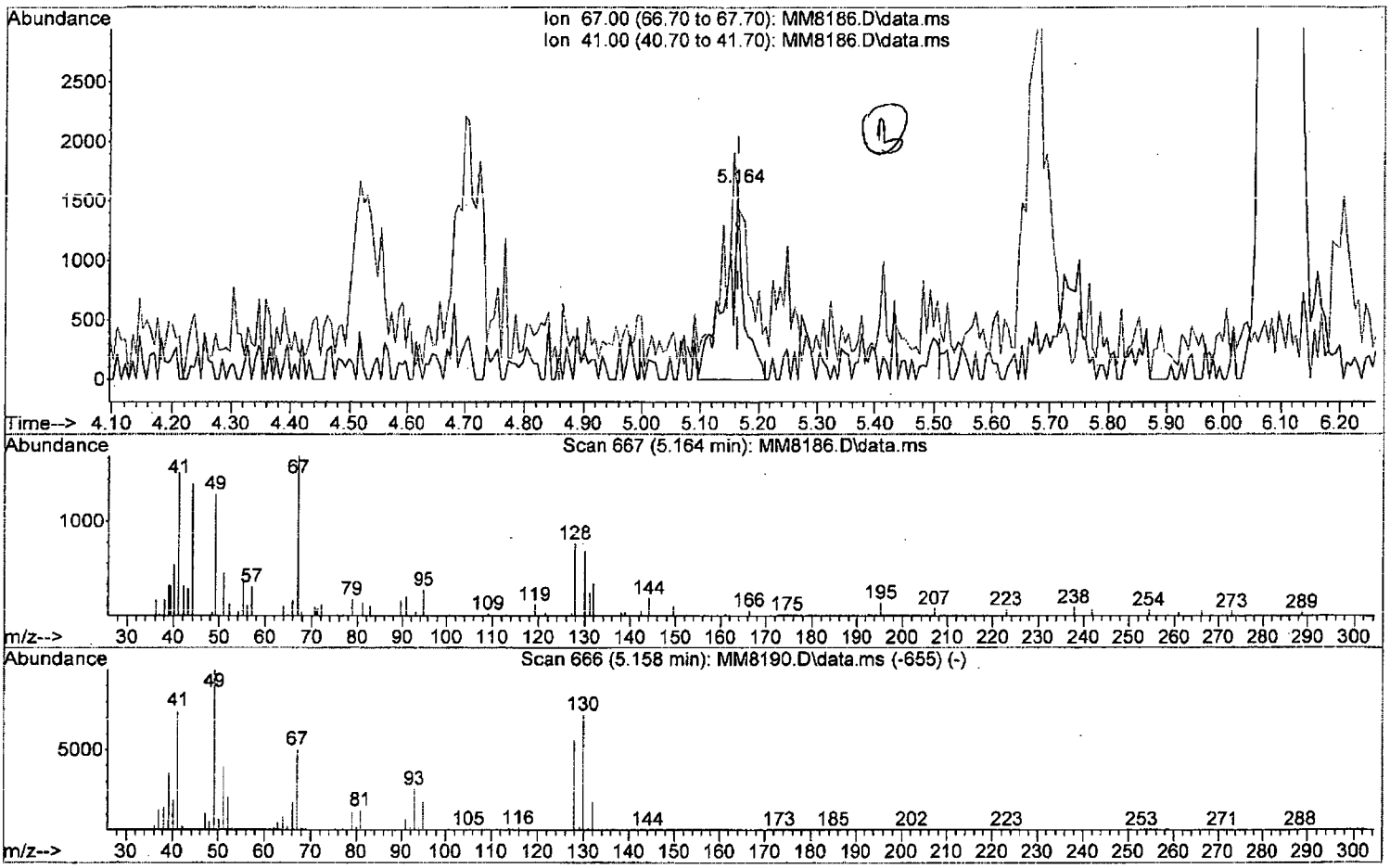
response 4232

Ion	Exp%	Act%
130.00	100	100
49.00	145.50	92.39#
128.00	77.50	69.86
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(38) Methacrylonitrile

5.164min (0.000) 1.47 ppb

response 3449

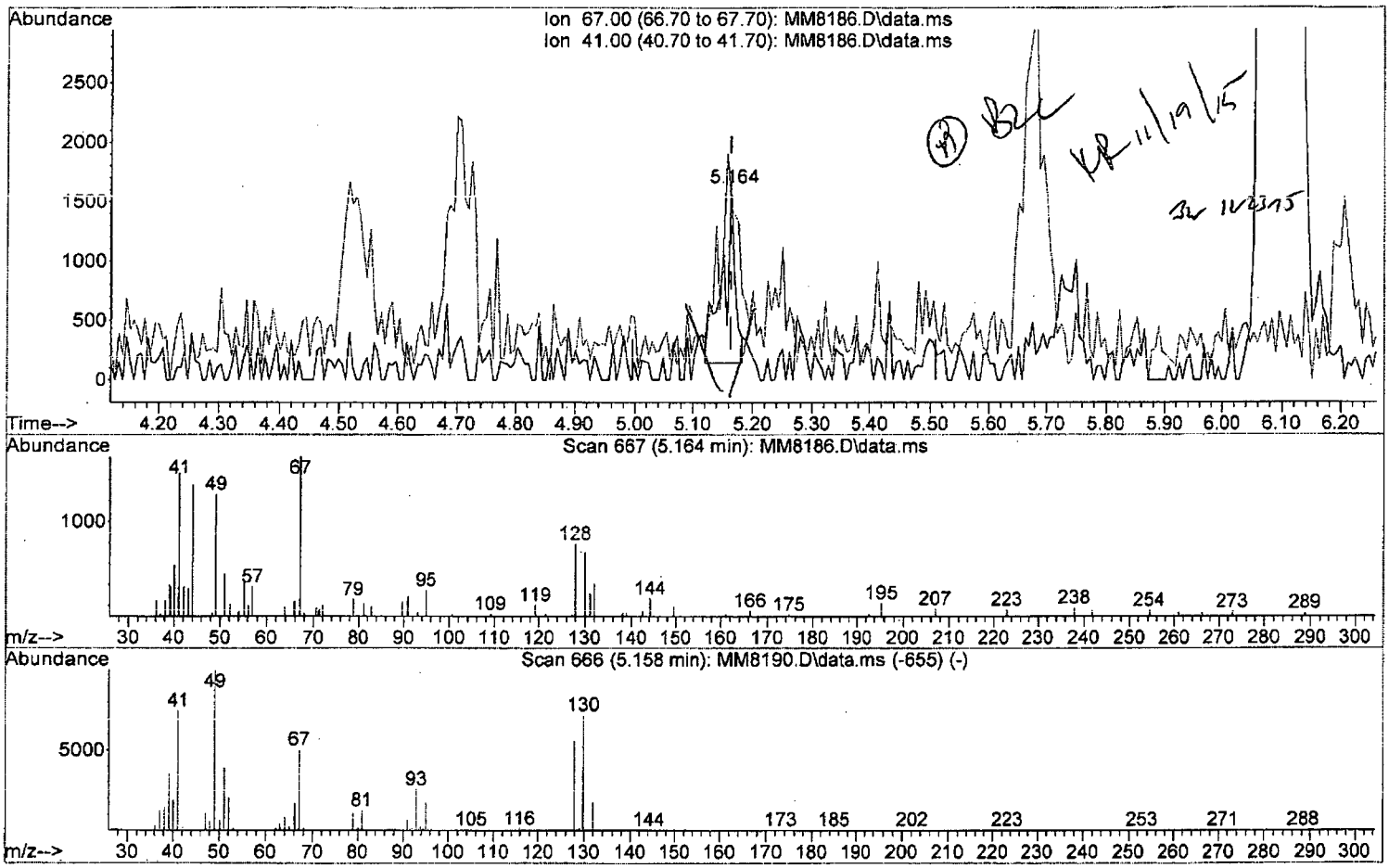
Ion	Exp%	Act%
67.00	100	100
41.00	148.70	90.23#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:03:51 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(38) Methacrylonitrile

5.164min (0.000) 0.91 ppb m

response 2125

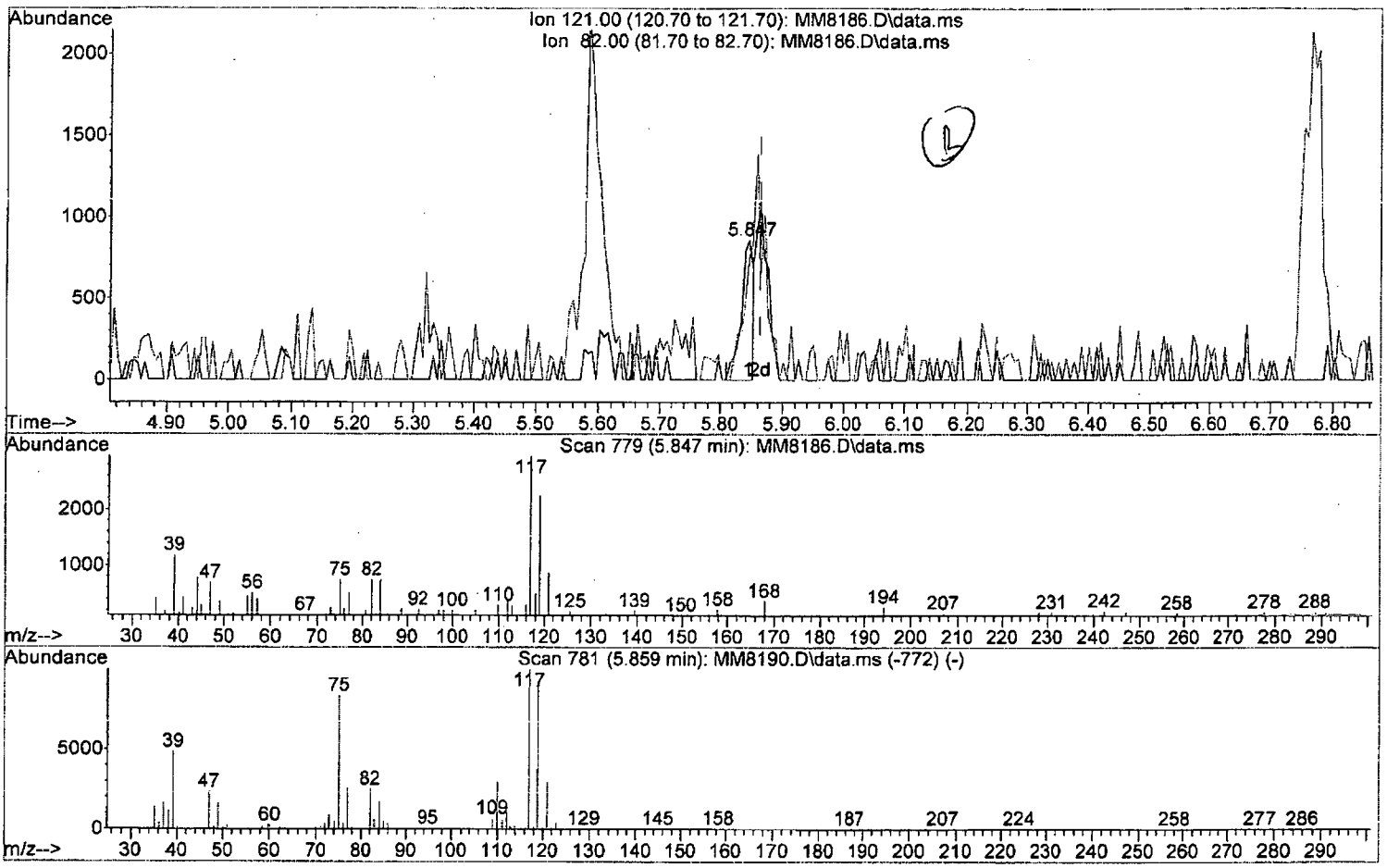
Ion	Exp%	Act%
67.00	100	100
41.00	148.70	90.23#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:04:22 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(46) Carbontetrachloride (P)

5.847min (-0.018) 0.47 ppb

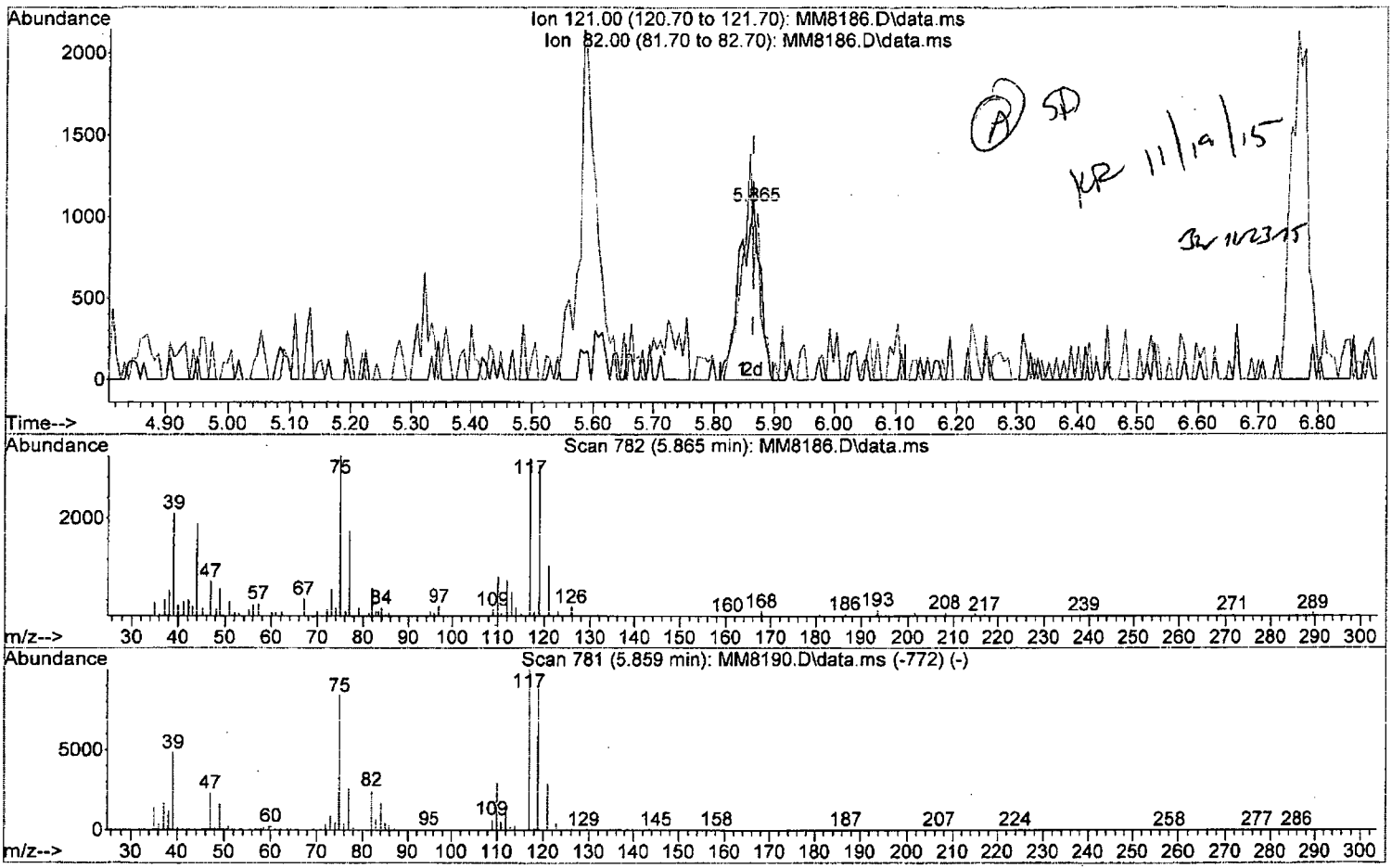
response 1154

Ion	Exp%	Act%
121.00	100	100
82.00	85.40	86.13
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:04:38 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(46) Carbontetrachloride (P)

5.865min (0.000) 1.04 ppb m

response 2566

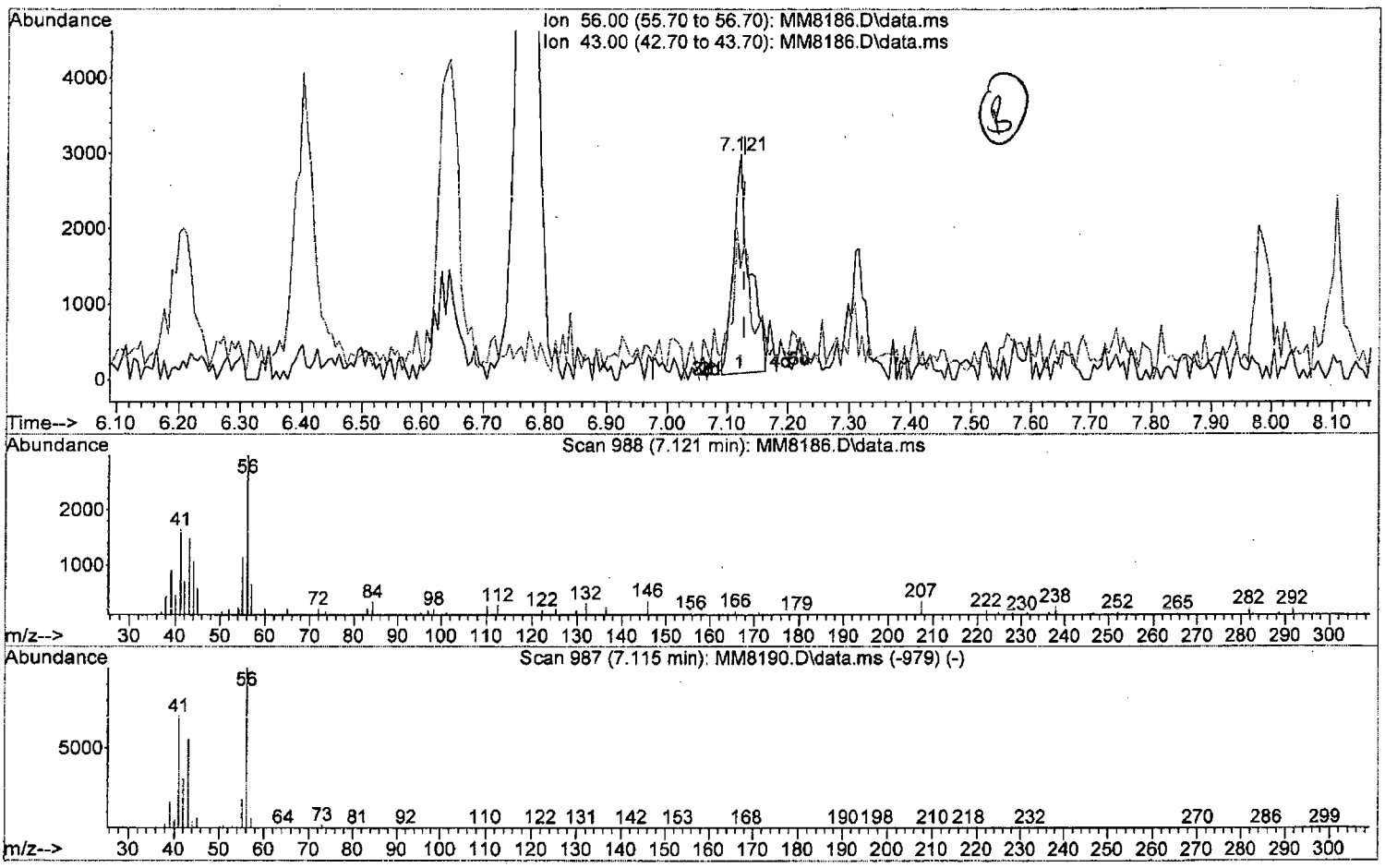
Ion	Exp%	Act%
121.00	100	100
82.00	85.40	59.19#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 14:17:10 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(53) 1-Butanol

7.121min (-0.006) 37.24 ppb

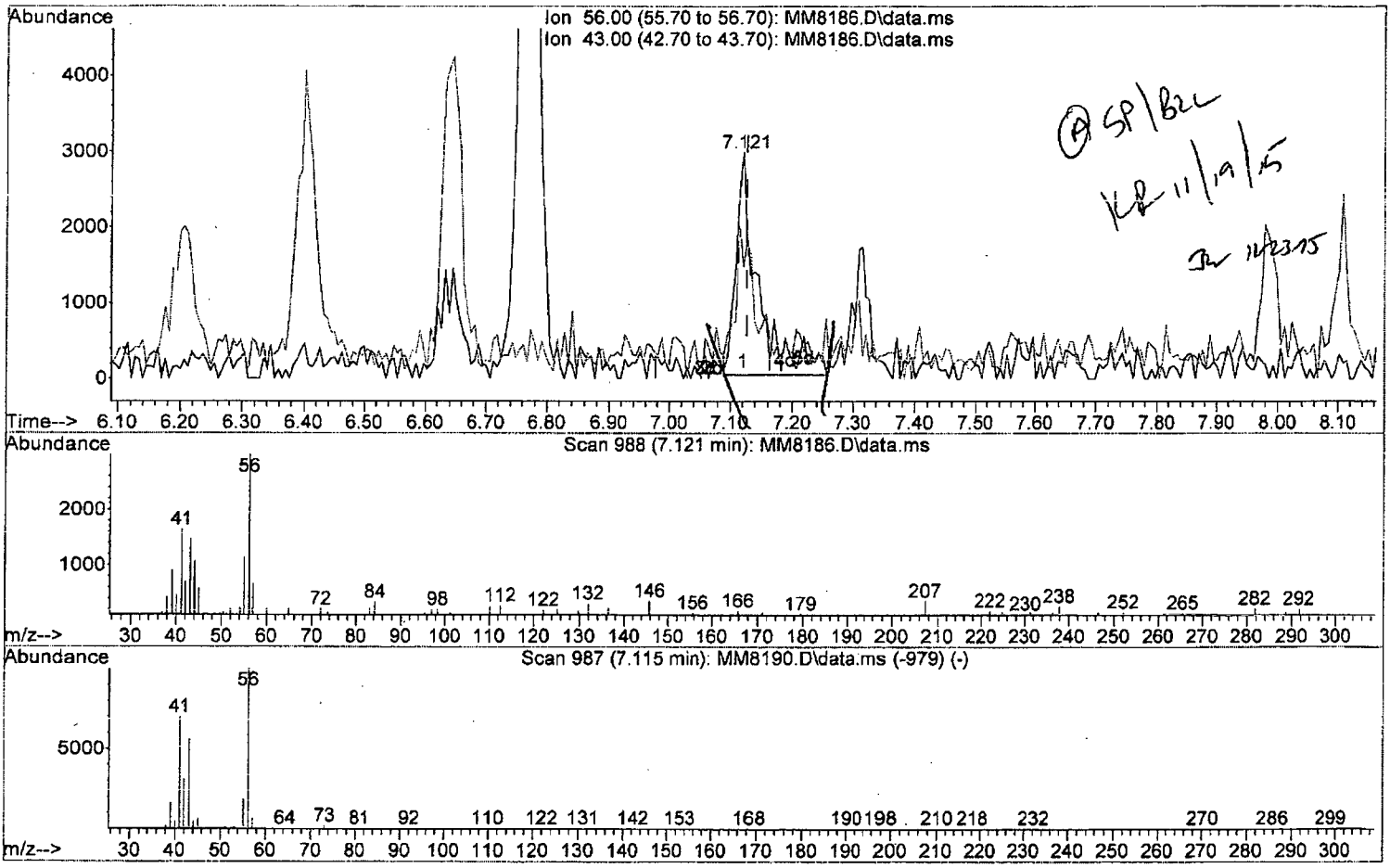
response 5473

Ion	Exp%	Act%
56.00	100	100
43.00	54.90	76.70#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:05:24 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(53) 1-Butanol

7.121min (-0.006) 48.37 ppb m

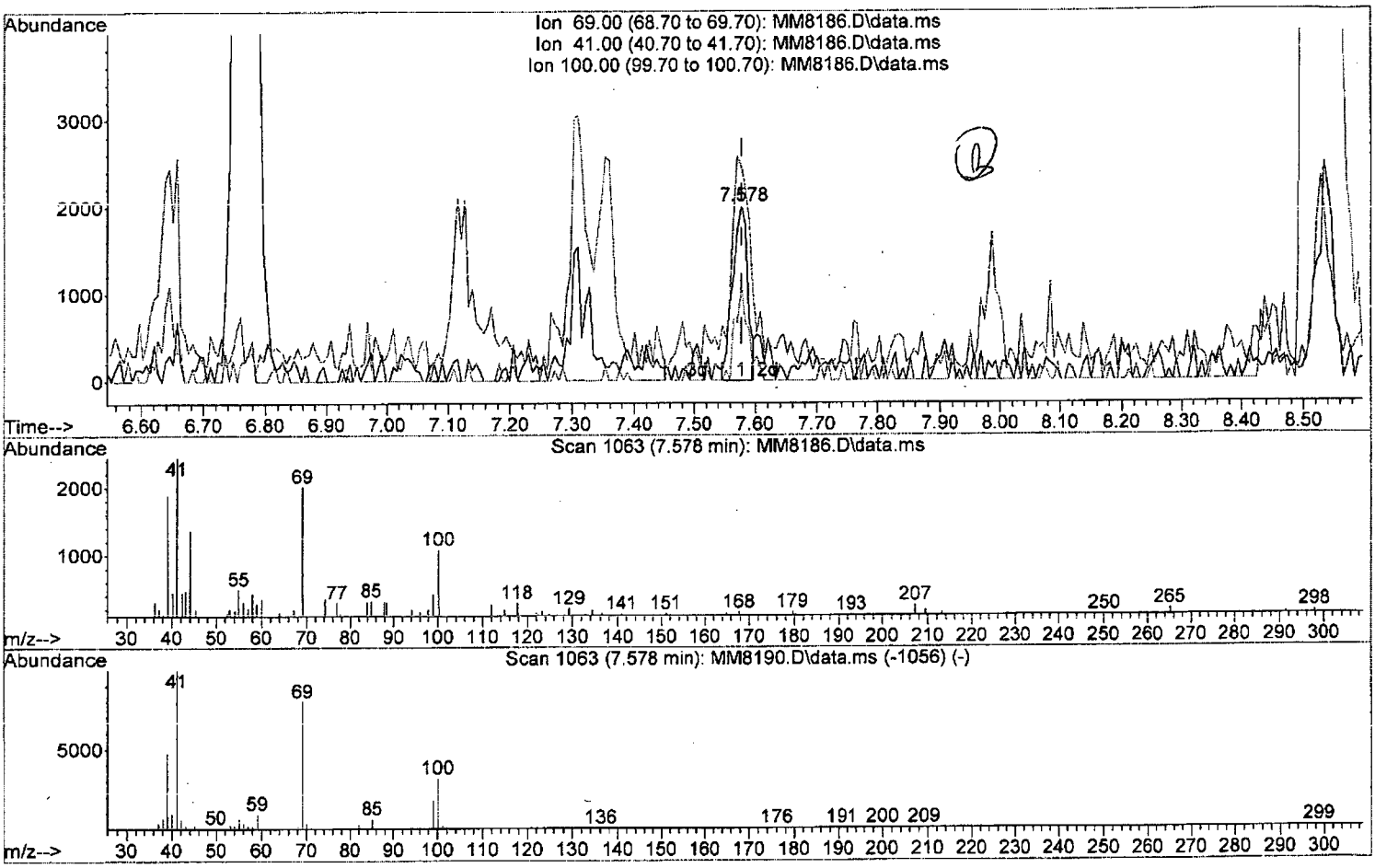
response 7108

Ion	Exp%	Act%
56.00	100	100
43.00	54.90	59.06
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:05:35 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb
Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(59) Methyl Methacrylate

7.578min (0.000) 0.83 ppb

response 3317

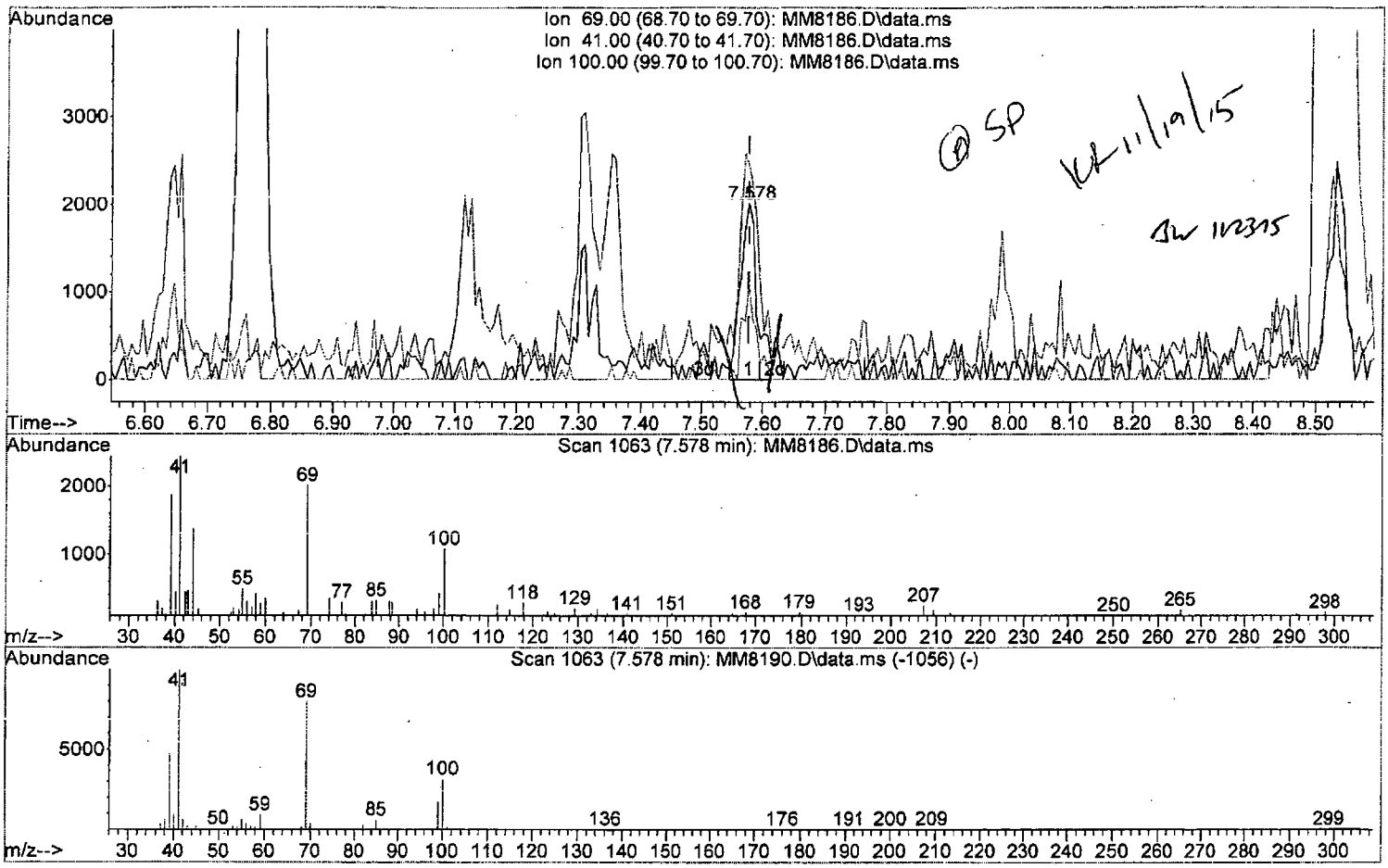
Ion	Exp%	Act%
69.00	100	100
41.00	125.30	121.57
100.00	39.20	53.46
0.00	0.00	0.00

W111815.M Thu Nov 19 10:06:20 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(59) Methyl Methacrylate

7.578min (0.000) 0.94 ppb m

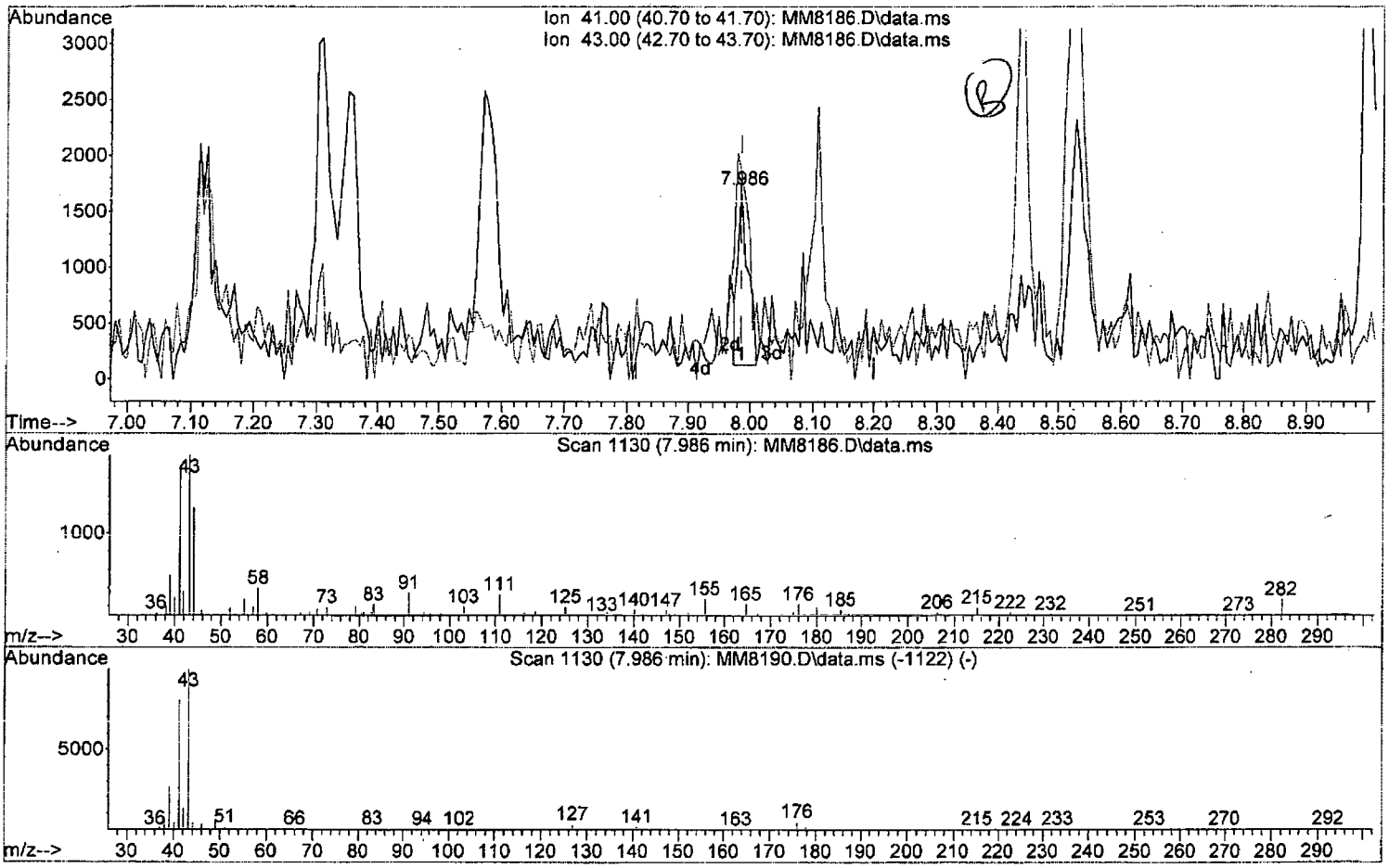
response 3768

Ion	Exp%	Act%
69.00	100	100
41.00	125.30	121.57
100.00	39.20	53.46
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(61) 2-Nitropropane

7.986min (-0.000) 1.38 ppb

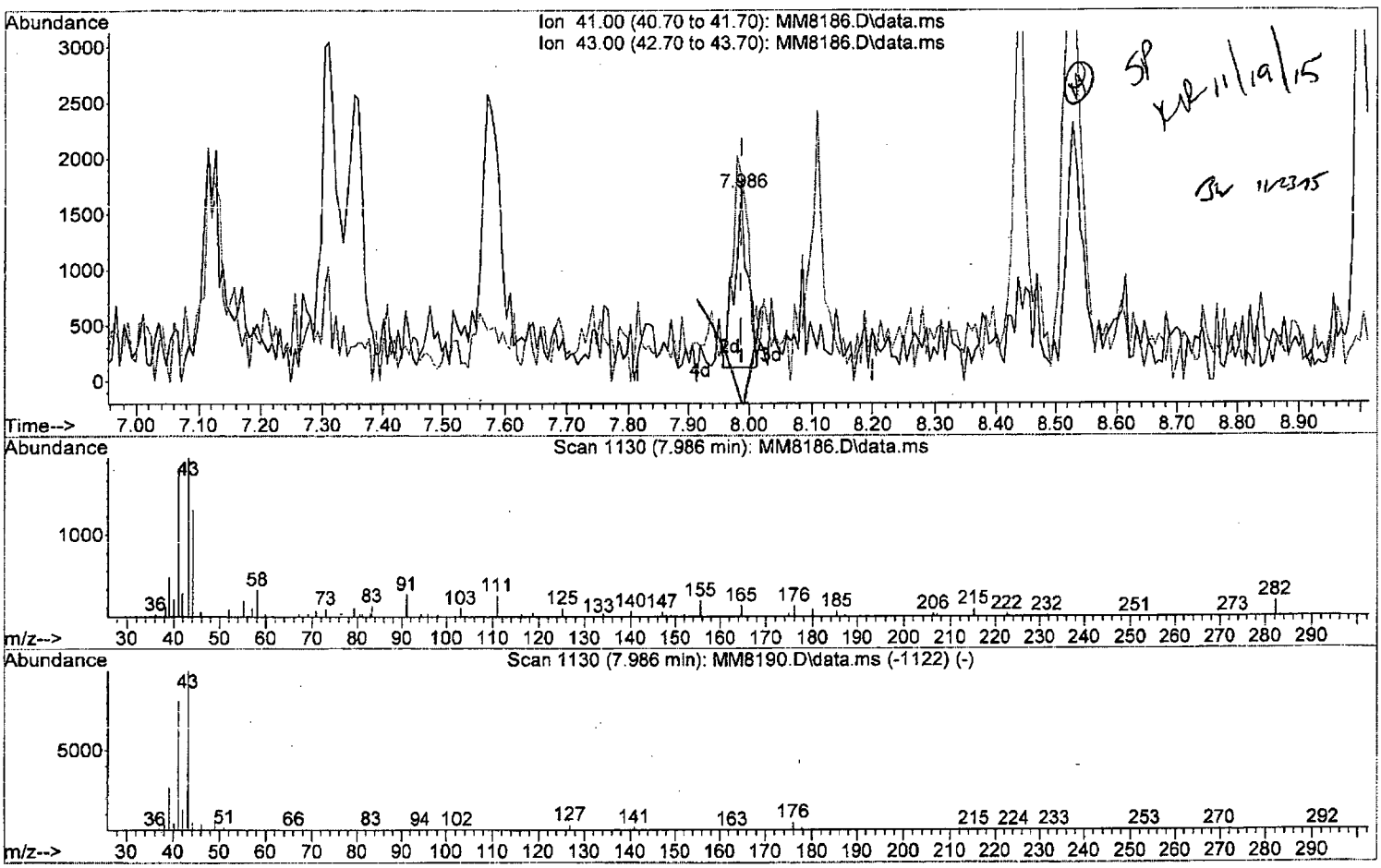
response 1743

Ion	Exp%	Act%
41.00	100	100
43.00	123.30	108.72
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:06:41 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(61) 2-Nitropropane

7.986min (-0.000) 1.86 ppb m

response 2354

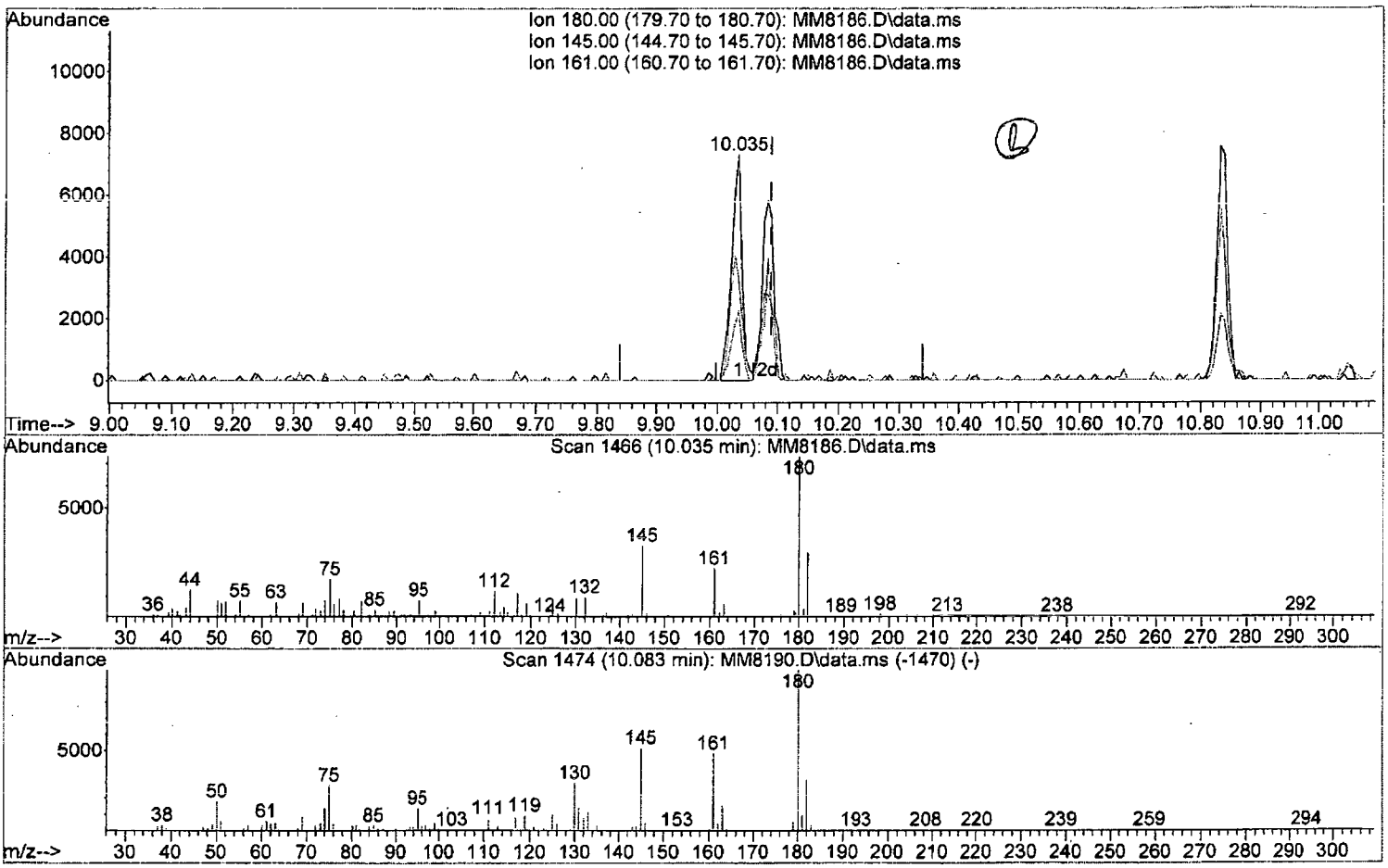
Ion	Exp%	Act%
41.00	100	100
43.00	123.30	108.72
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:06:57 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(80) 4-CBTF

10.035min (-0.055) 1.13 ppb

response 8890

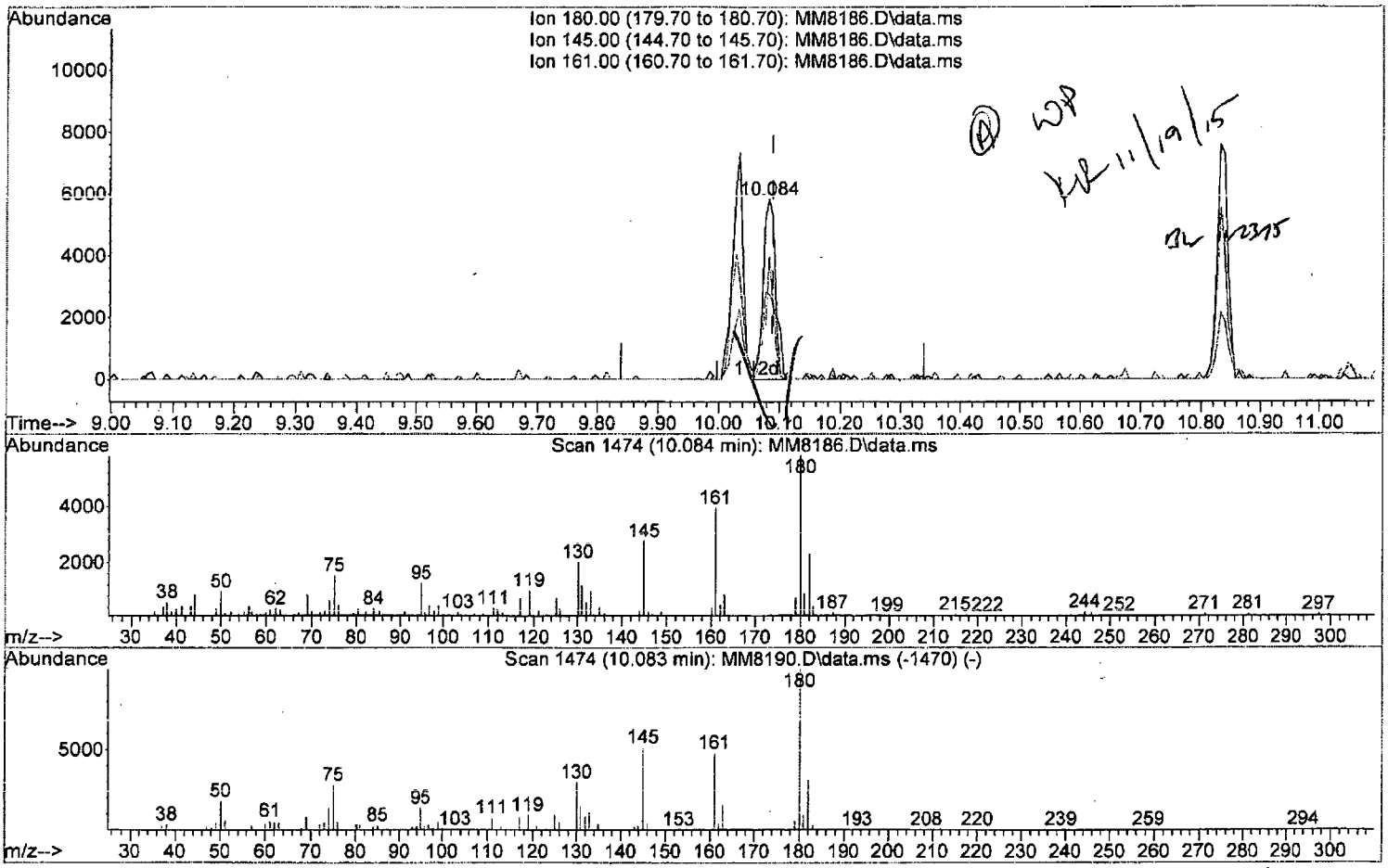
Ion	Exp%	Act%
180.00	100	100
145.00	51.80	44.88
161.00	47.80	30.85
0.00	0.00	0.00

W111815.M Thu Nov 19 10:07:27 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(80) 4-CBTF

10.084min (-0.006) 1.04 ppb m

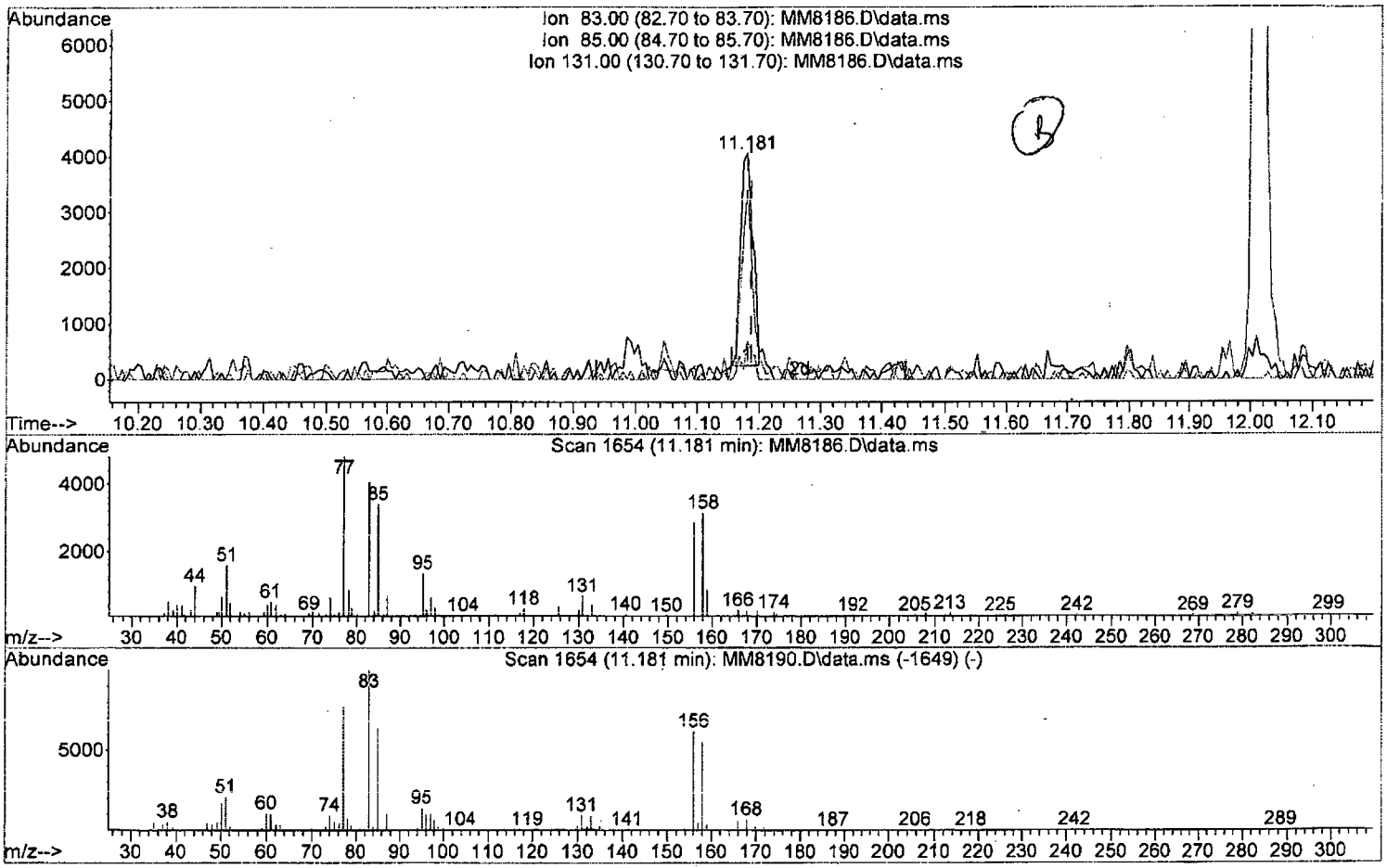
response 8238

Ion	Exp%	Act%
180.00	100	100
145.00	51.80	47.49
161.00	47.80	67.95#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(92) 1,1,2,2-Tetrachloroethane (P)

11.181min (-0.006) 0.86 ppb

response 5194

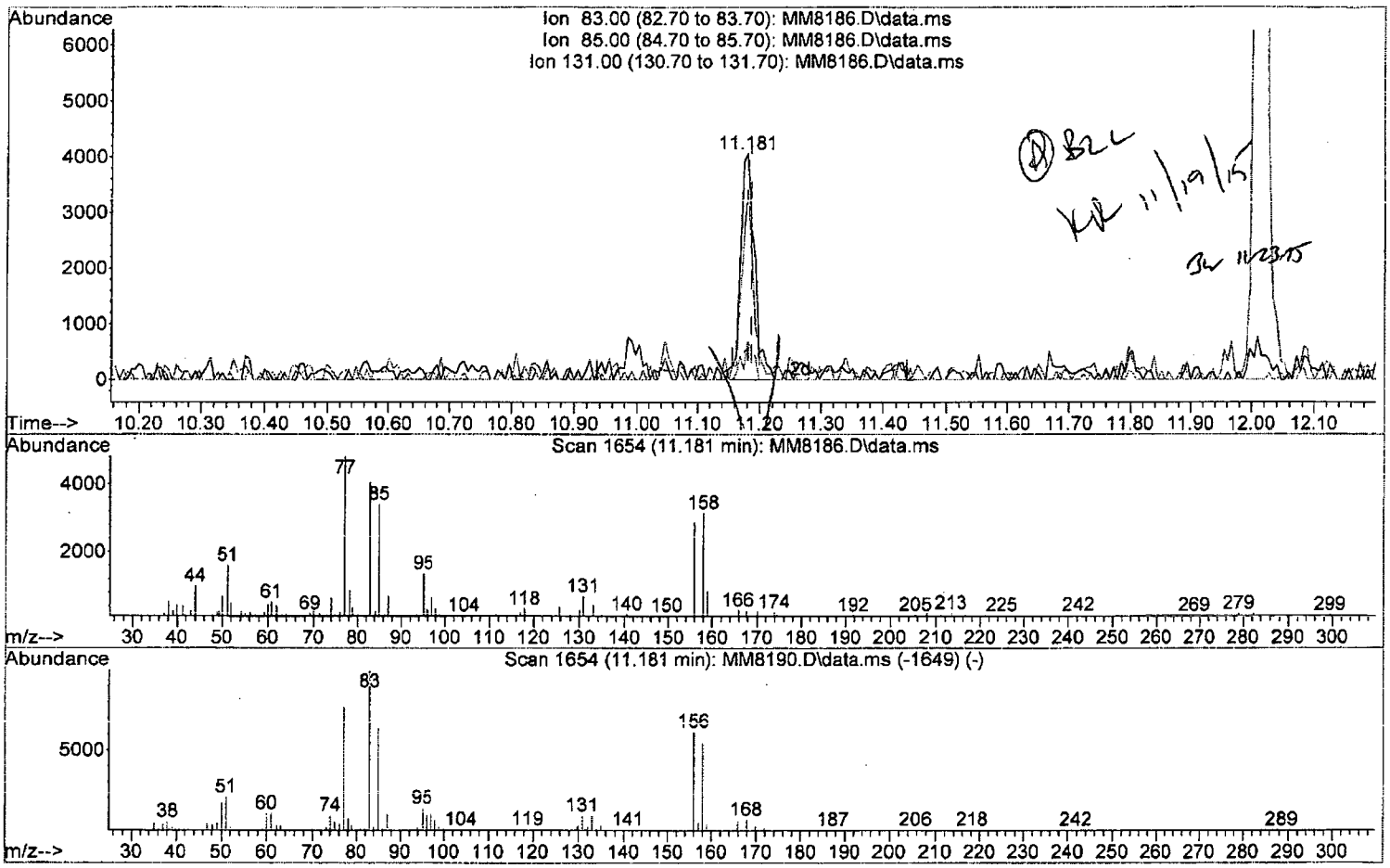
Ion	Exp%	Act%
83.00	100	100
85.00	63.60	83.77#
131.00	9.20	16.80
0.00	0.00	0.00

W111815.M Thu Nov 19 10:07:51 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(92) 1,1,2,2-Tetrachloroethane (P)

11.181min (-0.006) 1.07 ppb m

response 6432

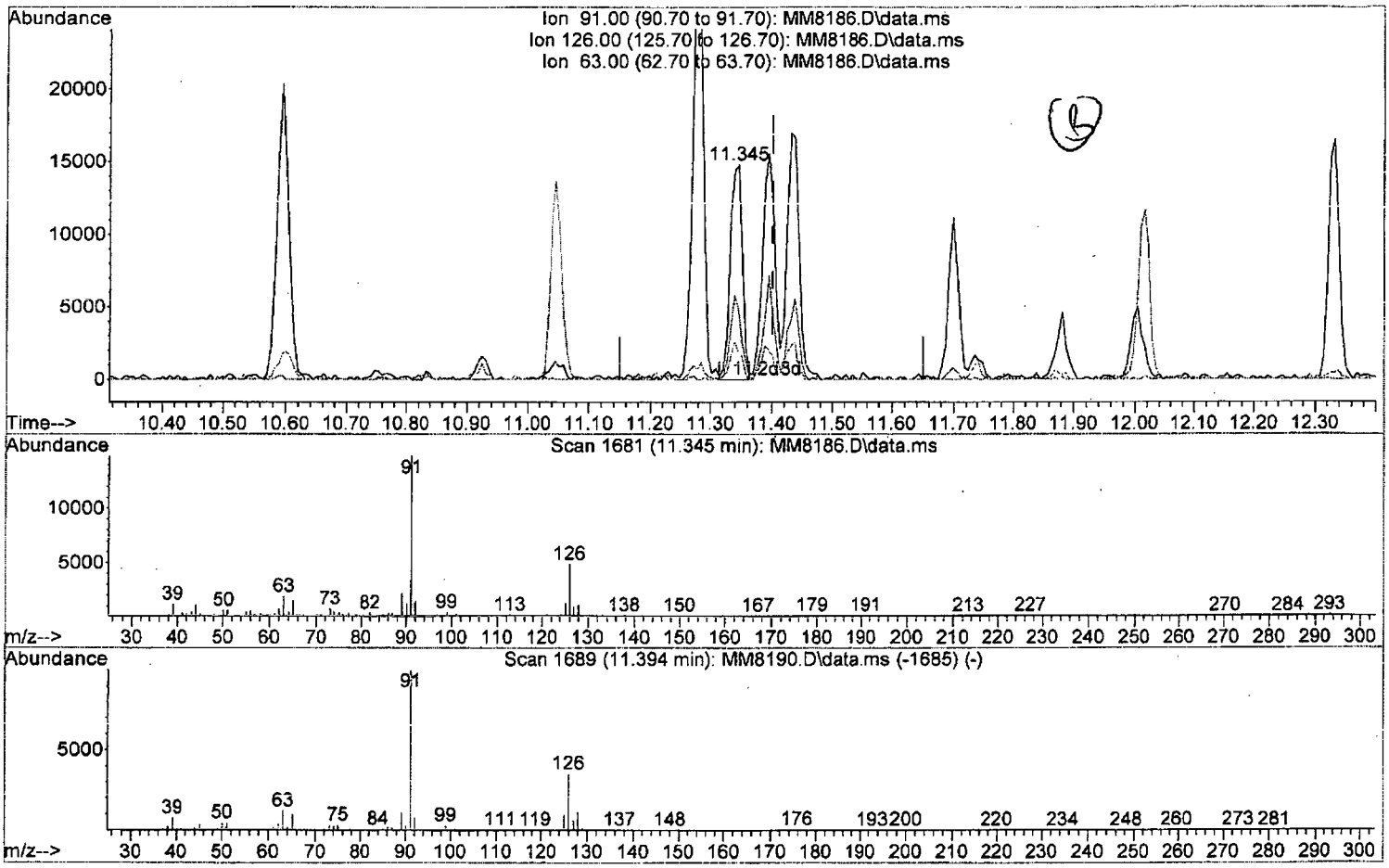
Ion	Exp%	Act%
83.00	100	100
85.00	63.60	83.77#
131.00	9.20	16.80
0.00	0.00	0.00

W111815.M Thu Nov 19 10:07:58 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(97) 3-Chlorotoluene

11.345min (-0.055) 0.95 ppb

response 20042

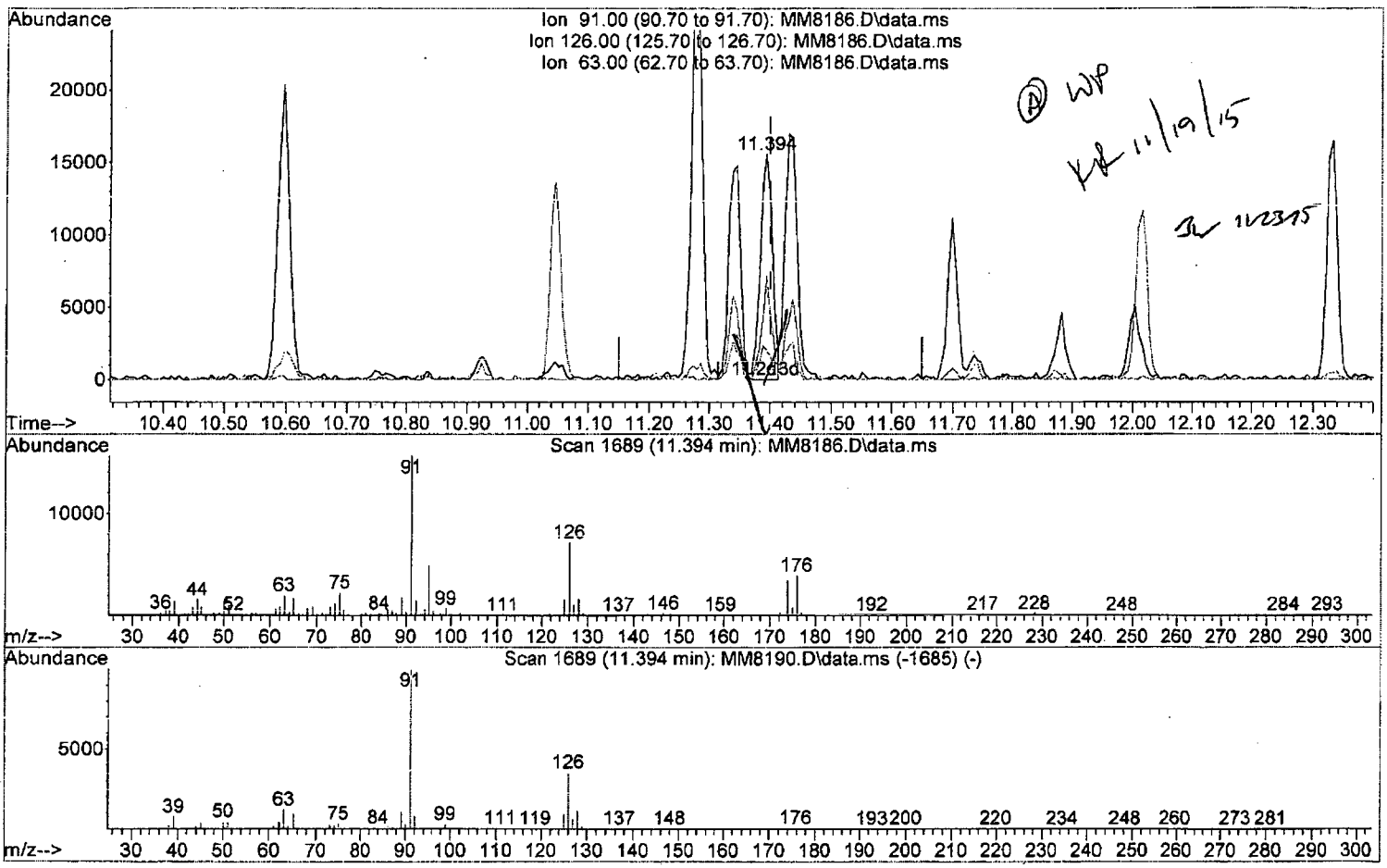
Ion	Exp%	Act%
91.00	100	100
126.00	35.20	32.78
63.00	12.10	12.79
0.00	0.00	0.00

W111815.M Thu Nov 19 10:08:10 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(97) 3-Chlorotoluene

11.394min (-0.006) 1.01 ppb m

response 21392

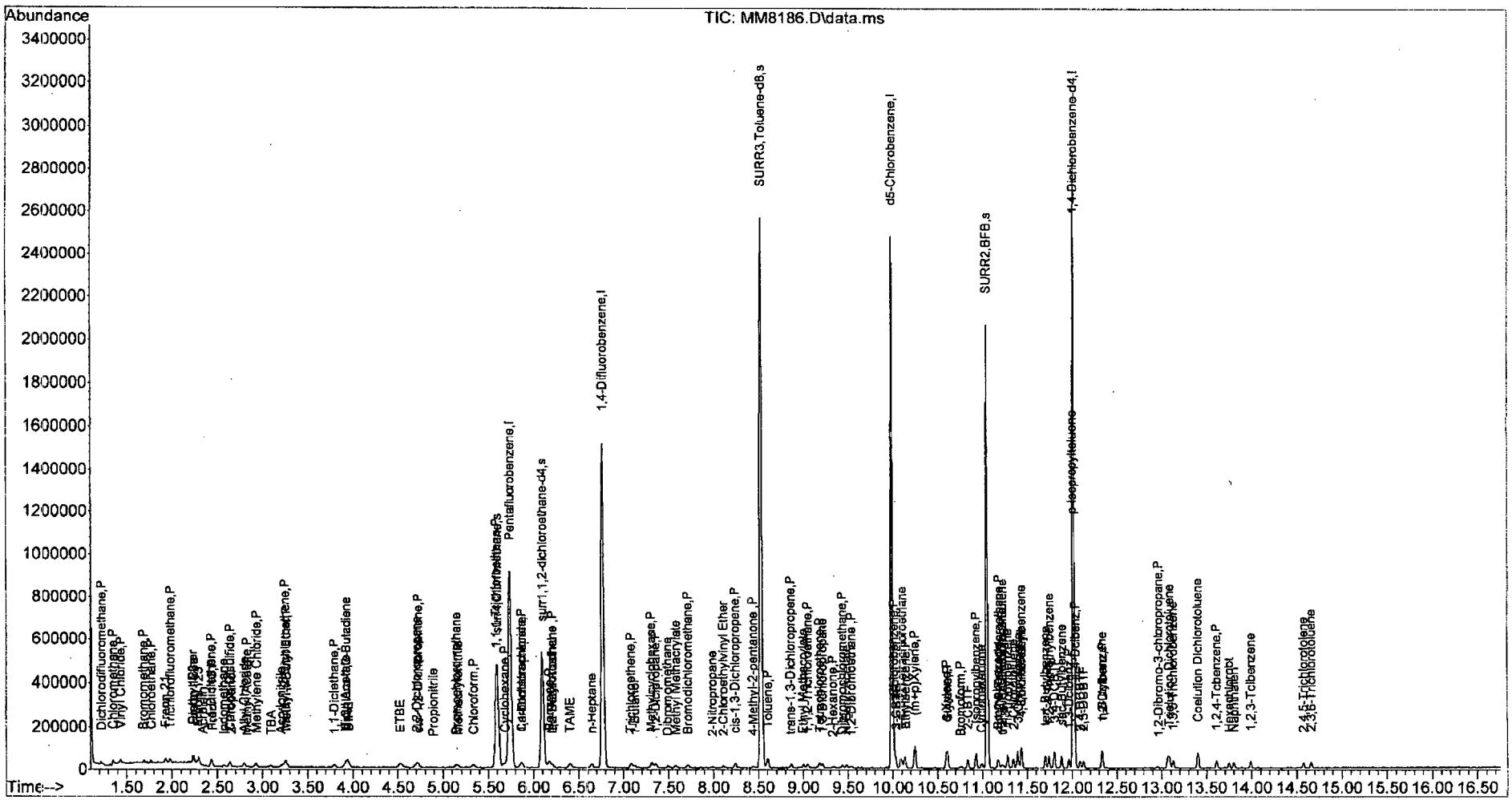
Ion	Exp%	Act%
91.00	100	100
126.00	35.20	45.92#
63.00	12.10	12.97
0.00	0.00	0.00

W111815.M Thu Nov 19 10:08:19 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 14:18:53 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 10:30:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	761220	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1261233	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1134883	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	567136	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	426248	60.27	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 120.54%#				
48) surr1,1,2-dichloroetha...	6.096	65	462111	59.83	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 119.66%				
65) SURR3,Toluene-d8	8.529	98	1817117	59.60	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 119.20%				
70) SURR2,BFB	11.047	95	681412	60.91	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 121.82%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	19630m	1.82	ppb		
3) Chloromethane	1.347	50	26367	2.06	ppb		100
4) Vinyl Chloride	1.433	62	23228	1.95	ppb		97
5) Bromomethane	1.689	94	12452	2.11	ppb		92
6) Chloroethane	1.768	64	13809	2.07	ppb		91
7) Freon 21	1.926	67	26902m	2.09	ppb		
8) Trichlorofluoromethane	1.975	101	19339	2.08	ppb		88
9) Diethyl Ether	2.237	59	10967	1.88	ppb		91
10) Freon 123a	2.237	67	18149	2.16	ppb		93
11) Freon 123	2.292	83	20494	2.10	ppb		97
12) Acrolein	2.347	56	2810	4.33	ppb		85
13) 1,1-Diclethene	2.432	96	12972	1.99	ppb		97
14) Freon 113	2.438	101	12607	2.18	ppb		92
15) Acetone	2.493	43	4914	3.04	ppb		95
16) 2-Propanol	2.670	45	12966	42.11	ppb		85
17) Iodomethane	2.573	142	12617m	1.77	ppb		
18) Carbon Disulfide	2.634	76	46103	2.17	ppb		95
19) Acetonitrile	2.768	40	2255	10.02	ppb	#	79
20) Allyl Chloride	2.798	76	6762	1.91	ppb	#	74
21) Methyl Acetate	2.841	43	8044	2.13	ppb		97
22) Methylene Chloride	2.926	84	16272	2.21	ppb		90
23) TBA	3.097	59	19908	39.84	ppb		98
24) Acrylonitrile	3.213	53	19909	10.76	ppb	#	81
25) Methyl-t-Butyl Ether	3.268	73	36529	2.06	ppb		97
26) trans-1,2-Dichloroethene	3.249	96	14800	2.17	ppb	#	79
28) 1,1-Diclethane	3.786	63	25132	2.06	ppb		92
29) Vinyl Acetate	3.914	86	2894m	2.20	ppb		
30) DIPE	3.944	45	52538	2.21	ppb		98
31) 2-Chloro-1,3-Butadiene	3.926	53	26038	2.13	ppb		90
32) ETBE	4.530	59	47683	2.13	ppb		87
33) 2,2-Dichloropropane	4.700	77	20552	2.11	ppb	#	75
34) cis-1,2-Dichloroethene	4.725	96	16202m	2.13	ppb		
35) 2-Butanone	4.786	43	5176m	2.30	ppb		
36) Propionitrile	4.883	54	7224m	10.64	ppb		

KP 11/19/15

W111815.M Thu Nov 19 10:31:03 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 10:30:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	8261m	2.09	ppb		
38) Methacrylonitrile	5.157	67	4737	2.05	ppb	#	83
39) Tetrahydrofuran	5.249	42	3117	2.10	ppb		84
40) Chloroform	5.328	83	23962	2.02	ppb		96
41) 1,1,1-Trichloroethane	5.603	97	19331	2.08	ppb		90
42) TAME	6.407	73	41257	2.17	ppb		91
44) Cyclohexane	5.682	41	13705	2.00	ppb		94
46) Carbontetrachloride	5.859	121	4905	2.02	ppb	#	73
47) 1,1-Dichloropropene	5.871	75	18711	2.09	ppb		94
49) Benzene	6.169	78	58050	2.09	ppb		97
50) 1,2-Dichloroethane	6.212	62	14828	2.08	ppb		85
51) Iso-Butyl Alcohol	6.212	43	10719	46.07	ppb		77
52) n-Heptane	6.639	43	16798	2.20	ppb		79
53) 1-Butanol	7.127	56	16877m	116.00	ppb		
54) Trichloroethene	7.078	130	13540	1.92	ppb		87
55) Methylcyclohexane	7.316	55	18529	2.21	ppb	#	80
56) 1,2-Diclpropane	7.358	63	13548	1.97	ppb		87
57) Dibromomethane	7.498	93	7116m	2.10	ppb		
58) 1,4-Dioxane	7.559	88	2224m	43.47	ppb		
59) Methyl Methacrylate	7.578	69	8662	2.18	ppb	#	72
60) Bromodichloromethane	7.712	83	16774	1.99	ppb		91
61) 2-Nitropropane	7.992	41	5596m	4.47	ppb		
62) 2-Chloroethylvinyl Ether	8.108	63	8312	2.19	ppb		98
63) cis-1,3-Dichloropropene	8.236	75	23217	2.05	ppb		93
64) 4-Methyl-2-pentanone	8.443	43	9911	1.97	ppb		94
66) Toluene	8.602	91	60621	2.11	ppb		99
67) trans-1,3-Dichloropropene	8.864	75	18154	2.02	ppb		91
68) Ethyl Methacrylate	8.998	69	15311	1.93	ppb		89
69) 1,1,2-Trichloroethane	9.053	97	9918	2.04	ppb		98
72) Tetrachloroethene	9.181	164	9847	2.09	ppb	#	81
73) 2-Hexanone	9.333	43	8140	2.34	ppb		86
74) 1,3-Dichloropropane	9.212	76	18377	2.13	ppb		90
75) Dibromochloromethane	9.431	129	10916	2.03	ppb		94
76) N-Butyl Acetate	9.480	43	17047	2.07	ppb		90
77) 1,2-Dibromoethane	9.529	107	9232	2.01	ppb		83
78) Chlorobenzene	10.016	112	36503	2.17	ppb		90
79) 3-CBTF	10.028	180	17756	2.13	ppb		92
80) 4-CBTF	10.083	180	15972	2.06	ppb		96
81) 1,1,1,2-Tetrachloroethane	10.096	131	11978	2.06	ppb		84
82) Ethylbenzene	10.132	106	20233	2.13	ppb		98
83) (m+p)Xylene	10.242	106	50175	4.27	ppb		99
84) o-Xylene	10.595	106	25571	2.13	ppb		99
85) Styrene	10.608	104	42037	2.15	ppb		99
87) Bromoform	10.760	173	6538	2.03	ppb		97
88) 2-CBTF	10.839	180	18656	2.17	ppb		87
89) Isopropylbenzene	10.925	105	63113	2.14	ppb		97
90) Cyclohexanone	10.992	55	17449	40.81	ppb		84
91) trans-1,4-Dichloro-2-B...	11.229	53	3610m	1.95	ppb		
92) 1,1,2,2-Tetrachloroethane	11.181	83	12981	2.18	ppb		89
93) Bromobenzene	11.168	156	14628	2.19	ppb		99
94) 1,2,3-Trichloropropane	11.211	110	3547	2.02	ppb		93

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 10:30:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

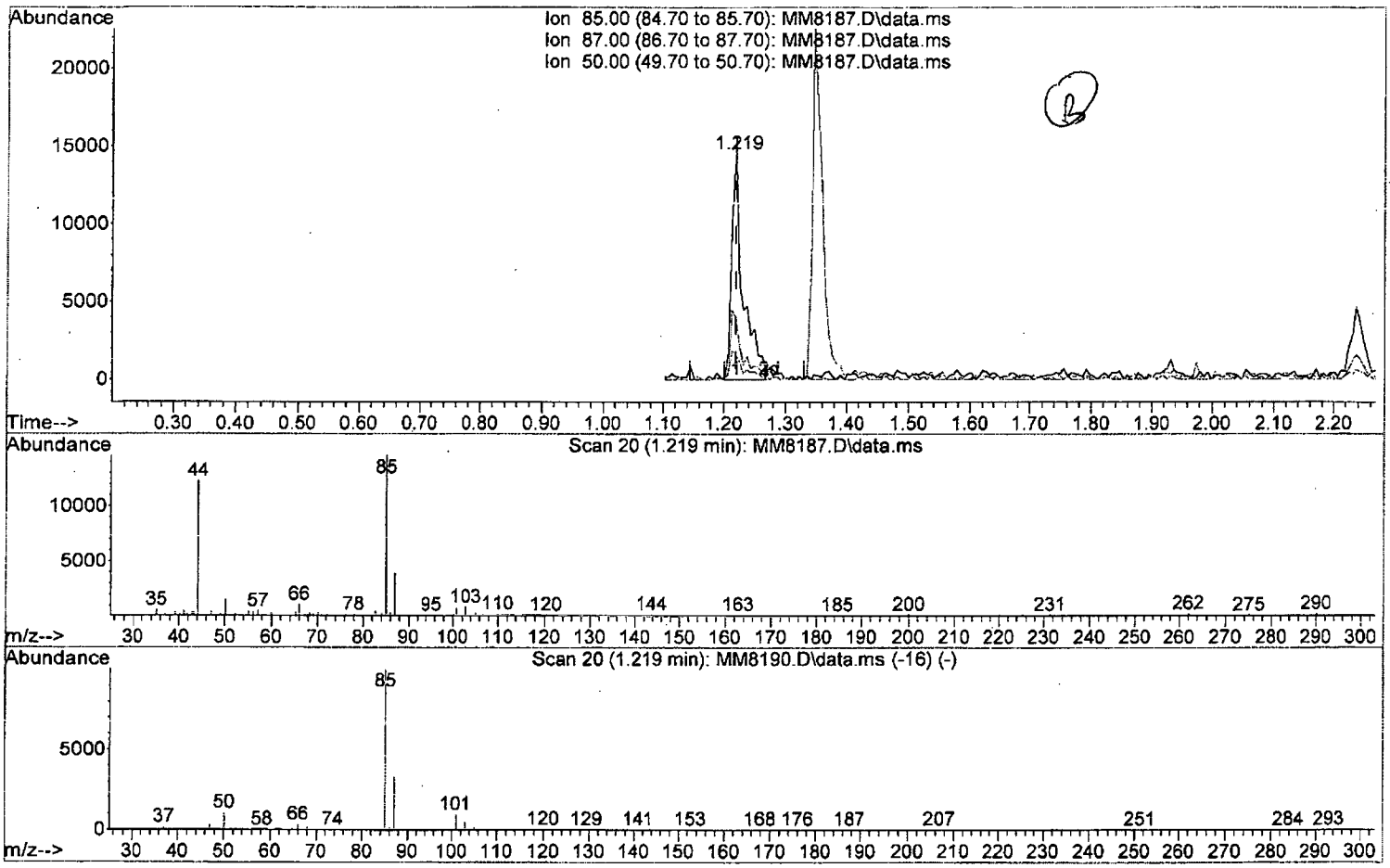
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
95)	n-Propylbenzene	11.278	91	74492	2.19	ppb		93
96)	2-Chlorotoluene	11.339	91	41495	2.08	ppb		94
97)	3-Chlorotoluene	11.394	91	44152	2.11	ppb		95
98)	4-Chlorotoluene	11.437	91	49091	2.18	ppb		95
99)	1,3,5-Trimethylbenzene	11.431	105	48689	2.18	ppb		95
100)	tert-Butylbenzene	11.699	119	41489	2.08	ppb		97
101)	1,2,4-Trimethylbenzene	11.742	105	49599	2.07	ppb		96
102)	3,4-DCBTF	11.796	214	13026	2.26	ppb		95
103)	sec-Butylbenzene	11.882	105	58903	2.11	ppb		95
104)	p-Isopropyltoluene	12.004	119	46482	2.16	ppb		90
105)	1,3-Dclbenz	11.961	146	26952	2.09	ppb		92
106)	1,4-Dclbenz	12.034	146	25381	2.10	ppb		90
107)	2,4-DCBTF	12.083	214	10106	2.01	ppb	#	84
108)	2,5-DCBTF	12.132	214	11449	2.01	ppb		95
109)	n-Butylbenzene	12.333	91	44025	2.16	ppb		91
110)	1,2-Dclbenz	12.333	146	23088	1.94	ppb		97
111)	1,2-Dibromo-3-chloropr...	12.955	157	2386	2.04	ppb	#	77
112)	Trielution Dichlorotol...	13.077	125	63807	6.36	ppb		94
113)	1,3,5 Trichlorobenzene	13.125	180	17771	2.22	ppb		86
114)	Coelution Dichlorotoluene	13.400	125	45098	4.25	ppb		98
115)	1,2,4-Tcbenzene	13.607	180	14634	2.00	ppb		91
116)	Hexachlorobt	13.747	225	6685	2.14	ppb		89
117)	Naphthalen	13.802	128	32930	2.16	ppb		93
118)	1,2,3-Tclbenzene	13.985	180	12030	1.97	ppb	#	79
119)	2,4,5-Trichlorotolene	14.570	159	9031	1.95	ppb		96
120)	2,3,6-Trichlorotoluene	14.656	159	9505	2.32	ppb		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(2) Dichlorodifluoromethane (P)

1.219min (-0.000) 1.75 ppb

response 18830

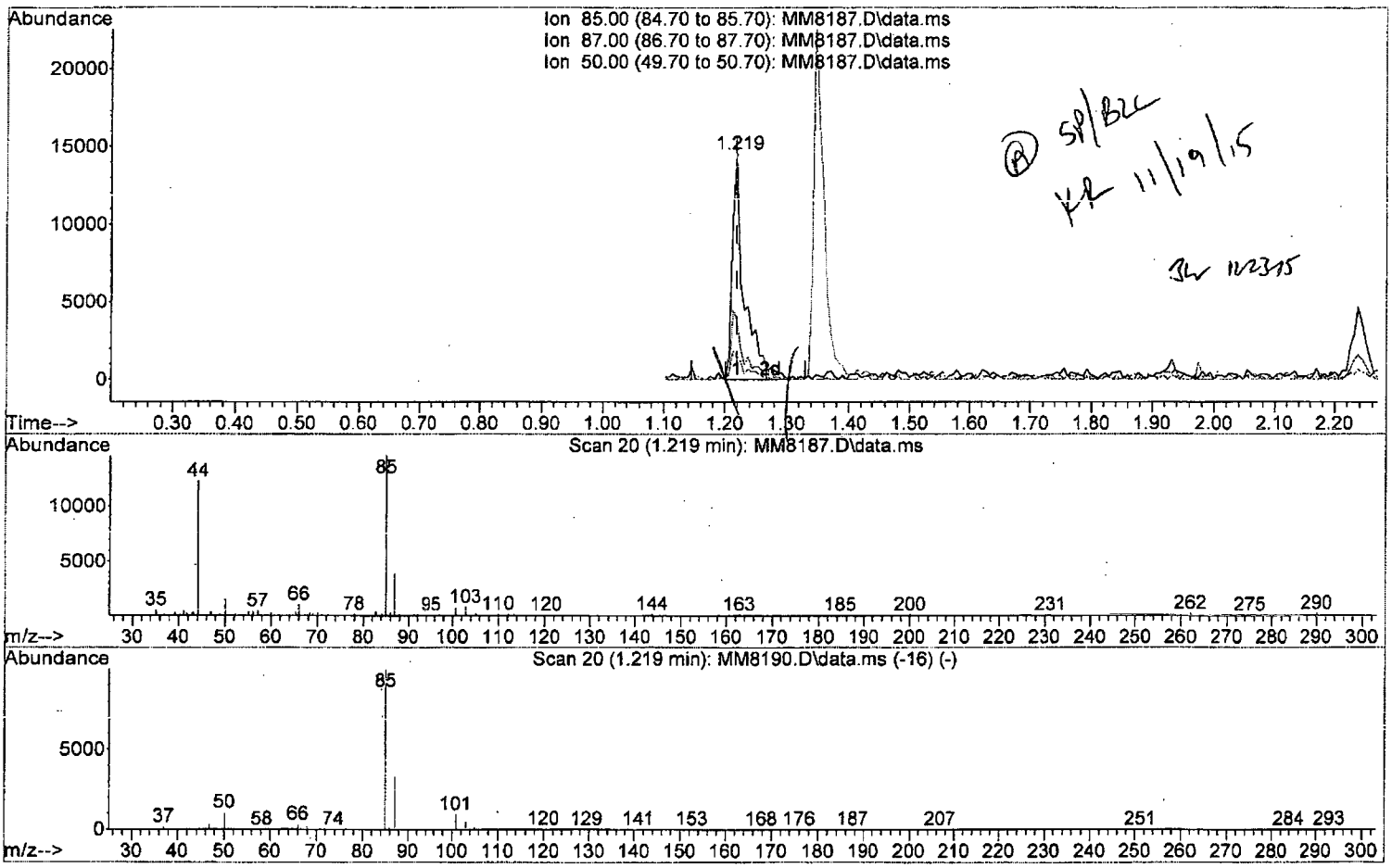
Ion	Exp%	Act%
85.00	100	100
87.00	32.70	26.76
50.00	10.60	10.62
0.00	0.00	0.00

W111815.M Thu Nov 19 10:20:08 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(2) Dichlorodifluoromethane (P)

1.219min (-0.000) 1.82 ppb m

response 19630

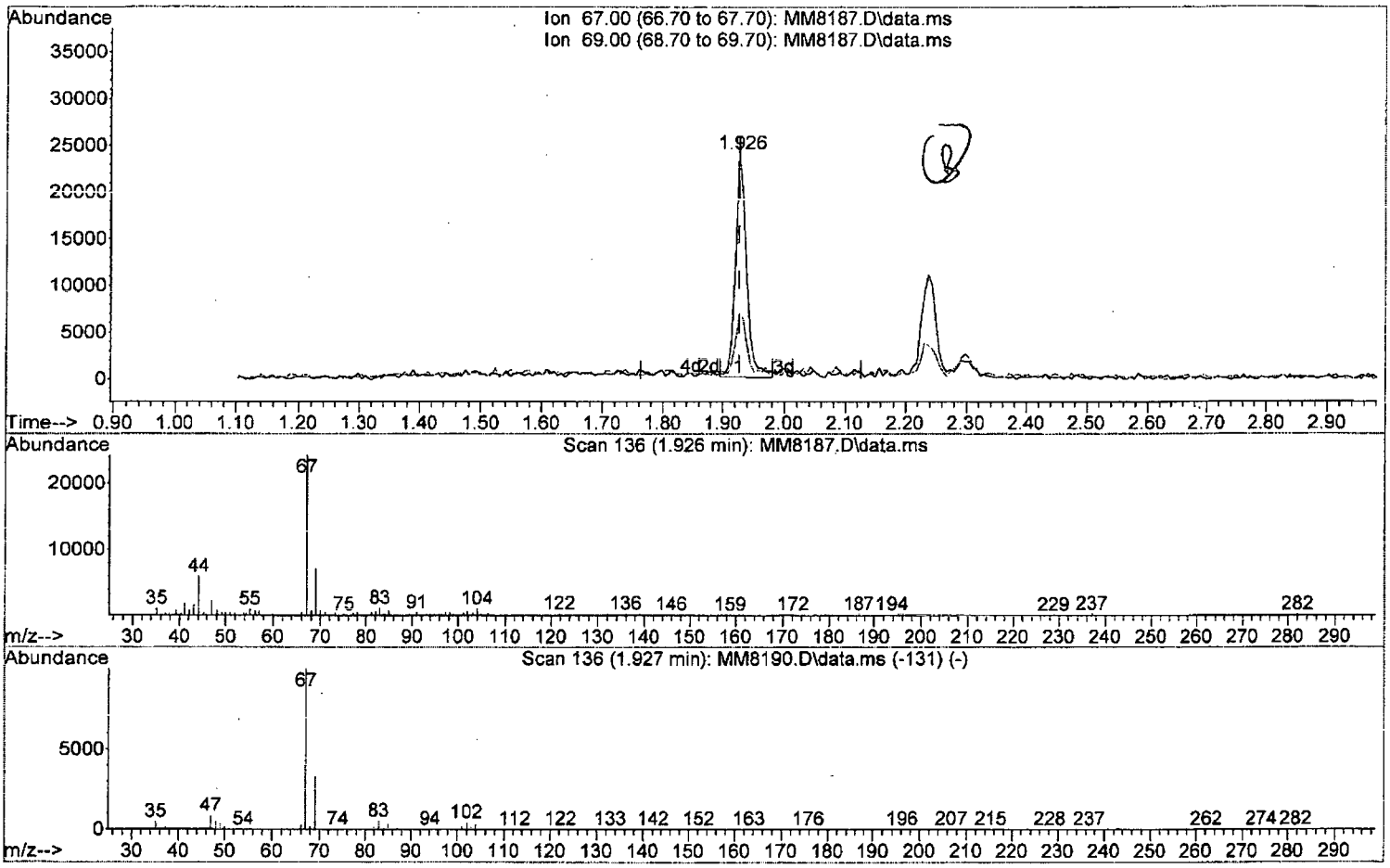
Ion	Exp%	Act%
85.00	100	100
87.00	32.70	26.76
50.00	10.60	10.62
0.00	0.00	0.00

W111815.M Thu Nov 19 10:20:14 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(7) Freon 21

1.926min (-0.000) 2.31 ppb

response 29617

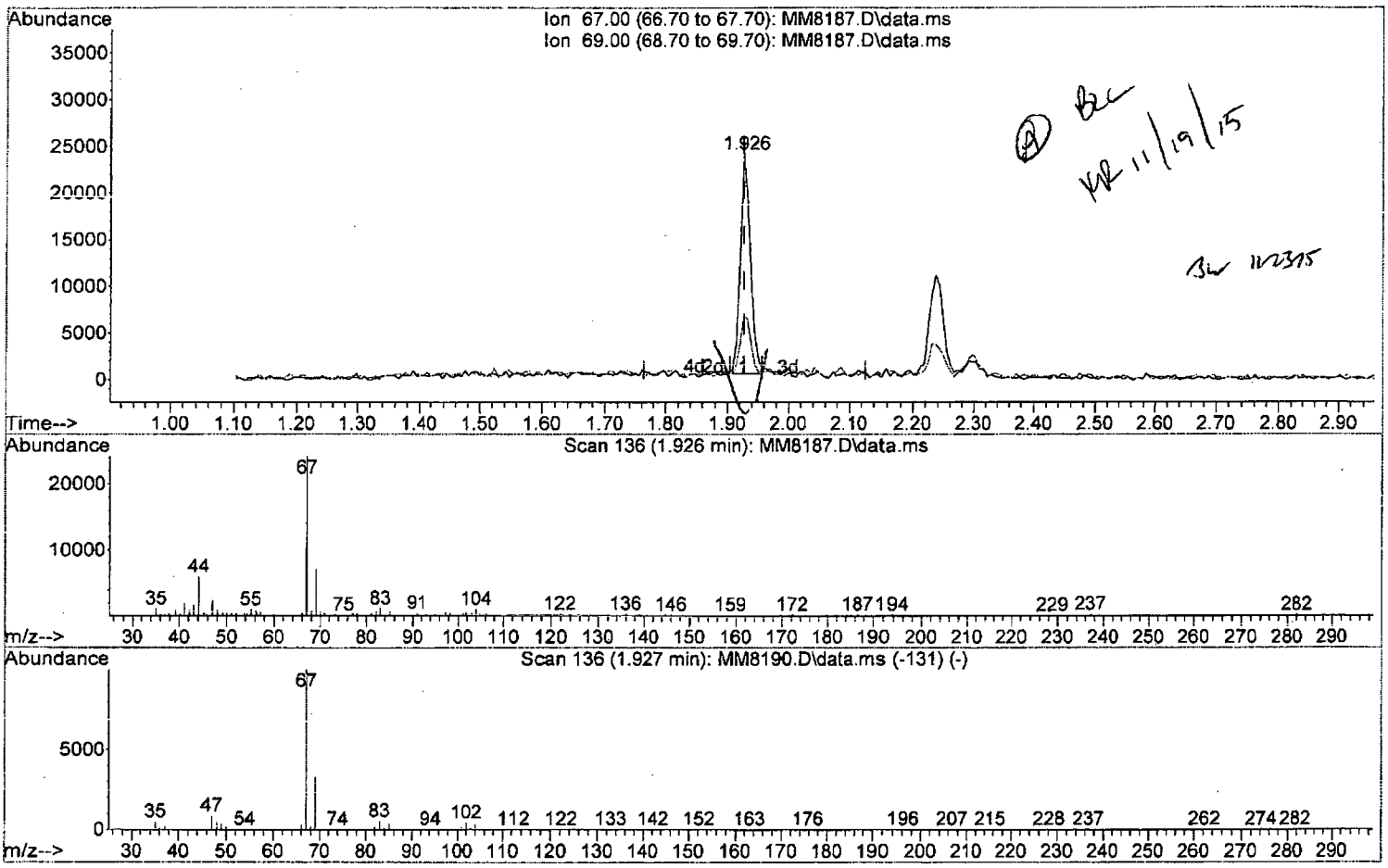
Ion	Exp%	Act%
67.00	100	100
69.00	33.10	29.18
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:20:46 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(7) Freon 21

1.926min (-0.000) 2.09 ppb m

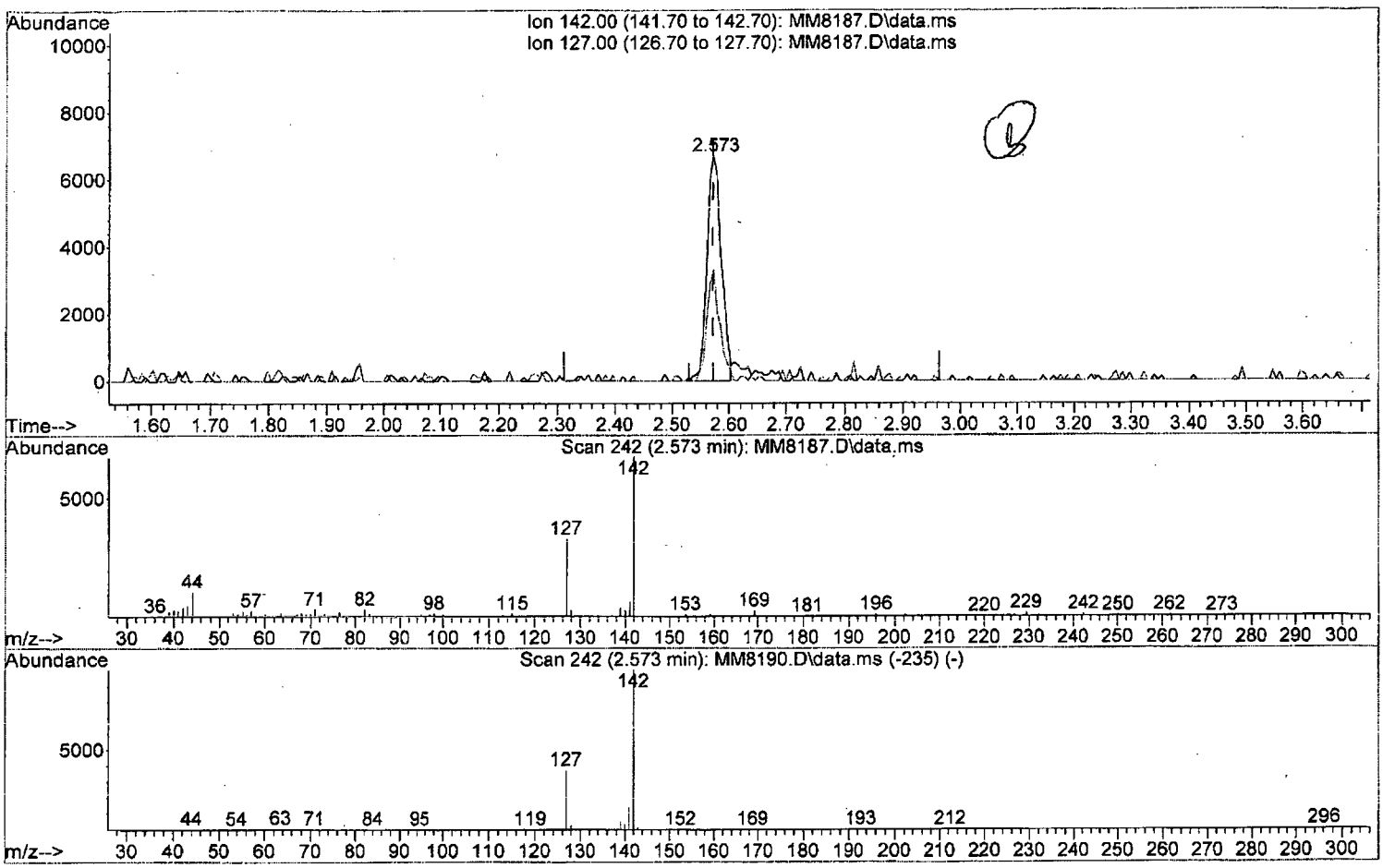
response 26902

Ion	Exp%	Act%
67.00	100	100
69.00	33.10	29.18
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:21:07 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(17) Iodomethane

2.573min (+0.001) 1.65 ppb

response 11773

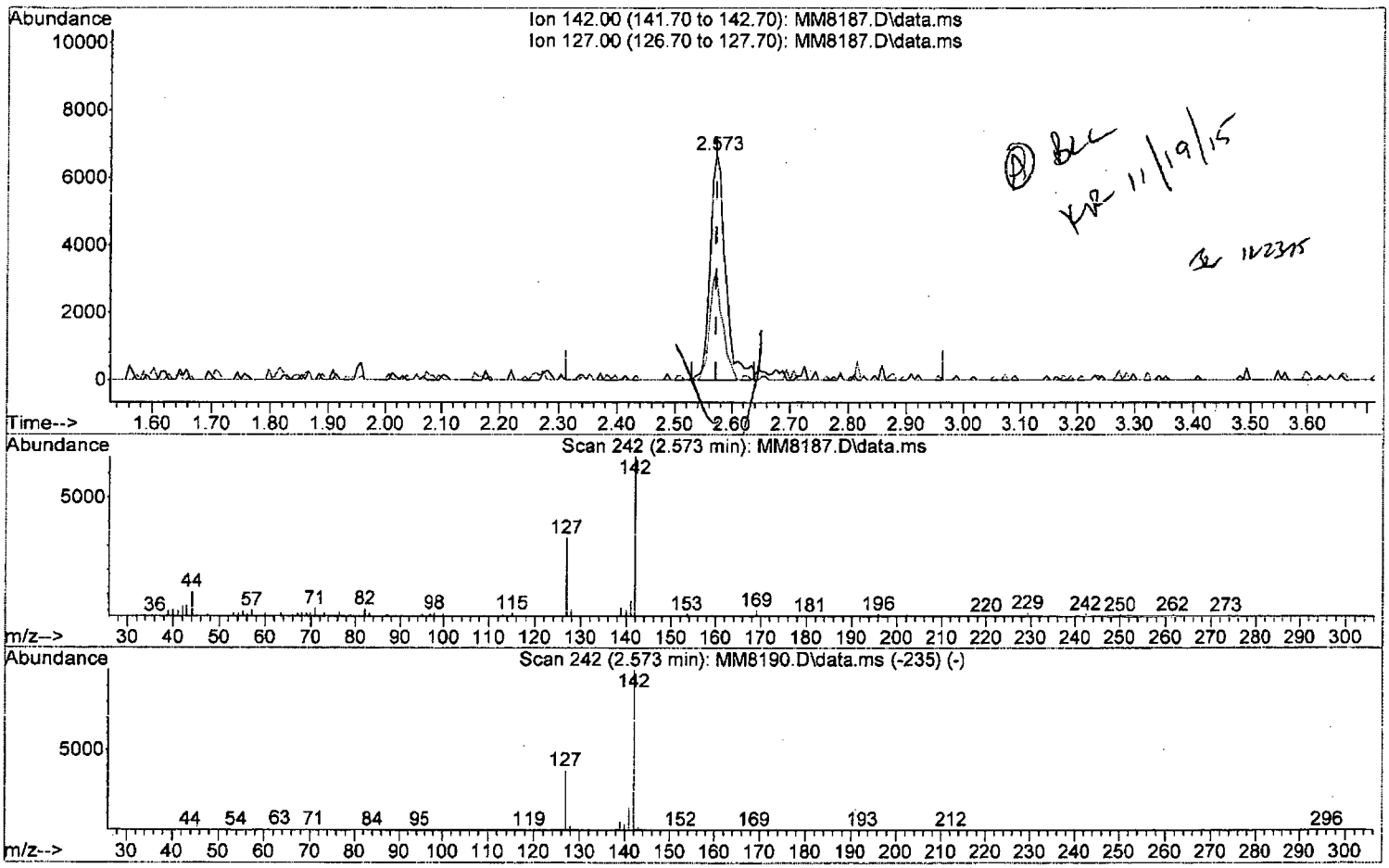
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	49.54
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:21:47 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(17) Iodomethane

2.573min (+0.001) 1.77 ppb m

response 12617

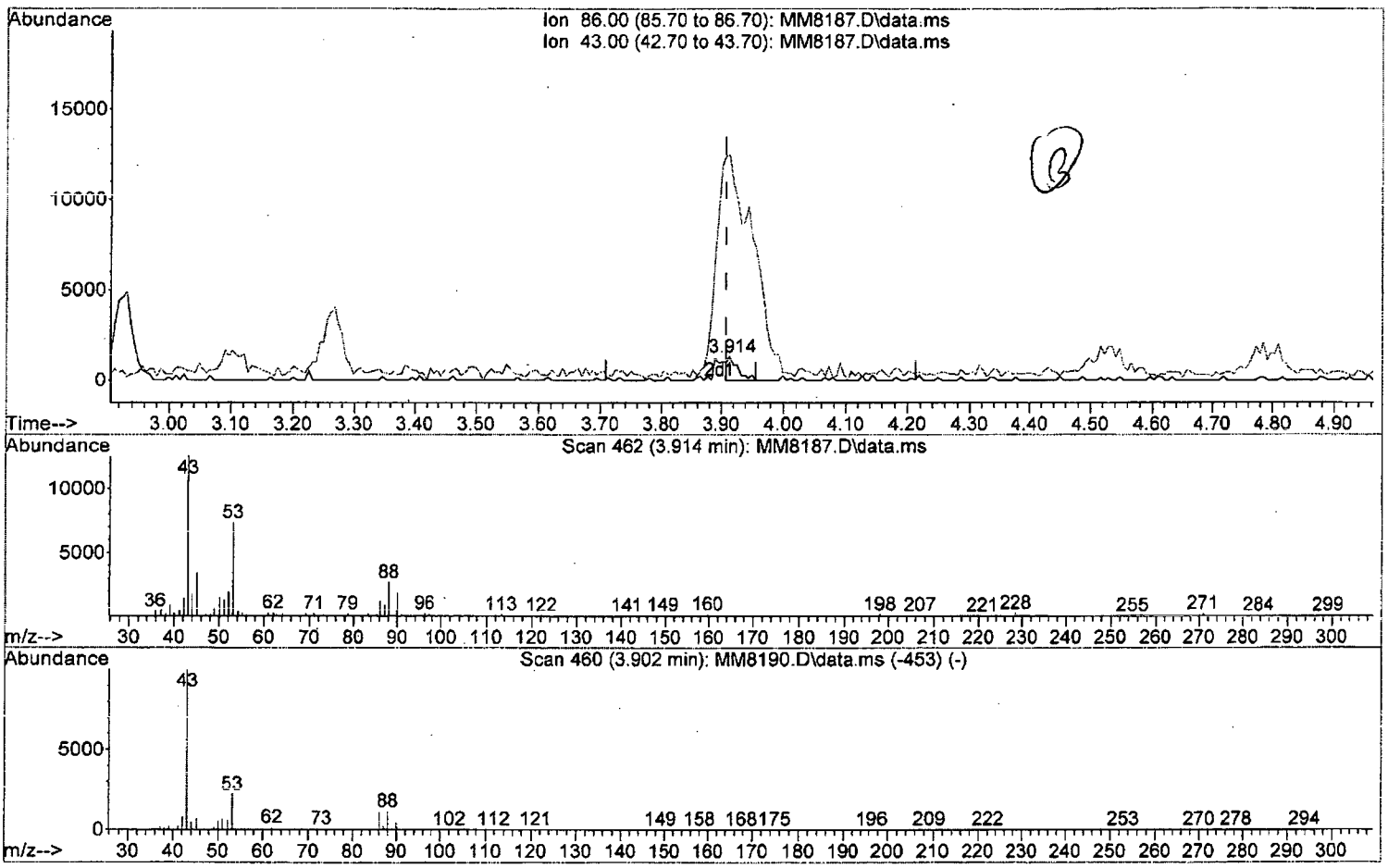
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	49.54
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:21:59 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(29) Vinyl Acetate

3.914min (+0.006) 1.11 ppb

response 1463

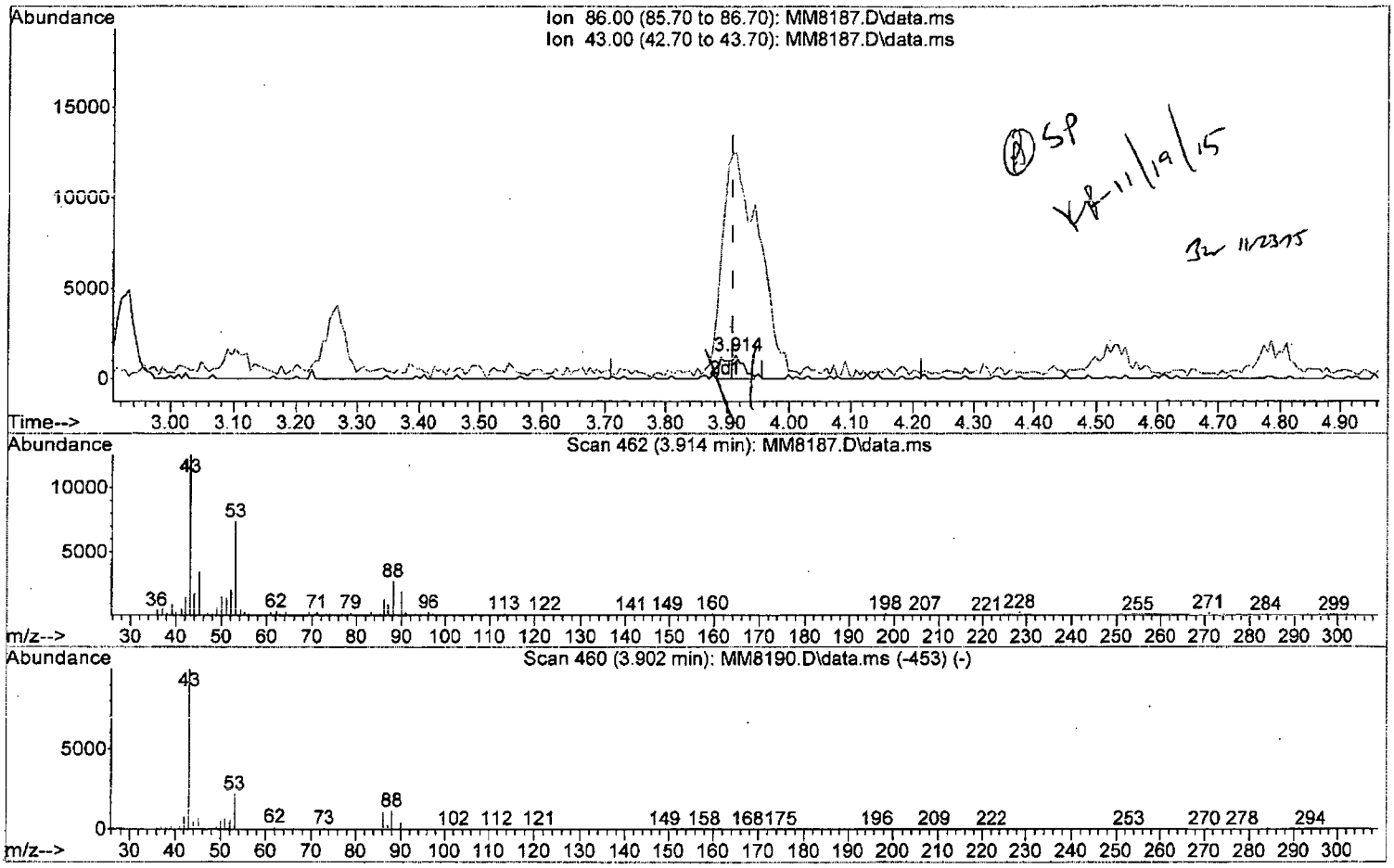
Ion	Exp%	Act%
86.00	100	100
43.00	979.70	957.56#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:22:20 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



SP 11/19/15

11/23/15

TIC: MM8187.D\data.ms

(29) Vinyl Acetate

3.914min (+0.006) 2.20 ppb m

response 2894

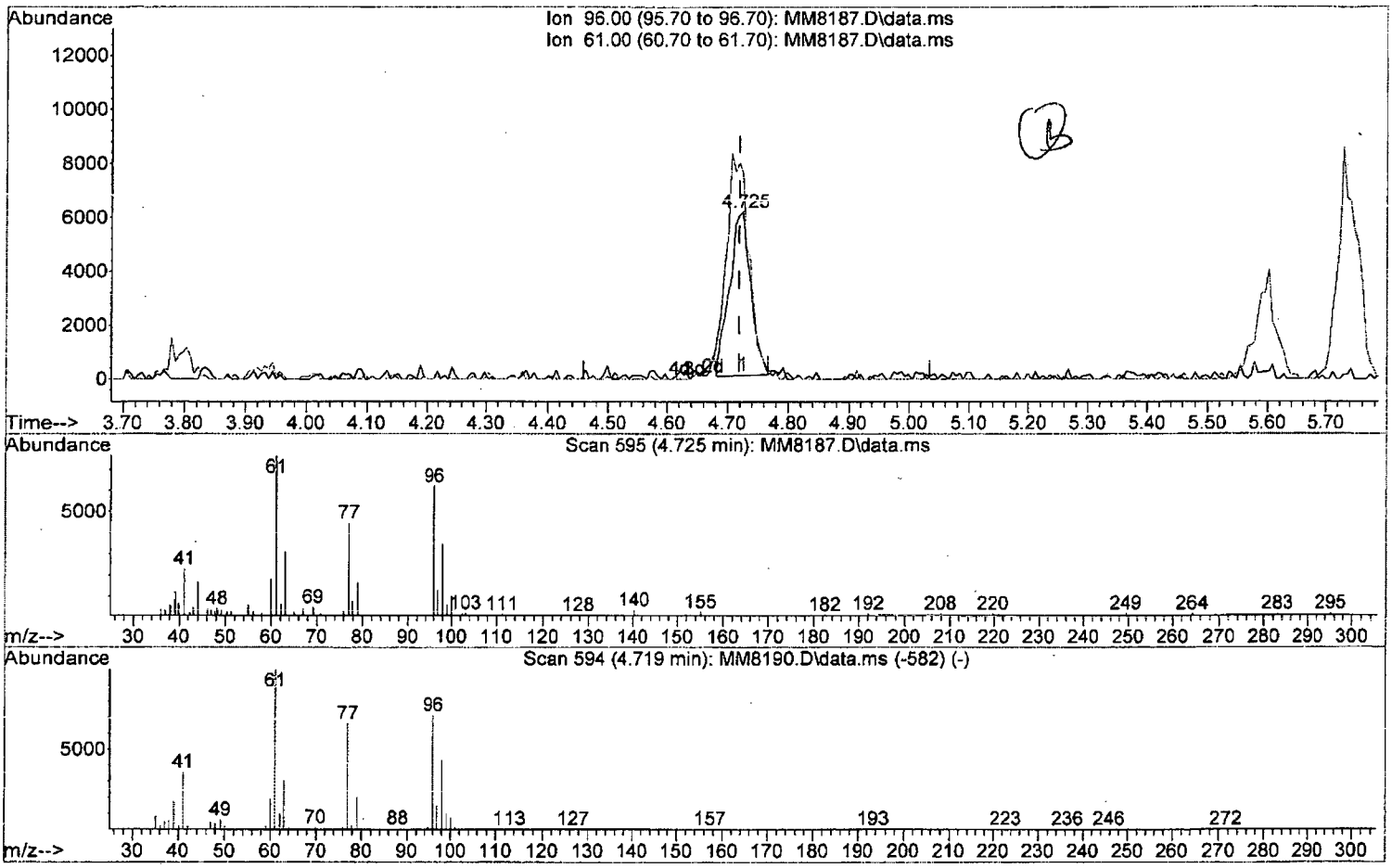
Ion	Exp%	Act%
86.00	100	100
43.00	979.70	957.56#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:22:28 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.725min (+0.006) 1.97 ppb

response 14951

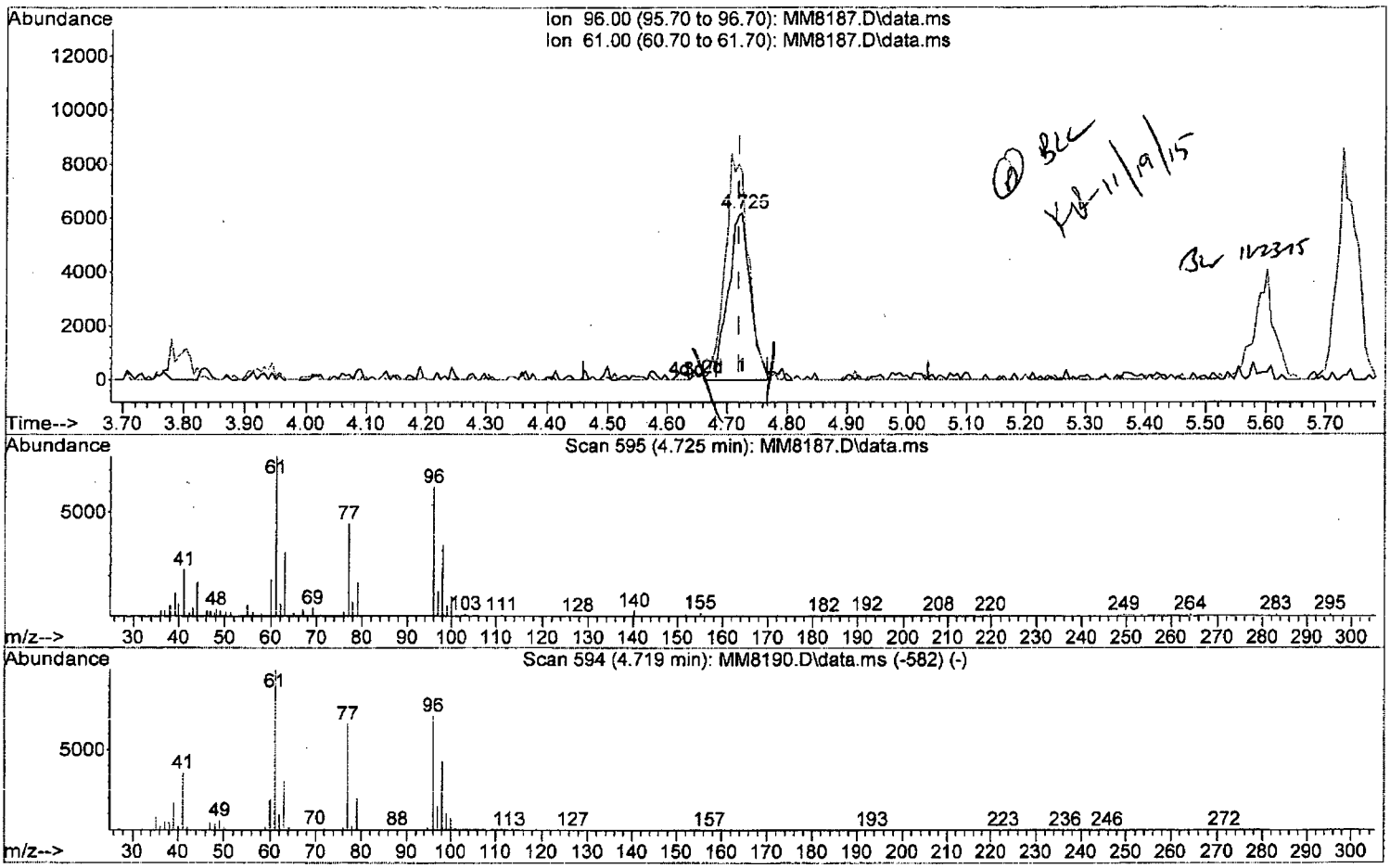
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	123.36
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:22:55 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.725min (+0.006) 2.13 ppb m

response 16202

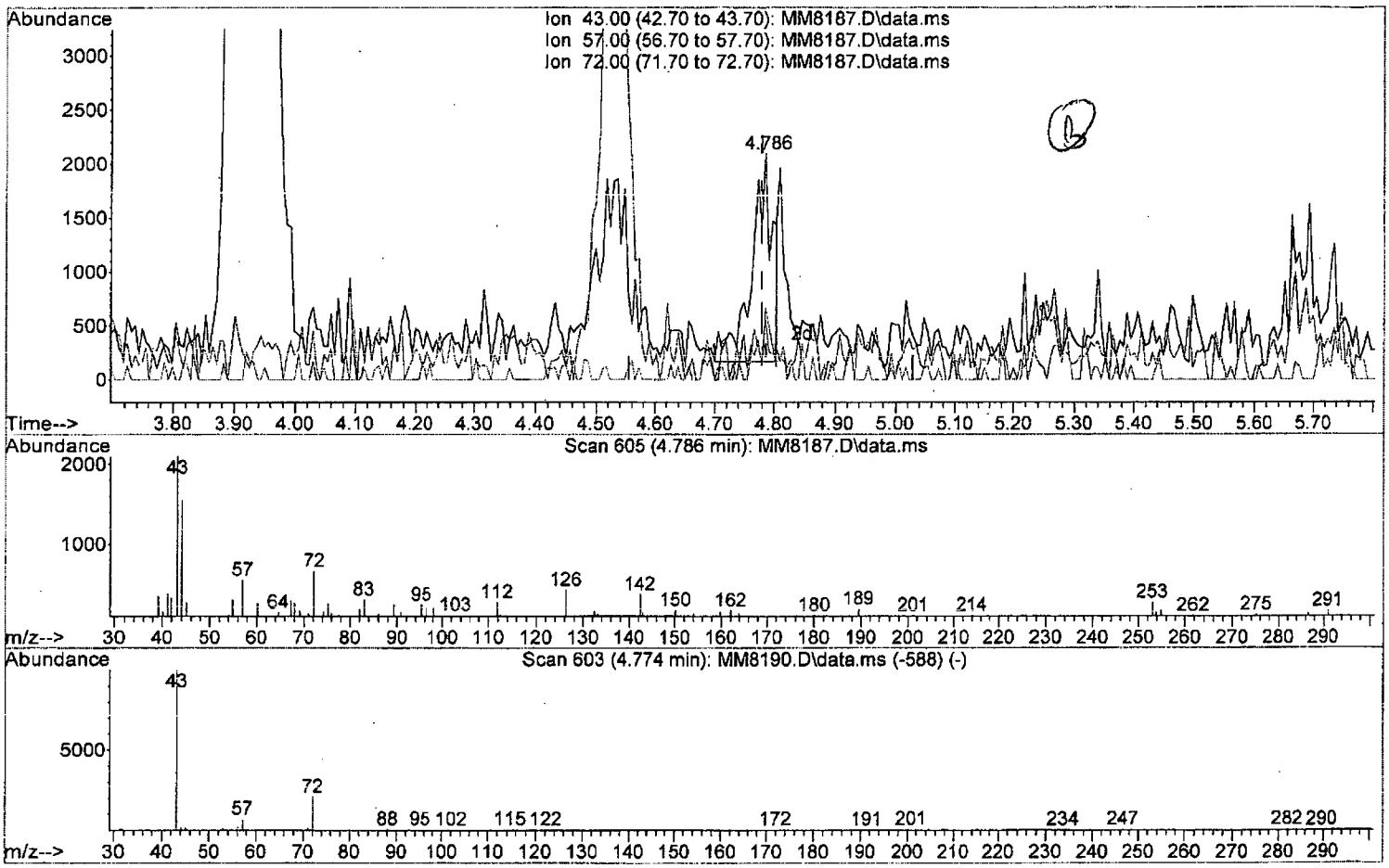
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	123.36
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:23:01 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(35) 2-Butanone (P)

4.786min (+0.006) 2.09 ppb

response 4696

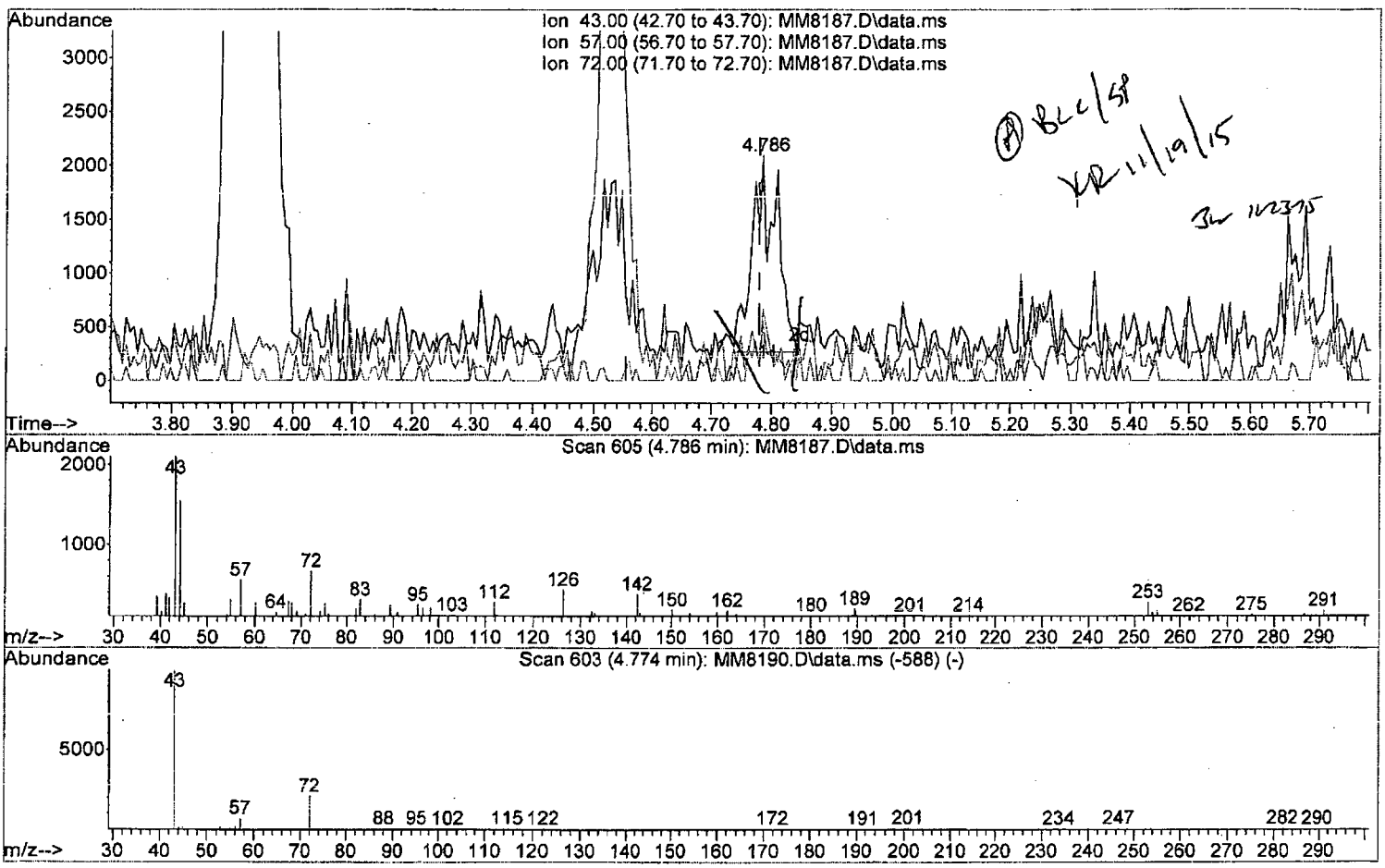
Ion	Exp%	Act%
43.00	100	100
57.00	7.50	26.42
72.00	21.20	31.72
0.00	0.00	0.00

W111815.M Thu Nov 19 10:23:11 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(35) 2-Butanone (P)

4.786min (+0.006) 2.30 ppb m

response 5176

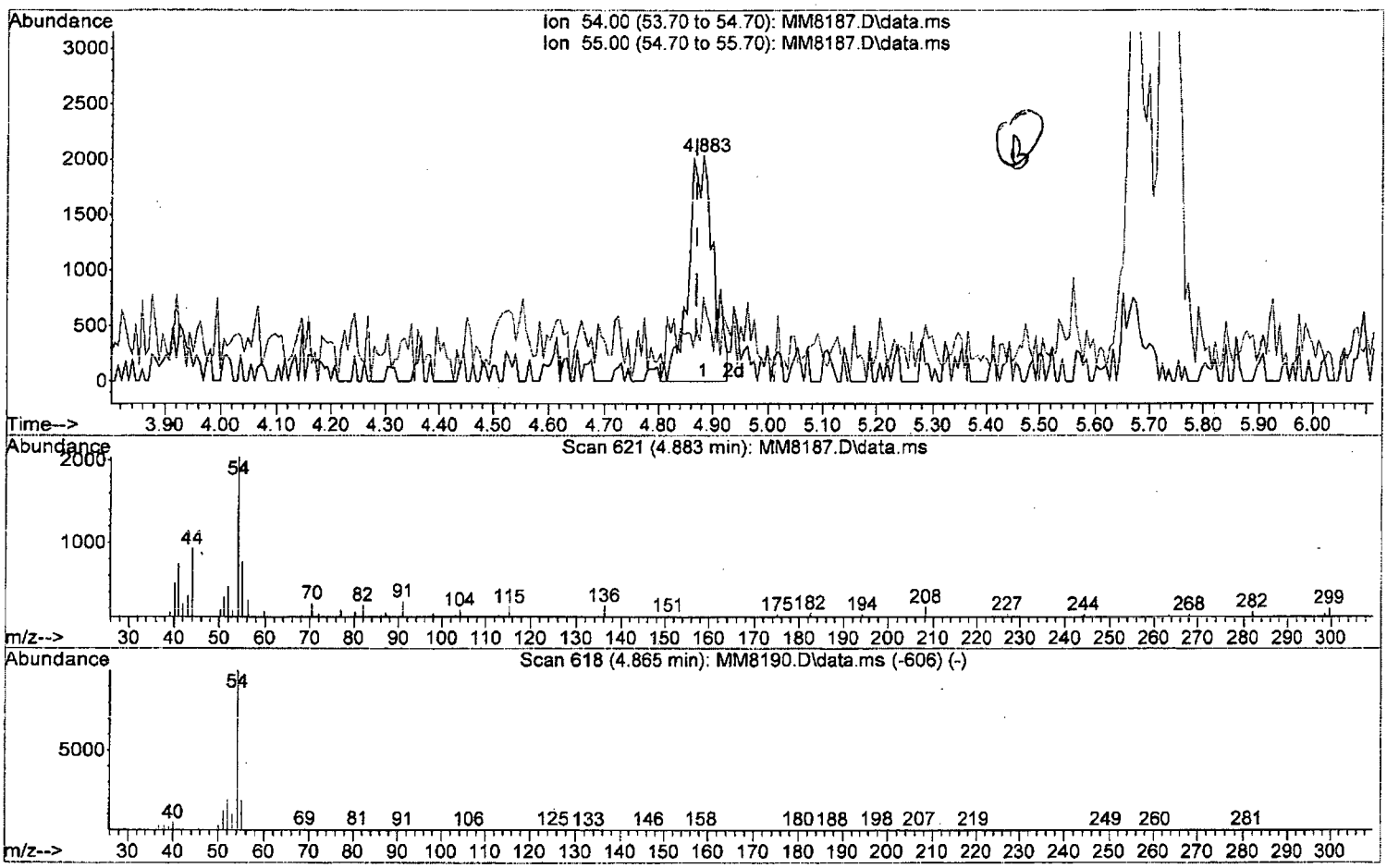
Ion	Exp%	Act%
43.00	100	100
57.00	7.50	26.42
72.00	21.20	31.72
0.00	0.00	0.00

W111815.M Thu Nov 19 10:23:18 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(36) Propionitrile

4.883min (+0.012) 9.36 ppb

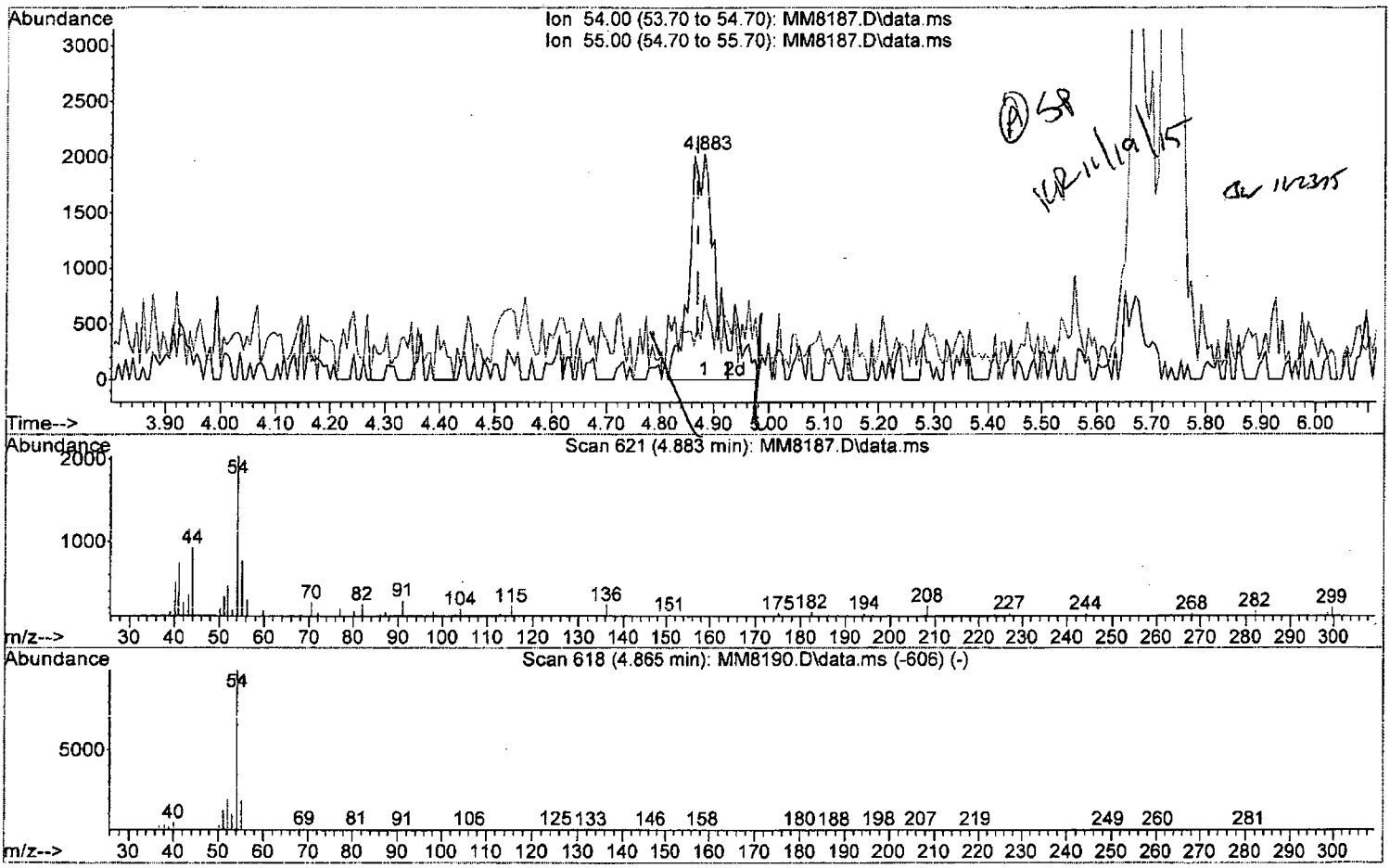
response 6355

Ion	Exp%	Act%
54.00	100	100
55.00	19.40	37.23
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(36) Propionitrile

4.883min (+0.012) 10.64 ppb m

response 7224

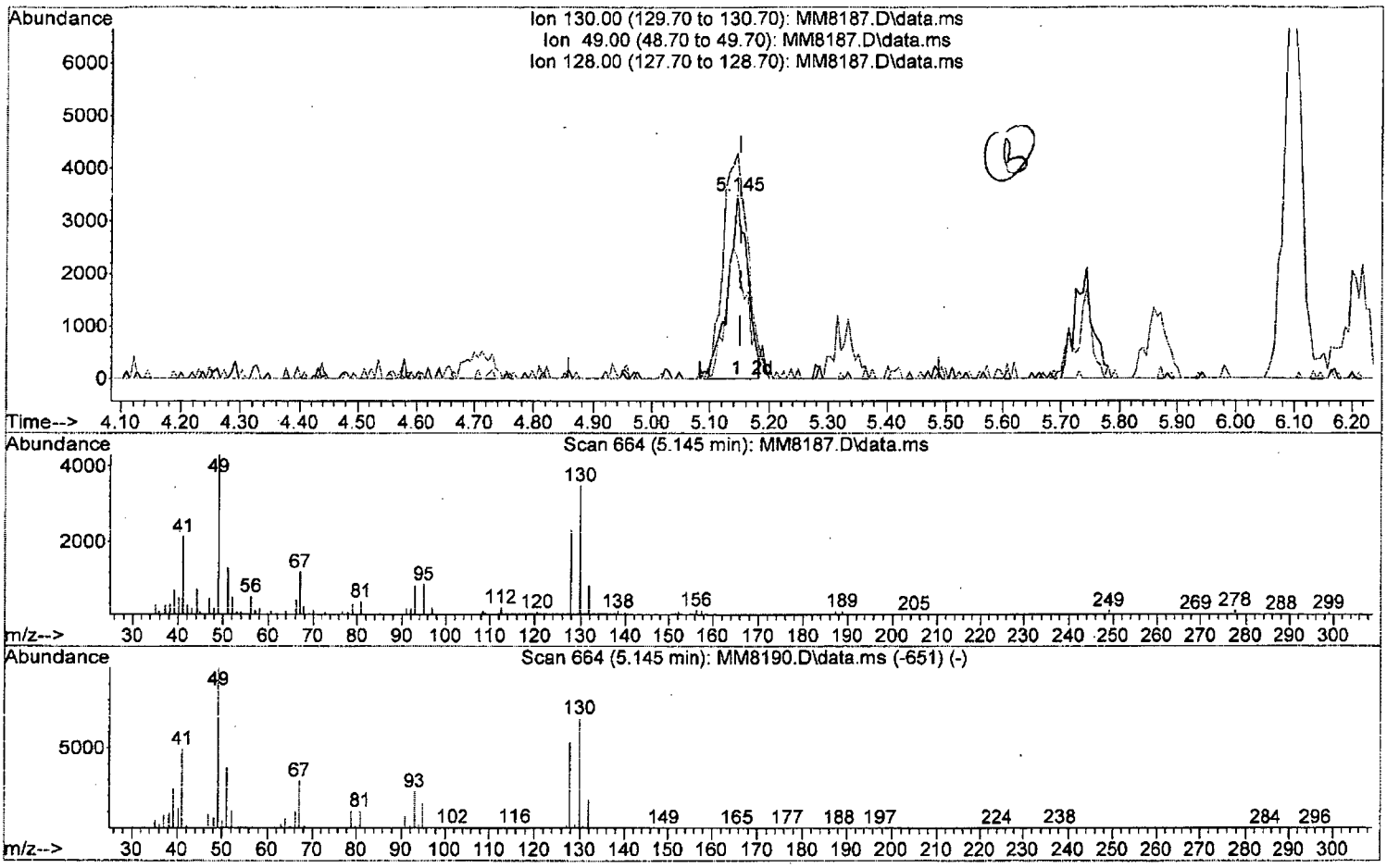
Ion	Exp%	Act%
54.00	100	100
55.00	19.40	37.23
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:23:34 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(37) Bromochloromethane

5.145min (-0.006) 2.03 ppb

response 8025

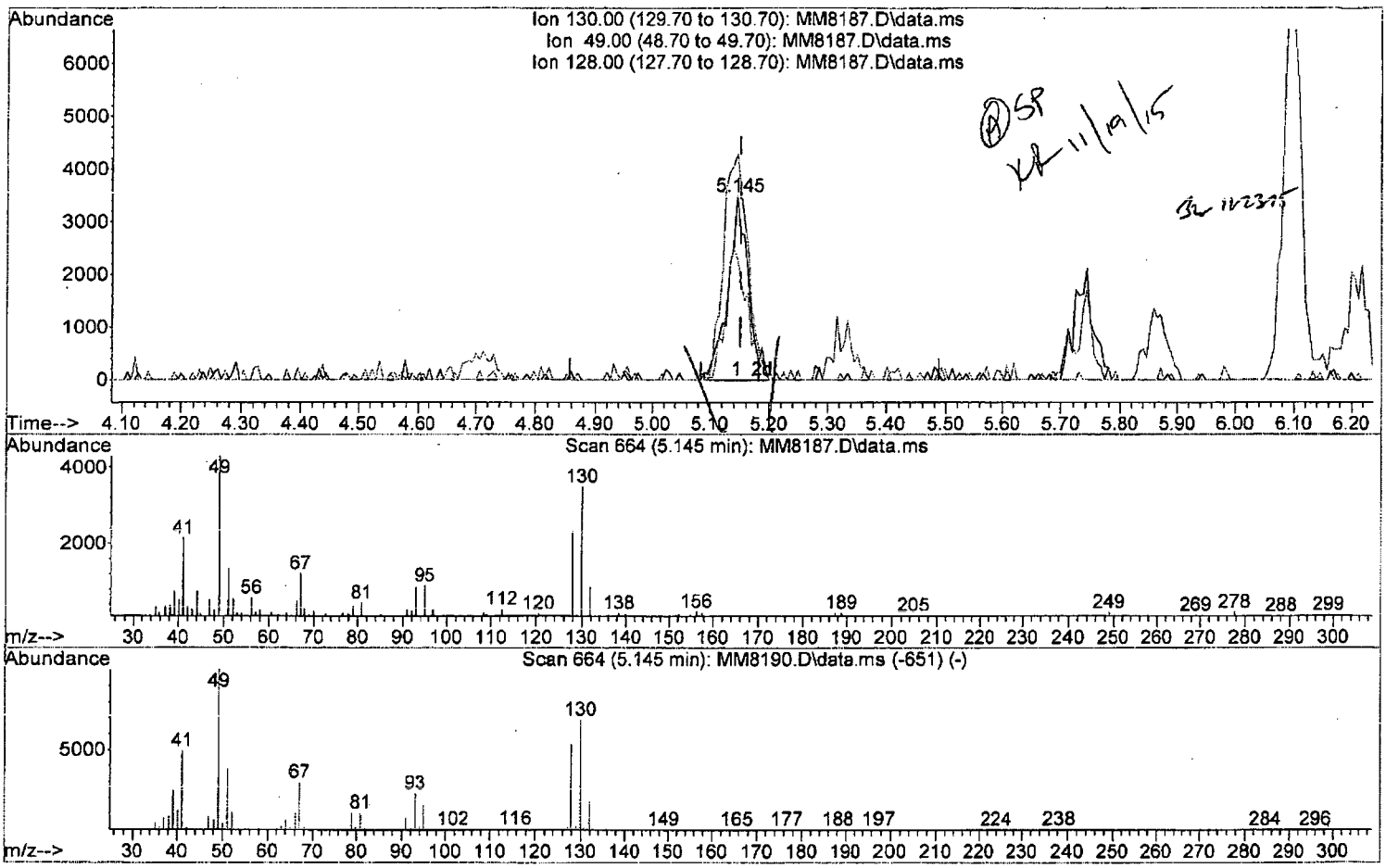
Ion	Exp%	Act%
130.00	100	100
49.00	145.50	122.92#
128.00	77.50	66.05
0.00	0.00	0.00

W111815.M Thu Nov 19 10:24:08 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(37) Bromochloromethane

5.145min (-0.006) 2.09 ppb m

response 8261

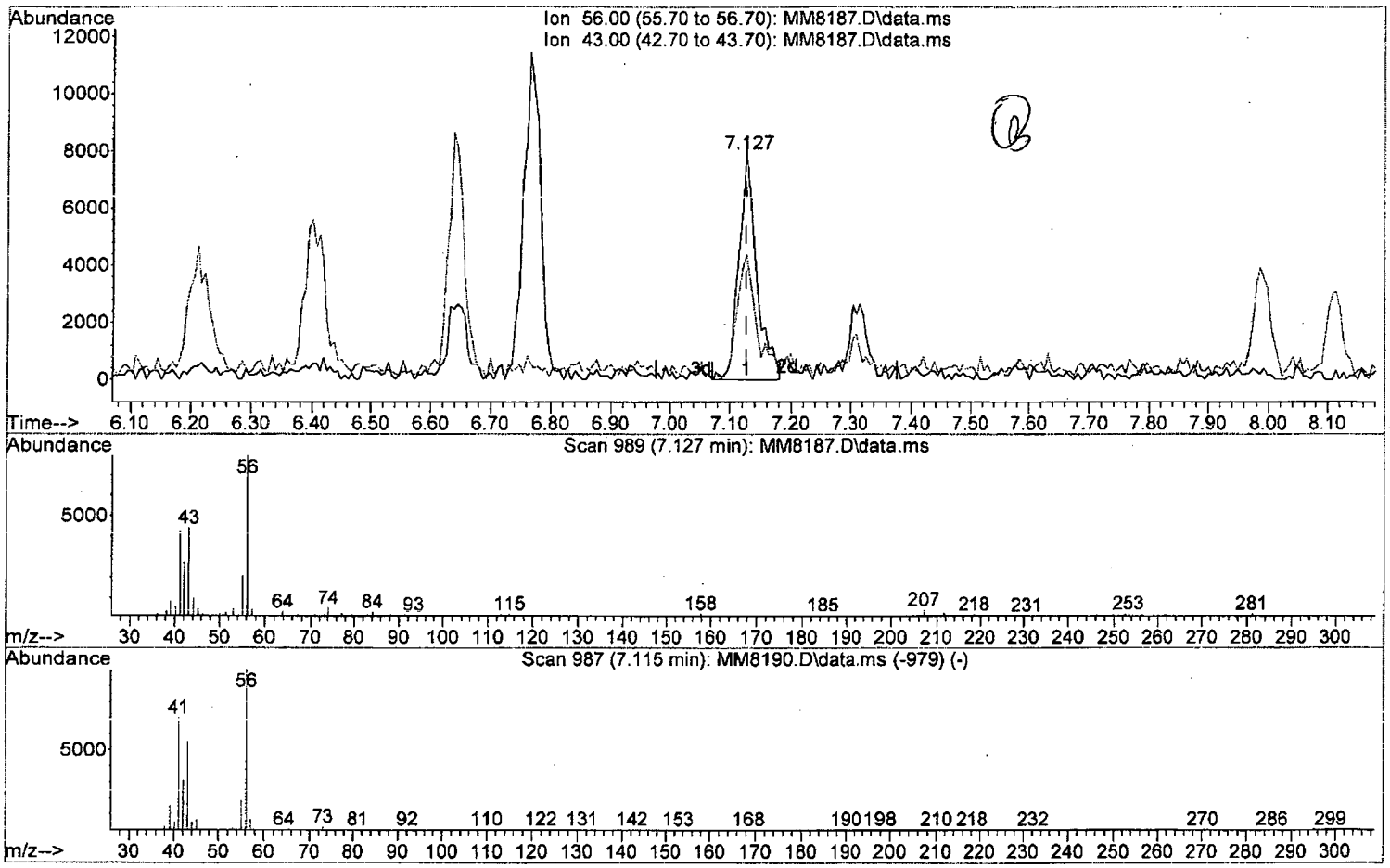
Ion	Exp%	Act%
130.00	100	100
49.00	145.50	122.92#
128.00	77.50	66.05
0.00	0.00	0.00

W111815.M Thu Nov 19 10:24:14 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(53) 1-Butanol

7.127min (-0.000) 108.49 ppb

response 15785

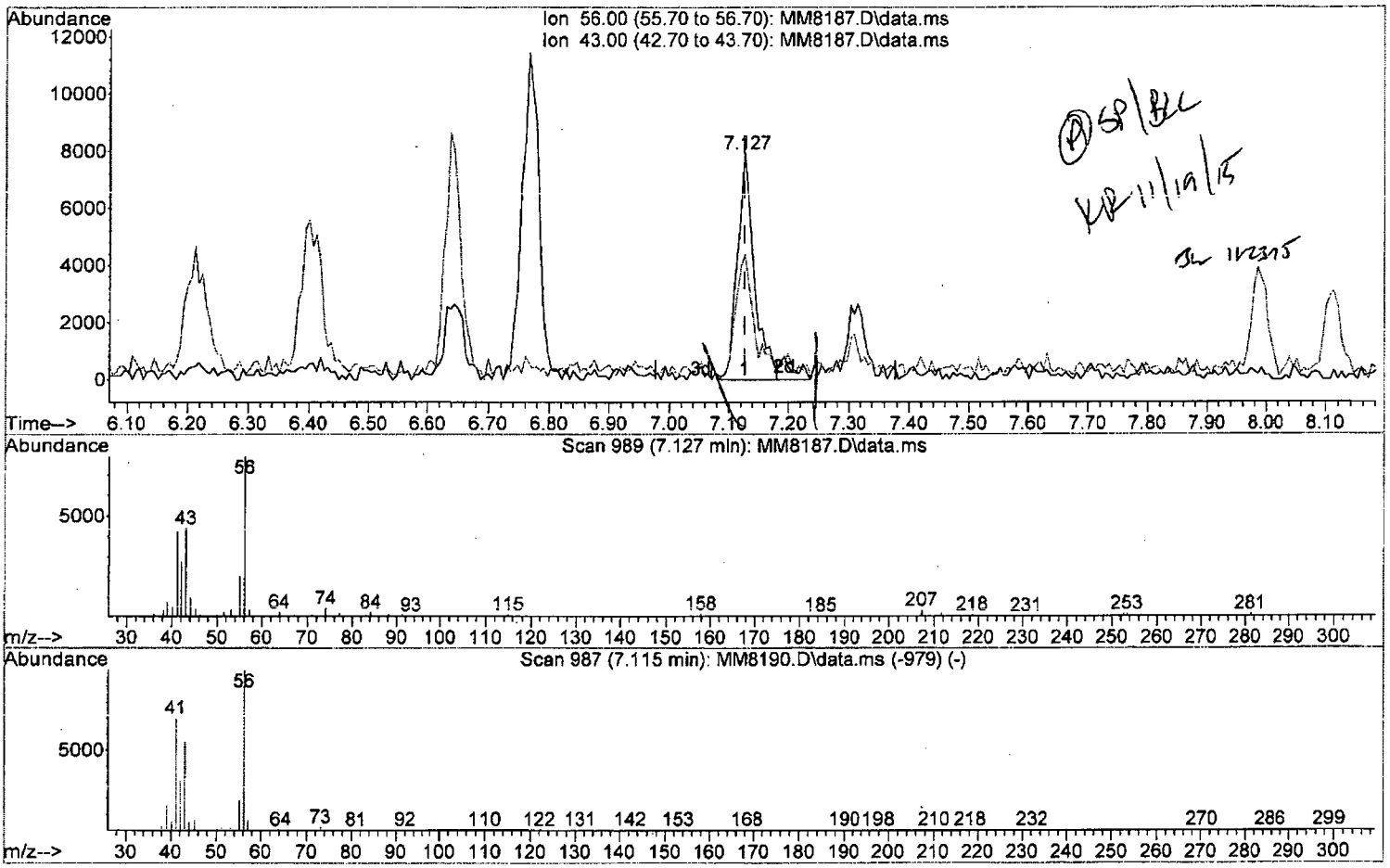
Ion	Exp%	Act%
56.00	100	100
43.00	54.90	63.55
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:25:22 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(53) 1-Butanol

7.127min (-0.000) 116.00 ppb m

response 16877

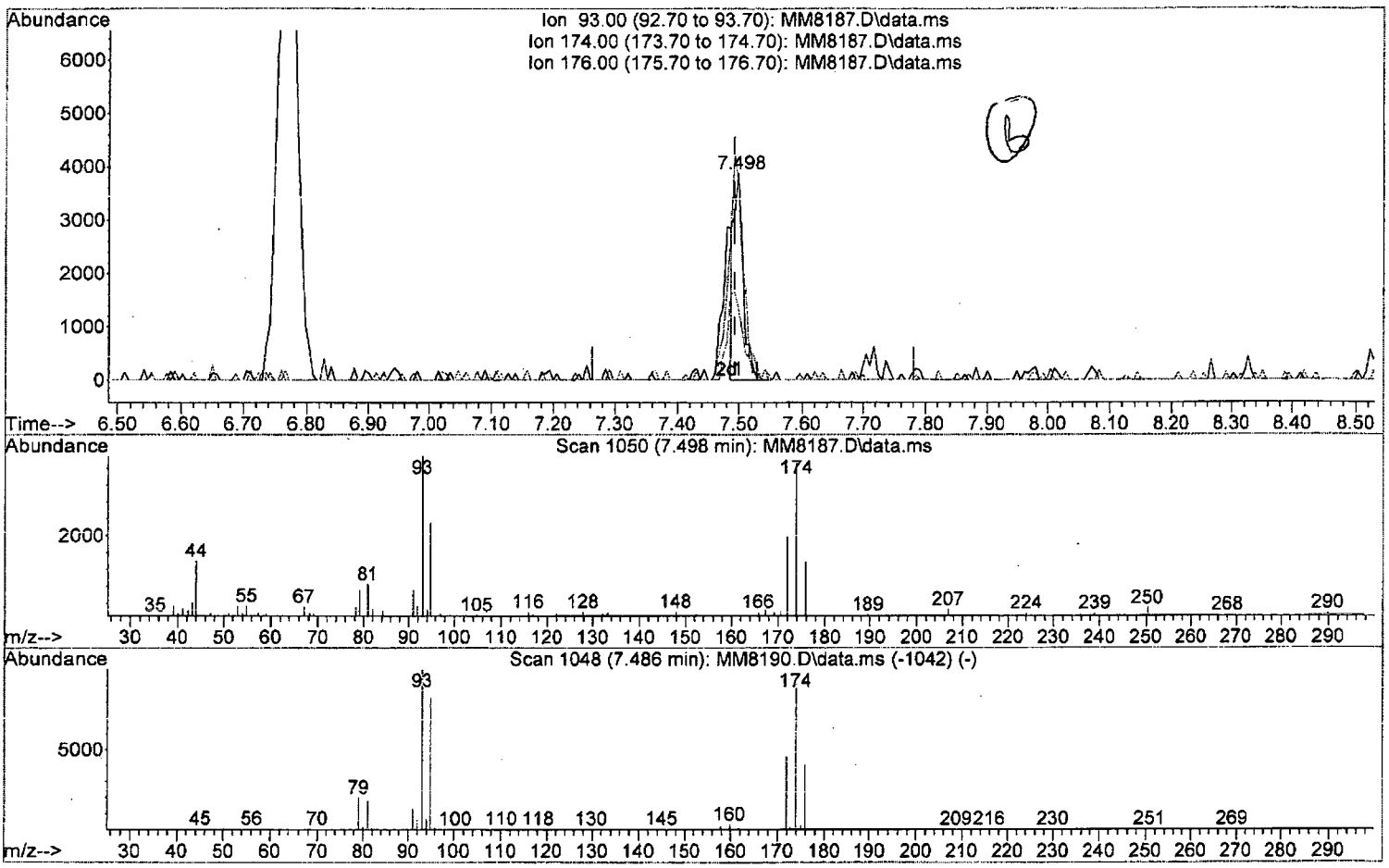
Ion	Exp%	Act%
56.00	100	100
43.00	54.90	59.44
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:25:34 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(57) Dibromomethane

7.498min (+0.006) 1.20 ppb

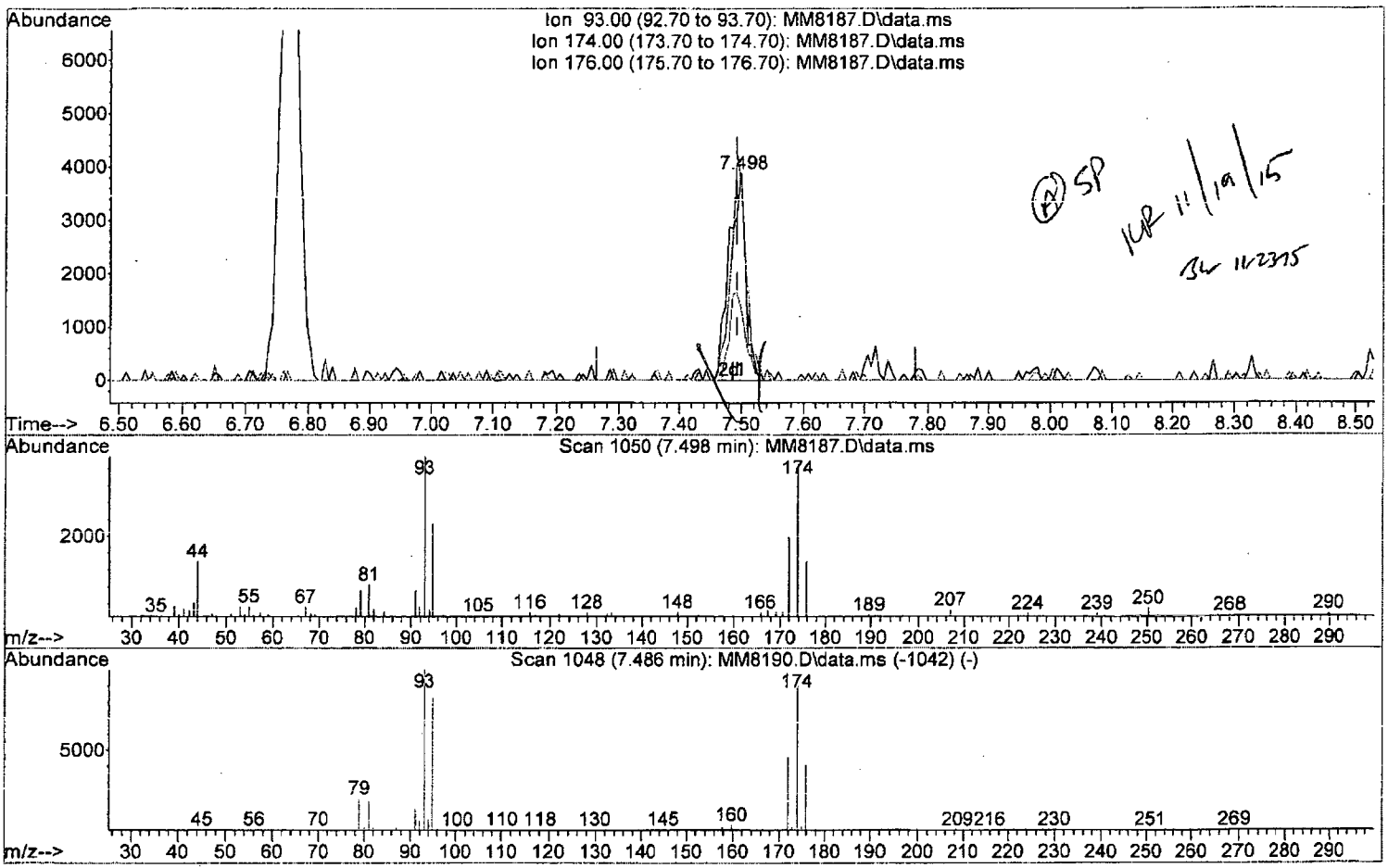
response 4062

Ion	Exp%	Act%
93.00	100	100
174.00	91.10	95.71
176.00	40.50	35.53
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(57) Dibromomethane

7.498min (+0.006) 2.10 ppb m

response 7116

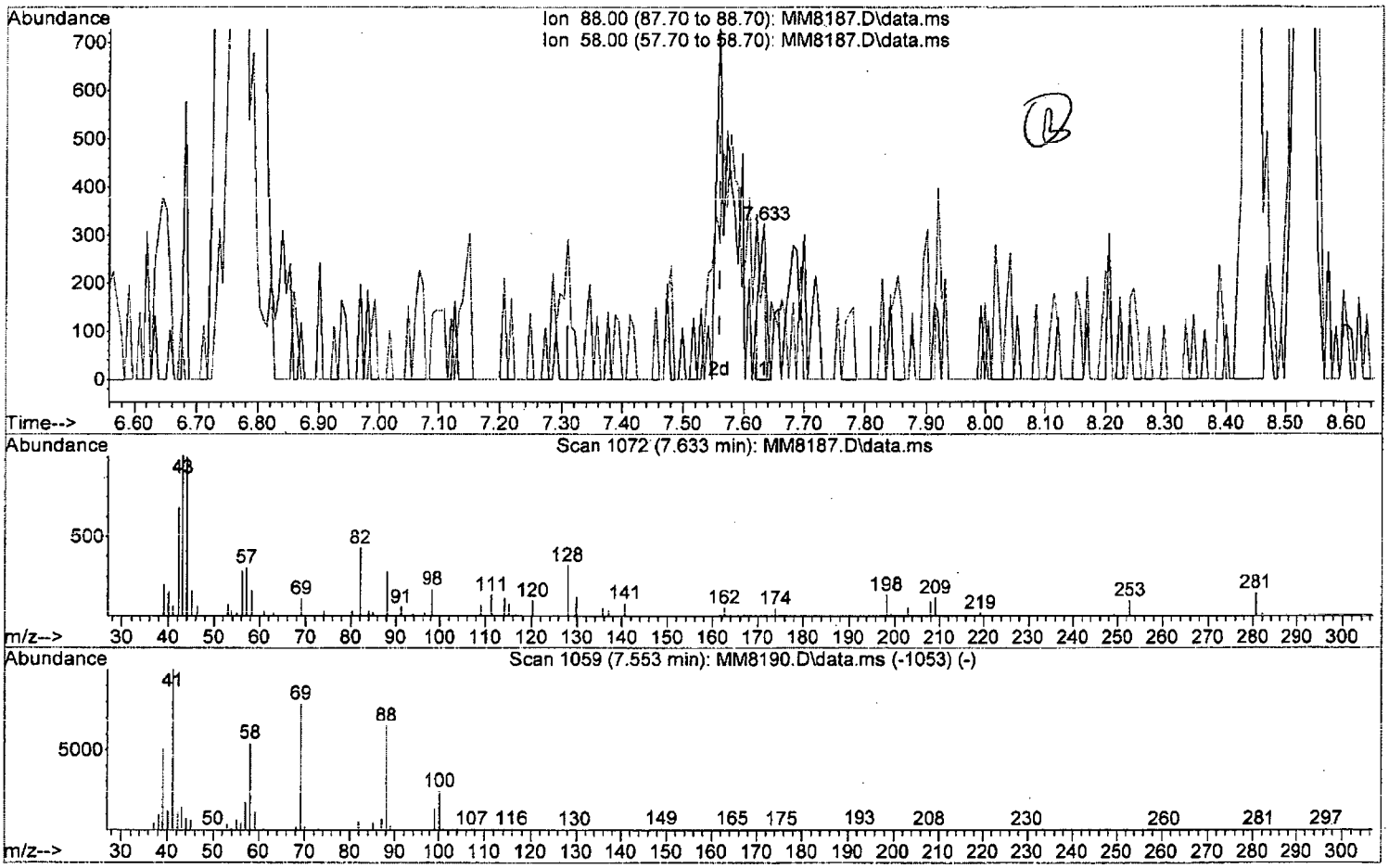
Ion	Exp%	Act%
93.00	100	100
174.00	91.10	95.71
176.00	40.50	35.53
0.00	0.00	0.00

W111815.M Thu Nov 19 10:25:48 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(58) 1,4-Dioxane

7.633min (+0.073) 4.87 ppb

response 249

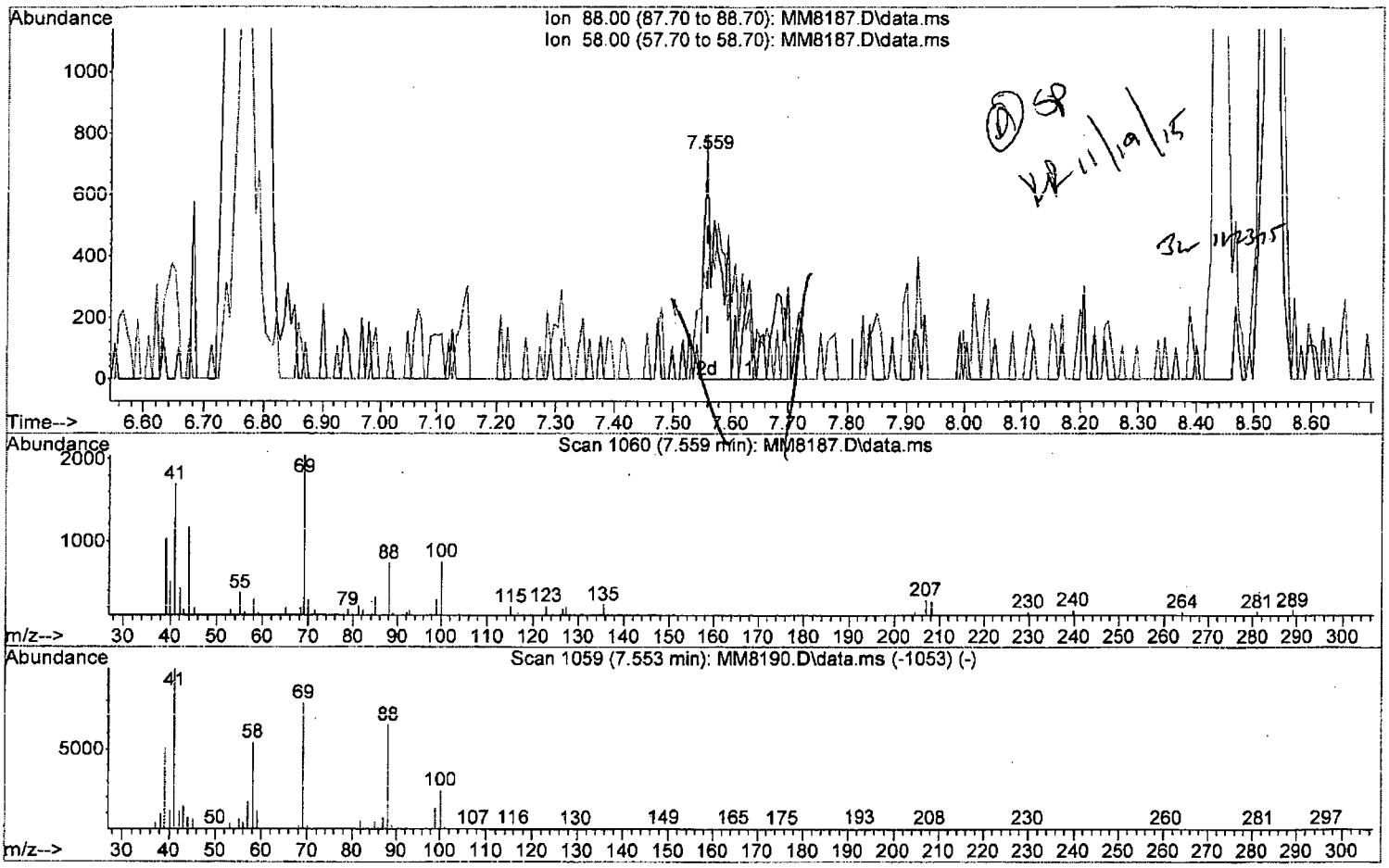
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	69.88
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:25:53 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(58) 1,4-Dioxane

7.559min (-0.000) 43.47 ppb m

response 2224

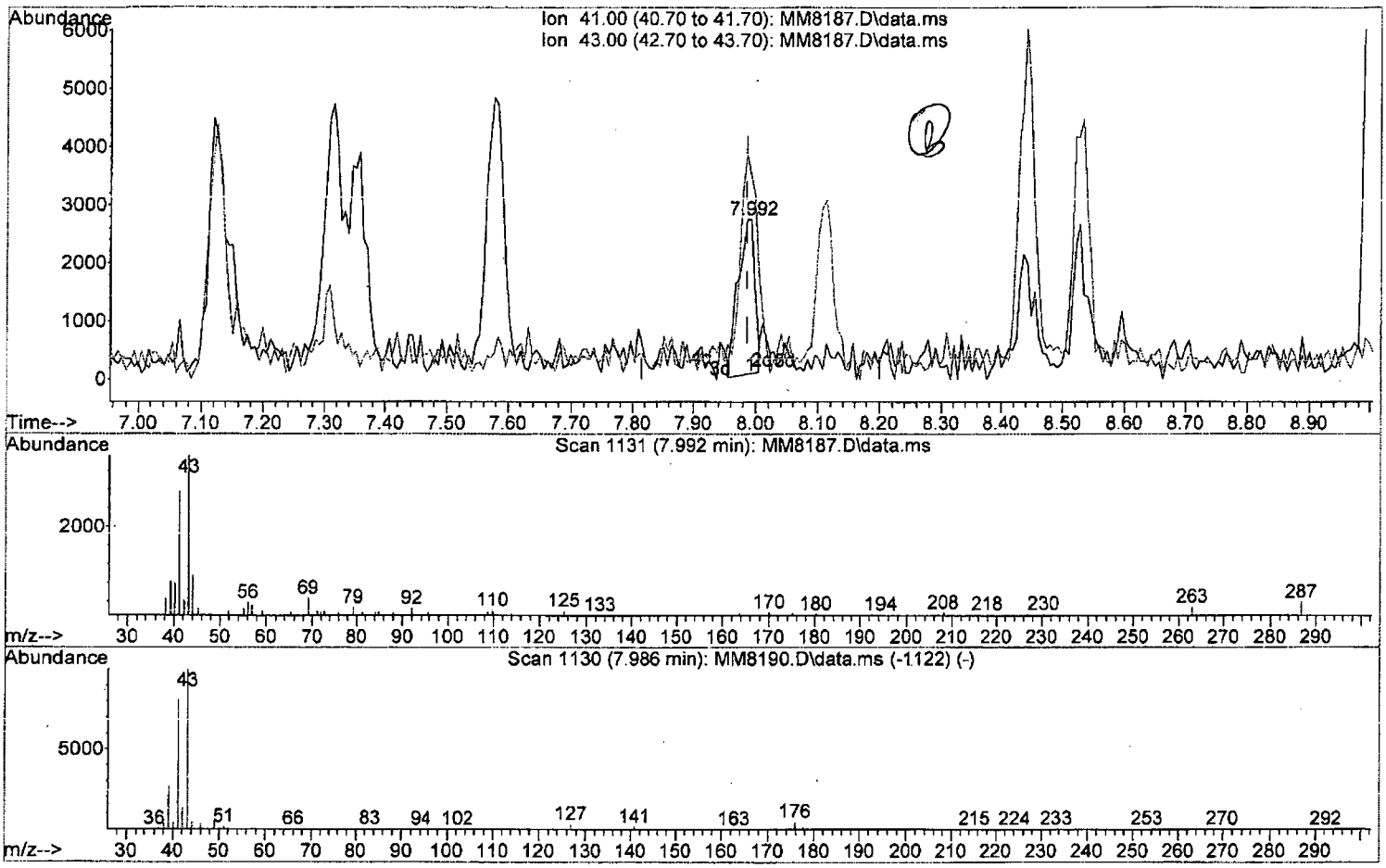
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	39.92#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:27:24 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(61) 2-Nitropropane

7.992min (+0.006) 3.89 ppb

response 4875

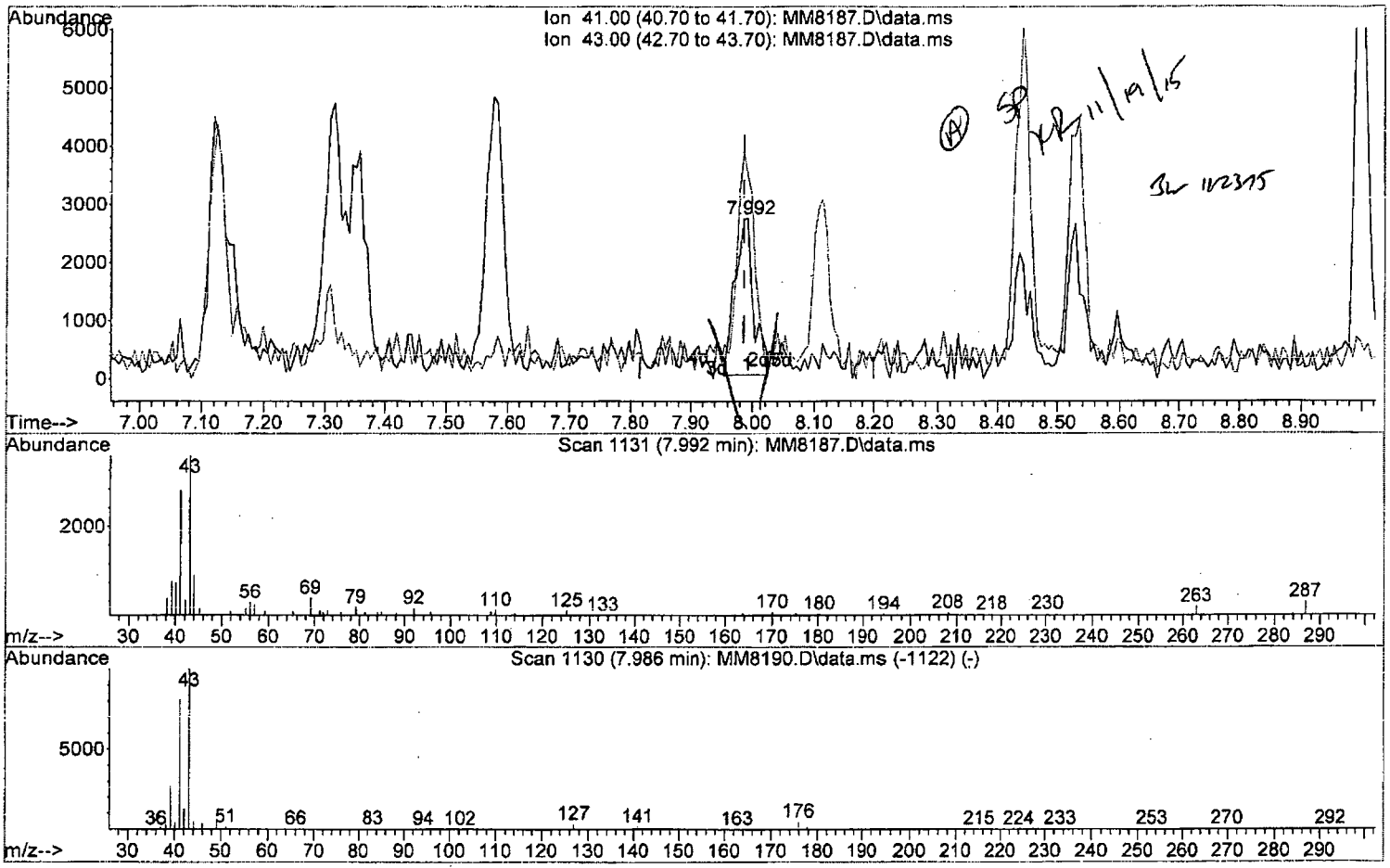
Ion	Exp%	Act%
41.00	100	100
43.00	123.30	127.55
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:28:13 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(61) 2-Nitropropane

7.992min (+0.006) 4.47 ppb m

response 5596

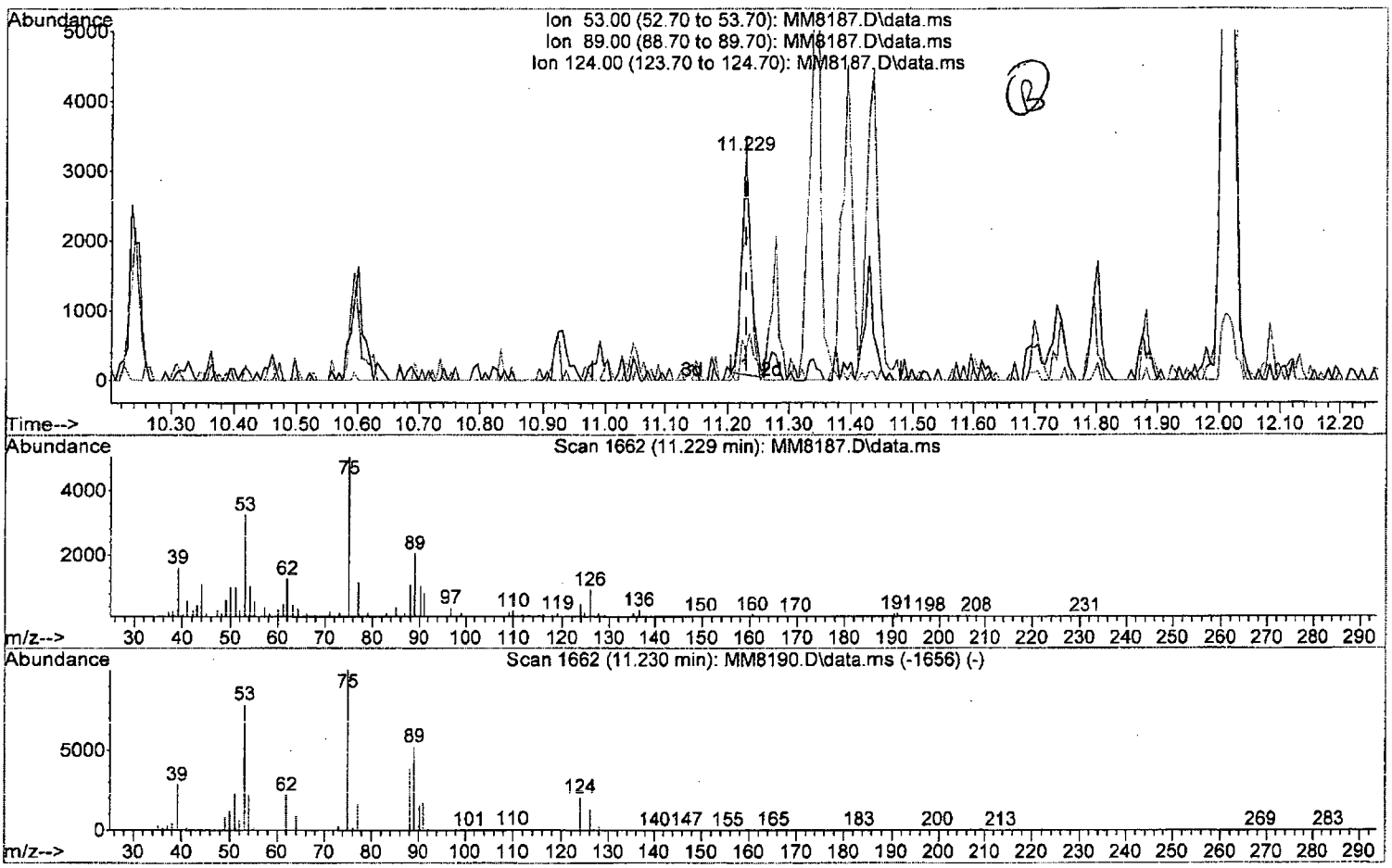
Ion	Exp%	Act%
41.00	100	100
43.00	123.30	127.55
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:28:47 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(91) trans-1,4-Dichloro-2-Butene

11.229min (-0.000) 1.81 ppb

response 3358

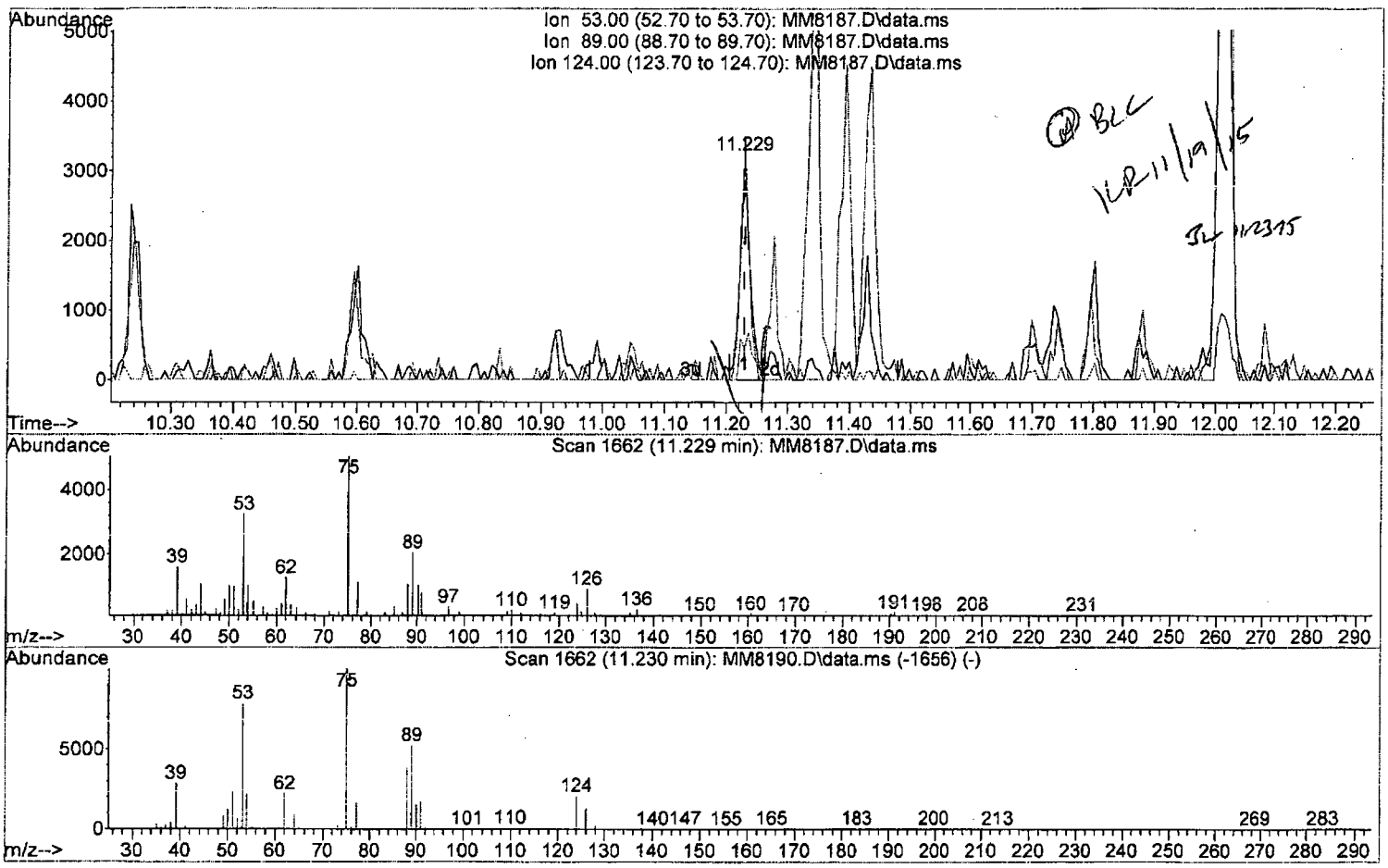
Ion	Exp%	Act%
53.00	100	100
89.00	66.30	63.03
124.00	26.20	13.95
0.00	0.00	0.00

W111815.M Thu Nov 19 10:30:12 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(91) trans-1,4-Dichloro-2-Butene

11.229min (-0.000) 1.95 ppb m

response 3610

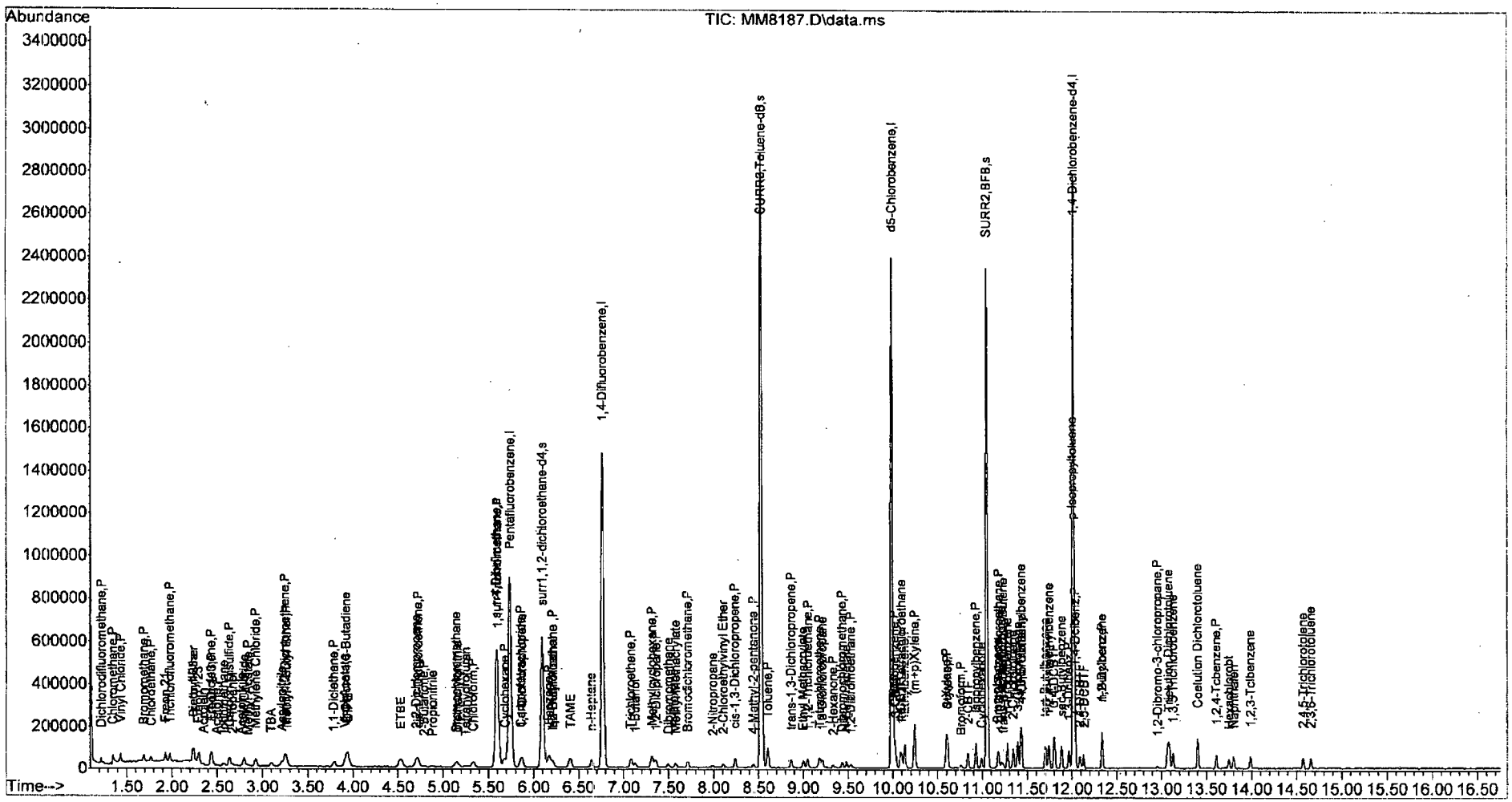
Ion	Exp%	Act%
53.00	100	100
89.00	66.30	63.03
124.00	26.20	13.95
0.00	0.00	0.00

W111815.M Thu Nov 19 10:30:20 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 10:30:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 10:31:06 2015 Page: 4

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 10:40:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	754433	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1237078	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1147756	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	571375	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	465568	69.99	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery =	139.98%#			
48) surr1,1,2-dichloroetha...	6.096	65	516480	70.95	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery =	141.90%#			
65) SURR3,Toluene-d8	8.529	98	1977109	70.03	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery =	140.06%#			
70) SURR2,BFB	11.047	95	734666	69.49	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery =	138.98%#			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	46335	4.34	ppb		100
3) Chloromethane	1.347	50	58675	4.62	ppb		96
4) Vinyl Chloride	1.433	62	56117	4.75	ppb		96
5) Bromomethane	1.689	94	27426	4.69	ppb		93
6) Chloroethane	1.768	64	31762	4.81	ppb		98
7) Freon 21	1.927	67	62264	4.89	ppb		100
8) Trichlorofluoromethane	1.975	101	45134	4.90	ppb		98
9) Diethyl Ether	2.231	59	30200	5.23	ppb		93
10) Freon 123a	2.237	67	43059	5.16	ppb		93
11) Freon 123	2.292	83	46844	4.85	ppb		93
12) Acrolein	2.341	56	6982	10.86	ppb		82
13) 1,1-Diclethene	2.433	96	31837	4.93	ppb		93
14) Freon 113	2.445	101	28536	4.97	ppb		95
15) Acetone	2.487	43	9097	5.69	ppb		87
16) 2-Propanol	2.646	45	31774	104.11	ppb		96
17) Iodomethane	2.573	142	31152m	4.40	ppb		
18) Carbon Disulfide	2.634	76	111102	5.27	ppb		100
19) Acetonitrile	2.768	40	6669	29.90	ppb	#	82
20) Allyl Chloride	2.798	76	17955	5.11	ppb		96
21) Methyl Acetate	2.829	43	18940	5.05	ppb		93
22) Methylene Chloride	2.926	84	35558	4.88	ppb		95
23) TBA	3.091	59	50447	101.85	ppb		97
24) Acrylonitrile	3.213	53	44486	24.26	ppb		92
25) Methyl-t-Butyl Ether	3.262	73	92527	5.27	ppb		96
26) trans-1,2-Dichloroethene	3.249	96	33625	4.98	ppb		95
28) 1,1-Diclethane	3.792	63	60318	4.99	ppb		99
29) Vinyl Acetate	3.902	86	7875	6.04	ppb	#	28
30) DIPE	3.951	45	125231	5.32	ppb		98
31) 2-Chloro-1,3-Butadiene	3.932	53	63446	5.23	ppb		88
32) ETBE	4.530	59	117155	5.29	ppb		99
33) 2,2-Dichloropropane	4.713	77	47414	4.90	ppb		95
34) cis-1,2-Dichloroethene	4.719	96	38898	5.17	ppb		86
35) 2-Butanone	4.786	43	10539m	4.73	ppb		
36) Propionitrile	4.871	54	15565	23.14	ppb		83

KP 11/19/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 10:40:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.152	130	19776	5.06	ppb		91
38) Methacrylonitrile	5.164	67	11156	4.86	ppb	#	66
39) Tetrahydrofuran	5.255	42	7528	5.12	ppb		77
40) Chloroform	5.334	83	59895	5.10	ppb		96
41) 1,1,1-Trichloroethane	5.590	97	46419	5.03	ppb		93
42) TAME	6.401	73	94514	5.02	ppb		95
44) Cyclohexane	5.676	41	33300	4.95	ppb		99
46) Carbontetrachloride	5.859	121	12269	5.14	ppb		93
47) 1,1-Dichloropropene	5.871	75	43084	4.92	ppb		99
49) Benzene	6.170	78	139872	5.14	ppb		92
50) 1,2-Dichloroethane	6.212	62	39424	5.65	ppb		98
51) Iso-Butyl Alcohol	6.206	43	23251	101.88	ppb		98
52) n-Heptane	6.651	43	38767	5.17	ppb		94
53) 1-Butanol	7.121	56	34910	244.63	ppb		100
54) Trichloroethene	7.084	130	35311	5.10	ppb		89
55) Methylcyclohexane	7.310	55	42151	5.13	ppb		95
56) 1,2-Diclpropane	7.358	63	33071	4.90	ppb		96
57) Dibromomethane	7.499	93	15706	4.73	ppb		93
58) 1,4-Dioxane	7.553	88	5113m	101.90	ppb		
59) Methyl Methacrylate	7.578	69	19364	4.96	ppb		90
60) Bromodichloromethane	7.712	83	40787	4.93	ppb		96
61) 2-Nitropropane	7.992	41	13782	11.22	ppb	#	78
62) 2-Chloroethylvinyl Ether	8.108	63	19291	5.18	ppb		88
63) cis-1,3-Dichloropropene	8.242	75	57442	5.18	ppb		96
64) 4-Methyl-2-pentanone	8.444	43	24764	5.02	ppb		97
66) Toluene	8.602	91	151507	5.37	ppb		96
67) trans-1,3-Dichloropropene	8.864	75	46539	5.28	ppb		96
68) Ethyl Methacrylate	8.998	69	39319	5.04	ppb		98
69) 1,1,2-Trichloroethane	9.053	97	25521	5.35	ppb		87
72) Tetrachloroethene	9.181	164	23491	4.93	ppb	#	82
73) 2-Hexanone	9.334	43	17893	5.09	ppb		92
74) 1,3-Dichloropropane	9.212	76	45730	5.24	ppb		90
75) Dibromochloromethane	9.437	129	27530	5.07	ppb		96
76) N-Butyl Acetate	9.480	43	40826	4.89	ppb		94
77) 1,2-Dibromoethane	9.535	107	24026	5.17	ppb		90
78) Chlorobenzene	10.016	112	88016	5.18	ppb		97
79) 3-CBTF	10.029	180	42429	5.04	ppb		96
80) 4-CBTF	10.084	180	40057	5.11	ppb		95
81) 1,1,1,2-Tetrachloroethane	10.102	131	31987	5.45	ppb		90
82) Ethylbenzene	10.132	106	49311	5.13	ppb	#	87
83) (m+p)Xylene	10.242	106	123837	10.43	ppb		89
84) o-Xylene	10.596	106	65348	5.38	ppb		98
85) Styrene	10.608	104	101000	5.10	ppb		95
87) Bromoform	10.760	173	15710	4.84	ppb		86
88) 2-CBTF	10.833	180	43223	4.99	ppb		97
89) Isopropylbenzene	10.925	105	155103	5.22	ppb		97
90) Cyclohexanone	10.992	55	40168	93.25	ppb		97
91) trans-1,4-Dichloro-2-B...	11.230	53	7834	4.20	ppb		89
92) 1,1,2,2-Tetrachloroethane	11.181	83	28831	4.80	ppb		86
93) Bromobenzene	11.169	156	32718	4.87	ppb		94
94) 1,2,3-Trichloropropane	11.211	110	8802	4.98	ppb		96

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 10:40:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

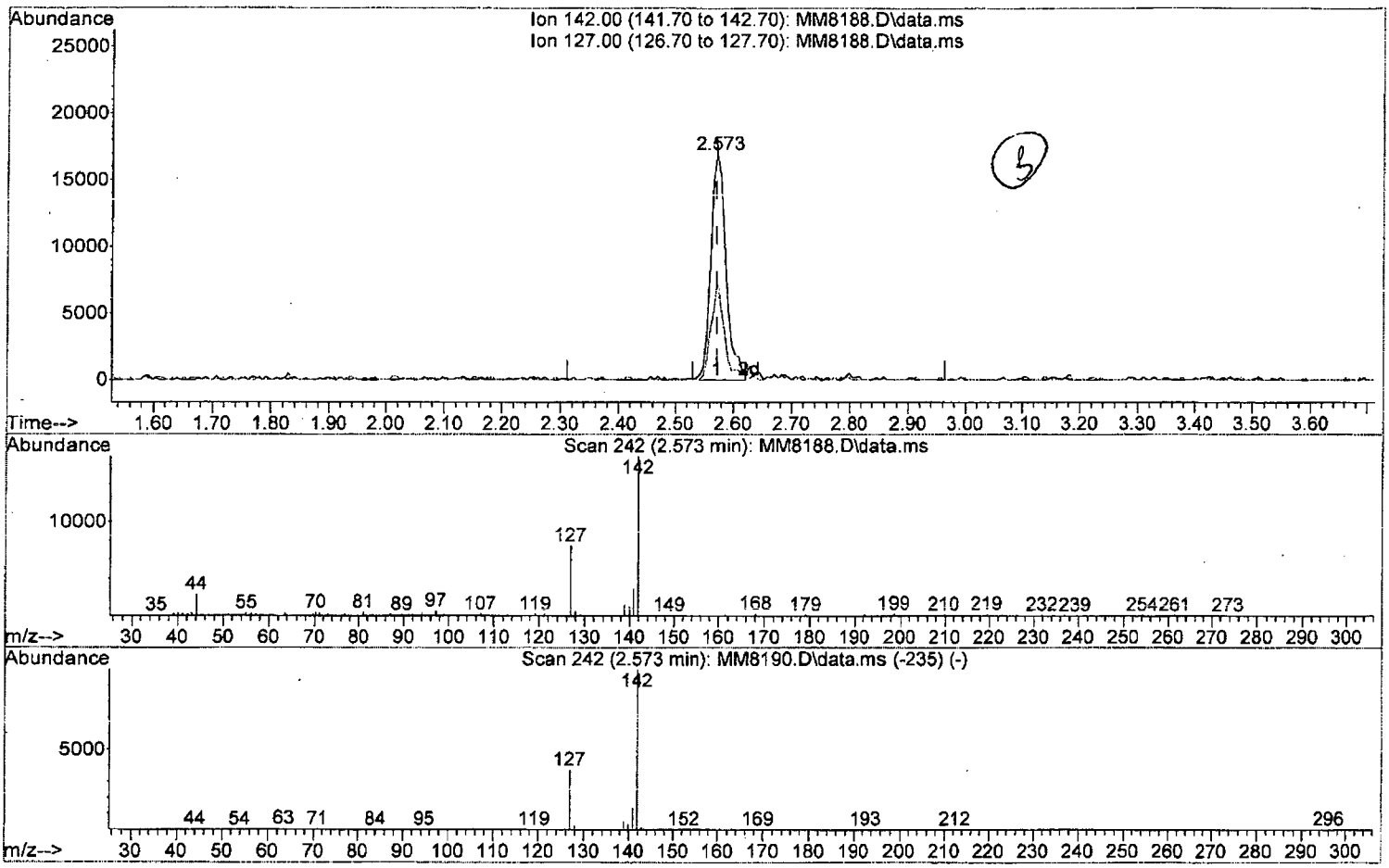
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
95)	n-Propylbenzene	11.278	91	175450	5.12	ppb		99
96)	2-Chlorotoluene	11.339	91	102448	5.10	ppb		99
97)	3-Chlorotoluene	11.394	91	110461	5.25	ppb		99
98)	4-Chlorotoluene	11.437	91	116003	5.12	ppb		96
99)	1,3,5-Trimethylbenzene	11.431	105	119820	5.33	ppb		92
100)	tert-Butylbenzene	11.699	119	103689	5.17	ppb		97
101)	1,2,4-Trimethylbenzene	11.736	105	123489	5.12	ppb		94
102)	3,4-DCBTF	11.797	214	27946	4.82	ppb	#	88
103)	sec-Butylbenzene	11.882	105	145596	5.19	ppb		98
104)	p-Isopropyltoluene	12.004	119	111489	5.14	ppb		99
105)	1,3-Dclbenz	11.961	146	64008	4.92	ppb		96
106)	1,4-Dclbenz	12.034	146	62260	5.10	ppb		99
107)	2,4-DCBTF	12.089	214	25156	4.97	ppb		96
108)	2,5-DCBTF	12.126	214	28728	5.01	ppb		96
109)	n-Butylbenzene	12.333	91	108028	5.26	ppb		94
110)	1,2-Dclbenz	12.339	146	59284	4.95	ppb		94
111)	1,2-Dibromo-3-chloropr...	12.961	157	5419	4.59	ppb		91
112)	Trielution Dichlorotol...	13.071	125	159023	15.73	ppb		98
113)	1,3,5 Trichlorobenzene	13.126	180	38744	4.81	ppb		87
114)	Coelution Dichlorotoluene	13.400	125	114845	10.75	ppb	#	91
115)	1,2,4-Tcbenzene	13.607	180	36182	4.90	ppb		95
116)	Hexachlorobt	13.747	225	14247	4.52	ppb		94
117)	Naphthalen	13.802	128	75597	4.93	ppb		96
118)	1,2,3-Tclbenzene	13.985	180	31980	5.20	ppb		94
119)	2,4,5-Trichlorotolene	14.570	159	23619	5.06	ppb		94
120)	2,3,6-Trichlorotoluene	14.656	159	20789m	5.04	ppb		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(17) Iodomethane

2.573min (+0.001) 4.27 ppb

response 30237

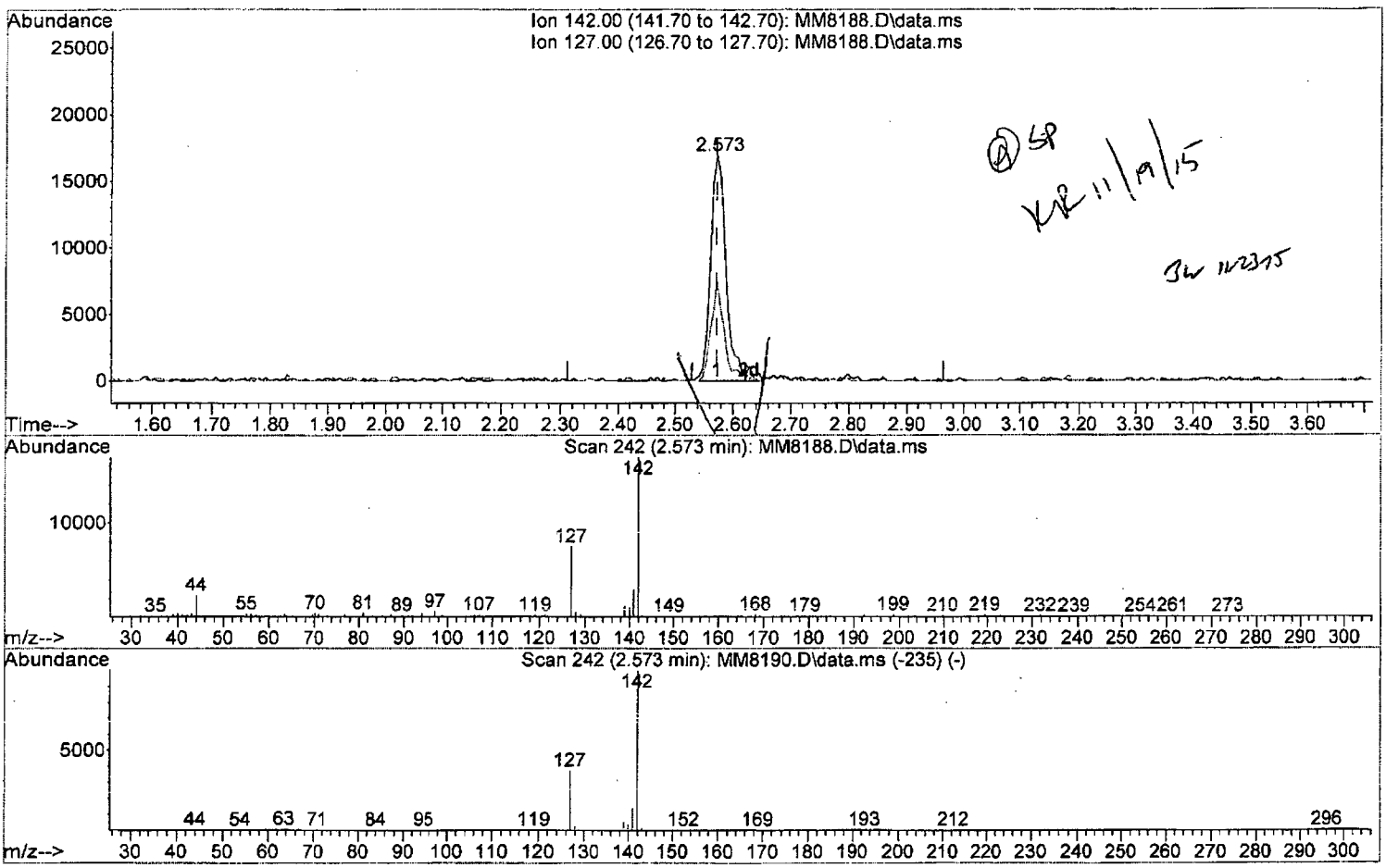
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	44.19
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:37:19 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(17) Iodomethane

2.573min (+0.001) 4.40 ppb m

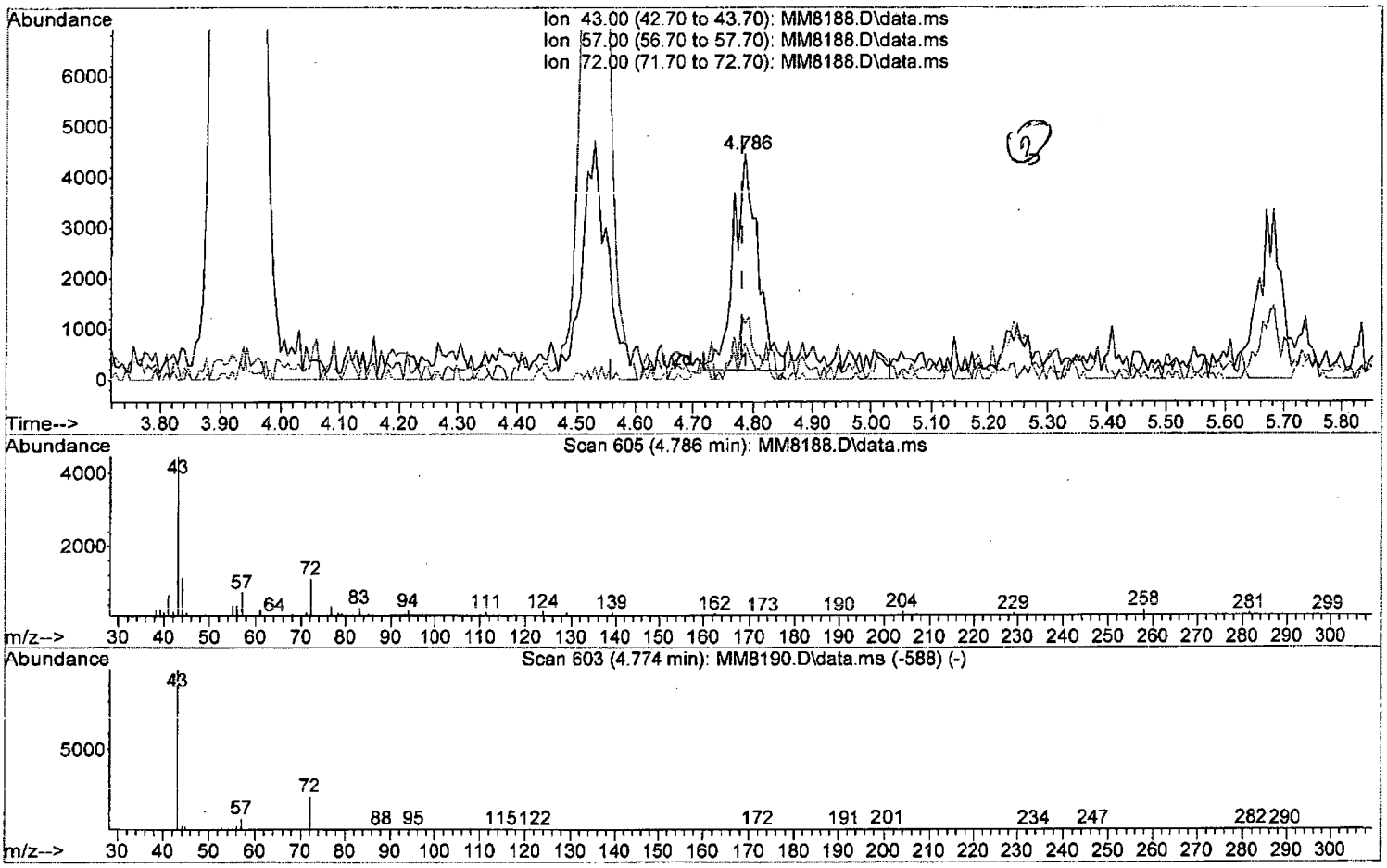
response 31152

Ion	Exp%	Act%
142.00	100	100
127.00	37.20	44.19
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(35) 2-Butanone (P)

4.786min (+0.006) 5.40 ppb

response 12026

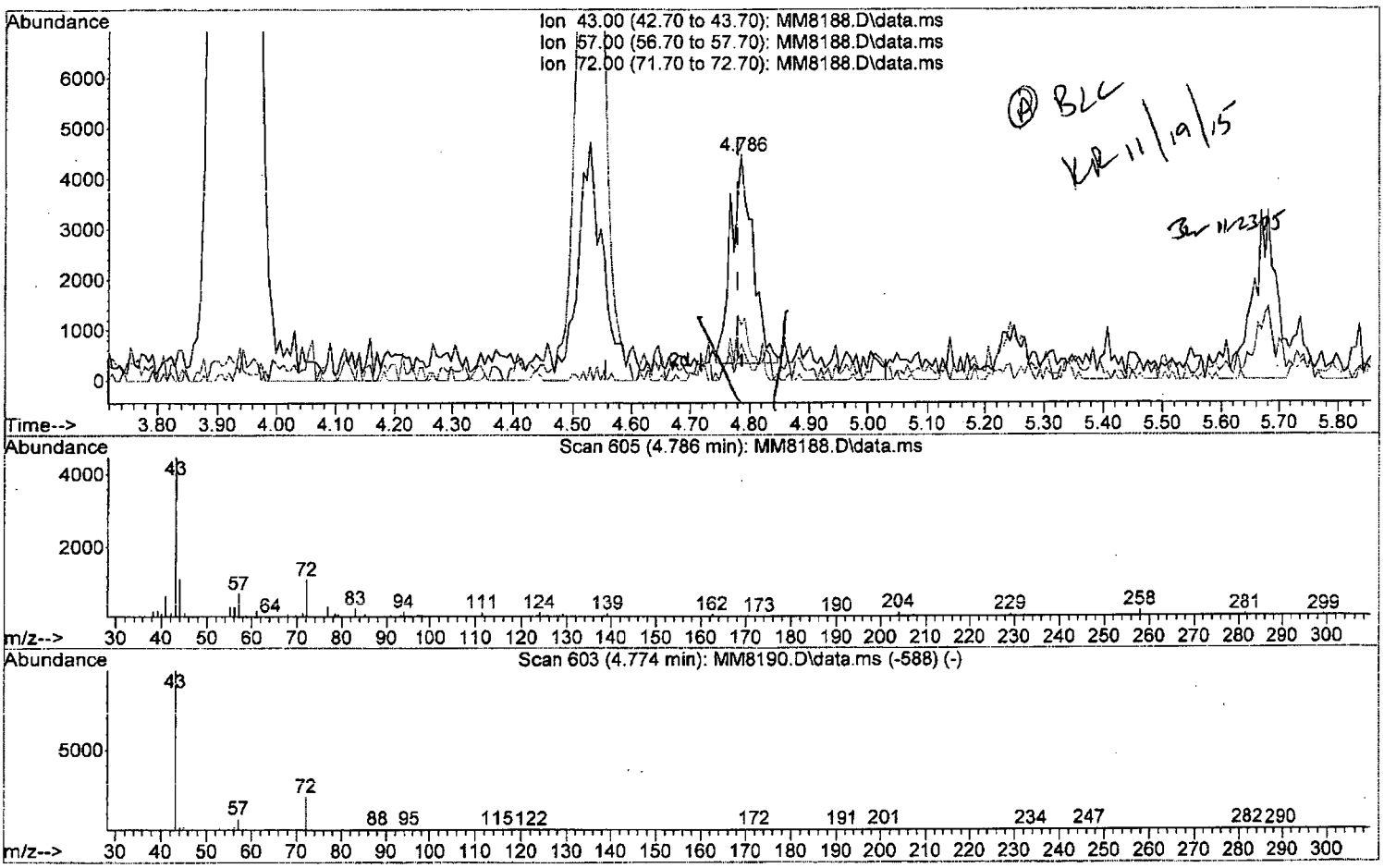
Ion	Exp%	Act%
43.00	100	100
57.00	7.50	16.19
72.00	21.20	24.53
0.00	0.00	0.00

W111815.M Thu Nov 19 10:38:15 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(35) 2-Butanone (P)

4.786min (+0.006) 4.73 ppb m

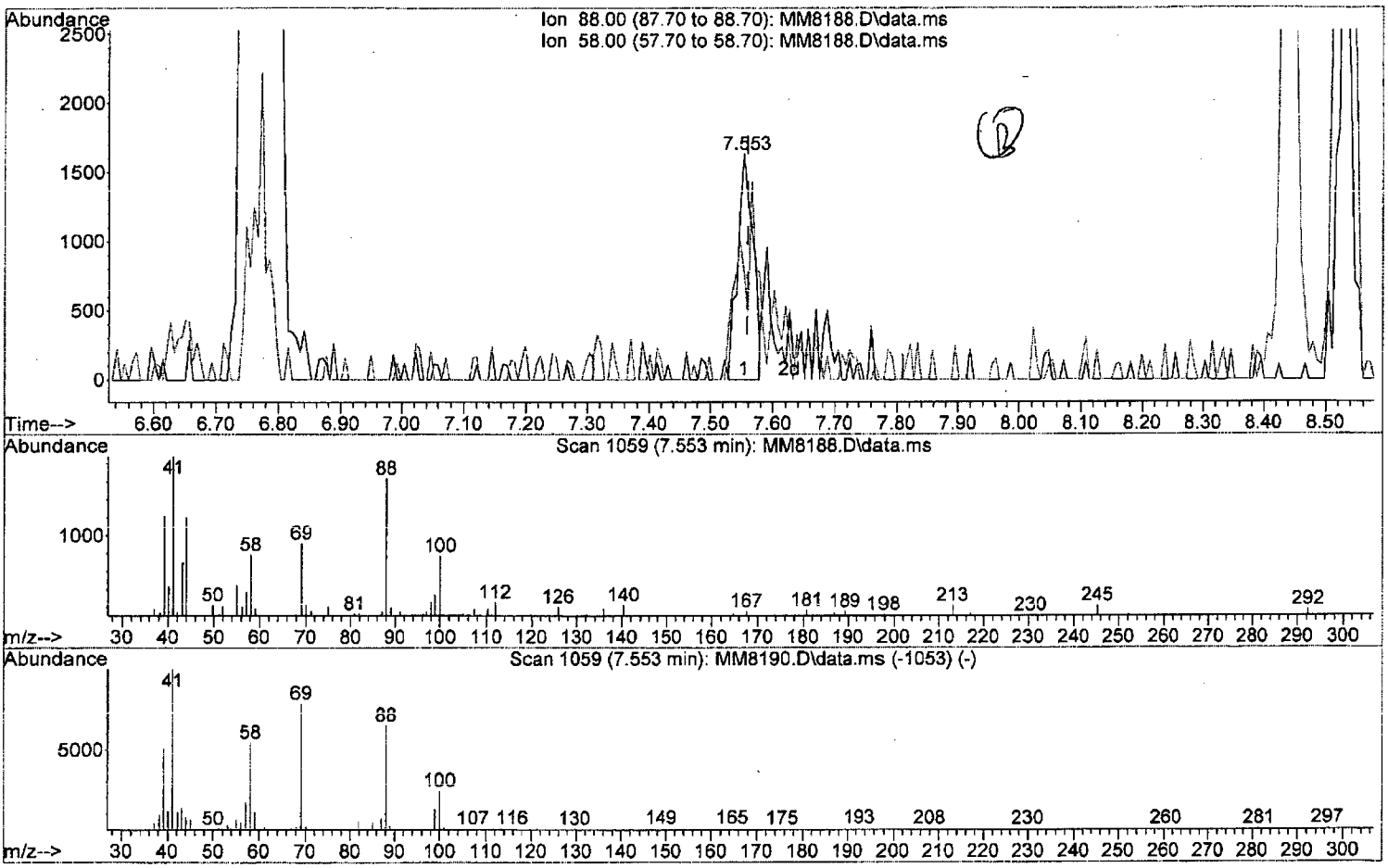
response 10539

Ion	Exp%	Act%
43.00	100	100
57.00	7.50	16.19
72.00	21.20	24.53
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 55.24 ppb

response 2772

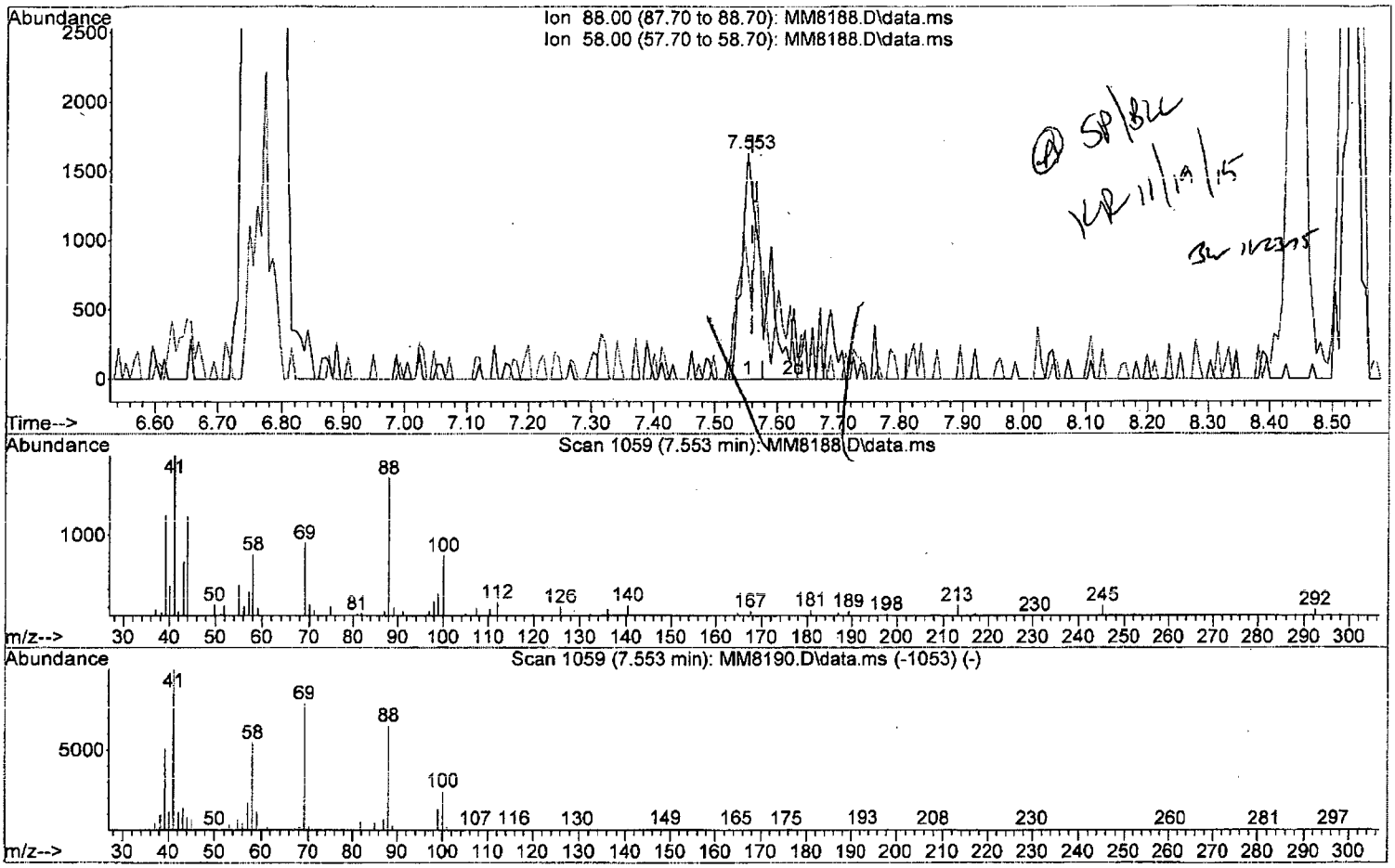
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	47.98#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:39:03 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 101.90 ppb m

response 5113

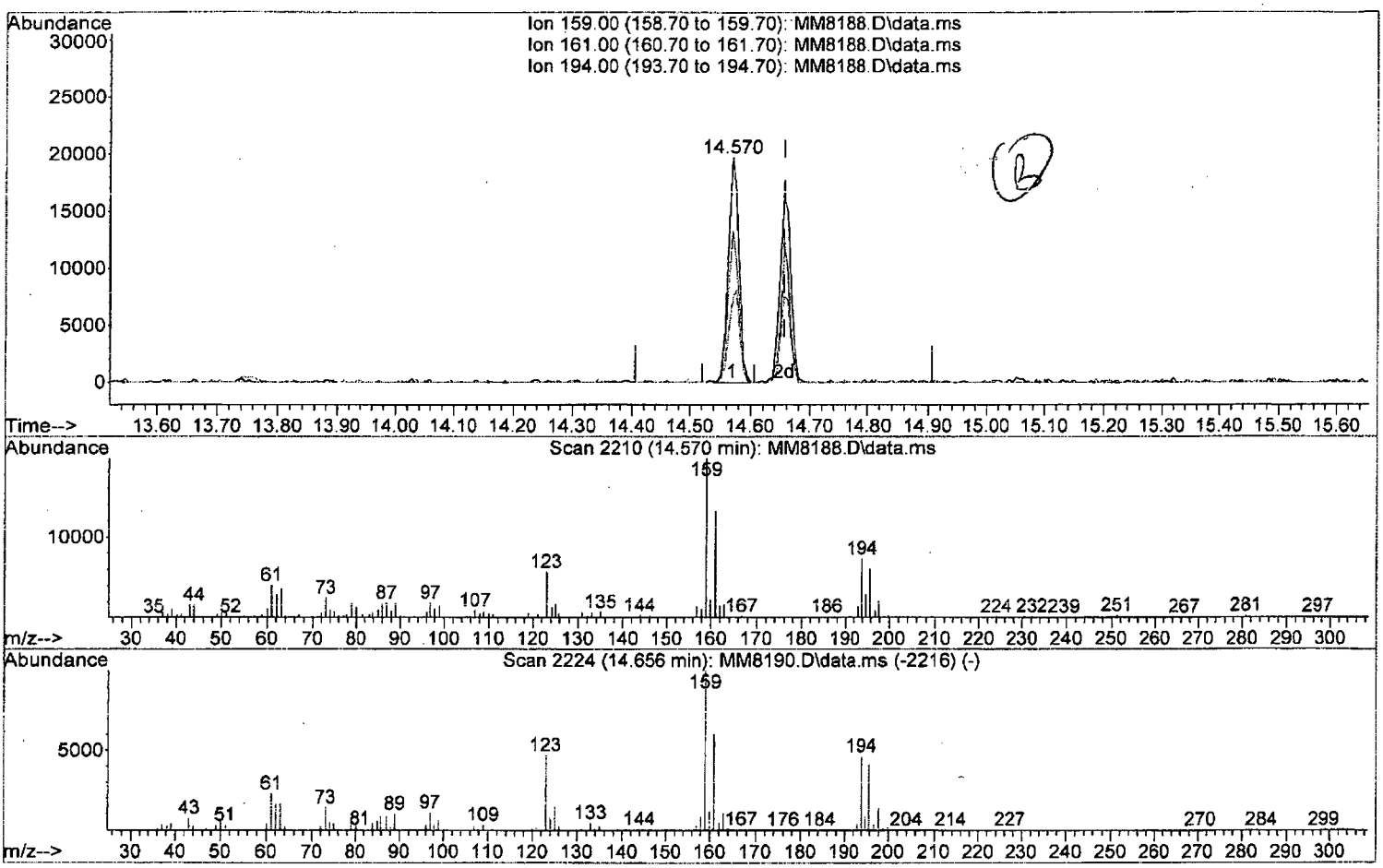
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	47.98#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:39:13 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(120) 2,3,6-Trichlorotoluene

14.570min (-0.085) 5.73 ppb

response 23619

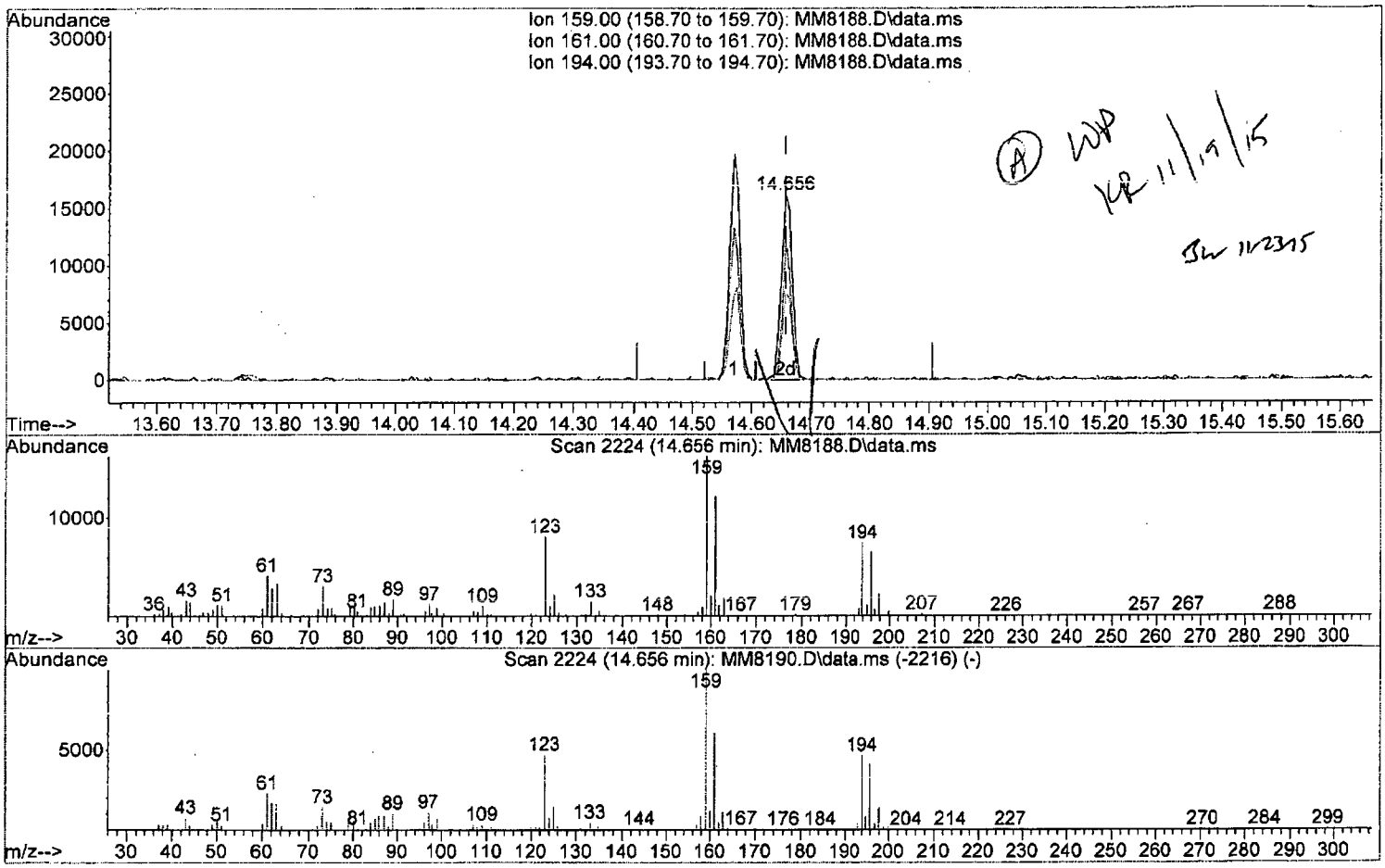
Ion	Exp%	Act%
159.00	100	100
161.00	60.80	67.25
194.00	46.40	37.24
0.00	0.00	0.00

W111815.M Thu Nov 19 10:39:52 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(120) 2,3,6-Trichlorotoluene

14.656min (-0.000) 5.04 ppb m

response 20789

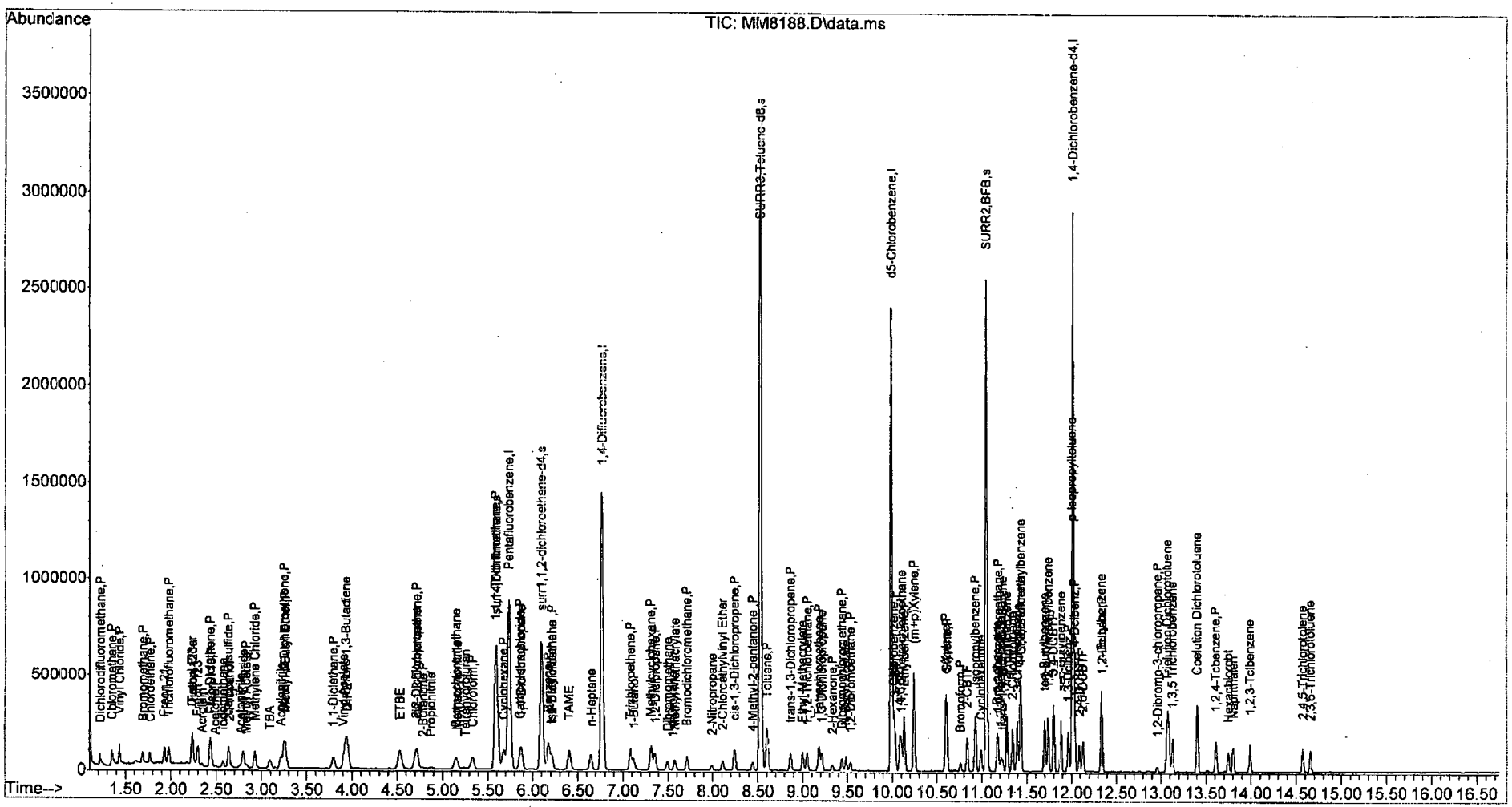
Ion	Exp%	Act%
159.00	100	100
161.00	60.80	74.81#
194.00	46.40	45.95
0.00	0.00	0.00

W111815.M Thu Nov 19 10:39:59 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 10:40:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 10:40:37 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 10:51:14 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	746894	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1235612	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1138984	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	553172	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	625642	102.90	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 205.80%#				
48) surr1,1,2-dichloroetha...	6.096	65	682863	100.35	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 200.70%#				
65) SURR3,Toluene-d8	8.529	98	2568861	101.89	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 203.78%#				
70) SURR2,BFB	11.047	95	952681	97.85	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 195.70%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	235839	22.29	ppb		97
3) Chloromethane	1.347	50	271342	21.60	ppb		97
4) Vinyl Chloride	1.433	62	257391	22.00	ppb		98
5) Bromomethane	1.689	94	108855	18.79	ppb		94
6) Chloroethane	1.768	64	133130	20.35	ppb		99
7) Freon 21	1.927	67	248468	19.71	ppb		97
8) Trichlorofluoromethane	1.975	101	200987	22.02	ppb		96
9) Diethyl Ether	2.231	59	119049	20.82	ppb		97
10) Freon 123a	2.237	67	156125	18.91	ppb		97
11) Freon 123	2.298	83	175618	18.37	ppb		93
12) Acrolein	2.341	56	23880	37.52	ppb		98
13) 1,1-Dicletheene	2.433	96	128509	20.09	ppb		96
14) Freon 113	2.445	101	117743	20.71	ppb		91
15) Acetone	2.487	43	30654m	19.36	ppb		
16) 2-Propanol	2.646	45	110266	364.95	ppb		95
17) Iodomethane	2.573	142	145090	20.69	ppb		98
18) Carbon Disulfide	2.634	76	409570	19.63	ppb		99
19) Acetonitrile	2.756	40	21431	97.04	ppb		88
20) Allyl Chloride	2.798	76	73906	21.25	ppb		98
21) Methyl Acetate	2.829	43	65421	17.63	ppb		94
22) Methylene Chloride	2.926	84	141816	19.66	ppb		94
23) TBA	3.091	59	190356	388.20	ppb		100
24) Acrylonitrile	3.207	53	177703	97.88	ppb		98
25) Methyl-t-Butyl Ether	3.262	73	353828	20.36	ppb		99
26) trans-1,2-Dichloroethene	3.249	96	140413	20.99	ppb		89
28) 1,1-Diclethane	3.792	63	249997	20.89	ppb		93
29) Vinyl Acetate	3.902	86	23791	18.43	ppb	#	93
30) DIPE	3.944	45	456019	19.55	ppb		100
31) 2-Chloro-1,3-Butadiene	3.926	53	229273	19.10	ppb		97
32) ETBE	4.524	59	420713	19.19	ppb		97
33) 2,2-Dichloropropane	4.707	77	201674	21.07	ppb		96
34) cis-1,2-Dichloroethene	4.719	96	147787	19.84	ppb		93
35) 2-Butanone	4.780	43	38879	17.62	ppb		88
36) Propionitrile	4.865	54	63104	94.74	ppb		100

JCR 11/19/15

W111815.M Thu Nov 19 10:51:52 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 10:51:14 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.139	130	75893	19.61	ppb		98
38) Methacrylonitrile	5.158	67	41997	18.49	ppb		87
39) Tetrahydrofuran	5.243	42	26241	18.02	ppb		95
40) Chloroform	5.328	83	228784	19.67	ppb		99
41) 1,1,1-Trichloroethane	5.603	97	188877	20.68	ppb		96
42) TAME	6.407	73	354005	19.01	ppb		97
44) Cyclohexane	5.676	41	128800	19.16	ppb		92
46) Carbontetrachloride	5.859	121	48489	20.34	ppb		99
47) 1,1-Dichloropropene	5.871	75	180256	20.60	ppb		98
49) Benzene	6.176	78	569231	20.93	ppb		97
50) 1,2-Dichloroethane	6.212	62	147678	21.18	ppb		98
51) Iso-Butyl Alcohol	6.200	43	87699	384.74	ppb		86
52) n-Heptane	6.645	43	156368	20.90	ppb		95
53) 1-Butanol	7.115	56	130164	913.20	ppb		98
54) Trichloroethene	7.084	130	141316	20.45	ppb		95
55) Methylcyclohexane	7.310	55	157368	19.18	ppb		92
56) 1,2-Diclpropane	7.358	63	141654	21.02	ppb		97
57) Dibromomethane	7.486	93	64616	19.48	ppb		97
58) 1,4-Dioxane	7.560	88	19220m	383.50	ppb		
59) Methyl Methacrylate	7.578	69	76126	19.52	ppb		93
60) Bromodichloromethane	7.712	83	168733	20.42	ppb		98
61) 2-Nitropropane	7.986	41	47739	38.93	ppb		92
62) 2-Chloroethylvinyl Ether	8.108	63	68173	18.34	ppb		98
63) cis-1,3-Dichloropropene	8.242	75	233657	21.10	ppb		98
64) 4-Methyl-2-pentanone	8.444	43	97024	19.69	ppb		98
66) Toluene	8.602	91	607465	21.57	ppb		98
67) trans-1,3-Dichloropropene	8.864	75	184608	20.99	ppb		97
68) Ethyl Methacrylate	8.998	69	160688	20.63	ppb		99
69) 1,1,2-Trichloroethane	9.047	97	100108	21.02	ppb		99
72) Tetrachloroethene	9.181	164	99831	21.13	ppb		91
73) 2-Hexanone	9.328	43	63376	18.18	ppb		98
74) 1,3-Dichloropropane	9.212	76	179404	20.72	ppb		97
75) Dibromochloromethane	9.437	129	108632	20.16	ppb		97
76) N-Butyl Acetate	9.480	43	164957	19.91	ppb		98
77) 1,2-Dibromoethane	9.529	107	95116	20.61	ppb		98
78) Chlorobenzene	10.016	112	354056	21.02	ppb		98
79) 3-CBTF	10.029	180	166251	19.92	ppb		99
80) 4-CBTF	10.084	180	153182	19.70	ppb		98
81) 1,1,1,2-Tetrachloroethane	10.102	131	119487	20.52	ppb		94
82) Ethylbenzene	10.132	106	201581	21.12	ppb		96
83) (m+p)Xylene	10.242	106	498501	42.32	ppb		96
84) o-Xylene	10.596	106	254290	21.08	ppb		94
85) Styrene	10.608	104	413167	21.02	ppb		98
87) Bromoform	10.760	173	61267	19.50	ppb		94
88) 2-CBTF	10.839	180	168048	20.04	ppb		94
89) Isopropylbenzene	10.925	105	620263	21.56	ppb		98
90) Cyclohexanone	10.986	55	157226	376.99	ppb		99
91) trans-1,4-Dichloro-2-B...	11.230	53	33092	18.32	ppb		93
92) 1,1,2,2-Tetrachloroethane	11.181	83	116208	19.99	ppb		92
93) Bromobenzene	11.175	156	139093	21.37	ppb	#	85
94) 1,2,3-Trichloropropane	11.211	110	30318	17.71	ppb		98

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 10:51:14 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

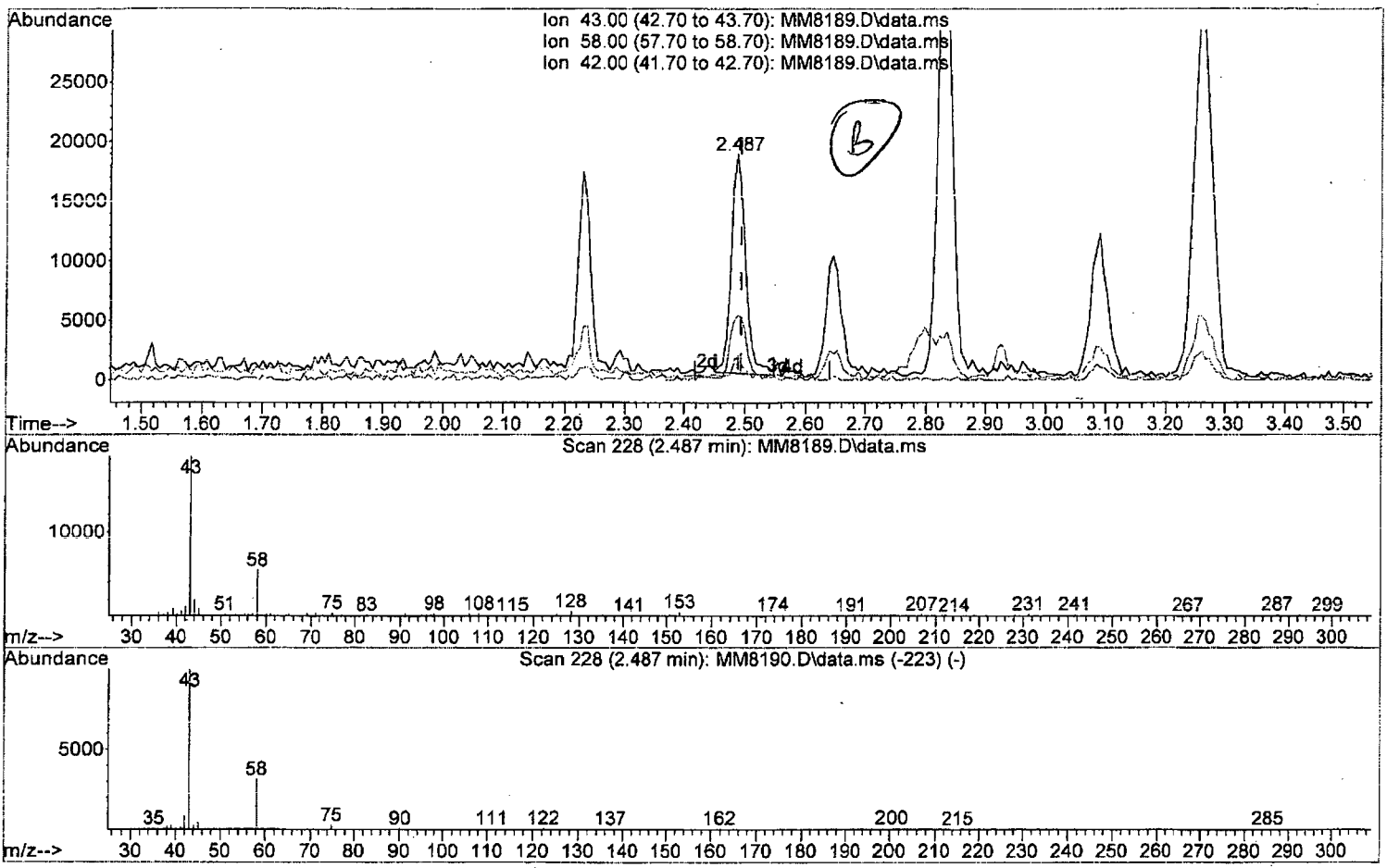
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) n-Propylbenzene	11.278	91	736008	22.20	ppb	96
96) 2-Chlorotoluene	11.339	91	425256	21.88	ppb	98
97) 3-Chlorotoluene	11.394	91	424784	20.84	ppb	98
98) 4-Chlorotoluene	11.431	91	471833	21.52	ppb	94
99) 1,3,5-Trimethylbenzene	11.431	105	469663	21.58	ppb	98
100) tert-Butylbenzene	11.699	119	422608	21.76	ppb	99
101) 1,2,4-Trimethylbenzene	11.736	105	508453	21.77	ppb	96
102) 3,4-DCBTF	11.797	214	110506	19.67	ppb	99
103) sec-Butylbenzene	11.882	105	592992	21.82	ppb	98
104) p-Isopropyltoluene	12.004	119	462544	22.01	ppb	99
105) 1,3-Dclbenz	11.961	146	266226	21.13	ppb	98
106) 1,4-Dclbenz	12.034	146	254619	21.56	ppb	98
107) 2,4-DCBTF	12.089	214	100928	20.59	ppb	94
108) 2,5-DCBTF	12.126	214	110539	19.93	ppb	96
109) n-Butylbenzene	12.333	91	438516	22.04	ppb	99
110) 1,2-Dclbenz	12.339	146	246674	21.27	ppb	96
111) 1,2-Dibromo-3-chloropr...	12.955	157	22127	19.35	ppb	87
112) Trielution Dichlorotol...	13.077	125	622015	63.56	ppb	98
113) 1,3,5 Trichlorobenzene	13.126	180	160567	20.60	ppb	95
114) Coelution Dichlorotoluene	13.400	125	440014	42.55	ppb	99
115) 1,2,4-Tcbenzene	13.607	180	147114	20.56	ppb	98
116) Hexachlorobt	13.747	225	58439	19.16	ppb	91
117) Naphthalen	13.796	128	308728	20.81	ppb	99
118) 1,2,3-Tclbenzene	13.985	180	124012	20.84	ppb	98
119) 2,4,5-Trichlorotolene	14.570	159	89484	19.81	ppb	98
120) 2,3,6-Trichlorotoluene	14.656	159	78074	19.55	ppb	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 09:36:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8189.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 18.88 ppb

response 29898

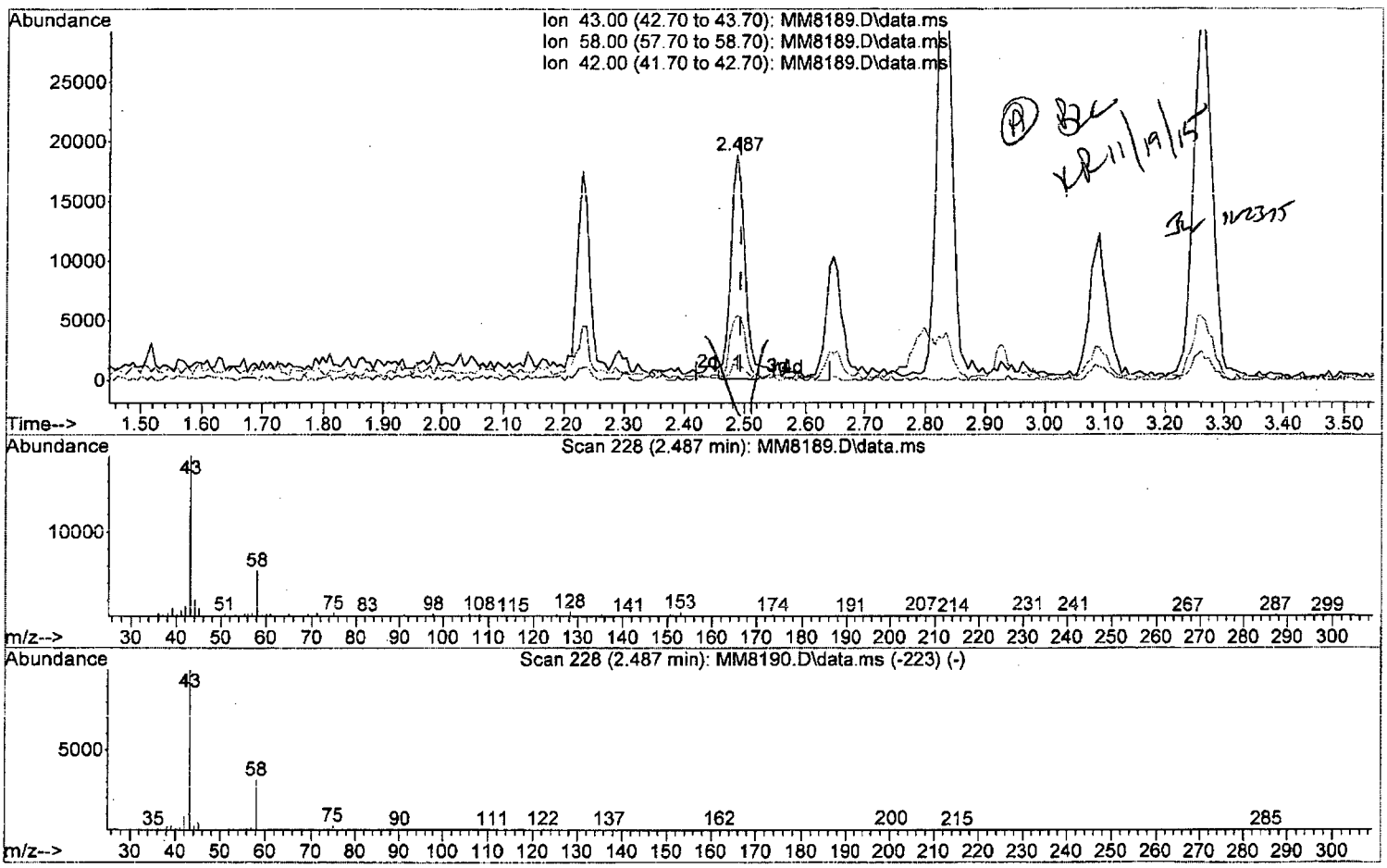
Ion	Exp%	Act%
43.00	100	100
58.00	30.90	28.87
42.00	8.50	6.21
0.00	0.00	0.00

W111815.M Thu Nov 19 10:50:00 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 09:36:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8189.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 19.36 ppb m

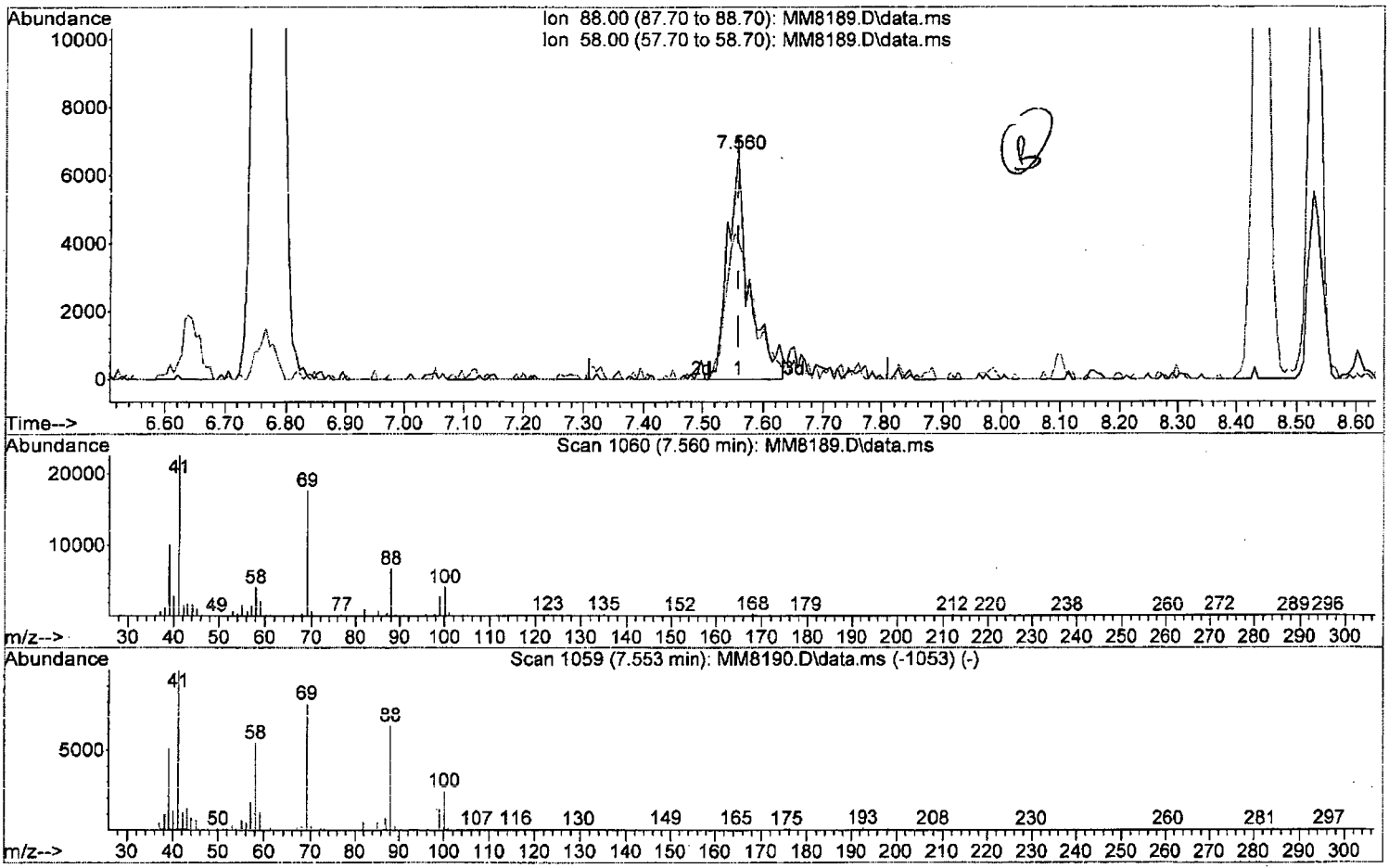
response 30654

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	28.87
42.00	8.50	6.21
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 09:36:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8189.D\data.ms

(58) 1,4-Dioxane

7.560min (-0.000) 324.02 ppb

response 16239

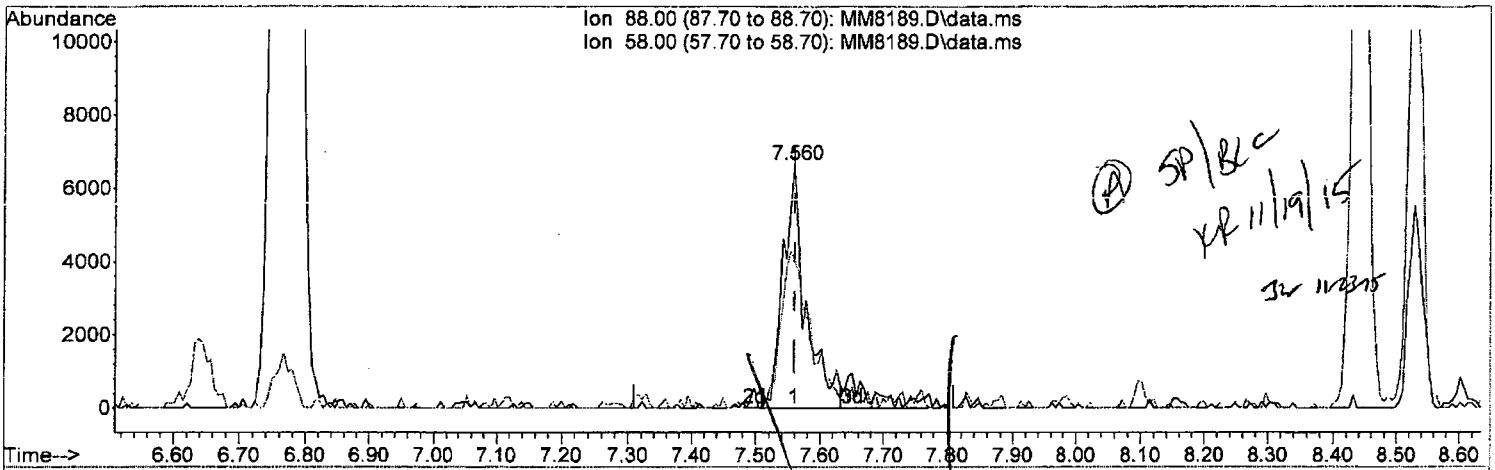
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	60.62#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:51:00 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 09:36:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8189.D\data.ms

(58) 1,4-Dioxane

7.560min (-0.000) 383.50 ppb m

response 19220

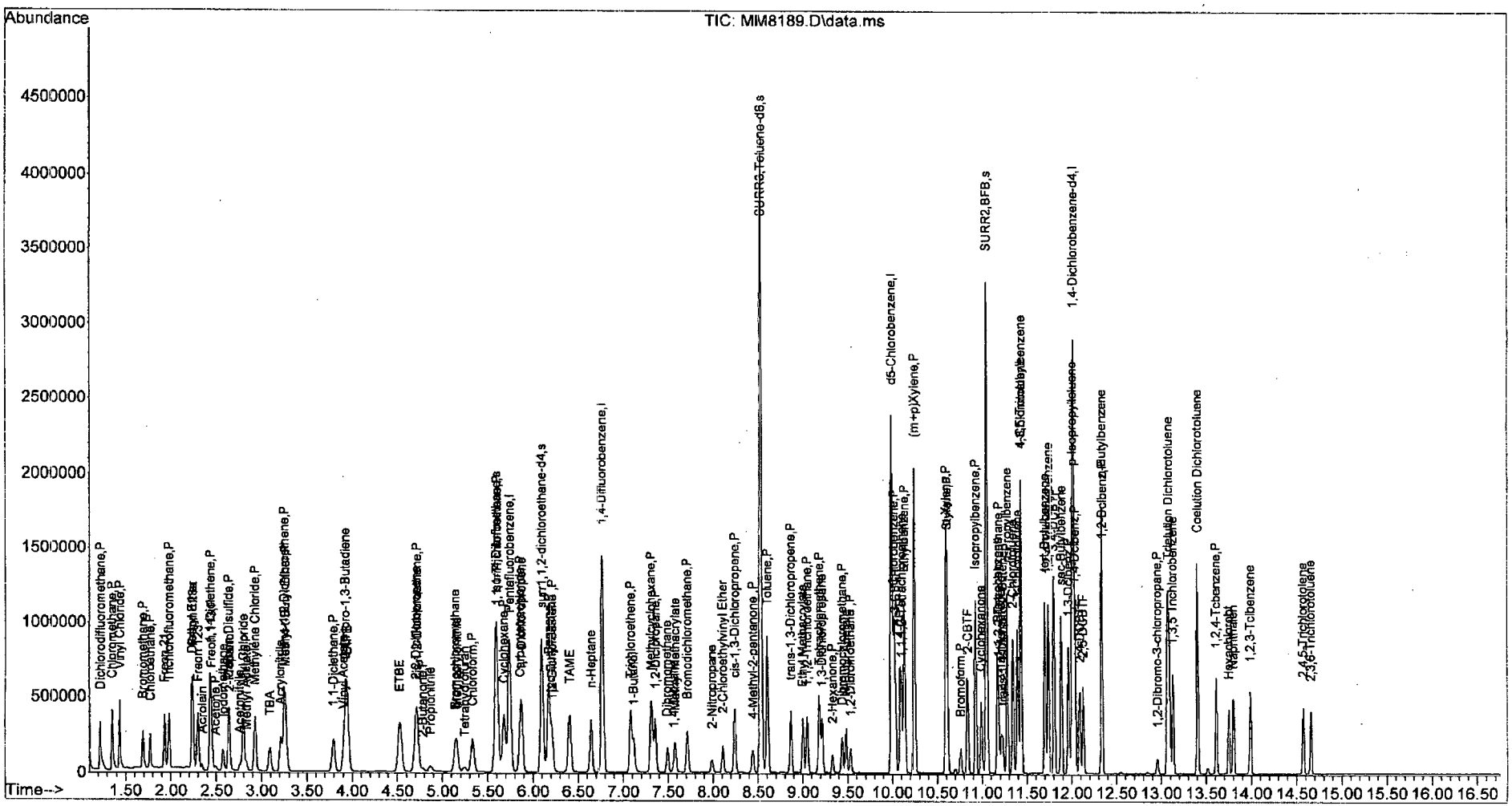
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	60.62#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:51:07 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 10:51:14 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 10:51:56 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 10:54:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.743	168	733125	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1221940	50.00	ppb	0.00
71) d5-Chlorobenzene	9.992	117	1154458	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	553929	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.597	113	352544	47.76	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 95.52%			
48) surr1,1,2-dichloroetha...	6.096	65	385774	48.80	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 97.60%			
65) SURR3,Toluene-d8	8.529	98	1554415	48.42	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 96.84%			
70) SURR2,BFB	11.047	95	574554	49.69	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.38%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.219	85	574986	55.36	ppb	100
3) Chloromethane	1.347	50	620223	50.31	ppb	100
4) Vinyl Chloride	1.433	62	589983	51.36	ppb	100
5) Bromomethane	1.689	94	272364	47.91	ppb	100
6) Chloroethane	1.768	64	316235	49.25	ppb	100
7) Freon 21	1.927	67	622497	50.31	ppb	100
8) Trichlorofluoromethane	1.975	101	459849	51.34	ppb	100
9) Diethyl Ether	2.231	59	277168	49.37	ppb	100
10) Freon 123a	2.237	67	393722	48.59	ppb	100
11) Freon 123	2.298	83	447567	47.71	ppb	100
12) Acrolein	2.341	56	57688	92.34	ppb	100
13) 1,1-Dicl̀ethene	2.433	96	304457	48.49	ppb	100
14) Freon 113	2.439	101	273994	49.10	ppb	100
15) Acetone	2.487	43	72992m	46.95	ppb	
16) 2-Propanol	2.646	45	270149	910.90	ppb	100
17) Iodomethane	2.573	142	393581	57.19	ppb	100
18) Carbon Disulfide	2.634	76	1040806	50.82	ppb	100
19) Acetonitrile	2.762	40	46696	215.42	ppb	100
20) Allyl Chloride	2.798	76	171067	50.11	ppb	100
21) Methyl Acetate	2.829	43	165414	45.43	ppb	100
22) Methylene Chloride	2.926	84	335728	47.42	ppb	100
23) TBA	3.085	59	453364	941.93	ppb	100
24) Acrylonitrile	3.207	53	424290	238.10	ppb	100
25) Methyl-t-Butyl Ether	3.262	73	809434	47.45	ppb	100
26) trans-1,2-Dichloroethene	3.249	96	328228	49.99	ppb	100
28) 1,1-Diclethane	3.792	63	585724	49.87	ppb	100
29) Vinyl Acetate	3.902	86	58562	46.23	ppb	100
30) DIPE	3.944	45	1120425	48.94	ppb	100
31) 2-Chloro-1,3-Butadiene	3.926	53	588782	49.97	ppb	100
32) ETBE	4.524	59	1056072	49.08	ppb	100
33) 2,2-Dichloropropane	4.700	77	467328	49.75	ppb	100
34) cis-1,2-Dichloroethene	4.719	96	349816	47.84	ppb	100
35) 2-Butanone	4.774	43	102240	47.20	ppb	100
36) Propionitrile	4.865	54	151601	231.88	ppb	100

KB 11/19/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 10:54:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Bromochloromethane	5.145	130	185345	48.78	ppb	100
38) Methacrylonitrile	5.158	67	98211	44.05	ppb	100
39) Tetrahydrofuran	5.237	42	62344	43.61	ppb	100
40) Chloroform	5.328	83	539092	47.23	ppb	100
41) 1,1,1-Trichloroethane	5.597	97	448066	49.98	ppb	100
42) TAME	6.401	73	888035	48.58	ppb	100
44) Cyclohexane	5.676	41	328688	49.44	ppb	100
46) Carbontetrachloride	5.859	121	117711	49.94	ppb	100
47) 1,1-Dichloropropene	5.871	75	431513	49.85	ppb	100
49) Benzene	6.170	78	1368032	50.87	ppb	100
50) 1,2-Dichloroethane	6.212	62	337529	48.96	ppb	100
51) Iso-Butyl Alcohol	6.200	43	202950	900.31	ppb	100
52) n-Heptane	6.645	43	360771	48.75	ppb	100
53) 1-Butanol	7.115	56	324175	2299.79	ppb	100
54) Trichloroethene	7.084	130	337817	49.44	ppb	100
55) Methylcyclohexane	7.316	55	395842	48.79	ppb	100
56) 1,2-Diclpropane	7.352	63	335429	50.34	ppb	100
57) Dibromomethane	7.486	93	152034	46.34	ppb	100
58) 1,4-Dioxane	7.553	88	43143m	870.47	ppb	
59) Methyl Methacrylate	7.578	69	186578	48.39	ppb	100
60) Bromodichloromethane	7.712	83	407587	49.89	ppb	100
61) 2-Nitropropane	7.986	41	110019	90.71	ppb	100
62) 2-Chloroethylvinyl Ether	8.108	63	173496	47.19	ppb	100
63) cis-1,3-Dichloropropene	8.242	75	547036	49.95	ppb	100
64) 4-Methyl-2-pentanone	8.437	43	238996	49.04	ppb	100
66) Toluene	8.602	91	1418406	50.93	ppb	100
67) trans-1,3-Dichloropropene	8.864	75	448276	51.53	ppb	100
68) Ethyl Methacrylate	8.998	69	387625	50.32	ppb	100
69) 1,1,2-Trichloroethane	9.047	97	235977	50.10	ppb	100
72) Tetrachloroethene	9.181	164	239087	49.93	ppb	100
73) 2-Hexanone	9.328	43	166329	47.07	ppb	100
74) 1,3-Dichloropropane	9.212	76	416990	47.51	ppb	100
75) Dibromochloromethane	9.437	129	272559	49.91	ppb	100
76) N-Butyl Acetate	9.480	43	412079	49.08	ppb	100
77) 1,2-Dibromoethane	9.529	107	226815	48.49	ppb	100
78) Chlorobenzene	10.016	112	832436	48.75	ppb	100
79) 3-CBTF	10.029	180	407757	48.19	ppb	100
80) 4-CBTF	10.083	180	373055	47.34	ppb	100
81) 1,1,1,2-Tetrachloroethane	10.102	131	284530	48.21	ppb	100
82) Ethylbenzene	10.132	106	475699	49.18	ppb	100
83) (m+p)Xylene	10.242	106	1184332	99.19	ppb	100
84) o-Xylene	10.596	106	619072	50.63	ppb	100
85) Styrene	10.608	104	992156	49.81	ppb	100
87) Bromoform	10.760	173	151800	48.24	ppb	100
88) 2-CBTF	10.833	180	406831	48.44	ppb	100
89) Isopropylbenzene	10.925	105	1451555	50.39	ppb	100
90) Cyclohexanone	10.986	55	396507	949.43	ppb	100
91) trans-1,4-Dichloro-2-B...	11.230	53	84694	46.81	ppb	100
92) 1,1,2,2-Tetrachloroethane	11.181	83	273575	47.00	ppb	100
93) Bromobenzene	11.169	156	333923	51.23	ppb	100
94) 1,2,3-Trichloropropane	11.211	110	75214	43.88	ppb	100

W111815.M Thu Nov 19 10:57:54 2015 Page: 2

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 10:54:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

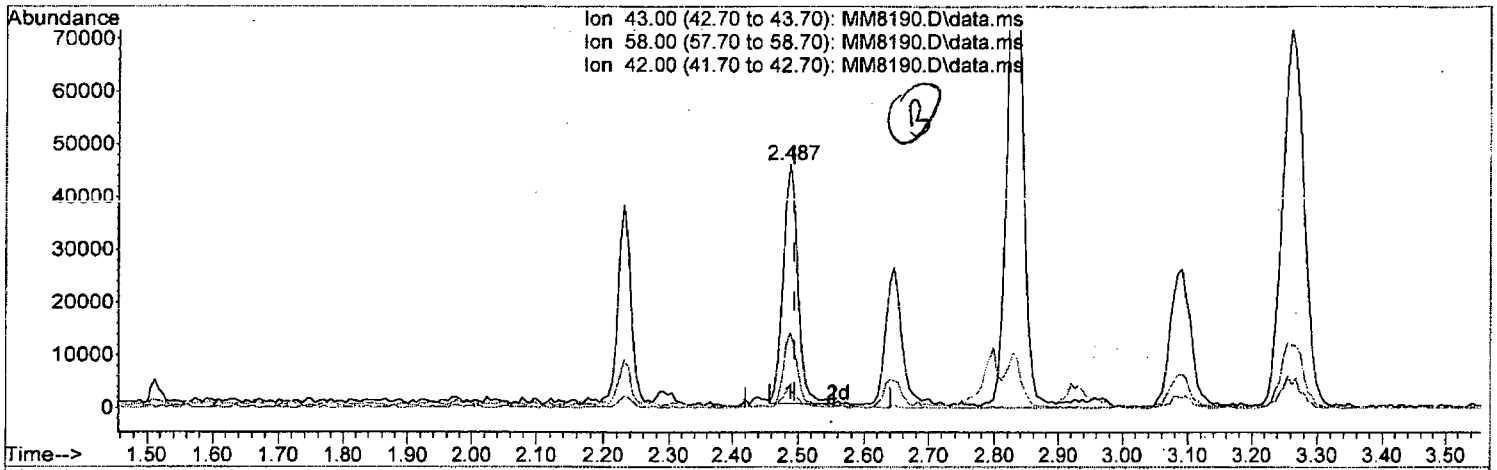
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	1715030	51.66	ppb	100
96)	2-Chlorotoluene	11.339	91	1004690	51.62	ppb	100
97)	3-Chlorotoluene	11.394	91	1024114	50.17	ppb	100
98)	4-Chlorotoluene	11.437	91	1110175	50.57	ppb	100
99)	1,3,5-Trimethylbenzene	11.431	105	1111728	51.00	ppb	100
100)	tert-Butylbenzene	11.699	119	1007300	51.79	ppb	100
101)	1,2,4-Trimethylbenzene	11.742	105	1197157	51.18	ppb	100
102)	3,4-DCBTF	11.797	214	275696	49.01	ppb	100
103)	sec-Butylbenzene	11.882	105	1398223	51.38	ppb	100
104)	p-Isopropyltoluene	12.004	119	1087020	51.66	ppb	100
105)	1,3-Dclbenz	11.961	146	638059	50.57	ppb	100
106)	1,4-Dclbenz	12.034	146	613936	51.91	ppb	100
107)	2,4-DCBTF	12.089	214	244902	49.88	ppb	100
108)	2,5-DCBTF	12.126	214	272399	49.05	ppb	100
109)	n-Butylbenzene	12.333	91	1027520	51.57	ppb	100
110)	1,2-Dclbenz	12.339	146	591846	50.97	ppb	100
111)	1,2-Dibromo-3-chloropr...	12.955	157	53472	46.71	ppb	100
112)	Trielution Dichlorotol...	13.077	125	1477263	150.74	ppb	100
113)	1,3,5 Trichlorobenzene	13.132	180	380708	48.77	ppb	100
114)	Coelution Dichlorotoluene	13.400	125	1062223	102.57	ppb	100
115)	1,2,4-Tcbenzene	13.607	180	360767	50.36	ppb	100
116)	Hexachlorobt	13.747	225	146014	47.80	ppb	100
117)	Naphthalen	13.796	128	766508	51.59	ppb	100
118)	1,2,3-Tclbenzene	13.985	180	306118	51.37	ppb	100
119)	2,4,5-Trichlorotolene	14.570	159	218733	48.36	ppb	100
120)	2,3,6-Trichlorotoluene	14.656	159	182713	45.69	ppb	100

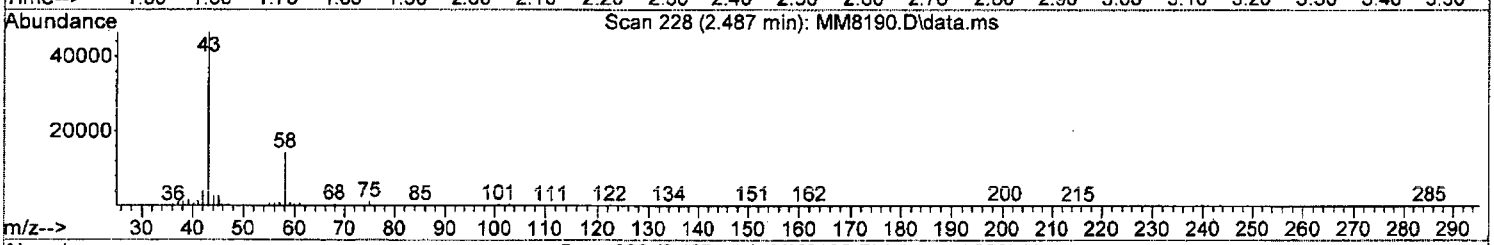
(#) = qualifier out of range (m) = manual integration (+) = signals summed

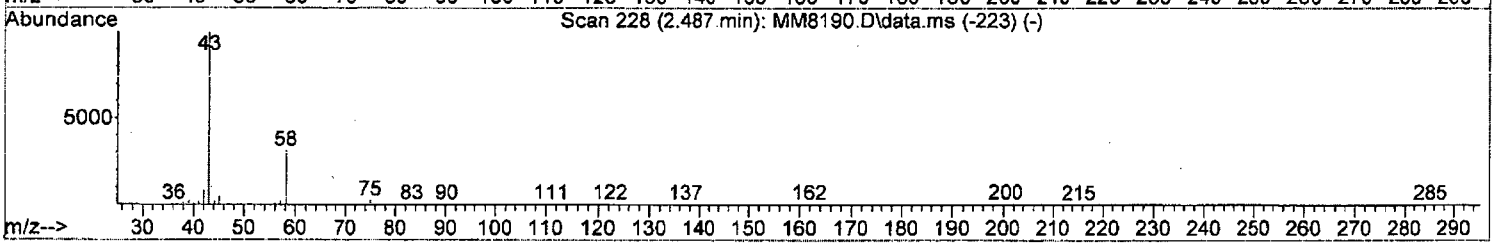
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 09:36:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8190.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 45.46 ppb

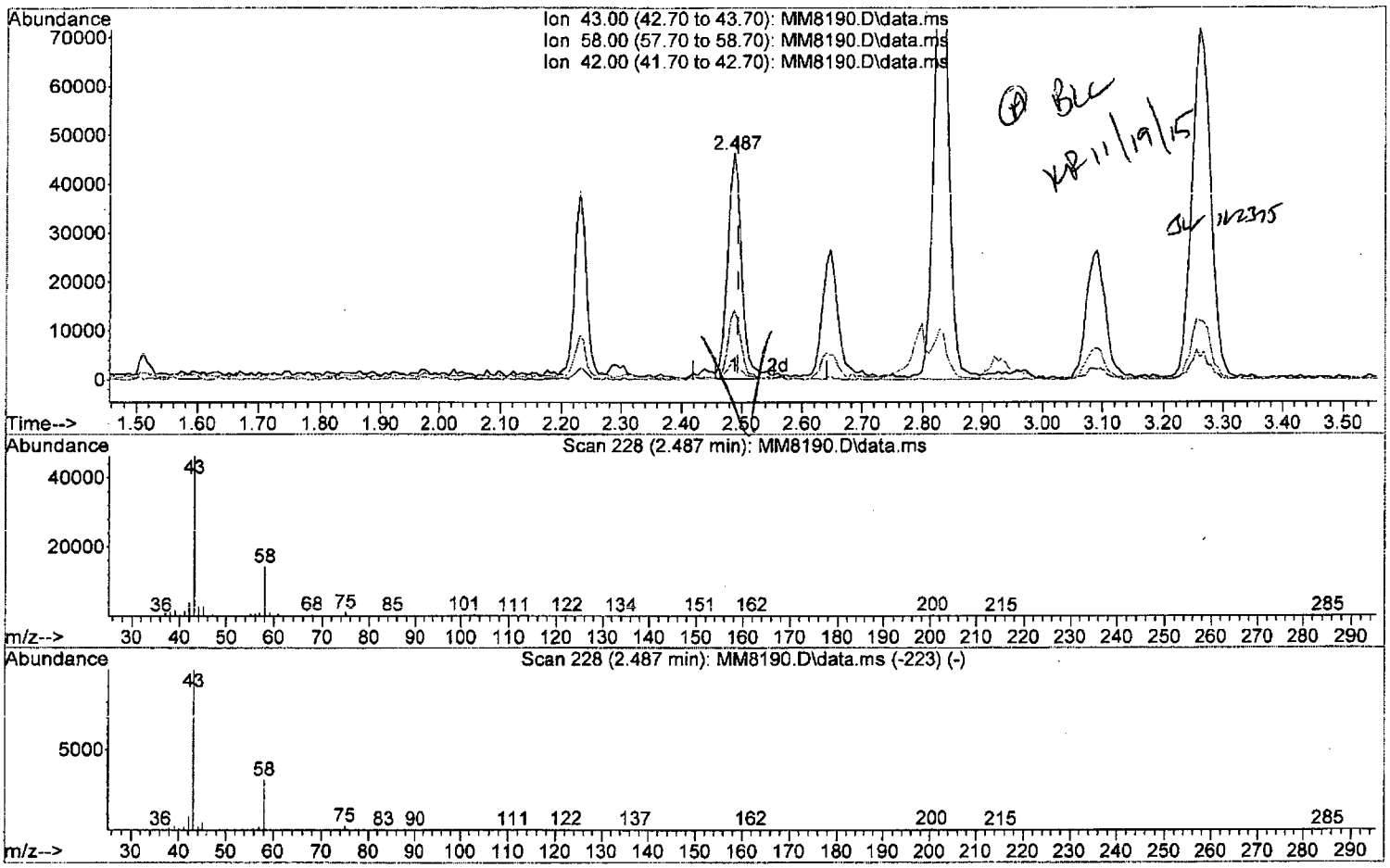
response 70668

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	30.87
42.00	8.50	8.48
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 09:36:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8190.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 46.95 ppb m

response 72992

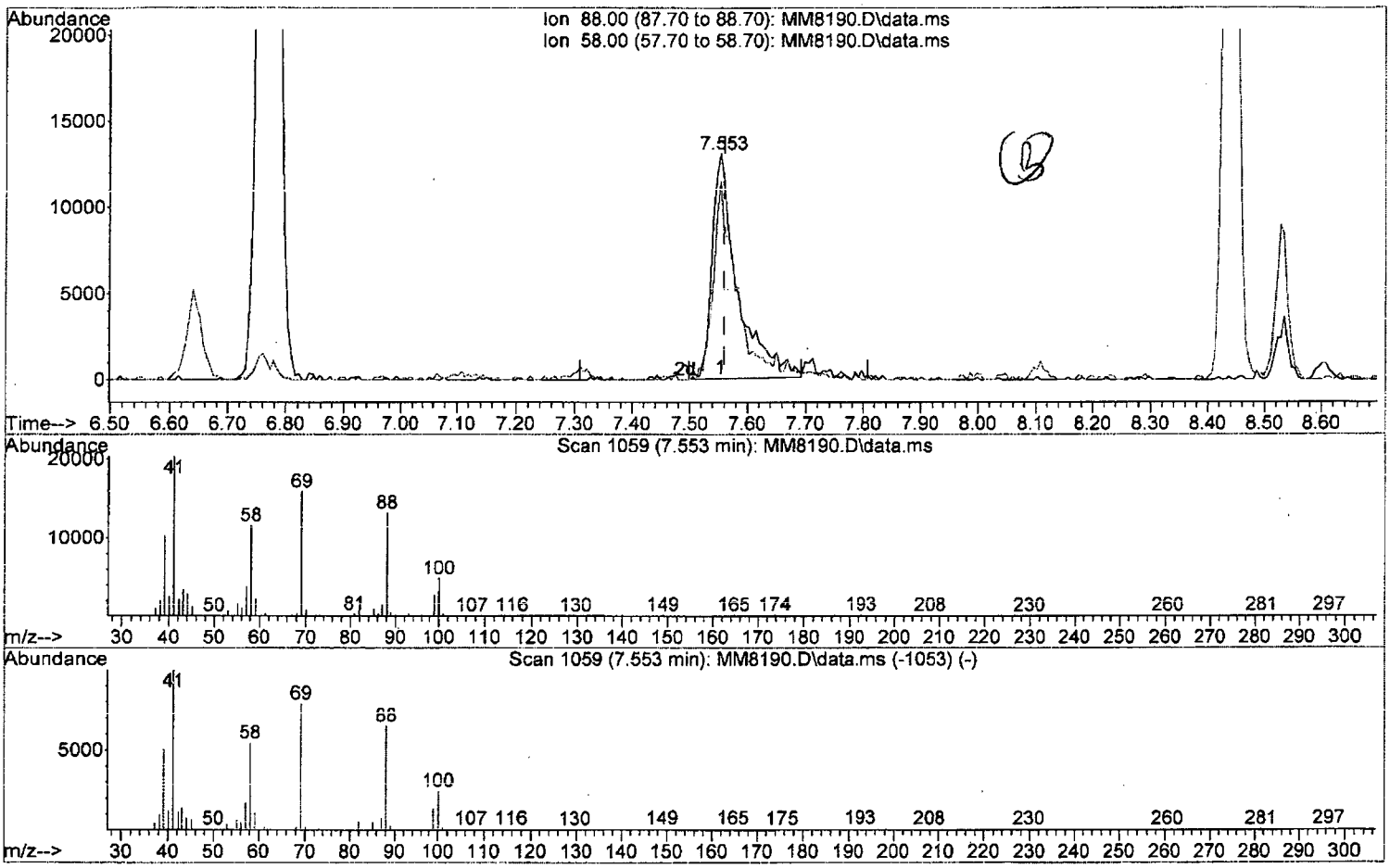
Ion	Exp%	Act%
43.00	100	100
58.00	30.90	30.87
42.00	8.50	8.48
0.00	0.00	0.00

W111815.M Thu Nov 19 10:52:55 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 09:36:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8190.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 809.02 ppb

response 40097

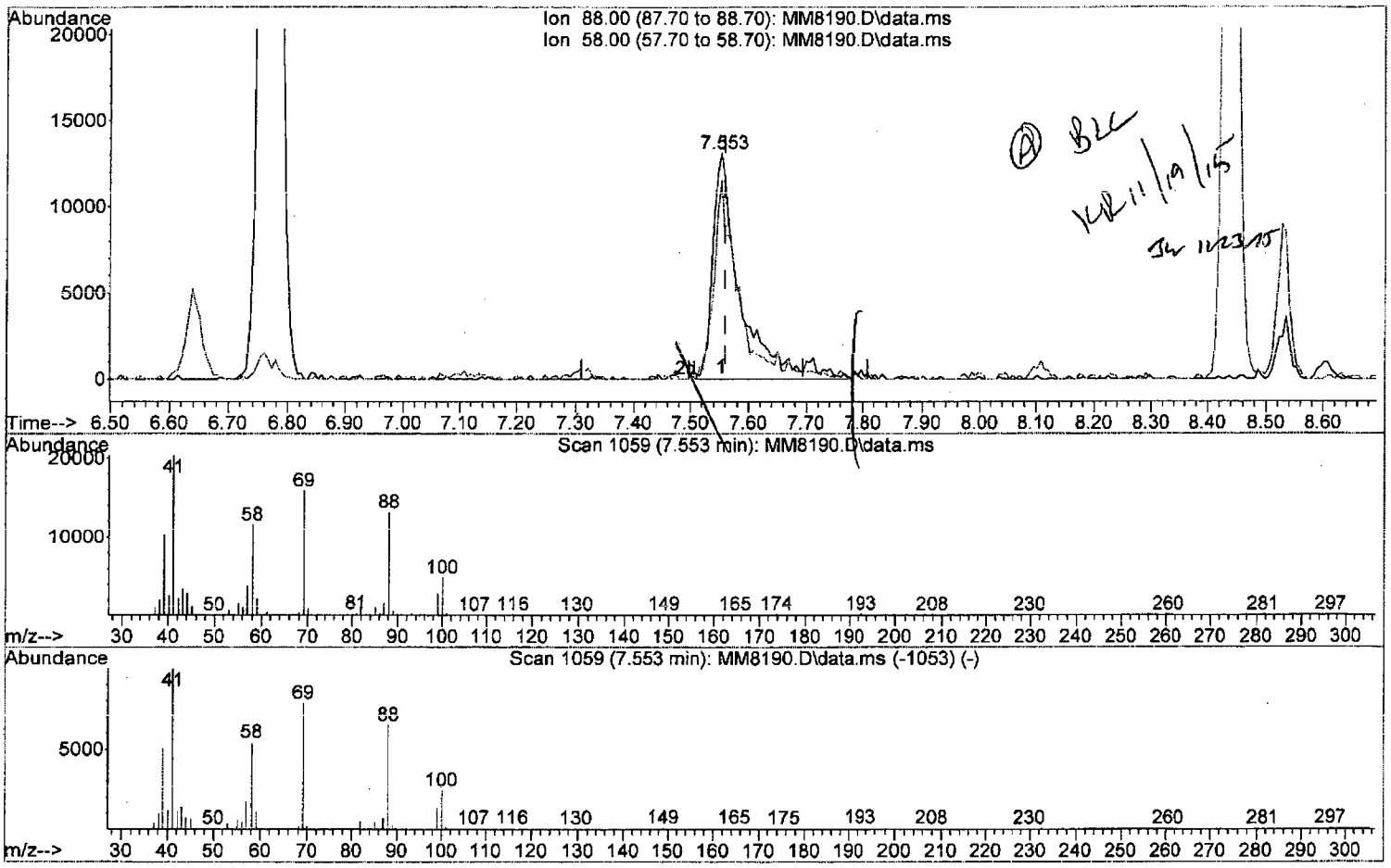
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	87.86
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:53:49 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 09:36:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8190.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 870.47 ppb m

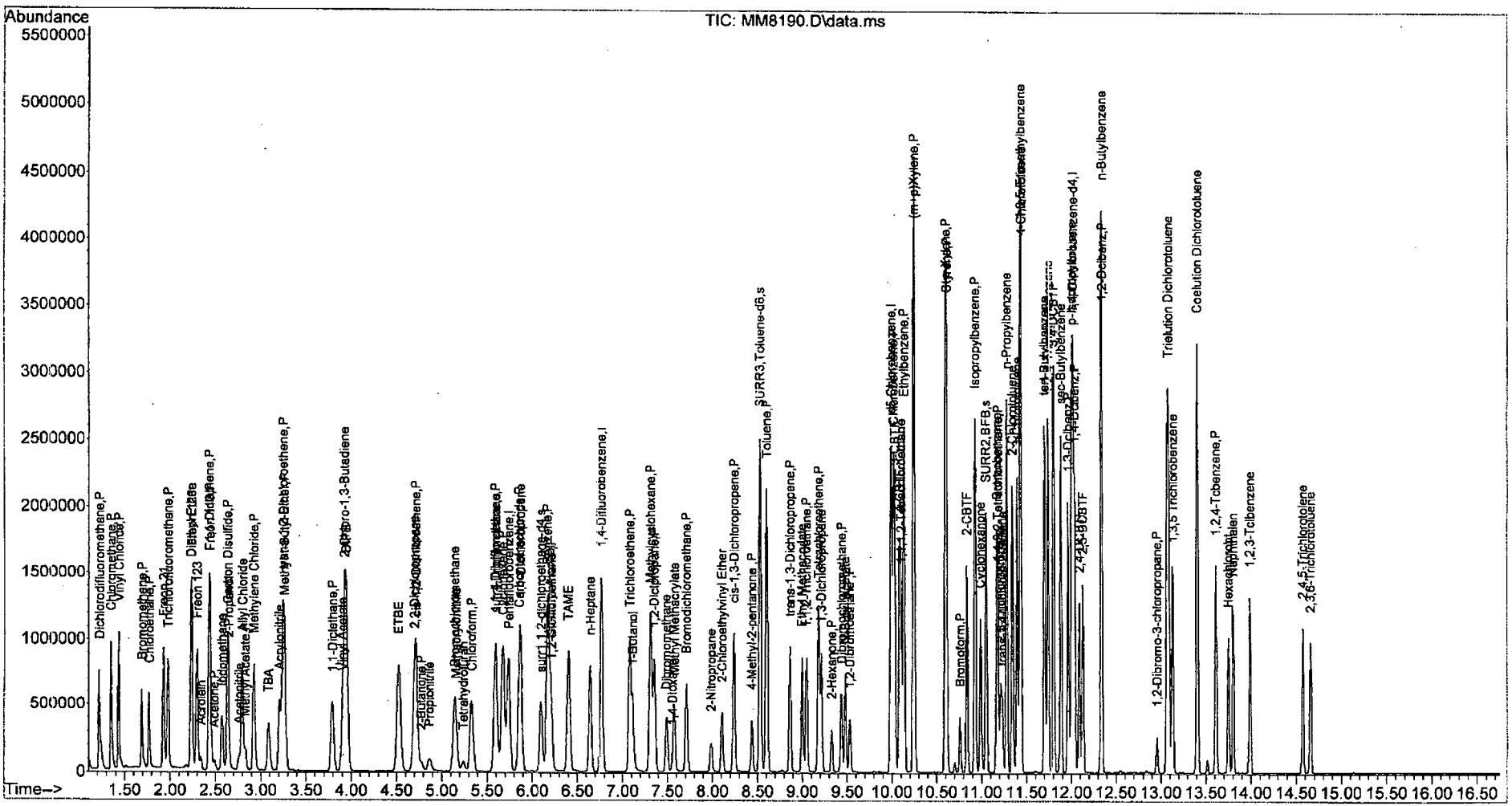
response 43143

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	87.86
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 10:54:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 10:58:00 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 11:00:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	713860	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1202753	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1137171	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	550506	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	724533	127.22	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 254.44%#				
48) surr1,1,2-dichloroetha...	6.096	65	810008	126.64	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 253.28%#				
65) SURR3,Toluene-d8	8.529	98	2990251	128.87	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 257.74%#				
70) SURR2,BFB	11.053	95	1160630	128.90	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 257.80%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	1052840	104.11	ppb		100
3) Chloromethane	1.347	50	1140391	94.99	ppb		99
4) Vinyl Chloride	1.433	62	1056349	94.45	ppb		99
5) Bromomethane	1.689	94	510510	92.22	ppb		99
6) Chloroethane	1.768	64	573008	91.66	ppb		98
7) Freon 21	1.926	67	1187769	98.58	ppb		100
8) Trichlorofluoromethane	1.975	101	840992	96.42	ppb		99
9) Diethyl Ether	2.231	59	523351	95.74	ppb		96
10) Freon 123a	2.237	67	719400	91.17	ppb		98
11) Freon 123	2.298	83	822956	90.09	ppb		97
12) Acrolein	2.341	56	116462	191.45	ppb		99
13) 1,1-Diclethene	2.432	96	536474	87.75	ppb		99
14) Freon 113	2.445	101	471815	86.84	ppb		89
15) Acetone	2.487	43	148224	97.92	ppb		99
16) 2-Propanol	2.646	45	552682	1913.86	ppb		98
17) Iodomethane	2.573	142	732076	109.24	ppb		100
18) Carbon Disulfide	2.634	76	1920148	96.29	ppb		98
19) Acetonitrile	2.762	40	87773	415.85	ppb		97
20) Allyl Chloride	2.798	76	300603	90.42	ppb		98
21) Methyl Acetate	2.835	43	329628	92.96	ppb		98
22) Methylene Chloride	2.926	84	620581	90.02	ppb		97
23) TBA	3.091	59	951681	2030.61	ppb		98
24) Acrylonitrile	3.213	53	848533	489.02	ppb		100
25) Methyl-t-Butyl Ether	3.262	73	1539975	92.72	ppb		98
26) trans-1,2-Dichloroethene	3.243	96	590566	92.37	ppb		92
28) 1,1-Diclethane	3.792	63	1086572	95.02	ppb		98
29) Vinyl Acetate	3.902	86	113675	92.16	ppb	#	84
30) DIPE	3.944	45	2091790	93.83	ppb		99
31) 2-Chloro-1,3-Butadiene	3.932	53	1094579	95.40	ppb		99
32) ETBE	4.530	59	2046007	97.66	ppb		99
33) 2,2-Dichloropropane	4.706	77	823814	90.06	ppb		97
34) cis-1,2-Dichloroethene	4.719	96	636168	89.36	ppb		97
35) 2-Butanone	4.780	43	212788	100.89	ppb		92
36) Propionitrile	4.865	54	317003	497.96	ppb		95

pk 11/19/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 11:00:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	343229	92.77	ppb		99
38) Methacrylonitrile	5.158	67	199214	91.76	ppb		97
39) Tetrahydrofuran	5.243	42	135076	97.04	ppb		95
40) Chloroform	5.334	83	982598	88.41	ppb		98
41) 1,1,1-Trichloroethane	5.596	97	804545	92.16	ppb		99
42) TAME	6.407	73	1728717	97.13	ppb		99
44) Cyclohexane	5.676	41	604347	92.36	ppb		95
46) Carbontetrachloride	5.865	121	212215	91.46	ppb		92
47) 1,1-Dichloropropene	5.871	75	759998	89.21	ppb		99
49) Benzene	6.176	78	2444912	92.36	ppb		99
50) 1,2-Dichloroethane	6.212	62	643542	94.83	ppb		97
51) Iso-Butyl Alcohol	6.206	43	428127	1929.52	ppb		95
52) n-Heptane	6.639	43	654510	89.85	ppb		97
53) 1-Butanol	7.121	56	701707	5057.53	ppb		99
54) Trichloroethene	7.084	130	614789	91.41	ppb		99
55) Methylcyclohexane	7.310	55	738463	92.47	ppb		97
56) 1,2-Diclpropane	7.358	63	615093	93.78	ppb		100
57) Dibromomethane	7.492	93	296199	91.72	ppb		92
58) 1,4-Dioxane	7.553	88	92040m	1886.67	ppb		
59) Methyl Methacrylate	7.578	69	362036	95.39	ppb		98
60) Bromodichloromethane	7.712	83	748127	93.03	ppb		98
61) 2-Nitropropane	7.986	41	224095	187.72	ppb		93
62) 2-Chloroethylvinyl Ether	8.108	63	344148	95.11	ppb		94
63) cis-1,3-Dichloropropene	8.242	75	1015287	94.19	ppb		98
64) 4-Methyl-2-pentanone	8.444	43	492121	102.59	ppb		97
66) Toluene	8.602	91	2491884	90.90	ppb		96
67) trans-1,3-Dichloropropene	8.864	75	849380	99.19	ppb		99
68) Ethyl Methacrylate	8.998	69	767246	101.20	ppb		100
69) 1,1,2-Trichloroethane	9.047	97	447446	96.52	ppb		96
72) Tetrachloroethene	9.181	164	436264	92.49	ppb		97
73) 2-Hexanone	9.327	43	339220	97.45	ppb		96
74) 1,3-Dichloropropane	9.212	76	793935	91.83	ppb		99
75) Dibromochloromethane	9.437	129	518817	96.44	ppb		96
76) N-Butyl Acetate	9.480	43	824438	99.69	ppb		96
77) 1,2-Dibromoethane	9.529	107	437198	94.90	ppb		98
78) Chlorobenzene	10.016	112	1538484	91.46	ppb		99
79) 3-CBTF	10.035	180	799901	95.98	ppb		97
80) 4-CBTF	10.083	180	743144	95.73	ppb		98
81) 1,1,1,2-Tetrachloroethane	10.102	131	527907	90.80	ppb		97
82) Ethylbenzene	10.132	106	877167	92.06	ppb	#	85
83) (m+p)Xylene	10.242	106	2135222	181.54	ppb		90
84) o-Xylene	10.596	106	1139130	94.58	ppb		91
85) Styrene	10.608	104	1801396	91.81	ppb		97
87) Bromoform	10.760	173	299241	95.69	ppb		100
88) 2-CBTF	10.839	180	816266	97.80	ppb		92
89) Isopropylbenzene	10.931	105	2543602	88.85	ppb		95
90) Cyclohexanone	10.992	55	861885	2076.61	ppb		98
91) trans-1,4-Dichloro-2-B...	11.230	53	167780	93.31	ppb		94
92) 1,1,2,2-Tetrachloroethane	11.181	83	534585	92.42	ppb		97
93) Bromobenzene	11.175	156	621913	96.01	ppb	#	89
94) 1,2,3-Trichloropropane	11.211	110	154613	90.77	ppb	#	89

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 11:00:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

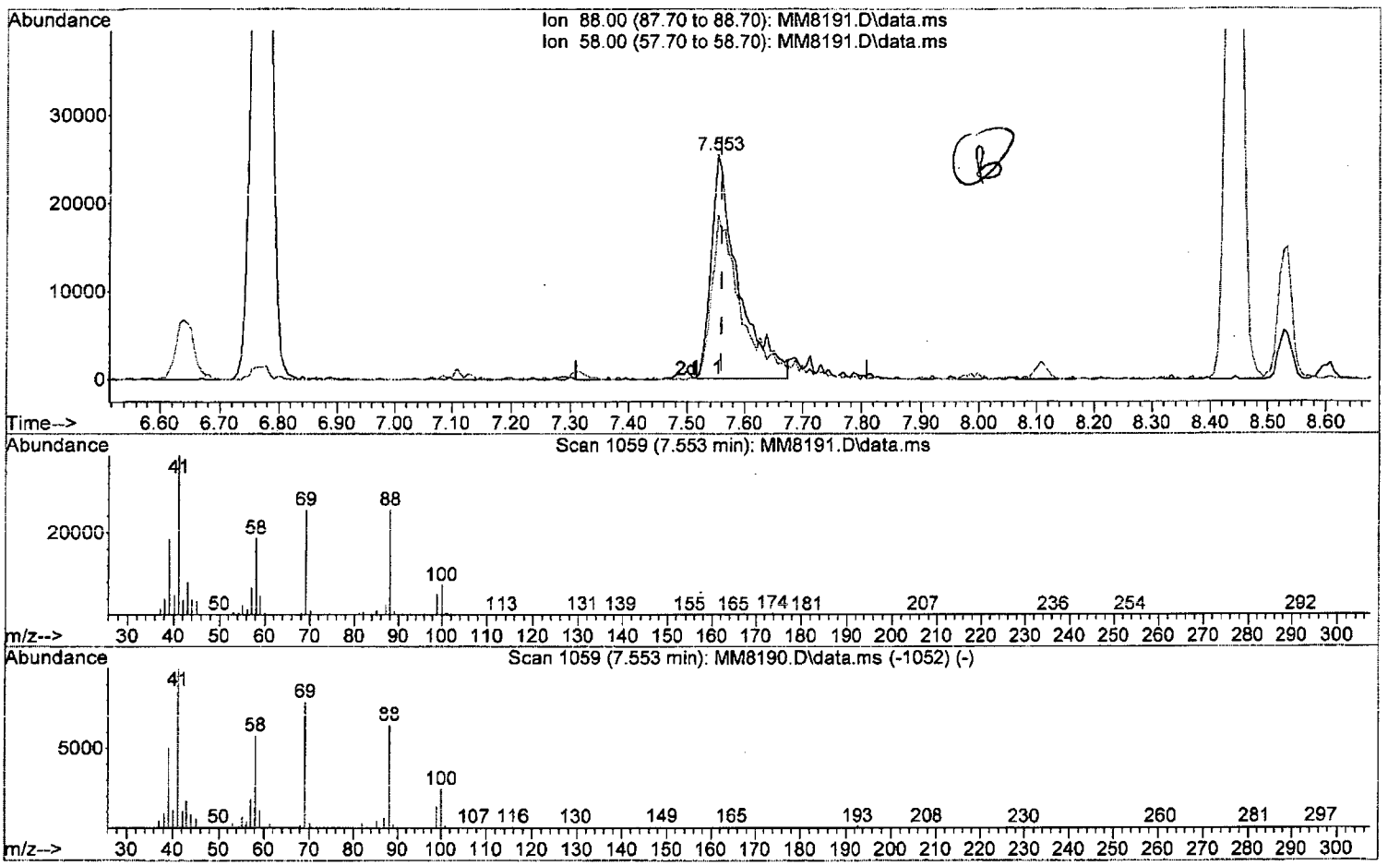
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	2979403	90.30	ppb	99
96)	2-Chlorotoluene	11.345	91	1815210	93.85	ppb	96
97)	3-Chlorotoluene	11.394	91	1990978	98.14	ppb	99
98)	4-Chlorotoluene	11.437	91	1979448	90.72	ppb	97
99)	1,3,5-Trimethylbenzene	11.431	105	1980142	91.41	ppb	99
100)	tert-Butylbenzene	11.699	119	1787654	92.49	ppb	97
101)	1,2,4-Trimethylbenzene	11.742	105	2123052	91.33	ppb	96
102)	3,4-DCBTF	11.803	214	539722	96.54	ppb	94
103)	sec-Butylbenzene	11.882	105	2455158	90.78	ppb	98
104)	p-Isopropyltoluene	12.004	119	1937749	92.67	ppb	99
105)	1,3-Dclbenz	11.961	146	1183579	94.39	ppb	99
106)	1,4-Dclbenz	12.034	146	1153999	98.19	ppb	98
107)	2,4-DCBTF	12.089	214	499620	102.40	ppb	96
108)	2,5-DCBTF	12.126	214	554776	100.51	ppb	98
109)	n-Butylbenzene	12.333	91	1781804	89.98	ppb	97
110)	1,2-Dclbenz	12.339	146	1117710	96.85	ppb	97
111)	1,2-Dibromo-3-chloropr...	12.955	157	112189	98.61	ppb	88
112)	Trielution Dichlorotol...	13.077	125	2827694	290.33	ppb	98
113)	1,3,5 Trichlorobenzene	13.132	180	740388	95.44	ppb	98
114)	Coelution Dichlorotoluene	13.400	125	2012590	195.55	ppb	99
115)	1,2,4-Tcbenzene	13.613	180	675356	94.85	ppb	96
116)	Hexachlorobt	13.747	225	258408	85.12	ppb	97
117)	Naphthalen	13.802	128	1528038	103.48	ppb	100
118)	1,2,3-Tclbenzene	13.985	180	583888	98.59	ppb	97
119)	2,4,5-Trichlorotolene	14.570	159	441673	98.26	ppb	96
120)	2,3,6-Trichlorotoluene	14.656	159	364114	91.63	ppb	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 09:36:11 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8191.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 1703.82 ppb

response 83120

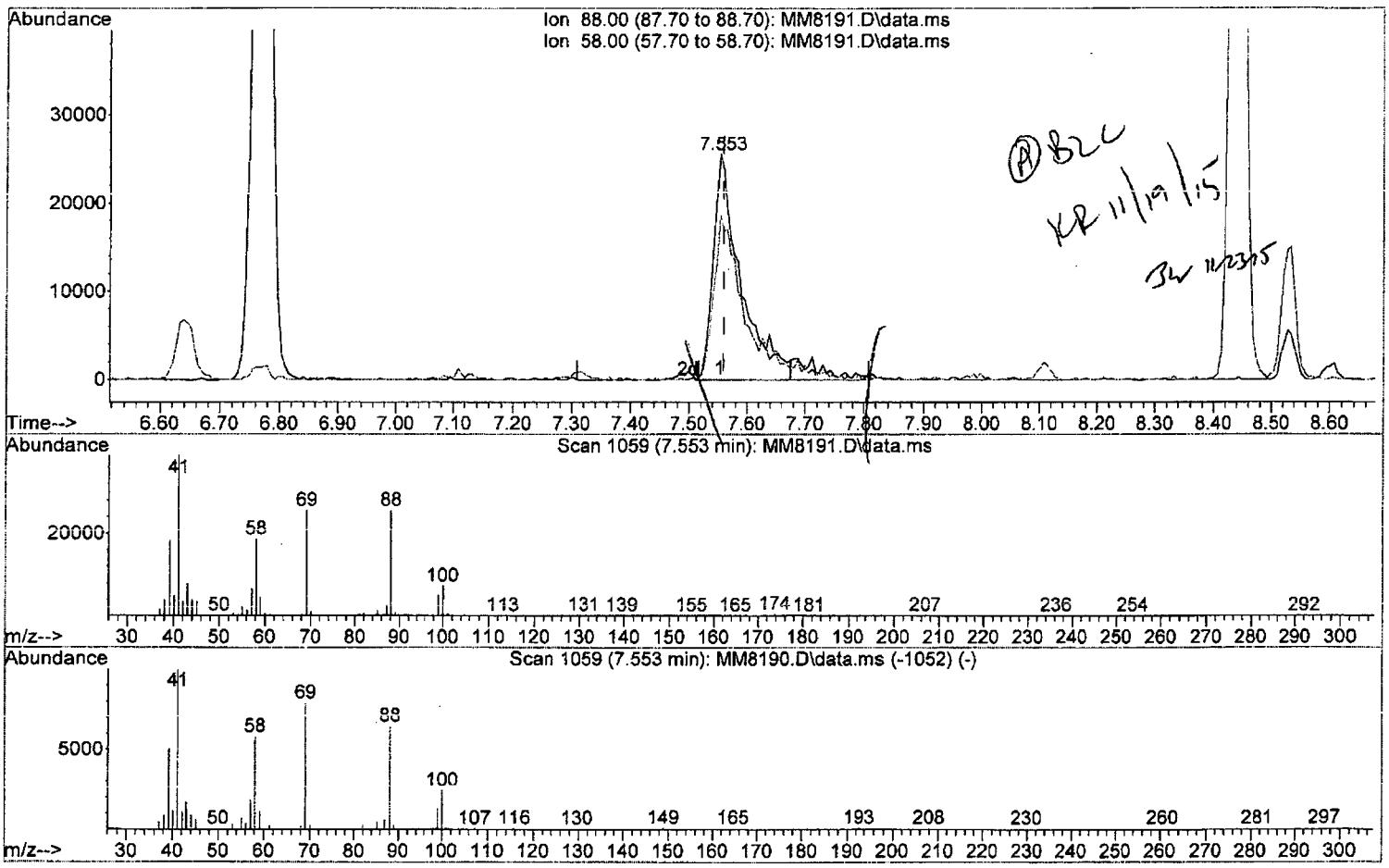
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	72.99
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 11:00:19 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 09:36:11 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8191.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 1886.67 ppb m

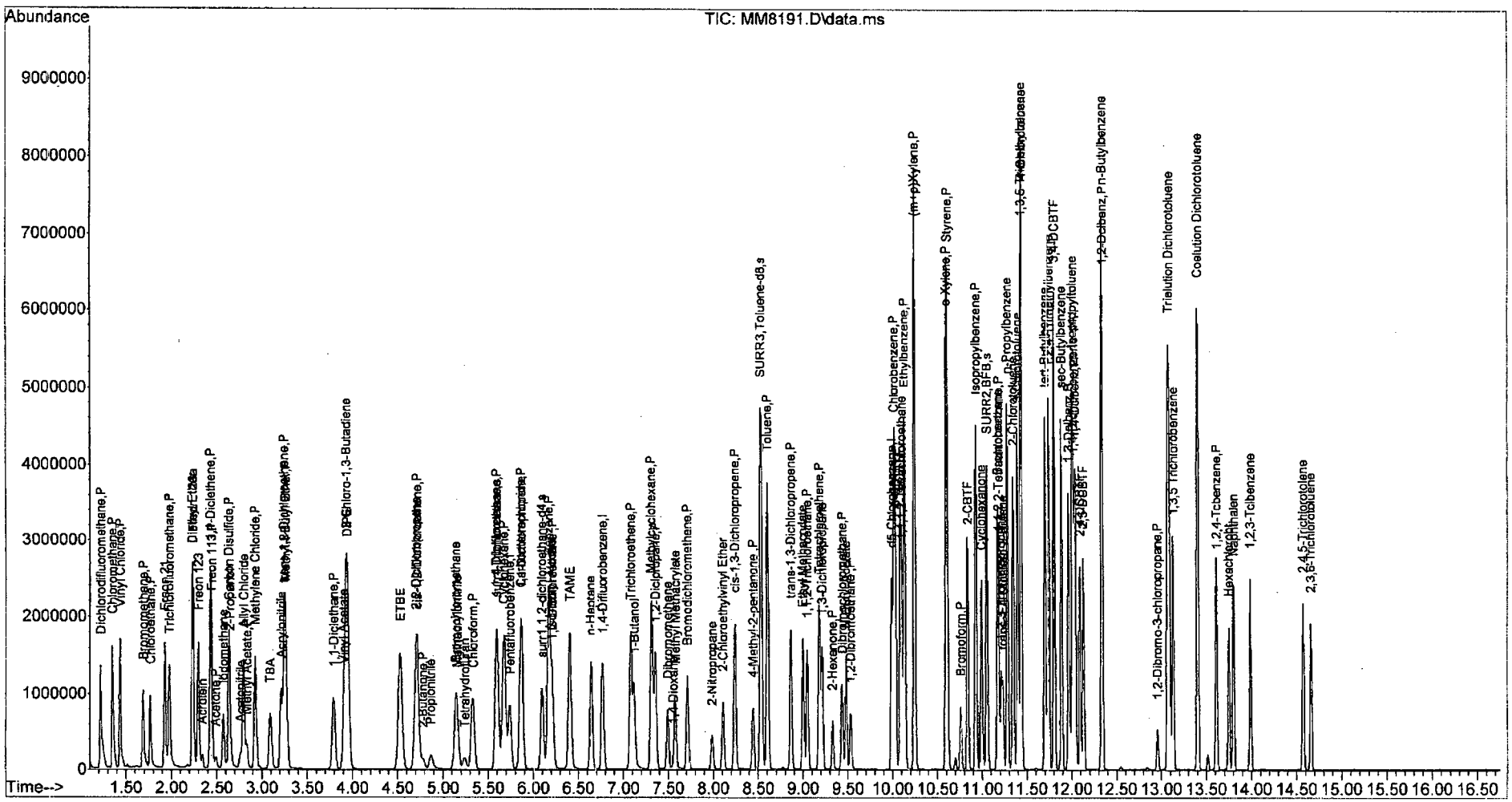
response 92040

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	72.99
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 11:00:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 11:08:17 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 11:03:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	710676	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1214199	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1136182	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.022	152	548662	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	825636	146.86	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 293.72%#				
48) surr1,1,2-dichloroetha...	6.096	65	939275	148.42	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 296.84%#				
65) SURR3,Toluene-d8	8.535	98	3335998	146.19	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 292.38%#				
70) SURR2,BFB	11.053	95	1317781	148.16	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 296.32%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	1565617	155.51	ppb		99
3) Chloromethane	1.347	50	1693779	141.72	ppb		99
4) Vinyl Chloride	1.433	62	1555618	139.71	ppb		99
5) Bromomethane	1.683	94	762632	138.37	ppb		98
6) Chloroethane	1.768	64	848527	136.34	ppb		99
7) Freon 21	1.926	67	1689782	140.87	ppb		98
8) Trichlorofluoromethane	1.975	101	1220950	140.61	ppb		98
9) Diethyl Ether	2.231	59	764131	140.42	ppb		99
10) Freon 123a	2.237	67	1032224	131.40	ppb		98
11) Freon 123	2.298	83	1183276	130.11	ppb		95
12) Acrolein	2.341	56	182525	301.40	ppb		98
13) 1,1-Diclethene	2.432	96	787653	129.41	ppb		98
14) Freon 113	2.439	101	720367	133.18	ppb		94
15) Acetone	2.487	43	222785	147.84	ppb		98
16) 2-Propanol	2.652	45	864260	3006.21	ppb		98
17) Iodomethane	2.573	142	1037636	155.53	ppb		99
18) Carbon Disulfide	2.634	76	2726802	137.35	ppb		97
19) Acetonitrile	2.762	40	166122	790.58	ppb		97
20) Allyl Chloride	2.798	76	429392	129.74	ppb		97
21) Methyl Acetate	2.829	43	497897	141.05	ppb		100
22) Methylene Chloride	2.926	84	919352	133.95	ppb		99
23) TBA	3.097	59	1452559	3113.23	ppb		97
24) Acrylonitrile	3.213	53	1254588	726.27	ppb		100
25) Methyl-t-Butyl Ether	3.268	73	2262406	136.82	ppb		99
26) trans-1,2-Dichloroethene	3.243	96	874569	137.41	ppb		95
28) 1,1-Diclethane	3.792	63	1604654	140.95	ppb		99
29) Vinyl Acetate	3.908	86	170723	139.03	ppb	#	86
30) DIPE	3.950	45	2982611	134.38	ppb		97
31) 2-Chloro-1,3-Butadiene	3.926	53	1583512	138.63	ppb		97
32) ETBE	4.530	59	2946391	141.27	ppb		98
33) 2,2-Dichloropropane	4.706	77	1222286	134.22	ppb		96
34) cis-1,2-Dichloroethene	4.719	96	947943	133.75	ppb		98
35) 2-Butanone	4.780	43	309457	147.39	ppb		89
36) Propionitrile	4.871	54	472669	745.81	ppb		95

KR 11/19/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 11:03:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	492369	133.68	ppb		97
38) Methacrylonitrile	5.158	67	290395	134.36	ppb		98
39) Tetrahydrofuran	5.237	42	191788	138.40	ppb		96
40) Chloroform	5.334	83	1462167	132.15	ppb		98
41) 1,1,1-Trichloroethane	5.596	97	1214044	139.69	ppb		100
42) TAME	6.407	73	2526840	142.61	ppb		97
44) Cyclohexane	5.676	41	875301	132.50	ppb		99
46) Carbontetrachloride	5.859	121	326428	139.36	ppb		95
47) 1,1-Dichloropropene	5.871	75	1131779	131.59	ppb		99
49) Benzene	6.176	78	3558177	133.15	ppb		99
50) 1,2-Dichloroethane	6.212	62	948792	138.50	ppb		97
51) Iso-Butyl Alcohol	6.206	43	642497	2868.37	ppb		92
52) n-Heptane	6.645	43	957961	130.27	ppb		97
53) 1-Butanol	7.121	56	1073863	7666.87	ppb		99
54) Trichloroethene	7.084	130	925764	136.35	ppb		97
55) Methylcyclohexane	7.316	55	1073401	133.15	ppb		96
56) 1,2-Diclpropane	7.358	63	909656	137.38	ppb		98
57) Dibromomethane	7.492	93	432490	132.66	ppb		94
58) 1,4-Dioxane	7.559	88	144093m	2925.83	ppb		
59) Methyl Methacrylate	7.578	69	553711	144.51	ppb		98
60) Bromodichloromethane	7.712	83	1120065	137.96	ppb		99
61) 2-Nitropropane	7.986	41	347518	288.36	ppb		100
62) 2-Chloroethylvinyl Ether	8.108	63	496357	135.88	ppb		95
63) cis-1,3-Dichloropropene	8.242	75	1479683	135.98	ppb		97
64) 4-Methyl-2-pentanone	8.443	43	730089	150.76	ppb		99
66) Toluene	8.602	91	3577978	129.28	ppb		93
67) trans-1,3-Dichloropropene	8.864	75	1255814	145.28	ppb		98
68) Ethyl Methacrylate	9.004	69	1137541	148.63	ppb		97
69) 1,1,2-Trichloroethane	9.047	97	667805	142.70	ppb		95
72) Tetrachloroethene	9.181	164	647893	137.48	ppb		96
73) 2-Hexanone	9.327	43	519587	149.39	ppb		98
74) 1,3-Dichloropropane	9.212	76	1170845	135.54	ppb		98
75) Dibromochloromethane	9.437	129	773056	143.83	ppb		100
76) N-Butyl Acetate	9.480	43	1230914	148.97	ppb		96
77) 1,2-Dibromoethane	9.535	107	648465	140.87	ppb		97
78) Chlorobenzene	10.016	112	2225190	132.40	ppb		94
79) 3-CBTF	10.035	180	1176260	141.26	ppb		98
80) 4-CBTF	10.089	180	1077762	138.96	ppb		98
81) 1,1,1,2-Tetrachloroethane	10.102	131	792449	136.43	ppb		99
82) Ethylbenzene	10.138	106	1318233	138.47	ppb	#	75
83) (m+p)Xylene	10.248	106	3138503m	267.08	ppb		
84) o-Xylene	10.595	106	1693787	140.75	ppb		87
85) Styrene	10.614	104	2606319	132.95	ppb		99
87) Bromoform	10.760	173	461256	147.99	ppb		94
88) 2-CBTF	10.839	180	1195929	143.77	ppb		92
89) Isopropylbenzene	10.931	105	3660912	128.31	ppb		92
90) Cyclohexanone	10.992	55	1292803	3125.33	ppb		100
91) trans-1,4-Dichloro-2-B...	11.230	53	253282	141.34	ppb		96
92) 1,1,2,2-Tetrachloroethane	11.181	83	795258	137.95	ppb		98
93) Bromobenzene	11.175	156	929632	143.99	ppb	#	88
94) 1,2,3-Trichloropropane	11.211	110	228309	134.49	ppb		92

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 11:03:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) n-Propylbenzene	11.278	91	4185644	127.29	ppb	94
96) 2-Chlorotoluene	11.345	91	2615833	135.69	ppb	94
97) 3-Chlorotoluene	11.394	91	2888038	142.84	ppb	96
98) 4-Chlorotoluene	11.437	91	2741806	126.08	ppb	93
99) 1,3,5-Trimethylbenzene	11.431	105	2840305	131.55	ppb	95
100) tert-Butylbenzene	11.705	119	2607257	135.35	ppb	94
101) 1,2,4-Trimethylbenzene	11.742	105	3012536	130.03	ppb	92
102) 3,4-DCBTF	11.803	214	789792	141.75	ppb	96
103) sec-Butylbenzene	11.882	105	3509043	130.19	ppb	94
104) p-Isopropyltoluene	12.004	119	2798351	134.28	ppb	96
105) 1,3-Dclbenz	11.967	146	1708389	136.71	ppb	95
106) 1,4-Dclbenz	12.040	146	1679324	143.36	ppb	96
107) 2,4-DCBTF	12.089	214	714139	146.86	ppb	95
108) 2,5-DCBTF	12.126	214	801663	145.73	ppb	97
109) n-Butylbenzene	12.333	91	2537652	128.58	ppb	94
110) 1,2-Dclbenz	12.339	146	1636957	142.33	ppb	98
111) 1,2-Dibromo-3-chloropr...	12.955	157	172416	152.05	ppb	93
112) Trielution Dichlorotol...	13.077	125	3935809	405.46	ppb	94
113) 1,3,5 Trichlorobenzene	13.132	180	1063709	137.58	ppb	97
114) Coelution Dichlorotoluene	13.406	125	2819863	274.91	ppb	96
115) 1,2,4-Tcbenzene	13.613	180	971872	136.96	ppb	98
116) Hexachlorobt	13.747	225	382092	126.29	ppb	94
117) Naphthalen	13.802	128	2244720	152.52	ppb	99
118) 1,2,3-Tclbenzene	13.985	180	869917	147.38	ppb	98
119) 2,4,5-Trichlorotolene	14.570	159	659950	147.31	ppb	99
120) 2,3,6-Trichlorotoluene	14.656	159	543904	137.33	ppb	97

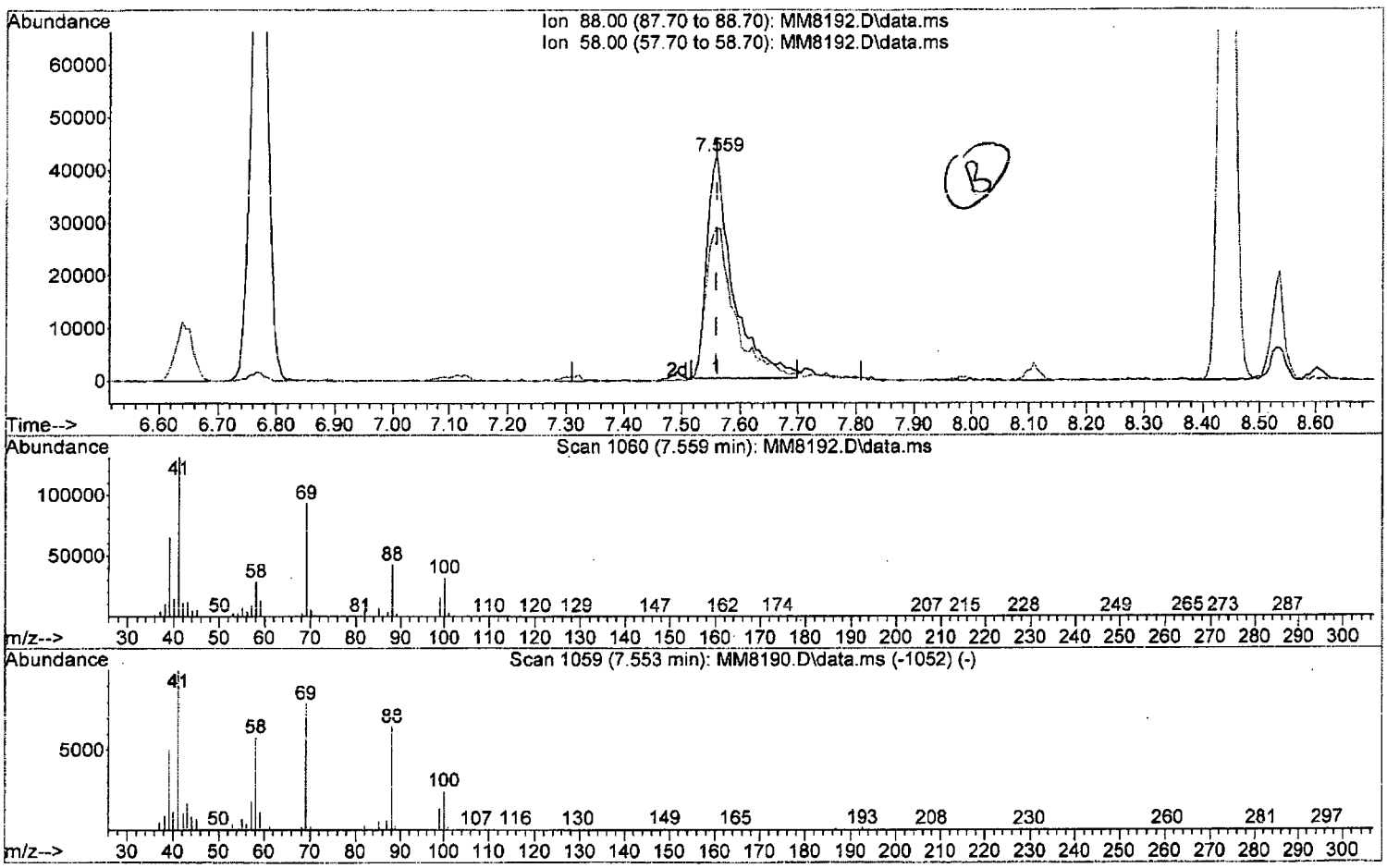
(#) = qualifier out of range (m) = manual integration (+) = signals summed

W111815.M Thu Nov 19 11:04:22 2015 Page: 3

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 09:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8192.D\data.ms

(58) 1,4-Dioxane

7.559min (-0.000) 2679.06 ppb

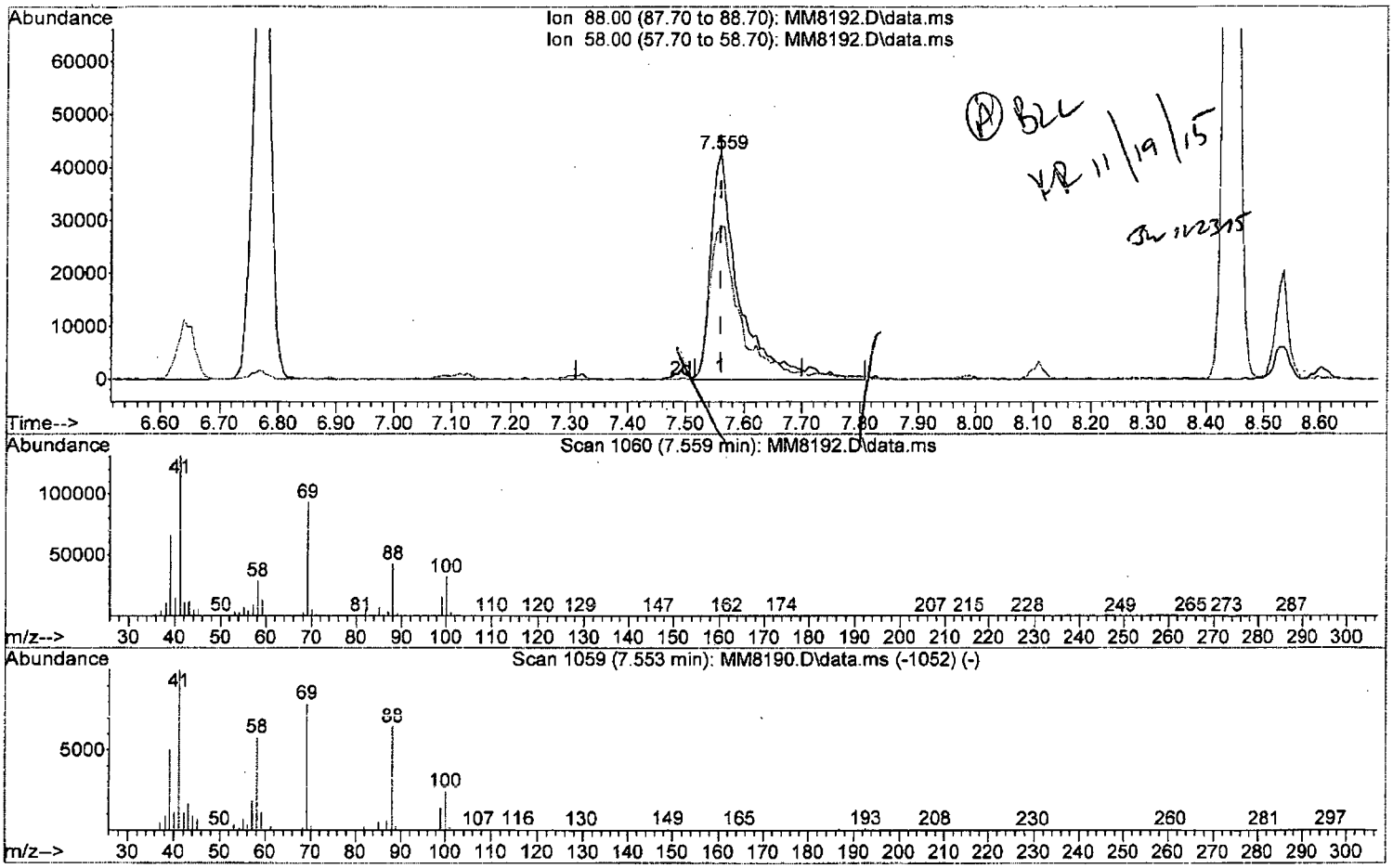
response 131940

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	67.45#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 09:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8192.D\data.ms

(58) 1,4-Dioxane

7.559min (-0.000) 2925.83 ppb m

response 144093

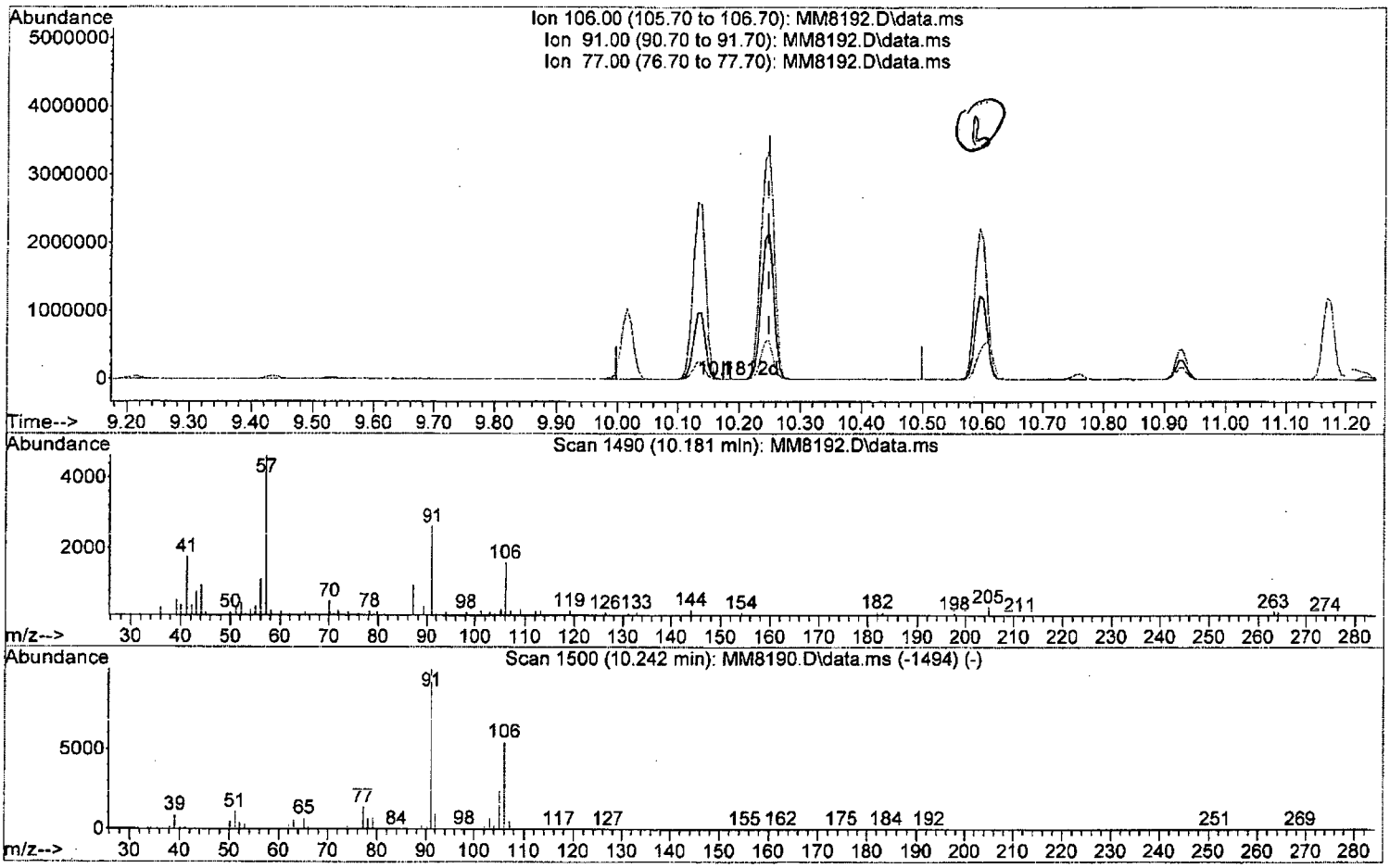
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	67.45#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 11:03:17 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 09:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8192.D\data.ms

(83) (m+p)Xylene (P)

10.181min (-0.067) 0.06 ppb

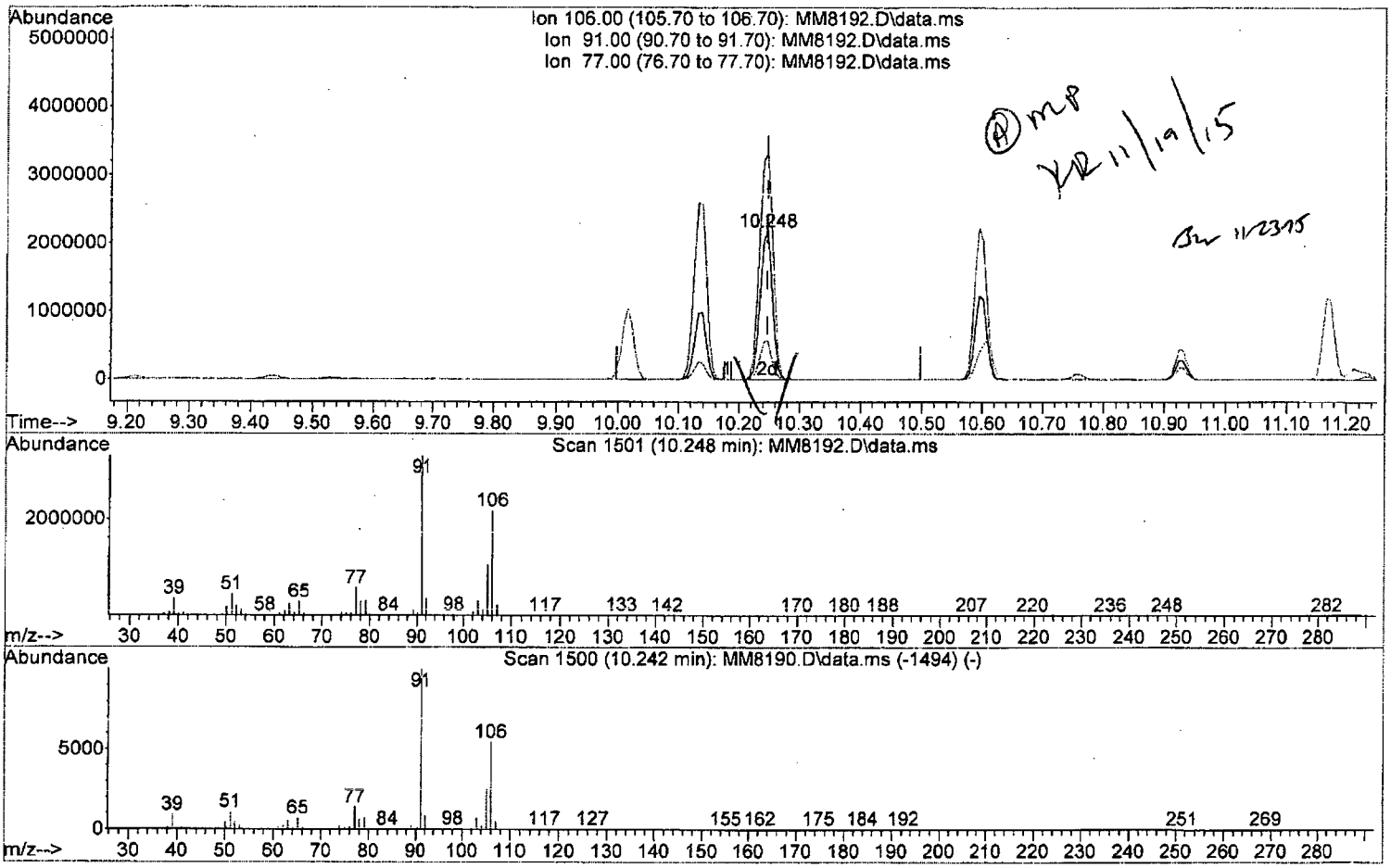
response 673

Ion	Exp%	Act%
106.00	100	100
91.00	183.60	164.93
77.00	25.50	8.05
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 09:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8192.D\data.ms

(83) (m+p)Xylene (P)

10.248min (-0.000) 267.08 ppb m

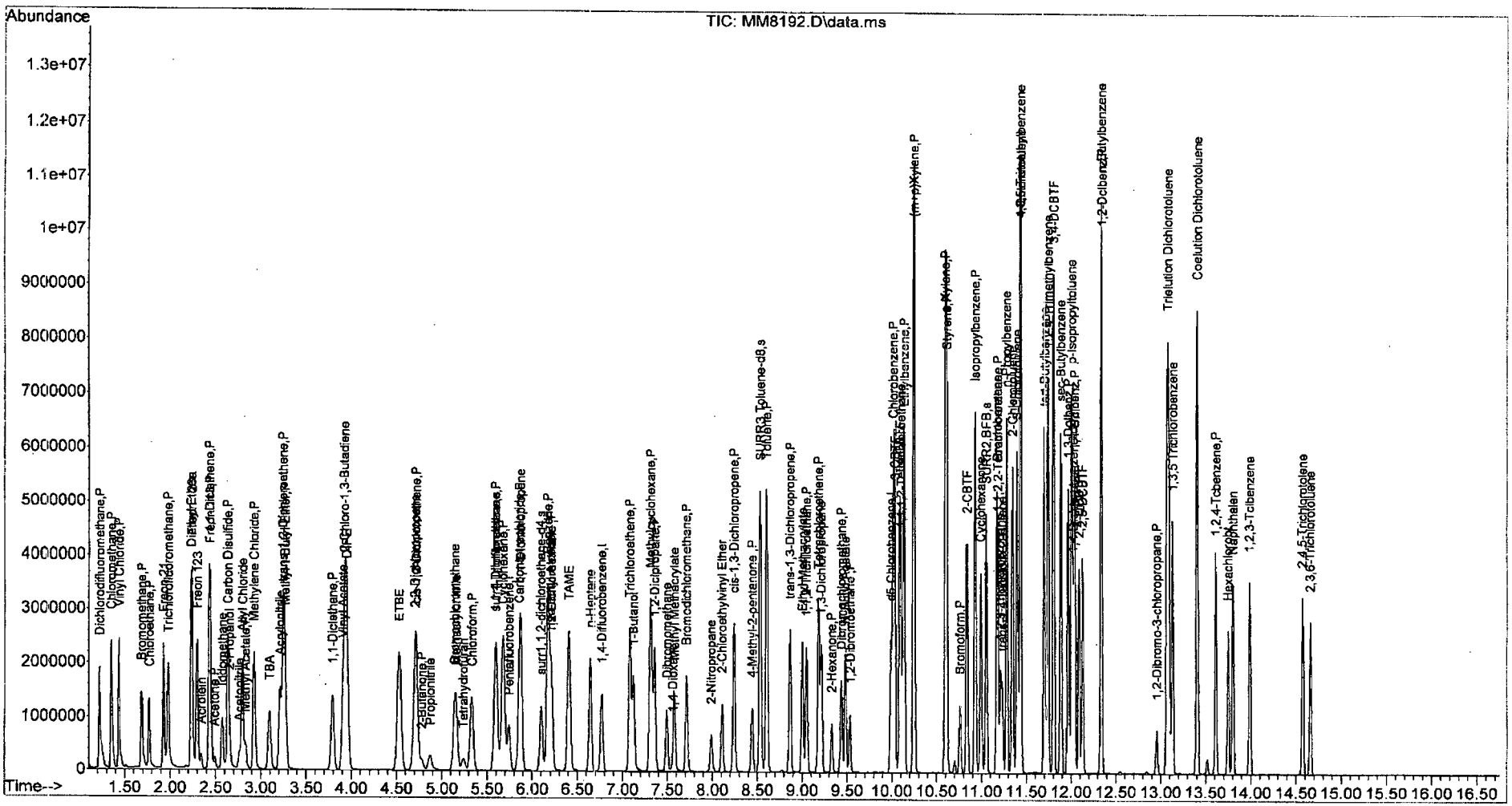
response 3138503

Ion	Exp%	Act%
106.00	100	100
91.00	183.60	152.68#
77.00	25.50	26.16
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 11:03:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 11:04:26 2015 Page: 4

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 11:05:54 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	703832	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1195128	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1140706	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.022	152	554977	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	330414	44.71	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 89.42%				
48) surr1,1,2-dichloroetha...	6.103	65	378347	48.99	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 97.98%				
65) SURR3,Toluene-d8	8.535	98	1519766	48.39	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 96.78%				
70) SURR2,BFB	11.053	95	567632	50.45	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	2092040	209.82	ppb		98
3) Chloromethane	1.347	50	2272496	191.99	ppb		95
4) Vinyl Chloride	1.433	62	2071430	187.85	ppb		96
5) Bromomethane	1.683	94	1027924	188.32	ppb		97
6) Chloroethane	1.768	64	1132219	183.69	ppb		100
7) Freon 21	1.927	67	2225652	187.35	ppb		97
8) Trichlorofluoromethane	1.975	101	1613867	187.67	ppb		97
9) Diethyl Ether	2.231	59	1008514	187.13	ppb		97
10) Freon 123a	2.238	67	1324744	170.28	ppb		98
11) Freon 123	2.299	83	1572089	174.54	ppb		94
12) Acrolein	2.341	56	241653	402.91	ppb		98
13) 1,1-Diclethene	2.433	96	1054287	174.90	ppb		97
14) Freon 113	2.439	101	951160	177.56	ppb		93
15) Acetone	2.494	43	305505	204.70	ppb		95
16) 2-Propanol	2.652	45	1164796	4090.98	ppb		96
17) Iodomethane	2.573	142	1340719	202.92	ppb		98
18) Carbon Disulfide	2.634	76	3465268	176.24	ppb		96
19) Acetonitrile	2.762	40	225645	1084.29	ppb		92
20) Allyl Chloride	2.798	76	546311	166.67	ppb		97
21) Methyl Acetate	2.835	43	674129	192.83	ppb		99
22) Methylene Chloride	2.926	84	1235575	181.78	ppb		98
23) TBA	3.097	59	1959556	4240.70	ppb		100
24) Acrylonitrile	3.213	53	1693296	989.77	ppb		98
25) Methyl-t-Butyl Ether	3.268	73	3011541	183.90	ppb		97
26) trans-1,2-Dichloroethene	3.250	96	1153276	182.96	ppb		97
28) 1,1-Diclethane	3.792	63	2133933	189.26	ppb		99
29) Vinyl Acetate	3.908	86	187234	153.96	ppb	#	93
30) DIPE	3.951	45	3862105	175.70	ppb		98
31) 2-Chloro-1,3-Butadiene	3.926	53	2019337	178.50	ppb		99
32) ETBE	4.530	59	3841038	185.96	ppb		99
33) 2,2-Dichloropropane	4.707	77	1604984	177.96	ppb		97
34) cis-1,2-Dichloroethene	4.719	96	1265451	180.28	ppb		100
35) 2-Butanone	4.780	43	418507	201.26	ppb		95
36) Propionitrile	4.871	54	653564	1041.26	ppb		96

JCR 11/19/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 11:05:54 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.152	130	673212	184.56	ppb		97
38) Methacrylonitrile	5.164	67	390941	182.64	ppb		95
39) Tetrahydrofuran	5.243	42	275080	200.43	ppb		96
40) Chloroform	5.334	83	1955568	178.46	ppb		99
41) 1,1,1-Trichloroethane	5.597	97	1640741	190.62	ppb		97
42) TAME	6.407	73	3321988	189.31	ppb		97
44) Cyclohexane	5.682	41	1157315	177.99	ppb		100
46) Carbontetrachloride	5.865	121	434900	188.63	ppb		98
47) 1,1-Dichloropropene	5.877	75	1493566	176.43	ppb		97
49) Benzene	6.176	78	4740991	180.25	ppb		99
50) 1,2-Dichloroethane	6.212	62	1285396	190.62	ppb		99
51) Iso-Butyl Alcohol	6.212	43	889100	4032.64	ppb		94
52) n-Heptane	6.645	43	1253689	173.21	ppb		97
53) 1-Butanol	7.127	56	1442946	10466.33	ppb		99
54) Trichloroethene	7.084	130	1265022	189.29	ppb		97
55) Methylcyclohexane	7.316	55	1421884	179.19	ppb		96
56) 1,2-Diclpropane	7.358	63	1219995	187.18	ppb		97
57) Dibromomethane	7.493	93	596647	185.93	ppb		94
58) 1,4-Dioxane	7.560	88	203185m	4191.53	ppb		
59) Methyl Methacrylate	7.578	69	726668	192.68	ppb		98
60) Bromodichloromethane	7.712	83	1501648	187.91	ppb		98
61) 2-Nitropropane	7.986	41	467925	394.47	ppb		99
62) 2-Chloroethylvinyl Ether	8.108	63	644683	179.30	ppb		94
63) cis-1,3-Dichloropropene	8.242	75	1959627	182.96	ppb		98
64) 4-Methyl-2-pentanone	8.444	43	967422	202.96	ppb		99
66) Toluene	8.602	91	4608955	169.19	ppb		88
67) trans-1,3-Dichloropropene	8.864	75	1664049	195.57	ppb		99
68) Ethyl Methacrylate	9.005	69	1527148	202.71	ppb		97
69) 1,1,2-Trichloroethane	9.047	97	901440	195.69	ppb		98
72) Tetrachloroethene	9.181	164	869257	183.72	ppb		96
73) 2-Hexanone	9.334	43	690884	197.86	ppb		98
74) 1,3-Dichloropropane	9.212	76	1580151	182.20	ppb		99
75) Dibromochloromethane	9.437	129	1052557	195.05	ppb		100
76) N-Butyl Acetate	9.480	43	1606266	193.63	ppb		95
77) 1,2-Dibromoethane	9.535	107	896451	193.97	ppb		97
78) Chlorobenzene	10.017	112	2928618	173.57	ppb		94
79) 3-CBTF	10.035	180	1514418	181.15	ppb		99
80) 4-CBTF	10.090	180	1415456	181.78	ppb		98
81) 1,1,1,2-Tetrachloroethane	10.102	131	1071284	183.70	ppb		98
82) Ethylbenzene	10.138	106	1798670	188.19	ppb	#	66
83) (m+p)Xylene	10.248	106	4116134	348.88	ppb	#	74
84) o-Xylene	10.602	106	2290838	189.61	ppb	#	74
85) Styrene	10.614	104	3409568	173.24	ppb		97
87) Bromoform	10.760	173	635021	201.42	ppb		97
88) 2-CBTF	10.840	180	1522656	180.96	ppb		94
89) Isopropylbenzene	10.931	105	4669450	161.80	ppb		87
90) Cyclohexanone	10.992	55	1766909	4222.87	ppb		98
91) trans-1,4-Dichloro-2-B...	11.230	53	345568	190.64	ppb		97
92) 1,1,2,2-Tetrachloroethane	11.187	83	1057661	181.38	ppb		98
93) Bromobenzene	11.175	156	1250476	191.49	ppb	#	87
94) 1,2,3-Trichloropropane	11.211	110	311222	181.24	ppb	#	88

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 11:05:54 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

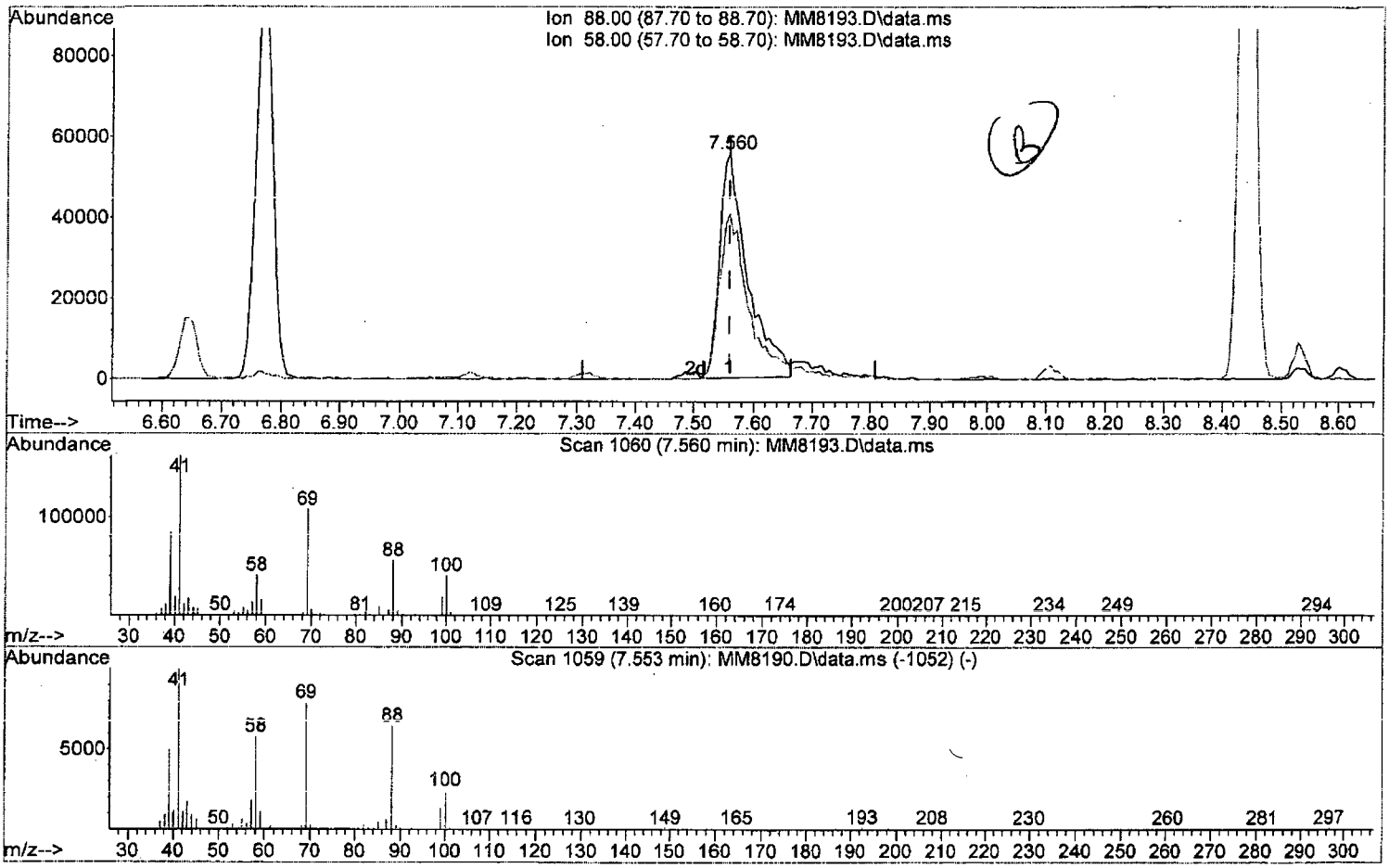
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.285	91	5221769	156.99	ppb	86
96)	2-Chlorotoluene	11.346	91	3463585	177.63	ppb	91
97)	3-Chlorotoluene	11.400	91	3624761	177.24	ppb	92
98)	4-Chlorotoluene	11.437	91	3624296	164.77	ppb	90
99)	1,3,5-Trimethylbenzene	11.431	105	3699680	169.41	ppb	91
100)	tert-Butylbenzene	11.705	119	3465289	177.85	ppb	91
101)	1,2,4-Trimethylbenzene	11.742	105	3888852	165.94	ppb	86
102)	3,4-DCBTF	11.803	214	1024694	181.82	ppb	96
103)	sec-Butylbenzene	11.882	105	4469687	163.94	ppb	91
104)	p-Isopropyltoluene	12.004	119	3617754	171.62	ppb	91
105)	1,3-Dclbenz	11.967	146	2280239	180.39	ppb	94
106)	1,4-Dclbenz	12.041	146	2253249	190.17	ppb	93
107)	2,4-DCBTF	12.089	214	922510	187.55	ppb	98
108)	2,5-DCBTF	12.132	214	1047045	188.17	ppb	96
109)	n-Butylbenzene	12.333	91	3277624	164.18	ppb	91
110)	1,2-Dclbenz	12.339	146	2171827	186.68	ppb	96
111)	1,2-Dibromo-3-chloropr...	12.955	157	232234	202.48	ppb	91
112)	Trielution Dichlorotol...	13.077	125	4986913	507.89	ppb	93
113)	1,3,5 Trichlorobenzene	13.132	180	1375190	175.84	ppb	97
114)	Coelution Dichlorotoluene	13.406	125	3557724	342.89	ppb	92
115)	1,2,4-Tcbenzene	13.613	180	1300053	181.12	ppb	97
116)	Hexachlorobt	13.747	225	512980	167.62	ppb	95
117)	Naphthalen	13.802	128	2970452	199.53	ppb	98
118)	1,2,3-Tclbenzene	13.991	180	1166852	195.43	ppb	98
119)	2,4,5-Trichlorotolene	14.570	159	882074	194.65	ppb	99
120)	2,3,6-Trichlorotoluene	14.656	159	732703	182.89	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 09:36:19 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8193.D\data.ms

(58) 1,4-Dioxane

7.560min (0.000) 3728.92 ppb

response 180760

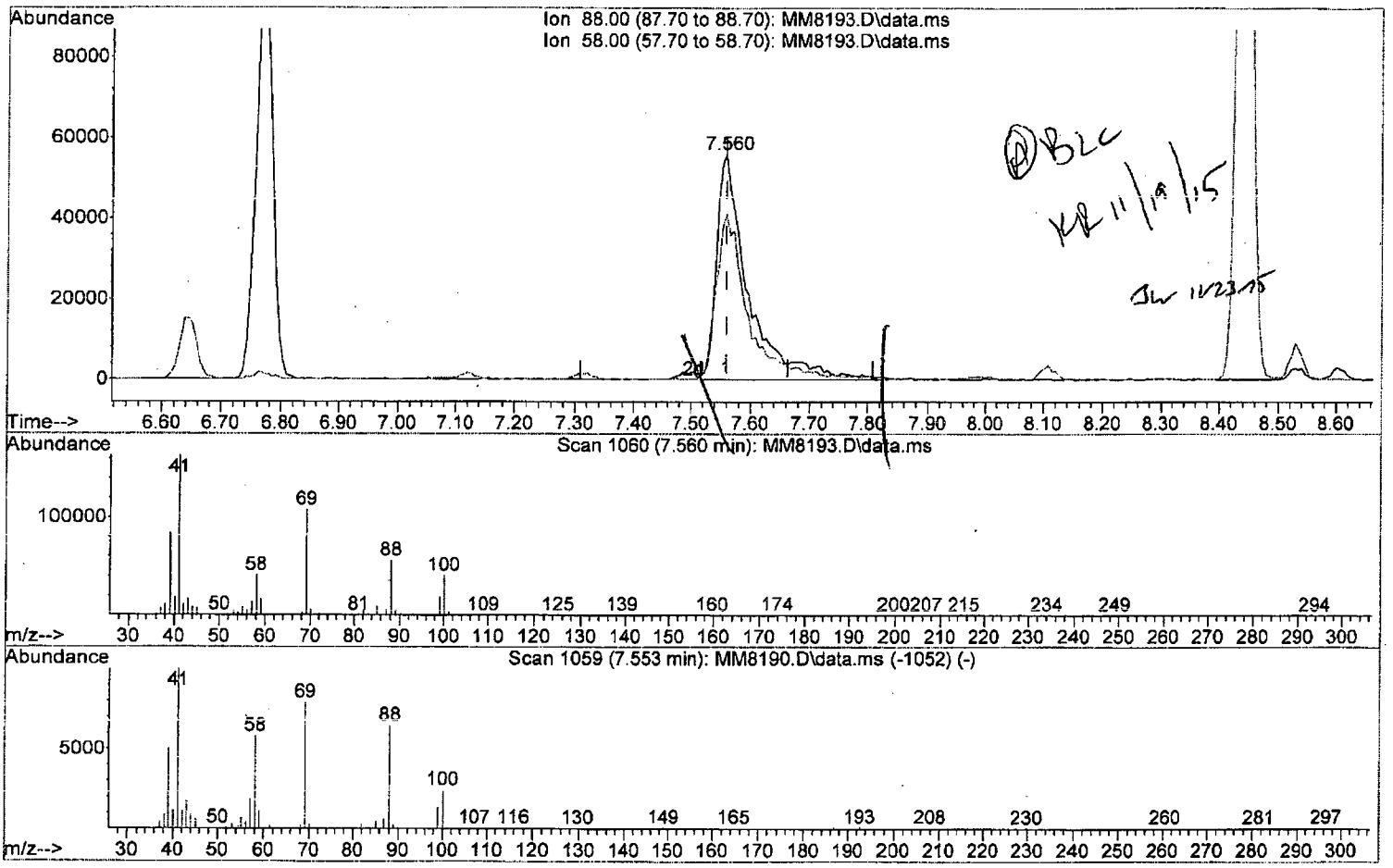
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	73.08
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 11:05:39 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 09:36:19 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8193.D\data.ms

(58) 1,4-Dioxane

7.560min (0.000) 4191.53 ppb m

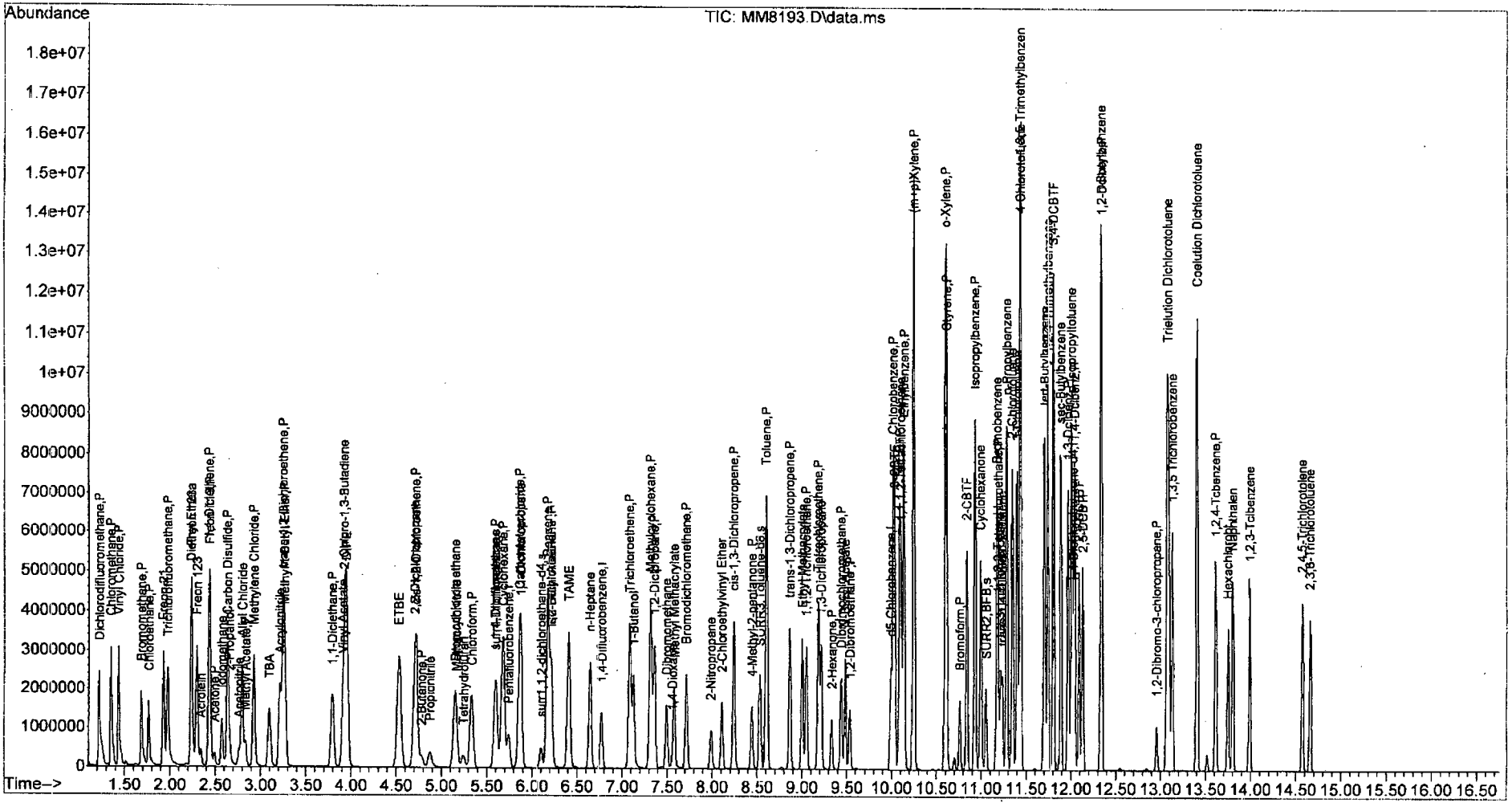
response 203185

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	73.08
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 11:05:54 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 11:06:58 2015 Page: 4

Initial Calibration Verification Summary Report

KR 11/30/15

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
W111515A - 8260 waters **Column Name:** I

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1,1,1,2-Tetrachloroethane	RC1500127-10	T	Average RF	50	48.54	ppm	-2.9	<=20
1,1,1,2-Tetrachloroethane	RC1500127-10	T	Average RF	50	48.54	ppm	-2.9	<=30
1,1,1-Trichloroethane (TCA)	RC1500127-10	T	Average RF	50	52.64	ppm	5.3	<=20
1,1,1-Trichloroethane (TCA)	RC1500127-10	T	Average RF	50	52.64	ppm	5.3	<=30
1,1,2,2-Tetrachloroethane	RC1500127-10	T	Average RF	50	50.34	ppm	0.7	<=20
1,1,2,2-Tetrachloroethane	RC1500127-10	T	Average RF	50	50.34	ppm	0.7	<=30
1,1,2-Trichloroethane	RC1500127-10	T	Average RF	50	51.43	ppm	2.9	<=30
1,1,2-Trichloroethane	RC1500127-10	T	Average RF	50	51.43	ppm	2.9	<=20
1,1,2-Trichlorotrifluoroethane	RC1500127-10	T	Average RF	50	53.36	ppm	6.7	<=30
1,1,2-Trichlorotrifluoroethane	RC1500127-10	T	Average RF	50	53.36	ppm	6.7	<=20
1,1-Dichloroethane (1,1-DCA)	RC1500127-10	T	Average RF	50	53.31	ppm	6.6	<=20
1,1-Dichloroethane (1,1-DCA)	RC1500127-10	T	Average RF	50	53.31	ppm	6.6	<=30
1,1-Dichloroethene (1,1-DCE)	RC1500127-10	T	Average RF	50	50.36	ppm	0.7	<=30
1,1-Dichloroethene (1,1-DCE)	RC1500127-10	T	Average RF	50	50.36	ppm	0.7	<=20
1,1-Dichloropropene	RC1500127-10	T	Average RF	50	51.92	ppm	3.8	<=20
1,1-Dichloropropene	RC1500127-10	T	Average RF	50	51.92	ppm	3.8	<=30
1,2,3-Trichlorobenzene	RC1500127-10	T	Average RF	50	53.80	ppm	7.6	<=20
1,2,3-Trichlorobenzene	RC1500127-10	T	Average RF	50	53.80	ppm	7.6	<=30
1,2,3-Trichloropropane	RC1500127-10	T	Linear	50	51.15	ppm	2.3	<=20
1,2,3-Trichloropropane	RC1500127-10	T	Linear	50	51.15	ppm	2.3	<=30
1,2,4-Trichlorobenzene	RC1500127-10	T	Average RF	50	51.73	ppm	3.5	<=20
1,2,4-Trichlorobenzene	RC1500127-10	T	Average RF	50	51.73	ppm	3.5	<=30
1,2,4-Trimethylbenzene	RC1500127-10	T	Average RF	50	49.51	ppm	-1.0	<=30
1,2,4-Trimethylbenzene	RC1500127-10	T	Average RF	50	49.51	ppm	-1.0	<=20
1,2-Dibromo-3-chloropropane (DBCP)	RC1500127-10	T	Average RF	50	50.08	ppm	0.2	<=20
1,2-Dibromo-3-chloropropane (DBCP)	RC1500127-10	T	Average RF	50	50.08	ppm	0.2	<=30
1,2-Dibromoethane	RC1500127-10	T	Average RF	50	48.51	ppm	-3.0	<=20
1,2-Dibromoethane	RC1500127-10	T	Average RF	50	48.51	ppm	-3.0	<=30
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	RC1500127-10	T	Average RF	50	52.94	ppm	5.9	<=20
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	RC1500127-10	T	Average RF	50	52.94	ppm	5.9	<=30
1,2-Dichlorobenzene	RC1500127-10	T	Average RF	50	51.17	ppm	2.3	<=30
1,2-Dichlorobenzene	RC1500127-10	T	Average RF	50	51.17	ppm	2.3	<=20
1,2-Dichloroethane	RC1500127-10	T	Average RF	50	51.31	ppm	2.6	<=30
1,2-Dichloroethane	RC1500127-10	T	Average RF	50	51.31	ppm	2.6	<=20
1,2-Dichloropropane	RC1500127-10	T	Average RF	50	51.97	ppm	3.9	<=30
1,2-Dichloropropane	RC1500127-10	T	Average RF	50	51.97	ppm	3.9	<=20
1,3,5-Trichlorobenzene	RC1500127-10	T	Average RF	50	52.04	ppm	4.1	<=20
1,3,5-Trichlorobenzene	RC1500127-10	T	Average RF	50	52.04	ppm	4.1	<=30
1,3,5-Trimethylbenzene	RC1500127-10	T	Average RF	50	50.19	ppm	0.4	<=30
1,3,5-Trimethylbenzene	RC1500127-10	T	Average RF	50	50.19	ppm	0.4	<=20
1,3-Dichlorobenzene	RC1500127-10	T	Average RF	50	50.54	ppm	1.1	<=20
1,3-Dichlorobenzene	RC1500127-10	T	Average RF	50	50.54	ppm	1.1	<=30
1,3-Dichloropropane	RC1500127-10	T	Average RF	50	50.27	ppm	0.5	<=20
1,3-Dichloropropane	RC1500127-10	T	Average RF	50	50.27	ppm	0.5	<=30
1,4-Dichlorobenzene	RC1500127-10	T	Average RF	50	52.30	ppm	4.6	<=20
1,4-Dichlorobenzene	RC1500127-10	T	Average RF	50	52.30	ppm	4.6	<=30
1,4-Dioxane	RC1500127-10	T	Average RF	1000	1102	ppm	10.2	<=20
1,4-Dioxane	RC1500127-10	T	Average RF	1000	1102	ppm	10.2	<=30
1-Butanol	RC1500127-10	T	Average RF	2500	2715	ppm	8.6	<=30
1-Butanol	RC1500127-10	T	Average RF	2500	2715	ppm	8.6	<=20
1-Chloro-4-(trifluoromethyl)benzene	RC1500127-10	T	Average RF	50	49.39	ppm	-1.2	<=20

Initial Calibration Verification Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1-Chloro-4-(trifluoromethyl)benzene	RC1500127-10	T	Average RF	50	49.39	ppm	-1.2	<=30
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	RC1500127-10	T	Average RF	50	49.21	ppm	-1.6	<=30
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	RC1500127-10	T	Average RF	50	49.21	ppm	-1.6	<=20
2,2-Dichloropropane	RC1500127-10	T	Average RF	50	53.05	ppm	6.1	<=30
2,2-Dichloropropane	RC1500127-10	T	Average RF	50	53.05	ppm	6.1	<=20
2,3,6-Trichlorotoluene	RC1500127-10	T	Average RF	50	53.85	ppm	7.7	<=20
2,3,6-Trichlorotoluene	RC1500127-10	T	Average RF	50	53.85	ppm	7.7	<=30
2,4,5-Trichlorotoluene	RC1500127-10	T	Average RF	50	55.45	ppm	10.9	<=30
2,4,5-Trichlorotoluene	RC1500127-10	T	Average RF	50	55.45	ppm	10.9	<=20
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	RC1500127-10	T	Average RF	150	156.2	ppm	4.1	<=20
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	RC1500127-10	T	Average RF	150	156.2	ppm	4.1	<=30
2,4-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	51.82	ppm	3.6	<=20
2,4-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	51.82	ppm	3.6	<=30
2,5-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.60	ppm	1.2	<=20
2,5-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.60	ppm	1.2	<=30
2-Butanone (MEK)	RC1500127-10	T	Average RF	50	51.81	ppm	3.6	<=30
2-Butanone (MEK)	RC1500127-10	T	Average RF	50	51.81	ppm	3.6	<=20
2-Chloro-1,3-butadiene	RC1500127-10	T	Average RF	50	47.73	ppm	-4.5	<=20
2-Chloro-1,3-butadiene	RC1500127-10	T	Average RF	50	47.73	ppm	-4.5	<=30
2-Chlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.78	ppm	1.6	<=30
2-Chlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.78	ppm	1.6	<=20
2-Chloroethyl Vinyl Ether	RC1500127-10	T	Average RF	50	48.85	ppm	-2.3	<=30
2-Chloroethyl Vinyl Ether	RC1500127-10	T	Average RF	50	48.85	ppm	-2.3	<=20
2-Chlorotoluene	RC1500127-10	T	Average RF	50	51.26	ppm	2.5	<=30
2-Chlorotoluene	RC1500127-10	T	Average RF	50	51.26	ppm	2.5	<=20
2-Hexanone	RC1500127-10	T	Average RF	50	49.30	ppm	-1.4	<=20
2-Hexanone	RC1500127-10	T	Average RF	50	49.30	ppm	-1.4	<=30
2-Methyl-1-propanol	RC1500127-10	T	Average RF	1000	1066	ppm	6.6	<=20
2-Methyl-1-propanol	RC1500127-10	T	Average RF	1000	1066	ppm	6.6	<=30
2-Methyl-2-propanol	RC1500127-10	T	Average RF	1000	1091	ppm	9.1	<=20
2-Methyl-2-propanol	RC1500127-10	T	Average RF	1000	1091	ppm	9.1	<=30
2-Nitropropane	RC1500127-10	T	Average RF	100	104.9	ppm	4.9	<=30
2-Nitropropane	RC1500127-10	T	Average RF	100	104.9	ppm	4.9	<=20
2-Propanol	RC1500127-10	T	Average RF	1000	964.3	ppm	-3.6	<=30
2-Propanol	RC1500127-10	T	Average RF	1000	964.3	ppm	-3.6	<=20
3,4- and 2,3-Dichlorotoluene Coelution	RC1500127-10	T	Average RF	100	107.4	ppm	7.4	<=30
3,4- and 2,3-Dichlorotoluene Coelution	RC1500127-10	T	Average RF	100	107.4	ppm	7.4	<=20
3,4-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.07	ppm	0.1	<=20
3,4-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.07	ppm	0.1	<=30
3-Chloro-1-propene	RC1500127-10	T	Average RF	50	58.61	ppm	17.2	<=30
3-Chloro-1-propene	RC1500127-10	T	Average RF	50	58.61	ppm	17.2	<=20
3-Chlorobenzotrifluoride	RC1500127-10	T	Average RF	50	49.06	ppm	-1.9	<=30
3-Chlorobenzotrifluoride	RC1500127-10	T	Average RF	50	49.06	ppm	-1.9	<=20
3-Chlorotoluene	RC1500127-10	T	Average RF	50	51.03	ppm	2.1	<=30
3-Chlorotoluene	RC1500127-10	T	Average RF	50	51.03	ppm	2.1	<=20
4-Chlorotoluene	RC1500127-10	T	Average RF	50	50.24	ppm	0.5	<=20
4-Chlorotoluene	RC1500127-10	T	Average RF	50	50.24	ppm	0.5	<=30
4-Isopropyltoluene	RC1500127-10	T	Average RF	50	52.15	ppm	4.3	<=20
4-Isopropyltoluene	RC1500127-10	T	Average RF	50	52.15	ppm	4.3	<=30
4-Methyl-2-pentanone	RC1500127-10	T	Average RF	50	52.44	ppm	4.9	<=30
4-Methyl-2-pentanone	RC1500127-10	T	Average RF	50	52.44	ppm	4.9	<=20

Initial Calibration Verification Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Acetone	RC1500127-10	T	Average RF	50	44.91	ppm	-10.2	<=30
Acetone	RC1500127-10	T	Average RF	50	44.91	ppm	-10.2	<=20
Acetonitrile	RC1500127-10	T	Average RF	250	230.4	ppm	-7.9	<=30
Acetonitrile	RC1500127-10	T	Average RF	250	230.4	ppm	-7.9	<=20
Acrolein	RC1500127-10	T	Average RF	100	124.8	ppm	24.8	<=20
Acrolein	RC1500127-10	T	Average RF	100	124.8	ppm	24.8	<=30
Acrylonitrile	RC1500127-10	T	Average RF	250	260.9	ppm	4.4	<=20
Acrylonitrile	RC1500127-10	T	Average RF	250	260.9	ppm	4.4	<=30
Benzene	RC1500127-10	T	Average RF	50	50.05	ppm	0.1	<=30
Benzene	RC1500127-10	T	Average RF	50	50.05	ppm	0.1	<=20
Bromobenzene	RC1500127-10	T	Average RF	50	51.06	ppm	2.1	<=20
Bromobenzene	RC1500127-10	T	Average RF	50	51.06	ppm	2.1	<=30
Bromochloromethane	RC1500127-10	T	Average RF	50	50.47	ppm	0.9	<=20
Bromochloromethane	RC1500127-10	T	Average RF	50	50.47	ppm	0.9	<=30
Bromodichloromethane	RC1500127-10	T	Average RF	50	50.54	ppm	1.1	<=20
Bromodichloromethane	RC1500127-10	T	Average RF	50	50.54	ppm	1.1	<=30
Bromoform	RC1500127-10	T	Average RF	50	50.56	ppm	1.1	<=20
Bromoform	RC1500127-10	T	Average RF	50	50.56	ppm	1.1	<=30
Bromomethane	RC1500127-10	T	Average RF	50	51.41	ppm	2.8	<=20
Bromomethane	RC1500127-10	T	Average RF	50	51.41	ppm	2.8	<=30
Carbon Disulfide	RC1500127-10	T	Average RF	50	49.80	ppm	-0.4	<=20
Carbon Disulfide	RC1500127-10	T	Average RF	50	49.80	ppm	-0.4	<=30
Carbon Tetrachloride	RC1500127-10	T	Average RF	50	49.41	ppm	-1.2	<=30
Carbon Tetrachloride	RC1500127-10	T	Average RF	50	49.41	ppm	-1.2	<=20
Chlorobenzene	RC1500127-10	T	Average RF	50	49.46	ppm	-1.1	<=20
Chlorobenzene	RC1500127-10	T	Average RF	50	49.46	ppm	-1.1	<=30
Chloroethane	RC1500127-10	T	Average RF	50	50.64	ppm	1.3	<=20
Chloroethane	RC1500127-10	T	Average RF	50	50.64	ppm	1.3	<=30
Chloroform	RC1500127-10	T	Average RF	50	48.45	ppm	-3.1	<=20
Chloroform	RC1500127-10	T	Average RF	50	48.45	ppm	-3.1	<=30
Chloromethane	RC1500127-10	T	Average RF	50	50.25	ppm	0.5	<=20
Chloromethane	RC1500127-10	T	Average RF	50	50.25	ppm	0.5	<=30
Cyclohexane	RC1500127-10	T	Average RF	50	45.87	ppm	-8.3	<=20
Cyclohexane	RC1500127-10	T	Average RF	50	45.87	ppm	-8.3	<=30
Cyclohexanone	RC1500127-10	T	Average RF	1000	1179	ppm	17.9	<=30
Cyclohexanone	RC1500127-10	T	Average RF	1000	1179	ppm	17.9	<=20
Dibromochloromethane	RC1500127-10	T	Average RF	50	50.62	ppm	1.2	<=20
Dibromochloromethane	RC1500127-10	T	Average RF	50	50.62	ppm	1.2	<=30
Dibromomethane	RC1500127-10	T	Average RF	50	48.11	ppm	-3.8	<=30
Dibromomethane	RC1500127-10	T	Average RF	50	48.11	ppm	-3.8	<=20
Dichlorodifluoromethane (CFC 12)	RC1500127-10	T	Average RF	50	56.51	ppm	13.0	<=30
Dichlorodifluoromethane (CFC 12)	RC1500127-10	T	Average RF	50	56.51	ppm	13.0	<=20
Dichlorofluoromethane (CFC 21)	RC1500127-10	T	Average RF	50	57.03	ppm	14.1	<=30
Dichlorofluoromethane (CFC 21)	RC1500127-10	T	Average RF	50	57.03	ppm	14.1	<=20
Dichloromethane	RC1500127-10	T	Average RF	50	47.77	ppm	-4.5	<=20
Dichloromethane	RC1500127-10	T	Average RF	50	47.77	ppm	-4.5	<=30
Diethyl Ether	RC1500127-10	T	Average RF	50	54.17	ppm	8.3	<=20
Diethyl Ether	RC1500127-10	T	Average RF	50	54.17	ppm	8.3	<=30
Diisopropyl Ether	RC1500127-10	T	Average RF	50	48.19	ppm	-3.6	<=20
Diisopropyl Ether	RC1500127-10	T	Average RF	50	48.19	ppm	-3.6	<=30
Ethyl Methacrylate	RC1500127-10	T	Average RF	50	53.51	ppm	7.0	<=20

Initial Calibration Verification Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Ethyl Methacrylate	RC1500127-10	T	Average RF	50	53.51	ppm	7.0	<=30
Ethyl tert-Butyl Ether	RC1500127-10	T	Average RF	50	48.25	ppm	-3.5	<=20
Ethyl tert-Butyl Ether	RC1500127-10	T	Average RF	50	48.25	ppm	-3.5	<=30
Ethylbenzene	RC1500127-10	T	Average RF	50	49.68	ppm	-0.6	<=20
Ethylbenzene	RC1500127-10	T	Average RF	50	49.68	ppm	-0.6	<=30
Hexachlorobutadiene	RC1500127-10	T	Average RF	50	52.67	ppm	5.3	<=30
Hexachlorobutadiene	RC1500127-10	T	Average RF	50	52.67	ppm	5.3	<=20
Iodomethane	RC1500127-10	T	Average RF	50	53.60	ppm	7.2	<=30
Iodomethane	RC1500127-10	T	Average RF	50	53.60	ppm	7.2	<=20
Isopropylbenzene (Cumene)	RC1500127-10	T	Average RF	50	48.42	ppm	-3.2	<=30
Isopropylbenzene (Cumene)	RC1500127-10	T	Average RF	50	48.42	ppm	-3.2	<=20
Methacrylonitrile	RC1500127-10	T	Average RF	50	52.29	ppm	4.6	<=30
Methacrylonitrile	RC1500127-10	T	Average RF	50	52.29	ppm	4.6	<=20
Methyl Acetate	RC1500127-10	T	Average RF	50	47.56	ppm	-4.9	<=30
Methyl Acetate	RC1500127-10	T	Average RF	50	47.56	ppm	-4.9	<=20
Methyl Methacrylate	RC1500127-10	T	Average RF	50	51.03	ppm	2.1	<=30
Methyl Methacrylate	RC1500127-10	T	Average RF	50	51.03	ppm	2.1	<=20
Methyl tert-Butyl Ether	RC1500127-10	T	Average RF	50	50.99	ppm	2.0	<=30
Methyl tert-Butyl Ether	RC1500127-10	T	Average RF	50	50.99	ppm	2.0	<=20
Methylcyclohexane	RC1500127-10	T	Average RF	50	46.97	ppm	-6.1	<=20
Methylcyclohexane	RC1500127-10	T	Average RF	50	46.97	ppm	-6.1	<=30
Naphthalene	RC1500127-10	T	Average RF	50	55.14	ppm	10.3	<=20
Naphthalene	RC1500127-10	T	Average RF	50	55.14	ppm	10.3	<=30
Propionitrile	RC1500127-10	T	Average RF	250	259.2	ppm	3.7	<=20
Propionitrile	RC1500127-10	T	Average RF	250	259.2	ppm	3.7	<=30
Styrene	RC1500127-10	T	Average RF	50	49.59	ppm	-0.8	<=30
Styrene	RC1500127-10	T	Average RF	50	49.59	ppm	-0.8	<=20
Tetrachloroethene (PCE)	RC1500127-10	T	Average RF	50	50.04	ppm	0.1	<=20
Tetrachloroethene (PCE)	RC1500127-10	T	Average RF	50	50.04	ppm	0.1	<=30
Tetrahydrofuran (THF)	RC1500127-10	T	Average RF	50	57.10	ppm	14.2	<=30
Tetrahydrofuran (THF)	RC1500127-10	T	Average RF	50	57.10	ppm	14.2	<=20
Toluene	RC1500127-10	T	Average RF	50	49.67	ppm	-0.7	<=30
Toluene	RC1500127-10	T	Average RF	50	49.67	ppm	-0.7	<=20
Trichloroethene (TCE)	RC1500127-10	T	Average RF	50	49.06	ppm	-1.9	<=30
Trichloroethene (TCE)	RC1500127-10	T	Average RF	50	49.06	ppm	-1.9	<=20
Trichlorofluoromethane (CFC 11)	RC1500127-10	T	Average RF	50	54.52	ppm	9.0	<=20
Trichlorofluoromethane (CFC 11)	RC1500127-10	T	Average RF	50	54.52	ppm	9.0	<=30
Vinyl Acetate	RC1500127-10	T	Average RF	50	53.96	ppm	7.9	<=30
Vinyl Acetate	RC1500127-10	T	Average RF	50	53.96	ppm	7.9	<=20
Vinyl Chloride	RC1500127-10	T	Average RF	50	52.01	ppm	4.0	<=20
Vinyl Chloride	RC1500127-10	T	Average RF	50	52.01	ppm	4.0	<=30
cis-1,2-Dichloroethene	RC1500127-10	T	Average RF	50	49.33	ppm	-1.3	<=20
cis-1,2-Dichloroethene	RC1500127-10	T	Average RF	50	49.33	ppm	-1.3	<=30
cis-1,3-Dichloropropene	RC1500127-10	T	Average RF	50	50.14	ppm	0.3	<=30
cis-1,3-Dichloropropene	RC1500127-10	T	Average RF	50	50.14	ppm	0.3	<=20
m,p-Xylenes	RC1500127-10	T	Average RF	100	98.54	ppm	-1.5	<=20
m,p-Xylenes	RC1500127-10	T	Average RF	100	98.54	ppm	-1.5	<=30
n-Butyl Acetate	RC1500127-10	T	Average RF	50	52.15	ppm	4.3	<=30
n-Butyl Acetate	RC1500127-10	T	Average RF	50	52.15	ppm	4.3	<=20
n-Butylbenzene	RC1500127-10	T	Average RF	50	51.38	ppm	2.8	<=30
n-Butylbenzene	RC1500127-10	T	Average RF	50	51.38	ppm	2.8	<=20

Initial Calibration Verification Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
n-Heptane	RC1500127-10	T	Average RF	50	51.14	ppm	2.3	<=20
n-Heptane	RC1500127-10	T	Average RF	50	51.14	ppm	2.3	<=30
n-Propylbenzene	RC1500127-10	T	Average RF	50	49.10	ppm	-1.8	<=20
n-Propylbenzene	RC1500127-10	T	Average RF	50	49.10	ppm	-1.8	<=30
o-Xylene	RC1500127-10	T	Average RF	50	49.20	ppm	-1.6	<=30
o-Xylene	RC1500127-10	T	Average RF	50	49.20	ppm	-1.6	<=20
sec-Butylbenzene	RC1500127-10	T	Average RF	50	49.37	ppm	-1.3	<=20
sec-Butylbenzene	RC1500127-10	T	Average RF	50	49.37	ppm	-1.3	<=30
tert-Amyl Methyl Ether	RC1500127-10	T	Average RF	50	50.27	ppm	0.5	<=30
tert-Amyl Methyl Ether	RC1500127-10	T	Average RF	50	50.27	ppm	0.5	<=20
tert-Butylbenzene	RC1500127-10	T	Average RF	50	49.68	ppm	-0.6	<=30
tert-Butylbenzene	RC1500127-10	T	Average RF	50	49.68	ppm	-0.6	<=20
trans-1,2-Dichloroethene	RC1500127-10	T	Average RF	50	51.91	ppm	3.8	<=30
trans-1,2-Dichloroethene	RC1500127-10	T	Average RF	50	51.91	ppm	3.8	<=20
trans-1,3-Dichloropropene	RC1500127-10	T	Average RF	50	53.61	ppm	7.2	<=20
trans-1,3-Dichloropropene	RC1500127-10	T	Average RF	50	53.61	ppm	7.2	<=30
trans-1,4-Dichloro-2-butene	RC1500127-10	T	Linear	50	51.73	ppm	3.5	<=30
trans-1,4-Dichloro-2-butene	RC1500127-10	T	Linear	50	51.73	ppm	3.5	<=20
1,2-Dichloroethane-d4	RC1500127-10	S	Average RF	50	55.42	ppm	10.8	<=20
1,2-Dichloroethane-d4	RC1500127-10	S	Average RF	50	55.42	ppm	10.8	<=30
4-Bromofluorobenzene	RC1500127-10	S	Average RF	50	55.98	ppm	12.0	<=20
4-Bromofluorobenzene	RC1500127-10	S	Average RF	50	55.98	ppm	12.0	<=30
Dibromofluoromethane	RC1500127-10	S	Average RF	50	54.09	ppm	8.2	<=20
Dibromofluoromethane	RC1500127-10	S	Average RF	50	54.09	ppm	8.2	<=30
Toluene-d8	RC1500127-10	S	Average RF	50	57.39	ppm	14.8	<=20
Toluene-d8	RC1500127-10	S	Average RF	50	57.39	ppm	14.8	<=30

Exceptions

QAP **Method**

DOD QSM V4.2 Rochester 8260C

Compound	Type	Criteria	Result
Acrolein	Percent Difference	<= 20	24.79

Exceptions

QAP **Method**

DOD QSM v5.0 Rochester 8260C

Compound	Type	Criteria	Result
Acrolein	Percent Difference	<= 20	24.79

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:41:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	726113	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1257122	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1174218	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	568495	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	353544	45.91	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 91.82%				
48) surr1,1,2-dichloroetha...	6.096	65	400078	49.36	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 98.72%				
65) SURR3,Toluene-d8	8.535	98	1578449	47.33	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 94.66%				
70) SURR2,BFB	11.047	95	581217	48.43	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.86%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	578049	56.51	ppb		100
3) Chloromethane	1.347	50	613656	50.25	ppb		96
4) Vinyl Chloride	1.433	62	591690	52.01	ppb		99
5) Bromomethane	1.689	94	285633	51.41	ppb		98
6) Chloroethane	1.768	64	316784	50.64	ppb		100
7) Freon 21	1.926	67	690841	57.03	ppb		100
8) Trichlorofluoromethane	1.981	101	483194	54.52	ppb		99
9) Diethyl Ether	2.231	59	301204	54.17	ppb		97
10) Freon 123a	2.237	67	419242	52.94	ppb		100
11) Freon 123	2.298	83	449302	49.21	ppb		96
12) Acrolein	2.341	56	77212	124.79	ppb		98
13) 1,1-Diclethene	2.432	96	305820	50.36	ppb		96
14) Freon 113	2.445	101	294916	53.36	ppb		96
15) Acetone	2.493	43	69526	44.91	ppb		90
16) 2-Propanol	2.646	45	283254	964.31	ppb		97
17) Iodomethane	2.573	142	369790	53.60	ppb		98
18) Carbon Disulfide	2.634	76	1010201	49.80	ppb		99
19) Acetonitrile	2.762	40	49458	230.37	ppb		94
20) Allyl Chloride	2.798	76	198188	58.61	ppb		98
21) Methyl Acetate	2.829	43	171541	47.56	ppb		97
22) Methylene Chloride	2.926	84	334994	47.77	ppb		95
23) TBA	3.091	59	520016	1090.84	ppb		98
24) Acrylonitrile	3.213	53	457105	260.89	ppb		99
25) Methyl-t-Butyl Ether	3.268	73	861417	50.99	ppb		99
26) trans-1,2-Dichloroethene	3.249	96	339517	51.91	ppb		97
28) 1,1-Diclethane	3.792	63	620067	53.31	ppb		97
29) Vinyl Acetate	3.902	86	65375	53.96	ppb	#	95
30) DIPE	3.944	45	1092805	48.19	ppb		98
31) 2-Chloro-1,3-Butadiene	3.932	53	558315	47.73	ppb		99
32) ETBE	4.530	59	1028142	48.25	ppb		98
33) 2,2-Dichloropropane	4.706	77	493585	53.05	ppb		97
34) cis-1,2-Dichloroethene	4.718	96	357118	49.33	ppb		95
35) 2-Butanone	4.779	43	109862	51.81	ppb		99
36) Propionitrile	4.871	54	167834	259.20	ppb		93

KP 11/19/15

W111815.M Thu Nov 19 11:43:02 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:41:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Bromochloromethane	5.151	130	188732	50.47	ppb	92
38) Methacrylonitrile	5.157	67	107303	52.29	ppb	96
39) Tetrahydrofuran	5.243	42	77870	57.10	ppb	95
40) Chloroform	5.328	83	547722	48.45	ppb	99
41) 1,1,1-Trichloroethane	5.596	97	467481	52.64	ppb	97
42) TAME	6.407	73	910074	50.27	ppb	99
44) Cyclohexane	5.682	41	315164	45.87	ppb	98
46) Carbontetrachloride	5.859	121	118942	49.41	ppb	98
47) 1,1-Dichloropropene	5.877	75	460497	51.92	ppb	99
49) Benzene	6.176	78	1384782	50.05	ppb	100
50) 1,2-Dichloroethane	6.212	62	363912	51.31	ppb	100
51) Iso-Butyl Alcohol	6.200	43	247157	1065.73	ppb	90
52) n-Heptane	6.645	43	389344	51.14	ppb	99
53) 1-Butanol	7.114	56	394692	2715.11	ppb	99
54) Trichloroethene	7.084	130	344877	49.06	ppb	97
55) Methylcyclohexane	7.316	55	398059	46.97	ppb	95
56) 1,2-Diclpropane	7.352	63	356308	51.97	ppb	99
57) Dibromomethane	7.492	93	162395	48.11	ppb	97
58) 1,4-Dioxane	7.566	88	55398m	1101.95	ppb	
59) Methyl Methacrylate	7.578	69	202427	51.03	ppb	96
60) Bromodichloromethane	7.712	83	424820	50.54	ppb	99
61) 2-Nitropropane	7.986	41	129864	104.90	ppb	96
62) 2-Chloroethylvinyl Ether	8.108	63	184748	48.85	ppb	98
63) cis-1,3-Dichloropropene	8.242	75	564924	50.14	ppb	97
64) 4-Methyl-2-pentanone	8.443	43	262899	52.44	ppb	95
66) Toluene	8.602	91	1423229	49.67	ppb	99
67) trans-1,3-Dichloropropene	8.864	75	479777	53.61	ppb	97
68) Ethyl Methacrylate	8.998	69	424063	53.51	ppb	99
69) 1,1,2-Trichloroethane	9.047	97	249204	51.43	ppb	99
72) Tetrachloroethene	9.181	164	243689	50.04	ppb	95
73) 2-Hexanone	9.327	43	177208	49.30	ppb	98
74) 1,3-Dichloropropane	9.212	76	448747	50.27	ppb	98
75) Dibromochloromethane	9.437	129	281182	50.62	ppb	98
76) N-Butyl Acetate	9.480	43	447943	52.15	ppb	99
77) 1,2-Dibromoethane	9.529	107	230782	48.51	ppb	98
78) Chlorobenzene	10.016	112	859029	49.46	ppb	99
79) 3-CBTF	10.035	180	422230	49.06	ppb	99
80) 4-CBTF	10.083	180	395512	49.39	ppb	99
81) 1,1,1,2-Tetrachloroethane	10.102	131	291371	48.54	ppb	98
82) Ethylbenzene	10.132	106	488737	49.68	ppb	96
83) (m+p)Xylene	10.242	106	1196691	98.54	ppb	99
84) o-Xylene	10.595	106	611940	49.20	ppb	98
85) Styrene	10.608	104	1004572	49.59	ppb	99
87) Bromoform	10.760	173	163273	50.56	ppb	96
88) 2-CBTF	10.839	180	437719	50.78	ppb	91
89) Isopropylbenzene	10.925	105	1431318	48.42	ppb	100
90) Cyclohexanone	10.992	55	505453	1179.29	ppb	95
91) trans-1,4-Dichloro-2-B...	11.229	53	90609	51.73	ppb	96
92) 1,1,2,2-Tetrachloroethane	11.181	83	300721	50.34	ppb	99
93) Bromobenzene	11.175	156	341544	51.06	ppb	93
94) 1,2,3-Trichloropropane	11.211	110	81243	51.15	ppb	99

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:41:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration

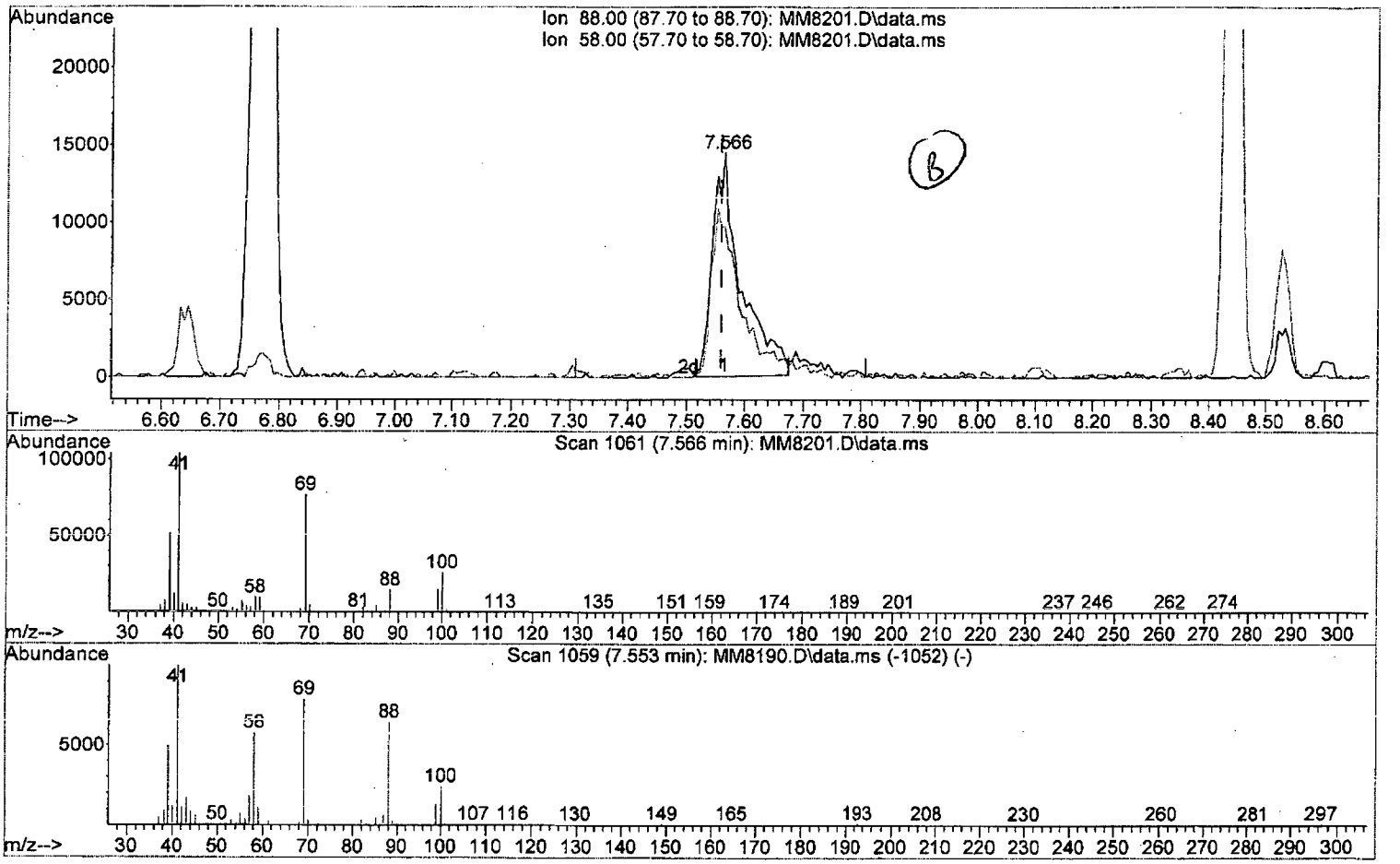
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) n-Propylbenzene	11.278	91	1673087	49.10	ppb	97
96) 2-Chlorotoluene	11.339	91	1023798	51.26	ppb	99
97) 3-Chlorotoluene	11.394	91	1069978	51.03	ppb	99
98) 4-Chlorotoluene	11.437	91	1131967	50.24	ppb	98
99) 1,3,5-Trimethylbenzene	11.431	105	1122828	50.19	ppb	99
100) tert-Butylbenzene	11.699	119	991555	49.68	ppb	97
101) 1,2,4-Trimethylbenzene	11.742	105	1188534	49.51	ppb	97
102) 3,4-DCBTF	11.796	214	289050	50.07	ppb	99
103) sec-Butylbenzene	11.882	105	1378727	49.37	ppb	99
104) p-Isopropyltoluene	12.004	119	1126128	52.15	ppb	99
105) 1,3-Dclbenz	11.961	146	654399	50.54	ppb	99
106) 1,4-Dclbenz	12.034	146	634822	52.30	ppb	99
107) 2,4-DCBTF	12.089	214	261082	51.82	ppb	97
108) 2,5-DCBTF	12.126	214	288419	50.60	ppb	99
109) n-Butylbenzene	12.333	91	1050775	51.38	ppb	99
110) 1,2-Dclbenz	12.339	146	609837	51.17	ppb	97
111) 1,2-Dibromo-3-chloropr...	12.955	157	57714	50.08	ppb	88
112) Trielution Dichlorotol...	13.071	125	1570646	156.16	ppb	96
113) 1,3,5 Trichlorobenzene	13.132	180	416902	52.04	ppb	96
114) Coelution Dichlorotoluene	13.400	125	1141239	107.38	ppb	99
115) 1,2,4-Tcbenzene	13.613	180	380370	51.73	ppb	97
116) Hexachlorobt	13.747	225	154653	52.67	ppb	92
117) Naphthalen	13.802	128	840880	55.14	ppb	99
118) 1,2,3-Tclbenzene	13.985	180	329024	53.80	ppb	97
119) 2,4,5-Trichlorotolene	14.570	159	251568	55.45	ppb	96
120) 2,3,6-Trichlorotoluene	14.656	159	215078	53.85	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:40:01 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration



TIC: MM8201.D\data.ms

(58) 1,4-Dioxane

7.566min (+0.006) 980.03 ppb

response 49269

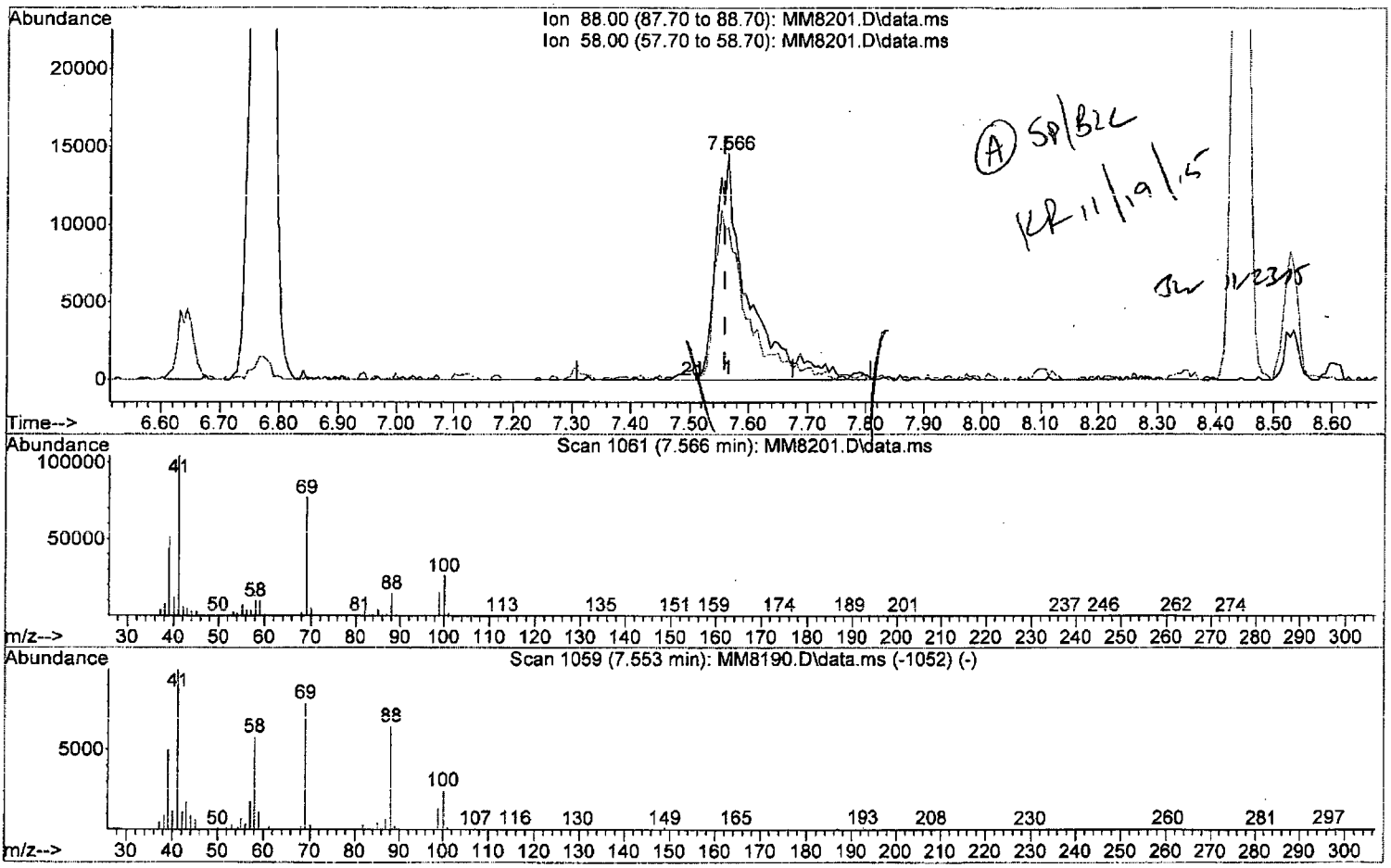
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	67.10#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 11:41:44 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:40:01 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration



TIC: MM8201.D\data.ms

(58) 1,4-Dioxane

7.566min (+0.006) 1101.95 ppb m

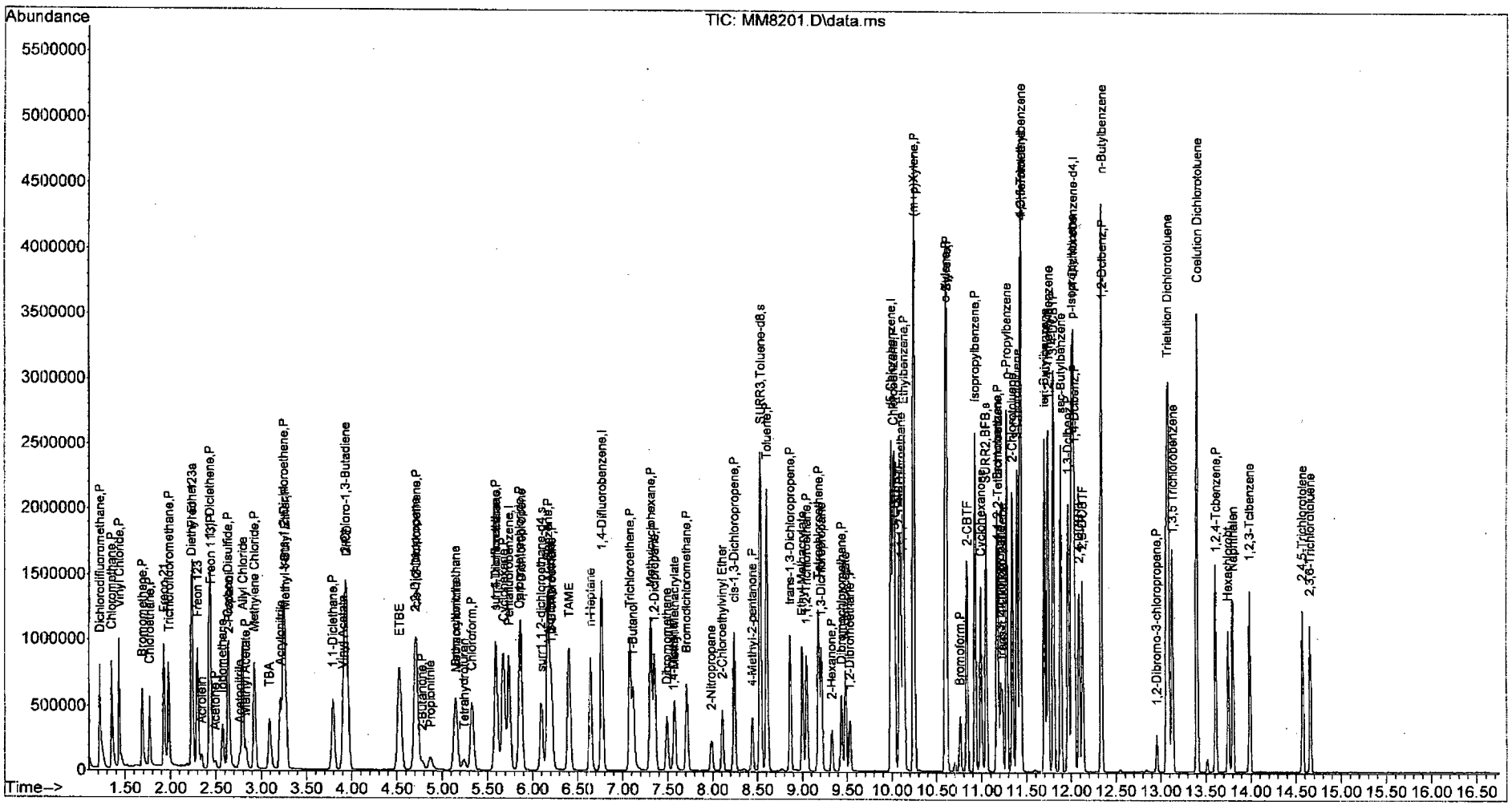
response 55398

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	67.10#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:41:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 11:43:06 2015 Page: 4

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 09:22:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815AS.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.743	168	726113	50.00	ppb	0.00
2) 1,4-Difluorobenzene	6.773	114	1257122	50.00	ppb	0.00
7) d5-Chlorobenzene	9.992	117	1174218	50.00	ppb	0.00
8) 1,4-Dichlorobenzene-d4	12.016	152	568495	50.00	ppb	0.00
System Monitoring Compounds						
3) surr4,Dibrflmethane	5.596	113	353544	54.09	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.18%			
4) surr1,1,2-dichloroetha...	6.096	65	400078	55.42	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 110.84%			
5) SURR3,Toluene-d8	8.535	98	1578449	57.39	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 114.78%			
6) SURR2,BFB	11.047	95	581217	55.98	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.96%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

SW requant

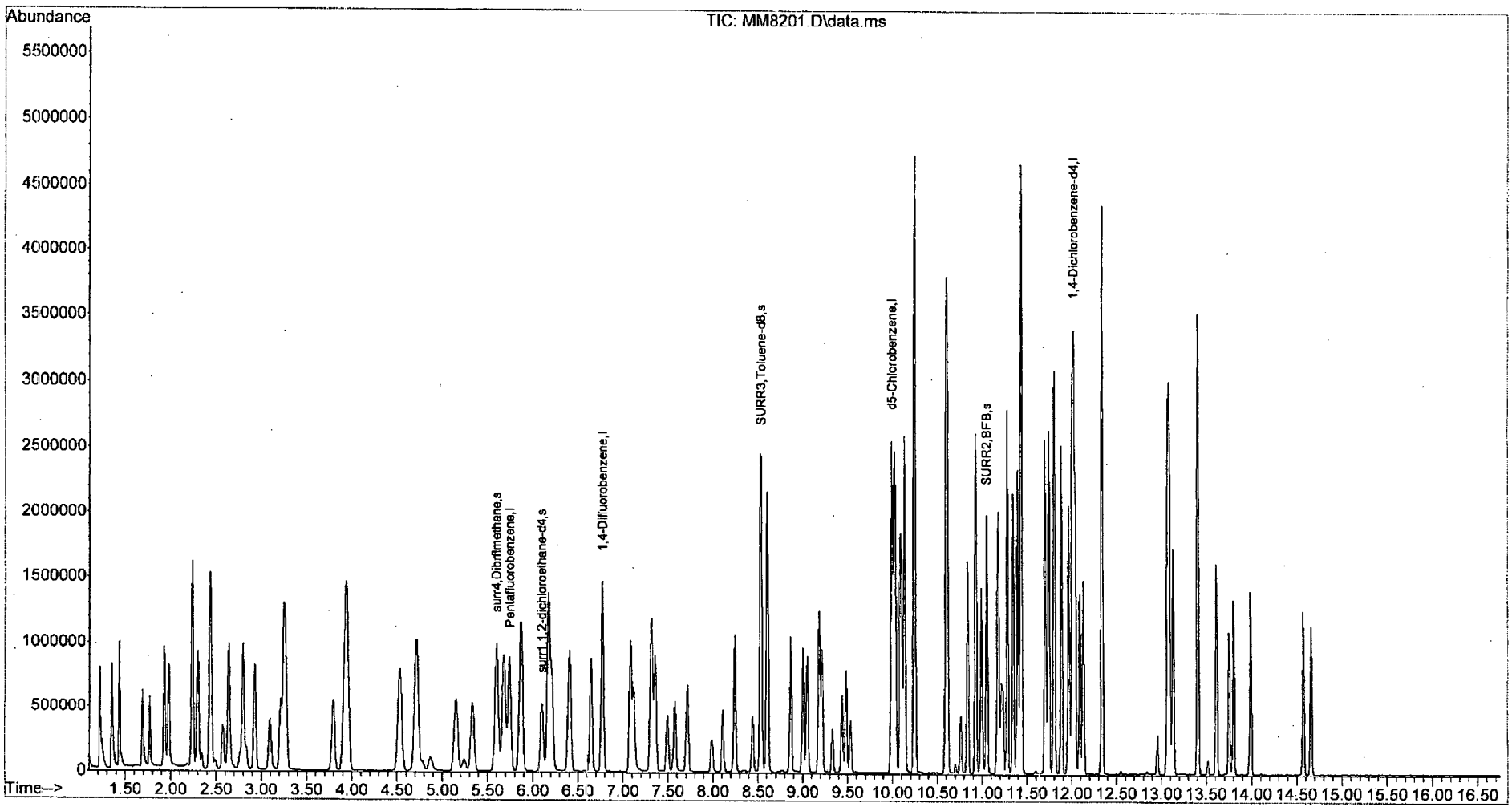
KR 11/30/15

W111815AS.M Mon Nov 30 14:24:47 2015 Page: 1

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 09:22:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815AS.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815AS.M Mon Nov 30 14:24:49 2015 Page: 2

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8364.D
Acq On : 24 Nov 2015 11:01 pm
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 25 11:13:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

KR 11/25/15

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.0000	1.0000	0.0	105	0.00
2	P	Dichlorodifluoromethane	0.7043	0.7111	-1.0	95	0.00
3	P	Chloromethane	0.8409	0.8125	3.4	101	0.00
4	P	Vinyl Chloride	0.7834	0.7687	1.9	100	0.00
5	P	Bromomethane	0.3826	0.3476	9.1	98	0.00
6	P	Chloroethane	0.4308	0.4313	-0.1	105	0.00
7		Freon 21	0.8341	0.8652	-3.7	107	0.00
8	P	Trichlorofluoromethane	0.6103	0.6209	-1.7	104	0.00
9		Diethyl Ether	0.3829	0.3854	-0.7	107	0.00
10		Freon 123a	0.5453	0.5462	-0.2	107	0.00
11		Freon 123	0.6287	0.6175	1.8	106	0.00
12		Acrolein IV = 250ppb	0.0426	0.1161	-9.0 ~~-172.5#~~	310#	0.00
13	P	1,1-Diclethene	0.4182	0.4126	1.3	104	0.00
14	P	Freon 113	0.3806	0.3677	3.4	103	0.00
15	P	Acetone	0.1066	0.0939	11.9	99	0.00
16		2-Propanol	0.0202	0.0200	1.0	114	-0.01
17		Iodomethane	0.4751	0.4295	9.6	84	0.00
18	P	Carbon Disulfide	1.3968	1.2918	7.5	96	0.00
19		Acetonitrile	0.0148	0.0164	-10.8	136	0.00
20		Allyl Chloride	0.2328	0.1960	15.8	88	0.00
21	P	Methyl Acetate	0.2484	0.2243	9.7	105	0.00
22	P	Methylene Chloride	0.4829	0.4593	4.9	105	0.00
23		TBA	0.0328	0.0314	4.3	107	-0.01
24		Acrylonitrile	0.1207	0.1188	1.6	108	0.00
25	P	Methyl-t-Butyl Ether	1.1634	1.0843	6.8	103	0.00
26	P	trans-1,2-Dichloroethene	0.4503	0.4460	1.0	105	0.00
27		Halothane	0.0000	0.0000	0.0	0#	-0.07
28	P	1,1-Diclethane	0.8010	0.8155	-1.8	107	0.00
29		Vinyl Acetate	0.0834	0.0635	NT 23.9#	84	0.00
~~30~~		~~DIPE~~	~~1.5615~~	~~0.0050~~	~~99.7#~~	~~0#~~	~~-0.04~~
31		2-Chloro-1,3-Butadiene	0.8055	0.8110	-0.7	106	0.00
~~32~~		~~ETBE~~	~~1.4674~~	~~0.0004~~	~~100.0#~~	~~0#~~	~~0.00~~
33		2,2-Dichloropropane	0.6407	0.5924	7.5	98	0.00
34	P	cis-1,2-Dichloroethene	0.4985	0.4886	2.0	108	0.00
35	P	2-Butanone	0.1460	0.1377	5.7	104	0.00
36		Propionitrile	0.0446	0.0429	3.8	109	-0.01
37		Bromochloromethane	0.2575	0.2466	4.2	103	-0.01
38		Methacrylonitrile	0.1413	0.1284	9.1	101	-0.01
39		Tetrahydrofuran	0.0939	0.0844	10.1	104	0.00
40	P	Chloroform	0.7785	0.7425	4.6	106	0.00
41	P	1,1,1-Trichloroethane	0.6115	0.5910	3.4	102	0.00
~~42~~		~~TAME~~	~~1.2466~~	~~0.0000~~	~~100.0#~~	~~0#~~	~~-6.41#~~
43	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	106	0.00
44	P	Cyclohexane	0.2733	0.2700	1.2	106	0.00
45	s	surr4,Dibrflmethane	0.2600	0.2810	-8.1	103	0.00
46	P	Carbontetrachloride	0.0957	0.0911	4.8	100	0.00

W111815A.M Wed Nov 25 11:14:25 2015 Page: 1

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8364.D
Acq On : 24 Nov 2015 11:01 pm
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 25 11:13:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47		1,1-Dichloropropene	0.3528	0.3518	0.3	105	-0.01
48	s	surr1,1,2-dichloroethane-d4	0.2871	0.3136	-9.2	105	0.00
49	P	Benzene	1.1004	1.1082	-0.7	105	0.00
50	P	1,2-Dichloroethane	0.2821	0.2783	1.3	106	0.00
51		Iso-Butyl Alcohol	0.0092	0.0086	6.5	110	-0.01
52		n-Heptane	0.3028	0.2923	3.5	105	0.00
~~53~~		~~1-Butanol~~	~~0.0058~~	~~0.0000~~	~~100.0#~~	~~0#~~	~~-7.13#~~
54	P	Trichloroethene	0.2796	0.2742	1.9	105	0.00
55	P	Methylcyclohexane	0.3371	0.3371	0.0	110	0.00
56	P	1,2-Diclpropane	0.2727	0.2752	-0.9	106	0.00
57		Dibromomethane	0.1343	0.1250	6.9	106	0.00
58		1,4-Dioxane	0.0020	0.0020	0.0	119	-0.01
59		Methyl Methacrylate	0.1578	0.1496	5.2	103	0.00
60	P	Bromodichloromethane	0.3343	0.3277	2.0	104	0.00
61		2-Nitropropane	0.0492	0.0418	15.0	98	0.00
62		2-Chloroethylvinyl Ether	0.1504	0.1318	12.4	98	0.00
63	P	cis-1,3-Dichloropropene	0.4481	0.4292	4.2	101	0.00
64	P	4-Methyl-2-pentanone	0.1994	0.1839	7.8	99	0.00
65	s	SURR3,Toluene-d8	1.0940	1.2400	-13.3	103	0.00
66	P	Toluene	1.1396	1.1410	-0.1	104	0.00
67	P	trans-1,3-Dichloropropene	0.3560	0.3517	1.2	101	0.00
68		Ethyl Methacrylate	0.3152	0.3162	-0.3	105	0.00
69	P	1,1,2-Trichloroethane	0.1927	0.1863	3.3	102	0.00
70	s	SURR2,BFB	0.4130	0.4532	-9.7	102	0.00
71	I	d5-Chlorobenzene	1.0000	1.0000	0.0	105	0.00
72	P	Tetrachloroethene	0.2074	0.2026	2.3	102	0.00
73	P	2-Hexanone	0.1531	0.1434	6.3	104	0.00
74		1,3-Dichloropropane	0.3801	0.3614	4.9	105	0.00
75	P	Dibromochloromethane	0.2365	0.2224	6.0	99	0.00
76		N-Butyl Acetate	0.3657	0.3579	2.1	105	0.00
77	P	1,2-Dibromoethane	0.2026	0.1901	6.2	101	0.00
78	P	Chlorobenzene	0.7396	0.7193	2.7	105	0.00
~~79~~		~~3-CBTF~~	~~0.3664~~	~~0.0004~~	~~99.9#~~	~~0#~~	~~0.05~~
~~80~~		~~4-CBTF~~	~~0.3410~~	~~0.0004~~	~~99.9#~~	~~0#~~	~~0.00~~
81		1,1,1,2-Tetrachloroethane	0.2556	0.2424	5.2	103	0.00
82	P	Ethylbenzene	0.4189	0.4185	0.1	106	0.00
83	P	(m+p)Xylene	0.5171	0.5056	2.2	103	0.00
84	P	o-Xylene	0.5296	0.5249	0.9	103	0.00
85	P	Styrene	0.8627	0.8382	2.8	102	0.00
86	I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	102	0.00
87	P	Bromoform	0.2840	0.2591	8.8	97	0.00
~~88~~		~~2-CBTF~~	~~0.7581~~	~~0.0008~~	~~99.9#~~	~~0#~~	~~-0.01~~
89	P	Isopropylbenzene	2.6001	2.6869	-3.3	105	0.00
90		Cyclohexanone	0.0377	0.0599	-58.9#	171	0.00
91		trans-1,4-Dichloro-2-Butene	0.1645	0.1415	~~14.0~~ 5.2	95	0.00

W111815A.M Wed Nov 25 11:14:25 2015 Page: 2

Data Path : I:\ACQUDATA\MSVOA12\DATA\112415\
Data File : MM8364.D
Acq On : 24 Nov 2015 11:01 pm
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 25 11:13:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
92	P	1,1,2,2-Tetrachloroethane	0.5254	0.4883	7.1	101	0.00
93		Bromobenzene	0.5883	0.6011	-2.2	102	0.00
94		1,2,3-Trichloropropane	0.1547	0.1386	10.4	104	0.00
95		n-Propylbenzene	2.9967	3.1322	-4.5	103	0.00
96		2-Chlorotoluene	1.7568	1.8242	-3.8	103	0.00
97		3-Chlorotoluene	1.8442	0.0000	100.0#	0#	-11.40#
98		4-Chlorotoluene	1.9817	2.0663	-4.3	105	0.00
99		1,3,5-Trimethylbenzene	1.9676	2.0634	-4.9	105	0.00
100		tert-Butylbenzene	1.7555	1.8139	-3.3	102	0.00
101		1,2,4-Trimethylbenzene	2.1113	2.1731	-2.9	103	0.00
102		3,4-DCBTF	0.5078	0.0014	99.7#	0#	0.00
103		sec-Butylbenzene	2.4563	2.5653	-4.4	104	0.00
104		p-Isopropyltoluene	1.8992	1.9849	-4.5	103	0.00
105	P	1,3-Dclbenz	1.1388	1.1558	-1.5	102	0.00
106	P	1,4-Dclbenz	1.0675	1.1046	-3.5	102	0.00
107		2,4-DCBTF	0.4432	0.0009	99.8#	0#	0.00
108		2,5-DCBTF	0.5013	0.0009	99.8#	0#	-0.05
109		n-Butylbenzene	1.7986	1.8585	-3.3	102	0.00
110	P	1,2-Dclbenz	1.0481	1.0671	-1.8	102	0.00
111	P	1,2-Dibromo-3-chloropropane	0.1014	0.0895	11.7	95	0.00
112		Trielution Dichlorotoluene	0.8846	0.0033	99.6#	0#	0.00
113		1,3,5-Trichlorobenzene	0.7046	0.0040	99.4#	1#	0.00
114		Coelution Dichlorotoluene	0.9348	0.0036	99.6#	0#	0.00
115	P	1,2,4-Tcbenzene	0.6467	0.6282	2.9	98	0.00
116		Hexachlorobt	0.2582	0.2593	-0.4	100	0.00
117		Naphthalen	1.3412	1.2725	5.1	94	0.00
118		1,2,3-Tclbenzene	0.5379	0.5234	2.7	97	0.00
119		2,4,5-Trichlorotolene	0.3990	0.0089	97.8#	2#	0.00
120		2,3,6-Trichlorotoluene	0.3513	0.0101	97.1#	3#	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\112415\
Data File : MM8364.D
Acq On : 24 Nov 2015 11:01 pm
Operator : K.Ruest
Sample : CCV RQ1514665-02 Inst : MSVOA-12
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 25 11:13:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	770893	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1290657	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1209495	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	565535	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	362634	54.04	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.08%				
48) surr1,1,2-dichloroetha...	6.096	65	404788	54.61	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 109.22%				
65) SURR3,Toluene-d8	8.529	98	1600432	56.67	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 113.34%				
70) SURR2,BFB	11.047	95	584920	54.87	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 109.74%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.213	85	548164	50.48	ppb		97
3) Chloromethane	1.347	50	626380	48.32	ppb		97
4) Vinyl Chloride	1.433	62	592560	49.06	ppb		100
5) Bromomethane	1.689	94	267969	45.43	ppb		99
6) Chloroethane	1.768	64	332514	50.06	ppb		97
7) Freon 21	1.927	67	667013	51.86	ppb		99
8) Trichlorofluoromethane	1.975	101	478631	50.87	ppb		99
9) Diethyl Ether	2.231	59	297110	50.33	ppb		97
10) Freon 123a	2.237	67	421039	50.08	ppb		98
11) Freon 123	2.292	83	476062	49.11	ppb		99
12) Acrolein	2.335	56	179038	272.56	ppb		98
13) 1,1-Diclethene	2.433	96	318059	49.33	ppb		99
14) Freon 113	2.445	101	283462	48.31	ppb		98
15) Acetone	2.487	43	72388	44.05	ppb		96
16) 2-Propanol	2.640	45	308296	988.60	ppb		99
17) Iodomethane	2.573	142	331120	45.21	ppb		95
18) Carbon Disulfide	2.634	76	995834	46.24	ppb		99
19) Acetonitrile	2.756	40	63372	278.03	ppb		97
20) Allyl Chloride	2.792	76	151071	42.08	ppb		96
21) Methyl Acetate	2.829	43	172891	45.15	ppb		99
22) Methylene Chloride	2.926	84	354082	47.56	ppb		98
23) TBA	3.085	59	483369	955.07	ppb		100
24) Acrylonitrile	3.207	53	457743	246.08	ppb		94
25) Methyl-t-Butyl Ether	3.262	73	835864	46.60	ppb		98
26) trans-1,2-Dichloroethene	3.243	96	343822	49.52	ppb		93
28) 1,1-Diclethane	3.792	63	628665	50.91	ppb		98
29) Vinyl Acetate	3.902	86	48939	38.04	ppb	#	75
31) 2-Chloro-1,3-Butadiene	3.926	53	625179	50.34	ppb		93
33) 2,2-Dichloropropane	4.700	77	456706	46.23	ppb		96
34) cis-1,2-Dichloroethene	4.713	96	376622	49.00	ppb		96
35) 2-Butanone	4.774	43	106148	47.15	ppb		89
36) Propionitrile	4.859	54	165476	240.71	ppb		96
37) Bromochloromethane	5.139	130	190107	47.88	ppb		97
38) Methacrylonitrile	5.152	67	99004	45.44	ppb		94

KP 11/25/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\112415\
Data File : MM8364.D
Acq On : 24 Nov 2015 11:01 pm
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 25 11:13:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39)	Tetrahydrofuran	5.237	42	65080	44.95	ppb	89
40)	Chloroform	5.328	83	572415	47.69	ppb	100
41)	1,1,1-Trichloroethane	5.597	97	455621	48.33	ppb	99
44)	Cyclohexane	5.676	41	348490	49.40	ppb	94
46)	Carbontetrachloride	5.859	121	117616	47.59	ppb	93
47)	1,1-Dichloropropene	5.865	75	454018	49.86	ppb	97
49)	Benzene	6.170	78	1430305	50.35	ppb	99
50)	1,2-Dichloroethane	6.206	62	359161	49.32	ppb	98
51)	Iso-Butyl Alcohol	6.200	43	223160	937.26	ppb	96
52)	n-Heptane	6.639	43	377294	48.27	ppb	98
54)	Trichloroethene	7.084	130	353951	49.04	ppb	98
55)	Methylcyclohexane	7.310	55	435130	50.01	ppb	97
56)	1,2-Diclpropane	7.352	63	355140	50.46	ppb	96
57)	Dibromomethane	7.493	93	161278	46.54	ppb	90
58)	1,4-Dioxane	7.547	88	51404m	995.93	ppb	
59)	Methyl Methacrylate	7.572	69	193035	47.40	ppb	94
60)	Bromodichloromethane	7.712	83	422963	49.01	ppb	96
61)	2-Nitropropane	7.980	41	107923	84.91	ppb	97
62)	2-Chloroethylvinyl Ether	8.108	63	170135	43.82	ppb	93
63)	cis-1,3-Dichloropropene	8.236	75	553920	47.89	ppb	99
64)	4-Methyl-2-pentanone	8.437	43	237342	46.11	ppb	98
66)	Toluene	8.602	91	1472629	50.06	ppb	99
67)	trans-1,3-Dichloropropene	8.864	75	453958	49.40	ppb	98
68)	Ethyl Methacrylate	8.998	69	408114	50.16	ppb	99
69)	1,1,2-Trichloroethane	9.047	97	240392	48.32	ppb	96
72)	Tetrachloroethene	9.181	164	245037	48.84	ppb	95
73)	2-Hexanone	9.328	43	173437	46.84	ppb	96
74)	1,3-Dichloropropane	9.212	76	437150	47.54	ppb	99
75)	Dibromochloromethane	9.431	129	268956	47.01	ppb	97
76)	N-Butyl Acetate	9.480	43	432909	48.93	ppb	98
77)	1,2-Dibromoethane	9.529	107	229880	46.91	ppb	99
78)	Chlorobenzene	10.016	112	869979	48.63	ppb	99
81)	1,1,1,2-Tetrachloroethane	10.102	131	293234	47.42	ppb	99
82)	Ethylbenzene	10.132	106	506232	49.95	ppb	93
83)	(m+p)Xylene	10.242	106	1222923	97.76	ppb	99
84)	o-Xylene	10.596	106	634877	49.56	ppb	98
85)	Styrene	10.608	104	1013851	48.58	ppb	100
87)	Bromoform	10.760	173	146516	45.61	ppb	98
89)	Isopropylbenzene	10.925	105	1519561	51.67	ppb	99
90)	Cyclohexanone	10.986	55	677548	1589.09	ppb	99
91)	trans-1,4-Dichloro-2-B...	11.230	53	80046	45.92	ppb	91
92)	1,1,2,2-Tetrachloroethane	11.181	83	276146	46.47	ppb	100
93)	Bromobenzene	11.169	156	339941	51.08	ppb	97
94)	1,2,3-Trichloropropane	11.211	110	78389	49.60	ppb	92
95)	n-Propylbenzene	11.278	91	1771368	52.26	ppb	98
96)	2-Chlorotoluene	11.339	91	1031646	51.92	ppb	99
98)	4-Chlorotoluene	11.431	91	1168554	52.13	ppb	93
99)	1,3,5-Trimethylbenzene	11.431	105	1166912	52.43	ppb	98
100)	tert-Butylbenzene	11.699	119	1025802	51.66	ppb	99
101)	1,2,4-Trimethylbenzene	11.736	105	1228986	51.46	ppb	100
103)	sec-Butylbenzene	11.882	105	1450795	52.22	ppb	99

Data Path : I:\ACQUDATA\MSVOA12\DATA\112415\
Data File : MM8364.D
Acq On : 24 Nov 2015 11:01 pm
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 25 11:13:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

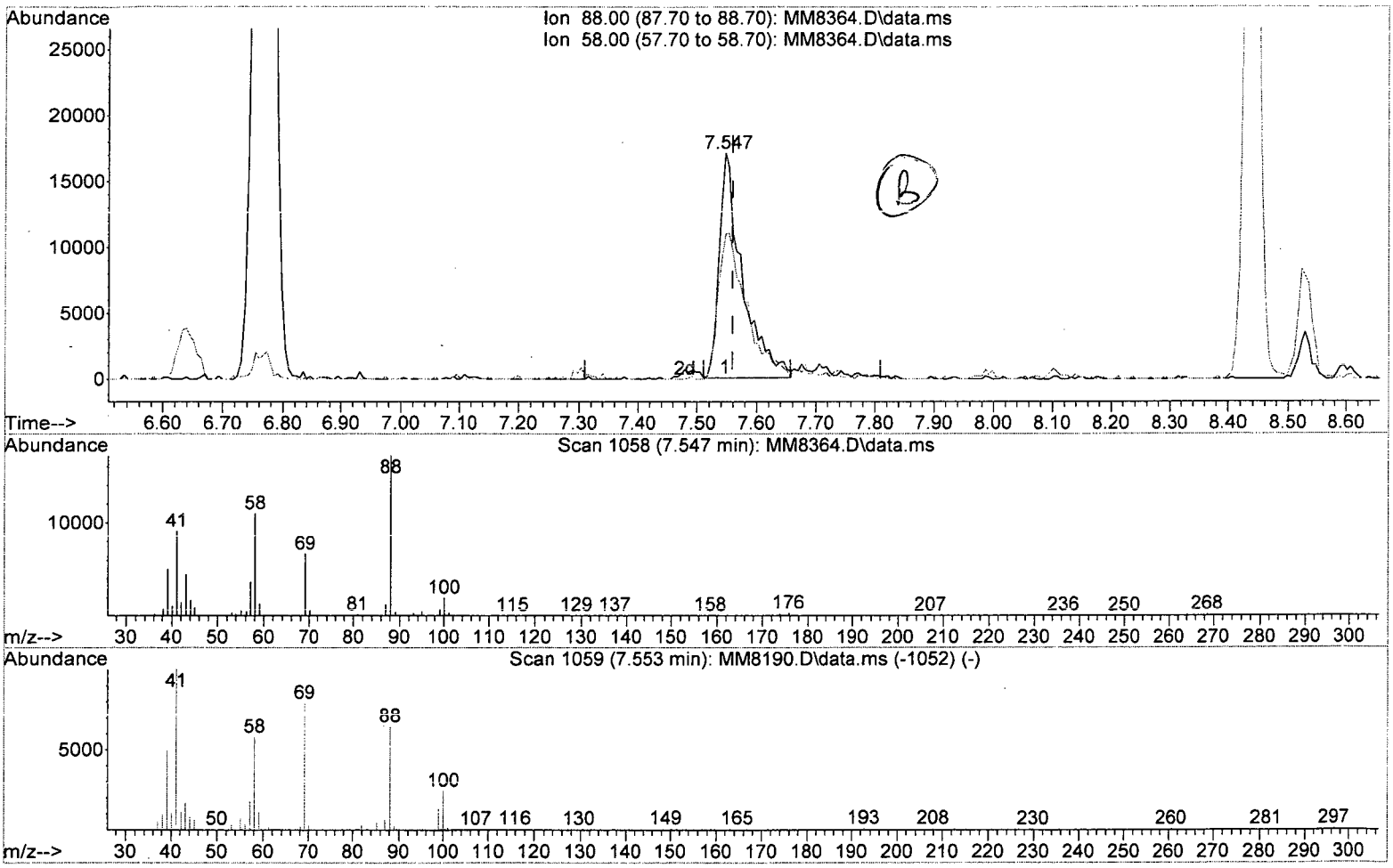
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
104) p-Isopropyltoluene	11.998	119	1122507	52.26	ppb		98
105) 1,3-Dclbenz	11.961	146	653660	50.75	ppb		98
106) 1,4-Dclbenz	12.034	146	624683	51.74	ppb		97
109) n-Butylbenzene	12.333	91	1051075	51.67	ppb		99
110) 1,2-Dclbenz	12.333	146	603488	50.91	ppb		93
111) 1,2-Dibromo-3-chloropr...	12.955	157	50593	44.13	ppb	#	82
112) Trielution Dichlorotol...	13.077	125	5555	0.56	ppb	#	92
113) 1,3,5 Trichlorobenzene	13.126	180	2257	0.28	ppb	#	74
114) Coelution Dichlorotoluene	13.406	125	4074	0.39	ppb	#	84
115) 1,2,4-Tcbenzene	13.607	180	355276	48.57	ppb		99
116) Hexachlorobt	13.747	225	146620	50.20	ppb		93
117) Naphthalen	13.796	128	719656	47.44	ppb		99
118) 1,2,3-Tclbenzene	13.985	180	295975	48.65	ppb		96
119) 2,4,5-Trichlorotolene	14.570	159	5054	1.12	ppb		91
120) 2,3,6-Trichlorotoluene	14.656	159	5720	1.44	ppb	#	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8364.D
Acq On : 24 Nov 2015 11:01 pm
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 25 10:19:52 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8364.D\data.ms

(58) 1,4-Dioxane

7.547min (-0.012) 885.46 ppb

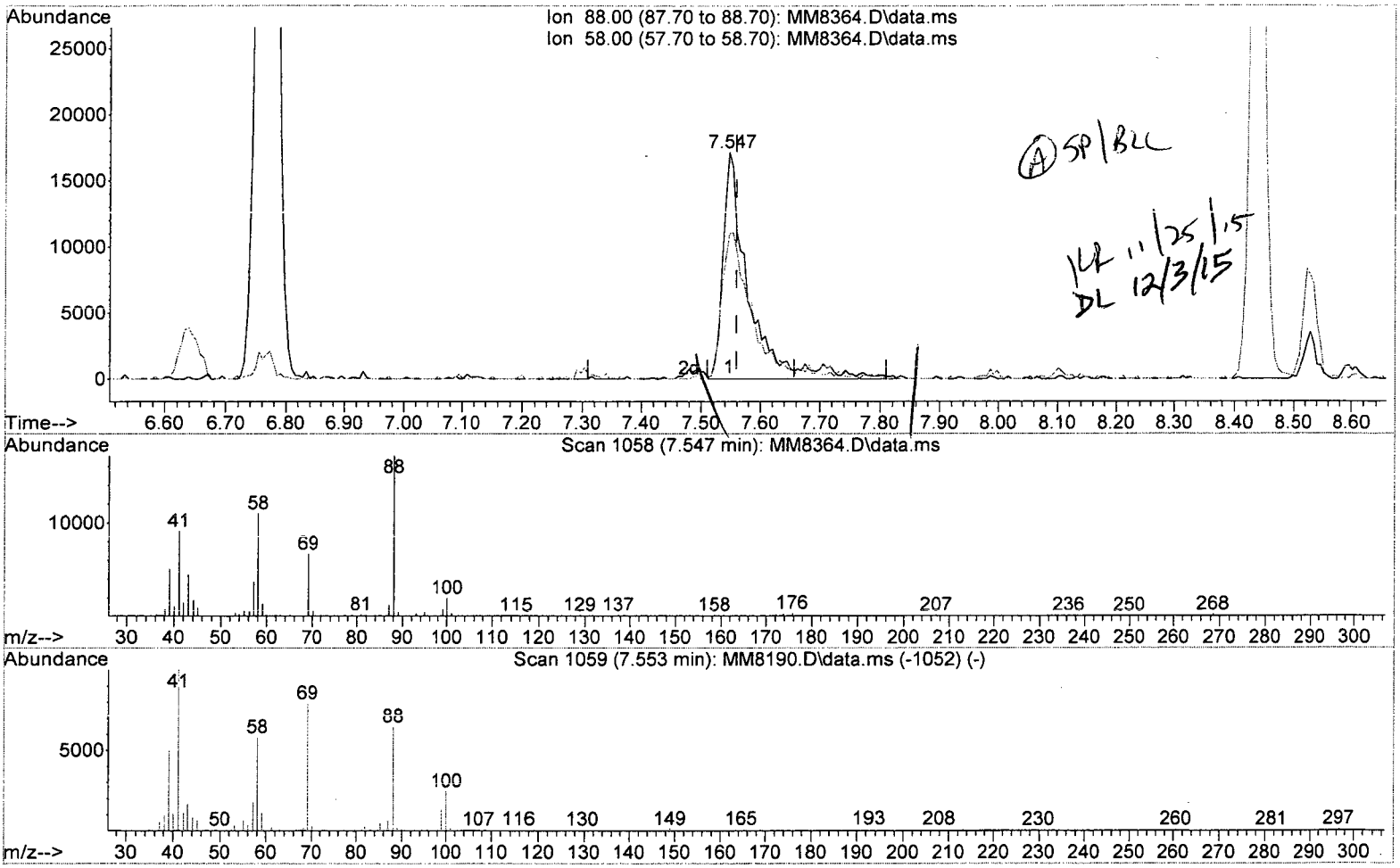
response 45702

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	64.10#
0.00	0.00	0.00
0.00	0.00	0.00

W111815A.M Wed Nov 25 11:13:01 2015 Page: 1

```
Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8364.D
Acq On    : 24 Nov 2015  11:01 pm
Operator  : K.Ruest
Sample    : CCV                                    Inst    : MSVOA-12
Misc      :
ALS Vial  : 27   Sample Multiplier: 1

Quant Time: Nov 25 10:19:52 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration
```



TIC: MM8364.D\data.ms

(58) 1,4-Dioxane

7.547min (-0.012) 995.93 ppb m

response 51404

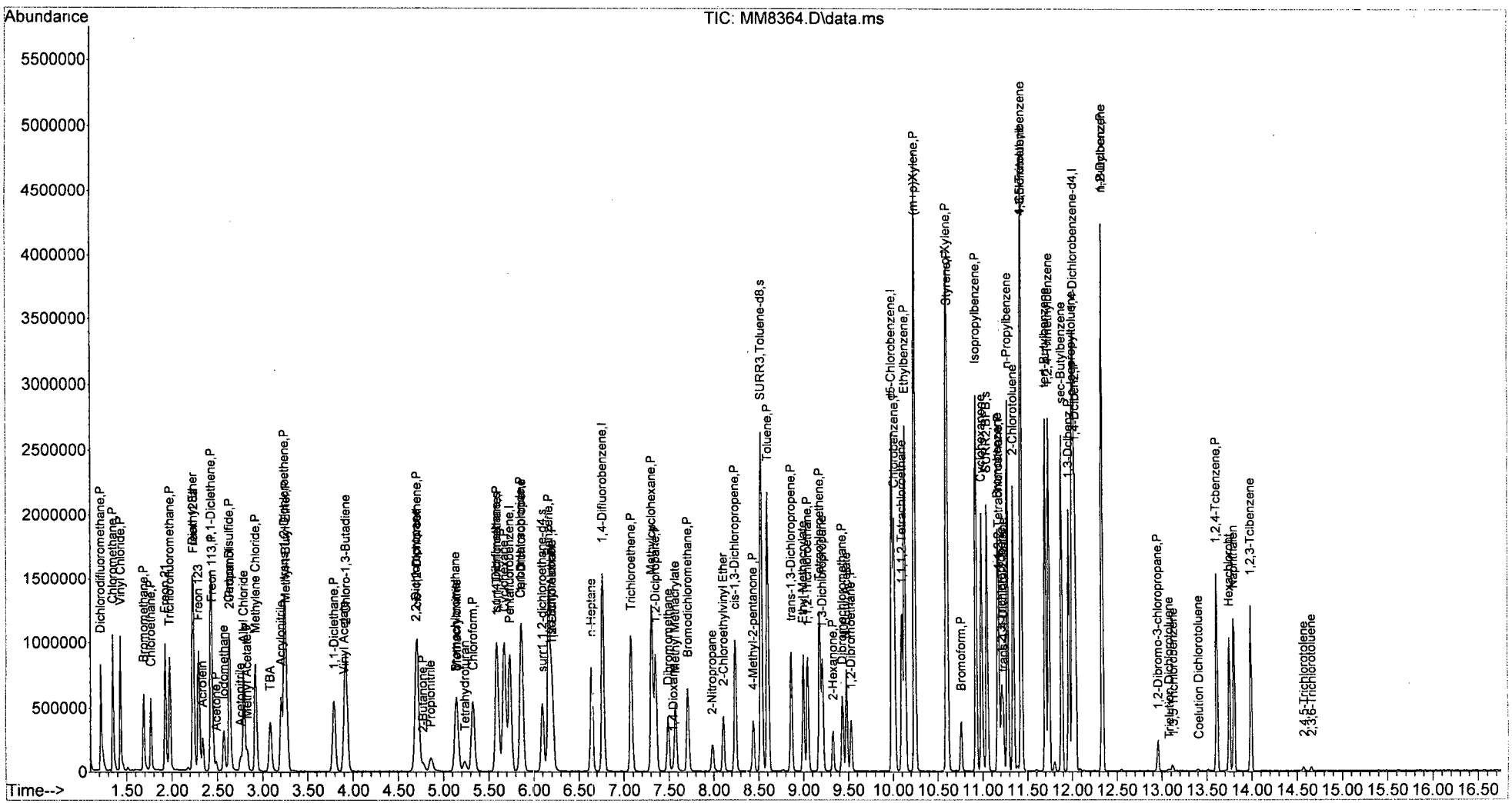
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	64.10#
0.00	0.00	0.00
0.00	0.00	0.00

W111815A.M Wed Nov 25 11:13:08 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8364.D
Acq On : 24 Nov 2015 11:01 pm
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 25 11:13:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Wed Nov 25 11:14:19 2015 Page: 4

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:21:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

KR 11/30/15

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.0000	1.0000	0.0	114	0.00
2	P	Dichlorodifluoromethane	0.7043	0.6571	6.7	95	0.00
3	P	Chloromethane	0.8409	0.7745	7.9	104	0.00
4	P	Vinyl Chloride	0.7834	0.7281	7.1	103	0.00
5	P	Bromomethane	0.3826	0.3348	12.5	102	0.00
6	P	Chloroethane	0.4308	0.4156	3.5	109	0.00
7		Freon 21	0.8341	0.8441	-1.2	113	0.00
8	P	Trichlorofluoromethane	0.6103	0.6008	1.6	109	0.00
9		Diethyl Ether	0.3829	0.3658	4.5	110	0.00
10		Freon 123a	0.5453	0.5264	3.5	111	0.00
11		Freon 123	0.6287	0.5971	5.0	111	0.00
12		Acrolein TV=250	0.0426	0.1187 - 11.4	~~-178.6#~~	342#	0.00
13	P	1,1-Diclethene	0.4182	0.3950	5.5	108	0.00
14	P	Freon 113	0.3806	0.3560	6.5	108	0.00
15	P	Acetone	0.1066	0.0865	18.9	99	0.00
16		2-Propanol	0.0202	0.0180	10.9	111	0.00
17		Iodomethane	0.4751	0.4512	5.0	95	0.00
18	P	Carbon Disulfide	1.3968	1.3682	2.0	109	0.00
19		Acetonitrile	0.0148	0.0117	20.9#	104	0.00
20		Allyl Chloride	0.2328	0.2155	7.4	105	0.00
21	P	Methyl Acetate	0.2484	0.2084	16.1	105	0.00
22	P	Methylene Chloride	0.4829	0.4340	10.1	108	0.00
23		TBA	0.0328	0.0290	11.6	106	0.00
24		Acrylonitrile	0.1207	0.1091	9.6	107	0.00
25	P	Methyl-t-Butyl Ether	1.1634	1.0363	10.9	107	0.00
26	P	trans-1,2-Dichloroethene	0.4503	0.4332	3.8	110	0.00
27		Halothane	0.0000	0.0000	0.0	0#	0.09
28	P	1,1-Diclethane	0.8010	0.7836	2.2	111	0.00
29		Vinyl Acetate	0.0834	0.0843	-1.1	120	0.00
30		DIPE	1.5615	1.5184	2.8	113	0.00
31		2-Chloro-1,3-Butadiene	0.8055	0.8335	-3.5	118	0.00
32		ETBE	1.4674	1.3935	5.0	110	0.00
33		2,2-Dichloropropane	0.6407	0.6294	1.8	112	0.00
34	P	cis-1,2-Dichloroethene	0.4985	0.4584	8.0	109	0.00
35	P	2-Butanone	0.1460	0.1269	13.1	103	-0.01
36		Propionitrile	0.0446	0.0395	11.4	109	0.00
37		Bromochloromethane	0.2575	0.2331	9.5	105	-0.01
38		Methacrylonitrile	0.1413	0.1285	9.1	109	-0.01
39		Tetrahydrofuran	0.0939	0.0836	11.0	112	-0.01
40	P	Chloroform	0.7785	0.7046	9.5	109	0.00
41	P	1,1,1-Trichloroethane	0.6115	0.5776	5.5	107	0.00
42		TAME	1.2466	1.1561	7.3	108	0.00
43	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	114	0.00
44	P	Cyclohexane	0.2733	0.2604	4.7	110	0.00
45	s	surr4,Dibrflmethane	0.2600	0.2782	-7.0	110	0.00
46	P	Carbontetrachloride	0.0957	0.0893	6.7	105	0.00

W111815A.M Mon Nov 30 11:22:44 2015 Page: 1

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:21:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47		1,1-Dichloropropene	0.3528	0.3278	7.1	106	0.00
48	s	surr1,1,2-dichloroethane-d4	0.2871	0.3036	-5.7	109	0.00
49	P	Benzene	1.1004	1.0660	3.1	108	0.00
50	P	1,2-Dichloroethane	0.2821	0.2667	5.5	110	0.00
51		Iso-Butyl Alcohol	0.0092	0.0080	13.0	109	0.00
52		n-Heptane	0.3028	0.3000	0.9	116	0.00
53		1-Butanol	0.0058	0.0052	10.3	112	0.00
54	P	Trichloroethene	0.2796	0.2598	7.1	107	0.00
55	P	Methylcyclohexane	0.3371	0.3246	3.7	114	0.00
56	P	1,2-Diclpropane	0.2727	0.2672	2.0	111	0.00
57		Dibromomethane	0.1343	0.1173	12.7	107	0.00
58		1,4-Dioxane	0.0020	0.0017	15.0	109	0.00
59		Methyl Methacrylate	0.1578	0.1382	12.4	103	0.00
60	P	Bromodichloromethane	0.3343	0.3126	6.5	107	0.00
61		2-Nitropropane	0.0492	0.0418	15.0	106	0.00
62		2-Chloroethylvinyl Ether	0.1504	0.1312	12.8	105	0.00
63	P	cis-1,3-Dichloropropene	0.4481	0.4224	5.7	107	0.00
64	P	4-Methyl-2-pentanone	0.1994	0.1780	10.7	104	0.00
65	s	SURR3,Toluene-d8	1.0940	1.2305	-12.5	110	0.00
66	P	Toluene	1.1396	1.0882	4.5	107	0.00
67	P	trans-1,3-Dichloropropene	0.3560	0.3367	5.4	104	0.00
68		Ethyl Methacrylate	0.3152	0.2880	8.6	103	0.00
69	P	1,1,2-Trichloroethane	0.1927	0.1774	7.9	104	0.00
70	s	SURR2,BFB	0.4130	0.4572	-10.7	111	0.00
71	I	d5-Chlorobenzene	1.0000	1.0000	0.0	111	0.00
72	P	Tetrachloroethene	0.2074	0.1994#	3.9	107	0.00
73	P	2-Hexanone	0.1531	0.1319	13.8	102	0.00
74		1,3-Dichloropropane	0.3801	0.3449	9.3	106	0.00
75	P	Dibromochloromethane	0.2365	0.2211	6.5	104	0.00
76		N-Butyl Acetate	0.3657	0.3426	6.3	107	0.00
77	P	1,2-Dibromoethane	0.2026	0.1805	10.9	102	0.00
78	P	Chlorobenzene	0.7396	0.6990	5.5	108	0.00
79		3-CBTF	0.3664	0.3555	3.0	112	0.00
80		4-CBTF	0.3410	0.3287	3.6	113	0.00
81		1,1,1,2-Tetrachloroethane	0.2556	0.2354	7.9	106	0.00
82	P	Ethylbenzene	0.4189	0.4040	3.6	109	0.00
83	P	(m+p)Xylene	0.5171	0.4921	4.8	107	0.00
84	P	o-Xylene	0.5296	0.5154	2.7	107	0.00
85	P	Styrene	0.8627	0.8108	6.0	105	0.00
86	I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	112	0.00
87	P	Bromoform	0.2840	0.2503	11.9	102	0.00
88		2-CBTF	0.7581	0.7487	1.2	114	0.00
89	P	Isopropylbenzene	2.6001	2.5344	2.5	108	0.00
90		Cyclohexanone	0.0377	0.0482	-27.9#	150	0.00
91		trans-1,4-Dichloro-2-Butene	0.1645	0.1344	18.3	98	0.00

Data Path : I:\ACQUDATA\MSVOA12\DATA\111015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:21:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
92	P	1,1,2,2-Tetrachloroethane	0.5254	0.4751	9.6	107	0.00
93		Bromobenzene	0.5883	0.5640	4.1	104	0.00
94		1,2,3-Trichloropropane	0.1547	0.1261	18.5	104	0.00
95		n-Propylbenzene	2.9967	2.9853	0.4	108	0.00
96		2-Chlorotoluene	1.7568	1.7733	-0.9	109	0.00
97		3-Chlorotoluene	1.8442	1.8824	-2.1	114	0.00
98		4-Chlorotoluene	1.9817	1.9164	3.3	107	0.00
99		1,3,5-Trimethylbenzene	1.9676	1.9460	1.1	108	0.00
100		tert-Butylbenzene	1.7555	1.7343	1.2	106	0.00
101		1,2,4-Trimethylbenzene	2.1113	2.0473	3.0	106	0.00
102		3,4-DCBTF	0.5078	0.5055	0.5	113	0.00
103		sec-Butylbenzene	2.4563	2.4425	0.6	108	0.00
104		p-Isopropyltoluene	1.8992	1.8838	0.8	107	0.00
105	P	1,3-Dclbenz	1.1388	1.0754	5.6	104	0.00
106	P	1,4-Dclbenz	1.0675	1.0494	1.7	106	0.00
107		2,4-DCBTF	0.4432	0.4521	-2.0	114	0.00
108		2,5-DCBTF	0.5013	0.4975	0.8	113	0.00
109		n-Butylbenzene	1.7986	1.7800	1.0	107	0.00
110	P	1,2-Dclbenz	1.0481	0.9885	5.7	103	0.00
111	P	1,2-Dibromo-3-chloropropane	0.1014	0.0828	18.3	96	0.00
112		Trielution Dichlorotoluene	0.8846	0.8744	1.2	110	0.00
113		1,3,5 Trichlorobenzene	0.7046	0.6878	2.4	112	0.00
114		Coelution Dichlorotoluene	0.9348	0.9282	0.7	108	0.00
115	P	1,2,4-Tcbenzene	0.6467	0.5843	9.6	100	0.00
116		Hexachlorobt	0.2582	0.2516	2.6	107	0.00
117		Naphthalen	1.3412	1.1973	10.7	97	0.00
118		1,2,3-Tclbenzene	0.5379	0.4834	10.1	98	0.00
119		2,4,5-Trichlorotolene	0.3990	0.3642	8.7	103	0.00
120		2,3,6-Trichlorotoluene	0.3513	0.2984	15.1	101	0.00

(#) = Out of Range SPCC's out = 1 CCC's out = 0

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV RQ1514764-02 Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:21:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	832235	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1390239	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1285134	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	618347	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	386800	53.51	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 107.02%				
48) surr1,1,2-dichloroetha...	6.096	65	422121	52.87	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 105.74%				
65) SURR3,Toluene-d8	8.529	98	1710641	56.24	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 112.48%				
70) SURR2,BFB	11.047	95	635661	55.36	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.72%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.213	85	546888	46.65	ppb		98
3) Chloromethane	1.347	50	644588	46.06	ppb		99
4) Vinyl Chloride	1.433	62	605926	46.47	ppb		100
5) Bromomethane	1.689	94	278619	43.75	ppb		100
6) Chloroethane	1.768	64	345864	48.23	ppb		96
7) Freon 21	1.927	67	702508	50.60	ppb		100
8) Trichlorofluoromethane	1.975	101	499995	49.22	ppb		100
9) Diethyl Ether	2.231	59	304464	47.78	ppb		96
10) Freon 123a	2.237	67	438117	48.27	ppb		100
11) Freon 123	2.292	83	496957	47.49	ppb		97
12) Acrolein	2.341	56	197578	278.61	ppb		98
13) 1,1-Diclethene	2.433	96	328741	47.23	ppb		98
14) Freon 113	2.439	101	296277	46.77	ppb		93
15) Acetone	2.487	43	71998	40.58	ppb		100
16) 2-Propanol	2.658	45	299147	888.56	ppb		95
17) Iodomethane	2.573	142	375489	47.49	ppb		99
18) Carbon Disulfide	2.634	76	1138629	48.98	ppb		100
19) Acetonitrile	2.768	40	48587	197.45	ppb	#	85
20) Allyl Chloride	2.792	76	179386	46.28	ppb		94
21) Methyl Acetate	2.829	43	173433	41.96	ppb		97
22) Methylene Chloride	2.926	84	361171	44.94	ppb		93
23) TBA	3.091	59	481927	882.03	ppb		99
24) Acrylonitrile	3.207	53	453861	226.01	ppb		99
25) Methyl-t-Butyl Ether	3.262	73	862429	44.54	ppb		98
26) trans-1,2-Dichloroethene	3.243	96	360486	48.09	ppb		89
28) 1,1-Diclethane	3.792	63	652127	48.91	ppb		98
29) Vinyl Acetate	3.908	86	70173	50.53	ppb	#	95
30) DIPE	3.944	45	1263644	48.62	ppb		98
31) 2-Chloro-1,3-Butadiene	3.926	53	693676	51.74	ppb		97
32) ETBE	4.524	59	1159695	47.48	ppb		98
33) 2,2-Dichloropropane	4.700	77	523822	49.12	ppb		97
34) cis-1,2-Dichloroethene	4.713	96	381482	45.98	ppb		100
35) 2-Butanone	4.767	43	105573	43.44	ppb		97
36) Propionitrile	4.865	54	164511	221.67	ppb		97

KR 11/30/15

Data Path : I:\ACQUDATA\MSVOA12\Data\111015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:21:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	Bromochloromethane	5.139	130	193976	45.26	ppb		97
38)	Methacrylonitrile	5.152	67	106921	45.46	ppb		100
39)	Tetrahydrofuran	5.231	42	69535	44.49	ppb		99
40)	Chloroform	5.328	83	586409	45.26	ppb		98
41)	1,1,1-Trichloroethane	5.597	97	480665	47.23	ppb		98
42)	TAME	6.401	73	962123	46.37	ppb		97
44)	Cyclohexane	5.676	41	361963	47.64	ppb		95
46)	Carbontetrachloride	5.859	121	124147	46.64	ppb		86
47)	1,1-Dichloropropene	5.871	75	455657	46.45	ppb		97
49)	Benzene	6.170	78	1481983	48.44	ppb		99
50)	1,2-Dichloroethane	6.206	62	370740	47.27	ppb		98
51)	Iso-Butyl Alcohol	6.206	43	221621	864.12	ppb		91
52)	n-Heptane	6.639	43	417063	49.53	ppb		98
53)	1-Butanol	7.121	56	363637	2261.96	ppb		100
54)	Trichloroethene	7.084	130	361135	46.45	ppb		98
55)	Methylcyclohexane	7.310	55	451212	48.14	ppb		99
56)	1,2-Diclpropane	7.352	63	371522	49.00	ppb		94
57)	Dibromomethane	7.486	93	163055	43.68	ppb		99
58)	1,4-Dioxane	7.560	88	46893m	843.46	ppb		
59)	Methyl Methacrylate	7.572	69	192138	43.80	ppb		95
60)	Bromodichloromethane	7.712	83	434570	46.75	ppb		99
61)	2-Nitropropane	7.986	41	116112	84.81	ppb		96
62)	2-Chloroethylvinyl Ether	8.108	63	182371	43.60	ppb		96
63)	cis-1,3-Dichloropropene	8.236	75	587251	47.13	ppb		96
64)	4-Methyl-2-pentanone	8.437	43	247399	44.62	ppb		98
66)	Toluene	8.602	91	1512886	47.74	ppb		99
67)	trans-1,3-Dichloropropene	8.864	75	468101	47.29	ppb		99
68)	Ethyl Methacrylate	8.998	69	400357	45.69	ppb		99
69)	1,1,2-Trichloroethane	9.047	97	246565	46.01	ppb		95
72)	Tetrachloroethene	9.181	164	256247	48.07	ppb		98
73)	2-Hexanone	9.328	43	169555	43.10	ppb		99
74)	1,3-Dichloropropane	9.212	76	443284	45.37	ppb		97
75)	Dibromochloromethane	9.431	129	284088	46.73	ppb		97
76)	N-Butyl Acetate	9.480	43	440278	46.84	ppb		99
77)	1,2-Dibromoethane	9.529	107	232002	44.56	ppb		95
78)	Chlorobenzene	10.016	112	898346	47.26	ppb		98
79)	3-CBTF	10.029	180	456910	48.51	ppb		99
80)	4-CBTF	10.084	180	422469	48.20	ppb		97
81)	1,1,1,2-Tetrachloroethane	10.102	131	302557	46.05	ppb		97
82)	Ethylbenzene	10.132	106	519220	48.22	ppb		95
83)	(m+p)Xylene	10.242	106	1264953	95.17	ppb		98
84)	o-Xylene	10.596	106	662404	48.66	ppb		95
85)	Styrene	10.608	104	1041947	46.99	ppb		99
87)	Bromoform	10.760	173	154791	44.07	ppb		96
88)	2-CBTF	10.833	180	462942	49.38	ppb		93
89)	Isopropylbenzene	10.925	105	1567166	48.74	ppb		99
90)	Cyclohexanone	10.986	55	595996	1278.44	ppb		97
91)	trans-1,4-Dichloro-2-B...	11.230	53	83125	43.60	ppb		93
92)	1,1,2,2-Tetrachloroethane	11.181	83	293754	45.21	ppb		98
93)	Bromobenzene	11.169	156	348752	47.93	ppb		99
94)	1,2,3-Trichloropropane	11.211	110	77993	45.11	ppb	#	85

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:21:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

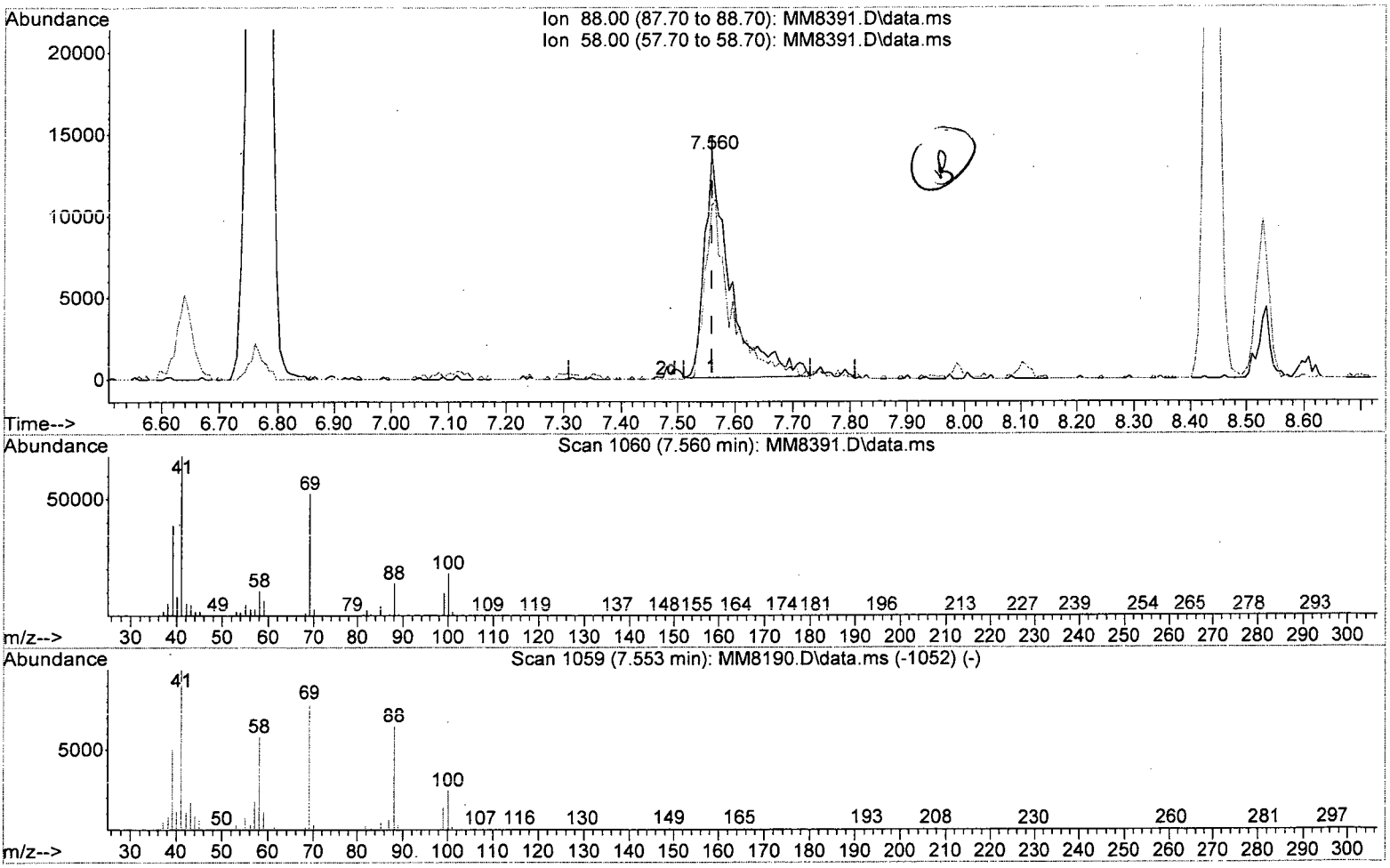
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	1845973	49.81	ppb	100
96)	2-Chlorotoluene	11.339	91	1096504	50.47	ppb	99
97)	3-Chlorotoluene	11.394	91	1163991	51.04	ppb	99
98)	4-Chlorotoluene	11.431	91	1184975	48.35	ppb	96
99)	1,3,5-Trimethylbenzene	11.431	105	1203273	49.45	ppb	97
100)	tert-Butylbenzene	11.699	119	1072380	49.40	ppb	99
101)	1,2,4-Trimethylbenzene	11.736	105	1265943	48.48	ppb	97
102)	3,4-DCBTF	11.797	214	312588	49.78	ppb	96
103)	sec-Butylbenzene	11.882	105	1510342	49.72	ppb	98
104)	p-Isopropyltoluene	11.998	119	1164836	49.59	ppb	98
105)	1,3-Dclbenz	11.961	146	664989	47.22	ppb	97
106)	1,4-Dclbenz	12.034	146	648921	49.15	ppb	97
107)	2,4-DCBTF	12.083	214	279556	51.01	ppb	97
108)	2,5-DCBTF	12.126	214	307629	49.62	ppb	98
109)	n-Butylbenzene	12.333	91	1100630	49.48	ppb	99
110)	1,2-Dclbenz	12.333	146	611222	47.15	ppb	96
111)	1,2-Dibromo-3-chloropr...	12.955	157	51189	40.83	ppb	92
112)	Trielution Dichlorotol...	13.071	125	1622032	148.27	ppb	98
113)	1,3,5 Trichlorobenzene	13.126	180	425327	48.81	ppb	98
114)	Coelution Dichlorotoluene	13.400	125	1147946	99.30	ppb	100
115)	1,2,4-Tcbenzene	13.607	180	361300	45.18	ppb	98
116)	Hexachlorobt	13.747	225	155555	48.71	ppb	94
117)	Naphthalen	13.796	128	740372	44.64	ppb	98
118)	1,2,3-Tclbenzene	13.985	180	298917	44.93	ppb	99
119)	2,4,5-Trichlorotolene	14.570	159	225227	45.65	ppb	99
120)	2,3,6-Trichlorotoluene	14.656	159	184532	42.47	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\MSVOA12\Data\113015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:18:32 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8391.D\data.ms

(58) 1,4-Dioxane

7.560min (-0.000) 788.15 ppb

response 43818

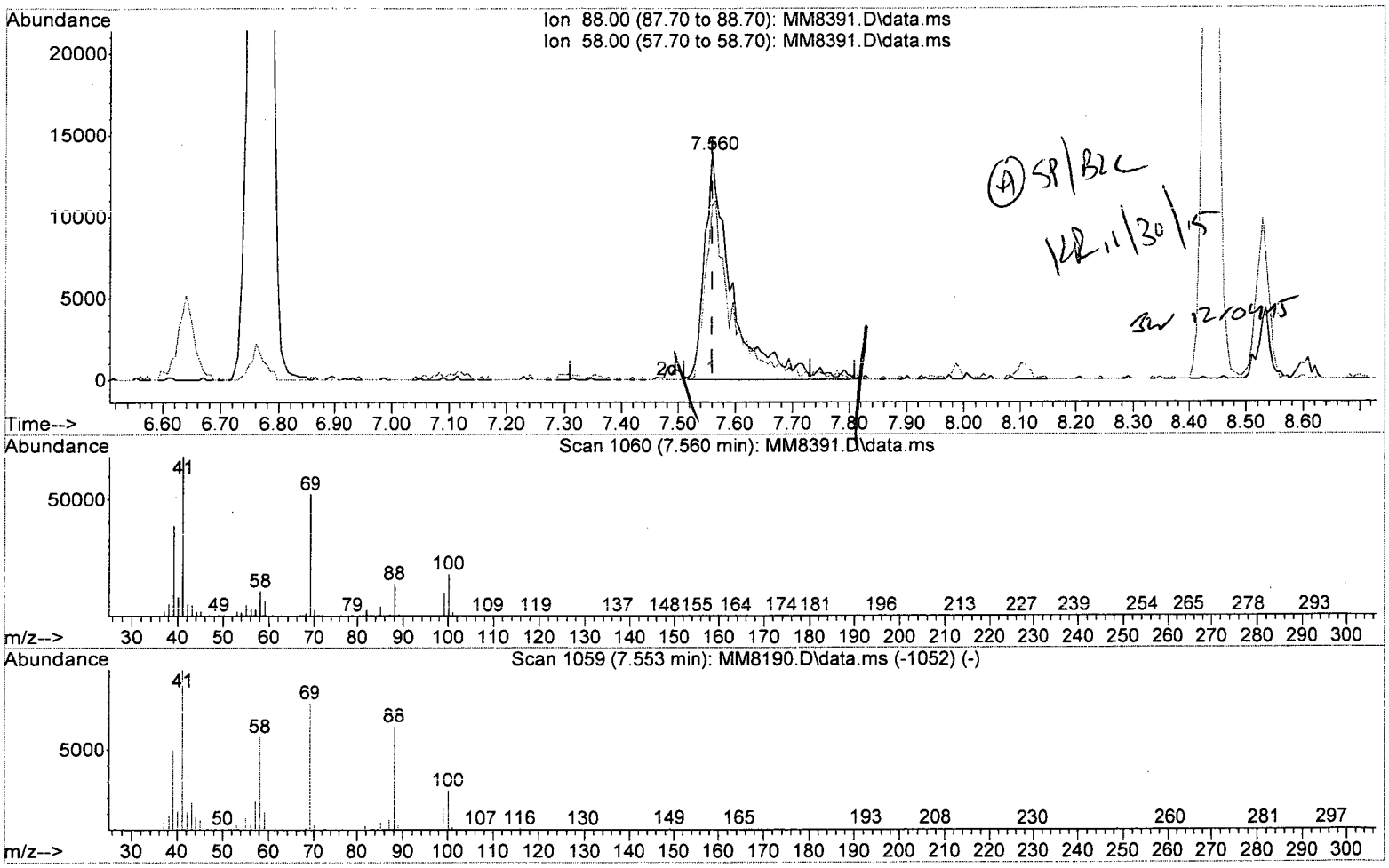
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	76.97
0.00	0.00	0.00
0.00	0.00	0.00

W111815A.M Mon Nov 30 11:21:45 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:18:32 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8391.D\data.ms

(58) 1,4-Dioxane

7.560min (-0.000) 843.46 ppb m

response 46893

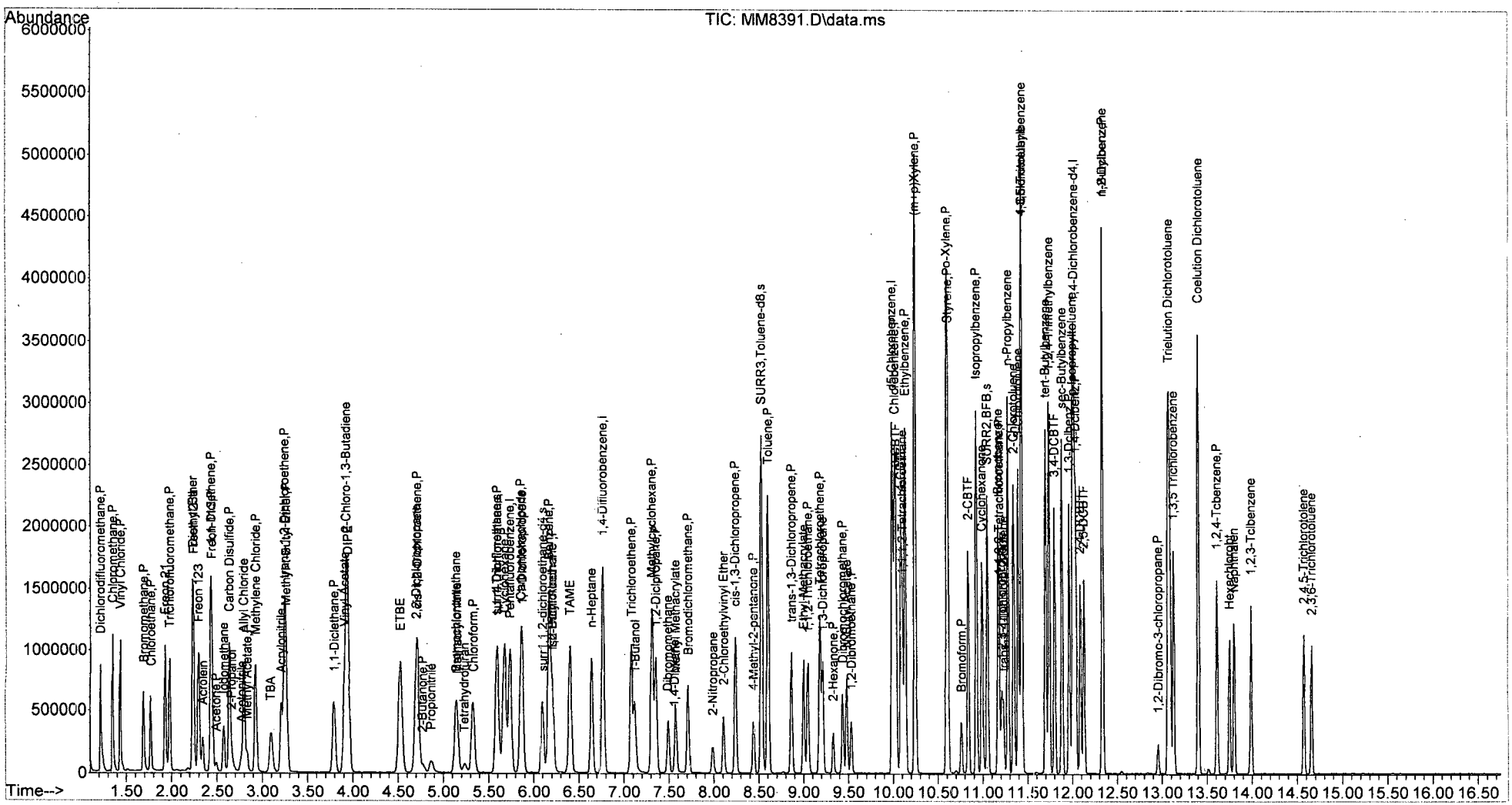
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	76.97
0.00	0.00	0.00
0.00	0.00	0.00

W111815A.M Mon Nov 30 11:21:54 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:21:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Mon Nov 30 11:22:39 2015 Page: 4

ALS Environmental

VOLATILE ORGANICS
RAW QC DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

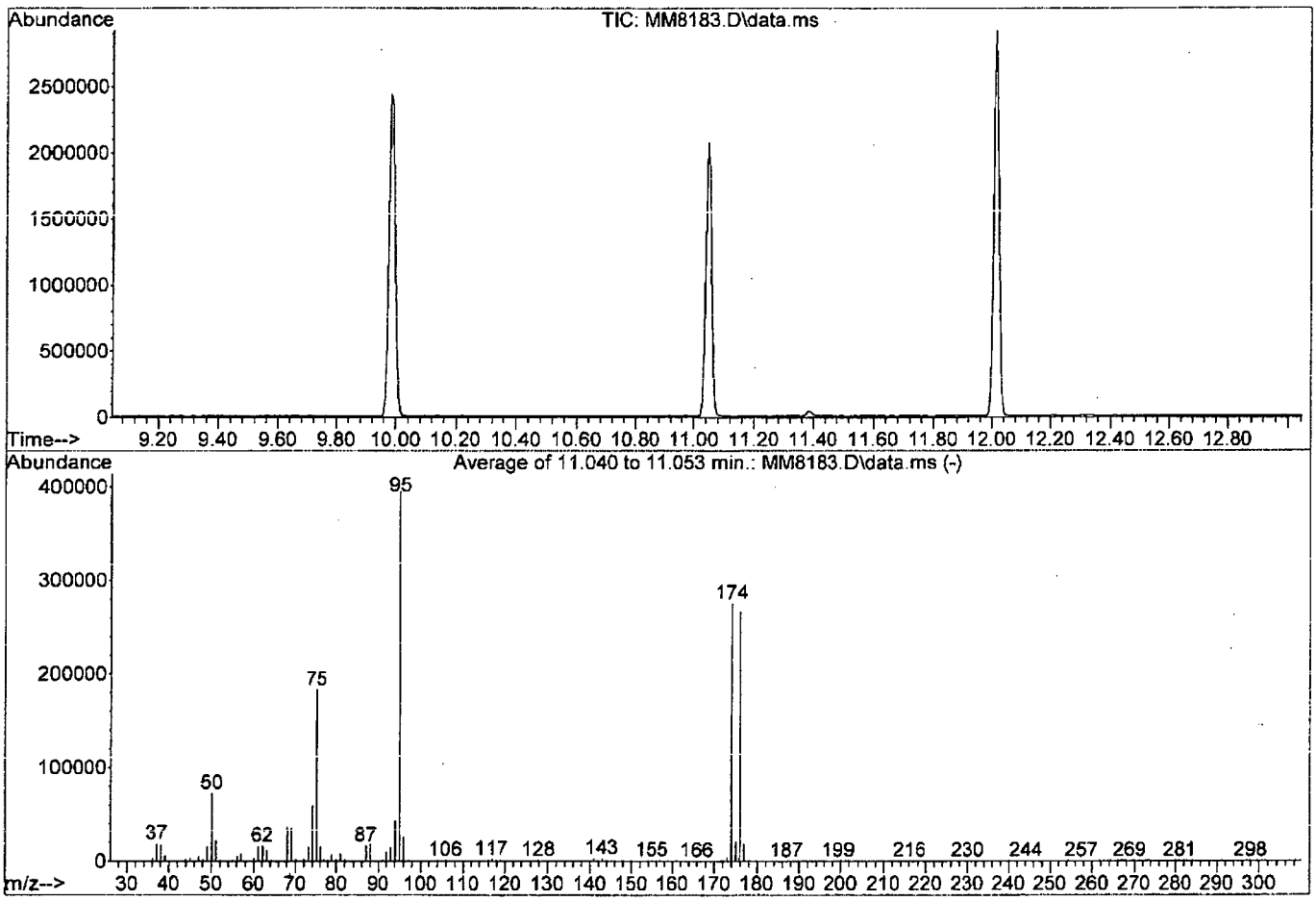
RIGHT SOLUTIONS | RIGHT PARTNER

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8183.D
Acq On : 18 Nov 2015 3:38 pm
Operator : K.Ruest
Sample : TUNE Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Thu Aug 27 10:55:02 2015

KB 11/18/15



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	72096	PASS
75	95	30	60	46.3	182827	PASS
95	95	100	100	100.0	394581	PASS
96	95	5	9	6.6	26025	PASS
173	174	0.00	2	1.3	3492	PASS
174	95	50	120	69.7	275072	PASS
175	174	5	9	7.4	20478	PASS
176	174	95	101	96.8	266389	PASS
177	176	5	9	6.9	18350	PASS

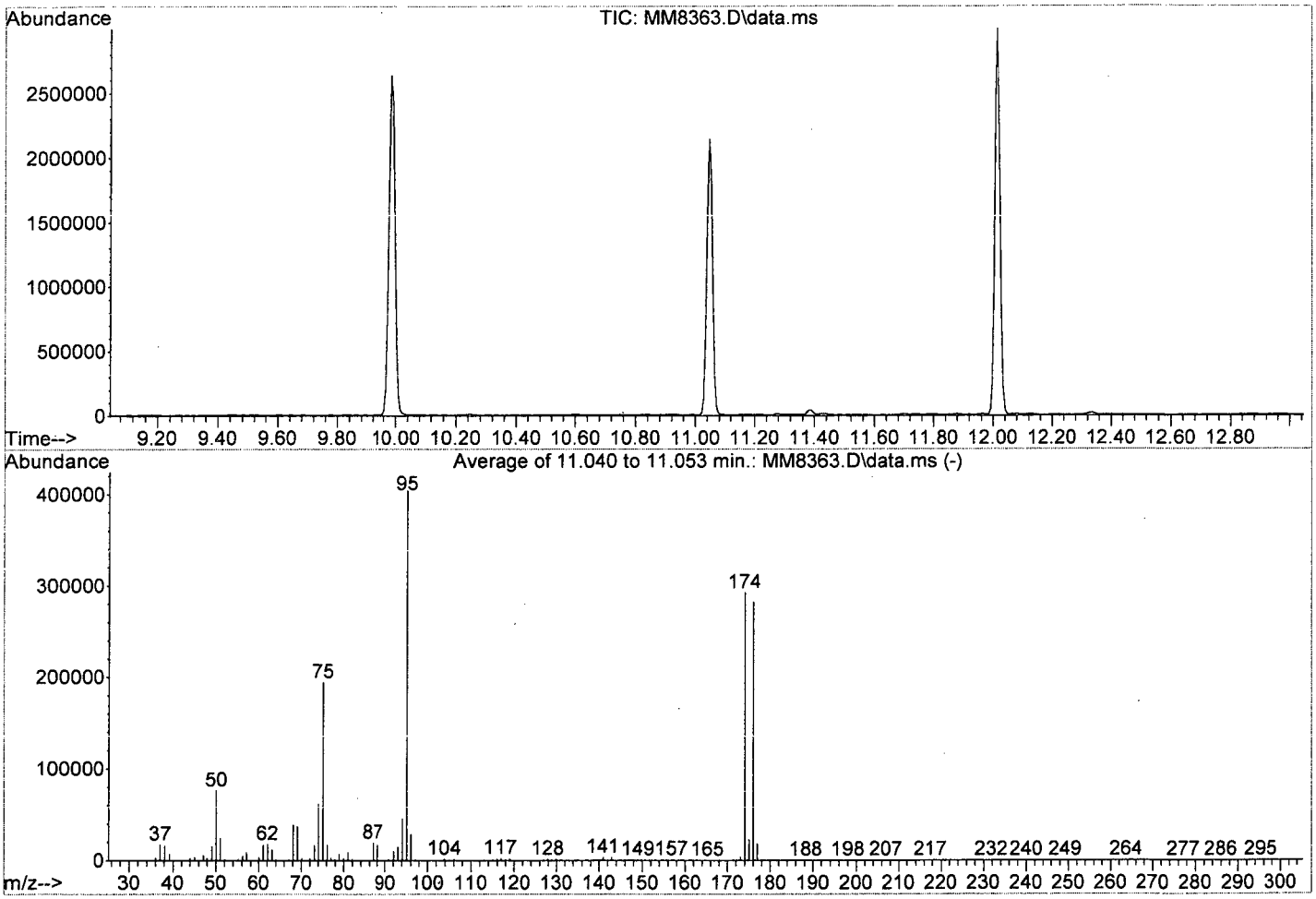
W111815.M Wed Nov 18 16:27:30 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8363.D
Acq On : 24 Nov 2015 10:28 pm
Operator : K.Ruest
Sample : TUNE RQ1514665-01 Inst : MSVOA-12
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Nov 25 09:49:52 2015

KR 11/25/15



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1625

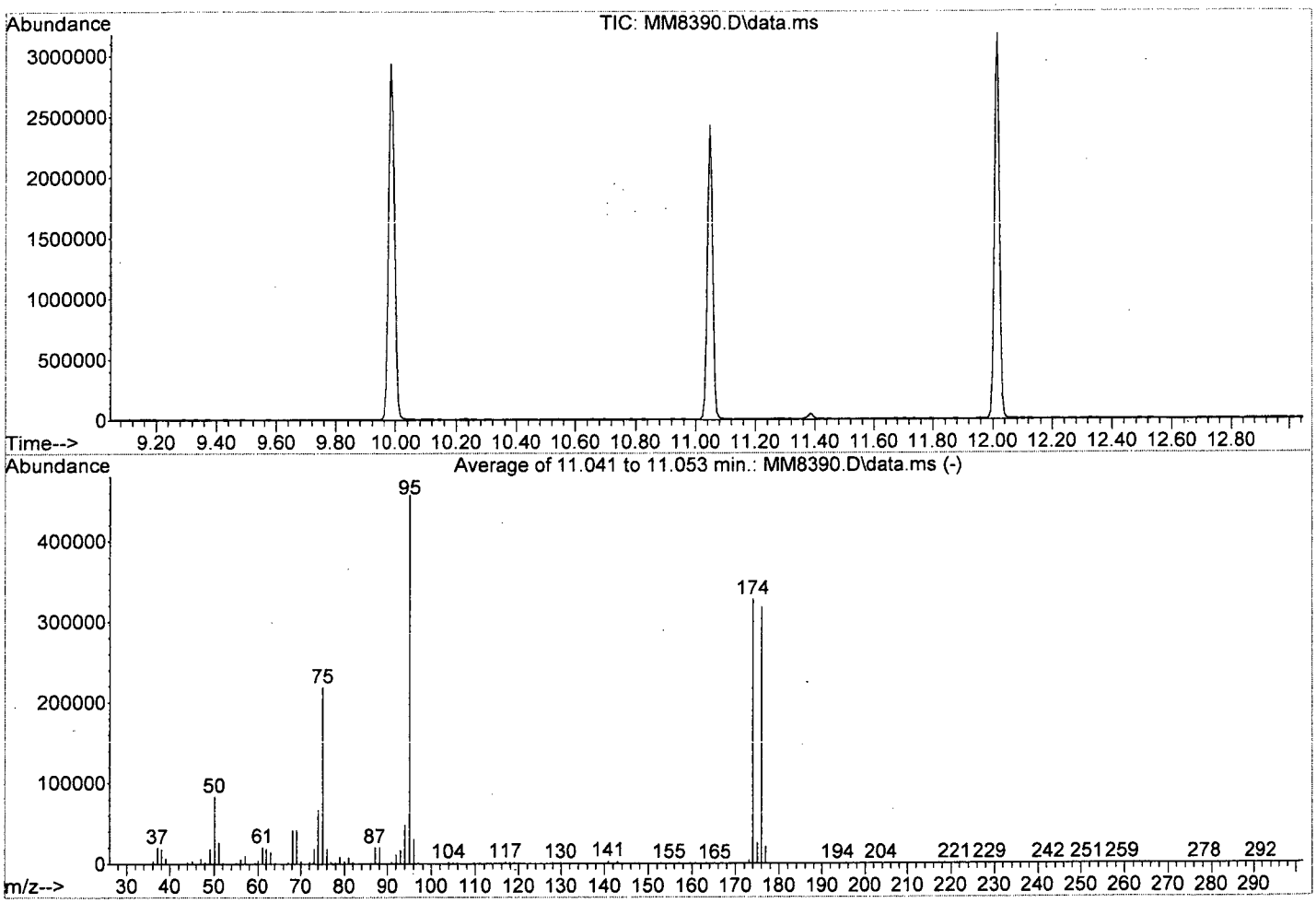
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.8	76027	PASS
75	95	30	60	48.1	194197	PASS
95	95	100	100	100.0	404117	PASS
96	95	5	9	7.0	28293	PASS
173	174	0.00	2	1.2	3574	PASS
174	95	50	120	72.3	292075	PASS
175	174	5	9	7.6	22320	PASS
176	174	95	101	96.6	282091	PASS
177	176	5	9	6.4	18036	PASS

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8390.D
Acq On : 30 Nov 2015 10:32 am
Operator : K.Ruest
Sample : TUNE RQ 1514764-01 Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: INTP60.P

KR 11/30/15

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Nov 25 09:49:52 2015



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1625

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.1	83051	PASS
75	95	30	60	47.7	218496	PASS
95	95	100	100	100.0	457749	PASS
96	95	5	9	6.6	30259	PASS
173	174	0.00	2	1.2	3826	PASS
174	95	50	120	71.5	327424	PASS
175	174	5	9	7.6	24928	PASS
176	174	95	101	97.0	317547	PASS
177	176	5	9	6.5	20646	PASS

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1514665-04

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/25/15 00:29		473760	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/25/15 00:29		473760	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/25/15 00:29		473760	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/25/15 00:29		473760	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/25/15 00:29		473760	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 00:29		473760	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/25/15 00:29		473760	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/25/15 00:29		473760	
1,2,4-Trichlorobenzene	**0.54**	J	5.0	1.0	0.23	1	NA	11/25/15 00:29		473760	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/25/15 00:29		473760	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 00:29		473760	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/25/15 00:29		473760	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/25/15 00:29		473760	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 00:29		473760	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/25/15 00:29		473760	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/25/15 00:29		473760	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/25/15 00:29		473760	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/25/15 00:29		473760	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 00:29		473760	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/25/15 00:29		473760	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/25/15 00:29		473760	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/25/15 00:29		473760	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 00:29		473760	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/25/15 00:29		473760	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/25/15 00:29		473760	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/25/15 00:29		473760	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/25/15 00:29		473760	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/25/15 00:29		473760	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514665-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/25/15 00:29		473760	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/25/15 00:29		473760	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/25/15 00:29		473760	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/25/15 00:29		473760	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/25/15 00:29		473760	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/25/15 00:29		473760	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
Hexachlorobutadiene	**0.74**	J	5.0	1.0	0.62	1	NA	11/25/15 00:29		473760	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/25/15 00:29		473760	
Naphthalene	**0.43**	J	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/25/15 00:29		473760	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/25/15 00:29		473760	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/25/15 00:29		473760	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/25/15 00:29		473760	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/25/15 00:29		473760	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/25/15 00:29		473760	
n-Butylbenzene	**0.23**	J	5.0	1.0	0.21	1	NA	11/25/15 00:29		473760	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/25/15 00:29		473760	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/25/15 00:29		473760	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/25/15 00:29		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/25/15 00:29	
Dibromofluoromethane	111	85-115	11/25/15 00:29	
Toluene-d8	111	85-120	11/25/15 00:29	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	11/25/15 0029

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514665-04	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8367.D
Acq On : 25 Nov 2015 12:29 am
Operator : K.Ruest
Sample : VBLK RQ1514665-04 Inst : MSVOA-12
Misc :
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Dec 02 17:27:31 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	803317	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1333340	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1217326	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	575789	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.590	113	383473	55.32	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 110.64%			
48) surr1,1,2-dichloroetha...	6.090	65	409096	53.43	ppb	-0.01
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.86%			
65) SURR3,Toluene-d8	8.529	98	1621996	55.60	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 111.20%			
70) SURR2,BFB	11.047	95	612275	55.60	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.20%			
Target Compounds						Qvalue
109) n-Butylbenzene	12.327	91	4698	0.23	ppb	87
115) 1,2,4-Tcbenzene	13.607	180	4016	0.54	ppb	95
116) Hexachlorobt	13.747	225	2212	0.74	ppb #	61
117) Naphthalen	13.802	128	6632	0.43	ppb	78
118) 1,2,3-Tclbenzene	13.991	180	4286	0.69	ppb #	70

KB 12/2/15

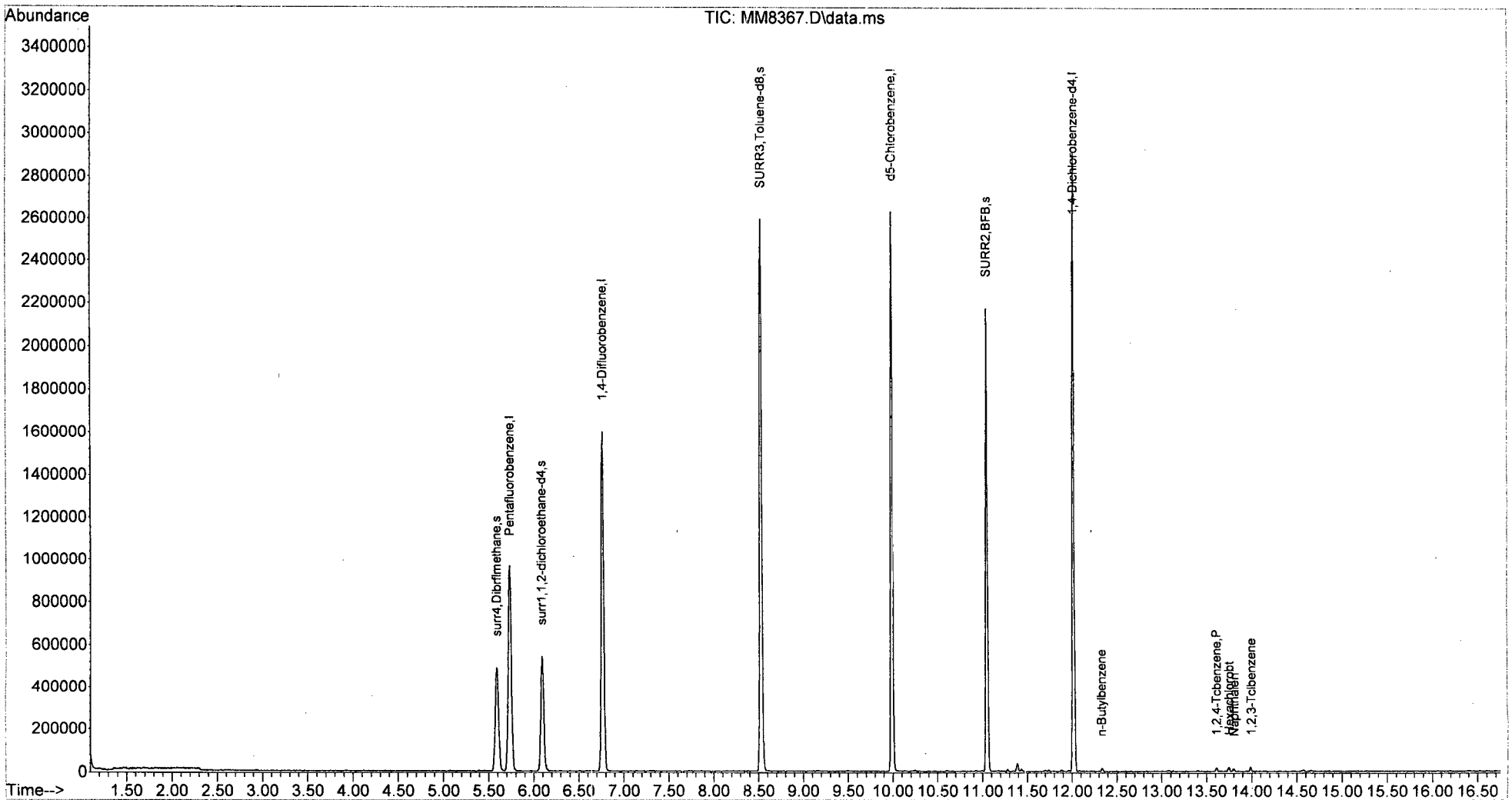
(#) = qualifier out of range (m) = manual integration (+) = signals summed

W111815A.M Wed Dec 02 17:29:41 2015 Page: 1

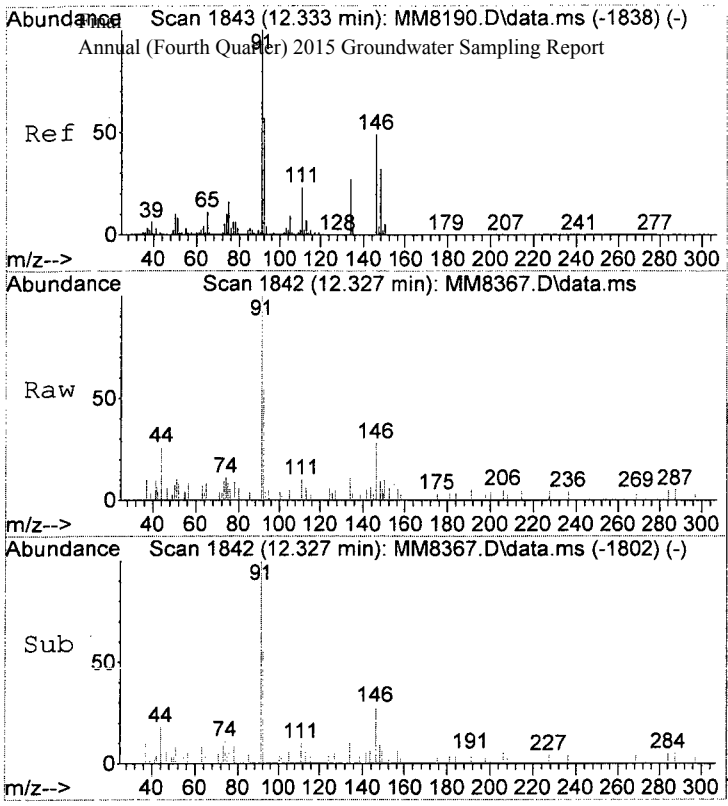
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8367.D
Acq On : 25 Nov 2015 12:29 am
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Dec 02 17:27:31 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



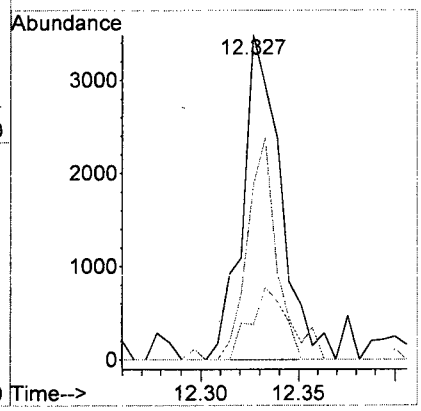
W111815A.M Wed Dec 02 17:29:44 2015 Page: 2

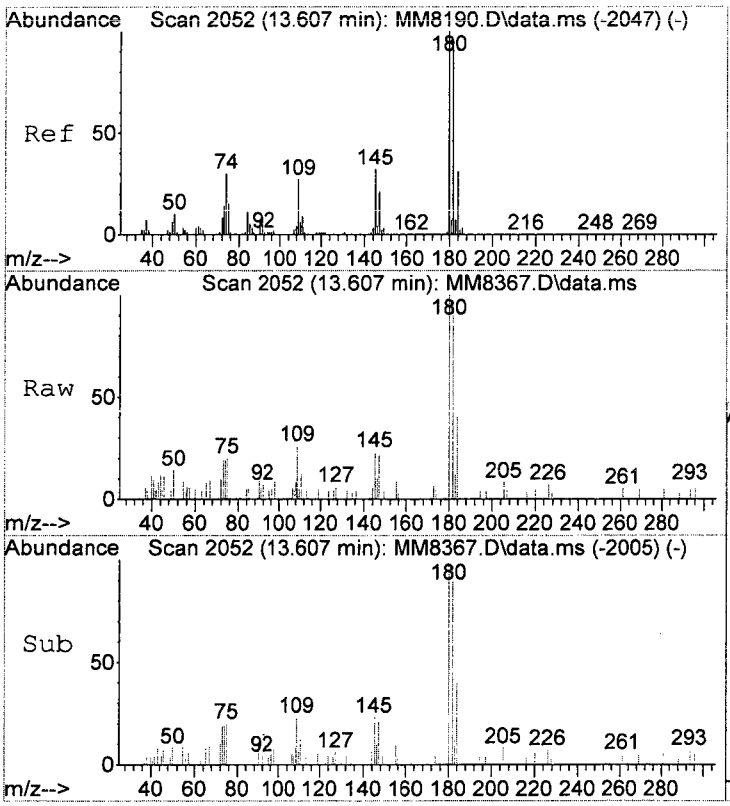


#109
n-Butylbenzene
Concen: 0.23 ppb
RT: 12.327 min Scan# 1842
Delta R.T. -0.006 min
Lab File: MM8367.D
Acq: 25 Nov 2015 12:29 am

Tgt Ion: 91 Resp: 4698

Ion	Ratio	Lower	Upper
91	100		
92	53.9	37.0	77.0
134	10.8	7.2	47.2

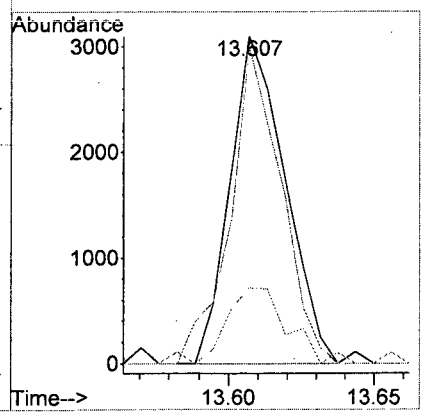


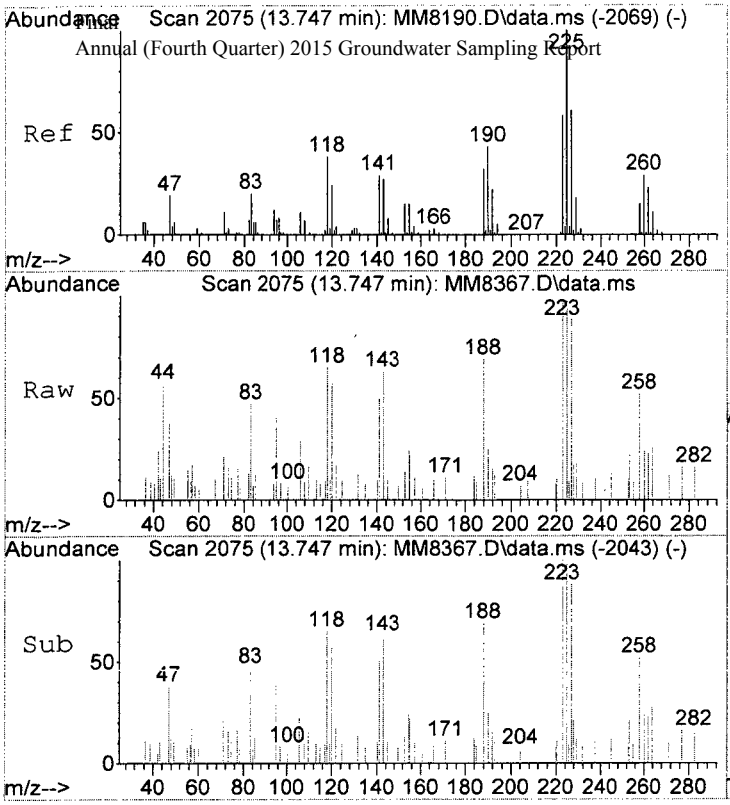


#115
1,2,4-Tcbenzene
Concen: 0.54 ppb
RT: 13.607 min Scan# 2052
Delta R.T. -0.006 min
Lab File: MM8367.D
Acq: 25 Nov 2015 12:29 am

Tgt Ion:180 Resp: 4016

Ion	Ratio	Lower	Upper
180	100		
182	96.6	75.7	115.7
145	23.1	12.1	52.1

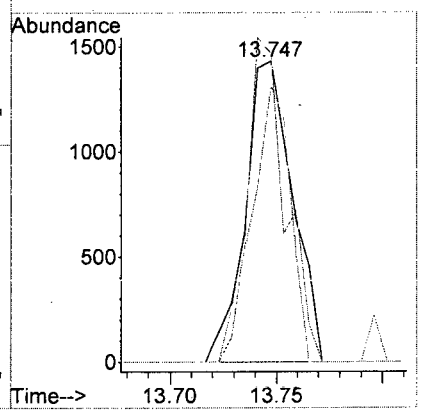


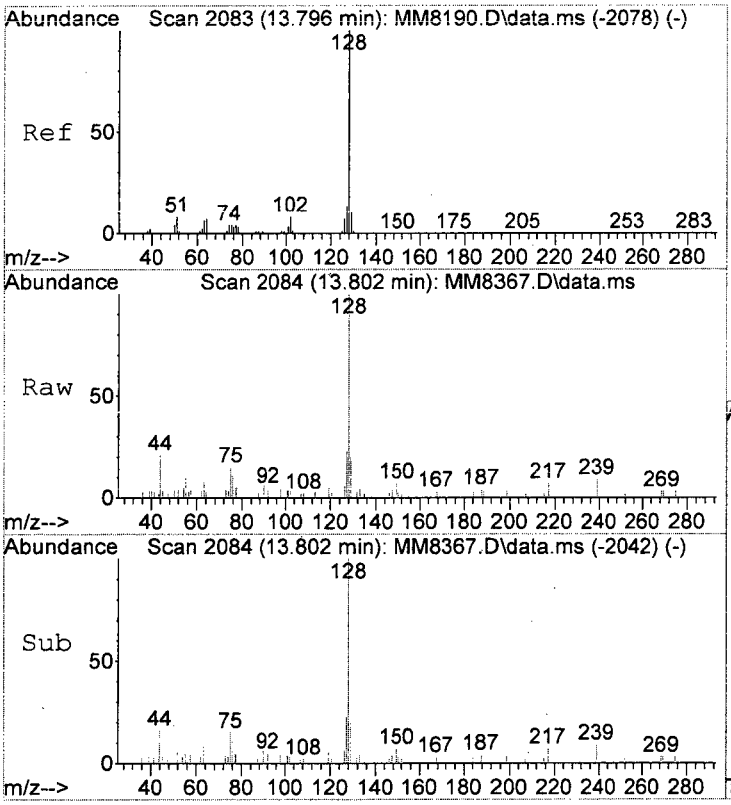


#116
Hexachlorobt
Concen: 0.74 ppb
RT: 13.747 min Scan# 2075
Delta R.T. 0.000 min
Lab File: MM8367.D
Acq: 25 Nov 2015 12:29 am

Tgt Ion:225 Resp: 2212

Ion	Ratio	Lower	Upper
225	100		
223	94.1	38.1	78.1#
227	84.2	41.1	81.1#

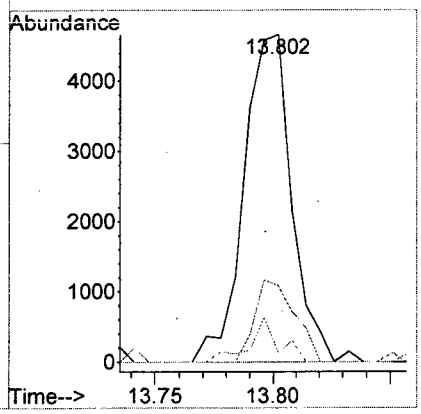


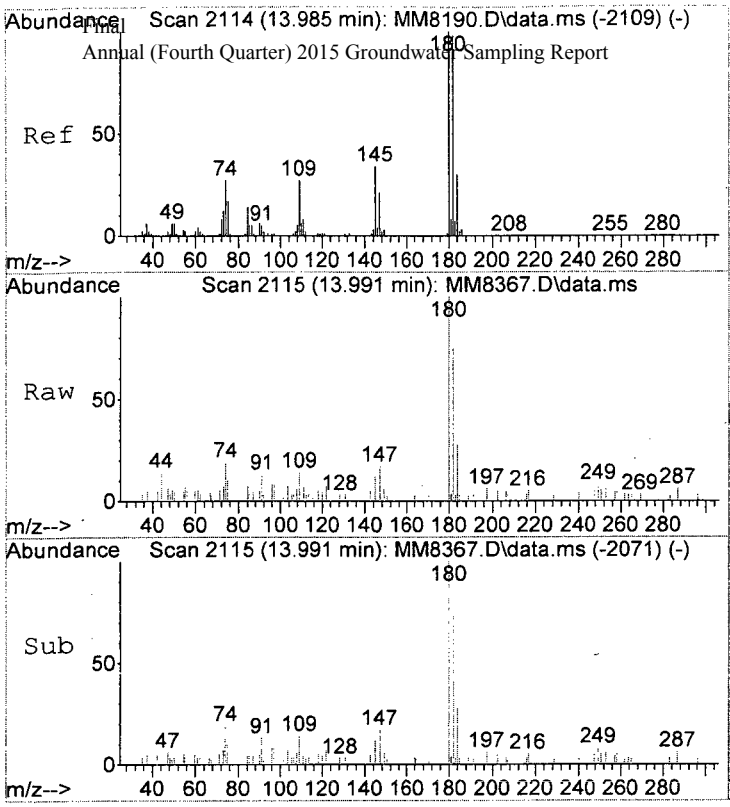


#117
Naphthalen
Concen: 0.43 ppb
RT: 13.802 min Scan# 2084
Delta R.T. -0.000 min
Lab File: MM8367.D
Acq: 25 Nov 2015 12:29 am

Tgt Ion:128 Resp: 6632

Ion	Ratio	Lower	Upper
128	100		
127	23.2	0.0	33.1
102	2.7	0.0	28.3

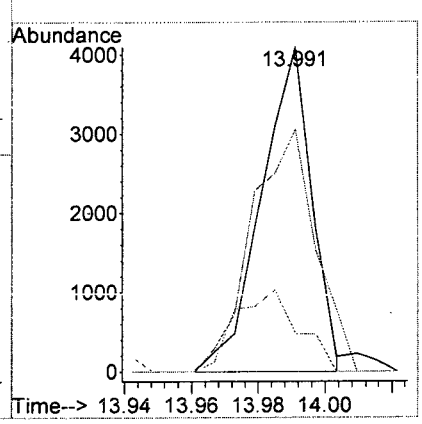




#118
1,2,3-Tclbenzene
Concen: 0.69 ppb
RT: 13.991 min Scan# 2115
Delta R.T. -0.000 min
Lab File: MM8367.D
Acq: 25 Nov 2015 12:29 am

Tgt Ion:180 Resp: 4286

Ion	Ratio	Lower	Upper
180	100		
182	72.4	78.5	118.5#
145	11.4	14.2	54.2#



MM8367.D W111815A.M Wed Dec 02 17:29:49 2015 Page 5

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8367.D
Acq On : 25 Nov 2015 12:29 am
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 30 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8367.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.590	727	737	748	rBV	484727	1220181	28.63%	5.495%
2	5.737	751	761	774	rVB	960781	2294582	53.84%	10.334%
3	6.090	811	819	833	rBV	539568	1212821	28.46%	5.462%
4	6.767	921	930	941	rBV	1596368	3077094	72.21%	13.858%
5	8.529	1210	1219	1230	rBV	2593990	4261565	100.00%	19.192%
6	9.986	1452	1458	1468	rBV	2628863	3666665	86.04%	16.513%
7	11.047	1626	1632	1643	rVB	2175153	2771427	65.03%	12.481%
8	11.388	1684	1688	1692	rBV2	34369	49161	1.15%	0.221%
9	12.016	1785	1791	1799	rVB	2907554	3650973	85.67%	16.443%

Sum of corrected areas: 22204469

```
Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8367.D
Acq On    : 25 Nov 2015  12:29 am
Operator  : K.Ruest
Sample    : VBLK                                    Inst    : MSVOA-12
Misc      :
ALS Vial  : 30   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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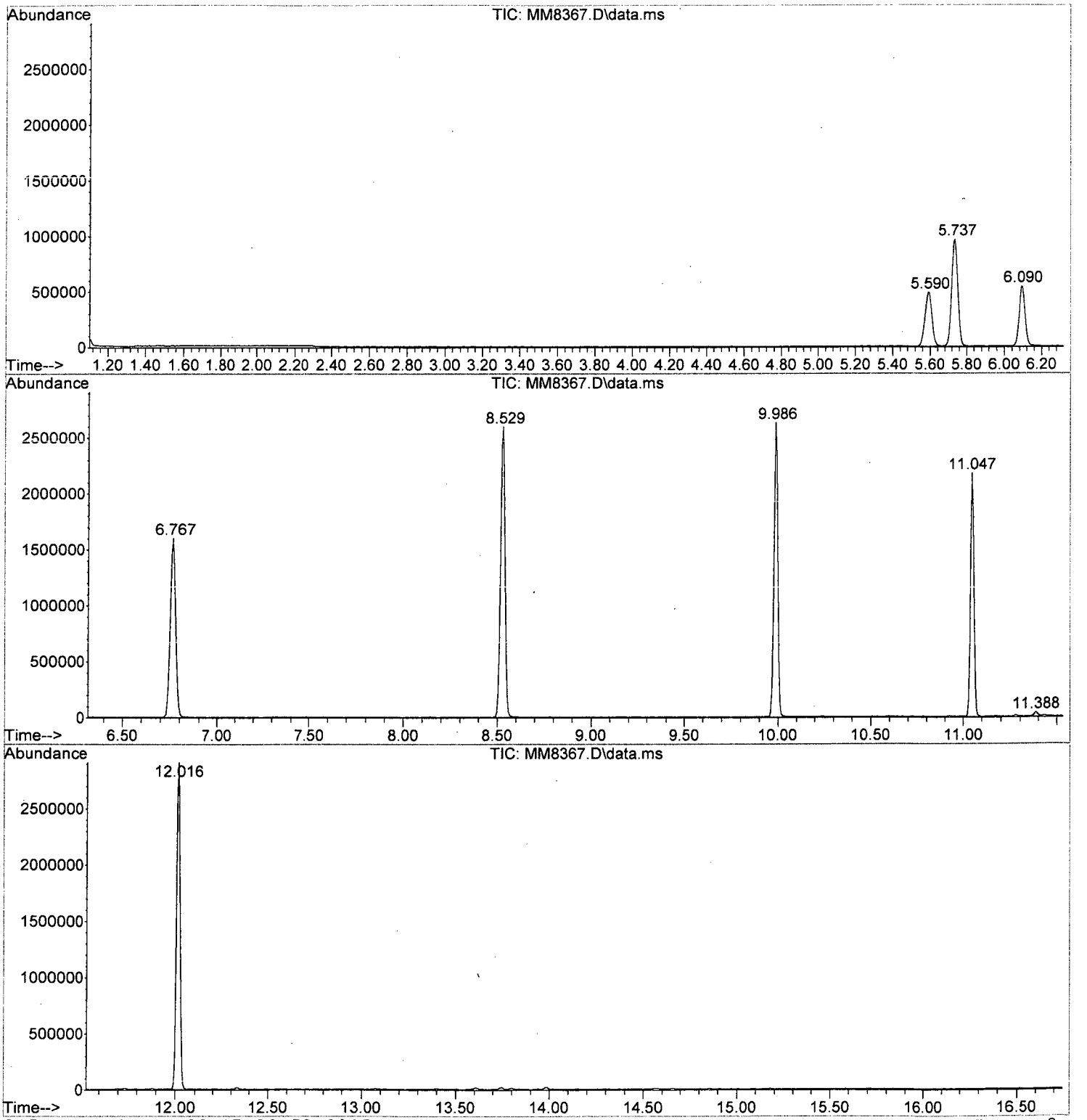


W111815A.M Wed Dec 02 17:29:58 2015 Page: 2

Data Path : I:\ACQUDATA\msvoa12\Data\112415\\
Data File : MM8367.D
Acq On : 25 Nov 2015 12:29 amm
Operator : K.Ruestt
Sample : VBLK Inst : MSVOA-122
Misc :
ALS Vial : 30 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1514764-04

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 12:34		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 12:34		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 12:34		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 12:34		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 12:34		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 12:34		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 12:34		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 12:34		474104	
1,2,4-Trichlorobenzene	**0.28**	J	5.0	1.0	0.23	1	NA	11/30/15 12:34		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 12:34		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 12:34		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 12:34		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 12:34		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 12:34		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 12:34		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 12:34		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 12:34		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 12:34		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 12:34		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 12:34		474104	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/30/15 12:34		474104	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 12:34		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 12:34		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 12:34		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 12:34		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 12:34		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 12:34		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 12:34		474104	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1514764-04

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 12:34		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 12:34		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 12:34		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 12:34		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 12:34		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 12:34		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Hexachlorobutadiene	**0.75**	J	5.0	1.0	0.62	1	NA	11/30/15 12:34		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 12:34		474104	
Naphthalene	**0.32**	J	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/30/15 12:34		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 12:34		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 12:34		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 12:34		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 12:34		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 12:34		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 12:34		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 12:34		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 12:34		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	11/30/15 12:34	
Dibromofluoromethane	112	85-115	11/30/15 12:34	
Toluene-d8	111	85-120	11/30/15 12:34	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	11/30/15 1234

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514764-04	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8394.D
Acq On : 30 Nov 2015 12:34 pm
Operator : K.Ruest
Sample : VBLK RQ1514764-04 Inst : MSVOA-12
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 03 12:25:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	853488	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1396437	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1271410	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	630849	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.590	113	405715	55.88	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery =	111.76%		
48) surr1,1,2-dichloroetha...	6.096	65	427869	53.35	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery =	106.70%		
65) SURR3,Toluene-d8	8.529	98	1701732	55.69	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery =	111.38%		
70) SURR2,BFB	11.047	95	649905	56.35	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery =	112.70%		
Target Compounds						Qvalue
115) 1,2,4-Tcbenzene	13.613	180	2267	0.28	ppb	# 41
116) Hexachlorobt	13.747	225	2445	0.75	ppb	87
117) Naphthalen	13.802	128	5351	0.32	ppb	90
118) 1,2,3-Tclbenzene	13.985	180	2956	0.44	ppb	# 74

(#) = qualifier out of range (m) = manual integration (+) = signals summed

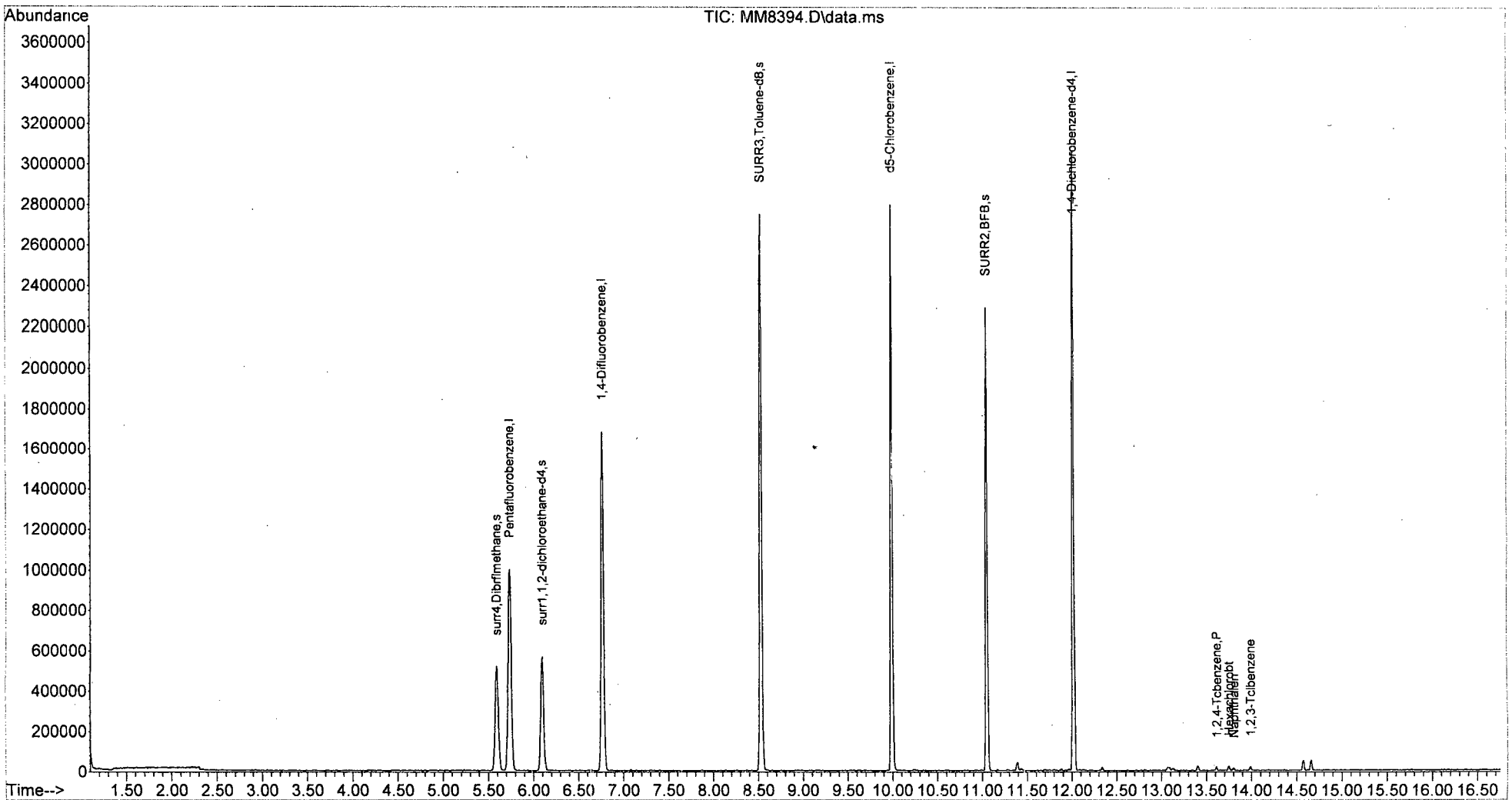
12/3/15

W111815A.M Thu Dec 03 12:27:19 2015 Page: 1

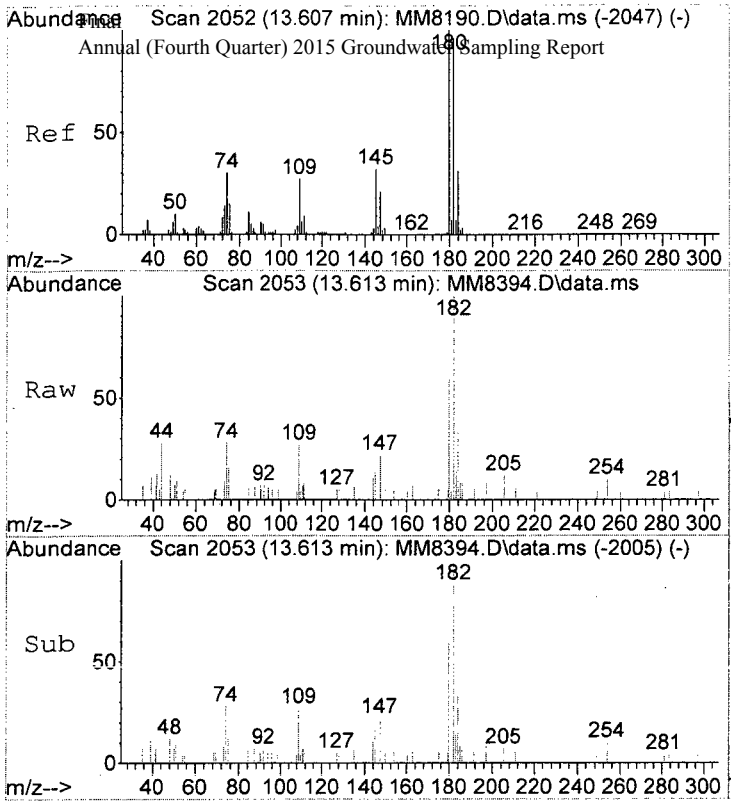
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8394.D
Acq On : 30 Nov 2015 12:34 pm
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 03 12:25:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



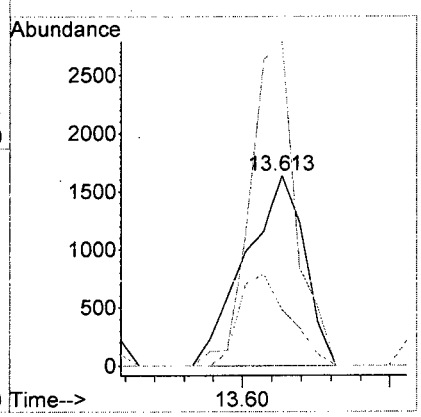
W111815A.M Thu Dec 03 12:27:23 2015 Page: 2

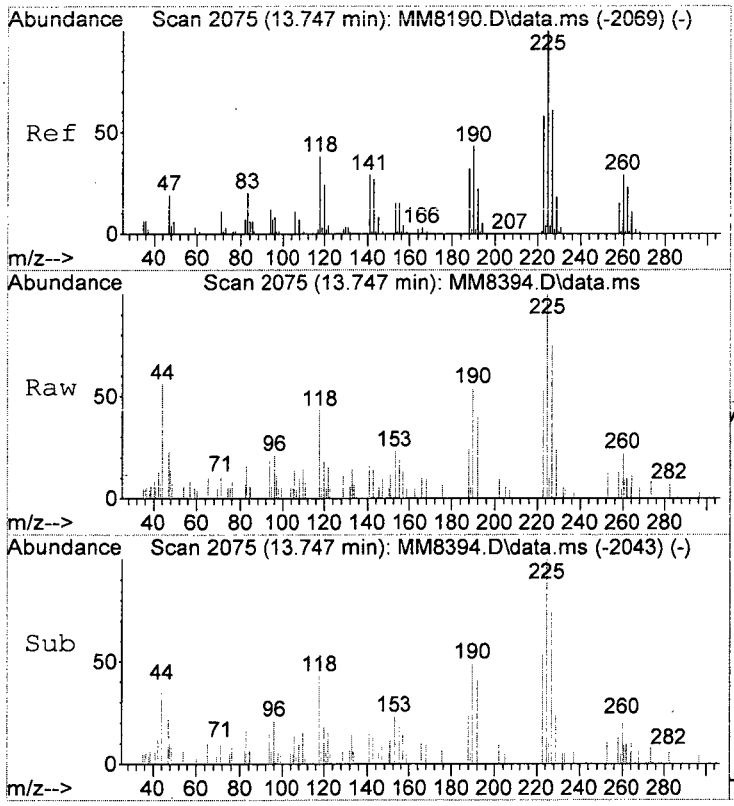


#115
1,2,4-Tcbenzene
Concen: 0.28 ppb
RT: 13.613 min Scan# 2053
Delta R.T. -0.000 min
Lab File: MM8394.D
Acq: 30 Nov 2015 12:34 pm

Tgt Ion:180 Resp: 2267

Ion	Ratio	Lower	Upper
180	100		
182	170.6	75.7	115.7#
145	29.5	12.1	52.1

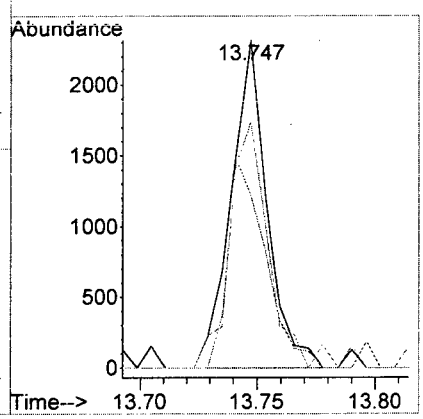


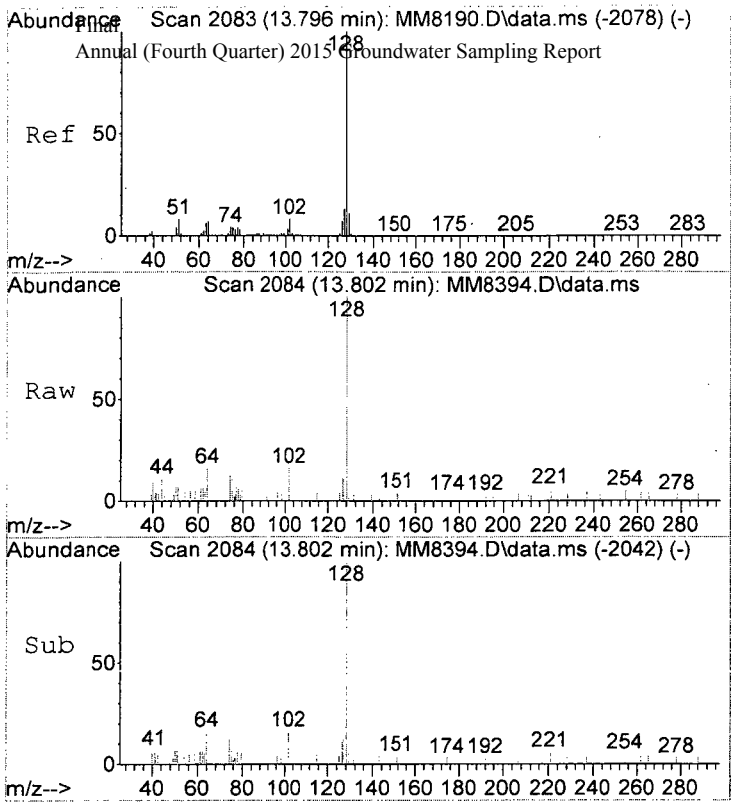


#116
Hexachlorobt
Concen: 0.75 ppb
RT: 13.747 min Scan# 2075
Delta R.T. 0.000 min
Lab File: MM8394.D
Acq: 30 Nov 2015 12:34 pm

Tgt Ion:225 Resp: 2445

Ion	Ratio	Lower	Upper
225	100		
223	52.8	38.1	78.1
227	75.1	41.1	81.1

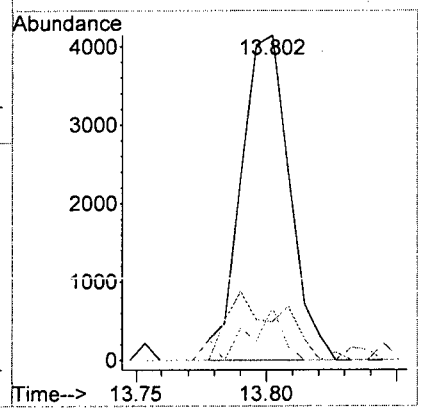


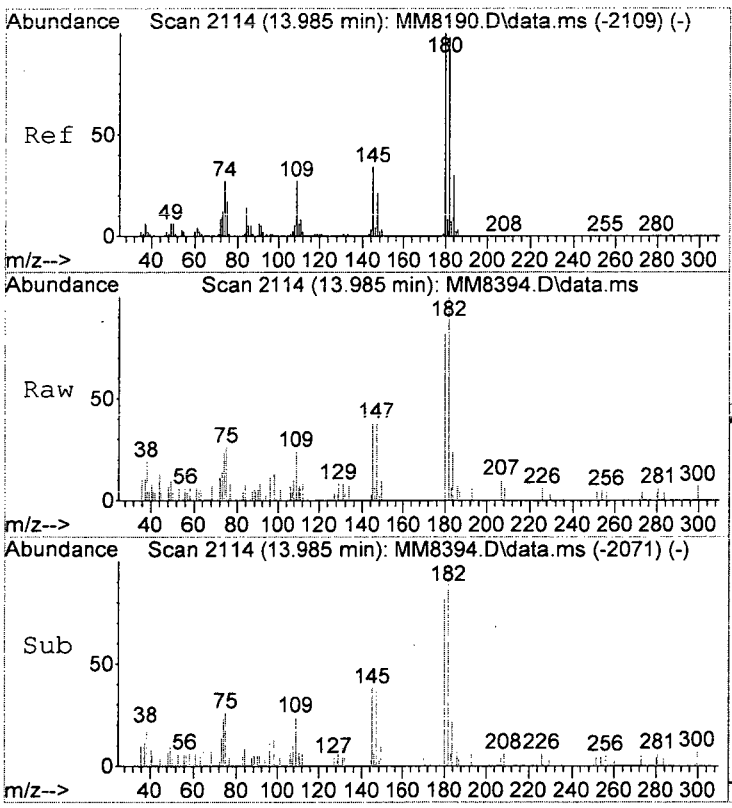


#117
Naphthalen
Concen: 0.32 ppb
RT: 13.802 min Scan# 2084
Delta R.T. -0.000 min
Lab File: MM8394.D
Acq: 30 Nov 2015 12:34 pm

Tgt Ion:128 Resp: 5351

Ion	Ratio	Lower	Upper
128	100		
127	11.8	0.0	33.1
102	16.0	0.0	28.3

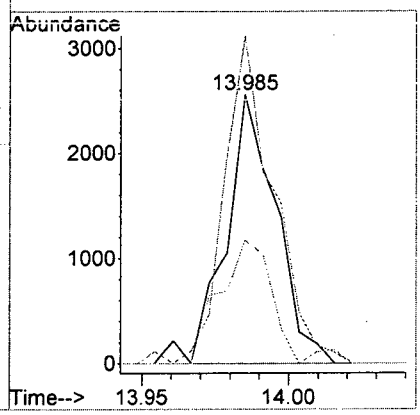




#118
1,2,3-Tclbenzene
Concen: 0.44 ppb
RT: 13.985 min Scan# 2114
Delta R.T. -0.006 min
Lab File: MM8394.D
Acq: 30 Nov 2015 12:34 pm

Tgt Ion:180 Resp: 2956

Ion	Ratio	Lower	Upper
180	100		
182	122.0	78.5	118.5#
145	53.7	14.2	54.2



Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8394.D
Acq On : 30 Nov 2015 12:34 pm
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8394.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.590	726	737	749	rBV	518466	1270440	28.64%	5.411%
2	5.737	751	761	775	rVB	1001201	2445086	55.12%	10.414%
3	6.096	811	820	830	rBV2	568251	1269434	28.62%	5.407%
4	6.767	918	930	941	rBV	1687305	3237237	72.98%	13.788%
5	8.529	1212	1219	1231	rVB	2752272	4435987	100.00%	18.893%
6	9.986	1452	1458	1469	rVB	2802038	3861411	87.05%	16.446%
7	11.047	1627	1632	1640	rVB	2296637	2903421	65.45%	12.366%
8	11.388	1684	1688	1693	rBV3	39902	59518	1.34%	0.253%
9	12.016	1785	1791	1798	rVB	3063222	3877695	87.41%	16.515%
10	14.570	2203	2210	2214	rVB2	47612	61750	1.39%	0.263%
11	14.656	2220	2224	2228	rVB2	46937	57380	1.29%	0.244%

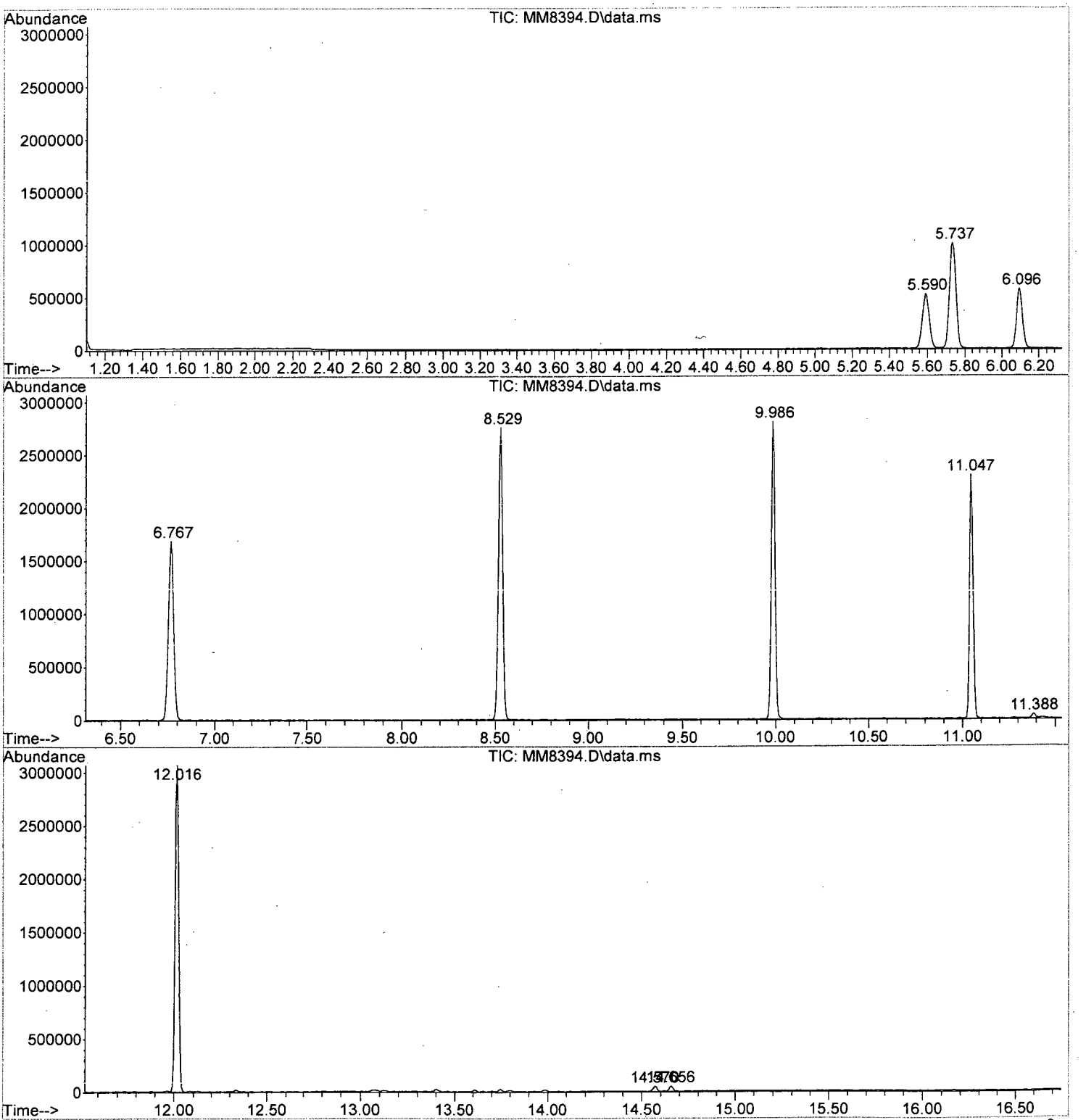
Sum of corrected areas: 23479359

W111815A.M Thu Dec 03 12:27:32 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8394.D
Acq On : 30 Nov 2015 12:34 pm
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



Data Path : I:\ACQUDATA\msvoa12\Data\113015\\
Data File : MM8394.D
Acq On : 30 Nov 2015 12:34 pmm
Operator : K.Ruestt
Sample : VBLK Inst : MSVOA-122
Misc :
ALS Vial : 8 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: NA
Date Received: NA

Sample Name: Lab Control Sample
Lab Code: RQ1514665-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**19.9**		5.0	1.0	0.22	1	NA	11/24/15 23:29		473760	
1,1,1-Trichloroethane (TCA)	**20.9**		5.0	1.0	0.36	1	NA	11/24/15 23:29		473760	
1,1,2,2-Tetrachloroethane	**20.5**		5.0	1.0	0.25	1	NA	11/24/15 23:29		473760	
1,1,2-Trichloroethane	**21.4**		5.0	1.0	0.34	1	NA	11/24/15 23:29		473760	
1,1-Dichloroethane (1,1-DCA)	**22.2**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
1,1-Dichloroethene (1,1-DCE)	**21.9**		5.0	1.0	0.57	1	NA	11/24/15 23:29		473760	
1,1-Dichloropropene	**22.4**		5.0	1.0	0.29	1	NA	11/24/15 23:29		473760	
1,2,3-Trichlorobenzene	**23.1**		5.0	1.0	0.82	1	NA	11/24/15 23:29		473760	
1,2,3-Trichloropropane	**21.2**		5.0	1.0	0.70	1	NA	11/24/15 23:29		473760	
1,2,4-Trichlorobenzene	**22.8**		5.0	1.0	0.23	1	NA	11/24/15 23:29		473760	
1,2,4-Trimethylbenzene	**21.9**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
1,2-Dibromo-3-chloropropane (DBCP)	**18.8**		5.0	1.0	0.74	1	NA	11/24/15 23:29		473760	
1,2-Dibromoethane	**20.2**		5.0	1.0	0.24	1	NA	11/24/15 23:29		473760	
1,2-Dichlorobenzene	**22.0**		5.0	1.0	0.21	1	NA	11/24/15 23:29		473760	
1,2-Dichloroethane	**20.8**		5.0	1.0	0.36	1	NA	11/24/15 23:29		473760	
1,2-Dichloropropane	**22.3**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
1,3,5-Trimethylbenzene	**22.8**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
1,3-Dichlorobenzene	**21.3**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
1,3-Dichloropropane	**21.5**		5.0	1.0	0.27	1	NA	11/24/15 23:29		473760	
1,4-Dichlorobenzene	**21.7**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
2,2-Dichloropropane	**19.5**		5.0	1.0	0.27	1	NA	11/24/15 23:29		473760	
2-Butanone (MEK)	**21.1**		5.0	1.0	0.81	1	NA	11/24/15 23:29		473760	
2-Chlorotoluene	**22.2**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
2-Hexanone	**19.0**		5.0	5.0	1.7	1	NA	11/24/15 23:29		473760	
tert-Butyl Alcohol	**414**		100	20	11	1	NA	11/24/15 23:29		473760	
4-Chlorotoluene	**22.7**		5.0	1.0	0.24	1	NA	11/24/15 23:29		473760	
p-Isopropyltoluene	**22.5**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
4-Methyl-2-pentanone	**20.0**		5.0	1.0	0.67	1	NA	11/24/15 23:29		473760	
Acetone	**18.9**		5.0	5.0	1.3	1	NA	11/24/15 23:29		473760	
Benzene	**21.9**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
Bromobenzene	**21.6**		5.0	1.0	0.28	1	NA	11/24/15 23:29		473760	
Bromochloromethane	**20.4**		5.0	1.0	0.32	1	NA	11/24/15 23:29		473760	
Bromodichloromethane	**20.5**		5.0	1.0	0.32	1	NA	11/24/15 23:29		473760	
Bromoform	**19.0**		5.0	1.0	0.42	1	NA	11/24/15 23:29		473760	
Bromomethane	**20.6**		5.0	1.0	0.29	1	NA	11/24/15 23:29		473760	
Carbon Tetrachloride	**19.9**		5.0	1.0	0.45	1	NA	11/24/15 23:29		473760	
Chlorobenzene	**20.7**		5.0	1.0	0.29	1	NA	11/24/15 23:29		473760	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514665-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**21.7**		5.0	1.0	0.24	1	NA	11/24/15 23:29		473760	
Chloroform	**20.3**		5.0	1.0	0.25	1	NA	11/24/15 23:29		473760	
Chloromethane	**20.3**		5.0	1.0	0.21	1	NA	11/24/15 23:29		473760	
Dibromochloromethane	**20.3**		5.0	1.0	0.31	1	NA	11/24/15 23:29		473760	
Dichlorodifluoromethane (CFC 12)	**22.2**		5.0	1.0	0.46	1	NA	11/24/15 23:29		473760	
Methylene Chloride	**20.1**		5.0	1.0	0.60	1	NA	11/24/15 23:29		473760	
Ethylbenzene	**21.0**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
Hexachlorobutadiene	**23.7**		5.0	1.0	0.62	1	NA	11/24/15 23:29		473760	
Isopropylbenzene (Cumene)	**22.0**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
Methyl tert-Butyl Ether	**20.5**		5.0	1.0	0.29	1	NA	11/24/15 23:29		473760	
Naphthalene	**22.4**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
Styrene	**20.8**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
Tetrachloroethene (PCE)	**21.5**		5.0	1.0	0.30	1	NA	11/24/15 23:29		473760	
Toluene	**21.4**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
Trichloroethene (TCE)	**20.9**		5.0	1.0	0.22	1	NA	11/24/15 23:29		473760	
Trichlorofluoromethane (CFC 11)	**22.3**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
Vinyl Chloride	**21.2**		5.0	1.0	0.32	1	NA	11/24/15 23:29		473760	
cis-1,2-Dichloroethene	**22.0**		5.0	1.0	0.30	1	NA	11/24/15 23:29		473760	
cis-1,3-Dichloropropene	**20.3**		5.0	1.0	0.24	1	NA	11/24/15 23:29		473760	
m,p-Xylenes	**41.6**		10	2.0	0.33	1	NA	11/24/15 23:29		473760	
n-Butylbenzene	**22.9**		5.0	1.0	0.21	1	NA	11/24/15 23:29		473760	
n-Propylbenzene	**22.1**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
o-Xylene	**20.6**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
sec-Butylbenzene	**22.0**		5.0	1.0	0.27	1	NA	11/24/15 23:29		473760	
tert-Butylbenzene	**21.9**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	
trans-1,2-Dichloroethene	**21.6**		5.0	1.0	0.33	1	NA	11/24/15 23:29		473760	
trans-1,3-Dichloropropene	**20.8**		5.0	1.0	0.20	1	NA	11/24/15 23:29		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	11/24/15 23:29	
Dibromofluoromethane	110	85-115	11/24/15 23:29	
Toluene-d8	114	85-120	11/24/15 23:29	

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8365.D
Acq On : 24 Nov 2015 11:29 pm
Operator : K.Ruest
Sample : LCS RQ1514665-03 Inst : MSVOA-12
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 25 11:16:29 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	774066	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1293508	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1206845	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	562911	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	369766	54.98	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.96%				
48) surr1,1,2-dichloroetha...	6.096	65	400669	53.94	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.88%				
65) SURR3,Toluene-d8	8.529	98	1609274	56.86	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 113.72%				
70) SURR2,BFB	11.047	95	597905	55.96	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.92%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.213	85	242433	22.23	ppb		97
3) Chloromethane	1.347	50	264442	20.31	ppb		99
4) Vinyl Chloride	1.433	62	257394	21.22	ppb		96
5) Bromomethane	1.689	94	121742	20.55	ppb		99
6) Chloroethane	1.768	64	144455	21.66	ppb		99
7) Freon 21	1.926	67	293301	22.71	ppb		99
8) Trichlorofluoromethane	1.975	101	210297	22.26	ppb		96
9) Diethyl Ether	2.231	59	130927	22.09	ppb		99
10) Freon 123a	2.237	67	184700	21.88	ppb		96
11) Freon 123	2.292	83	194432	19.98	ppb		94
12) Acrolein	2.341	56	25184	38.18	ppb		94
13) 1,1-Diclethene	2.432	96	141580	21.87	ppb		97
14) Freon 113	2.445	101	133242	22.62	ppb		96
15) Acetone	2.481	43	31263	18.94	ppb		95
16) 2-Propanol	2.640	45	118579	378.68	ppb		98
17) Iodomethane	2.573	142	138023	18.77	ppb		91
18) Carbon Disulfide	2.634	76	451275	20.87	ppb		99
19) Acetonitrile	2.755	40	23837	104.15	ppb		89
20) Allyl Chloride	2.792	76	79387m	22.02	ppb		
21) Methyl Acetate	2.823	43	74203m	19.30	ppb		
22) Methylene Chloride	2.926	84	149936	20.06	ppb		96
23) TBA	3.085	59	210410	414.03	ppb		98
24) Acrylonitrile	3.207	53	187606	100.44	ppb		97
25) Methyl-t-Butyl Ether	3.261	73	369641	20.52	ppb		98
26) trans-1,2-Dichloroethene	3.243	96	150247	21.55	ppb		88
28) 1,1-Diclethane	3.792	63	275267	22.20	ppb		96
29) Vinyl Acetate	3.902	86	24650	19.08	ppb	#	68
31) 2-Chloro-1,3-Butadiene	3.920	53	257018	20.61	ppb		91
33) 2,2-Dichloropropane	4.700	77	193413	19.50	ppb		95
34) cis-1,2-Dichloroethene	4.712	96	169645	21.98	ppb		91
35) 2-Butanone	4.779	43	47721	21.11	ppb		97
36) Propionitrile	4.865	54	67653	98.01	ppb		94
37) Bromochloromethane	5.145	130	81489	20.44	ppb		97
38) Methacrylonitrile	5.151	67	46362	21.19	ppb		95

KB 12/3/15

Data Path : I:\ACQUDATA\MSVOA12\DATA\151124\15\
Data File : MM8365.D
Acq On : 24 Nov 2015 11:29 pm
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 25 11:16:29 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Tetrahydrofuran	5.237	42	30107	20.71	ppb	94
40) Chloroform	5.328	83	244249	20.27	ppb	99
41) 1,1,1-Trichloroethane	5.590	97	197565	20.87	ppb	95
44) Cyclohexane	5.676	41	132677	18.77	ppb	96
46) Carbontetrachloride	5.852	121	49283	19.90	ppb	94
47) 1,1-Dichloropropene	5.871	75	204375	22.39	ppb	95
49) Benzene	6.169	78	622408	21.86	ppb	98
50) 1,2-Dichloroethane	6.212	62	152015	20.83	ppb	96
51) Iso-Butyl Alcohol	6.200	43	98656	413.44	ppb	98
52) n-Heptane	6.645	43	162969	20.80	ppb	96
54) Trichloroethene	7.084	130	150953	20.87	ppb	92
55) Methylcyclohexane	7.309	55	164811	18.90	ppb	98
56) 1,2-Diclpropane	7.352	63	156957	22.25	ppb	97
57) Dibromomethane	7.486	93	70988	20.44	ppb	99
58) 1,4-Dioxane	7.547	88	23105m	446.66	ppb	
59) Methyl Methacrylate	7.572	69	83852	20.54	ppb	94
60) Bromodichloromethane	7.712	83	176846	20.45	ppb	97
61) 2-Nitropropane	7.980	41	45870	36.01	ppb	95
62) 2-Chloroethylvinyl Ether	8.108	63	76171	19.57	ppb	95
63) cis-1,3-Dichloropropene	8.236	75	234834	20.26	ppb	98
64) 4-Methyl-2-pentanone	8.437	43	103185	20.00	ppb	97
66) Toluene	8.602	91	631905	21.43	ppb	99
67) trans-1,3-Dichloropropene	8.864	75	191462	20.79	ppb	98
68) Ethyl Methacrylate	8.998	69	173662	21.30	ppb	94
69) 1,1,2-Trichloroethane	9.047	97	106422	21.35	ppb	97
72) Tetrachloroethene	9.181	164	107535	21.48	ppb	94
73) 2-Hexanone	9.327	43	70043	18.96	ppb	100
74) 1,3-Dichloropropane	9.212	76	197439	21.52	ppb	99
75) Dibromochloromethane	9.431	129	116123	20.34	ppb	97
76) N-Butyl Acetate	9.480	43	171133	19.39	ppb	92
77) 1,2-Dibromoethane	9.529	107	98789	20.20	ppb	98
78) Chlorobenzene	10.016	112	368786	20.66	ppb	99
81) 1,1,1,2-Tetrachloroethane	10.102	131	122512	19.86	ppb	97
82) Ethylbenzene	10.132	106	212577	21.02	ppb	92
83) (m+p)Xylene	10.242	106	518596	41.55	ppb	94
84) o-Xylene	10.595	106	262980	20.57	ppb	95
85) Styrene	10.608	104	433360	20.81	ppb	99
87) Bromoform	10.760	173	60636	18.96	ppb	99
89) Isopropylbenzene	10.925	105	644570	22.02	ppb	99
90) Cyclohexanone	10.986	55	292989	690.37	ppb	99
91) trans-1,4-Dichloro-2-B...	11.229	53	34276	19.66	ppb	98
92) 1,1,2,2-Tetrachloroethane	11.181	83	121406	20.53	ppb	96
93) Bromobenzene	11.168	156	142925	21.58	ppb	99
94) 1,2,3-Trichloropropane	11.211	110	33548	21.17	ppb	96
95) n-Propylbenzene	11.278	91	744050	22.05	ppb	97
96) 2-Chlorotoluene	11.339	91	439136	22.20	ppb	99
98) 4-Chlorotoluene	11.431	91	507435	22.74	ppb	92
99) 1,3,5-Trimethylbenzene	11.431	105	505840	22.84	ppb	96
100) tert-Butylbenzene	11.699	119	432137	21.87	ppb	98
101) 1,2,4-Trimethylbenzene	11.735	105	519592	21.86	ppb	97
103) sec-Butylbenzene	11.882	105	609130	22.03	ppb	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\112415\
Data File : MM8365.D
Acq On : 24 Nov 2015 11:29 pm
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 28 Sample Multiplier: 1

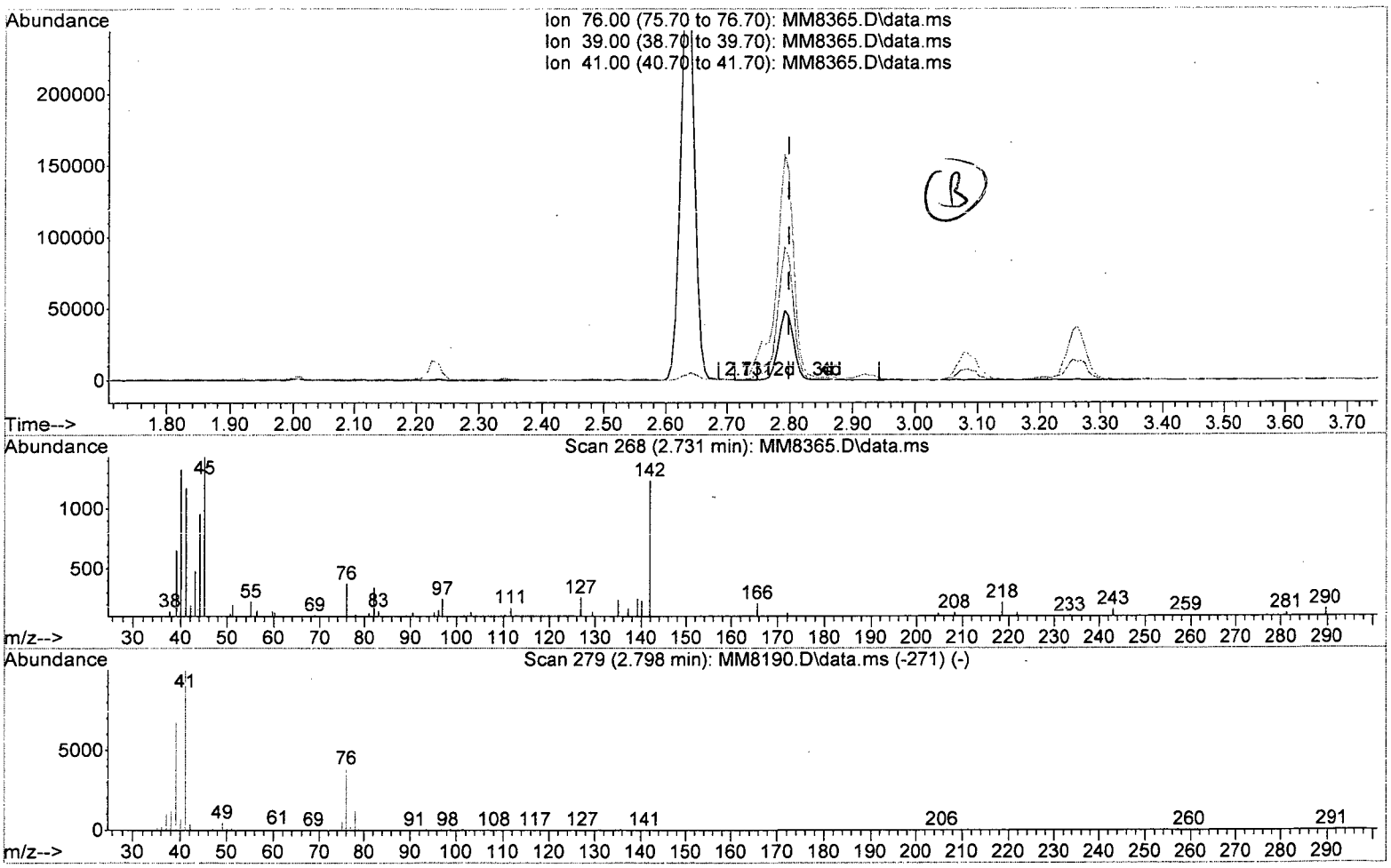
Quant Time: Nov 25 11:16:29 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
104)	p-Isopropyltoluene	11.998	119	481196	22.51	ppb		98
105)	1,3-Dclbenz	11.961	146	273468	21.33	ppb		96
106)	1,4-Dclbenz	12.034	146	260830	21.70	ppb		97
109)	n-Butylbenzene	12.333	91	463378	22.88	ppb		100
110)	1,2-Dclbenz	12.333	146	259390	21.98	ppb		95
111)	1,2-Dibromo-3-chloropr...	12.955	157	21445	18.79	ppb	#	75
114)	Coelution Dichlorotoluene	13.400	125	2456	0.23	ppb	#	76
115)	1,2,4-Tcbenzene	13.607	180	165724	22.76	ppb		96
116)	Hexachlorobt	13.747	225	68872	23.69	ppb		82
117)	Naphthalen	13.796	128	337813	22.37	ppb		97
118)	1,2,3-Tclbenzene	13.985	180	140138	23.14	ppb		97
119)	2,4,5-Trichlorotolene	14.570	159	3623	0.81	ppb	#	72
120)	2,3,6-Trichlorotoluene	14.656	159	2894	0.73	ppb	#	72

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSVOA12\DATA\111415\
Data File : MM8365.D
Acq On : 24 Nov 2015 11:29 pm
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 25 10:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8365.D\data.ms

(20) Allyl Chloride

2.731min (-0.067) 0.17 ppb

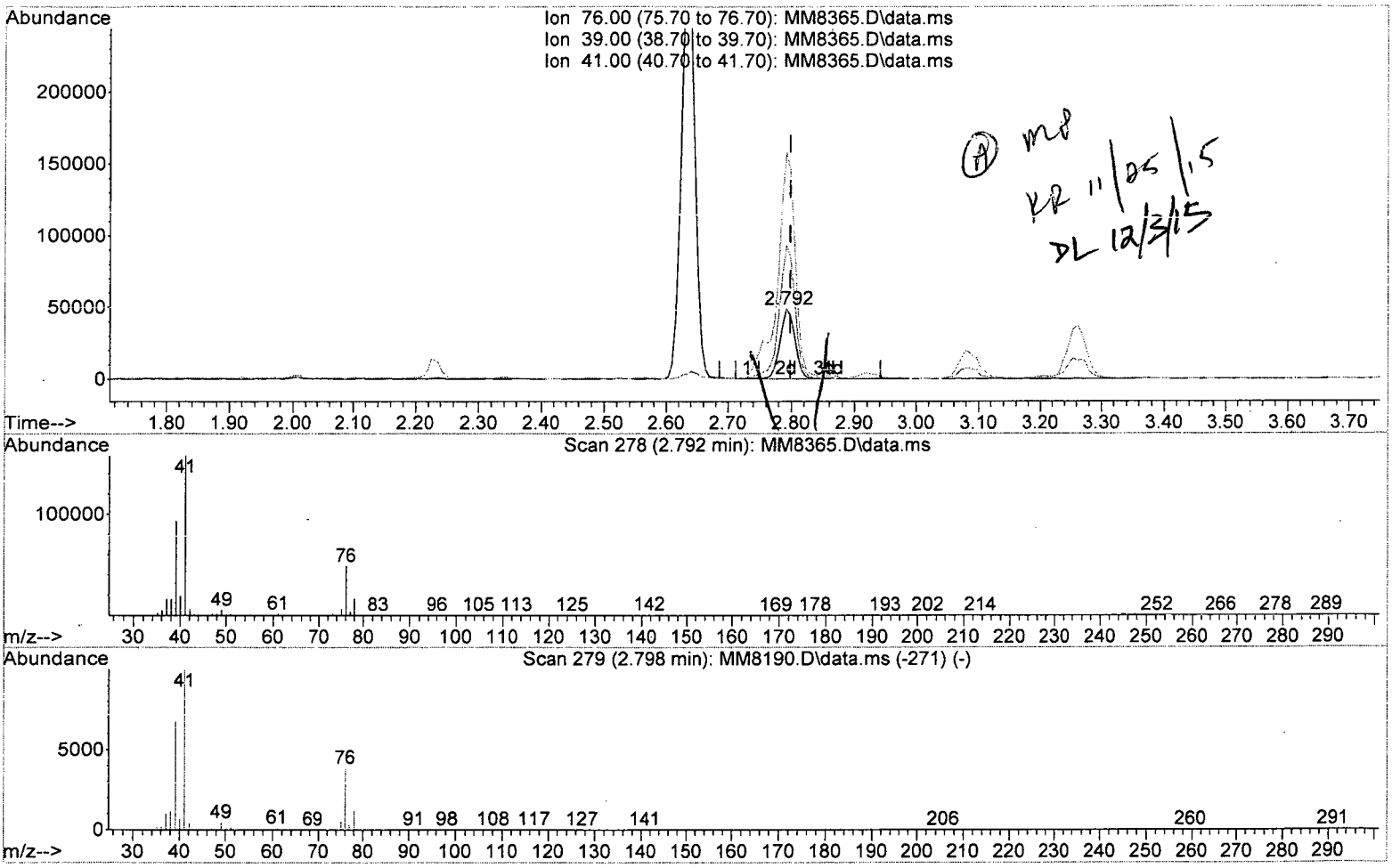
response 627

Ion	Exp%	Act%
76.00	100	100
39.00	181.80	174.26
41.00	297.00	313.67
0.00	0.00	0.00

W111815A.M Wed Nov 25 11:14:56 2015 Page: 1

Data Path : I:\ACQUDATA\MSVOA12\DATA\112415\
Data File : MM8365.D
Acq On : 24 Nov 2015 11:29 pm
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 25 10:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8365.D\data.ms

(20) Allyl Chloride

2.792min (-0.006) 22.02 ppb m

response 79387

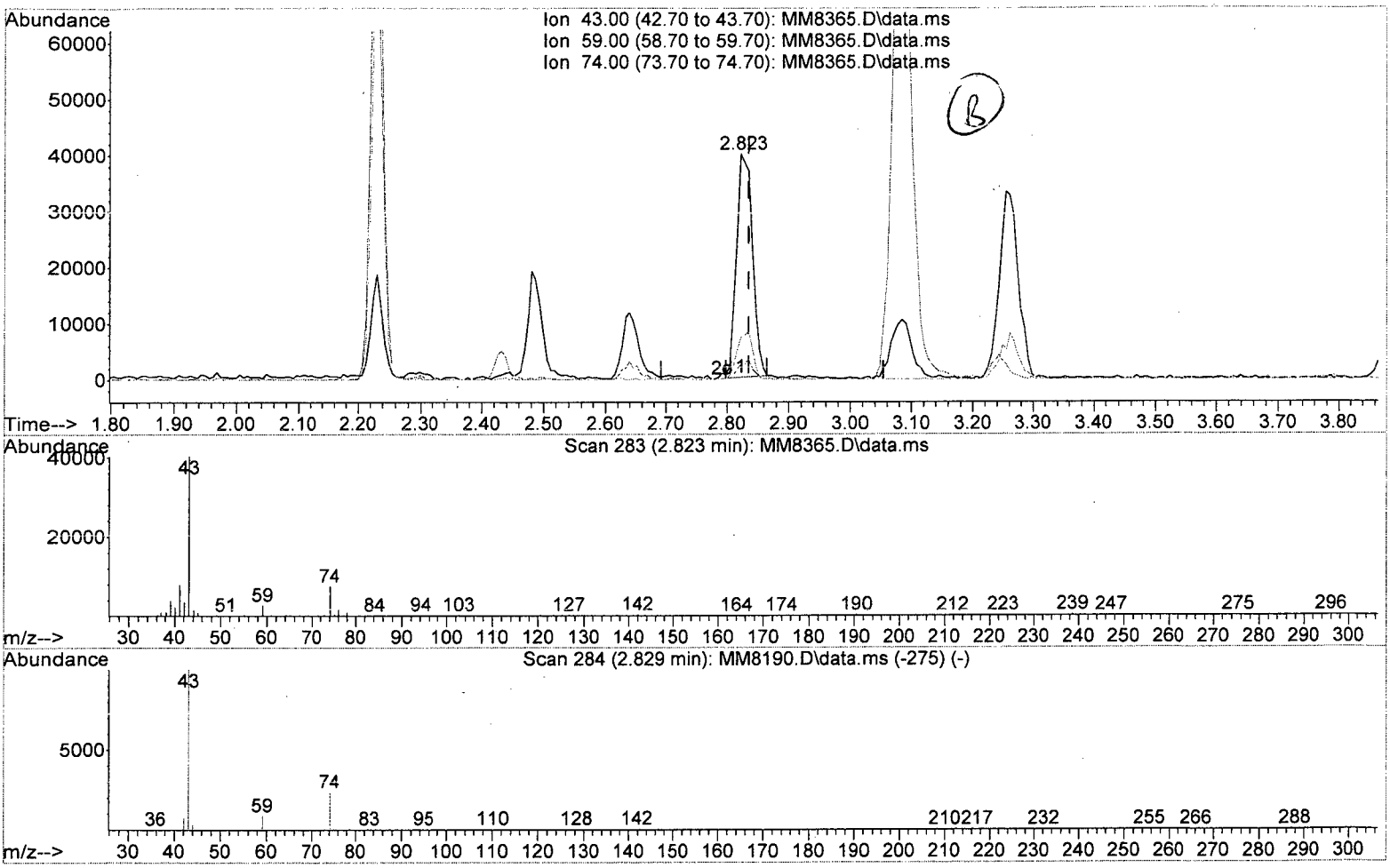
Ion	Exp%	Act%
76.00	100	100
39.00	181.80	191.43
41.00	297.00	324.25#
0.00	0.00	0.00

W111815A.M Wed Nov 25 11:15:02 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\MSVOA12\DATA\112415\
Data File : MM8365.D
Acq On : 24 Nov 2015 11:29 pm
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 25 10:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8365.D\data.ms

(21) Methyl Acetate (P)

2.823min (-0.012) 18.47 ppb

response 71014

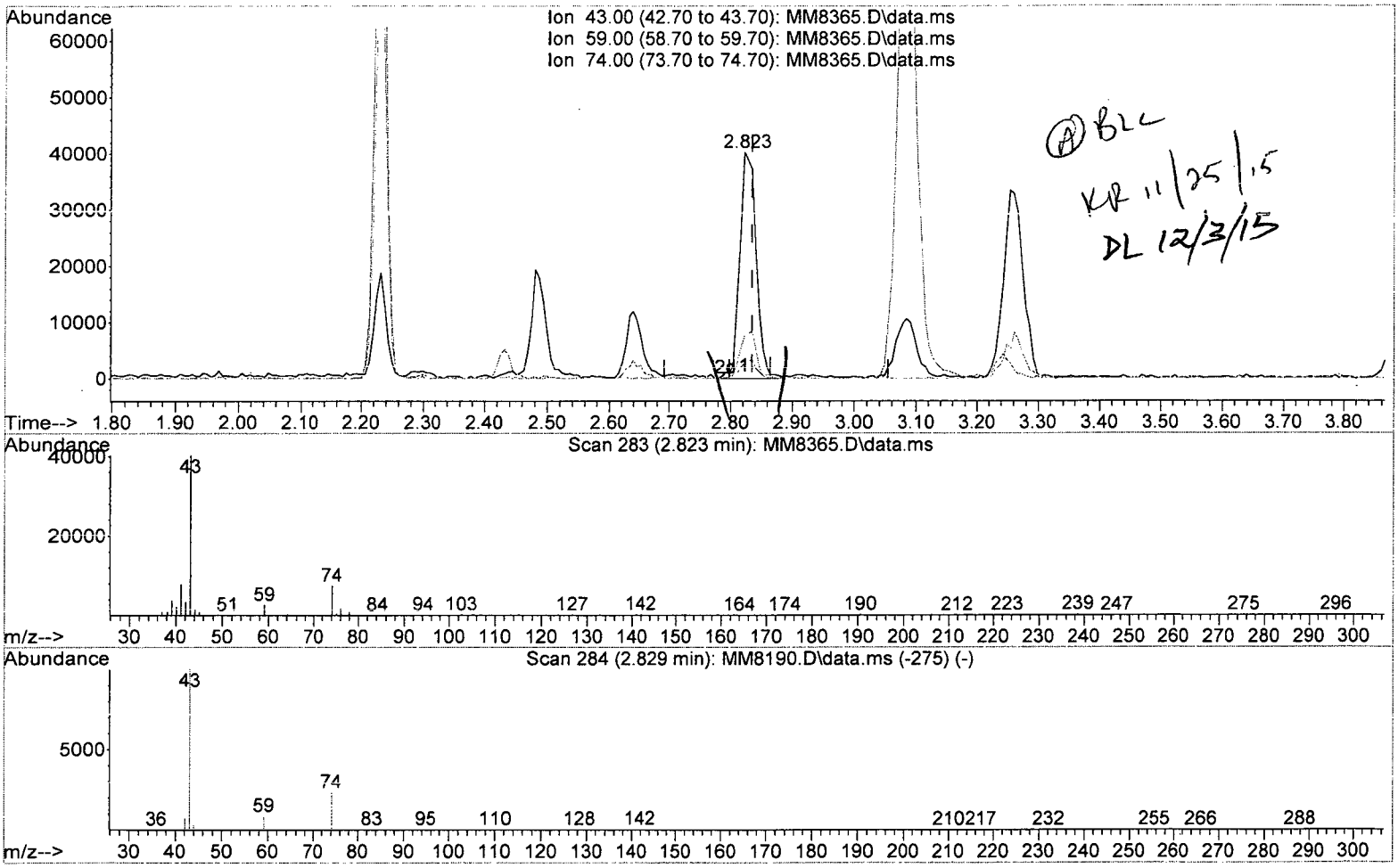
Ion	Exp%	Act%
43.00	100	100
59.00	8.60	6.68
74.00	23.60	18.60
0.00	0.00	0.00

W111815A.M Wed Nov 25 11:15:16 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8365.D
Acq On : 24 Nov 2015 11:29 pm
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 25 10:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



@ BLC
KP 11/25/15
DL 12/3/15

TIC: MM8365.D\data.ms

(21) Methyl Acetate (P)

2.823min (-0.012) 19.30 ppb m

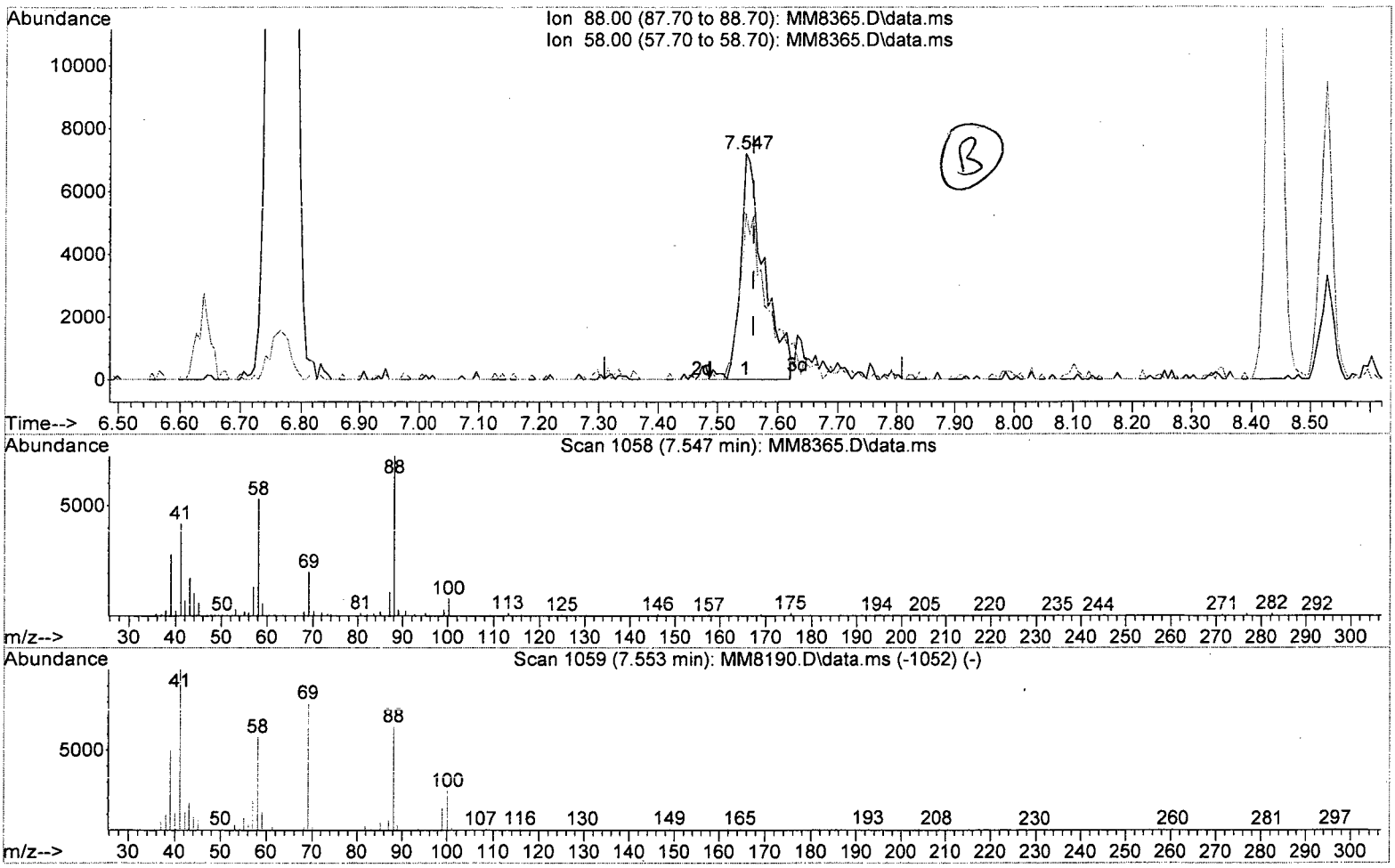
response 74203

Ion	Exp%	Act%
43.00	100	100
59.00	8.60	6.68
74.00	23.60	18.60
0.00	0.00	0.00

W111815A.M Wed Nov 25 11:15:25 2015 Page: 1

```
Data Path : I:\ACQUDATA\MSVOA12\Data\112415\
Data File : MM8365.D
Acq On    : 24 Nov 2015  11:29 pm
Operator  : K.Ruest
Sample    : LCS                                    Inst    : MSVOA-12
Misc      :
ALS Vial  : 28   Sample Multiplier: 1

Quant Time: Nov 25 10:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration
```



TIC: MM8365.D\data.ms

(58) 1,4-Dioxane

7.547min (-0.012) 373.82 ppb

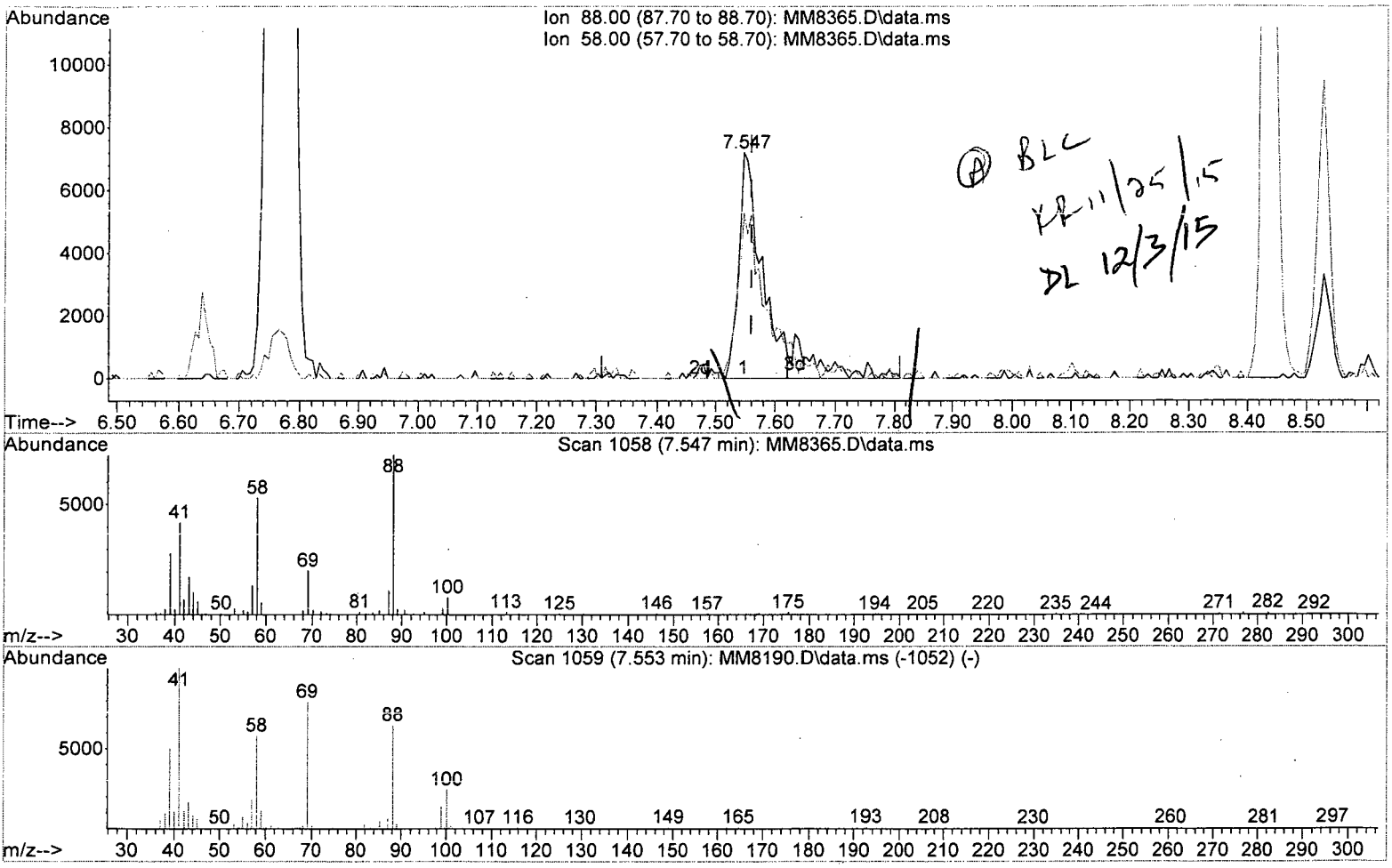
response 19337

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	73.44
0.00	0.00	0.00
0.00	0.00	0.00

W111815A.M Wed Nov 25 11:15:59 2015 Page: 1

Data Path : I:\ACQUDATA\MSVOA12\Data\112415\
Data File : MM8365.D
Acq On : 24 Nov 2015 11:29 pm
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 25 10:19:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



BLC 11/25/15
DL 12/3/15

TIC: MM8365.D\data.ms

(58) 1,4-Dioxane

7.547min (-0.012) 446.66 ppb m

response 23105

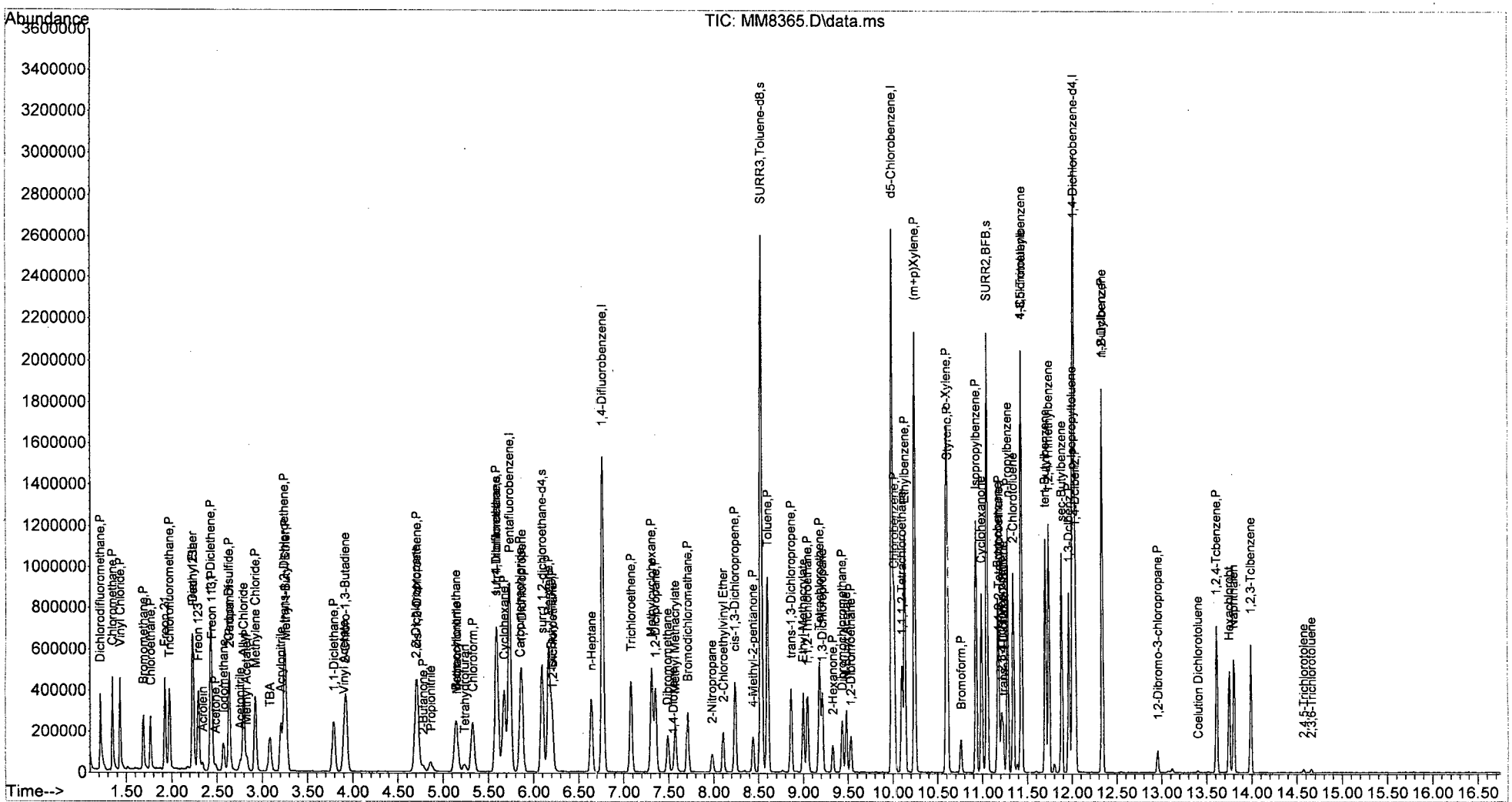
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	73.44
0.00	0.00	0.00
0.00	0.00	0.00

W111815A.M Wed Nov 25 11:16:06 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8365.D
Acq On : 24 Nov 2015 11:29 pm
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 25 11:16:29 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Wed Nov 25 11:16:51 2015 Page: 4

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: NA
Date Received: NA

Sample Name: Lab Control Sample
Lab Code: RQ1514764-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**20.5**		5.0	1.0	0.22	1	NA	11/30/15 11:33		474104	
1,1,1-Trichloroethane (TCA)	**21.3**		5.0	1.0	0.36	1	NA	11/30/15 11:33		474104	
1,1,2,2-Tetrachloroethane	**19.2**		5.0	1.0	0.25	1	NA	11/30/15 11:33		474104	
1,1,2-Trichloroethane	**20.2**		5.0	1.0	0.34	1	NA	11/30/15 11:33		474104	
1,1-Dichloroethane (1,1-DCA)	**21.6**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
1,1-Dichloroethene (1,1-DCE)	**21.7**		5.0	1.0	0.57	1	NA	11/30/15 11:33		474104	
1,1-Dichloropropene	**22.3**		5.0	1.0	0.29	1	NA	11/30/15 11:33		474104	
1,2,3-Trichlorobenzene	**22.4**		5.0	1.0	0.82	1	NA	11/30/15 11:33		474104	
1,2,3-Trichloropropane	**19.3**		5.0	1.0	0.70	1	NA	11/30/15 11:33		474104	
1,2,4-Trichlorobenzene	**22.4**		5.0	1.0	0.23	1	NA	11/30/15 11:33		474104	
1,2,4-Trimethylbenzene	**21.6**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
1,2-Dibromo-3-chloropropane (DBCP)	**18.2**		5.0	1.0	0.74	1	NA	11/30/15 11:33		474104	
1,2-Dibromoethane	**19.5**		5.0	1.0	0.24	1	NA	11/30/15 11:33		474104	
1,2-Dichlorobenzene	**21.2**		5.0	1.0	0.21	1	NA	11/30/15 11:33		474104	
1,2-Dichloroethane	**20.8**		5.0	1.0	0.36	1	NA	11/30/15 11:33		474104	
1,2-Dichloropropane	**22.3**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
1,3,5-Trimethylbenzene	**22.0**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
1,3-Dichlorobenzene	**21.3**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
1,3-Dichloropropane	**20.2**		5.0	1.0	0.27	1	NA	11/30/15 11:33		474104	
1,4-Dichlorobenzene	**21.6**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
2,2-Dichloropropane	**21.6**		5.0	1.0	0.27	1	NA	11/30/15 11:33		474104	
2-Butanone (MEK)	**19.7**		5.0	1.0	0.81	1	NA	11/30/15 11:33		474104	
2-Chlorotoluene	**22.3**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
2-Hexanone	**18.0**		5.0	5.0	1.7	1	NA	11/30/15 11:33		474104	
tert-Butyl Alcohol	**406**		100	20	11	1	NA	11/30/15 11:33		474104	
4-Chlorotoluene	**21.3**		5.0	1.0	0.24	1	NA	11/30/15 11:33		474104	
p-Isopropyltoluene	**22.5**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
4-Methyl-2-pentanone	**19.6**		5.0	1.0	0.67	1	NA	11/30/15 11:33		474104	
Acetone	**17.1**		5.0	5.0	1.3	1	NA	11/30/15 11:33		474104	
Benzene	**21.4**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
Bromobenzene	**22.0**		5.0	1.0	0.28	1	NA	11/30/15 11:33		474104	
Bromochloromethane	**20.4**		5.0	1.0	0.32	1	NA	11/30/15 11:33		474104	
Bromodichloromethane	**20.8**		5.0	1.0	0.32	1	NA	11/30/15 11:33		474104	
Bromoform	**19.0**		5.0	1.0	0.42	1	NA	11/30/15 11:33		474104	
Bromomethane	**19.9**		5.0	1.0	0.29	1	NA	11/30/15 11:33		474104	
Carbon Tetrachloride	**21.3**		5.0	1.0	0.45	1	NA	11/30/15 11:33		474104	
Chlorobenzene	**20.6**		5.0	1.0	0.29	1	NA	11/30/15 11:33		474104	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514764-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**20.9**		5.0	1.0	0.24	1	NA	11/30/15 11:33		474104	
Chloroform	**19.9**		5.0	1.0	0.25	1	NA	11/30/15 11:33		474104	
Chloromethane	**19.8**		5.0	1.0	0.21	1	NA	11/30/15 11:33		474104	
Dibromochloromethane	**20.3**		5.0	1.0	0.31	1	NA	11/30/15 11:33		474104	
Dichlorodifluoromethane (CFC 12)	**21.8**		5.0	1.0	0.46	1	NA	11/30/15 11:33		474104	
Methylene Chloride	**19.6**		5.0	1.0	0.60	1	NA	11/30/15 11:33		474104	
Ethylbenzene	**20.5**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
Hexachlorobutadiene	**25.7**		5.0	1.0	0.62	1	NA	11/30/15 11:33		474104	
Isopropylbenzene (Cumene)	**21.4**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
Methyl tert-Butyl Ether	**19.9**		5.0	1.0	0.29	1	NA	11/30/15 11:33		474104	
Naphthalene	**21.5**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
Styrene	**20.8**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
Tetrachloroethene (PCE)	**21.5**		5.0	1.0	0.30	1	NA	11/30/15 11:33		474104	
Toluene	**21.6**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
Trichloroethene (TCE)	**20.3**		5.0	1.0	0.22	1	NA	11/30/15 11:33		474104	
Trichlorofluoromethane (CFC 11)	**22.7**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
Vinyl Chloride	**20.7**		5.0	1.0	0.32	1	NA	11/30/15 11:33		474104	
cis-1,2-Dichloroethene	**20.9**		5.0	1.0	0.30	1	NA	11/30/15 11:33		474104	
cis-1,3-Dichloropropene	**21.1**		5.0	1.0	0.24	1	NA	11/30/15 11:33		474104	
m,p-Xylenes	**41.9**		10	2.0	0.33	1	NA	11/30/15 11:33		474104	
n-Butylbenzene	**23.3**		5.0	1.0	0.21	1	NA	11/30/15 11:33		474104	
n-Propylbenzene	**21.5**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
o-Xylene	**20.6**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
sec-Butylbenzene	**21.9**		5.0	1.0	0.27	1	NA	11/30/15 11:33		474104	
tert-Butylbenzene	**21.4**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
trans-1,2-Dichloroethene	**21.2**		5.0	1.0	0.33	1	NA	11/30/15 11:33		474104	
trans-1,3-Dichloropropene	**20.9**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/30/15 11:33	
Dibromofluoromethane	111	85-115	11/30/15 11:33	
Toluene-d8	112	85-120	11/30/15 11:33	

Data Path : I:\ACQUDATA\MSVOA12\DATA\111315\
Data File : MM8392.D
Acq On : 30 Nov 2015 11:33 am
Operator : K.Ruest
Sample : LCS RQ1514764-03 Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 30 11:48:52 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	831780	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1375414	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1285950	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	609474	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.591	113	397433	55.58	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 111.16%				
48) surr1,1,2-dichloroetha...	6.097	65	420779	53.27	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.54%				
65) SURR3,Toluene-d8	8.529	98	1692935	56.25	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 112.50%				
70) SURR2,BFB	11.047	95	629629	55.42	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.84%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.213	85	255928	21.84	ppb		97
3) Chloromethane	1.347	50	276781	19.79	ppb		100
4) Vinyl Chloride	1.433	62	269406	20.67	ppb		99
5) Bromomethane	1.689	94	126930	19.94	ppb		97
6) Chloroethane	1.768	64	150084	20.94	ppb		100
7) Freon 21	1.927	67	299951	21.62	ppb		99
8) Trichlorofluoromethane	1.975	101	230717	22.73	ppb		98
9) Diethyl Ether	2.231	59	134259	21.08	ppb		96
10) Freon 123a	2.238	67	188796	20.81	ppb		99
11) Freon 123	2.292	83	198877	19.01	ppb		98
12) Acrolein	2.335	56	30034	42.38	ppb		89
13) 1,1-Diclethene	2.433	96	151034	21.71	ppb		99
14) Freon 113	2.439	101	142169	22.46	ppb		98
15) Acetone	2.487	43	30305	17.09	ppb		99
16) 2-Propanol	2.658	45	127498	378.91	ppb		98
17) Iodomethane	2.573	142	156481	19.80	ppb		94
18) Carbon Disulfide	2.634	76	475714	20.47	ppb		100
19) Acetonitrile	2.768	40	20982	85.32	ppb	#	81
20) Allyl Chloride	2.792	76	90958	23.48	ppb		99
21) Methyl Acetate	2.829	43	70236	17.00	ppb		95
22) Methylene Chloride	2.920	84	157784	19.64	ppb		91
23) TBA	3.091	59	221939	406.42	ppb		99
24) Acrylonitrile	3.207	53	198876	99.09	ppb		98
25) Methyl-t-Butyl Ether	3.262	73	384337	19.86	ppb		100
26) trans-1,2-Dichloroethene	3.243	96	158673	21.18	ppb		85
28) 1,1-Diclethane	3.792	63	287639	21.59	ppb		96
29) Vinyl Acetate	3.896	86	27019	19.47	ppb	#	88
30) DIPE	3.938	45	518634	19.97	ppb		95
31) 2-Chloro-1,3-Butadiene	3.926	53	273380	20.40	ppb		93
32) ETBE	4.524	59	457830	18.76	ppb		99
33) 2,2-Dichloropropane	4.707	77	230057	21.58	ppb		97
34) cis-1,2-Dichloroethene	4.713	96	172980	20.86	ppb		98
35) 2-Butanone	4.780	43	47750	19.66	ppb		93
36) Propionitrile	4.865	54	73520	99.12	ppb		93

KR 11/30/15

Data Path : I:\ACQUDATA\MSVOA12\DATA\111315\
Data File : MM8392.D
Acq On : 30 Nov 2015 11:33 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 30 11:48:52 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	87401	20.40	ppb		91
38) Methacrylonitrile	5.158	67	46826	19.92	ppb		91
39) Tetrahydrofuran	5.243	42	30294	19.39	ppb		90
40) Chloroform	5.322	83	258082	19.93	ppb		99
41) 1,1,1-Trichloroethane	5.591	97	216270	21.26	ppb		96
42) TAME	6.401	73	397574	19.17	ppb		99
44) Cyclohexane	5.676	41	139558	18.56	ppb		94
46) Carbontetrachloride	5.859	121	56108	21.31	ppb		91
47) 1,1-Dichloropropene	5.871	75	216238	22.28	ppb		96
49) Benzene	6.170	78	647112	21.38	ppb		98
50) 1,2-Dichloroethane	6.206	62	161251	20.78	ppb		97
51) Iso-Butyl Alcohol	6.200	43	102819	405.22	ppb		97
52) n-Heptane	6.639	43	189821	22.79	ppb		100
53) 1-Butanol	7.121	56	160943	1011.92	ppb		97
54) Trichloroethene	7.078	130	156343	20.33	ppb		94
55) Methylcyclohexane	7.310	55	177339	19.12	ppb		99
56) 1,2-Diclpropane	7.352	63	167163	22.29	ppb		96
57) Dibromomethane	7.493	93	71619	19.39	ppb		90
58) 1,4-Dioxane	7.554	88	24086	437.90	ppb	#	74
59) Methyl Methacrylate	7.572	69	86892	20.02	ppb		91
60) Bromodichloromethane	7.706	83	191314	20.80	ppb		96
61) 2-Nitropropane	7.986	41	51755	38.21	ppb		90
62) 2-Chloroethylvinyl Ether	8.108	63	78533	18.98	ppb		97
63) cis-1,3-Dichloropropene	8.236	75	259530	21.05	ppb		97
64) 4-Methyl-2-pentanone	8.438	43	107691	19.63	ppb		98
66) Toluene	8.602	91	675553	21.55	ppb		99
67) trans-1,3-Dichloropropene	8.864	75	205051	20.94	ppb		97
68) Ethyl Methacrylate	8.998	69	180377	20.80	ppb		99
69) 1,1,2-Trichloroethane	9.047	97	107309	20.24	ppb		94
72) Tetrachloroethene	9.181	164	114410	21.45	ppb		93
73) 2-Hexanone	9.328	43	70821	17.99	ppb		97
74) 1,3-Dichloropropane	9.212	76	197001	20.15	ppb		95
75) Dibromochloromethane	9.431	129	123543	20.31	ppb		97
76) N-Butyl Acetate	9.480	43	178085	18.93	ppb		99
77) 1,2-Dibromoethane	9.529	107	101492	19.48	ppb		97
78) Chlorobenzene	10.016	112	391706	20.59	ppb		99
79) 3-CBTF	10.029	180	201829	21.42	ppb		97
80) 4-CBTF	10.084	180	183572	20.93	ppb		97
81) 1,1,1,2-Tetrachloroethane	10.096	131	134657	20.48	ppb		93
82) Ethylbenzene	10.132	106	220824	20.49	ppb		91
83) (m+p)Xylene	10.242	106	557573	41.92	ppb		97
84) o-Xylene	10.596	106	280466	20.59	ppb		99
85) Styrene	10.608	104	462262	20.83	ppb		97
87) Bromoform	10.760	173	65930	19.04	ppb		99
88) 2-CBTF	10.833	180	201471	21.80	ppb		99
89) Isopropylbenzene	10.925	105	679003	21.42	ppb		97
90) Cyclohexanone	10.986	55	266270	579.48	ppb		99
91) trans-1,4-Dichloro-2-B...	11.224	53	36413	19.28	ppb		94
92) 1,1,2,2-Tetrachloroethane	11.181	83	122895	19.19	ppb		96
93) Bromobenzene	11.169	156	157888	22.02	ppb		91
94) 1,2,3-Trichloropropane	11.211	110	33189	19.32	ppb		96

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8392.D
Acq On : 30 Nov 2015 11:33 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 30 11:48:52 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

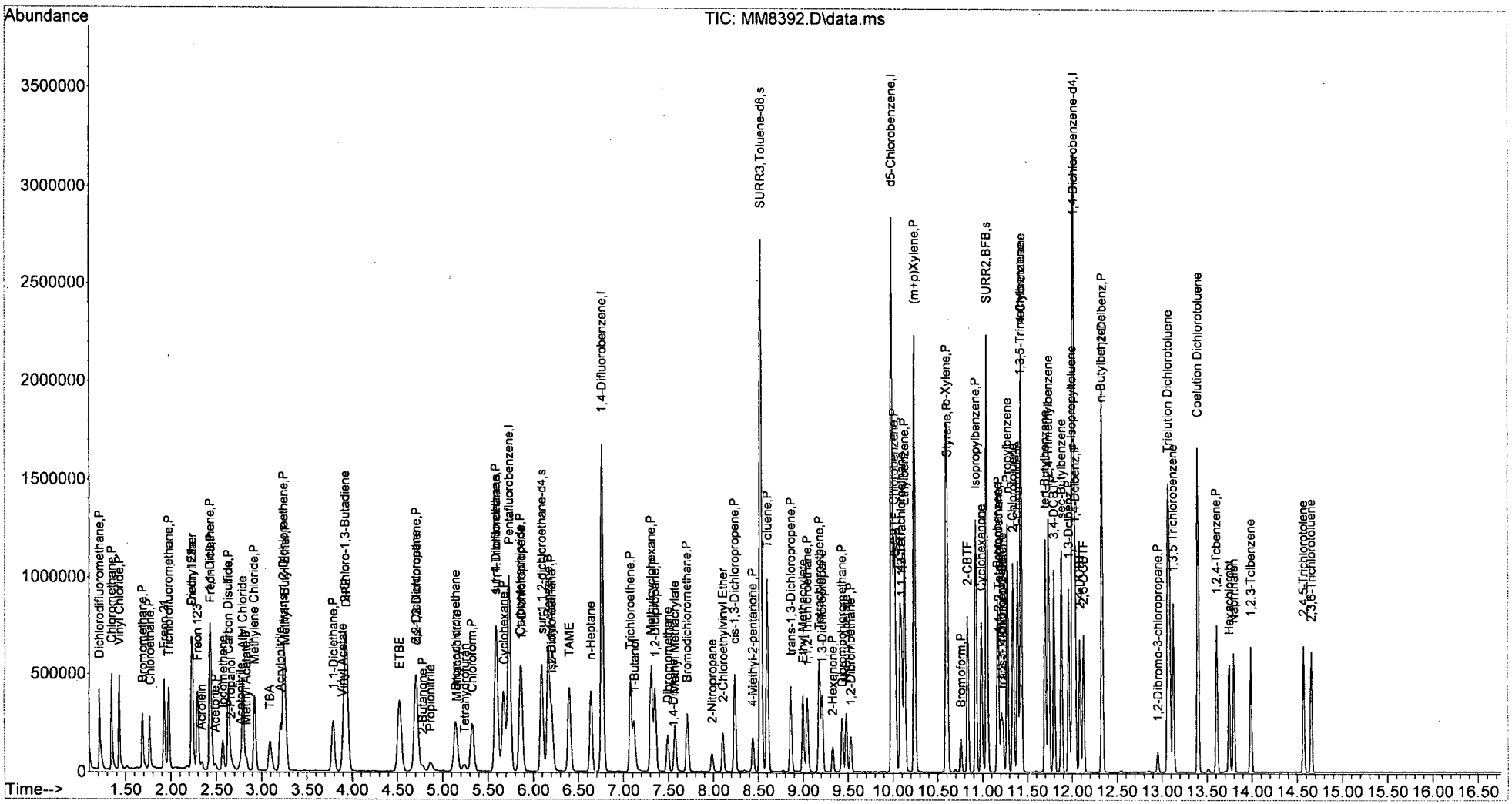
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	786795	21.54	ppb	96
96)	2-Chlorotoluene	11.339	91	478017	22.32	ppb	97
97)	3-Chlorotoluene	11.394	91	514135	22.87	ppb	99
98)	4-Chlorotoluene	11.431	91	515434	21.34	ppb	93
99)	1,3,5-Trimethylbenzene	11.425	105	528269	22.03	ppb	98
100)	tert-Butylbenzene	11.699	119	458228	21.41	ppb	99
101)	1,2,4-Trimethylbenzene	11.736	105	555675	21.59	ppb	99
102)	3,4-DCBTF	11.797	214	137979	22.29	ppb	97
103)	sec-Butylbenzene	11.882	105	654971	21.88	ppb	99
104)	p-Isopropyltoluene	11.998	119	521451	22.52	ppb	97
105)	1,3-Dclbenz	11.961	146	295216	21.27	ppb	97
106)	1,4-Dclbenz	12.034	146	281641	21.64	ppb	99
107)	2,4-DCBTF	12.083	214	122342	22.65	ppb	97
108)	2,5-DCBTF	12.126	214	137801	22.55	ppb	96
109)	n-Butylbenzene	12.327	91	509737	23.25	ppb	96
110)	1,2-Dclbenz	12.333	146	271243	21.23	ppb	97
111)	1,2-Dibromo-3-chloropr...	12.955	157	22542	18.24	ppb	99
112)	Trielution Dichlorotol...	13.071	125	750062	69.56	ppb	100
113)	1,3,5 Trichlorobenzene	13.126	180	200257	23.32	ppb	95
114)	Coelution Dichlorotoluene	13.400	125	546251	47.94	ppb	99
115)	1,2,4-Tcbenzene	13.607	180	176458	22.39	ppb	99
116)	Hexachlorobt	13.747	225	80778	25.66	ppb	95
117)	Naphthalen	13.796	128	351948	21.53	ppb	98
118)	1,2,3-Tclbenzene	13.985	180	146799	22.39	ppb	99
119)	2,4,5-Trichlorotolene	14.570	159	132814	27.31	ppb	99
120)	2,3,6-Trichlorotoluene	14.656	159	117103	27.35	ppb	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8392.D
Acq On : 30 Nov 2015 11:33 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 30 11:48:52 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Mon Nov 30 11:48:59 2015 Page: 4

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1317
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW03-17.5
Lab Code: RQ1514665-05
Run Type: Matrix Spike

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**46.5**		5.0	1.0	0.22	1	NA	11/25/15 09:02		473760	
1,1,1-Trichloroethane (TCA)	**50.8**		5.0	1.0	0.36	1	NA	11/25/15 09:02		473760	
1,1,2,2-Tetrachloroethane	**47.7**		5.0	1.0	0.25	1	NA	11/25/15 09:02		473760	
1,1,2-Trichloroethane	**47.6**		5.0	1.0	0.34	1	NA	11/25/15 09:02		473760	
1,1-Dichloroethane (1,1-DCA)	**53.1**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
1,1-Dichloroethene (1,1-DCE)	**49.3**		5.0	1.0	0.57	1	NA	11/25/15 09:02		473760	
1,1-Dichloropropene	**50.6**		5.0	1.0	0.29	1	NA	11/25/15 09:02		473760	
1,2,3-Trichlorobenzene	**41.4**		5.0	1.0	0.82	1	NA	11/25/15 09:02		473760	
1,2,3-Trichloropropane	**48.3**		5.0	1.0	0.70	1	NA	11/25/15 09:02		473760	
1,2,4-Trichlorobenzene	**43.1**		5.0	1.0	0.23	1	NA	11/25/15 09:02		473760	
1,2,4-Trimethylbenzene	**33.3**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
1,2-Dibromo-3-chloropropane (DBCP)	**42.2**		5.0	1.0	0.74	1	NA	11/25/15 09:02		473760	
1,2-Dibromoethane	**46.4**		5.0	1.0	0.24	1	NA	11/25/15 09:02		473760	
1,2-Dichlorobenzene	**47.7**		5.0	1.0	0.21	1	NA	11/25/15 09:02		473760	
1,2-Dichloroethane	**49.9**		5.0	1.0	0.36	1	NA	11/25/15 09:02		473760	
1,2-Dichloropropane	**51.5**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
1,3,5-Trimethylbenzene	**29.8**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
1,3-Dichlorobenzene	**47.4**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
1,3-Dichloropropane	**48.7**		5.0	1.0	0.27	1	NA	11/25/15 09:02		473760	
1,4-Dichlorobenzene	**49.6**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
2,2-Dichloropropane	**36.0**		5.0	1.0	0.27	1	NA	11/25/15 09:02		473760	
2-Butanone (MEK)	**43.6**		5.0	1.0	0.81	1	NA	11/25/15 09:02		473760	
2-Chlorotoluene	**50.3**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
2-Hexanone	**43.6**		5.0	5.0	1.7	1	NA	11/25/15 09:02		473760	
tert-Butyl Alcohol	**930**		100	20	11	1	NA	11/25/15 09:02		473760	
4-Chlorotoluene	**47.6**		5.0	1.0	0.24	1	NA	11/25/15 09:02		473760	
p-Isopropyltoluene	**44.0**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
4-Methyl-2-pentanone	**47.1**		5.0	1.0	0.67	1	NA	11/25/15 09:02		473760	
Acetone	**40.4**		5.0	5.0	1.3	1	NA	11/25/15 09:02		473760	
Benzene	**50.5**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
Bromobenzene	**49.8**		5.0	1.0	0.28	1	NA	11/25/15 09:02		473760	
Bromochloromethane	**47.3**		5.0	1.0	0.32	1	NA	11/25/15 09:02		473760	
Bromodichloromethane	**45.5**		5.0	1.0	0.32	1	NA	11/25/15 09:02		473760	
Bromoform	**36.0**		5.0	1.0	0.42	1	NA	11/25/15 09:02		473760	
Bromomethane	**44.6**		5.0	1.0	0.29	1	NA	11/25/15 09:02		473760	
Carbon Tetrachloride	**46.8**		5.0	1.0	0.45	1	NA	11/25/15 09:02		473760	
Chlorobenzene	**47.8**		5.0	1.0	0.29	1	NA	11/25/15 09:02		473760	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1317
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW03-17.5
Lab Code: RQ1514665-05
Run Type: Matrix Spike

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**51.6**		5.0	1.0	0.24	1	NA	11/25/15 09:02		473760	
Chloroform	**48.3**		5.0	1.0	0.25	1	NA	11/25/15 09:02		473760	
Chloromethane	**47.1**		5.0	1.0	0.21	1	NA	11/25/15 09:02		473760	
Dibromochloromethane	**41.0**		5.0	1.0	0.31	1	NA	11/25/15 09:02		473760	
Dichlorodifluoromethane (CFC 12)	**51.8**		5.0	1.0	0.46	1	NA	11/25/15 09:02		473760	
Methylene Chloride	**47.4**		5.0	1.0	0.60	1	NA	11/25/15 09:02		473760	
Ethylbenzene	**45.7**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
Hexachlorobutadiene	**46.6**		5.0	1.0	0.62	1	NA	11/25/15 09:02		473760	
Isopropylbenzene (Cumene)	**47.1**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
Methyl tert-Butyl Ether	**45.5**		5.0	1.0	0.29	1	NA	11/25/15 09:02		473760	
Naphthalene	**40.9**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
Styrene	**23.4**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
Tetrachloroethene (PCE)	**49.1**		5.0	1.0	0.30	1	NA	11/25/15 09:02		473760	
Toluene	**46.6**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
Trichloroethene (TCE)	**46.3**		5.0	1.0	0.22	1	NA	11/25/15 09:02		473760	
Trichlorofluoromethane (CFC 11)	**52.7**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
Vinyl Chloride	**50.1**		5.0	1.0	0.32	1	NA	11/25/15 09:02		473760	
cis-1,2-Dichloroethene	**50.8**		5.0	1.0	0.30	1	NA	11/25/15 09:02		473760	
cis-1,3-Dichloropropene	**43.9**		5.0	1.0	0.24	1	NA	11/25/15 09:02		473760	
m,p-Xylenes	**78.1**		10	2.0	0.33	1	NA	11/25/15 09:02		473760	
n-Butylbenzene	**45.5**		5.0	1.0	0.21	1	NA	11/25/15 09:02		473760	
n-Propylbenzene	**46.3**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
o-Xylene	**40.4**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
sec-Butylbenzene	**46.9**		5.0	1.0	0.27	1	NA	11/25/15 09:02		473760	
tert-Butylbenzene	**48.8**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	
trans-1,2-Dichloroethene	**50.0**		5.0	1.0	0.33	1	NA	11/25/15 09:02		473760	
trans-1,3-Dichloropropene	**44.7**		5.0	1.0	0.20	1	NA	11/25/15 09:02		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	11/25/15 09:02	
Dibromofluoromethane	108	85-115	11/25/15 09:02	
Toluene-d8	109	85-120	11/25/15 09:02	

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8384.D
Acq On : 25 Nov 2015 9:02 am
Operator : K.Ruest
Sample : R1510063-006MS|1.0 R01514665-05 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Dec 03 10:10:33 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	760022	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1303781	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1211110	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	560504	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	366389	54.05	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery =	108.10%			
48) surr1,1,2-dichloroetha...	6.096	65	400418	53.48	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery =	106.96%			
65) SURR3,Toluene-d8	8.529	98	1556300	54.56	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery =	109.12%			
70) SURR2,BFB	11.047	95	604498	56.13	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery =	112.26%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.213	85	554949	51.83	ppb		98
3) Chloromethane	1.347	50	602180	47.11	ppb		100
4) Vinyl Chloride	1.433	62	597074	50.14	ppb		99
5) Bromomethane	1.689	94	259362	44.60	ppb		100
6) Chloroethane	1.768	64	337989	51.61	ppb		100
7) Freon 21	1.927	67	712408	56.19	ppb		99
8) Trichlorofluoromethane	1.975	101	489075	52.72	ppb		99
9) Diethyl Ether	2.231	59	290577	49.93	ppb		96
10) Freon 123a	2.237	67	430705	51.97	ppb		99
11) Freon 123	2.292	83	472208	49.41	ppb		98
12) Acrolein	2.335	56	45607	70.42	ppb		99
13) 1,1-Diclethene	2.433	96	313450	49.31	ppb		97
14) Freon 113	2.445	101	294144	50.85	ppb		95
15) Acetone	2.481	43	65527	40.44	ppb		99
16) 2-Propanol	2.640	45	274203	891.85	ppb		99
17) Iodomethane	2.573	142	346649	48.00	ppb		100
18) Carbon Disulfide	2.634	76	701873	33.06	ppb		98
19) Acetonitrile	2.756	40	57381	255.35	ppb	#	84
20) Allyl Chloride	2.792	76	165361	46.72	ppb		97
21) Methyl Acetate	2.829	43	120770	31.99	ppb		97
22) Methylene Chloride	2.926	84	348110	47.43	ppb		94
23) TBA	3.085	59	463858	929.62	ppb		98
24) Acrylonitrile	3.207	53	419536	228.76	ppb		95
25) Methyl-t-Butyl Ether	3.262	73	804405	45.49	ppb		97
26) trans-1,2-Dichloroethene	3.243	96	342078	49.97	ppb		93
28) 1,1-Diclethane	3.786	63	646021	53.06	ppb		97
29) Vinyl Acetate	3.896	86	42426	33.45	ppb	#	83
31) 2-Chloro-1,3-Butadiene	3.920	53	376658	30.76	ppb		91
33) 2,2-Dichloropropane	4.700	77	350837	36.02	ppb		96
34) cis-1,2-Dichloroethene	4.713	96	384640	50.76	ppb		98
35) 2-Butanone	4.780	43	96704	43.57	ppb		97
36) Propionitrile	4.859	54	151244	223.16	ppb		99
37) Bromochloromethane	5.139	130	185274	47.33	ppb		97
38) Methacrylonitrile	5.151	67	100192	46.64	ppb		94

KR 12/3/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8384.D
Acq On : 25 Nov 2015 9:02 am
Operator : K.Ruest
Sample : R1510063-006MS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Dec 03 10:10:33 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39)	Tetrahydrofuran	5.225	42	70589	49.46	ppb		94
40)	Chloroform	5.328	83	571700	48.31	ppb		99
41)	1,1,1-Trichloroethane	5.597	97	471782	50.76	ppb		98
44)	Cyclohexane	5.670	41	322994	45.33	ppb		99
46)	Carbontetrachloride	5.859	121	116717	46.75	ppb		94
47)	1,1-Dichloropropene	5.871	75	465282	50.58	ppb		98
49)	Benzene	6.170	78	1450001	50.53	ppb		98
50)	1,2-Dichloroethane	6.206	62	366965	49.89	ppb		99
51)	Iso-Butyl Alcohol	6.194	43	210465	875.04	ppb		89
52)	n-Heptane	6.639	43	329554	41.74	ppb		97
54)	Trichloroethene	7.078	130	337308	46.27	ppb		98
55)	Methylcyclohexane	7.310	55	389123	44.27	ppb		98
56)	1,2-Diclpropane	7.352	63	366230	51.51	ppb		100
57)	Dibromomethane	7.486	93	158218	45.20	ppb		97
58)	1,4-Dioxane	7.547	88	52035m	998.01	ppb		
59)	Methyl Methacrylate	7.572	69	171481	41.68	ppb		98
60)	Bromodichloromethane	7.712	83	396471	45.48	ppb		100
61)	2-Nitropropane	7.986	41	105042	81.82	ppb		93
63)	cis-1,3-Dichloropropene	8.236	75	512453	43.86	ppb		97
64)	4-Methyl-2-pentanone	8.437	43	244985	47.11	ppb		99
66)	Toluene	8.602	91	1384590	46.59	ppb		97
67)	trans-1,3-Dichloropropene	8.864	75	414930	44.70	ppb		99
68)	Ethyl Methacrylate	8.998	69	366044	44.54	ppb		98
69)	1,1,2-Trichloroethane	9.047	97	239315	47.62	ppb		95
72)	Tetrachloroethene	9.181	164	246565	49.08	ppb		96
73)	2-Hexanone	9.328	43	161799	43.64	ppb		93
74)	1,3-Dichloropropane	9.212	76	448346	48.69	ppb		98
75)	Dibromochloromethane	9.431	129	235155	41.04	ppb		97
76)	N-Butyl Acetate	9.480	43	297469	33.58	ppb		96
77)	1,2-Dibromoethane	9.529	107	227583	46.38	ppb		99
78)	Chlorobenzene	10.016	112	855783	47.77	ppb		99
81)	1,1,1,2-Tetrachloroethane	10.096	131	288079	46.53	ppb		96
82)	Ethylbenzene	10.132	106	463357	45.66	ppb		98
83)	(m+p)Xylene	10.242	106	978346	78.11	ppb		99
84)	o-Xylene	10.596	106	518266	40.40	ppb		100
85)	Styrene	10.608	104	488125	23.36	ppb		97
87)	Bromoform	10.760	173	114682	36.02	ppb		97
89)	Isopropylbenzene	10.925	105	1373782	47.13	ppb		99
90)	Cyclohexanone	10.986	55	160662	380.19	ppb		100
91)	trans-1,4-Dichloro-2-B...	11.230	53	58581	33.86	ppb		91
92)	1,1,2,2-Tetrachloroethane	11.181	83	280692	47.66	ppb		98
93)	Bromobenzene	11.169	156	328253	49.77	ppb		100
94)	1,2,3-Trichloropropane	11.211	110	75631	48.28	ppb	#	84
95)	n-Propylbenzene	11.278	91	1556555	46.34	ppb		98
96)	2-Chlorotoluene	11.339	91	990847	50.31	ppb		98
98)	4-Chlorotoluene	11.431	91	1056468	47.56	ppb		96
99)	1,3,5-Trimethylbenzene	11.425	105	658128	29.84	ppb		96
100)	tert-Butylbenzene	11.699	119	959830	48.77	ppb		98
101)	1,2,4-Trimethylbenzene	11.736	105	787370	33.27	ppb		97
103)	scc-Butylbenzene	11.882	105	1290581	46.87	ppb		99
104)	p-Isopropyltoluene	11.998	119	935900	43.96	ppb		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8384.D
Acq On : 25 Nov 2015 9:02 am
Operator : K.Ruest
Sample : R1510063-006MS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 47 Sample Multiplier: 1

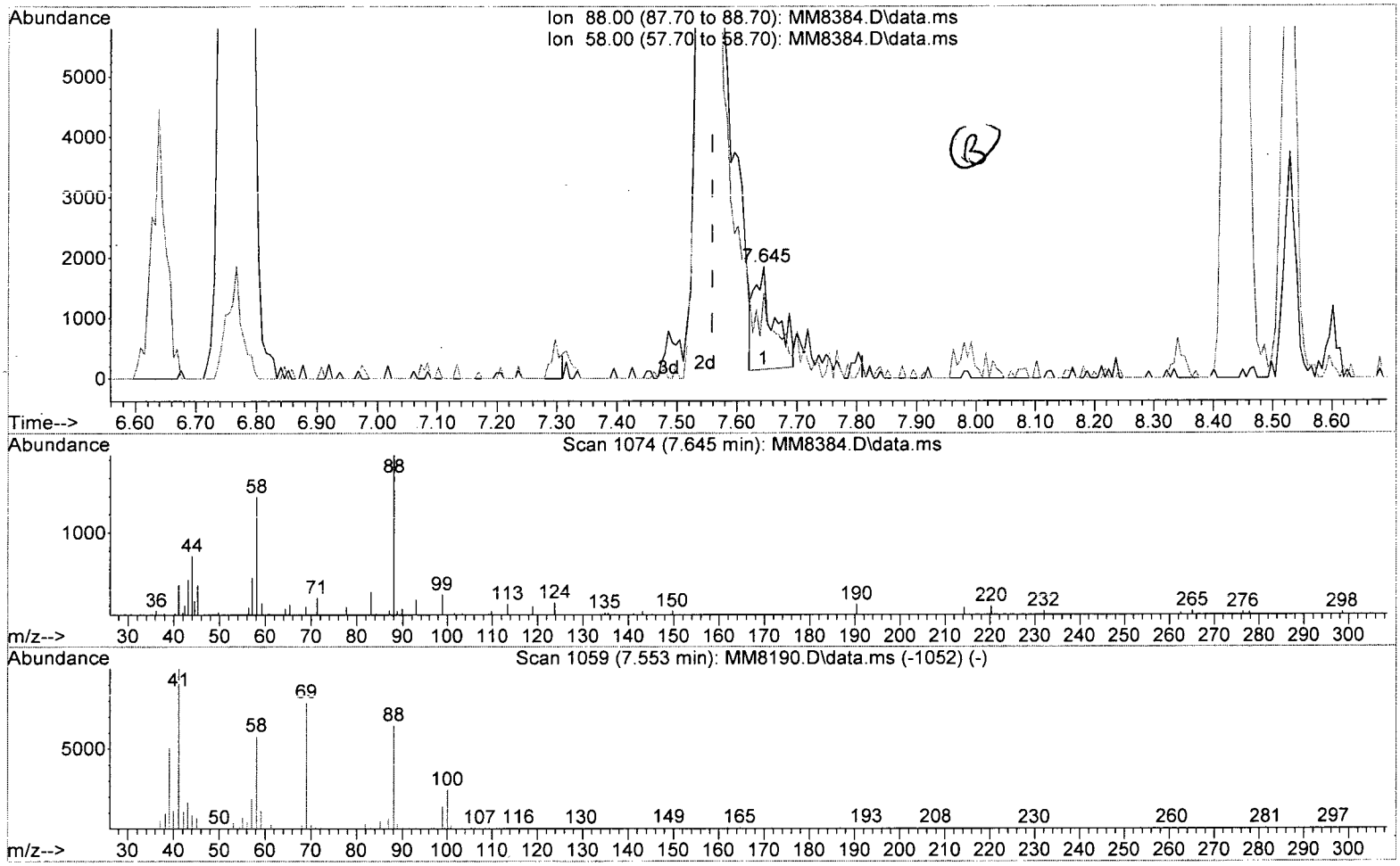
Quant Time: Dec 03 10:10:33 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,3-Dclbenz	11.961	146	605331	47.42	ppb	97
106) 1,4-Dclbenz	12.034	146	593440	49.59	ppb	97
109) n-Butylbenzene	12.333	91	916504	45.46	ppb	100
110) 1,2-Dclbenz	12.333	146	560725	47.72	ppb	97
111) 1,2-Dibromo-3-chloropr...	12.955	157	47935	42.18	ppb	96
115) 1,2,4-Tcbenzene	13.607	180	312625	43.13	ppb	98
116) Hexachlorobt	13.747	225	134907	46.60	ppb	95
117) Naphthalen	13.796	128	614789	40.89	ppb	99
118) 1,2,3-Tclbenzene	13.985	180	249485	41.37	ppb	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8384.D
Acq On : 25 Nov 2015 9:02 am
Operator : K.Ruest
Sample : R1510063-006MS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Nov 25 10:21:11 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8384.D\data.ms

(58) 1,4-Dioxane

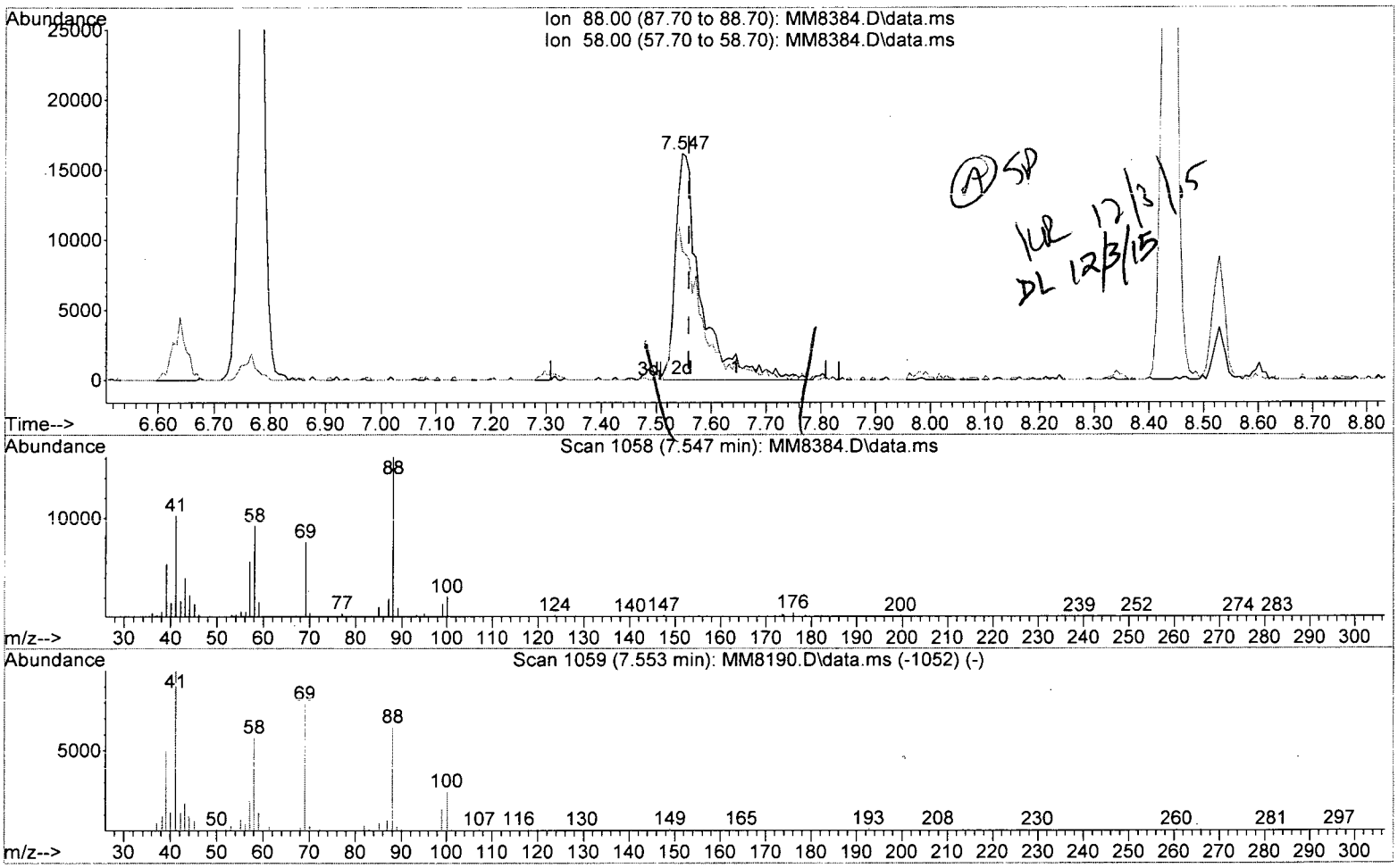
7.645min (+0.085) 77.77 ppb

response 4055

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	75.30
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8384.D
Acq On : 25 Nov 2015 9:02 am
Operator : K.Ruest
Sample : R1510063-006MS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Nov 25 10:21:11 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8384.D\data.ms

(58) 1,4-Dioxane

7.547min (-0.012) 998.01 ppb m

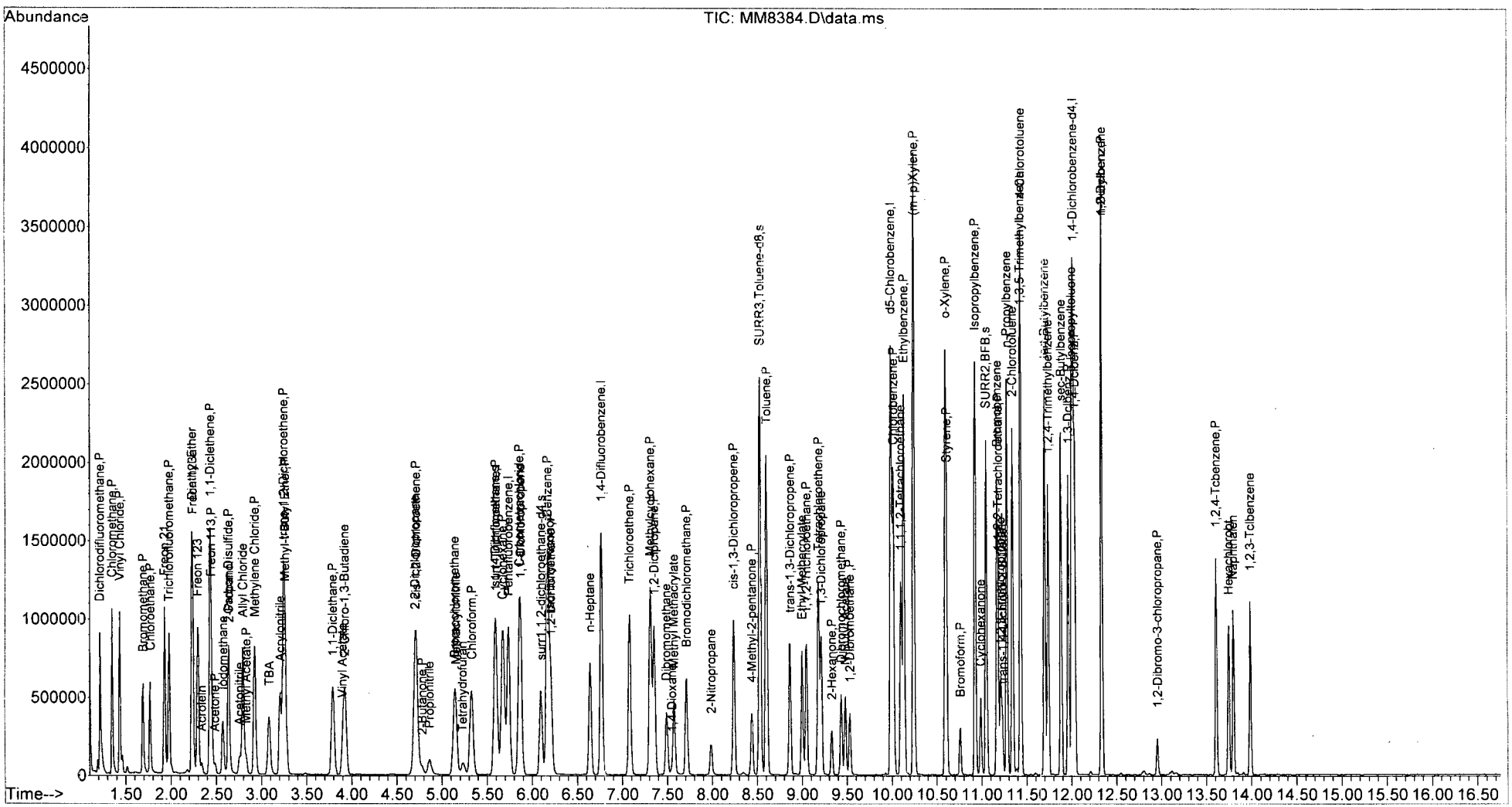
response 52035

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	57.04#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8384.D
Acq On : 25 Nov 2015 9:02 am
Operator : K.Ruest
Sample : R1510063-006MS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Dec 03 10:10:33 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Thu Dec 03 10:11:02 2015 Page: 4

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1317
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW03-17.5
Lab Code: RQ1514665-06
Run Type: Duplicate Matrix Spike

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**47.9**		5.0	1.0	0.22	1	NA	11/25/15 09:32		473760	
1,1,1-Trichloroethane (TCA)	**52.7**		5.0	1.0	0.36	1	NA	11/25/15 09:32		473760	
1,1,2,2-Tetrachloroethane	**48.9**		5.0	1.0	0.25	1	NA	11/25/15 09:32		473760	
1,1,2-Trichloroethane	**49.5**		5.0	1.0	0.34	1	NA	11/25/15 09:32		473760	
1,1-Dichloroethane (1,1-DCA)	**53.9**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
1,1-Dichloroethene (1,1-DCE)	**49.3**		5.0	1.0	0.57	1	NA	11/25/15 09:32		473760	
1,1-Dichloropropene	**50.5**		5.0	1.0	0.29	1	NA	11/25/15 09:32		473760	
1,2,3-Trichlorobenzene	**49.0**		5.0	1.0	0.82	1	NA	11/25/15 09:32		473760	
1,2,3-Trichloropropane	**51.1**		5.0	1.0	0.70	1	NA	11/25/15 09:32		473760	
1,2,4-Trichlorobenzene	**48.4**		5.0	1.0	0.23	1	NA	11/25/15 09:32		473760	
1,2,4-Trimethylbenzene	**27.8**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
1,2-Dibromo-3-chloropropane (DBCP)	**45.1**		5.0	1.0	0.74	1	NA	11/25/15 09:32		473760	
1,2-Dibromoethane	**47.5**		5.0	1.0	0.24	1	NA	11/25/15 09:32		473760	
1,2-Dichlorobenzene	**49.5**		5.0	1.0	0.21	1	NA	11/25/15 09:32		473760	
1,2-Dichloroethane	**51.2**		5.0	1.0	0.36	1	NA	11/25/15 09:32		473760	
1,2-Dichloropropane	**54.2**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
1,3,5-Trimethylbenzene	**23.1**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
1,3-Dichlorobenzene	**50.1**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
1,3-Dichloropropane	**49.5**		5.0	1.0	0.27	1	NA	11/25/15 09:32		473760	
1,4-Dichlorobenzene	**51.5**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
2,2-Dichloropropane	**37.0**		5.0	1.0	0.27	1	NA	11/25/15 09:32		473760	
2-Butanone (MEK)	**44.2**		5.0	1.0	0.81	1	NA	11/25/15 09:32		473760	
2-Chlorotoluene	**51.8**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
2-Hexanone	**41.9**		5.0	5.0	1.7	1	NA	11/25/15 09:32		473760	
tert-Butyl Alcohol	**967**		100	20	11	1	NA	11/25/15 09:32		473760	
4-Chlorotoluene	**48.0**		5.0	1.0	0.24	1	NA	11/25/15 09:32		473760	
p-Isopropyltoluene	**42.7**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
4-Methyl-2-pentanone	**47.4**		5.0	1.0	0.67	1	NA	11/25/15 09:32		473760	
Acetone	**42.9**		5.0	5.0	1.3	1	NA	11/25/15 09:32		473760	
Benzene	**52.3**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
Bromobenzene	**51.4**		5.0	1.0	0.28	1	NA	11/25/15 09:32		473760	
Bromochloromethane	**49.1**		5.0	1.0	0.32	1	NA	11/25/15 09:32		473760	
Bromodichloromethane	**47.8**		5.0	1.0	0.32	1	NA	11/25/15 09:32		473760	
Bromoform	**38.4**		5.0	1.0	0.42	1	NA	11/25/15 09:32		473760	
Bromomethane	**47.9**		5.0	1.0	0.29	1	NA	11/25/15 09:32		473760	
Carbon Tetrachloride	**46.2**		5.0	1.0	0.45	1	NA	11/25/15 09:32		473760	
Chlorobenzene	**49.6**		5.0	1.0	0.29	1	NA	11/25/15 09:32		473760	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1317
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW03-17.5	**Units:**	µg/L
Lab Code:	RQ1514665-06	**Basis:**	NA
Run Type:	Duplicate Matrix Spike		

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**52.6**		5.0	1.0	0.24	1	NA	11/25/15 09:32		473760	
Chloroform	**49.0**		5.0	1.0	0.25	1	NA	11/25/15 09:32		473760	
Chloromethane	**49.2**		5.0	1.0	0.21	1	NA	11/25/15 09:32		473760	
Dibromochloromethane	**44.1**		5.0	1.0	0.31	1	NA	11/25/15 09:32		473760	
Dichlorodifluoromethane (CFC 12)	**54.3**		5.0	1.0	0.46	1	NA	11/25/15 09:32		473760	
Methylene Chloride	**48.6**		5.0	1.0	0.60	1	NA	11/25/15 09:32		473760	
Ethylbenzene	**45.9**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
Hexachlorobutadiene	**52.1**		5.0	1.0	0.62	1	NA	11/25/15 09:32		473760	
Isopropylbenzene (Cumene)	**46.9**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
Methyl tert-Butyl Ether	**46.6**		5.0	1.0	0.29	1	NA	11/25/15 09:32		473760	
Naphthalene	**47.6**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
Styrene	**16.9**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
Tetrachloroethene (PCE)	**50.6**		5.0	1.0	0.30	1	NA	11/25/15 09:32		473760	
Toluene	**46.4**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
Trichloroethene (TCE)	**48.6**		5.0	1.0	0.22	1	NA	11/25/15 09:32		473760	
Trichlorofluoromethane (CFC 11)	**53.7**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
Vinyl Chloride	**49.6**		5.0	1.0	0.32	1	NA	11/25/15 09:32		473760	
cis-1,2-Dichloroethene	**51.9**		5.0	1.0	0.30	1	NA	11/25/15 09:32		473760	
cis-1,3-Dichloropropene	**46.4**		5.0	1.0	0.24	1	NA	11/25/15 09:32		473760	
m,p-Xylenes	**71.8**		10	2.0	0.33	1	NA	11/25/15 09:32		473760	
n-Butylbenzene	**46.2**		5.0	1.0	0.21	1	NA	11/25/15 09:32		473760	
n-Propylbenzene	**46.0**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
o-Xylene	**38.3**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
sec-Butylbenzene	**47.8**		5.0	1.0	0.27	1	NA	11/25/15 09:32		473760	
tert-Butylbenzene	**50.2**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	
trans-1,2-Dichloroethene	**50.7**		5.0	1.0	0.33	1	NA	11/25/15 09:32		473760	
trans-1,3-Dichloropropene	**46.6**		5.0	1.0	0.20	1	NA	11/25/15 09:32		473760	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/25/15 09:32	
Dibromofluoromethane	108	85-115	11/25/15 09:32	
Toluene-d8	107	85-120	11/25/15 09:32	

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8385.D
Acq On : 25 Nov 2015 9:32 am
Operator : K.Ruest
Sample : R1510063-006DMS|1.0 RQ1574665-06 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 48 Sample Multiplier: 1

Quant Time: Dec 03 10:12:20 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	761225	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1283779	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1200729	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	560531	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	359522	53.86	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 107.72%				
48) surr1,1,2-dichloroetha...	6.096	65	401437	54.45	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.90%				
65) SURR3,Toluene-d8	8.529	98	1501272	53.45	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 106.90%				
70) SURR2,BFB	11.047	95	587948	55.45	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.213	85	581910	54.27	ppb		98
3) Chloromethane	1.347	50	630110	49.22	ppb		99
4) Vinyl Chloride	1.433	62	591639	49.61	ppb		99
5) Bromomethane	1.689	94	278998	47.90	ppb		97
6) Chloroethane	1.768	64	344662	52.55	ppb		99
7) Freon 21	1.926	67	706287	55.62	ppb		99
8) Trichlorofluoromethane	1.975	101	498661	53.67	ppb		99
9) Diethyl Ether	2.231	59	299139	51.32	ppb		93
10) Freon 123a	2.237	67	438132	52.78	ppb		98
11) Freon 123	2.292	83	468027	48.90	ppb		97
12) Acrolein	2.335	56	46815	72.17	ppb		96
13) 1,1-Diclethene	2.432	96	313649	49.27	ppb		100
14) Freon 113	2.438	101	308404	53.23	ppb		99
15) Acetone	2.487	43	69553	42.86	ppb		96
16) 2-Propanol	2.640	45	286818	931.41	ppb		95
17) Iodomethane	2.573	142	375025	51.85	ppb		100
18) Carbon Disulfide	2.634	76	768526	36.14	ppb		97
19) Acetonitrile	2.756	40	49449	219.70	ppb		93
20) Allyl Chloride	2.792	76	173760	49.02	ppb		91
21) Methyl Acetate	2.829	43	124068	32.81	ppb		97
22) Methylene Chloride	2.920	84	357217	48.59	ppb		94
23) TBA	3.085	59	483162	966.78	ppb		100
24) Acrylonitrile	3.207	53	429259	233.69	ppb		98
25) Methyl-t-Butyl Ether	3.262	73	825764	46.62	ppb		99
26) trans-1,2-Dichloroethene	3.243	96	347358	50.66	ppb		94
28) 1,1-Diclethane	3.786	63	657258	53.90	ppb		100
29) Vinyl Acetate	3.896	86	39187	30.85	ppb	#	62
31) 2-Chloro-1,3-Butadiene	3.920	53	282684	23.05	ppb		90
33) 2,2-Dichloropropane	4.700	77	361062	37.02	ppb		98
34) cis-1,2-Dichloroethene	4.712	96	393468	51.85	ppb		97
35) 2-Butanone	4.773	43	98194	44.17	ppb		93
36) Propionitrile	4.859	54	163038	240.18	ppb		100
37) Bromochloromethane	5.139	130	192311	49.05	ppb		94
38) Methacrylonitrile	5.151	67	97299	45.22	ppb		97

KB 12/3/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8385.D
Acq On : 25 Nov 2015 9:32 am
Operator : K.Ruest
Sample : R1510063-006DMS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 48 Sample Multiplier: 1

Quant Time: Dec 03 10:12:20 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39)	Tetrahydrofuran	5.231	42	73523	51.43	ppb		83
40)	Chloroform	5.328	83	581132	49.03	ppb		99
41)	1,1,1-Trichloroethane	5.596	97	490696	52.71	ppb		99
44)	Cyclohexane	5.676	41	327132	46.62	ppb		99
46)	Carbontetrachloride	5.859	121	113448	46.15	ppb		96
47)	1,1-Dichloropropene	5.871	75	457690	50.53	ppb		99
49)	Benzene	6.169	78	1477680	52.30	ppb		99
50)	1,2-Dichloroethane	6.206	62	370648	51.17	ppb		98
51)	Iso-Butyl Alcohol	6.200	43	215865	911.48	ppb		93
52)	n-Heptane	6.639	43	333388	42.88	ppb		98
54)	Trichloroethene	7.078	130	349151	48.64	ppb		98
55)	Methylcyclohexane	7.309	55	398430	46.04	ppb		97
56)	1,2-Diclpropane	7.352	63	379523	54.21	ppb		99
57)	Dibromomethane	7.486	93	162066	47.02	ppb		97
58)	1,4-Dioxane	7.547	88	51511	1003.35	ppb	#	75
59)	Methyl Methacrylate	7.572	69	165244	40.79	ppb		97
60)	Bromodichloromethane	7.706	83	410434	47.81	ppb		99
61)	2-Nitropropane	7.980	41	108754	86.03	ppb		99
63)	cis-1,3-Dichloropropene	8.236	75	534060	46.42	ppb		97
64)	4-Methyl-2-pentanone	8.437	43	242724	47.41	ppb		96
66)	Toluene	8.602	91	1358493	46.43	ppb		100
67)	trans-1,3-Dichloropropene	8.864	75	426056	46.62	ppb		98
68)	Ethyl Methacrylate	8.998	69	349101	43.14	ppb		99
69)	1,1,2-Trichloroethane	9.047	97	245089	49.53	ppb		96
72)	Tetrachloroethene	9.181	164	252044	50.61	ppb		97
73)	2-Hexanone	9.327	43	153829	41.85	ppb		97
74)	1,3-Dichloropropane	9.212	76	451788	49.49	ppb		98
75)	Dibromochloromethane	9.431	129	250644	44.13	ppb		98
76)	N-Butyl Acetate	9.480	43	299341	34.08	ppb		97
77)	1,2-Dibromoethane	9.529	107	230867	47.46	ppb		99
78)	Chlorobenzene	10.016	112	880971	49.60	ppb		98
81)	1,1,1,2-Tetrachloroethane	10.102	131	294182	47.92	ppb		96
82)	Ethylbenzene	10.132	106	461683	45.89	ppb		91
83)	(m+p)Xylene	10.242	106	891962	71.83	ppb		99
84)	o-Xylene	10.595	106	487603	38.34	ppb		98
85)	Styrene	10.608	104	349787	16.88	ppb		94
87)	Bromoform	10.760	173	122291	38.40	ppb		97
89)	Isopropylbenzene	10.925	105	1366004	46.86	ppb		100
90)	Cyclohexanone	10.986	55	172119	407.28	ppb		96
91)	trans-1,4-Dichloro-2-B...	11.229	53	63441	36.68	ppb		96
92)	1,1,2,2-Tetrachloroethane	11.181	83	288220	48.94	ppb		100
93)	Bromobenzene	11.169	156	338712	51.35	ppb		93
94)	1,2,3-Trichloropropane	11.211	110	79954	51.05	ppb		91
95)	n-Propylbenzene	11.278	91	1545379	46.00	ppb		99
96)	2-Chlorotoluene	11.339	91	1020619	51.82	ppb		99
98)	4-Chlorotoluene	11.431	91	1065690	47.97	ppb		97
99)	1,3,5-Trimethylbenzene	11.431	105	509204	23.08	ppb		98
100)	tert-Butylbenzene	11.699	119	988195	50.21	ppb		99
101)	1,2,4-Trimethylbenzene	11.735	105	657894	27.80	ppb		98
103)	sec-Butylbenzene	11.882	105	1316385	47.80	ppb		99
104)	p-Isopropyltoluene	11.998	119	908594	42.68	ppb		97

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8385.D
Acq On : 25 Nov 2015 9:32 am
Operator : K.Ruest
Sample : R1510063-006DMS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 48 Sample Multiplier: 1

Quant Time: Dec 03 10:12:20 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

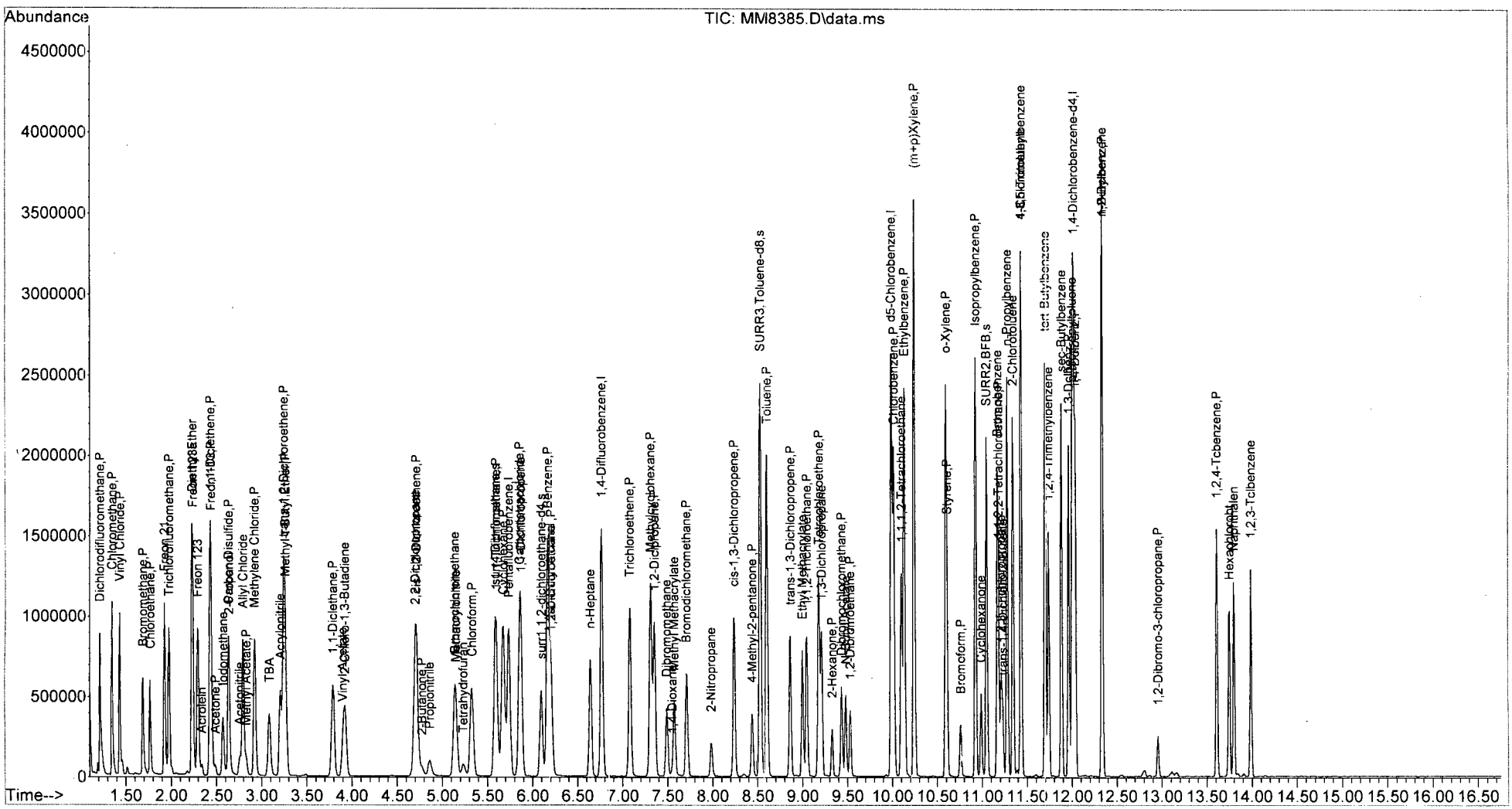
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,3-Dclbenz	11.961	146	639475	50.09	ppb	98
106) 1,4-Dclbenz	12.034	146	616509	51.52	ppb	99
109) n-Butylbenzene	12.333	91	931339	46.19	ppb	99
110) 1,2-Dclbenz	12.333	146	581544	49.49	ppb	97
111) 1,2-Dibromo-3-chloropr...	12.955	157	51205	45.06	ppb	92
115) 1,2,4-Tcbenzene	13.607	180	350794	48.39	ppb	98
116) Hexachlorobt	13.747	225	150863	52.11	ppb	94
117) Naphthalen	13.796	128	715588	47.59	ppb	98
118) 1,2,3-Tclbenzene	13.985	180	295287	48.97	ppb	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\112415\
Data File : MM8385.D
Acq On : 25 Nov 2015 9:32 am
Operator : K.Ruest
Sample : R1510063-006DMS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD*
ALS Vial : 48 Sample Multiplier: 1

Quant Time: Dec 03 10:12:20 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Thu Dec 03 10:12:45 2015 Page: 4

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1051
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW04-20.25	**Units:**	µg/L
Lab Code:	RQ1514764-05	**Basis:**	NA
Run Type:	Matrix Spike		

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**47.2**		5.0	1.0	0.22	1	NA	11/30/15 21:15		474104	
1,1,1-Trichloroethane (TCA)	**50.8**		5.0	1.0	0.36	1	NA	11/30/15 21:15		474104	
1,1,2,2-Tetrachloroethane	**48.9**		5.0	1.0	0.25	1	NA	11/30/15 21:15		474104	
1,1,2-Trichloroethane	**51.5**		5.0	1.0	0.34	1	NA	11/30/15 21:15		474104	
1,1-Dichloroethane (1,1-DCA)	**52.5**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
1,1-Dichloroethene (1,1-DCE)	**47.5**		5.0	1.0	0.57	1	NA	11/30/15 21:15		474104	
1,1-Dichloropropene	**48.8**		5.0	1.0	0.29	1	NA	11/30/15 21:15		474104	
1,2,3-Trichlorobenzene	**48.0**		5.0	1.0	0.82	1	NA	11/30/15 21:15		474104	
1,2,3-Trichloropropane	**51.2**		5.0	1.0	0.70	1	NA	11/30/15 21:15		474104	
1,2,4-Trichlorobenzene	**47.8**		5.0	1.0	0.23	1	NA	11/30/15 21:15		474104	
1,2,4-Trimethylbenzene	**15.9**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
1,2-Dibromo-3-chloropropane (DBCP)	**47.4**		5.0	1.0	0.74	1	NA	11/30/15 21:15		474104	
1,2-Dibromoethane	**48.1**		5.0	1.0	0.24	1	NA	11/30/15 21:15		474104	
1,2-Dichlorobenzene	**49.1**		5.0	1.0	0.21	1	NA	11/30/15 21:15		474104	
1,2-Dichloroethane	**50.0**		5.0	1.0	0.36	1	NA	11/30/15 21:15		474104	
1,2-Dichloropropane	**51.9**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
1,3,5-Trimethylbenzene	**12.9**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
1,3-Dichlorobenzene	**48.9**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
1,3-Dichloropropane	**51.0**		5.0	1.0	0.27	1	NA	11/30/15 21:15		474104	
1,4-Dichlorobenzene	**50.0**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
2,2-Dichloropropane	**47.0**		5.0	1.0	0.27	1	NA	11/30/15 21:15		474104	
2-Butanone (MEK)	**48.0**		5.0	1.0	0.81	1	NA	11/30/15 21:15		474104	
2-Chlorotoluene	**49.3**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
2-Hexanone	**46.5**		5.0	5.0	1.7	1	NA	11/30/15 21:15		474104	
tert-Butyl Alcohol	**1000**		100	20	11	1	NA	11/30/15 21:15		474104	
4-Chlorotoluene	**43.3**		5.0	1.0	0.24	1	NA	11/30/15 21:15		474104	
p-Isopropyltoluene	**36.3**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
4-Methyl-2-pentanone	**51.3**		5.0	1.0	0.67	1	NA	11/30/15 21:15		474104	
Acetone	**41.3**		5.0	5.0	1.3	1	NA	11/30/15 21:15		474104	
Benzene	**50.5**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
Bromobenzene	**48.9**		5.0	1.0	0.28	1	NA	11/30/15 21:15		474104	
Bromochloromethane	**47.8**		5.0	1.0	0.32	1	NA	11/30/15 21:15		474104	
Bromodichloromethane	**46.6**		5.0	1.0	0.32	1	NA	11/30/15 21:15		474104	
Bromoform	**37.5**		5.0	1.0	0.42	1	NA	11/30/15 21:15		474104	
Bromomethane	**46.1**		5.0	1.0	0.29	1	NA	11/30/15 21:15		474104	
Carbon Tetrachloride	**46.8**		5.0	1.0	0.45	1	NA	11/30/15 21:15		474104	
Chlorobenzene	**49.2**		5.0	1.0	0.29	1	NA	11/30/15 21:15		474104	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1051
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW04-20.25	**Units:**	µg/L
Lab Code:	RQ1514764-05	**Basis:**	NA
Run Type:	Matrix Spike		

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**54.3**		5.0	1.0	0.24	1	NA	11/30/15 21:15		474104	
Chloroform	**48.2**		5.0	1.0	0.25	1	NA	11/30/15 21:15		474104	
Chloromethane	**49.1**		5.0	1.0	0.21	1	NA	11/30/15 21:15		474104	
Dibromochloromethane	**43.6**		5.0	1.0	0.31	1	NA	11/30/15 21:15		474104	
Dichlorodifluoromethane (CFC 12)	**53.5**		5.0	1.0	0.46	1	NA	11/30/15 21:15		474104	
Methylene Chloride	**49.0**		5.0	1.0	0.60	1	NA	11/30/15 21:15		474104	
Ethylbenzene	**42.5**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
Hexachlorobutadiene	**46.9**		5.0	1.0	0.62	1	NA	11/30/15 21:15		474104	
Isopropylbenzene (Cumene)	**42.2**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
Methyl tert-Butyl Ether	**49.1**		5.0	1.0	0.29	1	NA	11/30/15 21:15		474104	
Naphthalene	**49.6**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
Styrene	**7.50**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
Tetrachloroethene (PCE)	**50.4**		5.0	1.0	0.30	1	NA	11/30/15 21:15		474104	
Toluene	**43.0**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
Trichloroethene (TCE)	**47.5**		5.0	1.0	0.22	1	NA	11/30/15 21:15		474104	
Trichlorofluoromethane (CFC 11)	**53.7**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
Vinyl Chloride	**48.9**		5.0	1.0	0.32	1	NA	11/30/15 21:15		474104	
cis-1,2-Dichloroethene	**51.1**		5.0	1.0	0.30	1	NA	11/30/15 21:15		474104	
cis-1,3-Dichloropropene	**47.7**		5.0	1.0	0.24	1	NA	11/30/15 21:15		474104	
m,p-Xylenes	**58.3**		10	2.0	0.33	1	NA	11/30/15 21:15		474104	
n-Butylbenzene	**42.2**		5.0	1.0	0.21	1	NA	11/30/15 21:15		474104	
n-Propylbenzene	**41.7**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
o-Xylene	**32.1**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
sec-Butylbenzene	**43.2**		5.0	1.0	0.27	1	NA	11/30/15 21:15		474104	
tert-Butylbenzene	**47.5**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	
trans-1,2-Dichloroethene	**48.2**		5.0	1.0	0.33	1	NA	11/30/15 21:15		474104	
trans-1,3-Dichloropropene	**48.3**		5.0	1.0	0.20	1	NA	11/30/15 21:15		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	11/30/15 21:15	
Dibromofluoromethane	108	85-115	11/30/15 21:15	
Toluene-d8	104	85-120	11/30/15 21:15	

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8411.D
Acq On : 30 Nov 2015 9:15 pm
Operator : K.Ruest R1514764-05
Sample : R1510063-008MS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Nov 30 21:31:16 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	756341	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1280058	50.00	ppb	0.00
71) d5-Chlorobenzene	9.992	117	1204617	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	593381	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.596	113	357972	53.79	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 107.58%			
48) surr1,1,2-dichloroetha...	6.096	65	400578	54.49	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.98%			
65) SURR3,Toluene-d8	8.529	98	1453876	51.91	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.82%			
70) SURR2,BFB	11.047	95	592192	56.01	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 112.02%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.219	85	570263	53.52	ppb	98
3) Chloromethane	1.347	50	624801	49.12	ppb	99
4) Vinyl Chloride	1.433	62	579550	48.91	ppb	100
5) Bromomethane	1.689	94	266801	46.10	ppb	99
6) Chloroethane	1.768	64	353879	54.30	ppb	99
7) Freon 21	1.926	67	706855	56.02	ppb	100
8) Trichlorofluoromethane	1.975	101	495532	53.68	ppb	99
9) Diethyl Ether	2.231	59	302713	52.27	ppb	97
10) Freon 123a	2.237	67	425155	51.55	ppb	99
11) Freon 123	2.298	83	456793	48.03	ppb	99
12) Acrolein	2.341	56	52342	81.22	ppb	97
13) 1,1-Diclethene	2.432	96	300403	47.49	ppb	98
14) Freon 113	2.438	101	293606	51.00	ppb	100
15) Acetone	2.487	43	66617	41.31	ppb	99
16) 2-Propanol	2.646	45	273701	894.55	ppb	99
17) Iodomethane	2.573	142	347619	48.37	ppb	97
18) Carbon Disulfide	2.634	76	746985	35.35	ppb	98
19) Acetonitrile	2.762	40	50059	223.85	ppb	89
20) Allyl Chloride	2.798	76	156144	44.33	ppb	95
21) Methyl Acetate	2.835	43	162865	43.35	ppb	95
22) Methylene Chloride	2.926	84	357566	48.95	ppb	97
23) TBA	3.091	59	497309	1001.51	ppb	99
24) Acrylonitrile	3.213	53	446579	244.69	ppb	99
25) Methyl-t-Butyl Ether	3.268	73	863863	49.09	ppb	99
26) trans-1,2-Dichloroethene	3.249	96	328102	48.16	ppb	98
28) 1,1-Diclethane	3.792	63	635532	52.45	ppb	97
29) Vinyl Acetate	3.908	86	49871	39.52	ppb	96
30) DIPE	3.950	45	1135747	48.08	ppb	98
31) 2-Chloro-1,3-Butadiene	3.932	53	162184	13.31	ppb	94
32) ETBE	4.530	59	1018274	45.87	ppb	99
33) 2,2-Dichloropropane	4.706	77	455706	47.02	ppb	96
34) cis-1,2-Dichloroethene	4.719	96	385241	51.09	ppb	94
35) 2-Butanone	4.786	43	105935	47.96	ppb	96
36) Propionitrile	4.871	54	167011	247.62	ppb	96

KB 12/3/15

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8411.D
Acq On : 30 Nov 2015 9:15 pm
Operator : K.Ruest
Sample : R1510063-008MS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Nov 30 21:31:16 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	186056	47.76	ppb		95
38) Methacrylonitrile	5.157	67	101464	47.46	ppb		97
39) Tetrahydrofuran	5.237	42	73438	51.70	ppb		96
40) Chloroform	5.328	83	567432	48.19	ppb		97
41) 1,1,1-Trichloroethane	5.596	97	470142	50.83	ppb		96
42) TAME	6.407	73	901522	47.81	ppb		99
44) Cyclohexane	5.676	41	316168	45.19	ppb		99
46) Carbontetrachloride	5.859	121	114781	46.83	ppb		89
47) 1,1-Dichloropropene	5.871	75	441117	48.84	ppb		98
49) Benzene	6.169	78	1422479	50.49	ppb		99
50) 1,2-Dichloroethane	6.212	62	360900	49.97	ppb		97
51) Iso-Butyl Alcohol	6.206	43	223665	947.16	ppb		100
52) n-Heptane	6.639	43	371127	47.87	ppb		98
53) 1-Butanol	7.114	56	354560	2395.34	ppb		99
54) Trichloroethene	7.084	130	340040	47.50	ppb		96
55) Methylcyclohexane	7.309	55	394465	45.71	ppb		100
56) 1,2-Diclpropane	7.352	63	362242	51.89	ppb		100
57) Dibromomethane	7.492	93	166519	48.45	ppb		93
58) 1,4-Dioxane	7.553	88	~~471559 38815~~	~~758.25~~	ppb	#	67 929.07
59) Methyl Methacrylate	7.578	69	164577	40.74	ppb		91
60) Bromodichloromethane	7.712	83	398683	46.58	ppb		98
61) 2-Nitropropane	7.986	41	118604	94.09	ppb		94
63) cis-1,3-Dichloropropene	8.236	75	547303	47.71	ppb		97
64) 4-Methyl-2-pentanone	8.437	43	261725	51.27	ppb		98
66) Toluene	8.602	91	1254929	43.01	ppb		97
67) trans-1,3-Dichloropropene	8.864	75	439751	48.25	ppb		99
68) Ethyl Methacrylate	8.998	69	338947	42.01	ppb		96
69) 1,1,2-Trichloroethane	9.047	97	254261	51.53	ppb		97
72) Tetrachloroethene	9.181	164	251756	50.39	ppb		97
73) 2-Hexanone	9.327	43	171423	46.49	ppb		95
74) 1,3-Dichloropropane	9.212	76	467031	50.99	ppb		97
75) Dibromochloromethane	9.437	129	248271	43.57	ppb		96
76) N-Butyl Acetate	9.480	43	407987	46.30	ppb		96
77) 1,2-Dibromoethane	9.529	107	234913	48.13	ppb		99
78) Chlorobenzene	10.016	112	877371	49.24	ppb		98
79) 3-CBTF	10.028	180	441979	50.06	ppb		98
80) 4-CBTF	10.083	180	399493	48.63	ppb		97
81) 1,1,1,2-Tetrachloroethane	10.102	131	290658	47.20	ppb		97
82) Ethylbenzene	10.132	106	429176	42.52	ppb		93
83) (m+p)Xylene	10.242	106	725891	58.26	ppb		92
84) o-Xylene	10.595	106	409540	32.10	ppb		99
85) Styrene	10.608	104	155980	7.50	ppb		86
87) Bromoform	10.760	173	126270	37.46	ppb		96
88) 2-CBTF	10.833	180	440798	49.00	ppb		94
89) Isopropylbenzene	10.925	105	1302107	42.20	ppb		100
90) Cyclohexanone	10.992	55	162125	362.40	ppb		93
91) trans-1,4-Dichloro-2-B...	11.229	53	66707	36.43	ppb		97
92) 1,1,2,2-Tetrachloroethane	11.181	83	305012	48.92	ppb		98
93) Bromobenzene	11.169	156	341714	48.94	ppb		99
94) 1,2,3-Trichloropropane	11.211	110	84931	51.23	ppb		91
95) n-Propylbenzene	11.278	91	1483373	41.71	ppb		98

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8411.D
Acq On : 30 Nov 2015 9:15 pm
Operator : K.Ruest
Sample : R1510063-008MS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 25 Sample Multiplier: 1

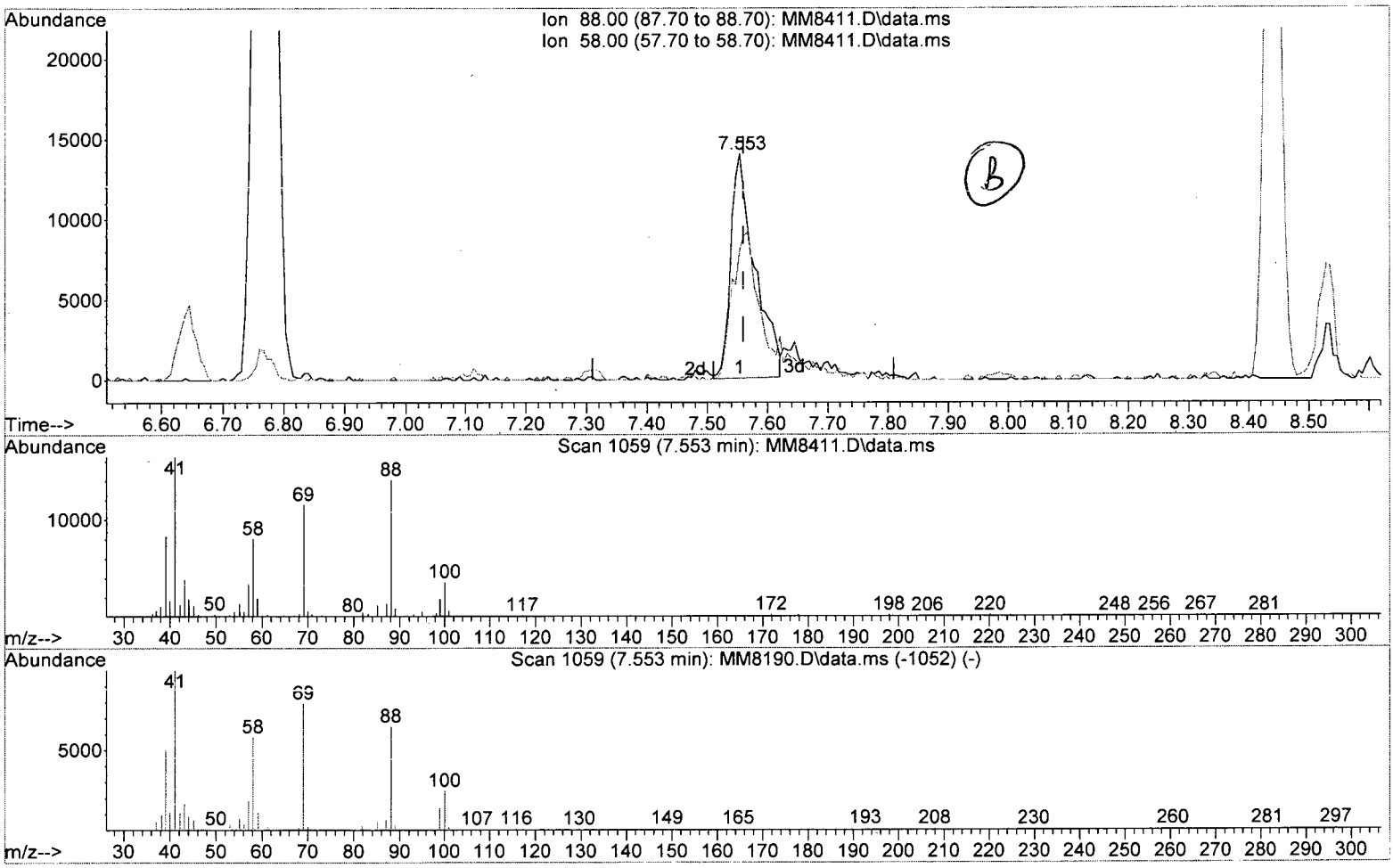
Quant Time: Nov 30 21:31:16 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Titlé : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
96)	2-Chlorotoluene	11.339	91	1027054	49.26	ppb	98
97)	3-Chlorotoluene	11.394	91	1069593	48.87	ppb	98
98)	4-Chlorotoluene	11.437	91	1019086	43.33	ppb	98
99)	1,3,5-Trimethylbenzene	11.431	105	301562	12.91	ppb	96
100)	tert-Butylbenzene	11.699	119	989441	47.49	ppb	99
101)	1,2,4-Trimethylbenzene	11.742	105	398290	15.90	ppb	98
102)	3,4-DCBTF	11.796	214	293697	48.74	ppb	97
103)	sec-Butylbenzene	11.882	105	1260153	43.23	ppb	98
104)	p-Isopropyltoluene	12.004	119	817446	36.27	ppb	97
105)	1,3-Dclbenz	11.961	146	661034	48.91	ppb	98
106)	1,4-Dclbenz	12.034	146	633149	49.98	ppb	98
107)	2,4-DCBTF	12.089	214	263328	50.07	ppb	94
108)	2,5-DCBTF	12.126	214	289782	48.71	ppb	99
109)	n-Butylbenzene	12.333	91	901586	42.24	ppb	99
110)	1,2-Dclbenz	12.339	146	610249	49.06	ppb	96
111)	1,2-Dibromo-3-chloropr...	12.955	157	57006	47.39	ppb	92
112)	Trielution Dichlorotol...	13.071	125	1553764	148.00	ppb	95
113)	1,3,5 Trichlorobenzene	13.132	180	404326	48.35	ppb	97
114)	Coelution Dichlorotoluene	13.400	125	1113225	100.35	ppb	98
115)	1,2,4-Tcbenzene	13.607	180	366725	47.79	ppb	97
116)	Hexachlorobt	13.747	225	143598	46.86	ppb	99
117)	Naphthalen	13.802	128	788975	49.57	ppb	99
118)	1,2,3-Tclbenzene	13.985	180	306169	47.96	ppb	99
119)	2,4,5-Trichlorotolene	14.570	159	217065	45.84	ppb	95
120)	2,3,6-Trichlorotoluene	14.656	159	189292	45.40	ppb	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8411.D
Acq On : 30 Nov 2015 9:15 pm
Operator : K.Ruest
Sample : R1510063-008MS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Nov 30 21:31:16 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8411.D\data.ms

(58) 1,4-Dioxane

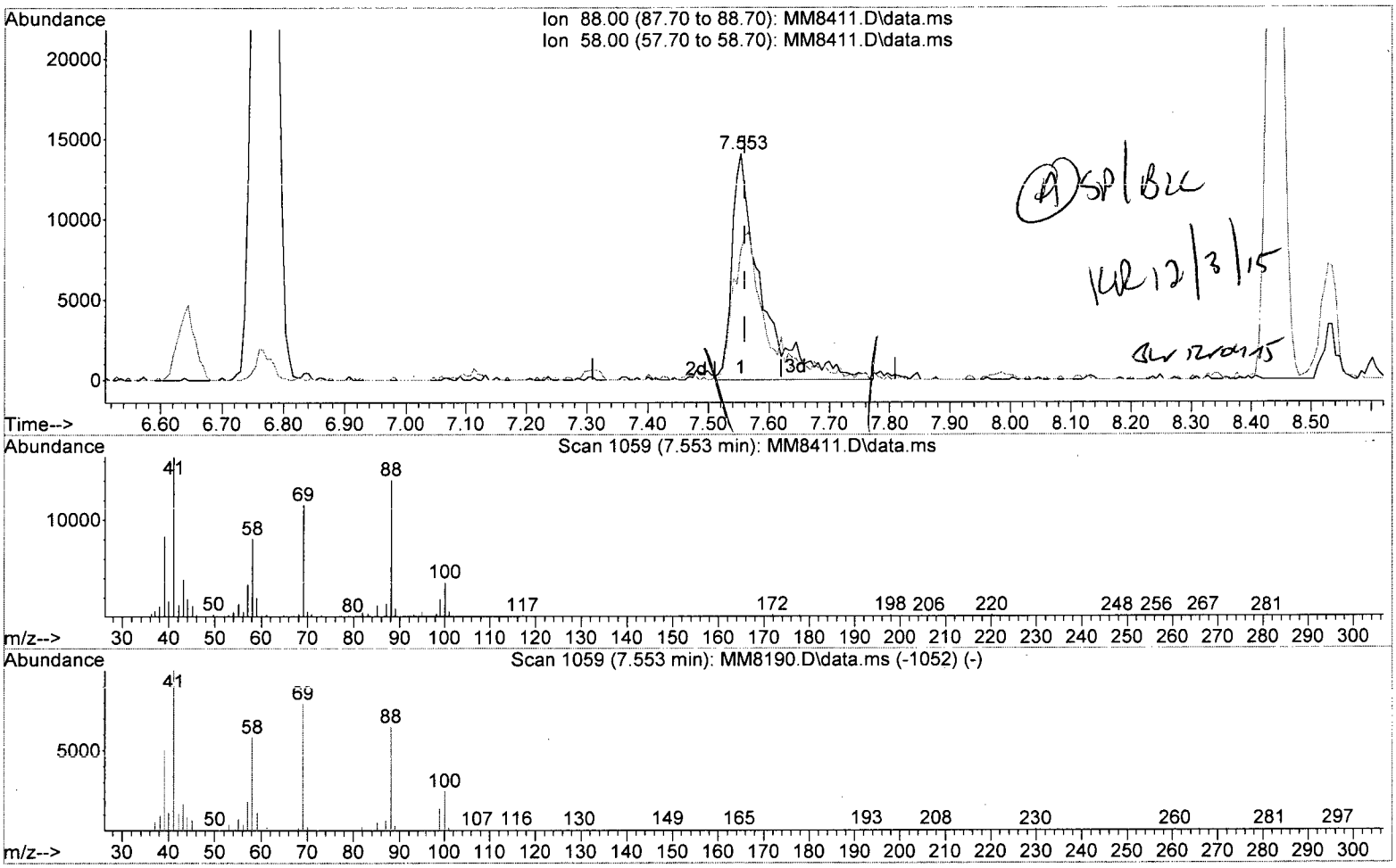
7.553min (-0.006) 758.25 ppb

response 38815

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	57.12#
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8411.D
Acq On : 30 Nov 2015 9:15 pm
Operator : K.Ruest
Sample : R1510063-008MS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Nov 30 21:31:16 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8411.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 929.07 ppb m

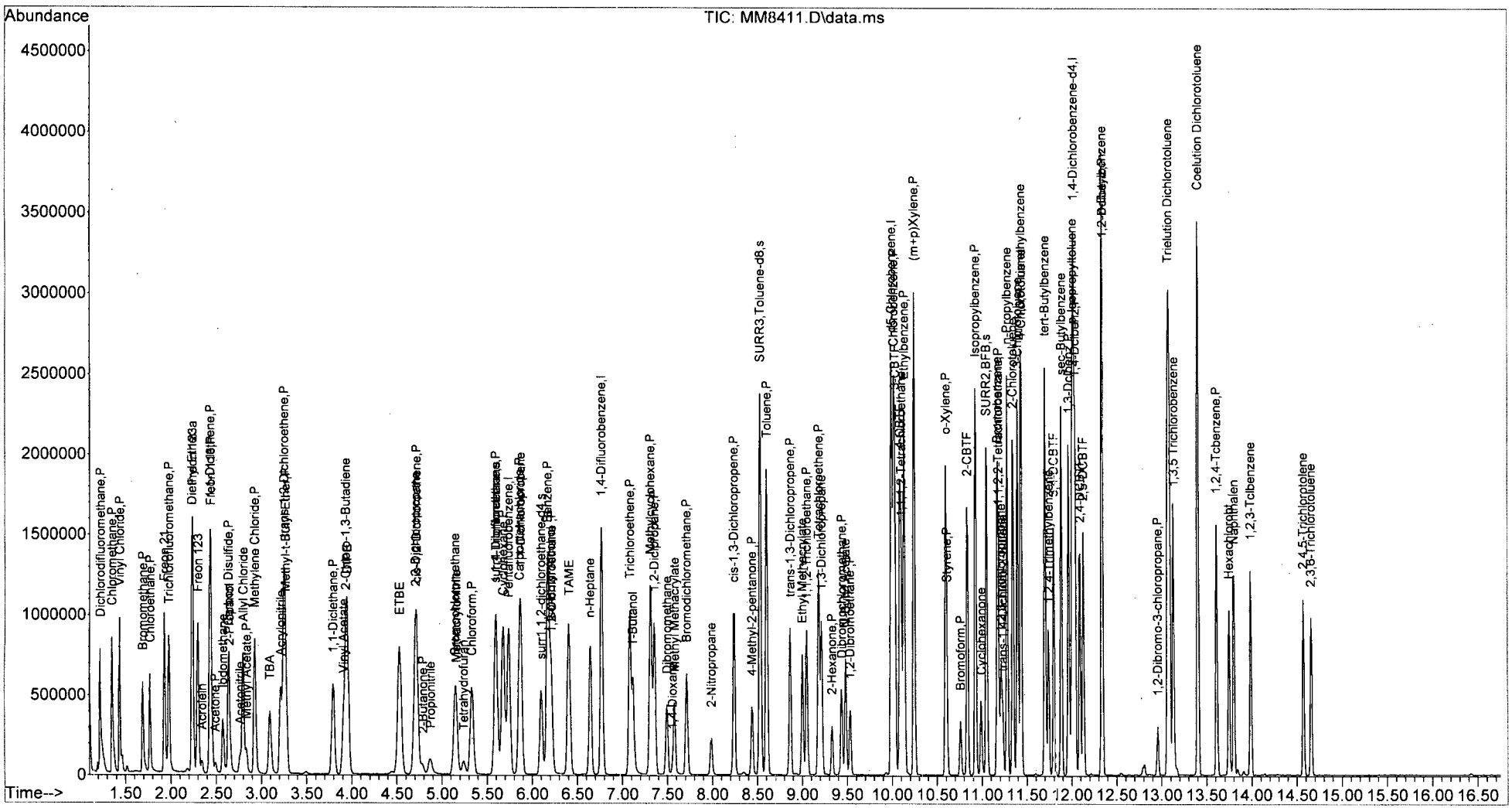
response 47559

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	57.12#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8411.D
Acq On : 30 Nov 2015 9:15 pm
Operator : K.Ruest
Sample : R1510063-008MS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Nov 30 21:31:16 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Mon Nov 30 21:31:30 2015 Page: 4

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510063
Date Collected: 11/17/15 1051
Date Received: 11/19/15

Sample Name: FTMM-68-GW-MW04-20.25
Lab Code: RQ1514764-06
Run Type: Duplicate Matrix Spike

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**49.0**		5.0	1.0	0.22	1	NA	11/30/15 21:46		474104	
1,1,1-Trichloroethane (TCA)	**52.6**		5.0	1.0	0.36	1	NA	11/30/15 21:46		474104	
1,1,2,2-Tetrachloroethane	**50.8**		5.0	1.0	0.25	1	NA	11/30/15 21:46		474104	
1,1,2-Trichloroethane	**52.8**		5.0	1.0	0.34	1	NA	11/30/15 21:46		474104	
1,1-Dichloroethane (1,1-DCA)	**54.8**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
1,1-Dichloroethene (1,1-DCE)	**48.4**		5.0	1.0	0.57	1	NA	11/30/15 21:46		474104	
1,1-Dichloropropene	**50.4**		5.0	1.0	0.29	1	NA	11/30/15 21:46		474104	
1,2,3-Trichlorobenzene	**52.3**		5.0	1.0	0.82	1	NA	11/30/15 21:46		474104	
1,2,3-Trichloropropane	**53.1**		5.0	1.0	0.70	1	NA	11/30/15 21:46		474104	
1,2,4-Trichlorobenzene	**49.5**		5.0	1.0	0.23	1	NA	11/30/15 21:46		474104	
1,2,4-Trimethylbenzene	**14.9**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
1,2-Dibromo-3-chloropropane (DBCP)	**49.1**		5.0	1.0	0.74	1	NA	11/30/15 21:46		474104	
1,2-Dibromoethane	**50.2**		5.0	1.0	0.24	1	NA	11/30/15 21:46		474104	
1,2-Dichlorobenzene	**50.9**		5.0	1.0	0.21	1	NA	11/30/15 21:46		474104	
1,2-Dichloroethane	**53.2**		5.0	1.0	0.36	1	NA	11/30/15 21:46		474104	
1,2-Dichloropropane	**54.5**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
1,3,5-Trimethylbenzene	**12.4**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
1,3-Dichlorobenzene	**51.1**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
1,3-Dichloropropane	**51.3**		5.0	1.0	0.27	1	NA	11/30/15 21:46		474104	
1,4-Dichlorobenzene	**52.5**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
2,2-Dichloropropane	**48.4**		5.0	1.0	0.27	1	NA	11/30/15 21:46		474104	
2-Butanone (MEK)	**47.7**		5.0	1.0	0.81	1	NA	11/30/15 21:46		474104	
2-Chlorotoluene	**51.4**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
2-Hexanone	**47.0**		5.0	5.0	1.7	1	NA	11/30/15 21:46		474104	
tert-Butyl Alcohol	**1030**		100	20	11	1	NA	11/30/15 21:46		474104	
4-Chlorotoluene	**45.7**		5.0	1.0	0.24	1	NA	11/30/15 21:46		474104	
p-Isopropyltoluene	**36.4**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
4-Methyl-2-pentanone	**52.0**		5.0	1.0	0.67	1	NA	11/30/15 21:46		474104	
Acetone	**41.8**		5.0	5.0	1.3	1	NA	11/30/15 21:46		474104	
Benzene	**53.4**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
Bromobenzene	**52.4**		5.0	1.0	0.28	1	NA	11/30/15 21:46		474104	
Bromochloromethane	**48.9**		5.0	1.0	0.32	1	NA	11/30/15 21:46		474104	
Bromodichloromethane	**49.1**		5.0	1.0	0.32	1	NA	11/30/15 21:46		474104	
Bromoform	**40.2**		5.0	1.0	0.42	1	NA	11/30/15 21:46		474104	
Bromomethane	**49.4**		5.0	1.0	0.29	1	NA	11/30/15 21:46		474104	
Carbon Tetrachloride	**49.0**		5.0	1.0	0.45	1	NA	11/30/15 21:46		474104	
Chlorobenzene	**51.4**		5.0	1.0	0.29	1	NA	11/30/15 21:46		474104	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510063
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/17/15 1051
Sample Matrix:	Water	**Date Received:**	11/19/15
Sample Name:	FTMM-68-GW-MW04-20.25	**Units:**	µg/L
Lab Code:	RQ1514764-06	**Basis:**	NA
Run Type:	Duplicate Matrix Spike		

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**54.8**		5.0	1.0	0.24	1	NA	11/30/15 21:46		474104	
Chloroform	**49.4**		5.0	1.0	0.25	1	NA	11/30/15 21:46		474104	
Chloromethane	**51.9**		5.0	1.0	0.21	1	NA	11/30/15 21:46		474104	
Dibromochloromethane	**45.3**		5.0	1.0	0.31	1	NA	11/30/15 21:46		474104	
Dichlorodifluoromethane (CFC 12)	**55.2**		5.0	1.0	0.46	1	NA	11/30/15 21:46		474104	
Methylene Chloride	**49.1**		5.0	1.0	0.60	1	NA	11/30/15 21:46		474104	
Ethylbenzene	**42.4**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
Hexachlorobutadiene	**51.5**		5.0	1.0	0.62	1	NA	11/30/15 21:46		474104	
Isopropylbenzene (Cumene)	**43.7**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
Methyl tert-Butyl Ether	**49.8**		5.0	1.0	0.29	1	NA	11/30/15 21:46		474104	
Naphthalene	**52.7**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
Styrene	**6.65**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
Tetrachloroethene (PCE)	**51.9**		5.0	1.0	0.30	1	NA	11/30/15 21:46		474104	
Toluene	**44.6**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
Trichloroethene (TCE)	**49.5**		5.0	1.0	0.22	1	NA	11/30/15 21:46		474104	
Trichlorofluoromethane (CFC 11)	**54.7**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
Vinyl Chloride	**50.4**		5.0	1.0	0.32	1	NA	11/30/15 21:46		474104	
cis-1,2-Dichloroethene	**52.3**		5.0	1.0	0.30	1	NA	11/30/15 21:46		474104	
cis-1,3-Dichloropropene	**49.6**		5.0	1.0	0.24	1	NA	11/30/15 21:46		474104	
m,p-Xylenes	**58.1**		10	2.0	0.33	1	NA	11/30/15 21:46		474104	
n-Butylbenzene	**43.4**		5.0	1.0	0.21	1	NA	11/30/15 21:46		474104	
n-Propylbenzene	**43.1**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
o-Xylene	**32.2**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
sec-Butylbenzene	**44.7**		5.0	1.0	0.27	1	NA	11/30/15 21:46		474104	
tert-Butylbenzene	**49.5**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	
trans-1,2-Dichloroethene	**48.8**		5.0	1.0	0.33	1	NA	11/30/15 21:46		474104	
trans-1,3-Dichloropropene	**50.6**		5.0	1.0	0.20	1	NA	11/30/15 21:46		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	11/30/15 21:46	
Dibromofluoromethane	110	85-115	11/30/15 21:46	
Toluene-d8	105	85-120	11/30/15 21:46	

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8412.D
Acq On : 30 Nov 2015 9:46 pm
Operator : K.Ruest RQ1574764-06
Sample : R1510063-008DMS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Nov 30 22:01:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	765314	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1273657	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1203711	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	587065	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	362686	54.77	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.54%				
48) surr1,1,2-dichloroetha...	6.096	65	399866	54.67	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 109.34%				
65) SURR3,Toluene-d8	8.529	98	1457299	52.29	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 104.58%				
70) SURR2,BFB	11.047	95	595234	56.58	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 113.16%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	595419	55.23	ppb		99
3) Chloromethane	1.347	50	667982	51.90	ppb		99
4) Vinyl Chloride	1.433	62	604297	50.40	ppb		96
5) Bromomethane	1.689	94	289190	49.38	ppb		99
6) Chloroethane	1.768	64	361094	54.76	ppb		100
7) Freon 21	1.927	67	720909	56.46	ppb		99
8) Trichlorofluoromethane	1.975	101	510857	54.69	ppb		99
9) Diethyl Ether	2.231	59	315449	53.83	ppb		95
10) Freon 123a	2.237	67	439898	52.71	ppb		97
11) Freon 123	2.298	83	469073	48.74	ppb		97
12) Acrolein	2.341	56	58536	89.76	ppb		95
13) 1,1-Diclethene	2.433	96	309645	48.38	ppb		96
14) Freon 113	2.445	101	311268	53.44	ppb		95
15) Acetone	2.487	43	68180	41.79	ppb		93
16) 2-Propanol	2.646	45	285228	921.30	ppb		97
17) Iodomethane	2.573	142	368039	50.61	ppb		99
18) Carbon Disulfide	2.634	76	783897	36.67	ppb		100
19) Acetonitrile	2.762	40	66492	293.84	ppb		93
20) Allyl Chloride	2.798	76	170622	47.87	ppb		92
21) Methyl Acetate	2.829	43	163719	43.07	ppb		98
22) Methylene Chloride	2.926	84	362921	49.10	ppb		98
23) TBA	3.091	59	516312	1027.59	ppb		100
24) Acrylonitrile	3.207	53	456250	247.06	ppb		100
25) Methyl-t-Butyl Ether	3.262	73	887036	49.81	ppb		99
26) trans-1,2-Dichloroethene	3.243	96	336353	48.80	ppb		97
28) 1,1-Diclethane	3.792	63	672342	54.84	ppb		99
29) Vinyl Acetate	3.902	86	45805	35.87	ppb	#	91
30) DIPE	3.944	45	1165806	48.78	ppb		98
31) 2-Chloro-1,3-Butadiene	3.926	53	152271	12.35	ppb		96
32) ETBE	4.530	59	1041931	46.39	ppb		98
33) 2,2-Dichloropropane	4.706	77	474968	48.43	ppb		96
34) cis-1,2-Dichloroethene	4.719	96	398664	52.25	ppb		99
35) 2-Butanone	4.780	43	106510	47.66	ppb		94
36) Propionitrile	4.865	54	168880	247.45	ppb		91

KF 12/3/15

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8412.D
Acq On : 30 Nov 2015 9:46 pm
Operator : K.Ruest
Sample : R1510063-008DMS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Nov 30 22:01:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	192914	48.94	ppb		95
38) Methacrylonitrile	5.158	67	99723	46.10	ppb		94
39) Tetrahydrofuran	5.237	42	74826	52.06	ppb		86
40) Chloroform	5.328	83	588429	49.38	ppb		98
41) 1,1,1-Trichloroethane	5.597	97	492055	52.57	ppb		96
42) TAME	6.401	73	912021	47.80	ppb		99
44) Cyclohexane	5.670	41	327798	47.09	ppb		99
46) Carbontetrachloride	5.859	121	119545	49.02	ppb		94
47) 1,1-Dichloropropene	5.871	75	453004	50.41	ppb		98
49) Benzene	6.176	78	1496871	53.40	ppb		97
50) 1,2-Dichloroethane	6.212	62	382559	53.24	ppb		98
51) Iso-Butyl Alcohol	6.206	43	231196	983.97	ppb		92
52) n-Heptane	6.639	43	375998	48.74	ppb		98
53) 1-Butanol	7.115	56	369514	2508.91	ppb		100
54) Trichloroethene	7.084	130	352508	49.49	ppb		97
55) Methylcyclohexane	7.310	55	399467	46.52	ppb		97
56) 1,2-Diclpropane	7.352	63	378212	54.45	ppb		99
57) Dibromomethane	7.492	93	166998	48.83	ppb		86
58) 1,4-Dioxane	7.553 ~~7.492~~	88	53205 ~~1031~~	~~20.24~~	ppb	1044.59	84
59) Methyl Methacrylate	7.578	69	161182	40.10	ppb		100
60) Bromodichloromethane	7.712	83	418331	49.12	ppb		98
61) 2-Nitropropane	7.986	41	123878	98.77	ppb		97
63) cis-1,3-Dichloropropene	8.242	75	566552	49.63	ppb		99
64) 4-Methyl-2-pentanone	8.437	43	264265	52.02	ppb		98
66) Toluene	8.602	91	1294127	44.58	ppb		98
67) trans-1,3-Dichloropropene	8.864	75	458747	50.59	ppb		100
68) Ethyl Methacrylate	8.998	69	338619	42.18	ppb		97
69) 1,1,2-Trichloroethane	9.047	97	259014	52.76	ppb		97
72) Tetrachloroethene	9.181	164	259034	51.88	ppb		96
73) 2-Hexanone	9.328	43	173279	47.03	ppb		97
74) 1,3-Dichloropropane	9.212	76	469196	51.27	ppb		99
75) Dibromochloromethane	9.431	129	257809	45.28	ppb		98
76) N-Butyl Acetate	9.480	43	405818	46.09	ppb		96
77) 1,2-Dibromoethane	9.529	107	245013	50.24	ppb		99
78) Chlorobenzene	10.016	112	915069	51.39	ppb		99
79) 3-CBTF	10.029	180	436013	49.42	ppb		98
80) 4-CBTF	10.083	180	403896	49.20	ppb		97
81) 1,1,1,2-Tetrachloroethane	10.102	131	301600	49.01	ppb		97
82) Ethylbenzene	10.132	106	428023	42.44	ppb		96
83) (m+p)Xylene	10.242	106	723630	58.13	ppb		96
84) o-Xylene	10.596	106	410206	32.17	ppb		92
85) Styrene	10.608	104	138080	6.65	ppb		80
87) Bromoform	10.760	173	134014	40.18	ppb		95
88) 2-CBTF	10.833	180	462774	51.99	ppb		93
89) Isopropylbenzene	10.925	105	1333556	43.68	ppb		100
90) Cyclohexanone	10.986	55	169822	383.69	ppb		92
91) trans-1,4-Dichloro-2-B...	11.230	53	70392	38.87	ppb		87
92) 1,1,2,2-Tetrachloroethane	11.181	83	313226	50.78	ppb		98
93) Bromobenzene	11.169	156	361690	52.36	ppb		97
94) 1,2,3-Trichloropropane	11.211	110	87151	53.14	ppb	#	88
95) n-Propylbenzene	11.278	91	1517898	43.14	ppb		98

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8412.D
Acq On : 30 Nov 2015 9:46 pm
Operator : K.Ruest
Sample : R1510063-008DMS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 26 Sample Multiplier: 1

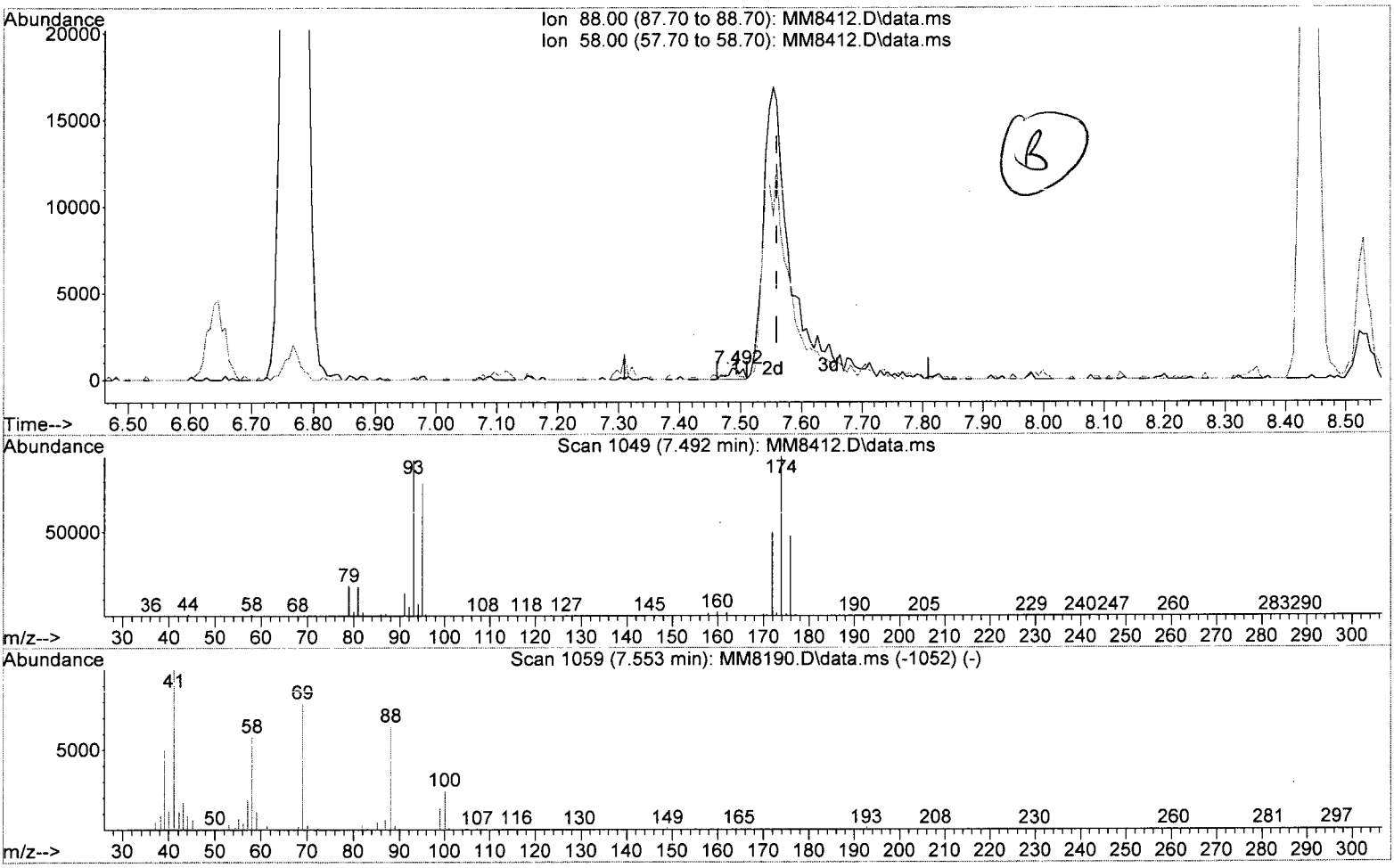
Quant Time: Nov 30 22:01:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
96)	2-Chlorotoluene	11.339	91	1060990	51.44	ppb	98
97)	3-Chlorotoluene	11.394	91	1100051	50.80	ppb	98
98)	4-Chlorotoluene	11.437	91	1064069	45.73	ppb	99
99)	1,3,5-Trimethylbenzene	11.431	105	286277	12.39	ppb	97
100)	tert-Butylbenzene	11.699	119	1020172	49.50	ppb	100
101)	1,2,4-Trimethylbenzene	11.736	105	368692	14.87	ppb	96
102)	3,4-DCBTF	11.797	214	292057	48.99	ppb	98
103)	sec-Butylbenzene	11.882	105	1287637	44.65	ppb	99
104)	p-Isopropyltoluene	12.004	119	811283	36.38	ppb	99
105)	1,3-Dclbenz	11.961	146	682642	51.05	ppb	97
106)	1,4-Dclbenz	12.034	146	657786	52.48	ppb	98
107)	2,4-DCBTF	12.089	214	265057	50.94	ppb	91
108)	2,5-DCBTF	12.126	214	302610	51.41	ppb	98
109)	n-Butylbenzene	12.333	91	915787	43.37	ppb	99
110)	1,2-Dclbenz	12.333	146	626803	50.93	ppb	96
111)	1,2-Dibromo-3-chloropr...	12.955	157	58472	49.13	ppb	96
112)	Trielution Dichlorotol...	13.077	125	1574428	151.58	ppb	98
113)	1,3,5 Trichlorobenzene	13.126	180	405837	49.06	ppb	98
114)	Coelution Dichlorotoluene	13.400	125	1138273	103.71	ppb	99
115)	1,2,4-Tcbenzene	13.607	180	376041	49.53	ppb	98
116)	Hexachlorobt	13.747	225	156050	51.47	ppb	96
117)	Naphthalen	13.796	128	829847	52.70	ppb	98
118)	1,2,3-Tclbenzene	13.985	180	330400	52.31	ppb	98
119)	2,4,5-Trichlorotolene	14.570	159	248583	53.06	ppb	98
120)	2,3,6-Trichlorotoluene	14.656	159	211495	51.27	ppb	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8412.D
Acq On : 30 Nov 2015 9:46 pm
Operator : K.Ruest
Sample : R1510063-008DMS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Nov 30 22:01:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8412.D\data.ms

(58) 1,4-Dioxane

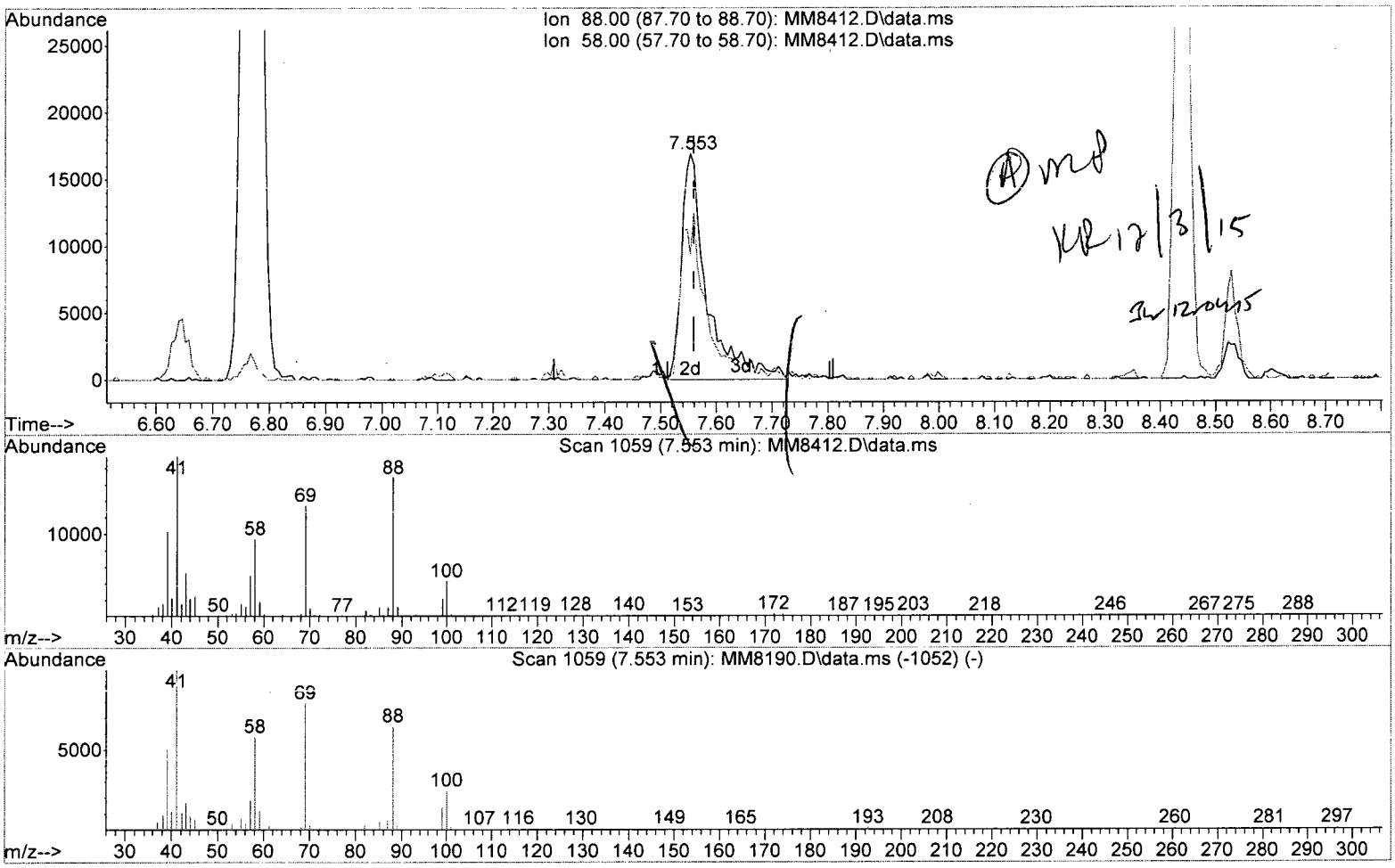
7.492min (-0.067) 20.24 ppb

response 1031

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	102.52
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8412.D
Acq On : 30 Nov 2015 9:46 pm
Operator : K.Ruest
Sample : R1510063-008DMS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Nov 30 22:01:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8412.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 1044.59 ppb m

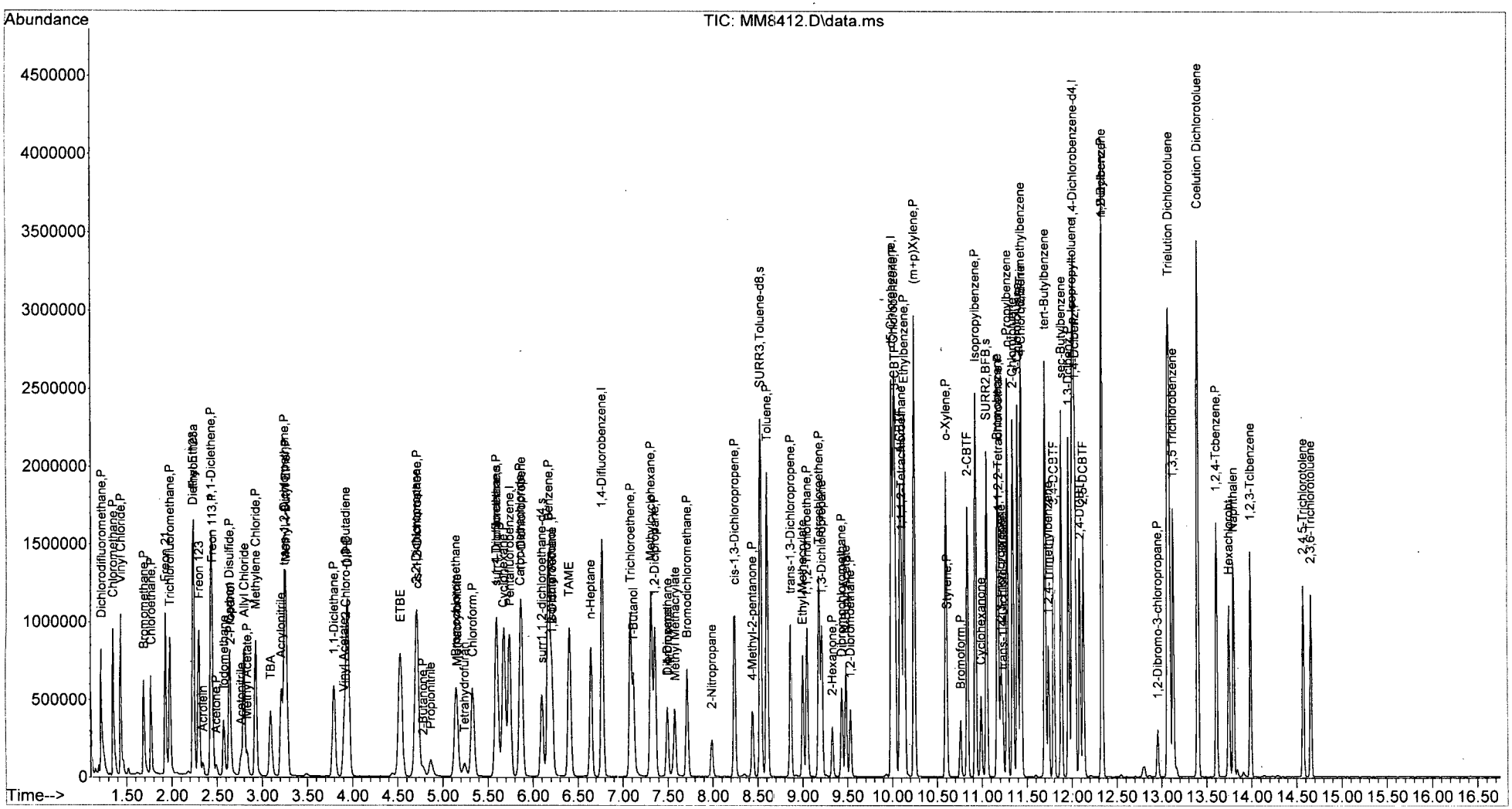
response 53205

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	55.67#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8412.D
Acq On : 30 Nov 2015 9:46 pm
Operator : K.Ruest
Sample : R1510063-008DMS|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Nov 30 22:01:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Mon Nov 30 22:02:13 2015 Page: 4

Analysis: 8260 waterB
Date: 11/18/15
Instr. 12

Analyst: K. Ruest
Data Path: j:\acqudata\msvoa12\111815

Tune Method: W111815
Run Method: ↓
LIMS Run#: -8260 Water ICAL-

Pos.	Sample	Diln.	Diln. Prep.		Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK									MM8182		
2	NVE									MM8183	YT	(auto) 15:38
3	1 BLK	5ppm	500ppm	SU(500)	FV					MM8184	YB	
4	0.5 ppb	5uL	—	—	50mls					MM8185	Y	
5	1.0 ppb	10uL	—	—	↓					MM8186	Y	
6	2.0	20uL	—	1uL						MM8187	Y	
7	5.0	50uL	—	2uL						MM8188	Y	
8	20	—	2uL	5uL						MM8189	Y	
9	50	—	5uL	—						MM8190	Y	
10	~~15~~ 100	—	10uL	7.5uL						MM8191	Y	
11	150	—	15uL	10uL						MM8192	Y	
12	200	—	20uL	—	↓					MM8193	Y	
13	BLK							—	—	MM8194	—	
14	↓							—	—	MM8195	—	
15	↓							—	—	MM8196	—	

EDD
KR 11/18/15

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500
Primary OCC : 85996
Primary HBO : 85871 | 10uL → 1.0mL MeOH
Primary Fr+ : 85806 | ~~5uL → 50mls~~ = 5ppm
Primary Tb : 85998 | ~~= C~~ KR
Primary HSL : 85740

Secondary :
Secondary :
Secondary :
Secondary :
Secondary :

Combined IS/Surr 500: 85986
Surrogate 500: 85821
Internal Std

Runlog-MSVOAr2 9/20/13
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Analysis: 8260 Waters
Analyst: K. Ruest
Tune Method: W111815
Date: 11/19/15
Data Path: j:\acqudata\msvoa12\111915
Run Method: ↓
Instr. 12
LIMS Run#: 472937

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								MM8197		
2	↓								MM8198		
3	TUNE		RQ1514404-01						MM8199	YT	(auto) 10:06
4	CCV		02						MM8200	YQ	YC
5	ICV/LCS@50ppb		03						MM8201	YQ	
6	VBLK		—						MM8202	(H)	np fe/o
7	↓		04						MM8203	YB	
8	R1509899-002	1.0		Oswego	6673	2	1		MM8204	Y	
9	R1509859-012	1.0		Tetra	6765	2	1		MM8205	Y	
10	002	1.0					1		MM8206	Y	
11	003	1.0					1		MM8207		
12	004	1.0					1		MM8208		
13	010	5.0	10/50mls				1		MM8209		
14	011	2.0	25/50mls				1		MM8210		

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500 Primary OCC : 85996
Primary HBO : 85871
Primary Frt : 85806 5uL → 50mls = CCV
Primary T6 : 85998
Primary HSL : 85740

200 Secondary 85637 Frt - 12.5uL
500 Secondary 85997 : OCC
Secondary 85875 : HBO 5.0uL
Secondary 86000 : T6
Secondary 85909 : HSL
50mls = ICV/LCS

Combined IS/Surr 500 : 85986
Surrogate :
Internal Std :

Runlog-MSVOAr2 9/20/13
Page 36

Analysis: 8260 Waters
Analyst: K. Ruest
Tune Method: W111815
Date: 11/24/15 - Run#2
Data Path: j:\acqudata\rnsvoa12\112415
Run Method: ↓
Instr. 12
* requanted W111815 - 54 on avg!
LIMS Run#: 473760

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
26	TUNE		RQ1514665-01						MM8363	YT	(auto) 22:28
27	CCV		02						MM8364	YC	
28	LCS		03						MM8365	YQ	
29	VBLK		—						MM8366	(N)	np+c/o
30	↓		↓ 04						MM8367	YB	
31	R1510063-010	1.0		Parsons	11603	4	1	<2	MM8368	Y	
32	002	1.0		(DOD-4)			1	<2	MM8369	Y	
33	011	1.0					1	<2	MM8370	Y	
34	012	1.0					1	<2	MM8371	Y	
35	003	1.0					1	<2	MM8372	Y	
36	004	1.0					1	<2	MM8373	Y	
37	005	1.0					1	<2	MM8374	Y	
38	006	1.0					1	<2	MM8375	Y	
39	007	1.0					1	<2	MM8376	Y	
40	009	1.0					1	<2	MM8377	Y	
41	014	1.0					1	<2	MM8378	Y	
42	015	1.0					1	<2	MM8379	Y	
43	016	1.0					1	<2	MM8380	Y	
44	001	2.5	20/50mls				1	<2	MM8381	Y	
45	017	5.0	10/50mls				1	<2	MM8382	(N)	np+1.0
46	013	25	2/50mls				1	<2	MM8383	Y	
47	MS 006	1.0	RQ1514665-05				2	<2	MM8384	YQ	
48	↓ MSD 006	1.0	↓ 06	↓	↓	↓	3	<2	MM8385	YQ	

EOD
KR 11/25/15

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500 Primary HSL : 86114
↓ Primary TG : 85998 | 5uL → 50mls
Primary FrT : 85806 | = CCV
Primary :
Primary / :

200 Secondary FrT : 85637 - 5uL
500 Secondary TG : 86000 | 2uL
↓ Secondary HSL : 85909 |
Secondary :
Secondary / :

50mls = LCS
- 10.6uL
4.2uL
42ml vial MS/MSD

Combined IS/Surr 500 : 86137
Surrogate :
Internal Std :

Runlog-MSVOAr2 9/20/13
Page 43

Analysis: 8260 Waters | Analyst: K. Ruest | Tune Method: W1118151A
Date: 11/30/15 | Data Path: j:\acqudata\rnsvoa12\113015 | Run Method: ↓
Instr. 12 | LIMS Run#: 474104

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								MM58387		
2	~~TUNE~~ BLK								MM58388		
3	TUNE								MM58389		- not eval. as tune. (VEM)
4	TUNE		RQ1514764-01						MM58390	YT	(auto) 10:32
5	CCV		02						MM58391	YC	
6	LCS		03						MM58392	YQ	
7	VBLK								MM58393	(N)	not to
8	↓		↓ 04						MM58394	YB	
9	R1510161-005	1.0		PERSONS	11603	4	1	12	MM58395	Y	
10	004	1.0		(4000 4)			1	12	MM58396	Y	
11	↓ 017	1.0					1	12	MM58397	Y	
12	R1510063-~~005~~	1.0	008 (VB)				1	12	MM58398	Y	
13	018	2.5	20/50mls				1	12	MM58399	(N)	not 1.0
14	019	2.5					1	12	MM58100	(Y)	not 5.0
15	020	1.0					1	12	MM58101	(Y)	not 5.0
16	021	1.0					1	12	MM58102	(Y)	not 5.0
17	BLK ~~017~~	1.0					~~2~~ —		MM58103	—	
18	017	1.0					2	12	MM58104	Y	
19	016	1.0					2	12	MM58105	Y	
20	019	5.0	10/50mls				2	12	MM58106	(Y)	DL
21	020	5.0	↓				2	12	MM58107	(Y)	DL
22	↓ 021	5.0	↓				2	12	MM58108	(Y)	DL
23	R1510161-003	2.5	20/50mls				1	12	MM58109	(N)	not 1.0
24	↓ 010	1.0					1	12	MM58110	~~N~~ Y	
25	R1510063-008	1.0	MS				2	12	MM58111	YQ	
26	008	1.0	MSD	↓	↓	↓	3	12	MM58112	YQ	21:46 ✓
27	BLK							—	MM58113	—	

EOD
YR 11/30/15

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500 Primary OCC: 859916
Primary HBD: 855871
Primary HSL: 855906 5uL → 50mls
Primary TB: 859998 = CCV
Primary HSL: 861114

200 Secondary HSL: 85637-5uL
500 Secondary OCC: 859917
Secondary HBD: 855875 2uL
Secondary HSL: 859909
Secondary TB: 860000
= 50mls = 2 CS

-10.6uL Combined IS/Surr 500: 86137
Surrogate :
Internal Std :
41.2uL
42ml vial = MS/D

Runlog-MSVOAr2 9/20/13

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

January 06, 2016

Analytical Report for Service Request No: R1510161

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Dear Sandra:

Enclosed are the results of the sample(s) submitted to our laboratory on November 21, 2015. For your reference, these analyses have been assigned our service request number **R1510161**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7478. You may also contact me via email at Vanessa.Badman@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Vanessa N. Badman

Vanessa Badman

ALS Environmental

Client:	Parsons Engineering Science
Service Request No.:	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling
Date Received:	November 21, 2015
Sample Matrix:	Water

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Samples were received for analysis at ALS Environmental on 11/21/15. The samples were received in good condition and consistent with the accompanying chain of custody form. All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

Metals

Samples were analyzed for a site specific list of Metals. Please see attached report pages for method numbers.

All LCS recoveries were within limits.

Site specific QC was not requested on these samples.

All Method blanks were free of contamination.

All samples related QC were within limits.

No other analytical or QC problems were encountered.

Volatile Organics

Samples were analyzed for a site list of Volatile Organics by Methods 5035A/8260C from SW-846.

All Tuning criteria for BFB were within QC limits.

All the initial calibration criteria were met for all analytes.

All Continuing Calibration Verification (CCV) standards were within 20% Difference (D).

All Internal Standard Areas (IS) were within QC limits.

All surrogate standard recoveries were acceptable.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries were within limits.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination except for 1,2,4-Trichlorobenzene, Hexachlorobutadiene, and Naphthalene. Any hits in the samples should be considered to be estimated.

Due to sample matrix or non-target analyte concentrations, dilutions were performed and the MRLs adjusted accordingly.

No other analytical or QC problems were encountered.

Semi-Volatile Organics

Samples were analyzed for a site list of Semi-Volatile Organics by Method 3541/8270D and 3580/8270D from SW-846.

All Tuning criteria for DFTPP were within QC limits.

All CCV standards were within 20% D for all analytes.

All Internal Standard Areas were within QC limits.

All surrogate standard recoveries were within limits.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries and RPD's were within limits except for Benzidine which recovered low in the LCSD (RQ1514672-02). The LCS and the LCSD have been reported as zero percent recovery for Benzidine due to a limitation in LIMs. Benzidine was detected with 8.97% recovery in the LCS and has been flagged with a "*"; and 15% recovery in the LCSD which should not be flagged on the summary form. The precision was calculated to be 53% RPD.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination.

Due to sample matrix or non-target analyte concentrations, dilutions were performed and the MRLs adjusted accordingly.

No other analytical or QC problems were encountered.

Pesticides

Samples were analyzed for Pesticides by Method 8081 from SW-846.

All the initial and continuing calibration criteria were met for all analytes, except for CCV52 and CCV53 which were low on the back column for DDT and Methoxychlor. Also, CCV 54 was low on the back column for Methoxychlor.

All surrogate standard recoveries were acceptable.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries were within limits.

All MS/MSD recoveries and RPD's were acceptable, except for Endrin Aldehyde on the MS and 4,4-DDD, alpha-Chlordane, Endrin Aldehyde, and gamma-Chlordane on the MSD.

The Method Blanks associated with these samples were free of contamination.

No other analytical or QC problems were encountered.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 748810-03000	Batch Complete: Yes		Date Revised:
Submission: R1510161	Diskette Requested: No		Date Due: 12/15/15
Client: Parsons Engineering Science	Date: 1/6/16		Protocol: SW846
Client Rep: VBADMAN	Custody Seal: Present/Absent:		Shipping No.:
Project: FTMM Baseline 2015 Q4 GW Sar	Chain of Custody: Present/Absent:		SDG #:

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1510161-001	FTMM-8-GW-M8MW21-13.0	Water	6010C	11/19/15	11/21/15			
R1510161-002	FTMM-8-GW-M8MW17-9.75	Water	6010C	11/19/15	11/21/15			
R1510161-003	FTMM-8-GW-M8MW24-28.5	Water	8260C	11/19/15	11/21/15			
R1510161-004	EB-2015-11-19	Water	8260C, 8081B, 6010C	11/19/15	11/21/15			
R1510161-005	TB-2015-11-19	Water	8260C	11/19/15	11/21/15			
R1510161-006	FTMM-56-GW-80MW02-7.5	Water	8081B	11/20/15	11/21/15			
R1510161-007	FTMM-56-GW-80MW05-7.0	Water	6010C	11/20/15	11/21/15			
R1510161-008	FTMM-56-GW-80MW102-7.5	Water	8081B	11/20/15	11/21/15			
R1510161-009	FTMM-57-GW-108MW04-7.5	Water	6010C	11/20/15	11/21/15			
R1510161-010	FTMM-M8-GW-MW15-11.8	Water	8260C	11/19/15	11/21/15			
R1510161-011	FTMM-M8-GW-MW16-12.07	Water	8260C	11/19/15	11/21/15			
R1510161-012	FTMM-M8-GW-697MW01-16.5	Water	8081B, 6010C, 8260C	11/19/15	11/21/15			
R1510161-015	FTMM-M8-GW-MW12-13.5	Water	8260C	11/20/15	11/21/15			
R1510161-016	FTMM-66-GW-886RW08-11.2	Water	8270D	11/20/15	11/21/15			
R1510161-017	EB-2015-11-20	Water	6010C, 8081B, 8260C, 8270D	11/20/15	11/21/15			

Folder Comments: DoD reporting ERPTOOLS LOD

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

32373

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name: FTMM-2015 Q4 GW Sampling	Project Number: 748810-03000
Project Manager: Cris Grill	Report CC:
Company/Address: Parsons, 100 High Street, Boston, MA 02210	
Phone #: (617)449-1583	Email: cris.grill@parsons.com
Sampler's Signature: Alex DiIonno	Sampler's Printed Name: Alex DiIonno

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 2 0 2

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ◦ 8260 ◦ 624 ◦ CLP	GC/MS SVOAs ◦ 8270 ◦ 625	GC VOAs ◦ 8021 ◦ 601/602	PESTICIDES ◦ 8081 ◦ 608	PCBs ◦ 8082 ◦ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOCs + TICs (including EBB + 1,2-DCA) EPA Method 8260C	Lead 6010C/7470A	Pesticides-EPA Method 8081B	Pb, As, Cd-EPA Method 6010C/7470A				REMARKS/ ALTERNATE DESCRIPTION
FTMM-8-GW-M8MW21-13.0		11/19/15	1158	GW	1									X						
FTMM-8-GW-M8MW17-9.75		11/19/15	1321	GW	1								X	X						
FTMM-8-GW-M8MW24-28.5		11/19/15	1607	GW	3								X							
EB-2015-11-19		11/19/15	1700	EB	6								X	X	X					
TB-2015-11-19		11/19/15	—	TB	3								X							
FTMM-56-GW-80MW02-7.5		11/20/15	1140	GW	2										X					
FTMM-56-GW-80MW05-7.0		11/20/15	1304	GW	1											X				
FTMM-56-GW-80MW102-7.5		11/20/15	1140	GW	2										X					
FTMM-57-GW-108MW04-7.5		11/20/15	1613	GW	1											X				
FTMM-M8-GW-MW15-11.8		11/19/15	1243	GW	3								X							
FTMM-M8-GW-MW16-12.07		11/19/15	1455	GW	3								X							

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: New Jersey

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data

Edata _____ Yes _____ No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Alex DiIonno	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: Alex DiIonno	Printed Name: Matt Stone	Printed Name	Printed Name	Printed Name	
Firm: Parsons	Firm: ALS	Firm	Firm	Firm	
Date/Time: 11/20/15; 1850	Date/Time: 11/21/15 0945	Date/Time	Date/Time	Date/Time	

R1510161 5
Parsons, Inc.
FTMM Baseline

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

32374

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 2

Project Name: FTMM-2015 Q4 GW Sampling	Project Number: 148810-03000
Project Manager: Cris Grill	Report CC:
Company/Address: Parsons, 100 High Street, Boston, MA 02210	
Phone #: (617) 449-1583	Email: cris.grill@parsons.com
Sampler's Signature: Alex DiTonno	Sampler's Printed Name: Alex DiTonno

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 2 0 2

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	VOCs + TICs (including EDB + 1,2-DCA) 8260C	Lead 6010C/7470A	Pesticides-8081B	Pb, As, Cd-6010C/7470A	SVOCs
FTMM-MS-697MW01-16.5		11/19/15	1647	GW	7	X	X	X		
FTMM-MS-697MW01-16.5-MS		11/19/15	1647	GW	2			X		
FTMM-MS-697MW01-16.5-MSD		11/19/15	1647	GW	2			X		
FTMM-ME-GW-MW12-13.5		11/20/15	1215	GW	3	X				
FTMM-66-GW-886RW08-11.2		11/20/15	1510	GW	2				X	
EB-2015-11-20		11/20/15	1700	GW EB	8	X		X	X	X

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: New Jersey

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
REQUESTED REPORT DATE: _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ____ Yes ____ No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Alex DiTonno	Signature:	Signature	Signature	Signature	Signature
Printed Name: Alex DiTonno	Printed Name: Matt Stro	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Parsons	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time: 11/20/15; 1850	Date/Time: 11/21/15 0945	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

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R1510161 5
Parsons, Inc.
FTMM Baseline

Cooler Receipt and Preservatio

Project/Client Parsons Folder Number

Cooler received on 11/21/15 by: MDS COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	Y N	5a	**Perchlorate** samples have required headspace?	Y N NA
2	**Custody papers** properly completed (ink, signed)?	Y N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y N NA
3	Did all bottles arrive in good **condition** (unbroken)?	Y N	6	Where did the bottles originate?	ALS/ROC CLIENT
4	Circle: **Wet Ice** **Dry Ice** **Gel packs** present?	Y N	7	Soil VOA received as: Bulk Encore 5035set	NA

8. Temperature Readings Date: 11/21/15 Time: 0955 ID: IR#3 IR#5 From: Temp Blank Sample Bottle

Observed Temp (°C)	4.9	1.4					
Correction Factor (°C)	–	–					
Corrected Temp (°C)	4.9	1.4					
Within 0-6°C?	Y N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by MDS on 11/21/15 at 0955
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: VNB

Cooler Breakdown: Date: 11/21/15 Time: 1145 by: MDS

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3	X		BDB26147H	10/16				
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	4114070	10/16				

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: 071315-2AHW, 5-211-002, 042015-1BMG, 0908141BLT
Other Comments:

PC Secondary Review: VNB 11/23/15

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r9.doc 9/24/15

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1607
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-8-GW-M8MW24-28.5	**Units:**	µg/L
Lab Code:	R1510161-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 13:36		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 13:36		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 13:36		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 13:36		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 13:36		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 13:36		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 13:36		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 13:36		474290	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/1/15 13:36		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 13:36		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 13:36		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 13:36		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 13:36		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 13:36		474290	
1,4-Dichlorobenzene	**0.35**	J	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 13:36		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 13:36		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 13:36		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 13:36		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 13:36		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 13:36		474290	
Acetone	**1.4**	J	5.0	5.0	1.3	1	NA	12/1/15 13:36		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 13:36		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 13:36		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 13:36		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 13:36		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 13:36		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 13:36		474290	
Chlorobenzene	**0.66**	J	5.0	1.0	0.29	1	NA	12/1/15 13:36		474290	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1607
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-8-GW-M8MW24-28.5	**Units:**	µg/L
Lab Code:	R1510161-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 13:36		474290	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/1/15 13:36		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 13:36		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 13:36		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 13:36		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 13:36		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 13:36		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 13:36		474290	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/1/15 13:36		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 13:36		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 13:36		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 13:36		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 13:36		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 13:36		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 13:36		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 13:36		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 13:36		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/1/15 13:36	
Dibromofluoromethane	110	85-115	12/1/15 13:36	
Toluene-d8	112	85-120	12/1/15 13:36	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Analyzed:	12/1/15 1336

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-8-GW-M8MW24-28.5	**Units:**	µg/L
Lab Code:	R1510161-003	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: 11/19/15 1700
Date Received: 11/21/15

Sample Name: EB-2015-11-19
Lab Code: R1510161-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 13:35		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 13:35		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 13:35		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 13:35		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 13:35		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 13:35		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 13:35		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 13:35		474104	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/30/15 13:35		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 13:35		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 13:35		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 13:35		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 13:35		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 13:35		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 13:35		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 13:35		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 13:35		474104	
tert-Butyl Alcohol	**29**	J	100	20	11	1	NA	11/30/15 13:35		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 13:35		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 13:35		474104	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/30/15 13:35		474104	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 13:35		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 13:35		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 13:35		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 13:35		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 13:35		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 13:35		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 13:35		474104	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1700
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	EB-2015-11-19	**Units:**	µg/L
Lab Code:	R1510161-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 13:35		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 13:35		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 13:35		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 13:35		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 13:35		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 13:35		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/30/15 13:35		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 13:35		474104	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/30/15 13:35		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 13:35		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 13:35		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 13:35		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 13:35		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 13:35		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 13:35		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 13:35		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 13:35		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/30/15 13:35	
Dibromofluoromethane	109	85-115	11/30/15 13:35	
Toluene-d8	109	85-120	11/30/15 13:35	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Analyzed:	11/30/15 1335

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-19	**Units:**	µg/L
Lab Code:	R1510161-004	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: 11/19/15
Date Received: 11/21/15

Sample Name: TB-2015-11-19
Lab Code: R1510161-005

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 13:04		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 13:04		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 13:04		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 13:04		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 13:04		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 13:04		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 13:04		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 13:04		474104	
1,2,4-Trichlorobenzene	**0.29**	J	5.0	1.0	0.23	1	NA	11/30/15 13:04		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 13:04		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 13:04		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 13:04		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 13:04		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 13:04		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 13:04		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 13:04		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 13:04		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 13:04		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 13:04		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 13:04		474104	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/30/15 13:04		474104	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 13:04		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 13:04		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 13:04		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 13:04		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 13:04		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 13:04		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 13:04		474104	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	TB-2015-11-19	**Units:**	µg/L
Lab Code:	R1510161-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 13:04		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 13:04		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 13:04		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 13:04		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 13:04		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 13:04		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
Hexachlorobutadiene	**0.65**	J	5.0	1.0	0.62	1	NA	11/30/15 13:04		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 13:04		474104	
Naphthalene	**0.22**	J	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/30/15 13:04		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 13:04		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 13:04		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 13:04		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 13:04		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 13:04		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 13:04		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 13:04		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 13:04		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/30/15 13:04	
Dibromofluoromethane	110	85-115	11/30/15 13:04	
Toluene-d8	108	85-120	11/30/15 13:04	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Analyzed:	11/30/15 1304

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	TB-2015-11-19	**Units:**	µg/L
Lab Code:	R1510161-005	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: 11/19/15 1243
Date Received: 11/21/15

Sample Name: FTMM-M8-GW-MW15-11.8
Lab Code: R1510161-010

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 20:44		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 20:44		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 20:44		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 20:44		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 20:44		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 20:44		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 20:44		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 20:44		474104	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/30/15 20:44		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 20:44		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 20:44		474104	
1,2-Dichlorobenzene	**0.43**	J	5.0	1.0	0.21	1	NA	11/30/15 20:44		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 20:44		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
1,3-Dichlorobenzene	**0.67**	J	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 20:44		474104	
1,4-Dichlorobenzene	**1.4**	J	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 20:44		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 20:44		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 20:44		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 20:44		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 20:44		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 20:44		474104	
Acetone	**3.0**	J	5.0	5.0	1.3	1	NA	11/30/15 20:44		474104	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 20:44		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 20:44		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 20:44		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 20:44		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 20:44		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 20:44		474104	
Chlorobenzene	**2.9**	J	5.0	1.0	0.29	1	NA	11/30/15 20:44		474104	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1243
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-M8-GW-MW15-11.8	**Units:**	µg/L
Lab Code:	R1510161-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 20:44		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 20:44		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 20:44		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 20:44		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 20:44		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 20:44		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/30/15 20:44		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 20:44		474104	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
Tetrachloroethene (PCE)	0.43	J	5.0	1.0	0.30	1	NA	11/30/15 20:44		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 20:44		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 20:44		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 20:44		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 20:44		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 20:44		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 20:44		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 20:44		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 20:44		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	11/30/15 20:44	
Dibromofluoromethane	109	85-115	11/30/15 20:44	
Toluene-d8	111	85-120	11/30/15 20:44	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Analyzed:	11/30/15 2044

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-M8-GW-MW15-11.8	**Units:**	µg/L
Lab Code:	R1510161-010	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1455
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-M8-GW-MW16-12.07	**Units:**	µg/L
Lab Code:	R1510161-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 14:07		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 14:07		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 14:07		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 14:07		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 14:07		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 14:07		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 14:07		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 14:07		474290	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/1/15 14:07		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 14:07		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 14:07		474290	
1,2-Dichlorobenzene	**0.43**	J	5.0	1.0	0.21	1	NA	12/1/15 14:07		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 14:07		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
1,3-Dichlorobenzene	**0.70**	J	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 14:07		474290	
1,4-Dichlorobenzene	**2.3**	J	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 14:07		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 14:07		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 14:07		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 14:07		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 14:07		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 14:07		474290	
Acetone	**1.7**	J	5.0	5.0	1.3	1	NA	12/1/15 14:07		474290	
Benzene	**0.25**	J	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 14:07		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 14:07		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 14:07		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 14:07		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 14:07		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 14:07		474290	
Chlorobenzene	**20**		5.0	1.0	0.29	1	NA	12/1/15 14:07		474290	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1455
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-M8-GW-MW16-12.07	**Units:**	µg/L
Lab Code:	R1510161-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 14:07		474290	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/1/15 14:07		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 14:07		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 14:07		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 14:07		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 14:07		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 14:07		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 14:07		474290	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/1/15 14:07		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 14:07		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 14:07		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 14:07		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 14:07		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 14:07		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 14:07		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 14:07		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 14:07		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/1/15 14:07	
Dibromofluoromethane	112	85-115	12/1/15 14:07	
Toluene-d8	113	85-120	12/1/15 14:07	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Analyzed:	12/1/15 1407

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-M8-GW-MW16-12.07	**Units:**	µg/L
Lab Code:	R1510161-011	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1647
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-M8-GW-697MW01-16.5	**Units:**	µg/L
Lab Code:	R1510161-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 14:37		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 14:37		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 14:37		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 14:37		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 14:37		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 14:37		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 14:37		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 14:37		474290	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/1/15 14:37		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 14:37		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 14:37		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 14:37		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 14:37		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 14:37		474290	
1,4-Dichlorobenzene	**0.23**	J	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 14:37		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 14:37		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 14:37		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 14:37		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 14:37		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 14:37		474290	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/1/15 14:37		474290	
Benzene	**1.0**	J	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 14:37		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 14:37		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 14:37		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 14:37		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 14:37		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 14:37		474290	
Chlorobenzene	**4.1**	J	5.0	1.0	0.29	1	NA	12/1/15 14:37		474290	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1647
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-M8-GW-697MW01-16.5	**Units:**	µg/L
Lab Code:	R1510161-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 14:37		474290	
Chloroform	**0.82**	J	5.0	1.0	0.25	1	NA	12/1/15 14:37		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 14:37		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 14:37		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 14:37		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 14:37		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 14:37		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 14:37		474290	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
Tetrachloroethene (PCE)	**0.52**	J	5.0	1.0	0.30	1	NA	12/1/15 14:37		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 14:37		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 14:37		474290	
cis-1,2-Dichloroethene	**0.72**	J	5.0	1.0	0.30	1	NA	12/1/15 14:37		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 14:37		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 14:37		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 14:37		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 14:37		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 14:37		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	12/1/15 14:37	
Dibromofluoromethane	113	85-115	12/1/15 14:37	
Toluene-d8	105	85-120	12/1/15 14:37	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Analyzed:	12/1/15 1437

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-M8-GW-697MW01-16.5	**Units:**	µg/L
Lab Code:	R1510161-012	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1215
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-M8-GW-MW12-13.5	**Units:**	µg/L
Lab Code:	R1510161-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 15:08		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 15:08		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 15:08		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 15:08		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 15:08		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 15:08		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 15:08		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 15:08		474290	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/1/15 15:08		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 15:08		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 15:08		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 15:08		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 15:08		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 15:08		474290	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 15:08		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 15:08		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 15:08		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 15:08		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 15:08		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 15:08		474290	
Acetone	**1.4**	J	5.0	5.0	1.3	1	NA	12/1/15 15:08		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 15:08		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 15:08		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 15:08		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 15:08		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 15:08		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 15:08		474290	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 15:08		474290	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1215
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-M8-GW-MW12-13.5	**Units:**	µg/L
Lab Code:	R1510161-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 15:08		474290	
Chloroform	**0.35**	J	5.0	1.0	0.25	1	NA	12/1/15 15:08		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 15:08		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 15:08		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 15:08		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 15:08		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 15:08		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 15:08		474290	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
Tetrachloroethene (PCE)	**1.3**	J	5.0	1.0	0.30	1	NA	12/1/15 15:08		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 15:08		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 15:08		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 15:08		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 15:08		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 15:08		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 15:08		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 15:08		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 15:08		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	12/1/15 15:08	
Dibromofluoromethane	109	85-115	12/1/15 15:08	
Toluene-d8	109	85-120	12/1/15 15:08	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Analyzed:	12/1/15 1508

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-M8-GW-MW12-13.5	**Units:**	µg/L
Lab Code:	R1510161-015	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1700
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	EB-2015-11-20	**Units:**	µg/L
Lab Code:	R1510161-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 14:06		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 14:06		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 14:06		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 14:06		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 14:06		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 14:06		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 14:06		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 14:06		474104	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/30/15 14:06		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 14:06		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 14:06		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 14:06		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 14:06		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 14:06		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 14:06		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 14:06		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 14:06		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 14:06		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 14:06		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 14:06		474104	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/30/15 14:06		474104	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 14:06		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 14:06		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 14:06		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 14:06		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 14:06		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 14:06		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 14:06		474104	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1700
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	EB-2015-11-20	**Units:**	µg/L
Lab Code:	R1510161-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 14:06		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 14:06		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 14:06		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 14:06		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 14:06		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 14:06		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/30/15 14:06		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 14:06		474104	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/30/15 14:06		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 14:06		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 14:06		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 14:06		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 14:06		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 14:06		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 14:06		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 14:06		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 14:06		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/30/15 14:06	
Dibromofluoromethane	107	85-115	11/30/15 14:06	
Toluene-d8	109	85-120	11/30/15 14:06	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Analyzed:	11/30/15 1406

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-20	**Units:**	µg/L
Lab Code:	R1510161-017	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514764-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 12:34		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 12:34		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 12:34		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 12:34		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 12:34		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 12:34		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 12:34		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 12:34		474104	
1,2,4-Trichlorobenzene	**0.28**	J	5.0	1.0	0.23	1	NA	11/30/15 12:34		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 12:34		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 12:34		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 12:34		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 12:34		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 12:34		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 12:34		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 12:34		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 12:34		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 12:34		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 12:34		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 12:34		474104	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/30/15 12:34		474104	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 12:34		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 12:34		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 12:34		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 12:34		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 12:34		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 12:34		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 12:34		474104	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514764-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 12:34		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 12:34		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 12:34		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 12:34		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 12:34		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 12:34		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Hexachlorobutadiene	**0.75**	J	5.0	1.0	0.62	1	NA	11/30/15 12:34		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 12:34		474104	
Naphthalene	**0.32**	J	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/30/15 12:34		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 12:34		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 12:34		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 12:34		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 12:34		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 12:34		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 12:34		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 12:34		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 12:34		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	11/30/15 12:34	
Dibromofluoromethane	112	85-115	11/30/15 12:34	
Toluene-d8	111	85-120	11/30/15 12:34	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	11/30/15 1234

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514764-04	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514847-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 12:05		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 12:05		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 12:05		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 12:05		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 12:05		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:05		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 12:05		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 12:05		474290	
1,2,4-Trichlorobenzene	**0.36**	J	5.0	1.0	0.23	1	NA	12/1/15 12:05		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 12:05		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:05		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:05		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 12:05		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:05		474290	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:05		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 12:05		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 12:05		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 12:05		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:05		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 12:05		474290	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/1/15 12:05		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 12:05		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:05		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:05		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 12:05		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:05		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 12:05		474290	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:05		474290	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514847-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:05		474290	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/1/15 12:05		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:05		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 12:05		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 12:05		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 12:05		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Hexachlorobutadiene	**0.75**	J	5.0	1.0	0.62	1	NA	12/1/15 12:05		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:05		474290	
Naphthalene	**0.37**	J	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/1/15 12:05		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 12:05		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:05		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 12:05		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:05		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 12:05		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:05		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:05		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 12:05		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/1/15 12:05	
Dibromofluoromethane	110	85-115	12/1/15 12:05	
Toluene-d8	113	85-120	12/1/15 12:05	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/1/15 1205

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514847-04	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Analyzed: 11/30/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474104

Lab Control Sample
RQ1514764-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	20.5	20.0	102	80 - 130
1,1,1-Trichloroethane (TCA)	21.3	20.0	106	65 - 130
1,1,2,2-Tetrachloroethane	19.2	20.0	96	65 - 130
1,1,2-Trichloroethane	20.2	20.0	101	75 - 125
1,1-Dichloroethane (1,1-DCA)	21.6	20.0	108	70 - 135
1,1-Dichloroethene (1,1-DCE)	21.7	20.0	109	70 - 130
1,1-Dichloropropene	22.3	20.0	111	75 - 130
1,2,3-Trichlorobenzene	22.4	20.0	112	75 - 125
1,2,3-Trichloropropane	19.3	20.0	97	75 - 125
1,2,4-Trichlorobenzene	22.4	20.0	112	65 - 135
1,2,4-Trimethylbenzene	21.6	20.0	108	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	18.2	20.0	91	50 - 130
1,2-Dibromoethane	19.5	20.0	97	80 - 120
1,2-Dichlorobenzene	21.2	20.0	106	70 - 120
1,2-Dichloroethane	20.8	20.0	104	70 - 130
1,2-Dichloropropane	22.3	20.0	111	75 - 125
1,3,5-Trimethylbenzene	22.0	20.0	110	75 - 130
1,3-Dichlorobenzene	21.3	20.0	106	75 - 125
1,3-Dichloropropane	20.2	20.0	101	75 - 125
1,4-Dichlorobenzene	21.6	20.0	108	75 - 125
2,2-Dichloropropane	21.6	20.0	108	70 - 135
2-Butanone (MEK)	19.7	20.0	98	30 - 150
2-Chlorotoluene	22.3	20.0	112	75 - 125
2-Hexanone	18.0	20.0	90	55 - 130
tert-Butyl Alcohol	406	400	102	50 - 150
4-Chlorotoluene	21.3	20.0	107	75 - 130
p-Isopropyltoluene	22.5	20.0	113	75 - 130
4-Methyl-2-pentanone	19.6	20.0	98	60 - 135
Acetone	17.1	20.0	85	40 - 140
Benzene	21.4	20.0	107	80 - 120
Bromobenzene	22.0	20.0	110	75 - 125
Bromochloromethane	20.4	20.0	102	65 - 130
Bromodichloromethane	20.8	20.0	104	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Analyzed: 11/30/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474104

Lab Control Sample
RQ1514764-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	19.0	20.0	95	70 - 130
Bromomethane	19.9	20.0	100	30 - 145
Carbon Tetrachloride	21.3	20.0	107	65 - 140
Chlorobenzene	20.6	20.0	103	80 - 120
Chloroethane	20.9	20.0	105	60 - 135
Chloroform	19.9	20.0	100	65 - 135
Chloromethane	19.8	20.0	99	40 - 125
Dibromochloromethane	20.3	20.0	102	60 - 135
Dichlorodifluoromethane (CFC 12)	21.8	20.0	109	30 - 155
Methylene Chloride	19.6	20.0	98	55 - 140
Ethylbenzene	20.5	20.0	102	75 - 125
Hexachlorobutadiene	25.7	20.0	128	50 - 140
Isopropylbenzene (Cumene)	21.4	20.0	107	75 - 125
Methyl tert-Butyl Ether	19.9	20.0	99	65 - 125
Naphthalene	21.5	20.0	108	55 - 140
Styrene	20.8	20.0	104	65 - 135
Tetrachloroethene (PCE)	21.5	20.0	107	45 - 150
Toluene	21.6	20.0	108	75 - 120
Trichloroethene (TCE)	20.3	20.0	102	70 - 125
Trichlorofluoromethane (CFC 11)	22.7	20.0	114	60 - 145
Vinyl Chloride	20.7	20.0	103	50 - 145
cis-1,2-Dichloroethene	20.9	20.0	104	70 - 125
cis-1,3-Dichloropropene	21.1	20.0	105	70 - 130
m,p-Xylenes	41.9	40.0	105	75 - 130
n-Butylbenzene	23.3	20.0	116	70 - 135
n-Propylbenzene	21.5	20.0	108	70 - 130
o-Xylene	20.6	20.0	103	80 - 120
sec-Butylbenzene	21.9	20.0	109	70 - 125
tert-Butylbenzene	21.4	20.0	107	70 - 130
trans-1,2-Dichloroethene	21.2	20.0	106	60 - 140
trans-1,3-Dichloropropene	20.9	20.0	105	55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Analyzed: 12/ 1/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474290

Lab Control Sample
RQ1514847-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	20.2	20.0	101	80 - 130
1,1,1-Trichloroethane (TCA)	20.5	20.0	103	65 - 130
1,1,2,2-Tetrachloroethane	20.0	20.0	100	65 - 130
1,1,2-Trichloroethane	21.4	20.0	107	75 - 125
1,1-Dichloroethane (1,1-DCA)	21.6	20.0	108	70 - 135
1,1-Dichloroethene (1,1-DCE)	21.2	20.0	106	70 - 130
1,1-Dichloropropene	22.4	20.0	112	75 - 130
1,2,3-Trichlorobenzene	23.1	20.0	116	75 - 125
1,2,3-Trichloropropane	20.0	20.0	100	75 - 125
1,2,4-Trichlorobenzene	22.2	20.0	111	65 - 135
1,2,4-Trimethylbenzene	20.9	20.0	104	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	19.2	20.0	96	50 - 130
1,2-Dibromoethane	20.2	20.0	101	80 - 120
1,2-Dichlorobenzene	21.2	20.0	106	70 - 120
1,2-Dichloroethane	21.0	20.0	105	70 - 130
1,2-Dichloropropane	21.5	20.0	107	75 - 125
1,3,5-Trimethylbenzene	21.0	20.0	105	75 - 130
1,3-Dichlorobenzene	20.2	20.0	101	75 - 125
1,3-Dichloropropane	21.0	20.0	105	75 - 125
1,4-Dichlorobenzene	20.9	20.0	105	75 - 125
2,2-Dichloropropane	21.4	20.0	107	70 - 135
2-Butanone (MEK)	20.7	20.0	104	30 - 150
2-Chlorotoluene	20.8	20.0	104	75 - 125
2-Hexanone	20.1	20.0	101	55 - 130
tert-Butyl Alcohol	437	400	109	50 - 150
4-Chlorotoluene	20.9	20.0	104	75 - 130
p-Isopropyltoluene	21.5	20.0	108	75 - 130
4-Methyl-2-pentanone	21.2	20.0	106	60 - 135
Acetone	20.3	20.0	102	40 - 140
Benzene	21.1	20.0	106	80 - 120
Bromobenzene	20.7	20.0	103	75 - 125
Bromochloromethane	19.9	20.0	100	65 - 130
Bromodichloromethane	20.3	20.0	101	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Analyzed: 12/ 1/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474290

Analyte Name	Lab Control Sample RQ1514847-03 Result	Spike Amount	% Rec	% Rec Limits
Bromoform	18.2	20.0	91	70 - 130
Bromomethane	19.9	20.0	100	30 - 145
Carbon Tetrachloride	20.3	20.0	101	65 - 140
Chlorobenzene	20.5	20.0	102	80 - 120
Chloroethane	21.2	20.0	106	60 - 135
Chloroform	19.7	20.0	99	65 - 135
Chloromethane	20.6	20.0	103	40 - 125
Dibromochloromethane	19.7	20.0	99	60 - 135
Dichlorodifluoromethane (CFC 12)	21.9	20.0	110	30 - 155
Methylene Chloride	19.9	20.0	100	55 - 140
Ethylbenzene	20.5	20.0	102	75 - 125
Hexachlorobutadiene	23.5	20.0	118	50 - 140
Isopropylbenzene (Cumene)	20.1	20.0	100	75 - 125
Methyl tert-Butyl Ether	20.4	20.0	102	65 - 125
Naphthalene	22.7	20.0	113	55 - 140
Styrene	20.5	20.0	103	65 - 135
Tetrachloroethene (PCE)	21.2	20.0	106	45 - 150
Toluene	21.1	20.0	106	75 - 120
Trichloroethene (TCE)	20.0	20.0	100	70 - 125
Trichlorofluoromethane (CFC 11)	21.9	20.0	109	60 - 145
Vinyl Chloride	20.8	20.0	104	50 - 145
cis-1,2-Dichloroethene	20.3	20.0	101	70 - 125
cis-1,3-Dichloropropene	20.3	20.0	101	70 - 130
m,p-Xylenes	41.4	40.0	103	75 - 130
n-Butylbenzene	21.8	20.0	109	70 - 135
n-Propylbenzene	20.6	20.0	103	70 - 130
o-Xylene	20.5	20.0	102	80 - 120
sec-Butylbenzene	20.4	20.0	102	70 - 125
tert-Butylbenzene	19.9	20.0	99	70 - 130
trans-1,2-Dichloroethene	20.5	20.0	103	60 - 140
trans-1,3-Dichloropropene	21.2	20.0	106	55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: 11/20/15 1510
Date Received: 11/21/15

Sample Name: FTMM-66-GW-886RW08-11.2
Lab Code: R1510161-016

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
1,2,4-Trichlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
1,2-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
1,3-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
1,4-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
2,4,5-Trichlorophenol	ND	U	9.4	5.0	1.8	1	11/25/15	12/8/15 12:58	250879	475709	
2,4,6-Trichlorophenol	ND	U	9.4	5.0	1.4	1	11/25/15	12/8/15 12:58	250879	475709	
2,4-Dichlorophenol	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 12:58	250879	475709	
2,4-Dimethylphenol	ND	U	9.4	5.0	1.5	1	11/25/15	12/8/15 12:58	250879	475709	
2,4-Dinitrophenol	ND	U	47	25	20	1	11/25/15	12/8/15 12:58	250879	475709	
2,4-Dinitrotoluene	ND	U	9.4	5.0	1.6	1	11/25/15	12/8/15 12:58	250879	475709	
2,6-Dinitrotoluene	ND	U	9.4	5.0	1.8	1	11/25/15	12/8/15 12:58	250879	475709	
2-Chloronaphthalene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
2-Chlorophenol	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
2-Methylnaphthalene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
2-Methylphenol	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
2-Nitroaniline	ND	U	47	25	9.1	1	11/25/15	12/8/15 12:58	250879	475709	
2-Nitrophenol	ND	U	9.4	5.0	1.4	1	11/25/15	12/8/15 12:58	250879	475709	
3,3'-Dichlorobenzidine	ND	U	9.4	5.0	4.5	1	11/25/15	12/8/15 12:58	250879	475709	
3- and 4-Methylphenol Coelution	ND	U	10	10	2.0	1	11/25/15	12/8/15 12:58	250879	475709	
3-Nitroaniline	ND	U	47	25	7.7	1	11/25/15	12/8/15 12:58	250879	475709	
4,6-Dinitro-2-methylphenol	ND	U	47	25	11	1	11/25/15	12/8/15 12:58	250879	475709	
4-Bromophenyl Phenyl Ether	ND	U	9.4	5.0	2.2	1	11/25/15	12/8/15 12:58	250879	475709	
4-Chloro-3-methylphenol	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 12:58	250879	475709	
4-Chloroaniline	ND	U	9.4	5.0	1.5	1	11/25/15	12/8/15 12:58	250879	475709	
4-Chlorophenyl Phenyl Ether	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 12:58	250879	475709	
4-Nitroaniline	ND	U	47	25	7.8	1	11/25/15	12/8/15 12:58	250879	475709	
4-Nitrophenol	ND	U	47	25	5.9	1	11/25/15	12/8/15 12:58	250879	475709	
Acenaphthene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Acenaphthylene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Anthracene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Benz(a)anthracene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Benzidine	ND	U	100	100	90	1	11/25/15	12/8/15 12:58	250879	475709	
Benzo(a)pyrene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Benzo(b)fluoranthene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Benzo(g,h,i)perylene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Benzo(k)fluoranthene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1510
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-66-GW-886RW08-11.2	**Units:**	µg/L
Lab Code:	R1510161-016	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 12:58	250879	475709	
2,2'-Oxybis(1-chloropropane)	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Bis(2-chloroethoxy)methane	ND	U	9.4	5.0	2.2	1	11/25/15	12/8/15 12:58	250879	475709	
Bis(2-chloroethyl) Ether	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 12:58	250879	475709	
Bis(2-ethylhexyl) Phthalate	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 12:58	250879	475709	
Butyl Benzyl Phthalate	ND	U	9.4	5.0	2.4	1	11/25/15	12/8/15 12:58	250879	475709	
Carbazole	ND	U	9.4	5.0	1.1	1	11/25/15	12/8/15 12:58	250879	475709	
Chrysene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Di-n-butyl Phthalate	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Di-n-octyl Phthalate	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 12:58	250879	475709	
Dibenz(a,h)anthracene	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 12:58	250879	475709	
Dibenzofuran	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Diethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Dimethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Fluoranthene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Fluorene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Hexachlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Hexachlorobutadiene	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 12:58	250879	475709	
Hexachlorocyclopentadiene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Hexachloroethane	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 12:58	250879	475709	
Indeno(1,2,3-cd)pyrene	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 12:58	250879	475709	
Isophorone	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
N-Nitrosodi-n-propylamine	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 12:58	250879	475709	
N-Nitrosodimethylamine	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
N-Nitrosodiphenylamine	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Naphthalene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Nitrobenzene	ND	U	9.4	5.0	1.6	1	11/25/15	12/8/15 12:58	250879	475709	
Pentachlorophenol (PCP)	ND	U	47	25	6.9	1	11/25/15	12/8/15 12:58	250879	475709	
Phenanthrene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Phenol	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Pyrene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1510
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-66-GW-886RW08-11.2	**Units:**	Percent
Lab Code:	R1510161-016	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	124	40-125	12/8/15 12:58	
2-Fluorobiphenyl	93	50-110	12/8/15 12:58	
2-Fluorophenol	51	20-110	12/8/15 12:58	
Nitrobenzene-d5	83	40-110	12/8/15 12:58	
Phenol-d6	36	10-115	12/8/15 12:58	
p-Terphenyl-d14	108	50-135	12/8/15 12:58	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Extracted:	11/25/15
		Date Analyzed:	12/8/15 1258

Tentatively Identified Compounds (TIC)
Semivolatile Organic Compounds by GC/MS

Sample Name:	FTMM-66-GW-886RW08-11.2	**Units:**	µg/L
Lab Code:	R1510161-016	**Basis:**	NA

Prep Method: EPA 3510C
Analytical Method: 8270D

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: 11/20/15 1700
Date Received: 11/21/15

Sample Name: EB-2015-11-20
Lab Code: R1510161-017

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
1,2,4-Trichlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
1,2-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
1,3-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
1,4-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
2,4,5-Trichlorophenol	ND	U	9.4	5.0	1.8	1	11/25/15	12/8/15 13:24	250879	475709	
2,4,6-Trichlorophenol	ND	U	9.4	5.0	1.4	1	11/25/15	12/8/15 13:24	250879	475709	
2,4-Dichlorophenol	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 13:24	250879	475709	
2,4-Dimethylphenol	ND	U	9.4	5.0	1.5	1	11/25/15	12/8/15 13:24	250879	475709	
2,4-Dinitrophenol	ND	U	47	25	20	1	11/25/15	12/8/15 13:24	250879	475709	
2,4-Dinitrotoluene	ND	U	9.4	5.0	1.6	1	11/25/15	12/8/15 13:24	250879	475709	
2,6-Dinitrotoluene	ND	U	9.4	5.0	1.8	1	11/25/15	12/8/15 13:24	250879	475709	
2-Chloronaphthalene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
2-Chlorophenol	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
2-Methylnaphthalene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
2-Methylphenol	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
2-Nitroaniline	ND	U	47	25	9.1	1	11/25/15	12/8/15 13:24	250879	475709	
2-Nitrophenol	ND	U	9.4	5.0	1.4	1	11/25/15	12/8/15 13:24	250879	475709	
3,3'-Dichlorobenzidine	ND	U	9.4	5.0	4.5	1	11/25/15	12/8/15 13:24	250879	475709	
3- and 4-Methylphenol Coelution	ND	U	10	10	2.0	1	11/25/15	12/8/15 13:24	250879	475709	
3-Nitroaniline	ND	U	47	25	7.7	1	11/25/15	12/8/15 13:24	250879	475709	
4,6-Dinitro-2-methylphenol	ND	U	47	25	11	1	11/25/15	12/8/15 13:24	250879	475709	
4-Bromophenyl Phenyl Ether	ND	U	9.4	5.0	2.2	1	11/25/15	12/8/15 13:24	250879	475709	
4-Chloro-3-methylphenol	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 13:24	250879	475709	
4-Chloroaniline	ND	U	9.4	5.0	1.5	1	11/25/15	12/8/15 13:24	250879	475709	
4-Chlorophenyl Phenyl Ether	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 13:24	250879	475709	
4-Nitroaniline	ND	U	47	25	7.8	1	11/25/15	12/8/15 13:24	250879	475709	
4-Nitrophenol	ND	U	47	25	5.9	1	11/25/15	12/8/15 13:24	250879	475709	
Acenaphthene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Acenaphthylene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Anthracene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Benz(a)anthracene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Benzidine	ND	U	100	100	90	1	11/25/15	12/8/15 13:24	250879	475709	
Benzo(a)pyrene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Benzo(b)fluoranthene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Benzo(g,h,i)perylene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Benzo(k)fluoranthene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1700
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	EB-2015-11-20	**Units:**	µg/L
Lab Code:	R1510161-017	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 13:24	250879	475709	
2,2'-Oxybis(1-chloropropane)	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Bis(2-chloroethoxy)methane	ND	U	9.4	5.0	2.2	1	11/25/15	12/8/15 13:24	250879	475709	
Bis(2-chloroethyl) Ether	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 13:24	250879	475709	
Bis(2-ethylhexyl) Phthalate	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 13:24	250879	475709	
Butyl Benzyl Phthalate	ND	U	9.4	5.0	2.4	1	11/25/15	12/8/15 13:24	250879	475709	
Carbazole	ND	U	9.4	5.0	1.1	1	11/25/15	12/8/15 13:24	250879	475709	
Chrysene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Di-n-butyl Phthalate	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Di-n-octyl Phthalate	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 13:24	250879	475709	
Dibenz(a,h)anthracene	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 13:24	250879	475709	
Dibenzofuran	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Diethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Dimethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Fluoranthene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Fluorene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Hexachlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Hexachlorobutadiene	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 13:24	250879	475709	
Hexachlorocyclopentadiene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Hexachloroethane	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 13:24	250879	475709	
Indeno(1,2,3-cd)pyrene	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 13:24	250879	475709	
Isophorone	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
N-Nitrosodi-n-propylamine	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 13:24	250879	475709	
N-Nitrosodimethylamine	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
N-Nitrosodiphenylamine	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Naphthalene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Nitrobenzene	ND	U	9.4	5.0	1.6	1	11/25/15	12/8/15 13:24	250879	475709	
Pentachlorophenol (PCP)	ND	U	47	25	6.9	1	11/25/15	12/8/15 13:24	250879	475709	
Phenanthrene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Phenol	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Pyrene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1700
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	EB-2015-11-20	**Units:**	Percent
Lab Code:	R1510161-017	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	122	40-125	12/8/15 13:24	
2-Fluorobiphenyl	97	50-110	12/8/15 13:24	
2-Fluorophenol	51	20-110	12/8/15 13:24	
Nitrobenzene-d5	96	40-110	12/8/15 13:24	
Phenol-d6	35	10-115	12/8/15 13:24	
p-Terphenyl-d14	118	50-135	12/8/15 13:24	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Extracted:	11/25/15
		Date Analyzed:	12/8/15 1324

Tentatively Identified Compounds (TIC)
Semivolatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-20	**Units:**	µg/L
Lab Code:	R1510161-017	**Basis:**	NA

Prep Method: EPA 3510C
Analytical Method: 8270D

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514672-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
1,2,4-Trichlorobenzene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
1,2-Dichlorobenzene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
1,3-Dichlorobenzene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
1,4-Dichlorobenzene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
2,4,5-Trichlorophenol	ND	U	10	5.0	1.8	1	11/25/15	12/8/15 14:23	250879	475709	
2,4,6-Trichlorophenol	ND	U	10	5.0	1.4	1	11/25/15	12/8/15 14:23	250879	475709	
2,4-Dichlorophenol	ND	U	10	5.0	1.3	1	11/25/15	12/8/15 14:23	250879	475709	
2,4-Dimethylphenol	ND	U	10	5.0	1.5	1	11/25/15	12/8/15 14:23	250879	475709	
2,4-Dinitrophenol	ND	U	50	25	20	1	11/25/15	12/8/15 14:23	250879	475709	
2,4-Dinitrotoluene	ND	U	10	5.0	1.6	1	11/25/15	12/8/15 14:23	250879	475709	
2,6-Dinitrotoluene	ND	U	10	5.0	1.8	1	11/25/15	12/8/15 14:23	250879	475709	
2-Chloronaphthalene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
2-Chlorophenol	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
2-Methylnaphthalene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
2-Methylphenol	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
2-Nitroaniline	ND	U	50	25	9.1	1	11/25/15	12/8/15 14:23	250879	475709	
2-Nitrophenol	ND	U	10	5.0	1.4	1	11/25/15	12/8/15 14:23	250879	475709	
3,3'-Dichlorobenzidine	ND	U	10	5.0	4.5	1	11/25/15	12/8/15 14:23	250879	475709	
3- and 4-Methylphenol Coelution	ND	U	11	10	2.0	1	11/25/15	12/8/15 14:23	250879	475709	
3-Nitroaniline	ND	U	50	25	7.7	1	11/25/15	12/8/15 14:23	250879	475709	
4,6-Dinitro-2-methylphenol	ND	U	50	25	11	1	11/25/15	12/8/15 14:23	250879	475709	
4-Bromophenyl Phenyl Ether	ND	U	10	5.0	2.2	1	11/25/15	12/8/15 14:23	250879	475709	
4-Chloro-3-methylphenol	ND	U	10	5.0	1.2	1	11/25/15	12/8/15 14:23	250879	475709	
4-Chloroaniline	ND	U	10	5.0	1.5	1	11/25/15	12/8/15 14:23	250879	475709	
4-Chlorophenyl Phenyl Ether	ND	U	10	5.0	1.2	1	11/25/15	12/8/15 14:23	250879	475709	
4-Nitroaniline	ND	U	50	25	7.8	1	11/25/15	12/8/15 14:23	250879	475709	
4-Nitrophenol	ND	U	50	25	5.9	1	11/25/15	12/8/15 14:23	250879	475709	
Acenaphthene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Acenaphthylene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Anthracene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Benz(a)anthracene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Benzidine	ND	U	110	100	90	1	11/25/15	12/8/15 14:23	250879	475709	
Benzo(a)pyrene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Benzo(b)fluoranthene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Benzo(g,h,i)perylene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Benzo(k)fluoranthene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1514672-01

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	ND	U	10	5.0	1.3	1	11/25/15	12/8/15 14:23	250879	475709	
2,2'-Oxybis(1-chloropropane)	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Bis(2-chlorocthoxy)methane	ND	U	10	5.0	2.2	1	11/25/15	12/8/15 14:23	250879	475709	
Bis(2-chloroethyl) Ether	ND	U	10	5.0	1.3	1	11/25/15	12/8/15 14:23	250879	475709	
Bis(2-ethylhexyl) Phthalate	ND	U	10	5.0	1.2	1	11/25/15	12/8/15 14:23	250879	475709	
Butyl Benzyl Phthalate	ND	U	10	5.0	2.4	1	11/25/15	12/8/15 14:23	250879	475709	
Carbazole	ND	U	10	5.0	1.1	1	11/25/15	12/8/15 14:23	250879	475709	
Chrysene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Di-n-butyl Phthalate	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Di-n-octyl Phthalate	ND	U	10	5.0	1.2	1	11/25/15	12/8/15 14:23	250879	475709	
Dibenz(a,h)anthracene	ND	U	10	5.0	1.3	1	11/25/15	12/8/15 14:23	250879	475709	
Dibenzofuran	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Diethyl Phthalate	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Dimethyl Phthalate	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Fluoranthene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Fluorene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Hexachlorobenzene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Hexachlorobutadiene	ND	U	10	5.0	1.3	1	11/25/15	12/8/15 14:23	250879	475709	
Hexachlorocyclopentadiene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Hexachloroethane	ND	U	10	5.0	1.2	1	11/25/15	12/8/15 14:23	250879	475709	
Indeno(1,2,3-cd)pyrene	ND	U	10	5.0	1.2	1	11/25/15	12/8/15 14:23	250879	475709	
Isophorone	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
N-Nitrosodi-n-propylamine	ND	U	10	5.0	1.3	1	11/25/15	12/8/15 14:23	250879	475709	
N-Nitrosodimethylamine	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
N-Nitrosodiphenylamine	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Naphthalene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Nitrobenzene	ND	U	10	5.0	1.6	1	11/25/15	12/8/15 14:23	250879	475709	
Pentachlorophenol (PCP)	ND	U	50	25	6.9	1	11/25/15	12/8/15 14:23	250879	475709	
Phenanthrene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Phenol	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Pyrene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	RQ1514672-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	100	40-125	12/8/15 14:23	
2-Fluorobiphenyl	83	50-110	12/8/15 14:23	
2-Fluorophenol	46	20-110	12/8/15 14:23	
Nitrobenzene-d5	75	40-110	12/8/15 14:23	
Phenol-d6	33	10-115	12/8/15 14:23	
p-Terphenyl-d14	95	50-135	12/8/15 14:23	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	11/25/15
		Date Analyzed:	12/8/15 1423

Tentatively Identified Compounds (TIC)
Semivolatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514672-01	**Basis:**	NA

Prep Method: EPA 3510C
Analytical Method: 8270D

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Analyzed: 12/ 8/15

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 250879

Analyte Name	Lab Control Sample RQ1514672-02 Result	Spike Amount	% Rec		Duplicate Lab Control Sample RQ1514672-03 Result	Spike Amount	% Rec		% Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	59.8	100	60		57.4	100	57		35 - 105	5	30
1,2-Dichlorobenzene	63.0	100	63		60.3	100	60		35 - 100	5	30
1,3-Dichlorobenzene	60.7	100	61		57.8	100	58		30 - 100	5	30
1,4-Dichlorobenzene	60.1	100	60		56.3	100	56		30 - 100	7	30
2,4,5-Trichlorophenol	94.8	100	95		97.9	100	98		50 - 110	3	30
2,4,6-Trichlorophenol	91.0	100	91		93.0	100	93		50 - 115	2	30
2,4-Dichlorophenol	86.8	100	87		91.2	100	91		50 - 105	4	30
2,4-Dimethylphenol	80.0	100	80		80.7	100	81		30 - 110	1	30
2,4-Dinitrophenol	82.7	100	83		74.0	100	74		15 - 140	11	30
2,4-Dinitrotoluene	97.2	100	97		103	100	103		50 - 120	6	30
2,6-Dinitrotoluene	97.6	100	98		99.9	100	100		50 - 115	2	30
2-Chloronaphthalene	78.7	100	79		81.2	100	81		50 - 105	2	30
2-Chlorophenol	80.7	100	81		84.0	100	84		35 - 105	4	30
2-Methylnaphthalene	74.1	100	74		77.9	100	78		45 - 105	5	30
2-Methylphenol	82.3	100	82		83.8	100	84		40 - 110	2	30
2-Nitroaniline	93.6	100	94		97.7	100	98		50 - 115	4	30
2-Nitrophenol	89.1	100	89		91.2	100	91		40 - 115	2	30
3,3'-Dichlorobenzidine	75.6	100	76		84.7	100	85		20 - 110	11	30
3- and 4-Methylphenol Coelution	149	200	75		151	200	76		30 - 110	1	30
3-Nitroaniline	74.2	100	74		81.8	100	82		20 - 125	10	30
4,6-Dinitro-2-methylphenol	93.4	100	93		99.9	100	100		40 - 130	7	30
4-Bromophenyl Phenyl Ether	86.4	100	86		91.1	100	91		50 - 115	6	30
4-Chloro-3-methylphenol	92.4	100	92		97.8	100	98		45 - 110	6	30
4-Chloroaniline	68.9	100	69		76.2	100	76		15 - 110	10	30
4-Chlorophenyl Phenyl Ether	89.5	100	89		91.8	100	92		50 - 110	3	30
4-Nitroaniline	93.1	100	93		98.7	100	99		35 - 120	6	30
4-Nitrophenol	31.0	100	31		31.0	100	31		0 - 125	<1	30
Acenaphthene	85.7	100	86		88.7	100	89		45 - 110	3	30
Acenaphthylene	87.0	100	87		89.0	100	89		50 - 105	2	30
Anthracene	89.1	100	89		94.3	100	94		55 - 110	5	30
Benz(a)anthracene	91.0	100	91		96.1	100	96		55 - 110	5	30
Benzidine	ND	100	0	*	ND	100	0	*	10 - 130	NC	30
Benzo(a)pyrene	94.3	100	94		101	100	101		55 - 110	7	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Analyzed: 12/ 8/15

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 250879

Analyte Name	Lab Control Sample RQ1514672-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1514672-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzo(b)fluoranthene	89.5	100	90	97.3	100	97	45 - 120	7	30
Benzo(g,h,i)perylene	102	100	102	109	100	109	40 - 125	7	30
Benzo(k)fluoranthene	91.7	100	92	94.5	100	94	45 - 125	2	30
Benzyl Alcohol	86.6	100	87	87.7	100	88	30 - 110	1	30
2,2'-Oxybis(1-chloropropane)	98.1	100	98	101	100	101	25 - 130	3	30
Bis(2-chloroethoxy)methane	86.1	100	86	90.3	100	90	45 - 105	5	30
Bis(2-chloroethyl) Ether	84.6	100	85	88.5	100	88	35 - 110	3	30
Bis(2-ethylhexyl) Phthalate	99.5	100	99	102	100	102	40 - 125	3	30
Butyl Benzyl Phthalate	95.2	100	95	98.3	100	98	45 - 115	3	30
Carbazole	93.2	100	93	99.1	100	99	50 - 115	6	30
Chrysene	93.3	100	93	97.9	100	98	55 - 110	5	30
Di-n-butyl Phthalate	96.2	100	96	101	100	101	55 - 115	5	30
Di-n-octyl Phthalate	106	100	106	111	100	111	35 - 135	5	30
Dibenz(a,h)anthracene	99.7	100	100	106	100	106	40 - 125	6	30
Dibenzofuran	84.4	100	84	88.2	100	88	55 - 105	5	30
Diethyl Phthalate	92.6	100	93	98.2	100	98	40 - 120	5	30
Dimethyl Phthalate	89.3	100	89	92.7	100	93	25 - 125	4	30
Fluoranthene	95.8	100	96	101	100	101	55 - 115	5	30
Fluorene	87.3	100	87	92.9	100	93	50 - 110	7	30
Hexachlorobenzene	86.9	100	87	92.0	100	92	50 - 110	6	30
Hexachlorobutadiene	54.9	100	55	53.0	100	53	25 - 105	4	30
Hexachlorocyclopentadiene	59.4	100	59	60.2	100	60	10 - 130	2	30
Hexachloroethane	56.0	100	56	52.0	100	52	30 - 100	7	30
Indeno(1,2,3-cd)pyrene	102	100	102	110	100	110	45 - 125	8	30
Isophorone	92.3	100	92	97.1	100	97	50 - 110	5	30
N-Nitrosodi-n-propylamine	91.7	100	92	94.1	100	94	35 - 130	2	30
N-Nitrosodimethylamine	54.6	100	55	52.5	100	53	25 - 110	4	30
N-Nitrosodiphenylamine	98.5	100	99	103	100	103	50 - 110	4	30
Naphthalene	66.9	100	67	68.0	100	68	40 - 110	1	30
Nitrobenzene	82.0	100	82	85.7	100	86	45 - 110	5	30
Pentachlorophenol (PCP)	90.7	100	91	94.6	100	95	40 - 115	4	30
Phenanthrene	91.7	100	92	96.7	100	97	50 - 115	5	30
Phenol	39.4	100	39	40.3	100	40	0 - 115	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Analyzed: 12/ 8/15

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 250879

	Lab Control Sample RQ1514672-02			Duplicate Lab Control Sample RQ1514672-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Pyrene	104	100	104	106	100	106	50 - 130	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1700
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	EB-2015-11-19	**Units:**	µg/L
Lab Code:	R1510161-004	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	ND	U	0.047	0.025	0.013	1	11/23/15	11/25/15 12:26	250710	474264	
4,4'-DDE	ND	U	0.047	0.025	0.012	1	11/23/15	11/25/15 12:26	250710	474264	
4,4'-DDT	ND	U	0.047	0.027	0.027	1	11/23/15	11/25/15 12:26	250710	474264	
Aldrin	ND	U	0.047	0.025	0.0090	1	11/23/15	11/25/15 12:26	250710	474264	
Dieldrin	ND	U	0.047	0.025	0.0080	1	11/23/15	11/25/15 12:26	250710	474264	
Endosulfan I	ND	U	0.047	0.025	0.011	1	11/23/15	11/25/15 12:26	250710	474264	
Endosulfan II	ND	U	0.047	0.025	0.010	1	11/23/15	11/25/15 12:26	250710	474264	
Endosulfan Sulfate	ND	U	0.047	0.025	0.012	1	11/23/15	11/25/15 12:26	250710	474264	
Endrin	ND	U	0.047	0.025	0.017	1	11/23/15	11/25/15 12:26	250710	474264	
Endrin Aldehyde	ND	U	0.047	0.025	0.020	1	11/23/15	11/25/15 12:26	250710	474264	
Endrin Ketone	ND	U	0.047	0.025	0.013	1	11/23/15	11/25/15 12:26	250710	474264	
Heptachlor	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 12:26	250710	474264	
Heptachlor Epoxide	ND	U	0.047	0.025	0.0070	1	11/23/15	11/25/15 12:26	250710	474264	
Methoxychlor	ND	U	0.47	0.025	0.017	1	11/23/15	11/25/15 12:26	250710	474264	
Toxaphene	ND	U	0.94	0.50	0.27	1	11/23/15	11/25/15 12:26	250710	474264	
alpha-BHC	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 12:26	250710	474264	
alpha-Chlordane	ND	U	0.047	0.025	0.0070	1	11/23/15	11/25/15 12:26	250710	474264	
beta-BHC	ND	U	0.047	0.028	0.028	1	11/23/15	11/25/15 12:26	250710	474264	
delta-BHC	ND	U	0.048	0.048	0.048	1	11/23/15	11/25/15 12:26	250710	474264	
gamma-BHC (Lindane)	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 12:26	250710	474264	
gamma-Chlordane	ND	U	0.047	0.025	0.0080	1	11/23/15	11/25/15 12:26	250710	474264	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	47	30-135	11/25/15 12:26	
Tetrachloro-m-xylene	66	25-140	11/25/15 12:26	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1140
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-56-GW-80MW02-7.5	**Units:**	µg/L
Lab Code:	R1510161-006	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	ND	U	0.047	0.025	0.013	1	11/23/15	11/25/15 12:54	250710	474264	
4,4'-DDE	ND	U	0.047	0.025	0.012	1	11/23/15	11/25/15 12:54	250710	474264	
4,4'-DDT	ND	U	0.047	0.027	0.027	1	11/23/15	11/25/15 12:54	250710	474264	
Aldrin	ND	U	0.047	0.025	0.0090	1	11/23/15	11/25/15 12:54	250710	474264	
Dieldrin	ND	U	0.047	0.025	0.0080	1	11/23/15	11/25/15 12:54	250710	474264	
Endosulfan I	ND	U	0.047	0.025	0.011	1	11/23/15	11/25/15 12:54	250710	474264	
Endosulfan II	ND	U	0.047	0.025	0.010	1	11/23/15	11/25/15 12:54	250710	474264	
Endosulfan Sulfate	ND	U	0.047	0.025	0.012	1	11/23/15	11/25/15 12:54	250710	474264	
Endrin	ND	U	0.047	0.025	0.017	1	11/23/15	11/25/15 12:54	250710	474264	
Endrin Aldehyde	ND	U	0.047	0.025	0.020	1	11/23/15	11/25/15 12:54	250710	474264	
Endrin Ketone	ND	U	0.047	0.025	0.013	1	11/23/15	11/25/15 12:54	250710	474264	
Heptachlor	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 12:54	250710	474264	
Heptachlor Epoxide	**0.055**		0.047	0.025	0.0070	1	11/23/15	11/25/15 12:54	250710	474264	
Methoxychlor	ND	U	0.47	0.025	0.017	1	11/23/15	11/25/15 12:54	250710	474264	
Toxaphene	ND	U	0.94	0.50	0.27	1	11/23/15	11/25/15 12:54	250710	474264	
alpha-BHC	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 12:54	250710	474264	
alpha-Chlordane	**0.28**	P	0.047	0.025	0.0070	1	11/23/15	11/25/15 12:54	250710	474264	
beta-BHC	ND	U	0.047	0.028	0.028	1	11/23/15	11/25/15 12:54	250710	474264	
delta-BHC	ND	U	0.048	0.048	0.048	1	11/23/15	11/25/15 12:54	250710	474264	
gamma-BHC (Lindane)	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 12:54	250710	474264	
gamma-Chlordane	**0.29**		0.047	0.025	0.0080	1	11/23/15	11/25/15 12:54	250710	474264	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	62	30-135	11/25/15 12:54	
Tetrachloro-m-xylene	76	25-140	11/25/15 12:54	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1140
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-56-GW-80MW102-7.5	**Units:**	µg/L
Lab Code:	R1510161-008	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	ND	U	0.047	0.025	0.013	1	11/23/15	11/25/15 13:21	250710	474264	
4,4'-DDE	ND	U	0.047	0.025	0.012	1	11/23/15	11/25/15 13:21	250710	474264	
4,4'-DDT	ND	U	0.047	0.027	0.027	1	11/23/15	11/25/15 13:21	250710	474264	
Aldrin	ND	U	0.047	0.025	0.0090	1	11/23/15	11/25/15 13:21	250710	474264	
Dieldrin	ND	U	0.047	0.025	0.0080	1	11/23/15	11/25/15 13:21	250710	474264	
Endosulfan I	ND	U	0.047	0.025	0.011	1	11/23/15	11/25/15 13:21	250710	474264	
Endosulfan II	ND	U	0.047	0.025	0.010	1	11/23/15	11/25/15 13:21	250710	474264	
Endosulfan Sulfate	ND	U	0.047	0.025	0.012	1	11/23/15	11/25/15 13:21	250710	474264	
Endrin	ND	U	0.047	0.025	0.017	1	11/23/15	11/25/15 13:21	250710	474264	
Endrin Aldehyde	ND	U	0.047	0.025	0.020	1	11/23/15	11/25/15 13:21	250710	474264	
Endrin Ketone	ND	U	0.047	0.025	0.013	1	11/23/15	11/25/15 13:21	250710	474264	
Heptachlor	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 13:21	250710	474264	
Heptachlor Epoxide	**0.055**		0.047	0.025	0.0070	1	11/23/15	11/25/15 13:21	250710	474264	
Methoxychlor	ND	U	0.47	0.025	0.017	1	11/23/15	11/25/15 13:21	250710	474264	
Toxaphene	ND	U	0.94	0.50	0.27	1	11/23/15	11/25/15 13:21	250710	474264	
alpha-BHC	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 13:21	250710	474264	
alpha-Chlordane	**0.28**	P	0.047	0.025	0.0070	1	11/23/15	11/25/15 13:21	250710	474264	
beta-BHC	ND	U	0.047	0.028	0.028	1	11/23/15	11/25/15 13:21	250710	474264	
delta-BHC	ND	U	0.048	0.048	0.048	1	11/23/15	11/25/15 13:21	250710	474264	
gamma-BHC (Lindane)	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 13:21	250710	474264	
gamma-Chlordane	**0.29**		0.047	0.025	0.0080	1	11/23/15	11/25/15 13:21	250710	474264	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	57	30-135	11/25/15 13:21	
Tetrachloro-m-xylene	78	25-140	11/25/15 13:21	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1647
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-M8-GW-697MW01-16.5	**Units:**	µg/L
Lab Code:	R1510161-012	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	**0.70**		0.047	0.025	0.013	1	11/23/15	12/2/15 13:30	250710	474264	
4,4'-DDE	ND	U	0.047	0.025	0.012	1	11/23/15	12/2/15 13:30	250710	474264	
4,4'-DDT	**0.048**		0.047	0.027	0.027	1	11/23/15	12/2/15 13:30	250710	474264	
Aldrin	ND	U	0.047	0.025	0.0090	1	11/23/15	12/2/15 13:30	250710	474264	
Dieldrin	ND	U	0.047	0.025	0.0080	1	11/23/15	12/2/15 13:30	250710	474264	
Endosulfan I	ND	U	0.047	0.025	0.011	1	11/23/15	12/2/15 13:30	250710	474264	
Endosulfan II	ND	U	0.047	0.025	0.010	1	11/23/15	12/2/15 13:30	250710	474264	
Endosulfan Sulfate	ND	U	0.047	0.025	0.012	1	11/23/15	12/2/15 13:30	250710	474264	
Endrin	ND	U	0.047	0.025	0.017	1	11/23/15	12/2/15 13:30	250710	474264	
Endrin Aldehyde	ND	U	0.047	0.025	0.020	1	11/23/15	12/2/15 13:30	250710	474264	
Endrin Ketone	ND	U	0.047	0.025	0.013	1	11/23/15	12/2/15 13:30	250710	474264	
Heptachlor	ND	U	0.047	0.025	0.0060	1	11/23/15	12/2/15 13:30	250710	474264	
Heptachlor Epoxide	ND	U	0.047	0.025	0.0070	1	11/23/15	12/2/15 13:30	250710	474264	
Methoxychlor	ND	U	0.47	0.025	0.017	1	11/23/15	12/2/15 13:30	250710	474264	
Toxaphene	ND	U	0.94	0.50	0.27	1	11/23/15	12/2/15 13:30	250710	474264	
alpha-BHC	ND	U	0.047	0.025	0.0060	1	11/23/15	12/2/15 13:30	250710	474264	
alpha-Chlordane	**0.19**		0.047	0.025	0.0070	1	11/23/15	12/2/15 13:30	250710	474264	
beta-BHC	ND	U	0.047	0.028	0.028	1	11/23/15	12/2/15 13:30	250710	474264	
delta-BHC	ND	U	0.048	0.048	0.048	1	11/23/15	12/2/15 13:30	250710	474264	
gamma-BHC (Lindane)	ND	U	0.047	0.025	0.0060	1	11/23/15	12/2/15 13:30	250710	474264	
gamma-Chlordane	**0.19**		0.047	0.025	0.0080	1	11/23/15	12/2/15 13:30	250710	474264	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	48	30-135	12/2/15 13:30	
Tetrachloro-m-xylene	83	25-140	12/2/15 13:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1700
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	EB-2015-11-20	**Units:**	µg/L
Lab Code:	R1510161-017	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	ND	U	0.047	0.025	0.013	1	11/23/15	11/25/15 15:41	250710	474264	
4,4'-DDE	ND	U	0.047	0.025	0.012	1	11/23/15	11/25/15 15:41	250710	474264	
4,4'-DDT	ND	U	0.047	0.027	0.027	1	11/23/15	11/25/15 15:41	250710	474264	
Aldrin	ND	U	0.047	0.025	0.0090	1	11/23/15	11/25/15 15:41	250710	474264	
Dieldrin	ND	U	0.047	0.025	0.0080	1	11/23/15	11/25/15 15:41	250710	474264	
Endosulfan I	ND	U	0.047	0.025	0.011	1	11/23/15	11/25/15 15:41	250710	474264	
Endosulfan II	ND	U	0.047	0.025	0.010	1	11/23/15	11/25/15 15:41	250710	474264	
Endosulfan Sulfate	ND	U	0.047	0.025	0.012	1	11/23/15	11/25/15 15:41	250710	474264	
Endrin	ND	U	0.047	0.025	0.017	1	11/23/15	11/25/15 15:41	250710	474264	
Endrin Aldehyde	ND	U	0.047	0.025	0.020	1	11/23/15	11/25/15 15:41	250710	474264	
Endrin Ketone	ND	U	0.047	0.025	0.013	1	11/23/15	11/25/15 15:41	250710	474264	
Heptachlor	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 15:41	250710	474264	
Heptachlor Epoxide	ND	U	0.047	0.025	0.0070	1	11/23/15	11/25/15 15:41	250710	474264	
Methoxychlor	ND	U	0.47	0.025	0.017	1	11/23/15	11/25/15 15:41	250710	474264	
Toxaphene	ND	U	0.94	0.50	0.27	1	11/23/15	11/25/15 15:41	250710	474264	
alpha-BHC	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 15:41	250710	474264	
alpha-Chlordane	ND	U	0.047	0.025	0.0070	1	11/23/15	11/25/15 15:41	250710	474264	
beta-BHC	ND	U	0.047	0.028	0.028	1	11/23/15	11/25/15 15:41	250710	474264	
delta-BHC	ND	U	0.048	0.048	0.048	1	11/23/15	11/25/15 15:41	250710	474264	
gamma-BHC (Lindane)	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 15:41	250710	474264	
gamma-Chlordane	ND	U	0.047	0.025	0.0080	1	11/23/15	11/25/15 15:41	250710	474264	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	70	30-135	11/25/15 15:41	
Tetrachloro-m-xylene	73	25-140	11/25/15 15:41	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514596-01	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	ND	U	0.050	0.025	0.013	1	11/23/15	11/25/15 09:39	250710	474264	
4,4'-DDE	ND	U	0.050	0.025	0.012	1	11/23/15	11/25/15 09:39	250710	474264	
4,4'-DDT	ND	U	0.050	0.027	0.027	1	11/23/15	11/25/15 09:39	250710	474264	
Aldrin	ND	U	0.050	0.025	0.0090	1	11/23/15	11/25/15 09:39	250710	474264	
Dieldrin	ND	U	0.050	0.025	0.0080	1	11/23/15	11/25/15 09:39	250710	474264	
Endosulfan I	ND	U	0.050	0.025	0.011	1	11/23/15	11/25/15 09:39	250710	474264	
Endosulfan II	ND	U	0.050	0.025	0.010	1	11/23/15	11/25/15 09:39	250710	474264	
Endosulfan Sulfate	ND	U	0.050	0.025	0.012	1	11/23/15	11/25/15 09:39	250710	474264	
Endrin	ND	U	0.050	0.025	0.017	1	11/23/15	11/25/15 09:39	250710	474264	
Endrin Aldehyde	ND	U	0.050	0.025	0.020	1	11/23/15	11/25/15 09:39	250710	474264	
Endrin Ketone	ND	U	0.050	0.025	0.013	1	11/23/15	11/25/15 09:39	250710	474264	
Heptachlor	ND	U	0.050	0.025	0.0060	1	11/23/15	11/25/15 09:39	250710	474264	
Heptachlor Epoxide	ND	U	0.050	0.025	0.0070	1	11/23/15	11/25/15 09:39	250710	474264	
Methoxychlor	ND	U	0.50	0.025	0.017	1	11/23/15	11/25/15 09:39	250710	474264	
Toxaphene	ND	U	1.0	0.50	0.27	1	11/23/15	11/25/15 09:39	250710	474264	
alpha-BHC	ND	U	0.050	0.025	0.0060	1	11/23/15	11/25/15 09:39	250710	474264	
alpha-Chlordane	ND	U	0.050	0.025	0.0070	1	11/23/15	11/25/15 09:39	250710	474264	
beta-BHC	ND	U	0.050	0.028	0.028	1	11/23/15	11/25/15 09:39	250710	474264	
delta-BHC	ND	U	0.050	0.048	0.048	1	11/23/15	11/25/15 09:39	250710	474264	
gamma-BHC (Lindane)	ND	U	0.050	0.025	0.0060	1	11/23/15	11/25/15 09:39	250710	474264	
gamma-Chlordane	ND	U	0.050	0.025	0.0080	1	11/23/15	11/25/15 09:39	250710	474264	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	56	30-135	11/25/15 09:39	
Tetrachloro-m-xylene	81	25-140	11/25/15 09:39	

Analytical Report

Client:
Project:
Sample Matrix:

Service Request:
Date Collected: NA
Date Received: NA
Date Analyzed:

Tentatively Identified Compounds (TIC)

Sample Name:
Lab Code:
Run Type:

Units:
Basis:
Percent Solids:

Analytical Method:

Canister Dilution Factor:

Initial Pressure (psig):
Initial Pressure 2 (psig):

Final Pressure (psig):
Final Pressure 2 (psig):

Comments:

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: 11/19/15
Date Received: 11/21/15
Date Analyzed: 11/25/15

Matrix Spike Summary
Organochlorine Pesticides by Gas Chromatography

Sample Name: FTMM-M8-GW-697MW01-16.5
Lab Code: R1510161-012

Units: µg/L
Basis: NA

Analytical Method: 8081B
Prep Method: EPA 3510C

		FTMM-M8-GW-697MW01-16.5MS Matrix Spike RQ1514596-04			FTMM-M8-GW-697MW01-16.5DMS Duplicate Matrix Spike RQ1514596-05					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
4,4'-DDD	0.70	0.956	0.189	135	1.27	0.189	299 *	25 - 150	28	30
4,4'-DDE	ND	0.186	0.189	99	0.204	0.189	108	35 - 140	9	30
4,4'-DDT	0.048	0.166	0.189	62	0.207	0.189	84	45 - 140	22	30
Aldrin	ND	0.156	0.189	83	0.157	0.189	83	25 - 140	<1	30
Dieldrin	ND	0.194	0.189	103	0.191	0.189	101	60 - 130	1	30
Endosulfan I	ND	0.199	0.189	106	0.183	0.189	97	50 - 110	9	30
Endosulfan II	ND	0.187	0.189	99	0.183	0.189	97	30 - 130	2	30
Endosulfan Sulfate	ND	0.167	0.189	88	0.169	0.189	89	55 - 135	1	30
Endrin	ND	0.178	0.189	94	0.174	0.189	92	55 - 135	2	30
Endrin Aldehyde	ND	0.0920	0.189	49 *	0.0908	0.189	48 *	55 - 135	1	30
Endrin Ketone	ND	0.171	0.189	91	0.168	0.189	89	75 - 125	2	30
Heptachlor	ND	0.159	0.189	84	0.164	0.189	87	40 - 130	3	30
Heptachlor Epoxide	ND	0.212	0.189	112	0.212	0.189	112	60 - 130	<1	30
Methoxychlor	ND	0.135	0.189	72	0.141	0.189	75	55 - 150	4	30
alpha-BHC	ND	0.172	0.189	91	0.168	0.189	89	60 - 130	3	30
alpha-Chlordane	0.19	0.387	0.189	102	0.461	0.189	141 *	65 - 125	17	30
beta-BHC	ND	0.162	0.189	86	0.159	0.189	84	65 - 125	1	30
delta-BHC	ND	0.168	0.189	89	0.165	0.189	87	45 - 135	2	30
gamma-BHC (Lindane)	ND	0.175	0.189	93	0.171	0.189	91	25 - 135	3	30
gamma-Chlordane	0.19	0.402	0.189	114	0.484	0.189	158 *	60 - 125	18	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Analyzed: 11/25/15

Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 250710

Analyte Name	Lab Control Sample RQ1514596-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1514596-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
4,4'-DDD	0.150	0.200	75	0.153	0.200	76	25 - 150	2	30
4,4'-DDE	0.158	0.200	79	0.158	0.200	79	35 - 140	<1	30
4,4'-DDT	0.128	0.200	64	0.125	0.200	62	45 - 140	2	30
Aldrin	0.167	0.200	84	0.158	0.200	79	25 - 140	5	30
Dieldrin	0.186	0.200	93	0.183	0.200	91	60 - 130	2	30
Endosulfan I	0.178	0.200	89	0.176	0.200	88	50 - 110	1	30
Endosulfan II	0.176	0.200	88	0.174	0.200	87	30 - 130	1	30
Endosulfan Sulfate	0.162	0.200	81	0.166	0.200	83	55 - 135	2	30
Endrin	0.172	0.200	86	0.171	0.200	85	55 - 135	<1	30
Endrin Aldehyde	0.118	0.200	59	0.111	0.200	55	55 - 135	6	30
Endrin Ketone	0.161	0.200	81	0.162	0.200	81	75 - 125	<1	30
Heptachlor	0.172	0.200	86	0.165	0.200	82	40 - 130	4	30
Heptachlor Epoxide	0.185	0.200	92	0.181	0.200	91	60 - 130	2	30
Methoxychlor	0.124	0.200	62	0.126	0.200	63	55 - 150	1	30
Toxaphene	1.30	2.00	65	1.48	2.00	74	46 - 130	13	30
alpha-BHC	0.179	0.200	89	0.176	0.200	88	60 - 130	2	30
alpha-Chlordane	0.180	0.200	90	0.177	0.200	88	65 - 125	2	30
beta-BHC	0.171	0.200	86	0.168	0.200	84	65 - 125	2	30
delta-BHC	0.165	0.200	82	0.165	0.200	83	45 - 135	<1	30
gamma-BHC (Lindane)	0.185	0.200	92	0.181	0.200	91	25 - 135	2	30
gamma-Chlordane	0.179	0.200	90	0.176	0.200	88	60 - 125	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

METALS

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: R1510161 SDG No.: FTMM-8-GW-M

Lab Code: Case No.: SAS No.:

SOW No.: SW846 CLP-M

Sample ID.	Lab Sample No.
FTMM-8-GW-M8MW21-13.0	R1510161-001
FTMM-8-GW-M8MW17-9.75	R1510161-002
EB-2015-11-19	R1510161-004
FTMM-56-GW-80MW05-7.0	R1510161-007
FTMM-57-GW-108MW04-7.5	R1510161-009
FTMM-M8-GW-697MW01-16.5	R1510161-012
EB-2015-11-20	R1510161-017

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments: See Attatched Case Narrative

Signature: Vanessa N. Badman Name: Vanessa N. Badman

Date: 1/7/16 Title: Project Manager

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client:	Parsons Engineering Science	**Service Request:**	FTMM-8-GW-M8MW21-13.0
Project No.:	R1510161	**Date Collected:**	11/19/2015
Project Name:		**Date Received:**	11/21/2015
Matrix:	WATER	**Units:**	ug/L
		Basis:	

Sample Name: FTMM-8-GW-M8MW21-13.0 **Lab Code:** R1510161-001

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/02/15	12/05/15	8.1		

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client:	Parsons Engineering Science	**Service Request:**	FTMM-8-GW-M8MW21-13.0
Project No.:	R1510161	**Date Collected:**	11/19/2015
Project Name:		**Date Received:**	11/21/2015
Matrix:	WATER	**Units:**	ug/L
		Basis:	

Sample Name: FTMM-8-GW-M8MW17-9.75 **Lab Code:** R1510161-002

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/02/15	12/05/15	3.9	J	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510161
Project Name:
Matrix: WATER

Service Request: FTMM-8-GW-M8MW21-13.0
Date Collected: 11/19/2015
Date Received: 11/21/2015
Units: ug/L
Basis:

Sample Name: EB-2015-11-19 **Lab Code:** R1510161-004

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/02/15	12/05/15	2.5	U	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client:	Parsons Engineering Science	**Service Request:**	FTMM-8-GW-M8MW21-13.0
Project No.:	R1510161	**Date Collected:**	11/20/2015
Project Name:		**Date Received:**	11/21/2015
Matrix:	WATER	**Units:**	ug/L
		Basis:	

Sample Name: FTMM-56-GW-80MW05-7.0 **Lab Code:** R1510161-007

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	6010C	10.0	5.0	1.1	1.0	12/02/15	12/05/15	3.7	J	
Cadmium	6010C	5.0	2.5	0.120	1.0	12/02/15	12/05/15	0.420	J	
Lead	6010C	5.0	2.5	1.3	1.0	12/02/15	12/05/15	2.0	J	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510161
Project Name:
Matrix: WATER

Service Request: FTMM-8-GW-M8MW21-13.0
Date Collected: 11/20/2015
Date Received: 11/21/2015
Units: ug/L
Basis:

Sample Name: FTMM-57-GW-108MW04-7.5 **Lab Code:** R1510161-009

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	6010C	10.0	5.0	1.1	1.0	12/02/15	12/05/15	2.0	J	
Cadmium	6010C	5.0	2.5	0.120	1.0	12/02/15	12/05/15	2.5	U	
Lead	6010C	5.0	2.5	1.3	1.0	12/02/15	12/05/15	2.5	U	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client:	Parsons Engineering Science	**Service Request:**	FTMM-8-GW-M8MW21-13.0
Project No.:	R1510161	**Date Collected:**	11/19/2015
Project Name:		**Date Received:**	11/21/2015
Matrix:	WATER	**Units:**	ug/L
		Basis:	

Sample Name: FTMM-M8-GW-697MW01-16.5 **Lab Code:** R1510161-012

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/02/15	12/05/15	2.5	U	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client:	Parsons Engineering Science	**Service Request:**	FTMM-8-GW-M8MW21-13.0
Project No.:	R1510161	**Date Collected:**	11/20/2015
Project Name:		**Date Received:**	11/21/2015
Matrix:	WATER	**Units:**	ug/L
		Basis:	

Sample Name: EB-2015-11-20 **Lab Code:** R1510161-017

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	6010C	10.0	5.0	1.1	1.0	12/02/15	12/05/15	5.0	U	
Cadmium	6010C	5.0	2.5	0.120	1.0	12/02/15	12/05/15	0.317	J	
Lead	6010C	5.0	2.5	1.3	1.0	12/02/15	12/05/15	2.5	U	

% Solids: 0.0

Comments:

ALS Environmental

METALS

-3-

BLANKS

Contract: R1510161

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-8-GW-M8

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	C	Continuing Calibration Blank ug/L 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic	1.12	U	1.12	U	1.12	U	1.12	U	-1.679	J	P
Cadmium	0.19	J	0.12	U	0.12	J	0.33	J	0.246	J	P
Lead	1.32	U	1.32	U	1.32	U	-1.95	J	1.320	U	P

Comments:

METALS

-3-

BLANKS

Contract: R1510161

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-8-GW-M8

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	C	Continuing Calibration Blank ug/L 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic			1.12	U	1.12	U	1.12	U			P
Cadmium			0.25	J	0.18	J	0.12	U			P
Lead			1.32	U	1.32	U	1.32	U			P

Comments:

METALS

-7-

LABORATORY CONTROL SAMPLE

Contract: R1510161

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-8-GW-M8

Solid LCS Source: _____

Aqueous LCS Source: CPI

Analyte	Aqueous (ug/L			Solid (mg/K				
	True	Found	%R	True	Found	C	Limits	%R
Arsenic	40	41	102					
Cadmium	50	50	100					
Lead	500	507	101					

Comments: _____

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January 06, 2016

Analytical Report for Service Request No: R1510161

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Dear Sandra:

Enclosed are the results of the sample(s) submitted to our laboratory on November 21, 2015. For your reference, these analyses have been assigned our service request number **R1510161**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7478. You may also contact me via email at Vanessa.Badman@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Vanessa N. Badman

Vanessa Badman

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Environmental

SDG NARRATIVE

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Environmental

Client:	Parsons Engineering Science
Service Request No.:	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling
Date Received:	November 21, 2015
Sample Matrix:	Water

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Samples were received for analysis at ALS Environmental on 11/21/15. The samples were received in good condition and consistent with the accompanying chain of custody form. All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

Metals

Samples were analyzed for a site specific list of Metals. Please see attached report pages for method numbers.

All LCS recoveries were within limits.

Site specific QC was not requested on these samples.

All Method blanks were free of contamination.

All samples related QC were within limits.

No other analytical or QC problems were encountered.

Volatile Organics

Samples were analyzed for a site list of Volatile Organics by Methods 5035A/8260C from SW-846.

All Tuning criteria for BFB were within QC limits.

All the initial calibration criteria were met for all analytes.

All Continuing Calibration Verification (CCV) standards were within 20% Difference (D).

All Internal Standard Areas (IS) were within QC limits.

All surrogate standard recoveries were acceptable.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries were within limits.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination except for 1,2,4-Trichlorobenzene, Hexachlorobutadiene, and Naphthalene. Any hits in the samples should be considered to be estimated.

Due to sample matrix or non-target analyte concentrations, dilutions were performed and the MRLs adjusted accordingly.

No other analytical or QC problems were encountered.

Semi-Volatile Organics

Samples were analyzed for a site list of Semi-Volatile Organics by Method 3541/8270D and 3580/8270D from SW-846.

All Tuning criteria for DFTPP were within QC limits.

All CCV standards were within 20% D for all analytes.

All Internal Standard Areas were within QC limits.

All surrogate standard recoveries were within limits.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries and RPD's were within limits except for Benzidine which recovered low in the LCSD (RQ1514672-02). The LCS and the LCSD have been reported as zero percent recovery for Benzidine due to a limitation in LIMs. Benzidine was detected with 8.97% recovery in the LCS and has been flagged with a "*"; and 15% recovery in the LCSD which should not be flagged on the summary form. The precision was calculated to be 53% RPD.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination.

Due to sample matrix or non-target analyte concentrations, dilutions were performed and the MRLs adjusted accordingly.

No other analytical or QC problems were encountered.

Pesticides

Samples were analyzed for Pesticides by Method 8081 from SW-846.

All the initial and continuing calibration criteria were met for all analytes, except for CCV52 and CCV53 which were low on the back column for DDT and Methoxychlor. Also, CCV 54 was low on the back column for Methoxychlor.

All surrogate standard recoveries were acceptable.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries were within limits.

All MS/MSD recoveries and RPD's were acceptable, except for Endrin Aldehyde on the MS and 4,4-DDD, alpha-Chlordane, Endrin Aldehyde, and gamma-Chlordane on the MSD.

The Method Blanks associated with these samples were free of contamination.

No other analytical or QC problems were encountered.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 748810-03000	Batch Complete: Yes		Date Revised:
Submission: R1510161	Diskette Requested: No		Date Due: 12/15/15
Client: Parsons Engineering Science	Date: 1/6/16		Protocol: SW846
Client Rep: VBADMAN	Custody Seal: Present/Absent:		Shipping No.:
Project: FTMM Baseline 2015 Q4 GW Sar	Chain of Custody: Present/Absent:		SDG #:

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1510161-001	FTMM-8-GW-M8MW21-13.0	Water	6010C	11/19/15	11/21/15			
R1510161-002	FTMM-8-GW-M8MW17-9.75	Water	6010C	11/19/15	11/21/15			
R1510161-003	FTMM-8-GW-M8MW24-28.5	Water	8260C	11/19/15	11/21/15			
R1510161-004	EB-2015-11-19	Water	8260C, 8081B, 6010C	11/19/15	11/21/15			
R1510161-005	TB-2015-11-19	Water	8260C	11/19/15	11/21/15			
R1510161-006	FTMM-56-GW-80MW02-7.5	Water	8081B	11/20/15	11/21/15			
R1510161-007	FTMM-56-GW-80MW05-7.0	Water	6010C	11/20/15	11/21/15			
R1510161-008	FTMM-56-GW-80MW102-7.5	Water	8081B	11/20/15	11/21/15			
R1510161-009	FTMM-57-GW-108MW04-7.5	Water	6010C	11/20/15	11/21/15			
R1510161-010	FTMM-M8-GW-MW15-11.8	Water	8260C	11/19/15	11/21/15			
R1510161-011	FTMM-M8-GW-MW16-12.07	Water	8260C	11/19/15	11/21/15			
R1510161-012	FTMM-M8-GW-697MW01-16.5	Water	8081B, 6010C, 8260C	11/19/15	11/21/15			
R1510161-015	FTMM-M8-GW-MW12-13.5	Water	8260C	11/20/15	11/21/15			
R1510161-016	FTMM-66-GW-886RW08-11.2	Water	8270D	11/20/15	11/21/15			
R1510161-017	EB-2015-11-20	Water	6010C, 8081B, 8260C, 8270D	11/20/15	11/21/15			

Folder Comments: DoD reporting ERPTOOLS LOD

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

ALS Environmental

CHAINS OF CUSTODY

ALS Environmental - Rochester, NY
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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

32373

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name: FTMM-2015 Q4 GW Sampling	Project Number: 748810-03000
Project Manager: Cris Grill	Report CC:
Company/Address: Parsons, 100 High Street, Boston, MA 02210	
Phone #: (617)449-1583	Email: cris.grill@parsons.com
Sampler's Signature: Alex DiIonno	Sampler's Printed Name: Alex DiIonno

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 2 0 2

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOCs+TICs (including EBB+1,2DCA) EPA Method 8260C	Lead 6010C/7470A	Pesticides-EPA Method 8081B	Pb, As, Cd-EPA Method 6010C/7470A				REMARKS/ ALTERNATE DESCRIPTION
FTMM-8-GW-M8MW21-13.0		11/19/15	1158	GW	1									X						
FTMM-8-GW-M8MW17-9.75		11/19/15	1321	GW	1									X						
FTMM-8-GW-M8MW24-28.5		11/19/15	1607	GW	3								X							
EB-2015-11-19		11/19/15	1700	EB	6								X	X	X					
TB-2015-11-19		11/19/15	—	TB	3								X							
FTMM-56-GW-80MW02-7.5		11/20/15	1140	GW	2										X					
FTMM-56-GW-80MW05-7.0		11/20/15	1304	GW	1											X				
FTMM-56-GW-80MW102-7.5		11/20/15	1140	GW	2										X					
FTMM-57-GW-108MW04-7.5		11/20/15	1613	GW	1											X				
FTMM-M8-GW-MW15-11.8		11/19/15	1243	GW	3								X							
FTMM-M8-GW-MW16-12.07		11/19/15	1455	GW	3								X							

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: New Jersey

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data

Edata _____ Yes _____ No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Alex DiIonno	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: Alex DiIonno	Printed Name: Matt Stone	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Parsons	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time: 11/20/15; 1850	Date/Time: 11/21/15 0945	Date/Time	Date/Time	Date/Time	Date/Time

R1510161 5
Parsons, Inc.
FTMM Baseline

Distribution: White - Lab Copy; Yellow - Return to Originator

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

32374

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 2

Project Name: FTMM-2015Q4 GW Sampling	Project Number: 148810-03000
Project Manager: Cris Grill	Report CC:
Company/Address: Parsons 100 High Street Boston, MA 02210	
Phone #: (617) 449-1583	Email: cris.grill@parsons.com
Sampler's Signature: Alex DiDonno	Sampler's Printed Name: Alex DiDonno

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1 | 2 | 0 | 2

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	VOCs+TICs (including EDB-8260C)	Lead 6010C/7470A	Pesticides-8081B	Pb, As, Cd-6010C/7470A	SVOCs
FTMM-M8-697MW01-16.5		11/19/15	1647	GW	7	X	X	X		
FTMM-M8-697MW01-16.5-MS		11/19/15	1647	GW	2			X		
FTMM-M8-697MW01-16.5-MSD		11/19/15	1647	GW	2			X		
FTMM-M8-GW-MW12-13.5		11/20/15	1215	GW	3	X				
FTMM-66-GW-886RW08-11.2		11/20/15	1510	GW	2				X	
EB-2015-11-20		11/20/15	1700	GW EB	8	X		X	X	X

Preservative Key
0. NONE
1. HCl
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: New Jersey

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ____Yes ____No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Alex DiDonno	Signature:	Signature	Signature	Signature	Signature
Printed Name: Alex DiDonno	Printed Name:	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Parsons	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time: 11/20/15; 1850	Date/Time: 11/21/15 0945	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

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R1510161
Parsons, Inc.
FTMM Baseline
5

Cooler Receipt and Preservatio

Project/Client Parsons Folder Number

Cooler received on 11/21/15 by: MDS

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	Y N	5a	**Perchlorate** samples have required headspace?	Y N NA
2	**Custody papers** properly completed (ink, signed)?	Y N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y N NA
3	Did all bottles arrive in good **condition** (unbroken)?	Y N	6	Where did the bottles originate?	ALS/ROC CLIENT
4	Circle: Wet Ice Dry Ice Gel packs present?	Y N	7	Soil VOA received as:	Bulk Encore 5035set NA

8. Temperature Readings Date: 11/21/15 Time: 0955 ID: IR#3 IR#3 From: Temp Blank Sample Bottle

Observed Temp (°C)	4.9	1.4					
Correction Factor (°C)	—	—					
Corrected Temp (°C)	4.9	1.4					
Within 0-6°C?	Y N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: Room by MDS on 11/21/15 at 0955
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: VNB

Cooler Breakdown: Date: 11/21/15 Time: 145 by: MDS

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3	X		BDB614744	10/16				
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	4114070	10/16				

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 071315-2 MW, 5-211-002, 042015-1 MW, 090814/ELT
Other Comments:

PC Secondary Review: VNB 11/23/15 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r9.doc 9/24/15

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Service Request: R1510161

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1510161-001.01					
	6010C				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-A01 / MSTONE	
		11/24/15	1357	In Lab / CGILDAY	
		11/24/15	1404	R-A01 / CGILDAY	
		12/2/15	1316	In Lab / CGILDAY	
		12/2/15	1453	R-002 / CGILDAY	
R1510161-002.01					
	6010C				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-A01 / MSTONE	
		11/24/15	1357	In Lab / CGILDAY	
		11/24/15	1404	R-A01 / CGILDAY	
		12/2/15	1316	In Lab / CGILDAY	
		12/2/15	1454	R-002 / CGILDAY	
R1510161-003.01					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
		11/30/15	1225	In Lab / KRUEST	
		11/30/15	1721	R-001-S12 / BWOJTASIEWICZ	
R1510161-003.02					
	8260C				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
		12/1/15	1211	In Lab / KRUEST	
R1510161-003.03					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-004.01					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	
R1510161-004.02					
	8081B				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	
		11/24/15	0603	In Lab / DMURPHY	
R1510161-004.03					
	8260C				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
		11/30/15	1225	In Lab / KRUEST	
		11/30/15	1721	R-001-S12 / BWOJTASIEWICZ	

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Parsons, Inc. **Service Request:** R1510161
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1510161-004.04					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-004.05					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-004.06					
	6010C				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-A01 / MSTONE	
		11/24/15	1357	In Lab / CGILDAY	
		11/24/15	1404	R-A01 / CGILDAY	
		12/2/15	1316	In Lab / CGILDAY	
		12/2/15	1454	R-002 / CGILDAY	
R1510161-004.07					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-004.08					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-004.09					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-004.10					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-005.01					
	8260C				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
		11/30/15	1225	In Lab / KRUEST	
		11/30/15	1721	R-001-S12 / BWOJTASIEWICZ	
R1510161-005.02					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-005.03					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-006.01					
	8081B				

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Parsons, Inc. **Service Request:** R1510161
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	
		11/24/15	0603	In Lab / DMURPHY	
R1510161-006.02					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	
R1510161-007.01					
	6010C				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-A01 / MSTONE	
		11/24/15	1357	In Lab / CGILDAY	
		11/24/15	1404	R-A01 / CGILDAY	
		12/2/15	1316	In Lab / CGILDAY	
		12/2/15	1454	R-002 / CGILDAY	
R1510161-008.01					
	8081B				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	
		11/24/15	0603	In Lab / DMURPHY	
R1510161-008.02					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	
R1510161-009.01					
	6010C				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-A01 / MSTONE	
		11/24/15	1357	In Lab / CGILDAY	
		11/24/15	1404	R-A01 / CGILDAY	
		12/2/15	1316	In Lab / CGILDAY	
		12/2/15	1454	R-002 / CGILDAY	
R1510161-009.02					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-A01 / MSTONE	
R1510161-010.01					
	8260C				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
		11/30/15	1225	In Lab / KRUEST	
		11/30/15	1721	R-001-S12 / BWOJTASIEWICZ	
R1510161-010.02					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Parsons, Inc. **Service Request:** R1510161
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1510161-010.03					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-011.01					
	8260C				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
		11/30/15	1225	In Lab / KRUEST	
		11/30/15	1721	R-001-S12 / BWOJTASIEWICZ	
		12/1/15	1211	In Lab / KRUEST	
R1510161-011.02					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-011.03					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-012.01					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	
R1510161-012.02					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	
		11/24/15	0603	In Lab / DMURPHY	
R1510161-012.03					
	8260C				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
		11/30/15	1225	In Lab / KRUEST	
		11/30/15	1721	R-001-S12 / BWOJTASIEWICZ	
		12/1/15	1211	In Lab / KRUEST	
R1510161-012.04					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-012.05					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-012.06					
	6010C				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-A01 / MSTONE	
		11/24/15	1357	In Lab / CGILDAY	

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Parsons, Inc. **Service Request:** R1510161
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		11/24/15	1404	R-A01 / CGILDAY	
		12/2/15	1316	In Lab / CGILDAY	
		12/2/15	1454	R-002 / CGILDAY	
R1510161-012.07					
		11/21/15	1145	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	
		11/24/15	0603	In Lab / DMURPHY	
R1510161-012.08					
		11/21/15	1145	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	
R1510161-012.09					
	8081B				
		11/21/15	1145	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	
		11/24/15	0603	In Lab / DMURPHY	
R1510161-012.10					
		11/21/15	1145	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	
R1510161-015.01					
	8260C				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
		11/30/15	1225	In Lab / KRUEST	
		11/30/15	1721	R-001-S12 / BWOJTASIEWICZ	
		12/1/15	1211	In Lab / KRUEST	
R1510161-015.02					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-015.03					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-016.04					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	
R1510161-016.05					
	8270D				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	
		11/25/15	0637	In Lab / DMURPHY	
R1510161-017.01					
	6010C				

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Parsons, Inc. **Service Request:** R1510161
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-A01 / MSTONE	
		11/24/15	1357	In Lab / CGILDAY	
		11/24/15	1404	R-A01 / CGILDAY	
		12/2/15	1316	In Lab / CGILDAY	
		12/2/15	1454	R-002 / CGILDAY	
R1510161-017.02					
	8260C				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
		11/30/15	1225	In Lab / KRUEST	
		11/30/15	1721	R-001-S12 / BWOJTASIEWICZ	
R1510161-017.03					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-017.04					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-001 / MSTONE	
R1510161-017.05					
	8081B				
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	
		11/24/15	1258	In Lab / DMURPHY	
R1510161-017.06					
		11/21/15	1144	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	
R1510161-017.07					
	8270D				
		11/21/15	1145	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	
		11/25/15	0637	In Lab / DMURPHY	
R1510161-017.08					
		11/21/15	1145	SMO / MSTONE	
		11/21/15	1145	R-002 / MSTONE	

ALS Environmental

VOLATILE ORGANICS QC SUMMARY

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Analyzed: 11/30/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474104

Lab Control Sample
RQ1514764-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	20.5	20.0	102	80 - 130
1,1,1-Trichloroethane (TCA)	21.3	20.0	106	65 - 130
1,1,2,2-Tetrachloroethane	19.2	20.0	96	65 - 130
1,1,2-Trichloroethane	20.2	20.0	101	75 - 125
1,1-Dichloroethane (1,1-DCA)	21.6	20.0	108	70 - 135
1,1-Dichloroethene (1,1-DCE)	21.7	20.0	109	70 - 130
1,1-Dichloropropene	22.3	20.0	111	75 - 130
1,2,3-Trichlorobenzene	22.4	20.0	112	75 - 125
1,2,3-Trichloropropane	19.3	20.0	97	75 - 125
1,2,4-Trichlorobenzene	22.4	20.0	112	65 - 135
1,2,4-Trimethylbenzene	21.6	20.0	108	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	18.2	20.0	91	50 - 130
1,2-Dibromoethane	19.5	20.0	97	80 - 120
1,2-Dichlorobenzene	21.2	20.0	106	70 - 120
1,2-Dichloroethane	20.8	20.0	104	70 - 130
1,2-Dichloropropane	22.3	20.0	111	75 - 125
1,3,5-Trimethylbenzene	22.0	20.0	110	75 - 130
1,3-Dichlorobenzene	21.3	20.0	106	75 - 125
1,3-Dichloropropane	20.2	20.0	101	75 - 125
1,4-Dichlorobenzene	21.6	20.0	108	75 - 125
2,2-Dichloropropane	21.6	20.0	108	70 - 135
2-Butanone (MEK)	19.7	20.0	98	30 - 150
2-Chlorotoluene	22.3	20.0	112	75 - 125
2-Hexanone	18.0	20.0	90	55 - 130
tert-Butyl Alcohol	406	400	102	50 - 150
4-Chlorotoluene	21.3	20.0	107	75 - 130
p-Isopropyltoluene	22.5	20.0	113	75 - 130
4-Methyl-2-pentanone	19.6	20.0	98	60 - 135
Acetone	17.1	20.0	85	40 - 140
Benzene	21.4	20.0	107	80 - 120
Bromobenzene	22.0	20.0	110	75 - 125
Bromochloromethane	20.4	20.0	102	65 - 130
Bromodichloromethane	20.8	20.0	104	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Analyzed: 11/30/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474104

Lab Control Sample
RQ1514764-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	19.0	20.0	95	70 - 130
Bromomethane	19.9	20.0	100	30 - 145
Carbon Tetrachloride	21.3	20.0	107	65 - 140
Chlorobenzene	20.6	20.0	103	80 - 120
Chloroethane	20.9	20.0	105	60 - 135
Chloroform	19.9	20.0	100	65 - 135
Chloromethane	19.8	20.0	99	40 - 125
Dibromochloromethane	20.3	20.0	102	60 - 135
Dichlorodifluoromethane (CFC 12)	21.8	20.0	109	30 - 155
Methylene Chloride	19.6	20.0	98	55 - 140
Ethylbenzene	20.5	20.0	102	75 - 125
Hexachlorobutadiene	25.7	20.0	128	50 - 140
Isopropylbenzene (Cumene)	21.4	20.0	107	75 - 125
Methyl tert-Butyl Ether	19.9	20.0	99	65 - 125
Naphthalene	21.5	20.0	108	55 - 140
Styrene	20.8	20.0	104	65 - 135
Tetrachloroethene (PCE)	21.5	20.0	107	45 - 150
Toluene	21.6	20.0	108	75 - 120
Trichloroethene (TCE)	20.3	20.0	102	70 - 125
Trichlorofluoromethane (CFC 11)	22.7	20.0	114	60 - 145
Vinyl Chloride	20.7	20.0	103	50 - 145
cis-1,2-Dichloroethene	20.9	20.0	104	70 - 125
cis-1,3-Dichloropropene	21.1	20.0	105	70 - 130
m,p-Xylenes	41.9	40.0	105	75 - 130
n-Butylbenzene	23.3	20.0	116	70 - 135
n-Propylbenzene	21.5	20.0	108	70 - 130
o-Xylene	20.6	20.0	103	80 - 120
sec-Butylbenzene	21.9	20.0	109	70 - 125
tert-Butylbenzene	21.4	20.0	107	70 - 130
trans-1,2-Dichloroethene	21.2	20.0	106	60 - 140
trans-1,3-Dichloropropene	20.9	20.0	105	55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Analyzed: 12/ 1/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474290

Lab Control Sample
RQ1514847-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	20.2	20.0	101	80 - 130
1,1,1-Trichloroethane (TCA)	20.5	20.0	103	65 - 130
1,1,2,2-Tetrachloroethane	20.0	20.0	100	65 - 130
1,1,2-Trichloroethane	21.4	20.0	107	75 - 125
1,1-Dichloroethane (1,1-DCA)	21.6	20.0	108	70 - 135
1,1-Dichloroethene (1,1-DCE)	21.2	20.0	106	70 - 130
1,1-Dichloropropene	22.4	20.0	112	75 - 130
1,2,3-Trichlorobenzene	23.1	20.0	116	75 - 125
1,2,3-Trichloropropane	20.0	20.0	100	75 - 125
1,2,4-Trichlorobenzene	22.2	20.0	111	65 - 135
1,2,4-Trimethylbenzene	20.9	20.0	104	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	19.2	20.0	96	50 - 130
1,2-Dibromoethane	20.2	20.0	101	80 - 120
1,2-Dichlorobenzene	21.2	20.0	106	70 - 120
1,2-Dichloroethane	21.0	20.0	105	70 - 130
1,2-Dichloropropane	21.5	20.0	107	75 - 125
1,3,5-Trimethylbenzene	21.0	20.0	105	75 - 130
1,3-Dichlorobenzene	20.2	20.0	101	75 - 125
1,3-Dichloropropane	21.0	20.0	105	75 - 125
1,4-Dichlorobenzene	20.9	20.0	105	75 - 125
2,2-Dichloropropane	21.4	20.0	107	70 - 135
2-Butanone (MEK)	20.7	20.0	104	30 - 150
2-Chlorotoluene	20.8	20.0	104	75 - 125
2-Hexanone	20.1	20.0	101	55 - 130
tert-Butyl Alcohol	437	400	109	50 - 150
4-Chlorotoluene	20.9	20.0	104	75 - 130
p-Isopropyltoluene	21.5	20.0	108	75 - 130
4-Methyl-2-pentanone	21.2	20.0	106	60 - 135
Acetone	20.3	20.0	102	40 - 140
Benzene	21.1	20.0	106	80 - 120
Bromobenzene	20.7	20.0	103	75 - 125
Bromochloromethane	19.9	20.0	100	65 - 130
Bromodichloromethane	20.3	20.0	101	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Analyzed: 12/ 1/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474290

Lab Control Sample
RQ1514847-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	18.2	20.0	91	70 - 130
Bromomethane	19.9	20.0	100	30 - 145
Carbon Tetrachloride	20.3	20.0	101	65 - 140
Chlorobenzene	20.5	20.0	102	80 - 120
Chloroethane	21.2	20.0	106	60 - 135
Chloroform	19.7	20.0	99	65 - 135
Chloromethane	20.6	20.0	103	40 - 125
Dibromochloromethane	19.7	20.0	99	60 - 135
Dichlorodifluoromethane (CFC 12)	21.9	20.0	110	30 - 155
Methylene Chloride	19.9	20.0	100	55 - 140
Ethylbenzene	20.5	20.0	102	75 - 125
Hexachlorobutadiene	23.5	20.0	118	50 - 140
Isopropylbenzene (Cumene)	20.1	20.0	100	75 - 125
Methyl tert-Butyl Ether	20.4	20.0	102	65 - 125
Naphthalene	22.7	20.0	113	55 - 140
Styrene	20.5	20.0	103	65 - 135
Tetrachloroethene (PCE)	21.2	20.0	106	45 - 150
Toluene	21.1	20.0	106	75 - 120
Trichloroethene (TCE)	20.0	20.0	100	70 - 125
Trichlorofluoromethane (CFC 11)	21.9	20.0	109	60 - 145
Vinyl Chloride	20.8	20.0	104	50 - 145
cis-1,2-Dichloroethene	20.3	20.0	101	70 - 125
cis-1,3-Dichloropropene	20.3	20.0	101	70 - 130
m,p-Xylenes	41.4	40.0	103	75 - 130
n-Butylbenzene	21.8	20.0	109	70 - 135
n-Propylbenzene	20.6	20.0	103	70 - 130
o-Xylene	20.5	20.0	102	80 - 120
sec-Butylbenzene	20.4	20.0	102	70 - 125
tert-Butylbenzene	19.9	20.0	99	70 - 130
trans-1,2-Dichloroethene	20.5	20.0	103	60 - 140
trans-1,3-Dichloropropene	21.2	20.0	106	55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Analyzed: 11/30/15 12:34

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1514764-04
Instrument ID: R-MS-12
File ID: I:\ACQUDATA\MSVOA12\DATA\113015\MM8394.D\

Analytical Method: 8260C
Prep Method: EPA 5030C

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1514764-03	I:\ACQUDATA\MSVOA12\DATA\113015\MM8392.D\	11/30/15 11:33
TB-2015-11-19	R1510161-005	I:\ACQUDATA\MSVOA12\DATA\113015\MM8395.D\	11/30/15 13:04
EB-2015-11-19	R1510161-004	I:\ACQUDATA\MSVOA12\DATA\113015\MM8396.D\	11/30/15 13:35
EB-2015-11-20	R1510161-017	I:\ACQUDATA\MSVOA12\DATA\113015\MM8397.D\	11/30/15 14:06
FTMM-M8-GW-MW15-11.8	R1510161-010	I:\ACQUDATA\MSVOA12\DATA\113015\MM8410.D\	11/30/15 20:44

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Analyzed:**	12/1/15 12:05
Sample Matrix:	Water		

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Instrument ID:**	R-MS-12
Lab Code:	RQ1514847-04	**File ID:**	I:\ACQUDATA\msvoa12\Data\120115\MM8419.D\
Analytical Method:	8260C		
Prep Method:	EPA 5030C		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1514847-03	I:\ACQUDATA\msvoa12\Data\120115\MM8417.D\	12/1/15 11:02
FTMM-8-GW-M8MW24-28.5	R1510161-003	I:\ACQUDATA\MSVOA12\DATA\120115\MM8422.D\	12/1/15 13:36
FTMM-M8-GW-MW16-12.07	R1510161-011	I:\ACQUDATA\MSVOA12\DATA\120115\MM8423.D\	12/1/15 14:07
FTMM-M8-GW-697MW01-16.5	R1510161-012	I:\ACQUDATA\MSVOA12\DATA\120115\MM8424.D\	12/1/15 14:37
FTMM-M8-GW-MW12-13.5	R1510161-015	I:\ACQUDATA\MSVOA12\DATA\120115\MM8425.D\	12/1/15 15:08

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Service Request: R1510161
Date Analyzed: 11/18/15 15:38

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\111815\MM8183.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot:

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	18.3	72096	Pass
75	95	30	60	46.3	182827	Pass
95	95	100	100	100.0	394581	Pass
96	95	5	9	6.6	26025	Pass
173	174	0	2	1.3	3492	Pass
174	95	50	120	69.7	275072	Pass
175	174	5	9	7.4	20478	Pass
176	174	95	101	96.8	266389	Pass
177	176	5	9	6.9	18350	Pass

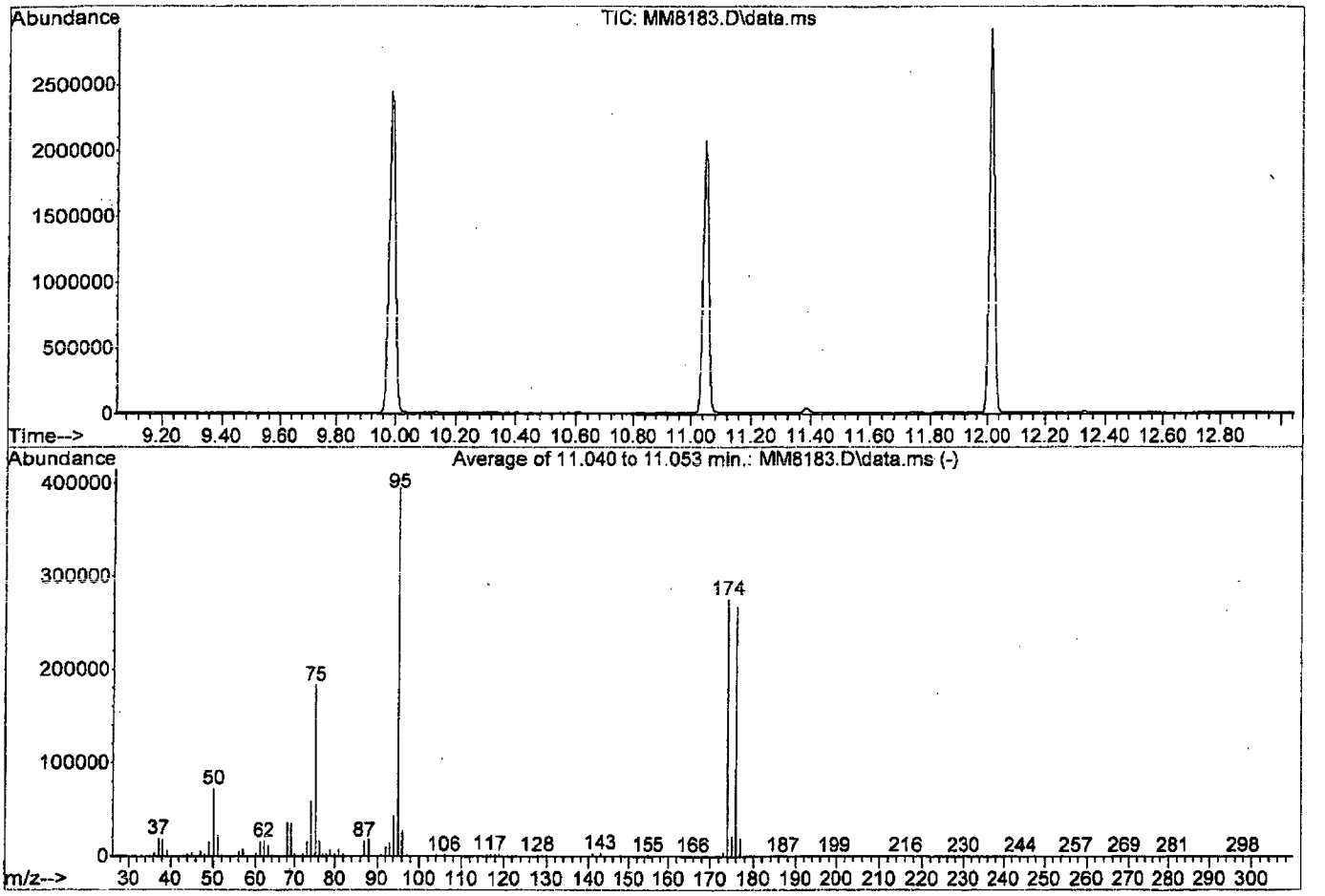
Sample Name	Lab Code	File ID	Date Analyzed	Q
Initial CalibrationICAL	0.5 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8185.D\	11/18/15 16:40	
Initial CalibrationICAL	1.0 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8186.D\	11/18/15 17:10	
Initial CalibrationICAL	2.0 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8187.D\	11/18/15 17:41	
Initial CalibrationICAL	5.0 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8188.D\	11/18/15 18:11	
Initial CalibrationICAL	20 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8189.D\	11/18/15 18:42	
Initial CalibrationICAL	50 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8190.D\	11/18/15 19:12	
Initial CalibrationICAL	100 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8191.D\	11/18/15 19:43	
Initial CalibrationICAL	150 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8192.D\	11/18/15 20:14	
Initial CalibrationICAL	200 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8193.D\	11/18/15 20:45	

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8183.D
Acq On : 18 Nov 2015 3:38 pm
Operator : K.Ruest
Sample : TUNE
Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Thu Aug 27 10:55:02 2015

KP 11/18/15



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	72096	PASS
75	95	30	60	46.3	182827	PASS
95	95	100	100	100.0	394581	PASS
96	95	5	9	6.6	26025	PASS
173	174	0.00	2	1.3	3492	PASS
174	95	50	120	69.7	275072	PASS
175	174	5	9	7.4	20478	PASS
176	174	95	101	96.8	266389	PASS
177	176	5	9	6.9	18350	PASS

W111815.M Wed Nov 18 16:27:30 2015 Page: 1

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Service Request: R1510161
Date Analyzed: 11/30/15 10:32

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\113015\MM8390.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 474104

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	18.14	83051	Pass
75	95	30	60	47.73	218496	Pass
95	95	100	100	100.00	457749	Pass
96	95	5	9	6.61	30259	Pass
173	174	0	2	1.17	3826	Pass
174	95	50	120	71.53	327424	Pass
175	174	5	9	7.61	24928	Pass
176	174	95	101	96.98	317547	Pass
177	176	5	9	6.50	20646	Pass

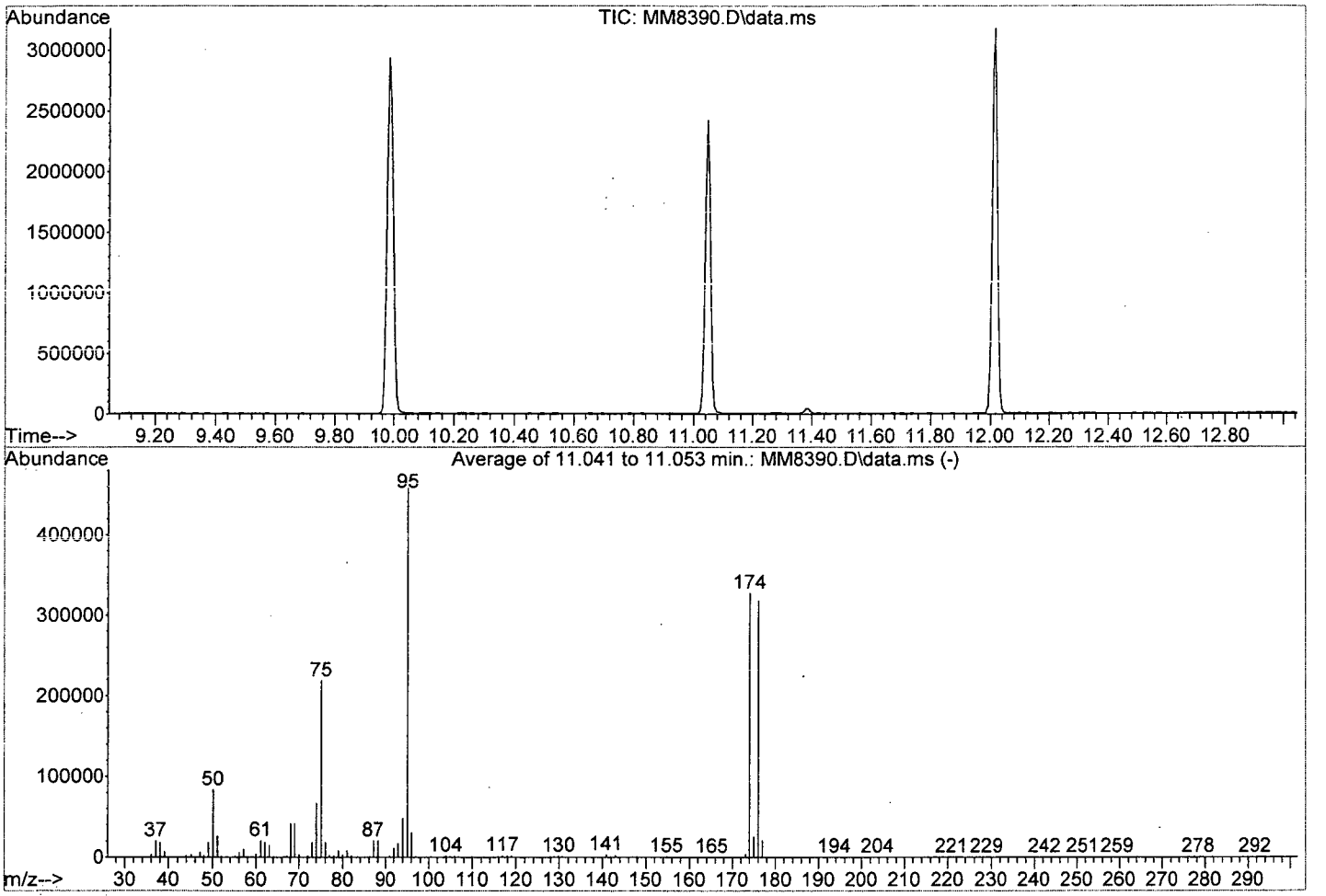
Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1514764-02	I:\ACQUDATA\MSVOA12\DATA\113015\MM8391.D\	11/30/15 11:02	
Lab Control Sample	RQ1514764-03	I:\ACQUDATA\MSVOA12\DATA\113015\MM8392.D\	11/30/15 11:33	
Method Blank	RQ1514764-04	I:\ACQUDATA\MSVOA12\DATA\113015\MM8394.D\	11/30/15 12:34	
TB-2015-11-19	R1510161-005	I:\ACQUDATA\MSVOA12\DATA\113015\MM8395.D\	11/30/15 13:04	
EB-2015-11-19	R1510161-004	I:\ACQUDATA\MSVOA12\DATA\113015\MM8396.D\	11/30/15 13:35	
EB-2015-11-20	R1510161-017	I:\ACQUDATA\MSVOA12\DATA\113015\MM8397.D\	11/30/15 14:06	
FTMM-M8-GW-MW15-11.8	R1510161-010	I:\ACQUDATA\MSVOA12\DATA\113015\MM8410.D\	11/30/15 20:44	

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8390.D
Acq On : 30 Nov 2015 10:32 am
Operator : K.Ruest
Sample : TUNE RQ1514764-01 Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: INTP60.P

KR 11/30/15

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Nov 25 09:49:52 2015



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1625

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.1	83051	PASS
75	95	30	60	47.7	218496	PASS
95	95	100	100	100.0	457749	PASS
96	95	5	9	6.6	30259	PASS
173	174	0.00	2	1.2	3826	PASS
174	95	50	120	71.5	327424	PASS
175	174	5	9	7.6	24928	PASS
176	174	95	101	97.0	317547	PASS
177	176	5	9	6.5	20646	PASS

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Service Request: R1510161
Date Analyzed: 12/1/15 10:01

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\120115\MM8415.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 474290

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	18.54	80059	Pass
75	95	30	60	47.81	206443	Pass
95	95	100	100	100.00	431829	Pass
96	95	5	9	6.64	28661	Pass
173	174	0	2	1.33	4077	Pass
174	95	50	120	71.20	307477	Pass
175	174	5	9	7.78	23912	Pass
176	174	95	101	99.79	306837	Pass
177	176	5	9	6.55	20112	Pass

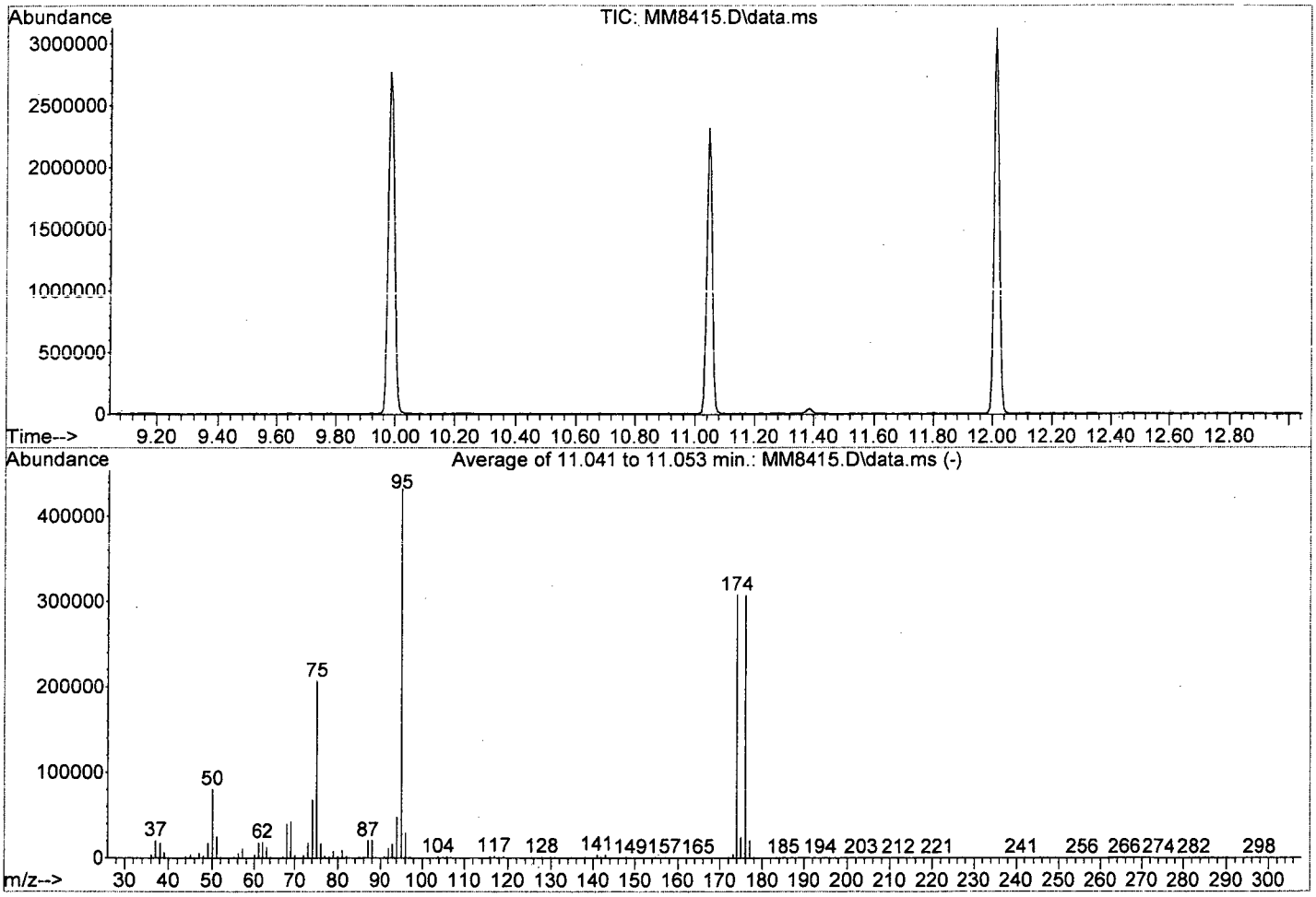
Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1514847-02	I:\ACQUDATA\msvoa12\Data\120115\MM8416.D\	12/1/15 10:32	
Lab Control Sample	RQ1514847-03	I:\ACQUDATA\msvoa12\Data\120115\MM8417.D\	12/1/15 11:02	
Method Blank	RQ1514847-04	I:\ACQUDATA\msvoa12\Data\120115\MM8419.D\	12/1/15 12:05	
FTMM-8-GW-M8MW24-28.5	R1510161-003	I:\ACQUDATA\MSVOA12\DATA\120115\MM8422.D\	12/1/15 13:36	
FTMM-M8-GW-MW16-12.07	R1510161-011	I:\ACQUDATA\MSVOA12\DATA\120115\MM8423.D\	12/1/15 14:07	
FTMM-M8-GW-697MW01-16.5	R1510161-012	I:\ACQUDATA\MSVOA12\DATA\120115\MM8424.D\	12/1/15 14:37	
FTMM-M8-GW-MW12-13.5	R1510161-015	I:\ACQUDATA\MSVOA12\DATA\120115\MM8425.D\	12/1/15 15:08	

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8415.D
Acq On : 1 Dec 2015 10:01 am
Operator : K.Ruest
Sample : TUNE RQ1514847-01 Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Nov 25 09:49:52 2015

12/1/15



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	80059	PASS
75	95	30	60	47.8	206443	PASS
95	95	100	100	100.0	431829	PASS
96	95	5	9	6.6	28661	PASS
173	174	0.00	2	1.3	4077	PASS
174	95	50	120	71.2	307477	PASS
175	174	5	9	7.8	23912	PASS
176	174	95	101	99.8	306837	PASS
177	176	5	9	6.6	20112	PASS

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Service Request: R1510161
Date Analyzed: 11/30/15 11:02

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA12\DATA\113015\MM8391.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1514764-02
Analysis Lot: 474104
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	618,347	12.02	1,390,239	6.77	1,285,134	9.99
	Upper Limit ==>	1,236,694	12.52	2,780,478	7.27	2,570,268	10.49
	Lower Limit ==>	309,174	11.52	695,120	6.27	642,567	9.49
	ICAL Result ==>	553,929	12.02	1,221,940	6.77	1,154,458	9.99
Associated Analyses							
Lab Control Sample	RQ1514764-03	609,474	12.02	1,375,414	6.77	1,285,950	9.99
Method Blank	RQ1514764-04	630,849	12.02	1,396,437	6.77	1,271,410	9.99
TB-2015-11-19	R1510161-005	570,711	12.02	1,378,765	6.77	1,252,230	9.99
EB-2015-11-19	R1510161-004	611,884	12.02	1,391,231	6.77	1,263,477	9.99
EB-2015-11-20	R1510161-017	609,910	12.02	1,381,168	6.77	1,253,666	9.99
FTMM-M8-GW-MW15-11.8	R1510161-010	608,809	12.02	1,343,097	6.77	1,225,488	9.99

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Service Request: R1510161
Date Analyzed: 11/30/15 11:02

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA12\DATA\113015\MM8391.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1514764-02
Analysis Lot: 474104
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	832,235	5.74
	Upper Limit ==>	1,664,470	6.24
	Lower Limit ==>	416,118	5.24
	ICAL Result ==>	733,125	5.74
Associated Analyses			
Lab Control Sample	RQ1514764-03	831,780	5.74
Method Blank	RQ1514764-04	853,488	5.74
TB-2015-11-19	R1510161-005	843,697	5.74
EB-2015-11-19	R1510161-004	858,715	5.74
EB-2015-11-20	R1510161-017	834,386	5.74
FTMM-M8-GW-MW15-11.8	R1510161-010	816,061	5.74

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Service Request: R1510161
Date Analyzed: 12/1/15 10:32

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\120115\MM8416.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1514847-02
Analysis Lot: 474290
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	584,579	12.02	1,304,406	6.77	1,228,517	9.99
	Upper Limit ==>	1,169,158	12.52	2,608,812	7.27	2,457,034	10.49
	Lower Limit ==>	292,290	11.52	652,203	6.27	614,259	9.49
	ICAL Result ==>	553,929	12.02	1,221,940	6.77	1,154,458	9.99
Associated Analyses							
Lab Control Sample	RQ1514847-03	592,535	12.02	1,305,254	6.77	1,214,754	9.99
Method Blank	RQ1514847-04	607,850	12.02	1,347,501	6.77	1,226,052	9.99
FTMM-8-GW-M8MW24-28.5	R1510161-003	602,435	12.02	1,326,024	6.77	1,227,270	9.99
FTMM-M8-GW-MW16-12.07	R1510161-011	602,304	12.02	1,317,061	6.77	1,217,252	9.99
FTMM-M8-GW-697MW01-16.5	R1510161-012	594,309	12.02	1,295,506	6.77	1,210,211	9.99
FTMM-M8-GW-MW12-13.5	R1510161-015	586,856	12.02	1,326,216	6.77	1,229,080	9.99

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Service Request: R1510161
Date Analyzed: 12/1/15 10:32

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\120115\MM8416.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1514847-02
Analysis Lot: 474290
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	780,877	5.74
	Upper Limit ==>	1,561,754	6.24
	Lower Limit ==>	390,439	5.24
	ICAL Result ==>	733,125	5.74
Associated Analyses			
Lab Control Sample	RQ1514847-03	775,960	5.74
Method Blank	RQ1514847-04	822,692	5.74
FTMM-8-GW-M8MW24-28.5	R1510161-003	811,058	5.74
FTMM-M8-GW-MW16-12.07	R1510161-011	799,814	5.74
FTMM-M8-GW-697MW01-16.5	R1510161-012	797,526	5.74
FTMM-M8-GW-MW12-13.5	R1510161-015	806,115	5.74

Results flagged with an asterisk (*) indicate values outside control criteria.

VOLATILE ORGANICS SAMPLE DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1607
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-8-GW-M8MW24-28.5	**Units:**	µg/L
Lab Code:	R1510161-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 13:36		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 13:36		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 13:36		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 13:36		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 13:36		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 13:36		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 13:36		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 13:36		474290	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/1/15 13:36		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 13:36		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 13:36		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 13:36		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 13:36		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 13:36		474290	
1,4-Dichlorobenzene	**0.35**	J	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 13:36		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 13:36		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 13:36		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 13:36		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 13:36		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 13:36		474290	
Acetone	**1.4**	J	5.0	5.0	1.3	1	NA	12/1/15 13:36		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 13:36		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 13:36		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 13:36		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 13:36		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 13:36		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 13:36		474290	
Chlorobenzene	**0.66**	J	5.0	1.0	0.29	1	NA	12/1/15 13:36		474290	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1607
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-8-GW-M8MW24-28.5	**Units:**	µg/L
Lab Code:	R1510161-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 13:36		474290	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/1/15 13:36		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 13:36		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 13:36		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 13:36		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 13:36		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 13:36		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 13:36		474290	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/1/15 13:36		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 13:36		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 13:36		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 13:36		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 13:36		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 13:36		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 13:36		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 13:36		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 13:36		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:36		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/1/15 13:36	
Dibromofluoromethane	110	85-115	12/1/15 13:36	
Toluene-d8	112	85-120	12/1/15 13:36	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Analyzed:	12/1/15 1336

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-8-GW-M8MW24-28.5	**Units:**	µg/L
Lab Code:	R1510161-003	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8422.D
Acq On : 1 Dec 2015 1:36 pm
Operator : K.Ruest
Sample : R1510161-003|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 03 17:45:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound		R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards								
1) Pentafluorobenzene		5.737	168	811058	50.00	ppb		0.00
43) 1,4-Difluorobenzene		6.767	114	1326024	50.00	ppb		0.00
71) d5-Chlorobenzene		9.986	117	1227270	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4		12.016	152	602435	50.00	ppb		0.00
System Monitoring Compounds								
45) surr4,Dibrflmethane		5.597	113	378220	54.86	ppb		0.00
Spiked Amount	50.000	Range 69 - 119		Recovery = 109.72%				
48) surr1,1,2-dichloroetha...		6.096	65	411129	53.99	ppb		0.00
Spiked Amount	50.000	Range 73 - 125		Recovery = 107.98%				
65) SURR3,Toluene-d8		8.529	98	1622994	55.94	ppb		0.00
Spiked Amount	50.000	Range 87 - 121		Recovery = 111.88%				
70) SURR2,BFB		11.047	95	622912	56.87	ppb		0.00
Spiked Amount	50.000	Range 85 - 122		Recovery = 113.74%				
Target Compounds								Qvalue
15) Acetone		2.500	43	2362	1.37	ppb		79
78) Chlorobenzene		10.016	112	11941	0.66	ppb		95
106) 1,4-Dclbenz		12.034	146	4476	0.35	ppb	#	79

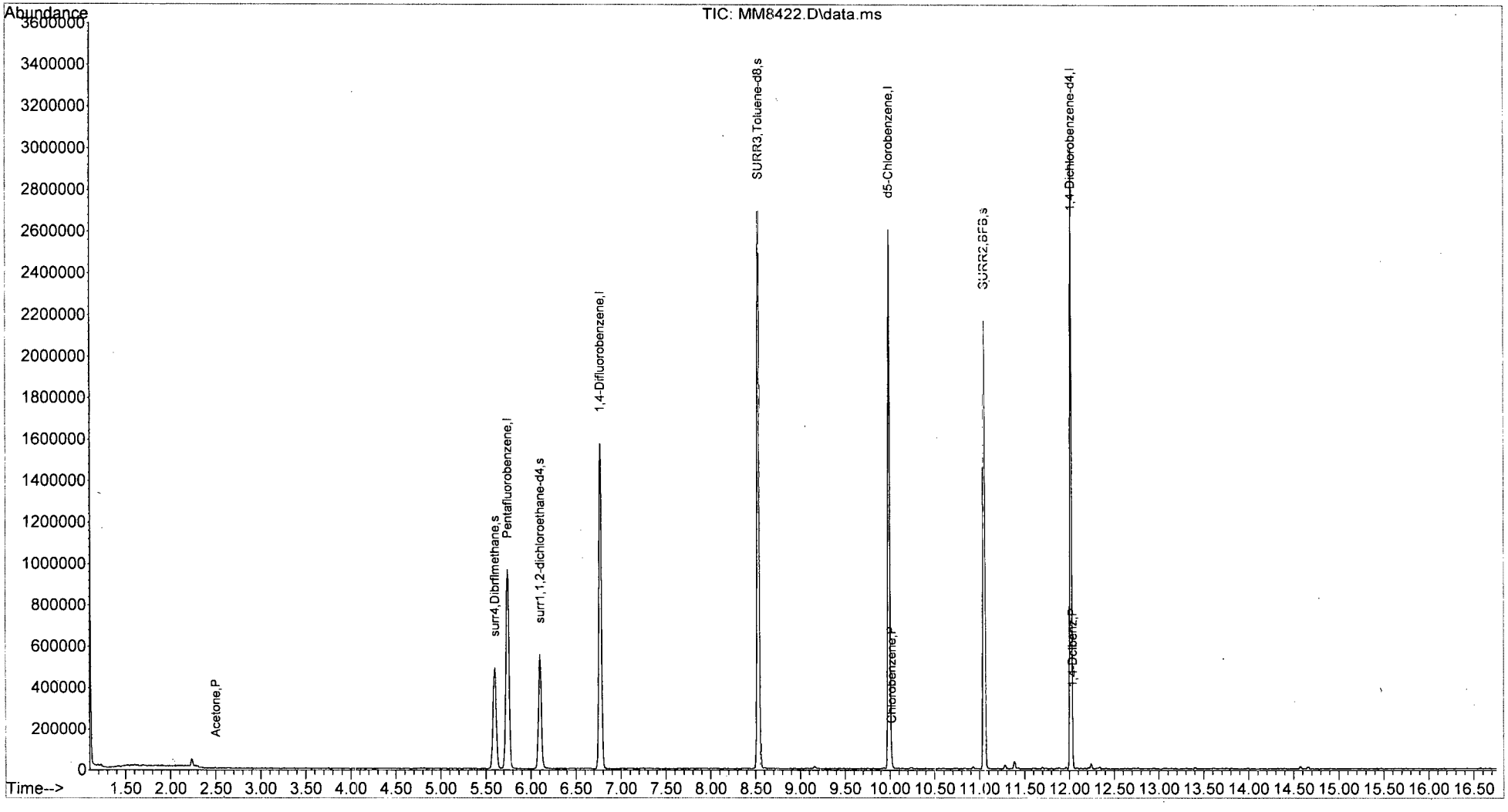
KP 12/3/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed

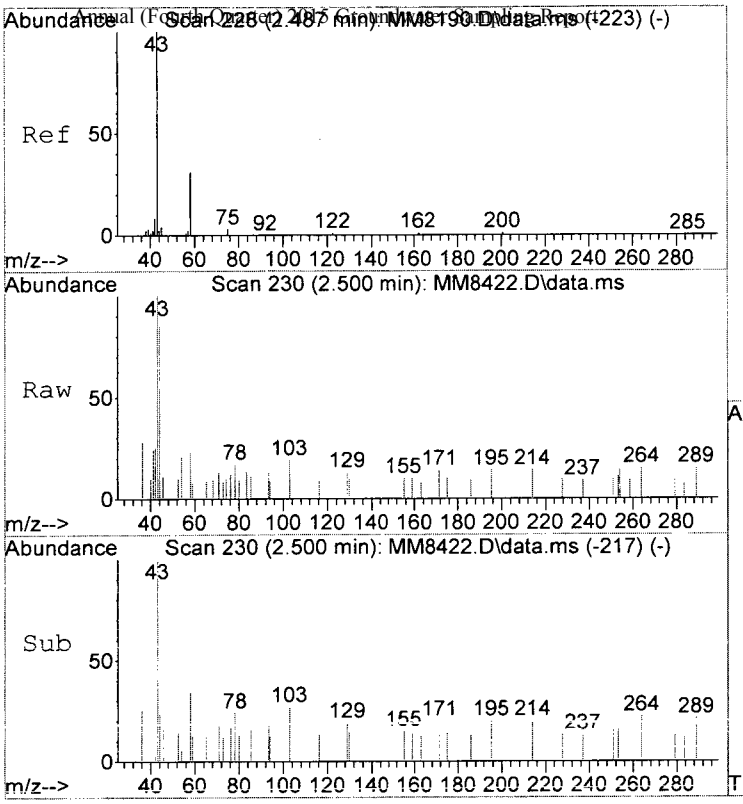
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8422.D
Acq On : 1 Dec 2015 1:36 pm
Operator : K.Ruest
Sample : R1510161-003|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 03 17:45:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



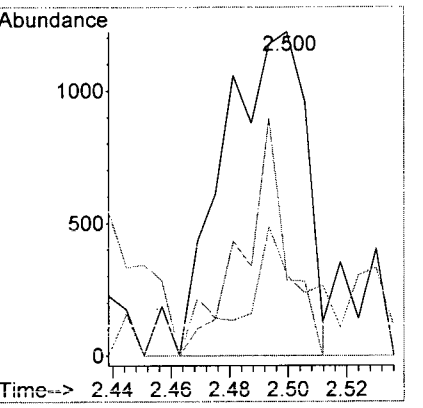
W111815A.M Thu Dec 03 17:47:03 2015 Page: 2

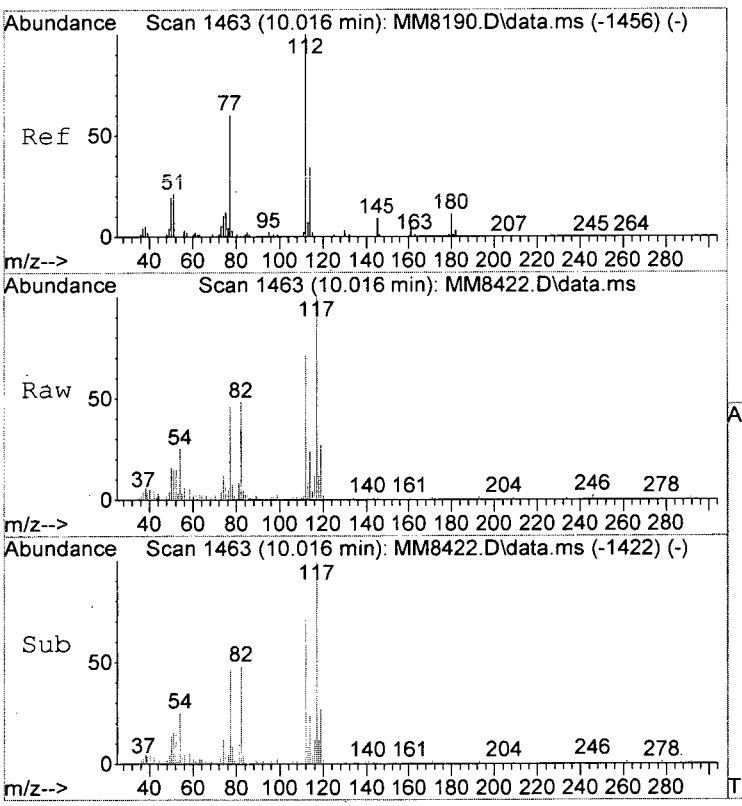


#15
Acetone
Concen: 1.37 ppb
RT: 2.500 min Scan# 230
Delta R.T. 0.006 min
Lab File: MM8422.D
Acq: 1 Dec 2015 1:36 pm

Tgt Ion: 43 Resp: 2362

Ion	Ratio	Lower	Upper
43	100		
58	23.4	10.9	50.9
42	24.9	0.0	28.5

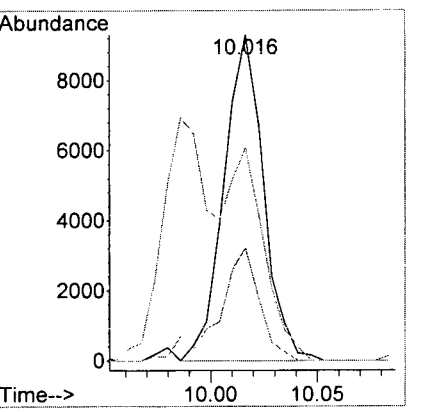


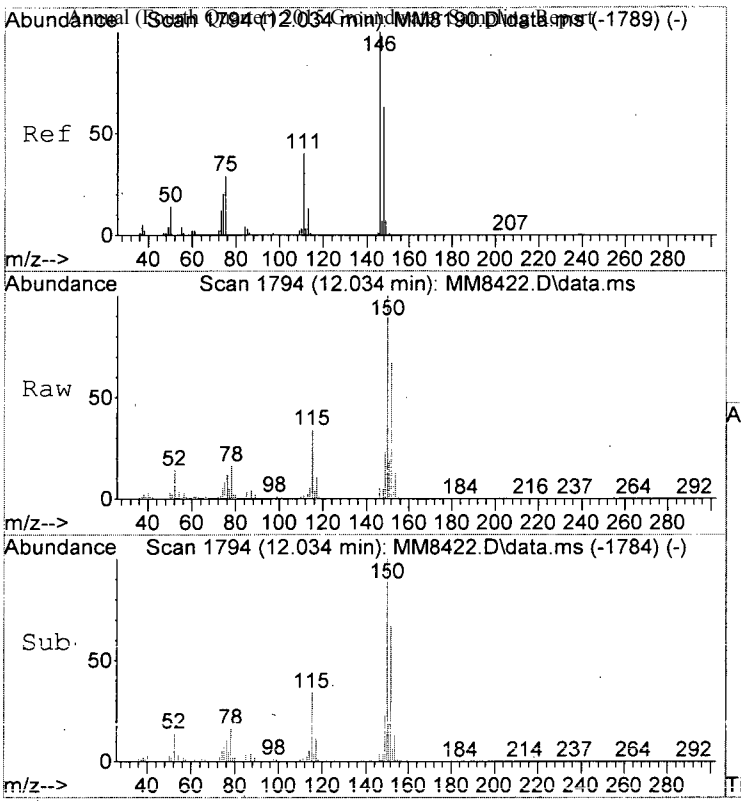


#78
Chlorobenzene
Concen: 0.66 ppb
RT: 10.016 min Scan# 1463
Delta R.T. -0.000 min
Lab File: MM8422.D
Acq: 1 Dec 2015 1:36 pm

Tgt Ion:112 Resp: 11941

Ion	Ratio	Lower	Upper
112	100		
114	34.6	13.7	53.7
77	65.3	40.2	80.2

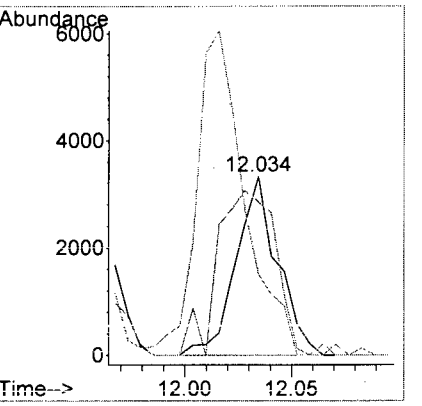




#106
1,4-Dclbenz
Concen: 0.35 ppb
RT: 12.034 min Scan# 1794
Delta R.T. -0.006 min
Lab File: MM8422.D
Acq: 1 Dec 2015 1:36 pm

Tgt Ion:146 Resp: 4476

Ion	Ratio	Lower	Upper
146	100		
148	85.8	43.5	83.5#
111	45.3	20.3	60.3



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8422.D
Acq On : 1 Dec 2015 1:36 pm
Operator : K.Ruest
Sample : R1510161-003|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8422.D\data.ms

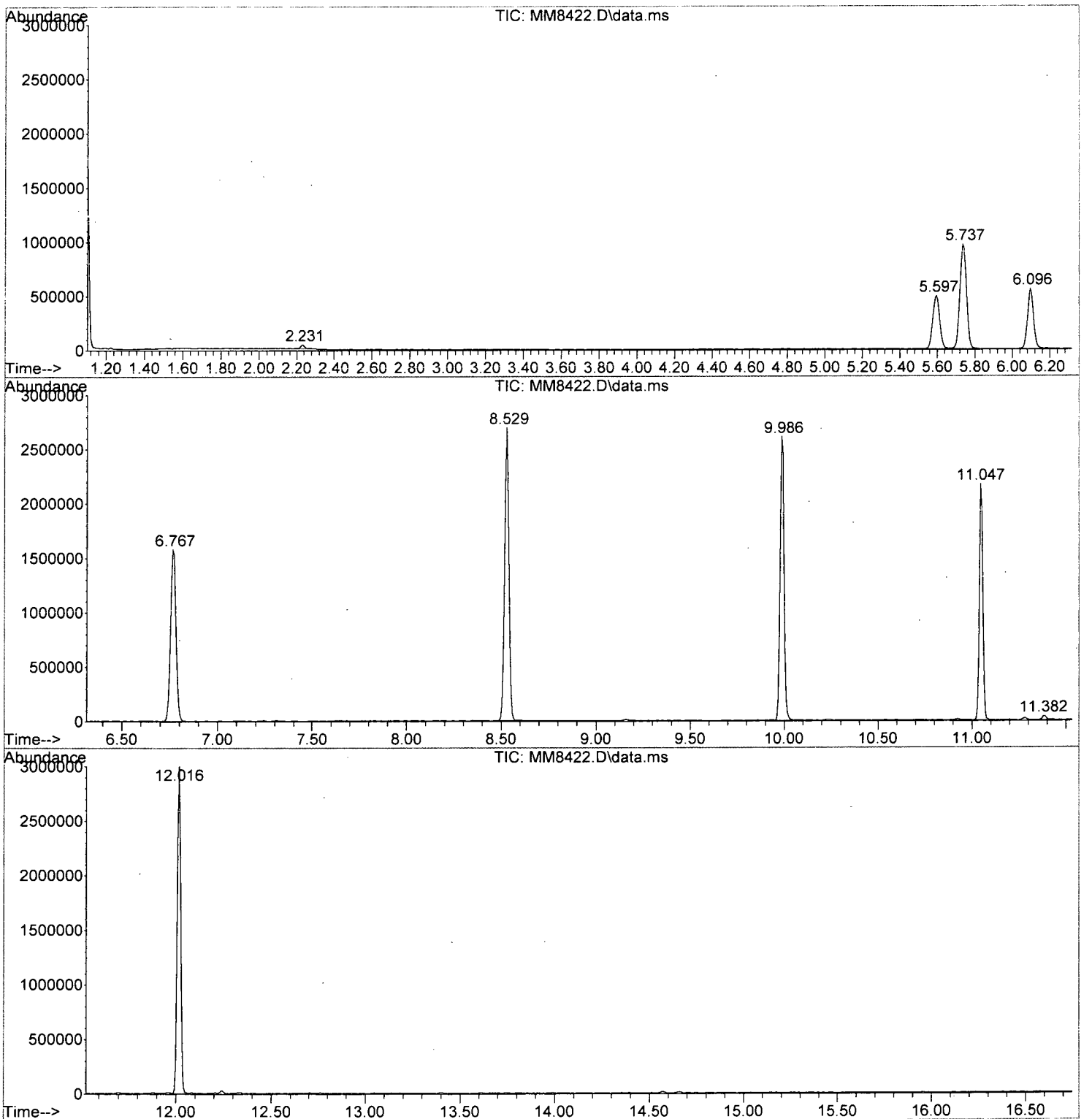
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.231	183	186	190	rVB2	34154	44109	1.04%	0.197%
2	5.597	727	738	749	rBV	490957	1233566	29.21%	5.500%
3	5.737	751	761	777	rVB	965614	2334017	55.26%	10.406%
4	6.096	806	820	832	rBV	554909	1214872	28.76%	5.417%
5	6.767	921	930	939	rBV	1573566	3066314	72.60%	13.671%
6	8.529	1212	1219	1229	rBV	2691341	4223511	100.00%	18.831%
7	9.986	1452	1458	1469	rBV	2605089	3758069	88.98%	16.755%
8	11.047	1627	1632	1645	rVB	2167598	2796290	66.21%	12.467%
9	11.382	1682	1687	1692	rBV	35913	50535	1.20%	0.225%
10	12.016	1785	1791	1799	rBV	2995837	3707711	87.79%	16.531%

Sum of corrected areas: 22428994

```
Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8422.D
Acq On    :  1 Dec 2015   1:36 pm
Operator  : K.Ruest
Sample    : R1510161-003|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 9   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



W111815A.M Thu Dec 03 17:47:14 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\120115\\
Data File : MM8422.D
Acq On : 1 Dec 2015 1:36 pmm
Operator : K.Ruestt
Sample : R1510161-003|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 9 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: 11/19/15 1700
Date Received: 11/21/15

Sample Name: EB-2015-11-19
Lab Code: R1510161-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 13:35		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 13:35		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 13:35		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 13:35		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 13:35		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 13:35		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 13:35		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 13:35		474104	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/30/15 13:35		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 13:35		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 13:35		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 13:35		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 13:35		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 13:35		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 13:35		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 13:35		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 13:35		474104	
tert-Butyl Alcohol	29	J	100	20	11	1	NA	11/30/15 13:35		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 13:35		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 13:35		474104	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/30/15 13:35		474104	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 13:35		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 13:35		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 13:35		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 13:35		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 13:35		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 13:35		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 13:35		474104	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1700
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	EB-2015-11-19	**Units:**	µg/L
Lab Code:	R1510161-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 13:35		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 13:35		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 13:35		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 13:35		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 13:35		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 13:35		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/30/15 13:35		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 13:35		474104	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/30/15 13:35		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 13:35		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 13:35		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 13:35		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 13:35		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 13:35		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 13:35		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 13:35		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 13:35		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:35		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	11/30/15 13:35	
Dibromofluoromethane	109	85-115	11/30/15 13:35	
Toluene-d8	109	85-120	11/30/15 13:35	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Analyzed:	11/30/15 1335

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-19	**Units:**	µg/L
Lab Code:	R1510161-004	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8396.D
Acq On : 30 Nov 2015 1:35 pm
Operator : K.Ruest
Sample : R1510161-004|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 30 13:51:08 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	858715	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1391231	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1263477	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	611884	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	395116	54.62	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.24%				
48) surr1,1,2-dichloroetha...	6.096	65	428992	53.69	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.38%				
65) SURR3,Toluene-d8	8.529	98	1654433	54.35	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 108.70%				
70) SURR2,BFB	11.047	95	630897	54.90	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 109.80%				
Target Compounds							Qvalue
~~12) Acrolein~~	~~2.298~~	~~56~~	~~322~~	~~0.44~~	~~ppb~~		~~98~~
~~15) Acetone~~	~~2.500~~	~~43~~	~~1076~~	~~0.59~~	~~ppb~~		~~78~~
~~16) 2-Propanol~~	~~2.713~~	~~45~~	~~264~~	~~0.76~~	~~ppb~~		~~56~~
23) TBA	3.097	59	16068	28.50	ppb		77
~~35) 2-Butanone~~	~~4.792~~	~~43~~	~~798~~	~~0.32~~	~~ppb~~		~~74~~
~~53) 1-Butanol~~	~~7.133~~	~~56~~	~~424~~	~~2.64~~	~~ppb~~	~~#~~	~~66~~
~~61) 2-Nitropropane~~	~~8.035~~	~~41~~	~~472~~	~~0.34~~	~~ppb~~	~~#~~	~~1~~
~~73) 2-Hexanone~~	~~9.340~~	~~43~~	~~931~~	~~0.24~~	~~ppb~~		~~84~~
90) Cyclohexanone	11.022	55	293	0.64	ppb		87 NJD
112) Trielution Dichlorotol...	13.083	125	3107	0.29	ppb	#	61 J
115) 1,2,4-Tcbenzene	13.613	180	1628	0.21	ppb	#	54 C
116) Hexachlorobt	13.754	225	1074	0.34	ppb	#	74 C
118) 1,2,3-Tclbenzene	13.985	180	1681	0.26	ppb		93 C
119) 2,4,5-Trichlorotolene	14.577	159	2487	0.51	ppb	#	88 NJD
120) 2,3,6-Trichlorotoluene	14.662	159	2314	0.54	ppb	#	93 J

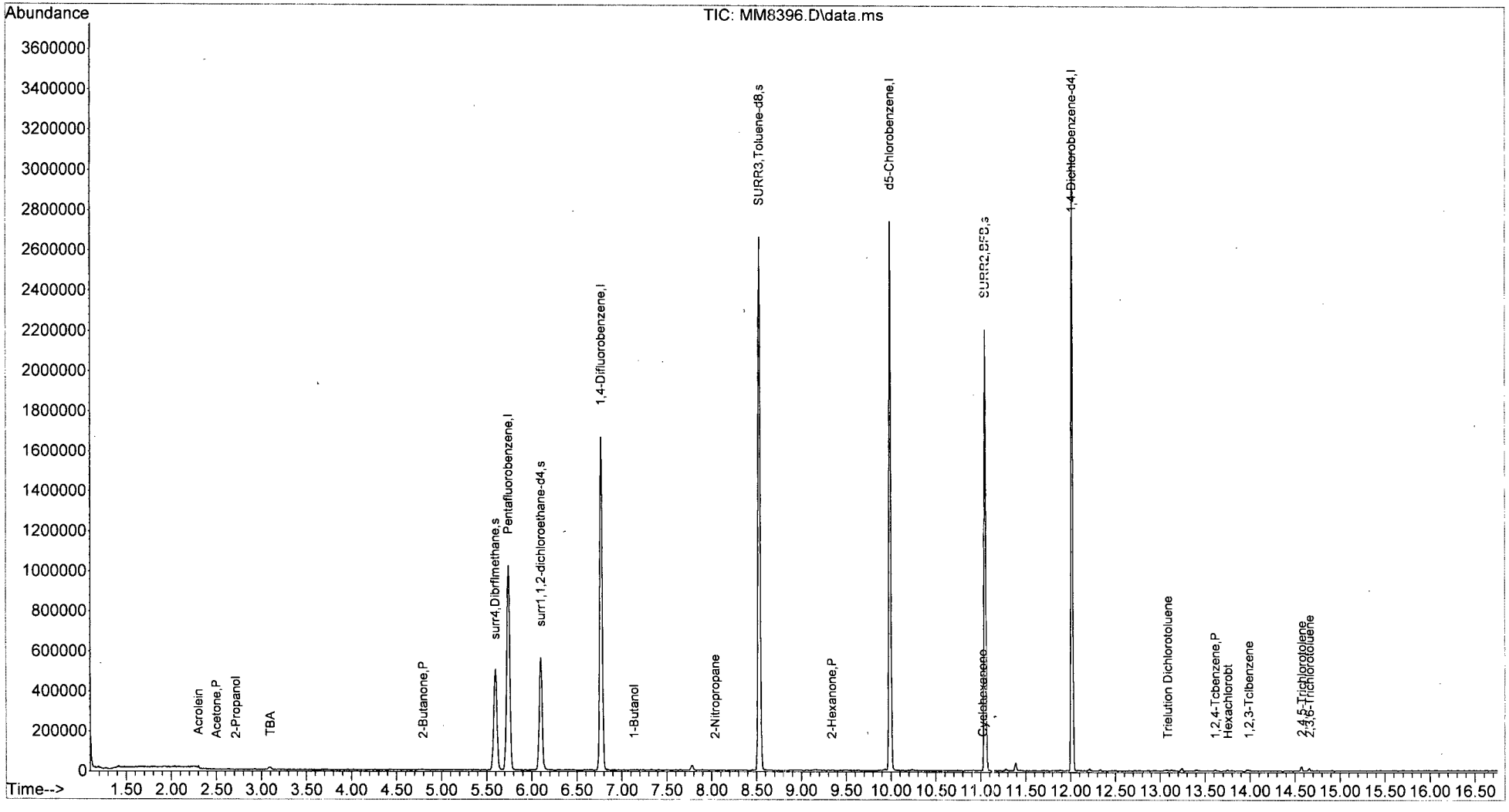
(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/3/15

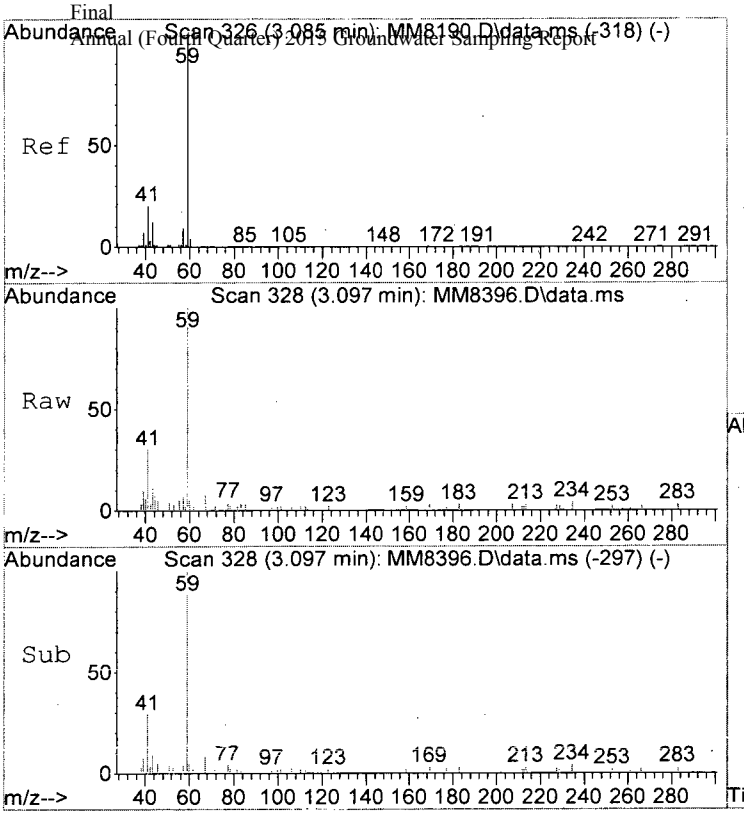
Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8396.D
Acq On : 30 Nov 2015 1:35 pm
Operator : K.Ruest
Sample : R1510161-004|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 30 13:51:08 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

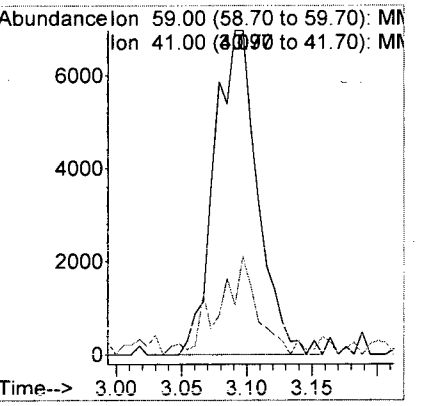


W111815A.M Mon Nov 30 13:51:14 2015 Page: 2




```
#23
TBA
Concen:    28.50 ppb
RT:    3.097 min  Scan# 328
Delta R.T.  -0.000 min
Lab File:   MM8396.D
Acq: 30 Nov 2015    1:35 pm

Tgt Ion: 59 Resp:    16068
Ion  Ratio  Lower  Upper
 59  100
 41   30.3    0.0   40.0
```



MM8396.D W111815A.M Thu Dec 03 12:34:35 2015 Page 1

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8396.D
Acq On : 30 Nov 2015 1:35 pm
Operator : K.Ruest
Sample : R1510161-004|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8396.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.597	727	738	748	rBV	504023	1259539	29.23%	5.461%
2	5.737	752	761	776	rVB	1025039	2439391	56.61%	10.577%
3	6.096	808	820	833	rBV	561907	1269467	29.46%	5.504%
4	6.767	920	930	941	rBV	1668458	3205045	74.37%	13.896%
5	7.779	1090	1096	1104	rVB2	24776	47572	1.10%	0.206%
6	8.529	1212	1219	1228	rBV	2664943	4309368	100.00%	18.684%
7	9.986	1452	1458	1468	rBV	2744241	3829296	88.86%	16.603%
8	11.047	1627	1632	1640	rBV	2206356	2872303	66.65%	12.454%
9	11.388	1683	1688	1693	rBV2	39757	55358	1.28%	0.240%
10	12.016	1785	1791	1800	rVB	3101816	3776747	87.64%	16.375%

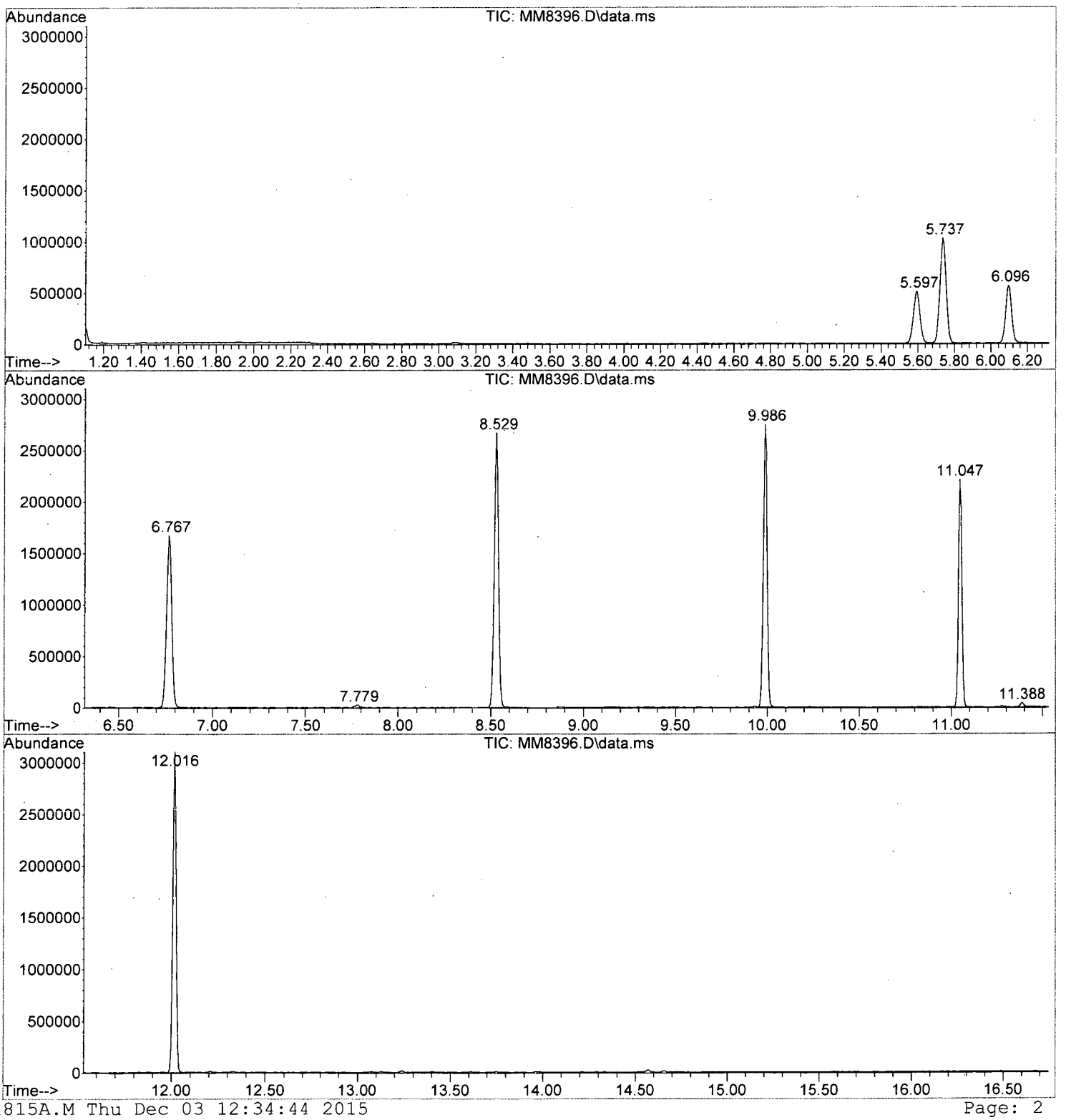
Sum of corrected areas: 23064086

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8396.D
Acq On : 30 Nov 2015 1:35 pm
Operator : K.Ruest
Sample : R1510161-004|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 10 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



W111815A.M Thu Dec 03 12:34:44 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\113015\\
Data File : MM8396.D
Acq On : 30 Nov 2015 1:35 pmm
Operator : K.Ruestt
Sample : R1510161-004|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 10 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: 11/19/15
Date Received: 11/21/15

Sample Name: TB-2015-11-19
Lab Code: R1510161-005

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 13:04		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 13:04		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 13:04		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 13:04		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 13:04		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 13:04		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 13:04		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 13:04		474104	
1,2,4-Trichlorobenzene	0.29	J	5.0	1.0	0.23	1	NA	11/30/15 13:04		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 13:04		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 13:04		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 13:04		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 13:04		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 13:04		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 13:04		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 13:04		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 13:04		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 13:04		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 13:04		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 13:04		474104	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/30/15 13:04		474104	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 13:04		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 13:04		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 13:04		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 13:04		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 13:04		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 13:04		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 13:04		474104	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	TB-2015-11-19	**Units:**	µg/L
Lab Code:	R1510161-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 13:04		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 13:04		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 13:04		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 13:04		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 13:04		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 13:04		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
Hexachlorobutadiene	**0.65**	J	5.0	1.0	0.62	1	NA	11/30/15 13:04		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 13:04		474104	
Naphthalene	**0.22**	J	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/30/15 13:04		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 13:04		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 13:04		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 13:04		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 13:04		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 13:04		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 13:04		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 13:04		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 13:04		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 13:04		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/30/15 13:04	
Dibromofluoromethane	110	85-115	11/30/15 13:04	
Toluene-d8	108	85-120	11/30/15 13:04	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Analyzed:	11/30/15 1304

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	TB-2015-11-19	**Units:**	µg/L
Lab Code:	R1510161-005	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8395.D
Acq On : 30 Nov 2015 1:04 pm
Operator : K.Ruest
Sample : R1510161-005|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 30 13:20:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	843697	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1378765	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1252230	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	570711	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	393174	54.85	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.70%				
48) surr1,1,2-dichloroetha...	6.097	65	424819	53.65	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.30%				
65) SURR3,Toluene-d8	8.529	98	1634965	54.20	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 108.40%				
70) SURR2,BFB	11.047	95	633550	55.63	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.26%				
Target Compounds							Qvalue
12) Acrolein	2.292	56	548	0.76	ppb		~~100~~
15) Acetone	2.506	43	1728	~~0.96~~	ppb	#	51
16) 2-Propanol	2.646	~~45~~	380	1.11	ppb		95
39) Tetrahydrofuran	5.188	42	357	0.23	ppb	#	33
53) 1-Butanol	7.145	56	714	4.48	ppb	#	65
~~61) 2-Nitropropane~~	~~8.047~~	~~41~~	~~296~~	~~0.22~~	~~ppb~~	~~#~~	~~18~~
90) Cyclohexanone	10.992	55	797	1.85	ppb	#	57 NTD
112) Trielution Dichlorotol...	13.077	125	4223	0.42	ppb	#	84 ↓
114) Coelution Dichlorotoluene	13.400	125	3501	0.33	ppb	#	88 ↓
115) 1,2,4-Tcbenzene	13.607	180	2120	0.29	ppb	#	72 J
116) Hexachlorobt	13.741	225	1923	0.65	ppb		87 J
117) Naphthalen	13.796	128	3415	0.22	ppb		83 J
118) 1,2,3-Tclbenzene	13.985	180	1980	0.32	ppb	#	50 <
119) 2,4,5-Trichlorotolene	14.570	159	4085	0.90	ppb		93 NTD
120) 2,3,6-Trichlorotoluene	14.656	159	4177	1.04	ppb		94 ↓

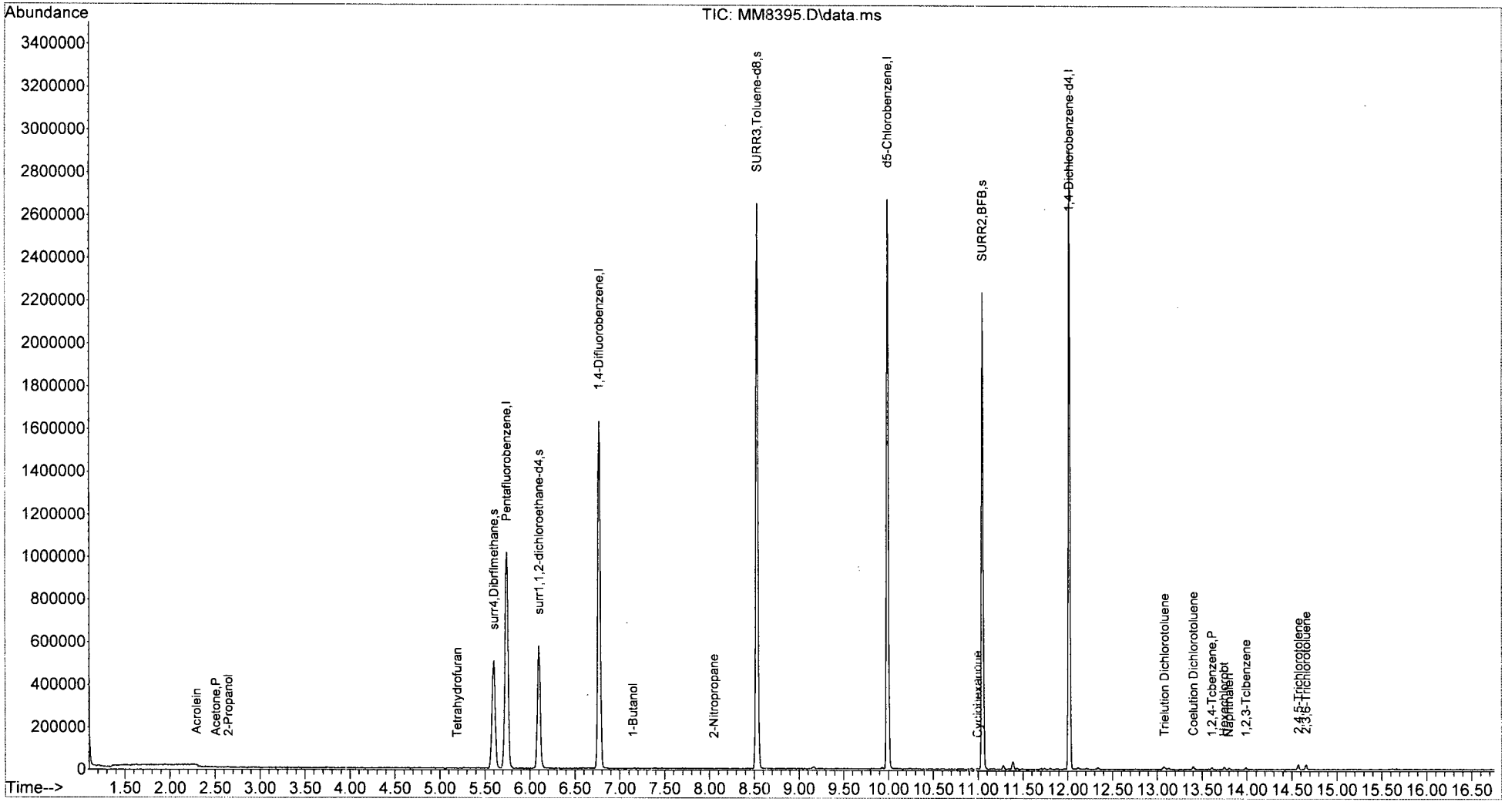
(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/3/15

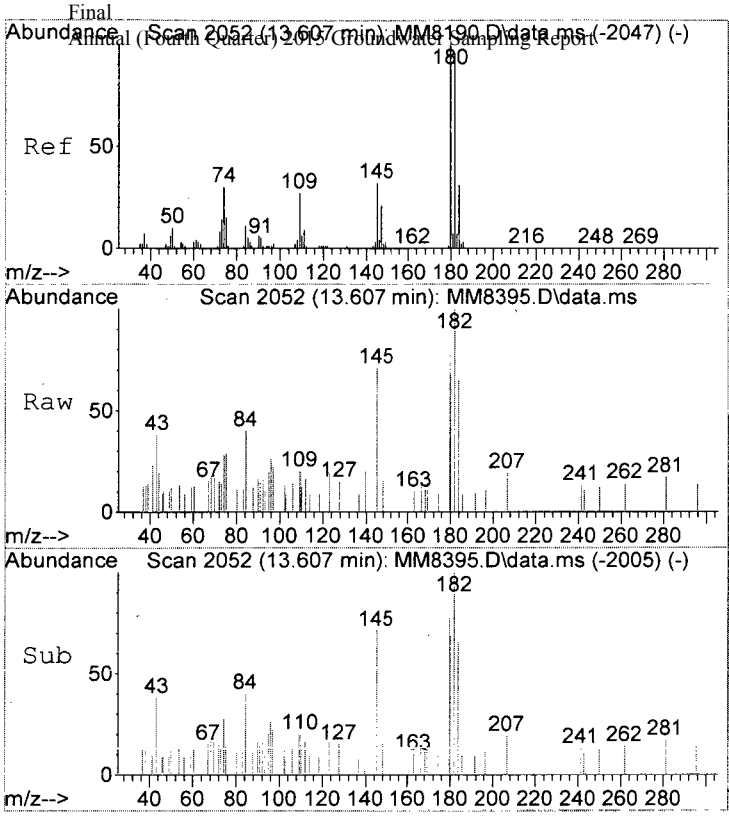
Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8395.D
Acq On : 30 Nov 2015 1:04 pm
Operator : K.Ruest
Sample : R1510161-005|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 30 13:20:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



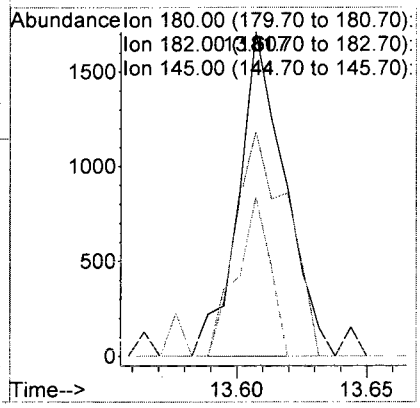
W111815A.M Mon Nov 30 13:20:33 2015 Page: 2

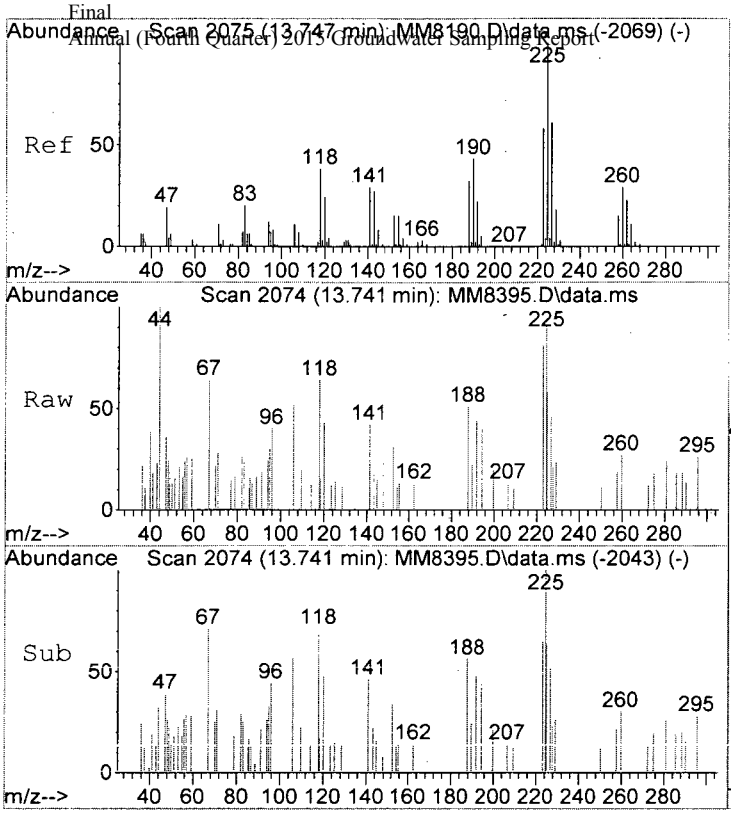


#115
1,2,4-Tcbenzene
Concen: 0.29 ppb
RT: 13.607 min Scan# 2052
Delta R.T. -0.006 min
Lab File: MM8395.D
Acq: 30 Nov 2015 1:04 pm

Tgt Ion:180 Resp: 2120

Ion	Ratio	Lower	Upper
180	100		
182	69.2	75.7	115.7#
145	48.8	12.1	52.1

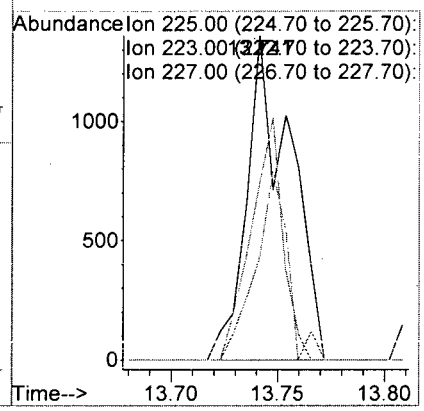




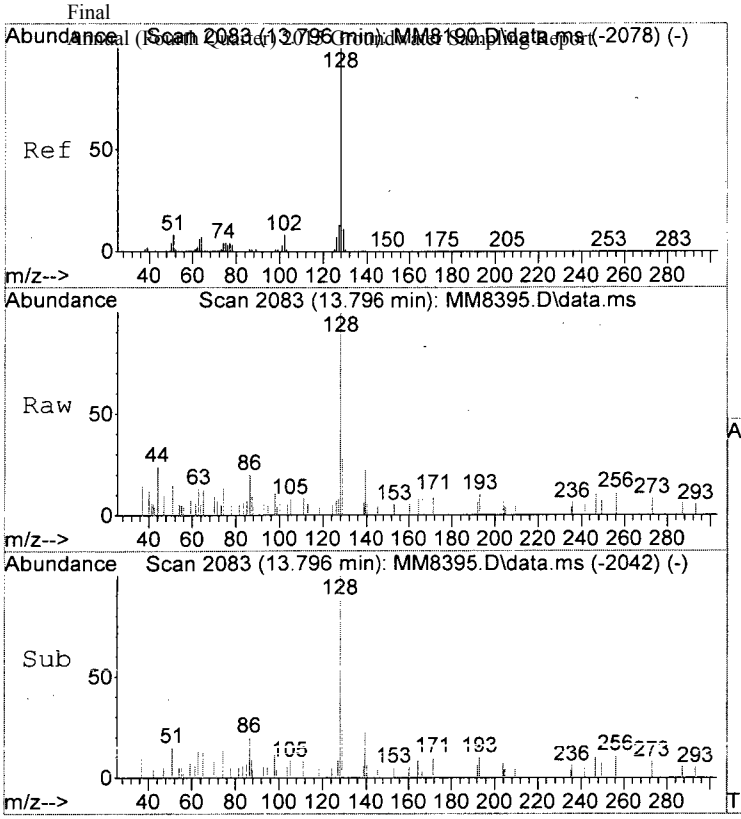
#116
Hexachlorobt
Concen: 0.65 ppb
RT: 13.741 min Scan# 2074
Delta R.T. -0.006 min
Lab File: MM8395.D
Acq: 30 Nov 2015 1:04 pm

Tgt Ion:225 Resp: 1923

Ion	Ratio	Lower	Upper
225	100		
223	54.2	38.1	78.1
227	45.3	41.1	81.1



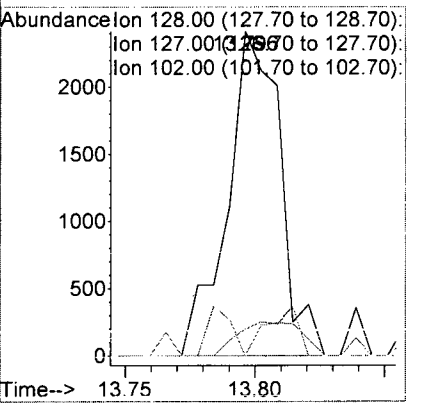
MM8395.D W111815A.M Thu Dec 03 12:31:10 2015 Page 1



#117
Naphthalen
Concen: 0.22 ppb
RT: 13.796 min Scan# 2083
Delta R.T. -0.006 min
Lab File: MM8395.D
Acq: 30 Nov 2015 1:04 pm

Tgt Ion:128 Resp: 3415

Ion	Ratio	Lower	Upper
128	100		
127	8.2	0.0	33.1
102	0.0	0.0	28.3



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8395.D
Acq On : 30 Nov 2015 1:04 pm
Operator : K.Ruest
Sample : R1510161-005|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8395.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.597	727	738	749	rBV	507466	1270845	29.75%	5.609%
2	5.737	751	761	776	rVB	1016569	2428588	56.84%	10.719%
3	6.097	807	820	832	rBV	577518	1258968	29.47%	5.557%
4	6.767	922	930	945	rBV	1632031	3168427	74.16%	13.985%
5	8.529	1212	1219	1230	rBV	2652751	4272392	100.00%	18.857%
6	9.986	1452	1458	1467	rBV	2674258	3800833	88.96%	16.776%
7	11.047	1627	1632	1641	rVB	2237708	2835795	66.37%	12.516%
8	11.388	1682	1688	1692	rBV2	39683	56725	1.33%	0.250%
9	12.016	1786	1791	1798	rBV	2907246	3564031	83.42%	15.731%

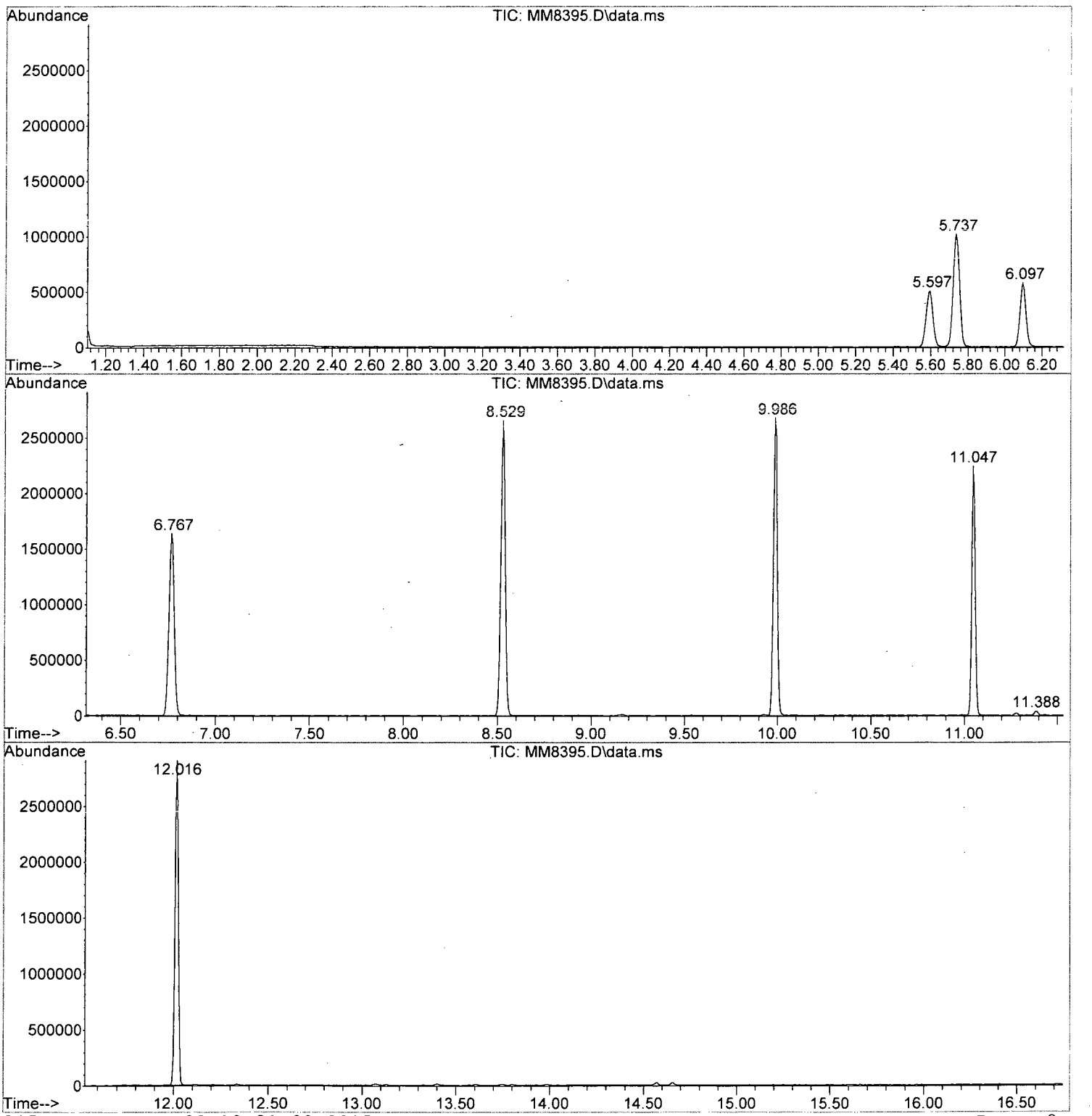
Sum of corrected areas: 22656604

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8395.D
Acq On    : 30 Nov 2015    1:04 pm
Operator  : K.Ruest
Sample    : R1510161-005|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 9   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



W111815A.M Thu Dec 03 12:31:29 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\113015\\
Data File : MM8395.D
Acq On : 30 Nov 2015 1:04 pmm
Operator : K.Ruestt
Sample : R1510161-005|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 9 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1243
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-M8-GW-MW15-11.8	**Units:**	µg/L
Lab Code:	R1510161-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 20:44		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 20:44		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 20:44		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 20:44		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 20:44		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 20:44		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 20:44		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 20:44		474104	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/30/15 20:44		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 20:44		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 20:44		474104	
1,2-Dichlorobenzene	**0.43**	J	5.0	1.0	0.21	1	NA	11/30/15 20:44		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 20:44		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
1,3-Dichlorobenzene	**0.67**	J	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 20:44		474104	
1,4-Dichlorobenzene	**1.4**	J	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 20:44		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 20:44		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 20:44		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 20:44		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 20:44		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 20:44		474104	
Acetone	**3.0**	J	5.0	5.0	1.3	1	NA	11/30/15 20:44		474104	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 20:44		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 20:44		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 20:44		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 20:44		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 20:44		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 20:44		474104	
Chlorobenzene	**2.9**	J	5.0	1.0	0.29	1	NA	11/30/15 20:44		474104	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1243
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-M8-GW-MW15-11.8	**Units:**	µg/L
Lab Code:	R1510161-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 20:44		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 20:44		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 20:44		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 20:44		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 20:44		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 20:44		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/30/15 20:44		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 20:44		474104	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
Tetrachloroethene (PCE)	0.43	J	5.0	1.0	0.30	1	NA	11/30/15 20:44		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 20:44		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 20:44		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 20:44		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 20:44		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 20:44		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 20:44		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 20:44		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 20:44		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 20:44		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	11/30/15 20:44	
Dibromofluoromethane	109	85-115	11/30/15 20:44	
Toluene-d8	111	85-120	11/30/15 20:44	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Analyzed:	11/30/15 2044

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-M8-GW-MW15-11.8	**Units:**	µg/L
Lab Code:	R1510161-010	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8410.D
Acq On : 30 Nov 2015 8:44 pm
Operator : K.Ruest 61 (KR)
Sample : R151006~~3~~-010|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 03 15:55:01 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	816061	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1343097	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1225488	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	608809	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	380751	54.53	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.06%				
48) surr1,1,2-dichloroetha...	6.096	65	416247	53.97	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.94%				
65) SURR3,Toluene-d8	8.529	98	1636762	55.70	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 111.40%				
70) SURR2,BFB	11.047	95	619500	55.84	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.68%				
Target Compounds							Qvalue
9) Diethyl Ether	2.231	59	4794	0.77	ppb	#	77
15) Acetone	2.487	43	5239	3.01	ppb		72
72) Tetrachloroethene	9.187	164	2190	0.43	ppb	#	82
78) Chlorobenzene	10.016	112	52328	2.89	ppb		97
105) 1,3-Dclbenz	11.961	146	9261	0.67	ppb		93
106) 1,4-Dclbenz	12.034	146	17512	1.35	ppb		96
110) 1,2-Dclbenz	12.333	146	5454	0.43	ppb	#	86

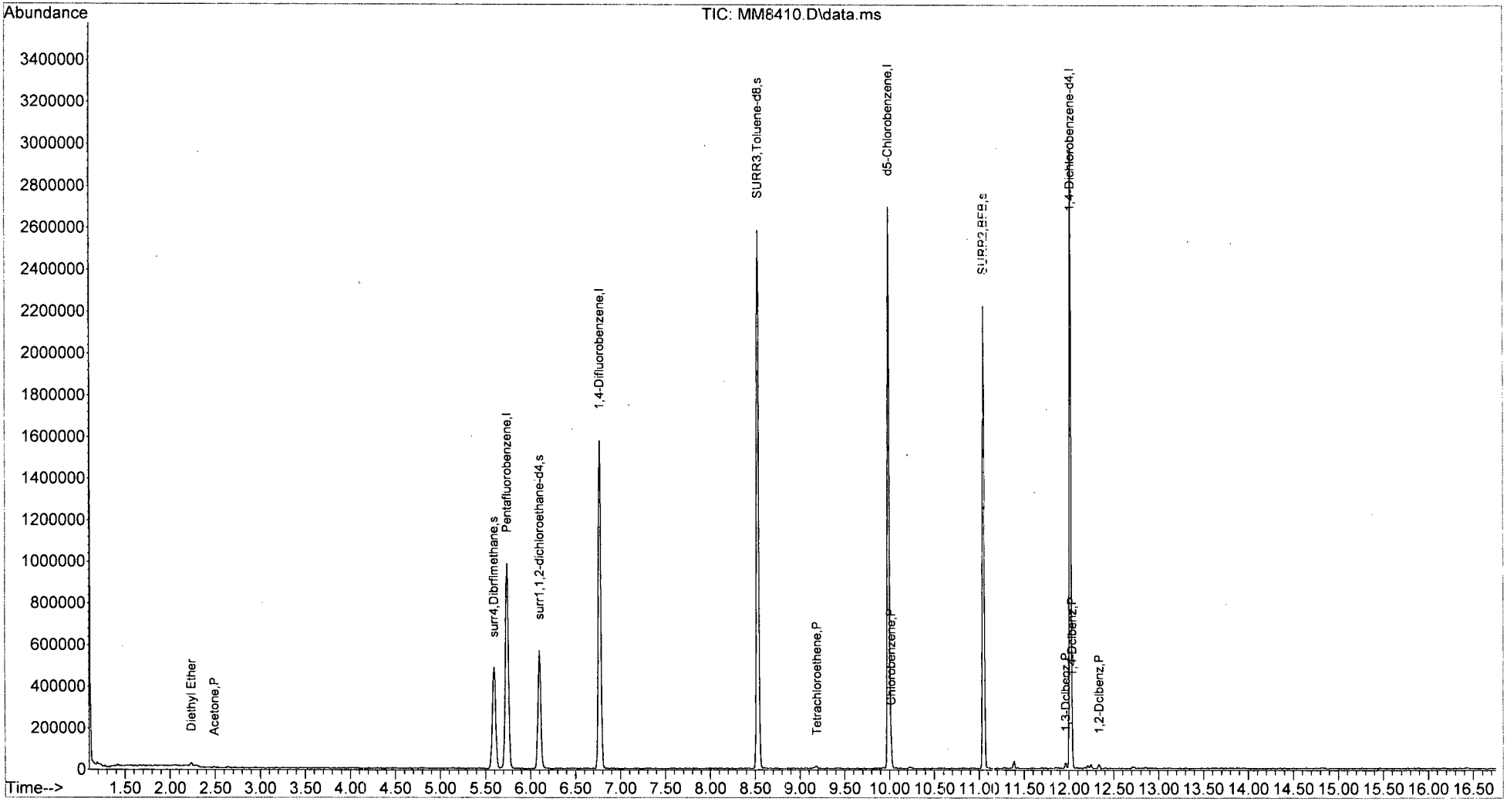
(#) = qualifier out of range (m) = manual integration (+) = signals summed

KR 12/3/15

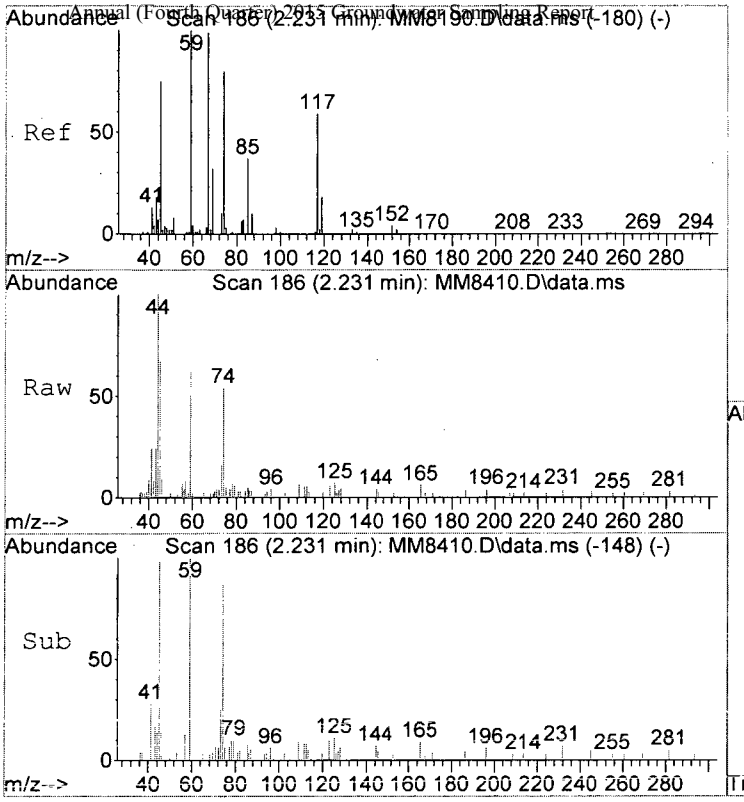
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8410.D
Acq On : 30 Nov 2015 8:44 pm
Operator : K.Ruest GI (KR)
Sample : R151006~~3~~-010|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 03 15:55:01 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



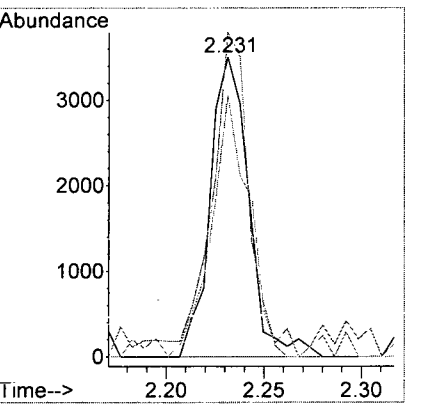
W111815A.M Thu Dec 03 15:56:22 2015 Page: 2

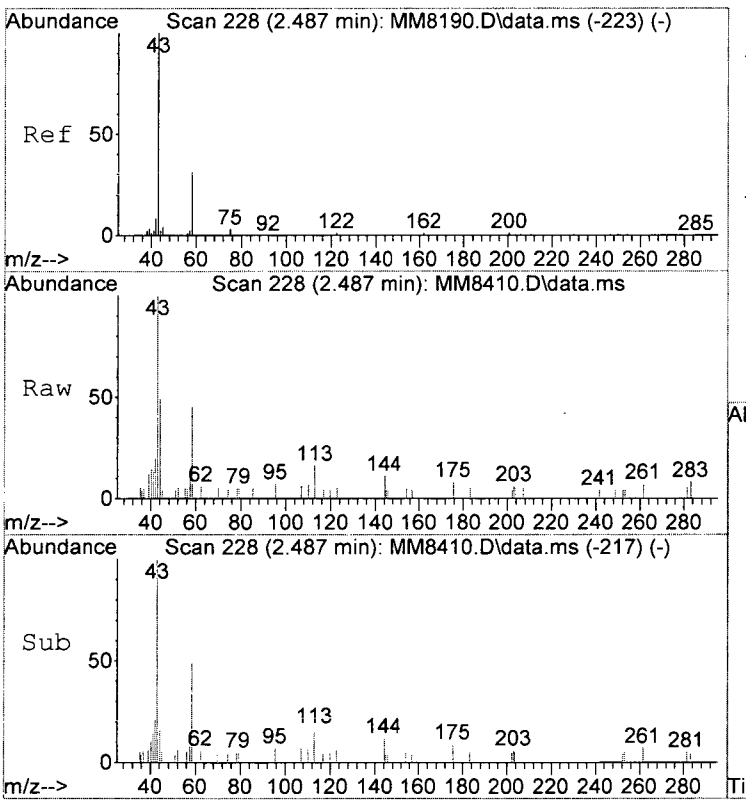


#9
Diethyl Ether
Concen: 0.77 ppb
RT: 2.231 min Scan# 186
Delta R.T. -0.000 min
Lab File: MM8410.D
Acq: 30 Nov 2015 8:44 pm

Tgt Ion: 59 Resp: 4794

Ion	Ratio	Lower	Upper
59	100		
45	108.3	55.2	95.2#
74	87.1	60.2	100.2

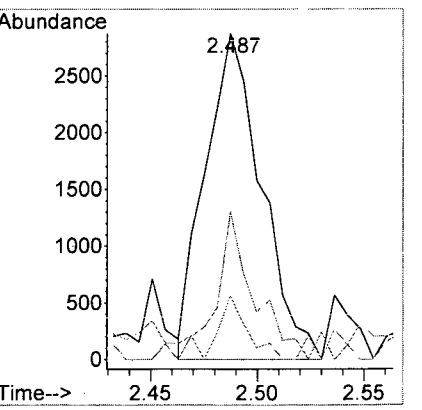


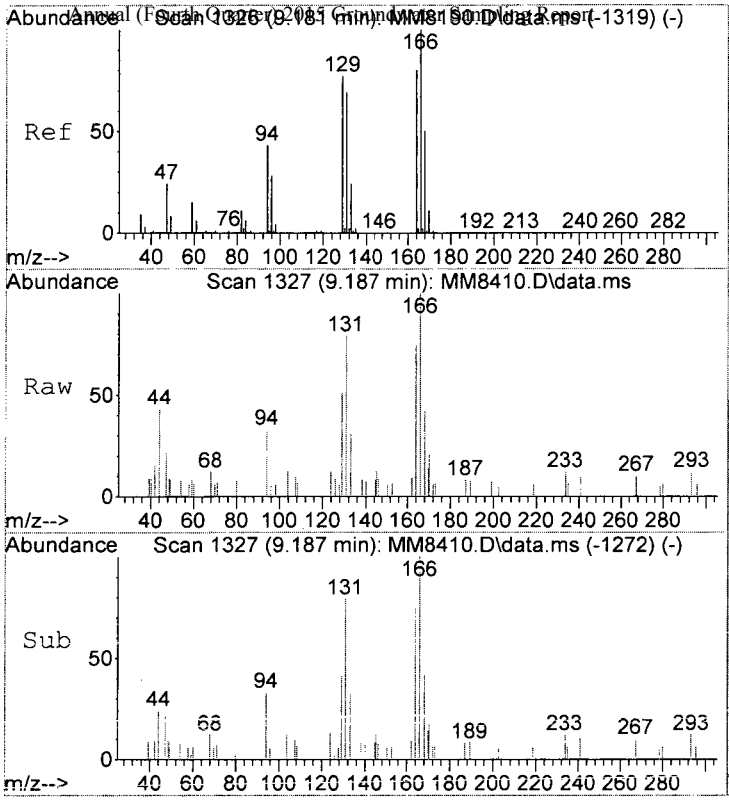


#15
Acetone
Concen: 3.01 ppb
RT: 2.487 min Scan# 228
Delta R.T. -0.006 min
Lab File: MM8410.D
Acq: 30 Nov 2015 8:44 pm

Tgt Ion: 43 Resp: 5239

Ion	Ratio	Lower	Upper
43	100		
58	45.5	10.9	50.9
42	19.6	0.0	28.5

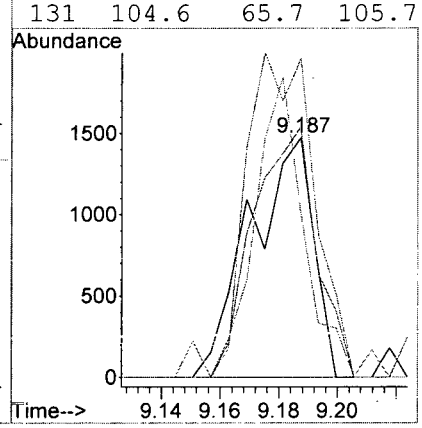


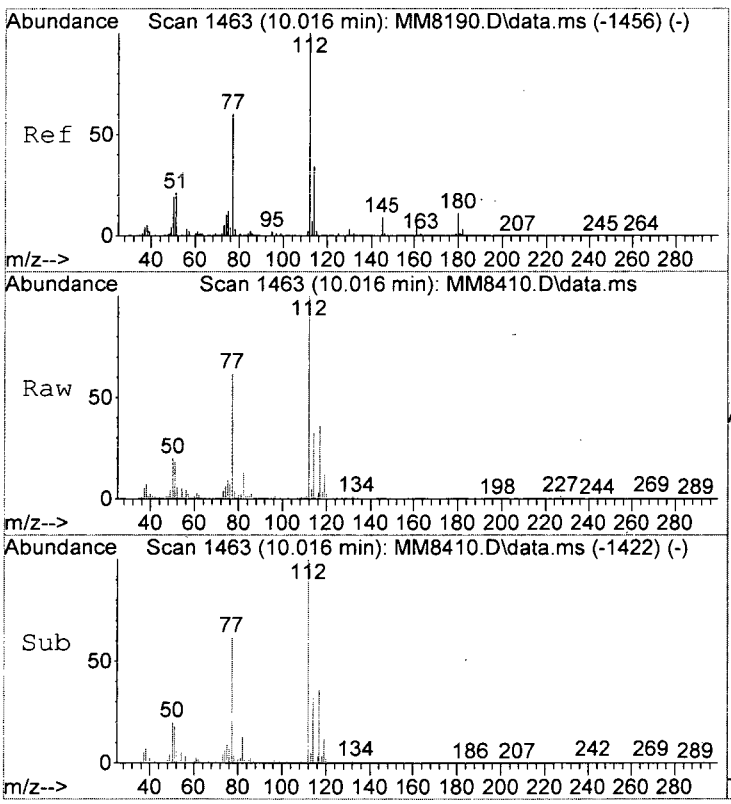


#72
Tetrachloroethene
Concen: 0.43 ppb
RT: 9.187 min Scan# 1327
Delta R.T. 0.006 min
Lab File: MM8410.D
Acq: 30 Nov 2015 8:44 pm

Tgt Ion:164 Resp: 2190

Ion	Ratio	Lower	Upper
164	100		
166	133.2	104.3	144.3
129	68.5	75.4	115.4#
131	104.6	65.7	105.7

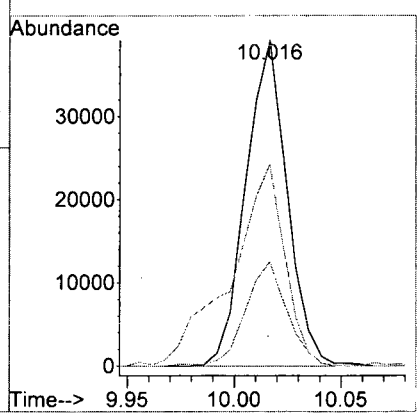


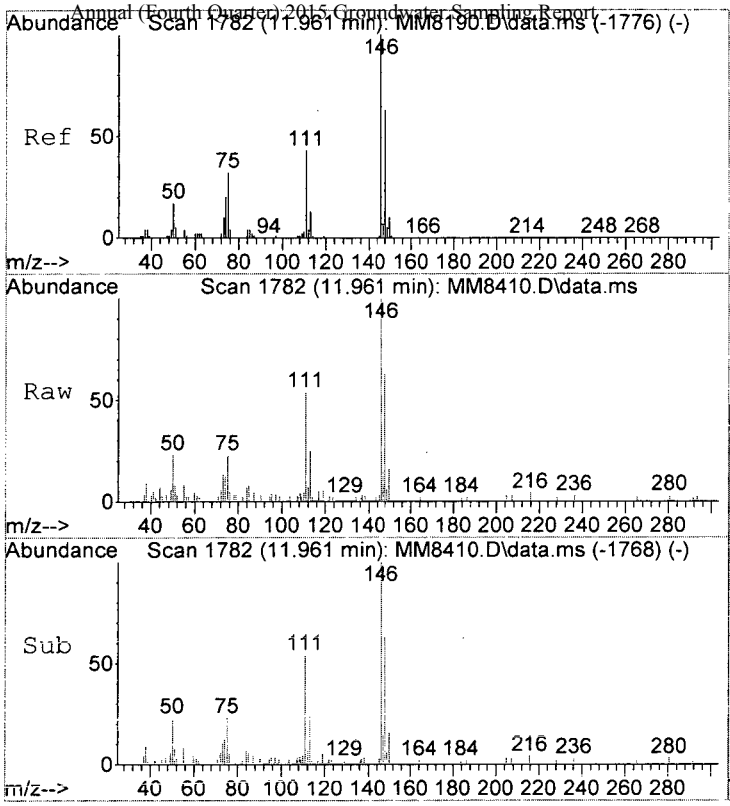


#78
Chlorobenzene
Concen: 2.89 ppb
RT: 10.016 min Scan# 1463
Delta R.T. -0.000 min
Lab File: MM8410.D
Acq: 30 Nov 2015 8:44 pm

Tgt Ion:112 Resp: 52328

Ion	Ratio	Lower	Upper
112	100		
114	31.9	13.7	53.7
77	61.9	40.2	80.2

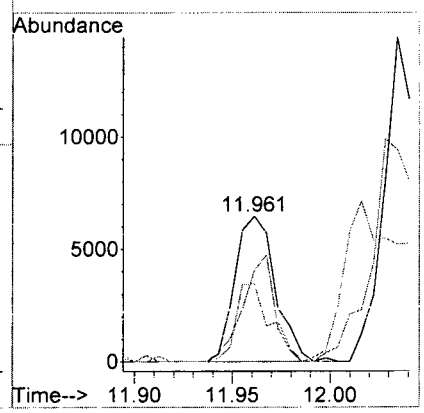


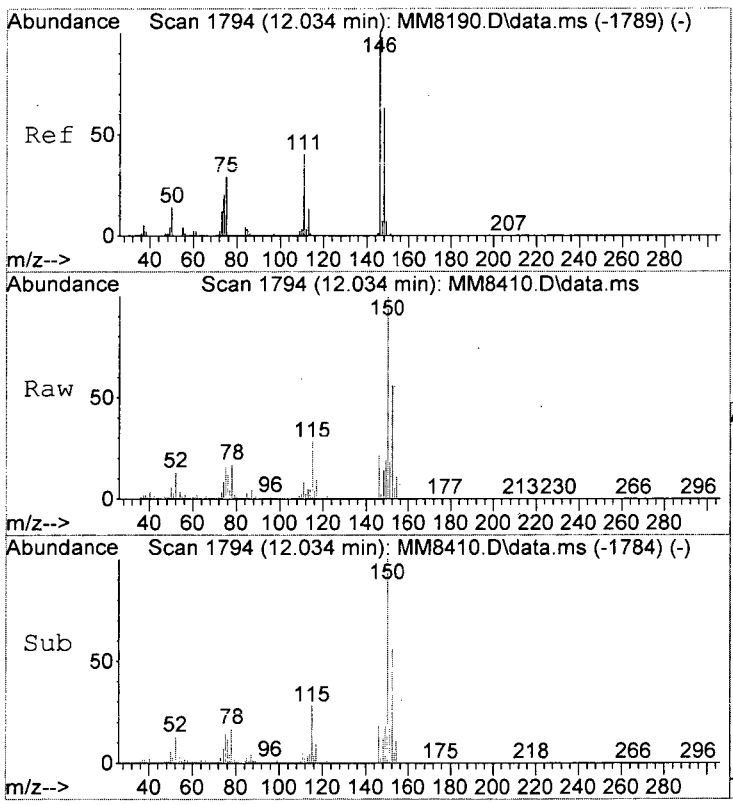


#105
1,3-Dclbenz
Concen: 0.67 ppb
RT: 11.961 min Scan# 1782
Delta R.T. -0.006 min
Lab File: MM8410.D
Acq: 30 Nov 2015 8:44 pm

Tgt Ion:146 Resp: 9261

Ion	Ratio	Lower	Upper
146	100		
148	62.8	43.1	83.1
111	53.7	22.6	62.6

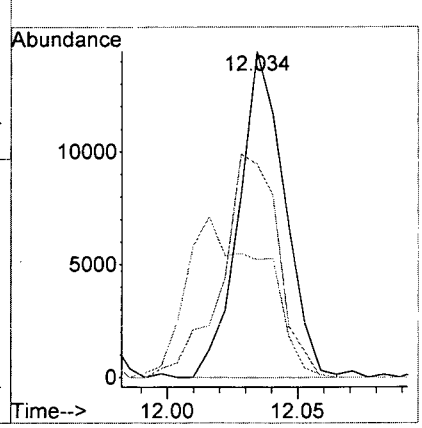


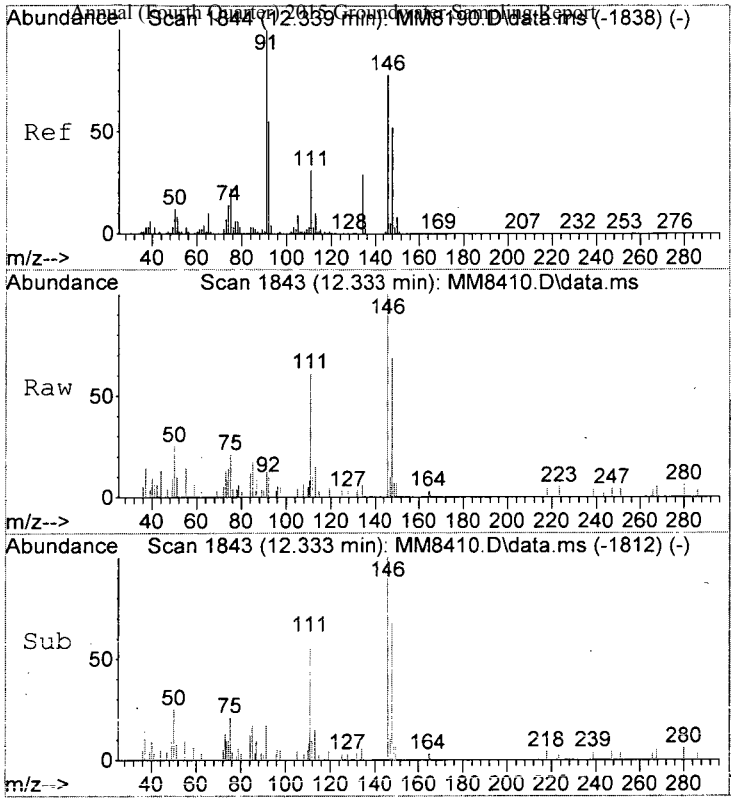


#106
1,4-Dclbenz
Concen: 1.35 ppb
RT: 12.034 min Scan# 1794
Delta R.T. -0.006 min
Lab File: MM8410.D
Acq: 30 Nov 2015 8:44 pm

Tgt Ion:146 Resp: 17512

Ion	Ratio	Lower	Upper
146	100		
148	65.4	43.5	83.5
111	36.0	20.3	60.3

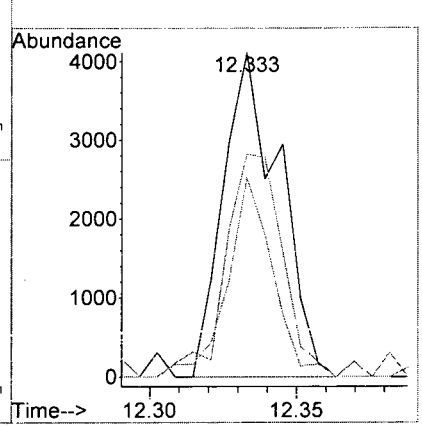




#110
1,2-Dclbenz
Concen: 0.43 ppb
RT: 12.333 min Scan# 1843
Delta R.T. -0.006 min
Lab File: MM8410.D
Acq: 30 Nov 2015 8:44 pm

Tgt Ion:146 Resp: 5454

Ion	Ratio	Lower	Upper
146	100		
148	68.6	46.9	86.9
111	61.3	19.6	59.6#



MM8410.D W111815A.M Thu Dec 03 15:56:28 2015 Page 6

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8410.D
Acq On : 30 Nov 2015 8:44 pm
Operator : K.Ruest GI (KR)
Sample : R1510063-010|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 24 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8410.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.597	726	738	748	rBV2	487905	1237555	29.34%	5.471%
2	5.737	751	761	775	rVB	984724	2332520	55.29%	10.313%
3	6.096	811	820	832	rBV	565313	1217012	28.85%	5.381%
4	6.767	922	930	941	rBV	1578374	3076584	72.93%	13.602%
5	8.529	1212	1219	1229	rBV	2584070	4218664	100.00%	18.652%
6	9.986	1452	1458	1468	rBV	2695330	3856843	91.42%	17.052%
7	11.047	1625	1632	1639	rBV	2225319	2802533	66.43%	12.391%
8	11.388	1683	1688	1692	rVB2	37108	45775	1.09%	0.202%
9	12.016	1785	1791	1800	rVB	2974386	3830870	90.81%	16.937%

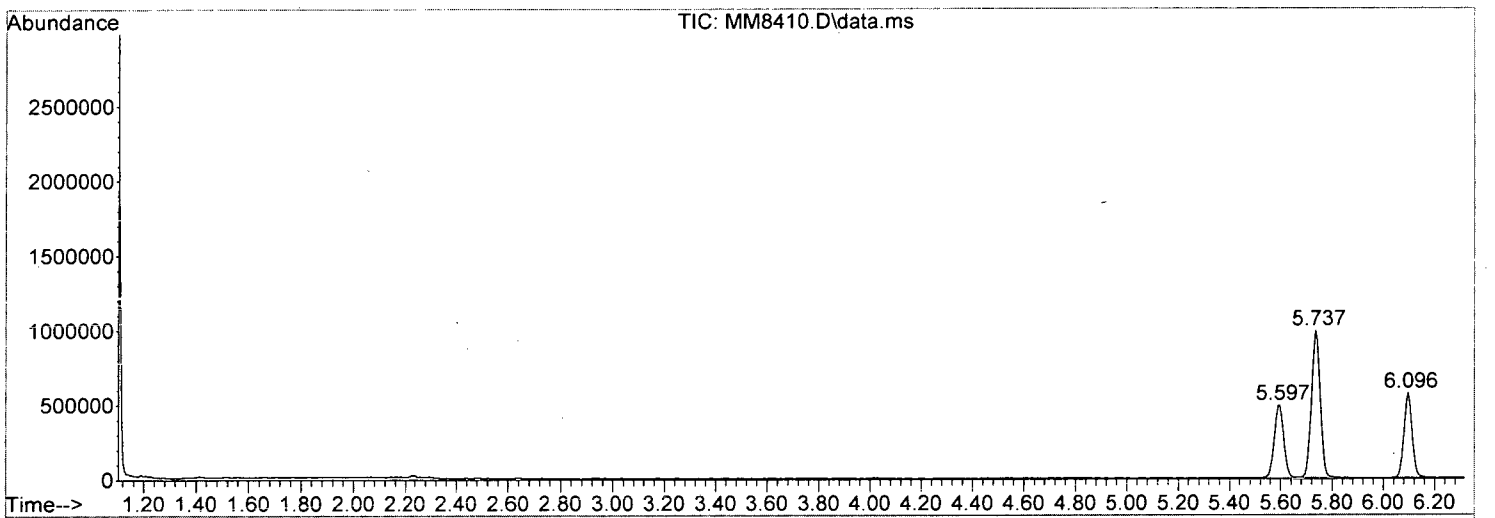
Sum of corrected areas: 22618356

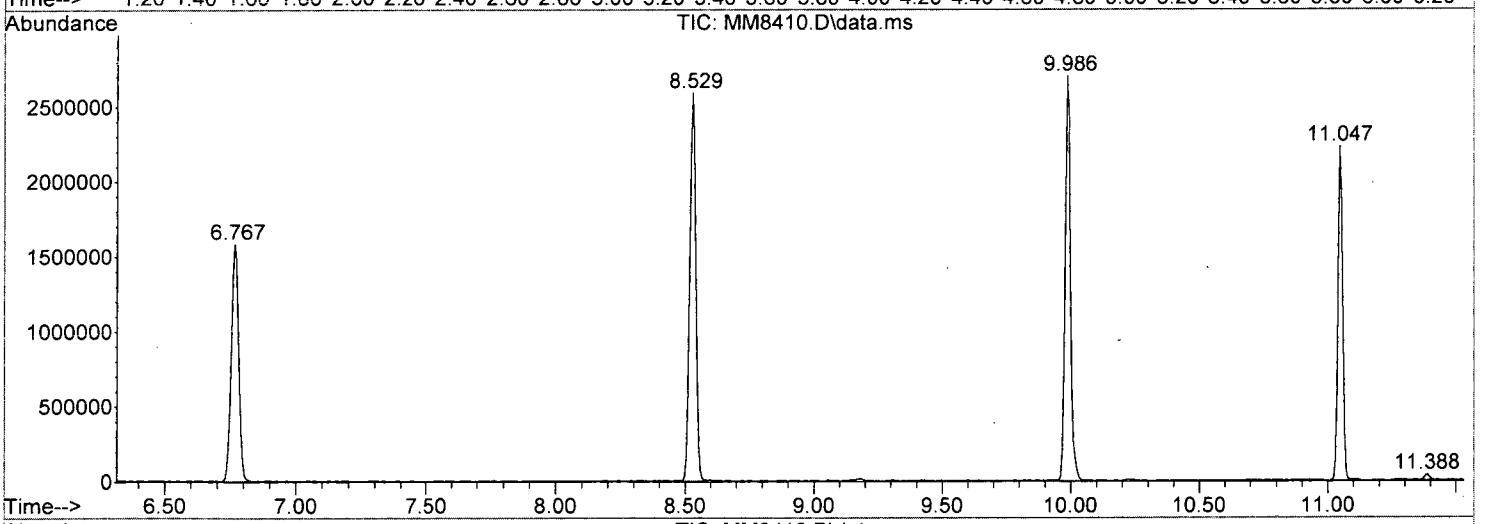
LSC Report - Integrated Chromatogram

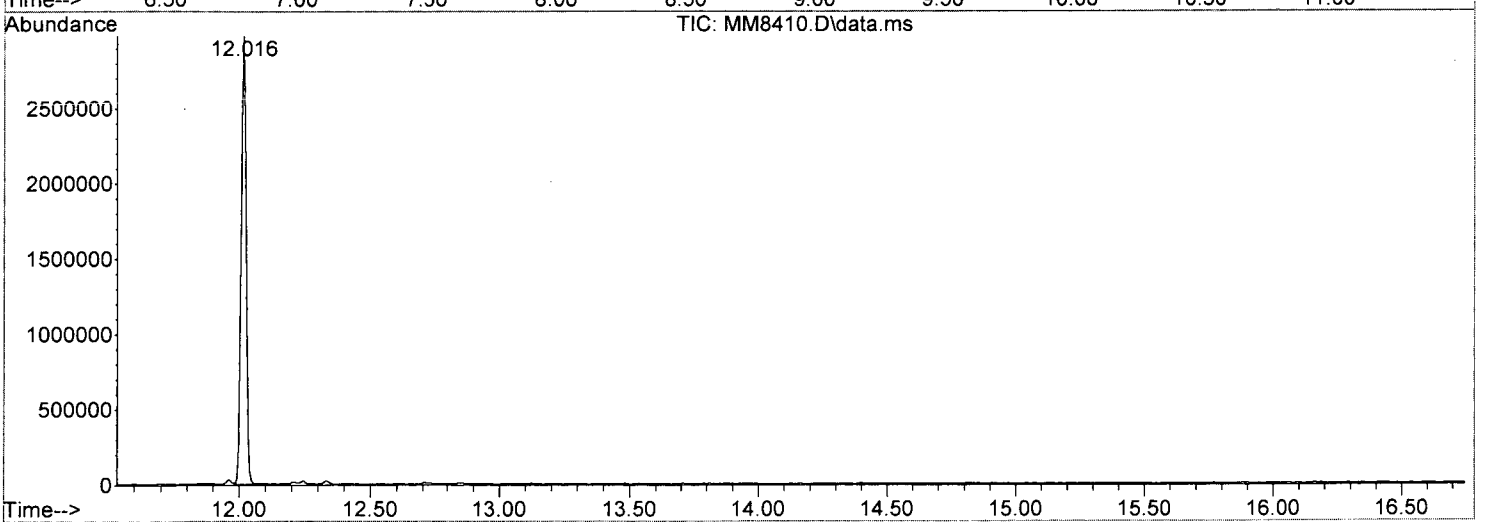
Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8410.D
Acq On : 30 Nov 2015 8:44 pm
Operator : K.Ruest
Sample : R1510063-010|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 24 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P







W111815A.M Thu Dec 03 15:56:36 2015 Page: 2

Data Path : I:\ACQUDATA\msvoa12\Data\113015\\
Data File : MM8410.D
Acq On : 30 Nov 2015 8:44 pmm
Operator : K.Ruestt 61 (KB)
Sample : R151006~~3~~-010|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 24 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: 11/19/15 1455
Date Received: 11/21/15

Sample Name: FTMM-M8-GW-MW16-12.07
Lab Code: R1510161-011

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 14:07		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 14:07		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 14:07		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 14:07		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 14:07		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 14:07		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 14:07		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 14:07		474290	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/1/15 14:07		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 14:07		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 14:07		474290	
1,2-Dichlorobenzene	**0.43**	J	5.0	1.0	0.21	1	NA	12/1/15 14:07		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 14:07		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
1,3-Dichlorobenzene	**0.70**	J	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 14:07		474290	
1,4-Dichlorobenzene	**2.3**	J	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 14:07		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 14:07		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 14:07		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 14:07		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 14:07		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 14:07		474290	
Acetone	**1.7**	J	5.0	5.0	1.3	1	NA	12/1/15 14:07		474290	
Benzene	**0.25**	J	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 14:07		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 14:07		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 14:07		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 14:07		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 14:07		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 14:07		474290	
Chlorobenzene	**20**		5.0	1.0	0.29	1	NA	12/1/15 14:07		474290	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1455
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-M8-GW-MW16-12.07	**Units:**	µg/L
Lab Code:	R1510161-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 14:07		474290	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/1/15 14:07		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 14:07		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 14:07		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 14:07		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 14:07		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 14:07		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 14:07		474290	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/1/15 14:07		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 14:07		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 14:07		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 14:07		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 14:07		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 14:07		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 14:07		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 14:07		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 14:07		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:07		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/1/15 14:07	
Dibromofluoromethane	112	85-115	12/1/15 14:07	
Toluene-d8	113	85-120	12/1/15 14:07	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Analyzed:	12/1/15 1407

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-M8-GW-MW16-12.07	**Units:**	µg/L
Lab Code:	R1510161-011	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8423.D
Acq On : 1 Dec 2015 2:07 pm
Operator : K.Ruest
Sample : R1510161-011|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 03 17:48:41 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	799814	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1317061	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1217252	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	602304	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	382331	55.83	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 111.66%				
48) surr1,1,2-dichloroetha...	6.096	65	416138	55.02	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 110.04%				
65) SURR3,Toluene-d8	8.529	98	1627867	56.49	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 112.98%				
70) SURR2,BFB	11.047	95	619443	56.94	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 113.88%				
Target Compounds							Qvalue
15) Acetone	2.487	43	2942	1.73	ppb		85
49) Benzene	6.176	78	7220	0.25	ppb		79
72) Tetrachloroethene	9.187	164	1179	0.23	ppb	#	71
78) Chlorobenzene	10.016	112	368952	20.49	ppb		99
105) 1,3-Dclbenz	11.961	146	9617	0.70	ppb		87
106) 1,4-Dclbenz	12.034	146	30081	2.34	ppb		95
110) 1,2-Dclbenz	12.333	146	5388	0.43	ppb		87

KR 12/3/15

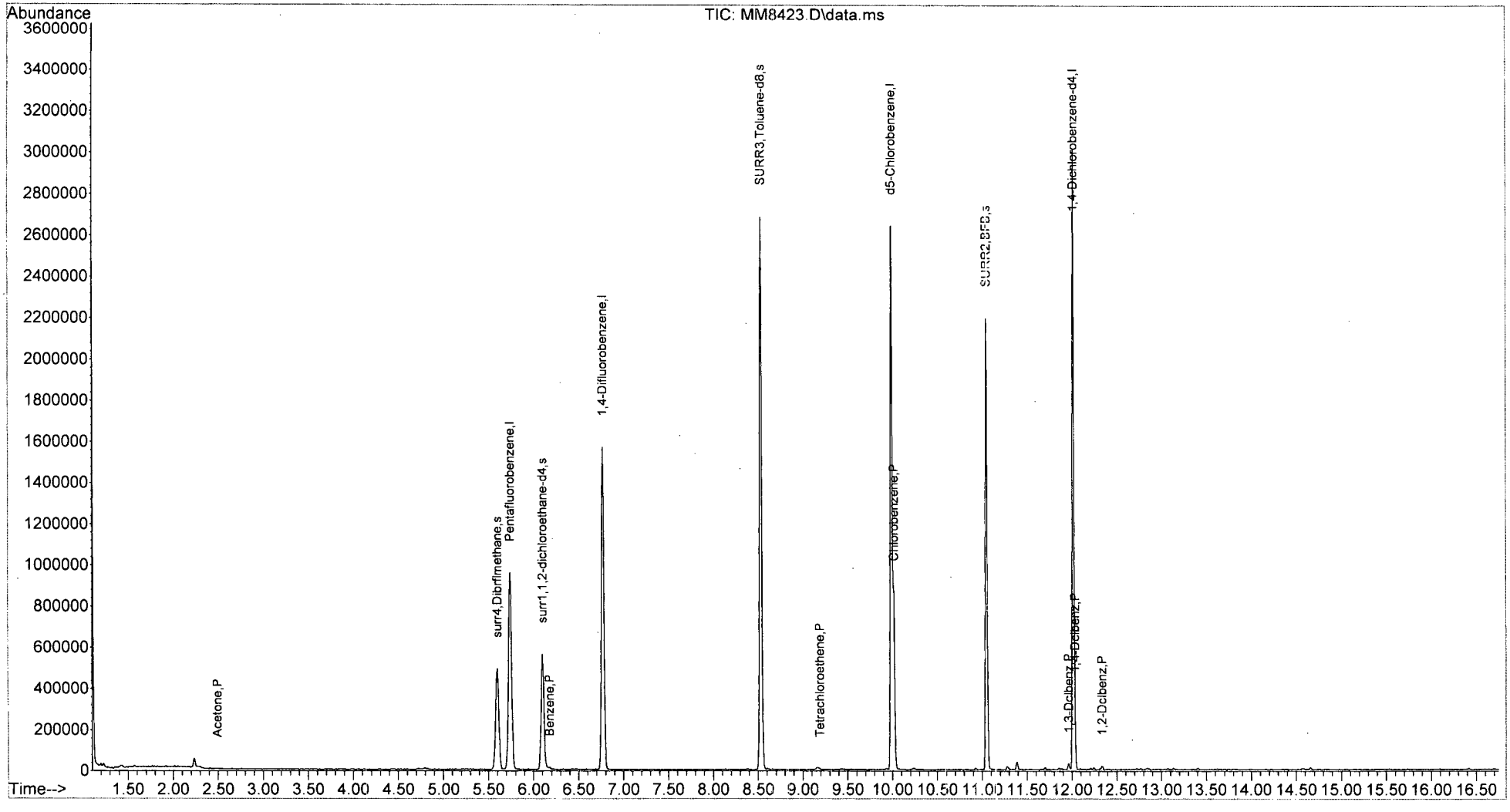
GV 12/04/15

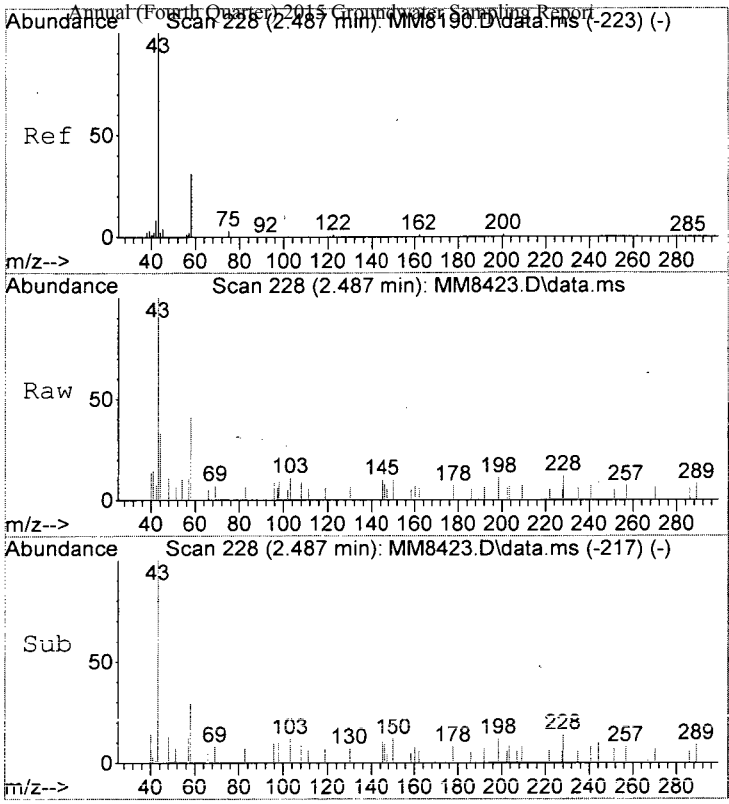
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8423.D
Acq On : 1 Dec 2015 2:07 pm
Operator : K.Ruest
Sample : R1510161-011|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 03 17:48:41 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

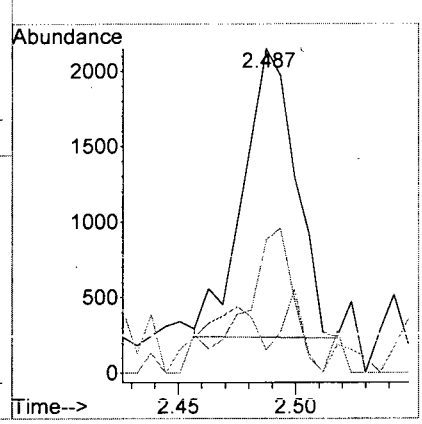


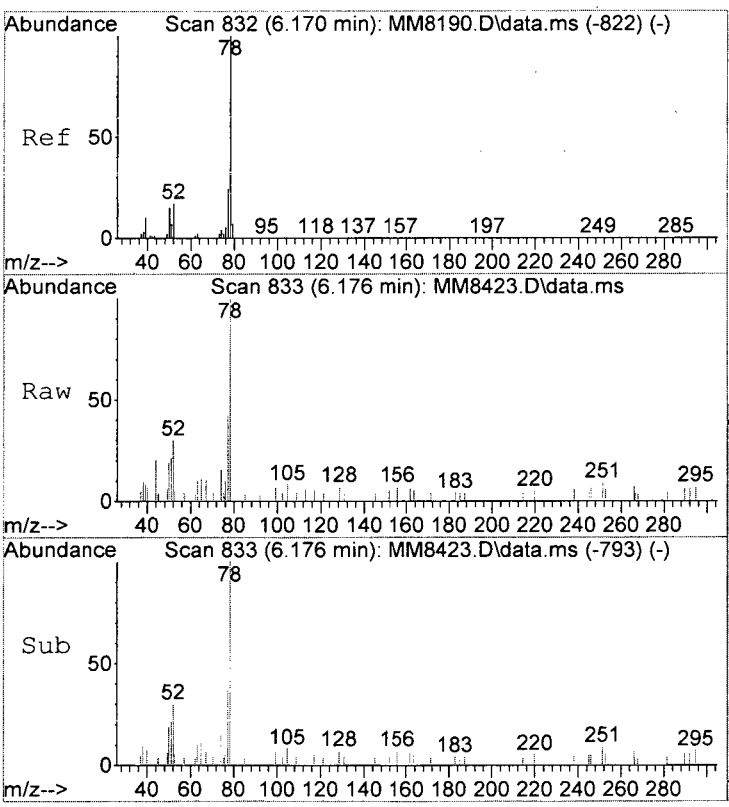


#15
Acetone
Concen: 1.73 ppb
RT: 2.487 min Scan# 228
Delta R.T. -0.006 min
Lab File: MM8423.D
Acq: 1 Dec 2015 2:07 pm

Tgt Ion: 43 Resp: 2942

Ion	Ratio	Lower	Upper
43	100		
58	40.9	10.9	50.9
42	6.9	0.0	28.5

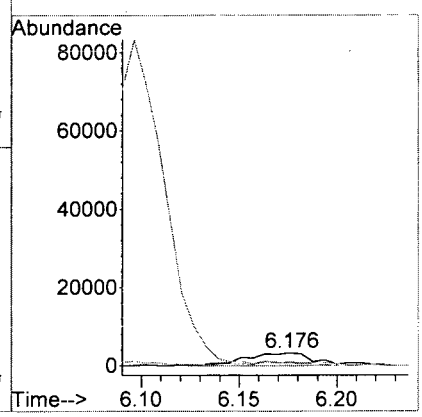




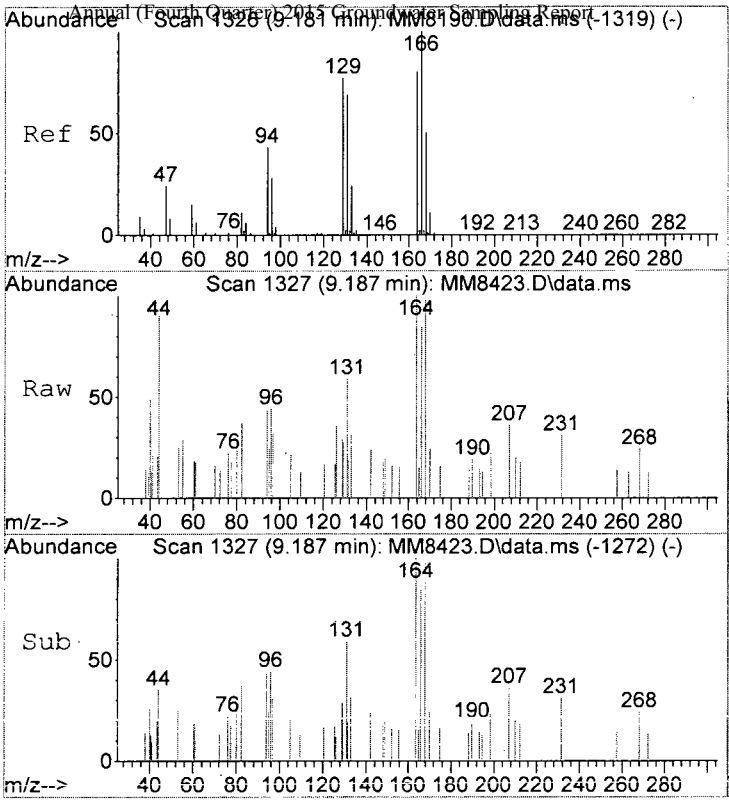
#49
Benzene
Concen: 0.25 ppb
RT: 6.176 min Scan# 833
Delta R.T. -0.000 min
Lab File: MM8423.D
Acq: 1 Dec 2015 2:07 pm

Tgt Ion: 78 Resp: 7220

Ion	Ratio	Lower	Upper
78	100		
51	20.7	0.0	36.1
52	30.4	0.0	36.8



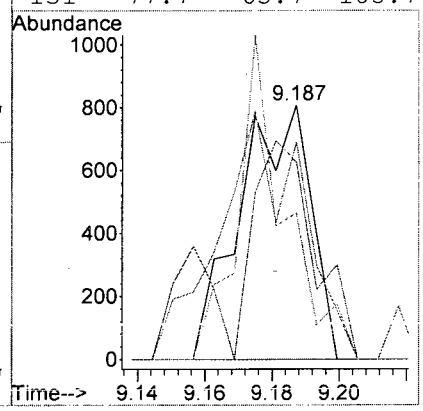
MM8423.D W111815A.M Thu Dec 03 17:50:23 2015 Page 3

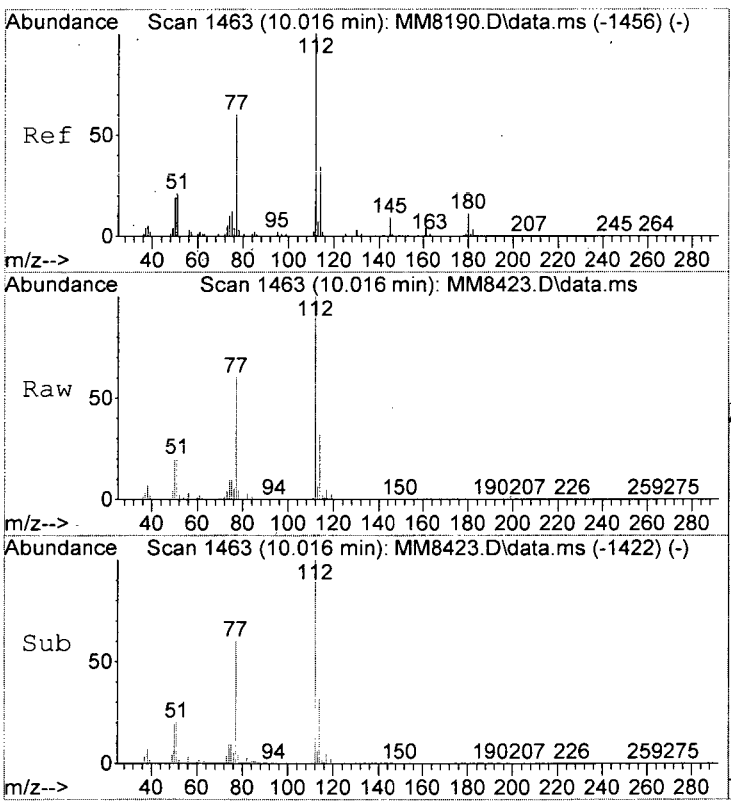


#72
Tetrachloroethene
Concen: 0.23 ppb
RT: 9.187 min Scan# 1327
Delta R.T. 0.006 min
Lab File: MM8423.D
Acq: 1 Dec 2015 2:07 pm

Tgt Ion:164 Resp: 1179

Ion	Ratio	Lower	Upper
164	100		
166	85.4	104.3	144.3#
129	57.5	75.4	115.4#
131	77.7	65.7	105.7

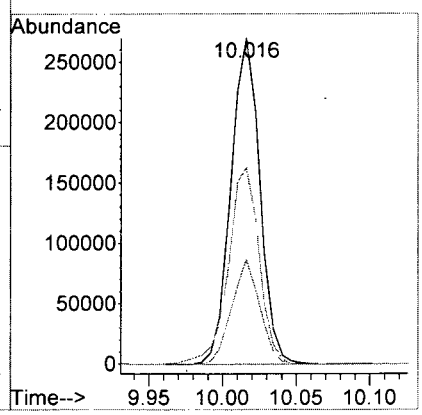


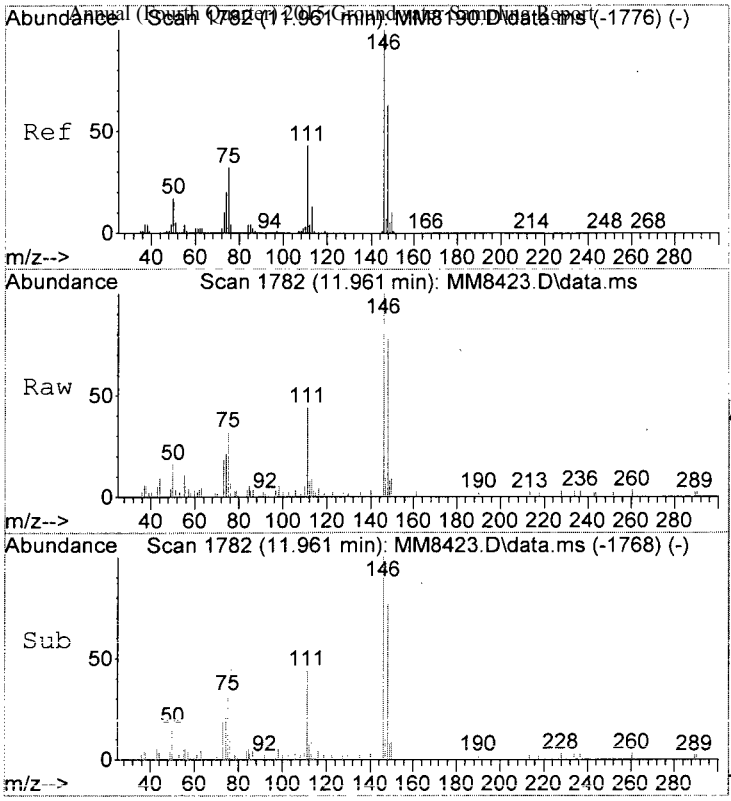


#78
Chlorobenzene
Concen: 20.49 ppb
RT: 10.016 min Scan# 1463
Delta R.T. -0.000 min
Lab File: MM8423.D
Acq: 1 Dec 2015 2:07 pm

Tgt Ion:112 Resp: 368952

Ion	Ratio	Lower	Upper
112	100		
114	32.1	13.7	53.7
77	60.3	40.2	80.2

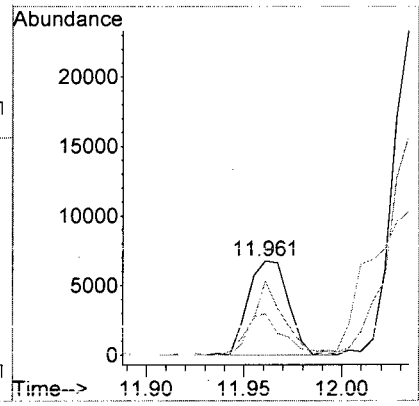


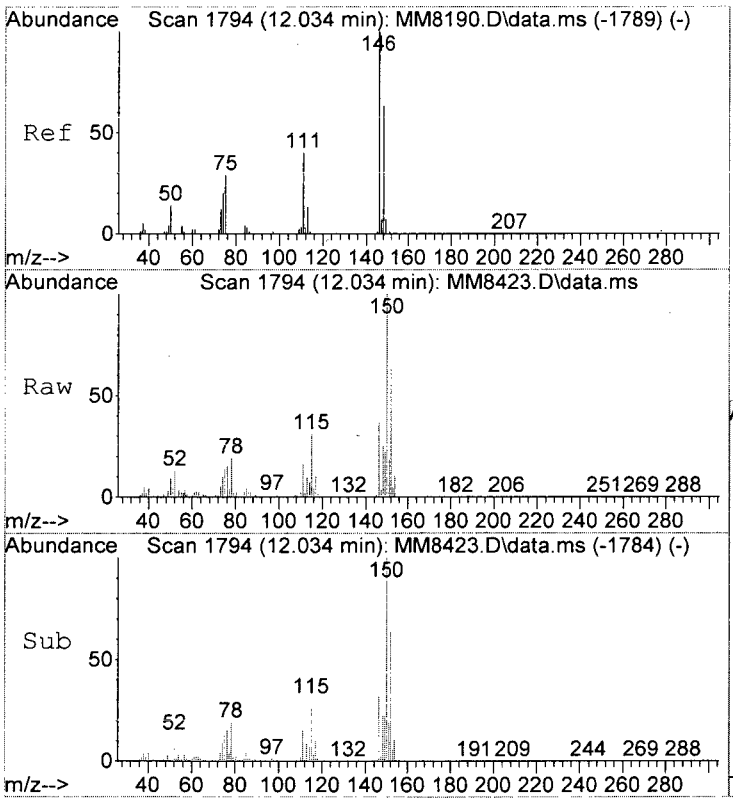


#105
1,3-Dclbenz
Concen: 0.70 ppb
RT: 11.961 min Scan# 1782
Delta R.T. -0.006 min
Lab File: MM8423.D
Acq: 1 Dec 2015 2:07 pm

Tgt Ion:146 Resp: 9617

Ion	Ratio	Lower	Upper
146	100		
148	78.3	43.1	83.1
111	44.0	22.6	62.6

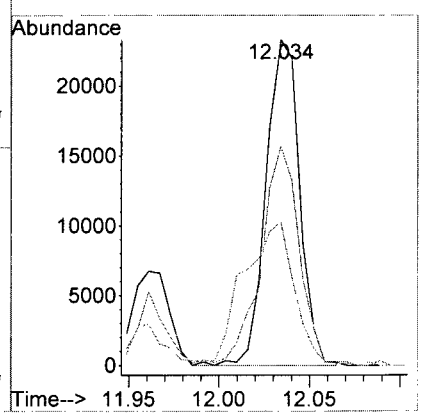


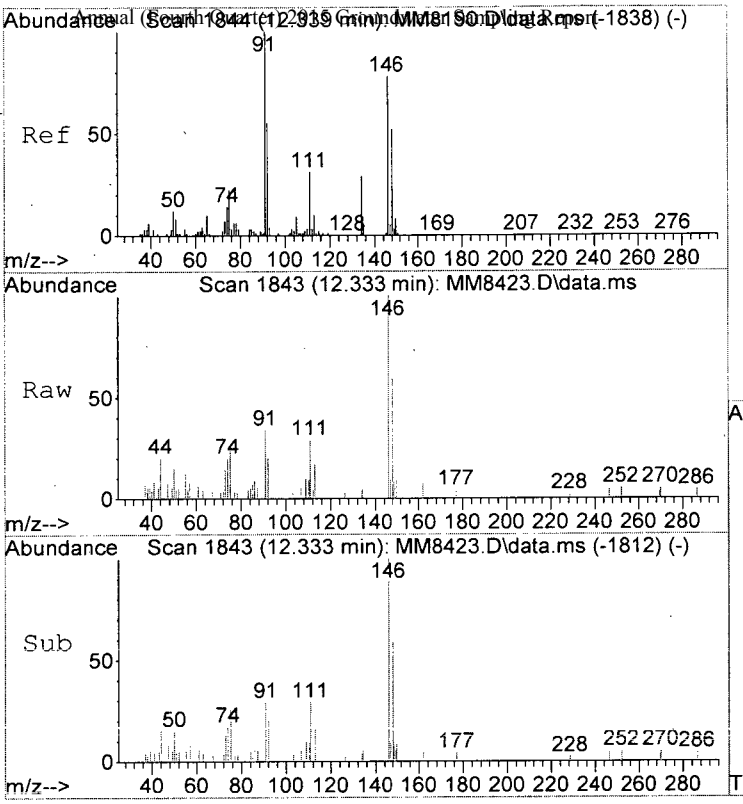


#106
1,4-Dclbenz
Concen: 2.34 ppb
RT: 12.034 min Scan# 1794
Delta R.T. -0.006 min
Lab File: MM8423.D
Acq: 1 Dec 2015 2:07 pm

Tgt Ion:146 Resp: 30081

Ion	Ratio	Lower	Upper
146	100		
148	67.3	43.5	83.5
111	44.0	20.3	60.3

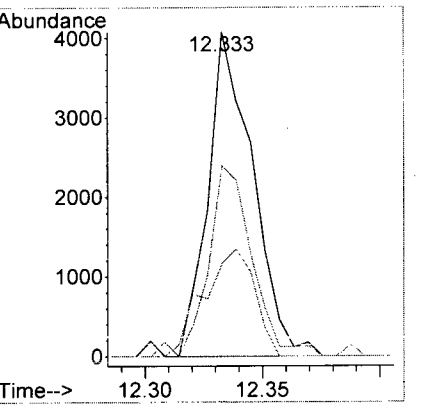




#110
1,2-Dclbenz
Concen: 0.43 ppb
RT: 12.333 min Scan# 1843
Delta R.T. -0.006 min
Lab File: MM8423.D
Acq: 1 Dec 2015 2:07 pm

Tgt Ion:146 Resp: 5388

Ion	Ratio	Lower	Upper
146	100		
148	58.8	46.9	86.9
111	28.5	19.6	59.6



MM8423.D W111815A.M Thu Dec 03 17:50:26 2015 Page 6

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8423.D
Acq On : 1 Dec 2015 2:07 pm
Operator : K.Ruest
Sample : R1510161-011|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8423.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.231	180	186	193	rBV	44036	68203	1.42%	0.290%
2	5.596	727	738	746	rBV	490506	1223935	25.42%	5.197%
3	5.737	751	761	776	rVB	957226	2281405	47.37%	9.688%
4	6.096	809	820	829	rBV	561693	1221699	25.37%	5.188%
5	6.767	922	930	943	rBV	1566510	3030030	62.92%	12.867%
6	8.529	1212	1219	1229	rBV	2683726	4230545	87.85%	17.965%
7	9.986	1452	1458	1469	rBV2	2640985	4815633	100.00%	20.449%
8	11.047	1627	1632	1642	rVB	2196209	2806679	58.28%	11.918%
9	11.388	1682	1688	1693	rBV	39010	53176	1.10%	0.226%
10	12.016	1786	1791	1799	rVB	3012793	3818058	79.28%	16.213%

Sum of corrected areas: 23549363

```
Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8423.D
Acq On    :  1 Dec 2015    2:07 pm
Operator  : K.Ruest
Sample    : R1510161-011|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 10   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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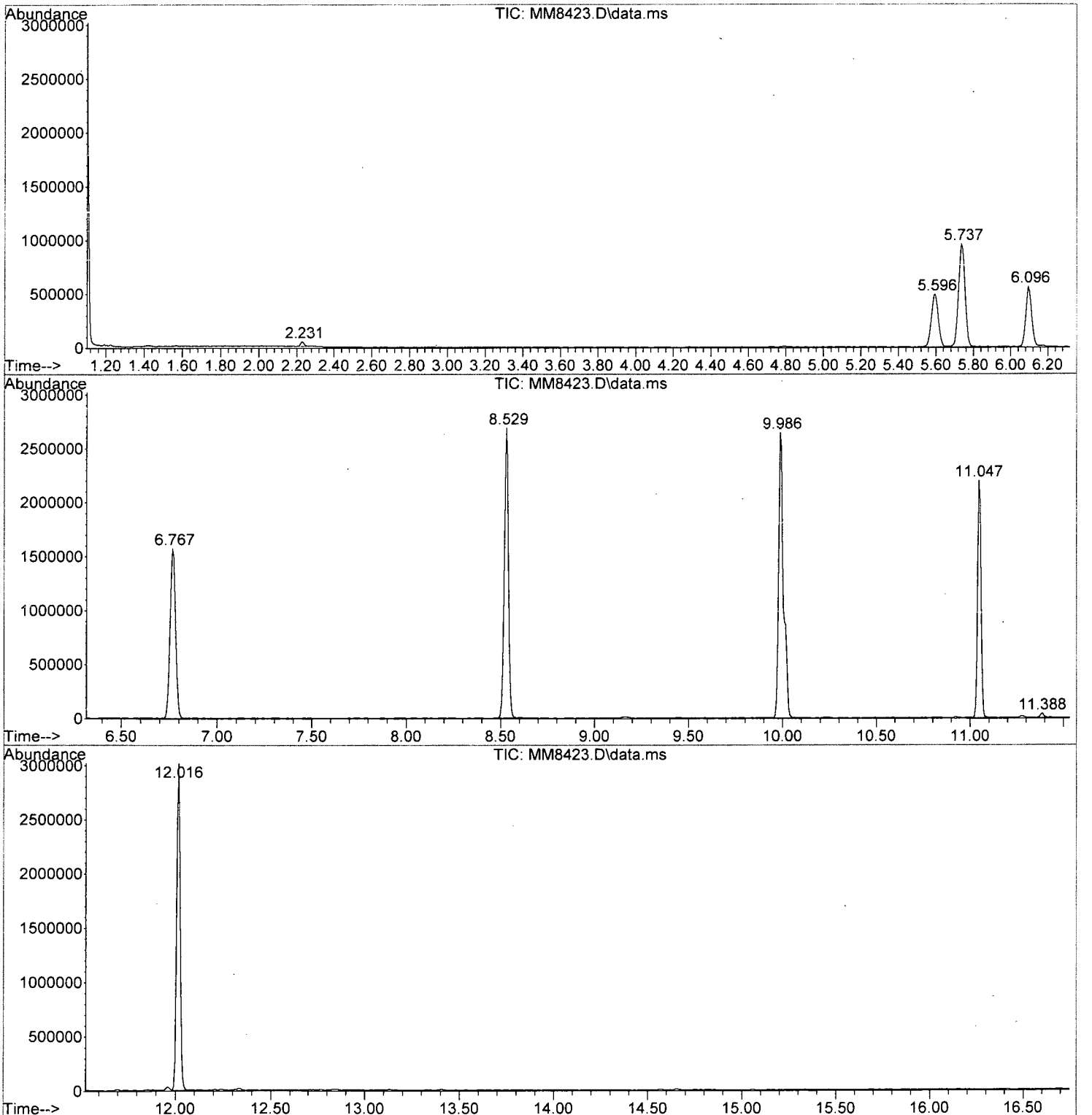


Data Path : I:\ACQUDATA\msvoa12\Data\120115\\
Data File : MM8423.D
Acq On : 1 Dec 2015 2:07 pmm
Operator : K.Ruestt
Sample : R1510161-011|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 10 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1647
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-M8-GW-697MW01-16.5	**Units:**	µg/L
Lab Code:	R1510161-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 14:37		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 14:37		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 14:37		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 14:37		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 14:37		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 14:37		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 14:37		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 14:37		474290	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/1/15 14:37		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 14:37		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 14:37		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 14:37		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 14:37		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 14:37		474290	
1,4-Dichlorobenzene	**0.23**	J	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 14:37		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 14:37		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 14:37		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 14:37		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 14:37		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 14:37		474290	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/1/15 14:37		474290	
Benzene	**1.0**	J	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 14:37		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 14:37		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 14:37		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 14:37		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 14:37		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 14:37		474290	
Chlorobenzene	**4.1**	J	5.0	1.0	0.29	1	NA	12/1/15 14:37		474290	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1647
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-M8-GW-697MW01-16.5	**Units:**	µg/L
Lab Code:	R1510161-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 14:37		474290	
Chloroform	**0.82**	J	5.0	1.0	0.25	1	NA	12/1/15 14:37		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 14:37		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 14:37		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 14:37		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 14:37		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 14:37		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 14:37		474290	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
Tetrachloroethene (PCE)	**0.52**	J	5.0	1.0	0.30	1	NA	12/1/15 14:37		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 14:37		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 14:37		474290	
cis-1,2-Dichloroethene	**0.72**	J	5.0	1.0	0.30	1	NA	12/1/15 14:37		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 14:37		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 14:37		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 14:37		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 14:37		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 14:37		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 14:37		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	12/1/15 14:37	
Dibromofluoromethane	113	85-115	12/1/15 14:37	
Toluene-d8	105	85-120	12/1/15 14:37	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Analyzed:	12/1/15 1437

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-M8-GW-697MW01-16.5	**Units:**	µg/L
Lab Code:	R1510161-012	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8424.D
Acq On : 1 Dec 2015 2:37 pm
Operator : K.Ruest
Sample : R1510161-012|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 03 17:52:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

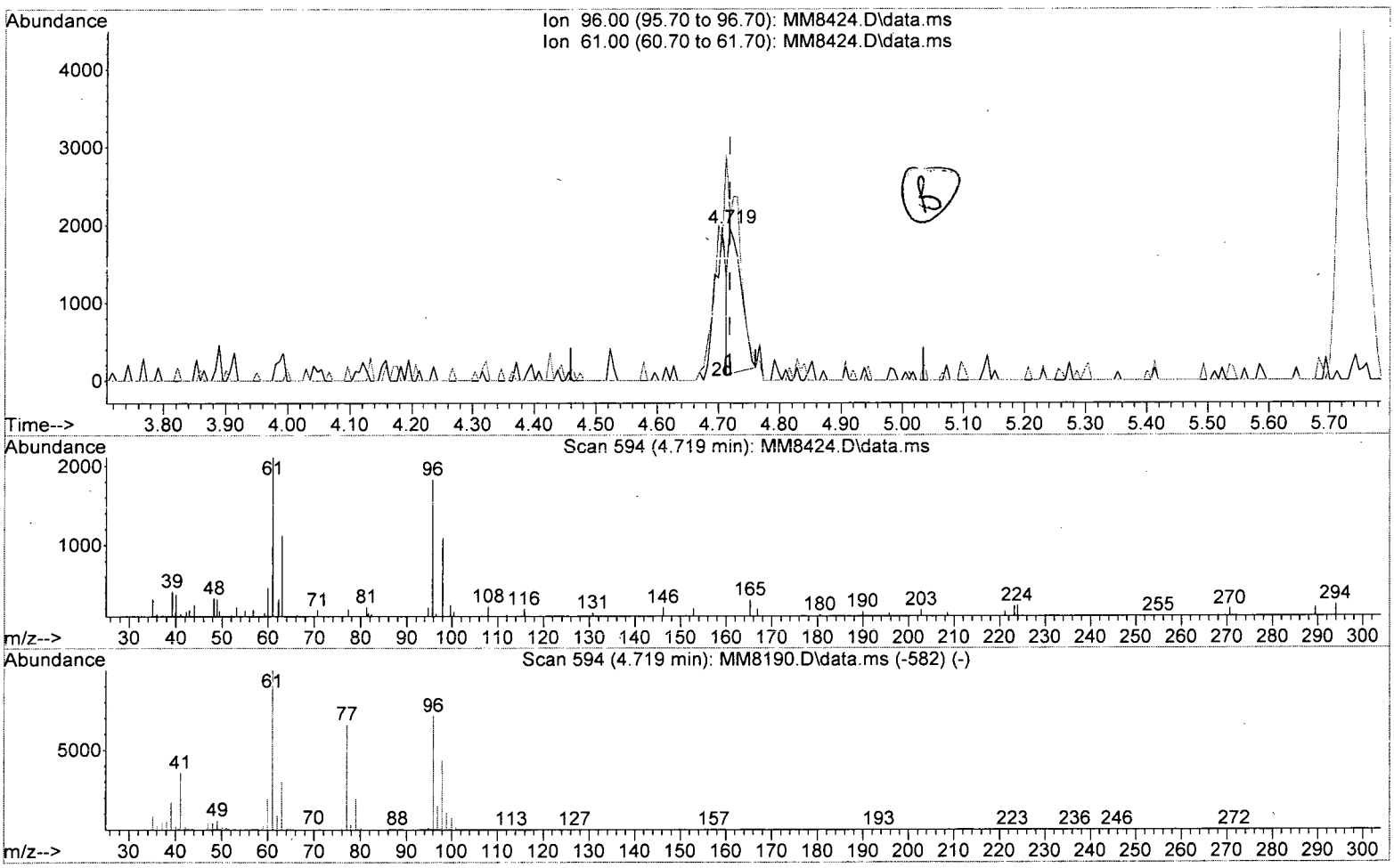
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	797526	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1295506	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1210211	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	594309	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	381726	56.67	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 113.34%				
48) surr1,1,2-dichloroetha...	6.096	65	411097	55.26	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 110.52%				
65) SURR3,Toluene-d8	8.529	98	1484818	52.38	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 104.76%				
70) SURR2,BFB	11.047	95	606691	56.70	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 113.40%				
Target Compounds							Qvalue
15) Acetone	2.493	43	1977	1.16	ppb		82
34) cis-1,2-Dichloroethene	4.706	96	5753m	0.72	ppb		
40) Chloroform	5.322	83	10122m	0.82	ppb		
49) Benzene	6.170	78	29232	1.03	ppb		86
72) Tetrachloroethene	9.187	164	2594	0.52	ppb	#	88
78) Chlorobenzene	10.016	112	73474	4.10	ppb		98
106) 1,4-Dclbenz	12.034	146	2956	0.23	ppb	#	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/3/15

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8424.D
Acq On : 1 Dec 2015 2:37 pm
Operator : K.Ruest
Sample : R1510161-012|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 01 14:53:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8424.D\data.ms

(34) cis-1,2-Dichloroethene (P)

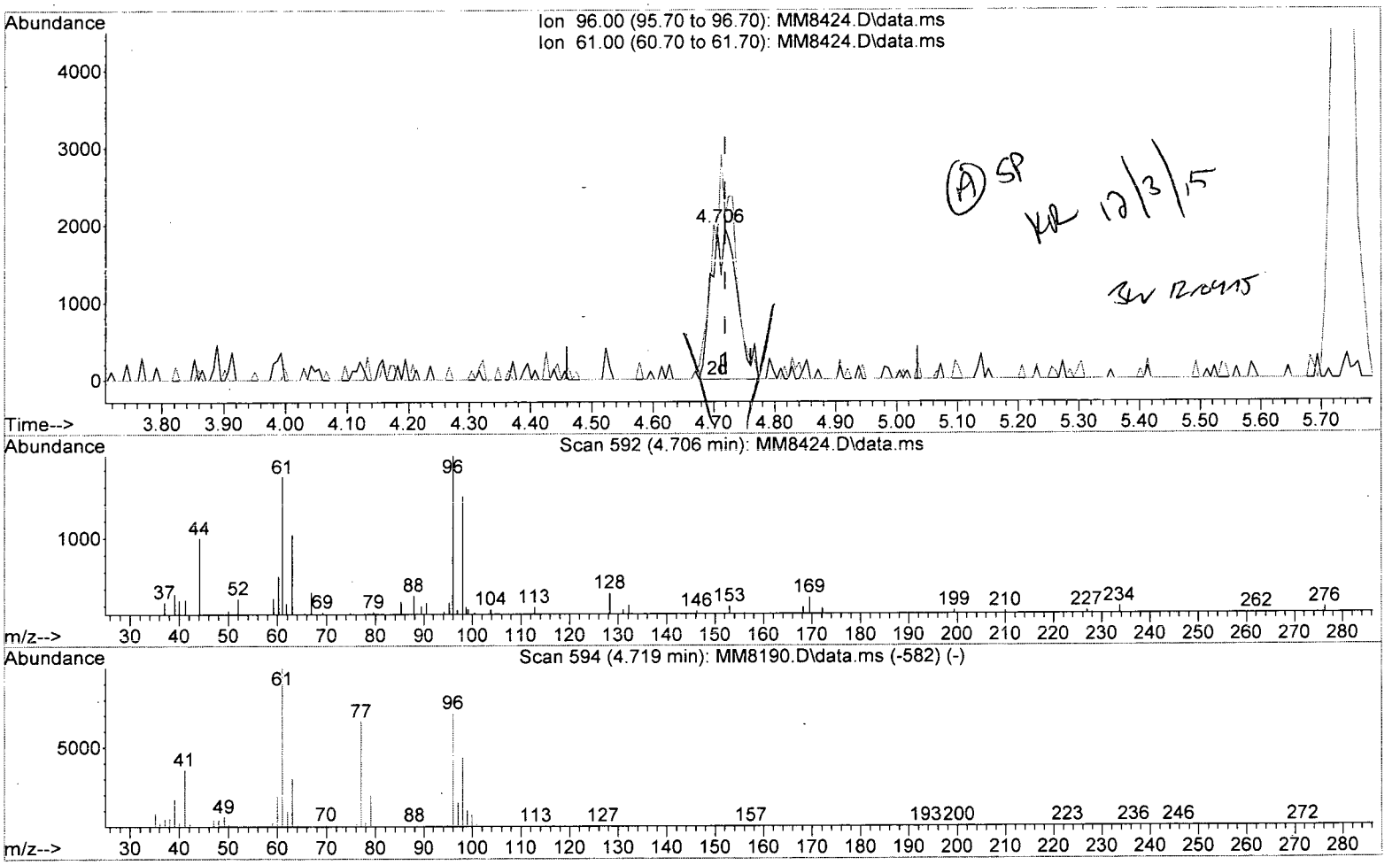
4.719min (-0.000) 0.34 ppb

response 2738

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	107.60#
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8424.D
Acq On : 1 Dec 2015 2:37 pm
Operator : K.Ruest
Sample : R1510161-012|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 01 14:53:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8424.D\data.ms

(34) cis-1,2-Dichloroethene (P)

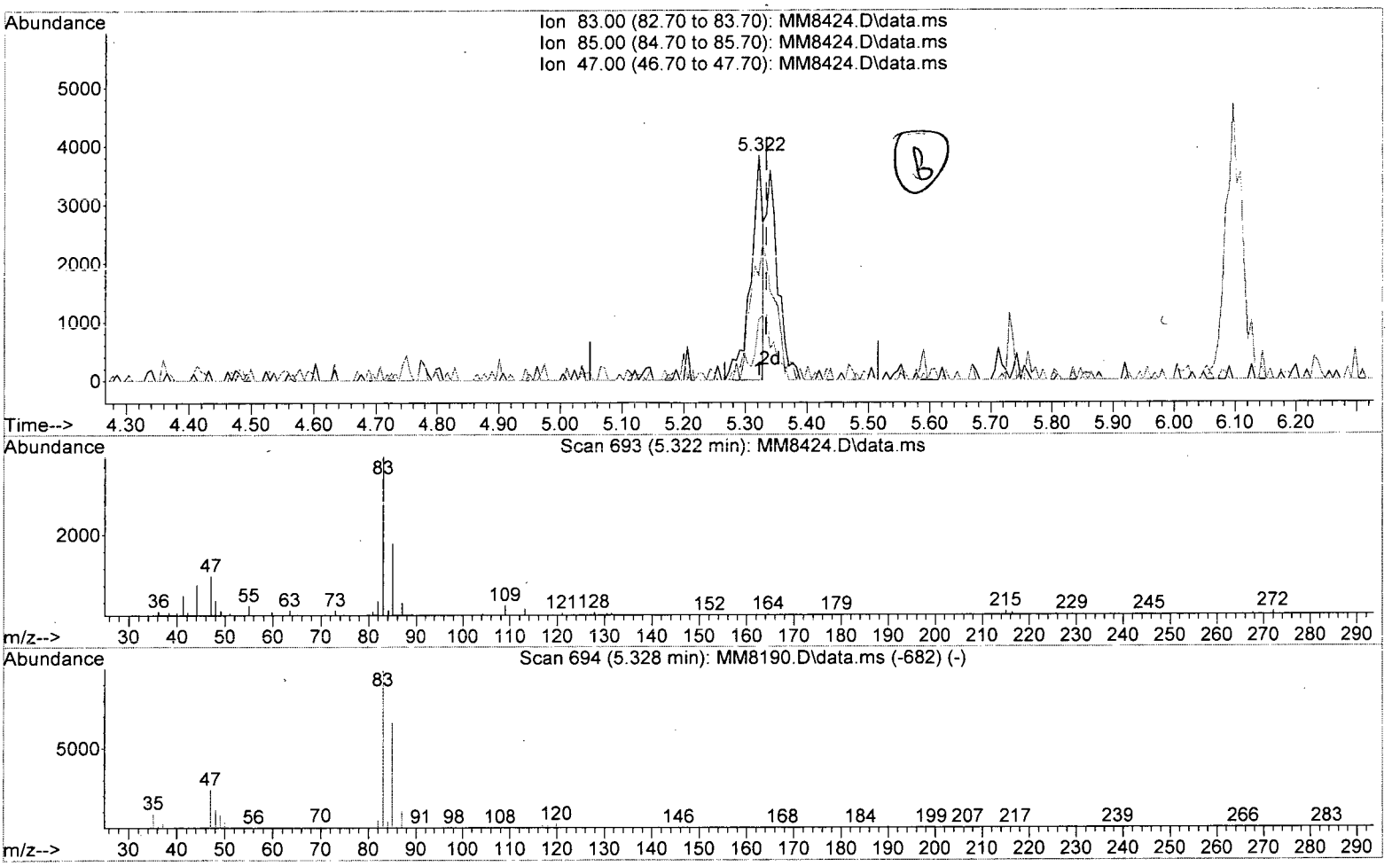
4.706min (-0.012) 0.72 ppb m

response 5753

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	87.84#
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8424.D
Acq On : 1 Dec 2015 2:37 pm
Operator : K.Ruest
Sample : R1510161-012|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 01 14:53:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8424.D\data.ms

(40) Chloroform (P)

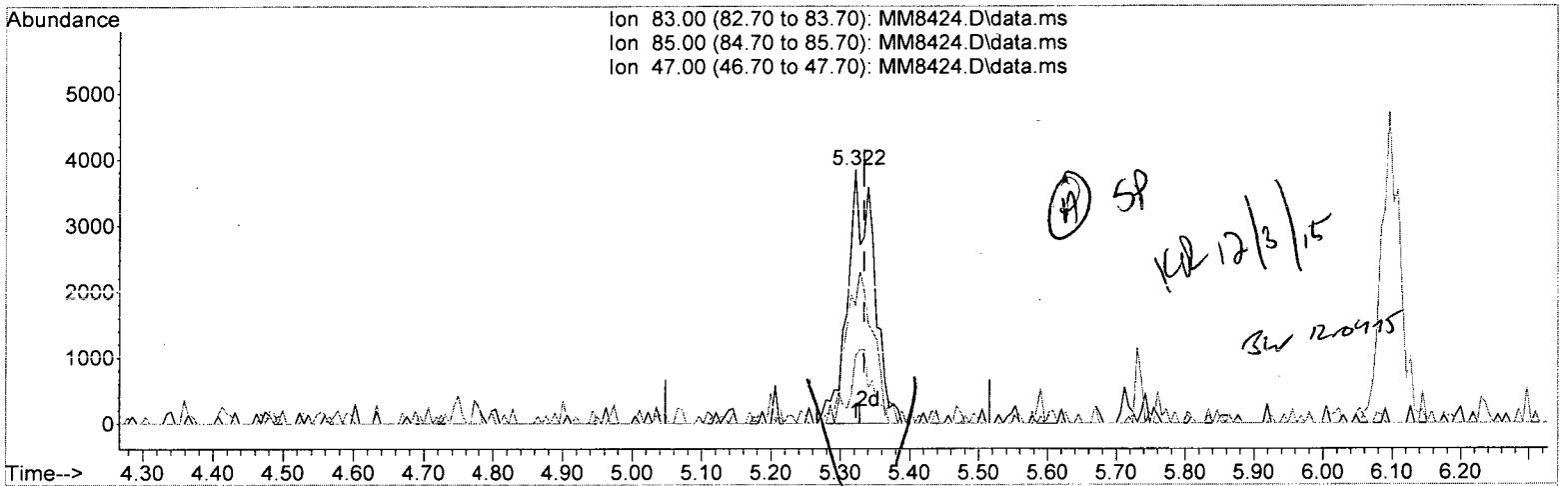
5.322min (-0.012) 0.42 ppb

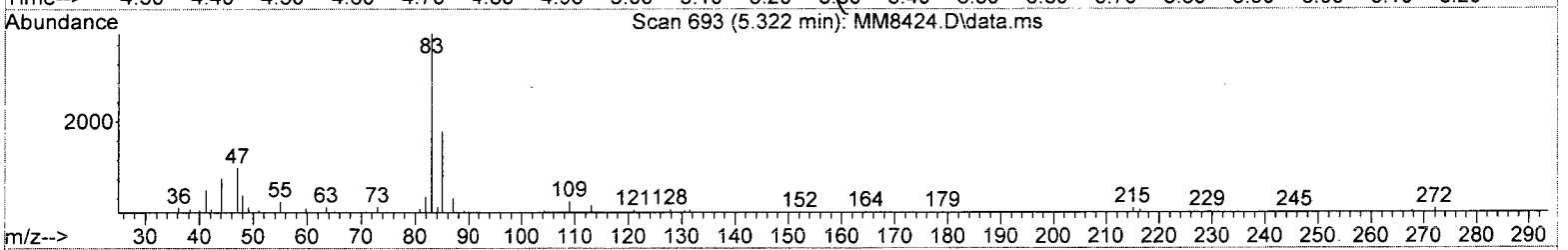
response 5189

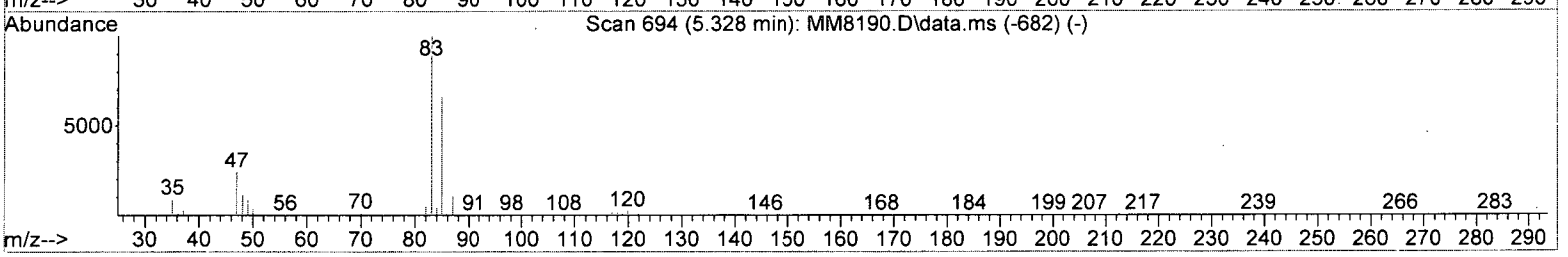
Ion	Exp%	Act%
83.00	100	100
85.00	66.10	46.64
47.00	23.90	26.81
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8424.D
Acq On : 1 Dec 2015 2:37 pm
Operator : K.Ruest
Sample : R1510161-012|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 01 14:53:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8424.D\data.ms

(40) Chloroform (P)

5.322min (-0.012) 0.82 ppb m

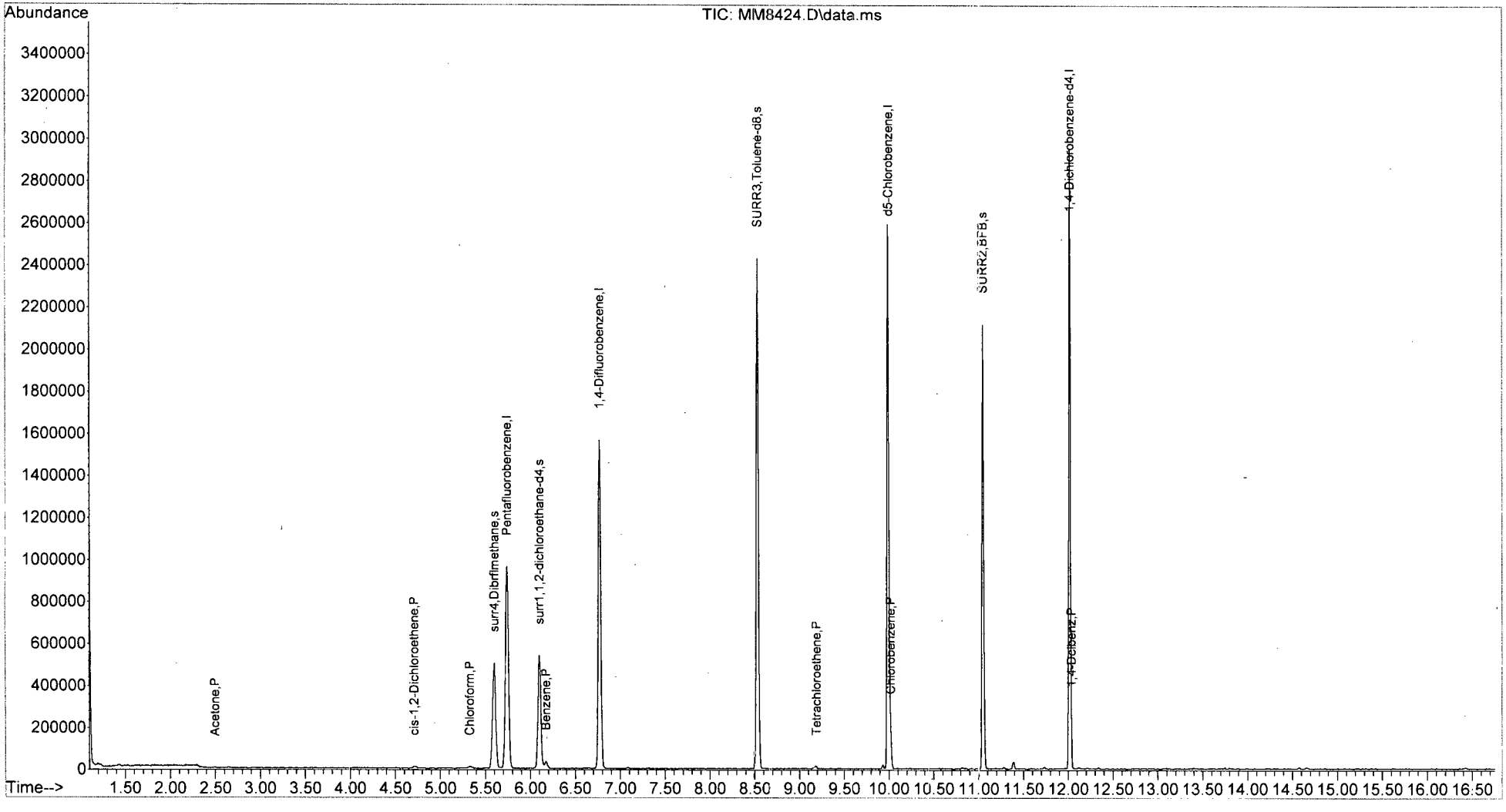
response 10122

Ion	Exp%	Act%
83.00	100	100
85.00	66.10	46.64
47.00	23.90	26.81
0.00	0.00	0.00

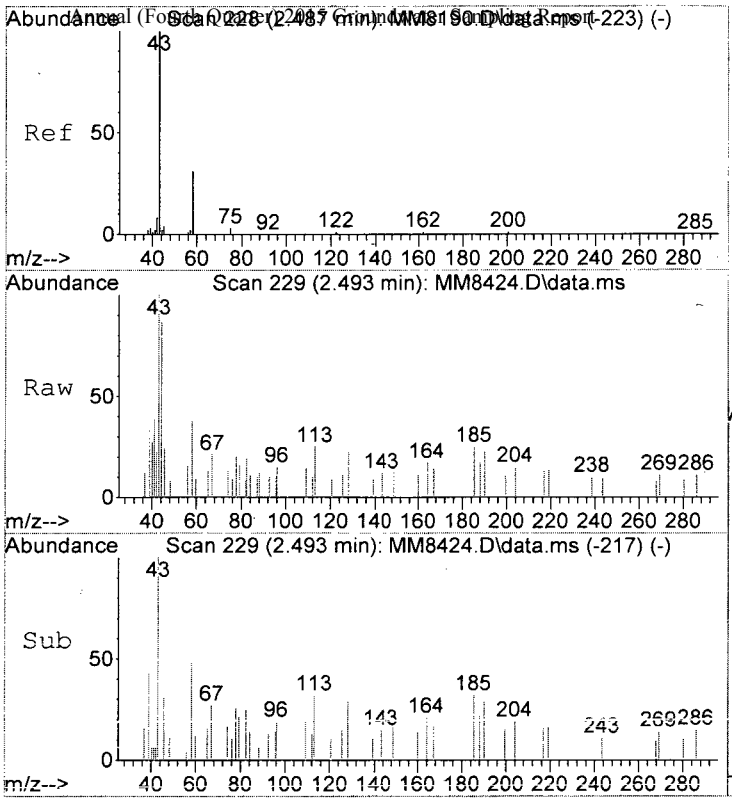
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8424.D
Acq On : 1 Dec 2015 2:37 pm
Operator : K.Ruest
Sample : R1510161-012|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 03 17:52:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



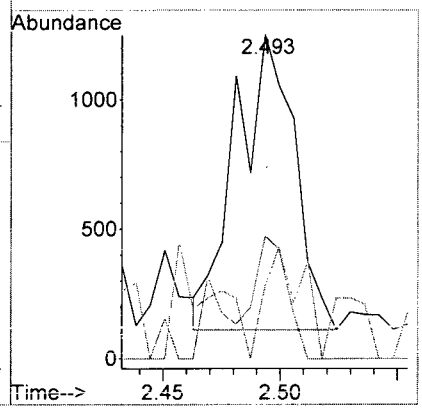
W111815A.M Thu Dec 03 17:53:26 2015 Page: 2

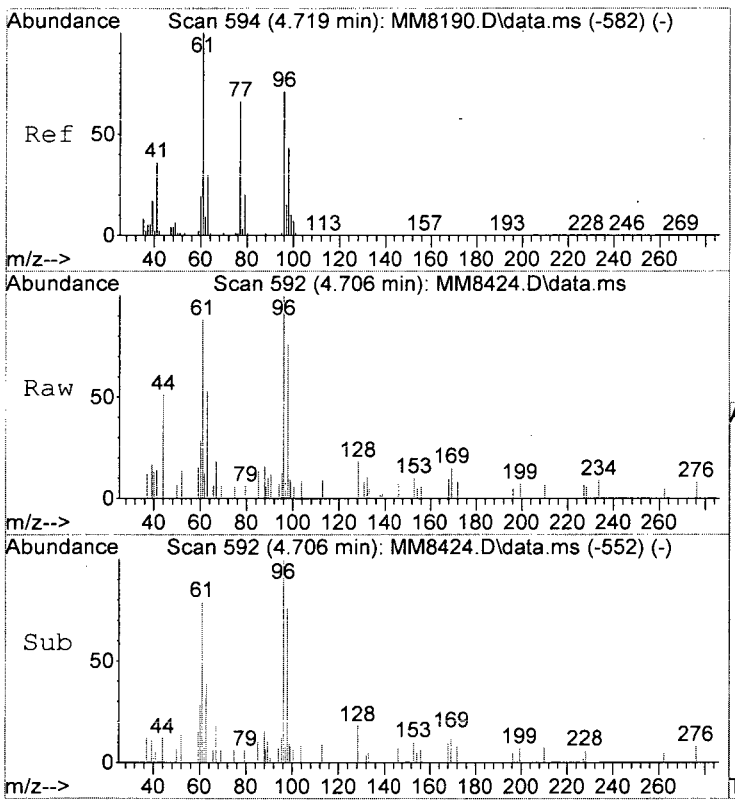


#15
Acetone
Concen: 1.16 ppb
RT: 2.493 min Scan# 229
Delta R.T. -0.000 min
Lab File: MM8424.D
Acq: 1 Dec 2015 2:37 pm

Tgt Ion: 43 Resp: 1977

Ion	Ratio	Lower	Upper
43	100		
58	37.7	10.9	50.9
42	22.1	0.0	28.5

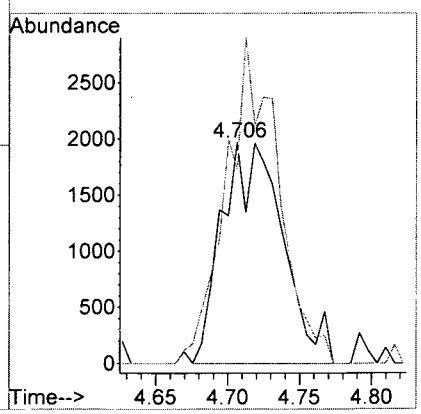


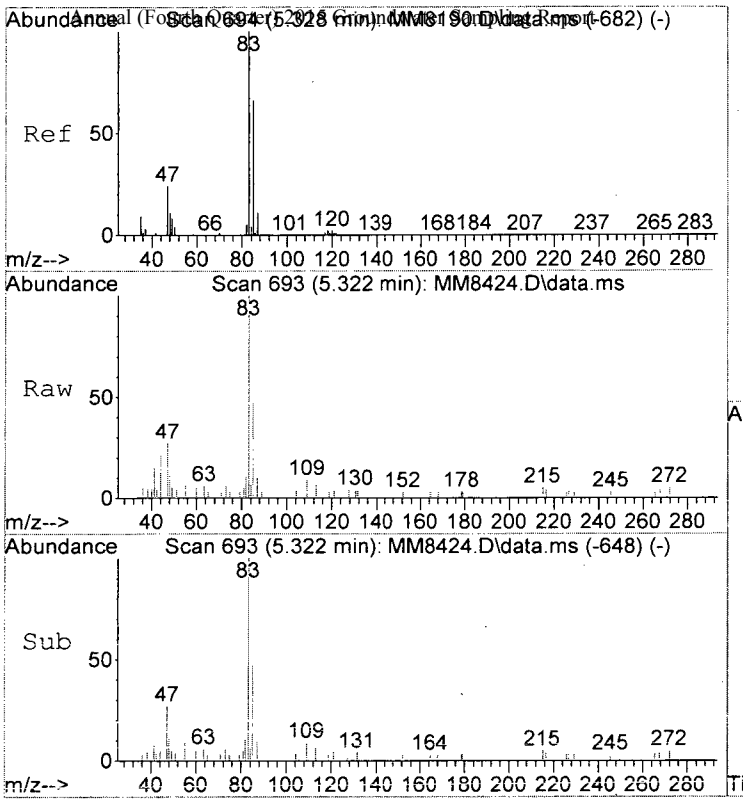


#34
cis-1,2-Dichloroethene
Concen: 0.72 ppb m
RT: 4.706 min Scan# 592
Delta R.T. -0.012 min
Lab File: MM8424.D
Acq: 1 Dec 2015 2:37 pm

Tgt Ion: 96 Resp: 5753

Ion	Ratio	Lower	Upper
96	100		
61	87.8	120.7	160.7#

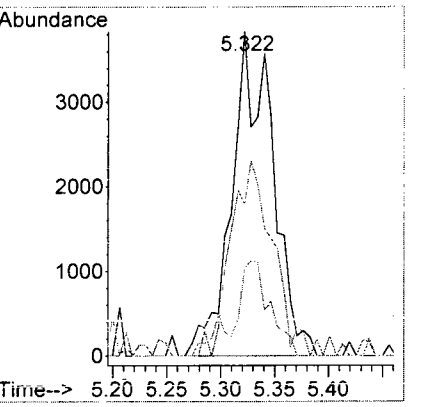


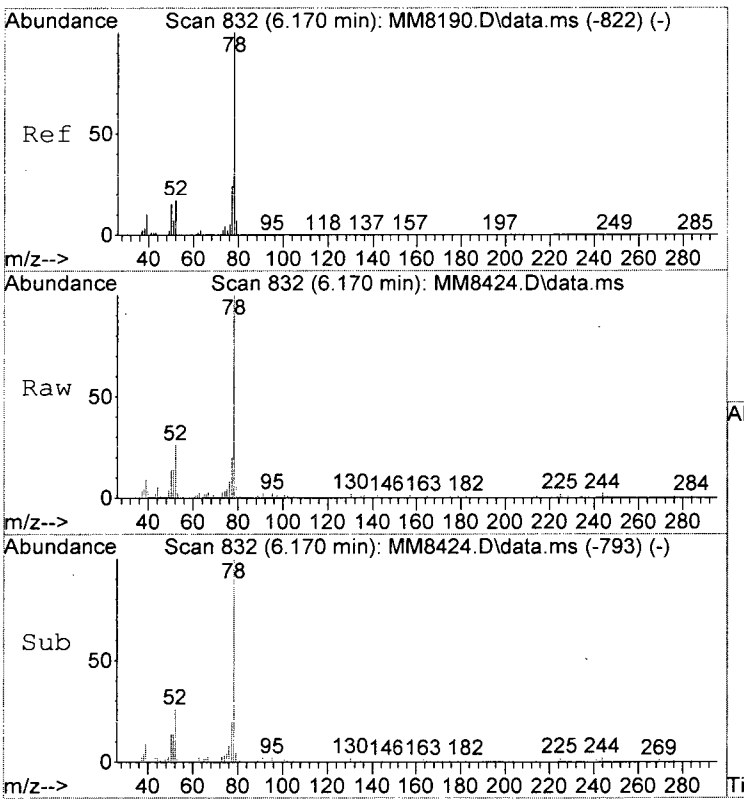


#40
Chloroform
Concen: 0.82 ppb m
RT: 5.322 min Scan# 693
Delta R.T. -0.012 min
Lab File: MM8424.D
Acq: 1 Dec 2015 2:37 pm

Tgt Ion: 83 Resp: 10122

Ion	Ratio	Lower	Upper
83	100		
85	46.6	46.1	86.1
47	26.8	3.9	43.9

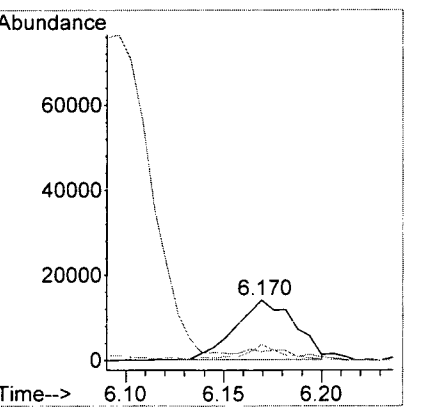


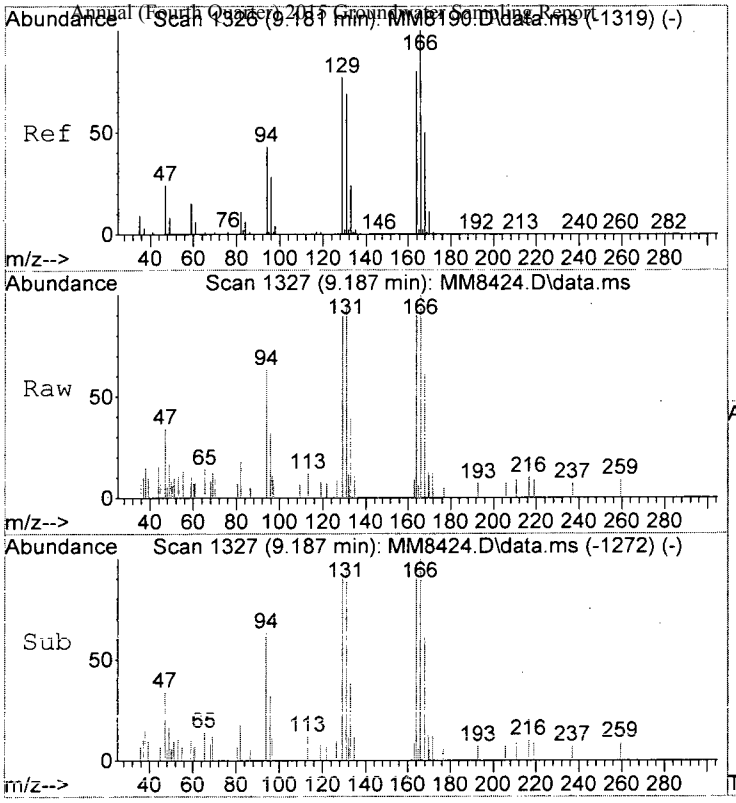


#49
Benzene
Concen: 1.03 ppb
RT: 6.170 min Scan# 832
Delta R.T. -0.006 min
Lab File: MM8424.D
Acq: 1 Dec 2015 2:37 pm

Tgt Ion: 78 Resp: 29232

Ion	Ratio	Lower	Upper
78	100		
51	14.1	0.0	36.1
52	26.3	0.0	36.8

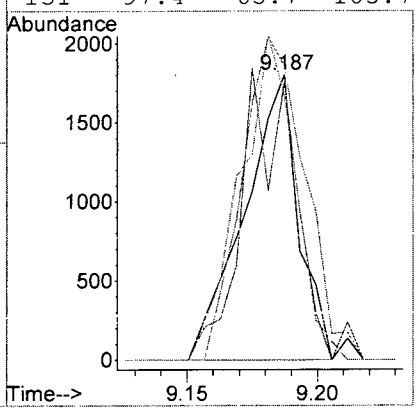


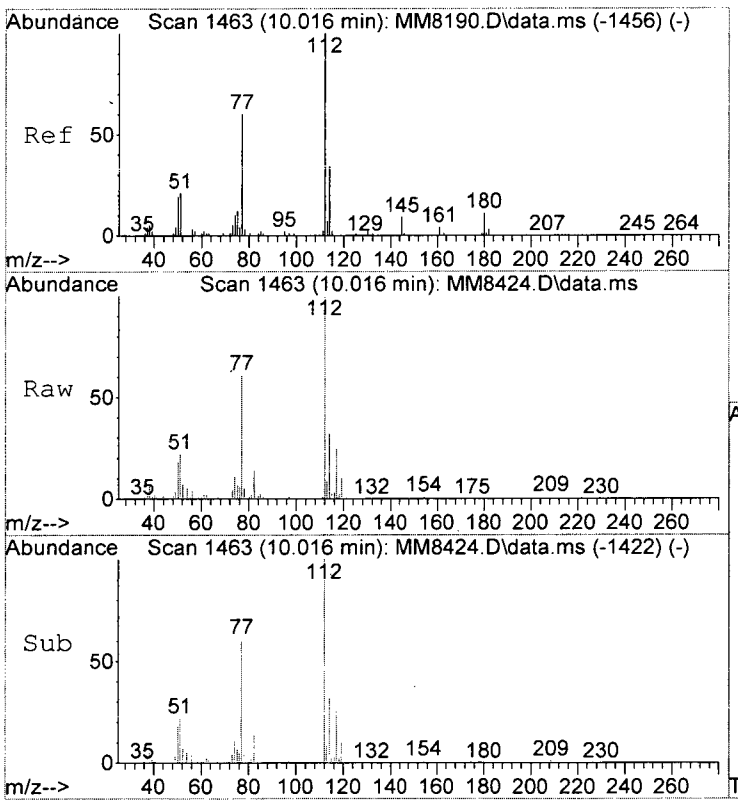


#72
Tetrachloroethene
Concen: 0.52 ppb
RT: 9.187 min Scan# 1327
Delta R.T. 0.006 min
Lab File: MM8424.D
Acq: 1 Dec 2015 2:37 pm

Tgt Ion:164 Resp: 2594

Ion	Ratio	Lower	Upper
164	100		
166	103.2	104.3	144.3#
129	93.1	75.4	115.4
131	97.4	65.7	105.7

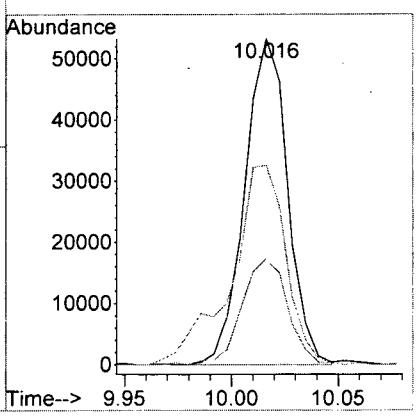


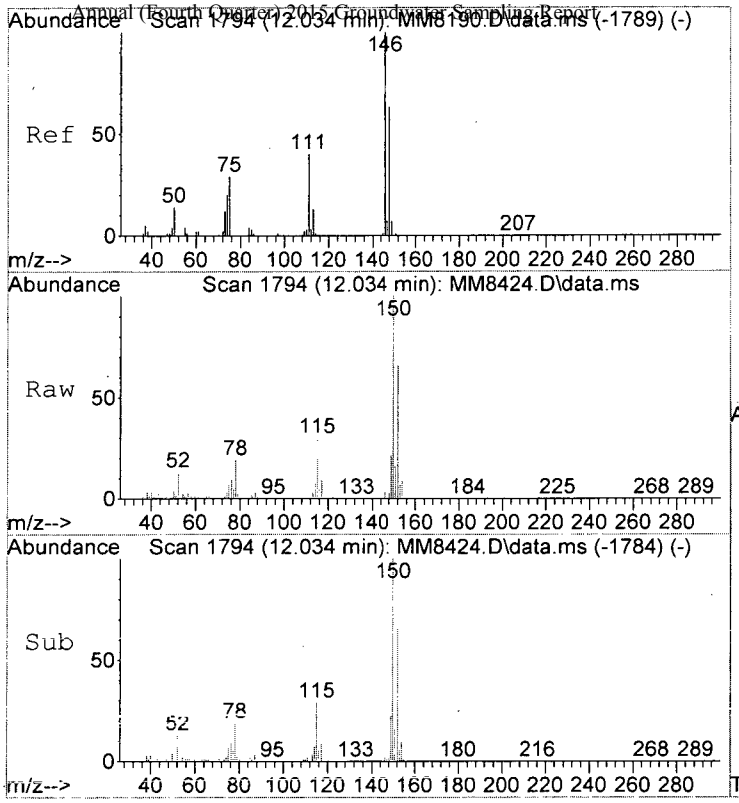


#78
Chlorobenzene
Concen: 4.10 ppb
RT: 10.016 min Scan# 1463
Delta R.T. -0.000 min
Lab File: MM8424.D
Acq: 1 Dec 2015 2:37 pm

Tgt Ion:112 Resp: 73474

Ion	Ratio	Lower	Upper
112	100		
114	32.4	13.7	53.7
77	61.1	40.2	80.2

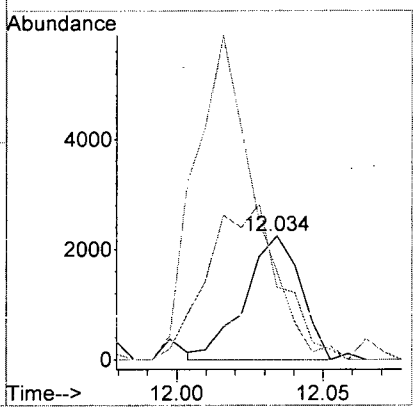




#106
1,4-Dclbenz
Concen: 0.23 ppb
RT: 12.034 min Scan# 1794
Delta R.T. -0.006 min
Lab File: MM8424.D
Acq: 1 Dec 2015 2:37 pm

Tgt Ion:146 Resp: 2956

Ion	Ratio	Lower	Upper
146	100		
148	58.4	43.5	83.5
111	71.2	20.3	60.3#



MM8424.D W111815A.M Thu Dec 03 17:53:31 2015 Page 6

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8424.D
Acq On : 1 Dec 2015 2:37 pm
Operator : K.Ruest
Sample : R1510161-012|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 11 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8424.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.596	727	738	749	rBV	501214	1221014	31.21%	5.546%
2	5.737	751	761	773	rVB2	960296	2277535	58.22%	10.345%
3	6.096	810	820	829	rBV	538594	1205190	30.81%	5.474%
4	6.170	829	832	841	rVB3	34451	67825	1.73%	0.308%
5	6.767	921	930	943	rBV	1565357	3017074	77.12%	13.704%
6	8.529	1212	1219	1228	rBV	2426450	3855198	98.55%	17.511%
7	9.986	1453	1458	1469	rVB	2592457	3912069	100.00%	17.769%
8	11.047	1626	1632	1640	rBV	2118154	2736723	69.96%	12.431%
9	11.388	1678	1688	1693	rBV2	35739	57299	1.46%	0.260%
10	12.016	1785	1791	1798	rVB	2946813	3665994	93.71%	16.652%

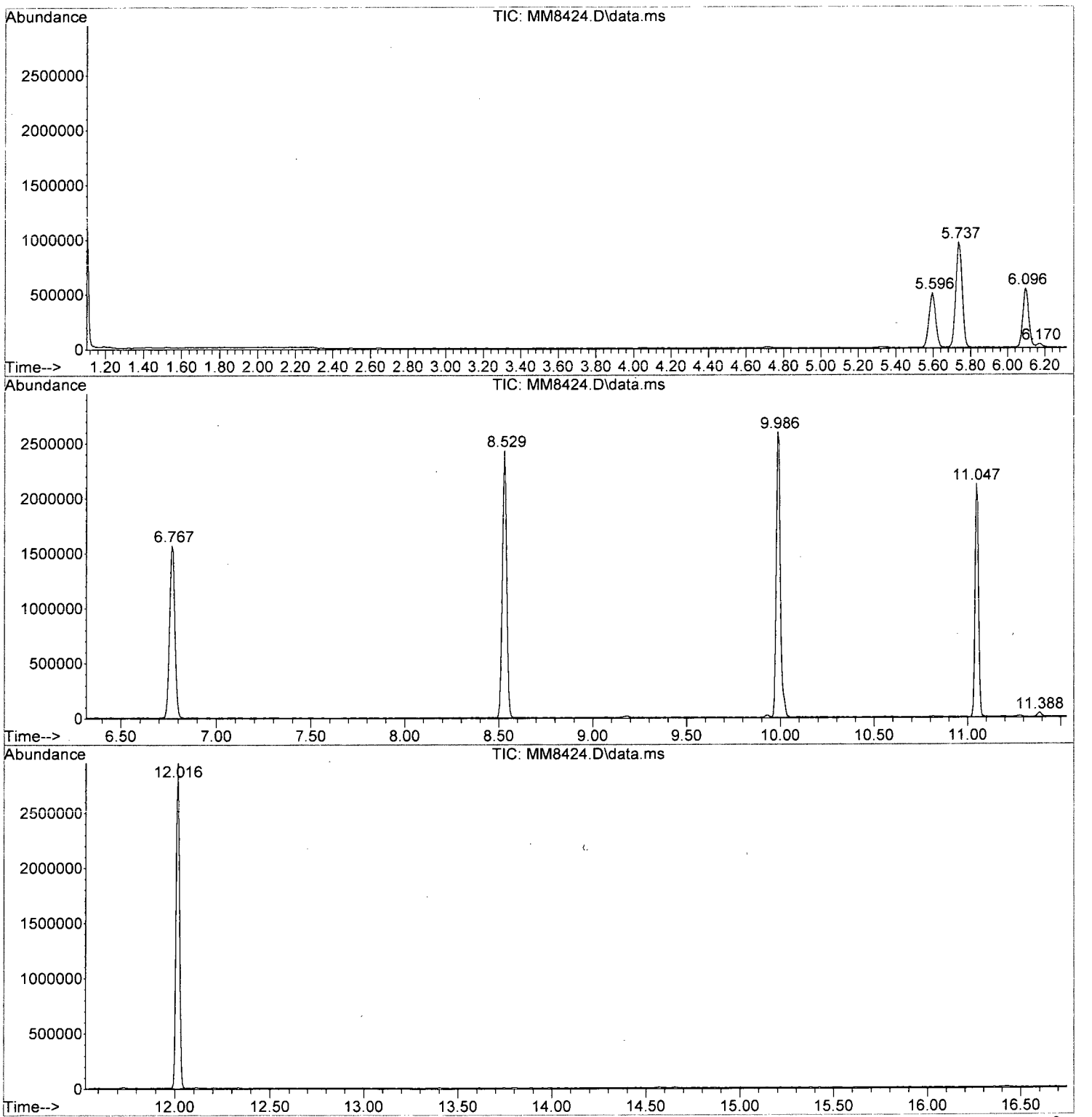
Sum of corrected areas: 22015921

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8424.D
Acq On : 1 Dec 2015 2:37 pm
Operator : K.Ruest
Sample : R1510161-012|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 11 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\120115\\
Data File : MM8424.D
Acq On : 1 Dec 2015 2:37 pmm
Operator : K.Ruestt
Sample : R1510161-012|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 11 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: 11/20/15 1215
Date Received: 11/21/15

Sample Name: FTMM-M8-GW-MW12-13.5
Lab Code: R1510161-015

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 15:08		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 15:08		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 15:08		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 15:08		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 15:08		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 15:08		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 15:08		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 15:08		474290	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/1/15 15:08		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 15:08		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 15:08		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 15:08		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 15:08		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 15:08		474290	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 15:08		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 15:08		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 15:08		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 15:08		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 15:08		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 15:08		474290	
Acetone	**1.4**	J	5.0	5.0	1.3	1	NA	12/1/15 15:08		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 15:08		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 15:08		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 15:08		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 15:08		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 15:08		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 15:08		474290	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 15:08		474290	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1215
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-M8-GW-MW12-13.5	**Units:**	µg/L
Lab Code:	R1510161-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 15:08		474290	
Chloroform	**0.35**	J	5.0	1.0	0.25	1	NA	12/1/15 15:08		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 15:08		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 15:08		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 15:08		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 15:08		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 15:08		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 15:08		474290	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
Tetrachloroethene (PCE)	**1.3**	J	5.0	1.0	0.30	1	NA	12/1/15 15:08		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 15:08		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 15:08		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 15:08		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 15:08		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 15:08		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 15:08		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 15:08		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 15:08		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 15:08		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	12/1/15 15:08	
Dibromofluoromethane	109	85-115	12/1/15 15:08	
Toluene-d8	109	85-120	12/1/15 15:08	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Analyzed:	12/1/15 1508

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-M8-GW-MW12-13.5	**Units:**	µg/L
Lab Code:	R1510161-015	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8425.D
Acq On : 1 Dec 2015 3:08 pm
Operator : K.Ruest
Sample : R1510161-015|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 03 17:55:42 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

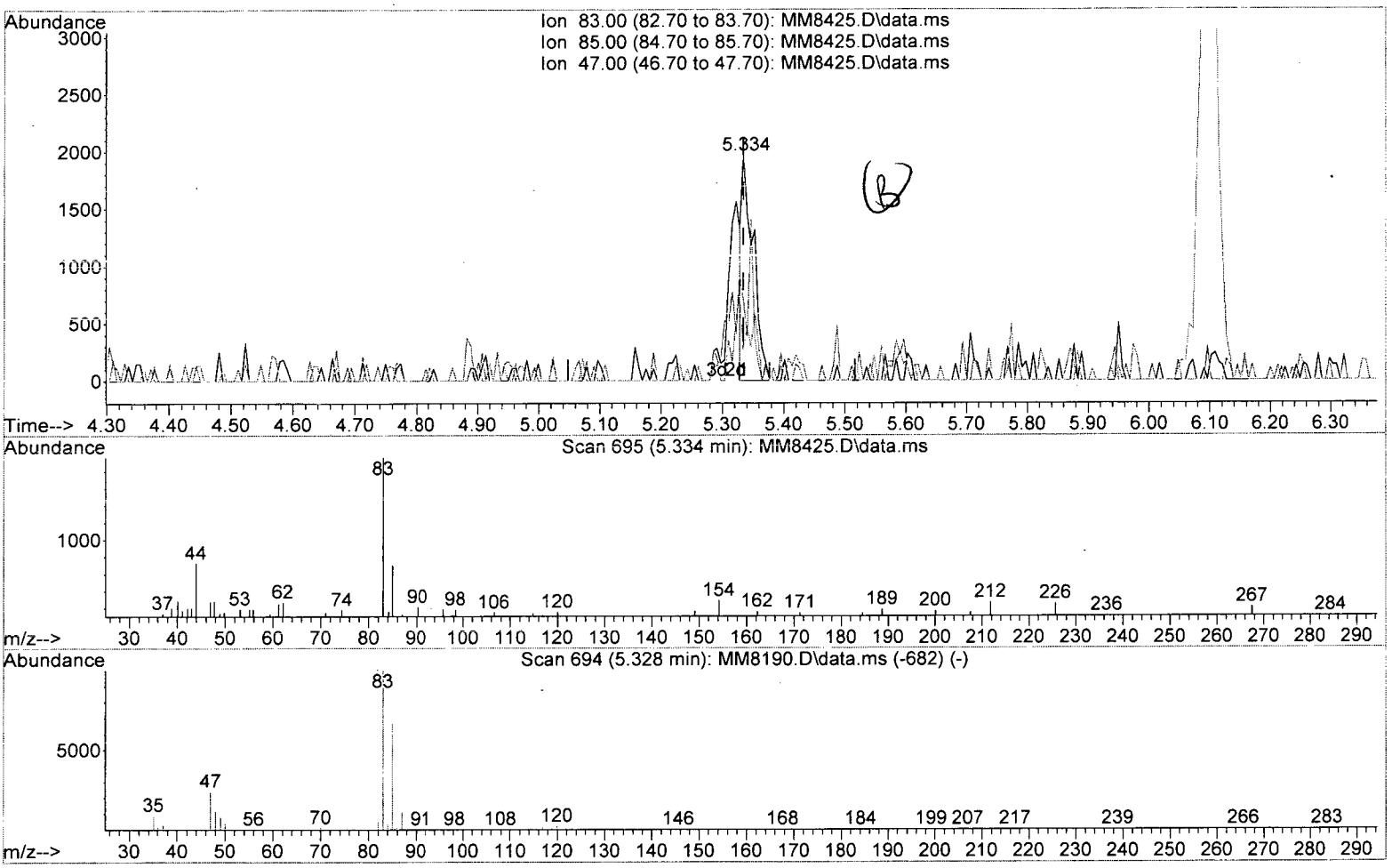
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	806115	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1326216	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1229080	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	586856	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	375980	54.53	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.06%				
48) surr1,1,2-dichloroetha...	6.096	65	405224	53.21	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.42%				
65) SURR3,Toluene-d8	8.529	98	1587820	54.72	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 109.44%				
70) SURR2,BFB	11.047	95	612168	55.89	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.78%				
Target Compounds							Qvalue
15) Acetone	2.481	43	2410	1.40	ppb		74
40) Chloroform	5.334	83	4451m	0.35	ppb		
72) Tetrachloroethene	9.181	164	6664	1.31	ppb	#	85

KP 12/3/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8425.D
Acq On : 1 Dec 2015 3:08 pm
Operator : K.Ruest
Sample : R1510161-015|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 01 15:24:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8425.D\data.ms

(40) Chloroform (P)

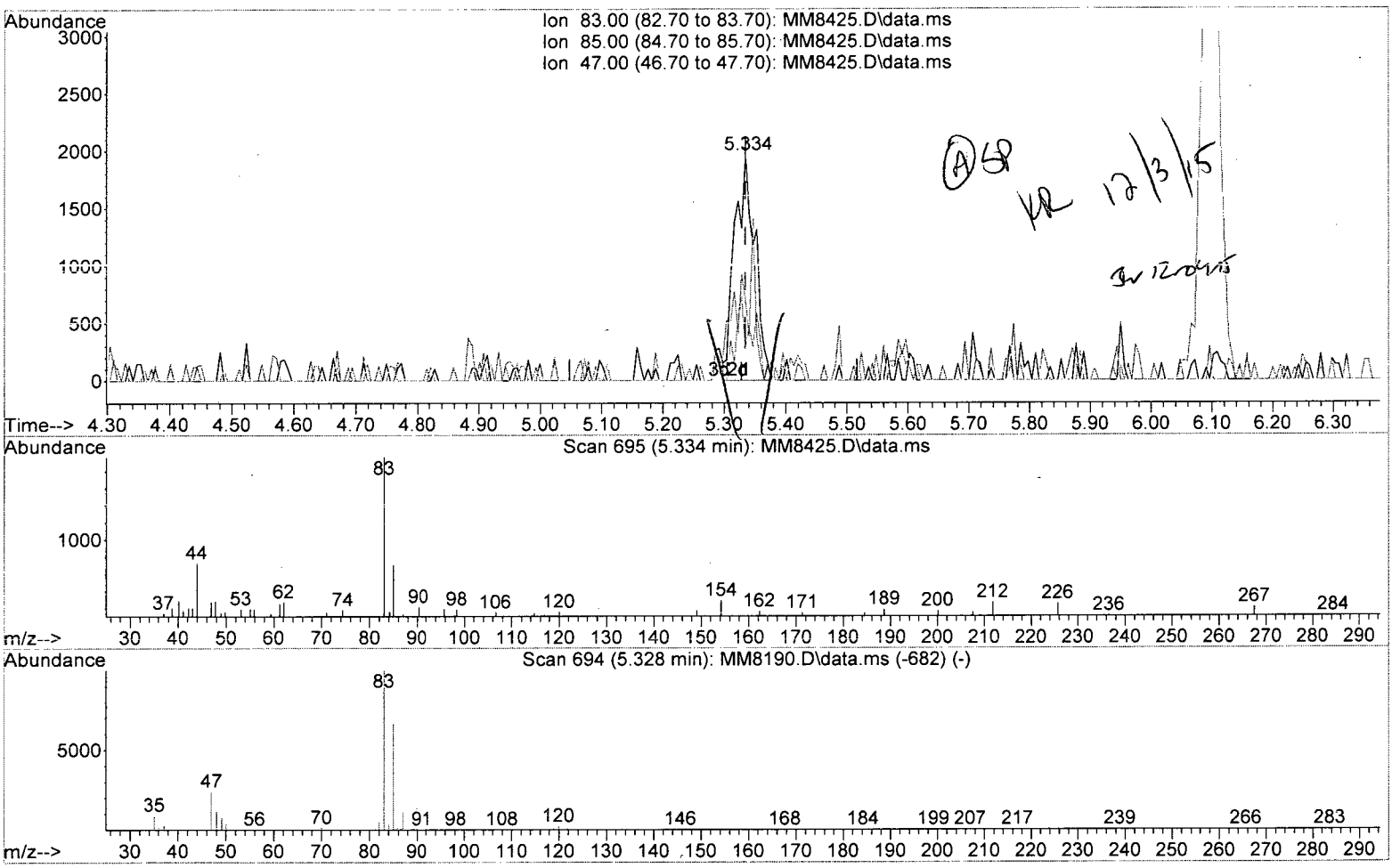
5.334min (-0.000) 0.20 ppb

response 2511

Ion	Exp%	Act%
83.00	100	100
85.00	66.10	35.74#
47.00	23.90	13.70
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8425.D
Acq On : 1 Dec 2015 3:08 pm
Operator : K.Ruest
Sample : R1510161-015|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 01 15:24:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8425.D\data.ms

(40) Chloroform (P)

5.334min (-0.000) 0.35 ppb m

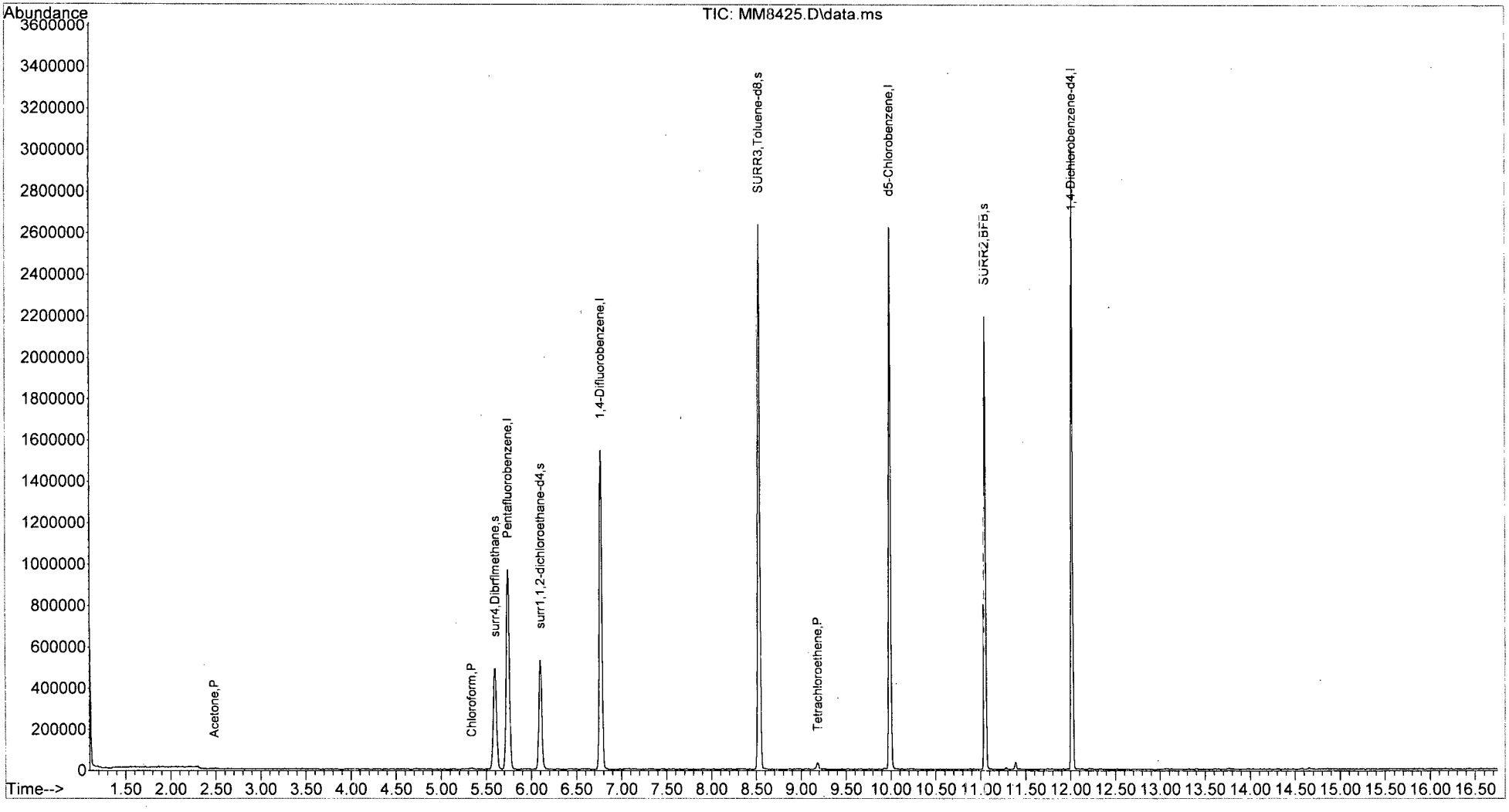
response 4451

Ion	Exp%	Act%
83.00	100	100
85.00	66.10	35.74#
47.00	23.90	13.70
0.00	0.00	0.00

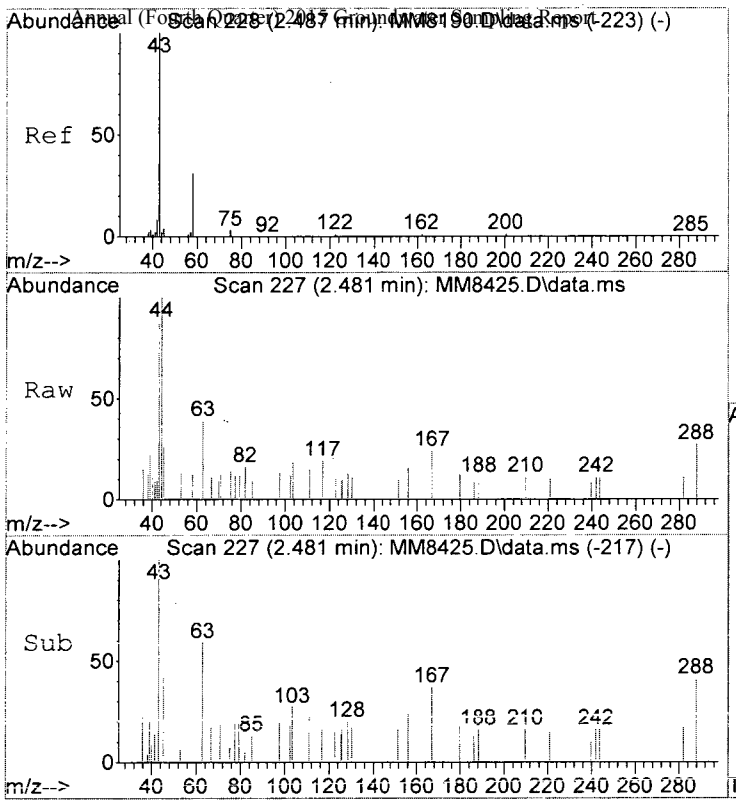
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8425.D
Acq On : 1 Dec 2015 3:08 pm
Operator : K.Ruest
Sample : R1510161-015|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 03 17:55:42 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



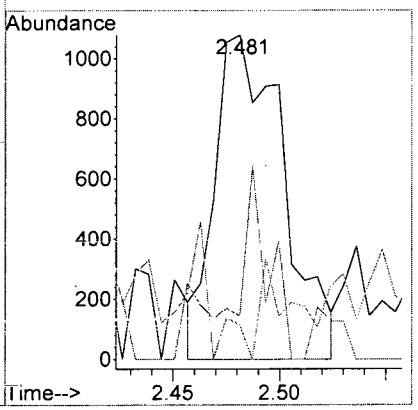
W111815A.M Thu Dec 03 17:56:59 2015 Page: 2

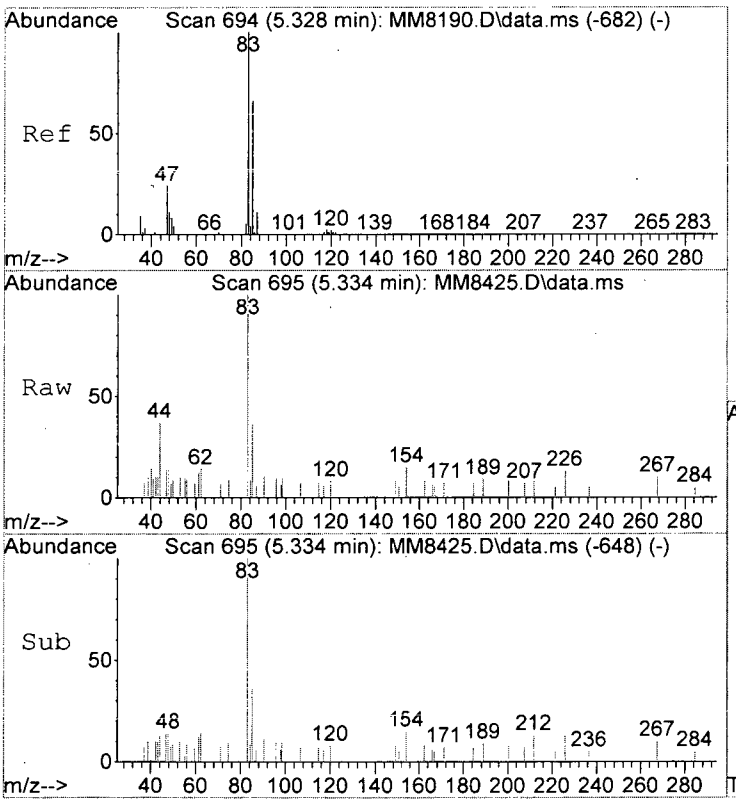


#15
Acetone
Concen: 1.40 ppb
RT: 2.481 min Scan# 227
Delta R.T. -0.012 min
Lab File: MM8425.D
Acq: 1 Dec 2015 3:08 pm

Tgt Ion: 43 Resp: 2410

Ion	Ratio	Lower	Upper
43	100		
58	13.4	10.9	50.9
42	10.6	0.0	28.5

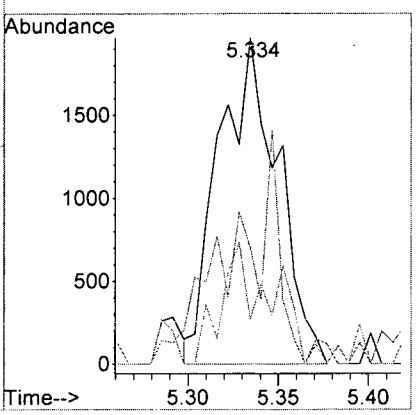


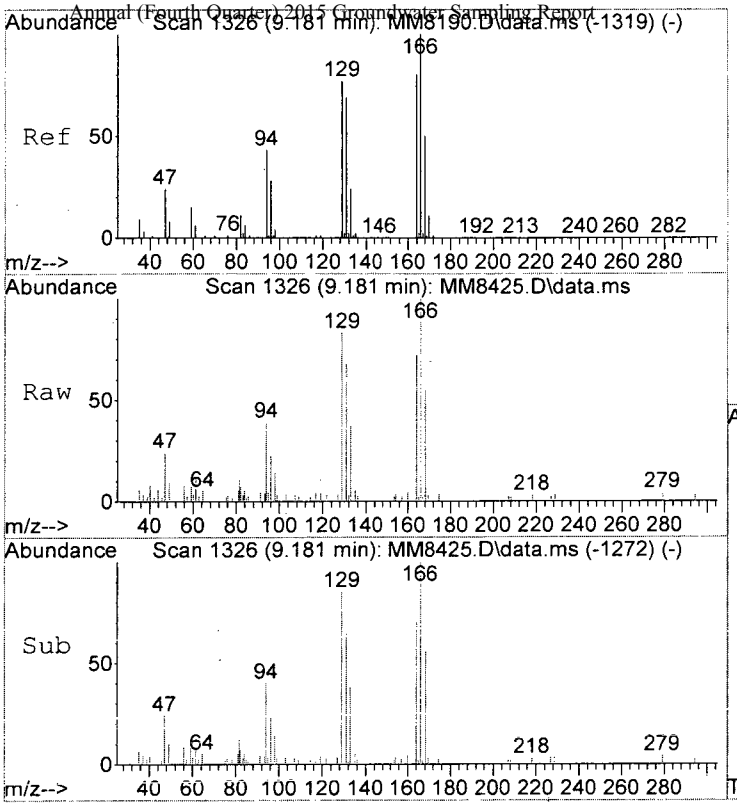


#40
Chloroform
Concen: 0.35 ppb m
RT: 5.334 min Scan# 695
Delta R.T. -0.000 min
Lab File: MM8425.D
Acq: 1 Dec 2015 3:08 pm

Tgt Ion: 83 Resp: 4451

Ion	Ratio	Lower	Upper
83	100		
85	35.7	46.1	86.1#
47	13.7	3.9	43.9

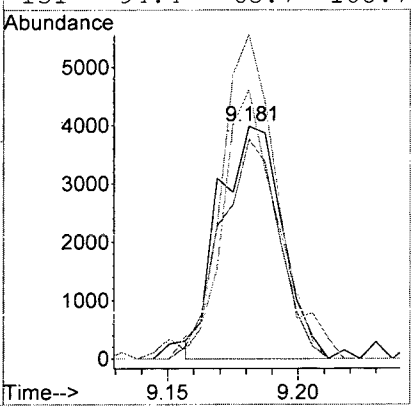




#72
Tetrachloroethene
Concen: 1.31 ppb
RT: 9.181 min Scan# 1326
Delta R.T. -0.000 min
Lab File: MM8425.D
Acq: 1 Dec 2015 3:08 pm

Tgt Ion:164 Resp: 6664

Ion	Ratio	Lower	Upper
164	100		
166	139.6	104.3	144.3
129	115.8	75.4	115.4#
131	94.4	65.7	105.7



MM8425.D W111815A.M Thu Dec 03 17:57:03 2015 Page 4

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8425.D
Acq On : 1 Dec 2015 3:08 pm
Operator : K.Ruest
Sample : R1510161-015|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8425.D\data.ms

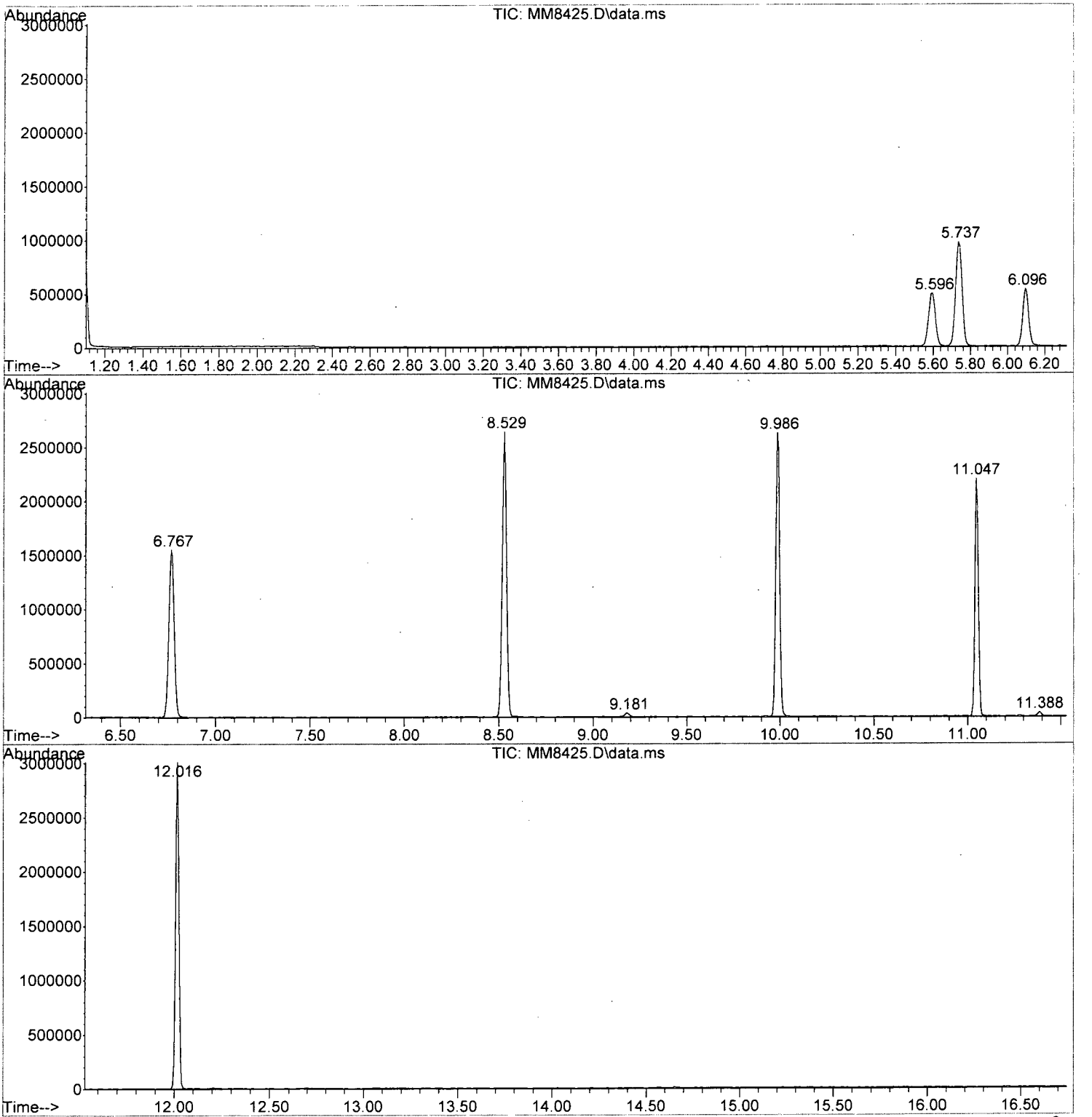
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.596	728	738	751	rBV	490571	1222514	29.42%	5.514%
2	5.737	751	761	776	rVB	969129	2313298	55.68%	10.434%
3	6.096	811	820	831	rBV	531348	1184321	28.50%	5.342%
4	6.767	922	930	945	rVB	1546430	3049229	73.39%	13.754%
5	8.529	1211	1219	1227	rBV	2636281	4155003	100.00%	18.741%
6	9.181	1319	1326	1331	rVB4	33548	56410	1.36%	0.254%
7	9.986	1452	1458	1466	rBV	2621036	3691708	88.85%	16.652%
8	11.047	1627	1632	1642	rVB	2195779	2782055	66.96%	12.549%
9	11.388	1683	1688	1691	rBV2	34934	44289	1.07%	0.200%
10	12.016	1785	1791	1800	rBV	3005396	3671400	88.36%	16.560%

Sum of corrected areas: 22170227

```
Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8425.D
Acq On    :  1 Dec 2015   3:08 pm
Operator  : K.Ruest
Sample    : R1510161-015|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 12   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\120115\\
Data File : MM8425.D
Acq On : 1 Dec 2015 3:08 pmm
Operator : K.Ruestt
Sample : R1510161-015|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 12 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

						--Internal Standard---		
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1700
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	EB-2015-11-20	**Units:**	µg/L
Lab Code:	R1510161-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 14:06		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 14:06		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 14:06		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 14:06		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 14:06		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 14:06		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 14:06		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 14:06		474104	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	11/30/15 14:06		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 14:06		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 14:06		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 14:06		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 14:06		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 14:06		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 14:06		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 14:06		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 14:06		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 14:06		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 14:06		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 14:06		474104	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/30/15 14:06		474104	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 14:06		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 14:06		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 14:06		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 14:06		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 14:06		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 14:06		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 14:06		474104	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1700
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	EB-2015-11-20	**Units:**	µg/L
Lab Code:	R1510161-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 14:06		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 14:06		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 14:06		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 14:06		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 14:06		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 14:06		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	11/30/15 14:06		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 14:06		474104	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/30/15 14:06		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 14:06		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 14:06		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 14:06		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 14:06		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 14:06		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 14:06		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 14:06		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 14:06		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 14:06		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/30/15 14:06	
Dibromofluoromethane	107	85-115	11/30/15 14:06	
Toluene-d8	109	85-120	11/30/15 14:06	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Analyzed:	11/30/15 1406

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-20	**Units:**	µg/L
Lab Code:	R1510161-017	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8397.D
Acq On : 30 Nov 2015 2:06 pm
Operator : K.Ruest
Sample : R1510161-017|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 30 14:21:52 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	834386	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1381168	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1253666	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	609910	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	385343	53.66	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 107.32%				
48) surr1,1,2-dichloroetha...	6.096	65	419993	52.95	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 105.90%				
65) SURR3,Toluene-d8	8.529	98	1651758	54.66	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 109.32%				
70) SURR2,BFB	11.047	95	634272	55.60	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.20%				
Target Compounds							Qvalue
12) Acrolein	2.310	56	236	0.33	ppb		87
15) Acetone	2.487	43	778	0.44	ppb		73
19) Acetonitrile	2.774	40	559	2.27	ppb	#	30
24) Acrylonitrile	3.188	53	768	0.38	ppb	#	9
39) Tetrahydrofuran	5.243	42	588	0.38	ppb	#	33
53) 1-Butanol	7.188	56	317	1.98	ppb		74
61) 2-Nitropropane	7.937	41	295	0.22	ppb	#	41
90) Cyclohexanone	10.992	55	559	1.22	ppb		77
112) Trielution Dichlorotol...	13.077	125	2416	0.22	ppb	#	56 NTD
116) Hexachlorobt	13.741	225	663	0.21	ppb	#	69
119) 2,4,5-Trichlorotolene	14.570	159	1671	0.34	ppb	#	77 NTD
120) 2,3,6-Trichlorotoluene	14.656	159	1768	0.41	ppb	#	70

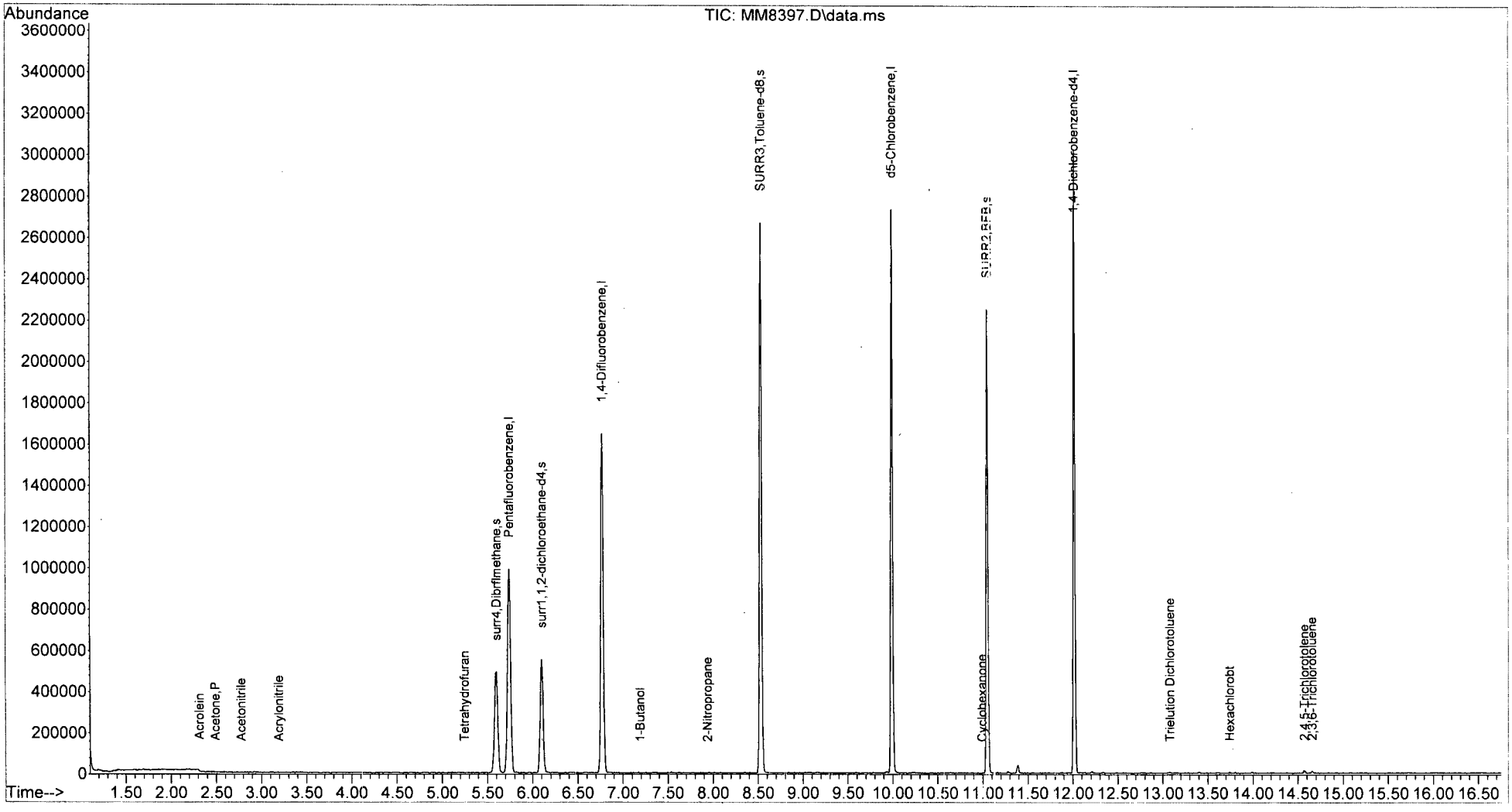
12/3/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8397.D
Acq On : 30 Nov 2015 2:06 pm
Operator : K.Ruest
Sample : R1510161-017|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 30 14:21:52 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Mon Nov 30 14:22:00 2015 Page: 2

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8397.D
Acq On : 30 Nov 2015 2:06 pm
Operator : K.Ruest
Sample : R1510161-017|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 11 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8397.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.596	725	738	748	rBV	491930	1244030	29.08%	5.463%
2	5.737	748	761	773	rVV	990159	2375806	55.54%	10.433%
3	6.096	812	820	832	rBV	550482	1232460	28.81%	5.412%
4	6.767	921	930	940	rBV	1646822	3159777	73.87%	13.876%
5	8.529	1212	1219	1231	rBV	2670353	4277634	100.00%	18.784%
6	9.986	1452	1458	1468	rVB	2733900	3805730	88.97%	16.712%
7	11.047	1626	1632	1644	rBV	2252696	2885063	67.45%	12.669%
8	11.388	1683	1688	1693	rVB	39628	52402	1.23%	0.230%
9	12.016	1785	1791	1799	rBV	3023289	3739364	87.42%	16.421%

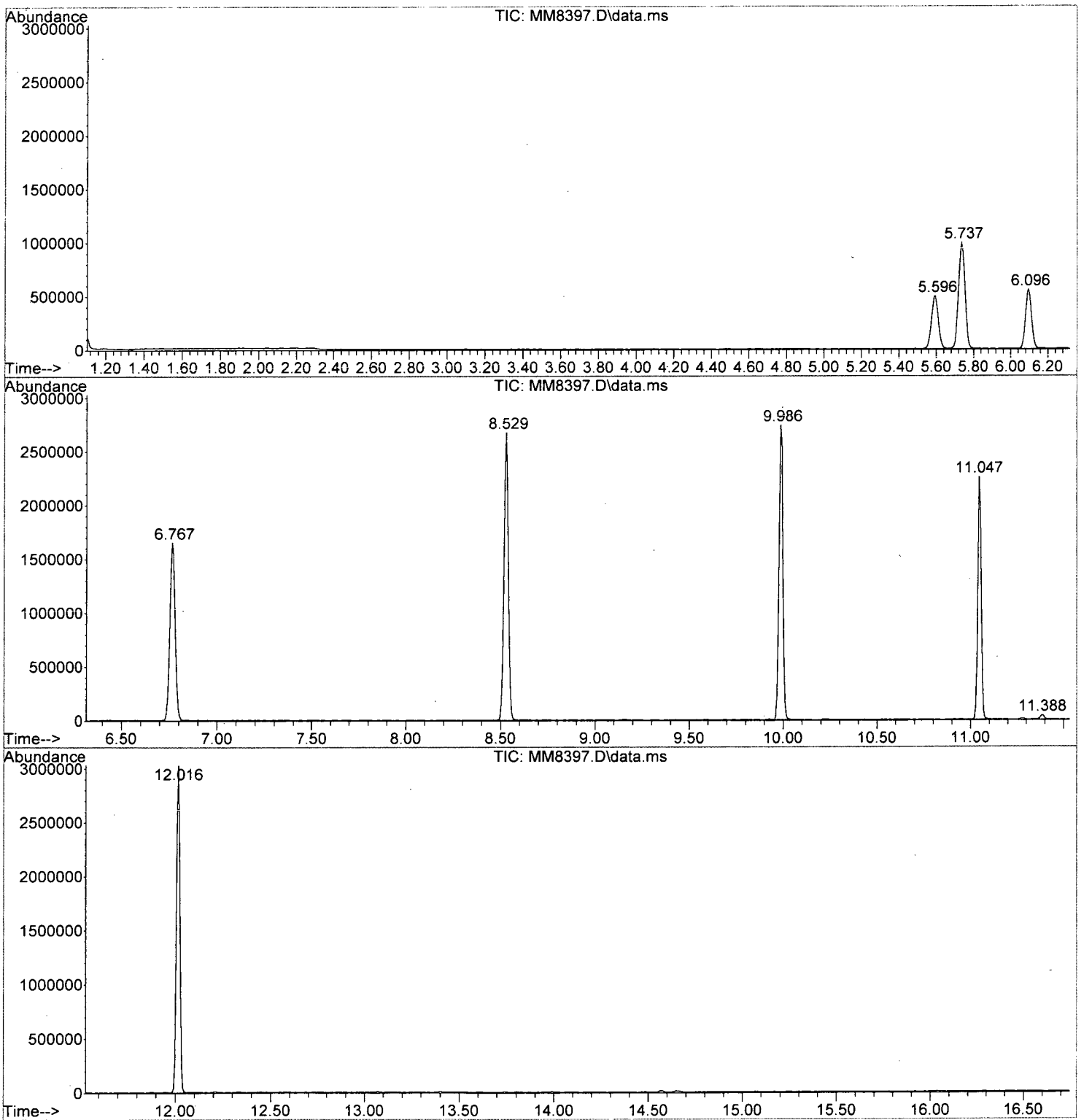
Sum of corrected areas: 22772266

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8397.D
Acq On    : 30 Nov 2015   2:06 pm
Operator  : K.Ruest
Sample    : R1510161-017|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 11   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



W111815A.M Thu Dec 03 14:50:36 2015 Page: 2

Data Path : I:\ACQUDATA\msvoa12\Data\113015\\
Data File : MM8397.D
Acq On : 30 Nov 2015 2:06 pmm
Operator : K.Ruestt
Sample : R1510161-017|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 11 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

ALS Environmental

VOLATILE ORGANICS STANDARDS DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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Initial Calibration - Summary Report

KR 11/30/15

Calibration ID: RC1500127
W111815A. 8260 Waters

Instrument ID: R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
1,1,1,2-Tetrachloroethane	T	Average RF			0.2556	<=15	7.6
1,1,1,2-Tetrachloroethane	T	Average RF			0.2556	<=20	7.6
1,1,1-Trichloroethane (TCA)	T	Average RF		0.100	0.6115	<=15	8.3
1,1,1-Trichloroethane (TCA)	T	Average RF		0.100	0.6115	<=20	8.3
1,1,2,2-Tetrachloroethane	T	Average RF		0.300	0.5254	<=15	9.7
1,1,2,2-Tetrachloroethane	T	Average RF		0.300	0.5254	<=20	9.7
1,1,2-Trichloroethane	T	Average RF		0.100	0.1927	<=15	4.1
1,1,2-Trichloroethane	T	Average RF		0.100	0.1927	<=20	4.1
1,1,2-Trichlorotrifluoroethane	T	Average RF		0.100	0.3806	<=15	10.6
1,1,2-Trichlorotrifluoroethane	T	Average RF		0.100	0.3806	<=20	10.6
1,1-Dichloroethane (1,1-DCA)	T	Average RF		0.200	0.8010	<=15	6.4
1,1-Dichloroethane (1,1-DCA)	T	Average RF		0.200	0.8010	<=20	6.4
1,1-Dichloroethene (1,1-DCE)	T	Average RF		0.100	0.4182	<=15	9.7
1,1-Dichloroethene (1,1-DCE)	T	Average RF		0.100	0.4182	<=20	9.7
1,1-Dichloropropene	T	Average RF			0.3528	<=15	10.8
1,1-Dichloropropene	T	Average RF			0.3528	<=20	10.8
1,2,3-Trichlorobenzene	T	Average RF			0.5379	<=15	6.4
1,2,3-Trichlorobenzene	T	Average RF			0.5379	<=20	6.4
1,2,3-Trichloropropane	T	Linear	1/X		0.1547	>=0.99	0.9998
1,2,3-Trichloropropane	T	Linear	1/X		0.1547	>=0.995	0.9998
1,2,3-Trichloropropane	T	Linear	1/X		0.1547	>=0.99	0.9998
1,2,4-Trichlorobenzene	T	Average RF		0.200	0.6467	<=15	7.9
1,2,4-Trichlorobenzene	T	Average RF		0.200	0.6467	<=20	7.9
1,2,4-Trimethylbenzene	T	Average RF			2.111	<=15	10.7
1,2,4-Trimethylbenzene	T	Average RF			2.111	<=20	10.7
1,2-Dibromo-3-chloropropane (DBCP)	T	Average RF		0.050	0.1014	<=15	8.1
1,2-Dibromo-3-chloropropane (DBCP)	T	Average RF		0.050	0.1014	<=20	8.1
1,2-Dibromoethane	T	Average RF		0.100	0.2026	<=15	4.7
1,2-Dibromoethane	T	Average RF		0.100	0.2026	<=20	4.7
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123:	T	Average RF			0.5453	<=15	10.0
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123:	T	Average RF			0.5453	<=20	10.0
1,2-Dichlorobenzene	T	Average RF		0.400	1.048	<=15	5.3
1,2-Dichlorobenzene	T	Average RF		0.400	1.048	<=20	5.3
1,2-Dichloroethane	T	Average RF		0.100	0.2821	<=15	6.5
1,2-Dichloroethane	T	Average RF		0.100	0.2821	<=20	6.5
1,2-Dichloropropane	T	Average RF		0.100	0.2727	<=15	6.9
1,2-Dichloropropane	T	Average RF		0.100	0.2727	<=20	6.9
1,3,5-Trichlorobenzene	T	Average RF			0.7046	<=15	10.1
1,3,5-Trichlorobenzene	T	Average RF			0.7046	<=20	10.1
1,3,5-Trimethylbenzene	T	Average RF			1.968	<=15	9.4
1,3,5-Trimethylbenzene	T	Average RF			1.968	<=20	9.4
1,3-Dichlorobenzene	T	Average RF		0.600	1.139	<=15	6.9
1,3-Dichlorobenzene	T	Average RF		0.600	1.139	<=20	6.9
1,3-Dichloropropane	T	Average RF			0.3801	<=15	8.1
1,3-Dichloropropane	T	Average RF			0.3801	<=20	8.1
1,4-Dichlorobenzene	T	Average RF		0.500	1.067	<=15	4.7
1,4-Dichlorobenzene	T	Average RF		0.500	1.067	<=20	4.7
1,4-Dioxane	T	Average RF			0.002000	<=15	7.3
1,4-Dioxane	T	Average RF			0.002000	<=20	7.3
1-Butanol	T	Average RF			0.005782	<=15	7.9
1-Butanol	T	Average RF			0.005782	<=20	7.9
1-Chloro-4-(trifluoromethyl)benzene	T	Average RF			0.3410	<=15	8.0

Initial Calibration - Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
1-Chloro-4-(trifluoromethyl)benzene	T	Average RF			0.3410	<=20	8.0
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	T	Average RF			0.6287	<=15	11.4
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	T	Average RF			0.6287	<=20	11.4
2,2-Dichloropropane	T	Average RF			0.6407	<=15	11.5
2,2-Dichloropropane	T	Average RF			0.6407	<=20	11.5
2,3,6-Trichlorotoluene	T	Average RF			0.3513	<=15	8.7
2,3,6-Trichlorotoluene	T	Average RF			0.3513	<=20	8.7
2,4,5-Trichlorotoluene	T	Average RF			0.3990	<=15	2.2
2,4,5-Trichlorotoluene	T	Average RF			0.3990	<=20	2.2
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	T	Average RF			0.8846	<=15	8.1
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	T	Average RF			0.8846	<=20	8.1
2,4-Dichlorobenzotrifluoride	T	Average RF			0.4432	<=15	3.7
2,4-Dichlorobenzotrifluoride	T	Average RF			0.4432	<=20	3.7
2,5-Dichlorobenzotrifluoride	T	Average RF			0.5013	<=15	4.1
2,5-Dichlorobenzotrifluoride	T	Average RF			0.5013	<=20	4.1
2-Bromo-2-chloro-1,1,1-trifluoroethane	T	Average RF				<=15	
2-Bromo-2-chloro-1,1,1-trifluoroethane	T	Average RF				<=20	
2-Butanone (MEK)	T	Average RF		0.05	0.1460	<=15	8.5
2-Butanone (MEK)	T	Average RF		0.05	0.1460	<=20	8.5
2-Chloro-1,3-butadiene	T	Average RF			0.8055	<=15	7.5
2-Chloro-1,3-butadiene	T	Average RF			0.8055	<=20	7.5
2-Chlorobenzotrifluoride	T	Average RF			0.7581	<=15	6.2
2-Chlorobenzotrifluoride	T	Average RF			0.7581	<=20	6.2
2-Chloroethyl Vinyl Ether	T	Average RF			0.1504	<=15	14.6
2-Chloroethyl Vinyl Ether	T	Average RF			0.1504	<=20	14.6
2-Chlorotoluene	T	Average RF			1.757	<=15	8.1
2-Chlorotoluene	T	Average RF			1.757	<=20	8.1
2-Hexanone	T	Average RF		0.05	0.1531	<=15	8.4
2-Hexanone	T	Average RF		0.05	0.1531	<=20	8.4
2-Methyl-1-propanol	T	Average RF			0.009224	<=15	7.5
2-Methyl-1-propanol	T	Average RF			0.009224	<=20	7.5
2-Methyl-2-propanol	T	Average RF			0.03283	<=15	4.1
2-Methyl-2-propanol	T	Average RF			0.03283	<=20	4.1
2-Nitropropane	T	Average RF			0.04924	<=15	8.3
2-Nitropropane	T	Average RF			0.04924	<=20	8.3
2-Propanol	T	Average RF			0.02023	<=15	6.8
2-Propanol	T	Average RF			0.02023	<=20	6.8
3,4- and 2,3-Dichlorotoluene Coelution	T	Average RF			0.9348	<=15	7.9
3,4- and 2,3-Dichlorotoluene Coelution	T	Average RF			0.9348	<=20	7.9
3,4-Dichlorobenzotrifluoride	T	Average RF			0.5078	<=15	7.5
3,4-Dichlorobenzotrifluoride	T	Average RF			0.5078	<=20	7.5
3-Chloro-1-propene	T	Average RF			0.2328	<=15	12.9
3-Chloro-1-propene	T	Average RF			0.2328	<=20	12.9
3-Chlorobenzotrifluoride	T	Average RF			0.3664	<=15	6.5
3-Chlorobenzotrifluoride	T	Average RF			0.3664	<=20	6.5
3-Chlorotoluene	T	Average RF			1.844	<=15	5.4
3-Chlorotoluene	T	Average RF			1.844	<=20	5.4
4-Chlorotoluene	T	Average RF			1.982	<=15	12.0
4-Chlorotoluene	T	Average RF			1.982	<=20	12.0
4-Isopropyltoluene	T	Average RF			1.899	<=15	8.5
4-Isopropyltoluene	T	Average RF			1.899	<=20	8.5
4-Methyl-2-pentanone	T	Average RF		0.05	0.1994	<=15	1.7

Initial Calibration - Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
4-Methyl-2-pentanone	T	Average RF		0.05	0.1994	<=20	1.7
Acetone	T	Average RF		0.05	0.1066	<=15	7.0
Acetone	T	Average RF		0.05	0.1066	<=20	7.0
Acetonitrile	T	Average RF			0.01478	<=15	12.7
Acetonitrile	T	Average RF			0.01478	<=20	12.7
Acrolein	T	Average RF			0.04260	<=15	6.6
Acrolein	T	Average RF			0.04260	<=20	6.6
Acrylonitrile	T	Average RF			0.1207	<=15	3.8
Acrylonitrile	T	Average RF			0.1207	<=20	3.8
Benzene	T	Average RF		0.500	1.100	<=15	7.5
Benzene	T	Average RF		0.500	1.100	<=20	7.5
Bromobenzene	T	Average RF			0.5883	<=15	5.4
Bromobenzene	T	Average RF			0.5883	<=20	5.4
Bromochloromethane	T	Average RF			0.2575	<=15	7.6
Bromochloromethane	T	Average RF			0.2575	<=20	7.6
Bromodichloromethane	T	Average RF		0.200	0.3343	<=15	6.9
Bromodichloromethane	T	Average RF		0.200	0.3343	<=20	6.9
Bromoform	T	Average RF		0.100	0.2840	<=15	5.6
Bromoform	T	Average RF		0.100	0.2840	<=20	5.6
Bromomethane	T	Average RF		0.100	0.3826	<=15	9.9
Bromomethane	T	Average RF		0.100	0.3826	<=20	9.9
Carbon Disulfide	T	Average RF		0.100	1.397	<=15	7.2
Carbon Disulfide	T	Average RF		0.100	1.397	<=20	7.2
Carbon Tetrachloride	T	Average RF		0.05	0.09574	<=15	5.1
Carbon Tetrachloride	T	Average RF		0.05	0.09574	<=20	5.1
Chlorobenzene	T	Average RF		0.500	0.7396	<=15	9.5
Chlorobenzene	T	Average RF		0.500	0.7396	<=20	9.5
Chloroethane	T	Average RF		0.100	0.4308	<=15	9.3
Chloroethane	T	Average RF		0.100	0.4308	<=20	9.3
Chloroform	T	Average RF		0.200	0.7785	<=15	14.6
Chloroform	T	Average RF		0.200	0.7785	<=20	14.6
Chloromethane	T	Average RF		0.100	0.8409	<=15	6.8
Chloromethane	T	Average RF		0.100	0.8409	<=20	6.8
Cyclohexane	T	Average RF		0.100	0.2733	<=15	15.0
Cyclohexane	T	Average RF		0.100	0.2733	<=20	15.0
Cyclohexanone	T	Average RF			0.03770	<=15	5.0
Cyclohexanone	T	Average RF			0.03770	<=20	5.0
Dibromochloromethane	T	Average RF		0.100	0.2365	<=15	3.1
Dibromochloromethane	T	Average RF		0.100	0.2365	<=20	3.1
Dibromomethane	T	Average RF			0.1343	<=15	11.7
Dibromomethane	T	Average RF			0.1343	<=20	11.7
Dichlorodifluoromethane (CFC 12)	T	Average RF		0.100	0.7043	<=15	9.5
Dichlorodifluoromethane (CFC 12)	T	Average RF		0.100	0.7043	<=20	9.5
Dichlorofluoromethane (CFC 21)	T	Average RF			0.8341	<=15	3.5
Dichlorofluoromethane (CFC 21)	T	Average RF			0.8341	<=20	3.5
Dichloromethane	T	Average RF		0.100	0.4829	<=15	10.7
Dichloromethane	T	Average RF		0.100	0.4829	<=20	10.7
Diethyl Ether	T	Average RF			0.3829	<=15	7.7
Diethyl Ether	T	Average RF			0.3829	<=20	7.7
Diisopropyl Ether	T	Average RF			1.562	<=15	8.6
Diisopropyl Ether	T	Average RF			1.562	<=20	8.6
Ethyl Methacrylate	T	Average RF			0.3152	<=15	2.7

Initial Calibration - Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
Ethyl Methacrylate	T	Average RF			0.3152	<=20	2.7
Ethyl tert-Butyl Ether	T	Average RF			1.467	<=15	5.3
Ethyl tert-Butyl Ether	T	Average RF			1.467	<=20	5.3
Ethylbenzene	T	Average RF		0.100	0.4189	<=15	6.0
Ethylbenzene	T	Average RF		0.100	0.4189	<=20	6.0
Hexachlorobutadiene	T	Average RF			0.2582	<=15	10.2
Hexachlorobutadiene	T	Average RF			0.2582	<=20	10.2
Iodomethane	T	Average RF			0.4751	<=15	9.8
Iodomethane	T	Average RF			0.4751	<=20	9.8
Isopropylbenzene (Cumene)	T	Average RF		0.100	2.600	<=15	11.9
Isopropylbenzene (Cumene)	T	Average RF		0.100	2.600	<=20	11.9
Methacrylonitrile	T	Average RF			0.1413	<=15	5.0
Methacrylonitrile	T	Average RF			0.1413	<=20	5.0
Methyl Acetate	T	Average RF		0.100	0.2484	<=15	13.5
Methyl Acetate	T	Average RF		0.100	0.2484	<=20	13.5
Methyl Methacrylate	T	Average RF			0.1578	<=15	7.3
Methyl Methacrylate	T	Average RF			0.1578	<=20	7.3
Methyl tert-Butyl Ether	T	Average RF		0.100	1.163	<=15	8.1
Methyl tert-Butyl Ether	T	Average RF		0.100	1.163	<=20	8.1
Methylcyclohexane	T	Average RF		0.100	0.3371	<=15	13.9
Methylcyclohexane	T	Average RF		0.100	0.3371	<=20	13.9
Naphthalene	T	Average RF			1.341	<=15	6.1
Naphthalene	T	Average RF			1.341	<=20	6.1
Propionitrile	T	Average RF			0.04459	<=15	6.6
Propionitrile	T	Average RF			0.04459	<=20	6.6
Styrene	T	Average RF		0.300	0.8627	<=15	8.9
Styrene	T	Average RF		0.300	0.8627	<=20	8.9
Tetrachloroethene (PCE)	T	Average RF		0.200	0.2074	<=15	9.6
Tetrachloroethene (PCE)	T	Average RF		0.200	0.2074	<=20	9.6
Tetrahydrofuran (THF)	T	Average RF			0.09390	<=15	6.9
Tetrahydrofuran (THF)	T	Average RF			0.09390	<=20	6.9
Toluene	T	Average RF		0.400	1.140	<=15	10.5
Toluene	T	Average RF		0.400	1.140	<=20	10.5
Trichloroethene (TCE)	T	Average RF		0.200	0.2796	<=15	8.1
Trichloroethene (TCE)	T	Average RF		0.200	0.2796	<=20	8.1
Trichlorofluoromethane (CFC 11)	T	Average RF		0.100	0.6103	<=15	5.3
Trichlorofluoromethane (CFC 11)	T	Average RF		0.100	0.6103	<=20	5.3
Vinyl Acetate	T	Average RF			0.08343	<=15	13.7
Vinyl Acetate	T	Average RF			0.08343	<=20	13.7
Vinyl Chloride	T	Average RF		0.100	0.7834	<=15	6.9
Vinyl Chloride	T	Average RF		0.100	0.7834	<=20	6.9
cis-1,2-Dichloroethene	T	Average RF		0.100	0.4985	<=15	10.0
cis-1,2-Dichloroethene	T	Average RF		0.100	0.4985	<=20	10.0
cis-1,3-Dichloropropene	T	Average RF		0.200	0.4481	<=15	6.3
cis-1,3-Dichloropropene	T	Average RF		0.200	0.4481	<=20	6.3
m,p-Xylenes	T	Average RF		0.100	0.5171	<=15	9.4
m,p-Xylenes	T	Average RF		0.100	0.5171	<=20	9.4
n-Butyl Acetate	T	Average RF			0.3657	<=15	3.3
n-Butyl Acetate	T	Average RF			0.3657	<=20	3.3
n-Butylbenzene	T	Average RF			1.799	<=15	11.8
n-Butylbenzene	T	Average RF			1.799	<=20	11.8
n-Heptane	T	Average RF			0.3028	<=15	12.2

Initial Calibration - Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
n-Heptane	T	Average RF			0.3028	<=20	12.2
n-Propylbenzene	T	Average RF			2.997	<=15	12.7
n-Propylbenzene	T	Average RF			2.997	<=20	12.7
o-Xylene	T	Average RF		0.300	0.5296	<=15	5.4
o-Xylene	T	Average RF		0.300	0.5296	<=20	5.4
sec-Butylbenzene	T	Average RF			2.456	<=15	10.7
sec-Butylbenzene	T	Average RF			2.456	<=20	10.7
tert-Amyl Methyl Ether	T	Average RF			1.247	<=15	5.5
tert-Amyl Methyl Ether	T	Average RF			1.247	<=20	5.5
tert-Butylbenzene	T	Average RF			1.755	<=15	8.4
tert-Butylbenzene	T	Average RF			1.755	<=20	8.4
trans-1,2-Dichloroethene	T	Average RF		0.100	0.4503	<=15	9.8
trans-1,2-Dichloroethene	T	Average RF		0.100	0.4503	<=20	9.8
trans-1,3-Dichloropropene	T	Average RF		0.100	0.3560	<=15	4.0
trans-1,3-Dichloropropene	T	Average RF		0.100	0.3560	<=20	4.0
trans-1,4-Dichloro-2-butene	T	Linear	1/X		0.1645	>=0.99	0.9996
trans-1,4-Dichloro-2-butene	T	Linear	1/X		0.1645	>=0.995	0.9996
trans-1,4-Dichloro-2-butene	T	Linear	1/X		0.1645	>=0.99	0.9996
1,2-Dichloroethane-d4	S	Average RF			0.2871	<=15	7.9
1,2-Dichloroethane-d4	S	Average RF			0.2871	<=20	7.9
4-Bromofluorobenzene	S	Average RF			0.4130	<=15	10.2
4-Bromofluorobenzene	S	Average RF			0.4130	<=20	10.2
Dibromofluoromethane	S	Average RF			0.2600	<=15	9.2
Dibromofluoromethane	S	Average RF			0.2600	<=20	9.2
Toluene-d8	S	Average RF			1.094	<=15	12.3
Toluene-d8	S	Average RF			1.094	<=20	12.3

Initial Calibration - Detailed Report

KR 11/30/15

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
W2111615A - 8260 waters **Signal ID:** 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	RC1500127-01	0.5ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8185.D	11/18/15 16:40
02	RC1500127-02	1.0ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8186.D	11/18/15 17:10
03	RC1500127-03	2.0ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8187.D	11/18/15 17:41
04	RC1500127-04	5.0ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8188.D	11/18/15 18:11
05	RC1500127-05	20ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8189.D	11/18/15 18:42
06	RC1500127-06	50ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8190.D	11/18/15 19:12
07	RC1500127-07	100ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8191.D	11/18/15 19:43
08	RC1500127-08	150ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8192.D	11/18/15 20:14
09	RC1500127-09	200ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8193.D	11/18/15 20:45

Analyte **Curve Fit** **Weighting**

1,1,1,2-Tetrachloroethane Average RF RSD = 7.6 Average RF = 0.2556

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2766	02	1.000	0.2733	03	2.000	0.2639	04	5.000	0.2787
05	20.000	0.2623	06	50.000	0.2465	07	100.000	0.2321	08	150.000	0.2325
09	200.000	0.2348									

1,1,1-Trichloroethane (TCA) Average RF RSD = 8.3 Average RF = 0.6115

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7243	02	1.000	0.5697	03	2.000	0.6349	04	5.000	0.6153
05	20.000	0.6322	06	50.000	0.6112	07	100.000	0.5635	08	150.000	0.5694
09	200.000	0.5828									

1,1,2,2-Tetrachloroethane Average RF RSD = 9.7 Average RF = 0.5254

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6253	02	1.000	0.5619	03	2.000	0.5722	04	5.000	0.5046
05	20.000	0.5252	06	50.000	0.4939	07	100.000	0.4855	08	150.000	0.4831
09	200.000	0.4764									

1,1,2-Trichloroethane Average RF RSD = 4.1 Average RF = 0.1927

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1857	02	1.000	0.1923	03	2.000	0.1966	04	5.000	0.2063
05	20.000	0.2025	06	50.000	0.1931	07	100.000	0.1860	08	150.000	0.1833
09	200.000	0.1886									

1,1,2-Trichlorotrifluoroethane Average RF RSD = 10.6 Average RF = 0.3806

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4485	02	1.000	0.4102	03	2.000	0.4140	04	5.000	0.3782
05	20.000	0.3941	06	50.000	0.3737	07	100.000	0.3305	08	150.000	0.3379
09	200.000	0.3379									

1,1-Dichloroethane (1,1-DCA) Average RF RSD = 6.4 Average RF = 0.8010

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9109	02	1.000	0.7655	03	2.000	0.8254	04	5.000	0.7995
05	20.000	0.8368	06	50.000	0.7989	07	100.000	0.7611	08	150.000	0.7526
09	200.000	0.7580									

1,1-Dichloroethene (1,1-DCE) Average RF RSD = 9.7 Average RF = 0.4182

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4905	02	1.000	0.4600	03	2.000	0.4260	04	5.000	0.4220
05	20.000	0.4301	06	50.000	0.4153	07	100.000	0.3758	08	150.000	0.3694
09	200.000	0.3745									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

1,1-Dichloropropene Average RF RSD = 10.8 Average RF = 0.3528

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4316	02	1.000	0.3673	03	2.000	0.3709	04	5.000	0.3483
05	20.000	0.3647	06	50.000	0.3531	07	100.000	0.3159	08	150.000	0.3107
09	200.000	0.3124									

1,2,3-Trichlorobenzene Average RF RSD = 6.4 Average RF = 0.5379

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4648	02	1.000	0.5889	03	2.000	0.5303	04	5.000	0.5597
05	20.000	0.5605	06	50.000	0.5526	07	100.000	0.5303	08	150.000	0.5285
09	200.000	0.5256									

1,2,3-Trichloropropane Linear 1/X R2 = 0.9998 Y = 0.1390 X + 7.469E-4

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2170	02	1.000	0.1728	03	2.000	0.1564	04	5.000	0.1540
05	20.000	0.1370	06	50.000	0.1358	07	100.000	0.1404	08	150.000	0.1387
09	200.000	0.1402									

1,2,4-Trichlorobenzene Average RF RSD = 7.9 Average RF = 0.6467

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7505	02	1.000	0.6856	03	2.000	0.6451	04	5.000	0.6332
05	20.000	0.6649	06	50.000	0.6513	07	100.000	0.6134	08	150.000	0.5904
09	200.000	0.5856									

1,2,4-Trimethylbenzene Average RF RSD = 10.7 Average RF = 2.111

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.434	02	1.000	2.250	03	2.000	2.186	04	5.000	2.161
05	20.000	2.298	06	50.000	2.161	07	100.000	1.928	08	150.000	1.830
09	200.000	1.752									

1,2-Dibromo-3-chloropropane (DBCP) Average RF RSD = 8.1 Average RF = 0.1014

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1169	02	1.000	0.08762	03	2.000	0.1052	04	5.000	0.09484
05	20.000	0.1000	06	50.000	0.09653	07	100.000	0.1019	08	150.000	0.1047
09	200.000	0.1046									

1,2-Dibromoethane Average RF RSD = 4.7 Average RF = 0.2026

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2193	02	1.000	0.2070	03	2.000	0.2034	04	5.000	0.2093
05	20.000	0.2088	06	50.000	0.1965	07	100.000	0.1922	08	150.000	0.1902
09	200.000	0.1965									

1,2-Dichloro-1,1,2-trifluoroethane (CFC Average RF RSD = 10.0 Average RF = 0.5453

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6171	02	1.000	0.6052	03	2.000	0.5960	04	5.000	0.5707
05	20.000	0.5226	06	50.000	0.5370	07	100.000	0.5039	08	150.000	0.4842
09	200.000	0.4705									

1,2-Dichlorobenzene Average RF RSD = 5.3 Average RF = 1.048

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.061	02	1.000	1.145	03	2.000	1.018	04	5.000	1.038
05	20.000	1.115	06	50.000	1.068	07	100.000	1.015	08	150.000	0.9945
09	200.000	0.9783									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

1,2-Dichloroethane Average RF RSD = 6.5 Average RF = 0.2821

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2799	02	1.000	0.2745	03	2.000	0.2939	04	5.000	0.3187
05	20.000	0.2988	06	50.000	0.2762	07	100.000	0.2675	08	150.000	0.2605
09	200.000	0.2689									

1,2-Dichloroethane-d4 Average RF RSD = 7.9 Average RF = 0.2871

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.3157	03	60.000	0.3053	04	70.000	0.2982	05	100.000	0.2763
07	125.000	0.2694	08	150.000	0.2579						

1,2-Dichloropropane Average RF RSD = 6.9 Average RF = 0.2727

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3069	02	1.000	0.2895	03	2.000	0.2685	04	5.000	0.2673
05	20.000	0.2866	06	50.000	0.2745	07	100.000	0.2557	08	150.000	0.2497
09	200.000	0.2552									

1,3,5-Trichlorobenzene Average RF RSD = 10.1 Average RF = 0.7046

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8493	02	1.000	0.6796	03	2.000	0.7834	04	5.000	0.6781
05	20.000	0.7257	06	50.000	0.6873	07	100.000	0.6725	08	150.000	0.6462
09	200.000	0.6195									

1,3,5-Trimethylbenzene Average RF RSD = 9.4 Average RF = 1.968

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.098	02	1.000	2.047	03	2.000	2.146	04	5.000	2.097
05	20.000	2.123	06	50.000	2.007	07	100.000	1.798	08	150.000	1.726
09	200.000	1.667									

1,3-Dichlorobenzene Average RF RSD = 6.9 Average RF = 1.139

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.251	02	1.000	1.195	03	2.000	1.188	04	5.000	1.120
05	20.000	1.203	06	50.000	1.152	07	100.000	1.075	08	150.000	1.038
09	200.000	1.027									

1,3-Dichloropropane Average RF RSD = 8.1 Average RF = 0.3801

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3950	02	1.000	0.4291	03	2.000	0.4048	04	5.000	0.3984
05	20.000	0.3938	06	50.000	0.3612	07	100.000	0.3491	08	150.000	0.3435
09	200.000	0.3463									

1,4-Dichlorobenzene Average RF RSD = 4.7 Average RF = 1.067

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.033	02	1.000	1.024	03	2.000	1.119	04	5.000	1.090
05	20.000	1.151	06	50.000	1.108	07	100.000	1.048	08	150.000	1.020
09	200.000	1.015									

1,4-Dioxane Average RF RSD = 7.3 Average RF = 0.002000

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	40.000	0.002204	04	100.000	0.002067	05	400.000	0.001944	06	1000.000	0.001765
07	2000.000	0.001913	08	3000.000	0.001978	09	4000.000	0.002125			

1-Butanol Average RF RSD = 7.9 Average RF = 0.005782

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	50.000	0.005580	03	100.000	0.006691	04	250.000	0.005644	05	1000.000	0.005267
06	2500.000	0.005306	07	5000.000	0.005834	08	7500.000	0.005896	09	10000.000	0.006037

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

1-Chloro-4-(trifluoromethyl)benzene Average RF RSD = 8.0 Average RF = 0.3410

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3992	02	1.000	0.3564	03	2.000	0.3518	04	5.000	0.3490
05	20.000	0.3362	06	50.000	0.3231	07	100.000	0.3268	08	150.000	0.3162
09	200.000	0.3102									

2,2-Dichloro-1,1,1-trifluoroethane (CFC Average RF RSD = 11.4 Average RF = 0.6287

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7446	02	1.000	0.7318	03	2.000	0.6731	04	5.000	0.6209
05	20.000	0.5878	06	50.000	0.6105	07	100.000	0.5764	08	150.000	0.5550
09	200.000	0.5584									

2,2-Dichloropropane Average RF RSD = 11.5 Average RF = 0.6407

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.7892	03	2.000	0.6750	04	5.000	0.6285	05	20.000	0.6750
06	50.000	0.6374	07	100.000	0.5770	08	150.000	0.5733	09	200.000	0.5701

2,3,6-Trichlorotoluene Average RF RSD = 8.7 Average RF = 0.3513

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3537	03	2.000	0.4190	04	5.000	0.3638	05	20.000	0.3528
06	50.000	0.3298	07	100.000	0.3307	08	150.000	0.3304	09	200.000	0.3301

2,4,5-Trichlorotoluene Average RF RSD = 2.2 Average RF = 0.3990

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3817	03	2.000	0.3981	04	5.000	0.4134	05	20.000	0.4044
06	50.000	0.3949	07	100.000	0.4012	08	150.000	0.4009	09	200.000	0.3973

2,4-, 2,5-, and 2,6-Dichlorotoluene Coelut Average RF RSD = 8.1 Average RF = 0.8846

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.500	0.9654	02	3.000	0.9029	03	6.000	0.9376	04	15.000	0.9277
05	60.000	0.9370	06	150.000	0.8890	07	300.000	0.8561	08	450.000	0.7971
09	600.000	0.7488									

2,4-Dichlorobenzotrifluoride Average RF RSD = 3.7 Average RF = 0.4432

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4721	02	1.000	0.4291	03	2.000	0.4455	04	5.000	0.4403
05	20.000	0.4561	06	50.000	0.4421	07	100.000	0.4538	08	150.000	0.4339
09	200.000	0.4156									

2,5-Dichlorobenzotrifluoride Average RF RSD = 4.1 Average RF = 0.5013

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5474	02	1.000	0.5032	03	2.000	0.5047	04	5.000	0.5028
05	20.000	0.4996	06	50.000	0.4918	07	100.000	0.5039	08	150.000	0.4870
09	200.000	0.4717									

2-Butanone (MEK) Average RF RSD = 8.5 Average RF = 0.1460

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1700	04	5.000	0.1397	05	20.000	0.1301	06	50.000	0.1395
07	100.000	0.1490	08	150.000	0.1451	09	200.000	0.1487			

2-Chloro-1,3-butadiene Average RF RSD = 7.5 Average RF = 0.8055

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8914	02	1.000	0.8645	03	2.000	0.8551	04	5.000	0.8410
05	20.000	0.7674	06	50.000	0.8031	07	100.000	0.7667	08	150.000	0.7427
09	200.000	0.7173									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

2-Chlorobenzotrifluoride Average RF RSD = 6.2 Average RF = 0.7581

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7559	02	1.000	0.8402	03	2.000	0.8224	04	5.000	0.7565
05	20.000	0.7595	06	50.000	0.7344	07	100.000	0.7414	08	150.000	0.7266
09	200.000	0.6859									

2-Chloroethyl Vinyl Ether Average RF RSD = 14.6 Average RF = 0.1504

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2024	02	1.000	0.1367	03	2.000	0.1648	04	5.000	0.1559
05	20.000	0.1379	06	50.000	0.1420	07	100.000	0.1431	08	150.000	0.1363
09	200.000	0.1349									

2-Chlorotoluene Average RF RSD = 8.1 Average RF = 1.757

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.960	02	1.000	1.695	03	2.000	1.829	04	5.000	1.793
05	20.000	1.922	06	50.000	1.814	07	100.000	1.649	08	150.000	1.589
09	200.000	1.560									

2-Hexanone Average RF RSD = 8.4 Average RF = 0.1531

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1793	04	5.000	0.1559	05	20.000	0.1391	06	50.000	0.1441
07	100.000	0.1492	08	150.000	0.1524	09	200.000	0.1514			

2-Methyl-1-propanol Average RF RSD = 7.5 Average RF = 0.009224

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.009577	03	40.000	0.01062	04	100.000	0.009398	05	400.000	0.008872
06	1000.000	0.008304	07	2000.000	0.008899	08	3000.000	0.008819	09	4000.000	0.009299

2-Methyl-2-propanol Average RF RSD = 4.1 Average RF = 0.03283

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.03151	03	40.000	0.03269	04	100.000	0.03343	05	400.000	0.03186
06	1000.000	0.03092	07	2000.000	0.03333	08	3000.000	0.03407	09	4000.000	0.03480

2-Nitropropane Average RF RSD = 8.3 Average RF = 0.04924

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	0.04620	03	4.000	0.05546	04	10.000	0.05570	05	40.000	0.04829
06	100.000	0.04502	07	200.000	0.04658	08	300.000	0.04770	09	400.000	0.04894

2-Propanol Average RF RSD = 6.8 Average RF = 0.02023

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.02227	03	40.000	0.02129	04	100.000	0.02106	05	400.000	0.01845
06	1000.000	0.01842	07	2000.000	0.01936	08	3000.000	0.02027	09	4000.000	0.02069

3,4- and 2,3-Dichlorotoluene Coelution Average RF RSD = 7.9 Average RF = 0.9348

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.8887	02	2.000	1.000	03	4.000	0.9940	04	10.000	1.005
05	40.000	0.9943	06	100.000	0.9588	07	200.000	0.9140	08	300.000	0.8566
09	400.000	0.8013									

3,4-Dichlorobenzotrifluoride Average RF RSD = 7.5 Average RF = 0.5078

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5658	02	1.000	0.5119	03	2.000	0.5742	04	5.000	0.4891
05	20.000	0.4994	06	50.000	0.4977	07	100.000	0.4902	08	150.000	0.4798
09	200.000	0.4616									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

3-Chloro-1-propene Average RF RSD = 12.9 Average RF = 0.2328

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2592	02	1.000	0.2897	03	2.000	0.2221	04	5.000	0.2380
05	20.000	0.2474	06	50.000	0.2333	07	100.000	0.2105	08	150.000	0.2014
09	200.000	0.1940									

3-Chlorobenzotrifluoride Average RF RSD = 6.5 Average RF = 0.3664

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4058	02	1.000	0.3846	03	2.000	0.3911	04	5.000	0.3697
05	20.000	0.3649	06	50.000	0.3532	07	100.000	0.3517	08	150.000	0.3451
09	200.000	0.3319									

3-Chlorotoluene Average RF RSD = 5.4 Average RF = 1.844

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.885	02	1.000	1.869	03	2.000	1.946	04	5.000	1.933
05	20.000	1.920	06	50.000	1.849	07	100.000	1.808	08	150.000	1.755
09	200.000	1.633									

4-Bromofluorobenzene Average RF RSD = 10.2 Average RF = 0.4130

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.4702	03	60.000	0.4502	04	70.000	0.4242	05	100.000	0.3855
07	125.000	0.3860	08	150.000	0.3618						

4-Chlorotoluene Average RF RSD = 12.0 Average RF = 1.982

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.344	02	1.000	2.064	03	2.000	2.164	04	5.000	2.030
05	20.000	2.132	06	50.000	2.004	07	100.000	1.798	08	150.000	1.666
09	200.000	1.633									

4-Isopropyltoluene Average RF RSD = 8.5 Average RF = 1.899

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.996	02	1.000	1.954	03	2.000	2.049	04	5.000	1.951
05	20.000	2.090	06	50.000	1.962	07	100.000	1.760	08	150.000	1.700
09	200.000	1.630									

4-Methyl-2-pentanone Average RF RSD = 1.7 Average RF = 0.1994

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1965	04	5.000	0.2002	05	20.000	0.1963	06	50.000	0.1956
07	100.000	0.2046	08	150.000	0.2004	09	200.000	0.2024			

Acetone Average RF RSD = 7.0 Average RF = 0.1066

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.1206	05	20.000	0.1026	06	50.000	0.09956	07	100.000	0.1038
08	150.000	0.1045	09	200.000	0.1085						

Acetonitrile Average RF RSD = 12.7 Average RF = 0.01478

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	10.000	0.01481	04	25.000	0.01768	05	100.000	0.01435	06	250.000	0.01274
07	500.000	0.01230	08	750.000	0.01558	09	1000.000	0.01603			

Acrolein Average RF RSD = 6.6 Average RF = 0.04260

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	4.000	0.04614	04	10.000	0.04627	05	40.000	0.03997	06	100.000	0.03934
07	200.000	0.04079	08	300.000	0.04281	09	400.000	0.04292			

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte	Curve Fit	Weighting									
Acrylonitrile	Average RF			RSD = 3.8		Average RF = 0.1207					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.1250	02	5.000	0.1206	03	10.000	0.1308	04	25.000	0.1179
05	100.000	0.1190	06	250.000	0.1157	07	500.000	0.1189	08	750.000	0.1177
09	1000.000	0.1203									
Benzene	Average RF			RSD = 7.5		Average RF = 1.100					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.202	02	1.000	1.164	03	2.000	1.151	04	5.000	1.131
05	20.000	1.152	06	50.000	1.120	07	100.000	1.016	08	150.000	0.9768
09	200.000	0.9917									
Bromobenzene	Average RF			RSD = 5.4		Average RF = 0.5883					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5566	02	1.000	0.5966	03	2.000	0.6448	04	5.000	0.5726
05	20.000	0.6286	06	50.000	0.6028	07	100.000	0.5649	08	150.000	0.5648
09	200.000	0.5633									
Bromochloromethane	Average RF			RSD = 7.6		Average RF = 0.2575					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2922	02	1.000	0.2747	03	2.000	0.2713	04	5.000	0.2621
05	20.000	0.2540	06	50.000	0.2528	07	100.000	0.2404	08	150.000	0.2309
09	200.000	0.2391									
Bromodichloromethane	Average RF			RSD = 6.9		Average RF = 0.3343					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3706	02	1.000	0.3685	03	2.000	0.3325	04	5.000	0.3297
05	20.000	0.3414	06	50.000	0.3336	07	100.000	0.3110	08	150.000	0.3075
09	200.000	0.3141									
Bromoform	Average RF			RSD = 5.6		Average RF = 0.2840					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3238	02	1.000	0.2804	03	2.000	0.2882	04	5.000	0.2750
05	20.000	0.2769	06	50.000	0.2740	07	100.000	0.2718	08	150.000	0.2802
09	200.000	0.2861									
Bromomethane	Average RF			RSD = 9.9		Average RF = 0.3826					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4747	02	1.000	0.3800	03	2.000	0.4089	04	5.000	0.3635
05	20.000	0.3644	06	50.000	0.3715	07	100.000	0.3576	08	150.000	0.3577
09	200.000	0.3651									
Carbon Disulfide	Average RF			RSD = 7.2		Average RF = 1.397					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.520	02	1.000	1.419	03	2.000	1.514	04	5.000	1.473
05	20.000	1.371	06	50.000	1.420	07	100.000	1.345	08	150.000	1.279
09	200.000	1.231									
Carbon Tetrachloride	Average RF			RSD = 5.1		Average RF = 0.09574					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1013	02	1.000	0.1007	03	2.000	0.09723	04	5.000	0.09918
05	20.000	0.09811	06	50.000	0.09633	07	100.000	0.08822	08	150.000	0.08961
09	200.000	0.09097									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** Weighting

Chlorobenzene Average RF RSD = 9.5 Average RF = 0.7396

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8436	02	1.000	0.7725	03	2.000	0.8041	04	5.000	0.7669
05	20.000	0.7771	06	50.000	0.7211	07	100.000	0.6765	08	150.000	0.6528
09	200.000	0.6418									

Chloroethane Average RF RSD = 9.3 Average RF = 0.4308

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5222	02	1.000	0.4020	03	2.000	0.4535	04	5.000	0.4210
05	20.000	0.4456	06	50.000	0.4314	07	100.000	0.4013	08	150.000	0.3980
09	200.000	0.4022									

Chloroform Average RF RSD = 14.6 Average RF = 0.7785

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.055	02	1.000	0.8003	03	2.000	0.7870	04	5.000	0.7939
05	20.000	0.7658	06	50.000	0.7353	07	100.000	0.6882	08	150.000	0.6858
09	200.000	0.6946									

Chloromethane Average RF RSD = 6.8 Average RF = 0.8409

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9472	02	1.000	0.8222	03	2.000	0.8659	04	5.000	0.7777
05	20.000	0.9082	06	50.000	0.8460	07	100.000	0.7987	08	150.000	0.7944
09	200.000	0.8072									

Cyclohexane Average RF RSD = 15.0 Average RF = 0.2733

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3763	02	1.000	0.2791	03	2.000	0.2717	04	5.000	0.2692
05	20.000	0.2606	06	50.000	0.2690	07	100.000	0.2512	08	150.000	0.2403
09	200.000	0.2421									

Cyclohexanone Average RF RSD = 5.0 Average RF = 0.03770

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.03844	03	40.000	0.03846	04	100.000	0.03515	05	400.000	0.03553
06	1000.000	0.03579	07	2000.000	0.03914	08	3000.000	0.03927	09	4000.000	0.03980

Dibromochloromethane Average RF RSD = 3.1 Average RF = 0.2365

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2372	02	1.000	0.2511	03	2.000	0.2405	04	5.000	0.2399
05	20.000	0.2384	06	50.000	0.2361	07	100.000	0.2281	08	150.000	0.2268
09	200.000	0.2307									

Dibromofluoromethane Average RF RSD = 9.2 Average RF = 0.2600

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.2885	03	60.000	0.2816	04	70.000	0.2688	05	100.000	0.2532
07	125.000	0.2410	08	150.000	0.2267						

Dibromomethane Average RF RSD = 11.7 Average RF = 0.1343

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1651	02	1.000	0.1533	03	2.000	0.1411	04	5.000	0.1270
05	20.000	0.1307	06	50.000	0.1244	07	100.000	0.1231	08	150.000	0.1187
09	200.000	0.1248									

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte **Curve Fit** **Weighting**

Dichlorodifluoromethane (CFC 12) Average RF RSD = 9.5 Average RF = 0.7043

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6362	02	1.000	0.6553	03	2.000	0.6447	04	5.000	0.6142
05	20.000	0.7894	06	50.000	0.7843	07	100.000	0.7374	08	150.000	0.7343
09	200.000	0.7431									

Dichlorofluoromethane (CFC 21) Average RF RSD = 3.5 Average RF = 0.8341

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8546	02	1.000	0.8481	03	2.000	0.8835	04	5.000	0.8253
05	20.000	0.8317	06	50.000	0.8491	07	100.000	0.8319	08	150.000	0.7926
09	200.000	0.7905									

Dichloromethane Average RF RSD = 10.7 Average RF = 0.4829

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5779	02	1.000	0.5249	03	2.000	0.5344	04	5.000	0.4713
05	20.000	0.4747	06	50.000	0.4579	07	100.000	0.4347	08	150.000	0.4312
09	200.000	0.4389									

Diethyl Ether Average RF RSD = 7.7 Average RF = 0.3829

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.4427	03	2.000	0.3602	04	5.000	0.4003	05	20.000	0.3985
06	50.000	0.3781	07	100.000	0.3666	08	150.000	0.3584	09	200.000	0.3582

Diisopropyl Ether Average RF RSD = 8.6 Average RF = 1.562

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.702	02	1.000	1.676	03	2.000	1.725	04	5.000	1.660
05	20.000	1.526	06	50.000	1.528	07	100.000	1.465	08	150.000	1.399
09	200.000	1.372									

Ethyl Methacrylate Average RF RSD = 2.7 Average RF = 0.3152

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3229	02	1.000	0.2994	03	2.000	0.3035	04	5.000	0.3178
05	20.000	0.3251	06	50.000	0.3172	07	100.000	0.3190	08	150.000	0.3123
09	200.000	0.3195									

Ethyl tert-Butyl Ether Average RF RSD = 5.3 Average RF = 1.467

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.527	02	1.000	1.532	03	2.000	1.566	04	5.000	1.553
05	20.000	1.408	06	50.000	1.441	07	100.000	1.433	08	150.000	1.382
09	200.000	1.364									

Ethylbenzene Average RF RSD = 6.0 Average RF = 0.4189

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4464	02	1.000	0.4276	03	2.000	0.4457	04	5.000	0.4296
05	20.000	0.4425	06	50.000	0.4121	07	100.000	0.3857	08	150.000	0.3867
09	200.000	0.3942									

Hexachlorobutadiene Average RF RSD = 10.2 Average RF = 0.2582

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2962	03	2.000	0.2947	04	5.000	0.2493	05	20.000	0.2641
06	50.000	0.2636	07	100.000	0.2347	08	150.000	0.2321	09	200.000	0.2311

Iodomethane Average RF RSD = 9.8 Average RF = 0.4751

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.4144	04	5.000	0.4129	05	20.000	0.4856	06	50.000	0.5369
07	100.000	0.5128	08	150.000	0.4867	09	200.000	0.4762			

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Isopropylbenzene (Cumene) — Curve Fit: Average RF — Weighting: RSD = 11.9 — Average RF = 2.600

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.932	02	1.000	2.911	03	2.000	2.782	04	5.000	2.715
05	20.000	2.803	06	50.000	2.620	07	100.000	2.310	08	150.000	2.224
09	200.000	2.103									

Methacrylonitrile — Average RF — RSD = 5.0 — Average RF = 0.1413

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.1380	03	2.000	0.1556	04	5.000	0.1479	05	20.000	0.1406
06	50.000	0.1340	07	100.000	0.1395	08	150.000	0.1362	09	200.000	0.1389

Methyl Acetate — Average RF — RSD = 13.5 — Average RF = 0.2484

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3231	03	2.000	0.2642	04	5.000	0.2510	05	20.000	0.2190
06	50.000	0.2256	07	100.000	0.2309	08	150.000	0.2335	09	200.000	0.2394

Methyl Methacrylate — Average RF — RSD = 7.3 — Average RF = 0.1578

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1827	02	1.000	0.1479	03	2.000	0.1717	04	5.000	0.1565
05	20.000	0.1540	06	50.000	0.1527	07	100.000	0.1505	08	150.000	0.1520
09	200.000	0.1520									

Methyl tert-Butyl Ether — Average RF — RSD = 8.1 — Average RF = 1.163

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.349	02	1.000	1.197	03	2.000	1.200	04	5.000	1.226
05	20.000	1.184	06	50.000	1.104	07	100.000	1.079	08	150.000	1.061
09	200.000	1.070									

Methylcyclohexane — Average RF — RSD = 13.9 — Average RF = 0.3371

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4454	02	1.000	0.3389	03	2.000	0.3673	04	5.000	0.3407
05	20.000	0.3184	06	50.000	0.3239	07	100.000	0.3070	08	150.000	0.2947
09	200.000	0.2974									

Naphthalene — Average RF — RSD = 6.1 — Average RF = 1.341

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.240	02	1.000	1.188	03	2.000	1.452	04	5.000	1.323
05	20.000	1.395	06	50.000	1.384	07	100.000	1.388	08	150.000	1.364
09	200.000	1.338									

Propionitrile — Average RF — RSD = 6.6 — Average RF = 0.04459

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	5.000	0.04921	03	10.000	0.04745	04	25.000	0.04126	05	100.000	0.04224
06	250.000	0.04136	07	500.000	0.04441	08	750.000	0.04434	09	1000.000	0.04643

Styrene — Average RF — RSD = 8.9 — Average RF = 0.8627

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9522	02	1.000	0.9356	03	2.000	0.9260	04	5.000	0.8800
05	20.000	0.9069	06	50.000	0.8594	07	100.000	0.7921	08	150.000	0.7646
09	200.000	0.7472									

Tetrachloroethene (PCE) — Average RF — RSD = 9.6 — Average RF = 0.2074

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2514	02	1.000	0.1948	03	2.000	0.2169	04	5.000	0.2047
05	20.000	0.2191	06	50.000	0.2071	07	100.000	0.1918	08	150.000	0.1901
09	200.000	0.1905									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Tetrahydrofuran (THF) Average RF RSD = 6.9 Average RF = 0.09390

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1024	04	5.000	0.09978	05	20.000	0.08783	06	50.000	0.08504
07	100.000	0.09461	08	150.000	0.08996	09	200.000	0.09771			

Toluene Average RF RSD = 10.5 Average RF = 1.140

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.311	02	1.000	1.147	03	2.000	1.202	04	5.000	1.225
05	20.000	1.229	06	50.000	1.161	07	100.000	1.036	08	150.000	0.9823
09	200.000	0.9641									

Toluene-d8 Average RF RSD = 12.3 Average RF = 1.094

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	1.272	03	60.000	1.201	04	70.000	1.142	05	100.000	1.040
07	125.000	0.9945	08	150.000	0.9158						

Trichloroethene (TCE) Average RF RSD = 8.1 Average RF = 0.2796

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3231	02	1.000	0.3027	03	2.000	0.2684	04	5.000	0.2854
05	20.000	0.2859	06	50.000	0.2765	07	100.000	0.2556	08	150.000	0.2541
09	200.000	0.2646									

Trichlorofluoromethane (CFC 11) Average RF RSD = 5.3 Average RF = 0.6103

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5999	02	1.000	0.6241	03	2.000	0.6351	04	5.000	0.5983
05	20.000	0.6727	06	50.000	0.6272	07	100.000	0.5890	08	150.000	0.5727
09	200.000	0.5732									

Vinyl Acetate Average RF RSD = 13.7 Average RF = 0.08343

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.08232	03	2.000	0.09504	04	5.000	0.1044	05	20.000	0.07963
06	50.000	0.07988	07	100.000	0.07962	08	150.000	0.08008	09	200.000	0.06651

Vinyl Chloride Average RF RSD = 6.9 Average RF = 0.7834

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8677	02	1.000	0.8044	03	2.000	0.7629	04	5.000	0.7438
05	20.000	0.8615	06	50.000	0.8048	07	100.000	0.7399	08	150.000	0.7296
09	200.000	0.7358									

cis-1,2-Dichloroethene Average RF RSD = 10.0 Average RF = 0.4985

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5914	02	1.000	0.5359	03	2.000	0.5321	04	5.000	0.5156
05	20.000	0.4947	06	50.000	0.4772	07	100.000	0.4456	08	150.000	0.4446
09	200.000	0.4495									

cis-1,3-Dichloropropene Average RF RSD = 6.3 Average RF = 0.4481

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4777	02	1.000	0.4720	03	2.000	0.4602	04	5.000	0.4643
05	20.000	0.4728	06	50.000	0.4477	07	100.000	0.4221	08	150.000	0.4062
09	200.000	0.4099									

m,p-Xylenes Average RF RSD = 9.4 Average RF = 0.5171

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.5958	02	2.000	0.5253	03	4.000	0.5526	04	10.000	0.5395
05	40.000	0.5471	06	100.000	0.5129	07	200.000	0.4694	08	300.000	0.4604
09	400.000	0.4511									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

n-Butyl Acetate Average RF RSD = 3.3 Average RF = 0.3657

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3780	02	1.000	0.3877	03	2.000	0.3755	04	5.000	0.3557
05	20.000	0.3621	06	50.000	0.3569	07	100.000	0.3625	08	150.000	0.3611
09	200.000	0.3520									

n-Butylbenzene Average RF RSD = 11.8 Average RF = 1.799

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.101	02	1.000	1.782	03	2.000	1.941	04	5.000	1.891
05	20.000	1.982	06	50.000	1.855	07	100.000	1.618	08	150.000	1.542
09	200.000	1.476									

n-Heptane Average RF RSD = 12.2 Average RF = 0.3028

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3672	03	2.000	0.3330	04	5.000	0.3134	05	20.000	0.3164
06	50.000	0.2952	07	100.000	0.2721	08	150.000	0.2630	09	200.000	0.2622

n-Propylbenzene Average RF RSD = 12.7 Average RF = 2.997

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	3.473	02	1.000	3.119	03	2.000	3.284	04	5.000	3.071
05	20.000	3.326	06	50.000	3.096	07	100.000	2.706	08	150.000	2.543
09	200.000	2.352									

o-Xylene Average RF RSD = 5.4 Average RF = 0.5296

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5272	02	1.000	0.5122	03	2.000	0.5633	04	5.000	0.5694
05	20.000	0.5582	06	50.000	0.5362	07	100.000	0.5009	08	150.000	0.4969
09	200.000	0.5021									

sec-Butylbenzene Average RF RSD = 10.7 Average RF = 2.456

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.755	02	1.000	2.628	03	2.000	2.597	04	5.000	2.548
05	20.000	2.680	06	50.000	2.524	07	100.000	2.230	08	150.000	2.132
09	200.000	2.013									

tert-Amyl Methyl Ether Average RF RSD = 5.5 Average RF = 1.247

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.329	02	1.000	1.310	03	2.000	1.355	04	5.000	1.253
05	20.000	1.185	06	50.000	1.211	07	100.000	1.211	08	150.000	1.185
09	200.000	1.180									

tert-Butylbenzene Average RF RSD = 8.4 Average RF = 1.755

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.970	02	1.000	1.688	03	2.000	1.829	04	5.000	1.815
05	20.000	1.910	06	50.000	1.818	07	100.000	1.624	08	150.000	1.584
09	200.000	1.561									

trans-1,2-Dichloroethene Average RF RSD = 9.8 Average RF = 0.4503

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5440	02	1.000	0.4261	03	2.000	0.4861	04	5.000	0.4457
05	20.000	0.4700	06	50.000	0.4477	07	100.000	0.4136	08	150.000	0.4102
09	200.000	0.4096									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte	Curve Fit	Weighting									
trans-1,3-Dichloropropene	Average RF			RSD = 4.0		Average RF = 0.3560					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3485	02	1.000	0.3329	03	2.000	0.3598	04	5.000	0.3762
05	20.000	0.3735	06	50.000	0.3669	07	100.000	0.3531	08	150.000	0.3448
09	200.000	0.3481									
trans-1,4-Dichloro-2-butene	Linear	1/X		R2 = 0.9996		Y = 0.1536 X + 5.212E-4					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2429	02	1.000	0.1773	03	2.000	0.1591	04	5.000	0.1371
05	20.000	0.1496	06	50.000	0.1529	07	100.000	0.1524	08	150.000	0.1539
09	200.000	0.1557									

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,1,1,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.2	02	1.000	1.07	6.9	03	2.000	2.06	3.2
04	5.000	5.45	9.0	05	20.000	20.52	2.6	06	50.000	48.21	-3.6
07	100.000	90.80	-9.2	08	150.000	136.43	-9.0	09	200.000	183.70	-8.2

1,1,1-Trichloroethane (TCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.5	02	1.000	0.93	-6.8	03	2.000	2.08	3.8
04	5.000	5.03	0.6	05	20.000	20.68	3.4	06	50.000	49.98	0.0
07	100.000	92.16	-7.8	08	150.000	139.69	-6.9	09	200.000	190.62	-4.7

1,1,2,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	19.0	02	1.000	1.07	7.0	03	2.000	2.18	8.9
04	5.000	4.80	-4.0	05	20.000	19.99	0.0	06	50.000	47.00	-6.0
07	100.000	92.42	-7.6	08	150.000	137.95	-8.0	09	200.000	181.38	-9.3

1,1,2-Trichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.7	02	1.000	1.00	-0.2	03	2.000	2.04	2.0
04	5.000	5.35	7.0	05	20.000	21.02	5.1	06	50.000	50.10	0.2
07	100.000	96.52	-3.5	08	150.000	142.70	-4.9	09	200.000	195.69	-2.2

1,1,2-Trichlorotrifluoroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.9	02	1.000	1.08	7.8	03	2.000	2.18	8.8
04	5.000	4.97	-0.6	05	20.000	20.71	3.6	06	50.000	49.10	-1.8
07	100.000	86.84	-13.2	08	150.000	133.18	-11.2	09	200.000	177.56	-11.2

1,1-Dichloroethane (1,1-DCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	13.7	02	1.000	0.96	-4.4	03	2.000	2.06	3.0
04	5.000	4.99	-0.2	05	20.000	20.89	4.5	06	50.000	49.87	-0.3
07	100.000	95.02	-5.0	08	150.000	140.95	-6.0	09	200.000	189.26	-5.4

1,1-Dichloroethene (1,1-DCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.3	02	1.000	1.10	10.0	03	2.000	2.04	1.9
04	5.000	5.05	0.9	05	20.000	20.57	2.9	06	50.000	49.65	-0.7
07	100.000	89.86	-10.1	08	150.000	132.52	-11.7	09	200.000	179.10	-10.4

1,1-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	22.3	02	1.000	1.04	4.1	03	2.000	2.10	5.1
04	5.000	4.94	-1.3	05	20.000	20.68	3.4	06	50.000	50.05	0.1
07	100.000	89.56	-10.4	08	150.000	132.11	-11.9	09	200.000	177.13	-11.4

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,2,3-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-13.6	02	1.000	1.09	9.5	03	2.000	1.97	-1.4
04	5.000	5.20	4.1	05	20.000	20.84	4.2	06	50.000	51.37	2.7
07	100.000	98.59	-1.4	08	150.000	147.38	-1.7	09	200.000	195.43	-2.3

1,2,3-Trichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.4	02	1.000	0.97	-2.5	03	2.000	1.98	-0.9
04	5.000	5.27	5.5	05	20.000	19.45	-2.7	06	50.000	48.58	-2.8
07	100.000	100.78	0.8	08	150.000	149.45	-0.4	09	200.000	201.50	0.7

1,2,4-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	16.1	02	1.000	1.06	6.0	03	2.000	2.00	-0.2
04	5.000	4.90	-2.1	05	20.000	20.56	2.8	06	50.000	50.36	0.7
07	100.000	94.85	-5.1	08	150.000	136.96	-8.7	09	200.000	181.12	-9.4

1,2,4-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.3	02	1.000	1.07	6.6	03	2.000	2.07	3.6
04	5.000	5.12	2.4	05	20.000	21.77	8.8	06	50.000	51.18	2.4
07	100.000	91.33	-8.7	08	150.000	130.03	-13.3	09	200.000	165.94	-17.0

1,2-Dibromo-3-chloropropane (DBCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.3	02	1.000	0.86	-13.6	03	2.000	2.08	3.8
04	5.000	4.68	-6.4	05	20.000	19.73	-1.3	06	50.000	47.62	-4.8
07	100.000	100.52	0.5	08	150.000	155.01	3.3	09	200.000	206.41	3.2

1,2-Dibromoethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.2	02	1.000	1.02	2.2	03	2.000	2.01	0.4
04	5.000	5.17	3.3	05	20.000	20.61	3.1	06	50.000	48.49	-3.0
07	100.000	94.90	-5.1	08	150.000	140.87	-6.1	09	200.000	193.97	-3.0

1,2-Dichloro-1,1,2-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	13.2	02	1.000	1.11	11.0	03	2.000	2.19	9.3
04	5.000	5.23	4.7	05	20.000	19.17	-4.2	06	50.000	49.25	-1.5
07	100.000	92.41	-7.6	08	150.000	133.19	-11.2	09	200.000	172.59	-13.7

1,2-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.3	02	1.000	1.09	9.3	03	2.000	1.94	-2.9
04	5.000	4.95	-1.0	05	20.000	21.27	6.4	06	50.000	50.97	1.9
07	100.000	96.85	-3.1	08	150.000	142.33	-5.1	09	200.000	186.68	-6.7

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,2-Dichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.8	02	1.000	0.97	-2.7	03	2.000	2.08	4.2
04	5.000	5.65	13.0	05	20.000	21.18	5.9	06	50.000	48.96	-2.1
07	100.000	94.83	-5.2	08	150.000	138.50	-7.7	09	200.000	190.63	-4.7

1,2-Dichloroethane-d4

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	54.97	9.9	03	60.000	63.80	6.3	04	70.000	72.70	3.9
05	100.000	96.23	-3.8	07	125.000	117.27	-6.2	08	150.000	134.71	-10.2

1,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.6	02	1.000	1.06	6.2	03	2.000	1.97	-1.5
04	5.000	4.90	-2.0	05	20.000	21.02	5.1	06	50.000	50.34	0.7
07	100.000	93.78	-6.2	08	150.000	137.38	-8.4	09	200.000	187.18	-6.4

1,3,5-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	20.5	02	1.000	0.96	-3.5	03	2.000	2.22	11.2
04	5.000	4.81	-3.8	05	20.000	20.60	3.0	06	50.000	48.77	-2.5
07	100.000	95.44	-4.6	08	150.000	137.58	-8.3	09	200.000	175.84	-12.1

1,3,5-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.6	02	1.000	1.04	4.0	03	2.000	2.18	9.1
04	5.000	5.33	6.6	05	20.000	21.58	7.9	06	50.000	51.00	2.0
07	100.000	91.40	-8.6	08	150.000	131.55	-12.3	09	200.000	169.40	-15.3

1,3-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.9	02	1.000	1.05	4.9	03	2.000	2.09	4.3
04	5.000	4.92	-1.6	05	20.000	21.13	5.6	06	50.000	50.57	1.1
07	100.000	94.39	-5.6	08	150.000	136.71	-8.9	09	200.000	180.39	-9.8

1,3-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.9	02	1.000	1.13	12.9	03	2.000	2.13	6.5
04	5.000	5.24	4.8	05	20.000	20.72	3.6	06	50.000	47.51	-5.0
07	100.000	91.83	-8.2	08	150.000	135.54	-9.6	09	200.000	182.20	-8.9

1,4-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.3	02	1.000	0.96	-4.1	03	2.000	2.10	4.8
04	5.000	5.10	2.1	05	20.000	21.56	7.8	06	50.000	51.91	3.8
07	100.000	98.19	-1.8	08	150.000	143.36	-4.4	09	200.000	190.17	-4.9

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte

1,4-Dioxane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	40.000	44.09	10.2	04	100.000	103.35	3.4	05	400.000	388.97	-2.8
06	1000.000	882.89	-11.7	07	2000.000	1,913.57	-4.3	08	3000.000	2,967.55	-1.1
09	4000.000	4,251.30	6.3								

1-Butanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	50.000	48.25	-3.5	03	100.000	115.72	15.7	04	250.000	244.04	-2.4
05	1000.000	910.99	-8.9	06	2500.000	2,294.23	-8.2	07	5000.000	5,045.29	0.9
08	7500.000	7,648.32	2.0	09	10000.000	10,441.01	4.4				

1-Chloro-4-(trifluoromethyl)benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.1	02	1.000	1.05	4.5	03	2.000	2.06	3.2
04	5.000	5.12	2.3	05	20.000	19.72	-1.4	06	50.000	47.38	-5.2
07	100.000	95.82	-4.2	08	150.000	139.09	-7.3	09	200.000	181.95	-9.0

2,2-Dichloro-1,1,1-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.4	02	1.000	1.16	16.4	03	2.000	2.14	7.1
04	5.000	4.94	-1.2	05	20.000	18.70	-6.5	06	50.000	48.55	-2.9
07	100.000	91.68	-8.3	08	150.000	132.41	-11.7	09	200.000	177.63	-11.2

2,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.23	23.2	03	2.000	2.11	5.3	04	5.000	4.90	-1.9
05	20.000	21.07	5.4	06	50.000	49.75	-0.5	07	100.000	90.06	-9.9
08	150.000	134.22	-10.5	09	200.000	177.96	-11.0				

2,3,6-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.01	0.7	03	2.000	2.39	19.3	04	5.000	5.18	3.6
05	20.000	20.09	0.4	06	50.000	46.95	-6.1	07	100.000	94.14	-5.9
08	150.000	141.09	-5.9	09	200.000	187.91	-6.0				

2,4,5-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.96	-4.3	03	2.000	2.00	-0.2	04	5.000	5.18	3.6
05	20.000	20.27	1.4	06	50.000	49.48	-1.0	07	100.000	100.54	0.5
08	150.000	150.73	0.5	09	200.000	199.18	-0.4				

2,4-, 2,5-, and 2,6-Dichlorotoluene Coelut

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.500	1.64	9.1	02	3.000	3.06	2.1	03	6.000	6.36	6.0
04	15.000	15.73	4.9	05	60.000	63.56	5.9	06	150.000	150.74	0.5
07	300.000	290.33	-3.2	08	450.000	405.46	-9.9	09	600.000	507.89	-15.4

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte

2,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.5	02	1.000	0.97	-3.2	03	2.000	2.01	0.5
04	5.000	4.97	-0.7	05	20.000	20.59	2.9	06	50.000	49.88	-0.2
07	100.000	102.40	2.4	08	150.000	146.86	-2.1	09	200.000	187.55	-6.2

2,5-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.2	02	1.000	1.00	0.4	03	2.000	2.01	0.7
04	5.000	5.01	0.3	05	20.000	19.93	-0.4	06	50.000	49.05	-1.9
07	100.000	100.51	0.5	08	150.000	145.73	-2.8	09	200.000	188.17	-5.9

2-Butanone (MEK)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.33	16.4	04	5.000	4.78	-4.3	05	20.000	17.82	-10.9
06	50.000	47.75	-4.5	07	100.000	102.07	2.1	08	150.000	149.11	-0.6
09	200.000	203.61	1.8								

2-Chloro-1,3-butadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.7	02	1.000	1.07	7.3	03	2.000	2.12	6.2
04	5.000	5.22	4.4	05	20.000	19.06	-4.7	06	50.000	49.85	-0.3
07	100.000	95.18	-4.8	08	150.000	138.32	-7.8	09	200.000	178.10	-10.9

2-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.3	02	1.000	1.11	10.8	03	2.000	2.17	8.5
04	5.000	4.99	-0.2	05	20.000	20.04	0.2	06	50.000	48.44	-3.1
07	100.000	97.80	-2.2	08	150.000	143.77	-4.2	09	200.000	180.96	-9.5

2-Chloroethyl Vinyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.67	34.5	02	1.000	0.91	-9.1	03	2.000	2.19	9.5
04	5.000	5.18	3.7	05	20.000	18.34	-8.3	06	50.000	47.19	-5.6
07	100.000	95.11	-4.9	08	150.000	135.88	-9.4	09	200.000	179.30	-10.4

2-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.6	02	1.000	0.96	-3.5	03	2.000	2.08	4.1
04	5.000	5.10	2.1	05	20.000	21.88	9.4	06	50.000	51.62	3.2
07	100.000	93.85	-6.2	08	150.000	135.69	-9.5	09	200.000	177.63	-11.2

2-Hexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.34	17.2	04	5.000	5.09	1.9	05	20.000	18.18	-9.1
06	50.000	47.07	-5.9	07	100.000	97.45	-2.6	08	150.000	149.39	-0.4
09	200.000	197.86	-1.1								

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

2-Methyl-1-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	20.76	3.8	03	40.000	46.07	15.2	04	100.000	101.88	1.9
05	400.000	384.74	-3.8	06	1000.000	900.31	-10.0	07	2000.000	1,929.52	-3.5
08	3000.000	2,868.37	-4.4	09	4000.000	4,032.64	0.8				

2-Methyl-2-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	19.20	-4.0	03	40.000	39.84	-0.4	04	100.000	101.85	1.9
05	400.000	388.20	-2.9	06	1000.000	941.93	-5.8	07	2000.000	2,030.61	1.5
08	3000.000	3,113.23	3.8	09	4000.000	4,240.70	6.0				

2-Nitropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	2.000	1.88	-6.2	03	4.000	4.51	12.6	04	10.000	11.31	13.1
05	40.000	39.23	-1.9	06	100.000	91.43	-8.6	07	200.000	189.21	-5.4
08	300.000	290.65	-3.1	09	400.000	397.59	-0.6				

2-Propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	22.02	10.1	03	40.000	42.11	5.3	04	100.000	104.11	4.1
05	400.000	364.95	-8.8	06	1000.000	910.90	-8.9	07	2000.000	1,913.86	-4.3
08	3000.000	3,006.21	0.2	09	4000.000	4,090.98	2.3				

3,4- and 2,3-Dichlorotoluene Coelution

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.95	-4.9	02	2.000	2.14	7.0	03	4.000	4.25	6.3
04	10.000	10.75	7.5	05	40.000	42.55	6.4	06	100.000	102.57	2.6
07	200.000	195.55	-2.2	08	300.000	274.91	-8.4	09	400.000	342.89	-14.3

3,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.4	02	1.000	1.01	0.8	03	2.000	2.26	13.1
04	5.000	4.82	-3.7	05	20.000	19.67	-1.6	06	50.000	49.01	-2.0
07	100.000	96.54	-3.5	08	150.000	141.75	-5.5	09	200.000	181.82	-9.1

3-Chloro-1-propene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.3	02	1.000	1.24	24.4	03	2.000	1.91	-4.6
04	5.000	5.11	2.2	05	20.000	21.25	6.2	06	50.000	50.11	0.2
07	100.000	90.42	-9.6	08	150.000	129.74	-13.5	09	200.000	166.67	-16.7

3-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.7	02	1.000	1.05	5.0	03	2.000	2.13	6.7
04	5.000	5.04	0.9	05	20.000	19.92	-0.4	06	50.000	48.19	-3.6
07	100.000	95.98	-4.0	08	150.000	141.26	-5.8	09	200.000	181.15	-9.4

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

3-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.2	02	1.000	1.01	1.3	03	2.000	2.11	5.5
04	5.000	5.24	4.8	05	20.000	20.82	4.1	06	50.000	50.12	0.2
07	100.000	98.05	-1.9	08	150.000	142.71	-4.9	09	200.000	177.08	-11.5

4-Bromofluorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	56.93	13.9	03	60.000	65.41	9.0	04	70.000	71.90	2.7
05	100.000	93.35	-6.7	07	125.000	116.83	-6.5	08	150.000	131.40	-12.4

4-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.3	02	1.000	1.04	4.2	03	2.000	2.18	9.2
04	5.000	5.12	2.4	05	20.000	21.52	7.6	06	50.000	50.57	1.1
07	100.000	90.72	-9.3	08	150.000	126.08	-15.9	09	200.000	164.77	-17.6

4-Isopropyltoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	5.1	02	1.000	1.03	2.9	03	2.000	2.16	7.9
04	5.000	5.14	2.7	05	20.000	22.01	10.1	06	50.000	51.66	3.3
07	100.000	92.67	-7.3	08	150.000	134.28	-10.5	09	200.000	171.62	-14.2

4-Methyl-2-pentanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.97	-1.5	04	5.000	5.02	0.4	05	20.000	19.69	-1.6
06	50.000	49.04	-1.9	07	100.000	102.59	2.6	08	150.000	150.76	0.5
09	200.000	202.96	1.5								

Acetone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	5.000	5.66	13.1	05	20.000	19.25	-3.7	06	50.000	46.70	-6.6
07	100.000	97.39	-2.6	08	150.000	147.04	-2.0	09	200.000	203.60	1.8

Acetonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	10.000	10.02	0.2	04	25.000	29.90	19.6	05	100.000	97.04	-3.0
06	250.000	215.42	-13.8	07	500.000	415.85	-16.8	08	750.000	790.58	5.4
09	1000.000	1,084.29	8.4								

Acrolein

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	4.000	4.33	8.3	04	10.000	10.86	8.6	05	40.000	37.52	-6.2
06	100.000	92.35	-7.7	07	200.000	191.46	-4.3	08	300.000	301.41	0.5
09	400.000	402.93	0.7								

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Acrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.59	3.6	02	5.000	5.00	0.0	03	10.000	10.84	8.4
04	25.000	24.44	-2.3	05	100.000	98.60	-1.4	06	250.000	239.84	-4.1
07	500.000	492.60	-1.5	08	750.000	731.60	-2.5	09	1000.000	997.02	-0.3

Benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.2	02	1.000	1.06	5.8	03	2.000	2.09	4.6
04	5.000	5.14	2.7	05	20.000	20.93	4.7	06	50.000	50.87	1.7
07	100.000	92.36	-7.6	08	150.000	133.15	-11.2	09	200.000	180.25	-9.9

Bromobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.4	02	1.000	1.01	1.4	03	2.000	2.19	9.6
04	5.000	4.87	-2.7	05	20.000	21.37	6.8	06	50.000	51.23	2.5
07	100.000	96.01	-4.0	08	150.000	143.99	-4.0	09	200.000	191.49	-4.3

Bromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	13.5	02	1.000	1.07	6.7	03	2.000	2.11	5.4
04	5.000	5.09	1.8	05	20.000	19.73	-1.4	06	50.000	49.09	-1.8
07	100.000	93.35	-6.6	08	150.000	134.52	-10.3	09	200.000	185.72	-7.1

Bromodichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.9	02	1.000	1.10	10.2	03	2.000	1.99	-0.5
04	5.000	4.93	-1.4	05	20.000	20.42	2.1	06	50.000	49.89	-0.2
07	100.000	93.03	-7.0	08	150.000	137.96	-8.0	09	200.000	187.91	-6.0

Bromoform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	14.0	02	1.000	0.99	-1.3	03	2.000	2.03	1.5
04	5.000	4.84	-3.2	05	20.000	19.50	-2.5	06	50.000	48.24	-3.5
07	100.000	95.69	-4.3	08	150.000	147.99	-1.3	09	200.000	201.42	0.7

Bromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.62	24.1	02	1.000	0.99	-0.7	03	2.000	2.14	6.9
04	5.000	4.75	-5.0	05	20.000	19.05	-4.8	06	50.000	48.55	-2.9
07	100.000	93.46	-6.5	08	150.000	140.24	-6.5	09	200.000	190.86	-4.6

Carbon Disulfide

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.8	02	1.000	1.02	1.6	03	2.000	2.17	8.4
04	5.000	5.27	5.4	05	20.000	19.63	-1.9	06	50.000	50.82	1.6
07	100.000	96.29	-3.7	08	150.000	137.35	-8.4	09	200.000	176.24	-11.9

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Carbon Tetrachloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	5.8	02	1.000	1.05	5.2	03	2.000	2.03	1.6
04	5.000	5.18	3.6	05	20.000	20.50	2.5	06	50.000	50.31	0.6
07	100.000	92.15	-7.9	08	150.000	140.41	-6.4	09	200.000	190.05	-5.0

Chlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	14.1	02	1.000	1.04	4.4	03	2.000	2.17	8.7
04	5.000	5.18	3.7	05	20.000	21.02	5.1	06	50.000	48.75	-2.5
07	100.000	91.46	-8.5	08	150.000	132.40	-11.7	09	200.000	173.57	-13.2

Chloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	21.2	02	1.000	0.93	-6.7	03	2.000	2.11	5.3
04	5.000	4.89	-2.3	05	20.000	20.69	3.4	06	50.000	50.06	0.1
07	100.000	93.16	-6.8	08	150.000	138.58	-7.6	09	200.000	186.71	-6.6

Chloroform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.68	**35.6**	02	1.000	1.03	2.8	03	2.000	2.02	1.1
04	5.000	5.10	2.0	05	20.000	19.67	-1.6	06	50.000	47.23	-5.5
07	100.000	88.41	-11.6	08	150.000	132.15	-11.9	09	200.000	178.46	-10.8

Chloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.7	02	1.000	0.98	-2.2	03	2.000	2.06	3.0
04	5.000	4.62	-7.5	05	20.000	21.60	8.0	06	50.000	50.31	0.6
07	100.000	94.99	-5.0	08	150.000	141.72	-5.5	09	200.000	191.99	-4.0

Cyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.69	**37.7**	02	1.000	1.02	2.1	03	2.000	1.99	-0.6
04	5.000	4.93	-1.5	05	20.000	19.07	-4.6	06	50.000	49.22	-1.6
07	100.000	91.93	-8.1	08	150.000	131.90	-12.1	09	200.000	177.18	-11.4

Cyclohexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	20.39	2.0	03	40.000	40.81	2.0	04	100.000	93.25	-6.8
05	400.000	376.99	-5.8	06	1000.000	949.43	-5.1	07	2000.000	2,076.61	3.8
08	3000.000	3,125.33	4.2	09	4000.000	4,222.87	5.6				

Dibromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.3	02	1.000	1.06	6.2	03	2.000	2.03	1.7
04	5.000	5.07	1.4	05	20.000	20.16	0.8	06	50.000	49.91	-0.2
07	100.000	96.44	-3.6	08	150.000	143.83	-4.1	09	200.000	195.05	-2.5

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Dibromofluoromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	55.49	11.0	03	60.000	65.00	8.3	04	70.000	72.39	3.4
05	100.000	97.39	-2.6	07	125.000	115.86	-7.3	08	150.000	130.79	-12.8

Dibromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	23.0	02	1.000	1.14	14.2	03	2.000	2.10	5.1
04	5.000	4.73	-5.4	05	20.000	19.48	-2.6	06	50.000	46.34	-7.3
07	100.000	91.72	-8.3	08	150.000	132.66	-11.6	09	200.000	185.93	-7.0

Dichlorodifluoromethane (CFC 12)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-9.7	02	1.000	0.93	-7.0	03	2.000	1.83	-8.5
04	5.000	4.36	-12.8	05	20.000	22.42	12.1	06	50.000	55.68	11.4
07	100.000	104.70	4.7	08	150.000	156.39	4.3	09	200.000	211.01	5.5

Dichlorofluoromethane (CFC 21)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.5	02	1.000	1.02	1.7	03	2.000	2.12	5.9
04	5.000	4.95	-1.1	05	20.000	19.94	-0.3	06	50.000	50.90	1.8
07	100.000	99.73	-0.3	08	150.000	142.52	-5.0	09	200.000	189.55	-5.2

Dichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	19.7	02	1.000	1.09	8.7	03	2.000	2.21	10.7
04	5.000	4.88	-2.4	05	20.000	19.66	-1.7	06	50.000	47.42	-5.2
07	100.000	90.02	-10.0	08	150.000	133.95	-10.7	09	200.000	181.78	-9.1

Diethyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.16	15.6	03	2.000	1.88	-5.9	04	5.000	5.23	4.6
05	20.000	20.82	4.1	06	50.000	49.37	-1.3	07	100.000	95.74	-4.3
08	150.000	140.42	-6.4	09	200.000	187.13	-6.4				

Diisopropyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	9.0	02	1.000	1.07	7.3	03	2.000	2.21	10.5
04	5.000	5.32	6.3	05	20.000	19.55	-2.3	06	50.000	48.94	-2.1
07	100.000	93.83	-6.2	08	150.000	134.38	-10.4	09	200.000	175.70	-12.1

Ethyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.4	02	1.000	0.95	-5.0	03	2.000	1.93	-3.7
04	5.000	5.04	0.8	05	20.000	20.63	3.2	06	50.000	50.32	0.6
07	100.000	101.20	1.2	08	150.000	148.63	-0.9	09	200.000	202.71	1.4

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Ethyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.1	02	1.000	1.04	4.4	03	2.000	2.13	6.7
04	5.000	5.29	5.8	05	20.000	19.19	-4.0	06	50.000	49.08	-1.8
07	100.000	97.66	-2.3	08	150.000	141.27	-5.8	09	200.000	185.96	-7.0

Ethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.5	02	1.000	1.02	2.1	03	2.000	2.13	6.4
04	5.000	5.13	2.6	05	20.000	21.12	5.6	06	50.000	49.18	-1.6
07	100.000	92.06	-7.9	08	150.000	138.47	-7.7	09	200.000	188.19	-5.9

Hexachlorobutadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.15	14.7	03	2.000	2.28	14.1	04	5.000	4.83	-3.4
05	20.000	20.45	2.3	06	50.000	51.04	2.1	07	100.000	90.89	-9.1
08	150.000	134.84	-10.1	09	200.000	178.97	-10.5				

Iodomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.74	-12.8	04	5.000	4.35	-13.1	05	20.000	20.45	2.2
06	50.000	56.50	13.0	07	100.000	107.93	7.9	08	150.000	153.67	2.4
09	200.000	200.49	0.2								

Isopropylbenzene (Cumene)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.8	02	1.000	1.12	12.0	03	2.000	2.14	7.0
04	5.000	5.22	4.4	05	20.000	21.56	7.8	06	50.000	50.39	0.8
07	100.000	88.85	-11.1	08	150.000	128.31	-14.5	09	200.000	161.80	-19.1

Methacrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.98	-2.4	03	2.000	2.20	10.1	04	5.000	5.23	4.6
05	20.000	19.89	-0.5	06	50.000	47.40	-5.2	07	100.000	98.74	-1.3
08	150.000	144.58	-3.6	09	200.000	196.53	-1.7				

Methyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.30	30.1	03	2.000	2.13	6.4	04	5.000	5.05	1.1
05	20.000	17.63	-11.8	06	50.000	45.43	-9.1	07	100.000	92.96	-7.0
08	150.000	141.05	-6.0	09	200.000	192.83	-3.6				

Methyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.8	02	1.000	0.94	-6.3	03	2.000	2.18	8.8
04	5.000	4.96	-0.8	05	20.000	19.52	-2.4	06	50.000	48.39	-3.2
07	100.000	95.39	-4.6	08	150.000	144.51	-3.7	09	200.000	192.68	-3.7

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Methyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.9	02	1.000	1.03	2.9	03	2.000	2.06	3.1
04	5.000	5.27	5.4	05	20.000	20.36	1.8	06	50.000	47.45	-5.1
07	100.000	92.72	-7.3	08	150.000	136.82	-8.8	09	200.000	183.90	-8.1

Methylcyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.66	**32.1**	02	1.000	1.01	0.5	03	2.000	2.18	9.0
04	5.000	5.05	1.1	05	20.000	18.89	-5.5	06	50.000	48.05	-3.9
07	100.000	91.07	-8.9	08	150.000	131.13	-12.6	09	200.000	176.47	-11.8

Naphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.6	02	1.000	0.89	-11.4	03	2.000	2.16	8.2
04	5.000	4.93	-1.4	05	20.000	20.81	4.0	06	50.000	51.59	3.2
07	100.000	103.48	3.5	08	150.000	152.52	1.7	09	200.000	199.53	-0.2

Propionitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	5.000	5.52	10.4	03	10.000	10.64	6.4	04	25.000	23.14	-7.5
05	100.000	94.74	-5.3	06	250.000	231.89	-7.2	07	500.000	497.97	-0.4
08	750.000	745.83	-0.6	09	1000.000	1,041.30	4.1				

Styrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.4	02	1.000	1.08	8.5	03	2.000	2.15	7.3
04	5.000	5.10	2.0	05	20.000	21.02	5.1	06	50.000	49.81	-0.4
07	100.000	91.81	-8.2	08	150.000	132.95	-11.4	09	200.000	173.24	-13.4

Tetrachloroethene (PCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	21.2	02	1.000	0.94	-6.0	03	2.000	2.09	4.6
04	5.000	4.93	-1.3	05	20.000	21.13	5.7	06	50.000	49.93	-0.1
07	100.000	92.49	-7.5	08	150.000	137.48	-8.3	09	200.000	183.72	-8.1

Tetrahydrofuran (THF)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.18	9.0	04	5.000	5.31	6.3	05	20.000	18.71	-6.5
06	50.000	45.28	-9.4	07	100.000	100.76	0.8	08	150.000	143.70	-4.2
09	200.000	208.11	4.1								

Toluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.1	02	1.000	1.01	0.7	03	2.000	2.11	5.4
04	5.000	5.37	7.5	05	20.000	21.57	7.8	06	50.000	50.93	1.9
07	100.000	90.90	-9.1	08	150.000	129.29	-13.8	09	200.000	169.20	-15.4

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Toluene-d8

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	58.14	16.3	03	60.000	65.85	9.7	04	70.000	73.04	4.3
05	100.000	95.02	-5.0	07	125.000	113.63	-9.1	08	150.000	125.57	-16.3

Trichloroethene (TCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.6	02	1.000	1.08	8.3	03	2.000	1.92	-4.0
04	5.000	5.10	2.1	05	20.000	20.45	2.3	06	50.000	49.44	-1.1
07	100.000	91.41	-8.6	08	150.000	136.35	-9.1	09	200.000	189.29	-5.4

Trichlorofluoromethane (CFC 11)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-1.7	02	1.000	1.02	2.3	03	2.000	2.08	4.1
04	5.000	4.90	-2.0	05	20.000	22.05	10.2	06	50.000	51.39	2.8
07	100.000	96.52	-3.5	08	150.000	140.76	-6.2	09	200.000	187.87	-6.1

Vinyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.99	-1.3	03	2.000	2.28	13.9	04	5.000	6.26	25.1
05	20.000	19.09	-4.6	06	50.000	47.87	-4.3	07	100.000	95.43	-4.6
08	150.000	143.96	-4.0	09	200.000	159.42	-20.3				

Vinyl Chloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.8	02	1.000	1.03	2.7	03	2.000	1.95	-2.6
04	5.000	4.75	-5.0	05	20.000	22.00	10.0	06	50.000	51.36	2.7
07	100.000	94.45	-5.6	08	150.000	139.71	-6.9	09	200.000	187.85	-6.1

cis-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.6	02	1.000	1.07	7.5	03	2.000	2.13	6.7
04	5.000	5.17	3.4	05	20.000	19.85	-0.8	06	50.000	47.86	-4.3
07	100.000	89.39	-10.6	08	150.000	133.79	-10.8	09	200.000	180.34	-9.8

cis-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.6	02	1.000	1.05	5.3	03	2.000	2.05	2.7
04	5.000	5.18	3.6	05	20.000	21.10	5.5	06	50.000	49.95	-0.1
07	100.000	94.19	-5.8	08	150.000	135.98	-9.3	09	200.000	182.96	-8.5

m,p-Xylenes

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.15	15.2	02	2.000	2.03	1.6	03	4.000	4.27	6.9
04	10.000	10.43	4.3	05	40.000	42.32	5.8	06	100.000	99.19	-0.8
07	200.000	181.55	-9.2	08	300.000	267.09	-11.0	09	400.000	348.90	-12.8

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	I

Analyte

n-Butyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.4	02	1.000	1.06	6.0	03	2.000	2.05	2.7
04	5.000	4.86	-2.7	05	20.000	19.80	-1.0	06	50.000	48.80	-2.4
07	100.000	99.12	-0.9	08	150.000	148.11	-1.3	09	200.000	192.51	-3.7

n-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	16.8	02	1.000	0.99	-0.9	03	2.000	2.16	7.9
04	5.000	5.26	5.1	05	20.000	22.04	10.2	06	50.000	51.57	3.1
07	100.000	89.98	-10.0	08	150.000	128.58	-14.3	09	200.000	164.18	-17.9

n-Heptane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.21	21.3	03	2.000	2.20	10.0	04	5.000	5.17	3.5
05	20.000	20.90	4.5	06	50.000	48.75	-2.5	07	100.000	89.85	-10.1
08	150.000	130.27	-13.2	09	200.000	173.21	-13.4				

n-Propylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.9	02	1.000	1.04	4.1	03	2.000	2.19	9.6
04	5.000	5.12	2.5	05	20.000	22.20	11.0	06	50.000	51.66	3.3
07	100.000	90.30	-9.7	08	150.000	127.29	-15.1	09	200.000	156.99	-21.5

o-Xylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.5	02	1.000	0.97	-3.3	03	2.000	2.13	6.4
04	5.000	5.38	7.5	05	20.000	21.08	5.4	06	50.000	50.63	1.3
07	100.000	94.58	-5.4	08	150.000	140.75	-6.2	09	200.000	189.61	-5.2

sec-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.1	02	1.000	1.07	7.0	03	2.000	2.11	5.7
04	5.000	5.19	3.7	05	20.000	21.82	9.1	06	50.000	51.38	2.8
07	100.000	90.78	-9.2	08	150.000	130.19	-13.2	09	200.000	163.94	-18.0

tert-Amyl Methyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.6	02	1.000	1.05	5.1	03	2.000	2.17	8.7
04	5.000	5.02	0.5	05	20.000	19.01	-4.9	06	50.000	48.58	-2.8
07	100.000	97.13	-2.9	08	150.000	142.61	-4.9	09	200.000	189.31	-5.3

tert-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.2	02	1.000	0.96	-3.8	03	2.000	2.08	4.2
04	5.000	5.17	3.4	05	20.000	21.76	8.8	06	50.000	51.79	3.6
07	100.000	92.49	-7.5	08	150.000	135.35	-9.8	09	200.000	177.85	-11.1

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

trans-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	20.8	02	1.000	0.95	-5.4	03	2.000	2.16	7.9
04	5.000	4.95	-1.0	05	20.000	20.87	4.4	06	50.000	49.71	-0.6
07	100.000	91.85	-8.1	08	150.000	136.63	-8.9	09	200.000	181.93	-9.0

trans-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.1	02	1.000	0.94	-6.5	03	2.000	2.02	1.1
04	5.000	5.28	5.7	05	20.000	20.99	4.9	06	50.000	51.53	3.1
07	100.000	99.19	-0.8	08	150.000	145.28	-3.1	09	200.000	195.57	-2.2

trans-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.62	24.2	02	1.000	0.99	-1.5	03	2.000	1.90	-4.9
04	5.000	4.29	-14.1	05	20.000	19.31	-3.5	06	50.000	49.61	-0.8
07	100.000	99.06	-0.9	08	150.000	150.14	0.1	09	200.000	202.57	1.3

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:53:37 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	764325	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1268968	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1157078	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	575084	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	372379	49.01	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.02%				
48) surr1,1,2-dichloroetha...	6.096	65	392390	47.39	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 94.78%				
65) SURR3,Toluene-d8	8.529	98	1587219	47.01	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 94.02%				
70) SURR2,BFB	11.047	95	581975	47.84	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 95.68%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	4863	0.45	ppb		87
3) Chloromethane	1.347	50	7240	0.56	ppb		84
4) Vinyl Chloride	1.433	62	6632m	0.55	ppb		
5) Bromomethane	1.689	94	3628	0.61	ppb		87
6) Chloroethane	1.768	64	3991	0.60	ppb		70
7) Freon 21	1.926	67	6532m	0.51	ppb		
8) Trichlorofluoromethane	1.975	101	4585	0.49	ppb		76
9) Diethyl Ether	2.231	59	3589	0.61	ppb		85
10) Freon 123a	2.237	67	4717m	0.56	ppb		
11) Freon 123	2.292	83	5691m	0.58	ppb		
13) 1,1-Diclethene	2.432	96	3749m	0.57	ppb		
14) Freon 113	2.445	101	3428	0.59	ppb	#	65
17) Iodomethane	2.579	142	3304m	0.46	ppb		
18) Carbon Disulfide	2.634	76	11619	0.54	ppb		90
20) Allyl Chloride	2.804	76	1981	0.56	ppb	#	86
21) Methyl Acetate	2.841	43	2130	0.56	ppb		80
22) Methylene Chloride	2.926	84	4417	0.60	ppb	#	81
23) TBA	3.097	59	4748m	9.46	ppb		
24) Acrylonitrile	3.225	53	4777m	2.57	ppb		
25) Methyl-t-Butyl Ether	3.261	73	10309	0.58	ppb		86
26) trans-1,2-Dichloroethene	3.255	96	4158	0.61	ppb	#	83
28) 1,1-Diclethane	3.798	63	6962	0.57	ppb		80
29) Vinyl Acetate	3.895	86	611	0.46	ppb	#	1
30) DIPE	3.950	45	13005	0.54	ppb		95
31) 2-Chloro-1,3-Butadiene	3.926	53	6813	0.55	ppb		98
32) ETBE	4.536	59	11673	0.52	ppb		86
33) 2,2-Dichloropropane	4.700	77	6855m	0.70	ppb		
34) cis-1,2-Dichloroethene	4.718	96	4520m	0.59	ppb		
37) Bromochloromethane	5.133	130	2233m	0.56	ppb		
40) Chloroform	5.334	83	8066m	0.68	ppb		
41) 1,1,1-Trichloroethane	5.596	97	5536m	0.59	ppb		
42) TAME	6.401	73	10160	0.53	ppb		93
44) Cyclohexane	5.682	41	4775m	0.69	ppb		
46) Carbontetrachloride	5.852	121	1285m	0.52	ppb		

KP 11/19/15

W111815.M Thu Nov 19 09:54:10 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:53:37 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47)	1,1-Dichloropropene	5.877	75	5477m	0.61	ppb		
49)	Benzene	6.169	78	15250	0.55	ppb		82
50)	1,2-Dichloroethane	6.218	62	3552	0.50	ppb	#	60
51)	Iso-Butyl Alcohol	6.212	43	2679	11.44	ppb	#	68
52)	n-Heptane	6.645	43	5643	0.73	ppb		78
53)	1-Butanol	7.127	56	5628m	38.45	ppb		
54)	Trichloroethene	7.084	130	4100m	0.58	ppb		
55)	Methylcyclohexane	7.303	55	5652m	0.67	ppb		
56)	1,2-Diclpropane	7.352	63	3895	0.56	ppb		98
57)	Dibromomethane	7.486	93	2095	0.61	ppb	#	66
59)	Methyl Methacrylate	7.578	69	2318	0.58	ppb		93
60)	Bromodichloromethane	7.712	83	4703	0.55	ppb		86
62)	2-Chloroethylvinyl Ether	8.120	63	2568	0.67	ppb	#	63
63)	cis-1,3-Dichloropropene	8.242	75	6062	0.53	ppb		95
64)	4-Methyl-2-pentanone	8.443	43	2936	0.58	ppb		91
66)	Toluene	8.602	91	16639	0.58	ppb		98
67)	trans-1,3-Dichloropropene	8.864	75	4422	0.49	ppb	#	72
68)	Ethyl Methacrylate	8.998	69	4097	0.51	ppb		91
69)	1,1,2-Trichloroethane	9.041	97	2356	0.48	ppb		87
72)	Tetrachloroethene	9.181	164	2909	0.61	ppb		90
73)	2-Hexanone	9.333	43	2259	0.64	ppb		75
74)	1,3-Dichloropropane	9.218	76	4570	0.52	ppb		83
75)	Dibromochloromethane	9.437	129	2745	0.50	ppb		93
76)	N-Butyl Acetate	9.486	43	4374m	0.52	ppb		
77)	1,2-Dibromoethane	9.529	107	2537m	0.54	ppb		
78)	Chlorobenzene	10.016	112	9761	0.57	ppb		93
79)	3-CBTF	10.028	180	4695	0.55	ppb		99
80)	4-CBTF	10.083	180	4619	0.58	ppb		82
81)	1,1,1,2-Tetrachloroethane	10.102	131	3201	0.54	ppb	#	76
82)	Ethylbenzene	10.132	106	5165	0.53	ppb	#	56
83)	(m+p)Xylene	10.242	106	13787	1.15	ppb	#	81
84)	o-Xylene	10.595	106	6100	0.50	ppb		97
85)	Styrene	10.608	104	11018	0.55	ppb		89
87)	Bromoform	10.760	173	1862m	0.57	ppb		
88)	2-CBTF	10.839	180	4347	0.50	ppb	#	79
89)	Isopropylbenzene	10.925	105	16861	0.56	ppb		95
90)	Cyclohexanone	10.986	55	4945	11.41	ppb		96
91)	trans-1,4-Dichloro-2-B...	11.236	53	1397m	0.74	ppb		
92)	1,1,2,2-Tetrachloroethane	11.181	83	3596	0.60	ppb		93
93)	Bromobenzene	11.175	156	3201	0.47	ppb	#	75
94)	1,2,3-Trichloropropane	11.205	110	1248	0.70	ppb	#	74
95)	n-Propylbenzene	11.278	91	19975	0.58	ppb		97
96)	2-Chlorotoluene	11.339	91	11270	0.56	ppb		91
97)	3-Chlorotoluene	11.394	91	10843	0.51	ppb		98
98)	4-Chlorotoluene	11.431	91	13481	0.59	ppb		95
99)	1,3,5-Trimethylbenzene	11.431	105	12064	0.53	ppb		93
100)	tert-Butylbenzene	11.699	119	11331	0.56	ppb		99
101)	1,2,4-Trimethylbenzene	11.742	105	14000	0.58	ppb		87
102)	3,4-DCBTF	11.796	214	3254	0.56	ppb	#	78
103)	sec-Butylbenzene	11.882	105	15842	0.56	ppb		86
104)	p-Isopropyltoluene	12.004	119	11480	0.53	ppb		78

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:53:37 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

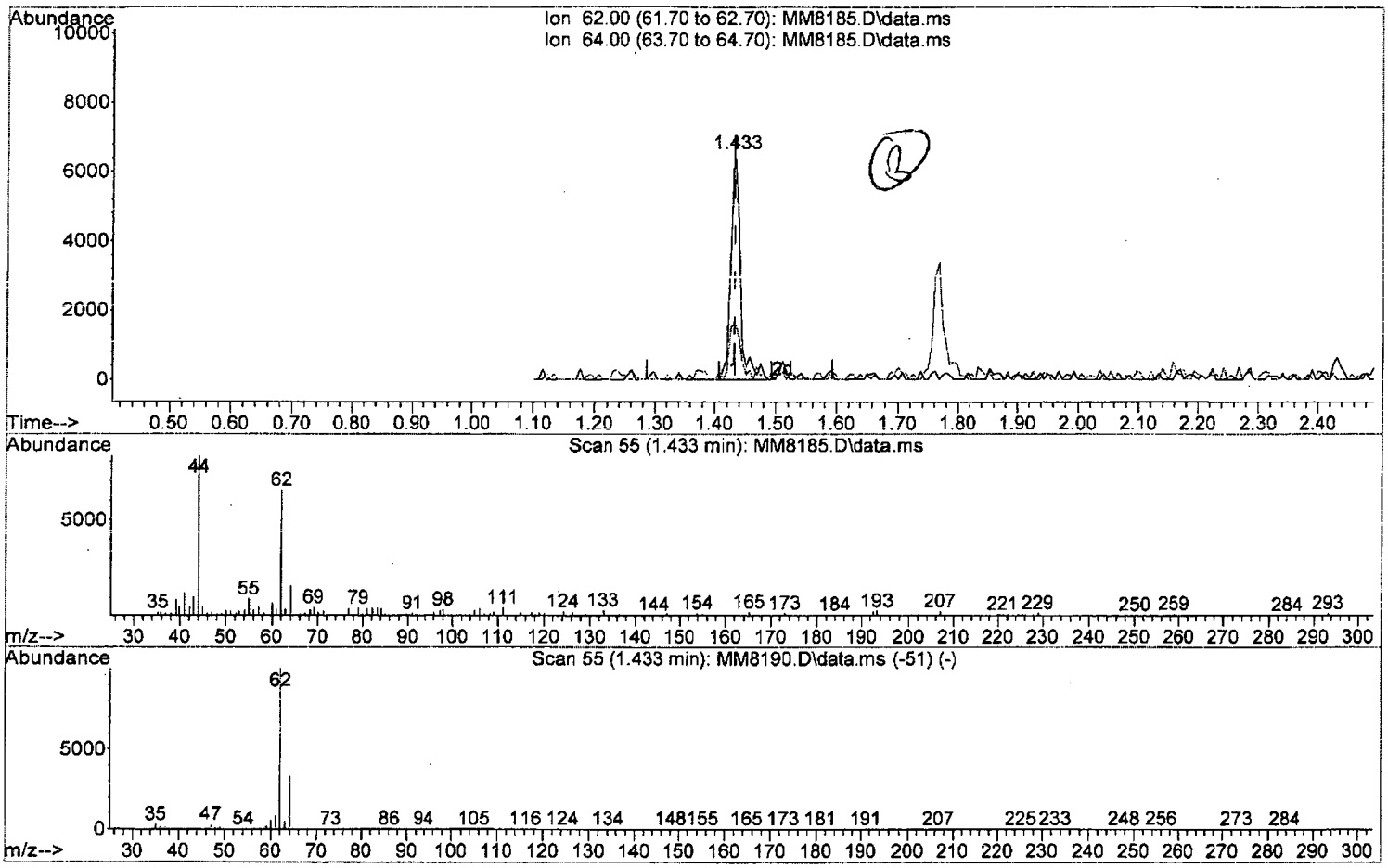
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
105) 1,3-Dclbenz	11.961	146	7197	0.55	ppb		87
106) 1,4-Dclbenz	12.040	146	5939	0.48	ppb		88
107) 2,4-DCBTF	12.083	214	2715	0.53	ppb	#	68
108) 2,5-DCBTF	12.126	214	3148	0.55	ppb	#	85
109) n-Butylbenzene	12.327	91	12081	0.58	ppb		85
110) 1,2-Dclbenz	12.333	146	6104	0.51	ppb		83
111) 1,2-Dibromo-3-chloropr...	12.955	157	672	0.57	ppb	#	65
112) Trielution Dichlorotol...	13.083	125	16655	1.64	ppb	#	88
113) 1,3,5 Trichlorobenzene	13.125	180	4884	0.60	ppb		96
114) Coelution Dichlorotoluene	13.400	125	10221	0.95	ppb	#	93
115) 1,2,4-Tcbenzene	13.613	180	4316	0.58	ppb	#	79
116) Hexachlorobt	13.747	225	2390	0.75	ppb		92
117) Naphthalen	13.796	128	7130	0.46	ppb		86
118) 1,2,3-Tclbenzene	13.985	180	2673	0.43	ppb		89
119) 2,4,5-Trichlorotolene	14.570	159	2775	0.59	ppb	#	78
120) 2,3,6-Trichlorotoluene	14.656	159	2515	0.61	ppb		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(4) Vinyl Chloride (P)

1.433min (-0.000) 0.57 ppb

response 6846

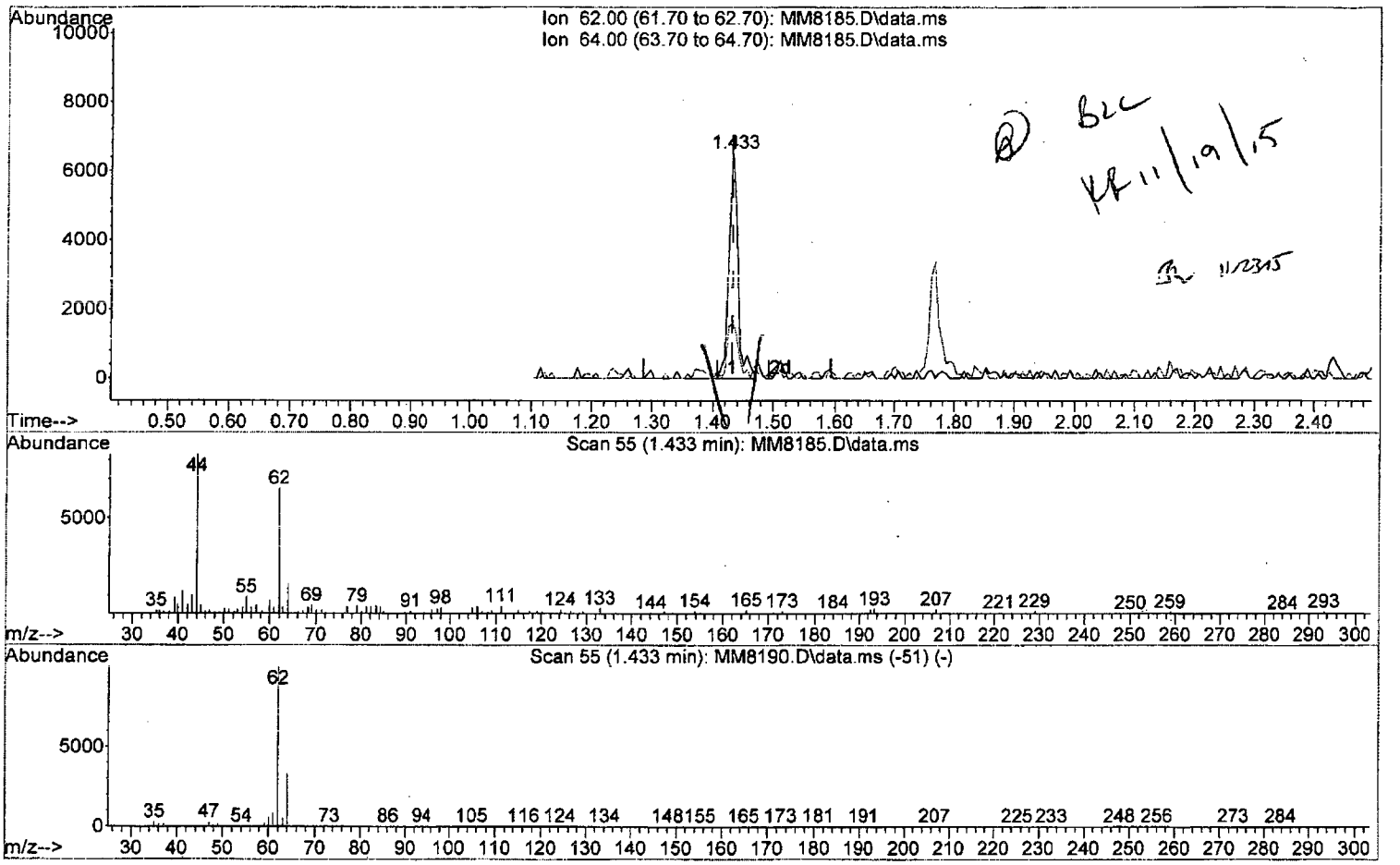
Ion	Exp%	Act%
62.00	100	100
64.00	33.40	24.76
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:37:15 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(4) Vinyl Chloride (P)

1.433min (-0.000) 0.55 ppb m

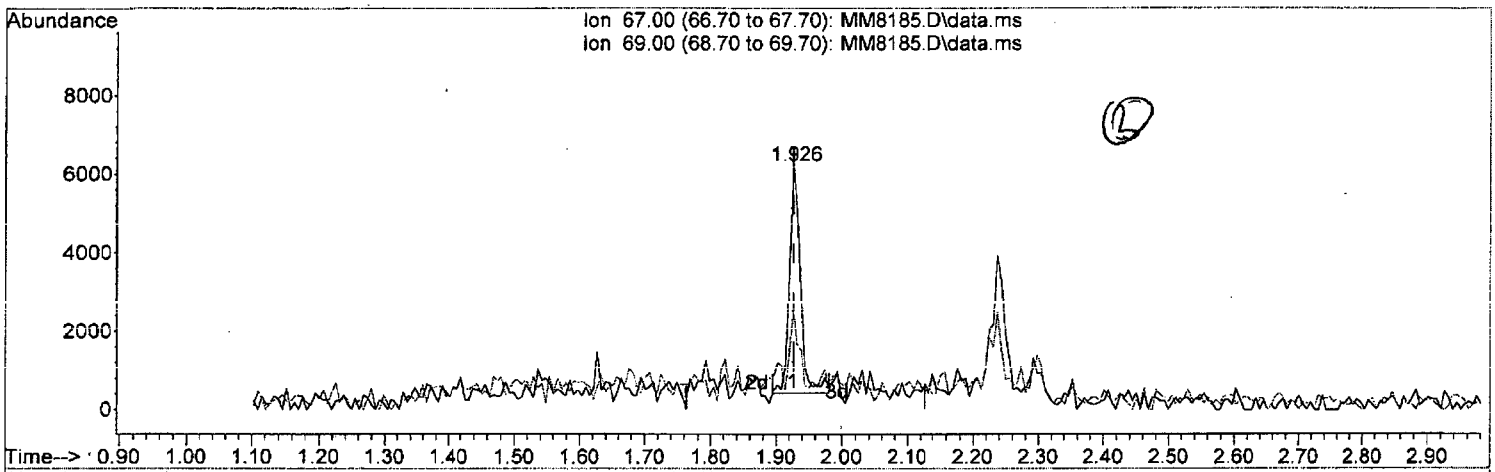
response 6632

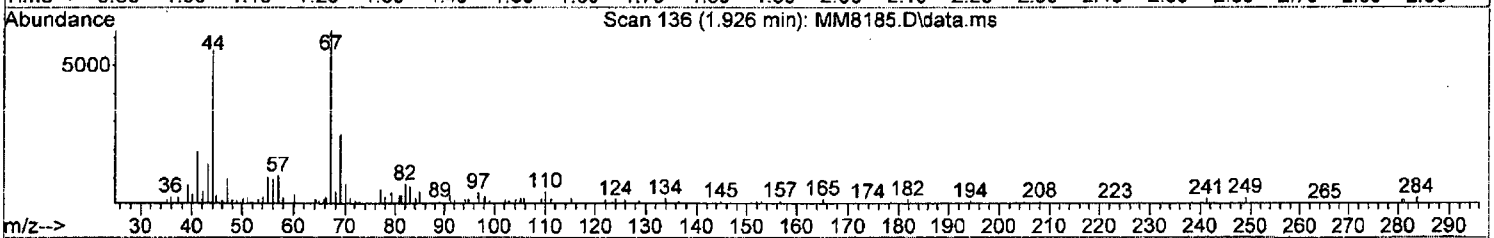
Ion	Exp%	Act%
62.00	100	100
64.00	33.40	24.76
0.00	0.00	0.00
0.00	0.00	0.00

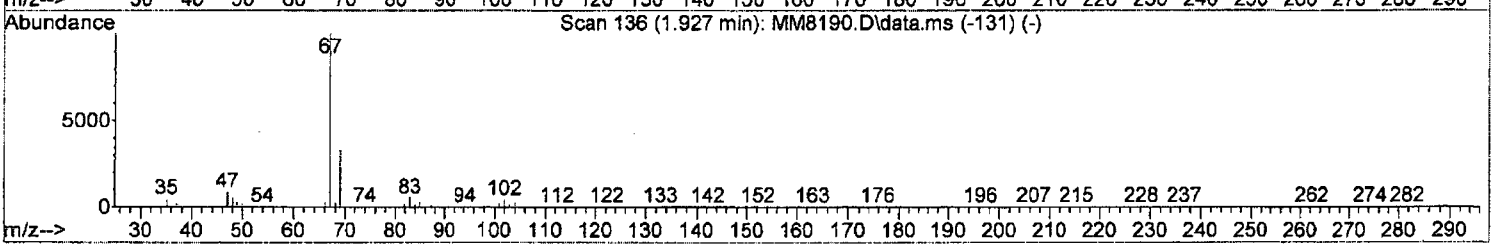
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8185.D\data.ms

(7) Freon 21

1.926min (-0.000) 0.53 ppb

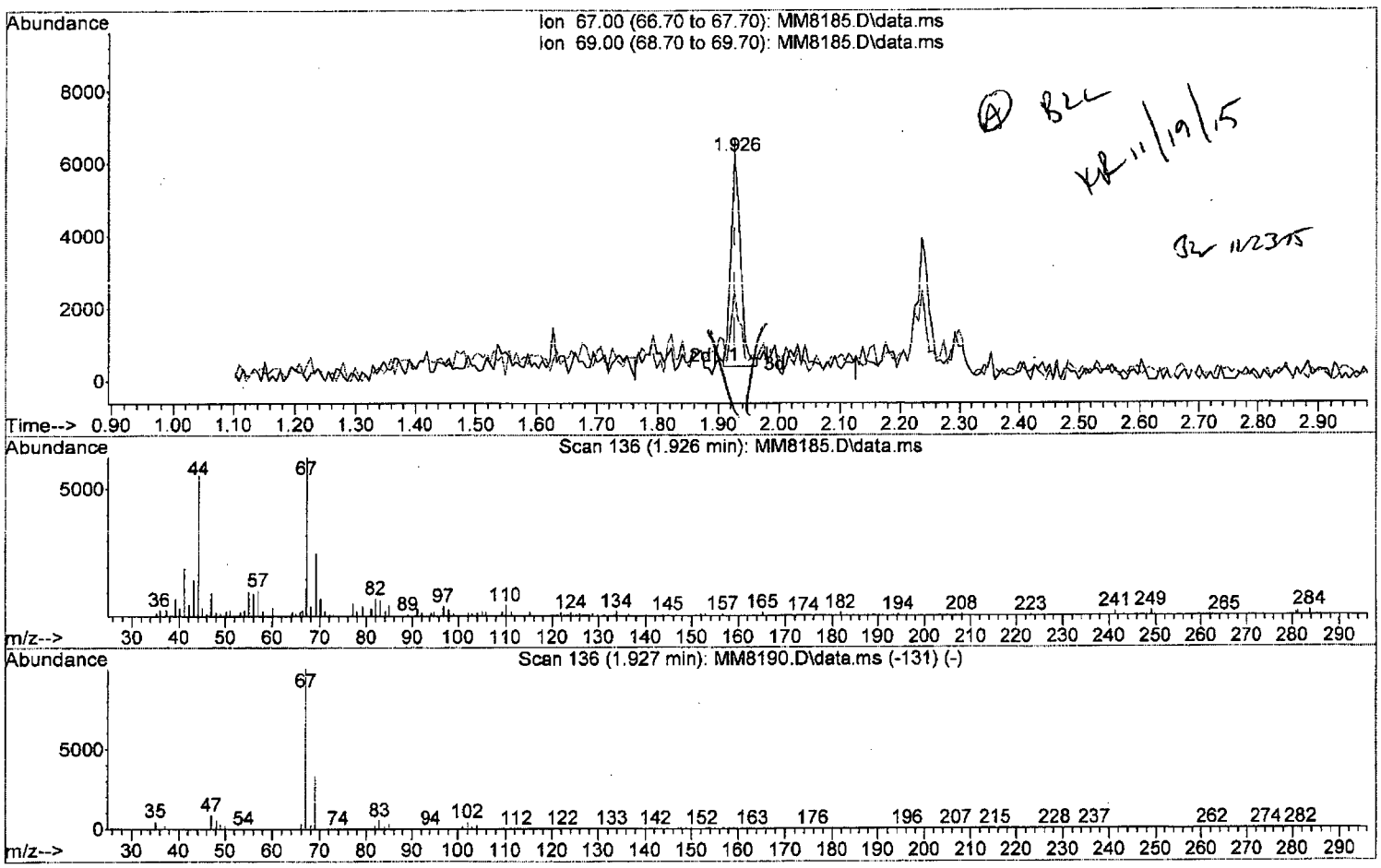
response 6797

Ion	Exp%	Act%
67.00	100	100
69.00	33.10	40.44
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



BLL 11/19/15

BL 11/23/15

TIC: MM8185.D\data.ms

(7) Freon 21

1.926min (-0.000) 0.51 ppb m

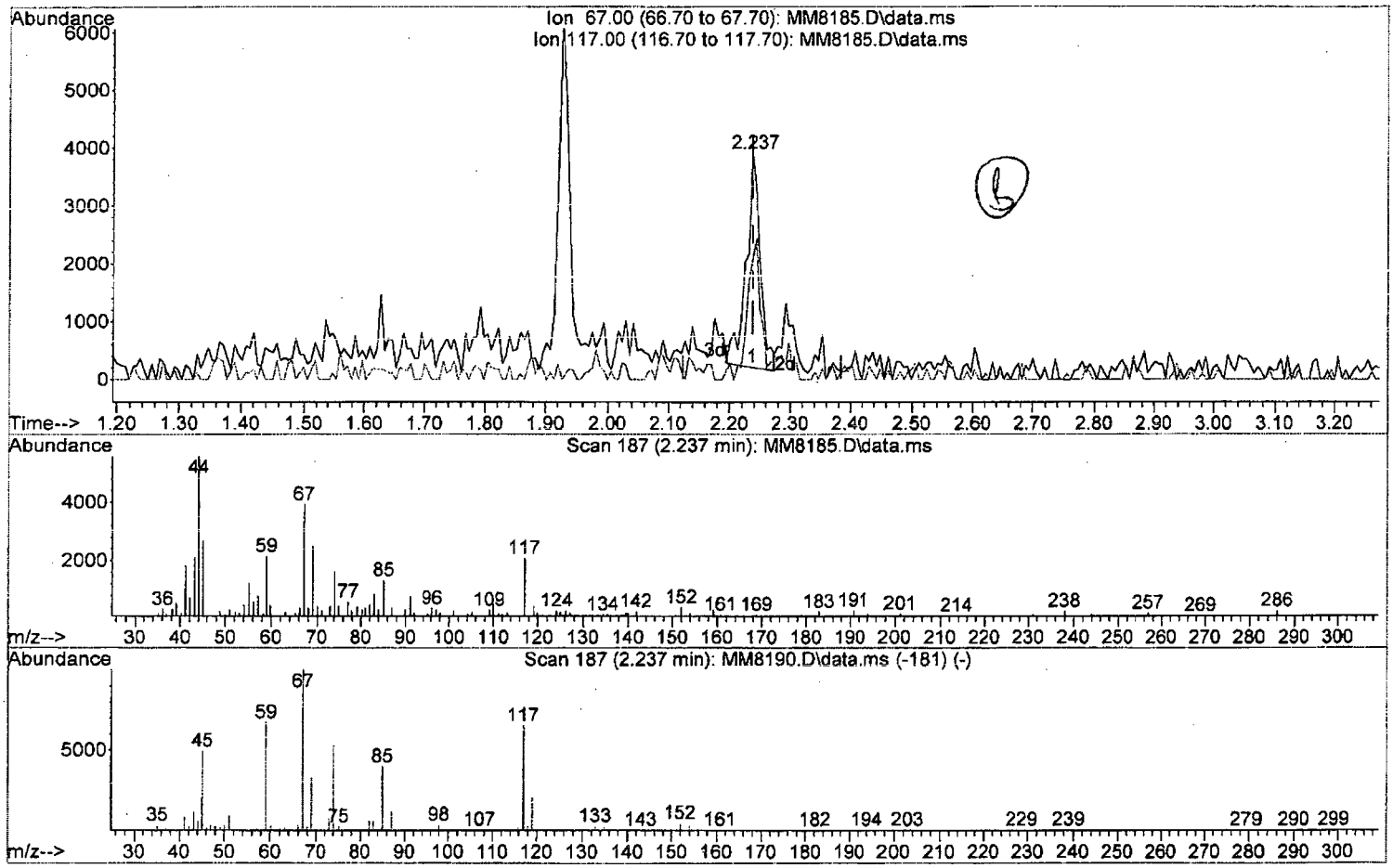
response 6532

Ion	Exp%	Act%
67.00	100	100
69.00	33.10	40.44
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(10) Freon 123a

2.237min (-0.000) 0.70 ppb

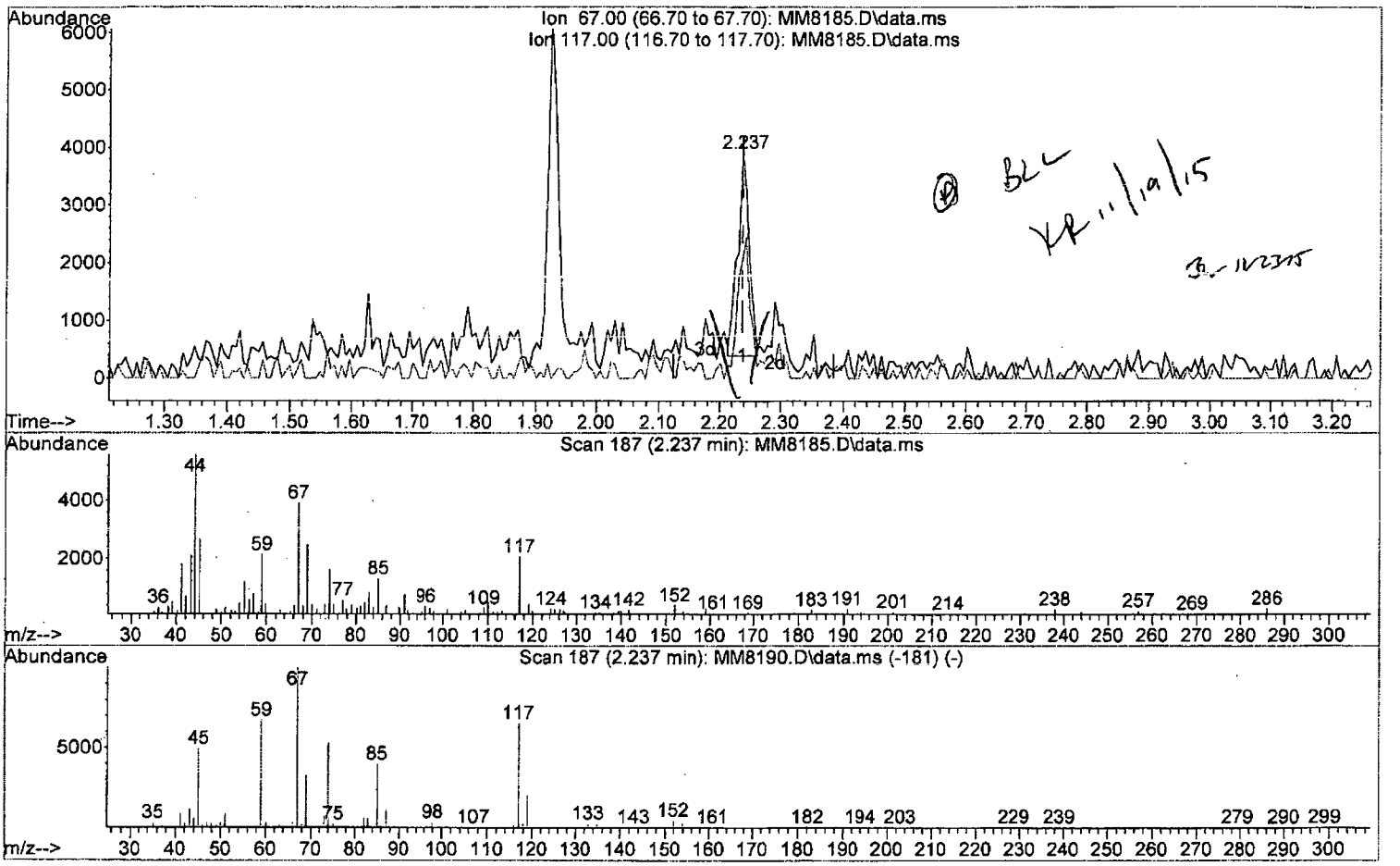
response 5939

Ion	Exp%	Act%
67.00	100	100
117.00	65.50	52.87
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:38:00 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(10) Freon 123a

2.237min (-0.000) 0.56 ppb m

response 4717

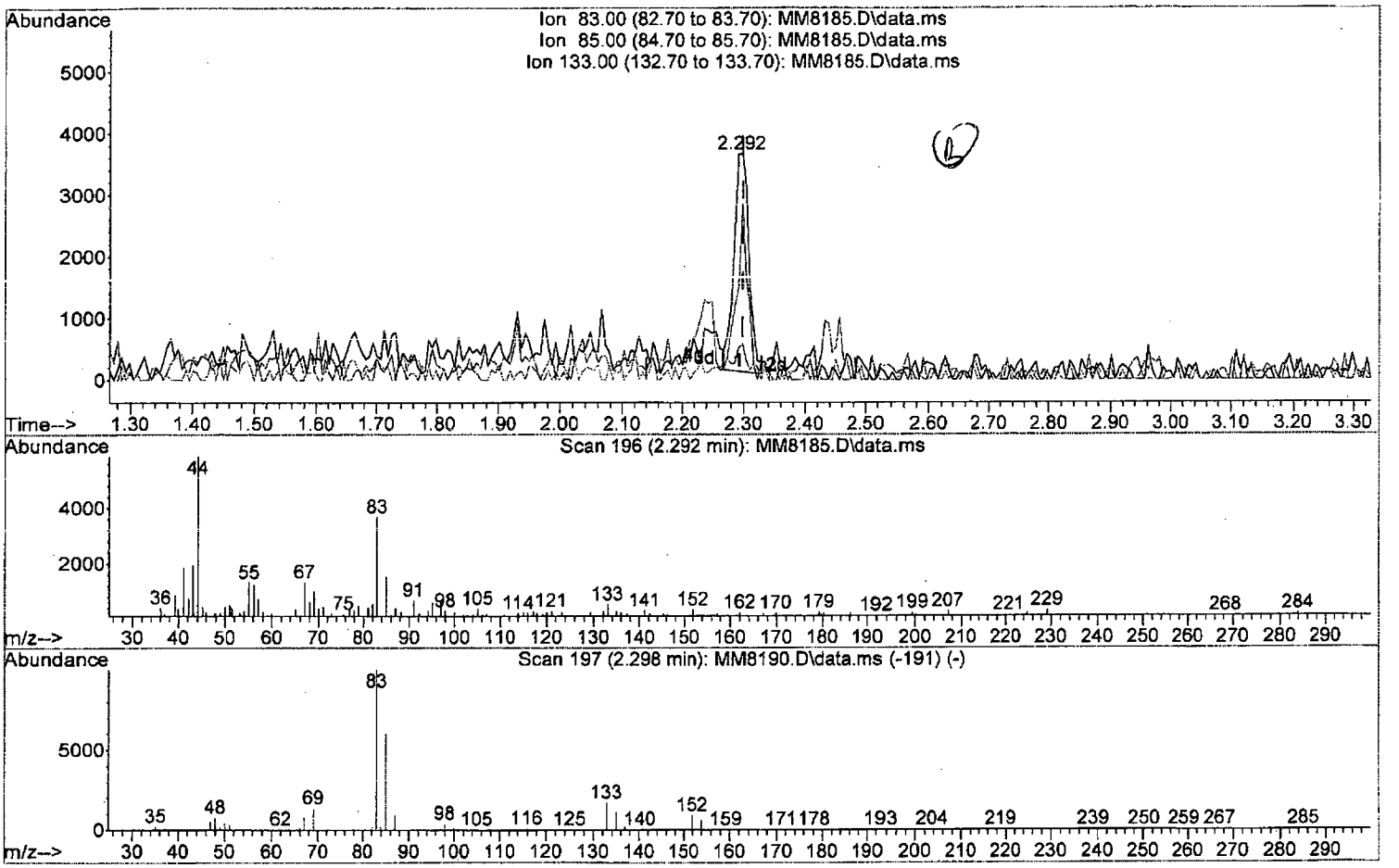
Ion	Exp%	Act%
67.00	100	100
117.00	65.50	52.87
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:38:27 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(11) Freon 123

2.292min (-0.006) 0.61 ppb

response 5962

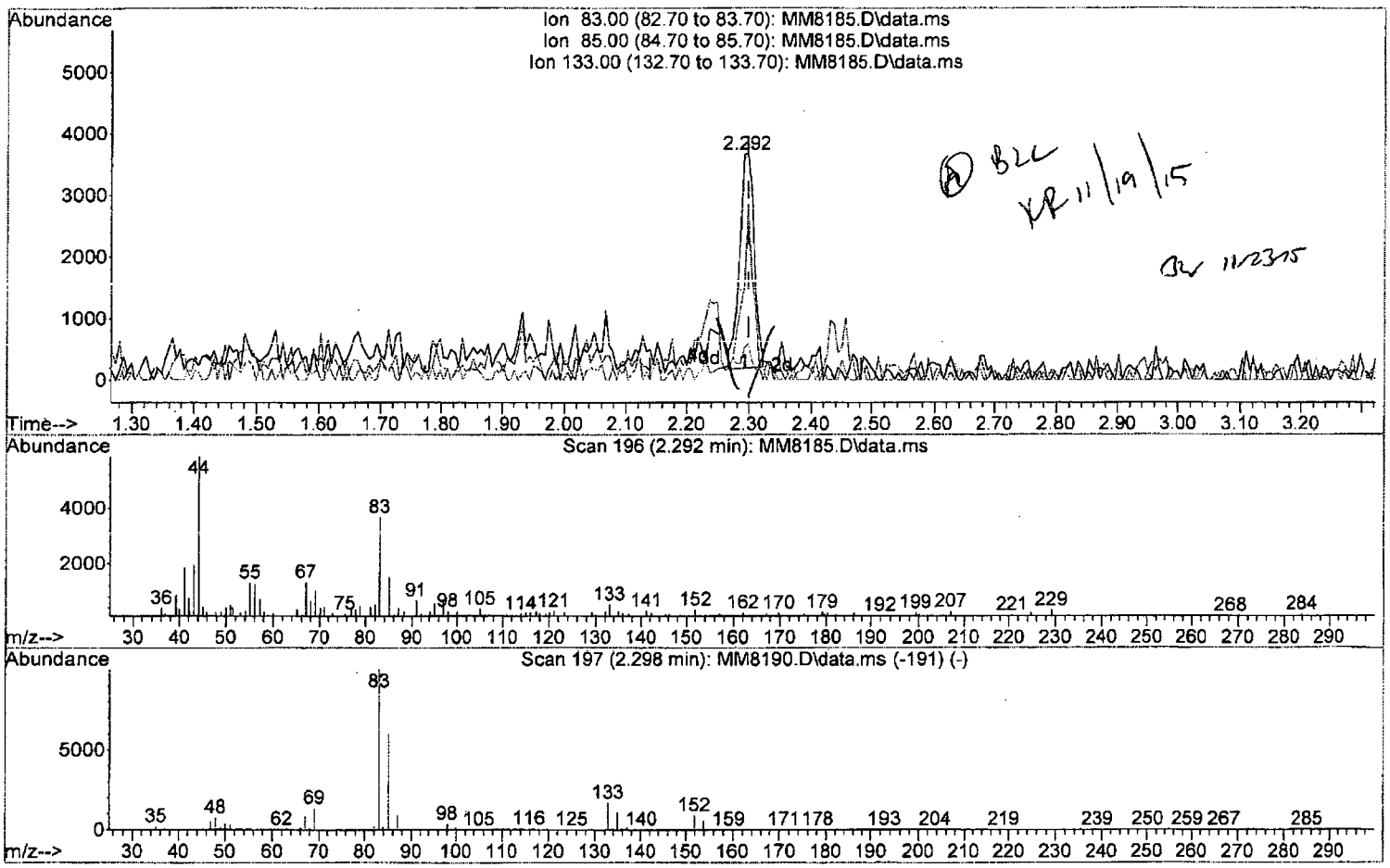
Ion	Exp%	Act%
83.00	100	100
85.00	62.90	41.14#
133.00	16.90	14.03
0.00	0.00	0.00

W111815.M Thu Nov 19 09:38:45 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(11) Freon 123

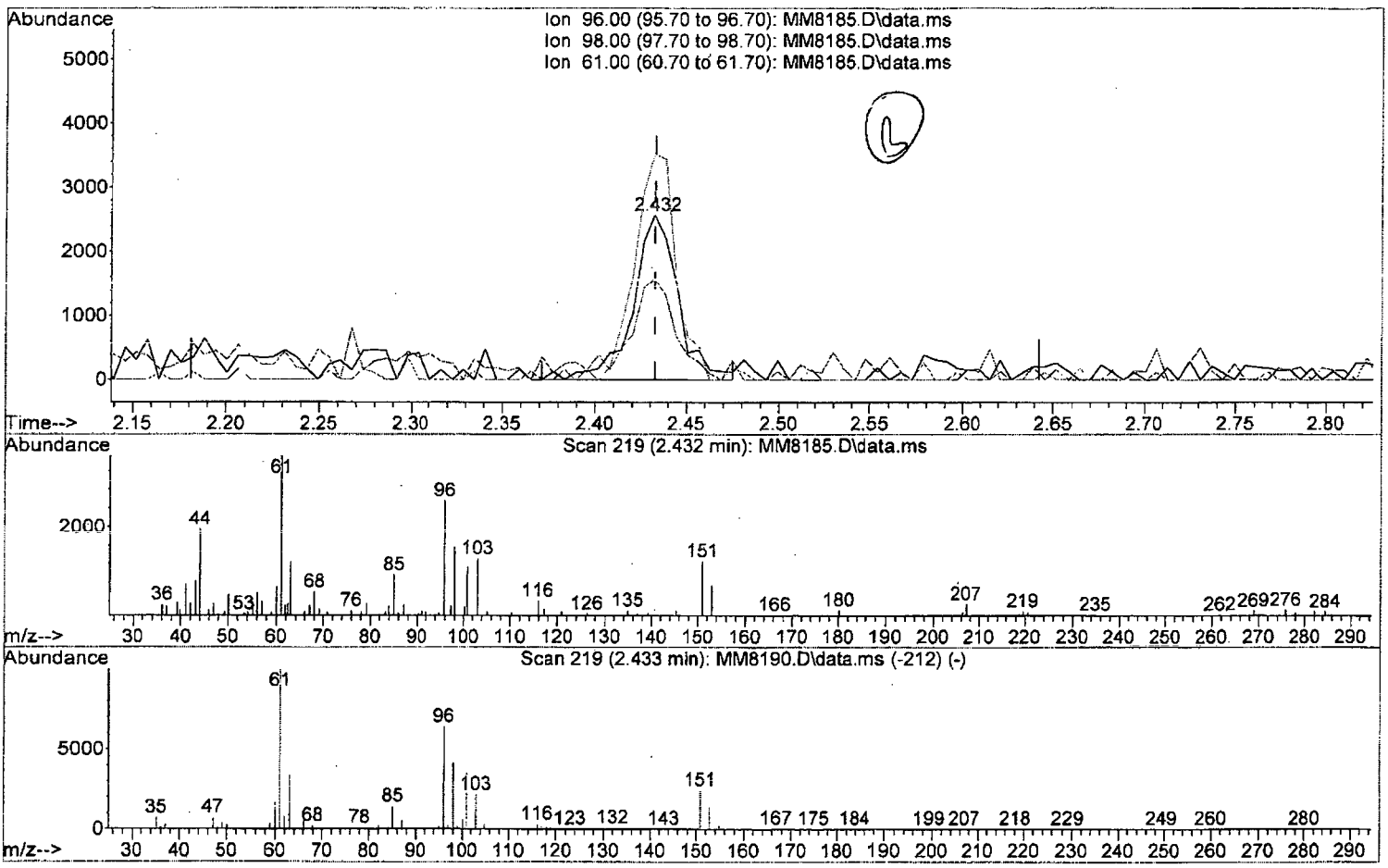
2.292min (-0.006) 0.58 ppb m

response 5691

Ion	Exp%	Act%
83.00	100	100
85.00	62.90	41.14#
133.00	16.90	14.03
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(13) 1,1-Diclethene (P)

2.432min (-0.000) 0.68 ppb

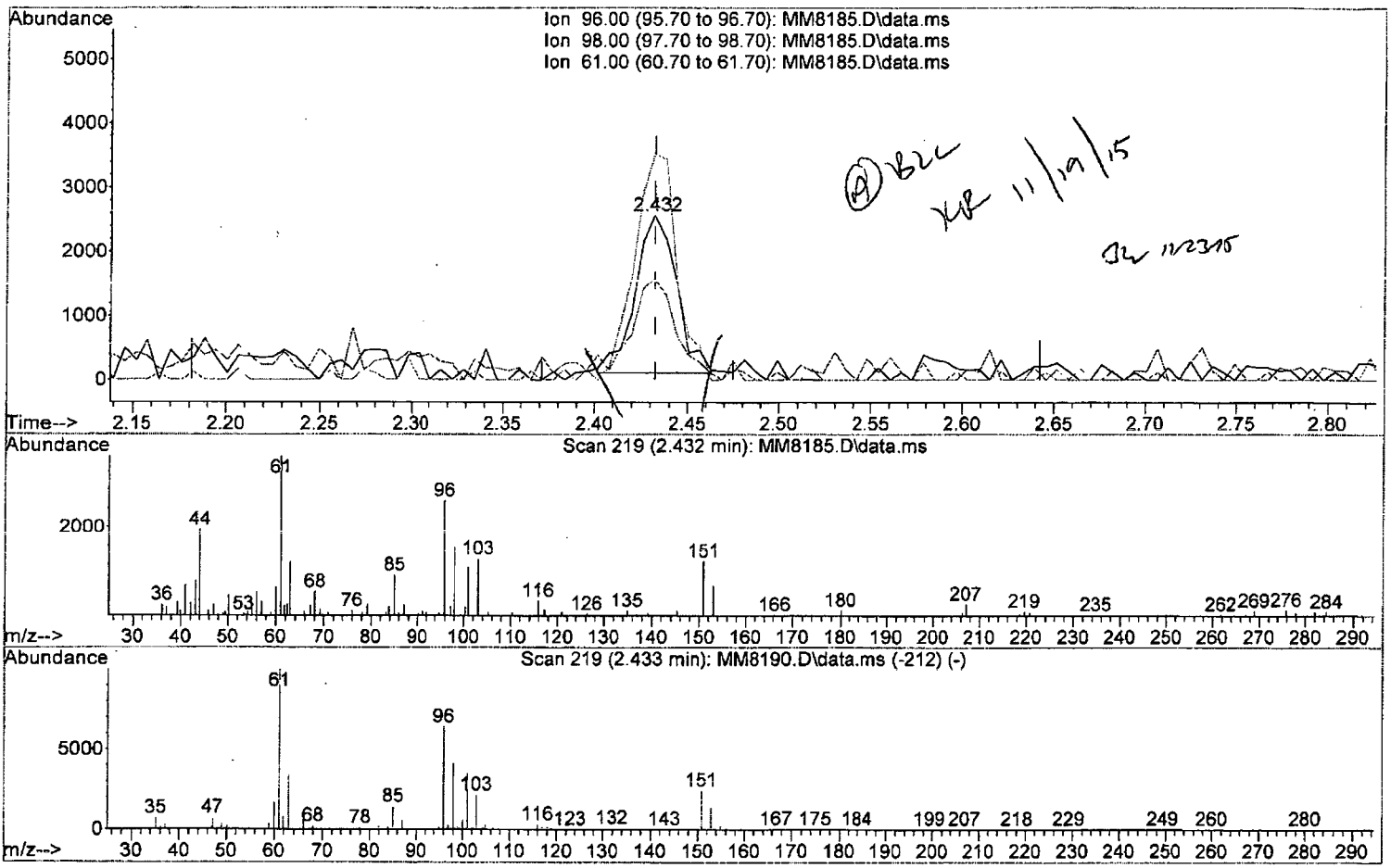
response 4440

Ion	Exp%	Act%
96.00	100	100
98.00	65.00	61.16
61.00	156.20	137.31
0.00	0.00	0.00

W111815.M Thu Nov 19 09:39:27 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(13) 1,1-Diclethene (P)

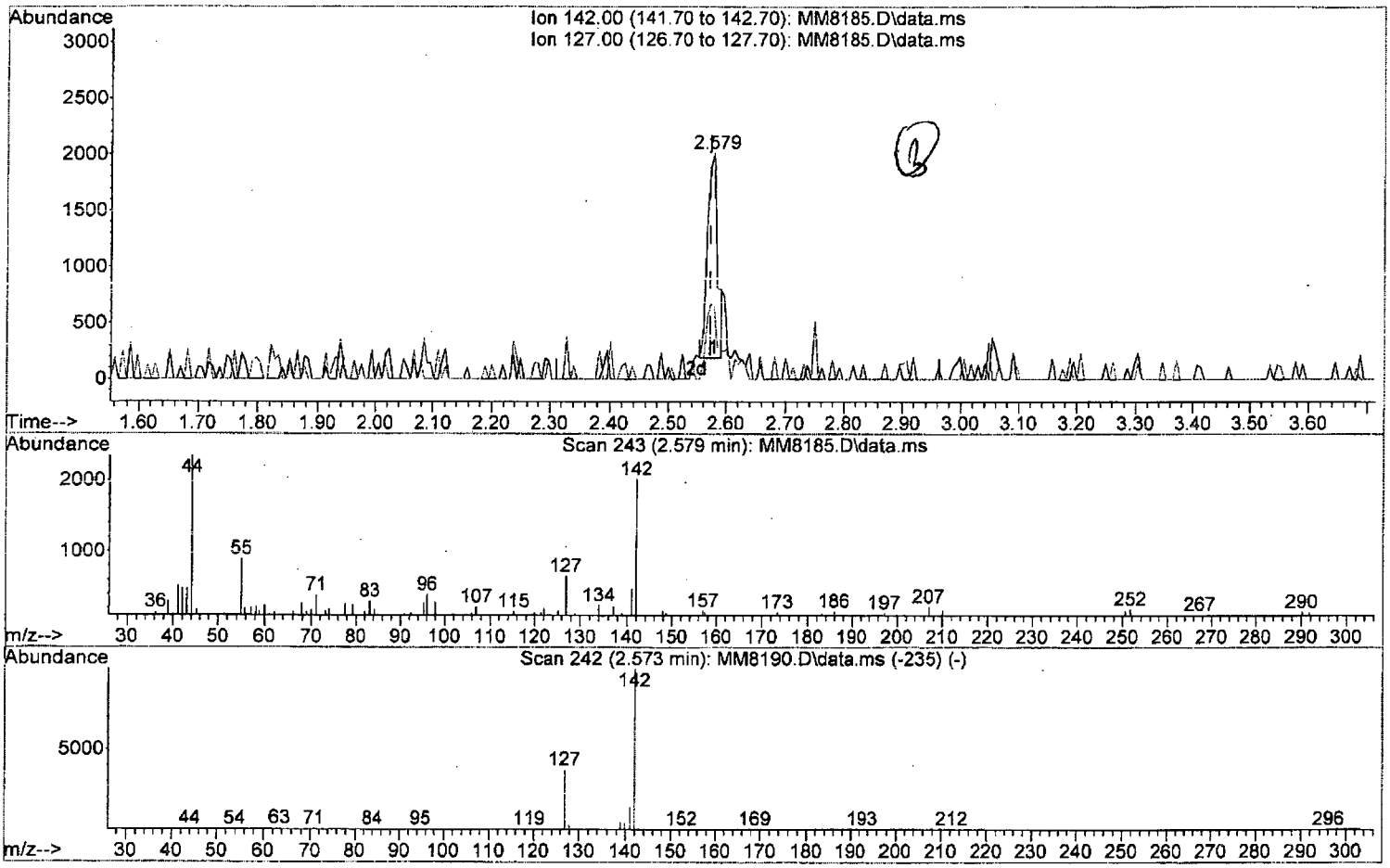
2.432min (-0.000) 0.57 ppb m

response 3749

Ion	Exp%	Act%
96.00	100	100
98.00	65.00	61.16
61.00	156.20	137.31
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(17) Iodomethane

2.579min (+0.007) 0.32 ppb

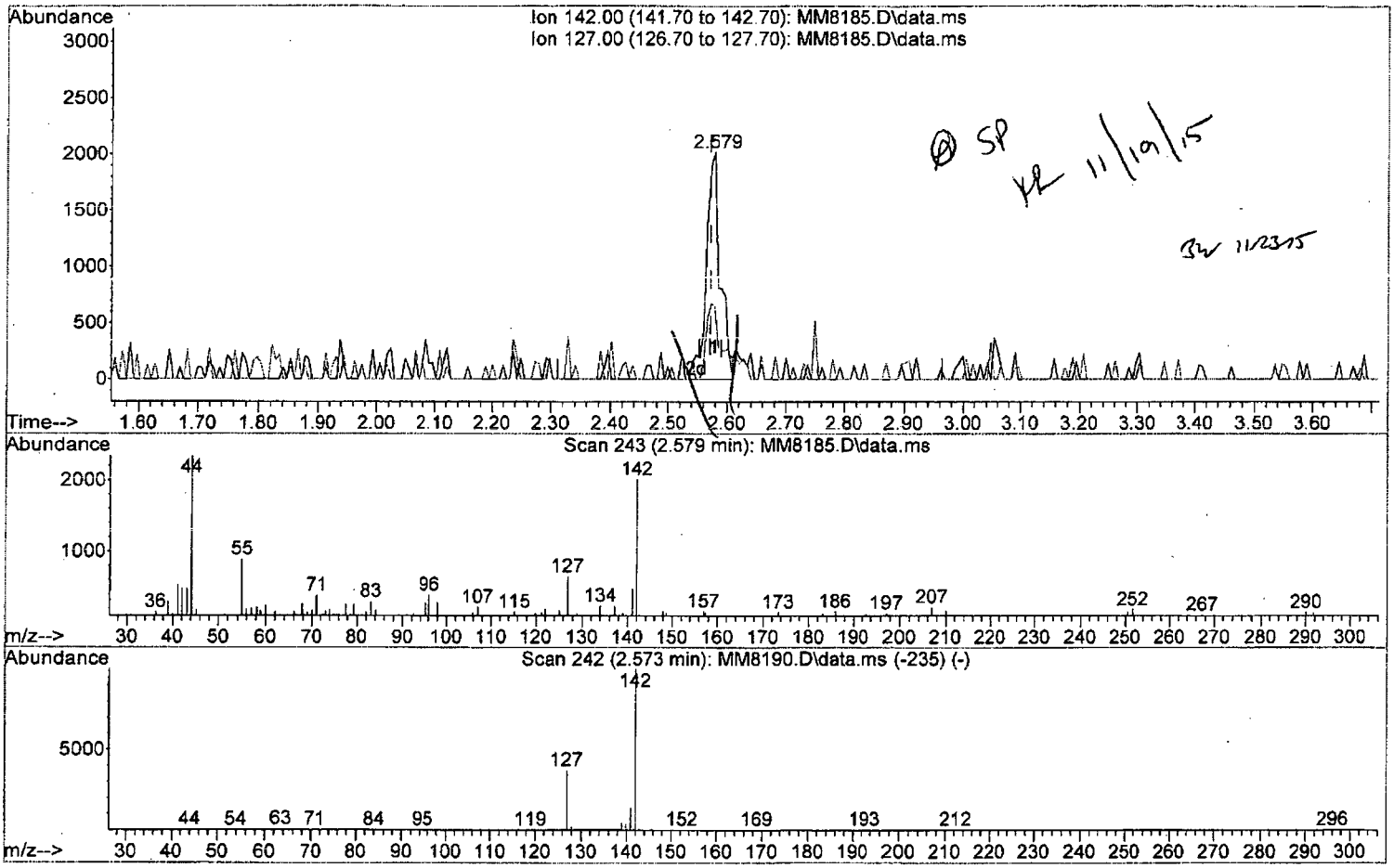
response 2266

Ion	Exp%	Act%
142.00	100	100
127.00	37.20	32.24
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(17) Iodomethane

2.579min (+0.007) 0.46 ppb m

response 3304

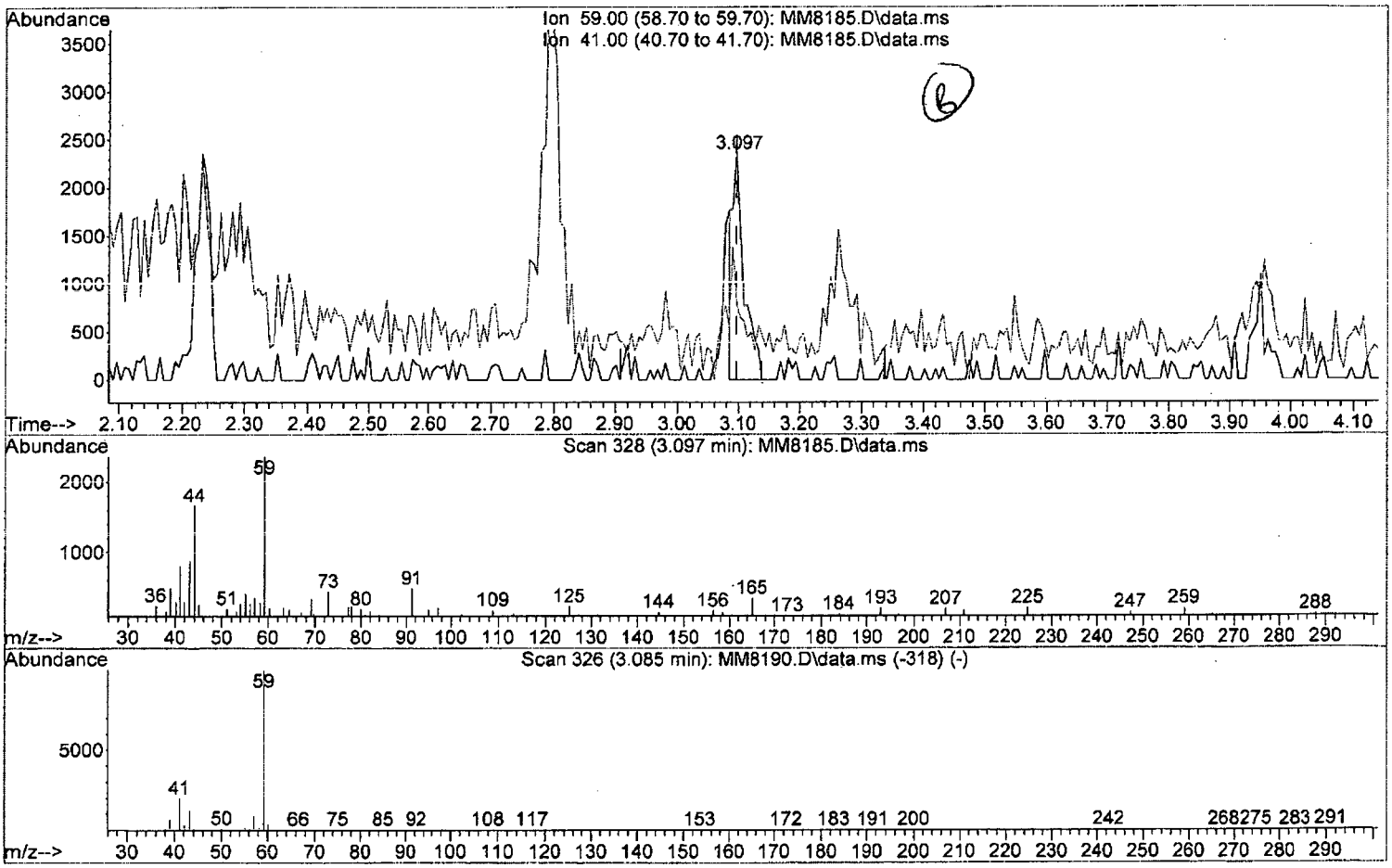
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	32.24
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:40:16 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(23) TBA

3.097min (-0.000) 6.28 ppb

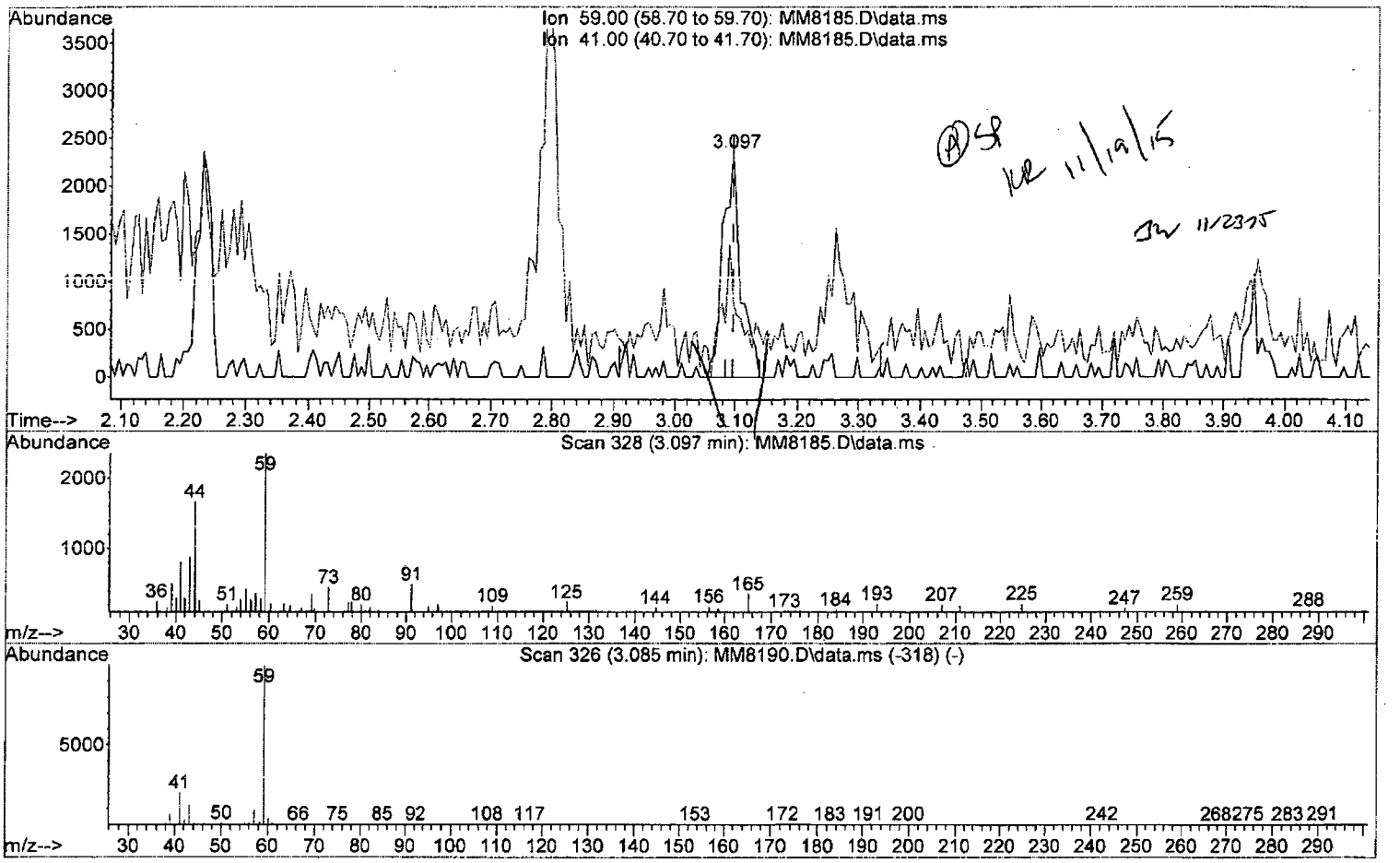
response 3153

Ion	Exp%	Act%
59.00	100	100
41.00	20.00	33.98
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(23) TBA

3.097min (-0.000) 9.46 ppb m

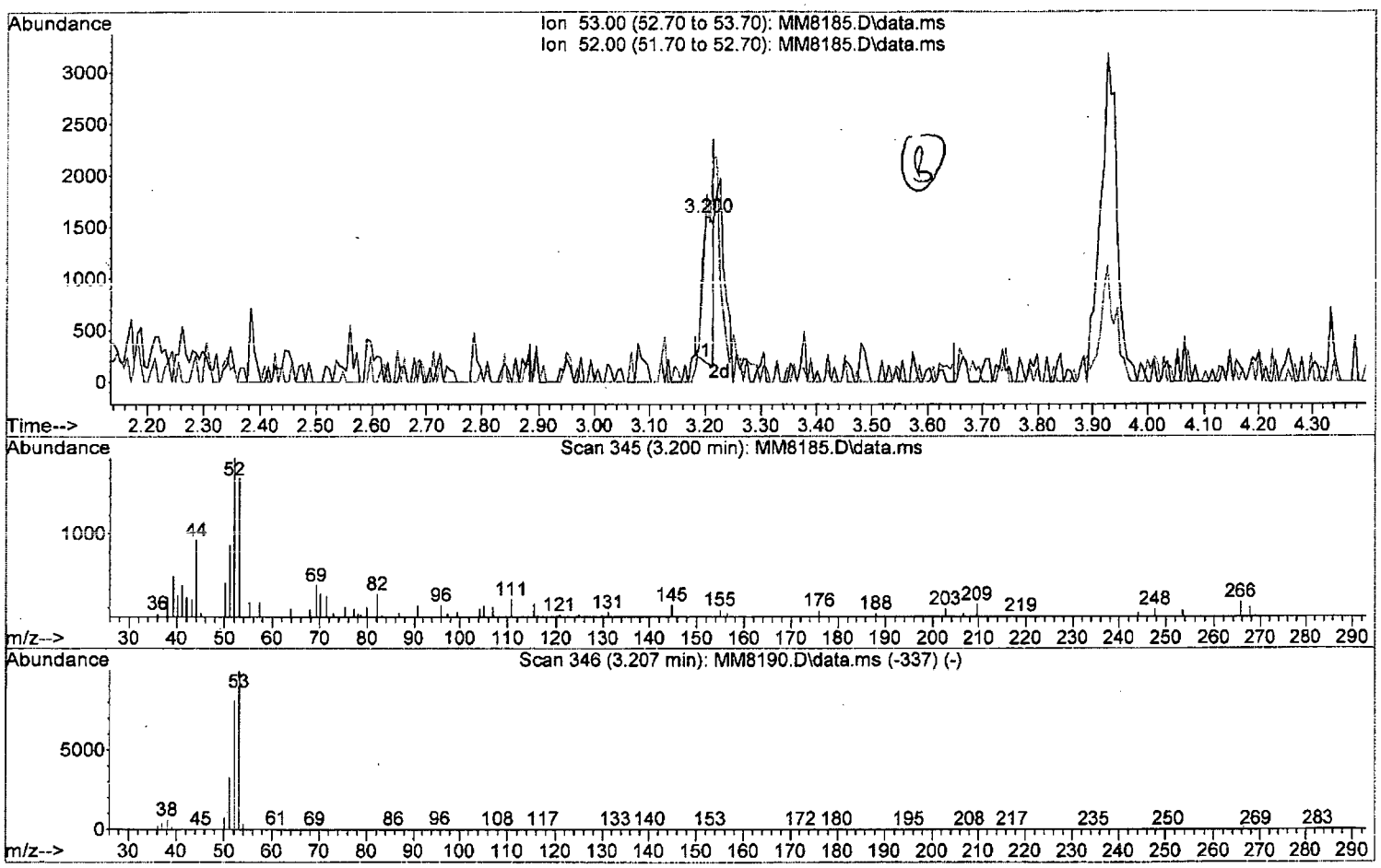
response 4748

Ion	Exp%	Act%
59.00	100	100
41.00	20.00	33.98
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(24) Acrylonitrile

3.200min (-0.012) 1.03 ppb

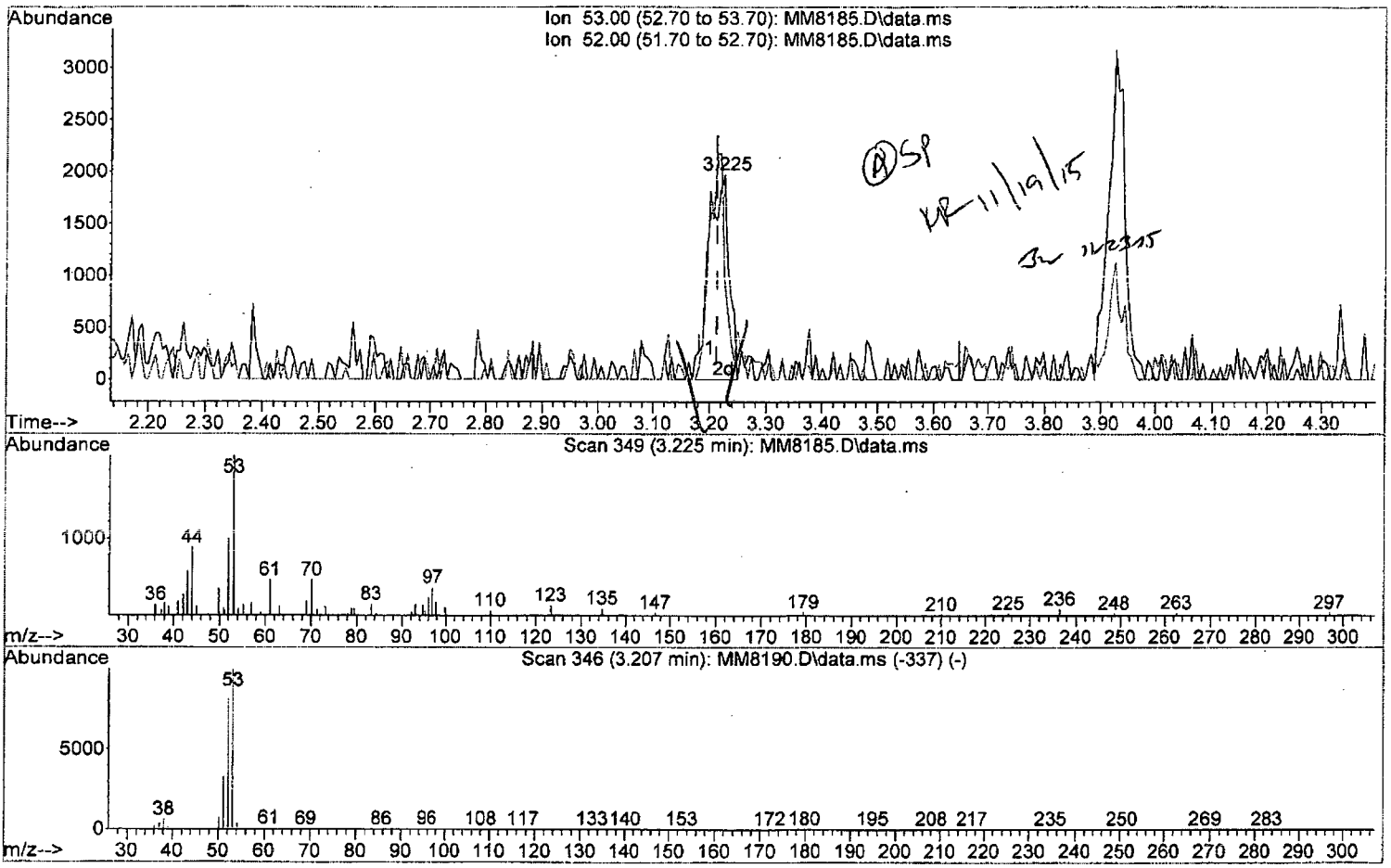
response 1912

Ion	Exp%	Act%
53.00	100	100
52.00	81.00	113.38#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:41:09 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(24) Acrylonitrile

3.225min (+0.012) 2.57 ppb m

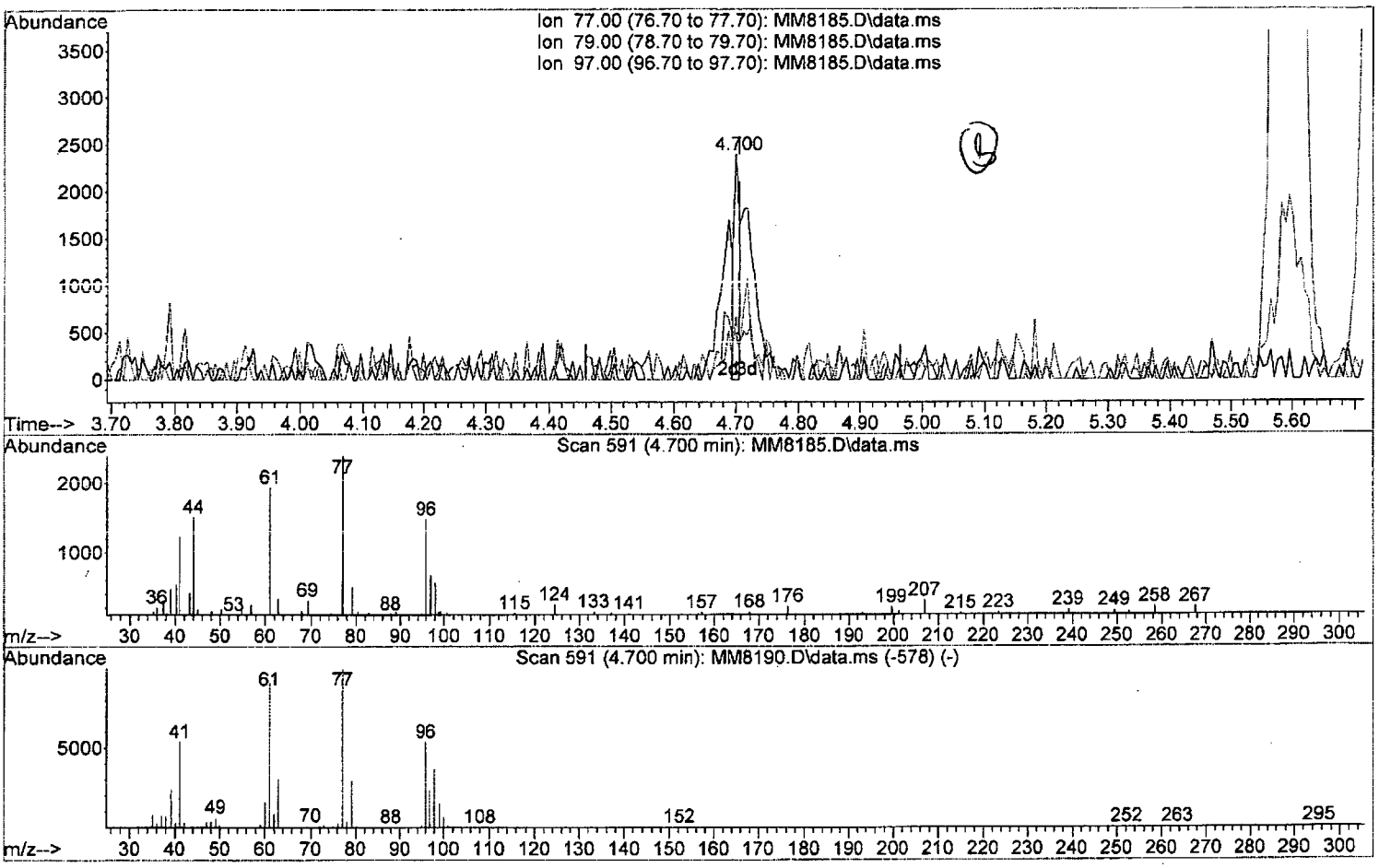
response 4777

Ion	Exp%	Act%
53.00	100	100
52.00	81.00	50.58#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:41:18 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(33) 2,2-Dichloropropane

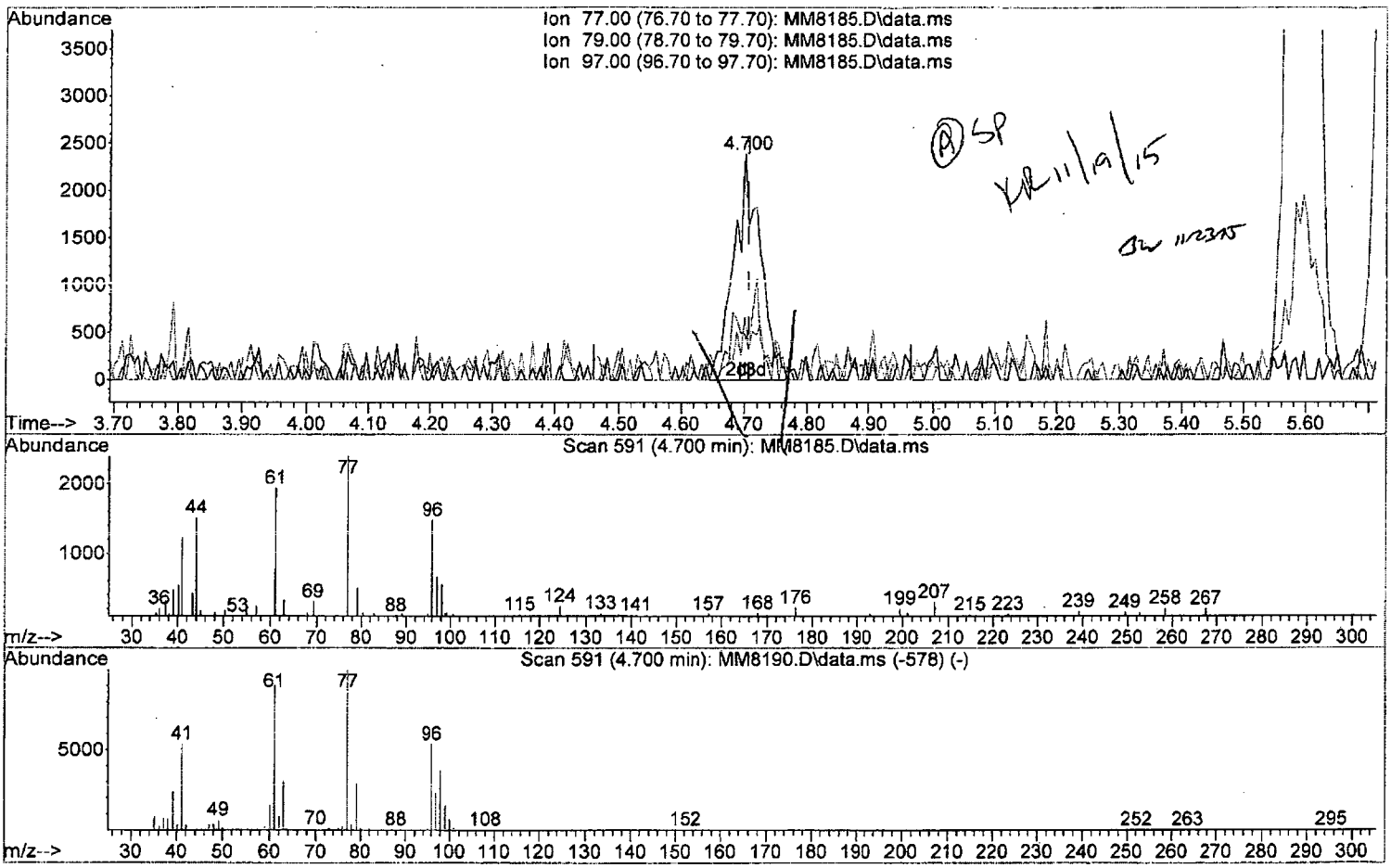
4.700min (-0.006) 0.15 ppb

response 1474

Ion	Exp%	Act%
77.00	100	100
79.00	28.80	20.85
97.00	24.00	27.68
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(33) 2,2-Dichloropropane

4.700min (-0.006) 0.70 ppb m

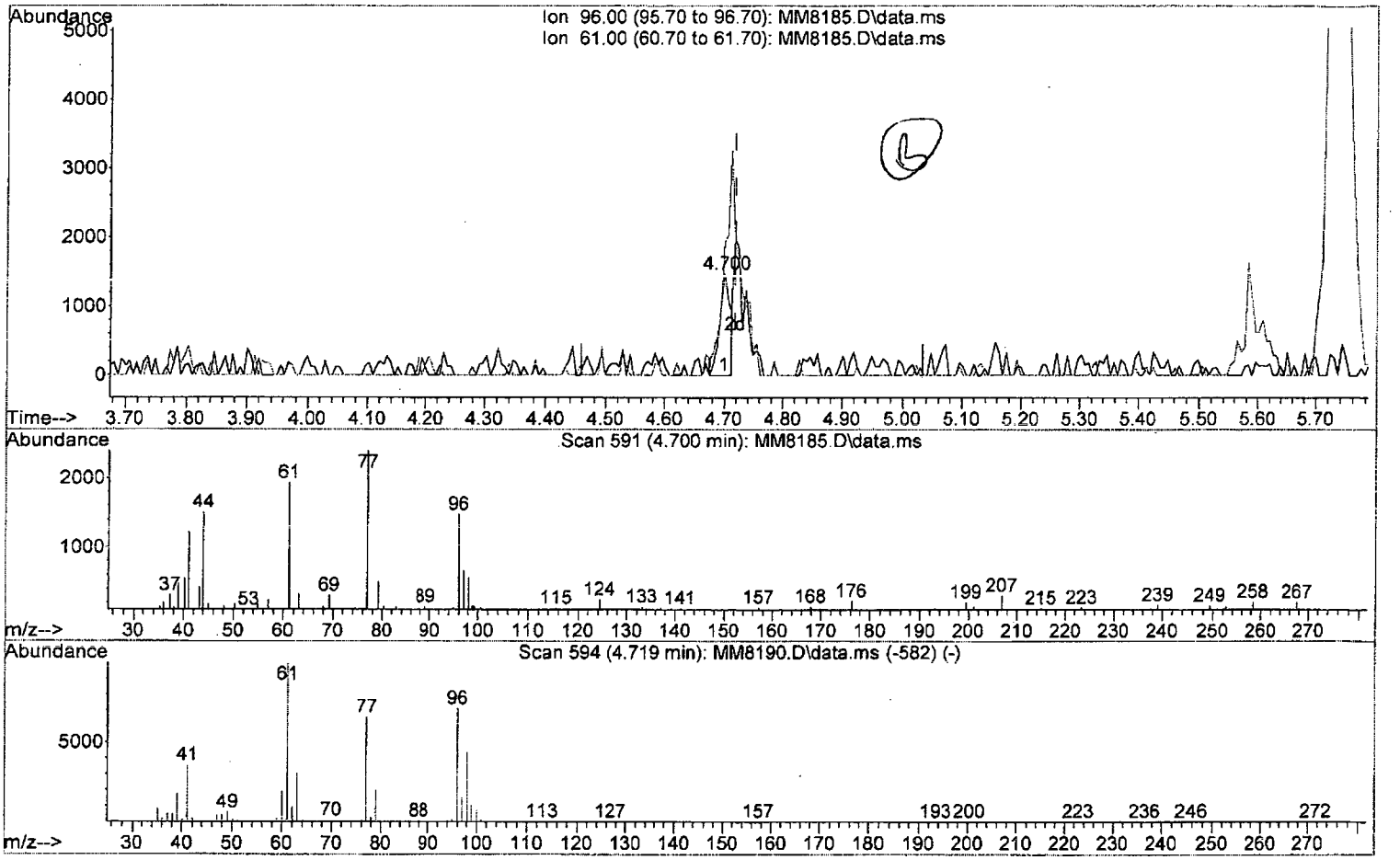
response 6855

Ion	Exp%	Act%
77.00	100	100
79.00	28.80	20.85
97.00	24.00	27.68
0.00	0.00	0.00

W111815.M Thu Nov 19 09:42:09 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.700min (-0.019) 0.24 ppb

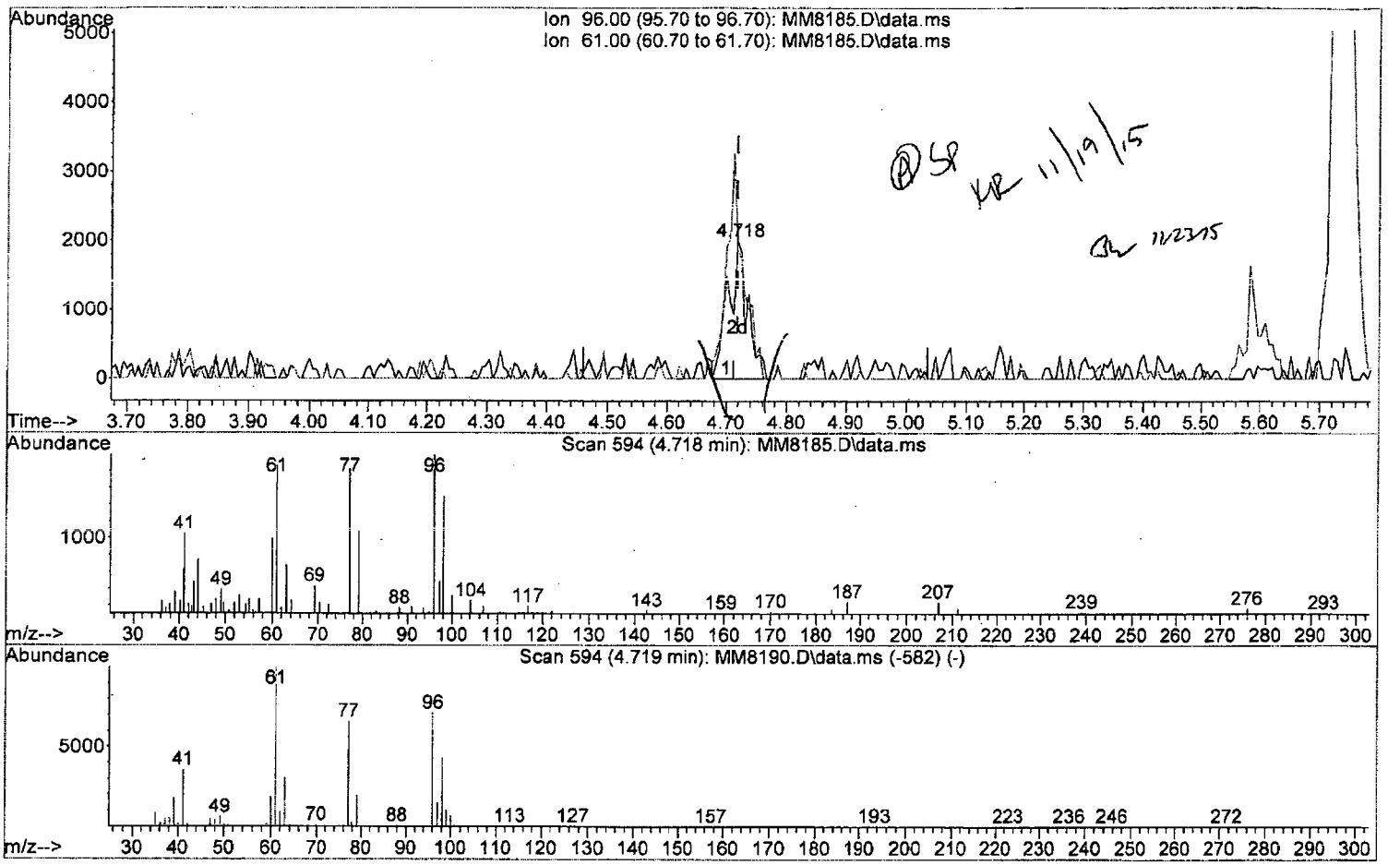
response 1837

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	130.87
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:42:23 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.718min (-0.000) 0.59 ppb m

response 4520

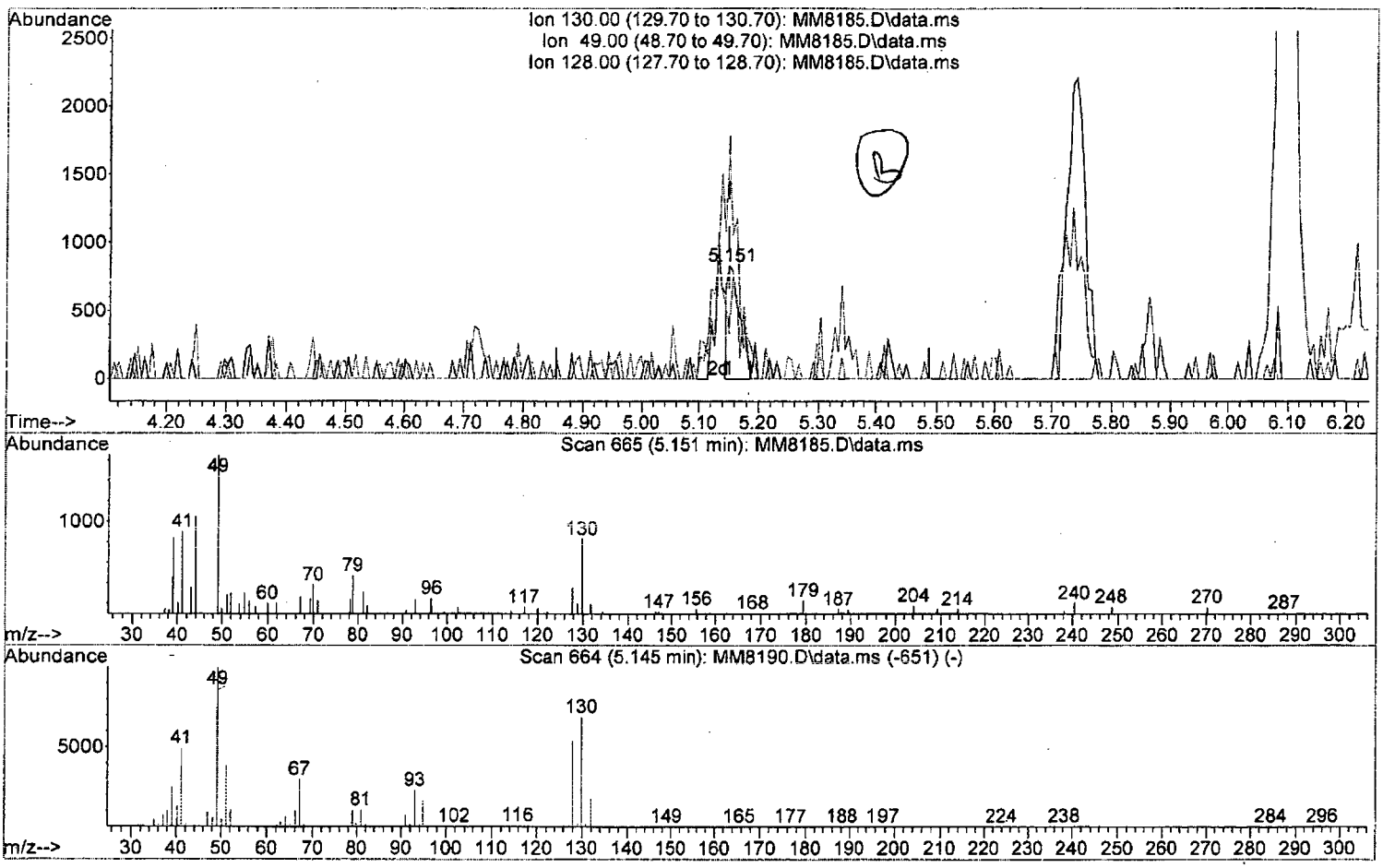
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	93.31#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:42:31 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(37) Bromochloromethane

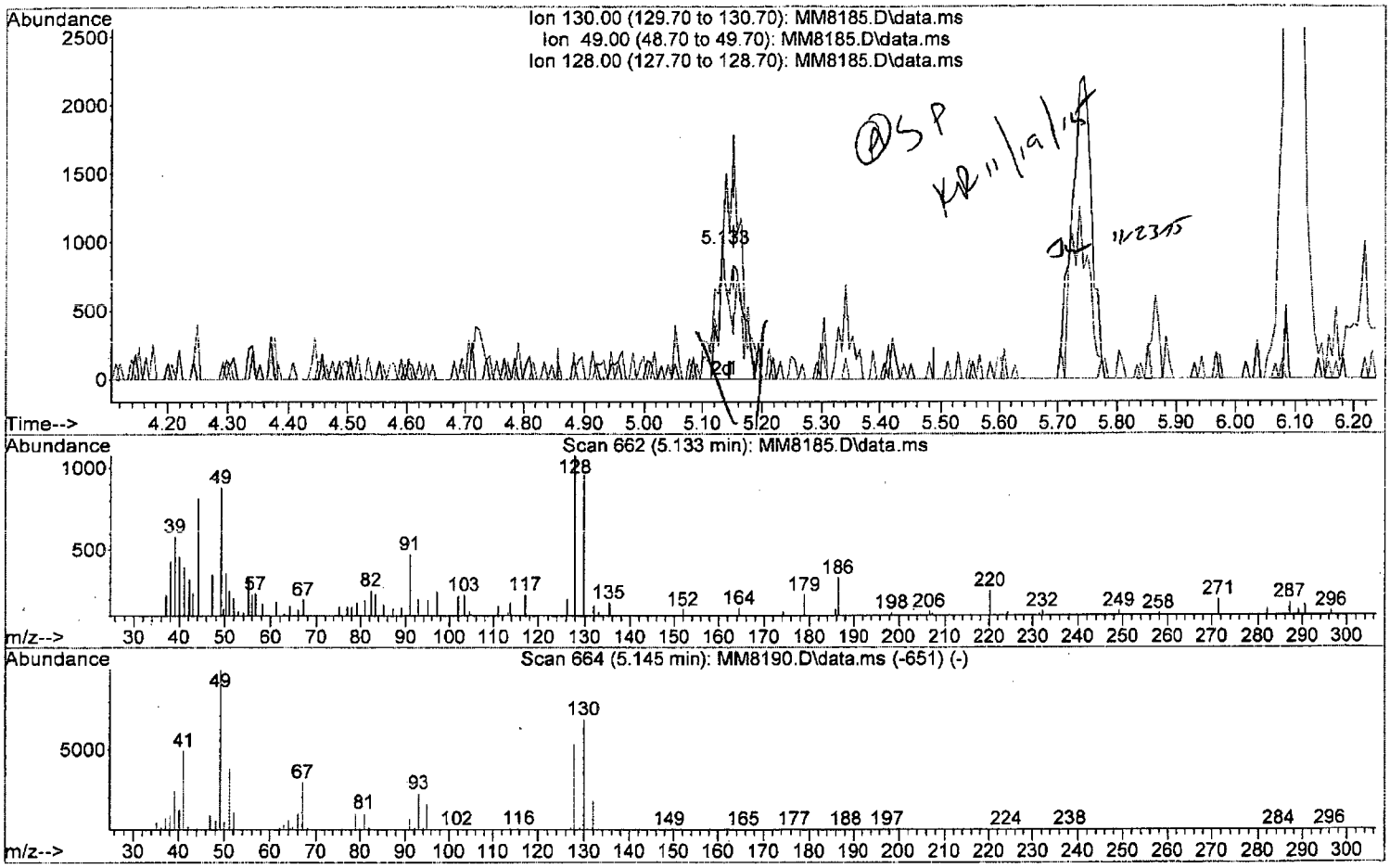
5.151min (-0.000) 0.30 ppb

response 1181

Ion	Exp%	Act%
130.00	100	100
49.00	145.50	199.15#
128.00	77.50	41.91#
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(37) Bromochloromethane

5.133min (-0.019) 0.56 ppb m

response 2233

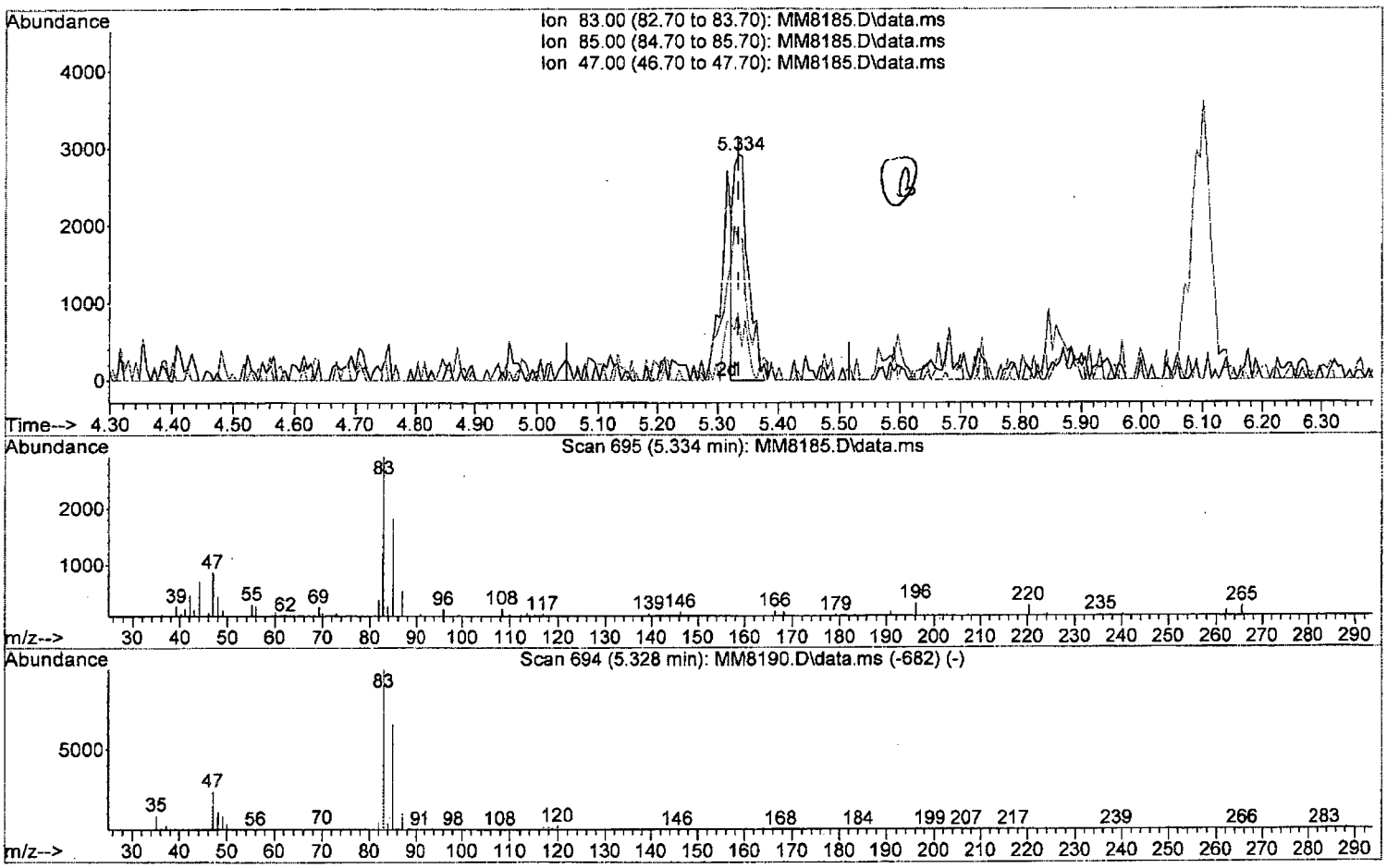
Ion	Exp%	Act%
130.00	100	100
49.00	145.50	91.94#
128.00	77.50	112.15#
0.00	0.00	0.00

W111815.M Thu Nov 19 09:42:58 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(40) Chloroform (P)

5.334min (-0.000) 0.41 ppb

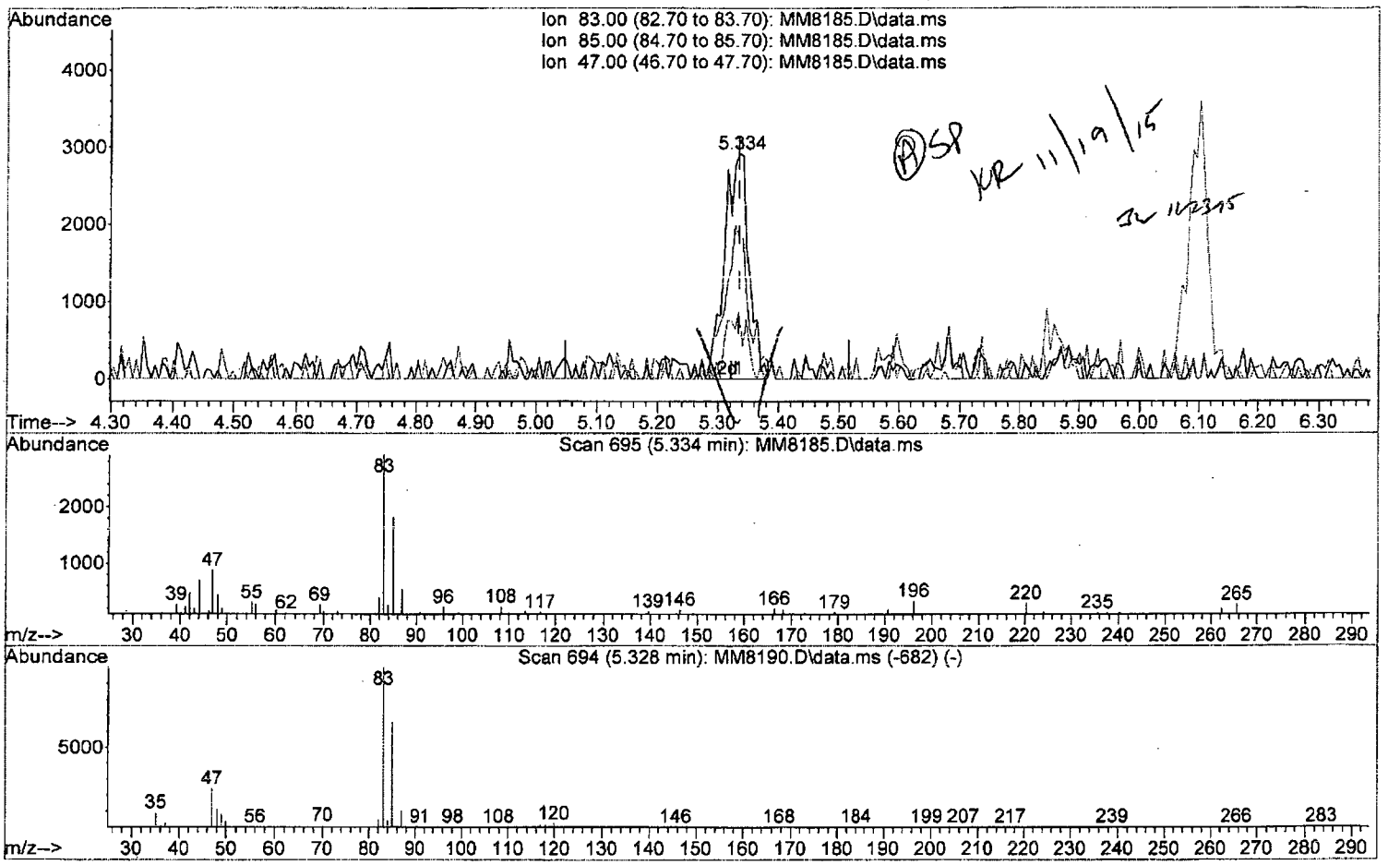
response 4893

Ion	Exp%	Act%
83.00	100	100
85.00	66.10	62.14
47.00	23.90	29.97
0.00	0.00	0.00

W111815.M Thu Nov 19 09:45:57 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(40) Chloroform (P)

5.334min (-0.000) 0.68 ppb m

response 8066

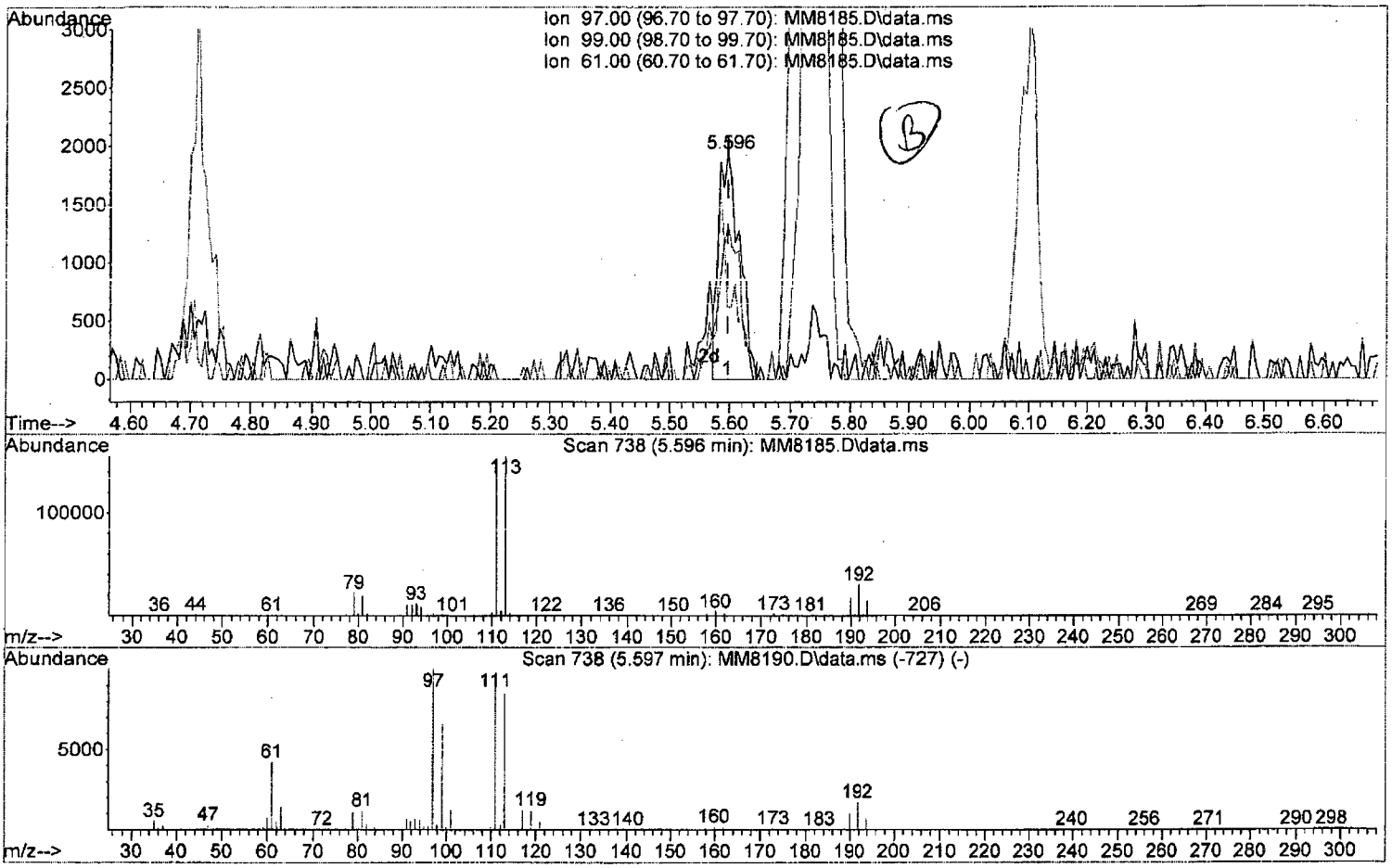
Ion	Exp%	Act%
83.00	100	100
85.00	66.10	62.14
47.00	23.90	29.97
0.00	0.00	0.00

W111815.M Thu Nov 19 09:46:08 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(41) 1,1,1-Trichloroethane (P)

5.596min (-0.000) 0.50 ppb

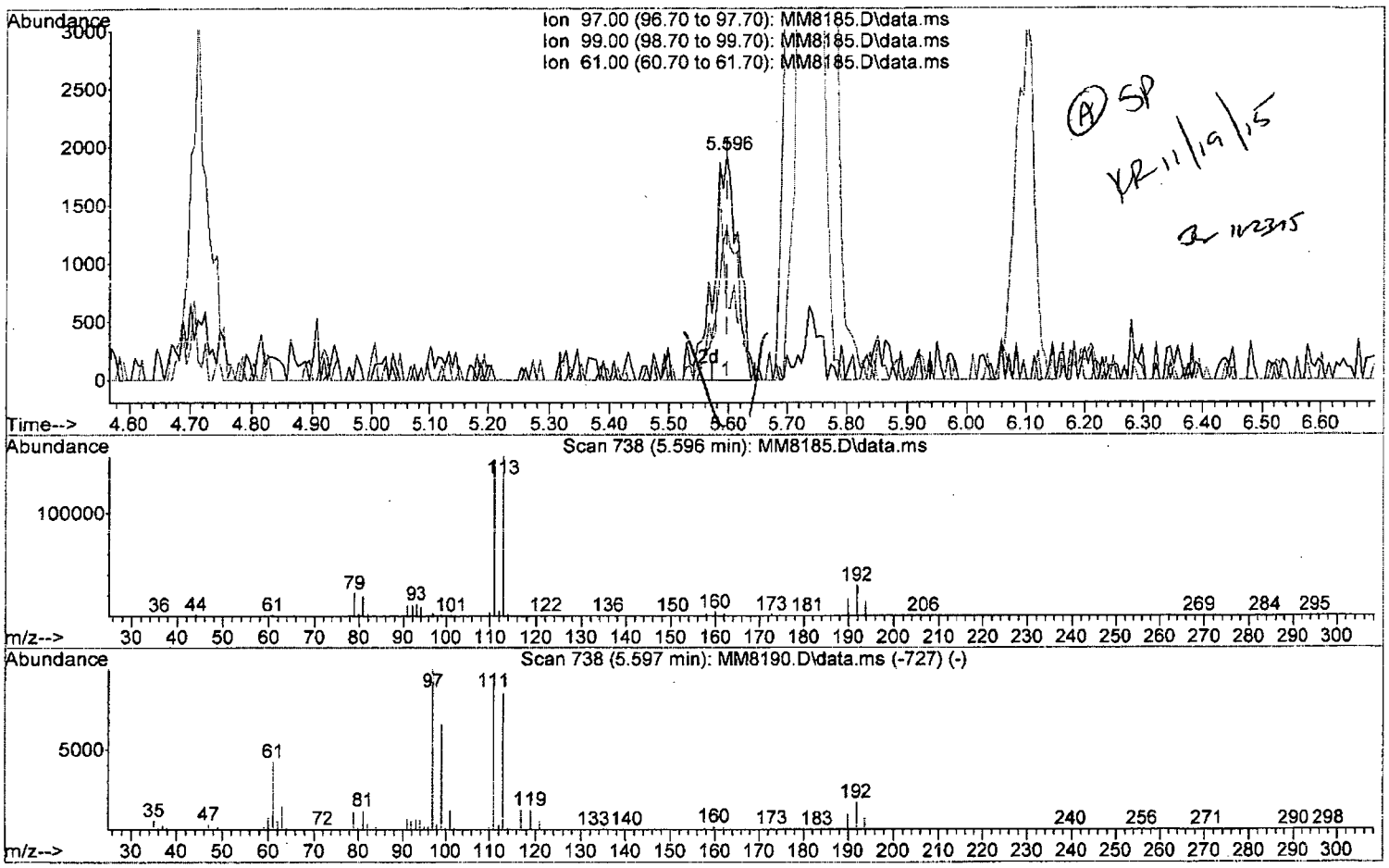
response 4638

Ion	Exp%	Act%
97.00	100	100
99.00	65.60	68.66
61.00	42.20	32.16
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(41) 1,1,1-Trichloroethane (P)

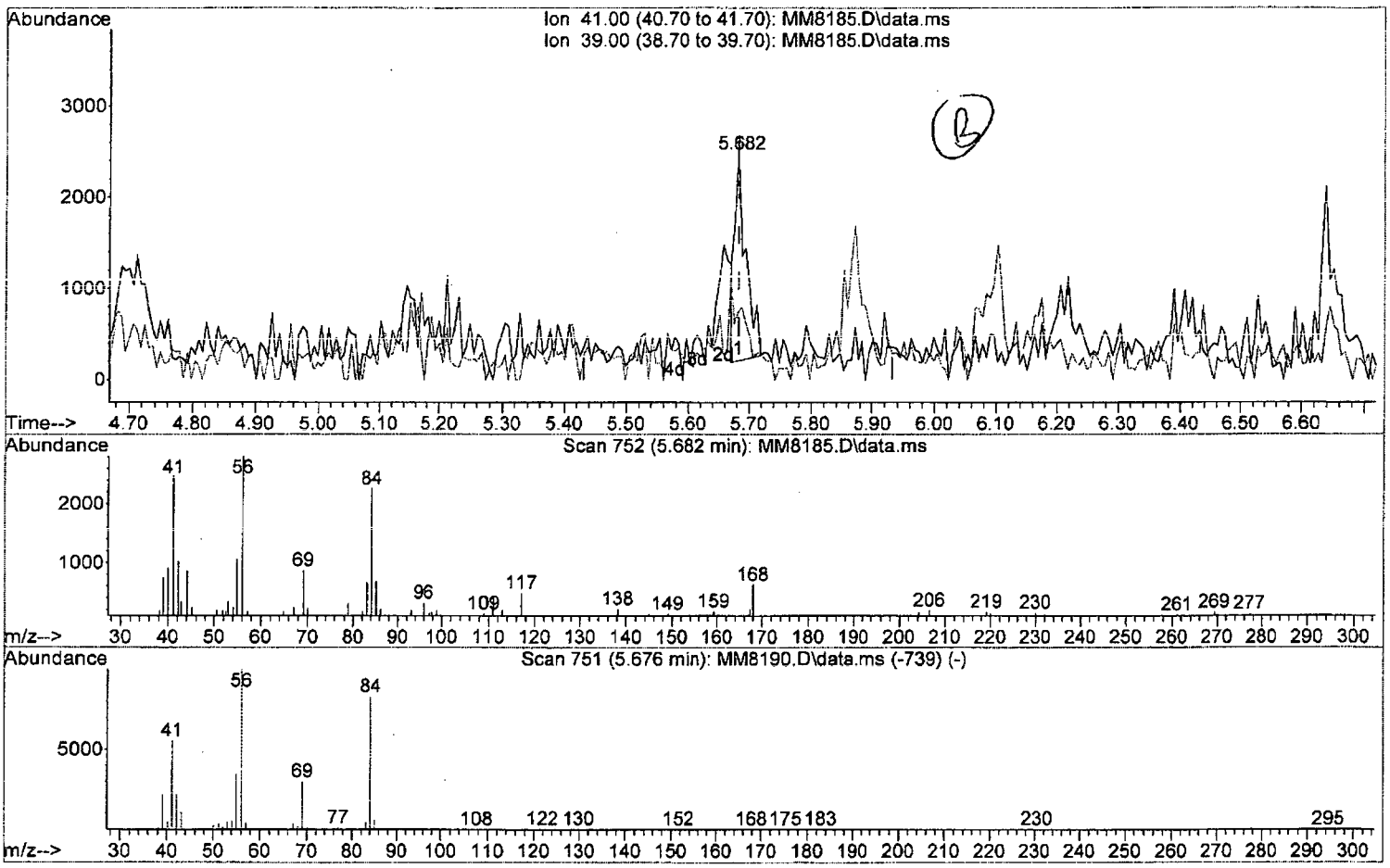
5.596min (-0.000) 0.59 ppb m

response 5536

Ion	Exp%	Act%
97.00	100	100
99.00	65.60	68.66
61.00	42.20	32.16
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(44) Cyclohexane (P)

5.682min (-0.000) 0.41 ppb

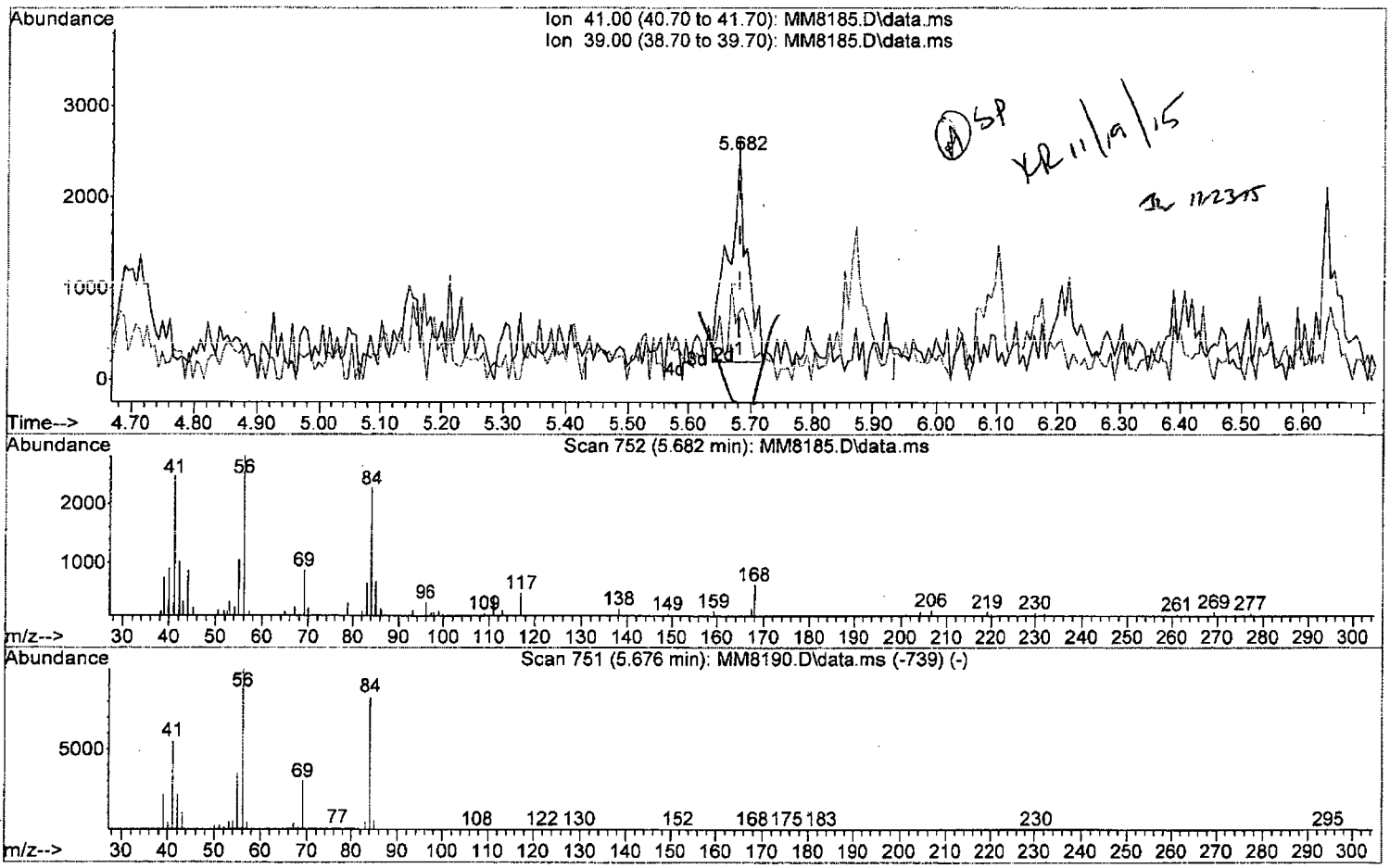
response 2859

Ion	Exp%	Act%
41.00	100	100
39.00	40.00	30.10
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(44) Cyclohexane (P)

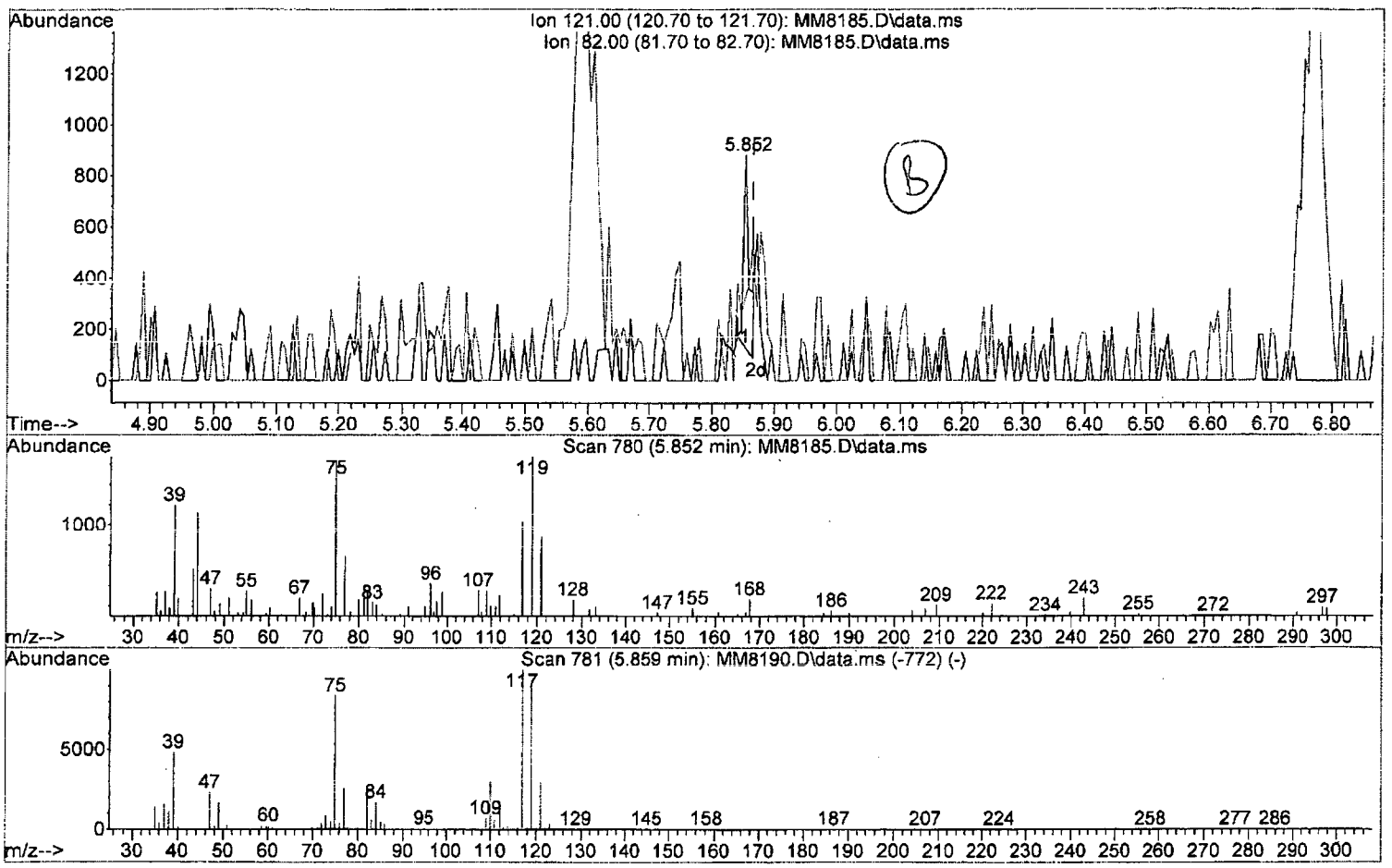
5.682min (-0.000) 0.69 ppb m

response 4775

Ion	Exp%	Act%
41.00	100	100
39.00	40.00	30.10
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(46) Carbontetrachloride (P)

5.852min (-0.012) 0.19 ppb

response 459

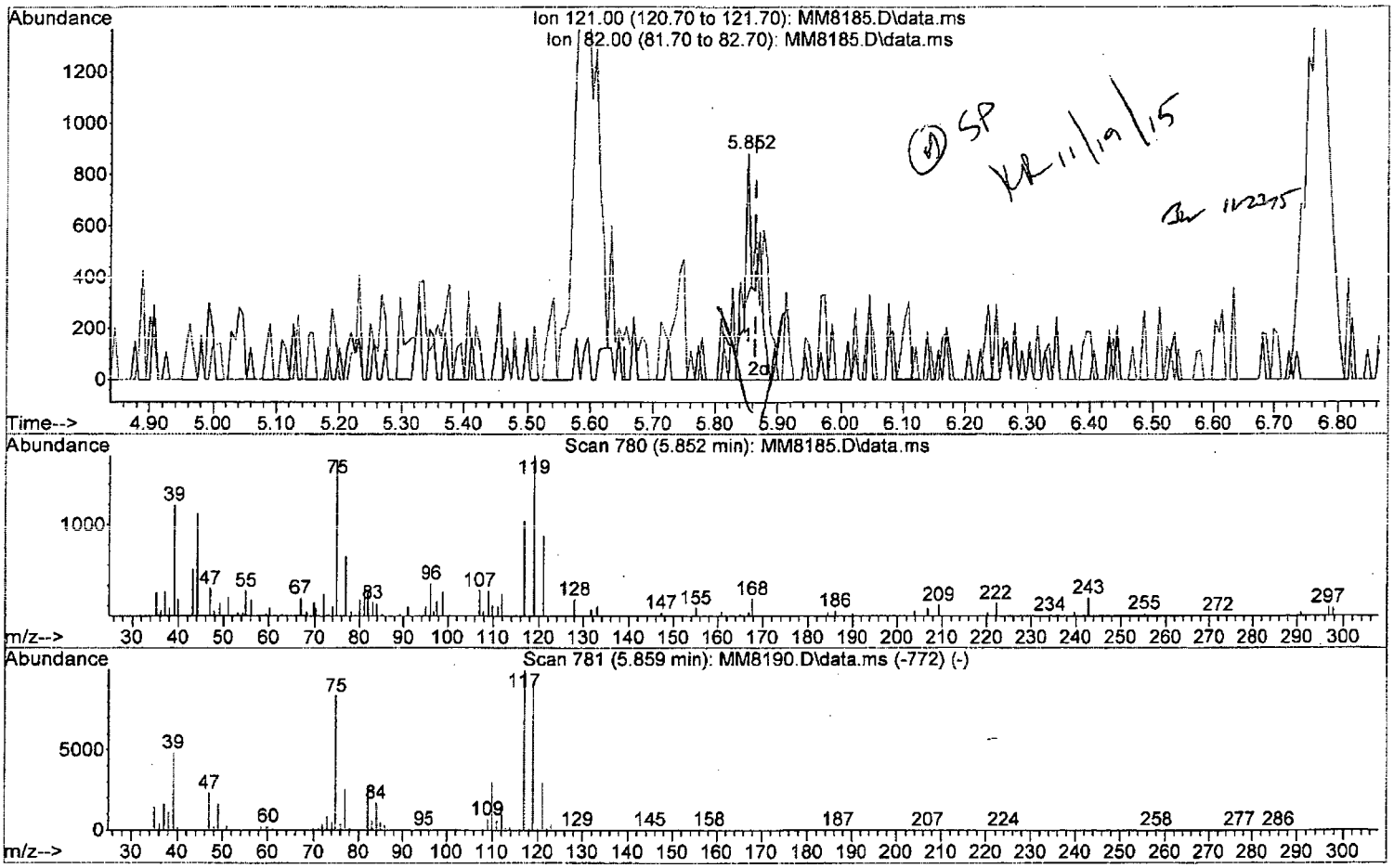
Ion	Exp%	Act%
121.00	100	100
82.00	85.40	37.00#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:48:07 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(46) Carbontetrachloride (P)

5.852min (-0.012) 0.52 ppb m

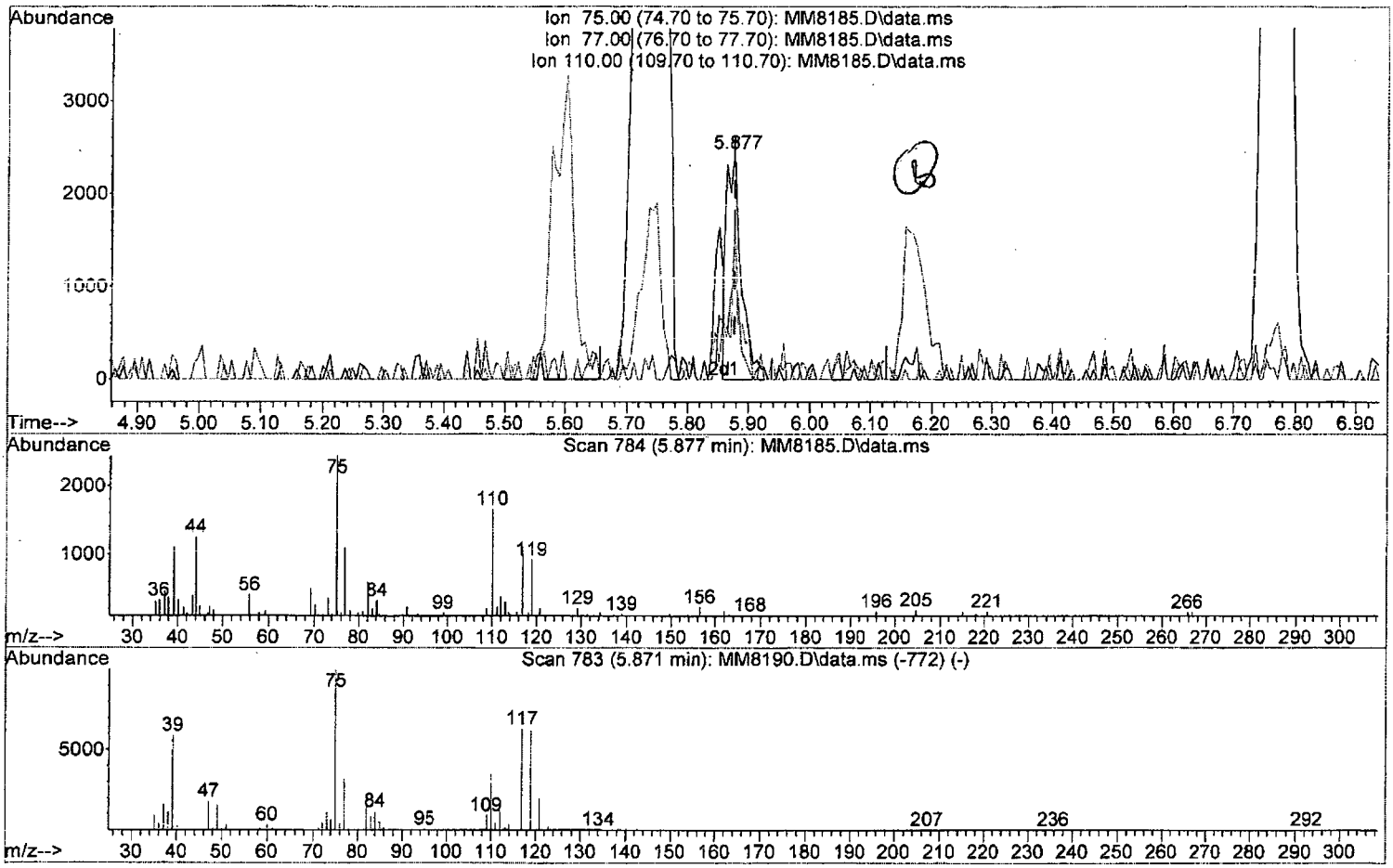
response 1285

Ion	Exp%	Act%
121.00	100	100
82.00	85.40	37.00#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:48:37 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(47) 1,1-Dichloropropene

5.877min (-0.000) 0.44 ppb

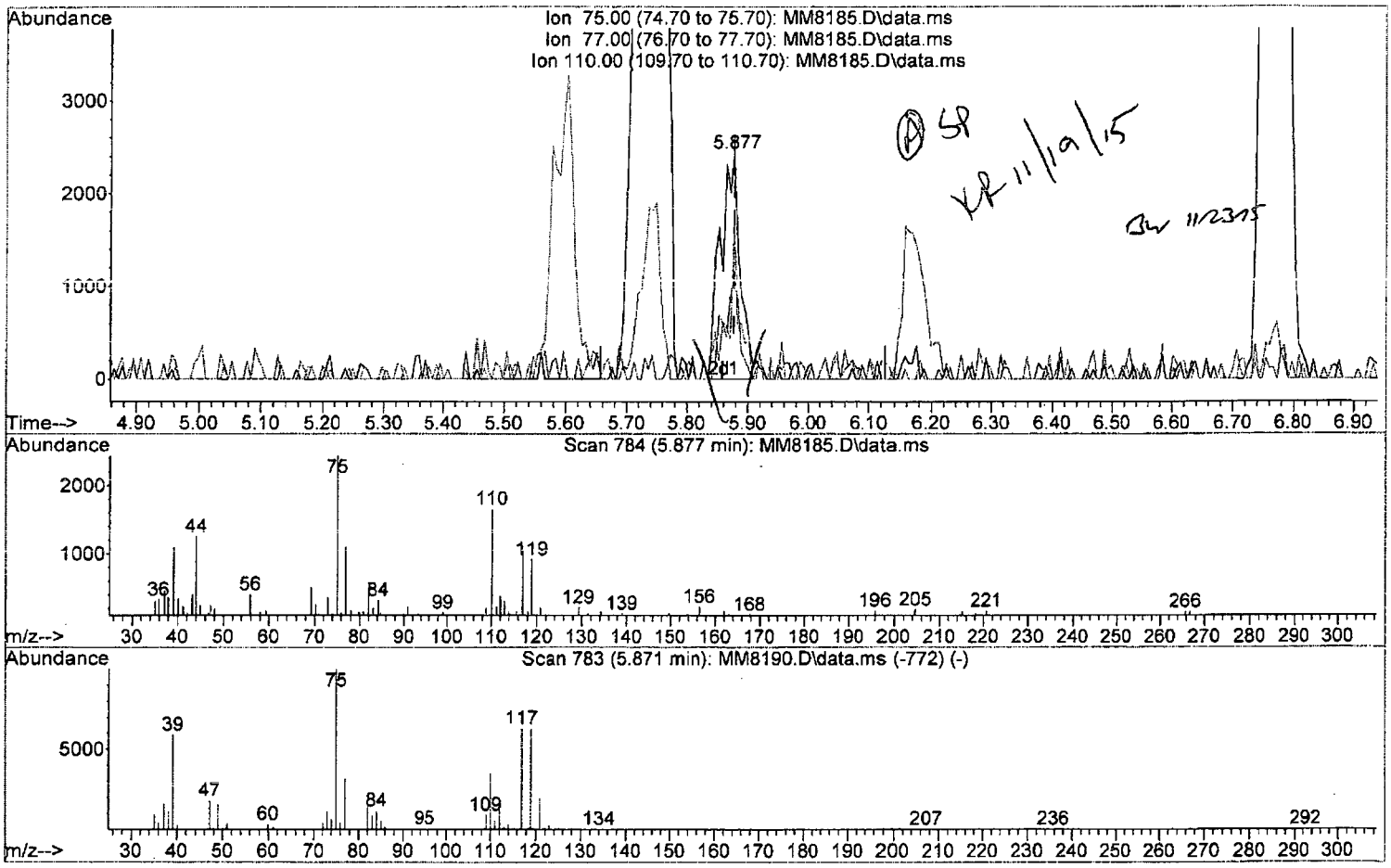
response 3996

Ion	Exp%	Act%
75.00	100	100
77.00	31.20	44.85
110.00	35.00	67.97#
0.00	0.00	0.00

W111815.M Thu Nov 19 09:48:47 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(47) 1,1-Dichloropropene

5.877min (-0.000) 0.61 ppb m

response 5477

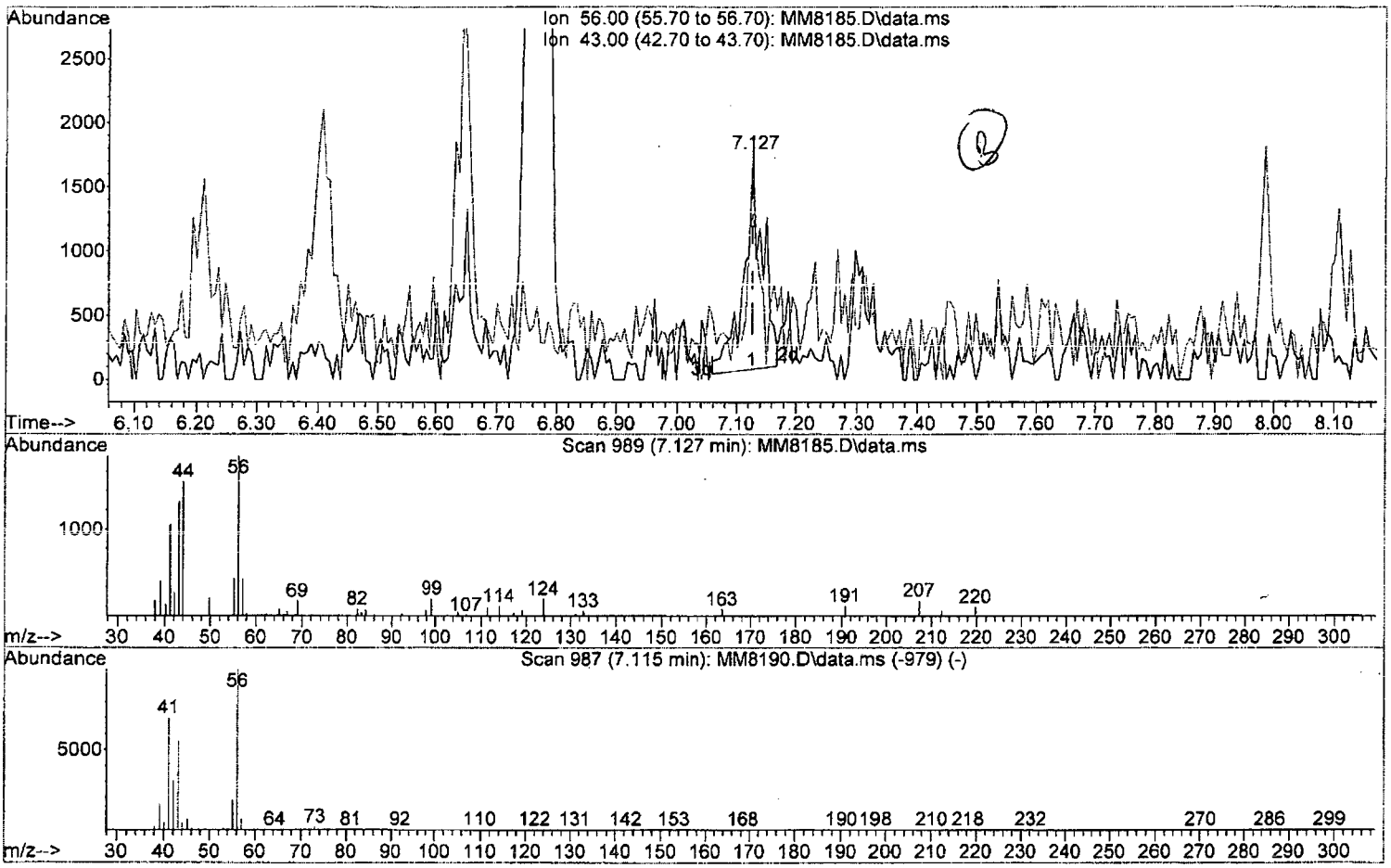
Ion	Exp%	Act%
75.00	100	100
77.00	31.20	44.85
110.00	35.00	67.97#
0.00	0.00	0.00

W111815.M Thu Nov 19 09:49:03 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(53) 1-Butanol

7.127min (-0.000) 25.67 ppb

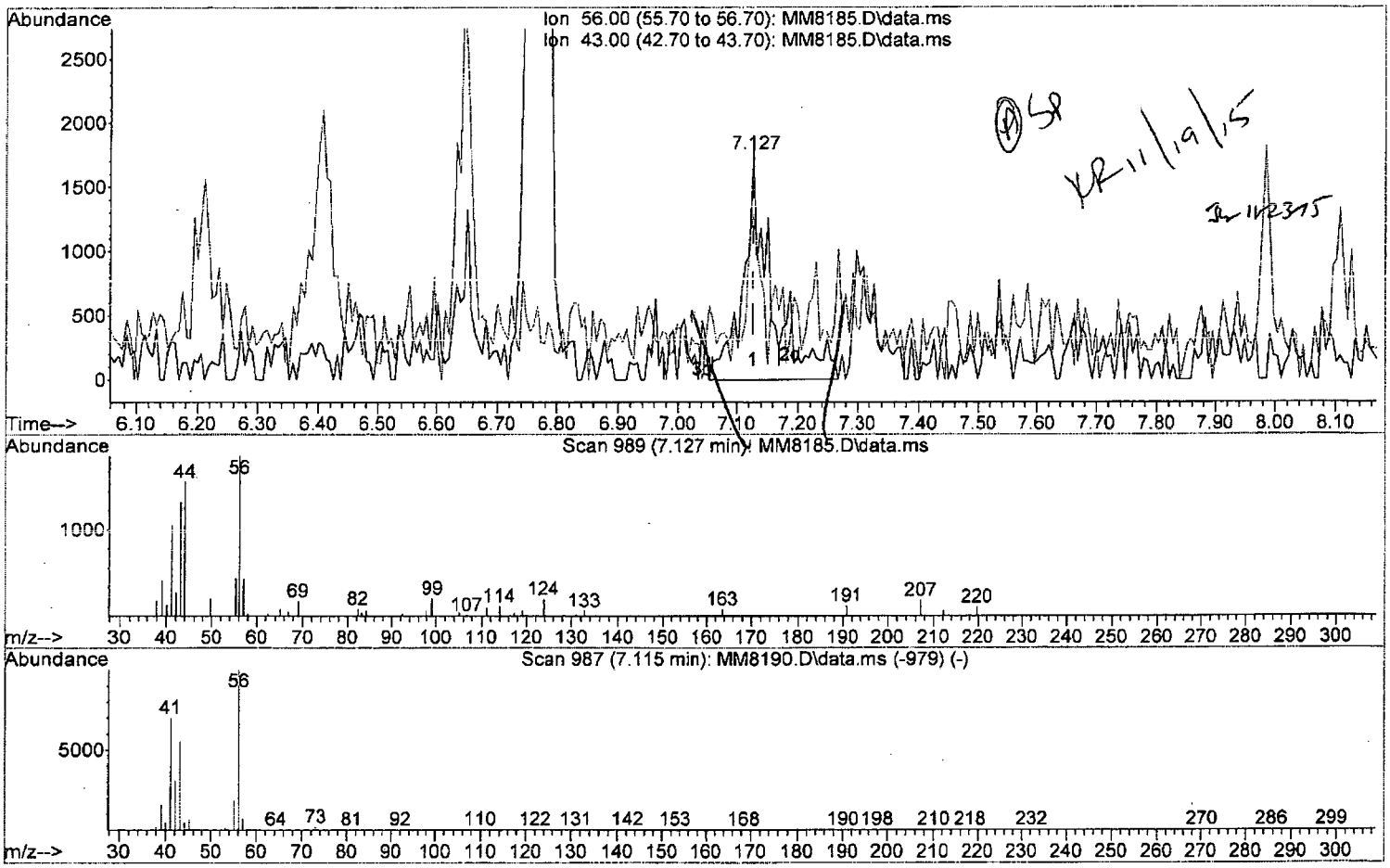
response 3757

Ion	Exp%	Act%
56.00	100	100
43.00	54.90	51.21
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:49:40 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(53) 1-Butanol

7.127min (-0.000) 38.45 ppb m

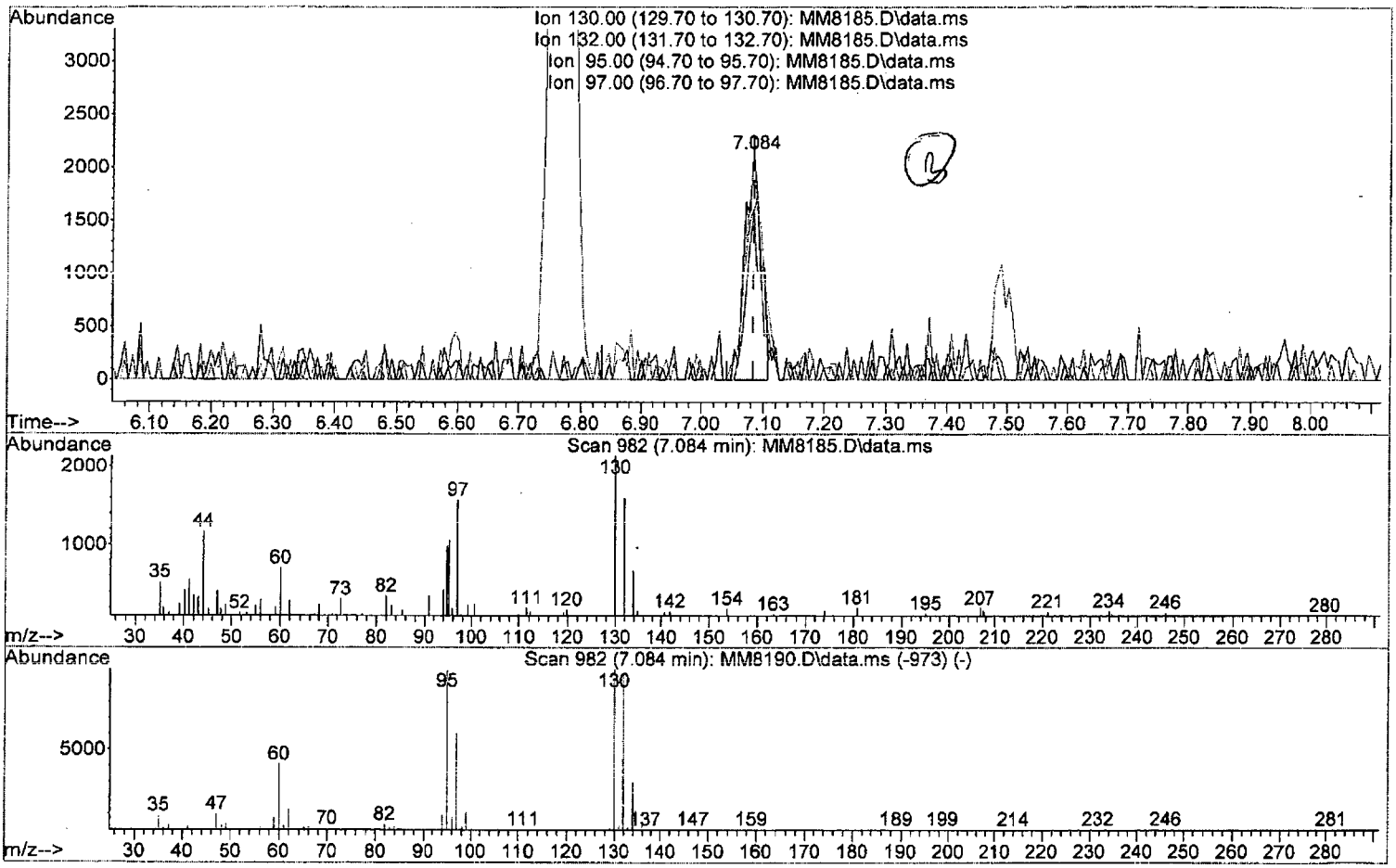
response 5628

Ion	Exp%	Act%
56.00	100	100
43.00	54.90	34.19#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:49:57 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(54) Trichloroethene (P)

7.084min (-0.000) 0.55 ppb

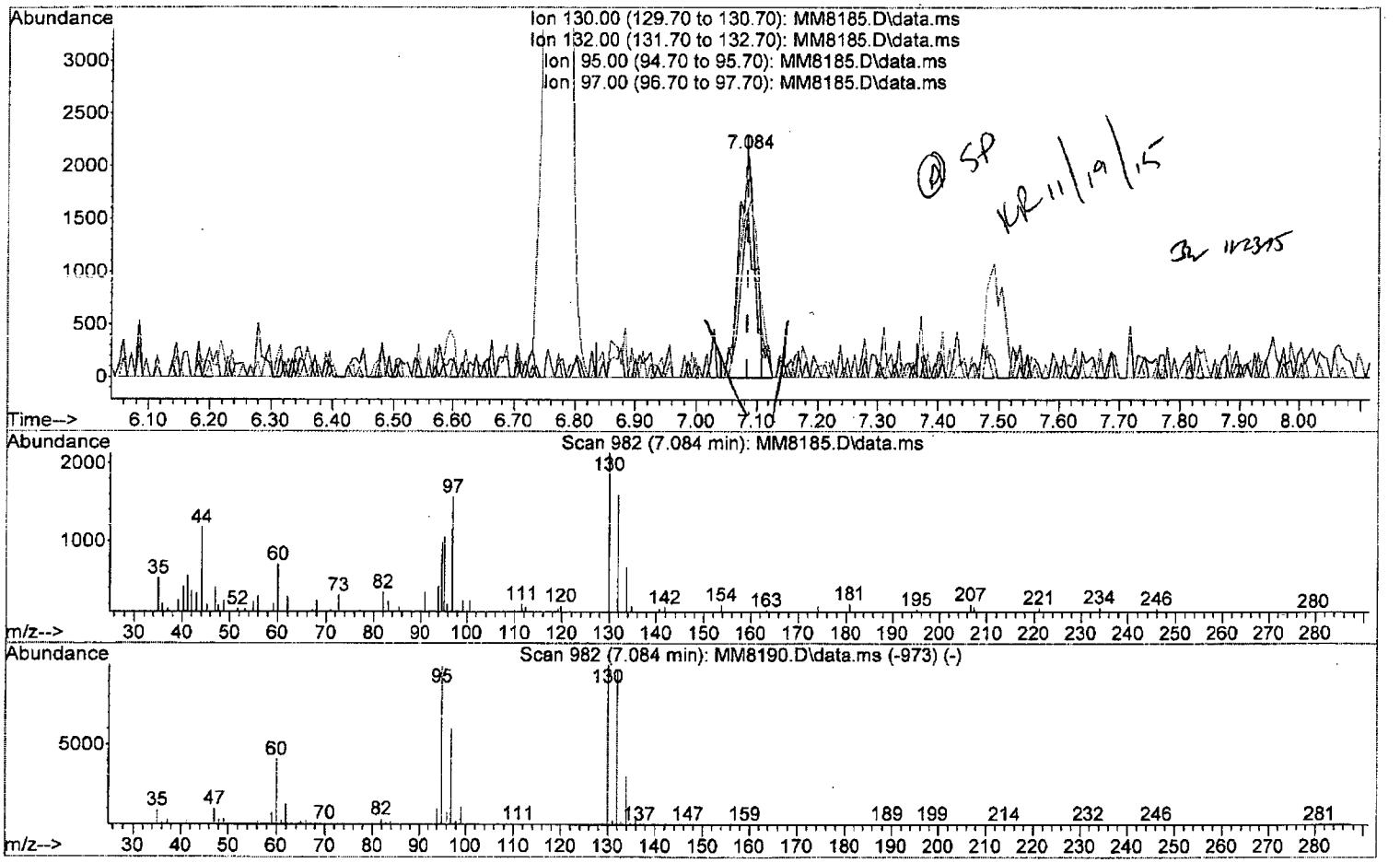
response 3932

Ion	Exp%	Act%
130.00	100	100
132.00	97.40	74.85#
95.00	99.20	95.44
97.00	60.30	78.51

W111815.M Thu Nov 19 09:50:10 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(54) Trichloroethene (P)

7.084min (-0.000) 0.58 ppb m

response 4100

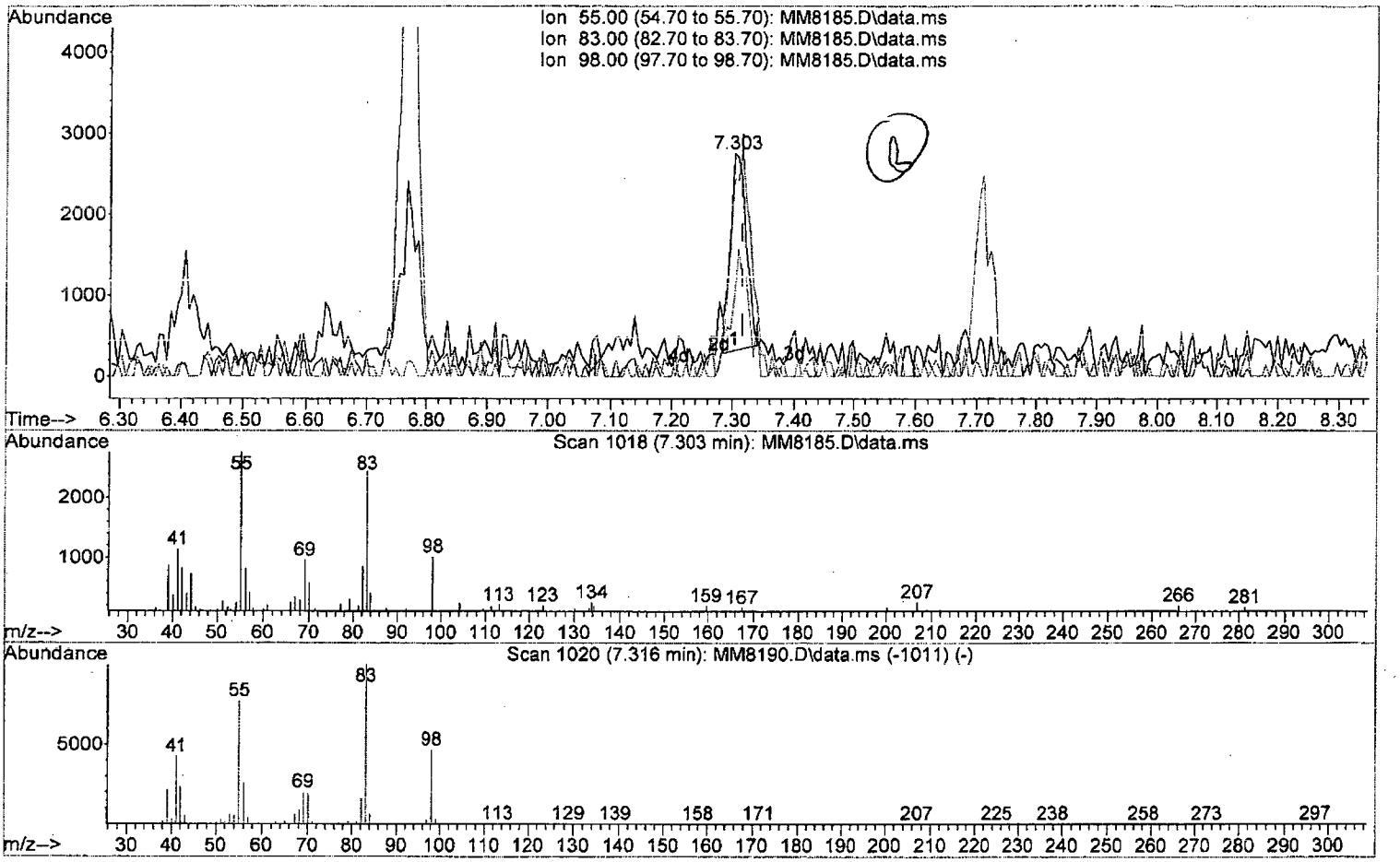
Ion	Exp%	Act%
130.00	100	100
132.00	97.40	74.85#
95.00	99.20	49.65#
97.00	60.30	73.53

W111815.M Thu Nov 19 09:50:17 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(55) Methylcyclohexane (P)

7.303min (-0.012) 0.50 ppb

response 4238

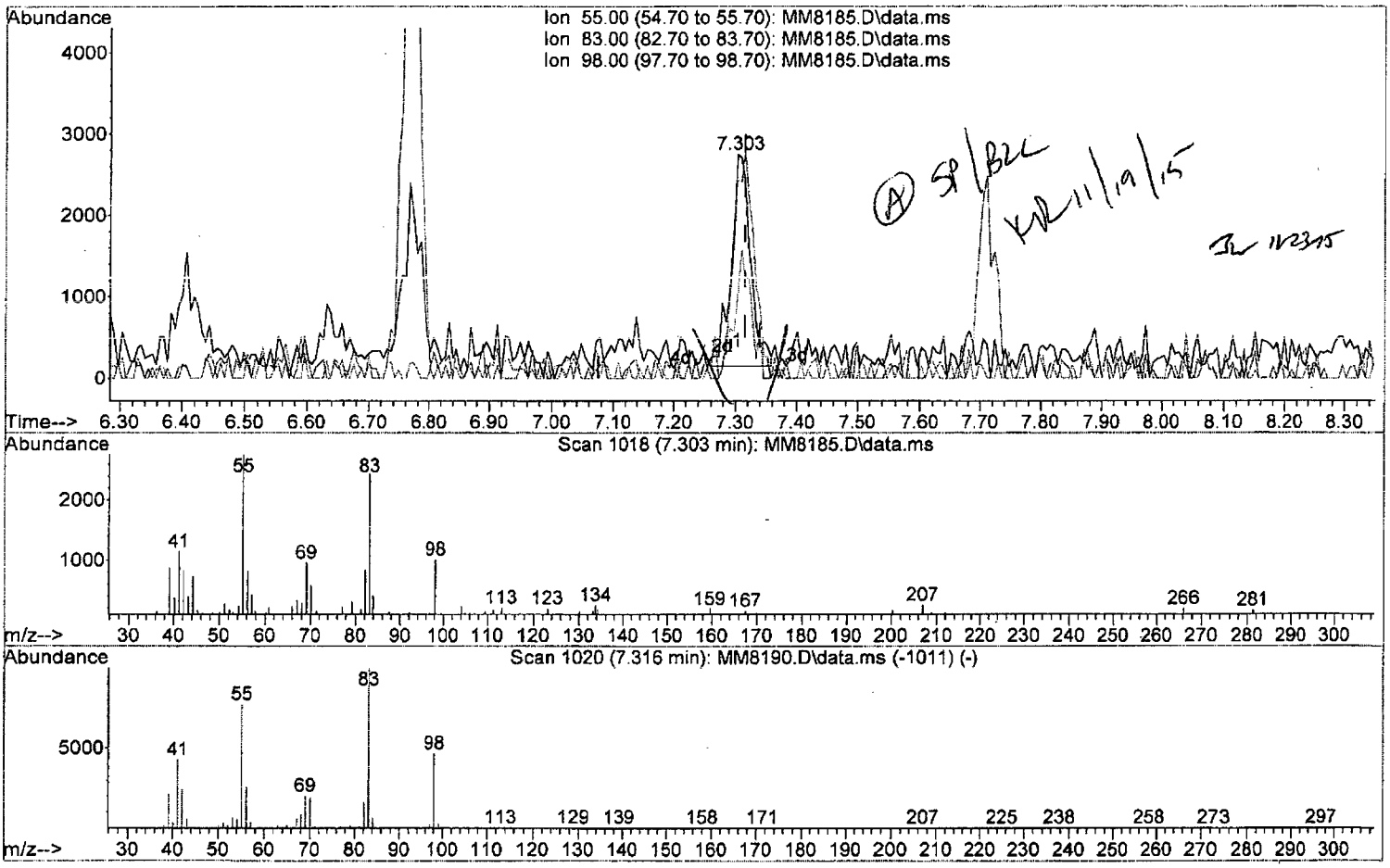
Ion	Exp%	Act%
55.00	100	100
83.00	129.00	88.48#
98.00	60.10	36.53#
0.00	0.00	0.00

W111815.M Thu Nov 19 09:50:39 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(55) Methylcyclohexane (P)

7.303min (-0.012) 0.67 ppb m

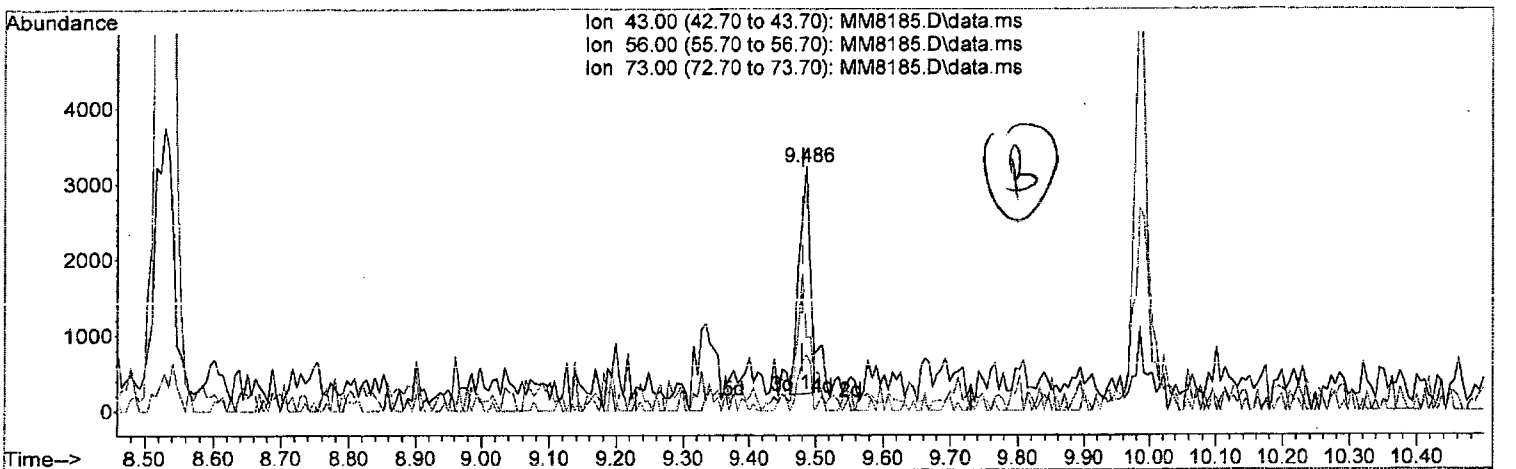
response 5652

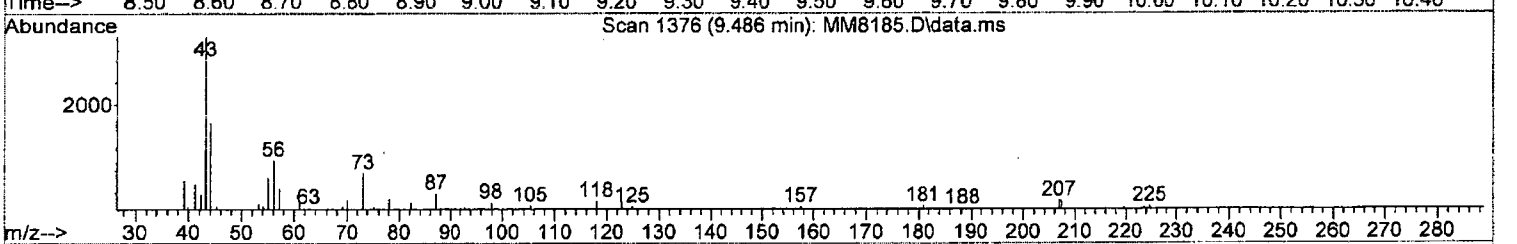
Ion	Exp%	Act%
55.00	100	100
83.00	129.00	88.48#
98.00	60.10	36.53#
0.00	0.00	0.00

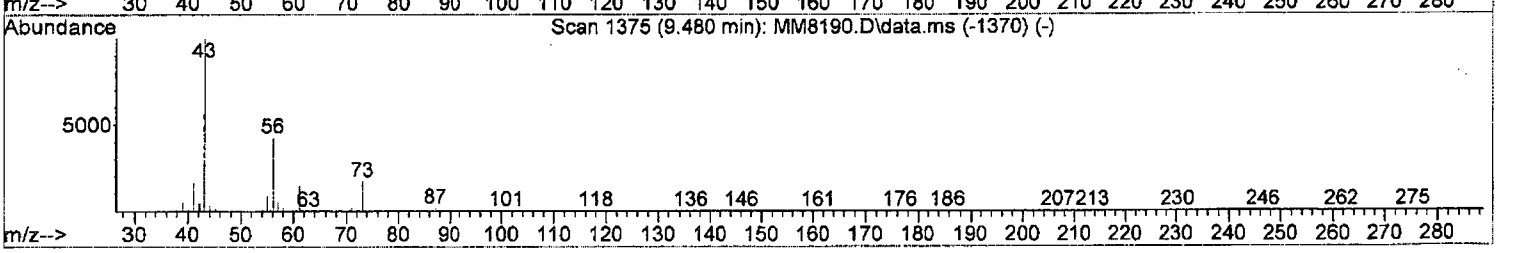
W111815.M Thu Nov 19 09:50:51 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8185.D\data.ms

(76) N-Butyl Acetate

9.486min (+0.006) 0.41 ppb

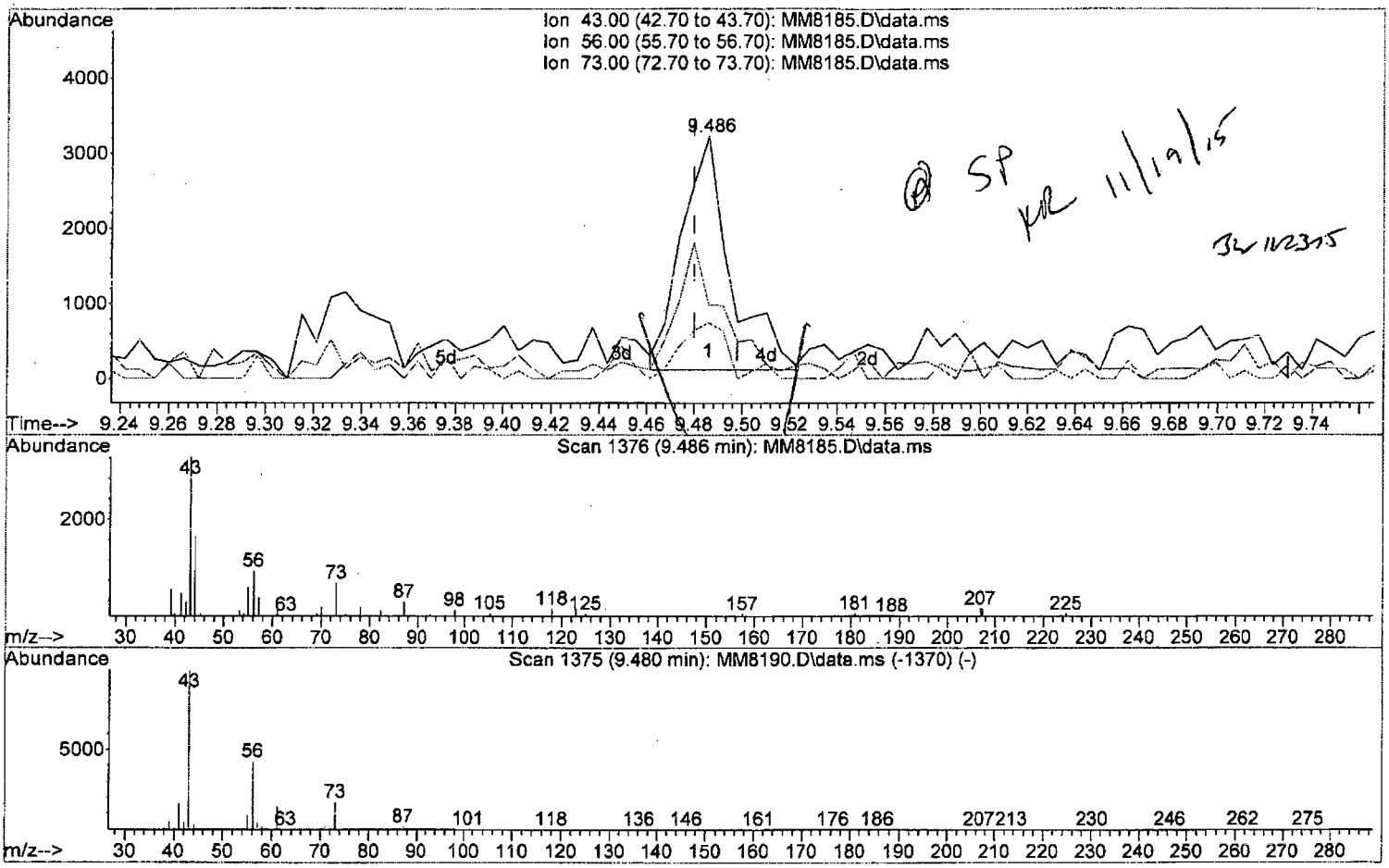
response 3490

Ion	Exp%	Act%
43.00	100	100
56.00	42.50	30.55
73.00	17.20	23.19
0.00	0.00	0.00

W111815.M Thu Nov 19 09:51:49 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(76) N-Butyl Acetate

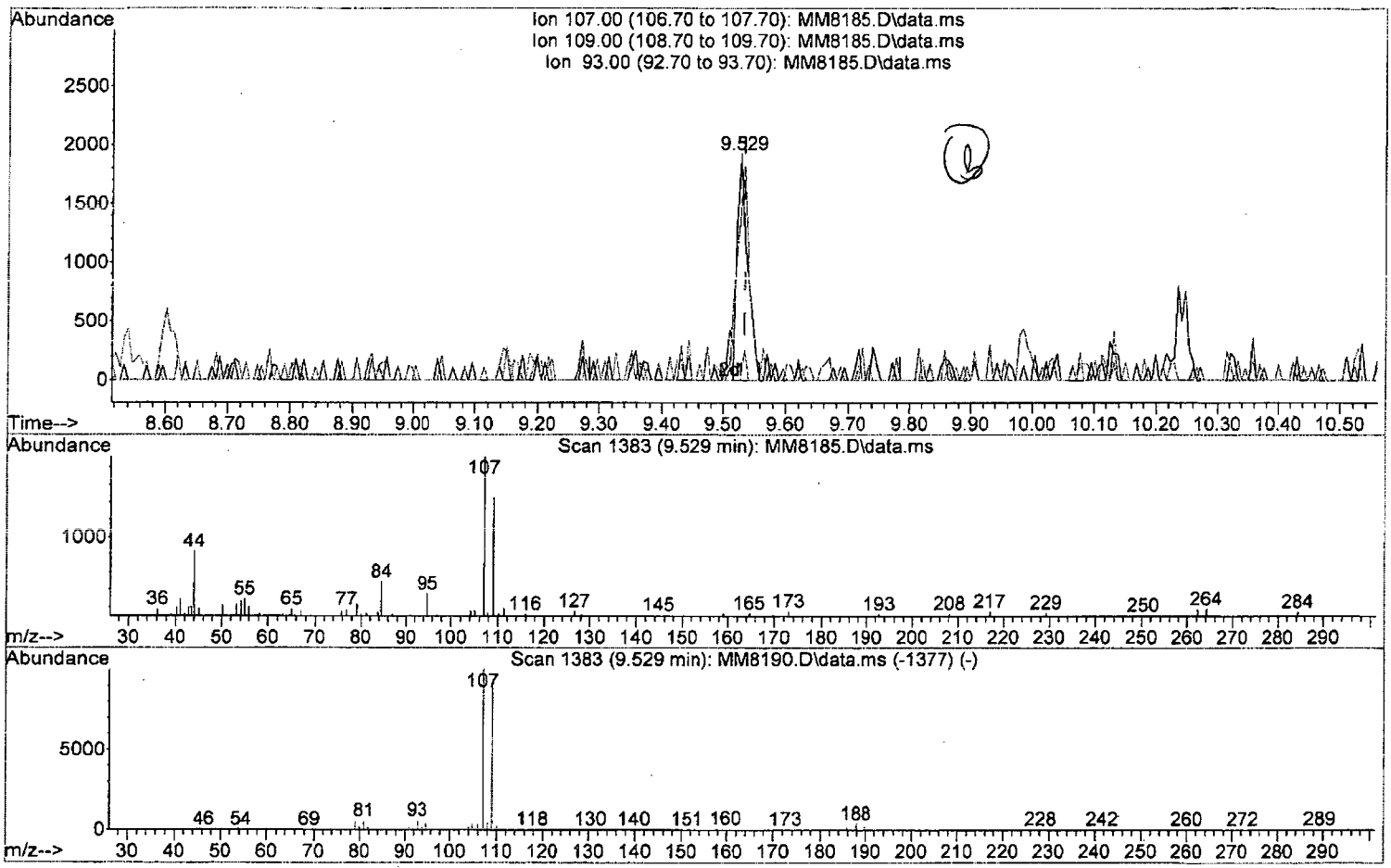
9.486min (+0.006) 0.52 ppb m

response 4374

Ion	Exp%	Act%
43.00	100	100
56.00	42.50	30.55
73.00	17.20	23.19
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(77) 1,2-Dibromoethane (P)

9.529min (-0.006) 0.48 ppb

response 2238

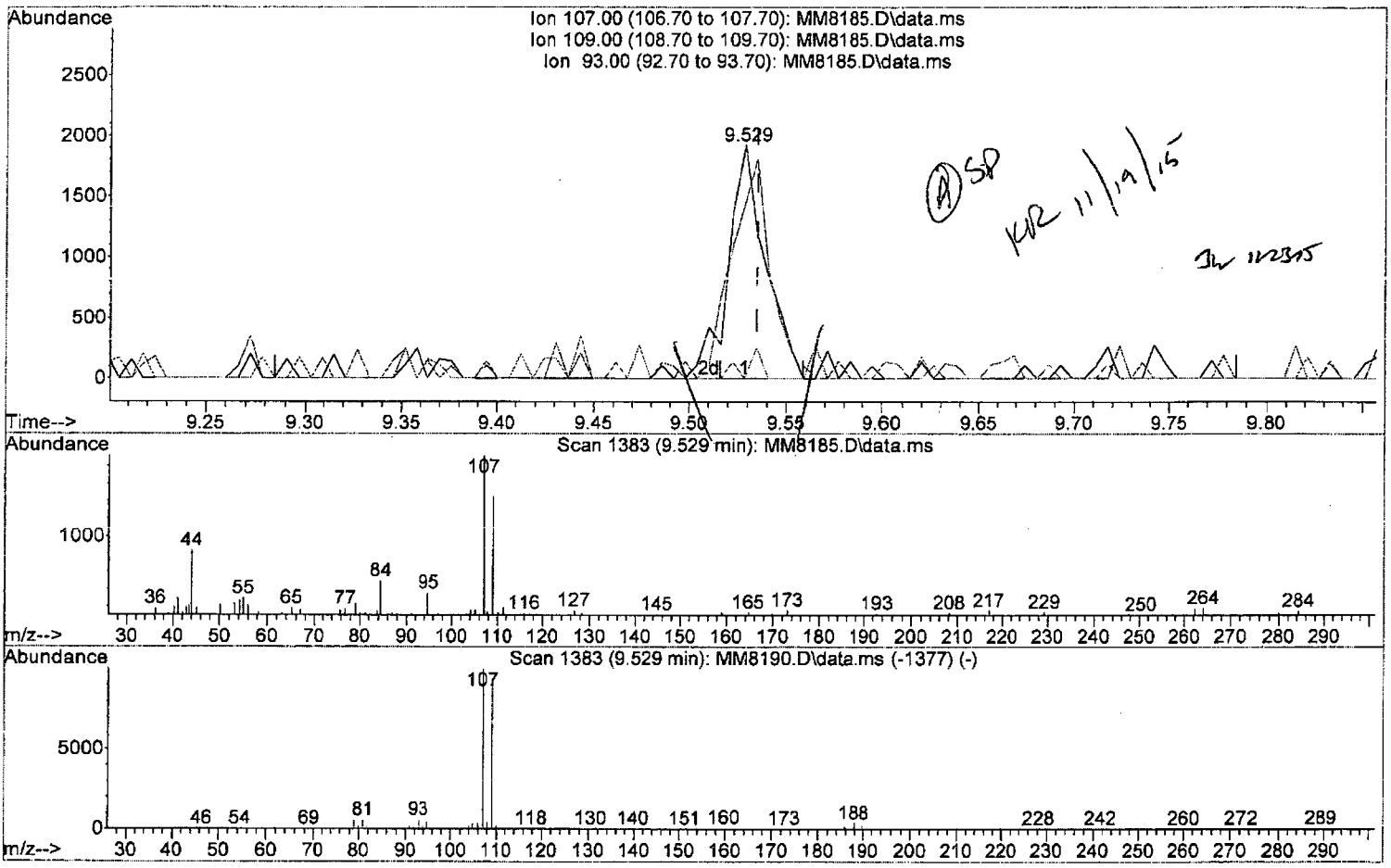
Ion	Exp%	Act%
107.00	100	100
109.00	93.40	75.44
93.00	5.70	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:52:38 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(77) 1,2-Dibromoethane (P)

9.529min (-0.006) 0.54 ppb m

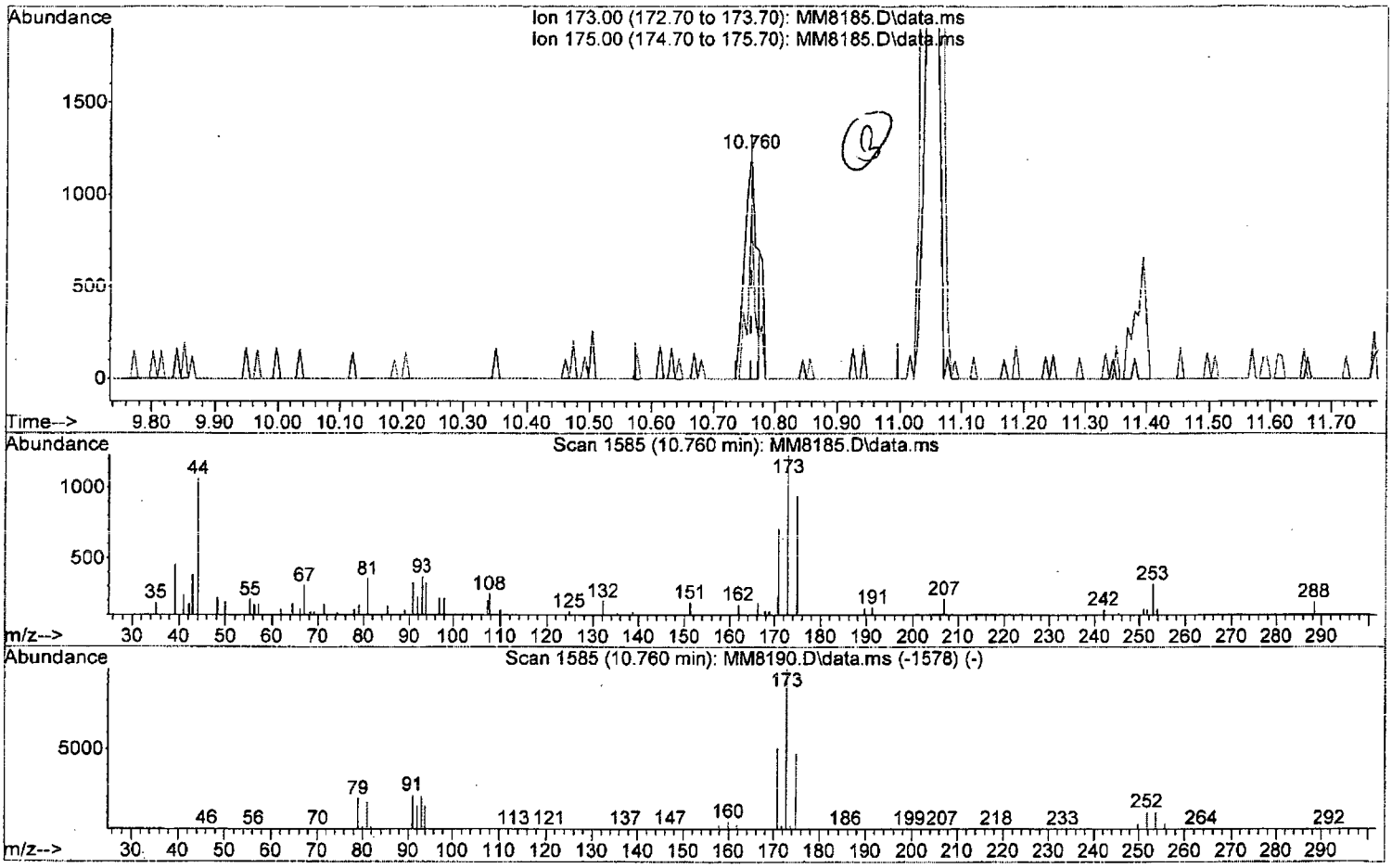
response 2537

Ion	Exp%	Act%
107.00	100	100
109.00	93.40	75.44
93.00	5.70	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:52:49 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(87) Bromoform (P)

10.760min (-0.000) 0.50 ppb

response 1628

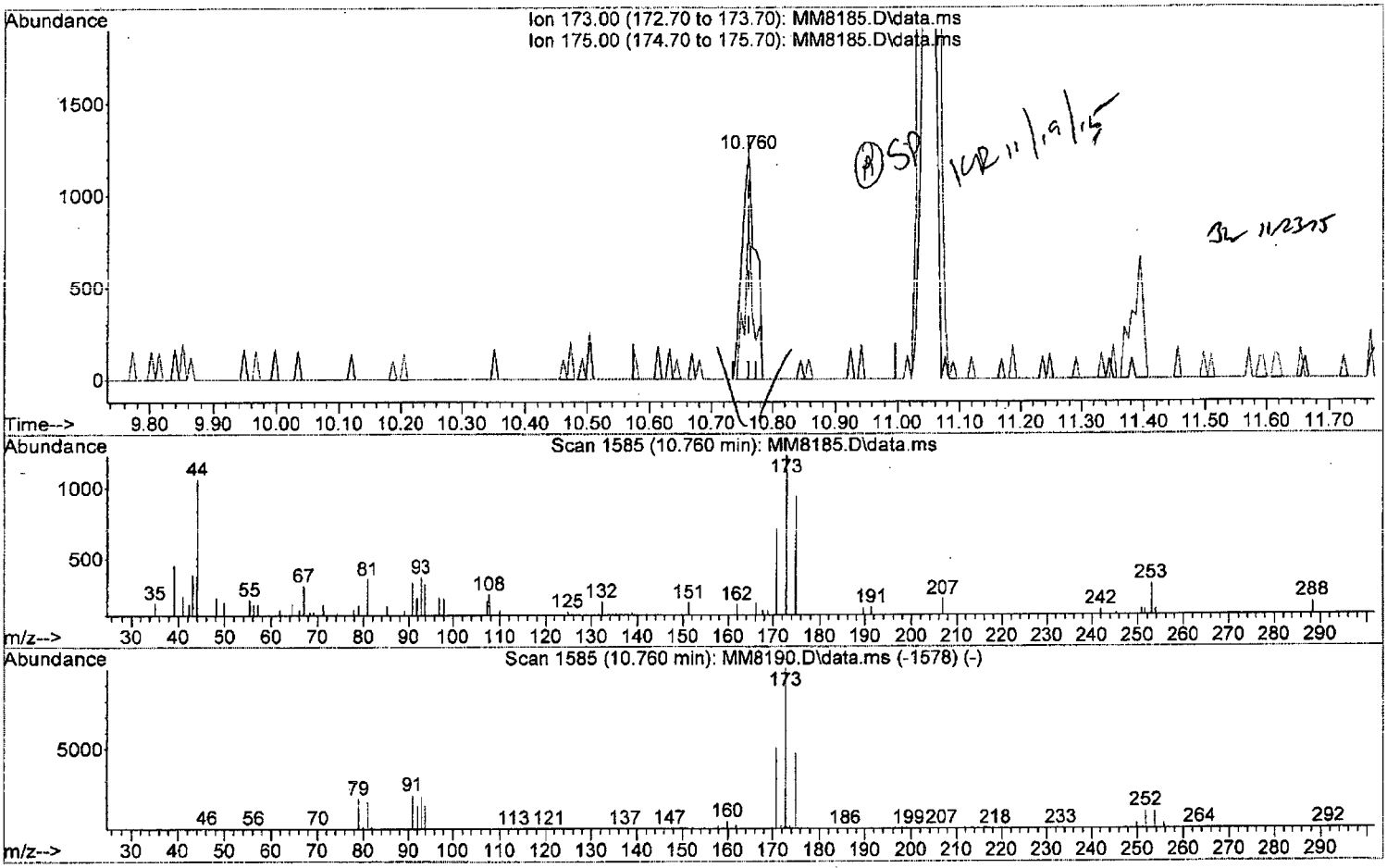
Ion	Exp%	Act%
173.00	100	100
175.00	47.50	76.49#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:53:02 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(87) Bromoform (P)

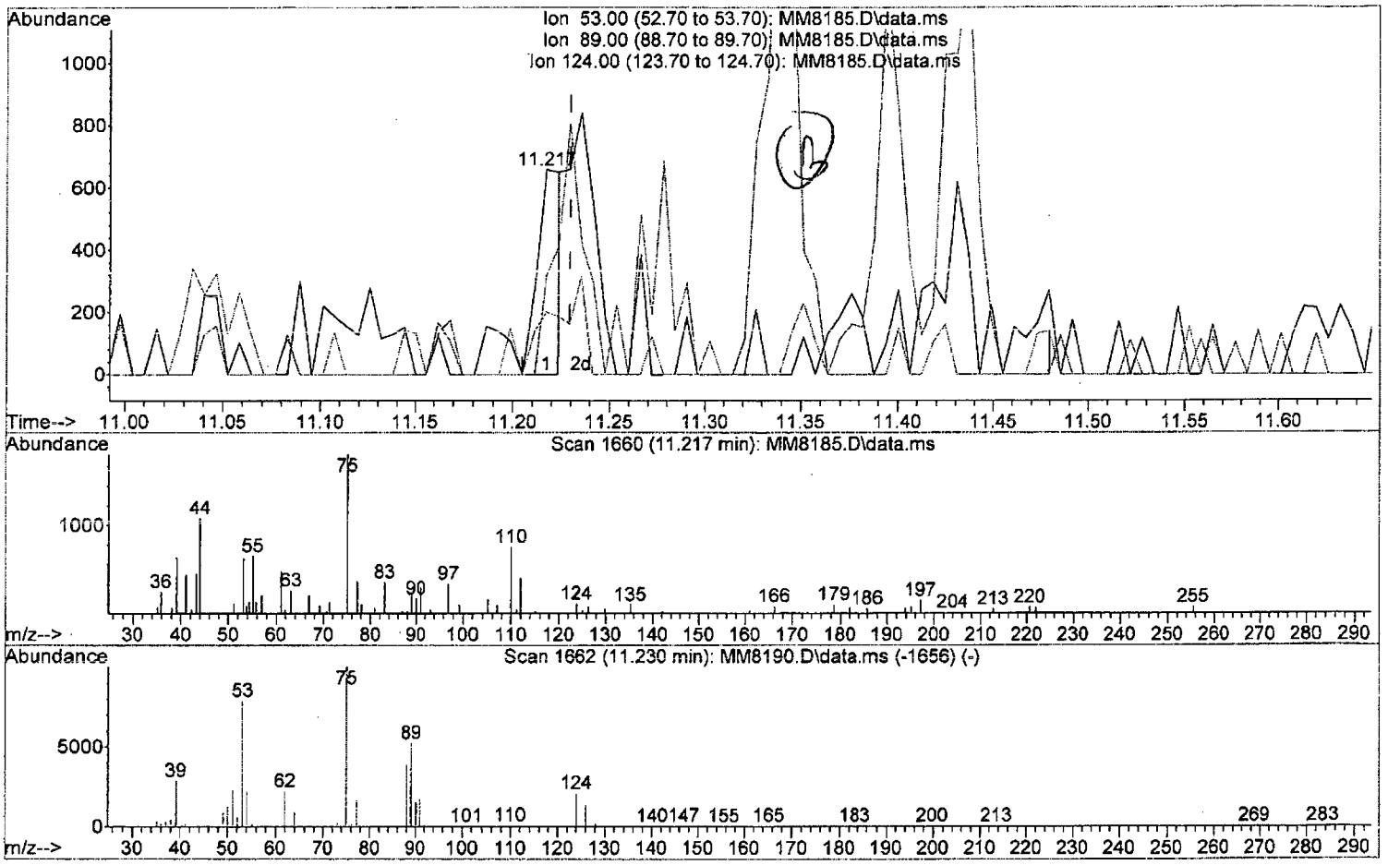
10.760min (-0.000) 0.57 ppb m

response 1862

Ion	Exp%	Act%
173.00	100	100
175.00	47.50	76.49#
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(91) trans-1,4-Dichloro-2-Butene

11.217min (-0.012) 0.31 ppb

response 578

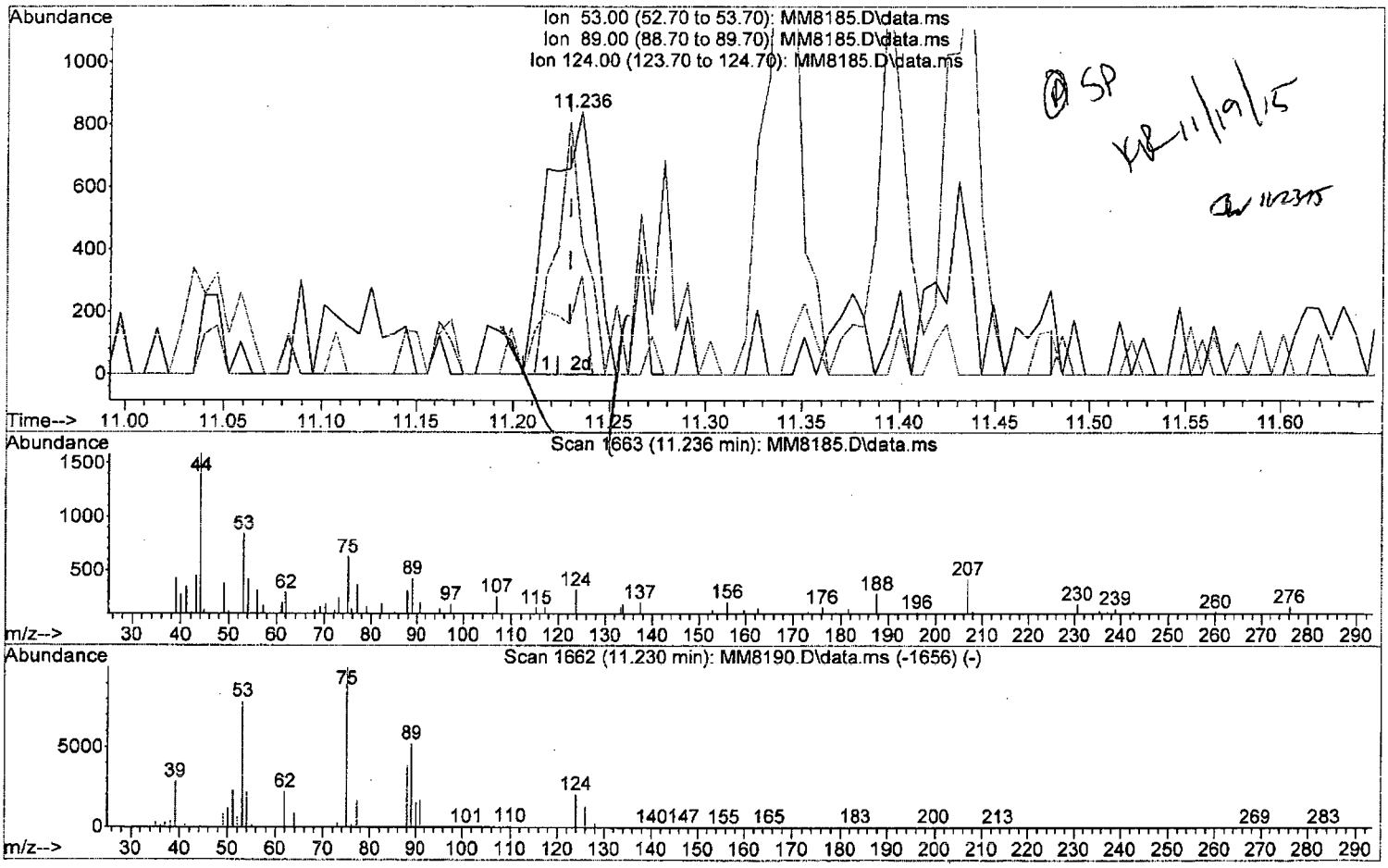
Ion	Exp%	Act%
53.00	100	100
89.00	66.30	48.25
124.00	26.20	30.75
0.00	0.00	0.00

W111815.M Thu Nov 19 09:53:23 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(91) trans-1,4-Dichloro-2-Butene

11.236min (+0.006) 0.74 ppb m

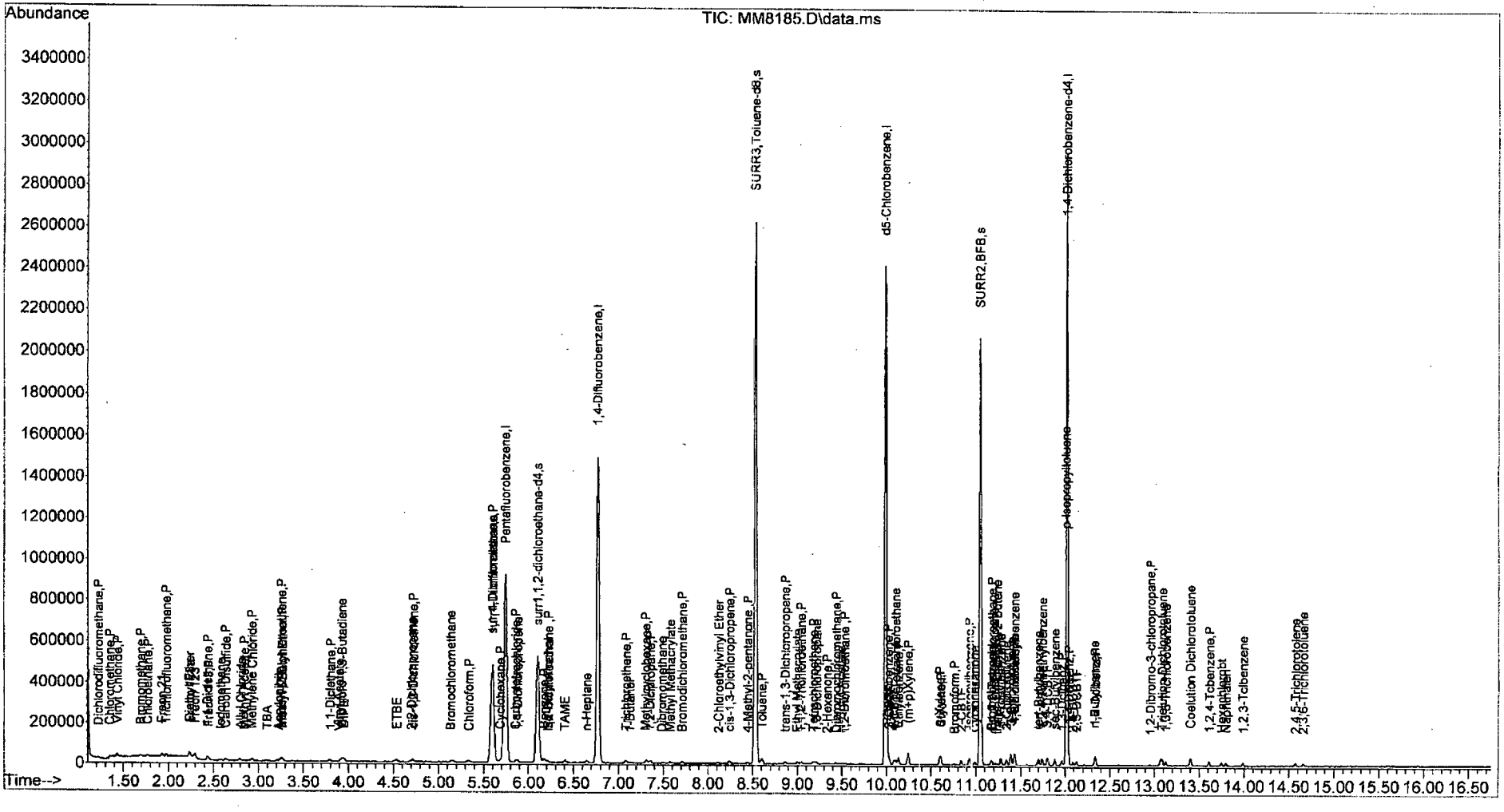
response 1397

Ion	Exp%	Act%
53.00	100	100
89.00	66.30	50.48
124.00	26.20	37.86
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:53:37 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 09:54:14 2015 Page: 4

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	770178	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1273925	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1155799	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	572378	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	363057	46.86	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 93.72%				
48) surr1,1,2-dichloroetha...	6.097	65	391455	46.97	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 93.94%				
65) SURR3,Toluene-d8	8.529	98	1594345	47.06	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 94.12%				
70) SURR2,BFB	11.047	95	588371	48.36	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.72%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	10094m	0.93	ppb		
3) Chloromethane	1.347	50	12665	0.98	ppb		93
4) Vinyl Chloride	1.433	62	12390	1.03	ppb		100
5) Bromomethane	1.683	94	5854m	0.98	ppb		
6) Chloroethane	1.768	64	6193	0.92	ppb		88
7) Freon 21	1.927	67	13063	1.00	ppb		95
8) Trichlorofluoromethane	1.981	101	9613	1.02	ppb		93
9) Diethyl Ether	2.231	59	6819	1.16	ppb		90
10) Freon 123a	2.238	67	9323m	1.10	ppb		
11) Freon 123	2.292	83	11273	1.14	ppb		93
12) Acrolein	2.341	56	1746	2.66	ppb	#	41
13) 1,1-Diclethene	2.433	96	7085	1.07	ppb		96
14) Freon 113	2.445	101	6318	1.08	ppb		94
16) 2-Propanol	2.652	45	6862	22.02	ppb		97
17) Iodomethane	2.567	142	5251	0.73	ppb		94
18) Carbon Disulfide	2.640	76	21855	1.02	ppb		92
20) Allyl Chloride	2.798	76	4462	1.24	ppb	#	37
21) Methyl Acetate	2.829	43	4977	1.30	ppb		77
22) Methylene Chloride	2.933	84	8085	1.09	ppb	#	81
23) TBA	3.097	59	9708	19.20	ppb		97
24) Acrylonitrile	3.207	53	9288	4.96	ppb		97
25) Methyl-t-Butyl Ether	3.262	73	18444	1.03	ppb		89
26) trans-1,2-Dichloroethene	3.250	96	6563m	0.95	ppb		
28) 1,1-Diclethane	3.792	63	11792	0.96	ppb		92
29) Vinyl Acetate	3.920	86	1268m	0.95	ppb		
30) DIPE	3.951	45	25821	1.07	ppb		91
31) 2-Chloro-1,3-Butadiene	3.926	53	13316	1.08	ppb		87
32) ETBE	4.524	59	23601	1.04	ppb		85
33) 2,2-Dichloropropane	4.707	77	12157m	1.23	ppb		
34) cis-1,2-Dichloroethene	4.725	96	8254m	1.07	ppb		
36) Propionitrile	4.889	54	3790m	5.52	ppb		
37) Bromochloromethane	5.146	130	4232m	1.06	ppb		
38) Methacrylonitrile	5.164	67	2125m	0.91	ppb		
40) Chloroform	5.334	83	12327	1.03	ppb		88

11/19/15

W111815.M Thu Nov 19 14:18:48 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) 1,1,1-Trichloroethane	5.584	97	8775	0.93	ppb	#	74
42) TAME	6.401	73	20180	1.05	ppb		80
44) Cyclohexane	5.682	41	7112	1.03	ppb		84
46) Carbontetrachloride	5.865	121	2566m	1.04	ppb		
47) 1,1-Dichloropropene	5.871	75	9357	1.04	ppb		89
49) Benzene	6.176	78	29669	1.06	ppb		95
50) 1,2-Dichloroethane	6.206	62	6994	0.97	ppb		93
51) Iso-Butyl Alcohol	6.206	43	4880	20.76	ppb		95
52) n-Heptane	6.645	43	9356	1.21	ppb		89
53) 1-Butanol	7.121	56	7108m	48.37	ppb		
54) Trichloroethene	7.078	130	7713	1.08	ppb	#	77
55) Methylcyclohexane	7.304	55	8635	1.02	ppb		97
56) 1,2-Diclpropane	7.352	63	7376	1.06	ppb		100
57) Dibromomethane	7.487	93	3907	1.14	ppb	#	76
59) Methyl Methacrylate	7.578	69	3768m	0.94	ppb		
60) Bromodichloromethane	7.712	83	9389	1.10	ppb		85
61) 2-Nitropropane	7.986	41	2354m	1.86	ppb		
62) 2-Chloroethylvinyl Ether	8.108	63	3482	0.91	ppb		77
63) cis-1,3-Dichloropropene	8.236	75	12027	1.05	ppb		87
64) 4-Methyl-2-pentanone	8.438	43	4664	0.92	ppb		77
66) Toluene	8.602	91	29226	1.01	ppb		96
67) trans-1,3-Dichloropropene	8.858	75	8481	0.94	ppb		89
68) Ethyl Methacrylate	8.998	69	7627	0.95	ppb		88
69) 1,1,2-Trichloroethane	9.047	97	4900	1.00	ppb	#	83
72) Tetrachloroethene	9.181	164	4504	0.94	ppb		90
73) 2-Hexanone	9.328	43	3994	1.13	ppb		87
74) 1,3-Dichloropropane	9.212	76	9920	1.13	ppb		90
75) Dibromochloromethane	9.431	129	5804	1.06	ppb		100
76) N-Butyl Acetate	9.480	43	8961	1.07	ppb		95
77) 1,2-Dibromoethane	9.535	107	4785	1.02	ppb		98
78) Chlorobenzene	10.010	112	17857	1.04	ppb		91
79) 3-CBTF	10.035	180	8890	1.05	ppb	#	82
80) 4-CBTF	10.084	180	8238m	1.04	ppb		
81) 1,1,1,2-Tetrachloroethane	10.102	131	6317	1.07	ppb		98
82) Ethylbenzene	10.138	106	9885	1.02	ppb	#	86
83) (m+p)Xylene	10.242	106	24285	2.03	ppb		89
84) o-Xylene	10.596	106	11839	0.97	ppb		98
85) Styrene	10.608	104	21628	1.08	ppb		96
87) Bromoform	10.754	173	3210	0.99	ppb	#	69
88) 2-CBTF	10.833	180	9618	1.11	ppb		97
89) Isopropylbenzene	10.925	105	33324	1.12	ppb		86
90) Cyclohexanone	10.986	55	8800	20.39	ppb		99
91) trans-1,4-Dichloro-2-B...	11.224	53	2030	1.09	ppb		86
92) 1,1,2,2-Tetrachloroethane	11.181	83	6432m	1.07	ppb		
93) Bromobenzene	11.169	156	6830	1.01	ppb	#	80
94) 1,2,3-Trichloropropane	11.217	110	1978	1.12	ppb	#	51
95) n-Propylbenzene	11.278	91	35704	1.04	ppb		93
96) 2-Chlorotoluene	11.345	91	19406	0.96	ppb		96
97) 3-Chlorotoluene	11.394	91	21392m	1.01	ppb		
98) 4-Chlorotoluene	11.431	91	23630	1.04	ppb		89
99) 1,3,5-Trimethylbenzene	11.431	105	23434	1.04	ppb		96

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

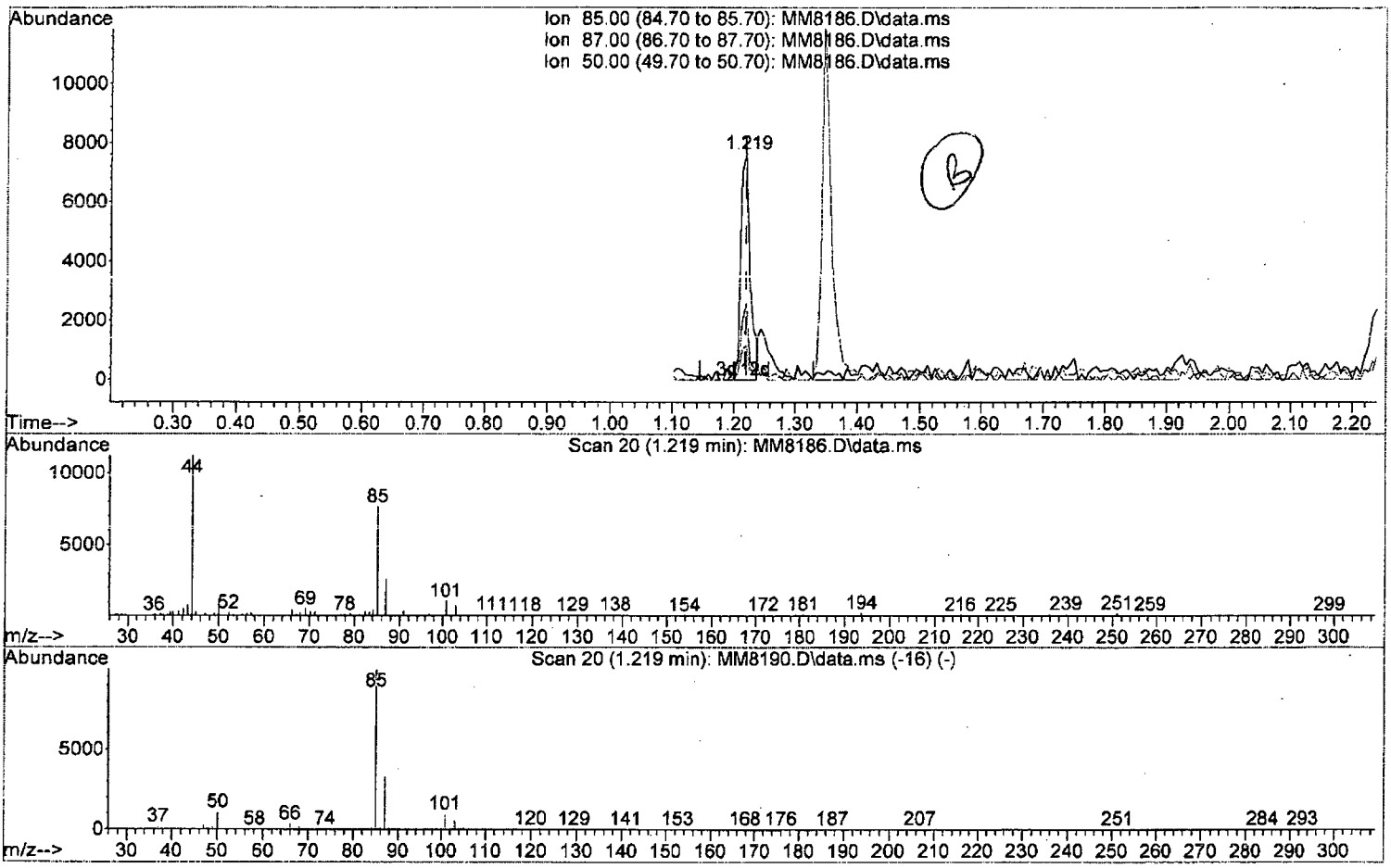
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
100) tert-Butylbenzene	11.699	119	19326	0.96	ppb		98
101) 1,2,4-Trimethylbenzene	11.742	105	25761	1.07	ppb		93
102) 3,4-DCBTF	11.803	214	5860	1.01	ppb		91
103) sec-Butylbenzene	11.882	105	30086	1.07	ppb		91
104) p-Isopropyltoluene	12.004	119	22364	1.03	ppb		95
105) 1,3-Dclbenz	11.961	146	13676	1.05	ppb		98
106) 1,4-Dclbenz	12.034	146	11720	0.96	ppb		84
107) 2,4-DCBTF	12.089	214	4912	0.97	ppb	#	81
108) 2,5-DCBTF	12.126	214	5760	1.00	ppb		98
109) n-Butylbenzene	12.333	91	20401	0.99	ppb		92
110) 1,2-Dclbenz	12.339	146	13110	1.09	ppb		88
111) 1,2-Dibromo-3-chloropr...	12.961	157	1003	0.85	ppb	#	57
112) Trielution Dichlorotol...	13.083	125	31009	3.06	ppb	#	87
113) 1,3,5 Trichlorobenzene	13.126	180	7780	0.96	ppb	#	92
114) Coelution Dichlorotoluene	13.400	125	22904	2.14	ppb		98
115) 1,2,4-Tcbenzene	13.607	180	7848	1.06	ppb		86
116) Hexachlorobt	13.747	225	3391	1.07	ppb		90
117) Naphthalen	13.802	128	13597	0.89	ppb		94
118) 1,2,3-Tclbenzene	13.985	180	6741	1.09	ppb		86
119) 2,4,5-Trichlorotolene	14.570	159	4370	0.94	ppb	#	85
120) 2,3,6-Trichlorotoluene	14.656	159	4049	0.98	ppb	#	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(2) Dichlorodifluoromethane (P)

1.219min (0.000) 0.73 ppb

response 7969

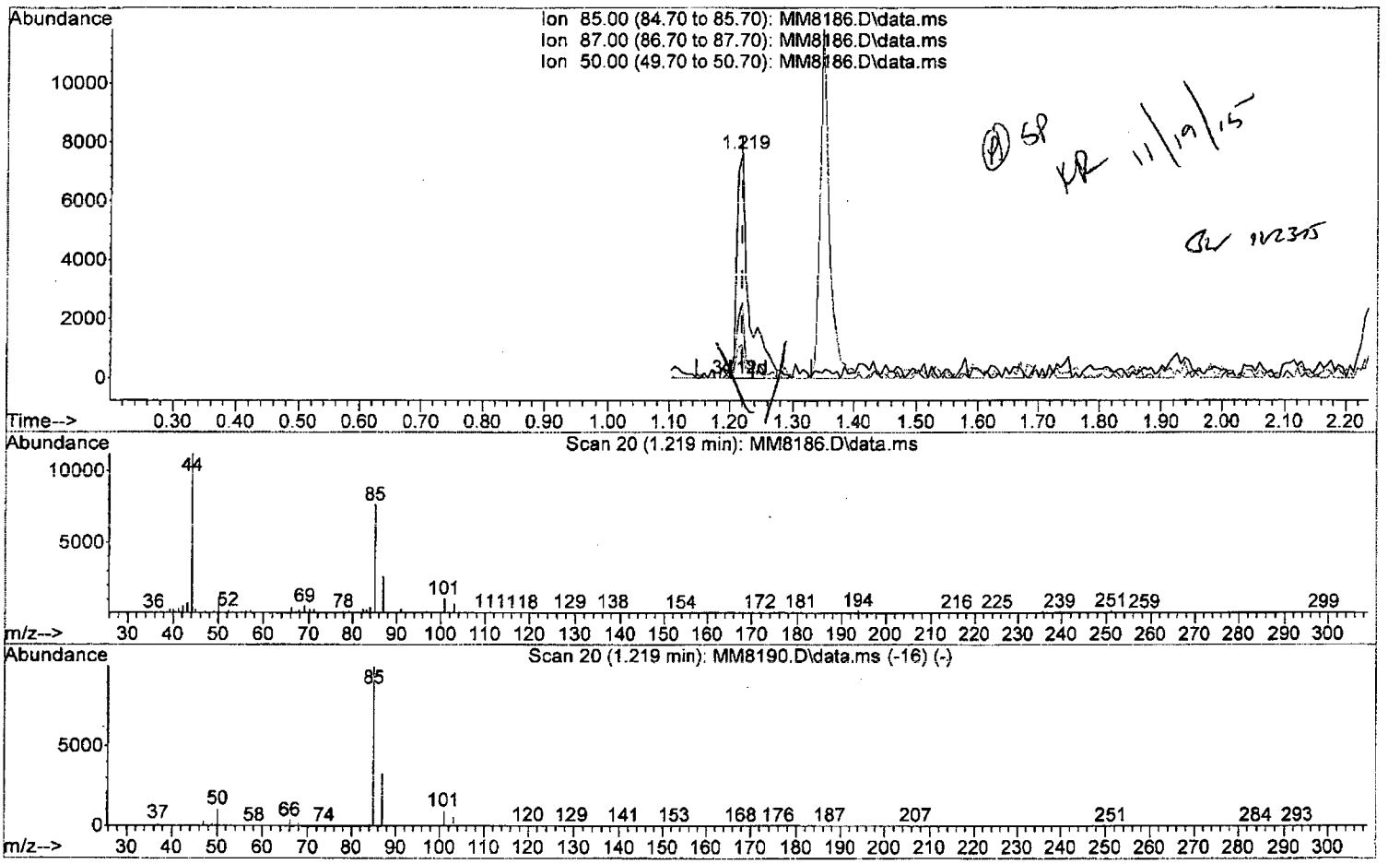
Ion	Exp%	Act%
85.00	100	100
87.00	32.70	33.97
50.00	10.60	15.05
0.00	0.00	0.00

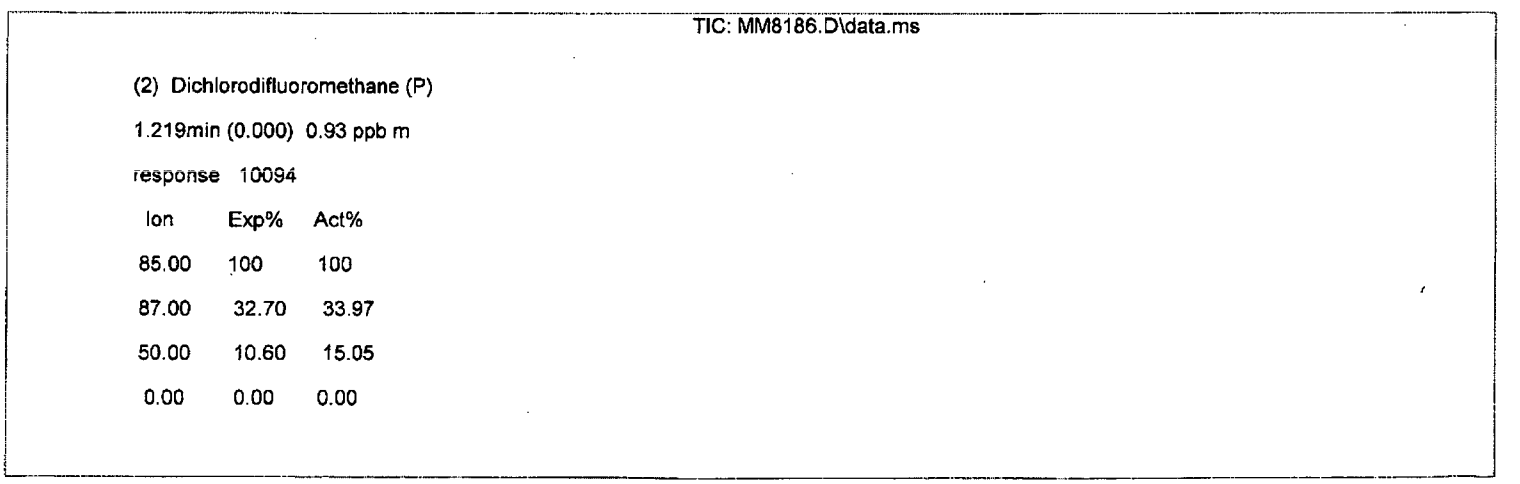
W111815.M Thu Nov 19 09:58:28 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration





(2) Dichlorodifluoromethane (P)

1.219min (0.000) 0.93 ppb m

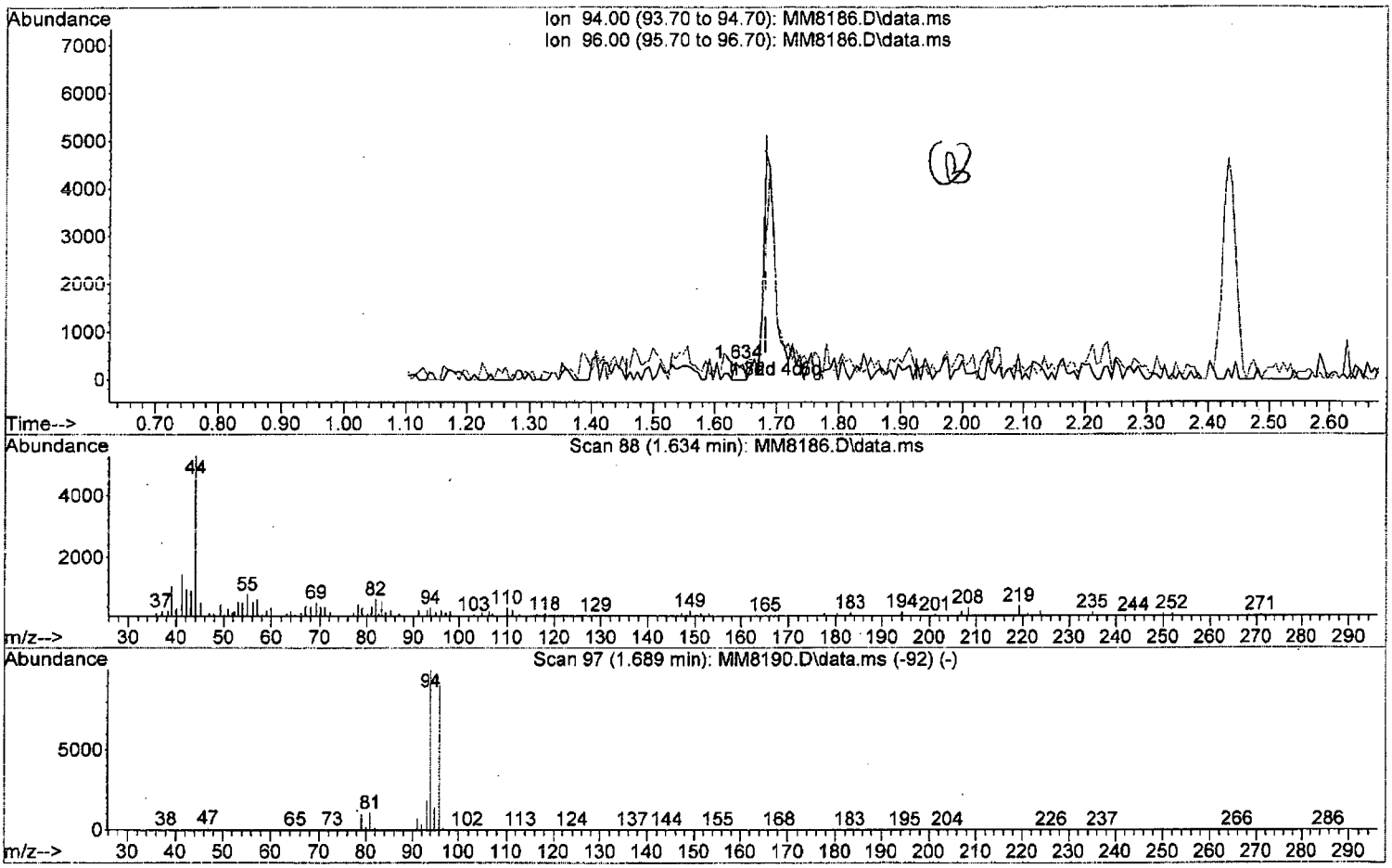
response 10094

Ion	Exp%	Act%
85.00	100	100
87.00	32.70	33.97
50.00	10.60	15.05
0.00	0.00	0.00

W111815.M Thu Nov 19 09:58:35 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(5) Bromomethane (P)

1.634min (-0.049) 0.06 ppb

response 343

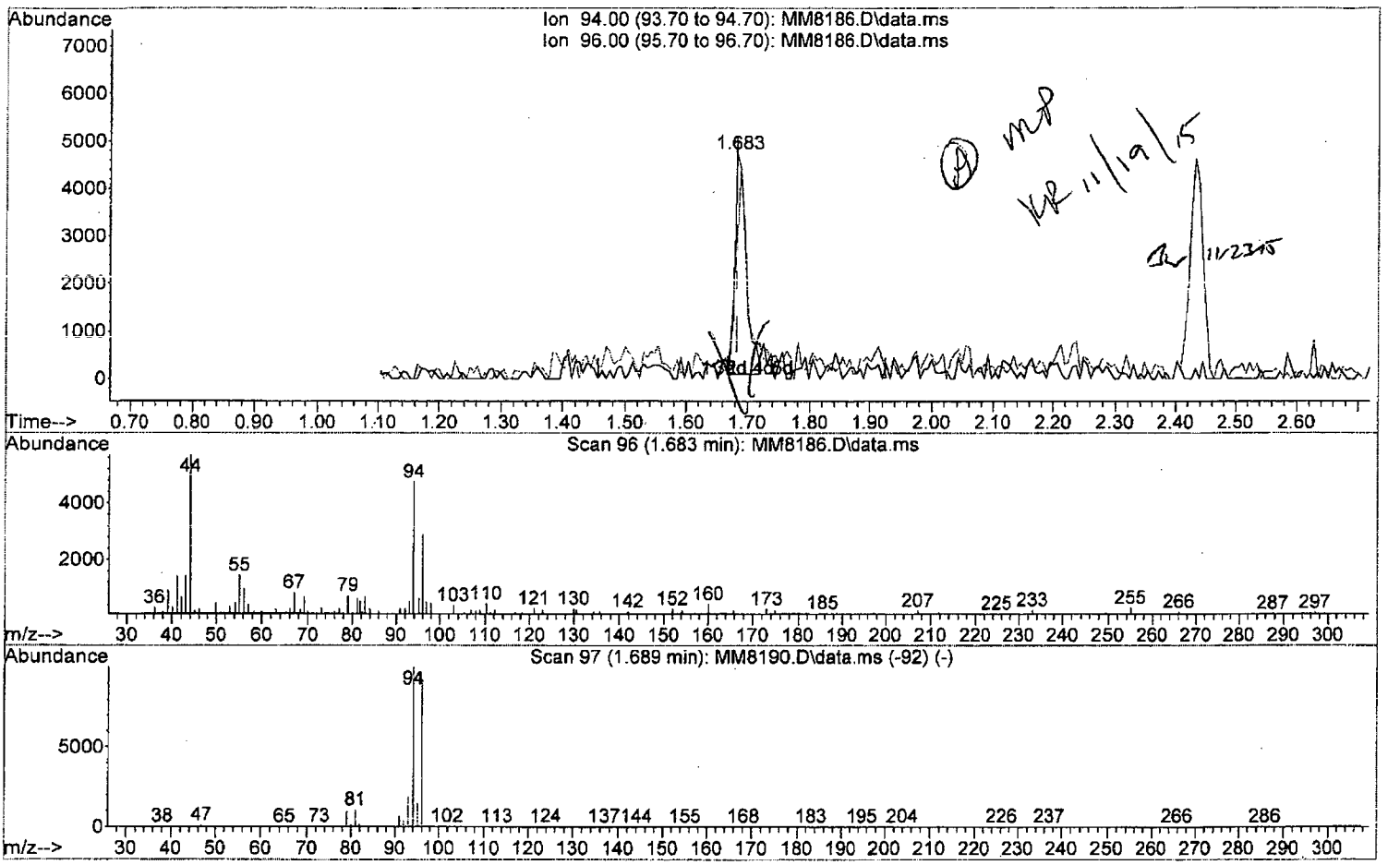
Ion	Exp%	Act%
94.00	100	100
96.00	92.80	74.72
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:58:44 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(5) Bromomethane (P)

1.683min (-0.000) 0.98 ppb m

response 5854

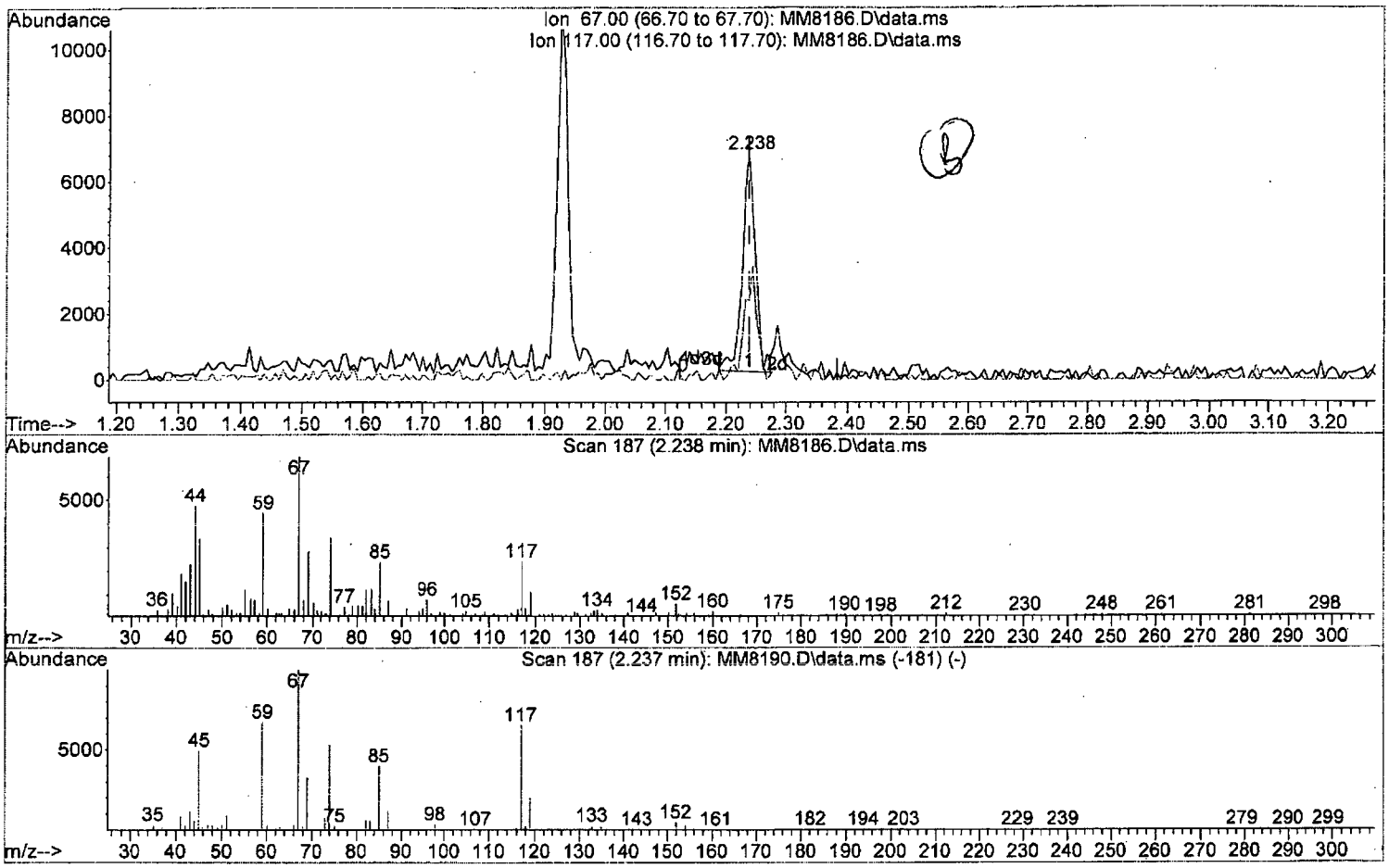
Ion	Exp%	Act%
94.00	100	100
96.00	92.80	60.76#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:59:18 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(10) Freon 123a

2.238min (0.000) 1.19 ppb

response 10134

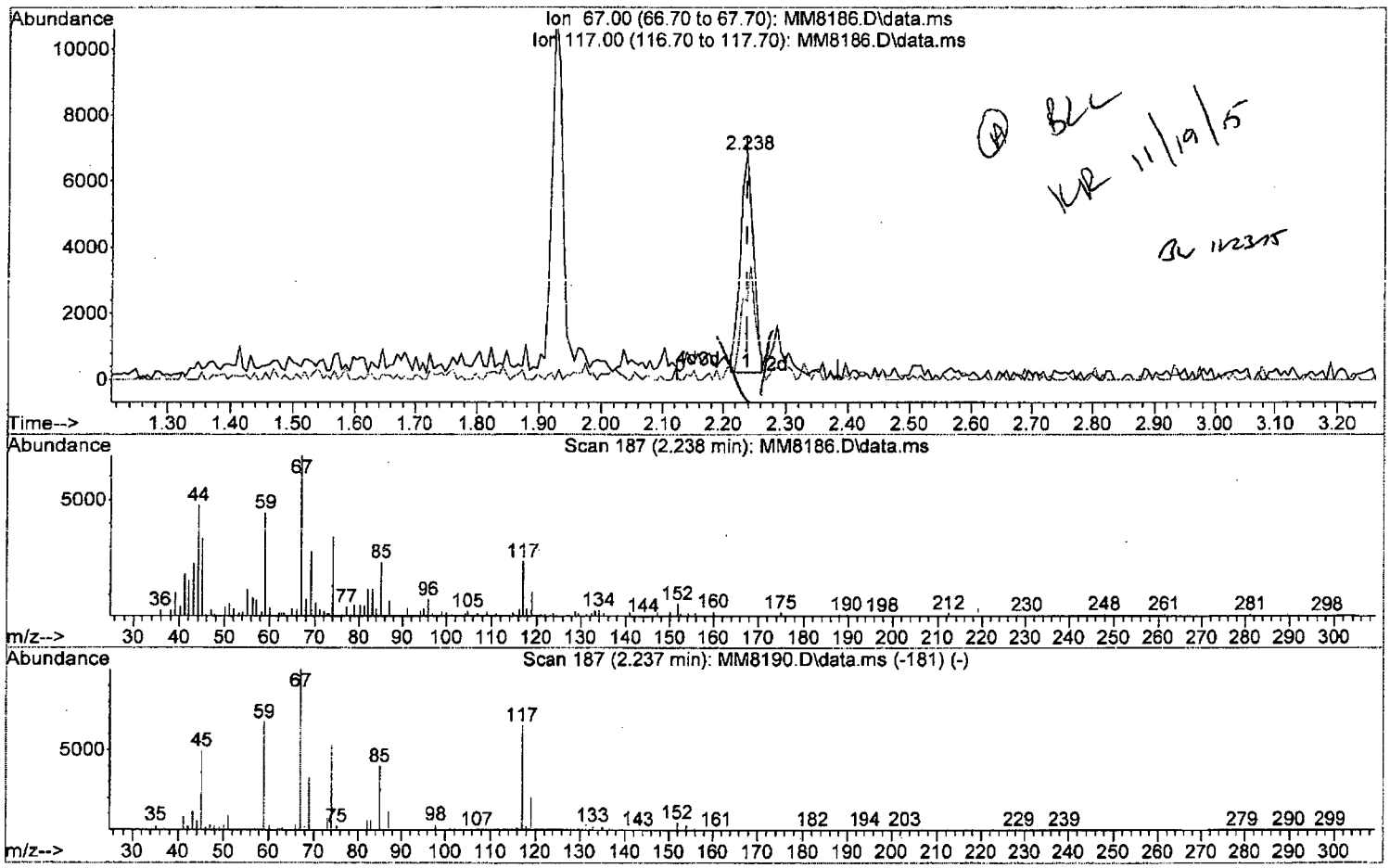
Ion	Exp%	Act%
67.00	100	100
117.00	65.50	34.95#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:59:33 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(10) Freon 123a

2.238min (0.000) 1.10 ppb m

response 9323

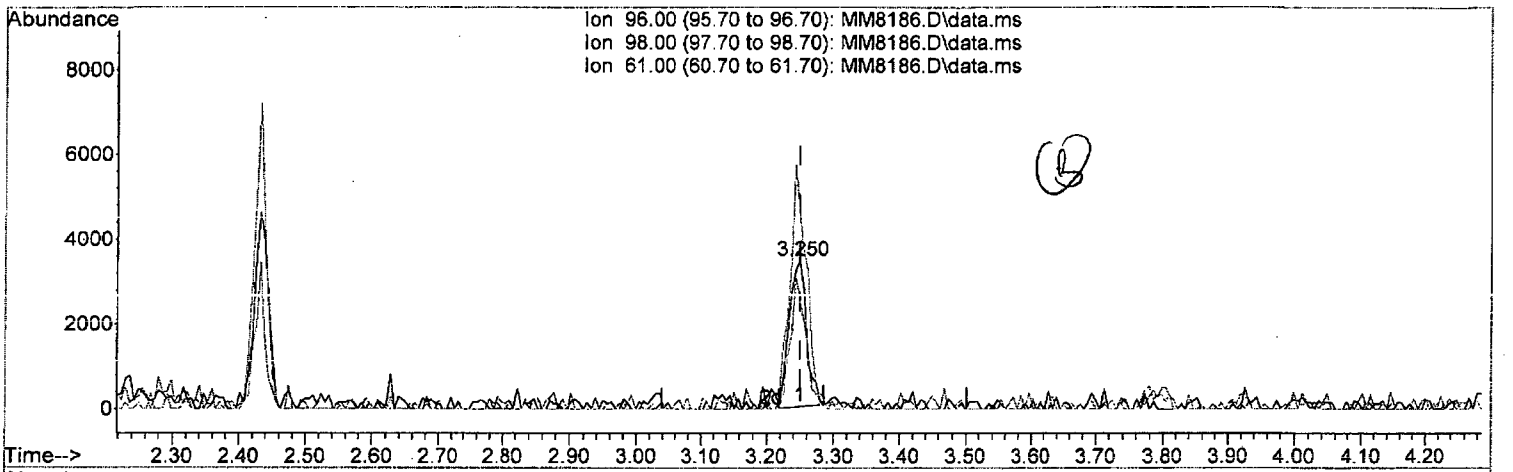
Ion	Exp%	Act%
67.00	100	100
117.00	65.50	34.95#
0.00	0.00	0.00
0.00	0.00	0.00

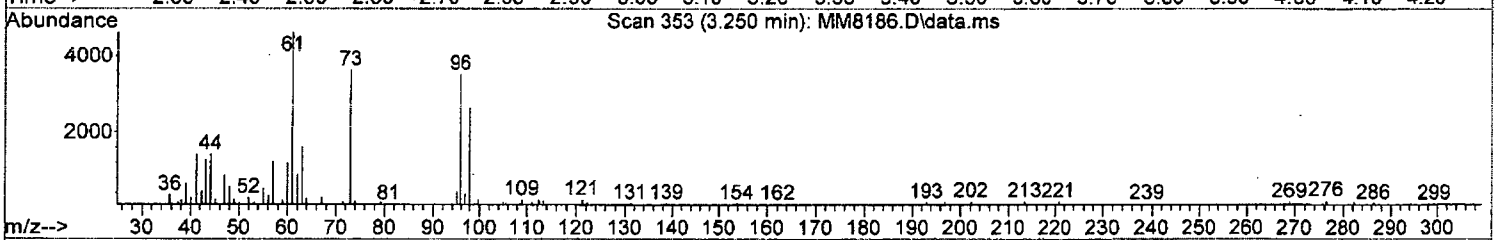
W111815.M Thu Nov 19 10:00:01 2015 Page: 1

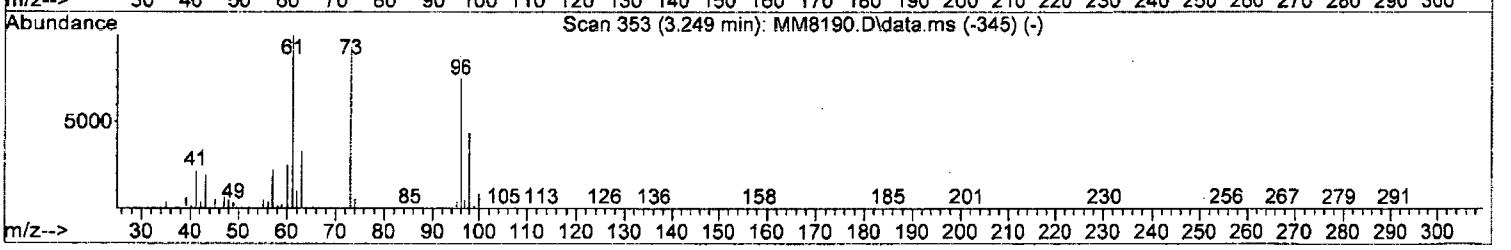
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8186.D\data.ms

(26) trans-1,2-Dichloroethene (P)

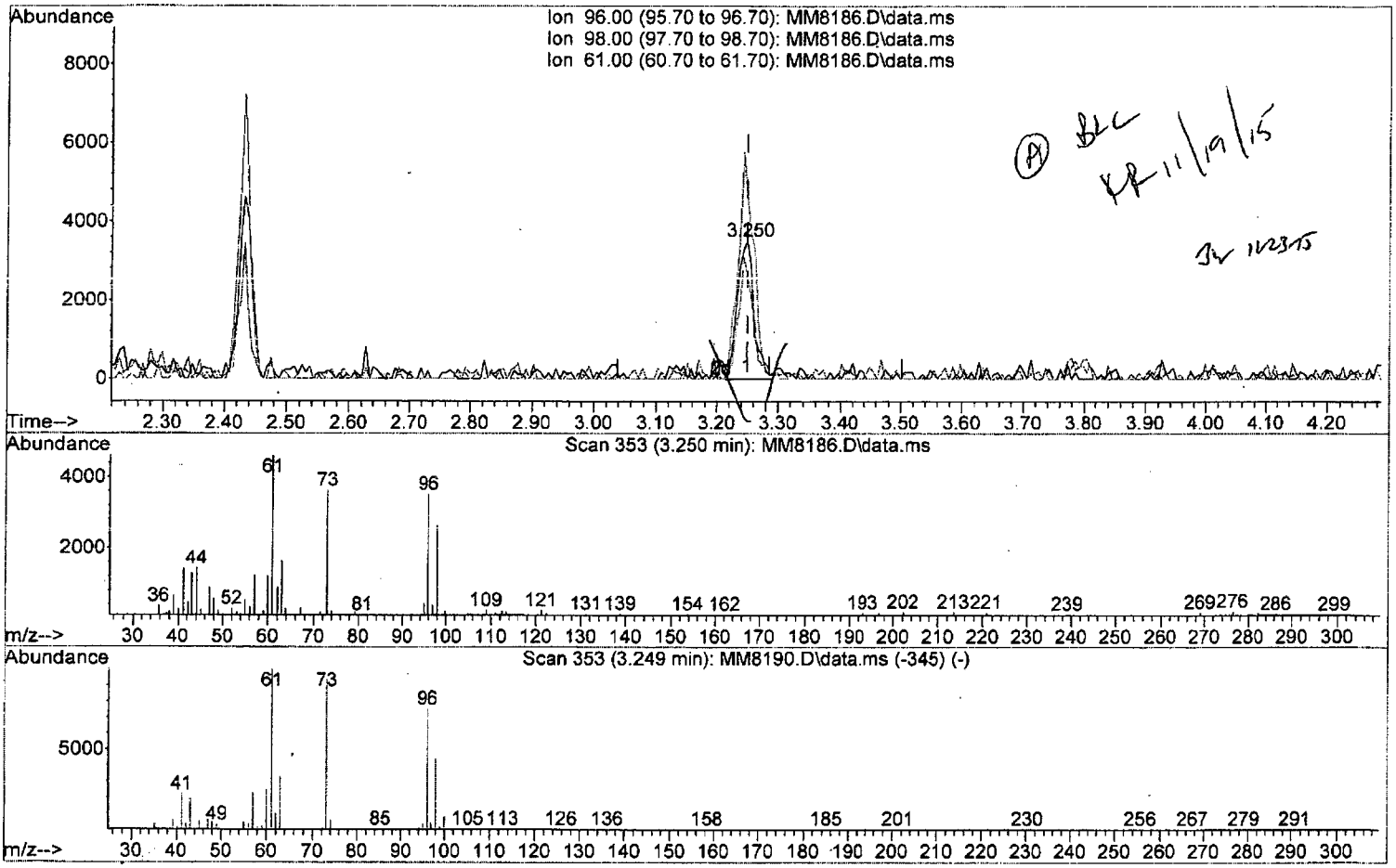
3.250min (0.000) 0.90 ppb

response 6211

Ion	Exp%	Act%
96.00	100	100
98.00	57.60	74.85
61.00	133.00	131.57
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(26) trans-1,2-Dichloroethene (P)

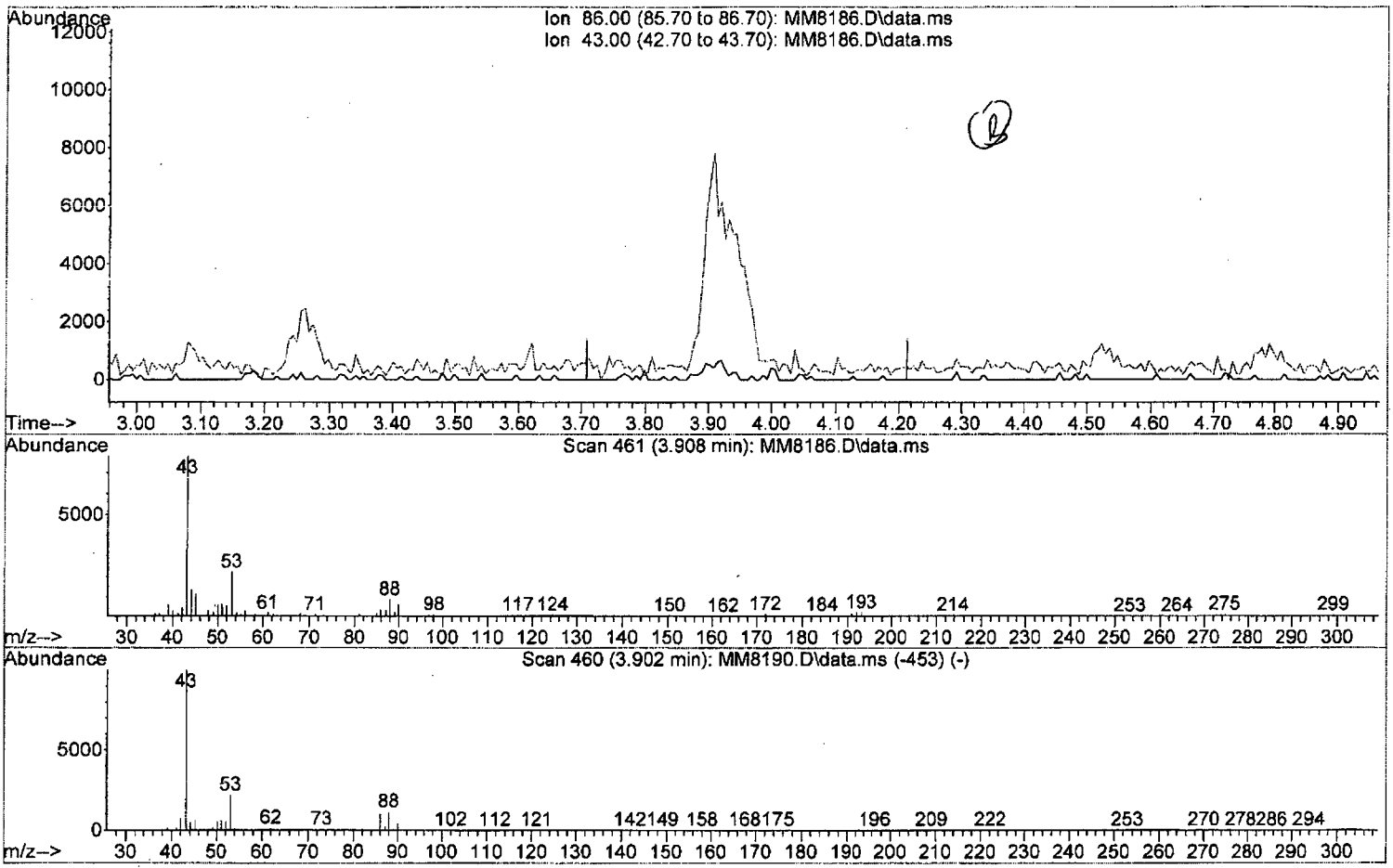
3.250min (0.000) 0.95 ppb m

response 6563

Ion	Exp%	Act%
96.00	100	100
98.00	57.60	74.85
61.00	133.00	131.57
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(29) Vinyl Acetate

3.908min (-3.908) 0.00 ppb

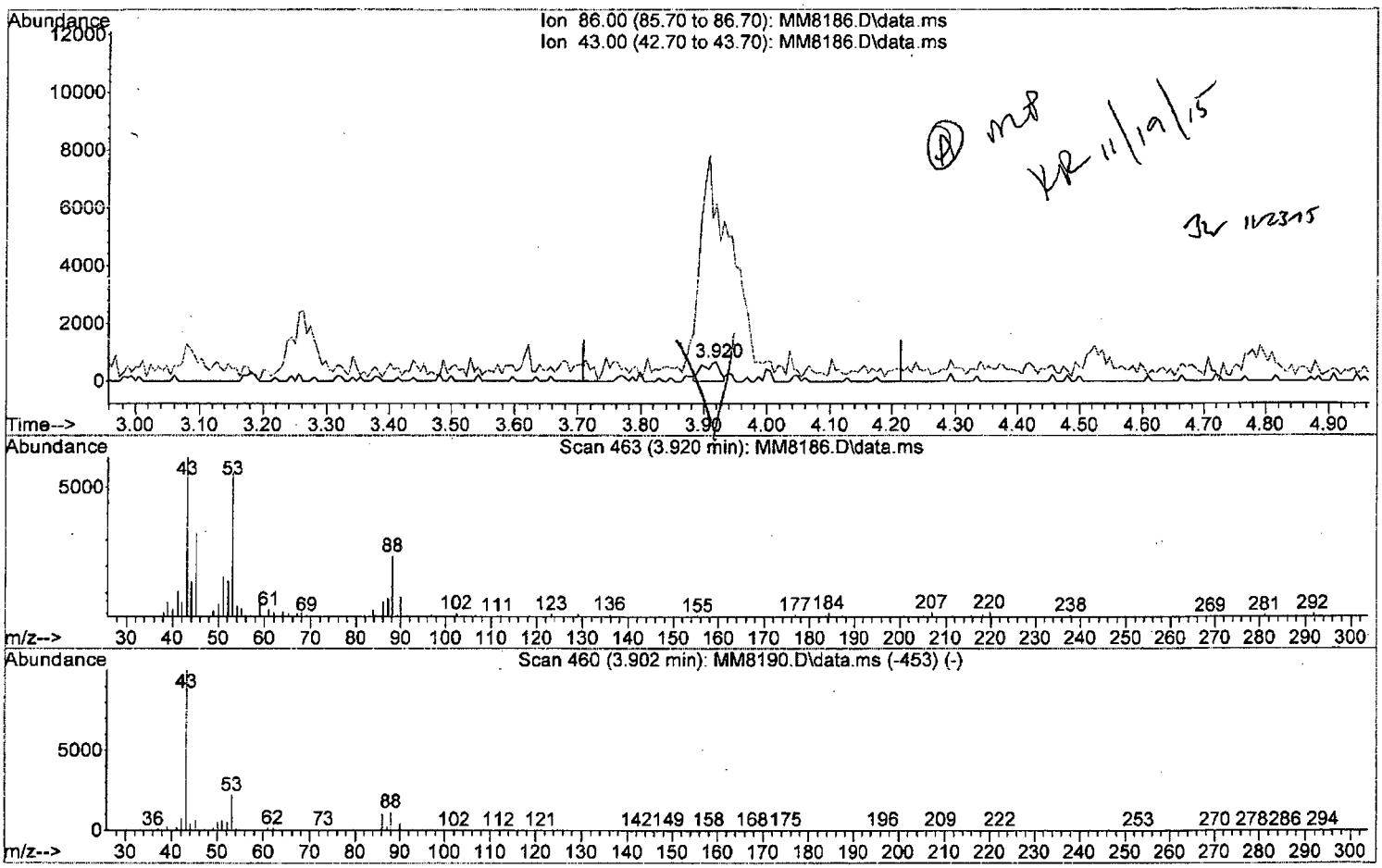
response 0

Ion	Exp%	Act%
86.00	100	0.00
43.00	979.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(29) Vinyl Acetate

3.920min (+0.012) 0.95 ppb m

response 1268

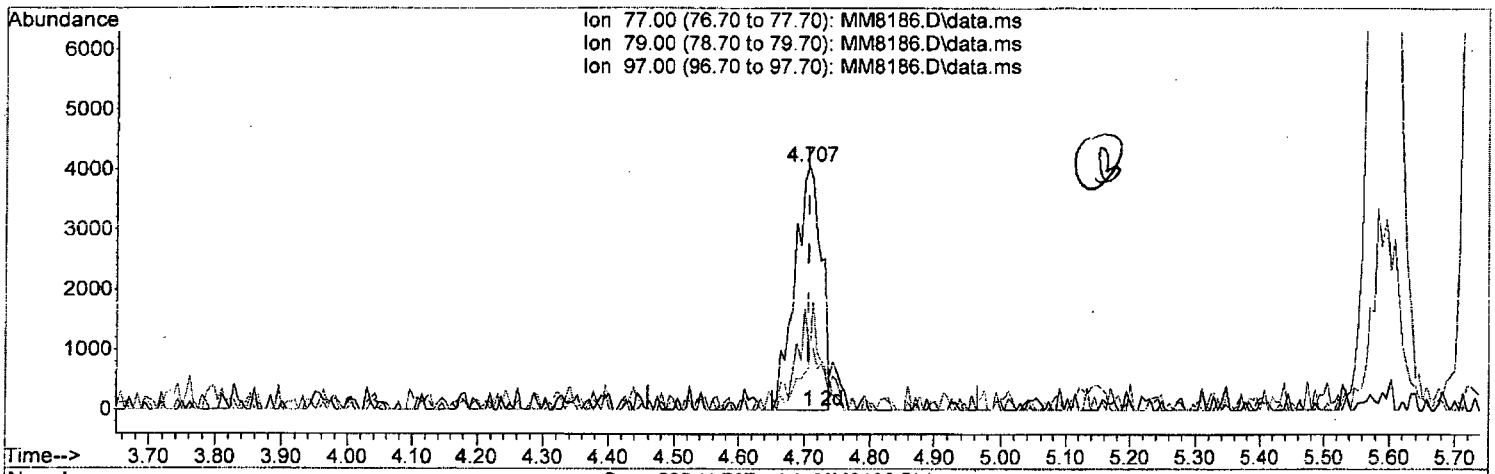
Ion	Exp%	Act%
86.00	100	100
43.00	979.70	913.13#
0.00	0.00	0.00
0.00	0.00	0.00

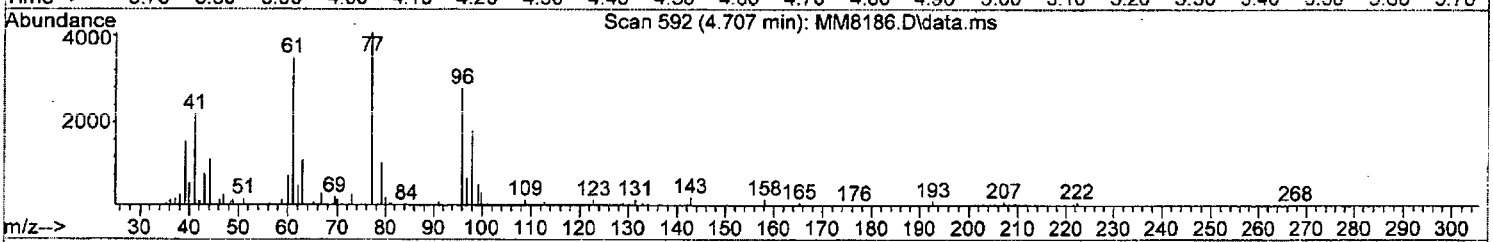
W111815.M Thu Nov 19 10:02:11 2015 Page: 1

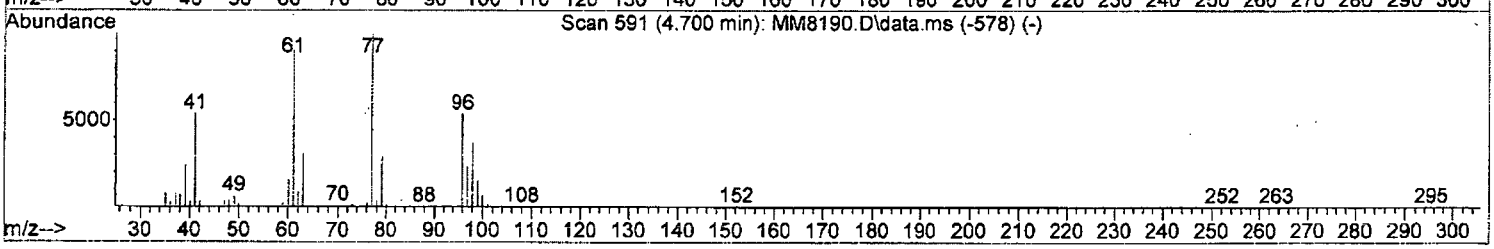
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8186.D\data.ms

(33) 2,2-Dichloropropane

4.707min (+0.001) 1.15 ppb

response 11367

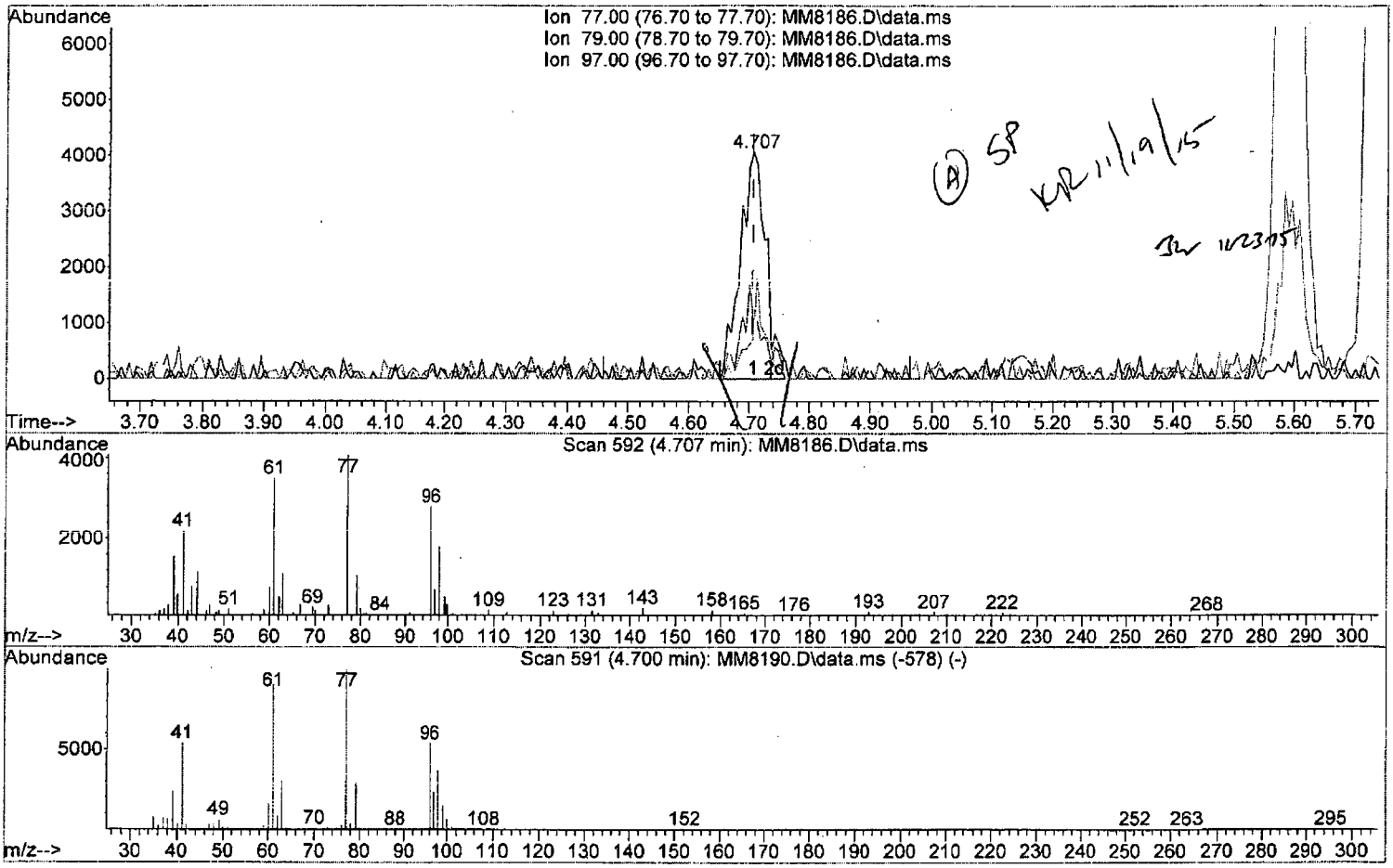
Ion	Exp%	Act%
77.00	100	100
79.00	28.80	26.63
97.00	24.00	17.64
0.00	0.00	0.00

W111815.M Thu Nov 19 10:02:36 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(33) 2,2-Dichloropropane

4.707min (+0.001) 1.23 ppb m

response 12157

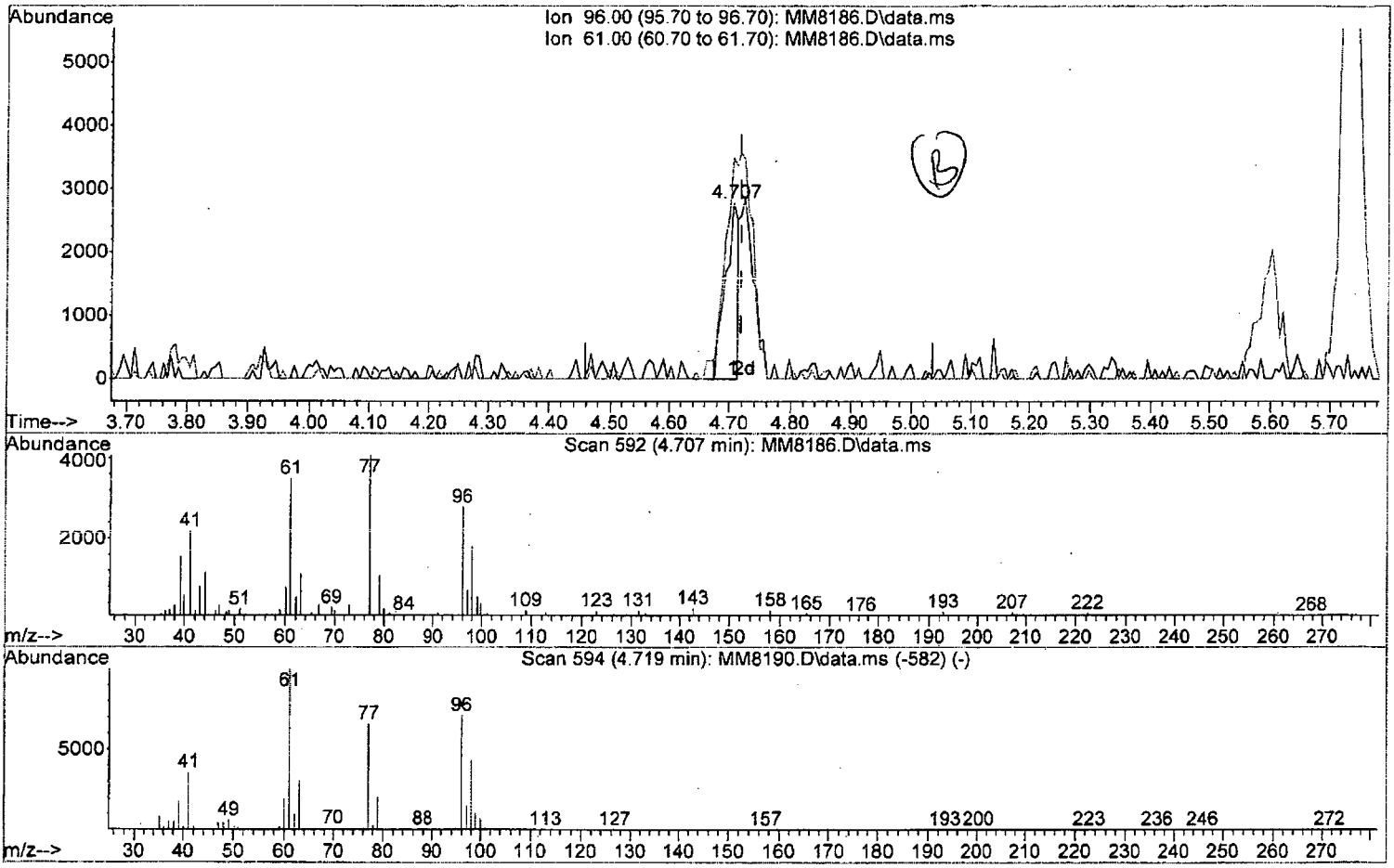
Ion	Exp%	Act%
77.00	100	100
79.00	28.80	26.63
97.00	24.00	17.64
0.00	0.00	0.00

W111815.M Thu Nov 19 10:02:43 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.707min (-0.012) 0.51 ppb

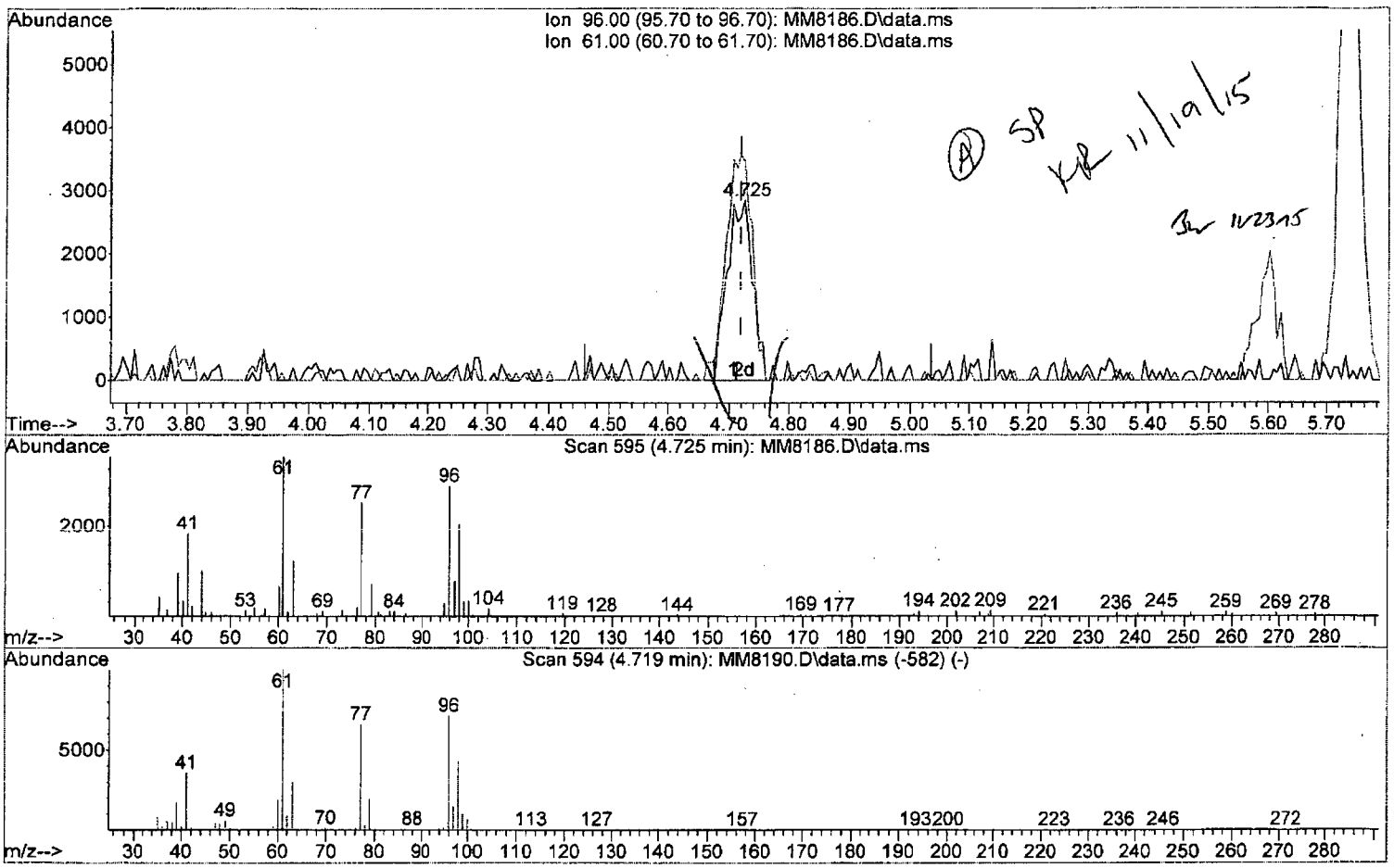
response 3913

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	125.40
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:02:49 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.725min (+0.006) 1.07 ppb m

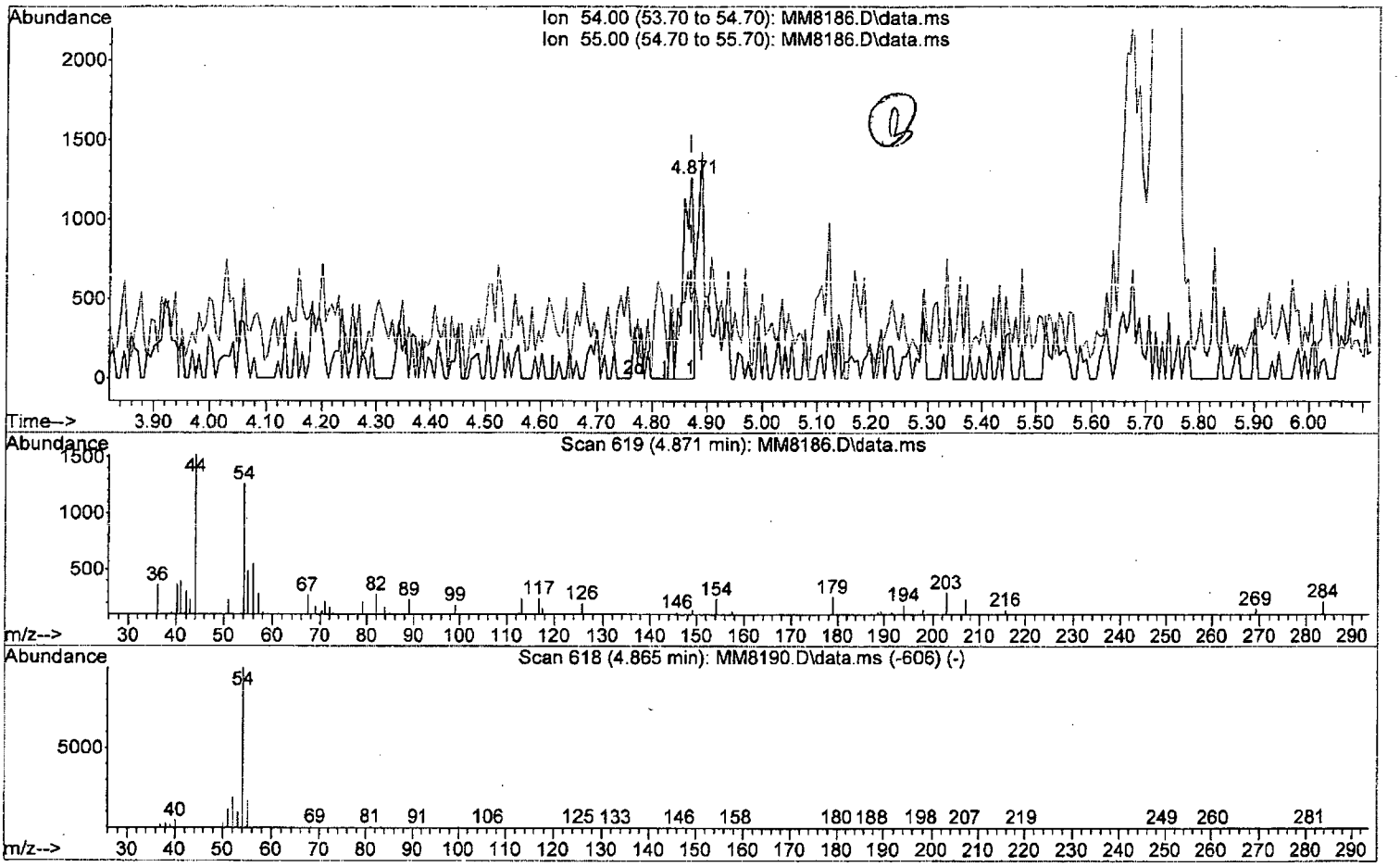
response 8254

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	121.62
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:02:56 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(36) Propionitrile

4.871min (0.000) 2.75 ppb

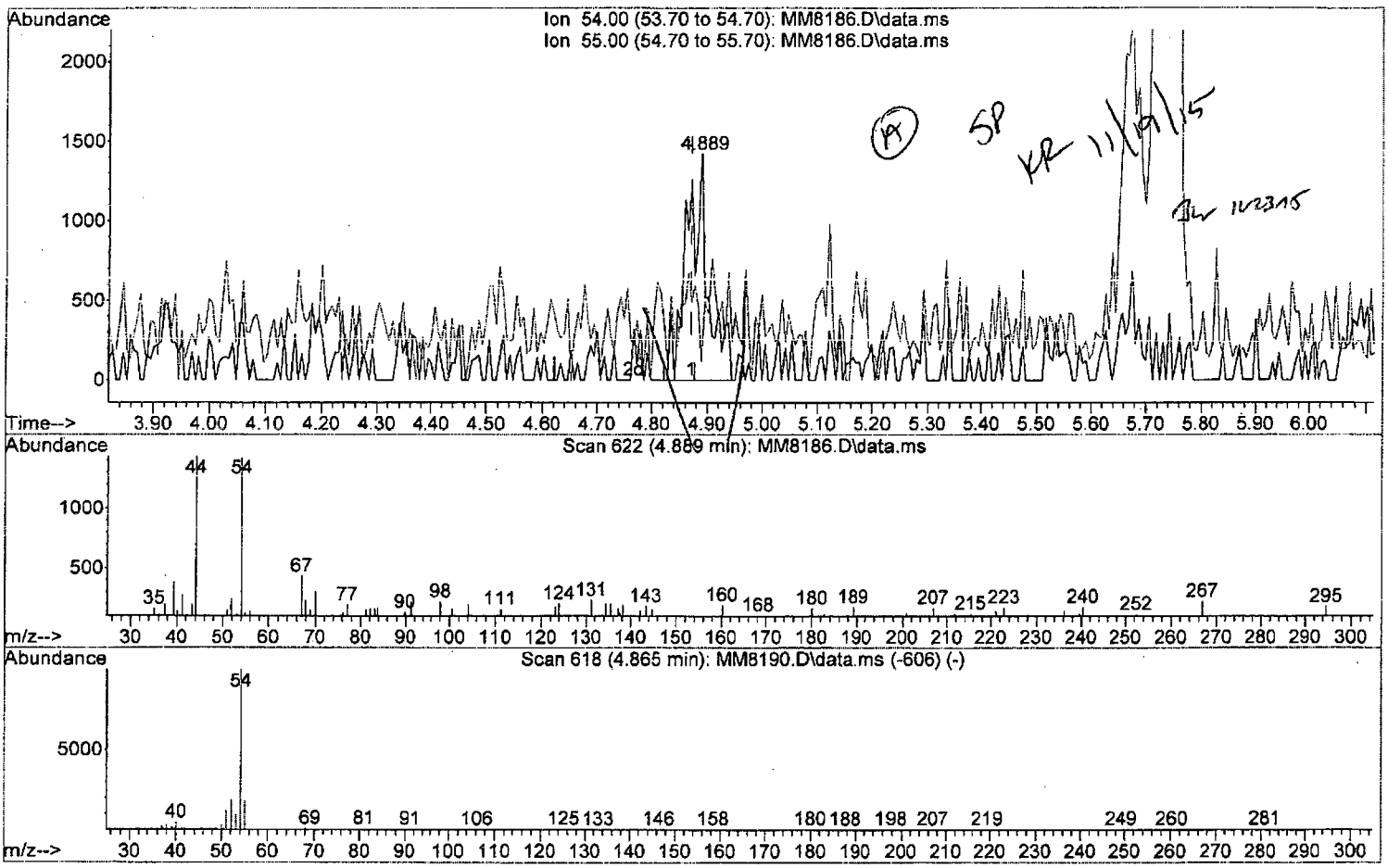
response 1890

Ion	Exp%	Act%
54.00	100	100
55.00	19.40	38.63
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(36) Propionitrile

4.889min (+0.018) 5.52 ppb m

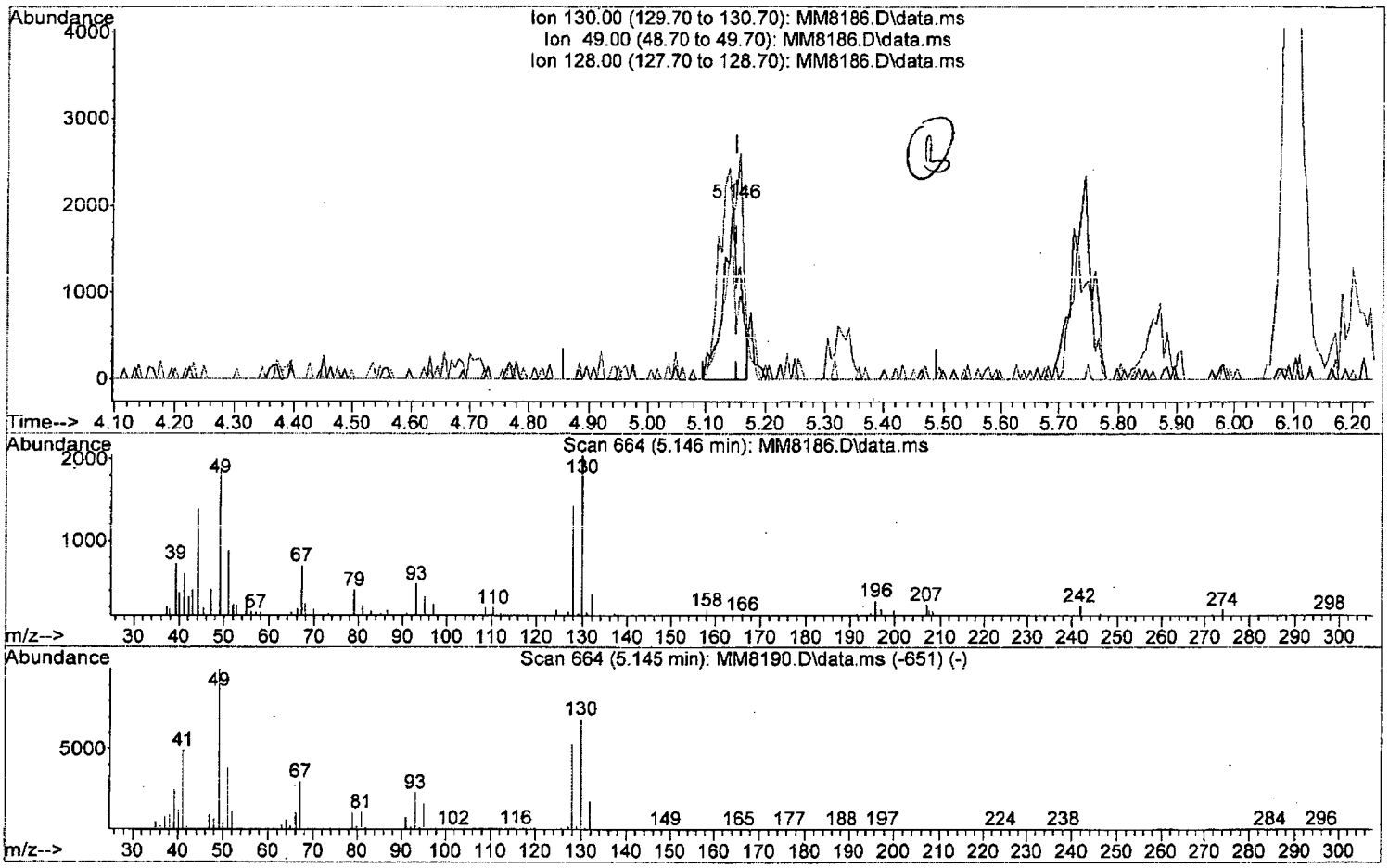
response 3790

Ion	Exp%	Act%
54.00	100	100
55.00	19.40	8.32
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:03:19 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(37) Bromochloromethane

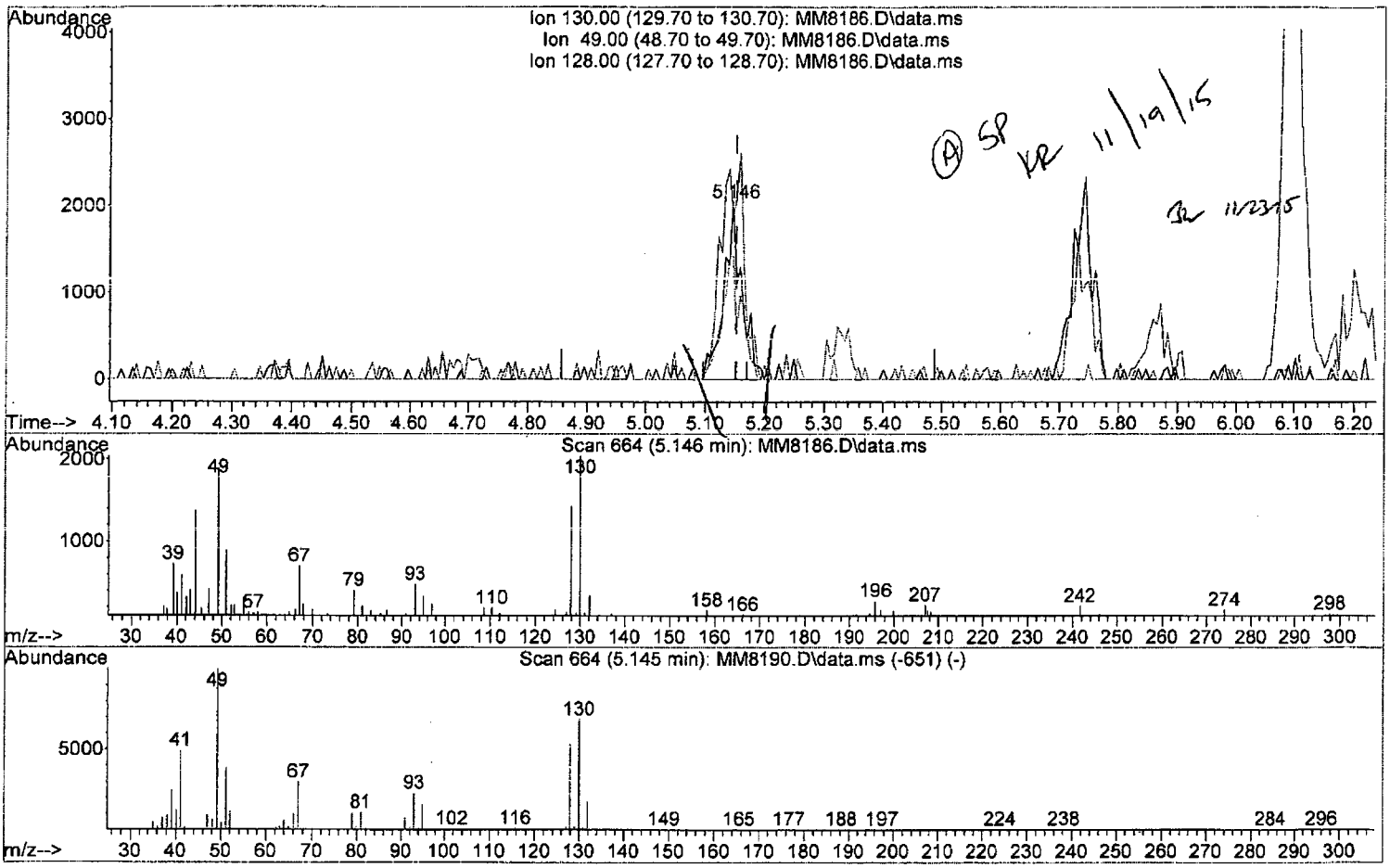
5.146min (-0.006) 0.95 ppb

response 3786

Ion	Exp%	Act%
130.00	100	100
49.00	145.50	92.39#
128.00	77.50	69.86
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(37) Bromochloromethane

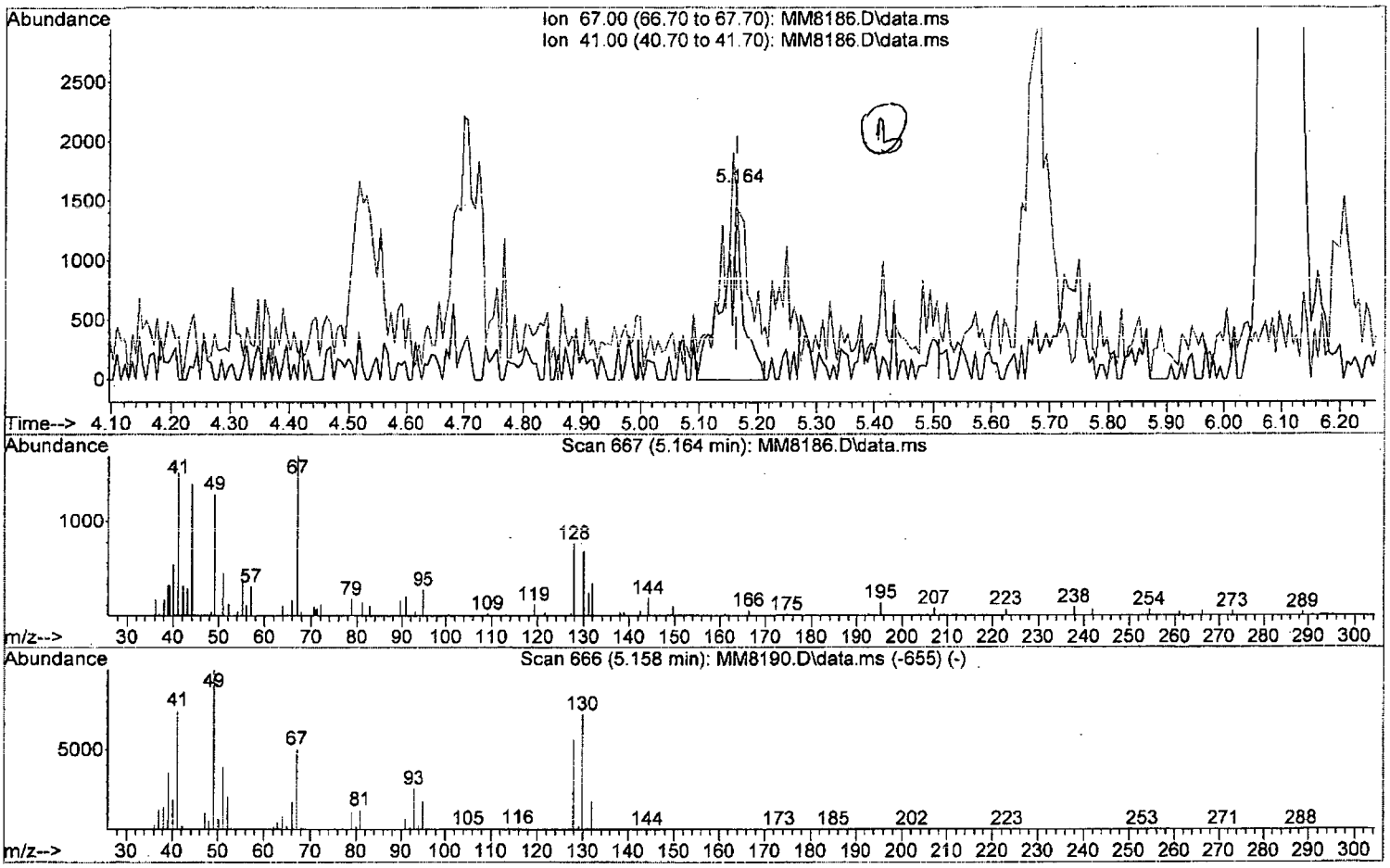
5.146min (-0.006) 1.06 ppb m

response 4232

Ion	Exp%	Act%
130.00	100	100
49.00	145.50	92.39#
128.00	77.50	69.86
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(38) Methacrylonitrile

5.164min (0.000) 1.47 ppb

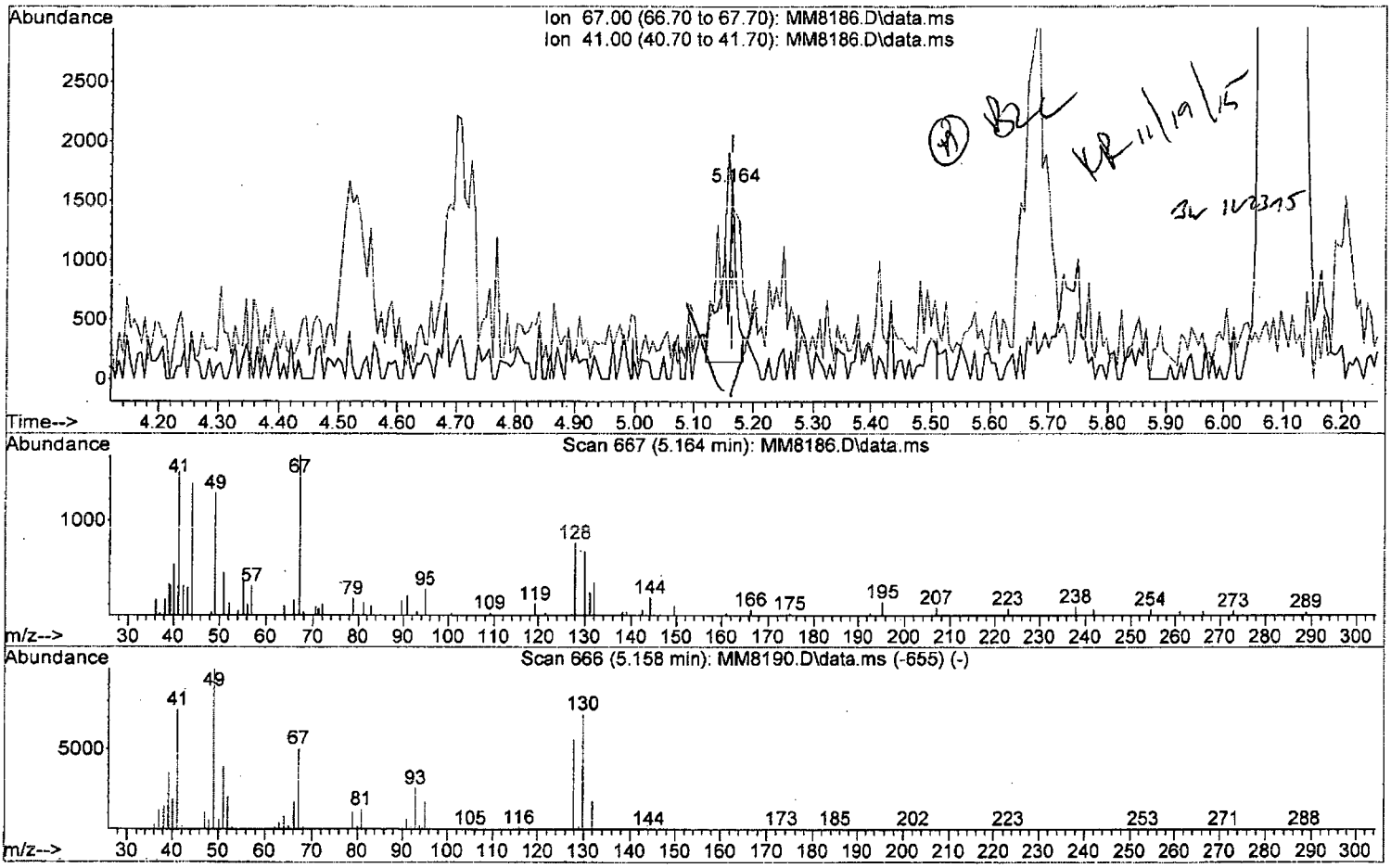
response 3449

Ion	Exp%	Act%
67.00	100	100
41.00	148.70	90.23#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:03:51 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(38) Methacrylonitrile

5.164min (0.000) 0.91 ppb m

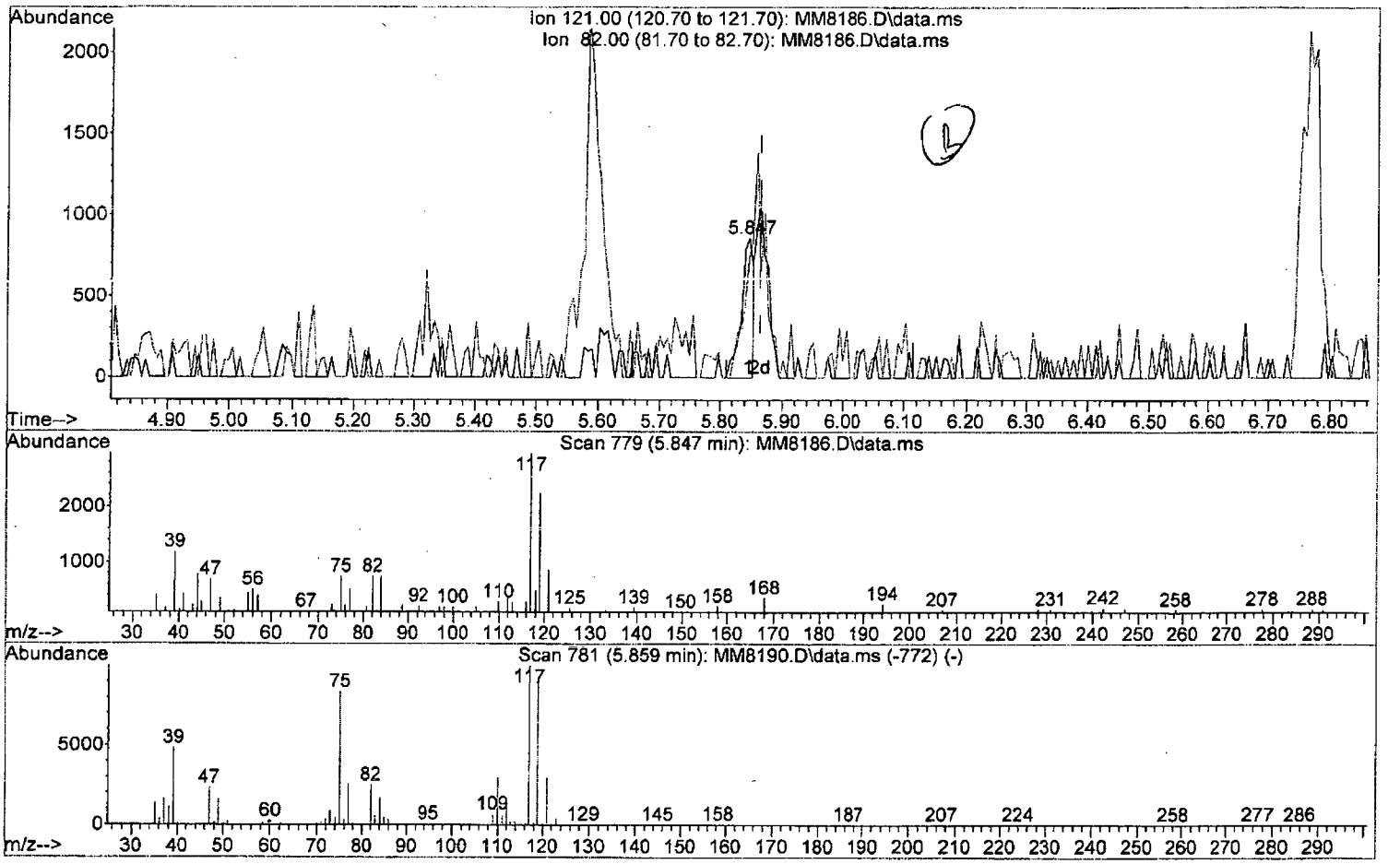
response 2125

Ion	Exp%	Act%
67.00	100	100
41.00	148.70	90.23#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:04:22 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(46) Carbontetrachloride (P)

5.847min (-0.018) 0.47 ppb

response 1154

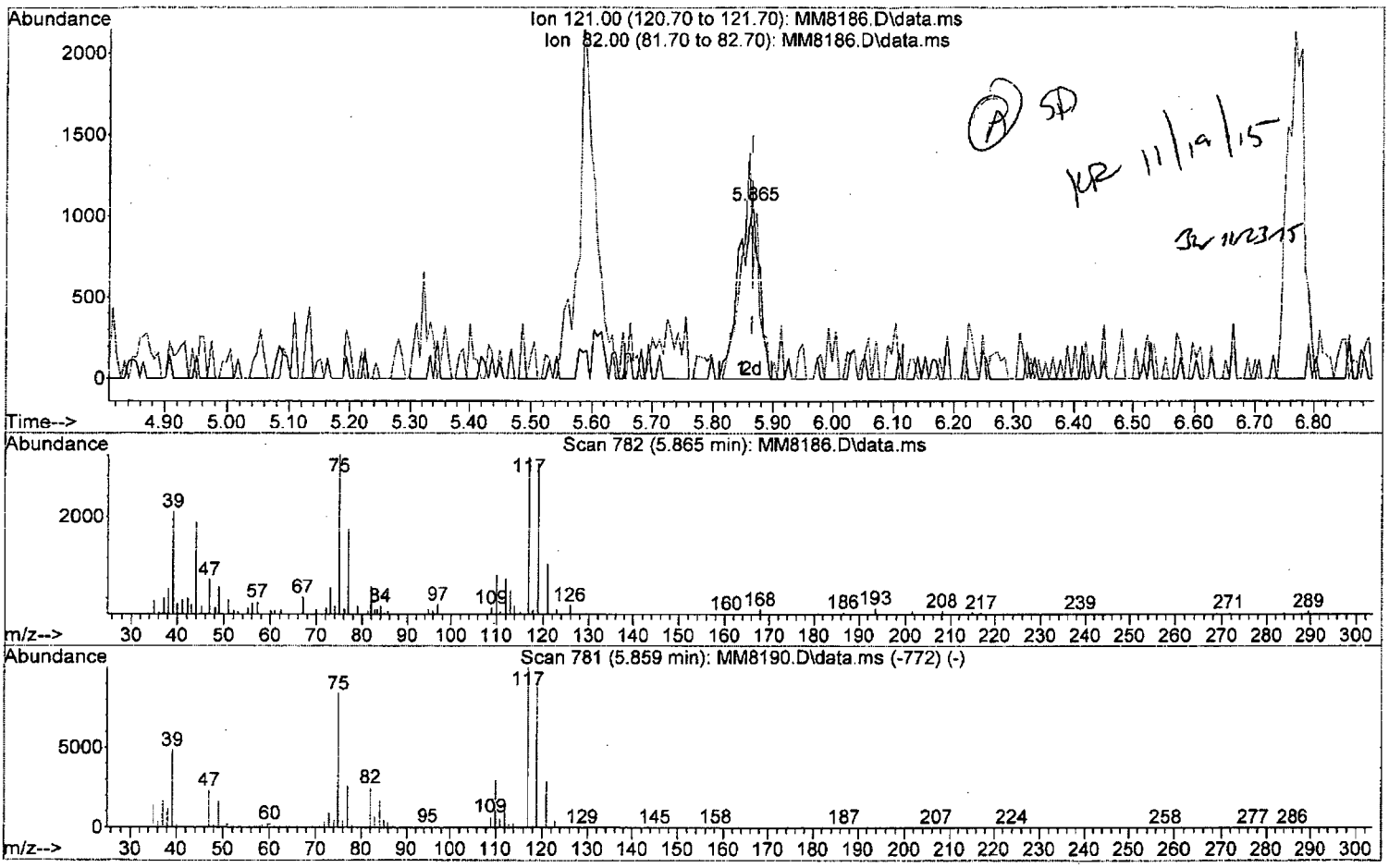
Ion	Exp%	Act%
121.00	100	100
82.00	85.40	86.13
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:04:38 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(46) Carbontetrachloride (P)

5.865min (0.000) 1.04 ppb m

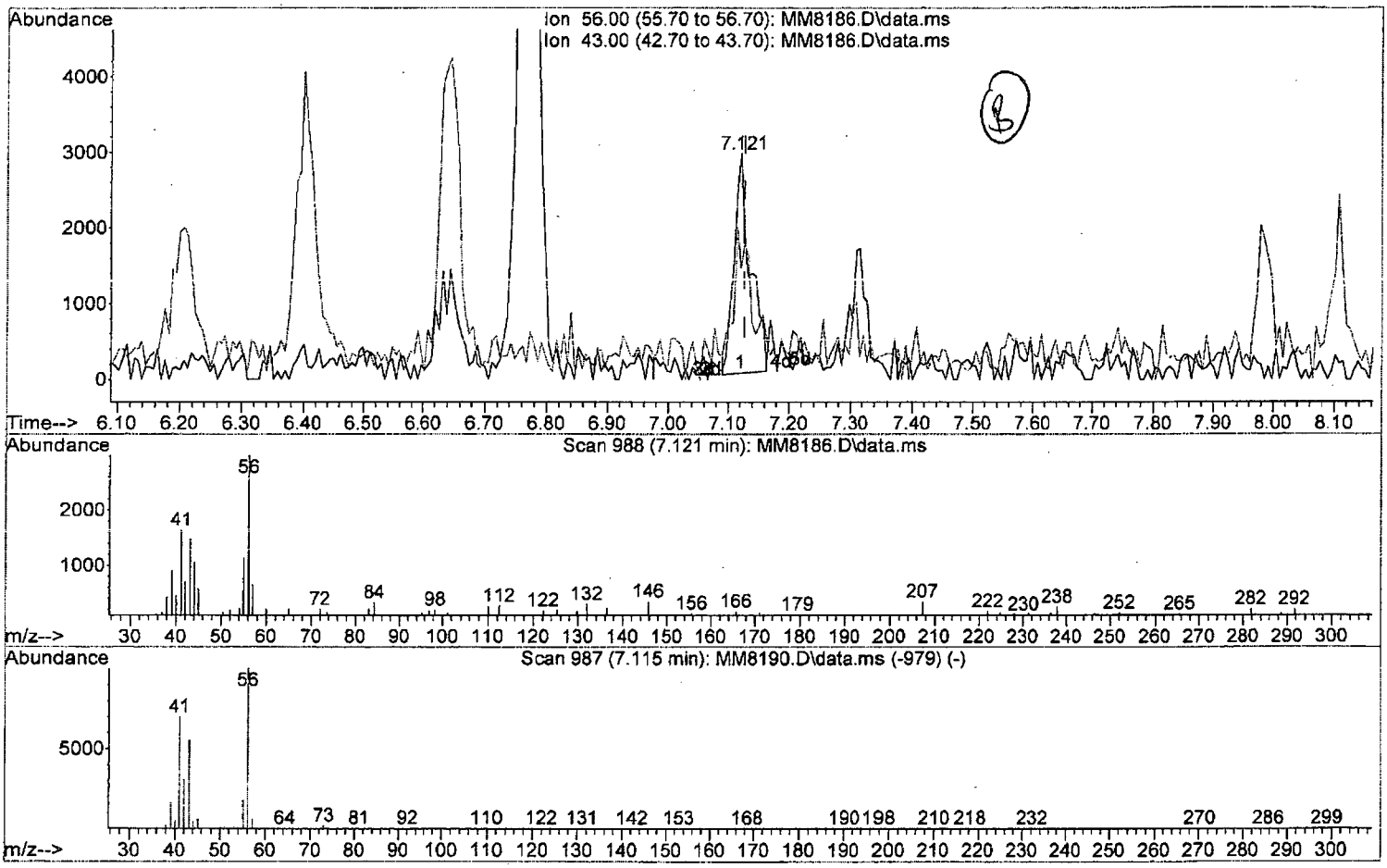
response 2566

Ion	Exp%	Act%
121.00	100	100
82.00	85.40	59.19#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 14:17:10 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(53) 1-Butanol

7.121min (-0.006) 37.24 ppb

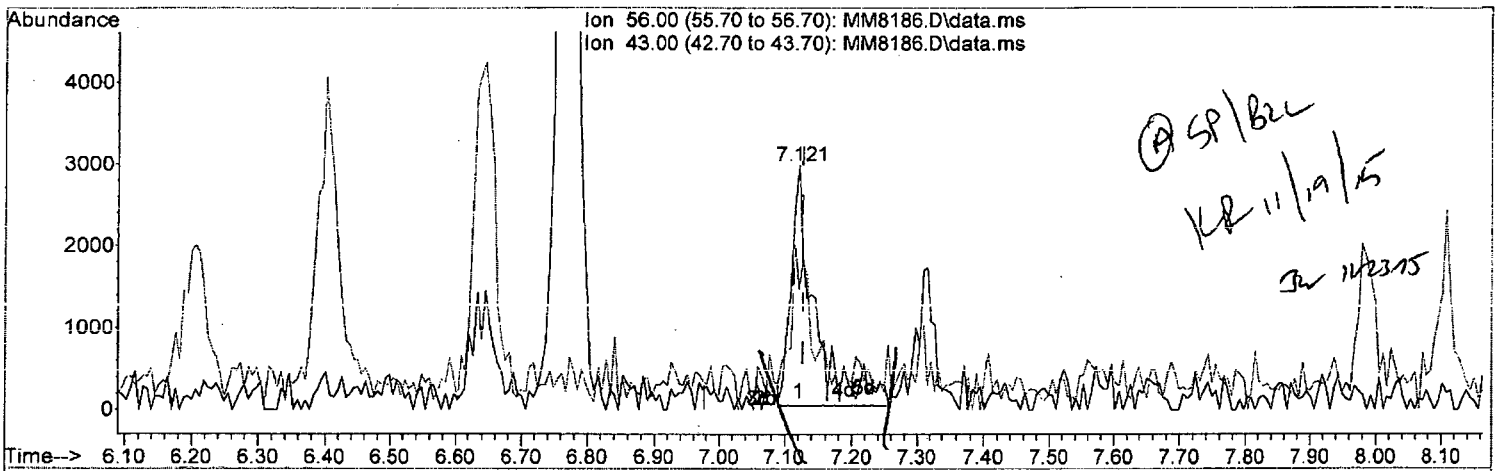
response 5473

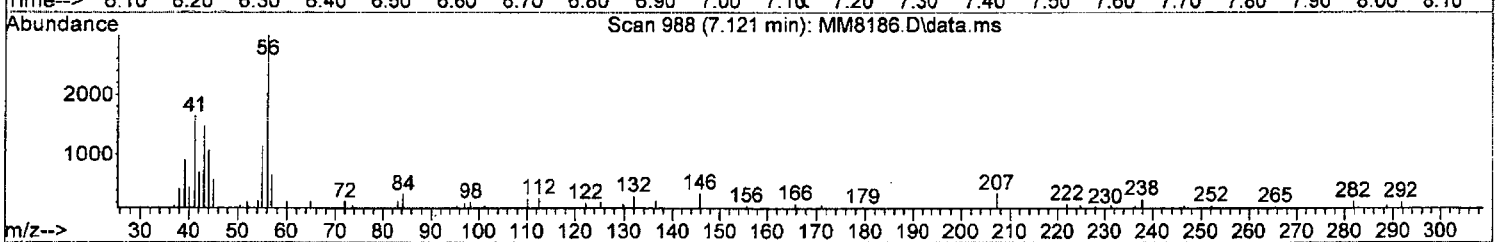
Ion	Exp%	Act%
56.00	100	100
43.00	54.90	76.70#
0.00	0.00	0.00
0.00	0.00	0.00

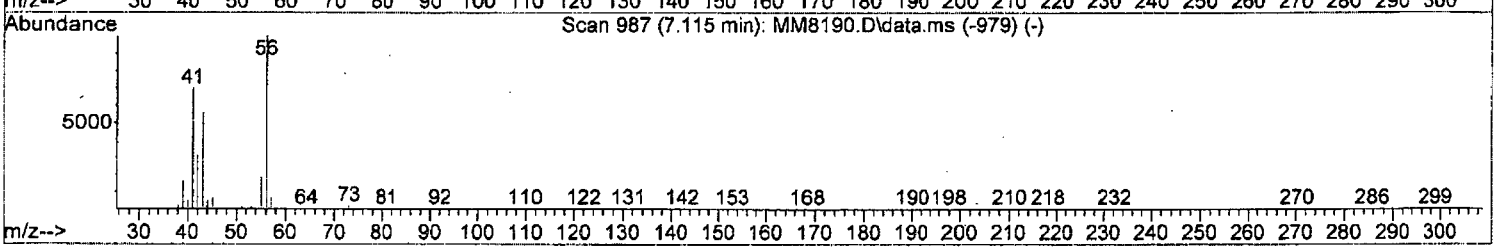
W111815.M Thu Nov 19 10:05:24 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8186.D\data.ms

(53) 1-Butanol

7.121min (-0.006) 48.37 ppb m

response 7108

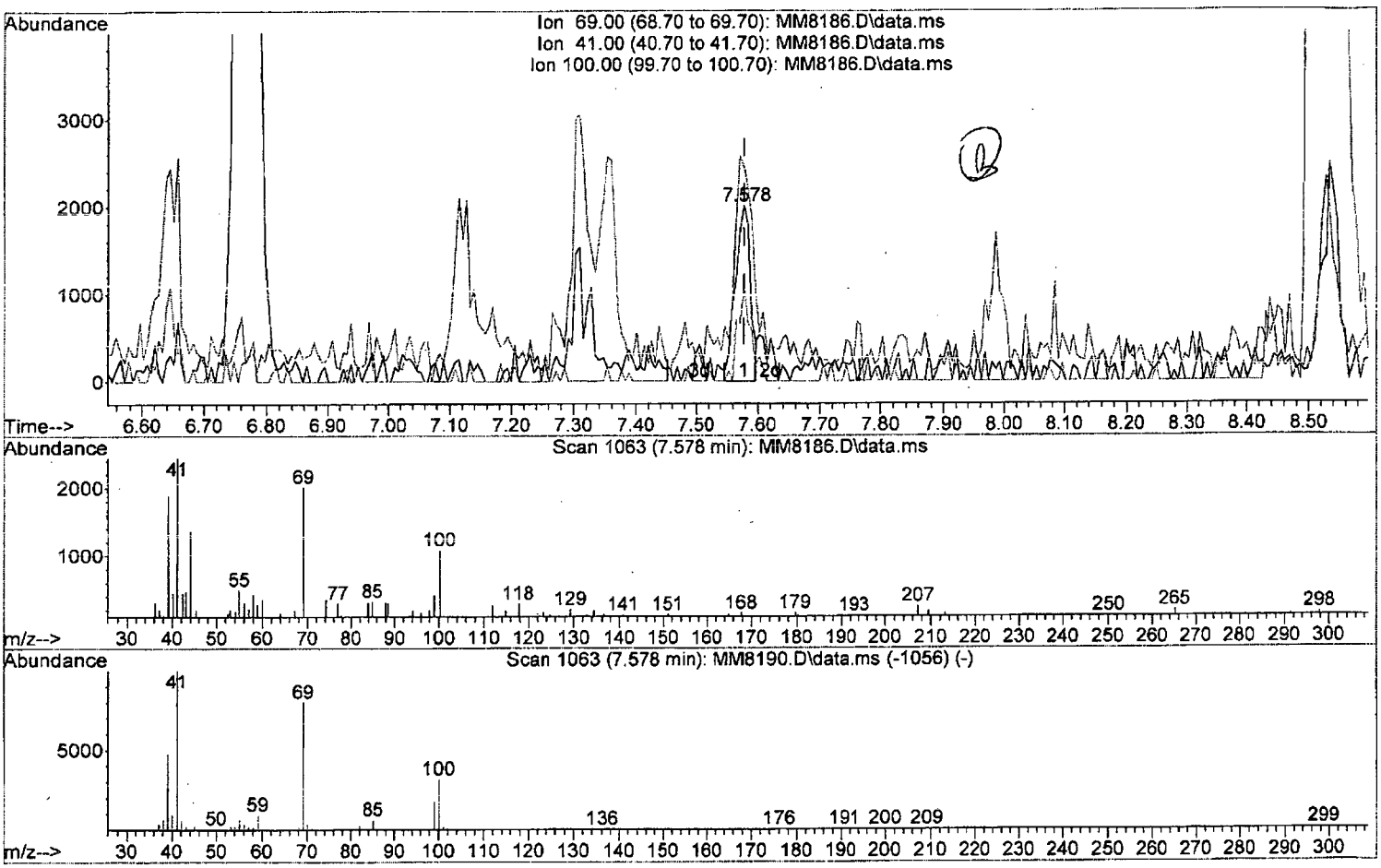
Ion	Exp%	Act%
56.00	100	100
43.00	54.90	59.06
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:05:35 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(59) Methyl Methacrylate

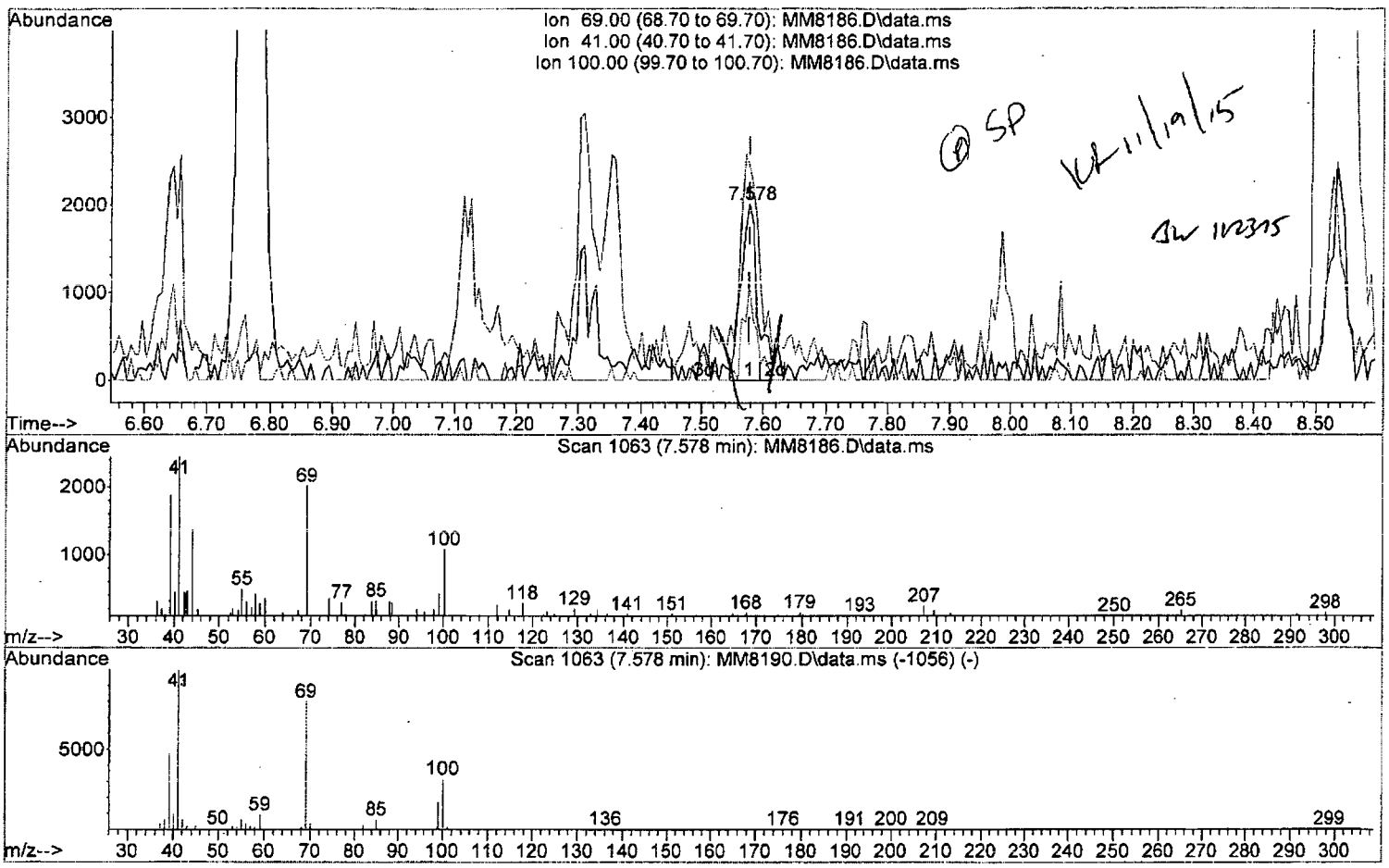
7.578min (0.000) 0.83 ppb

response 3317

Ion	Exp%	Act%
69.00	100	100
41.00	125.30	121.57
100.00	39.20	53.46
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(59) Methyl Methacrylate

7.578min (0.000) 0.94 ppb m

response 3768

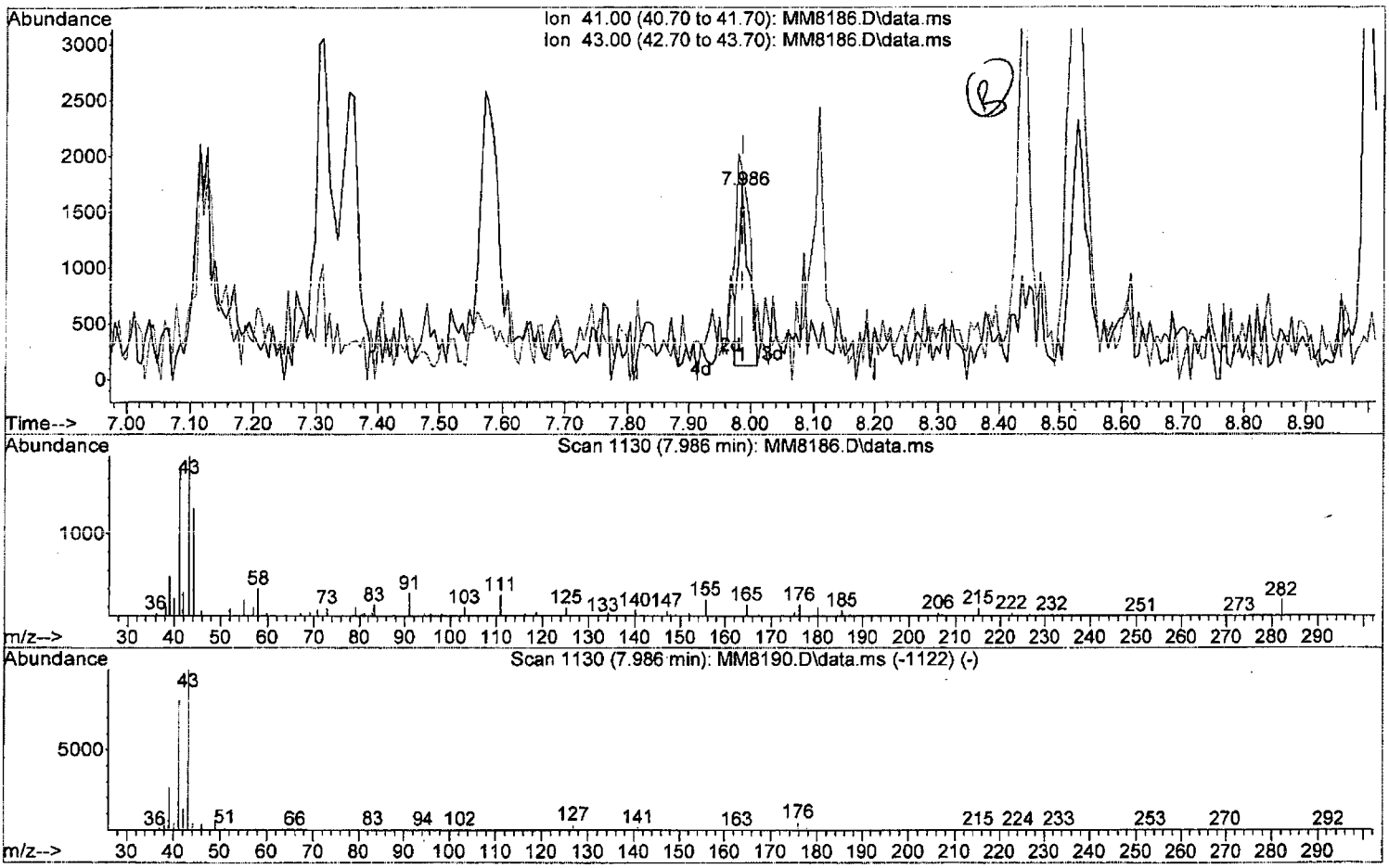
Ion	Exp%	Act%
69.00	100	100
41.00	125.30	121.57
100.00	39.20	53.46
0.00	0.00	0.00

W111815.M Thu Nov 19 10:06:31 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(61) 2-Nitropropane

7.986min (-0.000) 1.38 ppb

response 1743

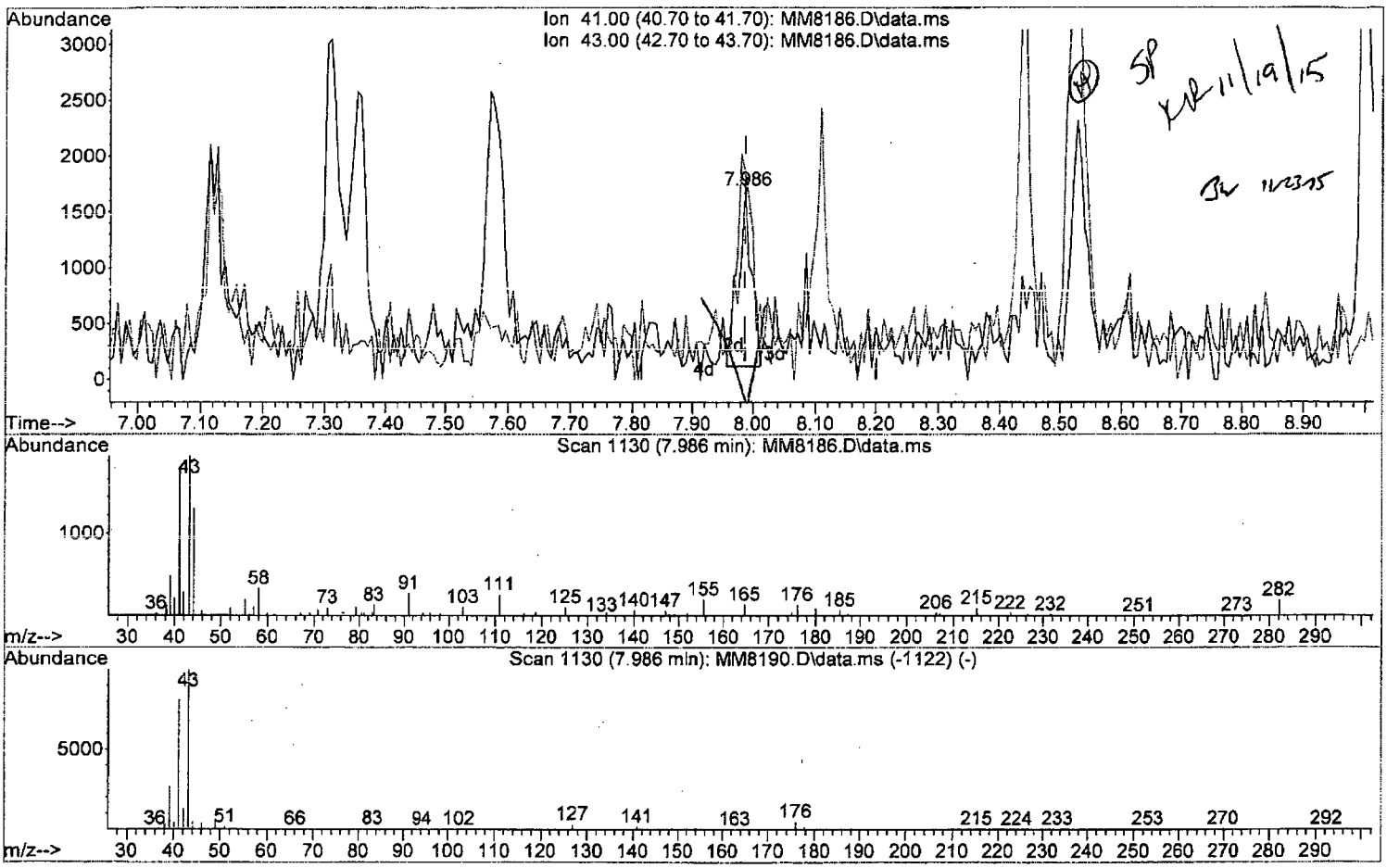
Ion	Exp%	Act%
41.00	100	100
43.00	123.30	108.72
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:06:41 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(61) 2-Nitropropane

7.986min (-0.000) 1.86 ppb m

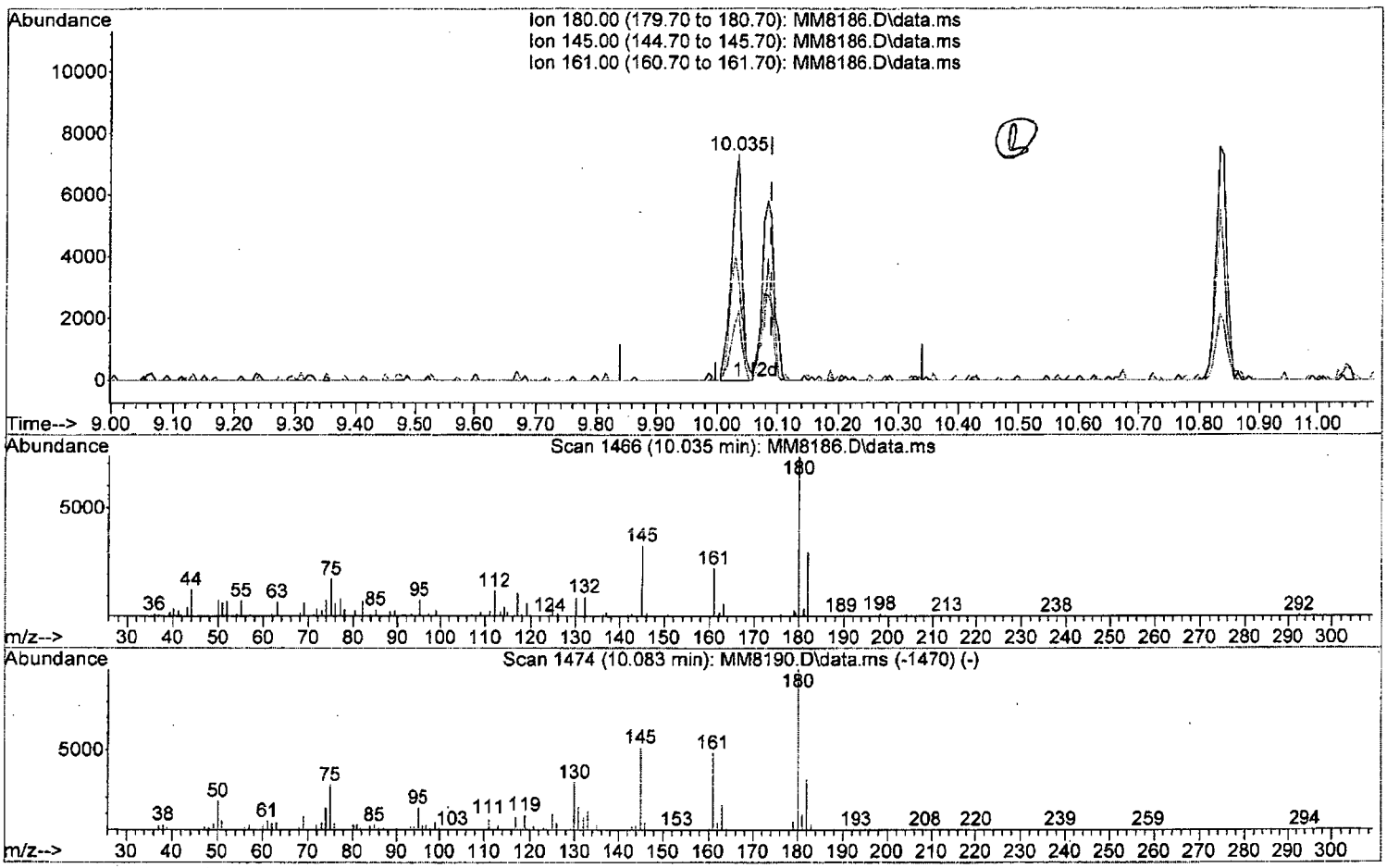
response 2354

Ion	Exp%	Act%
41.00	100	100
43.00	123.30	108.72
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:06:57 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(60) 4-CBTF

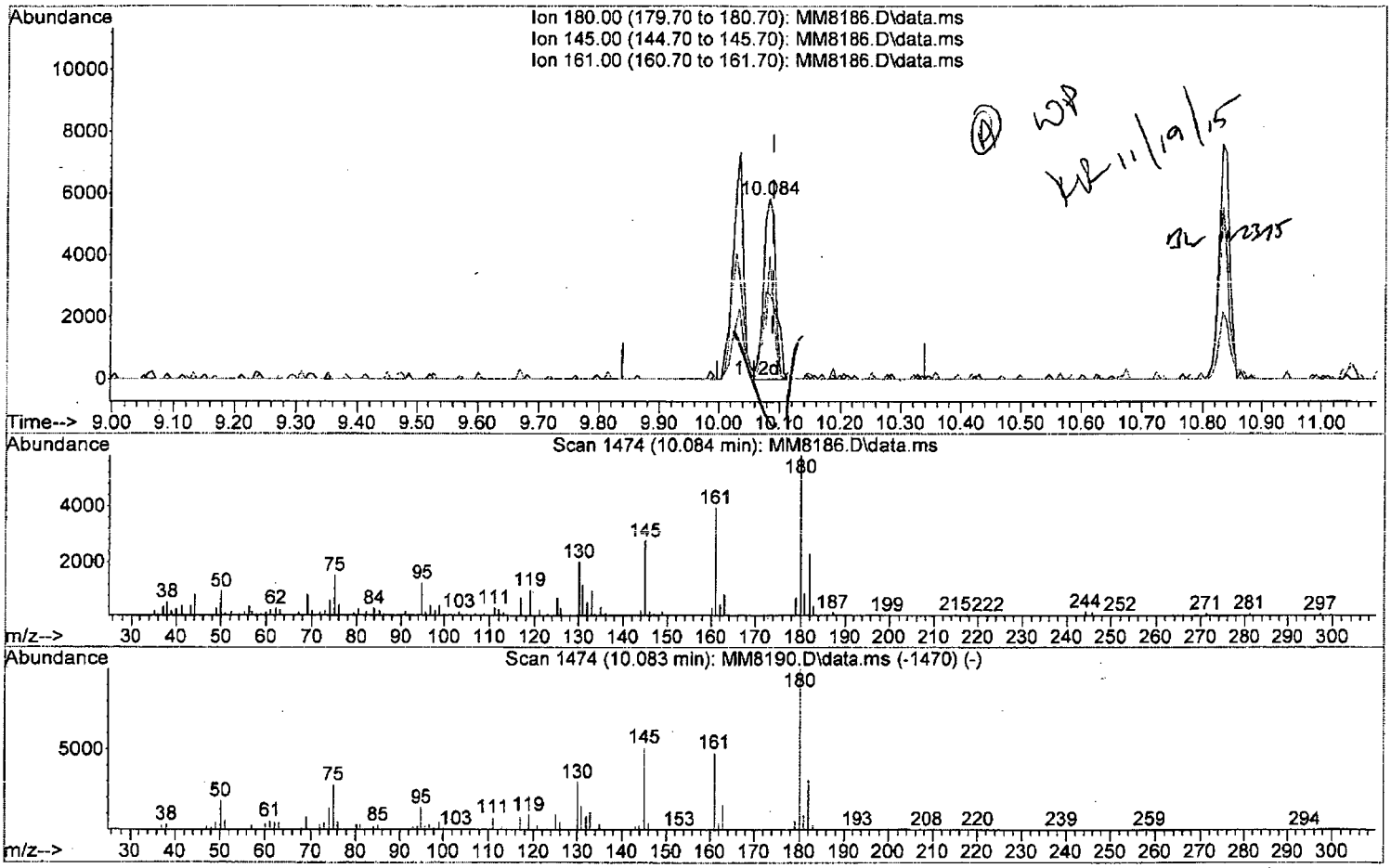
10.035min (-0.055) 1.13 ppb

response 8890

Ion	Exp%	Act%
180.00	100	100
145.00	51.80	44.88
161.00	47.80	30.85
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(80) 4-CBTF

10.084min (-0.006) 1.04 ppb m

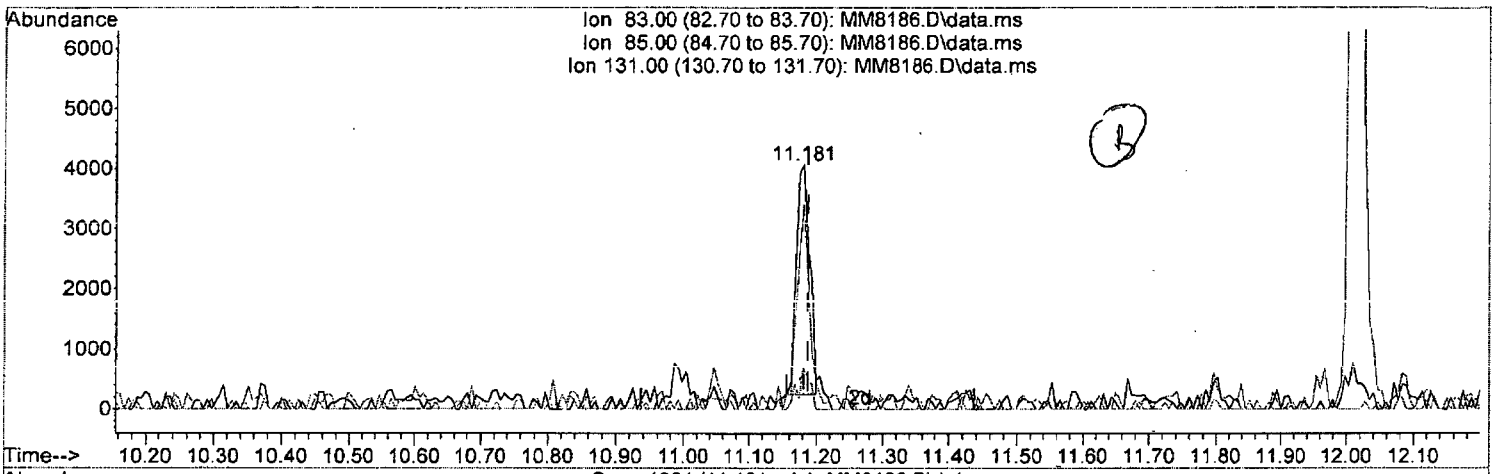
response 8238

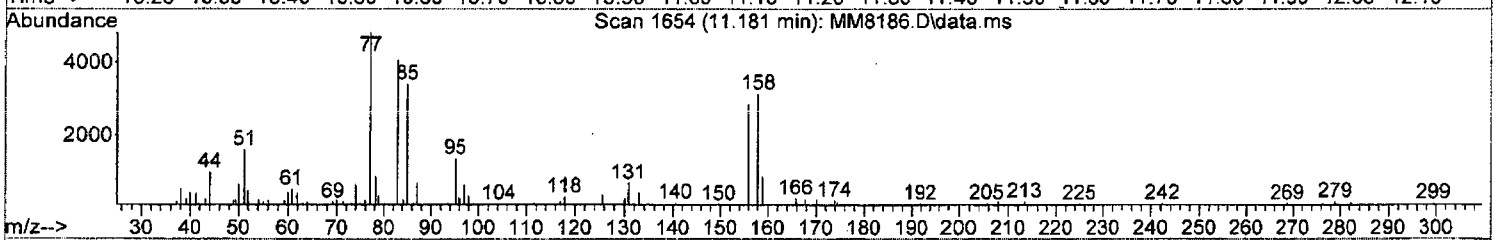
Ion	Exp%	Act%
180.00	100	100
145.00	51.80	47.49
161.00	47.80	67.95#
0.00	0.00	0.00

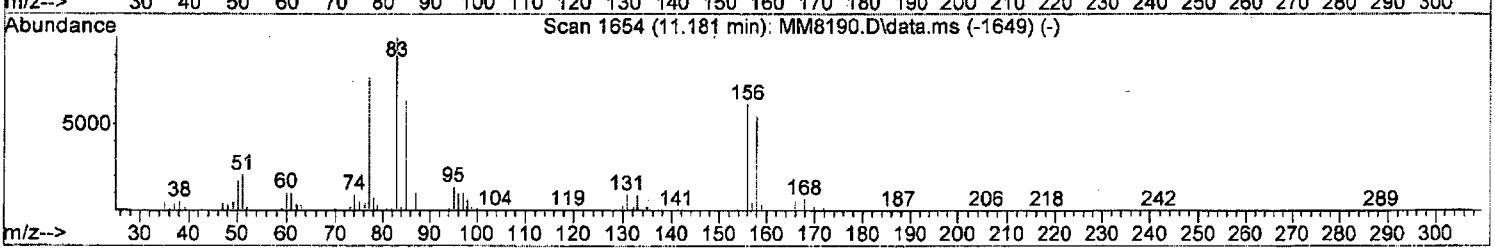
W111815.M Thu Nov 19 10:07:34 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8186.D\data.ms

(92) 1,1,2,2-Tetrachloroethane (P)

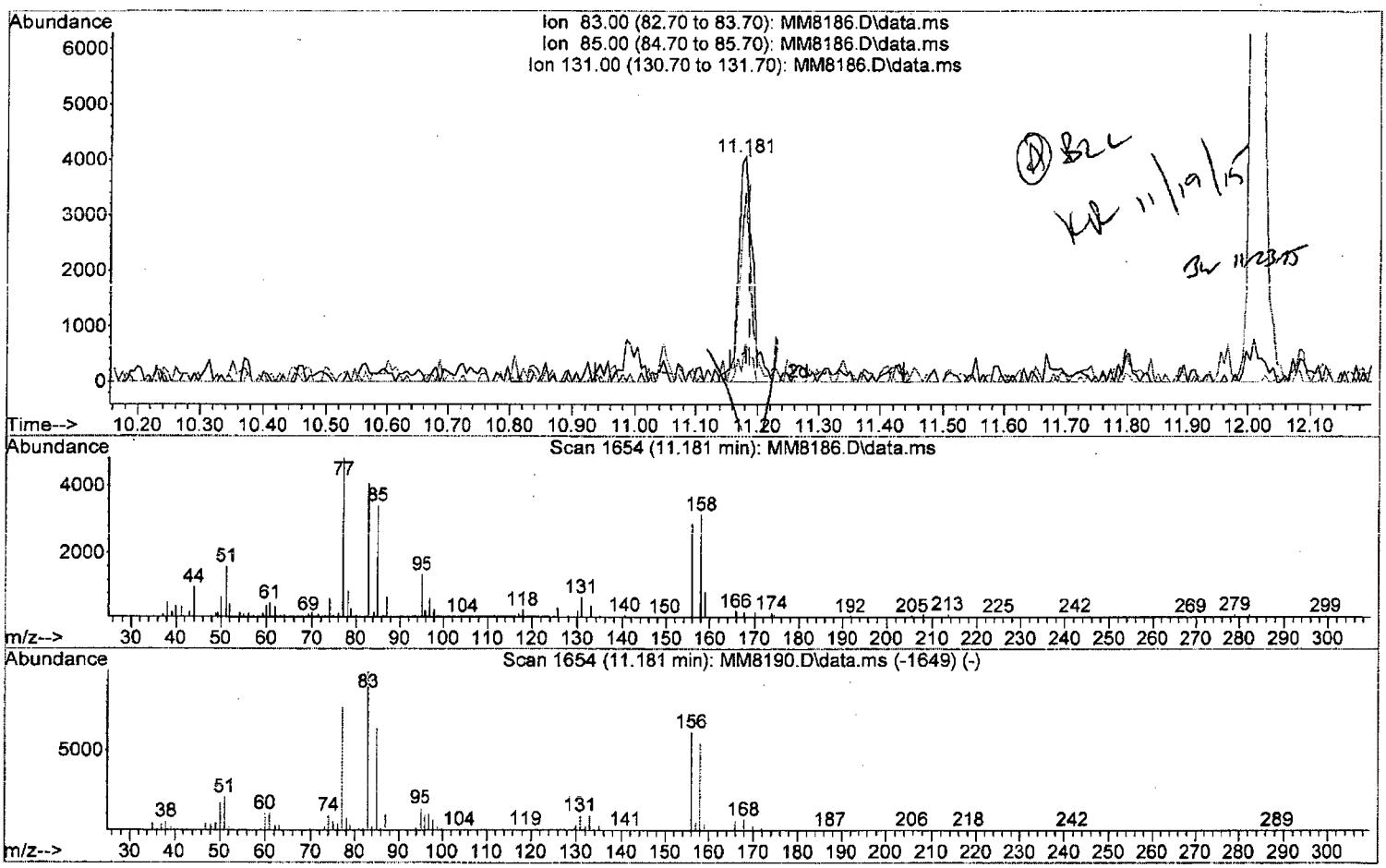
11.181min (-0.006) 0.86 ppb

response 5194

Ion	Exp%	Act%
83.00	100	100
85.00	63.60	83.77#
131.00	9.20	16.80
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(92) 1,1,2,2-Tetrachloroethane (P)

11.181min (-0.006) 1.07 ppb m

response 6432

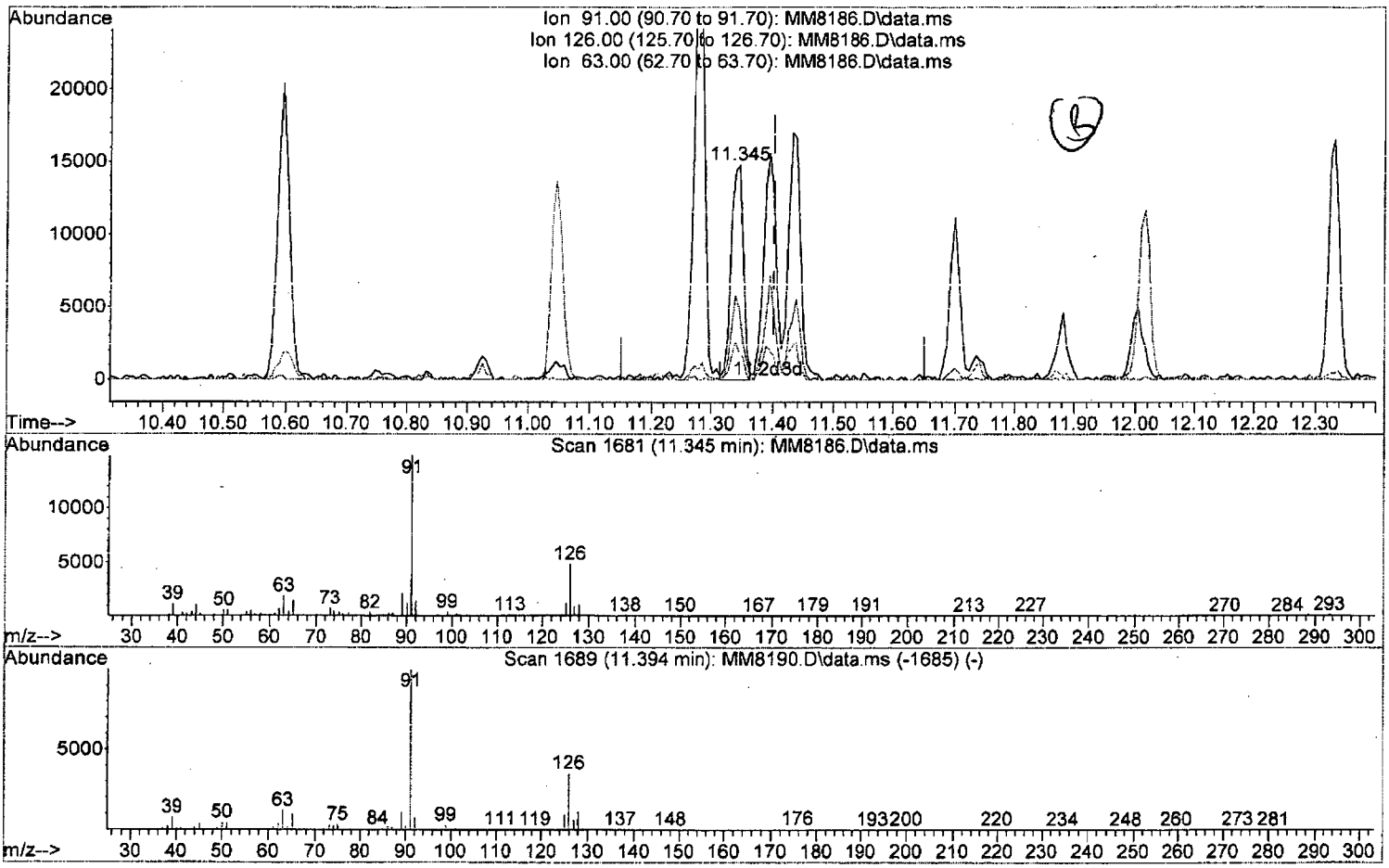
Ion	Exp%	Act%
83.00	100	100
85.00	63.60	83.77#
131.00	9.20	16.80
0.00	0.00	0.00

W111815.M Thu Nov 19 10:07:58 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(97) 3-Chlorotoluene

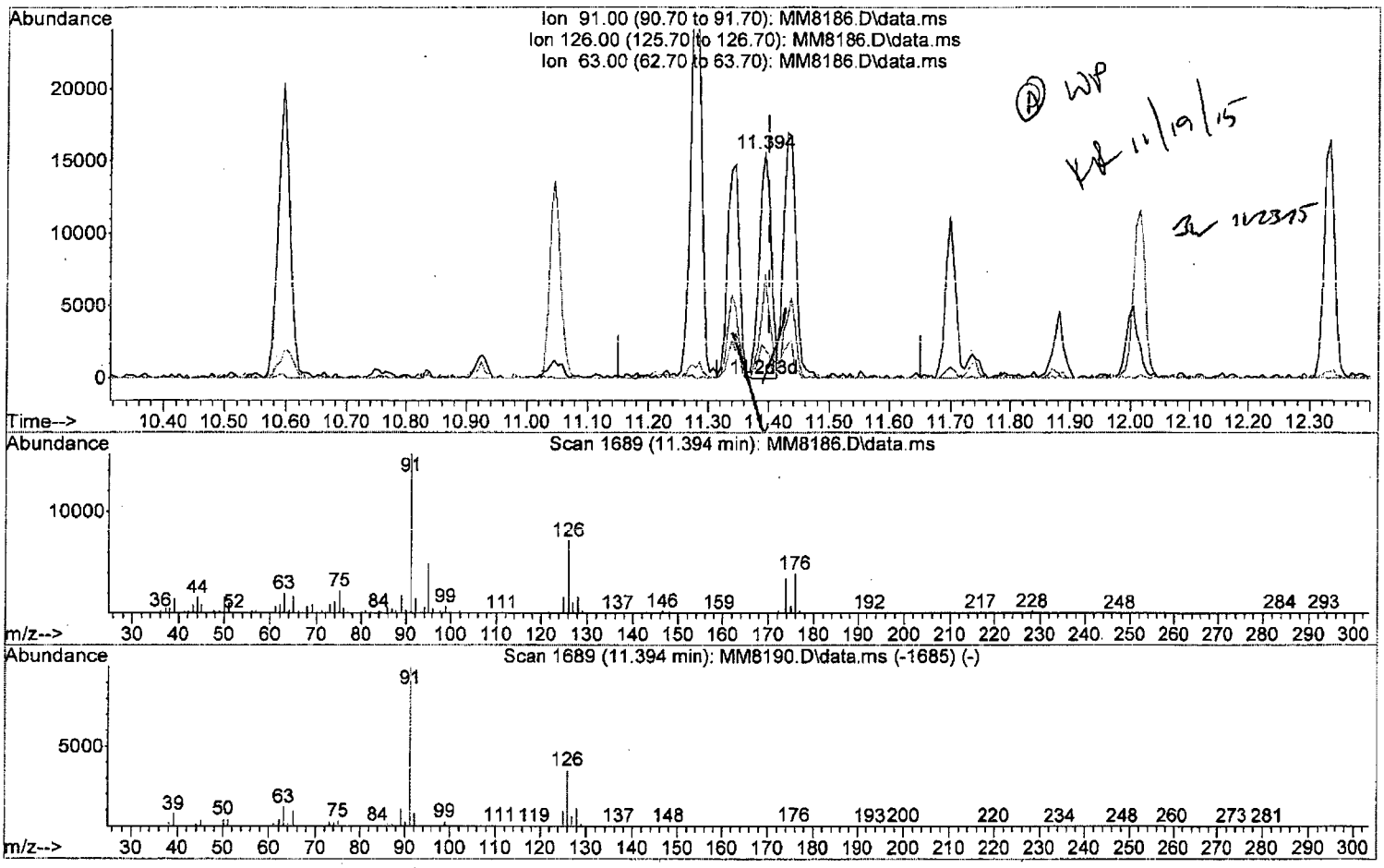
11.345min (-0.055) 0.95 ppb

response 20042

Ion	Exp%	Act%
91.00	100	100
126.00	35.20	32.78
63.00	12.10	12.79
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(97) 3-Chlorotoluene

11.394min (-0.006) 1.01 ppb m

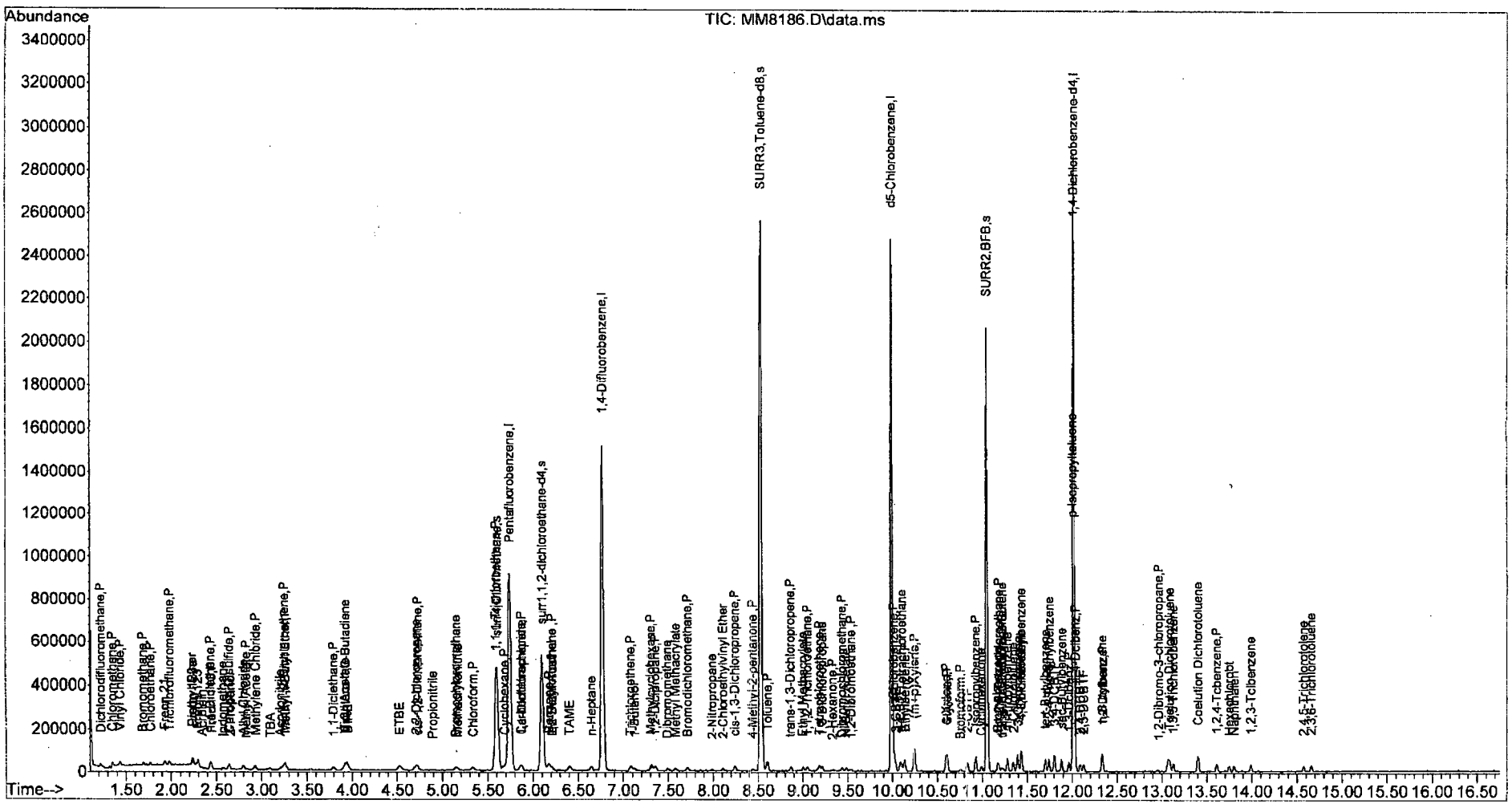
response 21392

Ion	Exp%	Act%
91.00	100	100
126.00	35.20	45.92#
63.00	12.10	12.97
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 14:18:53 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 10:30:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	761220	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1261233	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1134883	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	567136	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	426248	60.27	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery =	120.54%#			
48) surr1,1,2-dichloroetha...	6.096	65	462111	59.83	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery =	119.66%			
65) SURR3,Toluene-d8	8.529	98	1817117	59.60	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery =	119.20%			
70) SURR2,BFB	11.047	95	681412	60.91	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery =	121.82%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	19630m	1.82	ppb		
3) Chloromethane	1.347	50	26367	2.06	ppb		100
4) Vinyl Chloride	1.433	62	23228	1.95	ppb		97
5) Bromomethane	1.689	94	12452	2.11	ppb		92
6) Chloroethane	1.768	64	13809	2.07	ppb		91
7) Freon 21	1.926	67	26902m	2.09	ppb		
8) Trichlorofluoromethane	1.975	101	19339	2.08	ppb		88
9) Diethyl Ether	2.237	59	10967	1.88	ppb		91
10) Freon 123a	2.237	67	18149	2.16	ppb		93
11) Freon 123	2.292	83	20494	2.10	ppb		97
12) Acrolein	2.347	56	2810	4.33	ppb		85
13) 1,1-Diclethene	2.432	96	12972	1.99	ppb		97
14) Freon 113	2.438	101	12607	2.18	ppb		92
15) Acetone	2.493	43	4914	3.04	ppb		95
16) 2-Propanol	2.670	45	12966	42.11	ppb		85
17) Iodomethane	2.573	142	12617m	1.77	ppb		
18) Carbon Disulfide	2.634	76	46103	2.17	ppb		95
19) Acetonitrile	2.768	40	2255	10.02	ppb	#	79
20) Allyl Chloride	2.798	76	6762	1.91	ppb	#	74
21) Methyl Acetate	2.841	43	8044	2.13	ppb		97
22) Methylene Chloride	2.926	84	16272	2.21	ppb		90
23) TBA	3.097	59	19908	39.84	ppb		98
24) Acrylonitrile	3.213	53	19909	10.76	ppb	#	81
25) Methyl-t-Butyl Ether	3.268	73	36529	2.06	ppb		97
26) trans-1,2-Dichloroethene	3.249	96	14800	2.17	ppb	#	79
28) 1,1-Diclethane	3.786	63	25132	2.06	ppb		92
29) Vinyl Acetate	3.914	86	2894m	2.20	ppb		
30) DIPE	3.944	45	52538	2.21	ppb		98
31) 2-Chloro-1,3-Butadiene	3.926	53	26038	2.13	ppb		90
32) ETBE	4.530	59	47683	2.13	ppb		87
33) 2,2-Dichloropropane	4.700	77	20552	2.11	ppb	#	75
34) cis-1,2-Dichloroethene	4.725	96	16202m	2.13	ppb		
35) 2-Butanone	4.786	43	5176m	2.30	ppb		
36) Propionitrile	4.883	54	7224m	10.64	ppb		

KR 11/19/15

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 10:30:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	Bromochloromethane	5.145	130	8261m	2.09	ppb		
38)	Methacrylonitrile	5.157	67	4737	2.05	ppb	#	83
39)	Tetrahydrofuran	5.249	42	3117	2.10	ppb		84
40)	Chloroform	5.328	83	23962	2.02	ppb		96
41)	1,1,1-Trichloroethane	5.603	97	19331	2.08	ppb		90
42)	TAME	6.407	73	41257	2.17	ppb		91
44)	Cyclohexane	5.682	41	13705	2.00	ppb		94
46)	Carbontetrachloride	5.859	121	4905	2.02	ppb	#	73
47)	1,1-Dichloropropene	5.871	75	18711	2.09	ppb		94
49)	Benzene	6.169	78	58050	2.09	ppb		97
50)	1,2-Dichloroethane	6.212	62	14828	2.08	ppb		85
51)	Iso-Butyl Alcohol	6.212	43	10719	46.07	ppb		77
52)	n-Heptane	6.639	43	16798	2.20	ppb		79
53)	1-Butanol	7.127	56	16877m	116.00	ppb		
54)	Trichloroethene	7.078	130	13540	1.92	ppb		87
55)	Methylcyclohexane	7.316	55	18529	2.21	ppb	#	80
56)	1,2-Diclpropane	7.358	63	13548	1.97	ppb		87
57)	Dibromomethane	7.498	93	7116m	2.10	ppb		
58)	1,4-Dioxane	7.559	88	2224m	43.47	ppb		
59)	Methyl Methacrylate	7.578	69	8662	2.18	ppb	#	72
60)	Bromodichloromethane	7.712	83	16774	1.99	ppb		91
61)	2-Nitropropane	7.992	41	5596m	4.47	ppb		
62)	2-Chloroethylvinyl Ether	8.108	63	8312	2.19	ppb		98
63)	cis-1,3-Dichloropropene	8.236	75	23217	2.05	ppb		93
64)	4-Methyl-2-pentanone	8.443	43	9911	1.97	ppb		94
66)	Toluene	8.602	91	60621	2.11	ppb		99
67)	trans-1,3-Dichloropropene	8.864	75	18154	2.02	ppb		91
68)	Ethyl Methacrylate	8.998	69	15311	1.93	ppb		89
69)	1,1,2-Trichloroethane	9.053	97	9918	2.04	ppb		98
72)	Tetrachloroethene	9.181	164	9847	2.09	ppb	#	81
73)	2-Hexanone	9.333	43	8140	2.34	ppb		86
74)	1,3-Dichloropropane	9.212	76	18377	2.13	ppb		90
75)	Dibromochloromethane	9.431	129	10916	2.03	ppb		94
76)	N-Butyl Acetate	9.480	43	17047	2.07	ppb		90
77)	1,2-Dibromoethane	9.529	107	9232	2.01	ppb		83
78)	Chlorobenzene	10.016	112	36503	2.17	ppb		90
79)	3-CBTF	10.028	180	17756	2.13	ppb		92
80)	4-CBTF	10.083	180	15972	2.06	ppb		96
81)	1,1,1,2-Tetrachloroethane	10.096	131	11978	2.06	ppb		84
82)	Ethylbenzene	10.132	106	20233	2.13	ppb		98
83)	(m+p)Xylene	10.242	106	50175	4.27	ppb		99
84)	o-Xylene	10.595	106	25571	2.13	ppb		99
85)	Styrene	10.608	104	42037	2.15	ppb		99
87)	Bromoform	10.760	173	6538	2.03	ppb		97
88)	2-CBTF	10.839	180	18656	2.17	ppb		87
89)	Isopropylbenzene	10.925	105	63113	2.14	ppb		97
90)	Cyclohexanone	10.992	55	17449	40.81	ppb		84
91)	trans-1,4-Dichloro-2-B...	11.229	53	3610m	1.95	ppb		
92)	1,1,2,2-Tetrachloroethane	11.181	83	12981	2.18	ppb		89
93)	Bromobenzene	11.168	156	14628	2.19	ppb		99
94)	1,2,3-Trichloropropane	11.211	110	3547	2.02	ppb		93

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

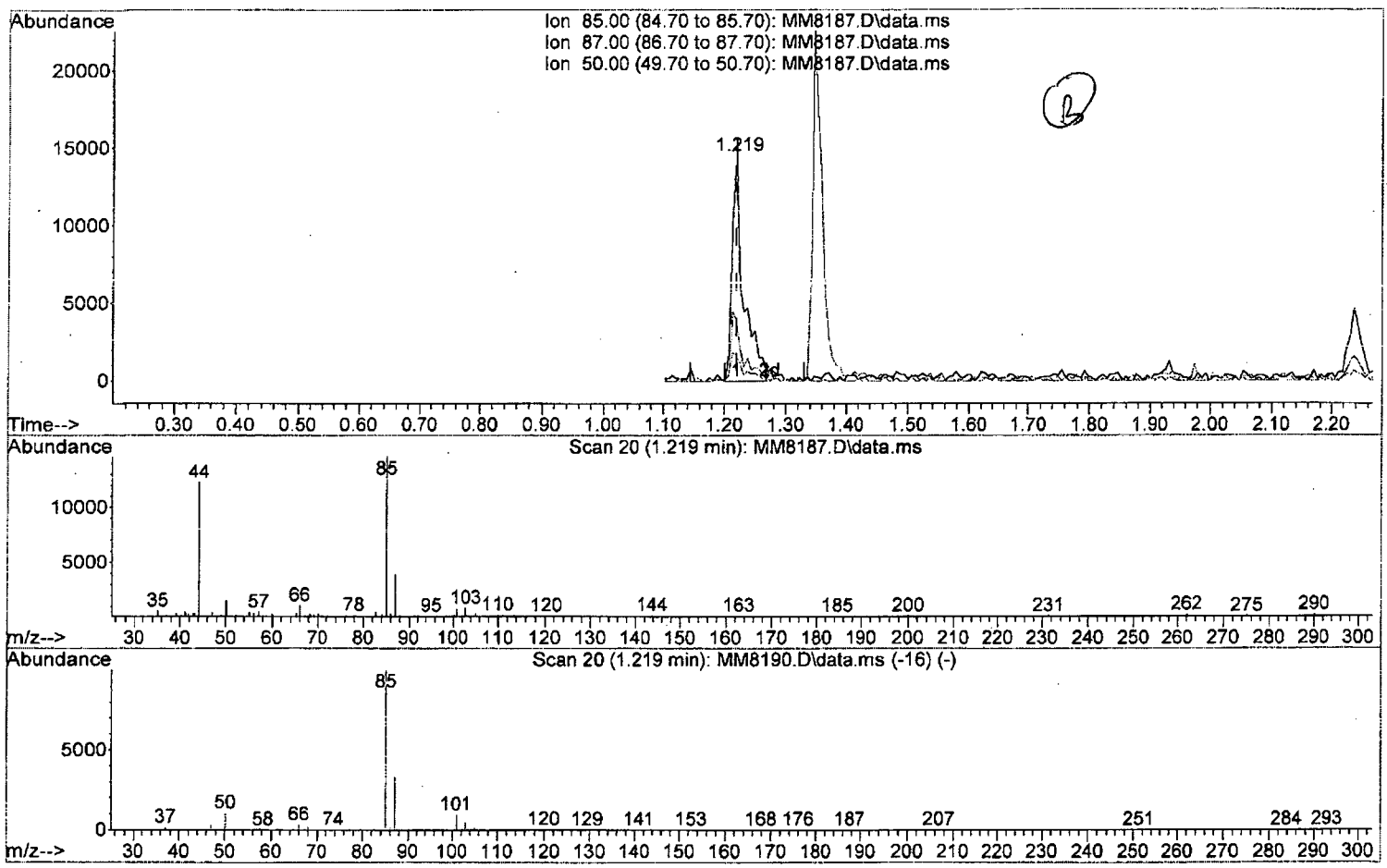
Quant Time: Nov 19 10:30:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
95)	n-Propylbenzene	11.278	91	74492	2.19	ppb		93
96)	2-Chlorotoluene	11.339	91	41495	2.08	ppb		94
97)	3-Chlorotoluene	11.394	91	44152	2.11	ppb		95
98)	4-Chlorotoluene	11.437	91	49091	2.18	ppb		95
99)	1,3,5-Trimethylbenzene	11.431	105	48689	2.18	ppb		95
100)	tert-Butylbenzene	11.699	119	41489	2.08	ppb		97
101)	1,2,4-Trimethylbenzene	11.742	105	49599	2.07	ppb		96
102)	3,4-DCBTF	11.796	214	13026	2.26	ppb		95
103)	sec-Butylbenzene	11.882	105	58903	2.11	ppb		95
104)	p-Isopropyltoluene	12.004	119	46482	2.16	ppb		90
105)	1,3-Dclbenz	11.961	146	26952	2.09	ppb		92
106)	1,4-Dclbenz	12.034	146	25381	2.10	ppb		90
107)	2,4-DCBTF	12.083	214	10106	2.01	ppb	#	84
108)	2,5-DCBTF	12.132	214	11449	2.01	ppb		95
109)	n-Butylbenzene	12.333	91	44025	2.16	ppb		91
110)	1,2-Dclbenz	12.333	146	23088	1.94	ppb		97
111)	1,2-Dibromo-3-chloropr...	12.955	157	2386	2.04	ppb	#	77
112)	Trielution Dichlorotol...	13.077	125	63807	6.36	ppb		94
113)	1,3,5 Trichlorobenzene	13.125	180	17771	2.22	ppb		86
114)	Coelution Dichlorotoluene	13.400	125	45098	4.25	ppb		98
115)	1,2,4-Tcbenzene	13.607	180	14634	2.00	ppb		91
116)	Hexachlorobt	13.747	225	6685	2.14	ppb		89
117)	Naphthalen	13.802	128	32930	2.16	ppb		93
118)	1,2,3-Tclbenzene	13.985	180	12030	1.97	ppb	#	79
119)	2,4,5-Trichlorotolene	14.570	159	9031	1.95	ppb		96
120)	2,3,6-Trichlorotoluene	14.656	159	9505	2.32	ppb		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(2) Dichlorodifluoromethane (P)

1.219min (-0.000) 1.75 ppb

response 18630

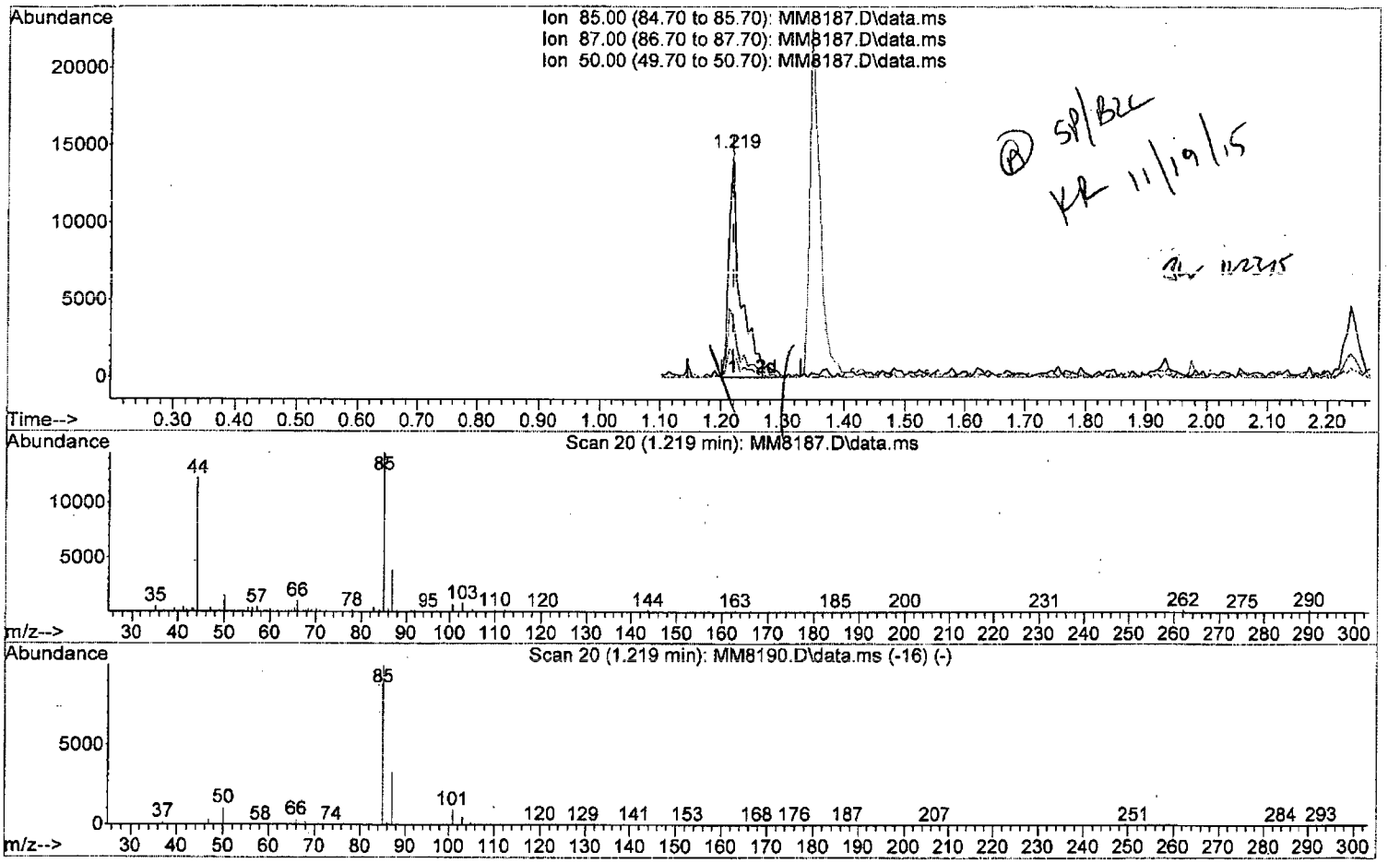
Ion	Exp%	Act%
85.00	100	100
87.00	32.70	26.76
50.00	10.60	10.62
0.00	0.00	0.00

W111815.M Thu Nov 19 10:20:08 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(2) Dichlorodifluoromethane (P)

1.219min (-0.000) 1.82 ppb m

response 19630

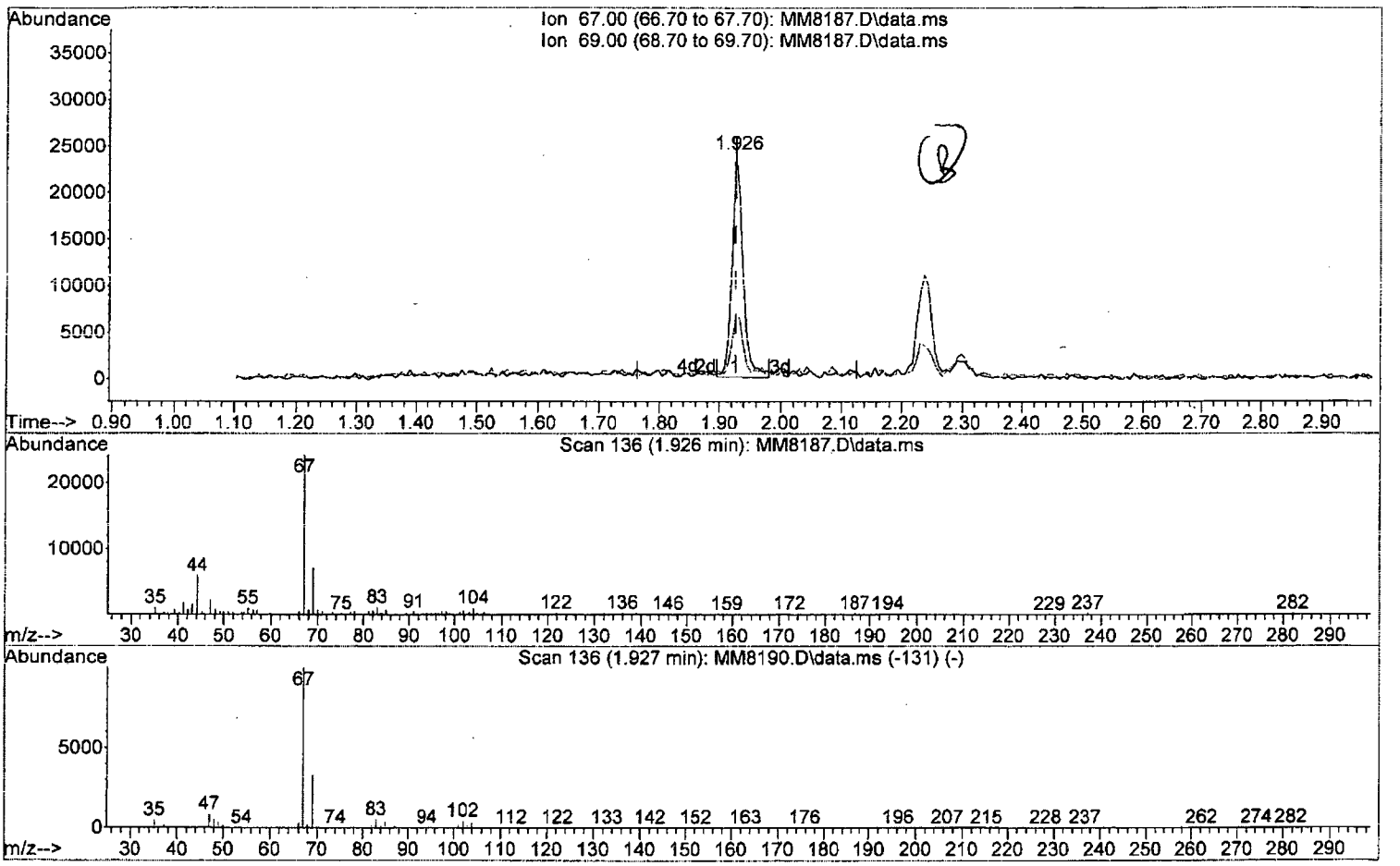
Ion	Exp%	Act%
85.00	100	100
87.00	32.70	26.76
50.00	10.60	10.62
0.00	0.00	0.00

W111815.M Thu Nov 19 10:20:14 2015 Page: 1

Quantitation Report (Qedit)

```
Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On    : 18 Nov 2015    5:41 pm
Operator  : K.Ruest
Sample    : 2.0ppb                                    Inst    : MSVOA-12
Misc      : 8260 WATER ICAL
ALS Vial  : 6   Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration
```



TIC: MM8187.D\data.ms

(7) Freon 21

1.926min (-0.000) 2.31 ppb

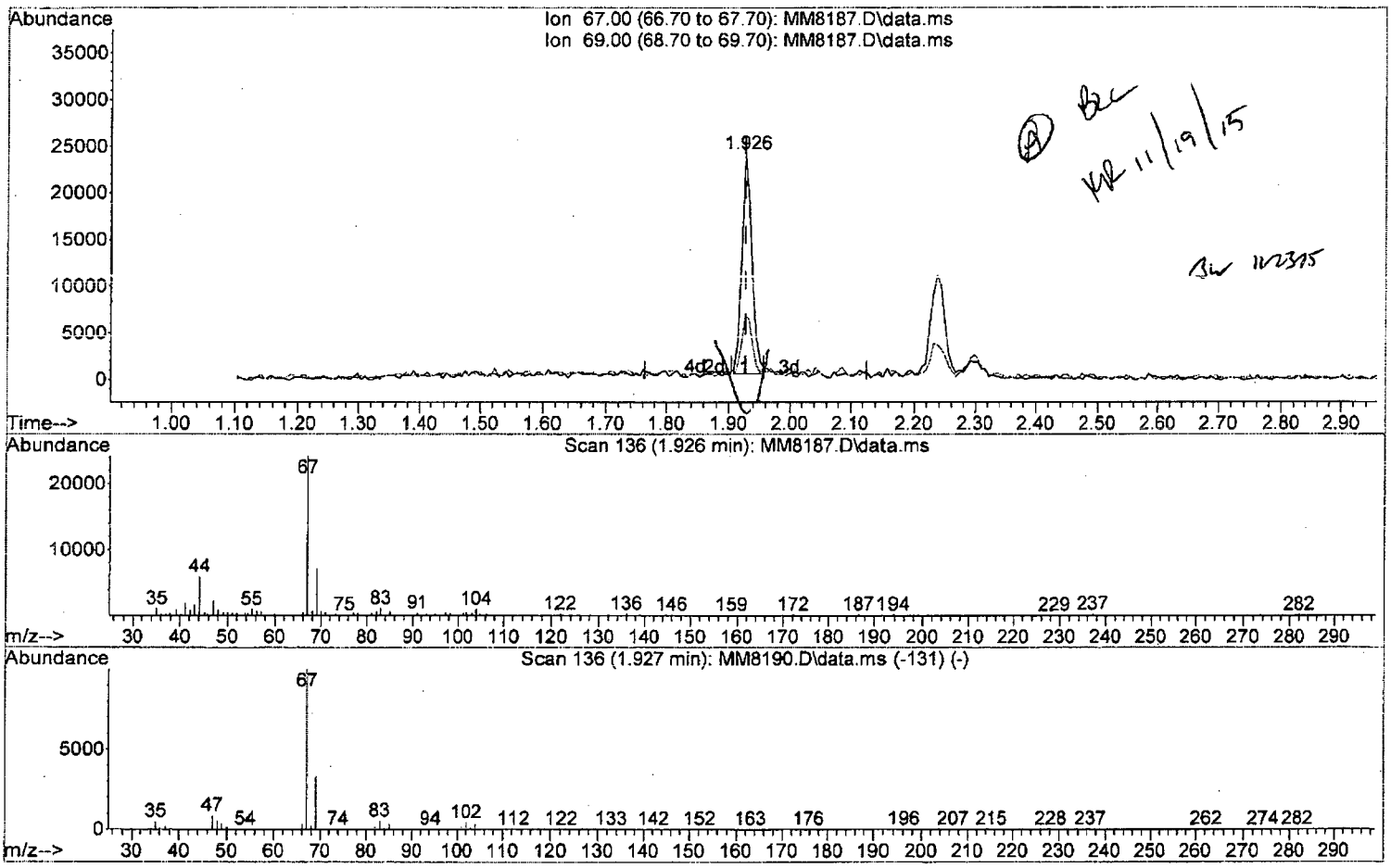
response 29617

Ion	Exp%	Act%
67.00	100	100
69.00	33.10	29.18
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(7) Freon 21

1.926min (-0.000) 2.09 ppb m

response 26902

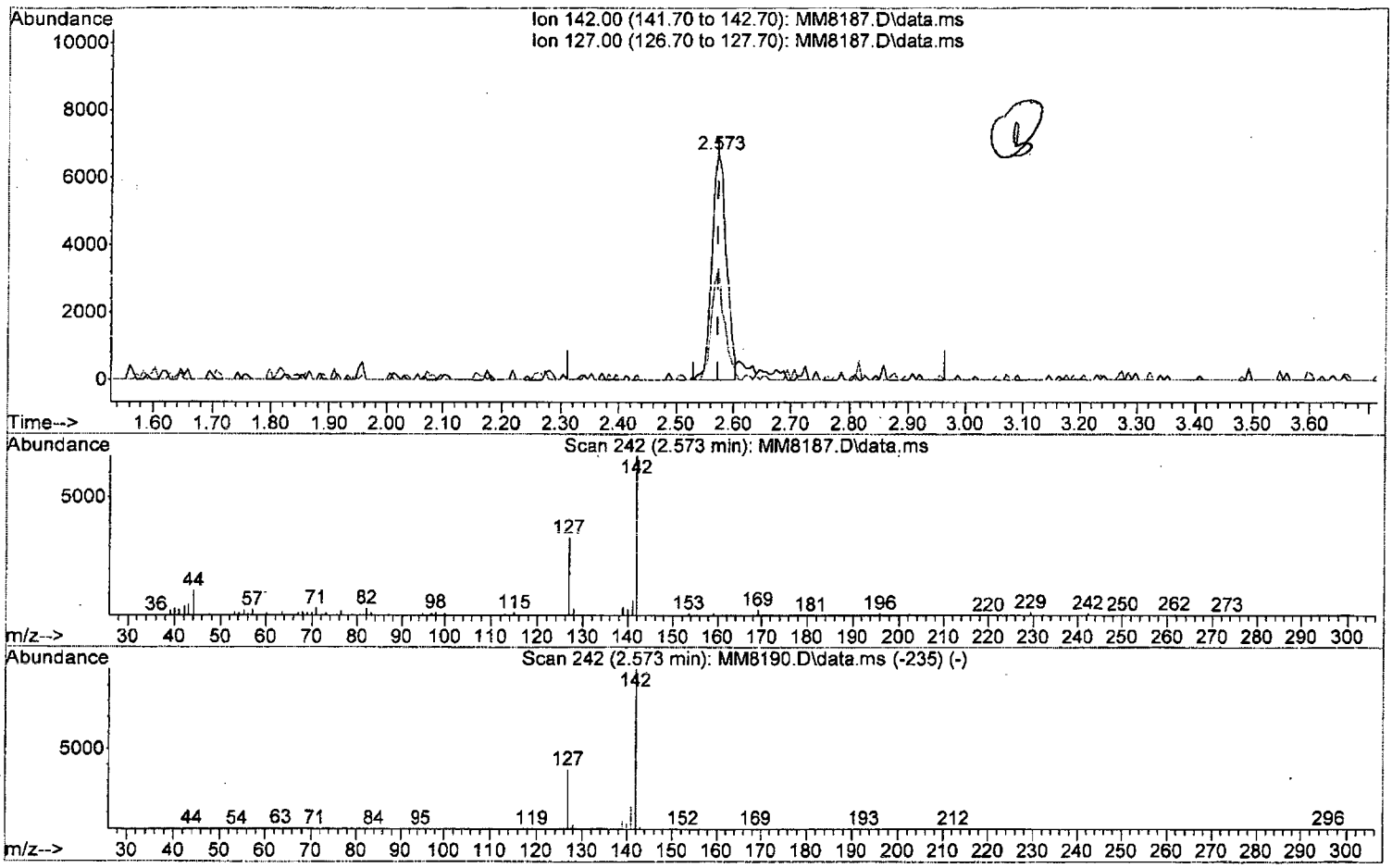
Ion	Exp%	Act%
67.00	100	100
69.00	33.10	29.18
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:21:07 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(17) Iodomethane

2.573min (+0.001) 1.65 ppb

response 11773

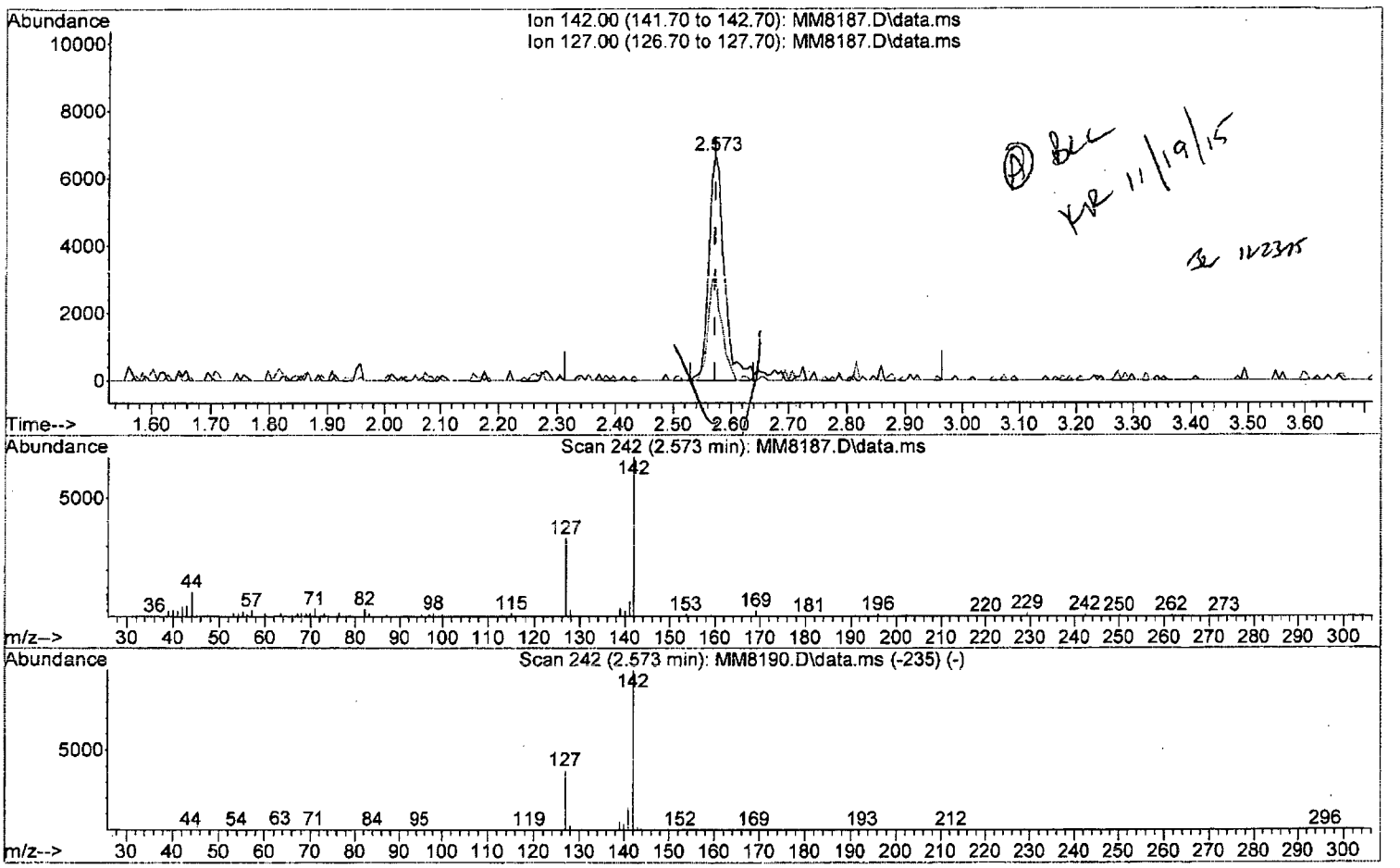
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	49.54
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:21:47 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(17) Iodomethane

2.573min (+0.001) 1.77 ppb m

response 12617

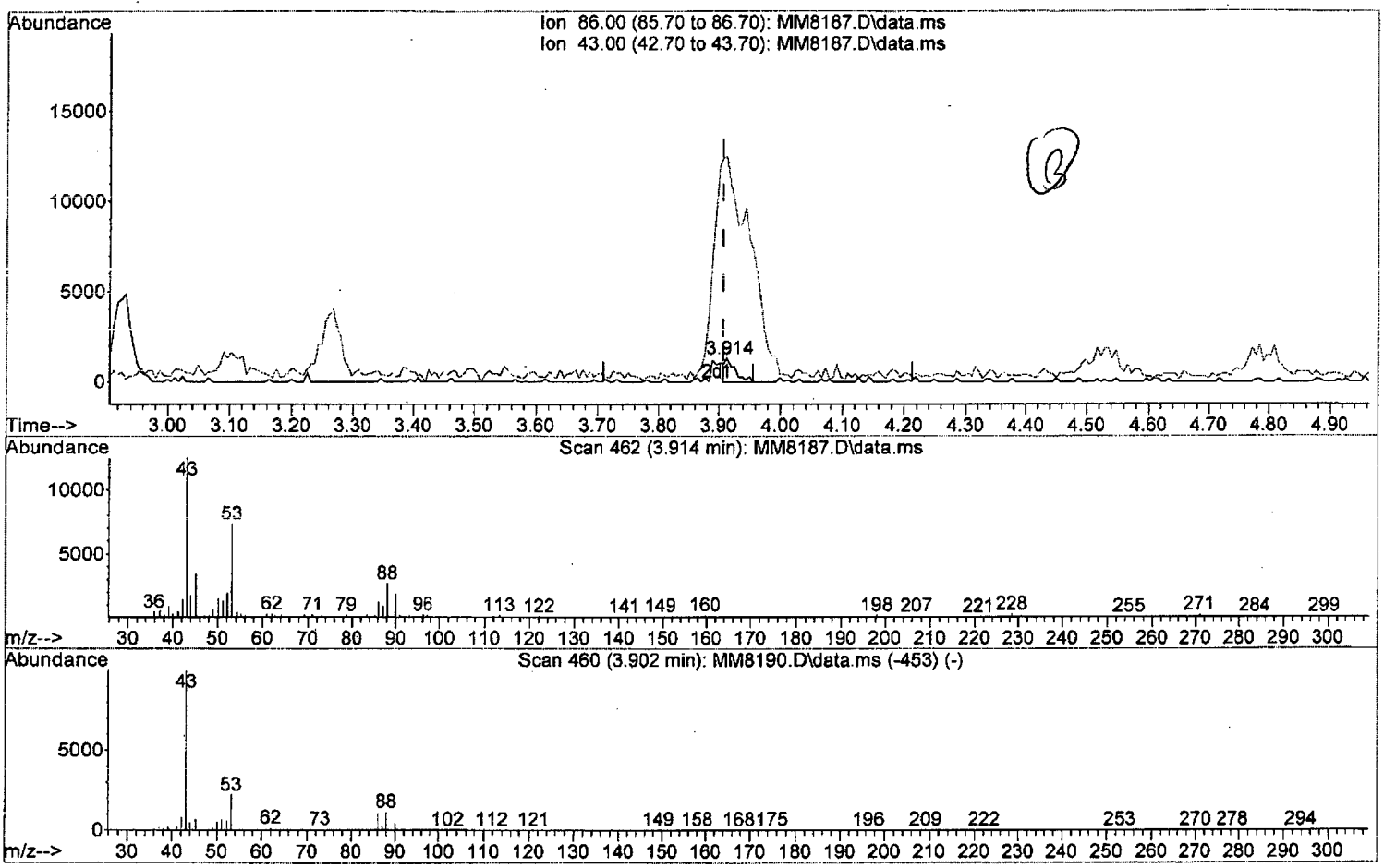
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	49.54
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:21:59 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(29) Vinyl Acetate

3.914min (+0.006) 1.11 ppb

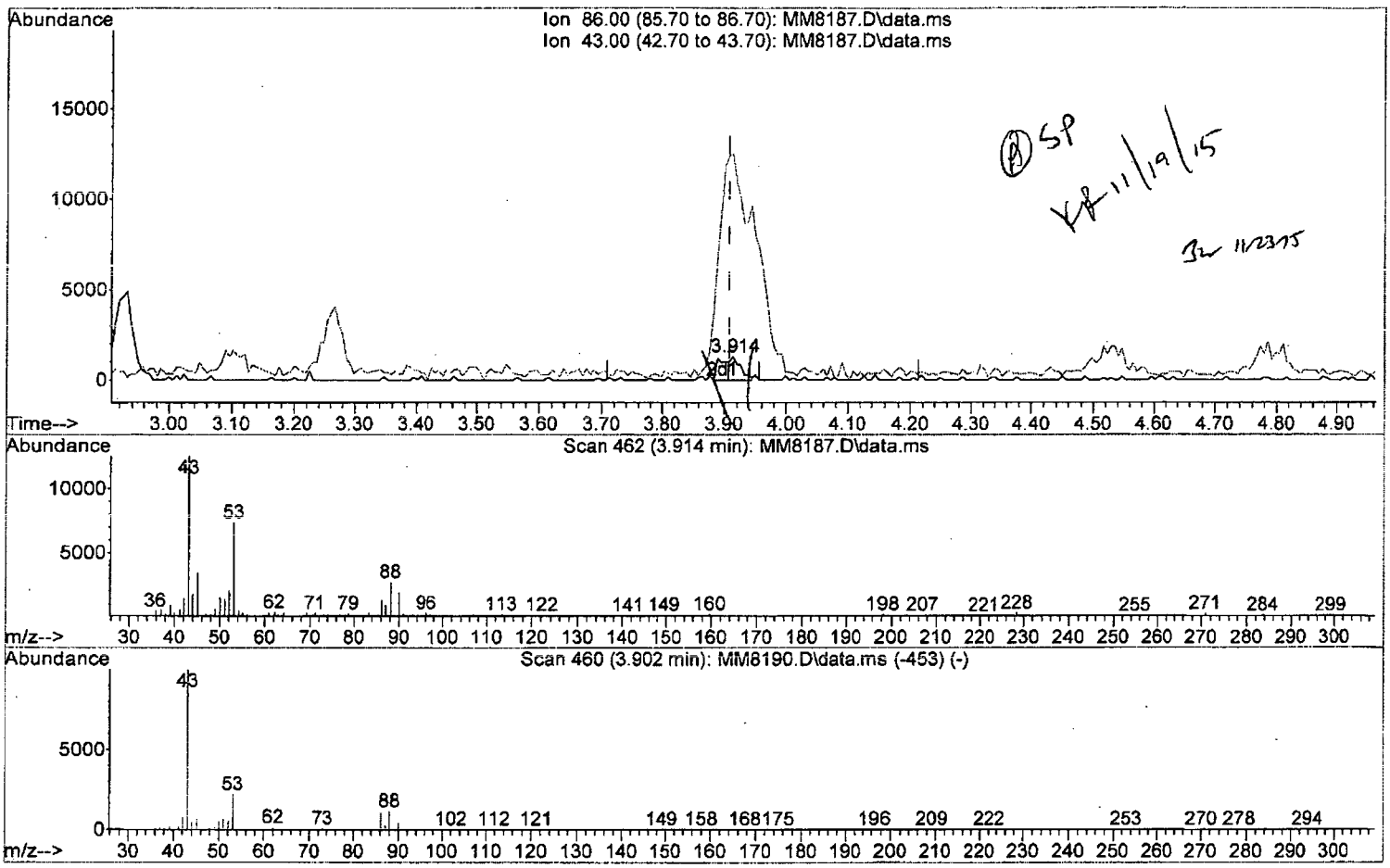
response 1463

Ion	Exp%	Act%
86.00	100	100
43.00	979.70	957.56#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(29) Vinyl Acetate

3.914min (+0.006) 2.20 ppb m

response 2894

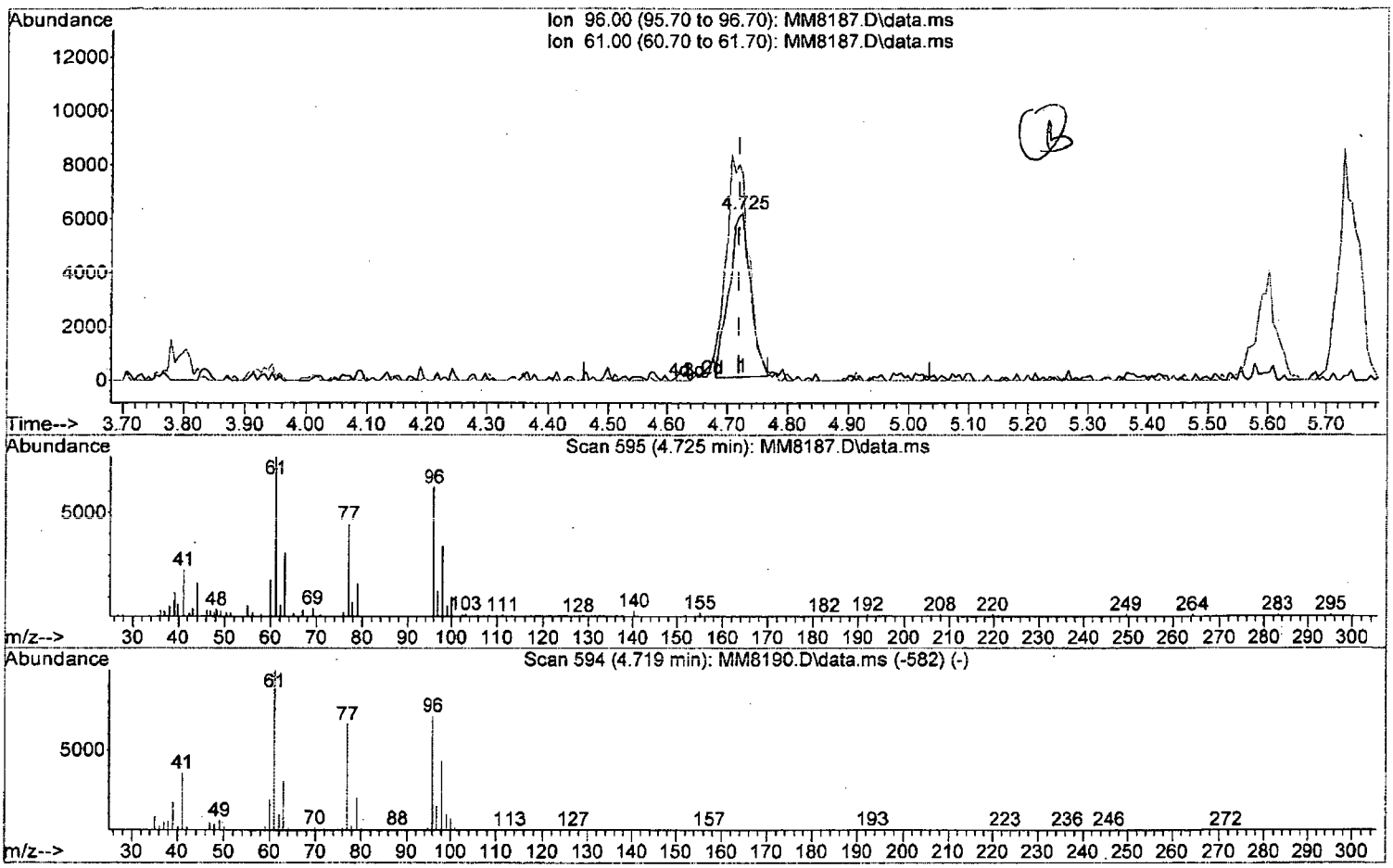
Ion	Exp%	Act%
86.00	100	100
43.00	979.70	957.56#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:22:28 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.725min (+0.006) 1.97 ppb

response 14951

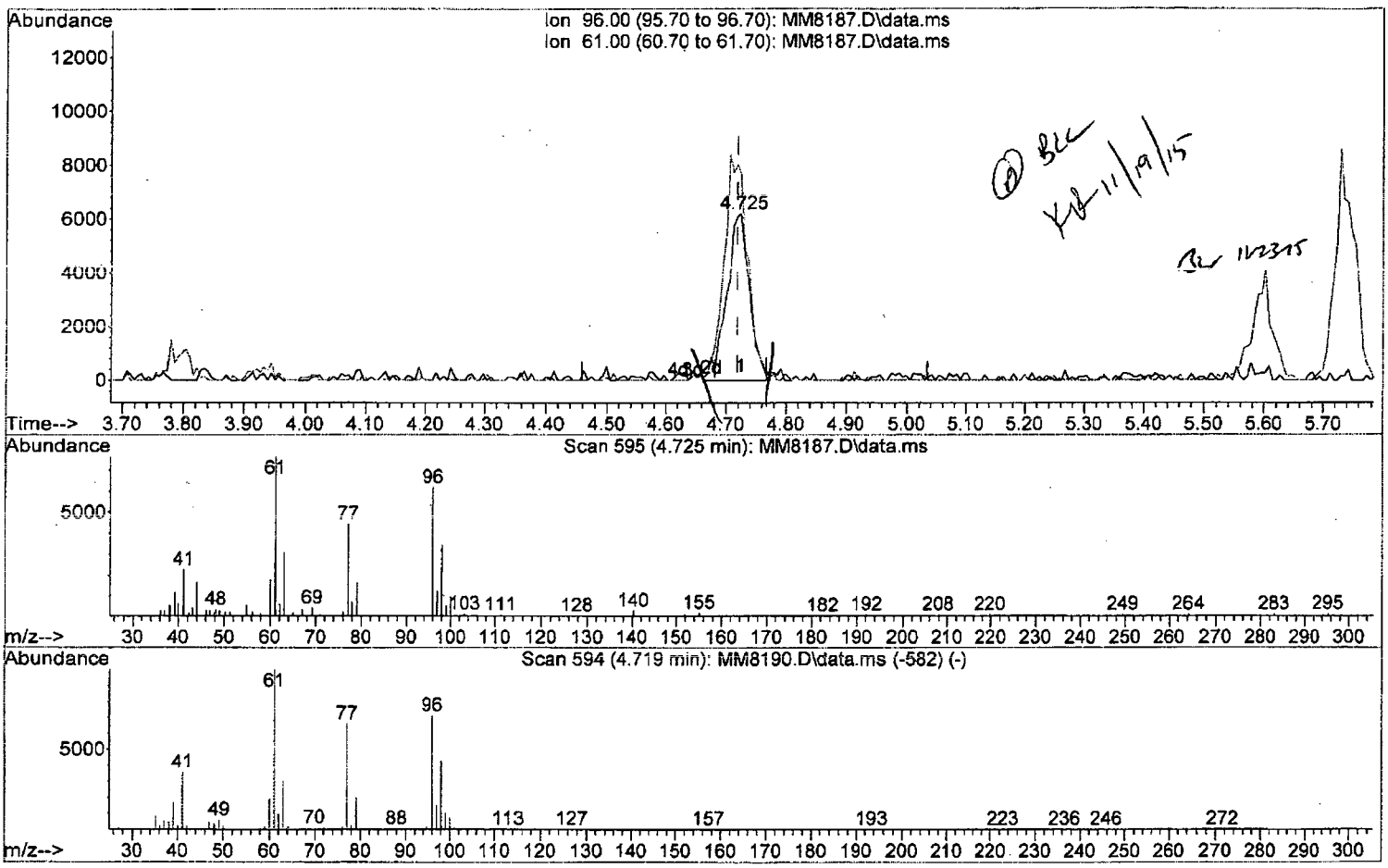
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	123.36
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:22:55 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.725min (+0.006) 2.13 ppb m

response 16202

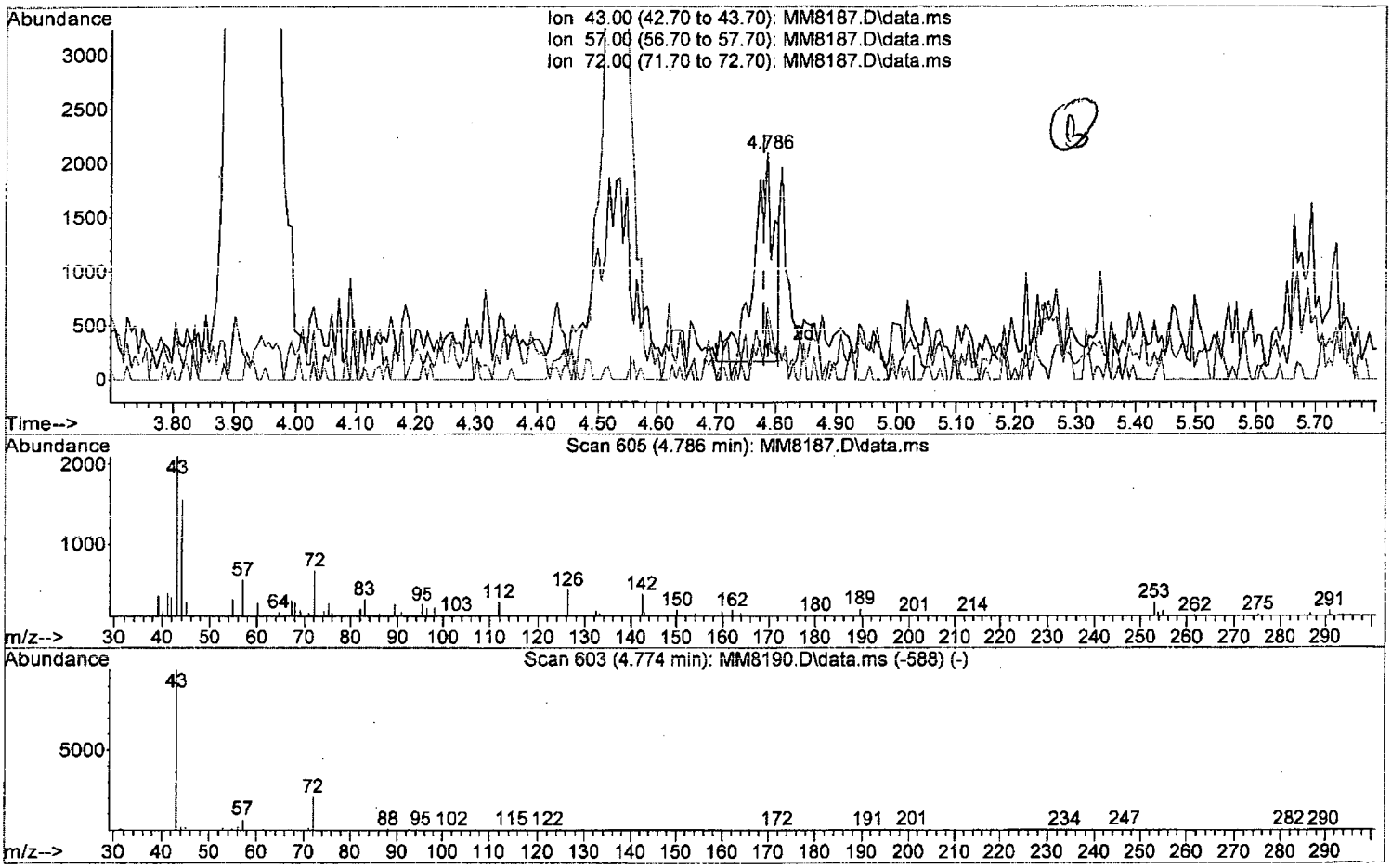
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	123.36
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:23:01 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(35) 2-Butanone (P)

4.786min (+0.006) 2.09 ppb

response 4696

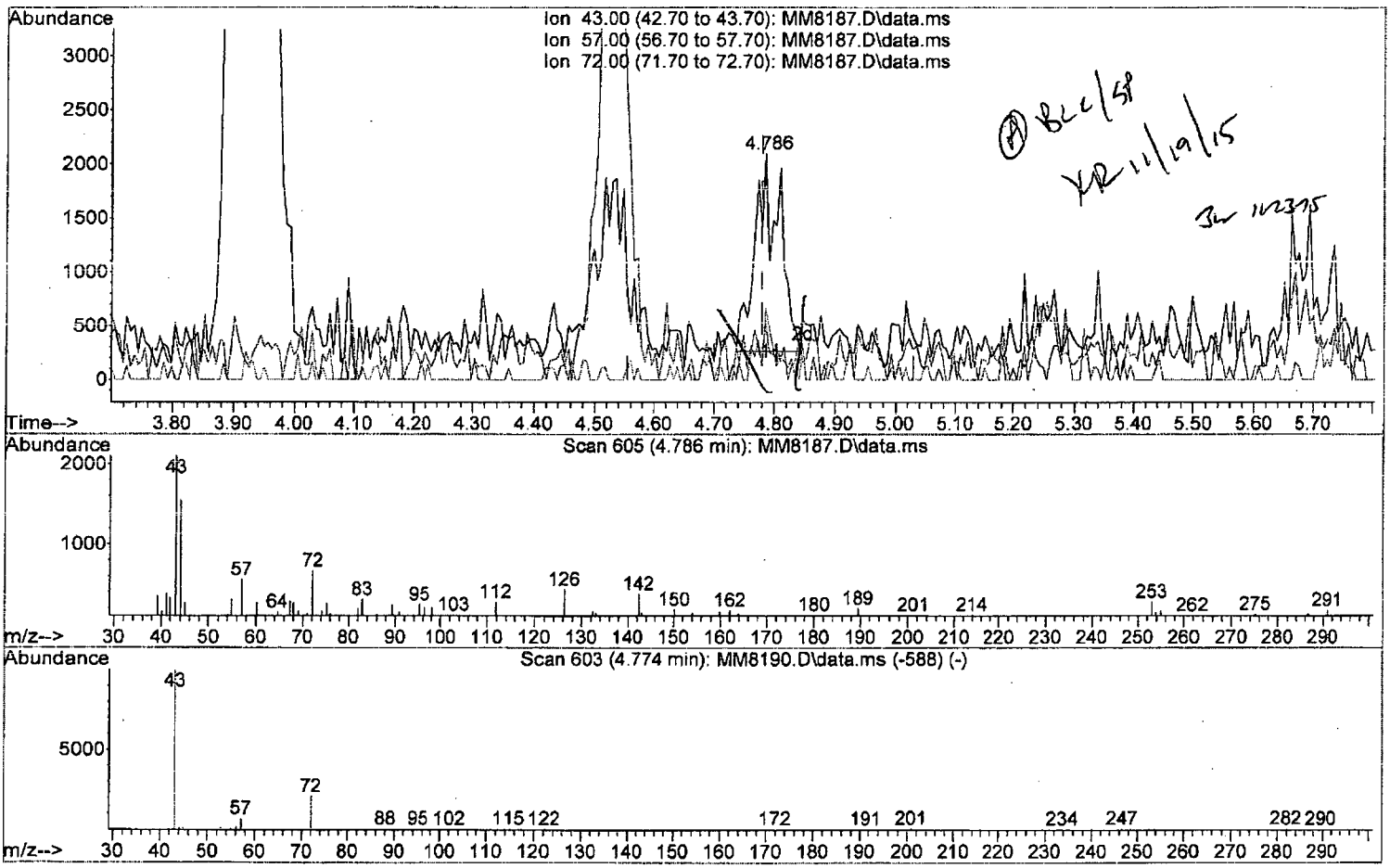
Ion	Exp%	Act%
43.00	100	100
57.00	7.50	26.42
72.00	21.20	31.72
0.00	0.00	0.00

W111815.M Thu Nov 19 10:23:11 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(35) 2-Butanone (P)

4.786min (+0.006) 2.30 ppb m

response 5176

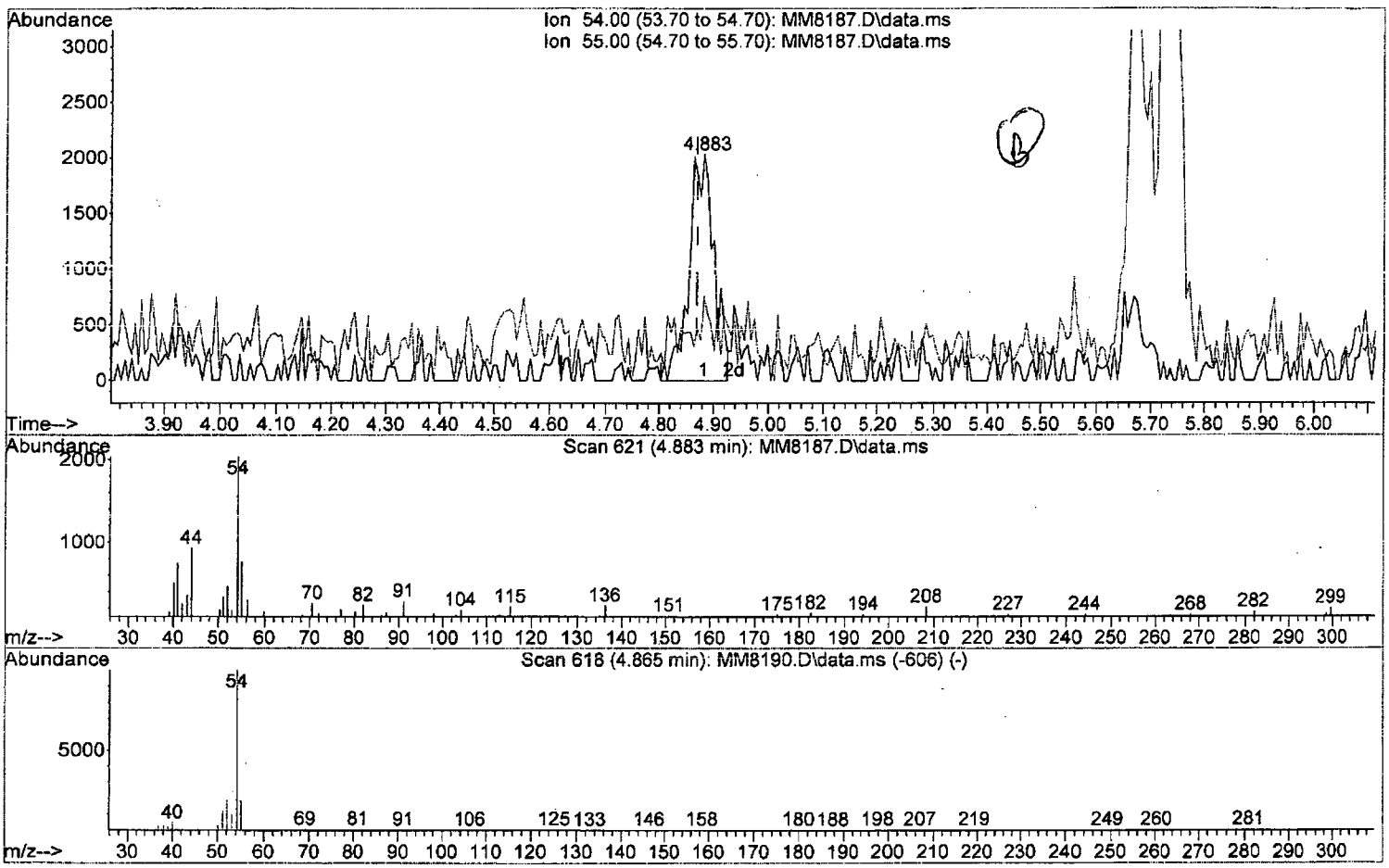
Ion	Exp%	Act%
43.00	100	100
57.00	7.50	26.42
72.00	21.20	31.72
0.00	0.00	0.00

W111815.M Thu Nov 19 10:23:18 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(36) Propionitrile

4.883min (+0.012) 9.36 ppb

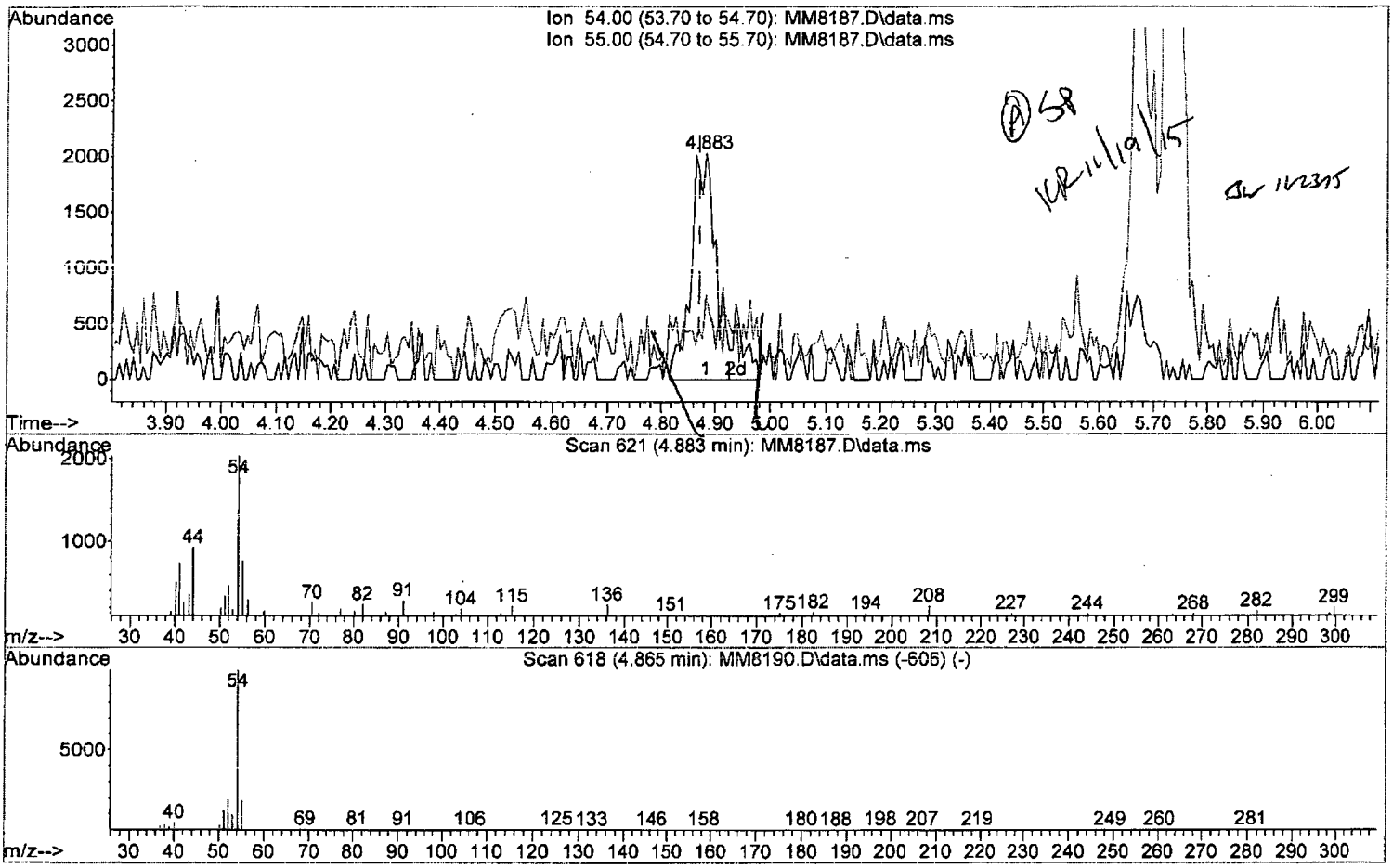
response 6355

Ion	Exp%	Act%
54.00	100	100
55.00	19.40	37.23
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(36) Propionitrile

4.883min (+0.012) 10.64 ppb m

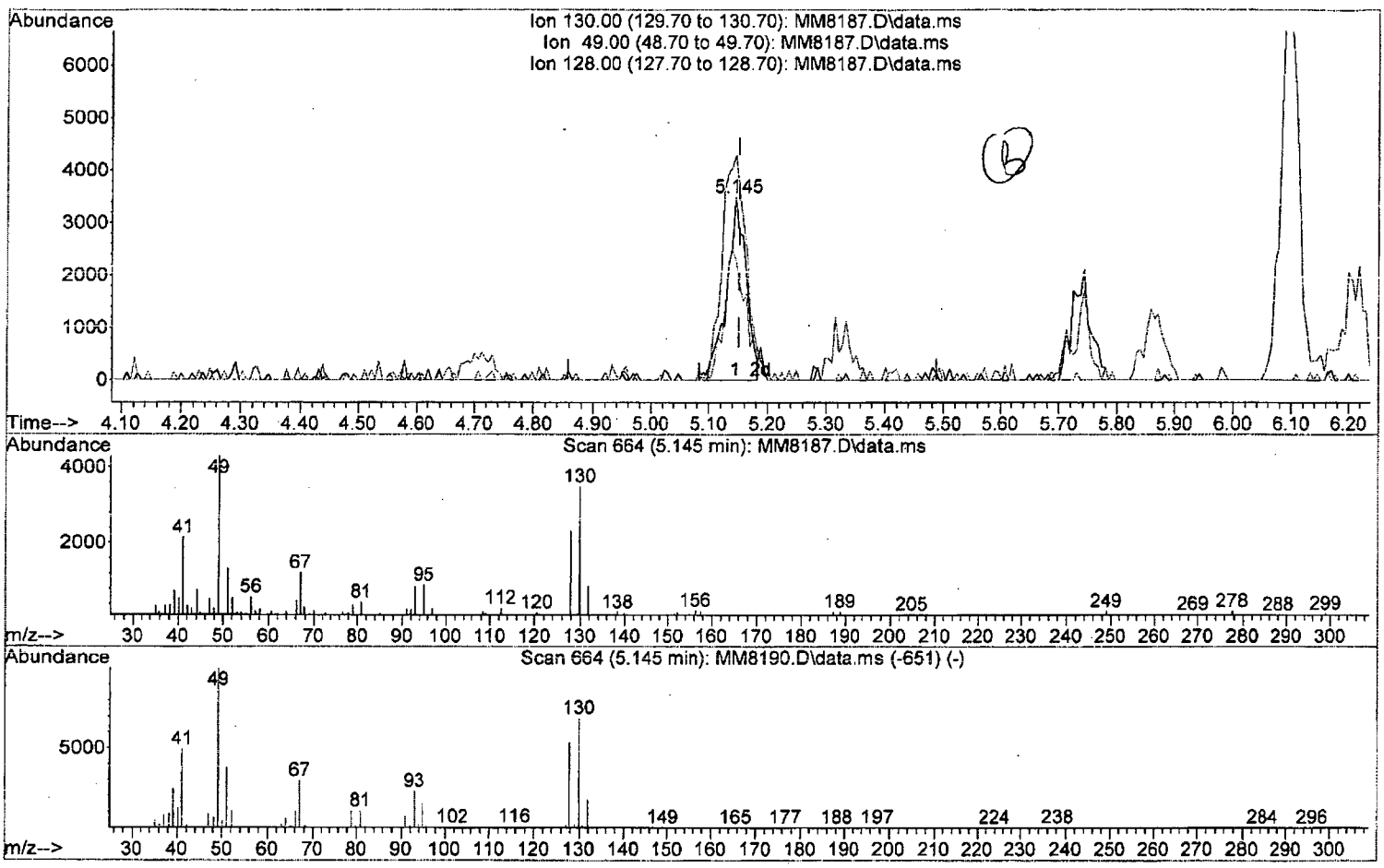
response 7224

Ion	Exp%	Act%
54.00	100	100
55.00	19.40	37.23
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(37) Bromochloromethane

5.145min (-0.006) 2.03 ppb

response 8025

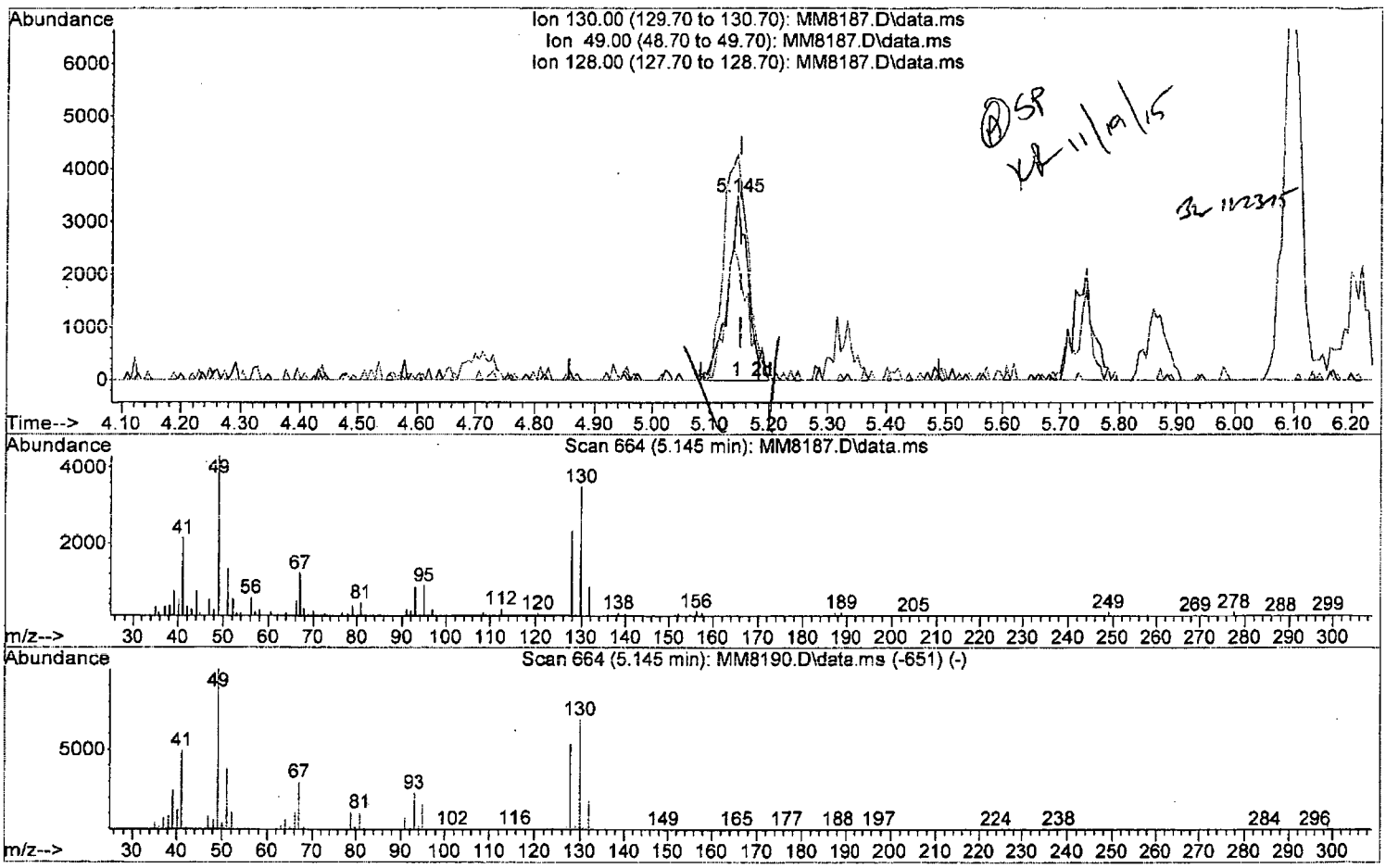
Ion	Exp%	Act%
130.00	100	100
49.00	145.50	122.92#
128.00	77.50	66.05
0.00	0.00	0.00

W111815.M Thu Nov 19 10:24:08 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(37) Bromochloromethane

5.145min (-0.006) 2.09 ppb m

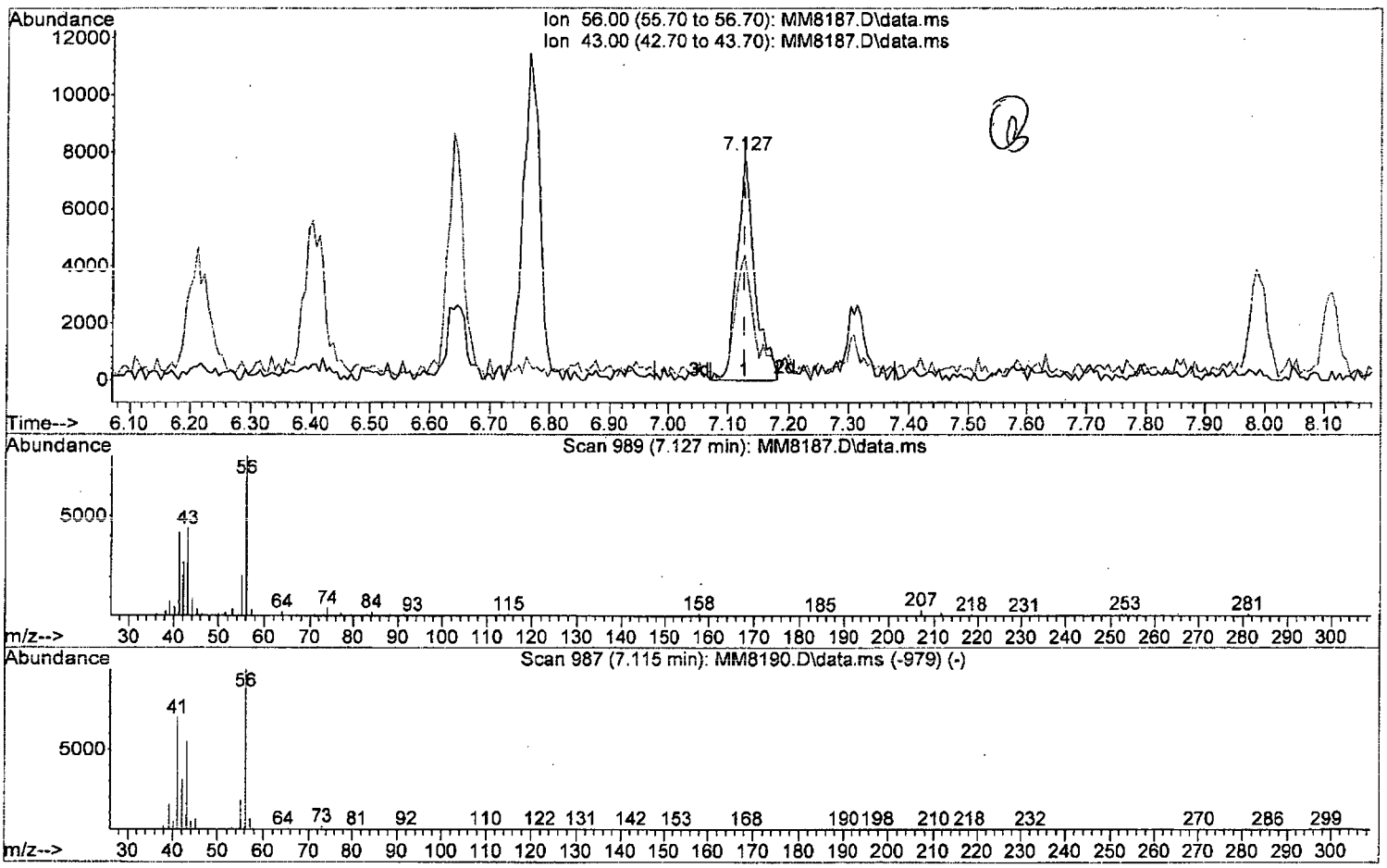
response 8261

Ion	Exp%	Act%
130.00	100	100
49.00	145.50	122.92#
128.00	77.50	66.05
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(53) 1-Butanol

7.127min (-0.000) 108.49 ppb

response 15785

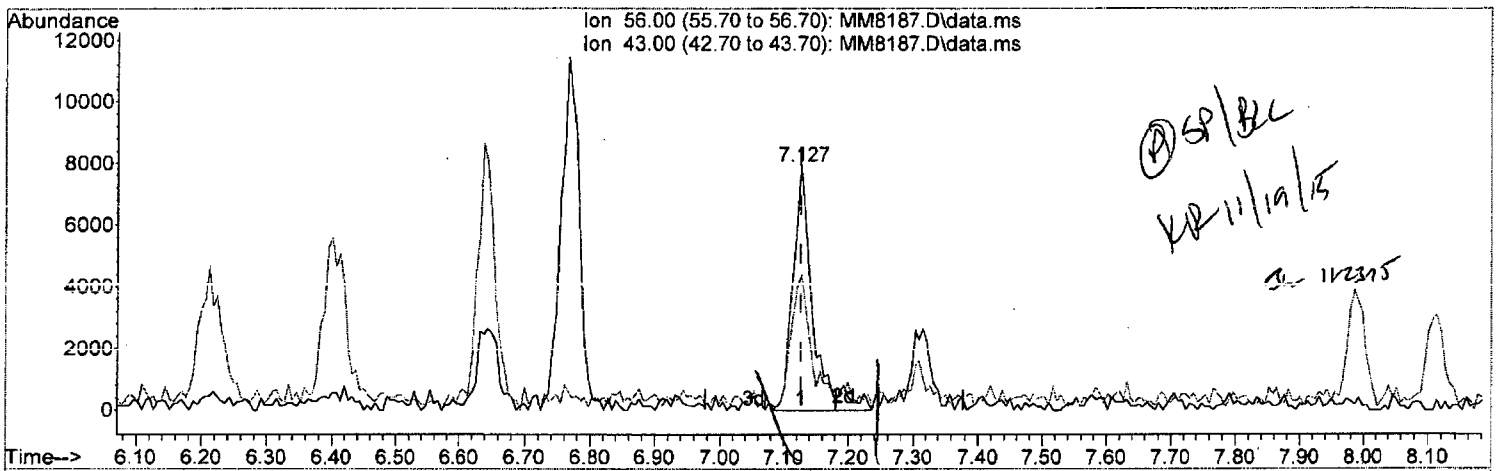
Ion	Exp%	Act%
56.00	100	100
43.00	54.90	63.55
0.00	0.00	0.00
0.00	0.00	0.00

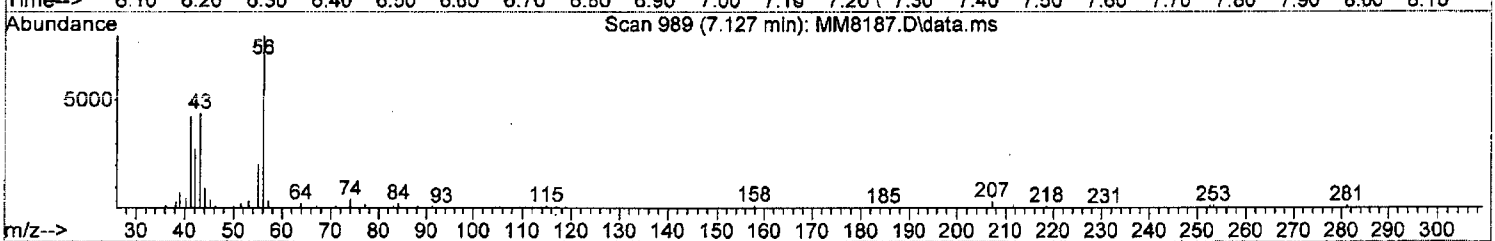
W111815.M Thu Nov 19 10:25:22 2015 Page: 1

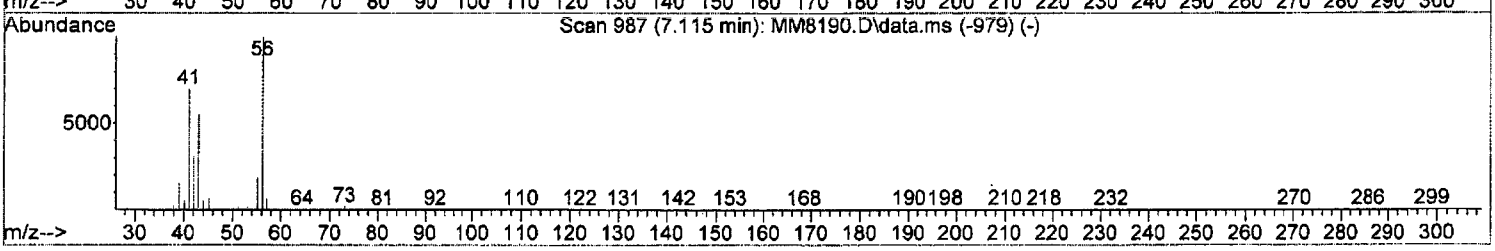
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8187.D\data.ms

(53) 1-Butanol

7.127min (-0.000) 116.00 ppb m

response 16877

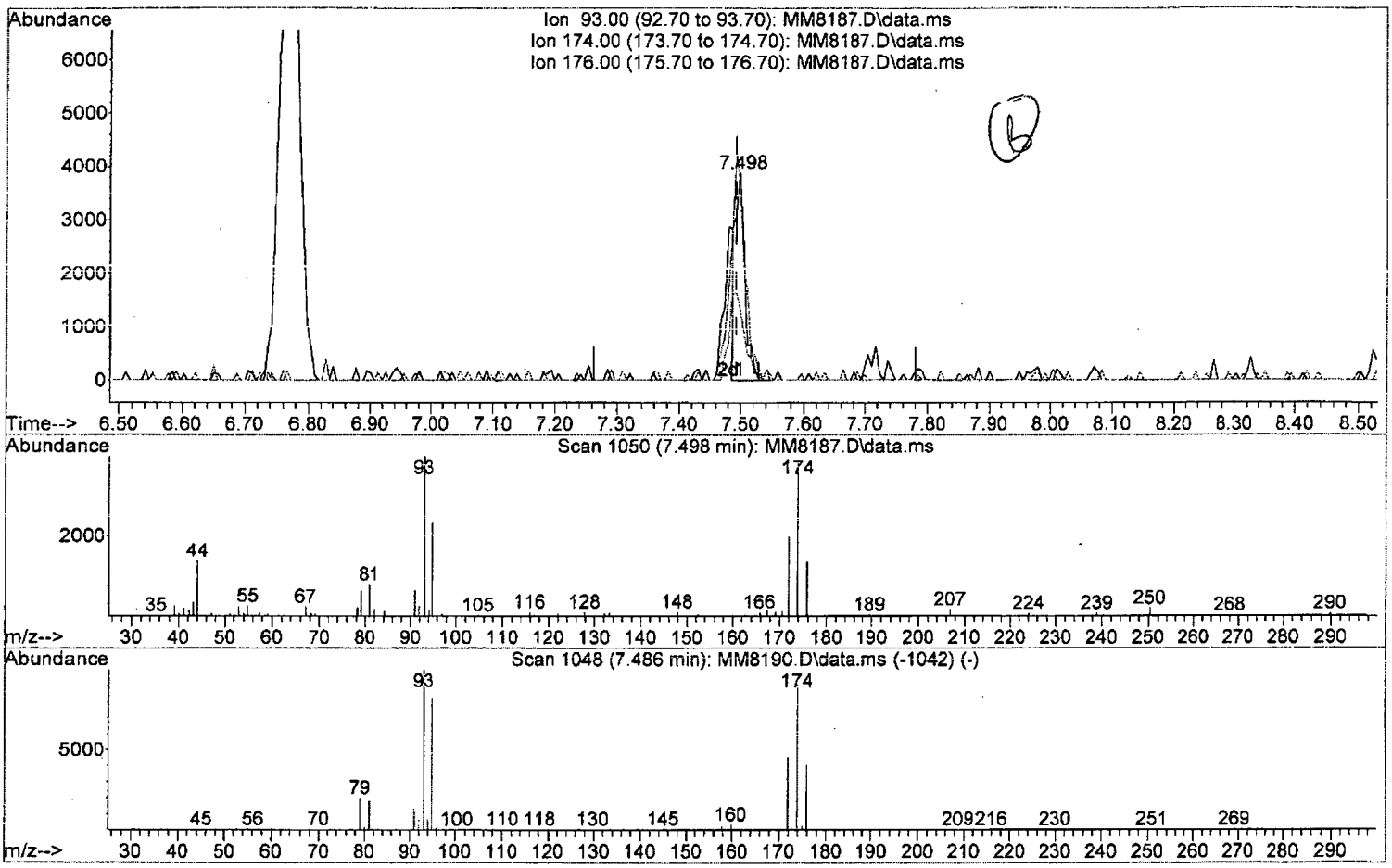
Ion	Exp%	Act%
56.00	100	100
43.00	54.90	59.44
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:25:34 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(57) Dibromomethane

7.498min (+0.006) 1.20 ppb

response 4062

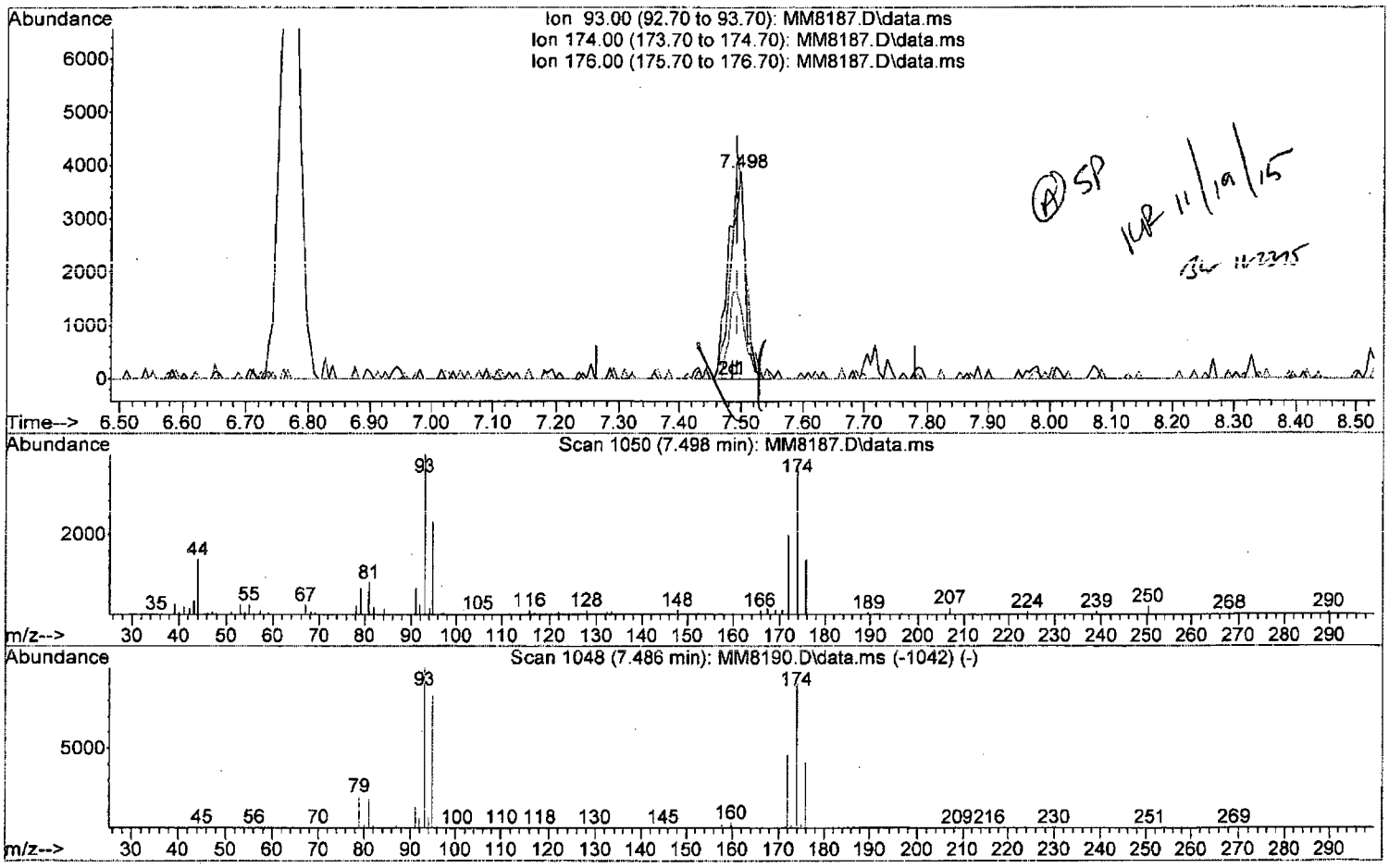
Ion	Exp%	Act%
93.00	100	100
174.00	91.10	95.71
176.00	40.50	35.53
0.00	0.00	0.00

W111815.M Thu Nov 19 10:25:43 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(57) Dibromomethane

7.498min (+0.006) 2.10 ppb m

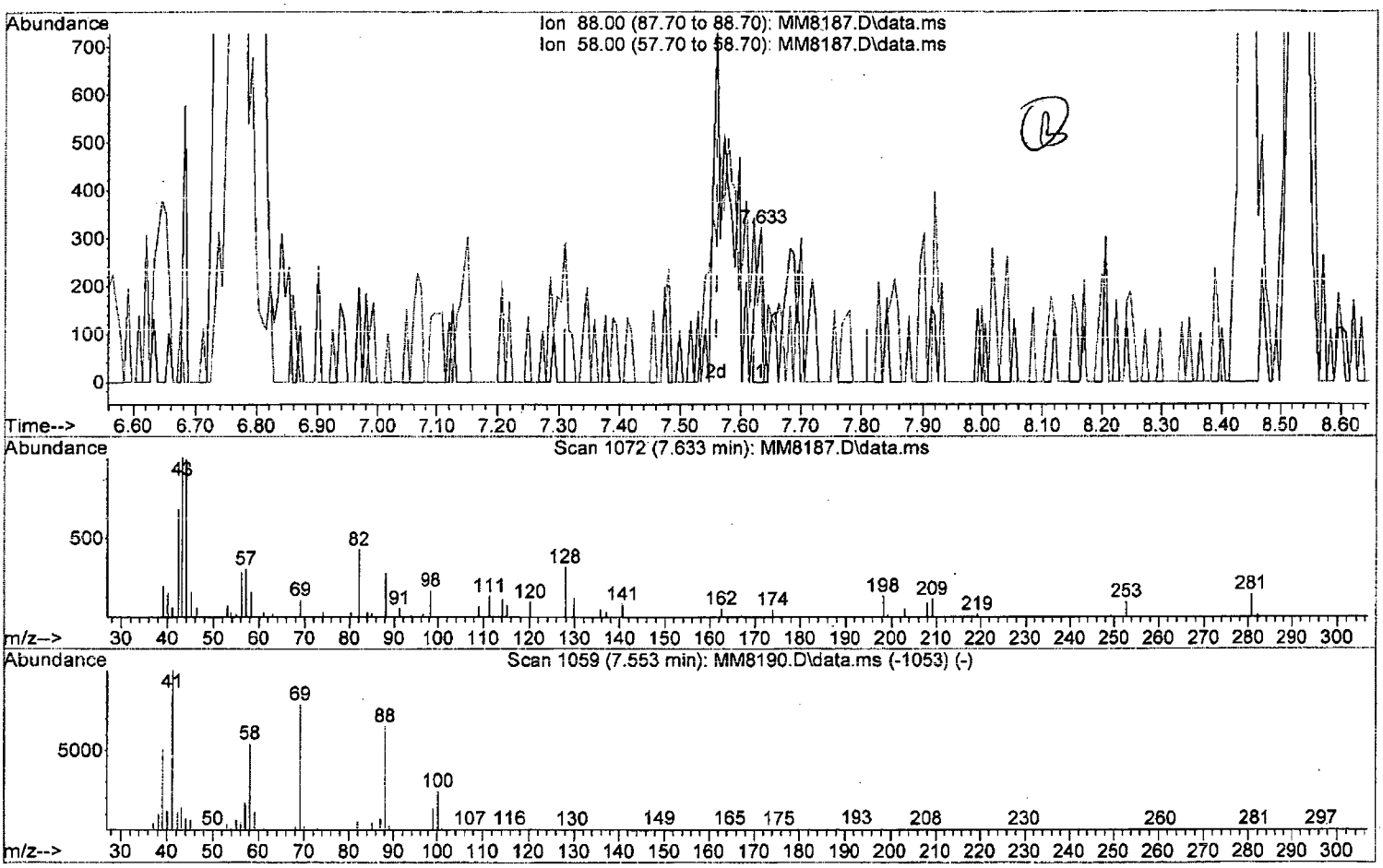
response 7116

Ion	Exp%	Act%
93.00	100	100
174.00	91.10	95.71
176.00	40.50	35.53
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(58) 1,4-Dioxane

7.633min (+0.073) 4.87 ppb

response 249

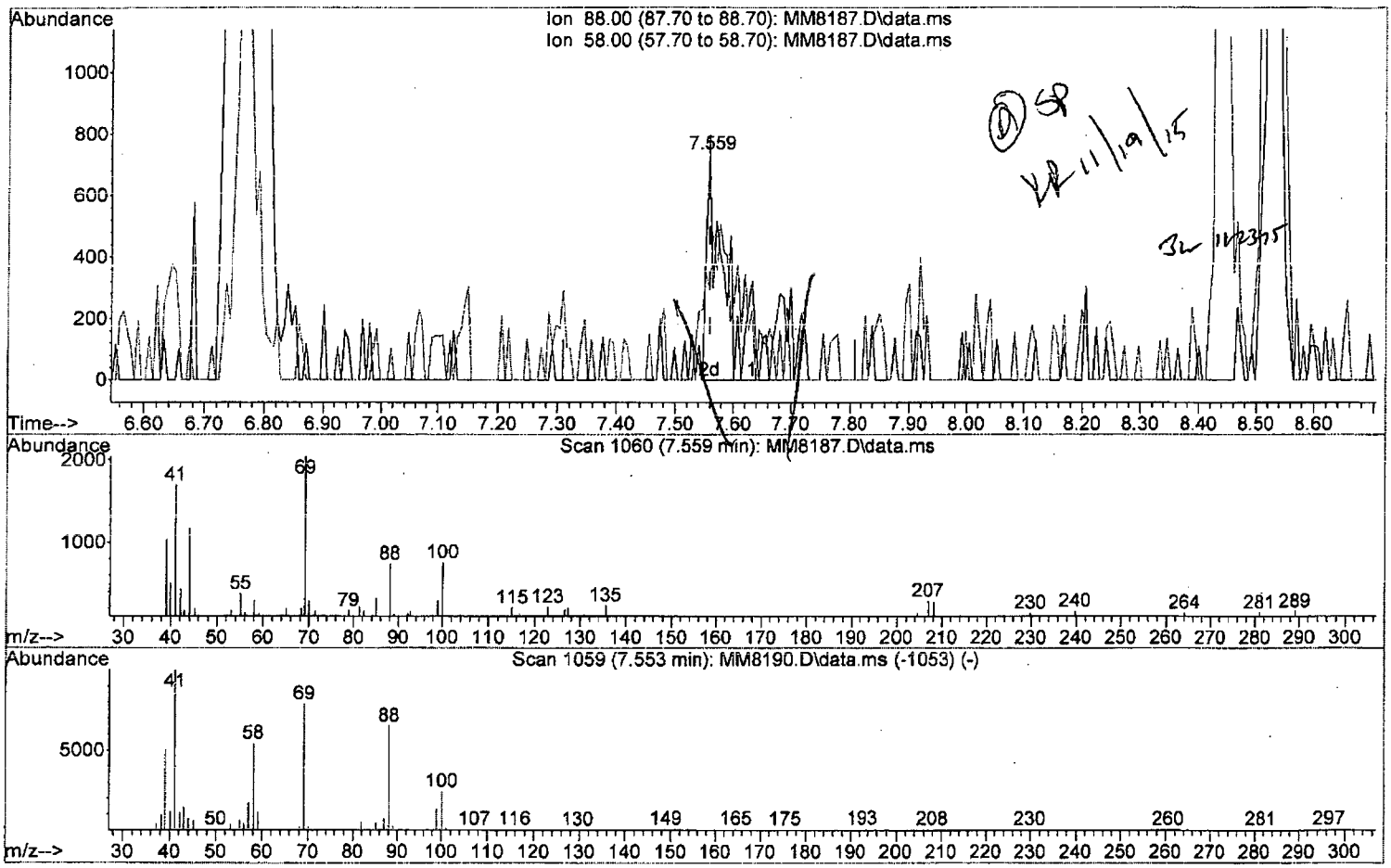
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	69.88
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:25:53 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(58) 1,4-Dioxane

7.559min (-0.000) 43.47 ppb m

response 2224

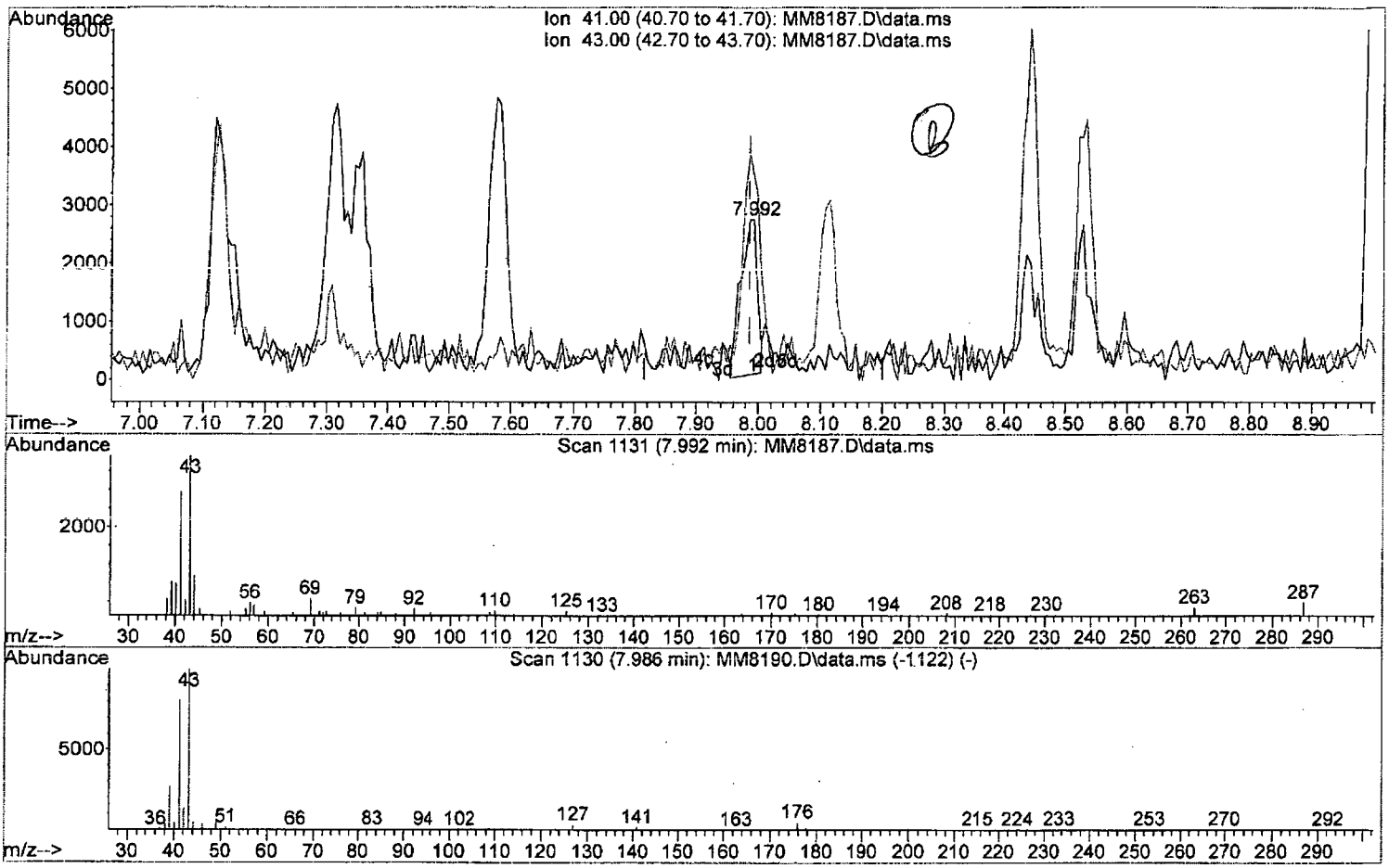
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	39.92#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:27:24 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(61) 2-Nitropropane

7.992min (+0.006) 3.89 ppb

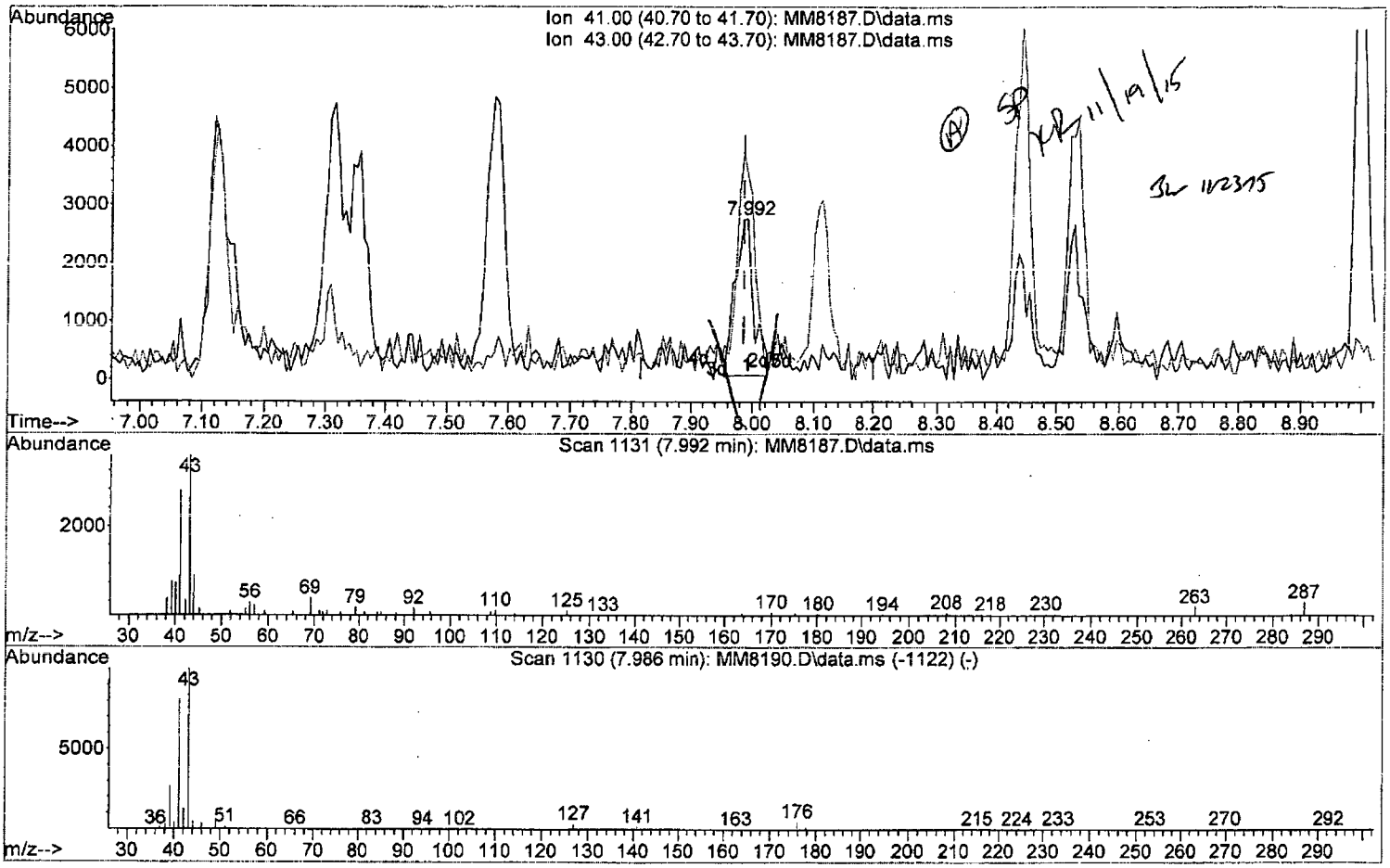
response 4875

Ion	Exp%	Act%
41.00	100	100
43.00	123.30	127.55
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:28:13 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(61) 2-Nitropropane

7.992min (+0.006) 4.47 ppb m

response 5596

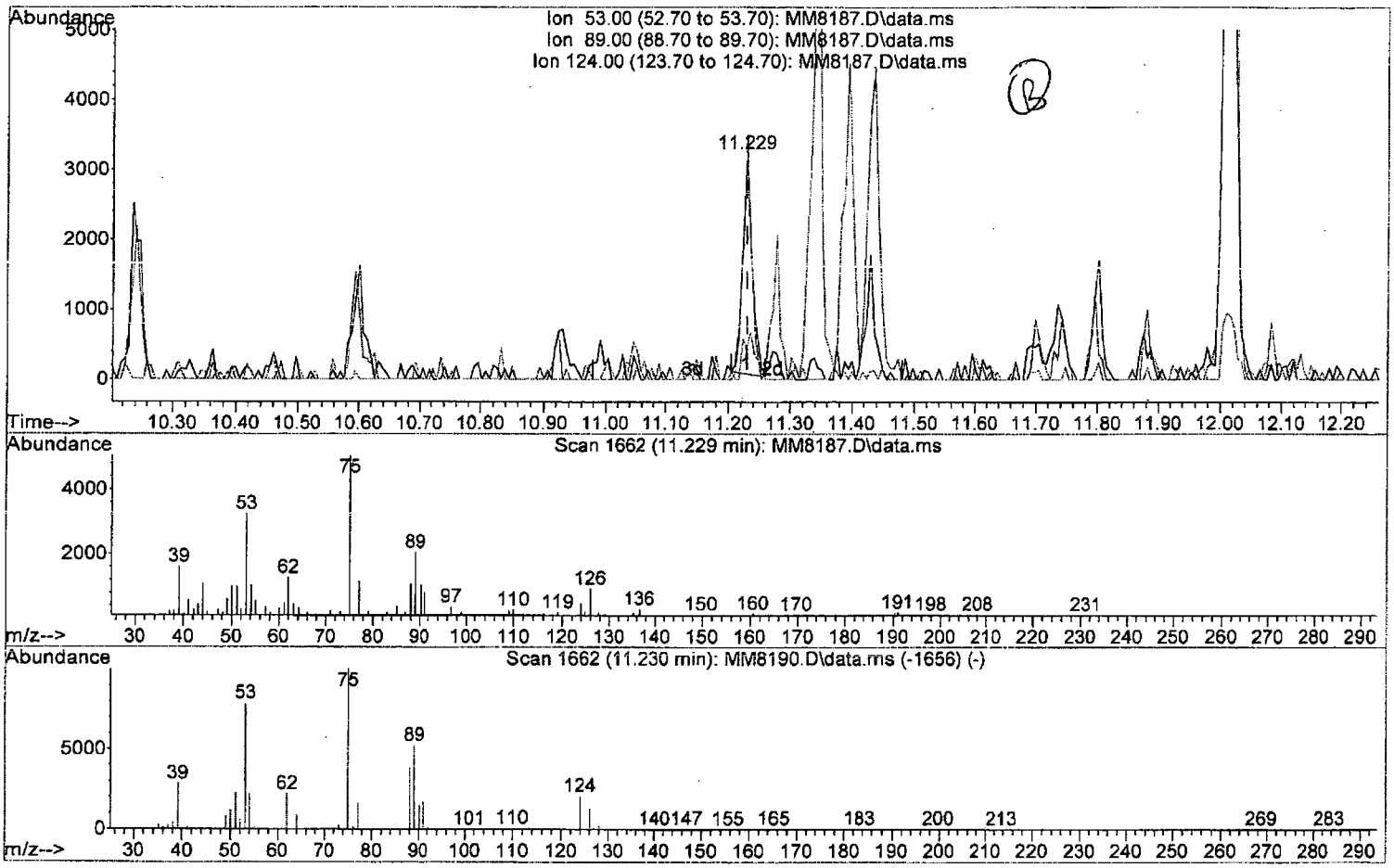
Ion	Exp%	Act%
41.00	100	100
43.00	123.30	127.55
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:28:47 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(91) trans-1,4-Dichloro-2-Butene

11.229min (-0.000) 1.81 ppb

response 3358

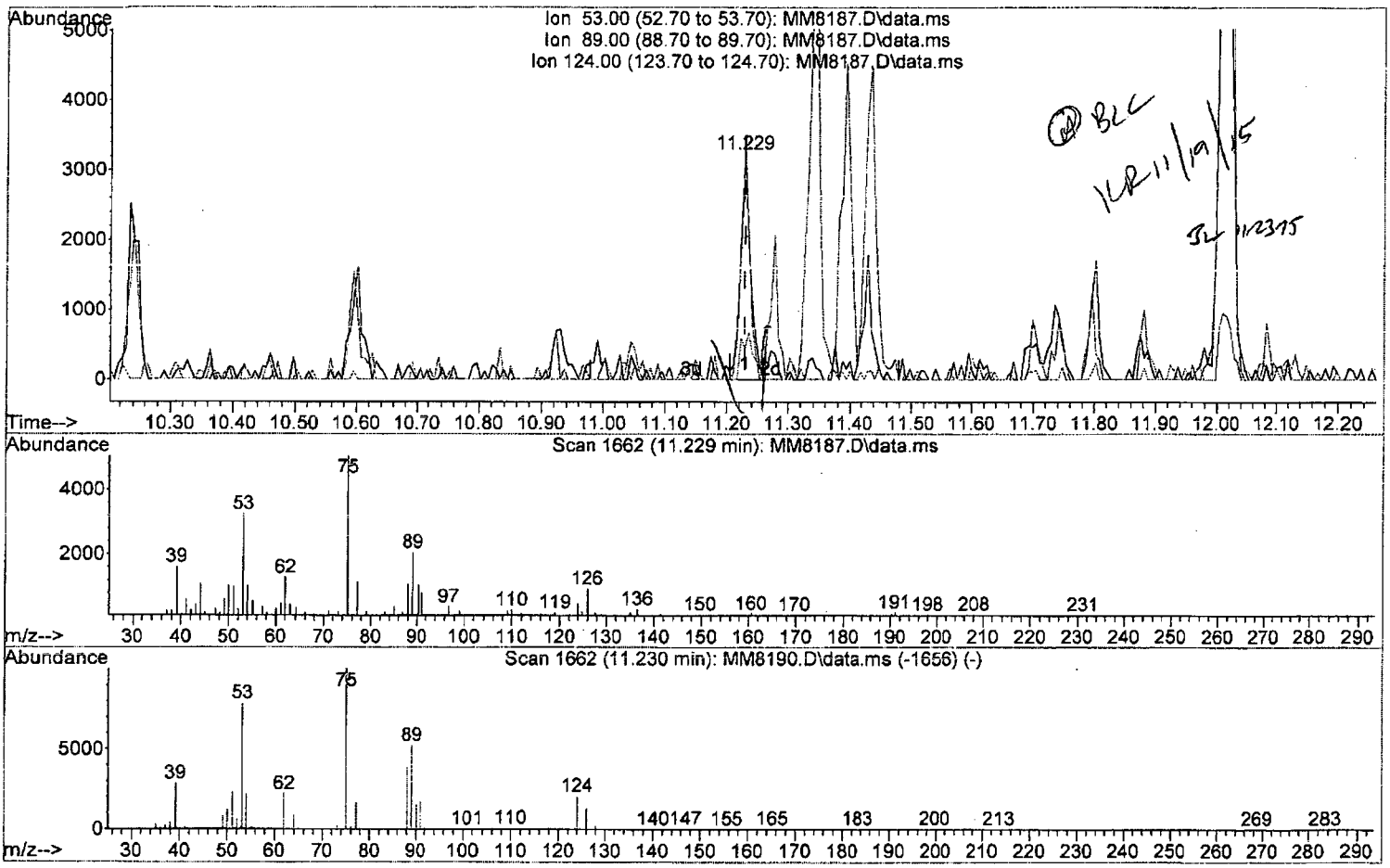
Ion	Exp%	Act%
53.00	100	100
89.00	66.30	63.03
124.00	26.20	13.95
0.00	0.00	0.00

W111815.M Thu Nov 19 10:30:12 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(91) trans-1,4-Dichloro-2-Butene

11.229min (-0.000) 1.95 ppb m

response 3610

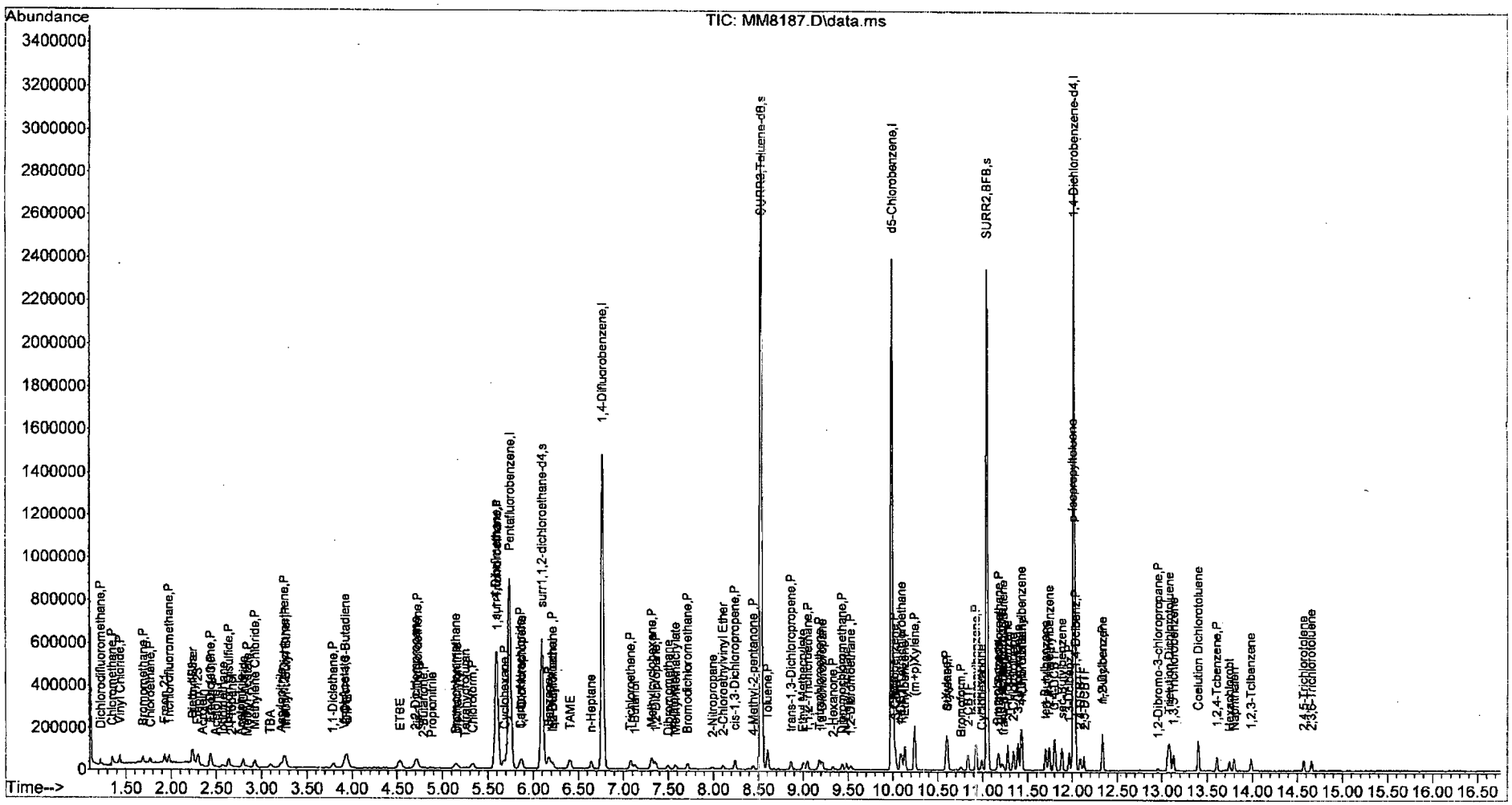
Ion	Exp%	Act%
53.00	100	100
89.00	66.30	63.03
124.00	26.20	13.95
0.00	0.00	0.00

W111815.M Thu Nov 19 10:30:20 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 10:30:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 10:31:06 2015 Page: 4

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 10:40:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	754433	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1237078	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1147756	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	571375	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	465568	69.99	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 139.98%#				
48) surr1,1,2-dichloroetha...	6.096	65	516480	70.95	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 141.90%#				
65) SURR3,Toluene-d8	8.529	98	1977109	70.03	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 140.06%#				
70) SURR2,BFB	11.047	95	734666	69.49	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 138.98%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	46335	4.34	ppb		100
3) Chloromethane	1.347	50	58675	4.62	ppb		96
4) Vinyl Chloride	1.433	62	56117	4.75	ppb		96
5) Bromomethane	1.689	94	27426	4.69	ppb		93
6) Chloroethane	1.768	64	31762	4.81	ppb		98
7) Freon 21	1.927	67	62264	4.89	ppb		100
8) Trichlorofluoromethane	1.975	101	45134	4.90	ppb		98
9) Diethyl Ether	2.231	59	30200	5.23	ppb		93
10) Freon 123a	2.237	67	43059	5.16	ppb		93
11) Freon 123	2.292	83	46844	4.85	ppb		93
12) Acrolein	2.341	56	6982	10.86	ppb		82
13) 1,1-Diclethene	2.433	96	31837	4.93	ppb		93
14) Freon 113	2.445	101	28536	4.97	ppb		95
15) Acetone	2.487	43	9097	5.69	ppb		87
16) 2-Propanol	2.646	45	31774	104.11	ppb		96
17) Iodomethane	2.573	142	31152m	4.40	ppb		
18) Carbon Disulfide	2.634	76	111102	5.27	ppb		100
19) Acetonitrile	2.768	40	6669	29.90	ppb	#	82
20) Allyl Chloride	2.798	76	17955	5.11	ppb		96
21) Methyl Acetate	2.829	43	18940	5.05	ppb		93
22) Methylene Chloride	2.926	84	35558	4.88	ppb		95
23) TBA	3.091	59	50447	101.85	ppb		97
24) Acrylonitrile	3.213	53	44486	24.26	ppb		92
25) Methyl-t-Butyl Ether	3.262	73	92527	5.27	ppb		96
26) trans-1,2-Dichloroethene	3.249	96	33625	4.98	ppb		95
28) 1,1-Diclethane	3.792	63	60318	4.99	ppb		99
29) Vinyl Acetate	3.902	86	7875	6.04	ppb	#	28
30) DIPE	3.951	45	125231	5.32	ppb		98
31) 2-Chloro-1,3-Butadiene	3.932	53	63446	5.23	ppb		88
32) ETBE	4.530	59	117155	5.29	ppb		99
33) 2,2-Dichloropropane	4.713	77	47414	4.90	ppb		95
34) cis-1,2-Dichloroethene	4.719	96	38898	5.17	ppb		86
35) 2-Butanone	4.786	43	10539m	4.73	ppb		
36) Propionitrile	4.871	54	15565	23.14	ppb		83

KR 11/19/15

W111815.M Thu Nov 19 10:40:33 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 10:40:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.152	130	19776	5.06	ppb		91
38) Methacrylonitrile	5.164	67	11156	4.86	ppb	#	66
39) Tetrahydrofuran	5.255	42	7528	5.12	ppb		77
40) Chloroform	5.334	83	59895	5.10	ppb		96
41) 1,1,1-Trichloroethane	5.590	97	46419	5.03	ppb		93
42) TAME	6.401	73	94514	5.02	ppb		95
44) Cyclohexane	5.676	41	33300	4.95	ppb		99
46) Carbontetrachloride	5.859	121	12269	5.14	ppb		93
47) 1,1-Dichloropropene	5.871	75	43084	4.92	ppb		99
49) Benzene	6.170	78	139872	5.14	ppb		92
50) 1,2-Dichloroethane	6.212	62	39424	5.65	ppb		98
51) Iso-Butyl Alcohol	6.206	43	23251	101.88	ppb		98
52) n-Heptane	6.651	43	38767	5.17	ppb		94
53) 1-Butanol	7.121	56	34910	244.63	ppb		100
54) Trichloroethene	7.084	130	35311	5.10	ppb		89
55) Methylcyclohexane	7.310	55	42151	5.13	ppb		95
56) 1,2-Diclpropane	7.358	63	33071	4.90	ppb		96
57) Dibromomethane	7.499	93	15706	4.73	ppb		93
58) 1,4-Dioxane	7.553	88	5113m	101.90	ppb		
59) Methyl Methacrylate	7.578	69	19364	4.96	ppb		90
60) Bromodichloromethane	7.712	83	40787	4.93	ppb		96
61) 2-Nitropropane	7.992	41	13782	11.22	ppb	#	78
62) 2-Chloroethylvinyl Ether	8.108	63	19291	5.18	ppb		88
63) cis-1,3-Dichloropropene	8.242	75	57442	5.18	ppb		96
64) 4-Methyl-2-pentanone	8.444	43	24764	5.02	ppb		97
66) Toluene	8.602	91	151507	5.37	ppb		96
67) trans-1,3-Dichloropropene	8.864	75	46539	5.28	ppb		96
68) Ethyl Methacrylate	8.998	69	39319	5.04	ppb		98
69) 1,1,2-Trichloroethane	9.053	97	25521	5.35	ppb		87
72) Tetrachloroethene	9.181	164	23491	4.93	ppb	#	82
73) 2-Hexanone	9.334	43	17893	5.09	ppb		92
74) 1,3-Dichloropropane	9.212	76	45730	5.24	ppb		90
75) Dibromochloromethane	9.437	129	27530	5.07	ppb		96
76) N-Butyl Acetate	9.480	43	40826	4.89	ppb		94
77) 1,2-Dibromoethane	9.535	107	24026	5.17	ppb		90
78) Chlorobenzene	10.016	112	88016	5.18	ppb		97
79) 3-CBTF	10.029	180	42429	5.04	ppb		96
80) 4-CBTF	10.084	180	40057	5.11	ppb		95
81) 1,1,1,2-Tetrachloroethane	10.102	131	31987	5.45	ppb		90
82) Ethylbenzene	10.132	106	49311	5.13	ppb	#	87
83) (m+p)Xylene	10.242	106	123837	10.43	ppb		89
84) o-Xylene	10.596	106	65348	5.38	ppb		98
85) Styrene	10.608	104	101000	5.10	ppb		95
87) Bromoform	10.760	173	15710	4.84	ppb		86
88) 2-CBTF	10.833	180	43223	4.99	ppb		97
89) Isopropylbenzene	10.925	105	155103	5.22	ppb		97
90) Cyclohexanone	10.992	55	40168	93.25	ppb		97
91) trans-1,4-Dichloro-2-B...	11.230	53	7834	4.20	ppb		89
92) 1,1,2,2-Tetrachloroethane	11.181	83	28831	4.80	ppb		86
93) Bromobenzene	11.169	156	32718	4.87	ppb		94
94) 1,2,3-Trichloropropane	11.211	110	8802	4.98	ppb		96

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 10:40:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

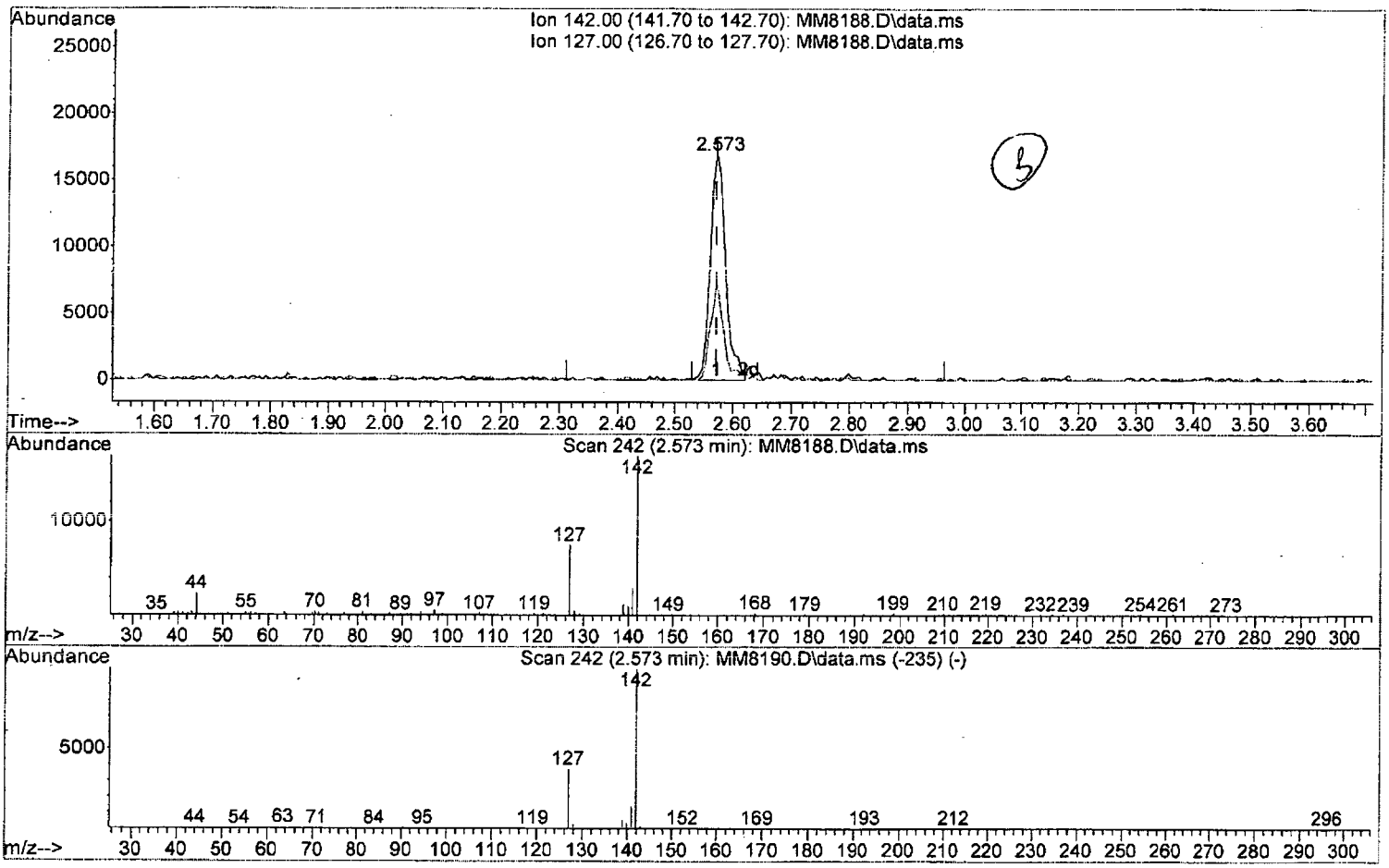
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
95)	n-Propylbenzene	11.278	91	175450	5.12	ppb		99
96)	2-Chlorotoluene	11.339	91	102448	5.10	ppb		99
97)	3-Chlorotoluene	11.394	91	110461	5.25	ppb		99
98)	4-Chlorotoluene	11.437	91	116003	5.12	ppb		96
99)	1,3,5-Trimethylbenzene	11.431	105	119820	5.33	ppb		92
100)	tert-Butylbenzene	11.699	119	103689	5.17	ppb		97
101)	1,2,4-Trimethylbenzene	11.736	105	123489	5.12	ppb		94
102)	3,4-DCBTF	11.797	214	27946	4.82	ppb	#	88
103)	sec-Butylbenzene	11.882	105	145596	5.19	ppb		98
104)	p-Isopropyltoluene	12.004	119	111489	5.14	ppb		99
105)	1,3-Dclbenz	11.961	146	64008	4.92	ppb		96
106)	1,4-Dclbenz	12.034	146	62260	5.10	ppb		99
107)	2,4-DCBTF	12.089	214	25156	4.97	ppb		96
108)	2,5-DCBTF	12.126	214	28728	5.01	ppb		96
109)	n-Butylbenzene	12.333	91	108028	5.26	ppb		94
110)	1,2-Dclbenz	12.339	146	59284	4.95	ppb		94
111)	1,2-Dibromo-3-chloropr...	12.961	157	5419	4.59	ppb		91
112)	Trielution Dichlorotol...	13.071	125	159023	15.73	ppb		98
113)	1,3,5 Trichlorobenzene	13.126	180	38744	4.81	ppb		87
114)	Coelution Dichlorotoluene	13.400	125	114845	10.75	ppb	#	91
115)	1,2,4-Tcbenzene	13.607	180	36182	4.90	ppb		95
116)	Hexachlorobt	13.747	225	14247	4.52	ppb		94
117)	Naphthalen	13.802	128	75597	4.93	ppb		96
118)	1,2,3-Tclbenzene	13.985	180	31980	5.20	ppb		94
119)	2,4,5-Trichlorotolene	14.570	159	23619	5.06	ppb		94
120)	2,3,6-Trichlorotoluene	14.656	159	20789m	5.04	ppb		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(17) Iodomethane

2.573min (+0.001) 4.27 ppb

response 30237

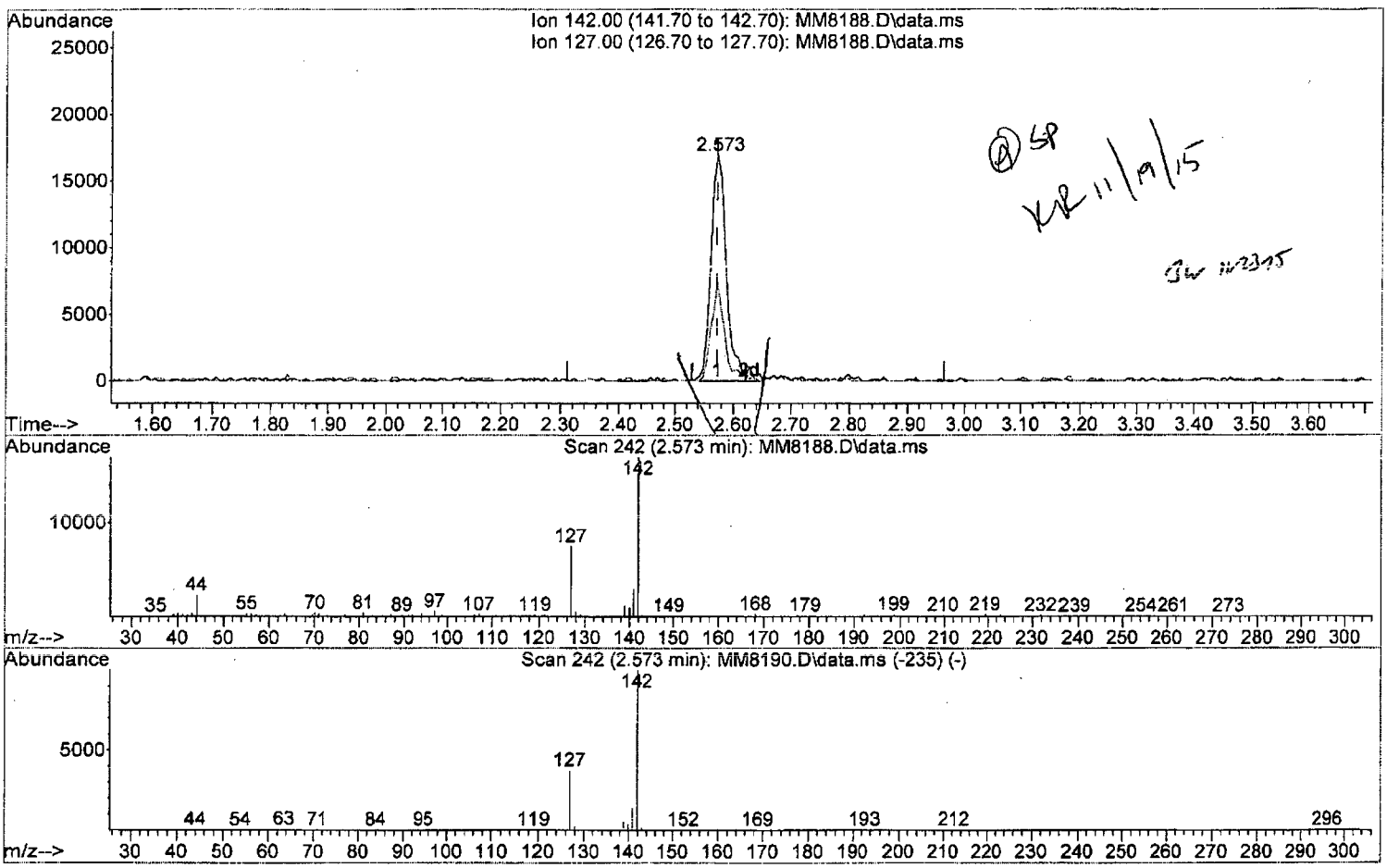
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	44.19
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:37:19 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(17) Iodomethane

2.573min (+0.001) 4.40 ppb m

response 31152

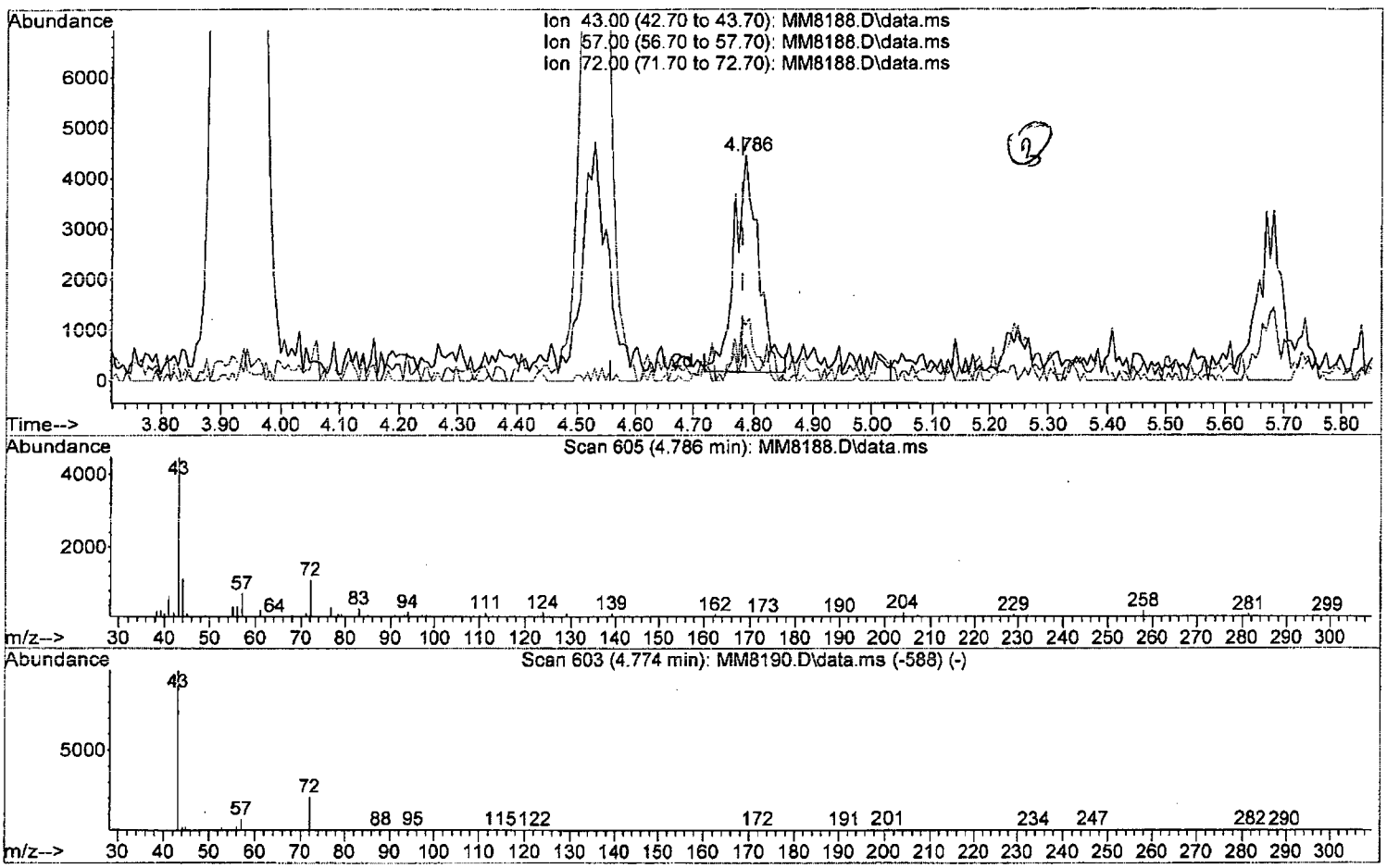
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	44.19
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:37:28 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(35) 2-Butanone (P)

4.786min (+0.006) 5.40 ppb

response 12026

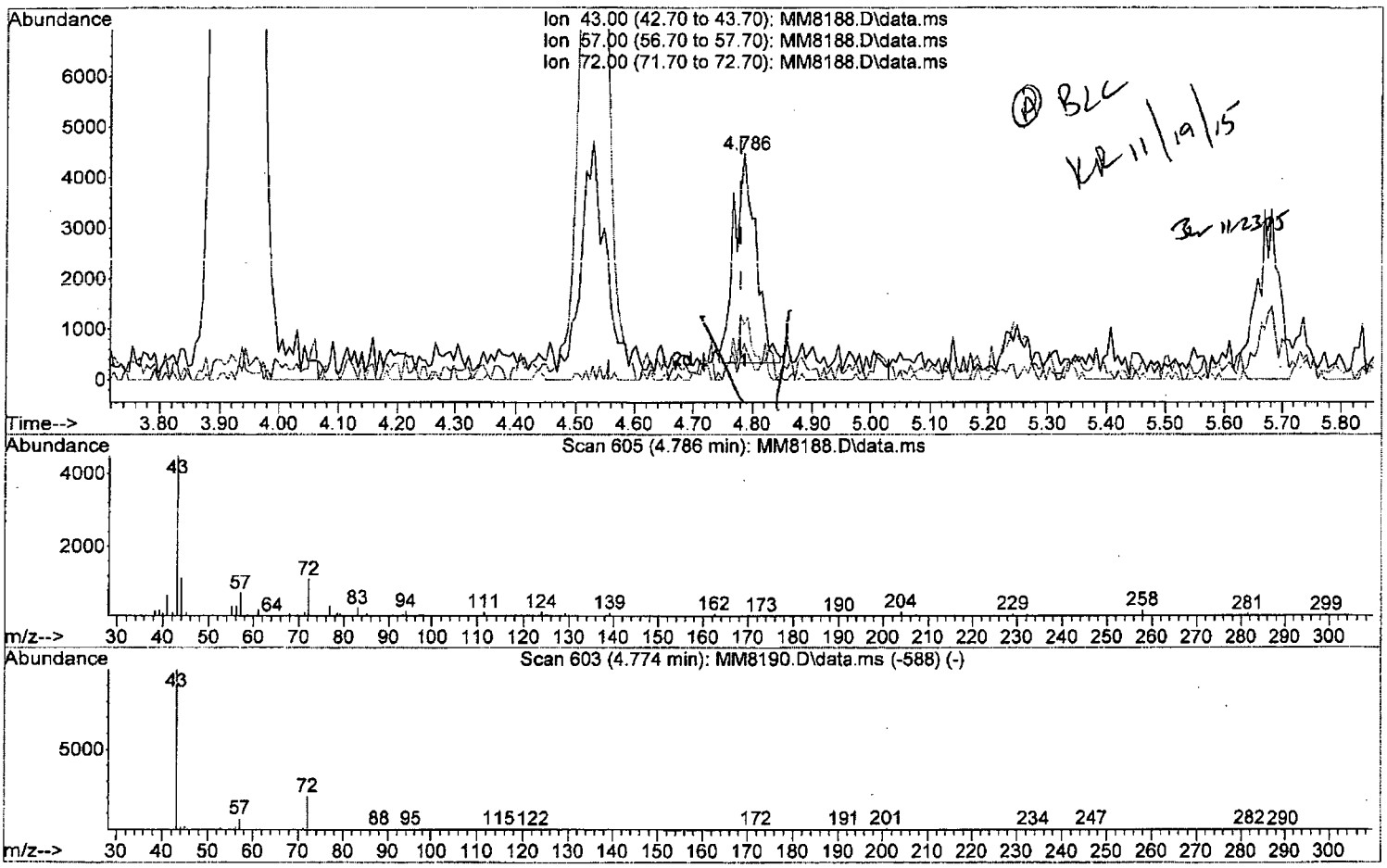
Ion	Exp%	Act%
43.00	100	100
57.00	7.50	16.19
72.00	21.20	24.53
0.00	0.00	0.00

W111815.M Thu Nov 19 10:38:15 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(35) 2-Butanone (P)

4.786min (+0.006) 4.73 ppb m

response 10539

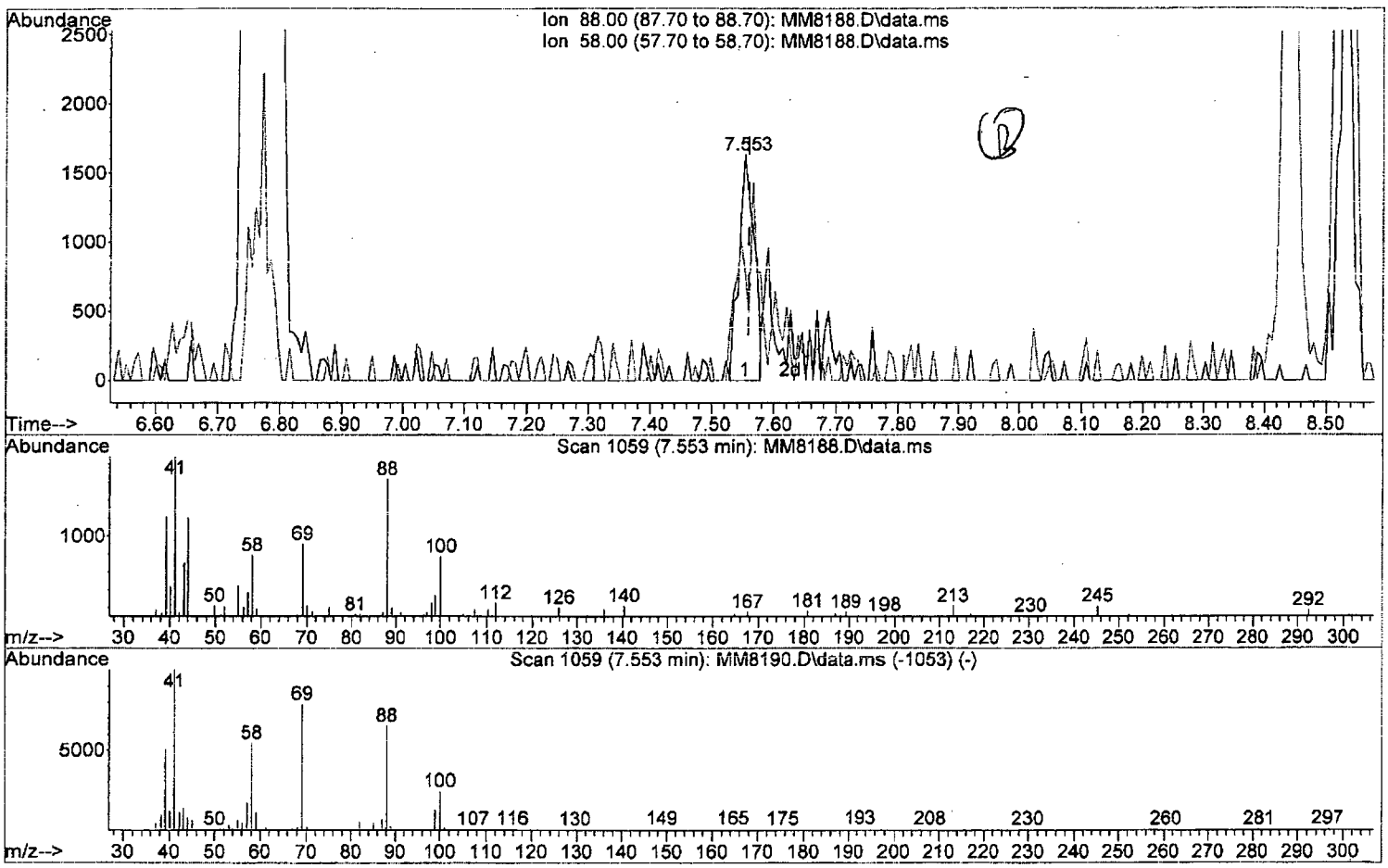
Ion	Exp%	Act%
43.00	100	100
57.00	7.50	16.19
72.00	21.20	24.53
0.00	0.00	0.00

W111815.M Thu Nov 19 10:38:32 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 55.24 ppb

response 2772

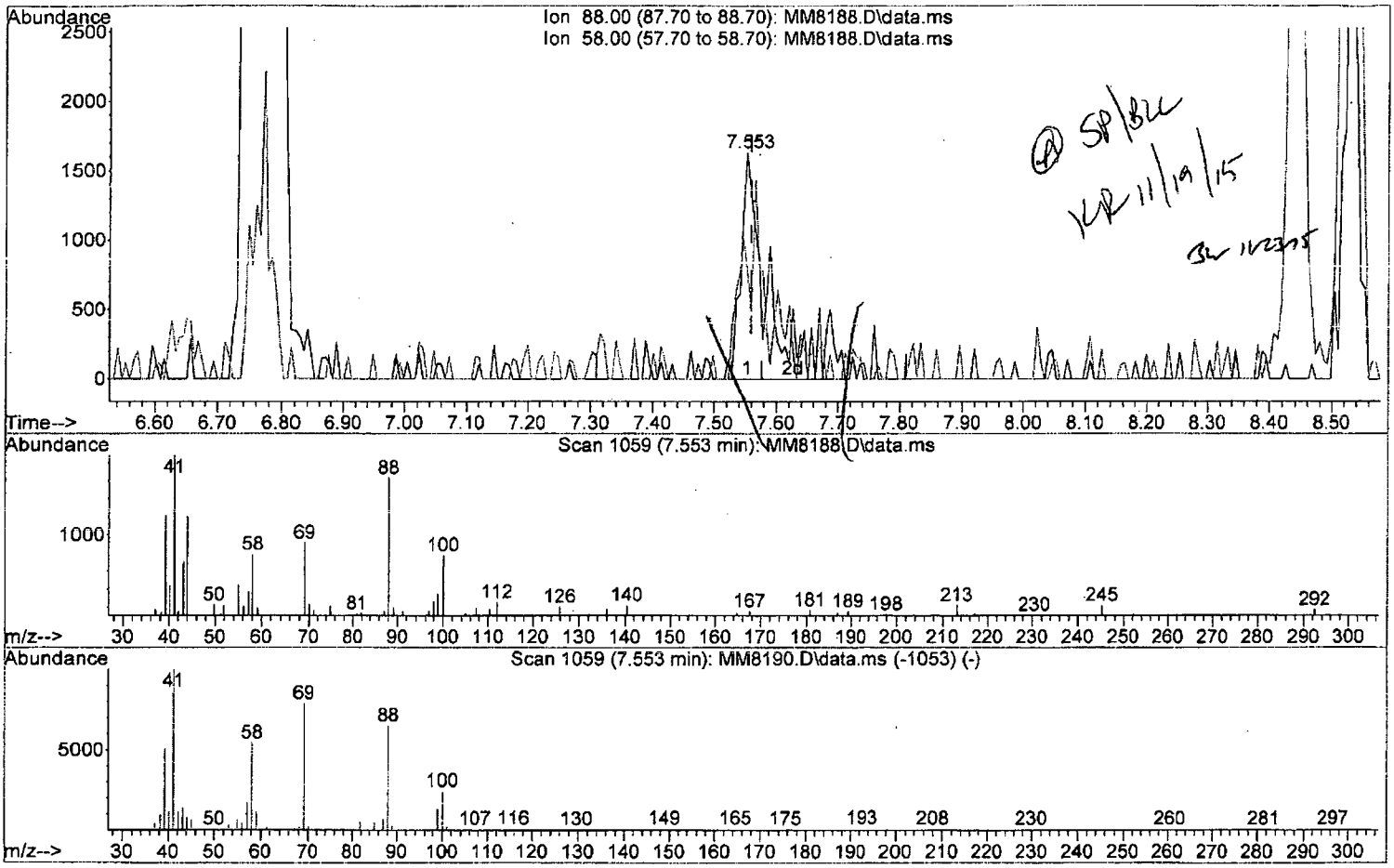
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	47.98#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:39:03 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 101.90 ppb m

response 5113

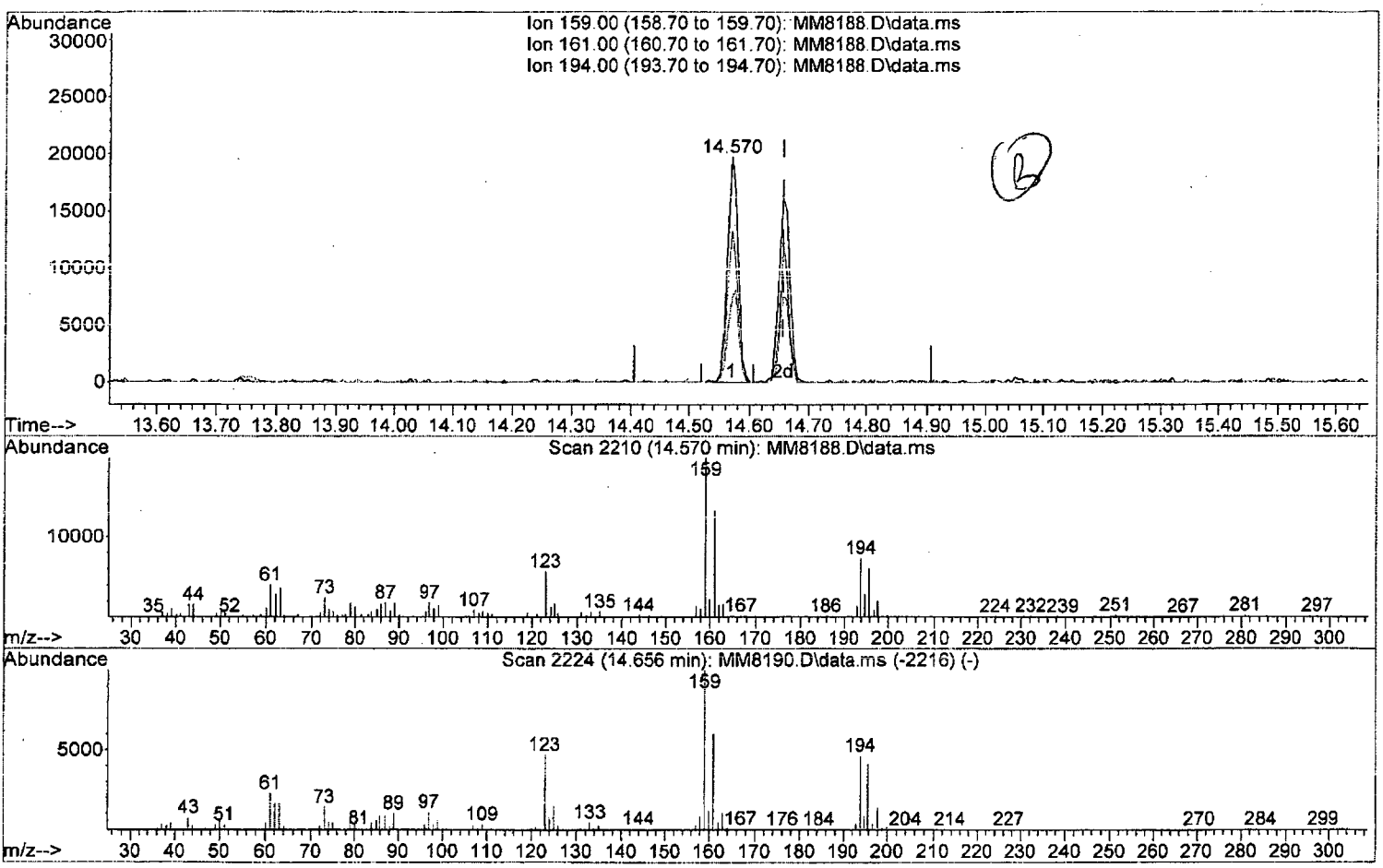
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	47.98#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:39:13 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(120) 2,3,6-Trichlorotoluene

14.570min (-0.085) 5.73 ppb

response 23619

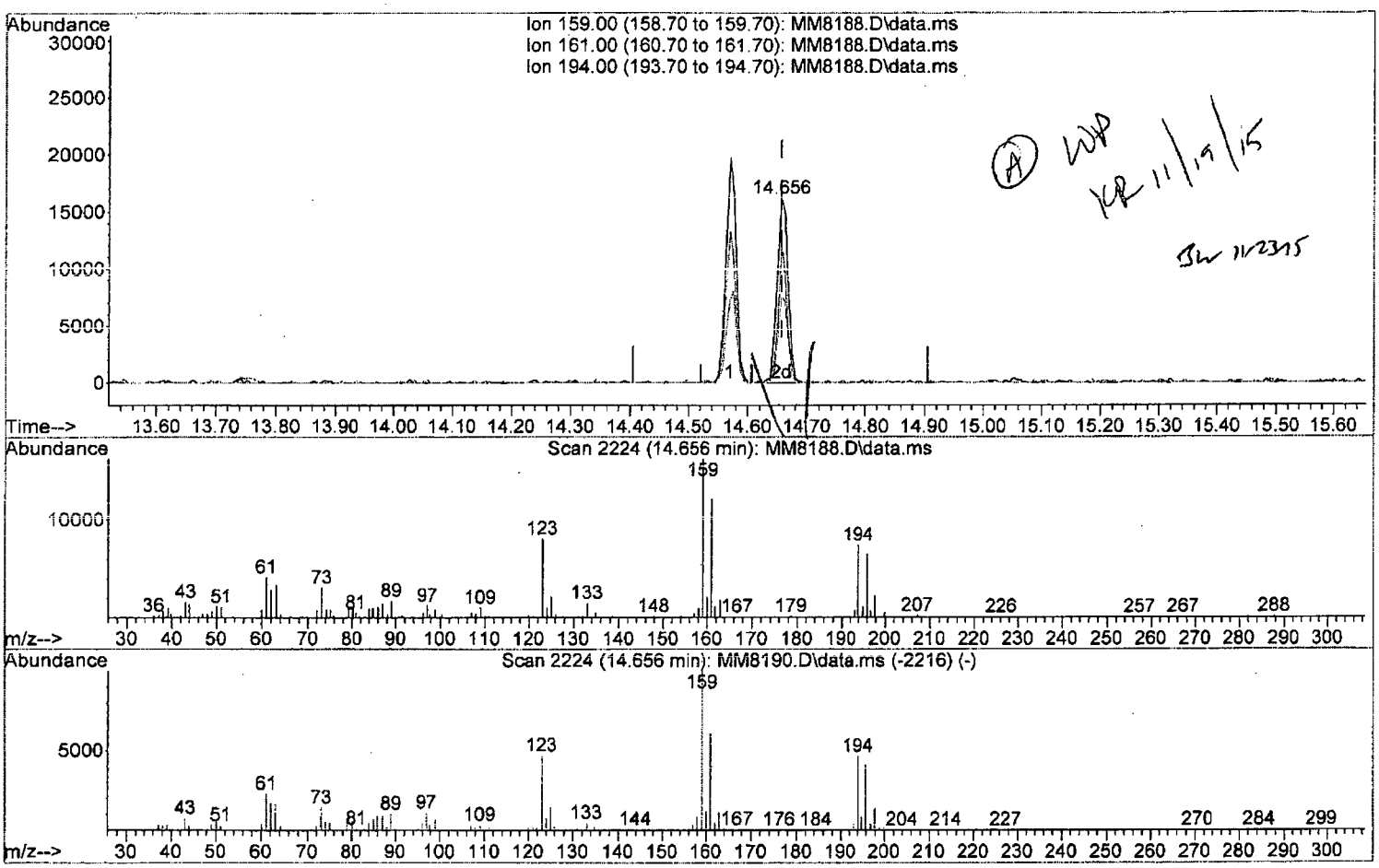
Ion	Exp%	Act%
159.00	100	100
161.00	60.80	67.25
194.00	46.40	37.24
0.00	0.00	0.00

W111815.M Thu Nov 19 10:39:52 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(120) 2,3,6-Trichlorotoluene

14.656min (-0.000) 5.04 ppb m

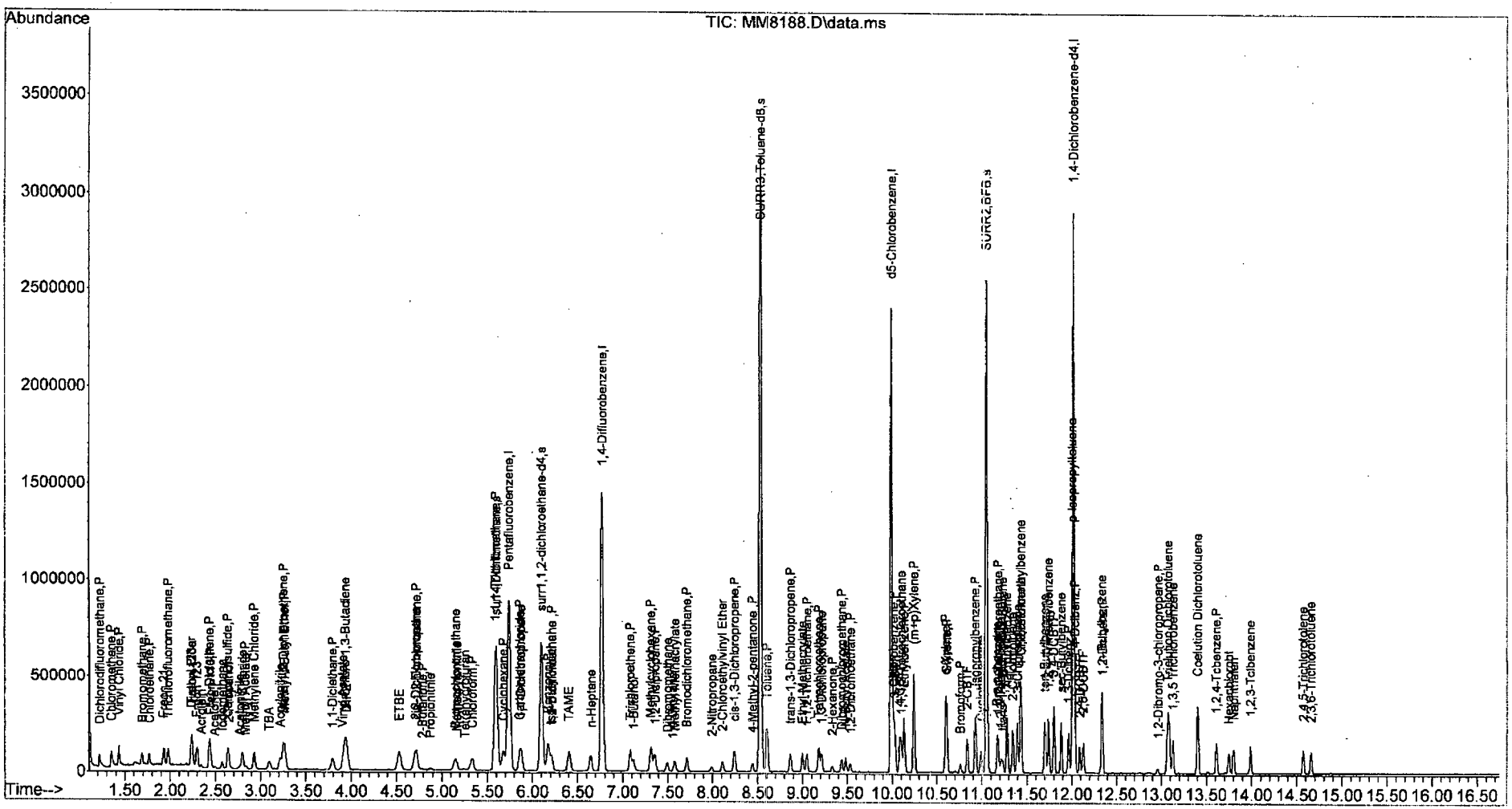
response 20789

Ion	Exp%	Act%
159.00	100	100
161.00	60.80	74.81#
194.00	46.40	45.95
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 10:40:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 10:40:37 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 10:51:14 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	746894	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1235612	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1138984	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	553172	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	625642	102.90	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 205.80%#				
48) surr1,1,2-dichloroetha...	6.096	65	682863	100.35	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 200.70%#				
65) SURR3,Toluene-d8	8.529	98	2568861	101.89	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 203.78%#				
70) SURR2,BFB	11.047	95	952681	97.85	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 195.70%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	235839	22.29	ppb		97
3) Chloromethane	1.347	50	271342	21.60	ppb		97
4) Vinyl Chloride	1.433	62	257391	22.00	ppb		98
5) Bromomethane	1.689	94	108855	18.79	ppb		94
6) Chloroethane	1.768	64	133130	20.35	ppb		99
7) Freon 21	1.927	67	248468	19.71	ppb		97
8) Trichlorofluoromethane	1.975	101	200987	22.02	ppb		96
9) Diethyl Ether	2.231	59	119049	20.82	ppb		97
10) Freon 123a	2.237	67	156125	18.91	ppb		97
11) Freon 123	2.298	83	175618	18.37	ppb		93
12) Acrolein	2.341	56	23880	37.52	ppb		98
13) 1,1-Diclethene	2.433	96	128509	20.09	ppb		96
14) Freon 113	2.445	101	117743	20.71	ppb		91
15) Acetone	2.487	43	30654m	19.36	ppb		
16) 2-Propanol	2.646	45	110266	364.95	ppb		95
17) Iodomethane	2.573	142	145090	20.69	ppb		98
18) Carbon Disulfide	2.634	76	409570	19.63	ppb		99
19) Acetonitrile	2.756	40	21431	97.04	ppb		88
20) Allyl Chloride	2.798	76	73906	21.25	ppb		98
21) Methyl Acetate	2.829	43	65421	17.63	ppb		94
22) Methylene Chloride	2.926	84	141816	19.66	ppb		94
23) TBA	3.091	59	190356	388.20	ppb		100
24) Acrylonitrile	3.207	53	177703	97.88	ppb		98
25) Methyl-t-Butyl Ether	3.262	73	353828	20.36	ppb		99
26) trans-1,2-Dichloroethene	3.249	96	140413	20.99	ppb		89
28) 1,1-Diclethane	3.792	63	249997	20.89	ppb		93
29) Vinyl Acetate	3.902	86	23791	18.43	ppb	#	93
30) DIPE	3.944	45	456019	19.55	ppb		100
31) 2-Chloro-1,3-Butadiene	3.926	53	229273	19.10	ppb		97
32) ETBE	4.524	59	420713	19.19	ppb		97
33) 2,2-Dichloropropane	4.707	77	201674	21.07	ppb		96
34) cis-1,2-Dichloroethene	4.719	96	147787	19.84	ppb		93
35) 2-Butanone	4.780	43	38879	17.62	ppb		88
36) Propionitrile	4.865	54	63104	94.74	ppb		100

JCR 11/19/15

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 10:51:14 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.139	130	75893	19.61	ppb		98
38) Methacrylonitrile	5.158	67	41997	18.49	ppb		87
39) Tetrahydrofuran	5.243	42	26241	18.02	ppb		95
40) Chloroform	5.328	83	228784	19.67	ppb		99
41) 1,1,1-Trichloroethane	5.603	97	188877	20.68	ppb		96
42) TAME	6.407	73	354005	19.01	ppb		97
44) Cyclohexane	5.676	41	128800	19.16	ppb		92
46) Carbontetrachloride	5.859	121	48489	20.34	ppb		99
47) 1,1-Dichloropropene	5.871	75	180256	20.60	ppb		98
49) Benzene	6.176	78	569231	20.93	ppb		97
50) 1,2-Dichloroethane	6.212	62	147678	21.18	ppb		98
51) Iso-Butyl Alcohol	6.200	43	87699	384.74	ppb		86
52) n-Heptane	6.645	43	156368	20.90	ppb		95
53) 1-Butanol	7.115	56	130164	913.20	ppb		98
54) Trichloroethene	7.084	130	141316	20.45	ppb		95
55) Methylcyclohexane	7.310	55	157368	19.18	ppb		92
56) 1,2-Diclpropane	7.358	63	141654	21.02	ppb		97
57) Dibromomethane	7.486	93	64616	19.48	ppb		97
58) 1,4-Dioxane	7.560	88	19220m	383.50	ppb		
59) Methyl Methacrylate	7.578	69	76126	19.52	ppb		93
60) Bromodichloromethane	7.712	83	168733	20.42	ppb		98
61) 2-Nitropropane	7.986	41	47739	38.93	ppb		92
62) 2-Chloroethylvinyl Ether	8.108	63	68173	18.34	ppb		98
63) cis-1,3-Dichloropropene	8.242	75	233657	21.10	ppb		98
64) 4-Methyl-2-pentanone	8.444	43	97024	19.69	ppb		98
66) Toluene	8.602	91	607465	21.57	ppb		98
67) trans-1,3-Dichloropropene	8.864	75	184608	20.99	ppb		97
68) Ethyl Methacrylate	8.998	69	160688	20.63	ppb		99
69) 1,1,2-Trichloroethane	9.047	97	100108	21.02	ppb		99
72) Tetrachloroethene	9.181	164	99831	21.13	ppb		91
73) 2-Hexanone	9.328	43	63376	18.18	ppb		98
74) 1,3-Dichloropropane	9.212	76	179404	20.72	ppb		97
75) Dibromochloromethane	9.437	129	108632	20.16	ppb		97
76) N-Butyl Acetate	9.480	43	164957	19.91	ppb		98
77) 1,2-Dibromoethane	9.529	107	95116	20.61	ppb		98
78) Chlorobenzene	10.016	112	354056	21.02	ppb		98
79) 3-CBTF	10.029	180	166251	19.92	ppb		99
80) 4-CBTF	10.084	180	153182	19.70	ppb		98
81) 1,1,1,2-Tetrachloroethane	10.102	131	119487	20.52	ppb		94
82) Ethylbenzene	10.132	106	201581	21.12	ppb		96
83) (m+p)Xylene	10.242	106	498501	42.32	ppb		96
84) o-Xylene	10.596	106	254290	21.08	ppb		94
85) Styrene	10.608	104	413167	21.02	ppb		98
87) Bromoform	10.760	173	61267	19.50	ppb		94
88) 2-CBTF	10.839	180	168048	20.04	ppb		94
89) Isopropylbenzene	10.925	105	620263	21.56	ppb		98
90) Cyclohexanone	10.986	55	157226	376.99	ppb		99
91) trans-1,4-Dichloro-2-B...	11.230	53	33092	18.32	ppb		93
92) 1,1,2,2-Tetrachloroethane	11.181	83	116208	19.99	ppb		92
93) Bromobenzene	11.175	156	139093	21.37	ppb	#	85
94) 1,2,3-Trichloropropane	11.211	110	30318	17.71	ppb		98

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 10:51:14 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

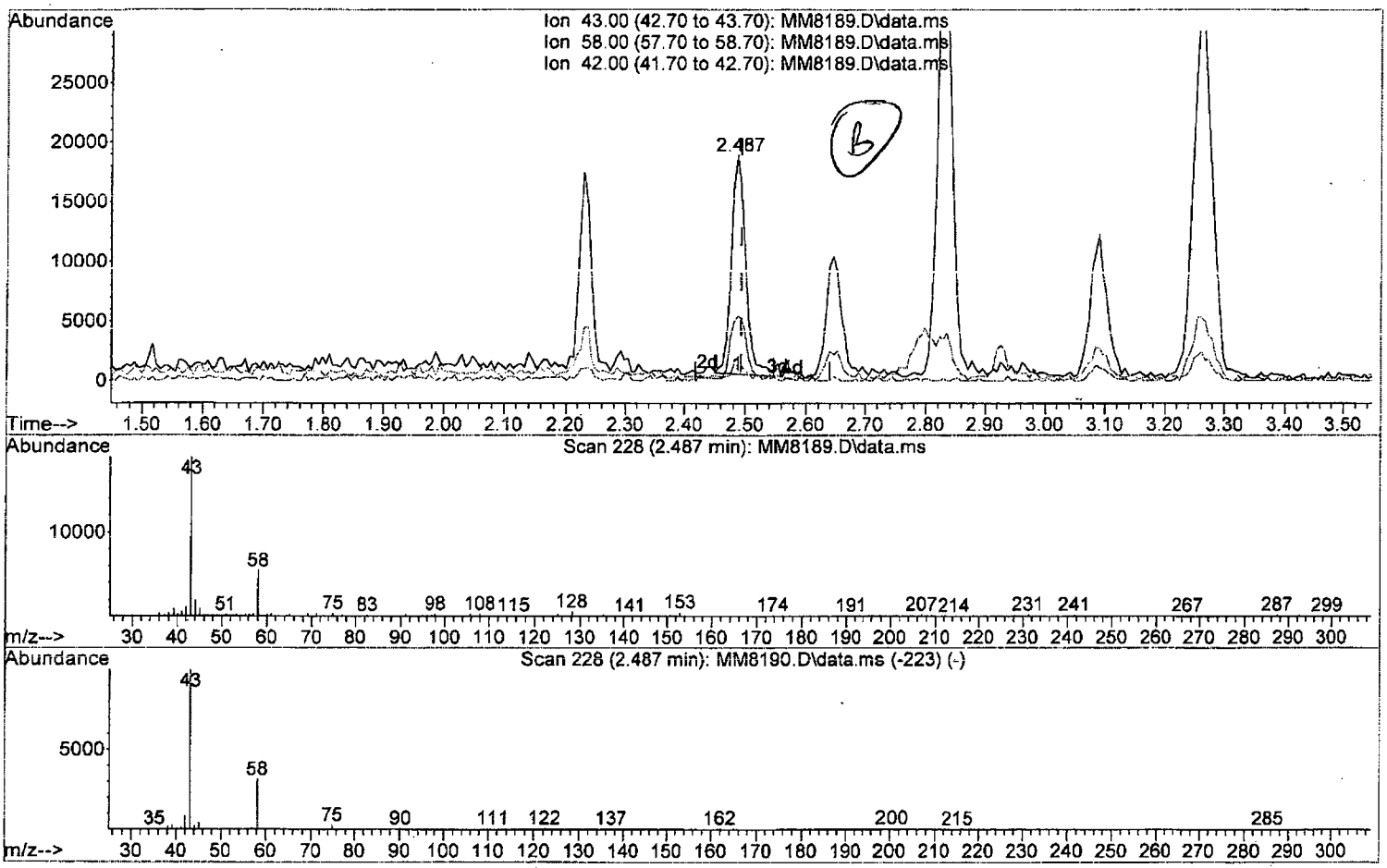
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	736008	22.20	ppb	96
96)	2-Chlorotoluene	11.339	91	425256	21.88	ppb	98
97)	3-Chlorotoluene	11.394	91	424784	20.84	ppb	98
98)	4-Chlorotoluene	11.431	91	471833	21.52	ppb	94
99)	1,3,5-Trimethylbenzene	11.431	105	469663	21.58	ppb	98
100)	tert-Butylbenzene	11.699	119	422608	21.76	ppb	99
101)	1,2,4-Trimethylbenzene	11.736	105	508453	21.77	ppb	96
102)	3,4-DCBTF	11.797	214	110506	19.67	ppb	99
103)	sec-Butylbenzene	11.882	105	592992	21.82	ppb	98
104)	p-Isopropyltoluene	12.004	119	462544	22.01	ppb	99
105)	1,3-Dclbenz	11.961	146	266226	21.13	ppb	98
106)	1,4-Dclbenz	12.034	146	254619	21.56	ppb	98
107)	2,4-DCBTF	12.089	214	100928	20.59	ppb	94
108)	2,5-DCBTF	12.126	214	110539	19.93	ppb	96
109)	n-Butylbenzene	12.333	91	438516	22.04	ppb	99
110)	1,2-Dclbenz	12.339	146	246674	21.27	ppb	96
111)	1,2-Dibromo-3-chloropr...	12.955	157	22127	19.35	ppb	87
112)	Trielution Dichlorotol...	13.077	125	622015	63.56	ppb	98
113)	1,3,5 Trichlorobenzene	13.126	180	160567	20.60	ppb	95
114)	Coelution Dichlorotoluene	13.400	125	440014	42.55	ppb	99
115)	1,2,4-Tcbenzene	13.607	180	147114	20.56	ppb	98
116)	Hexachlorobt	13.747	225	58439	19.16	ppb	91
117)	Naphthalen	13.796	128	308728	20.81	ppb	99
118)	1,2,3-Tclbenzene	13.985	180	124012	20.84	ppb	98
119)	2,4,5-Trichlorotolene	14.570	159	89484	19.81	ppb	98
120)	2,3,6-Trichlorotoluene	14.656	159	78074	19.55	ppb	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 09:36:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8189.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 18.88 ppb

response 29898

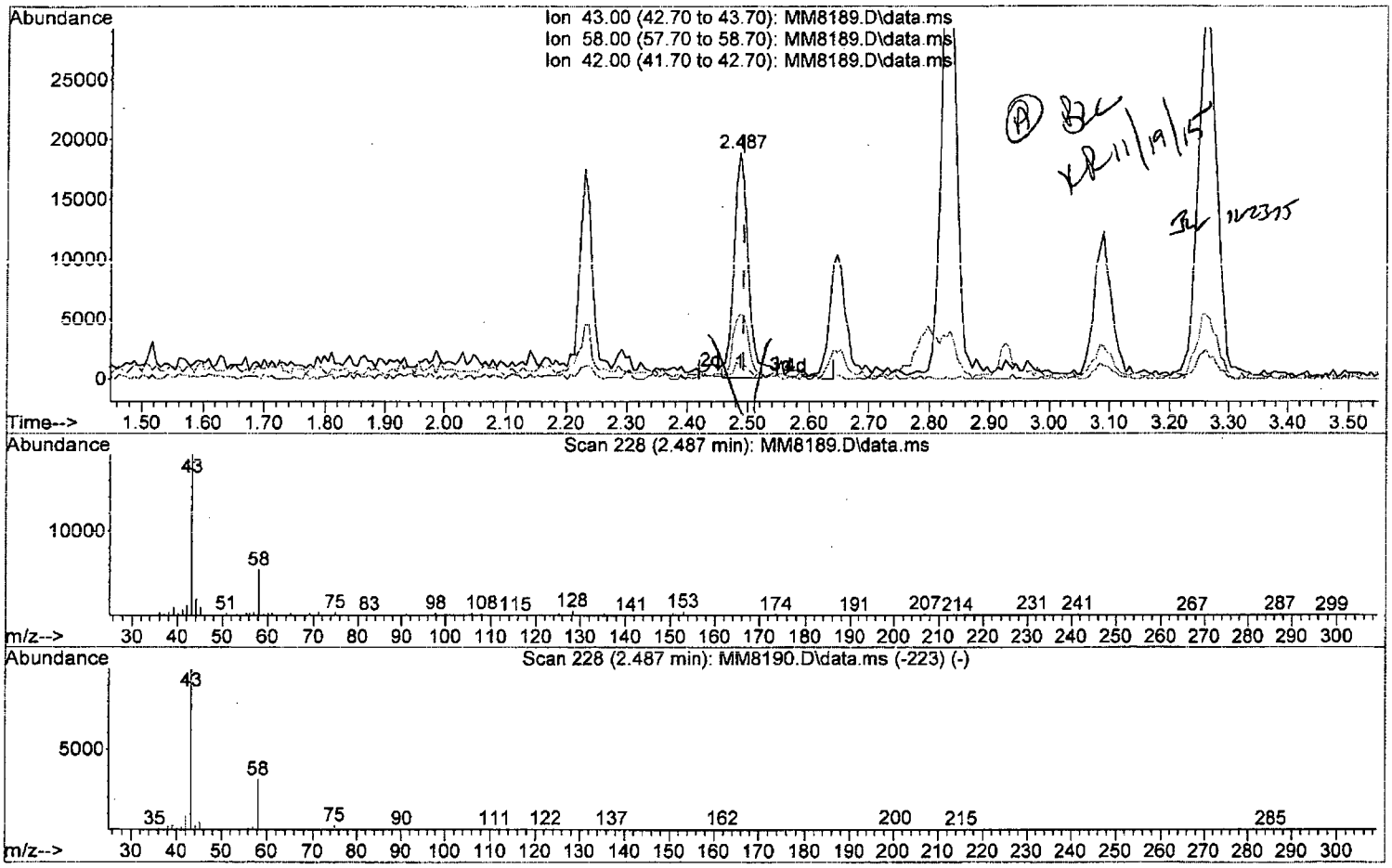
Ion	Exp%	Act%
43.00	100	100
58.00	30.90	28.87
42.00	8.50	6.21
0.00	0.00	0.00

W111815.M Thu Nov 19 10:50:00 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 09:36:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8189.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 19.36 ppb m

response 30654

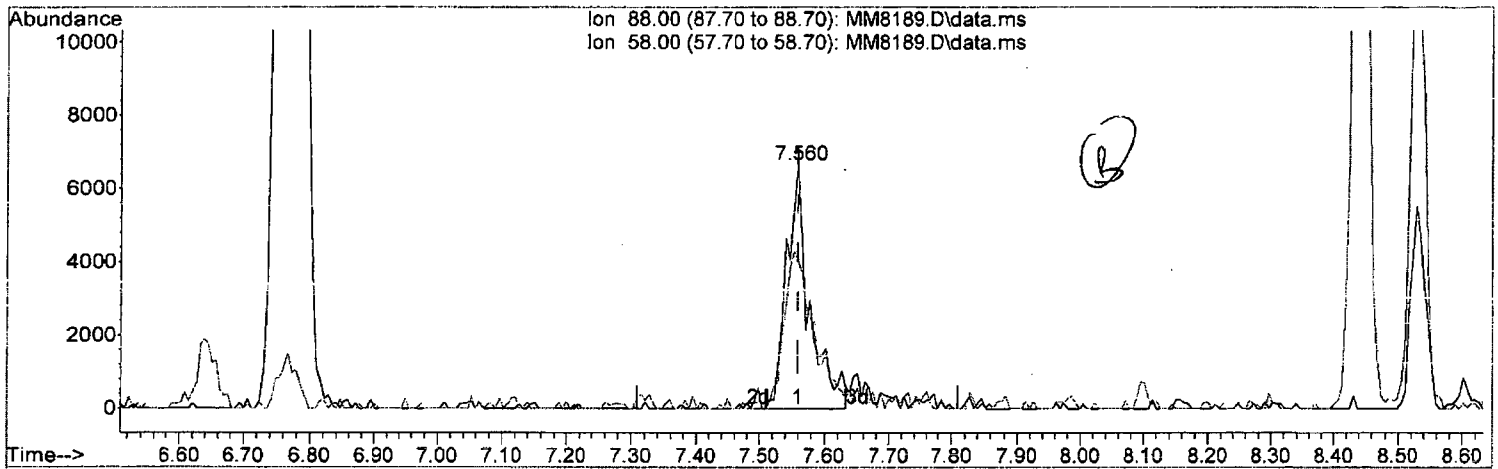
Ion	Exp%	Act%
43.00	100	100
58.00	30.90	28.87
42.00	8.50	6.21
0.00	0.00	0.00

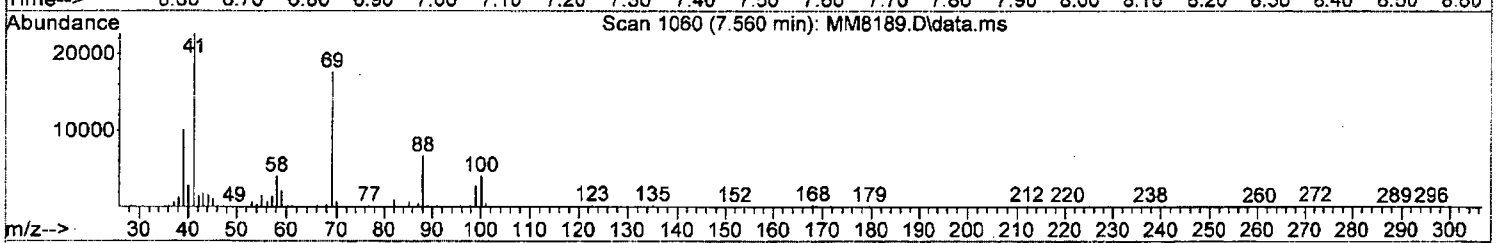
W111815.M Thu Nov 19 10:50:10 2015 Page: 1

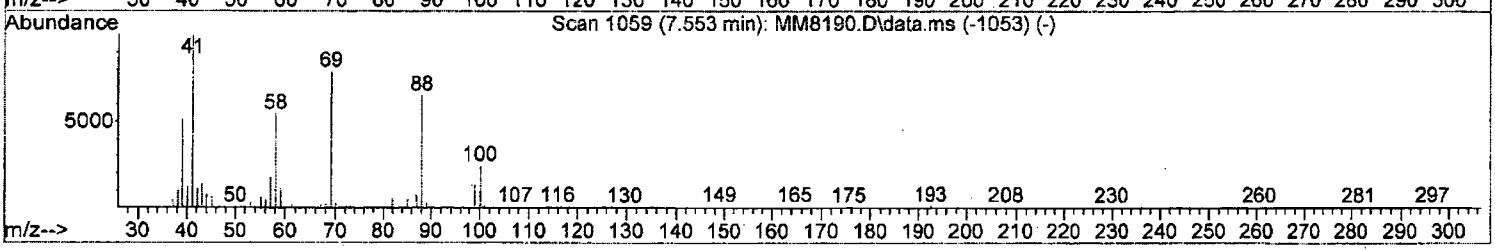
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 09:36:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8189.D\data.ms

(58) 1,4-Dioxane

7.560min (-0.000) 324.02 ppb

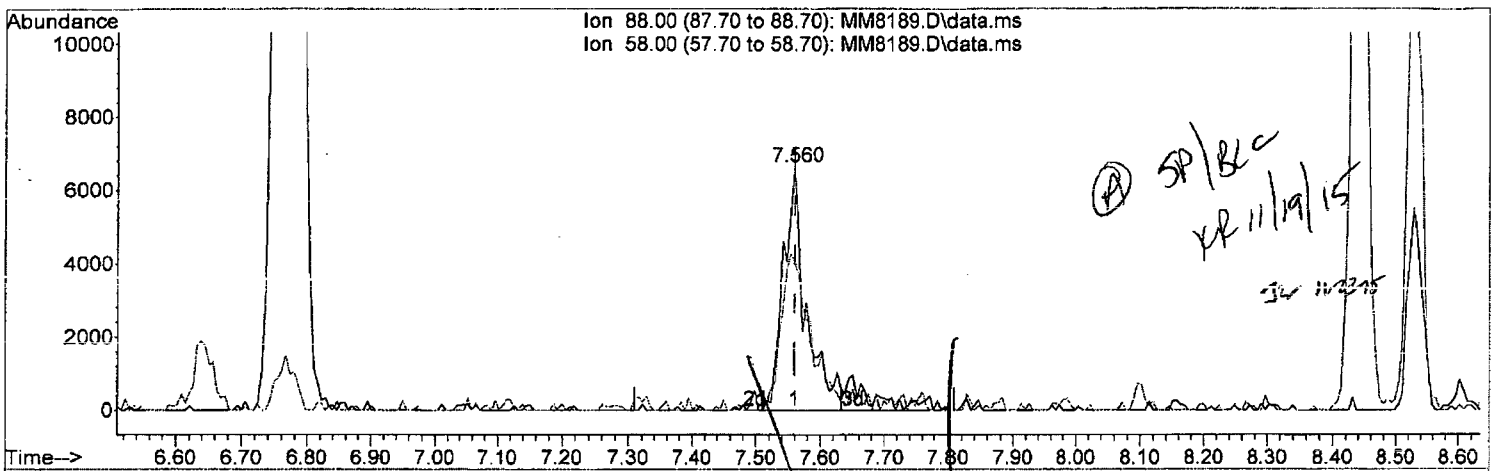
response 16239

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	60.62#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 09:36:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8189.D\data.ms

(58) 1,4-Dioxane

7.560min (-0.000) 383.50 ppb m

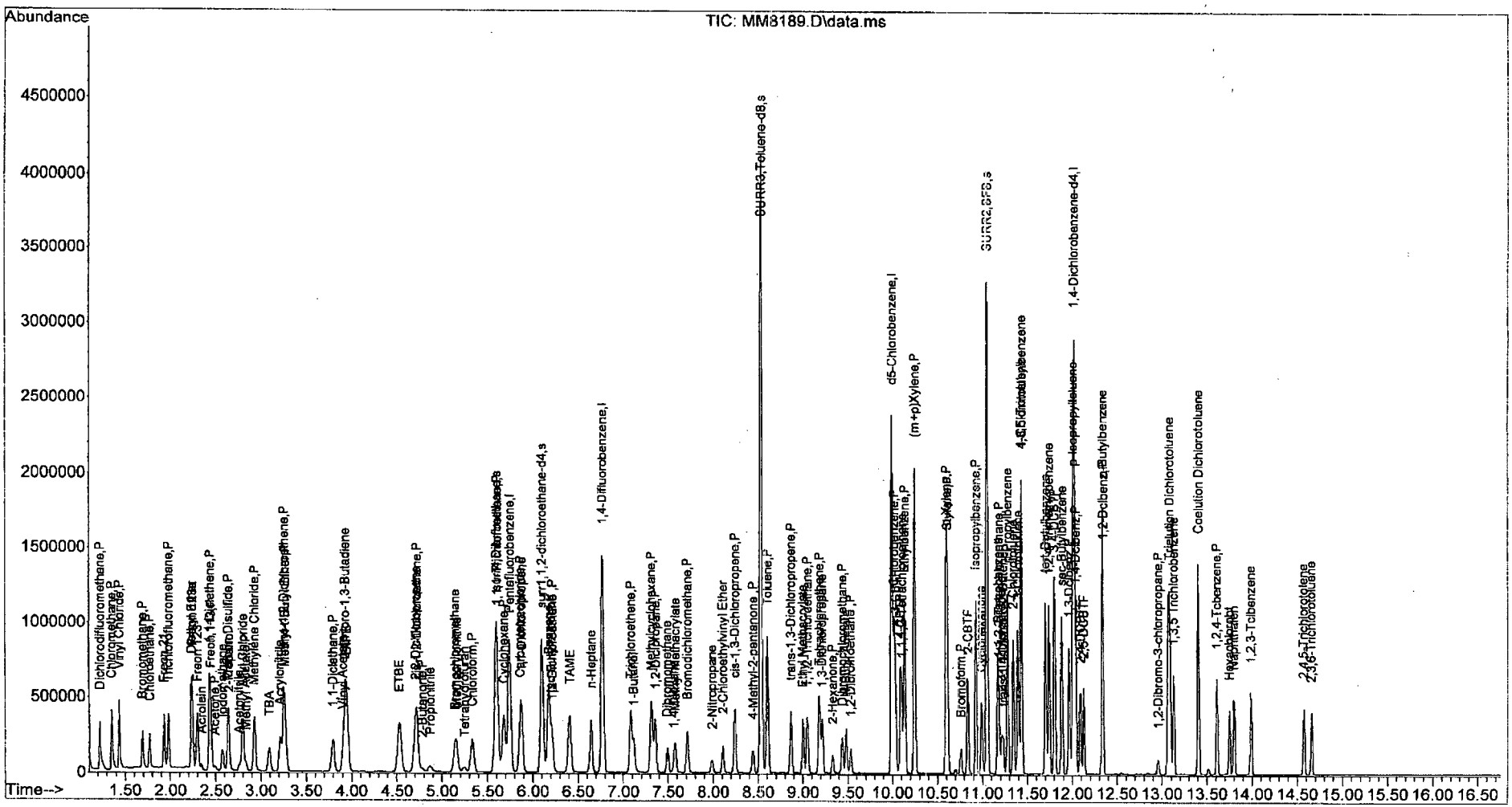
response 19220

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	60.62#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:51:07 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 10:51:14 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 10:51:56 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 10:54:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.743	168	733125	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1221940	50.00	ppb	0.00
71) d5-Chlorobenzene	9.992	117	1154458	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	553929	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.597	113	352544	47.76	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 95.52%			
48) surr1,1,2-dichloroetha...	6.096	65	385774	48.80	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 97.60%			
65) SURR3,Toluene-d8	8.529	98	1554415	48.42	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 96.84%			
70) SURR2,BFB	11.047	95	574554	49.69	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.38%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.219	85	574986	55.36	ppb	100
3) Chloromethane	1.347	50	620223	50.31	ppb	100
4) Vinyl Chloride	1.433	62	589983	51.36	ppb	100
5) Bromomethane	1.689	94	272364	47.91	ppb	100
6) Chloroethane	1.768	64	316235	49.25	ppb	100
7) Freon 21	1.927	67	622497	50.31	ppb	100
8) Trichlorofluoromethane	1.975	101	459849	51.34	ppb	100
9) Diethyl Ether	2.231	59	277168	49.37	ppb	100
10) Freon 123a	2.237	67	393722	48.59	ppb	100
11) Freon 123	2.298	83	447567	47.71	ppb	100
12) Acrolein	2.341	56	57688	92.34	ppb	100
13) 1,1-Dicléthene	2.433	96	304457	48.49	ppb	100
14) Freon 113	2.439	101	273994	49.10	ppb	100
15) Acetone	2.487	43	72992m	46.95	ppb	
16) 2-Propanol	2.646	45	270149	910.90	ppb	100
17) Iodomethane	2.573	142	393581	57.19	ppb	100
18) Carbon Disulfide	2.634	76	1040806	50.82	ppb	100
19) Acetonitrile	2.762	40	46696	215.42	ppb	100
20) Allyl Chloride	2.798	76	171067	50.11	ppb	100
21) Methyl Acetate	2.829	43	165414	45.43	ppb	100
22) Methylene Chloride	2.926	84	335728	47.42	ppb	100
23) TBA	3.085	59	453364	941.93	ppb	100
24) Acrylonitrile	3.207	53	424290	238.10	ppb	100
25) Methyl-t-Butyl Ether	3.262	73	809434	47.45	ppb	100
26) trans-1,2-Dichloroethene	3.249	96	328228	49.99	ppb	100
28) 1,1-Diclethane	3.792	63	585724	49.87	ppb	100
29) Vinyl Acetate	3.902	86	58562	46.23	ppb	100
30) DIPE	3.944	45	1120425	48.94	ppb	100
31) 2-Chloro-1,3-Butadiene	3.926	53	588782	49.97	ppb	100
32) ETBE	4.524	59	1056072	49.08	ppb	100
33) 2,2-Dichloropropane	4.700	77	467328	49.75	ppb	100
34) cis-1,2-Dichloroethene	4.719	96	349816	47.84	ppb	100
35) 2-Butanone	4.774	43	102240	47.20	ppb	100
36) Propionitrile	4.865	54	151601	231.88	ppb	100

KB 11/19/15

W111815.M Thu Nov 19 10:57:54 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 10:54:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Bromochloromethane	5.145	130	185345	48.78	ppb	100
38) Methacrylonitrile	5.158	67	98211	44.05	ppb	100
39) Tetrahydrofuran	5.237	42	62344	43.61	ppb	100
40) Chloroform	5.328	83	539092	47.23	ppb	100
41) 1,1,1-Trichloroethane	5.597	97	448066	49.98	ppb	100
42) TAME	6.401	73	888035	48.58	ppb	100
44) Cyclohexane	5.676	41	328688	49.44	ppb	100
46) Carbontetrachloride	5.859	121	117711	49.94	ppb	100
47) 1,1-Dichloropropene	5.871	75	431513	49.85	ppb	100
49) Benzene	6.170	78	1368032	50.87	ppb	100
50) 1,2-Dichloroethane	6.212	62	337529	48.96	ppb	100
51) Iso-Butyl Alcohol	6.200	43	202950	900.31	ppb	100
52) n-Heptane	6.645	43	360771	48.75	ppb	100
53) 1-Butanol	7.115	56	324175	2299.79	ppb	100
54) Trichloroethene	7.084	130	337817	49.44	ppb	100
55) Methylcyclohexane	7.316	55	395842	48.79	ppb	100
56) 1,2-Diclpropane	7.352	63	335429	50.34	ppb	100
57) Dibromomethane	7.486	93	152034	46.34	ppb	100
58) 1,4-Dioxane	7.553	88	43143m	870.47	ppb	
59) Methyl Methacrylate	7.578	69	186578	48.39	ppb	100
60) Bromodichloromethane	7.712	83	407587	49.89	ppb	100
61) 2-Nitropropane	7.986	41	110019	90.71	ppb	100
62) 2-Chloroethylvinyl Ether	8.108	63	173496	47.19	ppb	100
63) cis-1,3-Dichloropropene	8.242	75	547036	49.95	ppb	100
64) 4-Methyl-2-pentanone	8.437	43	238996	49.04	ppb	100
66) Toluene	8.602	91	1418406	50.93	ppb	100
67) trans-1,3-Dichloropropene	8.864	75	448276	51.53	ppb	100
68) Ethyl Methacrylate	8.998	69	387625	50.32	ppb	100
69) 1,1,2-Trichloroethane	9.047	97	235977	50.10	ppb	100
72) Tetrachloroethene	9.181	164	239087	49.93	ppb	100
73) 2-Hexanone	9.328	43	166329	47.07	ppb	100
74) 1,3-Dichloropropane	9.212	76	416990	47.51	ppb	100
75) Dibromochloromethane	9.437	129	272559	49.91	ppb	100
76) N-Butyl Acetate	9.480	43	412079	49.08	ppb	100
77) 1,2-Dibromoethane	9.529	107	226815	48.49	ppb	100
78) Chlorobenzene	10.016	112	832436	48.75	ppb	100
79) 3-CBTF	10.029	180	407757	48.19	ppb	100
80) 4-CBTF	10.083	180	373055	47.34	ppb	100
81) 1,1,1,2-Tetrachloroethane	10.102	131	284530	48.21	ppb	100
82) Ethylbenzene	10.132	106	475699	49.18	ppb	100
83) (m+p)Xylene	10.242	106	1184332	99.19	ppb	100
84) o-Xylene	10.596	106	619072	50.63	ppb	100
85) Styrene	10.608	104	992156	49.81	ppb	100
87) Bromoform	10.760	173	151800	48.24	ppb	100
88) 2-CBTF	10.833	180	406831	48.44	ppb	100
89) Isopropylbenzene	10.925	105	1451555	50.39	ppb	100
90) Cyclohexanone	10.986	55	396507	949.43	ppb	100
91) trans-1,4-Dichloro-2-B...	11.230	53	84694	46.81	ppb	100
92) 1,1,2,2-Tetrachloroethane	11.181	83	273575	47.00	ppb	100
93) Bromobenzene	11.169	156	333923	51.23	ppb	100
94) 1,2,3-Trichloropropane	11.211	110	75214	43.88	ppb	100

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 10:54:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

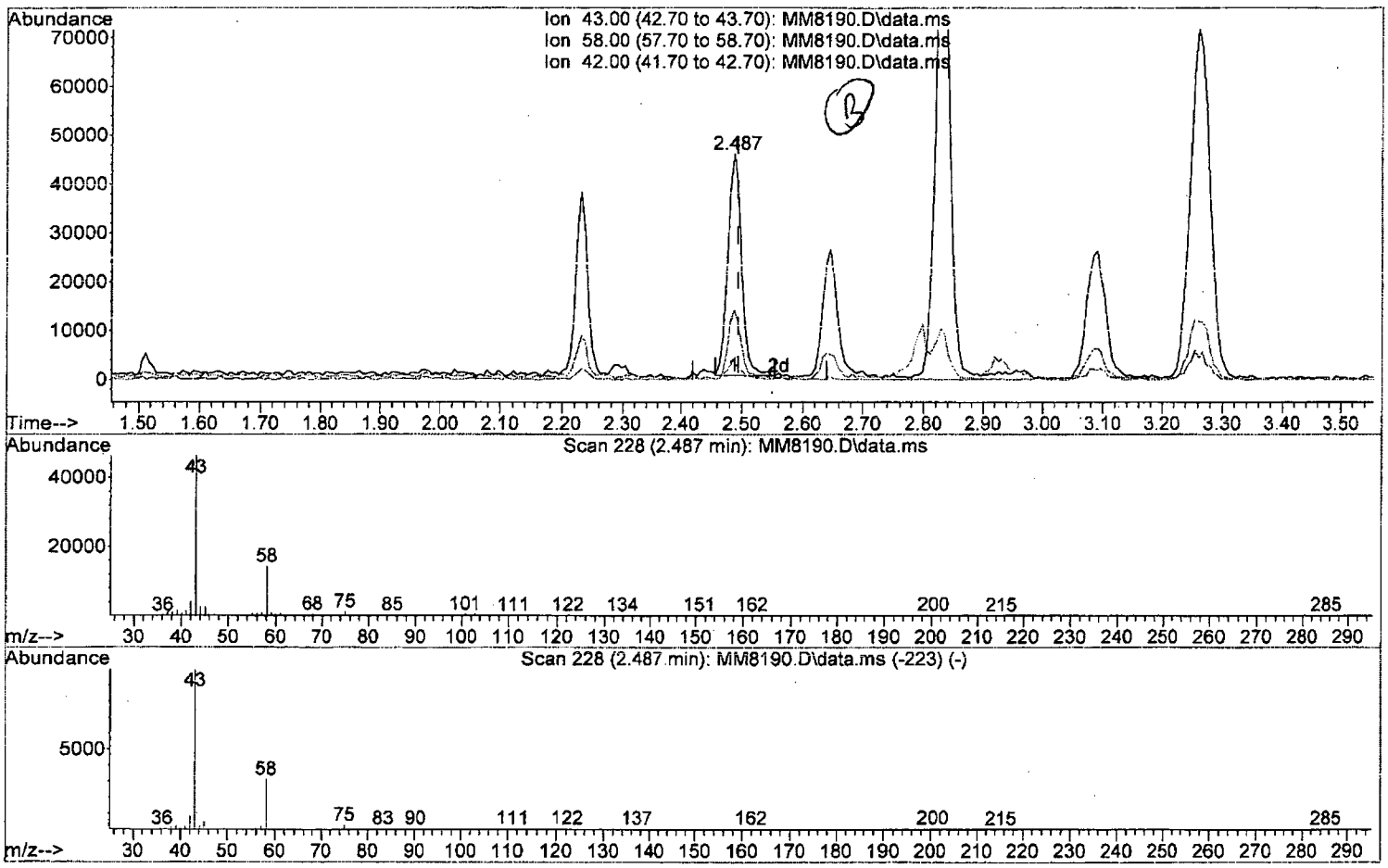
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) n-Propylbenzene	11.278	91	1715030	51.66	ppb	100
96) 2-Chlorotoluene	11.339	91	1004690	51.62	ppb	100
97) 3-Chlorotoluene	11.394	91	1024114	50.17	ppb	100
98) 4-Chlorotoluene	11.437	91	1110175	50.57	ppb	100
99) 1,3,5-Trimethylbenzene	11.431	105	1111728	51.00	ppb	100
100) tert-Butylbenzene	11.699	119	1007300	51.79	ppb	100
101) 1,2,4-Trimethylbenzene	11.742	105	1197157	51.18	ppb	100
102) 3,4-DCBTF	11.797	214	275696	49.01	ppb	100
103) sec-Butylbenzene	11.882	105	1398223	51.38	ppb	100
104) p-Isopropyltoluene	12.004	119	1087020	51.66	ppb	100
105) 1,3-Dclbenz	11.961	146	638059	50.57	ppb	100
106) 1,4-Dclbenz	12.034	146	613936	51.91	ppb	100
107) 2,4-DCBTF	12.089	214	244902	49.88	ppb	100
108) 2,5-DCBTF	12.126	214	272399	49.05	ppb	100
109) n-Butylbenzene	12.333	91	1027520	51.57	ppb	100
110) 1,2-Dclbenz	12.339	146	591846	50.97	ppb	100
111) 1,2-Dibromo-3-chloropr...	12.955	157	53472	46.71	ppb	100
112) Trielution Dichlorotol...	13.077	125	1477263	150.74	ppb	100
113) 1,3,5 Trichlorobenzene	13.132	180	380708	48.77	ppb	100
114) Coelution Dichlorotoluene	13.400	125	1062223	102.57	ppb	100
115) 1,2,4-Tcbenzene	13.607	180	360767	50.36	ppb	100
116) Hexachlorobt	13.747	225	146014	47.80	ppb	100
117) Naphthalen	13.796	128	766508	51.59	ppb	100
118) 1,2,3-Tclbenzene	13.985	180	306118	51.37	ppb	100
119) 2,4,5-Trichlorotolene	14.570	159	218733	48.36	ppb	100
120) 2,3,6-Trichlorotoluene	14.656	159	182713	45.69	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 09:36:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8190.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 45.46 ppb

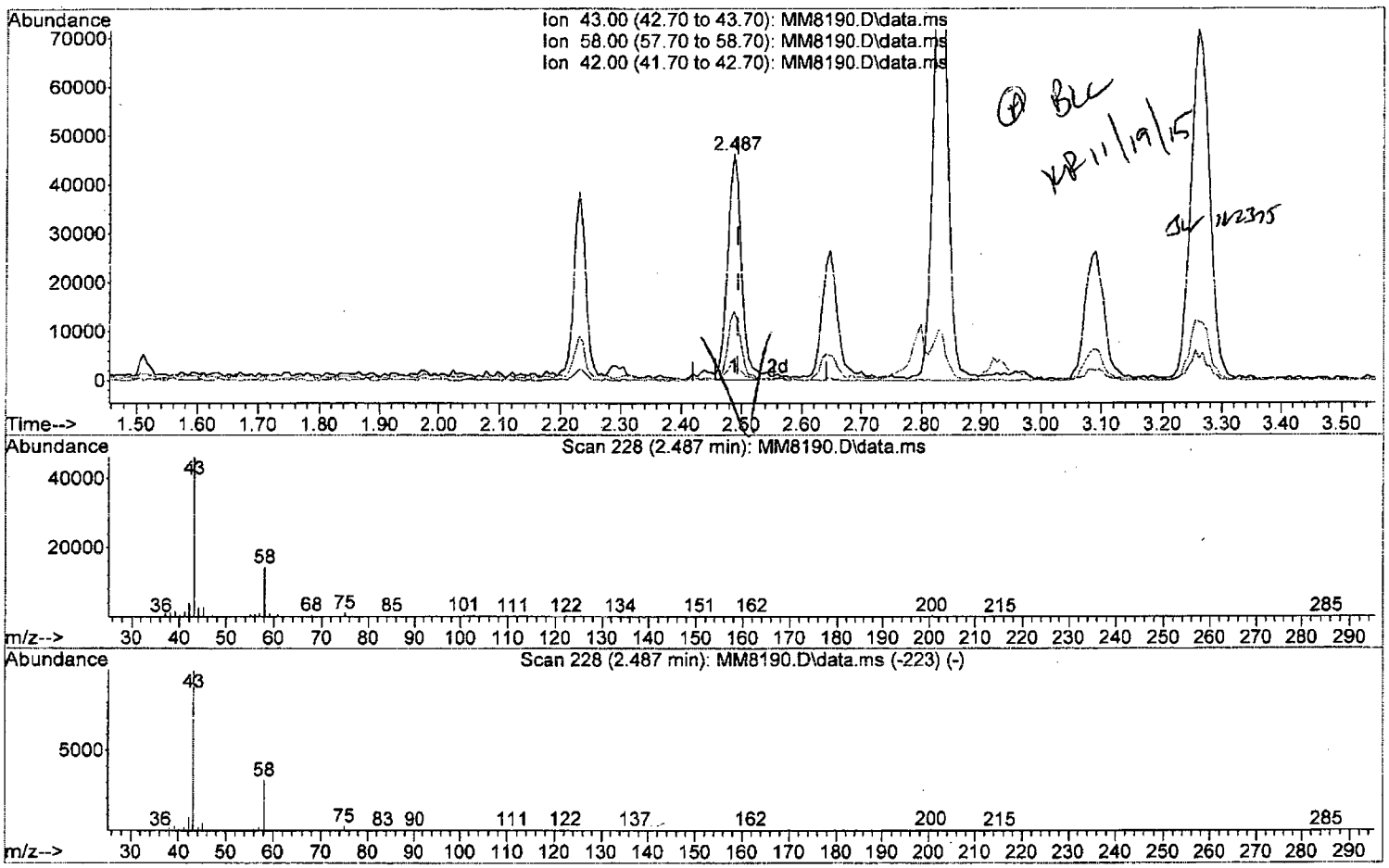
response 70668

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	30.87
42.00	8.50	8.48
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 09:36:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8190.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 46.95 ppb m

response 72992

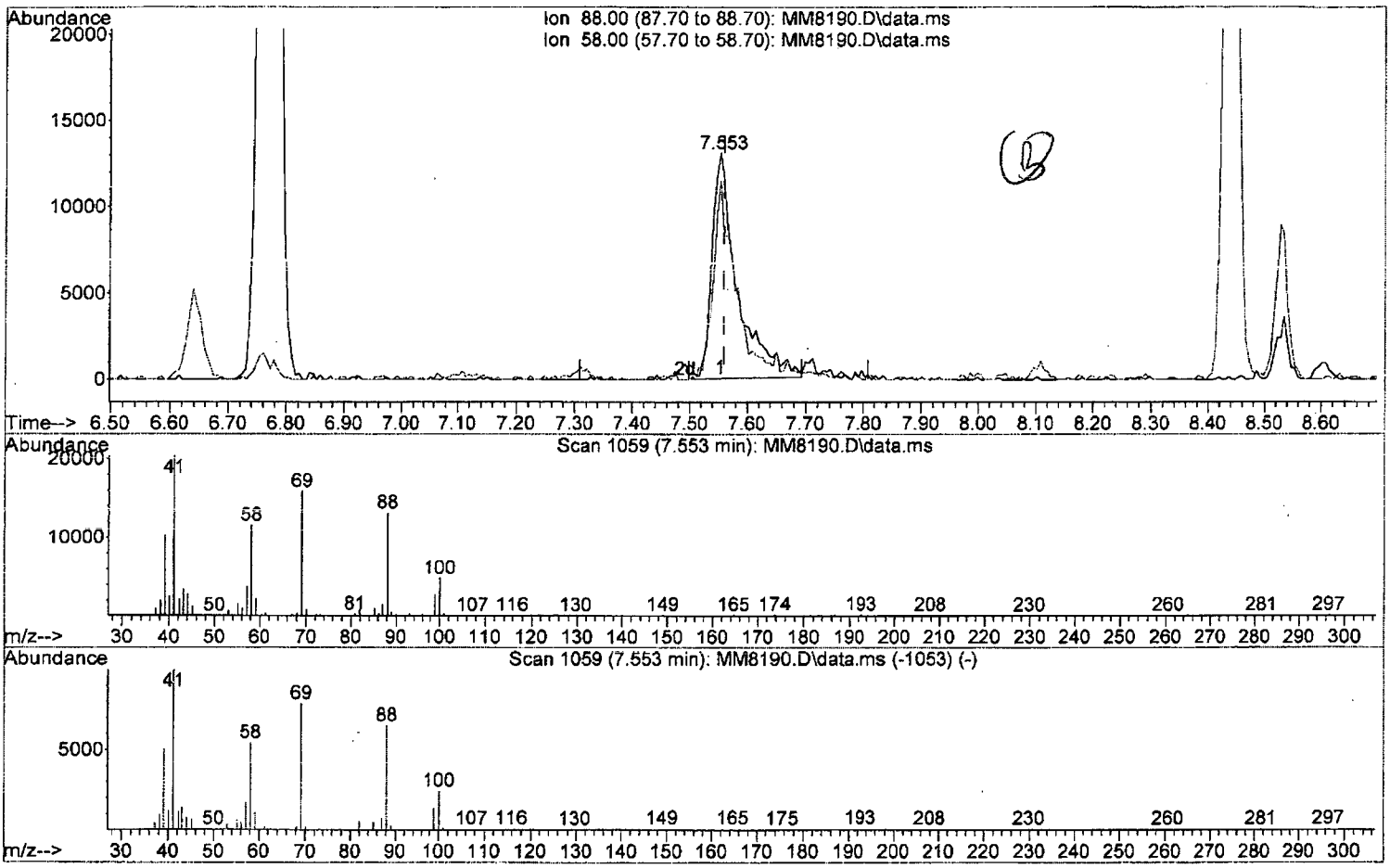
Ion	Exp%	Act%
43.00	100	100
58.00	30.90	30.87
42.00	8.50	8.48
0.00	0.00	0.00

W111815.M Thu Nov 19 10:52:55 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 09:36:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8190.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 809.02 ppb

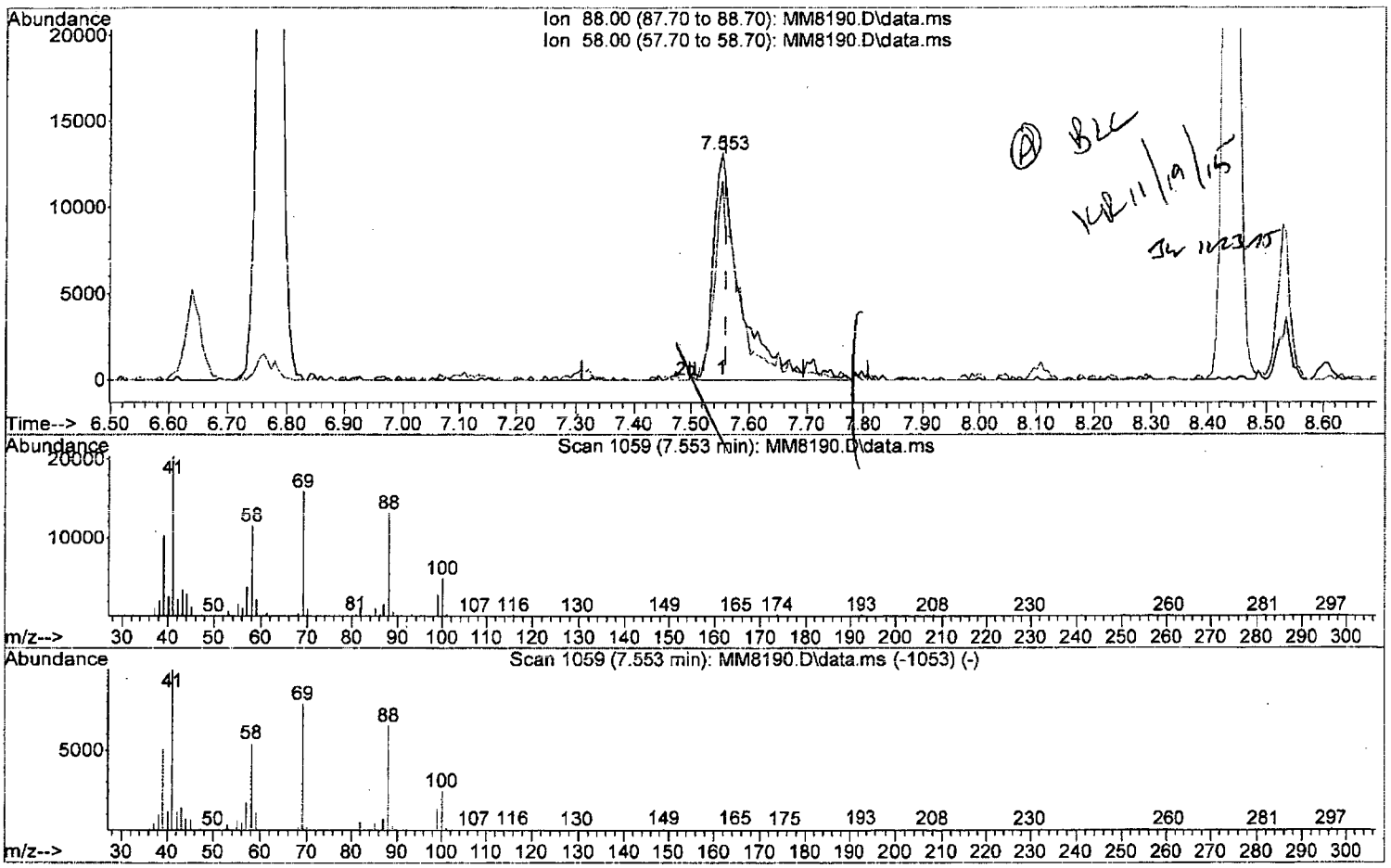
response 40097

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	87.86
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 09:36:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8190.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 870.47 ppb m

response 43143

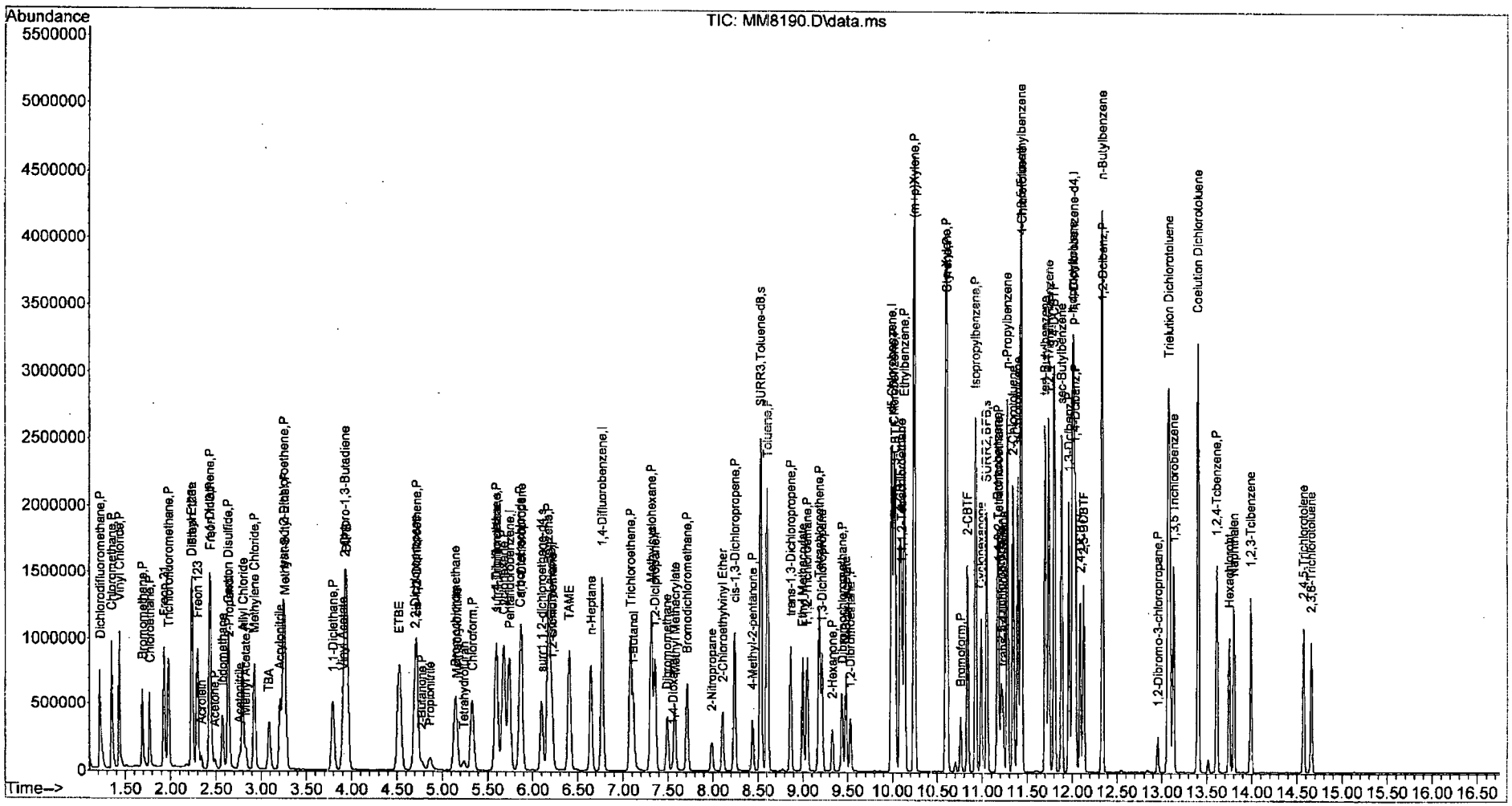
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	87.86
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:54:00 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 10:54:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 10:58:00 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 11:00:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	713860	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1202753	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1137171	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	550506	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	724533	127.22	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 254.44%#				
48) surr1,1,2-dichloroetha...	6.096	65	810008	126.64	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 253.28%#				
65) SURR3,Toluene-d8	8.529	98	2990251	128.87	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 257.74%#				
70) SURR2,BFB	11.053	95	1160630	128.90	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 257.80%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	1052840	104.11	ppb		100
3) Chloromethane	1.347	50	1140391	94.99	ppb		99
4) Vinyl Chloride	1.433	62	1056349	94.45	ppb		99
5) Bromomethane	1.689	94	510510	92.22	ppb		99
6) Chloroethane	1.768	64	573008	91.66	ppb		98
7) Freon 21	1.926	67	1187769	98.58	ppb		100
8) Trichlorofluoromethane	1.975	101	840992	96.42	ppb		99
9) Diethyl Ether	2.231	59	523351	95.74	ppb		96
10) Freon 123a	2.237	67	719400	91.17	ppb		98
11) Freon 123	2.298	83	822956	90.09	ppb		97
12) Acrolein	2.341	56	116462	191.45	ppb		99
13) 1,1-Diclethene	2.432	96	536474	87.75	ppb		99
14) Freon 113	2.445	101	471815	86.84	ppb		89
15) Acetone	2.487	43	148224	97.92	ppb		99
16) 2-Propanol	2.646	45	552682	1913.86	ppb		98
17) Iodomethane	2.573	142	732076	109.24	ppb		100
18) Carbon Disulfide	2.634	76	1920148	96.29	ppb		98
19) Acetonitrile	2.762	40	87773	415.85	ppb		97
20) Allyl Chloride	2.798	76	300603	90.42	ppb		98
21) Methyl Acetate	2.835	43	329628	92.96	ppb		98
22) Methylene Chloride	2.926	84	620581	90.02	ppb		97
23) TBA	3.091	59	951681	2030.61	ppb		98
24) Acrylonitrile	3.213	53	848533	489.02	ppb		100
25) Methyl-t-Butyl Ether	3.262	73	1539975	92.72	ppb		98
26) trans-1,2-Dichloroethene	3.243	96	590566	92.37	ppb		92
28) 1,1-Diclethane	3.792	63	1086572	95.02	ppb		98
29) Vinyl Acetate	3.902	86	113675	92.16	ppb	#	84
30) DIPE	3.944	45	2091790	93.83	ppb		99
31) 2-Chloro-1,3-Butadiene	3.932	53	1094579	95.40	ppb		99
32) ETBE	4.530	59	2046007	97.66	ppb		99
33) 2,2-Dichloropropane	4.706	77	823814	90.06	ppb		97
34) cis-1,2-Dichloroethene	4.719	96	636168	89.36	ppb		97
35) 2-Butanone	4.780	43	212788	100.89	ppb		92
36) Propionitrile	4.865	54	317003	497.96	ppb		95

11/19/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 11:00:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	343229	92.77	ppb		99
38) Methacrylonitrile	5.158	67	199214	91.76	ppb		97
39) Tetrahydrofuran	5.243	42	135076	97.04	ppb		95
40) Chloroform	5.334	83	982598	88.41	ppb		98
41) 1,1,1-Trichloroethane	5.596	97	804545	92.16	ppb		99
42) TAME	6.407	73	1728717	97.13	ppb		99
44) Cyclohexane	5.676	41	604347	92.36	ppb		95
46) Carbontetrachloride	5.865	121	212215	91.46	ppb		92
47) 1,1-Dichloropropene	5.871	75	759998	89.21	ppb		99
49) Benzene	6.176	78	2444912	92.36	ppb		99
50) 1,2-Dichloroethane	6.212	62	643542	94.83	ppb		97
51) Iso-Butyl Alcohol	6.206	43	428127	1929.52	ppb		95
52) n-Heptane	6.639	43	654510	89.85	ppb		97
53) 1-Butanol	7.121	56	701707	5057.53	ppb		99
54) Trichloroethene	7.084	130	614789	91.41	ppb		99
55) Methylcyclohexane	7.310	55	738463	92.47	ppb		97
56) 1,2-Diclpropane	7.358	63	615093	93.78	ppb		100
57) Dibromomethane	7.492	93	296199	91.72	ppb		92
58) 1,4-Dioxane	7.553	88	92040m	1886.67	ppb		
59) Methyl Methacrylate	7.578	69	362036	95.39	ppb		98
60) Bromodichloromethane	7.712	83	748127	93.03	ppb		98
61) 2-Nitropropane	7.986	41	224095	187.72	ppb		93
62) 2-Chloroethylvinyl Ether	8.108	63	344148	95.11	ppb		94
63) cis-1,3-Dichloropropene	8.242	75	1015287	94.19	ppb		98
64) 4-Methyl-2-pentanone	8.444	43	492121	102.59	ppb		97
66) Toluene	8.602	91	2491884	90.90	ppb		96
67) trans-1,3-Dichloropropene	8.864	75	849380	99.19	ppb		99
68) Ethyl Methacrylate	8.998	69	767246	101.20	ppb		100
69) 1,1,2-Trichloroethane	9.047	97	447446	96.52	ppb		96
72) Tetrachloroethene	9.181	164	436264	92.49	ppb		97
73) 2-Hexanone	9.327	43	339220	97.45	ppb		96
74) 1,3-Dichloropropane	9.212	76	793935	91.83	ppb		99
75) Dibromochloromethane	9.437	129	518817	96.44	ppb		96
76) N-Butyl Acetate	9.480	43	824438	99.69	ppb		96
77) 1,2-Dibromoethane	9.529	107	437198	94.90	ppb		98
78) Chlorobenzene	10.016	112	1538484	91.46	ppb		99
79) 3-CBTF	10.035	180	799901	95.98	ppb		97
80) 4-CBTF	10.083	180	743144	95.73	ppb		98
81) 1,1,1,2-Tetrachloroethane	10.102	131	527907	90.80	ppb		97
82) Ethylbenzene	10.132	106	877167	92.06	ppb	#	85
83) (m+p)Xylene	10.242	106	2135222	181.54	ppb		90
84) o-Xylene	10.596	106	1139130	94.58	ppb		91
85) Styrene	10.608	104	1801396	91.81	ppb		97
87) Bromoform	10.760	173	299241	95.69	ppb		100
88) 2-CBTF	10.839	180	816266	97.80	ppb		92
89) Isopropylbenzene	10.931	105	2543602	88.85	ppb		95
90) Cyclohexanone	10.992	55	861885	2076.61	ppb		98
91) trans-1,4-Dichloro-2-B...	11.230	53	167780	93.31	ppb		94
92) 1,1,2,2-Tetrachloroethane	11.181	83	534585	92.42	ppb		97
93) Bromobenzene	11.175	156	621913	96.01	ppb	#	89
94) 1,2,3-Trichloropropane	11.211	110	154613	90.77	ppb	#	89

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 11:00:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

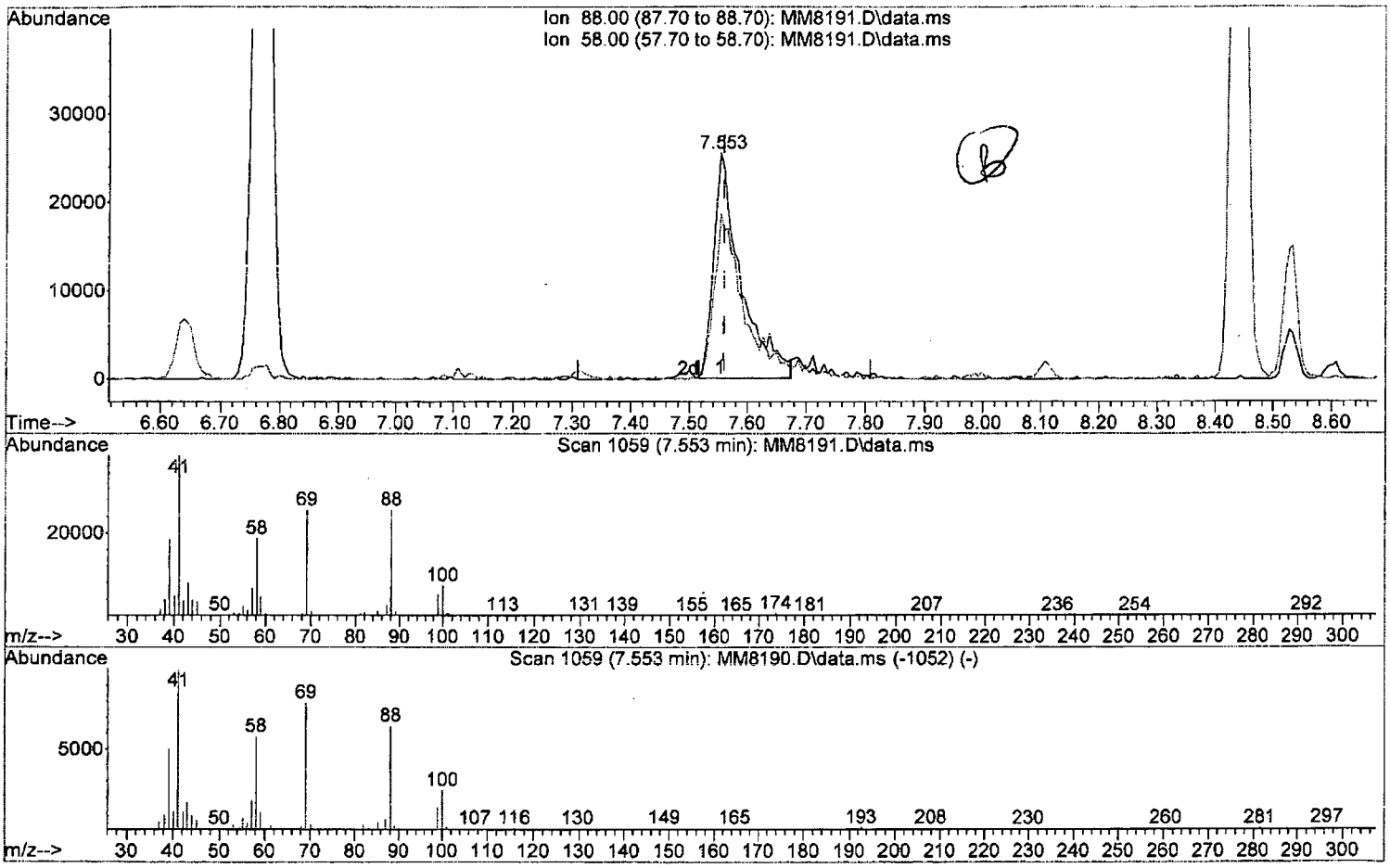
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	2979403	90.30	ppb	99
96)	2-Chlorotoluene	11.345	91	1815210	93.85	ppb	96
97)	3-Chlorotoluene	11.394	91	1990978	98.14	ppb	99
98)	4-Chlorotoluene	11.437	91	1979448	90.72	ppb	97
99)	1,3,5-Trimethylbenzene	11.431	105	1980142	91.41	ppb	99
100)	tert-Butylbenzene	11.699	119	1787654	92.49	ppb	97
101)	1,2,4-Trimethylbenzene	11.742	105	2123052	91.33	ppb	96
102)	3,4-DCBTF	11.803	214	539722	96.54	ppb	94
103)	sec-Butylbenzene	11.882	105	2455158	90.78	ppb	98
104)	p-Isopropyltoluene	12.004	119	1937749	92.67	ppb	99
105)	1,3-Dclbenz	11.961	146	1183579	94.39	ppb	99
106)	1,4-Dclbenz	12.034	146	1153999	98.19	ppb	98
107)	2,4-DCBTF	12.089	214	499620	102.40	ppb	96
108)	2,5-DCBTF	12.126	214	554776	100.51	ppb	98
109)	n-Butylbenzene	12.333	91	1781804	89.98	ppb	97
110)	1,2-Dclbenz	12.339	146	1117710	96.85	ppb	97
111)	1,2-Dibromo-3-chloropr...	12.955	157	112189	98.61	ppb	88
112)	Trielution Dichlorotol...	13.077	125	2827694	290.33	ppb	98
113)	1,3,5 Trichlorobenzene	13.132	180	740388	95.44	ppb	98
114)	Coelution Dichlorotoluene	13.400	125	2012590	195.55	ppb	99
115)	1,2,4-Tcbenzene	13.613	180	675356	94.85	ppb	96
116)	Hexachlorobt	13.747	225	258408	85.12	ppb	97
117)	Naphthalen	13.802	128	1528038	103.48	ppb	100
118)	1,2,3-Tclbenzene	13.985	180	583888	98.59	ppb	97
119)	2,4,5-Trichlorotolene	14.570	159	441673	98.26	ppb	96
120)	2,3,6-Trichlorotoluene	14.656	159	364114	91.63	ppb	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 09:36:11 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8191.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 1703.82 ppb

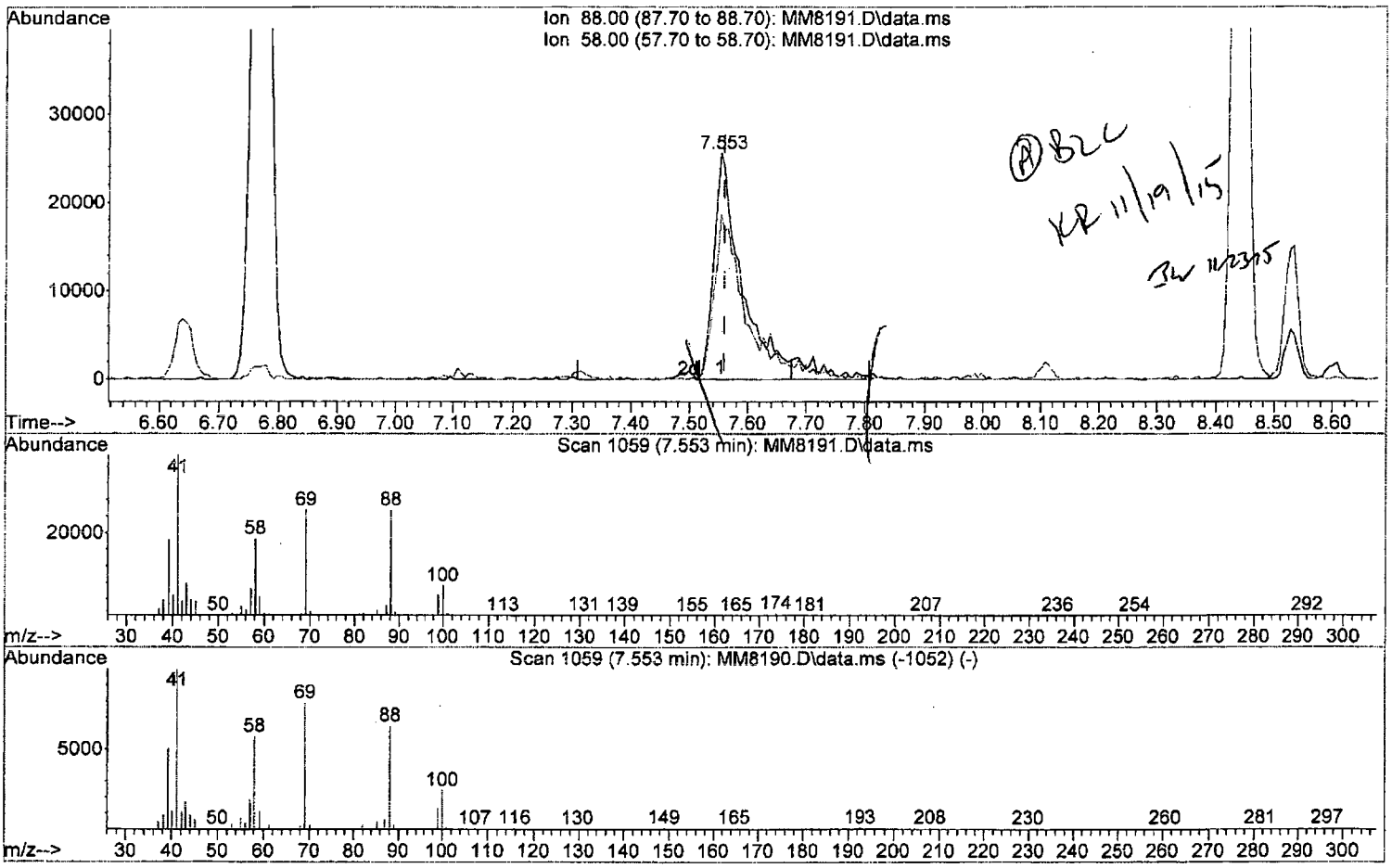
response 83120

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	72.99
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 09:36:11 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8191.D\data.ms

(58) 1,4-Dioxane

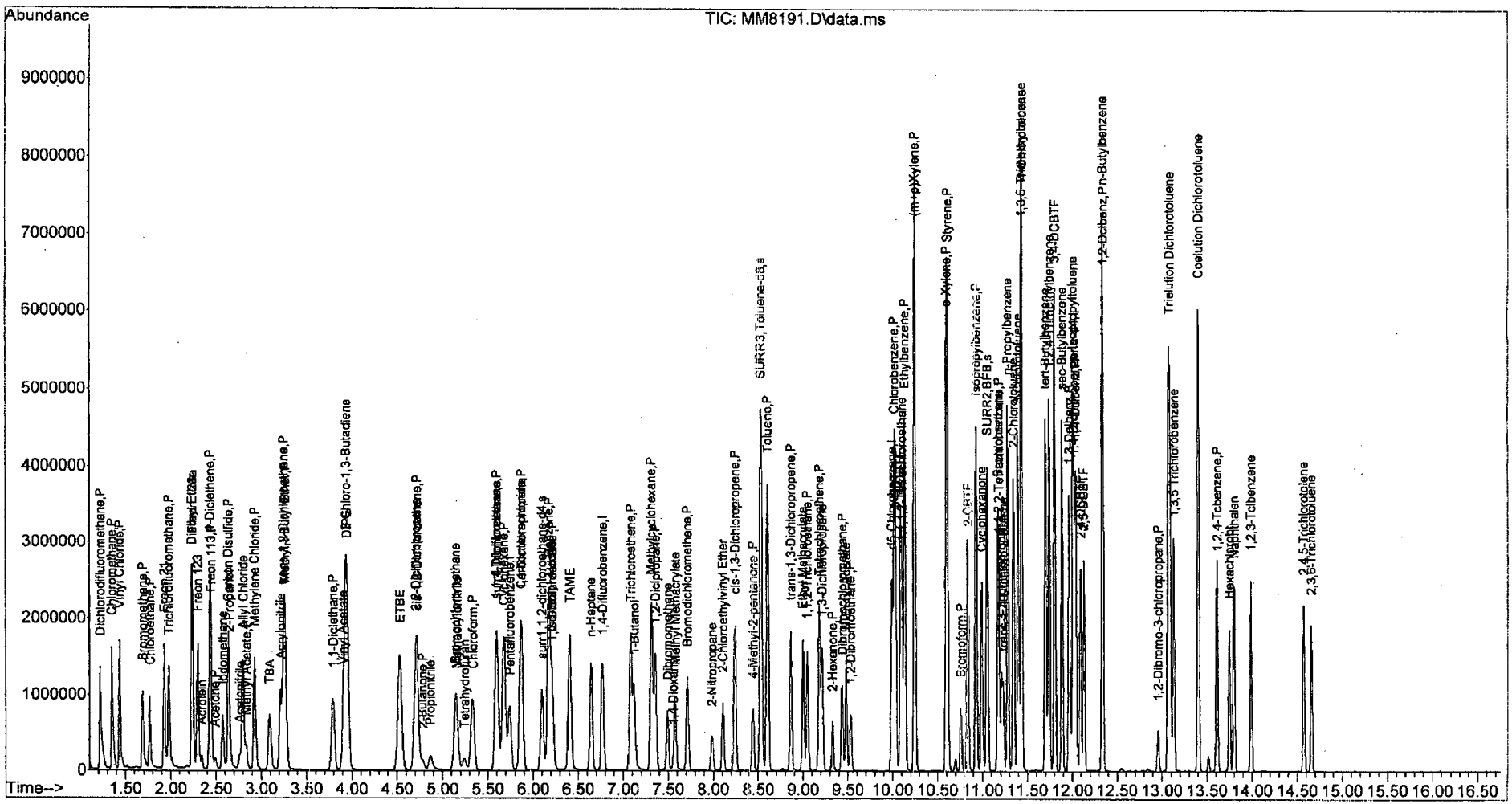
7.553min (-0.006) 1886.67 ppb m

response 92040

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	72.99
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 11:00:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 11:08:17 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 11:03:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	710676	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1214199	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1136182	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.022	152	548662	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	825636	146.86	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 293.72%#				
48) surr1,1,2-dichloroetha...	6.096	65	939275	148.42	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 296.84%#				
65) SURR3,Toluene-d8	8.535	98	3335998	146.19	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 292.38%#				
70) SURR2,BFB	11.053	95	1317781	148.16	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 296.32%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	1565617	155.51	ppb		99
3) Chloromethane	1.347	50	1693779	141.72	ppb		99
4) Vinyl Chloride	1.433	62	1555618	139.71	ppb		99
5) Bromomethane	1.683	94	762632	138.37	ppb		98
6) Chloroethane	1.768	64	848527	136.34	ppb		99
7) Freon 21	1.926	67	1689782	140.87	ppb		98
8) Trichlorofluoromethane	1.975	101	1220950	140.61	ppb		98
9) Diethyl Ether	2.231	59	764131	140.42	ppb		99
10) Freon 123a	2.237	67	1032224	131.40	ppb		98
11) Freon 123	2.298	83	1183276	130.11	ppb		95
12) Acrolein	2.341	56	182525	301.40	ppb		98
13) 1,1-Diclethene	2.432	96	787653	129.41	ppb		98
14) Freon 113	2.439	101	720367	133.18	ppb		94
15) Acetone	2.487	43	222785	147.84	ppb		98
16) 2-Propanol	2.652	45	864260	3006.21	ppb		98
17) Iodomethane	2.573	142	1037636	155.53	ppb		99
18) Carbon Disulfide	2.634	76	2726802	137.35	ppb		97
19) Acetonitrile	2.762	40	166122	790.58	ppb		97
20) Allyl Chloride	2.798	76	429392	129.74	ppb		97
21) Methyl Acetate	2.829	43	497897	141.05	ppb		100
22) Methylene Chloride	2.926	84	919352	133.95	ppb		99
23) TBA	3.097	59	1452559	3113.23	ppb		97
24) Acrylonitrile	3.213	53	1254588	726.27	ppb		100
25) Methyl-t-Butyl Ether	3.268	73	2262406	136.82	ppb		99
26) trans-1,2-Dichloroethene	3.243	96	874569	137.41	ppb		95
28) 1,1-Diclethane	3.792	63	1604654	140.95	ppb		99
29) Vinyl Acetate	3.908	86	170723	139.03	ppb	#	86
30) DIPE	3.950	45	2982611	134.38	ppb		97
31) 2-Chloro-1,3-Butadiene	3.926	53	1583512	138.63	ppb		97
32) ETBE	4.530	59	2946391	141.27	ppb		98
33) 2,2-Dichloropropane	4.706	77	1222286	134.22	ppb		96
34) cis-1,2-Dichloroethene	4.719	96	947943	133.75	ppb		98
35) 2-Butanone	4.780	43	309457	147.39	ppb		89
36) Propionitrile	4.871	54	472669	745.81	ppb		95

KR 11/19/15

W111815.M Thu Nov 19 11:04:22 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 11:03:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	492369	133.68	ppb		97
38) Methacrylonitrile	5.158	67	290395	134.36	ppb		98
39) Tetrahydrofuran	5.237	42	191788	138.40	ppb		96
40) Chloroform	5.334	83	1462167	132.15	ppb		98
41) 1,1,1-Trichloroethane	5.596	97	1214044	139.69	ppb		100
42) TAME	6.407	73	2526840	142.61	ppb		97
44) Cyclohexane	5.676	41	875301	132.50	ppb		99
46) Carbontetrachloride	5.859	121	326428	139.36	ppb		95
47) 1,1-Dichloropropene	5.871	75	1131779	131.59	ppb		99
49) Benzene	6.176	78	3558177	133.15	ppb		99
50) 1,2-Dichloroethane	6.212	62	948792	138.50	ppb		97
51) Iso-Butyl Alcohol	6.206	43	642497	2868.37	ppb		92
52) n-Heptane	6.645	43	957961	130.27	ppb		97
53) 1-Butanol	7.121	56	1073863	7666.87	ppb		99
54) Trichloroethene	7.084	130	925764	136.35	ppb		97
55) Methylcyclohexane	7.316	55	1073401	133.15	ppb		96
56) 1,2-Diclpropane	7.358	63	909656	137.38	ppb		98
57) Dibromomethane	7.492	93	432490	132.66	ppb		94
58) 1,4-Dioxane	7.559	88	144093m	2925.83	ppb		
59) Methyl Methacrylate	7.578	69	553711	144.51	ppb		98
60) Bromodichloromethane	7.712	83	1120065	137.96	ppb		99
61) 2-Nitropropane	7.986	41	347518	288.36	ppb		100
62) 2-Chloroethylvinyl Ether	8.108	63	496357	135.88	ppb		95
63) cis-1,3-Dichloropropene	8.242	75	1479683	135.98	ppb		97
64) 4-Methyl-2-pentanone	8.443	43	730089	150.76	ppb		99
66) Toluene	8.602	91	3577978	129.28	ppb		93
67) trans-1,3-Dichloropropene	8.864	75	1255814	145.28	ppb		98
68) Ethyl Methacrylate	9.004	69	1137541	148.63	ppb		97
69) 1,1,2-Trichloroethane	9.047	97	667805	142.70	ppb		95
72) Tetrachloroethene	9.181	164	647893	137.48	ppb		96
73) 2-Hexanone	9.327	43	519587	149.39	ppb		98
74) 1,3-Dichloropropane	9.212	76	1170845	135.54	ppb		98
75) Dibromochloromethane	9.437	129	773056	143.83	ppb		100
76) N-Butyl Acetate	9.480	43	1230914	148.97	ppb		96
77) 1,2-Dibromoethane	9.535	107	648465	140.87	ppb		97
78) Chlorobenzene	10.016	112	2225190	132.40	ppb		94
79) 3-CBTF	10.035	180	1176260	141.26	ppb		98
80) 4-CBTF	10.089	180	1077762	138.96	ppb		98
81) 1,1,1,2-Tetrachloroethane	10.102	131	792449	136.43	ppb		99
82) Ethylbenzene	10.138	106	1318233	138.47	ppb	#	75
83) (m+p)Xylene	10.248	106	3138503m	267.08	ppb		
84) o-Xylene	10.595	106	1693787	140.75	ppb		87
85) Styrene	10.614	104	2606319	132.95	ppb		99
87) Bromoform	10.760	173	461256	147.99	ppb		94
88) 2-CBTF	10.839	180	1195929	143.77	ppb		92
89) Isopropylbenzene	10.931	105	3660912	128.31	ppb		92
90) Cyclohexanone	10.992	55	1292803	3125.33	ppb		100
91) trans-1,4-Dichloro-2-B...	11.230	53	253282	141.34	ppb		96
92) 1,1,2,2-Tetrachloroethane	11.181	83	795258	137.95	ppb		98
93) Bromobenzene	11.175	156	929632	143.99	ppb	#	88
94) 1,2,3-Trichloropropane	11.211	110	228309	134.49	ppb		92

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 11:03:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

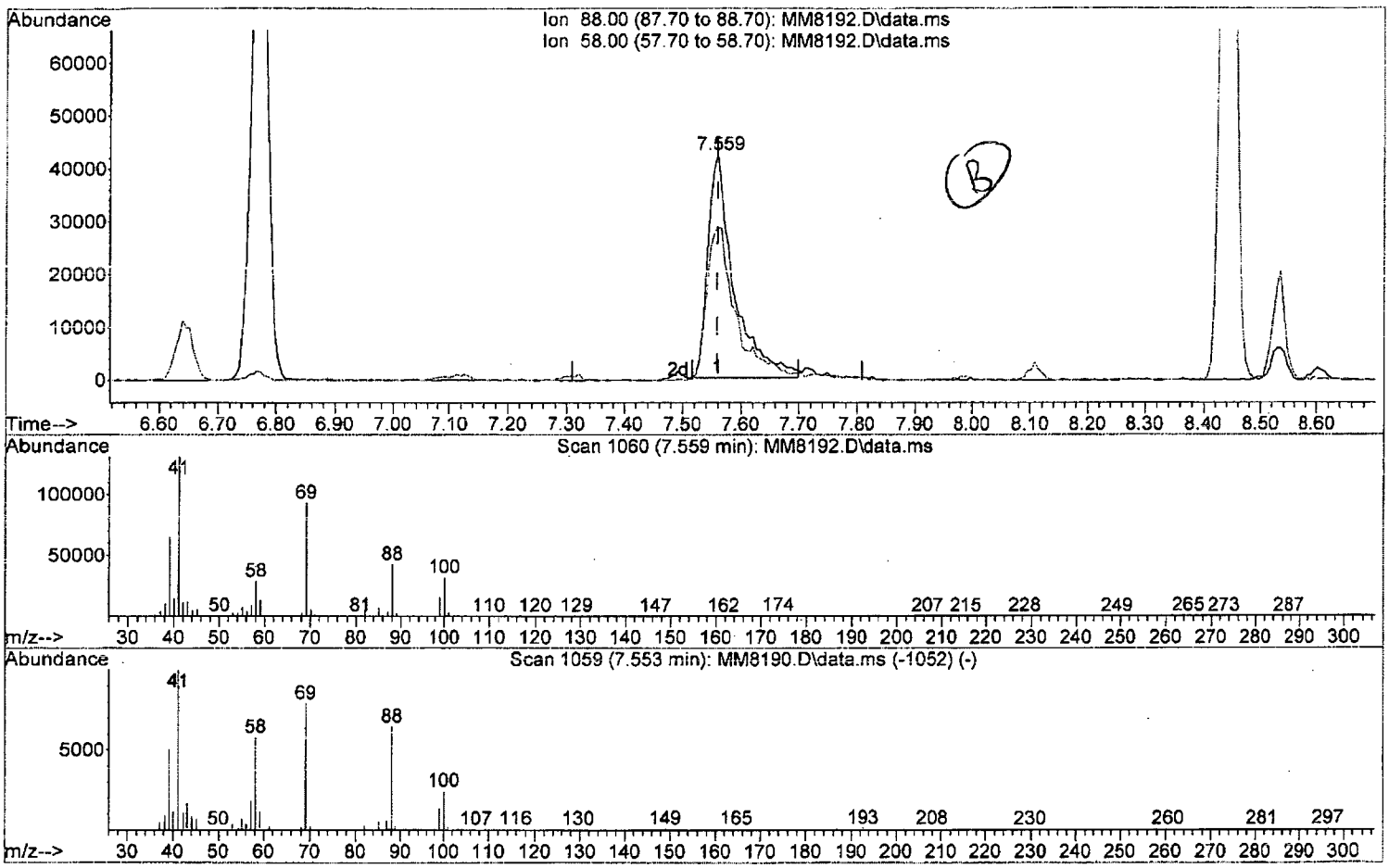
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	4185644	127.29	ppb	94
96)	2-Chlorotoluene	11.345	91	2615833	135.69	ppb	94
97)	3-Chlorotoluene	11.394	91	2888038	142.84	ppb	96
98)	4-Chlorotoluene	11.437	91	2741806	126.08	ppb	93
99)	1,3,5-Trimethylbenzene	11.431	105	2840305	131.55	ppb	95
100)	tert-Butylbenzene	11.705	119	2607257	135.35	ppb	94
101)	1,2,4-Trimethylbenzene	11.742	105	3012536	130.03	ppb	92
102)	3,4-DCBTF	11.803	214	789792	141.75	ppb	96
103)	sec-Butylbenzene	11.882	105	3509043	130.19	ppb	94
104)	p-Isopropyltoluene	12.004	119	2798351	134.28	ppb	96
105)	1,3-Dclbenz	11.967	146	1708389	136.71	ppb	95
106)	1,4-Dclbenz	12.040	146	1679324	143.36	ppb	96
107)	2,4-DCBTF	12.089	214	714139	146.86	ppb	95
108)	2,5-DCBTF	12.126	214	801663	145.73	ppb	97
109)	n-Butylbenzene	12.333	91	2537652	128.58	ppb	94
110)	1,2-Dclbenz	12.339	146	1636957	142.33	ppb	98
111)	1,2-Dibromo-3-chloropr...	12.955	157	172416	152.05	ppb	93
112)	Trielution Dichlorotol...	13.077	125	3935809	405.46	ppb	94
113)	1,3,5 Trichlorobenzene	13.132	180	1063709	137.58	ppb	97
114)	Coelution Dichlorotoluene	13.406	125	2819863	274.91	ppb	96
115)	1,2,4-Tcbenzene	13.613	180	971872	136.96	ppb	98
116)	Hexachlorobt	13.747	225	382092	126.29	ppb	94
117)	Naphthalen	13.802	128	2244720	152.52	ppb	99
118)	1,2,3-Tclbenzene	13.985	180	869917	147.38	ppb	98
119)	2,4,5-Trichlorotolene	14.570	159	659950	147.31	ppb	99
120)	2,3,6-Trichlorotoluene	14.656	159	543904	137.33	ppb	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 09:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8192.D\data.ms

(58) 1,4-Dioxane

7.559min (-0.000) 2679.06 ppb

response 131940

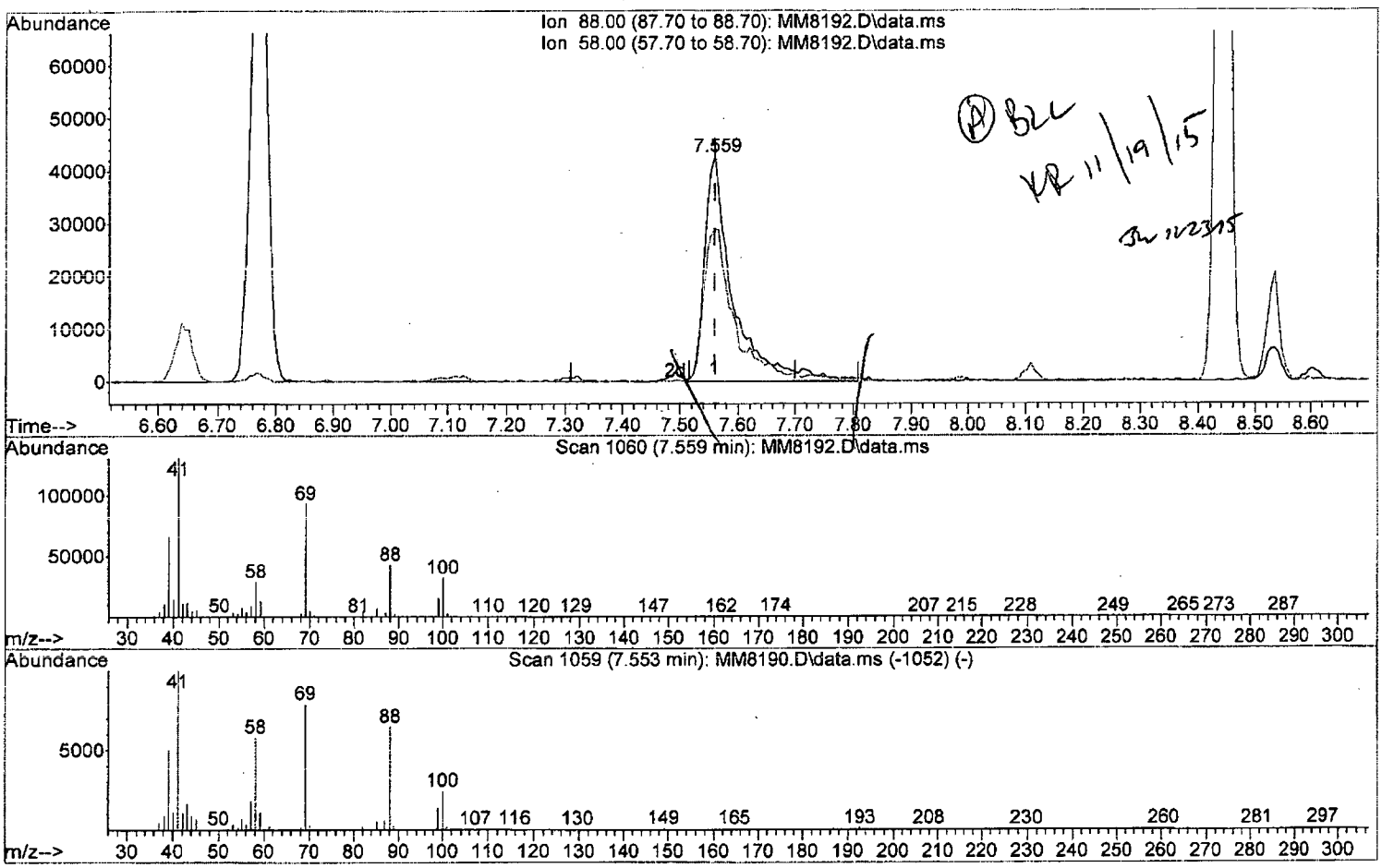
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	67.45#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 11:03:10 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 09:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8192.D\data.ms

(58) 1,4-Dioxane

7.559min (-0.000) 2925.83 ppb m

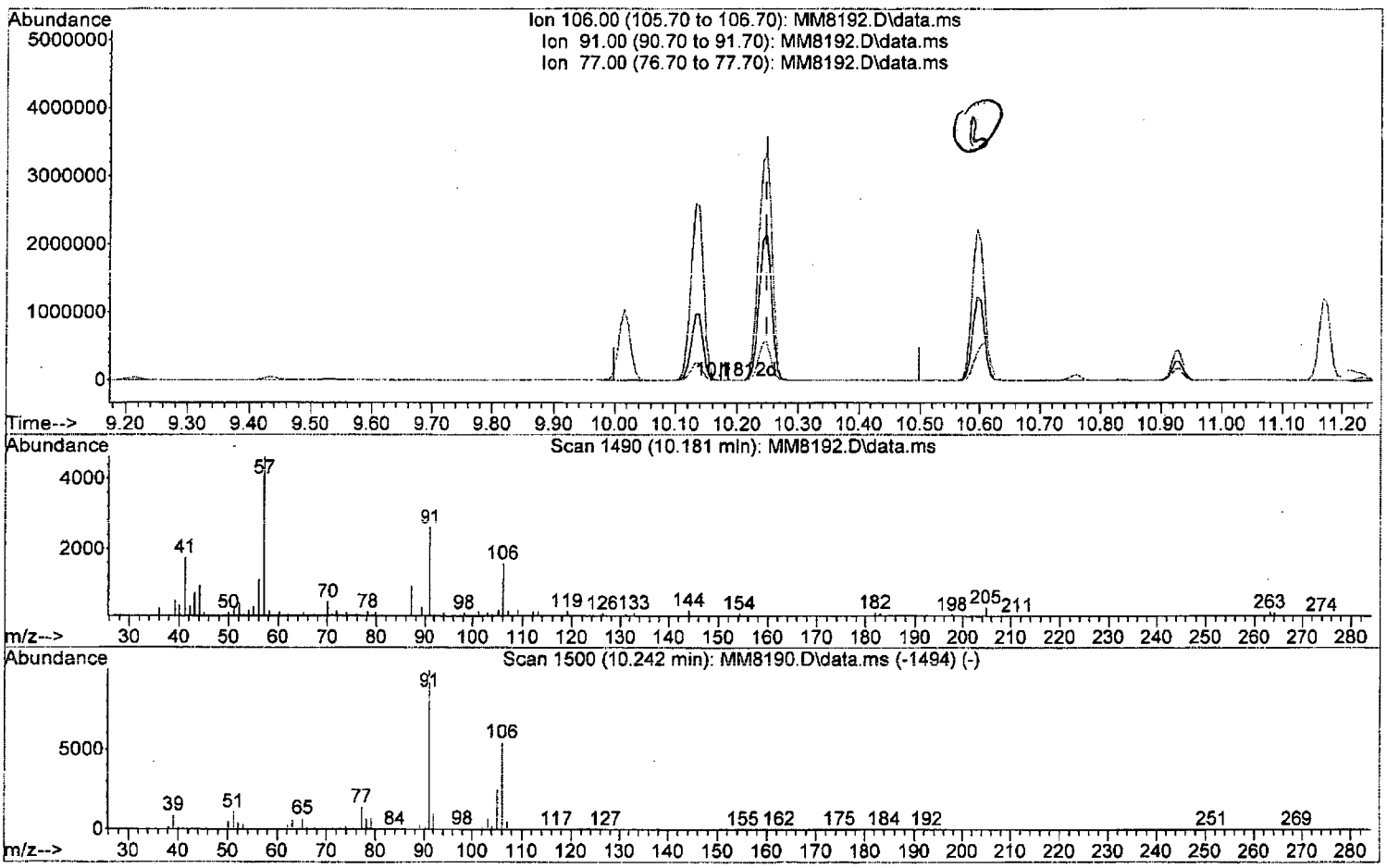
response 144093

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	67.45#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 09:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8192.D\data.ms

(83) (m+p)Xylene (P)

10.181min (-0.067) 0.06 ppb

response 673

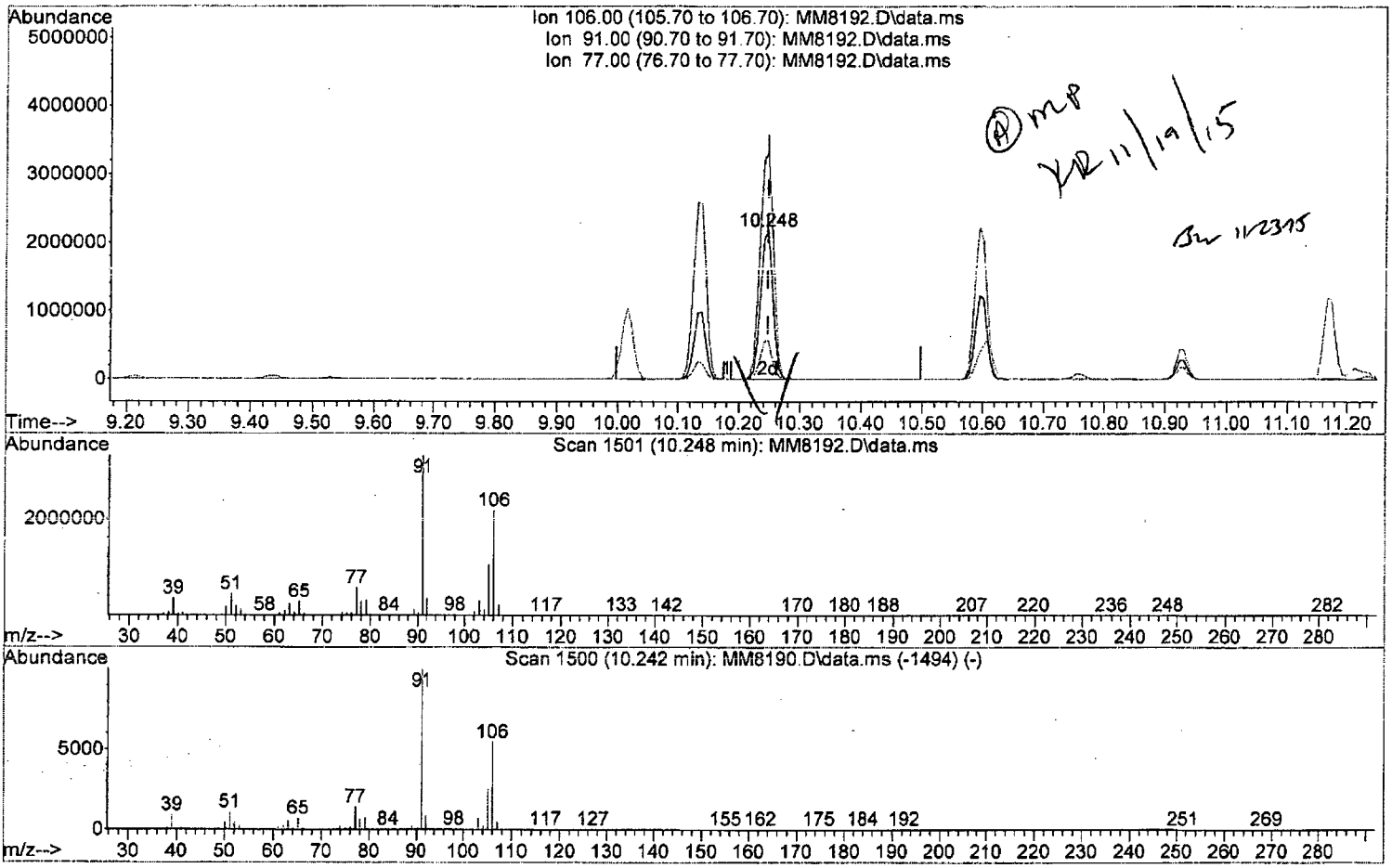
Ion	Exp%	Act%
106.00	100	100
91.00	183.60	164.93
77.00	25.50	8.05
0.00	0.00	0.00

W111815.M Thu Nov 19 11:03:44 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 09:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8192.D\data.ms

(83) (m+p)Xylene (P)

10.248min (-0.000) 267.08 ppb m

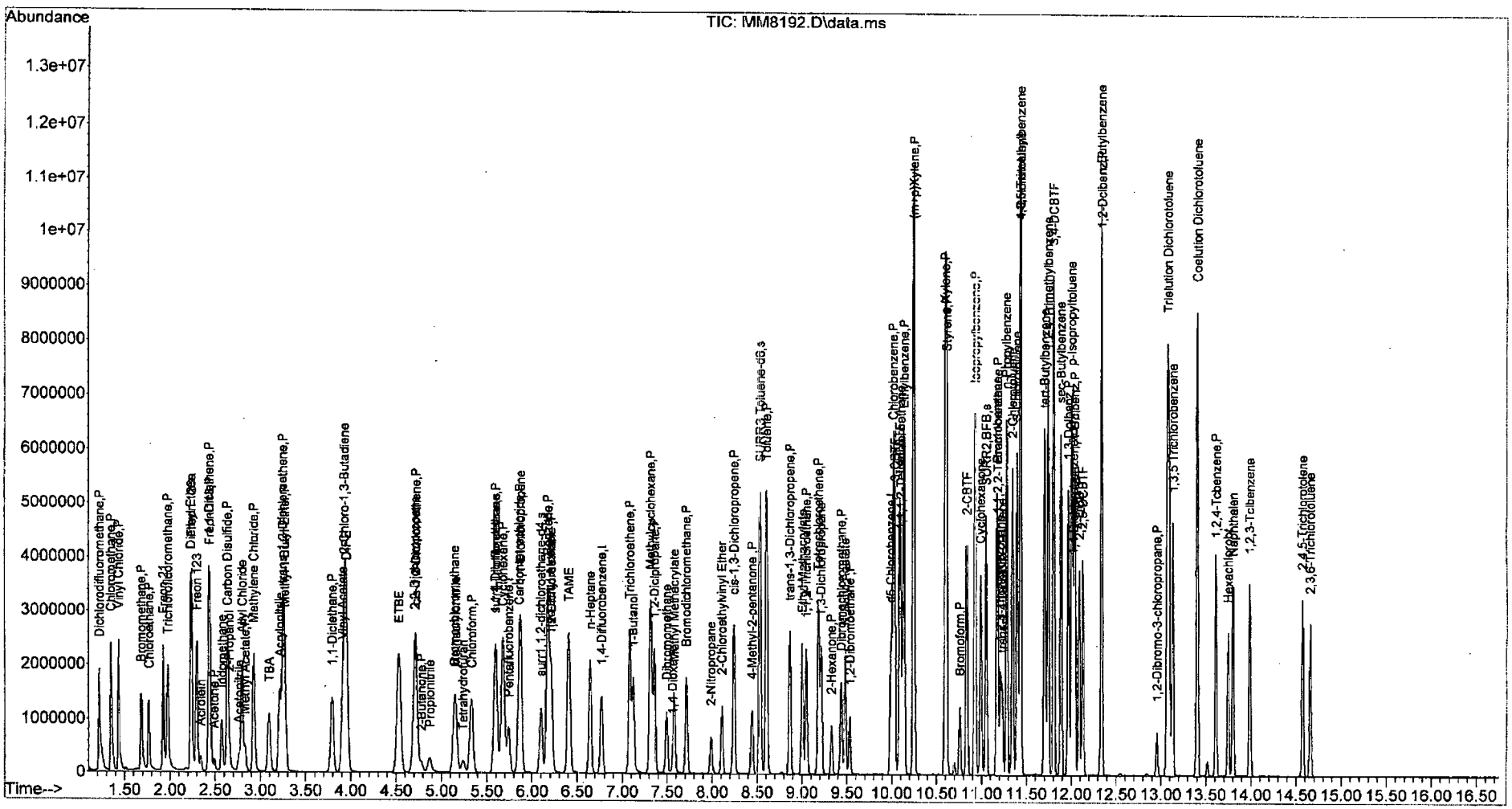
response 3138503

Ion	Exp%	Act%
106.00	100	100
91.00	183.60	152.68#
77.00	25.50	26.16
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 11:03:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 11:04:26 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 11:05:54 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	703832	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1195128	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1140706	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.022	152	554977	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	330414	44.71	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 89.42%				
48) surr1,1,2-dichloroetha...	6.103	65	378347	48.99	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 97.98%				
65) SURR3,Toluene-d8	8.535	98	1519766	48.39	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 96.78%				
70) SURR2,BFB	11.053	95	567632	50.45	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	2092040	209.82	ppb		98
3) Chloromethane	1.347	50	2272496	191.99	ppb		95
4) Vinyl Chloride	1.433	62	2071430	187.85	ppb		96
5) Bromomethane	1.683	94	1027924	188.32	ppb		97
6) Chloroethane	1.768	64	1132219	183.69	ppb		100
7) Freon 21	1.927	67	2225652	187.35	ppb		97
8) Trichlorofluoromethane	1.975	101	1613867	187.67	ppb		97
9) Diethyl Ether	2.231	59	1008514	187.13	ppb		97
10) Freon 123a	2.238	67	1324744	170.28	ppb		98
11) Freon 123	2.299	83	1572089	174.54	ppb		94
12) Acrolein	2.341	56	241653	402.91	ppb		98
13) 1,1-Diclethene	2.433	96	1054287	174.90	ppb		97
14) Freon 113	2.439	101	951160	177.56	ppb		93
15) Acetone	2.494	43	305505	204.70	ppb		95
16) 2-Propanol	2.652	45	1164796	4090.98	ppb		96
17) Iodomethane	2.573	142	1340719	202.92	ppb		98
18) Carbon Disulfide	2.634	76	3465268	176.24	ppb		96
19) Acetonitrile	2.762	40	225645	1084.29	ppb		92
20) Allyl Chloride	2.798	76	546311	166.67	ppb		97
21) Methyl Acetate	2.835	43	674129	192.83	ppb		99
22) Methylene Chloride	2.926	84	1235575	181.78	ppb		98
23) TBA	3.097	59	1959556	4240.70	ppb		100
24) Acrylonitrile	3.213	53	1693296	989.77	ppb		98
25) Methyl-t-Butyl Ether	3.268	73	3011541	183.90	ppb		97
26) trans-1,2-Dichloroethene	3.250	96	1153276	182.96	ppb		97
28) 1,1-Diclethane	3.792	63	2133933	189.26	ppb		99
29) Vinyl Acetate	3.908	86	187234	153.96	ppb	#	93
30) DIPE	3.951	45	3862105	175.70	ppb		98
31) 2-Chloro-1,3-Butadiene	3.926	53	2019337	178.50	ppb		99
32) ETBE	4.530	59	3841038	185.96	ppb		99
33) 2,2-Dichloropropane	4.707	77	1604984	177.96	ppb		97
34) cis-1,2-Dichloroethene	4.719	96	1265451	180.28	ppb		100
35) 2-Butanone	4.780	43	418507	201.26	ppb		95
36) Propionitrile	4.871	54	653564	1041.26	ppb		96

11/19/15

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 11:05:54 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.152	130	673212	184.56	ppb		97
38) Methacrylonitrile	5.164	67	390941	182.64	ppb		95
39) Tetrahydrofuran	5.243	42	275080	200.43	ppb		96
40) Chloroform	5.334	83	1955568	178.46	ppb		99
41) 1,1,1-Trichloroethane	5.597	97	1640741	190.62	ppb		97
42) TAME	6.407	73	3321988	189.31	ppb		97
44) Cyclohexane	5.682	41	1157315	177.99	ppb		100
46) Carbontetrachloride	5.865	121	434900	188.63	ppb		98
47) 1,1-Dichloropropene	5.877	75	1493566	176.43	ppb		97
49) Benzene	6.176	78	4740991	180.25	ppb		99
50) 1,2-Dichloroethane	6.212	62	1285396	190.62	ppb		99
51) Iso-Butyl Alcohol	6.212	43	889100	4032.64	ppb		94
52) n-Heptane	6.645	43	1253689	173.21	ppb		97
53) 1-Butanol	7.127	56	1442946	10466.33	ppb		99
54) Trichloroethene	7.084	130	1265022	189.29	ppb		97
55) Methylcyclohexane	7.316	55	1421884	179.19	ppb		96
56) 1,2-Diclpropane	7.358	63	1219995	187.18	ppb		97
57) Dibromomethane	7.493	93	596647	185.93	ppb		94
58) 1,4-Dioxane	7.560	88	203185m	4191.53	ppb		
59) Methyl Methacrylate	7.578	69	726668	192.68	ppb		98
60) Bromodichloromethane	7.712	83	1501648	187.91	ppb		98
61) 2-Nitropropane	7.986	41	467925	394.47	ppb		99
62) 2-Chloroethylvinyl Ether	8.108	63	644683	179.30	ppb		94
63) cis-1,3-Dichloropropene	8.242	75	1959627	182.96	ppb		98
64) 4-Methyl-2-pentanone	8.444	43	967422	202.96	ppb		99
66) Toluene	8.602	91	4608955	169.19	ppb		88
67) trans-1,3-Dichloropropene	8.864	75	1664049	195.57	ppb		99
68) Ethyl Methacrylate	9.005	69	1527148	202.71	ppb		97
69) 1,1,2-Trichloroethane	9.047	97	901440	195.69	ppb		98
72) Tetrachloroethene	9.181	164	869257	183.72	ppb		96
73) 2-Hexanone	9.334	43	690884	197.86	ppb		98
74) 1,3-Dichloropropane	9.212	76	1580151	182.20	ppb		99
75) Dibromochloromethane	9.437	129	1052557	195.05	ppb		100
76) N-Butyl Acetate	9.480	43	1606266	193.63	ppb		95
77) 1,2-Dibromoethane	9.535	107	896451	193.97	ppb		97
78) Chlorobenzene	10.017	112	2928618	173.57	ppb		94
79) 3-CBTF	10.035	180	1514418	181.15	ppb		99
80) 4-CBTF	10.090	180	1415456	181.78	ppb		98
81) 1,1,1,2-Tetrachloroethane	10.102	131	1071284	183.70	ppb		98
82) Ethylbenzene	10.138	106	1798670	188.19	ppb	#	66
83) (m+p)Xylene	10.248	106	4116134	348.88	ppb	#	74
84) o-Xylene	10.602	106	2290838	189.61	ppb	#	74
85) Styrene	10.614	104	3409568	173.24	ppb		97
87) Bromoform	10.760	173	635021	201.42	ppb		97
88) 2-CBTF	10.840	180	1522656	180.96	ppb		94
89) Isopropylbenzene	10.931	105	4669450	161.80	ppb		87
90) Cyclohexanone	10.992	55	1766909	4222.87	ppb		98
91) trans-1,4-Dichloro-2-B...	11.230	53	345568	190.64	ppb		97
92) 1,1,2,2-Tetrachloroethane	11.187	83	1057661	181.38	ppb		98
93) Bromobenzene	11.175	156	1250476	191.49	ppb	#	87
94) 1,2,3-Trichloropropane	11.211	110	311222	181.24	ppb	#	88

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 11:05:54 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

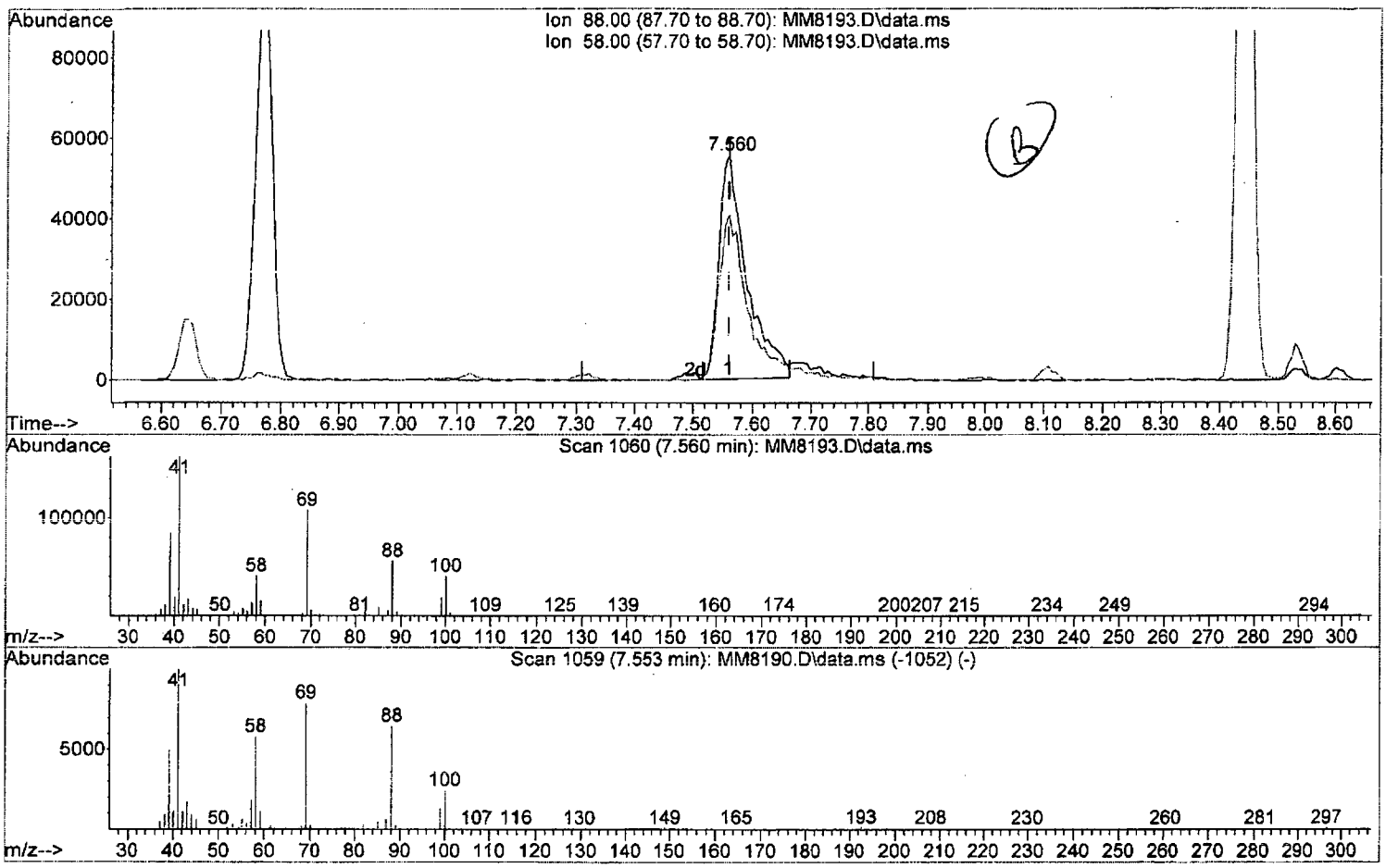
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.285	91	5221769	156.99	ppb	86
96)	2-Chlorotoluene	11.346	91	3463585	177.63	ppb	91
97)	3-Chlorotoluene	11.400	91	3624761	177.24	ppb	92
98)	4-Chlorotoluene	11.437	91	3624296	164.77	ppb	90
99)	1,3,5-Trimethylbenzene	11.431	105	3699680	169.41	ppb	91
100)	tert-Butylbenzene	11.705	119	3465289	177.85	ppb	91
101)	1,2,4-Trimethylbenzene	11.742	105	3888852	165.94	ppb	86
102)	3,4-DCBTF	11.803	214	1024694	181.82	ppb	96
103)	sec-Butylbenzene	11.882	105	4469687	163.94	ppb	91
104)	p-Isopropyltoluene	12.004	119	3617754	171.62	ppb	91
105)	1,3-Dclbenz	11.967	146	2280239	180.39	ppb	94
106)	1,4-Dclbenz	12.041	146	2253249	190.17	ppb	93
107)	2,4-DCBTF	12.089	214	922510	187.55	ppb	98
108)	2,5-DCBTF	12.132	214	1047045	188.17	ppb	96
109)	n-Butylbenzene	12.333	91	3277624	164.18	ppb	91
110)	1,2-Dclbenz	12.339	146	2171827	186.68	ppb	96
111)	1,2-Dibromo-3-chloropr...	12.955	157	232234	202.48	ppb	91
112)	Trielution Dichlorotol...	13.077	125	4986913	507.89	ppb	93
113)	1,3,5 Trichlorobenzene	13.132	180	1375190	175.84	ppb	97
114)	Coelution Dichlorotoluene	13.406	125	3557724	342.89	ppb	92
115)	1,2,4-Tcbenzene	13.613	180	1300053	181.12	ppb	97
116)	Hexachlorobt	13.747	225	512980	167.62	ppb	95
117)	Naphthalen	13.802	128	2970452	199.53	ppb	98
118)	1,2,3-Tclbenzene	13.991	180	1166852	195.43	ppb	98
119)	2,4,5-Trichlorotolene	14.570	159	882074	194.65	ppb	99
120)	2,3,6-Trichlorotoluene	14.656	159	732703	182.89	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 09:36:19 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8193.D\data.ms

(58) 1,4-Dioxane

7.560min (0.000) 3728.92 ppb

response 180760

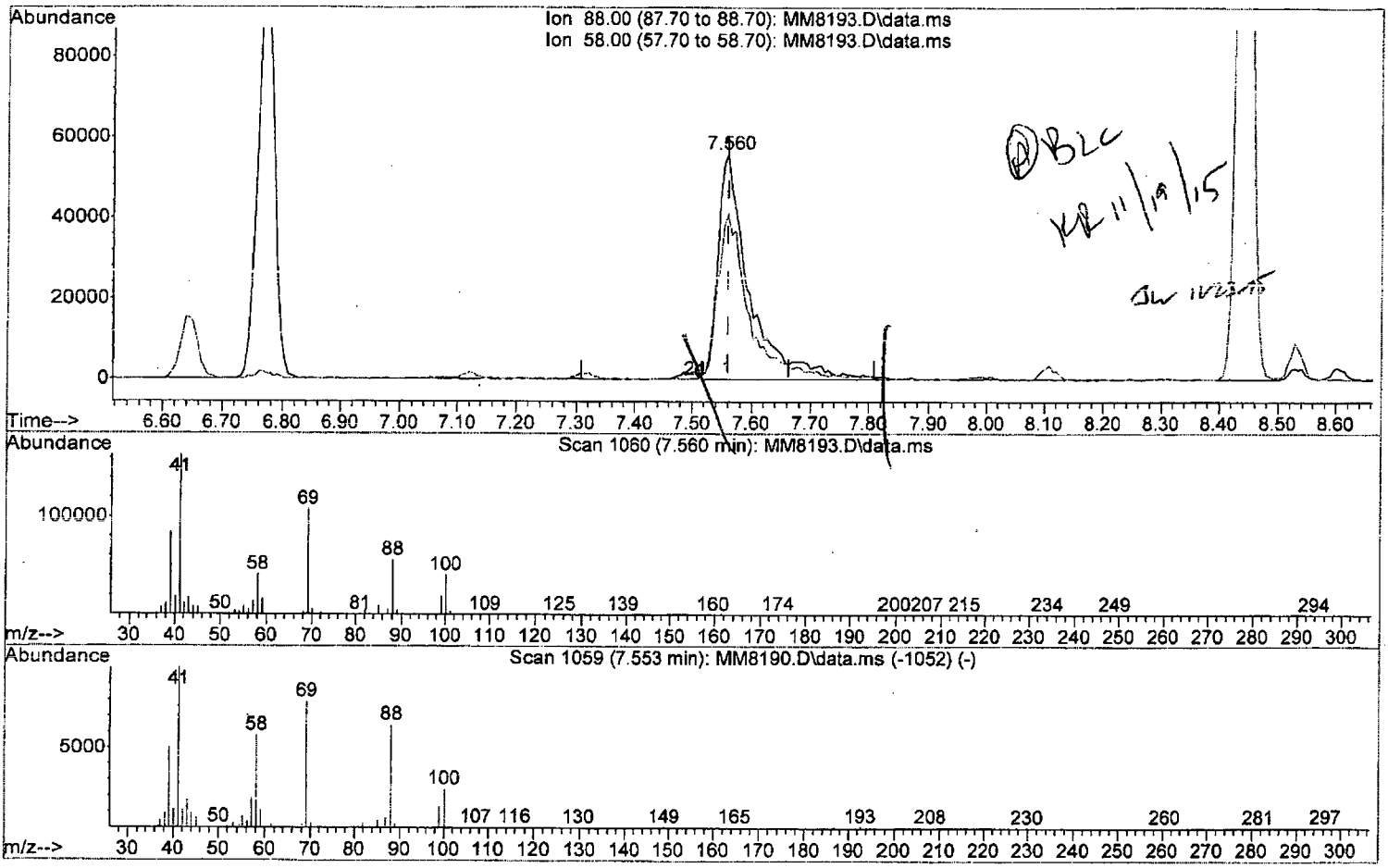
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	73.08
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 11:05:39 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 09:36:19 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8193.D\data.ms

(58) 1,4-Dioxane

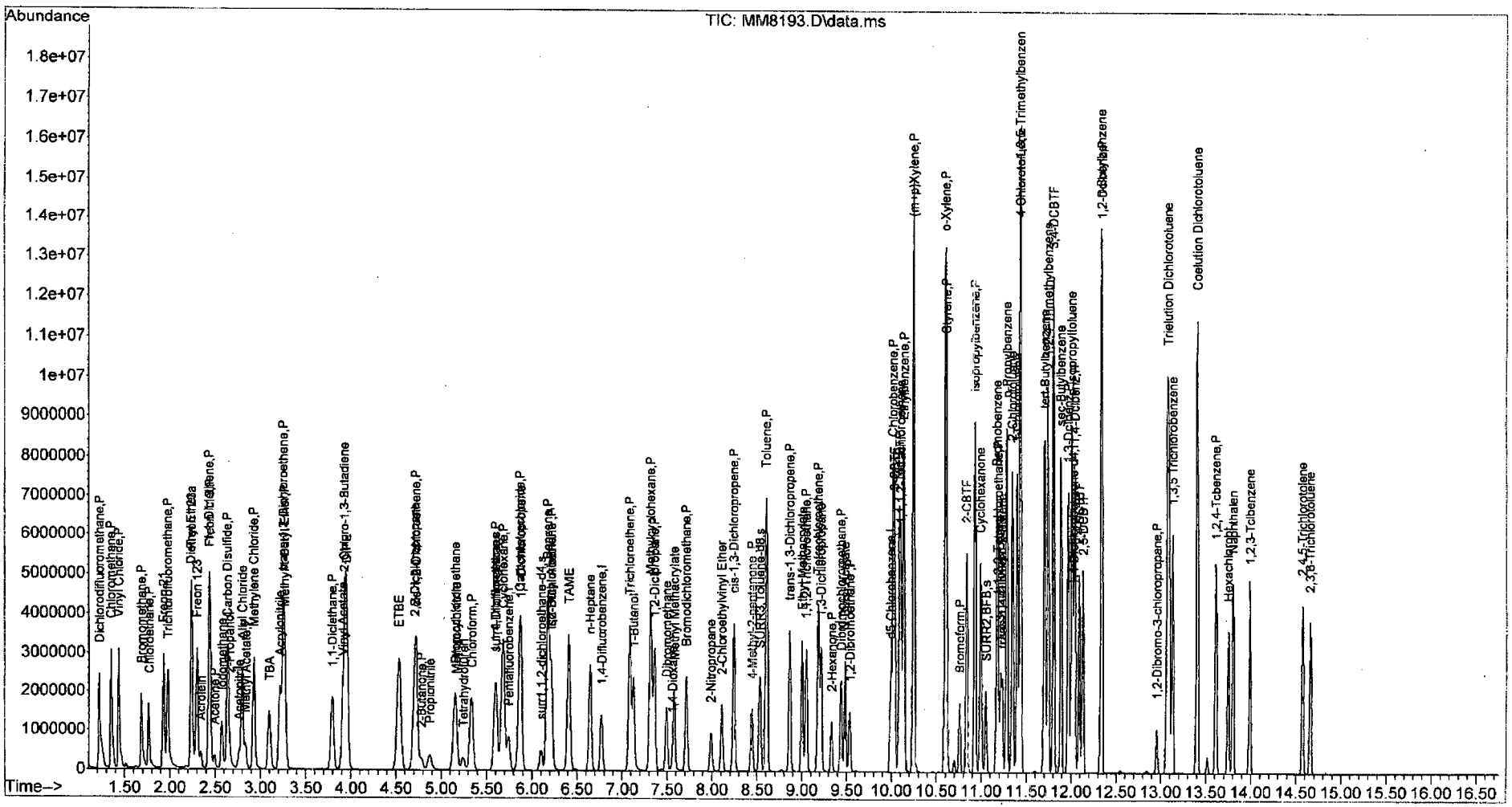
7.560min (0.000) 4191.53 ppb m

response 203185

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	73.08
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 11:05:54 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 11:06:58 2015 Page: 4

Initial Calibration Verification Summary Report

KR 11/30/15

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
W111815A - 8260 waters **Column Name:** I

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1,1,1,2-Tetrachloroethane	RC1500127-10	T	Average RF	50	48.54	ppm	-2.9	<=20
1,1,1,2-Tetrachloroethane	RC1500127-10	T	Average RF	50	48.54	ppm	-2.9	<=30
1,1,1-Trichloroethane (TCA)	RC1500127-10	T	Average RF	50	52.64	ppm	5.3	<=20
1,1,1-Trichloroethane (TCA)	RC1500127-10	T	Average RF	50	52.64	ppm	5.3	<=30
1,1,2,2-Tetrachloroethane	RC1500127-10	T	Average RF	50	50.34	ppm	0.7	<=20
1,1,2,2-Tetrachloroethane	RC1500127-10	T	Average RF	50	50.34	ppm	0.7	<=30
1,1,2-Trichloroethane	RC1500127-10	T	Average RF	50	51.43	ppm	2.9	<=30
1,1,2-Trichloroethane	RC1500127-10	T	Average RF	50	51.43	ppm	2.9	<=20
1,1,2-Trichlorotrifluoroethane	RC1500127-10	T	Average RF	50	53.36	ppm	6.7	<=30
1,1,2-Trichlorotrifluoroethane	RC1500127-10	T	Average RF	50	53.36	ppm	6.7	<=20
1,1-Dichloroethane (1,1-DCA)	RC1500127-10	T	Average RF	50	53.31	ppm	6.6	<=20
1,1-Dichloroethane (1,1-DCA)	RC1500127-10	T	Average RF	50	53.31	ppm	6.6	<=30
1,1-Dichloroethene (1,1-DCE)	RC1500127-10	T	Average RF	50	50.36	ppm	0.7	<=30
1,1-Dichloroethene (1,1-DCE)	RC1500127-10	T	Average RF	50	50.36	ppm	0.7	<=20
1,1-Dichloropropene	RC1500127-10	T	Average RF	50	51.92	ppm	3.8	<=20
1,1-Dichloropropene	RC1500127-10	T	Average RF	50	51.92	ppm	3.8	<=30
1,2,3-Trichlorobenzene	RC1500127-10	T	Average RF	50	53.80	ppm	7.6	<=20
1,2,3-Trichlorobenzene	RC1500127-10	T	Average RF	50	53.80	ppm	7.6	<=30
1,2,3-Trichloropropane	RC1500127-10	T	Linear	50	51.15	ppm	2.3	<=20
1,2,3-Trichloropropane	RC1500127-10	T	Linear	50	51.15	ppm	2.3	<=30
1,2,4-Trichlorobenzene	RC1500127-10	T	Average RF	50	51.73	ppm	3.5	<=20
1,2,4-Trichlorobenzene	RC1500127-10	T	Average RF	50	51.73	ppm	3.5	<=30
1,2,4-Trimethylbenzene	RC1500127-10	T	Average RF	50	49.51	ppm	-1.0	<=30
1,2,4-Trimethylbenzene	RC1500127-10	T	Average RF	50	49.51	ppm	-1.0	<=20
1,2-Dibromo-3-chloropropane (DBCP)	RC1500127-10	T	Average RF	50	50.08	ppm	0.2	<=20
1,2-Dibromo-3-chloropropane (DBCP)	RC1500127-10	T	Average RF	50	50.08	ppm	0.2	<=30
1,2-Dibromoethane	RC1500127-10	T	Average RF	50	48.51	ppm	-3.0	<=20
1,2-Dibromoethane	RC1500127-10	T	Average RF	50	48.51	ppm	-3.0	<=30
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123:	RC1500127-10	T	Average RF	50	52.94	ppm	5.9	<=20
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123:	RC1500127-10	T	Average RF	50	52.94	ppm	5.9	<=30
1,2-Dichlorobenzene	RC1500127-10	T	Average RF	50	51.17	ppm	2.3	<=30
1,2-Dichlorobenzene	RC1500127-10	T	Average RF	50	51.17	ppm	2.3	<=20
1,2-Dichloroethane	RC1500127-10	T	Average RF	50	51.31	ppm	2.6	<=30
1,2-Dichloroethane	RC1500127-10	T	Average RF	50	51.31	ppm	2.6	<=20
1,2-Dichloropropane	RC1500127-10	T	Average RF	50	51.97	ppm	3.9	<=30
1,2-Dichloropropane	RC1500127-10	T	Average RF	50	51.97	ppm	3.9	<=20
1,3,5-Trichlorobenzene	RC1500127-10	T	Average RF	50	52.04	ppm	4.1	<=20
1,3,5-Trichlorobenzene	RC1500127-10	T	Average RF	50	52.04	ppm	4.1	<=30
1,3,5-Trimethylbenzene	RC1500127-10	T	Average RF	50	50.19	ppm	0.4	<=30
1,3,5-Trimethylbenzene	RC1500127-10	T	Average RF	50	50.19	ppm	0.4	<=20
1,3-Dichlorobenzene	RC1500127-10	T	Average RF	50	50.54	ppm	1.1	<=20
1,3-Dichlorobenzene	RC1500127-10	T	Average RF	50	50.54	ppm	1.1	<=30
1,3-Dichloropropane	RC1500127-10	T	Average RF	50	50.27	ppm	0.5	<=20
1,3-Dichloropropane	RC1500127-10	T	Average RF	50	50.27	ppm	0.5	<=30
1,4-Dichlorobenzene	RC1500127-10	T	Average RF	50	52.30	ppm	4.6	<=20
1,4-Dichlorobenzene	RC1500127-10	T	Average RF	50	52.30	ppm	4.6	<=30
1,4-Dioxane	RC1500127-10	T	Average RF	1000	1102	ppm	10.2	<=20
1,4-Dioxane	RC1500127-10	T	Average RF	1000	1102	ppm	10.2	<=30
1-Butanol	RC1500127-10	T	Average RF	2500	2715	ppm	8.6	<=30
1-Butanol	RC1500127-10	T	Average RF	2500	2715	ppm	8.6	<=20
1-Chloro-4-(trifluoromethyl)benzene	RC1500127-10	T	Average RF	50	49.39	ppm	-1.2	<=20

Initial Calibration Verification Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1-Chloro-4-(trifluoromethyl)benzene	RC1500127-10	T	Average RF	50	49.39	ppm	-1.2	<=30
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	RC1500127-10	T	Average RF	50	49.21	ppm	-1.6	<=30
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	RC1500127-10	T	Average RF	50	49.21	ppm	-1.6	<=20
2,2-Dichloropropane	RC1500127-10	T	Average RF	50	53.05	ppm	6.1	<=30
2,2-Dichloropropane	RC1500127-10	T	Average RF	50	53.05	ppm	6.1	<=20
2,3,6-Trichlorotoluene	RC1500127-10	T	Average RF	50	53.85	ppm	7.7	<=20
2,3,6-Trichlorotoluene	RC1500127-10	T	Average RF	50	53.85	ppm	7.7	<=30
2,4,5-Trichlorotoluene	RC1500127-10	T	Average RF	50	55.45	ppm	10.9	<=30
2,4,5-Trichlorotoluene	RC1500127-10	T	Average RF	50	55.45	ppm	10.9	<=20
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	RC1500127-10	T	Average RF	150	156.2	ppm	4.1	<=20
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	RC1500127-10	T	Average RF	150	156.2	ppm	4.1	<=30
2,4-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	51.82	ppm	3.6	<=20
2,4-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	51.82	ppm	3.6	<=30
2,5-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.60	ppm	1.2	<=20
2,5-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.60	ppm	1.2	<=30
2-Butanone (MEK)	RC1500127-10	T	Average RF	50	51.81	ppm	3.6	<=30
2-Butanone (MEK)	RC1500127-10	T	Average RF	50	51.81	ppm	3.6	<=20
2-Chloro-1,3-butadiene	RC1500127-10	T	Average RF	50	47.73	ppm	-4.5	<=20
2-Chloro-1,3-butadiene	RC1500127-10	T	Average RF	50	47.73	ppm	-4.5	<=30
2-Chlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.78	ppm	1.6	<=30
2-Chlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.78	ppm	1.6	<=20
2-Chloroethyl Vinyl Ether	RC1500127-10	T	Average RF	50	48.85	ppm	-2.3	<=30
2-Chloroethyl Vinyl Ether	RC1500127-10	T	Average RF	50	48.85	ppm	-2.3	<=20
2-Chlorotoluene	RC1500127-10	T	Average RF	50	51.26	ppm	2.5	<=30
2-Chlorotoluene	RC1500127-10	T	Average RF	50	51.26	ppm	2.5	<=20
2-Hexanone	RC1500127-10	T	Average RF	50	49.30	ppm	-1.4	<=20
2-Hexanone	RC1500127-10	T	Average RF	50	49.30	ppm	-1.4	<=30
2-Methyl-1-propanol	RC1500127-10	T	Average RF	1000	1066	ppm	6.6	<=20
2-Methyl-1-propanol	RC1500127-10	T	Average RF	1000	1066	ppm	6.6	<=30
2-Methyl-2-propanol	RC1500127-10	T	Average RF	1000	1091	ppm	9.1	<=20
2-Methyl-2-propanol	RC1500127-10	T	Average RF	1000	1091	ppm	9.1	<=30
2-Nitropropane	RC1500127-10	T	Average RF	100	104.9	ppm	4.9	<=30
2-Nitropropane	RC1500127-10	T	Average RF	100	104.9	ppm	4.9	<=20
2-Propanol	RC1500127-10	T	Average RF	1000	964.3	ppm	-3.6	<=30
2-Propanol	RC1500127-10	T	Average RF	1000	964.3	ppm	-3.6	<=20
3,4- and 2,3-Dichlorotoluene Coelution	RC1500127-10	T	Average RF	100	107.4	ppm	7.4	<=30
3,4- and 2,3-Dichlorotoluene Coelution	RC1500127-10	T	Average RF	100	107.4	ppm	7.4	<=20
3,4-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.07	ppm	0.1	<=20
3,4-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.07	ppm	0.1	<=30
3-Chloro-1-propene	RC1500127-10	T	Average RF	50	58.61	ppm	17.2	<=30
3-Chloro-1-propene	RC1500127-10	T	Average RF	50	58.61	ppm	17.2	<=20
3-Chlorobenzotrifluoride	RC1500127-10	T	Average RF	50	49.06	ppm	-1.9	<=30
3-Chlorobenzotrifluoride	RC1500127-10	T	Average RF	50	49.06	ppm	-1.9	<=20
3-Chlorotoluene	RC1500127-10	T	Average RF	50	51.03	ppm	2.1	<=30
3-Chlorotoluene	RC1500127-10	T	Average RF	50	51.03	ppm	2.1	<=20
4-Chlorotoluene	RC1500127-10	T	Average RF	50	50.24	ppm	0.5	<=20
4-Chlorotoluene	RC1500127-10	T	Average RF	50	50.24	ppm	0.5	<=30
4-Isopropyltoluene	RC1500127-10	T	Average RF	50	52.15	ppm	4.3	<=20
4-Isopropyltoluene	RC1500127-10	T	Average RF	50	52.15	ppm	4.3	<=30
4-Methyl-2-pentanone	RC1500127-10	T	Average RF	50	52.44	ppm	4.9	<=30
4-Methyl-2-pentanone	RC1500127-10	T	Average RF	50	52.44	ppm	4.9	<=20

Initial Calibration Verification Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Acetone	RC1500127-10	T	Average RF	50	44.91	ppm	-10.2	<=30
Acetone	RC1500127-10	T	Average RF	50	44.91	ppm	-10.2	<=20
Acetonitrile	RC1500127-10	T	Average RF	250	230.4	ppm	-7.9	<=30
Acetonitrile	RC1500127-10	T	Average RF	250	230.4	ppm	-7.9	<=20
Acrolein	RC1500127-10	T	Average RF	100	124.8	ppm	24.8	<=20
Acrolein	RC1500127-10	T	Average RF	100	124.8	ppm	24.8	<=30
Acrylonitrile	RC1500127-10	T	Average RF	250	260.9	ppm	4.4	<=20
Acrylonitrile	RC1500127-10	T	Average RF	250	260.9	ppm	4.4	<=30
Benzene	RC1500127-10	T	Average RF	50	50.05	ppm	0.1	<=30
Benzene	RC1500127-10	T	Average RF	50	50.05	ppm	0.1	<=20
Bromobenzene	RC1500127-10	T	Average RF	50	51.06	ppm	2.1	<=20
Bromobenzene	RC1500127-10	T	Average RF	50	51.06	ppm	2.1	<=30
Bromochloromethane	RC1500127-10	T	Average RF	50	50.47	ppm	0.9	<=20
Bromochloromethane	RC1500127-10	T	Average RF	50	50.47	ppm	0.9	<=30
Bromodichloromethane	RC1500127-10	T	Average RF	50	50.54	ppm	1.1	<=20
Bromodichloromethane	RC1500127-10	T	Average RF	50	50.54	ppm	1.1	<=30
Bromoform	RC1500127-10	T	Average RF	50	50.56	ppm	1.1	<=20
Bromoform	RC1500127-10	T	Average RF	50	50.56	ppm	1.1	<=30
Bromomethane	RC1500127-10	T	Average RF	50	51.41	ppm	2.8	<=20
Bromomethane	RC1500127-10	T	Average RF	50	51.41	ppm	2.8	<=30
Carbon Disulfide	RC1500127-10	T	Average RF	50	49.80	ppm	-0.4	<=20
Carbon Disulfide	RC1500127-10	T	Average RF	50	49.80	ppm	-0.4	<=30
Carbon Tetrachloride	RC1500127-10	T	Average RF	50	49.41	ppm	-1.2	<=30
Carbon Tetrachloride	RC1500127-10	T	Average RF	50	49.41	ppm	-1.2	<=20
Chlorobenzene	RC1500127-10	T	Average RF	50	49.46	ppm	-1.1	<=20
Chlorobenzene	RC1500127-10	T	Average RF	50	49.46	ppm	-1.1	<=30
Chloroethane	RC1500127-10	T	Average RF	50	50.64	ppm	1.3	<=20
Chloroethane	RC1500127-10	T	Average RF	50	50.64	ppm	1.3	<=30
Chloroform	RC1500127-10	T	Average RF	50	48.45	ppm	-3.1	<=20
Chloroform	RC1500127-10	T	Average RF	50	48.45	ppm	-3.1	<=30
Chloromethane	RC1500127-10	T	Average RF	50	50.25	ppm	0.5	<=20
Chloromethane	RC1500127-10	T	Average RF	50	50.25	ppm	0.5	<=30
Cyclohexane	RC1500127-10	T	Average RF	50	45.87	ppm	-8.3	<=20
Cyclohexane	RC1500127-10	T	Average RF	50	45.87	ppm	-8.3	<=30
Cyclohexanone	RC1500127-10	T	Average RF	1000	1179	ppm	17.9	<=30
Cyclohexanone	RC1500127-10	T	Average RF	1000	1179	ppm	17.9	<=20
Dibromochloromethane	RC1500127-10	T	Average RF	50	50.62	ppm	1.2	<=20
Dibromochloromethane	RC1500127-10	T	Average RF	50	50.62	ppm	1.2	<=30
Dibromomethane	RC1500127-10	T	Average RF	50	48.11	ppm	-3.8	<=30
Dibromomethane	RC1500127-10	T	Average RF	50	48.11	ppm	-3.8	<=20
Dichlorodifluoromethane (CFC 12)	RC1500127-10	T	Average RF	50	56.51	ppm	13.0	<=30
Dichlorodifluoromethane (CFC 12)	RC1500127-10	T	Average RF	50	56.51	ppm	13.0	<=20
Dichlorofluoromethane (CFC 21)	RC1500127-10	T	Average RF	50	57.03	ppm	14.1	<=30
Dichlorofluoromethane (CFC 21)	RC1500127-10	T	Average RF	50	57.03	ppm	14.1	<=20
Dichloromethane	RC1500127-10	T	Average RF	50	47.77	ppm	-4.5	<=20
Dichloromethane	RC1500127-10	T	Average RF	50	47.77	ppm	-4.5	<=30
Diethyl Ether	RC1500127-10	T	Average RF	50	54.17	ppm	8.3	<=20
Diethyl Ether	RC1500127-10	T	Average RF	50	54.17	ppm	8.3	<=30
Diisopropyl Ether	RC1500127-10	T	Average RF	50	48.19	ppm	-3.6	<=20
Diisopropyl Ether	RC1500127-10	T	Average RF	50	48.19	ppm	-3.6	<=30
Ethyl Methacrylate	RC1500127-10	T	Average RF	50	53.51	ppm	7.0	<=20

Initial Calibration Verification Summary Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Ethyl Methacrylate	RC1500127-10	T	Average RF	50	53.51	ppm	7.0	<=30
Ethyl tert-Butyl Ether	RC1500127-10	T	Average RF	50	48.25	ppm	-3.5	<=20
Ethyl tert-Butyl Ether	RC1500127-10	T	Average RF	50	48.25	ppm	-3.5	<=30
Ethylbenzene	RC1500127-10	T	Average RF	50	49.68	ppm	-0.6	<=20
Ethylbenzene	RC1500127-10	T	Average RF	50	49.68	ppm	-0.6	<=30
Hexachlorobutadiene	RC1500127-10	T	Average RF	50	52.67	ppm	5.3	<=30
Hexachlorobutadiene	RC1500127-10	T	Average RF	50	52.67	ppm	5.3	<=20
Iodomethane	RC1500127-10	T	Average RF	50	53.60	ppm	7.2	<=30
Iodomethane	RC1500127-10	T	Average RF	50	53.60	ppm	7.2	<=20
Isopropylbenzene (Cumene)	RC1500127-10	T	Average RF	50	48.42	ppm	-3.2	<=30
Isopropylbenzene (Cumene)	RC1500127-10	T	Average RF	50	48.42	ppm	-3.2	<=20
Methacrylonitrile	RC1500127-10	T	Average RF	50	52.29	ppm	4.6	<=30
Methacrylonitrile	RC1500127-10	T	Average RF	50	52.29	ppm	4.6	<=20
Methyl Acetate	RC1500127-10	T	Average RF	50	47.56	ppm	-4.9	<=30
Methyl Acetate	RC1500127-10	T	Average RF	50	47.56	ppm	-4.9	<=20
Methyl Methacrylate	RC1500127-10	T	Average RF	50	51.03	ppm	2.1	<=30
Methyl Methacrylate	RC1500127-10	T	Average RF	50	51.03	ppm	2.1	<=20
Methyl tert-Butyl Ether	RC1500127-10	T	Average RF	50	50.99	ppm	2.0	<=30
Methyl tert-Butyl Ether	RC1500127-10	T	Average RF	50	50.99	ppm	2.0	<=20
Methylcyclohexane	RC1500127-10	T	Average RF	50	46.97	ppm	-6.1	<=20
Methylcyclohexane	RC1500127-10	T	Average RF	50	46.97	ppm	-6.1	<=30
Naphthalene	RC1500127-10	T	Average RF	50	55.14	ppm	10.3	<=20
Naphthalene	RC1500127-10	T	Average RF	50	55.14	ppm	10.3	<=30
Propionitrile	RC1500127-10	T	Average RF	250	259.2	ppm	3.7	<=20
Propionitrile	RC1500127-10	T	Average RF	250	259.2	ppm	3.7	<=30
Styrene	RC1500127-10	T	Average RF	50	49.59	ppm	-0.8	<=30
Styrene	RC1500127-10	T	Average RF	50	49.59	ppm	-0.8	<=20
Tetrachloroethene (PCE)	RC1500127-10	T	Average RF	50	50.04	ppm	0.1	<=20
Tetrachloroethene (PCE)	RC1500127-10	T	Average RF	50	50.04	ppm	0.1	<=30
Tetrahydrofuran (THF)	RC1500127-10	T	Average RF	50	57.10	ppm	14.2	<=30
Tetrahydrofuran (THF)	RC1500127-10	T	Average RF	50	57.10	ppm	14.2	<=20
Toluene	RC1500127-10	T	Average RF	50	49.67	ppm	-0.7	<=30
Toluene	RC1500127-10	T	Average RF	50	49.67	ppm	-0.7	<=20
Trichloroethene (TCE)	RC1500127-10	T	Average RF	50	49.06	ppm	-1.9	<=30
Trichloroethene (TCE)	RC1500127-10	T	Average RF	50	49.06	ppm	-1.9	<=20
Trichlorofluoromethane (CFC 11)	RC1500127-10	T	Average RF	50	54.52	ppm	9.0	<=20
Trichlorofluoromethane (CFC 11)	RC1500127-10	T	Average RF	50	54.52	ppm	9.0	<=30
Vinyl Acetate	RC1500127-10	T	Average RF	50	53.96	ppm	7.9	<=30
Vinyl Acetate	RC1500127-10	T	Average RF	50	53.96	ppm	7.9	<=20
Vinyl Chloride	RC1500127-10	T	Average RF	50	52.01	ppm	4.0	<=20
Vinyl Chloride	RC1500127-10	T	Average RF	50	52.01	ppm	4.0	<=30
cis-1,2-Dichloroethene	RC1500127-10	T	Average RF	50	49.33	ppm	-1.3	<=20
cis-1,2-Dichloroethene	RC1500127-10	T	Average RF	50	49.33	ppm	-1.3	<=30
cis-1,3-Dichloropropene	RC1500127-10	T	Average RF	50	50.14	ppm	0.3	<=30
cis-1,3-Dichloropropene	RC1500127-10	T	Average RF	50	50.14	ppm	0.3	<=20
m,p-Xylenes	RC1500127-10	T	Average RF	100	98.54	ppm	-1.5	<=20
m,p-Xylenes	RC1500127-10	T	Average RF	100	98.54	ppm	-1.5	<=30
n-Butyl Acetate	RC1500127-10	T	Average RF	50	52.15	ppm	4.3	<=30
n-Butyl Acetate	RC1500127-10	T	Average RF	50	52.15	ppm	4.3	<=20
n-Butylbenzene	RC1500127-10	T	Average RF	50	51.38	ppm	2.8	<=30
n-Butylbenzene	RC1500127-10	T	Average RF	50	51.38	ppm	2.8	<=20

Initial Calibration Verification Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
n-Heptane	RC1500127-10	T	Average RF	50	51.14	ppm	2.3	<=20
n-Heptane	RC1500127-10	T	Average RF	50	51.14	ppm	2.3	<=30
n-Propylbenzene	RC1500127-10	T	Average RF	50	49.10	ppm	-1.8	<=20
n-Propylbenzene	RC1500127-10	T	Average RF	50	49.10	ppm	-1.8	<=30
o-Xylene	RC1500127-10	T	Average RF	50	49.20	ppm	-1.6	<=30
o-Xylene	RC1500127-10	T	Average RF	50	49.20	ppm	-1.6	<=20
sec-Butylbenzene	RC1500127-10	T	Average RF	50	49.37	ppm	-1.3	<=20
sec-Butylbenzene	RC1500127-10	T	Average RF	50	49.37	ppm	-1.3	<=30
tert-Amyl Methyl Ether	RC1500127-10	T	Average RF	50	50.27	ppm	0.5	<=30
tert-Amyl Methyl Ether	RC1500127-10	T	Average RF	50	50.27	ppm	0.5	<=20
tert-Butylbenzene	RC1500127-10	T	Average RF	50	49.68	ppm	-0.6	<=30
tert-Butylbenzene	RC1500127-10	T	Average RF	50	49.68	ppm	-0.6	<=20
trans-1,2-Dichloroethene	RC1500127-10	T	Average RF	50	51.91	ppm	3.8	<=30
trans-1,2-Dichloroethene	RC1500127-10	T	Average RF	50	51.91	ppm	3.8	<=20
trans-1,3-Dichloropropene	RC1500127-10	T	Average RF	50	53.61	ppm	7.2	<=20
trans-1,3-Dichloropropene	RC1500127-10	T	Average RF	50	53.61	ppm	7.2	<=30
trans-1,4-Dichloro-2-butene	RC1500127-10	T	Linear	50	51.73	ppm	3.5	<=30
trans-1,4-Dichloro-2-butene	RC1500127-10	T	Linear	50	51.73	ppm	3.5	<=20
1,2-Dichloroethane-d4	RC1500127-10	S	Average RF	50	55.42	ppm	10.8	<=20
1,2-Dichloroethane-d4	RC1500127-10	S	Average RF	50	55.42	ppm	10.8	<=30
4-Bromofluorobenzene	RC1500127-10	S	Average RF	50	55.98	ppm	12.0	<=20
4-Bromofluorobenzene	RC1500127-10	S	Average RF	50	55.98	ppm	12.0	<=30
Dibromofluoromethane	RC1500127-10	S	Average RF	50	54.09	ppm	8.2	<=20
Dibromofluoromethane	RC1500127-10	S	Average RF	50	54.09	ppm	8.2	<=30
Toluene-d8	RC1500127-10	S	Average RF	50	57.39	ppm	14.8	<=20
Toluene-d8	RC1500127-10	S	Average RF	50	57.39	ppm	14.8	<=30

Exceptions

QAP **Method**

DOD QSM V4.2 Rochester 8260C

Compound	Type	Criteria	Result
Acrolein	Percent Difference	<= 20	24.79

Exceptions

QAP **Method**

DOD QSM v5.0 Rochester 8260C

Compound	Type	Criteria	Result
Acrolein	Percent Difference	<= 20	24.79

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:41:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	726113	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1257122	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1174218	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	568495	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	353544	45.91	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 91.82%				
48) surr1,1,2-dichloroetha...	6.096	65	400078	49.36	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 98.72%				
65) SURR3,Toluene-d8	8.535	98	1578449	47.33	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 94.66%				
70) SURR2,BFB	11.047	95	581217	48.43	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.86%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	578049	56.51	ppb		100
3) Chloromethane	1.347	50	613656	50.25	ppb		96
4) Vinyl Chloride	1.433	62	591690	52.01	ppb		99
5) Bromomethane	1.689	94	285633	51.41	ppb		98
6) Chloroethane	1.768	64	316784	50.64	ppb		100
7) Freon 21	1.926	67	690841	57.03	ppb		100
8) Trichlorofluoromethane	1.981	101	483194	54.52	ppb		99
9) Diethyl Ether	2.231	59	301204	54.17	ppb		97
10) Freon 123a	2.237	67	419242	52.94	ppb		100
11) Freon 123	2.298	83	449302	49.21	ppb		96
12) Acrolein	2.341	56	77212	124.79	ppb		98
13) 1,1-Diclethene	2.432	96	305820	50.36	ppb		96
14) Freon 113	2.445	101	294916	53.36	ppb		96
15) Acetone	2.493	43	69526	44.91	ppb		90
16) 2-Propanol	2.646	45	283254	964.31	ppb		97
17) Iodomethane	2.573	142	369790	53.60	ppb		98
18) Carbon Disulfide	2.634	76	1010201	49.80	ppb		99
19) Acetonitrile	2.762	40	49458	230.37	ppb		94
20) Allyl Chloride	2.798	76	198188	58.61	ppb		98
21) Methyl Acetate	2.829	43	171541	47.56	ppb		97
22) Methylene Chloride	2.926	84	334994	47.77	ppb		95
23) TBA	3.091	59	520016	1090.84	ppb		98
24) Acrylonitrile	3.213	53	457105	260.89	ppb		99
25) Methyl-t-Butyl Ether	3.268	73	861417	50.99	ppb		99
26) trans-1,2-Dichloroethene	3.249	96	339517	51.91	ppb		97
28) 1,1-Diclethane	3.792	63	620067	53.31	ppb		97
29) Vinyl Acetate	3.902	86	65375	53.96	ppb	#	95
30) DIPE	3.944	45	1092805	48.19	ppb		98
31) 2-Chloro-1,3-Butadiene	3.932	53	558315	47.73	ppb		99
32) ETBE	4.530	59	1028142	48.25	ppb		98
33) 2,2-Dichloropropane	4.706	77	493585	53.05	ppb		97
34) cis-1,2-Dichloroethene	4.718	96	357118	49.33	ppb		95
35) 2-Butanone	4.779	43	109862	51.81	ppb		99
36) Propionitrile	4.871	54	167834	259.20	ppb		93

KP 11/19/15

W111815.M Thu Nov 19 11:43:02 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:41:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Bromochloromethane	5.151	130	188732	50.47	ppb	92
38) Methacrylonitrile	5.157	67	107303	52.29	ppb	96
39) Tetrahydrofuran	5.243	42	77870	57.10	ppb	95
40) Chloroform	5.328	83	547722	48.45	ppb	99
41) 1,1,1-Trichloroethane	5.596	97	467481	52.64	ppb	97
42) TAME	6.407	73	910074	50.27	ppb	99
44) Cyclohexane	5.682	41	315164	45.87	ppb	98
46) Carbontetrachloride	5.859	121	118942	49.41	ppb	98
47) 1,1-Dichloropropene	5.877	75	460497	51.92	ppb	99
49) Benzene	6.176	78	1384782	50.05	ppb	100
50) 1,2-Dichloroethane	6.212	62	363912	51.31	ppb	100
51) Iso-Butyl Alcohol	6.200	43	247157	1065.73	ppb	90
52) n-Heptane	6.645	43	389344	51.14	ppb	99
53) 1-Butanol	7.114	56	394692	2715.11	ppb	99
54) Trichloroethene	7.084	130	344877	49.06	ppb	97
55) Methylcyclohexane	7.316	55	398059	46.97	ppb	95
56) 1,2-Diclpropane	7.352	63	356308	51.97	ppb	99
57) Dibromomethane	7.492	93	162395	48.11	ppb	97
58) 1,4-Dioxane	7.566	88	55398m	1101.95	ppb	
59) Methyl Methacrylate	7.578	69	202427	51.03	ppb	96
60) Bromodichloromethane	7.712	83	424820	50.54	ppb	99
61) 2-Nitropropane	7.986	41	129864	104.90	ppb	96
62) 2-Chloroethylvinyl Ether	8.108	63	184748	48.85	ppb	98
63) cis-1,3-Dichloropropene	8.242	75	564924	50.14	ppb	97
64) 4-Methyl-2-pentanone	8.443	43	262899	52.44	ppb	95
66) Toluene	8.602	91	1423229	49.67	ppb	99
67) trans-1,3-Dichloropropene	8.864	75	479777	53.61	ppb	97
68) Ethyl Methacrylate	8.998	69	424063	53.51	ppb	99
69) 1,1,2-Trichloroethane	9.047	97	249204	51.43	ppb	99
72) Tetrachloroethene	9.181	164	243689	50.04	ppb	95
73) 2-Hexanone	9.327	43	177208	49.30	ppb	98
74) 1,3-Dichloropropane	9.212	76	448747	50.27	ppb	98
75) Dibromochloromethane	9.437	129	281182	50.62	ppb	98
76) N-Butyl Acetate	9.480	43	447943	52.15	ppb	99
77) 1,2-Dibromoethane	9.529	107	230782	48.51	ppb	98
78) Chlorobenzene	10.016	112	859029	49.46	ppb	99
79) 3-CBTF	10.035	180	422230	49.06	ppb	99
80) 4-CBTF	10.083	180	395512	49.39	ppb	99
81) 1,1,1,2-Tetrachloroethane	10.102	131	291371	48.54	ppb	98
82) Ethylbenzene	10.132	106	488737	49.68	ppb	96
83) (m+p)Xylene	10.242	106	1196691	98.54	ppb	99
84) o-Xylene	10.595	106	611940	49.20	ppb	98
85) Styrene	10.608	104	1004572	49.59	ppb	99
87) Bromoform	10.760	173	163273	50.56	ppb	96
88) 2-CBTF	10.839	180	437719	50.78	ppb	91
89) Isopropylbenzene	10.925	105	1431318	48.42	ppb	100
90) Cyclohexanone	10.992	55	505453	1179.29	ppb	95
91) trans-1,4-Dichloro-2-B...	11.229	53	90609	51.73	ppb	96
92) 1,1,2,2-Tetrachloroethane	11.181	83	300721	50.34	ppb	99
93) Bromobenzene	11.175	156	341544	51.06	ppb	93
94) 1,2,3-Trichloropropane	11.211	110	81243	51.15	ppb	99

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:41:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration

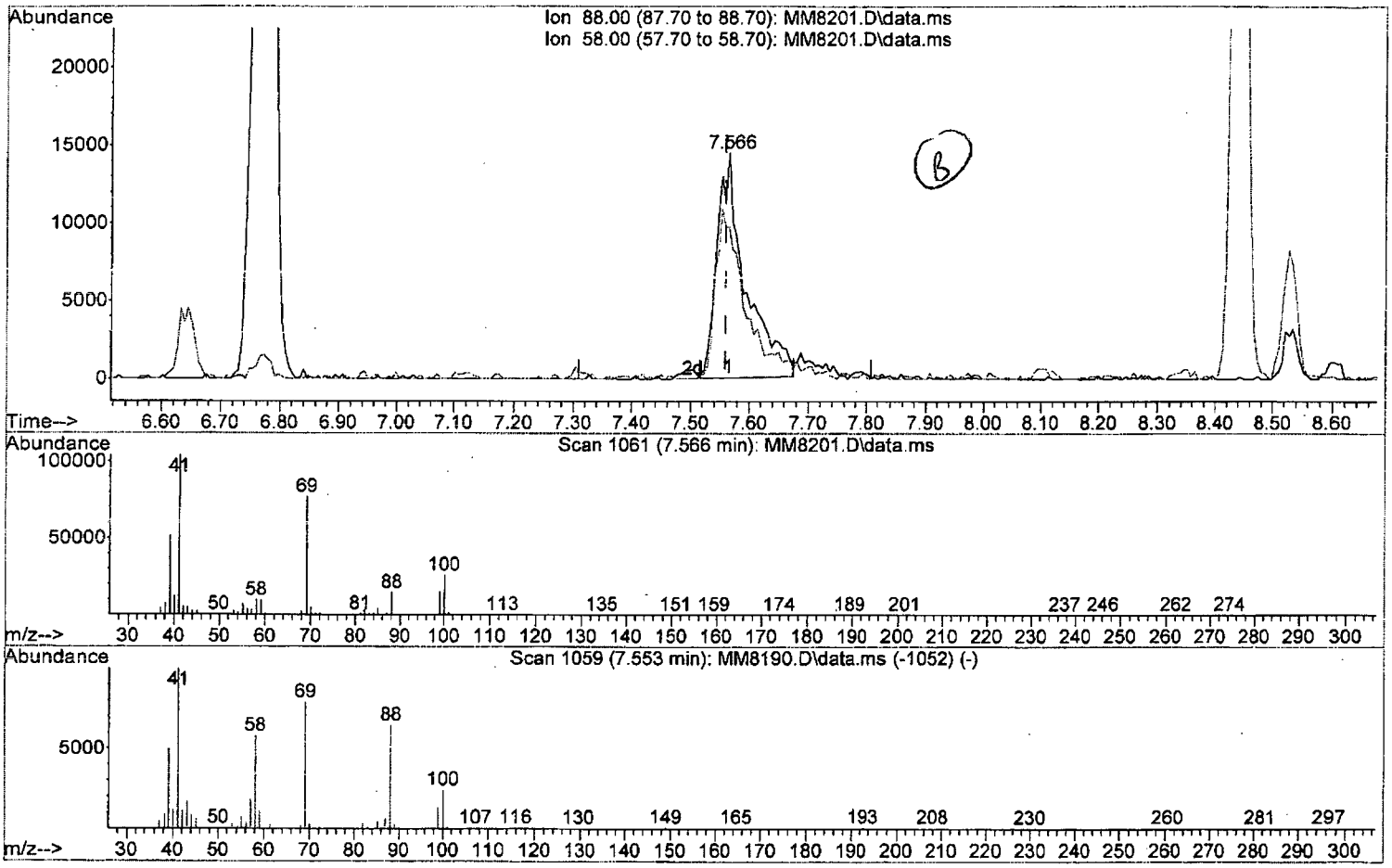
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	1673087	49.10	ppb	97
96)	2-Chlorotoluene	11.339	91	1023798	51.26	ppb	99
97)	3-Chlorotoluene	11.394	91	1069978	51.03	ppb	99
98)	4-Chlorotoluene	11.437	91	1131967	50.24	ppb	98
99)	1,3,5-Trimethylbenzene	11.431	105	1122828	50.19	ppb	99
100)	tert-Butylbenzene	11.699	119	991555	49.68	ppb	97
101)	1,2,4-Trimethylbenzene	11.742	105	1188534	49.51	ppb	97
102)	3,4-DCBTF	11.796	214	289050	50.07	ppb	99
103)	sec-Butylbenzene	11.882	105	1378727	49.37	ppb	99
104)	p-Isopropyltoluene	12.004	119	1126128	52.15	ppb	99
105)	1,3-Dclbenz	11.961	146	654399	50.54	ppb	99
106)	1,4-Dclbenz	12.034	146	634822	52.30	ppb	99
107)	2,4-DCBTF	12.089	214	261082	51.82	ppb	97
108)	2,5-DCBTF	12.126	214	288419	50.60	ppb	99
109)	n-Butylbenzene	12.333	91	1050775	51.38	ppb	99
110)	1,2-Dclbenz	12.339	146	609837	51.17	ppb	97
111)	1,2-Dibromo-3-chloropr...	12.955	157	57714	50.08	ppb	88
112)	Trielution Dichlorotol...	13.071	125	1570646	156.16	ppb	96
113)	1,3,5 Trichlorobenzene	13.132	180	416902	52.04	ppb	96
114)	Coelution Dichlorotoluene	13.400	125	1141239	107.38	ppb	99
115)	1,2,4-Tcbenzene	13.613	180	380370	51.73	ppb	97
116)	Hexachlorobt	13.747	225	154653	52.67	ppb	92
117)	Naphthalen	13.802	128	840880	55.14	ppb	99
118)	1,2,3-Tclbenzene	13.985	180	329024	53.80	ppb	97
119)	2,4,5-Trichlorotolene	14.570	159	251568	55.45	ppb	96
120)	2,3,6-Trichlorotoluene	14.656	159	215078	53.85	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:40:01 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration



TIC: MM8201.D\data.ms

(58) 1,4-Dioxane

7.566min (+0.006) 980.03 ppb

response 49269

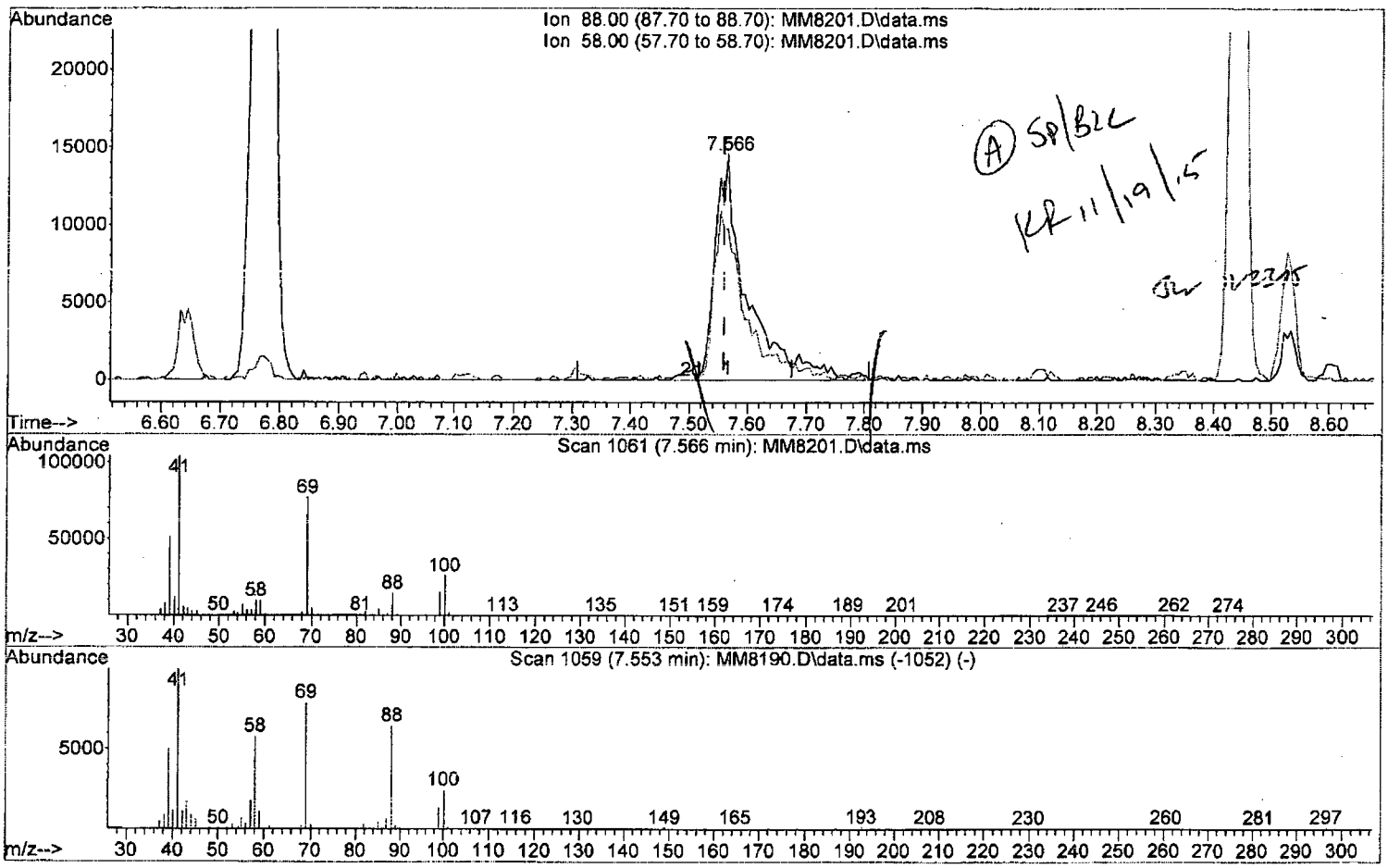
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	67.10#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 11:41:44 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:40:01 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration



TIC: MM8201.D\data.ms

(58) 1,4-Dioxane

7.566min (+0.006) 1101.95 ppb m

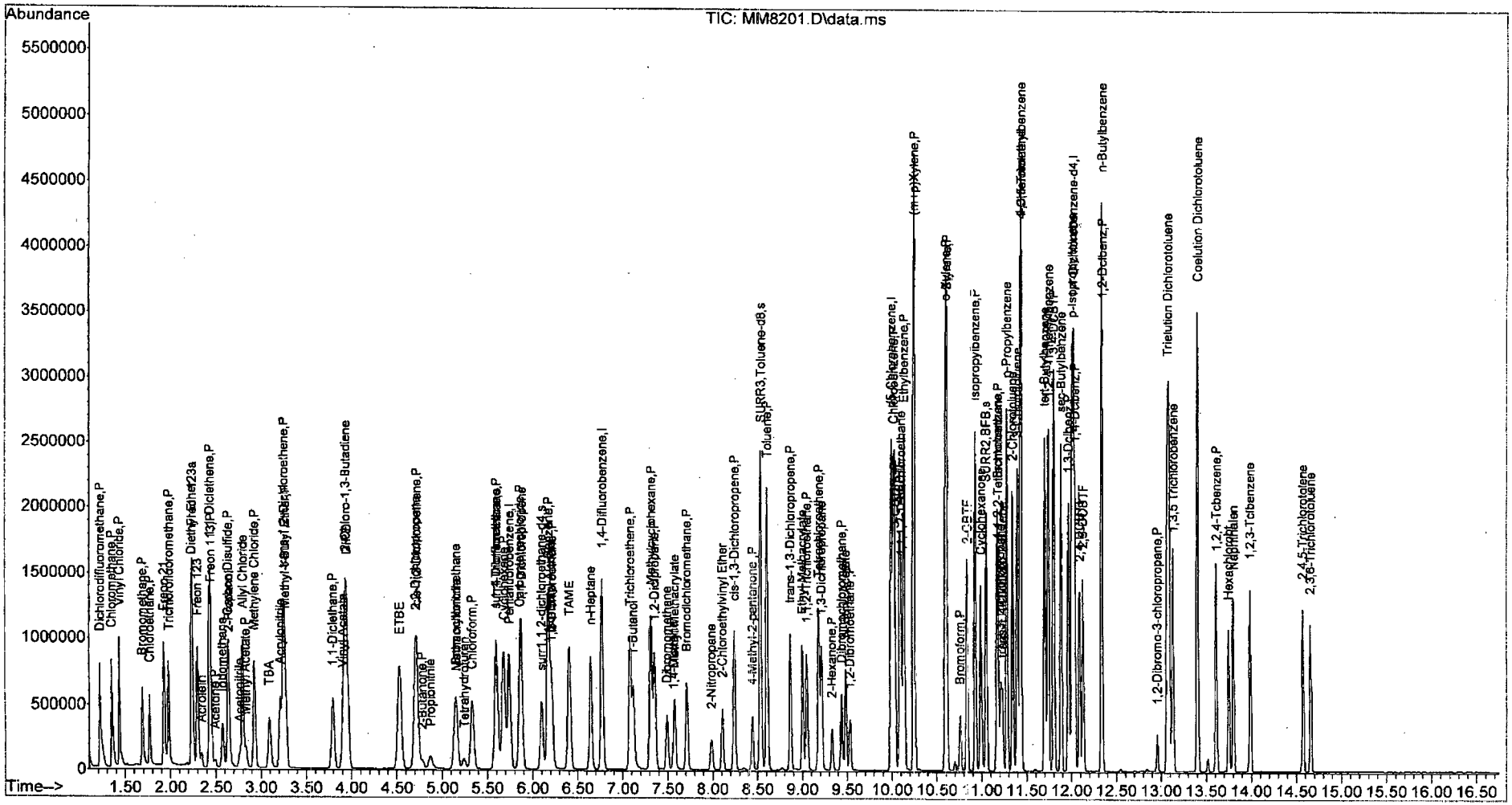
response 55398

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	67.10#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:41:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 11:43:06 2015 Page: 4

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 09:22:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815AS.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.743	168	726113	50.00	ppb	0.00
2) 1,4-Difluorobenzene	6.773	114	1257122	50.00	ppb	0.00
7) d5-Chlorobenzene	9.992	117	1174218	50.00	ppb	0.00
8) 1,4-Dichlorobenzene-d4	12.016	152	568495	50.00	ppb	0.00
System Monitoring Compounds						
3) surr4,Dibrflmethane	5.596	113	353544	54.09	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.18%			
4) surr1,1,2-dichloroetha...	6.096	65	400078	55.42	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 110.84%			
5) SURR3,Toluene-d8	8.535	98	1578449	57.39	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 114.78%			
6) SURR2,BFB	11.047	95	581217	55.98	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.96%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

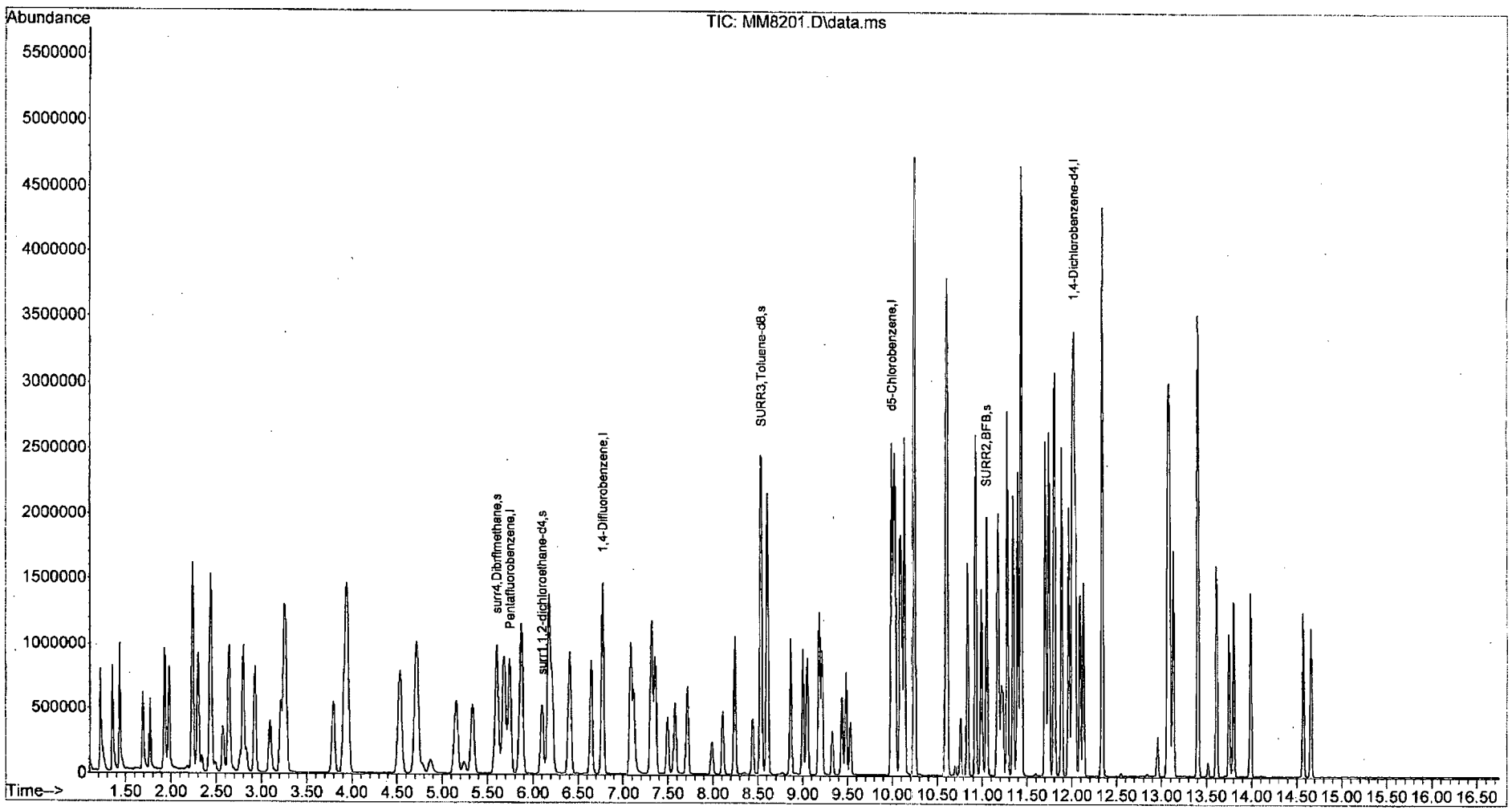
SW requirement

KR 11/30/15

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 09:22:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815AS.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815AS.M Mon Nov 30 14:24:49 2015 Page: 2

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:21:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

KR 11/30/15

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.0000	1.0000	0.0	114	0.00
2	P	Dichlorodifluoromethane	0.7043	0.6571	6.7	95	0.00
3	P	Chloromethane	0.8409	0.7745	7.9	104	0.00
4	P	Vinyl Chloride	0.7834	0.7281	7.1	103	0.00
5	P	Bromomethane	0.3826	0.3348	12.5	102	0.00
6	P	Chloroethane	0.4308	0.4156	3.5	109	0.00
7		Freon 21	0.8341	0.8441	-1.2	113	0.00
8	P	Trichlorofluoromethane	0.6103	0.6008	1.6	109	0.00
9		Diethyl Ether	0.3829	0.3658	4.5	110	0.00
10		Freon 123a	0.5453	0.5264	3.5	111	0.00
11		Freon 123	0.6287	0.5971	5.0	111	0.00
12		Acrolein TV=250	0.0426	0.1187 - 11.4	~~-178.6#~~	342#	0.00
13	P	1,1-Diclethene	0.4182	0.3950	5.5	108	0.00
14	P	Freon 113	0.3806	0.3560	6.5	108	0.00
15	P	Acetone	0.1066	0.0865	18.9	99	0.00
16		2-Propanol	0.0202	0.0180	10.9	111	0.00
17		Iodomethane	0.4751	0.4512	5.0	95	0.00
18	P	Carbon Disulfide	1.3968	1.3682	2.0	109	0.00
19		Acetonitrile	0.0148	0.0117	20.9#	104	0.00
20		Allyl Chloride	0.2328	0.2155	7.4	105	0.00
21	P	Methyl Acetate	0.2484	0.2084	16.1	105	0.00
22	P	Methylene Chloride	0.4829	0.4340	10.1	108	0.00
23		TBA	0.0328	0.0290	11.6	106	0.00
24		Acrylonitrile	0.1207	0.1091	9.6	107	0.00
25	P	Methyl-t-Butyl Ether	1.1634	1.0363	10.9	107	0.00
26	P	trans-1,2-Dichloroethene	0.4503	0.4332	3.8	110	0.00
27		Halothane	0.0000	0.0000	0.0	0#	0.09
28	P	1,1-Diclethane	0.8010	0.7836	2.2	111	0.00
29		Vinyl Acetate	0.0834	0.0843	-1.1	120	0.00
30		DIPE	1.5615	1.5184	2.8	113	0.00
31		2-Chloro-1,3-Butadiene	0.8055	0.8335	-3.5	118	0.00
32		ETBE	1.4674	1.3935	5.0	110	0.00
33		2,2-Dichloropropane	0.6407	0.6294	1.8	112	0.00
34	P	cis-1,2-Dichloroethene	0.4985	0.4584	8.0	109	0.00
35	P	2-Butanone	0.1460	0.1269	13.1	103	-0.01
36		Propionitrile	0.0446	0.0395	11.4	109	0.00
37		Bromochloromethane	0.2575	0.2331	9.5	105	-0.01
38		Methacrylonitrile	0.1413	0.1285	9.1	109	-0.01
39		Tetrahydrofuran	0.0939	0.0836	11.0	112	-0.01
40	P	Chloroform	0.7785	0.7046	9.5	109	0.00
41	P	1,1,1-Trichloroethane	0.6115	0.5776	5.5	107	0.00
42		TAME	1.2466	1.1561	7.3	108	0.00
43	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	114	0.00
44	P	Cyclohexane	0.2733	0.2604	4.7	110	0.00
45	s	surr4,Dibrflmethane	0.2600	0.2782	-7.0	110	0.00
46	P	Carbontetrachloride	0.0957	0.0893	6.7	105	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:21:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47		1,1-Dichloropropene	0.3528	0.3278	7.1	106	0.00
48	s	surr1,1,2-dichloroethane-d4	0.2871	0.3036	-5.7	109	0.00
49	P	Benzene	1.1004	1.0660	3.1	108	0.00
50	P	1,2-Dichloroethane	0.2821	0.2667	5.5	110	0.00
51		Iso-Butyl Alcohol	0.0092	0.0080	13.0	109	0.00
52		n-Heptane	0.3028	0.3000	0.9	116	0.00
53		1-Butanol	0.0058	0.0052	10.3	112	0.00
54	P	Trichloroethene	0.2796	0.2598	7.1	107	0.00
55	P	Methylcyclohexane	0.3371	0.3246	3.7	114	0.00
56	P	1,2-Diclpropane	0.2727	0.2672	2.0	111	0.00
57		Dibromomethane	0.1343	0.1173	12.7	107	0.00
58		1,4-Dioxane	0.0020	0.0017	15.0	109	0.00
59		Methyl Methacrylate	0.1578	0.1382	12.4	103	0.00
60	P	Bromodichloromethane	0.3343	0.3126	6.5	107	0.00
61		2-Nitropropane	0.0492	0.0418	15.0	106	0.00
62		2-Chloroethylvinyl Ether	0.1504	0.1312	12.8	105	0.00
63	P	cis-1,3-Dichloropropene	0.4481	0.4224	5.7	107	0.00
64	P	4-Methyl-2-pentanone	0.1994	0.1780	10.7	104	0.00
65	s	SURR3,Toluene-d8	1.0940	1.2305	-12.5	110	0.00
66	P	Toluene	1.1396	1.0882	4.5	107	0.00
67	P	trans-1,3-Dichloropropene	0.3560	0.3367	5.4	104	0.00
68		Ethyl Methacrylate	0.3152	0.2880	8.6	103	0.00
69	P	1,1,2-Trichloroethane	0.1927	0.1774	7.9	104	0.00
70	s	SURR2,BFB	0.4130	0.4572	-10.7	111	0.00
71	I	d5-Chlorobenzene	1.0000	1.0000	0.0	111	0.00
72	P	Tetrachloroethene	0.2074	0.1994#	3.9	107	0.00
73	P	2-Hexanone	0.1531	0.1319	13.8	102	0.00
74		1,3-Dichloropropane	0.3801	0.3449	9.3	106	0.00
75	P	Dibromochloromethane	0.2365	0.2211	6.5	104	0.00
76		N-Butyl Acetate	0.3657	0.3426	6.3	107	0.00
77	P	1,2-Dibromoethane	0.2026	0.1805	10.9	102	0.00
78	P	Chlorobenzene	0.7396	0.6990	5.5	108	0.00
79		3-CBTF	0.3664	0.3555	3.0	112	0.00
80		4-CBTF	0.3410	0.3287	3.6	113	0.00
81		1,1,1,2-Tetrachloroethane	0.2556	0.2354	7.9	106	0.00
82	P	Ethylbenzene	0.4189	0.4040	3.6	109	0.00
83	P	(m+p)Xylene	0.5171	0.4921	4.8	107	0.00
84	P	o-Xylene	0.5296	0.5154	2.7	107	0.00
85	P	Styrene	0.8627	0.8108	6.0	105	0.00
86	I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	112	0.00
87	P	Bromoform	0.2840	0.2503	11.9	102	0.00
88		2-CBTF	0.7581	0.7487	1.2	114	0.00
89	P	Isopropylbenzene	2.6001	2.5344	2.5	108	0.00
90		Cyclohexanone	0.0377	0.0482 M	-27.9#	150	0.00
91		trans-1,4-Dichloro-2-Butene	0.1645	0.1344	18.3	98	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:21:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
92	P	1,1,2,2-Tetrachloroethane	0.5254	0.4751	9.6	107	0.00
93		Bromobenzene	0.5883	0.5640	4.1	104	0.00
94		1,2,3-Trichloropropane	0.1547	0.1261	18.5	104	0.00
95		n-Propylbenzene	2.9967	2.9853	0.4	108	0.00
96		2-Chlorotoluene	1.7568	1.7733	-0.9	109	0.00
97		3-Chlorotoluene	1.8442	1.8824	-2.1	114	0.00
98		4-Chlorotoluene	1.9817	1.9164	3.3	107	0.00
99		1,3,5-Trimethylbenzene	1.9676	1.9460	1.1	108	0.00
100		tert-Butylbenzene	1.7555	1.7343	1.2	106	0.00
101		1,2,4-Trimethylbenzene	2.1113	2.0473	3.0	106	0.00
102		3,4-DCBTF	0.5078	0.5055	0.5	113	0.00
103		sec-Butylbenzene	2.4563	2.4425	0.6	108	0.00
104		p-Isopropyltoluene	1.8992	1.8838	0.8	107	0.00
105	P	1,3-Dclbenz	1.1388	1.0754	5.6	104	0.00
106	P	1,4-Dclbenz	1.0675	1.0494	1.7	106	0.00
107		2,4-DCBTF	0.4432	0.4521	-2.0	114	0.00
108		2,5-DCBTF	0.5013	0.4975	0.8	113	0.00
109		n-Butylbenzene	1.7986	1.7800	1.0	107	0.00
110	P	1,2-Dclbenz	1.0481	0.9885	5.7	103	0.00
111	P	1,2-Dibromo-3-chloropropane	0.1014	0.0828	18.3	96	0.00
112		Trielution Dichlorotoluene	0.8846	0.8744	1.2	110	0.00
113		1,3,5 Trichlorobenzene	0.7046	0.6878	2.4	112	0.00
114		Coelution Dichlorotoluene	0.9348	0.9282	0.7	108	0.00
115	P	1,2,4-Tcbenzene	0.6467	0.5843	9.6	100	0.00
116		Hexachlorobt	0.2582	0.2516	2.6	107	0.00
117		Naphthalen	1.3412	1.1973	10.7	97	0.00
118		1,2,3-Tclbenzene	0.5379	0.4834	10.1	98	0.00
119		2,4,5-Trichlorotolene	0.3990	0.3642	8.7	103	0.00
120		2,3,6-Trichlorotoluene	0.3513	0.2984	15.1	101	0.00

(#) = Out of Range SPCC's out = 1 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV RQ1514764-02 Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:21:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	832235	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1390239	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1285134	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	618347	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	386800	53.51	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 107.02%				
48) surr1,1,2-dichloroetha...	6.096	65	422121	52.87	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 105.74%				
65) SURR3,Toluene-d8	8.529	98	1710641	56.24	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 112.48%				
70) SURR2,BFB	11.047	95	635661	55.36	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.72%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.213	85	546888	46.65	ppb		98
3) Chloromethane	1.347	50	644588	46.06	ppb		99
4) Vinyl Chloride	1.433	62	605926	46.47	ppb		100
5) Bromomethane	1.689	94	278619	43.75	ppb		100
6) Chloroethane	1.768	64	345864	48.23	ppb		96
7) Freon 21	1.927	67	702508	50.60	ppb		100
8) Trichlorofluoromethane	1.975	101	499995	49.22	ppb		100
9) Diethyl Ether	2.231	59	304464	47.78	ppb		96
10) Freon 123a	2.237	67	438117	48.27	ppb		100
11) Freon 123	2.292	83	496957	47.49	ppb		97
12) Acrolein	2.341	56	197578	278.61	ppb		98
13) 1,1-Diclethene	2.433	96	328741	47.23	ppb		98
14) Freon 113	2.439	101	296277	46.77	ppb		93
15) Acetone	2.487	43	71998	40.58	ppb		100
16) 2-Propanol	2.658	45	299147	888.56	ppb		95
17) Iodomethane	2.573	142	375489	47.49	ppb		99
18) Carbon Disulfide	2.634	76	1138629	48.98	ppb		100
19) Acetonitrile	2.768	40	48587	197.45	ppb	#	85
20) Allyl Chloride	2.792	76	179386	46.28	ppb		94
21) Methyl Acetate	2.829	43	173433	41.96	ppb		97
22) Methylene Chloride	2.926	84	361171	44.94	ppb		93
23) TBA	3.091	59	481927	882.03	ppb		99
24) Acrylonitrile	3.207	53	453861	226.01	ppb		99
25) Methyl-t-Butyl Ether	3.262	73	862429	44.54	ppb		98
26) trans-1,2-Dichloroethene	3.243	96	360486	48.09	ppb		89
28) 1,1-Diclethane	3.792	63	652127	48.91	ppb		98
29) Vinyl Acetate	3.908	86	70173	50.53	ppb	#	95
30) DIPE	3.944	45	1263644	48.62	ppb		98
31) 2-Chloro-1,3-Butadiene	3.926	53	693676	51.74	ppb		97
32) ETBE	4.524	59	1159695	47.48	ppb		98
33) 2,2-Dichloropropane	4.700	77	523822	49.12	ppb		97
34) cis-1,2-Dichloroethene	4.713	96	381482	45.98	ppb		100
35) 2-Butanone	4.767	43	105573	43.44	ppb		97
36) Propionitrile	4.865	54	164511	221.67	ppb		97

KR 11/30/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:21:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	Bromochloromethane	5.139	130	193976	45.26	ppb		97
38)	Methacrylonitrile	5.152	67	106921	45.46	ppb		100
39)	Tetrahydrofuran	5.231	42	69535	44.49	ppb		99
40)	Chloroform	5.328	83	586409	45.26	ppb		98
41)	1,1,1-Trichloroethane	5.597	97	480665	47.23	ppb		98
42)	TAME	6.401	73	962123	46.37	ppb		97
44)	Cyclohexane	5.676	41	361963	47.64	ppb		95
46)	Carbontetrachloride	5.859	121	124147	46.64	ppb		86
47)	1,1-Dichloropropene	5.871	75	455657	46.45	ppb		97
49)	Benzene	6.170	78	1481983	48.44	ppb		99
50)	1,2-Dichloroethane	6.206	62	370740	47.27	ppb		98
51)	Iso-Butyl Alcohol	6.206	43	221621	864.12	ppb		91
52)	n-Heptane	6.639	43	417063	49.53	ppb		98
53)	1-Butanol	7.121	56	363637	2261.96	ppb		100
54)	Trichloroethene	7.084	130	361135	46.45	ppb		98
55)	Methylcyclohexane	7.310	55	451212	48.14	ppb		99
56)	1,2-Diclpropane	7.352	63	371522	49.00	ppb		94
57)	Dibromomethane	7.486	93	163055	43.68	ppb		99
58)	1,4-Dioxane	7.560	88	46893m	843.46	ppb		
59)	Methyl Methacrylate	7.572	69	192138	43.80	ppb		95
60)	Bromodichloromethane	7.712	83	434570	46.75	ppb		99
61)	2-Nitropropane	7.986	41	116112	84.81	ppb		96
62)	2-Chloroethylvinyl Ether	8.108	63	182371	43.60	ppb		96
63)	cis-1,3-Dichloropropene	8.236	75	587251	47.13	ppb		96
64)	4-Methyl-2-pentanone	8.437	43	247399	44.62	ppb		98
66)	Toluene	8.602	91	1512886	47.74	ppb		99
67)	trans-1,3-Dichloropropene	8.864	75	468101	47.29	ppb		99
68)	Ethyl Methacrylate	8.998	69	400357	45.69	ppb		99
69)	1,1,2-Trichloroethane	9.047	97	246565	46.01	ppb		95
72)	Tetrachloroethene	9.181	164	256247	48.07	ppb		98
73)	2-Hexanone	9.328	43	169555	43.10	ppb		99
74)	1,3-Dichloropropane	9.212	76	443284	45.37	ppb		97
75)	Dibromochloromethane	9.431	129	284088	46.73	ppb		97
76)	N-Butyl Acetate	9.480	43	440278	46.84	ppb		99
77)	1,2-Dibromoethane	9.529	107	232002	44.56	ppb		95
78)	Chlorobenzene	10.016	112	898346	47.26	ppb		98
79)	3-CBTF	10.029	180	456910	48.51	ppb		99
80)	4-CBTF	10.084	180	422469	48.20	ppb		97
81)	1,1,1,2-Tetrachloroethane	10.102	131	302557	46.05	ppb		97
82)	Ethylbenzene	10.132	106	519220	48.22	ppb		95
83)	(m+p)Xylene	10.242	106	1264953	95.17	ppb		98
84)	o-Xylene	10.596	106	662404	48.66	ppb		95
85)	Styrene	10.608	104	1041947	46.99	ppb		99
87)	Bromoform	10.760	173	154791	44.07	ppb		96
88)	2-CBTF	10.833	180	462942	49.38	ppb		93
89)	Isopropylbenzene	10.925	105	1567166	48.74	ppb		99
90)	Cyclohexanone	10.986	55	595996	1278.44	ppb		97
91)	trans-1,4-Dichloro-2-B...	11.230	53	83125	43.60	ppb		93
92)	1,1,2,2-Tetrachloroethane	11.181	83	293754	45.21	ppb		98
93)	Bromobenzene	11.169	156	348752	47.93	ppb		99
94)	1,2,3-Trichloropropane	11.211	110	77993	45.11	ppb	#	85

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:21:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

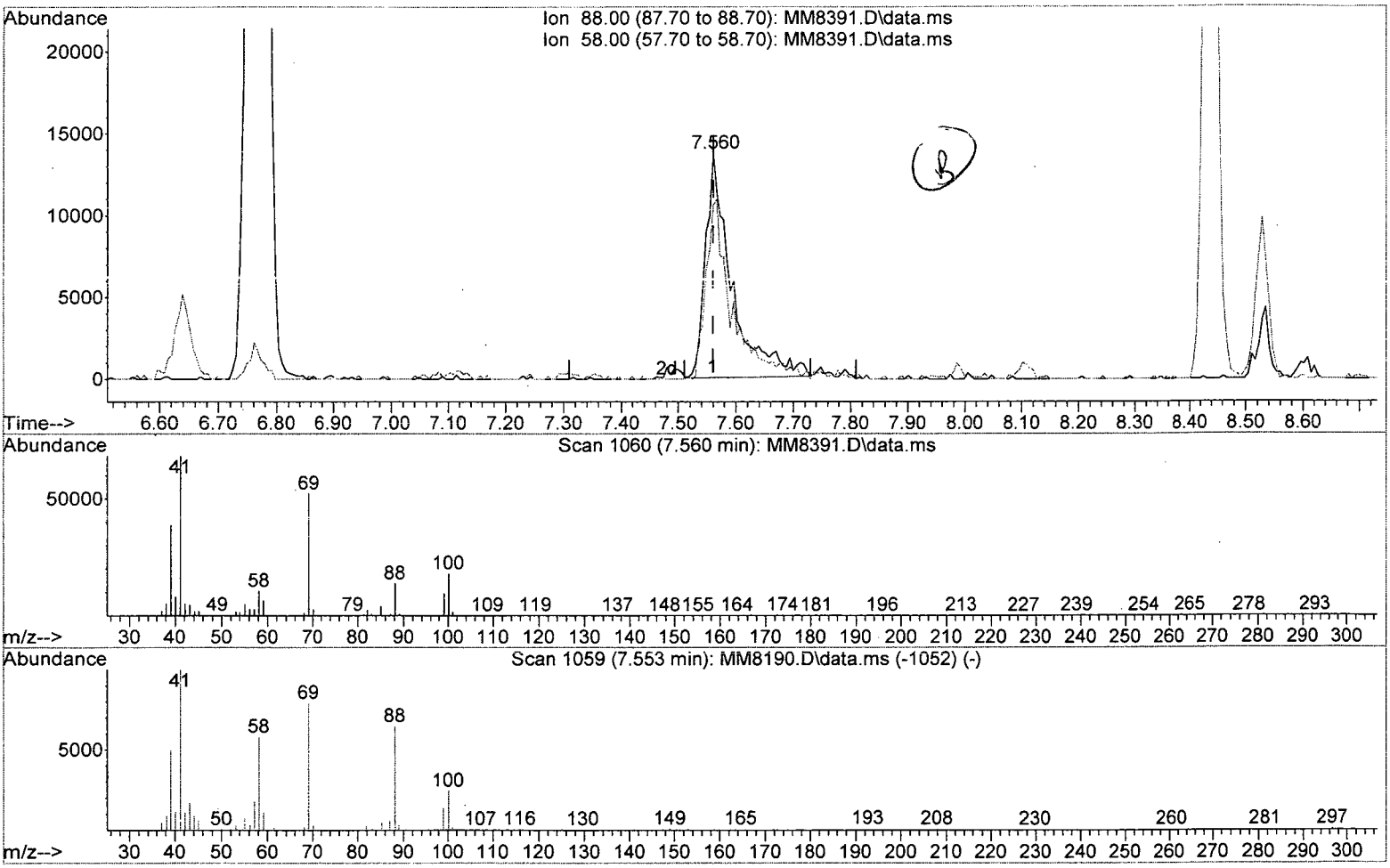
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	1845973	49.81	ppb	100
96)	2-Chlorotoluene	11.339	91	1096504	50.47	ppb	99
97)	3-Chlorotoluene	11.394	91	1163991	51.04	ppb	99
98)	4-Chlorotoluene	11.431	91	1184975	48.35	ppb	96
99)	1,3,5-Trimethylbenzene	11.431	105	1203273	49.45	ppb	97
100)	tert-Butylbenzene	11.699	119	1072380	49.40	ppb	99
101)	1,2,4-Trimethylbenzene	11.736	105	1265943	48.48	ppb	97
102)	3,4-DCBTF	11.797	214	312588	49.78	ppb	96
103)	sec-Butylbenzene	11.882	105	1510342	49.72	ppb	98
104)	p-Isopropyltoluene	11.998	119	1164836	49.59	ppb	98
105)	1,3-Dclbenz	11.961	146	664989	47.22	ppb	97
106)	1,4-Dclbenz	12.034	146	648921	49.15	ppb	97
107)	2,4-DCBTF	12.083	214	279556	51.01	ppb	97
108)	2,5-DCBTF	12.126	214	307629	49.62	ppb	98
109)	n-Butylbenzene	12.333	91	1100630	49.48	ppb	99
110)	1,2-Dclbenz	12.333	146	611222	47.15	ppb	96
111)	1,2-Dibromo-3-chloropr...	12.955	157	51189	40.83	ppb	92
112)	Trielution Dichlorotol...	13.071	125	1622032	148.27	ppb	98
113)	1,3,5 Trichlorobenzene	13.126	180	425327	48.81	ppb	98
114)	Coelution Dichlorotoluene	13.400	125	1147946	99.30	ppb	100
115)	1,2,4-Tcbenzene	13.607	180	361300	45.18	ppb	98
116)	Hexachlorobt	13.747	225	155555	48.71	ppb	94
117)	Naphthalen	13.796	128	740372	44.64	ppb	98
118)	1,2,3-Tclbenzene	13.985	180	298917	44.93	ppb	99
119)	2,4,5-Trichlorotolene	14.570	159	225227	45.65	ppb	99
120)	2,3,6-Trichlorotoluene	14.656	159	184532	42.47	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:18:32 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8391.D\data.ms

(58) 1,4-Dioxane

7.560min (-0.000) 788.15 ppb

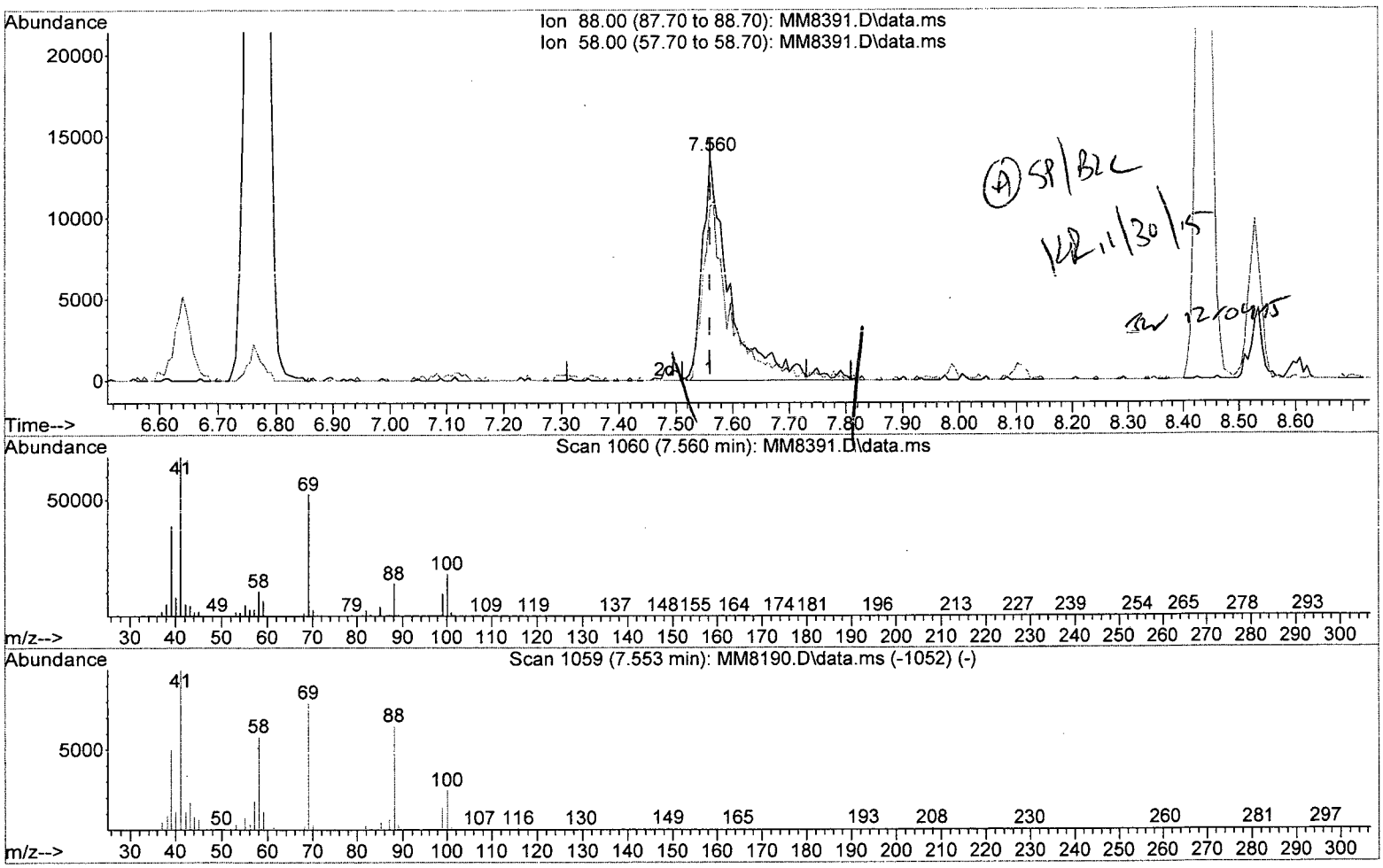
response 43818

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	76.97
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:18:32 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8391.D\data.ms

(58) 1,4-Dioxane

7.560min (-0.000) 843.46 ppb m

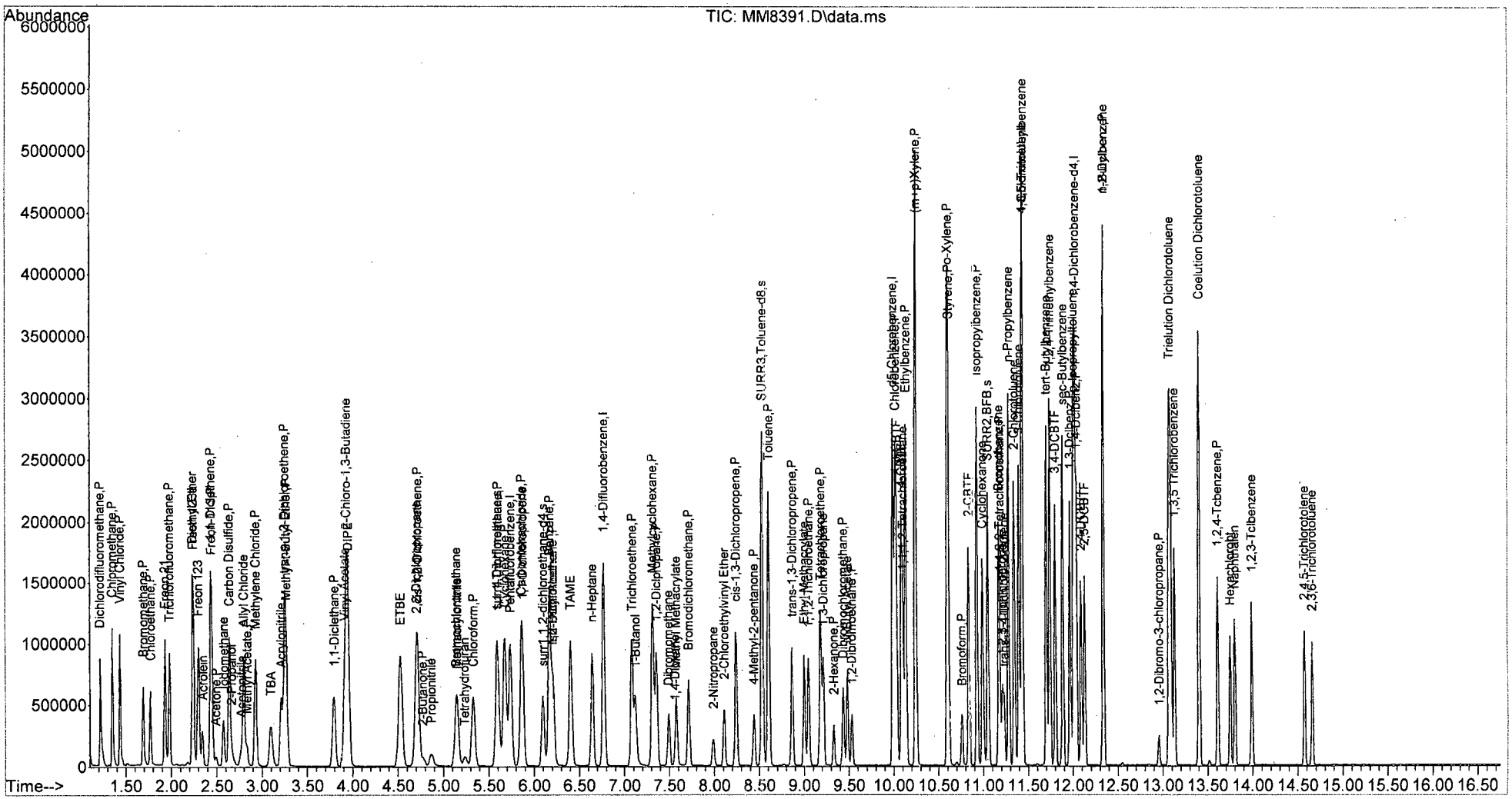
response 46893

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	76.97
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8391.D
Acq On : 30 Nov 2015 11:02 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 11:21:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:53:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

KB 12/1/15

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.0000	1.0000	0.0	107	0.00
2	P	Dichlorodifluoromethane	0.7043	0.6572	6.7	89	0.00
3	P	Chloromethane	0.8409	0.7828	6.9	99	0.00
4	P	Vinyl Chloride	0.7834	0.7533	3.8	100	0.00
5	P	Bromomethane	0.3826	0.3463	9.5	99	0.00
6	P	Chloroethane	0.4308	0.4152	3.6	103	0.00
7		Freon 21	0.8341	0.8511	-2.0	107	0.00
8	P	Trichlorofluoromethane	0.6103	0.6027	1.2	102	0.00
9		Diethyl Ether	0.3829	0.3687	3.7	104	0.00
10		Freon 123a	0.5453	0.5272	3.3	105	0.00
11		Freon 123	0.6287	0.6104	2.9	107	0.00
12		Acrolein	0.0426	0.1271	-193 ~~-198.4#~~	344#	0.00
13	P	1,1-Diclethene	0.4182	0.3953	5.5	101	0.00
14	P	Freon 113	0.3806	0.3557	6.5	101	0.00
15	P	Acetone	0.1066	0.0896	15.9	96	0.00
16		2-Propanol	0.0202	0.0194	4.0	112	0.00
17		Iodomethane	0.4751	0.4630	2.5	92	0.00
18	P	Carbon Disulfide	1.3968	1.3627	2.4	102	0.00
19		Acetonitrile	0.0148	0.0155	-4.7	130	0.00
20		Allyl Chloride	0.2328	0.2165	7.0	99	0.00
21	P	Methyl Acetate	0.2484	0.2186	12.0	103	0.00
22	P	Methylene Chloride	0.4829	0.4551	5.8	106	0.00
23		TBA	0.0328	0.0303	7.6	104	0.00
24		Acrylonitrile	0.1207	0.1136	5.9	105	0.00
25	P	Methyl-t-Butyl Ether	1.1634	1.0540	9.4	102	0.00
26	P	trans-1,2-Dichloroethene	0.4503	0.4424	1.8	105	0.00
27		Halothane	0.0000	0.0000	0.0	0#	-4.13#
28	P	1,1-Diclethane	0.8010	0.7872	1.7	105	0.00
29		Vinyl Acetate	0.0834	0.0832	0.2	111	0.00
30		DIPE	1.5615	1.4883	4.7	104	0.00
31		2-Chloro-1,3-Butadiene	0.8055	0.8374	-4.0	111	0.00
32		ETBE	1.4674	1.3427	8.5	99	0.00
33		2,2-Dichloropropane	0.6407	0.6304	1.6	105	0.00
34	P	cis-1,2-Dichloroethene	0.4985	0.4606	7.6	103	0.00
35	P	2-Butanone	0.1460	0.1323	9.4	101	0.00
36		Propionitrile	0.0446	0.0399	10.5	103	0.00
37		Bromochloromethane	0.2575	0.2431	5.6	102	0.00
38		Methacrylonitrile	0.1413	0.1290	8.7	103	0.00
39		Tetrahydrofuran	0.0939	0.0839	10.6	105	0.00
40	P	Chloroform	0.7785	0.7150	8.2	104	0.00
41	P	1,1,1-Trichloroethane	0.6115	0.5748	6.0	100	0.00
42		TAME	1.2466	1.1306	9.3	99	0.00
43	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	107	0.00
44	P	Cyclohexane	0.2733	0.2607	4.6	103	0.00
45	s	surr4,Dibrflmethane	0.2600	0.2804	-7.8	104	0.00
46	P	Carbontetrachloride	0.0957	0.0918	4.1	102	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:53:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47		1,1-Dichloropropene	0.3528	0.3315	6.0	100	0.00
48	s	surr1,1,2-dichloroethane-d4	0.2871	0.3066	-6.8	104	0.00
49	P	Benzene	1.1004	1.0691	2.8	102	0.00
50	P	1,2-Dichloroethane	0.2821	0.2681	5.0	104	0.00
51		Iso-Butyl Alcohol	0.0092	0.0084	8.7	108	0.00
52		n-Heptane	0.3028	0.2999	1.0	108	0.00
53		1-Butanol	0.0058	0.0055	5.2	110	-0.01
54	P	Trichloroethene	0.2796	0.2584	7.6	100	0.00
55	P	Methylcyclohexane	0.3371	0.3266	3.1	108	0.00
56	P	1,2-Diclpropane	0.2727	0.2616	4.1	102	0.00
57		Dibromomethane	0.1343	0.1186	11.7	102	0.00
58		1,4-Dioxane	0.0020	0.0020	0.0	120	-0.01
59		Methyl Methacrylate	0.1578	0.1421	9.9	99	0.00
60	P	Bromodichloromethane	0.3343	0.3126	6.5	100	0.00
61		2-Nitropropane	0.0492	0.0406	17.5	96	0.00
62		2-Chloroethylvinyl Ether	0.1504	0.1174	21.9#	88	0.00
63	P	cis-1,3-Dichloropropene	0.4481	0.4221	5.8	101	0.00
64	P	4-Methyl-2-pentanone	0.1994	0.1836	7.9	100	0.00
65	s	SURR3,Toluene-d8	1.0940	1.2475	-14.0	105	0.00
66	P	Toluene	1.1396	1.1125	2.4	102	0.00
67	P	trans-1,3-Dichloropropene	0.3560	0.3439	3.4	100	0.00
68		Ethyl Methacrylate	0.3152	0.2925	7.2	98	0.00
69	P	1,1,2-Trichloroethane	0.1927	0.1806	6.3	100	0.00
70	s	SURR2,BFB	0.4130	0.4616	-11.8	105	0.00
71	I	d5-Chlorobenzene	1.0000	1.0000	0.0	106	0.00
72	P	Tetrachloroethene	0.2074	0.2006	3.3	103	0.00
73	P	2-Hexanone	0.1531	0.1339	12.5	99	0.00
74		1,3-Dichloropropane	0.3801	0.3447	9.3	102	0.00
75	P	Dibromochloromethane	0.2365	0.2152	9.0	97	0.00
76		N-Butyl Acetate	0.3657	0.3409	6.8	102	0.00
77	P	1,2-Dibromoethane	0.2026	0.1893	6.6	103	0.00
78	P	Chlorobenzene	0.7396	0.7053	4.6	104	0.00
79		3-CBTF	0.3664	0.3425	6.5	103	0.00
80		4-CBTF	0.3410	0.3147	7.7	104	0.00
81		1,1,1,2-Tetrachloroethane	0.2556	0.2333	8.7	101	0.00
82	P	Ethylbenzene	0.4189	0.4005	4.4	103	0.00
83	P	(m+p)Xylene	0.5171	0.4906	5.1	102	0.00
84	P	o-Xylene	0.5296	0.5139	3.0	102	0.00
85	P	Styrene	0.8627	0.8058	6.6	100	0.00
86	I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	106	0.00
87	P	Bromoform	0.2840	0.2557	10.0	98	0.00
88		2-CBTF	0.7581	0.7154	5.6	103	0.00
89	P	Isopropylbenzene	2.6001	2.5325	2.6	102	0.00
90		Cyclohexanone	0.0377	0.0511	M -35.5#	151	0.00
91		trans-1,4-Dichloro-2-Butene	0.1645	0.1449	6.0 ~~11.9~~	100	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:53:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
92	P	1,1,2,2-Tetrachloroethane	0.5254	0.4819	8.3	103	0.00
93		Bromobenzene	0.5883	0.5748	2.3	101	0.00
94		1,2,3-Trichloropropane	0.1547	0.1264	9.6 ~~18.3~~	98	0.00
95		n-Propylbenzene	2.9967	3.0054	-0.3	102	0.00
96		2-Chlorotoluene	1.7568	1.7634	-0.4	103	0.00
97		3-Chlorotoluene	1.8442	1.8328	0.6	105	0.00
98		4-Chlorotoluene	1.9817	1.9504	1.6	103	0.00
99		1,3,5-Trimethylbenzene	1.9676	1.9450	1.1	102	0.00
100		tert-Butylbenzene	1.7555	1.7530	0.1	102	0.00
101		1,2,4-Trimethylbenzene	2.1113	2.0738	1.8	101	0.00
102		3,4-DCBTF	0.5078	0.4788	5.7	102	0.00
103		sec-Butylbenzene	2.4563	2.4872	-1.3	104	0.00
104		p-Isopropyltoluene	1.8992	1.9232	-1.3	103	0.00
105	P	1,3-Dclbenz	1.1388	1.1111	2.4	102	0.00
106	P	1,4-Dclbenz	1.0675	1.0775	-0.9	103	0.00
107		2,4-DCBTF	0.4432	0.4430	0.0	106	0.00
108		2,5-DCBTF	0.5013	0.4810	4.0	103	0.00
109		n-Butylbenzene	1.7986	1.8251	-1.5	104	0.00
110	P	1,2-Dclbenz	1.0481	1.0124	3.4	100	0.00
111	P	1,2-Dibromo-3-chloropropane	0.1014	0.0879	13.3	96	0.00
112		Trielution Dichlorotoluene	0.8846	0.8655	2.2	103	0.00
113		1,3,5 Trichlorobenzene	0.7046	0.6750	4.2	104	0.00
114		Coelution Dichlorotoluene	0.9348	0.9246	1.1	102	0.00
115	P	1,2,4-Tcbenzene	0.6467	0.6101	5.7	99	0.00
116		Hexachlorobt	0.2582	0.2473	4.2	99	0.00
117		Naphthalen	1.3412	1.2709	5.2	97	0.00
118		1,2,3-Tclbenzene	0.5379	0.5200	3.3	99	0.00
119		2,4,5-Trichlorotolene	0.3990	0.3713	6.9	99	0.00
120		2,3,6-Trichlorotoluene	0.3513	0.3108	11.5	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV LQ1514847-02 Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:53:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	780877	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1304406	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1228517	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	584579	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	365799	53.94	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 107.88%				
48) surr1,1,2-dichloroetha...	6.096	65	399882	53.38	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.76%				
65) SURR3,Toluene-d8	8.529	98	1627289	57.02	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 114.04%				
70) SURR2,BFB	11.047	95	602110	55.89	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.78%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	513170	46.65	ppb		97
3) Chloromethane	1.353	50	611255	46.55	ppb		98
4) Vinyl Chloride	1.433	62	588259	48.08	ppb		100
5) Bromomethane	1.689	94	270453	45.26	ppb		99
6) Chloroethane	1.768	64	324198	48.19	ppb		100
7) Freon 21	1.926	67	664575	51.01	ppb		96
8) Trichlorofluoromethane	1.975	101	470627	49.38	ppb		100
9) Diethyl Ether	2.231	59	287877	48.14	ppb		94
10) Freon 123a	2.237	67	411693	48.35	ppb		99
11) Freon 123	2.298	83	476683	48.55	ppb		99
12) Acrolein W = 250	2.341	56	198519	298.35	ppb		89
13) 1,1-Diclethene	2.432	96	308667	47.26	ppb		98
14) Freon 113	2.445	101	277793	46.74	ppb		91
15) Acetone	2.487	43	69983	42.04	ppb		95
16) 2-Propanol	2.646	45	302959	959.07	ppb		98
17) Iodomethane	2.573	142	361572	48.73	ppb		98
18) Carbon Disulfide	2.634	76	1064081	48.78	ppb		99
19) Acetonitrile	2.762	40	60620	262.56	ppb	#	87
20) Allyl Chloride	2.798	76	169058	46.49	ppb		97
21) Methyl Acetate	2.829	43	170737	44.02	ppb		97
22) Methylene Chloride	2.926	84	355339	47.12	ppb		98
23) TBA	3.091	59	473646	923.89	ppb		99
24) Acrylonitrile	3.207	53	443661	235.46	ppb		98
25) Methyl-t-Butyl Ether	3.262	73	823034	45.30	ppb		100
26) trans-1,2-Dichloroethene	3.249	96	345444	49.12	ppb		96
28) 1,1-Diclethane	3.792	63	614710	49.14	ppb		97
29) Vinyl Acetate	3.908	86	64993	49.88	ppb		99
30) DIPE	3.944	45	1162142	47.65	ppb		99
31) 2-Chloro-1,3-Butadiene	3.926	53	653919	51.98	ppb		98
32) ETBE	4.530	59	1048446	45.75	ppb		98
33) 2,2-Dichloropropane	4.706	77	492276	49.20	ppb		98
34) cis-1,2-Dichloroethene	4.719	96	359659	46.20	ppb		98
35) 2-Butanone	4.773	43	103287	45.29	ppb		96
36) Propionitrile	4.865	54	155697	223.59	ppb		95

KR 12/1/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:53:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	189839	47.20	ppb		96
38) Methacrylonitrile	5.157	67	100763	45.66	ppb		100
39) Tetrahydrofuran	5.237	42	65531	44.69	ppb		95
40) Chloroform	5.328	83	558356	45.93	ppb		99
41) 1,1,1-Trichloroethane	5.596	97	448868	47.00	ppb		98
42) TAME	6.401	73	882881	45.35	ppb		99
44) Cyclohexane	5.676	41	340030	47.70	ppb		97
46) Carbontetrachloride	5.859	121	119783	47.96	ppb		97
47) 1,1-Dichloropropene	5.871	75	432395	46.98	ppb		99
49) Benzene	6.169	78	1394576	48.58	ppb		99
50) 1,2-Dichloroethane	6.212	62	349724	47.52	ppb		97
51) Iso-Butyl Alcohol	6.206	43	218751	909.06	ppb		99
52) n-Heptane	6.645	43	391250	49.53	ppb		99
53) 1-Butanol	7.114	56	355524	2357.02	ppb		99
54) Trichloroethene	7.084	130	337122	46.22	ppb		96
55) Methylcyclohexane	7.309	55	426017	48.44	ppb		94
56) 1,2-Diclpropane	7.352	63	341285	47.98	ppb		99
57) Dibromomethane	7.492	93	154753	44.18	ppb		91
58) 1,4-Dioxane	7.547	88	51790m	992.84	ppb		
59) Methyl Methacrylate	7.572	69	185300	45.02	ppb		99
60) Bromodichloromethane	7.712	83	407711	46.75	ppb		98
61) 2-Nitropropane	7.986	41	105890	82.44	ppb		99
62) 2-Chloroethylvinyl Ether	8.108	63	153104	39.01	ppb		95
63) cis-1,3-Dichloropropene	8.236	75	550535	47.09	ppb		98
64) 4-Methyl-2-pentanone	8.437	43	239486	46.03	ppb		97
66) Toluene	8.602	91	1451182	48.81	ppb		99
67) trans-1,3-Dichloropropene	8.864	75	448548	48.30	ppb		98
68) Ethyl Methacrylate	8.998	69	381513	46.40	ppb		97
69) 1,1,2-Trichloroethane	9.047	97	235546	46.85	ppb		95
72) Tetrachloroethene	9.181	164	246451	48.37	ppb		97
73) 2-Hexanone	9.327	43	164510	43.75	ppb		98
74) 1,3-Dichloropropane	9.212	76	423513	45.34	ppb		98
75) Dibromochloromethane	9.431	129	264401	45.50	ppb		96
76) N-Butyl Acetate	9.480	43	418809	46.61	ppb		99
77) 1,2-Dibromoethane	9.529	107	232543	46.72	ppb		99
78) Chlorobenzene	10.016	112	866450	47.68	ppb		99
79) 3-CBTF	10.028	180	420725	46.73	ppb		98
80) 4-CBTF	10.083	180	386624	46.15	ppb		99
81) 1,1,1,2-Tetrachloroethane	10.102	131	286667	45.64	ppb		94
82) Ethylbenzene	10.132	106	492056	47.80	ppb		94
83) (m+p)Xylene	10.242	106	1205305	94.86	ppb		100
84) o-Xylene	10.595	106	631322	48.52	ppb		97
85) Styrene	10.608	104	989975	46.71	ppb		99
87) Bromoform	10.760	173	149491	45.02	ppb		95
88) 2-CBTF	10.833	180	418197	47.18	ppb		97
89) Isopropylbenzene	10.925	105	1480475	48.70	ppb		100
90) Cyclohexanone	10.986	55	597411	1355.50	ppb		98
91) trans-1,4-Dichloro-2-B...	11.229	53	84679	46.99	ppb		92
92) 1,1,2,2-Tetrachloroethane	11.181	83	281726	45.87	ppb		100
93) Bromobenzene	11.169	156	335997	48.85	ppb		99
94) 1,2,3-Trichloropropane	11.211	110	73890	45.21	ppb	#	89

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:53:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

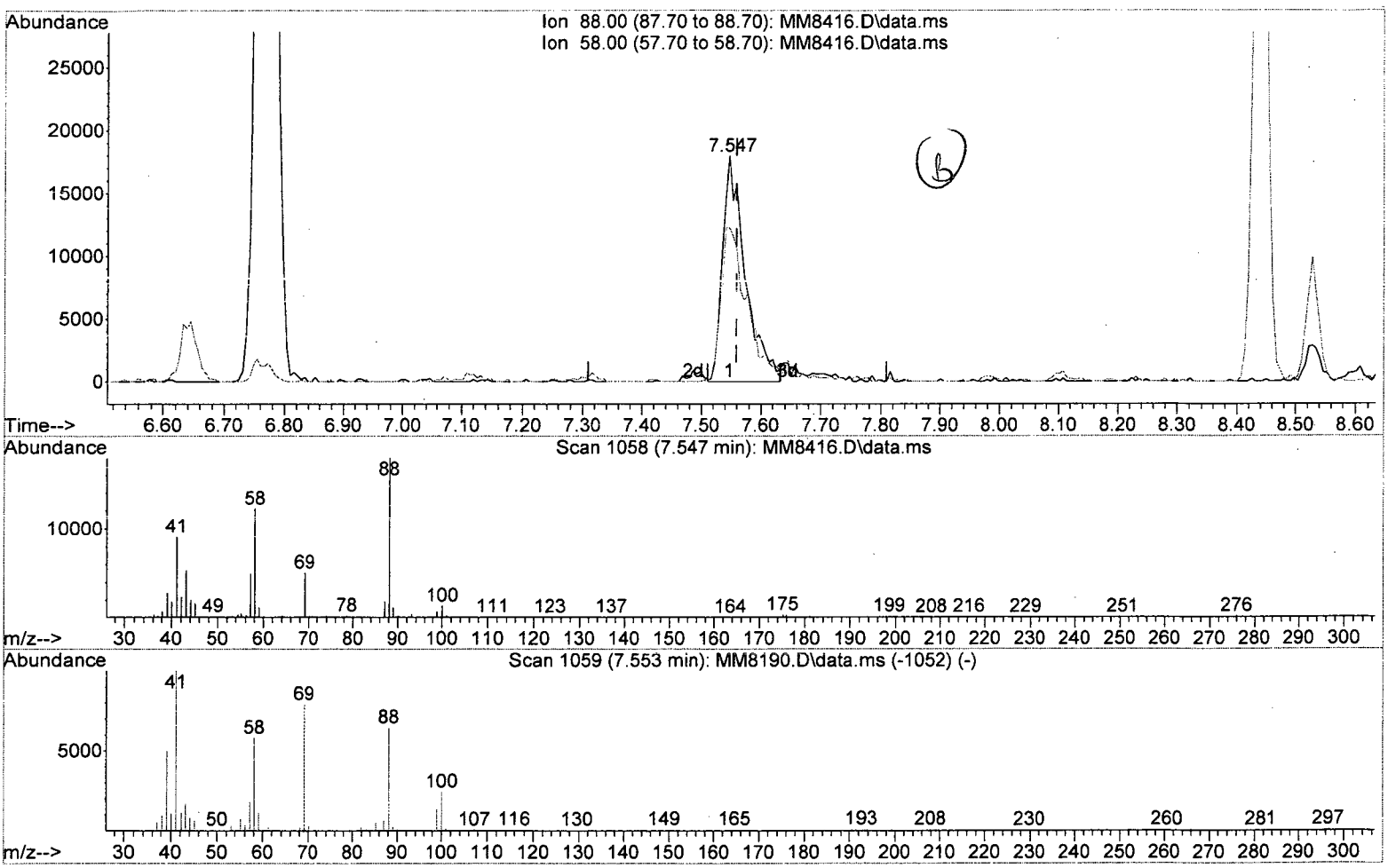
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	1756914	50.15	ppb	99
96)	2-Chlorotoluene	11.339	91	1030850	50.19	ppb	99
97)	3-Chlorotoluene	11.394	91	1071408	49.69	ppb	99
98)	4-Chlorotoluene	11.437	91	1140181	49.21	ppb	99
99)	1,3,5-Trimethylbenzene	11.431	105	1137034	49.43	ppb	100
100)	tert-Butylbenzene	11.699	119	1024791	49.93	ppb	99
101)	1,2,4-Trimethylbenzene	11.735	105	1212327	49.11	ppb	100
102)	3,4-DCBTF	11.796	214	279910	47.15	ppb	98
103)	sec-Butylbenzene	11.882	105	1453979	50.63	ppb	99
104)	p-Isopropyltoluene	12.004	119	1124257	50.63	ppb	99
105)	1,3-Dclbenz	11.961	146	649526	48.78	ppb	99
106)	1,4-Dclbenz	12.034	146	629855	50.47	ppb	98
107)	2,4-DCBTF	12.089	214	258952	49.98	ppb	96
108)	2,5-DCBTF	12.126	214	281177	47.97	ppb	99
109)	n-Butylbenzene	12.333	91	1066906	50.74	ppb	97
110)	1,2-Dclbenz	12.333	146	591833	48.30	ppb	94
111)	1,2-Dibromo-3-chloropr...	12.955	157	51389	43.36	ppb	87
112)	Trielution Dichlorotol...	13.071	125	1517836	146.76	ppb	97
113)	1,3,5 Trichlorobenzene	13.125	180	394594	47.90	ppb	98
114)	Coelution Dichlorotoluene	13.400	125	1081036	98.91	ppb	98
115)	1,2,4-Tcbenzene	13.607	180	356637	47.17	ppb	99
116)	Hexachlorobt	13.747	225	144581	47.89	ppb	93
117)	Naphthalen	13.796	128	742945	47.38	ppb	99
118)	1,2,3-Tclbenzene	13.985	180	303987	48.34	ppb	95
119)	2,4,5-Trichlorotolene	14.570	159	217032	46.52	ppb	99
120)	2,3,6-Trichlorotoluene	14.656	159	181677	44.23	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:48:00 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8416.D\data.ms

(58) 1,4-Dioxane

7.547min (-0.012) 903.52 ppb

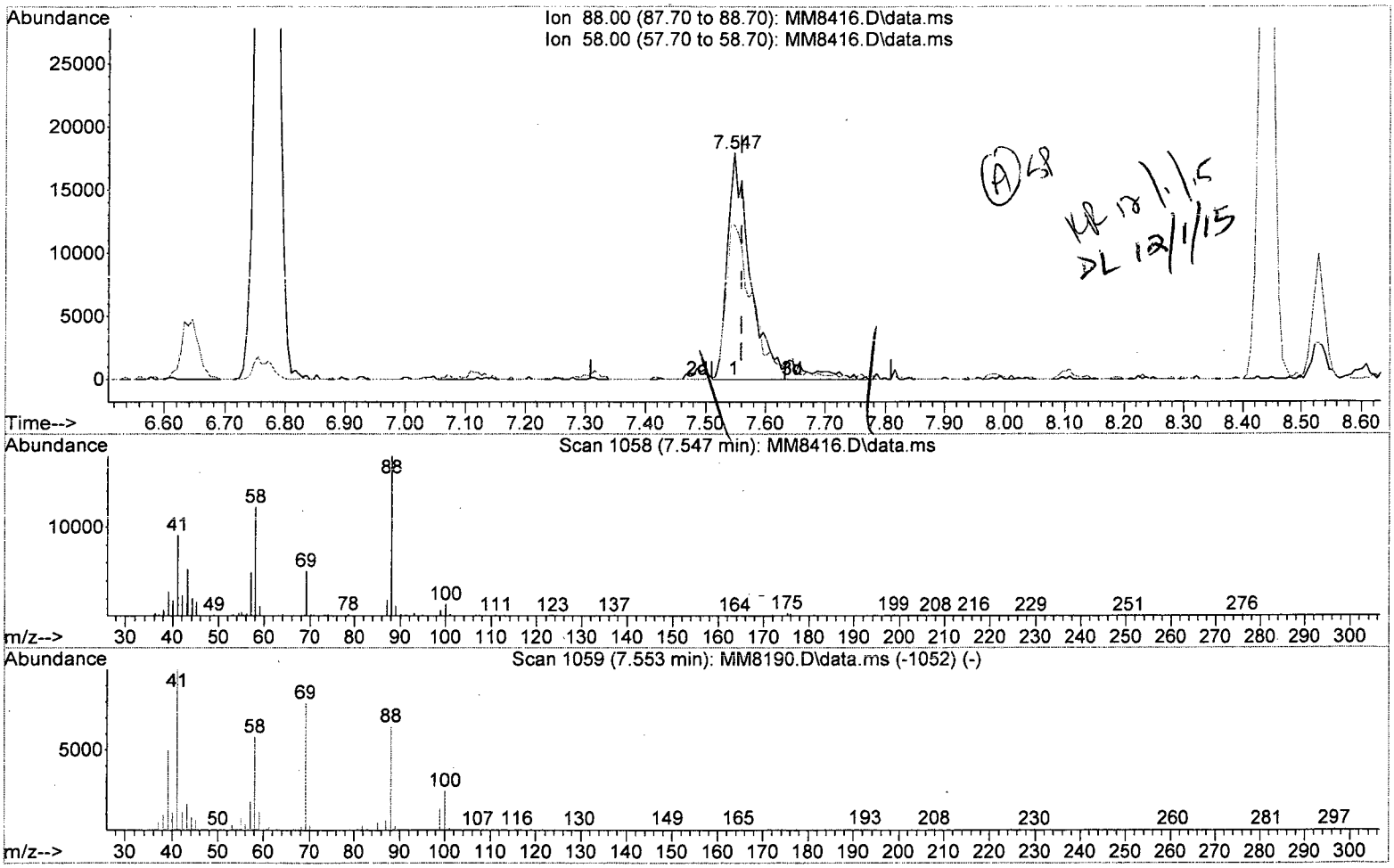
response 47131

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	68.27
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:48:00 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8416.D\data.ms

(58) 1,4-Dioxane

7.547min (-0.012) 992.84 ppb m

response 51790

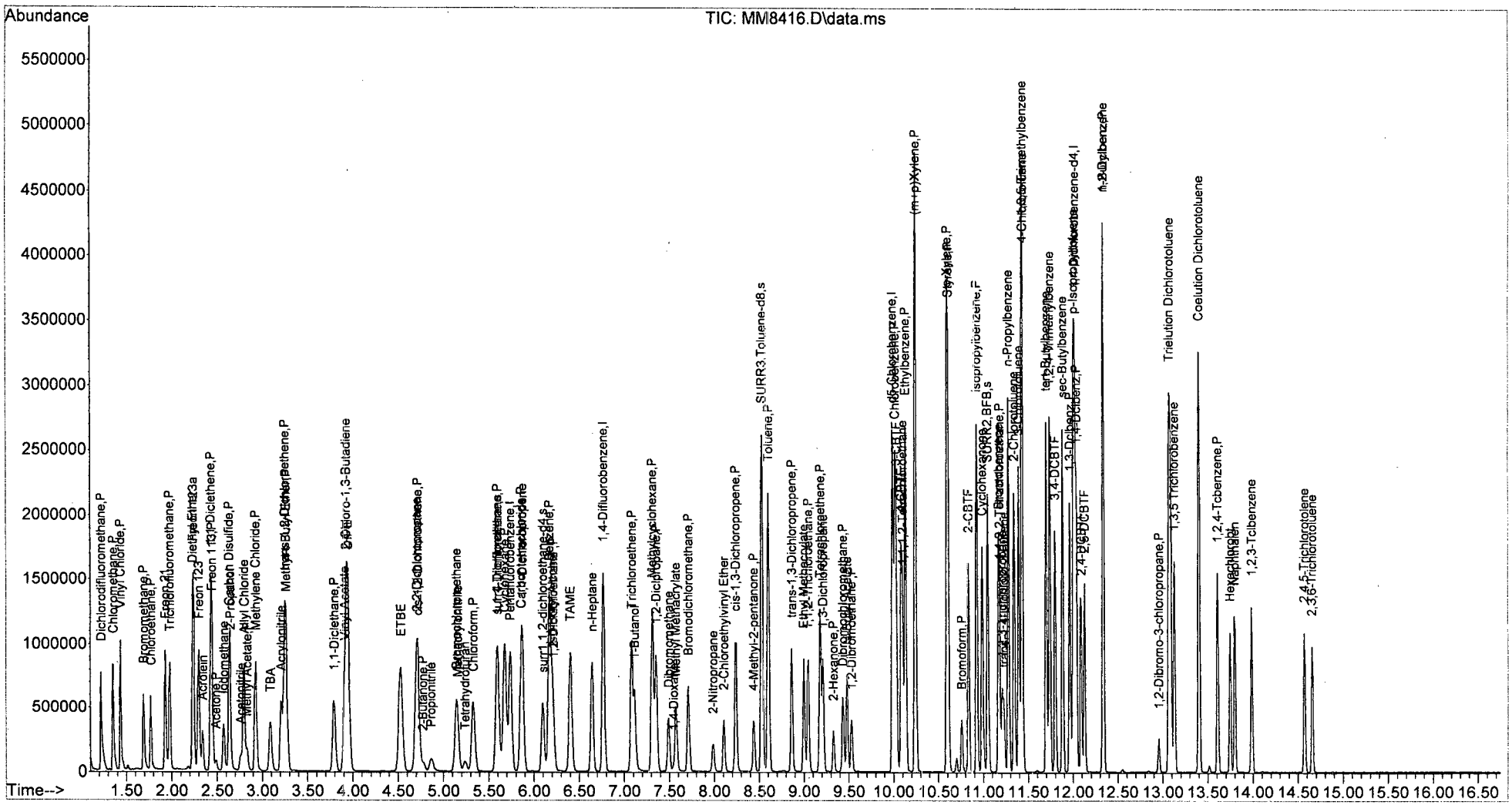
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	68.27
0.00	0.00	0.00
0.00	0.00	0.00

W111815A.M Tue Dec 01 10:53:19 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:53:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Tue Dec 01 10:54:13 2015 Page: 4

VOLATILE ORGANICS
RAW QC DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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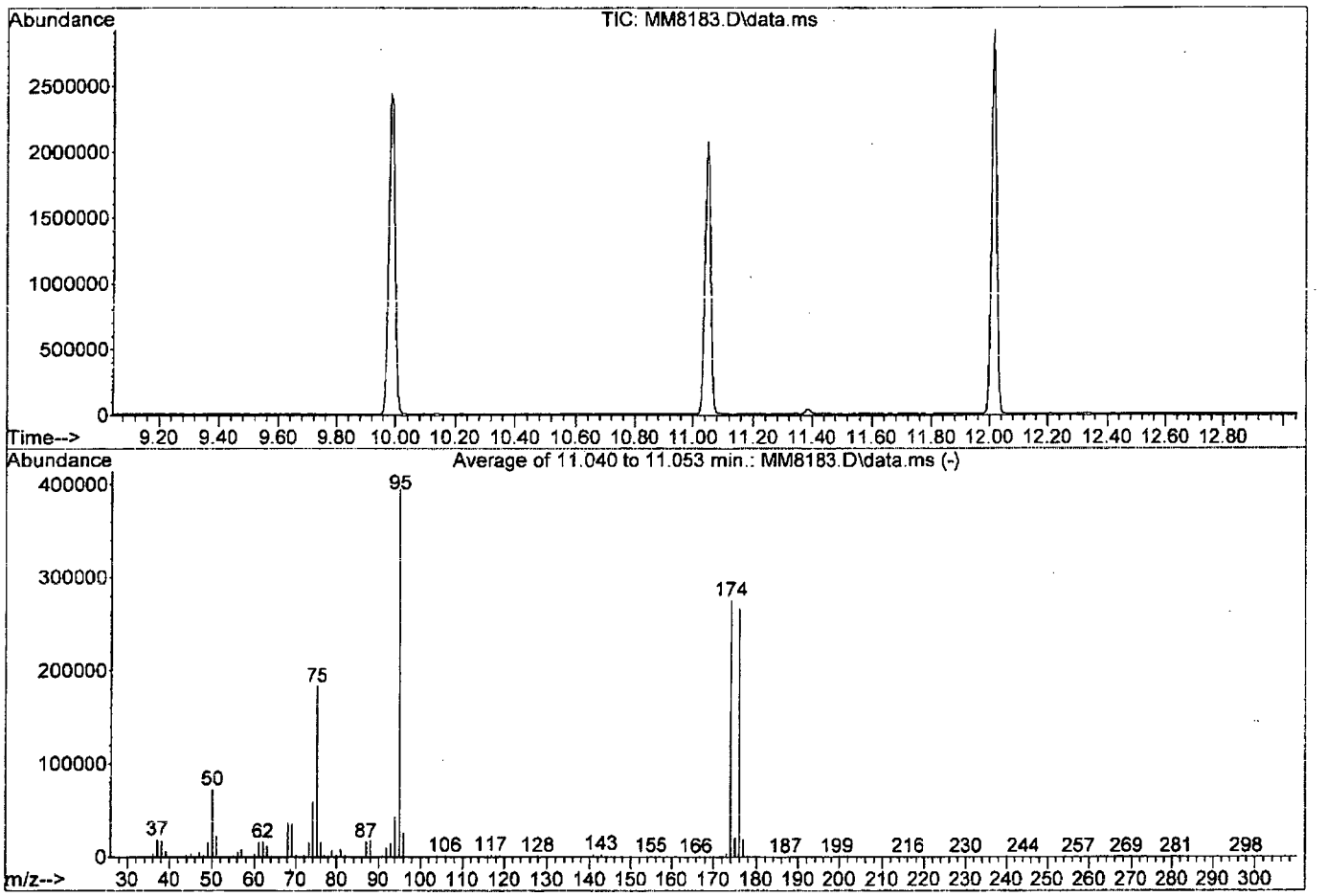
Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8183.D
Acq On : 18 Nov 2015 3:38 pm
Operator : K.Ruest
Sample : TUNE Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Thu Aug 27 10:55:02 2015

KR 11/18/15



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1626

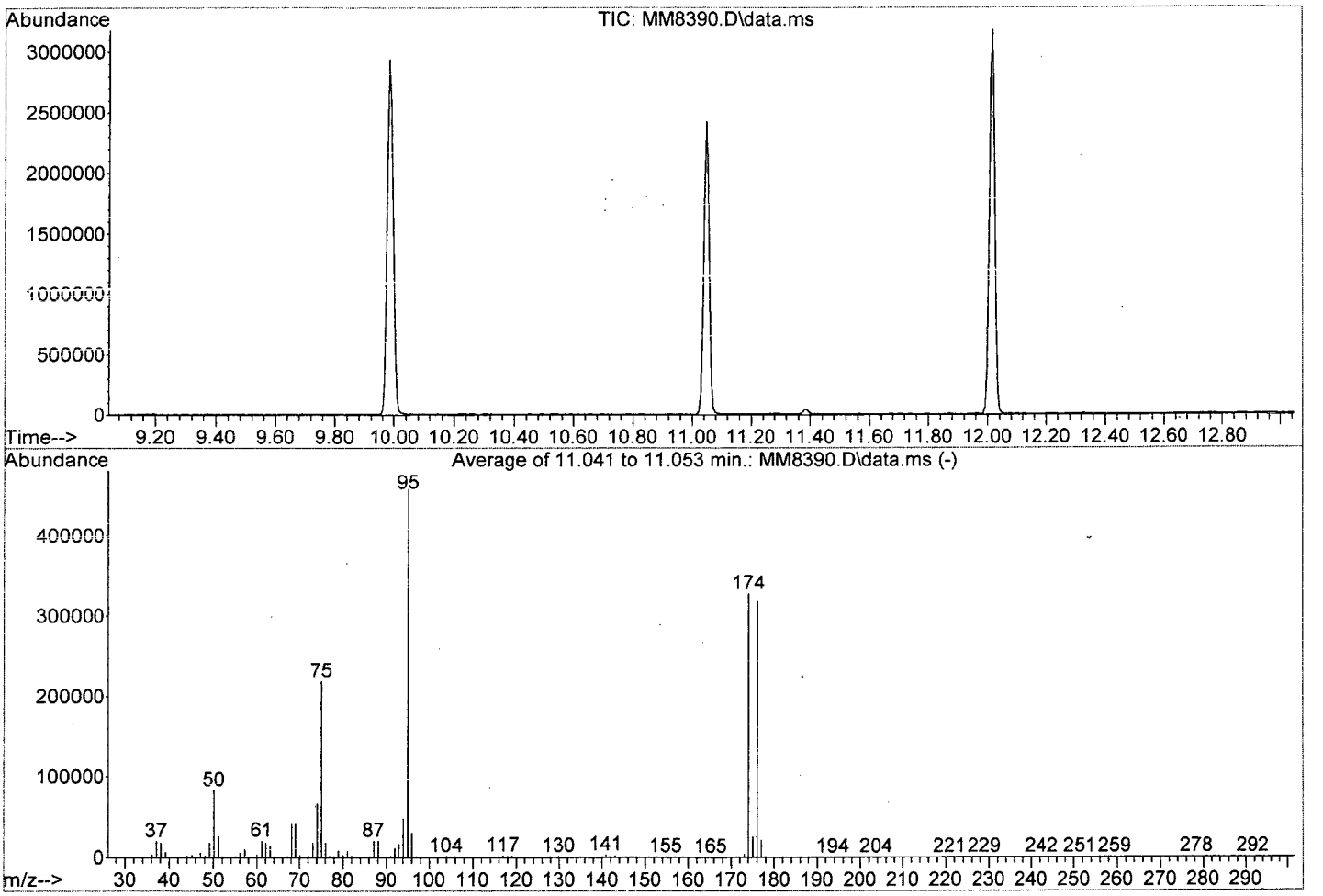
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	72096	PASS
75	95	30	60	46.3	182827	PASS
95	95	100	100	100.0	394581	PASS
96	95	5	9	6.6	26025	PASS
173	174	0.00	2	1.3	3492	PASS
174	95	50	120	69.7	275072	PASS
175	174	5	9	7.4	20478	PASS
176	174	95	101	96.8	266389	PASS
177	176	5	9	6.9	18350	PASS

W111815.M Wed Nov 18 16:27:30 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8390.D
Acq On : 30 Nov 2015 10:32 am
Operator : K.Ruest
Sample : TUNE RQ1514764-01 Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Nov 25 09:49:52 2015



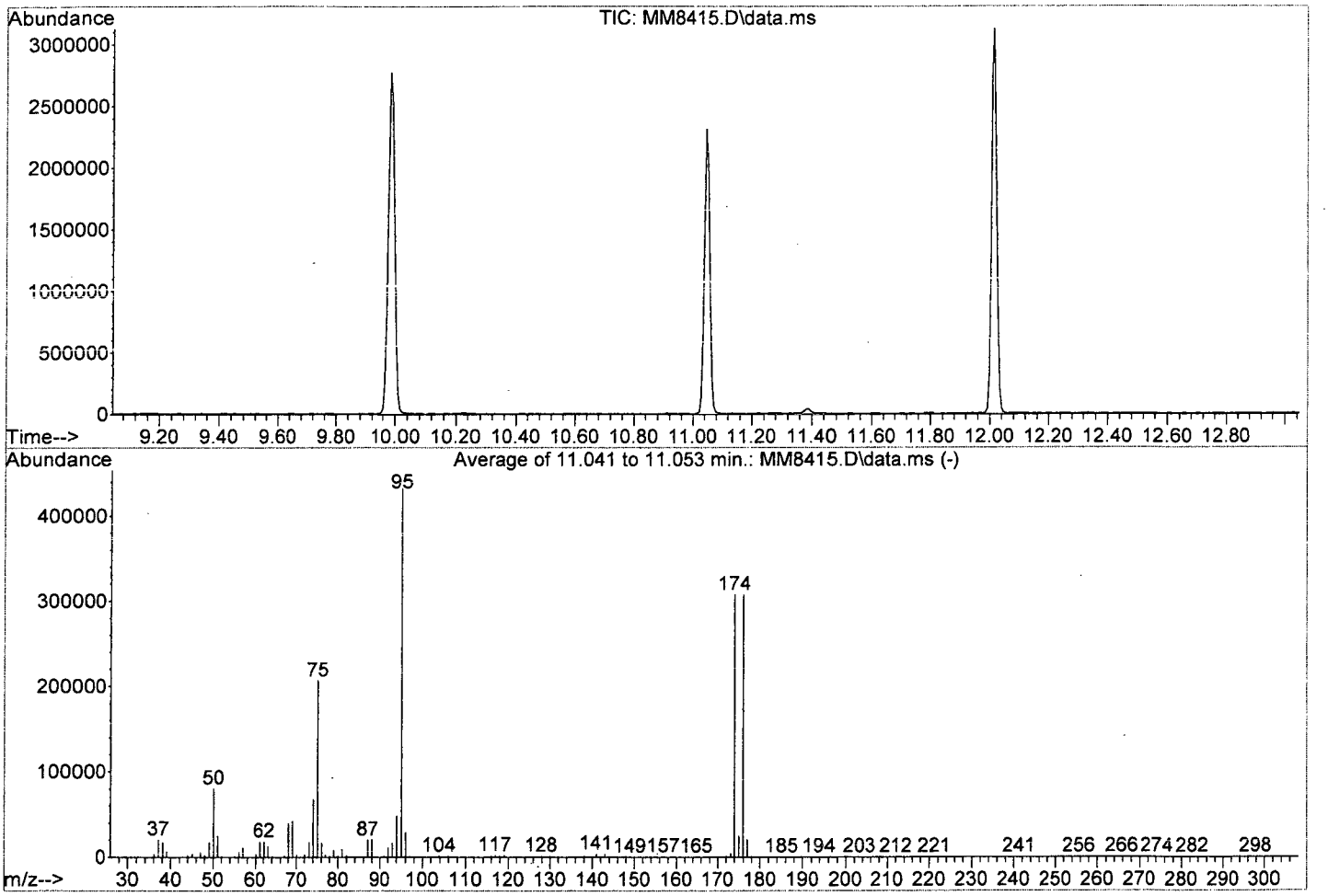
AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1625

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.1	83051	PASS
75	95	30	60	47.7	218496	PASS
95	95	100	100	100.0	457749	PASS
96	95	5	9	6.6	30259	PASS
173	174	0.00	2	1.2	3826	PASS
174	95	50	120	71.5	327424	PASS
175	174	5	9	7.6	24928	PASS
176	174	95	101	97.0	317547	PASS
177	176	5	9	6.5	20646	PASS

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8415.D
Acq On : 1 Dec 2015 10:01 am
Operator : K.Ruest
Sample : TUNE RQ1514847-01 Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Nov 25 09:49:52 2015



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	80059	PASS
75	95	30	60	47.8	206443	PASS
95	95	100	100	100.0	431829	PASS
96	95	5	9	6.6	28661	PASS
173	174	0.00	2	1.3	4077	PASS
174	95	50	120	71.2	307477	PASS
175	174	5	9	7.8	23912	PASS
176	174	95	101	99.8	306837	PASS
177	176	5	9	6.6	20112	PASS

W111815A.M Tue Dec 01 10:27:10 2015 Page: 1

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514764-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	11/30/15 12:34		474104	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	11/30/15 12:34		474104	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	11/30/15 12:34		474104	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	11/30/15 12:34		474104	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	11/30/15 12:34		474104	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 12:34		474104	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	11/30/15 12:34		474104	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	11/30/15 12:34		474104	
1,2,4-Trichlorobenzene	**0.28**	J	5.0	1.0	0.23	1	NA	11/30/15 12:34		474104	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	11/30/15 12:34		474104	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 12:34		474104	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 12:34		474104	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	11/30/15 12:34		474104	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 12:34		474104	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	11/30/15 12:34		474104	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	11/30/15 12:34		474104	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	11/30/15 12:34		474104	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	11/30/15 12:34		474104	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 12:34		474104	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	11/30/15 12:34		474104	
Acetone	ND	U	5.0	5.0	1.3	1	NA	11/30/15 12:34		474104	
Benzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	11/30/15 12:34		474104	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 12:34		474104	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	11/30/15 12:34		474104	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	11/30/15 12:34		474104	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	11/30/15 12:34		474104	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	11/30/15 12:34		474104	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	11/30/15 12:34		474104	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514764-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	11/30/15 12:34		474104	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	11/30/15 12:34		474104	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	11/30/15 12:34		474104	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	11/30/15 12:34		474104	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	11/30/15 12:34		474104	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	11/30/15 12:34		474104	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Hexachlorobutadiene	**0.75**	J	5.0	1.0	0.62	1	NA	11/30/15 12:34		474104	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	11/30/15 12:34		474104	
Naphthalene	**0.32**	J	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Styrene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	11/30/15 12:34		474104	
Toluene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	11/30/15 12:34		474104	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	11/30/15 12:34		474104	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	11/30/15 12:34		474104	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	11/30/15 12:34		474104	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	11/30/15 12:34		474104	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	11/30/15 12:34		474104	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	11/30/15 12:34		474104	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	11/30/15 12:34		474104	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	11/30/15 12:34		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	11/30/15 12:34	
Dibromofluoromethane	112	85-115	11/30/15 12:34	
Toluene-d8	111	85-120	11/30/15 12:34	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	11/30/15 1234

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514764-04	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\1215015\
Data File : MM8394.D
Acq On : 30 Nov 2015 12:34 pm
Operator : K.Ruest
Sample : VBLK RQ1574764-04 Inst : MSVOA-12
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 03 12:25:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	853488	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1396437	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1271410	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	630849	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	405715	55.88	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 111.76%				
48) surr1,1,2-dichloroetha...	6.096	65	427869	53.35	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.70%				
65) SURR3,Toluene-d8	8.529	98	1701732	55.69	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 111.38%				
70) SURR2,BFB	11.047	95	649905	56.35	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 112.70%				
Target Compounds							Qvalue
115) 1,2,4-Tcbenzene	13.613	180	2267	0.28	ppb	#	41
116) Hexachlorobt	13.747	225	2445	0.75	ppb		87
117) Naphthalen	13.802	128	5351	0.32	ppb		90
118) 1,2,3-Tclbenzene	13.985	180	2956	0.44	ppb	#	74

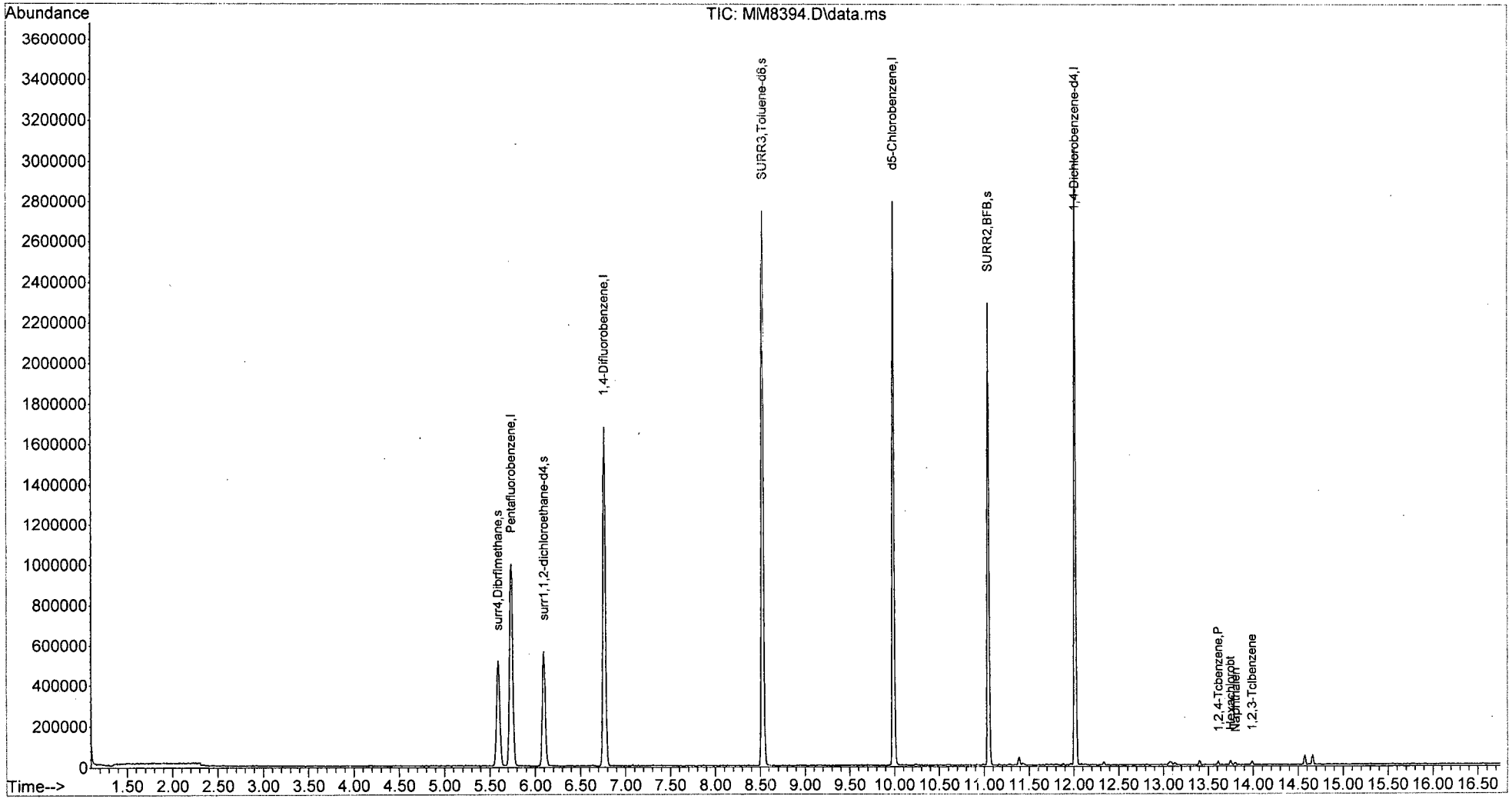
(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/3/15

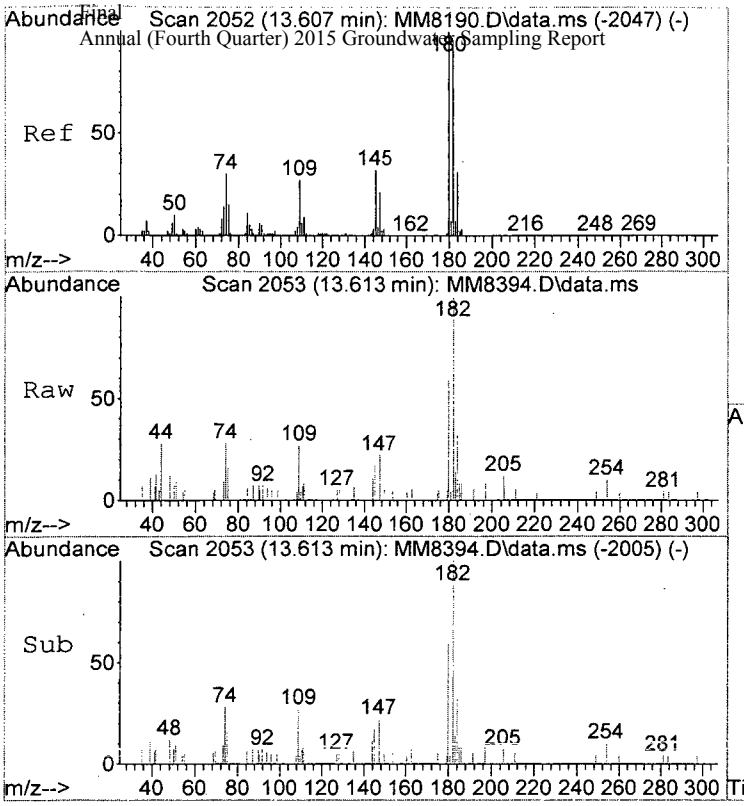
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\113015\
Data File : MM8394.D
Acq On : 30 Nov 2015 12:34 pm
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 03 12:25:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



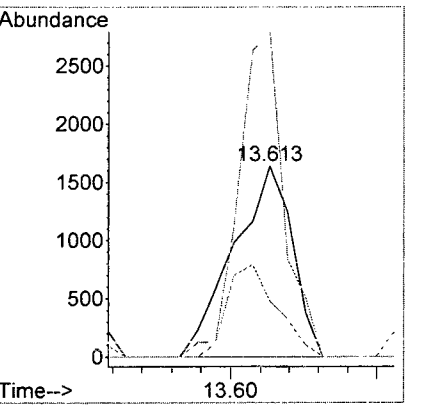
W111815A.M Thu Dec 03 12:27:23 2015 Page: 2

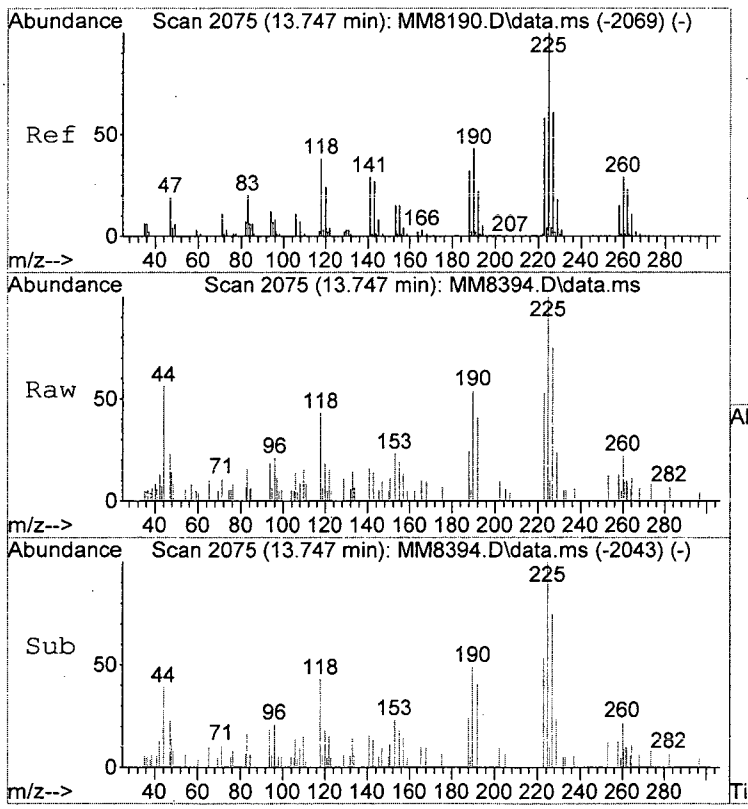


#115
1,2,4-Tcbenzene
Concen: 0.28 ppb
RT: 13.613 min Scan# 2053
Delta R.T. -0.000 min
Lab File: MM8394.D
Acq: 30 Nov 2015 12:34 pm

Tgt Ion:180 Resp: 2267

Ion	Ratio	Lower	Upper
180	100		
182	170.6	75.7	115.7#
145	29.5	12.1	52.1

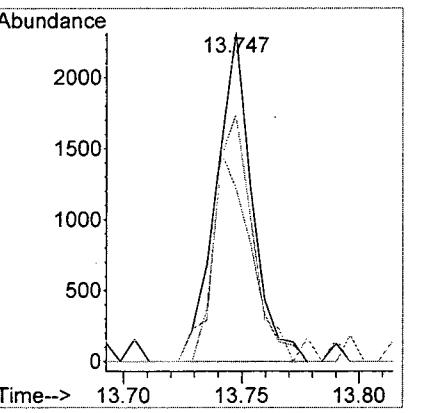


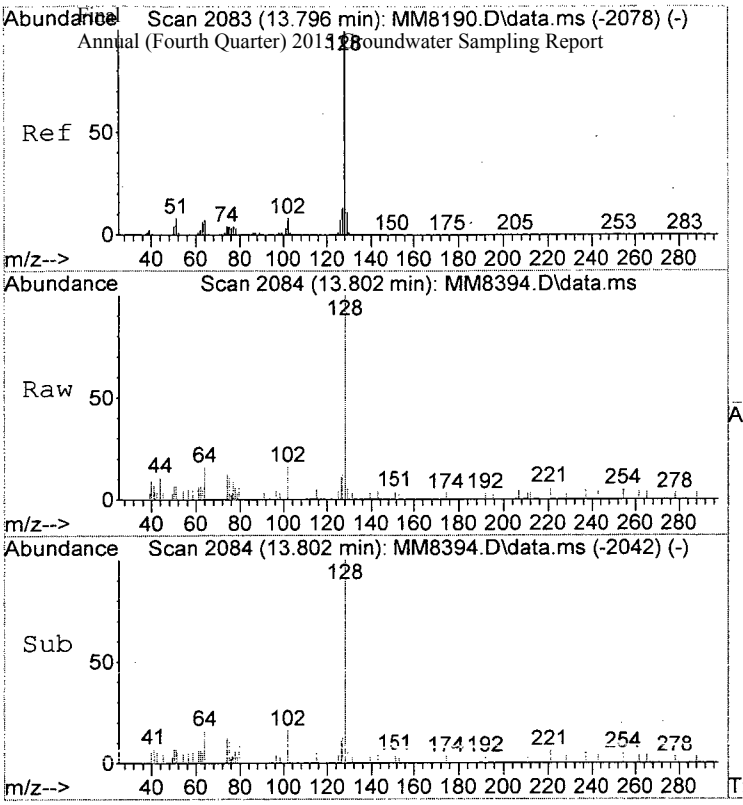


#116
Hexachlorobt
Concen: 0.75 ppb
RT: 13.747 min Scan# 2075
Delta R.T. 0.000 min
Lab File: MM8394.D
Acq: 30 Nov 2015 12:34 pm

Tgt Ion:225 Resp: 2445

Ion	Ratio	Lower	Upper
225	100		
223	52.8	38.1	78.1
227	75.1	41.1	81.1

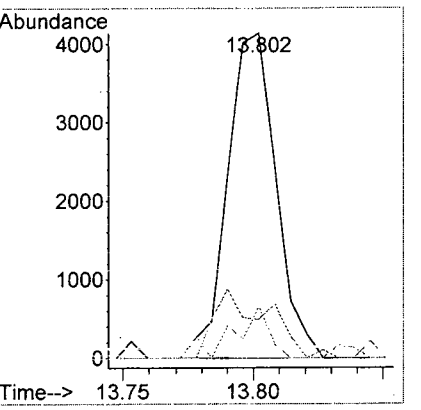


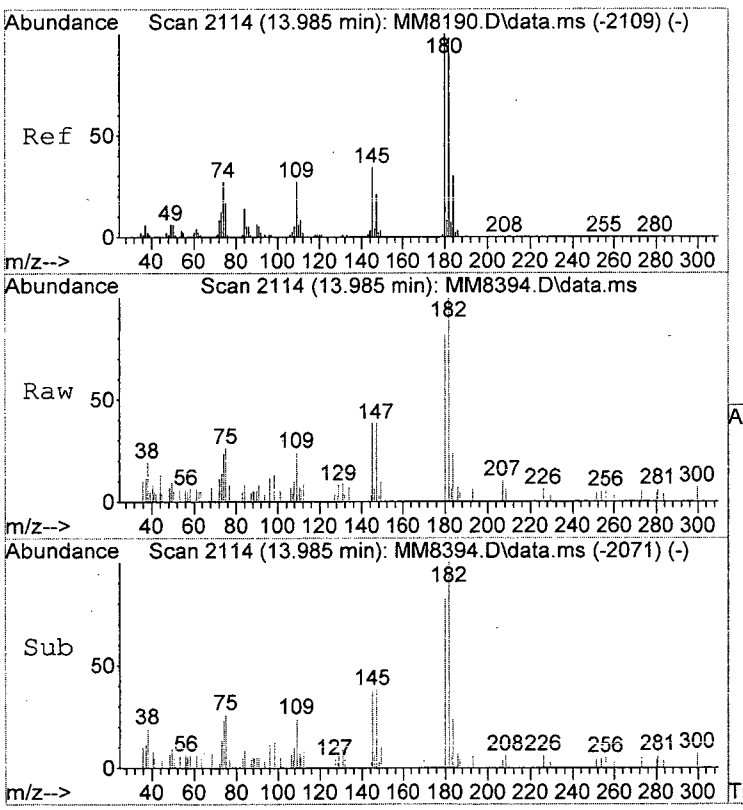


#117
Naphthalen
Concen: 0.32 ppb
RT: 13.802 min Scan# 2084
Delta R.T. -0.000 min
Lab File: MM8394.D
Acq: 30 Nov 2015 12:34 pm

Tgt Ion:128 Resp: 5351

Ion	Ratio	Lower	Upper
128	100		
127	11.8	0.0	33.1
102	16.0	0.0	28.3

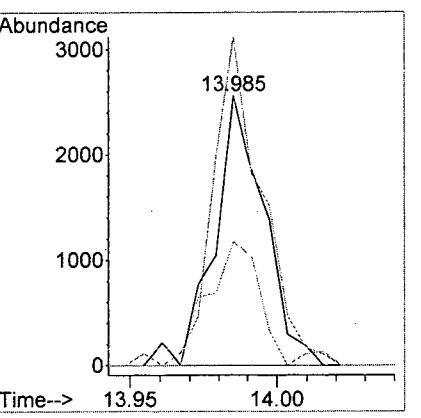




#118
1,2,3-Tclbenzene
Concen: 0.44 ppb
RT: 13.985 min Scan# 2114
Delta R.T. -0.006 min
Lab File: MM8394.D
Acq: 30 Nov 2015 12:34 pm

Tgt Ion:180 Resp: 2956

Ion	Ratio	Lower	Upper
180	100		
182	122.0	78.5	118.5#
145	53.7	14.2	54.2



LSC Area Percent Report

Data Path : I:\ACQUDATA\MSVOA12\DATA\151015\
Data File : MM8394.D
Acq On : 30 Nov 2015 12:34 pm
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8394.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.590	726	737	749	rBV	518466	1270440	28.64%	5.411%
2	5.737	751	761	775	rVB	1001201	2445086	55.12%	10.414%
3	6.096	811	820	830	rBV2	568251	1269434	28.62%	5.407%
4	6.767	918	930	941	rBV	1687305	3237237	72.98%	13.788%
5	8.529	1212	1219	1231	rVB	2752272	4435987	100.00%	18.893%
6	9.986	1452	1458	1469	rVB	2802038	3861411	87.05%	16.446%
7	11.047	1627	1632	1640	rVB	2296637	2903421	65.45%	12.366%
8	11.388	1684	1688	1693	rBV3	39902	59518	1.34%	0.253%
9	12.016	1785	1791	1798	rVB	3063222	3877695	87.41%	16.515%
10	14.570	2203	2210	2214	rVB2	47612	61750	1.39%	0.263%
11	14.656	2220	2224	2228	rVB2	46937	57380	1.29%	0.244%

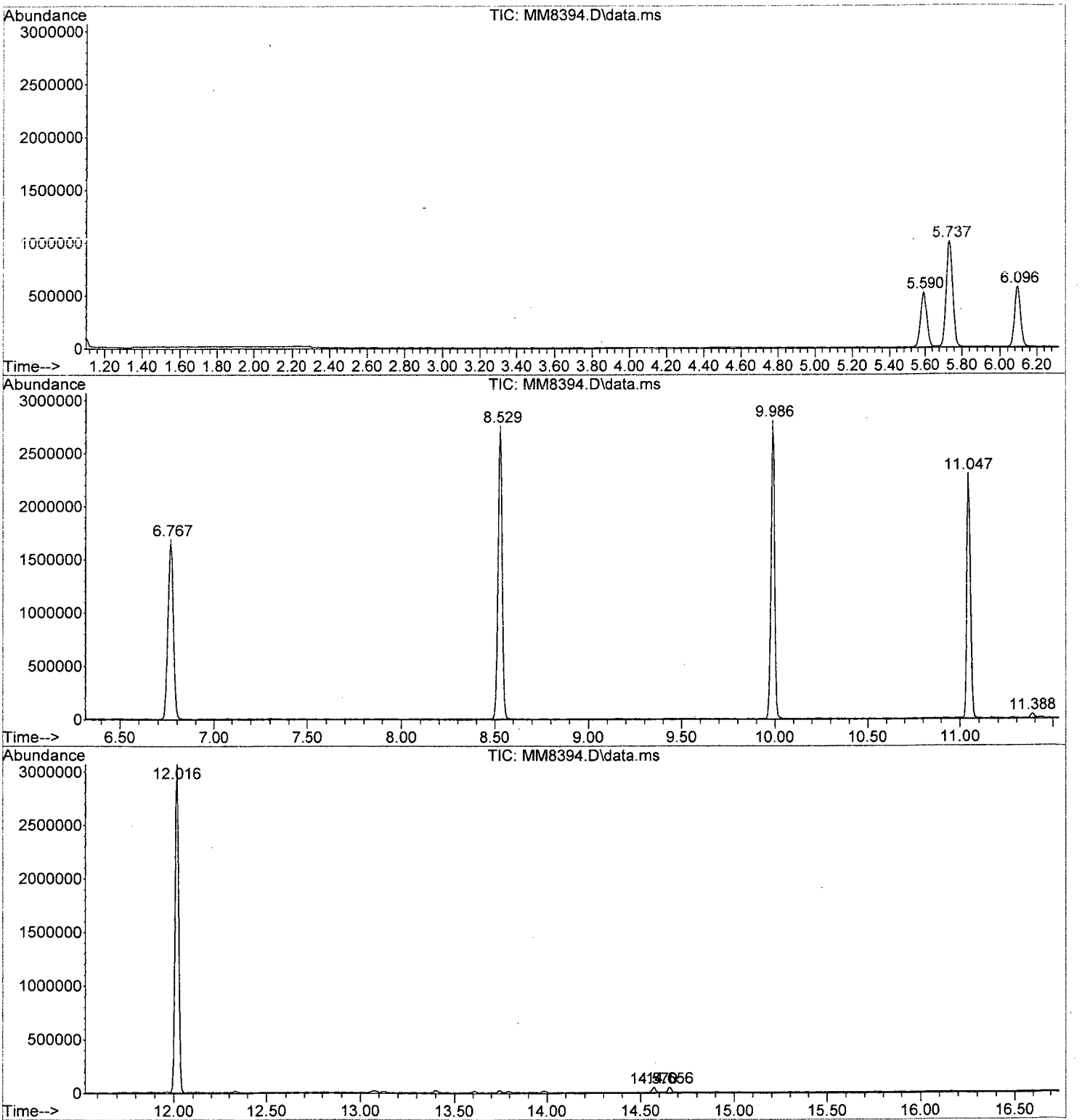
Sum of corrected areas: 23479359

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\MSVOA12\Data\113015\
Data File : MM8394.D
Acq On : 30 Nov 2015 12:34 pm
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\MSVOA12\DATA\151015\\
Data File : MM8394.D
Acq On : 30 Nov 2015 12:34 pmm
Operator : K.Ruestt
Sample : VBLK Inst : MSVOA-122
Misc :
ALS Vial : 8 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514847-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 12:05		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 12:05		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 12:05		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 12:05		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 12:05		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:05		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 12:05		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 12:05		474290	
1,2,4-Trichlorobenzene	**0.36**	J	5.0	1.0	0.23	1	NA	12/1/15 12:05		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 12:05		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:05		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:05		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 12:05		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:05		474290	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:05		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 12:05		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 12:05		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 12:05		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:05		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 12:05		474290	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/1/15 12:05		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 12:05		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:05		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:05		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 12:05		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:05		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 12:05		474290	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:05		474290	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514847-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:05		474290	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/1/15 12:05		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:05		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 12:05		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 12:05		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 12:05		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Hexachlorobutadiene	**0.75**	J	5.0	1.0	0.62	1	NA	12/1/15 12:05		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:05		474290	
Naphthalene	**0.37**	J	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/1/15 12:05		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 12:05		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:05		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 12:05		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:05		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 12:05		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:05		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:05		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 12:05		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/1/15 12:05	
Dibromofluoromethane	110	85-115	12/1/15 12:05	
Toluene-d8	113	85-120	12/1/15 12:05	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/1/15 1205

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514847-04	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8419.D
Acq On : 1 Dec 2015 12:05 pm
Operator : K.Ruest
Sample : VBLK PQ1514817-04 Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 02 10:14:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	822692	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1347501	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1226052	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	607850	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	386795	55.21	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 110.42%				
48) surr1,1,2-dichloroetha...	6.097	65	418000	54.02	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.04%				
65) SURR3,Toluene-d8	8.529	98	1668928	56.61	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 113.22%				
70) SURR2,BFB	11.047	95	632797	56.86	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 113.72%				
Target Compounds							Qvalue
~~91) trans 1,4 Dichloro-2-B...~~	~~11.230~~	~~53~~	~~252~~	~~Below Cal~~		~~#~~	~~35~~
112) Trielution Dichlorotol...	13.071	125	7048	0.66	ppb		94 MTD
113) 1,3,5 Trichlorobenzene	13.126	180	2080	0.24	ppb		94
114) Coelution Dichlorotoluene	13.400	125	6259	0.55	ppb	#	87 MTD
115) 1,2,4-Tcbenzene	13.613	180	2854	0.36	ppb		89
116) Hexachlorobt	13.754	225	2369	0.75	ppb		91
117) Naphthalen	13.796	128	6012	0.37	ppb		89
118) 1,2,3-Tclbenzene	13.985	180	3158	0.48	ppb	#	71
119) 2,4,5-Trichlorotolene	14.577	159	8790	1.81	ppb	#	88 MTD
120) 2,3,6-Trichlorotoluene	14.656	159	7456	1.75	ppb	#	85 ↓

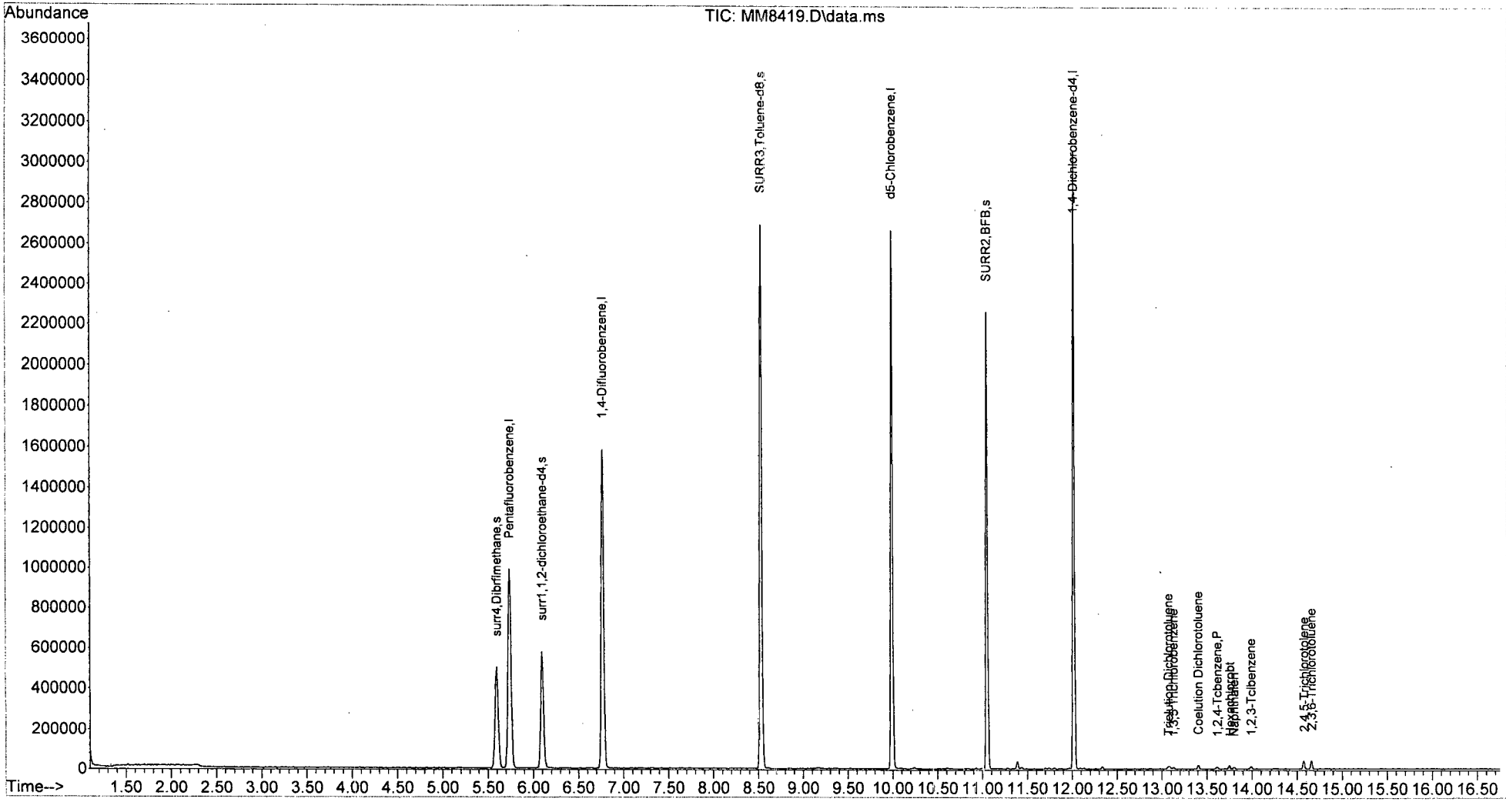
KB 12/2/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed

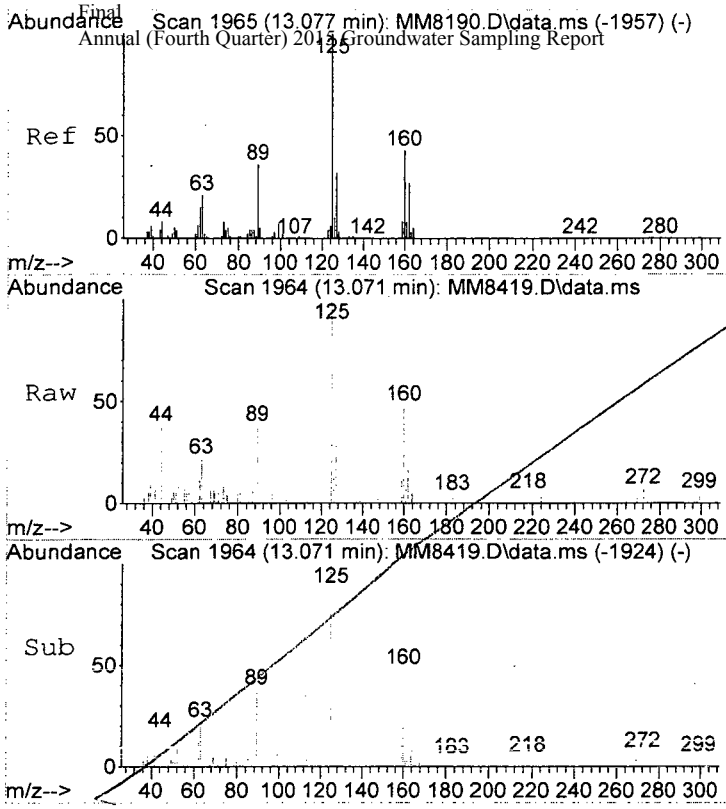
W111815A.M Wed Dec 02 10:16:48 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8419.D
Acq On : 1 Dec 2015 12:05 pm
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 02 10:14:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



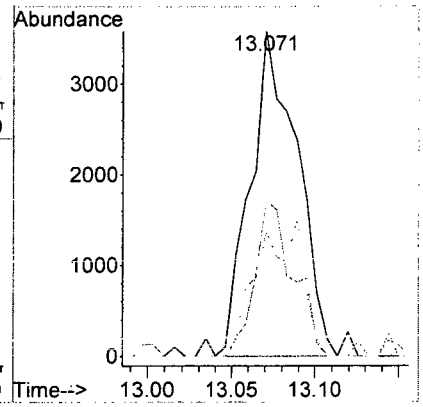
W111815A.M Wed Dec 02 10:16:51 2015 Page: 2

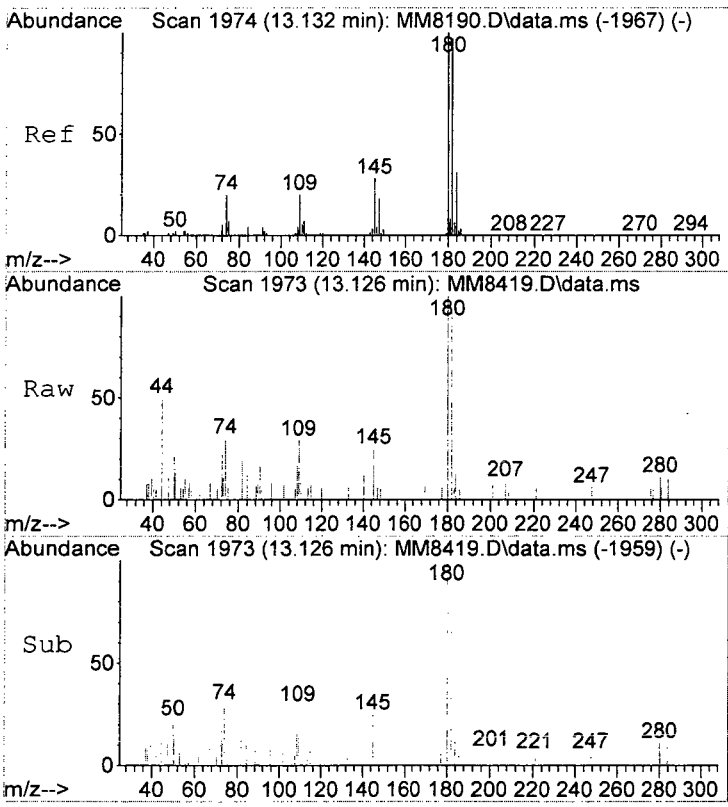


#112
Trielution Dichlorotoluene
Concen: 0.66 ppb
RT: 13.071 min Scan# 1964
Delta R.T. -0.006 min
Lab File: MM8419.D
Acq: 1 Dec 2015 12:05 pm

Tgt Ion:125 Resp: 7048

Ion	Ratio	Lower	Upper
125	100		
160	47.7	34.3	51.5
89	38.4	28.6	43.0

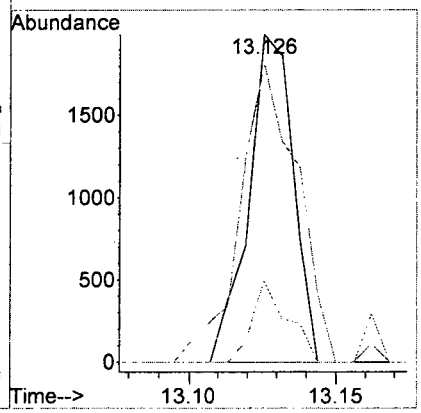


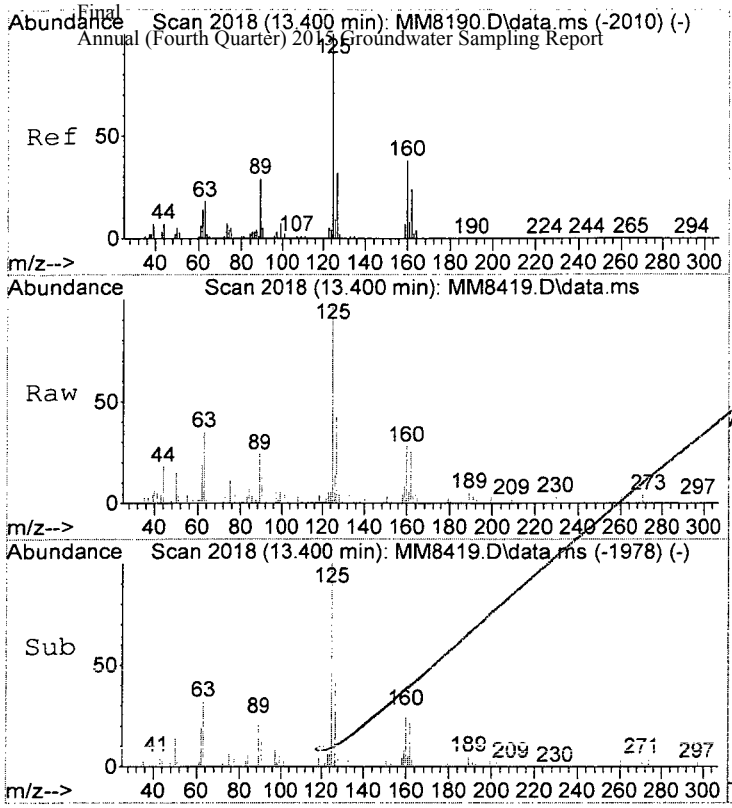


#113
1,3,5 Trichlorobenzene
Concen: 0.24 ppb
RT: 13.126 min Scan# 1973
Delta R.T. -0.006 min
Lab File: MM8419.D
Acq: 1 Dec 2015 12:05 pm

Tgt Ion:180 Resp: 2080

Ion	Ratio	Lower	Upper
180	100		
182	90.9	77.5	116.3
145	24.8	22.6	33.8

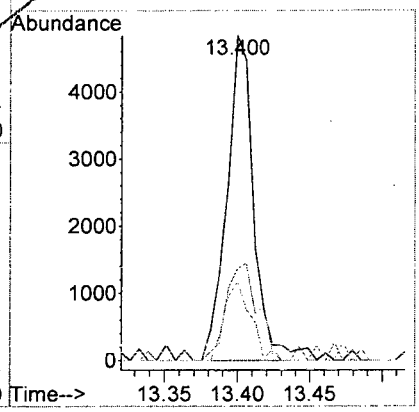


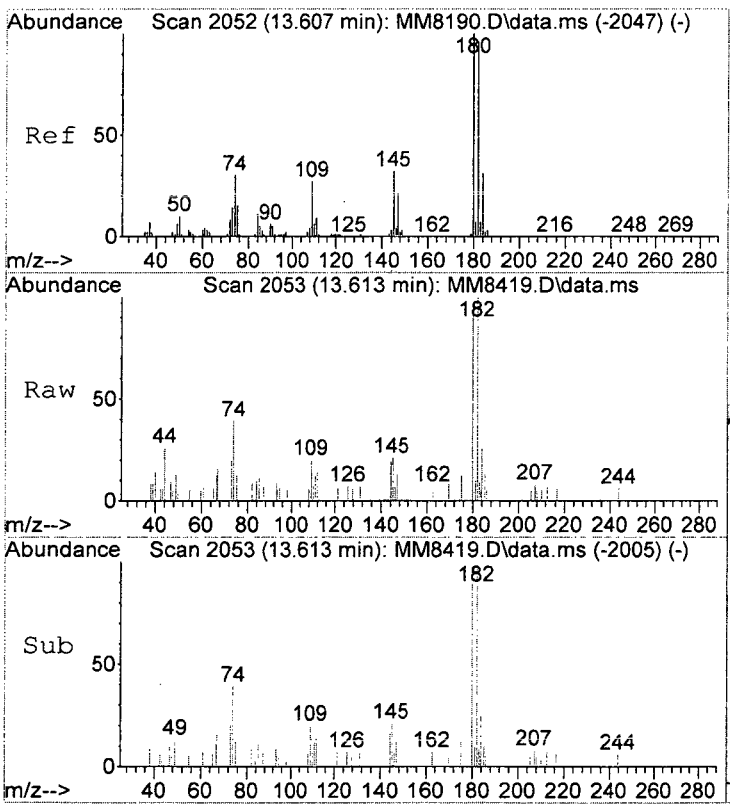


#114
Coelution Dichlorotoluene
Concen: 0.55 ppb
RT: 13.400 min Scan# 2018
Delta R.T. -0.006 min
Lab File: MM8419.D
Acq: 1 Dec 2015 12:05 pm

Tgt Ion:125 Resp: 6259

Ion	Ratio	Lower	Upper
125	100		
160	28.3	30.6	46.0#
89	24.1	23.0	34.6

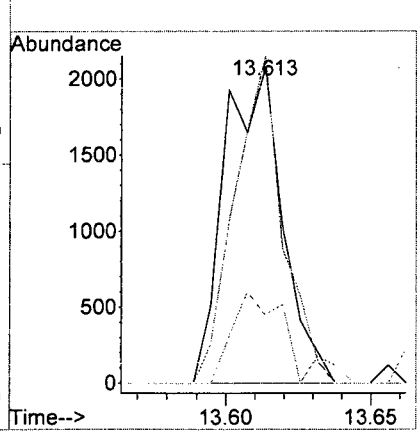


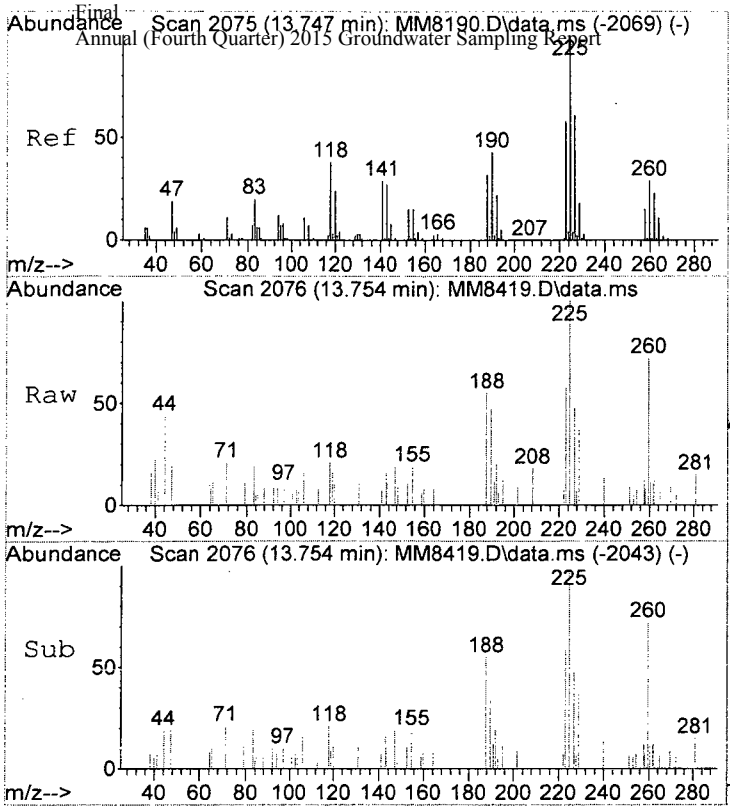


#115
1,2,4-Tcbenzene
Concen: 0.36 ppb
RT: 13.613 min Scan# 2053
Delta R.T. -0.000 min
Lab File: MM8419.D
Acq: 1 Dec 2015 12:05 pm

Tgt Ion:180 Resp: 2854

Ion	Ratio	Lower	Upper
180	100		
182	103.6	75.7	115.7
145	21.6	12.1	52.1

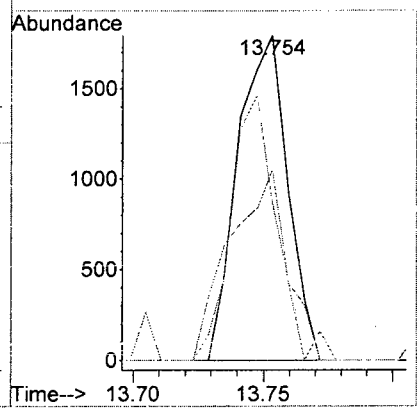


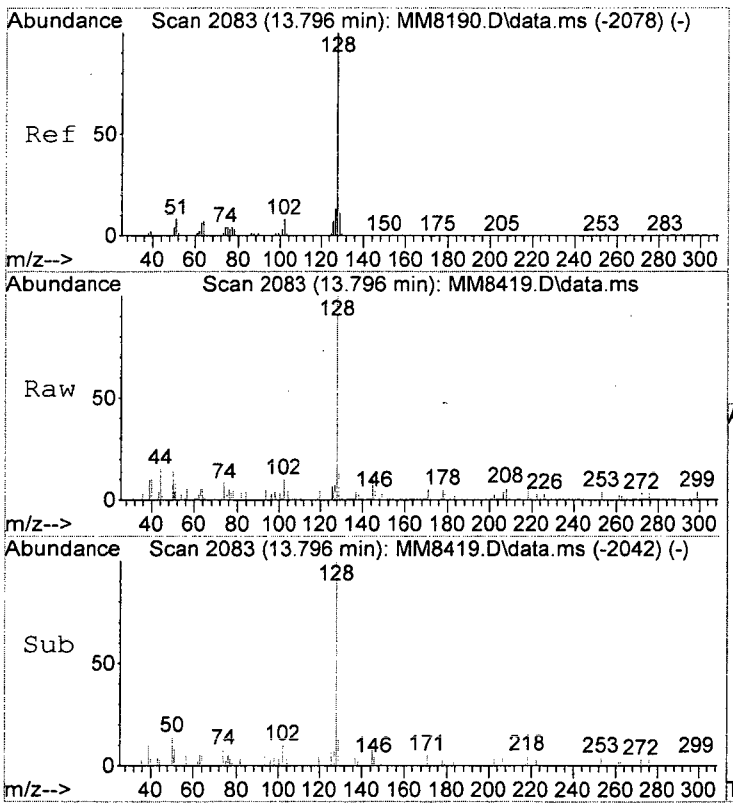


#116
Hexachlorobt
Concen: 0.75 ppb
RT: 13.754 min Scan# 2076
Delta R.T. 0.007 min
Lab File: MM8419.D
Acq: 1 Dec 2015 12:05 pm

Tgt Ion:225 Resp: 2369

Ion	Ratio	Lower	Upper
225	100		
223	58.3	38.1	78.1
227	48.4	41.1	81.1

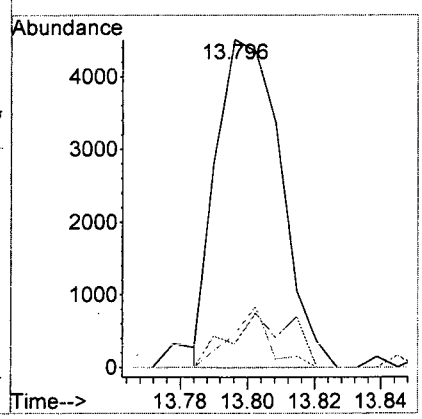


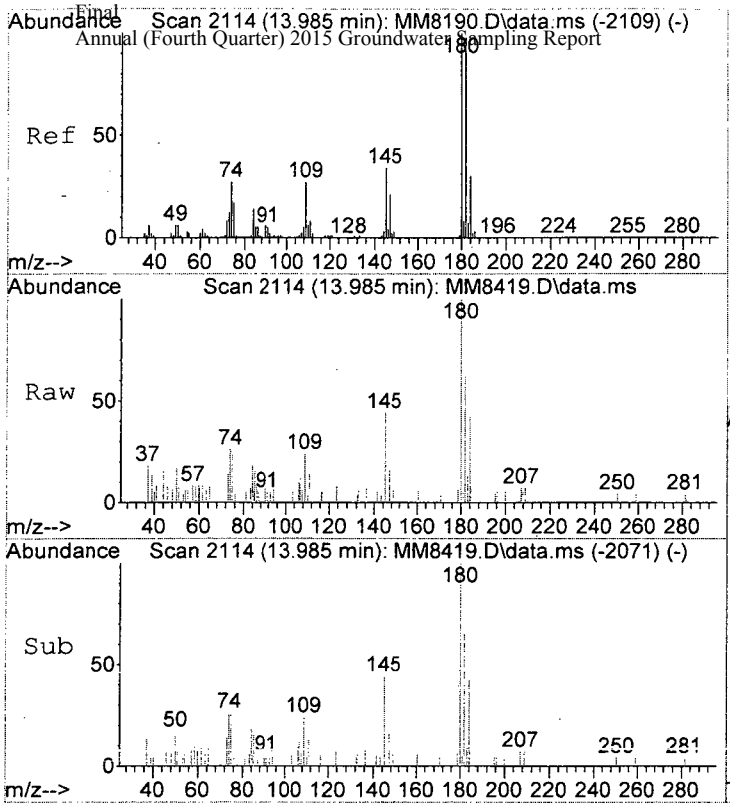


#117
Naphthalen
Concen: 0.37 ppb
RT: 13.796 min Scan# 2083
Delta R.T. -0.006 min
Lab File: MM8419.D
Acq: 1 Dec 2015 12:05 pm

Tgt Ion:128 Resp: 6012

Ion	Ratio	Lower	Upper
128	100		
127	7.1	0.0	33.1
102	10.0	0.0	28.3

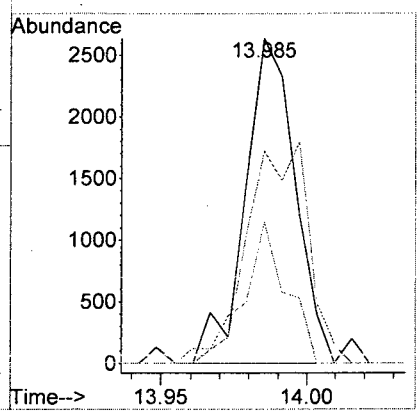


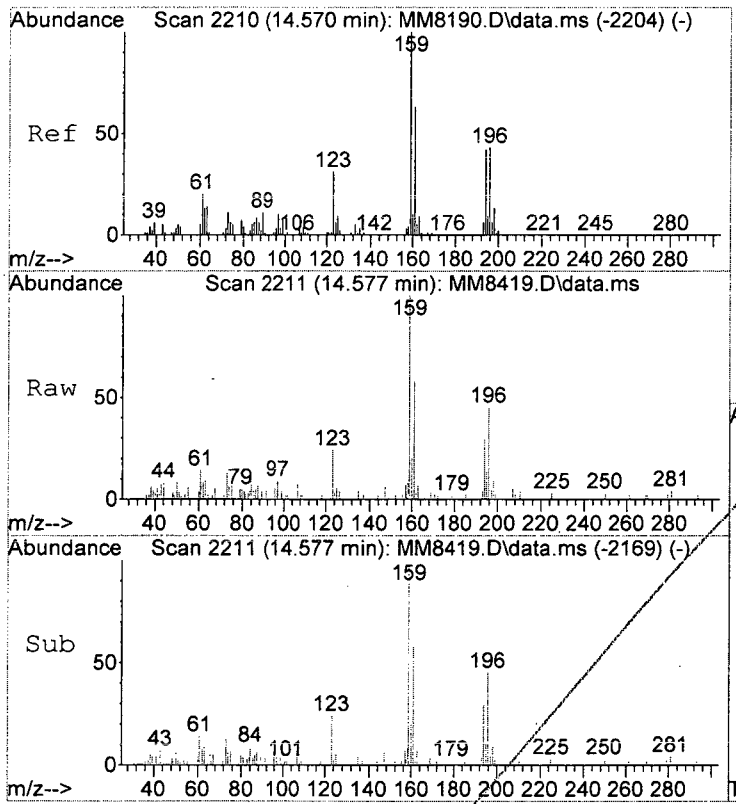


#118
1,2,3-Tclbenzene
Concen: 0.48 ppb
RT: 13.985 min Scan# 2114
Delta R.T. -0.006 min
Lab File: MM8419.D
Acq: 1 Dec 2015 12:05 pm

Tgt Ion:180 Resp: 3158

Ion	Ratio	Lower	Upper
180	100		
182	65.2	78.5	118.5#
145	43.5	14.2	54.2

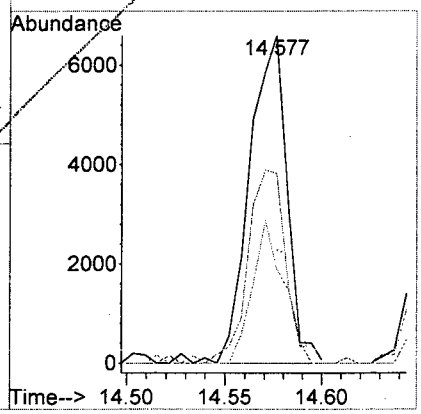




#119
2,4,5-Trichlorotolene
Concen: 1.81 ppb
RT: 14.577 min Scan# 2211
Delta R.T. 0.007 min
Lab File: MM8419.D
Acq: 1 Dec 2015 12:05 pm

Tgt Ion:159 Resp: 8790

Ion	Ratio	Lower	Upper
159	100		
161	57.9	50.7	76.1
194	28.8	33.3	49.9#



Esc Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8419.D
Acq On : 1 Dec 2015 12:05 pm
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8419.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.597	727	738	748	rBV2	500047	1241616	28.57%	5.444%
2	5.737	751	761	774	rVB	990479	2346685	54.00%	10.289%
3	6.097	812	820	830	rBV	576906	1222103	28.12%	5.358%
4	6.767	922	930	940	rBV	1585986	3082188	70.92%	13.514%
5	8.529	1211	1219	1228	rBV	2696975	4346082	100.00%	19.055%
6	9.986	1452	1458	1470	rBV	2670049	3763039	86.58%	16.499%
7	11.047	1627	1632	1641	rVB	2266658	2850354	65.58%	12.497%
8	11.388	1684	1688	1692	rVB3	36022	47628	1.10%	0.209%
9	12.016	1785	1791	1799	rBV	3060787	3789473	87.19%	16.615%
10	14.570	2205	2210	2216	rVB2	42923	58133	1.34%	0.255%
11	14.656	2220	2224	2229	rBV2	44221	60309	1.39%	0.264%

Sum of corrected areas: 22807610

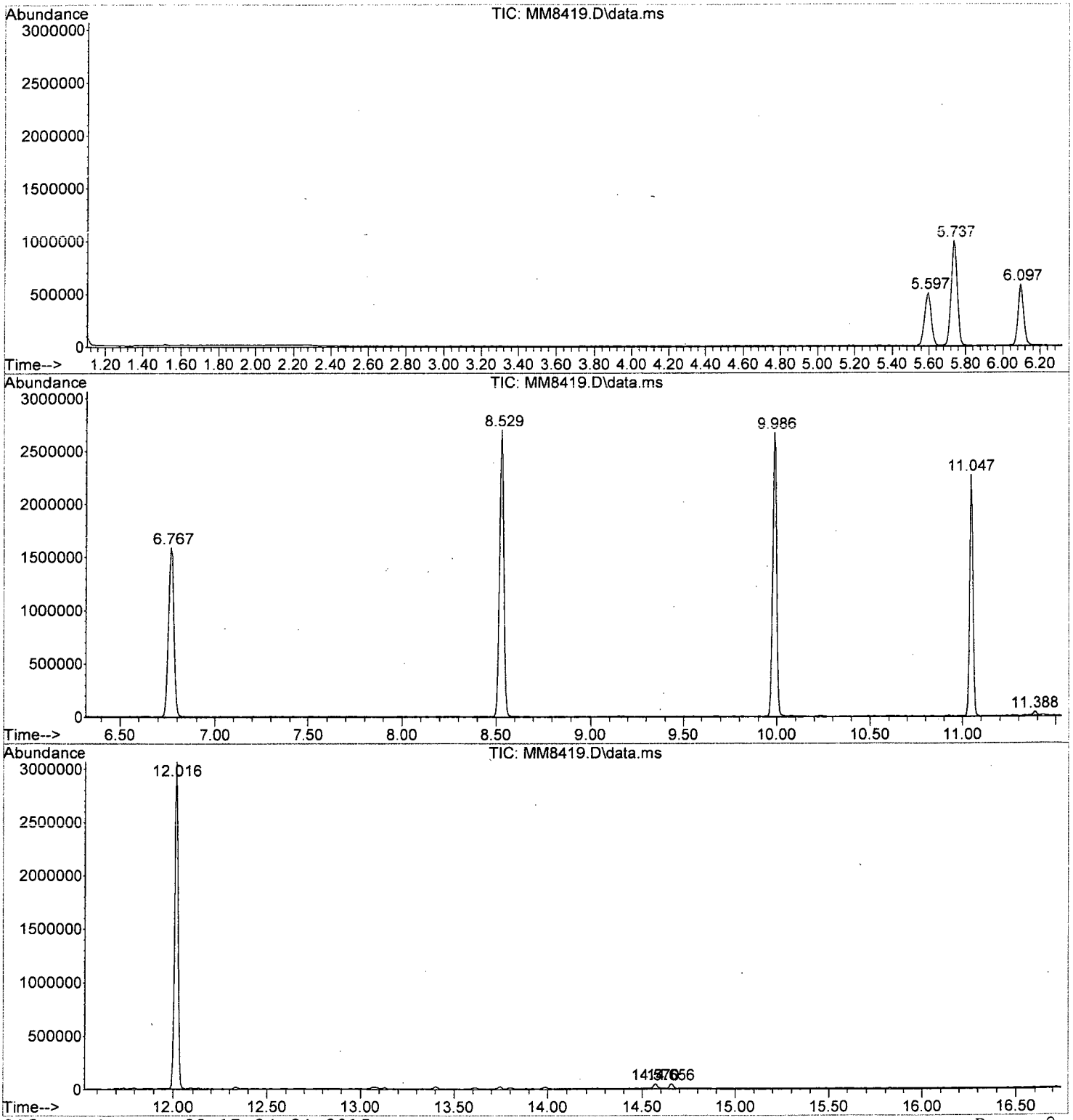
W111815A.M Thu Dec 03 17:34:21 2015 Page: 1

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8419.D
Acq On : 1 Dec 2015 12:05 pm
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



W111815A.M Thu Dec 03 17:34:24 2015 Page: 2

Tentatively Identified Compound (TIC) Summary

Data Path : I:\ACQUDATA\msvoa12\Data\120115\\
Data File : MM8419.D
Acq On : 1 Dec 2015 12:05 pmm
Operator : K.Ruestt
Sample : VBLK Inst : MSVOA-122
Misc :
ALS Vial : 6 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514764-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**20.5**		5.0	1.0	0.22	1	NA	11/30/15 11:33		474104	
1,1,1-Trichloroethane (TCA)	**21.3**		5.0	1.0	0.36	1	NA	11/30/15 11:33		474104	
1,1,2,2-Tetrachloroethane	**19.2**		5.0	1.0	0.25	1	NA	11/30/15 11:33		474104	
1,1,2-Trichloroethane	**20.2**		5.0	1.0	0.34	1	NA	11/30/15 11:33		474104	
1,1-Dichloroethane (1,1-DCA)	**21.6**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
1,1-Dichloroethene (1,1-DCE)	**21.7**		5.0	1.0	0.57	1	NA	11/30/15 11:33		474104	
1,1-Dichloropropene	**22.3**		5.0	1.0	0.29	1	NA	11/30/15 11:33		474104	
1,2,3-Trichlorobenzene	**22.4**		5.0	1.0	0.82	1	NA	11/30/15 11:33		474104	
1,2,3-Trichloropropane	**19.3**		5.0	1.0	0.70	1	NA	11/30/15 11:33		474104	
1,2,4-Trichlorobenzene	**22.4**		5.0	1.0	0.23	1	NA	11/30/15 11:33		474104	
1,2,4-Trimethylbenzene	**21.6**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
1,2-Dibromo-3-chloropropane (DBCP)	**18.2**		5.0	1.0	0.74	1	NA	11/30/15 11:33		474104	
1,2-Dibromoethane	**19.5**		5.0	1.0	0.24	1	NA	11/30/15 11:33		474104	
1,2-Dichlorobenzene	**21.2**		5.0	1.0	0.21	1	NA	11/30/15 11:33		474104	
1,2-Dichloroethane	**20.8**		5.0	1.0	0.36	1	NA	11/30/15 11:33		474104	
1,2-Dichloropropane	**22.3**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
1,3,5-Trimethylbenzene	**22.0**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
1,3-Dichlorobenzene	**21.3**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
1,3-Dichloropropane	**20.2**		5.0	1.0	0.27	1	NA	11/30/15 11:33		474104	
1,4-Dichlorobenzene	**21.6**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
2,2-Dichloropropane	**21.6**		5.0	1.0	0.27	1	NA	11/30/15 11:33		474104	
2-Butanone (MEK)	**19.7**		5.0	1.0	0.81	1	NA	11/30/15 11:33		474104	
2-Chlorotoluene	**22.3**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
2-Hexanone	**18.0**		5.0	5.0	1.7	1	NA	11/30/15 11:33		474104	
tert-Butyl Alcohol	**406**		100	20	11	1	NA	11/30/15 11:33		474104	
4-Chlorotoluene	**21.3**		5.0	1.0	0.24	1	NA	11/30/15 11:33		474104	
p-Isopropyltoluene	**22.5**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
4-Methyl-2-pentanone	**19.6**		5.0	1.0	0.67	1	NA	11/30/15 11:33		474104	
Acetone	**17.1**		5.0	5.0	1.3	1	NA	11/30/15 11:33		474104	
Benzene	**21.4**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
Bromobenzene	**22.0**		5.0	1.0	0.28	1	NA	11/30/15 11:33		474104	
Bromochloromethane	**20.4**		5.0	1.0	0.32	1	NA	11/30/15 11:33		474104	
Bromodichloromethane	**20.8**		5.0	1.0	0.32	1	NA	11/30/15 11:33		474104	
Bromoform	**19.0**		5.0	1.0	0.42	1	NA	11/30/15 11:33		474104	
Bromomethane	**19.9**		5.0	1.0	0.29	1	NA	11/30/15 11:33		474104	
Carbon Tetrachloride	**21.3**		5.0	1.0	0.45	1	NA	11/30/15 11:33		474104	
Chlorobenzene	**20.6**		5.0	1.0	0.29	1	NA	11/30/15 11:33		474104	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514764-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**20.9**		5.0	1.0	0.24	1	NA	11/30/15 11:33		474104	
Chloroform	**19.9**		5.0	1.0	0.25	1	NA	11/30/15 11:33		474104	
Chloromethane	**19.8**		5.0	1.0	0.21	1	NA	11/30/15 11:33		474104	
Dibromochloromethane	**20.3**		5.0	1.0	0.31	1	NA	11/30/15 11:33		474104	
Dichlorodifluoromethane (CFC 12)	**21.8**		5.0	1.0	0.46	1	NA	11/30/15 11:33		474104	
Methylene Chloride	**19.6**		5.0	1.0	0.60	1	NA	11/30/15 11:33		474104	
Ethylbenzene	**20.5**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
Hexachlorobutadiene	**25.7**		5.0	1.0	0.62	1	NA	11/30/15 11:33		474104	
Isopropylbenzene (Cumene)	**21.4**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
Methyl tert-Butyl Ether	**19.9**		5.0	1.0	0.29	1	NA	11/30/15 11:33		474104	
Naphthalene	**21.5**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
Styrene	**20.8**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
Tetrachloroethene (PCE)	**21.5**		5.0	1.0	0.30	1	NA	11/30/15 11:33		474104	
Toluene	**21.6**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
Trichloroethene (TCE)	**20.3**		5.0	1.0	0.22	1	NA	11/30/15 11:33		474104	
Trichlorofluoromethane (CFC 11)	**22.7**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
Vinyl Chloride	**20.7**		5.0	1.0	0.32	1	NA	11/30/15 11:33		474104	
cis-1,2-Dichloroethene	**20.9**		5.0	1.0	0.30	1	NA	11/30/15 11:33		474104	
cis-1,3-Dichloropropene	**21.1**		5.0	1.0	0.24	1	NA	11/30/15 11:33		474104	
m,p-Xylenes	**41.9**		10.	2.0	0.33	1	NA	11/30/15 11:33		474104	
n-Butylbenzene	**23.3**		5.0	1.0	0.21	1	NA	11/30/15 11:33		474104	
n-Propylbenzene	**21.5**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
o-Xylene	**20.6**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
sec-Butylbenzene	**21.9**		5.0	1.0	0.27	1	NA	11/30/15 11:33		474104	
tert-Butylbenzene	**21.4**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	
trans-1,2-Dichloroethene	**21.2**		5.0	1.0	0.33	1	NA	11/30/15 11:33		474104	
trans-1,3-Dichloropropene	**20.9**		5.0	1.0	0.20	1	NA	11/30/15 11:33		474104	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	11/30/15 11:33	
Dibromofluoromethane	111	85-115	11/30/15 11:33	
Toluene-d8	112	85-120	11/30/15 11:33	

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8392.D
Acq On : 30 Nov 2015 11:33 am
Operator : K.Ruest
Sample : LCS R0151476L-03 Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 30 11:48:52 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	831780	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1375414	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1285950	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	609474	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.591	113	397433	55.58	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 111.16%				
48) surr1,1,2-dichloroetha...	6.097	65	420779	53.27	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.54%				
65) SURR3,Toluene-d8	8.529	98	1692935	56.25	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 112.50%				
70) SURR2,BFB	11.047	95	629629	55.42	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.84%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.213	85	255928	21.84	ppb		97
3) Chloromethane	1.347	50	276781	19.79	ppb		100
4) Vinyl Chloride	1.433	62	269406	20.67	ppb		99
5) Bromomethane	1.689	94	126930	19.94	ppb		97
6) Chloroethane	1.768	64	150084	20.94	ppb		100
7) Freon 21	1.927	67	299951	21.62	ppb		99
8) Trichlorofluoromethane	1.975	101	230717	22.73	ppb		98
9) Diethyl Ether	2.231	59	134259	21.08	ppb		96
10) Freon 123a	2.238	67	188796	20.81	ppb		99
11) Freon 123	2.292	83	198877	19.01	ppb		98
12) Acrolein	2.335	56	30034	42.38	ppb		89
13) 1,1-Diclethene	2.433	96	151034	21.71	ppb		99
14) Freon 113	2.439	101	142169	22.46	ppb		98
15) Acetone	2.487	43	30305	17.09	ppb		99
16) 2-Propanol	2.658	45	127498	378.91	ppb		98
17) Iodomethane	2.573	142	156481	19.80	ppb		94
18) Carbon Disulfide	2.634	76	475714	20.47	ppb		100
19) Acetonitrile	2.768	40	20982	85.32	ppb	#	81
20) Allyl Chloride	2.792	76	90958	23.48	ppb		99
21) Methyl Acetate	2.829	43	70236	17.00	ppb		95
22) Methylene Chloride	2.920	84	157784	19.64	ppb		91
23) TBA	3.091	59	221939	406.42	ppb		99
24) Acrylonitrile	3.207	53	198876	99.09	ppb		98
25) Methyl-t-Butyl Ether	3.262	73	384337	19.86	ppb		100
26) trans-1,2-Dichloroethene	3.243	96	158673	21.18	ppb		85
28) 1,1-Diclethane	3.792	63	287639	21.59	ppb		96
29) Vinyl Acetate	3.896	86	27019	19.47	ppb	#	88
30) DIPE	3.938	45	518634	19.97	ppb		95
31) 2-Chloro-1,3-Butadiene	3.926	53	273380	20.40	ppb		93
32) ETBE	4.524	59	457830	18.76	ppb		99
33) 2,2-Dichloropropane	4.707	77	230057	21.58	ppb		97
34) cis-1,2-Dichloroethene	4.713	96	172980	20.86	ppb		98
35) 2-Butanone	4.780	43	47750	19.66	ppb		93
36) Propionitrile	4.865	54	73520	99.12	ppb		93

KR 11/30/15

W111815A.M Mon Nov 30 11:48:55 2015 Page: 1

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8392.D
Acq On : 30 Nov 2015 11:33 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 30 11:48:52 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	Bromochloromethane	5.145	130	87401	20.40	ppb		91
38)	Methacrylonitrile	5.158	67	46826	19.92	ppb		91
39)	Tetrahydrofuran	5.243	42	30294	19.39	ppb		90
40)	Chloroform	5.322	83	258082	19.93	ppb		99
41)	1,1,1-Trichloroethane	5.591	97	216270	21.26	ppb		96
42)	TAME	6.401	73	397574	19.17	ppb		99
44)	Cyclohexane	5.676	41	139558	18.56	ppb		94
46)	Carbontetrachloride	5.859	121	56108	21.31	ppb		91
47)	1,1-Dichloropropene	5.871	75	216238	22.28	ppb		96
49)	Benzene	6.170	78	647112	21.38	ppb		98
50)	1,2-Dichloroethane	6.206	62	161251	20.78	ppb		97
51)	Iso-Butyl Alcohol	6.200	43	102819	405.22	ppb		97
52)	n-Heptane	6.639	43	189821	22.79	ppb		100
53)	1-Butanol	7.121	56	160943	1011.92	ppb		97
54)	Trichloroethene	7.078	130	156343	20.33	ppb		94
55)	Methylcyclohexane	7.310	55	177339	19.12	ppb		99
56)	1,2-Diclpropane	7.352	63	167163	22.29	ppb		96
57)	Dibromomethane	7.493	93	71619	19.39	ppb		90
58)	1,4-Dioxane	7.554	88	24086	437.90	ppb	#	74
59)	Methyl Methacrylate	7.572	69	86892	20.02	ppb		91
60)	Bromodichloromethane	7.706	83	191314	20.80	ppb		96
61)	2-Nitropropane	7.986	41	51755	38.21	ppb		90
62)	2-Chloroethylvinyl Ether	8.108	63	78533	18.98	ppb		97
63)	cis-1,3-Dichloropropene	8.236	75	259530	21.05	ppb		97
64)	4-Methyl-2-pentanone	8.438	43	107691	19.63	ppb		98
66)	Toluene	8.602	91	675553	21.55	ppb		99
67)	trans-1,3-Dichloropropene	8.864	75	205051	20.94	ppb		97
68)	Ethyl Methacrylate	8.998	69	180377	20.80	ppb		99
69)	1,1,2-Trichloroethane	9.047	97	107309	20.24	ppb		94
72)	Tetrachloroethene	9.181	164	114410	21.45	ppb		93
73)	2-Hexanone	9.328	43	70821	17.99	ppb		97
74)	1,3-Dichloropropane	9.212	76	197001	20.15	ppb		95
75)	Dibromochloromethane	9.431	129	123543	20.31	ppb		97
76)	N-Butyl Acetate	9.480	43	178085	18.93	ppb		99
77)	1,2-Dibromoethane	9.529	107	101492	19.48	ppb		97
78)	Chlorobenzene	10.016	112	391706	20.59	ppb		99
79)	3-CBTF	10.029	180	201829	21.42	ppb		97
80)	4-CBTF	10.084	180	183572	20.93	ppb		97
81)	1,1,1,2-Tetrachloroethane	10.096	131	134657	20.48	ppb		93
82)	Ethylbenzene	10.132	106	220824	20.49	ppb		91
83)	(m+p)Xylene	10.242	106	557573	41.92	ppb		97
84)	o-Xylene	10.596	106	280466	20.59	ppb		99
85)	Styrene	10.608	104	462262	20.83	ppb		97
87)	Bromoform	10.760	173	65930	19.04	ppb		99
88)	2-CBTF	10.833	180	201471	21.80	ppb		99
89)	Isopropylbenzene	10.925	105	679003	21.42	ppb		97
90)	Cyclohexanone	10.986	55	266270	579.48	ppb		99
91)	trans-1,4-Dichloro-2-B...	11.224	53	36413	19.28	ppb		94
92)	1,1,2,2-Tetrachloroethane	11.181	83	122895	19.19	ppb		96
93)	Bromobenzene	11.169	156	157888	22.02	ppb		91
94)	1,2,3-Trichloropropane	11.211	110	33189	19.32	ppb		96

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8392.D
Acq On : 30 Nov 2015 11:33 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 30 11:48:52 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

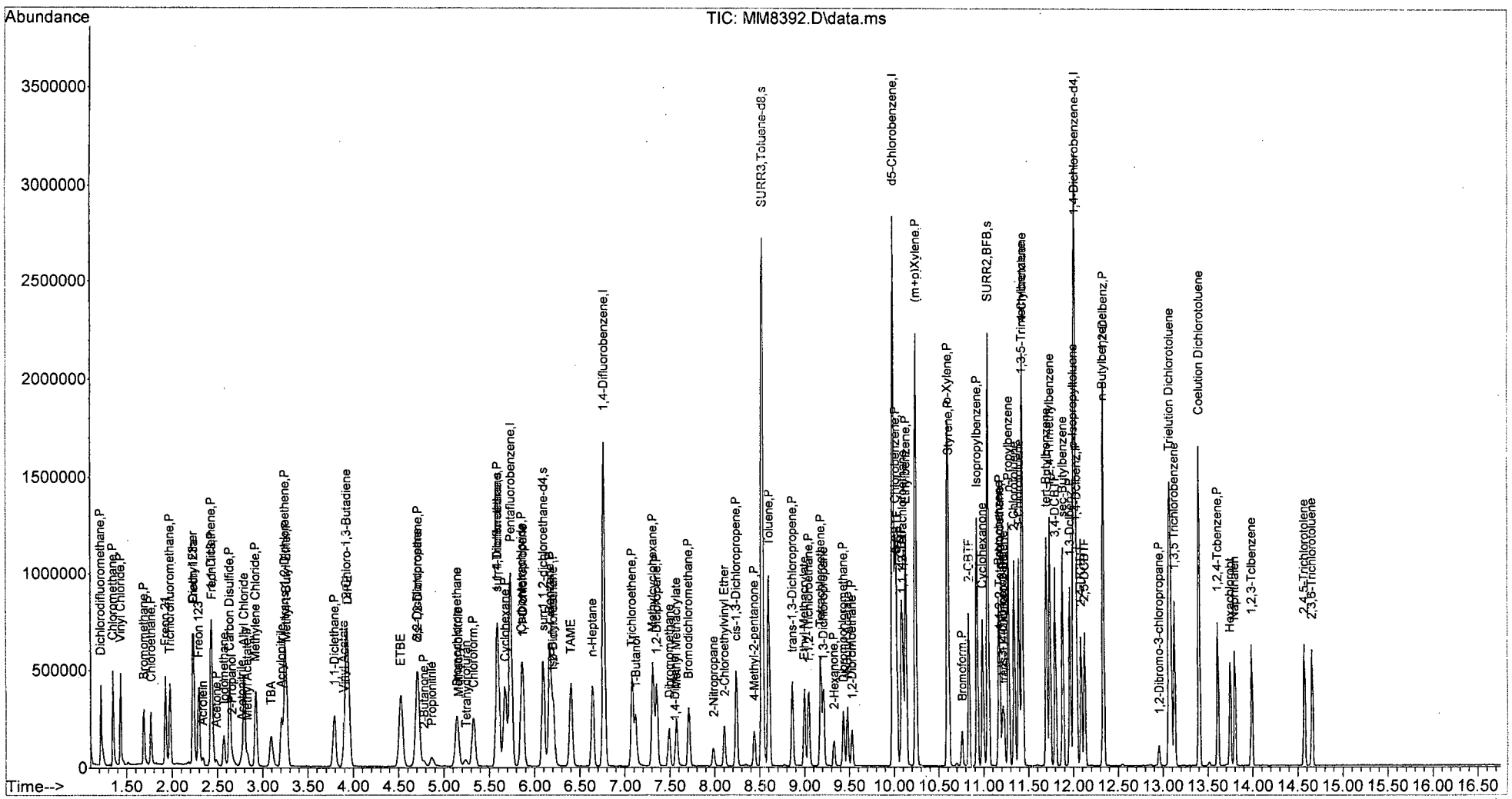
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	786795	21.54	ppb	96
96)	2-Chlorotoluene	11.339	91	478017	22.32	ppb	97
97)	3-Chlorotoluene	11.394	91	514135	22.87	ppb	99
98)	4-Chlorotoluene	11.431	91	515434	21.34	ppb	93
99)	1,3,5-Trimethylbenzene	11.425	105	528269	22.03	ppb	98
100)	tert-Butylbenzene	11.699	119	458228	21.41	ppb	99
101)	1,2,4-Trimethylbenzene	11.736	105	555675	21.59	ppb	99
102)	3,4-DCBTF	11.797	214	137979	22.29	ppb	97
103)	sec-Butylbenzene	11.882	105	654971	21.88	ppb	99
104)	p-Isopropyltoluene	11.998	119	521451	22.52	ppb	97
105)	1,3-Dclbenz	11.961	146	295216	21.27	ppb	97
106)	1,4-Dclbenz	12.034	146	281641	21.64	ppb	99
107)	2,4-DCBTF	12.083	214	122342	22.65	ppb	97
108)	2,5-DCBTF	12.126	214	137801	22.55	ppb	96
109)	n-Butylbenzene	12.327	91	509737	23.25	ppb	96
110)	1,2-Dclbenz	12.333	146	271243	21.23	ppb	97
111)	1,2-Dibromo-3-chloropr...	12.955	157	22542	18.24	ppb	99
112)	Trielution Dichlorotol...	13.071	125	750062	69.56	ppb	100
113)	1,3,5 Trichlorobenzene	13.126	180	200257	23.32	ppb	95
114)	Coelution Dichlorotoluene	13.400	125	546251	47.94	ppb	99
115)	1,2,4-Tcbenzene	13.607	180	176458	22.39	ppb	99
116)	Hexachlorobt	13.747	225	80778	25.66	ppb	95
117)	Naphthalen	13.796	128	351948	21.53	ppb	98
118)	1,2,3-Tclbenzene	13.985	180	146799	22.39	ppb	99
119)	2,4,5-Trichlorotolene	14.570	159	132814	27.31	ppb	99
120)	2,3,6-Trichlorotoluene	14.656	159	117103	27.35	ppb	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\113015\
Data File : MM8392.D
Acq On : 30 Nov 2015 11:33 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 30 11:48:52 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration


Abundance
TIC: MM8392.D\data.ms
Time-->
SURR3,Toluene-d8,s
d5-Chlorobenzene,I
SURR2,BFB,s
1,4-Difluorobenzene,I
Toluene,P
(m+p)Xylene,P
Styrene,P
o-Xylene,P
Isopropylbenzene,P
n-Butylbenzene,P
1,4-Dichlorobenzene-d4,I
Coelution Dichlorotoluene
Trielution Dichlorotoluene
1,2,4-Tcbenzene,P
1,2,3-Tcbenzene
Hexachlorobutadiene,P
Naphthalene,P
1,2-Dibromo-3-chloropropane,P
1,3,5-Trichlorobenzene
2,4,5-Trichlorotoluene
2,3,6-Trichlorotoluene
ETBE
TAME
n-Heptane
Cyclohexane,P
Methylcyclohexane,P
2-Hexanone,P
4-Methyl-2-pentanone,P
2-Nitropropane
cis-1,3-Dichloropropene,P
trans-1,3-Dichloropropene,P
Bromoform,P
Cyclohexanone
2-CBTF
4-CBTF
Dichlorodifluoromethane,P
Chloromethane,P
Vinyl Chloride,P
Bromomethane,P
Chloroethane,P
Trichlorofluoromethane,P
Freon 123
Freon 113
Acrolein
Acetone,P
Iodomethane,P
Carbon Disulfide,P
Methyl Acetate,P
Methylene Chloride,P
TBA
Acrylonitrile,P
1,1-Dichloroethene,P
Vinyl Acetate
Dichloro-1,3-Butadiene
1,1-Dichloroethane,P
2,2-Dichloropropane,P
2-Butanone,P
Propionitrile
Bromochloromethane
Tetrahydrofuran,P
Chloroform,P
1,1,1-Trichloroethane,P
Pentafluorobenzene,I
Carbon Tetrachloride,P
1,1-Dichloropropene,P
Benzene,P
1,2-Dichloroethane-d4,s
1,2-Dichloroethane,P
1-Butanol
Dibromomethane,P
1,2-Methylcyclohexane,P
1,4-Dichlorobutane,P
Bromodichloromethane,P
Ethyl Methacrylate
Chloroacetonitrile
2-Chloroethylvinyl Ether
1,4-Dioxane,P
Dibromochloromethane,P
1,3-Dichloropropane,P
1,2-Dibromoethane,P
Chlorobenzene,P
Ethylbenzene,P
1,1,1,2-Tetrachloroethane,P
m-Xylene,P
Xylenes,Total
Tetrachloroethene,P
Dimethyldisulfide
Dibromofluoromethane,S
1,1,2-Trichloroethane,P
Toluene-d8,I
1,3-Dichloropropane,P
Dibromochlorometh

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514847-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**20.2**		5.0	1.0	0.22	1	NA	12/1/15 11:02		474290	
1,1,1-Trichloroethane (TCA)	**20.5**		5.0	1.0	0.36	1	NA	12/1/15 11:02		474290	
1,1,2,2-Tetrachloroethane	**20.0**		5.0	1.0	0.25	1	NA	12/1/15 11:02		474290	
1,1,2-Trichloroethane	**21.4**		5.0	1.0	0.34	1	NA	12/1/15 11:02		474290	
1,1-Dichloroethane (1,1-DCA)	**21.6**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
1,1-Dichloroethene (1,1-DCE)	**21.2**		5.0	1.0	0.57	1	NA	12/1/15 11:02		474290	
1,1-Dichloropropene	**22.4**		5.0	1.0	0.29	1	NA	12/1/15 11:02		474290	
1,2,3-Trichlorobenzene	**23.1**		5.0	1.0	0.82	1	NA	12/1/15 11:02		474290	
1,2,3-Trichloropropane	**20.0**		5.0	1.0	0.70	1	NA	12/1/15 11:02		474290	
1,2,4-Trichlorobenzene	**22.2**		5.0	1.0	0.23	1	NA	12/1/15 11:02		474290	
1,2,4-Trimethylbenzene	**20.9**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
1,2-Dibromo-3-chloropropane (DBCP)	**19.2**		5.0	1.0	0.74	1	NA	12/1/15 11:02		474290	
1,2-Dibromoethane	**20.2**		5.0	1.0	0.24	1	NA	12/1/15 11:02		474290	
1,2-Dichlorobenzene	**21.2**		5.0	1.0	0.21	1	NA	12/1/15 11:02		474290	
1,2-Dichloroethane	**21.0**		5.0	1.0	0.36	1	NA	12/1/15 11:02		474290	
1,2-Dichloropropane	**21.5**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
1,3,5-Trimethylbenzene	**21.0**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
1,3-Dichlorobenzene	**20.2**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
1,3-Dichloropropane	**21.0**		5.0	1.0	0.27	1	NA	12/1/15 11:02		474290	
1,4-Dichlorobenzene	**20.9**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
2,2-Dichloropropane	**21.4**		5.0	1.0	0.27	1	NA	12/1/15 11:02		474290	
2-Butanone (MEK)	**20.7**		5.0	1.0	0.81	1	NA	12/1/15 11:02		474290	
2-Chlorotoluene	**20.8**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
2-Hexanone	**20.1**		5.0	5.0	1.7	1	NA	12/1/15 11:02		474290	
tert-Butyl Alcohol	**437**		100	20	11	1	NA	12/1/15 11:02		474290	
4-Chlorotoluene	**20.9**		5.0	1.0	0.24	1	NA	12/1/15 11:02		474290	
p-Isopropyltoluene	**21.5**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
4-Methyl-2-pentanone	**21.2**		5.0	1.0	0.67	1	NA	12/1/15 11:02		474290	
Acetone	**20.3**		5.0	5.0	1.3	1	NA	12/1/15 11:02		474290	
Benzene	**21.1**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
Bromobenzene	**20.7**		5.0	1.0	0.28	1	NA	12/1/15 11:02		474290	
Bromochloromethane	**19.9**		5.0	1.0	0.32	1	NA	12/1/15 11:02		474290	
Bromodichloromethane	**20.3**		5.0	1.0	0.32	1	NA	12/1/15 11:02		474290	
Bromoform	**18.2**		5.0	1.0	0.42	1	NA	12/1/15 11:02		474290	
Bromomethane	**19.9**		5.0	1.0	0.29	1	NA	12/1/15 11:02		474290	
Carbon Tetrachloride	**20.3**		5.0	1.0	0.45	1	NA	12/1/15 11:02		474290	
Chlorobenzene	**20.5**		5.0	1.0	0.29	1	NA	12/1/15 11:02		474290	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514847-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**21.2**		5.0	1.0	0.24	1	NA	12/1/15 11:02		474290	
Chloroform	**19.7**		5.0	1.0	0.25	1	NA	12/1/15 11:02		474290	
Chloromethane	**20.6**		5.0	1.0	0.21	1	NA	12/1/15 11:02		474290	
Dibromochloromethane	**19.7**		5.0	1.0	0.31	1	NA	12/1/15 11:02		474290	
Dichlorodifluoromethane (CFC 12)	**21.9**		5.0	1.0	0.46	1	NA	12/1/15 11:02		474290	
Methylene Chloride	**19.9**		5.0	1.0	0.60	1	NA	12/1/15 11:02		474290	
Ethylbenzene	**20.5**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
Hexachlorobutadiene	**23.5**		5.0	1.0	0.62	1	NA	12/1/15 11:02		474290	
Isopropylbenzene (Cumene)	**20.1**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
Methyl tert-Butyl Ether	**20.4**		5.0	1.0	0.29	1	NA	12/1/15 11:02		474290	
Naphthalene	**22.7**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
Styrene	**20.5**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
Tetrachloroethene (PCE)	**21.2**		5.0	1.0	0.30	1	NA	12/1/15 11:02		474290	
Toluene	**21.1**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
Trichloroethene (TCE)	**20.0**		5.0	1.0	0.22	1	NA	12/1/15 11:02		474290	
Trichlorofluoromethane (CFC 11)	**21.9**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
Vinyl Chloride	**20.8**		5.0	1.0	0.32	1	NA	12/1/15 11:02		474290	
cis-1,2-Dichloroethene	**20.3**		5.0	1.0	0.30	1	NA	12/1/15 11:02		474290	
cis-1,3-Dichloropropene	**20.3**		5.0	1.0	0.24	1	NA	12/1/15 11:02		474290	
m,p-Xylenes	**41.4**		10	2.0	0.33	1	NA	12/1/15 11:02		474290	
n-Butylbenzene	**21.8**		5.0	1.0	0.21	1	NA	12/1/15 11:02		474290	
n-Propylbenzene	**20.6**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
o-Xylene	**20.5**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
sec-Butylbenzene	**20.4**		5.0	1.0	0.27	1	NA	12/1/15 11:02		474290	
tert-Butylbenzene	**19.9**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
trans-1,2-Dichloroethene	**20.5**		5.0	1.0	0.33	1	NA	12/1/15 11:02		474290	
trans-1,3-Dichloropropene	**21.2**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	12/1/15 11:02	
Dibromofluoromethane	109	85-115	12/1/15 11:02	
Toluene-d8	114	85-120	12/1/15 11:02	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8417.D
Acq On : 1 Dec 2015 11:02 am
Operator : K.Ruest
Sample : LCS RQ1514817-03 Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:23:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	775960	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1305254	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1214754	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	592535	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	370082	54.53	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.06%				
48) surr1,1,2-dichloroetha...	6.096	65	407557	54.37	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.74%				
65) SURR3,Toluene-d8	8.529	98	1623442	56.84	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 113.68%				
70) SURR2,BFB	11.047	95	594617	55.15	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.30%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	239472	21.91	ppb		98
3) Chloromethane	1.347	50	268258	20.56	ppb		99
4) Vinyl Chloride	1.433	62	253179	20.83	ppb		98
5) Bromomethane	1.689	94	118402	19.94	ppb		97
6) Chloroethane	1.768	64	141554	21.17	ppb		98
7) Freon 21	1.926	67	289152	22.34	ppb		100
8) Trichlorofluoromethane	1.975	101	207173	21.88	ppb		97
9) Diethyl Ether	2.231	59	127876	21.52	ppb		90
10) Freon 123a	2.237	67	179162	21.17	ppb		100
11) Freon 123	2.298	83	190203	19.49	ppb		96
12) Acrolein	2.341	56	27919	42.23	ppb		89
13) 1,1-Diclethene	2.432	96	137391	21.17	ppb		93
14) Freon 113	2.445	101	134487	22.77	ppb		95
15) Acetone	2.487	43	33579	20.30	ppb		92
16) 2-Propanol	2.646	45	129398	412.23	ppb		97
17) Iodomethane	2.573	142	139998	18.99	ppb		97
18) Carbon Disulfide	2.634	76	425315	19.62	ppb		98
19) Acetonitrile	2.762	40	23266m	101.41	ppb		
20) Allyl Chloride	2.798	76	83215	23.03	ppb		97
21) Methyl Acetate	2.829	43	73213	19.00	ppb		94
22) Methylene Chloride	2.926	84	149287	19.92	ppb		98
23) TBA	3.091	59	222550	436.85	ppb		99
24) Acrylonitrile	3.213	53	191913	102.50	ppb		95
25) Methyl-t-Butyl Ether	3.262	73	368363	20.40	ppb		95
26) trans-1,2-Dichloroethene	3.243	96	143463	20.53	ppb		89
28) 1,1-Diclethane	3.798	63	268031	21.56	ppb		97
29) Vinyl Acetate	3.908	86	28663	22.14	ppb	#	93
30) DIPE	3.944	45	520137	21.46	ppb		99
31) 2-Chloro-1,3-Butadiene	3.926	53	241861	19.35	ppb		100
32) ETBE	4.530	59	468350	20.57	ppb		99
33) 2,2-Dichloropropane	4.706	77	212301	21.35	ppb		94
34) cis-1,2-Dichloroethene	4.719	96	156982	20.29	ppb		95
35) 2-Butanone	4.780	43	46906	20.70	ppb		89
36) Propionitrile	4.871	54	68669	99.24	ppb		91

KR 12/1/15

W111815A.M Tue Dec 01 11:24:31 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8417.D
Acq On : 1 Dec 2015 11:02 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:23:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	79520	19.90	ppb		97
38) Methacrylonitrile	5.170	67	45296	20.65	ppb	#	76
39) Tetrahydrofuran	5.243	42	31389	21.54	ppb		86
40) Chloroform	5.328	83	238163	19.71	ppb		93
41) 1,1,1-Trichloroethane	5.596	97	194896	20.54	ppb		98
42) TAME	6.407	73	407347	21.06	ppb		99
44) Cyclohexane	5.676	41	128678	18.04	ppb		98
46) Carbontetrachloride	5.865	121	50610	20.25	ppb		99
47) 1,1-Dichloropropene	5.871	75	206683	22.44	ppb		97
49) Benzene	6.170	78	606337	21.11	ppb		99
50) 1,2-Dichloroethane	6.206	62	154320	20.96	ppb		96
51) Iso-Butyl Alcohol	6.206	43	100141	415.88	ppb		98
52) n-Heptane	6.645	43	171221	21.66	ppb		99
53) 1-Butanol	7.114	56	181918	1205.28	ppb		99
54) Trichloroethene	7.084	130	145606	19.95	ppb		96
55) Methylcyclohexane	7.310	55	161405	18.34	ppb		96
56) 1,2-Diclpropane	7.352	63	152684	21.45	ppb		90
57) Dibromomethane	7.492	93	69136	19.73	ppb		92
58) 1,4-Dioxane	7.559	88	25322m	485.12	ppb		
59) Methyl Methacrylate	7.578	69	83672	20.31	ppb		92
60) Bromodichloromethane	7.712	83	176700	20.25	ppb		95
61) 2-Nitropropane	7.986	41	49308	38.36	ppb		92
62) 2-Chloroethylvinyl Ether	8.108	63	76342	19.44	ppb		88
63) cis-1,3-Dichloropropene	8.242	75	237032	20.26	ppb		97
64) 4-Methyl-2-pentanone.	8.437	43	110442	21.22	ppb		94
66) Toluene	8.602	91	627715	21.10	ppb		97
67) trans-1,3-Dichloropropene	8.864	75	196516	21.15	ppb		95
68) Ethyl Methacrylate	8.998	69	169968	20.66	ppb		100
69) 1,1,2-Trichloroethane	9.047	97	107847	21.44	ppb		94
72) Tetrachloroethene	9.181	164	106823	21.20	ppb		95
73) 2-Hexanone	9.327	43	74886	20.14	ppb		100
74) 1,3-Dichloropropane	9.212	76	193750	20.98	ppb		94
75) Dibromochloromethane	9.431	129	113285	19.71	ppb		95
76) N-Butyl Acetate	9.480	43	171155	19.26	ppb		97
77) 1,2-Dibromoethane	9.529	107	99375	20.19	ppb		97
78) Chlorobenzene	10.016	112	367834	20.47	ppb		97
79) 3-CBTF	10.028	180	178777	20.08	ppb		98
80) 4-CBTF	10.083	180	164763	19.89	ppb		99
81) 1,1,1,2-Tetrachloroethane	10.102	131	125310	20.18	ppb		98
82) Ethylbenzene	10.132	106	208186	20.45	ppb		93
83) (m+p)Xylene	10.242	106	519524	41.35	ppb		94
84) o-Xylene	10.595	106	263820	20.50	ppb		99
85) Styrene	10.608	104	430178	20.52	ppb		99
87) Bromoform	10.760	173	61294	18.21	ppb		94
88) 2-CBTF	10.833	180	181651	20.22	ppb		96
89) Isopropylbenzene	10.925	105	618619	20.08	ppb		98
90) Cyclohexanone	10.986	55	287707	644.03	ppb		97
91) trans-1,4-Dichloro-2-B...	11.229	53	35927	19.57	ppb		96
92) 1,1,2,2-Tetrachloroethane	11.181	83	124586	20.01	ppb		97
93) Bromobenzene	11.169	156	144102	20.67	ppb		99
94) 1,2,3-Trichloropropane	11.211	110	33425	20.03	ppb		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8417.D
Acq On : 1 Dec 2015 11:02 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:23:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

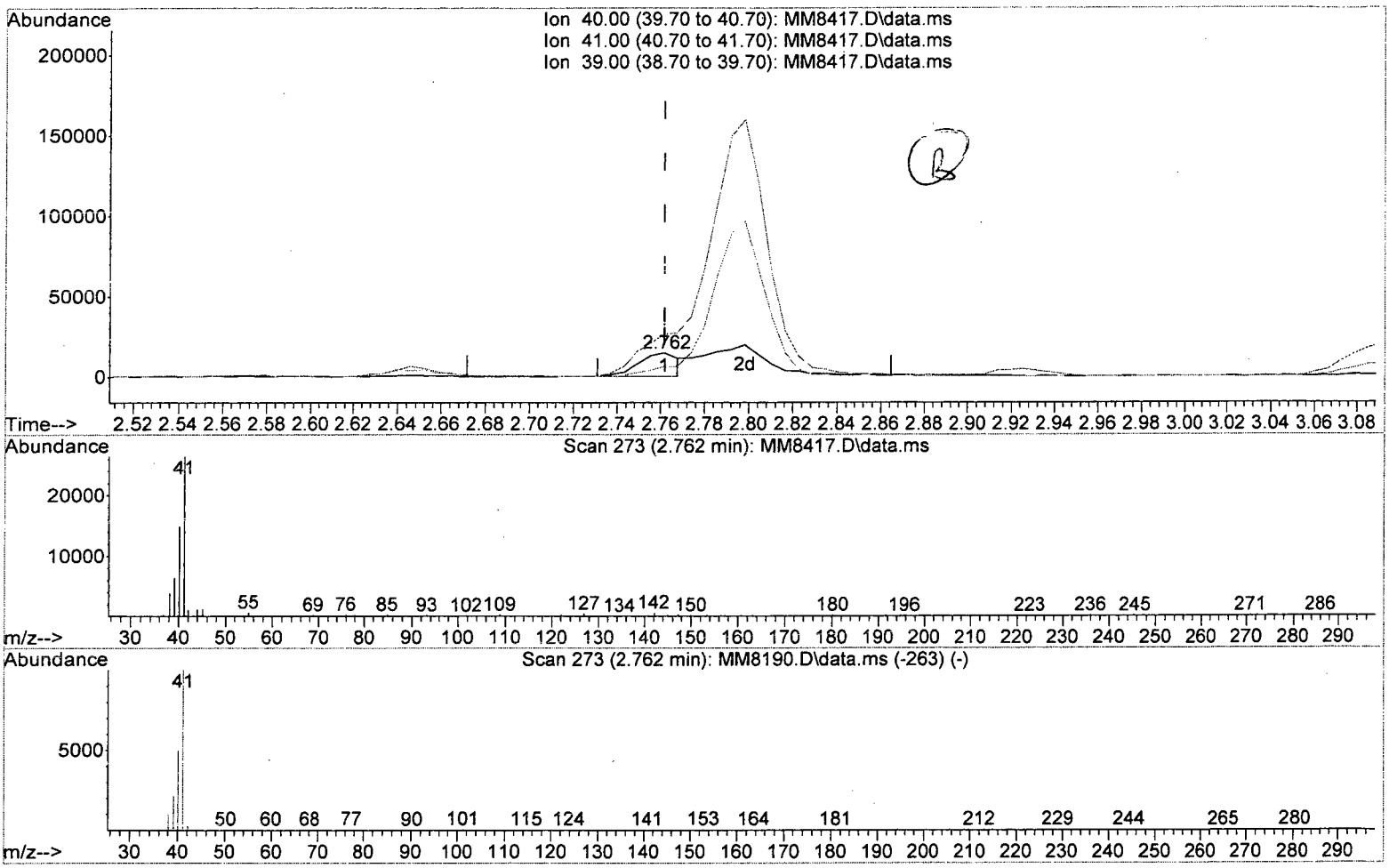
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) n-Propylbenzene	11.278	91	732540	20.63	ppb	97
96) 2-Chlorotoluene	11.339	91	433115	20.80	ppb	99
97) 3-Chlorotoluene	11.394	91	468135	21.42	ppb	98
98) 4-Chlorotoluene	11.431	91	490146	20.87	ppb	93
99) 1,3,5-Trimethylbenzene	11.431	105	488588	20.95	ppb	97
100) tert-Butylbenzene	11.699	119	413139	19.86	ppb	100
101) 1,2,4-Trimethylbenzene	11.735	105	522985	20.90	ppb	96
102) 3,4-DCBTF	11.796	214	119577	19.87	ppb	93
103) sec-Butylbenzene	11.882	105	592589	20.36	ppb	99
104) p-Isopropyltoluene	12.004	119	484340	21.52	ppb	100
105) 1,3-Dclbenz	11.961	146	272720	20.21	ppb	97
106) 1,4-Dclbenz	12.034	146	264861	20.94	ppb	99
107) 2,4-DCBTF	12.089	214	112825	21.48	ppb	93
108) 2,5-DCBTF	12.126	214	123498	20.79	ppb	98
109) n-Butylbenzene	12.333	91	465573	21.84	ppb	97
110) 1,2-Dclbenz	12.333	146	263505	21.21	ppb	96
111) 1,2-Dibromo-3-chloropr...	12.955	157	23012	19.16	ppb	84
112) Trielution Dichlorotol...	13.077	125	686647	65.50	ppb	99
113) 1,3,5 Trichlorobenzene	13.125	180	185826	22.25	ppb	91
114) Coelution Dichlorotoluene	13.400	125	506968	45.76	ppb	96
115) 1,2,4-Tcbenzene	13.607	180	170229	22.21	ppb	97
116) Hexachlorobt	13.747	225	71934	23.51	ppb	99
117) Naphthalen	13.796	128	360173	22.66	ppb	100
118) 1,2,3-Tclbenzene	13.985	180	147356	23.12	ppb	99
119) 2,4,5-Trichlorotolene	14.570	159	128503	27.18	ppb	98
120) 2,3,6-Trichlorotoluene	14.656	159	108230	26.00	ppb	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8417.D
Acq On : 1 Dec 2015 11:02 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:18:45 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8417.D\data.ms

(19) Acetonitrile

2.762min (-0.000) 79.06 ppb

response 18138

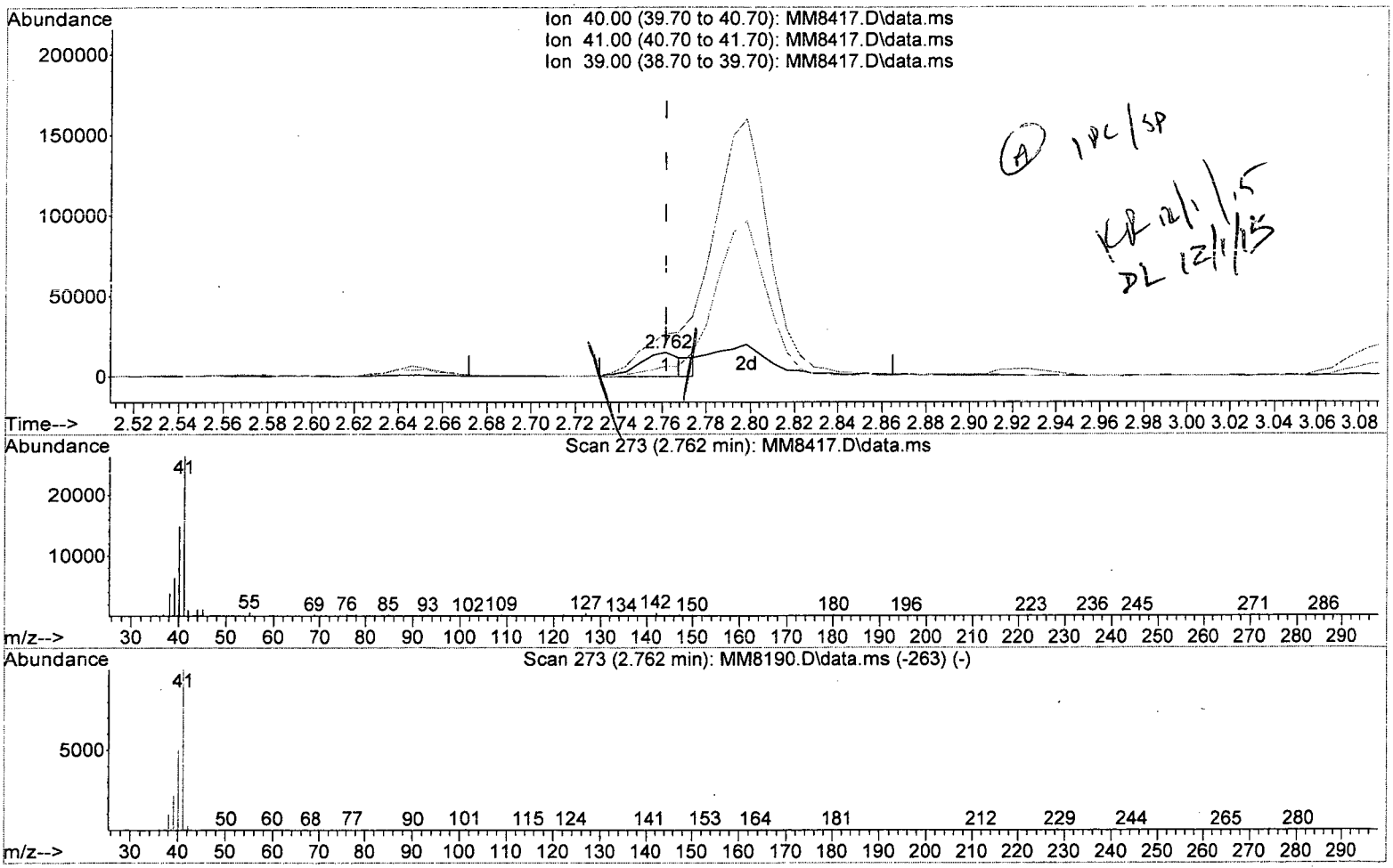
Ion	Exp%	Act%
40.00	100	100
41.00	202.00	177.95#
39.00	45.70	42.85
0.00	0.00	0.00

W111815A.M Tue Dec 01 11:23:04 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8417.D
Acq On : 1 Dec 2015 11:02 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:18:45 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8417.D\data.ms

(19) Acetonitrile

2.762min (-0.000) 101.41 ppb m

response 23266

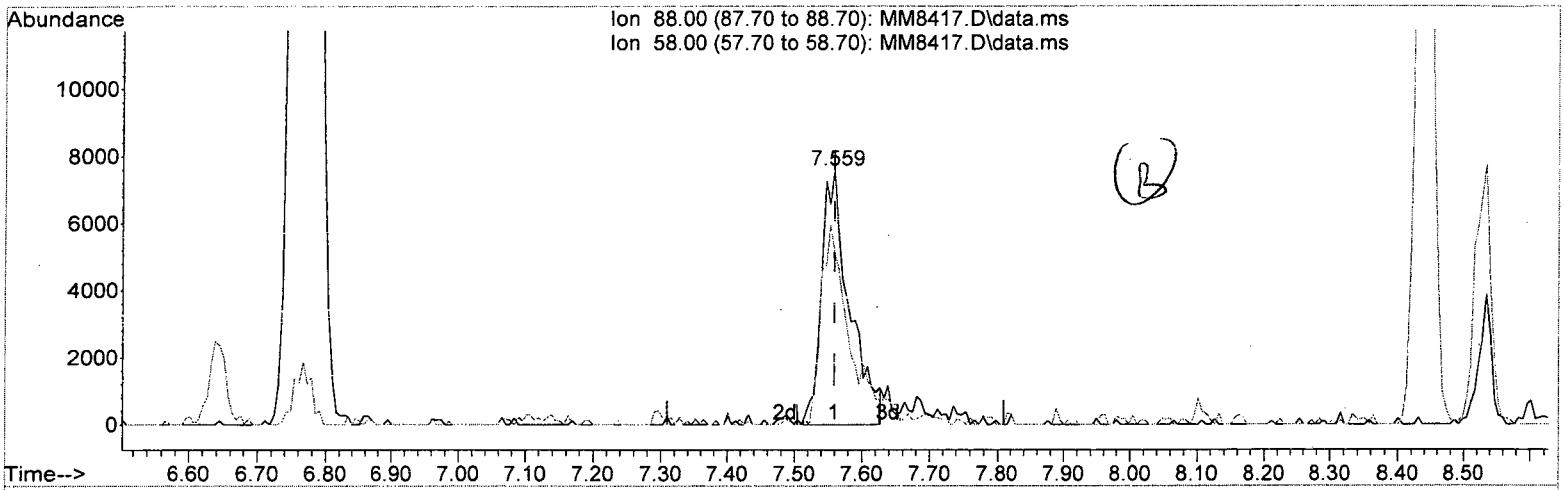
Ion	Exp%	Act%
40.00	100	100
41.00	202.00	177.95#
39.00	45.70	42.85
0.00	0.00	0.00

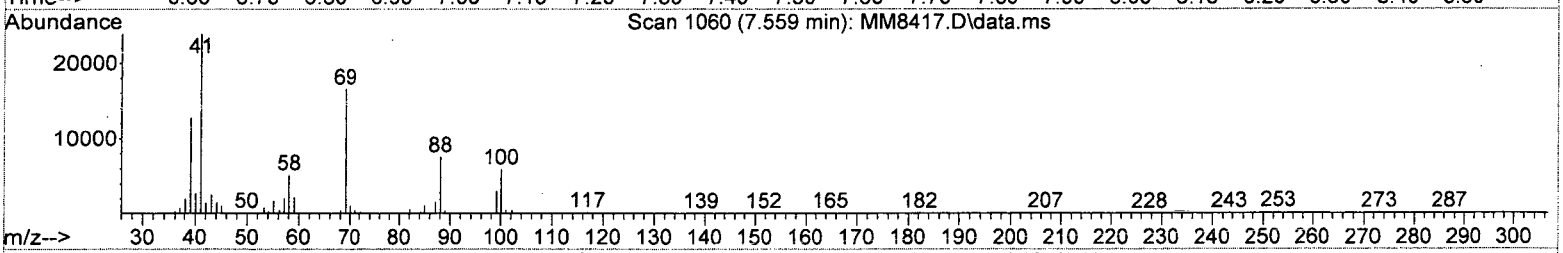
W111815A.M Tue Dec 01 11:23:12 2015 Page: 1

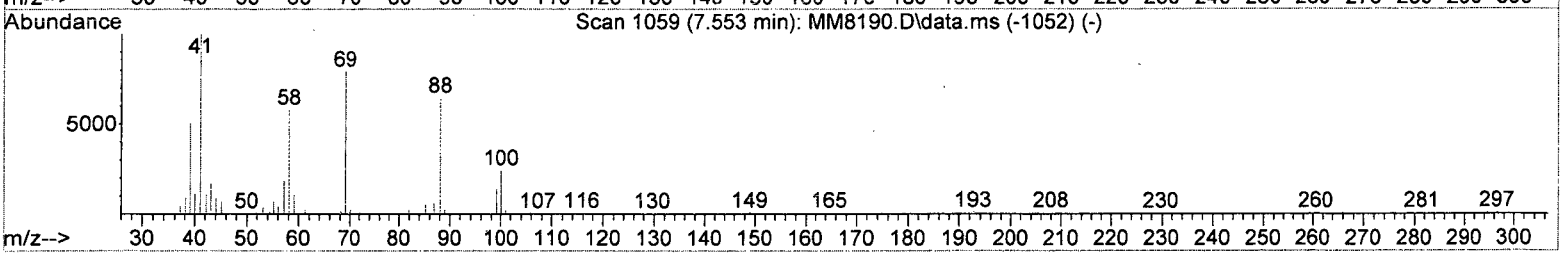
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8417.D
Acq On : 1 Dec 2015 11:02 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:18:45 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8417.D\data.ms

(58) 1,4-Dioxane

7.559min (-0.000) 415.84 ppb

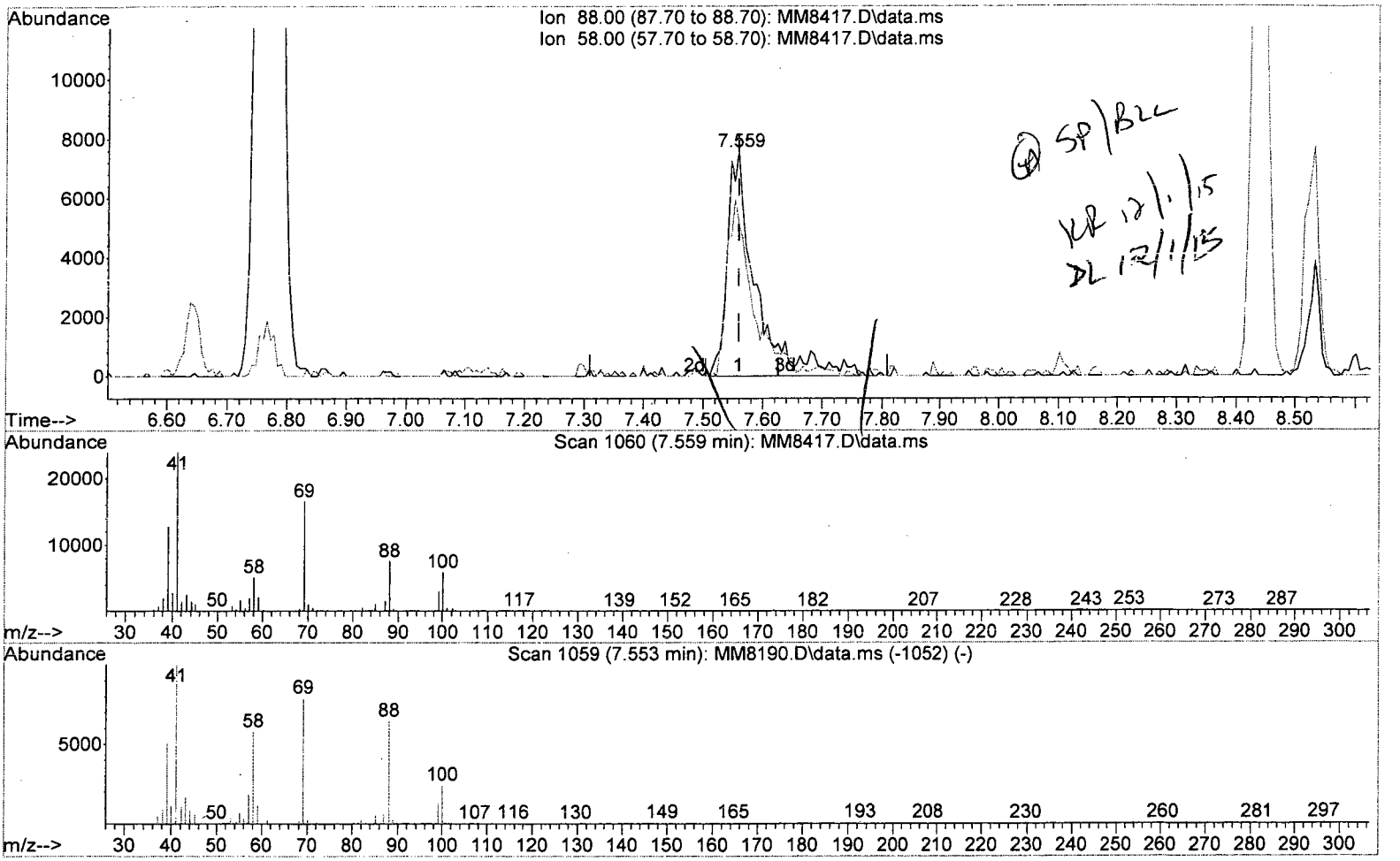
response 21706

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	68.14
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8417.D
Acq On : 1 Dec 2015 11:02 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:18:45 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8417.D\data.ms

(58) 1,4-Dioxane

7.559min (-0.000) 485.12 ppb m

response 25322

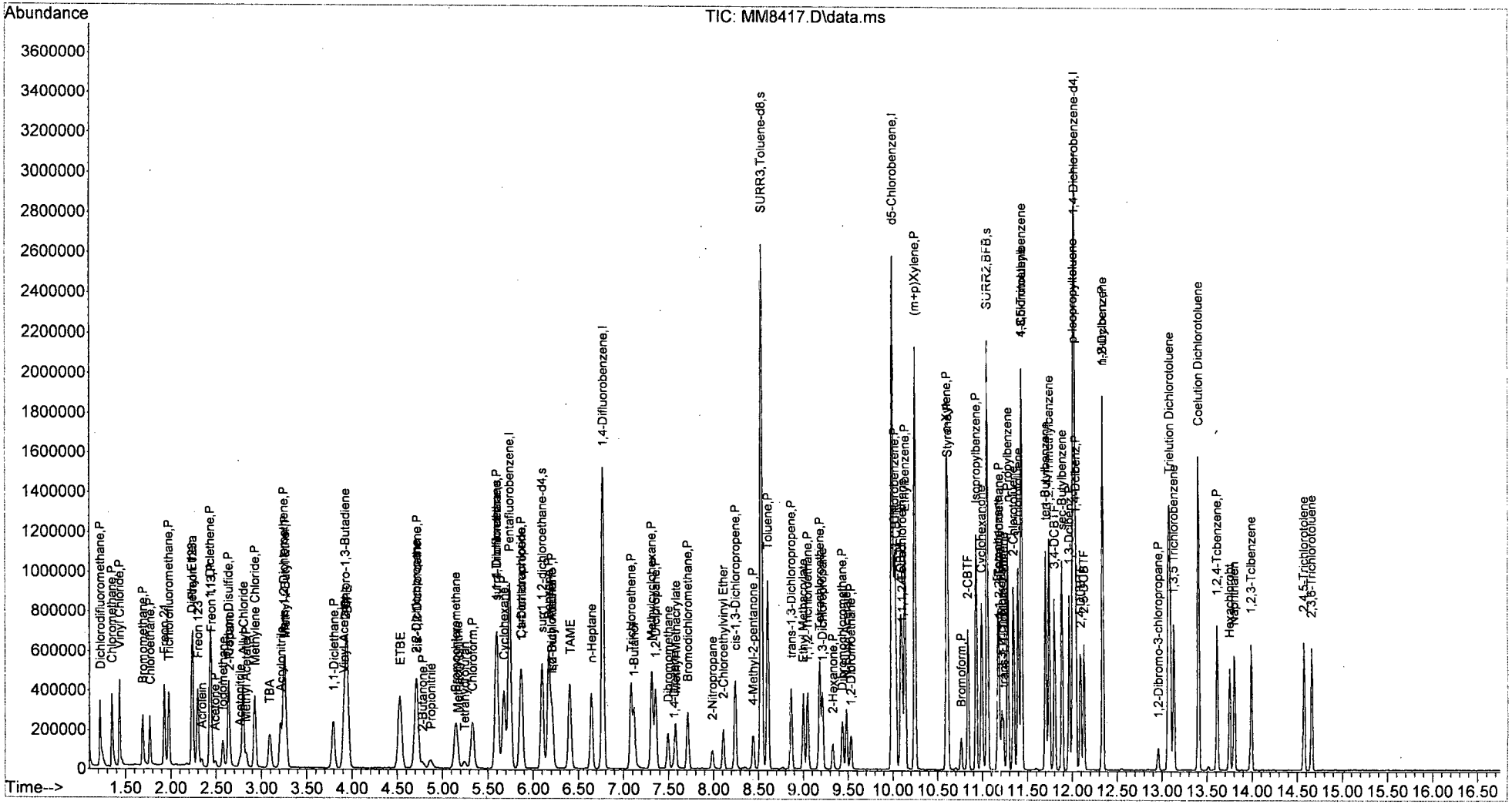
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	68.14
0.00	0.00	0.00
0.00	0.00	0.00

W111815A.M Tue Dec 01 11:23:50 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8417.D
Acq On : 1 Dec 2015 11:02 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:23:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Tue Dec 01 11:24:33 2015 Page: 4

Analysis: 8260 waterB
Analyst: K. Ruest
Tune Method: W111815
Date: 11/18/15
Data Path: j:\acqudata\msvoa12\111815
Run Method: ↓
Instr. 12
LIMS Run#: -8260 Water ICAL-

Pos.	Sample	Diln.	Diln. Prep.		Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK									MM8182		
2	NNE									MM8183	YT	(auto) 15:38
3	1 BLK	5ppm	500ppm	SU(500)	FV					MM8184	YB	
4	0.5 ppb	5uL	—	—	50mls					MM8185	Y	
5	1.0 ppb	10uL	—	—	↓					MM8186	Y	
6	2.0	20uL	—	1uL						MM8187	Y	
7	5.0	50uL	—	2uL						MM8188	Y	
8	20	—	2uL	5uL						MM8189	Y	
9	50	—	5uL	—						MM8190	Y	
10	~~15~~ 100	—	10uL	7.5uL						MM8191	Y	
11	150	—	15uL	10uL						MM8192	Y	
12	200	—	20uL	—	↓					MM8193	Y	
13	BLK							—	—	MM8194	—	
14	↓							—	—	MM8195	—	
15	↓							—	—	MM8196	—	

EDD
KR 11/18/15

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500
Primary OCC : 85996
Primary HBO : 85871 | 10uL → 1.0ml MeOH
Primary Fr+ : 85806 | ~~5uL → 50mls~~ = 5ppm
Primary Tb : 85998 | ~~= e~~ KR
Primary HSL : 85740

Secondary :
Secondary :
Secondary :
Secondary :
Secondary :

Combined IS/Surr 500: 85986
Surrogate 500: 85821
Internal Std

Runlog-MSVOAr2 9/20/13
Page 35

Analysis: 8260 Waters
Analyst: K. Ruest
Tune Method: W111815
Date: 11/19/15
Data Path: j:\acqudata\msvoa12\111915
Run Method: ↓
Instr. 12
LIMS Run#: 472937

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								MM8197		
2	↓								MM8198		
3	TUNE		RQ1514404-01						MM8199	YT	(auto) 10:06
4	CCV		02						MM8200	YO	YC
5	ICV/LCS@50ppb		03						MM8201	YO	
6	VBLK		—						MM8202	(H)	up to 10
7	↓		04						MM8203	YB	
8	R1509899-002	1.0		Oswego	6673	2	1		MM8204	Y	
9	R1509859-012	1.0		Tetra	6765	2	1		MM8205	Y	
10	002	1.0					1		MM8206	Y	
11	003	1.0					1		MM8207		
12	004	1.0					1		MM8208		
13	010	5.0	10/50mls				1		MM8209		
14	011	2.0	25/50mls				1		MM8210		

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500 Primary OCC : 85996
Primary HBO : 85871
Primary Frt : 85806 | 5uL → 50mls = CCV
Primary T6 : 85998
Primary HSL : 85740

200 Secondary 85637 Frt - 12.5uL
500 Secondary 85997 : OCC
Secondary 85875 : HBO | 5.0uL
Secondary 86000 : T6
Secondary 85909 : HSL
50mls = ICV/LCS

Combined IS/Surr 500 : 85986
Surrogate :
Internal Std :

Runlog-MSVOAr2 9/20/13
Page 36

Analysis: 8260 Waters
Analyst: K. Ruest
Tune Method: W111815A
Date: 11/30/15
Data Path: j:\acqudata\msvoa 12\113015
Run Method: ↓
Instr. 12
LIMS Run#: 474104

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								MM8387		
2	~~TUNE~~ BLK								MM8388		
3	TUNE								MM8389		- not eval. as tune. (↓EMV)
4	TUNE		RQ1514764-01						MM8390	YT	(auto) 10:32
5	CCV		02						MM8391	YC	
6	LCS		03						MM8392	YQ	
7	VBLK								MM8393	N	npt 1.0
8	↓		04						MM8394	YB	
9	R1510161-005	1.0		Parsons	11603	4	1	<2	MM8395	Y	
10	004	1.0		(DOD 4)			1	<2	MM8396	Y	
11	017	1.0					1	<2	MM8397	Y	
12	R1510063-~~006~~	1.0	008 (KR)				1	<2	MM8398	Y	
13	018	2.5	20/50mls				1	<2	MM8399	N	npt 1.0
14	019	2.5					1	<2	MM8400	Y	npt 5.0
15	020	1.0					1	<2	MM8401	Y	npt 5.0
16	021	1.0					1	<2	MM8402	Y	npt 5.0
17	BLK ~~017~~	1.0					~~2~~	—	MM8403	—	
18	017	1.0					2	<2	MM8404	Y	
19	018	1.0					2	<2	MM8405	Y	
20	019	5.0	10/50mls				2	<2	MM8406	Y	DL
21	020	5.0					2	<2	MM8407	Y	DL
22	021	5.0					2	<2	MM8408	Y	DL
23	R1510161-003	2.5	20/50mls				1	<2	MM8409	N	npt 1.0
24	010	1.0					1	<2	MM8410	~~YQ~~ Y	
25	R1510063-008	1.0	MS				2	<2	MM8411	YQ	
26	008	1.0	MSD				3	<2	MM8412	YQ	21:46 ✓
27	BLK							—	MM8413	—	

EOD
KR 11/30/15

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500 Primary OCC : 85996
Primary HBO : 85871
Primary Frt : 85806 5uL → 50mls = CCV
Primary TG : 85998
Primary HSL : 86114

200 Secondary Frt : 85637 - 5uL
500 Secondary OCC : 85997
Secondary HBO : 85875 2uL
Secondary HSL : 85909
Secondary TG : 86000

50mls = LCS
-10.6uL
4.2uL
42ml vial = MS/D

Combined IS/Surr 500 : 86137
Surrogate :
Internal Std :

Runlog-MSVOAr2 9/20/13
Page 44

Analysis: 8260 Waters | Analyst: K. Ruest | Tune Method: W1118151A
Date: 12/1/15 | Data Path: j:\acqudata\msvoa\21120115 | Run Method: ↓
Instr. 12 | LIMS Run#: 474290

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								MM8414		
2	TUNE		R015M8477-01						MM8415	YT	(auto) 10:01
3	CCV		02						MM8416	YC	
4	LCS		03						MM8417	YQ	
5	VBLK		—						MM8418	Ⓐ	vpt c/o
6	↓		↓ 04						MM8419	YB	
7	R1510266-009	1.0		Parsons	11603	4	1	CL	MM8420	Y	
8	↓ 005	1.0		DOD	↓	↓	1	CL	MM8421	Y	
9	R1510161-003	1.0		↓			2	CL	MM8422	Y	
10	↓ 011	1.0					1	CL	MM8423	Y	
11	012	1.0					1	CL	MM8424	Y	
12	↓ 015	1.0				↓	1	CL	MM8425	Y	
13	R1510232-001	1.0		OBG	9145	2	1	CL	MM8426	Y	
14	↓ 002	1.0		↓	↓	↓	1	CL	MM8427	Y	
15	R1510266-005	1.0		Parsons	11603	4	1	CL	MM8428	Y	
16	↓ 006	1.0		↓	↓	↓	1	CL	MM8429	Y	
17	007	1.0					1	CL	MM8430	Y	
18	003	2.5	20/50mls				1	CL	MM8431	Ⓐ	vpt 1.0
19	↓ 004	20	2.5/50mls	↓	↓	↓	1	CL	MM8432	Ⓐ	vpt 5.0
20	BLK						—	—	MM8433	—	
21	R1510364-001	1.0		CHD	66093	2	1	CL	MM8434	Y	
22	R1510232-002	1.0	MS	OBG	9145	2	2	CL	MM8435	YQ	
23	↓ 002	1.0	MSD	↓	↓	2	3	CL	MM8436	YQ	20:46 ✓
24	BLK						—	—	MM8437	—	

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500 Primary OCC : 855996
Primary HBO : 855871
Primary Fr+ : 855806 5uL → 50mls = CCV
Primary HSL : 861114
Primary TG : 855998

200 Secondary Fr+ : 855637 - 5uL
500 Secondary OCC : 855997
Secondary HBO : 855875 2uL → 50mls = LCS
Secondary TG : 860000
Secondary HSL : 859109

-10.6uL Combined IS/Surr 500 : 860137
Surrogate :
4.2uL Internal Std :
47ml vial = ms/d

E290
KR 12/1/15

ALS Environmental

SEMI-VOLATILE ORGANICS QC SUMMARY

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Analyzed: 12/ 8/15

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 250879

Analyte Name	Lab Control Sample RQ1514672-02 Result	Spike Amount	% Rec		Duplicate Lab Control Sample RQ1514672-03 Result	Spike Amount	% Rec		% Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	59.8	100	60		57.4	100	57		35 - 105	5	30
1,2-Dichlorobenzene	63.0	100	63		60.3	100	60		35 - 100	5	30
1,3-Dichlorobenzene	60.7	100	61		57.8	100	58		30 - 100	5	30
1,4-Dichlorobenzene	60.1	100	60		56.3	100	56		30 - 100	7	30
2,4,5-Trichlorophenol	94.8	100	95		97.9	100	98		50 - 110	3	30
2,4,6-Trichlorophenol	91.0	100	91		93.0	100	93		50 - 115	2	30
2,4-Dichlorophenol	86.8	100	87		91.2	100	91		50 - 105	4	30
2,4-Dimethylphenol	80.0	100	80		80.7	100	81		30 - 110	1	30
2,4-Dinitrophenol	82.7	100	83		74.0	100	74		15 - 140	11	30
2,4-Dinitrotoluene	97.2	100	97		103	100	103		50 - 120	6	30
2,6-Dinitrotoluene	97.6	100	98		99.9	100	100		50 - 115	2	30
2-Chloronaphthalene	78.7	100	79		81.2	100	81		50 - 105	2	30
2-Chlorophenol	80.7	100	81		84.0	100	84		35 - 105	4	30
2-Methylnaphthalene	74.1	100	74		77.9	100	78		45 - 105	5	30
2-Methylphenol	82.3	100	82		83.8	100	84		40 - 110	2	30
2-Nitroaniline	93.6	100	94		97.7	100	98		50 - 115	4	30
2-Nitrophenol	89.1	100	89		91.2	100	91		40 - 115	2	30
3,3'-Dichlorobenzidine	75.6	100	76		84.7	100	85		20 - 110	11	30
3- and 4-Methylphenol Coelution	149	200	75		151	200	76		30 - 110	1	30
3-Nitroaniline	74.2	100	74		81.8	100	82		20 - 125	10	30
4,6-Dinitro-2-methylphenol	93.4	100	93		99.9	100	100		40 - 130	7	30
4-Bromophenyl Phenyl Ether	86.4	100	86		91.1	100	91		50 - 115	6	30
4-Chloro-3-methylphenol	92.4	100	92		97.8	100	98		45 - 110	6	30
4-Chloroaniline	68.9	100	69		76.2	100	76		15 - 110	10	30
4-Chlorophenyl Phenyl Ether	89.5	100	89		91.8	100	92		50 - 110	3	30
4-Nitroaniline	93.1	100	93		98.7	100	99		35 - 120	6	30
4-Nitrophenol	31.0	100	31		31.0	100	31		0 - 125	<1	30
Acenaphthene	85.7	100	86		88.7	100	89		45 - 110	3	30
Acenaphthylene	87.0	100	87		89.0	100	89		50 - 105	2	30
Anthracene	89.1	100	89		94.3	100	94		55 - 110	5	30
Benz(a)anthracene	91.0	100	91		96.1	100	96		55 - 110	5	30
Benzidine	ND	100	0	*	ND	100	0	*	10 - 130	NC	30
Benzo(a)pyrene	94.3	100	94		101	100	101		55 - 110	7	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Analyzed: 12/ 8/15

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 250879

Analyte Name	Lab Control Sample RQ1514672-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1514672-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzo(b)fluoranthene	89.5	100	90	97.3	100	97	45 - 120	7	30
Benzo(g,h,i)perylene	102	100	102	109	100	109	40 - 125	7	30
Benzo(k)fluoranthene	91.7	100	92	94.5	100	94	45 - 125	2	30
Benzyl Alcohol	86.6	100	87	87.7	100	88	30 - 110	1	30
2,2'-Oxybis(1-chloropropane)	98.1	100	98	101	100	101	25 - 130	3	30
Bis(2-chloroethoxy)methane	86.1	100	86	90.3	100	90	45 - 105	5	30
Bis(2-chloroethyl) Ether	84.6	100	85	88.5	100	88	35 - 110	3	30
Bis(2-ethylhexyl) Phthalate	99.5	100	99	102	100	102	40 - 125	3	30
Butyl Benzyl Phthalate	95.2	100	95	98.3	100	98	45 - 115	3	30
Carbazole	93.2	100	93	99.1	100	99	50 - 115	6	30
Chrysene	93.3	100	93	97.9	100	98	55 - 110	5	30
Di-n-butyl Phthalate	96.2	100	96	101	100	101	55 - 115	5	30
Di-n-octyl Phthalate	106	100	106	111	100	111	35 - 135	5	30
Dibenz(a,h)anthracene	99.7	100	100	106	100	106	40 - 125	6	30
Dibenzofuran	84.4	100	84	88.2	100	88	55 - 105	5	30
Diethyl Phthalate	92.6	100	93	98.2	100	98	40 - 120	5	30
Dimethyl Phthalate	89.3	100	89	92.7	100	93	25 - 125	4	30
Fluoranthene	95.8	100	96	101	100	101	55 - 115	5	30
Fluorene	87.3	100	87	92.9	100	93	50 - 110	7	30
Hexachlorobenzene	86.9	100	87	92.0	100	92	50 - 110	6	30
Hexachlorobutadiene	54.9	100	55	53.0	100	53	25 - 105	4	30
Hexachlorocyclopentadiene	59.4	100	59	60.2	100	60	10 - 130	2	30
Hexachloroethane	56.0	100	56	52.0	100	52	30 - 100	7	30
Indeno(1,2,3-cd)pyrene	102	100	102	110	100	110	45 - 125	8	30
Isophorone	92.3	100	92	97.1	100	97	50 - 110	5	30
N-Nitrosodi-n-propylamine	91.7	100	92	94.1	100	94	35 - 130	2	30
N-Nitrosodimethylamine	54.6	100	55	52.5	100	53	25 - 110	4	30
N-Nitrosodiphenylamine	98.5	100	99	103	100	103	50 - 110	4	30
Naphthalene	66.9	100	67	68.0	100	68	40 - 110	1	30
Nitrobenzene	82.0	100	82	85.7	100	86	45 - 110	5	30
Pentachlorophenol (PCP)	90.7	100	91	94.6	100	95	40 - 115	4	30
Phenanthrene	91.7	100	92	96.7	100	97	50 - 115	5	30
Phenol	39.4	100	39	40.3	100	40	0 - 115	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Analyzed: 12/ 8/15

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 250879

Analyte Name	Lab Control Sample RQ1514672-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1514672-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Pyrene	104	100	104	106	100	106	50 - 130	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Analyzed:**	12/8/15 14:23
Sample Matrix:	Water	**Date Extracted:**	11/25/15

Method Blank Summary
Semivolatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Instrument ID:**	R-MS-54
Lab Code:	RQ1514672-01	**File ID:**	I:\ACQUDATA\5973D\Data\120815\BE346.D\
Analytical Method:	8270D		
Prep Method:	EPA 3510C		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
FTMM-66-GW-886RW08-11.2	R1510161-016	I:\ACQUDATA\5973D\Data\120815\BE343.D\	12/8/15 12:58
EB-2015-11-20	R1510161-017	I:\ACQUDATA\5973D\Data\120815\BE344.D\	12/8/15 13:24
Lab Control Sample	RQ1514672-02	I:\ACQUDATA\5973D\Data\120815\BE347.D\	12/8/15 14:49
Duplicate Lab Control Sample	RQ1514672-03	I:\ACQUDATA\5973D\Data\120815\BE348.D\	12/8/15 15:16

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Service Request: R1510161
Date Analyzed: 12/3/15 08:29

Tune Summary
TCLP Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\120315\BE252.D\
Instrument ID: R-MS-54
Analytical Method: 8270D
Analysis Lot: 474874

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	64.37	49243	Pass
68	69	0.00	2	1.79	694	Pass
69	198	0.00	100	50.76	38829	Pass
70	69	0.00	2	0.00	0	Pass
127	198	10	80	56.11	42923	Pass
197	198	0.00	2	0.00	0	Pass
198	198	100	100	100.00	76501	Pass
199	198	5	9	7.99	6116	Pass
275	198	10	60	23.88	18266	Pass
365	198	1	100	3.66	2803	Pass
441	442	0.01	24	16.02	9736	Pass
442	442	100	100	100.00	60761	Pass
443	442	15	24	16.23	9864	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
SSTD005	5 ppm STD	I:\ACQUDATA\5973D\Data\120315\BE254.D\	12/3/15 09:25	
SSTD010	10 ppm STD	I:\ACQUDATA\5973D\Data\120315\BE255.D\	12/3/15 09:51	
SSTD050	50 ppm STD	I:\ACQUDATA\5973D\Data\120315\BE256.D\	12/3/15 10:17	
SSTD080	80 ppm STD	I:\ACQUDATA\5973D\Data\120315\BE258.D\	12/3/15 10:42	
SSTD100	100 ppm STD	I:\ACQUDATA\5973D\Data\120315\BE259.D\	12/3/15 11:08	
SSTD120	120 ppm STD	I:\ACQUDATA\5973D\Data\120315\BE260.D\	12/3/15 11:35	
SSTD160	160 ppm STD	I:\ACQUDATA\5973D\Data\120315\BE261.D\	12/3/15 12:00	
ICV#2	80 ppm STD	I:\ACQUDATA\5973D\Data\120315\BE262.D\	12/3/15 12:52	
ICV#1	80 ppm STD	I:\ACQUDATA\5973D\Data\120315\BE263.D\	12/3/15 13:18	

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Service Request: R1510161
Date Analyzed: 12/8/15 08:01

Tune Summary
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\120815\BE333.D\
Instrument ID: R-MS-54

Analytical Method: 8270D
Analysis Lot: 475709

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	54.76	48289	Pass
68	69	0.00	2	1.73	686	Pass
69	198	0.00	100	44.91	39610	Pass
70	69	0.00	2	0.43	170	Pass
127	198	10	80	50.81	44810	Pass
197	198	0.00	2	0.56	495	Pass
198	198	100	100	100.00	88189	Pass
199	198	5	9	6.89	6080	Pass
275	198	10	60	23.94	21116	Pass
365	198	1	100	3.34	2943	Pass
441	442	0.01	24	15.63	11817	Pass
442	442	100	100	100.00	75616	Pass
443	442	15	24	20.15	15235	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1515237-02	I:\ACQUDATA\5973D\Data\120815\BE334.D\	12/8/15 08:20	
Continuing Cal. VerificationCCVA	RQ1515237-03	I:\ACQUDATA\5973D\Data\120815\BE335.D\	12/8/15 09:12	
FTMM-66-GW-886RW08-11.2	R1510161-016	I:\ACQUDATA\5973D\Data\120815\BE343.D\	12/8/15 12:58	
EB-2015-11-20	R1510161-017	I:\ACQUDATA\5973D\Data\120815\BE344.D\	12/8/15 13:24	
Method Blank	RQ1514672-01	I:\ACQUDATA\5973D\Data\120815\BE346.D\	12/8/15 14:23	
Lab Control Sample	RQ1514672-02	I:\ACQUDATA\5973D\Data\120815\BE347.D\	12/8/15 14:49	
Duplicate Lab Control Sample	RQ1514672-03	I:\ACQUDATA\5973D\Data\120815\BE348.D\	12/8/15 15:16	

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Service Request: R1510161
Date Analyzed: 12/8/15 08:20

Internal Standard Area and RT Summary
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\120815\BE334.D\
Instrument ID: R-MS-54
Analytical Method: 8270D

Lab Code: RQ1515237-02
Analysis Lot: 475709
Signal ID:

		1,4-Dichlorobenzene-d4		Acenaphthene-d10		Chrysene-d12	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	138,516	4.08	346,173	6.17	693,675	10.01
	Upper Limit ==>	277,032	4.58	692,346	6.67	1,387,350	10.51
	Lower Limit ==>	69,258	3.58	173,087	5.67	346,838	9.51
	ICAL Result ==>	134,526	4.08	331,239	6.17	664,276	10.01
Associated Analyses							
Continuing Cal. VerificationCCVA	RQ1515237-03	163,156	4.08	437,607	6.17	843,202	10.00
FTMM-66-GW-886RW08-11.2	R1510161-016	102,143	4.08	240,234	6.17	480,018	10.01
EB-2015-11-20	R1510161-017	104,250	4.08	238,721	6.17	460,637	10.00
Method Blank	RQ1514672-01	122,988	4.08	289,810	6.17	575,265	10.00
Lab Control Sample	RQ1514672-02	133,131	4.08	324,760	6.17	621,532	10.01
Duplicate Lab Control Sample	RQ1514672-03	128,345	4.08	319,557	6.17	630,710	10.01

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000

Service Request: R1510161
Date Analyzed: 12/8/15 08:20

Internal Standard Area and RT Summary
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\120815\BE334.D\
Instrument ID: R-MS-54
Analytical Method: 8270D

Lab Code: RQ1515237-02
Analysis Lot: 475709
Signal ID:

		Naphthalene-d8		Perylene-d12		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	558,142	4.94	698,948	12.75	590,077	7.23
	Upper Limit ==>	1,116,284	5.44	1,397,896	13.25	1,180,154	7.73
	Lower Limit ==>	279,071	4.44	349,474	12.25	295,039	6.73
	ICAL Result ==>	540,615	4.94	653,601	12.75	535,096	7.23
Associated Analyses							
Continuing Cal. VerificationCCVA	RQ1515237-03	833,409	4.94	624,403	12.75	795,341	7.23
FTMM-66-GW-886RW08-11.2	R1510161-016	402,125	4.94	495,325	12.75	450,737	7.23
EB-2015-11-20	R1510161-017	397,619	4.93	474,137	12.75	428,741	7.23
Method Blank	RQ1514672-01	487,592	4.94	580,737	12.75	540,981	7.23
Lab Control Sample	RQ1514672-02	543,454	4.94	583,404	12.75	556,833	7.23
Duplicate Lab Control Sample	RQ1514672-03	525,164	4.94	595,945	12.75	545,405	7.23

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Environmental

SEMI-VOLATILE ORGANICS SAMPLE DATA

ALS Environmental - Rochester, NY
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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1510
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-66-GW-886RW08-11.2	**Units:**	µg/L
Lab Code:	R1510161-016	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
1,2,4-Trichlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
1,2-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
1,3-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
1,4-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
2,4,5-Trichlorophenol	ND	U	9.4	5.0	1.8	1	11/25/15	12/8/15 12:58	250879	475709	
2,4,6-Trichlorophenol	ND	U	9.4	5.0	1.4	1	11/25/15	12/8/15 12:58	250879	475709	
2,4-Dichlorophenol	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 12:58	250879	475709	
2,4-Dimethylphenol	ND	U	9.4	5.0	1.5	1	11/25/15	12/8/15 12:58	250879	475709	
2,4-Dinitrophenol	ND	U	47	25	20	1	11/25/15	12/8/15 12:58	250879	475709	
2,4-Dinitrotoluene	ND	U	9.4	5.0	1.6	1	11/25/15	12/8/15 12:58	250879	475709	
2,6-Dinitrotoluene	ND	U	9.4	5.0	1.8	1	11/25/15	12/8/15 12:58	250879	475709	
2-Chloronaphthalene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
2-Chlorophenol	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
2-Methylnaphthalene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
2-Methylphenol	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
2-Nitroaniline	ND	U	47	25	9.1	1	11/25/15	12/8/15 12:58	250879	475709	
2-Nitrophenol	ND	U	9.4	5.0	1.4	1	11/25/15	12/8/15 12:58	250879	475709	
3,3'-Dichlorobenzidine	ND	U	9.4	5.0	4.5	1	11/25/15	12/8/15 12:58	250879	475709	
3- and 4-Methylphenol Coelution	ND	U	10	10	2.0	1	11/25/15	12/8/15 12:58	250879	475709	
3-Nitroaniline	ND	U	47	25	7.7	1	11/25/15	12/8/15 12:58	250879	475709	
4,6-Dinitro-2-methylphenol	ND	U	47	25	11	1	11/25/15	12/8/15 12:58	250879	475709	
4-Bromophenyl Phenyl Ether	ND	U	9.4	5.0	2.2	1	11/25/15	12/8/15 12:58	250879	475709	
4-Chloro-3-methylphenol	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 12:58	250879	475709	
4-Chloroaniline	ND	U	9.4	5.0	1.5	1	11/25/15	12/8/15 12:58	250879	475709	
4-Chlorophenyl Phenyl Ether	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 12:58	250879	475709	
4-Nitroaniline	ND	U	47	25	7.8	1	11/25/15	12/8/15 12:58	250879	475709	
4-Nitrophenol	ND	U	47	25	5.9	1	11/25/15	12/8/15 12:58	250879	475709	
Acenaphthene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Acenaphthylene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Anthracene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Benz(a)anthracene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Benzidine	ND	U	100	100	90	1	11/25/15	12/8/15 12:58	250879	475709	
Benzo(a)pyrene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Benzo(b)fluoranthene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Benzo(g,h,i)perylene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Benzo(k)fluoranthene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: 11/20/15 1510
Date Received: 11/21/15

Sample Name: FTMM-66-GW-886RW08-11.2
Lab Code: R1510161-016

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 12:58	250879	475709	
2,2'-Oxybis(1-chloropropane)	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Bis(2-chloroethoxy)methane	ND	U	9.4	5.0	2.2	1	11/25/15	12/8/15 12:58	250879	475709	
Bis(2-chloroethyl) Ether	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 12:58	250879	475709	
Bis(2-ethylhexyl) Phthalate	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 12:58	250879	475709	
Butyl Benzyl Phthalate	ND	U	9.4	5.0	2.4	1	11/25/15	12/8/15 12:58	250879	475709	
Carbazole	ND	U	9.4	5.0	1.1	1	11/25/15	12/8/15 12:58	250879	475709	
Chrysene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Di-n-butyl Phthalate	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Di-n-octyl Phthalate	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 12:58	250879	475709	
Dibenz(a,h)anthracene	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 12:58	250879	475709	
Dibenzofuran	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Diethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Dimethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Fluoranthene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Fluorene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Hexachlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Hexachlorobutadiene	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 12:58	250879	475709	
Hexachlorocyclopentadiene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Hexachloroethane	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 12:58	250879	475709	
Indeno(1,2,3-cd)pyrene	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 12:58	250879	475709	
Isophorone	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
N-Nitrosodi-n-propylamine	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 12:58	250879	475709	
N-Nitrosodimethylamine	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
N-Nitrosodiphenylamine	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Naphthalene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Nitrobenzene	ND	U	9.4	5.0	1.6	1	11/25/15	12/8/15 12:58	250879	475709	
Pentachlorophenol (PCP)	ND	U	47	25	6.9	1	11/25/15	12/8/15 12:58	250879	475709	
Phenanthrene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Phenol	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	
Pyrene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 12:58	250879	475709	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1510
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-66-GW-886RW08-11.2	**Units:**	Percent
Lab Code:	R1510161-016	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	124	40-125	12/8/15 12:58	
2-Fluorobiphenyl	93	50-110	12/8/15 12:58	
2-Fluorophenol	51	20-110	12/8/15 12:58	
Nitrobenzene-d5	83	40-110	12/8/15 12:58	
Phenol-d6	36	10-115	12/8/15 12:58	
p-Terphenyl-d14	108	50-135	12/8/15 12:58	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Extracted:	11/25/15
		Date Analyzed:	12/8/15 1258

Tentatively Identified Compounds (TIC)
Semivolatile Organic Compounds by GC/MS

Sample Name:	FTMM-66-GW-886RW08-11.2	**Units:**	µg/L
Lab Code:	R1510161-016	**Basis:**	NA

Prep Method: EPA 3510C
Analytical Method: 8270D

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE343.D
Acq On : 8 Dec 2015 12:58 pm
Operator : J.Misiurewicz
Sample : R1510161-016 Inst : 5973D
Misc : 250879 8270D Parson TCL + IV
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 10 08:43:37 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

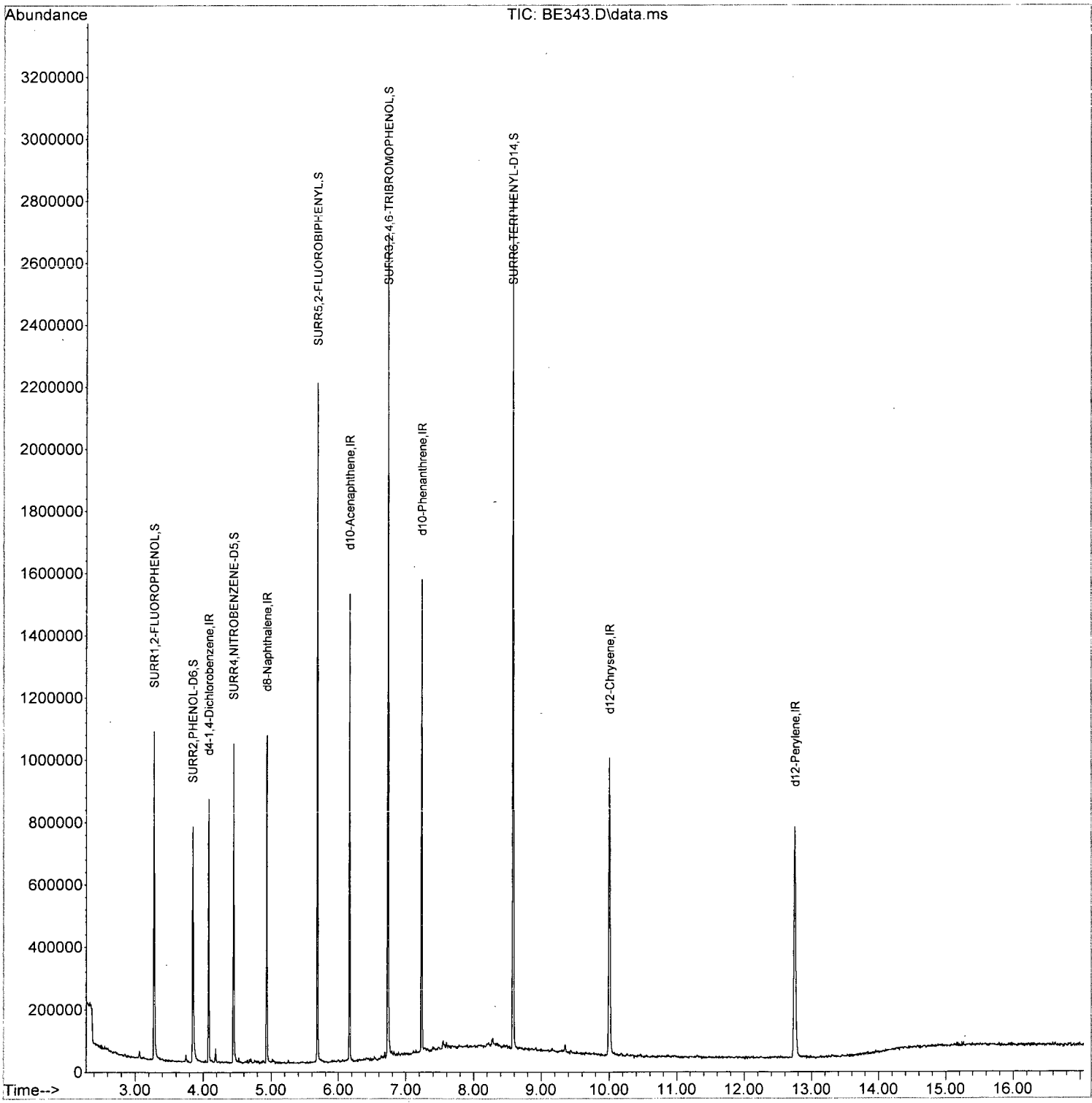
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d4-1,4-Dichlorobenzene	4.084	152	102143	40.00	ppm	0.00
22) d8-Naphthalene	4.940	136	402125	40.00	ppm	0.00
39) d10-Acenaphthene	6.170	164	240234	40.00	ppm	0.00
61) d10-Phenanthrene	7.234	188	450737	40.00	ppm	0.00
74) d12-Chrysene	10.005	240	480018	40.00	ppm	0.00
83) d12-Perylene	12.754	264	495325	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.276	112	256335	101.23	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 50.62%			
7) SURR2,PHENOL-D6	3.849	99	234923	72.26	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 36.13%			
23) SURR4,NITROBENZENE-D5	4.448	82	244237	82.92	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 82.92%			
43) SURR5,2-FLUOROBIPHENYL	5.683	172	586560	92.64	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 92.64%			
60) SURR3,2,4,6-TRIBROMOPH...	6.737	330	223761	247.37	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 123.69%			
77) SURR6,TERPHENYL-D14	8.582	244	801578	107.54	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 107.54%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE343.D
Acq On : 8 Dec 2015 12:58 pm
Operator : J.Misiurewicz
Sample : R1510161-016 Inst : 5973D
Misc : 250879 8270D Parson TCL + IV
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 10 08:43:37 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration



82701203D.M Thu Dec 10 08:44:12 2015

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE343.D
Acq On : 8 Dec 2015 12:58 pm
Operator : J.Misiurewicz
Sample : R1510161-016 Inst : 5973D
Misc : 250879 8270D Parson TCL + IV
ALS Vial : 12 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS

TIC Library : C:\Database\NIST08.L
TIC Integration Parameters: TEBINT.P

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

LSC Area Percent Report

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE343.D
Acq On : 8 Dec 2015 12:58 pm
Operator : J.Misiurewicz
Sample : R1510161-016 Inst : 5973D
Misc : 250879 8270D Parson TCL + IV
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 25000 Area counts
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Title : 8270 BNA ANALYSIS

Signal : TIC: BE343.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.276	182	186	198	rBV	1048445	951857	36.99%	6.156%
2	3.849	290	293	306	rBV	750599	711798	27.66%	4.604%
3	4.084	333	337	342	rBV	843665	663604	25.78%	4.292%
4	4.186	351	356	361	rVB3	43749	38611	1.50%	0.250%
5	4.448	402	405	414	rBV	1020603	813966	31.63%	5.265%
6	4.940	493	497	503	rBV	1051949	883640	34.33%	5.715%
7	5.678	632	635	639	rBV	2176170	1748416	67.94%	11.309%
8	6.170	724	727	731	rBV	1491478	1026734	39.89%	6.641%
9	6.737	829	833	841	rBV	2643717	2061286	80.09%	13.332%
10	7.234	922	926	931	rBV	1514711	1184169	46.01%	7.659%
11	7.550	981	985	988	rBV5	25985	33714	1.31%	0.218%
12	8.582	1174	1178	1183	rBV	2734176	2573615	100.00%	16.646%
13	9.353	1319	1322	1326	rVB6	23430	25616	1.00%	0.166%
14	10.005	1437	1444	1456	rBV	951523	1347103	52.34%	8.713%
15	12.749	1949	1957	1971	rBV	740443	1396940	54.28%	9.035%

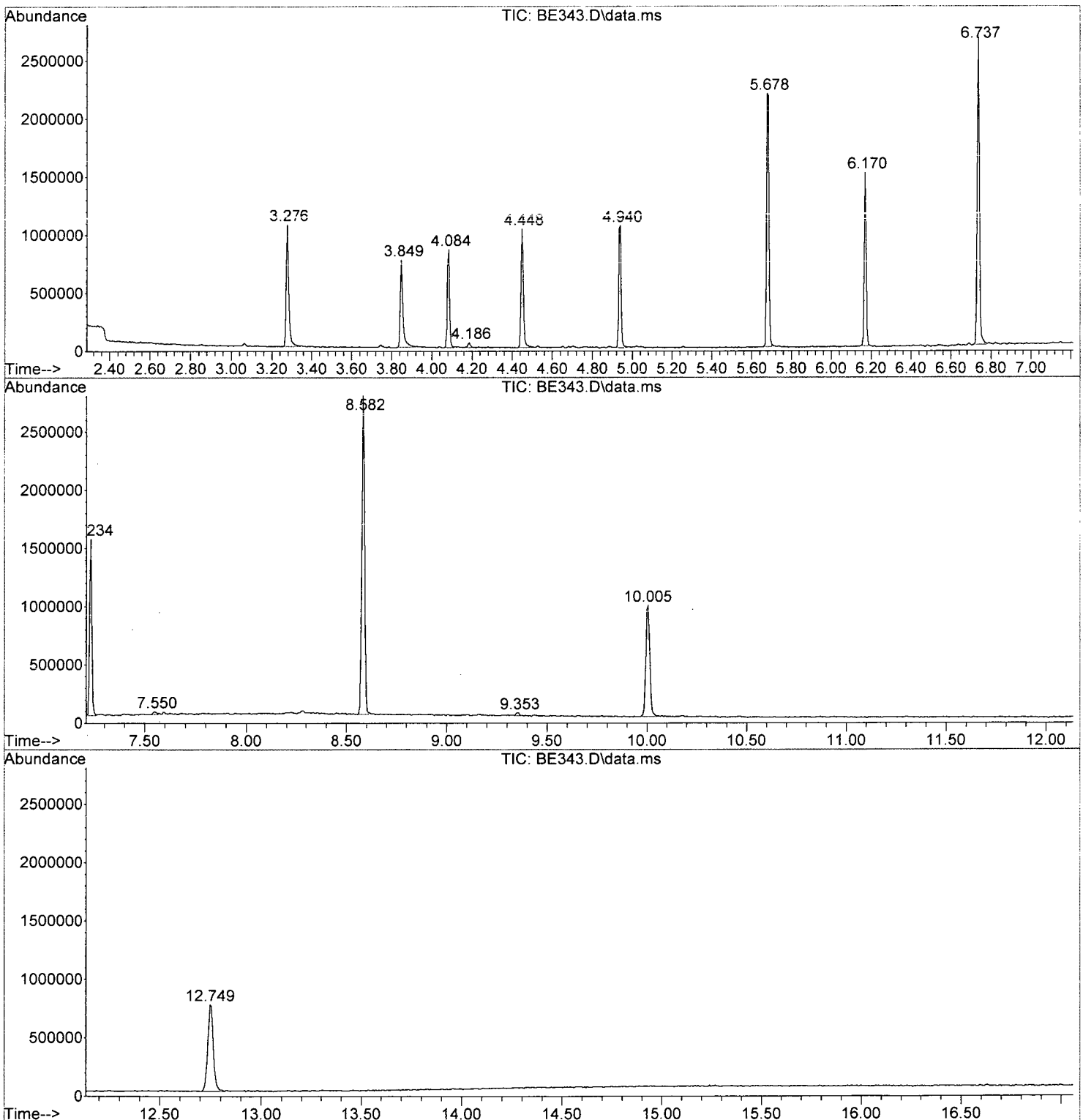
Sum of corrected areas: 15461069

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE343.D
Acq On : 8 Dec 2015 12:58 pm
Operator : J.Misiurewicz
Sample : R1510161-016 Inst : 5973D
Misc : 250879 8270D Parson TCL + IV
ALS Vial : 12 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS

TIC Library : C:\Database\NIST08.L
TIC Integration Parameters: TEBINT.P



Library Search Compound Report

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE343.D
Acq On : 8 Dec 2015 12:58 pm
Operator : J.Misiurewicz
Sample : R1510161-016 Inst : 5973D
Misc : 250879 8270D Parson TCL + IV
ALS Vial : 12 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS

TIC Library : C:\Database\NIST08.L
TIC Integration Parameters: TEBINT.P

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: 11/20/15 1700
Date Received: 11/21/15

Sample Name: EB-2015-11-20
Lab Code: R1510161-017

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
1,2,4-Trichlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
1,2-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
1,3-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
1,4-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
2,4,5-Trichlorophenol	ND	U	9.4	5.0	1.8	1	11/25/15	12/8/15 13:24	250879	475709	
2,4,6-Trichlorophenol	ND	U	9.4	5.0	1.4	1	11/25/15	12/8/15 13:24	250879	475709	
2,4-Dichlorophenol	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 13:24	250879	475709	
2,4-Dimethylphenol	ND	U	9.4	5.0	1.5	1	11/25/15	12/8/15 13:24	250879	475709	
2,4-Dinitrophenol	ND	U	47	25	20	1	11/25/15	12/8/15 13:24	250879	475709	
2,4-Dinitrotoluene	ND	U	9.4	5.0	1.6	1	11/25/15	12/8/15 13:24	250879	475709	
2,6-Dinitrotoluene	ND	U	9.4	5.0	1.8	1	11/25/15	12/8/15 13:24	250879	475709	
2-Chloronaphthalene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
2-Chlorophenol	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
2-Methylnaphthalene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
2-Methylphenol	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
2-Nitroaniline	ND	U	47	25	9.1	1	11/25/15	12/8/15 13:24	250879	475709	
2-Nitrophenol	ND	U	9.4	5.0	1.4	1	11/25/15	12/8/15 13:24	250879	475709	
3,3'-Dichlorobenzidine	ND	U	9.4	5.0	4.5	1	11/25/15	12/8/15 13:24	250879	475709	
3- and 4-Methylphenol Coelution	ND	U	10	10	2.0	1	11/25/15	12/8/15 13:24	250879	475709	
3-Nitroaniline	ND	U	47	25	7.7	1	11/25/15	12/8/15 13:24	250879	475709	
4,6-Dinitro-2-methylphenol	ND	U	47	25	11	1	11/25/15	12/8/15 13:24	250879	475709	
4-Bromophenyl Phenyl Ether	ND	U	9.4	5.0	2.2	1	11/25/15	12/8/15 13:24	250879	475709	
4-Chloro-3-methylphenol	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 13:24	250879	475709	
4-Chloroaniline	ND	U	9.4	5.0	1.5	1	11/25/15	12/8/15 13:24	250879	475709	
4-Chlorophenyl Phenyl Ether	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 13:24	250879	475709	
4-Nitroaniline	ND	U	47	25	7.8	1	11/25/15	12/8/15 13:24	250879	475709	
4-Nitrophenol	ND	U	47	25	5.9	1	11/25/15	12/8/15 13:24	250879	475709	
Acenaphthene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Acenaphthylene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Anthracene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Benz(a)anthracene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Benzidine	ND	U	100	100	90	1	11/25/15	12/8/15 13:24	250879	475709	
Benzo(a)pyrene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Benzo(b)fluoranthene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Benzo(g,h,i)perylene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Benzo(k)fluoranthene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: 11/20/15 1700
Date Received: 11/21/15

Sample Name: EB-2015-11-20
Lab Code: R1510161-017

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 13:24	250879	475709	
2,2'-Oxybis(1-chloropropane)	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Bis(2-chloroethoxy)methane	ND	U	9.4	5.0	2.2	1	11/25/15	12/8/15 13:24	250879	475709	
Bis(2-chloroethyl) Ether	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 13:24	250879	475709	
Bis(2-ethylhexyl) Phthalate	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 13:24	250879	475709	
Butyl Benzyl Phthalate	ND	U	9.4	5.0	2.4	1	11/25/15	12/8/15 13:24	250879	475709	
Carbazole	ND	U	9.4	5.0	1.1	1	11/25/15	12/8/15 13:24	250879	475709	
Chrysene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Di-n-butyl Phthalate	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Di-n-octyl Phthalate	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 13:24	250879	475709	
Dibenz(a,h)anthracene	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 13:24	250879	475709	
Dibenzofuran	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Diethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Dimethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Fluoranthene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Fluorene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Hexachlorobenzene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Hexachlorobutadiene	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 13:24	250879	475709	
Hexachlorocyclopentadiene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Hexachloroethane	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 13:24	250879	475709	
Indeno(1,2,3-cd)pyrene	ND	U	9.4	5.0	1.2	1	11/25/15	12/8/15 13:24	250879	475709	
Isophorone	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
N-Nitrosodi-n-propylamine	ND	U	9.4	5.0	1.3	1	11/25/15	12/8/15 13:24	250879	475709	
N-Nitrosodimethylamine	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
N-Nitrosodiphenylamine	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Naphthalene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Nitrobenzene	ND	U	9.4	5.0	1.6	1	11/25/15	12/8/15 13:24	250879	475709	
Pentachlorophenol (PCP)	ND	U	47	25	6.9	1	11/25/15	12/8/15 13:24	250879	475709	
Phenanthrene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Phenol	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	
Pyrene	ND	U	9.4	5.0	1.0	1	11/25/15	12/8/15 13:24	250879	475709	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1700
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	EB-2015-11-20	**Units:**	Percent
Lab Code:	R1510161-017	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	122	40-125	12/8/15 13:24	
2-Fluorobiphenyl	97	50-110	12/8/15 13:24	
2-Fluorophenol	51	20-110	12/8/15 13:24	
Nitrobenzene-d5	96	40-110	12/8/15 13:24	
Phenol-d6	35	10-115	12/8/15 13:24	
p-Terphenyl-d14	118	50-135	12/8/15 13:24	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15
Sample Matrix:	Water	**Date Received:**	11/21/15
		Date Extracted:	11/25/15
		Date Analyzed:	12/8/15 1324

Tentatively Identified Compounds (TIC)
Semivolatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-20	**Units:**	µg/L
Lab Code:	R1510161-017	**Basis:**	NA

Prep Method: EPA 3510C
Analytical Method: 8270D

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE344.D
Acq On : 8 Dec 2015 1:24 pm
Operator : J.Misiurewicz
Sample : R1510161-017 Inst : 5973D
Misc : 250879 8270D Parson TCL + IV
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 10 08:45:28 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

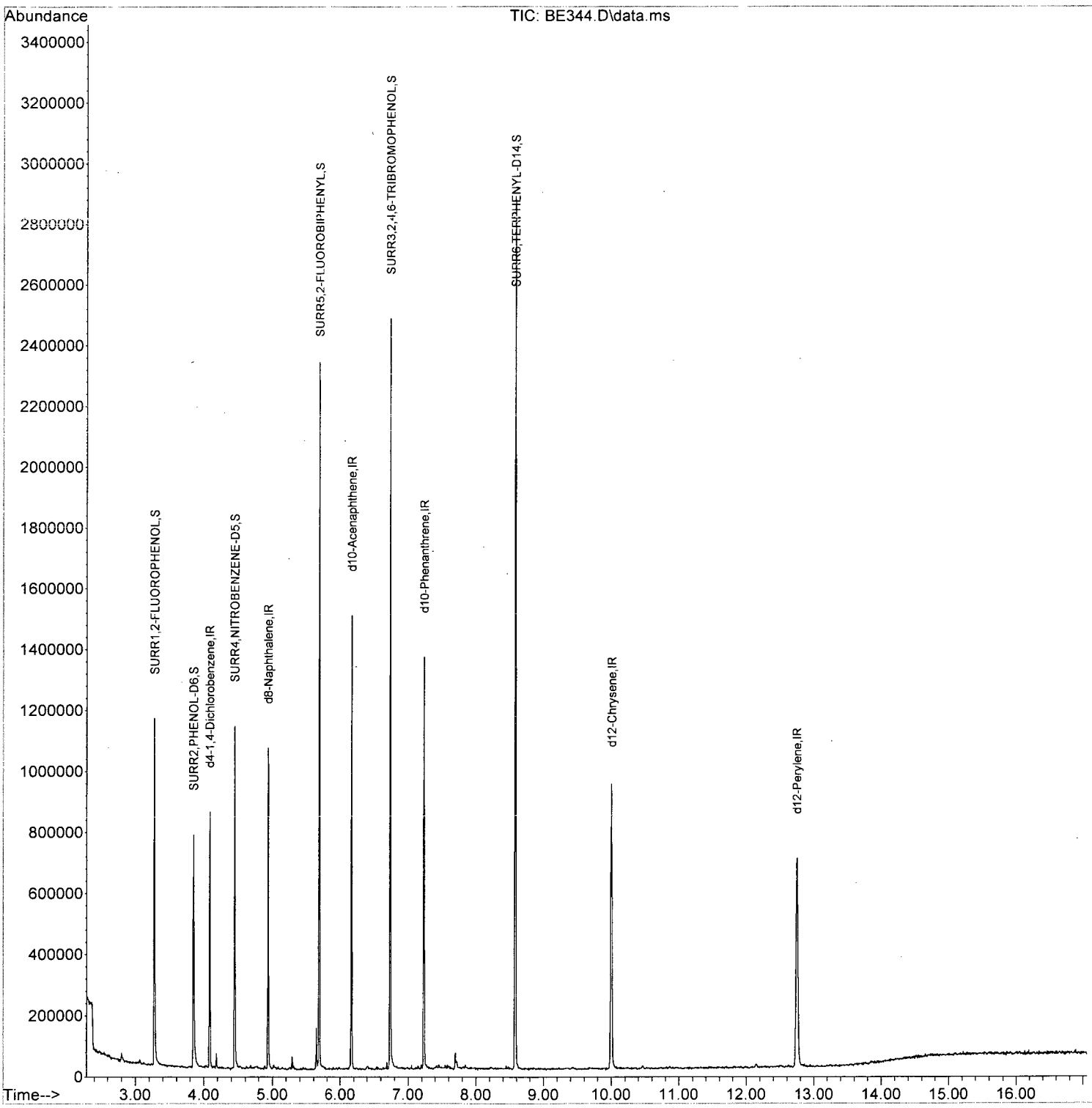
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d4-1,4-Dichlorobenzene	4.084	152	104250	40.00	ppm	0.00
22) d8-Naphthalene	4.934	136	397619	40.00	ppm	0.00
39) d10-Acenaphthene	6.170	164	238721	40.00	ppm	0.00
61) d10-Phenanthrene	7.234	188	428741	40.00	ppm	0.00
74) d12-Chrysene	10.005	240	460637	40.00	ppm	0.00
83) d12-Perylene	12.749	264	474137	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.276	112	264542	102.36	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 51.18%			
7) SURR2,PHENOL-D6	3.849	99	229427	69.14	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 34.57%			
23) SURR4,NITROBENZENE-D5	4.448	82	278183	95.51	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 95.51%			
43) SURR5,2-FLUOROBIPHENYL	5.683	172	609052	96.80	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 96.80%			
60) SURR3,2,4,6-TRIBROMOPH...	6.737	330	218570	243.16	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 121.58%			
77) SURR6,TERPHENYL-D14	8.582	244	845461	118.20	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 118.20%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE344.D
Acq On : 8 Dec 2015 1:24 pm
Operator : J.Misiurewicz
Sample : R1510161-017 Inst : 5973D
Misc : 250879 8270D Parson TCL + IV
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 10 08:45:28 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration



82701203D.M Thu Dec 10 08:46:00 2015

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE344.D
Acq On : 8 Dec 2015 1:24 pm
Operator : J.Misiurewicz
Sample : R1510161-017 Inst : 5973D
Misc : 250879 8270D Parson TCL + IV
ALS Vial : 13 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS

TIC Library : C:\Database\NIST08.L
TIC Integration Parameters: TEBINT.P

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

LSC Area Percent Report

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE344.D
Acq On : 8 Dec 2015 1:24 pm
Operator : J.Misiurewicz
Sample : R1510161-017 Inst : 5973D
Misc : 250879 8270D Parson TCL + IV
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 25000 Area counts
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Title : 8270 BNA ANALYSIS

Signal : TIC: BE344.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.800	95	97	105	rVB4	30003	41923	1.53%	0.265%
2	3.276	183	186	199	rBV	1132602	1032157	37.74%	6.515%
3	3.849	290	293	308	rBV	761327	739286	27.03%	4.666%
4	4.084	333	337	344	rVB	839590	674406	24.66%	4.257%
5	4.186	353	356	360	rBV	48832	38850	1.42%	0.245%
6	4.448	402	405	418	rBV	1119832	907835	33.19%	5.730%
7	4.934	493	496	500	rBV	1050937	864948	31.62%	5.459%
8	5.287	559	562	564	rBV	41747	31427	1.15%	0.198%
9	5.640	625	628	632	rBV	130903	92916	3.40%	0.586%
10	5.678	632	635	639	rBV	2307644	1803305	65.93%	11.382%
11	6.170	723	727	734	rVB	1485053	1038924	37.98%	6.557%
12	6.737	829	833	848	rBV	2462152	2036501	74.46%	12.854%
13	7.234	922	926	931	rBV	1348307	1146392	41.91%	7.236%
14	7.700	1007	1013	1015	rBV	55794	59082	2.16%	0.373%
15	8.582	1173	1178	1188	rVB	2852536	2735097	100.00%	17.263%
16	9.999	1437	1443	1454	rBV	931636	1277132	46.69%	8.061%
17	12.749	1949	1957	1968	rBV	680934	1323453	48.39%	8.353%

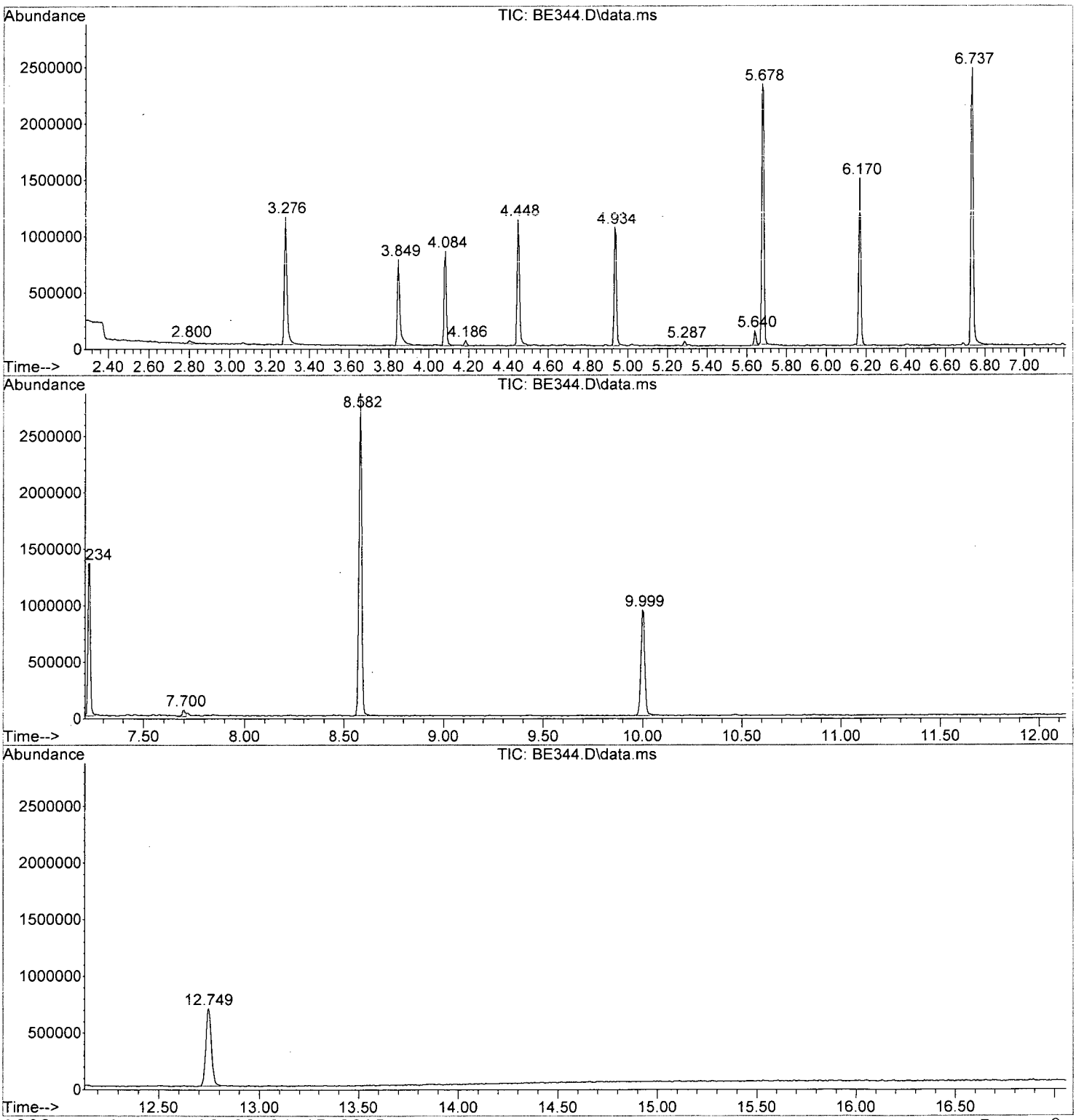
Sum of corrected areas: 15843634

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE344.D
Acq On    :  8 Dec 2015   1:24 pm
Operator  : J.Misiurewicz
Sample    : R1510161-017                          Inst    : 5973D
Misc      : 250879 8270D Parson TCL + IV
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title  : 8270 BNA ANALYSIS

TIC Library   : C:\Database\NIST08.L
TIC Integration Parameters: TEBINT.P
```



Library Search Compound Report

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE344.D
Acq On : 8 Dec 2015 1:24 pm
Operator : J.Misiurewicz
Sample : R1510161-017 Inst : 5973D
Misc : 250879 8270D Parson TCL + IV
ALS Vial : 13 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS

TIC Library : C:\Database\NIST08.L
TIC Integration Parameters: TEBINT.P

No Library Search Compounds Detected
****

ALS Environmental

SEMI-VOLATILE ORGANICS STANDARDS DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

Initial Calibration - Summary Report

Calibration ID: RC1500134 **Instrument ID:** R-MS-54
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
1,2,4-Trichlorobenzene	T	Average RF			0.2814	<=15	5.9
1,2,4-Trichlorobenzene	T	Average RF			0.2814	<=20	5.9
1,2-Dichlorobenzene	T	Average RF			1.244	<=15	4.4
1,2-Dichlorobenzene	T	Average RF			1.244	<=20	4.4
1,2-Diphenylhydrazine	T	Average RF			0.6650	<=15	4.8
1,2-Diphenylhydrazine	T	Average RF			0.6650	<=20	4.8
1,3-Dichlorobenzene	T	Average RF			1.279	<=15	4.6
1,3-Dichlorobenzene	T	Average RF			1.279	<=20	4.6
1,4-Dichlorobenzene	T	Average RF			1.336	<=15	7.6
1,4-Dichlorobenzene	T	Average RF			1.336	<=20	7.6
1-Methyl-2-pyrrolidinone	T	Average RF			0.7379	<=15	3.3
1-Methyl-2-pyrrolidinone	T	Average RF			0.7379	<=20	3.3
1-Methylnaphthalene	T	Average RF			0.5188	<=15	5.6
1-Methylnaphthalene	T	Average RF			0.5188	<=20	5.6
2,4,5-Trichlorophenol	T	Average RF		0.200	0.3265	<=15	4.9
2,4,5-Trichlorophenol	T	Average RF		0.200	0.3265	<=20	4.9
2,4,6-Trichlorophenol	T	Average RF		0.200	0.3192	<=15	3.6
2,4,6-Trichlorophenol	T	Average RF		0.200	0.3192	<=20	3.6
2,4-Dichlorophenol	T	Average RF		0.200	0.2498	<=15	3.2
2,4-Dichlorophenol	T	Average RF		0.200	0.2498	<=20	3.2
2,4-Dimethylphenol	T	Average RF		0.200	0.2834	<=15	3.9
2,4-Dimethylphenol	T	Average RF		0.200	0.2834	<=20	3.9
2,4-Dinitrophenol	T	Average RF		0.010	0.1196	<=15	19.3
2,4-Dinitrophenol	T	Average RF		0.010	0.1196	<=20	19.3
2,4-Dinitrotoluene	T	Average RF		0.200	0.2986	<=15	7.6
2,4-Dinitrotoluene	T	Average RF		0.200	0.2986	<=20	7.6
2,6-Dinitrotoluene	T	Average RF		0.200	0.2260	<=15	2.8
2,6-Dinitrotoluene	T	Average RF		0.200	0.2260	<=20	2.8
2-Chloronaphthalene	T	Average RF		0.800	0.9209	<=15	4.2
2-Chloronaphthalene	T	Average RF		0.800	0.9209	<=20	4.2
2-Chlorophenol	T	Average RF		0.800	1.199	<=15	3.7
2-Chlorophenol	T	Average RF		0.800	1.199	<=20	3.7
2-Methylnaphthalene	T	Average RF		0.400	0.5329	<=15	4.1
2-Methylnaphthalene	T	Average RF		0.400	0.5329	<=20	4.1
2-Methylphenol	T	Average RF		0.700	1.023	<=15	4.9
2-Methylphenol	T	Average RF		0.700	1.023	<=20	4.9
2-Nitroaniline	T	Average RF		0.010	0.2942	<=15	1.7
2-Nitroaniline	T	Average RF		0.010	0.2942	<=20	1.7
2-Nitrophenol	T	Average RF		0.100	0.1557	<=15	4.9
2-Nitrophenol	T	Average RF		0.100	0.1557	<=20	4.9
3,3'-Dichlorobenzidine	T	Average RF		0.010	0.2952	<=15	6.6
3,3'-Dichlorobenzidine	T	Average RF		0.010	0.2952	<=20	6.6
3- and 4-Methylphenol Coelution	T	Average RF		0.600	1.125	<=15	5.1
3- and 4-Methylphenol Coelution	T	Average RF		0.600	1.125	<=20	5.1
3-Nitroaniline	T	Average RF		0.010	0.2526	<=15	2.3
3-Nitroaniline	T	Average RF		0.010	0.2526	<=20	2.3
4,6-Dinitro-2-methylphenol	T	Average RF		0.010	0.1157	<=15	7.6
4,6-Dinitro-2-methylphenol	T	Average RF		0.010	0.1157	<=20	7.6
4-Bromophenyl Phenyl Ether	T	Average RF		0.100	0.1881	<=15	5.2
4-Bromophenyl Phenyl Ether	T	Average RF		0.100	0.1881	<=20	5.2
4-Chloro-3-methylphenol	T	Average RF		0.200	0.2356	<=15	5.5
4-Chloro-3-methylphenol	T	Average RF		0.200	0.2356	<=20	5.5

Calibration ID: RC1500134 **Instrument ID:** R-MS-54
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
4-Chloroaniline	T	Average RF		0.010	0.3483	<=15	2.8
4-Chloroaniline	T	Average RF		0.010	0.3483	<=20	2.8
4-Chlorophenyl Phenyl Ether	T	Average RF		0.400	0.5507	<=15	5.5
4-Chlorophenyl Phenyl Ether	T	Average RF		0.400	0.5507	<=20	5.5
4-Nitroaniline	T	Average RF		0.010	0.2501	<=15	5.3
4-Nitroaniline	T	Average RF		0.010	0.2501	<=20	5.3
4-Nitrophenol	T	Average RF		0.010	0.2169	<=15	5.9
4-Nitrophenol	T	Average RF		0.010	0.2169	<=20	5.9
Acenaphthene	T	Average RF		0.900	0.9650	<=15	5.0
Acenaphthene	T	Average RF		0.900	0.9650	<=20	5.0
Acenaphthylene	T	Average RF		0.900	1.488	<=15	3.4
Acenaphthylene	T	Average RF		0.900	1.488	<=20	3.4
Acetophenone	T	Average RF		0.010	1.517	<=15	2.7
Acetophenone	T	Average RF		0.010	1.517	<=20	2.7
Aniline	T	Average RF			1.651	<=15	4.4
Aniline	T	Average RF			1.651	<=20	4.4
Anthracene	T	Average RF		0.700	0.9082	<=15	3.6
Anthracene	T	Average RF		0.700	0.9082	<=20	3.6
Atrazine	T	Average RF		0.010	0.08615	<=15	8.3
Atrazine	T	Average RF		0.010	0.08615	<=20	8.3
Benz(a)anthracene	T	Average RF		0.800	0.9304	<=15	4.2
Benz(a)anthracene	T	Average RF		0.800	0.9304	<=20	4.2
Benzaldehyde	T	Average RF		0.010	0.2061	<=15	24.9
Benzaldehyde	T	Average RF		0.010	0.2061	<=20	24.9
Benzidine	T	Average RF			0.3005	<=15	7.2
Benzidine	T	Average RF			0.3005	<=20	7.2
Benzo(a)pyrene	T	Average RF		0.700	0.8483	<=15	4.7
Benzo(a)pyrene	T	Average RF		0.700	0.8483	<=20	4.7
Benzo(b)fluoranthene	T	Average RF		0.700	0.8737	<=15	3.9
Benzo(b)fluoranthene	T	Average RF		0.700	0.8737	<=20	3.9
Benzo(g,h,i)perylene	T	Average RF		0.500	0.7925	<=15	2.7
Benzo(g,h,i)perylene	T	Average RF		0.500	0.7925	<=20	2.7
Benzo(k)fluoranthene	T	Average RF		0.700	0.8936	<=15	4.3
Benzo(k)fluoranthene	T	Average RF		0.700	0.8936	<=20	4.3
Benzoic Acid	T	Average RF			0.2150	<=15	7.8
Benzoic Acid	T	Average RF			0.2150	<=20	7.8
Benzyl Alcohol	T	Average RF			0.7816	<=15	12.8
Benzyl Alcohol	T	Average RF			0.7816	<=20	12.8
Biphenyl	T	Average RF		0.010	1.157	<=15	6.2
Biphenyl	T	Average RF		0.010	1.157	<=20	6.2
Bis(1-chloroisopropyl) Ether	T	Average RF		0.010	1.784	<=15	3.6
Bis(1-chloroisopropyl) Ether	T	Average RF		0.010	1.784	<=20	3.6
Bis(2-chloroethoxy) Methane	T	Average RF		0.300	0.3297	<=15	6.0
Bis(2-chloroethoxy) Methane	T	Average RF		0.300	0.3297	<=20	6.0
Bis(2-chloroethyl) Ether	T	Average RF		0.700	1.048	<=15	5.5
Bis(2-chloroethyl) Ether	T	Average RF		0.700	1.048	<=20	5.5
Bis(2-ethylhexyl) Phthalate	T	Average RF		0.010	0.5931	<=15	4.5
Bis(2-ethylhexyl) Phthalate	T	Average RF		0.010	0.5931	<=20	4.5
Butyl Benzyl Phthalate	T	Average RF		0.010	0.4376	<=15	4.1
Butyl Benzyl Phthalate	T	Average RF		0.010	0.4376	<=20	4.1
Caprolactam	T	Average RF		0.010	0.07995	<=15	4.6
Caprolactam	T	Average RF		0.010	0.07995	<=20	4.6

Initial Calibration - Summary Report

Calibration ID: RC1500134 **Instrument ID:** R-MS-54
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
Carbazole	T	Average RF		0.010	0.8740	<=15	5.6
Carbazole	T	Average RF		0.010	0.8740	<=20	5.6
Chrysene	T	Average RF		0.700	0.8756	<=15	8.2
Chrysene	T	Average RF		0.700	0.8756	<=20	8.2
Di-n-butyl Phthalate	T	Average RF		0.010	1.066	<=15	9.4
Di-n-butyl Phthalate	T	Average RF		0.010	1.066	<=20	9.4
Di-n-octyl Phthalate	T	Average RF		0.010	0.9215	<=15	14.5
Di-n-octyl Phthalate	T	Average RF		0.010	0.9215	<=20	14.5
Dibenz(a,h)anthracene	T	Average RF		0.400	0.7978	<=15	3.8
Dibenz(a,h)anthracene	T	Average RF		0.400	0.7978	<=20	3.8
Dibenzofuran	T	Average RF		0.800	1.394	<=15	4.8
Dibenzofuran	T	Average RF		0.800	1.394	<=20	4.8
Diethyl Phthalate	T	Average RF		0.010	1.044	<=15	6.3
Diethyl Phthalate	T	Average RF		0.010	1.044	<=20	6.3
Dimethyl Phthalate	T	Average RF		0.010	1.011	<=15	6.1
Dimethyl Phthalate	T	Average RF		0.010	1.011	<=20	6.1
Fluoranthene	T	Average RF		0.600	1.039	<=15	7.7
Fluoranthene	T	Average RF		0.600	1.039	<=20	7.7
Fluorene	T	Average RF		0.900	1.108	<=15	4.2
Fluorene	T	Average RF		0.900	1.108	<=20	4.2
Hexachlorobenzene	T	Average RF		0.100	0.2094	<=15	4.5
Hexachlorobenzene	T	Average RF		0.100	0.2094	<=20	4.5
Hexachlorobutadiene	T	Average RF		0.010	0.1688	<=15	2.4
Hexachlorobutadiene	T	Average RF		0.010	0.1688	<=20	2.4
Hexachlorocyclopentadiene	T	Quadratic	1/X2	0.050	0.1728	>=0.99	0.9989
Hexachloroethane	T	Average RF		0.300	0.5630	<=15	1.6
Hexachloroethane	T	Average RF		0.300	0.5630	<=20	1.6
Indeno(1,2,3-cd)pyrene	T	Average RF		0.500	0.7704	<=15	11.1
Indeno(1,2,3-cd)pyrene	T	Average RF		0.500	0.7704	<=20	11.1
Isophorone	T	Average RF		0.400	0.5415	<=15	2.7
Isophorone	T	Average RF		0.400	0.5415	<=20	2.7
N-Nitrosodi-n-propylamine	T	Average RF		0.500	0.8474	<=15	3.8
N-Nitrosodi-n-propylamine	T	Average RF		0.500	0.8474	<=20	3.8
N-Nitrosodimethylamine	T	Average RF			0.6916	<=15	5.3
N-Nitrosodimethylamine	T	Average RF			0.6916	<=20	5.3
N-Nitrosodiphenylamine	T	Average RF		0.010	0.4206	<=15	5.5
N-Nitrosodiphenylamine	T	Average RF		0.010	0.4206	<=20	5.5
Naphthalene	T	Average RF		0.700	0.8478	<=15	6.7
Naphthalene	T	Average RF		0.700	0.8478	<=20	6.7
Nitrobenzene	T	Average RF		0.200	0.3096	<=15	4.2
Nitrobenzene	T	Average RF		0.200	0.3096	<=20	4.2
Pentachlorophenol (PCP)	T	Average RF		0.050	0.1087	<=15	7.3
Pentachlorophenol (PCP)	T	Average RF		0.050	0.1087	<=20	7.3
Phenanthrene	T	Average RF		0.700	0.8698	<=15	5.8
Phenanthrene	T	Average RF		0.700	0.8698	<=20	5.8
Phenol	T	Average RF		0.800	1.500	<=15	2.9
Phenol	T	Average RF		0.800	1.500	<=20	2.9
Pyrene	T	Average RF		0.600	0.9433	<=15	3.1
Pyrene	T	Average RF		0.600	0.9433	<=20	3.1
Pyridine	T	Average RF			1.242	<=15	3.7
Pyridine	T	Average RF			1.242	<=20	3.7
2,4,6-Tribromophenol	S	Average RF			0.1506	<=15	7.0

Calibration ID:	RC1500134	**Instrument ID:**	R-MS-54
		Column Name:	1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
2,4,6-Tribromophenol	S	Average RF			0.1506	<=20	7.0
2-Fluorobiphenyl	S	Average RF			1.054	<=15	4.6
2-Fluorobiphenyl	S	Average RF			1.054	<=20	4.6
2-Fluorophenol	S	Average RF			0.9916	<=15	1.4
2-Fluorophenol	S	Average RF			0.9916	<=20	1.4
Nitrobenzene-d5	S	Average RF			0.2930	<=15	2.9
Nitrobenzene-d5	S	Average RF			0.2930	<=20	2.9
Phenol-d6	S	Average RF			1.273	<=15	1.8
Phenol-d6	S	Average RF			1.273	<=20	1.8
p-Terphenyl-d14	S	Average RF			0.6211	<=15	6.9
p-Terphenyl-d14	S	Average RF			0.6211	<=20	6.9

Exceptions

QAP	Method
LAB QAP	8270D

Compound	Type	Criteria	Result
Benzaldehyde	RSD	<= 20	24.9

Exceptions

QAP	Method
DOD QSM v5.0 Rochester	8270D

Compound	Type	Criteria	Result
2,4-Dinitrophenol	RSD	<= 15	19.3
Benzaldehyde	RSD	<= 15	24.9

Initial Calibration - Detailed Report

Calibration ID: RC1500134 **Instrument ID:** R-MS-54
Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	RC1500134-01	STD 1	I:\ACQUDATA\5973D\Data\120315\BE254.D	12/3/15 09:25
02	RC1500134-02	STD 2	I:\ACQUDATA\5973D\Data\120315\BE255.D	12/3/15 09:51
03	RC1500134-03	STD 3	I:\ACQUDATA\5973D\Data\120315\BE256.D	12/3/15 10:17
04	RC1500134-04	STD 4	I:\ACQUDATA\5973D\Data\120315\BE257.D	12/3/15 10:42
05	RC1500134-05	STD 5	I:\ACQUDATA\5973D\Data\120315\BE258.D	12/3/15 11:08
06	RC1500134-06	STD 6	I:\ACQUDATA\5973D\Data\120315\BE259.D	12/3/15 11:35
07	RC1500134-07	STD 7	I:\ACQUDATA\5973D\Data\120315\BE260.D	12/3/15 12:00

Analyte **Curve Fit** Average RF **Weighting**

1,2,4-Trichlorobenzene Average RF RSD = 5.9 Average RF = 0.2814

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.3176	02	10.000	0.2769	03	50.000	0.2759	04	80.000	0.2770
05	100.000	0.2658	06	120.000	0.2753	07	160.000	0.2815			

1,2-Dichlorobenzene Average RF RSD = 4.4 Average RF = 1.244

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.354	02	10.000	1.275	03	50.000	1.221	04	80.000	1.244
05	100.000	1.206	06	120.000	1.213	07	160.000	1.197			

1,2-Diphenylhydrazine Average RF RSD = 4.8 Average RF = 0.6650

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.7089	02	10.000	0.6629	03	50.000	0.6940	04	80.000	0.6853
05	100.000	0.6377	06	120.000	0.6441	07	160.000	0.6221			

1,3-Dichlorobenzene Average RF RSD = 4.6 Average RF = 1.279

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.370	02	10.000	1.353	03	50.000	1.237	04	80.000	1.278
05	100.000	1.223	06	120.000	1.250	07	160.000	1.239			

1,4-Dichlorobenzene Average RF RSD = 7.6 Average RF = 1.336

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.557	02	10.000	1.360	03	50.000	1.288	04	80.000	1.313
05	100.000	1.288	06	120.000	1.284	07	160.000	1.263			

1-Methyl-2-pyrrolidinone Average RF RSD = 3.3 Average RF = 0.7379

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.6965	03	50.000	0.7371	04	80.000	0.7687	05	100.000	0.7446
06	120.000	0.7520	07	160.000	0.7288						

1-Methylnaphthalene Average RF RSD = 5.6 Average RF = 0.5188

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.5835	02	10.000	0.5028	03	50.000	0.5082	04	80.000	0.5163
05	100.000	0.4971	06	120.000	0.5095	07	160.000	0.5144			

2,4,5-Trichlorophenol Average RF RSD = 4.9 Average RF = 0.3265

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.3106	02	10.000	0.3040	03	50.000	0.3290	04	80.000	0.3238
05	100.000	0.3331	06	120.000	0.3335	07	160.000	0.3518			

2,4,6-Tribromophenol Average RF RSD = 7.0 Average RF = 0.1506

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.1669	02	10.000	0.1483	03	50.000	0.1466	04	80.000	0.1378
05	100.000	0.1456	06	120.000	0.1458	07	160.000	0.1634			

Initial Calibration - Detailed Report

Calibration ID: RC1500134 **Instrument ID:** R-MS-54
Signal ID: 1

Analyte **Curve Fit** Average RF **Weighting** 1/X

2,4,6-Trichlorophenol RSD = 3.6 Average RF = 0.3192

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.3270	02	10.000	0.3070	03	50.000	0.3145	04	80.000	0.3173
05	100.000	0.3154	06	120.000	0.3116	07	160.000	0.3416			

2,4-Dichlorophenol RSD = 3.2 Average RF = 0.2498

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2513	02	10.000	0.2363	03	50.000	0.2451	04	80.000	0.2555
05	100.000	0.2461	06	120.000	0.2531	07	160.000	0.2612			

2,4-Dimethylphenol RSD = 3.9 Average RF = 0.2834

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.3049	02	10.000	0.2723	03	50.000	0.2767	04	80.000	0.2868
05	100.000	0.2752	06	120.000	0.2798	07	160.000	0.2881			

2,4-Dinitrophenol RSD = 19.3 Average RF = 0.1196

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	50.000	0.08787	04	80.000	0.1072	05	100.000	0.1256	06	120.000	0.1284
07	160.000	0.1490									

2,4-Dinitrotoluene RSD = 7.6 Average RF = 0.2986

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2663	02	10.000	0.2741	03	50.000	0.2962	04	80.000	0.3048
05	100.000	0.3033	06	120.000	0.3134	07	160.000	0.3323			

2,6-Dinitrotoluene RSD = 2.8 Average RF = 0.2260

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2235	02	10.000	0.2158	03	50.000	0.2357	04	80.000	0.2256
05	100.000	0.2245	06	120.000	0.2254	07	160.000	0.2314			

2-Chloronaphthalene RSD = 4.2 Average RF = 0.9209

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.9962	02	10.000	0.9290	03	50.000	0.9082	04	80.000	0.9133
05	100.000	0.8856	06	120.000	0.8795	07	160.000	0.9345			

2-Chlorophenol RSD = 3.7 Average RF = 1.199

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.290	02	10.000	1.193	03	50.000	1.165	04	80.000	1.214
05	100.000	1.194	06	120.000	1.180	07	160.000	1.159			

2-Fluorobiphenyl RSD = 4.6 Average RF = 1.054

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.134	02	10.000	1.063	03	50.000	1.048	04	80.000	1.009
05	100.000	1.008	06	120.000	1.018	07	160.000	1.100			

2-Fluorophenol RSD = 1.4 Average RF = 0.9916

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.9959	02	10.000	0.9690	03	50.000	0.9831	04	80.000	1.016
05	100.000	0.9897	06	120.000	0.9950	07	160.000	0.9927			

2-Methylnaphthalene RSD = 4.1 Average RF = 0.5329

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.5788	02	10.000	0.5230	03	50.000	0.5239	04	80.000	0.5359
05	100.000	0.5107	06	120.000	0.5250	07	160.000	0.5331			

Calibration ID: RC1500134 **Instrument ID:** R-MS-54
Signal ID: 1

Analyte **Curve Fit** **Weighting**

2-Methylphenol Average RF RSD = 4.9 Average RF = 1.023

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.052	02	10.000	0.9164	03	50.000	1.005	04	80.000	1.053
05	100.000	1.029	06	120.000	1.049	07	160.000	1.056			

2-Nitroaniline Average RF RSD = 1.7 Average RF = 0.2942

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	50.000	0.2924	04	80.000	0.2967	05	100.000	0.2921	06	120.000	0.2881
07	160.000	0.3016									

2-Nitrophenol Average RF RSD = 4.9 Average RF = 0.1557

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.1555	02	10.000	0.1408	03	50.000	0.1536	04	80.000	0.1591
05	100.000	0.1544	06	120.000	0.1623	07	160.000	0.1642			

3,3'-Dichlorobenzidine Average RF RSD = 6.6 Average RF = 0.2952

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.3277	02	10.000	0.2618	03	50.000	0.2926	04	80.000	0.3034
05	100.000	0.2908	06	120.000	0.2936	07	160.000	0.2968			

3- and 4-Methylphenol Coelution Average RF RSD = 5.1 Average RF = 1.125

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.219	02	10.000	1.077	03	50.000	1.049	04	80.000	1.154
05	100.000	1.090	06	120.000	1.142	07	160.000	1.142			

3-Nitroaniline Average RF RSD = 2.3 Average RF = 0.2526

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	50.000	0.2533	04	80.000	0.2477	05	100.000	0.2486	06	120.000	0.2511
07	160.000	0.2624									

4,6-Dinitro-2-methylphenol Average RF RSD = 7.6 Average RF = 0.1157

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	50.000	0.1039	04	80.000	0.1143	05	100.000	0.1119	06	120.000	0.1225
07	160.000	0.1259									

4-Bromophenyl Phenyl Ether Average RF RSD = 5.2 Average RF = 0.1881

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2001	02	10.000	0.1947	03	50.000	0.1962	04	80.000	0.1915
05	100.000	0.1767	06	120.000	0.1775	07	160.000	0.1802			

4-Chloro-3-methylphenol Average RF RSD = 5.5 Average RF = 0.2356

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2262	02	10.000	0.2117	03	50.000	0.2391	04	80.000	0.2462
05	100.000	0.2352	06	120.000	0.2417	07	160.000	0.2489			

4-Chloroaniline Average RF RSD = 2.8 Average RF = 0.3483

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.3574	02	10.000	0.3302	03	50.000	0.3557	04	80.000	0.3576
05	100.000	0.3453	06	120.000	0.3484	07	160.000	0.3436			

4-Chlorophenyl Phenyl Ether Average RF RSD = 5.5 Average RF = 0.5507

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.6058	02	10.000	0.5782	03	50.000	0.5489	04	80.000	0.5316
05	100.000	0.5302	06	120.000	0.5209	07	160.000	0.5393			

Calibration ID: RC1500134 **Instrument ID:** R-MS-54
Signal ID: 1

Analyte **Curve Fit** **Weighting**

4-Nitroaniline Average RF RSD = 5.3 Average RF = 0.2501

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	50.000	0.2337	04	80.000	0.2454	05	100.000	0.2520	06	120.000	0.2491
07	160.000	0.2704									

4-Nitrophenol Average RF RSD = 5.9 Average RF = 0.2169

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	50.000	0.2027	04	80.000	0.2089	05	100.000	0.2202	06	120.000	0.2165
07	160.000	0.2365									

Acenaphthene Average RF RSD = 5.0 Average RF = 0.9650

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.052	02	10.000	0.9875	03	50.000	0.9493	04	80.000	0.9383
05	100.000	0.9182	06	120.000	0.9204	07	160.000	0.9889			

Acenaphthylene Average RF RSD = 3.4 Average RF = 1.488

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.582	02	10.000	1.486	03	50.000	1.500	04	80.000	1.465
05	100.000	1.443	06	120.000	1.427	07	160.000	1.510			

Acetophenone Average RF RSD = 2.7 Average RF = 1.517

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.575	02	10.000	1.484	03	50.000	1.457	04	80.000	1.543
05	100.000	1.490	06	120.000	1.526	07	160.000	1.545			

Aniline Average RF RSD = 4.4 Average RF = 1.651

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.796	02	10.000	1.586	03	50.000	1.605	04	80.000	1.653
05	100.000	1.607	06	120.000	1.686	07	160.000	1.625			

Anthracene Average RF RSD = 3.6 Average RF = 0.9082

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.9742	02	10.000	0.8892	03	50.000	0.8995	04	80.000	0.9196
05	100.000	0.8736	06	120.000	0.8965	07	160.000	0.9045			

Atrazine Average RF RSD = 8.3 Average RF = 0.08615

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.08177	02	10.000	0.07246	03	50.000	0.08917	04	80.000	0.09264
05	100.000	0.08501	06	120.000	0.09116	07	160.000	0.09084			

Benz(a)anthracene Average RF RSD = 4.2 Average RF = 0.9304

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.006	02	10.000	0.9382	03	50.000	0.9351	04	80.000	0.9331
05	100.000	0.8906	06	120.000	0.8926	07	160.000	0.9175			

Benzaldehyde Average RF RSD = 24.9 Average RF = 0.2061

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	50.000	0.2762	04	80.000	0.2297	05	100.000	0.2078	06	120.000	0.1746
07	160.000	0.1422									

Benzidine Average RF RSD = 7.2 Average RF = 0.3005

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	50.000	0.3275	04	80.000	0.3199	05	100.000	0.2894	06	120.000	0.2850
07	160.000	0.2806									

Calibration ID: RC1500134 **Instrument ID:** R-MS-54
Signal ID: 1

Analyte	Curve Fit	Weighting									
Benzo(a)pyrene	Average RF			RSD = 4.7		Average RF = 0.8483					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.8208	02	10.000	0.7781	03	50.000	0.8645	04	80.000	0.8693
05	100.000	0.8340	06	120.000	0.8900	07	160.000	0.8817			
Benzo(b)fluoranthene	Average RF			RSD = 3.9		Average RF = 0.8737					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.8912	02	10.000	0.8060	03	50.000	0.8695	04	80.000	0.8807
05	100.000	0.8614	06	120.000	0.8992	07	160.000	0.9080			
Benzo(g,h,i)perylene	Average RF			RSD = 2.7		Average RF = 0.7925					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.7834	02	10.000	0.7591	03	50.000	0.8236	04	80.000	0.8075
05	100.000	0.7782	06	120.000	0.8037	07	160.000	0.7923			
Benzo(k)fluoranthene	Average RF			RSD = 4.3		Average RF = 0.8936					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.9296	02	10.000	0.8243	03	50.000	0.8819	04	80.000	0.9103
05	100.000	0.8670	06	120.000	0.9262	07	160.000	0.9158			
Benzoic Acid	Average RF			RSD = 7.8		Average RF = 0.2150					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	50.000	0.1870	04	80.000	0.2155	05	100.000	0.2170	06	120.000	0.2244
07	160.000	0.2312									
Benzyl Alcohol	Average RF			RSD = 12.8		Average RF = 0.7816					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.6421	02	10.000	0.6364	03	50.000	0.7934	04	80.000	0.8358
05	100.000	0.8542	06	120.000	0.8382	07	160.000	0.8709			
Biphenyl	Average RF			RSD = 6.2		Average RF = 1.157					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.299	02	10.000	1.174	03	50.000	1.152	04	80.000	1.119
05	100.000	1.096	06	120.000	1.088	07	160.000	1.172			
Bis(1-chloroisopropyl) Ether	Average RF			RSD = 3.6		Average RF = 1.784					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.893	02	10.000	1.828	03	50.000	1.691	04	80.000	1.787
05	100.000	1.736	06	120.000	1.785	07	160.000	1.766			
Bis(2-chloroethoxy) Methane	Average RF			RSD = 6.0		Average RF = 0.3297					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.3710	02	10.000	0.3150	03	50.000	0.3160	04	80.000	0.3318
05	100.000	0.3169	06	120.000	0.3244	07	160.000	0.3326			
Bis(2-chloroethyl) Ether	Average RF			RSD = 5.5		Average RF = 1.048					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.031	02	10.000	1.152	03	50.000	1.051	04	80.000	1.082
05	100.000	1.044	06	120.000	0.9811	07	160.000	0.9941			
Bis(2-ethylhexyl) Phthalate	Average RF			RSD = 4.5		Average RF = 0.5931					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.5772	02	10.000	0.5495	03	50.000	0.5780	04	80.000	0.6115
05	100.000	0.5964	06	120.000	0.6096	07	160.000	0.6293			

Calibration ID: RC1500134 **Instrument ID:** R-MS-54
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Butyl Benzyl Phthalate Average RF RSD = 4.1 Average RF = 0.4376

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.4478	02	10.000	0.4029	03	50.000	0.4282	04	80.000	0.4455
05	100.000	0.4377	06	120.000	0.4413	07	160.000	0.4599			

Caprolactam Average RF RSD = 4.6 Average RF = 0.07995

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.07369	03	50.000	0.07835	04	80.000	0.08367	05	100.000	0.08068
06	120.000	0.08332	07	160.000	0.08002						

Carbazole Average RF RSD = 5.6 Average RF = 0.8740

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.8340	02	10.000	0.7891	03	50.000	0.9112	04	80.000	0.9291
05	100.000	0.8660	06	120.000	0.8961	07	160.000	0.8924			

Chrysene Average RF RSD = 8.2 Average RF = 0.8756

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.033	02	10.000	0.8729	03	50.000	0.8602	04	80.000	0.8651
05	100.000	0.8236	06	120.000	0.8288	07	160.000	0.8453			

Di-n-butyl Phthalate Average RF RSD = 9.4 Average RF = 1.066

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.9576	02	10.000	0.8944	03	50.000	1.119	04	80.000	1.162
05	100.000	1.086	06	120.000	1.124	07	160.000	1.118			

Di-n-octyl Phthalate Average RF RSD = 14.5 Average RF = 0.9215

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.7442	02	10.000	0.7275	03	50.000	0.9409	04	80.000	0.9713
05	100.000	0.9695	06	120.000	1.050	07	160.000	1.047			

Dibenz(a,h)anthracene Average RF RSD = 3.8 Average RF = 0.7978

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.7834	02	10.000	0.7403	03	50.000	0.8184	04	80.000	0.8077
05	100.000	0.7860	06	120.000	0.8231	07	160.000	0.8258			

Dibenzofuran Average RF RSD = 4.8 Average RF = 1.394

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.528	02	10.000	1.378	03	50.000	1.411	04	80.000	1.362
05	100.000	1.340	06	120.000	1.329	07	160.000	1.413			

Diethyl Phthalate Average RF RSD = 6.3 Average RF = 1.044

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.138	02	10.000	1.130	03	50.000	1.012	04	80.000	0.9868
05	100.000	0.9987	06	120.000	0.9883	07	160.000	1.052			

Dimethyl Phthalate Average RF RSD = 6.1 Average RF = 1.011

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.126	02	10.000	1.049	03	50.000	1.025	04	80.000	0.9911
05	100.000	0.9666	06	120.000	0.9460	07	160.000	0.9720			

Fluoranthene Average RF RSD = 7.7 Average RF = 1.039

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.9386	02	10.000	0.9134	03	50.000	1.089	04	80.000	1.120
05	100.000	1.050	06	120.000	1.089	07	160.000	1.070			

Calibration ID: RC1500134 **Instrument ID:** R-MS-54
Signal ID: 1

Analyte	Curve Fit	Weighting								
Fluorene	Average RF		RSD = 4.2		Average RF = 1.108					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.183	02	10.000	1.163	03	50.000	1.107	04	80.000	1.088
05	100.000	1.065	06	120.000	1.065	07	160.000	1.088			
Hexachlorobenzene	Average RF		RSD = 4.5		Average RF = 0.2094					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2254	02	10.000	0.2094	03	50.000	0.2160	04	80.000	0.2121
05	100.000	0.1977	06	120.000	0.2019	07	160.000	0.2037			
Hexachlorobutadiene	Average RF		RSD = 2.4		Average RF = 0.1688					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.1767	02	10.000	0.1666	03	50.000	0.1690	04	80.000	0.1698
05	100.000	0.1641	06	120.000	0.1662	07	160.000	0.1692			
Hexachlorocyclopentadiene	Quadratic	1/X2	COD = 0.9989		$Y = 0.03578 X^2 + 0.1222 X + -0.008103$					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.06716	02	10.000	0.08662	03	50.000	0.1653	04	80.000	0.1965
05	100.000	0.2116	06	120.000	0.2200	07	160.000	0.2622			
Hexachloroethane	Average RF		RSD = 1.6		Average RF = 0.5630					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.5791	02	10.000	0.5599	03	50.000	0.5532	04	80.000	0.5584
05	100.000	0.5671	06	120.000	0.5559	07	160.000	0.5672			
Indeno(1,2,3-cd)pyrene	Average RF		RSD = 11.1		Average RF = 0.7704					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.6594	02	10.000	0.6456	03	50.000	0.7908	04	80.000	0.8236
05	100.000	0.7769	06	120.000	0.8637	07	160.000	0.8331			
Isophorone	Average RF		RSD = 2.7		Average RF = 0.5415					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.5685	02	10.000	0.5222	03	50.000	0.5403	04	80.000	0.5373
05	100.000	0.5316	06	120.000	0.5427	07	160.000	0.5476			
N-Nitrosodi-n-propylamine	Average RF		RSD = 3.8		Average RF = 0.8474					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.9166	02	10.000	0.8327	03	50.000	0.8248	04	80.000	0.8302
05	100.000	0.8323	06	120.000	0.8406	07	160.000	0.8546			
N-Nitrosodimethylamine	Average RF		RSD = 5.3		Average RF = 0.6916					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.7422	02	10.000	0.6434	03	50.000	0.6654	04	80.000	0.7337
05	100.000	0.6924	06	120.000	0.7006	07	160.000	0.6638			
N-Nitrosodiphenylamine	Average RF		RSD = 5.5		Average RF = 0.4206					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.4542	02	10.000	0.4372	03	50.000	0.4399	04	80.000	0.4146
05	100.000	0.3916	06	120.000	0.4044	07	160.000	0.4023			
Naphthalene	Average RF		RSD = 6.7		Average RF = 0.8478					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.9691	02	10.000	0.8634	03	50.000	0.8233	04	80.000	0.8362
05	100.000	0.8027	06	120.000	0.8187	07	160.000	0.8211			

Initial Calibration - Detailed Report

Calibration ID: RC1500134 **Instrument ID:** R-MS-54
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Analyte **Curve Fit** **Weighting**

Nitrobenzene Average RF RSD = 4.2 Average RF = 0.3096

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.3365	02	10.000	0.3006	03	50.000	0.3034	04	80.000	0.3098
05	100.000	0.2999	06	120.000	0.3030	07	160.000	0.3143			

Nitrobenzene-d5 Average RF RSD = 2.9 Average RF = 0.2930

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.3092	02	10.000	0.2830	03	50.000	0.2875	04	80.000	0.2966
05	100.000	0.2899	06	120.000	0.2889	07	160.000	0.2958			

Pentachlorophenol (PCP) Average RF RSD = 7.3 Average RF = 0.1087

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	50.000	0.09630	04	80.000	0.1072	05	100.000	0.1097	06	120.000	0.1131
07	160.000	0.1173									

Phenanthrene Average RF RSD = 5.8 Average RF = 0.8698

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.9771	02	10.000	0.8755	03	50.000	0.8481	04	80.000	0.8724
05	100.000	0.8236	06	120.000	0.8457	07	160.000	0.8461			

Phenol Average RF RSD = 2.9 Average RF = 1.500

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.582	02	10.000	1.522	03	50.000	1.446	04	80.000	1.505
05	100.000	1.477	06	120.000	1.488	07	160.000	1.482			

Phenol-d6 Average RF RSD = 1.8 Average RF = 1.273

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.270	02	10.000	1.275	03	50.000	1.239	04	80.000	1.313
05	100.000	1.275	06	120.000	1.260	07	160.000	1.281			

Pyrene Average RF RSD = 3.1 Average RF = 0.9433

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.9988	02	10.000	0.9198	03	50.000	0.9534	04	80.000	0.9487
05	100.000	0.9140	06	120.000	0.9213	07	160.000	0.9472			

Pyridine Average RF RSD = 3.7 Average RF = 1.242

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	50.000	1.235	04	80.000	1.318	05	100.000	1.243	06	120.000	1.213
07	160.000	1.200									

p-Terphenyl-d14 Average RF RSD = 6.9 Average RF = 0.6211

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.7174	02	10.000	0.6053	03	50.000	0.6049	04	80.000	0.6114
05	100.000	0.5945	06	120.000	0.5978	07	160.000	0.6166			

Calibration ID:	RC1500134	**Instrument ID:**	R-MS-54
		Signal ID:	1

Analyte

1,2,4-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.64	12.9	02	10.000	9.84	-1.6	03	50.000	49.01	-2.0
04	80.000	78.74	-1.6	05	100.000	94.45	-5.5	06	120.000	117.40	-2.2
07	160.000	160.04	0.0								

1,2-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.44	8.8	02	10.000	10.25	2.5	03	50.000	49.06	-1.9
04	80.000	79.97	0.0	05	100.000	96.91	-3.1	06	120.000	116.97	-2.5
07	160.000	153.96	-3.8								

1,2-Diphenylhydrazine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.33	6.6	02	10.000	9.97	-0.3	03	50.000	52.18	4.4
04	80.000	82.44	3.1	05	100.000	95.90	-4.1	06	120.000	116.23	-3.1
07	160.000	149.68	-6.5								

1,3-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.36	7.1	02	10.000	10.58	5.8	03	50.000	48.36	-3.3
04	80.000	79.97	0.0	05	100.000	95.67	-4.3	06	120.000	117.31	-2.2
07	160.000	155.04	-3.1								

1,4-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.83	16.5	02	10.000	10.18	1.8	03	50.000	48.21	-3.6
04	80.000	78.62	-1.7	05	100.000	96.37	-3.6	06	120.000	115.27	-3.9
07	160.000	151.27	-5.5								

1-Methyl-2-pyrrolidinone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	10.000	9.44	-5.6	03	50.000	49.95	-0.1	04	80.000	83.33	4.2
05	100.000	100.90	0.9	06	120.000	122.28	1.9	07	160.000	158.02	-1.2

1-Methylnaphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.62	12.5	02	10.000	9.69	-3.1	03	50.000	48.98	-2.0
04	80.000	79.61	-0.5	05	100.000	95.81	-4.2	06	120.000	117.84	-1.8
07	160.000	158.63	-0.9								

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.76	-4.9	02	10.000	9.31	-6.9	03	50.000	50.38	0.8
04	80.000	79.33	-0.8	05	100.000	102.00	2.0	06	120.000	122.56	2.1
07	160.000	172.38	7.7								

Initial Calibration - Detailed Report

Calibration ID:	RC1500134	**Instrument ID:**	R-MS-54
		Signal ID:	1

Analyte

2,4,6-Tribromophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.54	10.8	02	10.000	9.85	-1.5	03	50.000	48.65	-2.7
04	80.000	73.21	-8.5	05	100.000	96.68	-3.3	06	120.000	116.14	-3.2
07	160.000	173.53	8.5								

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.12	2.4	02	10.000	9.62	-3.8	03	50.000	49.26	-1.5
04	80.000	79.54	-0.6	05	100.000	98.81	-1.2	06	120.000	117.14	-2.4
07	160.000	171.24	7.0								

2,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.03	0.6	02	10.000	9.46	-5.4	03	50.000	49.05	-1.9
04	80.000	81.82	2.3	05	100.000	98.52	-1.5	06	120.000	121.61	1.3
07	160.000	167.32	4.6								

2,4-Dimethylphenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.38	7.6	02	10.000	9.61	-3.9	03	50.000	48.81	-2.4
04	80.000	80.97	1.2	05	100.000	97.11	-2.9	06	120.000	118.46	-1.3
07	160.000	162.63	1.6								

2,4-Dinitrophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	50.000	36.73	-26.5	04	80.000	71.69	-10.4	05	100.000	105.01	5.0
06	120.000	128.81	7.3	07	160.000	199.31	24.6				

2,4-Dinitrotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.46	-10.8	02	10.000	9.18	-8.2	03	50.000	49.60	-0.8
04	80.000	81.65	2.1	05	100.000	101.55	1.6	06	120.000	125.93	4.9
07	160.000	178.07	11.3								

2,6-Dinitrotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.95	-1.1	02	10.000	9.55	-4.5	03	50.000	52.14	4.3
04	80.000	79.87	-0.2	05	100.000	99.34	-0.7	06	120.000	119.67	-0.3
07	160.000	163.82	2.4								

2-Chloronaphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.41	8.2	02	10.000	10.09	0.9	03	50.000	49.31	-1.4
04	80.000	79.34	-0.8	05	100.000	96.17	-3.8	06	120.000	114.60	-4.5
07	160.000	162.36	1.5								

Initial Calibration - Detailed Report

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Analyte

2-Chlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.38	7.6	02	10.000	9.95	-0.5	03	50.000	48.58	-2.8
04	80.000	80.96	1.2	05	100.000	99.55	-0.4	06	120.000	118.08	-1.6
07	160.000	154.63	-3.4								

2-Fluorobiphenyl

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.38	7.5	02	10.000	10.08	0.8	03	50.000	49.70	-0.6
04	80.000	76.58	-4.3	05	100.000	95.59	-4.4	06	120.000	115.86	-3.5
07	160.000	166.95	4.3								

2-Fluorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.02	0.4	02	10.000	9.77	-2.3	03	50.000	49.57	-0.9
04	80.000	81.97	2.5	05	100.000	99.81	-0.2	06	120.000	120.40	0.3
07	160.000	160.18	0.1								

2-Methylnaphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.43	8.6	02	10.000	9.81	-1.9	03	50.000	49.16	-1.7
04	80.000	80.45	0.6	05	100.000	95.83	-4.2	06	120.000	118.21	-1.5
07	160.000	160.05	0.0								

2-Methylphenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.14	2.8	02	10.000	8.96	-10.4	03	50.000	49.13	-1.7
04	80.000	82.37	3.0	05	100.000	100.58	0.6	06	120.000	123.02	2.5
07	160.000	165.19	3.2								

2-Nitroaniline

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	50.000	49.70	-0.6	04	80.000	80.68	0.8	05	100.000	99.31	-0.7
06	120.000	117.52	-2.1	07	160.000	164.02	2.5				

2-Nitrophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.99	-0.1	02	10.000	9.04	-9.6	03	50.000	49.32	-1.4
04	80.000	81.75	2.2	05	100.000	99.18	-0.8	06	120.000	125.08	4.2
07	160.000	168.74	5.5								

3,3'-Dichlorobenzidine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.55	11.0	02	10.000	8.87	-11.3	03	50.000	49.56	-0.9
04	80.000	82.21	2.8	05	100.000	98.48	-1.5	06	120.000	119.34	-0.6
07	160.000	160.84	0.5								

Calibration ID:	RC1500134	**Instrument ID:**	R-MS-54
		Signal ID:	1

Analyte

3- and 4-Methylphenol Coelution

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.42	8.4	02	10.000	9.58	-4.2	03	50.000	46.63	-6.7
04	80.000	82.07	2.6	05	100.000	96.89	-3.1	06	120.000	121.83	1.5
07	160.000	162.45	1.5								

3-Nitroaniline

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	50.000	50.14	0.3	04	80.000	78.43	-2.0	05	100.000	98.41	-1.6
06	120.000	119.27	-0.6	07	160.000	166.22	3.9				

4,6-Dinitro-2-methylphenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	50.000	44.89	-10.2	04	80.000	79.03	-1.2	05	100.000	96.74	-3.3
06	120.000	127.04	5.9	07	160.000	174.13	8.8				

4-Bromophenyl Phenyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.32	6.4	02	10.000	10.35	3.5	03	50.000	52.15	4.3
04	80.000	81.43	1.8	05	100.000	93.94	-6.1	06	120.000	113.23	-5.6
07	160.000	153.25	-4.2								

4-Chloro-3-methylphenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.80	-4.0	02	10.000	8.99	-10.1	03	50.000	50.76	1.5
04	80.000	83.61	4.5	05	100.000	99.84	-0.2	06	120.000	123.13	2.6
07	160.000	169.04	5.7								

4-Chloroaniline

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.13	2.6	02	10.000	9.48	-5.2	03	50.000	51.06	2.1
04	80.000	82.13	2.7	05	100.000	99.13	-0.9	06	120.000	120.03	0.0
07	160.000	157.83	-1.4								

4-Chlorophenyl Phenyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.50	10.0	02	10.000	10.50	5.0	03	50.000	49.83	-0.3
04	80.000	77.23	-3.5	05	100.000	96.27	-3.7	06	120.000	113.51	-5.4
07	160.000	156.68	-2.1								

4-Nitroaniline

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	50.000	46.72	-6.6	04	80.000	78.48	-1.9	05	100.000	100.75	0.8
06	120.000	119.52	-0.4	07	160.000	172.99	8.1				

Calibration ID:	RC1500134	**Instrument ID:**	R-MS-54
		Signal ID:	1

Analyte

4-Nitrophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	50.000	46.71	-6.6	04	80.000	77.04	-3.7	05	100.000	101.48	1.5
06	120.000	119.76	-0.2	07	160.000	174.40	9.0				

Acenaphthene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.45	9.0	02	10.000	10.23	2.3	03	50.000	49.19	-1.6
04	80.000	77.78	-2.8	05	100.000	95.16	-4.8	06	120.000	114.45	-4.6
07	160.000	163.96	2.5								

Acenaphthylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.32	6.3	02	10.000	9.99	-0.1	03	50.000	50.41	0.8
04	80.000	78.79	-1.5	05	100.000	97.02	-3.0	06	120.000	115.07	-4.1
07	160.000	162.45	1.5								

Acetophenone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.19	3.8	02	10.000	9.78	-2.2	03	50.000	48.02	-4.0
04	80.000	81.35	1.7	05	100.000	98.23	-1.8	06	120.000	120.70	0.6
07	160.000	162.92	1.8								

Aniline

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.44	8.8	02	10.000	9.60	-4.0	03	50.000	48.60	-2.8
04	80.000	80.11	0.1	05	100.000	97.34	-2.7	06	120.000	122.56	2.1
07	160.000	157.44	-1.6								

Anthracene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.36	7.3	02	10.000	9.79	-2.1	03	50.000	49.52	-1.0
04	80.000	81.01	1.3	05	100.000	96.19	-3.8	06	120.000	118.46	-1.3
07	160.000	159.35	-0.4								

Atrazine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.75	-5.1	02	10.000	8.41	-15.9	03	50.000	51.75	3.5
04	80.000	86.03	7.5	05	100.000	98.67	-1.3	06	120.000	126.98	5.8
07	160.000	168.70	5.4								

Benz(a)anthracene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.41	8.1	02	10.000	10.08	0.8	03	50.000	50.25	0.5
04	80.000	80.23	0.3	05	100.000	95.72	-4.3	06	120.000	115.12	-4.1
07	160.000	157.78	-1.4								

Initial Calibration - Detailed Report

Calibration ID: RC1500134 **Instrument ID:** R-MS-54
Signal ID: 1

Analyte

Benzaldehyde

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	50.000	67.00	**34.0**	04	80.000	89.17	11.5	05	100.000	100.82	0.8
06	120.000	101.67	-15.3	07	160.000	110.40	-31.0				

Benzidine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	50.000	54.50	9.0	04	80.000	85.17	6.5	05	100.000	96.32	-3.7
06	120.000	113.81	-5.2	07	160.000	149.42	-6.6				

Benzo(a)pyrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.84	-3.2	02	10.000	9.17	-8.3	03	50.000	50.95	1.9
04	80.000	81.97	2.5	05	100.000	98.31	-1.7	06	120.000	125.90	4.9
07	160.000	166.28	3.9								

Benzo(b)fluoranthene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.10	2.0	02	10.000	9.22	-7.8	03	50.000	49.76	-0.5
04	80.000	80.64	0.8	05	100.000	98.58	-1.4	06	120.000	123.50	2.9
07	160.000	166.28	3.9								

Benzo(g,h,i)perylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.94	-1.1	02	10.000	9.58	-4.2	03	50.000	51.96	3.9
04	80.000	81.51	1.9	05	100.000	98.18	-1.8	06	120.000	121.69	1.4
07	160.000	159.94	0.0								

Benzo(k)fluoranthene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.20	4.0	02	10.000	9.22	-7.8	03	50.000	49.34	-1.3
04	80.000	81.49	1.9	05	100.000	97.03	-3.0	06	120.000	124.38	3.7
07	160.000	163.99	2.5								

Benzoic Acid

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	50.000	43.49	-13.0	04	80.000	80.18	0.2	05	100.000	100.92	0.9
06	120.000	125.23	4.4	07	160.000	172.02	7.5				

Benzyl Alcohol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.11	-17.8	02	10.000	8.14	-18.6	03	50.000	50.76	1.5
04	80.000	85.55	6.9	05	100.000	109.29	9.3	06	120.000	128.70	7.3
07	160.000	178.28	11.4								

Initial Calibration - Detailed Report

Calibration ID: RC1500134 **Instrument ID:** R-MS-54
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Analyte

Biphenyl

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.61	12.3	02	10.000	10.14	1.4	03	50.000	49.76	-0.5
04	80.000	77.38	-3.3	05	100.000	94.74	-5.3	06	120.000	112.85	-6.0
07	160.000	162.04	1.3								

Bis(1-chloroisopropyl) Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.31	6.1	02	10.000	10.25	2.5	03	50.000	47.40	-5.2
04	80.000	80.13	0.2	05	100.000	97.35	-2.6	06	120.000	120.07	0.1
07	160.000	158.41	-1.0								

Bis(2-chloroethoxy) Methane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.63	12.6	02	10.000	9.55	-4.5	03	50.000	47.93	-4.1
04	80.000	80.51	0.6	05	100.000	96.14	-3.9	06	120.000	118.07	-1.6
07	160.000	161.41	0.9								

Bis(2-chloroethyl) Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.92	-1.6	02	10.000	10.99	9.9	03	50.000	50.15	0.3
04	80.000	82.58	3.2	05	100.000	99.64	-0.4	06	120.000	112.36	-6.4
07	160.000	151.80	-5.1								

Bis(2-ethylhexyl) Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.87	-2.7	02	10.000	9.27	-7.3	03	50.000	48.73	-2.5
04	80.000	82.49	3.1	05	100.000	100.56	0.6	06	120.000	123.34	2.8
07	160.000	169.76	6.1								

Butyl Benzyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.12	2.3	02	10.000	9.21	-7.9	03	50.000	48.92	-2.2
04	80.000	81.44	1.8	05	100.000	100.03	0.0	06	120.000	121.01	0.8
07	160.000	168.16	5.1								

Caprolactam

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	10.000	9.22	-7.8	03	50.000	49.00	-2.0	04	80.000	83.72	4.6
05	100.000	100.90	0.9	06	120.000	125.04	4.2	07	160.000	160.13	0.1

Carbazole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.77	-4.6	02	10.000	9.03	-9.7	03	50.000	52.13	4.3
04	80.000	85.05	6.3	05	100.000	99.08	-0.9	06	120.000	123.03	2.5
07	160.000	163.38	2.1								

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Analyte

Chrysene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.90	18.0	02	10.000	9.97	-0.3	03	50.000	49.12	-1.8
04	80.000	79.04	-1.2	05	100.000	94.06	-5.9	06	120.000	113.58	-5.3
07	160.000	154.46	-3.5								

Di-n-butyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.49	-10.2	02	10.000	8.39	-16.1	03	50.000	52.51	5.0
04	80.000	87.20	9.0	05	100.000	101.89	1.9	06	120.000	126.49	5.4
07	160.000	167.87	4.9								

Di-n-octyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.04	-19.2	02	10.000	7.89	-21.1	03	50.000	51.05	2.1
04	80.000	84.31	5.4	05	100.000	105.21	5.2	06	120.000	136.79	14.0
07	160.000	181.78	13.6								

Dibenz(a,h)anthracene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.91	-1.8	02	10.000	9.28	-7.2	03	50.000	51.29	2.6
04	80.000	80.99	1.2	05	100.000	98.51	-1.5	06	120.000	123.81	3.2
07	160.000	165.62	3.5								

Dibenzofuran

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.48	9.6	02	10.000	9.88	-1.2	03	50.000	50.60	1.2
04	80.000	78.14	-2.3	05	100.000	96.11	-3.9	06	120.000	114.35	-4.7
07	160.000	162.11	1.3								

Diethyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.45	9.0	02	10.000	10.83	8.3	03	50.000	48.48	-3.0
04	80.000	75.64	-5.4	05	100.000	95.70	-4.3	06	120.000	113.64	-5.3
07	160.000	161.25	0.8								

Dimethyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.57	11.4	02	10.000	10.38	3.8	03	50.000	50.70	1.4
04	80.000	78.45	-1.9	05	100.000	95.64	-4.4	06	120.000	112.32	-6.4
07	160.000	153.88	-3.8								

Fluoranthene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.52	-9.6	02	10.000	8.79	-12.1	03	50.000	52.42	4.8
04	80.000	86.24	7.8	05	100.000	101.13	1.1	06	120.000	125.86	4.9
07	160.000	164.85	3.0								

Calibration ID: RC1500134 **Instrument ID:** R-MS-54
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Analyte

Fluorene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.33	6.7	02	10.000	10.49	4.9	03	50.000	49.93	-0.1
04	80.000	78.53	-1.8	05	100.000	96.04	-4.0	06	120.000	115.33	-3.9
07	160.000	157.11	-1.8								

Hexachlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.38	7.6	02	10.000	10.00	0.0	03	50.000	51.56	3.1
04	80.000	81.02	1.3	05	100.000	94.37	-5.6	06	120.000	115.67	-3.6
07	160.000	155.61	-2.7								

Hexachlorobutadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.23	4.7	02	10.000	9.87	-1.3	03	50.000	50.06	0.1
04	80.000	80.49	0.6	05	100.000	97.20	-2.8	06	120.000	118.15	-1.5
07	160.000	160.37	0.2								

Hexachlorocyclopentadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.20	4.0	02	10.000	9.13	-8.7	03	50.000	51.15	2.3
04	80.000	82.02	2.5	05	100.000	101.07	1.1	06	120.000	117.53	-2.1
07	160.000	159.55	-0.3								

Hexachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.14	2.9	02	10.000	9.94	-0.6	03	50.000	49.13	-1.7
04	80.000	79.35	-0.8	05	100.000	100.73	0.7	06	120.000	118.49	-1.3
07	160.000	161.20	0.7								

Indeno(1,2,3-cd)pyrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.28	-14.4	02	10.000	8.38	-16.2	03	50.000	51.32	2.6
04	80.000	85.52	6.9	05	100.000	100.84	0.8	06	120.000	134.52	12.1
07	160.000	173.01	8.1								

Isophorone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.25	5.0	02	10.000	9.64	-3.6	03	50.000	49.89	-0.2
04	80.000	79.39	-0.8	05	100.000	98.18	-1.8	06	120.000	120.28	0.2
07	160.000	161.81	1.1								

N-Nitrosodi-n-propylamine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.41	8.2	02	10.000	9.83	-1.7	03	50.000	48.67	-2.7
04	80.000	78.38	-2.0	05	100.000	98.22	-1.8	06	120.000	119.03	-0.8
07	160.000	161.37	0.9								

Initial Calibration - Detailed Report

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		Signal ID:	1

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N-Nitrosodimethylamine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.37	7.3	02	10.000	9.30	-7.0	03	50.000	48.10	-3.8
04	80.000	84.87	6.1	05	100.000	100.11	0.1	06	120.000	121.55	1.3
07	160.000	153.55	-4.0								

N-Nitrosodiphenylamine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.40	8.0	02	10.000	10.40	4.0	03	50.000	52.29	4.6
04	80.000	78.86	-1.4	05	100.000	93.10	-6.9	06	120.000	115.36	-3.9
07	160.000	153.05	-4.3								

Naphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.72	14.3	02	10.000	10.18	1.8	03	50.000	48.56	-2.9
04	80.000	78.90	-1.4	05	100.000	94.69	-5.3	06	120.000	115.88	-3.4
07	160.000	154.96	-3.1								

Nitrobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.43	8.7	02	10.000	9.71	-2.9	03	50.000	48.99	-2.0
04	80.000	80.05	0.1	05	100.000	96.84	-3.2	06	120.000	117.43	-2.1
07	160.000	162.41	1.5								

Nitrobenzene-d5

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.28	5.5	02	10.000	9.66	-3.4	03	50.000	49.06	-1.9
04	80.000	81.00	1.2	05	100.000	98.94	-1.1	06	120.000	118.31	-1.4
07	160.000	161.54	1.0								

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	50.000	44.29	-11.4	04	80.000	78.91	-1.4	05	100.000	100.89	0.9
06	120.000	124.81	4.0	07	160.000	172.62	7.9				

Phenanthrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.62	12.3	02	10.000	10.07	0.7	03	50.000	48.76	-2.5
04	80.000	80.24	0.3	05	100.000	94.69	-5.3	06	120.000	116.68	-2.8
07	160.000	155.64	-2.7								

Phenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.27	5.4	02	10.000	10.14	1.4	03	50.000	48.21	-3.6
04	80.000	80.24	0.3	05	100.000	98.44	-1.6	06	120.000	119.03	-0.8
07	160.000	158.02	-1.2								

Calibration ID:	RC1500134	**Instrument ID:**	R-MS-54
		Signal ID:	1

Analyte

Phenol-d6

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.99	-0.2	02	10.000	10.01	0.1	03	50.000	48.64	-2.7
04	80.000	82.48	3.1	05	100.000	100.17	0.2	06	120.000	118.75	-1.0
07	160.000	161.00	0.6								

Pyrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.29	5.9	02	10.000	9.75	-2.5	03	50.000	50.53	1.1
04	80.000	80.46	0.6	05	100.000	96.89	-3.1	06	120.000	117.20	-2.3
07	160.000	160.66	0.4								

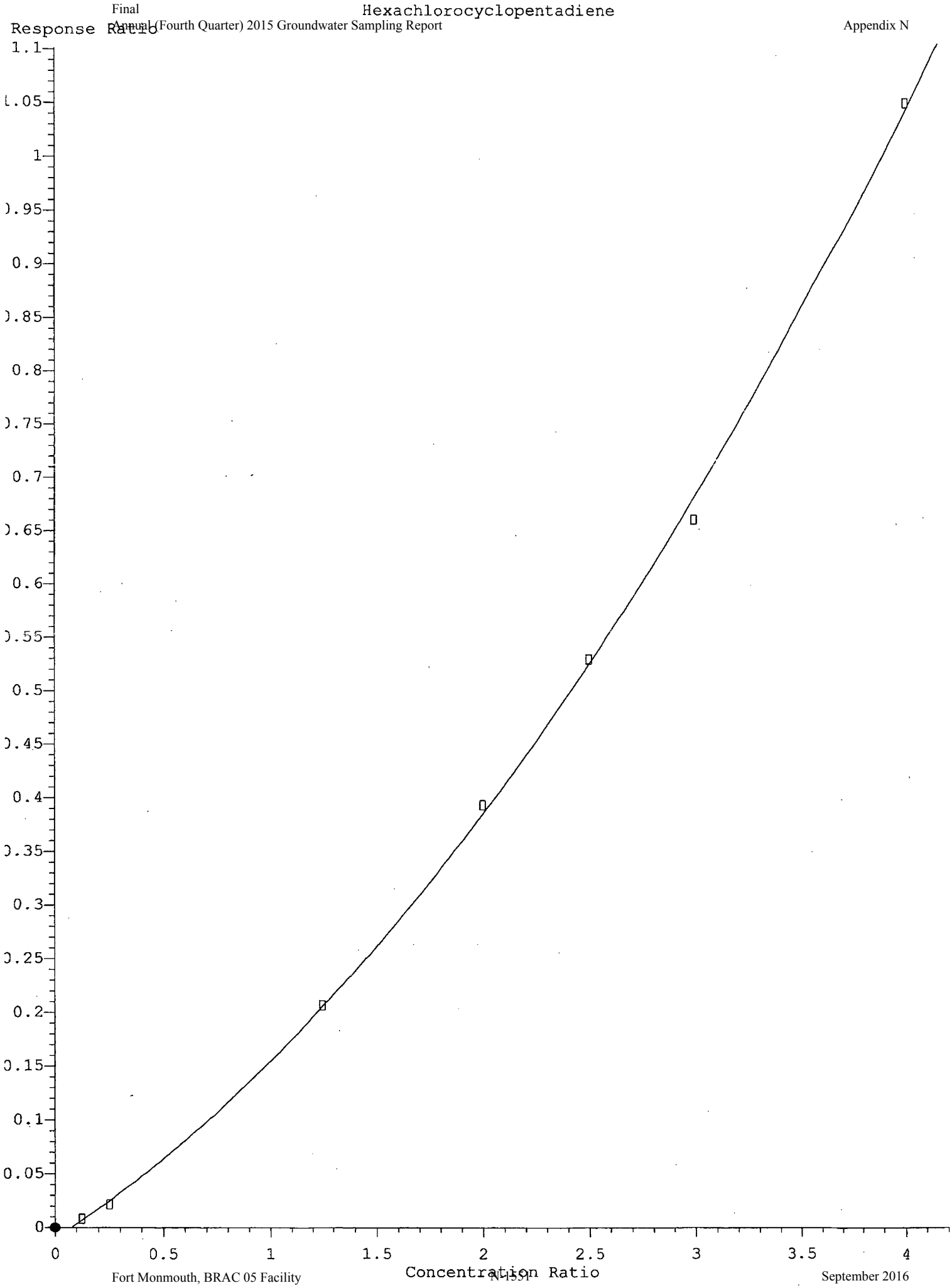
Pyridine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	50.000	49.72	-0.6	04	80.000	84.94	6.2	05	100.000	100.07	0.1
06	120.000	117.22	-2.3	07	160.000	154.61	-3.4				

p-Terphenyl-d14

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.77	15.5	02	10.000	9.74	-2.6	03	50.000	48.69	-2.6
04	80.000	78.74	-1.6	05	100.000	95.71	-4.3	06	120.000	115.50	-3.8
07	160.000	158.85	-0.7								

Lab Code	Type	Standard Amount	Calculated Conc	Difference
RC1500134-01	ICAL	5.000	5.2021	4.04
RC1500134-02	ICAL	10.000	9.1307	-8.69
RC1500134-03	ICAL	50.000	51.145	2.29
RC1500134-04	ICAL	80.000	82.024	2.53
RC1500134-05	ICAL	100.000	101.07	1.07
RC1500134-06	ICAL	120.000	117.53	-2.06
RC1500134-07	ICAL	160.000	159.55	-0.28


Hexachlorocyclopentadiene
Response Ratio
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1.05
1
0.95
0.9
0.85
0.8
0.75
0.7
0.65
0.6
0.55
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
0.5
1
1.5
2
2.5
3
3.5
4
Concentration Ratio

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE254.D
Acq On : 3 Dec 2015 9:25 am
Operator : M.PEDRO
Sample : STD 1 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 03 11:24:55 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:18:56 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d4-1,4-Dichlorobenzene	4.084	152	143135	40.00	ppm	0.00
22) d8-Naphthalene	4.940	136	557274	40.00	ppm	0.00
39) d10-Acenaphthene	6.170	164	326996	40.00	ppm	0.00
61) d10-Phenanthrene	7.234	188	559908	40.00	ppm	0.00
74) d12-Chrysene	10.000	240	580537	40.00	ppm	0.00
83) d12-Perylene	12.749	264	610147	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.287	112	17819	4.57	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 2.29%#			
7) SURR2,PHENOL-D6	3.859	99	22724	4.57	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 2.29%#			
23) SURR4,NITROBENZENE-D5	4.453	82	21539	4.84	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 4.84%#			
43) SURR5,2-FLUOROBIPHENYL	5.683	172	46343	4.51	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 4.51%#			
60) SURR3,2,4,6-TRIBROMOPH...	6.737	330	6822	4.29	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 2.15%#			
77) SURR6,TERPHENYL-D14	8.582	244	52057	4.38	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 4.38%#			
Target Compounds						Qvalue
2) Pyridine	2.447	79	23021	5.34	ppm	99
3) N-Nitrosodimethylamine	2.421	74	13280	5.67	ppm	87
5) Benzaldehyde	3.817	106	3872	2.91	ppm	88
6) Aniline	3.875	93	32128	5.54	ppm	83
8) Phenol	3.865	94	28299	5.30	ppm	93
9) bis(2-Clethyl)Ether	3.897	93	18449	4.64	ppm	85
10) 2-Chlorophenol	3.961	128	23080	4.88	ppm	97
11) 1,3-Diclbenzene	4.047	146	24509	4.67	ppm	95
12) 1,4-Dichlorobenzene	4.095	146	27859	5.09	ppm	95
13) 1,2-Diclbenzene	4.196	146	24231	4.90	ppm	90
14) Benzyl Alcohol	4.170	79	11489	3.17	ppm	82
15) 2,2'-oxybis(1-Chloropr...	4.239	45	33872	5.33	ppm	82
16) 2-Methylphenol	4.250	108	18820	4.59	ppm	95
17) Acetophenone	4.341	105	28185	4.62	ppm	89
18) N-Nitroso-Di-n-propyla...	4.330	70	16399	5.11	ppm	84
19) Hexachloroethane	4.416	117	10362	4.90	ppm	96
20) 3+4-Methylphenol	4.346	108	21816	5.10	ppm	95
21) 1-Methyl-2-pyrrolidinone	4.186	99	11942	4.11	ppm	94
24) Nitrobenzene	4.464	77	23443	5.06	ppm	96
25) Isophorone	4.614	82	39601	4.66	ppm	92
26) 2-Nitrophenol	4.678	139	10831	4.04	ppm	94
27) Benzoic Acid	4.769	105	6440	2.05	ppm	95
28) 2,4-Dimethylphenol	4.699	107	21241	4.44	ppm	92
29) bis(-2-Chloroethoxy)Me...	4.747	93	25847	5.24	ppm	95
30) 2,4-Dichlorophenol	4.854	162	17502	4.06	ppm	90
31) 1,2,4-Trichlorobenzene	4.892	180	22127	4.55	ppm	96
32) Naphthalene	4.950	128	67508	5.18	ppm	97
33) 4-Chloroaniline	4.993	127	24894	4.59	ppm	95

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE254.D
Acq On : 3 Dec 2015 9:25 am
Operator : M.PEDRO
Sample : STD 1 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 03 11:24:55 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:18:56 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
34)	Hexachlorobutadiene	5.020	225	12309	4.02	ppm		99
35)	4-Chloro-3-methylphenol	5.336	107	15755m	3.72	ppm		
36)	Caprolactam	5.229	113	5381	3.98	ppm		83
37)	2-Methylnaphthalene	5.432	142	40318	4.55	ppm		99
38)	1-Methylnaphthalene	5.501	142	40648	4.58	ppm		95
40)	Hexachlorocyclopentadiene	5.534	237	2745	6.10	ppm		96
41)	2,4,6-Trichlorophenol	5.635	196	13365	4.14	ppm		97
42)	2,4,5-Trichlorophenol	5.683	196	12696	4.02	ppm		83
44)	1,1'-Biphenyl	5.753	154	53116	4.86	ppm	#	97
45)	2-Chloronaphthalene	5.780	162	40721	4.57	ppm		94
46)	2-Nitroaniline	5.860	65	10842	4.29	ppm		99
47)	Acenaphthylene	6.074	152	64668	4.50	ppm		97
48)	Dimethyl phthalate	5.961	163	46008	4.52	ppm		99
49)	2,6-Dinitrotoluene	6.020	165	9135	4.07	ppm		87
50)	Acenaphthene	6.191	153	43010	4.78	ppm		92
51)	3-Nitroaniline	6.154	138	9569	3.99	ppm	#	72
53)	Dibenzofuran	6.314	168	62462	4.59	ppm		88
54)	2,4-Dinitrotoluene	6.314	165	10883	3.76	ppm	#	80
55)	4-Nitrophenol	6.309	65	5553m	3.05	ppm		
56)	Fluorene	6.560	166	48335	4.54	ppm		97
57)	4-Chlorophenyl-phenyle...	6.550	204	24763	4.36	ppm		88
58)	Diethylphthalate	6.453	149	46499	4.53	ppm		95
59)	4-Nitroaniline	6.593	138	7588	2.90	ppm		96
62)	4,6-Dinitro-2-methylph...	6.609	198	4376	2.43	ppm		98
63)	1,2 Diphenylhydrazine	6.662	77	49615	5.75	ppm		93
64)	N-Nitrosodiphenylamine	6.635	169	31790	4.66	ppm		94
65)	4-Bromophenyl-phenylether	6.897	248	14007	4.55	ppm		88
66)	Hexachlorobenzene	6.951	284	15776	4.59	ppm		95
67)	Atrazine	7.004	215	5723	3.93	ppm	#	74
68)	Pentachlorophenol	7.101	266	4966	2.47	ppm		86
69)	Phenanthrene	7.250	178	68383	4.94	ppm		96
70)	Anthracene	7.288	178	68185	4.61	ppm		99
71)	Carbazole	7.406	167	58370	3.94	ppm		97
72)	Di-n-butylphthalate	7.630	149	67018	3.68	ppm		97
73)	Fluoranthene	8.219	202	65693	3.52	ppm		96
75)	Benzidine	8.347	184	21631	4.40	ppm		93
76)	Pyrene	8.449	202	72482	4.23	ppm		97
78)	Butyl benzyl phthalate	9.149	149	32493	4.03	ppm		97
79)	3,3'-Dichlorobenzidine	9.946	252	23781	3.96	ppm		93
80)	Benzo(a)anthracene	9.989	228	72995	4.34	ppm		95
81)	Chrysene	10.042	228	74989	4.82	ppm		91
82)	bis(2-Ethylhexyl)phtha...	10.005	149	41888	3.85	ppm		96
84)	Di-n-octyl phthalate	11.224	149	56758	2.96	ppm		97
85)	Benzo(b)Fluoranthene	11.957	252	67972	3.93	ppm		96
86)	Benzo(k)fluoranthene	12.011	252	70896	4.07	ppm		98
87)	Benzo(a)pyrene	12.631	252	62602	3.65	ppm		99
88)	Indeno(1,2,3-cd)Pyrene	14.658	276	50294m	3.04	ppm		
89)	Dibenz(a,h)anthracene	14.690	278	59747	3.67	ppm		92
90)	Benzo(g,h,i)perylene	15.102	276	59752	3.71	ppm		94

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE254.D
Acq On : 3 Dec 2015 9:25 am
Operator : M.PEDRO
Inst : 5973D
Sample : STD 1
Misc : INITIAL CAL
ALS Vial : 4 Sample Multiplier: 1

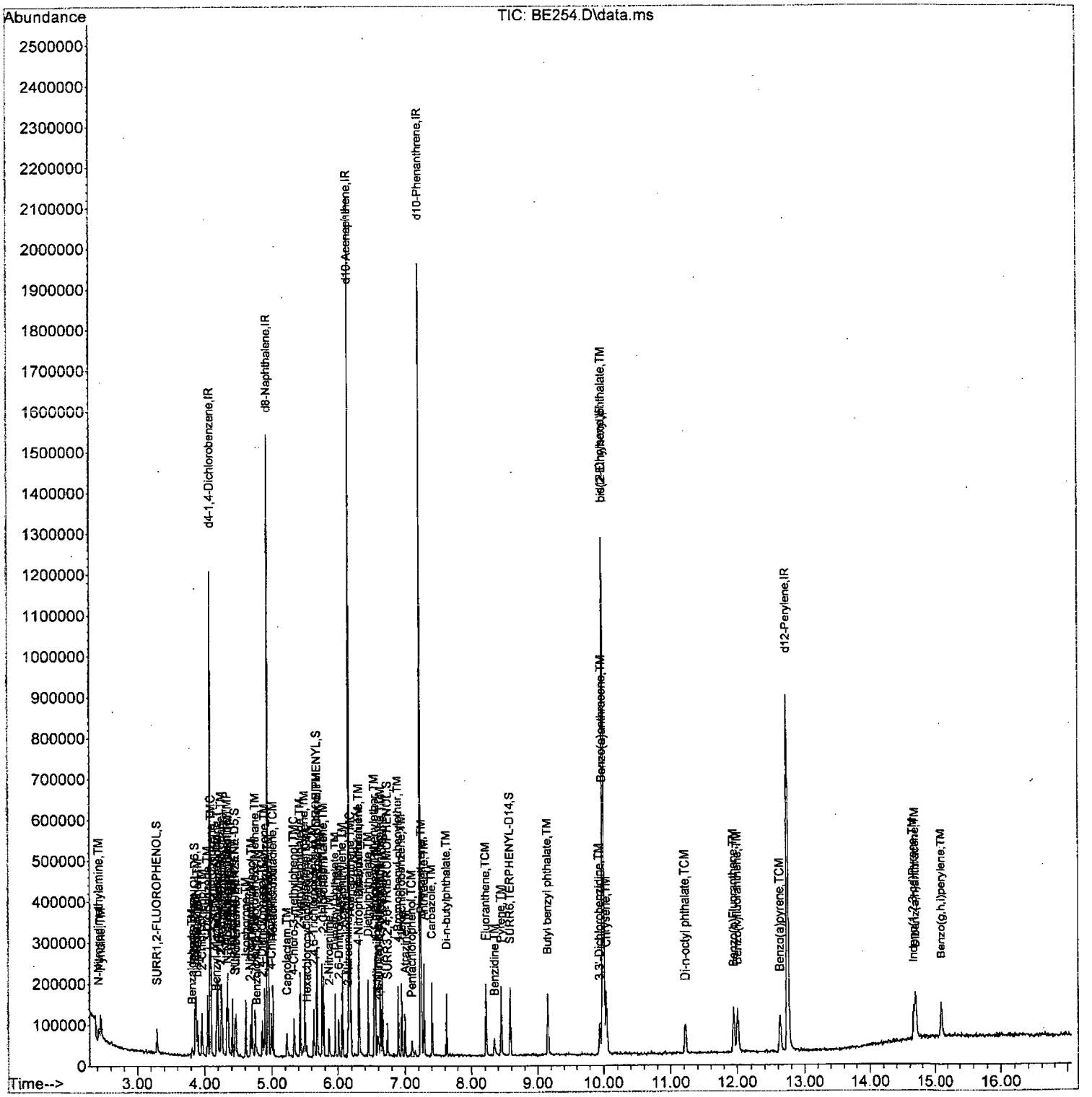
Quant Time: Dec 03 11:24:55 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:18:56 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE254.D
Acq On : 3 Dec 2015 9:25 am
Operator : M.PEDRO
Sample : STD 1 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 4 Sample Multiplier: 1

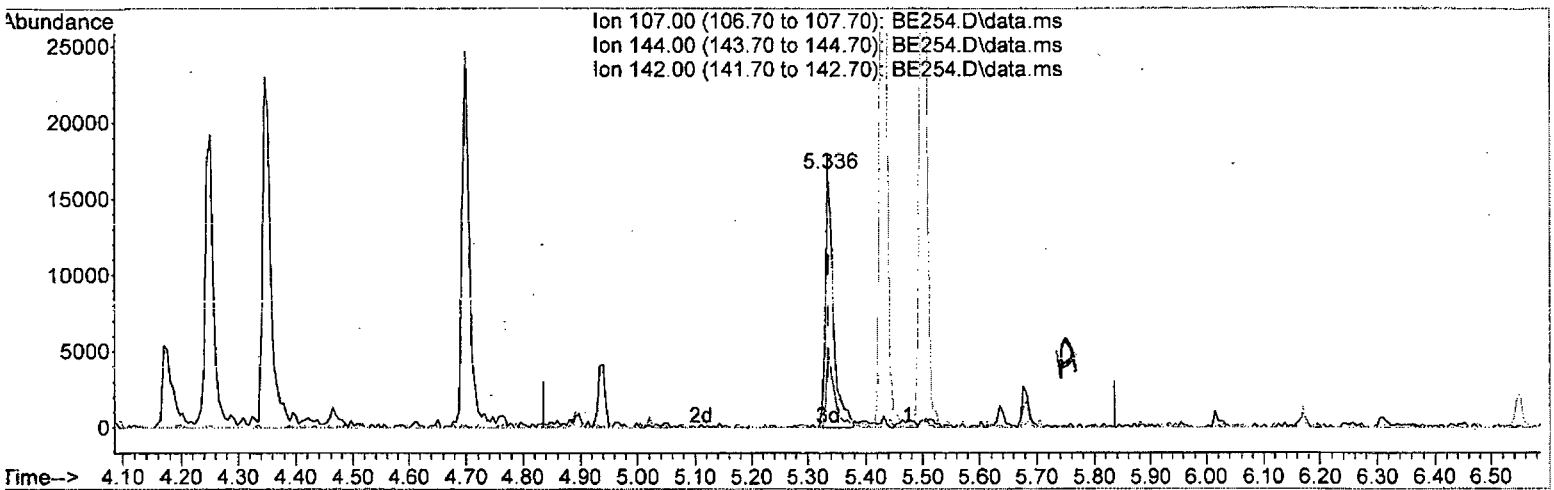
Quant Time: Dec 03 11:24:55 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:18:56 2015
Response via : Initial Calibration

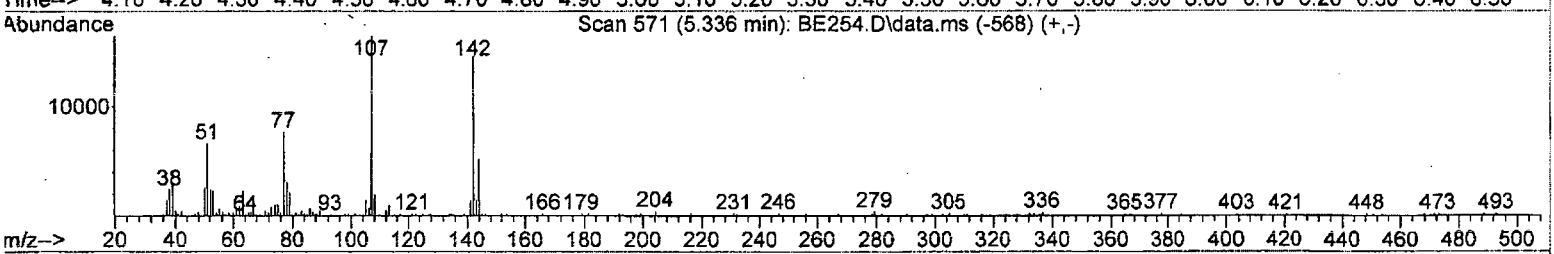


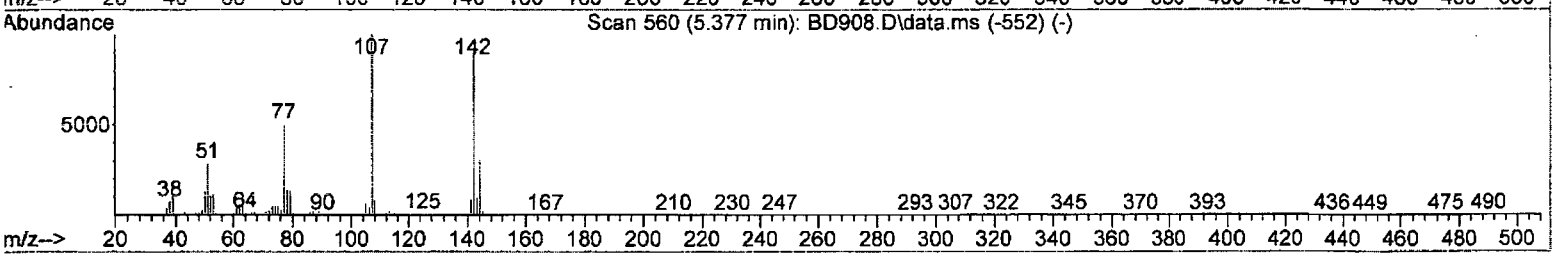
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE254.D
Acq On : 3 Dec 2015 9:25 am
Operator : M.PEDRO
Sample : STD 1 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 03 11:24:55 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:18:56 2015
Response via : Initial Calibration







TIC: BE254.D\data.ms

(35) 4-Chloro-3-methylphenol (TMC)

5.336min (-0.000) 3.72 ppm m

response 15755

Ion	Exp%	Act%
107.00	100	100
144.00	28.80	31.56
142.00	0.00	88.28#
0.00	0.00	0.00

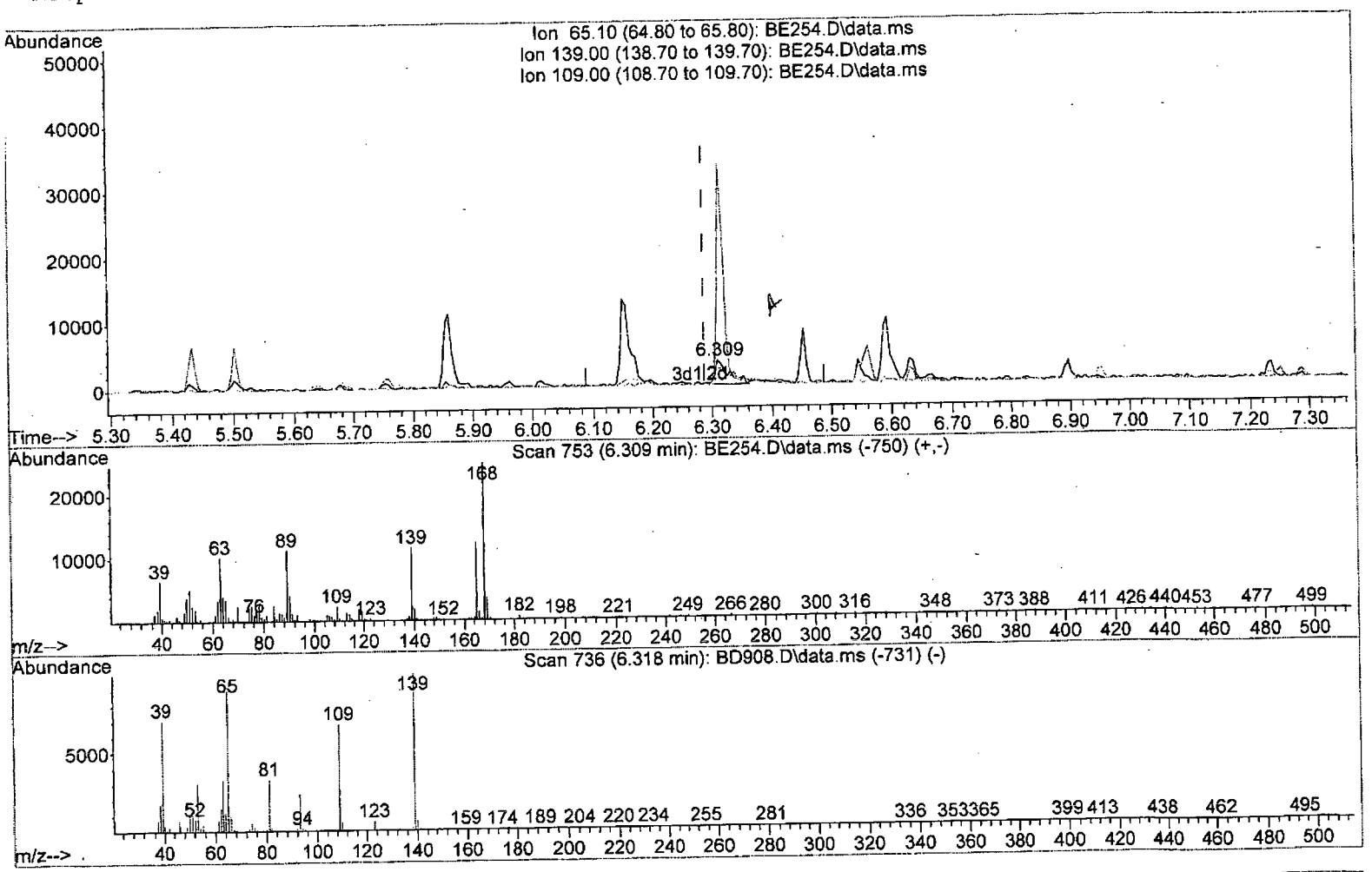
82701203D.M Fri Dec 04 10:10:16 2015 Page: 1

Quantitation Report (Quant)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE254.D
Acq On : 3 Dec 2015 9:25 am
Operator : M.PEDRO
Sample : STD 1
Misc : INITIAL CAL
ALS Vial : 4 Sample Multiplier: 1

Inst : 5973D

Quant Time: Dec 03 11:24:55 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:18:56 2015
Response via : Initial Calibration



TIC: BE254.D\data.ms

(55) 4-Nitrophenol (TMP)

6.309min (+0.021) 3.05 ppm m

response 5553

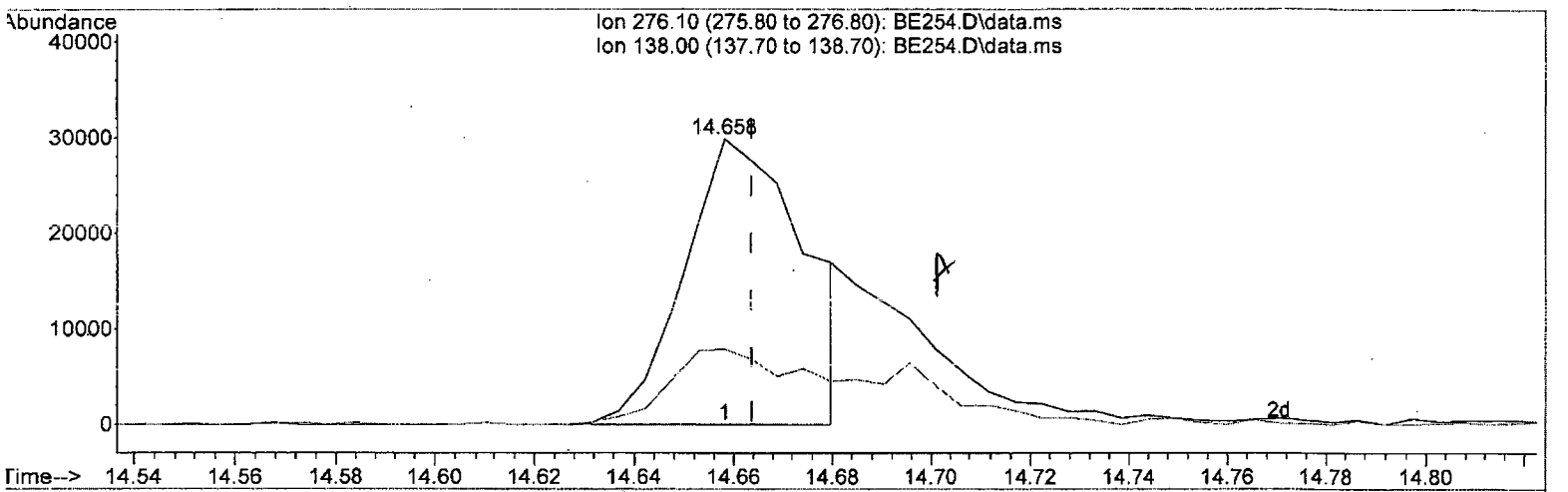
Ion	Exp%	Act%
65.10	100	100
139.00	95.50	318.64#
109.00	71.00	63.23
0.00	0.00	0.00

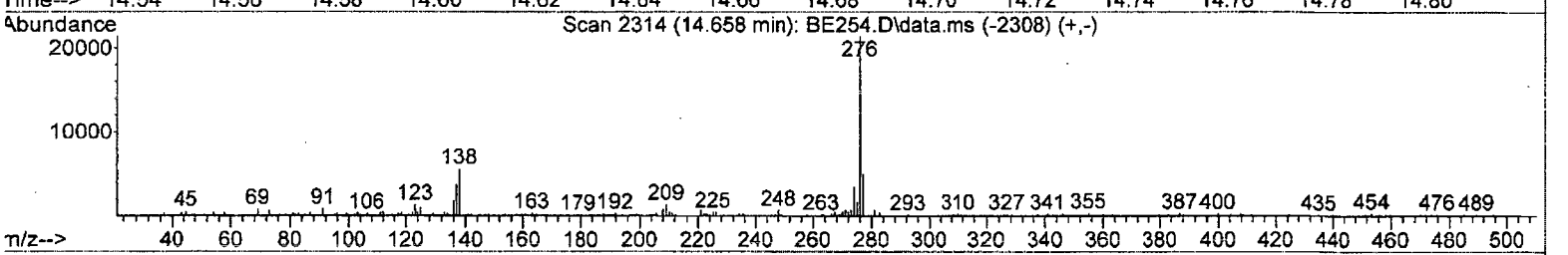
82701203D.M Fri Dec 04 10:10:29 2015

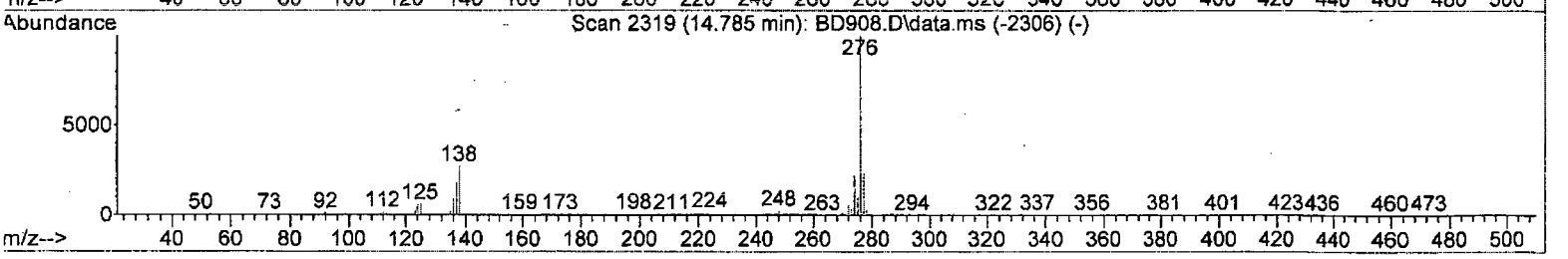
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE254.D
Acq On : 3 Dec 2015 9:25 am
Operator : M.PEDRO
Sample : STD 1 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 03 11:24:55 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:18:56 2015
Response via : Initial Calibration







TIC: BE254.D\data.ms

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.658min (-0.005) 3.04 ppm m

response 50294

Ion	Exp%	Act%
276.10	100	100
138.00	25.80	26.25
0.00	0.00	0.00
0.00	0.00	0.00

82701203D.M Fri Dec 04 10:11:01 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE255.D
Acq On : 3 Dec 2015 9:51 am
Operator : M.PEDRO
Sample : STD 2 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 03 11:28:02 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:25:45 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d4-1,4-Dichlorobenzene	4.084	152	133232	40.00	ppm	0.00
22) d8-Naphthalene	4.940	136	538352	40.00	ppm	0.00
39) d10-Acenaphthene	6.170	164	314377	40.00	ppm	0.00
61) d10-Phenanthrene	7.234	188	543345	40.00	ppm	0.00
74) d12-Chrysene	10.000	240	597497	40.00	ppm	0.00
83) d12-Perylene	12.749	264	614931	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.287	112	32274	8.89	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 4.45%#			
7) SURR2,PHENOL-D6	3.854	99	42455	9.22	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 4.61%#			
23) SURR4,NITROBENZENE-D5	4.453	82	38092	8.74	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 8.74%#			
43) SURR5,2-FLUOROBIPHENYL	5.683	172	83557	8.59	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 8.59%#			
60) SURR3,2,4,6-TRIBROMOPH...	6.737	330	11654	7.67	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 3.84%#			
77) SURR6,TERPHENYL-D14	8.582	244	90411	7.59	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 7.59%#			
Target Compounds						Qvalue
2) Pyridine	2.447	79	41221	10.28	ppm	97
3) N-Nitrosodimethylamine	2.415	74	21429	9.65	ppm	94
5) Benzaldehyde	3.817	106	6880	5.56	ppm	95
6) Aniline	3.876	93	52810	9.62	ppm	99
8) Phenol	3.865	94	50689	10.04	ppm	92
9) bis(2-Clethyl)Ether	3.897	93	38361	10.61	ppm	93
10) 2-Chlorophenol	3.961	128	39723	9.01	ppm	96
11) 1,3-Diclbenzene	4.047	146	45076	9.43	ppm	95
12) 1,4-Dichlorobenzene	4.095	146	45308	9.00	ppm	94
13) 1,2-Diclbenzene	4.196	146	42466	9.21	ppm	97
14) Benzyl Alcohol	4.170	79	21196	6.56	ppm	93
15) 2,2'-oxybis(1-Chloropr...	4.239	45	60880	10.22	ppm	83
16) 2-Methylphenol	4.250	108	30522	8.09	ppm	93
17) Acetophenone	4.341	105	49428	8.78	ppm	94
18) N-Nitroso-Di-n-propyla...	4.330	70	27735	9.22	ppm	93
19) Hexachloroethane	4.416	117	18648	9.46	ppm	86
20) 3+4-Methylphenol	4.346	108	35882	8.85	ppm	91
21) 1-Methyl-2-pyrrolidinone	4.186	99	23198	8.58	ppm	93
24) Nitrobenzene	4.464	77	40458	9.07	ppm	98
25) Isophorone	4.614	82	70276	8.67	ppm	97
26) 2-Nitrophenol	4.678	139	18945	7.46	ppm	94
27) Benzoic Acid	4.763	105	15437	5.08	ppm	95
28) 2,4-Dimethylphenol	4.699	107	36653	8.12	ppm	94
29) bis(-2-Chloroethoxy)Me...	4.747	93	42391	8.76	ppm	94
30) 2,4-Dichlorophenol	4.854	162	31801	7.81	ppm	94
31) 1,2,4-Trichlorobenzene	4.892	180	37273	8.01	ppm	98
32) Naphthalene	4.951	128	116204	9.15	ppm	99
33) 4-Chloroaniline	4.993	127	44444	8.46	ppm	96

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE255.D
Acq On : 3 Dec 2015 9:51 am
Operator : M.PEDRO
Sample : STD 2 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 03 11:28:02 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:25:45 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
34)	Hexachlorobutadiene	5.020	225	22424	7.82	ppm		96
35)	4-Chloro-3-methylphenol	5.336	107	28491m	7.21	ppm		
36)	Caprolactam	5.223	113	9918	7.59	ppm		90
37)	2-Methylnaphthalene	5.432	142	70387	8.32	ppm		99
38)	1-Methylnaphthalene	5.501	142	67666	8.04	ppm		96
40)	Hexachlorocyclopentadiene	5.534	237	6808	8.19	ppm		90
41)	2,4,6-Trichlorophenol	5.635	196	24125	7.83	ppm		98
42)	2,4,5-Trichlorophenol	5.678	196	23889	7.92	ppm		99
44)	1,1'-Biphenyl	5.753	154	92237	8.85	ppm		97
45)	2-Chloronaphthalene	5.780	162	73013	8.68	ppm		98
46)	2-Nitroaniline	5.854	65	21313	8.77	ppm		87
47)	Acenaphthylene	6.074	152	116812	8.59	ppm		99
48)	Dimethyl phthalate	5.961	163	82431	8.62	ppm		99
49)	2,6-Dinitrotoluene	6.020	165	16964	8.11	ppm		89
50)	Acenaphthene	6.191	153	77611	8.94	ppm		96
51)	3-Nitroaniline	6.149	138	18361	7.97	ppm		92
52)	2,4-Dinitrophenol	6.234	184	3659	3.36	ppm		79
53)	Dibenzofuran	6.314	168	108281	8.34	ppm		96
54)	2,4-Dinitrotoluene	6.309	165	21541	7.78	ppm		93
55)	4-Nitrophenol	6.309	65	11574	6.60	ppm	#	1
56)	Fluorene	6.561	166	91426	9.06	ppm		96
57)	4-Chlorophenyl-phenyle...	6.550	204	45441	8.53	ppm		95
58)	Diethylphthalate	6.454	149	88822	9.17	ppm		96
59)	4-Nitroaniline	6.587	138	16516	6.57	ppm		84
62)	4,6-Dinitro-2-methylph...	6.603	198	8545	4.89	ppm		98
63)	1,2 Diphenylhydrazine	6.662	77	90049	10.49	ppm		96
64)	N-Nitrosodiphenylamine	6.635	169	59394	9.14	ppm		97
65)	4-Bromophenyl-phenylether	6.897	248	26442	8.88	ppm		94
66)	Hexachlorobenzene	6.951	284	28439	8.68	ppm		86
67)	Atrazine	7.004	215	9843	7.24	ppm	#	84
68)	Pentachlorophenol	7.101	266	9189	4.71	ppm		75
69)	Phenanthrene	7.250	178	118931	8.84	ppm		98
70)	Anthracene	7.288	178	120779	8.54	ppm		99
71)	Carbazole	7.406	167	107184	7.64	ppm		97
72)	Di-n-butylphthalate	7.630	149	121495	7.07	ppm		100
73)	Fluoranthene	8.219	202	124073	7.15	ppm		94
75)	Benzidine	8.342	184	40603	8.02	ppm		94
76)	Pyrene	8.449	202	137399	7.98	ppm		96
78)	Butyl benzyl phthalate	9.149	149	60179	7.49	ppm		98
79)	3,3'-Dichlorobenzidine	9.946	252	39105	6.56	ppm		95
80)	Benzo(a)anthracene	9.984	228	140137	8.29	ppm		98
81)	Chrysene	10.048	228	130391	8.23	ppm		97
82)	bis(2-Ethylhexyl)phtha...	10.005	149	82088	7.61	ppm		99
84)	Di-n-octyl phthalate	11.225	149	111836	6.15	ppm		100
85)	Benzo(b)Fluoranthene	11.957	252	123908	7.30	ppm		97
86)	Benzo(k)fluoranthene	12.011	252	126718	7.42	ppm		100
87)	Benzo(a)pyrene	12.626	252	119618	7.20	ppm		95
88)	Indeno(1,2,3-cd)Pyrene	14.658	276	99245m	6.37	ppm		
89)	Dibenz(a,h)anthracene	14.690	278	113812	7.23	ppm		94
90)	Benzo(g,h,i)perylene	15.097	276	116698	7.48	ppm		93

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE255.D
Acq On : 3 Dec 2015 9:51 am
Operator : M.PEDRO
Sample : STD 2 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 03 11:28:02 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:25:45 2015
Response via : Initial Calibration

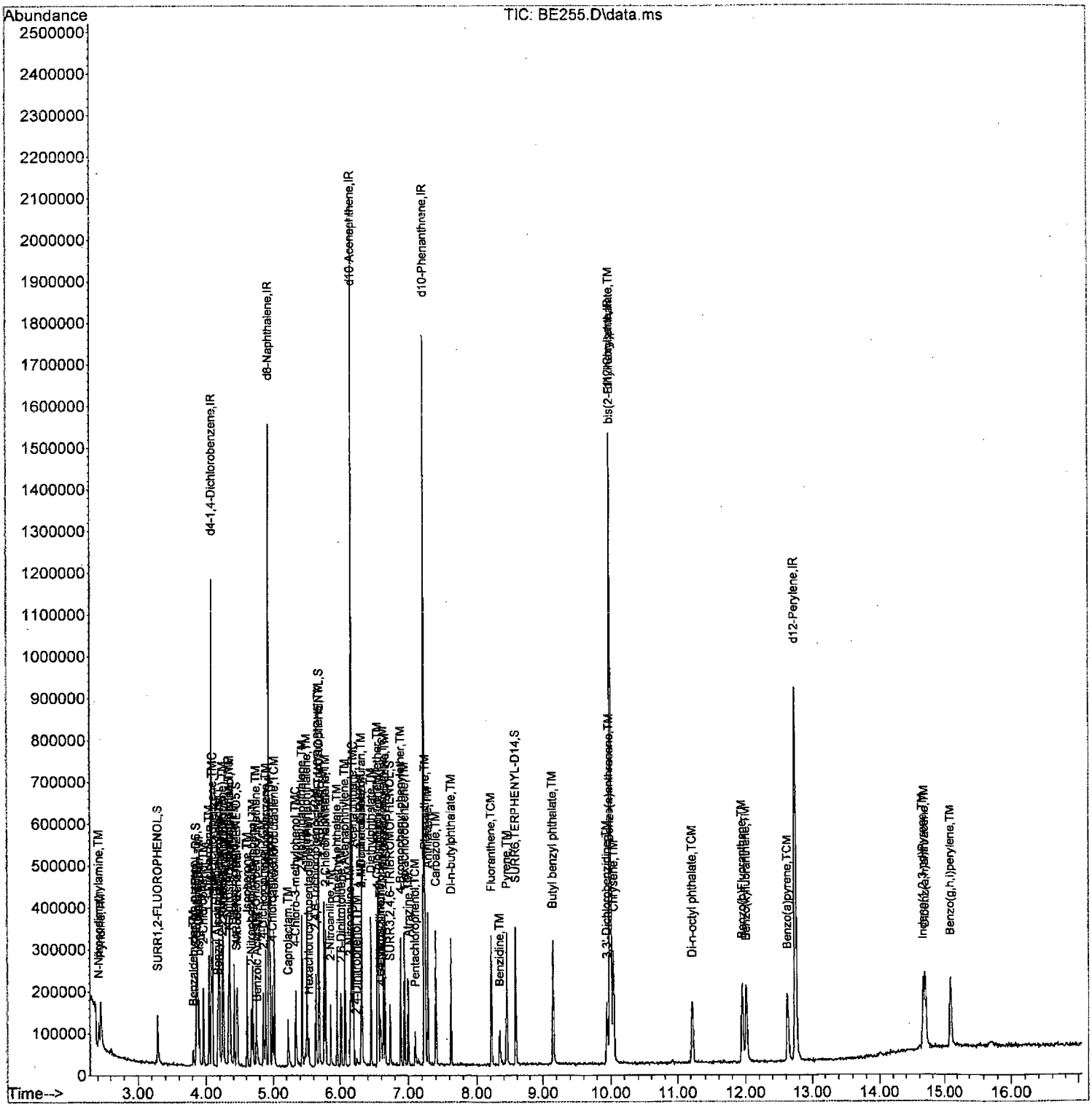
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE255.D
Acq On : 3 Dec 2015 9:51 am
Operator : M.PEDRO
Sample : STD 2 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 03 11:28:02 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:25:45 2015
Response via : Initial Calibration

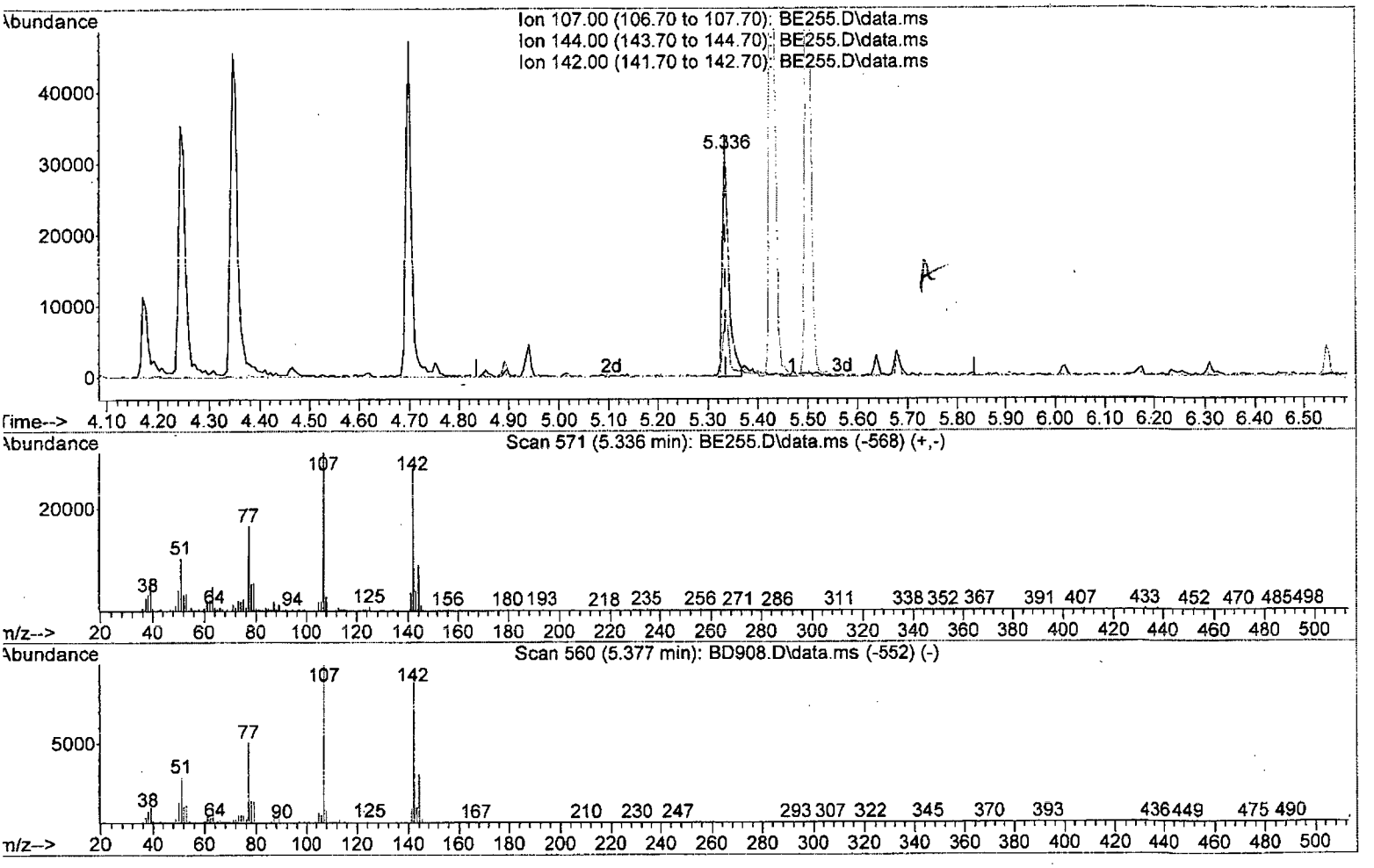


82701203D.M Thu Dec 03 14:47:20 2015 Page: 4

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE255.D
Acq On : 3 Dec 2015 9:51 am
Operator : M.PEDRO
Sample : STD 2 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 03 11:28:02 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:25:45 2015
Response via : Initial Calibration



TIC: BE255.D\data.ms

(35) 4-Chloro-3-methylphenol (TMC)

5.336min (+0.000) 7.21 ppm m

response 28491

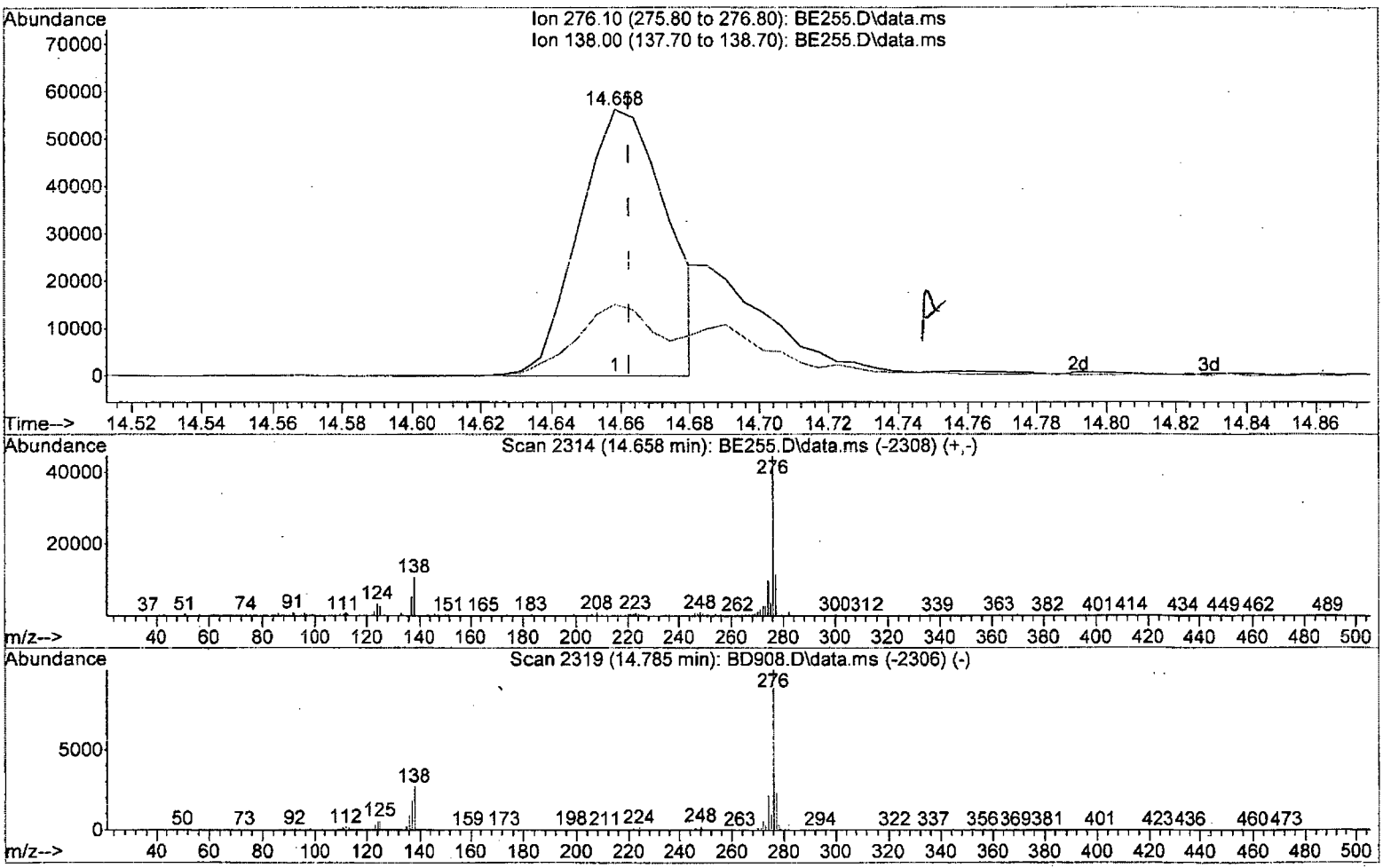
Ion	Exp%	Act%
107.00	100	100
144.00	28.80	29.71
142.00	0.00	92.95#
0.00	0.00	0.00

BC mp 12/4

mc 12/4

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE255.D
Acq On : 3 Dec 2015 9:51 am
Operator : M.PEDRO
Sample : STD 2 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 03 11:28:02 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:25:45 2015
Response via : Initial Calibration



TIC: BE255.D\data.ms

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.658min (-0.004) 6.37 ppm m

response 99245

Ion	Exp%	Act%
276.10	100	100
138.00	25.80	26.75
0.00	0.00	0.00
0.00	0.00	0.00

BC MP MP 2/14

MC 12/7

82701203D.M Fri Dec 04 10:11:40 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE256.D
Acq On : 3 Dec 2015 10:17 am
Operator : M.PEDRO
Sample : STD 3 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 03 11:30:19 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:28:20 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d4-1,4-Dichlorobenzene	4.084	152	138447	40.00	ppm	0.00
22) d8-Naphthalene	4.940	136	543050	40.00	ppm	0.00
39) d10-Acenaphthene	6.170	164	319881	40.00	ppm	0.00
61) d10-Phenanthrene	7.234	188	528381	40.00	ppm	0.00
74) d12-Chrysene	10.005	240	643784	40.00	ppm	0.00
83) d12-Perylene	12.749	264	620311	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.282	112	170129	45.74	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 22.87%			
7) SURR2,PHENOL-D6	3.854	99	214338	45.34	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 22.67%			
23) SURR4,NITROBENZENE-D5	4.453	82	195159	45.33	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 45.33%			
43) SURR5,2-FLUOROBIPHENYL	5.683	172	419018	43.90	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 43.90%			
60) SURR3,2,4,6-TRIBROMOPH...	6.737	330	58600	40.42	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 20.21%#			
77) SURR6,TERPHENYL-D14	8.582	244	486772	39.58	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 39.58%#			
Target Compounds						Qvalue
2) Pyridine	2.437	79	213702	51.29	ppm	94
3) N-Nitrosodimethylamine	2.410	74	115156	50.02	ppm	98
5) Benzaldehyde	3.811	106	47796	37.17	ppm	96
6) Aniline	3.875	93	277753	48.80	ppm	97
8) Phenol	3.859	94	250314	47.38	ppm	98
9) bis(2-Clethyl)Ether	3.897	93	181881	48.48	ppm	91
10) 2-Chlorophenol	3.961	128	201646	44.96	ppm	97
11) 1,3-Diclbenzene	4.047	146	214010	43.71	ppm	99
12) 1,4-Dichlorobenzene	4.095	146	222975	43.93	ppm	99
13) 1,2-Diclbenzene	4.196	146	211291	44.81	ppm	98
14) Benzyl Alcohol	4.170	79	137309	43.50	ppm	97
15) 2,2'-oxybis(1-Chloropr...	4.239	45	292624	47.39	ppm	84
16) 2-Methylphenol	4.250	108	173900	45.83	ppm	91
17) Acetophenone	4.341	105	252167	44.04	ppm	93
18) N-Nitroso-Di-n-propyla...	4.330	70	142744	46.44	ppm	95
19) Hexachloroethane	4.416	117	95743	47.48	ppm	94
20) 3+4-Methylphenol	4.346	108	181493	44.10	ppm	99
21) 1-Methyl-2-pyrrolidinone	4.191	99	127569	46.84	ppm	94
24) Nitrobenzene	4.464	77	205918	46.67	ppm	97
25) Isophorone	4.614	82	366769	46.24	ppm	95
26) 2-Nitrophenol	4.678	139	104255	42.28	ppm	98
27) Benzoic Acid	4.774	105	126947	41.44	ppm	96
28) 2,4-Dimethylphenol	4.699	107	187819	42.28	ppm	99
29) bis(-2-Chloroethoxy)Me...	4.747	93	214498	44.86	ppm	100
30) 2,4-Dichlorophenol	4.849	162	166347	42.13	ppm	96
31) 1,2,4-Trichlorobenzene	4.897	180	187255	41.77	ppm	97
32) Naphthalene	4.956	128	558878	44.33	ppm	99
33) 4-Chloroaniline	4.988	127	241444	46.21	ppm	100

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE256.D
Acq On : 3 Dec 2015 10:17 am
Operator : M.PEDRO
Sample : STD 3 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 03 11:30:19 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:28:20 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Hexachlorobutadiene	5.020	225	114734	41.22	ppm	100
35) 4-Chloro-3-methylphenol	5.336	107	162326	43.08	ppm	99
36) Caprolactam	5.234	113	53188	42.74	ppm	83
37) 2-Methylnaphthalene	5.432	142	355661	42.94	ppm	99
38) 1-Methylnaphthalene	5.501	142	344980	42.05	ppm	99
40) Hexachlorocyclopentadiene	5.534	237	66102	41.72	ppm	99
41) 2,4,6-Trichlorophenol	5.635	196	125748	41.52	ppm	98
42) 2,4,5-Trichlorophenol	5.678	196	131555	44.72	ppm	97
44) 1,1'-Biphenyl	5.758	154	460444	44.26	ppm	98
45) 2-Chloronaphthalene	5.780	162	363130	43.59	ppm	99
46) 2-Nitroaniline	5.854	65	116920	47.29	ppm	87
47) Acenaphthylene	6.074	152	599732	44.76	ppm	99
48) Dimethyl phthalate	5.961	163	409761	43.93	ppm	97
49) 2,6-Dinitrotoluene	6.020	165	94228	45.90	ppm	93
50) Acenaphthene	6.197	153	379595	44.03	ppm	98
51) 3-Nitroaniline	6.149	138	101289	43.19	ppm	98
52) 2,4-Dinitrophenol	6.229	184	35133	31.70	ppm	95
53) Dibenzofuran	6.314	168	564167	44.41	ppm	99
54) 2,4-Dinitrotoluene	6.309	165	118452	43.22	ppm	98
55) 4-Nitrophenol	6.288	65	81037	45.43	ppm	96
56) Fluorene	6.560	166	442611	44.44	ppm	100
57) 4-Chlorophenyl-phenyle...	6.550	204	219462	42.27	ppm	98
58) Diethylphthalate	6.454	149	404610	42.45	ppm	98
59) 4-Nitroaniline	6.587	138	93451	36.51	ppm	98
62) 4,6-Dinitro-2-methylph...	6.603	198	68606	40.41	ppm	91
63) 1,2 Diphenylhydrazine	6.662	77	458367	54.99	ppm	99
64) N-Nitrosodiphenylamine	6.635	169	290518	47.18	ppm	99
65) 4-Bromophenyl-phenylether	6.897	248	129597	46.45	ppm	96
66) Hexachlorobenzene	6.951	284	142656	45.78	ppm	97
67) Atrazine	7.004	215	58893	47.42	ppm	92
68) Pentachlorophenol	7.101	266	63605	33.52	ppm	93
69) Phenanthrene	7.250	178	560177	44.15	ppm	99
70) Anthracene	7.288	178	594115	44.40	ppm	99
71) Carbazole	7.406	167	601837	46.08	ppm	99
72) Di-n-butylphthalate	7.630	149	739324	46.45	ppm	100
73) Fluoranthene	8.219	202	719182	44.92	ppm	97
75) Benzidine	8.342	184	263558	48.31	ppm	100
76) Pyrene	8.449	202	767246	42.94	ppm	97
78) Butyl benzyl phthalate	9.155	149	344559	41.89	ppm	96
79) 3,3'-Dichlorobenzidine	9.946	252	235494	39.26	ppm	95
80) Benzo(a)anthracene	9.989	228	752509	42.82	ppm	97
81) Chrysene	10.048	228	692265	42.18	ppm	99
82) bis(2-Ethylhexyl)phtha...	10.010	149	465150	42.10	ppm	99
84) Di-n-octyl phthalate	11.230	149	729546	42.85	ppm	98
85) Benzo(b)Fluoranthene	11.957	252	674225	41.22	ppm	98
86) Benzo(k)fluoranthene	12.016	252	683783	41.46	ppm	99
87) Benzo(a)pyrene	12.631	252	670305	42.06	ppm	98
88) Indeno(1,2,3-cd)Pyrene	14.658	276	613183m	41.87	ppm	
89) Dibenz(a,h)anthracene	14.696	278	634589	42.14	ppm	98
90) Benzo(g,h,i)perylene	15.102	276	638614	42.76	ppm	97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE256.D
Acq On : 3 Dec 2015 10:17 am
Operator : M.PEDRO
Sample : STD 3 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 03 11:30:19 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:28:20 2015
Response via : Initial Calibration

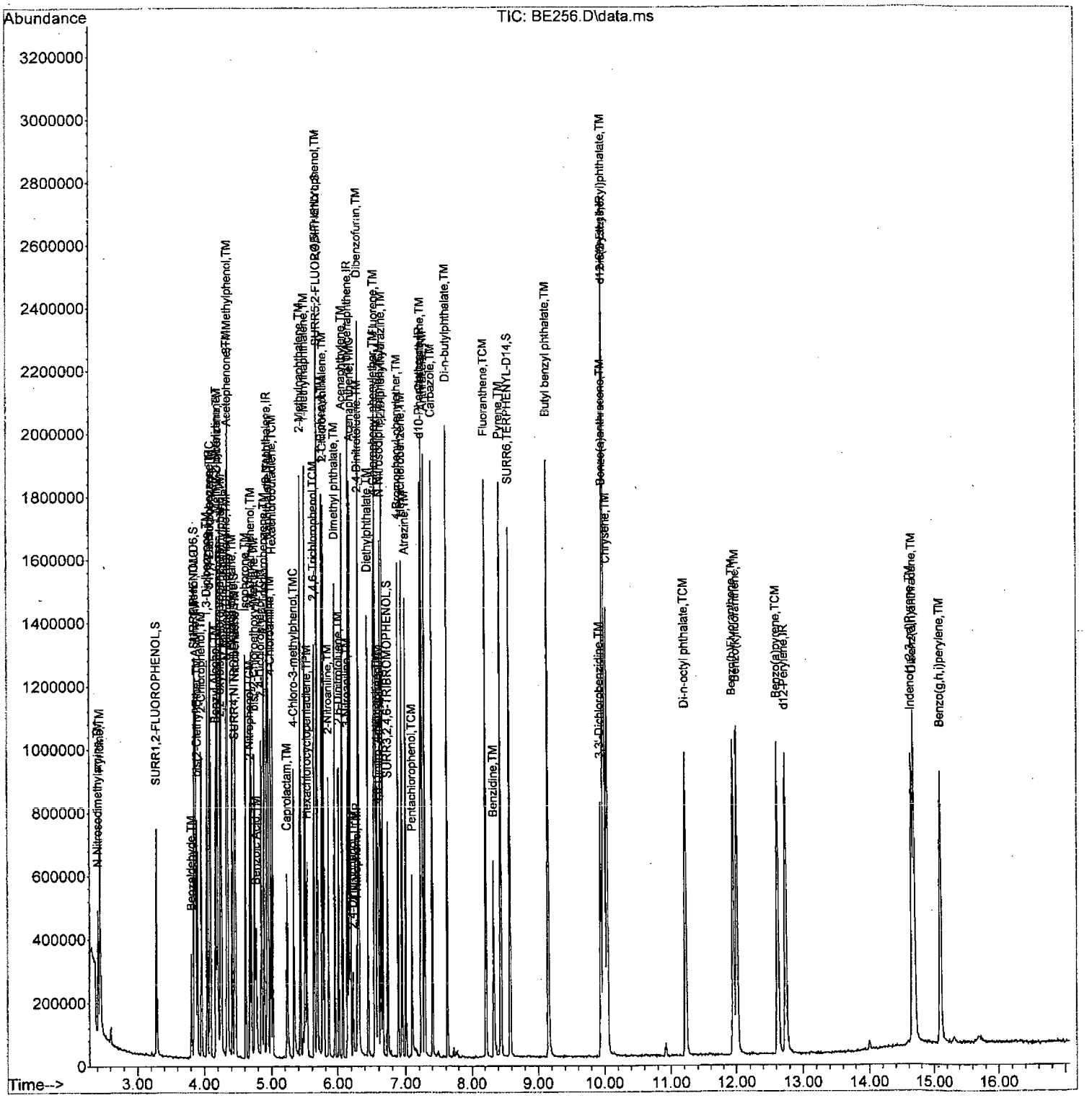
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\I20315\
Data File : BE256.D
Acq On : 3 Dec 2015 10:17 am
Operator : M.PEDRO
Sample : STD 3 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 03 11:30:19 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:28:20 2015
Response via : Initial Calibration

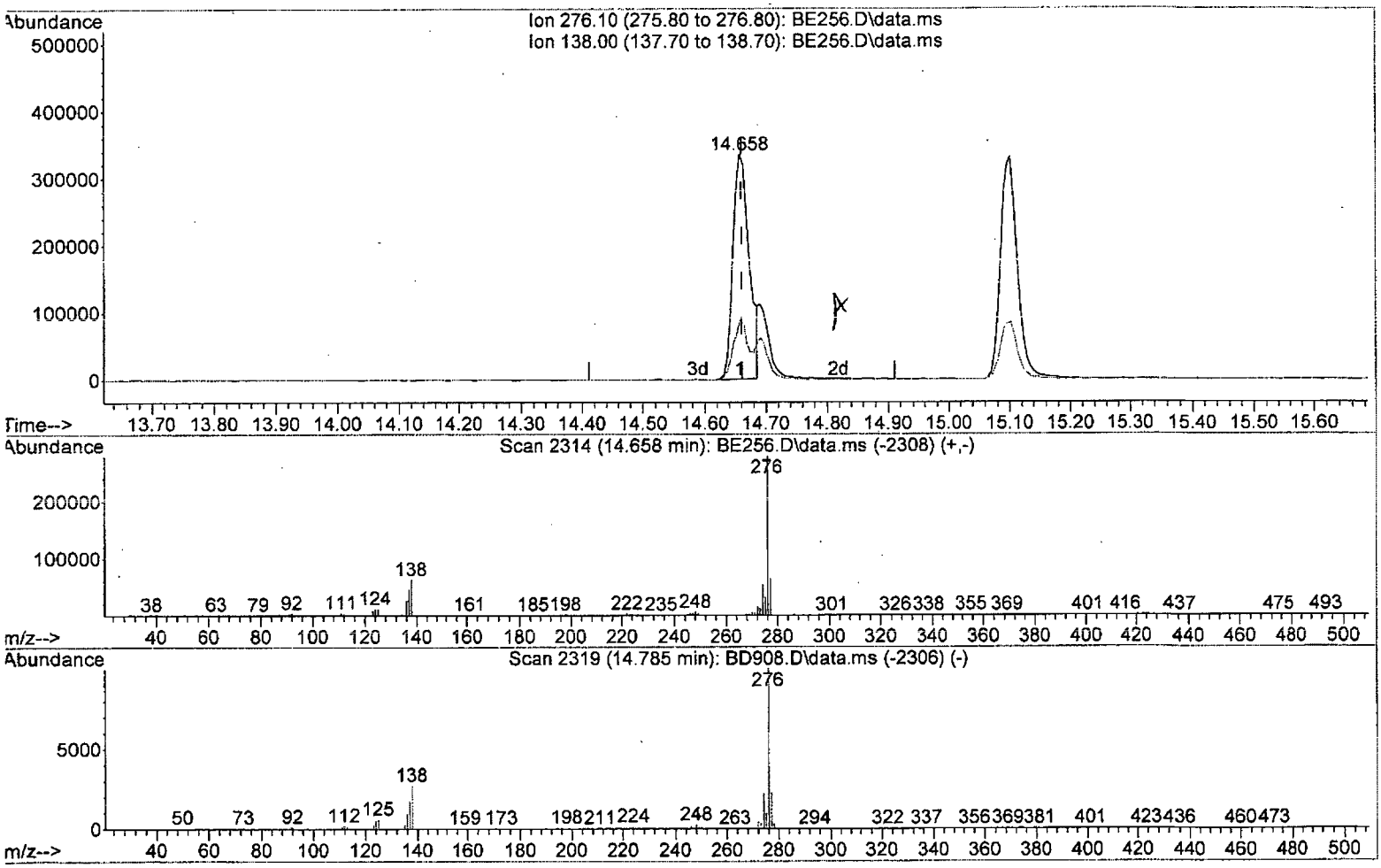


82701203D.M Thu Dec 03 14:47:27 2015 Page: 4

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE256.D
Acq On : 3 Dec 2015 10:17 am
Operator : M.PEDRO
Sample : STD 3 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 03 11:30:19 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:28:20 2015
Response via : Initial Calibration



TIC: BE256.D\data.ms

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.658min (-0.003) 41.87 ppm m

response 613183

Ion	Exp%	Act%
276.10	100	100
138.00	25.80	26.53
0.00	0.00	0.00
0.00	0.00	0.00

BCM 12/4

mw 12/5

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE257.D
Acq On : 3 Dec 2015 10:42 am
Operator : M.PEDRO
Sample : STD 4 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 03 11:18:08 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Mon Nov 16 09:22:37 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) d4-1,4-Dichlorobenzene	4.084	152	134526	40.00	ppm		-0.03
22) d8-Naphthalene	4.940	136	540615	40.00	ppm		-0.03
39) d10-Acenaphthene	6.170	164	331239	40.00	ppm		-0.03
61) d10-Phenanthrene	7.234	188	535096	40.00	ppm		-0.03
74) d12-Chrysene	10.005	240	664276	40.00	ppm		-0.05
83) d12-Perylene	12.749	264	653601	40.00	ppm		-0.07
System Monitoring Compounds							
4) SURR1,2-FLUOROPHENOL	3.282	112	273378	73.49	ppm		-0.01
Spiked Amount 200.000	Range 10 - 105		Recovery = 36.74%				
7) SURR2,PHENOL-D6	3.854	99	353163	74.35	ppm		0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 37.17%				
23) SURR4,NITROBENZENE-D5	4.453	82	320738	72.92	ppm		-0.03
Spiked Amount 100.000	Range 37 - 117		Recovery = 72.92%				
43) SURR5,2-FLUOROBIPHENYL	5.683	172	668550	62.02	ppm		-0.03
Spiked Amount 100.000	Range 39 - 119		Recovery = 62.02%				
60) SURR3,2,4,6-TRIBROMOPH...	6.737	330	91310	54.25	ppm		-0.03
Spiked Amount 200.000	Range 28 - 157		Recovery = 27.13%#				
77) SURR6,TERPHENYL-D14	8.582	244	812229	57.05	ppm		-0.04
Spiked Amount 100.000	Range 40 - 133		Recovery = 57.05%				
Target Compounds							Qvalue
2) Pyridine	2.437	79	354698	89.72	ppm		94
3) N-Nitrosodimethylamine	2.410	74	197411	90.95	ppm		74
5) Benzaldehyde	3.811	106	61803	43.09	ppm		96
6) Aniline	3.875	93	444851	81.46	ppm		98
8) Phenol	3.859	94	404846	80.42	ppm		97
9) bis(2-Clethyl)Ether	3.902	93	291007	77.23	ppm		96
10) 2-Chlorophenol	3.961	128	326510	72.37	ppm		92
11) 1,3-Diclbenzene	4.047	146	343848	68.39	ppm		98
12) 1,4-Dichlorobenzene	4.095	146	353313	67.14	ppm		98
13) 1,2-Diclbenzene	4.196	146	334648	70.72	ppm		94
14) Benzyl Alcohol	4.170	79	224875	63.79	ppm		96
15) 2,2'-oxybis(1-Chloropr...	4.245	45	480662	80.31	ppm	#	81
16) 2-Methylphenol	4.250	108	283329	72.37	ppm		94
17) Acetophenone	4.346	105	415083	70.70	ppm	#	66
18) N-Nitroso-Di-n-propyla...	4.335	70	223363	73.00	ppm	#	79
19) Hexachloroethane	4.416	117	150249	75.11	ppm	#	76
20) 3+4-Methylphenol	4.346	108	310410	76.36	ppm		96
21) 1-Methyl-2-pyrrolidinone	4.202	99	206814	75.37	ppm	#	85
24) Nitrobenzene	4.464	77	334978	73.72	ppm		89
25) Isophorone	4.619	82	580964	69.01	ppm		97
26) 2-Nitrophenol	4.678	139	172019	64.08	ppm		92
27) Benzoic Acid	4.785	105	232986	75.18	ppm		86
28) 2,4-Dimethylphenol	4.699	107	310125	64.86	ppm		89
29) bis(-2-Chloroethoxy)Me...	4.753	93	358716	73.75	ppm		96
30) 2,4-Dichlorophenol	4.854	162	276231	63.85	ppm		98
31) 1,2,4-Trichlorobenzene	4.897	180	299504	61.53	ppm		95
32) Naphthalene	4.956	128	904090	70.03	ppm		98
33) 4-Chloroaniline	4.988	127	386603	71.89	ppm		98

82701203D.M Thu Dec 03 14:47:31 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE257.D
Acq On : 3 Dec 2015 10:42 am
Operator : M.PEDRO
Sample : STD 4 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 03 11:18:08 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Mon Nov 16 09:22:37 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
34) Hexachlorobutadiene	5.020	225	183622	59.36	ppm		99
35) 4-Chloro-3-methylphenol	5.336	107	266213	63.00	ppm	#	26
36) Caprolactam	5.245	113	90464	66.63	ppm	#	84
37) 2-Methylnaphthalene	5.432	142	579450	65.44	ppm		97
38) 1-Methylnaphthalene	5.501	142	558218	62.94	ppm		99
40) Hexachlorocyclopentadiene	5.534	237	130158	66.88	ppm		99
41) 2,4,6-Trichlorophenol	5.635	196	210237	61.65	ppm		97
42) 2,4,5-Trichlorophenol	5.678	196	214502	64.96	ppm		99
44) 1,1'-Biphenyl	5.758	154	741473	65.14	ppm	#	97
45) 2-Chloronaphthalene	5.780	162	605065	65.19	ppm		98
46) 2-Nitroaniline	5.860	65	196531	75.25	ppm		99
47) Acenaphthylene	6.074	152	970620	64.71	ppm		98
48) Dimethyl phthalate	5.961	163	656563	61.31	ppm		97
49) 2,6-Dinitrotoluene	6.020	165	149453	63.29	ppm		77
50) Acenaphthene	6.197	153	621574	66.31	ppm		99
51) 3-Nitroaniline	6.149	138	164083	64.89	ppm		91
52) 2,4-Dinitrophenol	6.229	184	71006	59.33	ppm		59
53) Dibenzofuran	6.314	168	902197	63.25	ppm		99
54) 2,4-Dinitrotoluene	6.309	165	201899	66.65	ppm		65
55) 4-Nitrophenol	6.288	65	138396	73.74	ppm		96
56) Fluorene	6.560	166	720848	64.71	ppm		99
57) 4-Chlorophenyl-phenyle...	6.550	204	352201	58.68	ppm		97
58) Diethylphthalate	6.459	149	653703	60.80	ppm		100
59) 4-Nitroaniline	6.593	138	162548	58.06	ppm		94
62) 4,6-Dinitro-2-methylph...	6.603	198	122321	68.94	ppm		89
63) 1,2 Diphenylhydrazine	6.662	77	733403	90.05	ppm		92
64) N-Nitrosodiphenylamine	6.635	169	443724	66.57	ppm		98
65) 4-Bromophenyl-phenylether	6.897	248	204959	67.76	ppm		98
66) Hexachlorobenzene	6.951	284	226996	67.18	ppm		84
67) Atrazine	7.004	215	99147	69.83	ppm	#	88
68) Pentachlorophenol	7.101	266	114767	56.54	ppm		97
69) Phenanthrene	7.250	178	933623	68.86	ppm		99
70) Anthracene	7.288	178	984155	67.94	ppm		98
71) Carbazole	7.406	167	994367	68.45	ppm		98
72) Di-n-butylphthalate	7.630	149	1243285	69.67	ppm		99
73) Fluoranthene	8.224	202	1198180	65.22	ppm		97
75) Benzidine	8.342	184	425033	72.42	ppm		97
76) Pyrene	8.449	202	1260412	62.08	ppm		97
78) Butyl benzyl phthalate	9.155	149	591806	61.80	ppm		82
79) 3,3'-Dichlorobenzidine	9.952	252	403102	55.73	ppm		97
80) Benzo(a)anthracene	9.989	228	1239614	62.05	ppm		97
81) Chrysene	10.053	228	1149372	62.34	ppm		97
82) bis(2-Ethylhexyl)phtha...	10.010	149	812451	63.15	ppm		99
84) Di-n-octyl phthalate	11.230	149	1269620	59.48	ppm		89
85) Benzo(b)Fluoranthene	11.963	252	1151314	59.64	ppm		95
86) Benzo(k)fluoranthene	12.021	252	1189914	61.32	ppm		96
87) Benzo(a)pyrene	12.637	252	1136307	59.40	ppm		96
88) Indeno(1,2,3-cd)Pyrene	14.664	276	1076601m	58.08	ppm		
89) Dibenz(a,h)anthracene	14.701	278	1055806	57.72	ppm		97
90) Benzo(g,h,i)perylene	15.102	276	1055604	58.39	ppm		92

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE257.D
Acq On : 3 Dec 2015 10:42 am
Operator : M.PEDRO
Sample : STD 4 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 03 11:18:08 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Mon Nov 16 09:22:37 2015
Response via : Initial Calibration

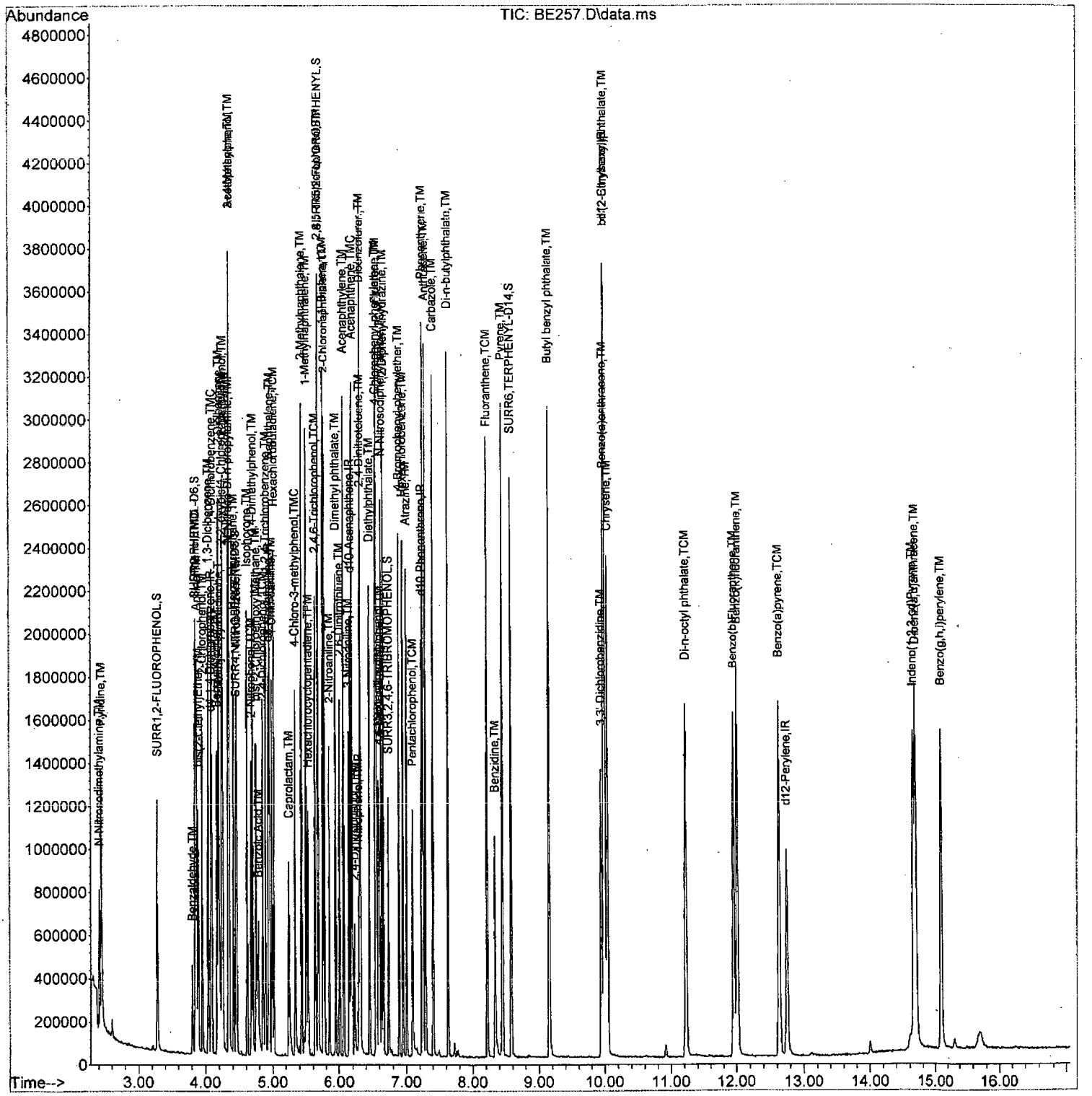
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\I20315\
Data File : BE257.D
Acq On : 3 Dec 2015 10:42 am
Operator : M.PEDRO
Sample : STD 4 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 7 Sample Multiplier: 1

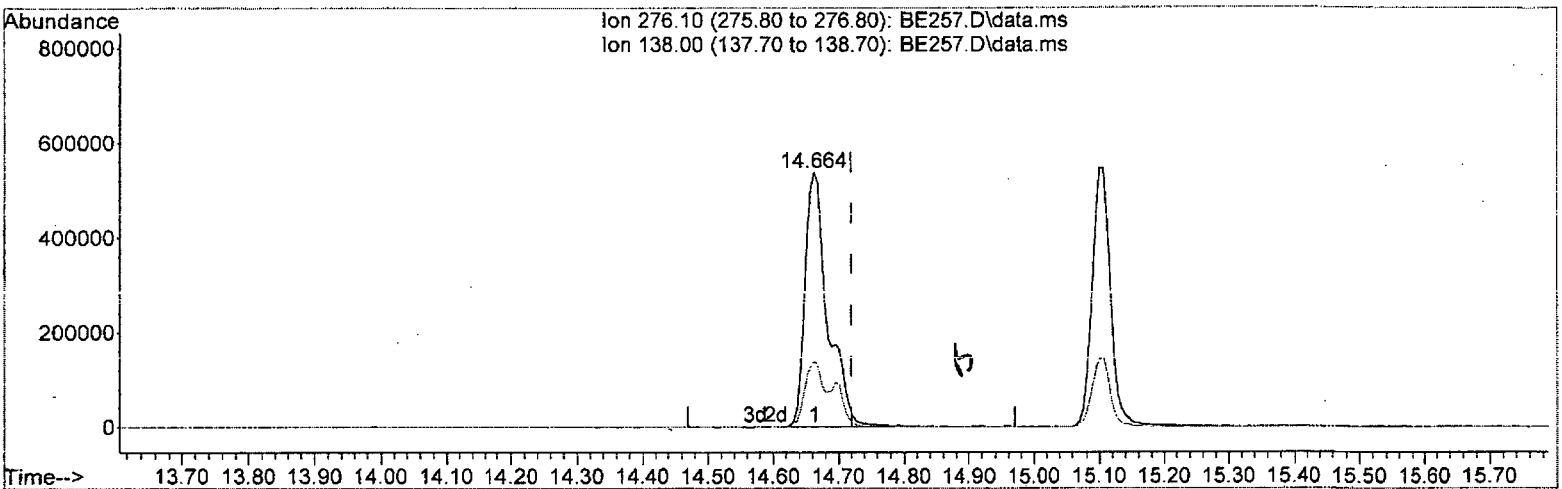
Quant Time: Dec 03 11:18:08 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Mon Nov 16 09:22:37 2015
Response via : Initial Calibration

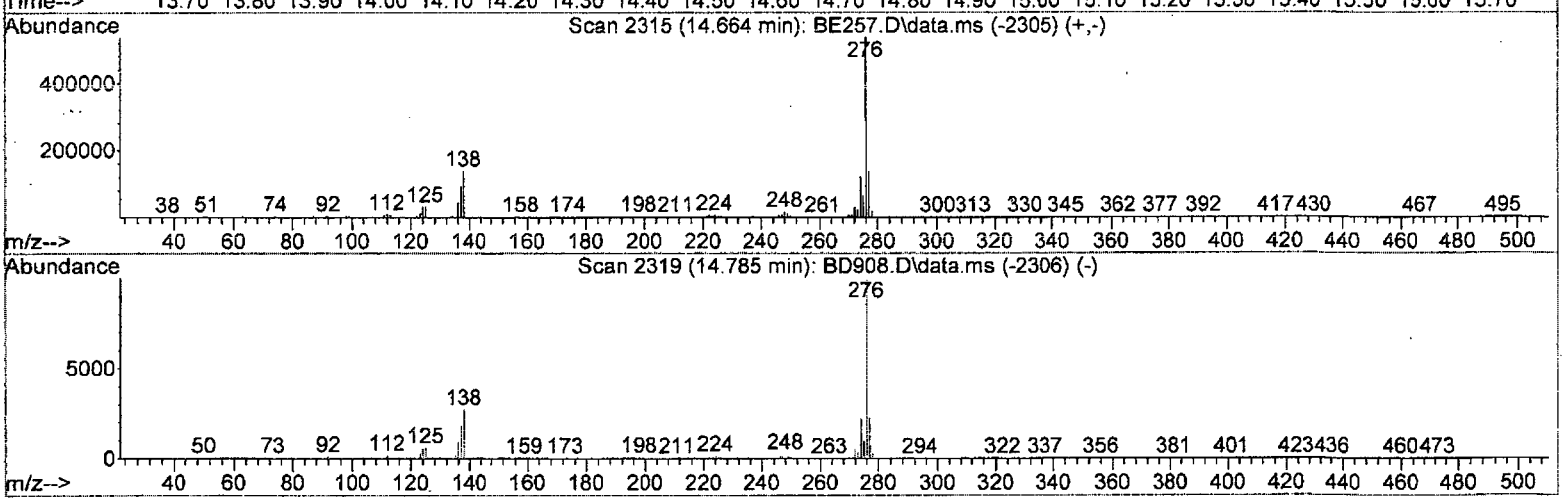


82701203D.M Thu Dec 03 14:47:33 2015 Page: 4

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE257.D
Acq On : 3 Dec 2015 10:42 am
Operator : M.PEDRO
Sample : STD 4 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 03 11:15:53 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Mon Nov 16 09:22:37 2015
Response via : Initial Calibration





TIC: BE257.D\data.ms

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.664min (-0.057) 69.71 ppm

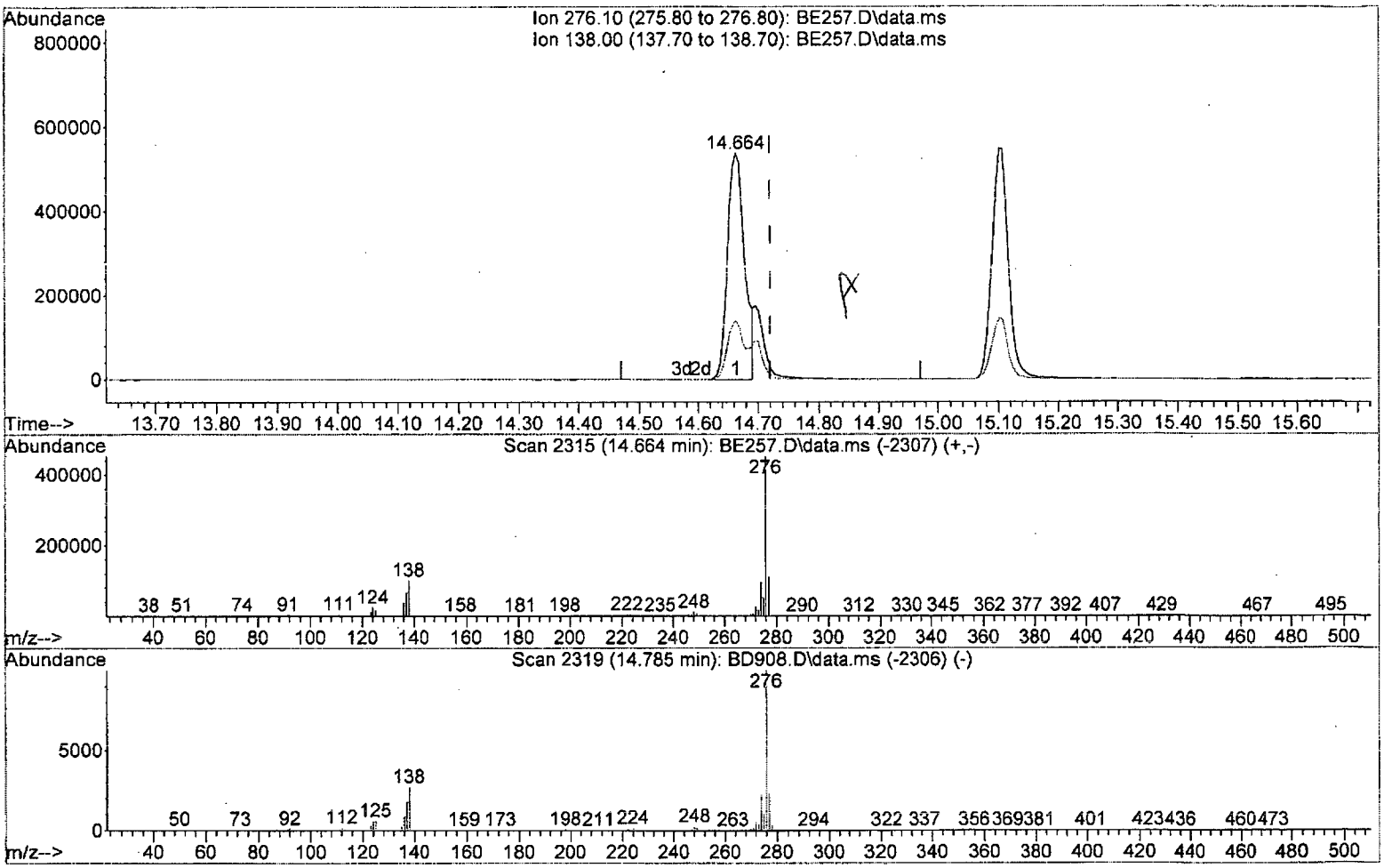
response 1292286

Ion	Exp%	Act%
276.10	100	100
138.00	18.20	25.74
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE257.D
Acq On : 3 Dec 2015 10:42 am
Operator : M.PEDRO
Sample : STD 4 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 03 11:18:08 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Mon Nov 16 09:22:37 2015
Response via : Initial Calibration



TIC: BE257.D\data.ms

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.664min (-0.057) 58.08 ppm m

response 1076601

Ion	Exp%	Act%
276.10	100	100
138.00	18.20	25.85
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE258.D
Acq On : 3 Dec 2015 11:08 am
Operator : M.PEDRO
Sample : STD 5 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 03 11:33:35 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:30:42 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d4-1,4-Dichlorobenzene	4.084	152	139617	40.00	ppm	0.00
22) d8-Naphthalene	4.940	136	565337	40.00	ppm	0.00
39) d10-Acenaphthene	6.170	164	342538	40.00	ppm	0.00
61) d10-Phenanthrene	7.234	188	588444	40.00	ppm	0.00
74) d12-Chrysene	10.010	240	703249	40.00	ppm	0.00
83) d12-Perylene	12.749	264	683683	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.282	112	345449	93.32	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 46.66%			
7) SURR2,PHENOL-D6	3.854	99	445165	94.92	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 47.46%			
23) SURR4,NITROBENZENE-D5	4.453	82	409725	93.04	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 93.04%			
43) SURR5,2-FLUOROBIPHENYL	5.683	172	863013	86.60	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 86.60%			
60) SURR3,2,4,6-TRIBROMOPH...	6.737	330	124692	82.87	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 41.44%			
77) SURR6,TERPHENYL-D14	8.582	244	1045196	81.39	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 81.39%			
Target Compounds						Qvalue
2) Pyridine	2.437	79	433731	102.01	ppm	93
3) N-Nitrosodimethylamine	2.410	74	241667	102.52	ppm	98
5) Benzaldehyde	3.811	106	72523	68.15	ppm	95
6) Aniline	3.875	93	560983	98.05	ppm	98
8) Phenol	3.859	94	515457	96.92	ppm	99
9) bis(2-Clethyl)Ether	3.902	93	364396	96.85	ppm	98
10) 2-Chlorophenol	3.961	128	416676	94.04	ppm	100
11) 1,3-Diclbenzene	4.047	146	426943	89.01	ppm	99
12) 1,4-Dichlorobenzene	4.095	146	449465	89.80	ppm	98
13) 1,2-Diclbenzene	4.196	146	420898	90.47	ppm	98
14) Benzyl Alcohol	4.170	79	298154	97.72	ppm	98
15) 2,2'-oxybis(1-Chloropr...	4.245	45	606069	98.21	ppm	89
16) 2-Methylphenol	4.250	108	359050	95.55	ppm	98
17) Acetophenone	4.346	105	520218	92.24	ppm	96
18) N-Nitroso-Di-n-propyla...	4.335	70	290502	95.34	ppm	97
19) Hexachloroethane	4.416	117	197936	98.42	ppm	96
20) 3+4-Methylphenol	4.346	108	380349	93.46	ppm	98
21) 1-Methyl-2-pyrrolidinone	4.207	99	259886	96.22	ppm	95
24) Nitrobenzene	4.464	77	423798	92.83	ppm	99
25) Isophorone	4.619	82	751310	92.22	ppm	99
26) 2-Nitrophenol	4.678	139	218239	87.49	ppm	98
27) Benzoic Acid	4.790	105	306677	96.72	ppm	99
28) 2,4-Dimethylphenol	4.699	107	388980	86.82	ppm	98
29) bis(-2-Chloroethoxy)Me...	4.753	93	447944	91.34	ppm	98
30) 2,4-Dichlorophenol	4.854	162	347803	87.35	ppm	97
31) 1,2,4-Trichlorobenzene	4.897	180	375704	83.39	ppm	97
32) Naphthalene	4.956	128	1134547	88.01	ppm	99
33) 4-Chloroaniline	4.988	127	487986	91.21	ppm	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE258.D
Acq On : 3 Dec 2015 11:08 am
Operator : M.PEDRO
Sample : STD 5
Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 03 11:33:35 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:30:42 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
34) Hexachlorobutadiene	5.020	225	231887	83.73	ppm		99
35) 4-Chloro-3-methylphenol	5.336	107	332425m	87.61	ppm		
36) Caprolactam	5.250	113	114025	92.48	ppm		98
37) 2-Methylnaphthalene	5.432	142	721775	86.18	ppm		96
38) 1-Methylnaphthalene	5.501	142	702566	85.05	ppm		99
40) Hexachlorocyclopentadiene	5.534	237	181233	93.83	ppm		98
41) 2,4,6-Trichlorophenol	5.635	196	270102	86.39	ppm		98
42) 2,4,5-Trichlorophenol	5.678	196	285217	92.55	ppm		95
44) 1,1'-Biphenyl	5.758	154	938805	86.14	ppm		99
45) 2-Chloronaphthalene	5.780	162	758383	87.04	ppm		99
46) 2-Nitroaniline	5.860	65	250180	95.30	ppm		97
47) Acenaphthylene	6.074	152	1236030	88.26	ppm		100
48) Dimethyl phthalate	5.961	163	827753	85.85	ppm		98
49) 2,6-Dinitrotoluene	6.020	165	192232	89.69	ppm		88
50) Acenaphthene	6.197	153	786334	87.02	ppm		98
51) 3-Nitroaniline	6.149	138	212909	87.23	ppm		99
52) 2,4-Dinitrophenol	6.229	184	107560	92.83	ppm		94
53) Dibenzofuran	6.320	168	1147597	86.40	ppm		97
54) 2,4-Dinitrotoluene	6.314	165	259691	90.32	ppm		93
55) 4-Nitrophenol	6.288	65	188536	99.02	ppm		96
56) Fluorene	6.560	166	911618	87.86	ppm		98
57) 4-Chlorophenyl-phenyle...	6.550	204	454001	84.92	ppm		97
58) Diethylphthalate	6.459	149	855265	85.88	ppm		99
59) 4-Nitroaniline	6.593	138	215807	83.13	ppm		99
62) 4,6-Dinitro-2-methylph...	6.603	198	164669	88.84	ppm		89
63) 1,2 Diphenylhydrazine	6.662	77	938189	100.28	ppm		98
64) N-Nitrosodiphenylamine	6.635	169	576085	85.69	ppm		98
65) 4-Bromophenyl-phenylether	6.897	248	259997	86.84	ppm		98
66) Hexachlorobenzene	6.951	284	290772	86.96	ppm		96
67) Atrazine	7.010	215	125054	94.00	ppm	#	91
68) Pentachlorophenol	7.101	266	161376	81.14	ppm		98
69) Phenanthrene	7.250	178	1211562	87.77	ppm		99
70) Anthracene	7.288	178	1285162	88.68	ppm		100
71) Carbazole	7.406	167	1273959	90.40	ppm		99
72) Di-n-butylphthalate	7.630	149	1597521	93.86	ppm		100
73) Fluoranthene	8.219	202	1545116	90.09	ppm		95
75) Benzidine	8.342	184	508838	90.91	ppm		99
76) Pyrene	8.449	202	1606963	85.12	ppm		99
78) Butyl benzyl phthalate	9.155	149	769555	89.30	ppm		98
79) 3,3'-Dichlorobenzidine	9.952	252	511191	82.44	ppm		98
80) Benzo(a)anthracene	9.989	228	1565752	84.18	ppm		99
81) Chrysene	10.053	228	1448000	83.15	ppm		99
82) bis(2-Ethylhexyl)phtha...	10.010	149	1048575	90.55	ppm		99
84) Di-n-octyl phthalate	11.235	149	1657139	92.59	ppm		98
85) Benzo(b)Fluoranthene	11.968	252	1472234	85.06	ppm		98
86) Benzo(k)fluoranthene	12.021	252	1481938	84.91	ppm		97
87) Benzo(a)pyrene	12.637	252	1425472	84.55	ppm		99
88) Indeno(1,2,3-cd)Pyrene	14.664	276	1327966m	86.56	ppm		
89) Dibenz(a,h)anthracene	14.701	278	1343354	84.48	ppm		98
90) Benzo(g,h,i)perylene	15.108	276	1330021	84.61	ppm		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE258.D
Acq On : 3 Dec 2015 11:08 am
Operator : M.PEDRO
Sample : STD 5 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 03 11:33:35 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:30:42 2015
Response via : Initial Calibration

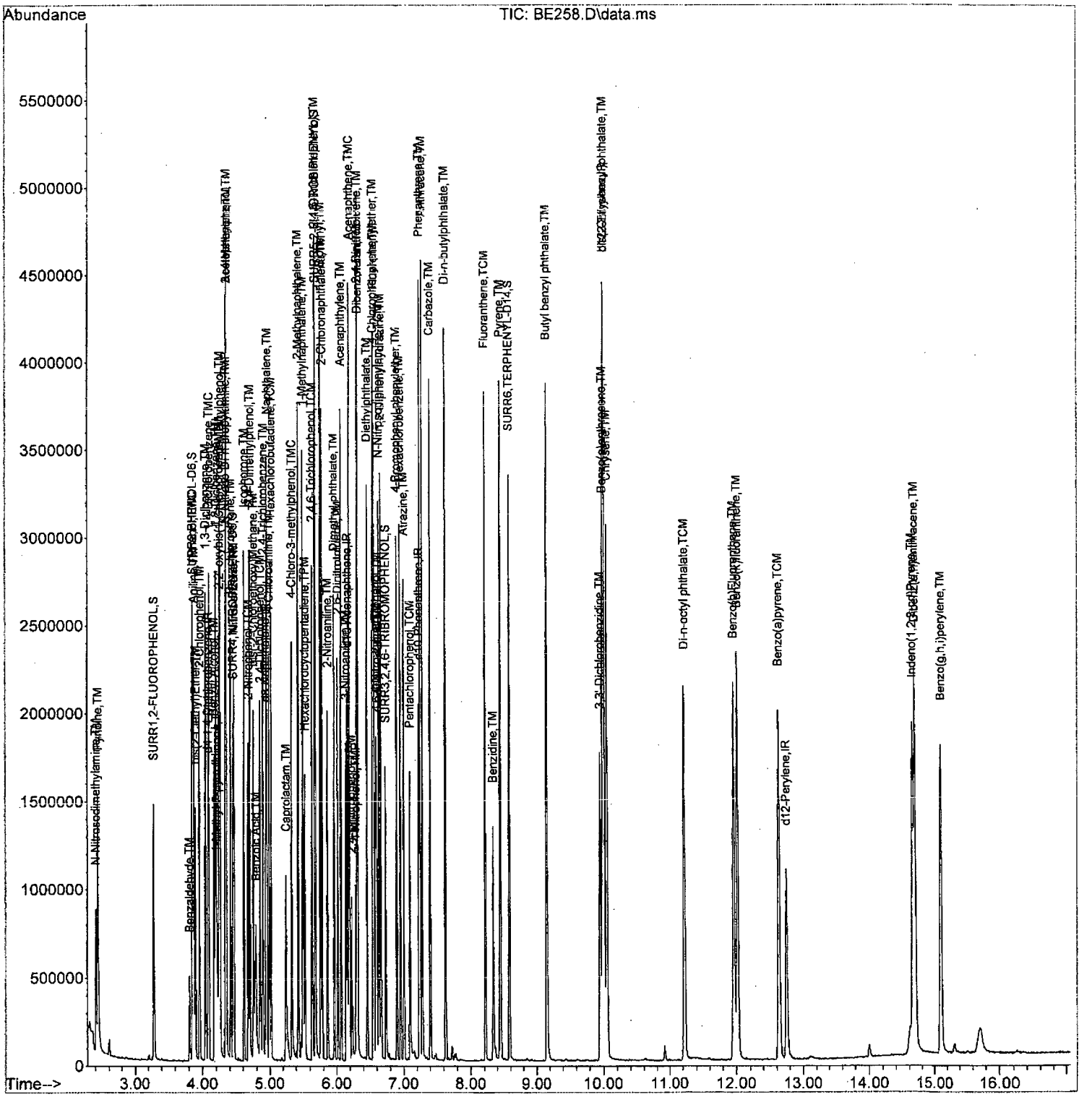
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE258.D
Acq On : 3 Dec 2015 11:08 am
Operator : M.PEDRO
Sample : STD 5 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 03 11:33:35 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:30:42 2015
Response via : Initial Calibration

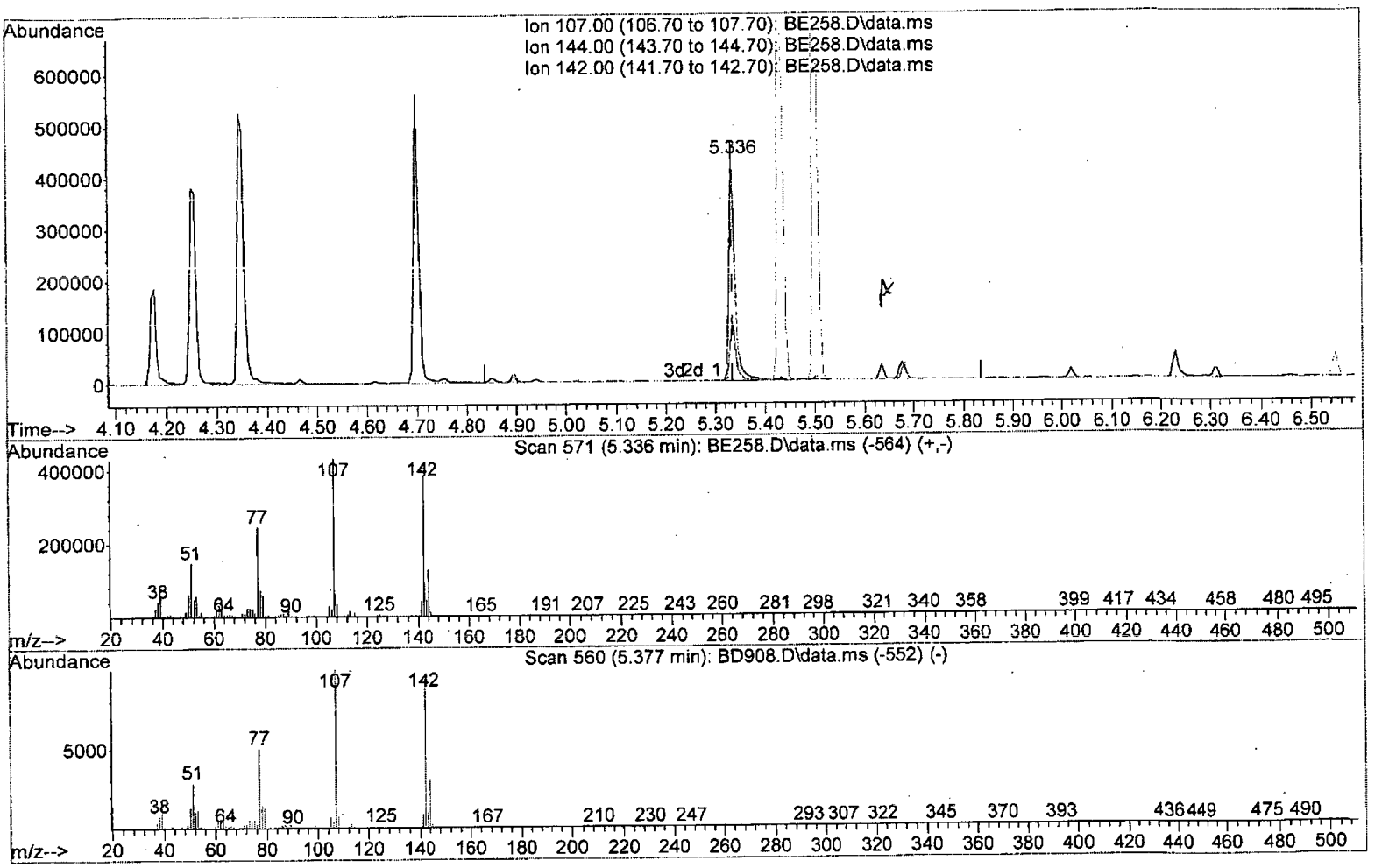


82701203D.M Thu Dec 03 14:47:41 2015 Page: 4

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE258.D
Acq On : 3 Dec 2015 11:08 am
Operator : M.PEDRO
Sample : STD 5 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 03 11:33:35 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:30:42 2015
Response via : Initial Calibration



TIC: BE258.D\data.ms

(35) 4-Chloro-3-methylphenol (TMC)

5.336min (0.000) 87.61 ppm m

response 332425

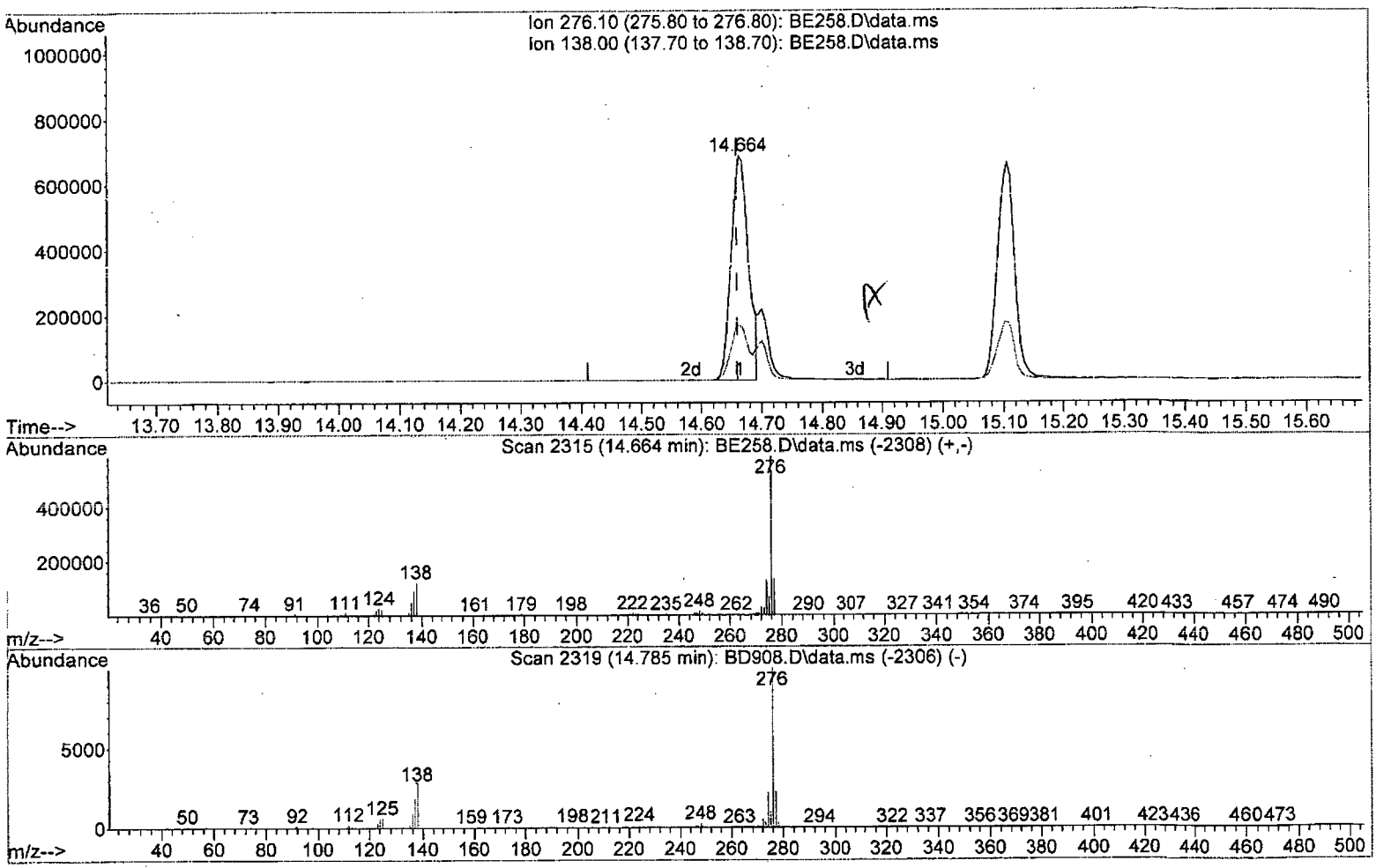
Ion	Exp%	Act%
107.00	100	100
144.00	28.80	29.36
142.00	0.00	88.83#
0.00	0.00	0.00

82701203D.M Fri Dec 04 10:13:13 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE258.D
Acq On : 3 Dec 2015 11:08 am
Operator : M.PEDRO
Sample : STD 5 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 03 11:33:35 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:30:42 2015
Response via : Initial Calibration



TIC: BE258.D\data.ms

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.664min (+0.003) 86.56 ppm m

response 1327966

Ion	Exp%	Act%
276.10	100	100
138.00	25.80	24.46
0.00	0.00	0.00
0.00	0.00	0.00

82701203D.M Fri Dec 04 10:13:26 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE259.D
Acq On : 3 Dec 2015 11:35 am
Operator : M.PEDRO
Sample : STD 6 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 03 11:51:50 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:34:00 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d4-1,4-Dichlorobenzene	4.084	152	139515	40.00	ppm	0.00
22) d8-Naphthalene	4.940	136	559471	40.00	ppm	0.00
39) d10-Acenaphthene	6.170	164	343542	40.00	ppm	0.00
61) d10-Phenanthrene	7.234	188	571905	40.00	ppm	0.00
74) d12-Chrysene	10.010	240	707301	40.00	ppm	0.00
83) d12-Perylene	12.754	264	656692	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.282	112	416437	115.00	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 57.50%			
7) SURR2,PHENOL-D6	3.854	99	527352	114.30	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 57.15%			
23) SURR4,NITROBENZENE-D5	4.453	82	484831	113.48	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 113.48%			
43) SURR5,2-FLUOROBIPHENYL	5.683	172	1049039	109.23	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 109.23%			
60) SURR3,2,4,6-TRIBROMOPH...	6.737	330	150235	104.53	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 52.27%			
77) SURR6,TERPHENYL-D14	8.587	244	1268524	103.40	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 103.40%			
Target Compounds						Qvalue
2) Pyridine	2.437	79	507652	118.20	ppm	94
3) N-Nitrosodimethylamine	2.415	74	293221	123.70	ppm	94
5) Benzaldehyde	3.811	106	73081	79.43	ppm	93
6) Aniline	3.875	93	705810	123.26	ppm	95
8) Phenol	3.865	94	622773	117.80	ppm	99
9) bis(2-Clethyl)Ether	3.902	93	410640	110.16	ppm	97
10) 2-Chlorophenol	3.961	128	493860	113.51	ppm	97
11) 1,3-Diclbenzene	4.046	146	523143	112.03	ppm	99
12) 1,4-Dichlorobenzene	4.095	146	537218	110.14	ppm	99
13) 1,2-Diclbenzene	4.196	146	507626	111.91	ppm	99
14) Benzyl Alcohol	4.175	79	350844	118.91	ppm	97
15) 2,2'-oxybis(1-Chloropr...	4.244	45	746930	121.15	ppm	83
16) 2-Methylphenol	4.255	108	438849	119.46	ppm	96
17) Acetophenone	4.346	105	638755	116.12	ppm	96
18) N-Nitroso-Di-n-propyla...	4.341	70	351809	116.98	ppm	95
19) Hexachloroethane	4.416	117	232671	116.78	ppm	96
20) 3+4-Methylphenol	4.351	108	477890	119.34	ppm	99
21) 1-Methyl-2-pyrrolidinone	4.212	99	314737	118.38	ppm	97
24) Nitrobenzene	4.464	77	508547	114.41	ppm	100
25) Isophorone	4.619	82	910913	115.39	ppm	98
26) 2-Nitrophenol	4.678	139	272372	115.09	ppm	96
27) Benzoic Acid	4.795	105	376591	121.38	ppm	100
28) 2,4-Dimethylphenol	4.699	107	469561	109.49	ppm	98
29) bis(-2-Chloroethoxy)Me...	4.752	93	544405	114.33	ppm	100
30) 2,4-Dichlorophenol	4.854	162	424866	112.32	ppm	98
31) 1,2,4-Trichlorobenzene	4.897	180	462132	108.30	ppm	97
32) Naphthalene	4.956	128	1374125	110.46	ppm	99
33) 4-Chloroaniline	4.993	127	584741	113.30	ppm	98

82701203D.M Thu Dec 03 14:47:45 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE259.D
Acq On : 3 Dec 2015 11:35 am
Operator : M.PEDRO
Sample : STD 6 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 03 11:51:50 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:34:00 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Hexachlorobutadiene	5.020	225	278945	106.84	ppm	99
35) 4-Chloro-3-methylphenol	5.335	107	405685m	112.90	ppm	
36) Caprolactam	5.255	113	139837	119.35	ppm	90
37) 2-Methylnaphthalene	5.432	142	881134	110.19	ppm	99
38) 1-Methylnaphthalene	5.507	142	855154	108.84	ppm	98
40) Hexachlorocyclopentadiene	5.533	237	226693	114.42	ppm	100
41) 2,4,6-Trichlorophenol	5.635	196	321133	107.41	ppm	98
42) 2,4,5-Trichlorophenol	5.678	196	343729	115.25	ppm	96
44) 1,1'-Biphenyl	5.758	154	1121603	106.45	ppm	98
45) 2-Chloronaphthalene	5.779	162	906417	107.80	ppm	98
46) 2-Nitroaniline	5.860	65	296916	114.87	ppm	96
47) Acenaphthylene	6.074	152	1470240	108.45	ppm	99
48) Dimethyl phthalate	5.967	163	975004	104.71	ppm	98
49) 2,6-Dinitrotoluene	6.020	165	232257	111.92	ppm	95
50) Acenaphthene	6.197	153	948570	108.55	ppm	98
51) 3-Nitroaniline	6.154	138	258785	109.65	ppm	93
52) 2,4-Dinitrophenol	6.229	184	132324	118.11	ppm	95
53) Dibenzofuran	6.320	168	1369307	106.90	ppm	99
54) 2,4-Dinitrotoluene	6.314	165	322961	116.45	ppm	95
55) 4-Nitrophenol	6.288	65	223150	117.49	ppm	98
56) Fluorene	6.566	166	1097973	109.32	ppm	100
57) 4-Chlorophenyl-phenyle...	6.550	204	536851	104.87	ppm	95
58) Diethylphthalate	6.459	149	1018580	105.69	ppm	99
59) 4-Nitroaniline	6.592	138	256753	104.63	ppm	96
62) 4,6-Dinitro-2-methylph...	6.608	198	210164	120.85	ppm	84
63) 1,2 Diphenylhydrazine	6.667	77	1105103	120.61	ppm	94
64) N-Nitrosodiphenylamine	6.641	169	693751	109.64	ppm	98
65) 4-Bromophenyl-phenylether	6.903	248	304584	108.09	ppm	89
66) Hexachlorobenzene	6.956	284	346393	110.32	ppm	88
67) Atrazine	7.010	215	156399	123.81	ppm	90
68) Pentachlorophenol	7.101	266	194019	108.13	ppm	95
69) Phenanthrene	7.250	178	1450963	111.42	ppm	99
70) Anthracene	7.288	178	1538185	112.93	ppm	99
71) Carbazole	7.411	167	1537419	116.51	ppm	99
72) Di-n-butylphthalate	7.630	149	1927614	120.33	ppm	98
73) Fluoranthene	8.224	202	1869015	117.30	ppm	96
75) Benzidine	8.341	184	604740	111.46	ppm	99
76) Pyrene	8.454	202	1954959	107.18	ppm	99
78) Butyl benzyl phthalate	9.160	149	936384	112.11	ppm	94
79) 3,3'-Dichlorobenzidine	9.957	252	623014	106.10	ppm	95
80) Benzo(a)anthracene	9.994	228	1893938	105.84	ppm	99
81) Chrysene	10.053	228	1758648	104.66	ppm	98
82) bis(2-Ethylhexyl)phtha...	10.016	149	1293488	115.02	ppm	99
84) Di-n-octyl phthalate	11.235	149	2069543	125.66	ppm	100
85) Benzo(b)Fluoranthene	11.968	252	1771475	111.70	ppm	99
86) Benzo(k)fluoranthene	12.027	252	1824703	113.99	ppm	97
87) Benzo(a)pyrene	12.642	252	1753382	113.93	ppm	99
88) Indeno(1,2,3-cd)Pyrene	14.669	276	1701498m	122.50	ppm	
89) Dibenz(a,h)anthracene	14.706	278	1621629	112.08	ppm	99
90) Benzo(g,h,i)perylene	15.113	276	1583416	110.40	ppm	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE259.D
Acq On : 3 Dec 2015 11:35 am
Operator : M.PEDRO
Sample : STD 6
Misc : INITIAL CAL
ALS Vial : 9 Sample Multiplier: 1

Inst : 5973D

Quant Time: Dec 03 11:51:50 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:34:00 2015
Response via : Initial Calibration

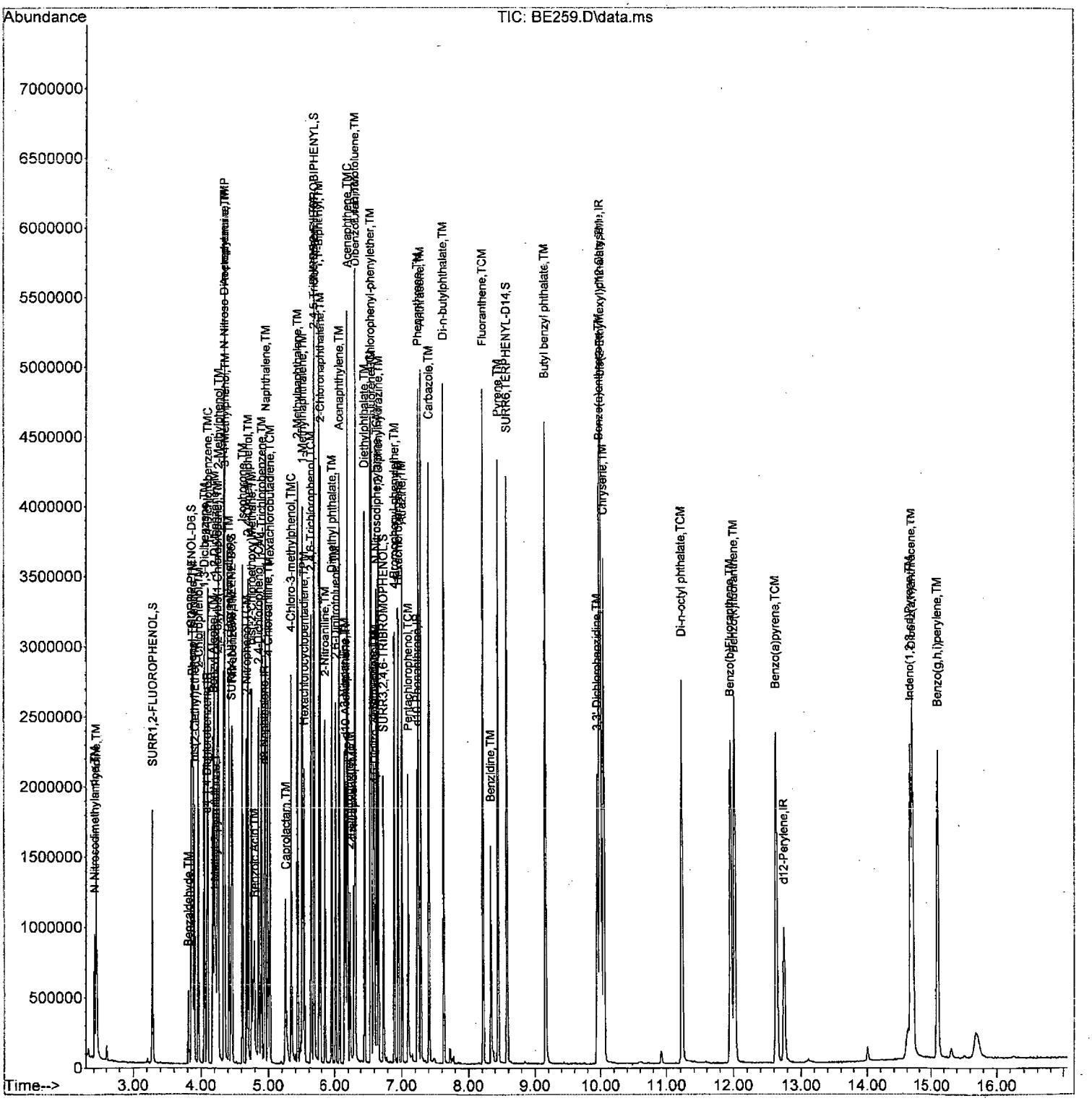
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

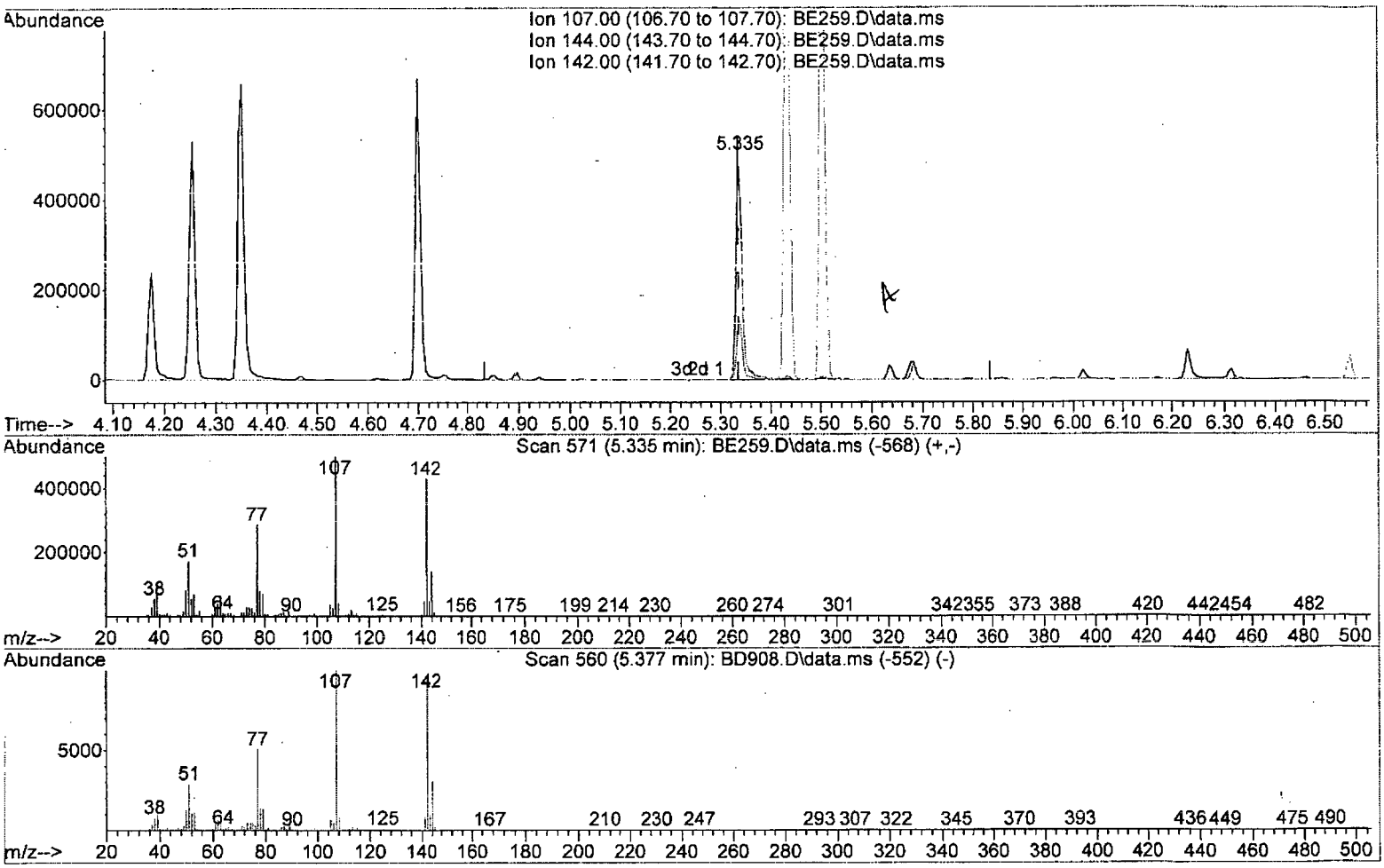
Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE259.D
Acq On : 3 Dec 2015 11:35 am
Operator : M.PEDRO
Sample : STD 6 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 03 11:51:50 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:34:00 2015
Response via : Initial Calibration



Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE259.D
Acq On : 3 Dec 2015 11:35 am
Operator : M.PEDRO
Sample : STD 6 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 03 11:51:50 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:34:00 2015
Response via : Initial Calibration



TIC: BE259.D\data.ms

(35) 4-Chloro-3-methylphenol (TMC)

5.335min (-0.000) 112.90 ppm m

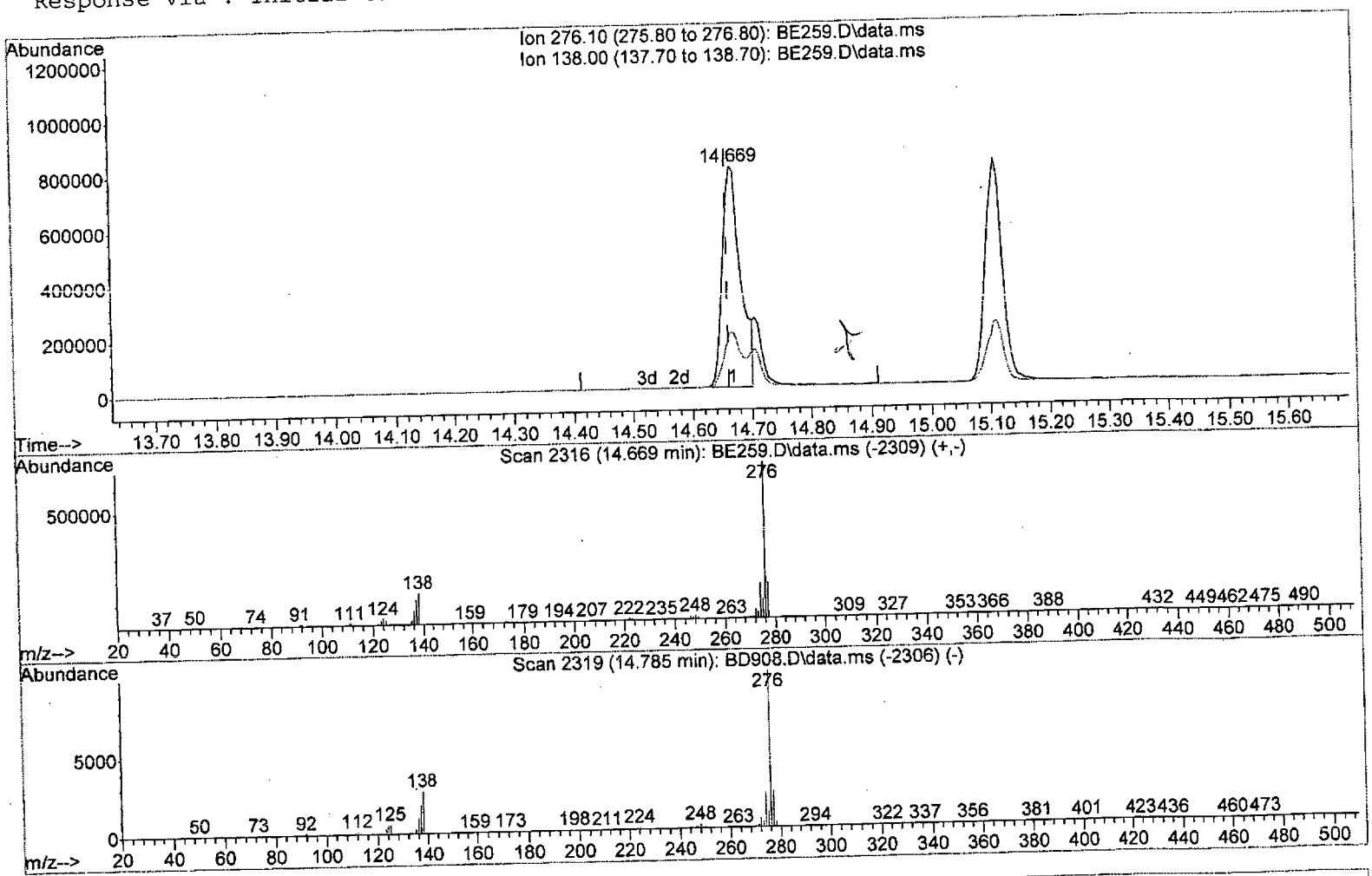
response 405685

Ion	Exp%	Act%
107.00	100	100
144.00	28.80	28.27
142.00	0.00	85.97#
0.00	0.00	0.00

BCW 12/4

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE259.D
Acq On : 3 Dec 2015 11:35 am
Operator : M.PEDRO
Inst : 5973D
Sample : STD 6
Misc : INITIAL CAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 03 11:51:50 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:34:00 2015
Response via : Initial Calibration



TIC: BE259.D\data.ms

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.669min (+0.008) 122.50 ppm m

response 1701498

Ion	Exp%	Act%
276.10	100	100
138.00	25.80	25.09
0.00	0.00	0.00
0.00	0.00	0.00

82701203D.M Fri Dec 04 10:14:22 2015

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE260.D
Acq On : 3 Dec 2015 12:00 pm
Operator : M.PEDRO
Sample : STD 7 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 03 12:31:03 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:52:08 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d4-1,4-Dichlorobenzene	4.084	152	148296	40.00	ppm	0.00
22) d8-Naphthalene	4.940	136	578250	40.00	ppm	0.00
39) d10-Acenaphthene	6.170	164	337457	40.00	ppm	0.00
61) d10-Phenanthrene	7.234	188	586224	40.00	ppm	0.00
74) d12-Chrysene	10.010	240	704646	40.00	ppm	0.00
83) d12-Perylene	12.760	264	666191	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.282	112	588878	156.13	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 78.06%			
7) SURR2,PHENOL-D6	3.854	99	759957	157.57	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 78.78%			
23) SURR4,NITROBENZENE-D5	4.453	82	684193	158.22	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 158.22%#			
43) SURR5,2-FLUOROBIPHENYL	5.683	172	1484894	163.55	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 163.55%#			
60) SURR3,2,4,6-TRIBROMOPH...	6.742	330	220496	164.57	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 82.28%			
77) SURR6,TERPHENYL-D14	8.588	244	1738049	150.58	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 150.58%#			
Target Compounds						Qvalue
2) Pyridine	2.437	79	711732	154.30	ppm	94
3) N-Nitrosodimethylamine	2.415	74	393740	154.43	ppm	96
5) Benzaldehyde	3.811	106	84352	99.94	ppm	98
6) Aniline	3.876	93	963731	157.61	ppm	91
8) Phenol	3.865	94	878815	156.86	ppm	99
9) bis(2-Clethyl)Ether	3.902	93	589679	150.43	ppm	98
10) 2-Chlorophenol	3.961	128	687418	150.92	ppm	94
11) 1,3-Diclbenzene	4.047	146	734913	151.43	ppm	99
12) 1,4-Dichlorobenzene	4.095	146	749350	147.49	ppm	99
13) 1,2-Diclbenzene	4.196	146	710239	150.22	ppm	98
14) Benzyl Alcohol	4.175	79	516589	171.41	ppm	97
15) 2,2'-oxybis(1-Chloropr...	4.245	45	1047469	159.05	ppm	82
16) 2-Methylphenol	4.255	108	626381	162.22	ppm	99
17) Acetophenone	4.346	105	916430	159.25	ppm	93
18) N-Nitroso-Di-n-propyla...	4.341	70	506949	159.68	ppm	99
19) Hexachloroethane	4.416	117	336447	160.04	ppm	93
20) 3+4-Methylphenol	4.352	108	677322	160.42	ppm	97
21) 1-Methyl-2-pyrrolidinone	4.218	99	432308	154.10	ppm	97
24) Nitrobenzene	4.469	77	726958	160.57	ppm	94
25) Isophorone	4.619	82	1266536	158.22	ppm	96
26) 2-Nitrophenol	4.678	139	379786	161.65	ppm	93
27) Benzoic Acid	4.806	105	534653	168.81	ppm	98
28) 2,4-Dimethylphenol	4.699	107	666309	156.54	ppm	97
29) bis(-2-Chloroethoxy)Me...	4.753	93	769221	159.14	ppm	99
30) 2,4-Dichlorophenol	4.854	162	604200	160.98	ppm	99
31) 1,2,4-Trichlorobenzene	4.897	180	651137	154.02	ppm	98
32) Naphthalene	4.956	128	1899172	151.34	ppm	98
33) 4-Chloroaniline	4.993	127	794674	152.91	ppm	98

DF 12/4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE260.D
Acq On : 3 Dec 2015 12:00 pm
Operator : M.PEDRO
Sample : STD 7 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 03 12:31:03 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:52:08 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
34)	Hexachlorobutadiene	5.025	225	391333	152.61	ppm		95
35)	4-Chloro-3-methylphenol	5.341	107	575675	161.62	ppm		100
36)	Caprolactam	5.261	113	185086	156.96	ppm		99
37)	2-Methylnaphthalene	5.432	142	1232977	154.46	ppm		98
38)	1-Methylnaphthalene	5.507	142	1189756	152.23	ppm		100
40)	Hexachlorocyclopentadiene	5.534	237	353865	163.21	ppm		99
41)	2,4,6-Trichlorophenol	5.641	196	461137	165.15	ppm		99
42)	2,4,5-Trichlorophenol	5.678	196	474885	168.02	ppm		96
44)	1,1'-Biphenyl	5.758	154	1581953	158.81	ppm		98
45)	2-Chloronaphthalene	5.780	162	1261373	158.62	ppm		99
46)	2-Nitroaniline	5.860	65	407050	162.97	ppm		92
47)	Acenaphthylene	6.079	152	2038817	158.42	ppm		99
48)	Dimethyl phthalate	5.967	163	1312088	148.74	ppm		97
49)	2,6-Dinitrotoluene	6.026	165	312299	157.68	ppm	#	73
50)	Acenaphthene	6.197	153	1334825	160.43	ppm		97
51)	3-Nitroaniline	6.154	138	354258	158.90	ppm		97
52)	2,4-Dinitrophenol	6.229	184	201109	189.83	ppm		90
53)	Dibenzofuran	6.320	168	1906937	157.74	ppm		99
54)	2,4-Dinitrotoluene	6.314	165	448601	170.93	ppm		99
55)	4-Nitrophenol	6.293	65	319203	172.89	ppm		94
56)	Fluorene	6.566	166	1469166	153.48	ppm		100
57)	4-Chlorophenyl-phenyle...	6.550	204	727931	151.22	ppm		94
58)	Diethylphthalate	6.459	149	1419644	155.82	ppm		98
59)	4-Nitroaniline	6.598	138	365056	160.91	ppm		99
62)	4,6-Dinitro-2-methylph...	6.609	198	295276	169.65	ppm		97
63)	1,2 Diphenylhydrazine	6.668	77	1458773	152.71	ppm		93
64)	N-Nitrosodiphenylamine	6.641	169	943433	149.30	ppm		99
65)	4-Bromophenyl-phenylether	6.903	248	422555	150.06	ppm		90
66)	Hexachlorobenzene	6.956	284	477643	151.97	ppm		89
67)	Atrazine	7.010	215	213000	167.29	ppm		96
68)	Pentachlorophenol	7.101	266	275066	160.01	ppm		97
69)	Phenanthrene	7.256	178	1983913	152.19	ppm		99
70)	Anthracene	7.293	178	2120961	155.87	ppm		99
71)	Carbazole	7.411	167	2092700	159.22	ppm		98
72)	Di-n-butylphthalate	7.630	149	2622131	164.31	ppm		97
73)	Fluoranthene	8.224	202	2509207	159.22	ppm		95
75)	Benzidine	8.342	184	790946	150.22	ppm		99
76)	Pyrene	8.454	202	2669874	153.57	ppm		99
78)	Butyl benzyl phthalate	9.160	149	1296302	162.50	ppm		96
79)	3,3'-Dichlorobenzidine	9.957	252	836564	152.19	ppm		100
80)	Benzo(a)anthracene	9.994	228	2586025	151.51	ppm		98
81)	Chrysene	10.059	228	2382516	148.44	ppm		99
82)	bis(2-Ethylhexyl)phtha...	10.010	149	1773605	164.36	ppm		99
84)	Di-n-octyl phthalate	11.235	149	2790023	174.22	ppm		100
85)	Benzo(b)Fluoranthene	11.973	252	2419611	158.04	ppm		98
86)	Benzo(k)fluoranthene	12.032	252	2440489	156.71	ppm		97
87)	Benzo(a)pyrene	12.647	252	2349393	158.06	ppm		100
88)	Indeno(1,2,3-cd)Pyrene	14.674	276	2219917m	165.27	ppm		
89)	Dibenz(a,h)anthracene	14.712	278	2200619	157.84	ppm		99
90)	Benzo(g,h,i)perylene	15.118	276	2111224	152.55	ppm		98

82701203D.M Thu Dec 03 14:47:51 2015 Page: 2

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE260.D
Acq On : 3 Dec 2015 12:00 pm
Operator : M.PEDRO
Sample : STD 7 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 03 12:31:03 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:52:08 2015
Response via : Initial Calibration

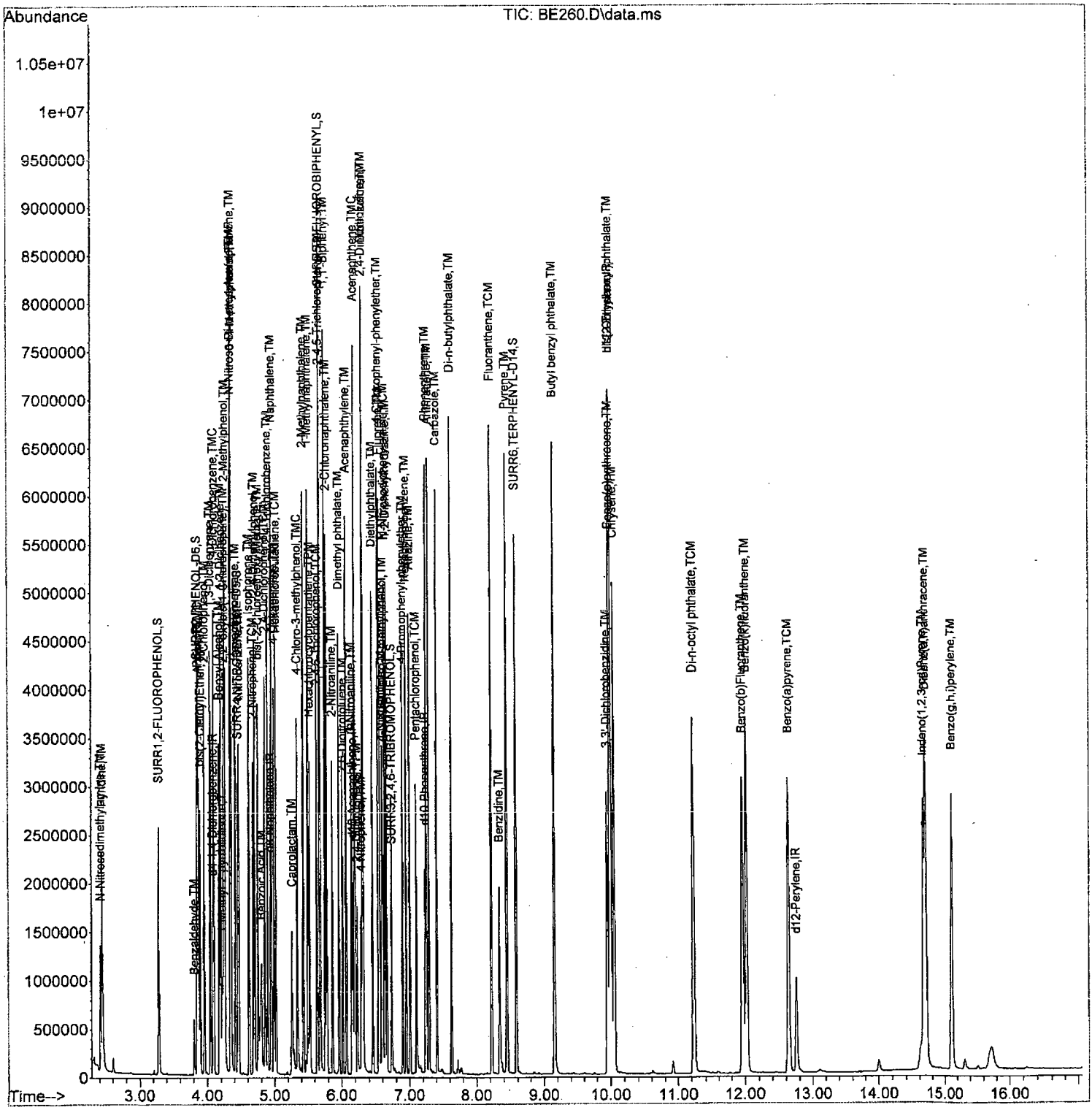
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

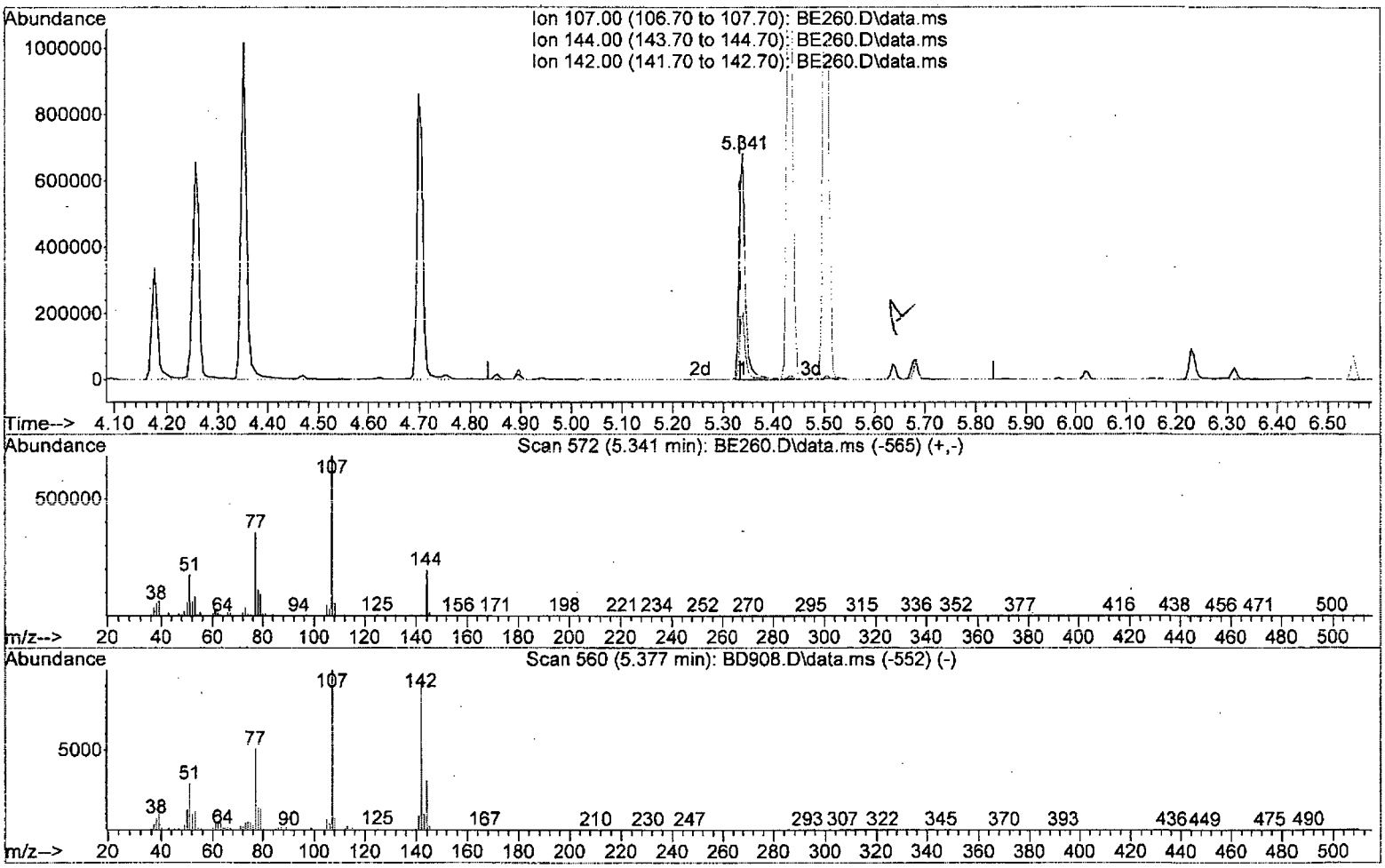
Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE260.D
Acq On : 3 Dec 2015 12:00 pm
Operator : M.PEDRO
Sample : STD 7 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 03 12:31:03 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:52:08 2015
Response via : Initial Calibration



Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE260.D
Acq On : 3 Dec 2015 12:00 pm
Operator : M.PEDRO
Sample : STD 7 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 03 12:31:03 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:52:08 2015
Response via : Initial Calibration



TIC: BE260.D\data.ms

(35) 4-Chloro-3-methylphenol (TMC)

5.341min (+0.005) 161.62 ppm

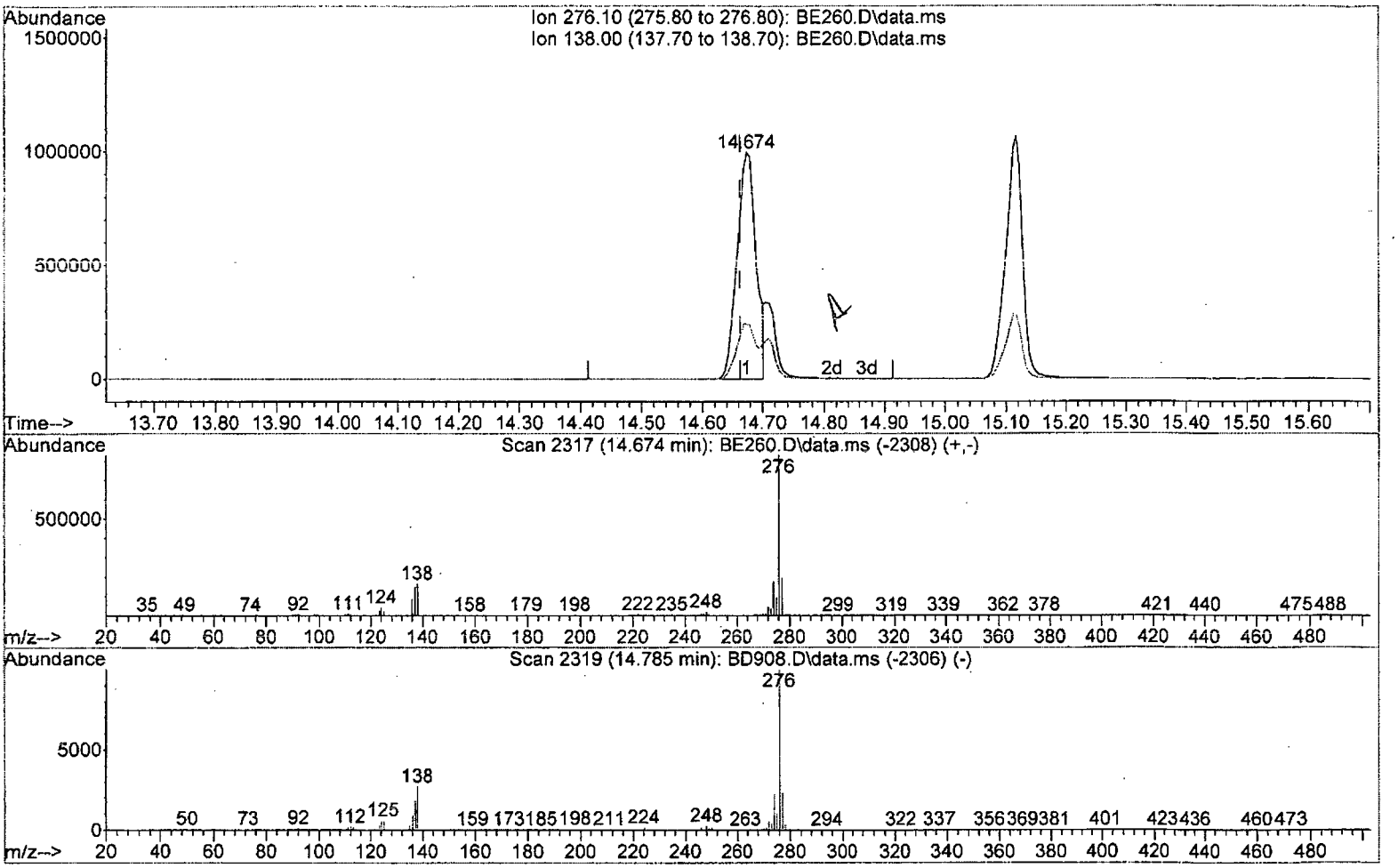
response 575675

Ion	Exp%	Act%
107.00	100	100
144.00	28.80	28.70
142.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE260.D
Acq On : 3 Dec 2015 12:00 pm
Operator : M.PEDRO
Sample : STD 7 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 03 12:31:03 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 11:52:08 2015
Response via : Initial Calibration



TIC: BE260.D\data.ms

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.674min (+0.011) 165.27 ppm m

response 2219917

Ion	Exp%	Act%
276.10	100	100
138.00	25.80	24.18
0.00	0.00	0.00
0.00	0.00	0.00

BC.

12/4

12/4

82701203D.M Fri Dec 04 10:15:03 2015 Page: 1

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE262.D
Acq On : 3 Dec 2015 12:52 pm
Operator : M.PEDRO
Sample : ICV #2 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 03 14:04:11 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	d4-1,4-Dichlorobenzene	1.000	1.000	0.0	105	0.00
2	TM	Pyridine	1.242	1.330	-7.1	106	0.00
3	TM	N-Nitrosodimethylamine	0.692	0.000#	100.0#	0#	-2.41#
4	S	SURR1,2-FLUOROPHENOL	0.992	0.000#	100.0#	0#	-3.28#
5	TM	Benzaldehyde	0.206	0.304	-47.6#	139	0.00
6	TM	Aniline	1.651	1.330	19.4	84	0.00
7	S	SURR2,PHENOL-D6	1.273	0.000#	100.0#	0#	-3.85#
8	TMC	Phenol	1.500	1.622	-8.1	113	0.00
9	TM	bis(2-Clethyl)Ether	1.048	1.217	-16.1	118	0.00
10	TM	2-Chlorophenol	1.199	0.000#	100.0#	0#	-3.96#
11	TM	1,3-Diclbenzene	1.279	0.000#	100.0#	0#	-4.05#
12	TMC	1,4-Dichlorobenzene	1.336	0.000#	100.0#	0#	-4.09#
13	TM	1,2-Diclbenzene	1.244	0.000#	100.0#	0#	-4.20#
14	TM	Benzyl Alcohol	0.782	0.000#	100.0#	0#	-4.17#
15	TM	2,2'-oxybis(1-Chloropropane	1.784	0.000#	100.0#	0#	-4.24#
16	TM	2-Methylphenol	1.023	1.127	-10.2	112	0.00
17	TM	Acetophenone	1.517	1.759	-16.0	120	0.00
18	TMP	N-Nitroso-Di-n-propylamine	0.847	0.001#	99.9#	0#	-0.01
19	TM	Hexachloroethane	0.563	0.001#	99.8#	0#	0.00
20	TM	3+4-Methylphenol	1.125	2.471	-119.6#	225#	0.00
21	T	1-Methyl-2-pyrrolidinone	0.738	0.830	-12.5	113	-0.01
22	IR	d8-Naphthalene	1.000	1.000	0.0	105	0.00
23	S	SURR4,NITROBENZENE-D5	0.293	0.000#	100.0#	0#	-4.45#
24	TM	Nitrobenzene	0.310	0.000#	100.0#	0#	-4.47#
25	TM	Isophorone	0.541	0.000#	100.0#	0#	-4.62#
26	TCM	2-Nitrophenol	0.156	0.000#	100.0#	0#	-4.68#
27	TM	Benzoic Acid	0.215	0.000#	100.0#	0#	-4.79#
28	TM	2,4-Dimethylphenol	0.283	0.317	-12.0	116	0.00
29	TM	bis(-2-Chloroethoxy)Methane	0.330	0.001#	99.7#	0#	-0.13
30	TCM	2,4-Dichlorophenol	0.250	0.273	-9.2	112	0.00
31	TM	1,2,4-Trichlorobenzene	0.281	0.000#	100.0#	0#	-4.90#
32	TM	Naphthalene	0.848	0.000#	100.0#	0#	-4.96#
33	TM	4-Chloroaniline	0.348	0.000#	100.0#	0#	-4.99#
34	TCM	Hexachlorobutadiene	0.169	0.000#	100.0#	0#	-5.02#
35	TMC	4-Chloro-3-methylphenol	0.236	0.000#	100.0#	0#	-5.34#
36	TM	Caprolactam	0.080	0.085	-6.3	106	-0.01
37	TM	2-Methylnaphthalene	0.533	0.000#	100.0#	0#	-0.05
38	TM	1-Methylnaphthalene	0.519	0.000#	100.0#	0#	-0.13
39	IR	d10-Acenaphthene	1.000	1.000	0.0	121	0.00
40	TPM	Hexachlorocyclopentadiene	0.173	0.000#	100.0#	0#	-5.53#
41	TCM	2,4,6-Trichlorophenol	0.319	0.000#	100.0#	0#	-5.64#
42	TM	2,4,5-Trichlorophenol	0.327	0.000#	100.0#	0#	-5.68#
43	S	SURR5,2-FLUOROBIPHENYL	1.054	0.000#	100.0#	0#	-5.68#
44	TM	1,1'-Biphenyl	1.157	1.118	3.4	121	0.00
45	TM	2-Chloronaphthalene	0.921	0.000#	100.0#	0#	-5.78#

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE262.D
Acq On : 3 Dec 2015 12:52 pm
Operator : M.PEDRO
Sample : ICV #2 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 03 14:04:11 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
46	TM	2-Nitroaniline	0.294	0.000#	100.0#	0#	-5.86#	
47	TM	Acenaphthylene	1.488	0.000#	100.0#	0#	-6.08#	
48	TM	Dimethyl phthalate	1.011	0.000#	100.0#	0#	-5.96#	
49	TM	2,6-Dinitrotoluene	0.226	0.210	7.1	113	0.00	
50	TMC	Acenaphthene	0.965	0.000#	100.0#	0#	-6.20#	
51	TM	3-Nitroaniline	0.253	0.000#	100.0#	0#	-6.15#	
52	TPM	2,4-Dinitrophenol	0.120	0.000#	100.0#	0#	-6.23#	
53	TM	Dibenzofuran	1.394	0.000#	100.0#	0#	-6.32#	
54	TM	2,4-Dinitrotoluene	0.299	0.236	21.1#	94	0.00	
55	TMP	4-Nitrophenol	0.217	0.000#	100.0#	0#	-6.29#	
56	TM	Fluorene	1.108	0.000#	100.0#	0#	-6.56#	
57	TM	4-Chlorophenyl-phenylether	0.551	0.000#	100.0#	0#	-6.55#	
58	TM	Diethylphthalate	1.044	0.000#	100.0#	0#	-6.46#	
59	TM	4-Nitroaniline	0.250	0.000#	100.0#	0#	-6.59#	
60	S	SURR3,2,4,6-TRIBROMOPHENOL	0.151	0.000#	100.0#	0#	-6.74#	
61	IR	d10-Phenanthrene	1.000	1.000	0.0	83	0.00	
62	TM	4,6-Dinitro-2-methylphenol	0.116	0.000#	100.0#	0#	-6.61#	
63	TM	1,2 Diphenylhydrazine	0.665	0.000#	100.0#	0#	-6.66#	
64	TCM	N-Nitrosodiphenylamine	0.421	0.000#	100.0#	0#	-6.64#	
65	TM	4-Bromophenyl-phenylether	0.188	0.000#	100.0#	0#	-6.90#	
66	TM	Hexachlorobenzene	0.209	0.000#	100.0#	0#	-6.95#	
67	TM	Atrazine	0.086	0.141	-64.0#	126	0.00	
68	TCM	Pentachlorophenol	0.109	0.000#	100.0#	0#	-7.10#	
69	TM	Phenanthrene	0.870	0.000#	100.0#	0#	-7.25#	
70	TM	Anthracene	0.908	0.000#	100.0#	0#	-7.29#	
71	TM	Carbazole	0.874	0.000#	100.0#	0#	-7.41#	
72	TM	Di-n-butylphthalate	1.066	1.518	-42.4#	108	0.00	use Dev#1
73	TCM	Fluoranthene	1.039	0.001#	99.9#	0#	0.00	
74	IR	d12-Chrysene	1.000	1.000	0.0	102	0.00	
75	TM	Benzidine	0.300	0.261	13.0	83	0.00	
76	TM	Pyrene	0.943	0.000#	100.0#	0#	-8.45#	
77	S	SURR6,TERPHENYL-D14	0.621	0.000#	100.0#	0#	-8.58#	
78	TM	Butyl benzyl phthalate	0.438	0.000#	100.0#	0#	-9.16#	
79	TM	3,3'-Dichlorobenzidine	0.295	0.359	-21.7#	120	0.00	
80	TM	Benzo(a)anthracene	0.930	0.002#	99.8#	0#	0.00	
81	TM	Chrysene	0.876	0.000#	100.0#	0#	0.00	
82	TM	bis(2-Ethylhexyl)phthalate	0.593	0.671	-13.2	111	0.00	
83	IR	d12-Perylene	1.000	1.000	0.0	93	0.00	
84	TCM	Di-n-octyl phthalate	0.922	0.000#	100.0#	0#	-11.23#	
85	TM	Benzo(b)Fluoranthene	0.874	0.000#	100.0#	0#	-11.97#	
86	TM	Benzo(k)fluoranthene	0.894	0.000#	100.0#	0#	-12.02#	
87	TCM	Benzo(a)pyrene	0.848	0.000#	100.0#	0#	-12.64#	
88	TM	Indeno(1,2,3-cd)Pyrene	0.770	0.000#	100.0#	0#	-14.67#	
89	TM	Dibenz(a,h)anthracene	0.798	0.000#	100.0#	0#	-14.70#	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE262.D
Acq On : 3 Dec 2015 12:52 pm
Operator : M.PEDRO
Sample : ICV #2 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 03 14:04:11 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

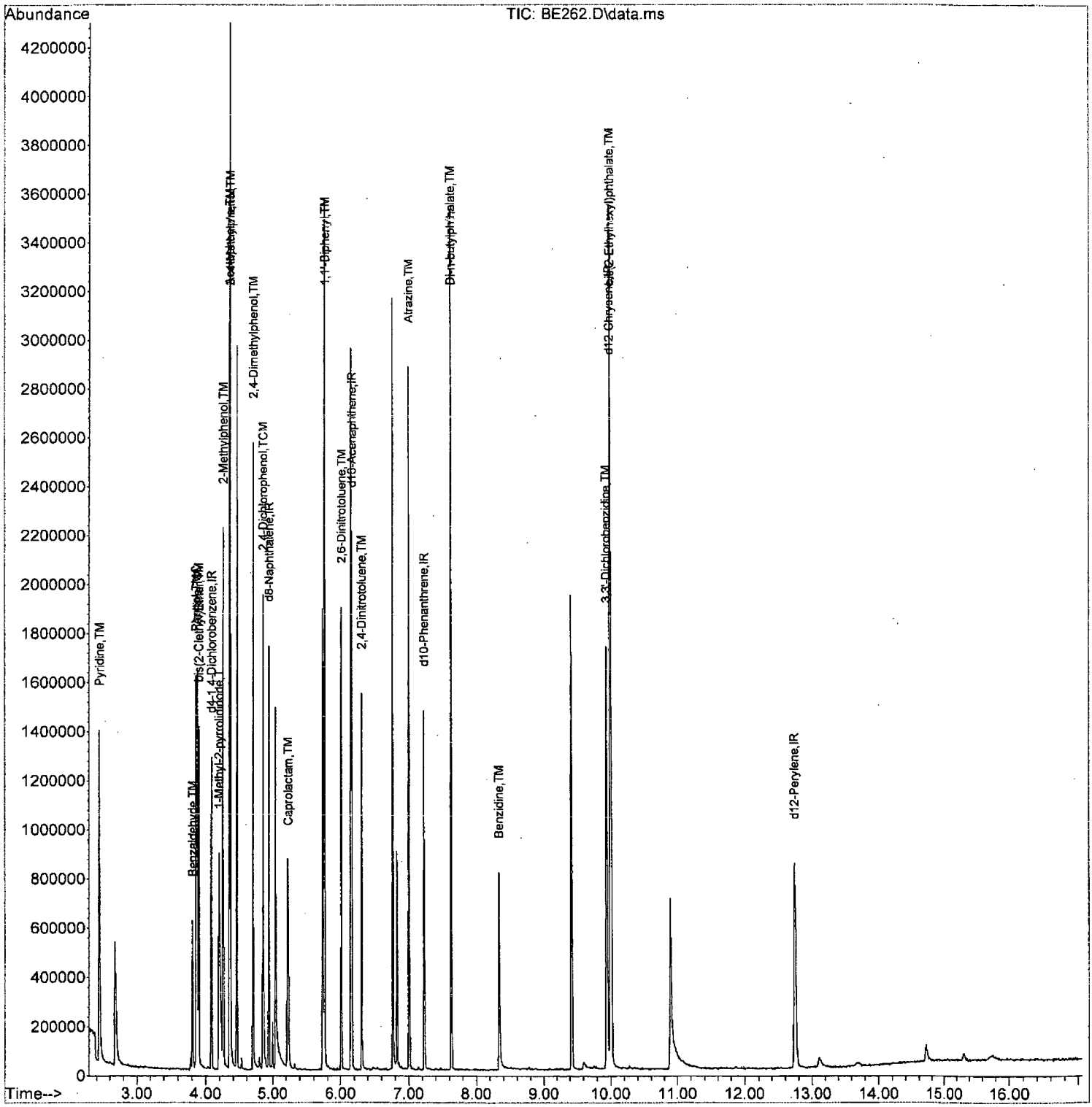
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d4-1,4-Dichlorobenzene	4.084	152	141092	40.00	ppm	0.00
22) d8-Naphthalene	4.940	136	565301	40.00	ppm	0.00
39) d10-Acenaphthene	6.170	164	402377	40.00	ppm	0.00
61) d10-Phenanthrene	7.234	188	442474	40.00	ppm	0.00
74) d12-Chrysene	10.000	240	675178	40.00	ppm	0.00
83) d12-Perylene	12.749	264	607696	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	0.000	112	0d	0.00	ppm	
Spiked Amount 200.000	Range 10 - 105		Recovery =	0.00%#		
7) SURR2,PHENOL-D6	0.000	99	0d	0.00	ppm	
Spiked Amount 200.000	Range 10 - 107		Recovery =	0.00%#		
23) SURR4,NITROBENZENE-D5	0.000	82	0d	0.00	ppm	
Spiked Amount 100.000	Range 37 - 117		Recovery =	0.00%#		
43) SURR5,2-FLUOROBIPHENYL	0.000	172	0d	0.00	ppm	
Spiked Amount 100.000	Range 39 - 119		Recovery =	0.00%#		
60) SURR3,2,4,6-TRIBROMOPH...	0.000	330	0d	0.00	ppm	
Spiked Amount 200.000	Range 28 - 157		Recovery =	0.00%#		
77) SURR6,TERPHENYL-D14	0.000	244	0d	0.00	ppm	
Spiked Amount 100.000	Range 40 - 133		Recovery =	0.00%#		
Target Compounds						Qvalue
2) Pyridine	2.437	79	375293	85.69	ppm	96
5) Benzaldehyde	3.811	106	85703	117.89	ppm	91
6) Aniline	3.875	93	375305	64.44	ppm	96
8) Phenol	3.859	94	457758	86.51	ppm	96
9) bis(2-Clethyl)Ether	3.897	93	343327	92.89	ppm	94
16) 2-Methylphenol	4.250	108	317937	88.13	ppm	92
17) Acetophenone	4.346	105	496480	92.77	ppm	91
20) 3+4-Methylphenol	4.351	108	697371	175.80	ppm	86
21) 1-Methyl-2-pyrrolidinone	4.191	99	234190	89.97	ppm	95
28) 2,4-Dimethylphenol	4.699	107	358214	89.44	ppm	99
30) 2,4-Dichlorophenol	4.849	162	308146	87.29	ppm	99
36) Caprolactam	5.234	113	96144	85.09	ppm	92
44) 1,1'-Biphenyl	5.758	154	899722	77.29	ppm	98
49) 2,6-Dinitrotoluene	6.015	165	169297	74.48	ppm	84
54) 2,4-Dinitrotoluene	6.309	165	190245	63.33	ppm	89
67) Atrazine	7.004	215	124826	130.99	ppm	95
72) Di-n-butylphthalate	7.630	149	1343298	113.94	ppm	99
75) Benzidine	8.342	184	352544	69.51	ppm	97
79) 3,3'-Dichlorobenzidine	9.946	252	485099	97.34	ppm	97
82) bis(2-Ethylhexyl)phtha...	10.010	149	905742	90.48	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE262.D
Acq On : 3 Dec 2015 12:52 pm
Operator : M.PEDRO
Sample : ICV #2 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 03 14:04:11 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration



82701203D.M Thu Dec 03 14:48:05 2015 Page: 2

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE263.D
Acq On : 3 Dec 2015 1:18 pm
Operator : M.PEDRO
Sample : ICV #1 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 03 14:07:27 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	d4-1,4-Dichlorobenzene	1.000	1.000	0.0	108	0.00
2	TM	Pyridine	1.242	1.302	-4.8	107	0.00
3	TM	N-Nitrosodimethylamine	0.692	0.756	-9.2	111	0.00
4	S	SURR1,2-FLUOROPHENOL	0.992	1.115	-12.4	119	0.00
5	TM	Benzaldehyde	0.206	0.000#	100.0#	0#	-3.81#
6	TM	Aniline	1.651	1.380	16.4	90	0.00
7	S	SURR2,PHENOL-D6	1.273	1.430	-12.3	118	0.00
8	TMC	Phenol	1.500	1.510	-0.7	109	0.00
9	TM	bis(2-Clethyl)Ether	1.048	1.041	0.7	104	0.00
10	TM	2-Chlorophenol	1.199	1.240	-3.4	111	0.00
11	TM	1,3-Diclbenzene	1.279	1.310	-2.4	111	0.00
12	TMC	1,4-Dichlorobenzene	1.336	1.325	0.8	109	0.00
13	TM	1,2-Diclbenzene	1.244	1.266	-1.8	110	0.00
14	TM	Benzyl Alcohol	0.782	0.910	-16.4	118	0.00
15	TM	2,2'-oxybis(1-Chloropropane	1.784	2.142	-20.1#	130	0.00
16	TM	2-Methylphenol	1.023	1.040	-1.7	107	0.00
17	TM	Acetophenone	1.517	0.000#	100.0#	0#	-4.34#
18	TMP	N-Nitroso-Di-n-propylamine	0.847	0.859	-1.4	112	0.00
19	TM	Hexachloroethane	0.563	0.585	-3.9	113	0.00
20	TM	3+4-Methylphenol	1.125	2.285	-103.1#	214#	0.00
21	T	1-Methyl-2-pyrrolidinone	0.738	0.000#	100.0#	0#	-4.21#
22	IR	d8-Naphthalene	1.000	1.000	0.0	107	0.00
23	S	SURR4,NITROBENZENE-D5	0.293	0.325	-10.9	118	0.00
24	TM	Nitrobenzene	0.310	0.314	-1.3	109	0.00
25	TM	Isophorone	0.541	0.568	-5.0	113	0.00
26	TCM	2-Nitrophenol	0.156	0.168	-7.7	114	0.00
27	TM	Benzoic Acid	0.215	0.196	8.8	98	0.00
28	TM	2,4-Dimethylphenol	0.283	0.285	-0.7	107	0.00
29	TM	bis(-2-Chloroethoxy)Methane	0.330	0.337	-2.1	109	0.00
30	TCM	2,4-Dichlorophenol	0.250	0.260	-4.0	109	0.00
31	TM	1,2,4-Trichlorobenzene	0.281	0.284	-1.1	110	0.00
32	TM	Naphthalene	0.848	0.855	-0.8	110	0.00
33	TM	4-Chloroaniline	0.348	0.117	66.4#	35#	0.00
34	TCM	Hexachlorobutadiene	0.169	0.175	-3.6	110	0.00
35	TMC	4-Chloro-3-methylphenol	0.236	0.244	-3.4	106	0.00
36	TM	Caprolactam	0.080	0.000#	100.0#	0#	-5.25#
37	TM	2-Methylnaphthalene	0.533	0.565	-6.0	113	0.00
38	TM	1-Methylnaphthalene	0.519	0.544	-4.8	113	0.00
39	IR	d10-Acenaphthene	1.000	1.000	0.0	104	0.00
40	TPM	Hexachlorocyclopentadiene	0.173	0.216	-24.9#	114	0.00
41	TCM	2,4,6-Trichlorophenol	0.319	0.327	-2.5	107	0.00
42	TM	2,4,5-Trichlorophenol	0.327	0.345	-5.5	111	0.00
43	S	SURR5,2-FLUOROBIPHENYL	1.054	1.143	-8.4	118	0.00
44	TM	1,1'-Biphenyl	1.157	0.000#	100.0#	0#	-5.76#
45	TM	2-Chloronaphthalene	0.921	0.948	-2.9	108	0.00

82701203D.M Fri Dec 04 10:16:24 2015 Page: 1

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE263.D
Acq On : 3 Dec 2015 1:18 pm
Operator : M.PEDRO
Sample : ICV #1 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 03 14:07:27 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	TM	2-Nitroaniline	0.294	0.307	-4.4	108	0.00
47	TM	Acenaphthylene	1.488	1.570	-5.5	111	0.00
48	TM	Dimethyl phthalate	1.011	0.986	2.5	103	0.00
49	TM	2,6-Dinitrotoluene	0.226	0.237	-4.9	109	0.00
50	TMC	Acenaphthene	0.965	0.989	-2.5	110	0.00
51	TM	3-Nitroaniline	0.253	0.130	48.6#	55	0.00
52	TPM	2,4-Dinitrophenol	0.120	0.116	3.3	113	0.00
53	TM	Dibenzofuran	1.394	1.391	0.2	106	0.00
54	TM	2,4-Dinitrotoluene	0.299	0.313	-4.7	107	0.00
55	TMP	4-Nitrophenol	0.217	0.230	-6.0	114	0.00
56	TM	Fluorene	1.108	1.117	-0.8	107	0.00
57	TM	4-Chlorophenyl-phenylether	0.551	0.558	-1.3	109	0.00
58	TM	Diethylphthalate	1.044	1.064	-1.9	112	0.00
59	TM	4-Nitroaniline	0.250	0.238	4.8	101	0.00
60	S	SURR3,2,4,6-TRIBROMOPHENOL	0.151	0.159	-5.3	120	0.00
61	IR	d10-Phenanthrene	1.000	1.000	0.0	105	0.00
62	TM	4,6-Dinitro-2-methylphenol	0.116	0.122	-5.2	112	0.00
63	TM	1,2 Diphenylhydrazine	0.665	0.684	-2.9	105	0.00
64	TCM	N-Nitrosodiphenylamine	0.421	0.466	-10.7	118	0.00
65	TM	4-Bromophenyl-phenylether	0.188	0.191	-1.6	105	0.00
66	TM	Hexachlorobenzene	0.209	0.217	-3.8	108	0.00
67	TM	Atrazine	0.086	0.000#	100.0#	0#	-7.01#
68	TCM	Pentachlorophenol	0.109	0.113	-3.7	111	0.00
69	TM	Phenanthrene	0.870	0.905	-4.0	109	0.00
70	TM	Anthracene	0.908	0.921	-1.4	105	0.00
71	TM	Carbazole	0.874	0.914	-4.6	104	0.00
72	TM	Di-n-butylphthalate	1.066	1.147	-7.6	104	0.00
73	TCM	Fluoranthene	1.039	1.118	-7.6	105	0.00
74	IR	d12-Chrysene	1.000	1.000	0.0	97	0.00
75	TM	Benzidine	0.300	0.000#	100.0#	0#	-8.34#
76	TM	Pyrene	0.943	1.078	-14.3	110	0.00
77	S	SURR6,TERPHENYL-D14	0.621	0.695	-11.9	110	0.00
78	TM	Butyl benzyl phthalate	0.438	0.460	-5.0	100	0.00
79	TM	3,3'-Dichlorobenzidine	0.295	0.180	39.0#	57	0.00
80	TM	Benzo(a)anthracene	0.930	0.958	-3.0	99	0.00
81	TM	Chrysene	0.876	0.917	-4.7	102	0.00
82	TM	bis(2-Ethylhexyl)phthalate	0.593	0.663	-11.8	105	0.00
83	IR	d12-Perylene	1.000	1.000	0.0	91	0.00
84	TCM	Di-n-octyl phthalate	0.922	1.102	-19.5	103	0.00
85	TM	Benzo(b)Fluoranthene	0.874	0.875	-0.1	91	0.00
86	TM	Benzo(k)fluoranthene	0.894	0.883	1.2	88	0.00
87	TCM	Benzo(a)pyrene	0.848	0.881	-3.9	92	0.00
88	TM	Indeno(1,2,3-cd)Pyrene	0.770	0.821	-6.6	91	0.00
89	TM	Dibenz(a,h)anthracene	0.798	0.815	-2.1	92	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE263.D
Acq On : 3 Dec 2015 1:18 pm
Operator : M.PEDRO
Sample : ICV #1
Misc : INITIAL CAL
ALS Vial : 13 Sample Multiplier: 1

Inst : 5973D

Quant Time: Dec 03 14:07:27 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 TM	Benzo(g,h,i)perylene	0.793	0.787	0.8	89	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE263.D
Acq On : 3 Dec 2015 1:18 pm
Operator : M.PEDRO
Sample : ICV #1 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 03 14:07:27 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d4-1,4-Dichlorobenzene	4.084	152	145477	40.00	ppm	0.00
22) d8-Naphthalene	4.940	136	580543	40.00	ppm	0.00
39) d10-Acenaphthene	6.170	164	344363	40.00	ppm	0.00
61) d10-Phenanthrene	7.234	188	563549	40.00	ppm	0.00
74) d12-Chrysene	10.005	240	641602	40.00	ppm	0.00
83) d12-Perylene	12.749	264	595209	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.282	112	324299	89.92	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 44.96%			
7) SURR2,PHENOL-D6	3.854	99	416020	89.84	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 44.92%			
23) SURR4,NITROBENZENE-D5	4.453	82	377355	88.74	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 88.74%			
43) SURR5,2-FLUOROBIPHENYL	5.683	172	787293	86.74	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 86.74%			
60) SURR3,2,4,6-TRIBROMOPH...	6.737	330	109689	84.59	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 42.30%			
77) SURR6,TERPHENYL-D14	8.582	244	892374	89.57	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 89.57%			
Target Compounds						Qvalue
2) Pyridine	2.447	79	378769	83.87	ppm	95
3) N-Nitrosodimethylamine	2.421	74	219875	87.41	ppm	95
6) Aniline	3.875	93	401472	66.86	ppm	95
8) Phenol	3.859	94	439404	80.54	ppm	100
9) bis(2-Clethyl)Ether	3.902	93	302906	79.49	ppm	97
10) 2-Chlorophenol	3.961	128	360904	82.75	ppm	98
11) 1,3-Diclbenzene	4.047	146	381073	81.95	ppm	99
12) 1,4-Dichlorobenzene	4.095	146	385620	79.35	ppm	98
13) 1,2-Diclbenzene	4.196	146	368384	81.40	ppm	100
14) Benzyl Alcohol	4.170	79	264687	93.12	ppm	98
15) 2,2'-oxybis(1-Chloropr...	4.244	45	623241	96.08	ppm	91
16) 2-Methylphenol	4.244	108	302626	81.36	ppm	94
18) N-Nitroso-Di-n-propyla...	4.335	70	249944	81.10	ppm	98
19) Hexachloroethane	4.416	117	170166	83.11	ppm	98
20) 3+4-Methylphenol	4.346	108	664955	162.57	ppm	88
24) Nitrobenzene	4.464	77	364729	81.16	ppm	98
25) Isophorone	4.619	82	659226	83.89	ppm	98
26) 2-Nitrophenol	4.678	139	195510	86.52	ppm	99
27) Benzoic Acid	4.785	105	227217	72.82	ppm	97
28) 2,4-Dimethylphenol	4.699	107	331198	80.52	ppm	99
29) bis(-2-Chloroethoxy)Me...	4.753	93	390811	81.68	ppm	98
30) 2,4-Dichlorophenol	4.849	162	301307	83.11	ppm	99
31) 1,2,4-Trichlorobenzene	4.897	180	329915	80.77	ppm	95
32) Naphthalene	4.956	128	992406	80.65	ppm	99
33) 4-Chloroaniline	4.993	127	136098	26.92	ppm	96
34) Hexachlorobutadiene	5.020	225	202619	82.70	ppm	97
35) 4-Chloro-3-methylphenol	5.330	107	283348m	82.87	ppm	
37) 2-Methylnaphthalene	5.432	142	656087	84.83	ppm	98

12/4

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE263.D
Acq On : 3 Dec 2015 1:18 pm
Operator : M.PEDRO
Sample : ICV #1 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 03 14:07:27 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

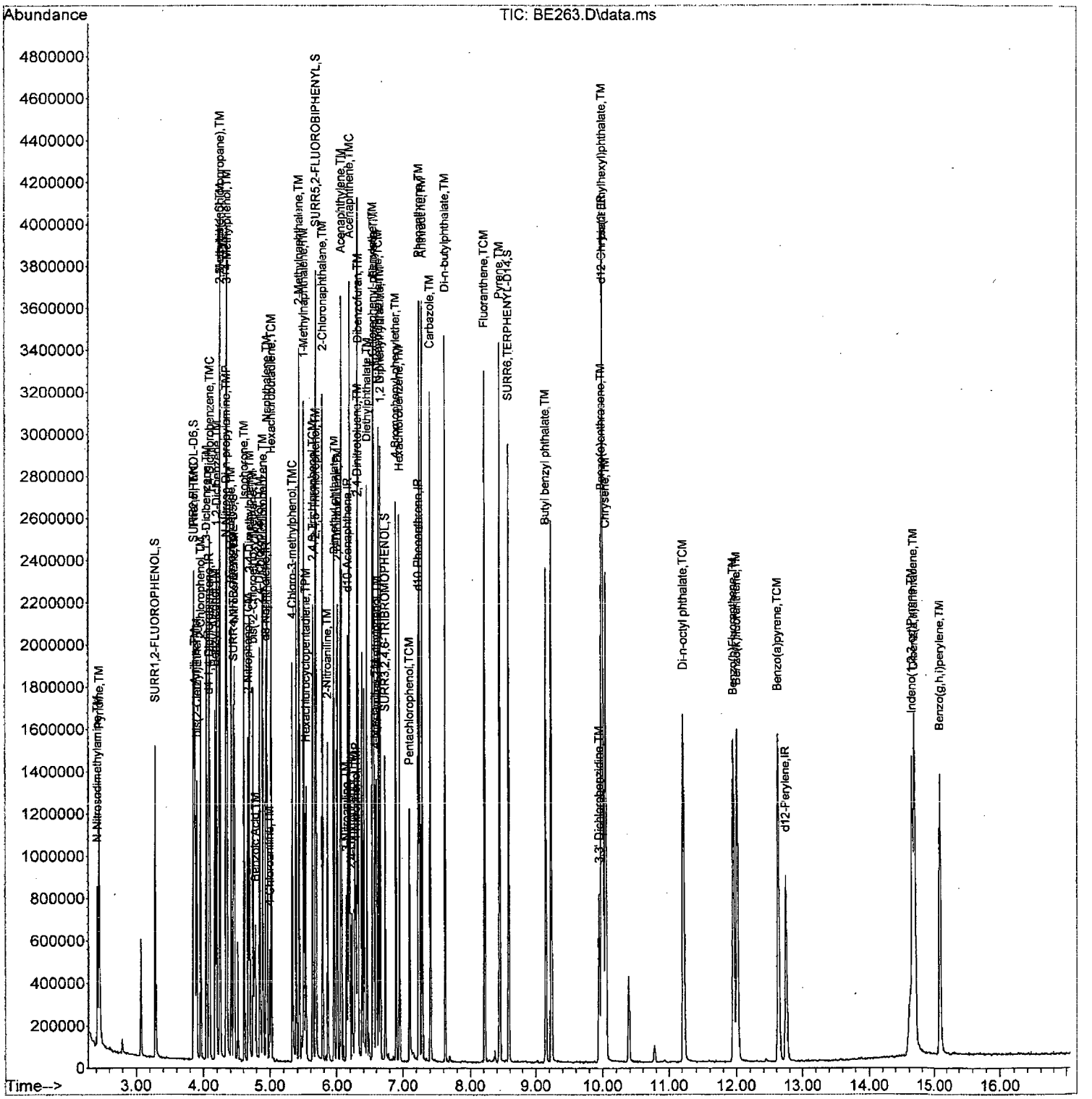
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) 1-Methylnaphthalene	5.501	142	631768	83.90	ppm	99
40) Hexachlorocyclopentadiene	5.533	237	148846	87.12	ppm	98
41) 2,4,6-Trichlorophenol	5.635	196	225105	81.92	ppm	97
42) 2,4,5-Trichlorophenol	5.673	196	237442	84.46	ppm	97
45) 2-Chloronaphthalene	5.780	162	653113	82.38	ppm	99
46) 2-Nitroaniline	5.854	65	211371	83.46	ppm	87
47) Acenaphthylene	6.074	152	1081520	84.44	ppm	99
48) Dimethyl phthalate	5.967	163	678895	78.02	ppm	99
49) 2,6-Dinitrotoluene	6.020	165	163002	83.79	ppm	98
50) Acenaphthene	6.197	153	680997	81.97	ppm	97
51) 3-Nitroaniline	6.149	138	89641	41.22	ppm	98
52) 2,4-Dinitrophenol	6.229	184	80067	77.76	ppm	98
53) Dibenzofuran	6.320	168	957911	79.80	ppm	94
54) 2,4-Dinitrotoluene	6.309	165	215336	83.76	ppm	97
55) 4-Nitrophenol	6.288	65	158166	84.68	ppm	92
56) Fluorene	6.560	166	769562	80.64	ppm	99
57) 4-Chlorophenyl-phenyle...	6.550	204	384138	81.03	ppm	99
58) Diethylphthalate	6.459	149	733014	81.59	ppm	99
59) 4-Nitroaniline	6.593	138	164172	76.24	ppm	93
62) 4,6-Dinitro-2-methylph...	6.603	198	137339	84.25	ppm	96
63) 1,2 Diphenylhydrazine	6.662	77	771130	82.31	ppm	99
64) N-Nitrosodiphenylamine	6.635	169	525070	88.61	ppm	98
65) 4-Bromophenyl-phenylether	6.897	248	215606	81.34	ppm	98
66) Hexachlorobenzene	6.951	284	244938	83.01	ppm	99
68) Pentachlorophenol	7.101	266	127292	83.10	ppm	97
69) Phenanthrene	7.250	178	1020518	83.28	ppm	99
70) Anthracene	7.288	178	1037524	81.09	ppm	100
71) Carbazole	7.406	167	1030523	83.69	ppm	99
72) Di-n-butylphthalate	7.630	149	1293136	86.12	ppm	99
73) Fluoranthene	8.219	202	1260002	86.11	ppm	96
76) Pyrene	8.448	202	1383508	91.43	ppm	99
78) Butyl benzyl phthalate	9.155	149	589755	84.02	ppm	98
79) 3,3'-Dichlorobenzidine	9.951	252	231250	48.83	ppm	100
80) Benzo(a)anthracene	9.989	228	1229489	82.38	ppm	99
81) Chrysene	10.053	228	1176441	83.76	ppm	99
82) bis(2-Ethylhexyl)phtha...	10.010	149	850249	89.38	ppm	98
84) Di-n-octyl phthalate	11.230	149	1312333	95.70	ppm	98
85) Benzo(b)Fluoranthene	11.963	252	1041946	80.14	ppm	98
86) Benzo(k)fluoranthene	12.016	252	1051635	79.09	ppm	98
87) Benzo(a)pyrene	12.631	252	1049189	83.12	ppm	100
88) Indeno(1,2,3-cd)Pyrene	14.664	276	977858m	85.30	ppm	
89) Dibenz(a,h)anthracene	14.696	278	969725	81.68	ppm	99
90) Benzo(g,h,i)perylene	15.102	276	936952	79.45	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE263.D
Acq On : 3 Dec 2015 1:18 pm
Operator : M.PEDRO
Sample : ICV #1 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 13 Sample Multiplier: 1

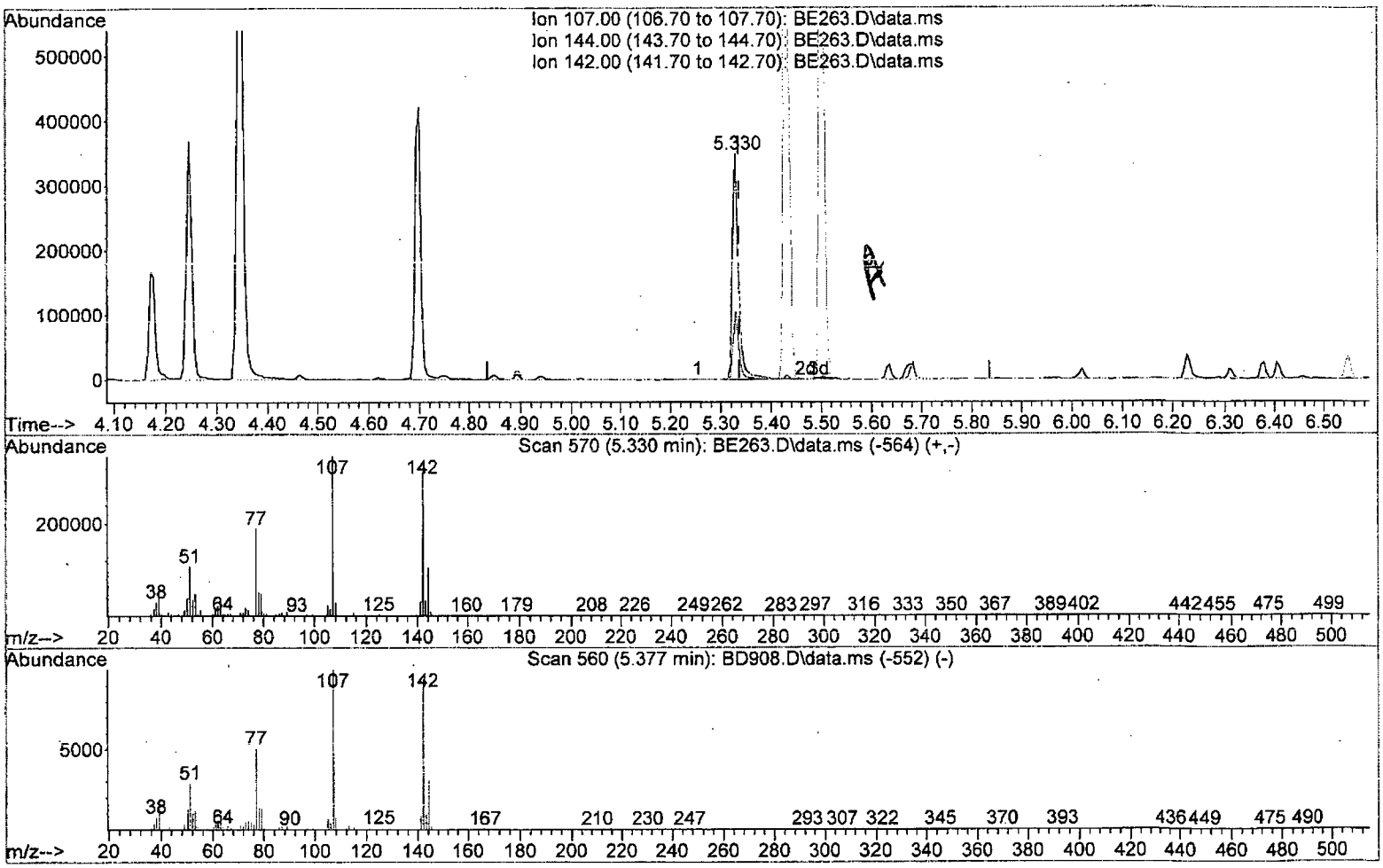
Quant Time: Dec 03 14:07:27 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration



82701203D.M Thu Dec 03 14:48:10 2015 Page: 3

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE263.D
Acq On : 3 Dec 2015 1:18 pm
Operator : M.PEDRO
Sample : ICV #1 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 03 14:07:27 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration



TIC: BE263.D\data.ms

(35) 4-Chloro-3-methylphenol (TMC)

5.330min (-0.007) 82.87 ppm m

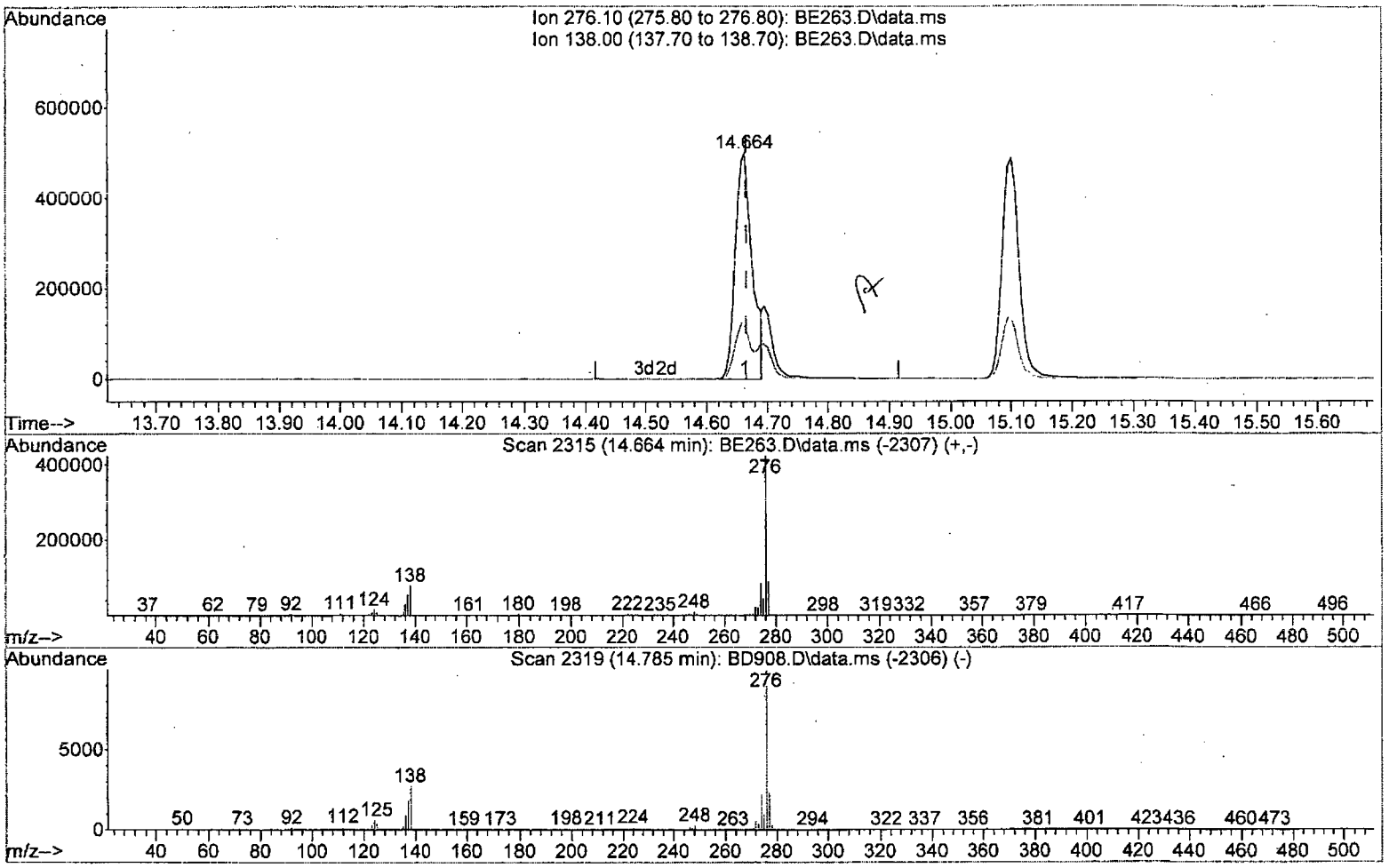
response 283348

Ion	Exp%	Act%
107.00	100	100
144.00	28.80	29.97
142.00	0.00	90.29#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE263.D
Acq On : 3 Dec 2015 1:18 pm
Operator : M.PEDRO
Sample : ICV #1 Inst : 5973D
Misc : INITIAL CAL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 03 14:07:27 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration



TIC: BE263.D\data.ms

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.664min (-0.002) 85.30 ppm m

response 977858

Ion	Exp%	Act%
276.10	100	100
138.00	25.80	23.46
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE253.D
Acq On : 3 Dec 2015 8:59 am
Operator : M.PEDRO
Sample : BLK
Misc : BLK
ALS Vial : 3 Sample Multiplier: 1

Inst : 5973D

Quant Time: Dec 04 10:09:38 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

Compound		R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards							
1) d4-1,4-Dichlorobenzene		4.084	152	135005	40.00	ppm	0.00
22) d8-Naphthalene		4.940	136	537010	40.00	ppm	0.00
39) d10-Acenaphthene		6.170	164	311637	40.00	ppm	0.00
61) d10-Phenanthrene		7.234	188	549077	40.00	ppm	0.00
74) d12-Chrysene		10.010	240	565568	40.00	ppm	0.00
83) d12-Perylene		12.754	264	559502	40.00	ppm	0.00
System Monitoring Compounds							
4) SURR1,2-FLUOROPHENOL		3.405	112	141	0.04	ppm	0.12
Spiked Amount	200.000	Range	10 - 105	Recovery	=	0.02%#	
7) SURR2,PHENOL-D6		4.031	99	130	0.03	ppm	0.18
Spiked Amount	200.000	Range	10 - 107	Recovery	=	0.01%#	
23) SURR4,NITROBENZENE-D5		4.437	82	216	0.05	ppm	-0.02
Spiked Amount	100.000	Range	37 - 117	Recovery	=	0.05%#	
43) SURR5,2-FLUOROBIPHENYL		5.555	172	167	0.02	ppm	-0.13
Spiked Amount	100.000	Range	39 - 119	Recovery	=	0.02%#	
60) SURR3,2,4,6-TRIBROMOPH...		6.785	330	101	0.09	ppm	0.05
Spiked Amount	200.000	Range	28 - 157	Recovery	=	0.04%#	
77) SURR6,TERPHENYL-D14		8.593	244	127	0.01	ppm	0.00
Spiked Amount	100.000	Range	40 - 133	Recovery	=	0.01%#	
Target Compounds							Qvalue
40) Hexachlorocyclopentadiene		5.432	237	104	3.07	ppm	67
49) 2,6-Dinitrotoluene		6.170	165	40753	23.15	ppm #	22

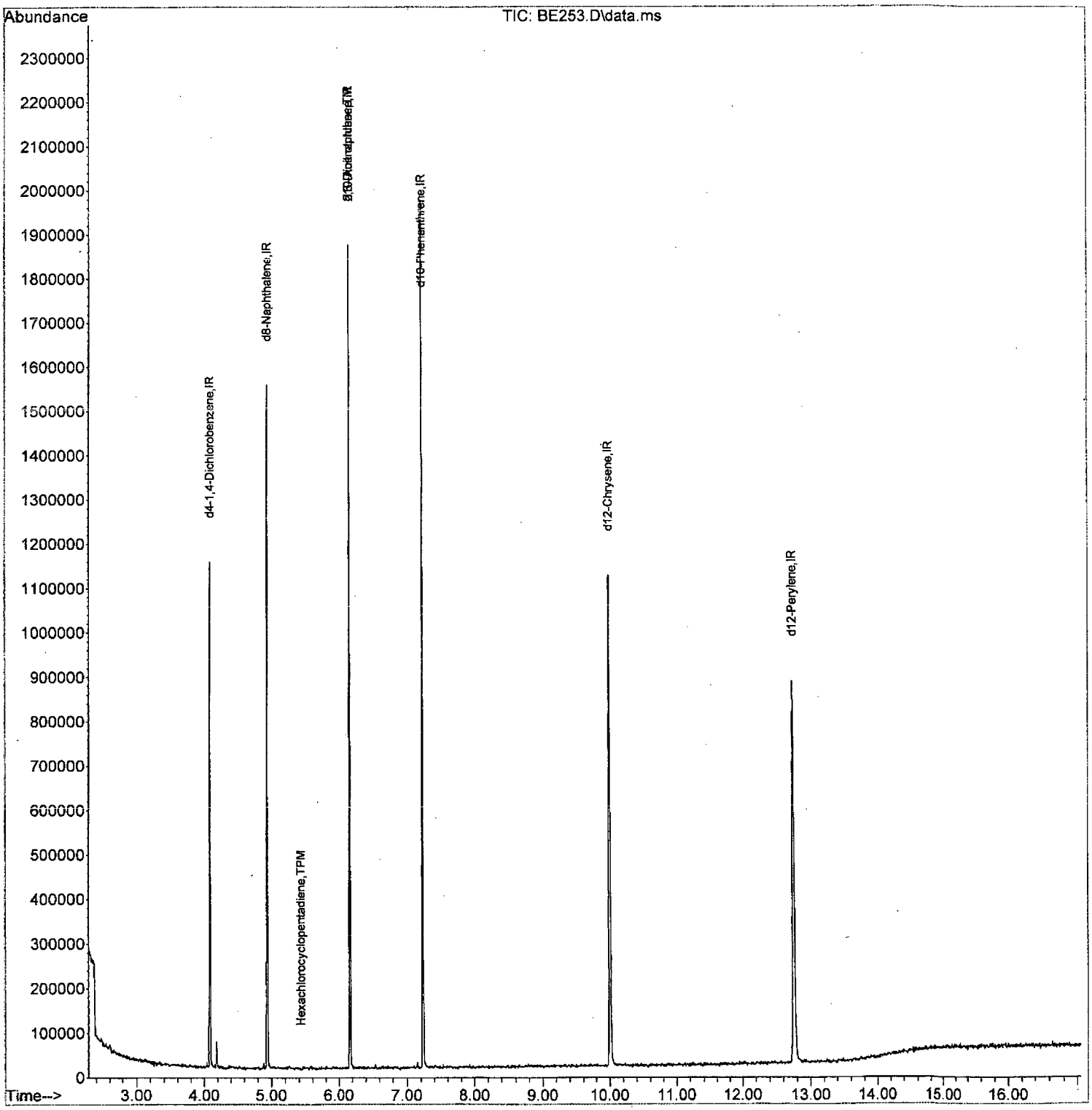
MP 12-13

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE253.D
Acq On : 3 Dec 2015 8:59 am
Operator : M.PEDRO
Sample : BLK Inst : 5973D
Misc : BLK
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 04 10:09:38 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS.
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE334.D
Acq On : 8 Dec 2015 8:20 am
Operator : J.Misiurewicz
Sample : CCV Inst : 5973D
Misc : 80 ppm STD 8270D
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 10 08:32:38 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	d4-1,4-Dichlorobenzene	1.000	1.000	0.0	103	0.00
2	TM	Pyridine	1.242	1.211	2.5	95	0.00
3	TM	N-Nitrosodimethylamine	0.692	0.681	1.6	96	0.00
4	S	SURR1,2-FLUOROPHENOL	0.992	1.005	-1.3	102	0.00
5	TM	Benzaldehyde	0.206	0.248	-20.4#	111	0.00
6	TM	Aniline	1.651	1.584	4.1	99	0.00
7	S	SURR2,PHENOL-D6	1.273	1.312	-3.1	103	0.00
8	TMC	Phenol	1.500	1.536	-2.4	105	0.00
9	TM	bis(2-Clethyl)Ether	1.048	1.092	-4.2	104	0.00
10	TM	2-Chlorophenol	1.199	1.216	-1.4	103	0.00
11	TM	1,3-Diclbenzene	1.279	1.230	3.8	99	0.00
12	TMC	1,4-Dichlorobenzene	1.336	1.304	2.4	102	0.00
13	TM	1,2-Diclbenzene	1.244	1.242	0.2	103	0.00
14	TM	Benzyl Alcohol	0.782	0.854	-9.2	105	0.00
15	TM	2,2'-oxybis(1-Chloropropane	1.784	1.867	-4.7	108	0.00
16	TM	2-Methylphenol	1.023	1.121	-9.6	110	0.00
17	TM	Acetophenone	1.517	1.568	-3.4	105	0.00
18	TMP	N-Nitroso-Di-n-propylamine	0.847	0.884	-4.4	110	0.00
19	TM	Hexachloroethane	0.563	0.549	2.5	101	0.00
20	TM	3+4-Methylphenol	1.125	1.169	-3.9	104	0.00
21	T	1-Methyl-2-pyrrolidinone	0.738	0.780	-5.7	104	0.00
22	IR	d8-Naphthalene	1.000	1.000	0.0	103	0.00
23	S	SURR4,NITROBENZENE-D5	0.293	0.301	-2.7	105	0.00
24	TM	Nitrobenzene	0.310	0.313	-1.0	104	0.00
25	TM	Isophorone	0.541	0.570	-5.4	110	0.00
26	TCM	2-Nitrophenol	0.156	0.164	-5.1	107	0.00
27	TM	Benzoic Acid	0.215	0.234	-8.8	112	0.00
28	TM	2,4-Dimethylphenol	0.283	0.304	-7.4	110	0.00
29	TM	bis(-2-Chloroethoxy)Methane	0.330	0.331	-0.3	103	0.00
30	TCM	2,4-Dichlorophenol	0.250	0.259	-3.6	105	0.00
31	TM	1,2,4-Trichlorobenzene	0.281	0.275	2.1	103	0.00
32	TM	Naphthalene	0.848	0.833	1.8	103	0.00
33	TM	4-Chloroaniline	0.348	0.355	-2.0	103	0.00
34	TCM	Hexachlorobutadiene	0.169	0.168	0.6	102	0.00
35	TMC	4-Chloro-3-methylphenol	0.236	0.257	-8.9	108	0.00
36	TM	Caprolactam	0.080	0.092	-15.0	113	0.00
37	TM	2-Methylnaphthalene	0.533	0.547	-2.6	105	0.00
38	TM	1-Methylnaphthalene	0.519	0.519	0.0	104	0.00
39	IR	d10-Acenaphthene	1.000	1.000	0.0	105	0.00
40	TPM	Hexachlorocyclopentadiene	0.173	0.183	~~-5.8~~	97	0.00
41	TCM	2,4,6-Trichlorophenol	0.319	0.334	-4.7	110	0.00
42	TM	2,4,5-Trichlorophenol	0.327	0.343	-4.9	111	0.00
43	S	SURR5,2-FLUOROBIPHENYL	1.054	1.046	0.8	108	0.00
44	TM	1,1'-Biphenyl	1.157	1.145	1.0	107	0.00
45	TM	2-Chloronaphthalene	0.921	0.901	2.2	103	0.00

82701203D.M Thu Dec 10 08:35:15 2015 Page: 1

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE334.D
Acq On : 8 Dec 2015 8:20 am
Operator : J.Misiurewicz
Sample : CCV Inst : 5973D
Misc : 80 ppm STD 8270D
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 10 08:32:38 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	TM	2-Nitroaniline	0.294	0.314	-6.8	111	0.00
47	TM	Acenaphthylene	1.488	1.468	1.3	105	0.00
48	TM	Dimethyl phthalate	1.011	1.016	-0.5	107	0.00
49	TM	2,6-Dinitrotoluene	0.226	0.244	-8.0	113	0.00
50	TMC	Acenaphthene	0.965	0.939	2.7	105	0.00
51	TM	3-Nitroaniline	0.253	0.258	-2.0	109	0.00
52	TPM	2,4-Dinitrophenol	0.120	0.133	-10.8	130	0.00
53	TM	Dibenzofuran	1.394	1.390	0.3	107	0.00
54	TM	2,4-Dinitrotoluene	0.299	0.316	-5.7	108	0.00
55	TMP	4-Nitrophenol	0.217	0.232	-6.9	116	0.00
56	TM	Fluorene	1.108	1.133	-2.3	109	0.00
57	TM	4-Chlorophenyl-phenylether	0.551	0.558	-1.3	110	0.00
58	TM	Diethylphthalate	1.044	1.034	1.0	109	0.00
59	TM	4-Nitroaniline	0.250	0.264	-5.6	112	0.00
60	S	SURR3,2,4,6-TRIBROMOPHENOL	0.151	0.149	1.3	113	0.00
61	IR	d10-Phenanthrene	1.000	1.000	0.0	110	0.00
62	TM	4,6-Dinitro-2-methylphenol	0.116	0.120	-3.4	116	0.00
63	TM	1,2 Diphenylhydrazine	0.665	0.676	-1.7	109	0.00
64	TCM	N-Nitrosodiphenylamine	0.421	0.415	1.4	110	0.00
65	TM	4-Bromophenyl-phenylether	0.188	0.189	-0.5	109	0.00
66	TM	Hexachlorobenzene	0.209	0.208	0.5	108	0.00
67	TM	Atrazine	0.086	0.090	-4.7	107	0.00
68	TCM	Pentachlorophenol	0.109	0.113	-3.7	117	0.00
69	TM	Phenanthrene	0.870	0.850	2.3	107	0.00
70	TM	Anthracene	0.908	0.908	0.0	109	0.00
71	TM	Carbazole	0.874	0.915	-4.7	109	0.00
72	TM	Di-n-butylphthalate	1.066	1.156	-8.4	110	0.00
73	TCM	Fluoranthene	1.039	1.080	-3.9	106	0.00
74	IR	d12-Chrysene	1.000	1.000	0.0	104	0.00
75	TM	Benzidine	0.300	0.295	1.7	96	0.00
76	TM	Pyrene	0.943	0.978	-3.7	108	0.00
77	S	SURR6,TERPHENYL-D14	0.621	0.624	-0.5	107	0.00
78	TM	Butyl benzyl phthalate	0.438	0.467	-6.6	110	0.00
79	TM	3,3'-Dichlorobenzidine	0.295	0.318	-7.8	110	0.00
80	TM	Benzo(a)anthracene	0.930	0.948	-1.9	106	0.00
81	TM	Chrysene	0.876	0.857	2.2	103	0.00
82	TM	bis(2-Ethylhexyl)phthalate	0.593	0.639	-7.8	109	0.00
83	IR	d12-Perylene	1.000	1.000	0.0	107	0.00
84	TCM	Di-n-octyl phthalate	0.922	1.037	-12.5	114	0.00
85	TM	Benzo(b)Fluoranthene	0.874	0.869	0.6	106	0.00
86	TM	Benzo(k)fluoranthene	0.894	0.876	2.0	103	0.00
87	TCM	Benzo(a)pyrene	0.848	0.862	-1.7	106	0.00
88	TM	Indeno(1,2,3-cd)Pyrene	0.770	0.866	-12.5	112	0.00
89	TM	Dibenz(a,h)anthracene	0.798	0.838	-5.0	111	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\5973D\Data\12Dec15\
Data File : BE334.D
Acq On : 8 Dec 2015 8:20 am
Operator : J.Misiurewicz
Sample : CCV Inst : 5973D
Misc : 80 ppm STD 8270D
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 10 08:32:38 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 TM	Benzo(g,h,i)perylene	0.793	0.854	-7.7	113	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE334.D
Acq On : 8 Dec 2015 8:20 am
Operator : J.Misiurewicz
Sample : CCV Inst : 5973D
Misc : 80 ppm STD 8270D
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 10 08:32:38 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d4-1,4-Dichlorobenzene	4.084	152	138516	40.00	ppm	0.00
22) d8-Naphthalene	4.940	136	558142	40.00	ppm	0.00
39) d10-Acenaphthene	6.170	164	346173	40.00	ppm	0.00
61) d10-Phenanthrene	7.234	188	590077	40.00	ppm	0.00
74) d12-Chrysene	10.010	240	693675	40.00	ppm	0.00
83) d12-Perylene	12.754	264	698948	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.276	112	278353	81.06	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 40.53%			
7) SURR2,PHENOL-D6	3.849	99	363587	82.47	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 41.23%			
23) SURR4,NITROBENZENE-D5	4.453	82	335791	82.14	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 82.14%			
43) SURR5,2-FLUOROBIPHENYL	5.683	172	724183	79.37	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 79.37%			
60) SURR3,2,4,6-TRIBROMOPH...	6.737	330	103219	79.19	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 39.59%			
77) SURR6,TERPHENYL-D14	8.582	244	865082	80.31	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 80.31%			
Target Compounds						Qvalue
2) Pyridine	2.437	79	335354	77.99	ppm	98
3) N-Nitrosodimethylamine	2.410	74	188626	78.76	ppm	97
5) Benzaldehyde	3.811	106	68769	96.36	ppm	97
6) Aniline	3.875	93	438777	76.74	ppm	99
8) Phenol	3.859	94	425643	81.94	ppm	95
9) bis(2-Clethyl)Ether	3.897	93	302524	83.38	ppm	97
10) 2-Chlorophenol	3.956	128	336936	81.14	ppm	94
11) 1,3-Diclbenzene	4.047	146	340819	76.98	ppm	99
12) 1,4-Dichlorobenzene	4.095	146	361294	78.08	ppm	98
13) 1,2-Diclbenzene	4.196	146	344185	79.88	ppm	99
14) Benzyl Alcohol	4.170	79	236556	87.40	ppm	98
15) 2,2'-oxybis(1-Chloropr...	4.239	45	517305	83.76	ppm	81
16) 2-Methylphenol	4.250	108	310549	87.68	ppm	95
17) Acetophenone	4.341	105	434407	82.68	ppm	97
18) N-Nitroso-Di-n-propyla...	4.335	70	244981	83.49	ppm	96
19) Hexachloroethane	4.416	117	152012	77.97	ppm	99
20) 3+4-Methylphenol	4.346	108	323944	83.18	ppm	99
21) 1-Methyl-2-pyrrolidinone	4.202	99	216048	84.55	ppm	90
24) Nitrobenzene	4.464	77	349179	80.82	ppm	96
25) Isophorone	4.619	82	636669	84.27	ppm	100
26) 2-Nitrophenol	4.678	139	183390	84.42	ppm	98
27) Benzoic Acid	4.785	105	261356	87.12	ppm	98
28) 2,4-Dimethylphenol	4.699	107	339589	85.87	ppm	89
29) bis(-2-Chloroethoxy)Me...	4.747	93	369887	80.41	ppm	98
30) 2,4-Dichlorophenol	4.849	162	288799	82.86	ppm	97
31) 1,2,4-Trichlorobenzene	4.897	180	307053	78.19	ppm	97
32) Naphthalene	4.956	128	929438	78.57	ppm	98
33) 4-Chloroaniline	4.988	127	396600	81.61	ppm	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE334.D
Acq On : 8 Dec 2015 8:20 am
Operator : J.Misiurewicz
Sample : CCV Inst : 5973D
Misc : 80 ppm STD 8270D
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 10 08:32:38 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Hexachlorobutadiene	5.020	225	187314	79.53	ppm	93
35) 4-Chloro-3-methylphenol	5.336	107	286563m	87.18	ppm	
36) Caprolactam	5.245	113	102431	91.81	ppm	99
37) 2-Methylnaphthalene	5.432	142	610888	82.15	ppm	99
38) 1-Methylnaphthalene	5.501	142	579490	80.05	ppm	98
40) Hexachlorocyclopentadiene	5.534	237	126717	77.18	ppm	98
41) 2,4,6-Trichlorophenol	5.635	196	231013	83.63	ppm	97
42) 2,4,5-Trichlorophenol	5.678	196	237345	83.99	ppm	96
44) 1,1'-Biphenyl	5.758	154	792635	79.15	ppm	99
45) 2-Chloronaphthalene	5.780	162	623871	78.28	ppm	100
46) 2-Nitroaniline	5.854	65	217703	85.51	ppm	85
47) Acenaphthylene	6.074	152	1016650	78.96	ppm	100
48) Dimethyl phthalate	5.961	163	703327	80.41	ppm	98
49) 2,6-Dinitrotoluene	6.020	165	168727	86.28	ppm	96
50) Acenaphthene	6.197	153	649960	77.83	ppm	98
51) 3-Nitroaniline	6.149	138	178632	81.70	ppm	99
52) 2,4-Dinitrophenol	6.229	184	92310	89.18	ppm	98
53) Dibenzofuran	6.320	168	962267	79.75	ppm	95
54) 2,4-Dinitrotoluene	6.314	165	218974	84.73	ppm	96
55) 4-Nitrophenol	6.288	65	160558	85.52	ppm	95
56) Fluorene	6.560	166	784092	81.74	ppm	100
57) 4-Chlorophenyl-phenyle...	6.550	204	386267	81.05	ppm	97
58) Diethylphthalate	6.459	149	715566	79.23	ppm	99
59) 4-Nitroaniline	6.587	138	182529	84.32	ppm	100
62) 4,6-Dinitro-2-methylph...	6.603	198	141548	82.93	ppm	94
63) 1,2 Diphenylhydrazine	6.662	77	797513	81.29	ppm	99
64) N-Nitrosodiphenylamine	6.635	169	490019	78.98	ppm	98
65) 4-Bromophenyl-phenylether	6.897	248	223226	80.43	ppm	99
66) Hexachlorobenzene	6.956	284	245979	79.61	ppm	85
67) Atrazine	7.010	215	105840m	83.28	ppm	
68) Pentachlorophenol	7.101	266	133926	83.50	ppm	97
69) Phenanthrene	7.250	178	1003485	78.21	ppm	100
70) Anthracene	7.288	178	1071034	79.94	ppm	100
71) Carbazole	7.406	167	1079273	83.71	ppm	99
72) Di-n-butylphthalate	7.630	149	1364516	86.79	ppm	100
73) Fluoranthene	8.224	202	1274109	83.16	ppm	96
75) Benzidine	8.342	184	409950	78.67	ppm	99
76) Pyrene	8.449	202	1356854	82.94	ppm	98
78) Butyl benzyl phthalate	9.155	149	648467	85.45	ppm	97
79) 3,3'-Dichlorobenzidine	9.952	252	441496	86.23	ppm	98
80) Benzo(a)anthracene	9.994	228	1315619	81.54	ppm	99
81) Chrysene	10.053	228	1188754	78.28	ppm	98
82) bis(2-Ethylhexyl)phtha...	10.010	149	886962	86.24	ppm	99
84) Di-n-octyl phthalate	11.230	149	1449851	90.04	ppm	98
85) Benzo(b)Fluoranthene	11.968	252	1214913	79.58	ppm	98
86) Benzo(k)fluoranthene	12.027	252	1224552	78.43	ppm	98
87) Benzo(a)pyrene	12.637	252	1205345	81.31	ppm	98
88) Indeno(1,2,3-cd)Pyrene	14.669	276	1210717m	89.93	ppm	
89) Dibenz(a,h)anthracene	14.706	278	1171592	84.04	ppm	99
90) Benzo(g,h,i)perylene	15.113	276	1193327	86.17	ppm	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE334.D
Acq On : 8 Dec 2015 8:20 am
Operator : J.Misiurewicz
Sample : CCV Inst : 5973D
Misc : 80 ppm STD 8270D
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 10 08:32:38 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

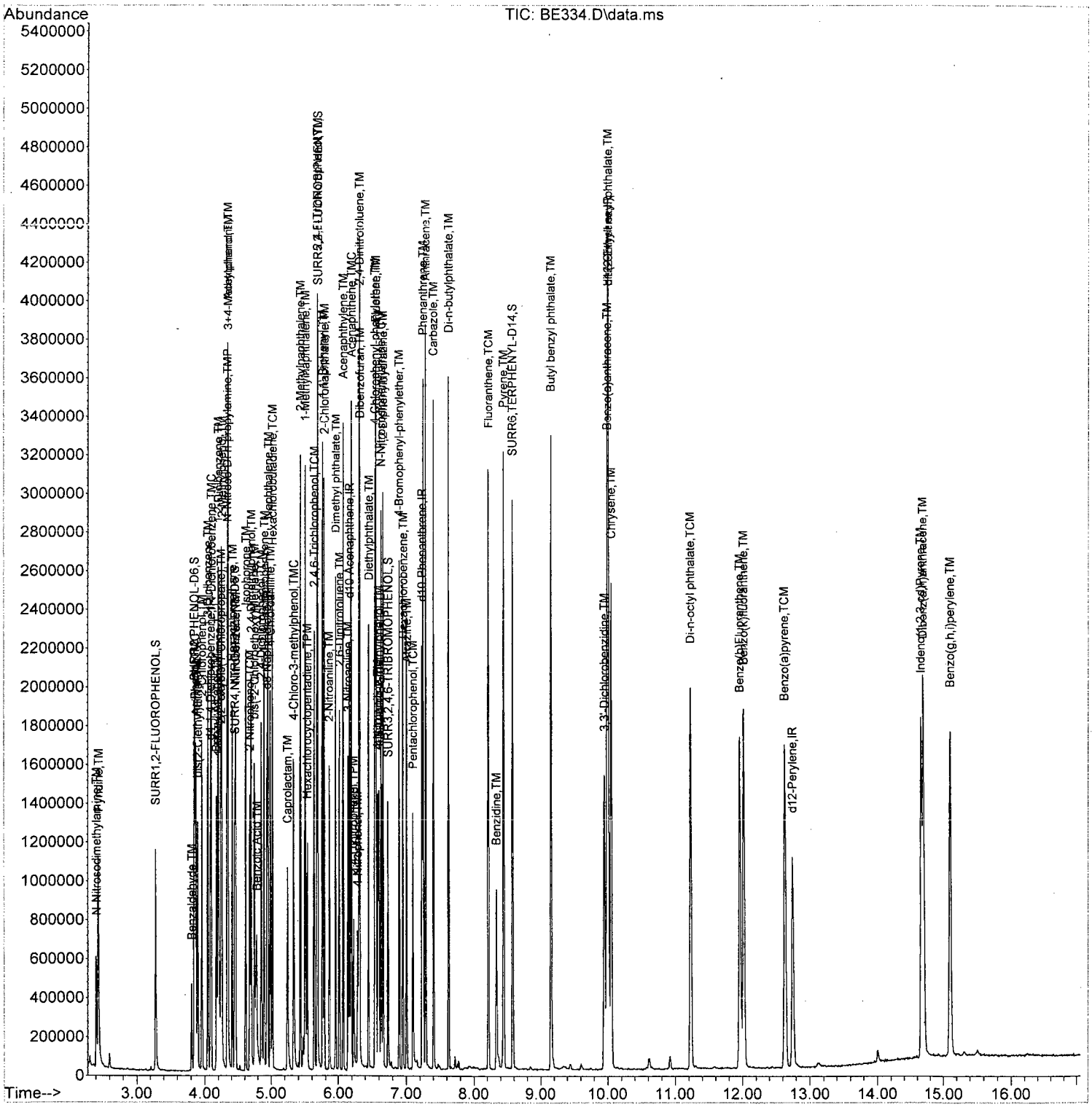
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE334.D
Acq On : 8 Dec 2015 8:20 am
Operator : J.Misiurewicz
Sample : CCV Inst : 5973D
Misc : 80 ppm STD 8270D
ALS Vial : 3 Sample Multiplier: 1

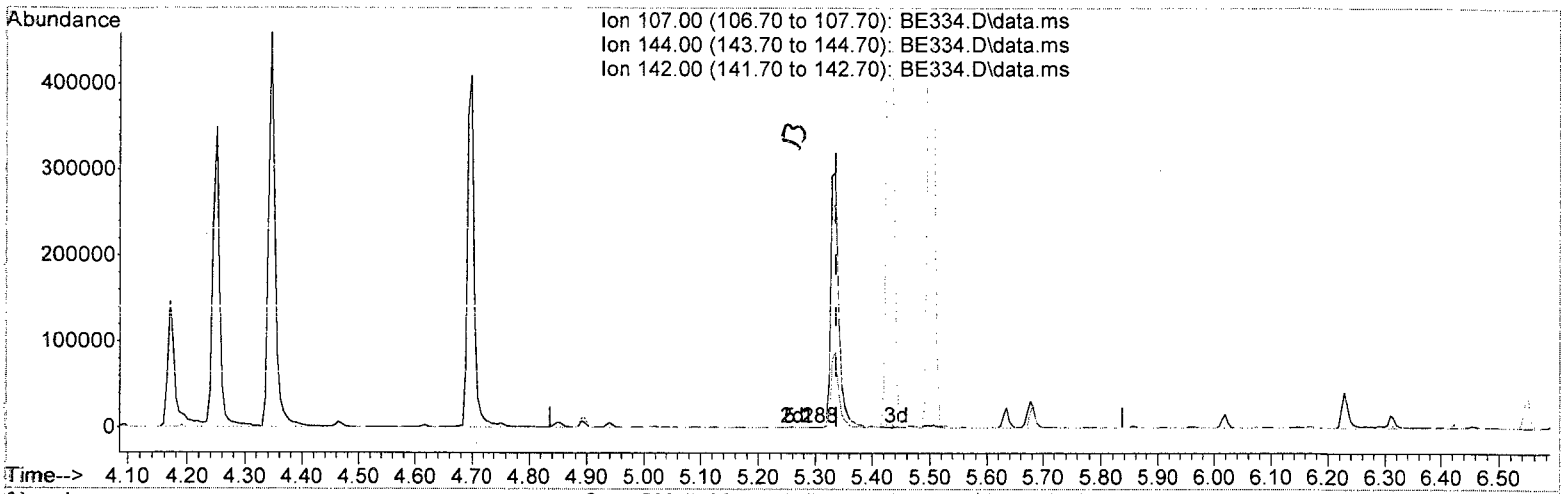
Quant Time: Dec 10 08:32:38 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

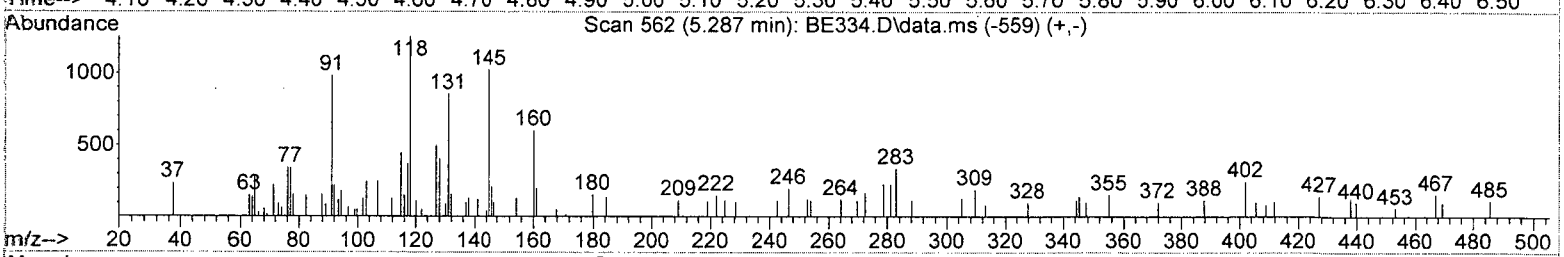


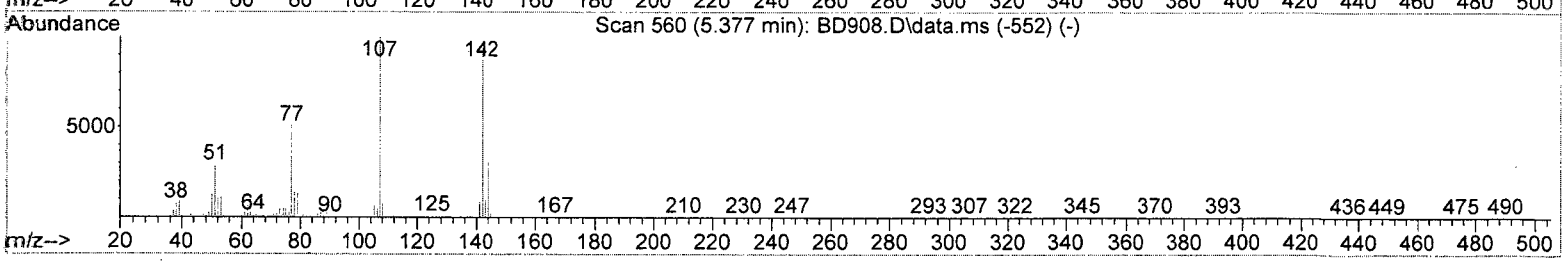
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\I20815\
Data File : BE334.D
Acq On : 8 Dec 2015 8:20 am
Operator : J.Misiurewicz
Sample : CCV Inst : 5973D
Misc : 80 ppm STD 8270D
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 10 08:31:15 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration







TIC: BE334.D\data.ms

(35) 4-Chloro-3-methylphenol (TMC)

5.287min (-0.049) 0.09 ppm

response 309

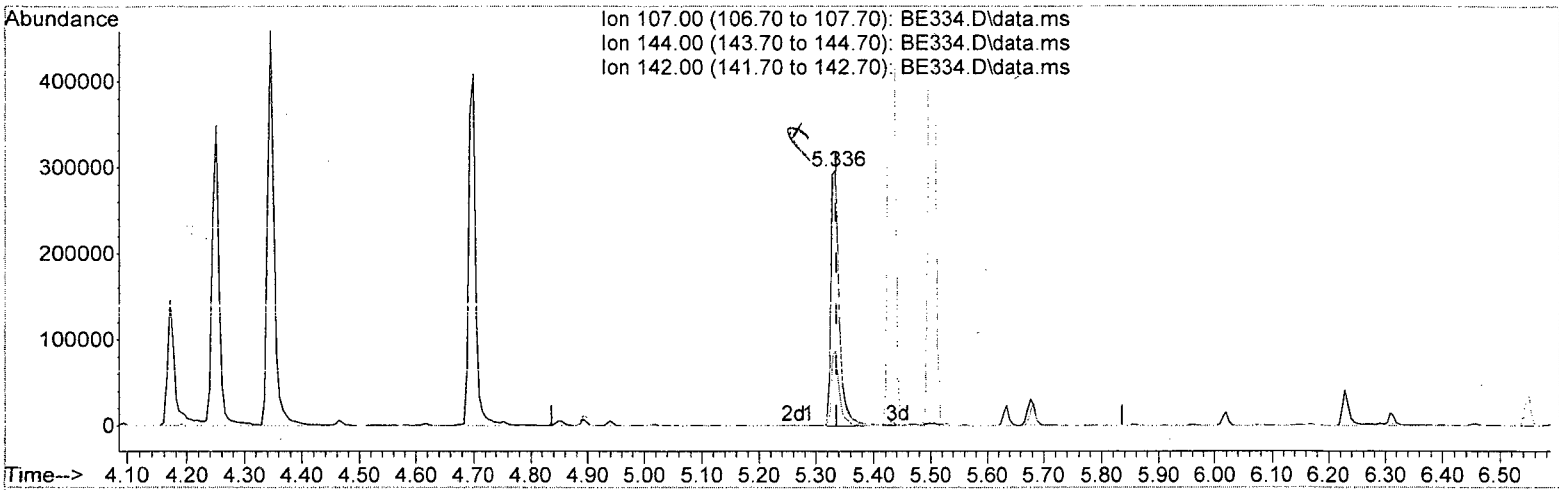
Ion	Exp%	Act%
107.00	100	100
144.00	28.80	17.13
142.00	0.00	0.00
0.00	0.00	0.00

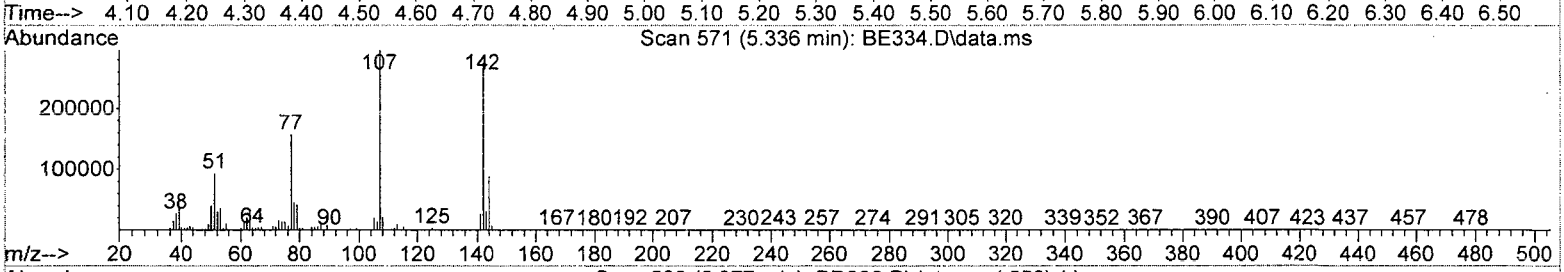
82701203D.M Thu Dec 10 08:31:41 2015 Page: 1

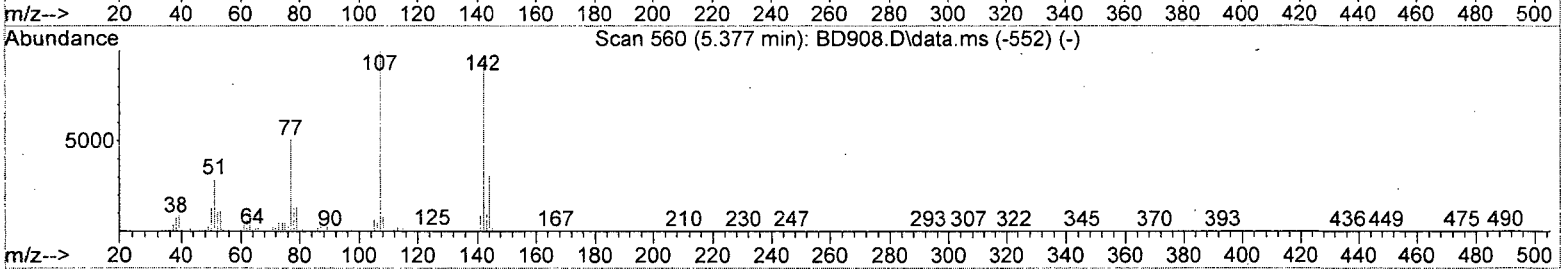
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\I20815\
Data File : BE334.D
Acq On : 8 Dec 2015 8:20 am
Operator : J.Misiurewicz
Sample : CCV Inst : 5973D
Misc : 80 ppm STD 8270D
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 10 08:31:15 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration







TIC: BE334.D\data.ms

(35) 4-Chloro-3-methylphenol (TMC)

5.336min (-0.001) 87.18 ppm m

response 286563

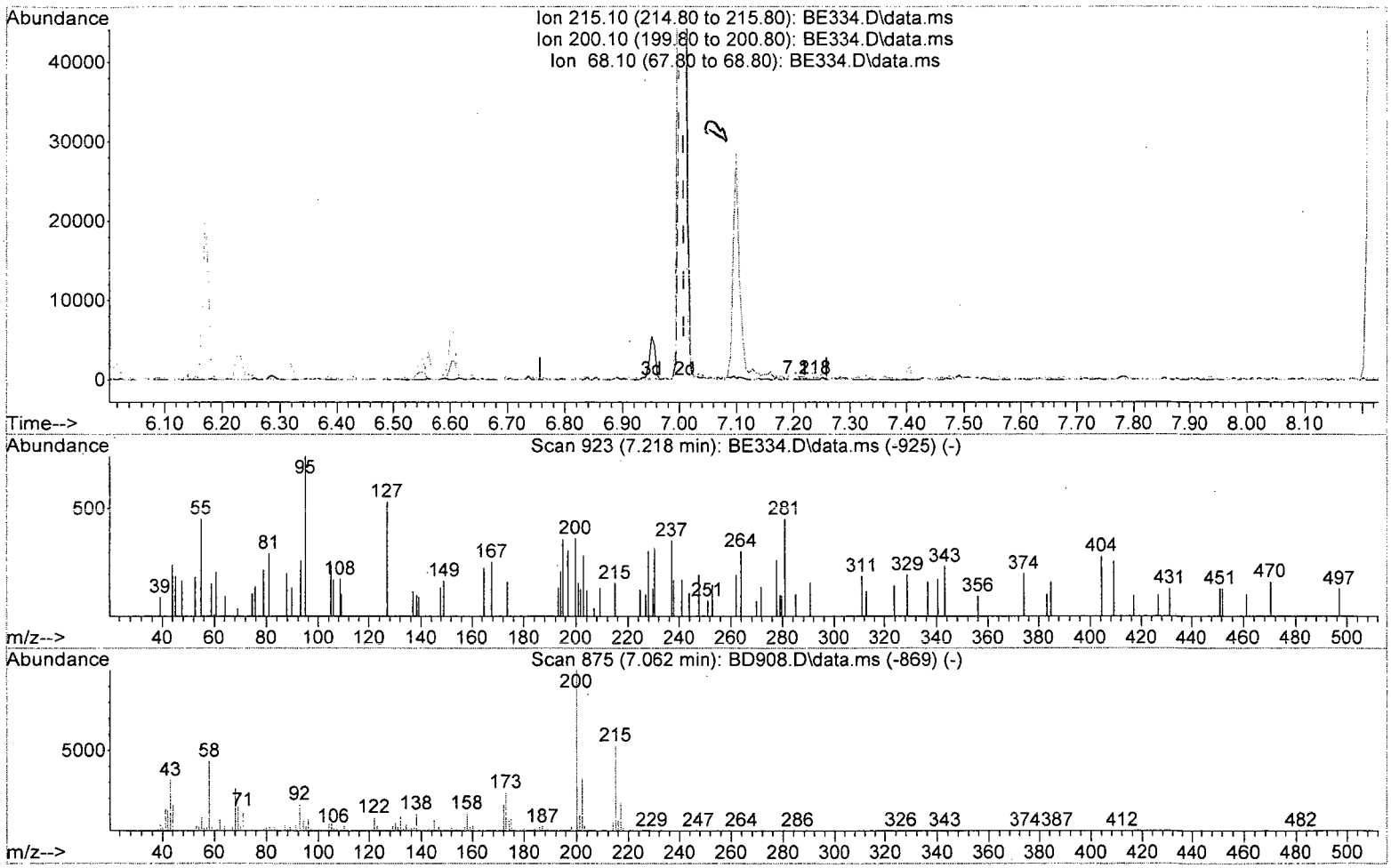
Ion	Exp%	Act%
107.00	100	100
144.00	28.80	29.71
142.00	0.00	92.68#
0.00	0.00	0.00

82701203D.M Thu Dec 10 08:31:46 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\I20815\
Data File : BE334.D
Acq On : 8 Dec 2015 8:20 am
Operator : J.Misiurewicz
Sample : CCV Inst : 5973D
Misc : 80 ppm STD 8270D
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 10 08:31:15 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration



TIC: BE334.D\data.ms

(67) Atrazine (TM)

7.218min (+0.211) 0.11 ppm

response 135

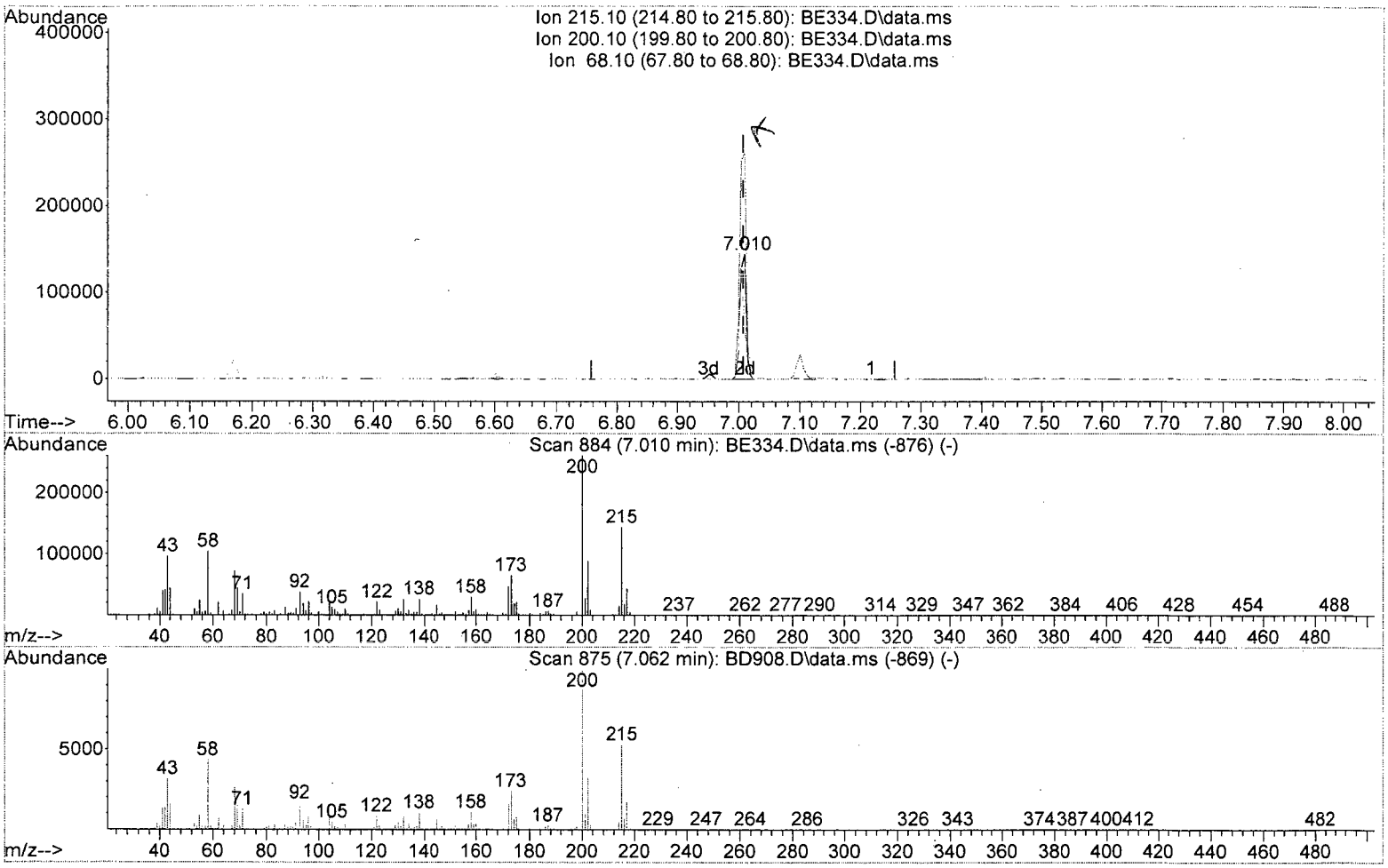
Ion	Exp%	Act%
215.10	100	100
200.10	193.20	225.47
68.10	83.80	108.70
0.00	0.00	0.00

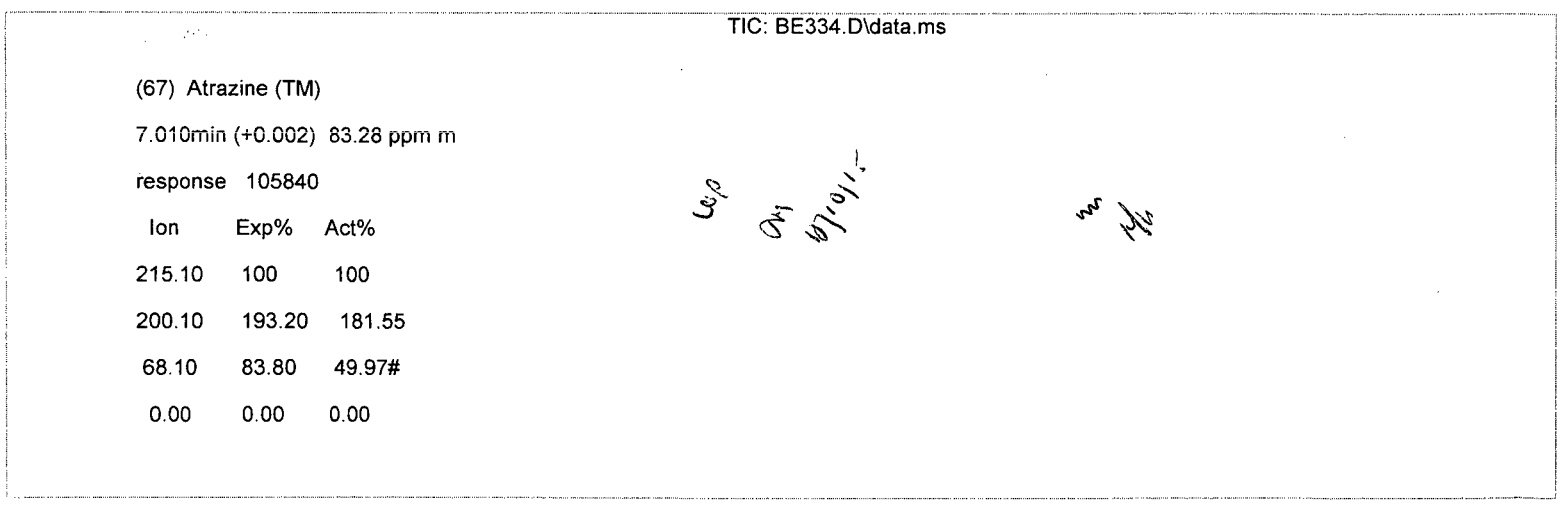
82701203D.M Thu Dec 10 08:32:09 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\I20815\
Data File : BE334.D
Acq On : 8 Dec 2015 8:20 am
Operator : J.Misiurewicz
Sample : CCV Inst : 5973D
Misc : 80 ppm STD 8270D
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 10 08:31:15 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration





(67) Atrazine (TM)

7.010min (+0.002) 83.28 ppm m

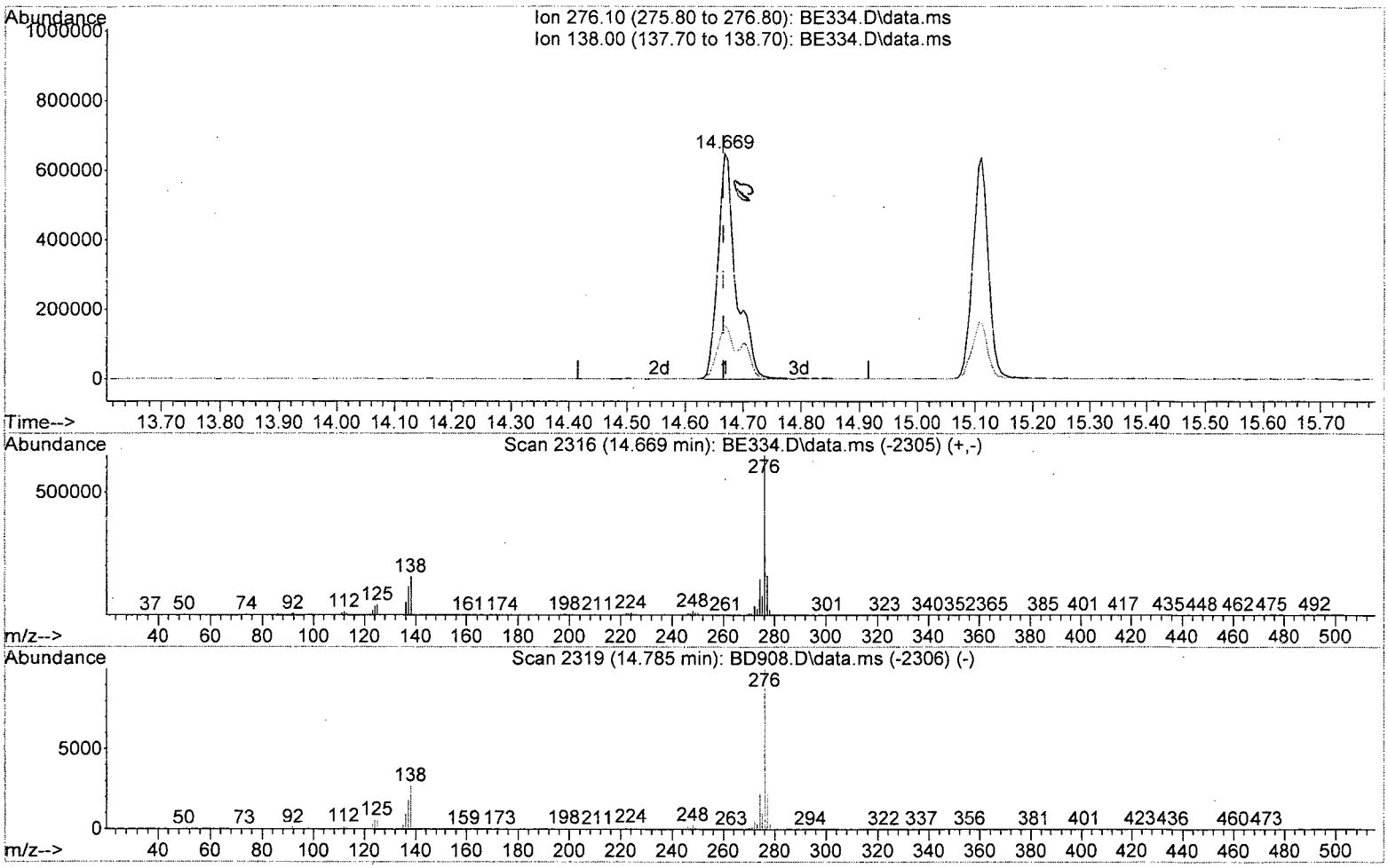
response 105840

Ion	Exp%	Act%
215.10	100	100
200.10	193.20	181.55
68.10	83.80	49.97#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE334.D
Acq On : 8 Dec 2015 8:20 am
Operator : J.Misiurewicz
Sample : CCV Inst : 5973D
Misc : 80 ppm STD 8270D
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 10 08:31:15 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration



TIC: BE334.D\data.ms

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.669min (+0.003) 106.04 ppm

response 1427514

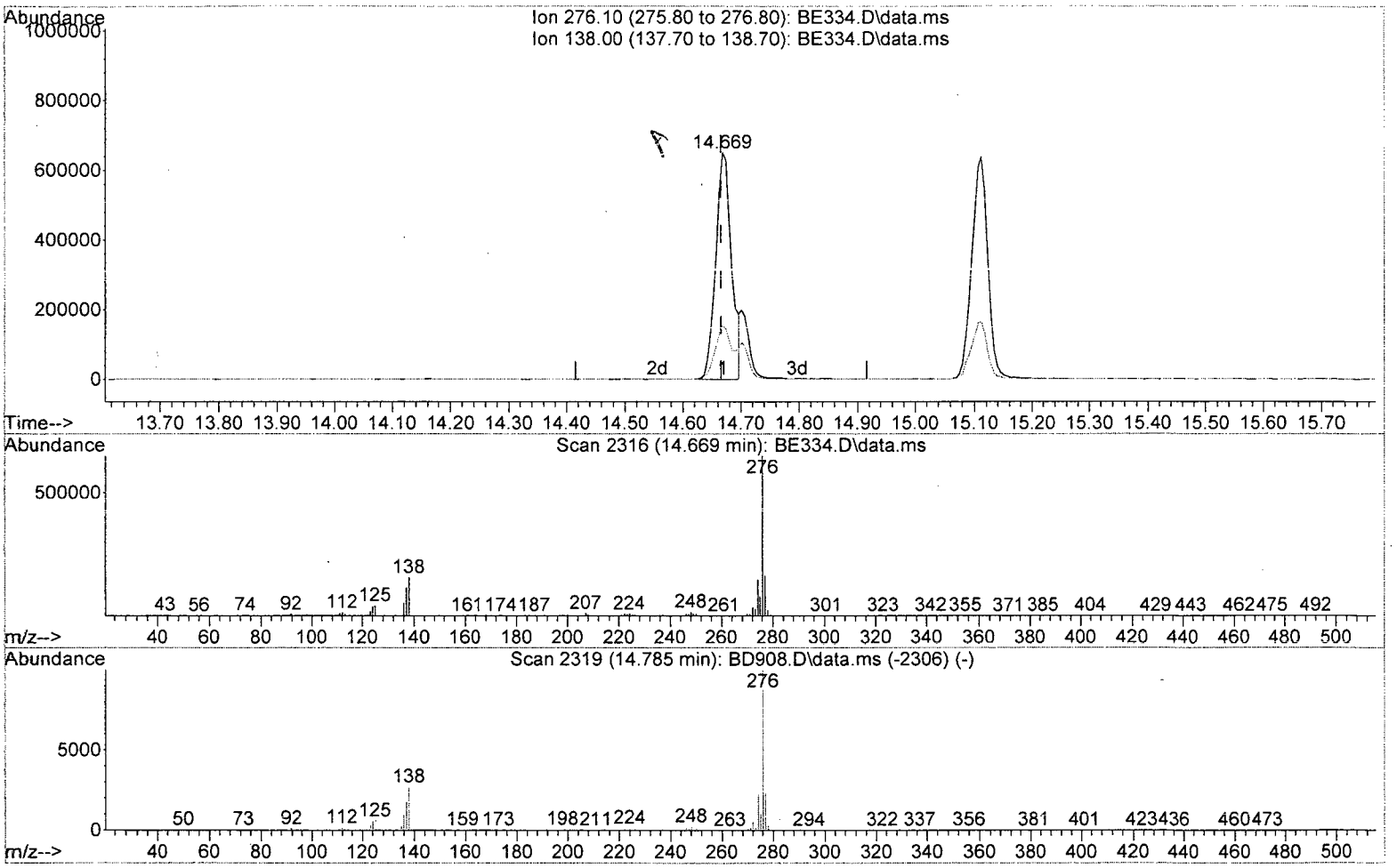
Ion	Exp%	Act%
276.10	100	100
138.00	25.80	23.94
0.00	0.00	0.00
0.00	0.00	0.00

82701203D.M Thu Dec 10 08:32:34 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE334.D
Acq On : 8 Dec 2015 8:20 am
Operator : J.Misiurewicz
Sample : CCV Inst : 5973D
Misc : 80 ppm STD 8270D
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 10 08:31:15 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration



TIC: BE334.D\data.ms

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.669min (+0.003) 89.93 ppm m

response 1210717

Ion	Exp%	Act%
276.10	100	100
138.00	25.80	23.96
0.00	0.00	0.00
0.00	0.00	0.00

82701203D.M Thu Dec 10 08:32:42 2015 Page: 1

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE252.D
Acq On : 3 Dec 2015 8:29 am
Operator : M.PEDRO
Sample : TUNE Inst : 5973D
Misc : 50ng DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 04 10:17:31 2015
Quant Method : I:\ACQUDATA\5973D\METHODS\TUNE-D.M
Quant Title : TUNE CHECK
QLast Update : Wed Nov 25 10:10:05 2015
Response via : Initial Calibration

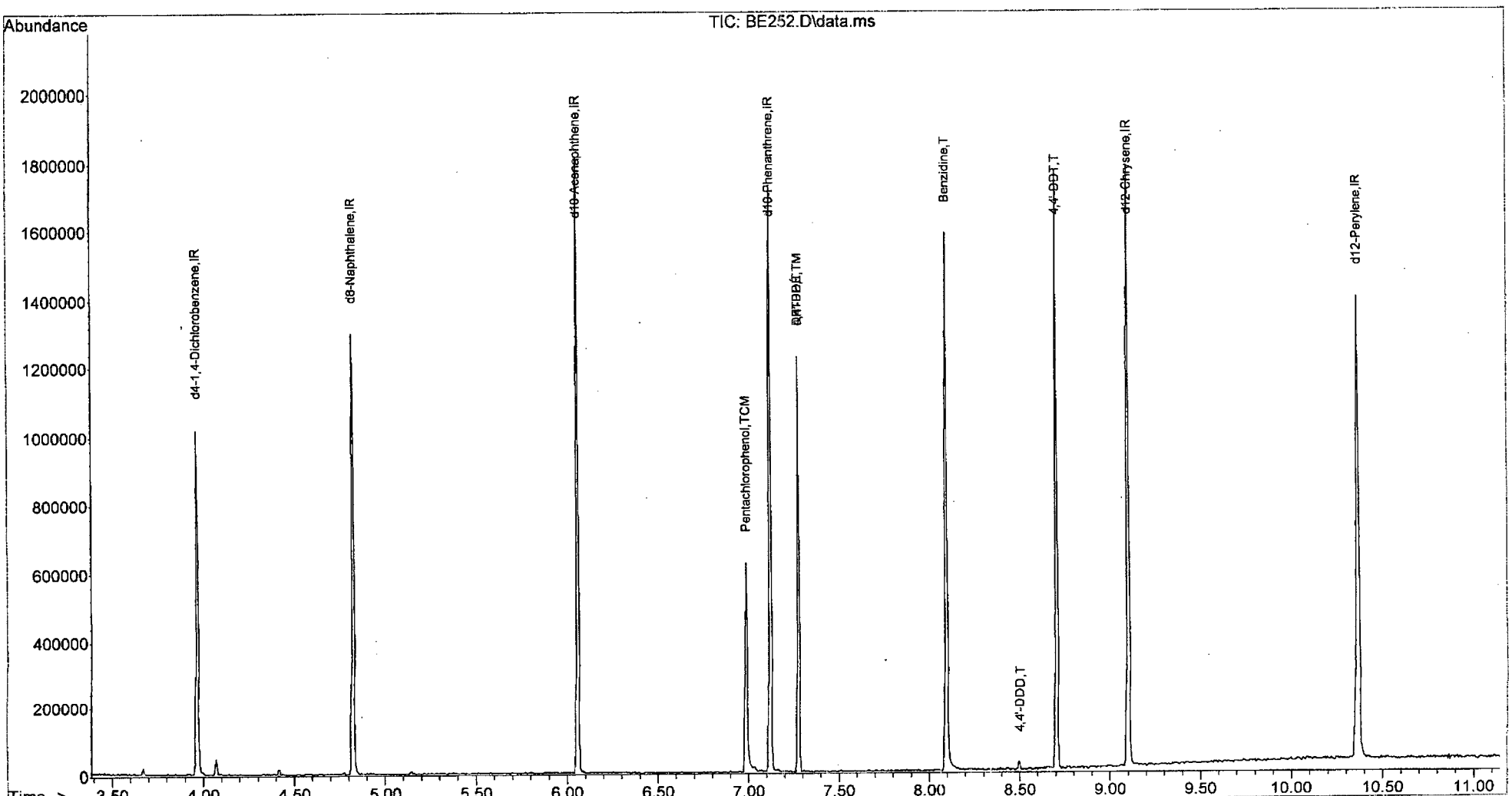
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d4-1,4-Dichlorobenzene	3.965	152	115312	40.00	ppm	-0.01
2) d8-Naphthalene	4.820	136	450002	40.00	ppm	-0.01
3) d10-Acenaphthene	6.056	164	270807	40.00	ppm	0.00
4) d10-Phenanthrene	7.120	188	493080	40.00	ppm	0.00
7) d12-Chrysene	9.099	240	509628	40.00	ppm	0.00
12) d12-Perylene	10.362	264	511739	40.00	ppm	0.00
Target Compounds						Qvalue
5) Pentachlorophenol	6.987	266	67759m	41.31	ppm	
6) DFTPP	7.275	198	75727	44.62	ppm	66
8) Benzidine	8.094	184	495122	49.64	ppm	98
9) 4,4'-DDE	7.275	246	2058	0.45	ppm	67
10) 4,4'-DDD	8.500	235	3312	0.72	ppm	80
11) 4,4'-DDT	8.704	235	208703	45.38	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE252.D
Acq On : 3 Dec 2015 8:29 am
Operator : M.PEDRO
Sample : TUNE Inst : 5973D
Misc : 50ng DFTPP
ALS Vial : 2 Sample Multiplier: 1

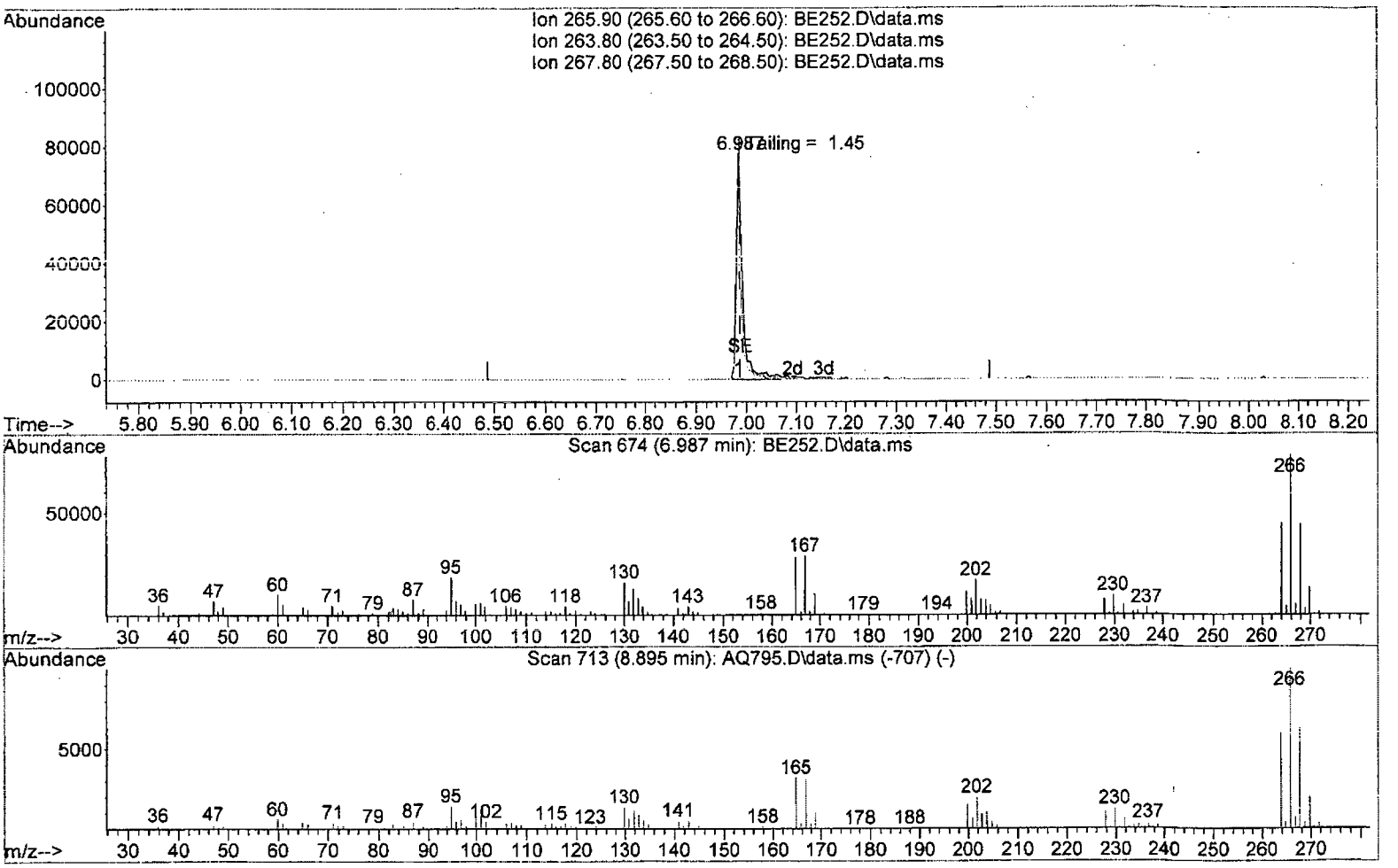
Quant Time: Dec 04 10:17:31 2015
Quant Method : I:\ACQUDATA\5973D\METHODS\TUNE-D.M
Quant Title : TUNE CHECK
QLast Update : Wed Nov 25 10:10:05 2015
Response via : Initial Calibration



TUNE-D.M Fri Dec 04 10:17:59 2015 Page: 2

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE252.D
Acq On : 3 Dec 2015 8:29 am
Operator : M.PEDRO
Sample : TUNE Inst : 5973D
Misc : 50ng DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 03 08:37:12 2015
Quant Method : I:\ACQUDATA\5973D\METHODS\TUNE-D.M
Quant Title : TUNE CHECK
QLast Update : Wed Nov 25 10:10:05 2015
Response via : Initial Calibration



TIC: BE252.D\data.ms

(5) Pentachlorophenol (TCM)

6.987min (-0.002) 41.31 ppm m

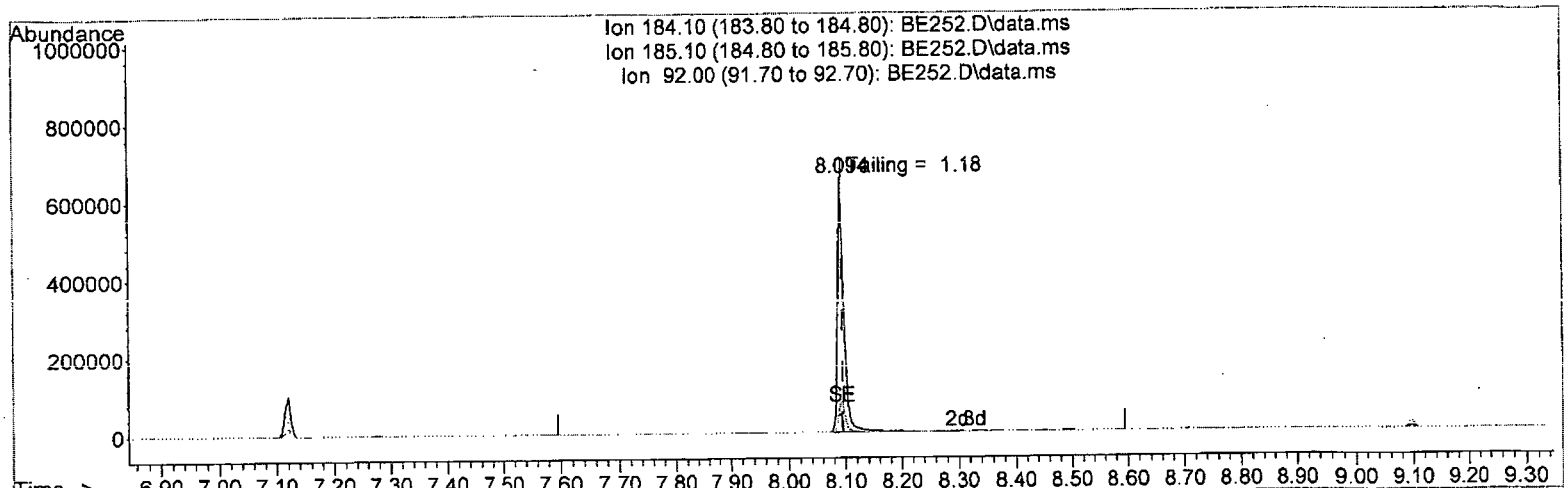
response 67759

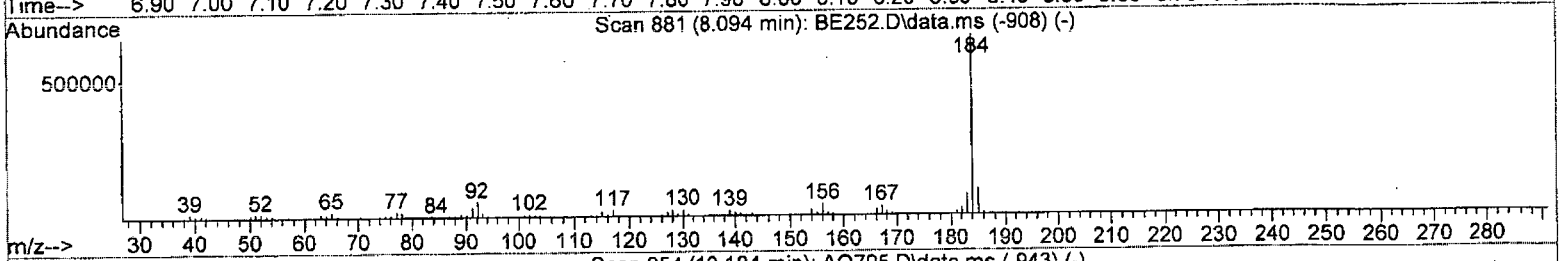
Ion	Exp%	Act%
265.90	100	100
263.80	57.70	57.83
267.80	58.60	56.86
0.00	0.00	0.00

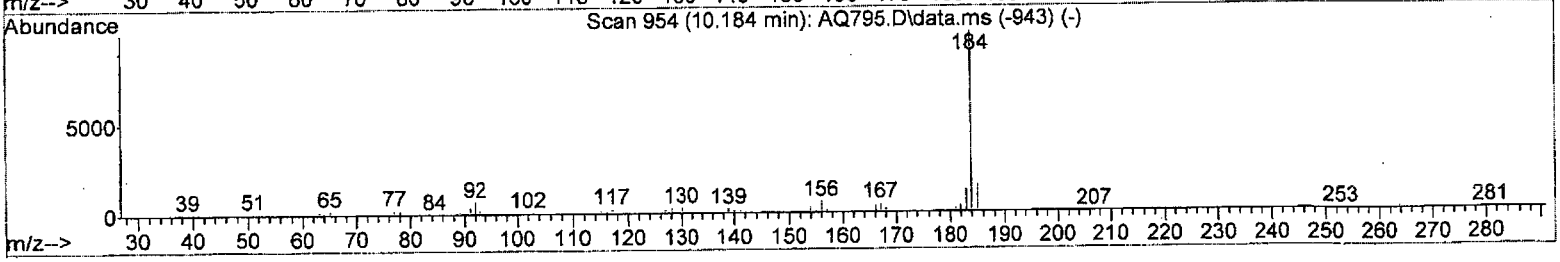
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE252.D
Acq On : 3 Dec 2015 8:29 am
Operator : M.PEDRO
Sample : TUNE
Inst : 5973D
Misc : 50ng DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 03 08:37:12 2015
Quant Method : I:\ACQUDATA\5973D\METHODS\TUNE-D.M
Quant Title : TUNE CHECK
QLast Update : Wed Nov 25 10:10:05 2015
Response via : Initial Calibration







TIC: BE252.D\data.ms

(8) Benzidine (T)

8.094min (-0.002) 49.64 ppm

response 495122

Ion	Exp%	Act%
184.10	100	100
185.10	14.90	14.14
92.00	8.00	8.38
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE333.D
Acq On : 8 Dec 2015 8:01 am
Operator : J.Misiurewicz
Sample : TUNE Inst : 5973D
Misc : 50 ng DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 08 08:09:23 2015
Quant Method : I:\ACQUDATA\5973D\METHODS\TUNE-D.M
Quant Title : TUNE CHECK
QLast Update : Wed Nov 25 10:10:05 2015
Response via : Initial Calibration

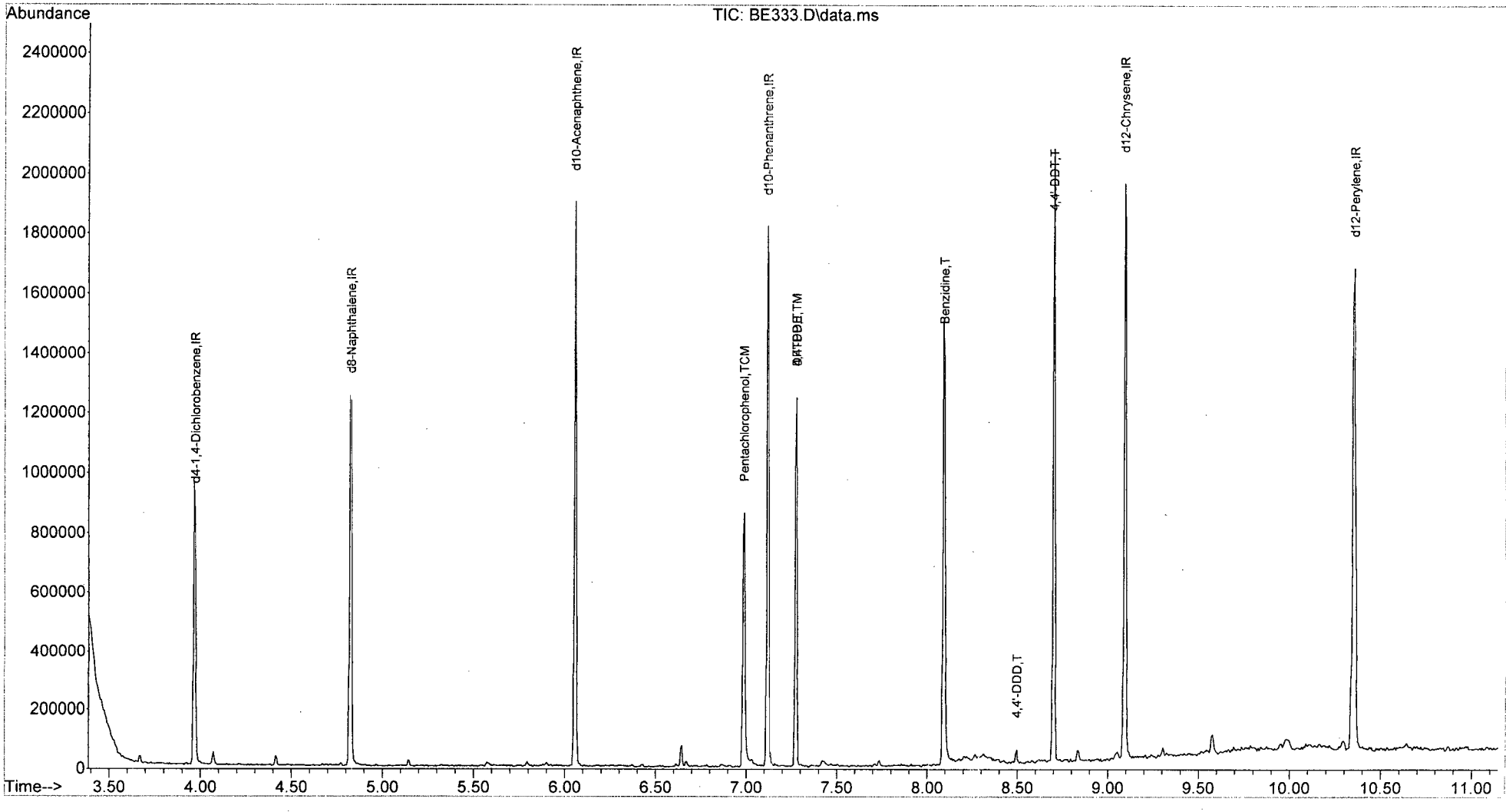
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d4-1,4-Dichlorobenzene	3.970	152	122348	40.00	ppm	0.00
2) d8-Naphthalene	4.826	136	480016	40.00	ppm	0.00
3) d10-Acenaphthene	6.056	164	286534	40.00	ppm	0.00
4) d10-Phenanthrene	7.115	188	530655	40.00	ppm	-0.01
7) d12-Chrysene	9.088	240	599509	40.00	ppm	0.00
12) d12-Perylene	10.351	264	642860	40.00	ppm	0.00
Target Compounds						Qvalue
5) Pentachlorophenol	6.986	266	93261	52.83	ppm	97
6) DFTPP	7.275	198	90257	49.42	ppm	88
8) Benzidine	8.094	184	540525	46.06	ppm	98
9) 4,4'-DDE	7.275	246	1725	0.32	ppm	74
10) 4,4'-DDD	8.495	235	7163	1.32	ppm	90
11) 4,4'-DDT	8.698	235	264557	48.91	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE333.D
Acq On : 8 Dec 2015 8:01 am
Operator : J.Misiurewicz
Sample : TUNE Inst : 5973D
Misc : 50 ng DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 08 08:09:23 2015
Quant Method : I:\ACQUDATA\5973D\METHODS\TUNE-D.M
Quant Title : TUNE CHECK
QLast Update : Wed Nov 25 10:10:05 2015
Response via : Initial Calibration

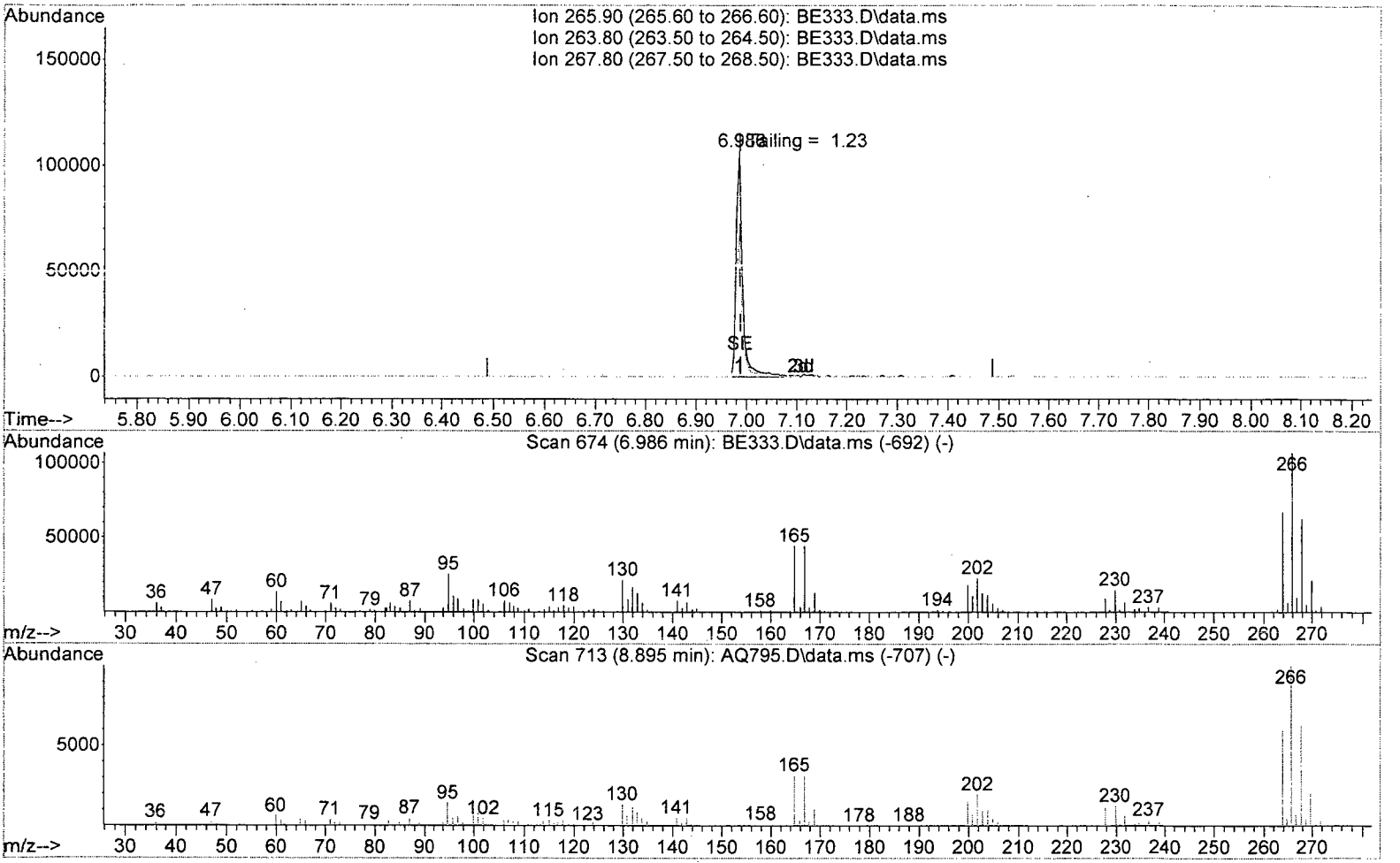


TUNE-D.M Thu Dec 10 08:30:23 2015 Page: 2

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\I20815\
Data File : BE333.D
Acq On : 8 Dec 2015 8:01 am
Operator : J.Misiurewicz
Sample : TUNE
Inst : 5973D
Misc : 50 ng DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 08 08:09:23 2015
Quant Method : I:\ACQUDATA\5973D\METHODS\TUNE-D.M
Quant Title : TUNE CHECK
QLast Update : Wed Nov 25 10:10:05 2015
Response via : Initial Calibration



TIC: BE333.D\data.ms

(5) Pentachlorophenol (TCM)

6.986min (-0.002) 52.83 ppm

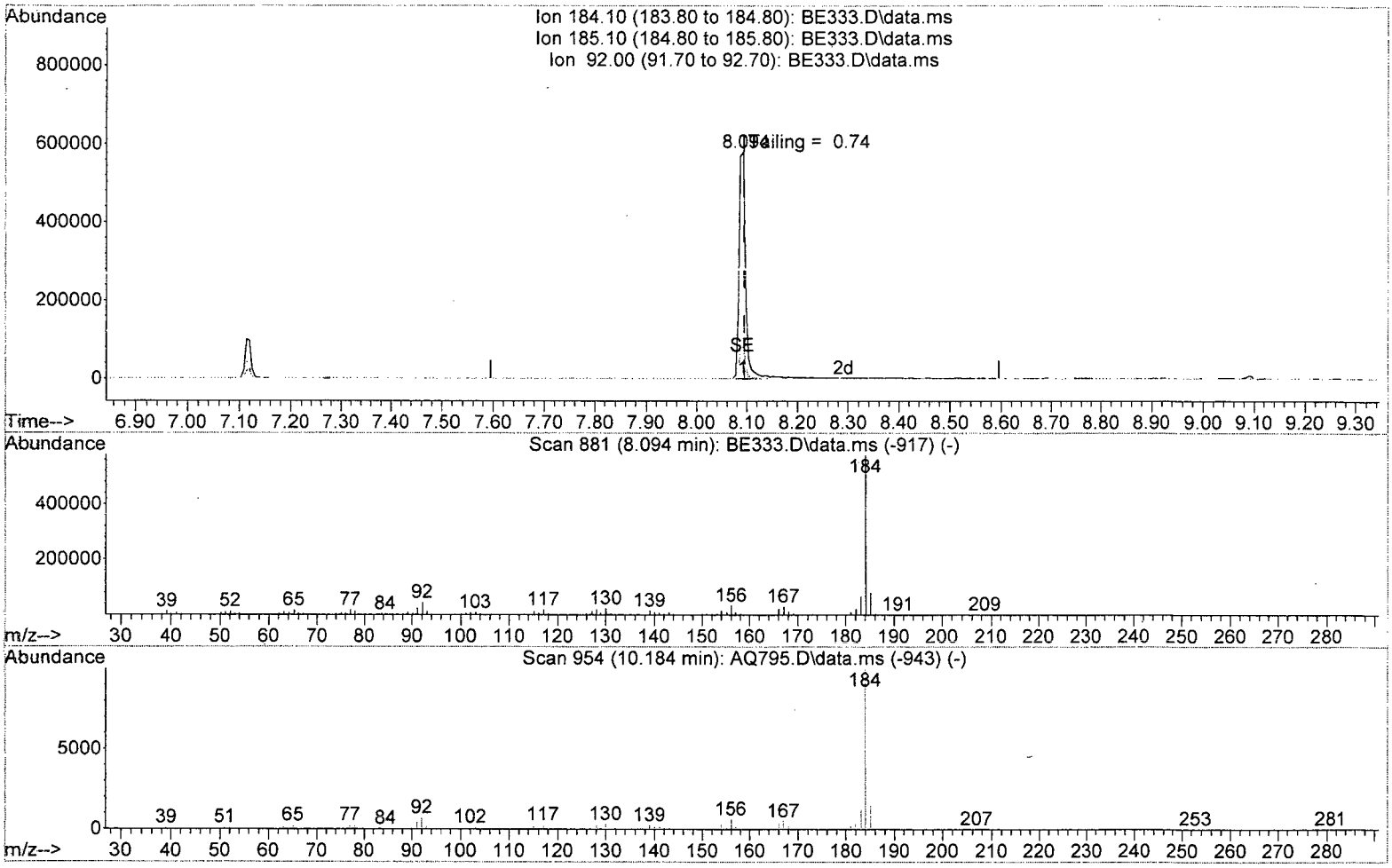
response 93261

Ion	Exp%	Act%
265.90	100	100
263.80	57.70	62.78
267.80	58.60	58.45
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE333.D
Acq On : 8 Dec 2015 8:01 am
Operator : J.Misiurewicz
Sample : TUNE Inst : 5973D
Misc : 50 ng DFTPP
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 08 08:09:23 2015
Quant Method : I:\ACQUDATA\5973D\METHODS\TUNE-D.M
Quant Title : TUNE CHECK
QLast Update : Wed Nov 25 10:10:05 2015
Response via : Initial Calibration



TIC: BE333.D\data.ms

(8) Benzidine (T)

8.094min (-0.002) 46.06 ppm

response 540525

Ion	Exp%	Act%
184.10	100	100
185.10	14.90	13.79
92.00	8.00	7.58
0.00	0.00	0.00

DM 12/9/15

TUNE-D.M Thu Dec 10 08:30:49 2015 Page: 1

ALS Environmental

SEMI-VOLATILE ORGANICS
RAW QC DATA

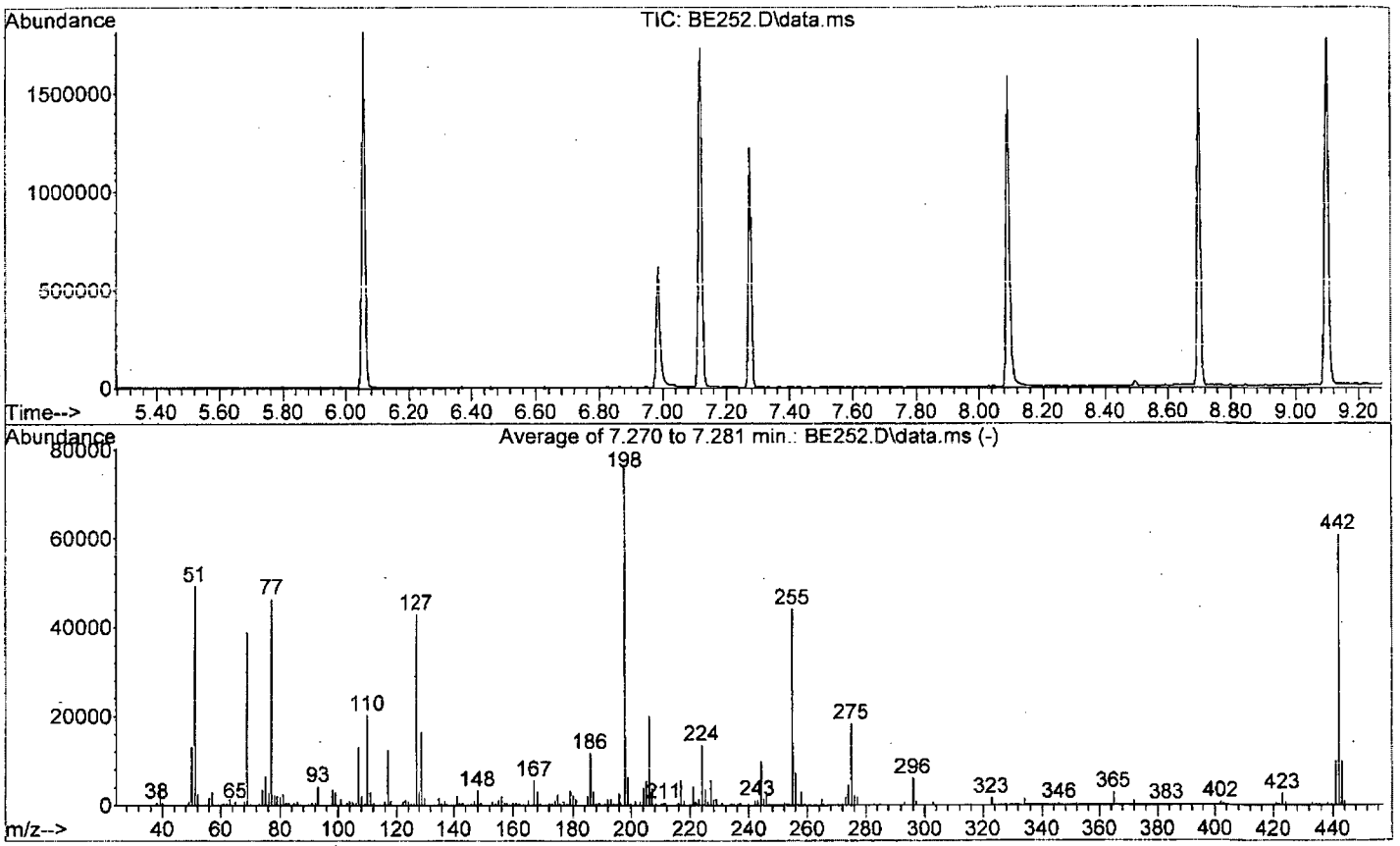
ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

Data Path : I:\ACQUDATA\5973D\Data\120315\
Data File : BE252.D
Acq On : 3 Dec 2015 8:29 am
Operator : M.PEDRO
Sample : TUNE Inst : 5973D
Misc : 50ng DFTPP
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : I:\ACQUDATA\5973D\METHODS\TUNE-D.M
Title : TUNE CHECK
Last Update : Wed Nov 25 10:09:33 2015



AutoFind: Scans 727, 728, 729; Background Corrected with Scan 723

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	64.4	49243	PASS
68	69	0.00	2	1.8	694	PASS
70	69	0.00	2	0.0	0	PASS
127	198	10	80	56.1	42923	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	76501	PASS
199	198	5	9	8.0	6116	PASS
275	198	10	60	23.9	18266	PASS
365	198	1	500	3.7	2803	PASS
441	442	0.01	24	16.0	9736	PASS
442	442	100	100	100.0	60761	PASS
443	442	15	24	16.2	9864	PASS

12/14

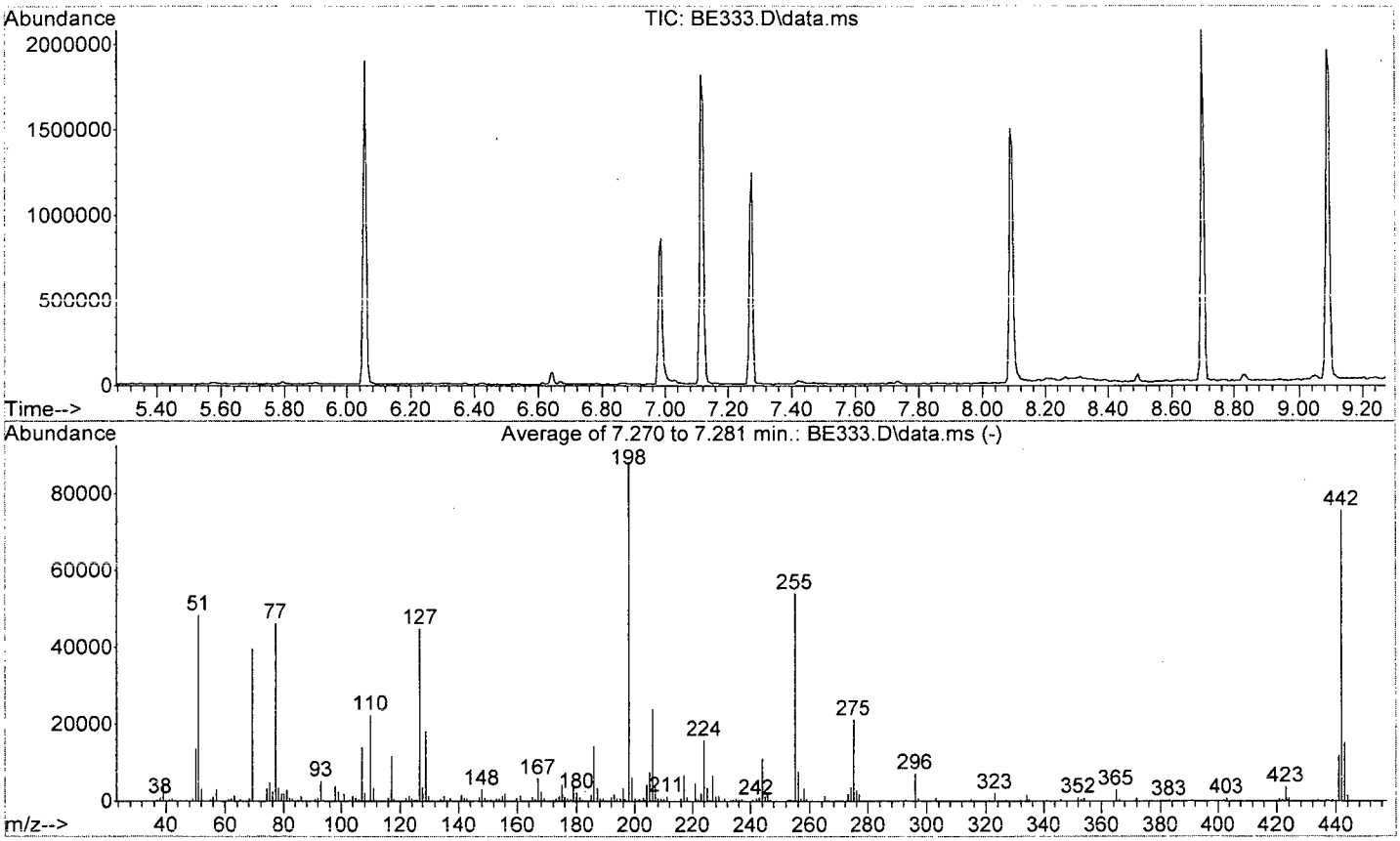
TUNE-D.M Fri Dec 04 10:18:09 2015 Page: 1

DFTPP

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE333.D
Acq On : 8 Dec 2015 8:01 am
Operator : J.Misiurewicz
Sample : TUNE Inst : 5973D
Misc : 50 ng DFTPP
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : I:\ACQUDATA\5973D\METHODS\TUNE-D.M
Title : TUNE CHECK
Last Update : Wed Nov 25 10:09:33 2015



AutoFind: Scans 727, 728, 729; Background Corrected with Scan 722

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	54.8	48289	PASS
68	69	0.00	2	1.7	686	PASS
70	69	0.00	2	0.4	170	PASS
127	198	10	80	50.8	44810	PASS
197	198	0.00	2	0.6	495	PASS
198	198	100	100	100.0	88189	PASS
199	198	5	9	6.9	6080	PASS
275	198	10	60	23.9	21116	PASS
365	198	1	500	3.3	2943	PASS
441	442	0.01	24	15.6	11817	PASS
442	442	100	100	100.0	75616	PASS
443	442	15	24	20.1	15235	PASS

TUNE-D.M Thu Dec 10 08:31:01 2015 Page: 1

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1514672-01

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
1,2,4-Trichlorobenzene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
1,2-Dichlorobenzene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
1,3-Dichlorobenzene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
1,4-Dichlorobenzene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
2,4,5-Trichlorophenol	ND	U	10	5.0	1.8	1	11/25/15	12/8/15 14:23	250879	475709	
2,4,6-Trichlorophenol	ND	U	10	5.0	1.4	1	11/25/15	12/8/15 14:23	250879	475709	
2,4-Dichlorophenol	ND	U	10	5.0	1.3	1	11/25/15	12/8/15 14:23	250879	475709	
2,4-Dimethylphenol	ND	U	10	5.0	1.5	1	11/25/15	12/8/15 14:23	250879	475709	
2,4-Dinitrophenol	ND	U	50	25	20	1	11/25/15	12/8/15 14:23	250879	475709	
2,4-Dinitrotoluene	ND	U	10	5.0	1.6	1	11/25/15	12/8/15 14:23	250879	475709	
2,6-Dinitrotoluene	ND	U	10	5.0	1.8	1	11/25/15	12/8/15 14:23	250879	475709	
2-Chloronaphthalene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
2-Chlorophenol	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
2-Methylnaphthalene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
2-Methylphenol	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
2-Nitroaniline	ND	U	50	25	9.1	1	11/25/15	12/8/15 14:23	250879	475709	
2-Nitrophenol	ND	U	10	5.0	1.4	1	11/25/15	12/8/15 14:23	250879	475709	
3,3'-Dichlorobenzidine	ND	U	10	5.0	4.5	1	11/25/15	12/8/15 14:23	250879	475709	
3- and 4-Methylphenol Coelution	ND	U	11	10	2.0	1	11/25/15	12/8/15 14:23	250879	475709	
3-Nitroaniline	ND	U	50	25	7.7	1	11/25/15	12/8/15 14:23	250879	475709	
4,6-Dinitro-2-methylphenol	ND	U	50	25	11	1	11/25/15	12/8/15 14:23	250879	475709	
4-Bromophenyl Phenyl Ether	ND	U	10	5.0	2.2	1	11/25/15	12/8/15 14:23	250879	475709	
4-Chloro-3-methylphenol	ND	U	10	5.0	1.2	1	11/25/15	12/8/15 14:23	250879	475709	
4-Chloroaniline	ND	U	10	5.0	1.5	1	11/25/15	12/8/15 14:23	250879	475709	
4-Chlorophenyl Phenyl Ether	ND	U	10	5.0	1.2	1	11/25/15	12/8/15 14:23	250879	475709	
4-Nitroaniline	ND	U	50	25	7.8	1	11/25/15	12/8/15 14:23	250879	475709	
4-Nitrophenol	ND	U	50	25	5.9	1	11/25/15	12/8/15 14:23	250879	475709	
Acenaphthene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Acenaphthylene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Anthracene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Benz(a)anthracene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Benzidine	ND	U	110	100	90	1	11/25/15	12/8/15 14:23	250879	475709	
Benzo(a)pyrene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Benzo(b)fluoranthene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Benzo(g,h,i)perylene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Benzo(k)fluoranthene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1514672-01

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	ND	U	10	5.0	1.3	1	11/25/15	12/8/15 14:23	250879	475709	
2,2'-Oxybis(1-chloropropane)	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Bis(2-chloroethoxy)methane	ND	U	10	5.0	2.2	1	11/25/15	12/8/15 14:23	250879	475709	
Bis(2-chloroethyl) Ether	ND	U	10	5.0	1.3	1	11/25/15	12/8/15 14:23	250879	475709	
Bis(2-ethylhexyl) Phthalate	ND	U	10	5.0	1.2	1	11/25/15	12/8/15 14:23	250879	475709	
Butyl Benzyl Phthalate	ND	U	10	5.0	2.4	1	11/25/15	12/8/15 14:23	250879	475709	
Carbazole	ND	U	10	5.0	1.1	1	11/25/15	12/8/15 14:23	250879	475709	
Chrysene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Di-n-butyl Phthalate	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Di-n-octyl Phthalate	ND	U	10	5.0	1.2	1	11/25/15	12/8/15 14:23	250879	475709	
Dibenz(a,h)anthracene	ND	U	10	5.0	1.3	1	11/25/15	12/8/15 14:23	250879	475709	
Dibenzofuran	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Diethyl Phthalate	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Dimethyl Phthalate	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Fluoranthene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Fluorene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Hexachlorobenzene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Hexachlorobutadiene	ND	U	10	5.0	1.3	1	11/25/15	12/8/15 14:23	250879	475709	
Hexachlorocyclopentadiene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Hexachloroethane	ND	U	10	5.0	1.2	1	11/25/15	12/8/15 14:23	250879	475709	
Indeno(1,2,3-cd)pyrene	ND	U	10	5.0	1.2	1	11/25/15	12/8/15 14:23	250879	475709	
Isophorone	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
N-Nitrosodi-n-propylamine	ND	U	10	5.0	1.3	1	11/25/15	12/8/15 14:23	250879	475709	
N-Nitrosodimethylamine	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
N-Nitrosodiphenylamine	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Naphthalene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Nitrobenzene	ND	U	10	5.0	1.6	1	11/25/15	12/8/15 14:23	250879	475709	
Pentachlorophenol (PCP)	ND	U	50	25	6.9	1	11/25/15	12/8/15 14:23	250879	475709	
Phenanthrene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Phenol	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	
Pyrene	ND	U	10	5.0	1.0	1	11/25/15	12/8/15 14:23	250879	475709	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	RQ1514672-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	100	40-125	12/8/15 14:23	
2-Fluorobiphenyl	83	50-110	12/8/15 14:23	
2-Fluorophenol	46	20-110	12/8/15 14:23	
Nitrobenzene-d5	75	40-110	12/8/15 14:23	
Phenol-d6	33	10-115	12/8/15 14:23	
p-Terphenyl-d14	95	50-135	12/8/15 14:23	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	11/25/15
		Date Analyzed:	12/8/15 1423

Tentatively Identified Compounds (TIC)
Semivolatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514672-01	**Basis:**	NA

Prep Method: EPA 3510C
Analytical Method: 8270D

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE346.D
Acq On : 8 Dec 2015 2:23 pm
Operator : J.Misiurewicz
Sample : RQ1514672-01 Inst : 5973D
Misc : 250879 8270D BLK
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 10 08:48:32 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d4-1,4-Dichlorobenzene	4.084	152	122988	40.00	ppm	0.00
22) d8-Naphthalene	4.940	136	487592	40.00	ppm	0.00
39) d10-Acenaphthene	6.170	164	289810	40.00	ppm	0.00
61) d10-Phenanthrene	7.234	188	540981	40.00	ppm	0.00
74) d12-Chrysene	10.005	240	575265	40.00	ppm	0.00
83) d12-Perylene	12.754	264	580737	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.276	112	281146	92.21	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 46.10%			
7) SURR2,PHENOL-D6	3.849	99	256746	65.59	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 32.80%			
23) SURR4,NITROBENZENE-D5	4.448	82	266884	74.73	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 74.73%			
43) SURR5,2-FLUOROBIPHENYL	5.683	172	635901	83.25	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 83.25%			
60) SURR3,2,4,6-TRIBROMOPH...	6.737	330	218877	200.58	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 100.29%			
77) SURR6,TERPHENYL-D14	8.582	244	849565	95.11	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 95.11%			

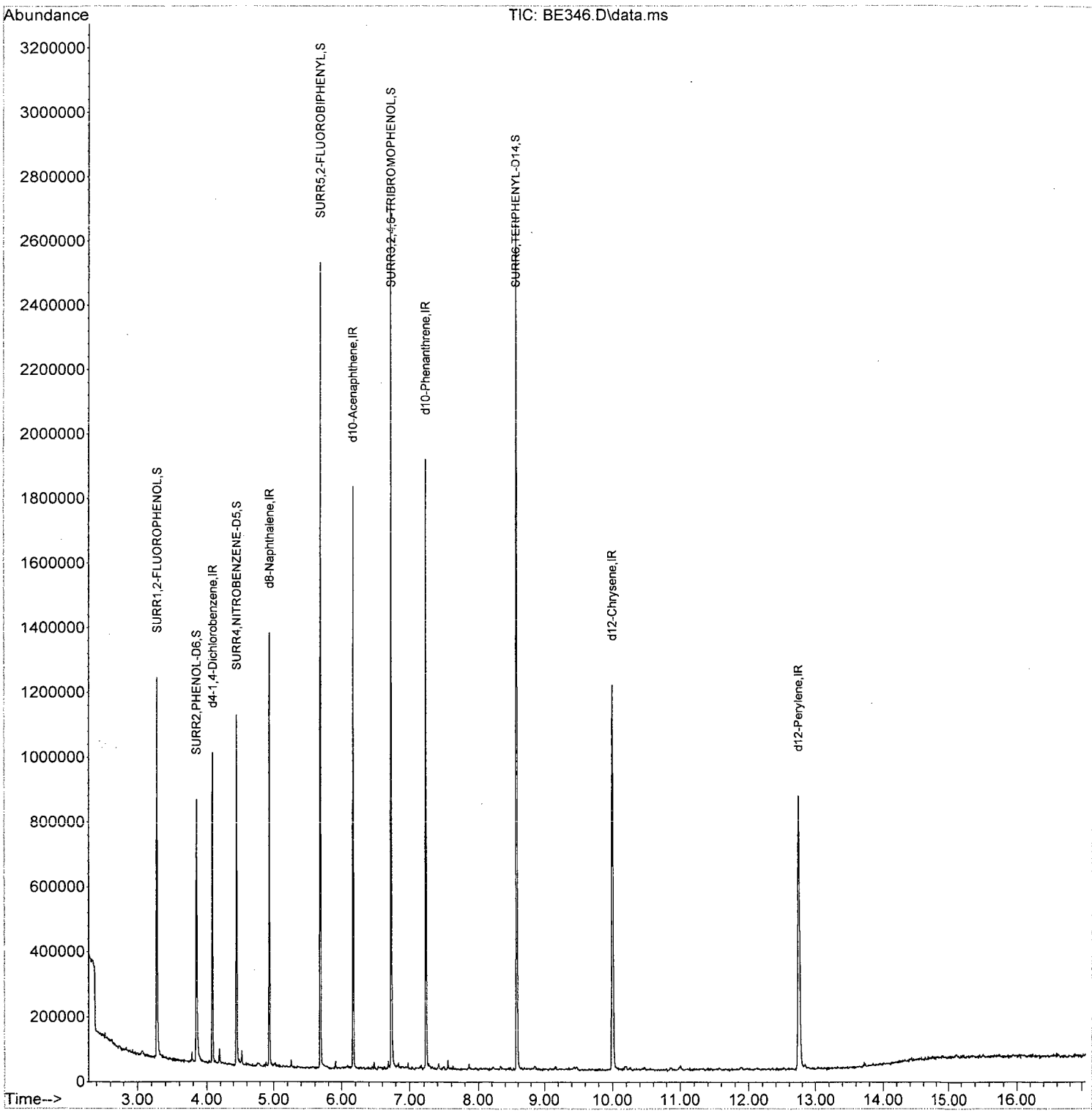
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE346.D
Acq On : 8 Dec 2015 2:23 pm
Operator : J.Misiurewicz
Sample : RQ1514672-01 Inst : 5973D
Misc : 250879 8270D BLK
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 10 08:48:32 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration



82701203D.M Thu Dec 10 08:49:05 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE346.D
Acq On : 8 Dec 2015 2:23 pm
Operator : J.Misiurewicz
Sample : RQ1514672-01 Inst : 5973D
Misc : 250879 8270D BLK
ALS Vial : 15 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS

TIC Library : C:\Database\NIST08.L
TIC Integration Parameters: TEBINT.P

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

LSC Area Percent Report

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE346.D
Acq On : 8 Dec 2015 2:23 pm
Operator : J.Misiurewicz
Sample : RQ1514672-01 Inst : 5973D
Misc : 250879 8270D BLK
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 25000 Area counts
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Title : 8270 BNA ANALYSIS

Signal : TIC: BE346.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.276	183	186	194	rBV	1168145	1036141	38.09%	6.021%
2	3.849	290	293	306	rBV	809428	767863	28.23%	4.462%
3	4.084	333	337	342	rBV	958706	779011	28.64%	4.527%
4	4.186	353	356	359	rBV	42534	32270	1.19%	0.188%
5	4.448	402	405	412	rBV	1082018	894991	32.90%	5.201%
6	4.528	417	420	423	rVB	42471	32064	1.18%	0.186%
7	4.940	493	497	504	rVB	1333517	1053024	38.71%	6.119%
8	5.683	632	636	639	rBV	2490932	1888299	69.42%	10.973%
9	6.170	724	727	731	rBV	1791815	1261859	46.39%	7.333%
10	6.737	829	833	846	rBV	2684866	2055699	75.57%	11.946%
11	7.234	922	926	931	rBV	1879714	1429178	52.54%	8.305%
12	7.550	982	985	989	rBV4	29602	25151	0.92%	0.146%
13	8.582	1174	1178	1189	rVB	2629556	2720079	100.00%	15.806%
14	10.005	1438	1444	1451	rBV	1186106	1574085	57.87%	9.147%
15	12.754	1949	1958	1970	rBV	846192	1658905	60.99%	9.640%

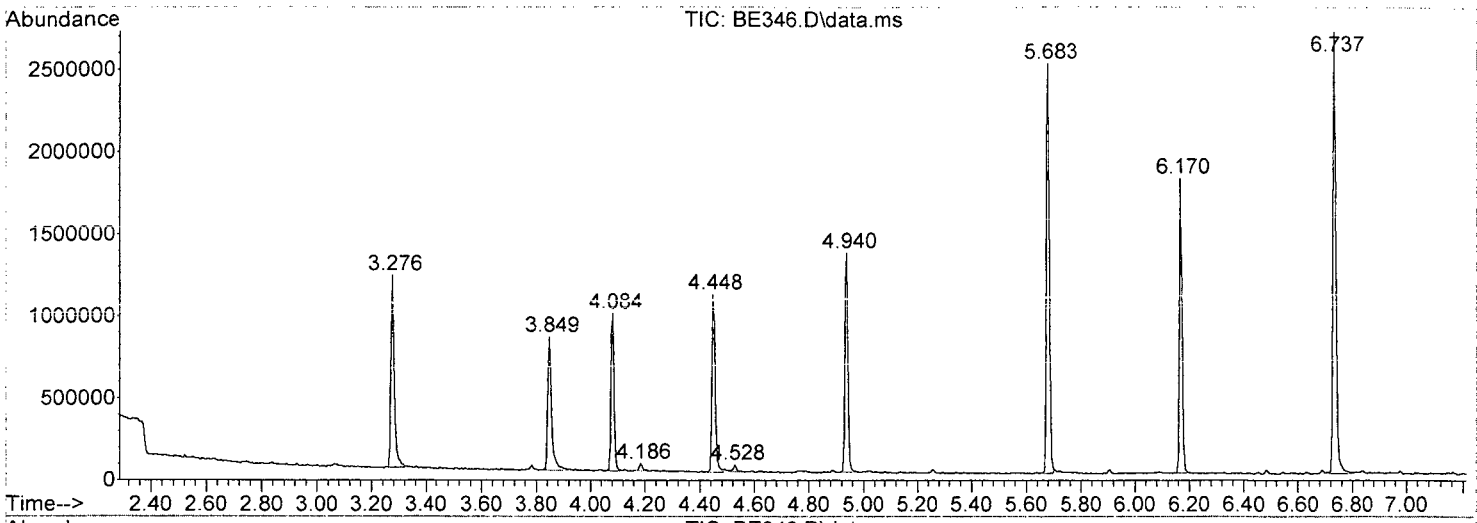
Sum of corrected areas: 17208619

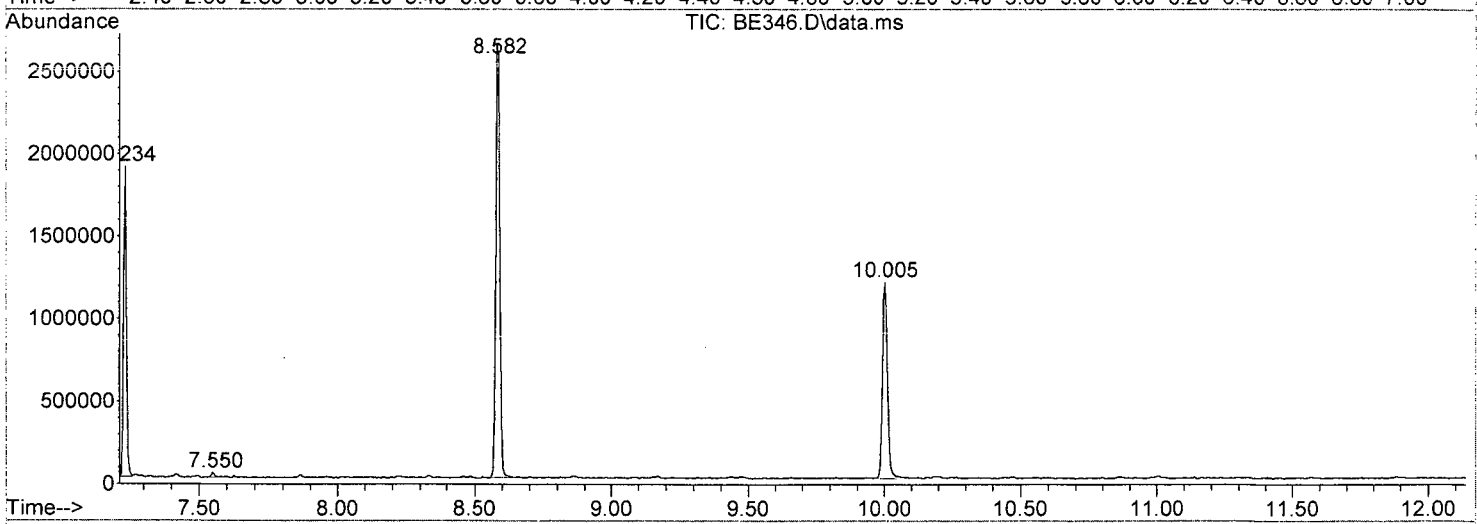
LSC Report - Integrated Chromatogram

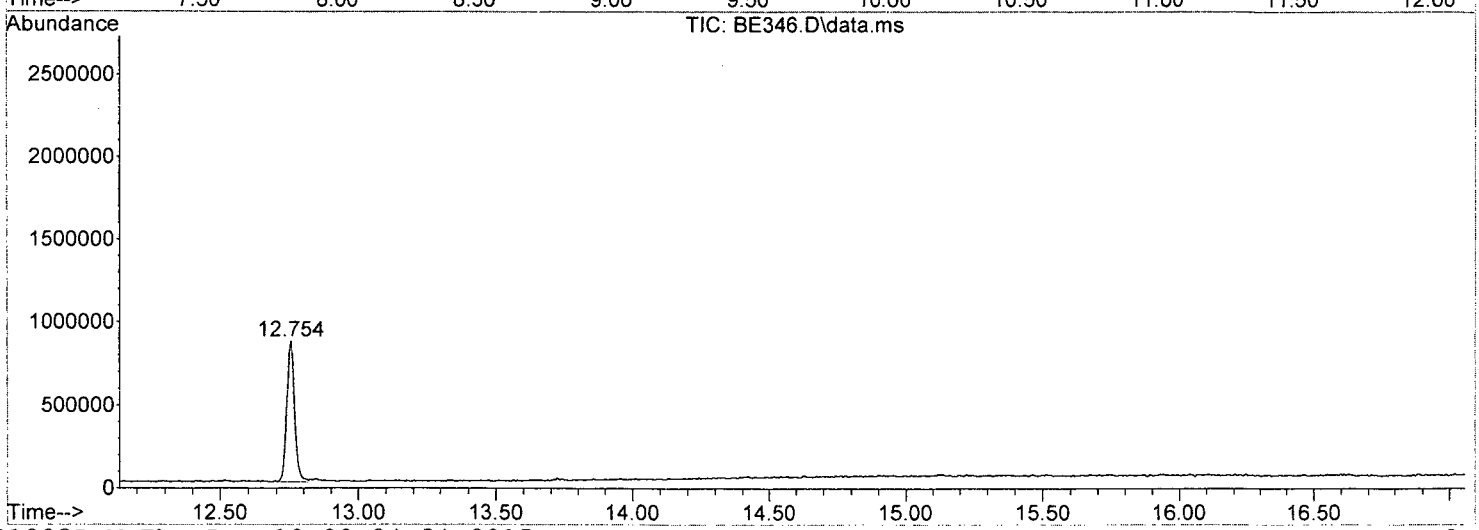
Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE346.D
Acq On : 8 Dec 2015 2:23 pm
Operator : J.Misiurewicz
Sample : RQ1514672-01 Inst : 5973D
Misc : 250879 8270D BLK
ALS Vial : 15 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS

TIC Library : C:\Database\NIST08.L
TIC Integration Parameters: TEBINT.P







82701203D.M Thu Dec 10 09:24:54 2015 Page: 2

Library Search Compound Report

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE346.D
Acq On : 8 Dec 2015 2:23 pm
Operator : J.Misiurewicz
Sample : RQ1514672-01 Inst : 5973D
Misc : 250879 8270D BLK
ALS Vial : 15 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS

TIC Library : C:\Database\NIST08.L
TIC Integration Parameters: TEBINT.P

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: NA
Date Received: NA

Sample Name: Lab Control Sample
Lab Code: RQ1514672-02

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	**88.4**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
1,2,4-Trichlorobenzene	**59.8**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
1,2-Dichlorobenzene	**63.0**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
1,3-Dichlorobenzene	**60.7**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
1,4-Dichlorobenzene	**60.1**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
2,4,5-Trichlorophenol	**94.8**		10	5.0	1.8	1	11/25/15	12/8/15 14:49	250879	475709	
2,4,6-Trichlorophenol	**91.0**		10	5.0	1.4	1	11/25/15	12/8/15 14:49	250879	475709	
2,4-Dichlorophenol	**86.8**		10	5.0	1.3	1	11/25/15	12/8/15 14:49	250879	475709	
2,4-Dimethylphenol	**80.0**		10	5.0	1.5	1	11/25/15	12/8/15 14:49	250879	475709	
2,4-Dinitrophenol	**82.7**		50	25	20	1	11/25/15	12/8/15 14:49	250879	475709	
2,4-Dinitrotoluene	**97.2**		10	5.0	1.6	1	11/25/15	12/8/15 14:49	250879	475709	
2,6-Dinitrotoluene	**97.6**		10	5.0	1.8	1	11/25/15	12/8/15 14:49	250879	475709	
2-Chloronaphthalene	**78.7**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
2-Chlorophenol	**80.7**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
2-Methylnaphthalene	**74.1**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
2-Methylphenol	**82.3**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
2-Nitroaniline	**93.6**		50	25	9.1	1	11/25/15	12/8/15 14:49	250879	475709	
2-Nitrophenol	**89.1**		10	5.0	1.4	1	11/25/15	12/8/15 14:49	250879	475709	
3,3'-Dichlorobenzidine	**75.6**		10	5.0	4.5	1	11/25/15	12/8/15 14:49	250879	475709	
3- and 4-Methylphenol Coelution	**149**		11	10	2.0	1	11/25/15	12/8/15 14:49	250879	475709	
3-Nitroaniline	**74.2**		50	25	7.7	1	11/25/15	12/8/15 14:49	250879	475709	
4,6-Dinitro-2-methylphenol	**93.4**		50	25	11	1	11/25/15	12/8/15 14:49	250879	475709	
4-Bromophenyl Phenyl Ether	**86.4**		10	5.0	2.2	1	11/25/15	12/8/15 14:49	250879	475709	
4-Chloro-3-methylphenol	**92.4**		10	5.0	1.2	1	11/25/15	12/8/15 14:49	250879	475709	
4-Chloroaniline	**68.9**		10	5.0	1.5	1	11/25/15	12/8/15 14:49	250879	475709	
4-Chlorophenyl Phenyl Ether	**89.5**		10	5.0	1.2	1	11/25/15	12/8/15 14:49	250879	475709	
4-Nitroaniline	**93.1**		50	25	7.8	1	11/25/15	12/8/15 14:49	250879	475709	
4-Nitrophenol	**31.0**	J	50	25	5.9	1	11/25/15	12/8/15 14:49	250879	475709	
Acenaphthene	**85.7**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Acenaphthylene	**87.0**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Anthracene	**89.1**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Benz(a)anthracene	**91.0**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Benzidine	ND	U	110	100	90	1	11/25/15	12/8/15 14:49	250879	475709	
Benzo(a)pyrene	**94.3**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Benzo(b)fluoranthene	**89.5**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Benzo(g,h,i)perylene	**102**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Benzo(k)fluoranthene	**91.7**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: NA
Date Received: NA

Sample Name: Lab Control Sample
Lab Code: RQ1514672-02

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	**86.6**		10	5.0	1.3	1	11/25/15	12/8/15 14:49	250879	475709	
2,2'-Oxybis(1-chloropropane)	**98.1**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Bis(2-chloroethoxy)methane	**86.1**		10	5.0	2.2	1	11/25/15	12/8/15 14:49	250879	475709	
Bis(2-chloroethyl) Ether	**84.6**		10	5.0	1.3	1	11/25/15	12/8/15 14:49	250879	475709	
Bis(2-ethylhexyl) Phthalate	**99.5**		10	5.0	1.2	1	11/25/15	12/8/15 14:49	250879	475709	
Butyl Benzyl Phthalate	**95.2**		10	5.0	2.4	1	11/25/15	12/8/15 14:49	250879	475709	
Carbazole	**93.2**		10	5.0	1.1	1	11/25/15	12/8/15 14:49	250879	475709	
Chrysene	**93.3**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Di-n-butyl Phthalate	**96.2**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Di-n-octyl Phthalate	**106**		10	5.0	1.2	1	11/25/15	12/8/15 14:49	250879	475709	
Dibenz(a,h)anthracene	**99.7**		10	5.0	1.3	1	11/25/15	12/8/15 14:49	250879	475709	
Dibenzofuran	**84.4**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Diethyl Phthalate	**92.6**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Dimethyl Phthalate	**89.3**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Fluoranthene	**95.8**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Fluorene	**87.3**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Hexachlorobenzene	**86.9**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Hexachlorobutadiene	**54.9**		10	5.0	1.3	1	11/25/15	12/8/15 14:49	250879	475709	
Hexachlorocyclopentadiene	**59.4**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Hexachloroethane	**56.0**		10	5.0	1.2	1	11/25/15	12/8/15 14:49	250879	475709	
Indeno(1,2,3-cd)pyrene	**102**		10	5.0	1.2	1	11/25/15	12/8/15 14:49	250879	475709	
Isophorone	**92.3**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
N-Nitrosodi-n-propylamine	**91.7**		10	5.0	1.3	1	11/25/15	12/8/15 14:49	250879	475709	
N-Nitrosodimethylamine	**54.6**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
N-Nitrosodiphenylamine	**98.5**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Naphthalene	**66.9**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Nitrobenzene	**82.0**		10	5.0	1.6	1	11/25/15	12/8/15 14:49	250879	475709	
Pentachlorophenol (PCP)	**90.7**		50	25	6.9	1	11/25/15	12/8/15 14:49	250879	475709	
Phenanthrene	**91.7**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Phenol	**39.4**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	
Pyrene	**104**		10	5.0	1.0	1	11/25/15	12/8/15 14:49	250879	475709	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	RQ1514672-02	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	98	40-125	12/8/15 14:49	
2-Fluorobiphenyl	92	50-110	12/8/15 14:49	
2-Fluorophenol	59	20-110	12/8/15 14:49	
Nitrobenzene-d5	89	40-110	12/8/15 14:49	
Phenol-d6	42	10-115	12/8/15 14:49	
p-Terphenyl-d14	98	50-135	12/8/15 14:49	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE347.D
Acq On : 8 Dec 2015 2:49 pm
Operator : J.Misiurewicz
Sample : RQ1514672-02 Inst : 5973D
Misc : 250879 8270D LCS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 10 08:50:13 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d4-1,4-Dichlorobenzene	4.084	152	133131	40.00	ppm	0.00
22) d8-Naphthalene	4.940	136	543454	40.00	ppm	0.00
39) d10-Acenaphthene	6.170	164	324760	40.00	ppm	0.00
61) d10-Phenanthrene	7.234	188	556833	40.00	ppm	0.00
74) d12-Chrysene	10.010	240	621532	40.00	ppm	0.00
83) d12-Perylene	12.754	264	583404	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.276	112	386214	117.02	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 58.51%			
7) SURR2,PHENOL-D6	3.849	99	354078	83.56	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 41.78%			
23) SURR4,NITROBENZENE-D5	4.453	82	355135	89.21	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 89.21%			
43) SURR5,2-FLUOROBIPHENYL	5.683	172	786733	91.91	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 91.91%			
60) SURR3,2,4,6-TRIBROMOPH...	6.737	330	239769	196.08	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 98.04%			
77) SURR6,TERPHENYL-D14	8.582	244	941873	97.59	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 97.59%			
Target Compounds						Qvalue
2) Pyridine	2.442	79	125092	30.27	ppm	98
3) N-Nitrosodimethylamine	2.410	74	125665	54.59	ppm	98
5) Benzaldehyde	3.811	106	199025	290.15	ppm	100
6) Aniline	3.875	93	331068	60.25	ppm	99
8) Phenol	3.854	94	196481	39.35	ppm	99
9) bis(2-Clethyl)Ether	3.897	93	294917	84.57	ppm	95
10) 2-Chlorophenol	3.956	128	321912	80.66	ppm	93
11) 1,3-Diclbenzene	4.046	146	258344	60.71	ppm	97
12) 1,4-Dichlorobenzene	4.095	146	267056	60.05	ppm	97
13) 1,2-Diclbenzene	4.196	146	260773	62.97	ppm	99
14) Benzyl Alcohol	4.169	79	225377	86.64	ppm	96
15) 2,2'-oxybis(1-Chloropr...	4.239	45	582275	98.09	ppm	97
16) 2-Methylphenol	4.244	108	280234	82.32	ppm	95
17) Acetophenone	4.341	105	443232	87.77	ppm	82
18) N-Nitroso-Di-n-propyla...	4.335	70	258605	91.69	ppm	96
19) Hexachloroethane	4.416	117	104920	55.99	ppm	94
20) 3+4-Methylphenol	4.341	108	558236	149.14	ppm	88
24) Nitrobenzene	4.464	77	344753	81.95	ppm	95
25) Isophorone	4.619	82	678736	92.27	ppm	99
26) 2-Nitrophenol	4.678	139	188504	89.12	ppm	98
27) Benzoic Acid	4.769	105	113789	38.95	ppm	99
28) 2,4-Dimethylphenol	4.694	107	308121	80.02	ppm	99
29) bis(-2-Chloroethoxy)Me...	4.747	93	385729	86.12	ppm	99
30) 2,4-Dichlorophenol	4.849	162	294600	86.81	ppm	98
31) 1,2,4-Trichlorobenzene	4.892	180	228461	59.75	ppm	96
32) Naphthalene	4.950	128	770433	66.89	ppm	99
33) 4-Chloroaniline	4.988	127	326213	68.94	ppm	97
34) Hexachlorobutadiene	5.020	225	125861	54.88	ppm	92

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE347.D
Acq On : 8 Dec 2015 2:49 pm
Operator : J.Misiurewicz
Sample : RQ1514672-02 Inst : 5973D
Misc : 250879 8270D LCS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 10 08:50:13 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) 4-Chloro-3-methylphenol	5.330	107	295812m	92.42 ppm	
36) Caprolactam	5.245	113	30611	28.18 ppm	87
37) 2-Methylnaphthalene	5.432	142	536262	74.07 ppm	99
38) 1-Methylnaphthalene	5.501	142	527407	74.82 ppm	100
40) Hexachlorocyclopentadiene	5.533	237	83710	59.40 ppm	95
41) 2,4,6-Trichlorophenol	5.635	196	235781	90.98 ppm	97
42) 2,4,5-Trichlorophenol	5.672	196	251260	94.77 ppm	97
44) 1,1'-Biphenyl	5.758	154	758292	80.71 ppm	99
45) 2-Chloronaphthalene	5.779	162	588467	78.71 ppm	96
46) 2-Nitroaniline	5.854	65	223554	93.60 ppm	88
47) Acenaphthylene	6.074	152	1050521	86.97 ppm	99
48) Dimethyl phthalate	5.967	163	732760	89.30 ppm	97
49) 2,6-Dinitrotoluene	6.020	165	178993	97.56 ppm	99
50) Acenaphthene	6.197	153	671706	85.74 ppm	98
51) 3-Nitroaniline	6.148	138	152214	74.21 ppm	99
52) 2,4-Dinitrophenol	6.229	184	80278	82.67 ppm	92
53) Dibenzofuran	6.320	168	955769	84.43 ppm	97
54) 2,4-Dinitrotoluene	6.314	165	235755	97.24 ppm	94
55) 4-Nitrophenol	6.293	65	54529	30.96 ppm	97
56) Fluorene	6.560	166	785747	87.31 ppm	99
57) 4-Chlorophenyl-phenyle...	6.550	204	400110	89.49 ppm	98
58) Diethylphthalate	6.459	149	784928	92.64 ppm	98
59) 4-Nitroaniline	6.587	138	188962	93.05 ppm	96
62) 4,6-Dinitro-2-methylph...	6.603	198	150473	93.42 ppm	95
63) 1,2 Diphenylhydrazine	6.662	77	817897	88.35 ppm	99
64) N-Nitrosodiphenylamine	6.635	169	576890	98.53 ppm	97
65) 4-Bromophenyl-phenylether	6.897	248	226158	86.35 ppm	96
66) Hexachlorobenzene	6.951	284	253289	86.87 ppm	98
67) Atrazine	7.004	215	129666	108.12 ppm	92
68) Pentachlorophenol	7.101	266	137273	90.70 ppm	100
69) Phenanthrene	7.250	178	1109655	91.65 ppm	99
70) Anthracene	7.288	178	1125934	89.06 ppm	99
71) Carbazole	7.405	167	1134336	93.23 ppm	99
72) Di-n-butylphthalate	7.630	149	1426585	96.15 ppm	99
73) Fluoranthene	8.218	202	1385270	95.81 ppm	95
75) Benzidine	8.341	184	41865	8.97 ppm	91
76) Pyrene	8.448	202	1519959	103.70 ppm	99
78) Butyl benzyl phthalate	9.154	149	647181	95.18 ppm	98
79) 3,3'-Dichlorobenzidine	9.946	252	346622	75.56 ppm	98
80) Benzo(a)anthracene	9.989	228	1315744	91.01 ppm	98
81) Chrysene	10.053	228	1268690	93.25 ppm	99
82) bis(2-Ethylhexyl)phtha...	10.005	149	916610	99.46 ppm	99
84) Di-n-octyl phthalate	11.224	149	1431121	106.48 ppm	100
85) Benzo(b)Fluoranthene	11.962	252	1140678	89.51 ppm	99
86) Benzo(k)fluoranthene	12.021	252	1194929	91.69 ppm	98
87) Benzo(a)pyrene	12.636	252	1166445	94.27 ppm	99
88) Indeno(1,2,3-cd)Pyrene	14.669	276	1141212m	101.56 ppm	
89) Dibenz(a,h)anthracene	14.701	278	1159501	99.65 ppm	98
90) Benzo(g,h,i)perylene	15.107	276	1182323	102.28 ppm	96

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE347.D
Acq On : 8 Dec 2015 2:49 pm
Operator : J.Misiurewicz
Sample : RQ1514672-02 Inst : 5973D
Misc : 250879 8270D LCS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 10 08:50:13 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

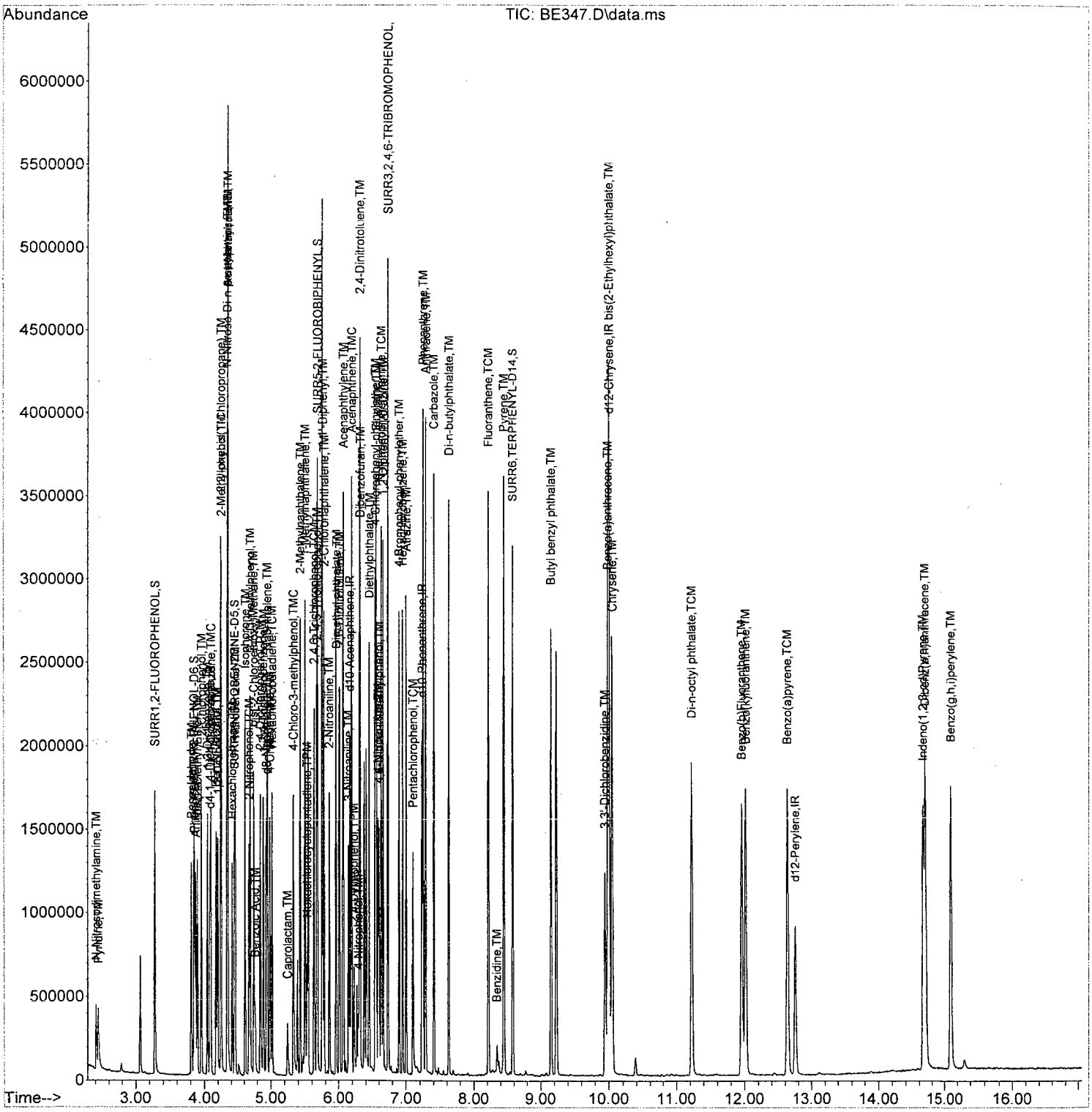
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\I20815\
Data File : BE347.D
Acq On : 8 Dec 2015 2:49 pm
Operator : J.Misiurewicz
Sample : RQ1514672-02 Inst : 5973D
Misc : 250879 8270D LCS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 10 08:50:13 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

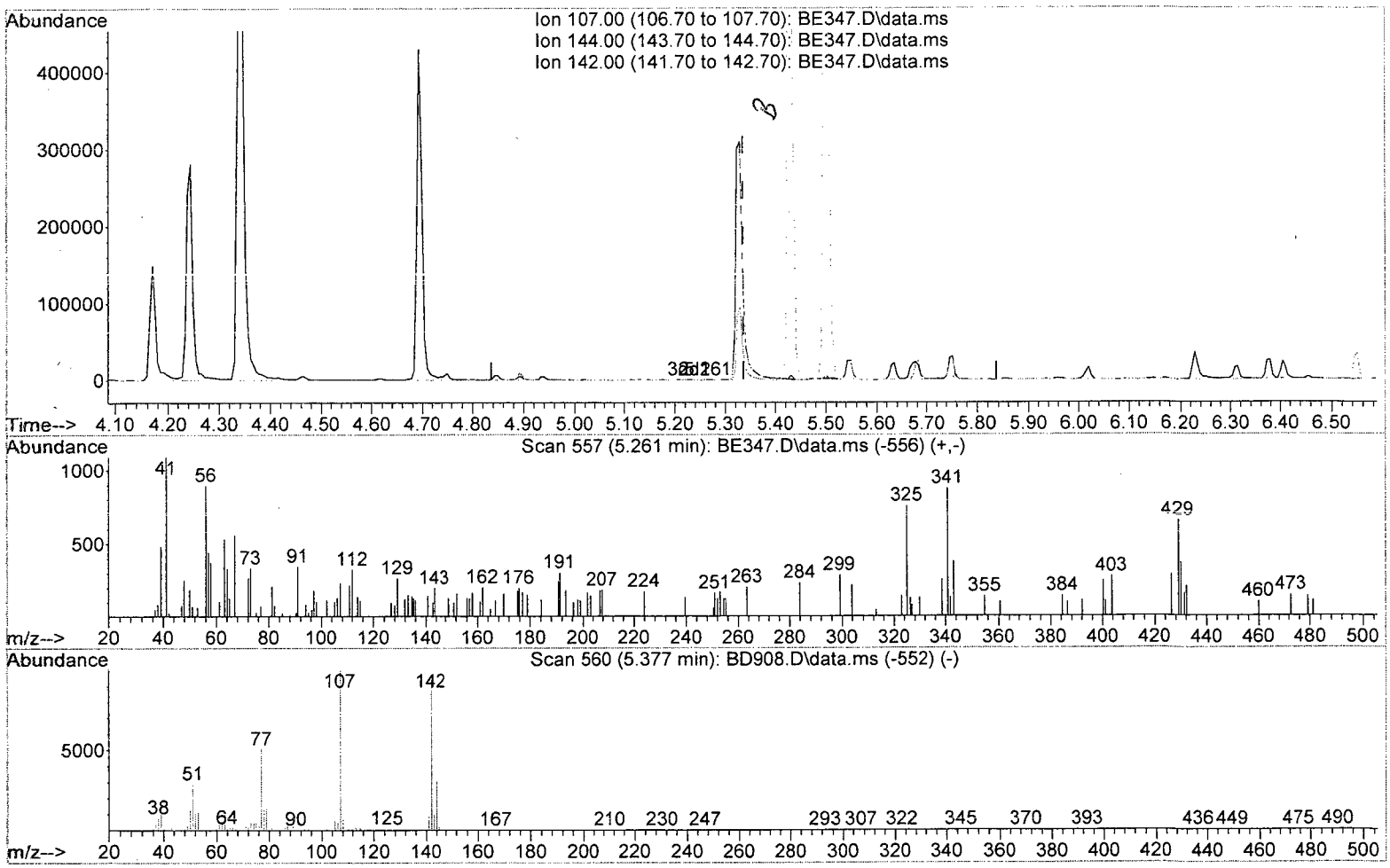


82701203D.M Thu Dec 10 08:50:27 2015 Page: 4

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE347.D
Acq On : 8 Dec 2015 2:49 pm
Operator : J.Misiurewicz
Sample : RQ1514672-02 Inst : 5973D
Misc : 250879 8270D LCS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 10 08:38:23 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration



TIC: BE347.D\data.ms

(35) 4-Chloro-3-methylphenol (TMC)

5.261min (-0.076) 0.08 ppm

response 259

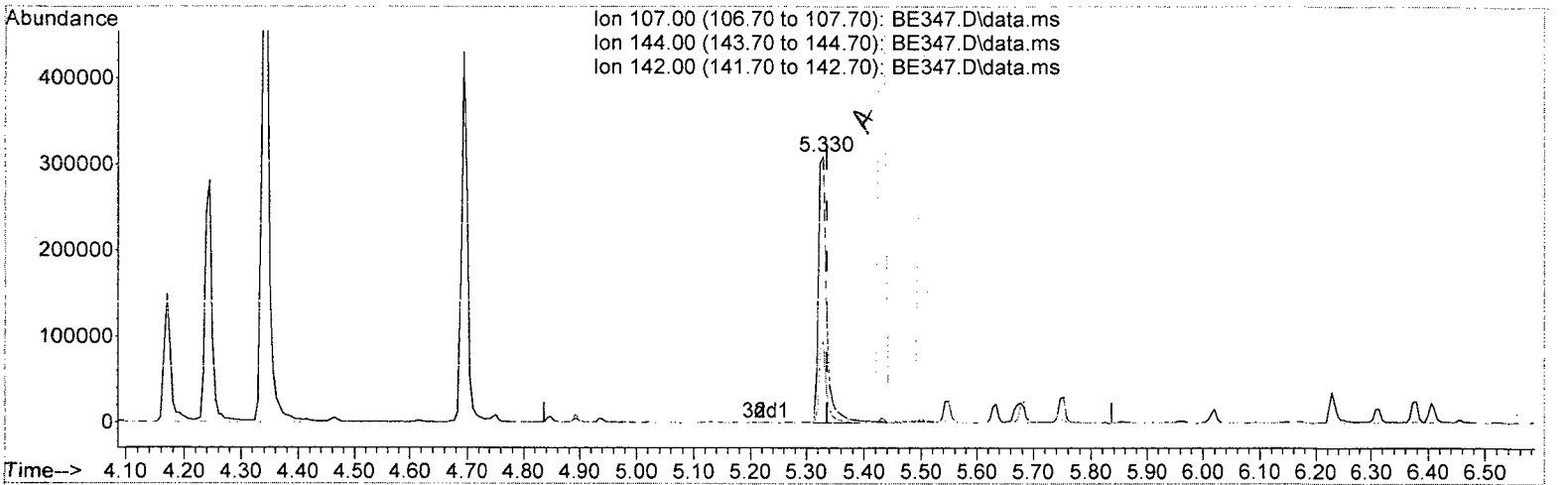
Ion	Exp%	Act%
107.00	100	100
144.00	28.80	0.00
142.00	0.00	0.00
0.00	0.00	0.00

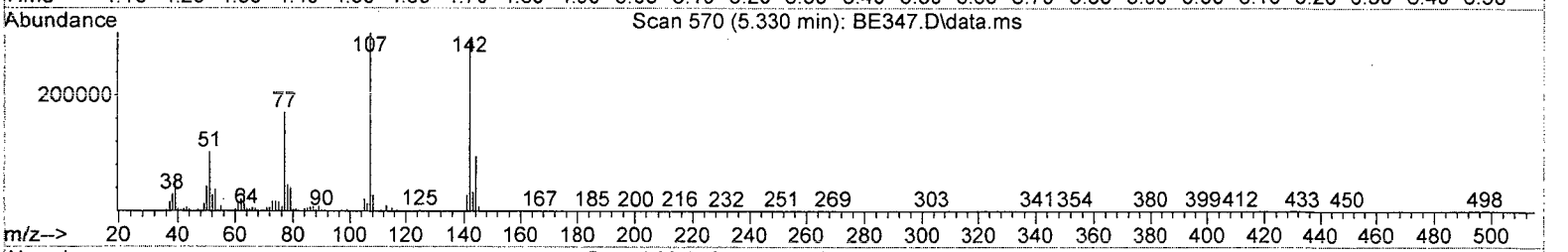
82701203D.M Thu Dec 10 08:49:32 2015 Page: 1

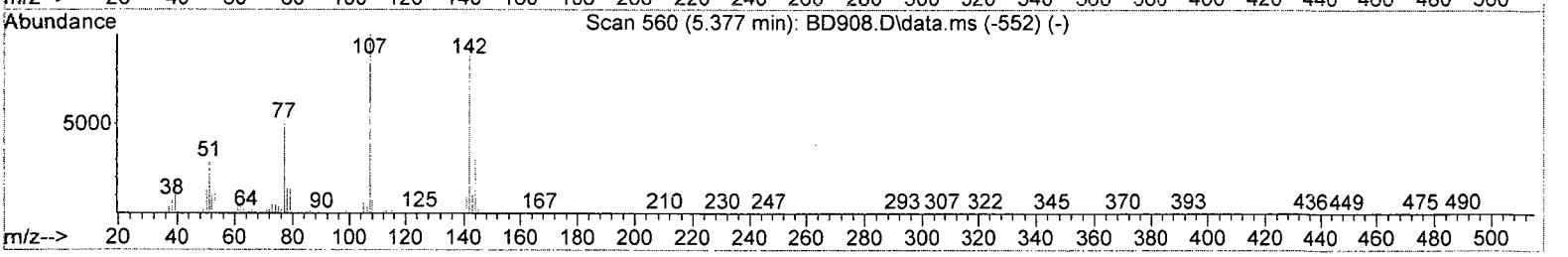
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE347.D
Acq On : 8 Dec 2015 2:49 pm
Operator : J.Misiurewicz
Sample : RQ1514672-02 Inst : 5973D
Misc : 250879 8270D LCS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 10 08:38:23 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration







TIC: BE347.D\data.ms

(35) 4-Chloro-3-methylphenol (TMC)

5.330min (-0.007) 92.42 ppm m

response 295812

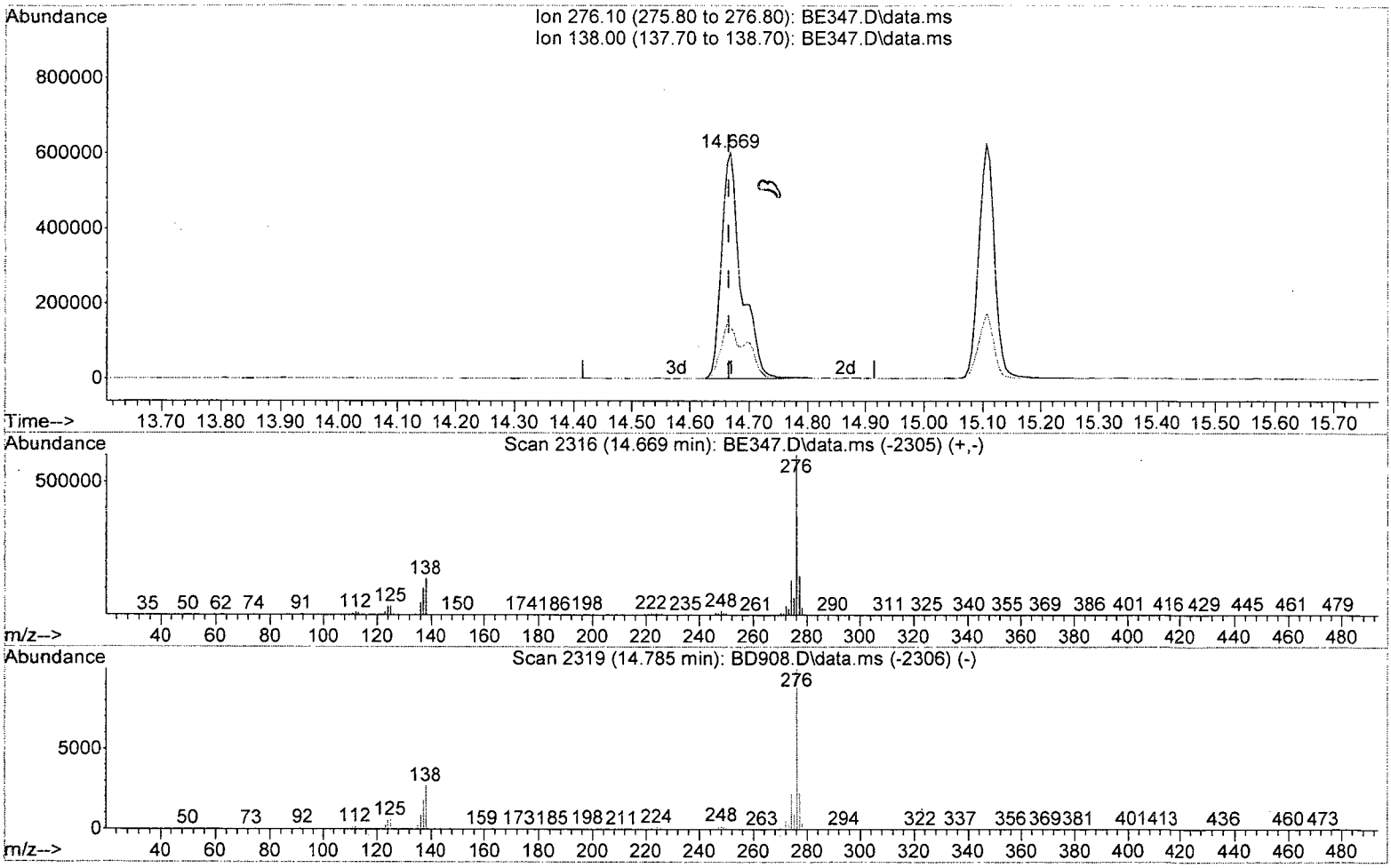
Ion	Exp%	Act%
107.00	100	100
144.00	28.80	30.71
142.00	0.00	94.90#
0.00	0.00	0.00

82701203D.M Thu Dec 10 08:49:37 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\F20815\
Data File : BE347.D
Acq On : 8 Dec 2015 2:49 pm
Operator : J.Misiurewicz
Sample : RQ1514672-02 Inst : 5973D
Misc : 250879 8270D LCS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 10 08:38:23 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration



TIC: BE347.D\data.ms

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.669min (+0.003) 124.88 ppm

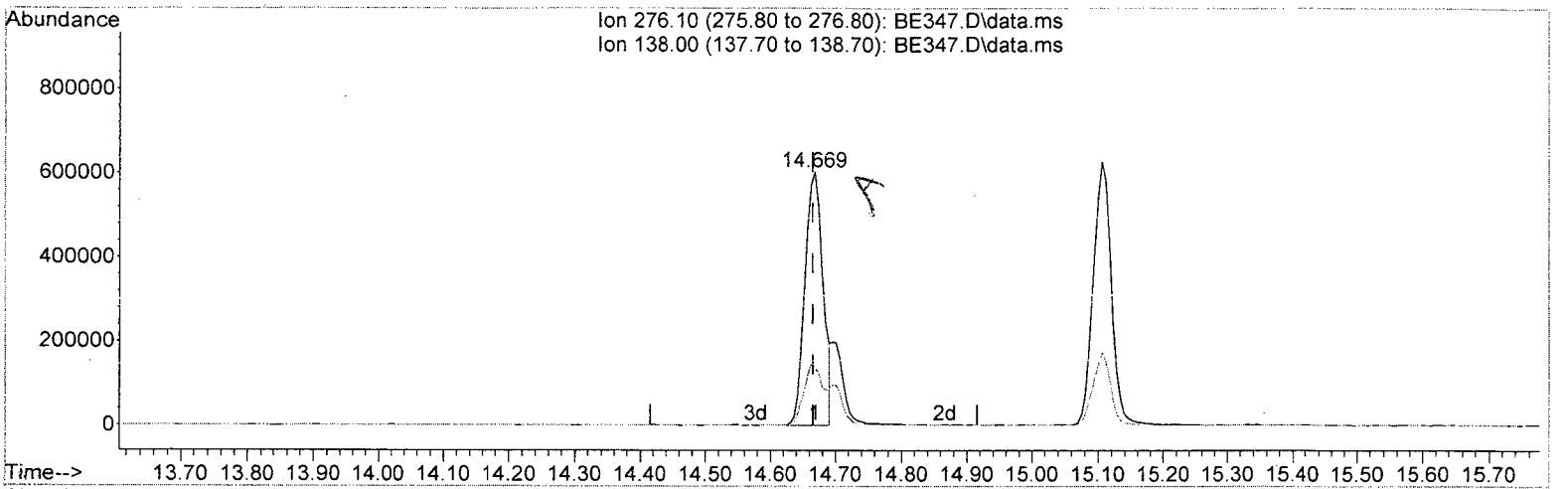
response 1403314

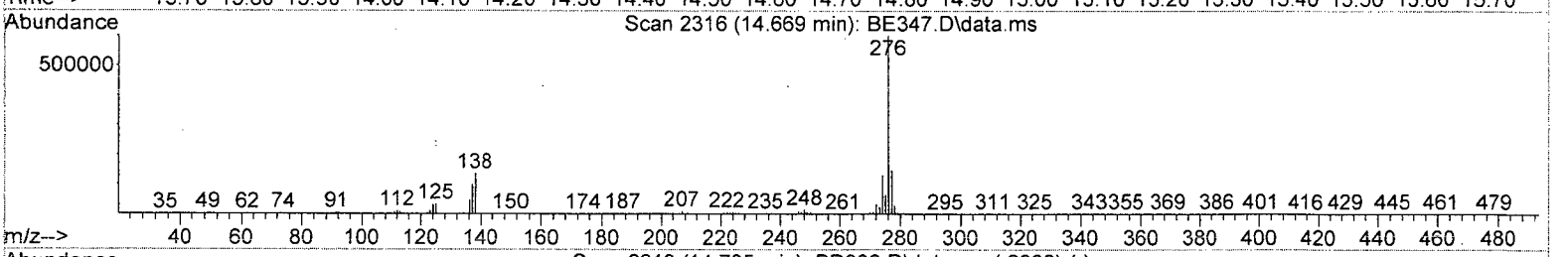
Ion	Exp%	Act%
276.10	100	100
138.00	25.80	22.53
0.00	0.00	0.00
0.00	0.00	0.00

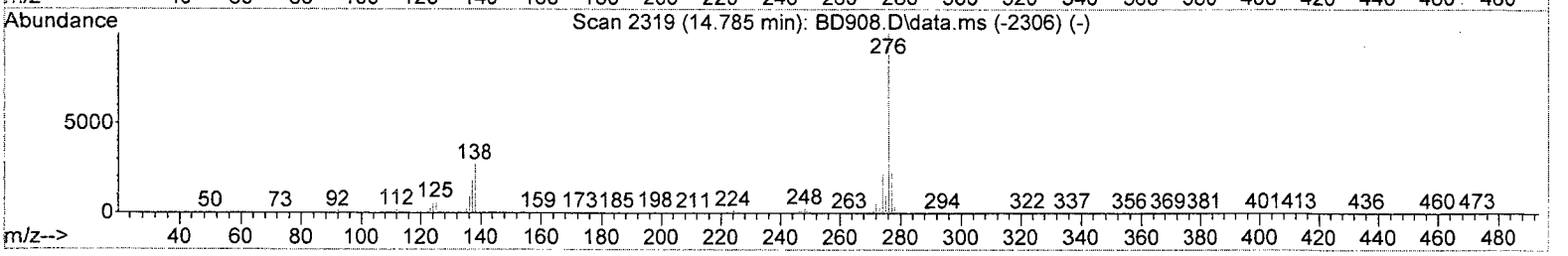
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE347.D
Acq On : 8 Dec 2015 2:49 pm
Operator : J.Misiurewicz
Sample : RQ1514672-02 Inst : 5973D
Misc : 250879 8270D LCS
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 10 08:38:23 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration







TIC: BE347.D\data.ms

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.669min (+0.003) 101.56 ppm m

response 1141212

Ion	Exp%	Act%
276.10	100	100
138.00	25.80	22.59
0.00	0.00	0.00
0.00	0.00	0.00

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: NA
Date Received: NA

Sample Name: Duplicate Lab Control Sample
Lab Code: RQ1514672-03

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	**94.1**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
1,2,4-Trichlorobenzene	**57.4**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
1,2-Dichlorobenzene	**60.3**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
1,3-Dichlorobenzene	**57.8**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
1,4-Dichlorobenzene	**56.3**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
2,4,5-Trichlorophenol	**97.9**		10	5.0	1.8	1	11/25/15	12/8/15 15:16	250879	475709	
2,4,6-Trichlorophenol	**93.0**		10	5.0	1.4	1	11/25/15	12/8/15 15:16	250879	475709	
2,4-Dichlorophenol	**91.2**		10	5.0	1.3	1	11/25/15	12/8/15 15:16	250879	475709	
2,4-Dimethylphenol	**80.7**		10	5.0	1.5	1	11/25/15	12/8/15 15:16	250879	475709	
2,4-Dinitrophenol	**74.0**		50	25	20	1	11/25/15	12/8/15 15:16	250879	475709	
2,4-Dinitrotoluene	**103**		10	5.0	1.6	1	11/25/15	12/8/15 15:16	250879	475709	
2,6-Dinitrotoluene	**99.9**		10	5.0	1.8	1	11/25/15	12/8/15 15:16	250879	475709	
2-Chloronaphthalene	**81.2**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
2-Chlorophenol	**84.0**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
2-Methylnaphthalene	**77.9**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
2-Methylphenol	**83.8**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
2-Nitroaniline	**97.7**		50	25	9.1	1	11/25/15	12/8/15 15:16	250879	475709	
2-Nitrophenol	**91.2**		10	5.0	1.4	1	11/25/15	12/8/15 15:16	250879	475709	
3,3'-Dichlorobenzidine	**84.7**		10	5.0	4.5	1	11/25/15	12/8/15 15:16	250879	475709	
3- and 4-Methylphenol Coelution	**151**		11	10	2.0	1	11/25/15	12/8/15 15:16	250879	475709	
3-Nitroaniline	**81.8**		50	25	7.7	1	11/25/15	12/8/15 15:16	250879	475709	
4,6-Dinitro-2-methylphenol	**99.9**		50	25	11	1	11/25/15	12/8/15 15:16	250879	475709	
4-Bromophenyl Phenyl Ether	**91.1**		10	5.0	2.2	1	11/25/15	12/8/15 15:16	250879	475709	
4-Chloro-3-methylphenol	**97.8**		10	5.0	1.2	1	11/25/15	12/8/15 15:16	250879	475709	
4-Chloroaniline	**76.2**		10	5.0	1.5	1	11/25/15	12/8/15 15:16	250879	475709	
4-Chlorophenyl Phenyl Ether	**91.8**		10	5.0	1.2	1	11/25/15	12/8/15 15:16	250879	475709	
4-Nitroaniline	**98.7**		50	25	7.8	1	11/25/15	12/8/15 15:16	250879	475709	
4-Nitrophenol	**31.0**	J	50	25	5.9	1	11/25/15	12/8/15 15:16	250879	475709	
Acenaphthene	**88.7**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Acenaphthylene	**89.0**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Anthracene	**94.3**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Benz(a)anthracene	**96.1**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Benzidine	ND	U	110	100	90	1	11/25/15	12/8/15 15:16	250879	475709	
Benzo(a)pyrene	**101**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Benzo(b)fluoranthene	**97.3**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Benzo(g,h,i)perylene	**109**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Benzo(k)fluoranthene	**94.5**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514672-03	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	**87.7**		10	5.0	1.3	1	11/25/15	12/8/15 15:16	250879	475709	
2,2'-Oxybis(1-chloropropane)	**101**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Bis(2-chloroethoxy)methane	**90.3**		10	5.0	2.2	1	11/25/15	12/8/15 15:16	250879	475709	
Bis(2-chloroethyl) Ether	**88.5**		10	5.0	1.3	1	11/25/15	12/8/15 15:16	250879	475709	
Bis(2-ethylhexyl) Phthalate	**102**		10	5.0	1.2	1	11/25/15	12/8/15 15:16	250879	475709	
Butyl Benzyl Phthalate	**98.3**		10	5.0	2.4	1	11/25/15	12/8/15 15:16	250879	475709	
Carbazole	**99.1**		10	5.0	1.1	1	11/25/15	12/8/15 15:16	250879	475709	
Chrysene	**97.9**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Di-n-butyl Phthalate	**101**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Di-n-octyl Phthalate	**111**		10	5.0	1.2	1	11/25/15	12/8/15 15:16	250879	475709	
Dibenz(a,h)anthracene	**106**		10	5.0	1.3	1	11/25/15	12/8/15 15:16	250879	475709	
Dibenzofuran	**88.2**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Diethyl Phthalate	**98.2**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Dimethyl Phthalate	**92.7**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Fluoranthene	**101**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Fluorene	**92.9**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Hexachlorobenzene	**92.0**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Hexachlorobutadiene	**53.0**		10	5.0	1.3	1	11/25/15	12/8/15 15:16	250879	475709	
Hexachlorocyclopentadiene	**60.2**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Hexachloroethane	**52.0**		10	5.0	1.2	1	11/25/15	12/8/15 15:16	250879	475709	
Indeno(1,2,3-cd)pyrene	**110**		10	5.0	1.2	1	11/25/15	12/8/15 15:16	250879	475709	
Isophorone	**97.1**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
N-Nitrosodi-n-propylamine	**94.1**		10	5.0	1.3	1	11/25/15	12/8/15 15:16	250879	475709	
N-Nitrosodimethylamine	**52.5**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
N-Nitrosodiphenylamine	**103**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Naphthalene	**68.0**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Nitrobenzene	**85.7**		10	5.0	1.6	1	11/25/15	12/8/15 15:16	250879	475709	
Pentachlorophenol (PCP)	**94.6**		50	25	6.9	1	11/25/15	12/8/15 15:16	250879	475709	
Phenanthrene	**96.7**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Phenol	**40.3**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	
Pyrene	**106**		10	5.0	1.0	1	11/25/15	12/8/15 15:16	250879	475709	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	Percent
Lab Code:	RQ1514672-03	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	103	40-125	12/8/15 15:16	
2-Fluorobiphenyl	94	50-110	12/8/15 15:16	
2-Fluorophenol	58	20-110	12/8/15 15:16	
Nitrobenzene-d5	89	40-110	12/8/15 15:16	
Phenol-d6	41	10-115	12/8/15 15:16	
p-Terphenyl-d14	96	50-135	12/8/15 15:16	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE348.D
Acq On : 8 Dec 2015 3:16 pm
Operator : J.Misiurewicz
Sample : RQ1514672-03 Inst : 5973D
Misc : 250879 8270D LCSD
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 10 08:51:42 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

DM 12/9/15

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) d4-1,4-Dichlorobenzene	4.084	152	128345	40.00	ppm	0.00
22) d8-Naphthalene	4.940	136	525164	40.00	ppm	0.00
39) d10-Acenaphthene	6.170	164	319557	40.00	ppm	0.00
61) d10-Phenanthrene	7.234	188	545405	40.00	ppm	0.00
74) d12-Chrysene	10.010	240	630710	40.00	ppm	0.00
83) d12-Perylene	12.754	264	595945	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.276	112	369023	115.98	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 57.99%			
7) SURR2,PHENOL-D6	3.849	99	331663	81.19	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 40.59%			
23) SURR4,NITROBENZENE-D5	4.453	82	342467	89.03	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 89.03%			
43) SURR5,2-FLUOROBIPHENYL	5.683	172	794566	94.34	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 94.34%			
60) SURR3,2,4,6-TRIBROMOPH...	6.737	330	247112	205.37	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 102.69%			
77) SURR6,TERPHENYL-D14	8.582	244	941996	96.18	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 96.18%			
Target Compounds						Qvalue
2) Pyridine	2.442	79	106950	26.84	ppm	99
3) N-Nitrosodimethylamine	2.410	74	116578	52.53	ppm	99
5) Benzaldehyde	3.811	106	202688	306.51	ppm	94
6) Aniline	3.875	93	308385	58.21	ppm	97
8) Phenol	3.859	94	193928	40.29	ppm	91
9) bis(2-Clethyl)Ether	3.897	93	297504	88.49	ppm	93
10) 2-Chlorophenol	3.956	128	323082	83.97	ppm	93
11) 1,3-Diclbenzene	4.047	146	237076	57.79	ppm	95
12) 1,4-Dichlorobenzene	4.095	146	241348	56.29	ppm	99
13) 1,2-Diclbenzene	4.196	146	240639	60.27	ppm	100
14) Benzyl Alcohol	4.170	79	219896	87.69	ppm	97
15) 2,2'-oxybis(1-Chloropr...	4.244	45	577752	100.95	ppm	94
16) 2-Methylphenol	4.244	108	274875	83.76	ppm	93
17) Acetophenone	4.341	105	478257	98.24	ppm	85
18) N-Nitroso-Di-n-propyla...	4.335	70	255843	94.10	ppm	94
19) Hexachloroethane	4.416	117	93953	52.01	ppm	99
20) 3+4-Methylphenol	4.341	108	545546	151.18	ppm	93
24) Nitrobenzene	4.464	77	348316	85.68	ppm	99
25) Isophorone	4.619	82	690013	97.07	ppm	97
26) 2-Nitrophenol	4.678	139	186374	91.18	ppm	95
27) Benzoic Acid	4.769	105	114091	40.42	ppm	97
28) 2,4-Dimethylphenol	4.694	107	300263	80.70	ppm	100
29) bis(-2-Chloroethoxy)Me...	4.747	93	390740	90.28	ppm	97
30) 2,4-Dichlorophenol	4.849	162	299041	91.19	ppm	97
31) 1,2,4-Trichlorobenzene	4.892	180	212258	57.44	ppm	99
32) Naphthalene	4.956	128	756687	67.98	ppm	99
33) 4-Chloroaniline	4.988	127	348534	76.22	ppm	99
34) Hexachlorobutadiene	5.020	225	117493	53.01	ppm	95

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE348.D
Acq On : 8 Dec 2015 3:16 pm
Operator : J.Misiurewicz
Sample : RQ1514672-03 Inst : 5973D
Misc : 250879 8270D LCSD
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 10 08:51:42 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) 4-Chloro-3-methylphenol	5.330	107	302357m	97.76	ppm		
36) Caprolactam	5.245	113	31838	30.33	ppm		92
37) 2-Methylnaphthalene	5.432	142	545120	77.91	ppm		99
38) 1-Methylnaphthalene	5.501	142	531126	77.97	ppm		99
40) Hexachlorocyclopentadiene	5.533	237	83808	60.18	ppm		99
41) 2,4,6-Trichlorophenol	5.635	196	237195	93.02	ppm		99
42) 2,4,5-Trichlorophenol	5.672	196	255258	97.85	ppm		99
44) 1,1'-Biphenyl	5.758	154	807329	87.33	ppm		100
45) 2-Chloronaphthalene	5.779	162	597147	81.17	ppm		99
46) 2-Nitroaniline	5.854	65	229581	97.69	ppm		89
47) Acenaphthylene	6.074	152	1057970	89.02	ppm		100
48) Dimethyl phthalate	5.967	163	748678	92.72	ppm		98
49) 2,6-Dinitrotoluene	6.020	165	180408	99.94	ppm		92
50) Acenaphthene	6.197	153	683663	88.68	ppm		98
51) 3-Nitroaniline	6.149	138	165091	81.80	ppm		98
52) 2,4-Dinitrophenol	6.229	184	70750	74.04	ppm		95
53) Dibenzofuran	6.314	168	982273	88.18	ppm		92
54) 2,4-Dinitrotoluene	6.314	165	244985	102.69	ppm		96
55) 4-Nitrophenol	6.293	65	53752	31.01	ppm		88
56) Fluorene	6.560	166	822896	92.93	ppm		98
57) 4-Chlorophenyl-phenyle...	6.550	204	404034	91.84	ppm		99
58) Diethylphthalate	6.459	149	818490	98.17	ppm		99
59) 4-Nitroaniline	6.592	138	197164	98.67	ppm		93
62) 4,6-Dinitro-2-methylph...	6.603	198	157586	99.89	ppm		95
63) 1,2 Diphenylhydrazine	6.662	77	852938	94.07	ppm		97
64) N-Nitrosodiphenylamine	6.635	169	589457	102.78	ppm		99
65) 4-Bromophenyl-phenylether	6.897	248	233562	91.05	ppm		95
66) Hexachlorobenzene	6.951	284	262757	92.01	ppm		97
67) Atrazine	7.010	215	138036	117.51	ppm	#	84
68) Pentachlorophenol	7.101	266	140176	94.56	ppm		99
69) Phenanthrene	7.250	178	1147294	96.74	ppm		99
70) Anthracene	7.288	178	1167382	94.27	ppm		99
71) Carbazole	7.405	167	1180448	99.06	ppm		99
72) Di-n-butylphthalate	7.630	149	1464162	100.75	ppm		100
73) Fluoranthene	8.218	202	1425236	100.64	ppm		95
75) Benzidine	8.341	184	73215	15.45	ppm		96
76) Pyrene	8.448	202	1575345	105.91	ppm		99
78) Butyl benzyl phthalate	9.154	149	677913	98.25	ppm		98
79) 3,3'-Dichlorobenzidine	9.951	252	394136	84.66	ppm		97
80) Benzo(a)anthracene	9.994	228	1409818	96.10	ppm		99
81) Chrysene	10.053	228	1351453	97.88	ppm		98
82) bis(2-Ethylhexyl)phtha...	10.010	149	954524	102.07	ppm		99
84) Di-n-octyl phthalate	11.230	149	1526205	111.16	ppm		99
85) Benzo(b)Fluoranthene	11.968	252	1266827	97.32	ppm		97
86) Benzo(k)fluoranthene	12.021	252	1257539	94.46	ppm		99
87) Benzo(a)pyrene	12.642	252	1279364	101.22	ppm		97
88) Indeno(1,2,3-cd)Pyrene	14.669	276	1261497m	109.90	ppm		
89) Dibenz(a,h)anthracene	14.701	278	1256254	105.69	ppm		99
90) Benzo(g,h,i)perylene	15.113	276	1287771	109.06	ppm		96

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE348.D
Acq On : 8 Dec 2015 3:16 pm
Operator : J.Misiurewicz
Sample : RQ1514672-03 Inst : 5973D
Misc : 250879 8270D LCSD
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 10 08:51:42 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

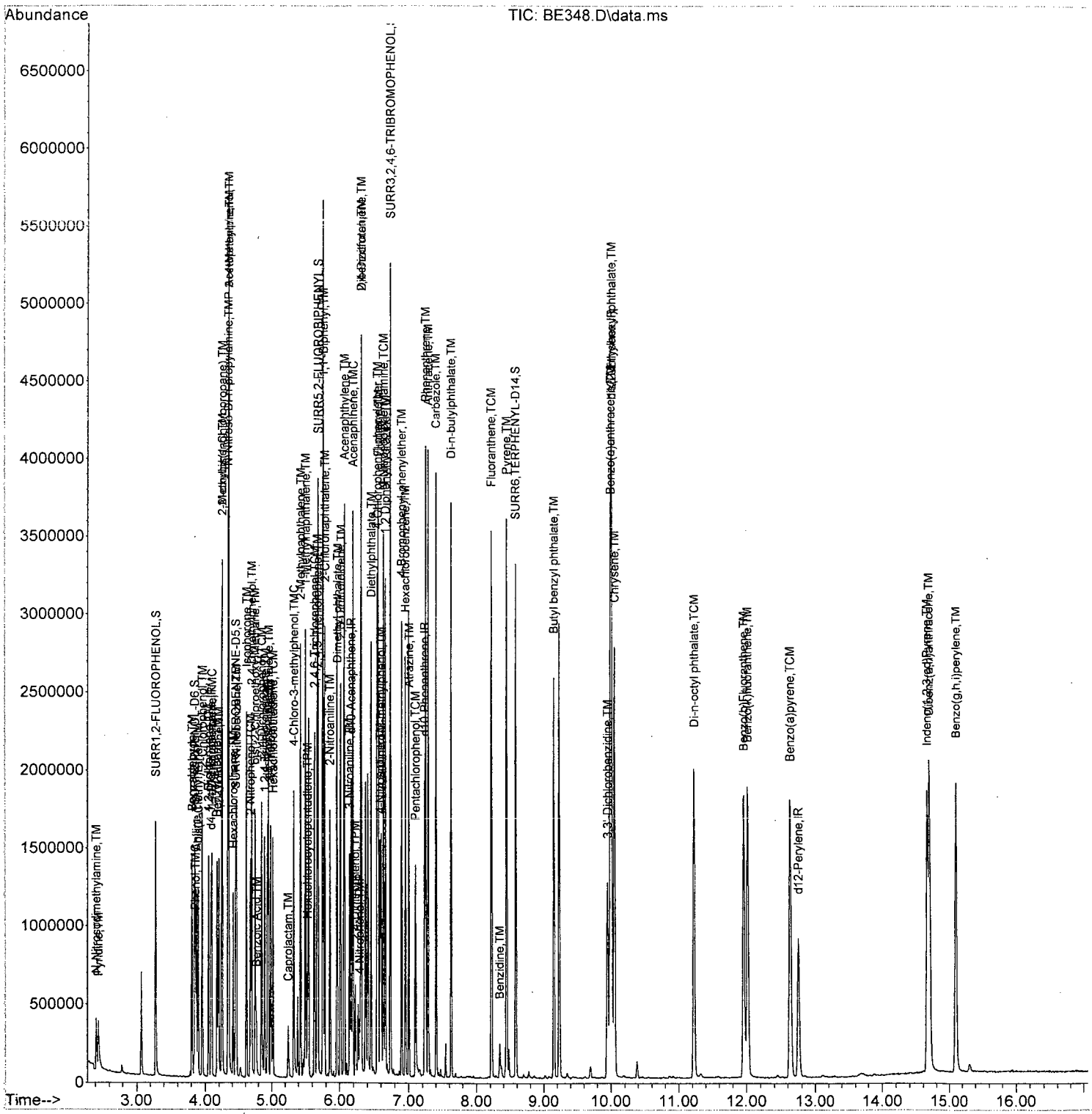
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE348.D
Acq On : 8 Dec 2015 3:16 pm
Operator : J.Misiurewicz
Sample : RQ1514672-03 Inst : 5973D
Misc : 250879 8270D LCSD
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 10 08:51:42 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration

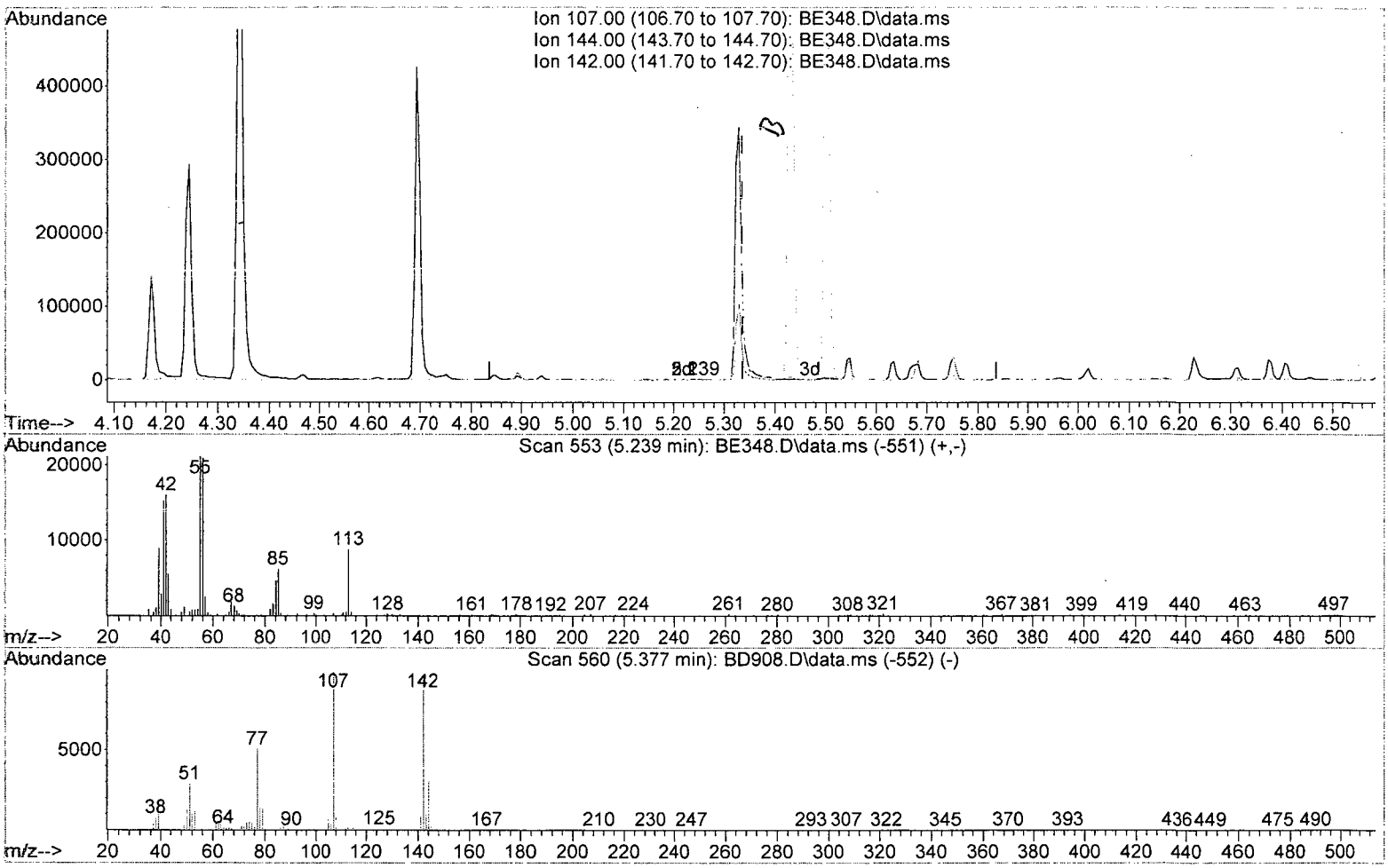


82701203D.M Thu Dec 10 08:51:55 2015 Page: 4

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE348.D
Acq On : 8 Dec 2015 3:16 pm
Operator : J.Misiurewicz
Sample : RQ1514672-03 Inst : 5973D
Misc : 250879 8270D LCSD
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 10 08:38:29 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration



TIC: BE348.D\data.ms

(35) 4-Chloro-3-methylphenol (TMC)

5.239min (-0.098) 0.09 ppm

response 270

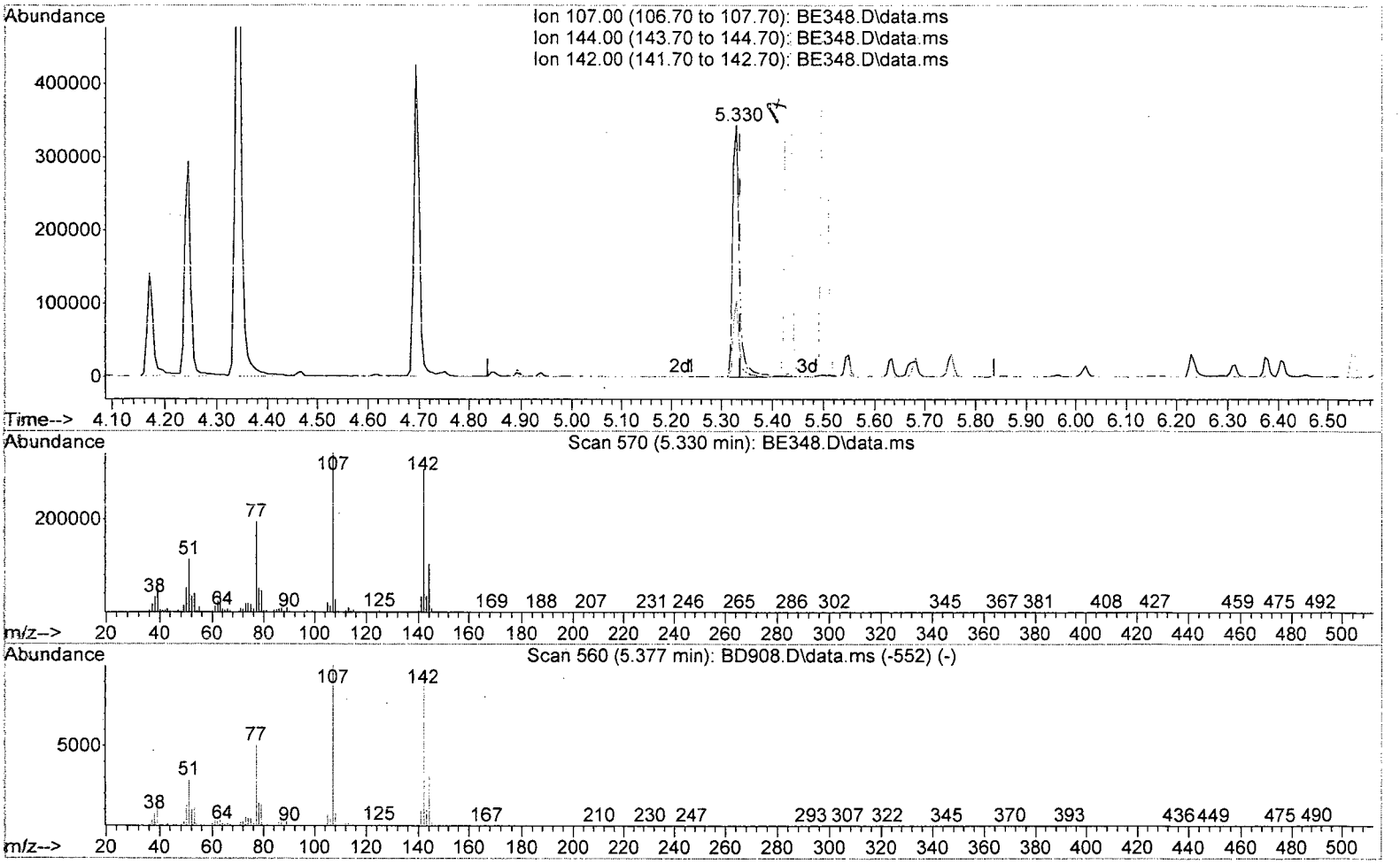
Ion	Exp%	Act%
107.00	100	100
144.00	28.80	0.00
142.00	0.00	0.00
0.00	0.00	0.00

82701203D.M Thu Dec 10 08:50:54 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE348.D
Acq On : 8 Dec 2015 3:16 pm
Operator : J.Misiurewicz
Sample : RQ1514672-03 Inst : 5973D
Misc : 250879 8270D LCSD
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 10 08:38:29 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration



TIC: BE348.D\data.ms

(35) 4-Chloro-3-methylphenol (TMC)

5.330min (-0.007) 97.76 ppm m

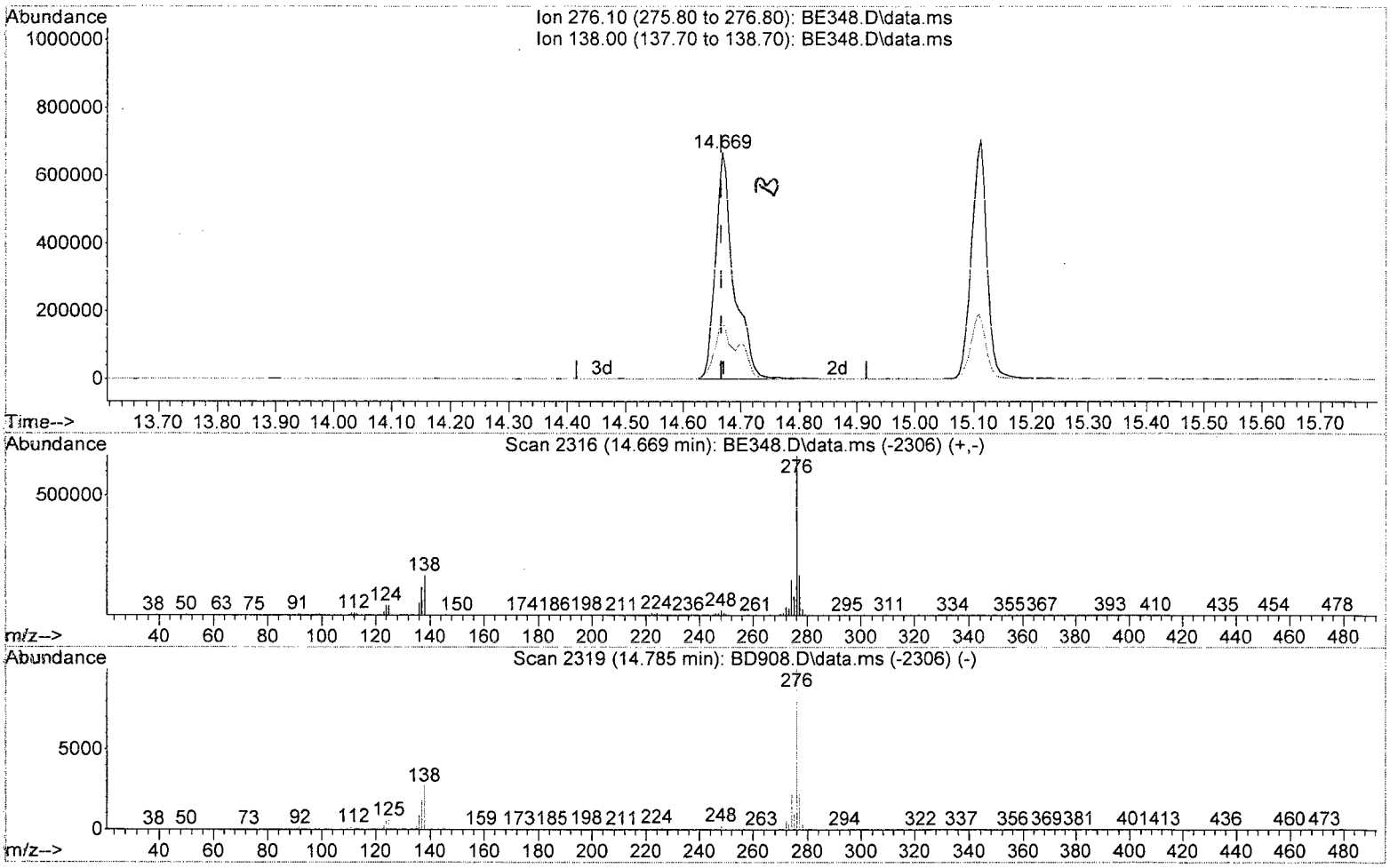
response 302357

Ion	Exp%	Act%
107.00	100	100
144.00	28.80	30.25
142.00	0.00	89.67#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE348.D
Acq On : 8 Dec 2015 3:16 pm
Operator : J.Misiurewicz
Sample : RQ1514672-03 Inst : 5973D
Misc : 250879 8270D LCSD
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 10 08:38:29 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration



TIC: BE348.D\data.ms

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.669min (+0.003) 129.86 ppm

response 1490588

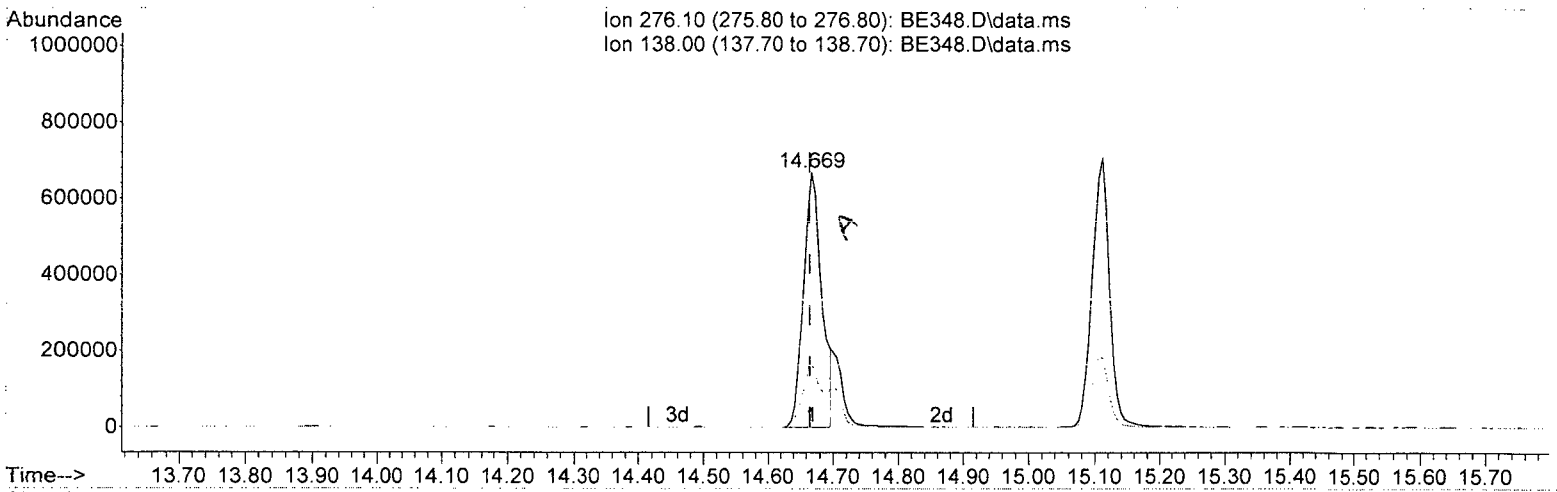
Ion	Exp%	Act%
276.10	100	100
138.00	25.80	24.79
0.00	0.00	0.00
0.00	0.00	0.00

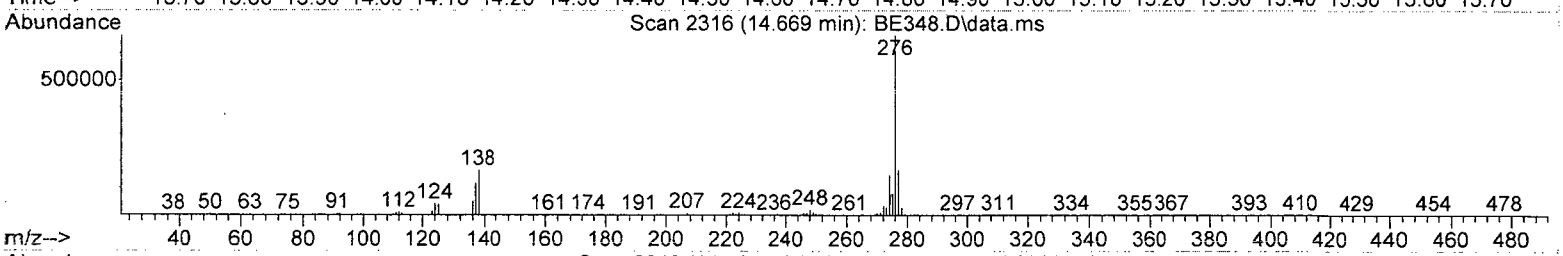
82701203D.M Thu Dec 10 08:51:32 2015 Page: 1

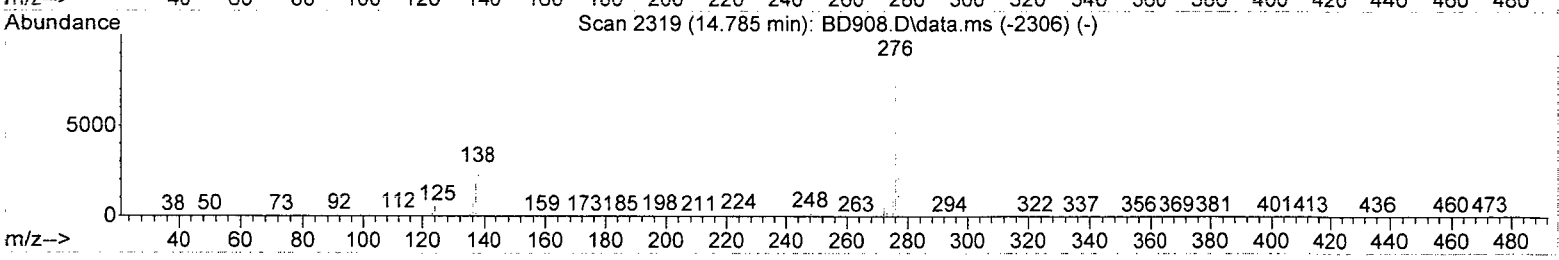
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\5973D\Data\120815\
Data File : BE348.D
Acq On : 8 Dec 2015 3:16 pm
Operator : J.Misiurewicz
Sample : RQ1514672-03 Inst : 5973D
Misc : 250879 8270D LCSD
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 10 08:38:29 2015
Quant Method : I:\ACQUDATA\5973D\Methods\82701203D.M
Quant Title : 8270 BNA ANALYSIS
QLast Update : Thu Dec 03 12:31:22 2015
Response via : Initial Calibration







TIC: BE348.D\data.ms

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.669min (+0.003) 109.90 ppm m

response 1261497

Ion	Exp%	Act%
276.10	100	100
138.00	25.80	24.85
0.00	0.00	0.00
0.00	0.00	0.00

remove shoulder
DM 12/10/15

MW 12/6

82701203D.M Thu Dec 10 08:51:46 2015 Page: 1

Preparation Information Benchsheet

Prep Run#: 250879
Team: Semivoa GCMS/DMURPHY

Prep WorkFlow: OrgExtAq(7)
Prep Method: EPA 3510C

Status: Prepped
Prep Date/Time: 11/25/15 06:11 AM

#	Lab Code	Client ID	B#	Amt. Ext.	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ1514672-01	MB		1000mL	625/SVO	6	x	x	1.00mL	clear-colorless	1.0000 mL/84556	
2	RQ1514672-01	MB		1000mL	8270D/SVO	6	x	x	1.00mL	clear-colorless	1.0000 mL/84556	
3	RQ1514672-02	LCS		1000mL	625/SVO	6	x	x	1.00mL	clear-colorless	1.0000 mL/84556; 1.0000 mL/85804; 1.0000 mL/85868; 1.0000 mL/85954	
4	RQ1514672-02	LCS		1000mL	8270D/SVO	6	x	x	1.00mL	clear-colorless	1.0000 mL/85954; 1.0000 mL/85868; 1.0000 mL/84556; 1.0000 mL/85804	
5	RQ1514672-03	DLCS		1000mL	625/SVO	6	x	x	1.00mL	clear-colorless	1.0000 mL/85804; 1.0000 mL/85868; 1.0000 mL/84556; 1.0000 mL/85954	
6	RQ1514672-03	DLCS		1000mL	8270D/SVO	6	x	x	1.00mL	clear-colorless	1.0000 mL/84556; 1.0000 mL/85868; 1.0000 mL/85954; 1.0000 mL/85804	
7	R1510134-016	WFA-MH-03-1015	.01	1060mL	8270D/SVO	7	x	x	1.00mL	yellow-cloudy	1.0000 mL/84556	PAH II
8	R1510134-019	MW-1602-1015FBW	.06	1060mL	8270D/SVO	7	x	x	1.00mL	clear-colorless	1.0000 mL/84556	
9	R1510136-001	East Leachate	.01	1000mL	8270D/SVO	8	x	x	1.00mL	yellow-cloudy	1.0000 mL/84556	3665 IV
10	R1510136-002	West Leachate	.01	1000mL	8270D/SVO	8	x	x	1.00mL	yellow-cloudy	1.0000 mL/84556	
11	R1510152-001	BT	.01	1060mL	625/SVO	7	x	x	1.00mL	brow-opaque	1.0000 mL/84556	phenols II
12	R1510161-016	FTMM-66-GW-886RW08-11.2	.05	1060mL	8270D/SVO	7	x	x	1.00mL	orange-opaque	1.0000 mL/84556	TCL + IV DOD
13	R1510161-017	EB-2015-11-20	.07	1060mL	8270D/SVO	7	x	x	1.00mL	clear-colorless	1.0000 mL/84556	
14	R1510184-001	Newfield Transfer Station	.12	1060mL	625/SVO	8	x	x	1.00mL	black-opaque	1.0000 mL/84556	Sumiva II
15	R1510200-001	1511191438B BLM-3-182	.01	1060mL	8270D/SVO	7	x	x	1.00mL	yellow-cloudy	1.0000 mL/84556	NDSA III
16	R1510208-001	225 Dicing Saw Grab	.01	1060mL	625/SVO	7	x	x	1.00mL	brow-opaque	1.0000 mL/84556	PPL II

Spiking Solutions

Name:	Color Coded BNA Surrogate Solution 10	Inventory ID	84556	Logbook Ref:	Expires On:	08/03/2017	Lot #: 256815
Name:	Benzidine LCS Spike 100ppm	Inventory ID	85804	Logbook Ref:	Expires On:	11/30/2015	
Name:	8270 LCS Mix1: 100 ug/mL	Inventory ID	85868	Logbook Ref:	Expires On:	02/28/2016	Lot #: lc1130
Name:	OLM/SOM additionals Spike 100ppm	Inventory ID	85954	Logbook Ref:	Expires On:	02/21/2016	

Preparation Materials

Eppendorf Pipette Repeater	EXT #14 (61350)	2mL Graduated Vials	(85877)	Sulfuric Acid, 50% H2SO4	(85448)
Dichloromethane (Methylene Chloride) 99.9% MeCl2	canister (85753)	Sodium Hydroxide 50% NaOH	(85687)	Prepared Sodium Sulfate Na2SO4	(86095)

Preparation Information Benchsheet

Prep Run#: 250879 **Prep WorkFlow:** OrgExtAq(7) **Status:** Prepped

Team: Semivoa GCMS/DMURPHY **Prep Method:** EPA 3510C **Prep Date/Time:** 11/25/15 06:11 AM

Preparation Steps

Step:	Extraction	Step:	Concentration	Step:	Final Volume
Started:	11/25/15 06:11	Started:	11/25/15 12:15	Started:	11/25/15 17:12
Finished:	11/25/15 15:03	Finished:	11/25/15 16:29	Finished:	11/25/15 17:12
By:	DMURPHY	By:	CPSCHIERER	By:	CPSCHIERER
Comments		Comments		Comments	

Comments: _____

Reviewed By: MSR Date: 11/30 Spike Witness: MPEDRO Date: _____

Chain of Custody

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Extracts Examined
Yes No

Analysis: 8270	**Analyst:** [illegible]	**Run Method:** 827012030.m	
Date: 12/3	**Instr.** 5973-D	**Quant Method:** ↓	
		LIMS Run#: 474874	

Pos.	Sample	Diln.	Stds. ID	File#	OK?	Comments
	BL			BE249	Y	
	Tune		85837	250	Y	
	Tune		↓	251	Y	
	Tune		↓	252	YT	Y Not for 625 8270 only
	BL			253	Y	
	8270 std 1 5ppm		86295	254	Y	
	2 10ppm		86296	255	Y	
	3 50ppm		86297	256	Y	
	4 80ppm		86298	257	Y	
	5 100ppm		86299	258	Y	
	6 120ppm		86300	259	Y	
	7 160ppm		86301	260	Y	
	IW#1			261	N	Remake
	2			262	Y	
	IW#1			263	Y	
	RQ1514674-01			264	Y	
	02			265	Y	
	03			266	Y	
	R1509641-002			267	Y	
	003			268	Y	
	R1509823-001			269	Y	
	002			270	Y	
	003			271	Y	
	004			272	Y	
	005			273	Y	
	006			274	Y	
	RQ1514431-01			275	Y	
	RQ1514402-01			276	Y	

All samples = _____mL + _____uL Combined IS/Surr.;

Primary :_____ exp: Secondary :_____ exp:

Primary:_____ exp: Secondary :_____ exp:

Runlog GCEXT r1 12/5/12

Page 56

Analysis: 8270
Date: 12/8/15
Analyst: [illegible]
Instr. 5973 D
Run Method: 8270 1203D
Quant Method: 82701203D
LIMS Run#: 475709

Pos.	Sample	Diln.	Stds. ID	File#	OK?	Comments
				BE331	Y	8:01
1	Blk			32	N	change liner
2	Tune		85837	33	YT	
2	Tune			34	YCC	
3	CCV	8270203D	86298	35	YCC	
4	CCV	360E1207D	86422	36	N	Needs hexachlorophene
5	RQ1514672-01	Blk	250879 11/25 W	37	↓	↓
6	-02	LCS		38	↓	↓
7	↓ -03	LCSD		39	Y	
8	R1510134-016		PAH II	40	Y	Surr? 20-120
9	-019			41	Y	
10	R1510136-001		360E IV	42	Y	
11	↓ -002			43	Y	TICs
12	R1510161-016		TCL + IV DOD	44	Y	
13	↓ -017			45	YCC	
14	CCV	Hexa1208	86453	46	Y	
15	RQ1514672-01	Blk		47	YQ	
16	-02	LCS		48	YQ	
17	↓ -03	LCSD		49	Y	+TICs
18	R1510200-001		NASA III	50	Y	
19	RQ1514857-01	Blk	251171 12/2 W	51	YQ	
20	-02	LCS		52	YQ	
21	↓ -03	LCSD		53	Y	
22	R1510347-001		Alpha ter II	54	Y	
23	↓ -002			55	Y	+TIC 6:21
24	R1510363-020		360E III			

12/9/15

All samples = 1 mL + 10 uL Combined IS/Surr.; 84662

Primary : _____ exp:
Primary: _____ exp:
Secondary : _____ exp:
Secondary : _____ exp:

Runlog GCEXT r1 12/5/12

ALS Environmental

PESTICIDES
QC SUMMARY

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Collected: 11/19/15
Date Received: 11/21/15
Date Analyzed: 11/25/15

Matrix Spike Summary
Organochlorine Pesticides by Gas Chromatography

Sample Name: FTMM-M8-GW-697MW01-16.5
Lab Code: R1510161-012

Units: µg/L
Basis: NA

Analytical Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Sample Result	FTMM-M8-GW-697MW01-16.5MS Matrix Spike RQ1514596-04 Result	Spike Amount	% Rec	FTMM-M8-GW-697MW01-16.5DMS Duplicate Matrix Spike RQ1514596-05 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
4,4'-DDD	0.70	0.956	0.189	135	1.27	0.189	299 *	25 - 150	28	30
4,4'-DDE	ND	0.186	0.189	99	0.204	0.189	108	35 - 140	9	30
4,4'-DDT	0.048	0.166	0.189	62	0.207	0.189	84	45 - 140	22	30
Aldrin	ND	0.156	0.189	83	0.157	0.189	83	25 - 140	<1	30
Dieldrin	ND	0.194	0.189	103	0.191	0.189	101	60 - 130	1	30
Endosulfan I	ND	0.199	0.189	106	0.183	0.189	97	50 - 110	9	30
Endosulfan II	ND	0.187	0.189	99	0.183	0.189	97	30 - 130	2	30
Endosulfan Sulfate	ND	0.167	0.189	88	0.169	0.189	89	55 - 135	1	30
Endrin	ND	0.178	0.189	94	0.174	0.189	92	55 - 135	2	30
Endrin Aldehyde	ND	0.0920	0.189	49 *	0.0908	0.189	48 *	55 - 135	1	30
Endrin Ketone	ND	0.171	0.189	91	0.168	0.189	89	75 - 125	2	30
Heptachlor	ND	0.159	0.189	84	0.164	0.189	87	40 - 130	3	30
Heptachlor Epoxide	ND	0.212	0.189	112	0.212	0.189	112	60 - 130	<1	30
Methoxychlor	ND	0.135	0.189	72	0.141	0.189	75	55 - 150	4	30
alpha-BHC	ND	0.172	0.189	91	0.168	0.189	89	60 - 130	3	30
alpha-Chlordane	0.19	0.387	0.189	102	0.461	0.189	141 *	65 - 125	17	30
beta-BHC	ND	0.162	0.189	86	0.159	0.189	84	65 - 125	1	30
delta-BHC	ND	0.168	0.189	89	0.165	0.189	87	45 - 135	2	30
gamma-BHC (Lindane)	ND	0.175	0.189	93	0.171	0.189	91	25 - 135	3	30
gamma-Chlordane	0.19	0.402	0.189	114	0.484	0.189	158 *	60 - 125	18	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline 2015 Q4 GW Sampling/748810-03000
Sample Matrix: Water

Service Request: R1510161
Date Analyzed: 11/25/15

Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 250710

Analyte Name	Lab Control Sample RQ1514596-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1514596-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
4,4'-DDD	0.150	0.200	75	0.153	0.200	76	25 - 150	2	30
4,4'-DDE	0.158	0.200	79	0.158	0.200	79	35 - 140	<1	30
4,4'-DDT	0.128	0.200	64	0.125	0.200	62	45 - 140	2	30
Aldrin	0.167	0.200	84	0.158	0.200	79	25 - 140	5	30
Dieldrin	0.186	0.200	93	0.183	0.200	91	60 - 130	2	30
Endosulfan I	0.178	0.200	89	0.176	0.200	88	50 - 110	1	30
Endosulfan II	0.176	0.200	88	0.174	0.200	87	30 - 130	1	30
Endosulfan Sulfate	0.162	0.200	81	0.166	0.200	83	55 - 135	2	30
Endrin	0.172	0.200	86	0.171	0.200	85	55 - 135	<1	30
Endrin Aldehyde	0.118	0.200	59	0.111	0.200	55	55 - 135	6	30
Endrin Ketone	0.161	0.200	81	0.162	0.200	81	75 - 125	<1	30
Heptachlor	0.172	0.200	86	0.165	0.200	82	40 - 130	4	30
Heptachlor Epoxide	0.185	0.200	92	0.181	0.200	91	60 - 130	2	30
Methoxychlor	0.124	0.200	62	0.126	0.200	63	55 - 150	1	30
Toxaphene	1.30	2.00	65	1.48	2.00	74	46 - 130	13	30
alpha-BHC	0.179	0.200	89	0.176	0.200	88	60 - 130	2	30
alpha-Chlordane	0.180	0.200	90	0.177	0.200	88	65 - 125	2	30
beta-BHC	0.171	0.200	86	0.168	0.200	84	65 - 125	2	30
delta-BHC	0.165	0.200	82	0.165	0.200	83	45 - 135	<1	30
gamma-BHC (Lindane)	0.185	0.200	92	0.181	0.200	91	25 - 135	2	30
gamma-Chlordane	0.179	0.200	90	0.176	0.200	88	60 - 125	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Analyzed:**	11/25/15 09:39
Sample Matrix:	Water	**Date Extracted:**	11/23/15

Method Blank Summary
Organochlorine Pesticides by Gas Chromatography

Sample Name:	Method Blank	**Instrument ID:**	R-GC-62
Lab Code:	RQ1514596-01	**File ID:**	I:\ACQUDATA\7890m\DATA\112515\AL238.D\
Analytical Method:	8081B		
Prep Method:	EPA 3510C		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1514596-02	I:\ACQUDATA\7890m\DATA\112515\AL239.D\	11/25/15 10:07
Duplicate Lab Control Sample	RQ1514596-03	I:\ACQUDATA\7890m\DATA\112515\AL240.D\	11/25/15 10:34
EB-2015-11-19	R1510161-004	I:\ACQUDATA\7890m\DATA\112515\AL244.D\	11/25/15 12:26
FTMM-56-GW-80MW02-7.5	R1510161-006	I:\ACQUDATA\7890m\DATA\112515\AL245.D\	11/25/15 12:54
FTMM-56-GW-80MW102-7.5	R1510161-008	I:\ACQUDATA\7890m\DATA\112515\AL246.D\	11/25/15 13:21
FTMM-M8-GW-697MW01-16.5MS	RQ1514596-04	I:\ACQUDATA\7890m\DATA\112515\AL249.D\	11/25/15 14:45
FTMM-M8-GW-697MW01-16.5DMS	RQ1514596-05	I:\ACQUDATA\7890m\DATA\112515\AL250.D\	11/25/15 15:13
EB-2015-11-20	R1510161-017	I:\ACQUDATA\7890m\DATA\112515\AL251.D\	11/25/15 15:41
Lab Control Sample	RQ1514596-02	I:\ACQUDATA\7890m\DATA\112515\AL265.D\	11/25/15 22:11
Duplicate Lab Control Sample	RQ1514596-03	I:\ACQUDATA\7890m\DATA\112515\AL266.D\	11/25/15 22:39
FTMM-M8-GW-697MW01-16.5	R1510161-012	I:\ACQUDATA\7890m\DATA\120215\AL288.D\	12/2/15 13:30

ALS Environmental

PESTICIDES
SAMPLE DATA

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Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1700
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	EB-2015-11-19	**Units:**	µg/L
Lab Code:	R1510161-004	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	ND	U	0.047	0.025	0.013	1	11/23/15	11/25/15 12:26	250710	474264	
4,4'-DDE	ND	U	0.047	0.025	0.012	1	11/23/15	11/25/15 12:26	250710	474264	
4,4'-DDT	ND	U	0.047	0.027	0.027	1	11/23/15	11/25/15 12:26	250710	474264	
Aldrin	ND	U	0.047	0.025	0.0090	1	11/23/15	11/25/15 12:26	250710	474264	
Dieldrin	ND	U	0.047	0.025	0.0080	1	11/23/15	11/25/15 12:26	250710	474264	
Endosulfan I	ND	U	0.047	0.025	0.011	1	11/23/15	11/25/15 12:26	250710	474264	
Endosulfan II	ND	U	0.047	0.025	0.010	1	11/23/15	11/25/15 12:26	250710	474264	
Endosulfan Sulfate	ND	U	0.047	0.025	0.012	1	11/23/15	11/25/15 12:26	250710	474264	
Endrin	ND	U	0.047	0.025	0.017	1	11/23/15	11/25/15 12:26	250710	474264	
Endrin Aldehyde	ND	U	0.047	0.025	0.020	1	11/23/15	11/25/15 12:26	250710	474264	
Endrin Ketone	ND	U	0.047	0.025	0.013	1	11/23/15	11/25/15 12:26	250710	474264	
Heptachlor	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 12:26	250710	474264	
Heptachlor Epoxide	ND	U	0.047	0.025	0.0070	1	11/23/15	11/25/15 12:26	250710	474264	
Methoxychlor	ND	U	0.47	0.025	0.017	1	11/23/15	11/25/15 12:26	250710	474264	
Toxaphene	ND	U	0.94	0.50	0.27	1	11/23/15	11/25/15 12:26	250710	474264	
alpha-BHC	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 12:26	250710	474264	
alpha-Chlordane	ND	U	0.047	0.025	0.0070	1	11/23/15	11/25/15 12:26	250710	474264	
beta-BHC	ND	U	0.047	0.028	0.028	1	11/23/15	11/25/15 12:26	250710	474264	
delta-BHC	ND	U	0.048	0.048	0.048	1	11/23/15	11/25/15 12:26	250710	474264	
gamma-BHC (Lindane)	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 12:26	250710	474264	
gamma-Chlordane	ND	U	0.047	0.025	0.0080	1	11/23/15	11/25/15 12:26	250710	474264	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	47	30-135	11/25/15 12:26	
Tetrachloro-m-xylene	66	25-140	11/25/15 12:26	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL244.D
Acq On : 25 Nov 2015 12:26 pm
Operator : m.pedro
Sample : r1510161-004|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 30 15:35:34 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tet...	9.301	9.250	3084.9E6	1327.4E6	67.967	65.750
Spiked Amount 100.000	Range 30 - 150		Recovery =		67.97%	65.75%
26) S SURR2,Dec...	17.460	17.775	1535.1E6	695.9E6	49.572	47.216
Spiked Amount 100.000	Range 30 - 150		Recovery =		49.57%	47.22%
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

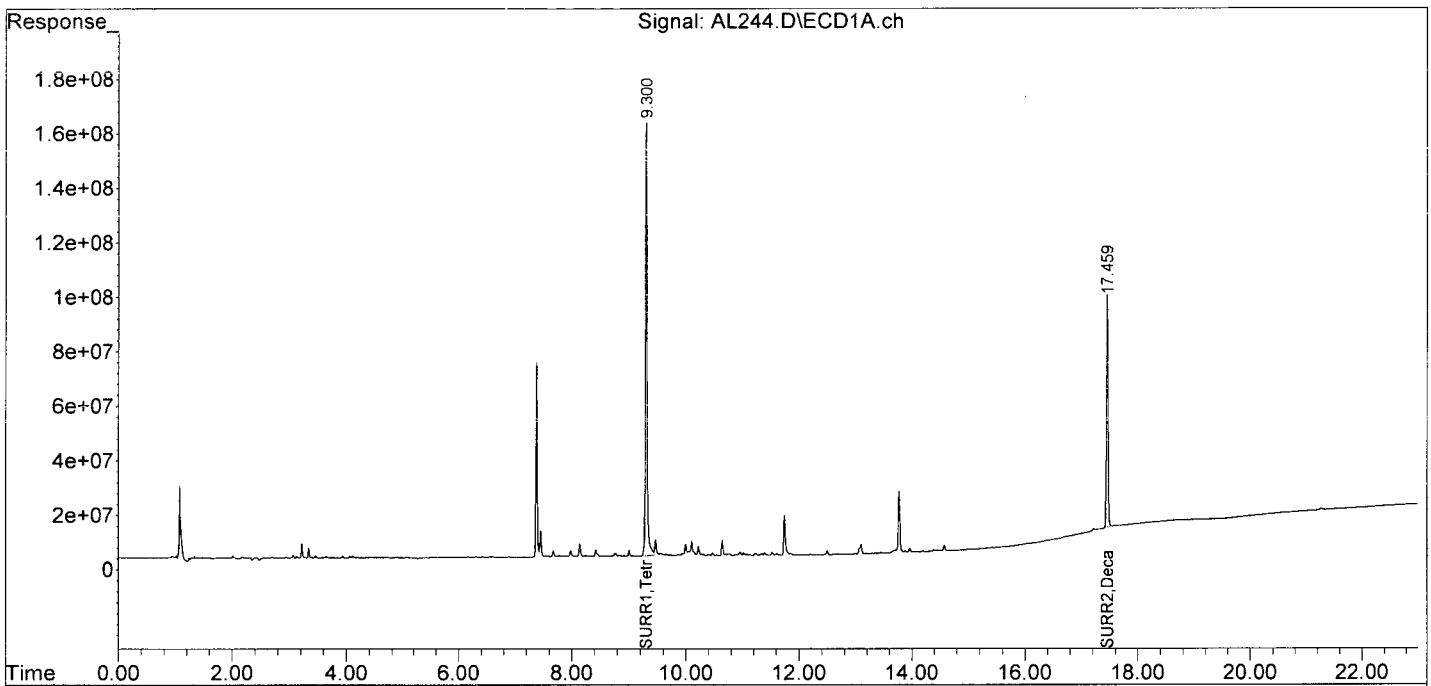
AM 12/1

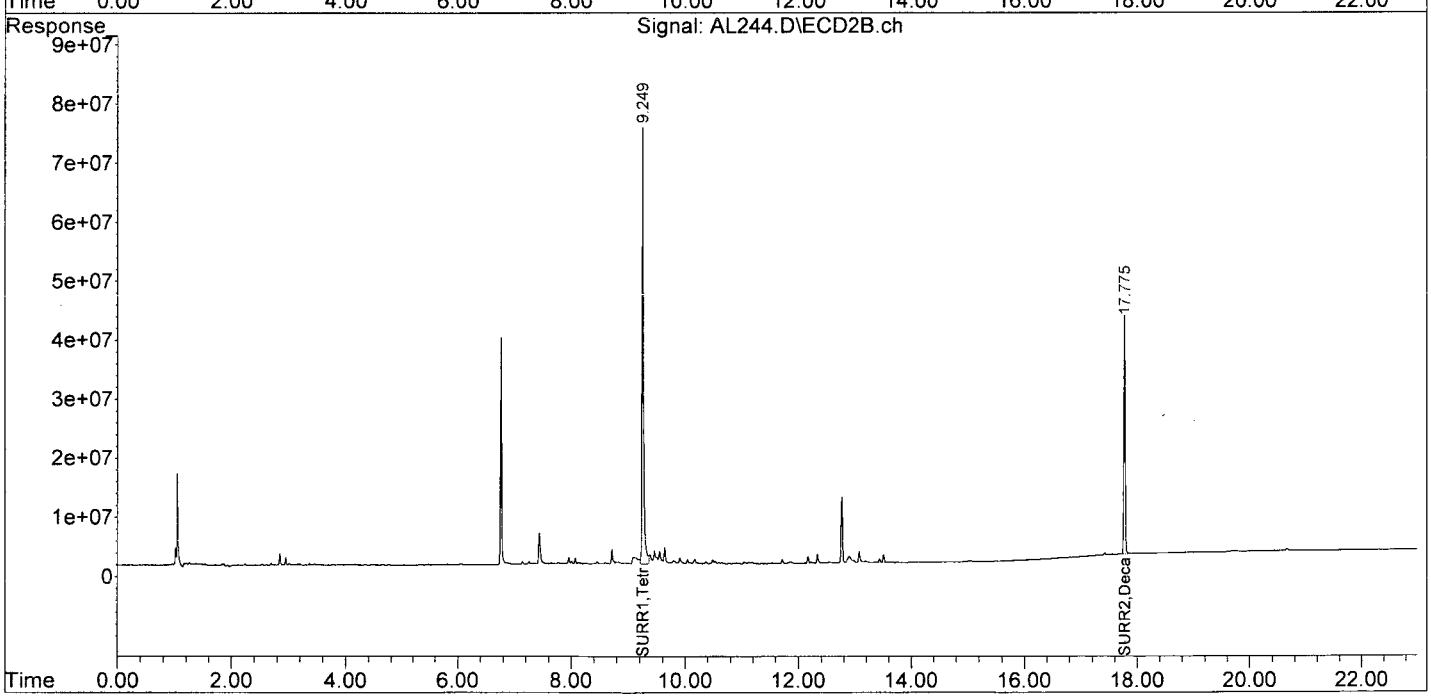
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL244.D
Acq On : 25 Nov 2015 12:26 pm
Operator : m.pedro
Sample : r1510161-004|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 30 15:35:34 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1140
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-56-GW-80MW02-7.5	**Units:**	µg/L
Lab Code:	R1510161-006	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	ND	U	0.047	0.025	0.013	1	11/23/15	11/25/15 12:54	250710	474264	
4,4'-DDE	ND	U	0.047	0.025	0.012	1	11/23/15	11/25/15 12:54	250710	474264	
4,4'-DDT	ND	U	0.047	0.027	0.027	1	11/23/15	11/25/15 12:54	250710	474264	
Aldrin	ND	U	0.047	0.025	0.0090	1	11/23/15	11/25/15 12:54	250710	474264	
Dieldrin	ND	U	0.047	0.025	0.0080	1	11/23/15	11/25/15 12:54	250710	474264	
Endosulfan I	ND	U	0.047	0.025	0.011	1	11/23/15	11/25/15 12:54	250710	474264	
Endosulfan II	ND	U	0.047	0.025	0.010	1	11/23/15	11/25/15 12:54	250710	474264	
Endosulfan Sulfate	ND	U	0.047	0.025	0.012	1	11/23/15	11/25/15 12:54	250710	474264	
Endrin	ND	U	0.047	0.025	0.017	1	11/23/15	11/25/15 12:54	250710	474264	
Endrin Aldehyde	ND	U	0.047	0.025	0.020	1	11/23/15	11/25/15 12:54	250710	474264	
Endrin Ketone	ND	U	0.047	0.025	0.013	1	11/23/15	11/25/15 12:54	250710	474264	
Heptachlor	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 12:54	250710	474264	
Heptachlor Epoxide	**0.055**		0.047	0.025	0.0070	1	11/23/15	11/25/15 12:54	250710	474264	
Methoxychlor	ND	U	0.47	0.025	0.017	1	11/23/15	11/25/15 12:54	250710	474264	
Toxaphene	ND	U	0.94	0.50	0.27	1	11/23/15	11/25/15 12:54	250710	474264	
alpha-BHC	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 12:54	250710	474264	
alpha-Chlordane	**0.28**	P	0.047	0.025	0.0070	1	11/23/15	11/25/15 12:54	250710	474264	
beta-BHC	ND	U	0.047	0.028	0.028	1	11/23/15	11/25/15 12:54	250710	474264	
delta-BHC	ND	U	0.048	0.048	0.048	1	11/23/15	11/25/15 12:54	250710	474264	
gamma-BHC (Lindane)	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 12:54	250710	474264	
gamma-Chlordane	**0.29**		0.047	0.025	0.0080	1	11/23/15	11/25/15 12:54	250710	474264	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	62	30-135	11/25/15 12:54	
Tetrachloro-m-xylene	76	25-140	11/25/15 12:54	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL245.D
Acq On : 25 Nov 2015 12:54 pm
Operator : m.pedro
Sample : r1510161-006|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 01 08:47:35 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1) S	SURR1,Tet...	9.302	9.249	3556.6E6	1533.4E6	78.359	75.955
	Spiked Amount 100.000	Range 30 - 150		Recovery =		78.36%	75.95%
26) S	SURR2,Dec...	17.460	17.776	2024.8E6	920.4E6	65.388	62.450
	Spiked Amount 100.000	Range 30 - 150		Recovery =		65.39%	62.45%
	Target Compounds						
9) tc	Heptachlor E	12.940	12.831	278.1E6	147.7E6	5.827	6.565m
11) tc	gamma-Chlord	13.096	13.118	1576.5E6	688.6E6	32.489	30.615
12) tc	alpha-Chlord	13.268	13.324	3100.7E6	645.5E6	66.930	29.728 #
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
Average	Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

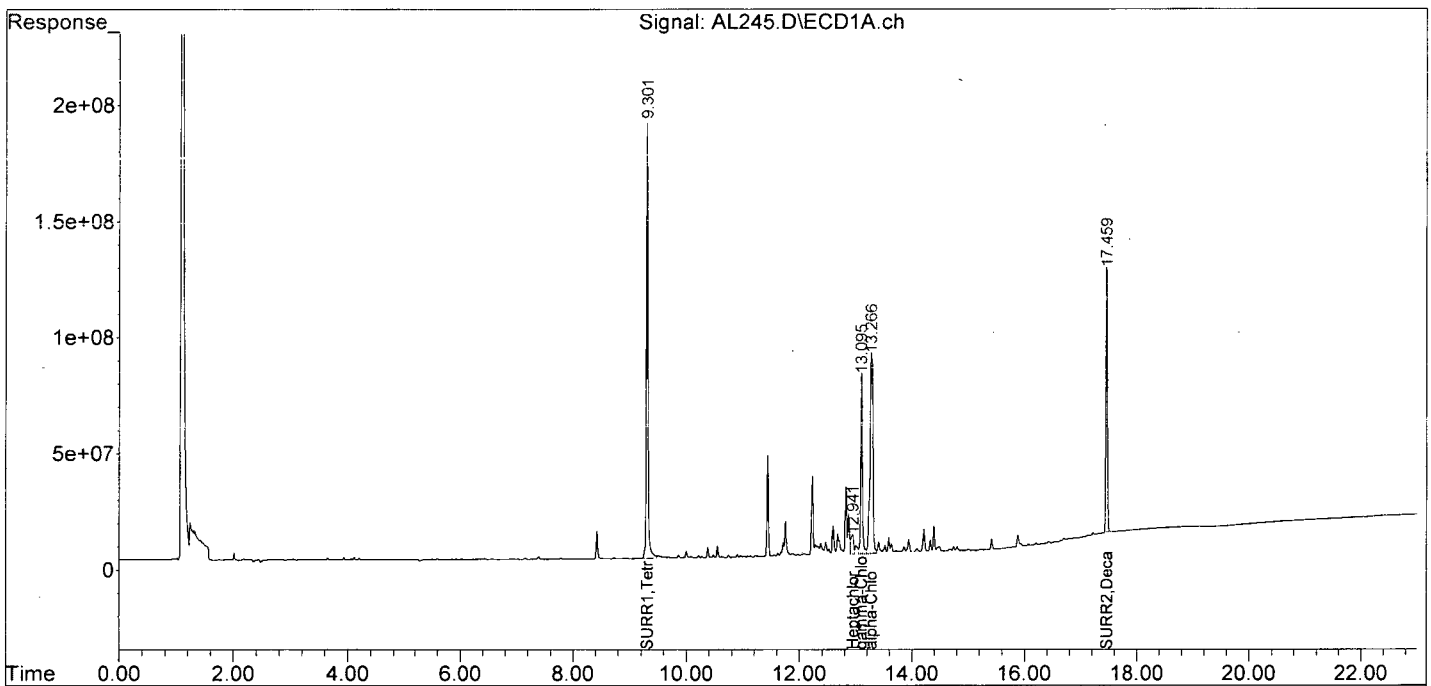
AM 12/1

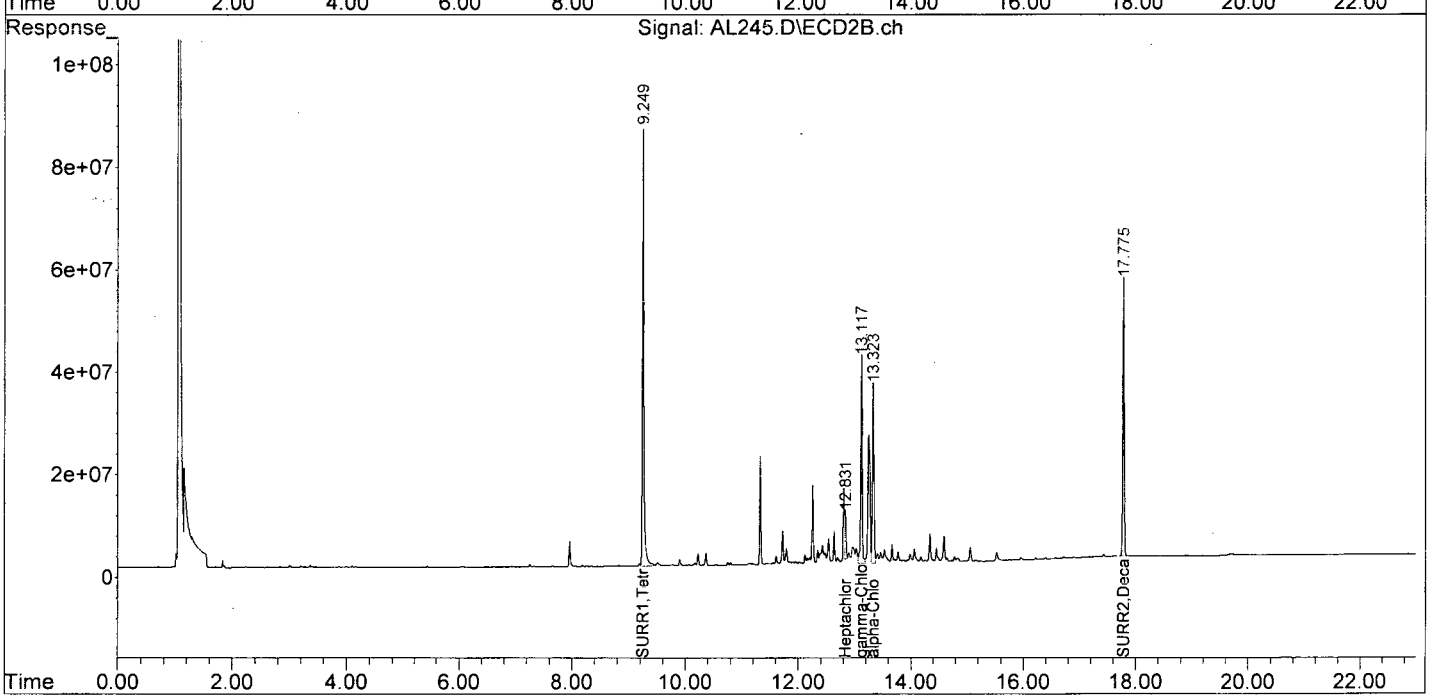
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL245.D
Acq On : 25 Nov 2015 12:54 pm
Operator : m.pedro
Sample : r1510161-006|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 01 08:47:35 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

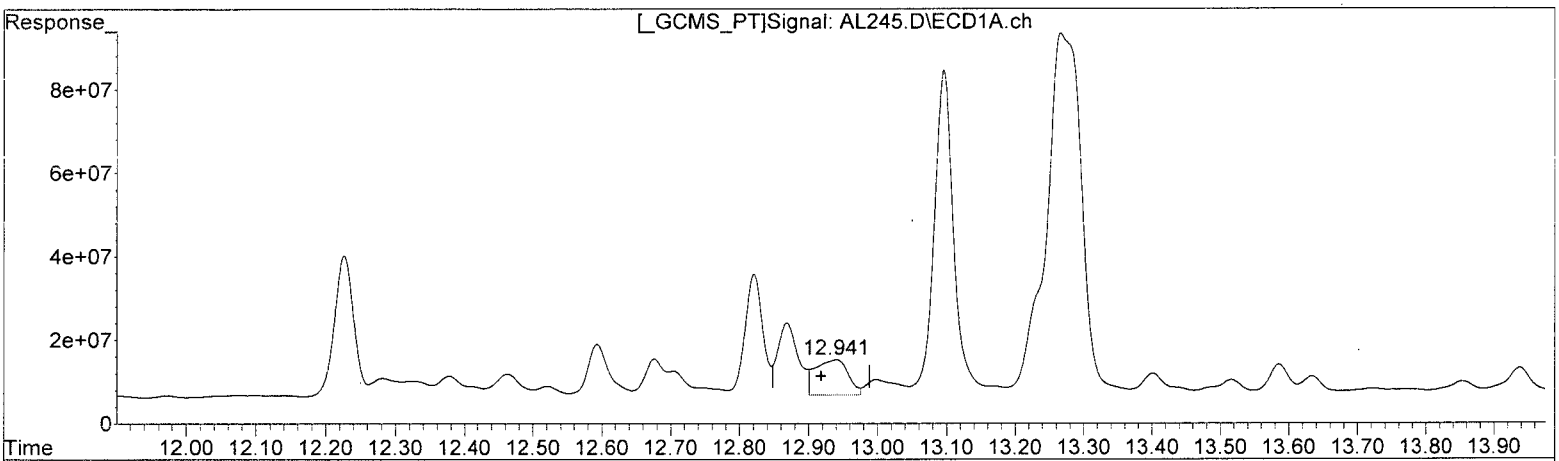


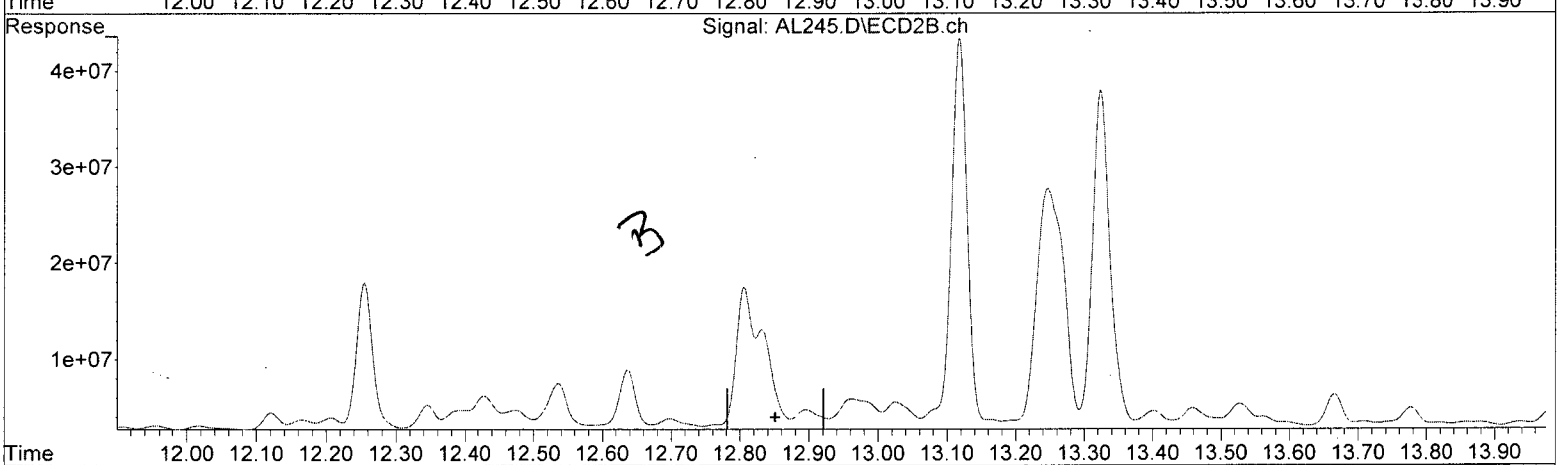


Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL245.D
Acq On : 25 Nov 2015 12:54 pm
Operator : m.pedro
Sample : r1510161-006|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 30 15:36:54 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(9) Heptachlor E (tc)

12.940min 5.827 ug/l

response 278096636

B, C/S.P
AW
12/1

(9) Heptachlor E #2 (tc)

0.000min 0.000 ug/l

response 0

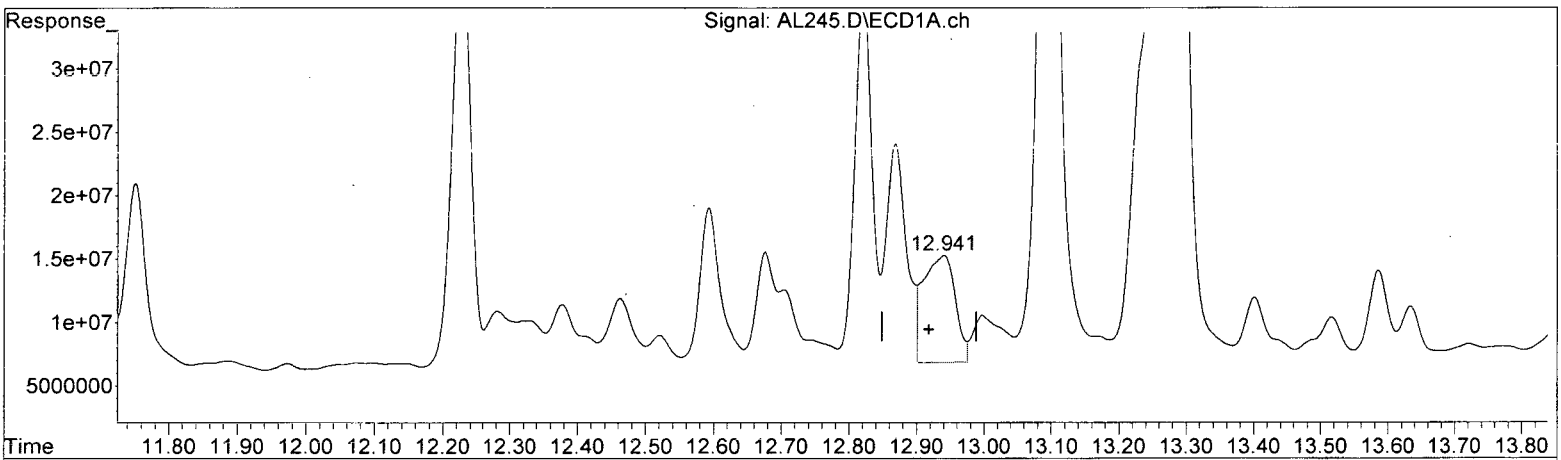
(+) = Expected Retention Time
8081102115.M Mon Nov 30 15:37:46 2015 Page: 1

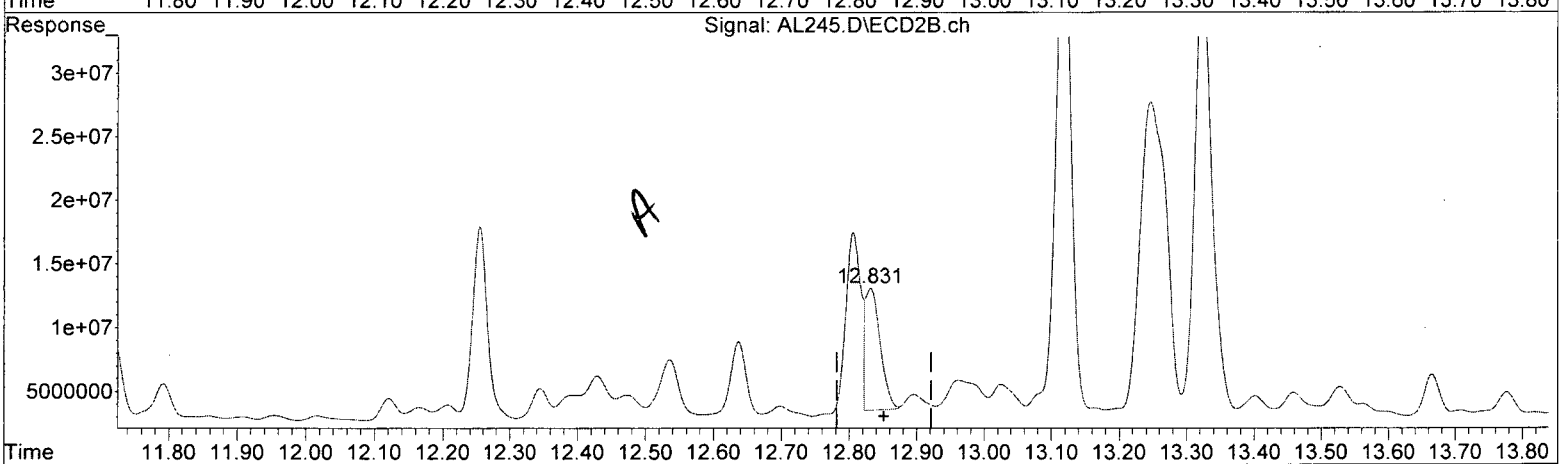
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL245.D
Acq On : 25 Nov 2015 12:54 pm
Operator : m.pedro
Sample : r1510161-006|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 30 15:42:39 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(9) Heptachlor E (tc)

12.940min 5.827 ug/l

response 278096636

(9) Heptachlor E #2 (tc)

12.831min 6.565 ug/l m

response 147651691

(+) = Expected Retention Time

8081102115.M Tue Dec 01 08:47:38 2015 Page: 1

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1140
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-56-GW-80MW102-7.5	**Units:**	µg/L
Lab Code:	R1510161-008	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	ND	U	0.047	0.025	0.013	1	11/23/15	11/25/15 13:21	250710	474264	
4,4'-DDE	ND	U	0.047	0.025	0.012	1	11/23/15	11/25/15 13:21	250710	474264	
4,4'-DDT	ND	U	0.047	0.027	0.027	1	11/23/15	11/25/15 13:21	250710	474264	
Aldrin	ND	U	0.047	0.025	0.0090	1	11/23/15	11/25/15 13:21	250710	474264	
Dieldrin	ND	U	0.047	0.025	0.0080	1	11/23/15	11/25/15 13:21	250710	474264	
Endosulfan I	ND	U	0.047	0.025	0.011	1	11/23/15	11/25/15 13:21	250710	474264	
Endosulfan II	ND	U	0.047	0.025	0.010	1	11/23/15	11/25/15 13:21	250710	474264	
Endosulfan Sulfate	ND	U	0.047	0.025	0.012	1	11/23/15	11/25/15 13:21	250710	474264	
Endrin	ND	U	0.047	0.025	0.017	1	11/23/15	11/25/15 13:21	250710	474264	
Endrin Aldehyde	ND	U	0.047	0.025	0.020	1	11/23/15	11/25/15 13:21	250710	474264	
Endrin Ketone	ND	U	0.047	0.025	0.013	1	11/23/15	11/25/15 13:21	250710	474264	
Heptachlor	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 13:21	250710	474264	
Heptachlor Epoxide	**0.055**		0.047	0.025	0.0070	1	11/23/15	11/25/15 13:21	250710	474264	
Methoxychlor	ND	U	0.47	0.025	0.017	1	11/23/15	11/25/15 13:21	250710	474264	
Toxaphene	ND	U	0.94	0.50	0.27	1	11/23/15	11/25/15 13:21	250710	474264	
alpha-BHC	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 13:21	250710	474264	
alpha-Chlordane	**0.28**	P	0.047	0.025	0.0070	1	11/23/15	11/25/15 13:21	250710	474264	
beta-BHC	ND	U	0.047	0.028	0.028	1	11/23/15	11/25/15 13:21	250710	474264	
delta-BHC	ND	U	0.048	0.048	0.048	1	11/23/15	11/25/15 13:21	250710	474264	
gamma-BHC (Lindane)	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 13:21	250710	474264	
gamma-Chlordane	**0.29**		0.047	0.025	0.0080	1	11/23/15	11/25/15 13:21	250710	474264	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	57	30-135	11/25/15 13:21	
Tetrachloro-m-xylene	78	25-140	11/25/15 13:21	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL246.D
Acq On : 25 Nov 2015 1:21 pm
Operator : m.pedro
Sample : r1510161-008|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 30 15:46:53 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1) S	SURR1,Tet...	9.302	9.251	3636.4E6	1569.2E6	80.117	77.730
	Spiked Amount 100.000	Range 30 - 150		Recovery =		80.12%	77.73%
26) S	SURR2,Dec...	17.459	17.775	1855.0E6	843.9E6	59.901	57.257
	Spiked Amount 100.000	Range 30 - 150		Recovery =		59.90%	57.26%
	Target Compounds						
9) tc	Heptachlor E	12.940	12.832	276.3E6	142.5E6	5.790	6.335m
11) tc	gamma-Chlord	13.096	13.119	1598.0E6	698.8E6	32.932	31.067
12) tc	alpha-Chlord	13.269	13.325	3064.1E6	642.0E6	66.140	29.566 #
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
	Average Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

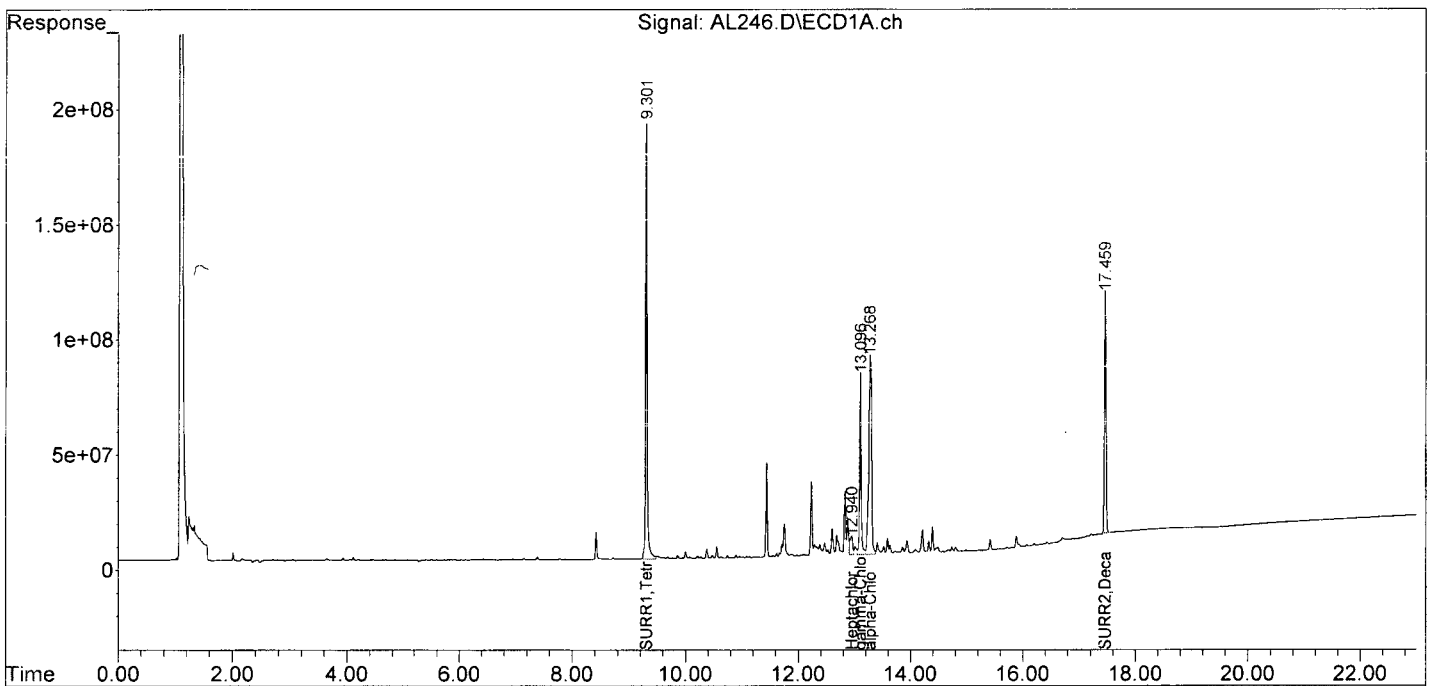
AM 12/1

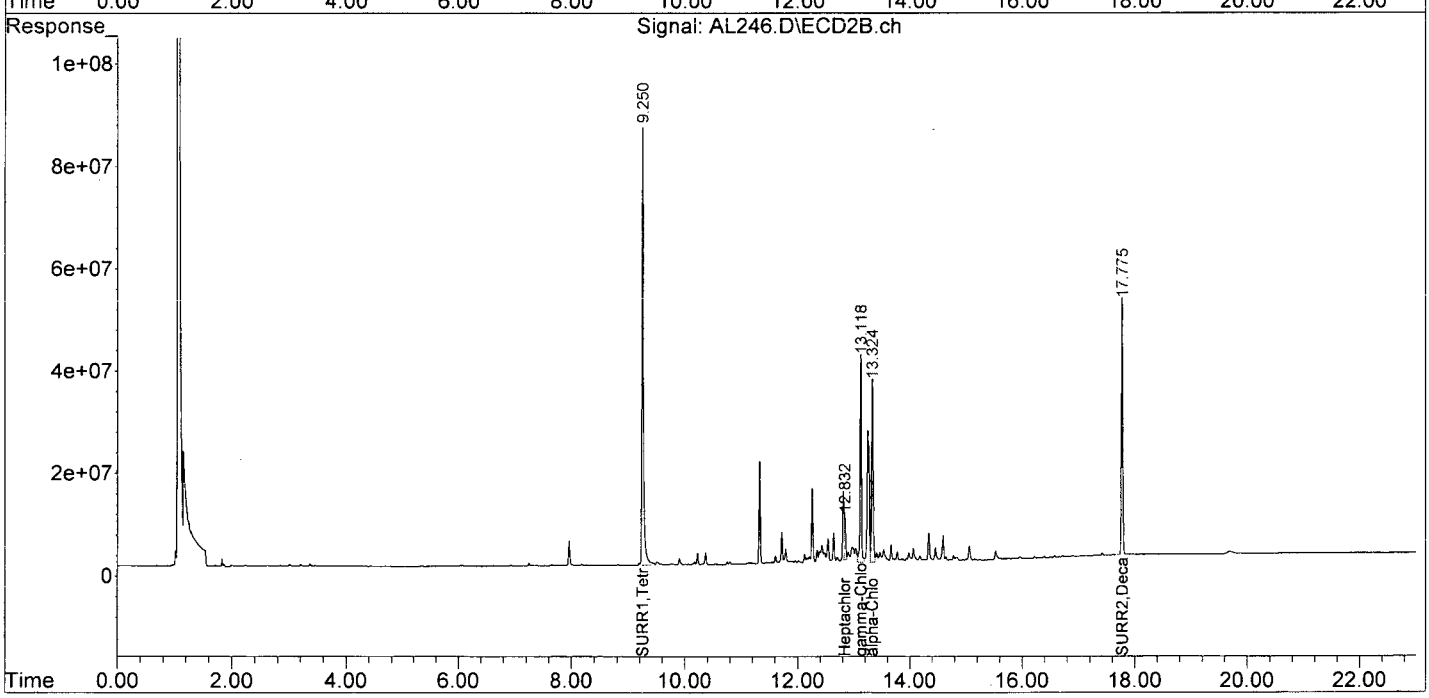
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL246.D
Acq On : 25 Nov 2015 1:21 pm
Operator : m.pedro
Sample : r1510161-008|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 30 15:46:53 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



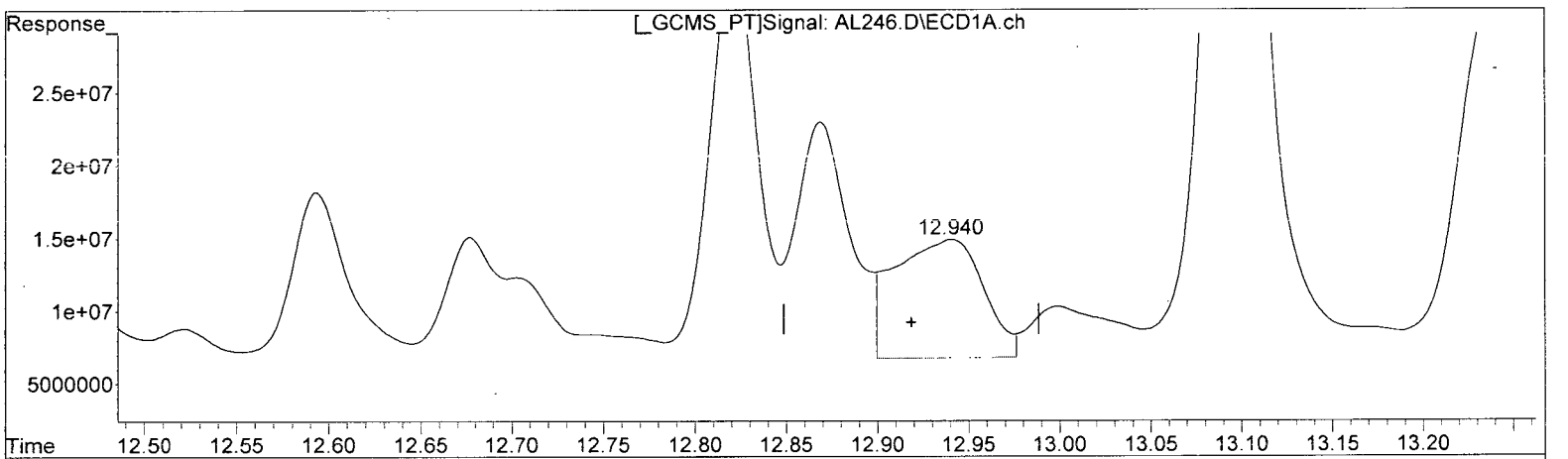


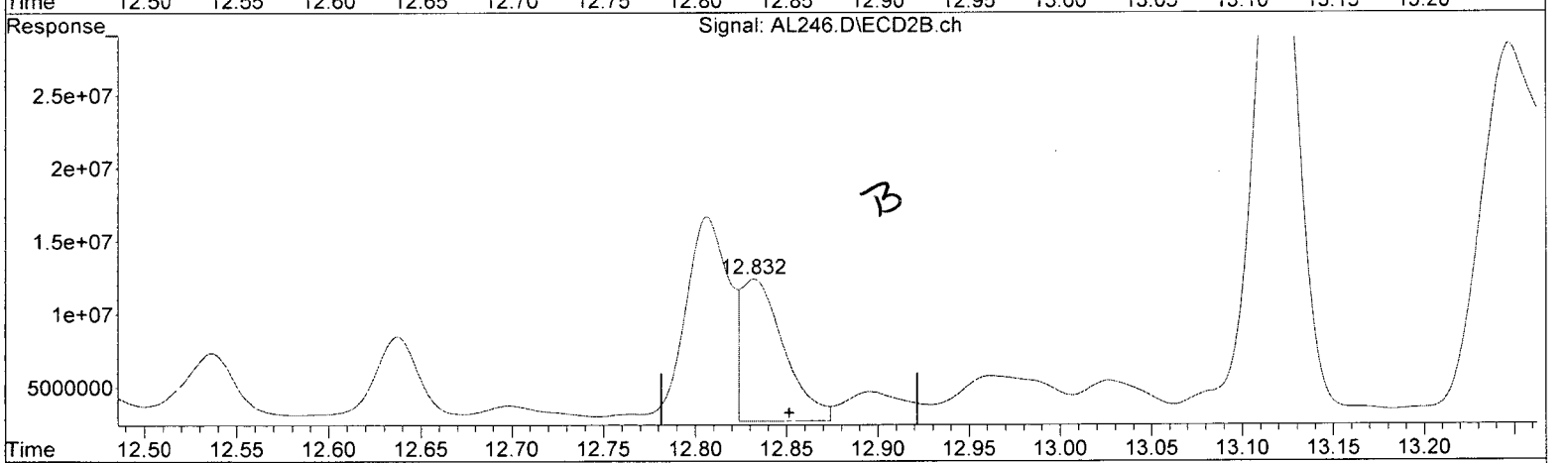
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL246.D
Acq On : 25 Nov 2015 1:21 pm
Operator : m.pedro
Sample : r1510161-008|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 30 15:43:58 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(9) Heptachlor E (tc)

12.940min 5.790 ug/l

response 276306382

B.C AM 12/1

(9) Heptachlor E #2 (tc)

12.832min 7.101 ug/l

response 159691494

(+) = Expected Retention Time

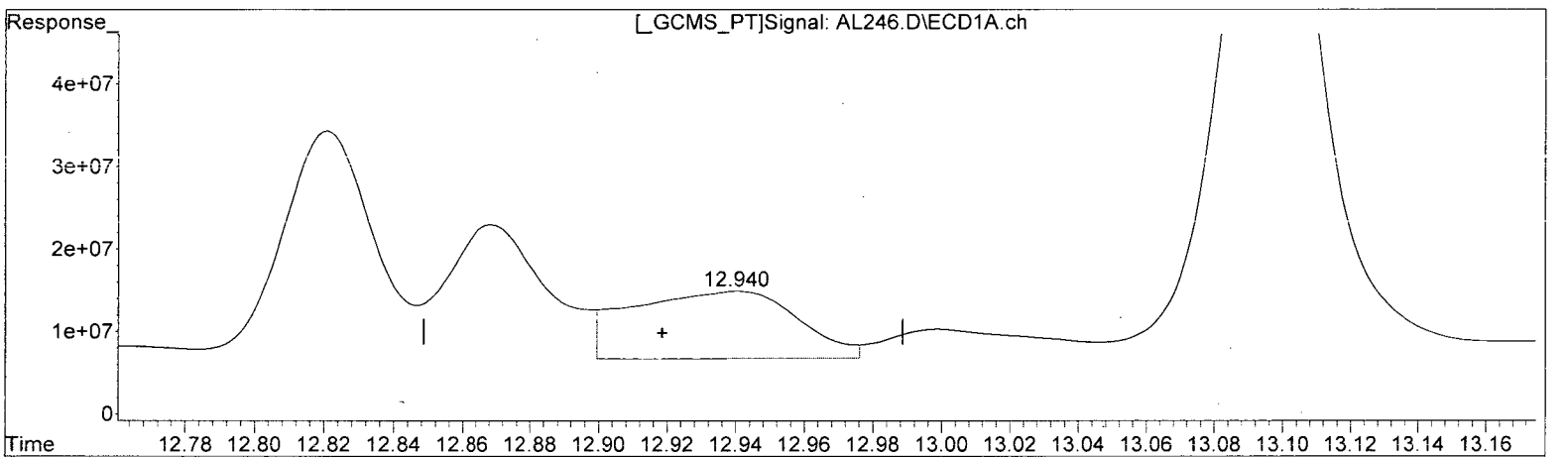
8081102115.M Mon Nov 30 15:44:21 2015 Page: 1

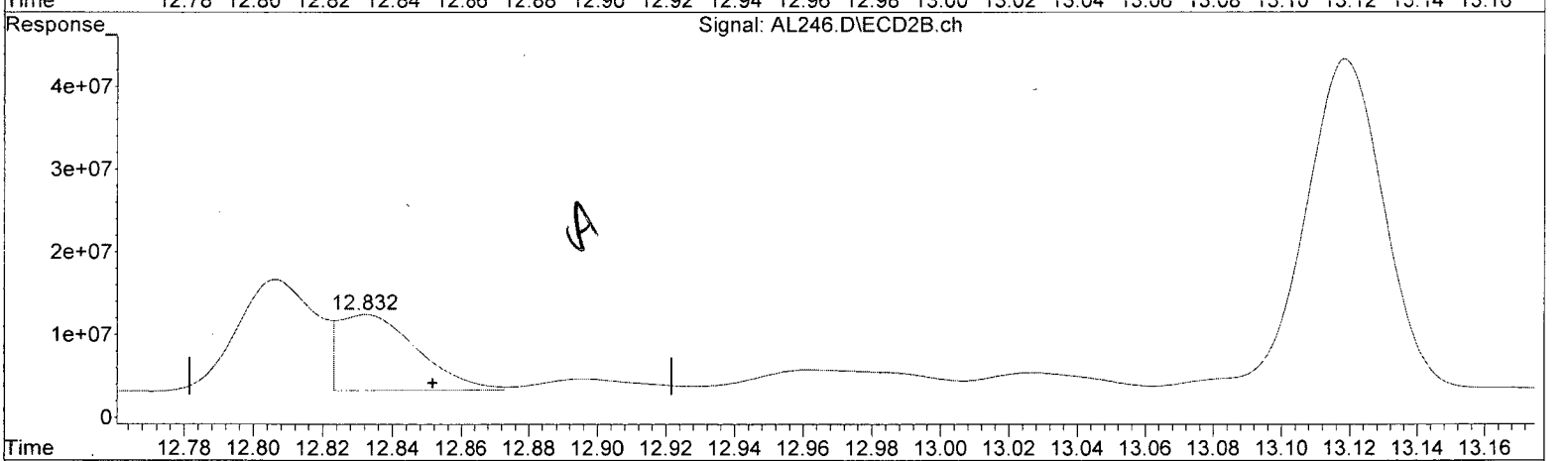
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL246.D
Acq On : 25 Nov 2015 1:21 pm
Operator : m.pedro
Sample : r1510161-008|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 30 15:43:58 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(9) Heptachlor E (tc)

12.940min 5.790 ug/l

response 276306382

(9) Heptachlor E #2 (tc)

12.832min 6.335 ug/l m

response 142482166

(+) = Expected Retention Time

8081102115.M Mon Nov 30 15:46:56 2015 Page: 1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1647
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-M8-GW-697MW01-16.5	**Units:**	µg/L
Lab Code:	R1510161-012	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	**0.70**		0.047	0.025	0.013	1	11/23/15	12/2/15 13:30	250710	474264	
4,4'-DDE	ND	U	0.047	0.025	0.012	1	11/23/15	12/2/15 13:30	250710	474264	
4,4'-DDT	**0.048**		0.047	0.027	0.027	1	11/23/15	12/2/15 13:30	250710	474264	
Aldrin	ND	U	0.047	0.025	0.0090	1	11/23/15	12/2/15 13:30	250710	474264	
Dieldrin	ND	U	0.047	0.025	0.0080	1	11/23/15	12/2/15 13:30	250710	474264	
Endosulfan I	ND	U	0.047	0.025	0.011	1	11/23/15	12/2/15 13:30	250710	474264	
Endosulfan II	ND	U	0.047	0.025	0.010	1	11/23/15	12/2/15 13:30	250710	474264	
Endosulfan Sulfate	ND	U	0.047	0.025	0.012	1	11/23/15	12/2/15 13:30	250710	474264	
Endrin	ND	U	0.047	0.025	0.017	1	11/23/15	12/2/15 13:30	250710	474264	
Endrin Aldehyde	ND	U	0.047	0.025	0.020	1	11/23/15	12/2/15 13:30	250710	474264	
Endrin Ketone	ND	U	0.047	0.025	0.013	1	11/23/15	12/2/15 13:30	250710	474264	
Heptachlor	ND	U	0.047	0.025	0.0060	1	11/23/15	12/2/15 13:30	250710	474264	
Heptachlor Epoxide	ND	U	0.047	0.025	0.0070	1	11/23/15	12/2/15 13:30	250710	474264	
Methoxychlor	ND	U	0.47	0.025	0.017	1	11/23/15	12/2/15 13:30	250710	474264	
Toxaphene	ND	U	0.94	0.50	0.27	1	11/23/15	12/2/15 13:30	250710	474264	
alpha-BHC	ND	U	0.047	0.025	0.0060	1	11/23/15	12/2/15 13:30	250710	474264	
alpha-Chlordane	**0.19**		0.047	0.025	0.0070	1	11/23/15	12/2/15 13:30	250710	474264	
beta-BHC	ND	U	0.047	0.028	0.028	1	11/23/15	12/2/15 13:30	250710	474264	
delta-BHC	ND	U	0.048	0.048	0.048	1	11/23/15	12/2/15 13:30	250710	474264	
gamma-BHC (Lindane)	ND	U	0.047	0.025	0.0060	1	11/23/15	12/2/15 13:30	250710	474264	
gamma-Chlordane	**0.19**		0.047	0.025	0.0080	1	11/23/15	12/2/15 13:30	250710	474264	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	48	30-135	12/2/15 13:30	
Tetrachloro-m-xylene	83	25-140	12/2/15 13:30	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\120215\
Data File : AL288.D
Acq On : 2 Dec 2015 1:30 pm
Operator : a.moses
Sample : ~~r1510136-012+1.0~~ R1510161-012l1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 5 Sample Multiplier: 1

AM 12/2

Quant Time: Dec 02 15:07:32 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1) S	SURR1,Tet...	9.301	9.247	3856.6E6	1675.3E6	84.968	82.987
	Spiked Amount 100.000	Range 30 - 150		Recovery =		84.97%	82.99%
26) S	SURR2,Dec...	17.462	17.774	1595.2E6	710.6E6	51.513	48.214
	Spiked Amount 100.000	Range 30 - 150		Recovery =		51.51%	48.21%
	Target Compounds						
11) tc	gamma-Chlord	13.095	13.116	1085.0E6	444.3E6	22.361m	19.754
12) tc	alpha-Chlord	13.286	13.322	1212.6E6	447.6E6	26.174m	20.615
18) tc	4,4'-DDD	14.249	14.375	2424.2E6	1083.4E6	81.828	74.279
19) tcm	4,4'-DDT	14.652	14.819	190.1E6	80561951	5.991	5.084
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
Average	Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

AM 12/2

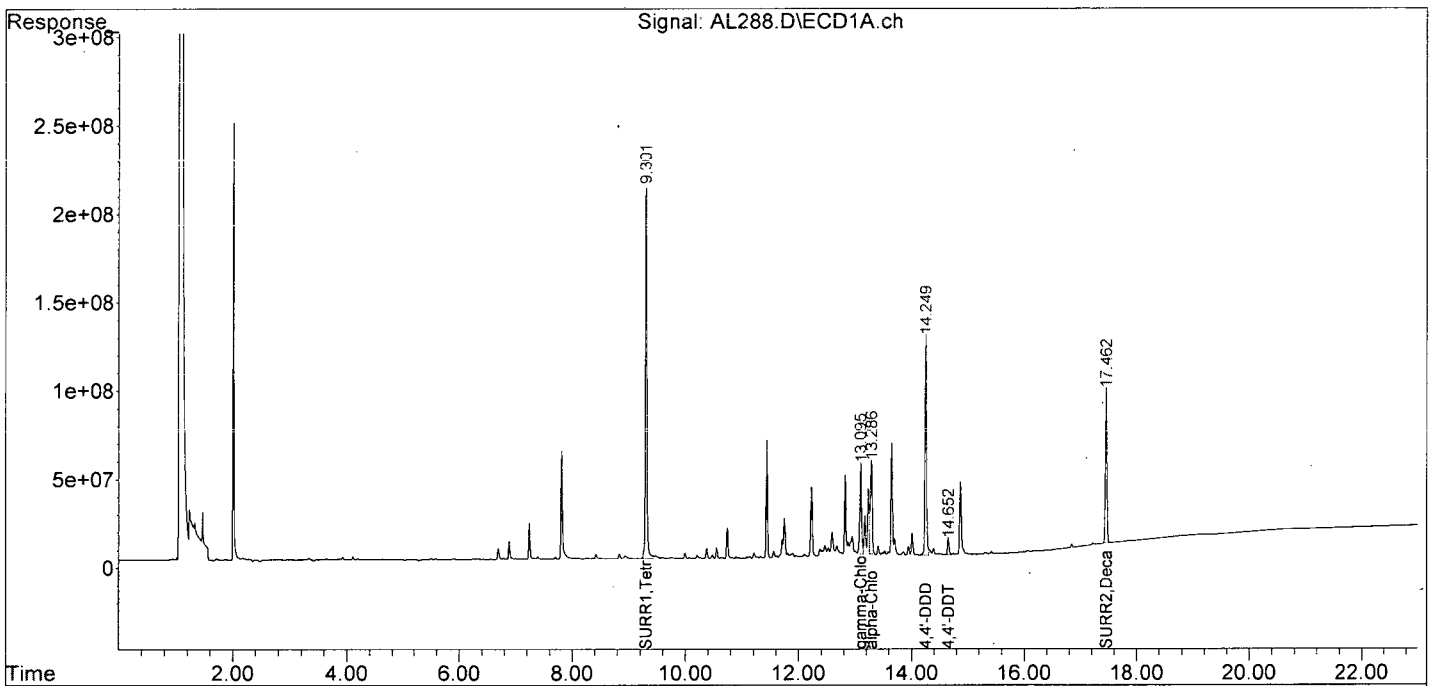
Quantitation Report (QT Reviewed)

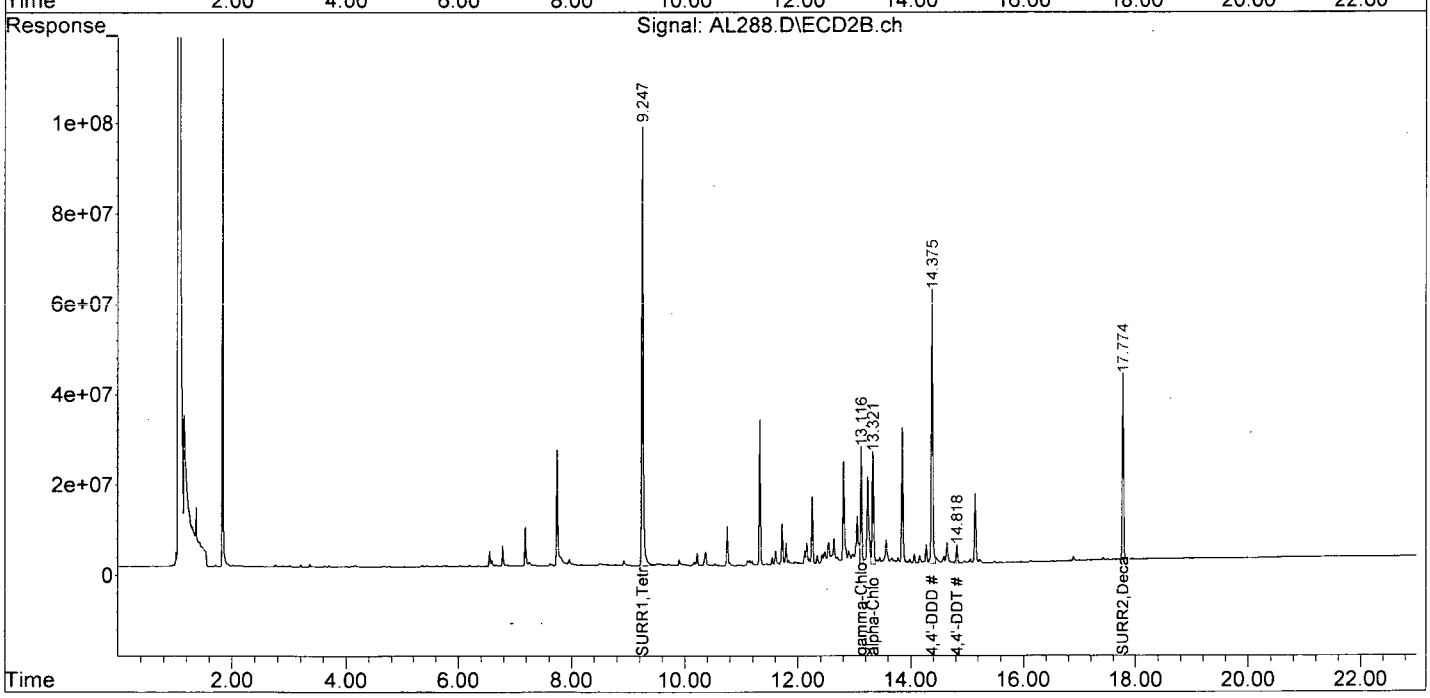
Data Path : I:\ACQUDATA\7890m\DATA\120215\
Data File : AL288.D
Acq On : 2 Dec 2015 1:30 pm
Operator : a.moses
Sample : ~~r1510136-012+1.0~~ R1510161-012|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 5 Sample Multiplier: 1

AM 12/2

Quant Time: Dec 02 15:07:32 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



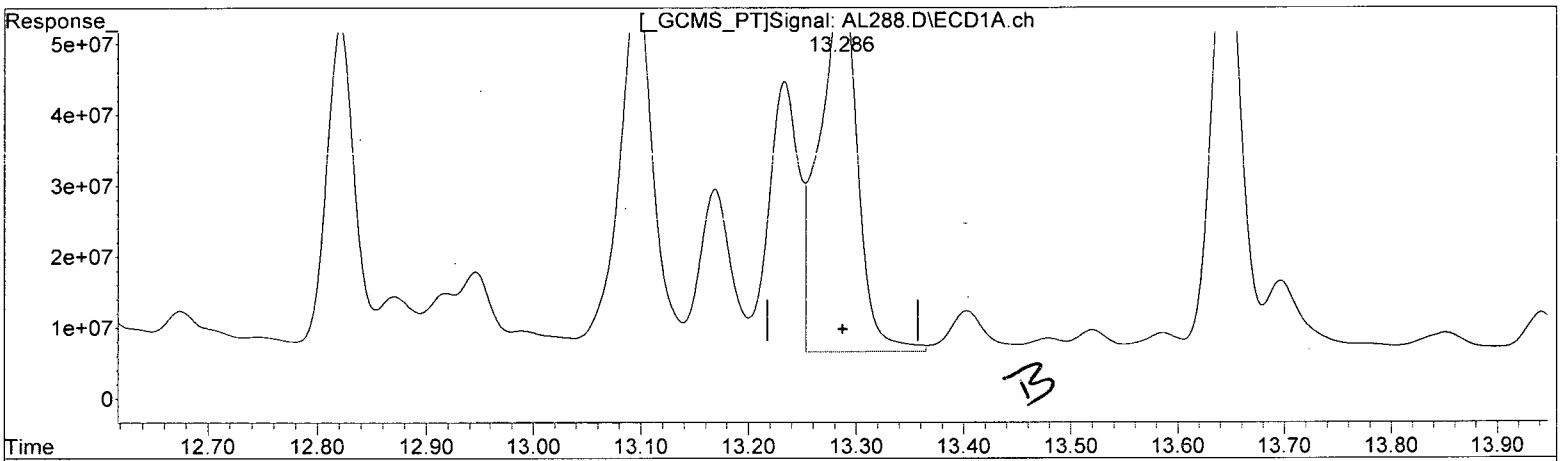


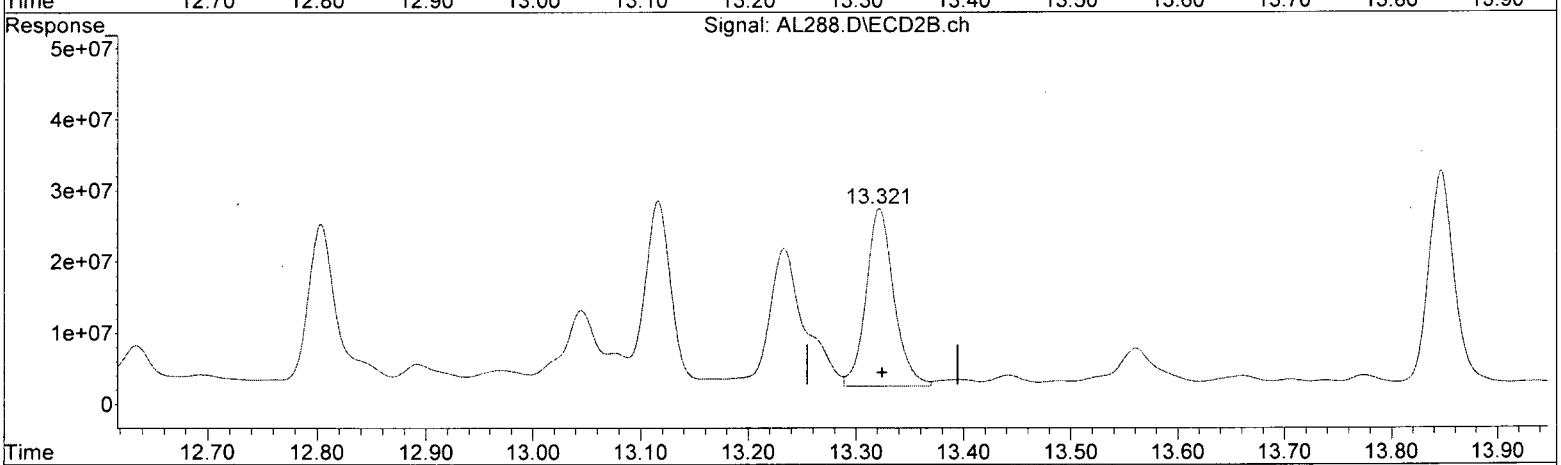
Data Path : I:\ACQUDATA\7890m\DATA\120215\
Data File : AL288.D
Acq On : 2 Dec 2015 1:30 pm
Operator : a.moses
Sample : ~~r1510136-012|1.0~~ R1510161-012|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 5 Sample Multiplier: 1

AM 12/2

Quant Time: Dec 02 14:57:52 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(12) alpha-Chlord (tc)

13.287min 27.920 ug/l

response 1293464768

B, C

AM 12/2

(12) alpha-Chlord #2 (tc)

13.322min 20.615 ug/l

response 447649514

(+) = Expected Retention Time
8081102115.M Wed Dec 02 15:01:56 2015 Page: 1

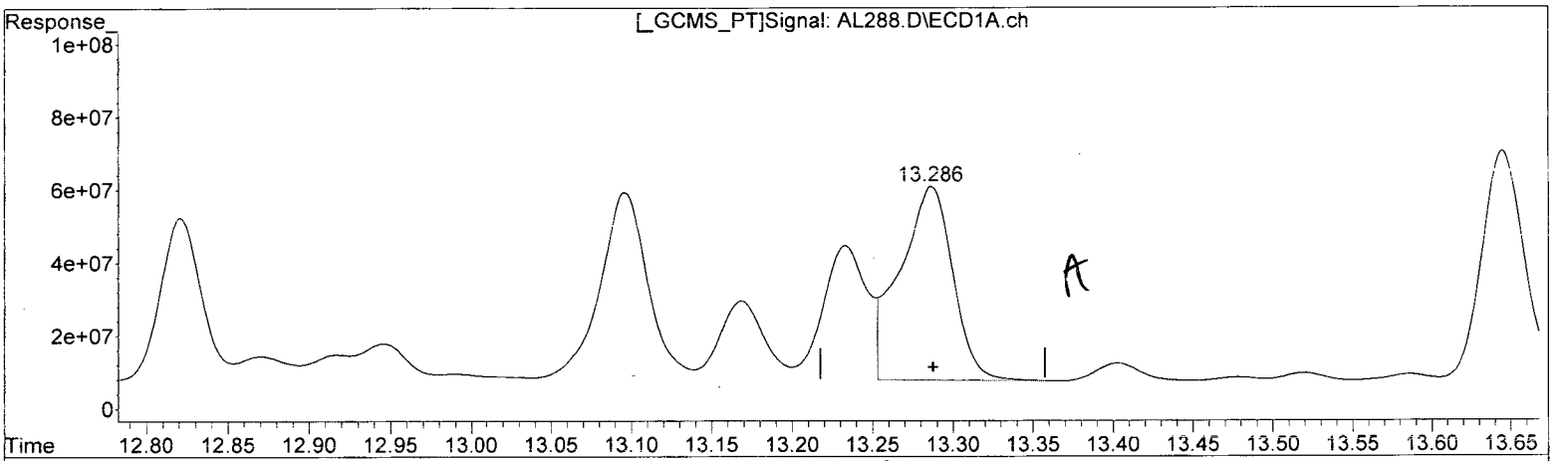
Quantitation Report (Qedit)

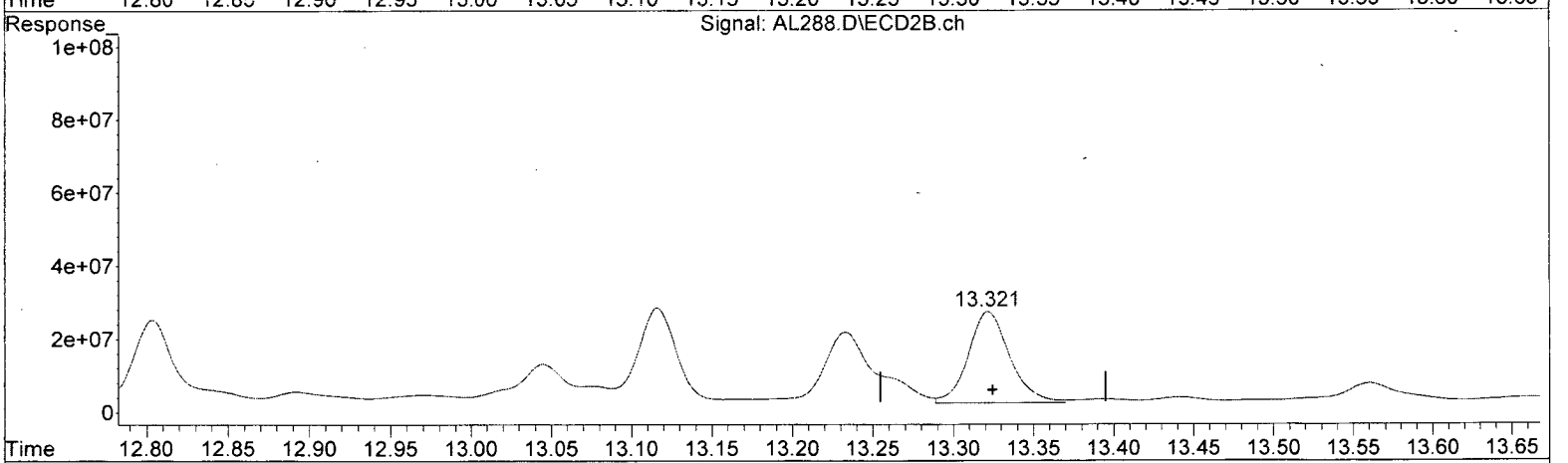
Data Path : I:\ACQUDATA\7890m\DATA\120215\
Data File : AL288.D
Acq On : 2 Dec 2015 1:30 pm
Operator : a.moses
Sample : ~~r1510136-012+1.0~~ R1510161-012 1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 5 Sample Multiplier: 1

AM 12/2

Quant Time: Dec 02 14:57:52 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(12) alpha-Chlord (tc)

13.286min 26.174 ug/l m

response 1212552566

B.C 12/2

(12) alpha-Chlord #2 (tc)

13.322min 20.615 ug/l

response 447649514

(+) = Expected Retention Time

8081102115.M Wed Dec 02 15:04:01 2015 Page: 1

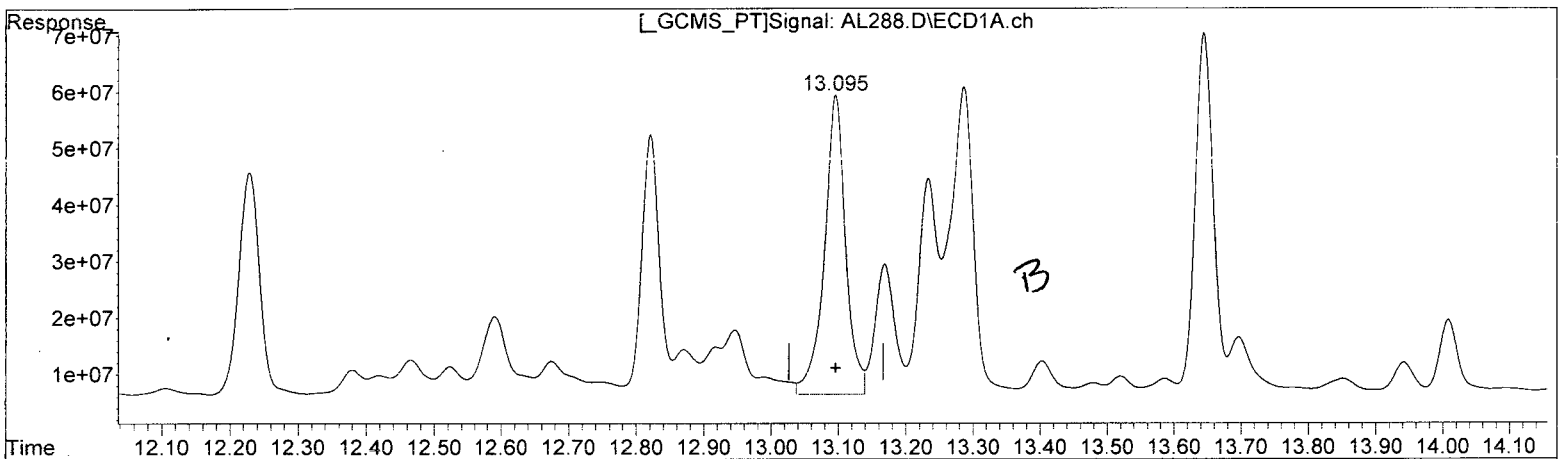
Quantitation Report (Qedit)

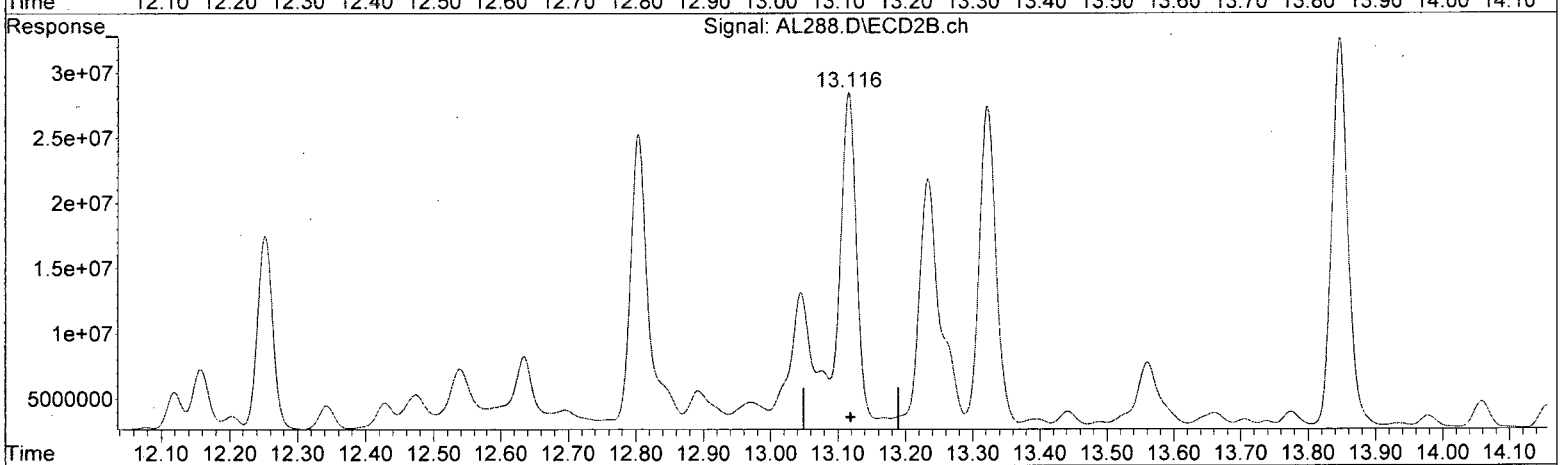
Data Path : I:\ACQUDATA\7890m\DATA\120215\
Data File : AL288.D
Acq On : 2 Dec 2015 1:30 pm
Operator : a.moses
Sample : ~~r1510136-012+1.0~~ R1510161-012|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 5 Sample Multiplier: 1

AM 12/2

Quant Time: Dec 02 14:57:52 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(11) gamma-Chlord (tc)

13.096min 23.877 ug/l

response 1158593123

B.C

AM 12/2

(11) gamma-Chlord #2 (tc)

13.116min 19.754 ug/l

response 444300793

(+) = Expected Retention Time
8081102115.M Wed Dec 02 15:04:31 2015 Page: 1

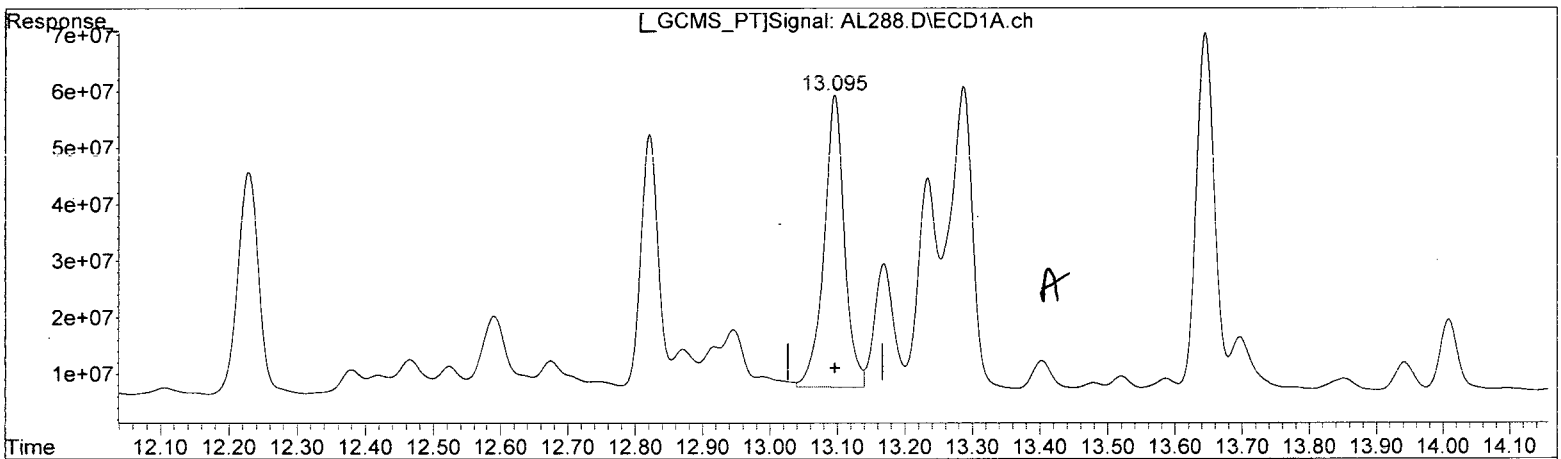
Quantitation Report (Qedit)

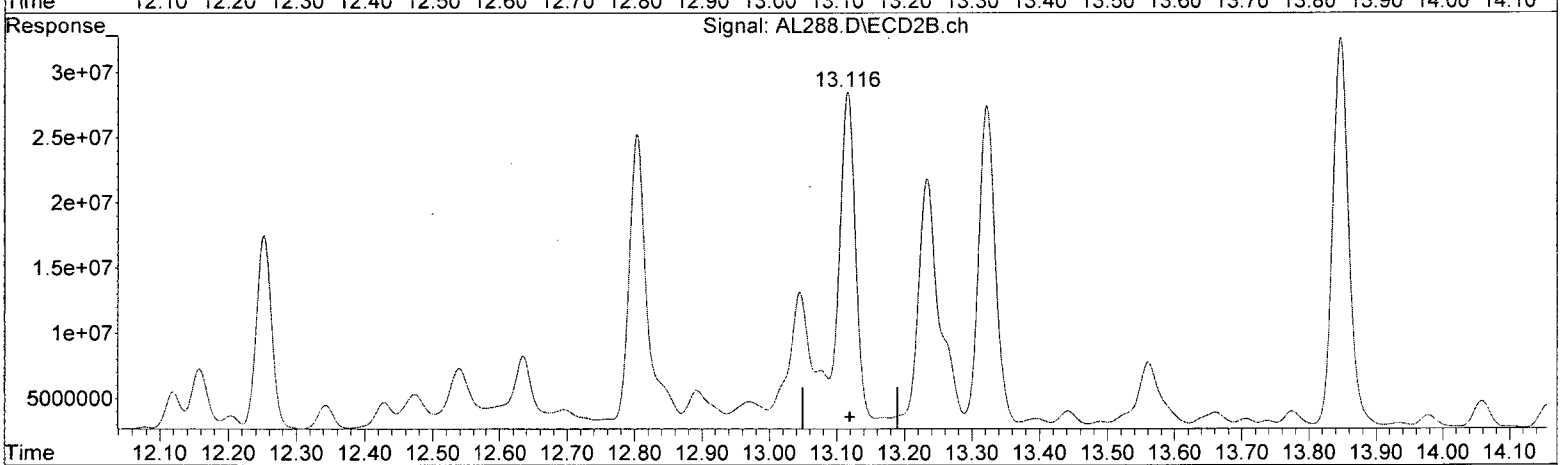
Data Path : I:\ACQUDATA\7890m\DATA\120215\
Data File : AL288.D
Acq On : 2 Dec 2015 1:30 pm
Operator : a.moses
Sample : ~~r1510136-012|1.0~~ R1510161-012|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 5 Sample Multiplier: 1

AM 12/2

Quant Time: Dec 02 14:57:52 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(11) gamma-Chlord (tc)

13.095min 22.361 ug/l m

response 1085048327

BC

AM 12/2

(11) gamma-Chlord #2 (tc)

13.116min 19.754 ug/l

response 444300793

(+) = Expected Retention Time

8081102115.M Wed Dec 02 15:06:15 2015 Page: 1

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/20/15 1700
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	EB-2015-11-20	**Units:**	µg/L
Lab Code:	R1510161-017	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	ND	U	0.047	0.025	0.013	1	11/23/15	11/25/15 15:41	250710	474264	
4,4'-DDE	ND	U	0.047	0.025	0.012	1	11/23/15	11/25/15 15:41	250710	474264	
4,4'-DDT	ND	U	0.047	0.027	0.027	1	11/23/15	11/25/15 15:41	250710	474264	
Aldrin	ND	U	0.047	0.025	0.0090	1	11/23/15	11/25/15 15:41	250710	474264	
Dieldrin	ND	U	0.047	0.025	0.0080	1	11/23/15	11/25/15 15:41	250710	474264	
Endosulfan I	ND	U	0.047	0.025	0.011	1	11/23/15	11/25/15 15:41	250710	474264	
Endosulfan II	ND	U	0.047	0.025	0.010	1	11/23/15	11/25/15 15:41	250710	474264	
Endosulfan Sulfate	ND	U	0.047	0.025	0.012	1	11/23/15	11/25/15 15:41	250710	474264	
Endrin	ND	U	0.047	0.025	0.017	1	11/23/15	11/25/15 15:41	250710	474264	
Endrin Aldehyde	ND	U	0.047	0.025	0.020	1	11/23/15	11/25/15 15:41	250710	474264	
Endrin Ketone	ND	U	0.047	0.025	0.013	1	11/23/15	11/25/15 15:41	250710	474264	
Heptachlor	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 15:41	250710	474264	
Heptachlor Epoxide	ND	U	0.047	0.025	0.0070	1	11/23/15	11/25/15 15:41	250710	474264	
Methoxychlor	ND	U	0.47	0.025	0.017	1	11/23/15	11/25/15 15:41	250710	474264	
Toxaphene	ND	U	0.94	0.50	0.27	1	11/23/15	11/25/15 15:41	250710	474264	
alpha-BHC	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 15:41	250710	474264	
alpha-Chlordane	ND	U	0.047	0.025	0.0070	1	11/23/15	11/25/15 15:41	250710	474264	
beta-BHC	ND	U	0.047	0.028	0.028	1	11/23/15	11/25/15 15:41	250710	474264	
delta-BHC	ND	U	0.048	0.048	0.048	1	11/23/15	11/25/15 15:41	250710	474264	
gamma-BHC (Lindane)	ND	U	0.047	0.025	0.0060	1	11/23/15	11/25/15 15:41	250710	474264	
gamma-Chlordane	ND	U	0.047	0.025	0.0080	1	11/23/15	11/25/15 15:41	250710	474264	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	70	30-135	11/25/15 15:41	
Tetrachloro-m-xylene	73	25-140	11/25/15 15:41	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL251.D
Acq On : 25 Nov 2015 3:41 pm
Operator : m.pedro
Sample : r1510161-017|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 30 16:02:08 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tet...	9.302	9.250	3408.0E6	1466.5E6	75.084	72.641
Spiked Amount 100.000	Range 30 - 150		Recovery =		75.08%	72.64%
26) S SURR2,Dec...	17.461	17.776	2180.7E6	1033.6E6	70.419	70.128
Spiked Amount 100.000	Range 30 - 150		Recovery =		70.42%	70.13%
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

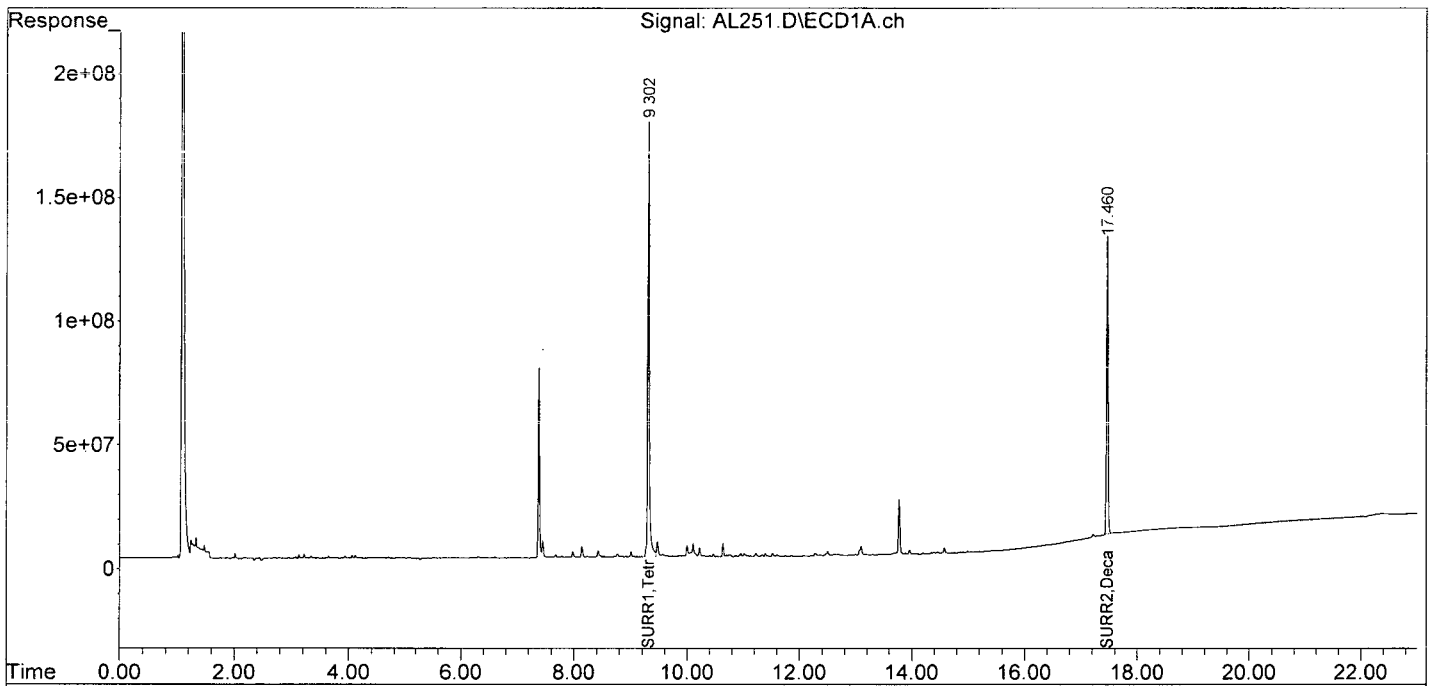
AM 12/1

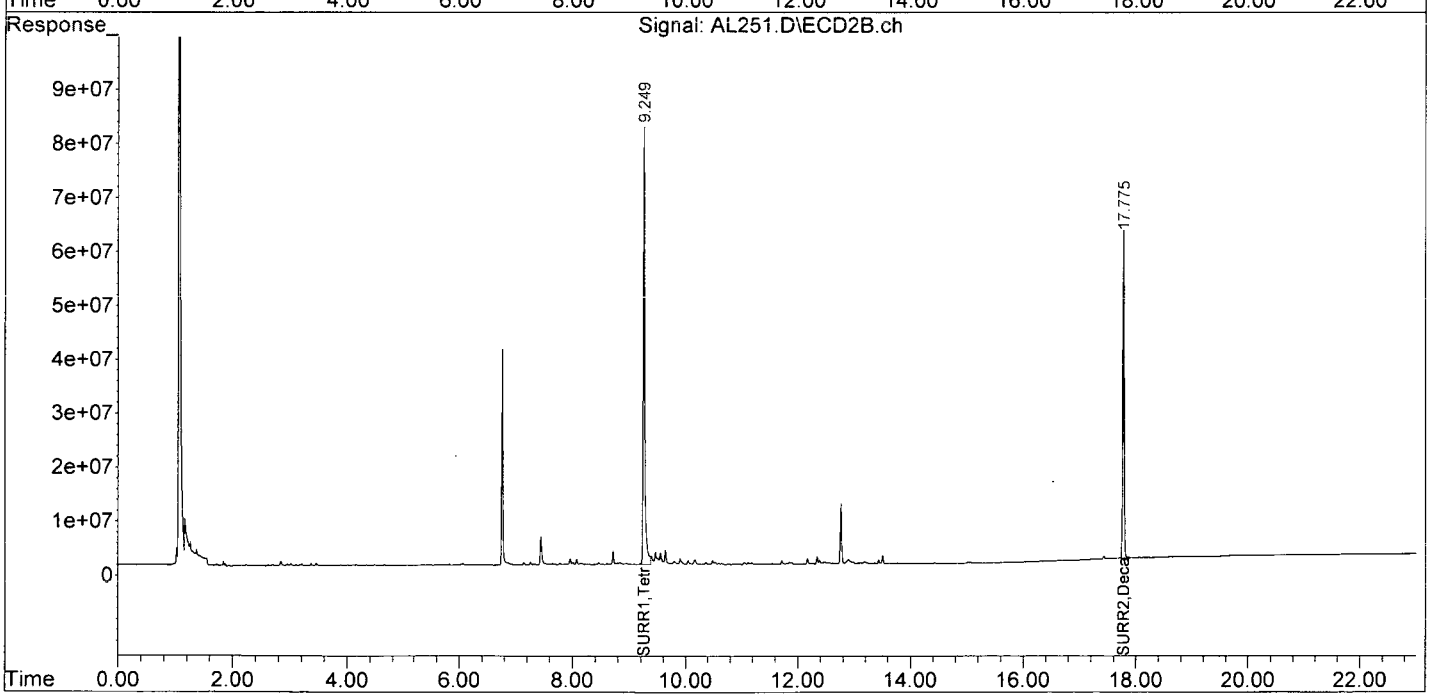
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL251.D
Acq On : 25 Nov 2015 3:41 pm
Operator : m.pedro
Sample : r1510161-017|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 30 16:02:08 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





8081102115.M Tue Dec 01 09:48:42 2015 Page: 2

ALS Environmental

PESTICIDES
STANDARDS DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

6F

Pesticide Initial Calibration of Multicomponent Analytes

Lab Name: ALS Environmental ***Client:*** Parsons Engineering Science

Lab Code: 10145 ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8M

Instrument ID: 7890-M ***Date Anlyzed:*** 10/21/2015

GC Column(1) STx-CLP ***(ID):*** 0.32mm 30 ***GC Column(2)*** STx-CLPII ***(ID):*** 0.32mm 30

		RT Window			RT Window	
Compound	***RT***	***From***	***To***	***RT***	***From***	***To***
SURR1,Tetrac	9.34	9.29	9.39	9.28	9.23	9.33
HEXACHLOROBEN	10.03	9.96	10.10	10.09	10.02	10.16
alpha-BHC	10.33	10.28	10.38	10.35	10.30	10.40
gamma-BHC (L	10.86	10.81	10.91	10.93	10.88	10.98
Heptachlor	11.61	11.56	11.66	11.58	11.53	11.63
Aldrin	12.06	12.01	12.11	12.05	12.00	12.10
beta-BHC	11.01	10.96	11.06	11.08	11.03	11.13
delta-BHC	11.28	11.23	11.33	11.51	11.46	11.56
Heptachlor E	12.96	12.89	13.03	12.89	12.82	12.96
alpha-Endosu	13.53	13.46	13.60	13.44	13.37	13.51
gamma-Chlord	13.14	13.07	13.21	13.15	13.08	13.22
alpha-Chlord	13.34	13.27	13.41	13.36	13.29	13.43
4,4'-DDE	13.45	13.38	13.52	13.60	13.53	13.67
Dieldrin	13.88	13.81	13.95	13.83	13.76	13.90
Endrin	14.22	14.15	14.29	14.27	14.20	14.34
KEPONE	14.29	14.22	14.36	14.43	14.36	14.49
beta-Endosul	14.54	14.47	14.61	14.57	14.50	14.64
4,4'-DDD	14.30	14.23	14.37	14.41	14.34	14.48
4,4'-DDT	14.70	14.63	14.77	14.86	14.79	14.93
Endrin Aldeh	15.16	15.09	15.23	15.06	14.99	15.13
Endosulfan S	15.82	15.75	15.89	15.47	15.40	15.54
Methoxychlor	15.39	15.32	15.46	15.85	15.78	15.92
FAMPHUR	16.10	16.03	16.17	15.58	15.51	15.65
Endrin Keton	16.23	16.16	16.30	16.25	16.18	16.32
Mirex	15.68	15.61	15.75	16.20	16.13	16.27
SURR2,Decachlorobip	17.51	17.41	17.61	17.82	17.72	17.92
Toxaphene	14.62	14.55	14.69	14.68	14.61	14.75
Toxaphene	14.71	14.64	14.78	14.96	14.89	15.03

Form VI Pest-3

6F

Pesticide Initial Calibration of Multicomponent Analytes

Lab Name: **ALS Environmental** ***Client:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8M

Instrument ID: 7890-M ***Date Anlyzed:*** 10/21/2015

GC Column(1) STx-CLP ***(ID):*** 0.32mm 30 ***GC Column(2)*** STx-CLPII ***(ID):*** 0.32mm 30

		RT Window			RT Window	
Compound	***RT***	***From***	***To***	***RT***	***From***	***To***
Toxaphene	15.31	15.24	15.38	15.06	14.99	15.13
Toxaphene	15.92	15.85	15.99	15.45	15.38	15.52
Toxaphene	16.40	16.33	16.47	16.38	16.31	16.45
Chlordane	11.48	11.41	11.55	11.36	11.29	11.43
Chlordane	11.60	11.53	11.67	11.58	11.51	11.65
Chlordane	12.27	12.20	12.34	12.29	12.22	12.36
Chlordane	13.14	13.07	13.21	14.38	14.31	14.45
Chlordane	14.44	14.37	14.51	14.63	14.56	14.70

Form VI Pest-3

Calibration Level Concentrations
Columbia Analytical Services

Analyte	Calib Mix	Level 1 ppb	Level 2 ppb	Level 3 ppb	Level 4 ppb	Level 5 ppb	Level 6 ppb
alpha-BHC	pest 8081	2	5	10	50	100	200
gamma-BHC	pest 8081	2	5	10	50	100	200
DDD	pest 8081	2	5	10	50	100	200
DDT	pest 8081	2	5	10	50	100	200
Dieldrin	pest 8081	2	5	10	50	100	200
alpha-Endosulfan	pest 8081	2	5	10	50	100	200
Endrin	pest 8081	2	5	10	50	100	200
Heptachlor	pest 8081	2	5	10	50	100	200
Methoxychlor	pest 8081	2	5	10	50	100	200
Surr.-DCB	pest 8081	2	5	10	50	100	200
Surr.-TCMX	pest 8081	2	5	10	50	100	200
Aldrin	pest 8081	2	5	10	50	100	200
beta-BHC	pest 8081	2	5	10	50	100	200
delta-BHC	pest 8081	2	5	10	50	100	200
DDE	pest 8081	2	5	10	50	100	200
alpha-Chlordane	pest 8081	2	5	10	50	100	200
gamma-Chlordane	pest 8081	2	5	10	50	100	200
beta-Endosulfan	pest 8081	2	5	10	50	100	200
Endosulfan Sulfate	pest 8081	2	5	10	50	100	200
Endrin Aldehyde	pest 8081	2	5	10	50	100	200
Endrin Ketone	pest 8081	2	5	10	50	100	200
Heptachlor Epoxide	pest 8081	2	5	10	50	100	200
Hexachlorobenzene	pest 8081	2	5	10	50	100	200
Chlordane	Chlor	25	50	100	250	500	N/A
Toxaphene	Tox	50	100	250	500	750	1000
Kepone	K/F	500	1000	1500	2000	2500	N/A
Famphur	K/F	100	200	300	400	500	N/A

Method Path : I:\ACQUDATA\7890m\Methods\
Method File : 8081102115.M
Title : 608/8081B PESTICIDES
Last Update : Thu Oct 22 13:40:08 2015
Response Via : Initial Calibration

Calibration Files
1 =Ak824.D 2 =Ak825.D 3 =Ak826.D
4 =Ak827.D 5 =Ak828.D 6 =Ak829.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	S	SURR1,Tetrac	4.888	4.723	4.654	4.406	4.379	4.183	4.539	E7	5.73
2)	TC	HEXACHLOROBEN...	7.095	6.523	6.423	5.839	5.706	5.529	6.186	E7	9.64
3)	tc	alpha-BHC	6.535	6.464	6.760	7.055	7.081	7.064	6.827	E7	4.11
4)	tcm	gamma-BHC (L	5.900	5.828	5.985	6.096	6.133	6.083	6.004	E7	2.02
5)	tcm	Heptachlor	6.406	5.936	5.977	5.813	5.663	5.397	5.865	E7	5.78
6)	tcm	Aldrin	5.339	5.279	5.399	5.475	5.433	5.271	5.366	E7	1.55
7)	tc	beta-BHC	2.946	2.766	2.722	2.538	2.530	2.482	2.664	E7	6.72
8)	TC	delta-BHC	5.274	4.995	5.454	5.497	5.677	5.650	5.425	E7	4.72
9)	tc	Heptachlor E	5.190	4.894	4.865	4.685	4.595	4.406	4.772	E7	5.71
10)	tc	alpha-Endosu	4.622	4.350	4.362	4.214	4.186	4.029	4.294	E7	4.69
11)	tc	gamma-Chlord	5.329	4.746	4.774	4.735	4.797	4.734	4.852	E7	4.84
12)	tc	alpha-Chlord	4.942	4.609	4.631	4.534	4.576	4.504	4.633	E7	3.42
13)	tc	4,4'-DDE	3.996	3.677	3.721	3.770	4.018	3.949	3.855	E7	3.88
14)	tcm	Dieldrin	4.568	4.331	4.415	4.438	4.498	4.403	4.442	E7	1.84
15)	tcm	Endrin	3.961	3.579	3.691	3.772	3.857	3.790	3.775	E7	3.49
16)	tc	KEPONE	0.930	1.499	1.438	1.631	1.696		1.439	E7	21.02
17)	tc	beta-Endosul	3.842	3.501	3.494	3.442	3.547	3.493	3.553	E7	4.10
18)	tc	4,4'-DDD	3.075	2.785	2.769	2.895	3.164	3.087	2.963	E7	5.69
19)	tcm	4,4'-DDT	3.204	2.897	2.952	3.084	3.450	3.449	3.173	E7	7.56
20)	tc	Endrin Aldeh	2.910	2.696	2.626	2.537	2.703	2.676	2.691	E7	4.59
21)	tc	Endosulfan S	3.393	3.029	3.006	2.887	3.059	3.040	3.069	E7	5.54
22)	tc	Methoxychlor	1.837	1.604	1.583	1.453	1.640	1.602	1.620	E7	7.66
23)	tc	FAMPHUR	2.602	2.673	2.741	2.880	2.823		2.744	E7	4.06
24)	tc	Endrin Keton	3.709	3.455	3.402	3.271	3.508	3.486	3.472	E7	4.13
25)	tc	Mirex	4.050	3.579	3.440	3.078	3.096	3.037	3.380	E7	11.70
26)	S	SURR2,Decachl...	3.699	3.376	3.082	2.644	2.939	2.839	3.097	E7	12.40
27)	L8C	Toxaphene	0.741	0.736	0.847	0.805	0.878	1.110	0.853	E6	16.17
28)	L8C	Toxaphene{2}	5.518	5.260	6.110	6.015	6.654	8.228	6.297	E5	16.89
29)	L8C	Toxaphene{3}	1.107	1.128	1.323	1.291	1.390	1.750	1.332	E6	17.52
30)	L8C	Toxaphene{4}	6.104	5.992	6.765	6.891	7.772	9.330	7.142	E5	17.47
31)	L8C	Toxaphene{5}	0.978	0.956	1.091	1.073	1.172	1.452	1.120	E6	16.14
32)	L9C	Chlordane	2.178	2.126	2.023	2.046	2.049		2.084	E6	3.13
33)	L9C	Chlordane{2}	3.041	2.995	2.892	2.954	2.949		2.966	E6	1.88
34)	L9C	Chlordane{3}	2.441	2.485	2.284	2.220	2.185		2.323	E6	5.75
35)	L9C	Chlordane{4}	6.539	6.583	6.195	6.350	6.434		6.420	E6	2.42
36)	L9C	Chlordane{5}	1.565	1.560	1.414	1.560	1.633		1.546	E6	5.17

ignal #2 Calibration Files
1 =Ak824.D 2 =Ak825.D 3 =Ak826.D
4 =Ak827.D 5 =Ak828.D 6 =Ak829.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	S	SURR1,Tetrac	2.237	2.065	2.014	1.948	1.935	1.915	2.019	E7	5.97
2)	TC	HEXACHLOROBEN...	3.099	2.801	2.636	2.494	2.473	2.440	2.657	E7	9.57
3)	tc	alpha-BHC	2.927	2.948	3.011	3.170	3.202	3.223	3.080	E7	4.33
4)	tcm	gamma-BHC (L	2.721	2.629	2.673	2.732	2.758	2.769	2.714	E7	1.97
5)	tcm	Heptachlor	2.870	2.678	2.685	2.661	2.643	2.592	2.688	E7	3.53
6)	tcm	Aldrin	2.555	2.446	2.456	2.502	2.523	2.506	2.498	E7	1.64
7)	tc	beta-BHC	1.371	1.254	1.204	1.102	1.105	1.093	1.188	E7	9.31
8)	tc	delta-BHC	2.638	2.307	2.395	2.462	2.565	2.578	2.491	E7	5.04
9)	tc	Heptachlor E	2.455	2.273	2.236	2.183	2.188	2.159	2.249	E7	4.85
10)	tc	alpha-Endosu	2.233	2.063	2.012	1.964	1.984	1.965	2.037	E7	5.06
11)	tc	gamma-Chlord	2.364	2.242	2.191	2.200	2.249	2.250	2.249	E7	2.75
12)	tc	alpha-Chlord	2.372	2.169	2.131	2.091	2.133	2.132	2.171	E7	4.67

081102115.M Thu Oct 22 13:42:59 2015

Method Path : I:\ACQUDATA\7890m\Methods\
Method File : 8081102115.M
Title : 608/8081B PESTICIDES
Last Update : Thu Oct 22 13:40:08 2015
Response Via : Initial Calibration

Calibration Files
1 =Ak824.D 2 =Ak825.D 3 =Ak826.D
4 =Ak827.D 5 =Ak828.D 6 =Ak829.D

	Compound	1	2	3	4	5	6	Avg		%RSD	
13)	tc 4,4'-DDE	1.988	1.798	1.786	1.797	1.927	1.920	1.869	E7	4.61	
14)	tcm Dieldrin	2.273	2.095	2.107	2.137	2.190	2.188	2.165	E7	3.04	
15)	tcm Endrin	1.894	1.749	1.770	1.824	1.848	1.854	1.823	E7	2.99	
16)	tc KEPONE	0.547	0.838	0.847	0.982	1.029		0.849	E7	22.14	QR
17)	tc beta-Endosul	2.039	1.779	1.742	1.674	1.739	1.735	1.785	E7	7.23	
18)	tc 4,4'-DDD	1.587	1.377	1.401	1.371	1.511	1.505	1.459	E7	6.05	
19)	tcm 4,4'-DDT	1.704	1.470	1.468	1.496	1.680	1.691	1.585	E7	7.45	
20)	tc Endrin Aldeh	1.597	1.369	1.320	1.254	1.326	1.325	1.365	E7	8.76	
21)	tc Endosulfan S	1.840	1.626	1.575	1.482	1.563	1.563	1.608	E7	7.63	
22)	tc Methoxychlor	9.275	8.089	7.670	6.899	7.764	7.621	7.886	E6	9.94	
23)	tc FAMPHUR	1.344	1.441	1.489	1.567	1.564		1.481	E7	6.28	
24)	tc Endrin Keton	1.923	1.759	1.692	1.641	1.757	1.766	1.757	E7	5.43	
25)	tc Mirex	1.980	1.722	1.610	1.438	1.459	1.450	1.610	E7	13.25	
26)	S SURR2,Decachl...	1.754	1.596	1.460	1.252	1.403	1.378	1.474	E7	12.02	
27)	L8C Toxaphene	6.105	5.751	5.871	5.210	5.463	6.950	5.892	E5	10.28	
28)	L8C Toxaphene{2}	3.098	2.961	3.007	2.600	2.725	3.342	2.956	E5	8.97	
29)	L8C Toxaphene{3}	6.126	5.670	5.992	5.377	5.389	6.771	5.888	E5	9.01	
30)	L8C Toxaphene{4}	3.039	3.651	3.788	3.447	3.635	4.628	3.698	E5	14.19	
31)	L8C Toxaphene{5}	6.658	5.888	6.078	5.329	5.693	7.230	6.146	E5	11.23	
32)	L9C Chlordane	1.000	0.961	0.899	0.900	0.901		0.932	E6	4.96	
33)	L9C Chlordane{2}	1.381	1.333	1.255	1.271	1.279		1.304	E6	3.99	
34)	L9C Chlordane{3}	1.071	1.016	0.908	0.867	0.841		0.940	E6	10.52	
35)	L9C Chlordane{4}	4.618	4.961	4.511	4.459	4.445		4.599	E5	4.64	
36)	L9C Chlordane{5}	8.119	8.169	7.348	7.485	7.624		7.749	E5	4.83	

(#) = Out of Range

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak844.D
Acq On : 21 Oct 2015 9:52 pm
Operator : m.pedro
Sample : tox icv Inst : 7890-M
Misc : initilal cal
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 22 13:33:57 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l	
System Monitoring Compounds							
Target Compounds							
7) L8C Toxaphene	14.638	14.687	416.9E6	306.0E6	488.817	519.299	
8) L8C Toxaphene{2}	14.705	14.958	392.4E6	116.9E6	623.162	395.651	#
9) L8C Toxaphene{3}	15.311	15.062	327.0E6	238.5E6	245.592	405.094	#
0) L8C Toxaphene{4}	15.918	15.452	199.4E6	84501987	279.166	228.525	m
1) L8C Toxaphene{5}	16.399	16.380	247.2E6	141.4E6	220.638	230.131	
Sum Toxaphene			1582.9E6	887.3E6	1857.376	1778.699	
verage Toxaphene					371.475	355.740	
Sum Chlordane			0	0	N.D.	N.D.	
verage Chlordane					0.000	0.000	

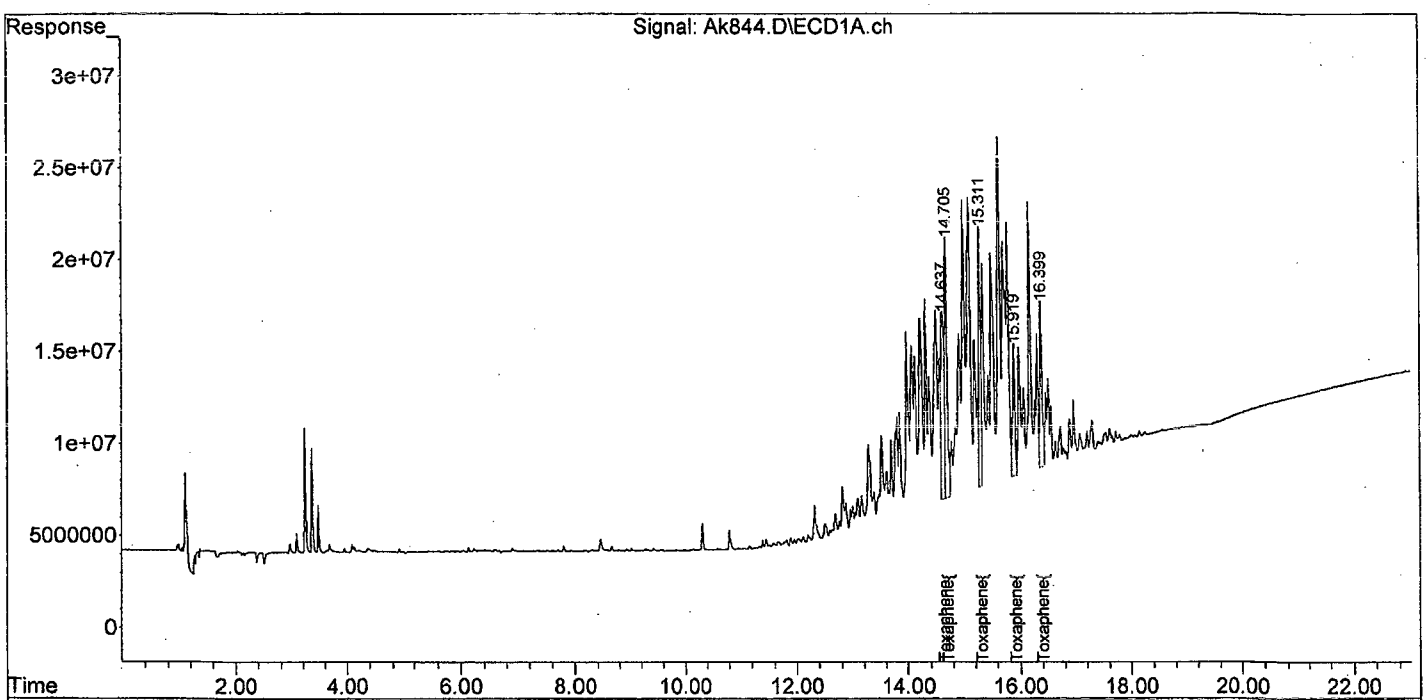
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

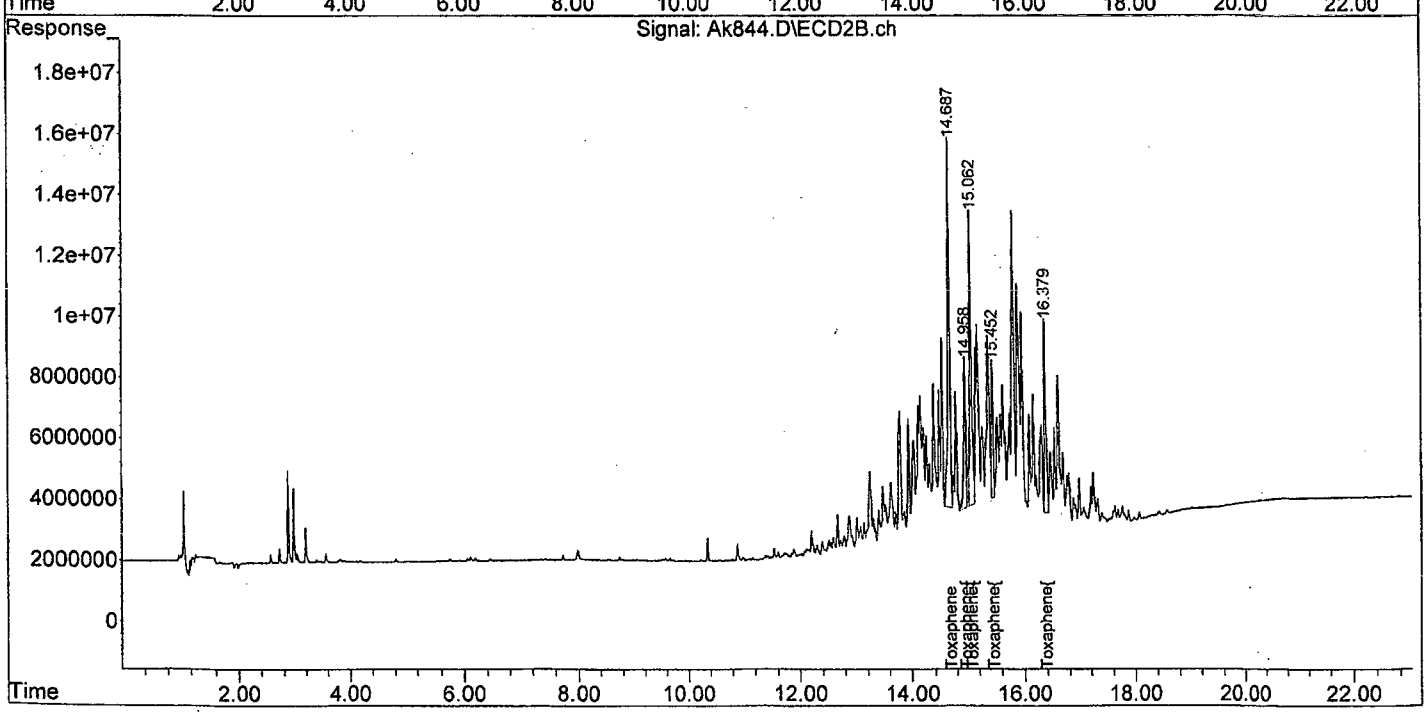
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak844.D
Acq On : 21 Oct 2015 9:52 pm
Operator : m.pedro
Sample : tox icv Inst : 7890-M
Misc : initilal cal
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 22 13:33:57 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

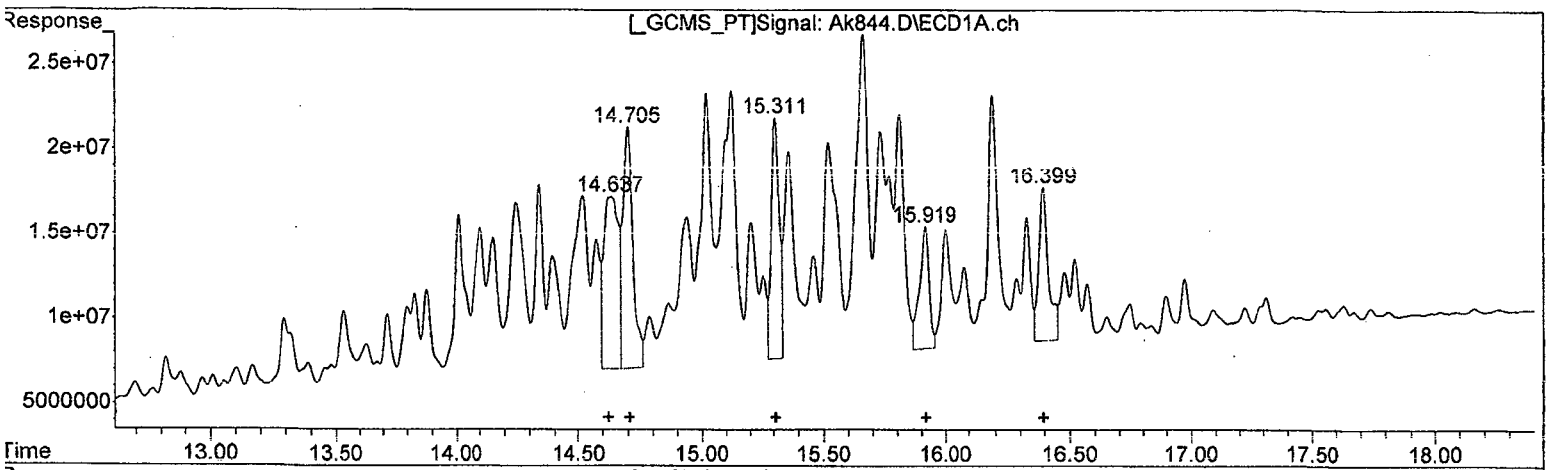


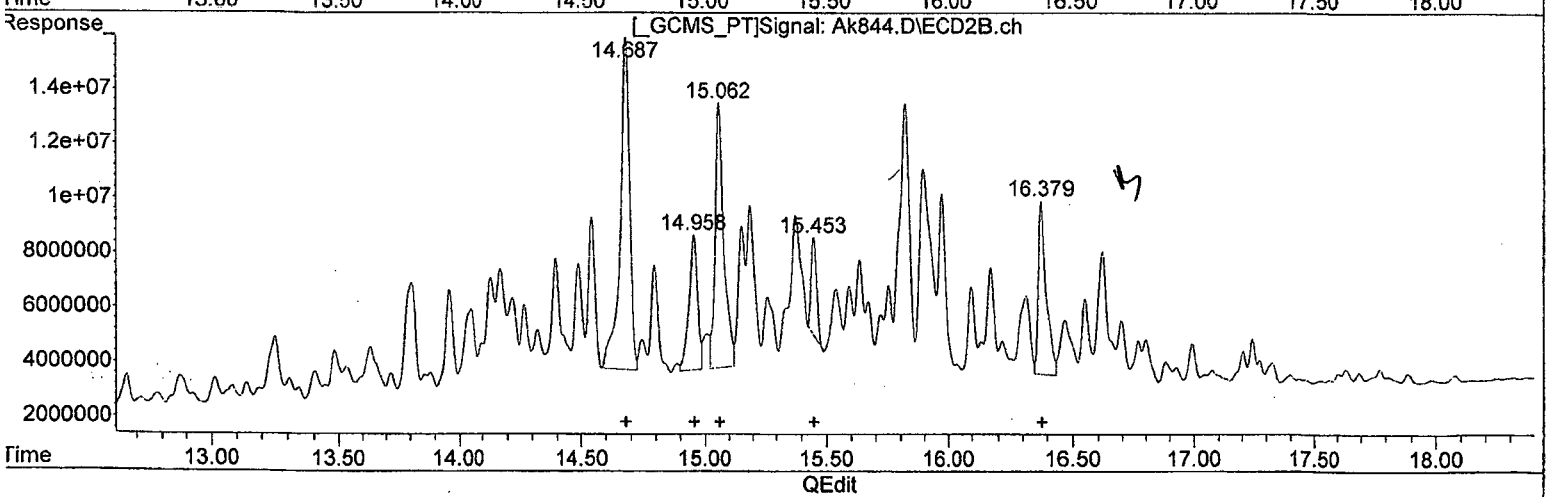


```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak844.D
Acq On    : 21 Oct 2015    9:52 pm
Operator  : m.pedro
Sample    : tox icv                                    Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 23   Sample Multiplier: 1

Quant Time: Oct 22 13:33:20 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```





(27) Toxaphene (L8C)

R.T.	Response	Conc
14.64	416913619	488.82
14.70	392430501	623.16
15.31	327015587	245.59
15.92	199388332	279.17
16.40	247160136	220.64

(27) Toxaphene #2 (L8C)

R.T.	Response	Conc
14.69	305951659	519.30
14.96	116945807	395.65
15.06	238504198	405.09
15.45	54328173	146.92
16.38	141439141	230.13

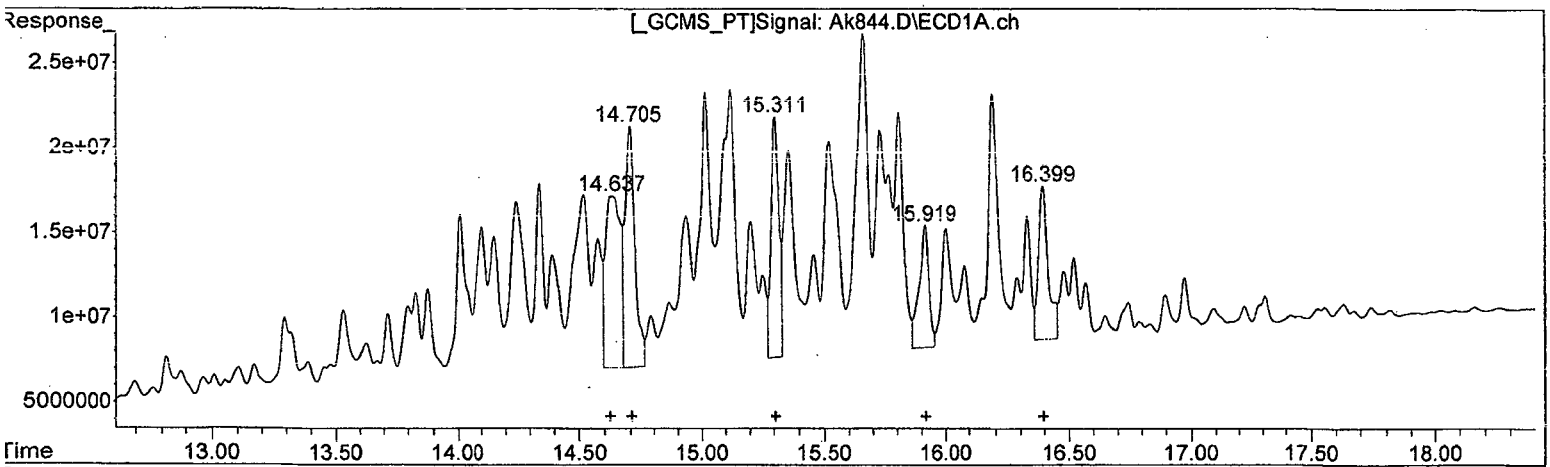
(+) = Expected Retention Time
8081102115.M Thu Oct 22 13:33:40 2015 Page: 1

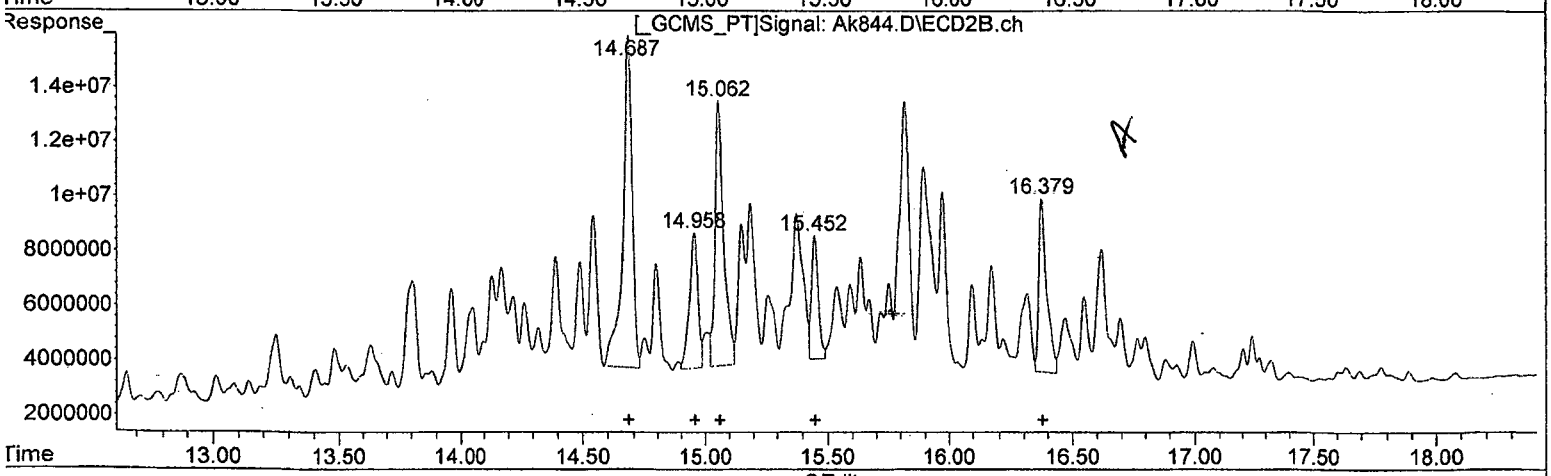
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak844.D
Acq On : 21 Oct 2015 9:52 pm
Operator : m.pedro
Sample : tox icv Inst : 7890-M
Misc : initilal cal
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 22 13:33:20 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(27) Toxaphene #2 (L8C)

R.T.	Response	Conc
14.64	416913619	488.82
14.70	392430501	623.16
15.31	327015587	245.59
15.92	199388332	279.17
16.40	247160136	220.64

(27) Toxaphene #2 (L8C)

R.T.	Response	Conc
14.69	305951659	519.30
14.96	116945807	395.65
15.06	238504198	405.09
15.45	84501987	228.52
16.38	141439141	230.13

(+) = Expected Retention Time
8081102115.M Thu Oct 22 13:34:03 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak845.D
Acq On : 21 Oct 2015 10:19 pm
Operator : m.pedro
Sample : chlor 1 Inst : 7890-M
Misc : initilal cal
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 22 13:34:26 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

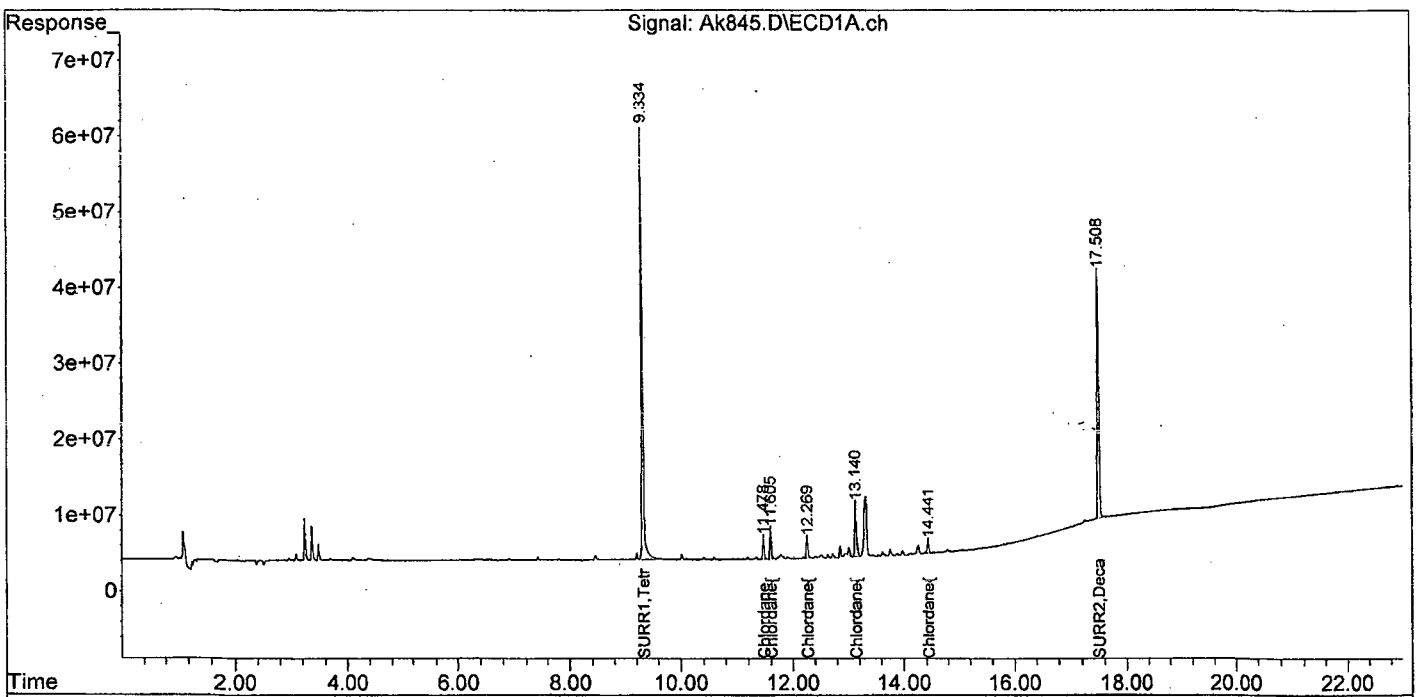
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tet...	9.334	9.275	1027.5E6	446.0E6	22.639	22.093
Spiked Amount 100.000	Range 30 - 150		Recovery =		22.64%#	22.09%#
26) S SURR2,Dec...	17.509	17.816	623.6E6	291.7E6	20.138	19.792
Spiked Amount 100.000	Range 30 - 150		Recovery =		20.14%#	19.79%#
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
32) L9C Chlordane	11.478	11.361	54460198	25005916	30.006	30.140
33) L9C Chlordane{2}	11.605	11.579	76034863	34521672	31.105	30.994
34) L9C Chlordane{3}	12.269	12.288	61017358	26776062	33.743	34.049
35) L9C Chlordane{4}	13.141	14.378	163.5E6	11545975	34.105	32.693
36) L9C Chlordane{5}	14.441	14.635	39123013	20296694	36.910	34.608
Sum Chlordane			394.1E6	118.1E6	165.869	162.484
Average Chlordane					33.174	32.497

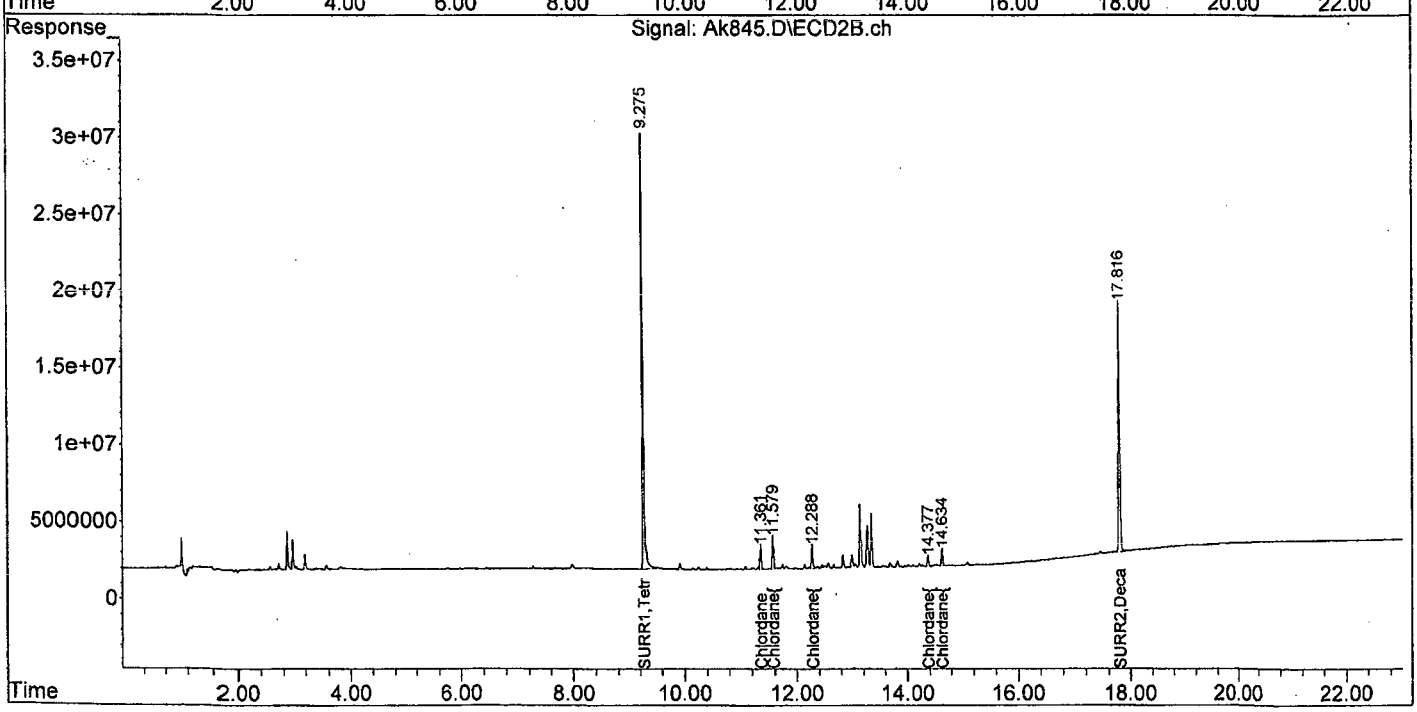
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak845.D
Acq On : 21 Oct 2015 10:19 pm
Operator : m.pedro
Sample : chlor 1 Inst : 7890-M
Misc : initilal cal
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 22 13:34:26 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak846.D
Acq On : 21 Oct 2015 10:47 pm
Operator : m.pedro
Sample : chlor ml Inst : 7890-M
Misc : initilal cal
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 22 13:35:02 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

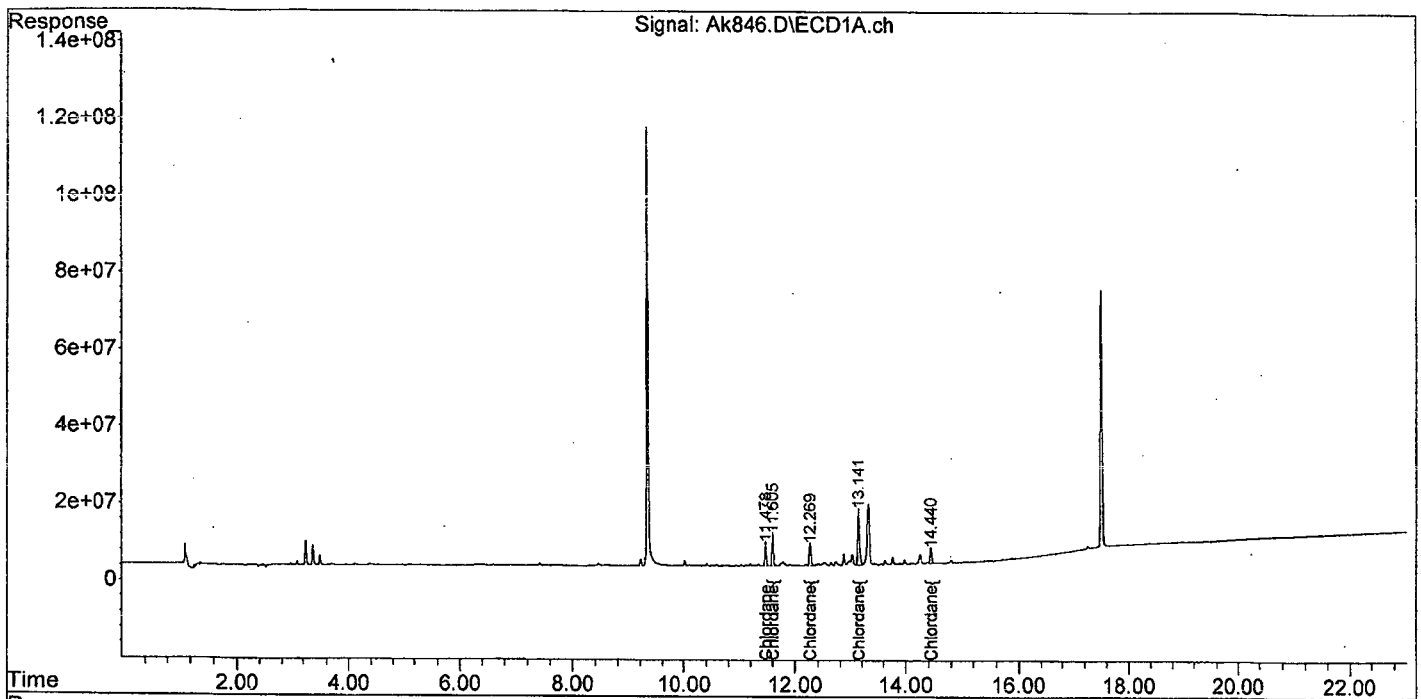
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
2) L9C Chlordane	11.479	11.361	106.3E6	48051596	57.088	56.372
3) L9C Chlordane{2}	11.605	11.579	149.7E6	66630188	58.997	57.614
4) L9C Chlordane{3}	12.270	12.287	124.2E6	50790954	65.593	61.865
5) L9C Chlordane{4}	13.141	14.377	329.2E6	24802559	64.364	67.326
6) L9C Chlordane{5}	14.441	14.634	77979076	40846711	67.763	66.406
Sum Chlordane			787.4E6	231.1E6	313.805	309.584
verage Chlordane					62.761	61.917

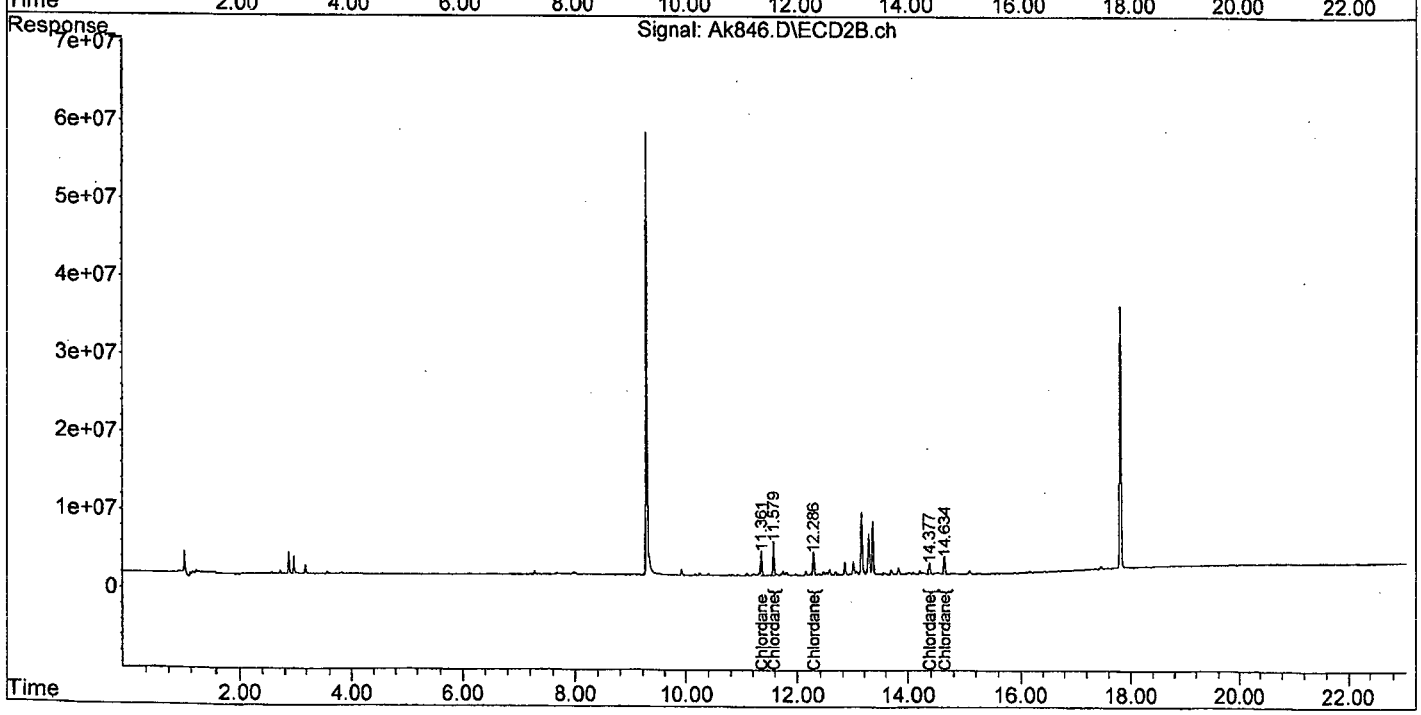
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak846.D
Acq On    : 21 Oct 2015  10:47 pm
Operator  : m.pedro
Sample    : chlor ml                              Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 25   Sample Multiplier: 1

Quant Time: Oct 22 13:35:02 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.      : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```





Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak847.D
Acq On : 21 Oct 2015 11:15 pm
Operator : m.pedro
Sample : chlor m Inst : 7890-M
Misc : initilal cal
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 22 13:35:37 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1)	S SURR1,Tet...	9.334	9.275	2955.4E6	1309.7E6	24.053	24.422
	Spiked Amount 100.000	Range 30 - 150		Recovery =		24.05%#	24.42%#
26)	S SURR2,Dec...	17.508	17.816	1545.3E6	725.6E6	20.129	20.087
	Spiked Amount 100.000	Range 30 - 150		Recovery =		20.13%#	20.09%#
	Target Compounds						
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000
32)	L9C Chlordane	11.478	11.361	202.3E6	89857584	105.115	102.454
33)	L9C Chlordane{2}	11.605	11.578	289.2E6	125.5E6	108.627	104.791
34)	L9C Chlordane{3}	12.269	12.287	228.4E6	90783205	111.610	105.091
35)	L9C Chlordane{4}	13.140	14.377	619.5E6	45105599	111.948	111.971
36)	L9C Chlordane{5}	14.441	14.634	141.4E6	73482804	110.318	109.097
	Sum Chlordane			1480.9E6	424.7E6	547.616	533.404
Average	Chlordane					109.523	106.681

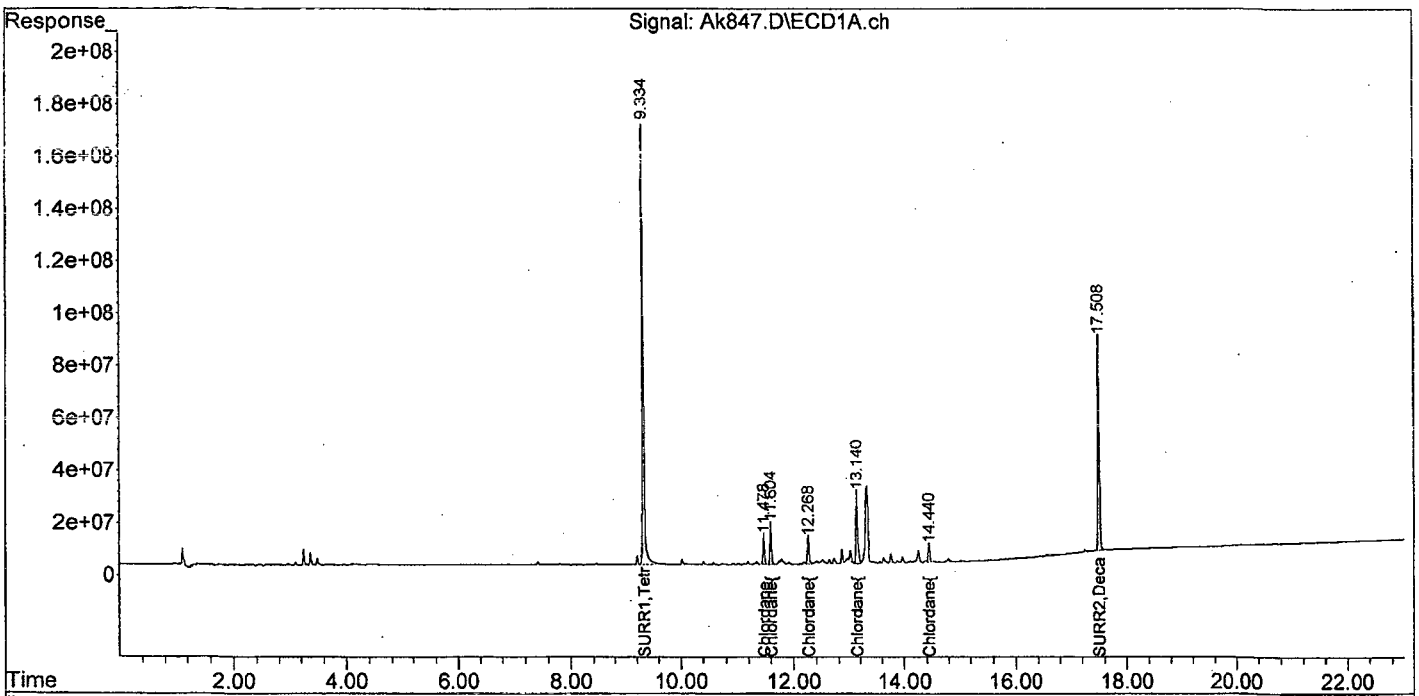
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

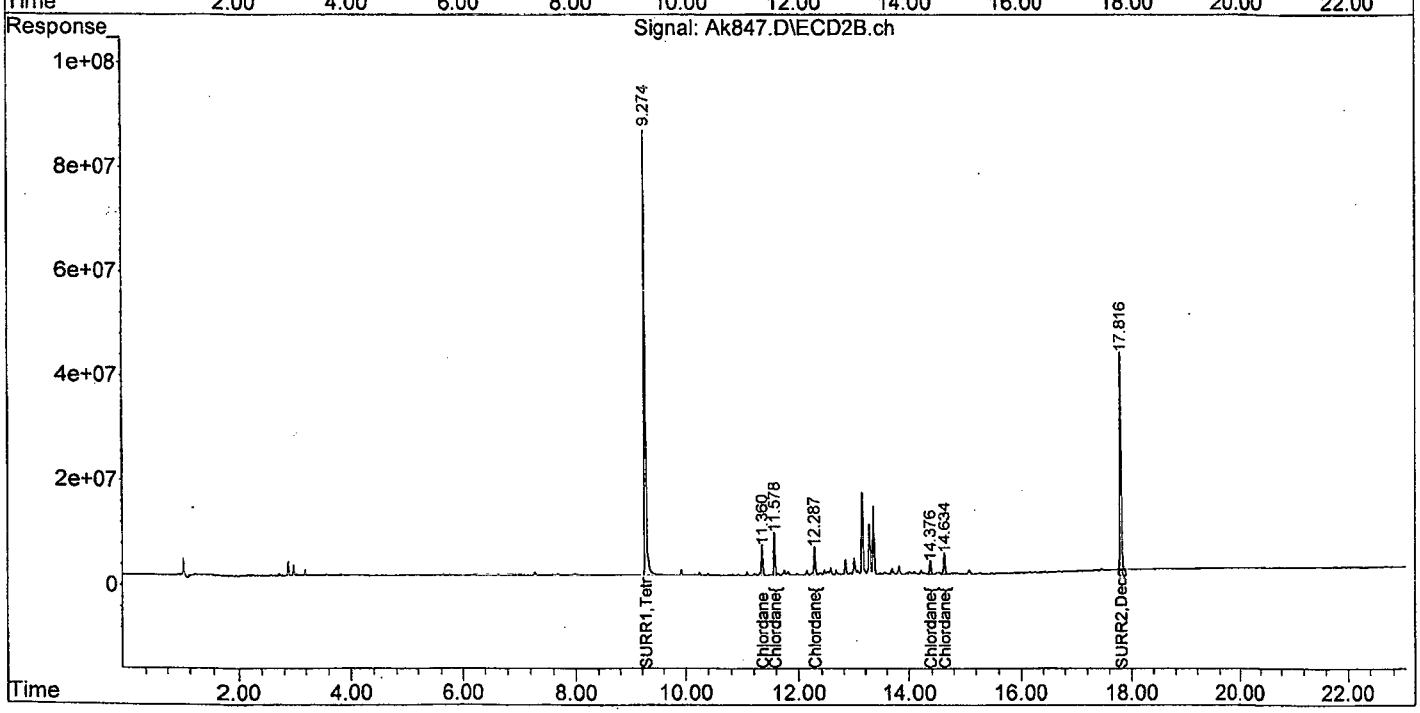
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak847.D
Acq On : 21 Oct 2015 11:15 pm
Operator : m.pedro
Sample : chlor m Inst : 7890-M
Misc : initilal cal
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 22 13:35:37 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





8081102115.M Thu Oct 22 13:46:16 2015 Page: 2

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak848.D
Acq On : 21 Oct 2015 11:43 pm
Operator : m.pedro
Sample : chlor mh Inst : 7890-M
Misc : initilal cal
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 22 13:36:03 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

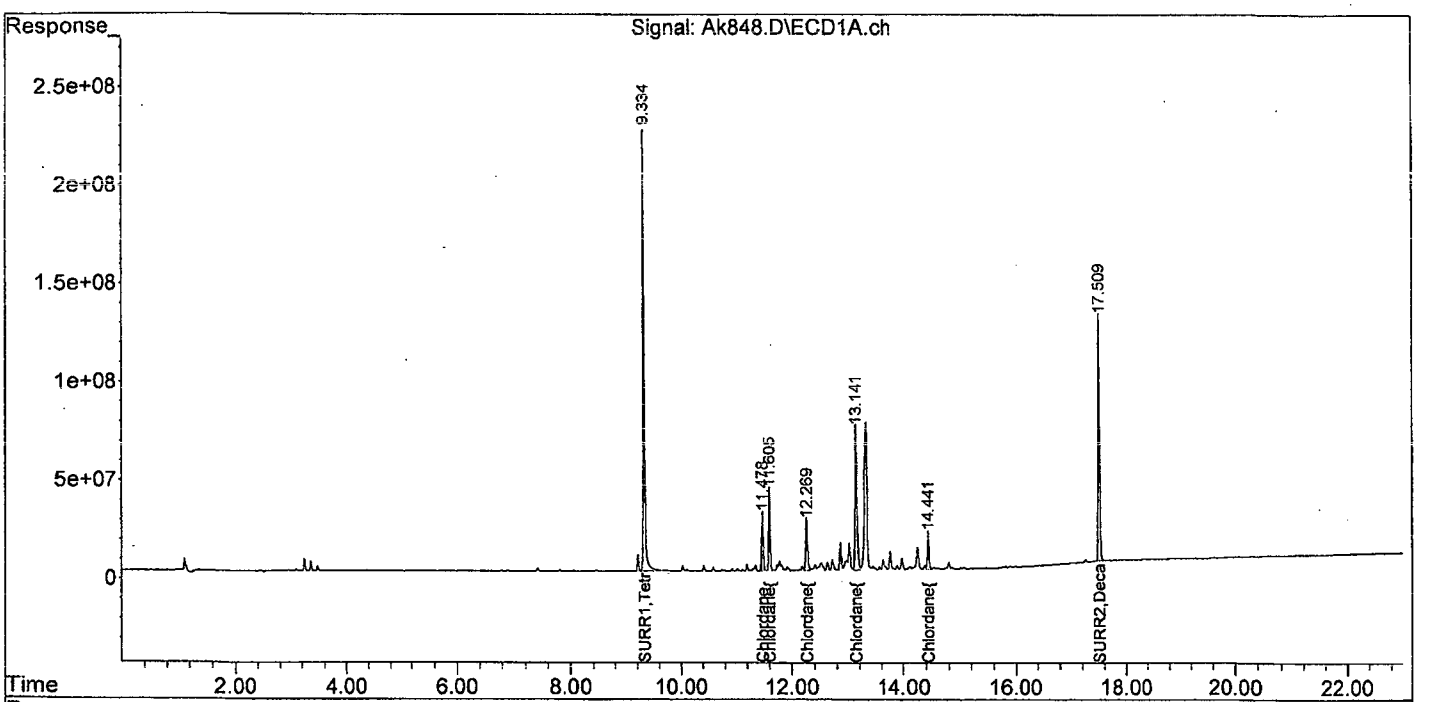
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tet...	9.334	9.275	3946.4E6	1642.8E6	24.009	22.784
Spiked Amount	100.000	Range 30 - 150		Recovery =	24.01%#	22.78%#
6) S SURR2,Dec...	17.510	17.817	2351.3E6	1109.0E6	24.143	24.223
Spiked Amount	100.000	Range 30 - 150		Recovery =	24.14%#	24.22%#
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
2) L9C Chlordane	11.479	11.362	511.5E6	225.1E6	259.331	251.879
3) L9C Chlordane{2}	11.605	11.579	738.5E6	317.7E6	267.527	258.215
4) L9C Chlordane{3}	12.269	12.288	555.0E6	216.7E6	259.699	243.950
5) L9C Chlordane{4}	13.141	14.378	1587.4E6	111.5E6	273.137	265.178
6) L9C Chlordane{5}	14.441	14.634	390.1E6	187.1E6	288.298	266.365
Sum Chlordane			3782.5E6	1058.2E6	1347.992	1285.587
verage Chlordane					269.598	257.117

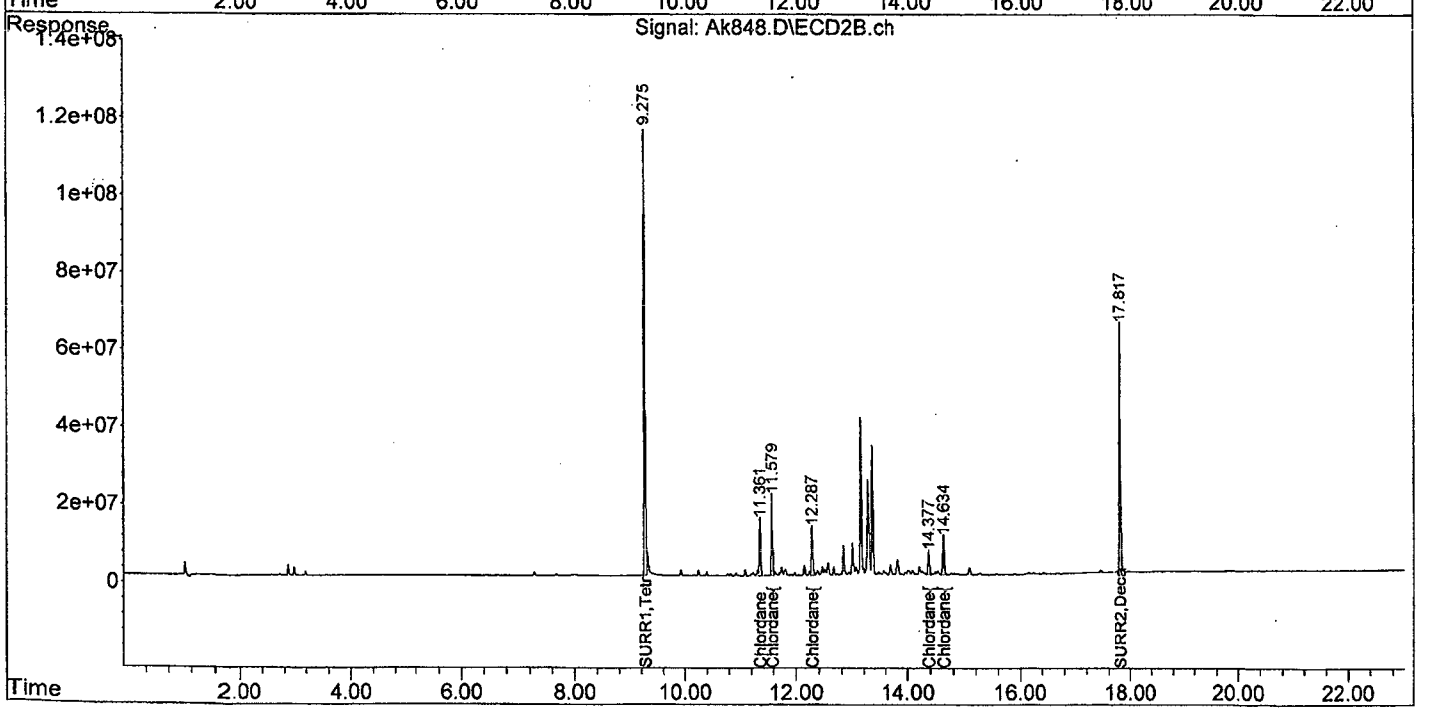
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak848.D
Acq On : 21 Oct 2015 11:43 pm
Operator : m.pedro
Sample : chlor mh Inst : 7890-M
Misc : initilal cal
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 22 13:36:03 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





8081102115.M Thu Oct 22 13:46:24 2015 Page: 2

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak849.D
Acq On : 22 Oct 2015 12:11 am
Operator : m.pedro
Sample : chlor h Inst : 7890-M
Misc : initilal cal
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 22 13:36:40 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1) S	SURR1,Tet...	9.334	9.275	4894.3E6	2062.1E6	28.759	27.742
	Spiked Amount 100.000	Range 30 - 150		Recovery =		28.76%#	27.74%#
6) S	SURR2,Dec...	17.510	17.818	3145.4E6	1489.2E6	31.199	31.421
	Spiked Amount 100.000	Range 30 - 150		Recovery =		31.20%	31.42%
	Target Compounds						
	Sum Toxaphene			0	0	N.D.	N.D.
	verage Toxaphene					0.000	0.000
2)	L9C Chlordane	11.479	11.361	1024.4E6	450.7E6	506.417	494.771
3)	L9C Chlordane{2}	11.605	11.579	1474.5E6	639.7E6	516.259	506.319
4)	L9C Chlordane{3}	12.269	12.287	1092.4E6	420.3E6	491.278	460.754
5)	L9C Chlordane{4}	13.141	14.378	3216.9E6	222.3E6	527.902	507.075
6)	L9C Chlordane{5}	14.441	14.635	816.4E6	381.2E6	566.351	518.285
	Sum Chlordane			7624.6E6	2114.2E6	2608.207	2487.204
	verage Chlordane					521.641	497.441

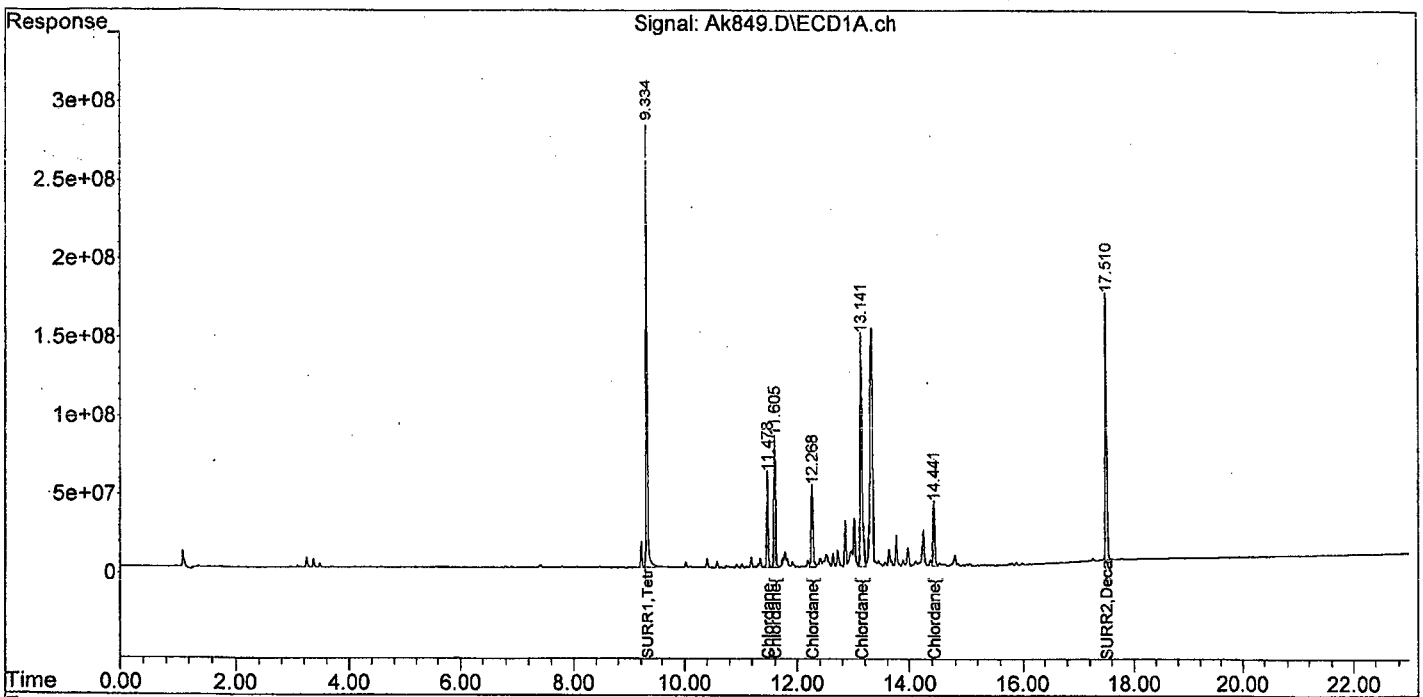
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

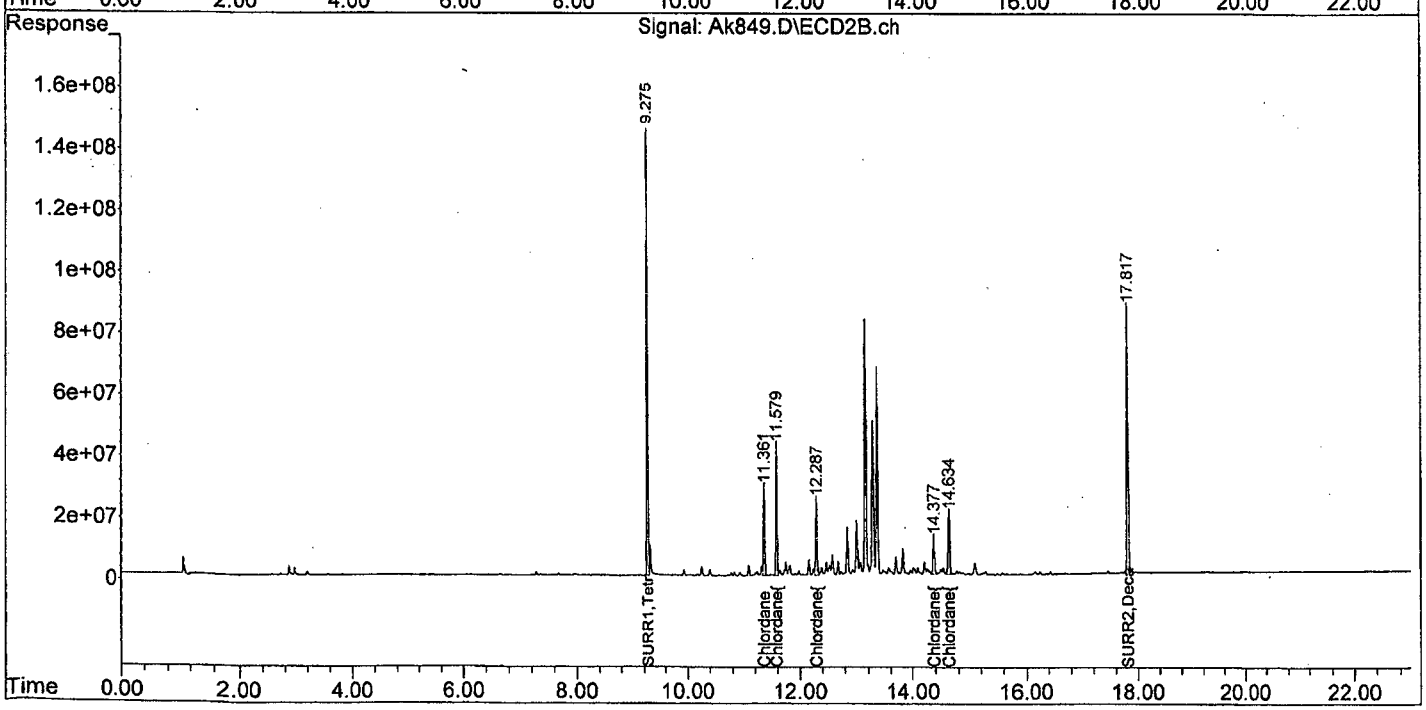
081102115.M Thu Oct 22 13:46:28 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak849.D
Acq On : 22 Oct 2015 12:11 am
Operator : m.pedro
Sample : chlor h Inst : 7890-M
Misc : initilal cal
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 22 13:36:40 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





8081102115.M Thu Oct 22 13:46:32 2015 Page: 2

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak850.D
Acq On : 22 Oct 2015 12:38 am
Operator : m.pedro
Sample : chlor icv Inst : 7890-M
Misc : initilal cal
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 22 13:37:35 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
32	L9C Chlordane	2.084	2.084 E6	0.0	103	0.00
33	L9C Chlordane{2}	2.966	2.925 E6	1.4	101	0.00
34	L9C Chlordane{3}	2.323	2.123 E6	8.6	93	0.00
35	L9C Chlordane{4}	6.420	6.239 E6	2.8	101	0.00
36	L9C Chlordane{5}	1.546	1.305 E6	15.6#	92	0.00
	Signal #2					
32	L9C Chlordane	0.932	0.924 E6	0.9	103	0.00
33	L9C Chlordane{2}	1.304	1.263 E6	3.1	101	0.00
34	L9C Chlordane{3}	0.940	0.848 E6	9.8	93	0.00
35	L9C Chlordane{4}	459.872	459.876 E3	-0.0	102	0.00
36	L9C Chlordane{5}	774.903	684.431 E3	11.7	93	0.00

Evaluate Continuing Calibration Report - Not Founds

1	S	SURR1,Tetrac	171.040	0.000 E6	100.0#	0#	-9.33#
2	TC	HEXACHLOROBENZENE	61.859	0.000 E6	100.0#	0#	-10.03#
3	tc	alpha-BHC	68.266	0.000 E6	100.0#	0#	-10.33#
4	tcm	gamma-BHC (L	60.041	0.000 E6	100.0#	0#	-10.85#
5	tcm	Heptachlor	58.653	0.000 E6	100.0#	0#	-11.61#
6	tcm	Aldrin	53.660	0.000 E6	100.0#	0#	-12.06#
7	tc	beta-BHC	26.639	0.000 E6	100.0#	0#	-11.01#
8	TC	delta-BHC	54.245	0.000 E6	100.0#	0#	-11.28#
9	tc	Heptachlor E	47.725	0.000 E6	100.0#	0#	-12.96#
10	tc	alpha-Endosu	42.938	0.000 E6	100.0#	0#	-13.53#
11	tc	gamma-Chlord	48.524	0.000 E6	100.0#	0#	-13.14#
12	tc	alpha-Chlord	46.327	0.000 E6	100.0#	0#	-13.33#
13	tc	4,4'-DDE	38.554	0.000 E6	100.0#	0#	-13.45#
14	tcm	Dieldrin	44.423	0.000 E6	100.0#	0#	-13.88#
15	tcm	Endrin	37.750	0.000 E6	100.0#	0#	-14.22#
16	tc	KEPONE	14.388	0.000 E6	100.0#	0#	-14.29#
17	tc	beta-Endosul	35.531	0.000 E6	100.0#	0#	-14.54#
18	tc	4,4'-DDD	29.626	0.000 E6	100.0#	0#	-14.30#
19	tcm	4,4'-DDT	31.728	0.000 E6	100.0#	0#	-14.70#
20	tc	Endrin Aldeh	26.911	0.000 E6	100.0#	0#	-15.16#
21	tc	Endosulfan S	30.690	0.000 E6	100.0#	0#	-15.81#
22	tc	Methoxychlor	16.199	0.000 E6	100.0#	0#	-15.39#
23	tc	FAMPHUR	27.438	0.000 E6	100.0#	0#	-16.10#
24	tc	Endrin Keton	34.718	0.000 E6	100.0#	0#	-16.23#
25	tc	Mirex	33.800	0.000 E6	100.0#	0#	-15.68#
26	S	SURR2,Decachlorobiphenyl	101.162	0.000 E6	100.0#	0#	-17.51#

081102115.M Thu Oct 22 13:38:02 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak850.D
Acq On : 22 Oct 2015 12:38 am
Operator : m.pedro
Sample : chlor icv Inst : 7890-M
Misc : initilal cal
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 22 13:37:35 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

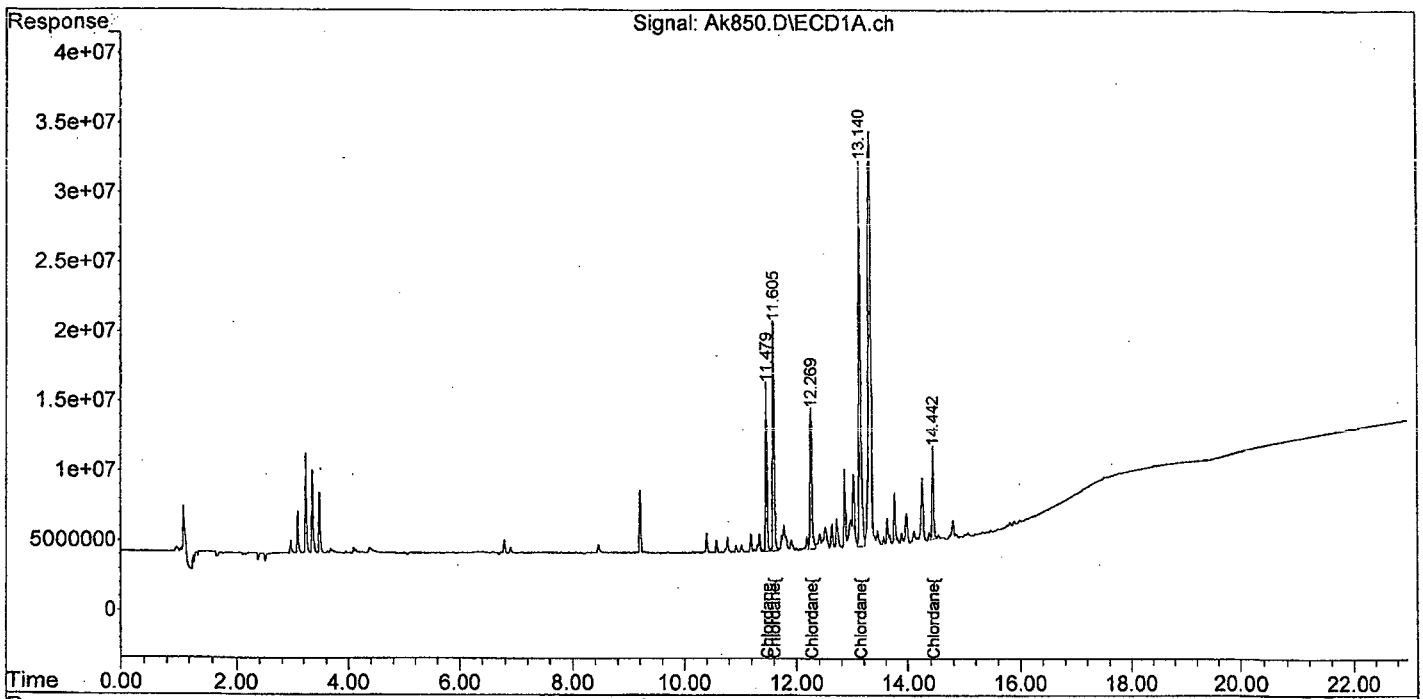
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
2) L9C Chlordane	11.479	11.361	208.4E6	92391220	99.995	99.099
3) L9C Chlordane{2}	11.605	11.579	292.5E6	126.3E6	98.606	96.904
4) L9C Chlordane{3}	12.270	12.288	212.3E6	84794038	91.382	90.162
5) L9C Chlordane{4}	13.141	14.377	623.9E6	45987566	97.186	100.001
6) L9C Chlordane{5}	14.442	14.635	130.5E6	68443107	84.406	88.325
Sum Chlordane			1467.7E6	418.0E6	471.577	474.490
verage Chlordane					94.315	94.898

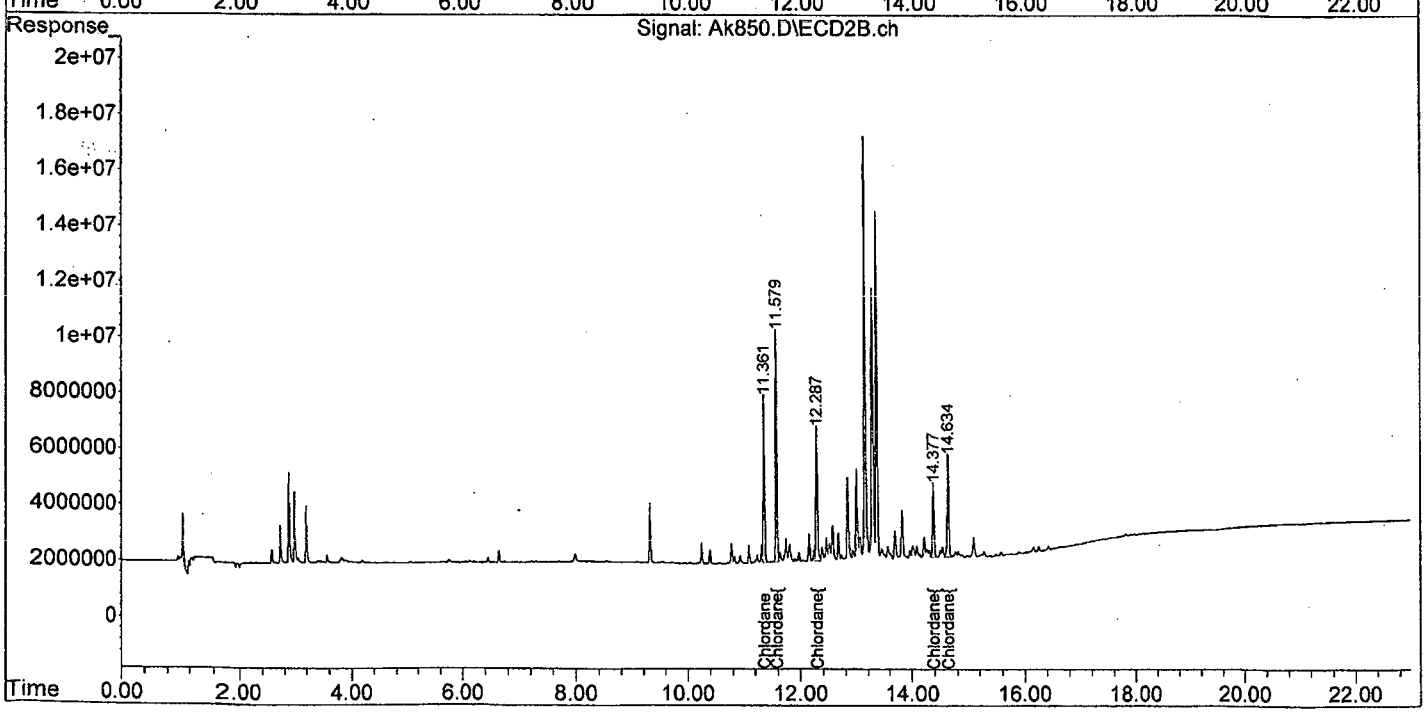
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : I:\ACQUDATA\7890m\DATA\I02115\
Data File : Ak850.D
Acq On : 22 Oct 2015 12:38 am
Operator : m.pedro
Sample : chlor icv Inst : 7890-M
Misc : initilal cal
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 22 13:37:35 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



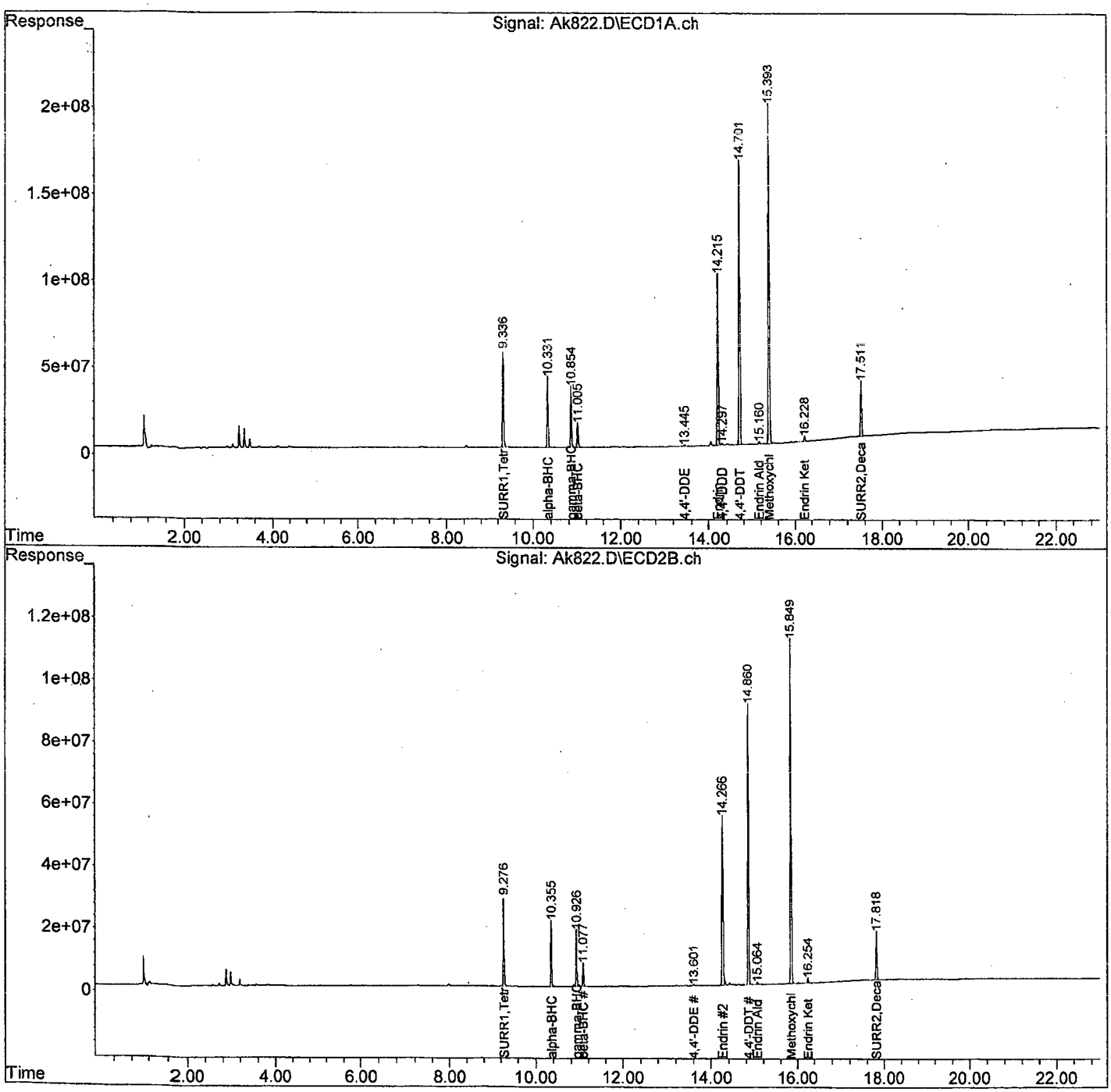


8081102115.M Thu Oct 22 13:46:38 2015 Page: 2

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak822.D
Acq On    : 21 Oct 2015    9:55 am
Operator  : m.pedro
Sample    : pem                                    Inst    : 7890-M
Misc      : pest perform check
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Oct 23 08:28:52 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:40:08 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```

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8081102115.M Fri Oct 23 08:29:14 2015                    Page: 2
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7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name:	ALS Environmental		Contract:		
Lab Code:	10145	Case No.:	SAS No.:	SDG No.:	
GC Column (1):	STX-CLP	ID: 0.32 (mm)	Initial Calibration Date(s):	10/21/2015	
EPA Sample No. (PEM):	PEM		Date Analyzed:	10/21/2015	
LAB Sample ID. (PEM):	PEM		Time Analyzed:	9:55	
4,4'-DDT % Breakdown (1):	1.4%		Endrin % Breakdown (1):	4.2%	
Combined % Breakdown (1):	5.6%				

QC LIMITS:

%D of amounts in PEM must be less than or equal to 25.0%
4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%
Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name:	ALS Environmental		Contract:		
Lab Code:	10145	Case No.:	SAS No.:	SDG No.:	
GC Column (2):	STX-CLPI	ID: 0.32 (mm)	Initial Calibration Date(s):	10/21/2015	
EPA Sample No. (PEM):	PEM		Date Analyzed:	10/21/2015	
LAB Sample ID. (PEM):	PEM		Time Analyzed:	9:55	
4,4'-DDT % Breakdown (1):	0.6%		Endrin % Breakdown (1):	4.7%	
Combined % Breakdown (1):	5.3%				

QC LIMITS:

%D of amounts in PEM must be less than or equal to 25.0%
4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%
Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak822.D
Acq On : 21 Oct 2015 9:55 am
Operator : m.pedro
Sample : pem Inst : 7890-M
Misc : pest perform check
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 08:28:52 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:40:08 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

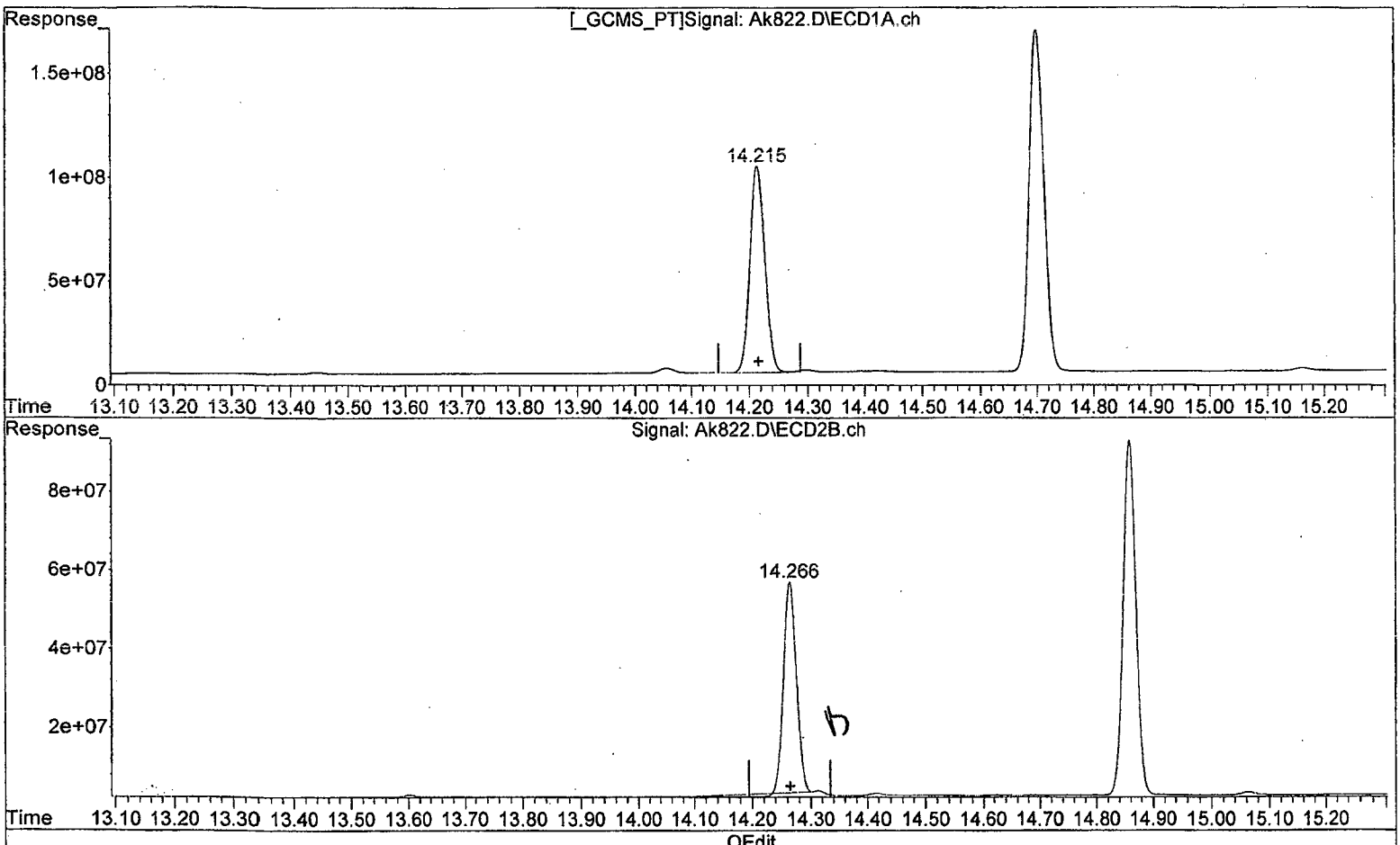
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l	
System Monitoring Compounds							
1) S SURR1,Tet...	9.336	9.276	869.9E6	391.9E6	19.165	19.414	
Spiked Amount 100.000	Range 30 - 150		Recovery =		19.16%#	19.41%#	
6) S SURR2,Dec...	17.512	17.819	579.1E6	267.8E6	18.702	18.172	
Spiked Amount 100.000	Range 30 - 150		Recovery =		18.70%#	18.17%#	
Target Compounds							
3) tc alpha-BHC	10.331	10.355	635.2E6	289.5E6	9.304	9.397	
4) tcm gamma-BHC (L	10.855	10.926	558.6E6	253.8E6	9.304	9.353	
7) tc beta-BHC	11.006	11.078	250.0E6	111.8E6	9.385	9.408	
3) tc 4,4'-DDE	13.445	13.601	13668001	8530423	0.355	0.456	#
5) tcm Endrin	14.216	14.266	1769.2E6	850.6E6	46.868	46.652m	
8) tc 4,4'-DDD	14.298	0.000	27804911	0	0.939	N.D.	#
9) tcm 4,4'-DDT	14.701	14.860	2945.0E6	1439.2E6	92.821	90.819	
0) tc Endrin Aldeh	15.161	15.064	21043616	13951573	0.782	1.022	#
2) tc Methoxychlor	15.394	15.849	3665.5E6	1769.0E6	226.277	224.309	
4) tc Endrin Keton	16.228	16.254	57303766	27778651	1.651	1.581	
Sum Toxaphene			0	0	N.D.	N.D.	
verage Toxaphene					0.000	0.000	
Sum Chlordane			0	0	N.D.	N.D.	
verage Chlordane					0.000	0.000	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak822.D
Acq On    : 21 Oct 2015    9:55 am
Operator  : m.pedro
Sample    : pem                                    Inst    : 7890-M
Misc      : pest perform check
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Oct 23 08:28:23 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:40:08 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.      : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(15) Endrin (tcm)

14.216min 46.868 ug/l

response 1769233956

(15) Endrin #2 (tcm)

14.266min 42.904 ug/l

response 782237718

(+) = Expected Retention Time

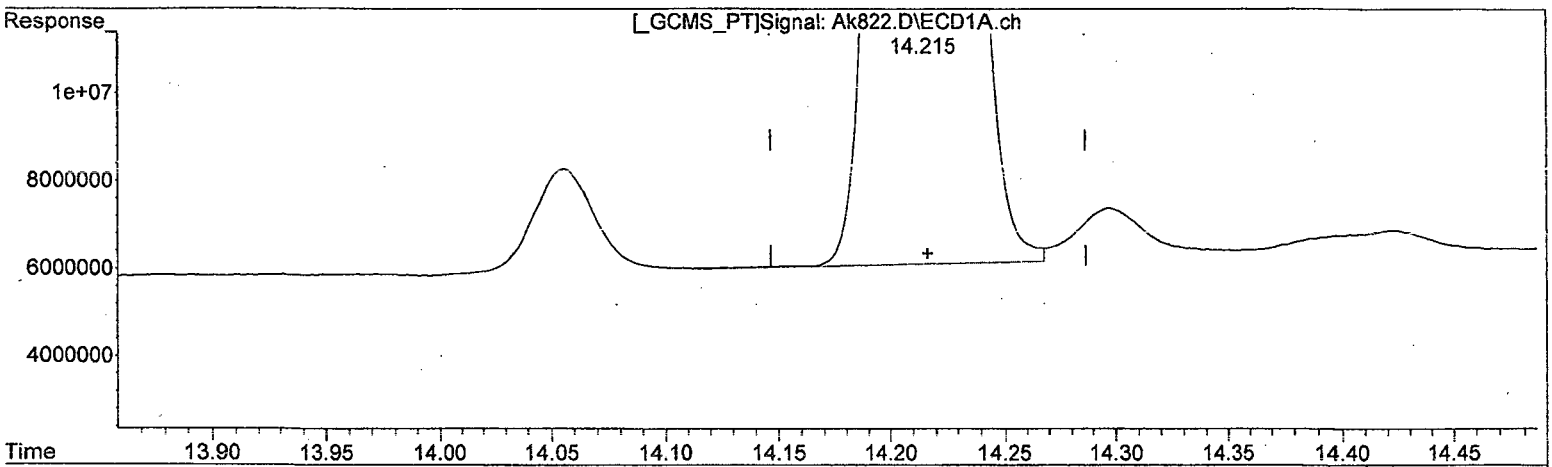
8081102115.M Fri Oct 23 08:28:41 2015 Page: 1

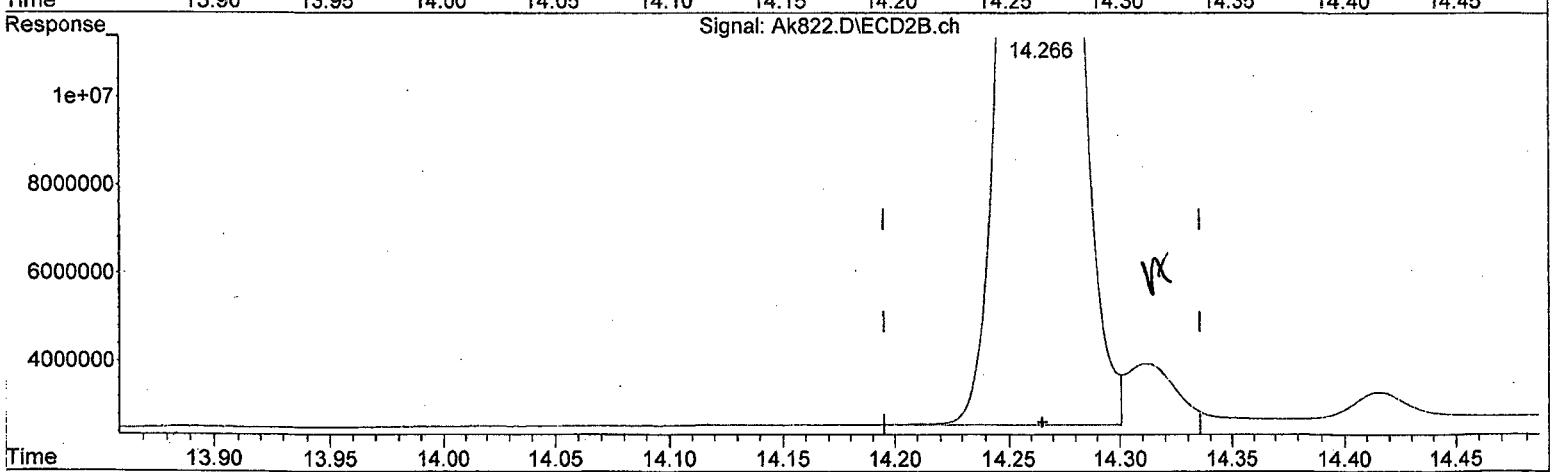
Quantitation Report (Quant)

Data Path : I:\ACQUDATA\7890m\DATA\f02115\
Data File : Ak822.D
Acq On : 21 Oct 2015 9:55 am
Operator : m.pedro
Sample : pem Inst : 7890-M
Misc : pest perform check
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 08:28:23 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:40:08 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(15) Endrin (tcm)

14.216min 46.868 ug/l

response 1769233956

(15) Endrin #2 (tcm)

14.266min 46.652 ug/l m

response 850573404

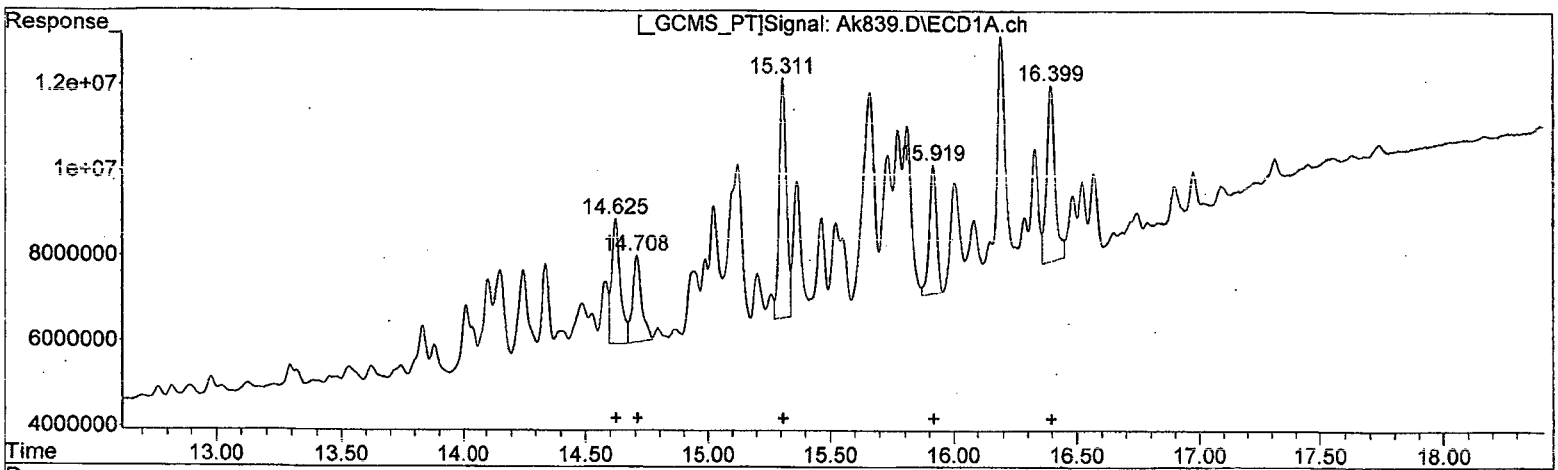
(+) = Expected Retention Time

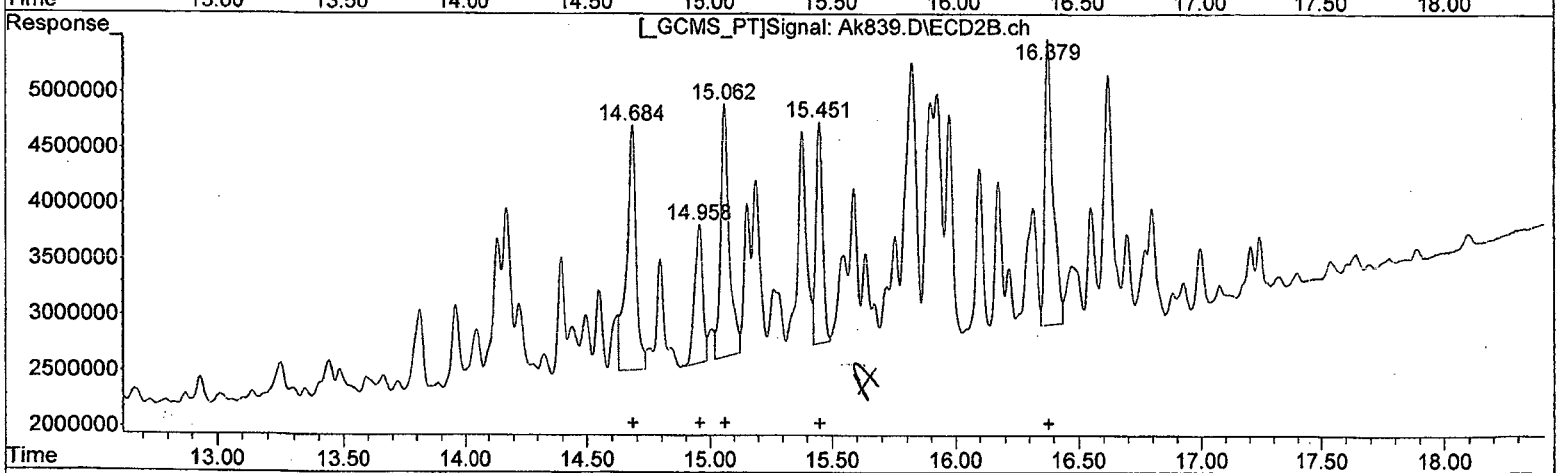
8081102115.M Fri Oct 23 08:28:51 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak839.D
Acq On : 21 Oct 2015 7:32 pm
Operator : m.pedro
Sample : tox 1 Inst : 7890-M
Misc : initilal cal
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 22 13:20:59 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(27) Toxaphene (L8C)

R.T.	Response	Conc
14.62	73568675	115.19
14.71	52599217	109.18
15.31	112773135	111.43
15.92	59917974	107.60
16.40	95569588	100.56

(27) Toxaphene #2 (L8C)

R.T.	Response	Conc
14.68	57506335	117.54
14.96	29614180	117.47
15.06	56701364	118.41
15.45	36505670	124.44
16.38	58881942	116.14

(+) = Expected Retention Time
8081102115.M Fri Oct 23 08:21:03 2015

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak840.D
Acq On : 21 Oct 2015 8:00 pm
Operator : m.pedro
Sample : tox ml Inst : 7890-M
Misc : initilal cal
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 22 13:22:21 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

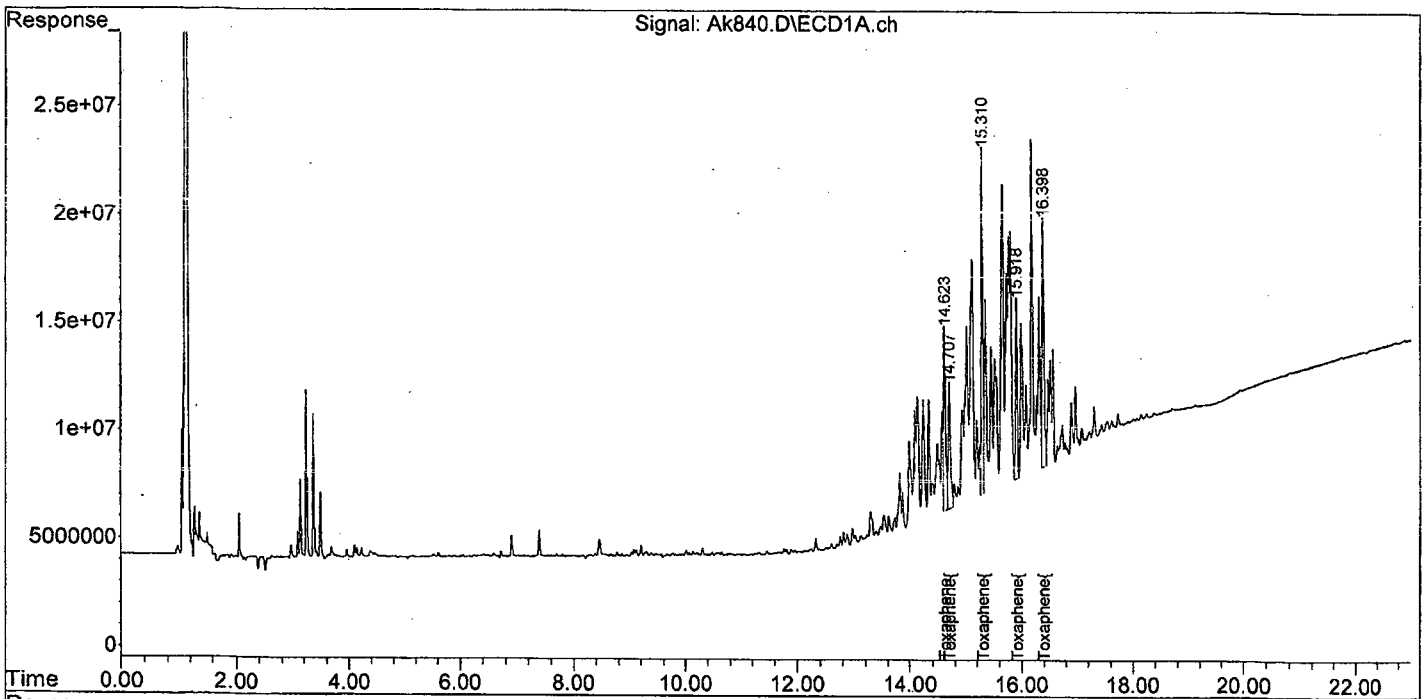
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
Target Compounds						
7) L8C Toxaphene	14.624	14.683	211.8E6	146.8E6	317.969	291.738m
8) L8C Toxaphene{2}	14.707	14.957	152.7E6	75185418	309.815	293.898m
9) L8C Toxaphene{3}	15.310	15.062	330.8E6	149.8E6	315.923	304.174
0) L8C Toxaphene{4}	15.919	15.451	169.1E6	94688720	295.448	316.916m
1) L8C Toxaphene{5}	16.399	16.380	272.8E6	152.0E6	287.297	292.918
Sum Toxaphene			1137.3E6	618.4E6	1526.453	1499.644
verage Toxaphene					305.291	299.929
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

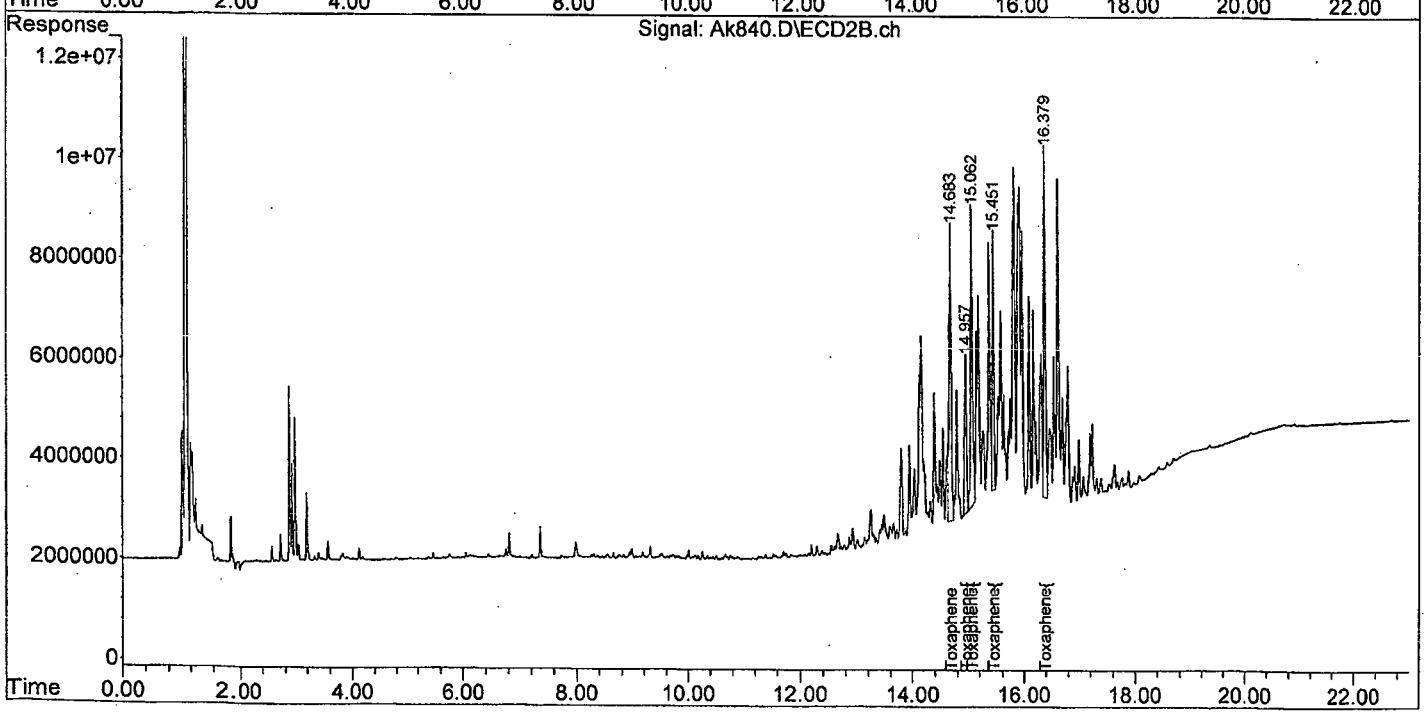
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak840.D
Acq On    : 21 Oct 2015    8:00 pm
Operator  : m.pedro
Sample    : tox ml                                    Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 19   Sample Multiplier: 1

Quant Time: Oct 22 13:22:21 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.      : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```

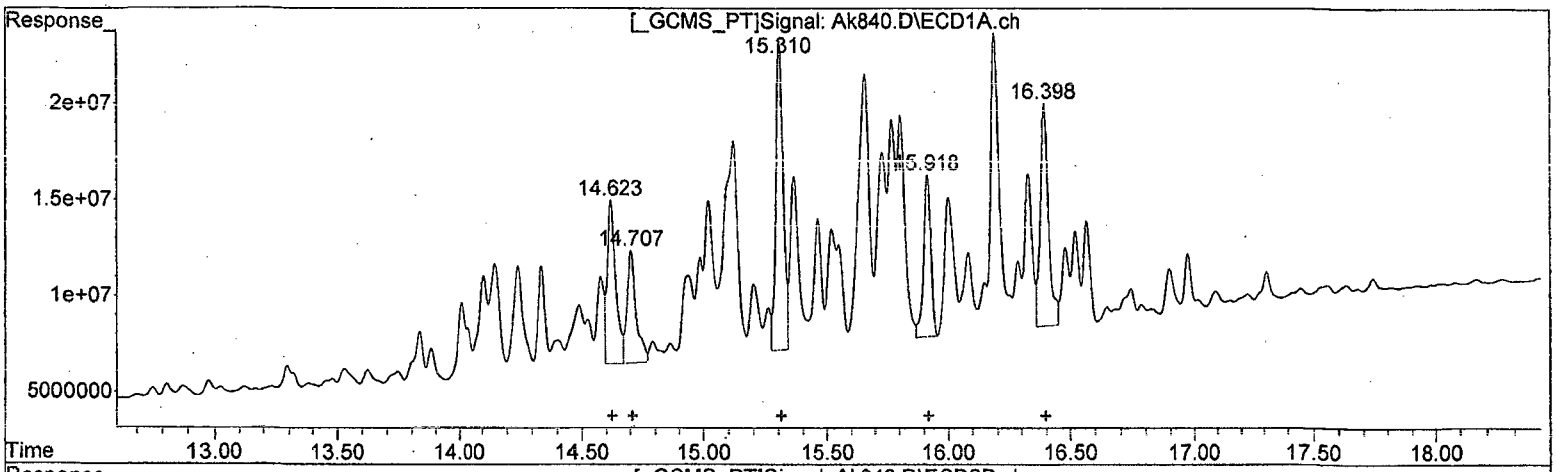


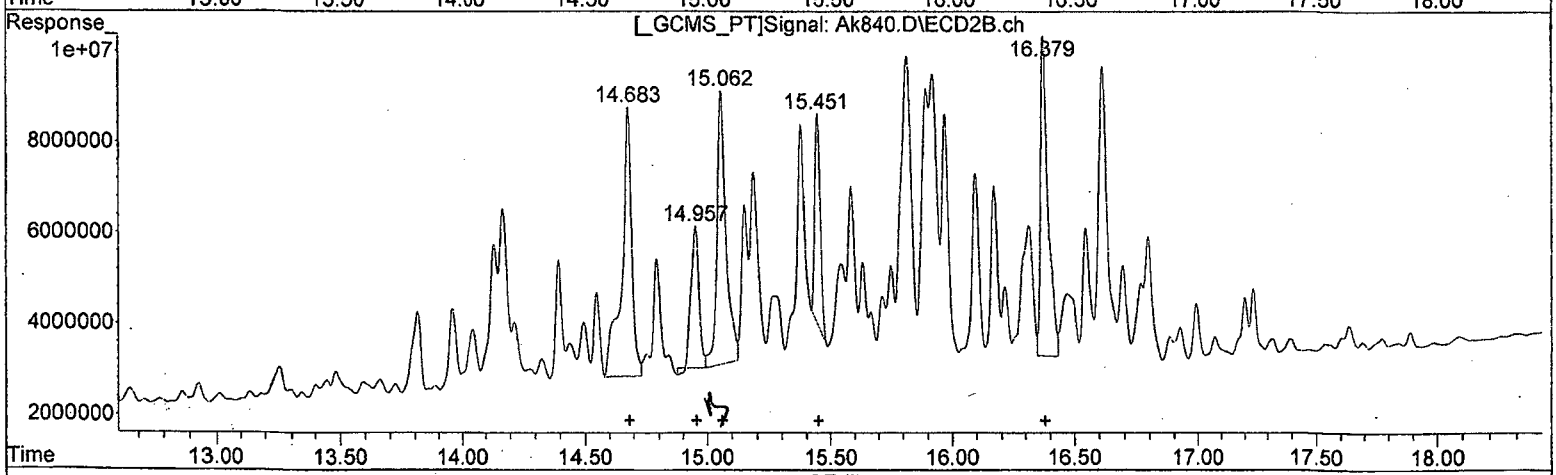


Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak840.D
Acq On : 21 Oct 2015 8:00 pm
Operator : m.pedro
Sample : tox ml Inst : 7890-M
Misc : initilal cal
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 22 13:21:18 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(27) Toxaphene (L8C)

R.T.	Response	Conc
14.62	211805352	317.97
14.71	152745907	309.82
15.31	330843129	315.92
15.92	169126641	295.45
16.40	272800093	287.30

(27) Toxaphene #2 (L8C)

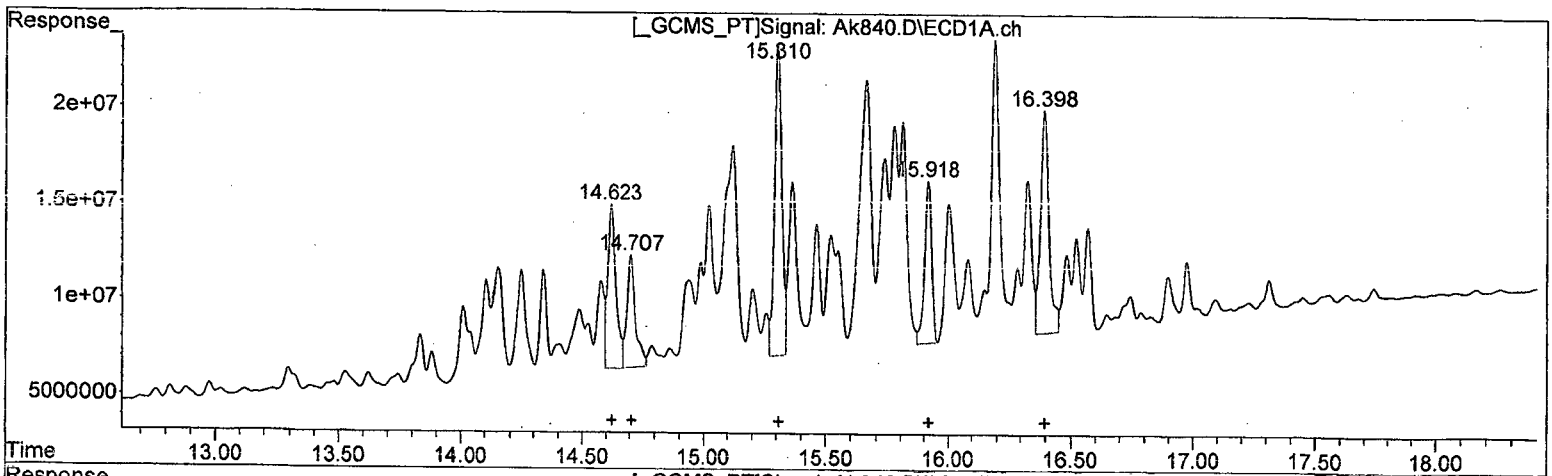
R.T.	Response	Conc
14.68	172015853	341.90
14.96	75348834	294.54
15.06	149810492	304.17
15.45	75717357	253.42
16.38	151952958	292.92

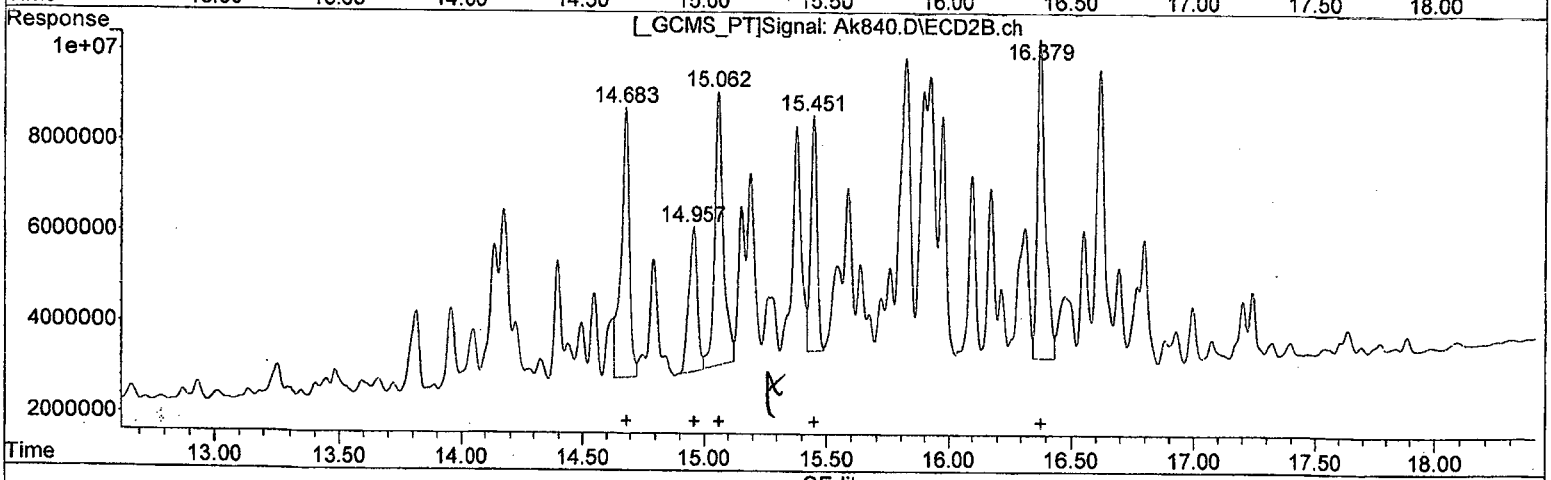
(+) = Expected Retention Time
8081102115.M Thu Oct 22 13:22:01 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak840.D
Acq On : 21 Oct 2015 8:00 pm
Operator : m.pedro
Sample : tox ml Inst : 7890-M
Misc : initilal cal
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 22 13:21:18 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(27) Toxaphene #2 (L8C)

R.T.	Response	Conc
14.62	211805352	317.97
14.71	152745907	309.82
15.31	330843129	315.92
15.92	169126641	295.45
16.40	272800093	287.30

(27) Toxaphene #2 (L8C)

R.T.	Response	Conc
14.68	146777727	291.74
14.96	75185418	293.90
15.06	149810492	304.17
15.45	94688720	316.92
16.38	151952958	292.92

BCG 10/23

(+) = Expected Retention Time
8081102115.M Thu Oct 22 13:22:28 2015

Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak841.D
Acq On : 21 Oct 2015 8:28 pm
Operator : m.pedro
Sample : tox m Inst : 7890-M
Misc : initilal cal
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 22 13:27:36 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

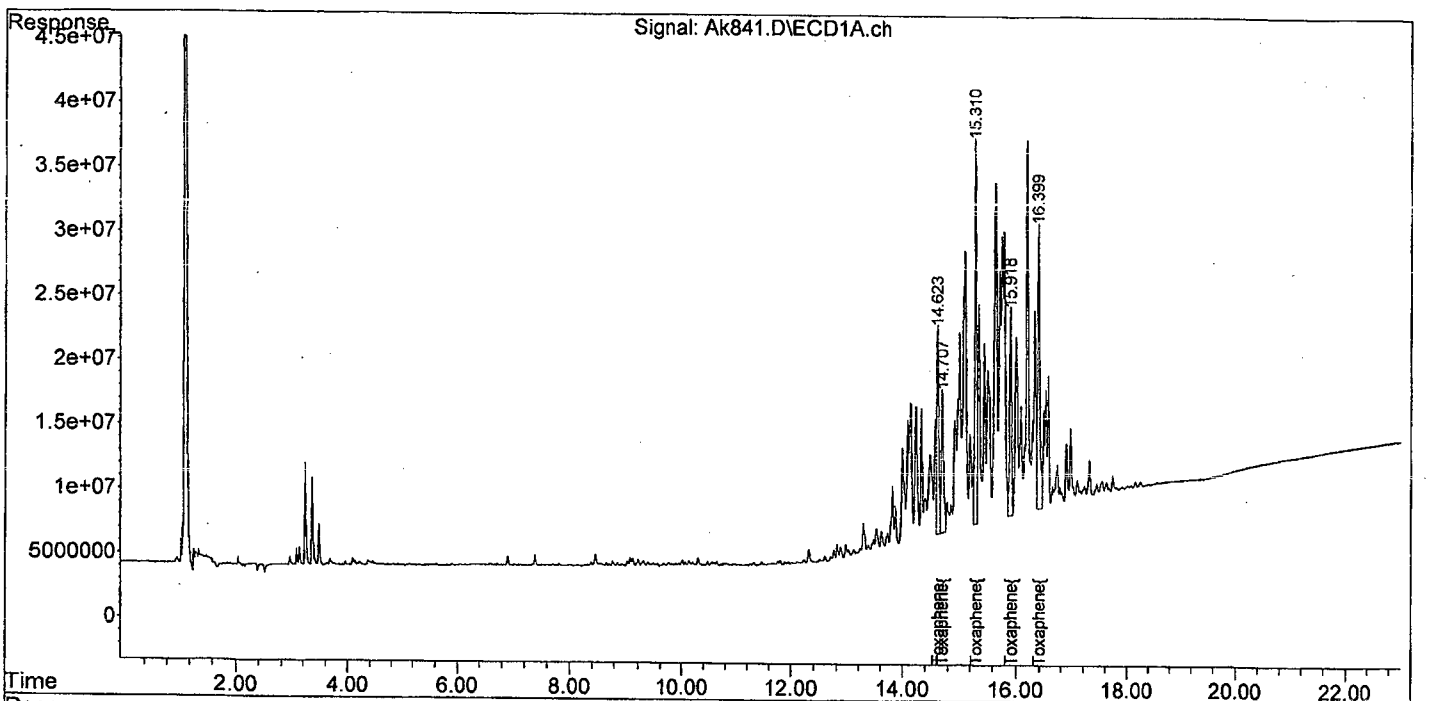
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
Target Compounds						
7) L8C Toxaphene	14.624	14.682	402.7E6	260.5E6	564.506	494.037m
8) L8C Toxaphene{2}	14.708	14.957	300.7E6	130.0E6	572.449	488.580m
9) L8C Toxaphene{3}	15.310	15.062	645.4E6	268.8E6	576.707	516.329
0) L8C Toxaphene{4}	15.919	15.451	344.5E6	172.3E6	567.069	531.178m
1) L8C Toxaphene{5}	16.399	16.379	536.4E6	266.4E6	540.190	487.175m
Sum Toxaphene			2229.8E6	1098.1E6	2820.921	2517.299
verage Toxaphene					564.184	503.460
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

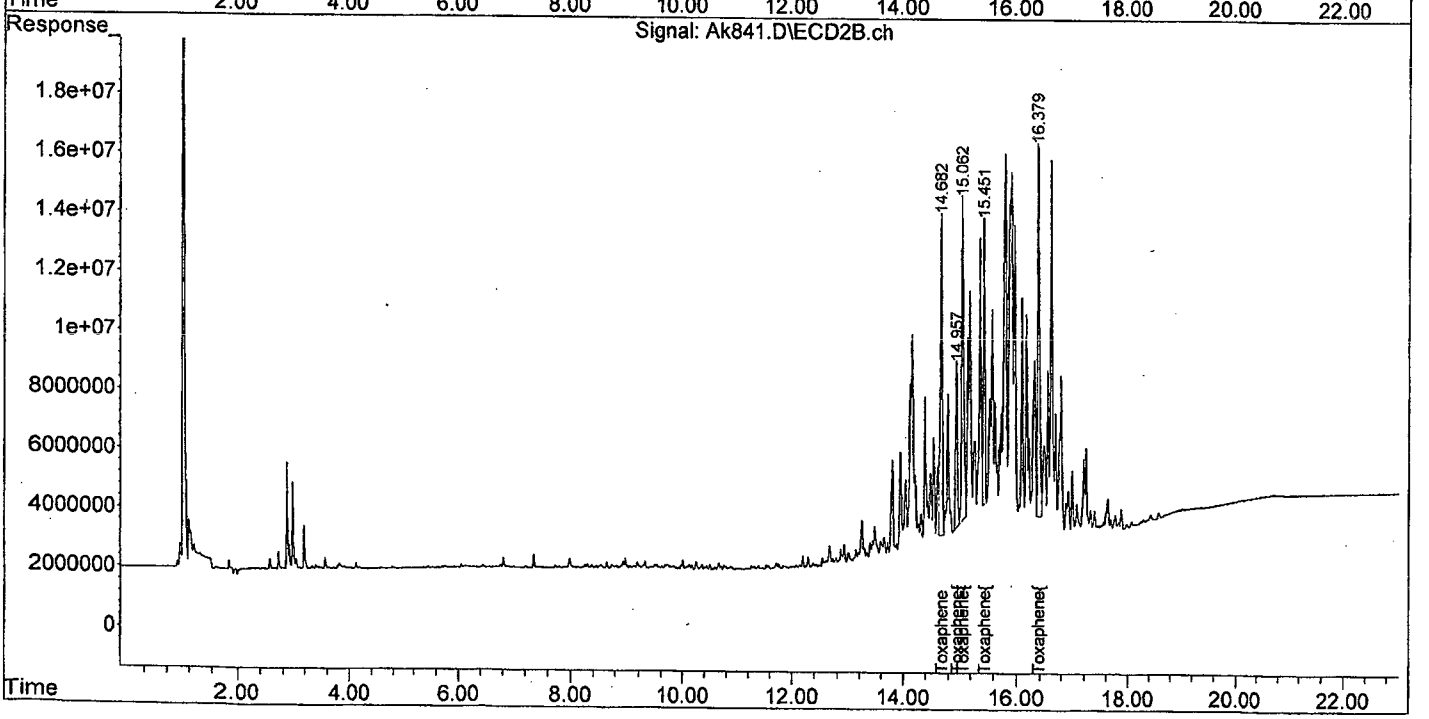
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak841.D
Acq On    : 21 Oct 2015    8:28 pm
Operator  : m.pedro
Sample    : tox m                                    Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 20   Sample Multiplier: 1

Quant Time: Oct 22 13:27:36 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.      : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



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3081102115.M Thu Oct 22 13:45:33 2015                    Page: 2
```
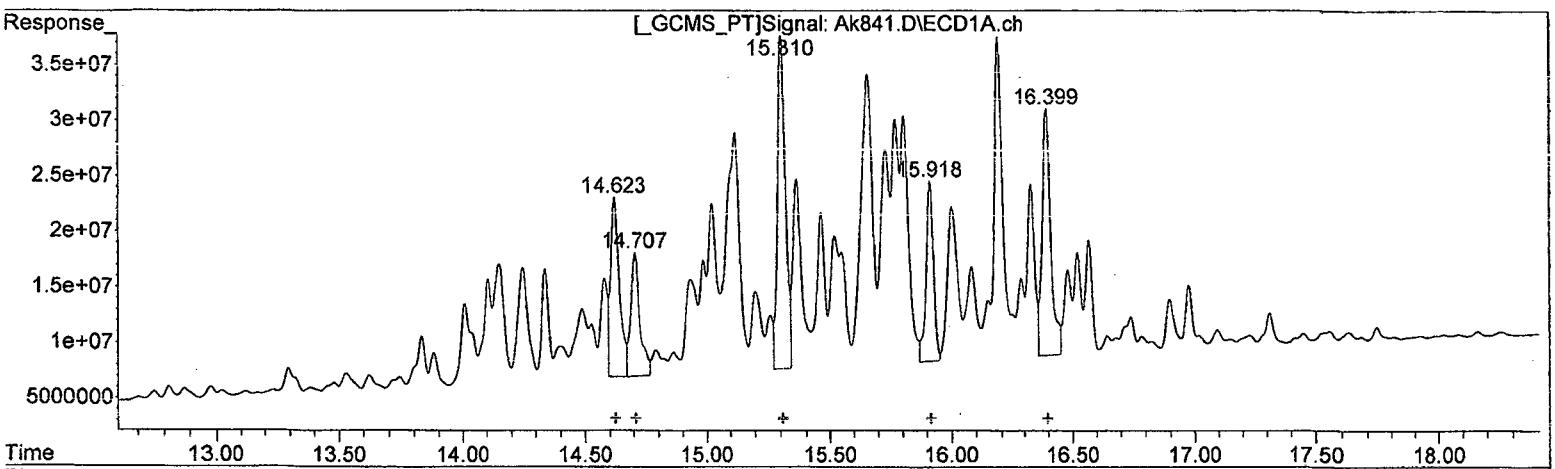
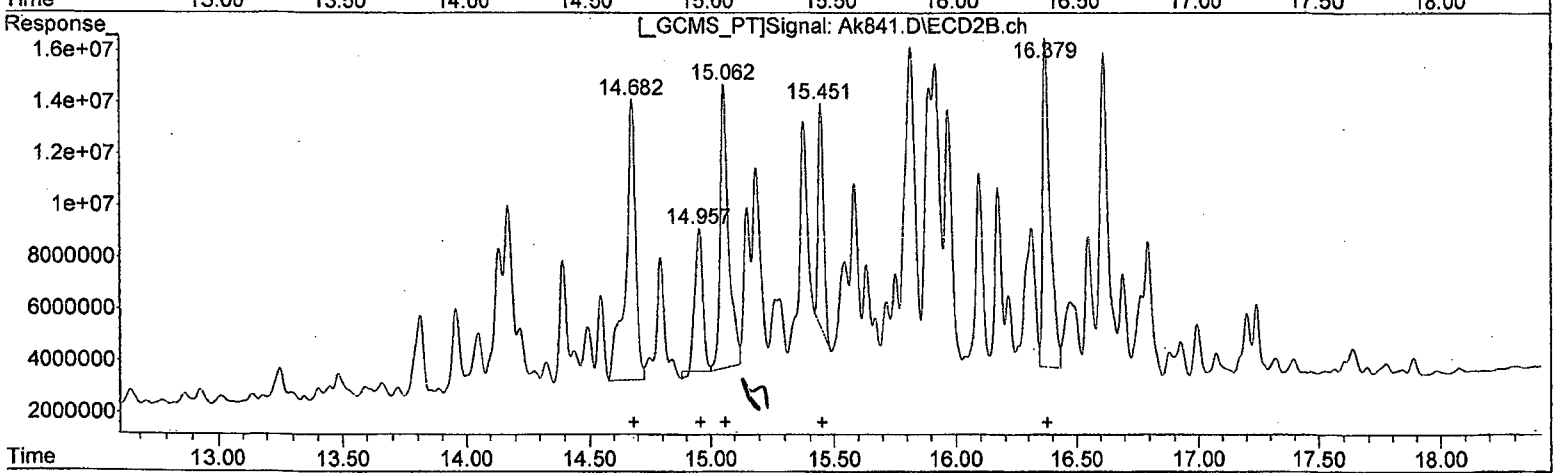

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak841.D
Acq On : 21 Oct 2015 8:28 pm
Operator : m.pedro
Sample : tox m Inst : 7890-M
Misc : initilal cal
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 22 13:22:49 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(27) Toxaphene (L8C)

R.T.	Response	Conc
14.62	402749137	564.51
14.71	300736034	572.45
15.31	645398006	576.71
15.92	344531459	567.07
16.40	536374112	540.19

(27) Toxaphene #2 (L8C)

R.T.	Response	Conc
14.68	310325205	588.53
14.96	132518115	497.97
15.06	268826335	516.33
15.45	138511312	426.91
16.38	271951946	497.25

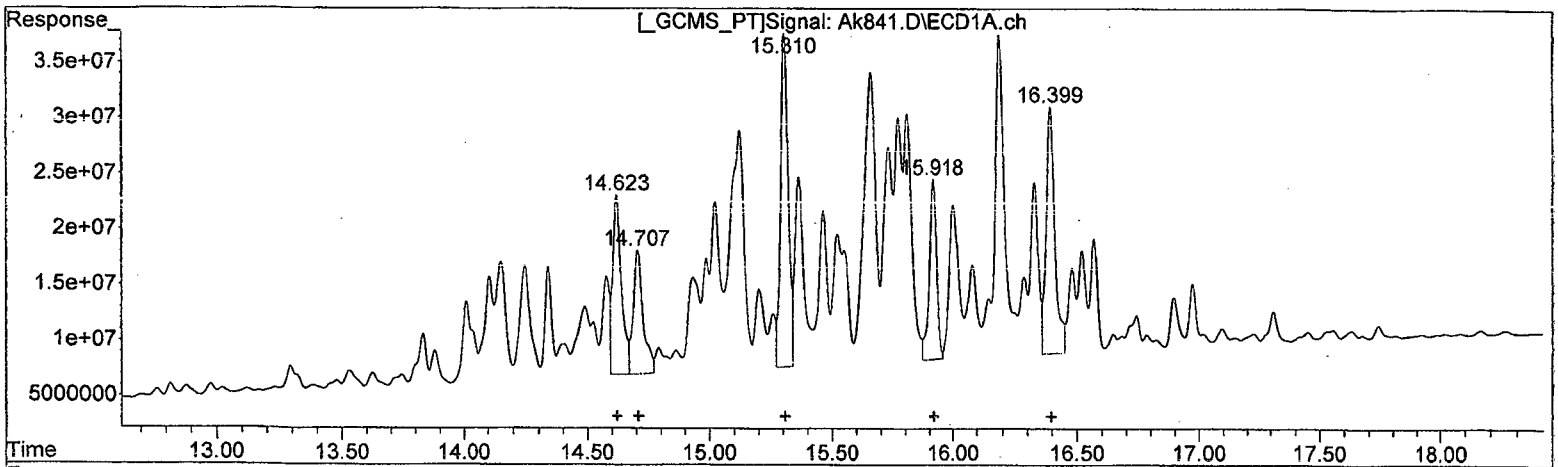
(+) = Expected Retention Time

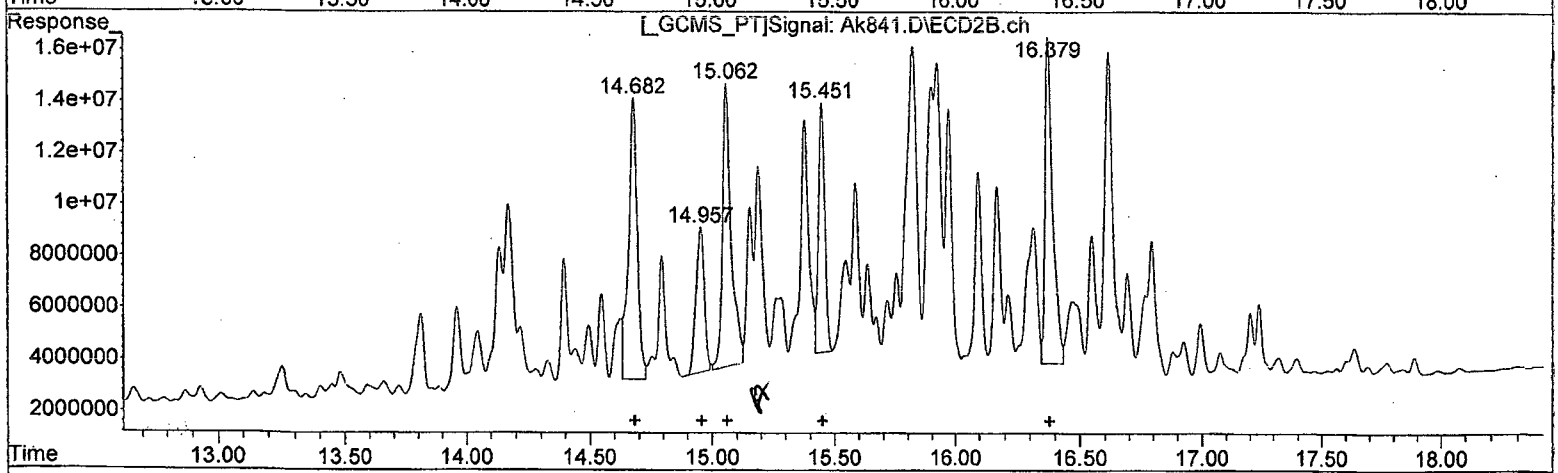
8081102115.M Thu Oct 22 13:27:18 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak841.D
Acq On : 21 Oct 2015 8:28 pm
Operator : m.pedro
Sample : tox m Inst : 7890-M
Misc : initilal cal
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 22 13:22:49 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(27) Toxaphene #2 (L8C)

R.T.	Response	Conc
14.62	402749137	564.51
14.71	300736034	572.45
15.31	645398006	576.71
15.92	344531459	567.07
16.40	536374112	540.19

(27) Toxaphene #2 (L8C)

R.T.	Response	Conc
14.68	260500676	494.04
14.96	130019788	488.58
15.06	268826335	516.33
15.45	172341676	531.18
16.38	266442896	487.17

(+) = Expected Retention Time
8081102115.M Thu Oct 22 13:28:07 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak842.D
Acq On : 21 Oct 2015 8:56 pm
Operator : m.pedro
Sample : tox mh Inst : 7890-M
Misc : initilal cal
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 22 13:29:10 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

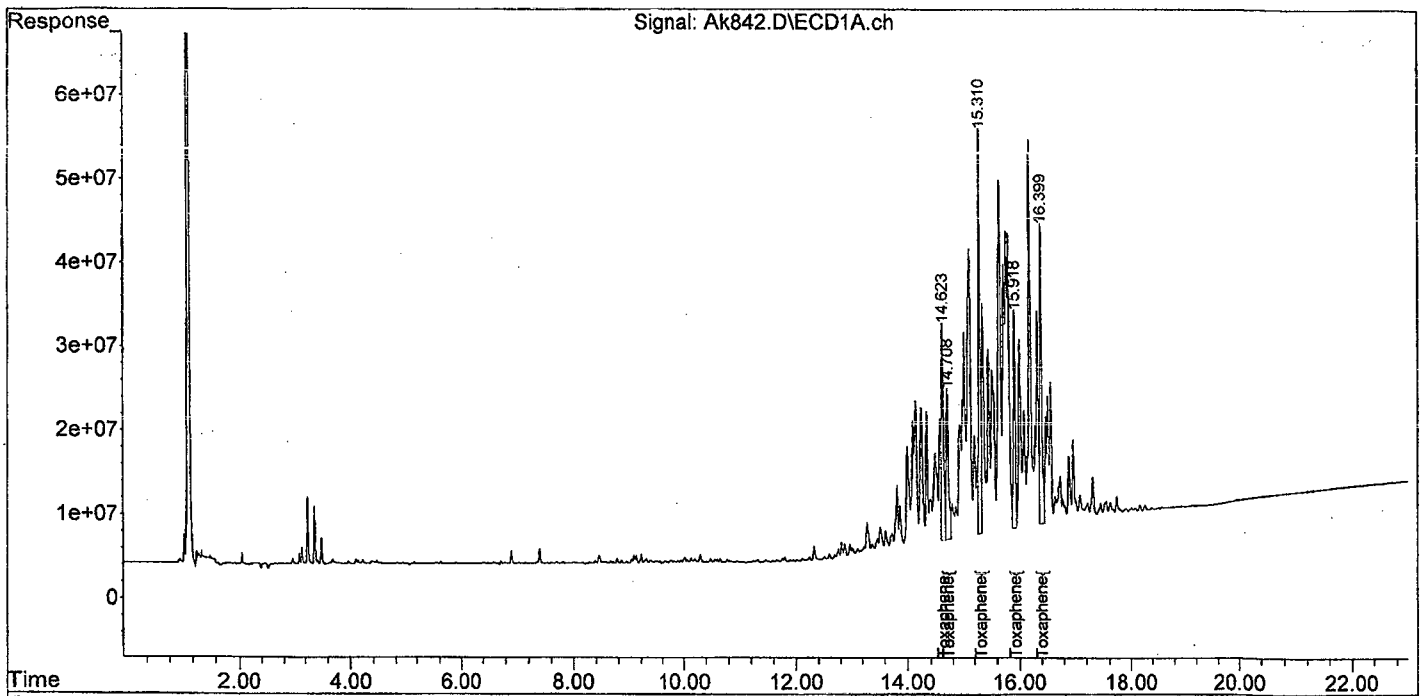
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
Target Compounds						
7) L8C Toxaphene	14.624	14.683	658.3E6	409.7E6	882.318	759.209m
8) L8C Toxaphene{2}	14.708	14.957	499.0E6	204.4E6	905.990	752.424m
9) L8C Toxaphene{3}	15.311	15.062	1042.8E6	404.2E6	890.293	751.969
0) L8C Toxaphene{4}	15.919	15.452	582.9E6	272.6E6	918.451	816.225m
1) L8C Toxaphene{5}	16.399	16.380	878.7E6	427.0E6	860.734	762.796
Sum Toxaphene			3661.8E6	1717.9E6	4457.787	3842.623
verage Toxaphene					891.557	768.525
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

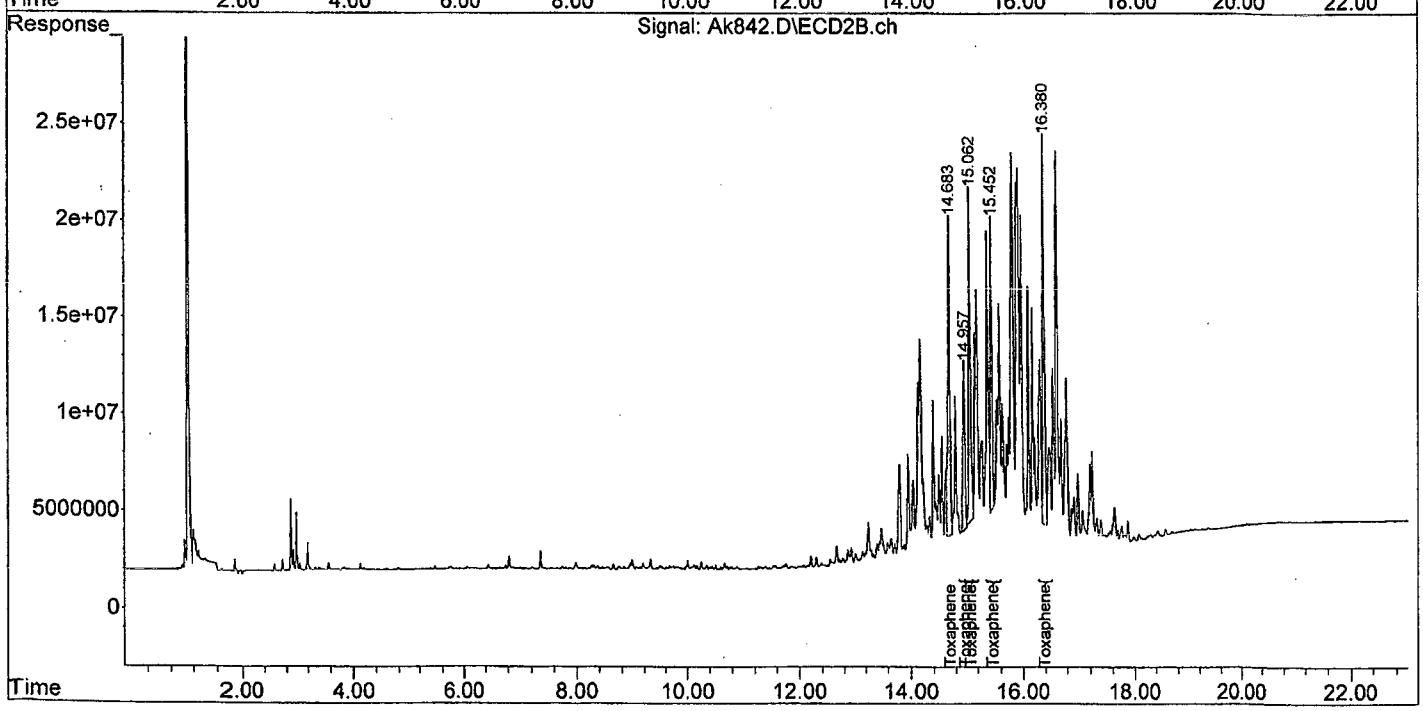
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak842.D
Acq On : 21 Oct 2015 8:56 pm
Operator : m.pedro
Sample : tox mh Inst : 7890-M
Misc : initilal cal
ALS Vial : 21 Sample Multiplier: 1

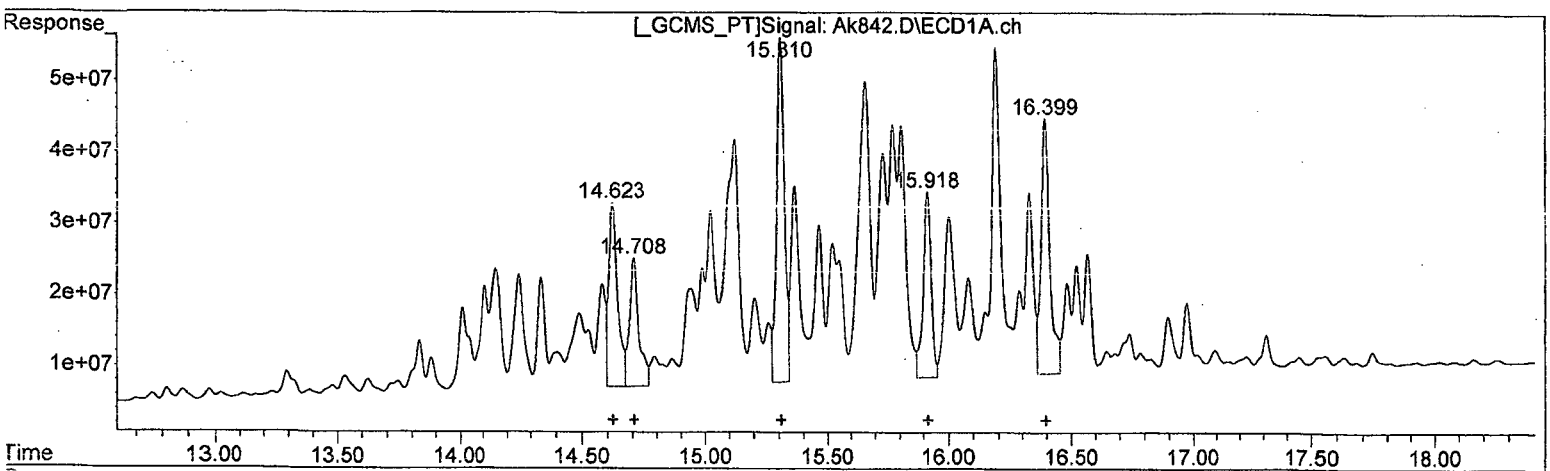
Quant Time: Oct 22 13:29:10 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

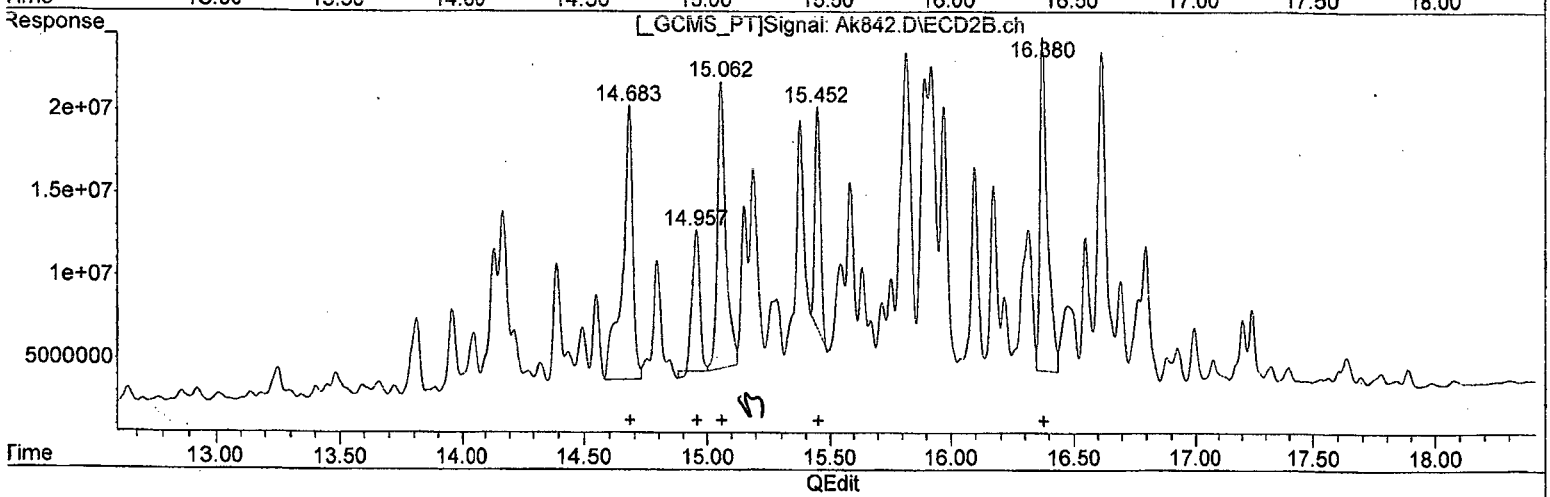
Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak842.D
Acq On    : 21 Oct 2015    8:56 pm
Operator  : m.pedro
Sample    : tox mh                                    Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 21   Sample Multiplier: 1

Quant Time: Oct 22 13:28:28 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```





QEdit

(27) Toxaphene (L8C)

R.T.	Response	Conc
14.62	658278240	882.32
14.71	499043754	905.99
15.31	1042834922	890.29
15.92	582902579	918.45
16.40	878718803	860.73

(27) Toxaphene #2 (L8C)

R.T.	Response	Conc
14.68	476257778	882.51
14.96	201947303	743.42
15.06	404180291	751.97
15.45	216188899	647.28
16.38	426957608	762.80

(+) = Expected Retention Time

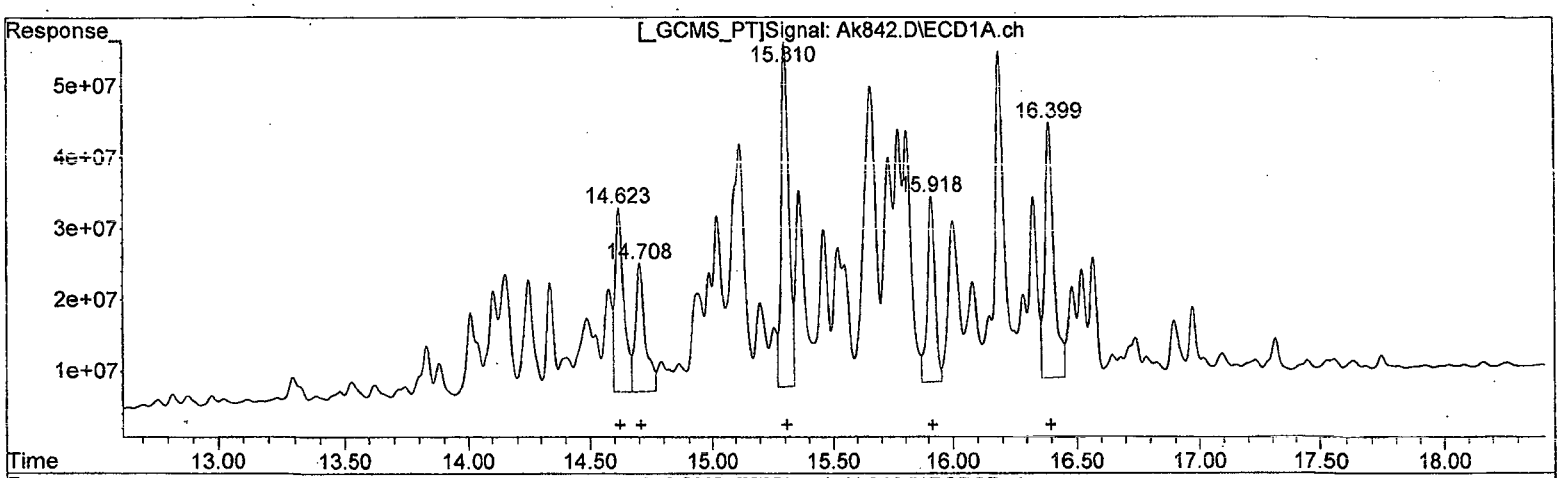
3081102115.M Thu Oct 22 13:28:58 2015 Page: 1

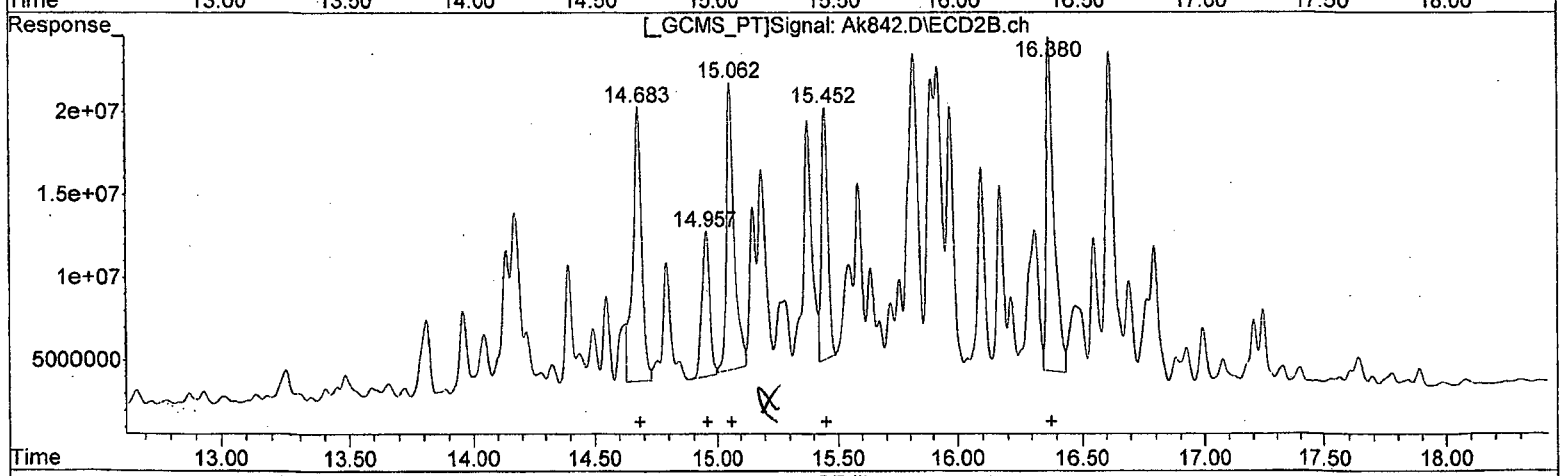
Quantitation Report (QEdit)

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak842.D
Acq On : 21 Oct 2015 8:56 pm
Operator : m.pedro
Sample : tox mh Inst : 7890-M
Misc : initilal cal
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 22 13:28:28 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(27) Toxaphene #2 (L8C)

R.T.	Response	Conc
14.62	658278240	882.32
14.71	499043754	905.99
15.31	1042834922	890.29
15.92	582902579	918.45
16.40	878718803	860.73

(27) Toxaphene #2 (L8C)

R.T.	Response	Conc
14.68	409717280	759.21
14.96	204393501	752.42
15.06	404180291	751.97
15.45	272614552	816.23
16.38	426957608	762.80

(+) = Expected Retention Time

8081102115.M Thu Oct 22 13:29:18 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak843.D
Acq On : 21 Oct 2015 9:24 pm
Operator : m.pedro
Sample : tox h Inst : 7890-M
Misc : initilal cal
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 22 13:32:22 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
Target Compounds						
7) L8C Toxaphene	14.624	14.683	1109.8E6	695.0E6	1413.477m	1255.315m
8) L8C Toxaphene{2}	14.708	14.958	822.8E6	334.2E6	1415.706m	1199.866m
9) L8C Toxaphene{3}	15.310	15.062	1749.8E6	677.1E6	1424.066m	1223.581
0) L8C Toxaphene{4}	15.919	15.451	933.0E6	462.8E6	1399.080m	1338.909m
1) L8C Toxaphene{5}	16.399	16.380	1452.4E6	723.0E6	1379.538m	1255.075
Sum Toxaphene			6067.8E6	2892.2E6	7031.867	6272.746
verage Toxaphene					1406.373	1254.549
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

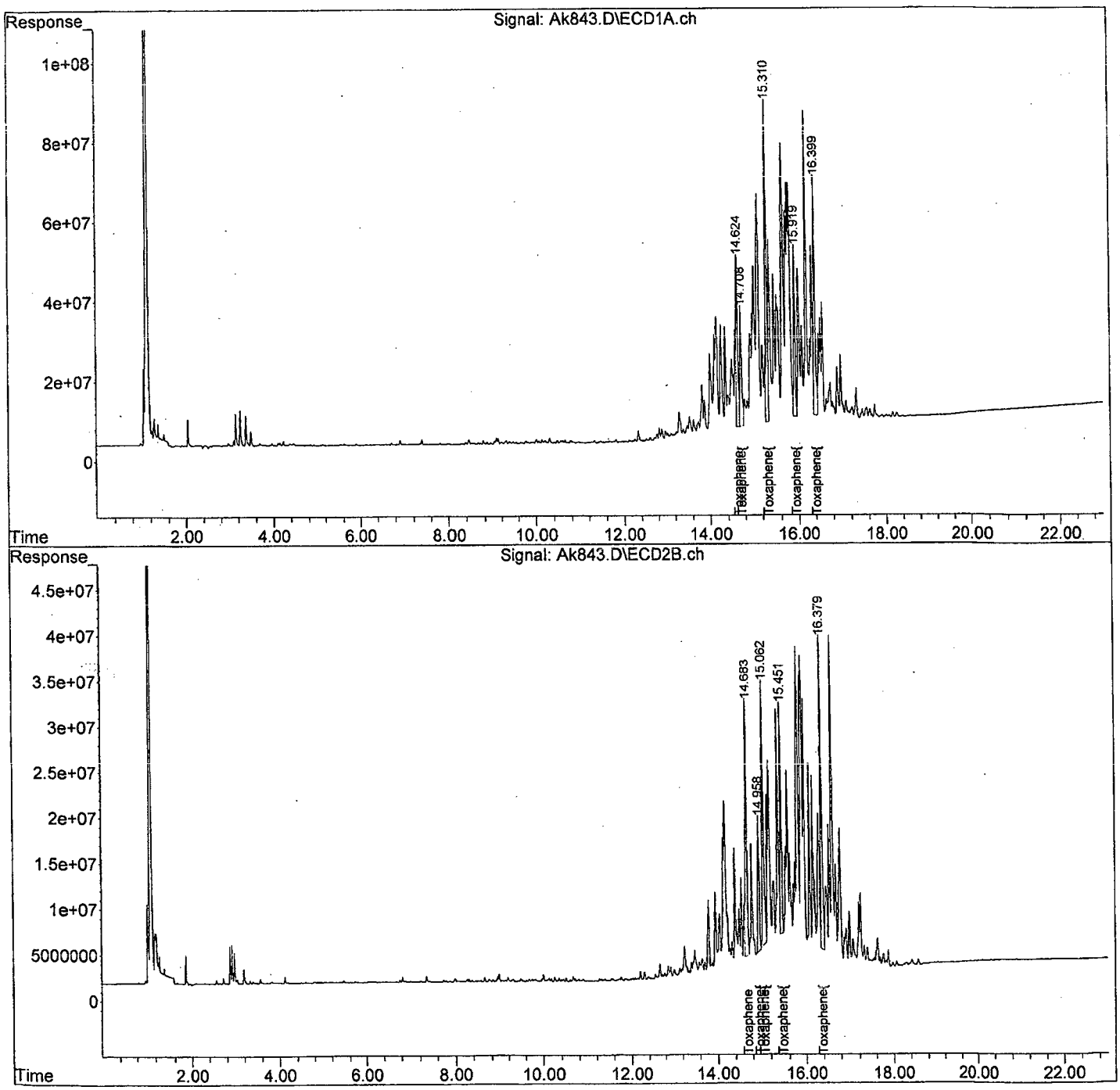
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

081102115.M Thu Oct 22 13:45:44 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak843.D
Acq On : 21 Oct 2015 9:24 pm
Operator : m.pedro
Sample : tox h Inst : 7890-M
Misc : initilal cal
ALS Vial : 22 Sample Multiplier: 1

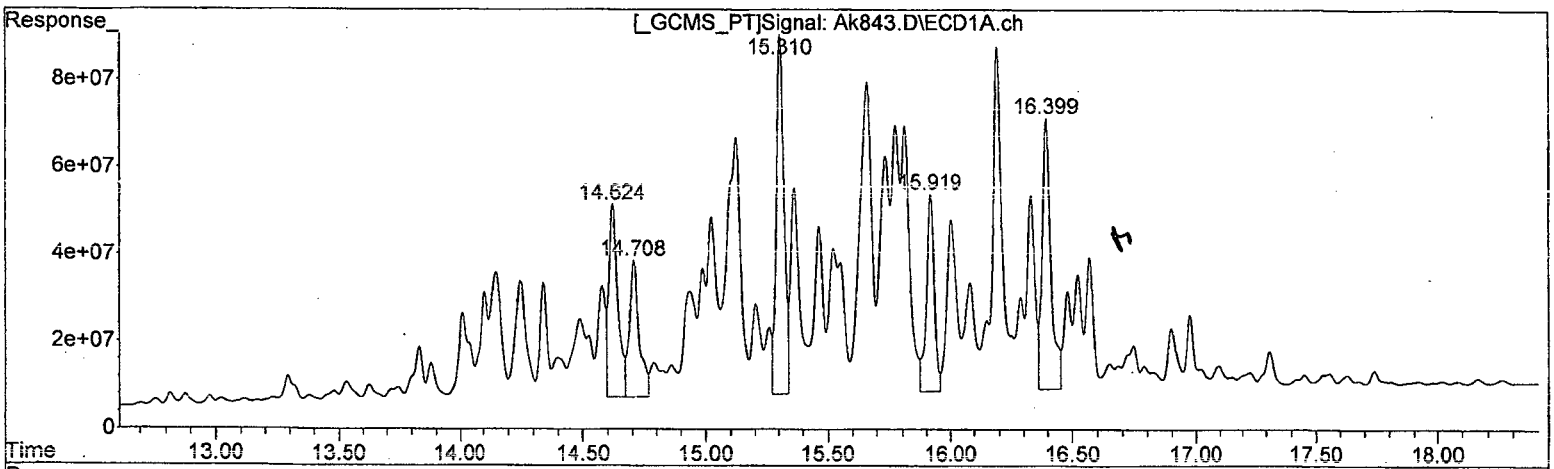
Quant Time: Oct 22 13:32:22 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

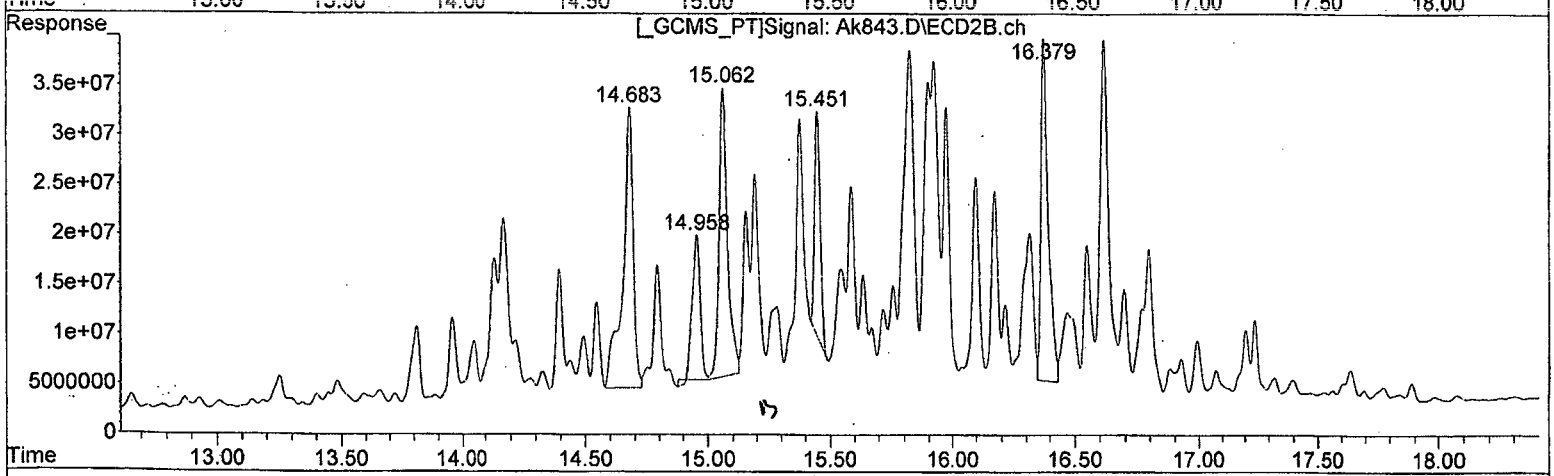
Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



8081102115.M Thu Oct 22 13:45:47 2015 Page: 2

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak843.D
Acq On    : 21 Oct 2015    9:24 pm
Operator  : m.pedro
Sample    : tox h                                    Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 22   Sample Multiplier: 1

Quant Time: Oct 22 13:29:35 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```





QEdit

(27) Toxaphene (L8C)

R.T.	Response	Conc
14.62	1140428079	1452.47
14.71	883072497	1519.33
15.31	1804988637	1468.97
15.92	1043193896	1564.37
16.40	1558925374	1480.76

(27) Toxaphene #2 (L8C)

R.T.	Response	Conc
14.68	801881111	1448.33
14.96	336860143	1209.37
15.06	677141540	1223.58
15.45	364492011	1054.56
16.38	723041101	1255.07

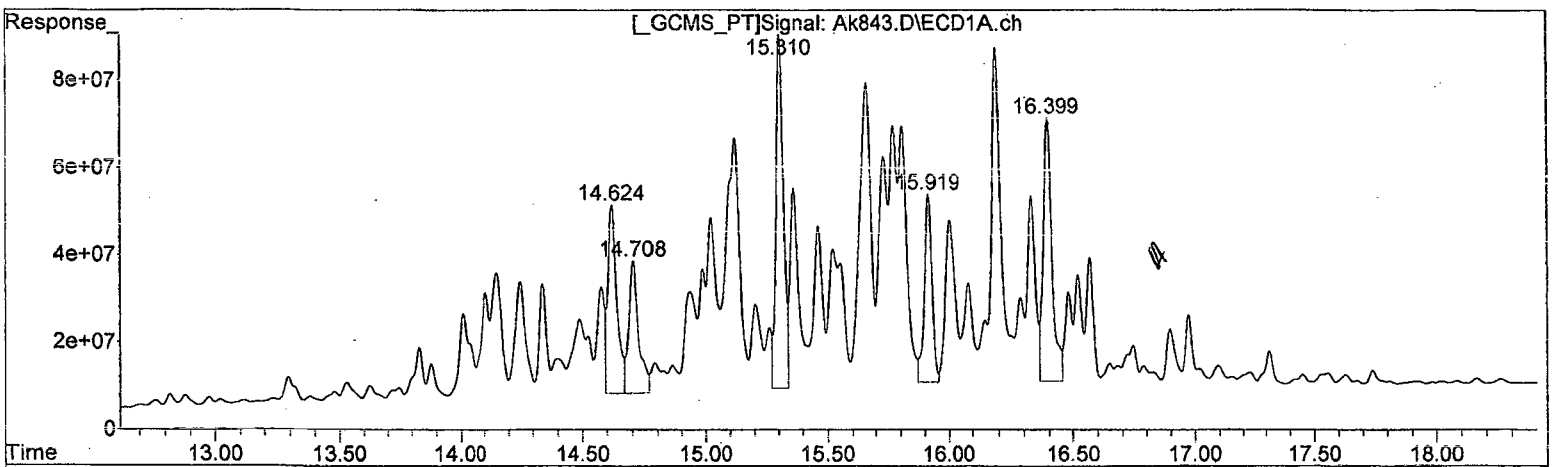
(+) = Expected Retention Time

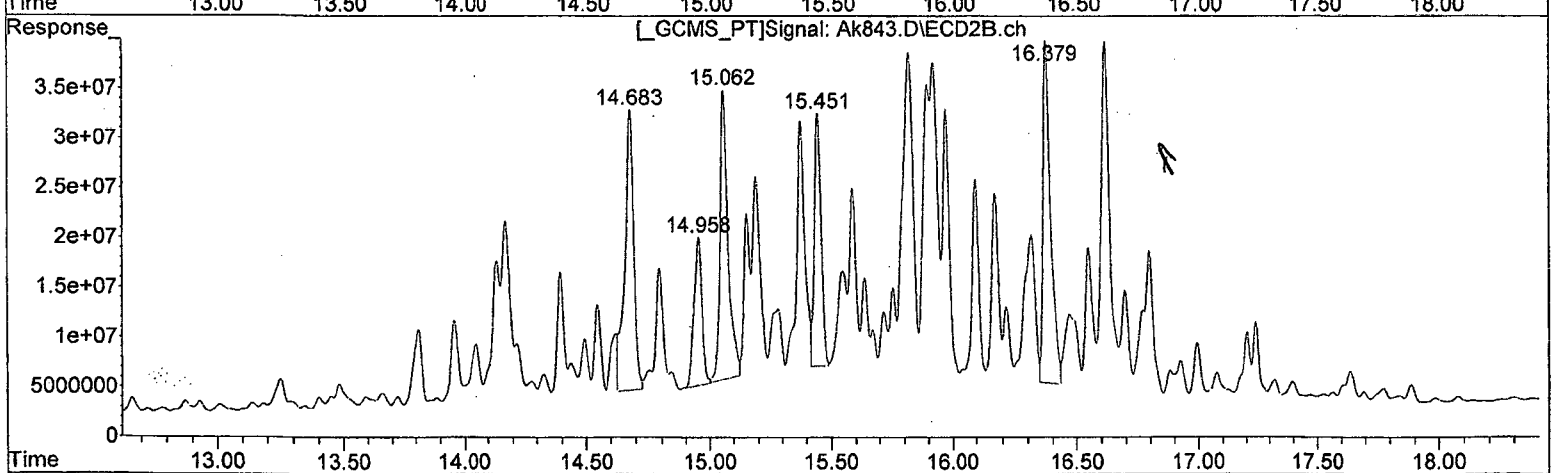
8081102115.M Thu Oct 22 13:29:58 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak843.D
Acq On : 21 Oct 2015 9:24 pm
Operator : m.pedro
Sample : tox h Inst : 7890-M
Misc : initilal cal
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 22 13:32:22 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

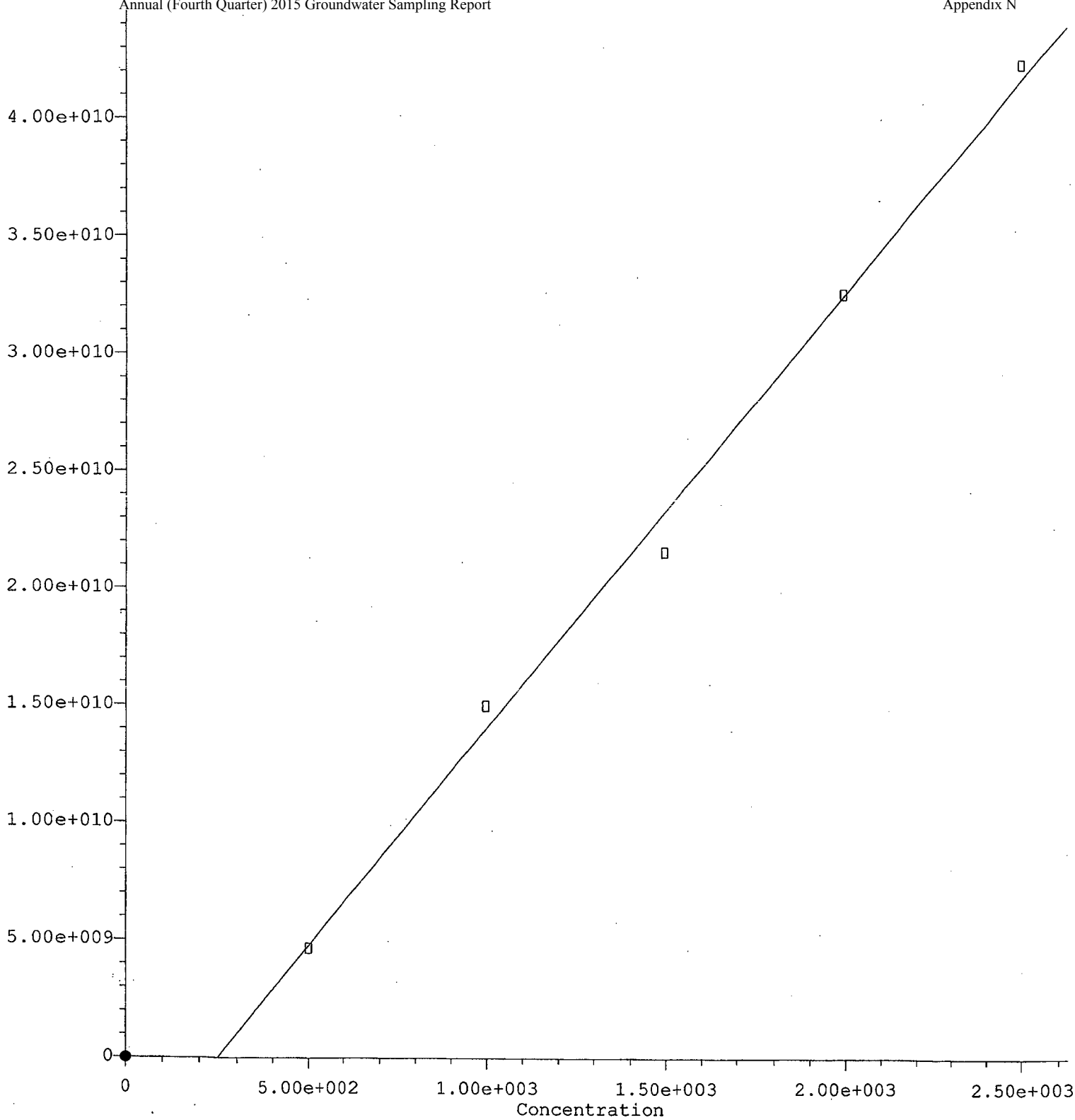
(27) Toxaphene (L8C)

R.T.	Response	Conc
14.62	1109813182	1413.48
14.71	822844466	1415.71
15.31	1749812710	1424.07
15.92	932971594	1399.08
16.40	1452362571	1379.54

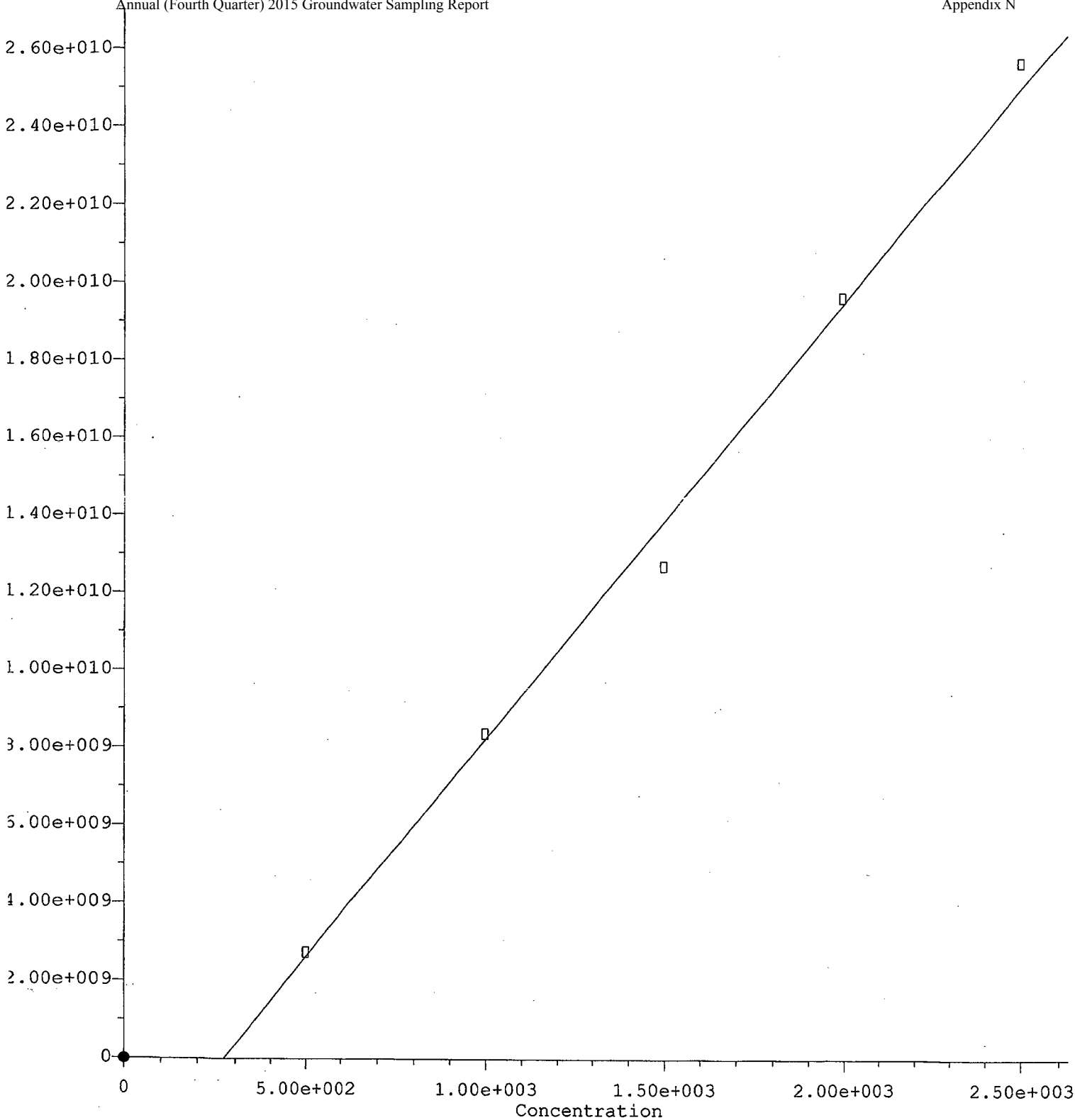
(27) Toxaphene #2 (L8C)

R.T.	Response	Conc
14.68	695016953	1255.31
14.96	334213234	1199.87
15.06	677141540	1223.58
15.45	462771397	1338.91
16.38	723041101	1255.07

(+) = Expected Retention Time
8081102115.M Thu Oct 22 13:33:11 2015 Page: 1



Response = 1.85e+007 * Amt - 4.51e+009
oef of Det (r^2) = 0.995 Curve Fit: wlr(1/a^2)
ethod Name: I:\ACQUDATA\7890m\Methods\8081102115.M
alibration Table Last Updated: Thu Oct 22 13:15:18 2015



Response = 1.12e+007 * Amt - 2.99e+009
Coef of Det (r^2) = 0.996 Curve Fit: wlr(1/a)
Method Name: I:\ACQUDATA\7890m\Methods\8081102115.M
Calibration Table Last Updated: Thu Oct 22 13:15:18 2015

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak824.D
Acq On : 21 Oct 2015 12:35 pm
Operator : m.pedro
Sample : pest 2 ppb Inst : 7890-M
Misc : initilal cal
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 22 11:38:20 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:35:49 2015
Response via : Initial Calibration
Integrator: ChemStation

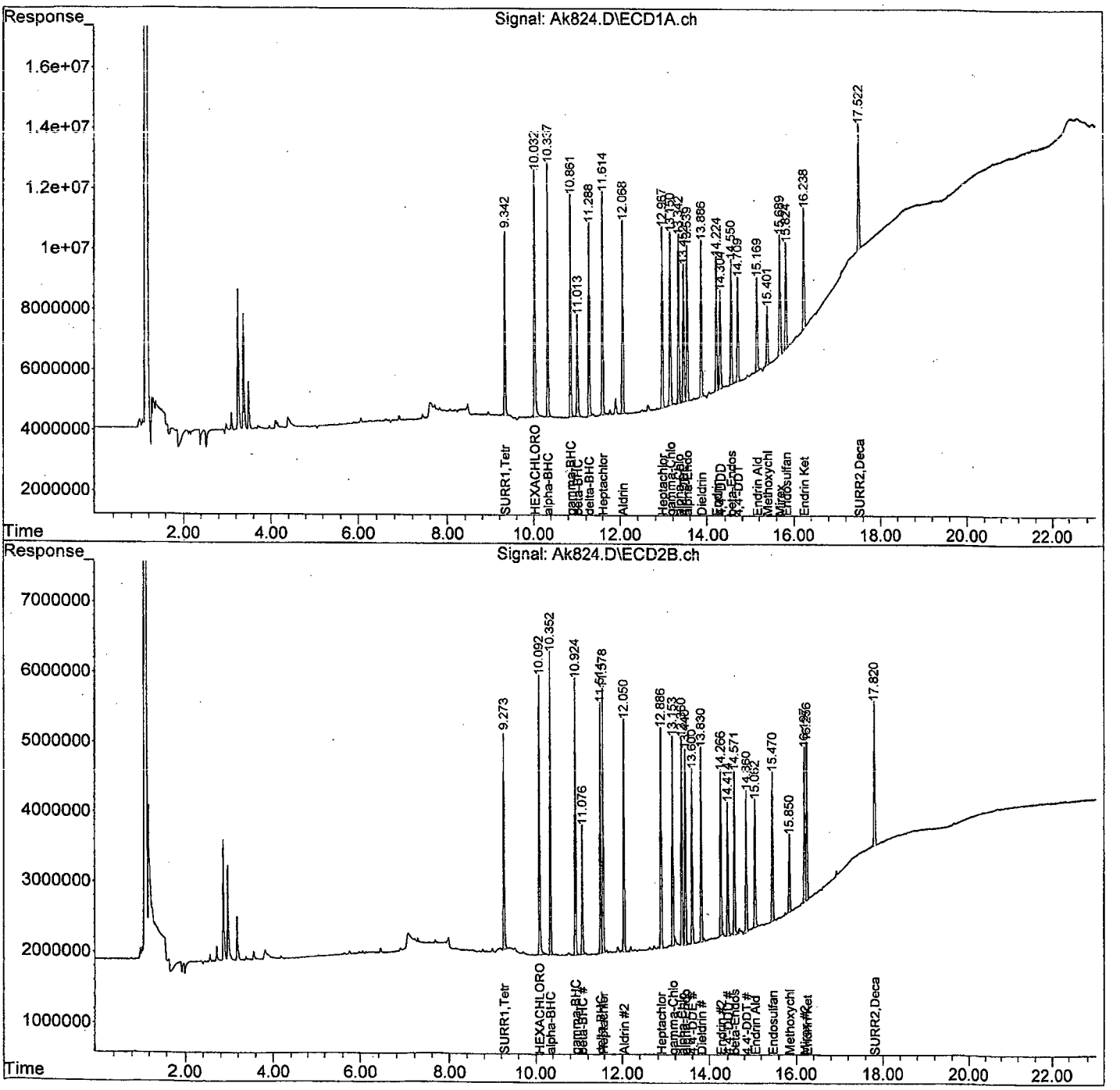
Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1) S	SURR1,Tet...	9.343	9.273	97756761	44731887	2.113	2.225
	Spiked Amount 100.000	Range 30 - 150		Recovery =		2.11%#	2.23%#
6) S	SURR2,Dec...	17.522	17.820	73983928	35089005	2.979	2.780m
	Spiked Amount 100.000	Range 30 - 150		Recovery =		2.98%#	2.78%#
	Target Compounds						
2) TC	HEXACHLOR...	10.033	10.092	141.9E6	61972343	2.462	2.513
3) tc	alpha-BHC	10.337	10.353	130.7E6	58539669	1.892	1.885
4) tcm	gamma-BHC (L	10.862	10.924	118.0E6	54416638	1.994	2.035
5) tcm	Heptachlor	11.614	11.579	128.1E6	57393982	2.287	2.221
6) tcm	Aldrin	12.068	12.050	106.8E6	51096474	2.073	2.097
7) tc	beta-BHC	11.014	11.077	58915268	27415036	2.372	2.476
8) tc	delta-BHC	11.288	11.514	105.5E6	52769013	2.089	2.288
9) tc	Heptachlor E	12.967	12.887	103.8E6	49106868	2.345	2.303
0) tc	alpha-Endosu	13.539	13.441	92436047	44660455	2.442	2.383
1) tc	gamma-Chlord	13.150	13.153	106.6E6	47276814	2.495	2.293
2) tc	alpha-Chlord	13.342	13.361	98845703	47447640	2.406	2.378
3) tc	4,4'-DDE	13.452	13.601	79916414	39753348	2.411	2.404
4) tcm	Dieldrin	13.886	13.830	91357664	45452854	2.349	2.326
5) tcm	Endrin	14.224	14.266	79213909	37881128	2.523	2.394
7) tc	beta-Endosul	14.551	14.572	76846525	40772868	2.619	2.694
8) tc	4,4'-DDD	14.305	14.414	61505633	31734021	2.514	2.547
9) tcm	4,4'-DDT	14.709	14.860	64080565	34089860	2.327	2.449
0) tc	Endrin Aldeh	15.169	15.062	58191566	31940693	2.556m	2.679m
1) tc	Endosulfan S	15.824	15.471	67857937	36792794	2.743	2.757
2) tc	Methoxychlor	15.401	15.850	36732486	18549112	2.853m	2.916
4) tc	Endrin Keton	16.238	16.256	74175079	38465766	2.536m	2.543
5) tc	Mirex	15.689	16.197	81000531	39601048	3.432m	3.471
	Sum Toxaphene			0	0	N.D.	N.D.
verage	Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
verage	Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

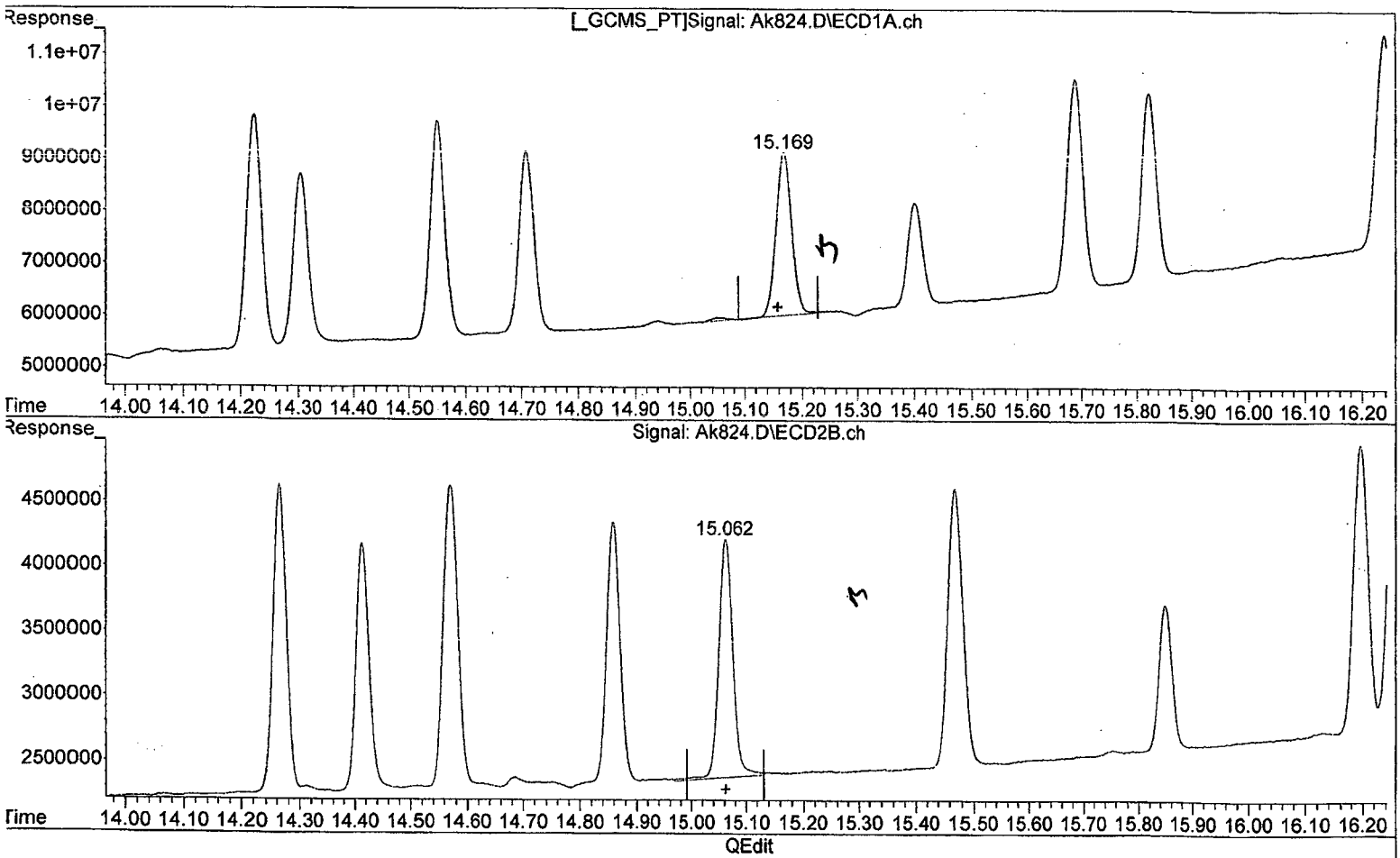
081102115.M Thu Oct 22 13:43:18 2015 Page: 1

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak824.D
Acq On    : 21 Oct 2015  12:35 pm
Operator  : m.pedro
Sample    : pest 2 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Oct 22 11:38:20 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:35:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```




```
3081102115.M Thu Oct 22 13:43:21 2015
```

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak824.D
Acq On    : 21 Oct 2015  12:35 pm
Operator  : m.pedro
Sample    : pest 2 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Oct 22 11:36:34 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:35:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(20) Endrin Aldeh (tc)

15.170min 2.580 ug/l

response 58729084

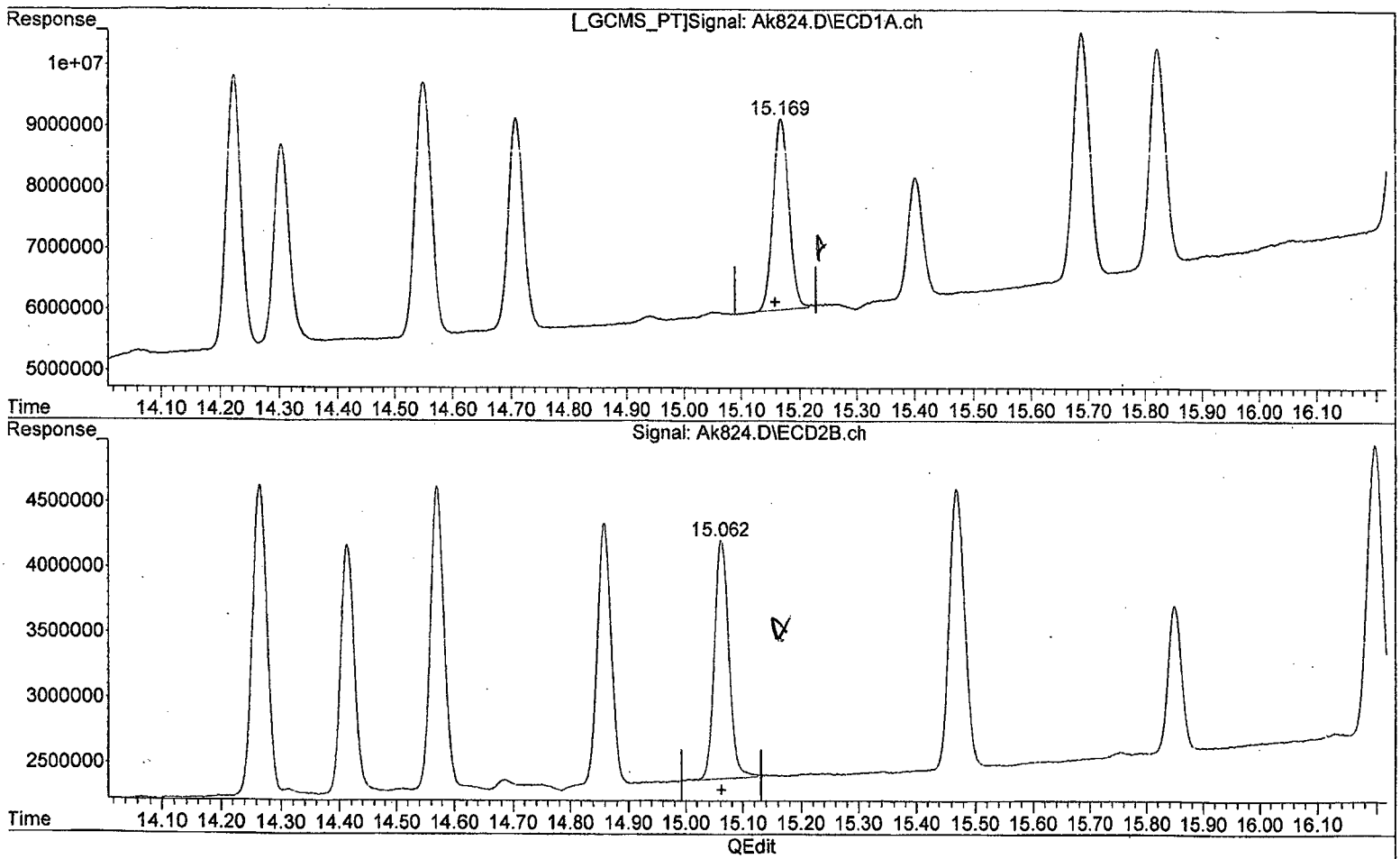
(20) Endrin Aldeh #2 (tc)

15.063min 2.771 ug/l

response 33040851

```
 (+) = Expected Retention Time
3081102115.M Thu Oct 22 11:37:11 2015                    Page: 1
```

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak824.D
Acq On    : 21 Oct 2015  12:35 pm
Operator  : m.pedro
Sample    : pest 2 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Oct 22 11:36:34 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:35:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(20) Endrin Aldeh (tc)

15.169min 2.556 ug/l m

response 58191566

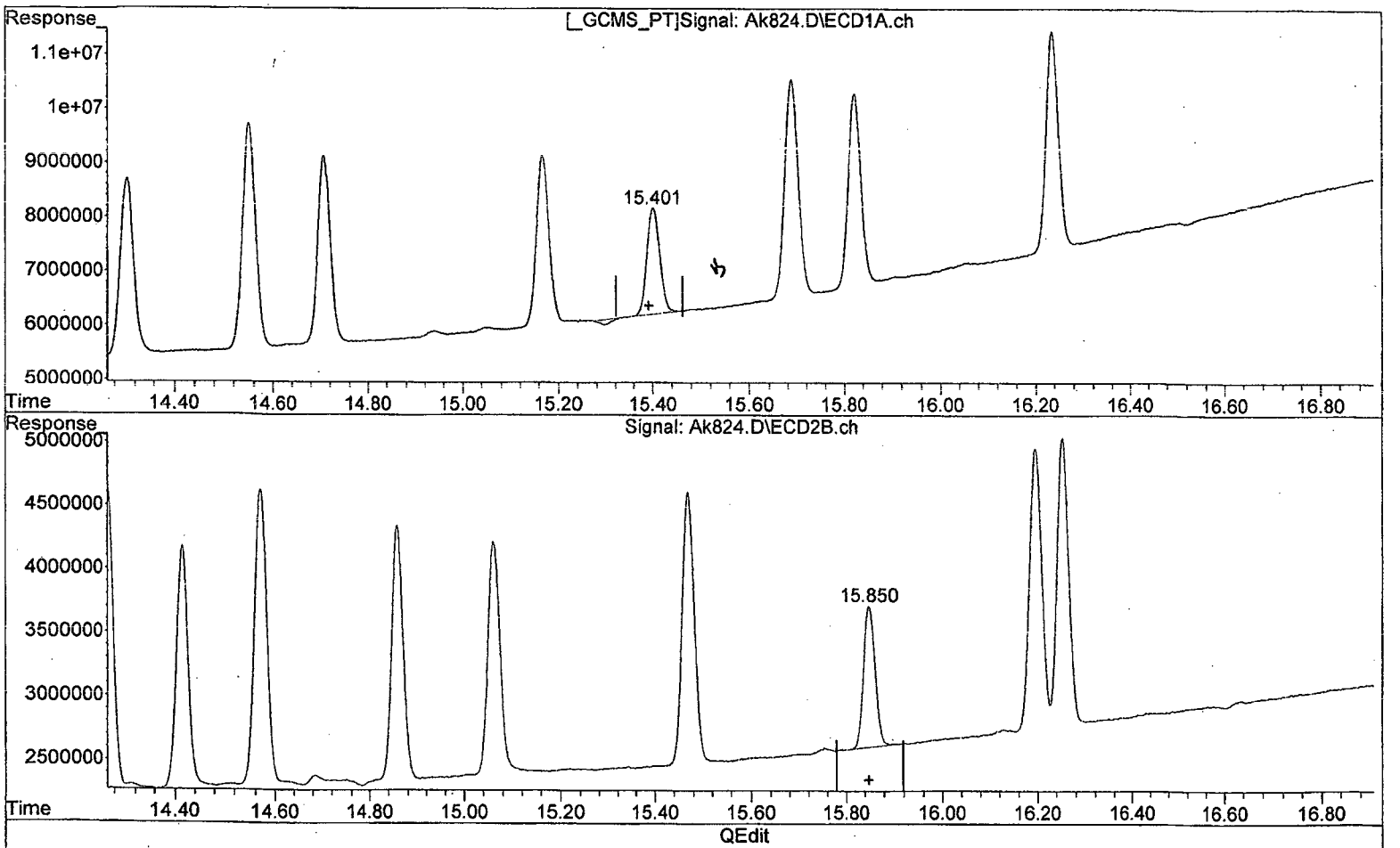
(20) Endrin Aldeh #2 (tc)

15.062min 2.679 ug/l m

response 31940693

```
(+) = Expected Retention Time
8081102115.M Thu Oct 22 11:37:25 2015
```

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak824.D
Acq On    : 21 Oct 2015  12:35 pm
Operator  : m.pedro
Sample    : pest 2 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Oct 22 11:36:34 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:35:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(22) Methoxychlor (tc)

15.403min 2.701 ug/l

response 34776615

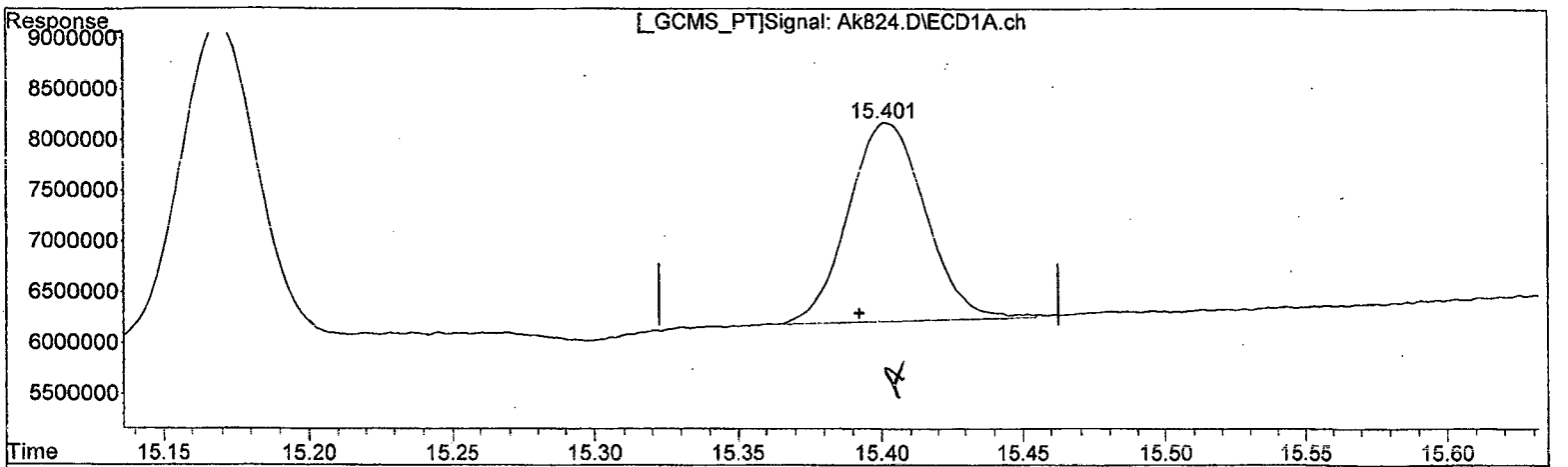
(22) Methoxychlor #2 (tc)

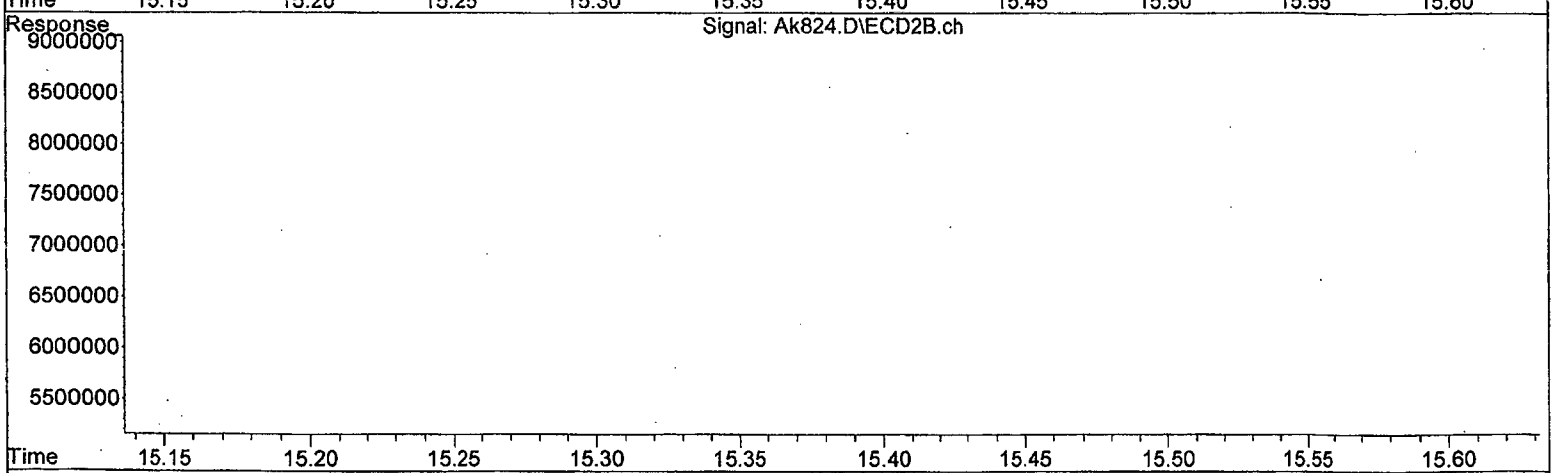
15.850min 2.916 ug/l

response 18549112

```
(+) = Expected Retention Time
8081102115.M Thu Oct 22 11:37:34 2015                    Page: 1
```

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak824.D
Acq On    : 21 Oct 2015  12:35 pm
Operator  : m.pedro
Sample    : pest 2 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Oct 22 11:36:34 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:35:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```





QEdit

(22) Methoxychlor (tc)

15.401min 2.853 ug/l m

response 36732486

(22) Methoxychlor #2 (tc)

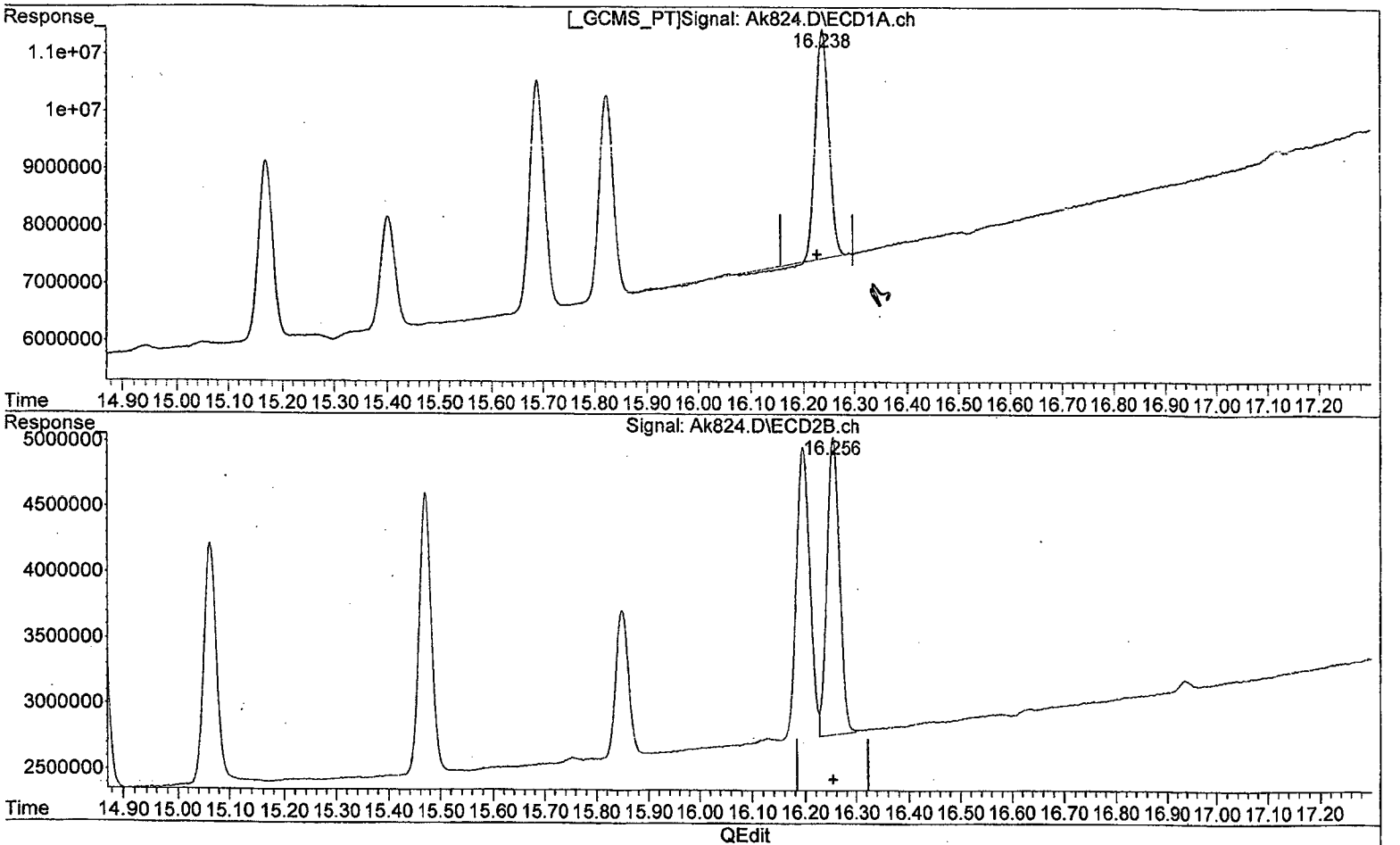
15.850min 2.916 ug/l

response 18549112

(+) = Expected Retention Time

8081102115.M Thu Oct 22 11:37:42 2015 Page: 1

```
Data Path : I:\ACQUDATA\7890m\DATA\I02115\
Data File : Ak824.D
Acq On    : 21 Oct 2015  12:35 pm
Operator  : m.pedro
Sample    : pest 2 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Oct 22 11:36:34 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:35:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(24) Endrin Keton (tc)

16.238min 2.382 ug/l

response 69683399

(24) Endrin Keton #2 (tc)

16.256min 2.543 ug/l

response 38465766

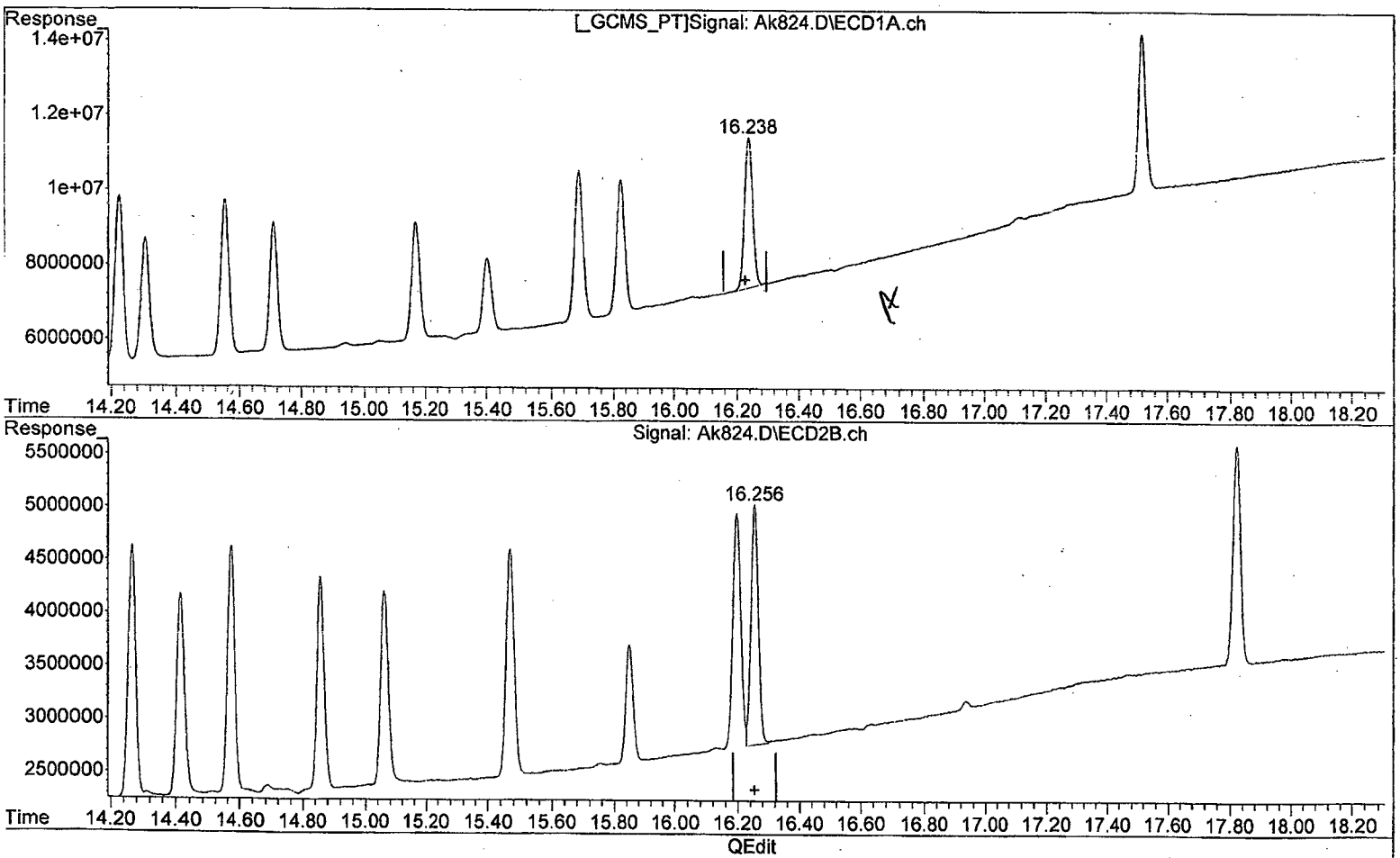
(+) = Expected Retention Time

8081102115.M Thu Oct 22 11:37:47 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak824.D
Acq On : 21 Oct 2015 12:35 pm
Operator : m.pedro
Sample : pest 2 ppb Inst : 7890-M
Misc : initilal cal
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 22 11:36:34 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:35:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(24) Endrin Keton (tc)

16.238min 2.536 ug/l m

response 74175079

(24) Endrin Keton #2 (tc)

16.256min 2.543 ug/l

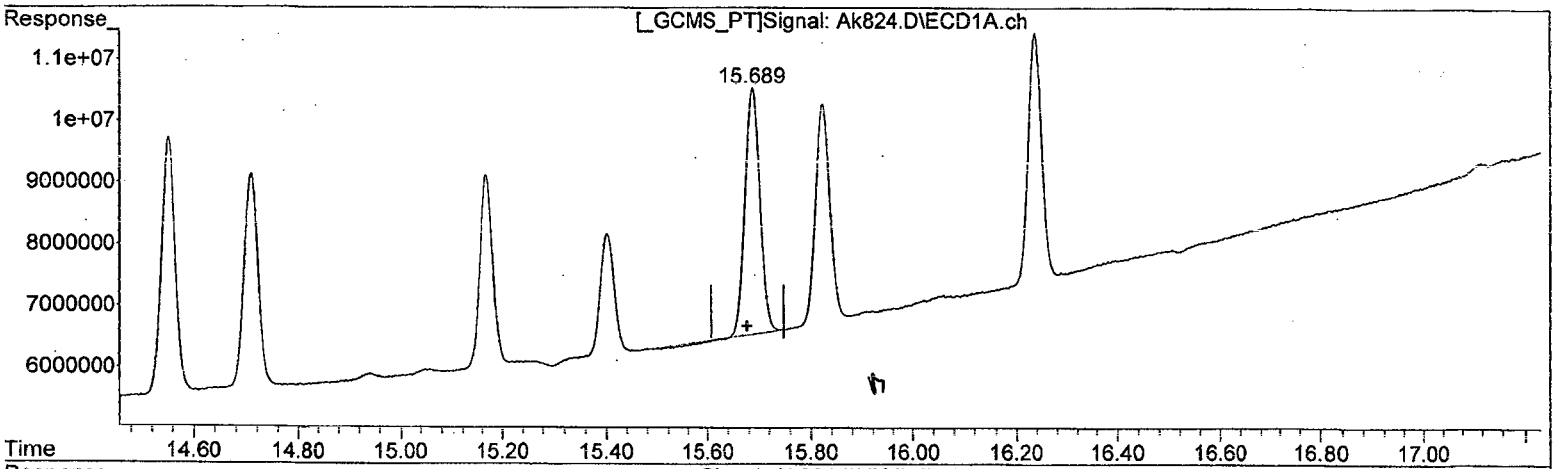
response 38465766

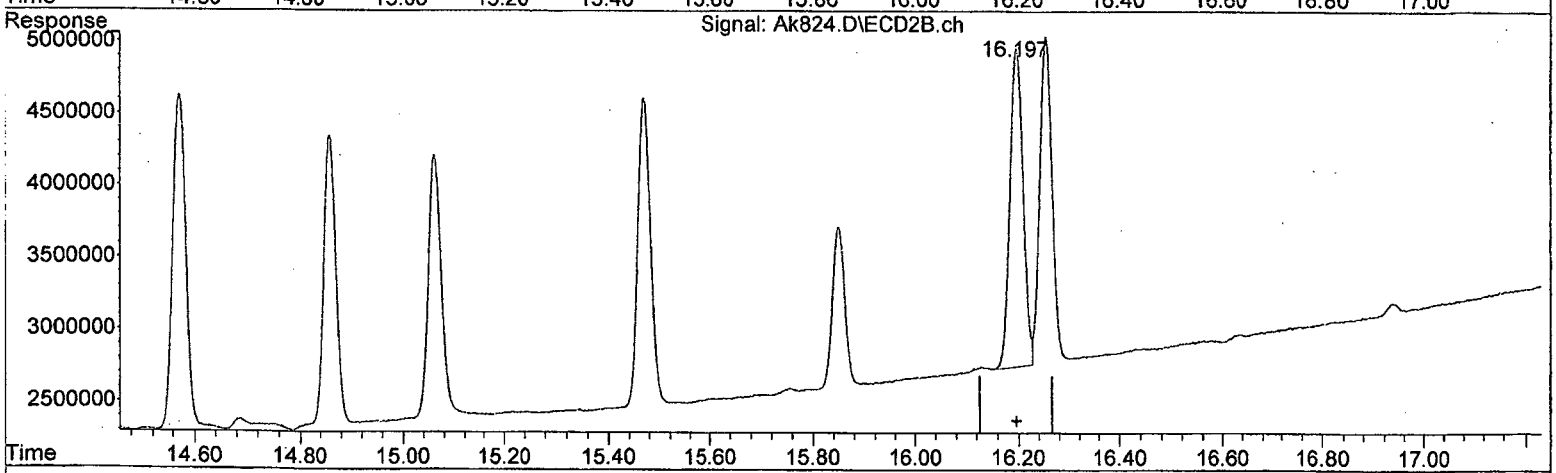
(+) = Expected Retention Time
8081102115.M Thu Oct 22 11:37:55 2015

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak824.D
Acq On : 21 Oct 2015 12:35 pm
Operator : m.pedro
Sample : pest 2 ppb Inst : 7890-M
Misc : initilal cal
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 22 11:36:34 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:35:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(25) Mirex (tc)

15.689min 3.326 ug/l

response 78500127

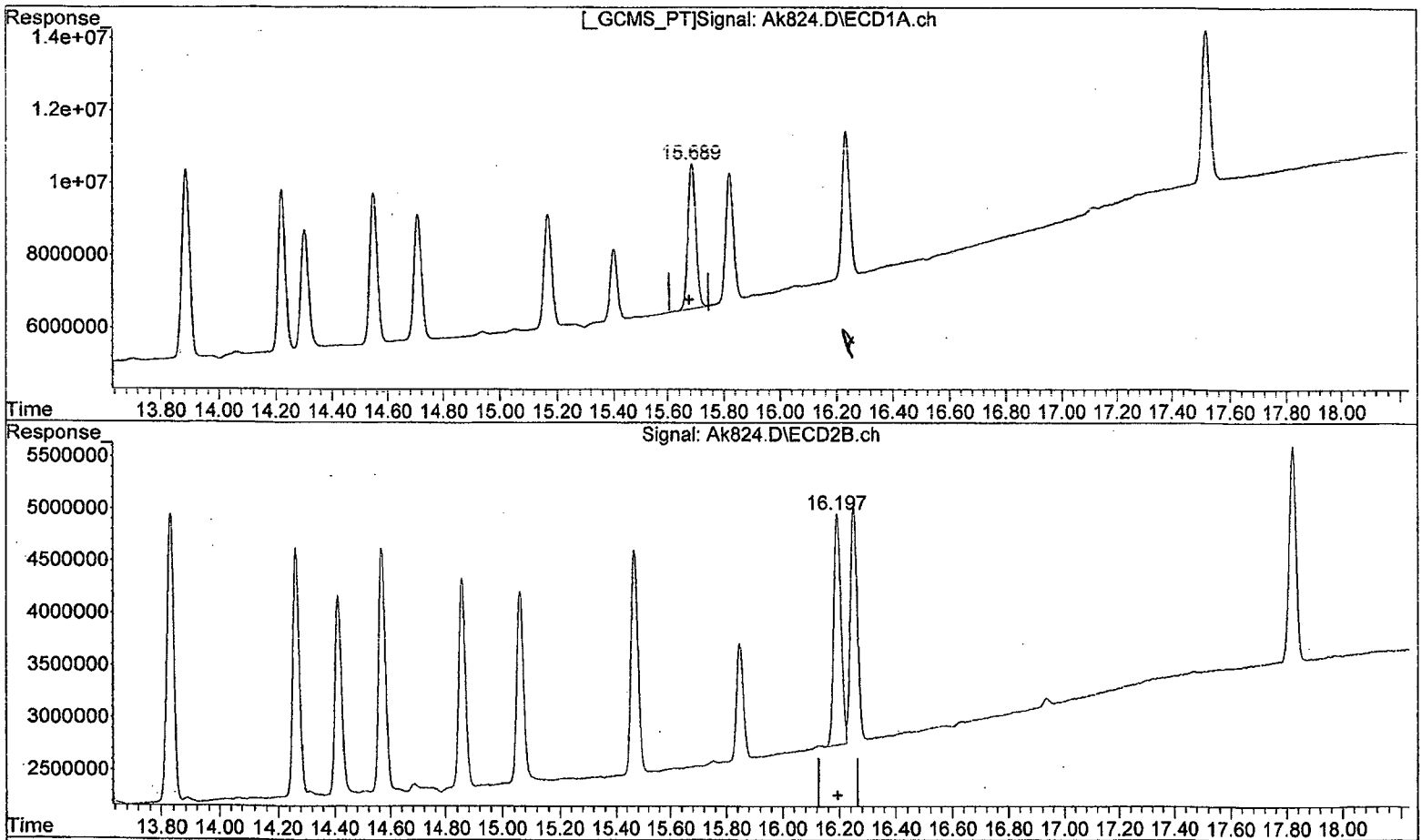
(25) Mirex #2 (tc)

16.197min 3.471 ug/l

response 39601048

(+) = Expected Retention Time
8081102115.M Thu Oct 22 11:38:03 2015 Page: 1

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak824.D
Acq On    : 21 Oct 2015  12:35 pm
Operator  : m.pedro
Sample    : pest 2 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Oct 22 11:36:34 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:35:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.      : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



QEdit

(25) Mirex (tc)

15.689min 3.432 ug/l m

response 81000531

(25) Mirex #2 (tc)

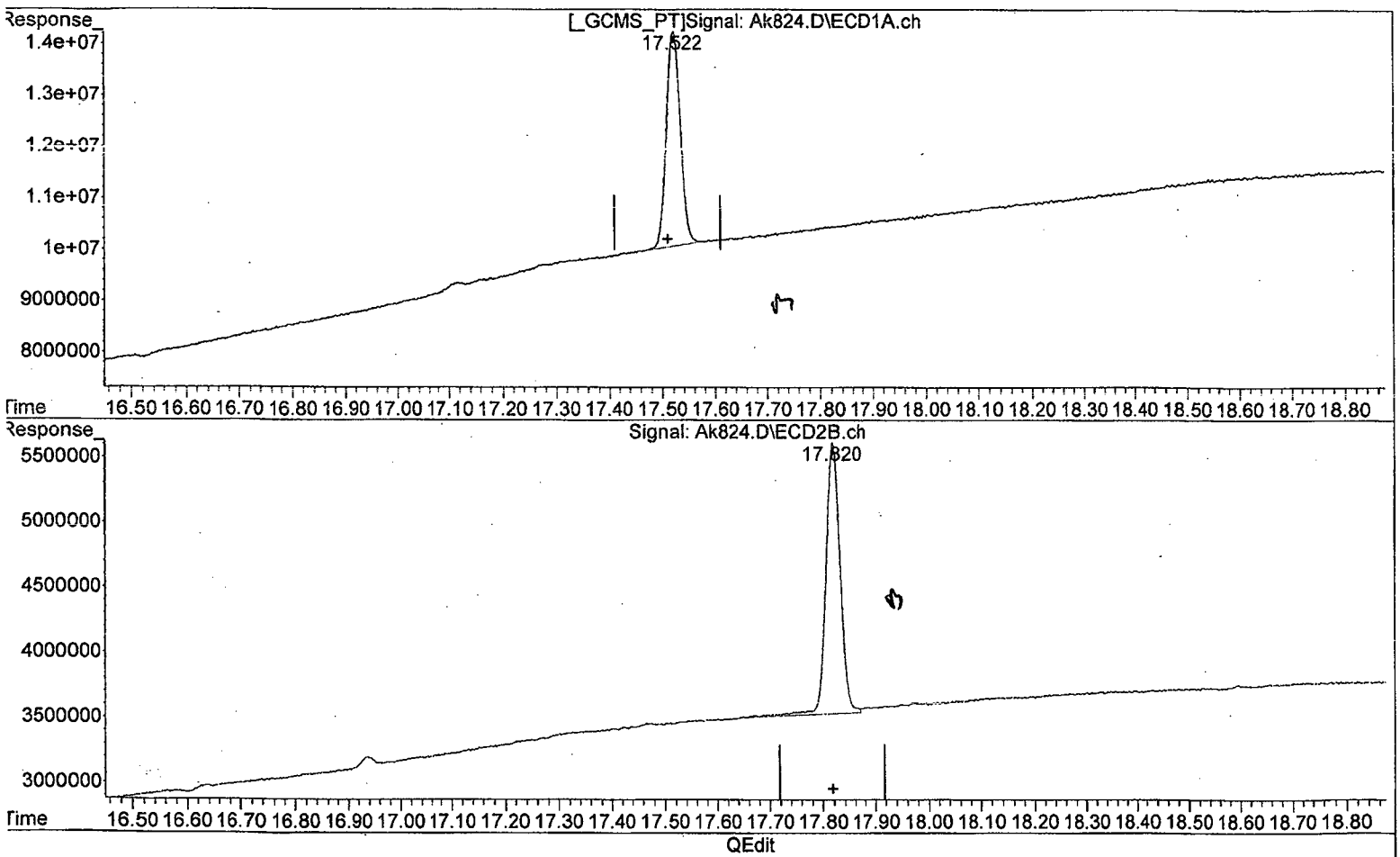
16.197min 3.471 ug/l

response 39601048

(+) = Expected Retention Time

8081102115.M Thu Oct 22 11:38:11 2015 Page: 1

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak824.D
Acq On    : 21 Oct 2015  12:35 pm
Operator  : m.pedro
Sample    : pest 2 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Oct 22 11:36:34 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:35:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(26) SURR2,Decachlorobiphenyl (S)

17.522min 2.979 ug/l

response 73983928

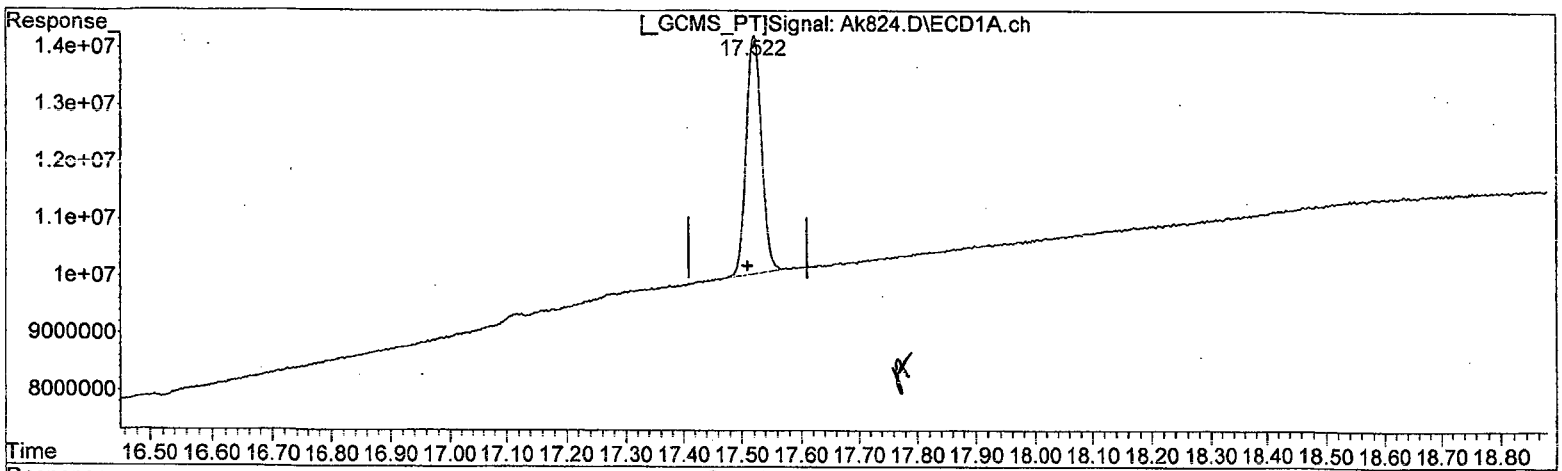
(26) SURR2,Decachlorobiphenyl #2 (S)

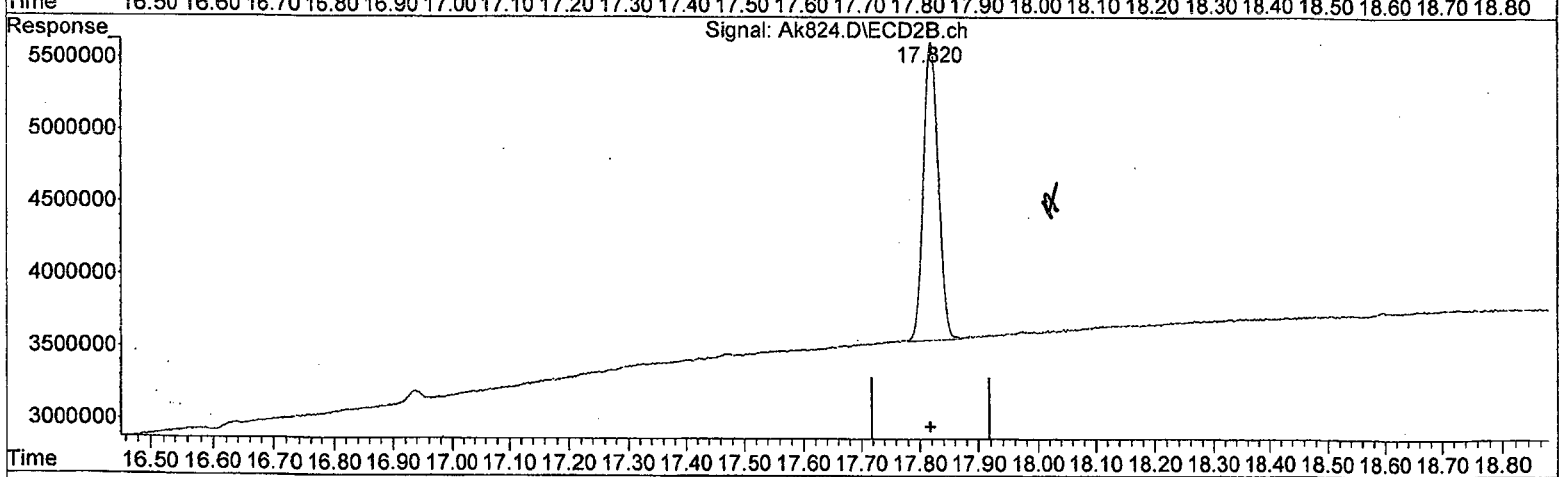
17.821min 2.955 ug/l

response 37300920

```
(+) = Expected Retention Time
8081102115.M Thu Oct 22 11:38:17 2015                    Page: 1
```

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak824.D
Acq On    : 21 Oct 2015  12:35 pm
Operator  : m.pedro
Sample    : pest 2 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Oct 22 11:36:34 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:35:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```





QEdit

(26) SURR2,Decachlorobiphenyl (S)

17.522min 2.979 ug/l

response 73983928

(26) SURR2,Decachlorobiphenyl #2 (S)

17.820min 2.780 ug/l m

response 35089005

(+) = Expected Retention Time

8081102115.M Thu Oct 22 11:38:28 2015

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak825.D
Acq On : 21 Oct 2015 1:03 pm
Operator : m.pedro
Sample : pest 5 ppb Inst : 7890-M
Misc : initilal cal
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 22 11:40:20 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:38:39 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1)	S SURR1,Tet...	9.336	9.276	236.1E6	103.3E6	5.254	5.221
	Spiked Amount 100.000	Range 30 - 150		Recovery =		5.25%#	5.22%#
6)	S SURR2,Dec...	17.512	17.818	168.8E6	79779033	6.285	6.248m
	Spiked Amount 100.000	Range 30 - 150		Recovery =		6.29%#	6.25%#
	Target Compounds						
2)	TC HEXACHLOR...	10.027	10.094	326.2E6	140.1E6	5.707	5.679
3)	tc alpha-BHC	10.331	10.355	323.2E6	147.4E6	4.804	4.860
4)	tcm gamma-BHC (L	10.855	10.926	291.4E6	131.5E6	5.033	5.009
5)	tcm Heptachlor	11.607	11.580	296.8E6	133.9E6	5.352	5.253
6)	tcm Aldrin	12.061	12.052	263.9E6	122.3E6	5.195	5.107
7)	tc beta-BHC	11.007	11.078	138.3E6	62701483	5.626	5.712
8)	tc delta-BHC	11.282	11.516	249.8E6	115.4E6	4.996	4.995
9)	tc Heptachlor E	12.961	12.888	244.7E6	113.6E6	5.555	5.380
0)	tc alpha-Endosu	13.532	13.441	217.5E6	103.2E6	5.718	5.550
1)	tc gamma-Chlord	13.143	13.155	237.3E6	112.1E6	5.488	5.457
2)	tc alpha-Chlord	13.335	13.362	230.4E6	108.4E6	5.591	5.458
3)	tc 4,4'-DDE	13.446	13.601	183.9E6	89894847	5.484	5.407
4)	tcm Dieldrin	13.879	13.831	216.6E6	104.8E6	5.543	5.355
5)	tcm Endrin	14.216	14.266	179.0E6	87441758	5.571	5.492m
7)	tc beta-Endosul	14.543	14.572	175.0E6	88968805	5.850	5.776
8)	tc 4,4'-DDD	14.298	14.415	139.3E6	68851133	5.561	5.437
9)	tcm 4,4'-DDT	14.702	14.860	144.8E6	73478453	5.288	5.266
0)	tc Endrin Aldeh	15.161	15.063	134.8E6	68474737	5.808m	5.652
1)	tc Endosulfan S	15.815	15.470	151.4E6	81278513	5.933	5.937
2)	tc Methoxychlor	15.394	15.849	80220541	40444336	5.816	5.907
4)	tc Endrin Keton	16.228	16.255	172.7E6	87972746	5.800m	5.761
5)	tc Mirex	15.680	16.197	179.0E6	86096456	6.774	6.723
	Sum Toxaphene			0	0	N.D.	N.D.
	verage Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
	verage Chlordane					0.000	0.000

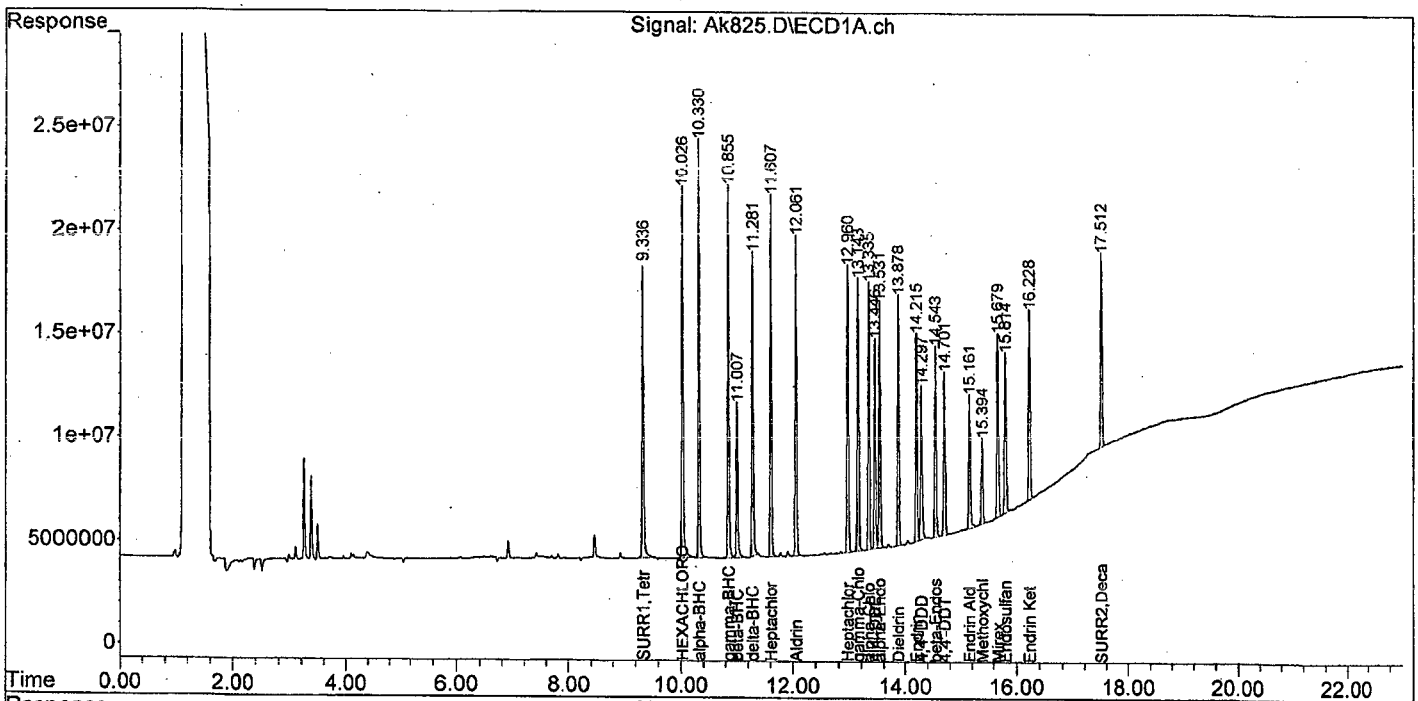
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

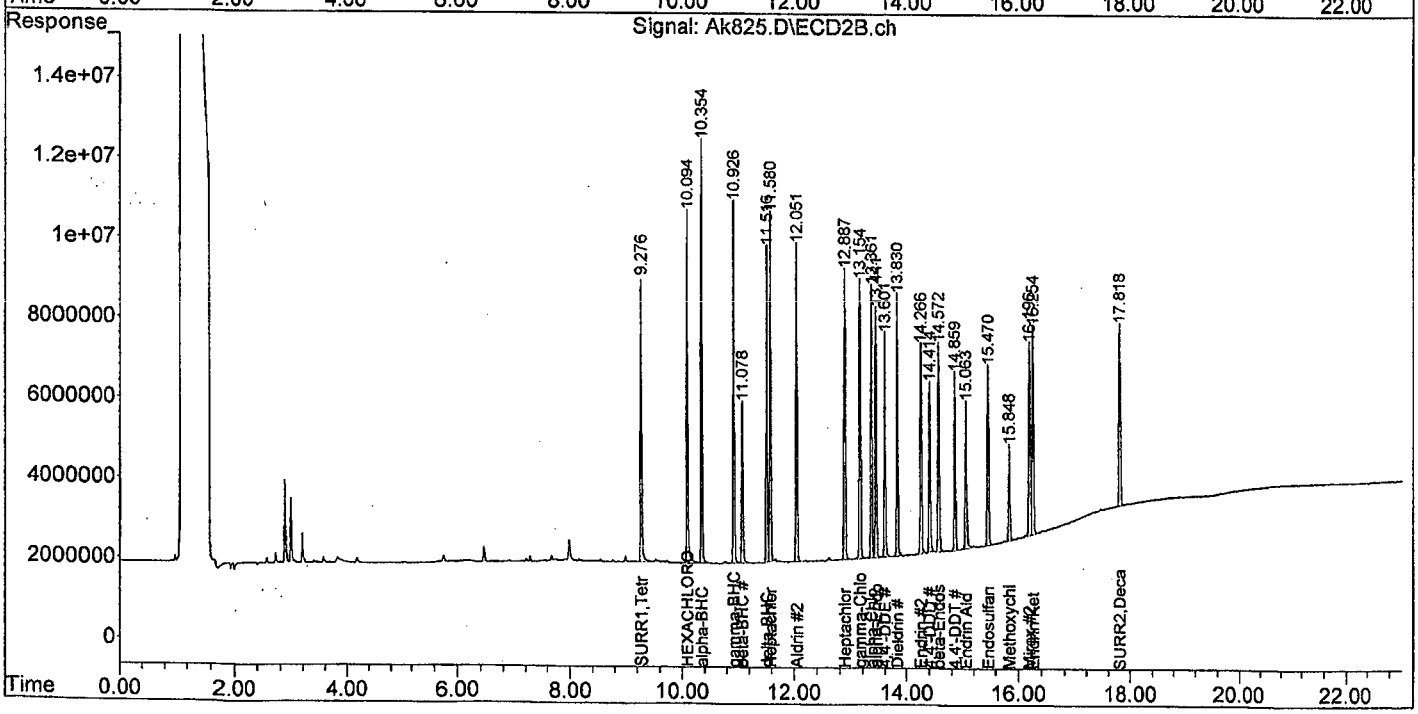
081102115.M Thu Oct 22 13:43:25 2015

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak825.D
Acq On : 21 Oct 2015 1:03 pm
Operator : m.pedro
Sample : pest 5 ppb Inst : 7890-M
Misc : initilal cal
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 22 11:40:20 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:38:39 2015
Response via : Initial Calibration
Integrator: ChemStation

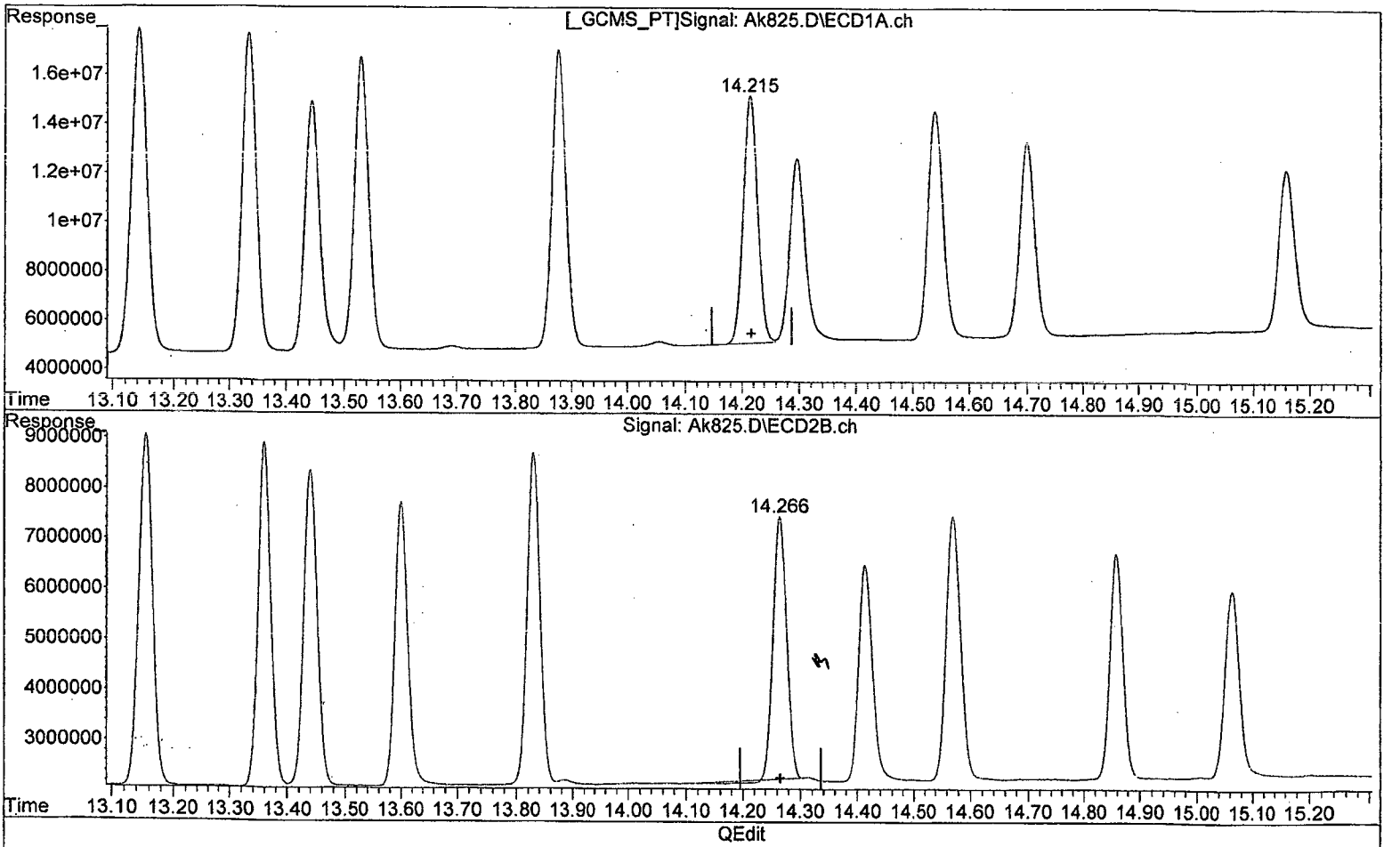
Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





8081102115.M Thu Oct 22 13:43:29 2015

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak825.D
Acq On    : 21 Oct 2015    1:03 pm
Operator  : m.pedro
Sample    : pest 5 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Oct 22 11:38:49 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:38:39 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(15) Endrin (tcm)

14.216min 5.571 ug/l

response 178973038

(15) Endrin #2 (tcm)

14.266min 5.163 ug/l

response 82206567

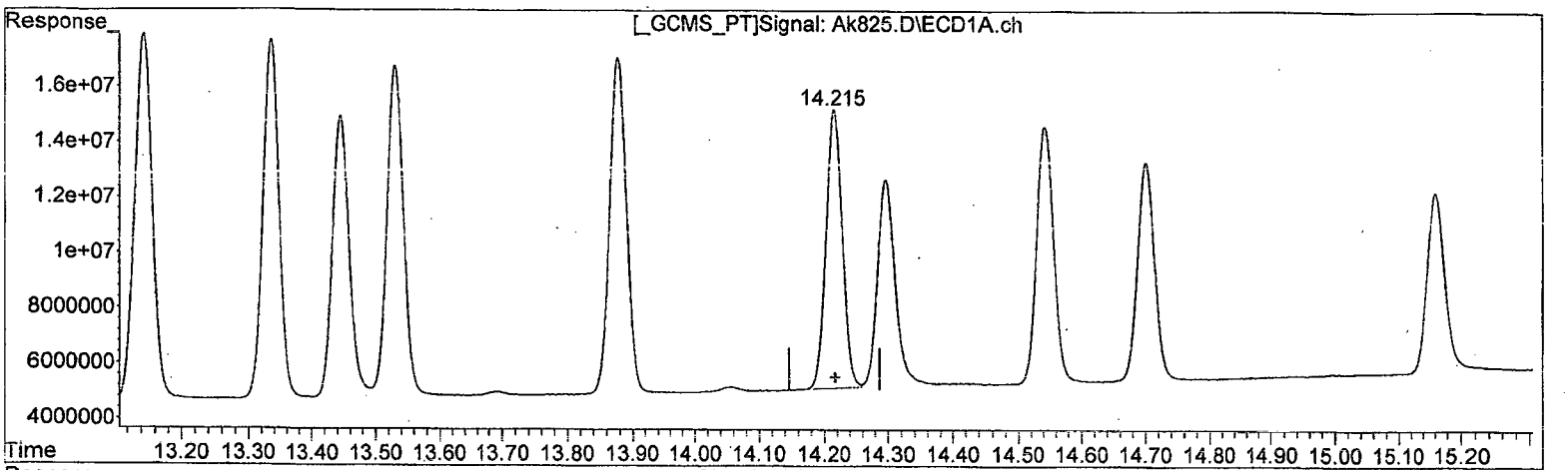
(+) = Expected Retention Time

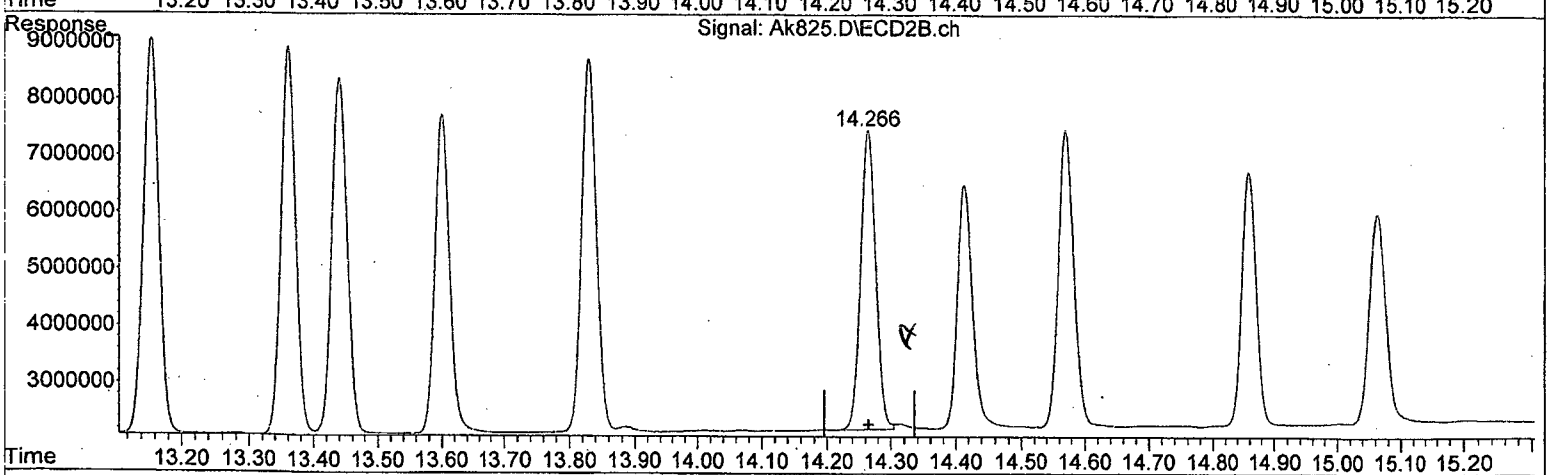
8081102115.M Thu Oct 22 11:39:12 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\I02115\
Data File : Ak825.D
Acq On : 21 Oct 2015 1:03 pm
Operator : m.pedro
Sample : pest 5 ppb Inst : 7890-M
Misc : initilal cal
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 22 11:38:49 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:38:39 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(15) Endrin (tcm)

14.216min 5.571 ug/l

response 178973038

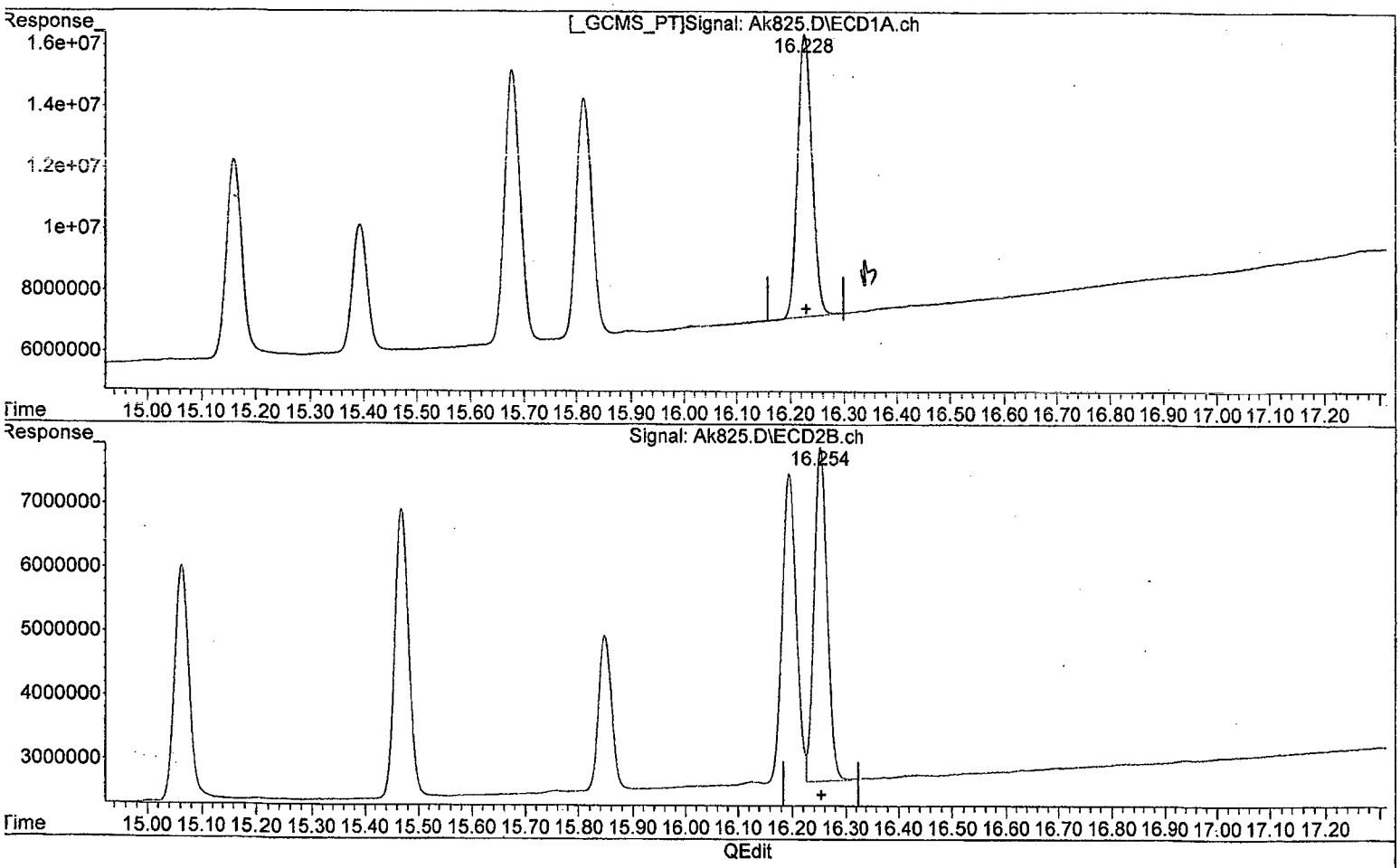
(15) Endrin #2 (tcm)

14.266min 5.492 ug/l m

response 87441758

(+) = Expected Retention Time
8081102115.M Thu Oct 22 11:39:28 2015

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak825.D
Acq On    : 21 Oct 2015    1:03 pm
Operator  : m.pedro
Sample    : pest 5 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Oct 22 11:38:49 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:38:39 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(24) Endrin Keton (tc)

16.228min 5.680 ug/l

response 169151393

(24) Endrin Keton #2 (tc)

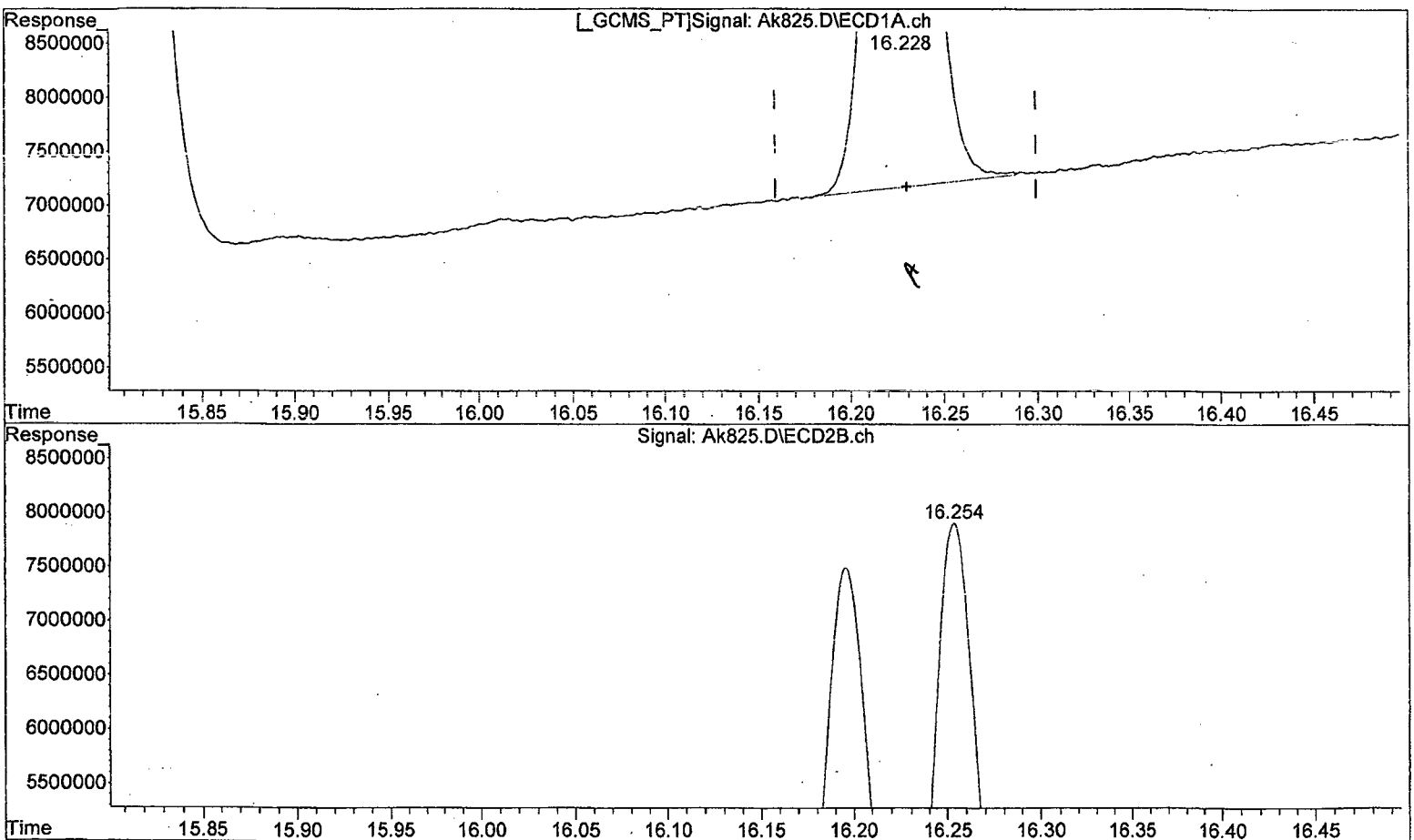
16.255min 5.761 ug/l

response 87972746

(+) = Expected Retention Time

3081102115.M Thu Oct 22 11:39:47 2015 Page: 1

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak825.D
Acq On    : 21 Oct 2015   1:03 pm
Operator  : m.pedro
Sample    : pest 5 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Oct 22 11:38:49 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:38:39 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(24) Endrin Keton (tc)

16.228min 5.800 ug/l m

response 172741573

(24) Endrin Keton #2 (tc)

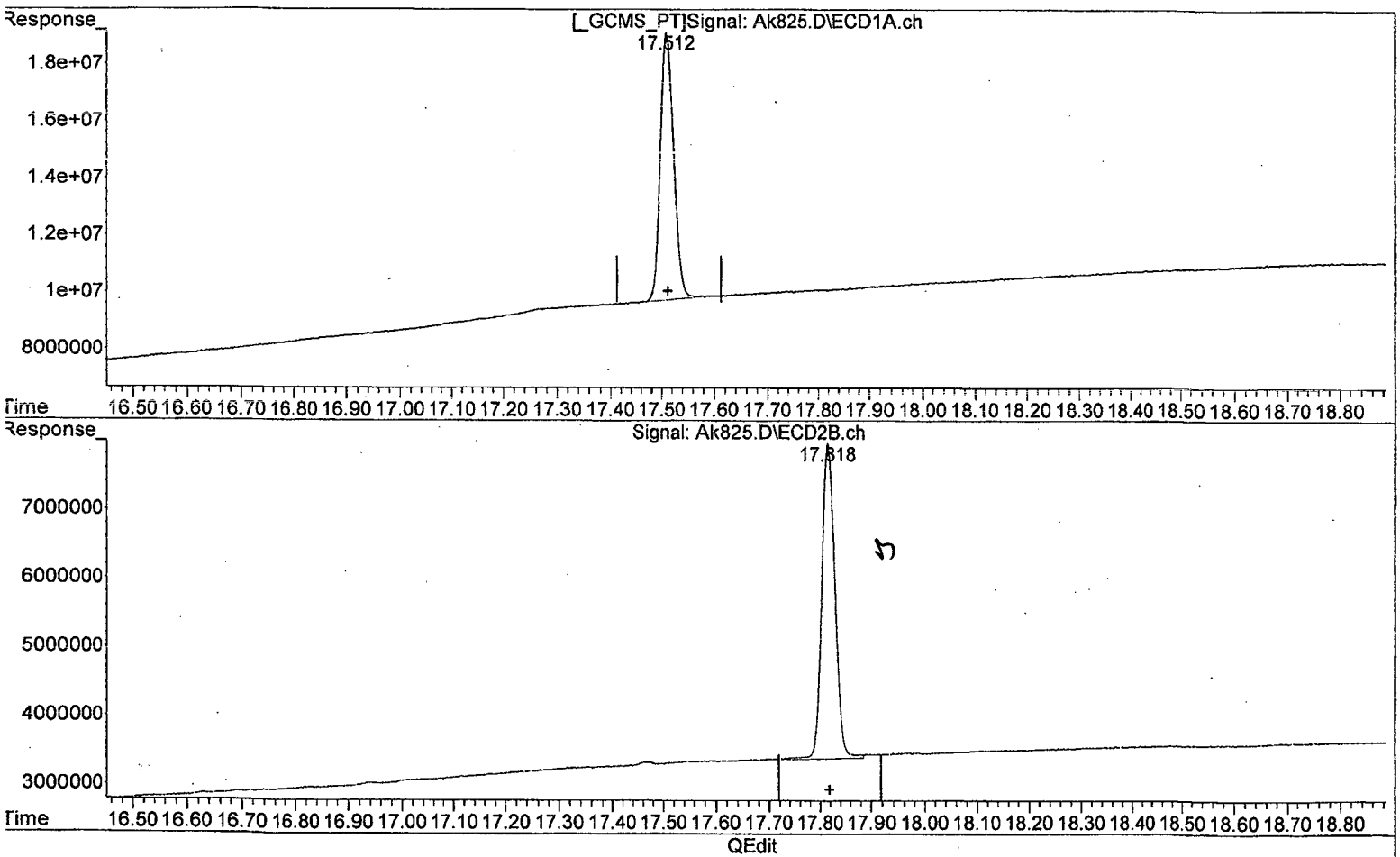
16.255min 5.761 ug/l

response 87972746

(+) = Expected Retention Time

8081102115.M Thu Oct 22 11:39:55 2015 Page: 1

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak825.D
Acq On    : 21 Oct 2015    1:03 pm
Operator  : m.pedro
Sample    : pest 5 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Oct 22 11:38:49 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:38:39 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(26) SURR2,Decachlorobiphenyl (S)

17.512min 6.285 ug/l

response 168812766

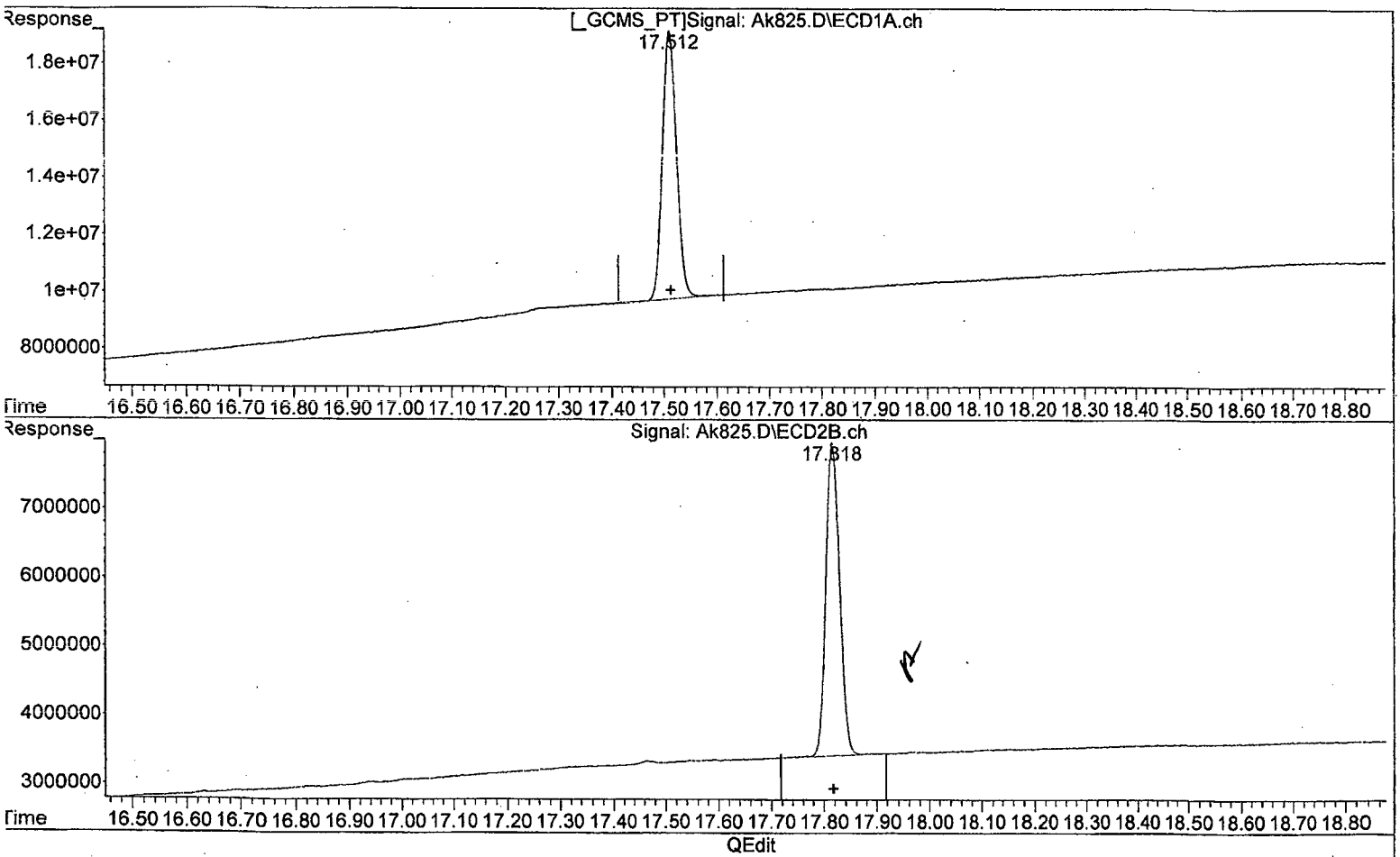
(26) SURR2,Decachlorobiphenyl #2 (S)

17.818min 6.473 ug/l

response 82654215

```
(+) = Expected Retention Time
8081102115.M Thu Oct 22 11:40:03 2015                    Page: 1
```

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak825.D
Acq On    : 21 Oct 2015    1:03 pm
Operator  : m.pedro
Sample    : pest 5 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Oct 22 11:38:49 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:38:39 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(26) SURR2,Decachlorobiphenyl (S)

17.512min 6.285 ug/l

response 168812766

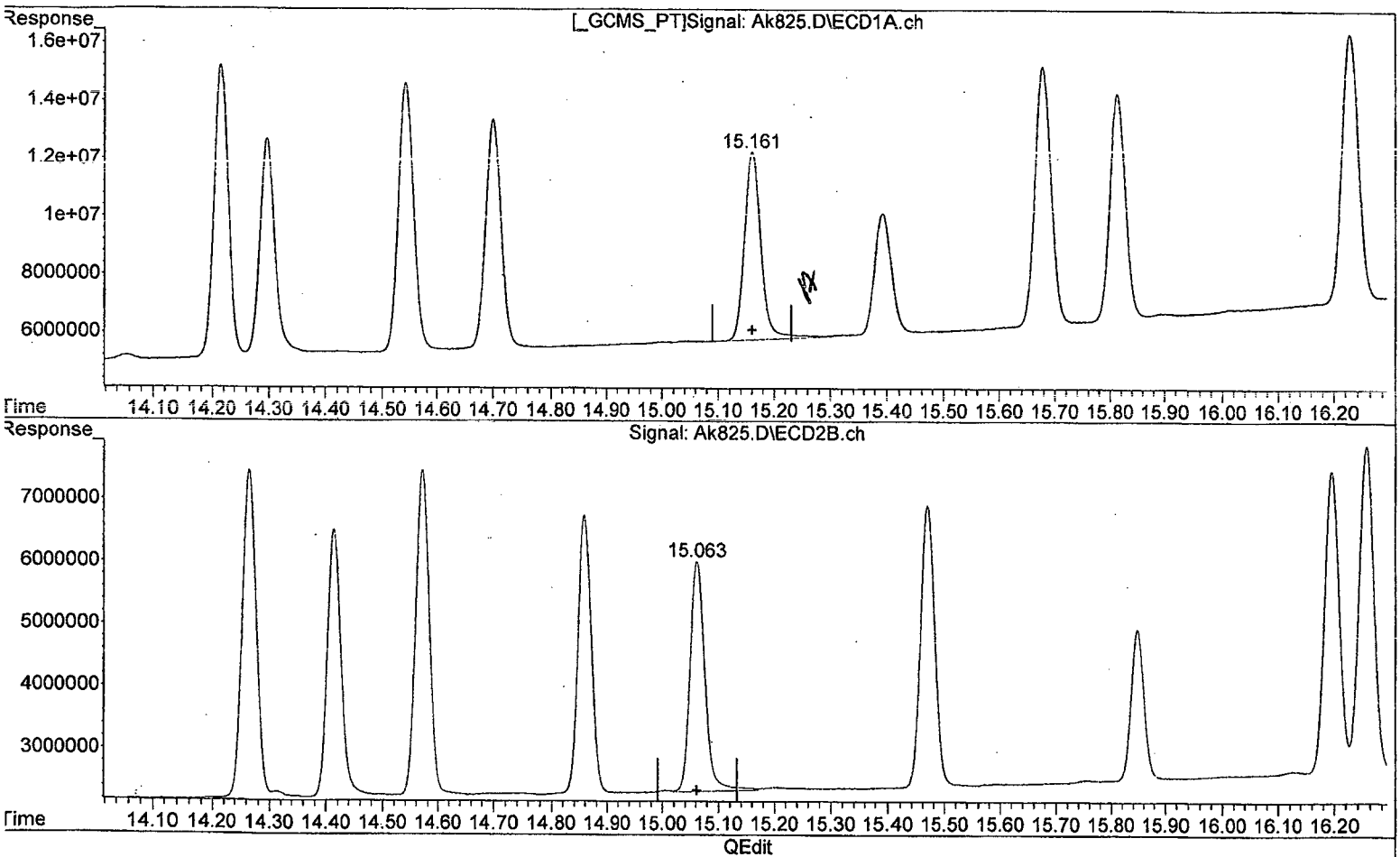
(26) SURR2,Decachlorobiphenyl #2 (S)

17.818min 6.248 ug/l m

response 79779033

```
(+) = Expected Retention Time
3081102115.M Thu Oct 22 11:40:13 2015
```

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak825.D
Acq On    : 21 Oct 2015    1:03 pm
Operator  : m.pedro
Sample    : pest 5 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Oct 22 11:38:49 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:38:39 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.      : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(20) Endrin Aldeh (tc)

15.161min 5.808 ug/l m

response 134804392

(20) Endrin Aldeh #2 (tc)

15.063min 5.652 ug/l

response 68474737

```
(+) = Expected Retention Time
3081102115.M Thu Oct 22 11:40:25 2015                    Page: 1
```

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak826.D
Acq On : 21 Oct 2015 1:30 pm
Operator : m.pedro
Sample : pest 10 ppb Inst : 7890-M
Misc : initilal cal
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 22 11:41:33 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:40:34 2015
Response via : Initial Calibration
Integrator: ChemStation

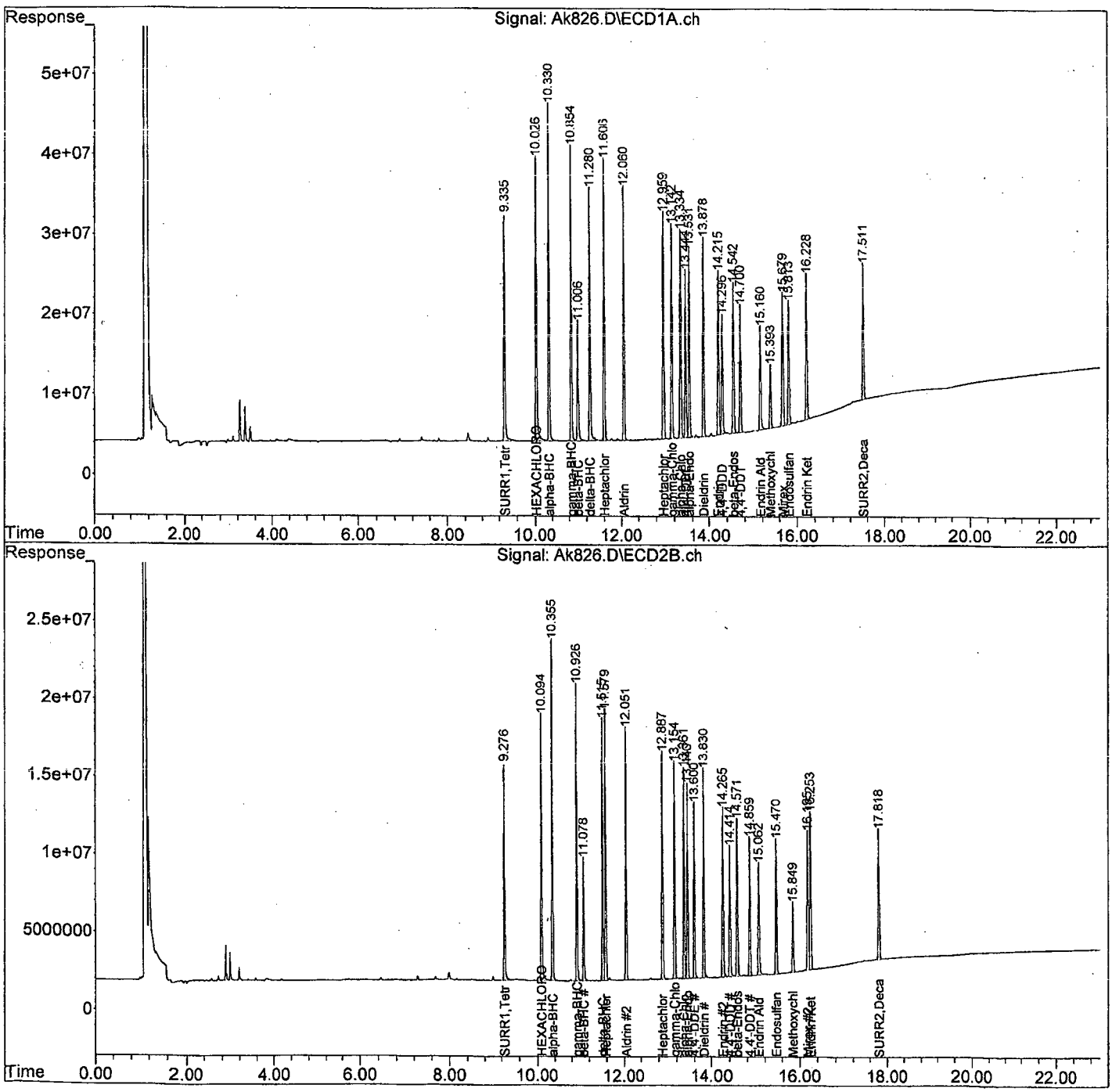
Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1)	S SURR1,Tet...	9.336	9.276	465.4E6	201.4E6	10.458	10.221
	Spiked Amount 100.000	Range 30 - 150		Recovery =		10.46%#	10.22%#
6)	S SURR2,Dec...	17.512	17.818	308.2E6	146.0E6	11.020	10.998
	Spiked Amount 100.000	Range 30 - 150		Recovery =		11.02%#	11.00%#
	Target Compounds						
2)	TC HEXACHLOR...	10.026	10.094	642.3E6	263.6E6	11.112	10.541
3)	tc alpha-BHC	10.331	10.355	676.0E6	301.1E6	10.148	9.995
4)	tcm gamma-BHC (L	10.855	10.926	598.5E6	267.3E6	10.360	10.207
5)	tcm Heptachlor	11.607	11.580	597.7E6	268.5E6	10.718	10.476
6)	tcm Aldrin	12.061	12.051	539.9E6	245.6E6	10.584	10.249
7)	tc beta-BHC	11.006	11.078	272.2E6	120.4E6	10.915	10.802
8)	tc delta-BHC	11.281	11.516	545.4E6	239.5E6	10.850	10.300
9)	tc Heptachlor E	12.960	12.887	486.5E6	223.6E6	10.899	10.502
0)	tc alpha-Endosu	13.531	13.441	436.2E6	201.2E6	11.176	10.665
1)	tc gamma-Chlord	13.142	13.154	477.4E6	219.1E6	10.806	10.506
2)	tc alpha-Chlord	13.334	13.361	463.1E6	213.1E6	10.999	10.584
3)	tc 4,4'-DDE	13.445	13.601	372.1E6	178.6E6	10.792	10.507
4)	tcm Dieldrin	13.878	13.830	441.5E6	210.7E6	11.001	10.578
5)	tcm Endrin	14.216	14.265	369.1E6	177.0E6	11.049	10.774m
7)	tc beta-Endosul	14.543	14.572	349.4E6	174.2E6	11.267	10.962
8)	tc 4,4'-DDD	14.297	14.415	276.9E6	140.1E6	10.658	10.773
9)	tcm 4,4'-DDT	14.701	14.859	295.2E6	146.8E6	10.525	10.310
0)	tc Endrin Aldeh	15.160	15.063	262.6E6	132.0E6	10.924	10.615
1)	tc Endosulfan S	15.814	15.470	300.6E6	157.5E6	11.264	11.072
2)	tc Methoxychlor	15.393	15.849	158.3E6	76695734	11.133	10.878
4)	tc Endrin Keton	16.228	16.254	340.2E6	169.2E6	11.054m	10.766
5)	tc Mirex	15.679	16.196	344.0E6	161.0E6	12.199	11.842
	Sum Toxaphene			0	0	N.D.	N.D.
	verage Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
	verage Chlordane					0.000	0.000

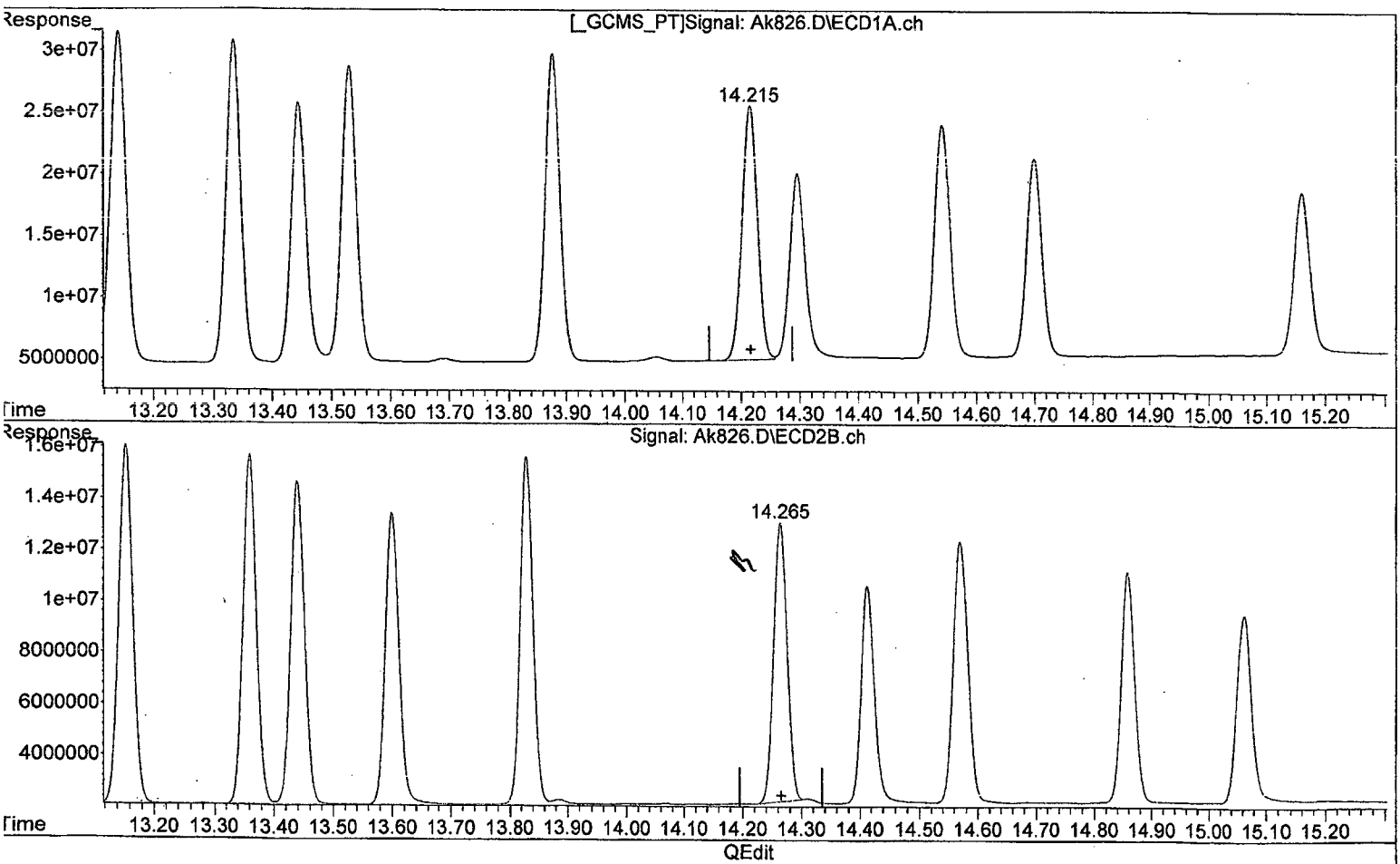
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

081102115.M Thu Oct 22 13:43:33 2015 Page: 1

```
Data Path : I:\ACQUDATA\7890m\DATA\I02115\
Data File : Ak826.D
Acq On    : 21 Oct 2015    1:30 pm
Operator  : m.pedro
Sample    : pest 10 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 5   Sample Multiplier: 1

Quant Time: Oct 22 11:41:33 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:40:34 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.      : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak826.D
Acq On    : 21 Oct 2015    1:30 pm
Operator  : m.pedro
Sample    : pest 10 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 5   Sample Multiplier: 1

Quant Time: Oct 22 11:40:43 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:40:34 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(15) Endrin (tcm)

14.216min 11.049 ug/l

response 369056590

(15) Endrin #2 (tcm)

14.266min 10.515 ug/l

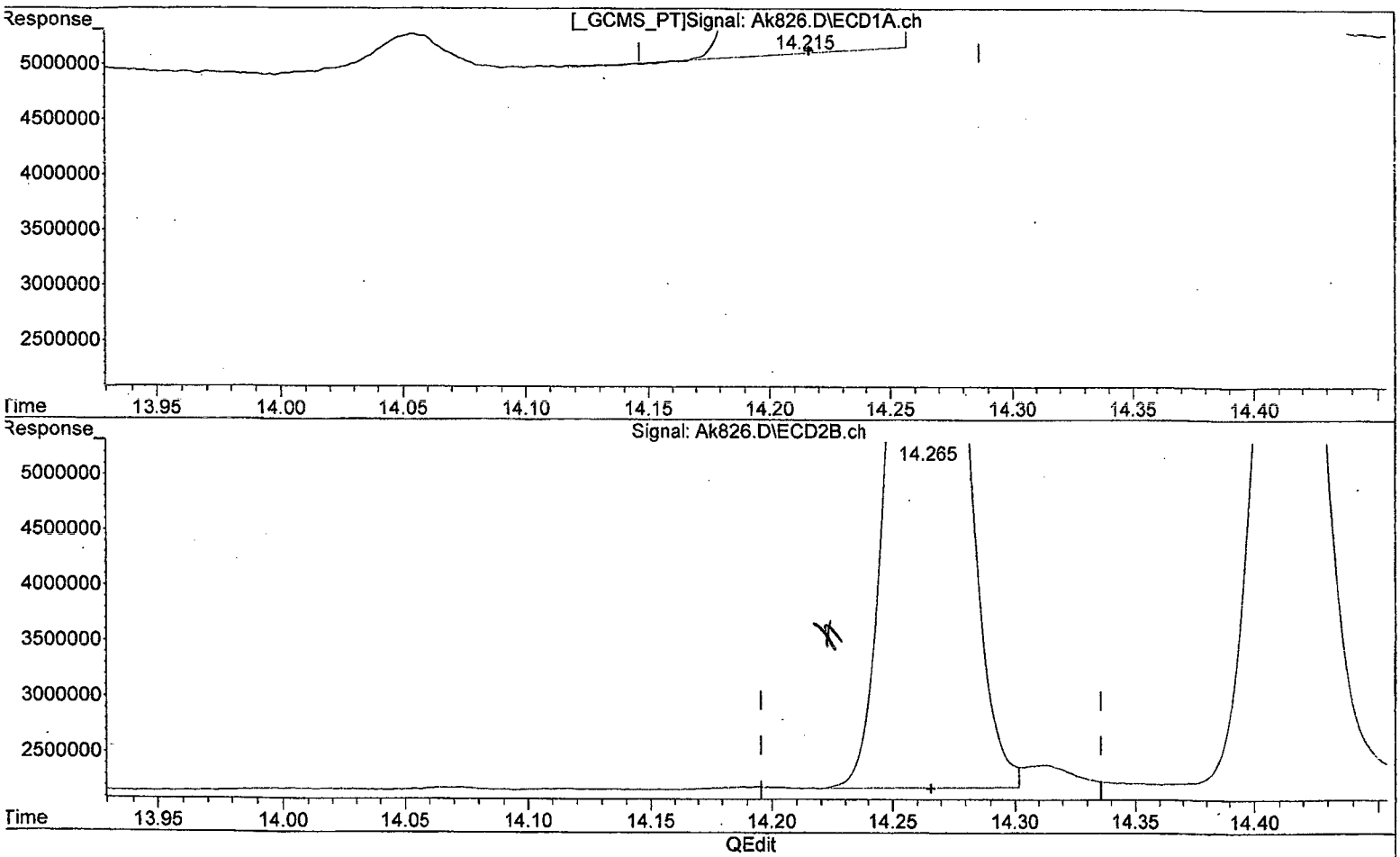
response 172783241

```
(+) = Expected Retention Time
3081102115.M Thu Oct 22 11:41:09 2015
```

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak826.D
Acq On : 21 Oct 2015 1:30 pm
Operator : m.pedro
Sample : pest 10 ppb Inst : 7890-M
Misc : initilal cal
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 22 11:40:43 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:40:34 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(15) Endrin (tcm)

14.216min 11.049 ug/l

response 369056590

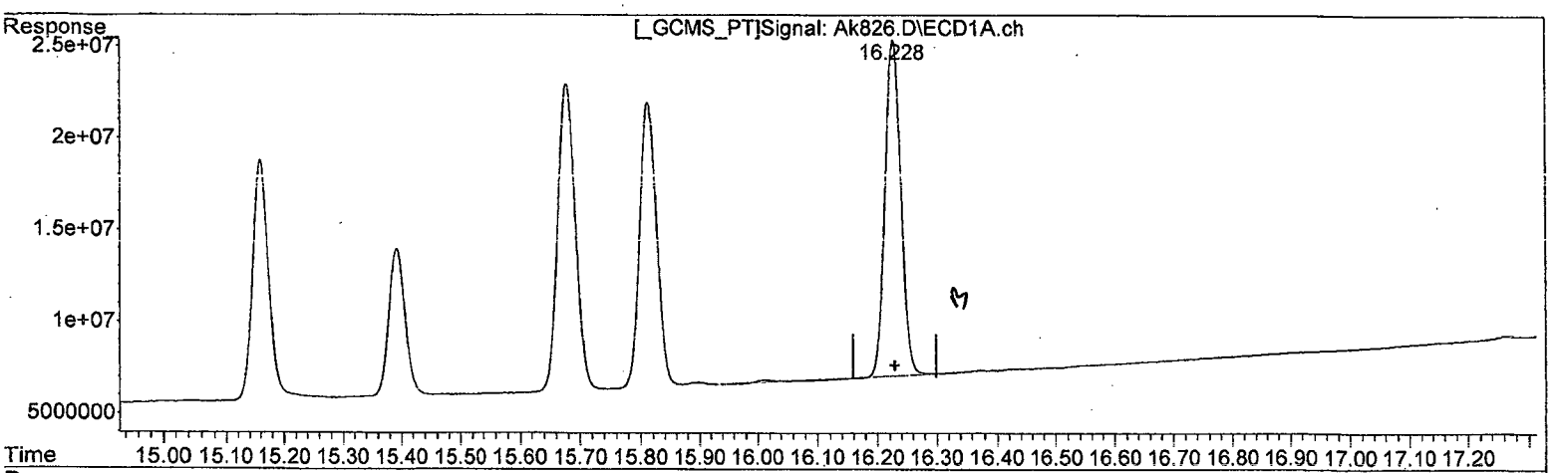
(15) Endrin #2 (tcm)

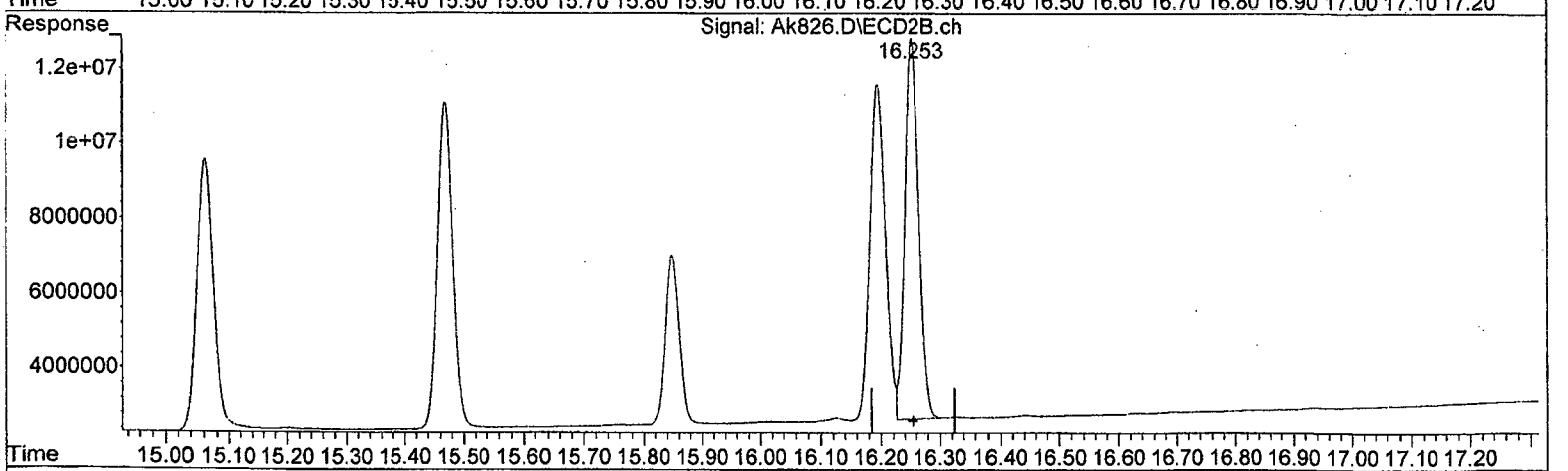
14.265min 10.774 ug/l m

response 177044470

(+) = Expected Retention Time
8081102115.M Thu Oct 22 11:41:17 2015 Page: 1

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak826.D
Acq On    : 21 Oct 2015    1:30 pm
Operator  : m.pedro
Sample    : pest 10 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 5   Sample Multiplier: 1

Quant Time: Oct 22 11:40:43 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:40:34 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```





QEdit

(24) Endrin Keton (tc)

16.228min 10.986 ug/l

response 338155275

(24) Endrin Keton #2 (tc)

16.254min 10.766 ug/l

response 169194964

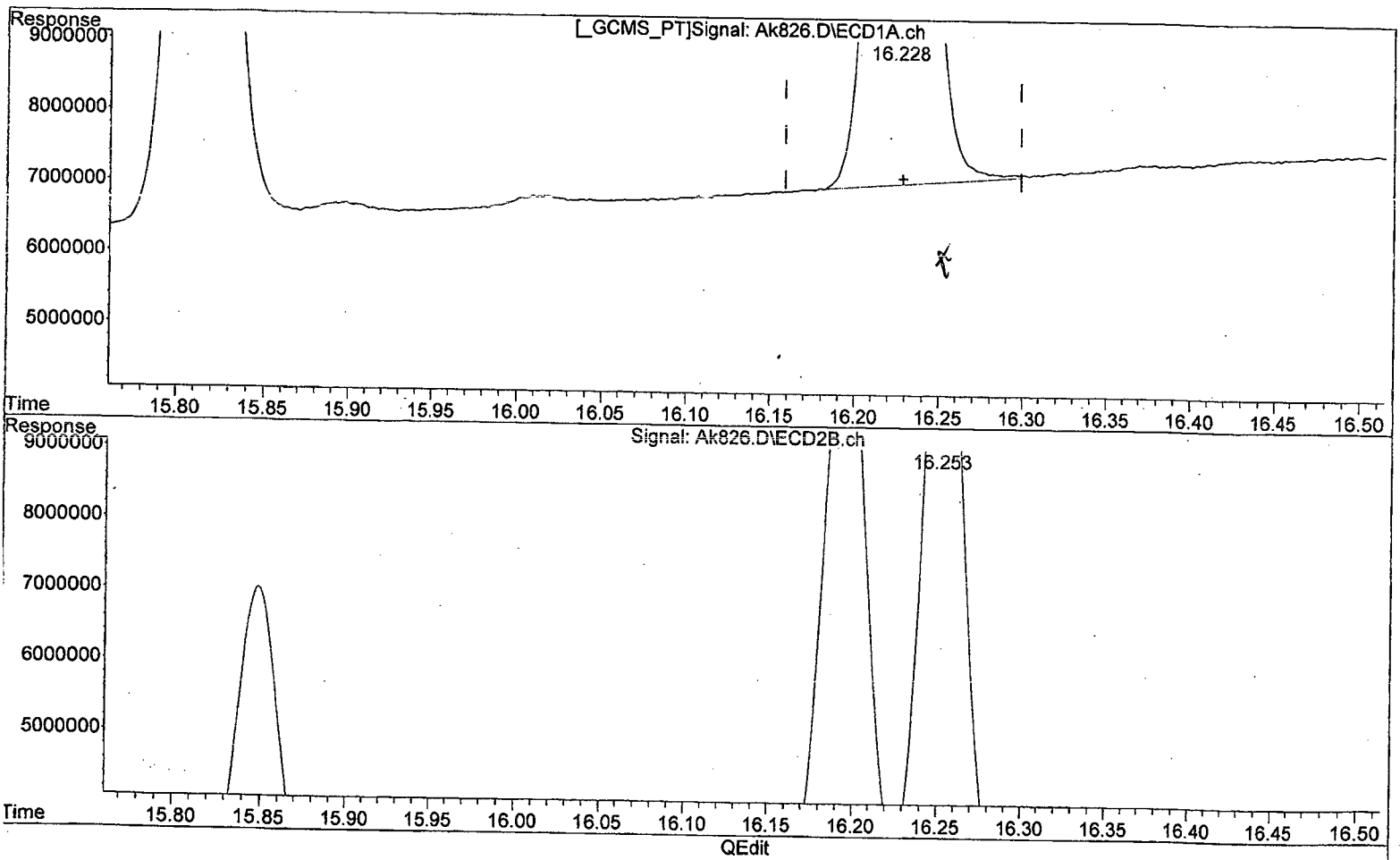
(+) = Expected Retention Time

8081102115.M Thu Oct 22 11:41:30 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak826.D
Acq On : 21 Oct 2015 1:30 pm
Operator : m.pedro
Sample : pest 10 ppb
Misc : initilal cal
Inst : 7890-M
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 22 11:40:43 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:40:34 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP
Signal #1 Info : 0.32mm 30m
Signal #2 Phase: STx-CLPII
Signal #2 Info : 0.32mm 30m



(24) Endrin Keton (tc)

16.228min 11.054 ug/l m

response 340237283

(24) Endrin Keton #2 (tc)

16.254min 10.766 ug/l

response 169194964

(+) = Expected Retention Time
8081102115.M Thu Oct 22 11:41:38 2015

Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak827.D
Acq On : 21 Oct 2015 1:58 pm
Operator : m.pedro
Sample : pest 50 ppb Inst : 7890-M
Misc : initilal cal
ALS Vial : 6 Sample Multiplier: 1

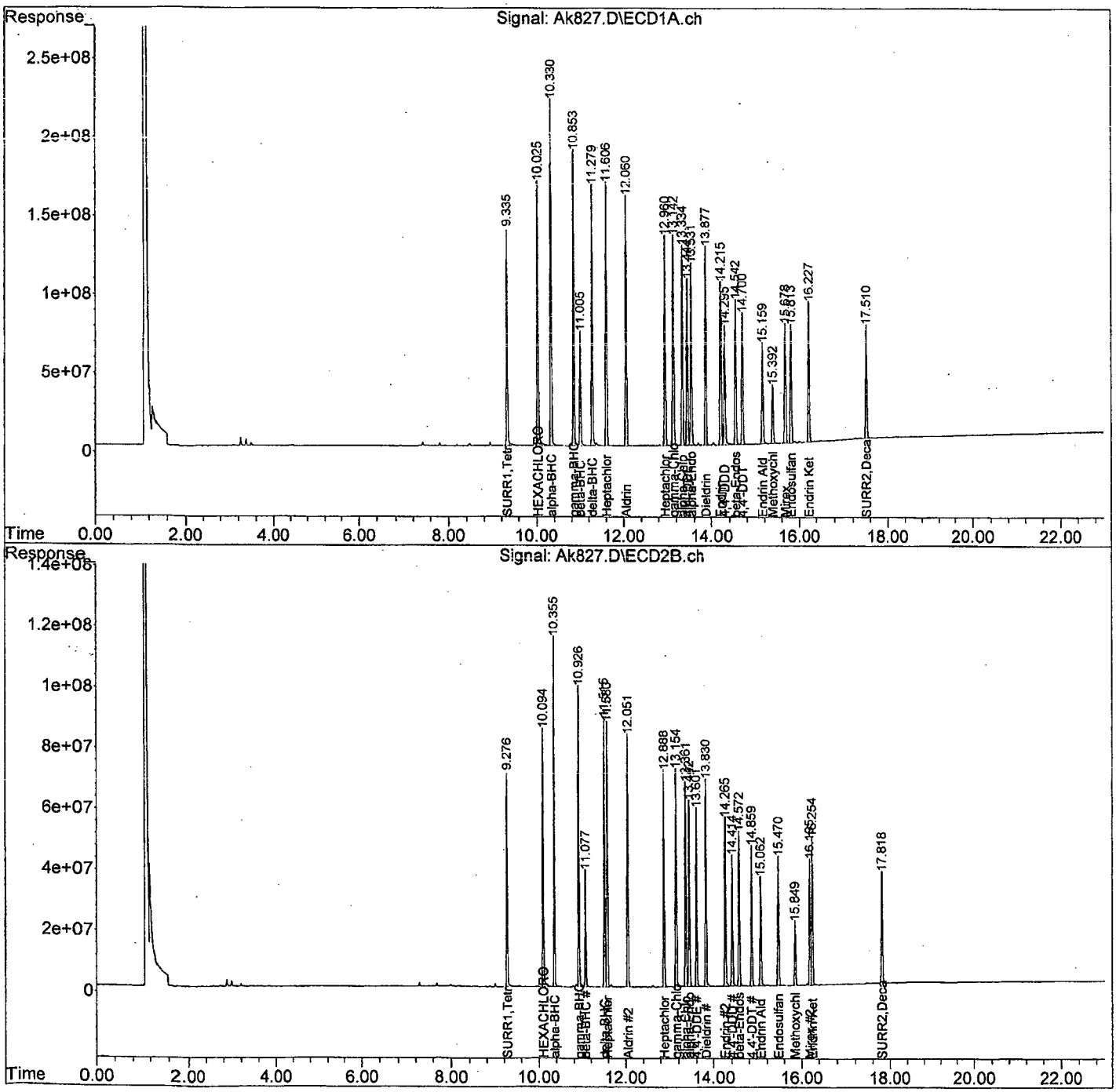
Quant Time: Oct 22 11:35:13 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Oct 06 09:08:13 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tet...	9.335	9.276	2203.2E6	974.1E6	47.368	48.319
Spiked Amount 100.000	Range 30 - 150		Recovery =		47.37%	48.32%
6) S SURR2,Dec...	17.511	17.818	1322.2E6	626.2E6	53.747	50.074
Spiked Amount 100.000	Range 30 - 150		Recovery =		53.75%	50.07%
Target Compounds						
2) TC HEXACHLOR...	10.026	10.095	2919.6E6	1246.9E6	51.330	51.182
3) tc alpha-BHC	10.330	10.355	3527.7E6	1585.2E6	50.841	50.846
4) tcm gamma-BHC (L	10.854	10.926	3047.8E6	1366.2E6	51.485	51.059
5) tcm Heptachlor	11.607	11.581	2906.4E6	1330.5E6	52.223	51.815
6) tcm Aldrin	12.061	12.052	2737.3E6	1250.8E6	53.370	51.416
7) tc beta-BHC	11.005	11.078	1269.0E6	551.1E6	51.525	50.251
8) tc delta-BHC	11.280	11.516	2748.5E6	1230.9E6	54.797	53.738
9) tc Heptachlor E	12.960	12.888	2342.3E6	1091.4E6	53.532	51.496
0) tc alpha-Endosu	13.531	13.442	2107.1E6	981.8E6	56.935	53.070
1) tc gamma-Chlord	13.142	13.155	2367.6E6	1099.9E6	56.564	54.045
2) tc alpha-Chlord	13.334	13.362	2266.9E6	1045.5E6	56.304	53.069
3) tc 4,4'-DDE	13.445	13.601	1885.1E6	898.6E6	58.143	55.228
4) tcm Dieldrin	13.877	13.830	2218.9E6	1068.6E6	58.413	55.533m
5) tcm Endrin	14.215	14.266	1886.1E6	911.9E6	62.104	59.332
7) tc beta-Endosul	14.542	14.572	1720.8E6	836.8E6	60.974	56.967
8) tc 4,4'-DDD	14.296	14.415	1447.4E6	685.5E6	61.048	56.125
9) tcm 4,4'-DDT	14.701	14.860	1542.2E6	747.8E6	57.228	54.534
0) tc Endrin Aldeh	15.159	15.062	1268.4E6	626.8E6	57.231m	53.518
1) tc Endosulfan S	15.813	15.470	1443.3E6	740.8E6	60.323	56.999
2) tc Methoxychlor	15.393	15.849	726.7E6	344.9E6	57.926	55.270
4) tc Endrin Keton	16.227	16.254	1635.6E6	820.5E6	57.233	55.424
5) tc Mirex	15.678	16.196	1539.0E6	718.9E6	70.445	67.568
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

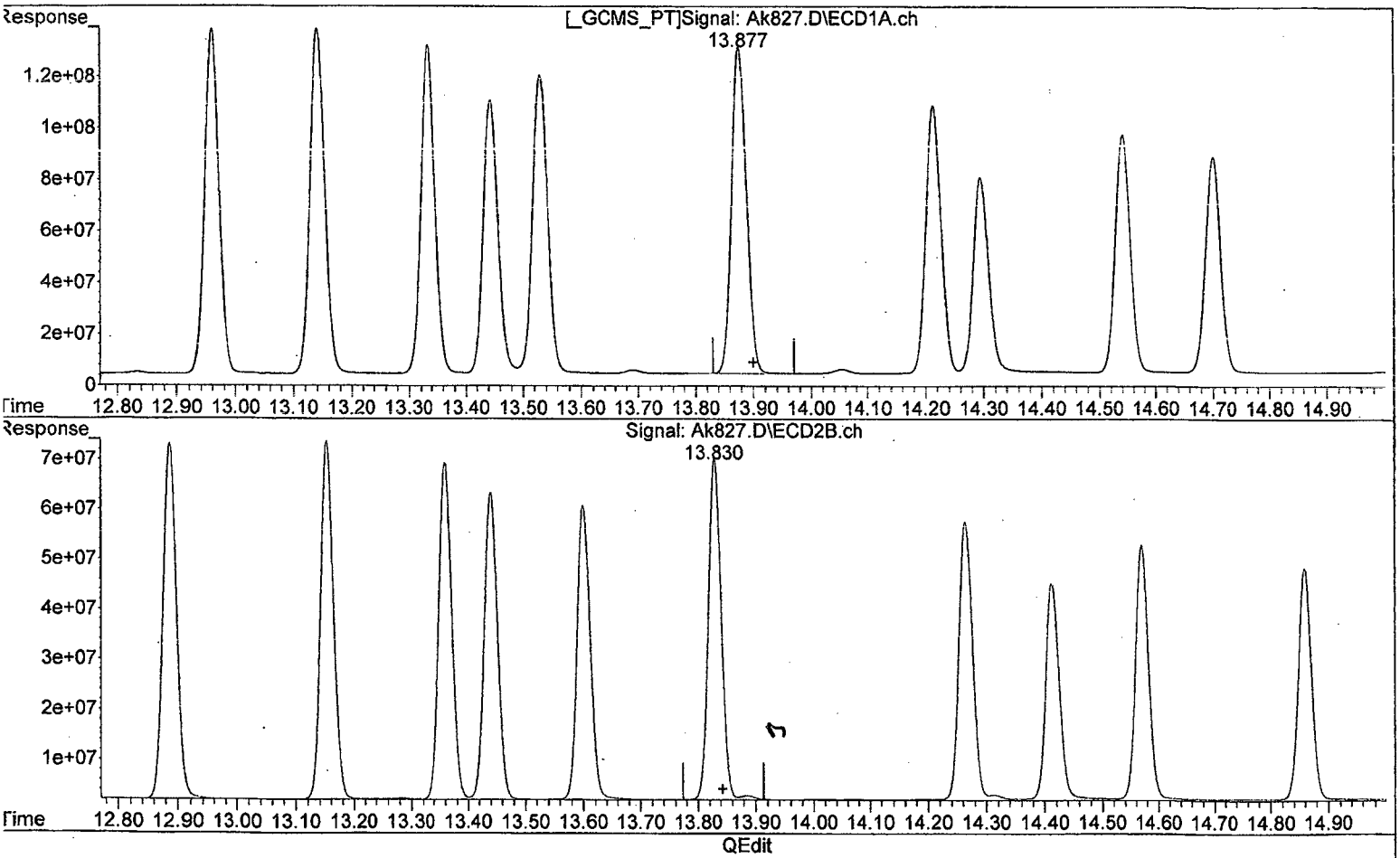
```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak827.D
Acq On    : 21 Oct 2015   1:58 pm
Operator  : m.pedro
Sample    : pest 50 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 6   Sample Multiplier: 1

Quant Time: Oct 22 11:35:13 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Tue Oct 06 09:08:13 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak827.D
Acq On : 21 Oct 2015 1:58 pm
Operator : m.pedro
Sample : pest 50 ppb Inst : 7890-M
Misc : initilal cal
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 22 11:34:11 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Oct 06 09:08:13 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(14) Dieldrin (tcm)

13.877min 58.413 ug/l

response 2218927015

(14) Dieldrin #2 (tcm)

13.831min 56.162 ug/l

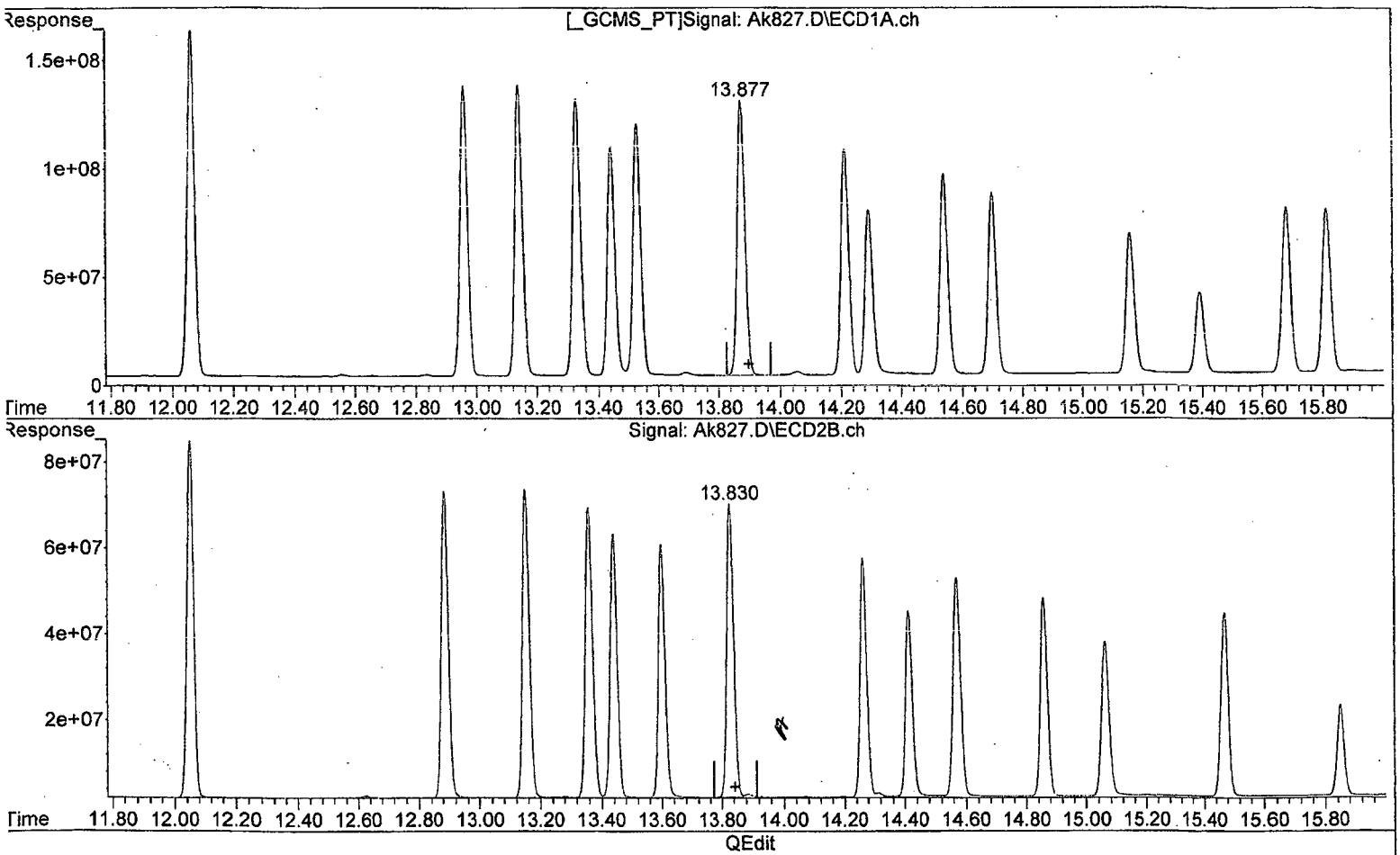
response 1080705247

(+) = Expected Retention Time
8081102115.M Thu Oct 22 11:34:46 2015

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak827.D
Acq On : 21 Oct 2015 1:58 pm
Operator : m.pedro
Sample : pest 50 ppb Inst : 7890-M
Misc : initilal cal
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 22 11:34:11 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Oct 06 09:08:13 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(14) Dieldrin (tcm)

13.877min 58.413 ug/l

response 2218927015

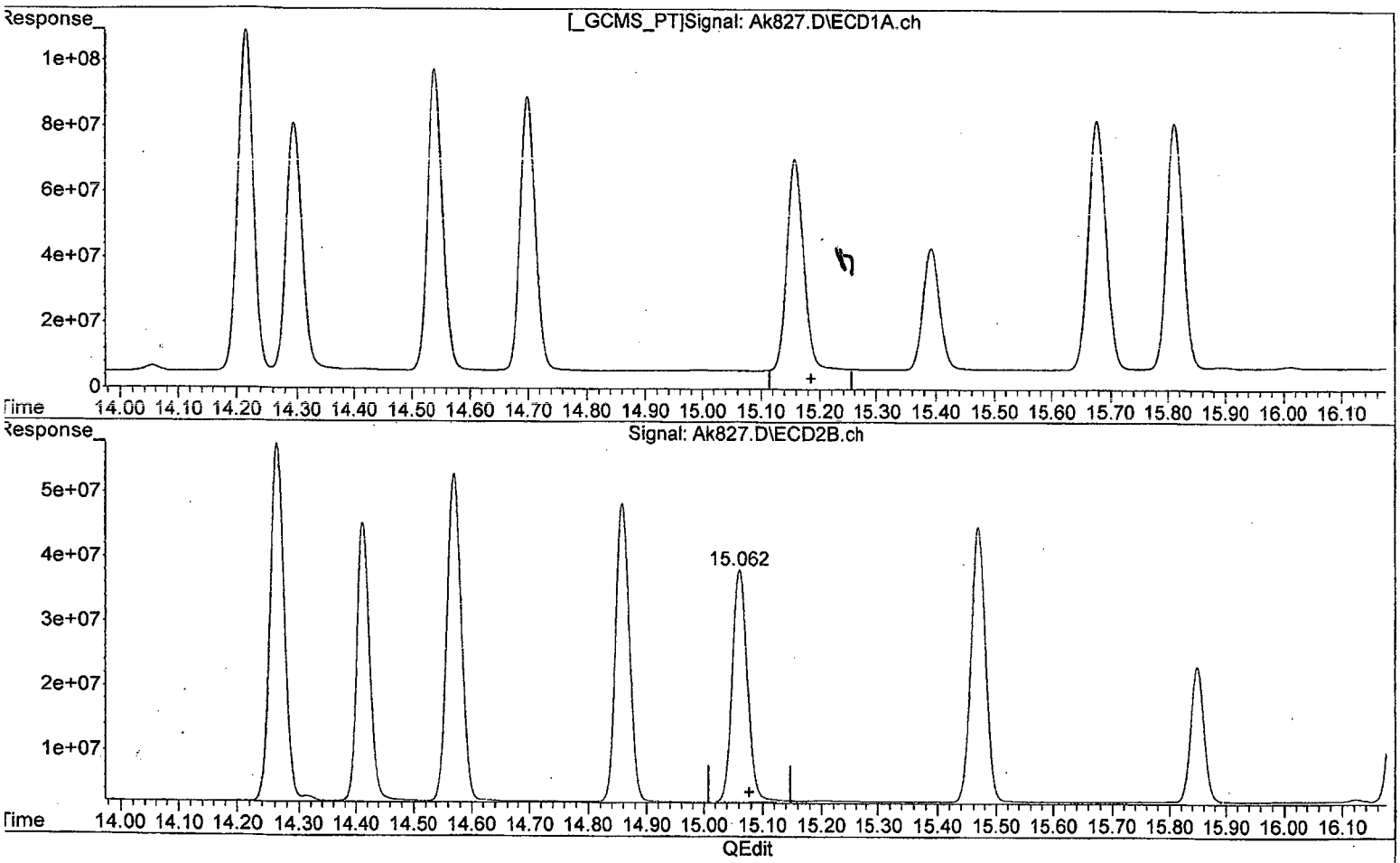
(14) Dieldrin #2 (tcm)

13.830min 55.533 ug/l m

response 1068597172

(+) = Expected Retention Time
8081102115.M Thu Oct 22 11:34:55 2015 Page: 1

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak827.D
Acq On    : 21 Oct 2015    1:58 pm
Operator  : m.pedro
Sample    : pest 50 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 6   Sample Multiplier: 1

Quant Time: Oct 22 11:34:11 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Tue Oct 06 09:08:13 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.      : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(20) Endrin Aldeh (tc)

0.000min 0.000 ug/l

response 0

(20) Endrin Aldeh #2 (tc)

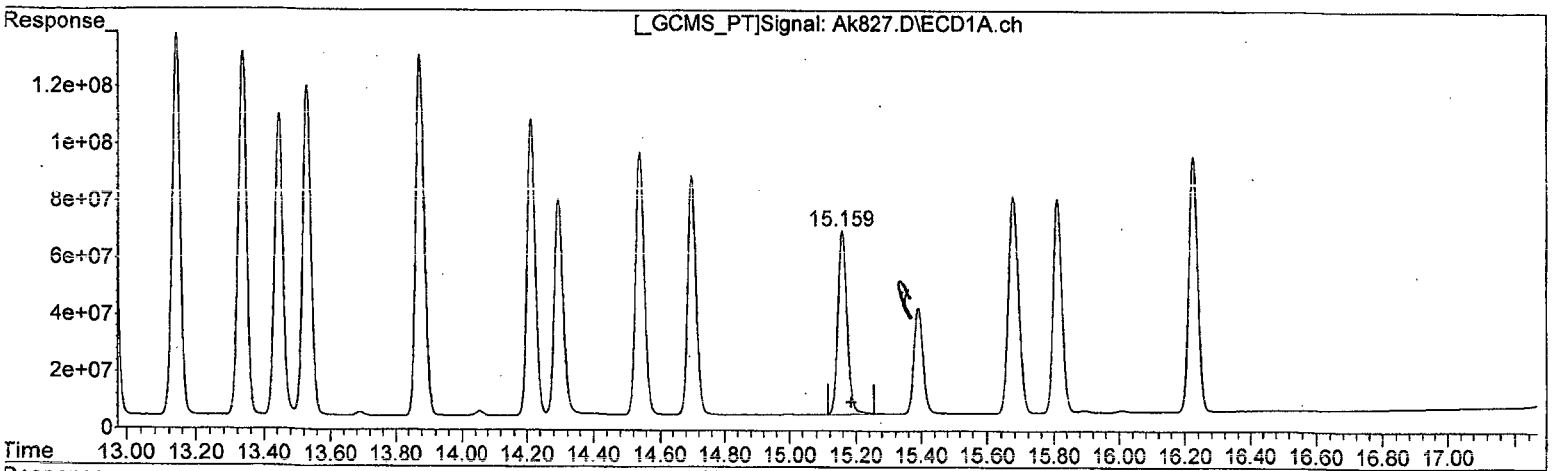
15.062min 53.518 ug/l

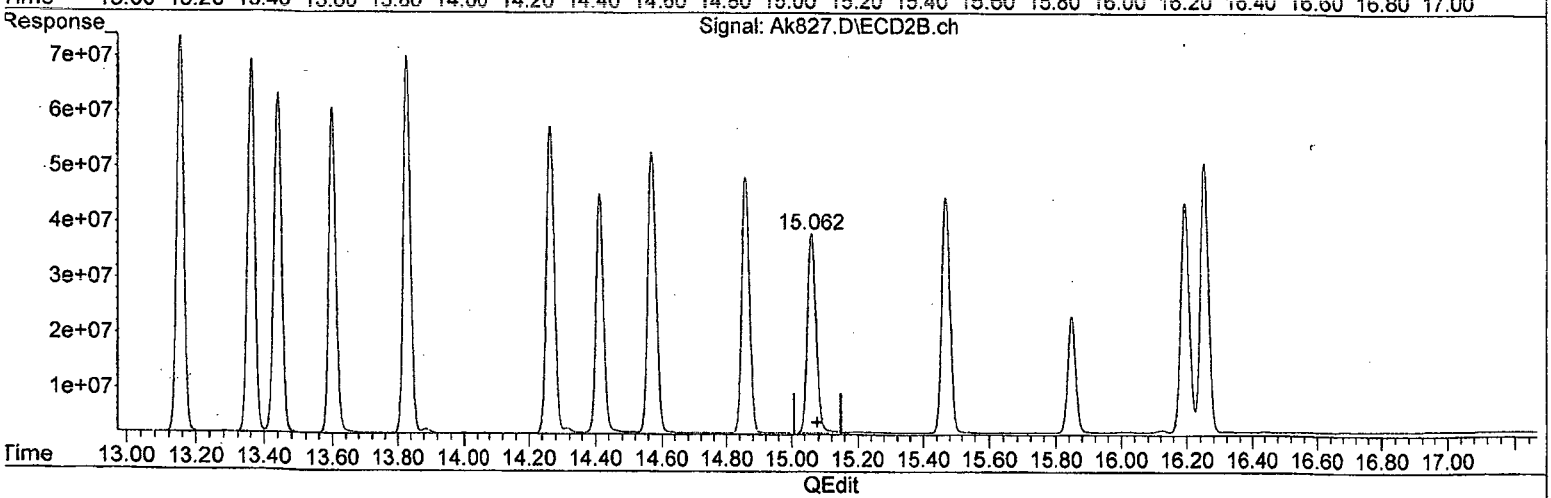
response 626778582

(+) = Expected Retention Time

3081102115.M Thu Oct 22 11:35:09 2015 Page: 1

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak827.D
Acq On    : 21 Oct 2015    1:58 pm
Operator  : m.pedro
Sample    : pest 50 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 6   Sample Multiplier: 1

Quant Time: Oct 22 11:34:11 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Tue Oct 06 09:08:13 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```





(20) Endrin Aldeh (tc)

15.159min 57.231 ug/l m

response 1268429966

(20) Endrin Aldeh #2 (tc)

15.062min 53.518 ug/l

response 626778582

(+) = Expected Retention Time
8081102115.M Thu Oct 22 11:35:19 2015

Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak828.D
Acq On : 21 Oct 2015 2:26 pm
Operator : m.pedro
Sample : pest 100 ppb Inst : 7890-M
Misc : initilal cal
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 22 11:43:05 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:42:22 2015
Response via : Initial Calibration
Integrator: ChemStation

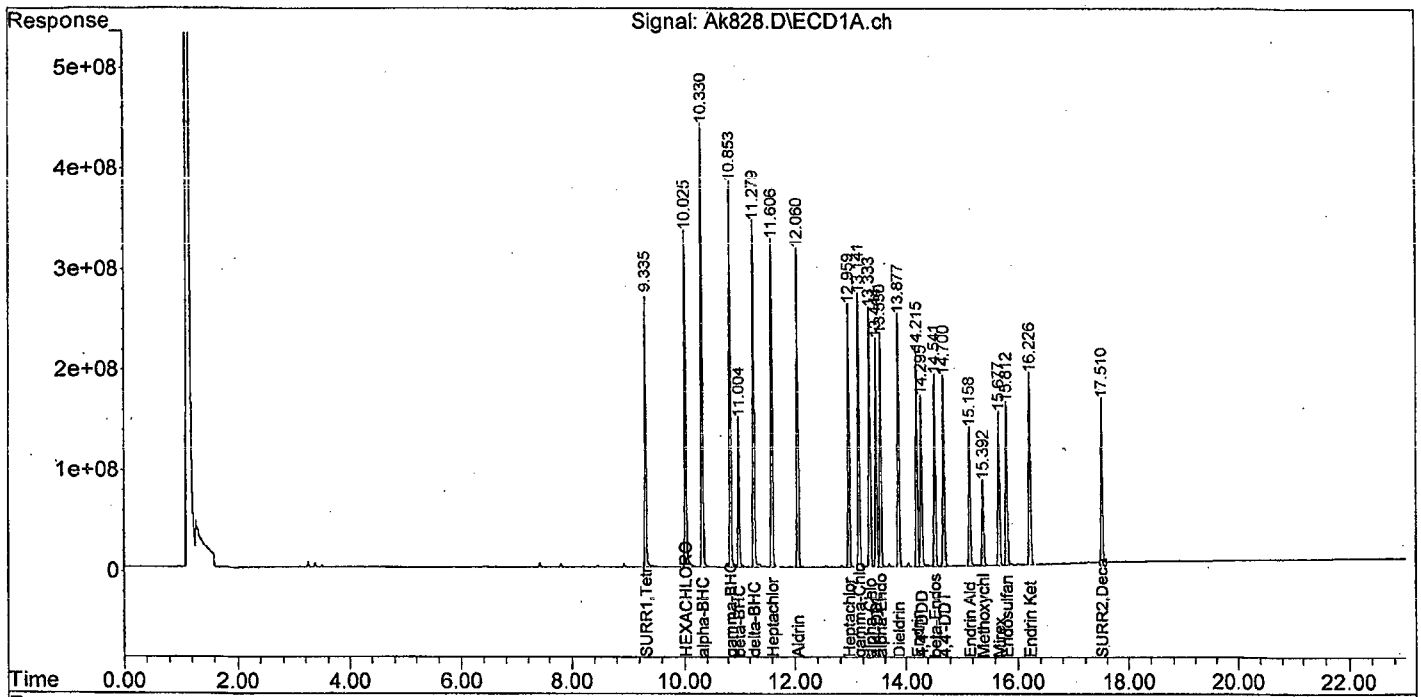
Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

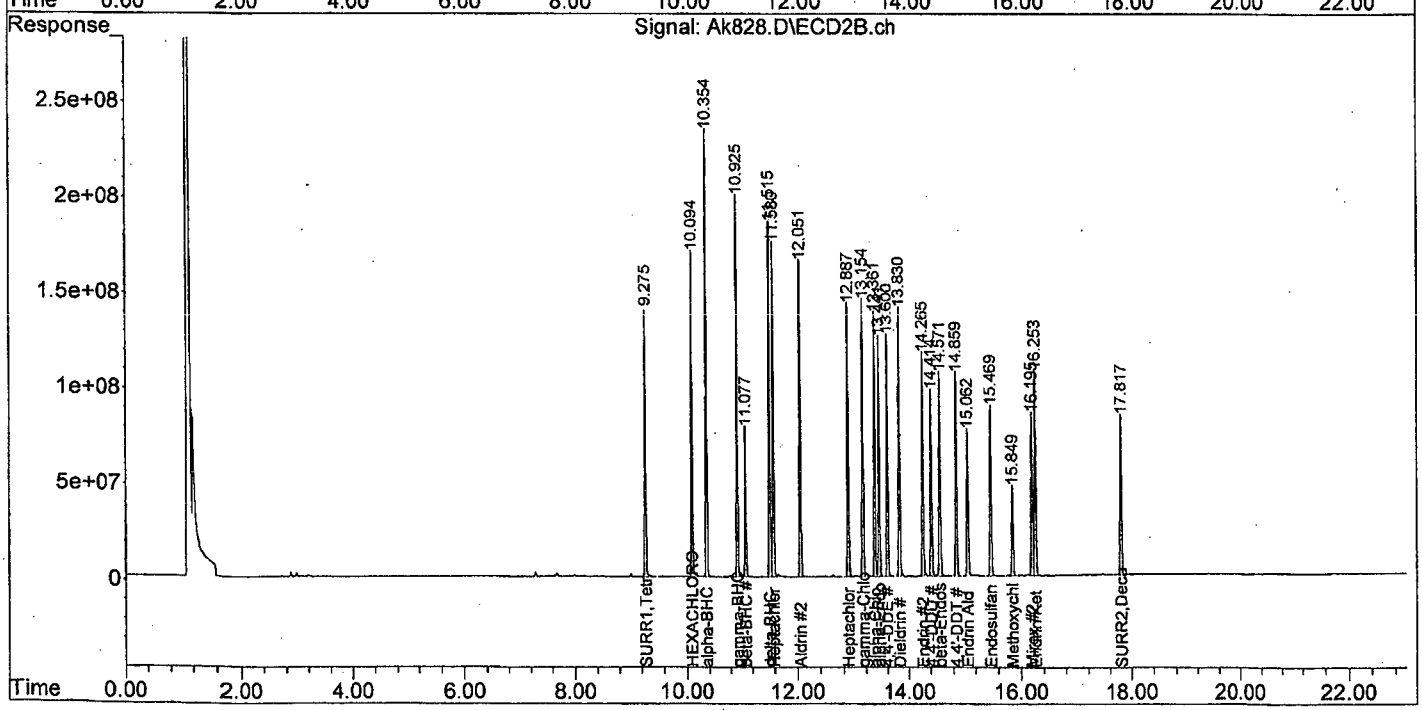
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1) S	SURR1,Tet...	9.335	9.276	4378.9E6	1934.6E6	98.630	97.952
	Spiked Amount 100.000	Range 30 - 150		Recovery =		98.63%	97.95%
6) S	SURR2,Dec...	17.510	17.818	2939.3E6	1403.5E6	103.532	103.897
	Spiked Amount 100.000	Range 30 - 150		Recovery =		103.53%	103.90%
	Target Compounds						
2) TC	HEXACHLOR...	10.026	10.094	5705.6E6	2473.4E6	96.943	97.685
3) tc	alpha-BHC	10.330	10.355	7081.2E6	3201.9E6	106.594	106.587
4) tcm	gamma-BHC (L	10.853	10.926	6132.8E6	2758.5E6	105.956	105.105
5) tcm	Heptachlor	11.606	11.580	5662.9E6	2643.3E6	100.589	102.113
6) tcm	Aldrin	12.060	12.052	5432.6E6	2523.0E6	105.533	104.699
7) tc	beta-BHC	11.005	11.077	2529.9E6	1105.4E6	100.205	98.008
8) tc	delta-BHC	11.279	11.515	5676.7E6	2565.2E6	111.678	109.635
9) tc	Heptachlor E	12.959	12.887	4595.4E6	2187.8E6	101.394	101.845
0) tc	alpha-Endosu	13.530	13.441	4186.2E6	1984.3E6	104.578	103.540
1) tc	gamma-Chlord	13.142	13.154	4796.9E6	2249.5E6	106.346	106.592
2) tc	alpha-Chlord	13.334	13.361	4576.4E6	2132.9E6	106.287	104.514
3) tc	4,4'-DDE	13.444	13.601	4018.2E6	1926.8E6	114.128	111.774
4) tcm	Dieldrin	13.877	13.830	4498.3E6	2189.6E6	109.258	108.075
5) tcm	Endrin	14.215	14.265	3857.1E6	1847.8E6	111.621	109.950m
7) tc	beta-Endosul	14.541	14.572	3547.2E6	1739.2E6	111.022	107.119
8) tc	4,4'-DDD	14.296	14.415	3163.6E6	1511.2E6	119.037	114.160
9) tcm	4,4'-DDT	14.700	14.859	3450.4E6	1679.9E6	121.303	116.899
0) tc	Endrin Aldeh	15.159	15.062	2702.6E6	1325.9E6	109.797	105.025
1) tc	Endosulfan S	15.813	15.470	3058.7E6	1563.0E6	111.074	107.099
2) tc	Methoxychlor	15.392	15.849	1640.0E6	776.4E6	113.121	108.730
4) tc	Endrin Keton	16.226	16.254	3508.1E6	1757.4E6	111.635	110.031
5) tc	Mirex	15.678	16.195	3095.6E6	1458.9E6	103.858	102.225
	Sum Toxaphene			0	0	N.D.	N.D.
verage	Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
verage	Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

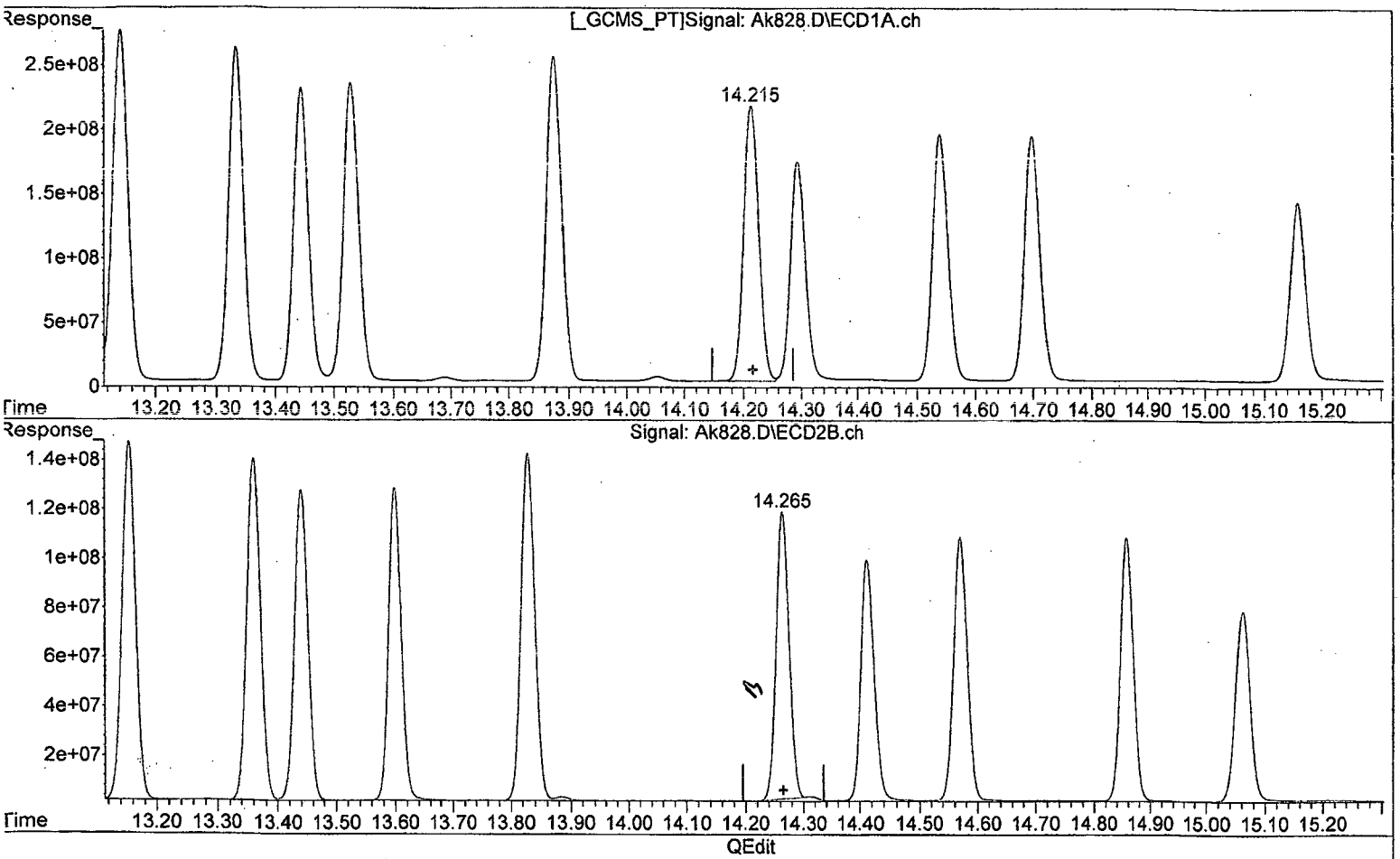
081102115.M Thu Oct 22 13:43:49 2015 Page: 1

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak828.D
Acq On    : 21 Oct 2015    2:26 pm
Operator  : m.pedro
Sample    : pest 100 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 7   Sample Multiplier: 1

Quant Time: Oct 22 11:43:05 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:42:22 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.      : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```





```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak828.D
Acq On    : 21 Oct 2015    2:26 pm
Operator  : m.pedro
Sample    : pest 100 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 7   Sample Multiplier: 1

Quant Time: Oct 22 11:42:36 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:42:22 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.      : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(15) Endrin (tcm)

14.215min 111.621 ug/l

response 3857133245

(15) Endrin #2 (tcm)

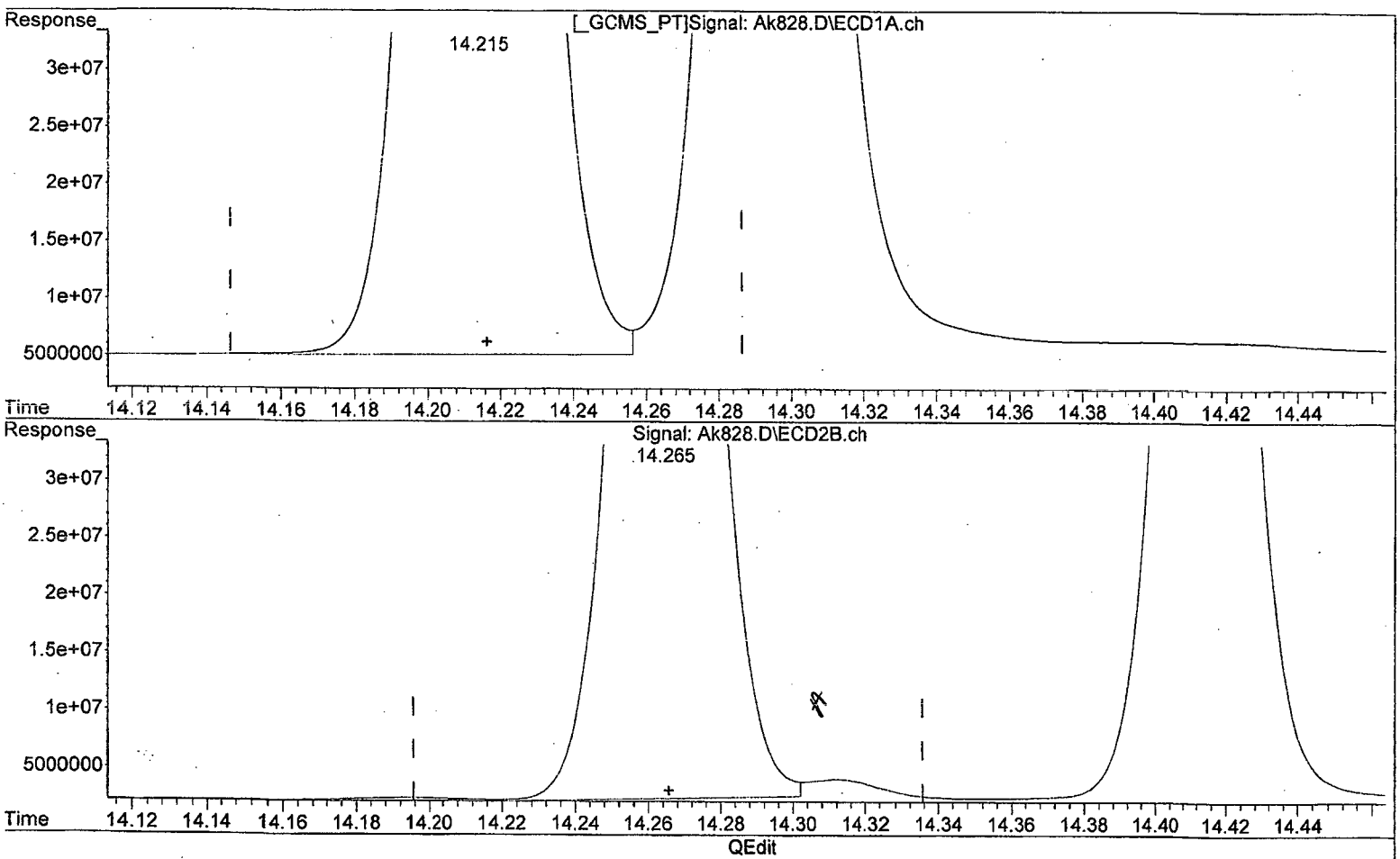
14.266min 107.948 ug/l

response 1814201751

(+) = Expected Retention Time

8081102115.M Thu Oct 22 11:43:02 2015 Page: 1

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak828.D
Acq On    : 21 Oct 2015    2:26 pm
Operator  : m.pedro
Sample    : pest 100 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 7   Sample Multiplier: 1

Quant Time: Oct 22 11:42:36 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:42:22 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.      : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(15) Endrin (tcm)

14.215min 111.621 ug/l

response 3857133245

(15) Endrin #2 (tcm)

14.265min 109.950 ug/l m

response 1847840992

(+) = Expected Retention Time

8081102115.M Thu Oct 22 11:43:09 2015

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak829.D
Acq On : 21 Oct 2015 2:54 pm
Operator : m.pedro
Sample : pest 200 ppb Inst : 7890-M
Misc : initilal cal
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 22 11:43:46 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:43:25 2015
Response via : Initial Calibration
Integrator: ChemStation

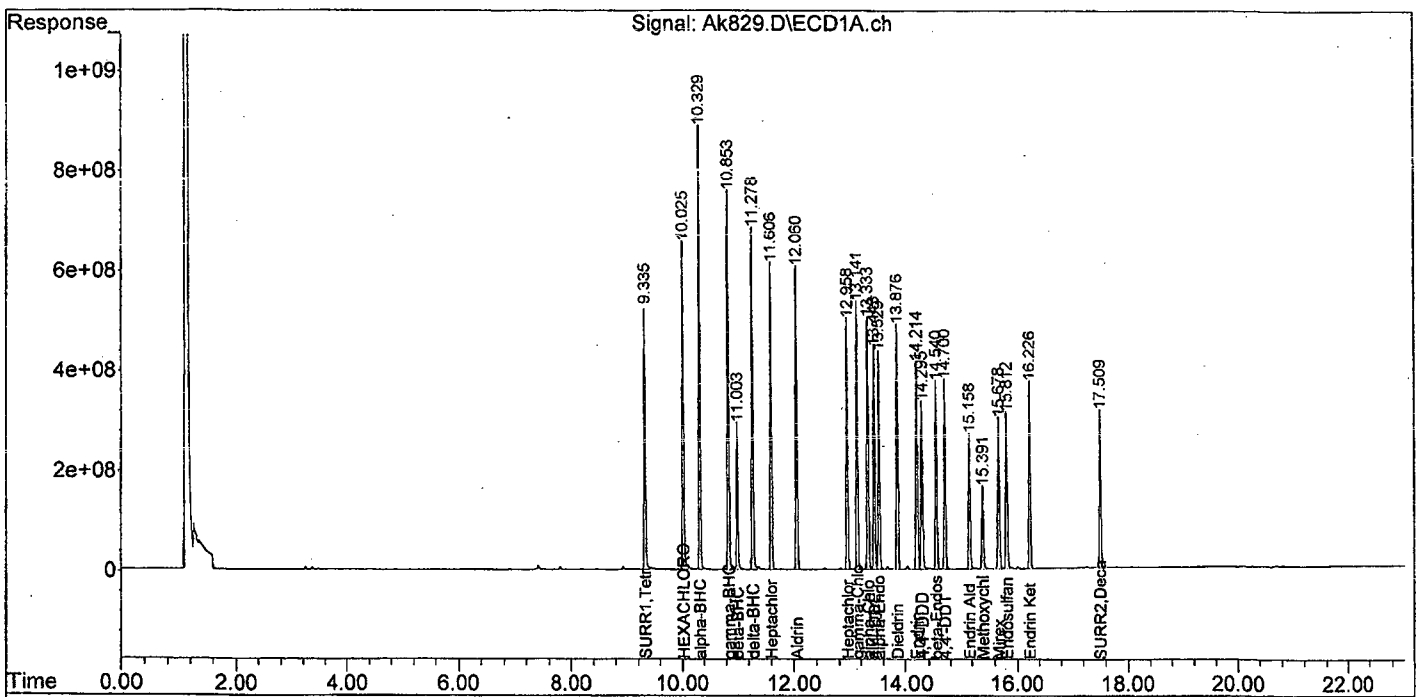
Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

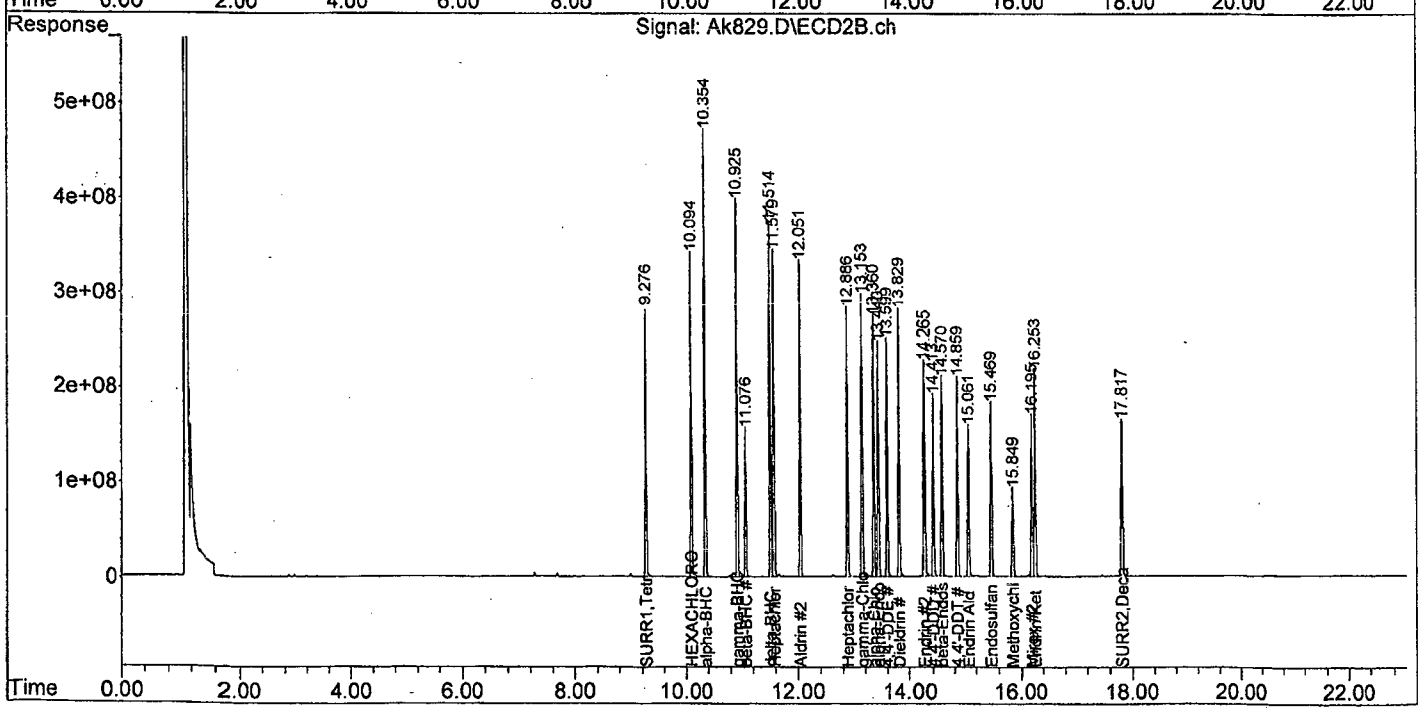
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1)	S SURR1,Tet...	9.335	9.276	8366.7E6	3829.3E6	186.397	191.966
	Spiked Amount 100.000	Range 30 - 150		Recovery =		186.40%#	191.97%#
6)	S SURR2,Dec...	17.510	17.818	5678.2E6	2755.4E6	191.963	195.825
	Spiked Amount 100.000	Range 30 - 150		Recovery =		191.96%#	195.82%#
	Target Compounds						
2)	TC HEXACHLOR...	10.025	10.094	11058.0E6	4880.9E6	183.351	188.335
3)	tc alpha-BHC	10.329	10.354	14127.7E6	6445.2E6	210.097	212.176
4)	tcm gamma-BHC (L	10.853	10.925	12166.2E6	5539.0E6	206.676	207.935
5)	tcm Heptachlor	11.606	11.580	10793.2E6	5185.0E6	187.870	196.696
6)	tcm Aldrin	12.060	12.051	10542.5E6	5011.4E6	200.723	204.452
7)	tc beta-BHC	11.003	11.077	4963.7E6	2186.4E6	191.863	189.208
8)	tc delta-BHC	11.278	11.514	11300.3E6	5155.2E6	215.791	214.145
9)	tc Heptachlor E	12.959	12.887	8812.5E6	4317.9E6	189.532	196.708
0)	tc alpha-Endosu	13.530	13.440	8058.7E6	3930.0E6	194.292	199.092
1)	tc gamma-Chlord	13.141	13.153	9467.6E6	4499.6E6	202.597	206.916
2)	tc alpha-Chlord	13.333	13.361	9008.7E6	4264.3E6	201.896	202.941
3)	tc 4,4'-DDE	13.444	13.600	7898.8E6	3839.1E6	214.638	214.316
4)	tcm Dieldrin	13.877	13.830	8806.7E6	4375.3E6	205.964	209.231
5)	tcm Endrin	14.214	14.265	7579.6E6	3708.6E6	209.875	211.740
7)	tc beta-Endosul	14.541	14.571	6985.3E6	3469.1E6	207.387	204.159
8)	tc 4,4'-DDD	14.295	14.414	6174.3E6	3009.1E6	219.908	216.537
9)	tcm 4,4'-DDT	14.700	14.859	6898.9E6	3382.1E6	230.073	224.791
0)	tc Endrin Aldeh	15.158	15.062	5351.2E6	2650.2E6	208.131	202.255
1)	tc Endosulfan S	15.812	15.470	6080.8E6	3125.0E6	209.557	204.585
2)	tc Methoxychlor	15.392	15.849	3203.3E6	1524.2E6	209.404	203.618
4)	tc Endrin Keton	16.226	16.253	6971.3E6	3532.6E6	211.548	211.586
5)	tc Mirex	15.678	16.195	6074.5E6	2900.8E6	191.379	191.546
	Sum Toxaphene			0	0	N.D.	N.D.
verage	Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
verage	Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

081102115.M Thu Oct 22 13:43:57 2015 Page: 1

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak829.D
Acq On    : 21 Oct 2015    2:54 pm
Operator  : m.pedro
Sample    : pest 200 ppb                          Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 8   Sample Multiplier: 1

Quant Time: Oct 22 11:43:46 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:43:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.      : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```





Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak830.D
Acq On : 21 Oct 2015 3:22 pm
Operator : m.pedro
Sample : pest icv Inst : 7890-M
Misc : initilal cal
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 22 11:44:42 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:44:13 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2	TC HEXACHLOROBENZENE	61.859	66.468 E6	-7.5	103	0.00
3	tc alpha-BHC	68.266	78.617 E6	-15.2#	116	0.00
4	tcm gamma-BHC (L	60.041	70.169 E6	-16.9#	117	0.00
5	tcm Heptachlor	58.653	70.713 E6	-20.6#	118	0.00
6	tcm Aldrin	53.660	63.145 E6	-17.7#	117	0.00
7	tc beta-BHC	26.639	30.401 E6	-14.1	112	0.00
8	TC delta-BHC	54.245	60.846 E6	-12.2	112	0.00
9	tc Heptachlor E	47.725	56.246 E6	-17.9#	116	0.00
10	tc alpha-Endosu	42.938	49.917 E6	-16.3#	114	0.00
11	tc gamma-Chlord	48.524	55.877 E6	-15.2#	117	0.00
12	tc alpha-Chlord	46.327	54.156 E6	-16.9#	117	0.00
13	tc 4,4'-DDE	38.554	45.144 E6	-17.1#	121	0.00
14	tcm Dieldrin	44.423	52.458 E6	-18.1#	119	0.00
15	tcm Endrin	37.750	43.881 E6	-16.2#	119	0.00
17	tc beta-Endosul	35.531	41.654 E6	-17.2#	119	0.00
18	tc 4,4'-DDD	29.626	35.343 E6	-19.3#	128	0.00
19	tcm 4,4'-DDT	31.728	35.788 E6	-12.8	121	0.00
20	tc Endrin Aldeh	26.911	32.161 E6	-19.5#	122	0.00
21	tc Endosulfan S	30.690	36.052 E6	-17.5#	120	0.00
22	tc Methoxychlor	16.199	20.239 E6	-24.9#	128	0.00
24	tc Endrin Keton	34.718	41.254 E6	-18.8#	121	0.00
Signal #2						
2	TC HEXACHLOROBENZENE	26.572	27.496 E6	-3.5	104	0.00
3	tc alpha-BHC	30.802	34.784 E6	-12.9	116	0.00
4	tcm gamma-BHC (L	27.139	31.064 E6	-14.5	116	0.00
5	tcm Heptachlor	26.882	31.604 E6	-17.6#	118	0.00
6	tcm Aldrin	24.979	28.487 E6	-14.0	116	0.00
7	tc beta-BHC	11.882	13.358 E6	-12.4	111	0.00
8	tc delta-BHC	24.908	27.660 E6	-11.0	116	0.00
9	tc Heptachlor E	22.490	25.755 E6	-14.5	115	0.00
10	tc alpha-Endosu	20.368	22.164 E6	-8.8	110	0.00
11	tc gamma-Chlord	22.492	25.460 E6	-13.2	116	0.00
12	tc alpha-Chlord	21.714	24.746 E6	-14.0	116	0.00
13	tc 4,4'-DDE	18.691	21.638 E6	-15.8#	121	0.00
14	tcm Dieldrin	21.650	24.888 E6	-15.0	118	0.00
15	tcm Endrin	18.232	21.067 E6	-15.5#	119	0.00
17	tc beta-Endosul	17.846	20.428 E6	-14.5	117	0.00
18	tc 4,4'-DDD	14.586	17.295 E6	-18.6#	123	0.00
19	tcm 4,4'-DDT	15.847	17.805 E6	-12.4	121	0.00
20	tc Endrin Aldeh	13.651	16.193 E6	-18.6#	123	0.00

081102115.M Thu Oct 22 11:45:20 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak830.D
Acq On : 21 Oct 2015 3:22 pm
Operator : m.pedro
Sample : pest icv Inst : 7890-M
Misc : initilal cal
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 22 11:44:42 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:44:13 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
21 tc	Endosulfan S	16.078	18.863 E6	-17.3#	120	0.00
22 tc	Methoxychlor	7.886	9.820 E6	-24.5#	128	0.00
24 tc	Endrin Keton	17.566	20.564 E6	-17.1#	122	0.00

Evaluate Continuing Calibration Report - Not Founds

1 S	SURR1,Tetrac	45.389	0.000 E6	100.0#	0#	-9.34#
16 tc	KEPONE	15.271	0.000 E6	100.0#	0#	-14.30#
23 tc	FAMPHUR	20.174	0.000 E6	100.0#	0#	-16.13#
25 tc	Mirex	33.800	0.000 E6	100.0#	0#	-15.68#
26 S	SURR2,Decachlorobiphenyl	30.967	0.000 E6	100.0#	0#	-17.51#
27 L8C	Toxaphene	601.062	0.000 E3	100.0#	0#	-14.65#
28 L8C	Toxaphene{2}	473.866	0.000 E3	100.0#	0#	-14.73#
29 L8C	Toxaphene{3}	953.773	0.000 E3	100.0#	0#	-15.33#
30 L8C	Toxaphene{4}	528.961	0.000 E3	100.0#	0#	-15.94#
31 L8C	Toxaphene{5}	936.044	0.000 E3	100.0#	0#	-16.42#
32 L9C	Chlordane	1.815	0.000 E6	100.0#	0#	-11.50#
33 L9C	Chlordane{2}	2.444	0.000 E6	100.0#	0#	-11.62#
34 L9C	Chlordane{3}	1.808	0.000 E6	100.0#	0#	-12.29#
35 L9C	Chlordane{4}	4.793	0.000 E6	100.0#	0#	-13.16#
36 L9C	Chlordane{5}	1.060	0.000 E6	100.0#	0#	-14.46#

Signal #2

1 S	SURR1,Tetrac	20.188	0.000 E6	100.0#	0#	-9.28#
16 tc	KEPONE	8.681	0.000 E6	100.0#	0#	-14.44#
23 tc	FAMPHUR	11.275	0.000 E6	100.0#	0#	-15.60#
25 tc	Mirex	16.098	0.000 E6	100.0#	0#	-16.20#
26 S	SURR2,Decachlorobiphenyl	14.739	0.000 E6	100.0#	0#	-17.82#
27 L8C	Toxaphene	470.019	0.000 E3	100.0#	0#	-14.70#
28 L8C	Toxaphene{2}	240.991	0.000 E3	100.0#	0#	-14.97#
29 L8C	Toxaphene{3}	453.759	0.000 E3	100.0#	0#	-15.08#
30 L8C	Toxaphene{4}	290.790	0.000 E3	100.0#	0#	-15.47#
31 L8C	Toxaphene{5}	480.089	0.000 E3	100.0#	0#	-16.39#
32 L9C	Chlordane	829.652	0.000 E3	100.0#	0#	-11.37#
33 L9C	Chlordane{2}	1.114	0.000 E6	100.0#	0#	-11.59#
34 L9C	Chlordane{3}	786.409	0.000 E3	100.0#	0#	-12.30#
35 L9C	Chlordane{4}	353.167	0.000 E3	100.0#	0#	-14.39#
36 L9C	Chlordane{5}	586.469	0.000 E3	100.0#	0#	-14.65#

(#) = Out of Range SPCC's out = 0 CCC's out = 51

081102115.M Thu Oct 22 11:45:20 2015 Page: 2

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak830.D
Acq On : 21 Oct 2015 3:22 pm
Operator : m.pedro
Sample : pest icv Inst : 7890-M
Misc : initilal cal
ALS Vial : 9 Sample Multiplier: 1

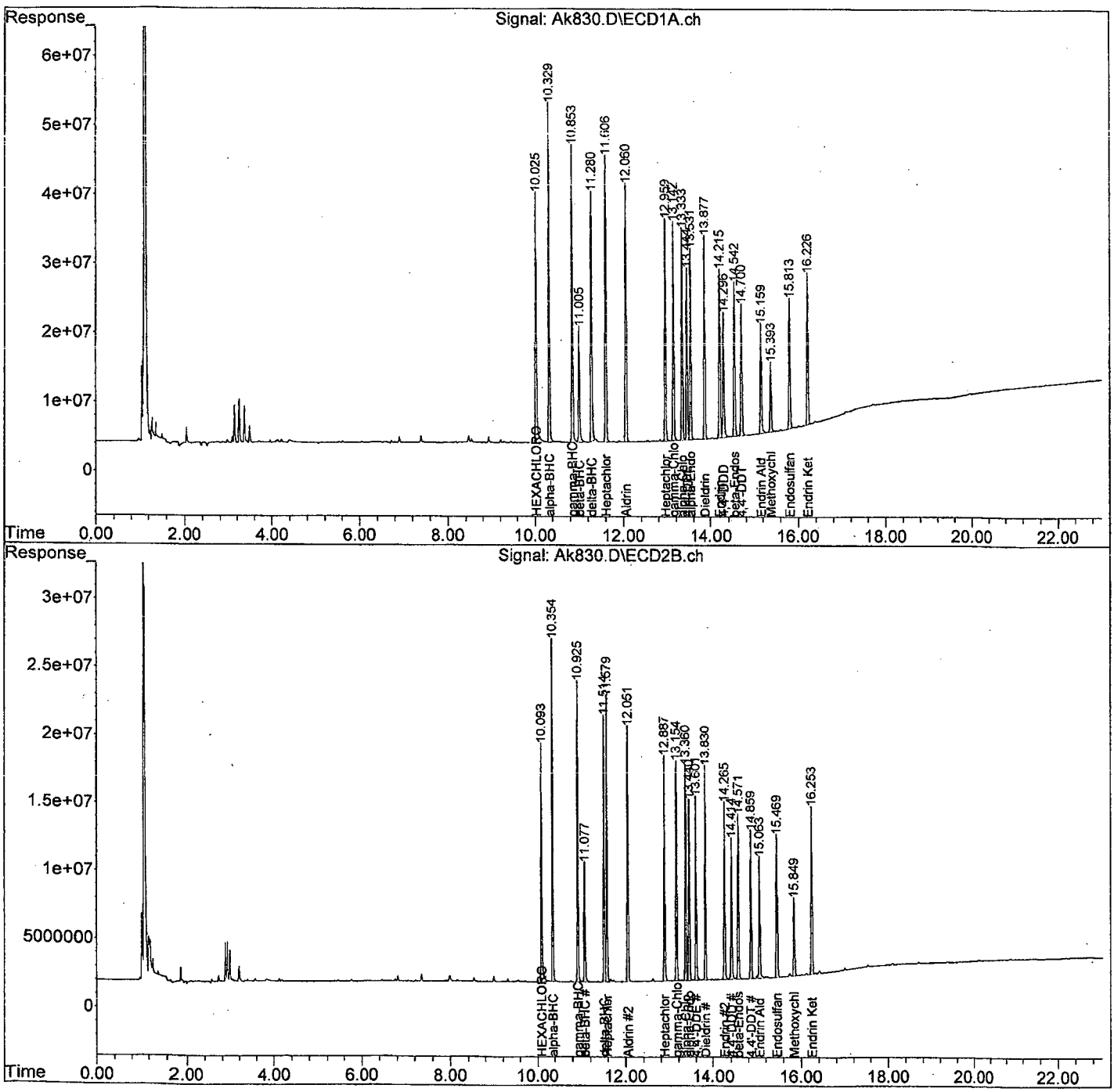
Quant Time: Oct 22 11:44:42 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:44:13 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
Target Compounds						
2) TC HEXACHLOR...	10.025	10.094	664.7E6	275.0E6	10.745	10.347
3) tc alpha-BHC	10.330	10.355	786.2E6	347.8E6	11.516	11.293
4) tcm gamma-BHC (L	10.854	10.926	701.7E6	310.6E6	11.687	11.446
5) tcm Heptachlor	11.606	11.580	707.1E6	316.0E6	12.056	11.757
6) tcm Aldrin	12.060	12.051	631.5E6	284.9E6	11.768	11.405
7) tc beta-BHC	11.005	11.078	304.0E6	133.6E6	11.412	11.242
8) tc delta-BHC	11.280	11.515	608.5E6	276.6E6	11.217	11.105
9) tc Heptachlor E	12.960	12.887	562.5E6	257.6E6	11.785	11.452
0) tc alpha-Endosu	13.531	13.441	499.2E6	221.6E6	11.625	10.882
1) tc gamma-Chlord	13.142	13.154	558.8E6	254.6E6	11.515	11.320
2) tc alpha-Chlord	13.334	13.361	541.6E6	247.5E6	11.690	11.396
3) tc 4,4'-DDE	13.444	13.601	451.4E6	216.4E6	11.709	11.577
4) tcm Dieldrin	13.878	13.830	524.6E6	248.9E6	11.809	11.496
5) tcm Endrin	14.215	14.266	438.8E6	210.7E6	11.624	11.555
7) tc beta-Endosul	14.542	14.572	416.5E6	204.3E6	11.723	11.447
8) tc 4,4'-DDD	14.296	14.415	353.4E6	172.9E6	11.930	11.857
9) tcm 4,4'-DDT	14.700	14.859	357.9E6	178.0E6	11.280	11.235
0) tc Endrin Aldeh	15.160	15.063	321.6E6	161.9E6	11.951	11.862
1) tc Endosulfan S	15.814	15.470	360.5E6	188.6E6	11.747	11.732
2) tc Methoxychlor	15.393	15.849	202.4E6	98203679	12.494	12.453
4) tc Endrin Keton	16.227	16.254	412.5E6	205.6E6	11.882	11.707
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak830.D
Acq On    : 21 Oct 2015    3:22 pm
Operator  : m.pedro
Sample    : pest icv                                  Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 9   Sample Multiplier: 1

Quant Time: Oct 22 11:44:42 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 11:44:13 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```

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8081102115.M Thu Oct 22 13:44:09 2015
```

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak831.D
Acq On : 21 Oct 2015 3:50 pm
Operator : m.pedro
Sample : k/f 1 Inst : 7890-M
Misc : initilal cal
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 22 13:11:47 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:10:46 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
Target Compounds						
6) tc KEPONE	14.283	14.425	4649.7E6	2736.2E6	308.303	314.952
3) tc FAMPHUR	16.102	15.579	2602.3E6	1344.2E6	95.369	90.769
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

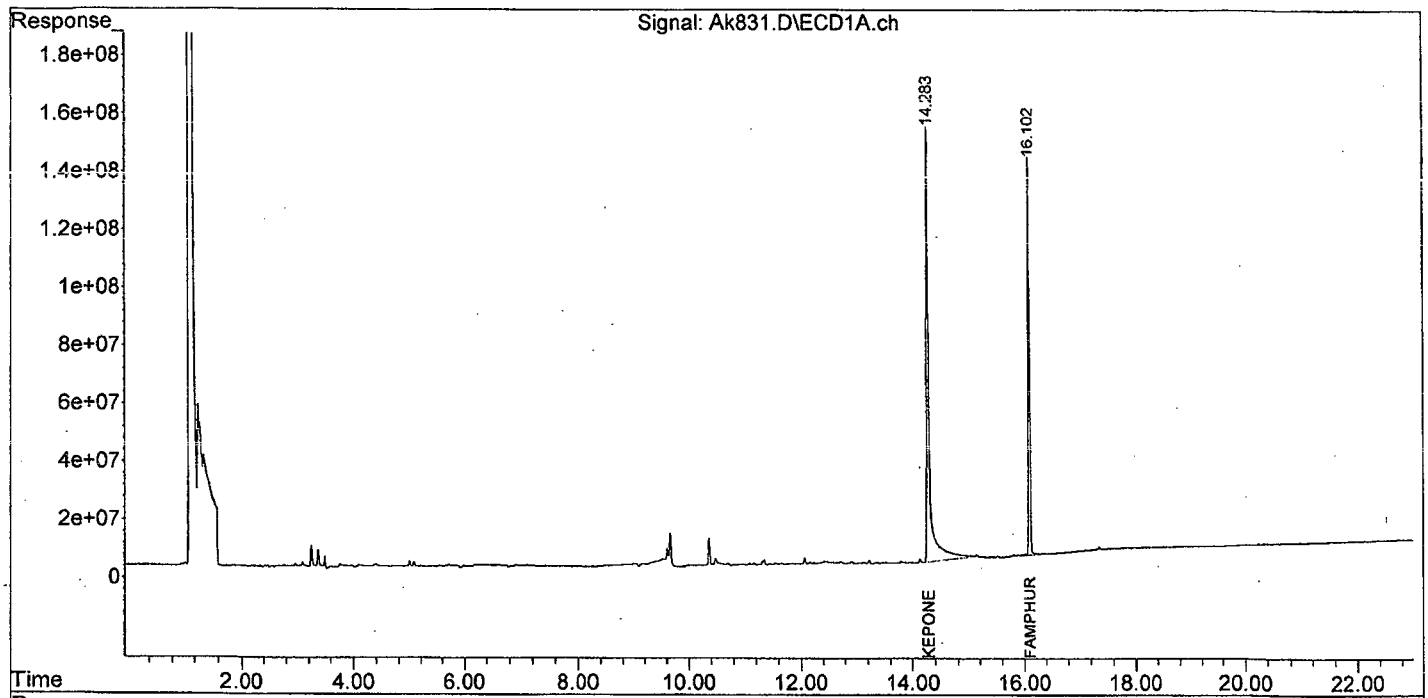
MP 10/23

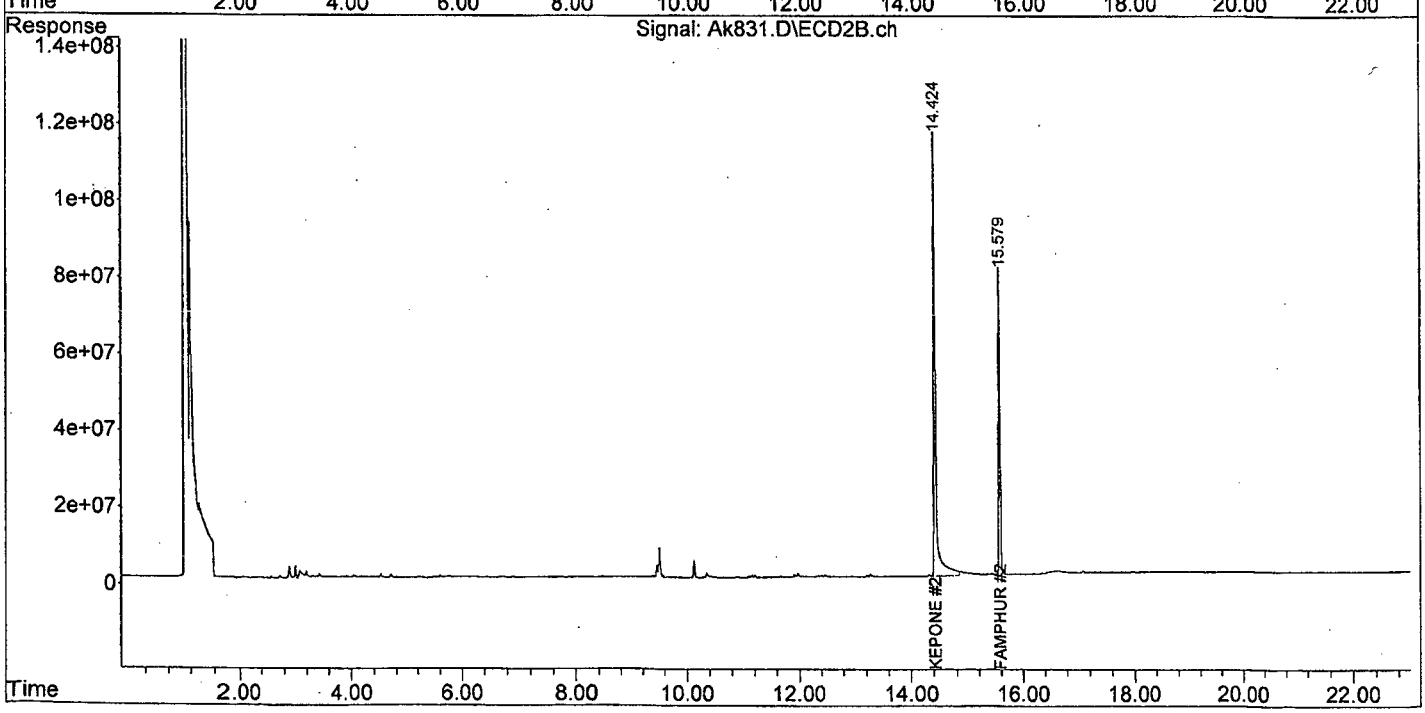
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak831.D
Acq On    : 21 Oct 2015    3:50 pm
Operator  : m.pedro
Sample    : k/f l                                    Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 10   Sample Multiplier: 1

Quant Time: Oct 22 13:11:47 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:10:46 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.      : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



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8081102115.M Thu Oct 22 13:44:17 2015                    Page: 2
```

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak832.D
Acq On : 21 Oct 2015 4:17 pm
Operator : m.pedro
Sample : k/f ml Inst : 7890-M
Misc : initilal cal
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 22 13:13:13 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:03:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
Target Compounds						
5) tc KEPONE	14.283	14.424	14989.2E6	8377.0E6	1013.342m	989.911m
3) tc FAMPHUR	16.100	15.578	5346.3E6	2881.9E6	248.171m	241.048
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

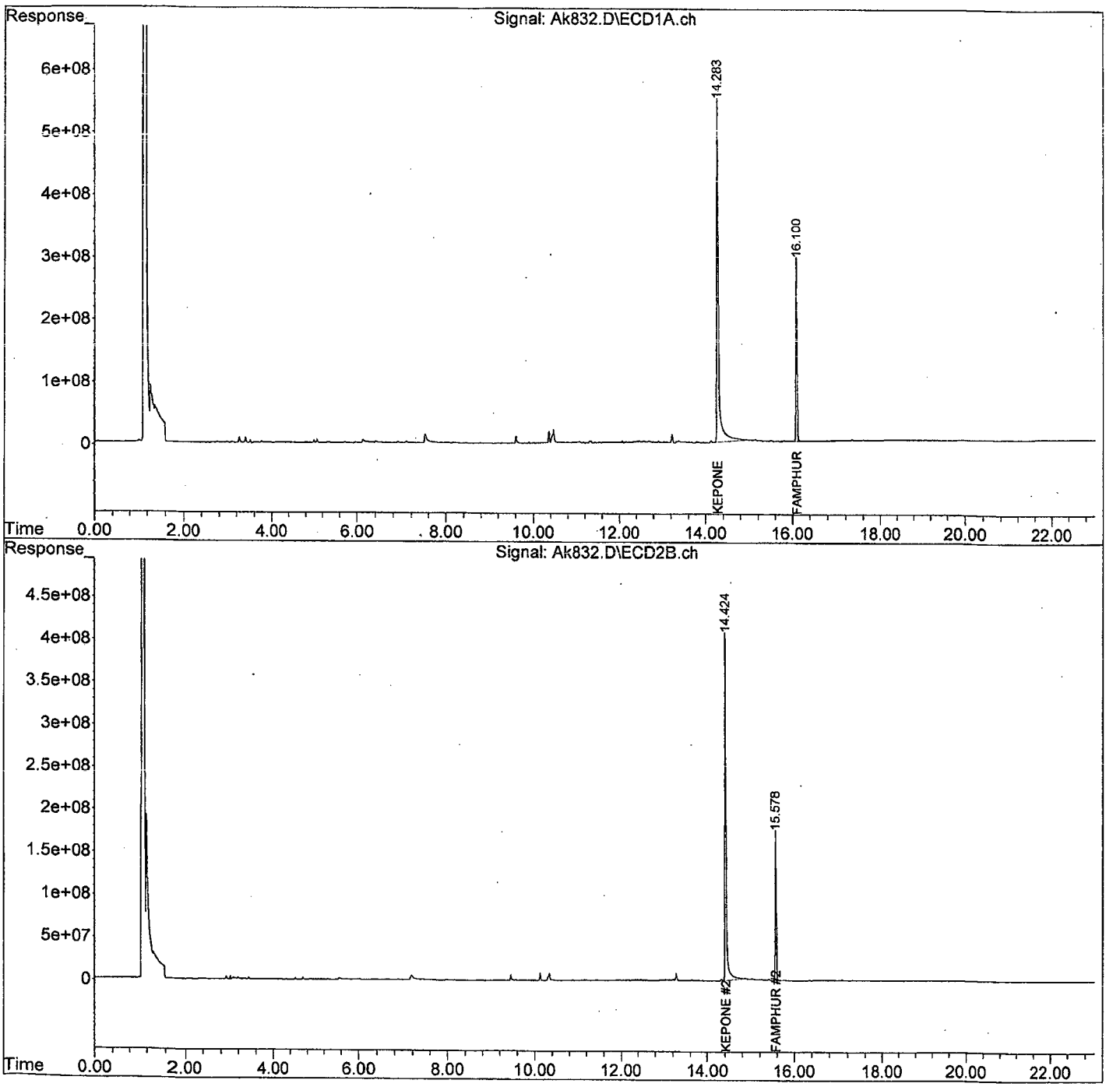
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

)81102115.M Thu Oct 22 13:44:27 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak832.D
Acq On : 21 Oct 2015 4:17 pm
Operator : m.pedro
Sample : k/f ml Inst : 7890-M
Misc : initilal cal
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 22 13:13:13 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:03:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

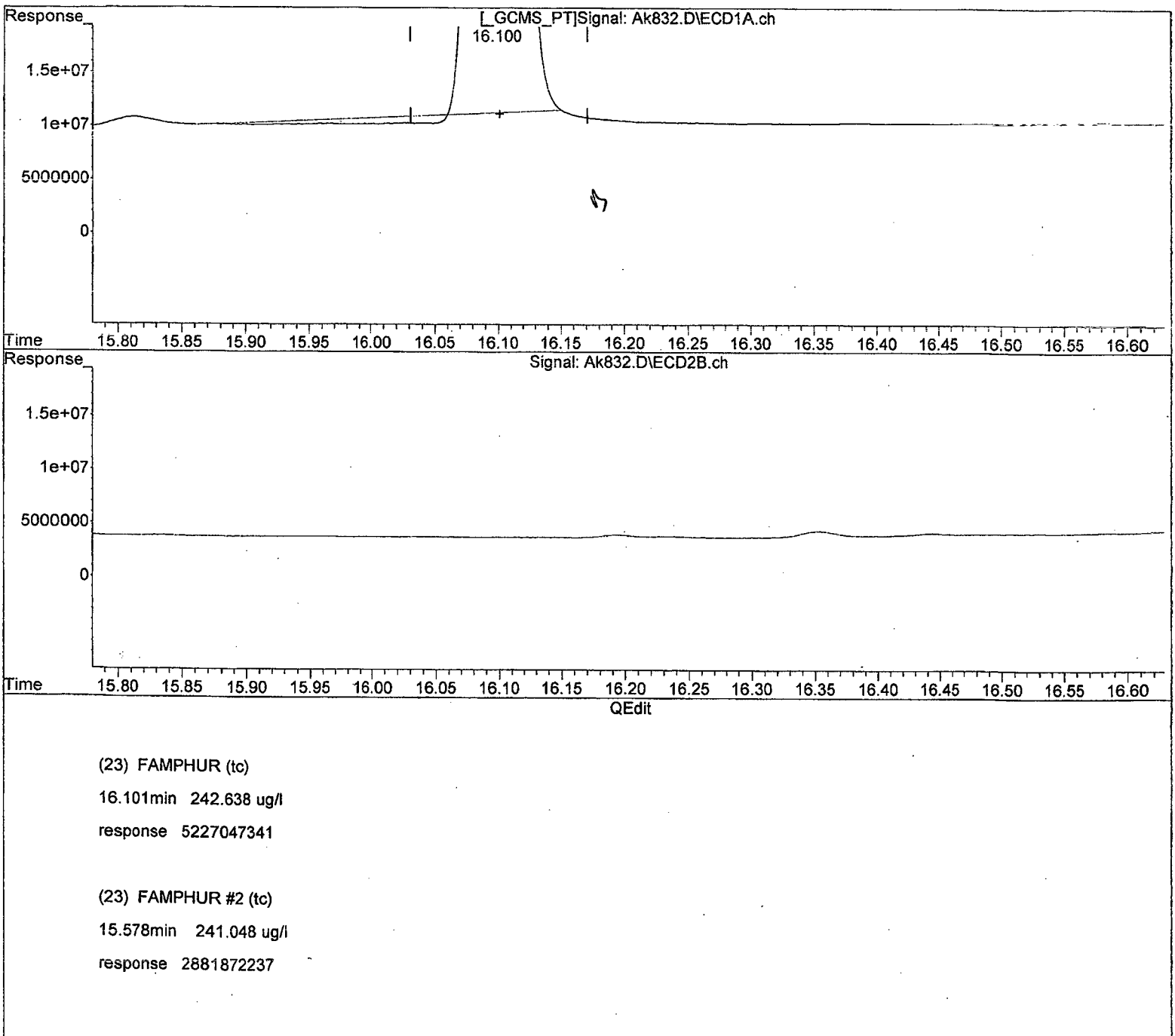


8081102115.M Thu Oct 22 13:44:31 2015 Page: 2

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak832.D
Acq On    : 21 Oct 2015    4:17 pm
Operator  : m.pedro
Sample    : k/f ml                                    Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 11   Sample Multiplier: 1

Quant Time: Oct 22 13:03:37 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:03:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(23) FAMPHUR (tc)

16.101min 242.638 ug/l

response 5227047341

(23) FAMPHUR #2 (tc)

15.578min 241.048 ug/l

response 2881872237

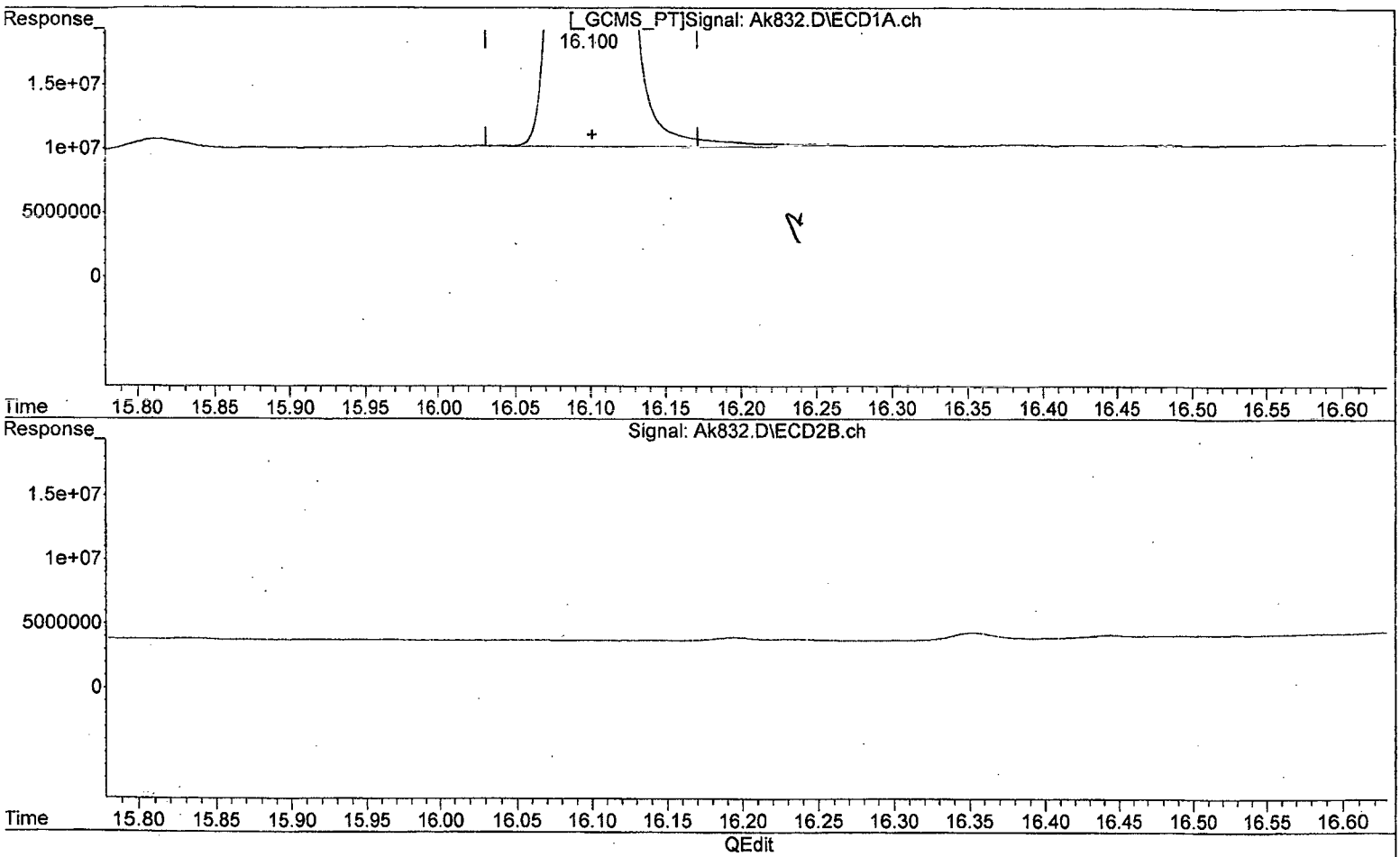
(+) = Expected Retention Time

8081102115.M Thu Oct 22 13:04:07 2015 Page: 1

```
Data Path : I:\ACQUDATA\7890m\DATA\f02115\
Data File : Ak832.D
Acq On    : 21 Oct 2015   4:17 pm
Operator  : m.pedro
Sample    : k/f ml                                  Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 11   Sample Multiplier: 1

Quant Time: Oct 22 13:03:37 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:03:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP           Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m       Signal #2 Info : 0.32mm  30m
```



(23) FAMPHUR (tc)

16.100min 248.171 ug/l m

response 5346257690

(23) FAMPHUR #2 (tc)

15.578min 241.048 ug/l

response 2881872237

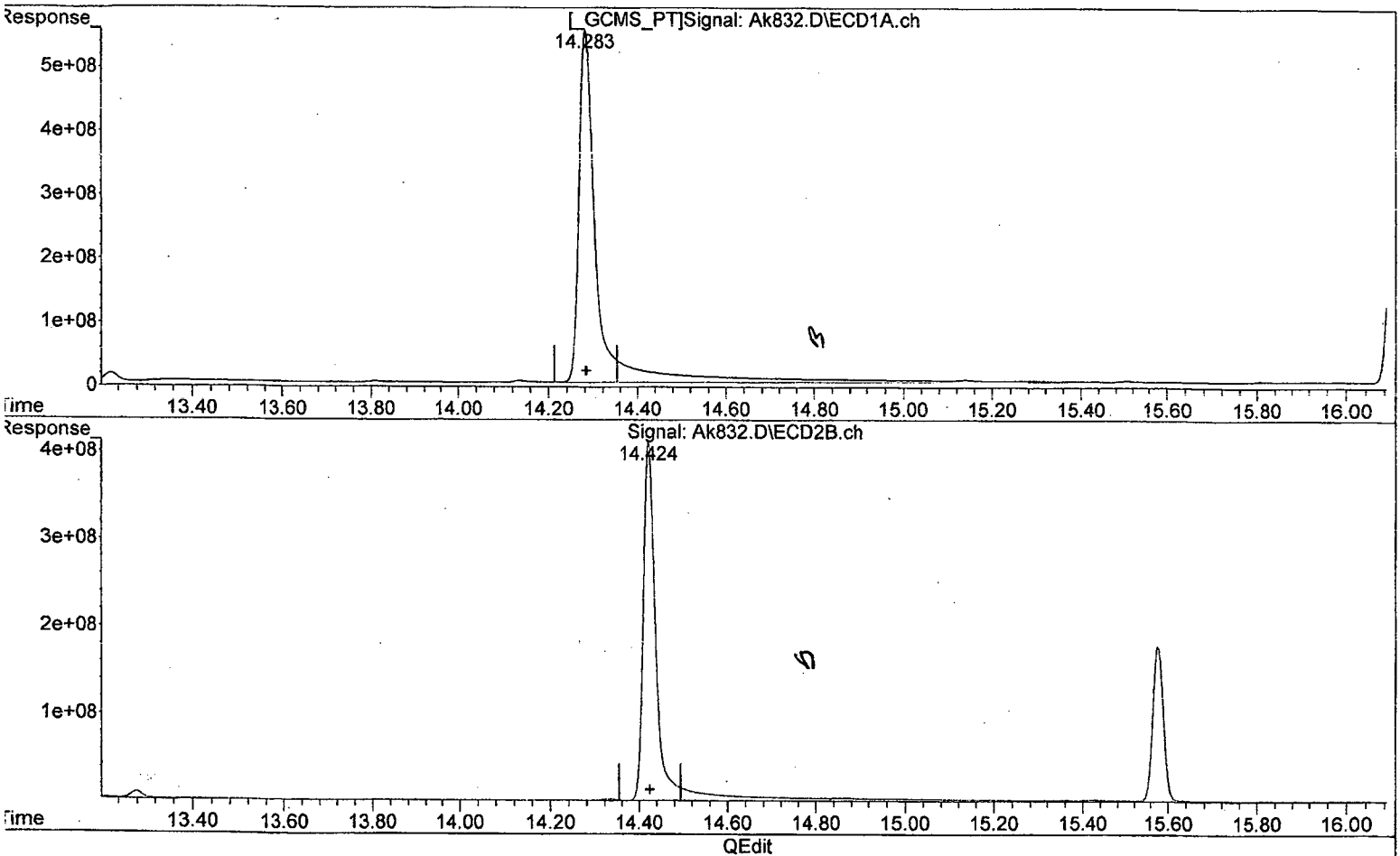
(+) = Expected Retention Time

8081102115.M Thu Oct 22 13:04:16 2015 Page: 1

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak832.D
Acq On    : 21 Oct 2015    4:17 pm
Operator  : m.pedro
Sample    : k/f ml                                    Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 11   Sample Multiplier: 1

Quant Time: Oct 22 13:04:12 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:03:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(16) KEPONE (tc)

14.284min 1082.545 ug/l

response 16012877513

(16) KEPONE #2 (tc)

14.424min 1026.301 ug/l

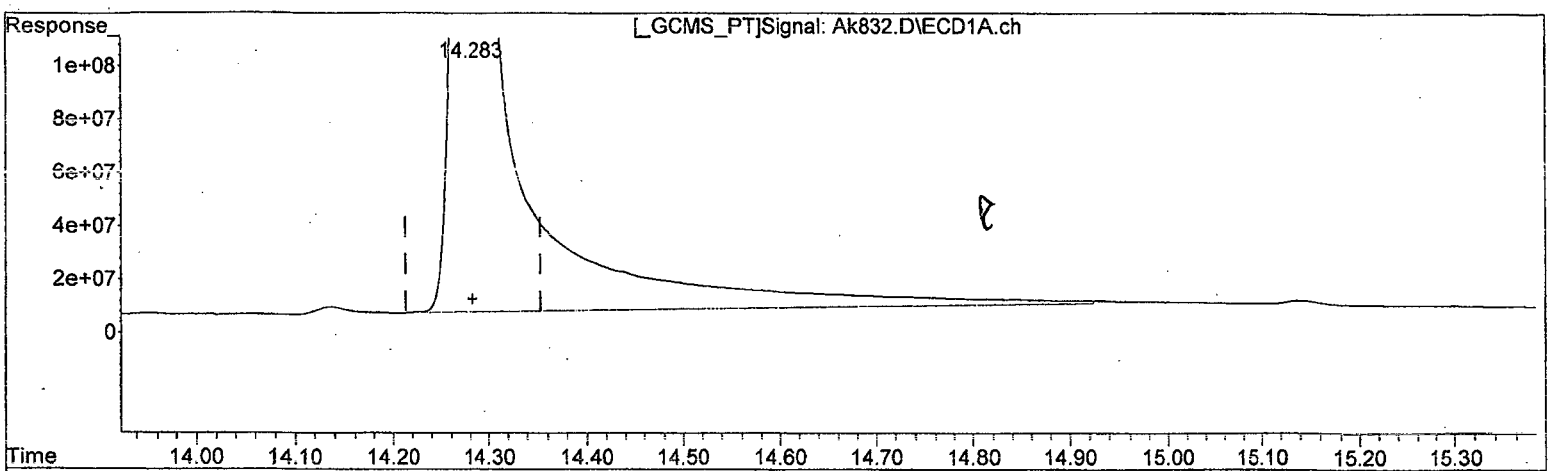
response 8684940330

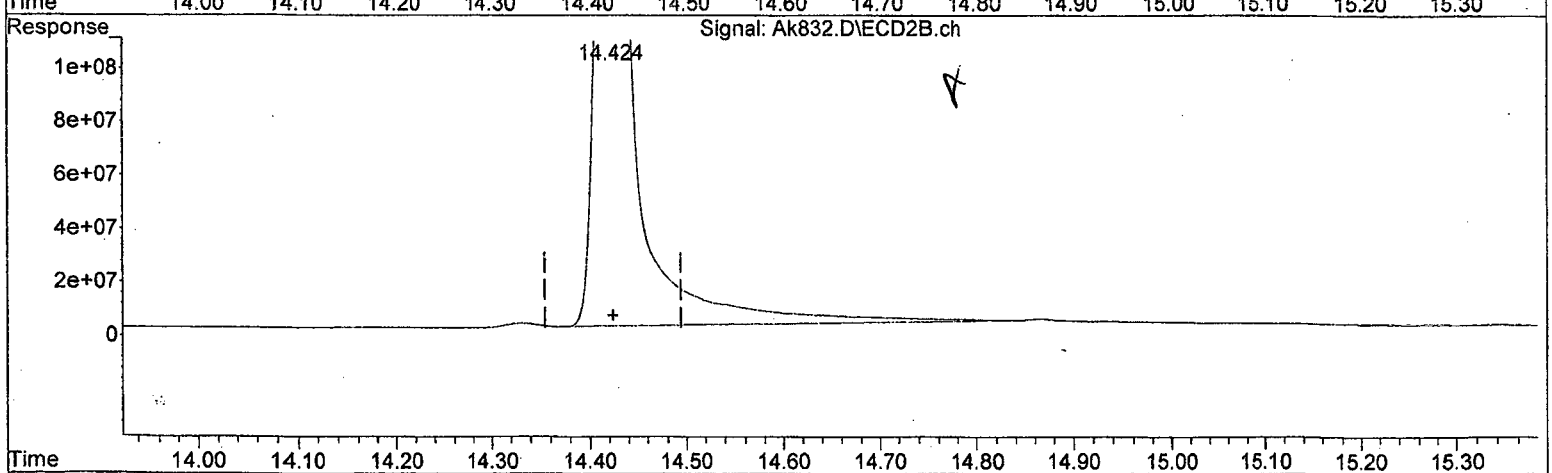
(+) = Expected Retention Time
3081102115.M Thu Oct 22 13:13:04 2015

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak832.D
Acq On    : 21 Oct 2015    4:17 pm
Operator  : m.pedro
Sample    : k/f ml                                    Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 11   Sample Multiplier: 1

Quant Time: Oct 22 13:04:12 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:03:25 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```





QEdit

(16) KEPONE (tc)

14.283min 1013.342 ug/l m

response 14989240773

(16) KEPONE #2 (tc)

14.424min 989.911 ug/l m

response 8376991987

(+) = Expected Retention Time

8081102115.M Thu Oct 22 13:13:18 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak833.D
Acq On : 21 Oct 2015 4:45 pm
Operator : m.pedro
Sample : k/f m Inst : 7890-M
Misc : initilal cal
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 22 13:13:51 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:04:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

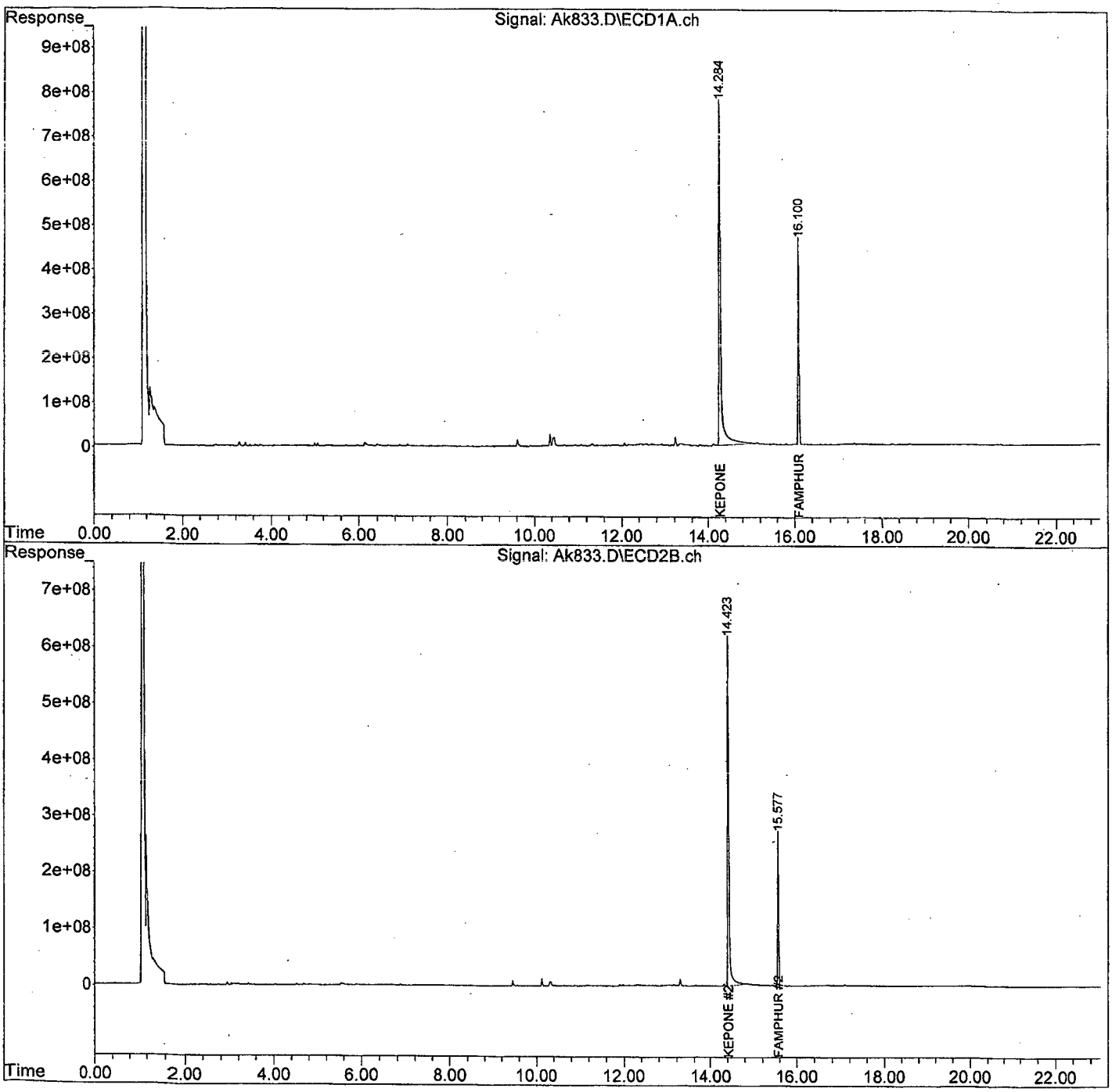
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
	Target Compounds						
6) tc	KEPONE	14.284	14.423	21569.6E6	12703.5E6	1456.564m	1511.623m
3) tc	FAMPHUR	16.100	15.578	8222.1E6	4466.5E6	358.933m	353.127
	Sum Toxaphene			0	0	N.D.	N.D.
verage	Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
verage	Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak833.D
Acq On    : 21 Oct 2015    4:45 pm
Operator  : m.pedro
Sample    : k/f m                                    Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 12   Sample Multiplier: 1

Quant Time: Oct 22 13:13:51 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:04:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```

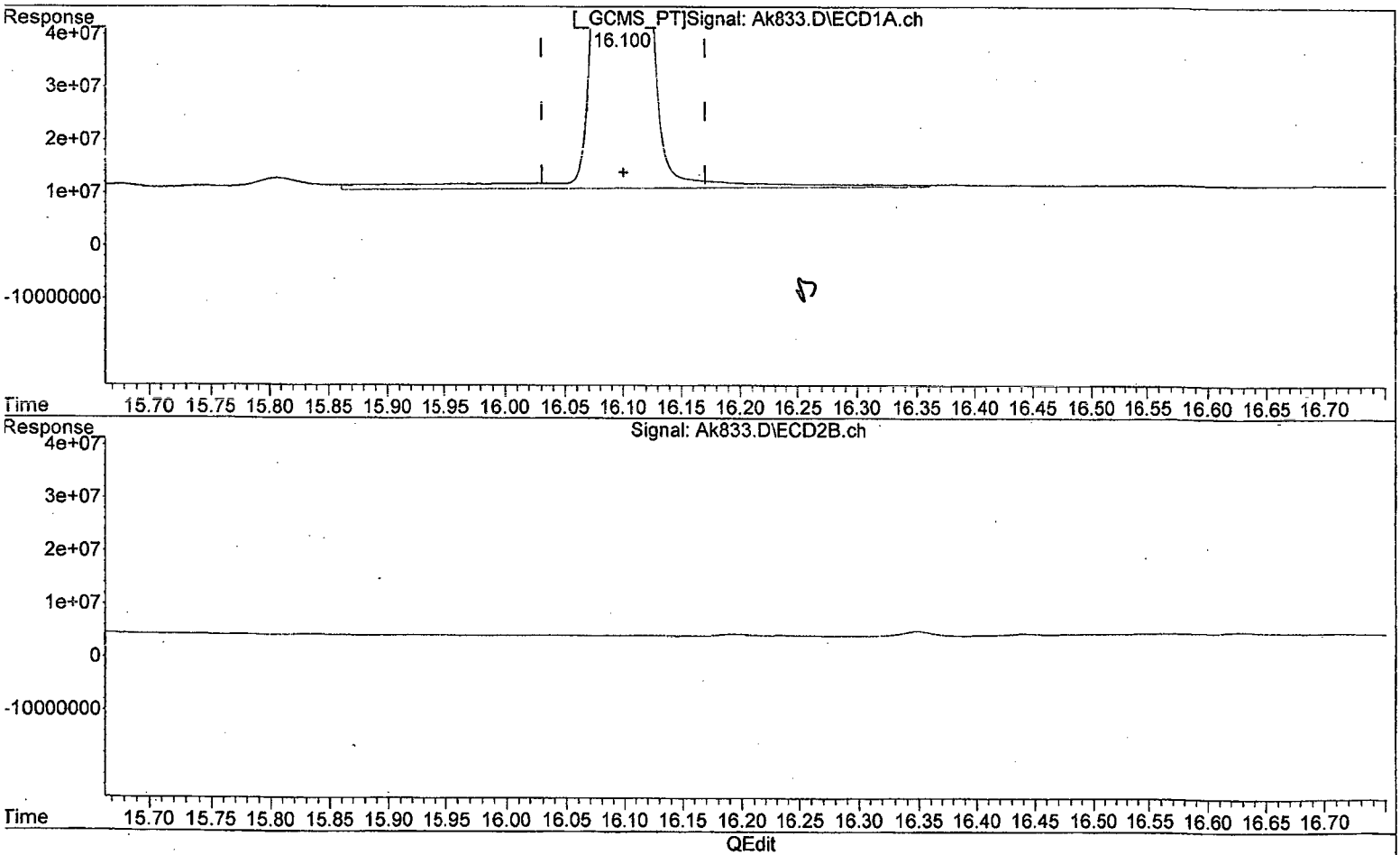


8081102115.M Thu Oct 22 13:44:37 2015 Page: 2

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak833.D
Acq On    : 21 Oct 2015    4:45 pm
Operator  : m.pedro
Sample    : k/f m                                    Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 12   Sample Multiplier: 1

Quant Time: Oct 22 13:04:47 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:04:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(23) FAMPHUR (tc)

16.100min 368.075 ug/l

response 8431567886

(23) FAMPHUR #2 (tc)

15.578min 353.127 ug/l

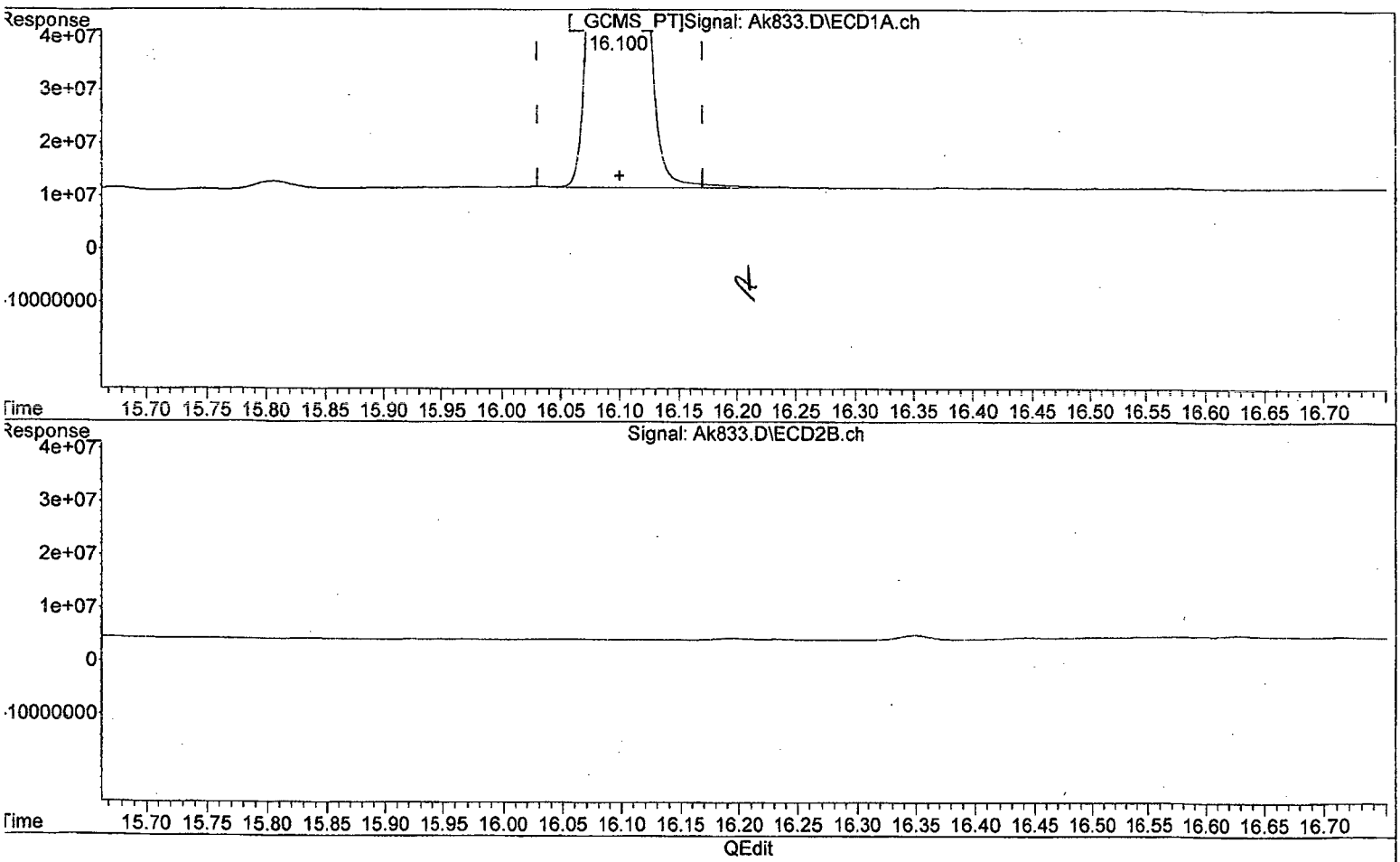
response 4466481628

```
 (+) = Expected Retention Time
8081102115.M Thu Oct 22 13:05:16 2015
```

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak833.D
Acq On    : 21 Oct 2015    4:45 pm
Operator  : m.pedro
Sample    : k/f m                                    Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 12   Sample Multiplier: 1

Quant Time: Oct 22 13:04:47 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:04:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(23) FAMPHUR (tc)

16.100min 358.933 ug/l m

response 8222148243

(23) FAMPHUR #2 (tc)

15.578min 353.127 ug/l

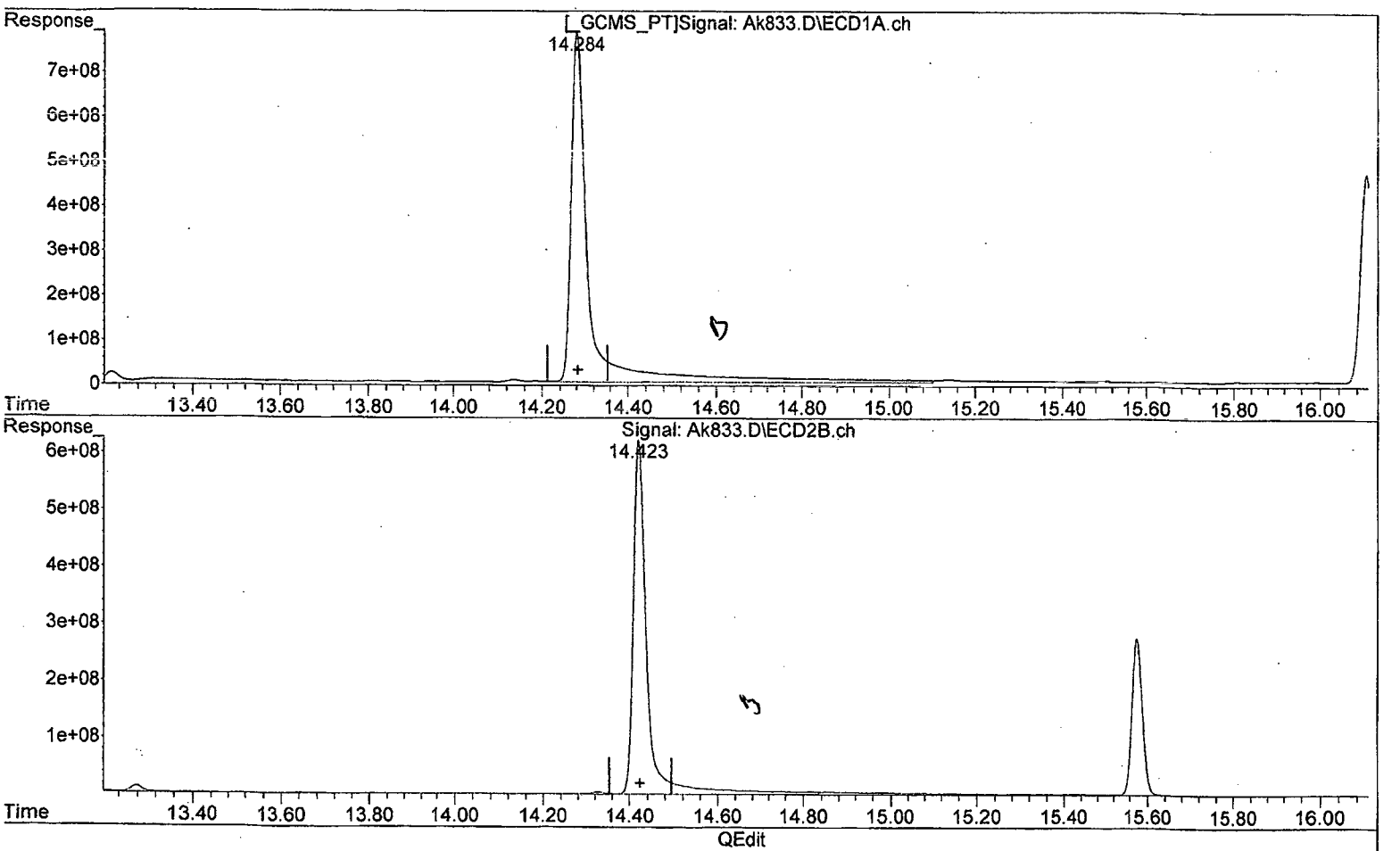
response 4466481628

```
(+) = Expected Retention Time
3081102115.M Thu Oct 22 13:05:22 2015                    Page: 1
```

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak833.D
Acq On    : 21 Oct 2015    4:45 pm
Operator  : m.pedro
Sample    : k/f m                                    Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 12   Sample Multiplier: 1

Quant Time: Oct 22 13:05:17 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:04:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(16) KEPONE (tc)

14.284min 1540.836 ug/l

response 22817539288

(16) KEPONE #2 (tc)

14.424min 1560.401 ug/l

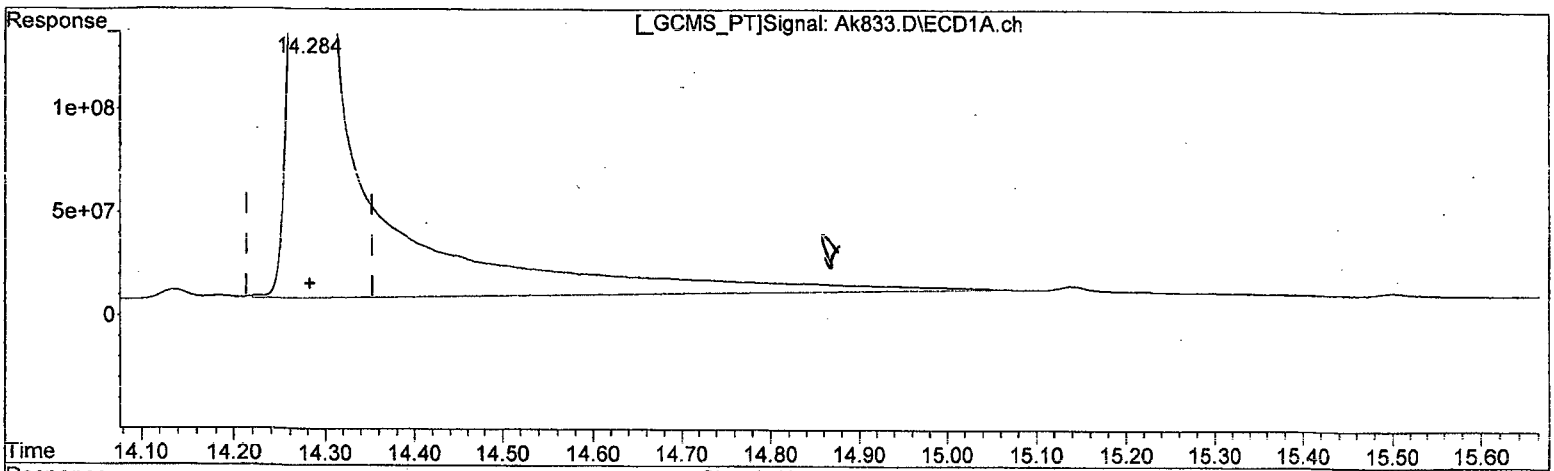
response 13113450184

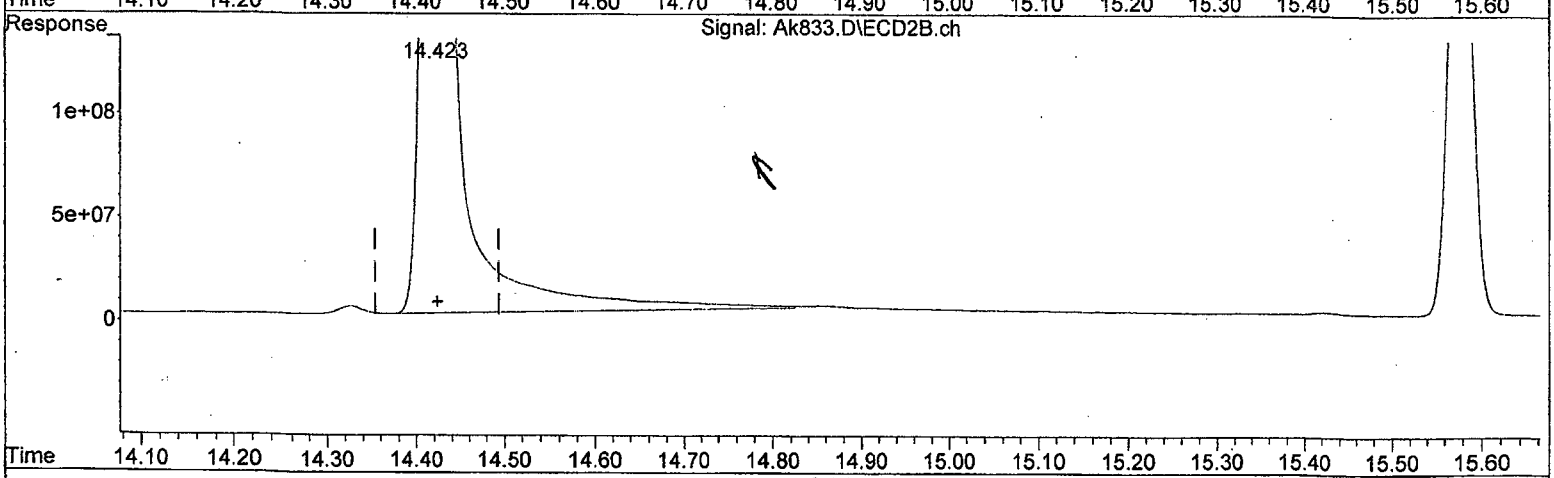
```
 (+) = Expected Retention Time
8081102115.M Thu Oct 22 13:13:43 2015                    Page: 1
```

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak833.D
Acq On    : 21 Oct 2015    4:45 pm
Operator  : m.pedro
Sample    : k/f m                                    Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 12   Sample Multiplier: 1

Quant Time: Oct 22 13:05:17 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:04:35 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.      : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```





QEdit

(16) KEPONE (tc)

14.284min 1456.564 ug/l m

response 21569601737

(16) KEPONE #2 (tc)

14.423min 1511.623 ug/l m

response 12703518987

(+) = Expected Retention Time

8081102115.M Thu Oct 22 13:13:55 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak834.D
Acq On : 21 Oct 2015 5:13 pm
Operator : m.pedro
Sample : k/f mh Inst : 7890-M
Misc : initilal cal
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 22 13:14:23 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:06:57 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
	Target Compounds						
6)	tc KEPONE	14.285	14.425	32616.1E6	19647.5E6	2217.663m	2349.553m
3)	tc FAMPHUR	16.100	15.578	11518.4E6	6267.6E6	472.959	469.073
	Sum Toxaphene			0	0	N.D.	N.D.
verage	Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
verage	Chlordane					0.000	0.000

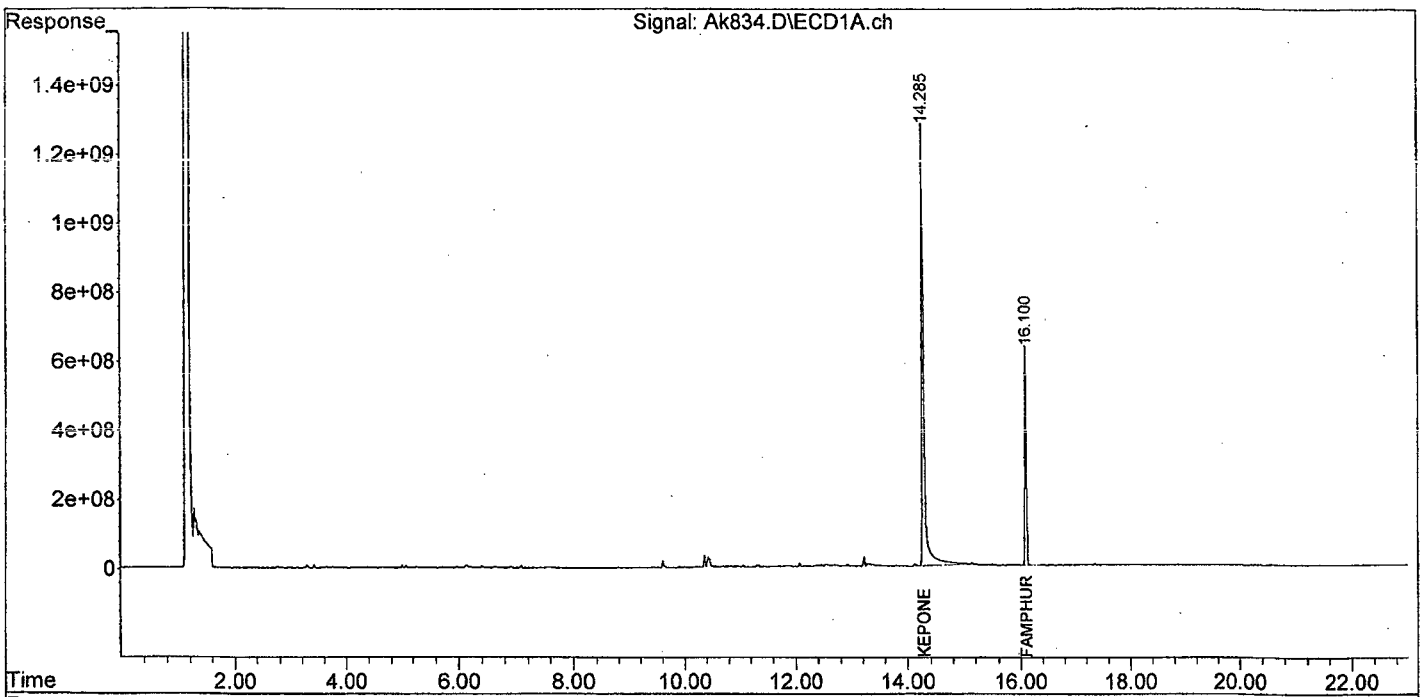
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

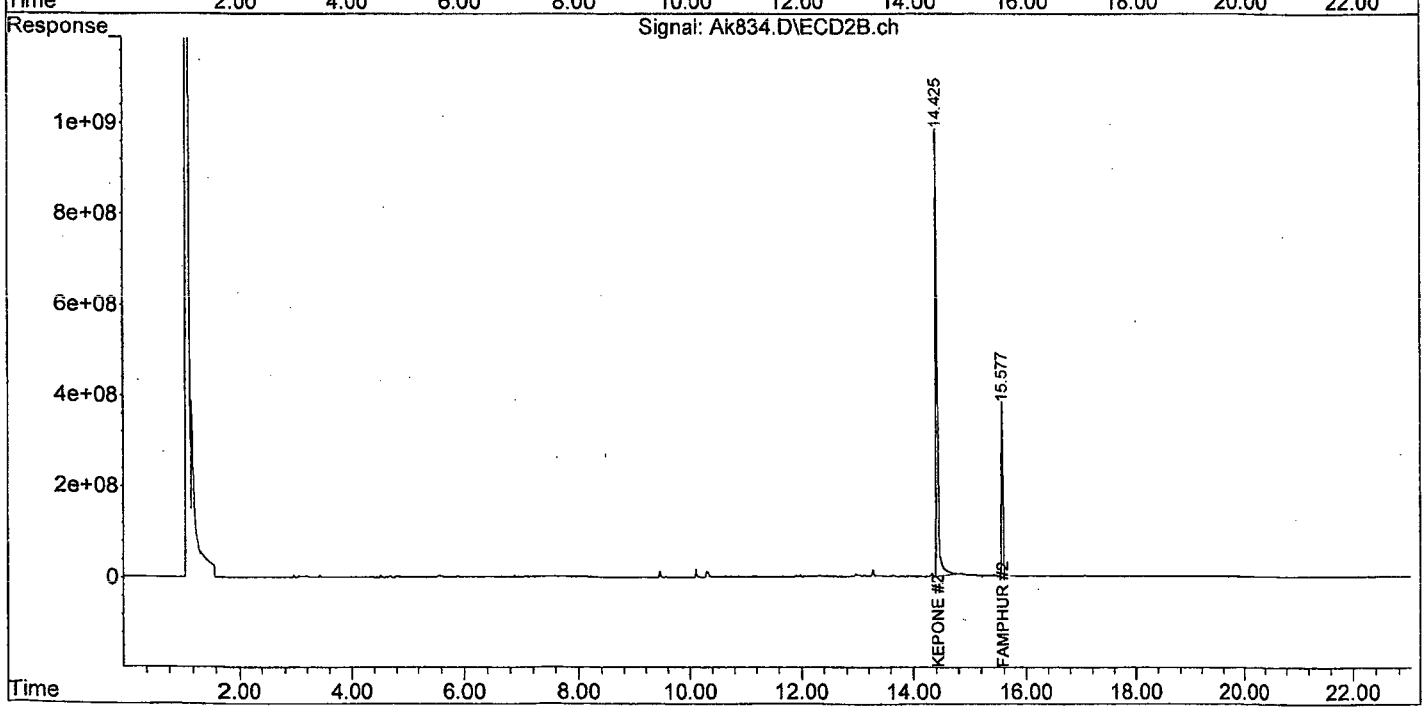
081102115.M Thu Oct 22 13:44:41 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak834.D
Acq On : 21 Oct 2015 5:13 pm
Operator : m.pedro
Sample : k/f mh Inst : 7890-M
Misc : initilal cal
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 22 13:14:23 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:06:57 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



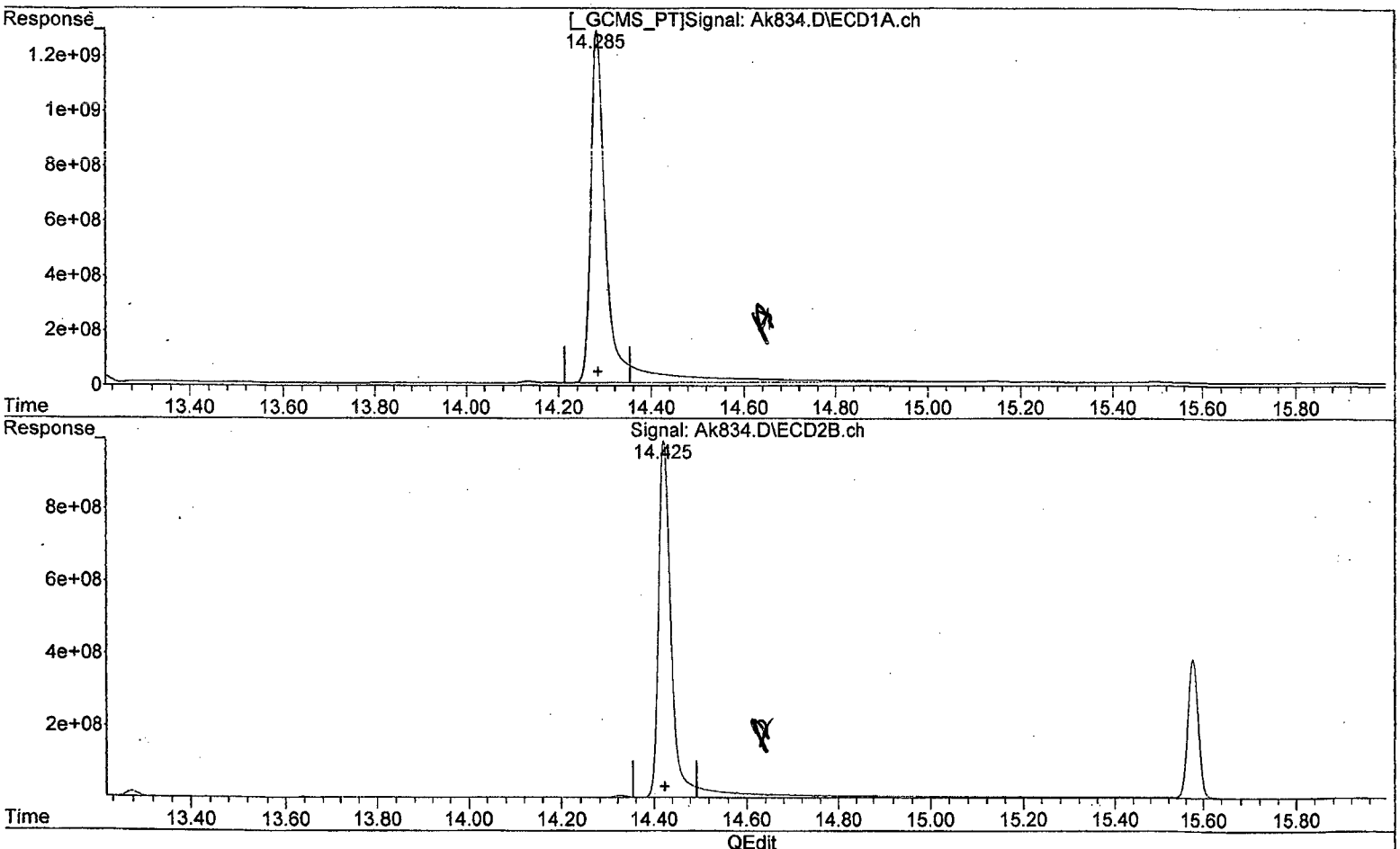


8081102115.M Thu Oct 22 13:44:44 2015 Page: 2

Data Path : I:\ACQUDATA\7890m\DATA\I02115\
Data File : Ak834.D
Acq On : 21 Oct 2015 5:13 pm
Operator : m.pedro
Sample : k/f mh Inst : 7890-M
Misc : initilal cal
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 22 13:07:29 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:06:57 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(16) KEPONE (tc)

14.285min 2217.663 ug/l m

response 32616117196

(16) KEPONE #2 (tc)

14.425min 2349.553 ug/l m

response 19647470046

(+) = Expected Retention Time
8081102115.M Thu Oct 22 13:14:29 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak835.D
Acq On : 21 Oct 2015 5:41 pm
Operator : m.pedro
Sample : k/f h Inst : 7890-M
Misc : initilal cal
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 22 13:15:01 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:09:59 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

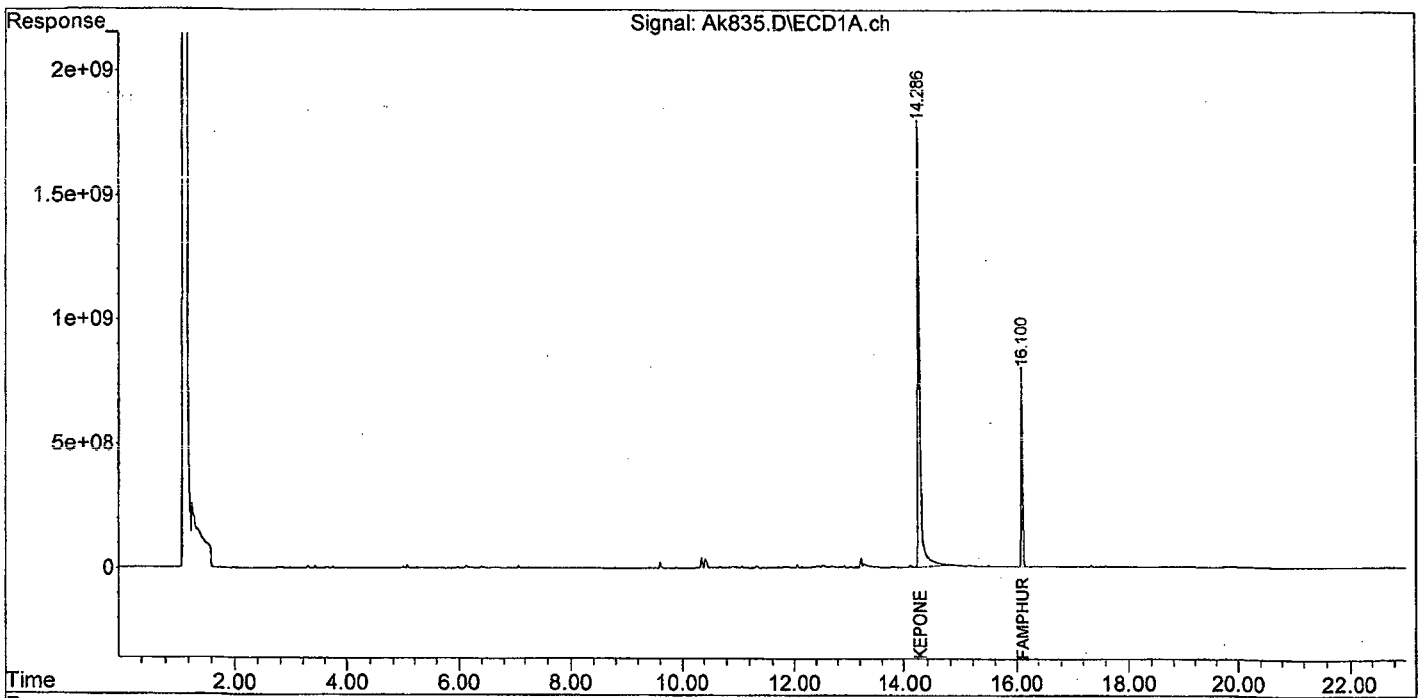
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
Target Compounds						
5) tc KEPONE	14.286	14.426	42410.9E6	25715.1E6	2872.037m	3046.212m
3) tc FAMPHUR	16.101	15.579	14115.5E6	7818.8E6	548.376	557.876
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

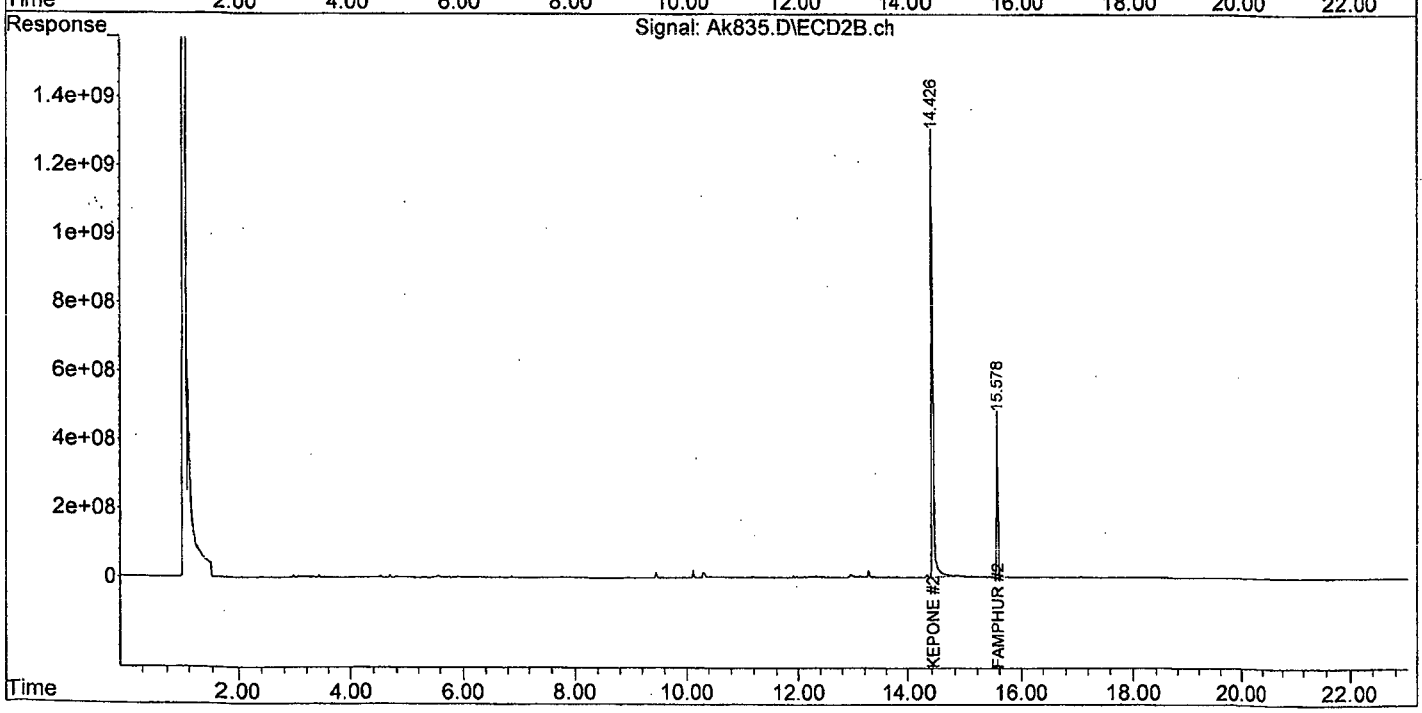
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak835.D
Acq On : 21 Oct 2015 5:41 pm
Operator : m.pedro
Sample : k/f h Inst : 7890-M
Misc : initilal cal
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 22 13:15:01 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:09:59 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



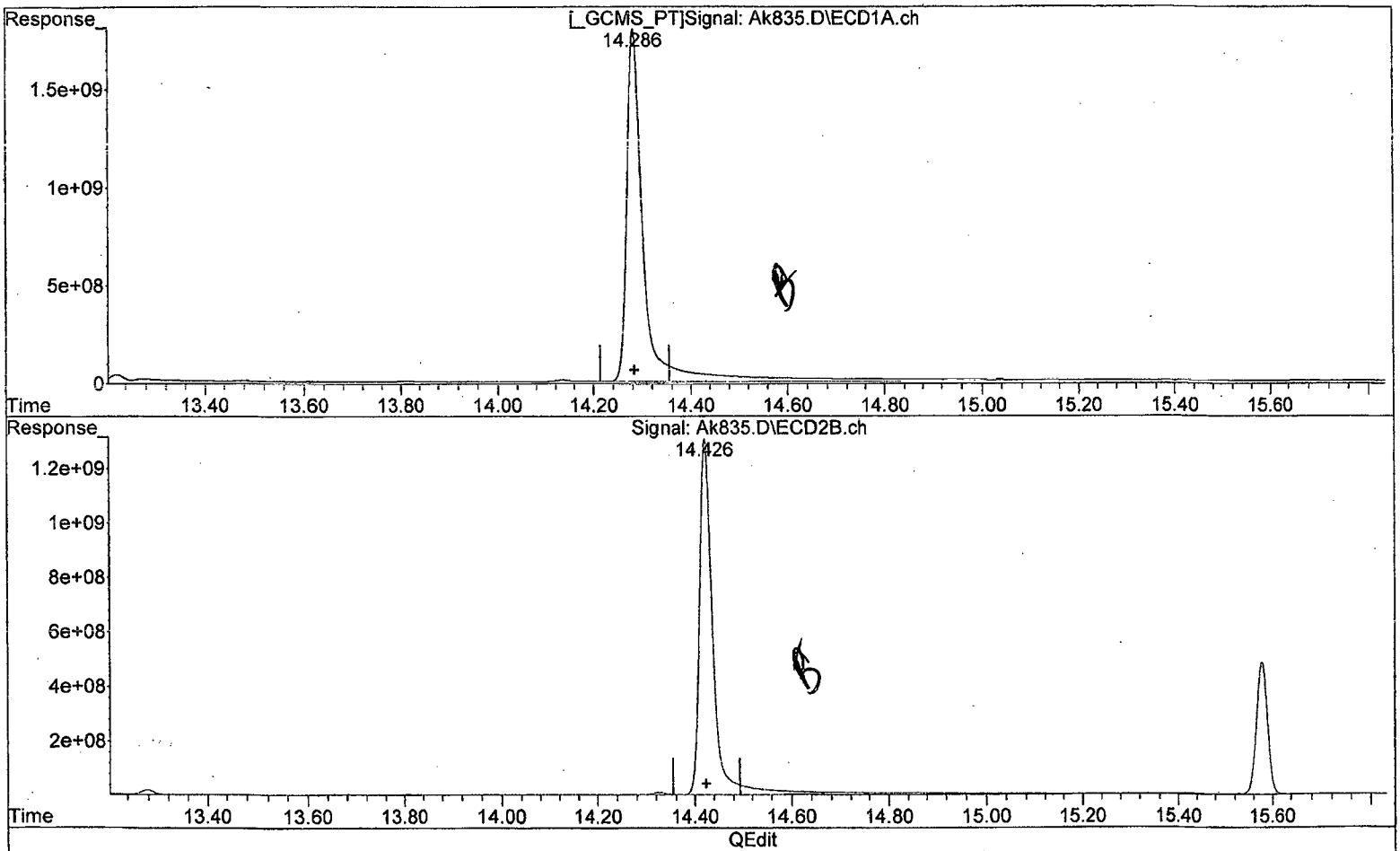


8081102115.M Thu Oct 22 13:44:51 2015 Page: 2

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak835.D
Acq On : 21 Oct 2015 5:41 pm
Operator : m.pedro
Sample : k/f h Inst : 7890-M
Misc : initilal cal
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 22 13:10:35 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:09:59 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(16) KEPONE (tc)

14.286min 2996.002 ug/l

response 44241524017

(16) KEPONE #2 (tc)

14.427min 3101.340 ug/l

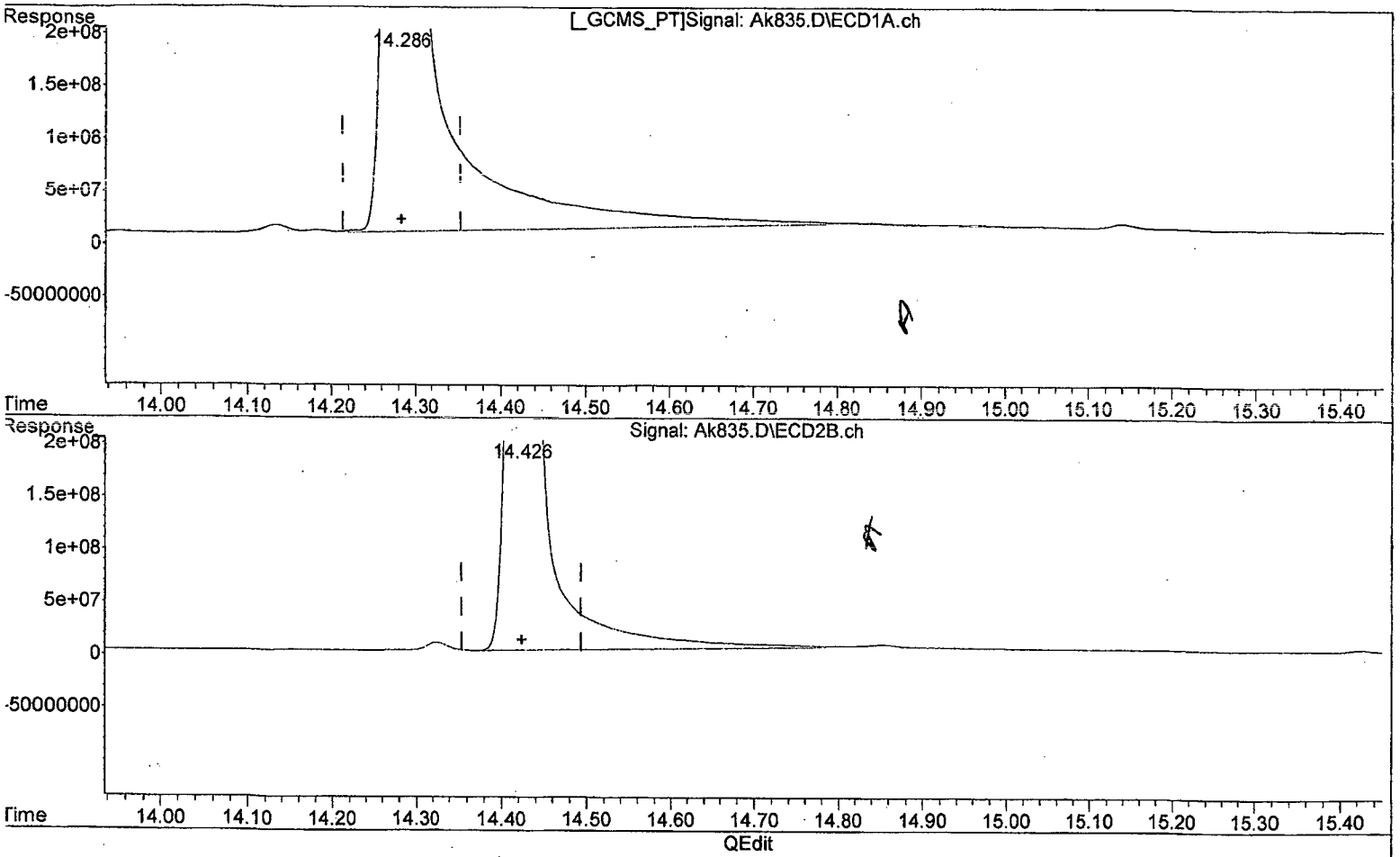
response 26180529121

(+) = Expected Retention Time
8081102115.M Thu Oct 22 13:14:54 2015 Page: 1

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak835.D
Acq On    : 21 Oct 2015    5:41 pm
Operator  : m.pedro
Sample    : k/f h                                    Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 14   Sample Multiplier: 1

Quant Time: Oct 22 13:10:35 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:09:59 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(16) KEPONE (tc)

14.286min 2872.037 ug/l m

response 42410943362

(16) KEPONE #2 (tc)

14.426min 3046.212 ug/l m

response 25715149211

(+) = Expected Retention Time

3081102115.M Thu Oct 22 13:15:06 2015 Page: 1

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak836.D
Acq On : 21 Oct 2015 6:09 pm
Operator : m.pedro
Sample : k/f icv Inst : 7890-M
Misc : initilal cal
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 22 13:17:50 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
16 tc	KEPONE	1500.000	1901.742	-26.8#	142	0.00
23 tc	FAMPHUR	300.000	314.792	-4.9	105	0.00
Signal #2						
16 tc	KEPONE	1500.000	1775.160	-18.3#	133	0.00
23 tc	FAMPHUR	300.000	322.484	-7.5	107	0.00

Evaluate Continuing Calibration Report - Not Founds

1 S	SURR1,Tetrac	10.000	0.000	100.0#	0	-9.34#
2 TC	HEXACHLOROBENZENE	10.000	0.000	100.0#	0	-10.03#
3 tc	alpha-BHC	10.000	0.000	100.0#	0	-10.33#
4 tcm	gamma-BHC (L	10.000	0.000	100.0#	0	-10.85#
5 tcm	Heptachlor	10.000	0.000	100.0#	0	-11.61#
6 tcm	Aldrin	10.000	0.000	100.0#	0	-12.06#
7 tc	beta-BHC	10.000	0.000	100.0#	0	-11.01#
8 TC	delta-BHC	10.000	0.000	100.0#	0	-11.28#
9 tc	Heptachlor E	10.000	0.000	100.0#	0	-12.96#
10 tc	alpha-Endosu	10.000	0.000	100.0#	0	-13.53#
11 tc	gamma-Chlord	10.000	0.000	100.0#	0	-13.14#
12 tc	alpha-Chlord	10.000	0.000	100.0#	0	-13.33#
13 tc	4,4'-DDE	10.000	0.000	100.0#	0	-13.45#
14 tcm	Dieldrin	10.000	0.000	100.0#	0	-13.88#
15 tcm	Endrin	10.000	0.000	100.0#	0	-14.22#
17 tc	beta-Endosul	10.000	0.000	100.0#	0	-14.54#
18 tc	4,4'-DDD	10.000	0.000	100.0#	0	-14.30#
19 tcm	4,4'-DDT	10.000	0.000	100.0#	0	-14.70#
20 tc	Endrin Aldeh	10.000	0.000	100.0#	0	-15.16#
21 tc	Endosulfan S	10.000	0.000	100.0#	0	-15.81#
22 tc	Methoxychlor	10.000	0.000	100.0#	0	-15.39#
24 tc	Endrin Keton	10.000	0.000	100.0#	0	-16.23#
25 tc	Mirex	10.000	0.000	100.0#	0	-15.68#
26 S	SURR2,Decachlorobiphenyl	10.000	0.000	100.0#	0	-17.51#
27 L8C	Toxaphene	250.000	0.000	100.0#	0	-14.65#
28 L8C	Toxaphene{2}	250.000	0.000	100.0#	0	-14.73#
29 L8C	Toxaphene{3}	250.000	0.000	100.0#	0	-15.33#
30 L8C	Toxaphene{4}	250.000	0.000	100.0#	0	-15.94#
31 L8C	Toxaphene{5}	250.000	0.000	100.0#	0	-16.42#
32 L9C	Chlordane	100.000	0.000	100.0#	0	-11.50#
33 L9C	Chlordane{2}	100.000	0.000	100.0#	0	-11.62#
34 L9C	Chlordane{3}	100.000	0.000	100.0#	0	-12.29#

081102115.M Thu Oct 22 13:18:15 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak836.D
Acq On : 21 Oct 2015 6:09 pm
Operator : m.pedro
Sample : k/f icv Inst : 7890-M
Misc : initilal cal
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 22 13:17:50 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
16 tc	KEPONE	14.388	20.457 E6	-42.2#	142	0.00
23 tc	FAMPHUR	27.438	28.791 E6	-4.9	105	0.00
Signal #2						
16 tc	KEPONE	8.486	11.282 E6	-32.9#	133	0.00
23 tc	FAMPHUR	14.809	15.919 E6	-7.5	107	0.00

Evaluate Continuing Calibration Report - Not Founds

1 S	SURR1,Tetrac	45.389	0.000 E6	100.0#	0#	-9.34#
2 TC	HEXACHLOROBENZENE	61.859	0.000 E6	100.0#	0#	-10.03#
3 tc	alpha-BHC	68.266	0.000 E6	100.0#	0#	-10.33#
4 tcm	gamma-BHC (L	60.041	0.000 E6	100.0#	0#	-10.85#
5 tcm	Heptachlor	58.653	0.000 E6	100.0#	0#	-11.61#
6 tcm	Aldrin	53.660	0.000 E6	100.0#	0#	-12.06#
7 tc	beta-BHC	26.639	0.000 E6	100.0#	0#	-11.01#
8 TC	delta-BHC	54.245	0.000 E6	100.0#	0#	-11.28#
9 tc	Heptachlor E	47.725	0.000 E6	100.0#	0#	-12.96#
10 tc	alpha-Endosu	42.938	0.000 E6	100.0#	0#	-13.53#
11 tc	gamma-Chlord	48.524	0.000 E6	100.0#	0#	-13.14#
12 tc	alpha-Chlord	46.327	0.000 E6	100.0#	0#	-13.33#
13 tc	4,4'-DDE	38.554	0.000 E6	100.0#	0#	-13.45#
14 tcm	Dieldrin	44.423	0.000 E6	100.0#	0#	-13.88#
15 tcm	Endrin	37.750	0.000 E6	100.0#	0#	-14.22#
17 tc	beta-Endosul	35.531	0.000 E6	100.0#	0#	-14.54#
18 tc	4,4'-DDD	29.626	0.000 E6	100.0#	0#	-14.30#
19 tcm	4,4'-DDT	31.728	0.000 E6	100.0#	0#	-14.70#
20 tc	Endrin Aldeh	26.911	0.000 E6	100.0#	0#	-15.16#
21 tc	Endosulfan S	30.690	0.000 E6	100.0#	0#	-15.81#
22 tc	Methoxychlor	16.199	0.000 E6	100.0#	0#	-15.39#
24 tc	Endrin Keton	34.718	0.000 E6	100.0#	0#	-16.23#
25 tc	Mirex	33.800	0.000 E6	100.0#	0#	-15.68#
26 S	SURR2,Decachlorobiphenyl	30.967	0.000 E6	100.0#	0#	-17.51#
27 L8C	Toxaphene	601.062	0.000 E3	100.0#	0#	-14.65#
28 L8C	Toxaphene{2}	473.866	0.000 E3	100.0#	0#	-14.73#
29 L8C	Toxaphene{3}	953.773	0.000 E3	100.0#	0#	-15.33#
30 L8C	Toxaphene{4}	528.961	0.000 E3	100.0#	0#	-15.94#
31 L8C	Toxaphene{5}	936.044	0.000 E3	100.0#	0#	-16.42#
32 L9C	Chlordane	1.815	0.000 E6	100.0#	0#	-11.50#
33 L9C	Chlordane{2}	2.444	0.000 E6	100.0#	0#	-11.62#
34 L9C	Chlordane{3}	1.808	0.000 E6	100.0#	0#	-12.29#

081102115.M Thu Oct 22 13:18:33 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak836.D
Acq On : 21 Oct 2015 6:09 pm
Operator : m.pedro
Sample : k/f icv Inst : 7890-M
Misc : initilal cal
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 22 13:17:50 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

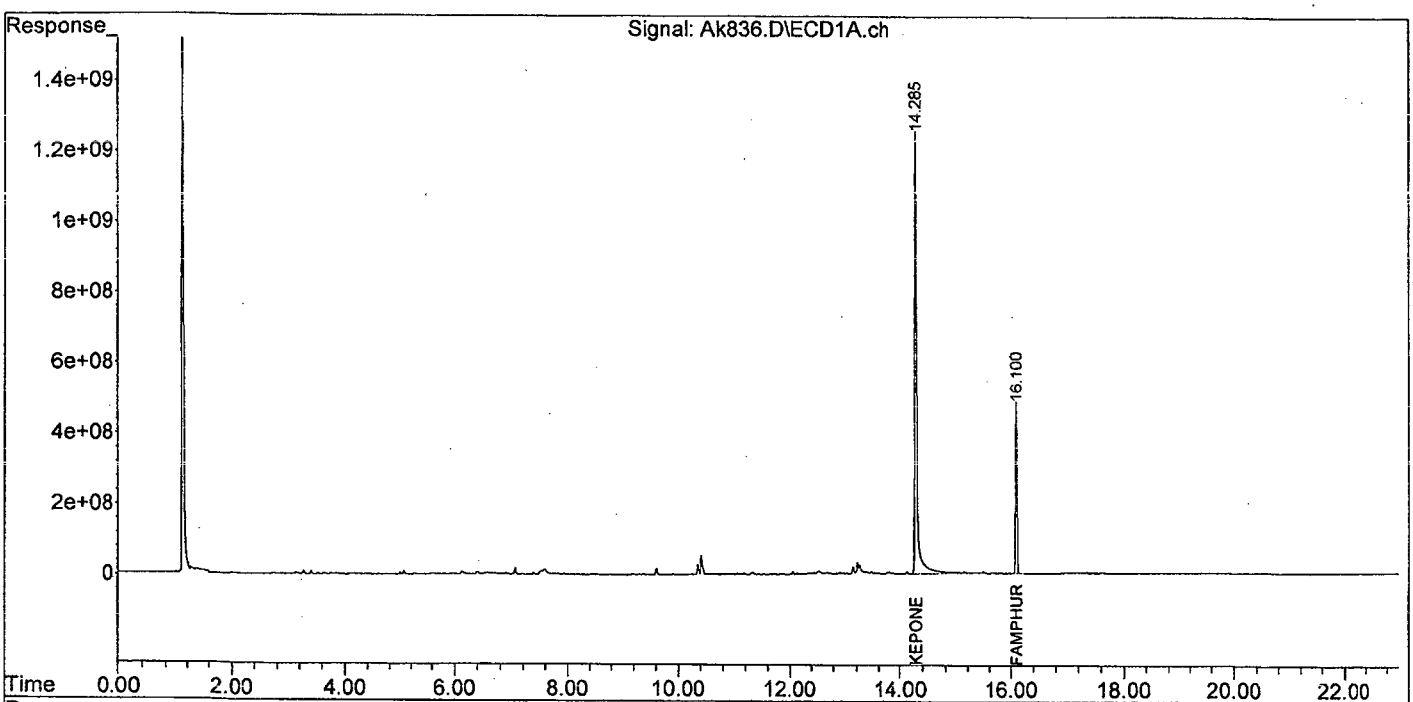
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
	Target Compounds						
6)	tc KEPONE	14.285	14.426	30685.6E6	16922.9E6	1901.742	1775.160
3)	tc FAMPHUR	16.100	15.578	8637.2E6	4775.8E6	314.792	322.484
	Sum Toxaphene			0	0	N.D.	N.D.
verage	Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
verage	Chlordane					0.000	0.000

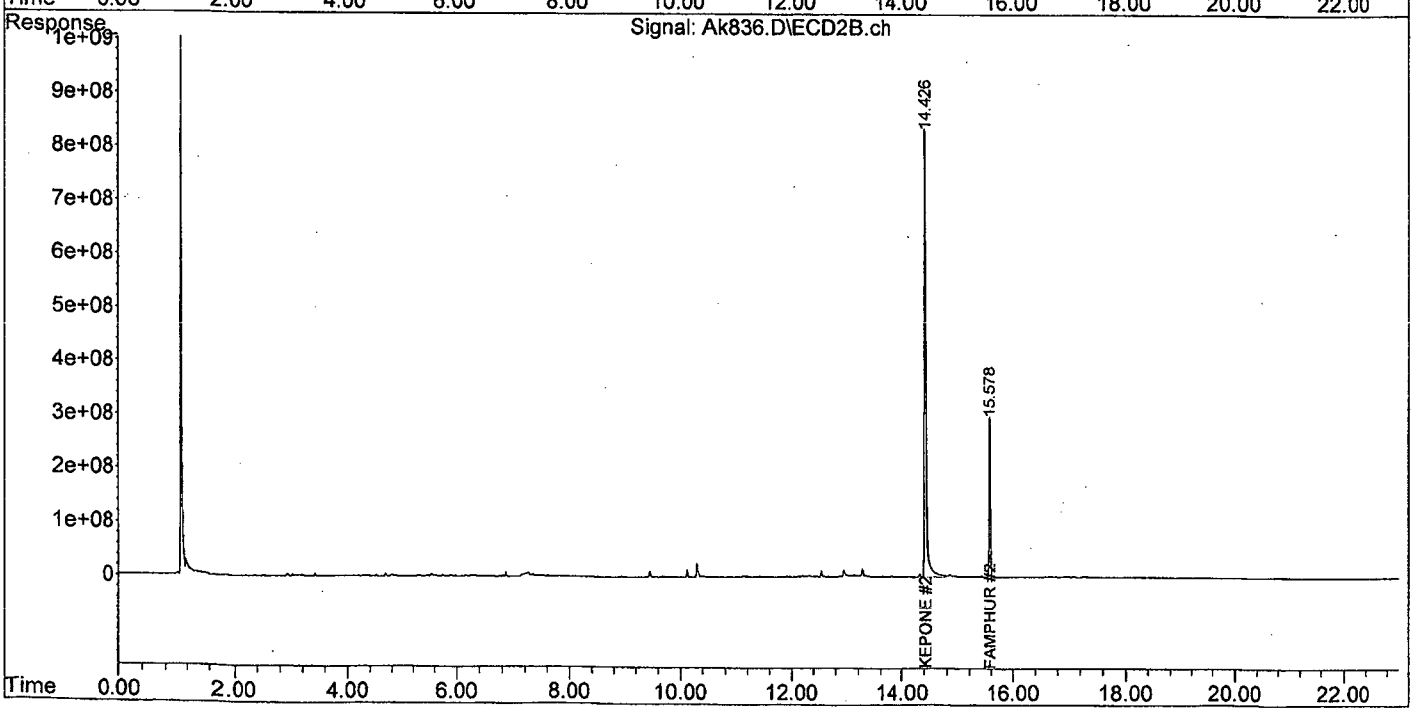
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak836.D
Acq On    : 21 Oct 2015    6:09 pm
Operator  : m.pedro
Sample    : k/f icv                                    Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 15   Sample Multiplier: 1

Quant Time: Oct 22 13:17:50 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```





8081102115.M Thu Oct 22 13:44:58 2015 Page: 2

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak837.D
Acq On : 21 Oct 2015 6:37 pm
Operator : m.pedro
Sample : mirex icv Inst : 7890-M
Misc : initilal cal
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 22 13:19:09 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
25 tc	Mirex	33.800	28.925 E6	14.4	94	0.00
Signal #2						
25 tc	Mirex	16.098	13.253 E6	17.7#	92	0.00

Evaluate Continuing Calibration Report - Not Founds

1	S	SURR1,Tetrac	45.389	0.000 E6	100.0#	0# -9.34#
2	TC	HEXACHLOROBENZENE	61.859	0.000 E6	100.0#	0# -10.03#
3	tc	alpha-BHC	68.266	0.000 E6	100.0#	0# -10.33#
4	tcm	gamma-BHC (L	60.041	0.000 E6	100.0#	0# -10.85#
5	tcm	Heptachlor	58.653	0.000 E6	100.0#	0# -11.61#
6	tcm	Aldrin	53.660	0.000 E6	100.0#	0# -12.06#
7	tc	beta-BHC	26.639	0.000 E6	100.0#	0# -11.01#
8	TC	delta-BHC	54.245	0.000 E6	100.0#	0# -11.28#
9	tc	Heptachlor E	47.725	0.000 E6	100.0#	0# -12.96#
10	tc	alpha-Endosu	42.938	0.000 E6	100.0#	0# -13.53#
11	tc	gamma-Chlord	48.524	0.000 E6	100.0#	0# -13.14#
12	tc	alpha-Chlord	46.327	0.000 E6	100.0#	0# -13.33#
13	tc	4,4'-DDE	38.554	0.000 E6	100.0#	0# -13.45#
14	tcm	Dieldrin	44.423	0.000 E6	100.0#	0# -13.88#
15	tcm	Endrin	37.750	0.000 E6	100.0#	0# -14.22#
16	tc	KEPONE	14.388	0.000 E6	100.0#	0# -14.29#
17	tc	beta-Endosul	35.531	0.000 E6	100.0#	0# -14.54#
18	tc	4,4'-DDD	29.626	0.000 E6	100.0#	0# -14.30#
19	tcm	4,4'-DDT	31.728	0.000 E6	100.0#	0# -14.70#
20	tc	Endrin Aldeh	26.911	0.000 E6	100.0#	0# -15.16#
21	tc	Endosulfan S	30.690	0.000 E6	100.0#	0# -15.81#
22	tc	Methoxychlor	16.199	0.000 E6	100.0#	0# -15.39#
23	tc	FAMPHUR	27.438	0.000 E6	100.0#	0# -16.10#
24	tc	Endrin Keton	34.718	0.000 E6	100.0#	0# -16.23#
26	S	SURR2,Decachlorobiphenyl	30.967	0.000 E6	100.0#	0# -17.51#
27	L8C	Toxaphene	601.062	0.000 E3	100.0#	0# -14.65#
28	L8C	Toxaphene{2}	473.866	0.000 E3	100.0#	0# -14.73#
29	L8C	Toxaphene{3}	953.773	0.000 E3	100.0#	0# -15.33#
30	L8C	Toxaphene{4}	528.961	0.000 E3	100.0#	0# -15.94#
31	L8C	Toxaphene{5}	936.044	0.000 E3	100.0#	0# -16.42#
32	L9C	Chlordane	1.815	0.000 E6	100.0#	0# -11.50#
33	L9C	Chlordane{2}	2.444	0.000 E6	100.0#	0# -11.62#
34	L9C	Chlordane{3}	1.808	0.000 E6	100.0#	0# -12.29#
35	L9C	Chlordane{4}	4.793	0.000 E6	100.0#	0# -13.16#

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak837.D
Acq On : 21 Oct 2015 6:37 pm
Operator : m.pedro
Sample : mirex icv Inst : 7890-M
Misc : initilal cal
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 22 13:19:09 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
Target Compounds						
5) tc Mirex	15.677	16.195	1446.2E6	662.7E6	42.788	41.163m
Sum Toxaphene			0	0	N.D.	N.D.
verage Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

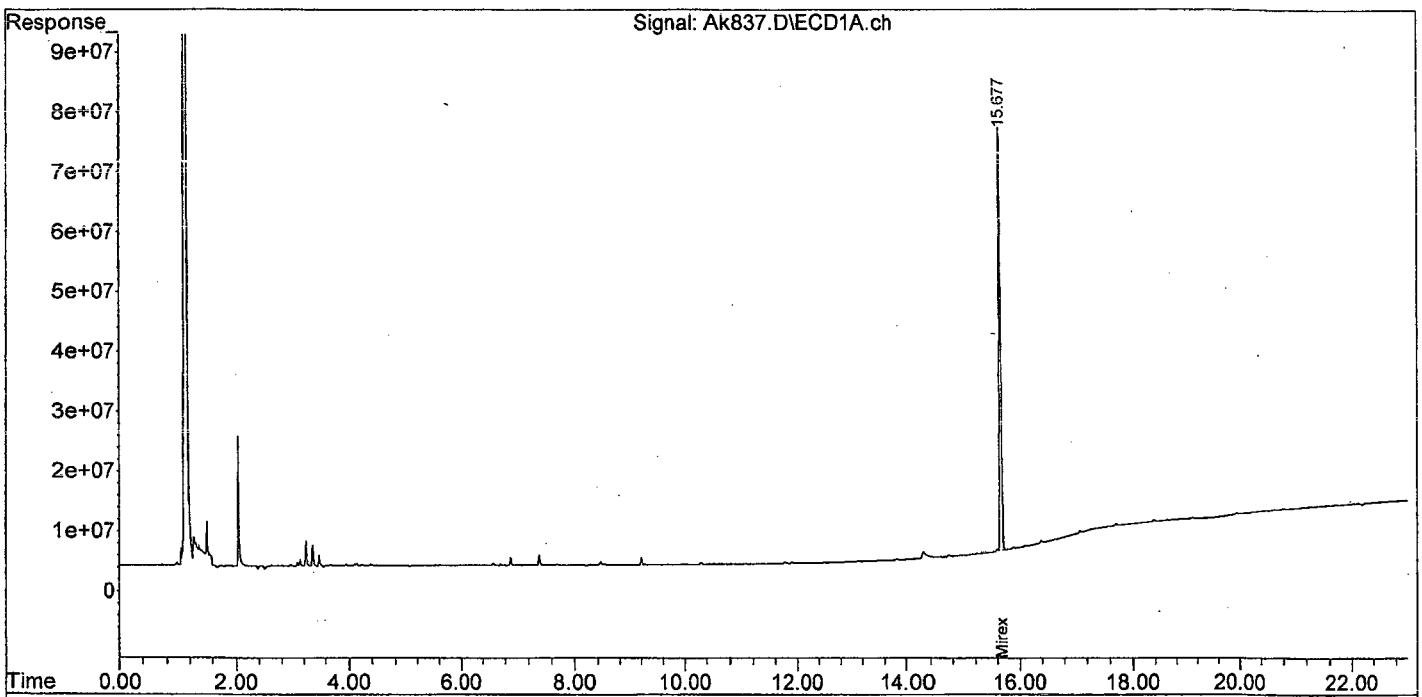
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

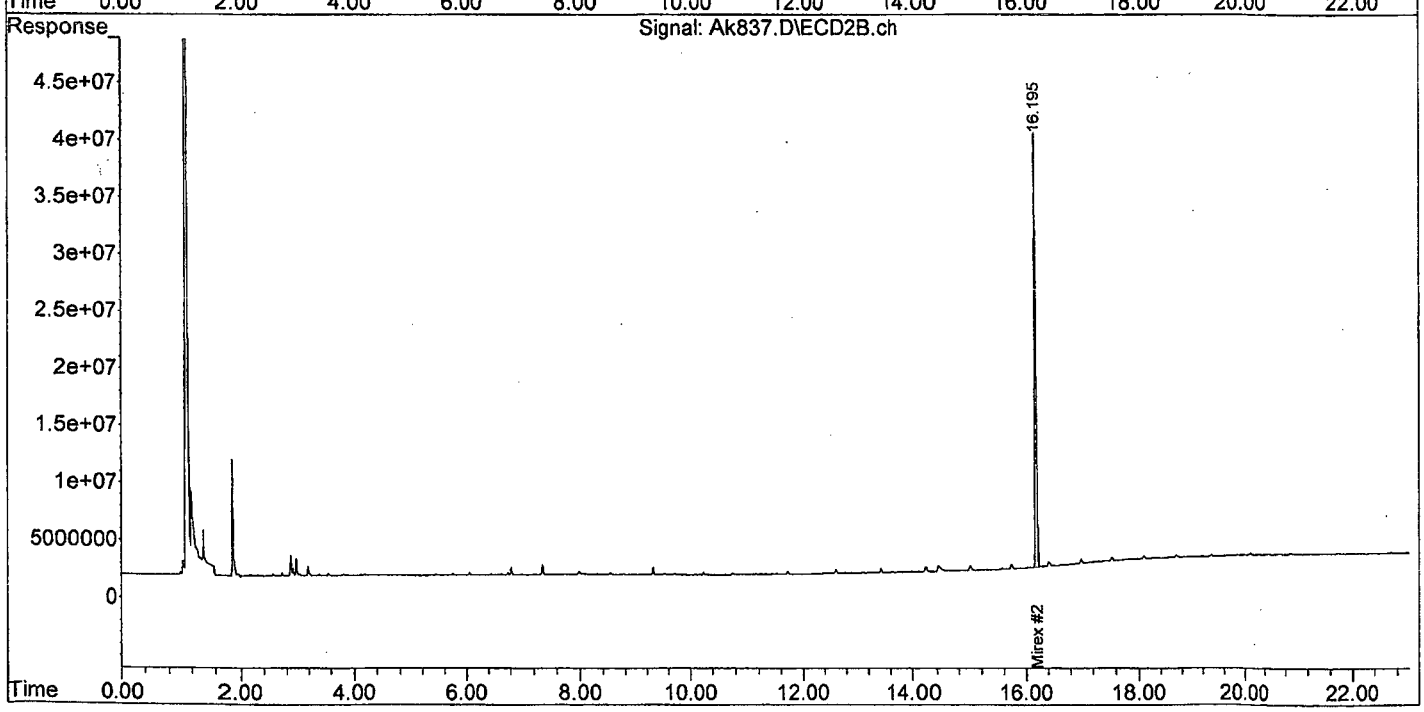
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak837.D
Acq On : 21 Oct 2015 6:37 pm
Operator : m.pedro
Sample : mirex icv Inst : 7890-M
Misc : initilal cal
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 22 13:19:09 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



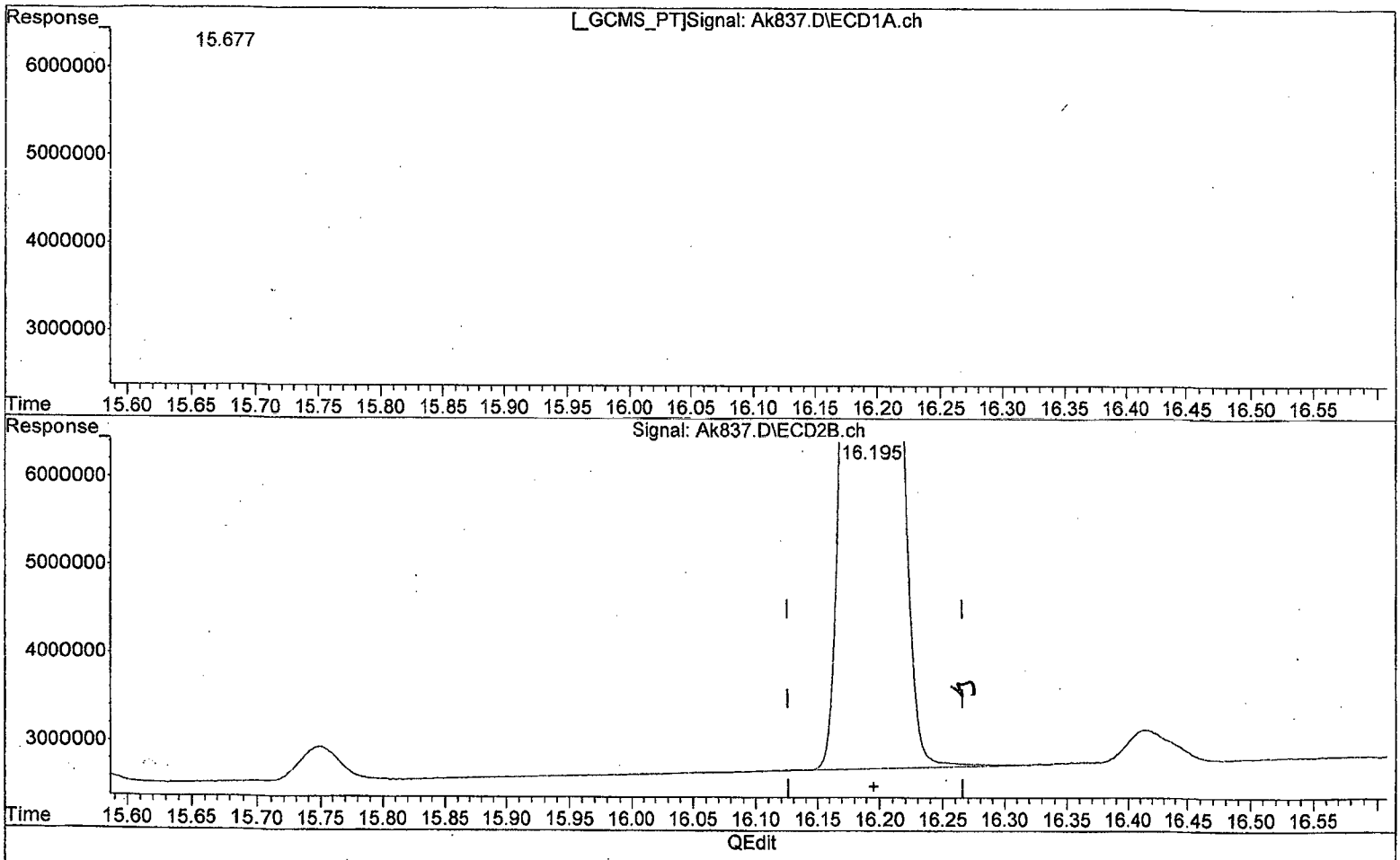


8081102115.M Thu Oct 22 13:45:05 2015 Page: 2

```
Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak837.D
Acq On    : 21 Oct 2015    6:37 pm
Operator  : m.pedro
Sample    : mirex icv                                  Inst    : 7890-M
Misc      : initilal cal
ALS Vial  : 16   Sample Multiplier: 1

Quant Time: Oct 22 13:18:43 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title  : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.      : 1uL
Signal #1 Phase : STx-CLP          Signal #2 Phase: STx-CLPII
Signal #1 Info  : 0.32mm  30m      Signal #2 Info : 0.32mm  30m
```



(25) Mirex (tc)

15.677min 42.788 ug/l

response 1446229856

(25) Mirex #2 (tc)

16.195min 41.151 ug/l

response 662464194

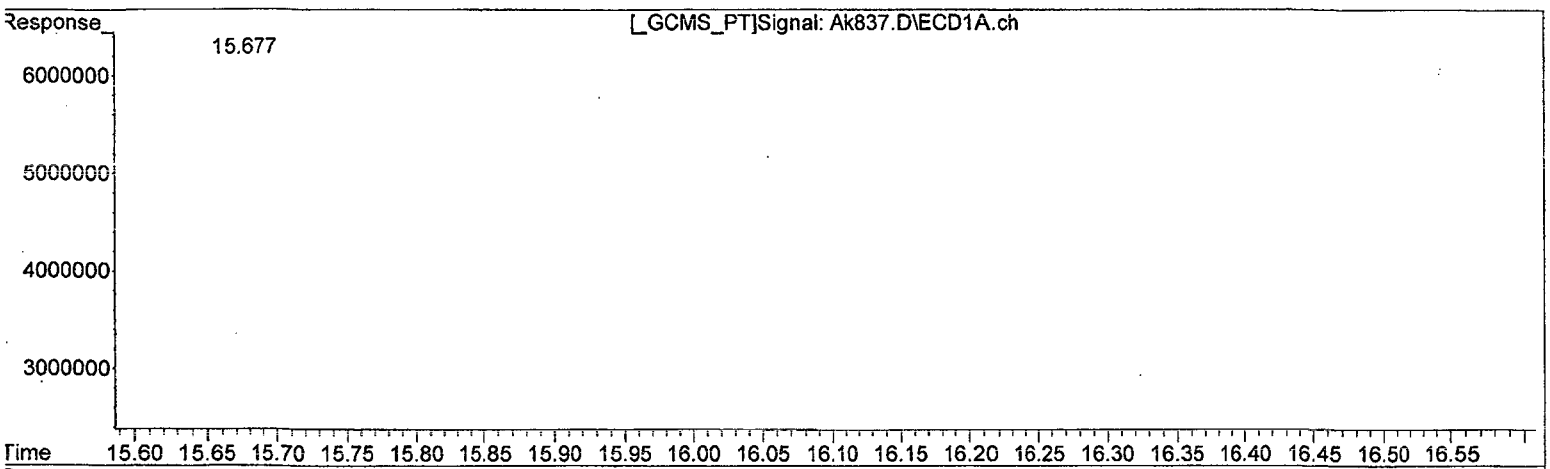
```
(+) = Expected Retention Time
8081102115.M Thu Oct 22 13:18:54 2015
```

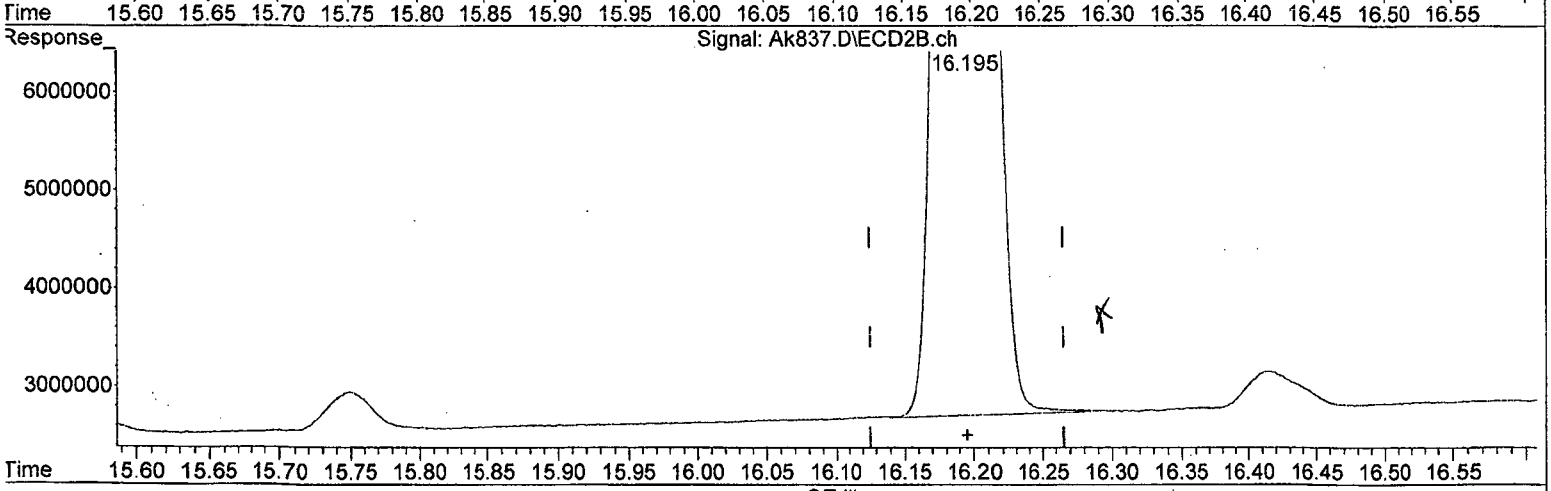
Quantitation Report (QEdit)

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak837.D
Acq On : 21 Oct 2015 6:37 pm
Operator : m.pedro
Sample : mirex icv Inst : 7890-M
Misc : initilal cal
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 22 13:18:43 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





(25) Mirex (tc)

15.677min 42.788 ug/l

response 1446229856

(25) Mirex #2 (tc)

16.195min 41.163 ug/l m

response 662653543

(+) = Expected Retention Time

8081102115.M Thu Oct 22 13:19:02 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak838.D
Acq On : 21 Oct 2015 7:04 pm
Operator : m.pedro
Sample : tox 11 Inst : 7890-M
Misc : initilal cal
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 22 13:20:02 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

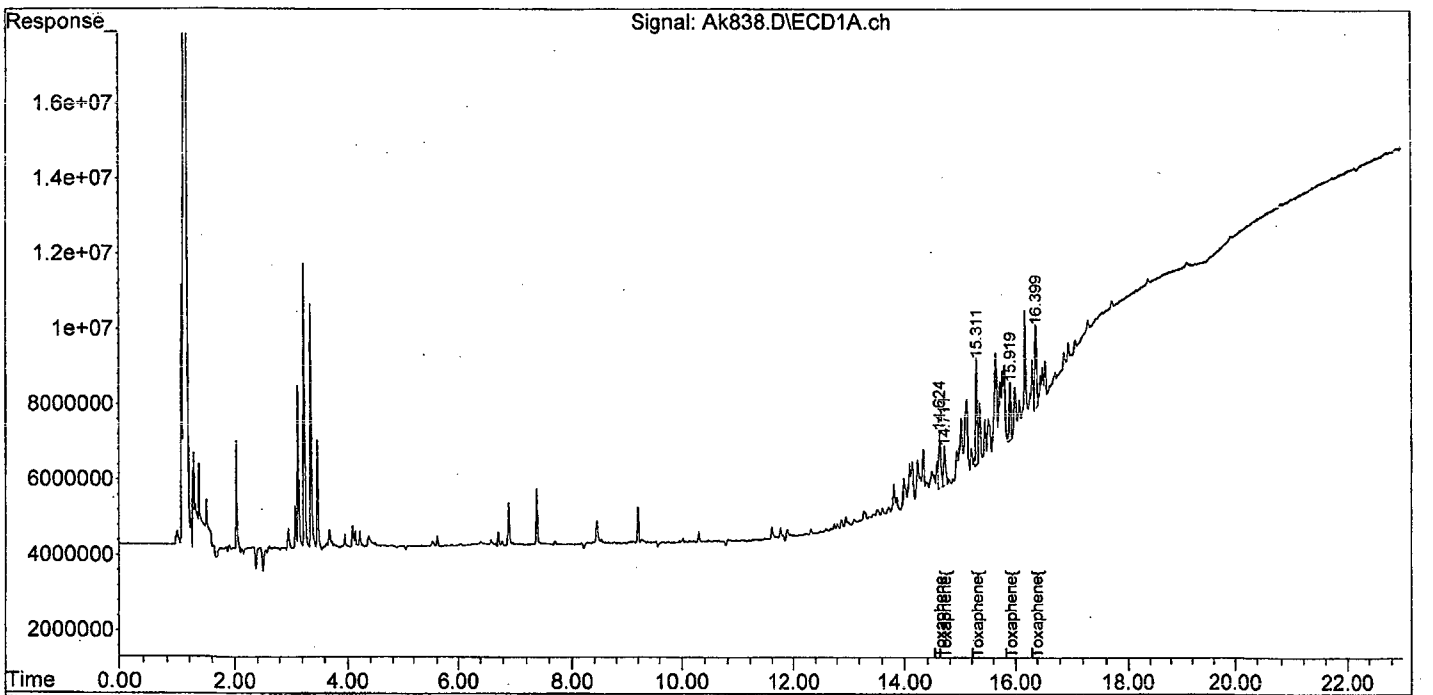
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l	
System Monitoring Compounds							
Target Compounds							
7) L8C Toxaphene	14.625	14.684	37074666	30524839	61.682	64.944m	
8) L8C Toxaphene{2}	14.711	14.958	27588005	15490405	58.219	64.278	
9) L8C Toxaphene{3}	15.311	15.063	55354264	30630975	58.037	67.505	
0) L8C Toxaphene{4}	15.920	15.452	30522059	15193831	57.702	52.250	
1) L8C Toxaphene{5}	16.400	16.381	48880214	33289354	52.220	69.340	#
Sum Toxaphene			199.4E6	125.1E6	287.860	318.317	
verage Toxaphene					57.572	63.663	
Sum Chlordane			0	0	N.D.	N.D.	
verage Chlordane					0.000	0.000	

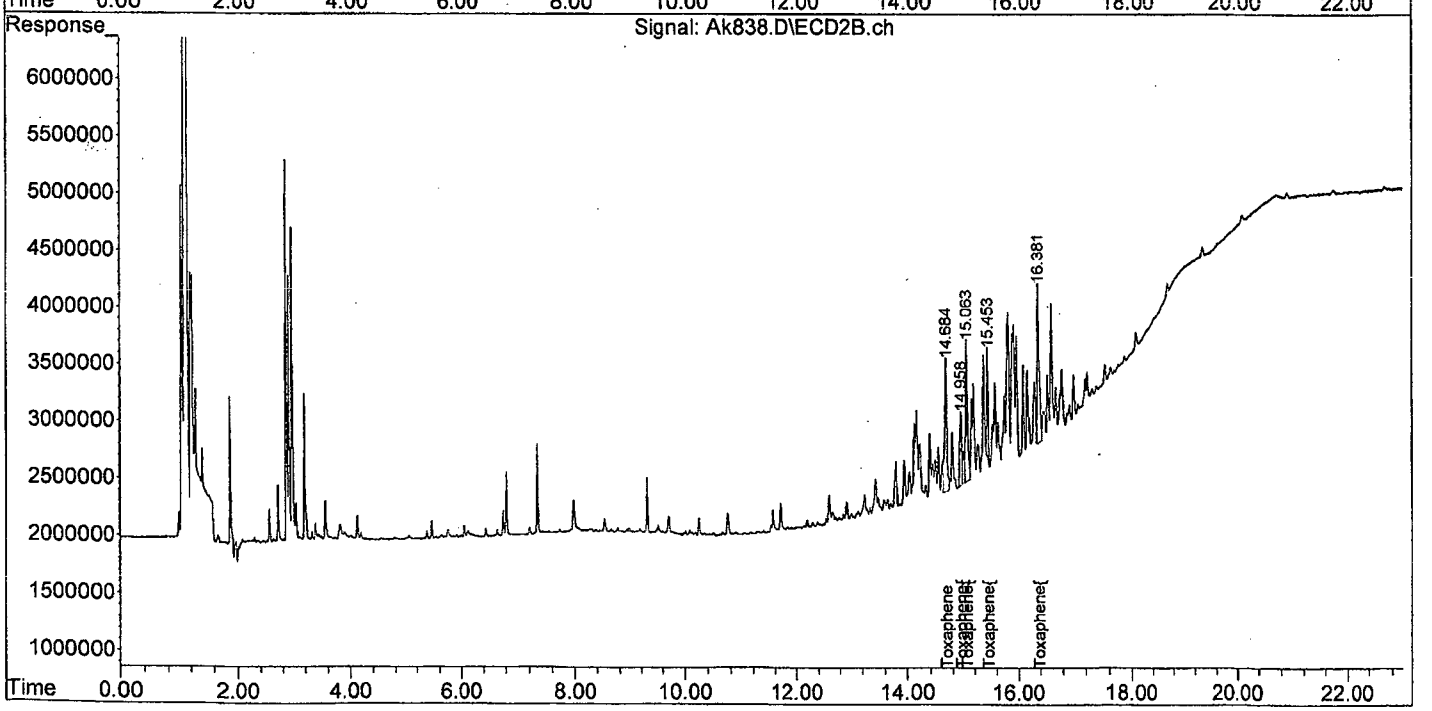
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak838.D
Acq On : 21 Oct 2015 7:04 pm
Operator : m.pedro
Sample : tox ll Inst : 7890-M
Misc : initilal cal
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 22 13:20:02 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





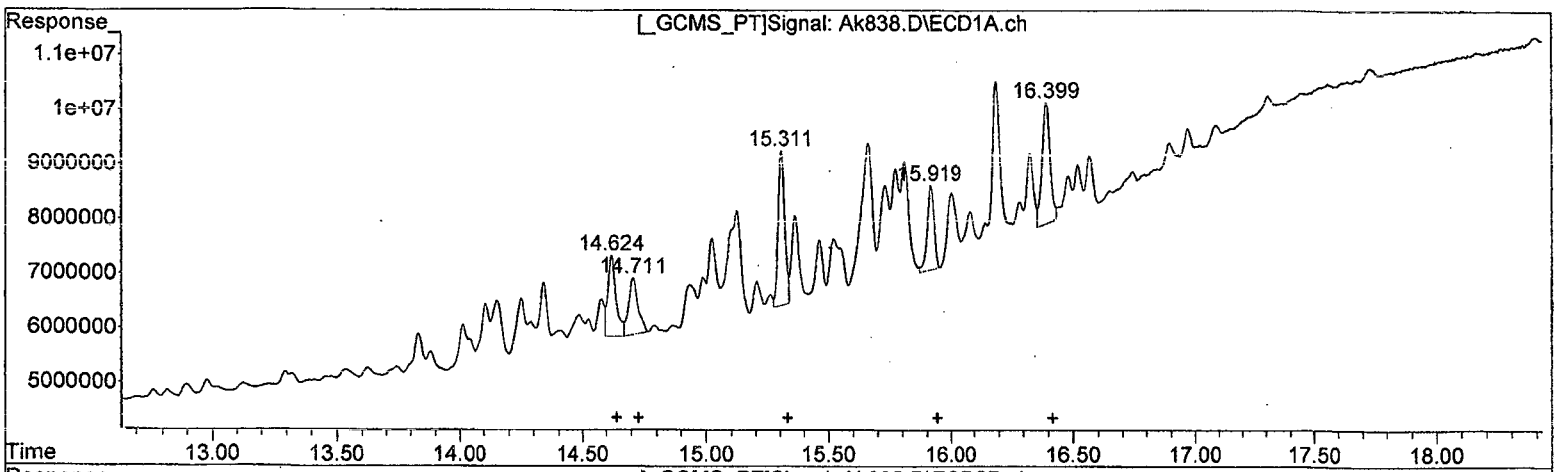
8081102115.M Thu Oct 22 13:45:12 2015 Page: 2

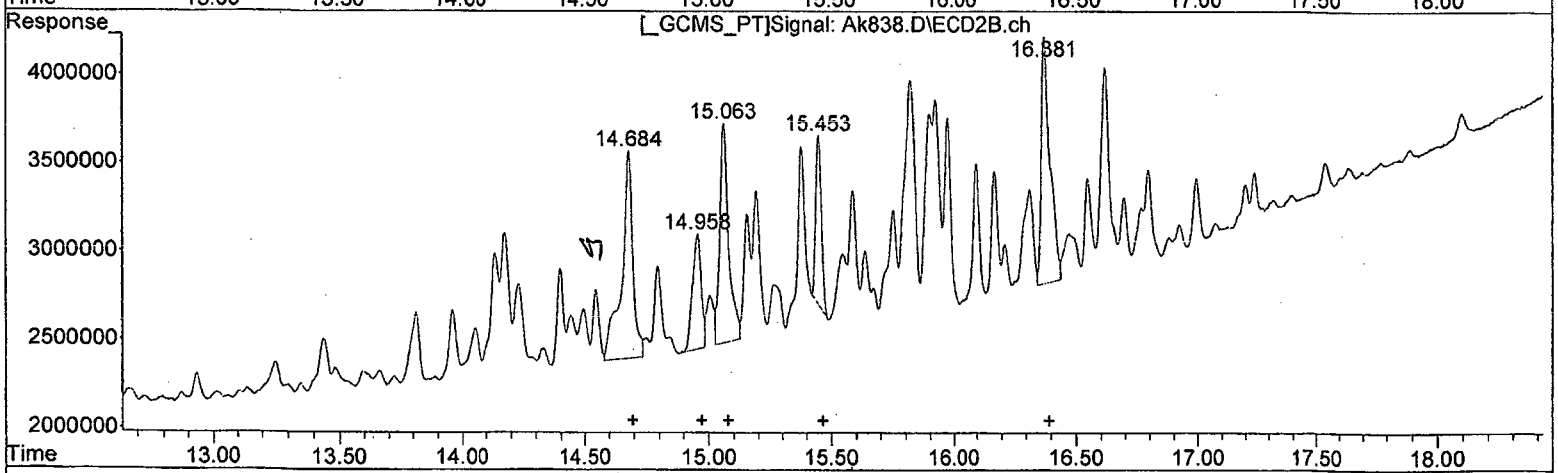
Quantitation Report (QEdit)

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak838.D
Acq On : 21 Oct 2015 7:04 pm
Operator : m.pedro
Sample : tox 11 Inst : 7890-M
Misc : initilal cal
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 22 13:19:29 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(27) Toxaphene (L8C)

R.T.	Response	Conc
14.63	37074666	61.68
14.71	27588005	58.22
15.31	55354264	58.04
15.92	30522059	57.70
16.40	48880214	52.22

(27) Toxaphene #2 (L8C)

R.T.	Response	Conc
14.68	36066247	76.73
14.96	15490405	64.28
15.06	30630975	67.50
15.45	15193831	52.25
16.38	33289354	69.34

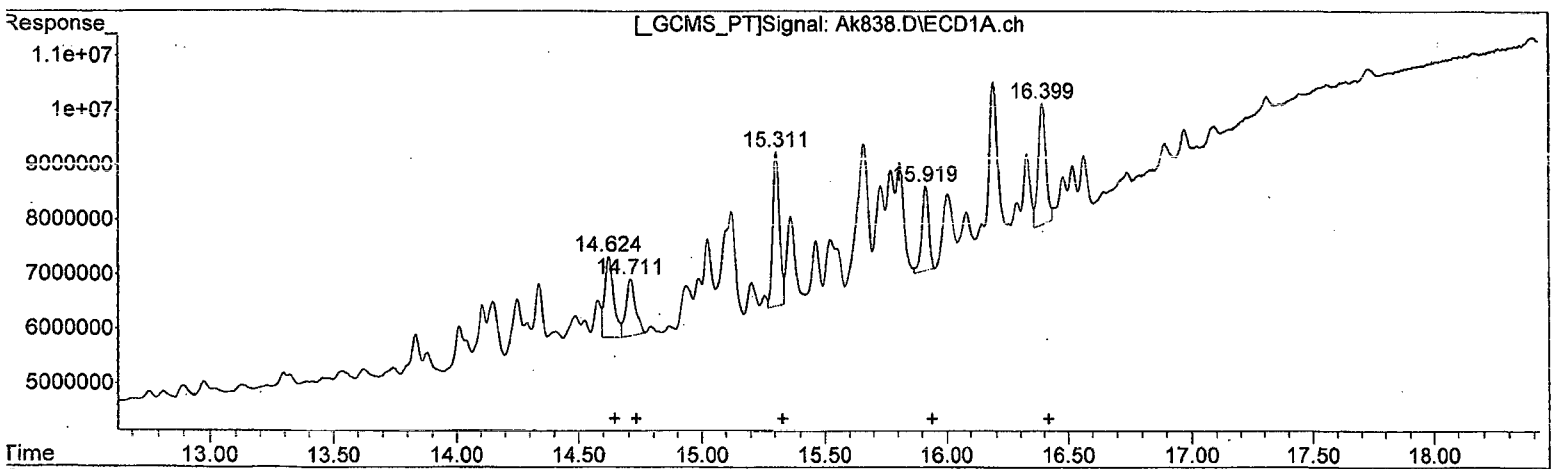
(+) = Expected Retention Time
8081102115.M Thu Oct 22 13:19:40 2015 Page: 1

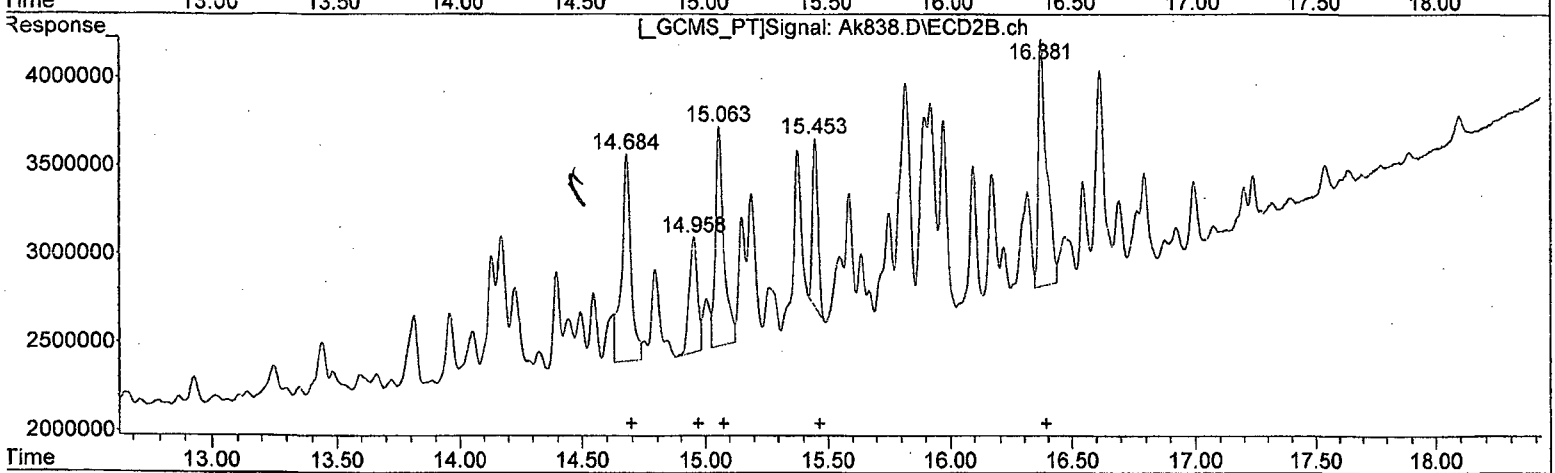
Quantitation Report (QEdit)

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak838.D
Acq On : 21 Oct 2015 7:04 pm
Operator : m.pedro
Sample : tox ll Inst : 7890-M
Misc : initilal cal
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 22 13:19:29 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(27) Toxaphene #2 (L8C)

R.T.	Response	Conc
14.63	37074666	61.68
14.71	27588005	58.22
15.31	55354264	58.04
15.92	30522059	57.70
16.40	48880214	52.22

(27) Toxaphene #2 (L8C)

R.T.	Response	Conc
14.68	30524839	64.94
14.96	15490405	64.28
15.06	30630975	67.50
15.45	15193831	52.25
16.38	33289354	69.34

(+) = Expected Retention Time
8081102115.M Thu Oct 22 13:19:52 2015 Page: 1

Data Path : I:\ACQUDATA\7890m\DATA\102115\
Data File : Ak839.D
Acq On : 21 Oct 2015 7:32 pm
Operator : m.pedro
Sample : tox 1 Inst : 7890-M
Misc : initilal cal
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 22 13:20:59 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

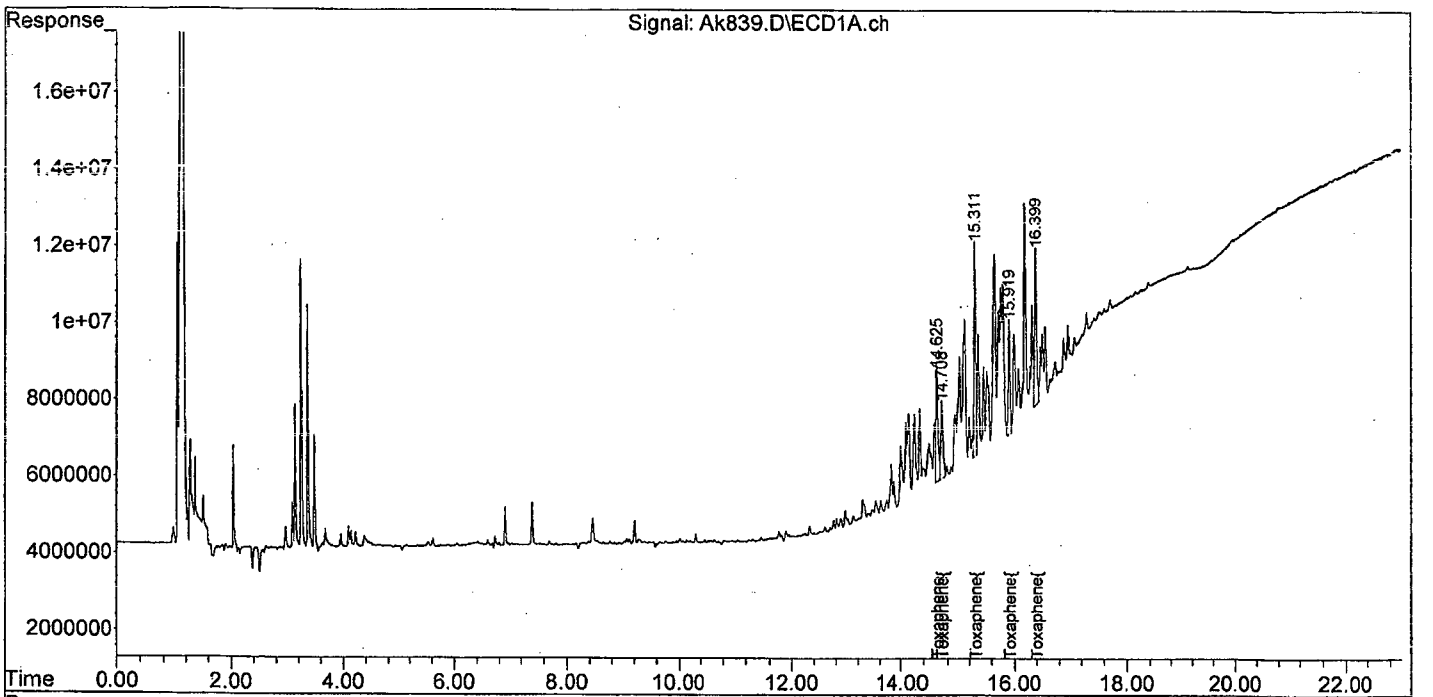
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
Target Compounds						
7) L8C Toxaphene	14.625	14.684	73568675	57506335	115.191	117.538
8) L8C Toxaphene{2}	14.709	14.958	52599217	29614180	109.182	117.473
9) L8C Toxaphene{3}	15.312	15.063	112.8E6	56701364	111.426	118.408
0) L8C Toxaphene{4}	15.920	15.451	59917974	36505670	107.598	124.438m
1) L8C Toxaphene{5}	16.399	16.380	95569588	58881942	100.557	116.140
Sum Toxaphene			394.4E6	239.2E6	543.954	593.997
verage Toxaphene					108.791	118.799
Sum Chlordane			0	0	N.D.	N.D.
verage Chlordane					0.000	0.000

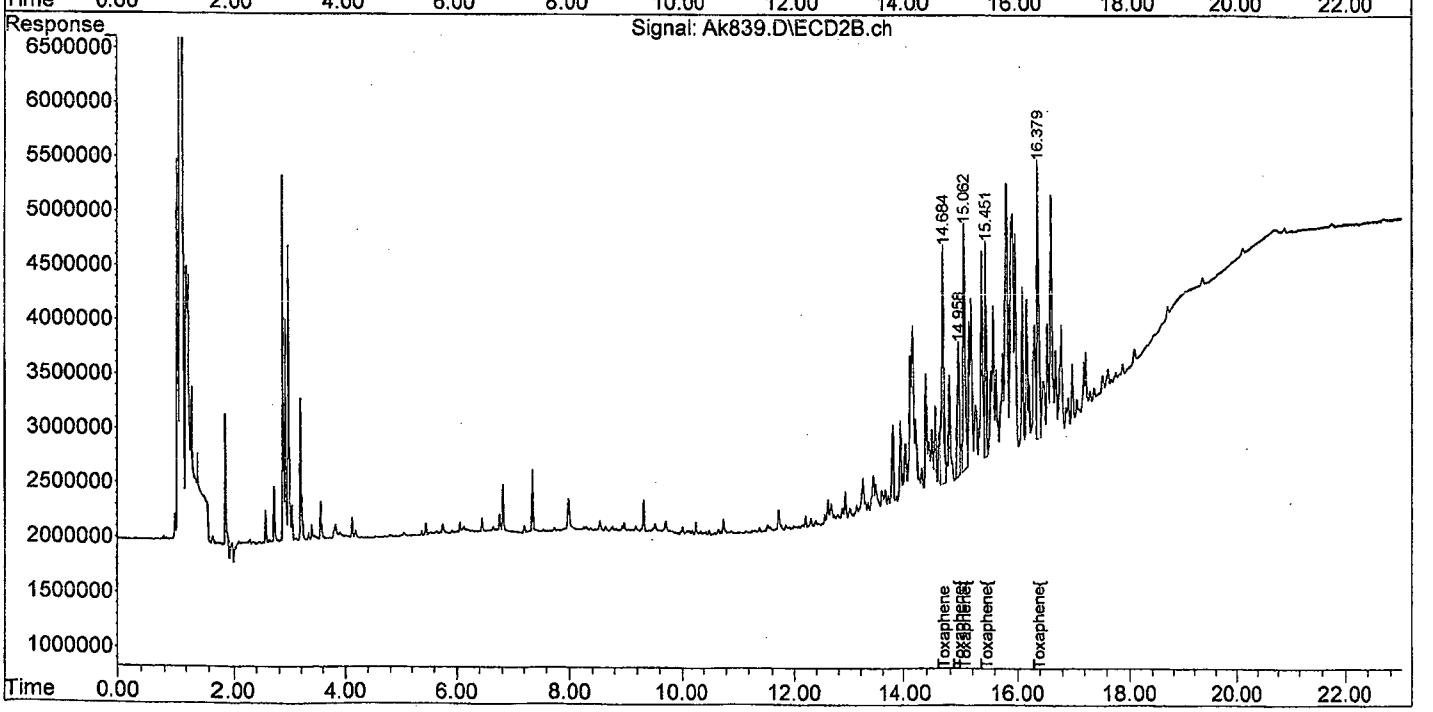
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : I:\ACQUDATA\7890m\DATA\I02115\
Data File : Ak839.D
Acq On : 21 Oct 2015 7:32 pm
Operator : m.pedro
Sample : tox 1 Inst : 7890-M
Misc : initilal cal
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 22 13:20:59 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Thu Oct 22 13:17:24 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





8081102115.M Thu Oct 22 13:45:19 2015 Page: 2

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name:	ALS Environmental		Contract:		
Lab Code:	10145	Case No.:	SAS No.:	SDG No.:	
GC Column (1):	STX-CLP	ID: 0.32 (mm)	Initial Calibration Date(s):	10/21/2015	
EPA Sample No. (PEM):	PEM		Date Analyzed:	11/25/2015	
LAB Sample ID. (PEM):	PEM		Time Analyzed:	8:06	
4,4'-DDT % Breakdown (1):	2.1%		Endrin % Breakdown (1):	6.8%	
Combined % Breakdown (1):	8.9%				

QC LIMITS:

%D of amounts in PEM must be less than or equal to 25.0%
4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%
Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name:	ALS Environmental		Contract:		
Lab Code:	10145	Case No.:	SAS No.:	SDG No.:	
GC Column (2):	STX-CLPI	ID: 0.32 (mm)		Initial Calibration Date(s):	10/21/2015
EPA Sample No. (PEM):	PEM			Date Analyzed:	11/25/2015
LAB Sample ID. (PEM):	PEM			Time Analyzed:	8:06
4,4'-DDT % Breakdown (1):	2.4%			Endrin % Breakdown (1):	8.1%
Combined % Breakdown (1):	10.5%				

QC LIMITS:

%D of amounts in PEM must be less than or equal to 25.0%
4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%
Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\1F2515\
Data File : AL236.D
Acq On : 25 Nov 2015 8:06 am
Operator : m.pedro
Sample : pem Inst : 7890-M
Misc : pest perform check
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 30 14:37:14 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tet...	9.305	9.251	917.3E6	393.1E6	20.211	19.472
Spiked Amount 100.000	Range 30 - 150		Recovery =		20.21%#	19.47%#
26) S SURR2,Dec...	17.463	17.777	617.5E6	282.0E6	19.939	19.131
Spiked Amount 100.000	Range 30 - 150		Recovery =		19.94%#	19.13%#
Target Compounds						
3) tc alpha-BHC	10.295	10.326	645.4E6	284.7E6	9.454	9.243
4) tcm gamma-BHC (L	10.818	10.896	578.4E6	256.1E6	9.633	9.438
7) tc beta-BHC	10.974	11.052	273.6E6	121.6E6	10.272	10.237
15) tcm Endrin	14.168	14.227	1878.7E6	811.0E6	49.768	44.484
18) tc 4,4'-DDD	14.254	14.382	68425067	34410977	2.310	2.359
19) tcm 4,4'-DDT	14.655	14.822	3198.0E6	1399.7E6	100.793m	88.329
20) tc Endrin Aldeh	15.109	15.023	41271498	24078962	1.534	1.764
22) tc Methoxychlor	15.343	15.810	3931.2E6	1718.2E6	242.681m	217.871
24) tc Endrin Keton	16.175	16.212	96634308	47034744	2.783	2.678
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

AM 12/1

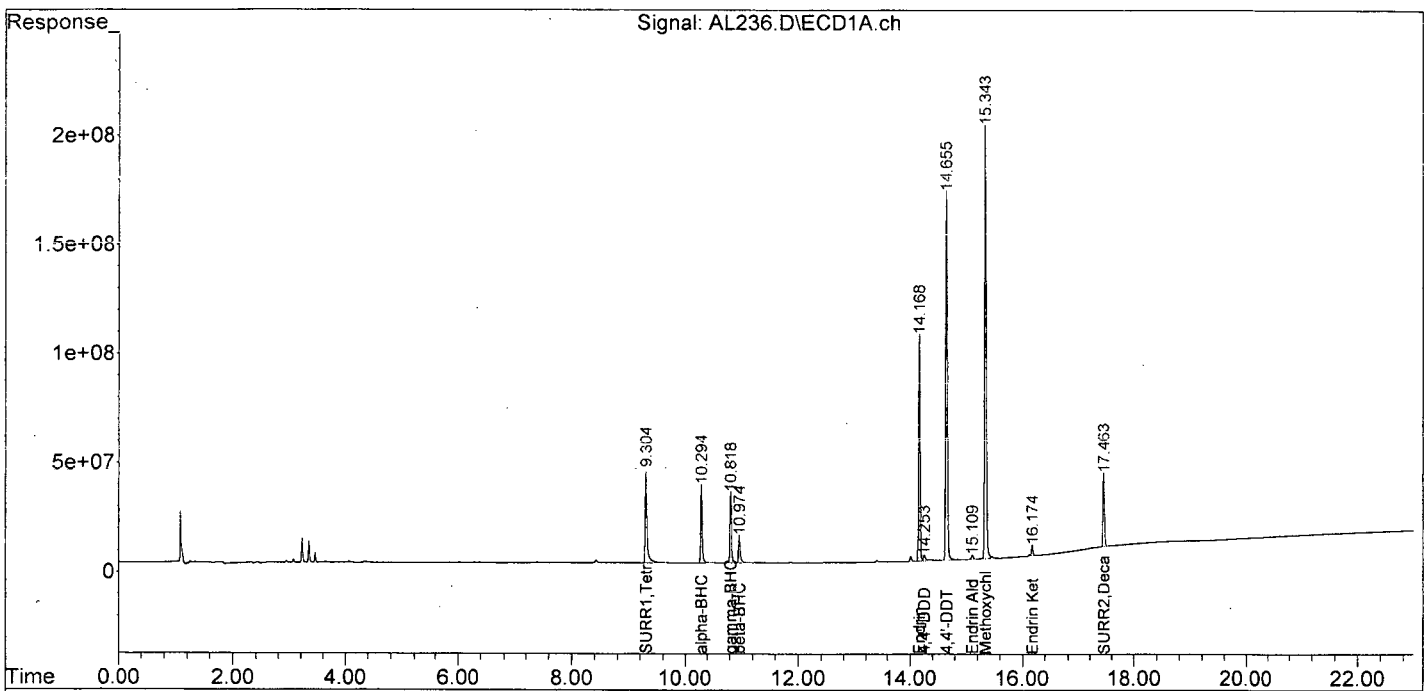
8081102115.M Tue Dec 01 09:46:52 2015 Page: 1

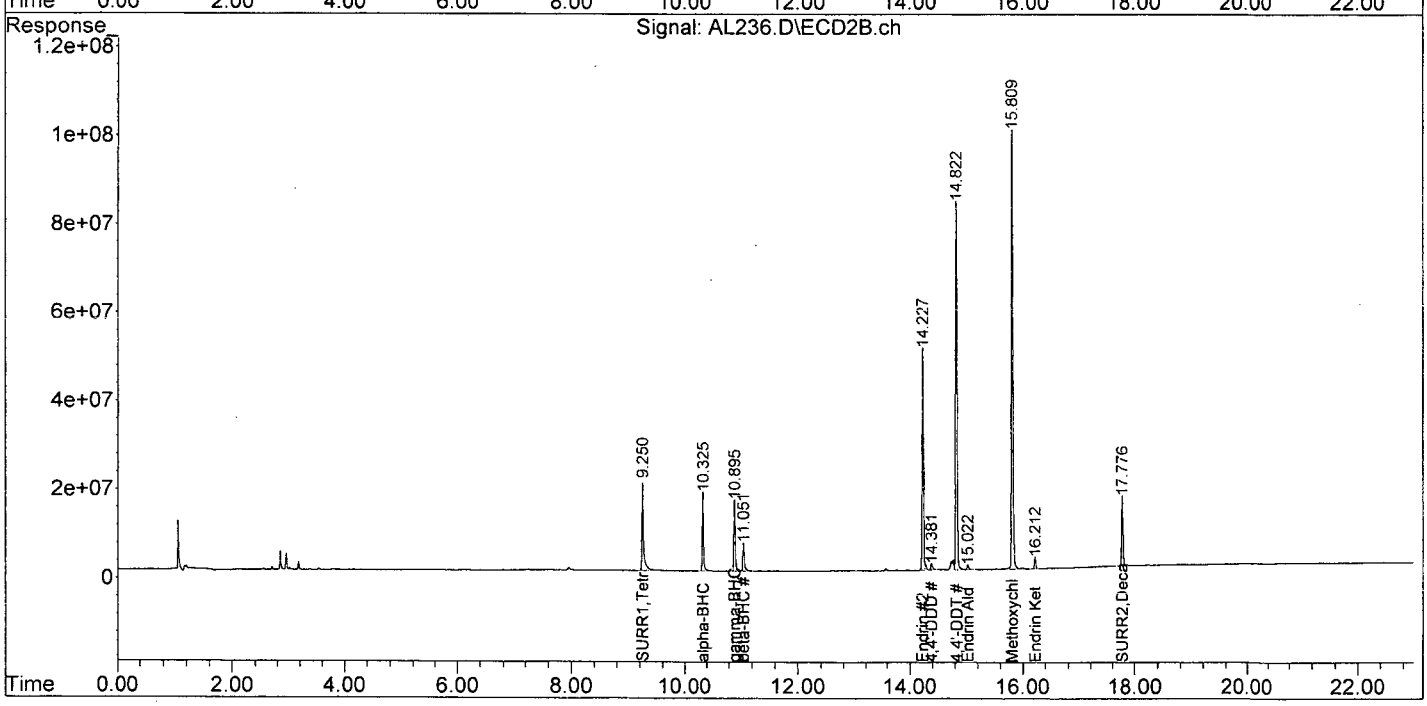
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\FI2515\
Data File : AL236.D
Acq On : 25 Nov 2015 8:06 am
Operator : m.pedro
Sample : pem Inst : 7890-M
Misc : pest perform check
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 30 14:37:14 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



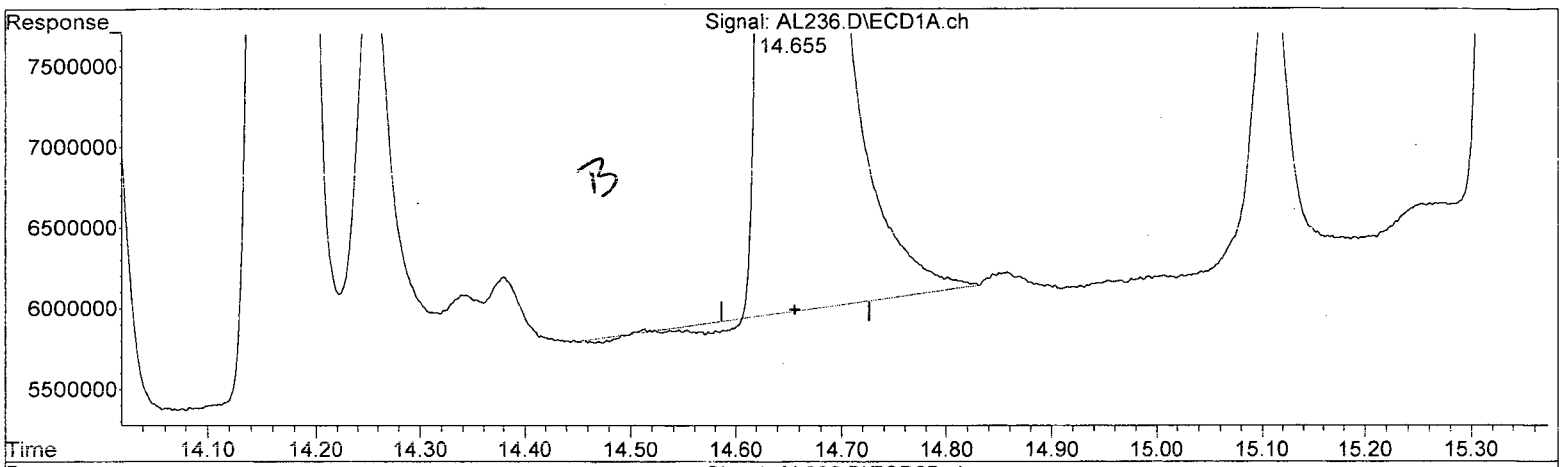


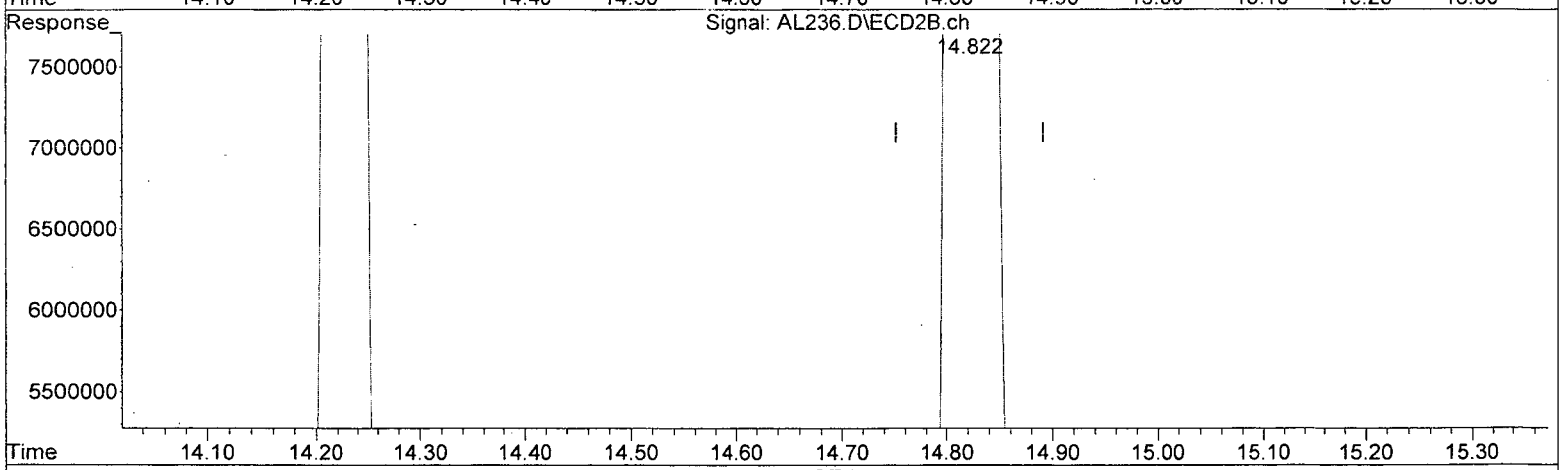
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\121515\
Data File : AL236.D
Acq On : 25 Nov 2015 8:06 am
Operator : m.pedro
Sample : pem Inst : 7890-M
Misc : pest perform check
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 30 07:30:51 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(19) 4,4'-DDT (tcm)

14.655min 100.368 ug/l

response 3184518657

(19) 4,4'-DDT #2 (tcm)

14.822min 88.329 ug/l

response 1399749574

(+) = Expected Retention Time

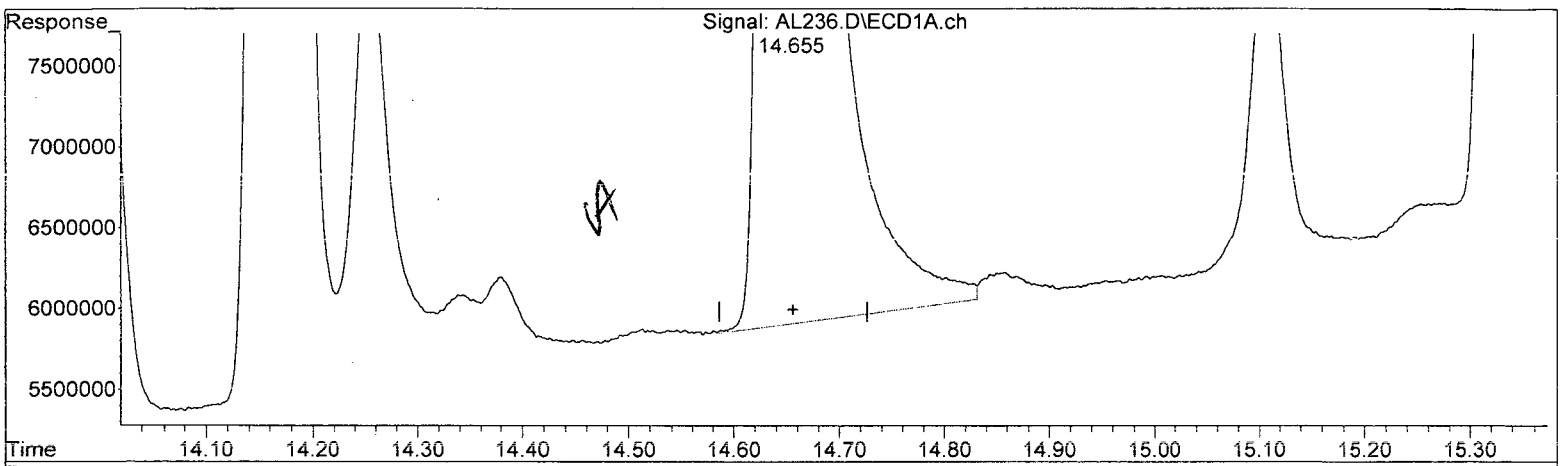
8081102115.M Mon Nov 30 14:35:29 2015 Page: 1

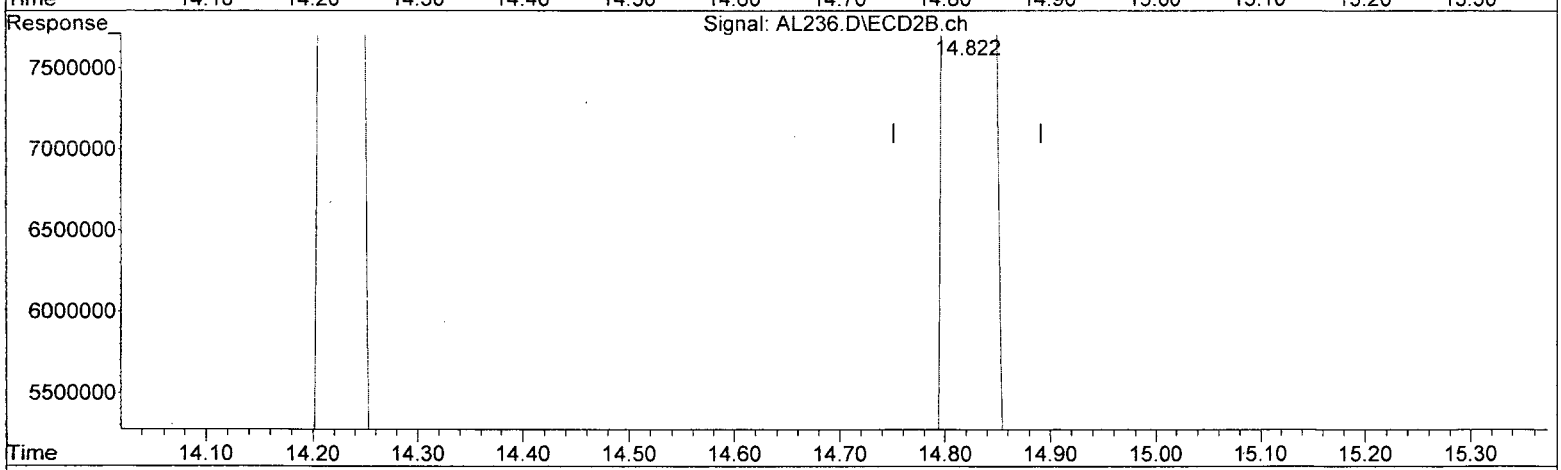
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL236.D
Acq On : 25 Nov 2015 8:06 am
Operator : m.pedro
Sample : pem Inst : 7890-M
Misc : pest perform check
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 30 07:30:51 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(19) 4,4'-DDT (tcm)

14.655min 100.793 ug/l m

response 3197991178

(19) 4,4'-DDT #2 (tcm)

14.822min 88.329 ug/l

response 1399749574

(+) = Expected Retention Time

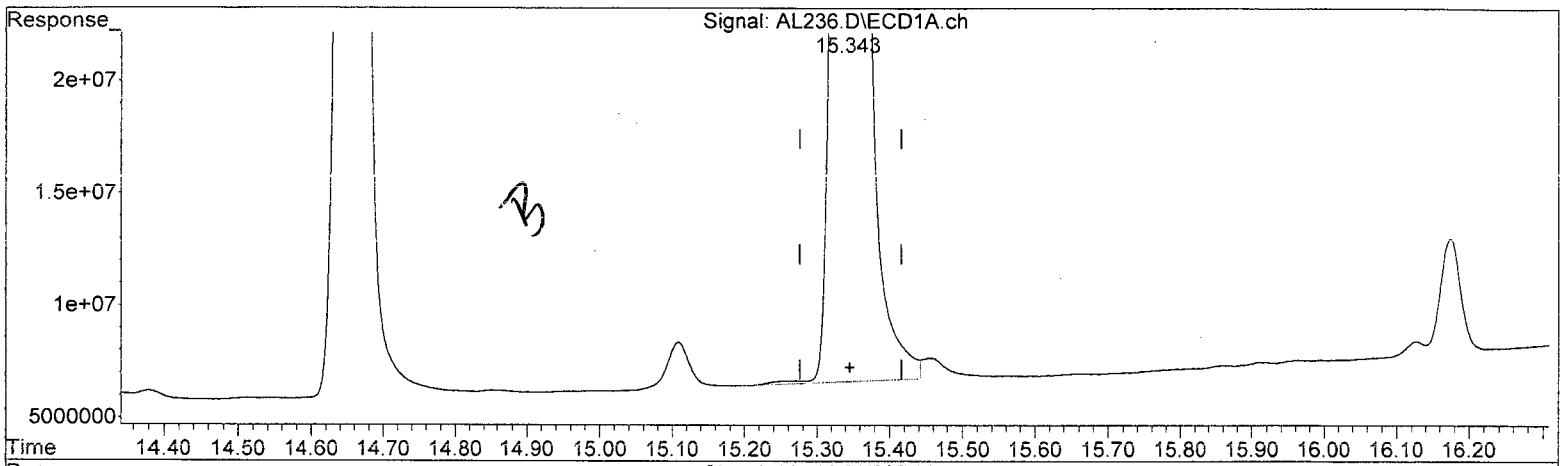
8081102115.M Mon Nov 30 14:35:50 2015 Page: 1

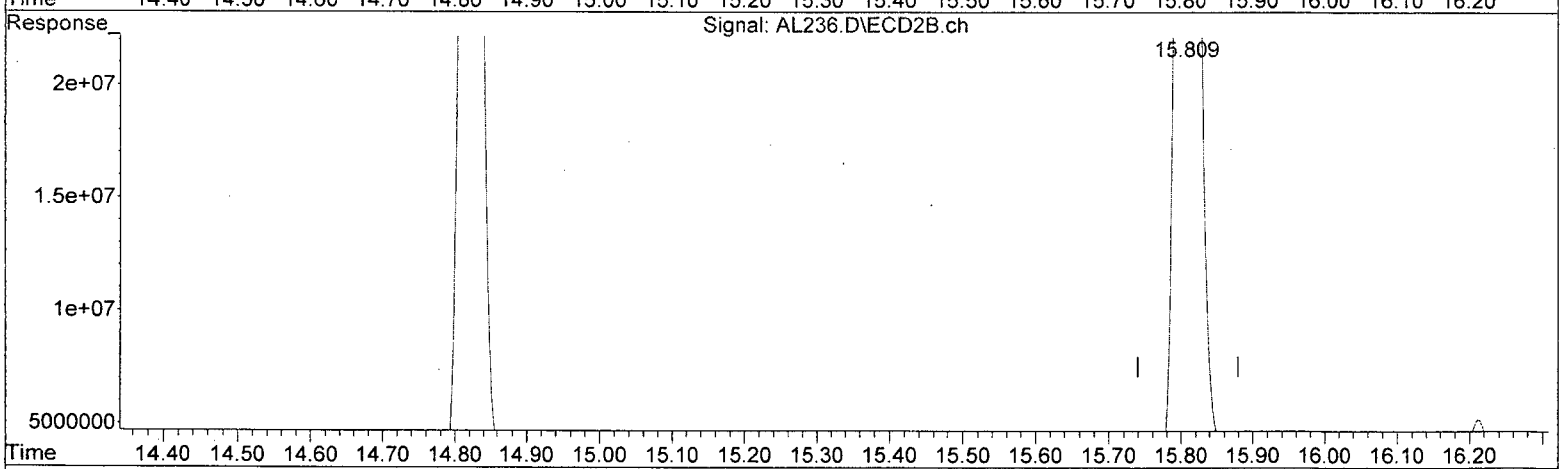
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\121515\
Data File : AL236.D
Acq On : 25 Nov 2015 8:06 am
Operator : m.pedro
Sample : pem Inst : 7890-M
Misc : pest perform check
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 30 07:30:51 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(22) Methoxychlor (tc)

15.344min 242.897 ug/l

response 3934699198

(22) Methoxychlor #2 (tc)

15.810min 217.871 ug/l

response 1718183145

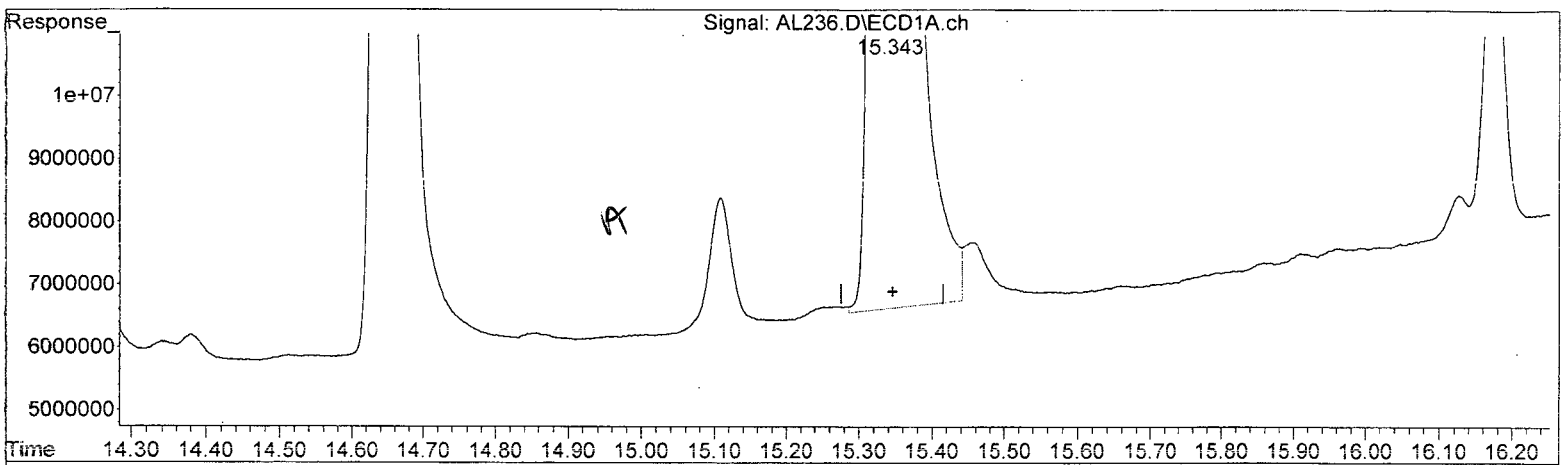
(+) = Expected Retention Time
8081102115.M Mon Nov 30 14:36:18 2015 Page: 1

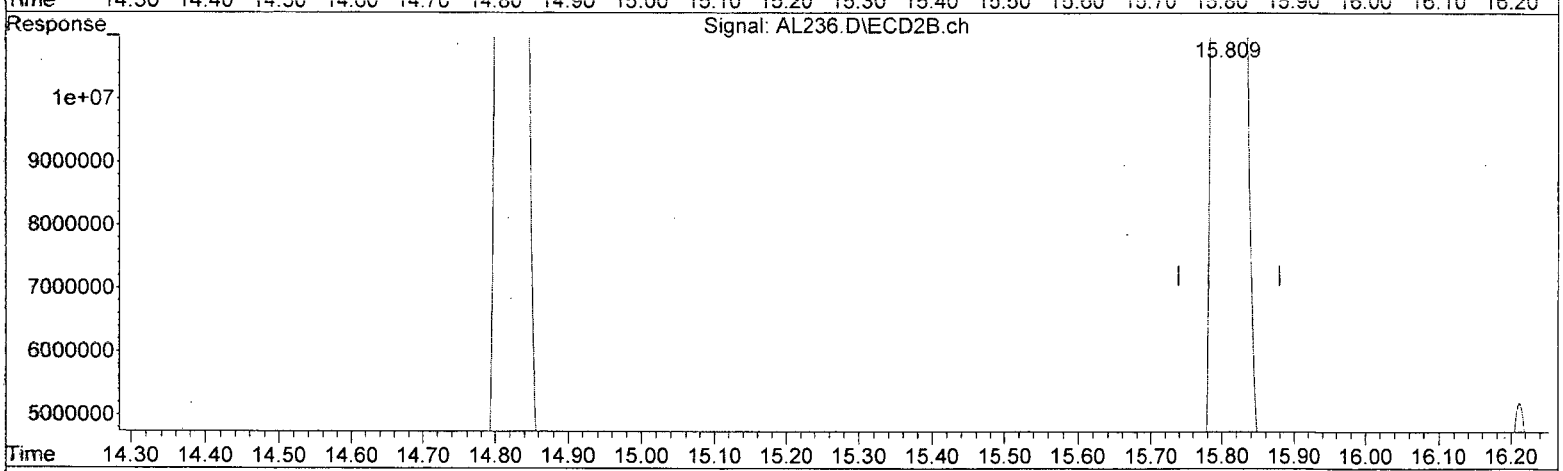
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\FI2515\
Data File : AL236.D
Acq On : 25 Nov 2015 8:06 am
Operator : m.pedro
Sample : pem Inst : 7890-M
Misc : pest perform check
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 30 07:30:51 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(22) Methoxychlor (tc)

15.343min 242.681 ug/l m

response 3931191195

(22) Methoxychlor #2 (tc)

15.810min 217.871 ug/l

response 1718183145

(+) = Expected Retention Time

8081102115.M Mon Nov 30 14:36:53 2015 Page: 1

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name:	ALS Environmental		Contract:		
Lab Code:	10145	Case No.:	SAS No.:	SDG No.:	
GC Column (1):	STX-CLP	ID: 0.32 (mm)	Initial Calibration Date(s):	10/21/2015	
EPA Sample No. (PEM):	PEM		Date Analyzed:	12/2/2015	
LAB Sample ID. (PEM):	PEM		Time Analyzed:	12:05	
4,4'-DDT % Breakdown (1):	2.5%		Endrin % Breakdown (1):	11.2%	
Combined % Breakdown (1):	13.8%				

QC LIMITS:

%D of amounts in PEM must be less than or equal to 25.0%
4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%
Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name:	ALS Environmental		Contract:		
Lab Code:	10145	Case No.:	SAS No.:	SDG No.:	
GC Column (2):	STX-CLPI	ID: 0.32 (mm)	Initial Calibration Date(s):	10/21/2015	
EPA Sample No. (PEM):	PEM		Date Analyzed:	12/2/2015	
LAB Sample ID. (PEM):	PEM		Time Analyzed:	12:05	
4,4'-DDT % Breakdown (1):	2.4%		Endrin % Breakdown (1):	13.2%	
Combined % Breakdown (1):	15.6%				

QC LIMITS:

%D of amounts in PEM must be less than or equal to 25.0%
4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%
Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\120215\
Data File : AL285.D
Acq On : 2 Dec 2015 12:05 pm
Operator : a.moses
Sample : pem Inst : 7890-M
Misc : pest perform check
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 02 12:50:12 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l	
	System Monitoring Compounds							
1)	S SURR1,Tet...	9.302	9.248	961.0E6	404.3E6	21.173	20.025	
	Spiked Amount 100.000	Range 30 - 150		Recovery =		21.17%#	20.02%#	
26)	S SURR2,Dec...	17.463	17.774	592.9E6	265.5E6	19.147	18.013	
	Spiked Amount 100.000	Range 30 - 150		Recovery =		19.15%#	18.01%#	
	Target Compounds							
3)	tc alpha-BHC	10.292	10.323	683.9E6	292.8E6	10.018	9.507	
4)	tcm gamma-BHC (L	10.815	10.892	600.3E6	257.7E6	9.999	9.495	
7)	tc beta-BHC	10.971	11.049	269.9E6	117.7E6	10.132	9.904	
13)	tc 4,4'-DDE	13.403	13.567	14242314	7809551	0.369m	0.418m	
15)	tcm Endrin	14.166	14.223	1734.8E6	706.0E6	45.957	38.720	
18)	tc 4,4'-DDD	14.255	14.381	63135620	23028485	2.131	1.579	#
19)	tcm 4,4'-DDT	14.653	14.820	2958.6E6	1274.9E6	93.249	80.453	
20)	tc Endrin Aldeh	15.109	15.020	60989904	39576905	2.266	2.899	#
22)	tc Methoxychlor	15.343	15.807	3678.5E6	1565.3E6	227.084	198.482	
24)	tc Endrin Keton	16.175	16.209	158.6E6	67778139	4.570	3.859	
	Sum Toxaphene			0	0	N.D.	N.D.	
Average	Toxaphene					0.000	0.000	
	Sum Chlordane			0	0	N.D.	N.D.	
Average	Chlordane					0.000	0.000	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

12/2

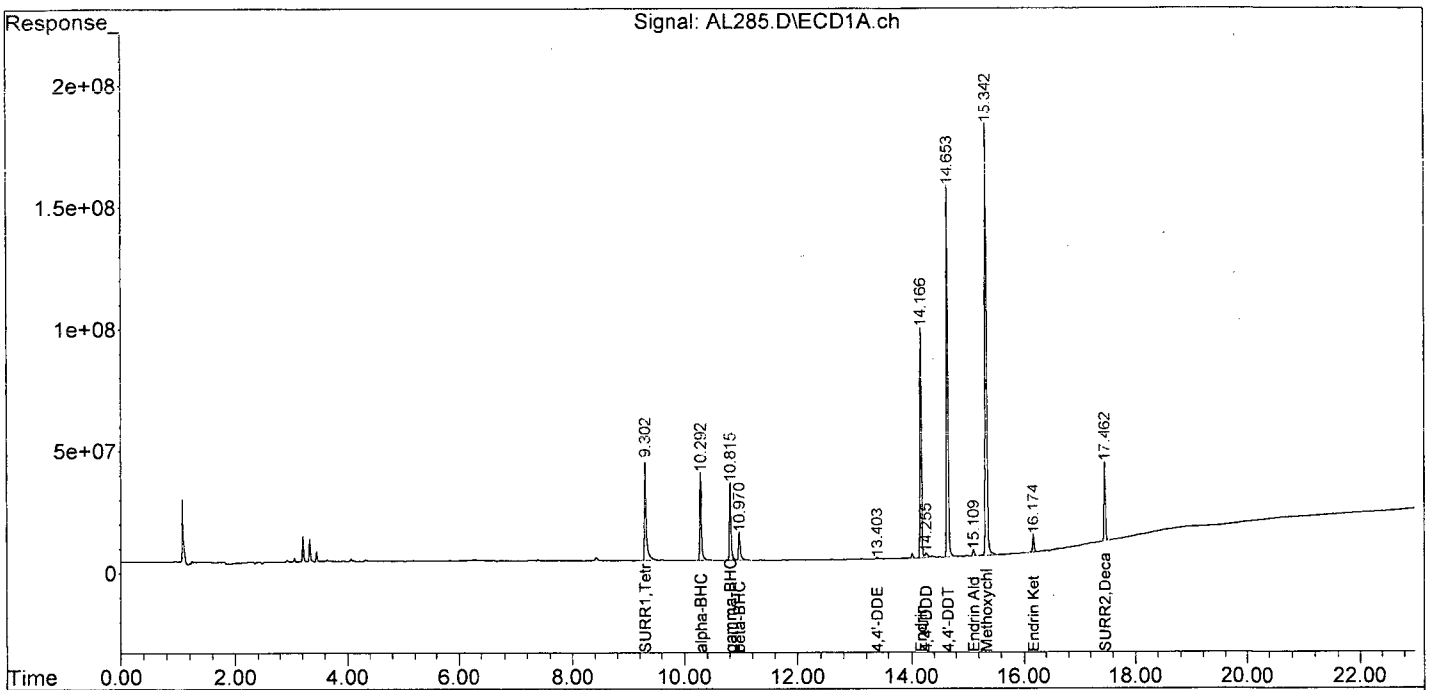
8081102115.M Wed Dec 02 16:21:26 2015 Page: 1

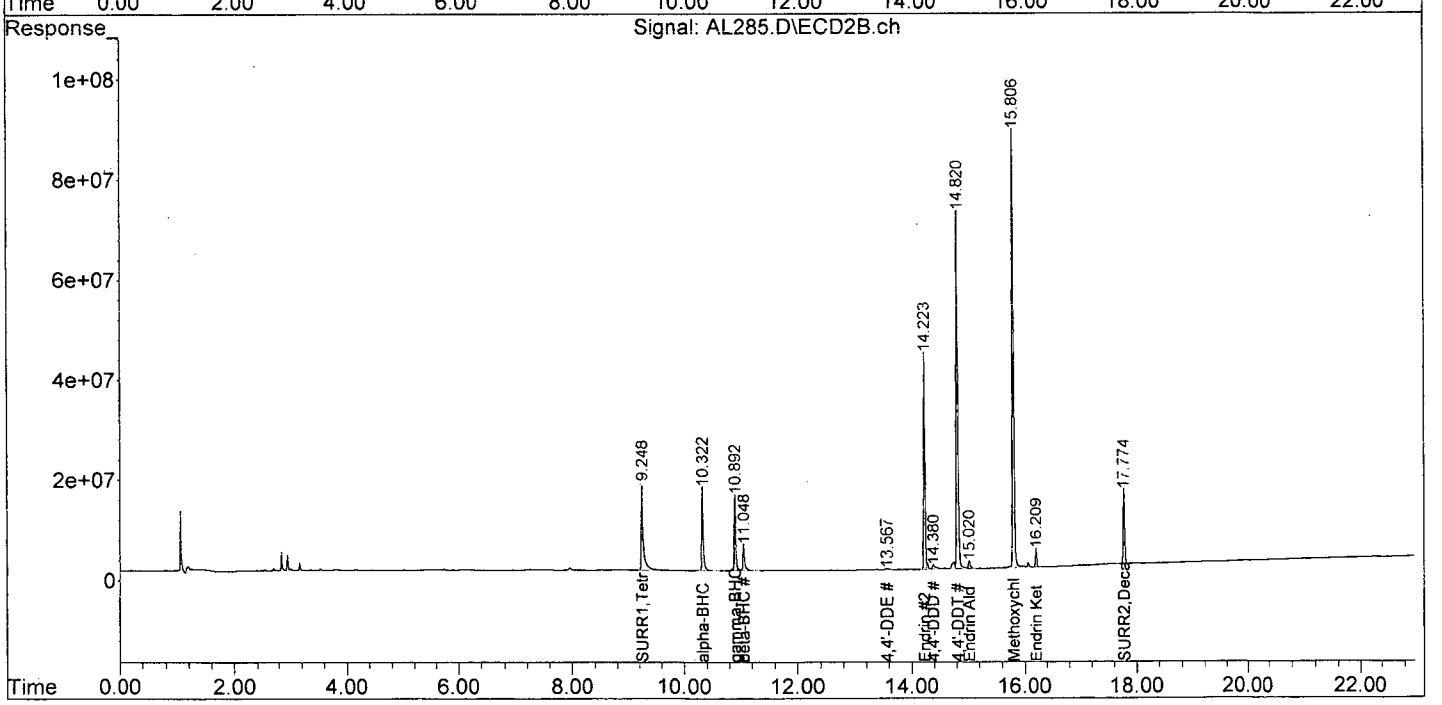
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\120215\
Data File : AL285.D
Acq On : 2 Dec 2015 12:05 pm
Operator : a.moses
Sample : pem Inst : 7890-M
Misc : pest perform check
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 02 12:50:12 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



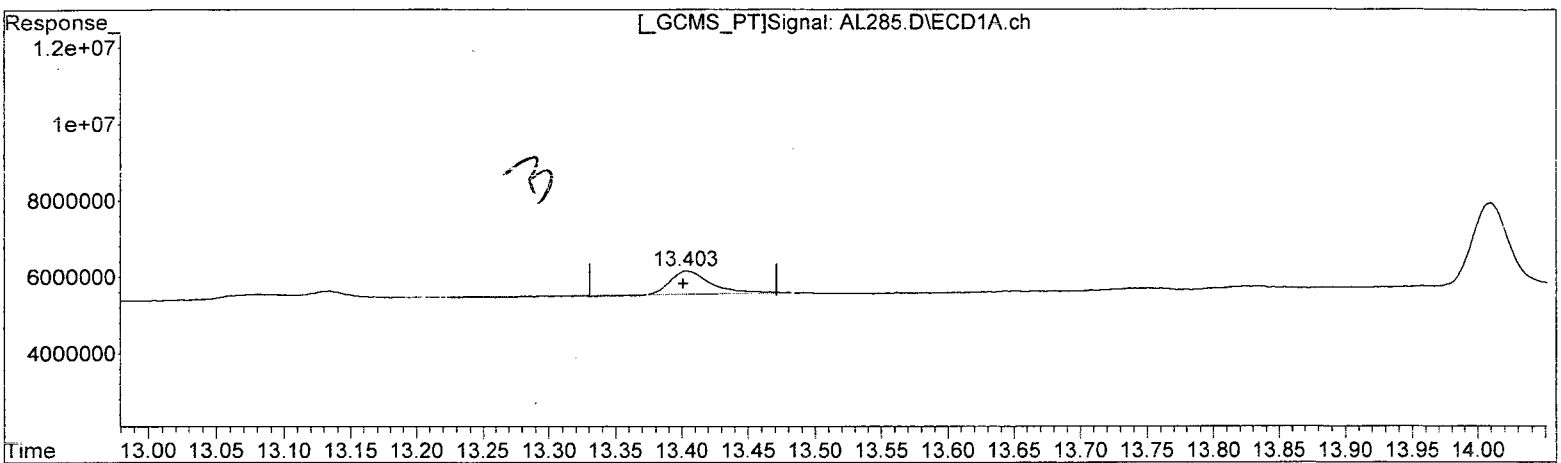


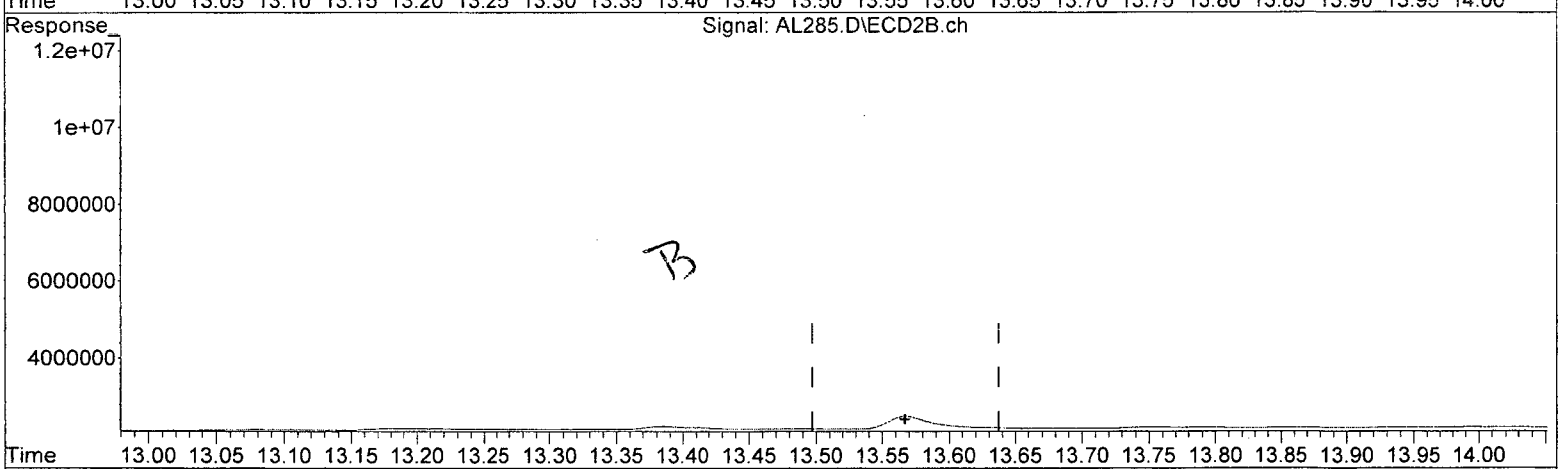
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\120215\
Data File : AL285.D
Acq On : 2 Dec 2015 12:05 pm
Operator : a.moses
Sample : pem Inst : 7890-M
Misc : pest perform check
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 02 12:47:11 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(13) 4,4'-DDE (tc)

13.404min 0.296 ug/l

response 11393533

B.C
AM 12/2

(13) 4,4'-DDE #2 (tc)

0.000min 0.000 ug/l

response 0

(+) = Expected Retention Time

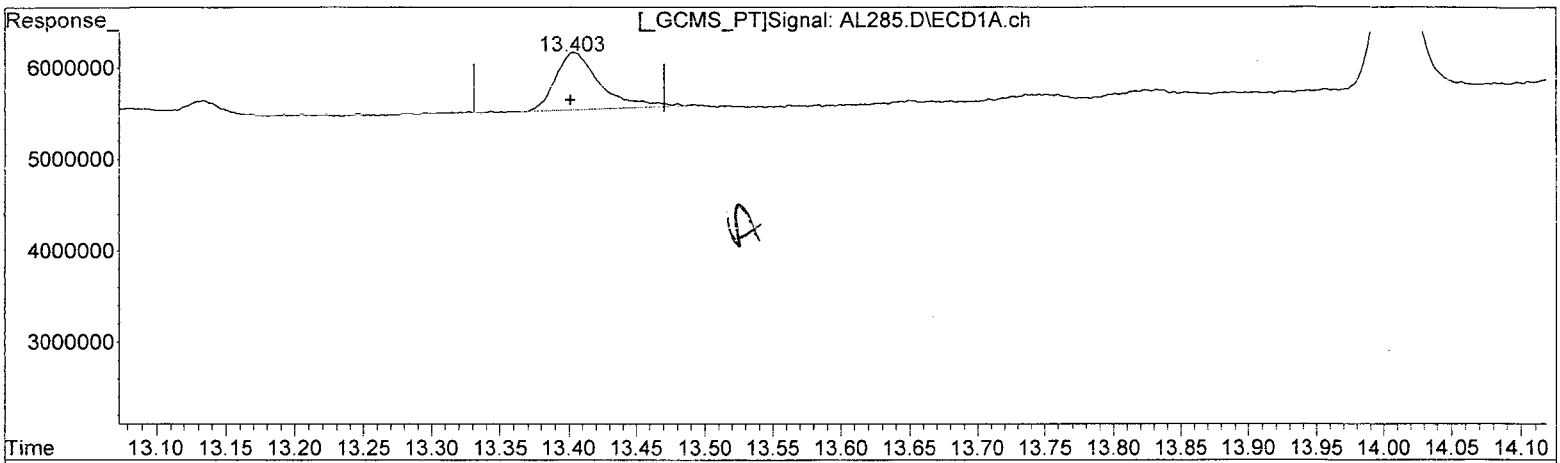
8081102115.M Wed Dec 02 12:48:02 2015 Page: 1

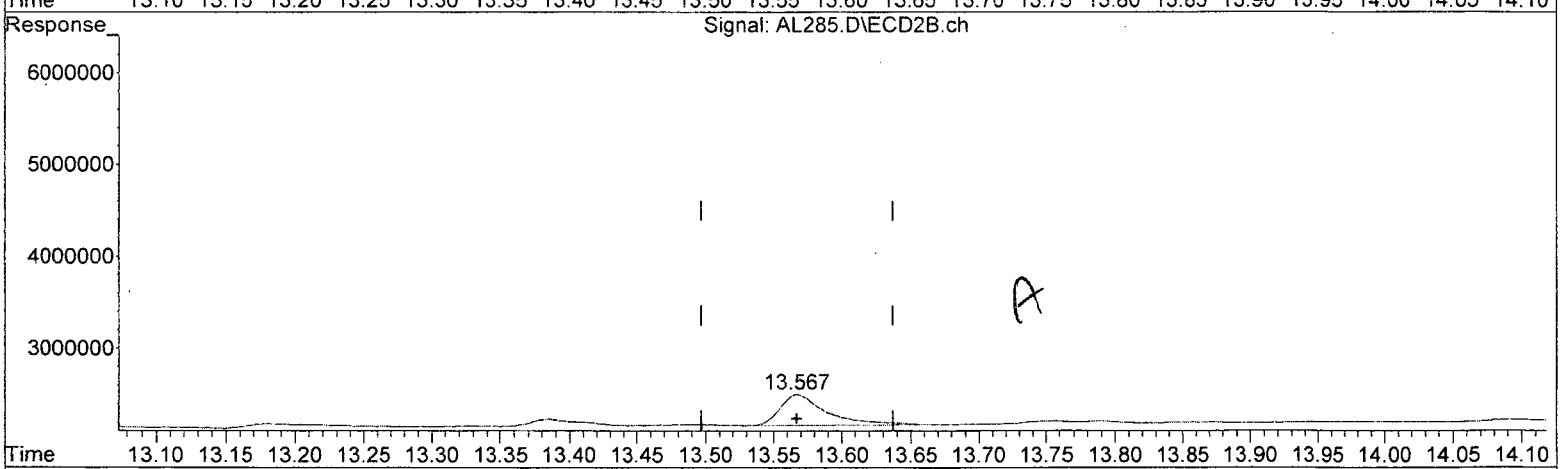
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\I20215\
Data File : AL285.D
Acq On : 2 Dec 2015 12:05 pm
Operator : a.moses
Sample : pem Inst : 7890-M
Misc : pest perform check
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 02 12:47:11 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(13) 4,4'-DDE (tc)

13.403min 0.369 ug/l m

response 14242314

(13) 4,4'-DDE #2 (tc)

13.567min 0.418 ug/l m

response 7809551

(+) = Expected Retention Time

8081102115.M Wed Dec 02 12:49:45 2015 Page: 1

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name:	ALS Environmental		Contract:		
Lab Code:	10145	Case No.:	SAS No.:	SDG No.:	
GC Column (1):	STX-CLP	ID: 0.32 (mm)		Initial Calibration Date(s):	10/21/2015
EPA Sample No. (PEM):	PEM			Date Analyzed:	11/25/2015
LAB Sample ID. (PEM):	PEM			Time Analyzed:	19:51
4,4'-DDT % Breakdown (1):	2.6%			Endrin % Breakdown (1):	10.0%
Combined % Breakdown (1):	12.6%				

QC LIMITS:

%D of amounts in PEM must be less than or equal to 25.0%
4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%
Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name:	ALS Environmental		Contract:		
Lab Code:	10145	Case No.:	SAS No.:	SDG No.:	
GC Column (2):	STX-CLPI	ID: 0.32 (mm)		Initial Calibration Date(s):	10/21/2015
EPA Sample No. (PEM):	PEM			Date Analyzed:	11/25/2015
LAB Sample ID. (PEM):	PEM			Time Analyzed:	19:51
4,4'-DDT % Breakdown (1):	2.8%			Endrin % Breakdown (1):	12.4%
Combined % Breakdown (1):	15.3%				

QC LIMITS:

%D of amounts in PEM must be less than or equal to 25.0%
4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%
Combined breakdown must be less than or equal to 30.0%

FORM VII PEST-1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL260.D
Acq On : 25 Nov 2015 7:51 pm
Operator : m.pedro
Sample : pem Inst : 7890-M
Misc : pest perform check
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 01 10:06:42 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1)	S SURR1,Tet...	9.303	9.251	934.6E6	403.9E6	20.592	20.009
	Spiked Amount 100.000	Range 30 - 150		Recovery =		20.59%#	20.01%#
26)	S SURR2,Dec...	17.461	17.776	593.0E6	270.5E6	19.150	18.356
	Spiked Amount 100.000	Range 30 - 150		Recovery =		19.15%#	18.36%#
	Target Compounds						
3)	tc alpha-BHC	10.293	10.325	666.3E6	291.6E6	9.760	9.467
4)	tcm gamma-BHC (L	10.816	10.895	594.7E6	258.7E6	9.905	9.533
7)	tc beta-BHC	10.973	11.053	280.7E6	123.3E6	10.537	10.376
13)	tc 4,4'-DDE	13.404	13.570	18895655	11216262	0.490	0.600
15)	tcm Endrin	14.165	14.227	1800.8E6	742.1E6	47.705	40.702
18)	tc 4,4'-DDD	14.252	14.382	63772226	27914498	2.153	1.914
19)	tcm 4,4'-DDT	14.652	14.822	3047.3E6	1337.2E6	96.043	84.384
20)	tc Endrin Aldeh	15.106	15.022	61865860	38504049	2.299	2.821
22)	tc Methoxychlor	15.341	15.809	3728.6E6	1609.6E6	230.174	204.107
24)	tc Endrin Keton	16.172	16.212	137.8E6	66706859	3.970	3.798
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
	Average Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

AM 12/1

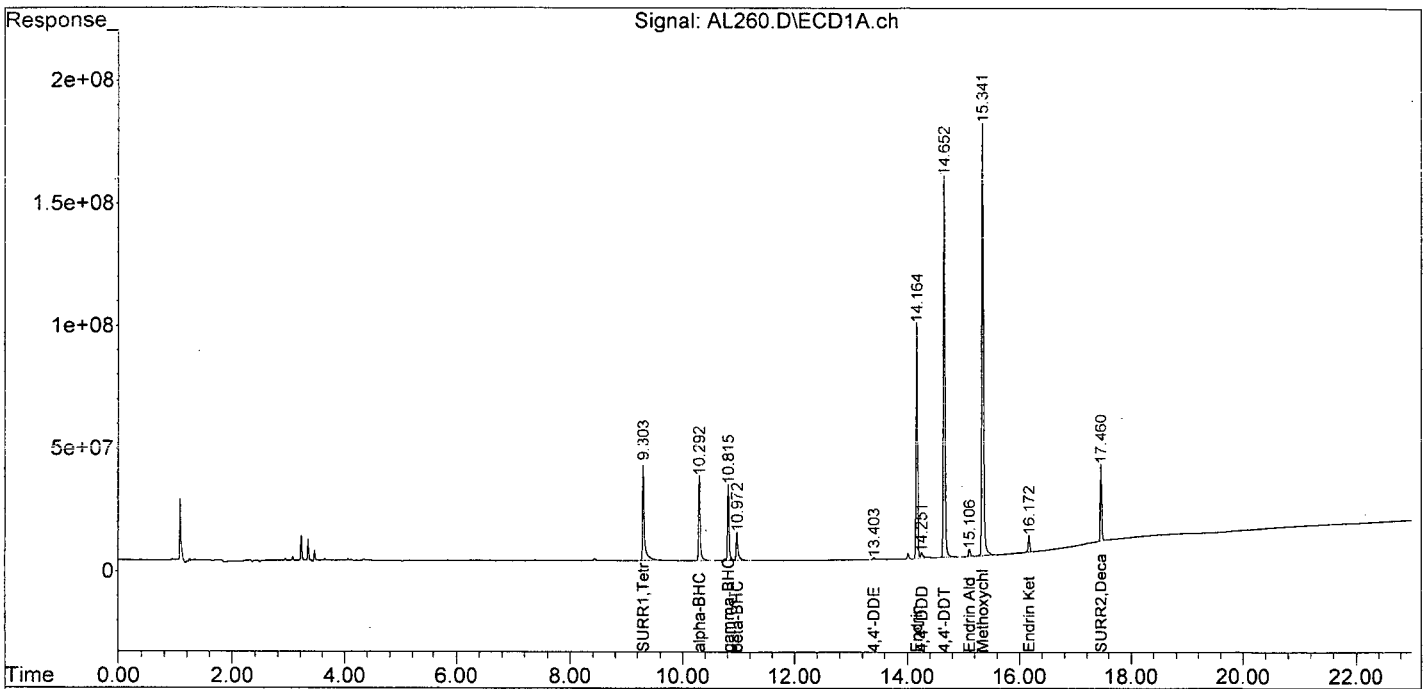
8081102115.M Tue Dec 01 10:07:11 2015 Page: 1

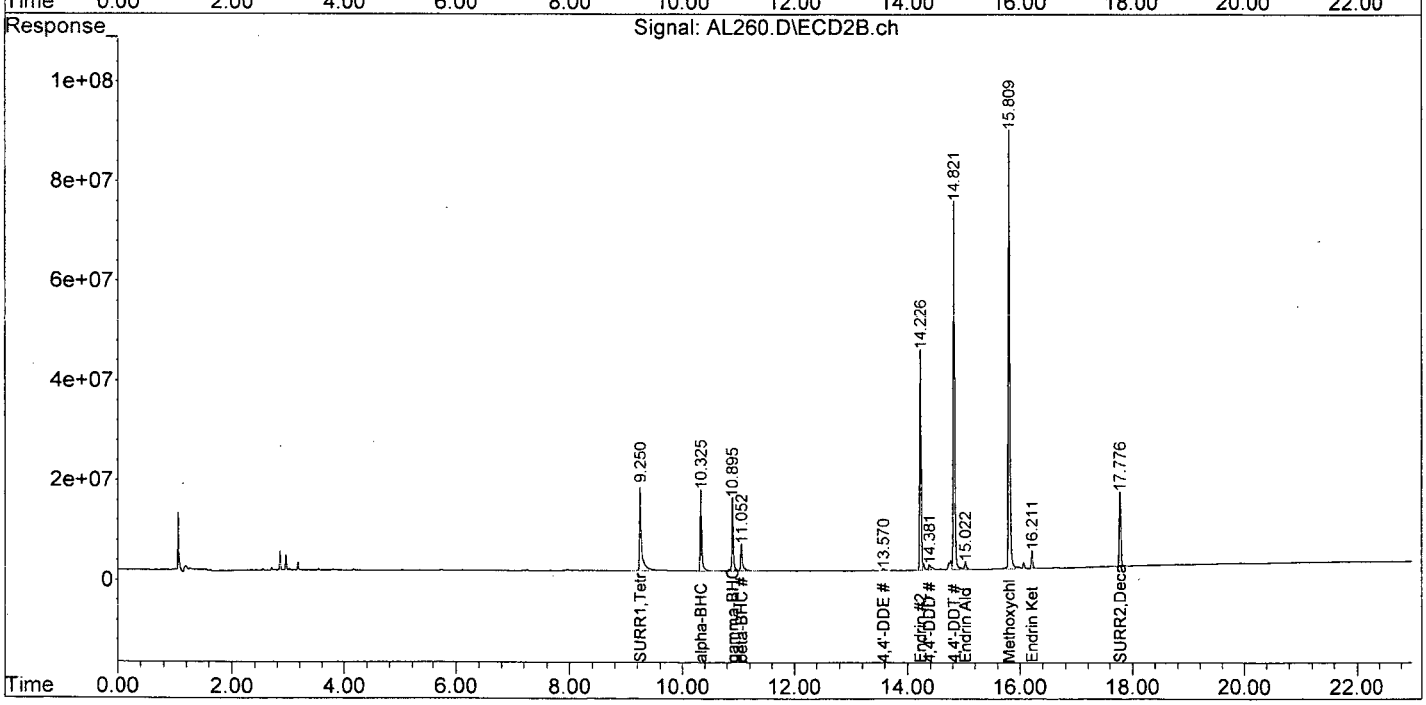
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\121515\
Data File : AL260.D
Acq On : 25 Nov 2015 7:51 pm
Operator : m.pedro
Sample : pem Inst : 7890-M
Misc : pest perform check
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 01 10:06:42 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





8D

Pesticide Analytical Sequence

Lab Name: **ALS Environmental** ***Client:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8M

GC Column(1) STx-CLP ***(ID):*** 0.32mm 30

Instrument ID: 7890-M

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 9.34 DCB 17.51

EPA Sample No.	*Lab Sample ID*	*Date Anlyzed*	*Time Anlyzed*	*TCX rt_time*	*DCB rt_time*
pem	pem	10/21/2015	9:55	9.34	17.51
pest 2 ppb	pest 2 ppb	10/21/2015	12:35	9.34	17.52
pest 5 ppb	pest 5 ppb	10/21/2015	13:03	9.34	17.51
pest 10 ppb	pest 10 ppb	10/21/2015	13:30	9.34	17.51
pest 50 ppb	pest 50 ppb	10/21/2015	13:58	9.34	17.51
pest 100 ppb	pest 100 ppb	10/21/2015	14:26	9.34	17.51
pest 200 ppb	pest 200 ppb	10/21/2015	14:54	9.34	17.51
pest icv	pest icv	10/21/2015	15:22	0.00	0.00
k/f l	k/f l	10/21/2015	15:50	0.00	0.00
k/f ml	k/f ml	10/21/2015	16:17	0.00	0.00
k/f m	k/f m	10/21/2015	16:45	0.00	0.00
k/f mh	k/f mh	10/21/2015	17:13	0.00	0.00
k/f h	k/f h	10/21/2015	17:41	0.00	0.00
k/f icv	k/f icv	10/21/2015	18:09	0.00	0.00
mirex icv	mirex icv	10/21/2015	18:37	0.00	0.00
tox ll	tox ll	10/21/2015	19:04	0.00	0.00
tox l	tox l	10/21/2015	19:32	0.00	0.00
tox ml	tox ml	10/21/2015	20:00	0.00	0.00
tox m	tox m	10/21/2015	20:28	0.00	0.00
tox mh	tox mh	10/21/2015	20:56	0.00	0.00
tox h	tox h	10/21/2015	21:24	0.00	0.00

QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an aste

* Values outside of QC limits

Form VIII Pest

8D

Pesticide Analytical Sequence

Lab Name: **ALS Environmental** ***Client:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8M

GC Column(1) STx-CLP ***(ID):*** 0.32mm 30

Instrument ID: 7890-M

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 9.34 DCB 17.51

EPA Sample No.	*Lab Sample ID*	*Date Anlyzed*	*Time Anlyzed*	*TCX rt_time*	*DCB rt_time*
tox icv	tox icv	10/21/2015	21:52	0.00	0.00
chlor l	chlor l	10/21/2015	22:19	9.33	17.51
chlor ml	chlor ml	10/21/2015	22:47	0.00	0.00
chlor m	chlor m	10/21/2015	23:15	9.33	17.51
chlor mh	chlor mh	10/21/2015	23:43	9.33	17.51
chlor h	chlor h	10/22/2015	0:11	9.33	17.51
chlor icv	chlor icv	10/22/2015	0:38	0.00	0.00
pem	pem	11/25/2015	8:06	9.30	17.46
ccv51	ccv51	11/25/2015	8:41	9.31	17.47
PBLK01	rq1514596-01|1.0	11/25/2015	9:39	9.31	17.47
PBLK01MS	rq1514596-02|1.0	11/25/2015	10:07	9.30	17.46
PBLK01MSD	rq1514596-03|1.0	11/25/2015	10:34	9.30	17.46
ZZZZZ	ZZZZZ	11/25/2015	11:02	9.30	0.00
ZZZZZ	ZZZZZ	11/25/2015	11:30	9.30	17.46
ZZZZZ	ZZZZZ	11/25/2015	11:58	9.30	17.46
EB-2015-11-19	r1510161-004|1.0	11/25/2015	12:26	9.30	17.46
FTMM-56-GW-80MW	r1510161-006|1.0	11/25/2015	12:54	9.30	17.46
FTMM-56-80MW102-	r1510161-008|1.0	11/25/2015	13:21	9.30	17.46
ZZZZZ	ZZZZZ	11/25/2015	13:49	9.30	17.46
ccv52	ccv52	11/25/2015	14:17	9.30	17.46
FTMM-M8-697-MW01	rq1514596-04|1.0	11/25/2015	14:45	9.30	17.46

QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an aste

* Values outside of QC limits

Form VIII Pest

8D

Pesticide Analytical Sequence

Lab Name: **ALS Environmental** ***Client:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8M

GC Column(1) STx-CLP ***(ID):*** 0.32mm 30

Instrument ID: 7890-M

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 9.34 DCB 17.51

EPA Sample No.	*Lab Sample ID*	*Date Anlyzed*	*Time Anlyzed*	*TCX rt_time*	*DCB rt_time*
FTMM-M8-697-MW01	rq1514596-05|1.0	11/25/2015	15:13	9.30	17.46
EB-2015-11-20	r1510161-017|1.0	11/25/2015	15:41	9.30	17.46
ZZZZZ	ZZZZZ	11/25/2015	16:08	9.30	17.46
ZZZZZ	ZZZZZ	11/25/2015	16:36	9.30	17.46
ZZZZZ	ZZZZZ	11/25/2015	17:04	9.30	17.46
ZZZZZ	ZZZZZ	11/25/2015	17:32	9.30	17.46
ZZZZZ	ZZZZZ	11/25/2015	18:00	9.30	17.46
ZZZZZ	ZZZZZ	11/25/2015	18:28	9.30	17.46
ZZZZZ	ZZZZZ	11/25/2015	18:56	9.30	17.46
ccv53	ccv53	11/25/2015	19:23	9.30	17.46
pem	pem	11/25/2015	19:51	9.30	17.46
ZZZZZ	ZZZZZ	11/25/2015	20:19	9.30	17.46
ZZZZZ	ZZZZZ	11/25/2015	20:47	9.30	17.46
ZZZZZ	ZZZZZ	11/25/2015	21:15	9.30	17.46
ZZZZZ	ZZZZZ	11/25/2015	21:43	9.30	17.46
PBLK01MS	rq1514596-02|1.0	11/25/2015	22:11	9.30	17.46
PBLK01MSD	rq1514596-03|1.0	11/25/2015	22:39	9.30	17.46
ccv54	ccv54	11/25/2015	23:07	9.30	17.46
pem	pem	12/2/2015	12:05	9.30	17.46
ccv58	ccv58	12/2/2015	12:33	9.30	17.46
ZZZZZ	ZZZZZ	12/2/2015	13:02	9.30	17.46

QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an aste

* Values outside of QC limits

Form VIII Pest

8D

Pesticide Analytical Sequence

Lab Name: **ALS Environmental** ***Client:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8M

GC Column(1) STx-CLP ***(ID):*** 0.32mm_30

Instrument ID: 7890-M

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 9.34 DCB 17.51

EPA Sample No.	*Lab Sample ID*	*Date Anlyzed*	*Time Anlyzed*	*TCX rt_time*	*DCB rt_time*
FTMM-M8-697-MW01	r1510161-012|1.0	12/2/2015	13:30	9.30	17.46
ZZZZZ	ZZZZZ	12/2/2015	13:58	0.00	0.00
ZZZZZ	ZZZZZ	12/2/2015	14:26	0.00	0.00
ccv59	ccv59	12/2/2015	14:54	9.30	17.46

QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an aste

* Values outside of QC limits

Form VIII Pest

8D

Pesticide Analytical Sequence

Lab Name: **ALS Environmental** ***Contract:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8M

GC Column(1) STx-CLPII ***(ID):*** 0.32mm 30

Instrument ID: 7890-M

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 9.28 DCB 17.82

EPA Sample No.	*Lab Sample ID*	*Date Anlyzed*	*Time Anlyzed*	*TCX rt_time*	*DCB rt_time*
pem	pem	10/21/2015	9:55	9.28	17.82
pest 2 ppb	pest 2 ppb	10/21/2015	12:35	9.27	17.82
pest 5 ppb	pest 5 ppb	10/21/2015	13:03	9.28	17.82
pest 10 ppb	pest 10 ppb	10/21/2015	13:30	9.28	17.82
pest 50 ppb	pest 50 ppb	10/21/2015	13:58	9.28	17.82
pest 100 ppb	pest 100 ppb	10/21/2015	14:26	9.28	17.82
pest 200 ppb	pest 200 ppb	10/21/2015	14:54	9.28	17.82
pest icv	pest icv	10/21/2015	15:22	0.00	0.00
k/f l	k/f l	10/21/2015	15:50	0.00	0.00
k/f ml	k/f ml	10/21/2015	16:17	0.00	0.00
k/f m	k/f m	10/21/2015	16:45	0.00	0.00
k/f mh	k/f mh	10/21/2015	17:13	0.00	0.00
k/f h	k/f h	10/21/2015	17:41	0.00	0.00
k/f icv	k/f icv	10/21/2015	18:09	0.00	0.00
mirex icv	mirex icv	10/21/2015	18:37	0.00	0.00
tox ll	tox ll	10/21/2015	19:04	0.00	0.00
tox l	tox l	10/21/2015	19:32	0.00	0.00
tox ml	tox ml	10/21/2015	20:00	0.00	0.00
tox m	tox m	10/21/2015	20:28	0.00	0.00
tox mh	tox mh	10/21/2015	20:56	0.00	0.00
tox h	tox h	10/21/2015	21:24	0.00	0.00

QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an aste

* Values outside of QC limits

Form VIII Pest

8D

Pesticide Analytical Sequence

Lab Name: **ALS Environmental** ***Contract:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8M

GC Column(1) STx-CLPII ***(ID):*** 0.32mm_30

Instrument ID: 7890-M

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 9.28 DCB 17.82

EPA Sample No.	*Lab Sample ID*	*Date Anlyzed*	*Time Anlyzed*	*TCX rt_time*	*DCB rt_time*
tox icv	tox icv	10/21/2015	21:52	0.00	0.00
chlor l	chlor l	10/21/2015	22:19	9.28	17.82
chlor ml	chlor ml	10/21/2015	22:47	0.00	0.00
chlor m	chlor m	10/21/2015	23:15	9.27	17.82
chlor mh	chlor mh	10/21/2015	23:43	9.28	17.82
chlor h	chlor h	10/22/2015	0:11	9.28	17.82
chlor icv	chlor icv	10/22/2015	0:38	0.00	0.00
pem	pem	11/25/2015	8:06	9.25	17.78
ccv51	ccv51	11/25/2015	8:41	9.25	17.78
PBLK01	rq1514596-01|1.0	11/25/2015	9:39	9.25	17.78
PBLK01MS	rq1514596-02|1.0	11/25/2015	10:07	9.25	17.78
PBLK01MSD	rq1514596-03|1.0	11/25/2015	10:34	9.25	17.78
ZZZZZ	ZZZZZ	11/25/2015	11:02	9.25	17.78
ZZZZZ	ZZZZZ	11/25/2015	11:30	9.25	17.78
ZZZZZ	ZZZZZ	11/25/2015	11:58	9.25	17.78
EB-2015-11-19	r1510161-004|1.0	11/25/2015	12:26	9.25	17.78
FTMM-56-GW-80MW	r1510161-006|1.0	11/25/2015	12:54	9.25	17.78
FTMM-56-80MW102-	r1510161-008|1.0	11/25/2015	13:21	9.25	17.78
ZZZZZ	ZZZZZ	11/25/2015	13:49	9.25	17.78
ccv52	ccv52	11/25/2015	14:17	9.25	17.77
FTMM-M8-697-MW01	rq1514596-04|1.0	11/25/2015	14:45	9.25	17.78

QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an aste

* Values outside of QC limits

Form VIII Pest

8D

Pesticide Analytical Sequence

Lab Name: **ALS Environmental** ***Contract:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8M

GC Column(1) STx-CLPII ***(ID):*** 0.32mm_30

Instrument ID: 7890-M

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 9.28 DCB 17.82

EPA Sample No.	*Lab Sample ID*	*Date Anlyzed*	*Time Anlyzed*	*TCX rt_time*	*DCB rt_time*
FTMM-M8-697-MW01	rq1514596-05|1.0	11/25/2015	15:13	9.25	17.78
EB-2015-11-20	r1510161-017|1.0	11/25/2015	15:41	9.25	17.78
ZZZZZ	ZZZZZ	11/25/2015	16:08	9.25	17.78
ZZZZZ	ZZZZZ	11/25/2015	16:36	9.25	17.78
ZZZZZ	ZZZZZ	11/25/2015	17:04	9.25	17.78
ZZZZZ	ZZZZZ	11/25/2015	17:32	9.25	17.78
ZZZZZ	ZZZZZ	11/25/2015	18:00	9.25	17.78
ZZZZZ	ZZZZZ	11/25/2015	18:28	9.25	17.78
ZZZZZ	ZZZZZ	11/25/2015	18:56	9.25	17.78
ccv53	ccv53	11/25/2015	19:23	9.25	17.78
pem	pem	11/25/2015	19:51	9.25	17.78
ZZZZZ	ZZZZZ	11/25/2015	20:19	9.25	17.77
ZZZZZ	ZZZZZ	11/25/2015	20:47	9.25	17.78
ZZZZZ	ZZZZZ	11/25/2015	21:15	9.25	17.78
ZZZZZ	ZZZZZ	11/25/2015	21:43	9.25	17.78
PBLK01MS	rq1514596-02|1.0	11/25/2015	22:11	9.25	17.77
PBLK01MSD	rq1514596-03|1.0	11/25/2015	22:39	9.25	17.77
ccv54	ccv54	11/25/2015	23:07	9.25	17.77
pem	pem	12/2/2015	12:05	9.25	17.77
ccv58	ccv58	12/2/2015	12:33	9.25	17.77
ZZZZZ	ZZZZZ	12/2/2015	13:02	9.25	17.77

QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an aste

* Values outside of QC limits

Form VIII Pest

8D

Pesticide Analytical Sequence

Lab Name: **ALS Environmental** ***Contract:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8M

GC Column(1) STx-CLPII ***(ID):*** 0.32mm 30

Instrument ID: 7890-M

The analytical sequence of Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT from Initial Calibration

TCX 9.28 DCB 17.82

EPA Sample No.	*Lab Sample ID*	*Date Anlyzed*	*Time Anlyzed*	*TCX rt_time*	*DCB rt_time*
FTMM-M8-697-MW01	r1510161-012|1.0	12/2/2015	13:30	9.25	17.77
ZZZZZ	ZZZZZ	12/2/2015	13:58	0.00	0.00
ZZZZZ	ZZZZZ	12/2/2015	14:26	0.00	0.00
ccv59	ccv59	12/2/2015	14:54	9.25	17.77

QC Limits

TCX = Tetrachloro-m-xylene (+/- 0.05 Minutes)

DCB = Decachlorobiphenyl (+/- 0.10 Minutes)

Column used to flag retention time values with an aste

* Values outside of QC limits

Form VIII Pest

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL237.D
Acq On : 25 Nov 2015 8:41 am
Operator : m.pedro
Sample : ccv51 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 25 09:06:46 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Wed Nov 25 09:06:19 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	S	SURR1,Tetrac	45.389	45.914 E6	-1.2	104	-0.03
2	TC	HEXACHLOROBENZENE	61.859	62.305 E6	-0.7	107	-0.03
3	tc	alpha-BHC	68.266	73.295 E6	-7.4	104	-0.03
4	tcm	gamma-BHC (L	60.041	63.007 E6	-4.9	103	-0.04
5	tcm	Heptachlor	58.653	59.320 E6	-1.1	102	-0.04
6	tcm	Aldrin	53.660	58.292 E6	-8.6	106	-0.04
7	tc	beta-BHC	26.639	26.961 E6	-1.2	106	-0.03
8	TC	delta-BHC	54.245	59.122 E6	-9.0	108	-0.03
9	tc	Heptachlor E	47.725	50.963 E6	-6.8	109	-0.04
10	tc	alpha-Endosu	42.938	47.526 E6	-10.7	113	-0.04
11	tc	gamma-Chlord	48.524	52.281 E6	-7.7	110	-0.04
12	tc	alpha-Chlord	46.327	50.171 E6	-8.3	111	-0.04
13	tc	4,4'-DDE	38.554	41.765 E6	-8.3	111	-0.04
14	tcm	Dieldrin	44.423	49.257 E6	-10.9	111	-0.05
15	tcm	Endrin	37.750	40.986 E6	-8.6	109	-0.05
17	tc	beta-Endosul	35.531	39.427 E6	-11.0	115	-0.05
18	tc	4,4'-DDD	29.626	33.949 E6	-14.6	117	-0.04
19	tcm	4,4'-DDT	31.728	33.350 E6	-5.1	108	-0.05
20	tc	Endrin Aldeh	26.911	30.102 E6	-11.9	119	-0.05
21	tc	Endosulfan S	30.690	33.667 E6	-9.7	117	-0.05
22	tc	Methoxychlor	16.199	16.240 E6	-0.3	112	-0.05
24	tc	Endrin Keton	34.718	38.810 E6	-11.8	119	-0.05
25	tc	Mirex	33.800	34.931 E6	-3.3	113	-0.05
26	S	SURR2,Decachlorobiphenyl	30.967	29.056 E6	6.2	110	-0.05

12/1

Signal #2

1	S	SURR1,Tetrac	20.188	19.807 E6	1.9	102	-0.03
2	TC	HEXACHLOROBENZENE	26.572	25.829 E6	2.8	104	-0.03
3	tc	alpha-BHC	30.802	32.184 E6	-4.5	102	-0.03
4	tcm	gamma-BHC (L	27.139	28.068 E6	-3.4	103	-0.03
5	tcm	Heptachlor	26.882	26.263 E6	2.3	99	-0.03
6	tcm	Aldrin	24.979	26.016 E6	-4.2	104	-0.03
7	tc	beta-BHC	11.882	11.795 E6	0.7	107	-0.03
8	tc	delta-BHC	24.908	25.159 E6	-1.0	102	-0.03
9	tc	Heptachlor E	22.490	22.943 E6	-2.0	105	-0.04
10	tc	alpha-Endosu	20.368	20.429 E6	-0.3	104	-0.04
11	tc	gamma-Chlord	22.492	23.443 E6	-4.2	107	-0.03
12	tc	alpha-Chlord	21.714	22.284 E6	-2.6	107	-0.04
13	tc	4,4'-DDE	18.691	19.382 E6	-3.7	108	-0.03
14	tcm	Dieldrin	21.650	22.686 E6	-4.8	106	-0.04
15	tcm	Endrin	18.232	17.471 E6	4.2	96	-0.04

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\7890m\DATA\122515\
Data File : AL237.D
Acq On : 25 Nov 2015 8:41 am
Operator : m.pedro
Sample : ccv51 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 25 09:06:46 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Wed Nov 25 09:06:19 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
17	tc	beta-Endosul	17.846	18.503 E6	-3.7	111	-0.04
18	tc	4,4'-DDD	14.586	15.373 E6	-5.4	112	-0.04
19	tcm	4,4'-DDT	15.847	14.422 E6	9.0	96	-0.04
20	tc	Endrin Aldeh	13.651	13.766 E6	-0.8	110	-0.04
21	tc	Endosulfan S	16.078	16.302 E6	-1.4	110	-0.04
22	tc	Methoxychlor	7.886	6.725 E6	14.7	97	-0.04
24	tc	Endrin Keton	17.566	18.033 E6	-2.7	110	-0.04
25	tc	Mirex	16.098	15.405 E6	4.3	107	-0.04
26	S	SURR2,Decachlorobiphenyl	14.739	13.304 E6	9.7	106	-0.04

Evaluate Continuing Calibration Report - Not Founds

16	tc	KEPONE	14.388	0.000 E6	100.0#	0#	-14.29#
23	tc	FAMPHUR	27.438	0.000 E6	100.0#	0#	-16.10#
27	L8C	Toxaphene	852.903	0.000 E3	100.0#	0#	-14.62#
28	L8C	Toxaphene{2}	629.741	0.000 E3	100.0#	0#	-14.71#
29	L8C	Toxaphene{3}	1.332	0.000 E6	100.0#	0#	-15.31#
30	L8C	Toxaphene{4}	714.228	0.000 E3	100.0#	0#	-15.92#
31	L8C	Toxaphene{5}	1120.206	0.000 E3	100.0#	0#	-16.40#
32	L9C	Chlordane	2.084	0.000 E6	100.0#	0#	-11.48#
33	L9C	Chlordane{2}	2.966	0.000 E6	100.0#	0#	-11.60#
34	L9C	Chlordane{3}	2.323	0.000 E6	100.0#	0#	-12.27#
35	L9C	Chlordane{4}	6.420	0.000 E6	100.0#	0#	-13.14#
36	L9C	Chlordane{5}	1.546	0.000 E6	100.0#	0#	-14.44#

Signal #2

16	tc	KEPONE	8.486	0.000 E6	100.0#	0#	-14.43#
23	tc	FAMPHUR	14.809	0.000 E6	100.0#	0#	-15.58#
27	L8C	Toxaphene	589.163	0.000 E3	100.0#	0#	-14.68#
28	L8C	Toxaphene{2}	295.578	0.000 E3	100.0#	0#	-14.96#
29	L8C	Toxaphene{3}	588.763	0.000 E3	100.0#	0#	-15.06#
30	L8C	Toxaphene{4}	369.772	0.000 E3	100.0#	0#	-15.45#
31	L8C	Toxaphene{5}	614.604	0.000 E3	100.0#	0#	-16.38#
32	L9C	Chlordane	0.932	0.000 E6	100.0#	0#	-11.36#
33	L9C	Chlordane{2}	1.304	0.000 E6	100.0#	0#	-11.58#
34	L9C	Chlordane{3}	0.940	0.000 E6	100.0#	0#	-12.29#
35	L9C	Chlordane{4}	459.872	0.000 E3	100.0#	0#	-14.38#
36	L9C	Chlordane{5}	774.903	0.000 E3	100.0#	0#	-14.63#

(#) = Out of Range SPCC's out = 0 CCC's out = 24

8081102115.M Mon Nov 30 15:13:23 2015 Page: 2

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL237.D
Acq On : 25 Nov 2015 8:41 am
Operator : m.pedro
Sample : ccv51 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 25 09:06:46 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Wed Nov 25 09:06:19 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1)	S SURR1,Tet...	9.307	9.249	2295.7E6	990.4E6	50.579	49.058
	Spiked Amount 100.000	Range 30 - 150		Recovery =		50.58%	49.06%
26)	S SURR2,Dec...	17.466	17.778	1452.8E6	665.2E6	46.916	45.133
	Spiked Amount 100.000	Range 30 - 150		Recovery =		46.92%	45.13%
	Target Compounds						
2)	TC HEXACHLOR...	9.998	10.068	3115.2E6	1291.5E6	50.360	48.601
3)	tc alpha-BHC	10.297	10.325	3664.8E6	1609.2E6	53.683	52.243
4)	tcm gamma-BHC (L	10.819	10.895	3150.4E6	1403.4E6	52.470	51.710
5)	tcm Heptachlor	11.570	11.548	2966.0E6	1313.1E6	50.568	48.849
6)	tcm Aldrin	12.023	12.017	2914.6E6	1300.8E6	54.317	52.076
7)	tc beta-BHC	10.974	11.049	1348.1E6	589.8E6	50.605	49.635
8)	tc delta-BHC	11.247	11.486	2956.1E6	1258.0E6	54.495	50.505
9)	tc Heptachlor E	12.919	12.852	2548.2E6	1147.1E6	53.393	51.007
10)	tc alpha-Endosu	13.488	13.404	2376.3E6	1021.4E6	55.343	50.148
11)	tc gamma-Chlord	13.101	13.120	2614.0E6	1172.2E6	53.871	52.115
12)	tc alpha-Chlord	13.293	13.325	2508.6E6	1114.2E6	54.149	51.311
13)	tc 4,4'-DDE	13.406	13.567	2088.3E6	969.1E6	54.164	51.846
14)	tcm Dieldrin	13.833	13.792	2462.8E6	1134.3E6	55.441	52.394
15)	tcm Endrin	14.170	14.227	2049.3E6	873.6E6	54.286	47.914
17)	tc beta-Endosul	14.495	14.532	1971.3E6	925.1E6	55.481	51.841
18)	tc 4,4'-DDD	14.254	14.379	1697.4E6	768.7E6	57.296	52.699
19)	tcm 4,4'-DDT	14.656	14.822	1667.5E6	721.1E6	52.555	45.505
20)	tc Endrin Aldeh	15.109	15.021	1505.1E6	688.3E6	55.928	50.418
21)	tc Endosulfan S	15.762	15.428	1683.3E6	815.1E6	54.850	50.697
22)	tc Methoxychlor	15.346	15.810	812.0E6	336.2E6	50.127	42.635
24)	tc Endrin Keton	16.177	16.212	1940.5E6	901.7E6	55.893	51.330
25)	tc Mirex	15.630	16.155	1746.6E6	770.3E6	51.674	47.847
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
Average	Chlordane					0.000	0.000

AM 12/1

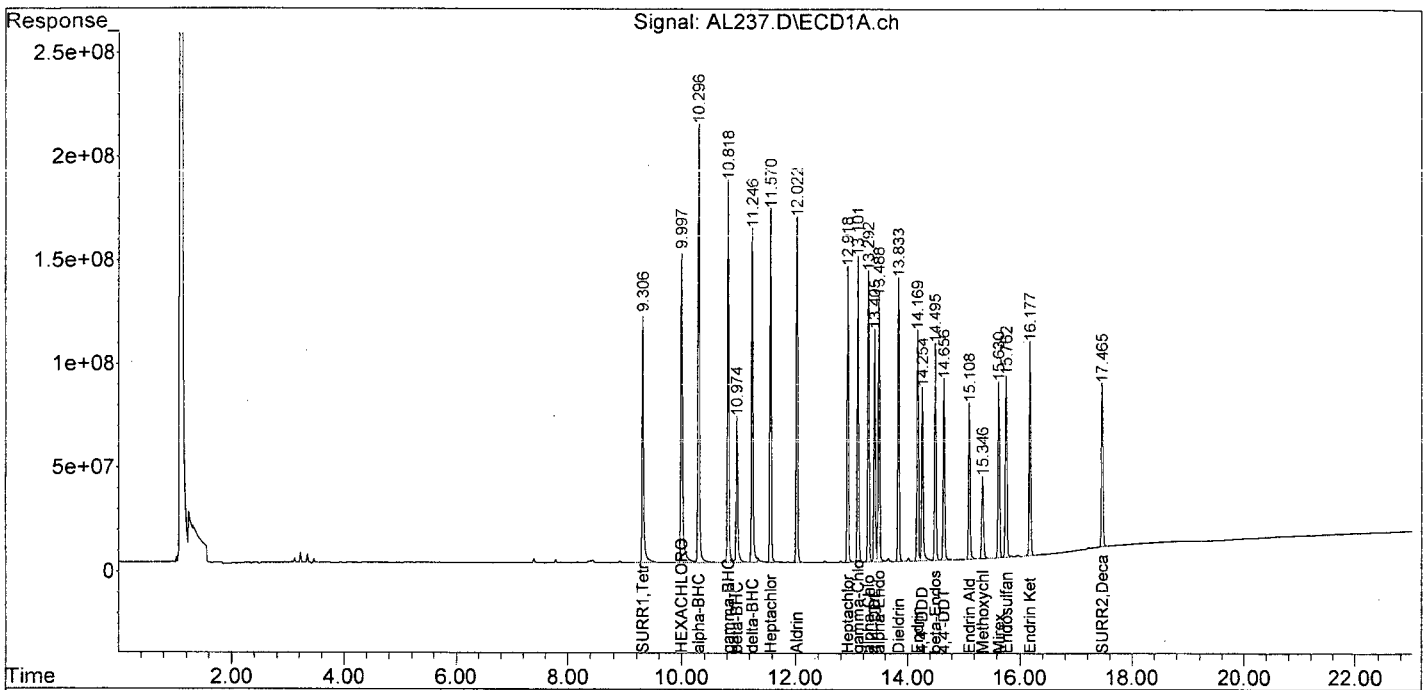
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

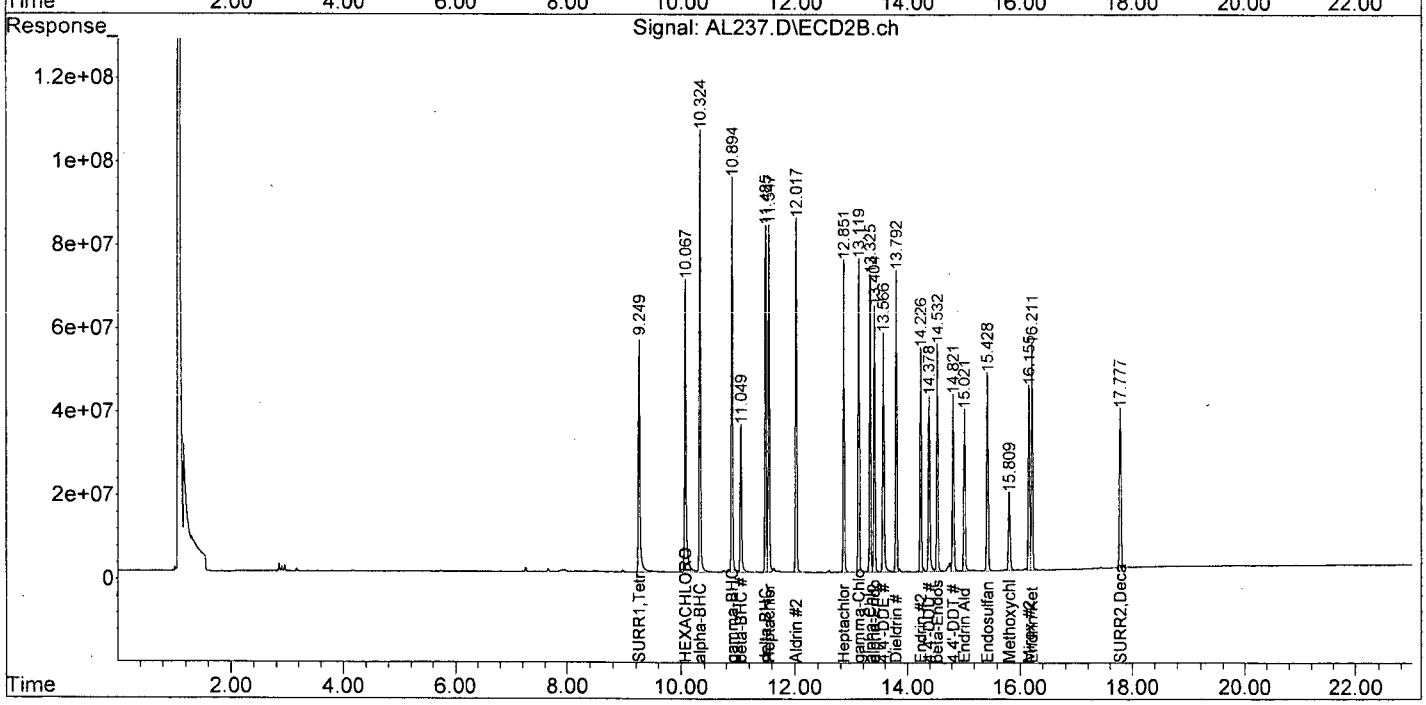
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\FI2515\
Data File : AL237.D
Acq On : 25 Nov 2015 8:41 am
Operator : m.pedro
Sample : ccv51 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 25 09:06:46 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Wed Nov 25 09:06:19 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





8081102115.M Tue Dec 01 09:47:03 2015 Page: 2

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL248.D
Acq On : 25 Nov 2015 2:17 pm
Operator : m.pedro
Sample : ccv52 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 30 14:41:01 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	S	SURR1,Tetrac	45.389	45.718 E6	-0.7	104	-0.04
2	TC	HEXACHLOROBENZENE	61.859	61.448 E6	0.7	105	-0.03
3	tc	alpha-BHC	68.266	72.892 E6	-6.8	103	-0.04
4	tcm	gamma-BHC (L	60.041	61.921 E6	-3.1	102	-0.04
5	tcm	Heptachlor	58.653	56.536 E6	3.6	97	-0.04
6	tcm	Aldrin	53.660	57.731 E6	-7.6	105	-0.04
7	tc	beta-BHC	26.639	26.204 E6	1.6	103	-0.04
8	TC	delta-BHC	54.245	58.325 E6	-7.5	106	-0.04
9	tc	Heptachlor E	47.725	50.087 E6	-4.9	107	-0.05
10	tc	alpha-Endosu	42.938	46.473 E6	-8.2	110	-0.05
11	tc	gamma-Chlord	48.524	50.645 E6	-4.4	107	-0.05
12	tc	alpha-Chlord	46.327	48.594 E6	-4.9	107	-0.05
13	tc	4,4'-DDE	38.554	37.740 E6	2.1	100	-0.05
14	tcm	Dieldrin	44.423	47.744 E6	-7.5	108	-0.05
15	tcm	Endrin	37.750	36.131 E6	4.3	96	-0.05
17	tc	beta-Endosul	35.531	37.262 E6	-4.9	108	-0.05
18	tc	4,4'-DDD	29.626	30.772 E6	-3.9	106	-0.05
19	tcm	4,4'-DDT	31.728	29.014 E6	8.6	94	-0.05
20	tc	Endrin Aldeh	26.911	28.573 E6	-6.2	113	-0.06
21	tc	Endosulfan S	30.690	31.361 E6	-2.2	109	-0.06
22	tc	Methoxychlor	16.199	14.309 E6	11.7	98	-0.05
24	tc	Endrin Keton	34.718	37.338 E6	-7.5	114	-0.06
25	tc	Mirex	33.800	33.224 E6	1.7	108	-0.06
26	S	SURR2,Decachlorobiphenyl	30.967	26.860 E6	13.3	102	-0.05

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Signal #2

1	S	SURR1,Tetrac	20.188	19.446 E6	3.7	100	-0.03
2	TC	HEXACHLOROBENZENE	26.572	25.410 E6	4.4	102	-0.03
3	tc	alpha-BHC	30.802	31.840 E6	-3.4	100	-0.03
4	tcm	gamma-BHC (L	27.139	27.442 E6	-1.1	100	-0.03
5	tcm	Heptachlor	26.882	25.137 E6	6.5	94	-0.03
6	tcm	Aldrin	24.979	25.645 E6	-2.7	103	-0.03
7	tc	beta-BHC	11.882	11.478 E6	3.4	104	-0.03
8	tc	delta-BHC	24.908	23.622 E6	5.2	96	-0.03
9	tc	Heptachlor E	22.490	22.388 E6	0.5	103	-0.04
10	tc	alpha-Endosu	20.368	19.992 E6	1.8	102	-0.04
11	tc	gamma-Chlord	22.492	22.599 E6	-0.5	103	-0.04
12	tc	alpha-Chlord	21.714	21.481 E6	1.1	103	-0.04
13	tc	4,4'-DDE	18.691	17.632 E6	5.7	98	-0.03
14	tcm	Dieldrin	21.650	21.920 E6	-1.2	103	-0.04
15	tcm	Endrin	18.232	14.896 E6	18.3#	82	-0.04

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL248.D
Acq On : 25 Nov 2015 2:17 pm
Operator : m.pedro
Sample : ccv52 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 30 14:41:01 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
17 tc	beta-Endosul	17.846	17.424 E6	2.4	104	-0.04
18 tc	4,4'-DDD	14.586	13.871 E6	4.9	101	-0.04
19 tcm	4,4'-DDT	15.847	11.970 E6	24.5#	80	-0.04
20 tc	Endrin Aldeh	13.651	12.745 E6	6.6	102	-0.04
21 tc	Endosulfan S	16.078	15.042 E6	6.4	102	-0.04
22 tc	Methoxychlor	7.886	5.642 E6	28.5#	82	-0.04
24 tc	Endrin Keton	17.566	17.144 E6	2.4	104	-0.04
25 tc	Mirex	16.098	14.447 E6	10.3	100	-0.04
26 S	SURR2,Decachlorobiphenyl	14.739	12.309 E6	16.5#	98	-0.04

Evaluate Continuing Calibration Report - Not Founds

16 tc	KEPONE	14.388	0.000 E6	100.0#	0#	-14.29#
23 tc	FAMPHUR	27.438	0.000 E6	100.0#	0#	-16.10#
27 L8C	Toxaphene	852.903	0.000 E3	100.0#	0#	-14.62#
28 L8C	Toxaphene{2}	629.741	0.000 E3	100.0#	0#	-14.71#
29 L8C	Toxaphene{3}	1.332	0.000 E6	100.0#	0#	-15.31#
30 L8C	Toxaphene{4}	714.228	0.000 E3	100.0#	0#	-15.92#
31 L8C	Toxaphene{5}	1120.206	0.000 E3	100.0#	0#	-16.40#
32 L9C	Chlordane	2.084	0.000 E6	100.0#	0#	-11.48#
33 L9C	Chlordane{2}	2.966	0.000 E6	100.0#	0#	-11.60#
34 L9C	Chlordane{3}	2.323	0.000 E6	100.0#	0#	-12.27#
35 L9C	Chlordane{4}	6.420	0.000 E6	100.0#	0#	-13.14#
36 L9C	Chlordane{5}	1.546	0.000 E6	100.0#	0#	-14.44#

Signal #2

16 tc	KEPONE	8.486	0.000 E6	100.0#	0#	-14.43#
23 tc	FAMPHUR	14.809	0.000 E6	100.0#	0#	-15.58#
27 L8C	Toxaphene	589.163	0.000 E3	100.0#	0#	-14.68#
28 L8C	Toxaphene{2}	295.578	0.000 E3	100.0#	0#	-14.96#
29 L8C	Toxaphene{3}	588.763	0.000 E3	100.0#	0#	-15.06#
30 L8C	Toxaphene{4}	369.772	0.000 E3	100.0#	0#	-15.45#
31 L8C	Toxaphene{5}	614.604	0.000 E3	100.0#	0#	-16.38#
32 L9C	Chlordane	0.932	0.000 E6	100.0#	0#	-11.36#
33 L9C	Chlordane{2}	1.304	0.000 E6	100.0#	0#	-11.58#
34 L9C	Chlordane{3}	0.940	0.000 E6	100.0#	0#	-12.29#
35 L9C	Chlordane{4}	459.872	0.000 E3	100.0#	0#	-14.38#
36 L9C	Chlordane{5}	774.903	0.000 E3	100.0#	0#	-14.63#

(#) = Out of Range SPCC's out = 0 CCC's out = 27

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\1F2515\
Data File : AL248.D
Acq On : 25 Nov 2015 2:17 pm
Operator : m.pedro
Sample : ccv52 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 30 14:41:01 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tet...	9.301	9.250	2285.9E6	972.3E6	50.363	48.161
Spiked Amount 100.000	Range 30 - 150		Recovery =		50.36%	48.16%
26) S SURR2,Dec...	17.459	17.775	1343.0E6	615.5E6	43.369	41.758
Spiked Amount 100.000	Range 30 - 150		Recovery =		43.37%	41.76%
Target Compounds						
2) TC HEXACHLOR...	9.993	10.068	3072.4E6	1270.5E6	49.668	47.812
3) tc alpha-BHC	10.291	10.324	3644.6E6	1592.0E6	53.388	51.685
4) tcm gamma-BHC (L	10.814	10.894	3096.0E6	1372.1E6	51.565	50.557
5) tcm Heptachlor	11.565	11.547	2826.8E6	1256.8E6	48.195	46.754
6) tcm Aldrin	12.017	12.017	2886.5E6	1282.2E6	53.793	51.334
7) tc beta-BHC	10.969	11.049	1310.2E6	573.9E6	49.184	48.300
8) tc delta-BHC	11.242	11.485	2916.3E6	1181.1E6	53.761	47.420
9) tc Heptachlor E	12.913	12.851	2504.3E6	1119.4E6	52.475	49.774
10) tc alpha-Endosu	13.482	13.403	2323.6E6	999.6E6	54.116	49.076
11) tc gamma-Chlord	13.096	13.118	2532.2E6	1129.9E6	52.185	50.238
12) tc alpha-Chlord	13.287	13.324	2429.7E6	1074.0E6	52.447	49.462
13) tc 4,4'-DDE	13.400	13.566	1887.0E6	881.6E6	48.944	47.166
14) tcm Dieldrin	13.827	13.791	2387.2E6	1096.0E6	53.739	50.623
15) tcm Endrin	14.164	14.225	1806.5E6	744.8E6	47.856	40.852
17) tc beta-Endosul	14.489	14.531	1863.1E6	871.2E6	52.435	48.818
18) tc 4,4'-DDD	14.249	14.378	1538.6E6	693.6E6	51.935	47.550
19) tcm 4,4'-DDT	14.650	14.820	1450.7E6	598.5E6	45.722	37.769
20) tc Endrin Aldeh	15.102	15.019	1428.7E6	637.2E6	53.088	46.680
21) tc Endosulfan S	15.756	15.425	1568.0E6	752.1E6	51.093	46.779
22) tc Methoxychlor	15.340	15.808	715.4E6	282.1E6	44.165	35.768
24) tc Endrin Keton	16.170	16.210	1866.9E6	857.2E6	53.772	48.801
25) tc Mirex	15.623	16.152	1661.2E6	722.3E6	49.148	44.870
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

AW 12/1

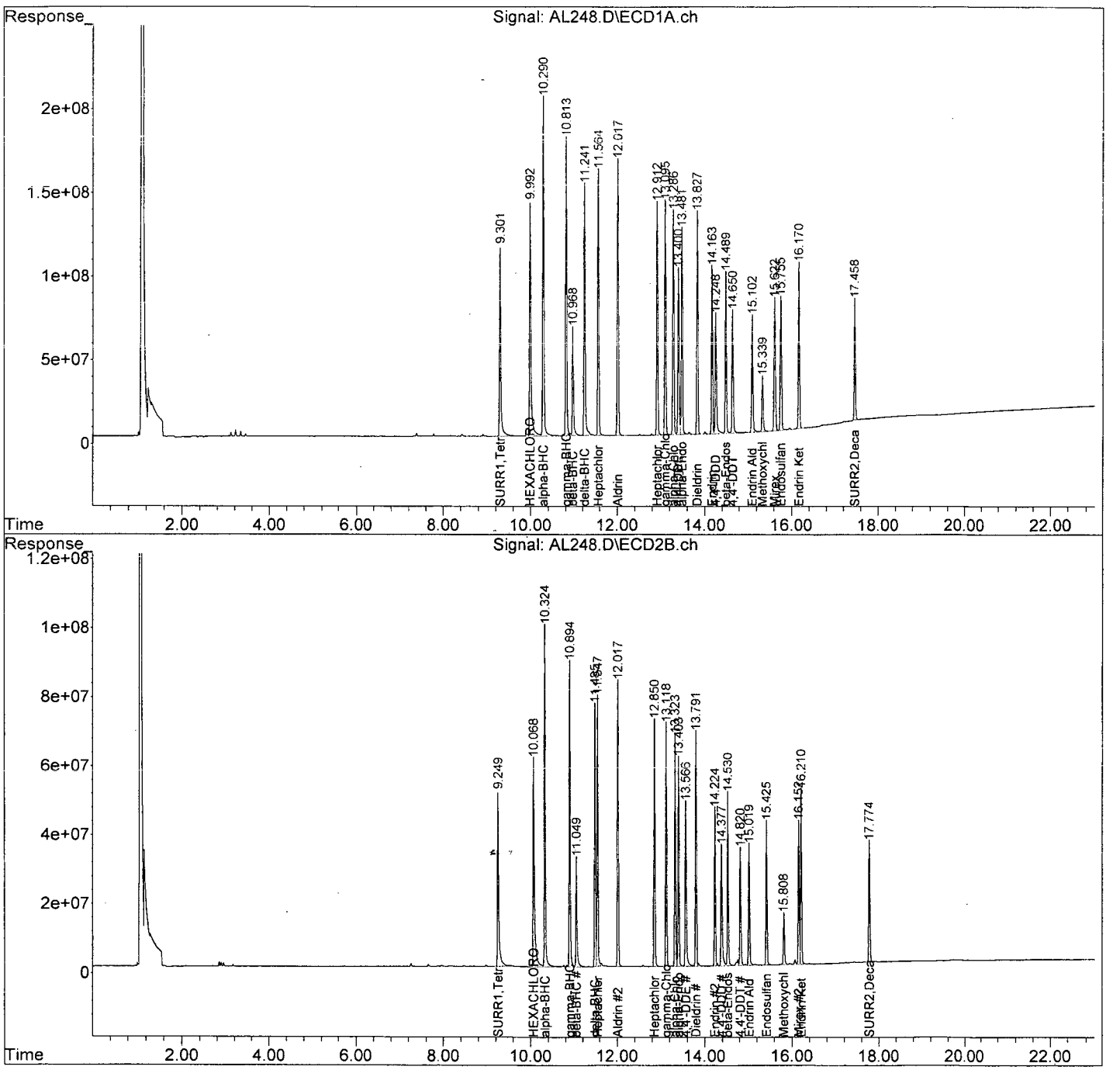
8081102115.M Tue Dec 01 09:48:17 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL248.D
Acq On : 25 Nov 2015 2:17 pm
Operator : m.pedro
Sample : ccv52 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 30 14:41:01 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL259.D
Acq On : 25 Nov 2015 7:23 pm
Operator : m.pedro
Sample : ccv53 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Nov 30 14:45:52 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	S	SURR1,Tetrac	45.389	45.407 E6	-0.0	103	-0.03
2	TC	HEXACHLOROBENZENE	61.859	61.294 E6	0.9	105	-0.03
3	tc	alpha-BHC	68.266	73.643 E6	-7.9	104	-0.04
4	tcm	gamma-BHC (L	60.041	62.393 E6	-3.9	102	-0.04
5	tcm	Heptachlor	58.653	58.375 E6	0.5	100	-0.04
6	tcm	Aldrin	53.660	58.605 E6	-9.2	107	-0.04
7	tc	beta-BHC	26.639	26.275 E6	1.4	104	-0.04
8	TC	delta-BHC	54.245	58.021 E6	-7.0	106	-0.04
9	tc	Heptachlor E	47.725	50.370 E6	-5.5	108	-0.05
10	tc	alpha-Endosu	42.938	47.454 E6	-10.5	113	-0.05
11	tc	gamma-Chlord	48.524	51.376 E6	-5.9	108	-0.05
12	tc	alpha-Chlord	46.327	49.305 E6	-6.4	109	-0.05
13	tc	4,4'-DDE	38.554	37.446 E6	2.9	99	-0.05
14	tcm	Dieldrin	44.423	48.224 E6	-8.6	109	-0.05
15	tcm	Endrin	37.750	37.135 E6	1.6	98	-0.05
17	tc	beta-Endosul	35.531	37.417 E6	-5.3	109	-0.05
18	tc	4,4'-DDD	29.626	30.395 E6	-2.6	105	-0.05
19	tcm	4,4'-DDT	31.728	29.565 E6	6.8	96	-0.05
20	tc	Endrin Aldeh	26.911	28.617 E6	-6.3	113	-0.06
21	tc	Endosulfan S	30.690	31.538 E6	-2.8	109	-0.06
22	tc	Methoxychlor	16.199	14.364 E6	11.3	99	-0.05
24	tc	Endrin Keton	34.718	36.809 E6	-6.0	113	-0.06
25	tc	Mirex	33.800	33.768 E6	0.1	110	-0.06
26	S	SURR2,Decachlorobiphenyl	30.967	26.007 E6	16.0#	98	-0.05

AW 12/1

Signal #2

1	S	SURR1,Tetrac	20.188	19.961 E6	1.1	102	-0.03
2	TC	HEXACHLOROBENZENE	26.572	25.459 E6	4.2	102	-0.02
3	tc	alpha-BHC	30.802	32.319 E6	-4.9	102	-0.03
4	tcm	gamma-BHC (L	27.139	27.701 E6	-2.1	101	-0.03
5	tcm	Heptachlor	26.882	26.840 E6	0.2	101	-0.03
6	tcm	Aldrin	24.979	26.328 E6	-5.4	105	-0.03
7	tc	beta-BHC	11.882	11.633 E6	2.1	106	-0.03
8	tc	delta-BHC	24.908	22.997 E6	7.7	93	-0.03
9	tc	Heptachlor E	22.490	22.638 E6	-0.7	104	-0.04
10	tc	alpha-Endosu	20.368	20.023 E6	1.7	102	-0.04
11	tc	gamma-Chlord	22.492	22.891 E6	-1.8	104	-0.03
12	tc	alpha-Chlord	21.714	21.770 E6	-0.3	104	-0.04
13	tc	4,4'-DDE	18.691	17.731 E6	5.1	99	-0.03
14	tcm	Dieldrin	21.650	22.162 E6	-2.4	104	-0.04
15	tcm	Endrin	18.232	15.331 E6	15.9#	84	-0.04

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL259.D
Acq On : 25 Nov 2015 7:23 pm
Operator : m.pedro
Sample : ccv53 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Nov 30 14:45:52 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
17 tc	beta-Endosul	17.846	17.664 E6	1.0	106	-0.04
18 tc	4,4'-DDD	14.586	13.722 E6	5.9	100	-0.04
19 tcm	4,4'-DDT	15.847	12.561 E6	20.7#	84	-0.04
20 tc	Endrin Aldeh	13.651	13.026 E6	4.6	104	-0.04
21 tc	Endosulfan S	16.078	15.278 E6	5.0	103	-0.04
22 tc	Methoxychlor	7.886	5.864 E6	25.6#	85	-0.04
24 tc	Endrin Keton	17.566	17.417 E6	0.8	106	-0.04
25 tc	Mirex	16.098	14.917 E6	7.3	104	-0.04
26 S	SURR2,Decachlorobiphenyl	14.739	12.023 E6	18.4#	96	-0.04

Evaluate Continuing Calibration Report - Not Founds

16 tc	KEPONE	14.388	0.000 E6	100.0#	0#	-14.29#
23 tc	FAMPHUR	27.438	0.000 E6	100.0#	0#	-16.10#
27 L8C	Toxaphene	852.903	0.000 E3	100.0#	0#	-14.62#
28 L8C	Toxaphene{2}	629.741	0.000 E3	100.0#	0#	-14.71#
29 L8C	Toxaphene{3}	1.332	0.000 E6	100.0#	0#	-15.31#
30 L8C	Toxaphene{4}	714.228	0.000 E3	100.0#	0#	-15.92#
31 L8C	Toxaphene{5}	1120.206	0.000 E3	100.0#	0#	-16.40#
32 L9C	Chlordane	2.084	0.000 E6	100.0#	0#	-11.48#
33 L9C	Chlordane{2}	2.966	0.000 E6	100.0#	0#	-11.60#
34 L9C	Chlordane{3}	2.323	0.000 E6	100.0#	0#	-12.27#
35 L9C	Chlordane{4}	6.420	0.000 E6	100.0#	0#	-13.14#
36 L9C	Chlordane{5}	1.546	0.000 E6	100.0#	0#	-14.44#

Signal #2

16 tc	KEPONE	8.486	0.000 E6	100.0#	0#	-14.43#
23 tc	FAMPHUR	14.809	0.000 E6	100.0#	0#	-15.58#
27 L8C	Toxaphene	589.163	0.000 E3	100.0#	0#	-14.68#
28 L8C	Toxaphene{2}	295.578	0.000 E3	100.0#	0#	-14.96#
29 L8C	Toxaphene{3}	588.763	0.000 E3	100.0#	0#	-15.06#
30 L8C	Toxaphene{4}	369.772	0.000 E3	100.0#	0#	-15.45#
31 L8C	Toxaphene{5}	614.604	0.000 E3	100.0#	0#	-16.38#
32 L9C	Chlordane	0.932	0.000 E6	100.0#	0#	-11.36#
33 L9C	Chlordane{2}	1.304	0.000 E6	100.0#	0#	-11.58#
34 L9C	Chlordane{3}	0.940	0.000 E6	100.0#	0#	-12.29#
35 L9C	Chlordane{4}	459.872	0.000 E3	100.0#	0#	-14.38#
36 L9C	Chlordane{5}	774.903	0.000 E3	100.0#	0#	-14.63#

(#) = Out of Range SPCC's out = 0 CCC's out = 27

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL259.D
Acq On : 25 Nov 2015 7:23 pm
Operator : m.pedro
Sample : ccv53 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Nov 30 14:45:52 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1)	S SURR1,Tet...	9.302	9.250	2270.4E6	998.1E6	50.020	49.438
	Spiked Amount 100.000	Range 30 - 150		Recovery =		50.02%	49.44%
26)	S SURR2,Dec...	17.460	17.777	1300.4E6	601.2E6	41.992	40.788
	Spiked Amount 100.000	Range 30 - 150		Recovery =		41.99%	40.79%
	Target Compounds						
2)	TC HEXACHLOR...	9.994	10.069	3064.7E6	1272.9E6	49.543	47.905
3)	tc alpha-BHC	10.292	10.325	3682.1E6	1615.9E6	53.938	52.461
4)	tcm gamma-BHC (L	10.814	10.895	3119.6E6	1385.1E6	51.958	51.035
5)	tcm Heptachlor	11.565	11.548	2918.7E6	1342.0E6	49.762	49.923
6)	tcm Aldrin	12.018	12.018	2930.2E6	1316.4E6	54.608	52.701
7)	tc beta-BHC	10.969	11.051	1313.8E6	581.7E6	49.317	48.952
8)	tc delta-BHC	11.243	11.486	2901.1E6	1149.8E6	53.480	46.164
9)	tc Heptachlor E	12.914	12.851	2518.5E6	1131.9E6	52.771	50.329
10)	tc alpha-Endosu	13.483	13.404	2372.7E6	1001.2E6	55.259	49.153
11)	tc gamma-Chlord	13.097	13.120	2568.8E6	1144.6E6	52.938	50.888
12)	tc alpha-Chlord	13.288	13.325	2465.3E6	1088.5E6	53.215	50.127
13)	tc 4,4'-DDE	13.401	13.567	1872.3E6	886.5E6	48.563	47.429
14)	tcm Dieldrin	13.828	13.792	2411.2E6	1108.1E6	54.279	51.182
15)	tcm Endrin	14.165	14.226	1856.7E6	766.6E6	49.185	42.045
17)	tc beta-Endosul	14.490	14.532	1870.8E6	883.2E6	52.653	49.491
18)	tc 4,4'-DDD	14.250	14.379	1519.7E6	686.1E6	51.298	47.039
19)	tcm 4,4'-DDT	14.652	14.822	1478.3E6	628.0E6	46.591	39.632
20)	tc Endrin Aldeh	15.104	15.020	1430.8E6	651.3E6	53.169	47.709
21)	tc Endosulfan S	15.757	15.427	1576.9E6	763.9E6	51.381	47.511
22)	tc Methoxychlor	15.342	15.810	718.2E6	293.2E6	44.337	37.181
24)	tc Endrin Keton	16.171	16.211	1840.4E6	870.8E6	53.011	49.575
25)	tc Mirex	15.625	16.154	1688.4E6	745.9E6	49.953	46.332
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
Average	Chlordane					0.000	0.000

Am
12/1

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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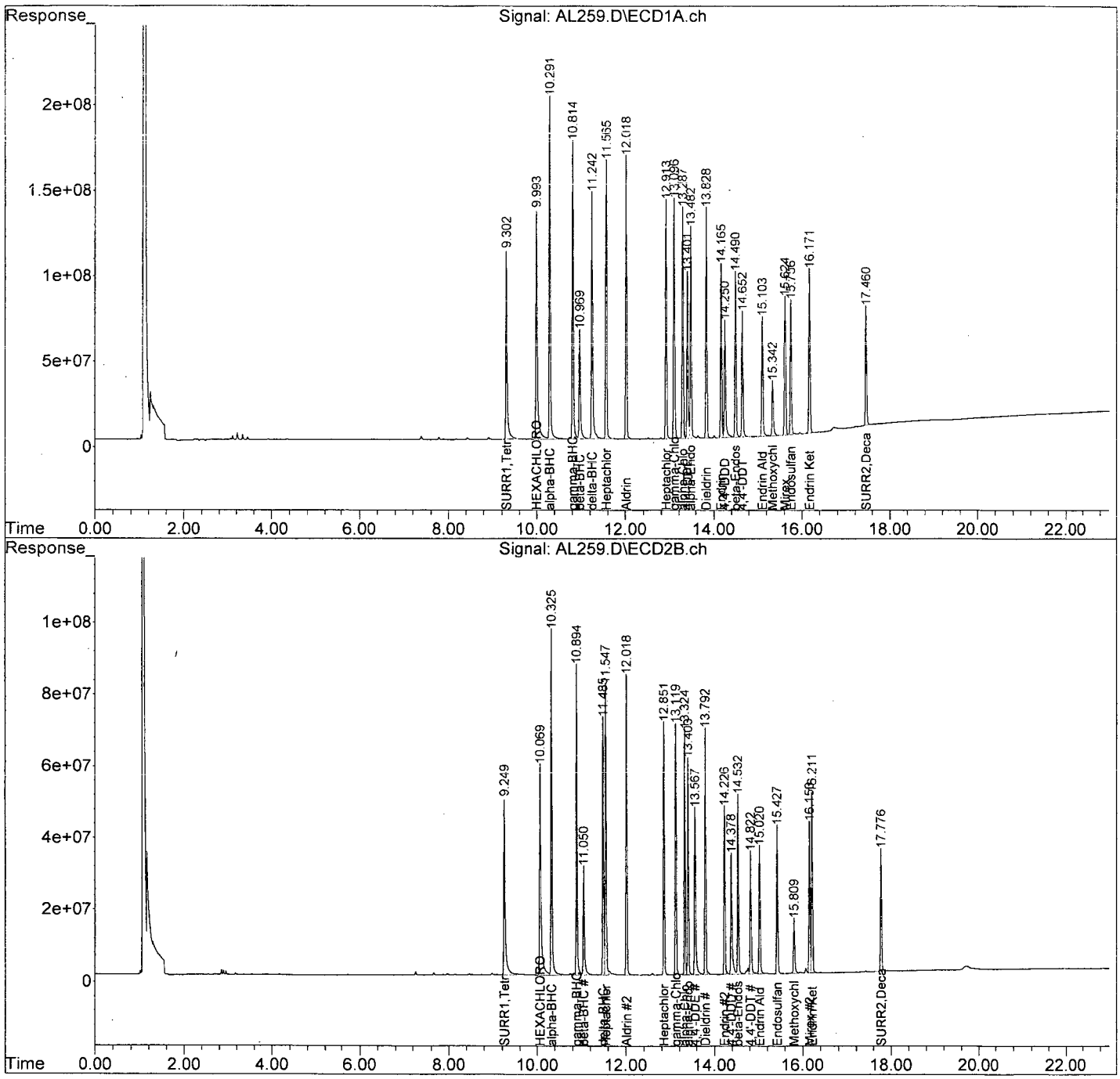
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\F12515\
Data File : AL259.D
Acq On : 25 Nov 2015 7:23 pm
Operator : m.pedro
Sample : ccv53 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Nov 30 14:45:52 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



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Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL267.D
Acq On : 25 Nov 2015 11:07 pm
Operator : m.pedro
Sample : ccv54 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Nov 30 14:49:08 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	S	SURR1,Tetrac	45.389	48.052 E6	-5.9	109	-0.04
2	TC	HEXACHLOROBENZENE	61.859	64.309 E6	-4.0	110	-0.03
3	tc	alpha-BHC	68.266	76.080 E6	-11.4	108	-0.04
4	tcm	gamma-BHC (L	60.041	64.758 E6	-7.9	106	-0.04
5	tcm	Heptachlor	58.653	59.664 E6	-1.7	103	-0.04
6	tcm	Aldrin	53.660	60.359 E6	-12.5	110	-0.05
7	tc	beta-BHC	26.639	28.003 E6	-5.1	110	-0.04
8	TC	delta-BHC	54.245	62.607 E6	-15.4#	114	-0.04
9	tc	Heptachlor E	47.725	52.437 E6	-9.9	112	-0.05
10	tc	alpha-Endosu	42.938	49.474 E6	-15.2#	117	-0.05
11	tc	gamma-Chlord	48.524	53.965 E6	-11.2	114	-0.05
12	tc	alpha-Chlord	46.327	51.772 E6	-11.8	114	-0.05
13	tc	4,4'-DDE	38.554	41.163 E6	-6.8	109	-0.05
14	tcm	Dieldrin	44.423	50.566 E6	-13.8	114	-0.05
15	tcm	Endrin	37.750	39.561 E6	-4.8	105	-0.05
17	tc	beta-Endosul	35.531	40.500 E6	-14.0	118	-0.05
18	tc	4,4'-DDD	29.626	34.772 E6	-17.4#	120	-0.05
19	tcm	4,4'-DDT	31.728	30.612 E6	3.5	99	-0.05
20	tc	Endrin Aldeh	26.911	30.994 E6	-15.2#	122	-0.06
21	tc	Endosulfan S	30.690	34.738 E6	-13.2	120	-0.06
22	tc	Methoxychlor	16.199	15.345 E6	5.3	106	-0.05
24	tc	Endrin Keton	34.718	40.440 E6	-16.5#	124	-0.06
25	tc	Mirex	33.800	35.985 E6	-6.5	117	-0.06
26	S	SURR2,Decachlorobiphenyl	30.967	29.466 E6	4.8	111	-0.05

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Signal #2

1	S	SURR1,Tetrac	20.188	20.314 E6	-0.6	104	-0.03
2	TC	HEXACHLOROBENZENE	26.572	26.485 E6	0.3	106	-0.03
3	tc	alpha-BHC	30.802	33.083 E6	-7.4	104	-0.03
4	tcm	gamma-BHC (L	27.139	28.533 E6	-5.1	104	-0.03
5	tcm	Heptachlor	26.882	27.047 E6	-0.6	102	-0.03
6	tcm	Aldrin	24.979	26.780 E6	-7.2	107	-0.03
7	tc	beta-BHC	11.882	12.185 E6	-2.6	111	-0.03
8	tc	delta-BHC	24.908	24.757 E6	0.6	101	-0.03
9	tc	Heptachlor E	22.490	23.445 E6	-4.2	107	-0.04
10	tc	alpha-Endosu	20.368	20.949 E6	-2.9	107	-0.04
11	tc	gamma-Chlord	22.492	23.981 E6	-6.6	109	-0.04
12	tc	alpha-Chlord	21.714	22.797 E6	-5.0	109	-0.04
13	tc	4,4'-DDE	18.691	19.335 E6	-3.4	108	-0.03
14	tcm	Dieldrin	21.650	23.200 E6	-7.2	109	-0.04
15	tcm	Endrin	18.232	16.240 E6	10.9	89	-0.04

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\7890M\DATA\112515\
Data File : AL267.D
Acq On : 25 Nov 2015 11:07 pm
Operator : m.pedro
Sample : ccv54 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Nov 30 14:49:08 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
17 tc	beta-Endosul	17.846	19.059 E6	-6.8	114	-0.04
18 tc	4,4'-DDD	14.586	15.646 E6	-7.3	114	-0.04
19 tcm	4,4'-DDT	15.847	12.995 E6	18.0#	87	-0.04
20 tc	Endrin Aldeh	13.651	14.083 E6	-3.2	112	-0.04
21 tc	Endosulfan S	16.078	16.521 E6	-2.8	112	-0.04
22 tc	Methoxychlor	7.886	6.218 E6	21.2#	90	-0.04
24 tc	Endrin Keton	17.566	18.956 E6	-7.9	116	-0.04
25 tc	Mirex	16.098	15.769 E6	2.0	110	-0.04
26 S	SURR2,Decachlorobiphenyl	14.739	13.688 E6	7.1	109	-0.04

Evaluate Continuing Calibration Report - Not Founds

16 tc	KEPONE	14.388	0.000 E6	100.0#	0#	-14.29#
23 tc	FAMPHUR	27.438	0.000 E6	100.0#	0#	-16.10#
27 L8C	Toxaphene	852.903	0.000 E3	100.0#	0#	-14.62#
28 L8C	Toxaphene{2}	629.741	0.000 E3	100.0#	0#	-14.71#
29 L8C	Toxaphene{3}	1.332	0.000 E6	100.0#	0#	-15.31#
30 L8C	Toxaphene{4}	714.228	0.000 E3	100.0#	0#	-15.92#
31 L8C	Toxaphene{5}	1120.206	0.000 E3	100.0#	0#	-16.40#
32 L9C	Chlordane	2.084	0.000 E6	100.0#	0#	-11.48#
33 L9C	Chlordane{2}	2.966	0.000 E6	100.0#	0#	-11.60#
34 L9C	Chlordane{3}	2.323	0.000 E6	100.0#	0#	-12.27#
35 L9C	Chlordane{4}	6.420	0.000 E6	100.0#	0#	-13.14#
36 L9C	Chlordane{5}	1.546	0.000 E6	100.0#	0#	-14.44#

Signal #2

16 tc	KEPONE	8.486	0.000 E6	100.0#	0#	-14.43#
23 tc	FAMPHUR	14.809	0.000 E6	100.0#	0#	-15.58#
27 L8C	Toxaphene	589.163	0.000 E3	100.0#	0#	-14.68#
28 L8C	Toxaphene{2}	295.578	0.000 E3	100.0#	0#	-14.96#
29 L8C	Toxaphene{3}	588.763	0.000 E3	100.0#	0#	-15.06#
30 L8C	Toxaphene{4}	369.772	0.000 E3	100.0#	0#	-15.45#
31 L8C	Toxaphene{5}	614.604	0.000 E3	100.0#	0#	-16.38#
32 L9C	Chlordane	0.932	0.000 E6	100.0#	0#	-11.36#
33 L9C	Chlordane{2}	1.304	0.000 E6	100.0#	0#	-11.58#
34 L9C	Chlordane{3}	0.940	0.000 E6	100.0#	0#	-12.29#
35 L9C	Chlordane{4}	459.872	0.000 E3	100.0#	0#	-14.38#
36 L9C	Chlordane{5}	774.903	0.000 E3	100.0#	0#	-14.63#

(#) = Out of Range SPCC's out = 0 CCC's out = 31

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL267.D
Acq On : 25 Nov 2015 11:07 pm
Operator : m.pedro
Sample : ccv54 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Nov 30 14:49:08 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1) S	SURR1,Tet...	9.301	9.249	2402.6E6	1015.7E6	52.934	50.311
	Spiked Amount	100.000	Range 30 - 150	Recovery =		52.93%	50.31%
26) S	SURR2,Dec...	17.459	17.775	1473.3E6	684.4E6	47.577	46.435
	Spiked Amount	100.000	Range 30 - 150	Recovery =		47.58%	46.44%
	Target Compounds						
2) TC	HEXACHLOR...	9.993	10.068	3215.5E6	1324.2E6	51.980	49.836
3) tc	alpha-BHC	10.291	10.324	3804.0E6	1654.1E6	55.723	53.702
4) tcm	gamma-BHC (L	10.813	10.894	3237.9E6	1426.7E6	53.929	52.568
5) tcm	Heptachlor	11.564	11.546	2983.2E6	1352.3E6	50.862	50.307
6) tcm	Aldrin	12.017	12.017	3017.9E6	1339.0E6	56.242	53.606
7) tc	beta-BHC	10.968	11.050	1400.2E6	609.2E6	52.561	51.274
8) tc	delta-BHC	11.242	11.485	3130.3E6	1237.8E6	57.707	49.697
9) tc	Heptachlor E	12.912	12.851	2621.8E6	1172.3E6	54.937	52.124
10) tc	alpha-Endosu	13.482	13.404	2473.7E6	1047.5E6	57.611	51.426
11) tc	gamma-Chlord	13.096	13.119	2698.3E6	1199.1E6	55.606	53.311
12) tc	alpha-Chlord	13.287	13.324	2588.6E6	1139.8E6	55.877	52.492
13) tc	4,4'-DDE	13.401	13.566	2058.2E6	966.8E6	53.384	51.722
14) tcm	Dieldrin	13.827	13.791	2528.3E6	1160.0E6	56.915	53.579
15) tcm	Endrin	14.164	14.225	1978.0E6	812.0E6	52.399	44.537
17) tc	beta-Endosul	14.489	14.531	2025.0E6	952.9E6	56.992	53.399
18) tc	4,4'-DDD	14.249	14.378	1738.6E6	782.3E6	58.685	53.635
19) tcm	4,4'-DDT	14.651	14.821	1530.6E6	649.7E6	48.241	41.001
20) tc	Endrin Aldeh	15.103	15.020	1549.7E6	704.2E6	57.586	51.581
21) tc	Endosulfan S	15.756	15.426	1736.9E6	826.1E6	56.595	51.378
22) tc	Methoxychlor	15.341	15.809	767.3E6	310.9E6	47.364	39.423
24) tc	Endrin Keton	16.170	16.210	2022.0E6	947.8E6	58.240	53.958
25) tc	Mirex	15.624	16.153	1799.3E6	788.4E6	53.233	48.977
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
	Average Chlordane					0.000	0.000

AM 12/1

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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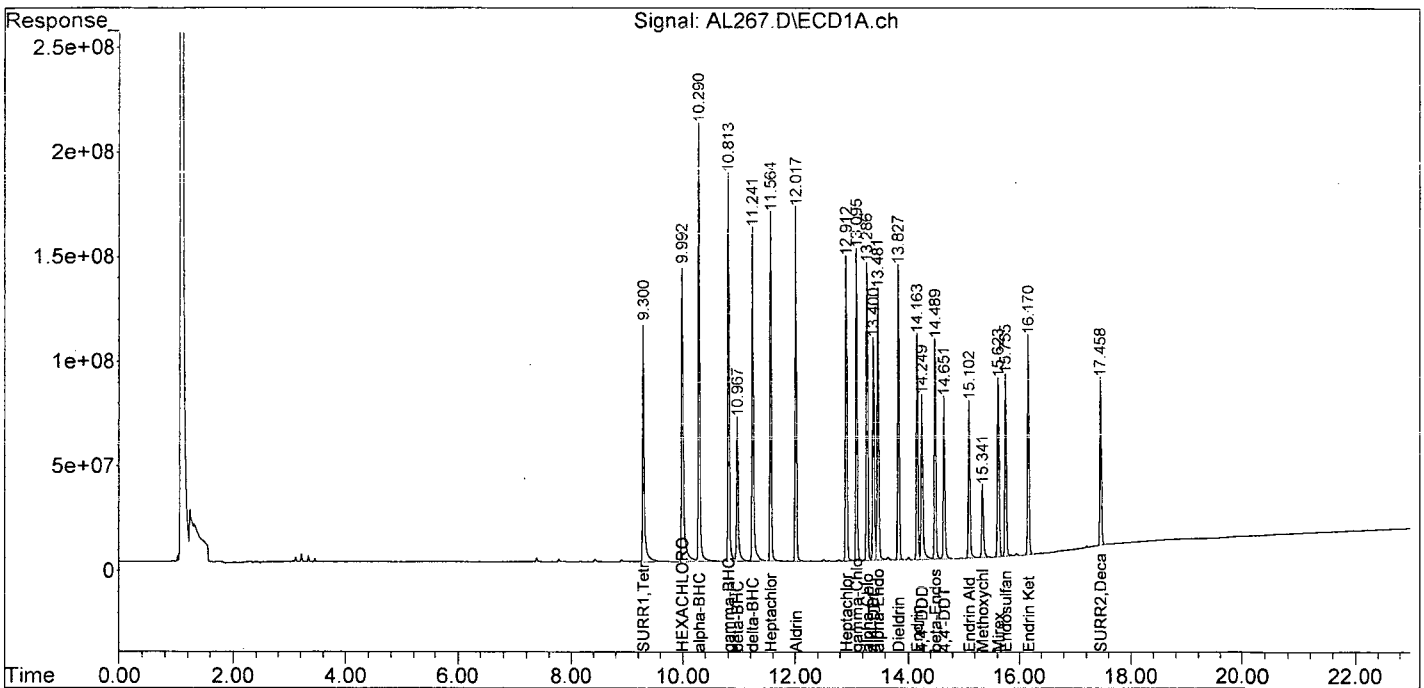
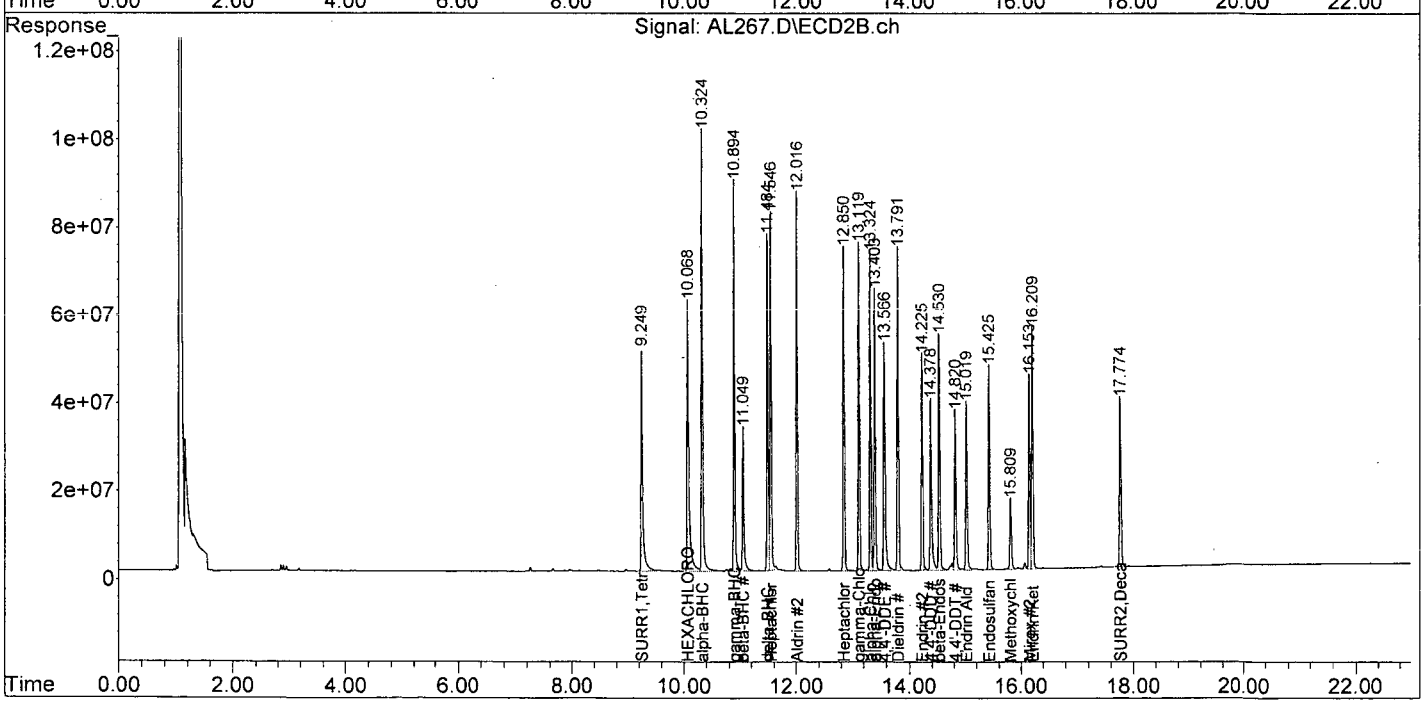
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\121515\
Data File : AL267.D
Acq On : 25 Nov 2015 11:07 pm
Operator : m.pedro
Sample : ccv54 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Nov 30 14:49:08 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





8081102115.M Tue Dec 01 09:50:35 2015 Page: 2

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\7890m\DATA\120215\
Data File : AL286.D
Acq On : 2 Dec 2015 12:33 pm
Operator : a.moses
Sample : ccv58 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 02 12:58:17 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	S	SURR1,Tetrac	45.389	45.075 E6	0.7	103	0.00
2	TC	HEXACHLOROBENZENE	61.859	57.605 E6	6.9	101	0.00
3	tc	alpha-BHC	68.266	72.777 E6	-6.6	103	0.00
4	tcm	gamma-BHC (L	60.041	61.638 E6	-2.7	101	0.00
5	tcm	Heptachlor	58.653	56.107 E6	4.3	99	0.00
6	tcm	Aldrin	53.660	56.907 E6	-6.1	105	0.00
7	tc	beta-BHC	26.639	24.505 E6	8.0	97	0.00
8	TC	delta-BHC	54.245	54.528 E6	-0.5	96	0.00
9	tc	Heptachlor E	47.725	46.972 E6	1.6	102	0.00
10	tc	alpha-Endosu	42.938	43.158 E6	-0.5	103	0.00
11	tc	gamma-Chlord	48.524	48.430 E6	0.2	101	0.00
12	tc	alpha-Chlord	46.327	46.547 E6	-0.5	102	0.00
13	tc	4,4'-DDE	38.554	37.530 E6	2.7	93	0.00
14	tcm	Dieldrin	44.423	45.411 E6	-2.2	101	0.00
15	tcm	Endrin	37.750	35.906 E6	4.9	93	0.00
17	tc	beta-Endosul	35.531	34.332 E6	3.4	97	0.00
18	tc	4,4'-DDD	29.626	30.348 E6	-2.4	96	0.00
19	tcm	4,4'-DDT	31.728	31.923 E6	-0.6	93	0.00
20	tc	Endrin Aldeh	26.911	26.846 E6	0.2	99	0.00
21	tc	Endosulfan S	30.690	29.215 E6	4.8	96	0.00
22	tc	Methoxychlor	16.199	15.280 E6	5.7	93	0.00
24	tc	Endrin Keton	34.718	34.221 E6	1.4	98	0.00
25	tc	Mirex	33.800	29.914 E6	11.5	97	0.00
26	S	SURR2,Decachlorobiphenyl	30.967	26.963 E6	12.9	92	0.00

Signal #2

1	S	SURR1,Tetrac	20.188	19.135 E6	5.2	99	0.00
2	TC	HEXACHLOROBENZENE	26.572	23.829 E6	10.3	96	0.00
3	tc	alpha-BHC	30.802	31.667 E6	-2.8	99	0.00
4	tcm	gamma-BHC (L	27.139	26.994 E6	0.5	98	0.00
5	tcm	Heptachlor	26.882	25.590 E6	4.8	97	0.00
6	tcm	Aldrin	24.979	25.314 E6	-1.3	100	0.00
7	tc	beta-BHC	11.882	10.623 E6	10.6	96	0.00
8	tc	delta-BHC	24.908	22.381 E6	10.1	87	0.00
9	tc	Heptachlor E	22.490	21.213 E6	5.7	97	0.00
10	tc	alpha-Endosu	20.368	18.864 E6	7.4	95	0.00
11	tc	gamma-Chlord	22.492	21.454 E6	4.6	95	0.00
12	tc	alpha-Chlord	21.714	20.372 E6	6.2	96	0.00
13	tc	4,4'-DDE	18.691	17.075 E6	8.6	89	0.00
14	tcm	Dieldrin	21.650	20.630 E6	4.7	94	0.00
15	tcm	Endrin	18.232	15.099 E6	17.2#	82	0.00

AM 12/2

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\7890m\DATA\120215\
Data File : AL286.D
Acq On : 2 Dec 2015 12:33 pm
Operator : a.moses
Sample : ccv58 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 02 12:58:17 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
17	tc	beta-Endosul	17.846	15.856 E6	11.2	91	0.00
18	tc	4,4'-DDD	14.586	13.402 E6	8.1	89	0.00
19	tcm	4,4'-DDT	15.847	13.557 E6	14.5	81	0.00
20	tc	Endrin Aldeh	13.651	12.200 E6	10.6	92	0.00
21	tc	Endosulfan S	16.078	13.795 E6	14.2	88	0.00
22	tc	Methoxychlor	7.886	6.343 E6	19.6#	82	0.00
24	tc	Endrin Keton	17.566	15.896 E6	9.5	90	0.00
25	tc	Mirex	16.098	13.102 E6	18.6#	90	0.00
26	S	SURR2,Decachlorobiphenyl	14.739	12.319 E6	16.4#	88	0.00

Evaluate Continuing Calibration Report - Not Founds

16	tc	KEPONE	14.388	0.000 E6	100.0#	0#	-14.23#
23	tc	FAMPHUR	27.438	0.000 E6	100.0#	0#	-16.05#
27	L8C	Toxaphene	852.903	0.000 E3	100.0#	0#	-14.57#
28	L8C	Toxaphene{2}	629.741	0.000 E3	100.0#	0#	-14.65#
29	L8C	Toxaphene{3}	1.332	0.000 E6	100.0#	0#	-15.26#
30	L8C	Toxaphene{4}	714.228	0.000 E3	100.0#	0#	-15.86#
31	L8C	Toxaphene{5}	1120.206	0.000 E3	100.0#	0#	-16.34#
32	L9C	Chlordane	2.084	0.000 E6	100.0#	0#	-11.43#
33	L9C	Chlordane{2}	2.966	0.000 E6	100.0#	0#	-11.61#
34	L9C	Chlordane{3}	2.323	0.000 E6	100.0#	0#	-12.27#
35	L9C	Chlordane{4}	6.420	0.000 E6	100.0#	0#	-13.14#
36	L9C	Chlordane{5}	1.546	0.000 E6	100.0#	0#	-14.44#

Signal #2

16	tc	KEPONE	8.486	0.000 E6	100.0#	0#	-14.39#
23	tc	FAMPHUR	14.809	0.000 E6	100.0#	0#	-15.53#
27	L8C	Toxaphene	589.163	0.000 E3	100.0#	0#	-14.63#
28	L8C	Toxaphene{2}	295.578	0.000 E3	100.0#	0#	-14.91#
29	L8C	Toxaphene{3}	588.763	0.000 E3	100.0#	0#	-15.01#
30	L8C	Toxaphene{4}	369.772	0.000 E3	100.0#	0#	-15.40#
31	L8C	Toxaphene{5}	614.604	0.000 E3	100.0#	0#	-16.33#
32	L9C	Chlordane	0.932	0.000 E6	100.0#	0#	-11.36#
33	L9C	Chlordane{2}	1.304	0.000 E6	100.0#	0#	-11.58#
34	L9C	Chlordane{3}	0.940	0.000 E6	100.0#	0#	-12.29#
35	L9C	Chlordane{4}	459.872	0.000 E3	100.0#	0#	-14.38#
36	L9C	Chlordane{5}	774.903	0.000 E3	100.0#	0#	-14.63#

(#) = Out of Range SPCC's out = 0 CCC's out = 27

8081102115.M Wed Dec 02 12:59:39 2015 Page: 2

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\120215\
Data File : AL286.D
Acq On : 2 Dec 2015 12:33 pm
Operator : a.moses
Sample : ccv58 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 02 12:58:17 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1) S	SURR1,Tet...	9.301	9.248	4507.5E6	1913.5E6	99.308	94.785
	Spiked Amount 100.000	Range 30 - 150		Recovery =		99.31%	94.78%
26) S	SURR2,Dec...	17.462	17.773	2696.3E6	1231.9E6	87.070	83.585
	Spiked Amount 100.000	Range 30 - 150		Recovery =		87.07%	83.58%
	Target Compounds						
2) TC	HEXACHLOR...	9.992	10.066	5760.5E6	2382.9E6	93.122	89.677
3) tc	alpha-BHC	10.291	10.322	7277.7E6	3166.7E6	106.608	102.805
4) tcm	gamma-BHC (L	10.814	10.892	6163.8E6	2699.4E6	102.660	99.466
5) tcm	Heptachlor	11.565	11.545	5610.7E6	2559.0E6	95.659	95.196
6) tcm	Aldrin	12.017	12.015	5690.7E6	2531.4E6	106.052	101.345
7) tc	beta-BHC	10.968	11.047	2450.5E6	1062.3E6	91.991	89.405
8) tc	delta-BHC	11.241	11.482	5452.8E6	2238.1E6	100.521	89.855
9) tc	Heptachlor E	12.913	12.848	4697.2E6	2121.3E6	98.422	94.326
10) tc	alpha-Endosu	13.483	13.401	4315.8E6	1886.4E6	100.512	92.614
11) tc	gamma-Chlord	13.096	13.116	4843.0E6	2145.4E6	99.805	95.386
12) tc	alpha-Chlord	13.288	13.322	4654.7E6	2037.2E6	100.476	93.816
13) tc	4,4'-DDE	13.401	13.564	3753.0E6	1707.5E6	97.344	91.350
14) tcm	Dieldrin	13.829	13.789	4541.1E6	2063.0E6	102.224	95.291
15) tcm	Endrin	14.164	14.222	3590.6E6	1509.9E6	95.116	82.816
17) tc	beta-Endosul	14.490	14.528	3433.2E6	1585.6E6	96.625	88.850
18) tc	4,4'-DDD	14.250	14.375	3034.8E6	1340.2E6	102.436	91.886
19) tcm	4,4'-DDT	14.652	14.818	3192.3E6	1355.7E6	100.612	85.551
20) tc	Endrin Aldeh	15.104	15.017	2684.6E6	1220.0E6	99.757	89.367
21) tc	Endosulfan S	15.757	15.424	2921.5E6	1379.5E6	95.192	85.801
22) tc	Methoxychlor	15.342	15.806	1528.0E6	634.3E6	94.325	80.425
24) tc	Endrin Keton	16.172	16.208	3422.1E6	1589.6E6	98.568	90.493
25) tc	Mirex	15.625	16.150	2991.4E6	1310.2E6	88.503	81.386
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
Average	Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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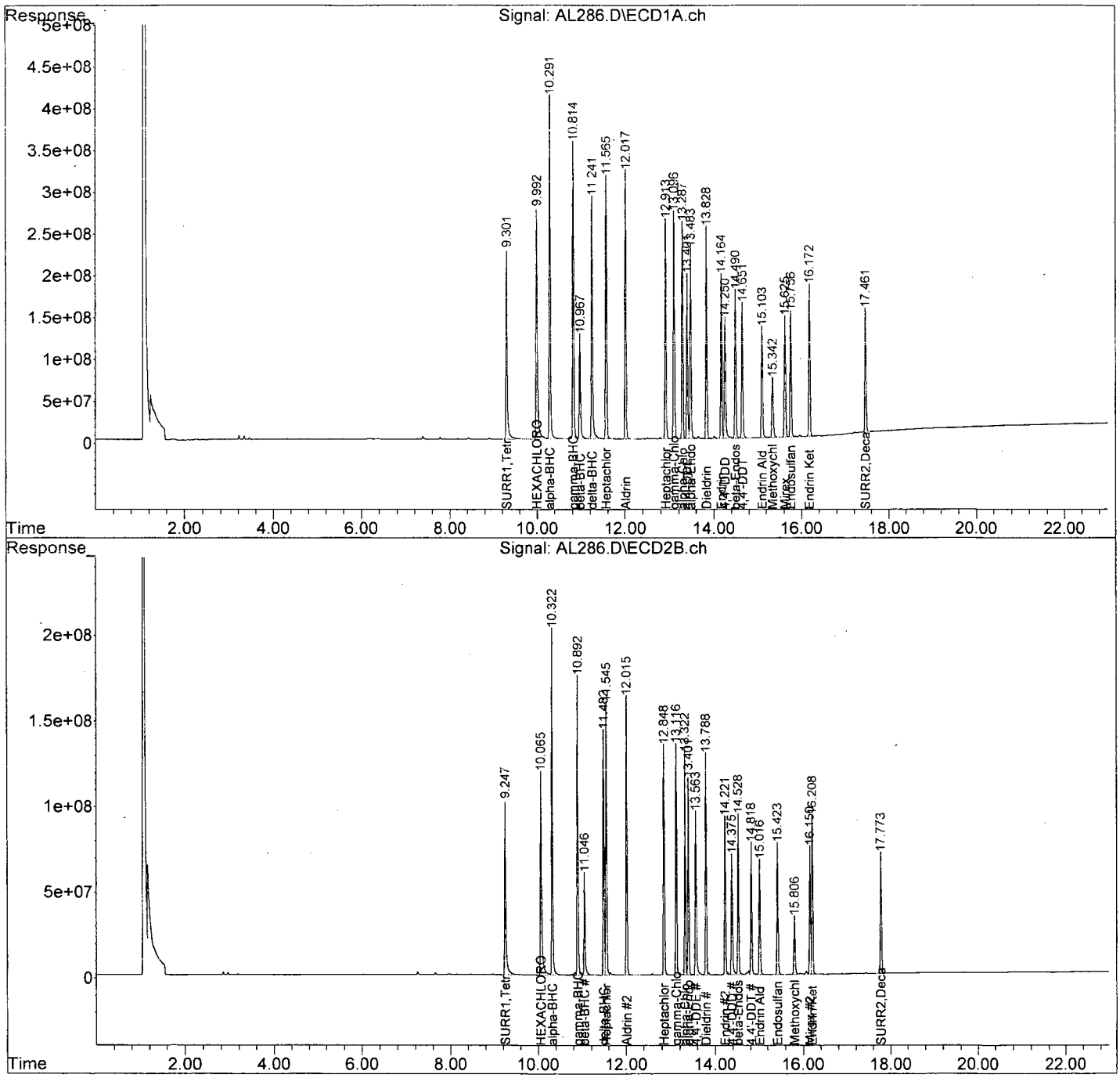
8081102115.M Wed Dec 02 16:21:34 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\I20215\
Data File : AL286.D
Acq On : 2 Dec 2015 12:33 pm
Operator : a.moses
Sample : ccv58 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 02 12:58:17 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



8081102115.M Wed Dec 02 16:21:38 2015 Page: 2

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\7890m\DATA\120215\
Data File : AL291.D
Acq On : 2 Dec 2015 2:54 pm
Operator : a.moses
Sample : ccv59 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 02 16:17:01 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	S	SURR1,Tetrac	45.389	46.373 E6	-2.2	106	0.00
2	TC	HEXACHLOROBENZENE	61.859	59.914 E6	3.1	105	0.00
3	tc	alpha-BHC	68.266	74.774 E6	-9.5	106	0.00
4	tcm	gamma-BHC (L	60.041	63.517 E6	-5.8	104	0.00
5	tcm	Heptachlor	58.653	57.668 E6	1.7	102	0.00
6	tcm	Aldrin	53.660	58.252 E6	-8.6	107	0.00
7	tc	beta-BHC	26.639	26.416 E6	0.8	104	0.00
8	TC	delta-BHC	54.245	58.201 E6	-7.3	103	0.00
9	tc	Heptachlor E	47.725	48.554 E6	-1.7	106	0.00
10	tc	alpha-Endosu	42.938	45.349 E6	-5.6	108	0.00
11	tc	gamma-Chlord	48.524	50.704 E6	-4.5	106	0.00
12	tc	alpha-Chlord	46.327	48.558 E6	-4.8	106	0.00
13	tc	4,4'-DDE	38.554	41.005 E6	-6.4	102	0.00
14	tcm	Dieldrin	44.423	47.495 E6	-6.9	106	0.00
15	tcm	Endrin	37.750	37.477 E6	0.7	97	0.00
17	tc	beta-Endosul	35.531	37.166 E6	-4.6	105	0.00
18	tc	4,4'-DDD	29.626	34.082 E6	-15.0#	108	0.00
19	tcm	4,4'-DDT	31.728	35.753 E6	-12.7	104	0.00
20	tc	Endrin Aldeh	26.911	29.467 E6	-9.5	109	0.00
21	tc	Endosulfan S	30.690	32.034 E6	-4.4	105	0.00
22	tc	Methoxychlor	16.199	17.317 E6	-6.9	106	0.00
24	tc	Endrin Keton	34.718	38.223 E6	-10.1	109	0.00
25	tc	Mirex	33.800	32.019 E6	5.3	103	0.00
26	S	SURR2,Decachlorobiphenyl	30.967	31.223 E6	-0.8	106	0.00

AW 12/2

Signal #2

1	S	SURR1,Tetrac	20.188	19.066 E6	5.6	99	0.00
2	TC	HEXACHLOROBENZENE	26.572	24.230 E6	8.8	98	0.00
3	tc	alpha-BHC	30.802	31.718 E6	-3.0	99	0.00
4	tcm	gamma-BHC (L	27.139	27.225 E6	-0.3	99	0.00
5	tcm	Heptachlor	26.882	25.827 E6	3.9	98	0.00
6	tcm	Aldrin	24.979	25.430 E6	-1.8	101	0.00
7	tc	beta-BHC	11.882	11.041 E6	7.1	100	0.00
8	tc	delta-BHC	24.908	23.219 E6	6.8	91	0.00
9	tc	Heptachlor E	22.490	21.651 E6	3.7	99	0.00
10	tc	alpha-Endosu	20.368	19.518 E6	4.2	98	0.00
11	tc	gamma-Chlord	22.492	22.072 E6	1.9	98	0.00
12	tc	alpha-Chlord	21.714	20.889 E6	3.8	98	0.00
13	tc	4,4'-DDE	18.691	18.457 E6	1.3	96	0.00
14	tcm	Dieldrin	21.650	21.298 E6	1.6	97	0.00
15	tcm	Endrin	18.232	15.542 E6	14.8	84	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\7890m\DATA\120215\
Data File : AL291.D
Acq On : 2 Dec 2015 2:54 pm
Operator : a.moses
Sample : ccv59 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 02 16:17:01 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
17	tc	beta-Endosul	17.846	16.984 E6	4.8	98	0.00
18	tc	4,4'-DDD	14.586	14.873 E6	-2.0	98	0.00
19	tcm	4,4'-DDT	15.847	14.902 E6	6.0	89	0.00
20	tc	Endrin Aldeh	13.651	13.153 E6	3.6	99	0.00
21	tc	Endosulfan S	16.078	15.046 E6	6.4	96	0.00
22	tc	Methoxychlor	7.886	7.086 E6	10.1	91	0.00
24	tc	Endrin Keton	17.566	17.632 E6	-0.4	100	0.00
25	tc	Mirex	16.098	13.844 E6	14.0	95	0.00
26	S	SURR2,Decachlorobiphenyl	14.739	14.140 E6	4.1	101	0.00

Evaluate Continuing Calibration Report - Not Founds

16	tc	KEPONE	14.388	0.000 E6	100.0#	0#	-14.23#
23	tc	FAMPHUR	27.438	0.000 E6	100.0#	0#	-16.05#
27	L8C	Toxaphene	852.903	0.000 E3	100.0#	0#	-14.57#
28	L8C	Toxaphene{2}	629.741	0.000 E3	100.0#	0#	-14.65#
29	L8C	Toxaphene{3}	1.332	0.000 E6	100.0#	0#	-15.26#
30	L8C	Toxaphene{4}	714.228	0.000 E3	100.0#	0#	-15.86#
31	L8C	Toxaphene{5}	1120.206	0.000 E3	100.0#	0#	-16.34#
32	L9C	Chlordane	2.084	0.000 E6	100.0#	0#	-11.43#
33	L9C	Chlordane{2}	2.966	0.000 E6	100.0#	0#	-11.61#
34	L9C	Chlordane{3}	2.323	0.000 E6	100.0#	0#	-12.27#
35	L9C	Chlordane{4}	6.420	0.000 E6	100.0#	0#	-13.14#
36	L9C	Chlordane{5}	1.546	0.000 E6	100.0#	0#	-14.44#

Signal #2

16	tc	KEPONE	8.486	0.000 E6	100.0#	0#	-14.39#
23	tc	FAMPHUR	14.809	0.000 E6	100.0#	0#	-15.53#
27	L8C	Toxaphene	589.163	0.000 E3	100.0#	0#	-14.63#
28	L8C	Toxaphene{2}	295.578	0.000 E3	100.0#	0#	-14.91#
29	L8C	Toxaphene{3}	588.763	0.000 E3	100.0#	0#	-15.01#
30	L8C	Toxaphene{4}	369.772	0.000 E3	100.0#	0#	-15.40#
31	L8C	Toxaphene{5}	614.604	0.000 E3	100.0#	0#	-16.33#
32	L9C	Chlordane	0.932	0.000 E6	100.0#	0#	-11.36#
33	L9C	Chlordane{2}	1.304	0.000 E6	100.0#	0#	-11.58#
34	L9C	Chlordane{3}	0.940	0.000 E6	100.0#	0#	-12.29#
35	L9C	Chlordane{4}	459.872	0.000 E3	100.0#	0#	-14.38#
36	L9C	Chlordane{5}	774.903	0.000 E3	100.0#	0#	-14.63#

(#) = Out of Range SPCC's out = 0 CCC's out = 25

8081102115.M Wed Dec 02 16:17:25 2015 Page: 2

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\120215\
Data File : AL291.D
Acq On : 2 Dec 2015 2:54 pm
Operator : a.moses
Sample : ccv59 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 02 16:17:01 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1)	S SURR1,Tet...	9.302	9.248	4637.3E6	1906.6E6	102.169	94.441
	Spiked Amount 100.000	Range 30 - 150		Recovery = 102.17%		94.44%	
26)	S SURR2,Dec...	17.462	17.775	3122.3E6	1414.0E6	100.826	95.940
	Spiked Amount 100.000	Range 30 - 150		Recovery = 100.83%		95.94%	
	Target Compounds						
2)	TC HEXACHLOR...	9.992	10.066	5991.4E6	2423.0E6	96.856	91.186
3)	tc alpha-BHC	10.291	10.323	7477.4E6	3171.8E6	109.533	102.973
4)	tcm gamma-BHC (L	10.814	10.892	6351.7E6	2722.5E6	105.790	100.315
5)	tcm Heptachlor	11.565	11.545	5766.8E6	2582.7E6	98.321	96.075
6)	tcm Aldrin	12.018	12.016	5825.2E6	2543.0E6	108.557	101.807
7)	tc beta-BHC	10.968	11.047	2641.6E6	1104.1E6	99.163	92.925
8)	tc delta-BHC	11.241	11.483	5820.1E6	2321.9E6	107.292	93.220
9)	tc Heptachlor E	12.914	12.849	4855.4E6	2165.1E6	101.737	96.270
10)	tc alpha-Endosu	13.483	13.402	4534.9E6	1951.8E6	105.615	95.827
11)	tc gamma-Chlord	13.097	13.117	5070.4E6	2207.2E6	104.491	98.134
12)	tc alpha-Chlord	13.288	13.323	4855.8E6	2088.9E6	104.817	96.200
13)	tc 4,4'-DDE	13.402	13.564	4100.5E6	1845.7E6	106.358	98.744
14)	tcm Dieldrin	13.828	13.789	4749.5E6	2129.8E6	106.916	98.375
15)	tcm Endrin	14.164	14.223	3747.7E6	1554.2E6	99.276	85.247
17)	tc beta-Endosul	14.490	14.529	3716.6E6	1698.4E6	104.601	95.171
18)	tc 4,4'-DDD	14.250	14.376	3408.2E6	1487.3E6	115.040	101.966
19)	tcm 4,4'-DDT	14.653	14.819	3575.3E6	1490.2E6	112.684	94.035
20)	tc Endrin Aldeh	15.104	15.018	2946.7E6	1315.3E6	109.495	96.349
21)	tc Endosulfan S	15.757	15.424	3203.4E6	1504.6E6	104.379	93.584
22)	tc Methoxychlor	15.343	15.807	1731.7E6	708.6E6	106.902	89.858
24)	tc Endrin Keton	16.173	16.209	3822.3E6	1763.2E6	110.095	100.377
25)	tc Mirex	15.626	16.151	3201.9E6	1384.4E6	94.733	85.995
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
	Average Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

AW 12/2

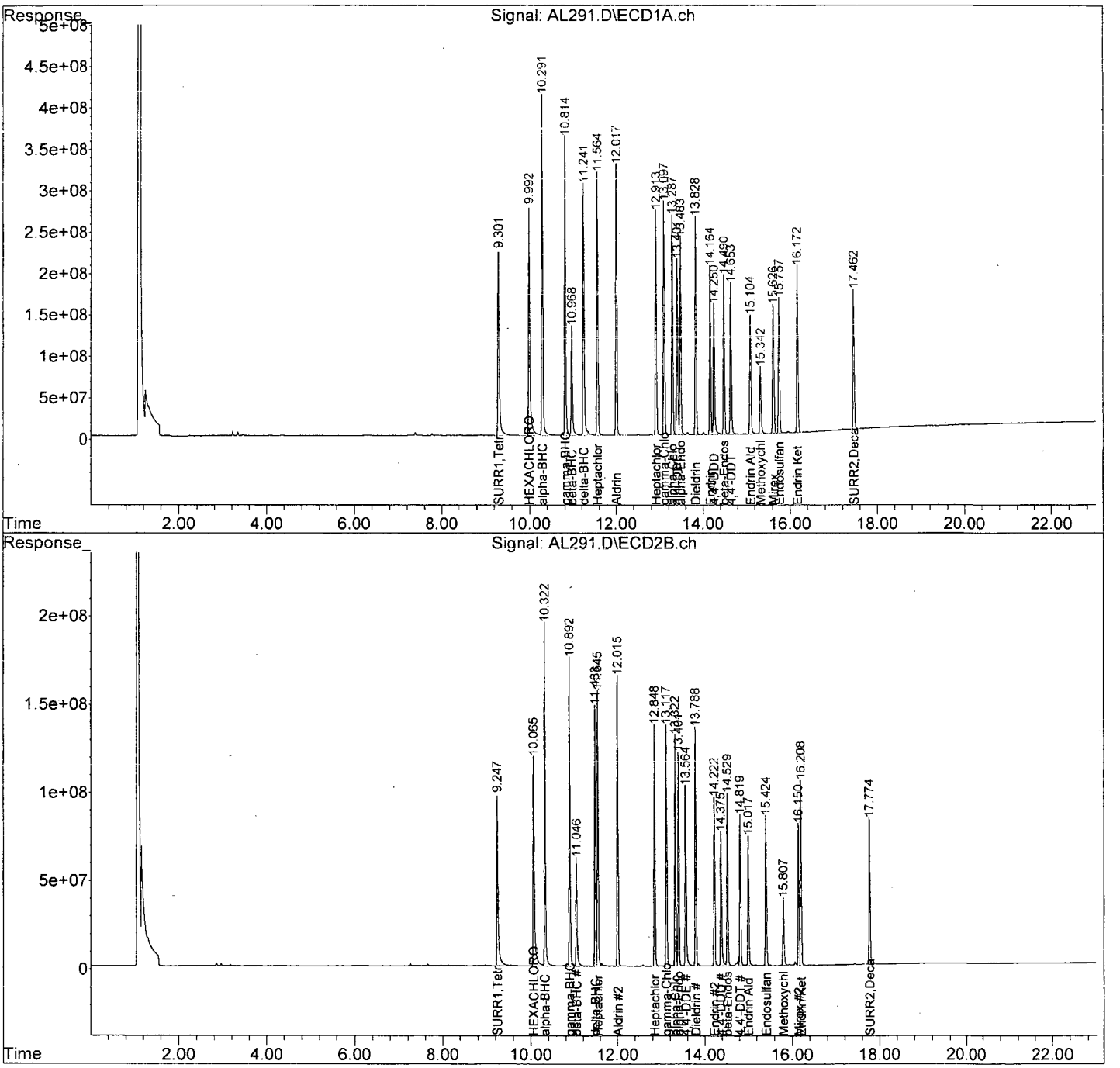
8081102115.M Wed Dec 02 16:22:09 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\I20215\
Data File : AL291.D
Acq On : 2 Dec 2015 2:54 pm
Operator : a.moses
Sample : ccv59 Inst : 7890-M
Misc : pest 50ppb
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 02 16:17:01 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



8081102115.M Wed Dec 02 16:22:12 2015 Page: 2

10A

Pesticide Identification Summary
For Single Component Analytes

NYSDEC Sample No.
TMM-56-GW-80MW02-7.

Lab Name: **ALS Environmental** ***Contract:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8MW

Lab Sample ID: r1510161-006|1.0 ***Date anlyzed:*** 11/25/2015

Instrument ID: 7890-M ***Instrument ID:*** 7890-M

GC Column(1) STx-CLP ***(ID)*** 0.32mm 30m ***GC Column(2)*** STx-CLPII ***(ID)*** 0.32mm 30m

			RT Window			
Analyte	***Column***	***RT***	***From***	***To***	***Concentration***	***%RPD***
alpha-Chlord	*1*	13.27	13.27	13.41	0.63	
	2	13.32	13.29	13.43	0.28	76.97
gamma-Chlord	*1*	13.10	13.07	13.21	0.31	
	2	13.12	13.08	13.22	0.29	5.96
Heptachlor E	*1*	12.94	12.89	13.03	0.06	
	2	12.83	12.82	12.96	0.06	11.94

FORM X-CLP-PEST

10A

Pesticide Identification Summary
For Single Component Analytes

NYSDEC Sample No.
FTMM-56-80MW102-7.5

Lab Name: **ALS Environmental** ***Contract:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8MW

Lab Sample ID: r1510161-008|1.0 ***Date anlyzed:*** 11/25/2015

Instrument ID: 7890-M ***Instrument ID:*** 7890-M

GC Column(1) STx-CLP ***(ID)*** 0.32mm 30m ***GC Column(2)*** STx-CLPII ***(ID)*** 0.32mm 30m

			RT Window			
Analyte	***Column***	***RT***	***From***	***To***	***Concentration***	***%RPD***
alpha-Chlord	*1*	13.27	13.27	13.41	0.62	
	2	13.32	13.29	13.43	0.28	76.42
gamma-Chlord	*1*	13.10	13.07	13.21	0.31	
	2	13.12	13.08	13.22	0.29	5.81
Heptachlor E	*1*	12.94	12.89	13.03	0.05	
	2	12.83	12.82	12.96	0.06	9.07

FORM X-CLP-PEST

10A

Pesticide Identification Summary
For Single Component Analytes

NYSDEC Sample No.
FTMM-M8-697-MW01-16.

Lab Name: **ALS Environmental** ***Contract:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8MW

Lab Sample ID: r1510161-012|1.0 ***Date anlyzed:*** 12/2/2015

Instrument ID: 7890-M ***Instrument ID:*** 7890-M

GC Column(1) STx-CLP ***(ID)*** 0.32mm 30m ***GC Column(2)*** STx-CLPII ***(ID)*** 0.32mm 30m

			RT Window			
Analyte	***Column***	***RT***	***From***	***To***	***Concentration***	***%RPD***
4,4'-DDD	*1*	14.25	14.23	14.37	0.77	
	2	14.38	14.34	14.48	0.70	9.67
4,4'-DDT	*1*	14.65	14.63	14.77	0.06	
	2	14.82	14.79	14.93	0.05	16.44
alpha-Chlord	*1*	13.29	13.27	13.41	0.25	
	2	13.32	13.29	13.43	0.19	23.72
gamma-Chlord	*1*	13.10	13.07	13.21	0.21	
	2	13.12	13.08	13.22	0.19	12.40

FORM X-CLP-PEST

10A

Pesticide Identification Summary
For Single Component Analytes

NYSDEC Sample No.
PBLK01MS

Lab Name: **ALS Environmental** ***Contract:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8MW

Lab Sample ID: rq1514596-02|1.0 ***Date anlyzed:*** 11/25/2015

Instrument ID: 7890-M ***Instrument ID:*** 7890-M

GC Column(1) STx-CLP ***(ID)*** 0.32mm 30m ***GC Column(2)*** STx-CLPII ***(ID)*** 0.32mm 30m

			RT Window			
Analyte	***Column***	***RT***	***From***	***To***	***Concentration***	***%RPD***
4,4'-DDD	*1*	14.25	14.23	14.37	0.16	
	2	14.38	14.34	14.48	0.15	7.88
4,4'-DDE	*1*	13.40	13.38	13.52	0.16	
	2	13.57	13.53	13.67	0.16	3.68
4,4'-DDT	*1*	14.65	14.63	14.77	0.15	
	2	14.82	14.79	14.93	0.13	16.54
Aldrin	*1*	12.02	12.01	12.11	0.17	
	2	12.02	12.00	12.10	0.17	3.93
alpha-BHC	*1*	10.29	10.28	10.38	0.19	
	2	10.32	10.30	10.40	0.18	4.70
alpha-Chlord	*1*	13.29	13.27	13.41	0.19	
	2	13.33	13.29	13.43	0.18	5.93
alpha-Endosu	*1*	13.48	13.46	13.60	0.19	
	2	13.40	13.37	13.51	0.18	8.81
beta-BHC	*1*	10.97	10.96	11.06	0.18	
	2	11.05	11.03	11.13	0.17	4.91
beta-Endosul	*1*	14.49	14.47	14.61	0.19	
	2	14.53	14.50	14.64	0.18	7.51
delta-BHC	*1*	11.24	11.23	11.33	0.18	
	2	11.49	11.46	11.56	0.16	8.10
Dieldrin	*1*	13.83	13.81	13.95	0.20	
	2	13.79	13.76	13.90	0.19	6.51

FORM X-CLP-PEST

10A

Pesticide Identification Summary
For Single Component Analytes

NYSDEC Sample No.
PBLK01MS

Lab Name: **ALS Environmental** ***Contract:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8MW

Lab Sample ID: rq1514596-02|1.0 ***Date anlyzed:*** 11/25/2015

Instrument ID: 7890-M ***Instrument ID:*** 7890-M

GC Column(1) STx-CLP ***(ID)*** 0.32mm 30m ***GC Column(2)*** STx-CLPII ***(ID)*** 0.32mm 30m

			RT Window			
Analyte	***Column***	***RT***	***From***	***To***	***Concentration***	***%RPD***
Endosulfan S	*1*	15.76	15.75	15.89	0.18	
	2	15.43	15.40	15.54	0.16	9.02
Endrin	*1*	14.17	14.15	14.29	0.19	
	2	14.23	14.20	14.34	0.17	11.39
Endrin Aldeh	*1*	15.11	15.09	15.23	0.13	
	2	15.02	14.99	15.13	0.12	6.72
Endrin Keton	*1*	16.17	16.16	16.30	0.18	
	2	16.21	16.18	16.32	0.16	10.41
gamma-BHC (L	*1*	10.82	10.81	10.91	0.19	
	2	10.90	10.88	10.98	0.18	2.09
gamma-Chlord	*1*	13.10	13.07	13.21	0.19	
	2	13.12	13.08	13.22	0.18	4.84
Heptachlor	*1*	11.57	11.56	11.66	0.18	
	2	11.55	11.53	11.63	0.17	4.48
Heptachlor E	*1*	12.92	12.89	13.03	0.19	
	2	12.85	12.82	12.96	0.18	4.24
HEXACHLOROBE	*1*	10.00	9.96	10.10	0.17	
	2	10.07	10.02	10.16	0.15	9.73
Methoxychlor	*1*	15.34	15.32	15.46	0.14	
	2	15.81	15.78	15.92	0.12	12.28

FORM X-CLP-PEST

10A

Pesticide Identification Summary
For Single Component Analytes

NYSDEC Sample No.
PBLK01MSD

Lab Name: **ALS Environmental** ***Contract:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8MW

Lab Sample ID: rq1514596-03|1.0 ***Date anlyzed:*** 11/25/2015

Instrument ID: 7890-M ***Instrument ID:*** 7890-M

GC Column(1) STx-CLP ***(ID)*** 0.32mm 30m ***GC Column(2)*** STx-CLPII ***(ID)*** 0.32mm 30m

			RT Window			
Analyte	***Column***	***RT***	***From***	***To***	***Concentration***	***%RPD***
4,4'-DDD	*1*	14.25	14.23	14.37	0.16	
	2	14.38	14.34	14.48	0.15	7.56
4,4'-DDE	*1*	13.40	13.38	13.52	0.16	
	2	13.57	13.53	13.67	0.16	3.55
4,4'-DDT	*1*	14.65	14.63	14.77	0.15	
	2	14.82	14.79	14.93	0.13	17.85
Aldrin	*1*	12.02	12.01	12.11	0.17	
	2	12.02	12.00	12.10	0.16	4.21
alpha-BHC	*1*	10.29	10.28	10.38	0.18	
	2	10.33	10.30	10.40	0.18	4.57
alpha-Chlord	*1*	13.29	13.27	13.41	0.19	
	2	13.33	13.29	13.43	0.18	5.92
alpha-Endosu	*1*	13.48	13.46	13.60	0.19	
	2	13.40	13.37	13.51	0.18	8.14
beta-BHC	*1*	10.97	10.96	11.06	0.18	
	2	11.05	11.03	11.13	0.17	4.71
beta-Endosul	*1*	14.49	14.47	14.61	0.19	
	2	14.53	14.50	14.64	0.17	7.38
delta-BHC	*1*	11.24	11.23	11.33	0.18	
	2	11.49	11.46	11.56	0.17	8.57
Dieldrin	*1*	13.83	13.81	13.95	0.19	
	2	13.79	13.76	13.90	0.18	6.15

FORM X-CLP-PEST

10A

Pesticide Identification Summary
For Single Component Analytes

NYSDEC Sample No.
PBLK01MSD

Lab Name: **ALS Environmental** ***Contract:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8MW

Lab Sample ID: rq1514596-03|1.0 ***Date anlyzed:*** 11/25/2015

Instrument ID: 7890-M ***Instrument ID:*** 7890-M

GC Column(1) STx-CLP ***(ID)*** 0.32mm 30m ***GC Column(2)*** STx-CLPII ***(ID)*** 0.32mm 30m

			RT Window			
Analyte	***Column***	***RT***	***From***	***To***	***Concentration***	***%RPD***
Endosulfan S	*1*	15.76	15.75	15.89	0.18	
	2	15.43	15.40	15.54	0.17	9.05
Endrin	*1*	14.17	14.15	14.29	0.19	
	2	14.23	14.20	14.34	0.17	11.13
Endrin Aldeh	*1*	15.11	15.09	15.23	0.12	
	2	15.02	14.99	15.13	0.11	8.24
Endrin Keton	*1*	16.17	16.16	16.30	0.18	
	2	16.21	16.18	16.32	0.16	9.90
gamma-BHC (L	*1*	10.82	10.81	10.91	0.19	
	2	10.90	10.88	10.98	0.18	2.29
gamma-Chlord	*1*	13.10	13.07	13.21	0.18	
	2	13.12	13.08	13.22	0.18	4.56
Heptachlor	*1*	11.57	11.56	11.66	0.17	
	2	11.55	11.53	11.63	0.16	4.68
Heptachlor E	*1*	12.91	12.89	13.03	0.19	
	2	12.85	12.82	12.96	0.18	4.00
HEXACHLOROBE	*1*	9.99	9.96	10.10	0.16	
	2	10.07	10.02	10.16	0.15	9.69
Methoxychlor	*1*	15.34	15.32	15.46	0.14	
	2	15.81	15.78	15.92	0.13	13.59

FORM X-CLP-PEST

10A

Pesticide Identification Summary
For Single Component Analytes

NYSDEC Sample No.
MM-M8-697-MW01-16.5N

Lab Name: **ALS Environmental** ***Contract:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8MW

Lab Sample ID: rq1514596-04|1.0 ***Date anlyzed:*** 11/25/2015

Instrument ID: 7890-M ***Instrument ID:*** 7890-M

GC Column(1) STx-CLP ***(ID)*** 0.32mm 30m ***GC Column(2)*** STx-CLPII ***(ID)*** 0.32mm 30m

			RT Window			
Analyte	***Column***	***RT***	***From***	***To***	***Concentration***	***%RPD***
4,4'-DDD	*1*	14.25	14.23	14.37	0.96	
	2	14.38	14.34	14.48	0.93	2.95
4,4'-DDE	*1*	13.40	13.38	13.52	0.19	
	2	13.56	13.53	13.67	0.21	13.90
4,4'-DDT	*1*	14.65	14.63	14.77	0.20	
	2	14.82	14.79	14.93	0.17	16.57
Aldrin	*1*	12.02	12.01	12.11	0.16	
	2	12.02	12.00	12.10	0.16	1.32
alpha-BHC	*1*	10.29	10.28	10.38	0.17	
	2	10.32	10.30	10.40	0.17	0.05
alpha-Chlord	*1*	13.29	13.27	13.41	0.46	
	2	13.32	13.29	13.43	0.39	16.53
alpha-Endosu	*1*	13.48	13.46	13.60	0.20	
	2	13.40	13.37	13.51	0.20	0.66
beta-BHC	*1*	10.97	10.96	11.06	0.17	
	2	11.05	11.03	11.13	0.16	3.83
beta-Endosul	*1*	14.49	14.47	14.61	0.20	
	2	14.53	14.50	14.64	0.19	6.27
delta-BHC	*1*	11.24	11.23	11.33	0.18	
	2	11.48	11.46	11.56	0.17	6.56
Dieldrin	*1*	13.83	13.81	13.95	0.21	
	2	13.79	13.76	13.90	0.19	5.99

FORM X-CLP-PEST

10A

Pesticide Identification Summary
For Single Component Analytes

NYSDEC Sample No.
MM-M8-697-MW01-16.5N

Lab Name: **ALS Environmental** ***Contract:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8MW

Lab Sample ID: rq1514596-04|1.0 ***Date anlyzed:*** 11/25/2015

Instrument ID: 7890-M ***Instrument ID:*** 7890-M

GC Column(1) STx-CLP ***(ID)*** 0.32mm 30m ***GC Column(2)*** STx-CLPII ***(ID)*** 0.32mm 30m

			RT Window			
Analyte	***Column***	***RT***	***From***	***To***	***Concentration***	***%RPD***
Endosulfan S	*1*	15.76	15.75	15.89	0.19	
	2	15.43	15.40	15.54	0.17	11.72
Endrin	*1*	14.16	14.15	14.29	0.20	
	2	14.23	14.20	14.34	0.18	9.58
Endrin Aldeh	*1*	15.10	15.09	15.23	0.09	
	2	15.02	14.99	15.13	0.10	3.33
Endrin Keton	*1*	16.17	16.16	16.30	0.19	
	2	16.21	16.18	16.32	0.17	12.03
gamma-BHC (L	*1*	10.81	10.81	10.91	0.18	
	2	10.89	10.88	10.98	0.18	1.28
gamma-Chlord	*1*	13.10	13.07	13.21	0.41	
	2	13.12	13.08	13.22	0.40	2.21
Heptachlor	*1*	11.56	11.56	11.66	0.17	
	2	11.55	11.53	11.63	0.16	6.80
Heptachlor E	*1*	12.91	12.89	13.03	0.24	
	2	12.85	12.82	12.96	0.21	14.51
HEXACHLOROBE	*1*	9.99	9.96	10.10	0.15	
	2	10.07	10.02	10.16	0.14	8.05
Methoxychlor	*1*	15.34	15.32	15.46	0.17	
	2	15.81	15.78	15.92	0.14	23.38

FORM X-CLP-PEST

10A

Pesticide Identification Summary
For Single Component Analytes

NYSDEC Sample No.
MM-M8-697-MW01-16.5M

Lab Name: **ALS Environmental** ***Contract:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8MW

Lab Sample ID: rq1514596-05|1.0 ***Date anlyzed:*** 11/25/2015

Instrument ID: 7890-M ***Instrument ID:*** 7890-M

GC Column(1) STx-CLP ***(ID)*** 0.32mm 30m ***GC Column(2)*** STx-CLPII ***(ID)*** 0.32mm 30m

			RT Window			
Analyte	***Column***	***RT***	***From***	***To***	***Concentration***	***%RPD***
4,4'-DDD	*1*	14.25	14.23	14.37	1.30	
	2	14.38	14.34	14.48	1.27	2.55
4,4'-DDE	*1*	13.40	13.38	13.52	0.20	
	2	13.57	13.53	13.67	0.23	12.49
4,4'-DDT	*1*	14.65	14.63	14.77	0.25	
	2	14.82	14.79	14.93	0.21	17.07
Aldrin	*1*	12.02	12.01	12.11	0.16	
	2	12.02	12.00	12.10	0.16	1.37
alpha-BHC	*1*	10.29	10.28	10.38	0.17	
	2	10.32	10.30	10.40	0.17	1.12
alpha-Chlord	*1*	13.29	13.27	13.41	0.55	
	2	13.32	13.29	13.43	0.46	17.61
alpha-Endosu	*1*	13.48	13.46	13.60	0.20	
	2	13.40	13.37	13.51	0.18	8.59
beta-BHC	*1*	10.97	10.96	11.06	0.16	
	2	11.05	11.03	11.13	0.16	1.93
beta-Endosul	*1*	14.49	14.47	14.61	0.20	
	2	14.53	14.50	14.64	0.18	8.19
delta-BHC	*1*	11.24	11.23	11.33	0.17	
	2	11.49	11.46	11.56	0.17	5.67
Dieldrin	*1*	13.83	13.81	13.95	0.21	
	2	13.79	13.76	13.90	0.19	7.68

FORM X-CLP-PEST

10A

Pesticide Identification Summary
For Single Component Analytes

NYSDEC Sample No.
MM-M8-697-MW01-16.5M

Lab Name: **ALS Environmental** ***Contract:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8MW

Lab Sample ID: rq1514596-05|1.0 ***Date anlyzed:*** 11/25/2015

Instrument ID: 7890-M ***Instrument ID:*** 7890-M

GC Column(1) STx-CLP ***(ID)*** 0.32mm 30m ***GC Column(2)*** STx-CLPII ***(ID)*** 0.32mm 30m

			RT Window			
Analyte	***Column***	***RT***	***From***	***To***	***Concentration***	***%RPD***
Endosulfan S	*1*	15.76	15.75	15.89	0.18	
	2	15.43	15.40	15.54	0.17	8.45
Endrin	*1*	14.16	14.15	14.29	0.19	
	2	14.23	14.20	14.34	0.17	10.55
Endrin Aldeh	*1*	15.10	15.09	15.23	0.09	
	2	15.02	14.99	15.13	0.09	0.41
Endrin Keton	*1*	16.17	16.16	16.30	0.19	
	2	16.21	16.18	16.32	0.17	10.79
gamma-BHC (L	*1*	10.81	10.81	10.91	0.17	
	2	10.89	10.88	10.98	0.17	1.10
gamma-Chlord	*1*	13.10	13.07	13.21	0.49	
	2	13.12	13.08	13.22	0.48	1.91
Heptachlor	*1*	11.56	11.56	11.66	0.18	
	2	11.55	11.53	11.63	0.16	6.51
Heptachlor E	*1*	12.91	12.89	13.03	0.26	
	2	12.85	12.82	12.96	0.21	21.06
HEXACHLOROBE	*1*	9.99	9.96	10.10	0.15	
	2	10.07	10.02	10.16	0.14	7.64
Methoxychlor	*1*	15.34	15.32	15.46	0.18	
	2	15.81	15.78	15.92	0.14	21.51

FORM X-CLP-PEST

10A

Pesticide Identification Summary
For Multi Component Analytes

NYSDEC Sample No.

PBLK01MS

Lab Name: **ALS Environmental** ***Contract:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8M

Lab Sample ID: rq1514596-02|1.0 ***Date anlyzed:*** 11/25/2015

Instrument ID: 7890-M ***Instrument ID:*** 7890-M

GC Column(1) STx-CLP ***(ID):*** 0.32mm 30 ***GC Column(2)*** STx-CLPII ***(ID):*** 0.32mm 30m

RT Window

Analyte	*Column*	*RT*	*From*	*To*	*Concentration*	*%RPD*
Toxaphene	STx-CLP	14.57	14.55	14.69	1.77	
Toxaphene	STx-CLP	14.66	14.64	14.78	1.48	
Toxaphene	STx-CLP	15.26	15.24	15.38	1.41	
Toxaphene	STx-CLP	15.87	15.85	15.99	1.03	
Toxaphene	STx-CLP	16.35	16.33	16.47	0.83	
				Result Average	1.30	0.00
Toxaphene	STx-CLPI	14.64	14.61	14.75	1.51	
Toxaphene	STx-CLPI	14.91	14.89	15.03	1.57	
Toxaphene	STx-CLPI	15.02	14.99	15.13	1.37	
Toxaphene	STx-CLPI	15.41	15.38	15.52	1.03	
Toxaphene	STx-CLPI	16.34	16.31	16.45	1.23	
				Result Average	1.34	2.96

FORM X-CLP-PEST

B-134

10A

Pesticide Identification Summary
For Multi Component Analytes

NYSDEC Sample No.

PBLK01MSD

Lab Name: **ALS Environmental** ***Contract:*** Parsons Engineering Science

Lab Code: **10145** ***Case.No.:*** R1510161 ***SAS No.:*** _____ ***SDG No.:*** FTMM-8-GW-M8M

Lab Sample ID: rq1514596-03|1.0 ***Date anlyzed:*** 11/25/2015

Instrument ID: 7890-M ***Instrument ID:*** 7890-M

GC Column(1) STx-CLP ***(ID):*** 0.32mm 30 ***GC Column(2)*** STx-CLPII ***(ID):*** 0.32mm 30m

		RT Window				
Analyte	***Column***	***RT***	***From***	***To***	***Concentration***	***%RPD***
Toxaphene	STx-CLP	14.57	14.55	14.69	1.50	
Toxaphene	STx-CLP	14.66	14.64	14.78	2.25	
Toxaphene	STx-CLP	15.26	15.24	15.38	1.56	
Toxaphene	STx-CLP	15.87	15.85	15.99	1.15	
Toxaphene	STx-CLP	16.35	16.33	16.47	0.96	
				Result Average	1.48	0.00
Toxaphene	STx-CLPI	14.65	14.61	14.75	1.67	
Toxaphene	STx-CLPI	14.92	14.89	15.03	1.71	
Toxaphene	STx-CLPI	15.02	14.99	15.13	1.49	
Toxaphene	STx-CLPI	15.41	15.38	15.52	1.15	
Toxaphene	STx-CLPI	16.34	16.31	16.45	1.41	
				Result Average	1.48	0.15

FORM X-CLP-PEST

B-134

PESTICIDES
RAW QC DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514596-01	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	ND	U	0.050	0.025	0.013	1	11/23/15	11/25/15 09:39	250710	474264	
4,4'-DDE	ND	U	0.050	0.025	0.012	1	11/23/15	11/25/15 09:39	250710	474264	
4,4'-DDT	ND	U	0.050	0.027	0.027	1	11/23/15	11/25/15 09:39	250710	474264	
Aldrin	ND	U	0.050	0.025	0.0090	1	11/23/15	11/25/15 09:39	250710	474264	
Dieldrin	ND	U	0.050	0.025	0.0080	1	11/23/15	11/25/15 09:39	250710	474264	
Endosulfan I	ND	U	0.050	0.025	0.011	1	11/23/15	11/25/15 09:39	250710	474264	
Endosulfan II	ND	U	0.050	0.025	0.010	1	11/23/15	11/25/15 09:39	250710	474264	
Endosulfan Sulfate	ND	U	0.050	0.025	0.012	1	11/23/15	11/25/15 09:39	250710	474264	
Endrin	ND	U	0.050	0.025	0.017	1	11/23/15	11/25/15 09:39	250710	474264	
Endrin Aldehyde	ND	U	0.050	0.025	0.020	1	11/23/15	11/25/15 09:39	250710	474264	
Endrin Ketone	ND	U	0.050	0.025	0.013	1	11/23/15	11/25/15 09:39	250710	474264	
Heptachlor	ND	U	0.050	0.025	0.0060	1	11/23/15	11/25/15 09:39	250710	474264	
Heptachlor Epoxide	ND	U	0.050	0.025	0.0070	1	11/23/15	11/25/15 09:39	250710	474264	
Methoxychlor	ND	U	0.50	0.025	0.017	1	11/23/15	11/25/15 09:39	250710	474264	
Toxaphene	ND	U	1.0	0.50	0.27	1	11/23/15	11/25/15 09:39	250710	474264	
alpha-BHC	ND	U	0.050	0.025	0.0060	1	11/23/15	11/25/15 09:39	250710	474264	
alpha-Chlordane	ND	U	0.050	0.025	0.0070	1	11/23/15	11/25/15 09:39	250710	474264	
beta-BHC	ND	U	0.050	0.028	0.028	1	11/23/15	11/25/15 09:39	250710	474264	
delta-BHC	ND	U	0.050	0.048	0.048	1	11/23/15	11/25/15 09:39	250710	474264	
gamma-BHC (Lindane)	ND	U	0.050	0.025	0.0060	1	11/23/15	11/25/15 09:39	250710	474264	
gamma-Chlordane	ND	U	0.050	0.025	0.0080	1	11/23/15	11/25/15 09:39	250710	474264	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	56	30-135	11/25/15 09:39	
Tetrachloro-m-xylene	81	25-140	11/25/15 09:39	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL238.D
Acq On : 25 Nov 2015 9:39 am
Operator : m.pedro
Sample : rq1514596-01|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 30 15:14:03 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tet...	9.308	9.247	3791.1E6	1629.2E6	83.525	80.702
Spiked Amount	100.000	Range 30 - 150	Recovery =		83.53%	80.70%
26) S SURR2,Dec...	17.470	17.779	1792.9E6	819.7E6	57.899	55.613
Spiked Amount	100.000	Range 30 - 150	Recovery =		57.90%	55.61%
Target Compounds						
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

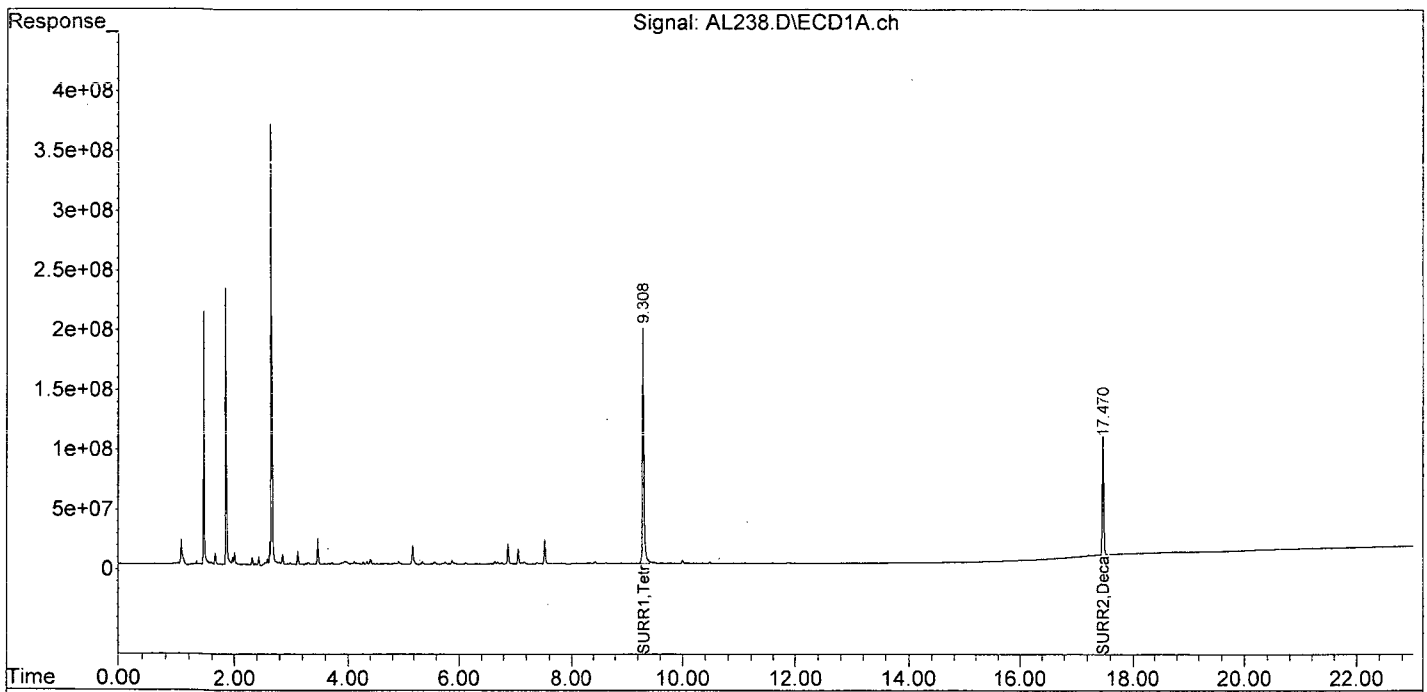
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

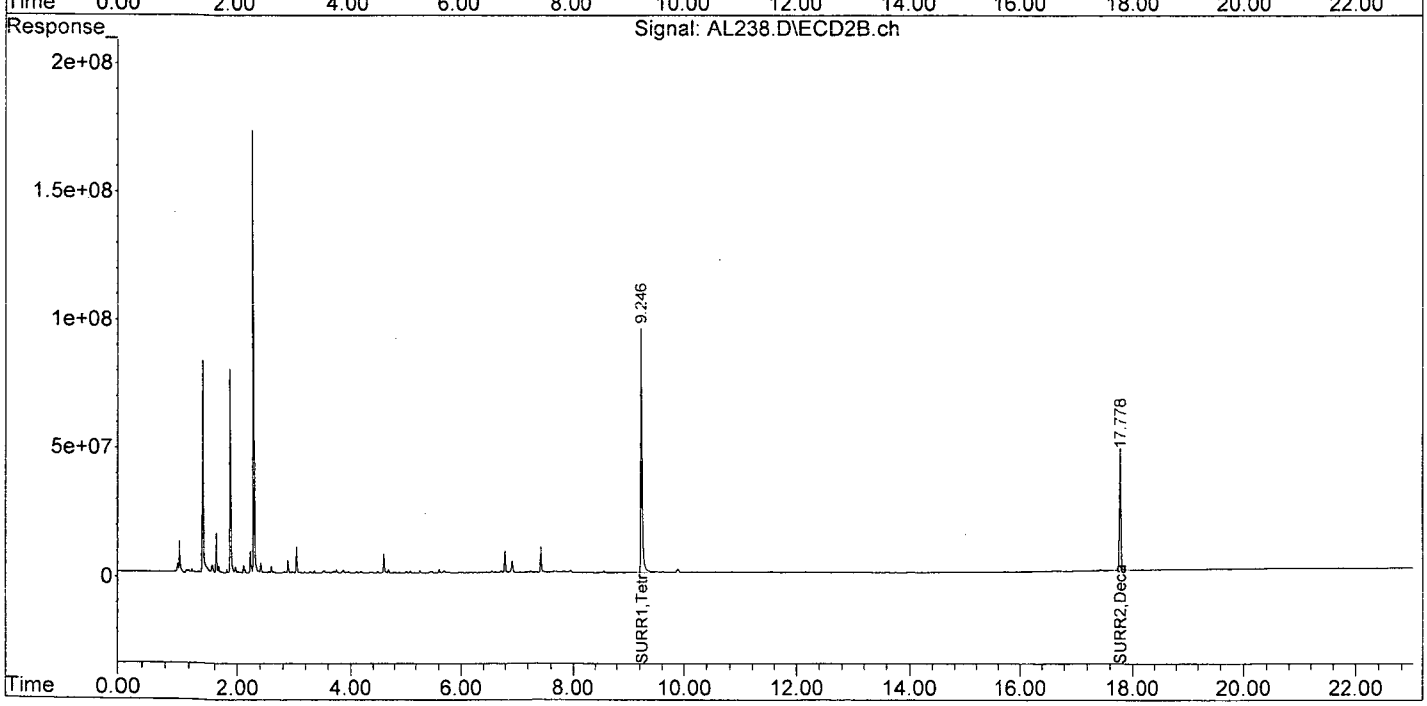
AM 12/1

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL238.D
Acq On : 25 Nov 2015 9:39 am
Operator : m.pedro
Sample : rq1514596-01|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 30 15:14:03 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514596-02	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	**0.150**		0.050	0.025	0.013	1	11/23/15	11/25/15 10:07	250710	474264	
4,4'-DDE	**0.158**		0.050	0.025	0.012	1	11/23/15	11/25/15 10:07	250710	474264	
4,4'-DDT	**0.128**		0.050	0.027	0.027	1	11/23/15	11/25/15 10:07	250710	474264	
Aldrin	**0.167**		0.050	0.025	0.0090	1	11/23/15	11/25/15 10:07	250710	474264	
Dieldrin	**0.186**		0.050	0.025	0.0080	1	11/23/15	11/25/15 10:07	250710	474264	
Endosulfan I	**0.178**		0.050	0.025	0.011	1	11/23/15	11/25/15 10:07	250710	474264	
Endosulfan II	**0.176**		0.050	0.025	0.010	1	11/23/15	11/25/15 10:07	250710	474264	
Endosulfan Sulfate	**0.162**		0.050	0.025	0.012	1	11/23/15	11/25/15 10:07	250710	474264	
Endrin	**0.172**		0.050	0.025	0.017	1	11/23/15	11/25/15 10:07	250710	474264	
Endrin Aldehyde	**0.118**		0.050	0.025	0.020	1	11/23/15	11/25/15 10:07	250710	474264	
Endrin Ketone	**0.161**		0.050	0.025	0.013	1	11/23/15	11/25/15 10:07	250710	474264	
Heptachlor	**0.172**		0.050	0.025	0.0060	1	11/23/15	11/25/15 10:07	250710	474264	
Heptachlor Epoxide	**0.185**		0.050	0.025	0.0070	1	11/23/15	11/25/15 10:07	250710	474264	
Methoxychlor	**0.124**	J	0.50	0.025	0.017	1	11/23/15	11/25/15 10:07	250710	474264	
Toxaphene	**1.30**		1.0	0.50	0.27	1	11/23/15	11/25/15 22:11	250710	474264	
alpha-BHC	**0.179**		0.050	0.025	0.0060	1	11/23/15	11/25/15 10:07	250710	474264	
alpha-Chlordane	**0.180**		0.050	0.025	0.0070	1	11/23/15	11/25/15 10:07	250710	474264	
beta-BHC	**0.171**		0.050	0.028	0.028	1	11/23/15	11/25/15 10:07	250710	474264	
delta-BHC	**0.165**		0.050	0.048	0.048	1	11/23/15	11/25/15 10:07	250710	474264	
gamma-BHC (Lindane)	**0.185**		0.050	0.025	0.0060	1	11/23/15	11/25/15 10:07	250710	474264	
gamma-Chlordane	**0.179**		0.050	0.025	0.0080	1	11/23/15	11/25/15 10:07	250710	474264	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	56	30-135	11/25/15 10:07	
Tetrachloro-m-xylene	86	25-140	11/25/15 10:07	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL239.D
Acq On : 25 Nov 2015 10:07 am
Operator : m.pedro
Sample : rq1514596-02|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 15:20:06 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1)	S SURR1,Tet...	9.303	9.250	3985.6E6	1735.1E6	87.812	85.948
	Spiked Amount 100.000	Range 30 - 150		Recovery =		87.81%	85.95%
26)	S SURR2,Dec...	17.463	17.777	1809.1E6	832.6E6	58.420	56.489
	Spiked Amount 100.000	Range 30 - 150		Recovery =		58.42%	56.49%
	Target Compounds						
2)	TC HEXACHLOR...	9.995	10.069	1046.5E6	407.8E6	16.917	15.345
3)	tc alpha-BHC	10.293	10.325	1277.7E6	550.0E6	18.716	17.855
4)	tcm gamma-BHC (L	10.816	10.895	1132.3E6	501.2E6	18.859	18.468
5)	tcm Heptachlor	11.567	11.548	1056.6E6	462.9E6	18.014	17.220
6)	tcm Aldrin	12.020	12.018	932.1E6	417.2E6	17.370	16.704
7)	tc beta-BHC	10.971	11.050	478.6E6	203.2E6	17.964	17.102
8)	tc delta-BHC	11.243	11.486	968.7E6	410.3E6	17.858m	16.472
9)	tc Heptachlor E	12.915	12.852	920.3E6	415.6E6	19.283	18.482
10)	tc alpha-Endosu	13.485	13.405	834.8E6	362.5E6	19.442	17.799
11)	tc gamma-Chlord	13.099	13.120	913.5E6	403.5E6	18.826	17.939
12)	tc alpha-Chlord	13.289	13.325	885.1E6	390.9E6	19.105	18.003
13)	tc 4,4'-DDE	13.403	13.567	630.0E6	294.5E6	16.341	15.754
14)	tcm Dieldrin	13.831	13.792	880.9E6	402.3E6	19.829	18.584
15)	tcm Endrin	14.167	14.227	728.7E6	313.9E6	19.305	17.215
17)	tc beta-Endosul	14.493	14.533	672.2E6	313.2E6	18.918	17.551
18)	tc 4,4'-DDD	14.252	14.379	480.8E6	218.7E6	16.230	14.996
19)	tcm 4,4'-DDT	14.654	14.823	479.8E6	203.0E6	15.121	12.808
20)	tc Endrin Aldeh	15.106	15.021	339.6E6	161.0E6	12.621	11.797
21)	tc Endosulfan S	15.759	15.428	543.7E6	260.4E6	17.715m	16.195
22)	tc Methoxychlor	15.344	15.810	226.8E6	97623650	14.000	12.379
24)	tc Endrin Keton	16.174	16.212	621.0E6	283.1E6	17.887m	16.115
	Sum Toxaphene			0	0	N.D.	N.D.
	Average Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
	Average Chlordane					0.000	0.000

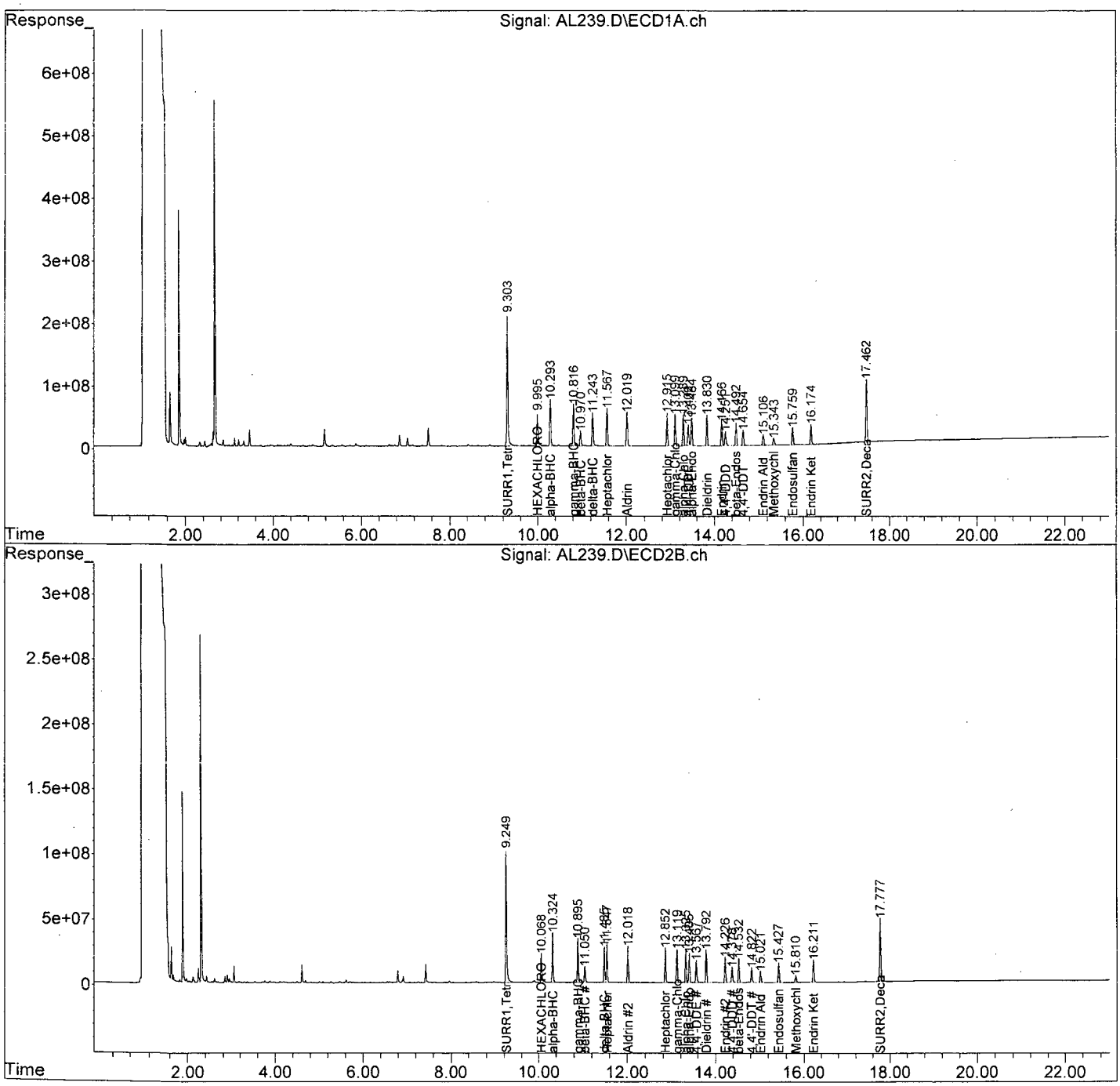
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

12/1

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL239.D
Acq On : 25 Nov 2015 10:07 am
Operator : m.pedro
Sample : rq1514596-02|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 15:20:06 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

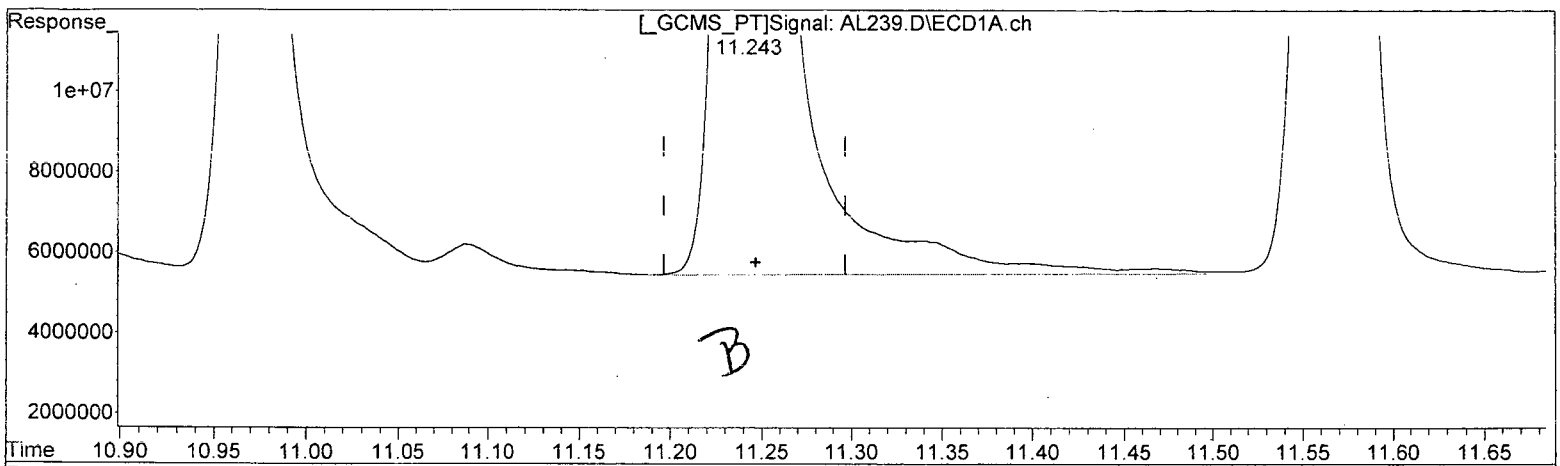


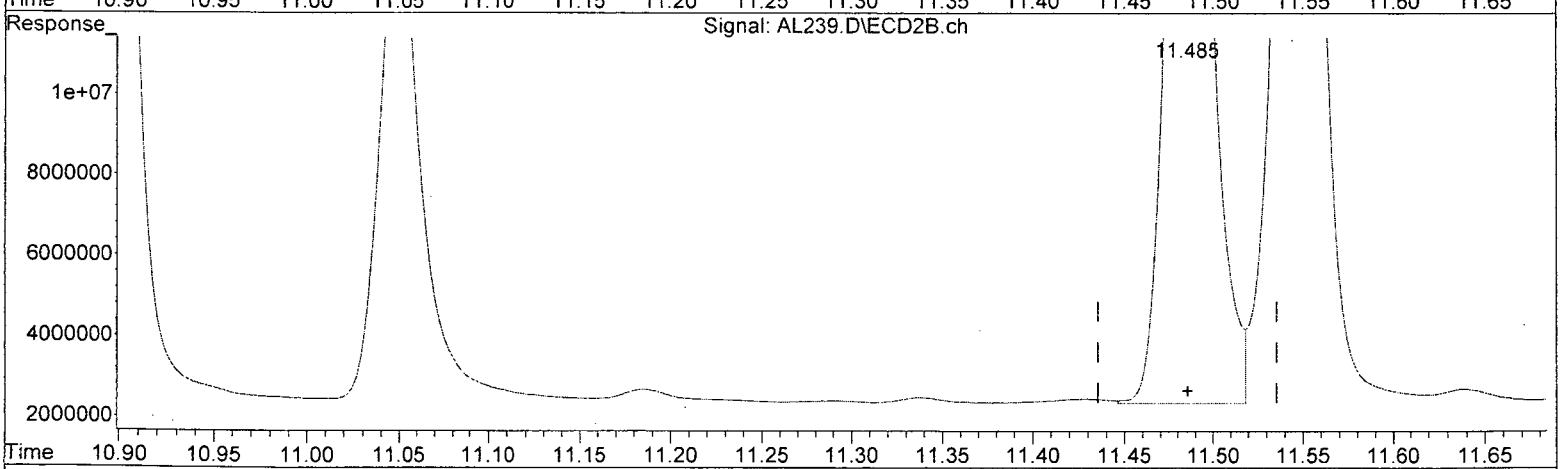
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL239.D
Acq On : 25 Nov 2015 10:07 am
Operator : m.pedro
Sample : rq1514596-02|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 07:30:59 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(8) delta-BHC (tc)

11.244min 18.433 ug/l

response 999877331

B.C

(8) delta-BHC #2 (tc)

11.486min 16.472 ug/l

response 410283995

(+) = Expected Retention Time

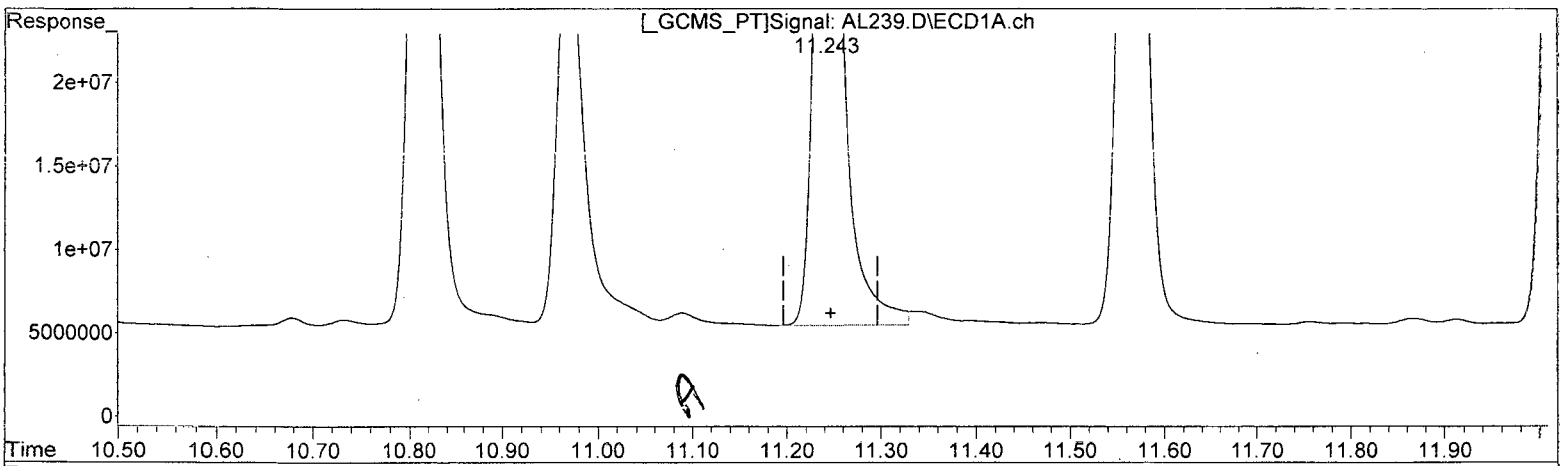
8081102115.M Mon Nov 30 15:15:50 2015

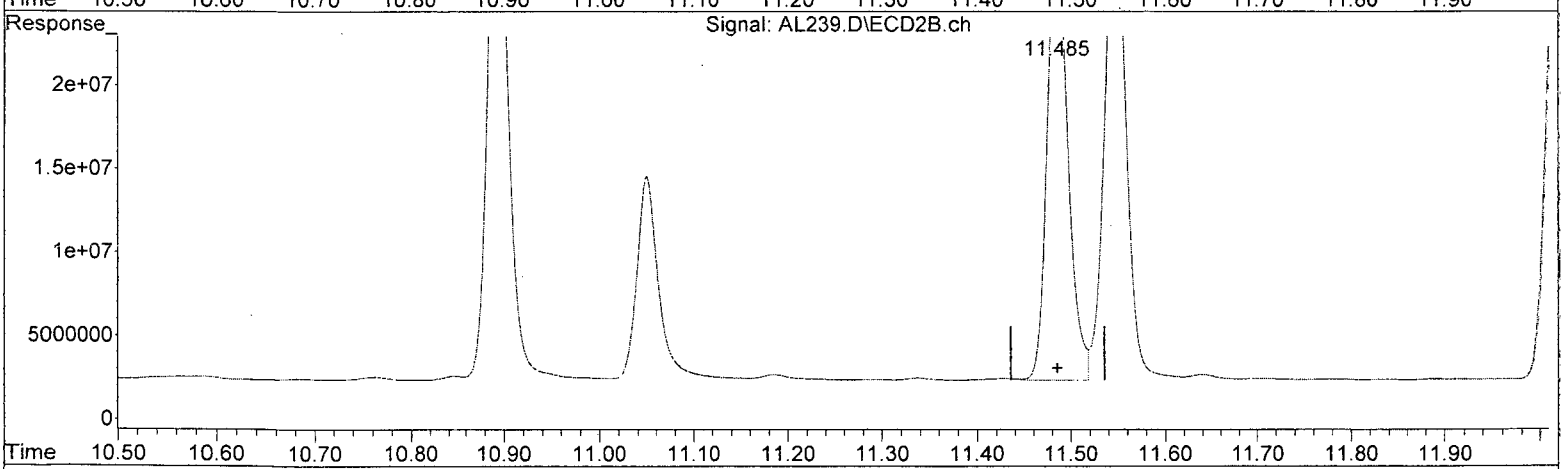
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL239.D
Acq On : 25 Nov 2015 10:07 am
Operator : m.pedro
Sample : rq1514596-02|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 07:30:59 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(8) delta-BHC (tc)

11.243min 17.858 ug/l m

response 968709444

B.C 12/1

(8) delta-BHC #2 (tc)

11.486min 16.472 ug/l

response 410283995

(+) = Expected Retention Time

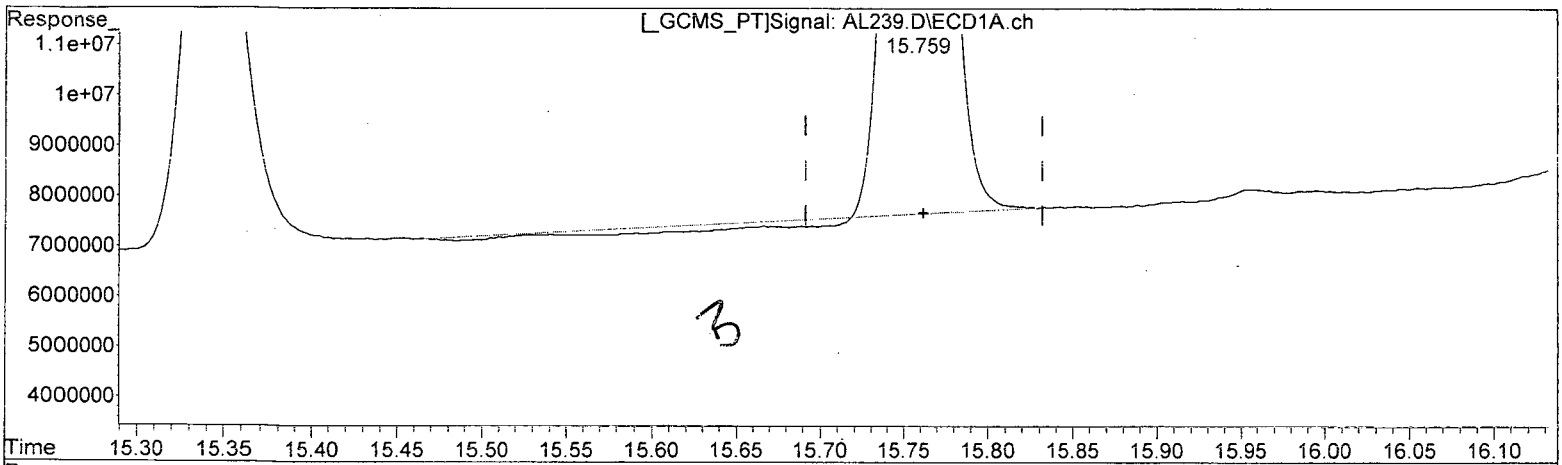
8081102115.M Mon Nov 30 15:17:05 2015 Page: 1

Quantitation Report (QEdit)

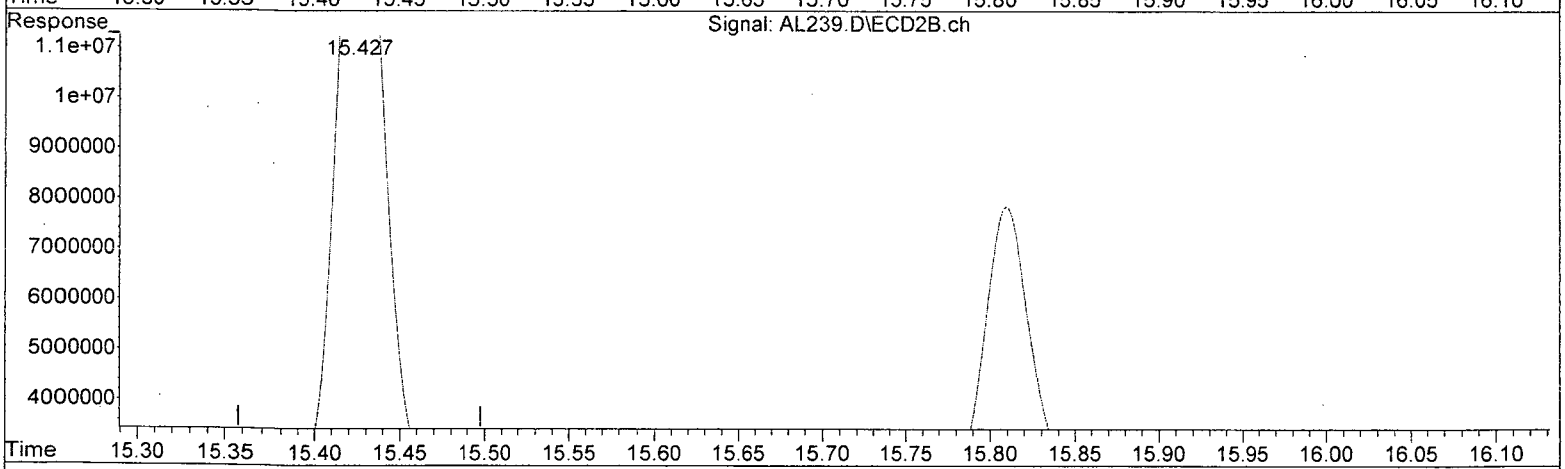
Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL239.D
Acq On : 25 Nov 2015 10:07 am
Operator : m.pedro
Sample : rq1514596-02|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 07:30:59 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



B



QEdit

(21) Endosulfan S (tc)

15.759min 16.991 ug/l

response 521451408

B.U

12/1

(21) Endosulfan S #2 (tc)

15.428min 16.195 ug/l

response 260382204

(+) = Expected Retention Time

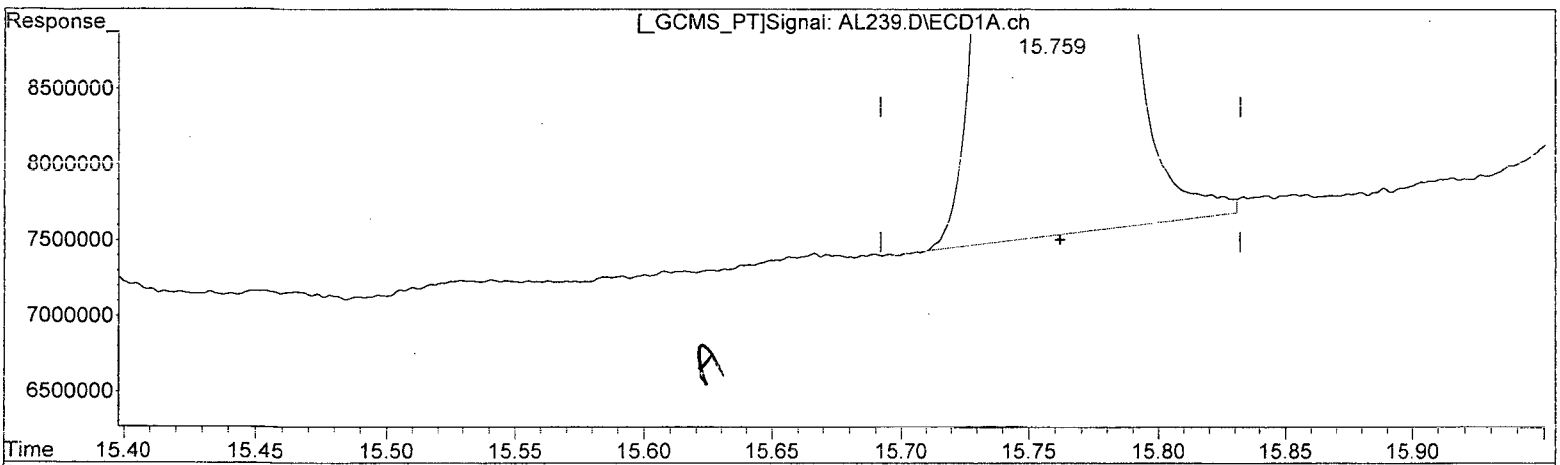
8081102115.M Mon Nov 30 15:18:38 2015 Page: 1

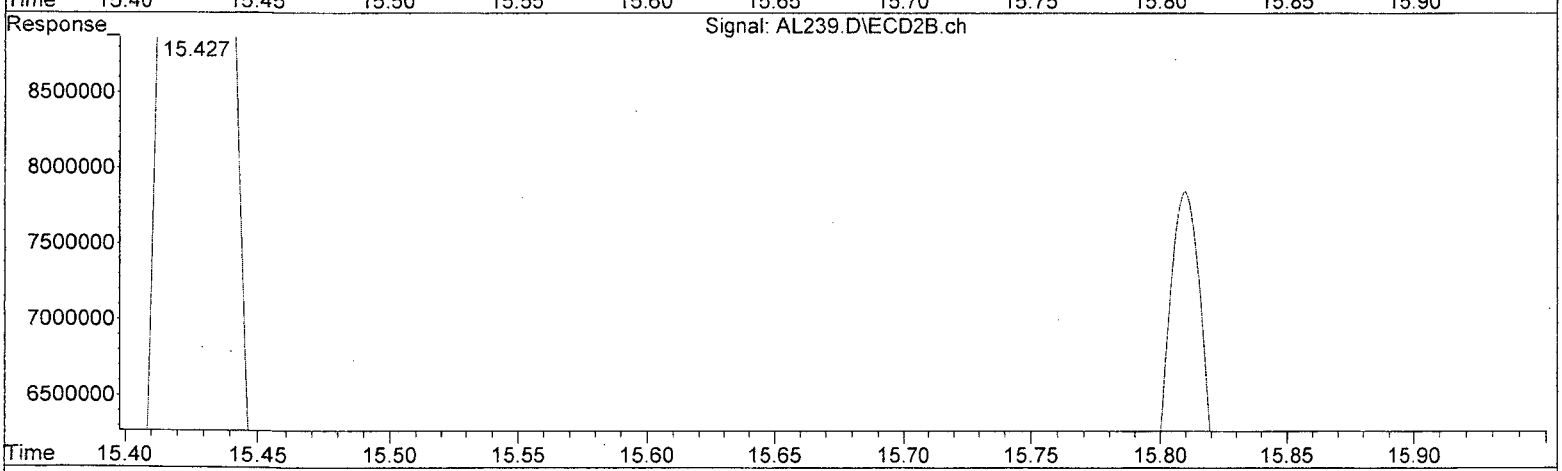
Quantitation Report (QEdit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL239.D
Acq On : 25 Nov 2015 10:07 am
Operator : m.pedro
Sample : rq1514596-02|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 07:30:59 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(21) Endosulfan S (tc)

15.759min 17.715 ug/l m

response 543678800

B.C
12/1

(21) Endosulfan S #2 (tc)

15.428min 16.195 ug/l

response 260382204

12/1

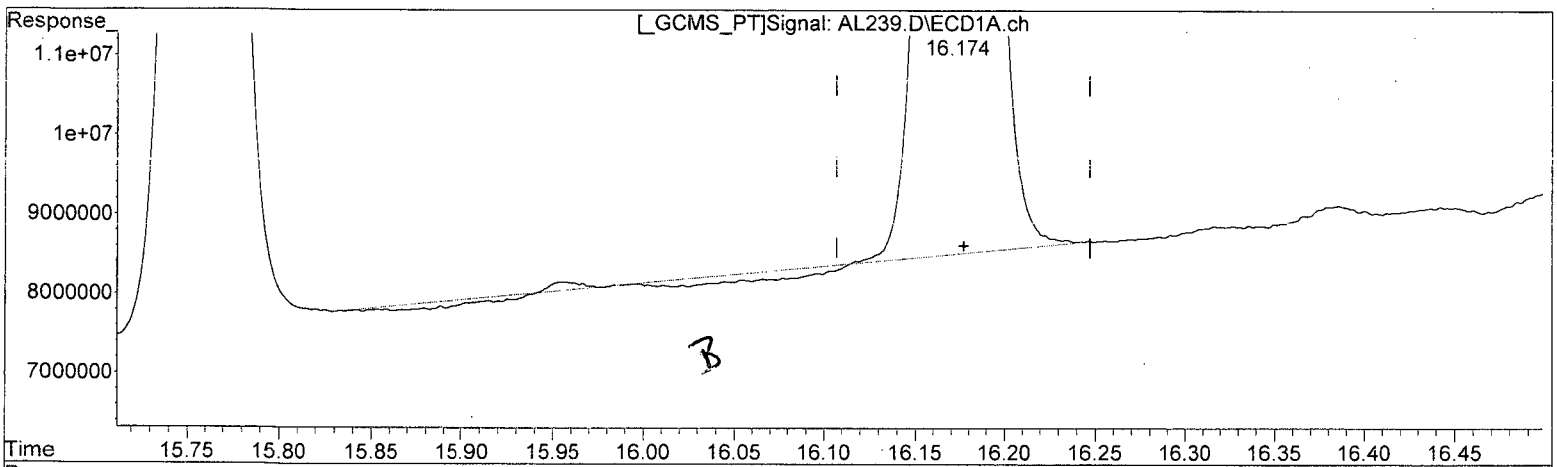
(+) = Expected Retention Time
8081102115.M Mon Nov 30 15:19:00 2015 Page: 1

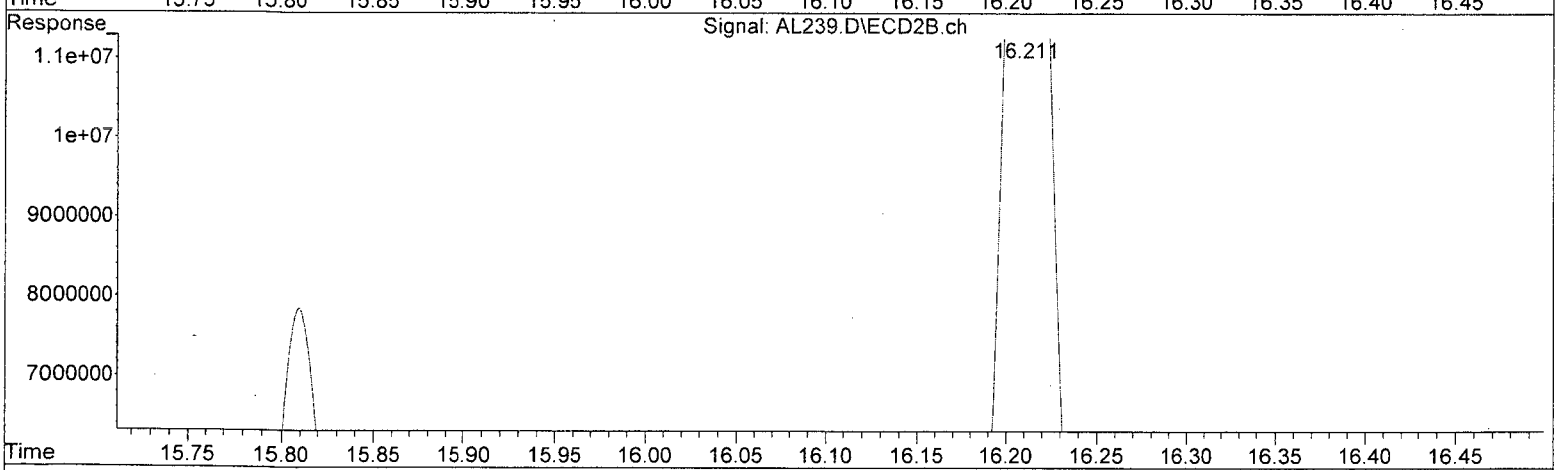
Quantitation Report (QEdit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL239.D
Acq On : 25 Nov 2015 10:07 am
Operator : m.pedro
Sample : rq1514596-02|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 07:30:59 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(24) Endrin Ketone (tc)

16.174min 17.384 ug/l

response 603555442

B.i

12/1

(24) Endrin Ketone #2 (tc)

16.212min 16.115 ug/l

response 283073515

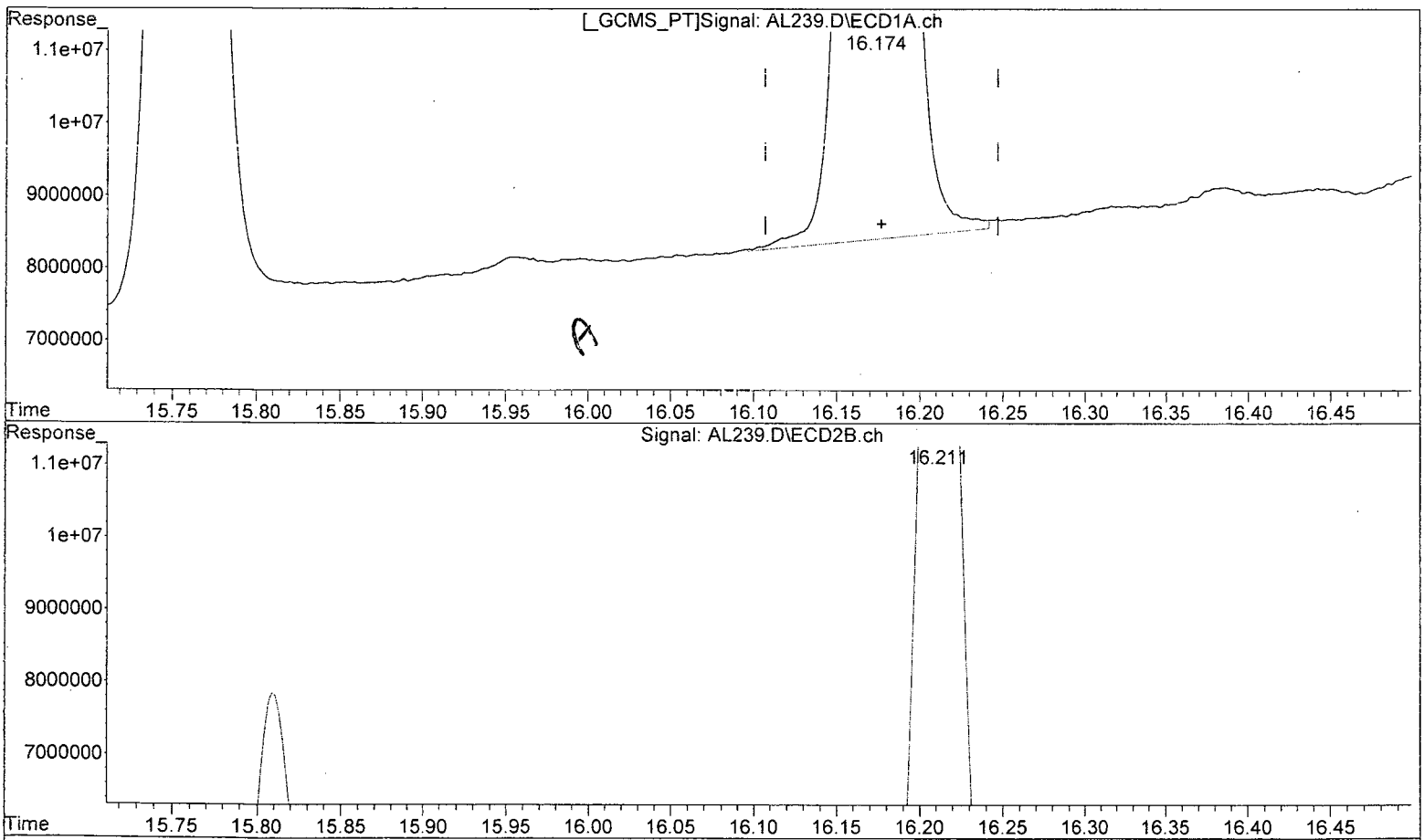
(+) = Expected Retention Time
8081102115.M Mon Nov 30 15:19:25 2015

Quantitation Report (QEdit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL239.D
Acq On : 25 Nov 2015 10:07 am
Operator : m.pedro
Sample : rq1514596-02|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 07:30:59 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(24) Endrin Keton (tc)

16.174min 17.887 ug/l m

response 621008804

B,C

(24) Endrin Keton #2 (tc)

16.212min 16.115 ug/l

response 283073515

(+) = Expected Retention Time

8081102115.M Mon Nov 30 15:19:43 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL265.D
Acq On : 25 Nov 2015 10:11 pm
Operator : m.pedro
Sample : rq1514596-02|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 01 09:44:46 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

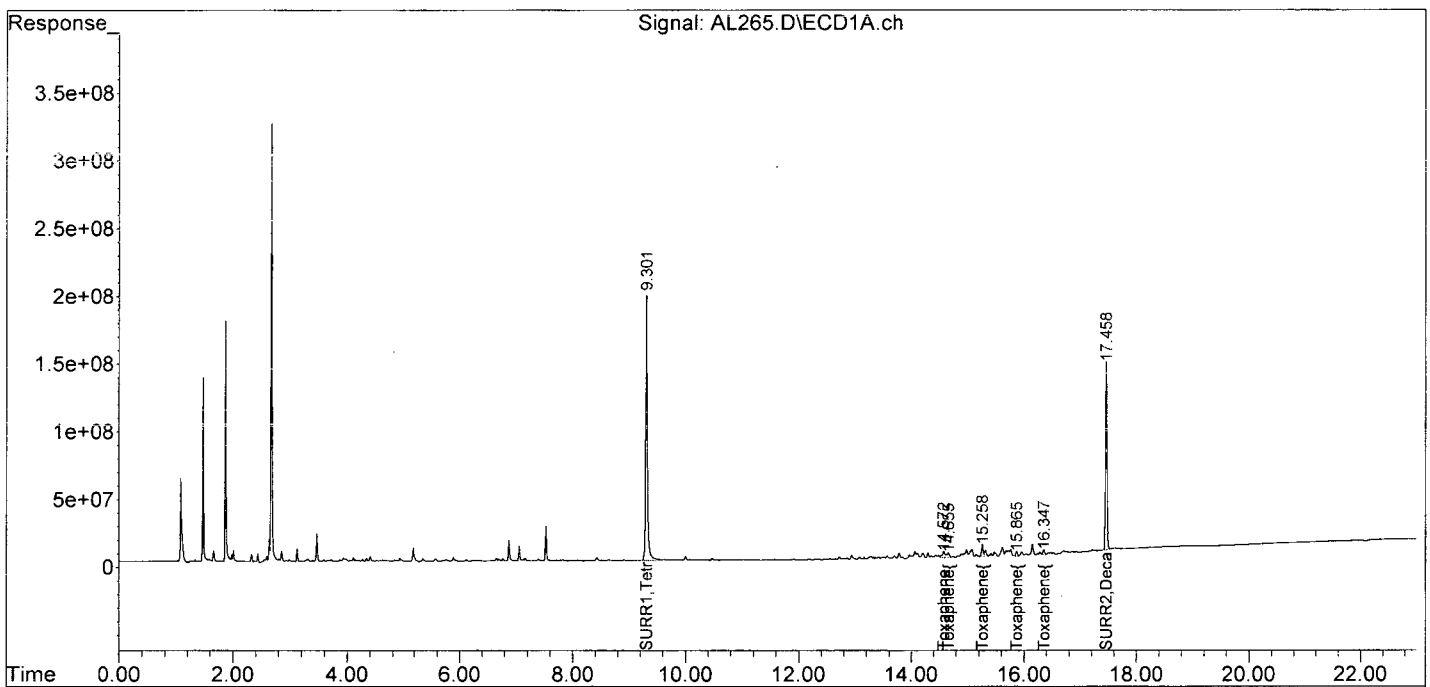
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l	
System Monitoring Compounds							
1) S SURR1,Tet...	9.302	9.250	4006.7E6	1721.0E6	88.275	85.248	
Spiked Amount 100.000	Range 30 - 150		Recovery =		88.28%	85.25%	
26) S SURR2,Dec...	17.458	17.774	2472.9E6	1149.3E6	79.856	77.981	
Spiked Amount 100.000	Range 30 - 150		Recovery =		79.86%	77.98%	
Target Compounds							
27) L8C Toxaphene	14.573	14.645	151.1E6	88966329	177.206	151.005	
28) L8C Toxaphene{2}	14.656	14.915	93022269	46307201	147.715	156.667	
29) L8C Toxaphene{3}	15.258	15.022	187.3E6	80573957	140.668	136.853	
30) L8C Toxaphene{4}	15.866	15.409	73460654	37949401	102.853	102.629	
31) L8C Toxaphene{5}	16.348	16.338	92412762	75801931	82.496	123.335	#
Sum Toxaphene			597.3E6	329.6E6	650.939	670.488	
Average Toxaphene					130.188	134.098	
Sum Chlordane			0	0	N.D.	N.D.	
Average Chlordane					0.000	0.000	

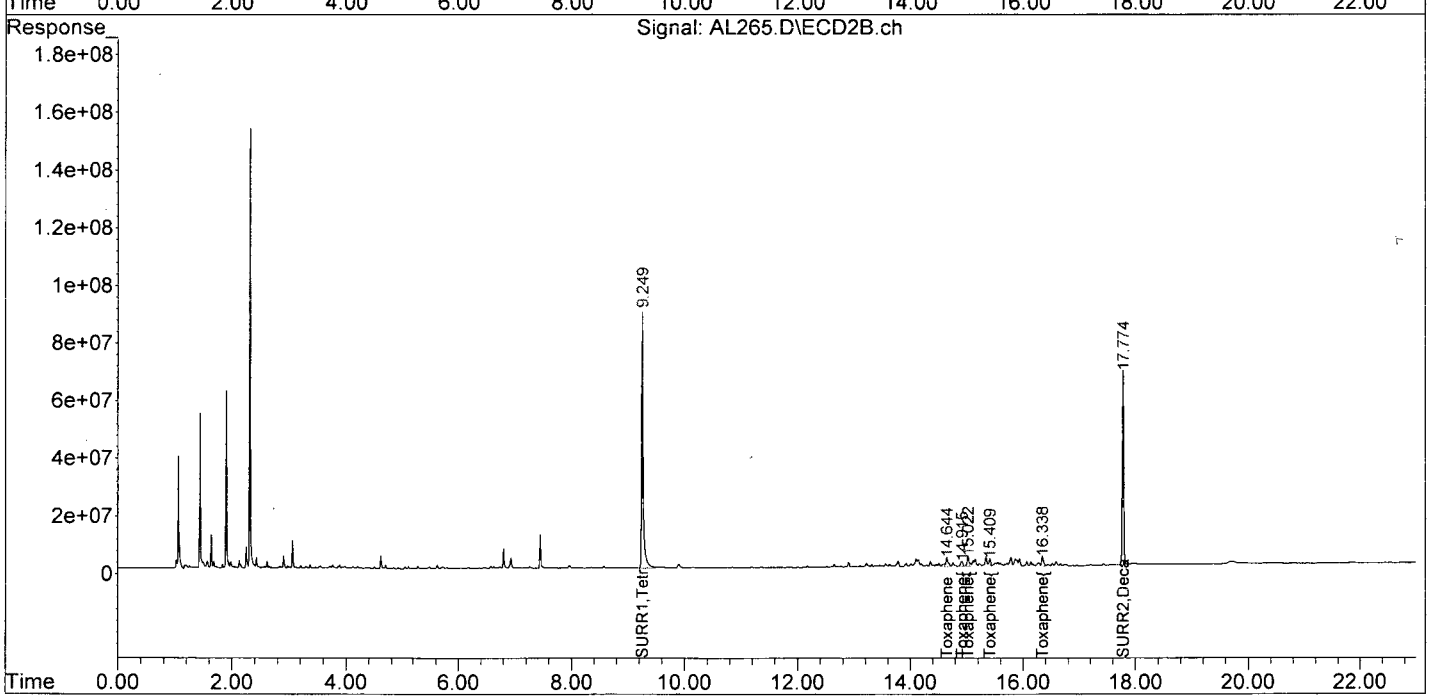
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL265.D
Acq On : 25 Nov 2015 10:11 pm
Operator : m.pedro
Sample : rq1514596-02|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 01 09:44:46 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





8081102115.M Mon Dec 07 12:10:35 2015 Page: 2

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514596-03	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	**0.153**		0.050	0.025	0.013	1	11/23/15	11/25/15 10:34	250710	474264	
4,4'-DDE	**0.158**		0.050	0.025	0.012	1	11/23/15	11/25/15 10:34	250710	474264	
4,4'-DDT	**0.125**		0.050	0.027	0.027	1	11/23/15	11/25/15 10:34	250710	474264	
Aldrin	**0.158**		0.050	0.025	0.0090	1	11/23/15	11/25/15 10:34	250710	474264	
Dieldrin	**0.183**		0.050	0.025	0.0080	1	11/23/15	11/25/15 10:34	250710	474264	
Endosulfan I	**0.176**		0.050	0.025	0.011	1	11/23/15	11/25/15 10:34	250710	474264	
Endosulfan II	**0.174**		0.050	0.025	0.010	1	11/23/15	11/25/15 10:34	250710	474264	
Endosulfan Sulfate	**0.166**		0.050	0.025	0.012	1	11/23/15	11/25/15 10:34	250710	474264	
Endrin	**0.171**		0.050	0.025	0.017	1	11/23/15	11/25/15 10:34	250710	474264	
Endrin Aldehyde	**0.111**		0.050	0.025	0.020	1	11/23/15	11/25/15 10:34	250710	474264	
Endrin Ketone	**0.162**		0.050	0.025	0.013	1	11/23/15	11/25/15 10:34	250710	474264	
Heptachlor	**0.165**		0.050	0.025	0.0060	1	11/23/15	11/25/15 10:34	250710	474264	
Heptachlor Epoxide	**0.181**		0.050	0.025	0.0070	1	11/23/15	11/25/15 10:34	250710	474264	
Methoxychlor	**0.126**	J	0.50	0.025	0.017	1	11/23/15	11/25/15 10:34	250710	474264	
Toxaphene	**1.48**		1.0	0.50	0.27	1	11/23/15	11/25/15 22:39	250710	474264	
alpha-BHC	**0.176**		0.050	0.025	0.0060	1	11/23/15	11/25/15 10:34	250710	474264	
alpha-Chlordane	**0.177**		0.050	0.025	0.0070	1	11/23/15	11/25/15 10:34	250710	474264	
beta-BHC	**0.168**		0.050	0.028	0.028	1	11/23/15	11/25/15 10:34	250710	474264	
delta-BHC	**0.165**		0.050	0.048	0.048	1	11/23/15	11/25/15 10:34	250710	474264	
gamma-BHC (Lindane)	**0.181**		0.050	0.025	0.0060	1	11/23/15	11/25/15 10:34	250710	474264	
gamma-Chlordane	**0.176**		0.050	0.025	0.0080	1	11/23/15	11/25/15 10:34	250710	474264	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	59	30-135	11/25/15 10:34	
Tetrachloro-m-xylene	84	25-140	11/25/15 10:34	

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL240.D
Acq On : 25 Nov 2015 10:34 am
Operator : m.pedro
Sample : rq1514596-03|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 30 15:23:40 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1) S	SURR1,Tet...	9.303	9.250	3927.5E6	1698.5E6	86.530	84.134
	Spiked Amount 100.000	Range 30 - 150		Recovery =		86.53%	84.13%
26) S	SURR2,Dec...	17.461	17.777	1885.6E6	876.3E6	60.892	59.456
	Spiked Amount 100.000	Range 30 - 150		Recovery =		60.89%	59.46%
	Target Compounds						
2) TC	HEXACHLOR...	9.995	10.069	997.2E6	388.8E6	16.120	14.633
3) tc	alpha-BHC	10.293	10.325	1253.8E6	540.7E6	18.366	17.554
4) tcm	gamma-BHC (L	10.815	10.895	1113.7E6	492.0E6	18.550	18.130
5) tcm	Heptachlor	11.566	11.548	1013.3E6	443.4E6	17.276	16.495
6) tcm	Aldrin	12.019	12.018	885.2E6	395.0E6	16.496	15.815
7) tc	beta-BHC	10.971	11.051	468.8E6	199.5E6	17.599	16.788
8) tc	delta-BHC	11.243	11.486	977.0E6	411.7E6	18.012m	16.528
9) tc	Heptachlor E	12.914	12.852	900.6E6	407.7E6	18.870	18.130
10) tc	alpha-Endosu	13.484	13.404	818.2E6	357.8E6	19.056	17.568
11) tc	gamma-Chlord	13.097	13.119	893.5E6	395.6E6	18.413	17.590
12) tc	alpha-Chlord	13.288	13.325	869.8E6	384.3E6	18.775	17.700
13) tc	4,4'-DDE	13.402	13.567	629.2E6	294.4E6	16.320	15.750
14) tcm	Dieldrin	13.829	13.792	864.1E6	396.0E6	19.452	18.290
15) tcm	Endrin	14.166	14.226	719.8E6	311.0E6	19.068	17.058
17) tc	beta-Endosul	14.491	14.532	664.0E6	309.7E6	18.687	17.356
18) tc	4,4'-DDD	14.251	14.379	488.2E6	222.8E6	16.479	15.276
19) tcm	4,4'-DDT	14.653	14.822	474.4E6	198.1E6	14.950	12.498
20) tc	Endrin Aldeh	15.105	15.021	323.1E6	151.0E6	12.007	11.061
21) tc	Endosulfan S	15.757	15.427	556.7E6	266.5E6	18.139m	16.574
22) tc	Methoxychlor	15.342	15.809	232.9E6	99005327	14.376	12.554
24) tc	Endrin Keton	16.172	16.212	621.9E6	284.9E6	17.912m	16.218
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
Average	Chlordane					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

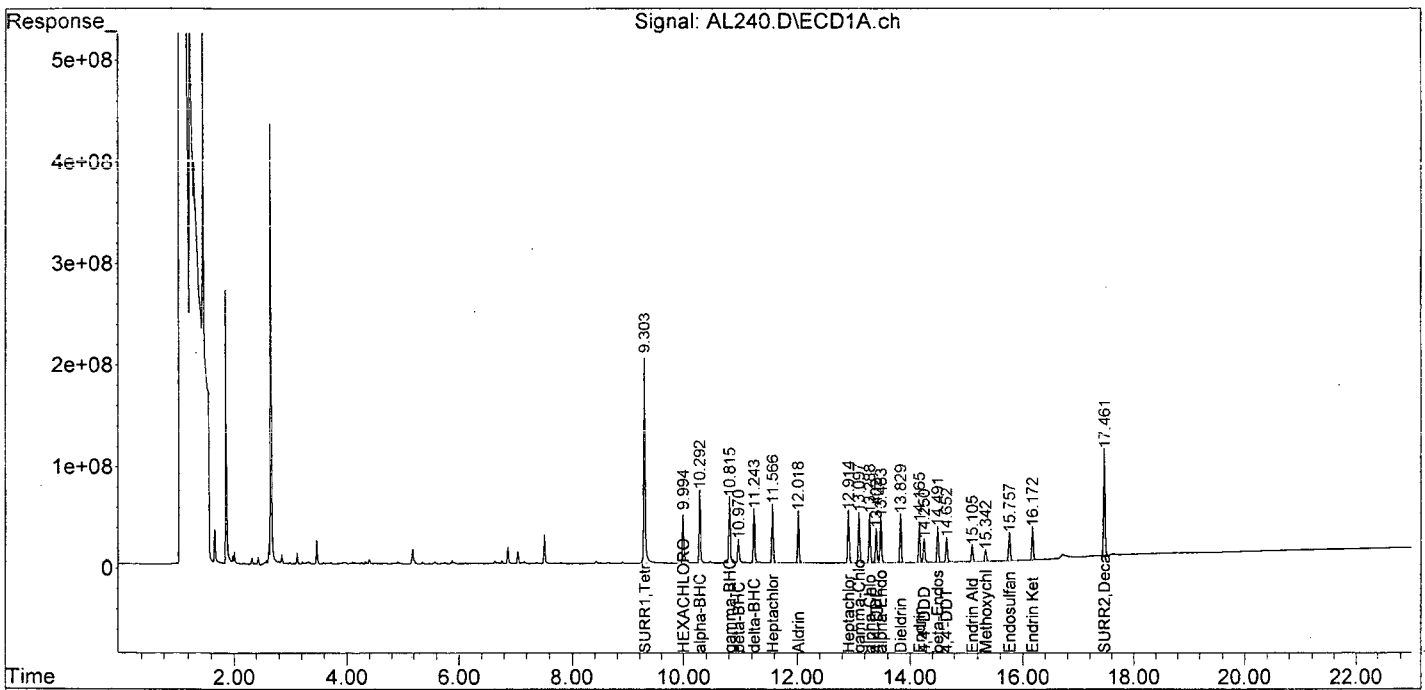
AM 12/1

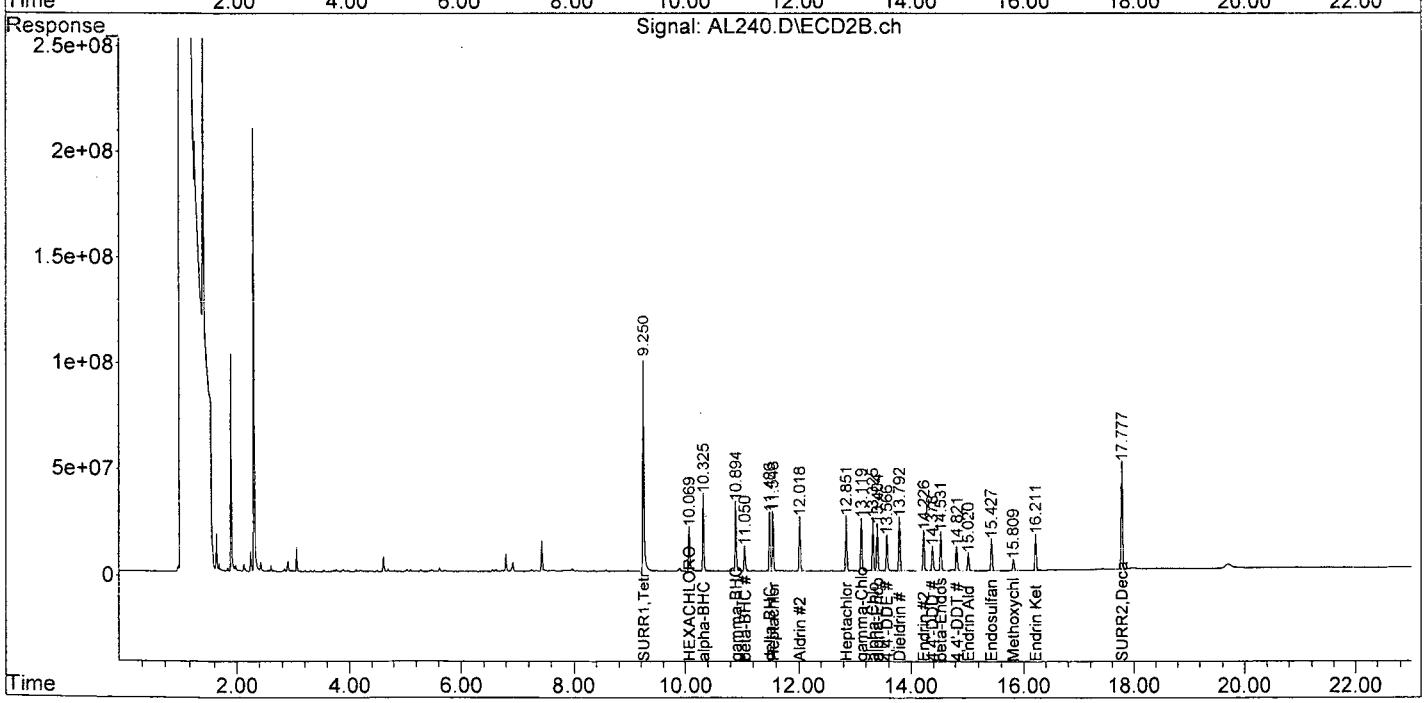
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL240.D
Acq On : 25 Nov 2015 10:34 am
Operator : m.pedro
Sample : rql514596-03|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 30 15:23:40 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





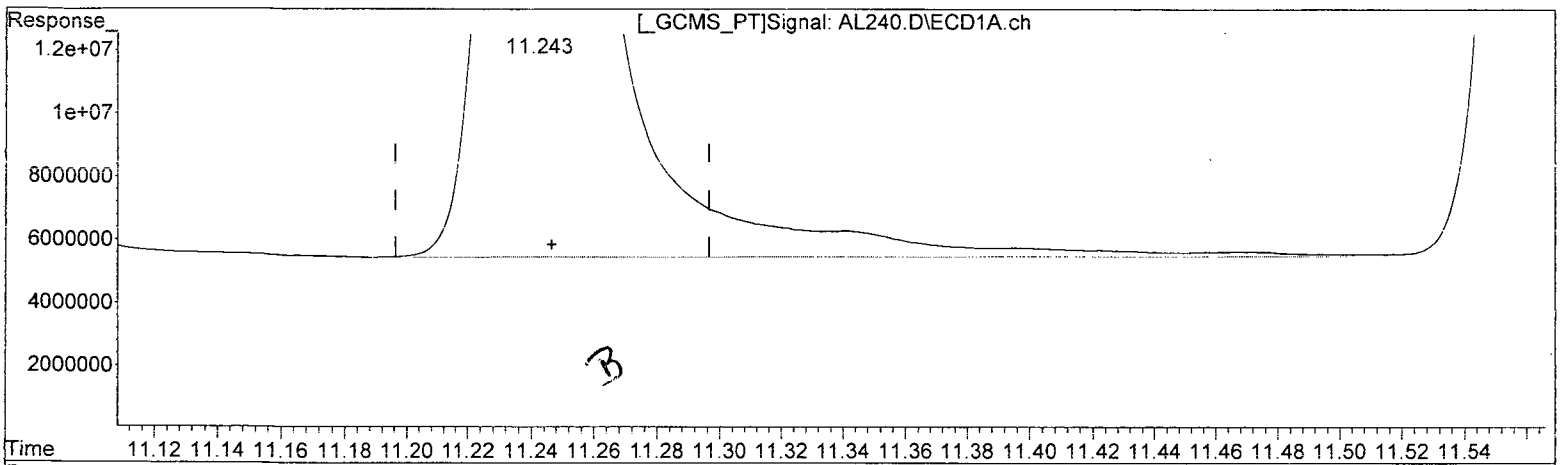
8081102115.M Tue Dec 01 09:47:24 2015 Page: 2

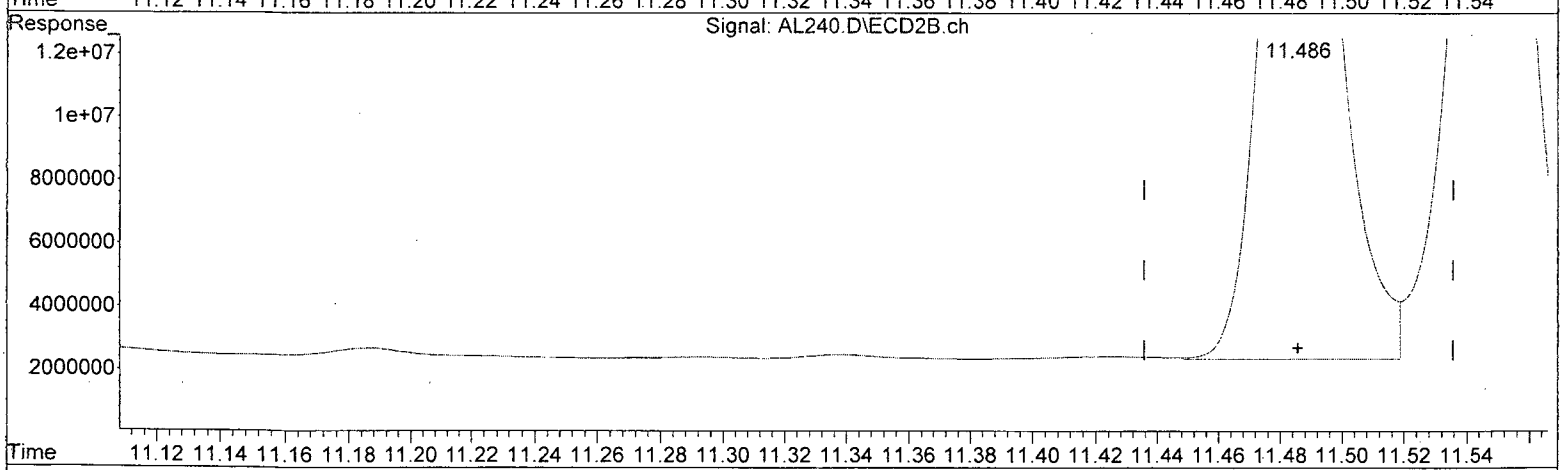
Quantitation Report (QEdit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL240.D
Acq On : 25 Nov 2015 10:34 am
Operator : m.pedro
Sample : rq1514596-03|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 30 07:31:03 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(8) delta-BHC (tc)

11.244min 18.592 ug/l

response 1008504287

B.C
12/1

(8) delta-BHC #2 (tc)

11.486min 16.528 ug/l

response 411671199

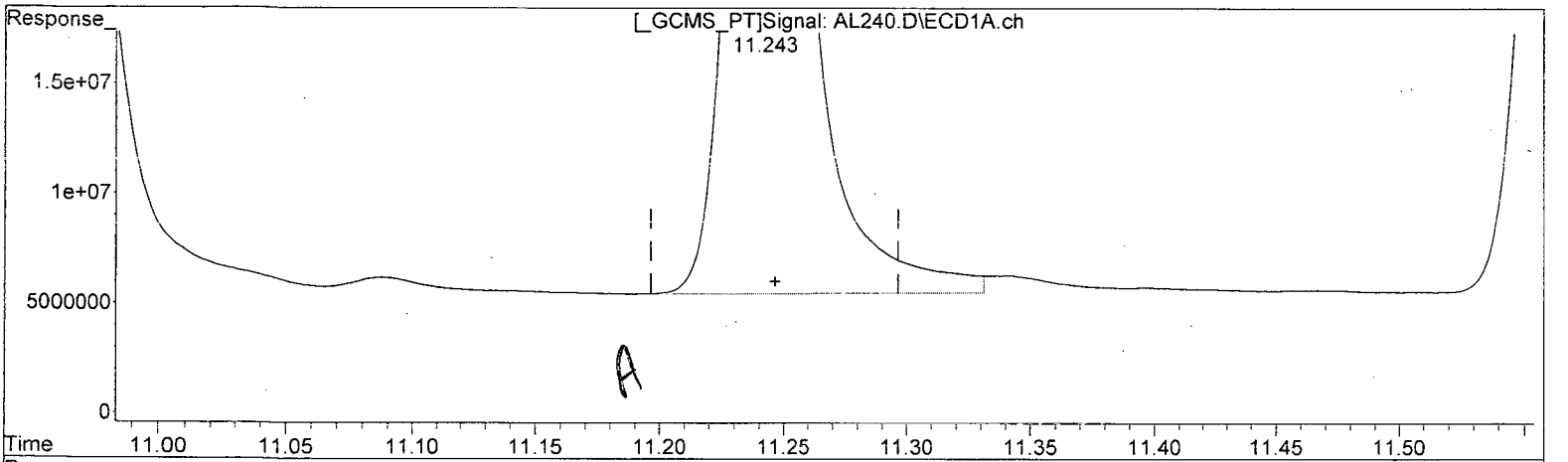
(+) = Expected Retention Time
8081102115.M Mon Nov 30 15:21:10 2015 Page: 1

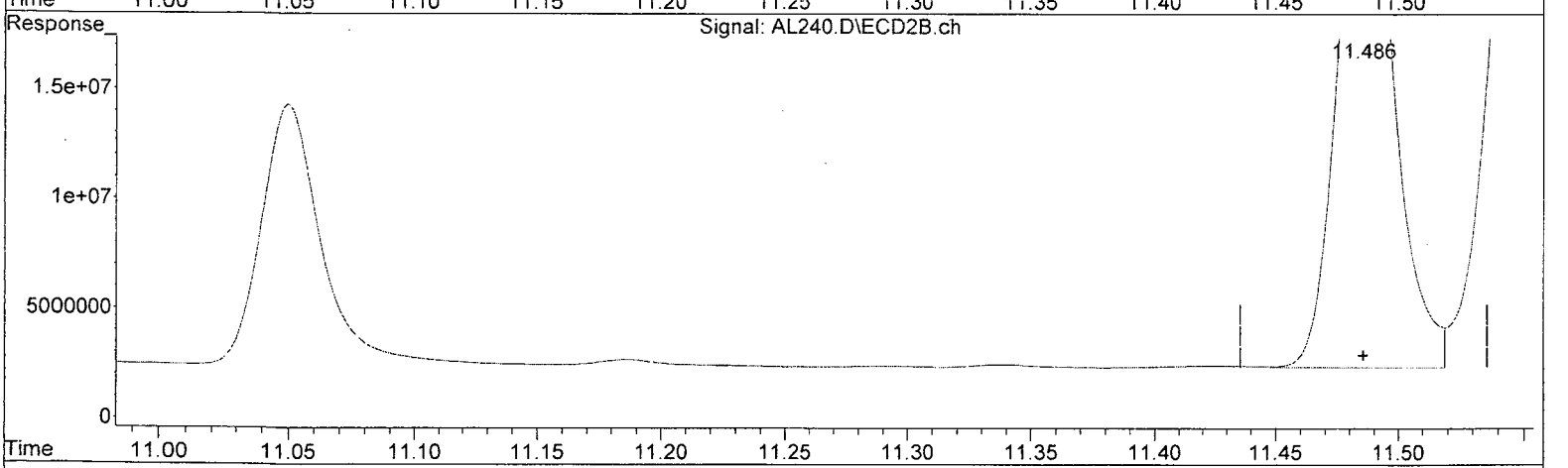
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL240.D
Acq On : 25 Nov 2015 10:34 am
Operator : m.pedro
Sample : rq1514596-03|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 30 07:31:03 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(8) delta-BHC (tc)

11.243min 18.012 ug/l m

response 977048728

B.C
12/1

(8) delta-BHC #2 (tc)

11.486min 16.528 ug/l

response 411671199

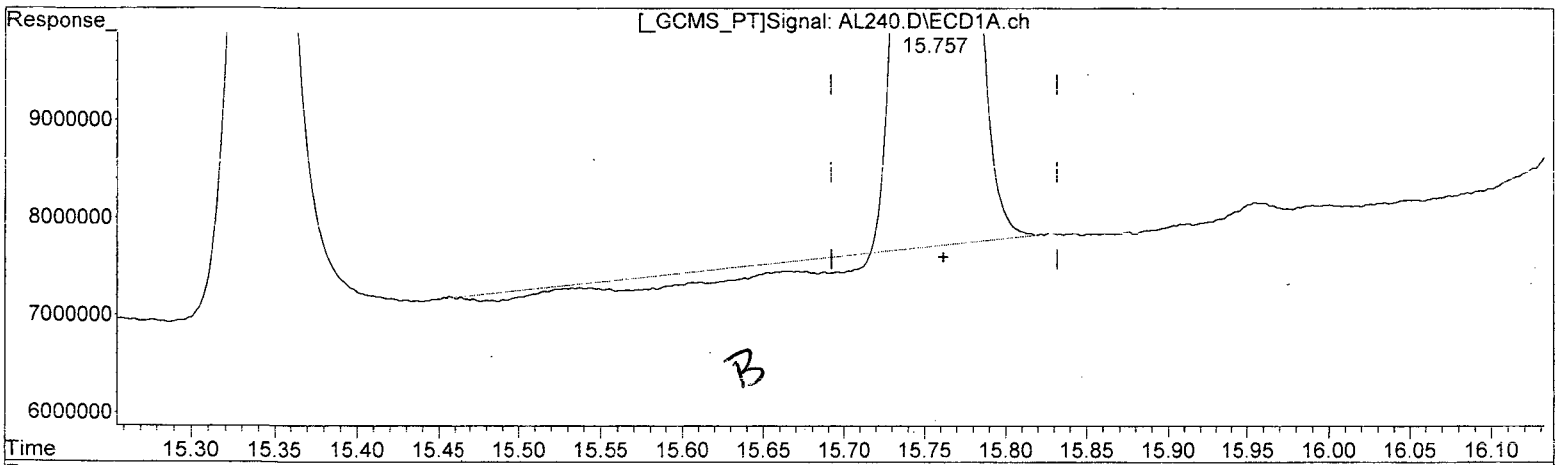
(+) = Expected Retention Time
8081102115.M Mon Nov 30 15:21:50 2015 Page: 1

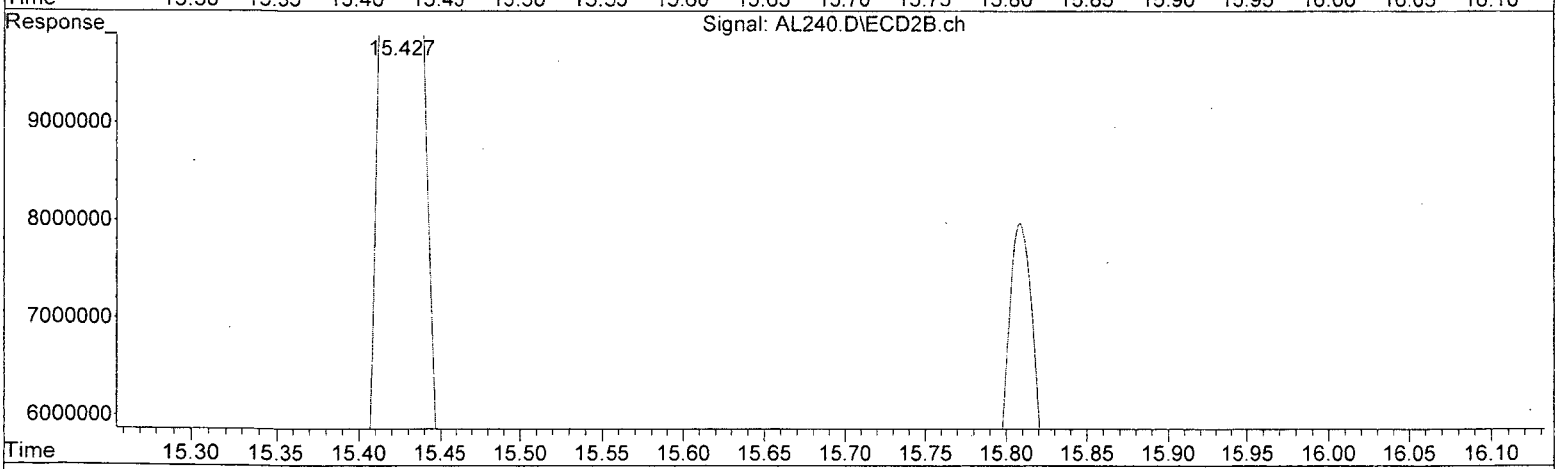
Quantitation Report (QEdit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL240.D
Acq On : 25 Nov 2015 10:34 am
Operator : m.pedro
Sample : rq1514596-03|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 30 07:31:03 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(21) Endosulfan S (tc)

15.758min 17.211 ug/l

response 528214897

B.C

AM 12/1

(21) Endosulfan S #2 (tc)

15.427min 16.574 ug/l

response 266469258

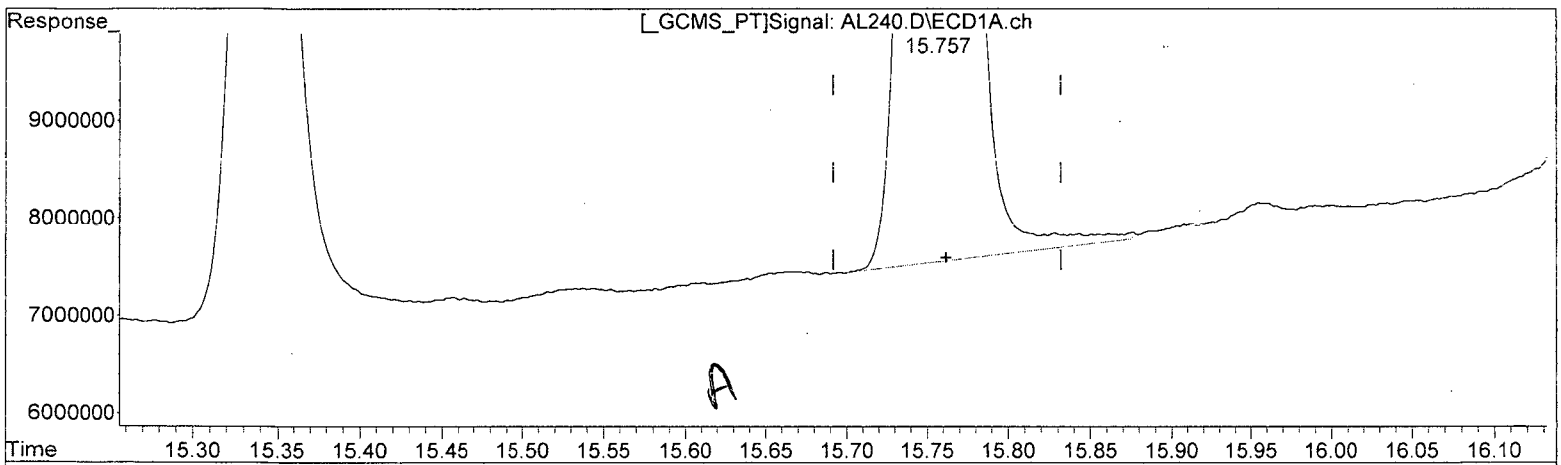
(+) = Expected Retention Time
8081102115.M Mon Nov 30 15:22:36 2015 Page: 1

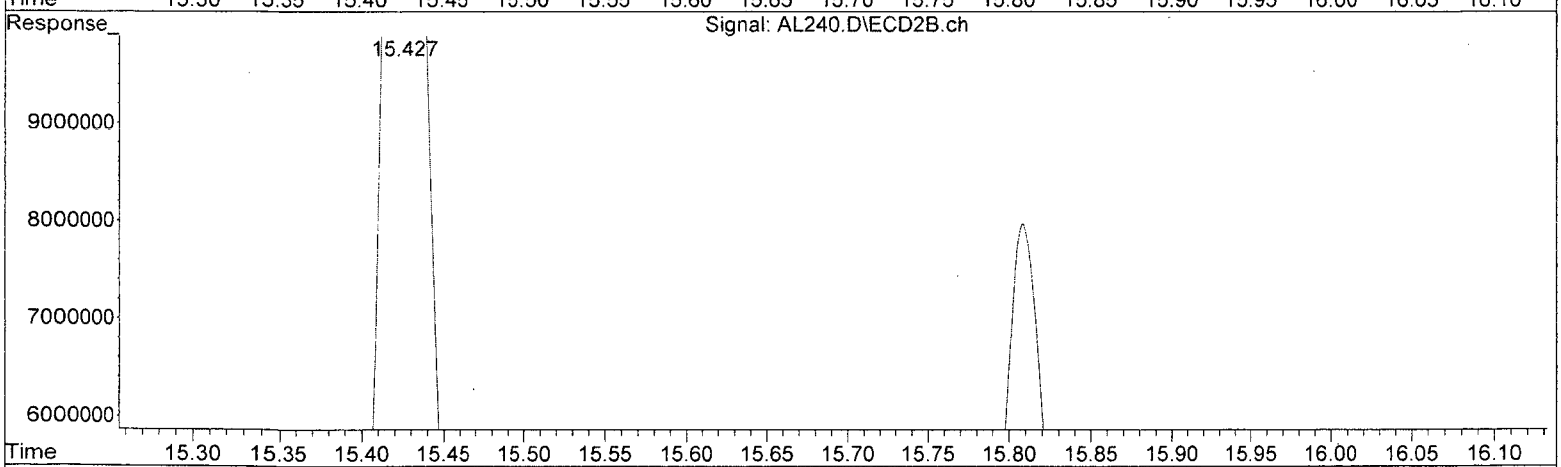
Quantitation Report (QEdit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL240.D
Acq On : 25 Nov 2015 10:34 am
Operator : m.pedro
Sample : rq1514596-03|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 30 07:31:03 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(21) Endosulfan S (tc)

15.757min 18.139 ug/l m

response 556701932

B.C
AM
12/1

(21) Endosulfan S #2 (tc)

15.427min 16.574 ug/l

response 266469258

12/1

(+) = Expected Retention Time

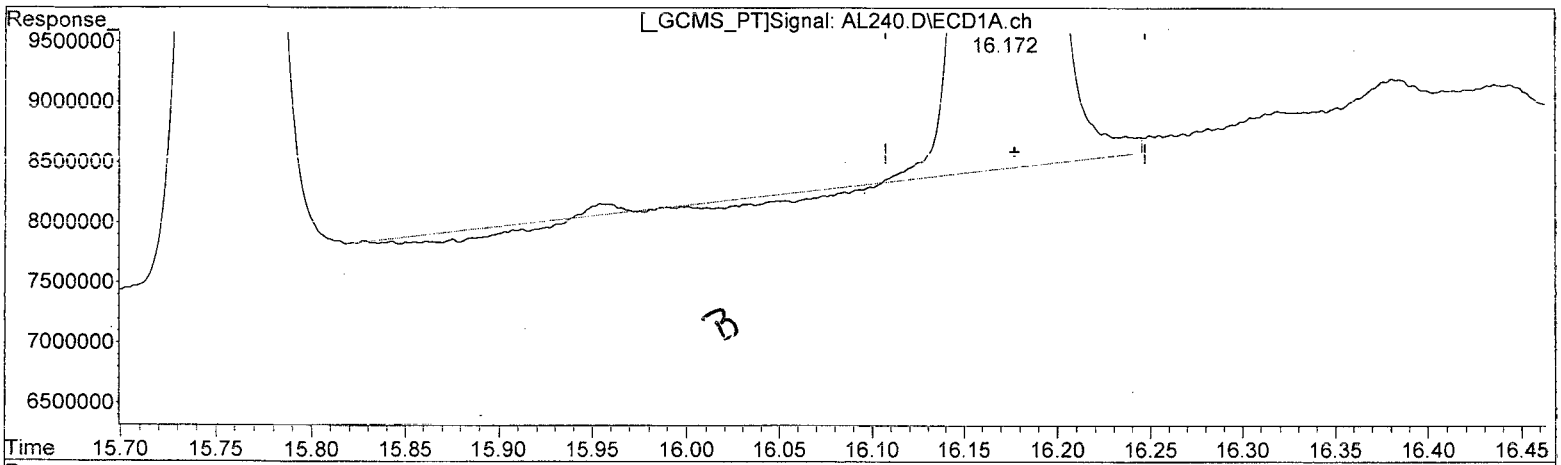
8081102115.M Mon Nov 30 15:23:06 2015 Page: 1

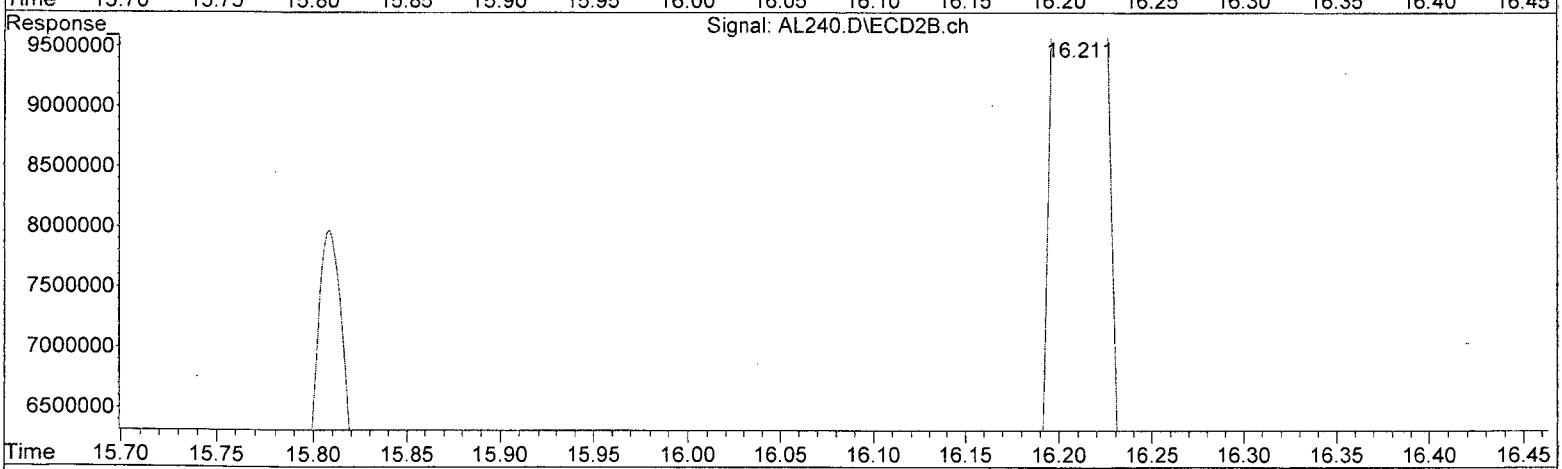
Quantitation Report (QEdit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL240.D
Acq On : 25 Nov 2015 10:34 am
Operator : m.pedro
Sample : rq1514596-03|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 30 07:31:03 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(24) Endrin Ketone (tc)

16.173min 17.745 ug/l

response 616090237

B.C

(24) Endrin Ketone #2 (tc)

16.212min 16.218 ug/l

response 284879540

(+) = Expected Retention Time

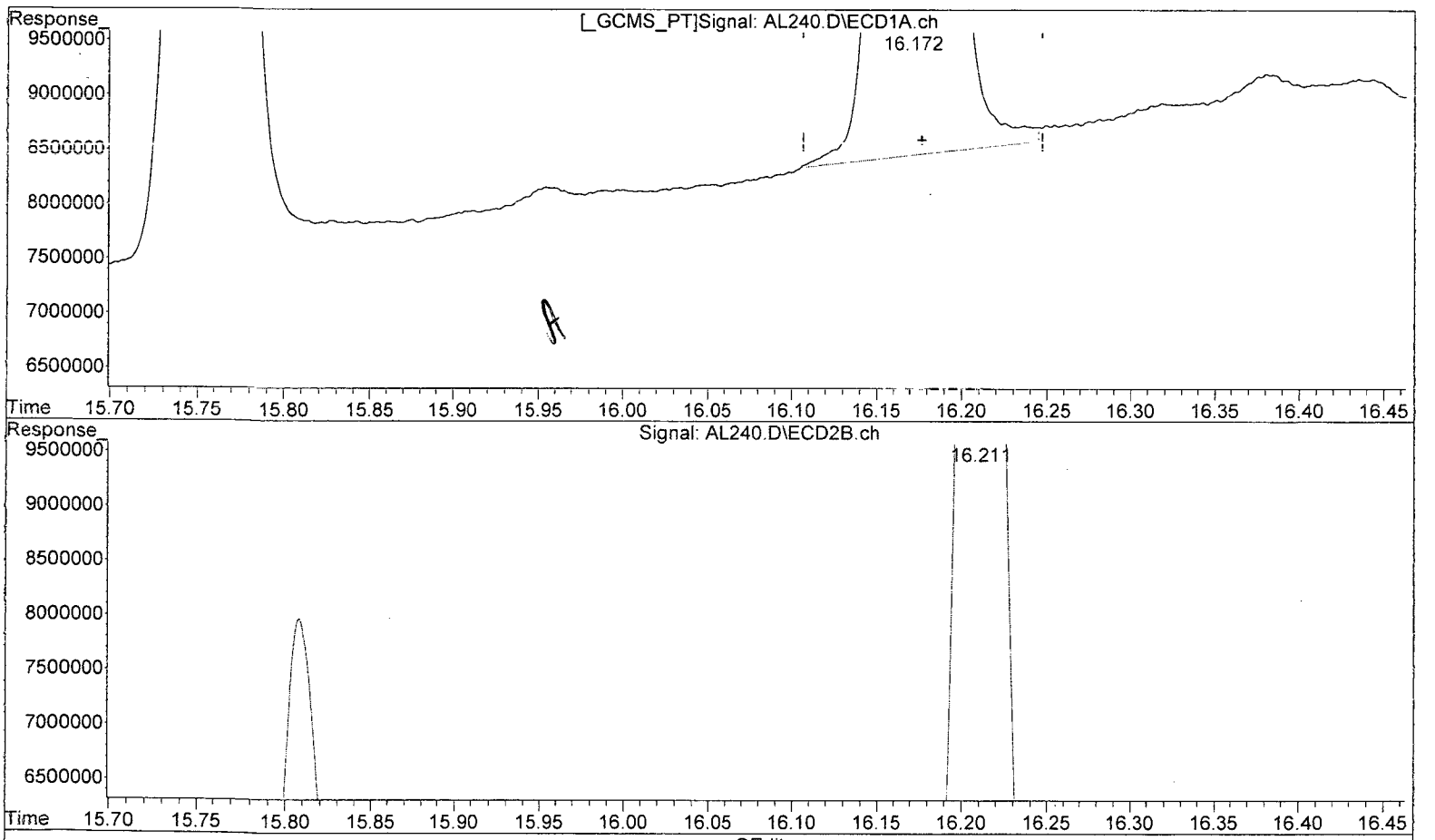
8081102115.M Mon Nov 30 15:23:25 2015 Page: 1

Quantitation Report (QEdit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL240.D
Acq On : 25 Nov 2015 10:34 am
Operator : m.pedro
Sample : rq1514596-03|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 30 07:31:03 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



A

(24) Endrin Keton (tc)

16.172min 17.912 ug/l m

response 621869308

B.C

(24) Endrin Keton #2 (tc)

16.212min 16.218 ug/l

response 284879540

(+) = Expected Retention Time
8081102115.M Mon Nov 30 15:23:42 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL266.D
Acq On : 25 Nov 2015 10:39 pm
Operator : m.pedro
Sample : rq1514596-03|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Dec 01 09:46:15 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l	
	System Monitoring Compounds							
1)	S SURR1,Tet...	9.301	9.249	3943.2E6	1697.9E6	86.876	84.107	
	Spiked Amount 100.000	Range 30 - 150		Recovery =		86.88%	84.11%	
26)	S SURR2,Dec...	17.459	17.775	2770.1E6	1295.6E6	89.453	87.903	
	Spiked Amount 100.000	Range 30 - 150		Recovery =		89.45%	87.90%	
	Target Compounds							
27)	L8C Toxaphene	14.575	14.645	128.0E6	98100634	150.121	166.508	
28)	L8C Toxaphene{2}	14.657	14.915	141.5E6	50510560	224.725	170.887	
29)	L8C Toxaphene{3}	15.258	15.023	207.9E6	87678845	156.111	148.921	
30)	L8C Toxaphene{4}	15.867	15.409	82427527	42352884	115.408	114.538	
31)	L8C Toxaphene{5}	16.349	16.339	107.6E6	86359182	96.091	140.512	#
	Sum Toxaphene			667.5E6	365.0E6	742.456	741.366	
Average	Toxaphene					148.491	148.273	
	Sum Chlordane			0	0	N.D.	N.D.	
Average	Chlordane					0.000	0.000	

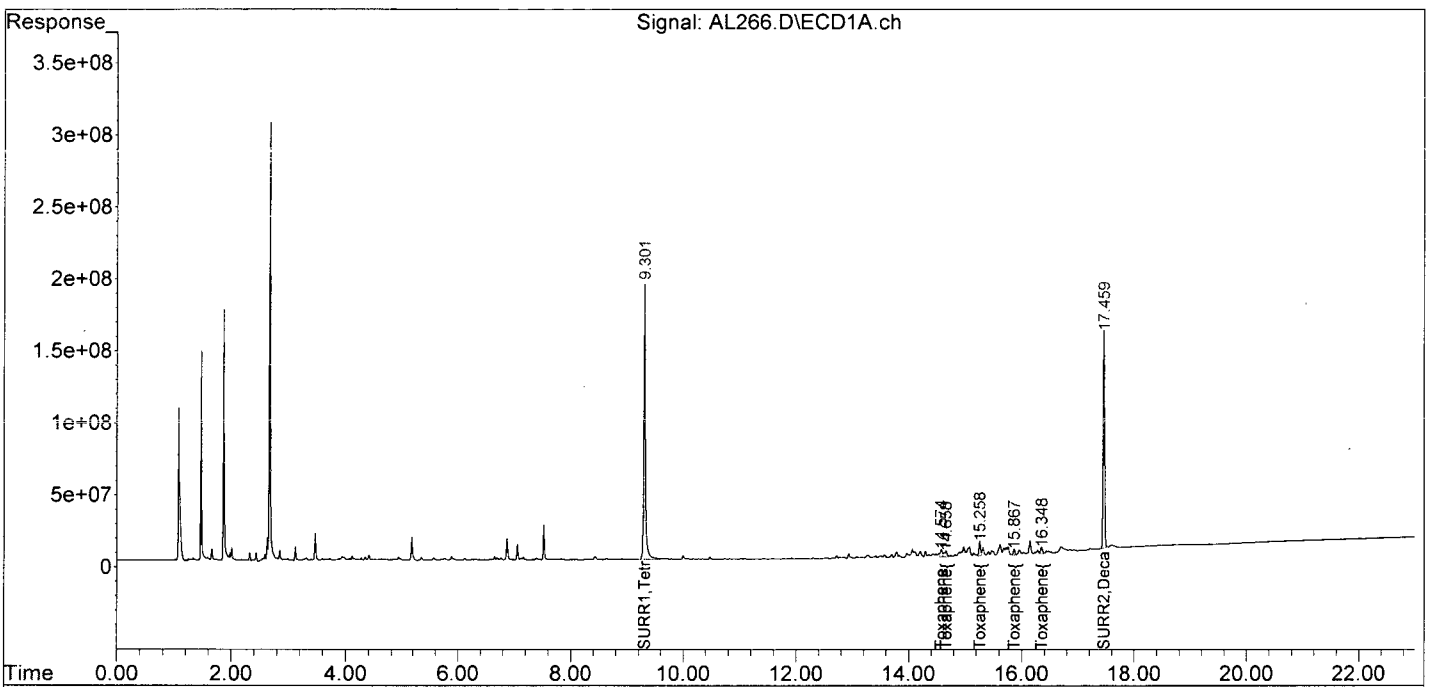
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

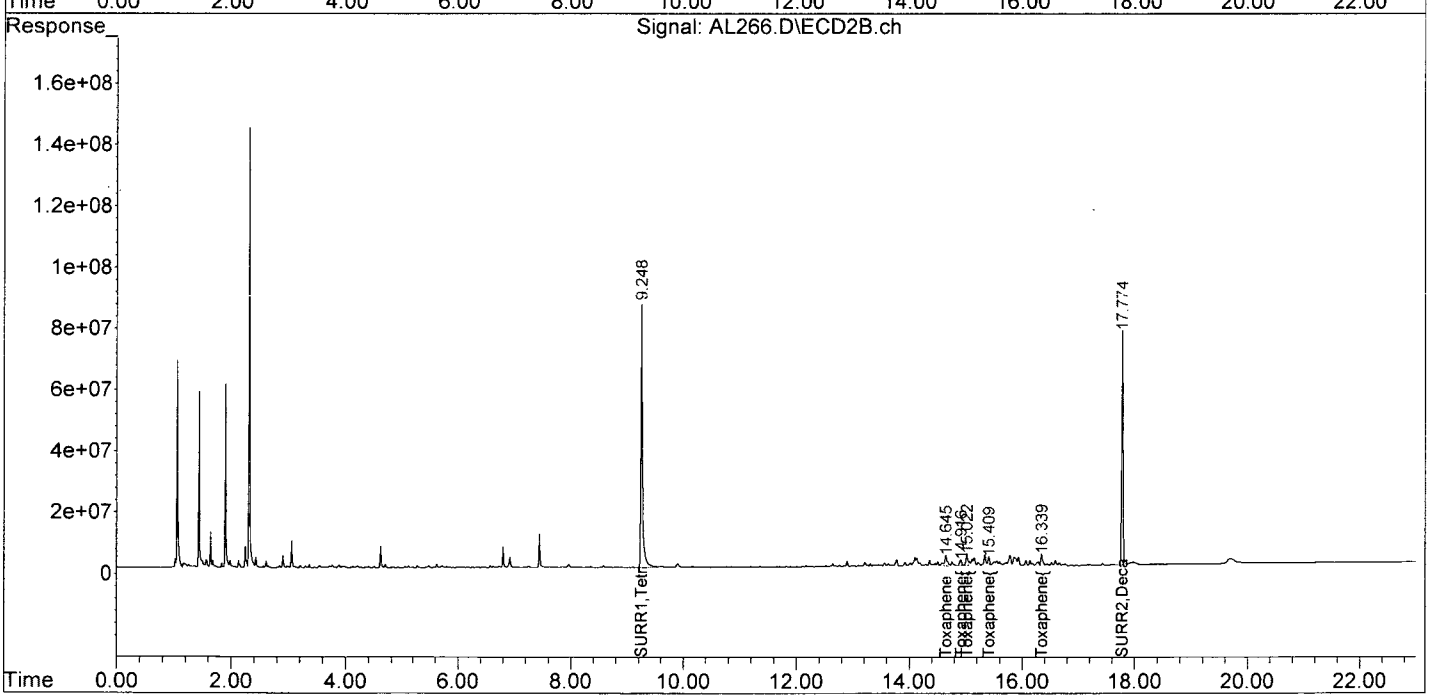
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL266.D
Acq On : 25 Nov 2015 10:39 pm
Operator : m.pedro
Sample : rq1514596-03|1.0 Inst : 7890-M
Misc : 250710 100 8081
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Dec 01 09:46:15 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Tue Dec 01 09:10:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





8081102115.M Mon Dec 07 12:10:45 2015 Page: 2

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1647
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-M8-GW-697MW01-16.5	**Units:**	µg/L
Lab Code:	RQ1514596-04	**Basis:**	NA
Run Type:	Matrix Spike		

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	**0.956**		0.047	0.025	0.013	1	11/23/15	11/25/15 14:45	250710	474264	
4,4'-DDE	**0.186**		0.047	0.025	0.012	1	11/23/15	11/25/15 14:45	250710	474264	
4,4'-DDT	**0.166**		0.047	0.027	0.027	1	11/23/15	11/25/15 14:45	250710	474264	
Aldrin	**0.156**		0.047	0.025	0.0090	1	11/23/15	11/25/15 14:45	250710	474264	
Dieldrin	**0.194**		0.047	0.025	0.0080	1	11/23/15	11/25/15 14:45	250710	474264	
Endosulfan I	**0.199**		0.047	0.025	0.011	1	11/23/15	11/25/15 14:45	250710	474264	
Endosulfan II	**0.187**		0.047	0.025	0.010	1	11/23/15	11/25/15 14:45	250710	474264	
Endosulfan Sulfate	**0.167**		0.047	0.025	0.012	1	11/23/15	11/25/15 14:45	250710	474264	
Endrin	**0.178**		0.047	0.025	0.017	1	11/23/15	11/25/15 14:45	250710	474264	
Endrin Aldehyde	**0.0920**		0.047	0.025	0.020	1	11/23/15	11/25/15 14:45	250710	474264	
Endrin Ketone	**0.171**		0.047	0.025	0.013	1	11/23/15	11/25/15 14:45	250710	474264	
Heptachlor	**0.159**		0.047	0.025	0.0060	1	11/23/15	11/25/15 14:45	250710	474264	
Heptachlor Epoxide	**0.212**		0.047	0.025	0.0070	1	11/23/15	11/25/15 14:45	250710	474264	
Methoxychlor	**0.135**	J	0.47	0.025	0.017	1	11/23/15	11/25/15 14:45	250710	474264	
Toxaphene	ND	U	0.94	0.50	0.27	1	11/23/15	11/25/15 14:45	250710	474264	
alpha-BHC	**0.172**		0.047	0.025	0.0060	1	11/23/15	11/25/15 14:45	250710	474264	
alpha-Chlordane	**0.387**		0.047	0.025	0.0070	1	11/23/15	11/25/15 14:45	250710	474264	
beta-BHC	**0.162**		0.047	0.028	0.028	1	11/23/15	11/25/15 14:45	250710	474264	
delta-BHC	**0.168**		0.048	0.048	0.048	1	11/23/15	11/25/15 14:45	250710	474264	
gamma-BHC (Lindane)	**0.175**		0.047	0.025	0.0060	1	11/23/15	11/25/15 14:45	250710	474264	
gamma-Chlordane	**0.402**		0.047	0.025	0.0080	1	11/23/15	11/25/15 14:45	250710	474264	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	44	30-135	11/25/15 14:45	
Tetrachloro-m-xylene	77	25-140	11/25/15 14:45	

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL249.D
Acq On : 25 Nov 2015 2:45 pm
Operator : m.pedro
Sample : rq1514596-04|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 30 15:58:35 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
System Monitoring Compounds						
1) S SURR1,Tet...	9.301	9.249	3485.5E6	1588.0E6	76.793	78.659
Spiked Amount 100.000	Range 30 - 150		Recovery =		76.79%	78.66%
26) S SURR2,Dec...	17.460	17.775	1418.0E6	645.7E6	45.791	43.811
Spiked Amount 100.000	Range 30 - 150		Recovery =		45.79%	43.81%
Target Compounds						
2) TC HEXACHLOR...	9.991	10.067	975.7E6	386.6E6	15.773m	14.550
3) tc alpha-BHC	10.291	10.324	1247.2E6	562.4E6	18.269	18.258
4) tcm gamma-BHC (L	10.813	10.893	1129.7E6	504.2E6	18.815	18.579
5) tcm Heptachlor	11.564	11.547	1061.1E6	454.3E6	18.092m	16.899
6) tcm Aldrin	12.017	12.017	898.1E6	412.5E6	16.736	16.515
7) tc beta-BHC	10.968	11.049	474.4E6	203.6E6	17.808	17.136
8) tc delta-BHC	11.240	11.484	1033.9E6	444.5E6	19.059	17.848
9) tc Heptachlor E	12.913	12.850	1238.0E6	504.4E6	25.940m	22.428
10) tc alpha-Endosu	13.482	13.403	912.3E6	429.9E6	21.248	21.108
11) tc gamma-Chlord	13.096	13.119	2113.1E6	958.3E6	43.548	42.604
12) tc alpha-Chlord	13.287	13.324	2242.5E6	890.6E6	48.405	41.015
13) tc 4,4'-DDE	13.400	13.565	761.5E6	424.3E6	19.751	22.698
14) tcm Dieldrin	13.828	13.791	969.8E6	445.2E6	21.830	20.562
15) tcm Endrin	14.164	14.225	784.5E6	344.3E6	20.781	18.882
17) tc beta-Endosul	14.489	14.531	748.0E6	352.8E6	21.052	19.769
18) tc 4,4'-DDD	14.248	14.377	3002.3E6	1435.1E6	101.339	98.389
19) tcm 4,4'-DDT	14.651	14.820	657.3E6	278.1E6	20.717	17.549
20) tc Endrin Aldeh	15.103	15.019	262.3E6	137.7E6	9.747	10.084
21) tc Endosulfan S	15.756	15.426	610.0E6	284.2E6	19.875	17.674
22) tc Methoxychlor	15.340	15.808	294.0E6	113.2E6	18.150	14.349
24) tc Endrin Keton	16.171	16.210	709.8E6	318.4E6	20.445	18.125
Sum Toxaphene			0	0	N.D.	N.D.
Average Toxaphene					0.000	0.000
Sum Chlordane			0	0	N.D.	N.D.
Average Chlordane					0.000	0.000

AA nll

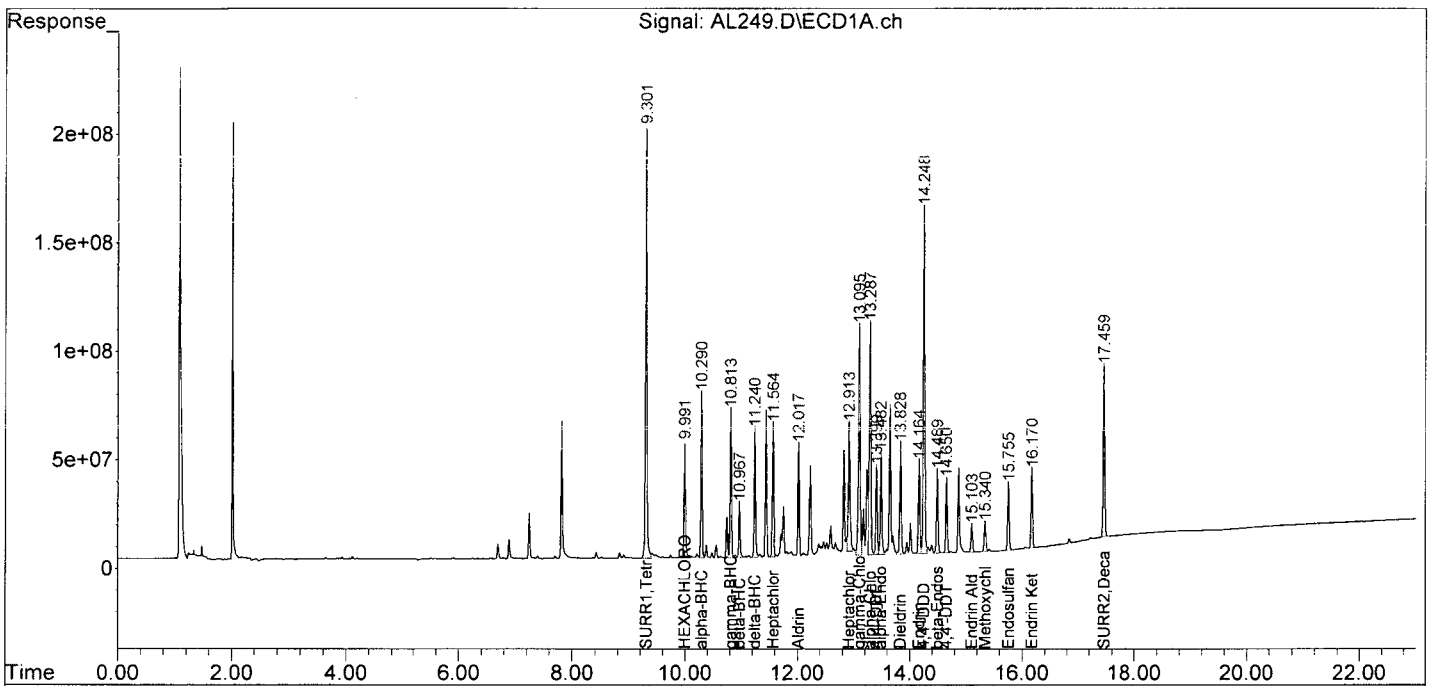
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

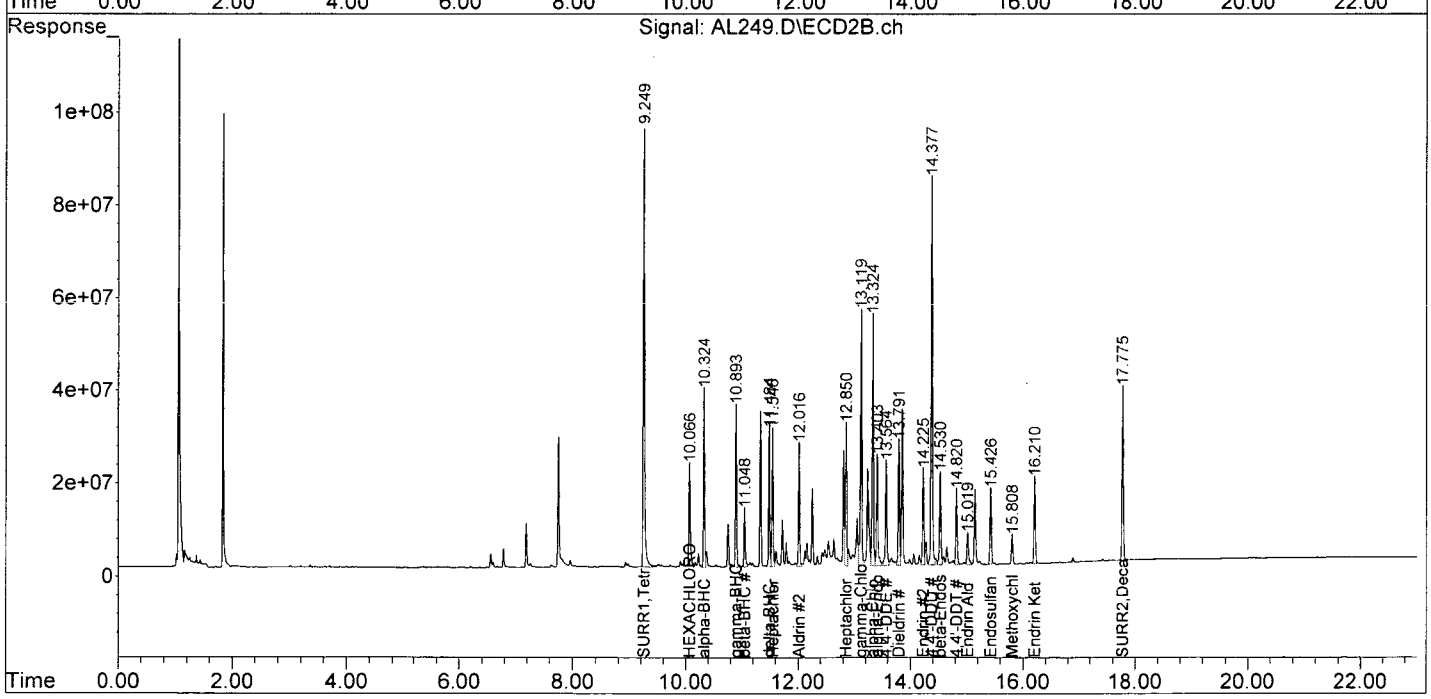
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL249.D
Acq On : 25 Nov 2015 2:45 pm
Operator : m.pedro
Sample : rq1514596-04|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 30 15:58:35 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





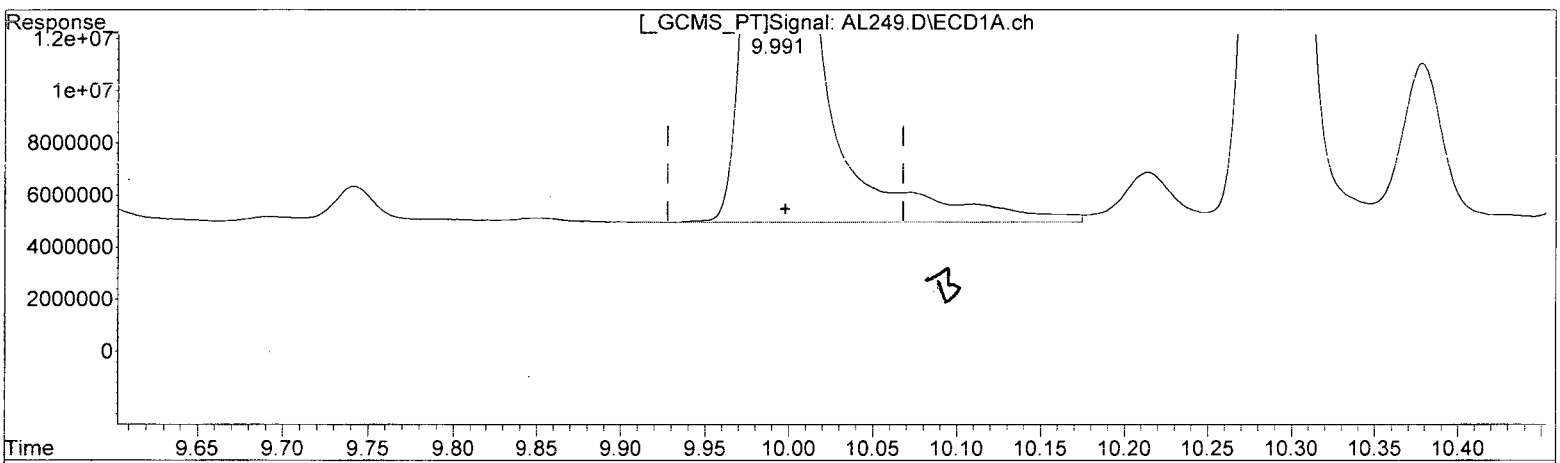
8081102115.M Tue Dec 01 09:48:28 2015 Page: 2

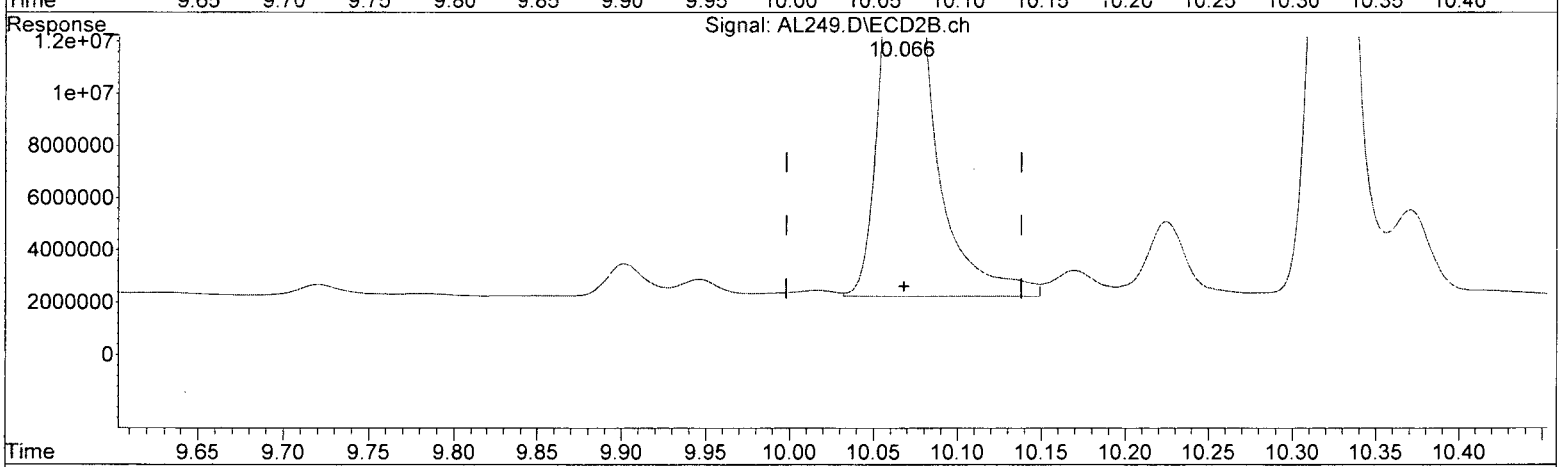
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL249.D
Acq On : 25 Nov 2015 2:45 pm
Operator : m.pedro
Sample : rq1514596-04|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 30 07:31:40 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(2) HEXACHLOROBENZENE (TC)

9.992min 16.215 ug/l

response 1003017944

B, C
AM
12/1

(2) HEXACHLOROBENZENE #2 (TC)

10.067min 14.550 ug/l

response 386620739

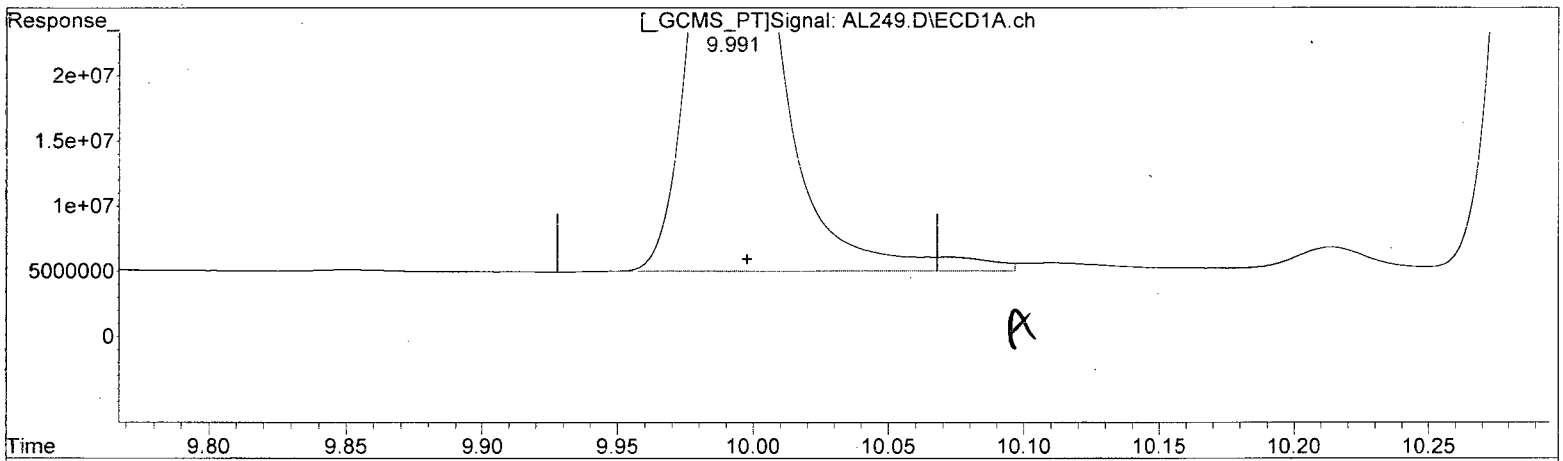
(+) = Expected Retention Time
8081102115.M Mon Nov 30 15:53:43 2015 Page: 1

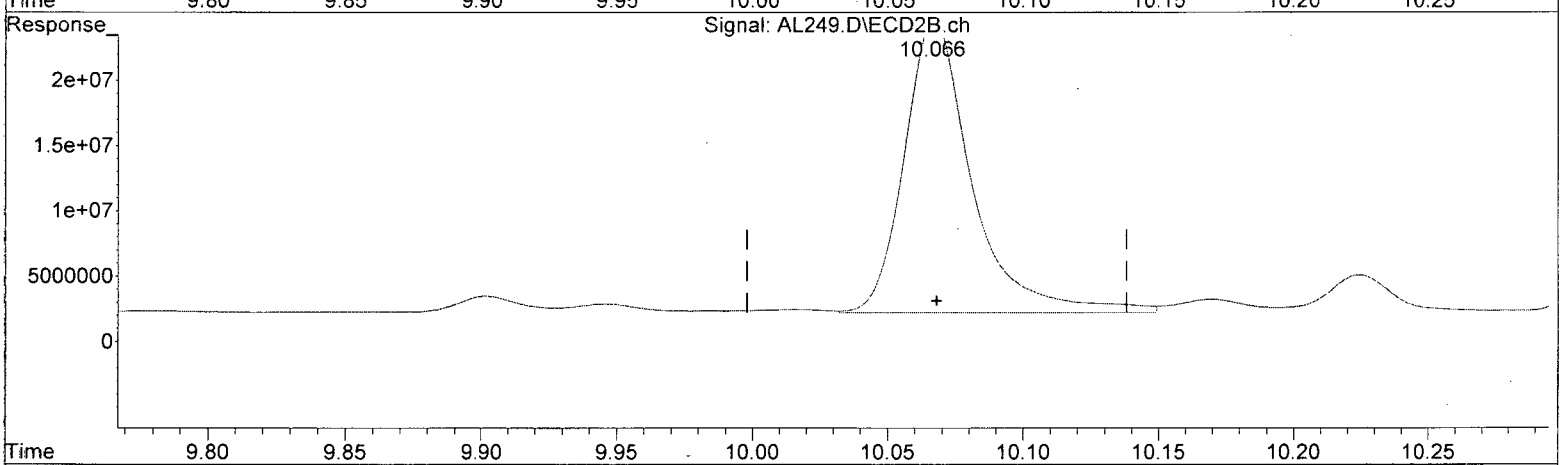
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL249.D
Acq On : 25 Nov 2015 2:45 pm
Operator : m.pedro
Sample : rq1514596-04|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 30 07:31:40 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(2) HEXACHLOROBENZENE (TC)

9.991min 15.773 ug/l m

response 975683956

B.C
AM 12/1
MP 12/1

(2) HEXACHLOROBENZENE #2 (TC)

10.067min 14.550 ug/l

response 386620739

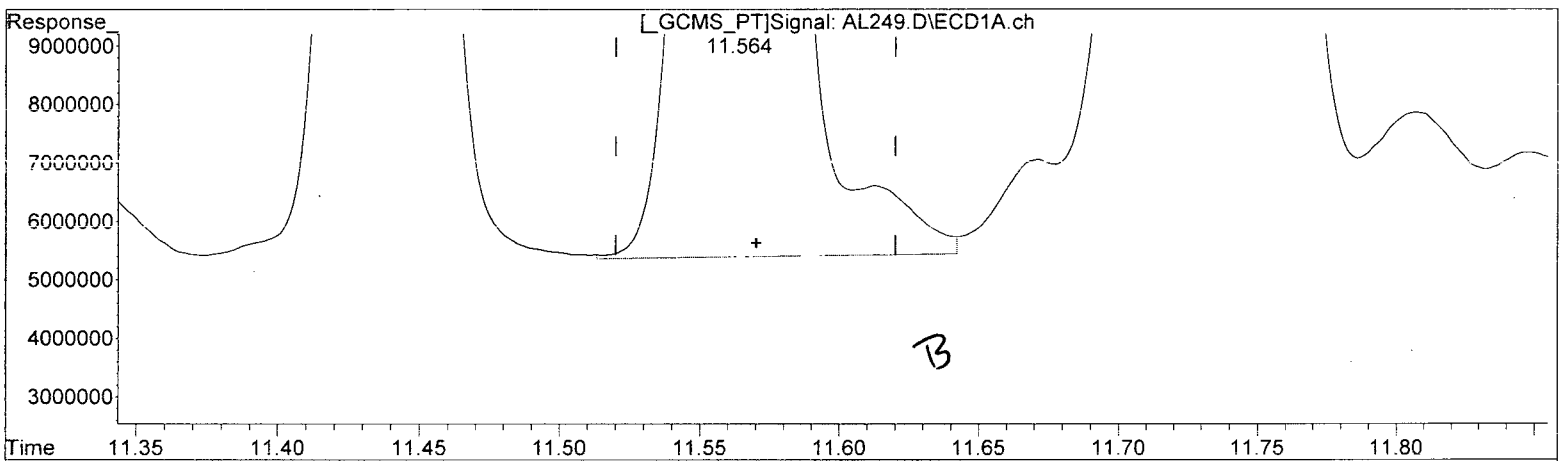
(+) = Expected Retention Time
8081102115.M Mon Nov 30 15:56:58 2015 Page: 1

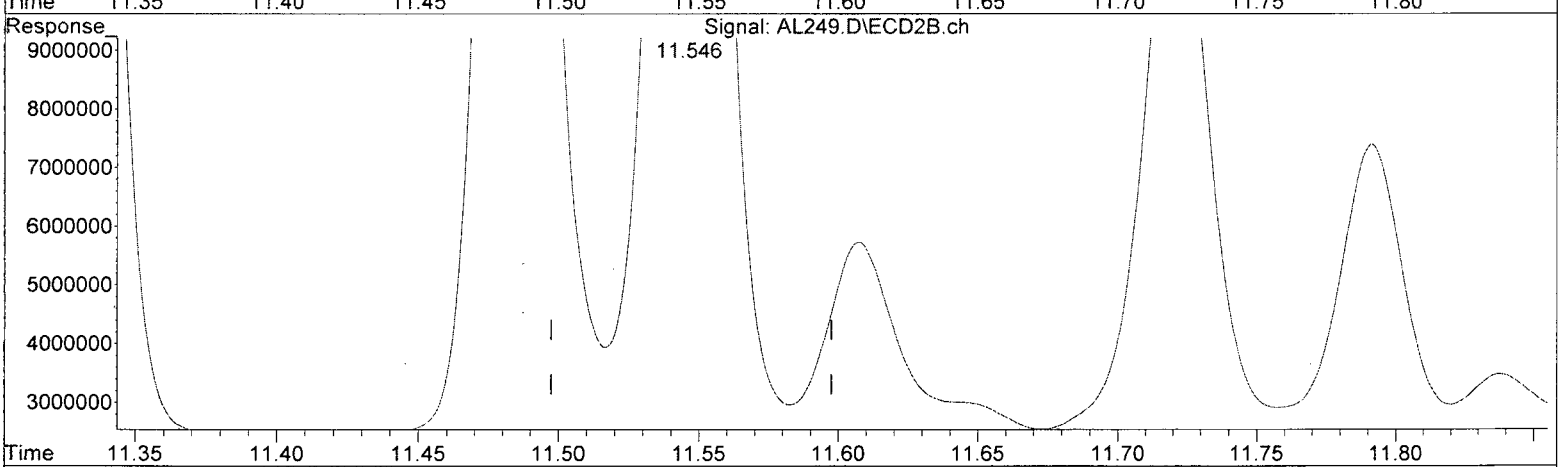
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL249.D
Acq On : 25 Nov 2015 2:45 pm
Operator : m.pedro
Sample : rq1514596-04|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 30 07:31:40 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(5) Heptachlor (tcm)

11.564min 18.397 ug/l

response 1079062027

B,C
AM
12/1

(5) Heptachlor #2 (tcm)

11.547min 16.899 ug/l

response 454283286

(+) = Expected Retention Time

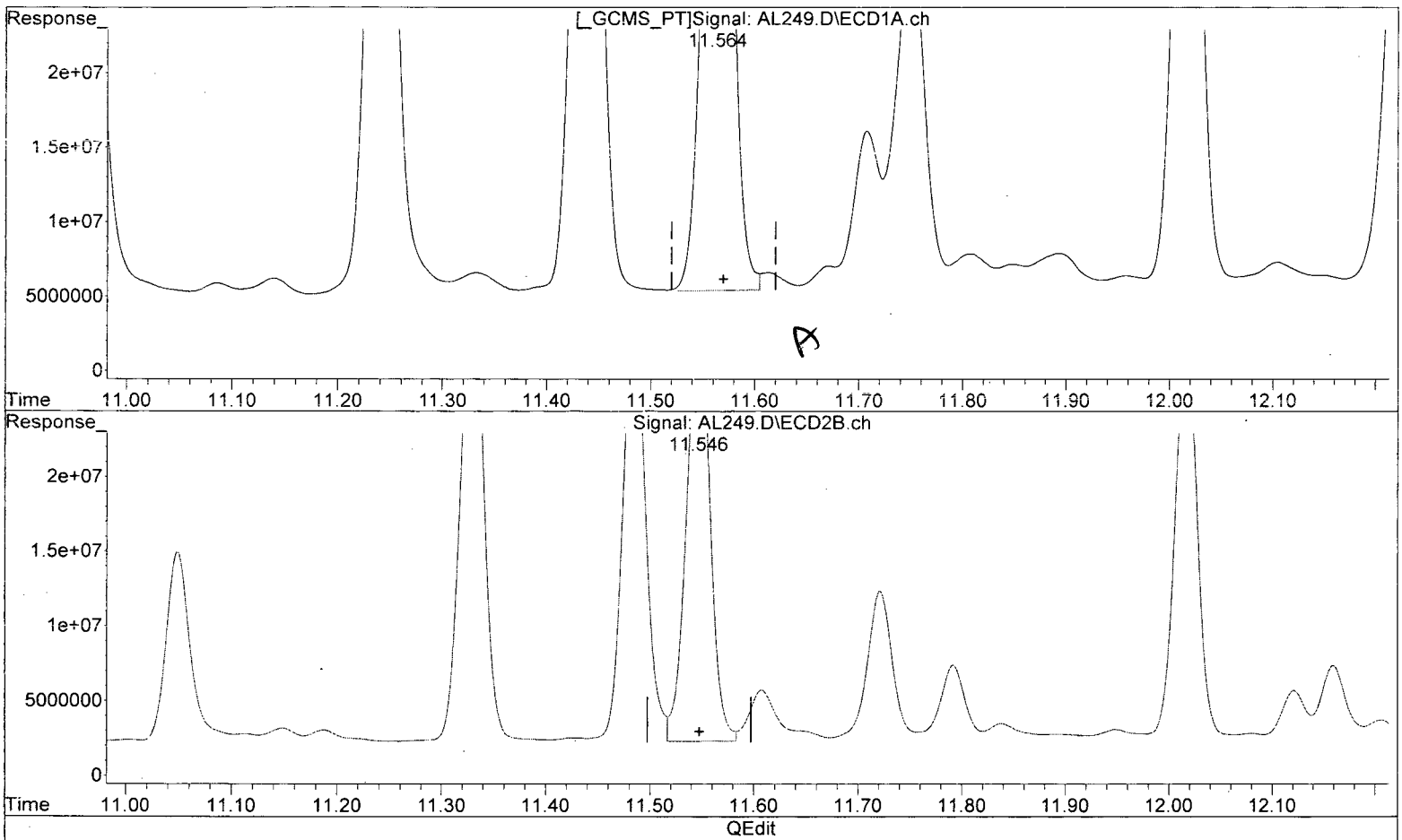
8081102115.M Mon Nov 30 15:57:14 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL249.D
Acq On : 25 Nov 2015 2:45 pm
Operator : m.pedro
Sample : rq1514596-04|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 30 07:31:40 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m



(5) Heptachlor (tcm)

11.564min 18.092 ug/l m

response 1061138988

B,C
AM
12/1

(5) Heptachlor #2 (tcm)

11.547min 16.899 ug/l

response 454283286

SP
12/1

(+) = Expected Retention Time

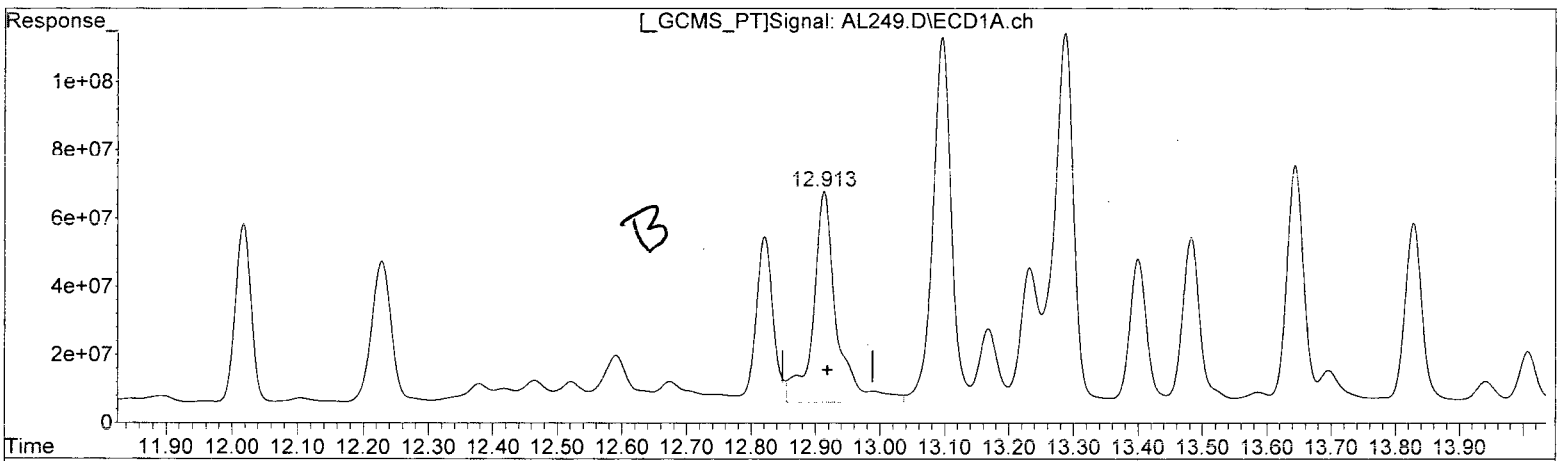
8081102115.M Mon Nov 30 15:57:41 2015 Page: 1

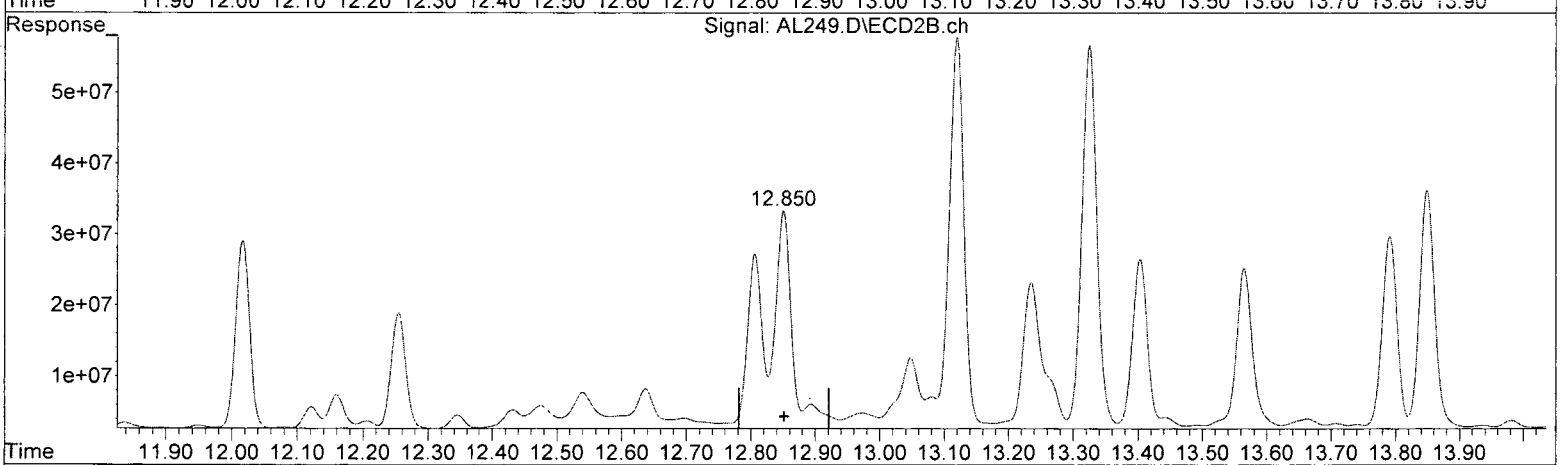
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL249.D
Acq On : 25 Nov 2015 2:45 pm
Operator : m.pedro
Sample : rq1514596-04|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 30 07:31:40 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(9) Heptachlor E (tc)

12.913min 32.597 ug/l

response 1555693747

B.C

AM

12/1

(9) Heptachlor E #2 (tc)

12.850min 22.428 ug/l

response 504388001

(+) = Expected Retention Time

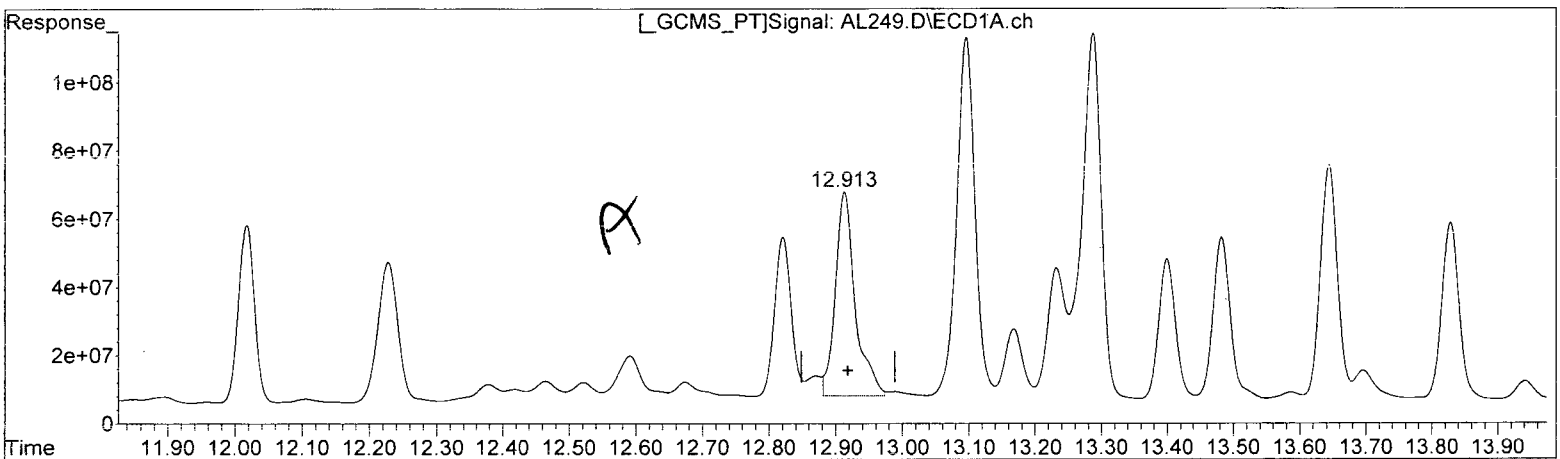
8081102115.M Mon Nov 30 15:57:54 2015 Page: 1

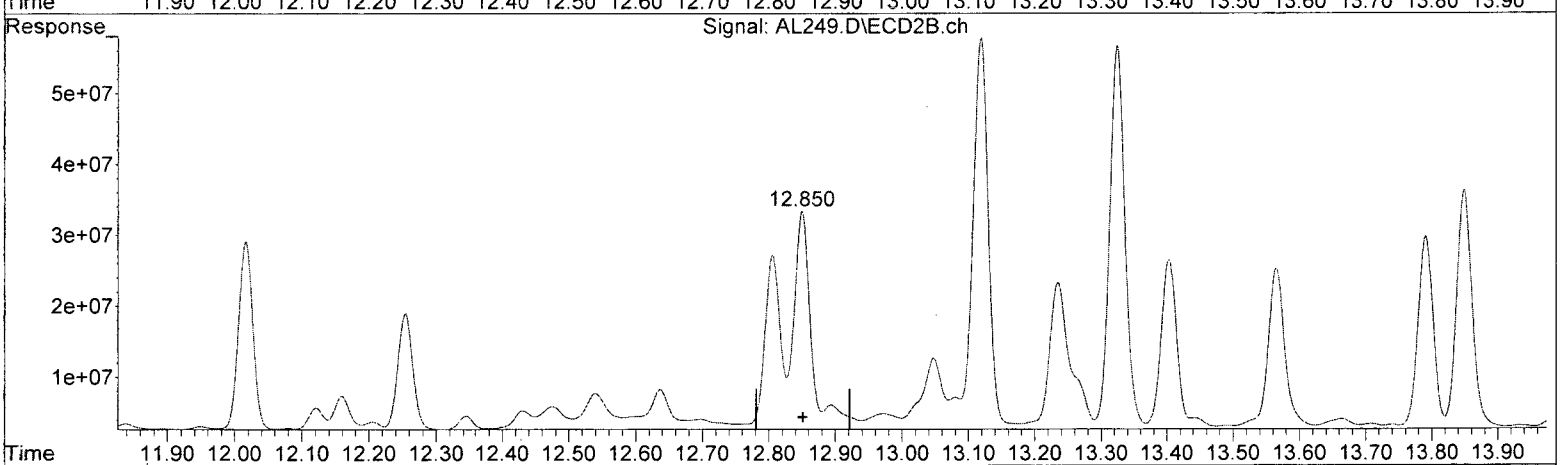
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL249.D
Acq On : 25 Nov 2015 2:45 pm
Operator : m.pedro
Sample : rq1514596-04|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 30 07:31:40 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(9) Heptachlor E (tc)

12.913min 25.940 ug/l m

response 1237972785

(9) Heptachlor E #2 (tc)

12.850min 22.428 ug/l

response 504388001

(+) = Expected Retention Time

8081102115.M Mon Nov 30 15:58:47 2015 Page: 1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510161
Project:	FTMM Baseline 2015 Q4 GW Sampling/748810-03000	**Date Collected:**	11/19/15 1647
Sample Matrix:	Water	**Date Received:**	11/21/15
Sample Name:	FTMM-M8-GW-697MW01-16.5	**Units:**	µg/L
Lab Code:	RQ1514596-05	**Basis:**	NA
Run Type:	Duplicate Matrix Spike		

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
4,4'-DDD	**1.27**		0.047	0.025	0.013	1	11/23/15	11/25/15 15:13	250710	474264	
4,4'-DDE	**0.204**		0.047	0.025	0.012	1	11/23/15	11/25/15 15:13	250710	474264	
4,4'-DDT	**0.207**		0.047	0.027	0.027	1	11/23/15	11/25/15 15:13	250710	474264	
Aldrin	**0.157**		0.047	0.025	0.0090	1	11/23/15	11/25/15 15:13	250710	474264	
Dieldrin	**0.191**		0.047	0.025	0.0080	1	11/23/15	11/25/15 15:13	250710	474264	
Endosulfan I	**0.183**		0.047	0.025	0.011	1	11/23/15	11/25/15 15:13	250710	474264	
Endosulfan II	**0.183**		0.047	0.025	0.010	1	11/23/15	11/25/15 15:13	250710	474264	
Endosulfan Sulfate	**0.169**		0.047	0.025	0.012	1	11/23/15	11/25/15 15:13	250710	474264	
Endrin	**0.174**		0.047	0.025	0.017	1	11/23/15	11/25/15 15:13	250710	474264	
Endrin Aldehyde	**0.0908**		0.047	0.025	0.020	1	11/23/15	11/25/15 15:13	250710	474264	
Endrin Ketone	**0.168**		0.047	0.025	0.013	1	11/23/15	11/25/15 15:13	250710	474264	
Heptachlor	**0.164**		0.047	0.025	0.0060	1	11/23/15	11/25/15 15:13	250710	474264	
Heptachlor Epoxide	**0.212**		0.047	0.025	0.0070	1	11/23/15	11/25/15 15:13	250710	474264	
Methoxychlor	**0.141**	J	0.47	0.025	0.017	1	11/23/15	11/25/15 15:13	250710	474264	
Toxaphene	ND	U	0.94	0.50	0.27	1	11/23/15	11/25/15 15:13	250710	474264	
alpha-BHC	**0.168**		0.047	0.025	0.0060	1	11/23/15	11/25/15 15:13	250710	474264	
alpha-Chlordane	**0.461**		0.047	0.025	0.0070	1	11/23/15	11/25/15 15:13	250710	474264	
beta-BHC	**0.159**		0.047	0.028	0.028	1	11/23/15	11/25/15 15:13	250710	474264	
delta-BHC	**0.165**		0.048	0.048	0.048	1	11/23/15	11/25/15 15:13	250710	474264	
gamma-BHC (Lindane)	**0.171**		0.047	0.025	0.0060	1	11/23/15	11/25/15 15:13	250710	474264	
gamma-Chlordane	**0.484**		0.047	0.025	0.0080	1	11/23/15	11/25/15 15:13	250710	474264	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	54	30-135	11/25/15 15:13	
Tetrachloro-m-xylene	74	25-140	11/25/15 15:13	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL250.D
Acq On : 25 Nov 2015 3:13 pm
Operator : m.pedro
Sample : rq1514596-05|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 30 16:00:14 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/l	ug/l
	System Monitoring Compounds						
1) S	SURR1,Tet...	9.302	9.250	3360.4E6	1521.5E6	74.036	75.369
	Spiked Amount 100.000	Range 30 - 150		Recovery =		74.04%	75.37%
26) S	SURR2,Dec...	17.460	17.776	1710.0E6	788.8E6	55.221	53.517
	Spiked Amount 100.000	Range 30 - 150		Recovery =		55.22%	53.52%
	Target Compounds						
2) TC	HEXACHLOR...	9.993	10.068	975.3E6	388.2E6	15.767	14.608
3) tc	alpha-BHC	10.291	10.325	1214.3E6	554.3E6	17.788	17.994
4) tcm	gamma-BHC (L	10.814	10.894	1100.2E6	491.7E6	18.324	18.117
5) tcm	Heptachlor	11.565	11.547	1087.9E6	467.3E6	18.547	17.384
6) tcm	Aldrin	12.018	12.017	904.2E6	415.2E6	16.851	16.623
7) tc	beta-BHC	10.969	11.049	459.0E6	200.9E6	17.231	16.904
8) tc	delta-BHC	11.241	11.485	1004.1E6	435.6E6	18.511	17.487
9) tc	Heptachlor E	12.913	12.851	1324.9E6	505.4E6	27.762m	22.473
10) tc	alpha-Endosu	13.483	13.404	907.0E6	394.8E6	21.125	19.385
11) tc	gamma-Chlord	13.097	13.119	2535.6E6	1152.9E6	52.253	51.258
12) tc	alpha-Chlord	13.287	13.325	2698.4E6	1060.0E6	58.247	48.815
13) tc	4,4'-DDE	13.400	13.566	833.1E6	457.7E6	21.608	24.489
14) tcm	Dieldrin	13.829	13.792	973.4E6	439.3E6	21.913	20.292
15) tcm	Endrin	14.165	14.225	775.8E6	337.1E6	20.551	18.491
17) tc	beta-Endosul	14.490	14.532	749.3E6	346.8E6	21.089	19.433
18) tc	4,4'-DDD	14.249	14.378	4077.5E6	1956.9E6	137.631	134.160
19) tcm	4,4'-DDT	14.651	14.821	827.2E6	348.1E6	26.071	21.968
20) tc	Endrin Aldeh	15.104	15.020	258.8E6	131.8E6	9.615	9.656
21) tc	Endosulfan S	15.756	15.427	597.8E6	287.7E6	19.479	17.896
22) tc	Methoxychlor	15.340	15.808	301.2E6	118.1E6	18.594	14.981
24) tc	Endrin Keton	16.171	16.210	688.3E6	312.6E6	19.826	17.798
	Sum Toxaphene			0	0	N.D.	N.D.
Average	Toxaphene					0.000	0.000
	Sum Chlordane			0	0	N.D.	N.D.
Average	Chlordane					0.000	0.000

MW 12/1

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL250.D
Acq On : 25 Nov 2015 3:13 pm
Operator : m.pedro
Sample : rq1514596-05|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 30 16:00:14 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
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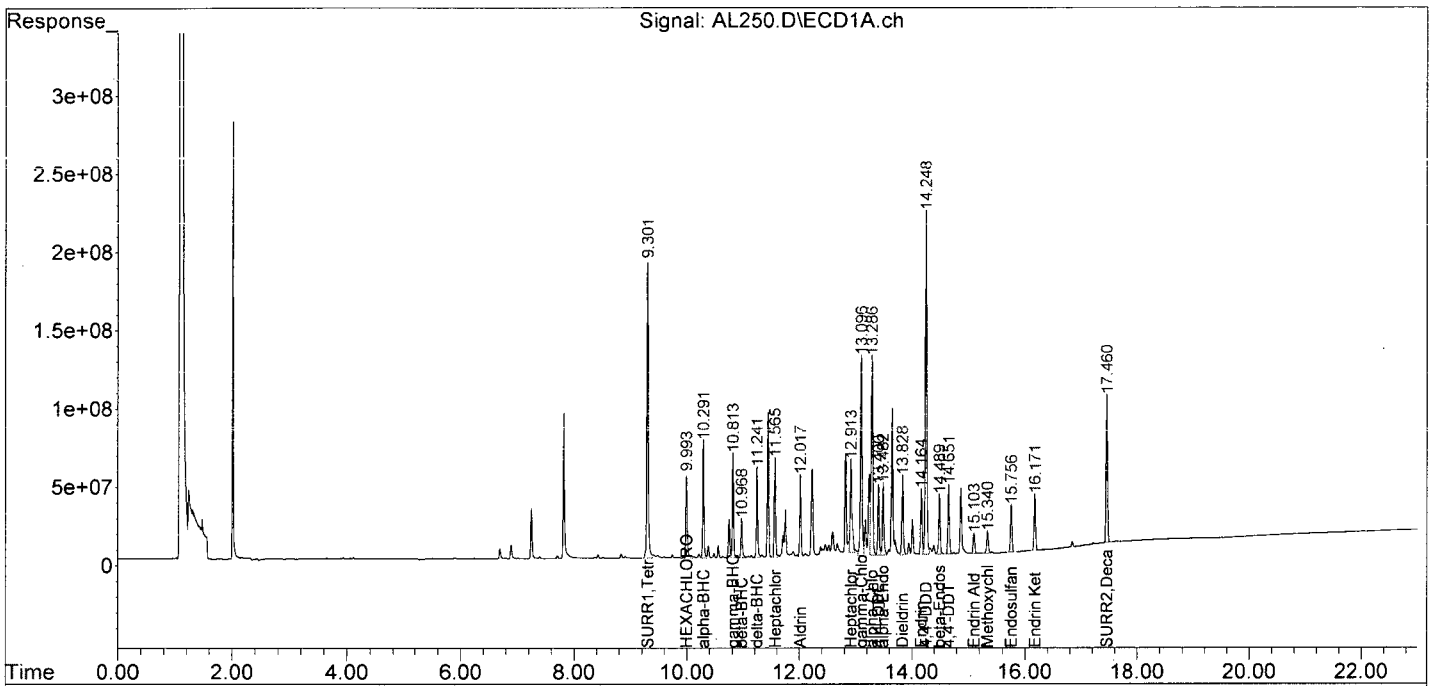
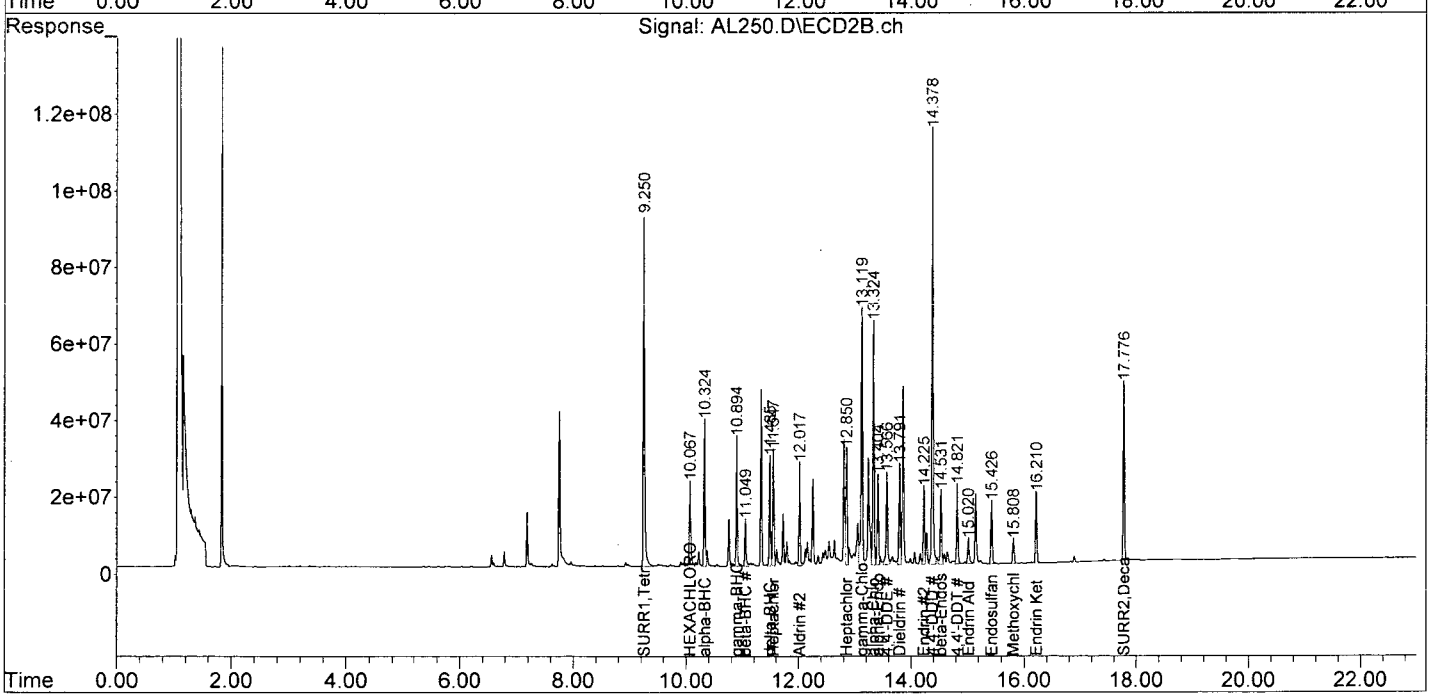
Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL250.D
Acq On : 25 Nov 2015 3:13 pm
Operator : m.pedro
Sample : rq1514596-05|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 30 07:31:44 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
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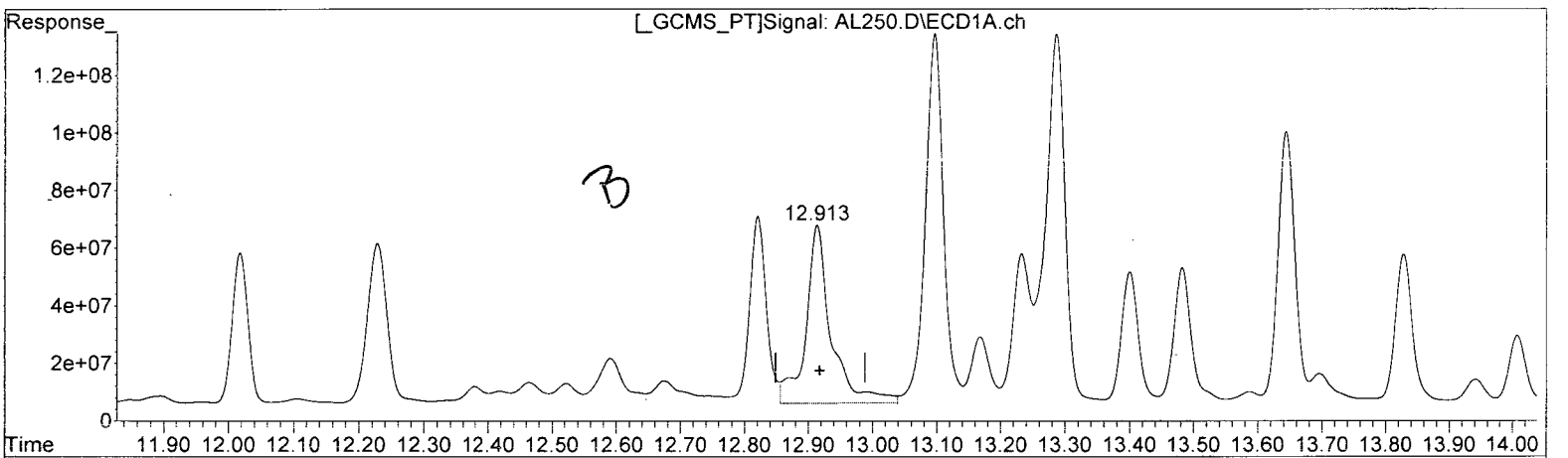
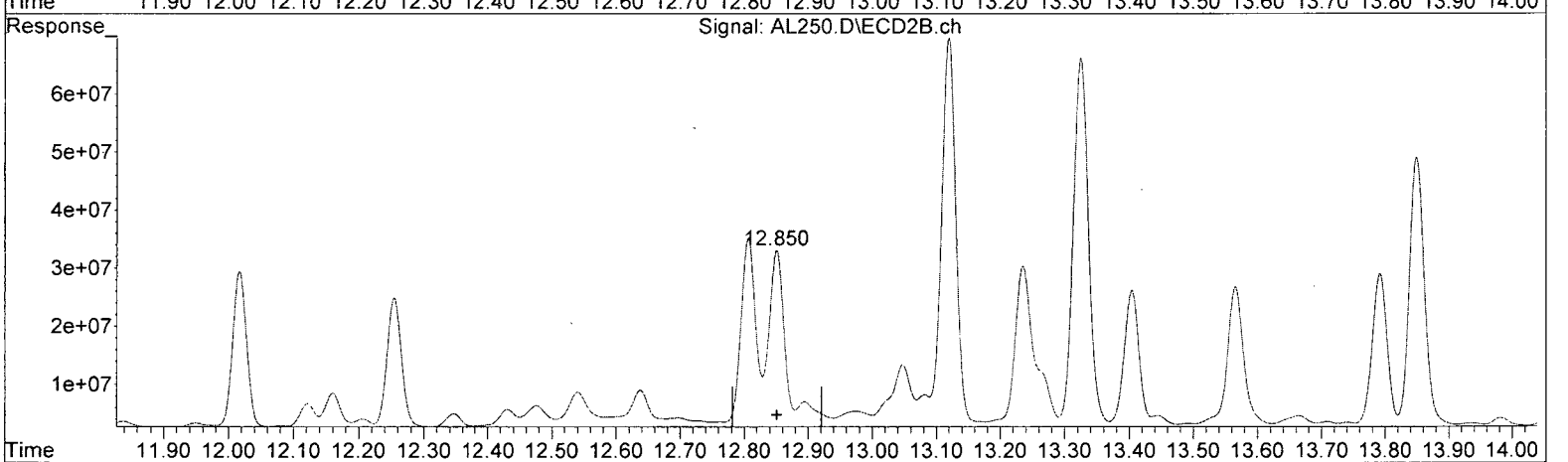
Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(9) Heptachlor E (tc)

12.914min 35.442 ug/l

response 1691462804

B.C
AM 12/11

(9) Heptachlor E #2 (tc)

12.851min 22.473 ug/l

response 505414126

(+) = Expected Retention Time

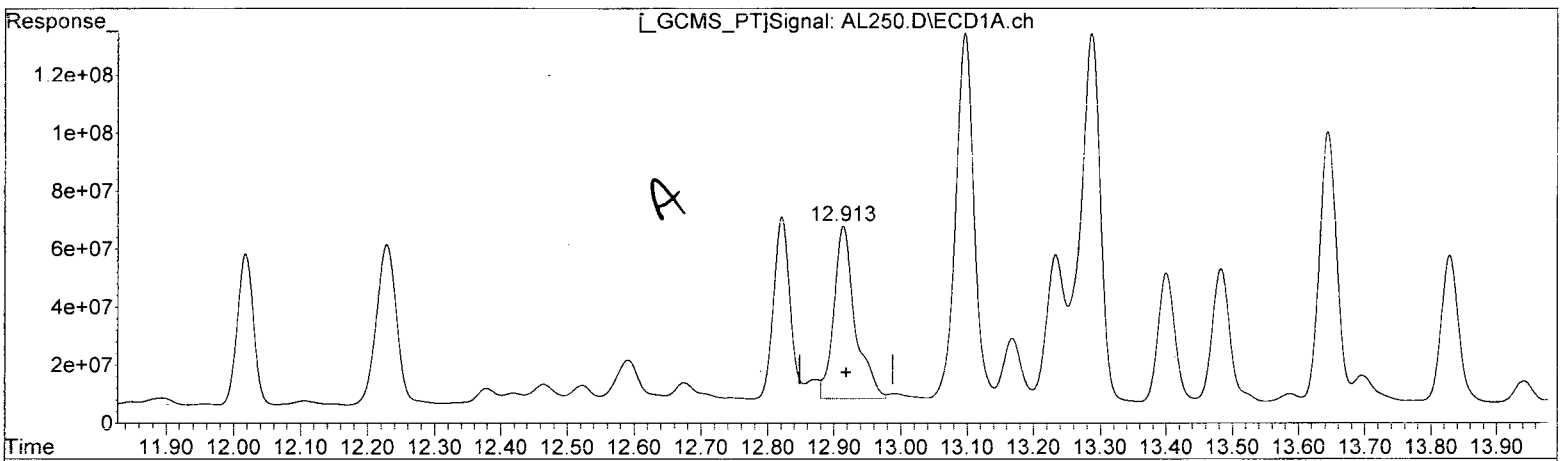
8081102115.M Mon Nov 30 15:59:56 2015 Page: 1

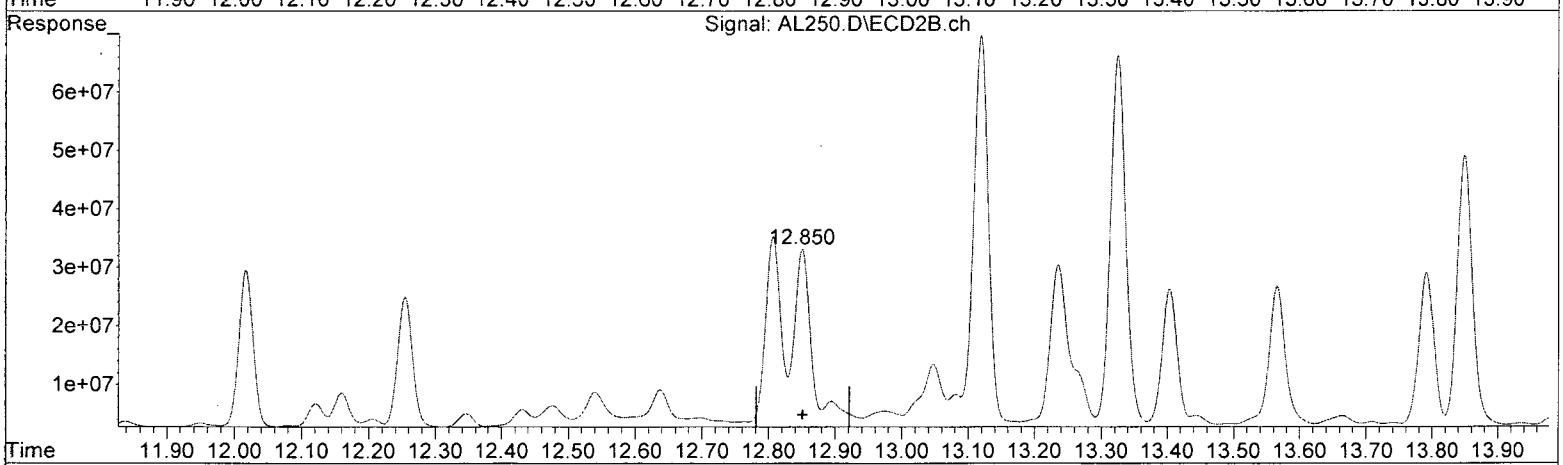
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\7890m\DATA\112515\
Data File : AL250.D
Acq On : 25 Nov 2015 3:13 pm
Operator : m.pedro
Sample : rq1514596-05|1.0 Inst : 7890-M
Misc : 250710 106 8081
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 30 07:31:44 2015
Quant Method : I:\ACQUDATA\7890m\Methods\8081102115.M
Quant Title : 608/8081B PESTICIDES
QLast Update : Mon Nov 30 07:30:15 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal #1 Phase : STx-CLP Signal #2 Phase: STx-CLPII
Signal #1 Info : 0.32mm 30m Signal #2 Info : 0.32mm 30m





QEdit

(9) Heptachlor E (tc)

12.913min 27.762 ug/l m

response 1324940627

B.C

(9) Heptachlor E #2 (tc)

12.851min 22.473 ug/l

response 505414126

(+) = Expected Retention Time
8081102115.M Mon Nov 30 16:00:20 2015 Page: 1

Preparation Information Benchsheet

Prep Run#: 250710
Team: Semivoa GC/DMURPHY

Prep WorkFlow: OrgExtAq(7)
Prep Method: EPA 3510C

Status: Prepped
Prep Date/Time: 11/23/15 02:21 PM

#	Lab Code	Client ID	B#	Amt. Ext.	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ1514596-01	MB		1000mL	8081B/Pest OC	6			10.00mL	clear-colorless	1.0000 mL/85023	
2	RQ1514596-01	MB		1000mL	8082A/PCB	6			10.00mL	clear-colorless	1.0000 mL/85023	
3	RQ1514596-02	LCS		1000mL	8081B/Pest OC	6			10.00mL	clear-colorless	1.0000 mL/86065; 1.0000 mL/86135; 1.0000 mL/85023; 1.0000 mL/82367	
4	RQ1514596-02	LCS		1000mL	8082A/PCB	6			10.00mL	clear-colorless	1.0000 mL/85023	
5	RQ1514596-03	DLCS		1000mL	8081B/Pest OC	6			10.00mL	clear-colorless	1.0000 mL/85023; 1.0000 mL/86065; 1.0000 mL/82367; 1.0000 mL/86135	
6	RQ1514596-03	DLCS		1000mL	8082A/PCB	6			10.00mL	clear-colorless	1.0000 mL/85023	
7	R1509792-050	NEOFL	.25	1060mL	8081B/Pest OC	8			10.00mL	orange-opaque	1.0000 mL/85023	
8	R1509792-050	NEOFL	.25	1060mL	8082A/PCB	8			10.00mL	orange-opaque	1.0000 mL/85023	
9	R1510136-001	East Leachate	.05	1060mL	8081B/Pest OC	8			10.00mL	yellow-cloudy	1.0000 mL/85023	
10	R1510136-002	West Leachate	.05	1060mL	8081B/Pest OC	8			10.00mL	yellow-cloudy	1.0000 mL/85023	
11	R1510161-004	EB-2015-11-19	.02	1060mL	8081B/Pest OC	7			10.00mL	yellow-cloudy	1.0000 mL/85023	
12	R1510161-006	FTMM-56-GW-80MW02-7.5	.01	1060mL	8081B/Pest OC	7			10.00mL	yellow-cloudy	1.0000 mL/85023	
13	R1510161-008	FTMM-56-GW-80MW102-7.5	.01	1060mL	8081B/Pest OC	7			10.00mL	yellow-cloudy	1.0000 mL/85023	
14	R1510161-012	FTMM-M8-GW-697MW01-16.5	.09	1060mL	8081B/Pest OC	7			10.00mL	yellow-cloudy	1.0000 mL/85023	
15	RQ1514596-04	R1510161-012 MS	.02	1060mL	8081B/Pest OC	7			10.00mL	yellow-cloudy	1.0000 mL/86135; 1.0000 mL/85023	
16	RQ1514596-05	R1510161-012 DMS	.07	1060mL	8081B/Pest OC	7			10.00mL	yellow-cloudy	1.0000 mL/86135; 1.0000 mL/85023	
17	R1510161-017	EB-2015-11-20	.05	1060mL	8081B/Pest OC	7			10.00mL	clear-colorless	1.0000 mL/85023	
18	R1510200-003	1511191439B BLM-3-182	.01	1060mL	8081B/Pest OC	7			10.00mL	yellow-cloudy	1.0000 mL/85023	
19	R1510200-005	1511191442B BLM-3-182	.01	1060mL	8082A/PCB	7			10.00mL	yellow-cloudy	1.0000 mL/85023	

Spiking Solutions

Name:	Toxaphene Spike Std 2 ug/mL	Inventory ID	82367	Logbook Ref:		Expires On:	12/14/2015
Name:	8081/8082 Surrogate Spike STD 1 ug/mL	Inventory ID	85023	Logbook Ref:		Expires On:	04/12/2016
Name:	Kepone/Famphur Spike STD GCEXT	Inventory ID	86065	Logbook Ref:		Expires On:	05/18/2016
Name:	608 LCS Spike STD	Inventory ID	86135	Logbook Ref:		Expires On:	01/31/2016

Preparation Information Benchsheet

Prep Run#: 250710
Team: Semivoa GC/DMURPHY

Prep WorkFlow: OrgExtAq(7)
Prep Method: EPA 3510C

Status: Prepped
Prep Date/Time: 11/23/15 02:21 PM

Preparation Materials

Eppendorf Pipette Repeater	EXT #14 (61350)	2mL Graduated Vials	(85877)	Sulfuric Acid Reagent Grade H2SO4	(85539)
Hexanes 95%	(85035)	Dichloromethane (Methylene Chloride) 99.9% MeCl2	canister (85753)	Prepared Sodium Sulfate Na2SO4	(86095)

Preparation Steps

Step:	Extraction	Concentration	Acid Clean-EPA 3665A	Sulfur Clean-EPA 3660B	Final Volume
Started:	11/23/15 14:21	11/24/15 12:00	11/24/15 17:07	11/24/15 16:43	11/24/15 20:08
Finished:	11/24/15 16:55	11/24/15 16:42	11/24/15 17:39	11/24/15 17:06	11/24/15 20:08
By:	DMURPHY	CPSCHIERER	CPSCHIERER	CPSCHIERER	CPSCHIERER
Comments					

Comments: _____

Reviewed By: MQC Date: 11/25 Spike Witness: EBRUEN Date: _____

Chain of Custody

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Extracts Examined
Yes No

Analysis: 10/21/15 **Analyst:** _____ **Run Method:** 8081
Date: 8081 **Instr.** 7890M **Quant Method:** 8081 102115
LIMS Run#:

Pos.	Sample	Diln.	Stds. ID	File#	OK?	Comments
	Blk			AK821		
	Perm		838504	822		
	CCV			823	↑	Recalibrate
	pest 2ppb		85246	824	Y	
	5ppb		85245	825	Y	
	10ppb		85244	826	Y	
	50ppb		85243	827	Y	
	100ppb	MP 10/21	85242	828	Y	
	200ppb		85241	829	Y	
	ICV		83497	830	Y	
	K/F L		52122	831	Y	
	ML		123	832	Y	
	M		125	833	Y	
	MH		126	834	Y	
	H		127	835	Y	
	K/F ICV		83745	836	Y	
	Mirex ICV		81529	837	Y	
	TOX LL		82785	838	Y	
	L		707	839	Y	
	ML		208	840	Y	
	M		709	841	Y	
	MH		710	842	Y	
	H		711	843	Y	
	TOX ICV		82737	844	Y	
	CHLOR L		83201	845	Y	
	ML		83203	846	Y	
	M		204	847	Y	
	MH		205	848	Y	
	H		206	849	Y	
	ICV		207	850	Y	

MW 11/7

All samples = _____mL + _____uL Combined IS/Surr.;

Primary :_____ exp: Secondary :_____ exp:
Primary:_____ exp: Secondary :_____ exp:

Runlog GCEXT r1 12/5/12

Analysis: 8081	**Analyst:** MPeO	**Run Method:** 8081
Date: 11/25	**Instr.** 7890M	**Quant Method:** 8081102115.u
Prep: 250710, 711		**LIMS Run#:** 474264

Pos.	Sample	Diln.	Stds. ID	File#	OK?	Comments
	Blk			AL235	Y	
	Pem		83806	236	Y	
	CLV51 50		85243	237	Y	
	RQ1514596-01			238	Y	
	02			239	Y	
	03			240	Y	
	R1509792-050			241	N	RPT - TDA
	R1510136-001			242	Y	
	002			243	Y	
	004			244	Y	
	006			245	Y	
	008			246	Y	
	012			247	Y	
	CLV52 50		85243	248	Y	~~High DDT~~ Low DDT/methoxy
	RQ1514596-04			249	Y	
	05			250	Y	
	R1510161-017			251	Y	
	R1510200-003			252	Y	
	9773-007			253	Y	
	9773 008			254	Y	
	R1509823-001			255	Y	
	002			256	Y	
	003			257	Y	
	004			258	Y	
	CLV53 50		85243	259	Y	Low DDT/methoxy
	Pem			260	Y	
	R1510026-001	5.0		261	Y	
	R1509823-005			262	Y	
	006			263	Y	
	RQ1514431-01			264	Y	
	02			265	Y	
	03			266	Y	
	CLV54 50		85243	267	Y	Low methoxy
	RQ1514596-02			268	Y	
	03			269	Y	
	K/FML			270	Y	
	AN 11/30					

All samples = _____mL + _____uL Combined IS/Surr.;

Primary :_____ exp: Secondary :_____ exp:

Primary:_____ exp: Secondary :_____ exp:

Runlog GCEXT r1 12/5/12

Page 23

Analysis: 8081 Analyst: AMORES Run Method: 8081
Date: 12/2 Instr. 7890M Quant Method: 8081102115.m
LIMS Run#: 474264

Pos.	Sample	Diln.	Stds. ID	File#	OK?	Comments
	BLK			AL281	Y	
	PEM		83806	282	N	
	CCV57 1/100		85242	283	N	
	BLK			284	Y	
	PEM		83806	285	Y	
	CCV 58 1/100		85242	286	Y	
	R1509292-050			287	Y	
	~~R1510136-012~~ R1509161-012 4mL/2			288	Y	
	BLK			289	Y	
	BLK			290	Y	
	CCV 59 1/100		85242	291	Y	

AM 12/7

All samples = _____mL + _____uL Combined IS/Surr.;

Primary :_____ exp: Secondary :_____ exp:
Primary:_____ exp: Secondary :_____ exp:

Runlog GCEXT r1 12/5/12

ALS Environmental

METALS DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

METALS

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: R1510161 SDG No.: FTMM-8-GW-M

Lab Code: Case No.: SAS No.:

SOW No.: SW846 CLP-M

Sample ID.	Lab Sample No.
FTMM-8-GW-M8MW21-13.0	R1510161-001
FTMM-8-GW-M8MW17-9.75	R1510161-002
EB-2015-11-19	R1510161-004
FTMM-56-GW-80MW05-7.0	R1510161-007
FTMM-57-GW-108MW04-7.5	R1510161-009
FTMM-M8-GW-697MW01-16.5	R1510161-012
EB-2015-11-20	R1510161-017

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments: See Attatched Case Narrative

Signature: Vanessa M. Badman Name: Vanessa N. Badman

Date: 1/7/16 Title: Project Manager

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510161
Project Name:
Matrix: WATER

Service Request: FTMM-8-GW-M8MW21-13.0
Date Collected: 11/19/2015
Date Received: 11/21/2015
Units: ug/L
Basis:

Sample Name: FTMM-8-GW-M8MW21-13.0 **Lab Code:** R1510161-001

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/02/15	12/05/15	8.1		

% Solids: 0.0

Comments:

ALS Environmental

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client:	Parsons Engineering Science	**Service Request:**	FTMM-8-GW-M8MW21-13.0
Project No.:	R1510161	**Date Collected:**	11/19/2015
Project Name:		**Date Received:**	11/21/2015
Matrix:	WATER	**Units:**	ug/L
		Basis:	

Sample Name: FTMM-8-GW-M8MW17-9.75 **Lab Code:** R1510161-002

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/02/15	12/05/15	3.9	J	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510161
Project Name:
Matrix: WATER

Service Request: FTMM-8-GW-M8MW21-13.0
Date Collected: 11/19/2015
Date Received: 11/21/2015
Units: ug/L
Basis:

Sample Name: EB-2015-11-19 **Lab Code:** R1510161-004

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/02/15	12/05/15	2.5	U	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510161
Project Name:
Matrix: WATER

Service Request: FTMM-8-GW-M8MW21-13.0
Date Collected: 11/20/2015
Date Received: 11/21/2015
Units: ug/L
Basis:

Sample Name: FTMM-56-GW-80MW05-7.0 **Lab Code:** R1510161-007

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	6010C	10.0	5.0	1.1	1.0	12/02/15	12/05/15	3.7	J	
Cadmium	6010C	5.0	2.5	0.120	1.0	12/02/15	12/05/15	0.420	J	
Lead	6010C	5.0	2.5	1.3	1.0	12/02/15	12/05/15	2.0	J	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510161
Project Name:
Matrix: WATER

Service Request: FTMM-8-GW-M8MW21-13.0
Date Collected: 11/20/2015
Date Received: 11/21/2015
Units: ug/L
Basis:

Sample Name: FTMM-57-GW-108MW04-7.5 **Lab Code:** R1510161-009

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	6010C	10.0	5.0	1.1	1.0	12/02/15	12/05/15	2.0	J	
Cadmium	6010C	5.0	2.5	0.120	1.0	12/02/15	12/05/15	2.5	U	
Lead	6010C	5.0	2.5	1.3	1.0	12/02/15	12/05/15	2.5	U	

% Solids: 0.0

Comments:

ALS Environmental

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client:	Parsons Engineering Science	**Service Request:**	FTMM-8-GW-M8MW21-13.0
Project No.:	R1510161	**Date Collected:**	11/19/2015
Project Name:		**Date Received:**	11/21/2015
Matrix:	WATER	**Units:**	ug/L
		Basis:	

Sample Name: FTMM-M8-GW-697MW01-16.5 **Lab Code:** R1510161-012

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/02/15	12/05/15	2.5	U	

% Solids: 0.0

Comments:

ALS Environmental

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510161
Project Name:
Matrix: WATER

Service Request: FTMM-8-GW-M8MW21-13.0
Date Collected: 11/20/2015
Date Received: 11/21/2015
Units: ug/L
Basis:

Sample Name: EB-2015-11-20 **Lab Code:** R1510161-017

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	6010C	10.0	5.0	1.1	1.0	12/02/15	12/05/15	5.0	U	
Cadmium	6010C	5.0	2.5	0.120	1.0	12/02/15	12/05/15	0.317	J	
Lead	6010C	5.0	2.5	1.3	1.0	12/02/15	12/05/15	2.5	U	

% Solids: 0.0

Comments:

METALS
-2A-
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R1510161

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-8-GW-M8

Initial Calibration Source: PERKIN ELMER

Continuing Calibration Source: PERKIN ELMER

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic	1000	990	99	1000	1000	100	990	99	P
Cadmium	500	509	102	500	516	103	508	102	P
Lead	500	507	101	500	515	103	514	103	P

Comments:

METALS
-2A-
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R1510161

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-8-GW-M8

Initial Calibration Source: PERKIN ELMER

Continuing Calibration Source: PERKIN ELMER

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic				1000	956	96	1010	101	P
Cadmium				500	491	98	521	104	P
Lead				500	490	98	516	103	P

Comments:

METALS
-2A-
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R1510161

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-8-GW-M8

Initial Calibration Source: PERKIN ELMER

Continuing Calibration Source: PERKIN ELMER

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic				1000	1040	104	1040	104	P
Cadmium				500	533	107	538	108	P
Lead				500	534	107	539	108	P

Comments:

METALS
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: R1510161

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FTMM-8-GW-M8

AA CRDL Standard Source: ACCUSTANDARD

ICP CRDL Standard Source:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Arsenic				20.0	20.02	100	20.01	100
Cadmium				10.0	10.23	102	10.57	106
Lead				10.0	11.13	111	11.02	110

Comments:

METALS

-3-

BLANKS

Contract: R1510161

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-8-GW-M8

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	C	Continuing Calibration Blank ug/L 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic	1.12	U	1.12	U	1.12	U	1.12	U	-1.679	J	P
Cadmium	0.19	J	0.12	U	0.12	J	0.33	J	0.246	J	P
Lead	1.32	U	1.32	U	1.32	U	-1.95	J	1.320	U	P

Comments:

METALS

-3-

BLANKS

Contract: R1510161

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-8-GW-M8

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	C	Continuing Calibration Blank ug/L 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic			1.12	U	1.12	U	1.12	U			P
Cadmium			0.25	J	0.18	J	0.12	U			P
Lead			1.32	U	1.32	U	1.32	U			P

Comments:

METALS

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: R1510161

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-8-GW-M8

ICP ID Number: Optima ICP 3 ICS Source: PERKIN ELMER

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic		100	0.5	103	103	-2.6	100	100
Cadmium		1000	0.5	1000	100	1.1	1010	101
Lead		50	-0.1	52	104	-1.9	49	98

METALS

-7-

LABORATORY CONTROL SAMPLE

Contract: R1510161

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-8-GW-M8

Solid LCS Source: _____

Aqueous LCS Source: CPI

Analyte	Aqueous (ug/L			Solid (mg/K				
	True	Found	%R	True	Found	C	Limits	%R
Arsenic	40	41	102					
Cadmium	50	50	100					
Lead	500	507	101					

Comments: _____

METALS

- 9 -

ICP SERIAL DILUTIONS

Client: Parsons Engineering Science **Service Request:** FTMM-8-GW-M8MW21-13.0

Project No.: R1510161 **Units:** UG/L

Project Name:

Sample Name: FTMM-56-GW-80MW05-7.0L **Lab Code:** R1510161-007L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	3.73	J	5.60	U	100.0		P
Cadmium	0.42	J	1.67	J	298		P
Lead	1.97	J	6.60	U	100.0		P

METALS

- 10 -

DETECTION LIMITS

Client: Parsons Engineering Science **Service Request:** FTMM-8-GW-M8MW21-13.0

Project No.: R1510161

Project Name:

ICP/ICP-MS ID #: Optima ICP 3

GFAA ID #: **AA ID #:**

Analyte	Wave-length (nm)	Back-ground	PQL ug/L	LOD ug/L	MDL ug/L	M
Arsenic	188.979		10.0	5.0	1.1	P
Cadmium	226.502		5.0	2.5	0.1	P
Lead	220.353		5.0	2.5	1.3	P

Comments:

METALS

-11A-

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Contract: R1510161

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-8-GW-M8

ICP ID Number: Optima ICP 3 Date: 10/12/2015

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg
Aluminum	237.313	0.0000000	0.3763620	-11.7269001	0.0000000
Antimony	206.836	0.0908129	0.0000000	0.0000000	0.0000000
Arsenic	188.979	0.0290860	0.0112351	0.0000000	0.0147428
Barium	233.527	0.0230453	0.0000000	0.0000000	0.0000000
Beryllium	313.107	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.772	0.1552180	0.0000000	4.3798399	0.0000000
Cadmium	226.502	-0.0114008	0.0000000	0.1287160	0.0000000
Calcium	227.546	0.0000000	0.0000000	-5.2801399	0.0000000
Chromium	267.716	0.0028049	0.0051954	-0.0421685	-0.0939764
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.752	0.0000000	0.0000000	0.0000000	0.0000000
Iron	259.939	0.2503920	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0634259	-0.0071985	0.1146410	0.0000000
Magnesium	279.077	0.0000000	0.0000000	3.8534400	0.0000000
Manganese	257.610	-0.0120620	0.0000000	-0.1610040	0.0000000
Molybdenum	202.031	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.026	-0.0126263	-0.0167028	0.0000000	0.0166300
Silver	328.068	0.0000000	0.0113289	-0.1994170	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.801	0.0000000	0.0000000	-0.1145820	-0.0154526
Tin	189.927	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	337.279	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	-0.0777586	0.0000000
Zinc	206.200	0.0000000	0.0000000	0.0000000	0.0000000

Comments: _____

METALS
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ICP LINEAR RANGES (QUARTERLY)

Contract: R1510161

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-8-GW-M8

ICP ID Number: Optima ICP 3 Date: 10/7/2015

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Arsenic	0.200	4000	P
Cadmium	0.200	2000	P
Lead	0.200	10000	P

Comments: _____

METALS

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PREPARATION LOG

Contract: R1510161

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-8-GW-M8MW21-

Method: P

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
LCSW	12/2/2015	50.0	50.0
PBW	12/2/2015	50.0	50.0
FTMM-8-GW-M8MW21-13.	12/2/2015	50.0	50.0
FTMM-8-GW-M8MW17-9.7	12/2/2015	50.0	50.0
EB-2015-11-19	12/2/2015	50.0	50.0
FTMM-56-GW-80MW05-7.	12/2/2015	50.0	50.0
FTMM-57-GW-108MW04-7	12/2/2015	50.0	50.0
FTMM-M8-GW-697MW01-1	12/2/2015	50.0	50.0
EB-2015-11-20	12/2/2015	50.0	50.0

Comments:

METALS
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ANALYSIS RUN LOG

Contract: R1510161

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FTMM-8-GW-M8

Instrument ID Number: Optima ICP 3 Method: P

Start Date: 12/5/2015 End Date: 12/5/2015

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
Calib Blank 1	1.00	11:30				X			X						X												
Calib Std 1	1.00	11:36				X			X						X												
Calib Std 2	1.00	11:42				X			X						X												
Calib Std 3	1.00	11:47																									
Calib Std 4	1.00	11:53				X			X						X												
Calib Std 5	1.00	11:59				X			X						X												
ICV1	1.00	12:05				X			X						X												
ICB1	1.00	12:11				X			X						X												
CRDL1	1.00	12:16				X			X						X												
ICS-A1	1.00	12:22				X			X						X												
ICS-AB1	1.00	12:28				X			X						X												
CCV1	1.00	12:33				X			X						X												
CCB1	1.00	12:39				X			X						X												
PBW	1.00	12:45				X			X						X												
LCSW	1.00	12:51				X			X						X												
ZZZZZZ	1.00	12:56																									
ZZZZZZ	1.00	13:02																									
ZZZZZZ	1.00	13:08																									
ZZZZZZ	1.00	13:14																									
ZZZZZZ	1.00	13:20																									
ZZZZZZ	5.00	13:25																									
ZZZZZZ	1.00	13:31																									
FTMM-8-GW-M8MW21-1	1.00	13:37													X												
CCV2	1.00	13:42				X			X						X												
CCB2	1.00	13:48				X			X						X												
FTMM-8-GW-M8MW17-9	1.00	13:54													X												
EB-2015-11-19	1.00	14:00													X												
FTMM-56-GW-80MW05-	1.00	14:05				X			X						X												
FTMM-56-GW-80MW05-	5.00	14:11				X			X						X												
FTMM-57-GW-108MW04	1.00	14:17				X			X						X												
FTMM-M8-GW-697MW01	1.00	14:23													X												
EB-2015-11-20	1.00	14:28				X			X						X												
ZZZZZZ	1.00	14:34																									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS
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ANALYSIS RUN LOG

Contract: R1510161

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FTMM-8-GW-M8

Instrument ID Number: Optima ICP 3 Method: P

Start Date: 12/5/2015 End Date: 12/5/2015

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	14:40																										
ZZZZZZ	1.00	14:46																										
CCV3	1.00	14:51				X			X						X													
CCB3	1.00	14:57				X			X						X													
ZZZZZZ	1.00	15:03																										
ZZZZZZ	1.00	15:08																										
ZZZZZZ	1.00	15:14																										
ZZZZZZ	1.00	15:20																										
ZZZZZZ	1.00	15:26																										
ZZZZZZ	5.00	15:32																										
ZZZZZZ	5.00	15:37																										
ZZZZZZ	5.00	15:43																										
ZZZZZZ	5.00	15:49																										
ZZZZZZ	5.00	15:54																										
CCV4	1.00	16:00				X			X						X													
CCB4	1.00	16:06				X			X						X													
ZZZZZZ	2.00	16:11																										
ZZZZZZ	5.00	16:17																										
ZZZZZZ	5.00	16:23																										
ZZZZZZ	5.00	16:29																										
ZZZZZZ	5.00	16:34																										
CCV5	1.00	16:40				X			X						X													
CCB5	1.00	16:46				X			X						X													
CRDL2	1.00	16:51				X			X						X													
ICS-A2	1.00	16:57				X			X						X													
ICS-AB2	1.00	17:03				X			X						X													
ZZZZZZ	1.00	17:08																										
ZZZZZZ	1.00	17:13																										
CCV6	1.00	17:19				X			X						X													
CCB6	1.00	17:24				X			X						X													

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Metals Cover Page

Analyst: CG/DCB **Date:** 12/5/15 **Instrument:** OPTJ

Data File: JDec05 **Reviewed By:** DCB **Entered By:** DCB

Approval: AM

Starlims Run #	Analytes Used	Batch ID	Method	Failed Analytes	Repeats
475145	Al As Ba Ca Cd Pb	251222	6010	Na	1
475147	TAL B Mo Sn Sr - K Cr Zn	250814	6010	Cr K Zn	R10112-001,2,7 Ca
					R10112-001,2 Sr
475151	TAL - K Na	250703	6010		R9462-001,8-13 Ca
					R9792-050 Ca
475152	TAL - K Cr Zn	251307	6010		
	R10352 only				

Package Data:

Client Sub#	TIER	Analytes Used	Batch ID	Raw Data Copied?
R10120	III / (IV) / ILM	Pb	251222	Yes / No
R10161	III / (IV) / ILM	As Cd Pb	251222	Yes / No
R10345	III / (IV) / ILM	Al As Ba Cd Pb	251222	Yes / No
R9791	III / (IV) / ILM	Ca Cd Fe Mg Mn Na Pb	250814	Yes / No
R10112	(III) IV / ILM	TAL B Mo Sn Sr - As Cr K Sb Tl Zn	250814	Yes / No
	III / IV / ILM			Yes / No
	III / IV / ILM			Yes / No
	III / IV / ILM			Yes / No

OPTIMA 5300DV (#3) Run Log

Serial number: 077N6051602

Analyst: CS/DCB Date: 12/5/15 Data File: 3Dec05

Prep Dates:
MRL 12/4/15 ICSA 11/24/15 ICSAB 11/24/15 Int.Std 12/5/15
Cal Std 1 12/1/15 Cal Std 2 12/2/15 Cal Std 5 / HLCCV1 12/4/15 ICV / CCV 12/5/15
HLCCV2 12/3/15

Lot #:
MRL M7180101E ICSA M7180116B ICSAB M7180130C Int.Std M7180154H
Cal Std 1 M7180006E Cal Std 2 M7180021E Cal Std 5 / HLCCV1 M7180032A ICV / CCV M7180048D
(Cal Std 4 is a 1/5 and Cal Std 3 is a 1/100 dilution of Cal Std 5)
HLCCV2 M7180072B

Blank Prepared Daily Lot: HNO3 M7080004V HCL M7080005N

1	1		Calib Blank 1	44	64		R1510345-002 5X	87	5		CCB
2	9		Calib Std 1	45	65		R1510345-003 5X	88	93		R1510118-001
3	10		Calib Std 2	46	66		R1510345-004 5X	89	94		R1510118-002
4	11		Calib Std 3	47	67		R1510345-005 5X	90	95		R1510118-003
5	12		Calib Std 4	48	3	QC	CCV	91	4	QC	CCV
6	2		Calib Std 5	49	1	QC	CCB	92	5	QC	CCB
7	3	QC	ICV	50	68		R1510345-006 2X	93	6	QC	MRL
8	1	QC	ICB	51	69		R1510345-006 5X	94	7	QC	ICSA
9	6	QC	MRL	52	70		R1510345-007 5X	95	8	QC	ICSAB
10	7	QC	ICSA	53	71		R1510345-008 5X	96	4	QC	CCV
11	8	QC	ICSAB	54	72		R1510345-008L 5X	97	5	QC	CCB
12	3	QC	CCV	55	3	QC	CCV	98	96		PBW-250703
13	1	QC	CCB	56	1	QC	CCB	99	97		LCSW-250703
14	38		PBW-251222	57	6	QC	MRL	100	98		R1509662-001
15	39		LCSW-251222	58	7	QC	ICSA	101	99		R1509662-002
16	40		FBLK 14901-02	59	8	QC	ICSAB	102	100		R1509662-002D
17	41		R1510120-002	60	13	QC	HLCCV2	103	101		R1509662-002S
18	42		R1510120-002D	61	2	QC	HLCCV1	104	102		R1509662-002A
19	43		R1510120-002S	62	3	QC	CCV	105	103		R1509662-002L
20	44		R1510120-002A	63	1	QC	CCB	106	104		R1509662-003
21	45		R1510120-002L	64	73		PBW-251307	107	105		R1509662-004
22	46		R1510120-005	65	74		LCSW-251307	108	4	QC	CCV
23	47		R1510161-001	66	75		R1510352-001	109	5	QC	CCB
24	3	QC	CCV	67	76		R1510352-002	110	106		R1509662-005
25	1	QC	CCB	68	77		R1510352-003	111	107		R1509662-006
26	48		R1510161-002	69	78		R1510352-003L	112	108		R1509662-007
27	49		R1510161-004	70	79		PBW-250814	113	109		R1509662-008
28	50		R1510161-007	71	80		LCSW-250814	114	110		R1509662-009
29	51		R1510161-007L	72	81		R1509791-005	115	111		R1509662-010
30	52		R1510161-009	73	82		R1509791-006	116	112		R1509662-011
31	53		R1510161-012	74	3	QC	CCV	117	113		R1509662-012
32	54		R1510161-017	75	1	QC	CCB	118	114		R1509662-013
33	55		R1510345-001	76	83		R1509791-006D	119	115		R1509662-014
34	56		R1510345-002	77	84		R1509791-006S	120	4	QC	CCV
35	57		R1510345-002A	78	85		R1509761-006A	121	5	QC	CCB 12/7/15
36	3	QC	CCV 12/6/15	79	86		R1509791-006L	122	116		~~R1509662-015~~ DCB
37	1	QC	CCB DCB	80	87		R1509791-007	123	117		R1509662-016
38	58		R1510345-003	81	88		R1509791-008	124	118		R1509662-017
39	59		R1510345-005	82	89		R1510112-001	125	119		R1509662-018
40	60		R1510345-006	83	90		R1510112-002	QC 126	120		R1509792-050
41	61		R1510345-007	84	91		R1510112-007	127	4	QC	CCV
42	62		R1510345-008	85	92		R1510112-008	128	5	QC	CCB
43	63		R1510345-001 5X	86	4	QC	CCV				

OPTIMA 5300DV (#3) Run Log

Serial number: 077N6051602

Analyst: _____ Date: _____ Data File: _____

Prep Dates: MRL _____ ICSA _____ ICSAB _____ Int.Std _____

Cal Std 1 _____ Cal Std 2 _____ Cal Std 5 / HLCCV1 _____ ICV / CCV _____

HLCCV2 _____

SEE PREVIOUS PAGE

Lot #: MRL _____ ICSA _____ ICSAB _____ Int.Std _____

Cal Std 1 _____ Cal Std 2 _____ Cal Std 5 / HLCCV1 _____ ICV / CCV ARD 12/7/15

(Cal Std 4 is a 1/5 and Cal Std 3 is a 1/100 dilution of Cal Std 5)

HLCCV2 _____

Blank Prepared Daily Lot: HNO3 _____ HCL _____

129	6	QC	MRL
130	7	QC	ICSA
131	8	QC	ICSAB
132	4	QC	CCV
133	5	QC	CCB
134	121	SAM	Sample121

Analysis Begun

Start Time: 12/5/2015 11:30:53 AM
Plasma On Time: 12/5/2015 7:42:49 AM
Logged In Analyst: alrce.metals03
Technique: ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077N6051602Autosampler Model: AS-93plus

Sample Information File: C:\pe\Optima5300\Sample Information\ROUTINE2.sif
Batch ID:
Results Data Set: 3Dec05
Results Library: C:\pe\Optima5300\Results\Dec15.mdb

Analyst DCB 12/7/15 AM

Sequence No.: 1
Sample ID: Calib Blank 1
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 1
Date Collected: 12/5/2015 11:30:53 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	3950809.2	159520.80	4.04%	1.000	mg/L
Ag 328.068†	2495.5	51.35	2.06%	[0.00]	mg/L
As 188.979†	-0.5	0.22	42.71%	[0.00]	mg/L
B 249.772†	-815.2	0.01	0.00%	[0.00]	mg/L
Ba 233.527†	-1000.3	43.54	4.35%	[0.00]	mg/L
Be 313.107†	-6536.3	149.98	2.29%	[0.00]	mg/L
Cd 226.502†	-701.7	29.20	4.16%	[0.00]	mg/L
Co 228.616†	-106.7	1.32	1.24%	[0.00]	mg/L
Cr 267.716†	-644.8	40.01	6.21%	[0.00]	mg/L
Cu 324.752†	2947.0	126.13	4.28%	[0.00]	mg/L
Fe 259.939†	-3109.2	121.39	3.90%	[0.00]	mg/L
K 766.490†	1538.8	30.18	1.96%	[0.00]	mg/L
Mg 279.077†	-5492.0	230.66	4.20%	[0.00]	mg/L
Mn 257.610†	-1827.0	74.48	4.08%	[0.00]	mg/L
Mo 202.031†	29.5	2.49	8.45%	[0.00]	mg/L
Ni 231.604†	-42.3	2.15	5.09%	[0.00]	mg/L
Na 589.592†	993.3	125.23	12.61%	[0.00]	mg/L
Pb 220.353†	237.1	16.39	6.91%	[0.00]	mg/L
Sb 206.836†	19.3	1.16	6.03%	[0.00]	mg/L
Se 196.026†	10.1	4.55	44.83%	[0.00]	mg/L
Sn 189.927†	0.9	0.15	17.07%	[0.00]	mg/L
Ti 337.279†	226.6	37.45	16.52%	[0.00]	mg/L
Tl 190.801†	-15.1	1.75	11.59%	[0.00]	mg/L
V 292.402†	96.7	5.41	5.59%	[0.00]	mg/L
Zn 206.200†	60.6	5.15	8.50%	[0.00]	mg/L
Ca 227.546†	33.4	5.08	15.22%	[0.00]	mg/L
Sr 421.552†	236.3	66.26	28.04%	[0.00]	mg/L
Al 237.313†	-1495.7	55.78	3.73%	[0.00]	mg/L

Sequence No.: 2
Sample ID: Calib Std 1
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 9
Date Collected: 12/5/2015 11:36:28 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: Calib Std 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	3676483.9	454456.24	12.36%	0.9306	mg/L
As 188.979†	7.4	1.70	22.89%	[0.0050]	mg/L
Ba 233.527†	1168.1	12.94	1.11%	[0.0200]	mg/L
Cd 226.502†	6.0	82.82	>999.9%	[0.0010]	mg/L
Co 228.616†	84.8	0.33	0.39%	[0.0030]	mg/L
Cr 267.716†	69.5	56.07	80.73%	[0.0010]	mg/L
Cu 324.752†	3673.9	877.88	23.89%	[0.0100]	mg/L
Mn 257.610†	4042.9	259.32	6.41%	[0.0100]	mg/L

Mo 202.031†	374.5	51.82	13.84%	[0.0250]	mg/L
Ni 231.604†	304.1	41.15	13.53%	[0.0050]	mg/L
Pb 220.353†	83.5	38.64	46.28%	[0.0050]	mg/L
Sb 206.836†	13.8	3.70	26.78%	[0.0100]	mg/L
Se 196.026†	4.5	2.93	65.07%	[0.0050]	mg/L
Tl 190.801†	21.2	0.35	1.68%	[0.0100]	mg/L
V 292.402†	372.9	16.14	4.33%	[0.0030]	mg/L
Zn 206.200†	505.0	73.79	14.61%	[0.0100]	mg/L

Sequence No.: 3 **Autosampler Location: 10**
Sample ID: Calib Std 2 **Date Collected: 12/5/2015 11:42:06 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Calib Std 2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Y 371.029	3906198.7	94813.52	2.43%	0.9887	mg/L
As 188.979†	14.1	2.65	18.81%	[0.0100]	mg/L
B 249.772†	26177.1	1220.67	4.66%	[0.200]	mg/L
Be 313.107†	11929.9	90.79	0.76%	[0.0030]	mg/L
Cd 226.502†	412.6	11.11	2.69%	[0.005]	mg/L
Cu 324.752†	6360.9	120.56	1.90%	[0.0200]	mg/L
K 766.490†	8664.7	94.53	1.09%	[2.000]	mg/L
Mg 279.077†	8155.2	12.77	0.16%	[1.000]	mg/L
Na 589.592†	18551.9	33.87	0.18%	[1.000]	mg/L
Pb 220.353†	422.1	18.01	4.27%	[0.0500]	mg/L
Sb 206.836†	73.7	5.73	7.77%	[0.060]	mg/L
Se 196.026†	16.3	5.43	33.28%	[0.0100]	mg/L
Sn 189.927†	2625.3	68.44	2.61%	[0.500]	mg/L
Ca 227.546†	330.9	9.10	2.75%	[1.000]	mg/L
Al 237.313†	219.2	54.03	24.64%	[0.1000]	mg/L

Sequence No.: 4 **Autosampler Location: 11**
Sample ID: Calib Std 3 **Date Collected: 12/5/2015 11:47:42 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Calib Std 3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Y 371.029	3975494.8	22159.81	0.56%	1.006	mg/L
Ag 328.068†	3013.4	40.13	1.33%	[0.0100]	mg/L
B 249.772†	8630.1	262.43	3.04%	[0.0500]	mg/L
Be 313.107†	16778.1	150.81	0.90%	[0.0050]	mg/L
Co 228.616†	1579.8	17.18	1.09%	[0.050]	mg/L
Cr 267.716†	1310.4	0.82	0.06%	[0.010]	mg/L
Fe 259.939†	3765.6	14.40	0.38%	[0.1000]	mg/L
K 766.490†	1884.4	13.36	0.71%	[0.5000]	mg/L
Mg 279.077†	4180.1	30.02	0.72%	[0.5000]	mg/L
Ni 231.604†	2403.9	15.07	0.63%	[0.0400]	mg/L
Na 589.592†	8539.9	59.90	0.70%	[0.5000]	mg/L
Sn 189.927†	537.8	6.89	1.28%	[0.1000]	mg/L
Ti 337.279†	31056.8	377.98	1.22%	[0.0500]	mg/L
V 292.402†	5331.0	24.73	0.46%	[0.050]	mg/L
Zn 206.200†	880.9	0.72	0.08%	[0.020]	mg/L
Ca 227.546†	160.5	1.12	0.70%	[0.5000]	mg/L
Sr 421.552†	47922.9	528.96	1.10%	[0.0500]	mg/L

Sequence No.: 5 **Autosampler Location: 12**
Sample ID: Calib Std 4 **Date Collected: 12/5/2015 11:53:21 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Calib Std 4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	3591022.9	353578.51	9.85%	0.9089	mg/L
Ag 328.068†	64034.6	6171.93	9.64%	[0.2000]	mg/L
As 188.979†	659.1	59.55	9.04%	[0.4000]	mg/L
B 249.772†	106848.7	9445.71	8.84%	[1.0000]	mg/L
Ba 233.527†	269850.4	24993.85	9.26%	[4.0000]	mg/L
Be 313.107†	353367.5	31176.23	8.82%	[0.1000]	mg/L
Cd 226.502†	20823.7	1793.79	8.61%	[0.2000]	mg/L
Co 228.616†	33513.1	3074.81	9.17%	[1.0000]	mg/L
Cr 267.716†	28422.6	2491.78	8.77%	[0.2000]	mg/L
Cu 324.752†	157947.5	14749.32	9.34%	[0.5000]	mg/L
Fe 259.939†	81589.7	7295.73	8.94%	[2.0000]	mg/L
K 766.490†	44950.8	4911.94	10.93%	[10.000]	mg/L
Mg 279.077†	91405.5	7695.58	8.42%	[10.000]	mg/L
Mn 257.610†	128863.3	11683.23	9.07%	[0.3000]	mg/L
Mo 202.031†	15557.9	1530.12	9.84%	[1.0000]	mg/L
Ni 231.604†	50844.9	4684.78	9.21%	[0.8000]	mg/L
Na 589.592†	190416.8	19325.54	10.15%	[10.000]	mg/L
Pb 220.353†	1771.5	207.75	11.73%	[0.2000]	mg/L
Sb 206.836†	2742.3	250.59	9.14%	[2.0000]	mg/L
Se 196.026†	415.7	39.09	9.40%	[0.2000]	mg/L
Sn 189.927†	11481.6	1125.22	9.80%	[2.0000]	mg/L
Ti 337.279†	659283.9	59685.63	9.05%	[1.0000]	mg/L
Tl 190.801†	894.9	90.60	10.12%	[0.4000]	mg/L
V 292.402†	113724.0	10461.62	9.20%	[1.0000]	mg/L
Zn 206.200†	17262.0	1623.59	9.41%	[0.4000]	mg/L
Ca 227.546†	3534.6	341.17	9.65%	[10.000]	mg/L
Sr 421.552†	1039963.7	107555.48	10.34%	[1.0000]	mg/L
Al 237.313†	14169.7	984.23	6.95%	[4.0000]	mg/L

Sequence No.: 6
Sample ID: Calib Std 5
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 2
Date Collected: 12/5/2015 11:59:11 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: Calib Std 5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	3798106.7	18833.91	0.50%	0.9613	mg/L
Ag 328.068†	289478.3	253.59	0.09%	[1.0000]	mg/L
As 188.979†	3029.0	21.33	0.70%	[2.0000]	mg/L
B 249.772†	487683.3	2208.01	0.45%	[5.0000]	mg/L
Ba 233.527†	1172240.3	3606.99	0.31%	[20.000]	mg/L
Be 313.107†	1640483.1	5006.54	0.31%	[0.5000]	mg/L
Cd 226.502†	92411.1	367.45	0.40%	[1.0000]	mg/L
Co 228.616†	146575.0	77.48	0.05%	[5.0000]	mg/L
Cr 267.716†	127126.0	83.69	0.07%	[1.0000]	mg/L
Cu 324.752†	720622.9	2246.73	0.31%	[2.5000]	mg/L
Fe 259.939†	360179.9	137.05	0.04%	[10.000]	mg/L
K 766.490†	254606.8	2535.76	1.00%	[50.000]	mg/L
Mg 279.077†	406985.5	503.59	0.12%	[50.000]	mg/L
Mn 257.610†	568053.4	777.75	0.14%	[1.5000]	mg/L
Mo 202.031†	69631.9	151.78	0.22%	[5.0000]	mg/L
Ni 231.604†	222040.4	212.74	0.10%	[4.0000]	mg/L
Na 589.592†	971505.8	12869.78	1.32%	[50.000]	mg/L
Pb 220.353†	7656.8	38.09	0.50%	[1.0000]	mg/L
Sb 206.836†	12383.6	58.58	0.47%	[10.000]	mg/L
Se 196.026†	1906.3	6.03	0.32%	[1.0000]	mg/L
Sn 189.927†	51976.1	161.56	0.31%	[10.000]	mg/L
Ti 337.279†	3039293.0	8664.14	0.29%	[5.0000]	mg/L
Tl 190.801†	3858.2	41.86	1.08%	[2.0000]	mg/L
V 292.402†	516313.9	561.93	0.11%	[5.0000]	mg/L
Zn 206.200†	76114.6	240.64	0.32%	[2.0000]	mg/L
Ca 227.546†	16469.8	75.71	0.46%	[50.000]	mg/L
Sr 421.552†	4690658.1	53090.78	1.13%	[5.0000]	mg/L
Al 237.313†	66984.3	46.01	0.07%	[20.000]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	290700	0.00000	0.999794	
As 188.979	4	Lin Thru 0	0.0	1520	0.00000	0.999858	
B 249.772	4	Lin Thru 0	0.0	97950	0.00000	0.999718	
Ba 233.527	3	Lin Thru 0	0.0	58950	0.00000	0.999583	
Be 313.107	4	Lin Thru 0	0.0	3291000	0.00000	0.999890	
Cd 226.502	4	Lin Thru 0	0.0	92860	0.00000	0.999706	
Co 228.616	4	Lin Thru 0	0.0	29480	0.00000	0.999625	
Cr 267.716	4	Lin Thru 0	0.0	127700	0.00000	0.999745	
Cu 324.752	4	Lin Thru 0	0.0	289300	0.00000	0.999830	
Fe 259.939	3	Lin Thru 0	0.0	36200	0.00000	0.999678	
K 766.490	4	Lin Thru 0	0.0	5068	0.00000	0.999725	
Mg 279.077	4	Lin Thru 0	0.0	8178	0.00000	0.999723	
Mn 257.610	3	Lin Thru 0	0.0	380700	0.00000	0.999670	
Mo 202.031	3	Lin Thru 0	0.0	13990	0.00000	0.999749	
Ni 231.604	4	Lin Thru 0	0.0	55820	0.00000	0.999616	
Na 589.592	4	Lin Thru 0	0.0	19410	0.00000	0.999992	
Pb 220.353	4	Lin Thru 0	0.0	7705	0.00000	0.999525	
Sb 206.836	4	Lin Thru 0	0.0	1243	0.00000	0.999789	
Se 196.026	4	Lin Thru 0	0.0	1913	0.00000	0.999846	
Sn 189.927	4	Lin Thru 0	0.0	5219	0.00000	0.999800	
Ti 337.279	3	Lin Thru 0	0.0	609800	0.00000	0.999869	
Tl 190.801	3	Lin Thru 0	0.0	1941	0.00000	0.999534	
V 292.402	4	Lin Thru 0	0.0	103700	0.00000	0.999812	
Zn 206.200	4	Lin Thru 0	0.0	38250	0.00000	0.999670	
Ca 227.546	4	Lin Thru 0	0.0	330.3	0.00000	0.999902	
Sr 421.552	3	Lin Thru 0	0.0	942000	0.00000	0.999784	
Al 237.313	3	Lin Thru 0	0.0	3357	0.00000	0.999937	

Sequence No.: 7
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/5/2015 12:05:12 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3914746.4	0.9909	mg/L	0.01731				1.75%
Ag 328.068†	145443.0	0.5009	mg/L	0.01518	0.5009	mg/L	0.01518	3.03%
QC value within limits for Ag 328.068 Recovery = 100.18%								
As 188.979†	1505.9	0.9902	mg/L	0.02540	0.9902	mg/L	0.02540	2.57%
QC value within limits for As 188.979 Recovery = 99.02%								
B 249.772†	245665.7	2.484	mg/L	0.0960	2.484	mg/L	0.0960	3.86%
QC value within limits for B 249.772 Recovery = 99.37%								
Ba 233.527†	602832.1	10.23	mg/L	0.328	10.23	mg/L	0.328	3.21%
QC value within limits for Ba 233.527 Recovery = 102.26%								
Be 313.107†	821711.2	0.2497	mg/L	0.00512	0.2497	mg/L	0.00512	2.05%
QC value within limits for Be 313.107 Recovery = 99.88%								
Cd 226.502†	47302.2	0.5087	mg/L	0.01536	0.5087	mg/L	0.01536	3.02%
QC value within limits for Cd 226.502 Recovery = 101.74%								
Co 228.616†	74354.1	2.522	mg/L	0.0872	2.522	mg/L	0.0872	3.46%
QC value within limits for Co 228.616 Recovery = 100.90%								
Cr 267.716†	66698.4	0.5247	mg/L	0.01684	0.5247	mg/L	0.01684	3.21%
QC value within limits for Cr 267.716 Recovery = 104.94%								
Cu 324.752†	356573.3	1.232	mg/L	0.0393	1.232	mg/L	0.0393	3.19%
QC value within limits for Cu 324.752 Recovery = 98.60%								
Fe 259.939†	184369.7	5.090	mg/L	0.1717	5.090	mg/L	0.1717	3.37%
QC value within limits for Fe 259.939 Recovery = 101.81%								
K 766.490†	109943.5	21.69	mg/L	0.621	21.69	mg/L	0.621	2.86%
QC value less than the lower limit for K 766.490 Recovery = 86.78%								
Mg 279.077†	205892.2	25.16	mg/L	0.812	25.16	mg/L	0.812	3.23%
QC value within limits for Mg 279.077 Recovery = 100.62%								
Mn 257.610†	294344.8	0.7742	mg/L	0.02472	0.7742	mg/L	0.02472	3.19%
QC value within limits for Mn 257.610 Recovery = 103.23%								
Mo 202.031†	34753.7	2.484	mg/L	0.0893	2.484	mg/L	0.0893	3.59%

QC value within limits for Mo 202.031 Recovery = 99.37%
Ni 231.604† 116064.5 2.079 mg/L 0.0685 2.079 mg/L 0.0685 3.29%
QC value within limits for Ni 231.604 Recovery = 103.96%
Na 589.592† 439460.7 22.64 mg/L 0.746 22.64 mg/L 0.746 3.29%
QC value less than the lower limit for Na 589.592 Recovery = 90.54%
Pb 220.353† 3914.0 0.5070 mg/L 0.01140 0.5070 mg/L 0.01140 2.25%
QC value within limits for Pb 220.353 Recovery = 101.39%
Sb 206.836† 6217.2 4.999 mg/L 0.1097 4.999 mg/L 0.1097 2.20%
QC value within limits for Sb 206.836 Recovery = 99.98%
Se 196.026† 941.0 0.4915 mg/L 0.01358 0.4915 mg/L 0.01358 2.76%
QC value within limits for Se 196.026 Recovery = 98.31%
Sn 189.927† 26108.5 5.003 mg/L 0.1161 5.003 mg/L 0.1161 2.32%
QC value within limits for Sn 189.927 Recovery = 100.06%
Ti 337.279† 1505338.3 2.468 mg/L 0.0467 2.468 mg/L 0.0467 1.89%
QC value within limits for Ti 337.279 Recovery = 98.74%
Tl 190.801† 2029.0 1.046 mg/L 0.0267 1.046 mg/L 0.0267 2.55%
QC value within limits for Tl 190.801 Recovery = 104.63%
V 292.402† 255869.4 2.469 mg/L 0.0781 2.469 mg/L 0.0781 3.16%
QC value within limits for V 292.402 Recovery = 98.74%
Zn 206.200† 39536.4 1.034 mg/L 0.0346 1.034 mg/L 0.0346 3.34%
QC value within limits for Zn 206.200 Recovery = 103.35%
Ca 227.546† 8275.4 25.08 mg/L 0.580 25.08 mg/L 0.580 2.31%
QC value within limits for Ca 227.546 Recovery = 100.32%
Sr 421.552† 2302482.1 2.444 mg/L 0.0528 2.444 mg/L 0.0528 2.16%
QC value within limits for Sr 421.552 Recovery = 97.76%
Al 237.313† 32907.7 9.854 mg/L 0.2731 9.854 mg/L 0.2731 2.77%
QC value within limits for Al 237.313 Recovery = 98.54%
QC Failed. Continue with analysis.

Sequence No.: 8 **Autosampler Location: 1**
Sample ID: ICB **Date Collected: 12/5/2015 12:11:09 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4054124.6	1.026	mg/L	0.0164				1.60%
Ag 328.068†	-88.3	-0.0003	mg/L	0.00066	-0.0003	mg/L	0.00066	215.79%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	0.1	0.0001	mg/L	0.00106	0.0001	mg/L	0.00106	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	4483.6	0.0458	mg/L	0.00396	0.0458	mg/L	0.00396	8.65%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	42.5	0.0007	mg/L	0.00050	0.0007	mg/L	0.00050	68.97%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	401.8	0.0001	mg/L	0.00004	0.0001	mg/L	0.00004	30.08%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	17.7	0.0002	mg/L	0.00017	0.0002	mg/L	0.00017	89.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	21.8	0.0007	mg/L	0.00018	0.0007	mg/L	0.00018	24.91%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	28.2	0.0002	mg/L	0.00006	0.0002	mg/L	0.00006	26.10%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	1082.0	0.0037	mg/L	0.00014	0.0037	mg/L	0.00014	3.66%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	5.9	0.0002	mg/L	0.00202	0.0002	mg/L	0.00202	>999.9%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	-33.1	-0.0065	mg/L	0.00700	-0.0065	mg/L	0.00700	107.31%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	22.8	0.0028	mg/L	0.01237	0.0028	mg/L	0.01237	444.59%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	66.9	0.0002	mg/L	0.00012	0.0002	mg/L	0.00012	68.61%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	59.9	0.0043	mg/L	0.00068	0.0043	mg/L	0.00068	15.90%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	33.8	0.0006	mg/L	0.00012	0.0006	mg/L	0.00012	20.25%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	-5.3	-0.0003	mg/L	0.00436	-0.0003	mg/L	0.00436	>999.9%

QC value within limits for Na 589.592 Recovery = Not calculated
Pb 220.353† -3.0 -0.0004 mg/L 0.00032 -0.0004 mg/L 0.00032 82.95%
QC value within limits for Pb 220.353 Recovery = Not calculated
Sb 206.836† 3.6 0.0029 mg/L 0.00210 0.0029 mg/L 0.00210 72.45%
QC value within limits for Sb 206.836 Recovery = Not calculated
Se 196.026† -1.4 -0.0007 mg/L 0.00282 -0.0007 mg/L 0.00282 380.32%
QC value within limits for Se 196.026 Recovery = Not calculated
Sn 189.927† 30.6 0.0059 mg/L 0.00077 0.0059 mg/L 0.00077 13.07%
QC value within limits for Sn 189.927 Recovery = Not calculated
Ti 337.279† 842.7 0.0014 mg/L 0.00029 0.0014 mg/L 0.00029 20.64%
QC value within limits for Ti 337.279 Recovery = Not calculated
Tl 190.801† 4.3 0.0022 mg/L 0.00204 0.0022 mg/L 0.00204 92.23%
QC value within limits for Tl 190.801 Recovery = Not calculated
V 292.402† 30.1 0.0003 mg/L 0.00008 0.0003 mg/L 0.00008 28.29%
QC value within limits for V 292.402 Recovery = Not calculated
Zn 206.200† 36.0 0.0009 mg/L 0.00007 0.0009 mg/L 0.00007 7.49%
QC value within limits for Zn 206.200 Recovery = Not calculated
Ca 227.546† -4.4 -0.0132 mg/L 0.00684 -0.0132 mg/L 0.00684 51.77%
QC value within limits for Ca 227.546 Recovery = Not calculated
Sr 421.552† 90.4 0.0001 mg/L 0.00003 0.0001 mg/L 0.00003 28.57%
QC value within limits for Sr 421.552 Recovery = Not calculated
Al 237.313† 12.6 0.0038 mg/L 0.00783 0.0038 mg/L 0.00783 207.55%
QC value within limits for Al 237.313 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 6**
Sample ID: MRL **Date Collected: 12/5/2015 12:16:51 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: MRL

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4029045.3	1.020	mg/L	0.0066				0.65%
Ag 328.068†	2886.4	0.0099	mg/L	0.00063	0.0099	mg/L	0.00063	6.32%
QC value within limits for Ag 328.068 Recovery = 99.36%								
As 188.979†	30.5	0.0200	mg/L	0.00084	0.0200	mg/L	0.00084	4.17%
QC value within limits for As 188.979 Recovery = 100.08%								
B 249.772†	21516.5	0.2192	mg/L	0.00668	0.2192	mg/L	0.00668	3.05%
QC value within limits for B 249.772 Recovery = 109.59%								
Ba 233.527†	12561.6	0.2131	mg/L	0.00467	0.2131	mg/L	0.00467	2.19%
QC value within limits for Ba 233.527 Recovery = 106.54%								
Be 313.107†	16247.8	0.0049	mg/L	0.00010	0.0049	mg/L	0.00010	1.98%
QC value within limits for Be 313.107 Recovery = 98.75%								
Cd 226.502†	951.2	0.0102	mg/L	0.00008	0.0102	mg/L	0.00008	0.83%
QC value within limits for Cd 226.502 Recovery = 102.30%								
Co 228.616†	1550.5	0.0526	mg/L	0.00033	0.0526	mg/L	0.00033	0.62%
QC value within limits for Co 228.616 Recovery = 105.21%								
Cr 267.716†	1296.8	0.0103	mg/L	0.00007	0.0103	mg/L	0.00007	0.68%
QC value within limits for Cr 267.716 Recovery = 102.52%								
Cu 324.752†	7941.4	0.0274	mg/L	0.00086	0.0274	mg/L	0.00086	3.12%
QC value within limits for Cu 324.752 Recovery = 109.80%								
Fe 259.939†	3671.1	0.1014	mg/L	0.00025	0.1014	mg/L	0.00025	0.24%
QC value within limits for Fe 259.939 Recovery = 101.36%								
K 766.490†	3452.2	0.6812	mg/L	0.00633	0.6812	mg/L	0.00633	0.93%
QC value less than the lower limit for K 766.490 Recovery = 68.12%								
Mg 279.077†	8623.7	1.054	mg/L	0.0200	1.054	mg/L	0.0200	1.89%
QC value within limits for Mg 279.077 Recovery = 105.41%								
Mn 257.610†	5936.3	0.0156	mg/L	0.00040	0.0156	mg/L	0.00040	2.55%
QC value within limits for Mn 257.610 Recovery = 104.09%								
Mo 202.031†	390.0	0.0279	mg/L	0.00012	0.0279	mg/L	0.00012	0.43%
QC value within limits for Mo 202.031 Recovery = 111.50%								
Ni 231.604†	2275.7	0.0408	mg/L	0.00035	0.0408	mg/L	0.00035	0.85%
QC value within limits for Ni 231.604 Recovery = 101.92%								
Na 589.592†	16103.0	0.8294	mg/L	0.00799	0.8294	mg/L	0.00799	0.96%
QC value within limits for Na 589.592 Recovery = 82.94%								
Pb 220.353†	85.9	0.0111	mg/L	0.00002	0.0111	mg/L	0.00002	0.19%
QC value within limits for Pb 220.353 Recovery = 111.29%								
Sb 206.836†	71.7	0.0576	mg/L	0.00102	0.0576	mg/L	0.00102	1.78%

QC value within limits for Sb 206.836 Recovery = 96.03%						
Se 196.026†	17.2	0.0090 mg/L	0.00018	0.0090 mg/L	0.00018	2.00%
QC value within limits for Se 196.026 Recovery = 89.60%						
Sn 189.927†	2648.9	0.5076 mg/L	0.00451	0.5076 mg/L	0.00451	0.89%
QC value within limits for Sn 189.927 Recovery = 101.52%						
Ti 337.279†	30536.1	0.0501 mg/L	0.00142	0.0501 mg/L	0.00142	2.83%
QC value within limits for Ti 337.279 Recovery = 100.15%						
Tl 190.801†	42.8	0.0221 mg/L	0.00212	0.0221 mg/L	0.00212	9.59%
QC value within limits for Tl 190.801 Recovery = 110.34%						
V 292.402†	5213.0	0.0503 mg/L	0.00156	0.0503 mg/L	0.00156	3.09%
QC value within limits for V 292.402 Recovery = 100.59%						
Zn 206.200†	739.4	0.0193 mg/L	0.00016	0.0193 mg/L	0.00016	0.82%
QC value within limits for Zn 206.200 Recovery = 96.64%						
Ca 227.546†	311.3	0.9430 mg/L	0.01211	0.9430 mg/L	0.01211	1.28%
QC value within limits for Ca 227.546 Recovery = 94.30%						
Sr 421.552†	92558.1	0.0983 mg/L	0.00095	0.0983 mg/L	0.00095	0.96%
QC value within limits for Sr 421.552 Recovery = 98.25%						
Al 237.313†	664.9	0.1989 mg/L	0.00110	0.1989 mg/L	0.00110	0.55%
QC value within limits for Al 237.313 Recovery = 99.46%						

QC Failed. Continue with analysis.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: ICSA **Date Collected: 12/5/2015 12:22:33 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3640899.6	0.9216	mg/L	0.00572				0.62%
Ag 328.068†	-2393.2	0.0032	mg/L	0.00034	0.0032	mg/L	0.00034	10.61%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	16.0	0.0005	mg/L	0.00070	0.0005	mg/L	0.00070	142.19%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	37636.7	-0.0567	mg/L	0.00845	-0.0567	mg/L	0.00845	14.89%
Ba 233.527†	-273.0	-0.0060	mg/L	0.00024	-0.0060	mg/L	0.00024	4.09%
Be 313.107†	-1038.1	-0.0003	mg/L	0.00002	-0.0003	mg/L	0.00002	7.26%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	1110.1	0.0005	mg/L	0.00035	0.0005	mg/L	0.00035	71.43%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-11.6	-0.0004	mg/L	0.00047	-0.0004	mg/L	0.00047	119.53%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-3257.9	0.0001	mg/L	0.00031	0.0001	mg/L	0.00031	258.27%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	-0.3	0.0000	mg/L	0.00011	0.0000	mg/L	0.00011	>999.9%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	3304045.2	91.20	mg/L	1.727	91.20	mg/L	1.727	1.89%
QC value within limits for Fe 259.939 Recovery = 91.20%								
K 766.490†	40.4	0.0080	mg/L	0.00399	0.0080	mg/L	0.00399	50.14%
Mg 279.077†	2084236.4	254.5	mg/L	4.63	254.5	mg/L	4.63	1.82%
QC value within limits for Mg 279.077 Recovery = 101.80%								
Mn 257.610†	-5522.2	0.0034	mg/L	0.00016	0.0034	mg/L	0.00016	4.82%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-105.1	-0.0075	mg/L	0.00024	-0.0075	mg/L	0.00024	3.23%
Ni 231.604†	43.6	0.0008	mg/L	0.00007	0.0008	mg/L	0.00007	9.04%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	1893.1	0.0975	mg/L	0.00153	0.0975	mg/L	0.00153	1.57%
Pb 220.353†	194.7	-0.0001	mg/L	0.00092	-0.0001	mg/L	0.00092	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	45.7	0.0127	mg/L	0.00068	0.0127	mg/L	0.00068	5.35%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	8.3	0.0016	mg/L	0.00130	0.0016	mg/L	0.00130	79.59%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-393.9	-0.0755	mg/L	0.00035	-0.0755	mg/L	0.00035	0.47%
Ti 337.279†	390.8	0.0006	mg/L	0.00003	0.0006	mg/L	0.00003	4.17%
Tl 190.801†	-14.8	0.0068	mg/L	0.00178	0.0068	mg/L	0.00178	26.23%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-1356.0	-0.0060	mg/L	0.00000	-0.0060	mg/L	0.00000	0.04%
QC value within limits for V 292.402 Recovery = Not calculated								

Zn 206.200†	189.7	0.0050 mg/L	0.00014	0.0050 mg/L	0.00014	2.91%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	90383.1	274.1 mg/L	1.39	274.1 mg/L	1.39	0.51%
QC value within limits for Ca 227.546 Recovery = 109.64%						
Sr 421.552†	3324.4	0.0035 mg/L	0.00008	0.0035 mg/L	0.00008	2.18%
Al 237.313†	891134.4	266.5 mg/L	4.36	266.5 mg/L	4.36	1.64%
QC value within limits for Al 237.313 Recovery = 106.58%						

All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: ICSAB **Date Collected: 12/5/2015 12:28:14 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3658104.2	0.9259	mg/L	0.00177				0.19%
Ag 328.068†	51129.9	0.1873	mg/L	0.00077	0.1873	mg/L	0.00077	0.41%
QC value within limits for Ag 328.068 Recovery = 93.65%								
As 188.979†	172.1	0.1032	mg/L	0.00064	0.1032	mg/L	0.00064	0.62%
QC value within limits for As 188.979 Recovery = 103.18%								
B 249.772†	36707.5	-0.0657	mg/L	0.00062	-0.0657	mg/L	0.00062	0.95%
Ba 233.527†	31060.2	0.5255	mg/L	0.00129	0.5255	mg/L	0.00129	0.25%
QC value within limits for Ba 233.527 Recovery = 105.10%								
Be 313.107†	1683279.4	0.5115	mg/L	0.00075	0.5115	mg/L	0.00075	0.15%
QC value within limits for Be 313.107 Recovery = 102.30%								
Cd 226.502†	94103.7	1.002	mg/L	0.0024	1.002	mg/L	0.0024	0.24%
QC value within limits for Cd 226.502 Recovery = 100.20%								
Co 228.616†	14261.7	0.4838	mg/L	0.00105	0.4838	mg/L	0.00105	0.22%
QC value within limits for Co 228.616 Recovery = 96.77%								
Cr 267.716†	62598.2	0.5157	mg/L	0.00349	0.5157	mg/L	0.00349	0.68%
QC value within limits for Cr 267.716 Recovery = 103.13%								
Cu 324.752†	149887.0	0.5181	mg/L	0.00592	0.5181	mg/L	0.00592	1.14%
QC value within limits for Cu 324.752 Recovery = 103.61%								
Fe 259.939†	3299213.7	91.07	mg/L	0.430	91.07	mg/L	0.430	0.47%
QC value within limits for Fe 259.939 Recovery = 91.07%								
K 766.490†	238.7	0.0471	mg/L	0.01723	0.0471	mg/L	0.01723	36.59%
Mg 279.077†	2073745.0	253.2	mg/L	1.28	253.2	mg/L	1.28	0.50%
QC value within limits for Mg 279.077 Recovery = 101.29%								
Mn 257.610†	191084.9	0.5199	mg/L	0.00246	0.5199	mg/L	0.00246	0.47%
QC value within limits for Mn 257.610 Recovery = 103.97%								
Mo 202.031†	-114.0	-0.0081	mg/L	0.00009	-0.0081	mg/L	0.00009	1.10%
Ni 231.604†	53776.5	0.9634	mg/L	0.00445	0.9634	mg/L	0.00445	0.46%
QC value within limits for Ni 231.604 Recovery = 96.34%								
Na 589.592†	2002.3	0.1031	mg/L	0.00252	0.1031	mg/L	0.00252	2.45%
Pb 220.353†	595.9	0.0520	mg/L	0.00312	0.0520	mg/L	0.00312	6.00%
QC value within limits for Pb 220.353 Recovery = 103.99%								
Sb 206.836†	865.9	0.6722	mg/L	0.00058	0.6722	mg/L	0.00058	0.09%
QC value within limits for Sb 206.836 Recovery = 112.04%								
Se 196.026†	105.1	0.0523	mg/L	0.00150	0.0523	mg/L	0.00150	2.87%
QC value within limits for Se 196.026 Recovery = 104.58%								
Sn 189.927†	-430.9	-0.0826	mg/L	0.00052	-0.0826	mg/L	0.00052	0.63%
Ti 337.279†	286.0	0.0005	mg/L	0.00001	0.0005	mg/L	0.00001	2.43%
Tl 190.801†	165.8	0.0998	mg/L	0.00301	0.0998	mg/L	0.00301	3.02%
QC value within limits for Tl 190.801 Recovery = 99.78%								
V 292.402†	51340.4	0.5023	mg/L	0.00117	0.5023	mg/L	0.00117	0.23%
QC value within limits for V 292.402 Recovery = 100.47%								
Zn 206.200†	37432.7	0.9785	mg/L	0.00991	0.9785	mg/L	0.00991	1.01%
QC value within limits for Zn 206.200 Recovery = 97.85%								
Ca 227.546†	91574.0	277.7	mg/L	0.89	277.7	mg/L	0.89	0.32%
QC value within limits for Ca 227.546 Recovery = 111.08%								
Sr 421.552†	3324.8	0.0035	mg/L	0.00003	0.0035	mg/L	0.00003	0.73%
Al 237.313†	893749.3	267.2	mg/L	0.53	267.2	mg/L	0.53	0.20%
QC value within limits for Al 237.313 Recovery = 106.89%								

All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 3**

Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:
Date Collected: 12/5/2015 12:33:50 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3920479.2	0.9923	mg/L	0.00635				0.64%
Ag 328.068†	146985.9	0.5062	mg/L	0.00219	0.5062	mg/L	0.00219	0.43%
QC value within limits for Ag 328.068 Recovery = 101.25%								
As 188.979†	1522.8	1.001	mg/L	0.0050	1.001	mg/L	0.0050	0.50%
QC value within limits for As 188.979 Recovery = 100.13%								
B 249.772†	242563.2	2.452	mg/L	0.0265	2.452	mg/L	0.0265	1.08%
QC value within limits for B 249.772 Recovery = 98.09%								
Ba 233.527†	611709.2	10.38	mg/L	0.070	10.38	mg/L	0.070	0.67%
QC value within limits for Ba 233.527 Recovery = 103.76%								
Be 313.107†	831128.2	0.2526	mg/L	0.00018	0.2526	mg/L	0.00018	0.07%
QC value within limits for Be 313.107 Recovery = 101.03%								
Cd 226.502†	47958.6	0.5157	mg/L	0.00419	0.5157	mg/L	0.00419	0.81%
QC value within limits for Cd 226.502 Recovery = 103.15%								
Co 228.616†	75288.2	2.554	mg/L	0.0195	2.554	mg/L	0.0195	0.76%
QC value within limits for Co 228.616 Recovery = 102.17%								
Cr 267.716†	67521.4	0.5312	mg/L	0.00322	0.5312	mg/L	0.00322	0.61%
QC value within limits for Cr 267.716 Recovery = 106.24%								
Cu 324.752†	360399.9	1.246	mg/L	0.0056	1.246	mg/L	0.0056	0.45%
QC value within limits for Cu 324.752 Recovery = 99.66%								
Fe 259.939†	187029.7	5.164	mg/L	0.0307	5.164	mg/L	0.0307	0.59%
QC value within limits for Fe 259.939 Recovery = 103.28%								
K 766.490†	108259.3	21.36	mg/L	0.017	21.36	mg/L	0.017	0.08%
QC value less than the lower limit for K 766.490 Recovery = 85.45%								
Mg 279.077†	208736.1	25.50	mg/L	0.166	25.50	mg/L	0.166	0.65%
QC value within limits for Mg 279.077 Recovery = 102.01%								
Mn 257.610†	297705.9	0.7830	mg/L	0.00567	0.7830	mg/L	0.00567	0.72%
QC value within limits for Mn 257.610 Recovery = 104.40%								
Mo 202.031†	35297.3	2.523	mg/L	0.0268	2.523	mg/L	0.0268	1.06%
QC value within limits for Mo 202.031 Recovery = 100.93%								
Ni 231.604†	117866.5	2.112	mg/L	0.0128	2.112	mg/L	0.0128	0.61%
QC value within limits for Ni 231.604 Recovery = 105.58%								
Na 589.592†	437488.1	22.53	mg/L	0.016	22.53	mg/L	0.016	0.07%
QC value within limits for Na 589.592 Recovery = 90.14%								
Pb 220.353†	3973.0	0.5146	mg/L	0.00118	0.5146	mg/L	0.00118	0.23%
QC value within limits for Pb 220.353 Recovery = 102.92%								
Sb 206.836†	6366.4	5.119	mg/L	0.0078	5.119	mg/L	0.0078	0.15%
QC value within limits for Sb 206.836 Recovery = 102.38%								
Se 196.026†	949.4	0.4960	mg/L	0.00338	0.4960	mg/L	0.00338	0.68%
QC value within limits for Se 196.026 Recovery = 99.19%								
Sn 189.927†	26395.0	5.058	mg/L	0.0223	5.058	mg/L	0.0223	0.44%
QC value within limits for Sn 189.927 Recovery = 101.16%								
Ti 337.279†	1519521.2	2.492	mg/L	0.0031	2.492	mg/L	0.0031	0.12%
QC value within limits for Ti 337.279 Recovery = 99.67%								
Tl 190.801†	2061.8	1.063	mg/L	0.0037	1.063	mg/L	0.0037	0.35%
QC value within limits for Tl 190.801 Recovery = 106.32%								
V 292.402†	259436.4	2.503	mg/L	0.0096	2.503	mg/L	0.0096	0.38%
QC value within limits for V 292.402 Recovery = 100.12%								
Zn 206.200†	40176.1	1.050	mg/L	0.0108	1.050	mg/L	0.0108	1.03%
QC value within limits for Zn 206.200 Recovery = 105.02%								
Ca 227.546†	8394.6	25.44	mg/L	0.086	25.44	mg/L	0.086	0.34%
QC value within limits for Ca 227.546 Recovery = 101.76%								
Sr 421.552†	2287916.2	2.429	mg/L	0.0045	2.429	mg/L	0.0045	0.19%
QC value within limits for Sr 421.552 Recovery = 97.15%								
Al 237.313†	33349.3	9.986	mg/L	0.0114	9.986	mg/L	0.0114	0.11%
QC value within limits for Al 237.313 Recovery = 99.86%								

QC Failed. Continue with analysis.

Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 1
Date Collected: 12/5/2015 12:39:42 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3986427.1	1.009	mg/L	0.0133				1.31%
Ag 328.068†	-99.0	-0.0003	mg/L	0.00026	-0.0003	mg/L	0.00026	77.69%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	0.3	0.0002	mg/L	0.00036	0.0002	mg/L	0.00036	206.69%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	2340.1	0.0239	mg/L	0.00291	0.0239	mg/L	0.00291	12.19%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	-2.3	0.0000	mg/L	0.00038	0.0000	mg/L	0.00038	988.07%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-2.1	0.0000	mg/L	0.00007	0.0000	mg/L	0.00007	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	8.3	0.0001	mg/L	0.00011	0.0001	mg/L	0.00011	121.33%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.9	0.0007	mg/L	0.00031	0.0007	mg/L	0.00031	43.02%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	1.9	0.0000	mg/L	0.00004	0.0000	mg/L	0.00004	221.69%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	859.8	0.0030	mg/L	0.00009	0.0030	mg/L	0.00009	2.91%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	235.6	0.0065	mg/L	0.00225	0.0065	mg/L	0.00225	34.58%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	237.6	0.0469	mg/L	0.00073	0.0469	mg/L	0.00073	1.56%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	60.8	0.0074	mg/L	0.01365	0.0074	mg/L	0.01365	184.16%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	-22.5	-0.0001	mg/L	0.00011	-0.0001	mg/L	0.00011	187.38%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	48.6	0.0035	mg/L	0.00079	0.0035	mg/L	0.00079	22.61%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	32.0	0.0006	mg/L	0.00007	0.0006	mg/L	0.00007	13.04%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	28.5	0.0015	mg/L	0.00482	0.0015	mg/L	0.00482	328.65%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	6.4	0.0008	mg/L	0.00044	0.0008	mg/L	0.00044	53.57%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	1.4	0.0011	mg/L	0.00101	0.0011	mg/L	0.00101	92.32%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-2.4	-0.0013	mg/L	0.00332	-0.0013	mg/L	0.00332	262.13%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	18.2	0.0035	mg/L	0.00057	0.0035	mg/L	0.00057	16.32%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 337.279†	632.3	0.0010	mg/L	0.00015	0.0010	mg/L	0.00015	14.37%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	4.0	0.0020	mg/L	0.00153	0.0020	mg/L	0.00153	74.91%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	32.6	0.0003	mg/L	0.00012	0.0003	mg/L	0.00012	38.82%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	18.1	0.0005	mg/L	0.00015	0.0005	mg/L	0.00015	32.08%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Ca 227.546†	0.3	0.0010	mg/L	0.01114	0.0010	mg/L	0.01114	>999.9%
QC value within limits for Ca 227.546 Recovery = Not calculated								
Sr 421.552†	126.4	0.0001	mg/L	0.00004	0.0001	mg/L	0.00004	30.09%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Al 237.313†	-19.4	-0.0057	mg/L	0.00863	-0.0057	mg/L	0.00863	151.77%
QC value within limits for Al 237.313 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 14
Sample ID: PBW-251222
Analyst:
Initial Sample Wt: 50 g
Dilution:

Autosampler Location: 38
Date Collected: 12/5/2015 12:45:23 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: PBW-251222

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD

Analyte	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	Std.Dev.	RSD
Y 371.029	4159677.5	1.053	mg/L	0.0177				1.69%
Ag 328.068†	-93.2	-0.0003	mg/L	0.00008				26.43%
As 188.979†	-2.6	-0.0017	mg/L	0.00114				67.85%
B 249.772†	1113.4	0.0113	mg/L	0.00091				8.04%
Ba 233.527†	35.3	0.0006	mg/L	0.00034				56.36%
Be 313.107†	234.4	0.0001	mg/L	0.00007				95.93%
Cd 226.502†	22.9	0.0002	mg/L	0.00003				10.31%
Co 228.616†	9.5	0.0003	mg/L	0.00000				0.76%
Cr 267.716†	76.4	0.0006	mg/L	0.00006				10.59%
Cu 324.752†	537.6	0.0019	mg/L	0.00005				2.89%
Fe 259.939†	251.7	0.0069	mg/L	0.00191				27.50%
K 766.490†	-123.6	-0.0244	mg/L	0.01864				76.44%
Mg 279.077†	257.4	0.0314	mg/L	0.01145				36.40%
Mn 257.610†	183.7	0.0005	mg/L	0.00009				19.40%
Mo 202.031†	18.4	0.0013	mg/L	0.00038				29.28%
Ni 231.604†	13.3	0.0002	mg/L	0.00015				63.98%
Na 589.592†	114.6	0.0059	mg/L	0.00128				21.69%
Pb 220.353†	-10.0	-0.0013	mg/L	0.00026				19.82%
Sb 206.836†	-1.7	-0.0014	mg/L	0.00074				52.81%
Se 196.026†	-1.0	-0.0005	mg/L	0.00353				685.27%
Sn 189.927†	-2.6	-0.0005	mg/L	0.00027				54.96%
Ti 337.279†	361.3	0.0006	mg/L	0.00014				23.03%
Tl 190.801†	4.2	0.0022	mg/L	0.00028				12.75%
V 292.402†	19.6	0.0002	mg/L	0.00004				18.78%
Zn 206.200†	-4.3	-0.0001	mg/L	0.00011				94.49%
Ca 227.546†	0.4	0.0011	mg/L	0.00782				711.04%
Sr 421.552†	-71.2	-0.0001	mg/L	0.00000				5.99%
Al 237.313†	52.3	0.0157	mg/L	0.00736				47.00%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

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Sequence No.: 15
Sample ID: LCSW-251222
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 12/5/2015 12:51:03 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: LCSW-251222

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4050661.3	1.025	mg/L	0.0015				0.15%
Ag 328.068†	14571.2	0.0503	mg/L	0.00003				0.06%
As 188.979†	62.1	0.0408	mg/L	0.00033				0.81%
B 249.772†	90927.6	0.9235	mg/L	0.00623				0.68%
Ba 233.527†	121309.8	2.058	mg/L	0.0025				0.12%
Be 313.107†	155996.1	0.0474	mg/L	0.00013				0.28%
Cd 226.502†	4666.7	0.0501	mg/L	0.00005				0.11%
Co 228.616†	14760.8	0.5008	mg/L	0.00112				0.22%
Cr 267.716†	26111.1	0.2047	mg/L	0.00075				0.37%
Cu 324.752†	76164.7	0.2633	mg/L	0.00043				0.16%
Fe 259.939†	37007.0	1.022	mg/L	0.0033				0.32%
K 766.490†	86280.4	17.02	mg/L	0.024				0.14%
Mg 279.077†	15964.2	1.948	mg/L	0.0091				0.46%
Mn 257.610†	191494.7	0.5032	mg/L	0.00040				0.08%
Mo 202.031†	6779.5	0.4846	mg/L	0.00388				0.80%
Ni 231.604†	29212.0	0.5233	mg/L	0.00037				0.07%
Na 589.592†	364801.2	18.79	mg/L	0.063				0.34%
Pb 220.353†	3910.6	0.5073	mg/L	0.00205				0.40%
Sb 206.836†	583.0	0.4687	mg/L	0.00219				0.47%
Se 196.026†	1881.8	0.9837	mg/L	0.00232				0.24%
Sn 189.927†	27189.7	5.210	mg/L	0.0186				0.36%
Ti 337.279†	290496.7	0.4764	mg/L	0.00224				0.47%
Tl 190.801†	3942.4	2.031	mg/L	0.0110				0.54%
V 292.402†	51070.6	0.4927	mg/L	0.00159				0.32%
Zn 206.200†	19357.3	0.5060	mg/L	0.00040				0.08%
Ca 227.546†	667.3	2.026	mg/L	0.0097				0.48%
Sr 421.552†	328.6	0.0003	mg/L	0.00002				4.98%
Al 237.313†	6334.5	1.898	mg/L	0.0081				0.43%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 16
Sample ID: FBLK 14901-02
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 40
Date Collected: 12/5/2015 12:56:46 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: FBLK 14901-02

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4206731.7	1.065	mg/L	0.0139				1.30%
Ag 328.068†	-102.1	-0.0004	mg/L	0.00008				20.10%
As 188.979†	-1.3	-0.0009	mg/L	0.00177				195.57%
B 249.772†	1173.0	0.0119	mg/L	0.00140				11.71%
Ba 233.527†	52.2	0.0009	mg/L	0.00029				32.38%
Be 313.107†	231.0	0.0001	mg/L	0.00001				13.79%
Cd 226.502†	33.2	0.0004	mg/L	0.00017				47.84%
Co 228.616†	3.4	0.0001	mg/L	0.00015				126.56%
Cr 267.716†	97.1	0.0008	mg/L	0.00002				3.21%
Cu 324.752†	163.5	0.0006	mg/L	0.00011				18.94%
Fe 259.939†	316.4	0.0087	mg/L	0.00209				23.93%
K 766.490†	-28.6	-0.0056	mg/L	0.00058				10.23%
Mg 279.077†	508.6	0.0622	mg/L	0.01121				18.04%
Mn 257.610†	606.8	0.0016	mg/L	0.00009				5.68%
Mo 202.031†	16.7	0.0012	mg/L	0.00009				7.95%
Ni 231.604†	26.3	0.0005	mg/L	0.00017				36.33%
Na 589.592†	319.2	0.0164	mg/L	0.00233				14.17%
Pb 220.353†	-19.7	-0.0025	mg/L	0.00196				77.06%
Sb 206.836†	-2.5	-0.0020	mg/L	0.00028				13.62%
Se 196.026†	-4.5	-0.0023	mg/L	0.00037				15.82%
Sn 189.927†	-27.4	-0.0052	mg/L	0.00086				16.46%
Ti 337.279†	417.7	0.0007	mg/L	0.00017				24.46%
Tl 190.801†	6.7	0.0034	mg/L	0.00055				15.91%
V 292.402†	26.5	0.0003	mg/L	0.00014				53.05%
Zn 206.200†	23067.6	0.6030	mg/L	0.02501				4.15%
Ca 227.546†	880.1	2.664	mg/L	0.0067				0.25%
Sr 421.552†	2536.3	0.0027	mg/L	0.00010				3.90%
Al 237.313†	91.4	0.0263	mg/L	0.00782				29.71%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 17
Sample ID: R1510120-002
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 41
Date Collected: 12/5/2015 1:02:28 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510120-002

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4053354.3	1.026	mg/L	0.0154				1.51%
Ag 328.068†	81.3	-0.0003	mg/L	0.00028				101.87%
As 188.979†	6.0	0.0032	mg/L	0.00070				21.84%
B 249.772†	982.3	0.0100	mg/L	0.00071				7.12%
Ba 233.527†	3067.9	0.0520	mg/L	0.00034				0.65%
Be 313.107†	-51.3	0.0000	mg/L	0.00003				216.47%
Cd 226.502†	26.4	0.0003	mg/L	0.00023				81.94%
Co 228.616†	-8.8	-0.0003	mg/L	0.00004				13.31%
Cr 267.716†	-36.1	0.0008	mg/L	0.00002				2.75%
Cu 324.752†	547.2	0.0019	mg/L	0.00005				2.57%
Fe 259.939†	293.9	0.0081	mg/L	0.00150				18.53%
K 766.490†	14211.6	2.804	mg/L	0.0681				2.43%
Mg 279.077†	118351.4	14.47	mg/L	0.267				1.85%
Mn 257.610†	24266.1	0.0637	mg/L	0.00088				1.38%
Mo 202.031†	13.3	0.0010	mg/L	0.00006				6.06%
Ni 231.604†	875.5	0.0157	mg/L	0.00022				1.39%
Na 589.592†	468836.2	24.15	mg/L	0.918				3.80%
Pb 220.353†	-9.1	-0.0008	mg/L	0.00053				64.41%
Sb 206.836†	-3.4	-0.0027	mg/L	0.00006				2.11%
Se 196.026†	-13.5	-0.0071	mg/L	0.00048				6.78%

Sn 189.927†	-195.9	-0.0375	mg/L	0.00181	4.81%
Ti 337.279†	234.8	0.0004	mg/L	0.00005	14.05%
Tl 190.801†	0.2	0.0003	mg/L	0.00057	187.06%
V 292.402†	704.8	0.0068	mg/L	0.00016	2.42%
Zn 206.200†	219.6	0.0057	mg/L	0.00021	3.62%
Ca 227.546†	16343.1	49.48	mg/L	0.728	1.47%
Sr 421.552†	271221.8	0.2879	mg/L	0.00775	2.69%
Al 237.313†	85.4	0.0069	mg/L	0.00673	97.14%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 18
Sample ID: R1510120-002D
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 12/5/2015 1:08:16 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510120-002D

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3950161.7	0.9998	mg/L	0.00048				0.05%
Ag 328.068†	78.0	-0.0003	mg/L	0.00030				97.42%
As 188.979†	5.9	0.0031	mg/L	0.00026				8.30%
B 249.772†	684.8	0.0070	mg/L	0.00039				5.59%
Ba 233.527†	3118.2	0.0529	mg/L	0.00003				0.05%
Be 313.107†	-641.7	-0.0002	mg/L	0.00004				19.76%
Cd 226.502†	4.4	0.0000	mg/L	0.00003				70.60%
Co 228.616†	-9.3	-0.0003	mg/L	0.00014				43.99%
Cr 267.716†	-56.2	0.0007	mg/L	0.00004				5.79%
Cu 324.752†	521.9	0.0018	mg/L	0.00020				11.05%
Fe 259.939†	133.0	0.0037	mg/L	0.00007				2.00%
K 766.490†	15164.2	2.992	mg/L	0.0204				0.68%
Mg 279.077†	122530.6	14.98	mg/L	0.063				0.42%
Mn 257.610†	24681.2	0.0648	mg/L	0.00027				0.41%
Mo 202.031†	7.1	0.0005	mg/L	0.00014				28.39%
Ni 231.604†	907.9	0.0163	mg/L	0.00010				0.61%
Na 589.592†	494354.5	25.46	mg/L	0.330				1.29%
Pb 220.353†	-8.0	-0.0007	mg/L	0.00058				85.63%
Sb 206.836†	-1.0	-0.0008	mg/L	0.00063				81.23%
Se 196.026†	-11.5	-0.0061	mg/L	0.00126				20.80%
Sn 189.927†	-201.3	-0.0386	mg/L	0.00060				1.56%
Ti 337.279†	151.8	0.0002	mg/L	0.00006				24.42%
Tl 190.801†	2.2	0.0014	mg/L	0.00023				16.68%
V 292.402†	729.1	0.0070	mg/L	0.00004				0.52%
Zn 206.200†	160.9	0.0042	mg/L	0.00006				1.39%
Ca 227.546†	16887.6	51.12	mg/L	0.453				0.89%
Sr 421.552†	292450.6	0.3104	mg/L	0.00266				0.86%
Al 237.313†	47.1	-0.0052	mg/L	0.00049				9.47%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 19
Sample ID: R1510120-002S
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 43
Date Collected: 12/5/2015 1:14:14 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510120-002S

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3956403.8	1.001	mg/L	0.0264				2.63%
Ag 328.068†	15113.4	0.0516	mg/L	0.00134				2.59%
As 188.979†	72.4	0.0468	mg/L	0.00070				1.49%
B 249.772†	96976.1	0.9852	mg/L	0.02042				2.07%
Ba 233.527†	125584.0	2.130	mg/L	0.0553				2.60%
Be 313.107†	161969.8	0.0492	mg/L	0.00131				2.66%
Cd 226.502†	4612.5	0.0495	mg/L	0.00108				2.17%
Co 228.616†	14315.9	0.4857	mg/L	0.01247				2.57%
Cr 267.716†	26441.5	0.2084	mg/L	0.00462				2.22%
Cu 324.752†	74929.5	0.2590	mg/L	0.00705				2.72%

Fe 259.939†	37480.5	1.035	mg/L	0.0251	2.43%
K 766.490†	104545.5	20.63	mg/L	0.972	4.71%
Mg 279.077†	133263.5	16.29	mg/L	0.408	2.50%
Mn 257.610†	217918.6	0.5727	mg/L	0.01488	2.60%
Mo 202.031†	6963.8	0.4978	mg/L	0.01187	2.38%
Ni 231.604†	28619.1	0.5127	mg/L	0.01483	2.89%
Na 589.592†	848417.7	43.70	mg/L	2.050	4.69%
Pb 220.353†	3895.0	0.5056	mg/L	0.01409	2.79%
Sb 206.836†	611.6	0.4916	mg/L	0.01765	3.59%
Se 196.026†	1945.5	1.017	mg/L	0.0220	2.16%
Sn 189.927†	27739.5	5.316	mg/L	0.1245	2.34%
Ti 337.279†	302130.2	0.4954	mg/L	0.01197	2.42%
Tl 190.801†	3880.1	1.999	mg/L	0.0452	2.26%
V 292.402†	53337.5	0.5146	mg/L	0.01541	2.99%
Zn 206.200†	18880.7	0.4936	mg/L	0.01137	2.30%
Ca 227.546†	17131.9	51.87	mg/L	1.534	2.96%
Sr 421.552†	279000.9	0.2962	mg/L	0.01406	4.75%
Al 237.313†	6631.5	1.968	mg/L	0.0411	2.09%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 20 **Autosampler Location: 44**
Sample ID: R1510120-002A **Date Collected: 12/5/2015 1:20:01 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510120-002A

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3927370.7	0.9941	mg/L	0.01091				1.10%
Ag 328.068†	9941.6	0.0338	mg/L	0.00089				2.62%
As 188.979†	64.9	0.0419	mg/L	0.00201				4.81%
B 249.772†	102805.9	1.045	mg/L	0.0238				2.28%
Ba 233.527†	117222.7	1.988	mg/L	0.0131				0.66%
Be 313.107†	151575.4	0.0461	mg/L	0.00044				0.96%
Cd 226.502†	4352.4	0.0467	mg/L	0.00020				0.42%
Co 228.616†	13538.5	0.4593	mg/L	0.00264				0.57%
Cr 267.716†	24616.6	0.1941	mg/L	0.00167				0.86%
Cu 324.752†	71818.5	0.2482	mg/L	0.00701				2.82%
Fe 259.939†	34996.7	0.9662	mg/L	0.01248				1.29%
K 766.490†	100819.1	19.89	mg/L	0.023				0.12%
Mg 279.077†	135130.4	16.52	mg/L	0.188				1.14%
Mn 257.610†	205797.5	0.5408	mg/L	0.00534				0.99%
Mo 202.031†	6822.3	0.4877	mg/L	0.00498				1.02%
Ni 231.604†	26730.2	0.4789	mg/L	0.00133				0.28%
Na 589.592†	844181.5	43.48	mg/L	0.102				0.23%
Pb 220.353†	3664.6	0.4758	mg/L	0.00354				0.74%
Sb 206.836†	600.1	0.4824	mg/L	0.00294				0.61%
Se 196.026†	2057.6	1.076	mg/L	0.0066				0.61%
Sn 189.927†	25693.6	4.923	mg/L	0.0422				0.86%
Ti 337.279†	293032.9	0.4805	mg/L	0.00910				1.89%
Tl 190.801†	3723.2	1.919	mg/L	0.0160				0.83%
V 292.402†	50114.8	0.4835	mg/L	0.00626				1.30%
Zn 206.200†	17624.2	0.4607	mg/L	0.00050				0.11%
Ca 227.546†	17509.8	53.01	mg/L	1.088				2.05%
Sr 421.552†	286859.7	0.3045	mg/L	0.00006				0.02%
Al 237.313†	6352.4	1.884	mg/L	0.0141				0.75%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 21 **Autosampler Location: 45**
Sample ID: R1510120-002L **Date Collected: 12/5/2015 1:25:39 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510120-002L

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD

Y 371.029	3934633.1	0.9959 mg/L	0.00807		0.81%
Ag 328.068†	42.8	0.0000 mg/L	0.00014		387.40%
As 188.979†	1.6	0.0009 mg/L	0.00056		61.81%
B 249.772†	143.4	0.0015 mg/L	0.00239		160.41%
Ba 233.527†	590.9	0.0100 mg/L	0.00027		2.66%
Be 313.107†	-476.3	-0.0001 mg/L	0.00005		31.39%
Cd 226.502†	-30.2	-0.0003 mg/L	0.00012		36.54%
Co 228.616†	-3.1	-0.0001 mg/L	0.00009		90.00%
Cr 267.716†	-11.4	0.0001 mg/L	0.00016		105.57%
Cu 324.752†	492.6	0.0017 mg/L	0.00004		2.30%
Fe 259.939†	-172.9	-0.0048 mg/L	0.00222		46.51%
K 766.490†	2577.9	0.5087 mg/L	0.00248		0.49%
Mg 279.077†	25138.9	3.074 mg/L	0.0072		0.23%
Mn 257.610†	5043.5	0.0132 mg/L	0.00017		1.27%
Mo 202.031†	20.8	0.0015 mg/L	0.00001		0.98%
Ni 231.604†	186.5	0.0033 mg/L	0.00001		0.33%
Na 589.592†	93160.4	4.798 mg/L	0.0121		0.25%
Pb 220.353†	8.5	0.0012 mg/L	0.00046		38.84%
Sb 206.836†	-1.9	-0.0015 mg/L	0.00213		143.10%
Se 196.026†	-7.6	-0.0040 mg/L	0.00127		31.95%
Sn 189.927†	-69.3	-0.0133 mg/L	0.00101		7.65%
Ti 337.279†	344.9	0.0006 mg/L	0.00016		28.90%
Tl 190.801†	6.8	0.0035 mg/L	0.00014		3.87%
V 292.402†	157.5	0.0015 mg/L	0.00026		17.18%
Zn 206.200†	90.1	0.0024 mg/L	0.00002		0.89%
Ca 227.546†	3208.1	9.712 mg/L	0.0069		0.07%
Sr 421.552†	57750.3	0.0613 mg/L	0.00060		0.97%
Al 237.313†	-78.3	-0.0270 mg/L	0.01092		40.42%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 22
Sample ID: R1510120-005
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 46
Date Collected: 12/5/2015 1:31:20 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510120-005

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3869149.2	0.9793	mg/L	0.01513				1.55%
Ag 328.068†	235.6	0.0004	mg/L	0.00022				49.48%
As 188.979†	3.6	0.0019	mg/L	0.00083				44.08%
B 249.772†	12459.4	0.1272	mg/L	0.03100				24.37%
Ba 233.527†	1158.7	0.0197	mg/L	0.00028				1.41%
Be 313.107†	-730.0	-0.0002	mg/L	0.00010				43.19%
Cd 226.502†	-45.8	-0.0005	mg/L	0.00025				50.16%
Co 228.616†	-12.0	-0.0004	mg/L	0.00001				1.45%
Cr 267.716†	-143.1	-0.0005	mg/L	0.00021				41.21%
Cu 324.752†	763.0	0.0026	mg/L	0.00059				22.43%
Fe 259.939†	-294.5	-0.0081	mg/L	0.00239				29.41%
K 766.490†	7354.1	1.451	mg/L	0.0613				4.22%
Mg 279.077†	68455.4	8.370	mg/L	0.2176				2.60%
Mn 257.610†	786.2	0.0021	mg/L	0.00014				6.65%
Mo 202.031†	25.1	0.0018	mg/L	0.00000				0.19%
Ni 231.604†	22.5	0.0004	mg/L	0.00029				71.44%
Na 589.592†	767281.0	39.52	mg/L	0.763				1.93%
Pb 220.353†	14.4	0.0021	mg/L	0.00218				103.49%
Sb 206.836†	-1.2	-0.0010	mg/L	0.00077				77.03%
Se 196.026†	-8.1	-0.0042	mg/L	0.00095				22.49%
Sn 189.927†	-150.9	-0.0289	mg/L	0.00083				2.86%
Ti 337.279†	68.0	0.0001	mg/L	0.00006				50.13%
Tl 190.801†	6.2	0.0033	mg/L	0.00057				17.16%
V 292.402†	69.2	0.0007	mg/L	0.00023				34.28%
Zn 206.200†	60.0	0.0016	mg/L	0.00024				15.24%
Ca 227.546†	10538.4	31.90	mg/L	0.721				2.26%
Sr 421.552†	195139.1	0.2071	mg/L	0.00319				1.54%
Al 237.313†	-151.0	-0.0571	mg/L	0.01750				30.67%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 23
Sample ID: R1510161-001
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 47
Date Collected: 12/5/2015 1:37:04 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510161-001

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3336384.2	0.8445	mg/L	0.00348				0.41%
Ag 328.068†	303.0	-0.0004	mg/L	0.00007				18.06%
As 188.979†	11.5	0.0032	mg/L	0.00180				55.61%
B 249.772†	85645.3	0.8643	mg/L	0.00277				0.32%
Ba 233.527†	4043.6	0.0686	mg/L	0.00023				0.33%
Be 313.107†	-1258.0	-0.0004	mg/L	0.00002				4.58%
Cd 226.502†	119.3	0.0009	mg/L	0.00002				2.68%
Co 228.616†	-31.2	-0.0011	mg/L	0.00004				3.67%
Cr 267.716†	-2271.4	-0.0022	mg/L	0.00018				7.93%
Cu 324.752†	4596.5	0.0159	mg/L	0.00052				3.26%
Fe 259.939†	82719.9	2.285	mg/L	0.0115				0.50%
K 766.490†	469492.7	92.64	mg/L	0.517				0.56%
Mg 279.077†	1418579.9	173.4	mg/L	1.28				0.74%
Mn 257.610†	44447.7	0.1171	mg/L	0.00066				0.56%
Mo 202.031†	17.2	0.0012	mg/L	0.00009				7.20%
Ni 231.604†	295.4	0.0053	mg/L	0.00025				4.64%
Na 589.592†	Saturated2							
Pb 220.353†	55.7	0.0081	mg/L	0.00143				17.71%
Sb 206.836†	1.2	0.0009	mg/L	0.00476				509.27%
Se 196.026†	-4.4	-0.0053	mg/L	0.00441				83.18%
Sn 189.927†	-318.6	-0.0611	mg/L	0.00026				0.42%
Ti 337.279†	3345.7	0.0055	mg/L	0.00004				0.80%
Tl 190.801†	-11.2	-0.0028	mg/L	0.00157				56.07%
V 292.402†	169.7	0.0018	mg/L	0.00008				4.14%
Zn 206.200†	9607.1	0.2511	mg/L	0.00033				0.13%
Ca 227.546†	51994.2	157.4	mg/L	1.17				0.74%
Sr 421.552†	1513776.2	1.607	mg/L	0.0110				0.68%
Al 237.313†	1560.3	0.4324	mg/L	0.00262				0.61%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 24
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 3
Date Collected: 12/5/2015 1:42:48 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3910907.7	0.9899	mg/L	0.01693				1.71%
Ag 328.068†	146546.9	0.5047	mg/L	0.00796	0.5047	mg/L	0.00796	1.58%
QC value within limits for Ag 328.068 Recovery = 100.94%								
As 188.979†	1505.0	0.9896	mg/L	0.01394	0.9896	mg/L	0.01394	1.41%
QC value within limits for As 188.979 Recovery = 98.96%								
B 249.772†	239743.7	2.424	mg/L	0.0258	2.424	mg/L	0.0258	1.07%
QC value within limits for B 249.772 Recovery = 96.95%								
Ba 233.527†	605471.9	10.27	mg/L	0.009	10.27	mg/L	0.009	0.09%
QC value within limits for Ba 233.527 Recovery = 102.70%								
Be 313.107†	819258.1	0.2490	mg/L	0.00287	0.2490	mg/L	0.00287	1.15%
QC value within limits for Be 313.107 Recovery = 99.58%								
Cd 226.502†	47278.2	0.5084	mg/L	0.00024	0.5084	mg/L	0.00024	0.05%
QC value within limits for Cd 226.502 Recovery = 101.69%								
Co 228.616†	74254.8	2.519	mg/L	0.0023	2.519	mg/L	0.0023	0.09%
QC value within limits for Co 228.616 Recovery = 100.76%								
Cr 267.716†	66902.6	0.5263	mg/L	0.00057	0.5263	mg/L	0.00057	0.11%
QC value within limits for Cr 267.716 Recovery = 105.26%								
Cu 324.752†	358961.7	1.241	mg/L	0.0336	1.241	mg/L	0.0336	2.71%
QC value within limits for Cu 324.752 Recovery = 99.26%								
Fe 259.939†	184531.6	5.095	mg/L	0.0198	5.095	mg/L	0.0198	0.39%
QC value within limits for Fe 259.939 Recovery = 101.90%								

K 766.490†	110443.0	21.79 mg/L	0.364	21.79 mg/L	0.364	1.67%
QC value less than the lower limit for K 766.490 Recovery = 87.17%						
Mg 279.077†	205401.0	25.10 mg/L	0.088	25.10 mg/L	0.088	0.35%
QC value within limits for Mg 279.077 Recovery = 100.38%						
Mn 257.610†	294724.3	0.7752 mg/L	0.00306	0.7752 mg/L	0.00306	0.39%
QC value within limits for Mn 257.610 Recovery = 103.36%						
Mo 202.031†	34804.5	2.488 mg/L	0.0023	2.488 mg/L	0.0023	0.09%
QC value within limits for Mo 202.031 Recovery = 99.52%						
Ni 231.604†	116283.8	2.083 mg/L	0.0037	2.083 mg/L	0.0037	0.18%
QC value within limits for Ni 231.604 Recovery = 104.16%						
Na 589.592†	444462.1	22.89 mg/L	0.453	22.89 mg/L	0.453	1.98%
QC value within limits for Na 589.592 Recovery = 91.57%						
Pb 220.353†	3966.8	0.5138 mg/L	0.00883	0.5138 mg/L	0.00883	1.72%
QC value within limits for Pb 220.353 Recovery = 102.76%						
Sb 206.836†	6249.2	5.025 mg/L	0.0911	5.025 mg/L	0.0911	1.81%
QC value within limits for Sb 206.836 Recovery = 100.50%						
Se 196.026†	934.7	0.4883 mg/L	0.00864	0.4883 mg/L	0.00864	1.77%
QC value within limits for Se 196.026 Recovery = 97.65%						
Sn 189.927†	26809.2	5.137 mg/L	0.0744	5.137 mg/L	0.0744	1.45%
QC value within limits for Sn 189.927 Recovery = 102.74%						
Ti 337.279†	1507915.4	2.473 mg/L	0.0258	2.473 mg/L	0.0258	1.04%
QC value within limits for Ti 337.279 Recovery = 98.91%						
Tl 190.801†	2040.4	1.052 mg/L	0.0125	1.052 mg/L	0.0125	1.18%
QC value within limits for Tl 190.801 Recovery = 105.22%						
V 292.402†	257422.1	2.484 mg/L	0.0305	2.484 mg/L	0.0305	1.23%
QC value within limits for V 292.402 Recovery = 99.34%						
Zn 206.200†	39090.1	1.022 mg/L	0.0185	1.022 mg/L	0.0185	1.81%
QC value within limits for Zn 206.200 Recovery = 102.18%						
Ca 227.546†	8326.8	25.24 mg/L	0.418	25.24 mg/L	0.418	1.66%
QC value within limits for Ca 227.546 Recovery = 100.94%						
Sr 421.552†	2289415.3	2.430 mg/L	0.0061	2.430 mg/L	0.0061	0.25%
QC value within limits for Sr 421.552 Recovery = 97.21%						
Al 237.313†	33062.9	9.900 mg/L	0.2450	9.900 mg/L	0.2450	2.47%
QC value within limits for Al 237.313 Recovery = 99.00%						
QC Failed. Continue with analysis.						

Sequence No.: 25 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 12/5/2015 1:48:35 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	4029332.2	1.020 mg/L	0.0147			1.44%
Ag 328.068†	-156.3	-0.0005 mg/L	0.00032	-0.0005 mg/L	0.00032	60.09%
QC value within limits for Ag 328.068 Recovery = Not calculated						
As 188.979†	0.5	0.0003 mg/L	0.00076	0.0003 mg/L	0.00076	237.69%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.772†	3029.2	0.0309 mg/L	0.00139	0.0309 mg/L	0.00139	4.48%
QC value within limits for B 249.772 Recovery = Not calculated						
Ba 233.527†	18.8	0.0003 mg/L	0.00044	0.0003 mg/L	0.00044	138.03%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	470.4	0.0001 mg/L	0.00000	0.0001 mg/L	0.00000	2.20%
QC value within limits for Be 313.107 Recovery = Not calculated						
Cd 226.502†	11.4	0.0001 mg/L	0.00010	0.0001 mg/L	0.00010	77.59%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	10.1	0.0003 mg/L	0.00008	0.0003 mg/L	0.00008	22.17%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-12.3	-0.0001 mg/L	0.00020	-0.0001 mg/L	0.00020	208.40%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	486.5	0.0017 mg/L	0.00025	0.0017 mg/L	0.00025	15.10%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 259.939†	-32.9	-0.0009 mg/L	0.00229	-0.0009 mg/L	0.00229	251.44%
QC value within limits for Fe 259.939 Recovery = Not calculated						
K 766.490†	52.9	0.0104 mg/L	0.00809	0.0104 mg/L	0.00809	77.50%
QC value within limits for K 766.490 Recovery = Not calculated						
Mg 279.077†	-10.6	-0.0013 mg/L	0.01451	-0.0013 mg/L	0.01451	>999.9%
QC value within limits for Mg 279.077 Recovery = Not calculated						

Mn 257.610†	-18.7	0.0000 mg/L	0.00014	0.0000 mg/L	0.00014	274.25%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	55.5	0.0040 mg/L	0.00073	0.0040 mg/L	0.00073	18.47%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604†	20.4	0.0004 mg/L	0.00005	0.0004 mg/L	0.00005	14.32%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Na 589.592†	807.3	0.0416 mg/L	0.00029	0.0416 mg/L	0.00029	0.69%
QC value within limits for Na 589.592 Recovery = Not calculated						
Pb 220.353†	1.2	0.0002 mg/L	0.00033	0.0002 mg/L	0.00033	204.92%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	-1.3	-0.0010 mg/L	0.00187	-0.0010 mg/L	0.00187	180.96%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-5.0	-0.0026 mg/L	0.00181	-0.0026 mg/L	0.00181	69.65%
QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	26.4	0.0051 mg/L	0.00076	0.0051 mg/L	0.00076	15.02%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 337.279†	770.0	0.0013 mg/L	0.00053	0.0013 mg/L	0.00053	42.18%
QC value within limits for Ti 337.279 Recovery = Not calculated						
Tl 190.801†	4.8	0.0024 mg/L	0.00034	0.0024 mg/L	0.00034	13.75%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	20.0	0.0002 mg/L	0.00010	0.0002 mg/L	0.00010	50.34%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	-1.7	0.0000 mg/L	0.00009	0.0000 mg/L	0.00009	203.77%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	-0.0	-0.0001 mg/L	0.00864	-0.0001 mg/L	0.00864	>999.9%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Sr 421.552†	190.2	0.0002 mg/L	0.00005	0.0002 mg/L	0.00005	24.83%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Al 237.313†	-8.2	-0.0024 mg/L	0.01033	-0.0024 mg/L	0.01033	422.75%
QC value within limits for Al 237.313 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 26
Sample ID: R1510161-002
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 48
Date Collected: 12/5/2015 1:54:23 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510161-002

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3541800.6	0.8965	mg/L	0.00595				0.66%
Ag 328.068†	297.9	-0.0028	mg/L	0.00015				5.29%
As 188.979†	8.8	0.0001	mg/L	0.00029				382.23%
B 249.772†	73076.2	0.7304	mg/L	0.01089				1.49%
Ba 233.527†	19052.0	0.3232	mg/L	0.00305				0.94%
Be 313.107†	-1036.6	-0.0003	mg/L	0.00010				32.78%
Cd 226.502†	-36.7	-0.0010	mg/L	0.00013				13.31%
Co 228.616†	-21.9	-0.0007	mg/L	0.00028				37.07%
Cr 267.716†	-1431.9	-0.0044	mg/L	0.00012				2.82%
Cu 324.752†	746.2	0.0026	mg/L	0.00055				21.36%
Fe 259.939†	129551.5	3.579	mg/L	0.0374				1.04%
K 766.490†	215012.7	42.43	mg/L	0.024				0.06%
Mg 279.077†	753879.4	92.17	mg/L	0.423				0.46%
Mn 257.610†	268680.5	0.7064	mg/L	0.00621				0.88%
Mo 202.031†	2.2	0.0002	mg/L	0.00021				135.12%
Ni 231.604†	-43.7	-0.0008	mg/L	0.00004				4.87%
Na 589.592†	Saturated2							
Pb 220.353†	11.9	0.0039	mg/L	0.00068				17.32%
Sb 206.836†	-0.5	-0.0004	mg/L	0.00170				414.16%
Se 196.026†	-20.0	-0.0103	mg/L	0.00234				22.68%
Sn 189.927†	-339.3	-0.0650	mg/L	0.00014				0.22%
Ti 337.279†	984.8	0.0016	mg/L	0.00021				12.76%
Tl 190.801†	-10.7	-0.0037	mg/L	0.00148				40.17%
V 292.402†	113.3	0.0014	mg/L	0.00003				2.01%
Zn 206.200†	177.5	0.0046	mg/L	0.00005				1.17%
Ca 227.546†	127800.4	386.9	mg/L	8.37				2.16%
Sr 421.552†	2818641.6	2.992	mg/L	0.0003				0.01%
Al 237.313†	-492.5	-0.2504	mg/L	0.00519				2.07%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 27
Sample ID: R1510161-004
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 49
Date Collected: 12/5/2015 2:00:07 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510161-004

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	4097246.9	1.037	mg/L	0.0116				1.12%
Ag 328.068†	-33.9	-0.0001	mg/L	0.00020				167.22%
As 188.979†	-1.7	-0.0011	mg/L	0.00010				9.24%
B 249.772†	1839.0	0.0188	mg/L	0.00123				6.57%
Ba 233.527†	17.8	0.0003	mg/L	0.00022				72.53%
Be 313.107†	314.2	0.0001	mg/L	0.00002				21.95%
Cd 226.502†	8.8	0.0001	mg/L	0.00007				70.72%
Co 228.616†	-3.4	-0.0001	mg/L	0.00011				92.29%
Cr 267.716†	60.9	0.0005	mg/L	0.00010				21.30%
Cu 324.752†	17.6	0.0001	mg/L	0.00014				223.18%
Fe 259.939†	-17.0	-0.0005	mg/L	0.00186				392.51%
K 766.490†	-23.1	-0.0046	mg/L	0.00948				208.02%
Mg 279.077†	126.7	0.0155	mg/L	0.01176				75.91%
Mn 257.610†	196.3	0.0005	mg/L	0.00009				17.06%
Mo 202.031†	3.3	0.0002	mg/L	0.00003				13.27%
Ni 231.604†	-12.2	-0.0002	mg/L	0.00008				34.80%
Na 589.592†	2262.9	0.1166	mg/L	0.00008				0.07%
Pb 220.353†	-8.8	-0.0011	mg/L	0.00071				62.79%
Sb 206.836†	-2.5	-0.0020	mg/L	0.00002				1.23%
Se 196.026†	-3.2	-0.0017	mg/L	0.00102				60.47%
Sn 189.927†	-27.1	-0.0052	mg/L	0.00067				12.93%
Ti 337.279†	165.1	0.0003	mg/L	0.00007				26.36%
Tl 190.801†	0.5	0.0002	mg/L	0.00098				397.74%
V 292.402†	15.0	0.0001	mg/L	0.00002				14.12%
Zn 206.200†	16.3	0.0004	mg/L	0.00004				10.45%
Ca 227.546†	7.4	0.0225	mg/L	0.01996				88.54%
Sr 421.552†	95.3	0.0001	mg/L	0.00003				25.98%
Al 237.313†	30.7	0.0091	mg/L	0.00636				69.73%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 28
Sample ID: R1510161-007
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 50
Date Collected: 12/5/2015 2:05:46 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510161-007

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	3867628.7	0.9789	mg/L	0.00250				0.26%
Ag 328.068†	71.6	0.0001	mg/L	0.00035				233.62%
As 188.979†	6.2	0.0037	mg/L	0.00068				18.20%
B 249.772†	21161.0	0.2099	mg/L	0.00231				1.10%
Ba 233.527†	1810.2	0.0307	mg/L	0.00003				0.11%
Be 313.107†	-343.6	-0.0001	mg/L	0.00004				39.34%
Cd 226.502†	58.6	0.0004	mg/L	0.00002				3.78%
Co 228.616†	-7.8	-0.0003	mg/L	0.00005				19.76%
Cr 267.716†	509.5	0.0043	mg/L	0.00004				0.93%
Cu 324.752†	6084.0	0.0210	mg/L	0.00028				1.33%
Fe 259.939†	49866.2	1.377	mg/L	0.0017				0.12%
K 766.490†	56564.2	11.16	mg/L	0.061				0.55%
Mg 279.077†	32756.8	4.000	mg/L	0.0128				0.32%
Mn 257.610†	3616.9	0.0097	mg/L	0.00001				0.12%
Mo 202.031†	34.8	0.0025	mg/L	0.00040				16.09%
Ni 231.604†	139.6	0.0025	mg/L	0.00015				6.10%
Na 589.592†	3883858.5	200.0	mg/L	0.42				0.21%
Pb 220.353†	15.2	0.0020	mg/L	0.00133				67.49%
Sb 206.836†	0.5	0.0003	mg/L	0.00473				>999.9%

Se 196.026†	-9.8	-0.0050	mg/L	0.00064	12.71%
Sn 189.927†	-171.2	-0.0328	mg/L	0.00033	1.00%
Ti 337.279†	9354.1	0.0153	mg/L	0.00003	0.22%
Tl 190.801†	4.6	0.0026	mg/L	0.00073	28.30%
V 292.402†	409.1	0.0041	mg/L	0.00024	6.04%
Zn 206.200†	935.1	0.0244	mg/L	0.00004	0.16%
Ca 227.546†	9229.1	27.95	mg/L	0.498	1.78%
Sr 421.552†	210833.5	0.2238	mg/L	0.00232	1.04%
Al 237.313†	2341.3	0.7032	mg/L	0.00139	0.20%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 29
Sample ID: R1510161-007L
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 51
Date Collected: 12/5/2015 2:11:36 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510161-007L

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4030274.7	1.020	mg/L	0.0084				0.82%
Ag 328.068†	57.9	0.0002	mg/L	0.00015				82.69%
As 188.979†	0.7	0.0004	mg/L	0.00080				200.31%
B 249.772†	5046.1	0.0502	mg/L	0.00062				1.23%
Ba 233.527†	409.7	0.0069	mg/L	0.00018				2.58%
Be 313.107†	-11.1	0.0000	mg/L	0.00001				251.44%
Cd 226.502†	35.3	0.0003	mg/L	0.00020				59.34%
Co 228.616†	-3.1	-0.0001	mg/L	0.00007				71.96%
Cr 267.716†	140.6	0.0012	mg/L	0.00006				5.19%
Cu 324.752†	1259.2	0.0044	mg/L	0.00001				0.22%
Fe 259.939†	10875.3	0.3004	mg/L	0.00393				1.31%
K 766.490†	11576.2	2.284	mg/L	0.0461				2.02%
Mg 279.077†	7370.8	0.9001	mg/L	0.00453				0.50%
Mn 257.610†	932.1	0.0025	mg/L	0.00006				2.44%
Mo 202.031†	8.0	0.0006	mg/L	0.00010				16.73%
Ni 231.604†	25.1	0.0005	mg/L	0.00015				33.40%
Na 589.592†	870699.4	44.85	mg/L	0.438				0.98%
Pb 220.353†	-8.4	-0.0011	mg/L	0.00094				86.20%
Sb 206.836†	-3.9	-0.0032	mg/L	0.00098				31.04%
Se 196.026†	-4.2	-0.0022	mg/L	0.00039				17.86%
Sn 189.927†	-62.6	-0.0120	mg/L	0.00037				3.09%
Ti 337.279†	1984.8	0.0033	mg/L	0.00001				0.35%
Tl 190.801†	1.6	0.0009	mg/L	0.00077				86.38%
V 292.402†	81.4	0.0008	mg/L	0.00014				17.14%
Zn 206.200†	259.2	0.0068	mg/L	0.00010				1.48%
Ca 227.546†	1979.5	5.994	mg/L	0.0260				0.43%
Sr 421.552†	45600.1	0.0484	mg/L	0.00075				1.55%
Al 237.313†	523.3	0.1572	mg/L	0.00542				3.45%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 30
Sample ID: R1510161-009
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 52
Date Collected: 12/5/2015 2:17:17 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510161-009

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3940491.4	0.9974	mg/L	0.02598				2.60%
Ag 328.068†	175.3	0.0008	mg/L	0.00020				24.07%
As 188.979†	3.6	0.0020	mg/L	0.00062				30.36%
B 249.772†	4577.7	0.0319	mg/L	0.00156				4.88%
Ba 233.527†	1470.4	0.0249	mg/L	0.00026				1.06%
Be 313.107†	-333.7	-0.0001	mg/L	0.00007				66.82%
Cd 226.502†	56.3	0.0001	mg/L	0.00008				109.78%
Co 228.616†	3.4	0.0001	mg/L	0.00027				228.90%
Cr 267.716†	64.4	0.0008	mg/L	0.00005				5.94%

Cu 324.752†	621.5	0.0021	mg/L	0.00031	14.41%
Fe 259.939†	122194.9	3.375	mg/L	0.0900	2.67%
K 766.490†	10355.2	2.043	mg/L	0.0582	2.85%
Mg 279.077†	27706.3	3.375	mg/L	0.0988	2.93%
Mn 257.610†	13409.4	0.0358	mg/L	0.00083	2.33%
Mo 202.031†	5.8	0.0004	mg/L	0.00006	14.25%
Ni 231.604†	161.0	0.0029	mg/L	0.00006	2.25%
Na 589.592†	478328.1	24.64	mg/L	0.444	1.80%
Pb 220.353†	2.0	0.0001	mg/L	0.00123	>999.9%
Sb 206.836†	-2.6	-0.0021	mg/L	0.00158	75.25%
Se 196.026†	-9.8	-0.0050	mg/L	0.00339	67.44%
Sn 189.927†	-172.2	-0.0330	mg/L	0.00006	0.17%
Ti 337.279†	1322.3	0.0022	mg/L	0.00003	1.53%
Tl 190.801†	3.2	0.0021	mg/L	0.00025	12.13%
V 292.402†	84.5	0.0011	mg/L	0.00022	19.97%
Zn 206.200†	275.6	0.0072	mg/L	0.00019	2.61%
Ca 227.546†	9229.0	27.96	mg/L	1.249	4.47%
Sr 421.552†	176188.7	0.1870	mg/L	0.00430	2.30%
Al 237.313†	153.1	0.0747	mg/L	0.00635	8.51%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 31
Sample ID: R1510161-012
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 53
Date Collected: 12/5/2015 2:23:05 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510161-012

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	4024616.4	1.019	mg/L	0.0104				1.02%
Ag 328.068†	-92.2	0.0003	mg/L	0.00019				66.72%
As 188.979†	5.4	0.0033	mg/L	0.00093				28.42%
B 249.772†	4740.1	0.0258	mg/L	0.00032				1.23%
Ba 233.527†	1842.5	0.0313	mg/L	0.00005				0.16%
Be 313.107†	-150.2	0.0000	mg/L	0.00003				63.12%
Cd 226.502†	88.4	0.0001	mg/L	0.00018				133.82%
Co 228.616†	18.6	0.0006	mg/L	0.00022				34.33%
Cr 267.716†	26.1	0.0007	mg/L	0.00005				7.12%
Cu 324.752†	-73.9	-0.0003	mg/L	0.00021				83.54%
Fe 259.939†	186609.0	5.155	mg/L	0.0556				1.08%
K 766.490†	9826.6	1.939	mg/L	0.0244				1.26%
Mg 279.077†	34842.1	4.240	mg/L	0.0343				0.81%
Mn 257.610†	20225.3	0.0540	mg/L	0.00045				0.83%
Mo 202.031†	2.8	0.0002	mg/L	0.00006				29.98%
Ni 231.604†	222.3	0.0040	mg/L	0.00008				1.90%
Na 589.592†	703790.4	36.25	mg/L	0.139				0.38%
Pb 220.353†	-3.3	-0.0009	mg/L	0.00274				312.66%
Sb 206.836†	-2.7	-0.0022	mg/L	0.00034				15.36%
Se 196.026†	-12.6	-0.0066	mg/L	0.00141				21.42%
Sn 189.927†	-143.4	-0.0275	mg/L	0.00009				0.31%
Ti 337.279†	308.1	0.0005	mg/L	0.00008				15.41%
Tl 190.801†	2.6	0.0020	mg/L	0.00024				12.03%
V 292.402†	-10.7	0.0003	mg/L	0.00007				23.43%
Zn 206.200†	114.1	0.0030	mg/L	0.00004				1.24%
Ca 227.546†	6191.4	18.77	mg/L	0.282				1.50%
Sr 421.552†	117443.4	0.1247	mg/L	0.00055				0.44%
Al 237.313†	-88.6	0.0270	mg/L	0.00185				6.85%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 32
Sample ID: R1510161-017
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 54
Date Collected: 12/5/2015 2:28:46 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510161-017

Analyte	Mean Corrected	Calib			Sample			

Analyte	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	Std.Dev.	RSD
Y 371.029	4174203.1	1.057	mg/L	0.0017				0.16%
Ag 328.068†	-111.0	-0.0004	mg/L	0.00015				38.30%
As 188.979†	-0.8	-0.0005	mg/L	0.00027				50.81%
B 249.772†	85.4	0.0009	mg/L	0.00022				26.32%
Ba 233.527†	45.4	0.0008	mg/L	0.00013				16.40%
Be 313.107†	284.1	0.0001	mg/L	0.00005				54.76%
Cd 226.502†	29.5	0.0003	mg/L	0.00001				4.24%
Co 228.616†	-4.9	-0.0002	mg/L	0.00015				91.29%
Cr 267.716†	61.7	0.0005	mg/L	0.00002				4.25%
Cu 324.752†	-296.7	-0.0010	mg/L	0.00022				21.91%
Fe 259.939†	135.5	0.0037	mg/L	0.00094				25.27%
K 766.490†	-88.4	-0.0174	mg/L	0.00952				54.59%
Mg 279.077†	246.9	0.0302	mg/L	0.00447				14.80%
Mn 257.610†	125.7	0.0003	mg/L	0.00001				2.70%
Mo 202.031†	-5.8	-0.0004	mg/L	0.00018				43.64%
Ni 231.604†	-11.6	-0.0002	mg/L	0.00012				60.12%
Na 589.592†	441.2	0.0227	mg/L	0.00026				1.14%
Pb 220.353†	-11.6	-0.0015	mg/L	0.00027				17.56%
Sb 206.836†	-4.1	-0.0033	mg/L	0.00029				8.70%
Se 196.026†	-3.9	-0.0020	mg/L	0.00322				157.93%
Sn 189.927†	-25.8	-0.0050	mg/L	0.00067				13.43%
Ti 337.279†	-67.6	-0.0001	mg/L	0.00002				16.86%
Tl 190.801†	0.9	0.0005	mg/L	0.00069				140.76%
V 292.402†	16.4	0.0002	mg/L	0.00010				61.41%
Zn 206.200†	28.0	0.0007	mg/L	0.00016				21.65%
Ca 227.546†	-3.1	-0.0094	mg/L	0.01451				155.15%
Sr 421.552†	-85.8	-0.0001	mg/L	0.00005				50.07%
Al 237.313†	72.2	0.0215	mg/L	0.00171				7.94%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 33 **Autosampler Location: 55**
Sample ID: R1510345-001 **Date Collected: 12/5/2015 2:34:28 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510345-001

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4063103.6	1.028	mg/L	0.0026				0.25%
Ag 328.068†	-943.6	0.0013	mg/L	0.00011				8.89%
As 188.979†	15.4	0.0089	mg/L	0.00049				5.45%
B 249.772†	56614.8	0.4327	mg/L	0.00363				0.84%
Ba 233.527†	1593.4	0.0270	mg/L	0.00007				0.27%
Be 313.107†	21632.4	0.0066	mg/L	0.00007				1.13%
Cd 226.502†	949.5	0.0052	mg/L	0.00003				0.61%
Co 228.616†	2946.6	0.1000	mg/L	0.00021				0.21%
Cr 267.716†	128.4	0.0042	mg/L	0.00001				0.32%
Cu 324.752†	3521.9	0.0122	mg/L	0.00019				1.60%
Fe 259.939†	1186775.0	32.78	mg/L	0.034				0.10%
K 766.490†	26920.5	5.312	mg/L	0.0455				0.86%
Mg 279.077†	192580.0	23.42	mg/L	0.143				0.61%
Mn 257.610†	906788.9	2.388	mg/L	0.0025				0.11%
Mo 202.031†	-23.9	-0.0017	mg/L	0.00032				18.78%
Ni 231.604†	12141.2	0.2175	mg/L	0.00057				0.26%
Na 589.592†	1120265.2	57.70	mg/L	1.320				2.29%
Pb 220.353†	26.4	-0.0006	mg/L	0.00046				76.75%
Sb 206.836†	-0.0	-0.0010	mg/L	0.00178				173.22%
Se 196.026†	-6.0	-0.0032	mg/L	0.00178				54.70%
Sn 189.927†	-239.4	-0.0459	mg/L	0.00082				1.78%
Ti 337.279†	9664.8	0.0158	mg/L	0.00011				0.69%
Tl 190.801†	-28.1	-0.0104	mg/L	0.00110				10.57%
V 292.402†	-0.5	0.0025	mg/L	0.00004				1.63%
Zn 206.200†	28972.3	0.7574	mg/L	0.00436				0.58%
Ca 227.546†	20883.4	63.39	mg/L	0.462				0.73%
Sr 421.552†	765541.7	0.8126	mg/L	0.01896				2.33%
Al 237.313†	37752.5	11.61	mg/L	0.093				0.80%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 34
Sample ID: R1510345-002
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 56
Date Collected: 12/5/2015 2:40:13 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510345-002

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	4072020.3	1.031	mg/L	0.0105				1.02%
Ag 328.068†	-834.4	0.0013	mg/L	0.00001				0.84%
As 188.979†	13.5	0.0077	mg/L	0.00084				10.79%
B 249.772†	54288.9	0.4200	mg/L	0.00366				0.87%
Ba 233.527†	1473.6	0.0250	mg/L	0.00010				0.39%
Be 313.107†	20268.2	0.0062	mg/L	0.00004				0.57%
Cd 226.502†	910.2	0.0051	mg/L	0.00004				0.73%
Co 228.616†	2969.6	0.1007	mg/L	0.00100				1.00%
Cr 267.716†	-285.6	0.0008	mg/L	0.00001				1.41%
Cu 324.752†	1251.6	0.0043	mg/L	0.00010				2.35%
Fe 259.939†	1098088.1	30.33	mg/L	0.161				0.53%
K 766.490†	25772.1	5.085	mg/L	0.1146				2.25%
Mg 279.077†	186801.6	22.72	mg/L	0.199				0.88%
Mn 257.610†	898324.1	2.365	mg/L	0.0110				0.46%
Mo 202.031†	-23.5	-0.0017	mg/L	0.00004				2.11%
Ni 231.604†	11942.0	0.2139	mg/L	0.00214				1.00%
Na 589.592†	1110903.0	57.22	mg/L	0.028				0.05%
Pb 220.353†	18.5	0.0012	mg/L	0.00062				50.81%
Sb 206.836†	-1.8	-0.0022	mg/L	0.00082				36.52%
Se 196.026†	-3.1	-0.0017	mg/L	0.00200				115.76%
Sn 189.927†	-237.7	-0.0455	mg/L	0.00025				0.54%
Ti 337.279†	2108.4	0.0035	mg/L	0.00001				0.32%
Tl 190.801†	-30.3	-0.0118	mg/L	0.00014				1.16%
V 292.402†	-304.7	-0.0006	mg/L	0.00008				14.41%
Zn 206.200†	29211.3	0.7636	mg/L	0.00559				0.73%
Ca 227.546†	20117.6	61.06	mg/L	0.601				0.99%
Sr 421.552†	736133.6	0.7814	mg/L	0.00083				0.11%
Al 237.313†	30502.4	9.420	mg/L	0.0882				0.94%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 35
Sample ID: R1510345-00~~3~~4
Analyst:
Initial Sample Wt: 12/11/15
Dilution: DCA

Autosampler Location: 57
Date Collected: 12/5/2015 2:46:02 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510345-00~~3~~4

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	4131369.7	1.046	mg/L	0.0037				0.36%
Ag 328.068†	-684.4	0.0015	mg/L	0.00001				0.66%
As 188.979†	14.7	0.0085	mg/L	0.00033				3.90%
B 249.772†	59521.0	0.4806	mg/L	0.00282				0.59%
Ba 233.527†	1592.9	0.0270	mg/L	0.00019				0.71%
Be 313.107†	19382.4	0.0059	mg/L	0.00005				0.78%
Cd 226.502†	902.5	0.0053	mg/L	0.00009				1.75%
Co 228.616†	3067.2	0.1041	mg/L	0.00022				0.21%
Cr 267.716†	-264.9	0.0010	mg/L	0.00009				8.88%
Cu 324.752†	1165.3	0.0040	mg/L	0.00011				2.70%
Fe 259.939†	1039404.4	28.71	mg/L	0.064				0.22%
K 766.490†	26391.1	5.207	mg/L	0.0409				0.79%
Mg 279.077†	189167.6	23.02	mg/L	0.215				0.94%
Mn 257.610†	909688.8	2.395	mg/L	0.0065				0.27%
Mo 202.031†	-24.0	-0.0017	mg/L	0.00035				20.47%
Ni 231.604†	11733.6	0.2102	mg/L	0.00046				0.22%
Na 589.592†	1099898.6	56.65	mg/L	0.644				1.14%
Pb 220.353†	5.3	-0.0027	mg/L	0.00123				45.34%
Sb 206.836†	-2.4	-0.0027	mg/L	0.00023				8.43%
Se 196.026†	-8.3	-0.0045	mg/L	0.00069				15.33%

Sn 189.927†	-137.4	-0.0263 mg/L	0.00041	1.57%
Ti 337.279†	1925.7	0.0032 mg/L	0.00002	0.50%
Tl 190.801†	-30.1	-0.0118 mg/L	0.00293	24.72%
V 292.402†	-312.2	-0.0008 mg/L	0.00005	6.70%
Zn 206.200†	30685.0	0.8021 mg/L	0.00921	1.15%
Ca 227.546†	20510.8	62.25 mg/L	0.650	1.04%
Sr 421.552†	715256.5	0.7593 mg/L	0.00885	1.17%
Al 237.313†	28784.8	8.889 mg/L	0.0954	1.07%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 36 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 12/5/2015 2:51:49 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4032460.2	1.021	mg/L	0.0021				0.20%
Ag 328.068†	141936.3	0.4888	mg/L	0.00035	0.4888	mg/L	0.00035	0.07%
QC value within limits for Ag 328.068 Recovery = 97.77%								
As 188.979†	1453.6	0.9558	mg/L	0.00337	0.9558	mg/L	0.00337	0.35%
QC value within limits for As 188.979 Recovery = 95.58%								
B 249.772†	233239.3	2.358	mg/L	0.0209	2.358	mg/L	0.0209	0.88%
QC value within limits for B 249.772 Recovery = 94.32%								
Ba 233.527†	582586.6	9.882	mg/L	0.0221	9.882	mg/L	0.0221	0.22%
QC value within limits for Ba 233.527 Recovery = 98.82%								
Be 313.107†	801257.2	0.2435	mg/L	0.00028	0.2435	mg/L	0.00028	0.12%
QC value within limits for Be 313.107 Recovery = 97.40%								
Cd 226.502†	45621.7	0.4906	mg/L	0.00348	0.4906	mg/L	0.00348	0.71%
QC value within limits for Cd 226.502 Recovery = 98.12%								
Co 228.616†	71959.1	2.441	mg/L	0.0070	2.441	mg/L	0.0070	0.29%
QC value within limits for Co 228.616 Recovery = 97.65%								
Cr 267.716†	64463.6	0.5071	mg/L	0.00133	0.5071	mg/L	0.00133	0.26%
QC value within limits for Cr 267.716 Recovery = 101.43%								
Cu 324.752†	350324.5	1.211	mg/L	0.0066	1.211	mg/L	0.0066	0.54%
QC value within limits for Cu 324.752 Recovery = 96.87%								
Fe 259.939†	178525.4	4.929	mg/L	0.0065	4.929	mg/L	0.0065	0.13%
QC value within limits for Fe 259.939 Recovery = 98.58%								
K 766.490†	105164.4	20.75	mg/L	0.024	20.75	mg/L	0.024	0.12%
QC value less than the lower limit for K 766.490 Recovery = 83.00%								
Mg 279.077†	200023.0	24.44	mg/L	0.062	24.44	mg/L	0.062	0.25%
QC value within limits for Mg 279.077 Recovery = 97.76%								
Mn 257.610†	285258.0	0.7503	mg/L	0.00059	0.7503	mg/L	0.00059	0.08%
QC value within limits for Mn 257.610 Recovery = 100.04%								
Mo 202.031†	33579.8	2.400	mg/L	0.0088	2.400	mg/L	0.0088	0.36%
QC value within limits for Mo 202.031 Recovery = 96.02%								
Ni 231.604†	112329.9	2.012	mg/L	0.0045	2.012	mg/L	0.0045	0.22%
QC value within limits for Ni 231.604 Recovery = 100.62%								
Na 589.592†	430287.6	22.16	mg/L	0.001	22.16	mg/L	0.001	0.00%
QC value less than the lower limit for Na 589.592 Recovery = 88.65%								
Pb 220.353†	3786.1	0.4904	mg/L	0.00152	0.4904	mg/L	0.00152	0.31%
QC value within limits for Pb 220.353 Recovery = 98.08%								
Sb 206.836†	6161.4	4.954	mg/L	0.0196	4.954	mg/L	0.0196	0.40%
QC value within limits for Sb 206.836 Recovery = 99.08%								
Se 196.026†	919.1	0.4801	mg/L	0.00207	0.4801	mg/L	0.00207	0.43%
QC value within limits for Se 196.026 Recovery = 96.02%								
Sn 189.927†	25884.3	4.960	mg/L	0.0127	4.960	mg/L	0.0127	0.26%
QC value within limits for Sn 189.927 Recovery = 99.20%								
Ti 337.279†	1474415.3	2.418	mg/L	0.0042	2.418	mg/L	0.0042	0.17%
QC value within limits for Ti 337.279 Recovery = 96.71%								
Tl 190.801†	1980.6	1.021	mg/L	0.0021	1.021	mg/L	0.0021	0.20%
QC value within limits for Tl 190.801 Recovery = 102.14%								
V 292.402†	248410.7	2.397	mg/L	0.0095	2.397	mg/L	0.0095	0.40%
QC value within limits for V 292.402 Recovery = 95.87%								
Zn 206.200†	37769.1	0.9873	mg/L	0.00395	0.9873	mg/L	0.00395	0.40%
QC value within limits for Zn 206.200 Recovery = 98.73%								
Ca 227.546†	8201.9	24.86	mg/L	0.190	24.86	mg/L	0.190	0.77%
QC value within limits for Ca 227.546 Recovery = 99.42%								

Sr 421.552†	2258821.1	2.398 mg/L	0.0265	2.398 mg/L	0.0265	1.10%
QC value within limits for Sr 421.552 Recovery = 95.91%						
Al 237.313†	32364.1	9.690 mg/L	0.0080	9.690 mg/L	0.0080	0.08%
QC value within limits for Al 237.313 Recovery = 96.90%						

QC Failed. Continue with analysis.

Sequence No.: 37 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 12/5/2015 2:57:35 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	4061805.0	1.028	mg/L	0.0130				1.26%
Ag 328.068†	-100.7	-0.0003	mg/L	0.00058	-0.0003	mg/L	0.00058	166.61%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	-1.0	-0.0006	mg/L	0.00073	-0.0006	mg/L	0.00073	114.15%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	2191.9	0.0224	mg/L	0.00301	0.0224	mg/L	0.00301	13.47%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	42.9	0.0007	mg/L	0.00019	0.0007	mg/L	0.00019	26.08%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-0.7	0.0000	mg/L	0.00004	0.0000	mg/L	0.00004	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	31.0	0.0003	mg/L	0.00003	0.0003	mg/L	0.00003	10.08%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.0	0.0003	mg/L	0.00012	0.0003	mg/L	0.00012	34.45%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	32.2	0.0003	mg/L	0.00012	0.0003	mg/L	0.00012	47.13%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	558.7	0.0019	mg/L	0.00034	0.0019	mg/L	0.00034	17.43%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	126.7	0.0035	mg/L	0.00098	0.0035	mg/L	0.00098	28.15%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	-71.7	-0.0141	mg/L	0.01276	-0.0141	mg/L	0.01276	90.20%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	177.2	0.0217	mg/L	0.01003	0.0217	mg/L	0.01003	46.31%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	88.5	0.0002	mg/L	0.00006	0.0002	mg/L	0.00006	26.53%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	51.1	0.0037	mg/L	0.00089	0.0037	mg/L	0.00089	24.36%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	-2.1	0.0000	mg/L	0.00009	0.0000	mg/L	0.00009	236.23%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	166.9	0.0086	mg/L	0.00187	0.0086	mg/L	0.00187	21.70%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	-15.0	-0.0020	mg/L	0.00108	-0.0020	mg/L	0.00108	55.57%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-0.0	0.0000	mg/L	0.00029	0.0000	mg/L	0.00029	>999.9%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-1.7	-0.0009	mg/L	0.00376	-0.0009	mg/L	0.00376	412.92%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	23.2	0.0045	mg/L	0.00151	0.0045	mg/L	0.00151	34.02%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 337.279†	633.0	0.0010	mg/L	0.00022	0.0010	mg/L	0.00022	21.34%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	3.4	0.0017	mg/L	0.00145	0.0017	mg/L	0.00145	83.57%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	25.1	0.0002	mg/L	0.00001	0.0002	mg/L	0.00001	3.62%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	17.5	0.0005	mg/L	0.00031	0.0005	mg/L	0.00031	68.43%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Ca 227.546†	-3.6	-0.0108	mg/L	0.01150	-0.0108	mg/L	0.01150	106.47%
QC value within limits for Ca 227.546 Recovery = Not calculated								
Sr 421.552†	95.1	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	22.15%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Al 237.313†	43.9	0.0131	mg/L	0.00410	0.0131	mg/L	0.00410	31.27%
QC value within limits for Al 237.313 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 38 **Autosampler Location: 58**
Sample ID: R1510345-004 **Date Collected: 12/5/2015 3:03:13 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

12/11/15 DCS

Mean Data: R1510345-004

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4089062.5	1.035	mg/L	0.0072				0.69%
Ag 328.068†	-1002.8	0.0013	mg/L	0.00044				34.18%
As 188.979†	17.5	0.0103	mg/L	0.00020				1.96%
B 249.772†	65093.9	0.5121	mg/L	0.00493				0.96%
Ba 233.527†	1866.9	0.0316	mg/L	0.00013				0.40%
Be 313.107†	21474.5	0.0065	mg/L	0.00001				0.22%
Cd 226.502†	1027.9	0.0058	mg/L	0.00004				0.63%
Co 228.616†	3087.3	0.1047	mg/L	0.00092				0.88%
Cr 267.716†	488.3	0.0071	mg/L	0.00003				0.37%
Cu 324.752†	4454.7	0.0154	mg/L	0.00035				2.27%
Fe 259.939†	1244125.1	34.36	mg/L	0.051				0.15%
K 766.490†	29484.7	5.818	mg/L	0.0792				1.36%
Mg 279.077†	194152.5	23.61	mg/L	0.151				0.64%
Mn 257.610†	964519.2	2.539	mg/L	0.0026				0.10%
Mo 202.031†	2.7	0.0002	mg/L	0.00008				39.37%
Ni 231.604†	11672.7	0.2091	mg/L	0.00197				0.94%
Na 589.592†	1216207.6	62.64	mg/L	0.298				0.48%
Pb 220.353†	27.2	-0.0007	mg/L	0.00033				46.15%
Sb 206.836†	-1.0	-0.0019	mg/L	0.00039				20.62%
Se 196.026†	-4.7	-0.0025	mg/L	0.00271				106.67%
Sn 189.927†	-130.5	-0.0250	mg/L	0.00096				3.82%
Ti 337.279†	16497.5	0.0271	mg/L	0.00002				0.07%
Tl 190.801†	-29.7	-0.0110	mg/L	0.00103				9.36%
V 292.402†	225.4	0.0048	mg/L	0.00007				1.50%
Zn 206.200†	29831.9	0.7798	mg/L	0.00007				0.01%
Ca 227.546†	21408.4	64.99	mg/L	0.467				0.72%
Sr 421.552†	748585.8	0.7946	mg/L	0.00286				0.36%
Al 237.313†	41398.5	12.71	mg/L	0.051				0.40%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 39 **Autosampler Location: 59**
Sample ID: R1510345-005 **Date Collected: 12/5/2015 3:08:58 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510345-005

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3959074.6	1.002	mg/L	0.0076				0.76%
Ag 328.068†	-629.8	0.0011	mg/L	0.00011				9.74%
As 188.979†	13.0	0.0067	mg/L	0.00043				6.34%
B 249.772†	23108.6	0.0998	mg/L	0.00314				3.14%
Ba 233.527†	2937.6	0.0498	mg/L	0.00034				0.67%
Be 313.107†	-219.5	-0.0001	mg/L	0.00001				14.81%
Cd 226.502†	448.8	0.0001	mg/L	0.00013				156.29%
Co 228.616†	-5.0	-0.0002	mg/L	0.00016				93.03%
Cr 267.716†	834.9	0.0082	mg/L	0.00004				0.49%
Cu 324.752†	120.6	0.0004	mg/L	0.00021				51.59%
Fe 259.939†	1123842.5	31.04	mg/L	0.370				1.19%
K 766.490†	36590.3	7.220	mg/L	0.1530				2.12%
Mg 279.077†	101130.0	12.25	mg/L	0.211				1.72%
Mn 257.610†	243168.6	0.6438	mg/L	0.01065				1.65%
Mo 202.031†	9.9	0.0007	mg/L	0.00035				50.15%
Ni 231.604†	88.9	0.0016	mg/L	0.00002				1.19%
Na 589.592†	462125.5	23.80	mg/L	0.521				2.19%
Pb 220.353†	20.8	0.0001	mg/L	0.00028				192.78%

Sb 206.836†	-0.4	-0.0004	mg/L	0.00046	106.26%
Se 196.026†	-11.0	-0.0052	mg/L	0.00006	1.17%
Sn 189.927†	-168.8	-0.0323	mg/L	0.00013	0.39%
Ti 337.279†	16140.3	0.0265	mg/L	0.00063	2.40%
Tl 190.801†	-10.3	-0.0015	mg/L	0.00045	29.03%
V 292.402†	41.3	0.0028	mg/L	0.00001	0.31%
Zn 206.200†	357.3	0.0093	mg/L	0.00025	2.63%
Ca 227.546†	48375.8	146.6	mg/L	2.62	1.79%
Sr 421.552†	864009.8	0.9172	mg/L	0.01772	1.93%
Al 237.313†	2785.6	1.139	mg/L	0.0106	0.93%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 40
Sample ID: R1510345-006
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 60
Date Collected: 12/5/2015 3:14:45 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510345-006

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3926782.5	0.9939	mg/L	0.00469				0.47%
Ag 328.068†	-749.5	0.0009	mg/L	0.00000				0.38%
As 188.979†	15.6	0.0083	mg/L	0.00056				6.77%
B 249.772†	24526.5	0.1049	mg/L	0.00185				1.76%
Ba 233.527†	2766.3	0.0469	mg/L	0.00019				0.41%
Be 313.107†	-560.8	-0.0002	mg/L	0.00002				11.31%
Cd 226.502†	489.5	0.0000	mg/L	0.00005				677.00%
Co 228.616†	-18.5	-0.0006	mg/L	0.00007				11.37%
Cr 267.716†	-264.2	-0.0002	mg/L	0.00013				67.63%
Cu 324.752†	-341.4	-0.0012	mg/L	0.00007				5.62%
Fe 259.939†	1203083.4	33.23	mg/L	0.402				1.21%
K 766.490†	37472.4	7.394	mg/L	0.0908				1.23%
Mg 279.077†	112352.3	13.61	mg/L	0.208				1.53%
Mn 257.610†	267315.1	0.7076	mg/L	0.00984				1.39%
Mo 202.031†	8.0	0.0006	mg/L	0.00015				26.66%
Ni 231.604†	31.3	0.0006	mg/L	0.00031				55.78%
Na 589.592†	548347.2	28.24	mg/L	0.266				0.94%
Pb 220.353†	17.1	-0.0004	mg/L	0.00054				126.35%
Sb 206.836†	-3.1	-0.0025	mg/L	0.00081				32.38%
Se 196.026†	-8.2	-0.0037	mg/L	0.00064				17.41%
Sn 189.927†	-168.2	-0.0322	mg/L	0.00001				0.04%
Ti 337.279†	354.0	0.0006	mg/L	0.00000				0.52%
Tl 190.801†	-7.9	0.0000	mg/L	0.00064				>999.9%
V 292.402†	-375.9	-0.0010	mg/L	0.00003				2.66%
Zn 206.200†	136.0	0.0036	mg/L	0.00011				3.07%
Ca 227.546†	52168.2	158.1	mg/L	2.76				1.75%
Sr 421.552†	930582.1	0.9878	mg/L	0.01664				1.68%
Al 237.313†	-1369.0	-0.0776	mg/L	0.00544				7.02%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 41
Sample ID: R1510345-007
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 61
Date Collected: 12/5/2015 3:20:30 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510345-007

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3864737.7	0.9782	mg/L	0.00187				0.19%
Ag 328.068†	-565.8	0.0017	mg/L	0.00027				15.48%
As 188.979†	16.3	0.0086	mg/L	0.00100				11.54%
B 249.772†	24428.6	0.0958	mg/L	0.00404				4.21%
Ba 233.527†	3281.5	0.0557	mg/L	0.00029				0.52%
Be 313.107†	-407.3	-0.0001	mg/L	0.00004				32.59%
Cd 226.502†	401.6	-0.0012	mg/L	0.00004				3.01%
Co 228.616†	-5.0	-0.0002	mg/L	0.00010				56.03%

Cr 267.716†	728.3	0.0076 mg/L	0.00007	0.90%
Cu 324.752†	27.4	0.0001 mg/L	0.00031	322.41%
Fe 259.939†	1268500.3	35.04 mg/L	0.054	0.16%
K 766.490†	40355.3	7.963 mg/L	0.0530	0.67%
Mg 279.077†	114901.2	13.91 mg/L	0.070	0.50%
Mn 257.610†	283311.3	0.7499 mg/L	0.00428	0.57%
Mo 202.031†	13.5	0.0010 mg/L	0.00046	48.18%
Ni 231.604†	101.0	0.0018 mg/L	0.00016	8.96%
Na 589.592†	496447.0	25.57 mg/L	0.208	0.81%
Pb 220.353†	41.8	0.0026 mg/L	0.00009	3.36%
Sb 206.836†	-0.3	-0.0003 mg/L	0.00069	233.03%
Se 196.026†	-9.4	-0.0043 mg/L	0.00016	3.79%
Sn 189.927†	-213.0	-0.0408 mg/L	0.00102	2.50%
Ti 337.279†	15633.8	0.0256 mg/L	0.00042	1.62%
Tl 190.801†	-13.1	-0.0025 mg/L	0.00037	14.86%
V 292.402†	4.4	0.0028 mg/L	0.00006	2.20%
Zn 206.200†	349.4	0.0091 mg/L	0.00003	0.30%
Ca 227.546†	55463.9	168.1 mg/L	1.76	1.05%
Sr 421.552†	995968.5	1.057 mg/L	0.0002	0.01%
Al 237.313†	2270.8	1.024 mg/L	0.0025	0.24%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 42
Sample ID: R1510345-008
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 62
Date Collected: 12/5/2015 3:26:20 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510345-008

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3860162.1	0.9771	mg/L	0.01415				1.45%
Ag 328.068†	-655.8	0.0011	mg/L	0.00019				17.21%
As 188.979†	13.4	0.0067	mg/L	0.00063				9.45%
B 249.772†	27956.7	0.1405	mg/L	0.01265				9.01%
Ba 233.527†	2982.1	0.0506	mg/L	0.00019				0.37%
Be 313.107†	-508.3	-0.0002	mg/L	0.00007				43.96%
Cd 226.502†	437.2	-0.0006	mg/L	0.00009				16.31%
Co 228.616†	-22.7	-0.0008	mg/L	0.00019				25.02%
Cr 267.716†	-313.0	-0.0006	mg/L	0.00007				11.11%
Cu 324.752†	-300.1	-0.0010	mg/L	0.00016				15.13%
Fe 259.939†	1198324.8	33.10	mg/L	0.034				0.10%
K 766.490†	40709.8	8.033	mg/L	0.1770				2.20%
Mg 279.077†	114638.1	13.89	mg/L	0.127				0.92%
Mn 257.610†	282792.2	0.7482	mg/L	0.00709				0.95%
Mo 202.031†	9.4	0.0007	mg/L	0.00006				8.38%
Ni 231.604†	14.7	0.0003	mg/L	0.00012				46.49%
Na 589.592†	530169.1	27.31	mg/L	0.562				2.06%
Pb 220.353†	8.8	-0.0014	mg/L	0.00039				27.35%
Sb 206.836†	-1.5	-0.0011	mg/L	0.00129				112.47%
Se 196.026†	-7.8	-0.0034	mg/L	0.00188				54.78%
Sn 189.927†	-196.3	-0.0376	mg/L	0.00144				3.84%
Ti 337.279†	208.4	0.0003	mg/L	0.00001				3.50%
Tl 190.801†	-10.0	-0.0011	mg/L	0.00057				50.09%
V 292.402†	-389.0	-0.0012	mg/L	0.00001				0.56%
Zn 206.200†	238.2	0.0062	mg/L	0.00009				1.48%
Ca 227.546†	55780.2	169.0	mg/L	2.45				1.45%
Sr 421.552†	976342.6	1.036	mg/L	0.0085				0.82%
Al 237.313†	-1457.2	-0.1095	mg/L	0.01363				12.45%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 43
Sample ID: R1510345-001 5X
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 63
Date Collected: 12/5/2015 3:32:05 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510345-001 5X

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4088676.5	1.035	mg/L	0.0039				0.38%
Ag 328.068†	-267.7	0.0001	mg/L	0.00032				390.47%
As 188.979†	3.1	0.0018	mg/L	0.00059				33.28%
B 249.772†	13577.7	0.1068	mg/L	0.00058				0.54%
Ba 233.527†	363.0	0.0061	mg/L	0.00038				6.18%
Be 313.107†	4858.9	0.0015	mg/L	0.00005				3.19%
Cd 226.502†	228.1	0.0013	mg/L	0.00015				10.86%
Co 228.616†	625.2	0.0212	mg/L	0.00014				0.66%
Cr 267.716†	36.7	0.0010	mg/L	0.00016				15.88%
Cu 324.752†	441.9	0.0015	mg/L	0.00013				8.43%
Fe 259.939†	260183.8	7.186	mg/L	0.1800				2.50%
K 766.490†	5125.3	1.011	mg/L	0.0086				0.85%
Mg 279.077†	42089.2	5.119	mg/L	0.1129				2.21%
Mn 257.610†	194210.9	0.5114	mg/L	0.01291				2.52%
Mo 202.031†	-11.9	-0.0008	mg/L	0.00011				13.18%
Ni 231.604†	2583.8	0.0463	mg/L	0.00026				0.56%
Na 589.592†	229509.7	11.82	mg/L	0.182				1.54%
Pb 220.353†	-5.0	-0.0015	mg/L	0.00056				36.20%
Sb 206.836†	-1.6	-0.0015	mg/L	0.00057				39.09%
Se 196.026†	-9.0	-0.0048	mg/L	0.00059				12.41%
Sn 189.927†	-108.1	-0.0207	mg/L	0.00065				3.14%
Ti 337.279†	2038.6	0.0033	mg/L	0.00004				1.12%
Tl 190.801†	-4.1	-0.0012	mg/L	0.00057				47.20%
V 292.402†	12.1	0.0007	mg/L	0.00031				46.62%
Zn 206.200†	6197.7	0.1620	mg/L	0.00851				5.25%
Ca 227.546†	4178.9	12.69	mg/L	0.064				0.50%
Sr 421.552†	157779.9	0.1675	mg/L	0.00240				1.43%
Al 237.313†	7866.4	2.423	mg/L	0.0182				0.75%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 44
Sample ID: R1510345-002 5X
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 64
Date Collected: 12/5/2015 3:37:47 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510345-002 5X

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4069726.0	1.030	mg/L	0.0029				0.28%
Ag 328.068†	-235.1	0.0002	mg/L	0.00045				279.99%
As 188.979†	1.9	0.0010	mg/L	0.00015				14.29%
B 249.772†	12642.3	0.0980	mg/L	0.00088				0.90%
Ba 233.527†	338.4	0.0057	mg/L	0.00005				0.93%
Be 313.107†	4965.0	0.0015	mg/L	0.00002				1.59%
Cd 226.502†	219.1	0.0013	mg/L	0.00000				0.10%
Co 228.616†	670.9	0.0228	mg/L	0.00003				0.12%
Cr 267.716†	-52.9	0.0003	mg/L	0.00005				15.40%
Cu 324.752†	-38.9	-0.0001	mg/L	0.00036				269.85%
Fe 259.939†	254082.5	7.018	mg/L	0.0397				0.57%
K 766.490†	5101.0	1.007	mg/L	0.0107				1.06%
Mg 279.077†	43367.8	5.276	mg/L	0.0423				0.80%
Mn 257.610†	203709.9	0.5363	mg/L	0.00210				0.39%
Mo 202.031†	-13.0	-0.0009	mg/L	0.00019				20.75%
Ni 231.604†	2706.3	0.0485	mg/L	0.00016				0.34%
Na 589.592†	238303.1	12.27	mg/L	0.150				1.22%
Pb 220.353†	-6.3	-0.0017	mg/L	0.00067				40.56%
Sb 206.836†	-1.9	-0.0017	mg/L	0.00143				82.50%
Se 196.026†	-8.3	-0.0044	mg/L	0.00250				57.03%
Sn 189.927†	-113.5	-0.0218	mg/L	0.00013				0.58%
Ti 337.279†	477.0	0.0008	mg/L	0.00005				6.12%
Tl 190.801†	-4.6	-0.0015	mg/L	0.00009				5.81%
V 292.402†	-53.3	0.0000	mg/L	0.00006				173.25%
Zn 206.200†	7255.3	0.1897	mg/L	0.00021				0.11%
Ca 227.546†	4324.0	13.13	mg/L	0.036				0.28%
Sr 421.552†	161403.4	0.1713	mg/L	0.00224				1.31%
Al 237.313†	6635.2	2.054	mg/L	0.0303				1.47%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 45
Sample ID: R1510345-003 5X
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 65
Date Collected: 12/5/2015 3:43:30 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510345-003 5X

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	3963996.3	1.003	mg/L	0.0076				0.75%
Ag 328.068†	8.1	0.0005	mg/L	0.00027				52.17%
As 188.979†	5.0	0.0027	mg/L	0.00102				38.10%
B 249.772†	13381.4	0.1087	mg/L	0.00018				0.17%
Ba 233.527†	358.7	0.0061	mg/L	0.00021				3.51%
Be 313.107†	4013.2	0.0012	mg/L	0.00005				3.89%
Cd 226.502†	201.2	0.0012	mg/L	0.00014				11.68%
Co 228.616†	646.9	0.0219	mg/L	0.00030				1.36%
Cr 267.716†	-29.9	0.0003	mg/L	0.00010				36.04%
Cu 324.752†	128.9	0.0004	mg/L	0.00018				39.63%
Fe 259.939†	228462.8	6.310	mg/L	0.0522				0.83%
K 766.490†	5474.2	1.080	mg/L	0.0138				1.27%
Mg 279.077†	43859.5	5.339	mg/L	0.0346				0.65%
Mn 257.610†	198787.0	0.5233	mg/L	0.00532				1.02%
Mo 202.031†	-36.7	-0.0026	mg/L	0.00014				5.29%
Ni 231.604†	2499.3	0.0448	mg/L	0.00055				1.24%
Na 589.592†	232649.2	11.98	mg/L	0.247				2.06%
Pb 220.353†	1.6	-0.0003	mg/L	0.00013				45.42%
Sb 206.836†	-2.4	-0.0021	mg/L	0.00277				132.48%
Se 196.026†	-8.7	-0.0044	mg/L	0.00096				22.07%
Sn 189.927†	-180.6	-0.0346	mg/L	0.00083				2.39%
Ti 337.279†	424.2	0.0007	mg/L	0.00006				8.28%
Tl 190.801†	0.6	0.0011	mg/L	0.00099				90.61%
V 292.402†	-55.9	0.0000	mg/L	0.00031				631.64%
Zn 206.200†	284688.0	7.442	mg/L	0.0840				1.13%
Ca 227.546†	15292.5	46.33	mg/L	0.385				0.83%
Sr 421.552†	181228.6	0.1924	mg/L	0.00385				2.00%
Al 237.313†	5967.3	1.834	mg/L	0.0101				0.55%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 46
Sample ID: R1510345-004 5X
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 66
Date Collected: 12/5/2015 3:49:07 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510345-004 5X

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	4034120.9	1.021	mg/L	0.0028				0.27%
Ag 328.068†	-252.9	0.0002	mg/L	0.00004				24.88%
As 188.979†	2.2	0.0012	mg/L	0.00025				21.51%
B 249.772†	13867.2	0.1084	mg/L	0.00159				1.47%
Ba 233.527†	396.8	0.0067	mg/L	0.00006				0.88%
Be 313.107†	4807.6	0.0015	mg/L	0.00001				0.52%
Cd 226.502†	232.7	0.0013	mg/L	0.00001				0.69%
Co 228.616†	655.3	0.0222	mg/L	0.00021				0.93%
Cr 267.716†	99.2	0.0015	mg/L	0.00012				8.19%
Cu 324.752†	529.5	0.0018	mg/L	0.00036				19.74%
Fe 259.939†	271171.3	7.490	mg/L	0.0724				0.97%
K 766.490†	5643.7	1.114	mg/L	0.0118				1.06%
Mg 279.077†	42338.8	5.148	mg/L	0.0447				0.87%
Mn 257.610†	204722.6	0.5390	mg/L	0.00381				0.71%
Mo 202.031†	-9.5	-0.0007	mg/L	0.00013				19.18%
Ni 231.604†	2484.7	0.0445	mg/L	0.00010				0.22%
Na 589.592†	242720.1	12.50	mg/L	0.011				0.09%
Pb 220.353†	-4.0	-0.0014	mg/L	0.00031				21.72%
Sb 206.836†	-1.2	-0.0012	mg/L	0.00041				33.78%

Se 196.026†	-4.2	-0.0022	mg/L	0.00136	62.00%
Sn 189.927†	-101.6	-0.0195	mg/L	0.00043	2.21%
Ti 337.279†	3318.3	0.0054	mg/L	0.00002	0.41%
Tl 190.801†	-7.5	-0.0029	mg/L	0.00029	9.87%
V 292.402†	72.8	0.0013	mg/L	0.00001	0.59%
Zn 206.200†	11912.5	0.3114	mg/L	0.00002	0.01%
Ca 227.546†	4406.6	13.38	mg/L	0.007	0.05%
Sr 421.552†	150638.7	0.1599	mg/L	0.00022	0.13%
Al 237.313†	8366.4	2.575	mg/L	0.0162	0.63%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 47
Sample ID: R1510345-005 5X
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 67
Date Collected: 12/5/2015 3:54:52 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510345-005 5X

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3965895.7	1.004	mg/L	0.0002				0.02%
Ag 328.068†	-73.7	0.0006	mg/L	0.00018				28.35%
As 188.979†	4.6	0.0026	mg/L	0.00057				21.82%
B 249.772†	5645.9	0.0232	mg/L	0.00087				3.76%
Ba 233.527†	720.9	0.0122	mg/L	0.00003				0.24%
Be 313.107†	67.1	0.0000	mg/L	0.00000				17.77%
Cd 226.502†	131.4	0.0002	mg/L	0.00001				7.13%
Co 228.616†	-7.6	-0.0003	mg/L	0.00009				36.00%
Cr 267.716†	216.8	0.0021	mg/L	0.00006				2.71%
Cu 324.752†	-290.0	-0.0010	mg/L	0.00007				7.08%
Fe 259.939†	284652.1	7.863	mg/L	0.0020				0.03%
K 766.490†	6941.8	1.370	mg/L	0.0379				2.77%
Mg 279.077†	24996.5	3.026	mg/L	0.0111				0.37%
Mn 257.610†	59886.4	0.1586	mg/L	0.00000				0.00%
Mo 202.031†	-1.9	-0.0001	mg/L	0.00007				53.25%
Ni 231.604†	2.3	0.0000	mg/L	0.00006				147.54%
Na 589.592†	96098.3	4.950	mg/L	0.1328				2.68%
Pb 220.353†	-5.7	-0.0014	mg/L	0.00021				14.81%
Sb 206.836†	-2.4	-0.0020	mg/L	0.00119				60.66%
Se 196.026†	-11.7	-0.0060	mg/L	0.00024				4.03%
Sn 189.927†	-160.0	-0.0307	mg/L	0.00005				0.16%
Ti 337.279†	3769.6	0.0062	mg/L	0.00005				0.83%
Tl 190.801†	1.8	0.0019	mg/L	0.00001				0.33%
V 292.402†	15.6	0.0008	mg/L	0.00011				15.03%
Zn 206.200†	571.0	0.0149	mg/L	0.00010				0.65%
Ca 227.546†	11148.2	33.79	mg/L	0.101				0.30%
Sr 421.552†	194760.0	0.2067	mg/L	0.00484				2.34%
Al 237.313†	601.1	0.2586	mg/L	0.00628				2.43%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 48
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/5/2015 4:00:30 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3843614.5	0.9729	mg/L	0.00199				0.20%
Ag 328.068†	149357.2	0.5144	mg/L	0.00297	0.5144	mg/L	0.00297	0.58%
QC value within limits for Ag 328.068 Recovery = 102.88%								
As 188.979†	1533.9	1.009	mg/L	0.0030	1.009	mg/L	0.0030	0.30%
QC value within limits for As 188.979 Recovery = 100.86%								
B 249.772†	244303.4	2.470	mg/L	0.0402	2.470	mg/L	0.0402	1.63%
QC value within limits for B 249.772 Recovery = 98.79%								
Ba 233.527†	615150.9	10.43	mg/L	0.078	10.43	mg/L	0.078	0.75%
QC value within limits for Ba 233.527 Recovery = 104.35%								

Be 313.107†	828547.7	0.2518 mg/L	0.00050	0.2518 mg/L	0.00050	0.20%
QC value within limits for Be 313.107 Recovery = 100.71%						
Cd 226.502†	48408.6	0.5206 mg/L	0.00410	0.5206 mg/L	0.00410	0.79%
QC value within limits for Cd 226.502 Recovery = 104.12%						
Co 228.616†	76126.0	2.583 mg/L	0.0172	2.583 mg/L	0.0172	0.67%
QC value within limits for Co 228.616 Recovery = 103.30%						
Cr 267.716†	68085.3	0.5356 mg/L	0.00356	0.5356 mg/L	0.00356	0.66%
QC value within limits for Cr 267.716 Recovery = 107.13%						
Cu 324.752†	364103.4	1.258 mg/L	0.0121	1.258 mg/L	0.0121	0.96%
QC value within limits for Cu 324.752 Recovery = 100.68%						
Fe 259.939†	188897.4	5.215 mg/L	0.0397	5.215 mg/L	0.0397	0.76%
QC value within limits for Fe 259.939 Recovery = 104.31%						
K 766.490†	113578.3	22.41 mg/L	0.089	22.41 mg/L	0.089	0.40%
QC value less than the lower limit for K 766.490 Recovery = 89.64%						
Mg 279.077†	211502.4	25.84 mg/L	0.167	25.84 mg/L	0.167	0.65%
QC value within limits for Mg 279.077 Recovery = 103.37%						
Mn 257.610†	301214.8	0.7923 mg/L	0.00632	0.7923 mg/L	0.00632	0.80%
QC value within limits for Mn 257.610 Recovery = 105.63%						
Mo 202.031†	34945.2	2.498 mg/L	0.0341	2.498 mg/L	0.0341	1.36%
QC value within limits for Mo 202.031 Recovery = 99.92%						
Ni 231.604†	118992.2	2.132 mg/L	0.0170	2.132 mg/L	0.0170	0.80%
QC value within limits for Ni 231.604 Recovery = 106.59%						
Na 589.592†	447404.1	23.04 mg/L	0.104	23.04 mg/L	0.104	0.45%
QC value within limits for Na 589.592 Recovery = 92.18%						
Pb 220.353†	3982.3	0.5158 mg/L	0.00051	0.5158 mg/L	0.00051	0.10%
QC value within limits for Pb 220.353 Recovery = 103.16%						
Sb 206.836†	6260.4	5.034 mg/L	0.0143	5.034 mg/L	0.0143	0.28%
QC value within limits for Sb 206.836 Recovery = 100.67%						
Se 196.026†	963.0	0.5031 mg/L	0.00628	0.5031 mg/L	0.00628	1.25%
QC value within limits for Se 196.026 Recovery = 100.61%						
Sn 189.927†	26985.5	5.171 mg/L	0.0214	5.171 mg/L	0.0214	0.41%
QC value within limits for Sn 189.927 Recovery = 103.42%						
Ti 337.279†	1514589.9	2.484 mg/L	0.0001	2.484 mg/L	0.0001	0.00%
QC value within limits for Ti 337.279 Recovery = 99.34%						
Tl 190.801†	2040.7	1.052 mg/L	0.0060	1.052 mg/L	0.0060	0.57%
QC value within limits for Tl 190.801 Recovery = 105.24%						
V 292.402†	259248.3	2.501 mg/L	0.0205	2.501 mg/L	0.0205	0.82%
QC value within limits for V 292.402 Recovery = 100.05%						
Zn 206.200†	40421.9	1.057 mg/L	0.0047	1.057 mg/L	0.0047	0.44%
QC value within limits for Zn 206.200 Recovery = 105.67%						
Ca 227.546†	8412.0	25.49 mg/L	0.116	25.49 mg/L	0.116	0.46%
QC value within limits for Ca 227.546 Recovery = 101.97%						
Sr 421.552†	2302024.4	2.444 mg/L	0.0197	2.444 mg/L	0.0197	0.81%
QC value within limits for Sr 421.552 Recovery = 97.75%						
Al 237.313†	33387.8	9.998 mg/L	0.0696	9.998 mg/L	0.0696	0.70%
QC value within limits for Al 237.313 Recovery = 99.98%						

QC Failed. Continue with analysis.

Sequence No.: 49 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 12/5/2015 4:06:18 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4061479.1	1.028	mg/L	0.0060				0.58%
Ag 328.068†	-114.6	-0.0004	mg/L	0.00010	-0.0004	mg/L	0.00010	26.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	-0.9	-0.0006	mg/L	0.00005	-0.0006	mg/L	0.00005	7.82%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	1919.6	0.0196	mg/L	0.00224	0.0196	mg/L	0.00224	11.46%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	35.0	0.0006	mg/L	0.00007	0.0006	mg/L	0.00007	11.42%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	167.8	0.0001	mg/L	0.00001	0.0001	mg/L	0.00001	17.07%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	23.4	0.0003	mg/L	0.00005	0.0003	mg/L	0.00005	17.94%
QC value within limits for Cd 226.502 Recovery = Not calculated								

Co 228.616†	7.4	0.0002 mg/L	0.00003	0.0002 mg/L	0.00003	10.72%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	5.8	0.0000 mg/L	0.00005	0.0000 mg/L	0.00005	112.14%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	397.9	0.0014 mg/L	0.00041	0.0014 mg/L	0.00041	30.09%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 259.939†	52.4	0.0014 mg/L	0.00018	0.0014 mg/L	0.00018	12.76%
QC value within limits for Fe 259.939 Recovery = Not calculated						
K 766.490†	-42.3	-0.0083 mg/L	0.02613	-0.0083 mg/L	0.02613	313.27%
QC value within limits for K 766.490 Recovery = Not calculated						
Mg 279.077†	47.0	0.0057 mg/L	0.00005	0.0057 mg/L	0.00005	0.94%
QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610†	47.1	0.0001 mg/L	0.00004	0.0001 mg/L	0.00004	35.54%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	44.7	0.0032 mg/L	0.00055	0.0032 mg/L	0.00055	17.27%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604†	-1.6	0.0000 mg/L	0.00004	0.0000 mg/L	0.00004	133.65%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Na 589.592†	84.7	0.0044 mg/L	0.00311	0.0044 mg/L	0.00311	71.34%
QC value within limits for Na 589.592 Recovery = Not calculated						
Pb 220.353†	-7.9	-0.0010 mg/L	0.00078	-0.0010 mg/L	0.00078	75.91%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	-1.6	-0.0013 mg/L	0.00104	-0.0013 mg/L	0.00104	82.21%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-3.2	-0.0017 mg/L	0.00122	-0.0017 mg/L	0.00122	73.37%
QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	18.7	0.0036 mg/L	0.00050	0.0036 mg/L	0.00050	14.07%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 337.279†	586.5	0.0010 mg/L	0.00019	0.0010 mg/L	0.00019	19.81%
QC value within limits for Ti 337.279 Recovery = Not calculated						
Tl 190.801†	2.9	0.0015 mg/L	0.00077	0.0015 mg/L	0.00077	51.74%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	16.3	0.0002 mg/L	0.00021	0.0002 mg/L	0.00021	134.37%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	69.8	0.0018 mg/L	0.00005	0.0018 mg/L	0.00005	2.55%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	-2.5	-0.0076 mg/L	0.00944	-0.0076 mg/L	0.00944	124.77%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Sr 421.552†	127.3	0.0001 mg/L	0.00005	0.0001 mg/L	0.00005	36.76%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Al 237.313†	27.2	0.0081 mg/L	0.00120	0.0081 mg/L	0.00120	14.83%
QC value within limits for Al 237.313 Recovery = Not calculated						

All analyte(s) passed QC.

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Sequence No.: 50 **Autosampler Location: 68**
Sample ID: R1510345-006 2X **Date Collected: 12/5/2015 4:11:58 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: 2X **Sample Prep Vol: 50 mL**

Mean Data: R1510345-006 2X

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3843350.8	0.9728	mg/L	0.00615				0.63%
Ag 328.068†	-258.0	0.0011	mg/L	0.00022				19.36%
As 188.979†	10.1	0.0056	mg/L	0.00015				2.63%
B 249.772†	14533.4	0.0661	mg/L	0.00073				1.10%
Ba 233.527†	1494.7	0.0254	mg/L	0.00015				0.57%
Be 313.107†	-494.4	-0.0002	mg/L	0.00003				18.57%
Cd 226.502†	244.0	-0.0004	mg/L	0.00014				39.34%
Co 228.616†	-10.5	-0.0004	mg/L	0.00006				16.87%
Cr 267.716†	-162.4	-0.0002	mg/L	0.00012				60.18%
Cu 324.752†	6.8	0.0000	mg/L	0.00019				786.06%
Fe 259.939†	680060.6	18.79	mg/L	0.120				0.64%
K 766.490†	21580.1	4.258	mg/L	0.0369				0.87%
Mg 279.077†	62660.3	7.589	mg/L	0.0428				0.56%
Mn 257.610†	148902.4	0.3942	mg/L	0.00126				0.32%
Mo 202.031†	21.5	0.0015	mg/L	0.00014				9.37%
Ni 231.604†	13.7	0.0002	mg/L	0.00001				4.47%
Na 589.592†	304302.5	15.67	mg/L	0.134				0.86%

Pb 220.353†	9.3	-0.0003	mg/L	0.00020	62.95%
Sb 206.836†	-1.5	-0.0012	mg/L	0.00127	109.69%
Se 196.026†	-11.7	-0.0058	mg/L	0.00037	6.42%
Sn 189.927†	-171.0	-0.0328	mg/L	0.00036	1.10%
Ti 337.279†	400.4	0.0007	mg/L	0.00001	2.20%
Tl 190.801†	0.8	0.0027	mg/L	0.00108	39.99%
V 292.402†	-192.3	-0.0004	mg/L	0.00002	5.32%
Zn 206.200†	2200.7	0.0575	mg/L	0.00045	0.78%
Ca 227.546†	28084.2	85.12	mg/L	0.083	0.10%
Sr 421.552†	491034.4	0.5212	mg/L	0.00532	1.02%
Al 237.313†	-786.7	-0.0461	mg/L	0.00075	1.62%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 51
Sample ID: R1510345-006 5X
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 69
Date Collected: 12/5/2015 4:17:43 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510345-006 5X

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3913259.8	0.9905	mg/L	0.02145				2.17%
Ag 328.068†	-119.9	0.0004	mg/L	0.00052				143.41%
As 188.979†	4.8	0.0027	mg/L	0.00066				24.65%
B 249.772†	5946.9	0.0276	mg/L	0.00158				5.72%
Ba 233.527†	613.6	0.0104	mg/L	0.00005				0.47%
Be 313.107†	-403.8	-0.0001	mg/L	0.00007				56.08%
Cd 226.502†	117.6	0.0001	mg/L	0.00011				164.52%
Co 228.616†	-10.2	-0.0003	mg/L	0.00008				24.32%
Cr 267.716†	-39.4	0.0001	mg/L	0.00006				59.95%
Cu 324.752†	-116.1	-0.0004	mg/L	0.00017				42.80%
Fe 259.939†	273757.2	7.562	mg/L	0.2296				3.04%
K 766.490†	6621.6	1.307	mg/L	0.0334				2.56%
Mg 279.077†	25574.2	3.098	mg/L	0.1016				3.28%
Mn 257.610†	60708.7	0.1607	mg/L	0.00472				2.94%
Mo 202.031†	1.2	0.0001	mg/L	0.00010				115.21%
Ni 231.604†	4.7	0.0001	mg/L	0.00009				104.68%
Na 589.592†	104961.5	5.406	mg/L	0.1349				2.50%
Pb 220.353†	3.4	-0.0001	mg/L	0.00073				523.45%
Sb 206.836†	-3.3	-0.0027	mg/L	0.00023				8.62%
Se 196.026†	-5.8	-0.0029	mg/L	0.00221				77.38%
Sn 189.927†	-149.0	-0.0286	mg/L	0.00073				2.55%
Ti 337.279†	310.7	0.0005	mg/L	0.00013				26.32%
Tl 190.801†	1.5	0.0017	mg/L	0.00093				55.33%
V 292.402†	-61.7	0.0000	mg/L	0.00005				656.22%
Zn 206.200†	43858.7	1.147	mg/L	0.0325				2.84%
Ca 227.546†	12634.4	38.29	mg/L	1.125				2.94%
Sr 421.552†	197905.9	0.2101	mg/L	0.00546				2.60%
Al 237.313†	-318.4	-0.0206	mg/L	0.00582				28.29%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 52
Sample ID: R1510345-007 5X
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 70
Date Collected: 12/5/2015 4:23:21 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510345-007 5X

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3938839.5	0.9970	mg/L	0.01247				1.25%
Ag 328.068†	-109.2	0.0003	mg/L	0.00007				23.24%
As 188.979†	4.9	0.0027	mg/L	0.00030				11.26%
B 249.772†	5367.1	0.0221	mg/L	0.00101				4.59%
Ba 233.527†	737.1	0.0125	mg/L	0.00001				0.10%
Be 313.107†	-92.8	0.0000	mg/L	0.00003				96.82%
Cd 226.502†	123.6	0.0001	mg/L	0.00002				12.65%

Co 228.616†	-11.1	-0.0004	mg/L	0.00001	2.22%
Cr 267.716†	201.3	0.0019	mg/L	0.00003	1.31%
Cu 324.752†	-46.1	-0.0002	mg/L	0.00028	176.34%
Fe 259.939†	270294.7	7.466	mg/L	0.0850	1.14%
K 766.490†	7182.0	1.417	mg/L	0.0537	3.79%
Mg 279.077†	25405.9	3.078	mg/L	0.0183	0.59%
Mn 257.610†	61629.5	0.1631	mg/L	0.00231	1.42%
Mo 202.031†	-6.2	-0.0004	mg/L	0.00022	49.83%
Ni 231.604†	27.4	0.0005	mg/L	0.00024	48.66%
Na 589.592†	98408.2	5.069	mg/L	0.0471	0.93%
Pb 220.353†	1.2	-0.0004	mg/L	0.00006	15.71%
Sb 206.836†	-1.5	-0.0012	mg/L	0.00151	122.99%
Se 196.026†	-9.7	-0.0049	mg/L	0.00027	5.49%
Sn 189.927†	-163.6	-0.0313	mg/L	0.00000	0.02%
Ti 337.279†	3853.6	0.0063	mg/L	0.00055	8.76%
Tl 190.801†	-0.5	0.0006	mg/L	0.00107	167.93%
V 292.402†	10.3	0.0007	mg/L	0.00009	13.39%
Zn 206.200†	85572.2	2.237	mg/L	0.0807	3.61%
Ca 227.546†	15042.0	45.58	mg/L	0.033	0.07%
Sr 421.552†	217726.4	0.2311	mg/L	0.00261	1.13%
Al 237.313†	562.7	0.2381	mg/L	0.00481	2.02%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 53
Sample ID: R1510345-008 5X
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 71
Date Collected: 12/5/2015 4:29:02 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510345-008 5X

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3903695.2	0.9881	mg/L	0.01263				1.28%
Ag 328.068†	-150.2	0.0003	mg/L	0.00010				39.39%
As 188.979†	3.8	0.0020	mg/L	0.00124				61.31%
B 249.772†	5399.8	0.0217	mg/L	0.00030				1.39%
Ba 233.527†	683.0	0.0116	mg/L	0.00018				1.59%
Be 313.107†	-395.7	-0.0001	mg/L	0.00000				1.35%
Cd 226.502†	109.5	0.0000	mg/L	0.00011				346.14%
Co 228.616†	-10.8	-0.0004	mg/L	0.00009				25.56%
Cr 267.716†	-47.5	0.0001	mg/L	0.00011				214.20%
Cu 324.752†	-188.1	-0.0007	mg/L	0.00019				29.54%
Fe 259.939†	276219.4	7.630	mg/L	0.1203				1.58%
K 766.490†	7187.3	1.418	mg/L	0.0157				1.11%
Mg 279.077†	26325.4	3.190	mg/L	0.0337				1.06%
Mn 257.610†	64175.1	0.1698	mg/L	0.00235				1.38%
Mo 202.031†	1.6	0.0001	mg/L	0.00020				167.37%
Ni 231.604†	-22.0	-0.0004	mg/L	0.00007				17.35%
Na 589.592†	105309.6	5.424	mg/L	0.0204				0.38%
Pb 220.353†	-3.0	-0.0010	mg/L	0.00082				83.20%
Sb 206.836†	-0.8	-0.0006	mg/L	0.00101				161.95%
Se 196.026†	-14.2	-0.0073	mg/L	0.00178				24.34%
Sn 189.927†	-163.1	-0.0313	mg/L	0.00052				1.66%
Ti 337.279†	47.6	0.0001	mg/L	0.00004				49.45%
Tl 190.801†	-0.9	0.0005	mg/L	0.00019				41.53%
V 292.402†	-49.3	0.0001	mg/L	0.00022				187.91%
Zn 206.200†	9753.5	0.2550	mg/L	0.00283				1.11%
Ca 227.546†	12673.9	38.41	mg/L	0.464				1.21%
Sr 421.552†	215141.0	0.2284	mg/L	0.00035				0.15%
Al 237.313†	-322.6	-0.0211	mg/L	0.02097				99.54%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 54
Sample ID: R1510345-008L 5X
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 72
Date Collected: 12/5/2015 4:34:42 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510345-008L 5X

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3968840.9	1.005	mg/L	0.0126				1.26%
Ag 328.068†	-71.9	-0.0001	mg/L	0.00037				430.84%
As 188.979†	0.8	0.0004	mg/L	0.00117				290.87%
B 249.772†	940.0	0.0028	mg/L	0.00038				13.70%
Ba 233.527†	132.6	0.0022	mg/L	0.00014				6.27%
Be 313.107†	-245.3	-0.0001	mg/L	0.00005				67.79%
Cd 226.502†	37.7	0.0002	mg/L	0.00012				74.75%
Co 228.616†	-9.6	-0.0003	mg/L	0.00007				21.24%
Cr 267.716†	-0.0	0.0001	mg/L	0.00012				135.81%
Cu 324.752†	-326.0	-0.0011	mg/L	0.00015				12.99%
Fe 259.939†	56273.7	1.554	mg/L	0.0328				2.11%
K 766.490†	1264.7	0.2496	mg/L	0.02294				9.19%
Mg 279.077†	5133.2	0.6217	mg/L	0.00642				1.03%
Mn 257.610†	12949.8	0.0343	mg/L	0.00070				2.04%
Mo 202.031†	-2.4	-0.0002	mg/L	0.00005				31.55%
Ni 231.604†	-23.0	-0.0004	mg/L	0.00011				27.79%
Na 589.592†	20693.1	1.066	mg/L	0.0119				1.12%
Pb 220.353†	2.9	0.0002	mg/L	0.00054				216.44%
Sb 206.836†	-2.3	-0.0018	mg/L	0.00007				3.60%
Se 196.026†	-0.6	-0.0003	mg/L	0.00101				333.99%
Sn 189.927†	-71.6	-0.0137	mg/L	0.00061				4.44%
Ti 337.279†	16.0	0.0000	mg/L	0.00003				100.00%
Tl 190.801†	2.0	0.0012	mg/L	0.00030				25.40%
V 292.402†	-6.6	0.0001	mg/L	0.00007				115.33%
Zn 206.200†	3470.3	0.0907	mg/L	0.00096				1.06%
Ca 227.546†	2491.2	7.550	mg/L	0.1044				1.38%
Sr 421.552†	43160.7	0.0458	mg/L	0.00058				1.26%
Al 237.313†	-53.0	-0.0004	mg/L	0.00610				>999.9%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 55
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/5/2015 4:40:29 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3747324.3	0.9485	mg/L	0.03241				3.42%
Ag 328.068†	154974.4	0.5337	mg/L	0.01757	0.5337	mg/L	0.01757	3.29%
QC value within limits for Ag 328.068 Recovery = 106.75%								
As 188.979†	1577.8	1.037	mg/L	0.0312	1.037	mg/L	0.0312	3.01%
QC value within limits for As 188.979 Recovery = 103.75%								
B 249.772†	255274.2	2.581	mg/L	0.0515	2.581	mg/L	0.0515	2.00%
QC value within limits for B 249.772 Recovery = 103.24%								
Ba 233.527†	636513.1	10.80	mg/L	0.280	10.80	mg/L	0.280	2.59%
QC value within limits for Ba 233.527 Recovery = 107.97%								
Be 313.107†	869202.6	0.2641	mg/L	0.00692	0.2641	mg/L	0.00692	2.62%
QC value within limits for Be 313.107 Recovery = 105.66%								
Cd 226.502†	49604.7	0.5334	mg/L	0.01113	0.5334	mg/L	0.01113	2.09%
QC value within limits for Cd 226.502 Recovery = 106.69%								
Co 228.616†	78365.4	2.659	mg/L	0.0701	2.659	mg/L	0.0701	2.64%
QC value within limits for Co 228.616 Recovery = 106.34%								
Cr 267.716†	69982.7	0.5506	mg/L	0.01381	0.5506	mg/L	0.01381	2.51%
QC value greater than the upper limit for Cr 267.716 Recovery = 110.11%								
Cu 324.752†	385036.4	1.331	mg/L	0.0441	1.331	mg/L	0.0441	3.31%
QC value within limits for Cu 324.752 Recovery = 106.47%								
Fe 259.939†	194372.9	5.367	mg/L	0.1370	5.367	mg/L	0.1370	2.55%
QC value within limits for Fe 259.939 Recovery = 107.33%								
K 766.490†	115411.6	22.77	mg/L	1.034	22.77	mg/L	1.034	4.54%
QC value within limits for K 766.490 Recovery = 91.09%								
Mg 279.077†	217684.1	26.60	mg/L	0.670	26.60	mg/L	0.670	2.52%
QC value within limits for Mg 279.077 Recovery = 106.39%								
Mn 257.610†	310663.5	0.8171	mg/L	0.02125	0.8171	mg/L	0.02125	2.60%
QC value within limits for Mn 257.610 Recovery = 108.95%								
Mo 202.031†	36592.3	2.616	mg/L	0.0529	2.616	mg/L	0.0529	2.02%

QC value within limits for Mo 202.031 Recovery = 104.63%						
Ni 231.604†	122372.5	2.192 mg/L	0.0545	2.192 mg/L	0.0545	2.48%
QC value within limits for Ni 231.604 Recovery = 109.61%						
Na 589.592†	465435.8	23.97 mg/L	0.887	23.97 mg/L	0.887	3.70%
QC value within limits for Na 589.592 Recovery = 95.89%						
Pb 220.353†	4122.1	0.5339 mg/L	0.01771	0.5339 mg/L	0.01771	3.32%
QC value within limits for Pb 220.353 Recovery = 106.78%						
Sb 206.836†	6660.6	5.356 mg/L	0.1865	5.356 mg/L	0.1865	3.48%
QC value within limits for Sb 206.836 Recovery = 107.11%						
Se 196.026†	986.7	0.5154 mg/L	0.01255	0.5154 mg/L	0.01255	2.44%
QC value within limits for Se 196.026 Recovery = 103.09%						
Sn 189.927†	27885.5	5.343 mg/L	0.1665	5.343 mg/L	0.1665	3.12%
QC value within limits for Sn 189.927 Recovery = 106.87%						
Ti 337.279†	1588612.4	2.605 mg/L	0.0767	2.605 mg/L	0.0767	2.95%
QC value within limits for Ti 337.279 Recovery = 104.20%						
Tl 190.801†	2128.4	1.098 mg/L	0.0353	1.098 mg/L	0.0353	3.22%
QC value within limits for Tl 190.801 Recovery = 109.76%						
V 292.402†	272120.9	2.625 mg/L	0.0785	2.625 mg/L	0.0785	2.99%
QC value within limits for V 292.402 Recovery = 105.02%						
Zn 206.200†	41089.4	1.074 mg/L	0.0201	1.074 mg/L	0.0201	1.87%
QC value within limits for Zn 206.200 Recovery = 107.41%						
Ca 227.546†	8806.3	26.69 mg/L	0.875	26.69 mg/L	0.875	3.28%
QC value within limits for Ca 227.546 Recovery = 106.75%						
Sr 421.552†	2418408.3	2.567 mg/L	0.1276	2.567 mg/L	0.1276	4.97%
QC value within limits for Sr 421.552 Recovery = 102.69%						
Al 237.313†	35097.8	10.51 mg/L	0.330	10.51 mg/L	0.330	3.14%
QC value within limits for Al 237.313 Recovery = 105.09%						
QC Failed. Continue with analysis.						

Sequence No.: 56
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/5/2015 4:46:15 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	3993434.9	1.011	mg/L	0.0048				0.47%
Ag 328.068†	-91.4	-0.0003	mg/L	0.00007	-0.0003	mg/L	0.00007	22.75%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	-1.2	-0.0008	mg/L	0.00081	-0.0008	mg/L	0.00081	101.31%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	2046.4	0.0209	mg/L	0.00301	0.0209	mg/L	0.00301	14.38%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	28.0	0.0005	mg/L	0.00010	0.0005	mg/L	0.00010	21.41%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	29.8	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	134.20%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	16.7	0.0002	mg/L	0.00003	0.0002	mg/L	0.00003	14.22%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.6	0.0002	mg/L	0.00012	0.0002	mg/L	0.00012	54.40%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	3.7	0.0000	mg/L	0.00006	0.0000	mg/L	0.00006	192.58%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	516.1	0.0018	mg/L	0.00026	0.0018	mg/L	0.00026	14.32%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	-10.0	-0.0003	mg/L	0.00045	-0.0003	mg/L	0.00045	161.51%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	-15.2	-0.0030	mg/L	0.00393	-0.0030	mg/L	0.00393	130.84%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	-27.9	-0.0034	mg/L	0.00175	-0.0034	mg/L	0.00175	51.29%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	21.9	0.0001	mg/L	0.00001	0.0001	mg/L	0.00001	14.38%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	52.5	0.0038	mg/L	0.00081	0.0038	mg/L	0.00081	21.45%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	-7.0	-0.0001	mg/L	0.00013	-0.0001	mg/L	0.00013	102.12%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	33.0	0.0017	mg/L	0.00478	0.0017	mg/L	0.00478	280.97%

QC value within limits for Na 589.592 Recovery = Not calculated

Pb 220.353†	-4.3	-0.0006 mg/L	0.00014	-0.0006 mg/L	0.00014	24.30%

QC value within limits for Pb 220.353 Recovery = Not calculated

Sb 206.836†	-3.2	-0.0026 mg/L	0.00172	-0.0026 mg/L	0.00172	66.94%

QC value within limits for Sb 206.836 Recovery = Not calculated

Se 196.026†	-1.1	-0.0006 mg/L	0.00277	-0.0006 mg/L	0.00277	474.49%

QC value within limits for Se 196.026 Recovery = Not calculated

Sn 189.927†	24.0	0.0046 mg/L	0.00121	0.0046 mg/L	0.00121	26.21%

QC value within limits for Sn 189.927 Recovery = Not calculated

Ti 337.279†	703.9	0.0012 mg/L	0.00021	0.0012 mg/L	0.00021	17.91%

QC value within limits for Ti 337.279 Recovery = Not calculated

Tl 190.801†	3.4	0.0017 mg/L	0.00003	0.0017 mg/L	0.00003	1.72%

QC value within limits for Tl 190.801 Recovery = Not calculated

V 292.402†	54.4	0.0005 mg/L	0.00007	0.0005 mg/L	0.00007	13.21%

QC value within limits for V 292.402 Recovery = Not calculated

Zn 206.200†	45.0	0.0012 mg/L	0.00019	0.0012 mg/L	0.00019	16.14%

QC value within limits for Zn 206.200 Recovery = Not calculated

Ca 227.546†	-8.4	-0.0254 mg/L	0.02091	-0.0254 mg/L	0.02091	82.27%

QC value within limits for Ca 227.546 Recovery = Not calculated

Sr 421.552†	57.1	0.0001 mg/L	0.00000	0.0001 mg/L	0.00000	6.93%

QC value within limits for Sr 421.552 Recovery = Not calculated

Al 237.313†	6.3	0.0019 mg/L	0.00055	0.0019 mg/L	0.00055	29.15%

QC value within limits for Al 237.313 Recovery = Not calculated

All analyte(s) passed QC.

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Sequence No.: 57 **Autosampler Location: 6**
Sample ID: MRL **Date Collected: 12/5/2015 4:51:55 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: MRL

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	3953128.2	1.001	mg/L	0.0081				0.81%
Ag 328.068†	2922.4	0.0101	mg/L	0.00031	0.0101	mg/L	0.00031	3.09%

QC value within limits for Ag 328.068 Recovery = 100.60%

As 188.979†	30.4	0.0200	mg/L	0.00068	0.0200	mg/L	0.00068	3.38%

QC value within limits for As 188.979 Recovery = 100.03%

B 249.772†	20156.6	0.2053	mg/L	0.00413	0.2053	mg/L	0.00413	2.01%

QC value within limits for B 249.772 Recovery = 102.65%

Ba 233.527†	12837.1	0.2178	mg/L	0.00337	0.2178	mg/L	0.00337	1.55%

QC value within limits for Ba 233.527 Recovery = 108.88%

Be 313.107†	16335.1	0.0050	mg/L	0.00005	0.0050	mg/L	0.00005	1.03%

QC value within limits for Be 313.107 Recovery = 99.28%

Cd 226.502†	982.5	0.0106	mg/L	0.00002	0.0106	mg/L	0.00002	0.20%

QC value within limits for Cd 226.502 Recovery = 105.66%

Co 228.616†	1589.4	0.0539	mg/L	0.00046	0.0539	mg/L	0.00046	0.85%

QC value within limits for Co 228.616 Recovery = 107.84%

Cr 267.716†	1331.3	0.0105	mg/L	0.00001	0.0105	mg/L	0.00001	0.10%

QC value within limits for Cr 267.716 Recovery = 105.25%

Cu 324.752†	7664.0	0.0265	mg/L	0.00051	0.0265	mg/L	0.00051	1.93%

QC value within limits for Cu 324.752 Recovery = 105.96%

Fe 259.939†	3772.4	0.1042	mg/L	0.00039	0.1042	mg/L	0.00039	0.37%

QC value within limits for Fe 259.939 Recovery = 104.15%

K 766.490†	3699.4	0.7300	mg/L	0.00105	0.7300	mg/L	0.00105	0.14%

QC value less than the lower limit for K 766.490 Recovery = 73.00%

Mg 279.077†	8827.1	1.079	mg/L	0.0091	1.079	mg/L	0.0091	0.85%

QC value within limits for Mg 279.077 Recovery = 107.89%

Mn 257.610†	6057.9	0.0159	mg/L	0.00030	0.0159	mg/L	0.00030	1.89%

QC value within limits for Mn 257.610 Recovery = 106.22%

Mo 202.031†	401.9	0.0287	mg/L	0.00051	0.0287	mg/L	0.00051	1.76%

QC value within limits for Mo 202.031 Recovery = 114.91%

Ni 231.604†	2327.8	0.0417	mg/L	0.00014	0.0417	mg/L	0.00014	0.34%

QC value within limits for Ni 231.604 Recovery = 104.25%

Na 589.592†	17601.2	0.9066	mg/L	0.00187	0.9066	mg/L	0.00187	0.21%

QC value within limits for Na 589.592 Recovery = 90.66%

Pb 220.353†	85.1	0.0110	mg/L	0.00077	0.0110	mg/L	0.00077	7.02%

QC value within limits for Pb 220.353 Recovery = 110.22%

Sb 206.836†	74.1	0.0596	mg/L	0.00097	0.0596	mg/L	0.00097	1.63%

QC value within limits for Sb 206.836 Recovery = 99.27%

Se 196.026†	13.8	0.0072 mg/L	0.00212	0.0072 mg/L	0.00212	29.38%

QC value less than the lower limit for Se 196.026 Recovery = 72.01%

Sn 189.927†	2781.8	0.5330 mg/L	0.00559	0.5330 mg/L	0.00559	1.05%

QC value within limits for Sn 189.927 Recovery = 106.61%

Ti 337.279†	31193.0	0.0511 mg/L	0.00098	0.0511 mg/L	0.00098	1.92%

QC value within limits for Ti 337.279 Recovery = 102.30%

Tl 190.801†	44.4	0.0229 mg/L	0.00087	0.0229 mg/L	0.00087	3.80%

QC value within limits for Tl 190.801 Recovery = 114.65%

V 292.402†	5381.2	0.0519 mg/L	0.00067	0.0519 mg/L	0.00067	1.29%

QC value within limits for V 292.402 Recovery = 103.84%

Zn 206.200†	782.2	0.0204 mg/L	0.00009	0.0204 mg/L	0.00009	0.42%

QC value within limits for Zn 206.200 Recovery = 102.23%

Ca 227.546†	320.4	0.9707 mg/L	0.00625	0.9707 mg/L	0.00625	0.64%

QC value within limits for Ca 227.546 Recovery = 97.07%

Sr 421.552†	98914.1	0.1050 mg/L	0.00018	0.1050 mg/L	0.00018	0.17%

QC value within limits for Sr 421.552 Recovery = 105.00%

Al 237.313†	674.6	0.2018 mg/L	0.00276	0.2018 mg/L	0.00276	1.37%

QC value within limits for Al 237.313 Recovery = 100.91%

QC Failed. Continue with analysis.

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Sequence No.: 58 **Autosampler Location: 7**
Sample ID: ICSA **Date Collected: 12/5/2015 4:57:36 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3579290.3	0.9060	mg/L	0.00479				0.53%
Ag 328.068†	-2416.1	0.0033	mg/L	0.00058	0.0033	mg/L	0.00058	17.56%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	11.9	-0.0026	mg/L	0.00117	-0.0026	mg/L	0.00117	45.55%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	36643.8	-0.0768	mg/L	0.00498	-0.0768	mg/L	0.00498	6.49%
Ba 233.527†	-266.0	-0.0059	mg/L	0.00018	-0.0059	mg/L	0.00018	3.00%
Be 313.107†	-1058.5	-0.0003	mg/L	0.00003	-0.0003	mg/L	0.00003	10.07%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	1180.4	0.0011	mg/L	0.00040	0.0011	mg/L	0.00040	36.56%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-29.7	-0.0010	mg/L	0.00033	-0.0010	mg/L	0.00033	32.73%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-3326.8	0.0000	mg/L	0.00140	0.0000	mg/L	0.00140	>999.9%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	-507.0	-0.0018	mg/L	0.00020	-0.0018	mg/L	0.00020	11.49%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	3371682.3	93.07	mg/L	2.027	93.07	mg/L	2.027	2.18%
QC value within limits for Fe 259.939 Recovery = 93.07%								
K 766.490†	119.7	0.0236	mg/L	0.00504	0.0236	mg/L	0.00504	21.34%
Mg 279.077†	2124694.7	259.4	mg/L	5.77	259.4	mg/L	5.77	2.23%
QC value within limits for Mg 279.077 Recovery = 103.78%								
Mn 257.610†	-5648.8	0.0035	mg/L	0.00019	0.0035	mg/L	0.00019	5.30%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-113.7	-0.0081	mg/L	0.00026	-0.0081	mg/L	0.00026	3.22%
Ni 231.604†	29.8	0.0005	mg/L	0.00032	0.0005	mg/L	0.00032	60.69%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	2504.1	0.1290	mg/L	0.00763	0.1290	mg/L	0.00763	5.91%
Pb 220.353†	187.0	-0.0019	mg/L	0.00058	-0.0019	mg/L	0.00058	30.37%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	48.3	0.0137	mg/L	0.00081	0.0137	mg/L	0.00081	5.92%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	3.4	-0.0009	mg/L	0.00948	-0.0009	mg/L	0.00948	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-407.8	-0.0781	mg/L	0.00045	-0.0781	mg/L	0.00045	0.58%
Ti 337.279†	269.5	0.0004	mg/L	0.00003	0.0004	mg/L	0.00003	6.76%
Tl 190.801†	-21.9	0.0034	mg/L	0.00036	0.0034	mg/L	0.00036	10.71%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-1398.3	-0.0062	mg/L	0.00043	-0.0062	mg/L	0.00043	6.83%
QC value less than the lower limit for V 292.402 Recovery = Not calculated								

Zn 206.200†	198.4	0.0052 mg/L	0.00004	0.0052 mg/L	0.00004	0.83%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	94759.1	287.4 mg/L	0.77	287.4 mg/L	0.77	0.27%
QC value within limits for Ca 227.546 Recovery = 114.94%						
Sr 421.552†	3578.7	0.0038 mg/L	0.00007	0.0038 mg/L	0.00007	1.94%
Al 237.313†	929614.0	277.9 mg/L	5.16	277.9 mg/L	5.16	1.86%
QC value within limits for Al 237.313 Recovery = 111.17%						

QC Failed. Continue with analysis.

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: ICSAB **Date Collected: 12/5/2015 5:03:17 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	3644169.4	0.9224 mg/L	0.00597			0.65%
Ag 328.068†	52076.4	0.1908 mg/L	0.00007	0.1908 mg/L	0.00007	0.03%
QC value within limits for Ag 328.068 Recovery = 95.38%						
As 188.979†	167.1	0.0996 mg/L	0.00103	0.0996 mg/L	0.00103	1.03%
QC value within limits for As 188.979 Recovery = 99.64%						
B 249.772†	36051.8	-0.0807 mg/L	0.00241	-0.0807 mg/L	0.00241	2.98%
Ba 233.527†	31336.5	0.5302 mg/L	0.00396	0.5302 mg/L	0.00396	0.75%
QC value within limits for Ba 233.527 Recovery = 106.04%						
Be 313.107†	1720962.3	0.5230 mg/L	0.00328	0.5230 mg/L	0.00328	0.63%
QC value within limits for Be 313.107 Recovery = 104.60%						
Cd 226.502†	95219.1	1.014 mg/L	0.0050	1.014 mg/L	0.0050	0.49%
QC value within limits for Cd 226.502 Recovery = 101.38%						
Co 228.616†	14362.8	0.4873 mg/L	0.00322	0.4873 mg/L	0.00322	0.66%
QC value within limits for Co 228.616 Recovery = 97.45%						
Cr 267.716†	63328.4	0.5220 mg/L	0.00093	0.5220 mg/L	0.00093	0.18%
QC value within limits for Cr 267.716 Recovery = 104.39%						
Cu 324.752†	154037.7	0.5324 mg/L	0.00468	0.5324 mg/L	0.00468	0.88%
QC value within limits for Cu 324.752 Recovery = 106.48%						
Fe 259.939†	3358996.0	92.72 mg/L	0.606	92.72 mg/L	0.606	0.65%
QC value within limits for Fe 259.939 Recovery = 92.72%						
K 766.490†	106.7	0.0211 mg/L	0.00429	0.0211 mg/L	0.00429	20.35%
Mg 279.077†	2121938.1	259.1 mg/L	2.04	259.1 mg/L	2.04	0.79%
QC value within limits for Mg 279.077 Recovery = 103.64%						
Mn 257.610†	193976.5	0.5278 mg/L	0.00211	0.5278 mg/L	0.00211	0.40%
QC value within limits for Mn 257.610 Recovery = 105.56%						
Mo 202.031†	-119.4	-0.0085 mg/L	0.00023	-0.0085 mg/L	0.00023	2.73%
Ni 231.604†	54381.5	0.9742 mg/L	0.00603	0.9742 mg/L	0.00603	0.62%
QC value within limits for Ni 231.604 Recovery = 97.42%						
Na 589.592†	2066.8	0.1065 mg/L	0.00188	0.1065 mg/L	0.00188	1.76%
Pb 220.353†	578.4	0.0492 mg/L	0.00032	0.0492 mg/L	0.00032	0.65%
QC value within limits for Pb 220.353 Recovery = 98.32%						
Sb 206.836†	878.5	0.6817 mg/L	0.00442	0.6817 mg/L	0.00442	0.65%
QC value within limits for Sb 206.836 Recovery = 113.62%						
Se 196.026†	111.9	0.0558 mg/L	0.00134	0.0558 mg/L	0.00134	2.41%
QC value within limits for Se 196.026 Recovery = 111.56%						
Sn 189.927†	-440.5	-0.0844 mg/L	0.00136	-0.0844 mg/L	0.00136	1.61%
Ti 337.279†	242.5	0.0004 mg/L	0.00004	0.0004 mg/L	0.00004	10.23%
Tl 190.801†	170.0	0.1022 mg/L	0.00100	0.1022 mg/L	0.00100	0.98%
QC value within limits for Tl 190.801 Recovery = 102.21%						
V 292.402†	52191.4	0.5107 mg/L	0.00244	0.5107 mg/L	0.00244	0.48%
QC value within limits for V 292.402 Recovery = 102.14%						
Zn 206.200†	37428.1	0.9784 mg/L	0.00919	0.9784 mg/L	0.00919	0.94%
QC value within limits for Zn 206.200 Recovery = 97.84%						
Ca 227.546†	93488.1	283.5 mg/L	0.68	283.5 mg/L	0.68	0.24%
QC value within limits for Ca 227.546 Recovery = 113.40%						
Sr 421.552†	3362.5	0.0036 mg/L	0.00005	0.0036 mg/L	0.00005	1.32%
Al 237.313†	916304.0	274.0 mg/L	1.91	274.0 mg/L	1.91	0.70%
QC value within limits for Al 237.313 Recovery = 109.59%						

All analyte(s) passed QC.

Sequence No.: 60 **Autosampler Location: 13**

Sample ID: HLCCV2
Analyst:
Initial Sample Wt:
Dilution:
Date Collected: 12/5/2015 5:08:57 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: HLCCV2

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3463377.0	0.8766	mg/L	0.00660				0.75%
Ag 328.068†	639416.5	2.204	mg/L	0.0244	2.204	mg/L	0.0244	1.11%
QC value greater than the upper limit for Ag 328.068 Recovery = 110.22%								
As 188.979†	6661.7	4.366	mg/L	0.0775	4.366	mg/L	0.0775	1.77%
QC value within limits for As 188.979 Recovery = 109.16%								
B 249.772†	1058026.5	10.50	mg/L	0.164	10.50	mg/L	0.164	1.56%
QC value within limits for B 249.772 Recovery = 105.04%								
Ba 233.527†	2340961.0	39.71	mg/L	0.544	39.71	mg/L	0.544	1.37%
QC value within limits for Ba 233.527 Recovery = 99.27%								
Be 313.107†	3422800.0	1.040	mg/L	0.0140	1.040	mg/L	0.0140	1.34%
QC value within limits for Be 313.107 Recovery = 104.01%								
Cd 226.502†	189462.4	2.039	mg/L	0.0347	2.039	mg/L	0.0347	1.70%
QC value within limits for Cd 226.502 Recovery = 101.94%								
Co 228.616†	292421.2	9.920	mg/L	0.1507	9.920	mg/L	0.1507	1.52%
QC value within limits for Co 228.616 Recovery = 99.20%								
Cr 267.716†	1319204.4	10.38	mg/L	0.143	10.38	mg/L	0.143	1.38%
QC value within limits for Cr 267.716 Recovery = 103.77%								
Cu 324.752†	1538250.1	5.317	mg/L	0.0672	5.317	mg/L	0.0672	1.26%
QC value within limits for Cu 324.752 Recovery = 106.34%								
Fe 259.939†	1762288.6	48.54	mg/L	0.658	48.54	mg/L	0.658	1.36%
QC value within limits for Fe 259.939 Recovery = 97.09%								
K 766.490†	856066.5	168.9	mg/L	2.71	168.9	mg/L	2.71	1.61%
QC value greater than the upper limit for K 766.490 Recovery = 112.61%								
Mg 279.077†	4167194.1	509.4	mg/L	7.58	509.4	mg/L	7.58	1.49%
QC value within limits for Mg 279.077 Recovery = 101.87%								
Mn 257.610†	3813460.5	10.03	mg/L	0.137	10.03	mg/L	0.137	1.36%
QC value within limits for Mn 257.610 Recovery = 100.32%								
Mo 202.031†	142460.8	10.18	mg/L	0.135	10.18	mg/L	0.135	1.32%
QC value within limits for Mo 202.031 Recovery = 101.84%								
Ni 231.604†	434930.8	7.792	mg/L	0.1212	7.792	mg/L	0.1212	1.56%
QC value within limits for Ni 231.604 Recovery = 97.40%								
Na 589.592†	3147038.6	162.1	mg/L	2.82	162.1	mg/L	2.82	1.74%
QC value within limits for Na 589.592 Recovery = 108.06%								
Pb 220.353†	75794.5	9.799	mg/L	0.1483	9.799	mg/L	0.1483	1.51%
QC value within limits for Pb 220.353 Recovery = 97.99%								
Sb 206.836†	544.5	0.3885	mg/L	0.00046	0.3885	mg/L	0.00046	0.12%
Se 196.026†	4235.9	2.208	mg/L	0.0417	2.208	mg/L	0.0417	1.89%
QC value greater than the upper limit for Se 196.026 Recovery = 110.38%								
Sn 189.927†	-633.2	-0.1213	mg/L	0.00023	-0.1213	mg/L	0.00023	0.19%
Ti 337.279†	6260424.3	10.27	mg/L	0.120	10.27	mg/L	0.120	1.17%
QC value within limits for Ti 337.279 Recovery = 102.66%								
Tl 190.801†	7075.3	3.659	mg/L	0.0484	3.659	mg/L	0.0484	1.32%
QC value within limits for Tl 190.801 Recovery = 91.47%								
V 292.402†	1071621.7	10.34	mg/L	0.116	10.34	mg/L	0.116	1.12%
QC value within limits for V 292.402 Recovery = 103.41%								
Zn 206.200†	155611.5	4.068	mg/L	0.0765	4.068	mg/L	0.0765	1.88%
QC value within limits for Zn 206.200 Recovery = 101.70%								
Ca 227.546†	96808.2	293.3	mg/L	3.93	293.3	mg/L	3.93	1.34%
QC value greater than the upper limit for Ca 227.546 Recovery = 117.33%								
Sr 421.552†	Saturated2							
Unable to evaluate QC.								
Al 237.313†	1824508.3	544.0	mg/L	7.22	544.0	mg/L	7.22	1.33%
QC value within limits for Al 237.313 Recovery = 108.80%								

QC Failed. Continue with analysis.

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Sequence No.: 61
Sample ID: HLCCV1
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 2
Date Collected: 12/5/2015 5:13:11 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: HLCCV1

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3720987.0	0.9418	mg/L	0.00684				0.73%
Ag 328.068†	293448.0	1.011	mg/L	0.0067	1.011	mg/L	0.0067	0.67%
QC value within limits for Ag 328.068 Recovery = 101.07%								
As 188.979†	3244.2	2.133	mg/L	0.0382	2.133	mg/L	0.0382	1.79%
QC value within limits for As 188.979 Recovery = 106.66%								
B 249.772†	523358.1	5.294	mg/L	0.1294	5.294	mg/L	0.1294	2.44%
QC value within limits for B 249.772 Recovery = 105.88%								
Ba 233.527†	1221656.7	20.72	mg/L	0.092	20.72	mg/L	0.092	0.44%
QC value within limits for Ba 233.527 Recovery = 103.61%								
Be 313.107†	1725472.8	0.5243	mg/L	0.00459	0.5243	mg/L	0.00459	0.88%
QC value within limits for Be 313.107 Recovery = 104.87%								
Cd 226.502†	99382.7	1.069	mg/L	0.0133	1.069	mg/L	0.0133	1.24%
QC value within limits for Cd 226.502 Recovery = 106.88%								
Co 228.616†	155392.1	5.272	mg/L	0.0358	5.272	mg/L	0.0358	0.68%
QC value within limits for Co 228.616 Recovery = 105.43%								
Cr 267.716†	133498.5	1.050	mg/L	0.0068	1.050	mg/L	0.0068	0.65%
QC value within limits for Cr 267.716 Recovery = 105.04%								
Cu 324.752†	734462.8	2.539	mg/L	0.0065	2.539	mg/L	0.0065	0.26%
QC value within limits for Cu 324.752 Recovery = 101.54%								
Fe 259.939†	379225.7	10.47	mg/L	0.042	10.47	mg/L	0.042	0.40%
QC value within limits for Fe 259.939 Recovery = 104.70%								
K 766.490†	237036.0	46.77	mg/L	0.070	46.77	mg/L	0.070	0.15%
QC value within limits for K 766.490 Recovery = 93.54%								
Mg 279.077†	430143.3	52.56	mg/L	0.209	52.56	mg/L	0.209	0.40%
QC value within limits for Mg 279.077 Recovery = 105.11%								
Mn 257.610†	598685.0	1.575	mg/L	0.0054	1.575	mg/L	0.0054	0.34%
QC value within limits for Mn 257.610 Recovery = 104.98%								
Mo 202.031†	73201.7	5.233	mg/L	0.0131	5.233	mg/L	0.0131	0.25%
QC value within limits for Mo 202.031 Recovery = 104.65%								
Ni 231.604†	236715.2	4.241	mg/L	0.0352	4.241	mg/L	0.0352	0.83%
QC value within limits for Ni 231.604 Recovery = 106.02%								
Na 589.592†	935944.9	48.21	mg/L	0.154	48.21	mg/L	0.154	0.32%
QC value within limits for Na 589.592 Recovery = 96.42%								
Pb 220.353†	8166.2	1.058	mg/L	0.0142	1.058	mg/L	0.0142	1.35%
QC value within limits for Pb 220.353 Recovery = 105.77%								
Sb 206.836†	13092.9	10.53	mg/L	0.114	10.53	mg/L	0.114	1.08%
QC value within limits for Sb 206.836 Recovery = 105.28%								
Se 196.026†	2057.4	1.075	mg/L	0.0232	1.075	mg/L	0.0232	2.16%
QC value within limits for Se 196.026 Recovery = 107.48%								
Sn 189.927†	56194.7	10.77	mg/L	0.099	10.77	mg/L	0.099	0.92%
QC value within limits for Sn 189.927 Recovery = 107.68%								
Ti 337.279†	3098146.6	5.080	mg/L	0.0004	5.080	mg/L	0.0004	0.01%
QC value within limits for Ti 337.279 Recovery = 101.61%								
Tl 190.801†	4051.0	2.089	mg/L	0.0075	2.089	mg/L	0.0075	0.36%
QC value within limits for Tl 190.801 Recovery = 104.46%								
V 292.402†	533300.6	5.145	mg/L	0.0093	5.145	mg/L	0.0093	0.18%
QC value within limits for V 292.402 Recovery = 102.91%								
Zn 206.200†	83592.0	2.185	mg/L	0.0394	2.185	mg/L	0.0394	1.80%
QC value within limits for Zn 206.200 Recovery = 109.26%								
Ca 227.546†	16761.3	50.80	mg/L	0.052	50.80	mg/L	0.052	0.10%
QC value within limits for Ca 227.546 Recovery = 101.60%								
Sr 421.552†	4779266.4	5.073	mg/L	0.0738	5.073	mg/L	0.0738	1.45%
QC value within limits for Sr 421.552 Recovery = 101.47%								
Al 237.313†	69060.5	20.68	mg/L	0.043	20.68	mg/L	0.043	0.21%
QC value within limits for Al 237.313 Recovery = 103.39%								

All analyte(s) passed QC.

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Sequence No.: 62
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/5/2015 5:19:00 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3832255.4	0.9700	mg/L	0.01103				1.14%

Ag 328.068†	150986.1	0.5200 mg/L	0.00789	0.5200 mg/L	0.00789	1.52%
QC value within limits for Ag 328.068 Recovery = 104.00%						
As 188.979†	1579.9	1.039 mg/L	0.0165	1.039 mg/L	0.0165	1.59%
QC value within limits for As 188.979 Recovery = 103.89%						
B 249.772†	257848.9	2.607 mg/L	0.0560	2.607 mg/L	0.0560	2.15%
QC value within limits for B 249.772 Recovery = 104.30%						
Ba 233.527†	634874.3	10.77 mg/L	0.176	10.77 mg/L	0.176	1.63%
QC value within limits for Ba 233.527 Recovery = 107.69%						
Be 313.107†	861593.8	0.2618 mg/L	0.00346	0.2618 mg/L	0.00346	1.32%
QC value within limits for Be 313.107 Recovery = 104.73%						
Cd 226.502†	50056.3	0.5383 mg/L	0.00950	0.5383 mg/L	0.00950	1.77%
QC value within limits for Cd 226.502 Recovery = 107.66%						
Co 228.616†	78435.2	2.661 mg/L	0.0392	2.661 mg/L	0.0392	1.47%
QC value within limits for Co 228.616 Recovery = 106.44%						
Cr 267.716†	70089.4	0.5514 mg/L	0.00892	0.5514 mg/L	0.00892	1.62%
QC value greater than the upper limit for Cr 267.716 Recovery = 110.28%						
Cu 324.752†	368961.0	1.275 mg/L	0.0226	1.275 mg/L	0.0226	1.77%
QC value within limits for Cu 324.752 Recovery = 102.02%						
Fe 259.939†	193231.5	5.335 mg/L	0.0846	5.335 mg/L	0.0846	1.59%
QC value within limits for Fe 259.939 Recovery = 106.70%						
K 766.490†	112575.6	22.21 mg/L	0.275	22.21 mg/L	0.275	1.24%
QC value less than the lower limit for K 766.490 Recovery = 88.85%						
Mg 279.077†	216108.1	26.40 mg/L	0.423	26.40 mg/L	0.423	1.60%
QC value within limits for Mg 279.077 Recovery = 105.62%						
Mn 257.610†	309088.6	0.8130 mg/L	0.01262	0.8130 mg/L	0.01262	1.55%
QC value within limits for Mn 257.610 Recovery = 108.40%						
Mo 202.031†	36478.4	2.608 mg/L	0.0463	2.608 mg/L	0.0463	1.78%
QC value within limits for Mo 202.031 Recovery = 104.30%						
Ni 231.604†	122563.4	2.196 mg/L	0.0357	2.196 mg/L	0.0357	1.63%
QC value within limits for Ni 231.604 Recovery = 109.78%						
Na 589.592†	448608.7	23.11 mg/L	0.354	23.11 mg/L	0.354	1.53%
QC value within limits for Na 589.592 Recovery = 92.43%						
Pb 220.353†	4159.2	0.5387 mg/L	0.00739	0.5387 mg/L	0.00739	1.37%
QC value within limits for Pb 220.353 Recovery = 107.75%						
Sb 206.836†	6551.8	5.268 mg/L	0.0497	5.268 mg/L	0.0497	0.94%
QC value within limits for Sb 206.836 Recovery = 105.36%						
Se 196.026†	996.7	0.5207 mg/L	0.00574	0.5207 mg/L	0.00574	1.10%
QC value within limits for Se 196.026 Recovery = 104.13%						
Sn 189.927†	27848.8	5.336 mg/L	0.0779	5.336 mg/L	0.0779	1.46%
QC value within limits for Sn 189.927 Recovery = 106.73%						
Ti 337.279†	1561769.9	2.561 mg/L	0.0318	2.561 mg/L	0.0318	1.24%
QC value within limits for Ti 337.279 Recovery = 102.44%						
Tl 190.801†	2125.2	1.096 mg/L	0.0173	1.096 mg/L	0.0173	1.58%
QC value within limits for Tl 190.801 Recovery = 109.59%						
V 292.402†	267215.2	2.578 mg/L	0.0417	2.578 mg/L	0.0417	1.62%
QC value within limits for V 292.402 Recovery = 103.12%						
Zn 206.200†	42233.8	1.104 mg/L	0.0174	1.104 mg/L	0.0174	1.57%
QC value greater than the upper limit for Zn 206.200 Recovery = 110.40%						
Ca 227.546†	8610.8	26.10 mg/L	0.339	26.10 mg/L	0.339	1.30%
QC value within limits for Ca 227.546 Recovery = 104.38%						
Sr 421.552†	2286510.4	2.427 mg/L	0.0332	2.427 mg/L	0.0332	1.37%
QC value within limits for Sr 421.552 Recovery = 97.09%						
Al 237.313†	34202.1	10.24 mg/L	0.172	10.24 mg/L	0.172	1.67%
QC value within limits for Al 237.313 Recovery = 102.42%						

QC Failed. Continue with analysis.

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Sequence No.: 63 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 12/5/2015 5:24:51 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3946333.6	0.9989	mg/L	0.00608				0.61%
Ag 328.068†	84.1	0.0003	mg/L	0.00033	0.0003	mg/L	0.00033	115.16%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	-0.3	-0.0002	mg/L	0.00124	-0.0002	mg/L	0.00124	750.63%
QC value within limits for As 188.979 Recovery = Not calculated								

B 249.772†	9030.7	0.0922 mg/L	0.00665	0.0922 mg/L	0.00665	7.22%
QC value within limits for B 249.772 Recovery = Not calculated						
Ba 233.527†	27.3	0.0005 mg/L	0.00016	0.0005 mg/L	0.00016	34.62%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	221.6	0.0001 mg/L	0.00002	0.0001 mg/L	0.00002	32.12%
QC value within limits for Be 313.107 Recovery = Not calculated						
Cd 226.502†	-0.8	0.0000 mg/L	0.00000	0.0000 mg/L	0.00000	41.77%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	44.8	0.0015 mg/L	0.00007	0.0015 mg/L	0.00007	4.55%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	24.0	0.0002 mg/L	0.00006	0.0002 mg/L	0.00006	30.94%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	1291.8	0.0045 mg/L	0.00073	0.0045 mg/L	0.00073	16.27%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 259.939†	7.5	0.0002 mg/L	0.00014	0.0002 mg/L	0.00014	68.18%
QC value within limits for Fe 259.939 Recovery = Not calculated						
K 766.490†	25.4	0.0050 mg/L	0.00522	0.0050 mg/L	0.00522	104.10%
QC value within limits for K 766.490 Recovery = Not calculated						
Mg 279.077†	-82.9	-0.0101 mg/L	0.00216	-0.0101 mg/L	0.00216	21.33%
QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610†	8.8	0.0000 mg/L	0.00002	0.0000 mg/L	0.00002	75.21%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	71.6	0.0051 mg/L	0.00075	0.0051 mg/L	0.00075	14.70%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604†	78.1	0.0014 mg/L	0.00014	0.0014 mg/L	0.00014	10.10%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Na 589.592†	137.4	0.0071 mg/L	0.00343	0.0071 mg/L	0.00343	48.42%
QC value within limits for Na 589.592 Recovery = Not calculated						
Pb 220.353†	4.3	0.0006 mg/L	0.00096	0.0006 mg/L	0.00096	173.14%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	2.9	0.0024 mg/L	0.00024	0.0024 mg/L	0.00024	10.07%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-3.3	-0.0017 mg/L	0.00102	-0.0017 mg/L	0.00102	58.95%
QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	33.6	0.0064 mg/L	0.00165	0.0064 mg/L	0.00165	25.63%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 337.279†	894.0	0.0015 mg/L	0.00027	0.0015 mg/L	0.00027	18.14%
QC value within limits for Ti 337.279 Recovery = Not calculated						
Tl 190.801†	3.2	0.0017 mg/L	0.00193	0.0017 mg/L	0.00193	115.65%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	45.1	0.0004 mg/L	0.00036	0.0004 mg/L	0.00036	82.69%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	44.5	0.0012 mg/L	0.00018	0.0012 mg/L	0.00018	15.50%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	-1.3	-0.0041 mg/L	0.00887	-0.0041 mg/L	0.00887	217.30%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Sr 421.552†	118.2	0.0001 mg/L	0.00004	0.0001 mg/L	0.00004	32.59%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Al 237.313†	-54.9	-0.0163 mg/L	0.00376	-0.0163 mg/L	0.00376	23.02%
QC value within limits for Al 237.313 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 64
Sample ID: PBW-251307
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 73
Date Collected: 12/5/2015 5:30:38 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: PBW-251307

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3965549.8	1.004	mg/L	0.0086				0.86%
Ag 328.068†	-31.2	-0.0001	mg/L	0.00014				130.41%
As 188.979†	-1.2	-0.0008	mg/L	0.00139				168.60%
B 249.772†	7011.7	0.0716	mg/L	0.00246				3.43%
Ba 233.527†	9.0	0.0002	mg/L	0.00003				17.08%
Be 313.107†	-51.2	0.0000	mg/L	0.00005				290.40%
Cd 226.502†	-11.2	-0.0001	mg/L	0.00004				31.32%
Co 228.616†	14.0	0.0005	mg/L	0.00010				20.51%
Cr 267.716†	66.1	0.0005	mg/L	0.00005				9.53%

Cu 324.752†	904.5	0.0031	mg/L	0.00063	20.23%
Fe 259.939†	32.6	0.0009	mg/L	0.00025	27.89%
K 766.490†	708.6	0.1398	mg/L	0.00272	1.94%
Mg 279.077†	-9.4	-0.0011	mg/L	0.00482	419.50%
Mn 257.610†	1549.4	0.0041	mg/L	0.00004	0.93%
Mo 202.031†	27.9	0.0020	mg/L	0.00023	11.78%
Ni 231.604†	97.0	0.0017	mg/L	0.00009	5.06%
Na 589.592†	1569.1	0.0808	mg/L	0.00088	1.09%
Pb 220.353†	-2.9	-0.0004	mg/L	0.00075	196.46%
Sb 206.836†	-0.9	-0.0007	mg/L	0.00033	47.33%
Se 196.026†	-2.4	-0.0013	mg/L	0.00072	56.26%
Sn 189.927†	12.2	0.0023	mg/L	0.00116	49.46%
Ti 337.279†	699.9	0.0011	mg/L	0.00010	8.60%
Tl 190.801†	2.6	0.0014	mg/L	0.00043	31.63%
V 292.402†	15.4	0.0001	mg/L	0.00004	24.67%
Zn 206.200†	479.0	0.0125	mg/L	0.00029	2.32%
Ca 227.546†	87.2	0.2641	mg/L	0.01837	6.96%
Sr 421.552†	250.9	0.0003	mg/L	0.00001	4.45%
Al 237.313†	-14.1	-0.0043	mg/L	0.00311	72.65%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 65
Sample ID: LCSW-251307
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 74
Date Collected: 12/5/2015 5:36:20 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: LCSW-251307

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3947161.3	0.9991	mg/L	0.00135				0.14%
Ag 328.068†	14938.4	0.0515	mg/L	0.00064				1.24%
As 188.979†	63.5	0.0417	mg/L	0.00031				0.74%
B 249.772†	96539.0	0.9807	mg/L	0.00100				0.10%
Ba 233.527†	125434.8	2.128	mg/L	0.0059				0.28%
Be 313.107†	160807.2	0.0489	mg/L	0.00019				0.38%
Cd 226.502†	4739.6	0.0509	mg/L	0.00022				0.44%
Co 228.616†	15236.9	0.5169	mg/L	0.00034				0.06%
Cr 267.716†	27015.1	0.2118	mg/L	0.00043				0.20%
Cu 324.752†	78133.9	0.2701	mg/L	0.00103				0.38%
Fe 259.939†	38152.6	1.053	mg/L	0.0021				0.20%
K 766.490†	85889.6	16.95	mg/L	0.354				2.09%
Mg 279.077†	16357.9	1.996	mg/L	0.0088				0.44%
Mn 257.610†	198464.5	0.5216	mg/L	0.00095				0.18%
Mo 202.031†	6946.0	0.4965	mg/L	0.00119				0.24%
Ni 231.604†	29476.4	0.5281	mg/L	0.00168				0.32%
Na 589.592†	363695.4	18.73	mg/L	0.443				2.37%
Pb 220.353†	4001.0	0.5190	mg/L	0.00100				0.19%
Sb 206.836†	586.2	0.4713	mg/L	0.00094				0.20%
Se 196.026†	1906.6	0.9967	mg/L	0.00357				0.36%
Sn 189.927†	26912.5	5.157	mg/L	0.0120				0.23%
Ti 337.279†	302216.2	0.4956	mg/L	0.00059				0.12%
Tl 190.801†	3990.4	2.056	mg/L	0.0026				0.13%
V 292.402†	52283.1	0.5044	mg/L	0.00244				0.48%
Zn 206.200†	20229.2	0.5288	mg/L	0.00048				0.09%
Ca 227.546†	692.9	2.103	mg/L	0.0078				0.37%
Sr 421.552†	1962870.9	2.084	mg/L	0.0118				0.57%
Al 237.313†	6431.5	1.928	mg/L	0.0020				0.10%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 66
Sample ID: R1510352-001
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 75
Date Collected: 12/5/2015 5:42:06 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510352-001

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD

Analyte	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	Std.Dev.	RSD
Y 371.029	4071931.9	1.031	mg/L	0.0163				1.58%
Ag 328.068†	-5.2	0.0000	mg/L	0.00002				56.76%
As 188.979†	-0.2	-0.0002	mg/L	0.00177				742.09%
B 249.772†	4839.9	0.0482	mg/L	0.00177				3.67%
Ba 233.527†	698.7	0.0119	mg/L	0.00009				0.73%
Be 313.107†	359.3	0.0001	mg/L	0.00006				59.53%
Cd 226.502†	95.3	0.0010	mg/L	0.00013				13.08%
Co 228.616†	33.1	0.0011	mg/L	0.00006				5.17%
Cr 267.716†	174.6	0.0015	mg/L	0.00010				6.59%
Cu 324.752†	2316.4	0.0080	mg/L	0.00053				6.65%
Fe 259.939†	9744.8	0.2692	mg/L	0.01016				3.77%
K 766.490†	1312.8	0.2590	mg/L	0.00320				1.24%
Mg 279.077†	9680.2	1.183	mg/L	0.0331				2.80%
Mn 257.610†	7708.6	0.0203	mg/L	0.00055				2.71%
Mo 202.031†	29.5	0.0021	mg/L	0.00056				26.61%
Ni 231.604†	44.4	0.0008	mg/L	0.00019				24.15%
Na 589.592†	102351.3	5.272	mg/L	0.1472				2.79%
Pb 220.353†	548.9	0.0712	mg/L	0.00177				2.49%
Sb 206.836†	40.4	0.0325	mg/L	0.00062				1.92%
Se 196.026†	-4.5	-0.0023	mg/L	0.00107				45.79%
Sn 189.927†	-36.5	-0.0070	mg/L	0.00129				18.48%
Ti 337.279†	993.4	0.0016	mg/L	0.00002				1.26%
Tl 190.801†	0.7	0.0004	mg/L	0.00108				264.55%
V 292.402†	20.4	0.0002	mg/L	0.00009				39.60%
Zn 206.200†	2343.8	0.0613	mg/L	0.00098				1.59%
Ca 227.546†	1947.6	5.897	mg/L	0.1128				1.91%
Sr 421.552†	20430.3	0.0217	mg/L	0.00058				2.66%
Al 237.313†	255.3	0.0770	mg/L	0.00574				7.45%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 67 **Autosampler Location: 76**
Sample ID: R1510352-002 **Date Collected: 12/5/2015 5:48:18 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510352-002

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4145250.5	1.049	mg/L	0.0004				0.04%
Ag 328.068†	-81.4	-0.0003	mg/L	0.00003				7.85%
As 188.979†	0.4	0.0001	mg/L	0.00011				220.36%
B 249.772†	3249.2	0.0302	mg/L	0.00150				4.97%
Ba 233.527†	971.5	0.0165	mg/L	0.00003				0.16%
Be 313.107†	636.2	0.0002	mg/L	0.00002				9.13%
Cd 226.502†	68.2	0.0006	mg/L	0.00005				7.21%
Co 228.616†	21.3	0.0007	mg/L	0.00009				13.07%
Cr 267.716†	222.2	0.0019	mg/L	0.00006				3.22%
Cu 324.752†	3715.7	0.0128	mg/L	0.00012				0.93%
Fe 259.939†	24036.6	0.6639	mg/L	0.00338				0.51%
K 766.490†	2279.8	0.4498	mg/L	0.00017				0.04%
Mg 279.077†	20421.5	2.495	mg/L	0.0137				0.55%
Mn 257.610†	13862.5	0.0365	mg/L	0.00004				0.10%
Mo 202.031†	23.9	0.0017	mg/L	0.00043				25.03%
Ni 231.604†	28.0	0.0005	mg/L	0.00006				11.83%
Na 589.592†	171643.5	8.841	mg/L	0.0432				0.49%
Pb 220.353†	625.4	0.0812	mg/L	0.00062				0.76%
Sb 206.836†	-1.3	-0.0011	mg/L	0.00052				48.67%
Se 196.026†	-1.9	-0.0010	mg/L	0.00468				471.33%
Sn 189.927†	-103.7	-0.0199	mg/L	0.00031				1.54%
Ti 337.279†	1024.3	0.0017	mg/L	0.00048				28.60%
Tl 190.801†	0.4	0.0003	mg/L	0.00078				238.53%
V 292.402†	65.0	0.0007	mg/L	0.00030				44.43%
Zn 206.200†	513.2	0.0134	mg/L	0.00009				0.70%
Ca 227.546†	4422.5	13.39	mg/L	0.032				0.24%
Sr 421.552†	50436.2	0.0535	mg/L	0.00021				0.39%
Al 237.313†	377.1	0.1151	mg/L	0.00099				0.86%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 68
Sample ID: R1510352-003
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 77
Date Collected: 12/5/2015 5:53:58 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510352-003

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3941833.1	0.9977	mg/L	0.01081				1.08%
Ag 328.068†	68.7	0.0002	mg/L	0.00011				49.85%
As 188.979†	1.1	0.0005	mg/L	0.00032				64.06%
B 249.772†	2700.3	0.0240	mg/L	0.00070				2.91%
Ba 233.527†	1152.9	0.0196	mg/L	0.00012				0.62%
Be 313.107†	-99.9	0.0000	mg/L	0.00001				25.48%
Cd 226.502†	474.8	0.0050	mg/L	0.00014				2.71%
Co 228.616†	37.0	0.0013	mg/L	0.00006				5.17%
Cr 267.716†	135.7	0.0013	mg/L	0.00008				6.42%
Cu 324.752†	4169.3	0.0144	mg/L	0.00037				2.54%
Fe 259.939†	29772.2	0.8224	mg/L	0.00989				1.20%
K 766.490†	2393.7	0.4723	mg/L	0.00959				2.03%
Mg 279.077†	21195.8	2.589	mg/L	0.0379				1.46%
Mn 257.610†	14446.6	0.0381	mg/L	0.00055				1.45%
Mo 202.031†	29.7	0.0021	mg/L	0.00012				5.81%
Ni 231.604†	38.5	0.0007	mg/L	0.00022				32.24%
Na 589.592†	176524.3	9.092	mg/L	0.1258				1.38%
Pb 220.353†	332.0	0.0431	mg/L	0.00118				2.74%
Sb 206.836†	0.2	0.0002	mg/L	0.00023				146.66%
Se 196.026†	-6.2	-0.0032	mg/L	0.00032				10.05%
Sn 189.927†	-109.8	-0.0210	mg/L	0.00009				0.44%
Ti 337.279†	730.2	0.0012	mg/L	0.00017				14.41%
Tl 190.801†	0.8	0.0005	mg/L	0.00107				204.28%
V 292.402†	49.3	0.0005	mg/L	0.00002				2.99%
Zn 206.200†	802.2	0.0210	mg/L	0.00035				1.65%
Ca 227.546†	4509.2	13.66	mg/L	0.135				0.99%
Sr 421.552†	54399.4	0.0577	mg/L	0.00089				1.54%
Al 237.313†	274.3	0.0862	mg/L	0.00051				0.59%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 69
Sample ID: R1510352-003L
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 78
Date Collected: 12/5/2015 5:59:41 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510352-003L

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4022649.6	1.018	mg/L	0.0031				0.30%
Ag 328.068†	-101.6	-0.0004	mg/L	0.00039				108.44%
As 188.979†	-0.6	-0.0005	mg/L	0.00006				12.91%
B 249.772†	1078.8	0.0103	mg/L	0.00049				4.75%
Ba 233.527†	266.4	0.0045	mg/L	0.00012				2.71%
Be 313.107†	338.1	0.0001	mg/L	0.00001				12.18%
Cd 226.502†	112.7	0.0012	mg/L	0.00008				6.43%
Co 228.616†	11.6	0.0004	mg/L	0.00006				15.68%
Cr 267.716†	56.8	0.0005	mg/L	0.00002				3.81%
Cu 324.752†	673.0	0.0023	mg/L	0.00006				2.43%
Fe 259.939†	6003.1	0.1658	mg/L	0.00180				1.09%
K 766.490†	520.0	0.1026	mg/L	0.00853				8.32%
Mg 279.077†	4361.5	0.5327	mg/L	0.01279				2.40%
Mn 257.610†	2950.0	0.0078	mg/L	0.00001				0.16%
Mo 202.031†	-0.1	0.0000	mg/L	0.00003				516.57%
Ni 231.604†	13.5	0.0002	mg/L	0.00007				30.29%
Na 589.592†	36522.1	1.881	mg/L	0.0019				0.10%
Pb 220.353†	54.7	0.0071	mg/L	0.00163				22.90%
Sb 206.836†	-3.9	-0.0031	mg/L	0.00042				13.47%
Se 196.026†	-7.0	-0.0036	mg/L	0.00172				47.33%

Sn 189.927†	-36.6	-0.0070	mg/L	0.00024	3.44%
Ti 337.279†	94.9	0.0002	mg/L	0.00004	27.68%
Tl 190.801†	1.4	0.0008	mg/L	0.00099	130.24%
V 292.402†	18.3	0.0002	mg/L	0.00032	171.18%
Zn 206.200†	2566.4	0.0671	mg/L	0.00024	0.35%
Ca 227.546†	1004.0	3.040	mg/L	0.0163	0.54%
Sr 421.552†	11055.1	0.0117	mg/L	0.00013	1.13%
Al 237.313†	86.4	0.0266	mg/L	0.00167	6.27%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 70 **Autosampler Location: 79**
Sample ID: PBW-250814 **Date Collected: 12/5/2015 6:05:24 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: PBW-250814

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	4118363.5	1.042	mg/L	0.0055				0.52%
Ag 328.068†	-191.9	-0.0007	mg/L	0.00005				7.31%
As 188.979†	-0.2	-0.0001	mg/L	0.00108				748.84%
B 249.772†	444.4	0.0045	mg/L	0.00021				4.59%
Ba 233.527†	61.4	0.0010	mg/L	0.00009				8.22%
Be 313.107†	350.7	0.0001	mg/L	0.00004				38.55%
Cd 226.502†	47.0	0.0005	mg/L	0.00007				14.32%
Co 228.616†	9.8	0.0003	mg/L	0.00001				4.22%
Cr 267.716†	49.1	0.0004	mg/L	0.00007				18.09%
Cu 324.752†	-253.5	-0.0009	mg/L	0.00014				16.15%
Fe 259.939†	156.0	0.0043	mg/L	0.00043				10.09%
K 766.490†	-16.0	-0.0032	mg/L	0.00358				113.56%
Mg 279.077†	286.8	0.0350	mg/L	0.00153				4.38%
Mn 257.610†	150.7	0.0004	mg/L	0.00002				5.81%
Mo 202.031†	-5.0	-0.0004	mg/L	0.00011				30.11%
Ni 231.604†	1.4	0.0000	mg/L	0.00012				456.40%
Na 589.592†	156.2	0.0080	mg/L	0.00771				95.79%
Pb 220.353†	-20.3	-0.0026	mg/L	0.00108				40.89%
Sb 206.836†	-3.5	-0.0028	mg/L	0.00015				5.39%
Se 196.026†	2.3	0.0012	mg/L	0.00033				27.20%
Sn 189.927†	-28.2	-0.0054	mg/L	0.00003				0.48%
Ti 337.279†	-80.6	-0.0001	mg/L	0.00014				108.70%
Tl 190.801†	3.7	0.0019	mg/L	0.00003				1.72%
V 292.402†	30.9	0.0003	mg/L	0.00017				56.93%
Zn 206.200†	-0.0	0.0000	mg/L	0.00015				>999.9%
Ca 227.546†	-2.5	-0.0075	mg/L	0.00169				22.61%
Sr 421.552†	-68.8	-0.0001	mg/L	0.00001				10.35%
Al 237.313†	88.5	0.0264	mg/L	0.00109				4.14%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 71 **Autosampler Location: 80**
Sample ID: LCSW-250814 **Date Collected: 12/5/2015 6:11:03 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: LCSW-250814

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	3998565.4	1.012	mg/L	0.0043				0.42%
Ag 328.068†	15366.2	0.0530	mg/L	0.00023				0.44%
As 188.979†	63.1	0.0414	mg/L	0.00024				0.57%
B 249.772†	94167.6	0.9564	mg/L	0.01786				1.87%
Ba 233.527†	127496.4	2.163	mg/L	0.0156				0.72%
Be 313.107†	162358.4	0.0493	mg/L	0.00046				0.93%
Cd 226.502†	4857.5	0.0522	mg/L	0.00046				0.88%
Co 228.616†	15446.3	0.5240	mg/L	0.00453				0.86%
Cr 267.716†	27364.1	0.2145	mg/L	0.00168				0.79%
Cu 324.752†	78824.9	0.2725	mg/L	0.00358				1.32%

Fe 259.939†	38659.5	1.067	mg/L	0.0110		1.03%
K 766.490†	89407.1	17.64	mg/L	0.033		0.19%
Mg 279.077†	16616.8	2.028	mg/L	0.0235		1.16%
Mn 257.610†	201189.9	0.5287	mg/L	0.00563		1.06%
Mo 202.031†	6790.5	0.4854	mg/L	0.01246		2.57%
Ni 231.604†	29696.6	0.5320	mg/L	0.00592		1.11%
Na 589.592†	377047.6	19.42	mg/L	0.069		0.36%
Pb 220.353†	4082.0	0.5296	mg/L	0.00497		0.94%
Sb 206.836†	563.8	0.4532	mg/L	0.00365		0.81%
Se 196.026†	1899.5	0.9930	mg/L	0.00861		0.87%
Sn 189.927†	28384.3	5.439	mg/L	0.0507		0.93%
Ti 337.279†	299870.6	0.4917	mg/L	0.00672		1.37%
Tl 190.801†	4086.8	2.106	mg/L	0.0190		0.90%
V 292.402†	52916.2	0.5105	mg/L	0.00551		1.08%
Zn 206.200†	20129.8	0.5262	mg/L	0.00447		0.85%
Ca 227.546†	687.3	2.086	mg/L	0.0023		0.11%
Sr 421.552†	1739909.7	1.847	mg/L	0.0272		1.47%
Al 237.313†	6445.2	1.932	mg/L	0.0226		1.17%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 72
Sample ID: R1509791-005
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 81
Date Collected: 12/5/2015 6:16:50 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509791-005

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3951250.4	1.000	mg/L	0.0057				0.57%
Ag 328.068†	56.7	-0.0001	mg/L	0.00008				86.08%
As 188.979†	2.3	0.0010	mg/L	0.00106				104.43%
B 249.772†	13002.9	0.1292	mg/L	0.00252				1.95%
Ba 233.527†	10884.7	0.1846	mg/L	0.00288				1.56%
Be 313.107†	-25.9	0.0000	mg/L	0.00005				647.99%
Cd 226.502†	23.4	0.0001	mg/L	0.00006				44.06%
Co 228.616†	-3.6	-0.0001	mg/L	0.00001				11.22%
Cr 267.716†	-45.1	0.0002	mg/L	0.00011				53.79%
Cu 324.752†	379.8	0.0013	mg/L	0.00042				32.29%
Fe 259.939†	29293.9	0.8091	mg/L	0.01472				1.82%
K 766.490†	29276.6	5.777	mg/L	0.0076				0.13%
Mg 279.077†	61669.8	7.538	mg/L	0.1681				2.23%
Mn 257.610†	70563.2	0.1855	mg/L	0.00313				1.69%
Mo 202.031†	19.8	0.0014	mg/L	0.00069				48.81%
Ni 231.604†	9.8	0.0002	mg/L	0.00005				27.73%
Na 589.592†	542015.2	27.92	mg/L	0.039				0.14%
Pb 220.353†	-1.9	-0.0001	mg/L	0.00025				280.84%
Sb 206.836†	-2.2	-0.0018	mg/L	0.00407				229.74%
Se 196.026†	-9.3	-0.0048	mg/L	0.00095				19.65%
Sn 189.927†	-163.2	-0.0313	mg/L	0.00043				1.37%
Ti 337.279†	1545.5	0.0025	mg/L	0.00016				6.45%
Tl 190.801†	3.9	0.0022	mg/L	0.00123				55.66%
V 292.402†	80.4	0.0008	mg/L	0.00008				9.52%
Zn 206.200†	40.7	0.0011	mg/L	0.00032				29.74%
Ca 227.546†	12204.3	36.95	mg/L	1.013				2.74%
Sr 421.552†	907297.8	0.9631	mg/L	0.00851				0.88%
Al 237.313†	934.0	0.2738	mg/L	0.00132				0.48%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 73
Sample ID: R1509791-006
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 82
Date Collected: 12/5/2015 6:22:34 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509791-006

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD

Y 371.029	3954739.6	1.001 mg/L	0.0102	1.02%
Ag 328.068†	240.0	0.0004 mg/L	0.00010	25.93%
As 188.979†	2.8	0.0013 mg/L	0.00117	88.30%
B 249.772†	2979.0	0.0303 mg/L	0.00019	0.64%
Ba 233.527†	5789.3	0.0982 mg/L	0.00130	1.33%
Be 313.107†	-195.4	-0.0001 mg/L	0.00002	35.83%
Cd 226.502†	12.9	0.0001 mg/L	0.00021	155.20%
Co 228.616†	-15.2	-0.0005 mg/L	0.00019	36.51%
Cr 267.716†	-50.8	-0.0002 mg/L	0.00012	64.33%
Cu 324.752†	-41.2	-0.0001 mg/L	0.00015	102.99%
Fe 259.939†	1004.7	0.0278 mg/L	0.00139	5.00%
K 766.490†	7522.4	1.484 mg/L	0.0044	0.29%
Mg 279.077†	36668.1	4.484 mg/L	0.0660	1.47%
Mn 257.610†	40526.8	0.1065 mg/L	0.00180	1.69%
Mo 202.031†	6.9	0.0005 mg/L	0.00041	84.58%
Ni 231.604†	-17.8	-0.0003 mg/L	0.00005	14.19%
Na 589.592†	108173.6	5.572 mg/L	0.0896	1.61%
Pb 220.353†	-13.7	-0.0015 mg/L	0.00063	42.29%
Sb 206.836†	-4.3	-0.0035 mg/L	0.00147	42.41%
Se 196.026†	-14.2	-0.0073 mg/L	0.00381	52.27%
Sn 189.927†	-193.0	-0.0370 mg/L	0.00027	0.74%
Ti 337.279†	42.6	0.0001 mg/L	0.00006	84.06%
Tl 190.801†	5.5	0.0029 mg/L	0.00047	16.22%
V 292.402†	-9.2	-0.0001 mg/L	0.00017	195.28%
Zn 206.200†	44.0	0.0012 mg/L	0.00019	16.61%
Ca 227.546†	13389.1	40.53 mg/L	0.690	1.70%
Sr 421.552†	226565.5	0.2405 mg/L	0.00350	1.45%
Al 237.313†	-8.3	-0.0174 mg/L	0.00898	51.57%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 74 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 12/5/2015 6:28:17 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3888338.0	0.9842	mg/L	0.00178				0.18%
Ag 328.068†	149940.4	0.5164	mg/L	0.00136	0.5164	mg/L	0.00136	0.26%
QC value within limits for Ag 328.068 Recovery = 103.28%								
As 188.979†	1526.4	1.004	mg/L	0.0099	1.004	mg/L	0.0099	0.98%
QC value within limits for As 188.979 Recovery = 100.37%								
B 249.772†	242191.2	2.448	mg/L	0.0073	2.448	mg/L	0.0073	0.30%
QC value within limits for B 249.772 Recovery = 97.92%								
Ba 233.527†	616325.3	10.45	mg/L	0.030	10.45	mg/L	0.030	0.28%
QC value within limits for Ba 233.527 Recovery = 104.55%								
Be 313.107†	829304.9	0.2520	mg/L	0.00425	0.2520	mg/L	0.00425	1.69%
QC value within limits for Be 313.107 Recovery = 100.81%								
Cd 226.502†	48269.2	0.5191	mg/L	0.00177	0.5191	mg/L	0.00177	0.34%
QC value within limits for Cd 226.502 Recovery = 103.82%								
Co 228.616†	76110.6	2.582	mg/L	0.0057	2.582	mg/L	0.0057	0.22%
QC value within limits for Co 228.616 Recovery = 103.28%								
Cr 267.716†	68260.3	0.5370	mg/L	0.00133	0.5370	mg/L	0.00133	0.25%
QC value within limits for Cr 267.716 Recovery = 107.40%								
Cu 324.752†	365975.9	1.265	mg/L	0.0005	1.265	mg/L	0.0005	0.04%
QC value within limits for Cu 324.752 Recovery = 101.20%								
Fe 259.939†	189472.1	5.231	mg/L	0.0083	5.231	mg/L	0.0083	0.16%
QC value within limits for Fe 259.939 Recovery = 104.63%								
K 766.490†	117152.3	23.12	mg/L	0.057	23.12	mg/L	0.057	0.25%
QC value within limits for K 766.490 Recovery = 92.47%								
Mg 279.077†	211439.7	25.83	mg/L	0.070	25.83	mg/L	0.070	0.27%
QC value within limits for Mg 279.077 Recovery = 103.34%								
Mn 257.610†	301790.0	0.7938	mg/L	0.00206	0.7938	mg/L	0.00206	0.26%
QC value within limits for Mn 257.610 Recovery = 105.84%								
Mo 202.031†	35042.0	2.505	mg/L	0.0056	2.505	mg/L	0.0056	0.22%
QC value within limits for Mo 202.031 Recovery = 100.20%								
Ni 231.604†	118704.7	2.127	mg/L	0.0021	2.127	mg/L	0.0021	0.10%
QC value within limits for Ni 231.604 Recovery = 106.33%								

Na 589.592†	458487.2	23.62 mg/L	0.048	23.62 mg/L	0.048	0.20%
QC value within limits for Na 589.592 Recovery = 94.46%						
Pb 220.353†	4002.9	0.5185 mg/L	0.00233	0.5185 mg/L	0.00233	0.45%
QC value within limits for Pb 220.353 Recovery = 103.69%						
Sb 206.836†	6194.1	4.980 mg/L	0.0285	4.980 mg/L	0.0285	0.57%
QC value within limits for Sb 206.836 Recovery = 99.61%						
Se 196.026†	957.7	0.5003 mg/L	0.00073	0.5003 mg/L	0.00073	0.15%
QC value within limits for Se 196.026 Recovery = 100.05%						
Sn 189.927†	27110.7	5.195 mg/L	0.0343	5.195 mg/L	0.0343	0.66%
QC value within limits for Sn 189.927 Recovery = 103.90%						
Ti 337.279†	1532524.2	2.513 mg/L	0.0389	2.513 mg/L	0.0389	1.55%
QC value within limits for Ti 337.279 Recovery = 100.52%						
Tl 190.801†	2048.5	1.056 mg/L	0.0076	1.056 mg/L	0.0076	0.72%
QC value within limits for Tl 190.801 Recovery = 105.64%						
V 292.402†	259821.7	2.507 mg/L	0.0074	2.507 mg/L	0.0074	0.29%
QC value within limits for V 292.402 Recovery = 100.27%						
Zn 206.200†	40097.2	1.048 mg/L	0.0013	1.048 mg/L	0.0013	0.12%
QC value within limits for Zn 206.200 Recovery = 104.82%						
Ca 227.546†	8508.1	25.78 mg/L	0.188	25.78 mg/L	0.188	0.73%
QC value within limits for Ca 227.546 Recovery = 103.14%						
Sr 421.552†	2281227.6	2.422 mg/L	0.0467	2.422 mg/L	0.0467	1.93%
QC value within limits for Sr 421.552 Recovery = 96.86%						
Al 237.313†	33476.8	10.03 mg/L	0.040	10.03 mg/L	0.040	0.40%
QC value within limits for Al 237.313 Recovery = 100.25%						

All analyte(s) passed QC.

Sequence No.: 75 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 12/5/2015 6:34:04 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	4028018.1	1.020	mg/L	0.0066				0.65%
Ag 328.068†	5.0	0.0000	mg/L	0.00009	0.0000	mg/L	0.00009	513.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	0.0	0.0000	mg/L	0.00059	0.0000	mg/L	0.00059	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	2225.2	0.0227	mg/L	0.00245	0.0227	mg/L	0.00245	10.79%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	56.6	0.0010	mg/L	0.00017	0.0010	mg/L	0.00017	17.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	525.0	0.0002	mg/L	0.00001	0.0002	mg/L	0.00001	7.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	37.7	0.0004	mg/L	0.00005	0.0004	mg/L	0.00005	12.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	19.7	0.0007	mg/L	0.00004	0.0007	mg/L	0.00004	5.63%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	16.8	0.0001	mg/L	0.00001	0.0001	mg/L	0.00001	8.82%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	532.6	0.0018	mg/L	0.00054	0.0018	mg/L	0.00054	29.60%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	47.3	0.0013	mg/L	0.00004	0.0013	mg/L	0.00004	2.74%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	2.7	0.0005	mg/L	0.02202	0.0005	mg/L	0.02202	>999.9%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	74.6	0.0091	mg/L	0.00024	0.0091	mg/L	0.00024	2.66%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	39.9	0.0001	mg/L	0.00004	0.0001	mg/L	0.00004	36.23%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	54.4	0.0039	mg/L	0.00078	0.0039	mg/L	0.00078	20.16%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	19.8	0.0004	mg/L	0.00020	0.0004	mg/L	0.00020	56.79%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	141.6	0.0073	mg/L	0.00029	0.0073	mg/L	0.00029	3.96%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	-4.9	-0.0006	mg/L	0.00104	-0.0006	mg/L	0.00104	163.86%
QC value within limits for Pb 220.353 Recovery = Not calculated								

Sb 206.836†	-0.2	-0.0002 mg/L	0.00057	-0.0002 mg/L	0.00057	315.67%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-0.2	-0.0001 mg/L	0.00064	-0.0001 mg/L	0.00064	802.69%
QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	25.1	0.0048 mg/L	0.00145	0.0048 mg/L	0.00145	30.17%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 337.279†	819.5	0.0013 mg/L	0.00032	0.0013 mg/L	0.00032	23.86%
QC value within limits for Ti 337.279 Recovery = Not calculated						
Tl 190.801†	4.5	0.0023 mg/L	0.00061	0.0023 mg/L	0.00061	26.12%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	8.0	0.0001 mg/L	0.00012	0.0001 mg/L	0.00012	161.06%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	-15.5	-0.0004 mg/L	0.00007	-0.0004 mg/L	0.00007	16.64%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	1.1	0.0033 mg/L	0.00821	0.0033 mg/L	0.00821	251.92%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Sr 421.552†	220.8	0.0002 mg/L	0.00002	0.0002 mg/L	0.00002	9.59%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Al 237.313†	33.7	0.0101 mg/L	0.00097	0.0101 mg/L	0.00097	9.64%
QC value within limits for Al 237.313 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 76
Sample ID: R1509791-006D
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 83
Date Collected: 12/5/2015 6:39:48 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509791-006D

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3972022.1	1.005	mg/L	0.0031				0.31%
Ag 328.068†	176.7	0.0002	mg/L	0.00031				197.25%
As 188.979†	5.7	0.0032	mg/L	0.00011				3.48%
B 249.772†	3836.5	0.0390	mg/L	0.00048				1.24%
Ba 233.527†	5887.3	0.0999	mg/L	0.00001				0.01%
Be 313.107†	-246.1	-0.0001	mg/L	0.00003				44.15%
Cd 226.502†	11.0	0.0001	mg/L	0.00015				131.50%
Co 228.616†	-10.8	-0.0004	mg/L	0.00010				28.01%
Cr 267.716†	-22.9	0.0000	mg/L	0.00001				16.82%
Cu 324.752†	209.8	0.0007	mg/L	0.00021				29.55%
Fe 259.939†	1110.1	0.0307	mg/L	0.00050				1.63%
K 766.490†	7749.3	1.529	mg/L	0.0359				2.35%
Mg 279.077†	36354.5	4.445	mg/L	0.0520				1.17%
Mn 257.610†	40462.1	0.1063	mg/L	0.00128				1.21%
Mo 202.031†	24.5	0.0018	mg/L	0.00037				21.27%
Ni 231.604†	-16.0	-0.0003	mg/L	0.00001				5.09%
Na 589.592†	112236.0	5.781	mg/L	0.0376				0.65%
Pb 220.353†	-15.1	-0.0017	mg/L	0.00094				56.39%
Sb 206.836†	-1.1	-0.0009	mg/L	0.00125				138.89%
Se 196.026†	-9.0	-0.0046	mg/L	0.00266				58.15%
Sn 189.927†	-170.8	-0.0327	mg/L	0.00082				2.50%
Ti 337.279†	413.8	0.0007	mg/L	0.00012				18.35%
Tl 190.801†	2.2	0.0012	mg/L	0.00151				123.82%
V 292.402†	14.6	0.0001	mg/L	0.00026				181.39%
Zn 206.200†	-2.6	-0.0001	mg/L	0.00002				23.76%
Ca 227.546†	13273.6	40.18	mg/L	0.700				1.74%
Sr 421.552†	236509.9	0.2511	mg/L	0.00166				0.66%
Al 237.313†	15.1	-0.0103	mg/L	0.00451				44.03%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 77
Sample ID: R1509791-006S
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 84
Date Collected: 12/5/2015 6:45:26 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509791-006S

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3971513.4	1.005	mg/L	0.0002				0.02%
Ag 328.068†	15312.7	0.0524	mg/L	0.00049				0.93%
As 188.979†	70.2	0.0456	mg/L	0.00111				2.43%
B 249.772†	100668.4	1.023	mg/L	0.0036				0.35%
Ba 233.527†	133361.9	2.262	mg/L	0.0397				1.75%
Be 313.107†	166681.2	0.0507	mg/L	0.00090				1.78%
Cd 226.502†	4751.9	0.0510	mg/L	0.00001				0.01%
Co 228.616†	15325.2	0.5199	mg/L	0.00787				1.51%
Cr 267.716†	27535.7	0.2160	mg/L	0.00389				1.80%
Cu 324.752†	78219.3	0.2704	mg/L	0.00053				0.20%
Fe 259.939†	40061.7	1.106	mg/L	0.0139				1.26%
K 766.490†	101628.9	20.05	mg/L	0.059				0.29%
Mg 279.077†	53200.8	6.501	mg/L	0.0822				1.26%
Mn 257.610†	242810.6	0.6381	mg/L	0.00975				1.53%
Mo 202.031†	6965.9	0.4979	mg/L	0.00346				0.69%
Ni 231.604†	29265.5	0.5243	mg/L	0.00852				1.62%
Na 589.592†	503956.9	25.96	mg/L	0.094				0.36%
Pb 220.353†	4025.9	0.5226	mg/L	0.00022				0.04%
Sb 206.836†	588.7	0.4733	mg/L	0.00201				0.42%
Se 196.026†	1888.6	0.9874	mg/L	0.00142				0.14%
Sn 189.927†	28383.6	5.439	mg/L	0.1056				1.94%
Ti 337.279†	305404.5	0.5008	mg/L	0.00487				0.97%
Tl 190.801†	4022.0	2.072	mg/L	0.0099				0.48%
V 292.402†	54062.3	0.5216	mg/L	0.00718				1.38%
Zn 206.200†	19438.9	0.5082	mg/L	0.01177				2.32%
Ca 227.546†	14500.5	43.90	mg/L	0.285				0.65%
Sr 421.552†	2156206.7	2.289	mg/L	0.0008				0.04%
Al 237.313†	6741.3	2.005	mg/L	0.0034				0.17%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 78
Sample ID: R1509761-006A
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 85
Date Collected: 12/5/2015 6:51:18 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509761-006A

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3989572.8	1.010	mg/L	0.0005				0.05%
Ag 328.068†	44686.7	0.1534	mg/L	0.00041				0.27%
As 188.979†	63.9	0.0415	mg/L	0.00031				0.75%
B 249.772†	100724.7	1.024	mg/L	0.0034				0.33%
Ba 233.527†	119109.8	2.020	mg/L	0.0143				0.71%
Be 313.107†	148951.5	0.0453	mg/L	0.00028				0.62%
Cd 226.502†	4307.6	0.0462	mg/L	0.00027				0.58%
Co 228.616†	13406.3	0.4548	mg/L	0.00328				0.72%
Cr 267.716†	24493.3	0.1922	mg/L	0.00183				0.95%
Cu 324.752†	69875.4	0.2415	mg/L	0.00059				0.24%
Fe 259.939†	36166.5	0.9986	mg/L	0.00153				0.15%
K 766.490†	98060.1	19.35	mg/L	0.234				1.21%
Mg 279.077†	50030.5	6.114	mg/L	0.0310				0.51%
Mn 257.610†	218929.3	0.5753	mg/L	0.00260				0.45%
Mo 202.031†	6959.1	0.4975	mg/L	0.00270				0.54%
Ni 231.604†	26098.0	0.4675	mg/L	0.00405				0.87%
Na 589.592†	446067.0	22.98	mg/L	0.296				1.29%
Pb 220.353†	3635.9	0.4720	mg/L	0.00465				0.99%
Sb 206.836†	628.2	0.5051	mg/L	0.00382				0.76%
Se 196.026†	1930.4	1.009	mg/L	0.0007				0.07%
Sn 189.927†	27710.2	5.310	mg/L	0.0190				0.36%
Ti 337.279†	304057.2	0.4986	mg/L	0.00024				0.05%
Tl 190.801†	3682.6	1.898	mg/L	0.0122				0.64%
V 292.402†	48050.6	0.4636	mg/L	0.00348				0.75%
Zn 206.200†	18070.1	0.4724	mg/L	0.00417				0.88%
Ca 227.546†	13727.6	41.56	mg/L	0.020				0.05%
Sr 421.552†	223582.1	0.2373	mg/L	0.00300				1.26%
Al 237.313†	6094.9	1.812	mg/L	0.0011				0.06%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 79
Sample ID: R1509791-006L
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 86
Date Collected: 12/5/2015 6:57:03 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509791-006L

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	4034510.8	1.021	mg/L	0.0059				0.57%
Ag 328.068†	70.0	0.0002	mg/L	0.00048				318.44%
As 188.979†	-0.6	-0.0005	mg/L	0.00088				174.39%
B 249.772†	2027.9	0.0207	mg/L	0.00145				6.99%
Ba 233.527†	1217.8	0.0207	mg/L	0.00003				0.15%
Be 313.107†	-82.8	0.0000	mg/L	0.00001				54.03%
Cd 226.502†	29.8	0.0003	mg/L	0.00002				5.57%
Co 228.616†	0.3	0.0000	mg/L	0.00001				108.80%
Cr 267.716†	43.9	0.0004	mg/L	0.00000				0.80%
Cu 324.752†	135.4	0.0005	mg/L	0.00010				20.69%
Fe 259.939†	245.1	0.0068	mg/L	0.00061				9.09%
K 766.490†	1310.2	0.2585	mg/L	0.00951				3.68%
Mg 279.077†	7644.1	0.9347	mg/L	0.00094				0.10%
Mn 257.610†	8333.0	0.0219	mg/L	0.00012				0.54%
Mo 202.031†	15.9	0.0011	mg/L	0.00016				14.19%
Ni 231.604†	-14.0	-0.0003	mg/L	0.00010				40.65%
Na 589.592†	21182.5	1.091	mg/L	0.0266				2.44%
Pb 220.353†	-18.5	-0.0023	mg/L	0.00088				37.49%
Sb 206.836†	-3.0	-0.0024	mg/L	0.00140				58.48%
Se 196.026†	1.3	0.0007	mg/L	0.00073				105.78%
Sn 189.927†	-39.7	-0.0076	mg/L	0.00131				17.17%
Ti 337.279†	283.7	0.0005	mg/L	0.00008				17.56%
Tl 190.801†	4.5	0.0024	mg/L	0.00073				30.97%
V 292.402†	24.1	0.0002	mg/L	0.00034				145.39%
Zn 206.200†	444.0	0.0116	mg/L	0.00006				0.54%
Ca 227.546†	2638.9	7.989	mg/L	0.0288				0.36%
Sr 421.552†	45477.0	0.0483	mg/L	0.00076				1.58%
Al 237.313†	49.1	0.0117	mg/L	0.00332				28.41%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 80
Sample ID: R1509791-007
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 87
Date Collected: 12/5/2015 7:02:44 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509791-007

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	3960354.2	1.002	mg/L	0.0079				0.79%
Ag 328.068†	-22.0	-0.0001	mg/L	0.00022				283.83%
As 188.979†	-1.1	-0.0007	mg/L	0.00181				243.40%
B 249.772†	220.4	0.0023	mg/L	0.00040				17.69%
Ba 233.527†	-43.1	-0.0007	mg/L	0.00012				16.94%
Be 313.107†	-420.1	-0.0001	mg/L	0.00001				4.67%
Cd 226.502†	-26.0	-0.0003	mg/L	0.00006				19.96%
Co 228.616†	-7.2	-0.0002	mg/L	0.00004				17.25%
Cr 267.716†	35.6	0.0003	mg/L	0.00009				33.99%
Cu 324.752†	-12.6	0.0000	mg/L	0.00016				363.44%
Fe 259.939†	-216.5	-0.0060	mg/L	0.00099				16.51%
K 766.490†	71.9	0.0142	mg/L	0.00545				38.39%
Mg 279.077†	-276.9	-0.0338	mg/L	0.00548				16.19%
Mn 257.610†	-41.7	-0.0001	mg/L	0.00003				29.63%
Mo 202.031†	1.4	0.0001	mg/L	0.00020				199.06%
Ni 231.604†	-22.1	-0.0004	mg/L	0.00000				0.79%
Na 589.592†	291.0	0.0150	mg/L	0.00280				18.69%
Pb 220.353†	-2.9	-0.0004	mg/L	0.00016				43.27%
Sb 206.836†	-2.0	-0.0016	mg/L	0.00102				62.31%

Se 196.026†	-1.6	-0.0008	mg/L	0.00273	331.38%
Sn 189.927†	-19.3	-0.0037	mg/L	0.00000	0.05%
Ti 337.279†	116.1	0.0002	mg/L	0.00004	21.41%
Tl 190.801†	3.0	0.0015	mg/L	0.00173	113.19%
V 292.402†	26.4	0.0003	mg/L	0.00014	54.89%
Zn 206.200†	-4.5	-0.0001	mg/L	0.00023	195.39%
Ca 227.546†	3.4	0.0103	mg/L	0.00392	38.06%
Sr 421.552†	-26.6	0.0000	mg/L	0.00005	178.85%
Al 237.313†	-57.2	-0.0171	mg/L	0.00382	22.34%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 81 **Autosampler Location: 88**
Sample ID: R1509791-008 **Date Collected: 12/5/2015 7:08:27 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1509791-008

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3917365.6	0.9915	mg/L	0.00752				0.76%
Ag 328.068†	140.5	0.0002	mg/L	0.00006				31.17%
As 188.979†	3.5	0.0018	mg/L	0.00124				69.83%
B 249.772†	15202.3	0.1516	mg/L	0.00232				1.53%
Ba 233.527†	11175.4	0.1896	mg/L	0.00007				0.04%
Be 313.107†	-94.0	0.0000	mg/L	0.00000				1.81%
Cd 226.502†	-0.7	-0.0001	mg/L	0.00017				130.68%
Co 228.616†	-6.1	-0.0002	mg/L	0.00026				126.18%
Cr 267.716†	-70.0	0.0000	mg/L	0.00010				>999.9%
Cu 324.752†	318.3	0.0011	mg/L	0.00020				18.03%
Fe 259.939†	29327.6	0.8100	mg/L	0.00131				0.16%
K 766.490†	25536.4	5.039	mg/L	0.1681				3.34%
Mg 279.077†	62394.9	7.626	mg/L	0.0327				0.43%
Mn 257.610†	72623.7	0.1909	mg/L	0.00010				0.05%
Mo 202.031†	6.7	0.0005	mg/L	0.00015				31.40%
Ni 231.604†	1.6	0.0000	mg/L	0.00029				>999.9%
Na 589.592†	506458.0	26.09	mg/L	0.952				3.65%
Pb 220.353†	2.3	0.0005	mg/L	0.00010				21.99%
Sb 206.836†	-1.2	-0.0010	mg/L	0.00008				7.80%
Se 196.026†	-9.2	-0.0048	mg/L	0.00118				24.67%
Sn 189.927†	-184.8	-0.0354	mg/L	0.00188				5.30%
Ti 337.279†	1151.5	0.0019	mg/L	0.00007				3.46%
Tl 190.801†	-0.5	0.0000	mg/L	0.00060				>999.9%
V 292.402†	81.9	0.0009	mg/L	0.00020				22.89%
Zn 206.200†	45.8	0.0012	mg/L	0.00015				12.65%
Ca 227.546†	12488.2	37.81	mg/L	0.022				0.06%
Sr 421.552†	912050.0	0.9682	mg/L	0.02451				2.53%
Al 237.313†	869.8	0.2544	mg/L	0.00643				2.53%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 82 **Autosampler Location: 89**
Sample ID: R1510112-001 **Date Collected: 12/5/2015 7:14:14 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510112-001

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3699149.3	0.9363	mg/L	0.00212				0.23%
Ag 328.068†	237.2	-0.0010	mg/L	0.00001				1.47%
As 188.979†	8.2	0.0023	mg/L	0.00016				7.11%
B 249.772†	10003.2	0.0997	mg/L	0.00404				4.05%
Ba 233.527†	1476.1	0.0250	mg/L	0.00014				0.55%
Be 313.107†	-996.0	-0.0003	mg/L	0.00004				12.95%
Cd 226.502†	-55.5	-0.0007	mg/L	0.00004				5.32%
Co 228.616†	-33.9	-0.0012	mg/L	0.00015				13.43%
Cr 267.716†	-1304.2	-0.0032	mg/L	0.00013				4.22%

Cu 324.752†	299.1	0.0010	mg/L	0.00003		2.76%
Fe 259.939†	20524.4	0.5670	mg/L	0.00110		0.19%
K 766.490†	14584.2	2.878	mg/L	0.0050		0.17%
Mg 279.077†	686451.0	83.93	mg/L	0.699		0.83%
Mn 257.610†	1977.7	0.0053	mg/L	0.00004		0.66%
Mo 202.031†	-4.6	-0.0003	mg/L	0.00043		132.88%
Ni 231.604†	7.1	0.0001	mg/L	0.00011		82.68%
Na 589.592†	405491.6	20.89	mg/L	0.285		1.36%
Pb 220.353†	10.7	0.0025	mg/L	0.00045		17.66%
Sb 206.836†	-2.1	-0.0017	mg/L	0.00186		108.66%
Se 196.026†	-3.8	-0.0029	mg/L	0.00595		202.72%
Sn 189.927†	-296.5	-0.0568	mg/L	0.00026		0.46%
Ti 337.279†	45.1	0.0001	mg/L	0.00008		105.77%
Tl 190.801†	-6.0	-0.0017	mg/L	0.00222		128.11%
V 292.402†	34.1	0.0004	mg/L	0.00007		18.04%
Zn 206.200†	1096.4	0.0287	mg/L	0.00027		0.93%
Ca 227.546†	55382.6	167.7	mg/L	0.20		0.12%
Sr 421.552†	Saturated2					
Al 237.313†	-250.0	-0.1309	mg/L	0.00290		2.22%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 83
Sample ID: R1510112-002
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 90
Date Collected: 12/5/2015 7:20:02 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510112-002

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3736670.1	0.9458	mg/L	0.00617				0.65%
Ag 328.068†	263.8	-0.0013	mg/L	0.00034				26.49%
As 188.979†	11.0	0.0036	mg/L	0.00095				26.46%
B 249.772†	10373.4	0.1031	mg/L	0.00292				2.84%
Ba 233.527†	1864.7	0.0316	mg/L	0.00012				0.37%
Be 313.107†	-954.8	-0.0003	mg/L	0.00002				7.61%
Cd 226.502†	-38.9	-0.0005	mg/L	0.00014				27.56%
Co 228.616†	-40.3	-0.0014	mg/L	0.00005				3.51%
Cr 267.716†	-1420.8	-0.0035	mg/L	0.00007				2.12%
Cu 324.752†	58.1	0.0002	mg/L	0.00005				23.32%
Fe 259.939†	23003.8	0.6354	mg/L	0.00714				1.12%
K 766.490†	14294.3	2.821	mg/L	0.0971				3.44%
Mg 279.077†	751303.4	91.86	mg/L	1.163				1.27%
Mn 257.610†	4846.6	0.0128	mg/L	0.00006				0.50%
Mo 202.031†	66.6	0.0048	mg/L	0.00029				6.08%
Ni 231.604†	-26.4	-0.0005	mg/L	0.00013				26.76%
Na 589.592†	516093.3	26.58	mg/L	0.267				1.00%
Pb 220.353†	6.0	0.0022	mg/L	0.00072				33.47%
Sb 206.836†	0.1	0.0001	mg/L	0.00015				230.53%
Se 196.026†	-10.2	-0.0063	mg/L	0.00199				31.86%
Sn 189.927†	-308.3	-0.0591	mg/L	0.00039				0.66%
Ti 337.279†	-85.9	-0.0001	mg/L	0.00011				77.86%
Tl 190.801†	-3.4	-0.0003	mg/L	0.00040				150.87%
V 292.402†	16.0	0.0002	mg/L	0.00001				2.67%
Zn 206.200†	988.4	0.0258	mg/L	0.00008				0.31%
Ca 227.546†	66422.3	201.1	mg/L	1.95				0.97%
Sr 421.552†	Saturated2							
Al 237.313†	-248.1	-0.1421	mg/L	0.00621				4.37%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 84
Sample ID: R1510112-007
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 91
Date Collected: 12/5/2015 7:25:44 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510112-007

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD

Analyte	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	Std.Dev.	RSD
Y 371.029	3731476.1	0.9445	mg/L	0.00524				0.56%
Ag 328.068†	213.4	-0.0009	mg/L	0.00047				51.99%
As 188.979†	7.4	0.0021	mg/L	0.00084				40.10%
B 249.772†	12853.4	0.1305	mg/L	0.00167				1.28%
Ba 233.527†	2388.1	0.0405	mg/L	0.00012				0.31%
Be 313.107†	-980.1	-0.0003	mg/L	0.00001				2.05%
Cd 226.502†	-48.0	-0.0005	mg/L	0.00013				23.29%
Co 228.616†	-29.6	-0.0010	mg/L	0.00021				21.42%
Cr 267.716†	-1241.7	-0.0033	mg/L	0.00011				3.39%
Cu 324.752†	206.1	0.0007	mg/L	0.00016				22.76%
Fe 259.939†	5664.3	0.1565	mg/L	0.00052				0.34%
K 766.490†	19177.4	3.784	mg/L	0.0489				1.29%
Mg 279.077†	621107.8	75.95	mg/L	0.602				0.79%
Mn 257.610†	3577.9	0.0094	mg/L	0.00001				0.11%
Mo 202.031†	47.3	0.0034	mg/L	0.00022				6.62%
Ni 231.604†	-44.4	-0.0008	mg/L	0.00000				0.50%
Na 589.592†	628852.2	32.39	mg/L	0.488				1.51%
Pb 220.353†	6.6	0.0019	mg/L	0.00011				5.69%
Sb 206.836†	-3.2	-0.0025	mg/L	0.00274				108.19%
Se 196.026†	-15.1	-0.0088	mg/L	0.00185				21.14%
Sn 189.927†	-292.0	-0.0560	mg/L	0.00018				0.32%
Ti 337.279†	-7.8	0.0000	mg/L	0.00006				446.33%
Tl 190.801†	-2.6	-0.0001	mg/L	0.00290				>999.9%
V 292.402†	29.7	0.0003	mg/L	0.00005				16.06%
Zn 206.200†	875.8	0.0229	mg/L	0.00029				1.27%
Ca 227.546†	48351.5	146.4	mg/L	2.33				1.59%
Sr 421.552†	2372541.0	2.518	mg/L	0.0411				1.63%
Al 237.313†	-220.6	-0.1190	mg/L	0.00667				5.61%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 85
Sample ID: R1510112-008
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 92
Date Collected: 12/5/2015 7:31:33 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510112-008

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4094635.8	1.036	mg/L	0.0024				0.23%
Ag 328.068†	-69.5	-0.0002	mg/L	0.00024				99.33%
As 188.979†	-1.6	-0.0011	mg/L	0.00000				0.19%
B 249.772†	2483.9	0.0254	mg/L	0.00077				3.02%
Ba 233.527†	2.9	0.0000	mg/L	0.00005				108.61%
Be 313.107†	139.4	0.0000	mg/L	0.00006				146.90%
Cd 226.502†	-0.4	0.0000	mg/L	0.00004				>999.9%
Co 228.616†	-10.9	-0.0004	mg/L	0.00010				27.44%
Cr 267.716†	77.0	0.0006	mg/L	0.00009				14.48%
Cu 324.752†	-269.6	-0.0009	mg/L	0.00025				26.38%
Fe 259.939†	-55.4	-0.0015	mg/L	0.00007				4.26%
K 766.490†	-48.2	-0.0095	mg/L	0.00230				24.15%
Mg 279.077†	42.3	0.0052	mg/L	0.00023				4.47%
Mn 257.610†	459.8	0.0012	mg/L	0.00000				0.20%
Mo 202.031†	-5.4	-0.0004	mg/L	0.00005				12.38%
Ni 231.604†	-22.8	-0.0004	mg/L	0.00001				2.56%
Na 589.592†	426.0	0.0219	mg/L	0.00409				18.66%
Pb 220.353†	-2.7	-0.0003	mg/L	0.00011				30.74%
Sb 206.836†	-2.9	-0.0023	mg/L	0.00042				17.86%
Se 196.026†	-3.5	-0.0018	mg/L	0.00020				11.09%
Sn 189.927†	-31.1	-0.0060	mg/L	0.00003				0.56%
Ti 337.279†	6.0	0.0000	mg/L	0.00005				513.18%
Tl 190.801†	1.4	0.0007	mg/L	0.00081				110.26%
V 292.402†	11.3	0.0001	mg/L	0.00006				52.11%
Zn 206.200†	17.5	0.0005	mg/L	0.00021				46.41%
Ca 227.546†	3.2	0.0095	mg/L	0.00362				37.92%
Sr 421.552†	284.3	0.0003	mg/L	0.00022				72.90%
Al 237.313†	16.1	0.0048	mg/L	0.00157				32.83%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 86
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/5/2015 7:37:12 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3892600.3	0.9853	mg/L	0.00561				0.57%
Ag 328.068†	151077.6	0.5203	mg/L	0.00061	0.5203	mg/L	0.00061	0.12%
QC value within limits for Ag 328.068 Recovery = 104.06%								
As 188.979†	1536.7	1.010	mg/L	0.0039	1.010	mg/L	0.0039	0.39%
QC value within limits for As 188.979 Recovery = 101.04%								
B 249.772†	244347.4	2.470	mg/L	0.0115	2.470	mg/L	0.0115	0.46%
QC value within limits for B 249.772 Recovery = 98.80%								
Ba 233.527†	625579.9	10.61	mg/L	0.055	10.61	mg/L	0.055	0.52%
QC value within limits for Ba 233.527 Recovery = 106.12%								
Be 313.107†	844023.2	0.2565	mg/L	0.00009	0.2565	mg/L	0.00009	0.03%
QC value within limits for Be 313.107 Recovery = 102.59%								
Cd 226.502†	48828.6	0.5251	mg/L	0.00214	0.5251	mg/L	0.00214	0.41%
QC value within limits for Cd 226.502 Recovery = 105.02%								
Co 228.616†	76962.8	2.611	mg/L	0.0123	2.611	mg/L	0.0123	0.47%
QC value within limits for Co 228.616 Recovery = 104.44%								
Cr 267.716†	69212.6	0.5445	mg/L	0.00279	0.5445	mg/L	0.00279	0.51%
QC value within limits for Cr 267.716 Recovery = 108.90%								
Cu 324.752†	368730.4	1.274	mg/L	0.0077	1.274	mg/L	0.0077	0.60%
QC value within limits for Cu 324.752 Recovery = 101.96%								
Fe 259.939†	189854.4	5.242	mg/L	0.0010	5.242	mg/L	0.0010	0.02%
QC value within limits for Fe 259.939 Recovery = 104.84%								
K 766.490†	113169.9	22.33	mg/L	0.135	22.33	mg/L	0.135	0.61%
QC value less than the lower limit for K 766.490 Recovery = 89.32%								
Mg 279.077†	212835.3	26.00	mg/L	0.131	26.00	mg/L	0.131	0.50%
QC value within limits for Mg 279.077 Recovery = 104.02%								
Mn 257.610†	305402.7	0.8033	mg/L	0.00256	0.8033	mg/L	0.00256	0.32%
QC value within limits for Mn 257.610 Recovery = 107.10%								
Mo 202.031†	37782.9	2.701	mg/L	0.0136	2.701	mg/L	0.0136	0.50%
QC value within limits for Mo 202.031 Recovery = 108.03%								
Ni 231.604†	120700.6	2.162	mg/L	0.0148	2.162	mg/L	0.0148	0.69%
QC value within limits for Ni 231.604 Recovery = 108.12%								
Na 589.592†	451637.3	23.26	mg/L	0.000	23.26	mg/L	0.000	0.00%
QC value within limits for Na 589.592 Recovery = 93.05%								
Pb 220.353†	4031.1	0.5221	mg/L	0.00091	0.5221	mg/L	0.00091	0.18%
QC value within limits for Pb 220.353 Recovery = 104.43%								
Sb 206.836†	6576.1	5.288	mg/L	0.0182	5.288	mg/L	0.0182	0.34%
QC value within limits for Sb 206.836 Recovery = 105.75%								
Se 196.026†	953.3	0.4980	mg/L	0.00195	0.4980	mg/L	0.00195	0.39%
QC value within limits for Se 196.026 Recovery = 99.59%								
Sn 189.927†	27766.9	5.321	mg/L	0.0154	5.321	mg/L	0.0154	0.29%
QC value within limits for Sn 189.927 Recovery = 106.42%								
Ti 337.279†	1546617.3	2.536	mg/L	0.0127	2.536	mg/L	0.0127	0.50%
QC value within limits for Ti 337.279 Recovery = 101.44%								
Tl 190.801†	2077.2	1.071	mg/L	0.0065	1.071	mg/L	0.0065	0.60%
QC value within limits for Tl 190.801 Recovery = 107.12%								
V 292.402†	265890.3	2.565	mg/L	0.0085	2.565	mg/L	0.0085	0.33%
QC value within limits for V 292.402 Recovery = 102.61%								
Zn 206.200†	40844.4	1.068	mg/L	0.0144	1.068	mg/L	0.0144	1.35%
QC value within limits for Zn 206.200 Recovery = 106.77%								
Ca 227.546†	8553.2	25.92	mg/L	0.145	25.92	mg/L	0.145	0.56%
QC value within limits for Ca 227.546 Recovery = 103.69%								
Sr 421.552†	2327904.0	2.471	mg/L	0.0262	2.471	mg/L	0.0262	1.06%
QC value within limits for Sr 421.552 Recovery = 98.84%								
Al 237.313†	34117.5	10.22	mg/L	0.001	10.22	mg/L	0.001	0.01%
QC value within limits for Al 237.313 Recovery = 102.16%								

QC Failed. Continue with analysis.

Sequence No.: 87
Sample ID: CCB
Analyst:

Autosampler Location: 5
Date Collected: 12/5/2015 7:43:01 PM
Data Type: Original

Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3949658.1	0.9997	mg/L	0.02057				2.06%
Ag 328.068†	-76.7	-0.0003	mg/L	0.00027	-0.0003	mg/L	0.00027	102.66%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	0.7	0.0004	mg/L	0.00071	0.0004	mg/L	0.00071	157.98%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	2449.5	0.0250	mg/L	0.00153	0.0250	mg/L	0.00153	6.10%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	-2.3	0.0000	mg/L	0.00049	0.0000	mg/L	0.00049	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-131.8	0.0000	mg/L	0.00004	0.0000	mg/L	0.00004	91.65%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	-1.9	0.0000	mg/L	0.00006	0.0000	mg/L	0.00006	309.17%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	13.5	0.0005	mg/L	0.00022	0.0005	mg/L	0.00022	48.34%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-8.4	-0.0001	mg/L	0.00021	-0.0001	mg/L	0.00021	303.99%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	649.9	0.0022	mg/L	0.00054	0.0022	mg/L	0.00054	24.22%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	-157.7	-0.0044	mg/L	0.00264	-0.0044	mg/L	0.00264	60.66%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	-12.5	-0.0025	mg/L	0.01182	-0.0025	mg/L	0.01182	480.12%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	-176.3	-0.0215	mg/L	0.01971	-0.0215	mg/L	0.01971	91.50%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	-97.6	-0.0003	mg/L	0.00016	-0.0003	mg/L	0.00016	60.72%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	50.5	0.0036	mg/L	0.00081	0.0036	mg/L	0.00081	22.34%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	9.1	0.0002	mg/L	0.00001	0.0002	mg/L	0.00001	4.86%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	209.2	0.0108	mg/L	0.00665	0.0108	mg/L	0.00665	61.74%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	9.2	0.0012	mg/L	0.00106	0.0012	mg/L	0.00106	88.66%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-1.5	-0.0012	mg/L	0.00128	-0.0012	mg/L	0.00128	107.09%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-4.8	-0.0025	mg/L	0.00205	-0.0025	mg/L	0.00205	81.54%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	22.0	0.0042	mg/L	0.00208	0.0042	mg/L	0.00208	49.44%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 337.279†	772.6	0.0013	mg/L	0.00040	0.0013	mg/L	0.00040	31.54%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	3.0	0.0015	mg/L	0.00151	0.0015	mg/L	0.00151	97.61%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	43.9	0.0004	mg/L	0.00008	0.0004	mg/L	0.00008	18.97%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-35.3	-0.0009	mg/L	0.00002	-0.0009	mg/L	0.00002	2.45%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Ca 227.546†	-2.6	-0.0080	mg/L	0.00969	-0.0080	mg/L	0.00969	121.12%
QC value within limits for Ca 227.546 Recovery = Not calculated								
Sr 421.552†	539.4	0.0006	mg/L	0.00052	0.0006	mg/L	0.00052	90.58%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Al 237.313†	-46.0	-0.0137	mg/L	0.00977	-0.0137	mg/L	0.00977	71.13%
QC value within limits for Al 237.313 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 88 **Autosampler Location: 93**
Sample ID: R1510118-001 **Date Collected: 12/5/2015 7:48:43 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510118-001

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 371.029	4012237.9	1.016	mg/L	0.0002				0.02%
Ag 328.068†	21.6	0.0001	mg/L	0.00009				178.41%
As 188.979†	5.8	0.0036	mg/L	0.00003				0.93%
B 249.772†	3815.3	0.0347	mg/L	0.00025				0.72%
Ba 233.527†	8964.9	0.1521	mg/L	0.00015				0.10%
Be 313.107†	185.4	0.0001	mg/L	0.00000				7.08%
Cd 226.502†	18.0	0.0000	mg/L	0.00002				58.19%
Co 228.616†	7.2	0.0002	mg/L	0.00014				56.08%
Cr 267.716†	153.9	0.0014	mg/L	0.00005				3.42%
Cu 324.752†	465.8	0.0016	mg/L	0.00011				6.72%
Fe 259.939†	34746.1	0.9598	mg/L	0.00469				0.49%
K 766.490†	23197.9	4.577	mg/L	0.0558				1.22%
Mg 279.077†	19475.5	2.378	mg/L	0.0026				0.11%
Mn 257.610†	428902.6	1.127	mg/L	0.0016				0.14%
Mo 202.031†	22.6	0.0016	mg/L	0.00017				10.42%
Ni 231.604†	29.8	0.0005	mg/L	0.00010				18.77%
Na 589.592†	234503.9	12.08	mg/L	0.152				1.26%
Pb 220.353†	3.7	0.0005	mg/L	0.00046				97.01%
Sb 206.836†	-2.5	-0.0021	mg/L	0.00140				68.19%
Se 196.026†	-1.9	-0.0010	mg/L	0.00035				36.02%
Sn 189.927†	-107.9	-0.0207	mg/L	0.00065				3.14%
Ti 337.279†	912.5	0.0015	mg/L	0.00018				12.29%
Tl 190.801†	-12.1	-0.0061	mg/L	0.00052				8.52%
V 292.402†	17.2	0.0002	mg/L	0.00002				8.63%
Zn 206.200†	219.8	0.0057	mg/L	0.00002				0.35%
Ca 227.546†	5071.2	15.36	mg/L	0.004				0.03%
Sr 421.552†	61245.1	0.0650	mg/L	0.00057				0.87%
Al 237.313†	232.6	0.0748	mg/L	0.00167				2.23%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 89
Sample ID: R1510118-002
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 94
Date Collected: 12/5/2015 7:54:26 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510118-002

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 371.029	4102928.7	1.039	mg/L	0.0067				0.64%
Ag 328.068†	-209.5	0.0003	mg/L	0.00009				31.71%
As 188.979†	5.1	0.0032	mg/L	0.00046				14.34%
B 249.772†	5251.5	0.0240	mg/L	0.00063				2.60%
Ba 233.527†	8232.6	0.1396	mg/L	0.00019				0.14%
Be 313.107†	1306.6	0.0004	mg/L	0.00002				6.18%
Cd 226.502†	99.9	0.0001	mg/L	0.00008				64.65%
Co 228.616†	61.5	0.0021	mg/L	0.00019				9.12%
Cr 267.716†	606.9	0.0051	mg/L	0.00004				0.87%
Cu 324.752†	2172.6	0.0075	mg/L	0.00012				1.60%
Fe 259.939†	235829.6	6.513	mg/L	0.0022				0.03%
K 766.490†	9661.7	1.906	mg/L	0.0005				0.02%
Mg 279.077†	10370.9	1.243	mg/L	0.0136				1.09%
Mn 257.610†	376840.4	0.9911	mg/L	0.00174				0.18%
Mo 202.031†	2.6	0.0002	mg/L	0.00009				47.45%
Ni 231.604†	184.3	0.0033	mg/L	0.00005				1.51%
Na 589.592†	19720.4	1.016	mg/L	0.0061				0.60%
Pb 220.353†	23.3	0.0019	mg/L	0.00101				53.36%
Sb 206.836†	-1.7	-0.0020	mg/L	0.00165				81.59%
Se 196.026†	0.4	0.0002	mg/L	0.00006				26.45%
Sn 189.927†	-63.9	-0.0122	mg/L	0.00044				3.61%
Ti 337.279†	28825.9	0.0473	mg/L	0.00006				0.13%
Tl 190.801†	-13.4	-0.0061	mg/L	0.00074				12.16%
V 292.402†	472.0	0.0051	mg/L	0.00002				0.45%
Zn 206.200†	589.4	0.0154	mg/L	0.00010				0.66%
Ca 227.546†	1387.9	4.236	mg/L	0.0282				0.67%
Sr 421.552†	20578.1	0.0218	mg/L	0.00014				0.65%
Al 237.313†	22637.0	6.819	mg/L	0.0307				0.45%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 90 **Autosampler Location: 95**
Sample ID: R1510118-003 **Date Collected: 12/5/2015 8:00:08 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510118-003

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y_371.029	4007418.9	1.014	mg/L	0.0026				0.26%
Ag 328.068†	-368.2	0.0009	mg/L	0.00008				9.69%
As 188.979†	8.2	0.0052	mg/L	0.00145				28.08%
B 249.772†	6815.2	0.0077	mg/L	0.00150				19.43%
Ba 233.527†	8002.2	0.1357	mg/L	0.00033				0.24%
Be 313.107†	1202.1	0.0004	mg/L	0.00000				0.41%
Cd 226.502†	173.4	-0.0002	mg/L	0.00008				33.62%
Co 228.616†	62.5	0.0021	mg/L	0.00000				0.02%
Cr 267.716†	1078.3	0.0091	mg/L	0.00010				1.07%
Cu 324.752†	1910.0	0.0066	mg/L	0.00035				5.23%
Fe 259.939†	501576.7	13.85	mg/L	0.156				1.13%
K 766.490†	9279.9	1.831	mg/L	0.0085				0.46%
Mg 279.077†	13306.9	1.574	mg/L	0.0099				0.63%
Mn 257.610†	101348.0	0.2686	mg/L	0.00001				0.00%
Mo 202.031†	-7.2	-0.0005	mg/L	0.00019				35.99%
Ni 231.604†	377.7	0.0068	mg/L	0.00006				0.92%
Na 589.592†	204189.6	10.52	mg/L	0.117				1.12%
Pb 220.353†	42.8	0.0035	mg/L	0.00074				20.95%
Sb 206.836†	-3.2	-0.0033	mg/L	0.00046				13.95%
Se 196.026†	-1.0	-0.0005	mg/L	0.00228				462.27%
Sn 189.927†	-91.4	-0.0175	mg/L	0.00105				6.00%
Ti 337.279†	42895.8	0.0703	mg/L	0.00038				0.54%
Tl 190.801†	-2.7	0.0002	mg/L	0.00062				261.32%
V 292.402†	1109.4	0.0118	mg/L	0.00011				0.93%
Zn 206.200†	1396.8	0.0365	mg/L	0.00030				0.81%
Ca 227.546†	2302.2	7.043	mg/L	0.0127				0.18%
Sr 421.552†	26274.4	0.0279	mg/L	0.00033				1.18%
Al 237.313†	25967.4	7.896	mg/L	0.0020				0.03%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 91 **Autosampler Location: 4**
Sample ID: CCV **Date Collected: 12/5/2015 8:05:47 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	3882365.4	0.9827	mg/L	0.00132				0.13%
Ag 328.068†	148404.8	0.5111	mg/L	0.00150	0.5111	mg/L	0.00150	0.29%
QC value within limits for Ag 328.068 Recovery = 102.22%								
As 188.979†	1520.3	0.9997	mg/L	0.00200	0.9997	mg/L	0.00200	0.20%
QC value within limits for As 188.979 Recovery = 99.97%								
B 249.772†	239697.5	2.423	mg/L	0.0078	2.423	mg/L	0.0078	0.32%
QC value within limits for B 249.772 Recovery = 96.92%								
Ba 233.527†	614150.3	10.42	mg/L	0.008	10.42	mg/L	0.008	0.07%
QC value within limits for Ba 233.527 Recovery = 104.18%								
Be 313.107†	838709.1	0.2549	mg/L	0.00316	0.2549	mg/L	0.00316	1.24%
QC value within limits for Be 313.107 Recovery = 101.95%								
Cd 226.502†	47998.3	0.5162	mg/L	0.00072	0.5162	mg/L	0.00072	0.14%
QC value within limits for Cd 226.502 Recovery = 103.24%								
Co 228.616†	75751.2	2.570	mg/L	0.0023	2.570	mg/L	0.0023	0.09%
QC value within limits for Co 228.616 Recovery = 102.79%								
Cr 267.716†	67968.3	0.5347	mg/L	0.00207	0.5347	mg/L	0.00207	0.39%
QC value within limits for Cr 267.716 Recovery = 106.94%								
Cu 324.752†	359220.7	1.242	mg/L	0.0045	1.242	mg/L	0.0045	0.37%

QC value within limits for Cu 324.752 Recovery = 99.33%						
Fe 259.939†	186678.7	5.154 mg/L	0.0203	5.154 mg/L	0.0203	0.39%
QC value within limits for Fe 259.939 Recovery = 103.08%						
K 766.490†	118985.5	23.48 mg/L	0.027	23.48 mg/L	0.027	0.11%
QC value within limits for K 766.490 Recovery = 93.91%						
Mg 279.077†	209614.7	25.61 mg/L	0.034	25.61 mg/L	0.034	0.13%
QC value within limits for Mg 279.077 Recovery = 102.44%						
Mn 257.610†	299850.6	0.7887 mg/L	0.00137	0.7887 mg/L	0.00137	0.17%
QC value within limits for Mn 257.610 Recovery = 105.16%						
Mo 202.031†	36884.9	2.637 mg/L	0.0147	2.637 mg/L	0.0147	0.56%
QC value within limits for Mo 202.031 Recovery = 105.47%						
Ni 231.604†	118488.2	2.123 mg/L	0.0011	2.123 mg/L	0.0011	0.05%
QC value within limits for Ni 231.604 Recovery = 106.13%						
Na 589.592†	458047.8	23.59 mg/L	0.072	23.59 mg/L	0.072	0.30%
QC value within limits for Na 589.592 Recovery = 94.37%						
Pb 220.353†	3979.6	0.5155 mg/L	0.00377	0.5155 mg/L	0.00377	0.73%
QC value within limits for Pb 220.353 Recovery = 103.09%						
Sb 206.836†	6511.1	5.235 mg/L	0.0159	5.235 mg/L	0.0159	0.30%
QC value within limits for Sb 206.836 Recovery = 104.71%						
Se 196.026†	958.9	0.5009 mg/L	0.00234	0.5009 mg/L	0.00234	0.47%
QC value within limits for Se 196.026 Recovery = 100.18%						
Sn 189.927†	27460.2	5.262 mg/L	0.0143	5.262 mg/L	0.0143	0.27%
QC value within limits for Sn 189.927 Recovery = 105.24%						
Ti 337.279†	1531148.3	2.511 mg/L	0.0294	2.511 mg/L	0.0294	1.17%
QC value within limits for Ti 337.279 Recovery = 100.43%						
Tl 190.801†	2055.7	1.060 mg/L	0.0024	1.060 mg/L	0.0024	0.23%
QC value within limits for Tl 190.801 Recovery = 106.01%						
V 292.402†	258818.8	2.497 mg/L	0.0075	2.497 mg/L	0.0075	0.30%
QC value within limits for V 292.402 Recovery = 99.88%						
Zn 206.200†	40414.8	1.056 mg/L	0.0059	1.056 mg/L	0.0059	0.56%
QC value within limits for Zn 206.200 Recovery = 105.65%						
Ca 227.546†	8449.2	25.61 mg/L	0.077	25.61 mg/L	0.077	0.30%
QC value within limits for Ca 227.546 Recovery = 102.42%						
Sr 421.552†	2295328.6	2.437 mg/L	0.0390	2.437 mg/L	0.0390	1.60%
QC value within limits for Sr 421.552 Recovery = 97.46%						
Al 237.313†	33072.9	9.904 mg/L	0.0696	9.904 mg/L	0.0696	0.70%
QC value within limits for Al 237.313 Recovery = 99.04%						

All analyte(s) passed QC.

Sequence No.: 92 **Autosampler Location: 5**
Sample ID: CCB **Date Collected: 12/5/2015 8:11:39 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	4124371.6	1.044 mg/L	0.0008			0.08%
Ag 328.068†	-101.9	-0.0004 mg/L	0.00039	-0.0004 mg/L	0.00039	110.65%
QC value within limits for Ag 328.068 Recovery = Not calculated						
As 188.979†	-0.0	0.0000 mg/L	0.00047	0.0000 mg/L	0.00047	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.772†	2551.9	0.0260 mg/L	0.00184	0.0260 mg/L	0.00184	7.06%
QC value within limits for B 249.772 Recovery = Not calculated						
Ba 233.527†	71.3	0.0012 mg/L	0.00033	0.0012 mg/L	0.00033	26.93%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	634.6	0.0002 mg/L	0.00002	0.0002 mg/L	0.00002	10.73%
QC value within limits for Be 313.107 Recovery = Not calculated						
Cd 226.502†	26.7	0.0003 mg/L	0.00001	0.0003 mg/L	0.00001	3.65%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	14.6	0.0005 mg/L	0.00027	0.0005 mg/L	0.00027	54.07%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	23.0	0.0002 mg/L	0.00007	0.0002 mg/L	0.00007	36.45%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	548.4	0.0019 mg/L	0.00054	0.0019 mg/L	0.00054	28.31%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 259.939†	16.2	0.0004 mg/L	0.00112	0.0004 mg/L	0.00112	251.82%
QC value within limits for Fe 259.939 Recovery = Not calculated						
K 766.490†	-32.7	-0.0064 mg/L	0.00655	-0.0064 mg/L	0.00655	101.62%

	QC value within limits for K 766.490 Recovery = Not calculated						
Mg 279.077†		45.1	0.0055 mg/L	0.00365	0.0055 mg/L	0.00365	66.16%
	QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610†		23.5	0.0001 mg/L	0.00005	0.0001 mg/L	0.00005	84.11%
	QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†		56.5	0.0040 mg/L	0.00081	0.0040 mg/L	0.00081	19.96%
	QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604†		8.6	0.0002 mg/L	0.00006	0.0002 mg/L	0.00006	40.05%
	QC value within limits for Ni 231.604 Recovery = Not calculated						
Na 589.592†		55.0	0.0028 mg/L	0.00283	0.0028 mg/L	0.00283	99.88%
	QC value within limits for Na 589.592 Recovery = Not calculated						
Pb 220.353†		-12.8	-0.0017 mg/L	0.00105	-0.0017 mg/L	0.00105	63.18%
	QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†		-0.7	-0.0006 mg/L	0.00028	-0.0006 mg/L	0.00028	48.41%
	QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†		-1.1	-0.0006 mg/L	0.00162	-0.0006 mg/L	0.00162	281.53%
	QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†		23.8	0.0046 mg/L	0.00171	0.0046 mg/L	0.00171	37.36%
	QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 337.279†		771.2	0.0013 mg/L	0.00022	0.0013 mg/L	0.00022	17.05%
	QC value within limits for Ti 337.279 Recovery = Not calculated						
Tl 190.801†		2.6	0.0014 mg/L	0.00136	0.0014 mg/L	0.00136	100.35%
	QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†		48.3	0.0005 mg/L	0.00005	0.0005 mg/L	0.00005	10.18%
	QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†		-38.0	-0.0010 mg/L	0.00020	-0.0010 mg/L	0.00020	20.22%
	QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†		-7.1	-0.0216 mg/L	0.01459	-0.0216 mg/L	0.01459	67.47%
	QC value within limits for Ca 227.546 Recovery = Not calculated						
Sr 421.552†		687.8	0.0007 mg/L	0.00021	0.0007 mg/L	0.00021	29.31%
	QC value within limits for Sr 421.552 Recovery = Not calculated						
Al 237.313†		35.7	0.0106 mg/L	0.00213	0.0106 mg/L	0.00213	19.98%
	QC value within limits for Al 237.313 Recovery = Not calculated						
All analyte(s) passed QC.							

Sequence No.: 93 **Autosampler Location: 6**
Sample ID: MRL **Date Collected: 12/5/2015 8:17:22 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: MRL

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4060618.8	1.028	mg/L	0.0208				2.02%
Ag 328.068†	2523.1	0.0087	mg/L	0.00126	0.0087	mg/L	0.00126	14.49%
QC value within limits for Ag 328.068 Recovery = 86.86%								
As 188.979†	29.5	0.0194	mg/L	0.00047	0.0194	mg/L	0.00047	2.43%
QC value within limits for As 188.979 Recovery = 96.92%								
B 249.772†	19584.0	0.1995	mg/L	0.00831	0.1995	mg/L	0.00831	4.16%
QC value within limits for B 249.772 Recovery = 99.73%								
Ba 233.527†	12288.0	0.2084	mg/L	0.00553	0.2084	mg/L	0.00553	2.65%
QC value within limits for Ba 233.527 Recovery = 104.22%								
Be 313.107†	16227.6	0.0049	mg/L	0.00006	0.0049	mg/L	0.00006	1.32%
QC value within limits for Be 313.107 Recovery = 98.63%								
Cd 226.502†	954.2	0.0103	mg/L	0.00013	0.0103	mg/L	0.00013	1.25%
QC value within limits for Cd 226.502 Recovery = 102.62%								
Co 228.616†	1543.5	0.0524	mg/L	0.00139	0.0524	mg/L	0.00139	2.66%
QC value within limits for Co 228.616 Recovery = 104.73%								
Cr 267.716†	1288.8	0.0102	mg/L	0.00025	0.0102	mg/L	0.00025	2.48%
QC value within limits for Cr 267.716 Recovery = 101.87%								
Cu 324.752†	6865.4	0.0237	mg/L	0.00118	0.0237	mg/L	0.00118	4.96%
QC value within limits for Cu 324.752 Recovery = 94.92%								
Fe 259.939†	3615.4	0.0998	mg/L	0.00046	0.0998	mg/L	0.00046	0.46%
QC value within limits for Fe 259.939 Recovery = 99.82%								
K 766.490†	3565.4	0.7035	mg/L	0.01805	0.7035	mg/L	0.01805	2.57%
QC value less than the lower limit for K 766.490 Recovery = 70.35%								
Mg 279.077†	8319.9	1.017	mg/L	0.0263	1.017	mg/L	0.0263	2.59%
QC value within limits for Mg 279.077 Recovery = 101.69%								
Mn 257.610†	5758.1	0.0151	mg/L	0.00049	0.0151	mg/L	0.00049	3.23%

QC value within limits for Mn 257.610 Recovery = 100.97%

Mo 202.031†	387.8	0.0277 mg/L	0.00091	0.0277 mg/L	0.00091	3.28%

QC value within limits for Mo 202.031 Recovery = 110.89%

Ni 231.604†	2259.9	0.0405 mg/L	0.00093	0.0405 mg/L	0.00093	2.31%

QC value within limits for Ni 231.604 Recovery = 101.21%

Na 589.592†	16335.3	0.8414 mg/L	0.01044	0.8414 mg/L	0.01044	1.24%

QC value within limits for Na 589.592 Recovery = 84.14%

Pb 220.353†	79.0	0.0102 mg/L	0.00118	0.0102 mg/L	0.00118	11.54%

QC value within limits for Pb 220.353 Recovery = 102.36%

Sb 206.836†	68.6	0.0552 mg/L	0.00253	0.0552 mg/L	0.00253	4.59%

QC value within limits for Sb 206.836 Recovery = 91.97%

Se 196.026†	22.9	0.0119 mg/L	0.00112	0.0119 mg/L	0.00112	9.39%

QC value within limits for Se 196.026 Recovery = 119.34%

Sn 189.927†	2713.6	0.5200 mg/L	0.01343	0.5200 mg/L	0.01343	2.58%

QC value within limits for Sn 189.927 Recovery = 104.00%

Ti 337.279†	29441.8	0.0483 mg/L	0.00158	0.0483 mg/L	0.00158	3.28%

QC value within limits for Ti 337.279 Recovery = 96.56%

Tl 190.801†	42.5	0.0219 mg/L	0.00117	0.0219 mg/L	0.00117	5.34%

QC value within limits for Tl 190.801 Recovery = 109.62%

V 292.402†	5048.8	0.0487 mg/L	0.00125	0.0487 mg/L	0.00125	2.57%

QC value within limits for V 292.402 Recovery = 97.42%

Zn 206.200†	716.9	0.0187 mg/L	0.00079	0.0187 mg/L	0.00079	4.24%

QC value within limits for Zn 206.200 Recovery = 93.70%

Ca 227.546†	299.3	0.9066 mg/L	0.03275	0.9066 mg/L	0.03275	3.61%

QC value within limits for Ca 227.546 Recovery = 90.66%

Sr 421.552†	90515.8	0.0961 mg/L	0.00123	0.0961 mg/L	0.00123	1.28%

QC value within limits for Sr 421.552 Recovery = 96.08%

Al 237.313†	653.7	0.1956 mg/L	0.00576	0.1956 mg/L	0.00576	2.94%

QC value within limits for Al 237.313 Recovery = 97.79%

QC Failed. Continue with analysis.

Sequence No.: 94 **Autosampler Location: 7**
Sample ID: ICSA **Date Collected: 12/5/2015 8:23:05 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3616769.4	0.9155	mg/L	0.01149				1.26%
Ag 328.068†	-2294.6	0.0037	mg/L	0.00015	0.0037	mg/L	0.00015	4.08%

QC value within limits for Ag 328.068 Recovery = Not calculated

As 188.979†	15.8	0.0003	mg/L	0.00147	0.0003	mg/L	0.00147	530.50%

QC value within limits for As 188.979 Recovery = Not calculated

B 249.772†	38566.3	-0.0521	mg/L	0.00062	-0.0521	mg/L	0.00062	1.20%
Ba 233.527†	-259.1	-0.0057	mg/L	0.00023	-0.0057	mg/L	0.00023	4.01%
Be 313.107†	-547.4	-0.0002	mg/L	0.00002	-0.0002	mg/L	0.00002	14.95%

QC value within limits for Be 313.107 Recovery = Not calculated

Cd 226.502†	1119.0	0.0004	mg/L	0.00009	0.0004	mg/L	0.00009	20.18%

QC value within limits for Cd 226.502 Recovery = Not calculated

Co 228.616†	-7.0	-0.0002	mg/L	0.00033	-0.0002	mg/L	0.00033	139.11%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	-3331.7	-0.0003	mg/L	0.00017	-0.0003	mg/L	0.00017	62.47%

QC value within limits for Cr 267.716 Recovery = Not calculated

Cu 324.752†	-613.9	-0.0021	mg/L	0.00005	-0.0021	mg/L	0.00005	2.52%

QC value within limits for Cu 324.752 Recovery = Not calculated

Fe 259.939†	3343059.2	92.28	mg/L	0.802	92.28	mg/L	0.802	0.87%

QC value within limits for Fe 259.939 Recovery = 92.28%

K 766.490†	190.0	0.0375	mg/L	0.00460	0.0375	mg/L	0.00460	12.26%
Mg 279.077†	2097427.4	256.1	mg/L	2.29	256.1	mg/L	2.29	0.89%

QC value within limits for Mg 279.077 Recovery = 102.44%

Mn 257.610†	-5571.7	0.0034	mg/L	0.00006	0.0034	mg/L	0.00006	1.75%

QC value within limits for Mn 257.610 Recovery = Not calculated

Mo 202.031†	-106.1	-0.0076	mg/L	0.00023	-0.0076	mg/L	0.00023	3.02%
Ni 231.604†	46.6	0.0008	mg/L	0.00004	0.0008	mg/L	0.00004	4.71%

QC value within limits for Ni 231.604 Recovery = Not calculated

Na 589.592†	2055.1	0.1059	mg/L	0.00167	0.1059	mg/L	0.00167	1.57%
Pb 220.353†	180.0	-0.0021	mg/L	0.00091	-0.0021	mg/L	0.00091	42.77%

QC value within limits for Pb 220.353 Recovery = Not calculated

Sb 206.836†	43.9	0.0112 mg/L	0.00500	0.0112 mg/L	0.00500	44.81%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	0.5	-0.0024 mg/L	0.00220	-0.0024 mg/L	0.00220	89.77%
QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	-401.1	-0.0769 mg/L	0.00269	-0.0769 mg/L	0.00269	3.50%
Ti 337.279†	280.2	0.0005 mg/L	0.00005	0.0005 mg/L	0.00005	10.38%
Tl 190.801†	-21.7	0.0033 mg/L	0.00180	0.0033 mg/L	0.00180	53.75%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	-1377.7	-0.0061 mg/L	0.00002	-0.0061 mg/L	0.00002	0.37%
QC value less than the lower limit for V 292.402 Recovery = Not calculated						
Zn 206.200†	169.2	0.0044 mg/L	0.00034	0.0044 mg/L	0.00034	7.64%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	91295.4	276.9 mg/L	3.58	276.9 mg/L	3.58	1.29%
QC value within limits for Ca 227.546 Recovery = 110.75%						
Sr 421.552†	3469.8	0.0037 mg/L	0.00001	0.0037 mg/L	0.00001	0.28%
Al 237.313†	893648.4	267.2 mg/L	1.89	267.2 mg/L	1.89	0.71%
QC value within limits for Al 237.313 Recovery = 106.89%						

QC Failed. Continue with analysis.

Sequence No.: 95 **Autosampler Location: 8**
Sample ID: ICSAB **Date Collected: 12/5/2015 8:28:43 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3543358.6	0.8969	mg/L	0.00796				0.89%
Ag 328.068†	52481.9	0.1924	mg/L	0.00216	0.1924	mg/L	0.00216	1.12%
QC value within limits for Ag 328.068 Recovery = 96.19%								
As 188.979†	172.3	0.1031	mg/L	0.00078	0.1031	mg/L	0.00078	0.76%
QC value within limits for As 188.979 Recovery = 103.09%								
B 249.772†	38795.8	-0.0576	mg/L	0.00124	-0.0576	mg/L	0.00124	2.15%
Ba 233.527†	31743.2	0.5371	mg/L	0.00669	0.5371	mg/L	0.00669	1.24%
QC value within limits for Ba 233.527 Recovery = 107.42%								
Be 313.107†	1736786.4	0.5278	mg/L	0.00580	0.5278	mg/L	0.00580	1.10%
QC value within limits for Be 313.107 Recovery = 105.56%								
Cd 226.502†	96937.0	1.032	mg/L	0.0106	1.032	mg/L	0.0106	1.02%
QC value within limits for Cd 226.502 Recovery = 103.20%								
Co 228.616†	14608.7	0.4956	mg/L	0.00699	0.4956	mg/L	0.00699	1.41%
QC value within limits for Co 228.616 Recovery = 99.12%								
Cr 267.716†	64337.9	0.5302	mg/L	0.00566	0.5302	mg/L	0.00566	1.07%
QC value within limits for Cr 267.716 Recovery = 106.04%								
Cu 324.752†	152751.1	0.5280	mg/L	0.00670	0.5280	mg/L	0.00670	1.27%
QC value within limits for Cu 324.752 Recovery = 105.59%								
Fe 259.939†	3404199.7	93.97	mg/L	0.780	93.97	mg/L	0.780	0.83%
QC value within limits for Fe 259.939 Recovery = 93.97%								
K 766.490†	204.5	0.0403	mg/L	0.00361	0.0403	mg/L	0.00361	8.95%
Mg 279.077†	2144701.4	261.9	mg/L	2.11	261.9	mg/L	2.11	0.81%
QC value within limits for Mg 279.077 Recovery = 104.75%								
Mn 257.610†	196925.3	0.5357	mg/L	0.00456	0.5357	mg/L	0.00456	0.85%
QC value within limits for Mn 257.610 Recovery = 107.14%								
Mo 202.031†	-116.4	-0.0083	mg/L	0.00028	-0.0083	mg/L	0.00028	3.39%
Ni 231.604†	55469.2	0.9937	mg/L	0.00958	0.9937	mg/L	0.00958	0.96%
QC value within limits for Ni 231.604 Recovery = 99.37%								
Na 589.592†	2414.1	0.1243	mg/L	0.00497	0.1243	mg/L	0.00497	4.00%
Pb 220.353†	597.2	0.0517	mg/L	0.00004	0.0517	mg/L	0.00004	0.08%
QC value within limits for Pb 220.353 Recovery = 103.35%								
Sb 206.836†	876.3	0.6803	mg/L	0.00559	0.6803	mg/L	0.00559	0.82%
QC value within limits for Sb 206.836 Recovery = 113.38%								
Se 196.026†	117.6	0.0587	mg/L	0.00069	0.0587	mg/L	0.00069	1.17%
QC value within limits for Se 196.026 Recovery = 117.35%								
Sn 189.927†	-449.0	-0.0860	mg/L	0.00280	-0.0860	mg/L	0.00280	3.26%
Ti 337.279†	223.4	0.0004	mg/L	0.00001	0.0004	mg/L	0.00001	3.88%
Tl 190.801†	163.9	0.0993	mg/L	0.00532	0.0993	mg/L	0.00532	5.36%
QC value within limits for Tl 190.801 Recovery = 99.28%								
V 292.402†	52362.3	0.5124	mg/L	0.00466	0.5124	mg/L	0.00466	0.91%
QC value within limits for V 292.402 Recovery = 102.48%								
Zn 206.200†	39063.5	1.021	mg/L	0.0146	1.021	mg/L	0.0146	1.43%

QC value within limits for Zn 206.200 Recovery = 102.12%

Ca 227.546†	92546.4	280.7 mg/L	1.64	280.7 mg/L	1.64	0.58%
QC value within limits for Ca 227.546 Recovery = 112.27%						
Sr 421.552†	3524.5	0.0037 mg/L	0.00003	0.0037 mg/L	0.00003	0.71%
Al 237.313†	903695.5	270.2 mg/L	2.20	270.2 mg/L	2.20	0.81%
QC value within limits for Al 237.313 Recovery = 108.09%						

All analyte(s) passed QC.

Sequence No.: 96 **Autosampler Location: 4**
Sample ID: CCV **Date Collected: 12/5/2015 8:34:21 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3912823.8	0.9904	mg/L	0.01089				1.10%
Ag 328.068†	148858.8	0.5127	mg/L	0.00994	0.5127	mg/L	0.00994	1.94%
QC value within limits for Ag 328.068 Recovery = 102.54%								
As 188.979†	1533.5	1.008	mg/L	0.0133	1.008	mg/L	0.0133	1.32%
QC value within limits for As 188.979 Recovery = 100.84%								
B 249.772†	241454.6	2.440	mg/L	0.0622	2.440	mg/L	0.0622	2.55%
QC value within limits for B 249.772 Recovery = 97.62%								
Ba 233.527†	619393.6	10.51	mg/L	0.166	10.51	mg/L	0.166	1.58%
QC value within limits for Ba 233.527 Recovery = 105.07%								
Be 313.107†	834147.9	0.2535	mg/L	0.00044	0.2535	mg/L	0.00044	0.17%
QC value within limits for Be 313.107 Recovery = 101.39%								
Cd 226.502†	48673.2	0.5234	mg/L	0.00658	0.5234	mg/L	0.00658	1.26%
QC value within limits for Cd 226.502 Recovery = 104.69%								
Co 228.616†	76474.7	2.594	mg/L	0.0433	2.594	mg/L	0.0433	1.67%
QC value within limits for Co 228.616 Recovery = 103.78%								
Cr 267.716†	68526.3	0.5391	mg/L	0.01024	0.5391	mg/L	0.01024	1.90%
QC value within limits for Cr 267.716 Recovery = 107.82%								
Cu 324.752†	360212.9	1.245	mg/L	0.0289	1.245	mg/L	0.0289	2.32%
QC value within limits for Cu 324.752 Recovery = 99.60%								
Fe 259.939†	190188.8	5.251	mg/L	0.0839	5.251	mg/L	0.0839	1.60%
QC value within limits for Fe 259.939 Recovery = 105.02%								
K 766.490†	110474.8	21.80	mg/L	0.325	21.80	mg/L	0.325	1.49%
QC value less than the lower limit for K 766.490 Recovery = 87.20%								
Mg 279.077†	212205.9	25.93	mg/L	0.443	25.93	mg/L	0.443	1.71%
QC value within limits for Mg 279.077 Recovery = 103.71%								
Mn 257.610†	302468.5	0.7956	mg/L	0.01344	0.7956	mg/L	0.01344	1.69%
QC value within limits for Mn 257.610 Recovery = 106.07%								
Mo 202.031†	36855.9	2.635	mg/L	0.0581	2.635	mg/L	0.0581	2.20%
QC value within limits for Mo 202.031 Recovery = 105.38%								
Ni 231.604†	119703.9	2.144	mg/L	0.0345	2.144	mg/L	0.0345	1.61%
QC value within limits for Ni 231.604 Recovery = 107.22%								
Na 589.592†	436045.8	22.46	mg/L	0.270	22.46	mg/L	0.270	1.20%
QC value less than the lower limit for Na 589.592 Recovery = 89.84%								
Pb 220.353†	4005.3	0.5188	mg/L	0.00745	0.5188	mg/L	0.00745	1.44%
QC value within limits for Pb 220.353 Recovery = 103.76%								
Sb 206.836†	6408.5	5.153	mg/L	0.0732	5.153	mg/L	0.0732	1.42%
QC value within limits for Sb 206.836 Recovery = 103.06%								
Se 196.026†	951.5	0.4970	mg/L	0.00073	0.4970	mg/L	0.00073	0.15%
QC value within limits for Se 196.026 Recovery = 99.41%								
Sn 189.927†	27173.4	5.207	mg/L	0.0710	5.207	mg/L	0.0710	1.36%
QC value within limits for Sn 189.927 Recovery = 104.14%								
Ti 337.279†	1514592.0	2.484	mg/L	0.0024	2.484	mg/L	0.0024	0.10%
QC value within limits for Ti 337.279 Recovery = 99.34%								
Tl 190.801†	2053.4	1.059	mg/L	0.0182	1.059	mg/L	0.0182	1.72%
QC value within limits for Tl 190.801 Recovery = 105.89%								
V 292.402†	260484.3	2.513	mg/L	0.0441	2.513	mg/L	0.0441	1.75%
QC value within limits for V 292.402 Recovery = 100.53%								
Zn 206.200†	41079.2	1.074	mg/L	0.0131	1.074	mg/L	0.0131	1.22%
QC value within limits for Zn 206.200 Recovery = 107.38%								
Ca 227.546†	8350.2	25.31	mg/L	0.303	25.31	mg/L	0.303	1.20%
QC value within limits for Ca 227.546 Recovery = 101.23%								
Sr 421.552†	2229896.1	2.367	mg/L	0.0067	2.367	mg/L	0.0067	0.28%
QC value within limits for Sr 421.552 Recovery = 94.68%								

Al 237.313† 33249.9 9.958 mg/L 0.2134 9.958 mg/L 0.2134 2.14%
QC value within limits for Al 237.313 Recovery = 99.58%
QC Failed. Continue with analysis.

Sequence No.: 97
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/5/2015 8:40:15 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4016930.4	1.017	mg/L	0.0027				0.26%
Ag 328.068†	-31.2	-0.0001	mg/L	0.00009	-0.0001	mg/L	0.00009	85.76%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	0.1	0.0001	mg/L	0.00053	0.0001	mg/L	0.00053	627.94%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	2834.7	0.0289	mg/L	0.00208	0.0289	mg/L	0.00208	7.19%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	26.0	0.0004	mg/L	0.00042	0.0004	mg/L	0.00042	95.14%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	527.5	0.0002	mg/L	0.00001	0.0002	mg/L	0.00001	9.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	6.0	0.0001	mg/L	0.00005	0.0001	mg/L	0.00005	84.25%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	25.1	0.0009	mg/L	0.00012	0.0009	mg/L	0.00012	13.81%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	2.4	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	70.44%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	773.2	0.0027	mg/L	0.00078	0.0027	mg/L	0.00078	29.37%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	179.5	0.0050	mg/L	0.00135	0.0050	mg/L	0.00135	27.23%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	53.3	0.0105	mg/L	0.01627	0.0105	mg/L	0.01627	154.80%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	-109.8	-0.0134	mg/L	0.00403	-0.0134	mg/L	0.00403	29.99%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	-88.1	-0.0002	mg/L	0.00008	-0.0002	mg/L	0.00008	32.73%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	50.3	0.0036	mg/L	0.00080	0.0036	mg/L	0.00080	22.25%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	50.9	0.0009	mg/L	0.00023	0.0009	mg/L	0.00023	25.09%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	197.0	0.0101	mg/L	0.00205	0.0101	mg/L	0.00205	20.24%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	8.5	0.0011	mg/L	0.00031	0.0011	mg/L	0.00031	28.25%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	0.4	0.0004	mg/L	0.00028	0.0004	mg/L	0.00028	77.97%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-6.8	-0.0036	mg/L	0.00093	-0.0036	mg/L	0.00093	26.05%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	24.0	0.0046	mg/L	0.00158	0.0046	mg/L	0.00158	34.22%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 337.279†	608.8	0.0010	mg/L	0.00038	0.0010	mg/L	0.00038	37.94%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	1.8	0.0009	mg/L	0.00117	0.0009	mg/L	0.00117	129.61%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	62.3	0.0006	mg/L	0.00030	0.0006	mg/L	0.00030	49.16%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-19.8	-0.0005	mg/L	0.00004	-0.0005	mg/L	0.00004	8.19%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Ca 227.546†	-4.5	-0.0136	mg/L	0.00069	-0.0136	mg/L	0.00069	5.06%
QC value within limits for Ca 227.546 Recovery = Not calculated								
Sr 421.552†	318.5	0.0003	mg/L	0.00003	0.0003	mg/L	0.00003	10.31%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Al 237.313†	-42.7	-0.0127	mg/L	0.00184	-0.0127	mg/L	0.00184	14.58%
QC value within limits for Al 237.313 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 98
Sample ID: PBW-250703
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 96
Date Collected: 12/5/2015 8:45:55 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: PBW-250703

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4074335.0	1.031	mg/L	0.0149				1.45%
Ag 328.068†	8.6	0.0000	mg/L	0.00004				117.55%
As 188.979†	-0.2	-0.0001	mg/L	0.00036				278.35%
B 249.772†	2138.9	0.0218	mg/L	0.00075				3.44%
Ba 233.527†	8.4	0.0001	mg/L	0.00023				162.52%
Be 313.107†	433.9	0.0001	mg/L	0.00006				42.16%
Cd 226.502†	7.6	0.0001	mg/L	0.00012				144.73%
Co 228.616†	2.0	0.0001	mg/L	0.00020				292.13%
Cr 267.716†	38.3	0.0003	mg/L	0.00022				74.29%
Cu 324.752†	-57.2	-0.0002	mg/L	0.00018				90.23%
Fe 259.939†	32.9	0.0009	mg/L	0.00082				90.05%
K 766.490†	-68.7	-0.0136	mg/L	0.00553				40.80%
Mg 279.077†	62.1	0.0076	mg/L	0.01078				141.99%
Mn 257.610†	442.9	0.0012	mg/L	0.00007				6.11%
Mo 202.031†	15.5	0.0011	mg/L	0.00007				5.94%
Ni 231.604†	-11.8	-0.0002	mg/L	0.00004				19.23%
Na 589.592†	-67.0	-0.0035	mg/L	0.00543				157.37%
Pb 220.353†	-3.2	-0.0004	mg/L	0.00006				13.72%
Sb 206.836†	-2.3	-0.0018	mg/L	0.00178				96.79%
Se 196.026†	-2.5	-0.0013	mg/L	0.00112				86.08%
Sn 189.927†	-21.4	-0.0041	mg/L	0.00005				1.22%
Ti 337.279†	240.8	0.0004	mg/L	0.00000				0.03%
Tl 190.801†	-1.2	-0.0006	mg/L	0.00142				233.69%
V 292.402†	32.5	0.0003	mg/L	0.00003				8.77%
Zn 206.200†	-13.9	-0.0004	mg/L	0.00003				8.43%
Ca 227.546†	-3.9	-0.0118	mg/L	0.00537				45.63%
Sr 421.552†	-7.9	0.0000	mg/L	0.00004				454.61%
Al 237.313†	13.1	0.0039	mg/L	0.00940				239.34%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 99
Sample ID: LCSW-250703
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 97
Date Collected: 12/5/2015 8:51:37 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: LCSW-250703

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4025386.8	1.019	mg/L	0.0025				0.25%
Ag 328.068†	14866.4	0.0513	mg/L	0.00017				0.33%
As 188.979†	63.0	0.0414	mg/L	0.00089				2.16%
B 249.772†	91134.3	0.9255	mg/L	0.00178				0.19%
Ba 233.527†	124323.4	2.109	mg/L	0.0055				0.26%
Be 313.107†	158290.7	0.0481	mg/L	0.00009				0.19%
Cd 226.502†	4710.3	0.0506	mg/L	0.00002				0.03%
Co 228.616†	15039.3	0.5102	mg/L	0.00220				0.43%
Cr 267.716†	26741.8	0.2096	mg/L	0.00024				0.11%
Cu 324.752†	75425.3	0.2607	mg/L	0.00201				0.77%
Fe 259.939†	37801.6	1.044	mg/L	0.0007				0.07%
K 766.490†	87567.4	17.28	mg/L	0.052				0.30%
Mg 279.077†	15995.1	1.952	mg/L	0.0033				0.17%
Mn 257.610†	195608.2	0.5141	mg/L	0.00111				0.22%
Mo 202.031†	6864.8	0.4907	mg/L	0.00124				0.25%
Ni 231.604†	28985.5	0.5193	mg/L	0.00239				0.46%
Na 589.592†	356178.7	18.35	mg/L	0.110				0.60%
Pb 220.353†	3969.1	0.5149	mg/L	0.00016				0.03%
Sb 206.836†	567.8	0.4565	mg/L	0.00176				0.39%
Se 196.026†	1817.8	0.9503	mg/L	0.00196				0.21%

Sn 189.927†	27440.1	5.258	mg/L	0.0053		0.10%
Ti 337.279†	297648.7	0.4881	mg/L	0.00147		0.30%
Tl 190.801†	3954.2	2.037	mg/L	0.0006		0.03%
V 292.402†	51621.6	0.4980	mg/L	0.00224		0.45%
Zn 206.200†	19769.3	0.5168	mg/L	0.00171		0.33%
Ca 227.546†	657.3	1.995	mg/L	0.0147		0.73%
Sr 421.552†	323.0	0.0003	mg/L	0.00005		14.21%
Al 237.313†	6248.1	1.873	mg/L	0.0017		0.09%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 100 **Autosampler Location: 98**
Sample ID: R1509662-001 **Date Collected: 12/5/2015 8:57:30 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1509662-001

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3999092.8	1.012	mg/L	0.0085				0.84%
Ag 328.068†	283.5	0.0003	mg/L	0.00032				91.73%
As 188.979†	6.3	0.0034	mg/L	0.00084				24.88%
B 249.772†	3992.9	0.0405	mg/L	0.00105				2.59%
Ba 233.527†	2578.7	0.0437	mg/L	0.00043				0.98%
Be 313.107†	343.0	0.0001	mg/L	0.00004				36.47%
Cd 226.502†	10.6	0.0001	mg/L	0.00006				53.23%
Co 228.616†	-0.6	0.0000	mg/L	0.00017				783.06%
Cr 267.716†	-115.7	-0.0004	mg/L	0.00017				39.73%
Cu 324.752†	-101.5	-0.0004	mg/L	0.00010				28.57%
Fe 259.939†	2142.8	0.0592	mg/L	0.00046				0.78%
K 766.490†	4447.2	0.8775	mg/L	0.02728				3.11%
Mg 279.077†	67140.8	8.209	mg/L	0.1144				1.39%
Mn 257.610†	58705.5	0.1542	mg/L	0.00204				1.32%
Mo 202.031†	25.5	0.0018	mg/L	0.00026				14.20%
Ni 231.604†	21.2	0.0004	mg/L	0.00008				22.29%
Na 589.592†	111431.0	5.740	mg/L	0.0857				1.49%
Pb 220.353†	-10.8	-0.0010	mg/L	0.00143				141.59%
Sb 206.836†	-4.8	-0.0039	mg/L	0.00064				16.41%
Se 196.026†	-8.0	-0.0041	mg/L	0.00016				3.87%
Sn 189.927†	-189.2	-0.0363	mg/L	0.00225				6.20%
Ti 337.279†	405.0	0.0007	mg/L	0.00020				29.72%
Tl 190.801†	3.2	0.0018	mg/L	0.00202				112.15%
V 292.402†	-4.2	0.0000	mg/L	0.00020				551.89%
Zn 206.200†	65.6	0.0017	mg/L	0.00013				7.87%
Ca 227.546†	18587.3	56.27	mg/L	1.241				2.21%
Sr 421.552†	103897.4	0.1103	mg/L	0.00152				1.38%
Al 237.313†	46.1	-0.0068	mg/L	0.00551				81.51%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 101 **Autosampler Location: 99**
Sample ID: R1509662-002 **Date Collected: 12/5/2015 9:03:12 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1509662-002

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3953108.4	1.001	mg/L	0.0053				0.53%
Ag 328.068†	188.9	0.0003	mg/L	0.00025				80.87%
As 188.979†	1.8	0.0008	mg/L	0.00184				244.49%
B 249.772†	4211.0	0.0429	mg/L	0.00018				0.41%
Ba 233.527†	6744.7	0.1144	mg/L	0.00224				1.96%
Be 313.107†	-62.0	0.0000	mg/L	0.00000				16.37%
Cd 226.502†	-11.0	-0.0001	mg/L	0.00003				23.86%
Co 228.616†	-15.8	-0.0005	mg/L	0.00006				11.92%
Cr 267.716†	-65.5	-0.0002	mg/L	0.00011				52.13%
Cu 324.752†	-154.4	-0.0005	mg/L	0.00014				25.92%

Fe 259.939†	384.4	0.0106	mg/L	0.00019	1.77%
K 766.490†	10490.3	2.070	mg/L	0.0276	1.33%
Mg 279.077†	39858.0	4.874	mg/L	0.0289	0.59%
Mn 257.610†	17649.7	0.0464	mg/L	0.00047	1.01%
Mo 202.031†	10.5	0.0008	mg/L	0.00020	26.47%
Ni 231.604†	-34.8	-0.0006	mg/L	0.00012	19.82%
Na 589.592†	77903.8	4.013	mg/L	0.0182	0.45%
Pb 220.353†	-3.6	-0.0003	mg/L	0.00017	66.74%
Sb 206.836†	-0.9	-0.0007	mg/L	0.00084	117.76%
Se 196.026†	-10.5	-0.0054	mg/L	0.00222	40.81%
Sn 189.927†	-169.2	-0.0324	mg/L	0.00048	1.47%
Ti 337.279†	159.3	0.0003	mg/L	0.00011	43.26%
Tl 190.801†	1.2	0.0007	mg/L	0.00106	147.30%
V 292.402†	24.4	0.0002	mg/L	0.00004	15.02%
Zn 206.200†	19.3	0.0005	mg/L	0.00002	4.30%
Ca 227.546†	10040.2	30.40	mg/L	0.139	0.46%
Sr 421.552†	283333.0	0.3008	mg/L	0.00776	2.58%
Al 237.313†	-34.8	-0.0217	mg/L	0.00038	1.75%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 102
Sample ID: R1509662-002D
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 100
Date Collected: 12/5/2015 9:09:03 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509662-002D

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4008665.1	1.015	mg/L	0.0033				0.32%
Ag 328.068†	123.4	0.0001	mg/L	0.00018				213.61%
As 188.979†	3.1	0.0016	mg/L	0.00062				38.64%
B 249.772†	3787.9	0.0386	mg/L	0.00063				1.63%
Ba 233.527†	6586.9	0.1117	mg/L	0.00016				0.14%
Be 313.107†	214.1	0.0001	mg/L	0.00001				10.15%
Cd 226.502†	8.8	0.0001	mg/L	0.00004				44.28%
Co 228.616†	-17.3	-0.0006	mg/L	0.00008				12.80%
Cr 267.716†	-63.1	-0.0002	mg/L	0.00000				1.35%
Cu 324.752†	-229.3	-0.0008	mg/L	0.00010				12.00%
Fe 259.939†	461.8	0.0128	mg/L	0.00038				3.01%
K 766.490†	10548.5	2.081	mg/L	0.0175				0.84%
Mg 279.077†	39546.7	4.836	mg/L	0.0077				0.16%
Mn 257.610†	17681.6	0.0465	mg/L	0.00002				0.05%
Mo 202.031†	5.7	0.0004	mg/L	0.00016				39.36%
Ni 231.604†	-35.4	-0.0006	mg/L	0.00009				14.77%
Na 589.592†	77022.0	3.967	mg/L	0.0109				0.27%
Pb 220.353†	-5.7	-0.0005	mg/L	0.00001				1.05%
Sb 206.836†	-2.4	-0.0019	mg/L	0.00012				6.16%
Se 196.026†	-8.0	-0.0041	mg/L	0.00128				30.89%
Sn 189.927†	-169.7	-0.0325	mg/L	0.00085				2.61%
Ti 337.279†	66.5	0.0001	mg/L	0.00015				138.51%
Tl 190.801†	0.7	0.0005	mg/L	0.00064				140.64%
V 292.402†	-18.9	-0.0002	mg/L	0.00017				94.19%
Zn 206.200†	30.1	0.0008	mg/L	0.00001				1.57%
Ca 227.546†	10014.5	30.32	mg/L	0.079				0.26%
Sr 421.552†	277747.5	0.2948	mg/L	0.00757				2.57%
Al 237.313†	0.9	-0.0110	mg/L	0.00159				14.47%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 103
Sample ID: R1509662-002S
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 12/5/2015 9:14:48 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509662-002S

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD

Y 371.029	3914597.6	0.9908 mg/L	0.00793	0.80%
Ag 328.068†	15410.1	0.0528 mg/L	0.00078	1.48%
As 188.979†	70.8	0.0461 mg/L	0.00118	2.55%
B 249.772†	97940.2	0.9948 mg/L	0.00029	0.03%
Ba 233.527†	134781.6	2.286 mg/L	0.0223	0.97%
Be 313.107†	166677.8	0.0507 mg/L	0.00037	0.72%
Cd 226.502†	4805.9	0.0516 mg/L	0.00027	0.52%
Co 228.616†	15238.6	0.5170 mg/L	0.00417	0.81%
Cr 267.716†	27805.3	0.2182 mg/L	0.00224	1.03%
Cu 324.752†	76446.3	0.2642 mg/L	0.00042	0.16%
Fe 259.939†	39626.0	1.094 mg/L	0.0103	0.94%
K 766.490†	97594.4	19.26 mg/L	0.152	0.79%
Mg 279.077†	55338.7	6.762 mg/L	0.0551	0.82%
Mn 257.610†	221291.1	0.5815 mg/L	0.00522	0.90%
Mo 202.031†	7138.5	0.5103 mg/L	0.00165	0.32%
Ni 231.604†	29482.0	0.5282 mg/L	0.00535	1.01%
Na 589.592†	436667.2	22.49 mg/L	0.150	0.67%
Pb 220.353†	4089.7	0.5308 mg/L	0.00381	0.72%
Sb 206.836†	601.0	0.4832 mg/L	0.00739	1.53%
Se 196.026†	1897.7	0.9921 mg/L	0.00588	0.59%
Sn 189.927†	28651.9	5.490 mg/L	0.0408	0.74%
Ti 337.279†	310270.6	0.5088 mg/L	0.00275	0.54%
Tl 190.801†	4033.2	2.078 mg/L	0.0090	0.43%
V 292.402†	54075.9	0.5217 mg/L	0.00384	0.74%
Zn 206.200†	19814.3	0.5180 mg/L	0.00412	0.80%
Ca 227.546†	10547.0	31.94 mg/L	0.114	0.36%
Sr 421.552†	274684.7	0.2916 mg/L	0.00181	0.62%
Al 237.313†	6561.5	1.956 mg/L	0.0078	0.40%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 104 **Autosampler Location: 102**
Sample ID: R1509662-002A **Date Collected: 12/5/2015 9:20:32 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1509662-002A

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3907296.5	0.9890	mg/L	0.00174				0.18%
Ag 328.068†	14923.3	0.0511	mg/L	0.00018				0.36%
As 188.979†	61.0	0.0397	mg/L	0.00280				7.06%
B 249.772†	98128.7	0.9973	mg/L	0.00882				0.88%
Ba 233.527†	120553.5	2.045	mg/L	0.0044				0.21%
Be 313.107†	148422.9	0.0451	mg/L	0.00011				0.25%
Cd 226.502†	4215.2	0.0453	mg/L	0.00039				0.87%
Co 228.616†	13645.8	0.4629	mg/L	0.00099				0.21%
Cr 267.716†	24539.5	0.1926	mg/L	0.00122				0.63%
Cu 324.752†	67925.9	0.2348	mg/L	0.00129				0.55%
Fe 259.939†	35248.6	0.9732	mg/L	0.00673				0.69%
K 766.490†	112796.4	22.26	mg/L	0.012				0.06%
Mg 279.077†	53294.8	6.513	mg/L	0.0407				0.63%
Mn 257.610†	198195.5	0.5208	mg/L	0.00264				0.51%
Mo 202.031†	6491.3	0.4640	mg/L	0.00197				0.42%
Ni 231.604†	26059.4	0.4668	mg/L	0.00233				0.50%
Na 589.592†	471943.1	24.31	mg/L	0.079				0.32%
Pb 220.353†	3566.5	0.4629	mg/L	0.00545				1.18%
Sb 206.836†	540.8	0.4347	mg/L	0.00052				0.12%
Se 196.026†	1351.2	0.7064	mg/L	0.00450				0.64%
Sn 189.927†	25102.7	4.810	mg/L	0.0325				0.68%
Ti 337.279†	280128.5	0.4593	mg/L	0.00273				0.59%
Tl 190.801†	3580.3	1.845	mg/L	0.0128				0.70%
V 292.402†	47985.2	0.4630	mg/L	0.00146				0.32%
Zn 206.200†	17908.0	0.4681	mg/L	0.00207				0.44%
Ca 227.546†	10519.1	31.85	mg/L	0.225				0.71%
Sr 421.552†	281108.0	0.2984	mg/L	0.00138				0.46%
Al 237.313†	5932.9	1.767	mg/L	0.0129				0.73%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 105
Sample ID: R1509662-002L
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 103
Date Collected: 12/5/2015 9:26:12 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509662-002L

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3980321.3	1.007	mg/L	0.0014				0.14%
Ag 328.068†	-46.8	-0.0002	mg/L	0.00029				124.71%
As 188.979†	2.0	0.0013	mg/L	0.00130				104.11%
B 249.772†	2385.5	0.0244	mg/L	0.00077				3.17%
Ba 233.527†	1348.5	0.0229	mg/L	0.00015				0.66%
Be 313.107†	79.6	0.0000	mg/L	0.00001				50.97%
Cd 226.502†	1.4	0.0000	mg/L	0.00002				125.00%
Co 228.616†	-4.0	-0.0001	mg/L	0.00002				11.02%
Cr 267.716†	-13.7	0.0000	mg/L	0.00004				87.13%
Cu 324.752†	-192.5	-0.0007	mg/L	0.00032				48.27%
Fe 259.939†	22.3	0.0006	mg/L	0.00065				106.12%
K 766.490†	1946.5	0.3841	mg/L	0.01072				2.79%
Mg 279.077†	8004.4	0.9787	mg/L	0.00533				0.54%
Mn 257.610†	3550.4	0.0093	mg/L	0.00000				0.04%
Mo 202.031†	14.5	0.0010	mg/L	0.00030				28.57%
Ni 231.604†	-14.0	-0.0003	mg/L	0.00005				19.04%
Na 589.592†	15659.1	0.8066	mg/L	0.01397				1.73%
Pb 220.353†	2.8	0.0004	mg/L	0.00054				133.72%
Sb 206.836†	-1.8	-0.0014	mg/L	0.00049				34.44%
Se 196.026†	-4.8	-0.0025	mg/L	0.00289				116.78%
Sn 189.927†	-35.9	-0.0069	mg/L	0.00019				2.77%
Ti 337.279†	189.6	0.0003	mg/L	0.00002				7.77%
Tl 190.801†	2.4	0.0013	mg/L	0.00097				77.50%
V 292.402†	14.6	0.0001	mg/L	0.00021				150.03%
Zn 206.200†	461.7	0.0121	mg/L	0.00003				0.23%
Ca 227.546†	1993.4	6.035	mg/L	0.0220				0.36%
Sr 421.552†	56669.7	0.0602	mg/L	0.00044				0.73%
Al 237.313†	-8.1	-0.0047	mg/L	0.00351				75.22%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 106
Sample ID: R1509662-003
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 104
Date Collected: 12/5/2015 9:31:56 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509662-003

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4079739.3	1.033	mg/L	0.0138				1.33%
Ag 328.068†	-57.0	-0.0002	mg/L	0.00026				130.87%
As 188.979†	-3.1	-0.0020	mg/L	0.00005				2.23%
B 249.772†	1651.9	0.0169	mg/L	0.00024				1.43%
Ba 233.527†	12.8	0.0002	mg/L	0.00021				95.02%
Be 313.107†	488.8	0.0001	mg/L	0.00004				27.41%
Cd 226.502†	4.2	0.0000	mg/L	0.00012				256.89%
Co 228.616†	-12.1	-0.0004	mg/L	0.00013				31.82%
Cr 267.716†	64.0	0.0005	mg/L	0.00003				6.30%
Cu 324.752†	-342.3	-0.0012	mg/L	0.00021				17.45%
Fe 259.939†	-10.8	-0.0003	mg/L	0.00114				379.31%
K 766.490†	87.6	0.0173	mg/L	0.02076				120.10%
Mg 279.077†	17.8	0.0022	mg/L	0.00686				314.71%
Mn 257.610†	-9.9	0.0000	mg/L	0.00005				192.83%
Mo 202.031†	1.0	0.0001	mg/L	0.00021				291.46%
Ni 231.604†	-15.1	-0.0003	mg/L	0.00002				7.16%
Na 589.592†	83.2	0.0043	mg/L	0.00070				16.39%
Pb 220.353†	-9.1	-0.0012	mg/L	0.00028				24.03%
Sb 206.836†	-3.5	-0.0029	mg/L	0.00125				43.91%
Se 196.026†	1.0	0.0005	mg/L	0.00193				359.68%
Sn 189.927†	-18.2	-0.0035	mg/L	0.00019				5.51%

Ti 337.279†	203.7	0.0003 mg/L	0.00003	7.77%
Tl 190.801†	1.5	0.0008 mg/L	0.00034	45.50%
V 292.402†	3.5	0.0000 mg/L	0.00028	844.49%
Zn 206.200†	-24.8	-0.0006 mg/L	0.00012	18.87%
Ca 227.546†	2.2	0.0065 mg/L	0.00622	95.38%
Sr 421.552†	5.2	0.0000 mg/L	0.00008	>999.9%
Al 237.313†	30.7	0.0091 mg/L	0.00552	60.40%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 107
Sample ID: R1509662-004
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 12/5/2015 9:37:41 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509662-004

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3905195.4	0.9885	mg/L	0.00511				0.52%
Ag 328.068†	163.9	0.0000	mg/L	0.00010				365.23%
As 188.979†	3.7	0.0018	mg/L	0.00027				14.80%
B 249.772†	2261.4	0.0230	mg/L	0.00025				1.09%
Ba 233.527†	233.4	0.0040	mg/L	0.00006				1.54%
Be 313.107†	-45.1	0.0000	mg/L	0.00001				82.11%
Cd 226.502†	-3.5	0.0000	mg/L	0.00001				16.48%
Co 228.616†	-13.9	-0.0005	mg/L	0.00001				2.87%
Cr 267.716†	-46.2	-0.0003	mg/L	0.00009				36.44%
Cu 324.752†	-217.1	-0.0008	mg/L	0.00011				14.60%
Fe 259.939†	427.0	0.0118	mg/L	0.00020				1.69%
K 766.490†	1924.4	0.3797	mg/L	0.00466				1.23%
Mg 279.077†	31080.2	3.800	mg/L	0.0919				2.42%
Mn 257.610†	540.3	0.0014	mg/L	0.00002				1.21%
Mo 202.031†	6.2	0.0004	mg/L	0.00013				29.72%
Ni 231.604†	-39.8	-0.0007	mg/L	0.00020				28.11%
Na 589.592†	46897.9	2.416	mg/L	0.0459				1.90%
Pb 220.353†	-2.3	0.0000	mg/L	0.00114				>999.9%
Sb 206.836†	-1.3	-0.0011	mg/L	0.00071				67.75%
Se 196.026†	-14.2	-0.0073	mg/L	0.00027				3.69%
Sn 189.927†	-201.6	-0.0386	mg/L	0.00033				0.86%
Ti 337.279†	166.6	0.0003	mg/L	0.00001				2.48%
Tl 190.801†	5.4	0.0028	mg/L	0.00075				26.56%
V 292.402†	23.3	0.0002	mg/L	0.00039				171.29%
Zn 206.200†	-16.7	-0.0004	mg/L	0.00008				18.95%
Ca 227.546†	15666.8	47.43	mg/L	0.813				1.71%
Sr 421.552†	83060.1	0.0882	mg/L	0.00189				2.15%
Al 237.313†	9.3	-0.0150	mg/L	0.00141				9.42%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 108
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/5/2015 9:43:20 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3920732.0	0.9924	mg/L	0.01653				1.67%
Ag 328.068†	147106.1	0.5066	mg/L	0.00466	0.5066	mg/L	0.00466	0.92%
QC value within limits for Ag 328.068 Recovery = 101.33%								
As 188.979†	1513.4	0.9951	mg/L	0.01401	0.9951	mg/L	0.01401	1.41%
QC value within limits for As 188.979 Recovery = 99.51%								
B 249.772†	236276.6	2.388	mg/L	0.0033	2.388	mg/L	0.0033	0.14%
QC value within limits for B 249.772 Recovery = 95.53%								
Ba 233.527†	605083.1	10.26	mg/L	0.061	10.26	mg/L	0.061	0.60%
QC value within limits for Ba 233.527 Recovery = 102.64%								
Be 313.107†	828885.7	0.2519	mg/L	0.00101	0.2519	mg/L	0.00101	0.40%
QC value within limits for Be 313.107 Recovery = 100.75%								

Cd 226.502†	47136.4	0.5069 mg/L	0.00399	0.5069 mg/L	0.00399	0.79%
QC value within limits for Cd 226.502 Recovery = 101.38%						
Co 228.616†	74564.4	2.530 mg/L	0.0193	2.530 mg/L	0.0193	0.76%
QC value within limits for Co 228.616 Recovery = 101.18%						
Cr 267.716†	67040.5	0.5274 mg/L	0.00155	0.5274 mg/L	0.00155	0.29%
QC value within limits for Cr 267.716 Recovery = 105.48%						
Cu 324.752†	358664.9	1.240 mg/L	0.0209	1.240 mg/L	0.0209	1.69%
QC value within limits for Cu 324.752 Recovery = 99.18%						
Fe 259.939†	185259.8	5.115 mg/L	0.0125	5.115 mg/L	0.0125	0.24%
QC value within limits for Fe 259.939 Recovery = 102.30%						
K 766.490†	114724.9	22.64 mg/L	0.740	22.64 mg/L	0.740	3.27%
QC value within limits for K 766.490 Recovery = 90.55%						
Mg 279.077†	206618.1	25.24 mg/L	0.014	25.24 mg/L	0.014	0.06%
QC value within limits for Mg 279.077 Recovery = 100.98%						
Mn 257.610†	296208.5	0.7791 mg/L	0.00207	0.7791 mg/L	0.00207	0.27%
QC value within limits for Mn 257.610 Recovery = 103.88%						
Mo 202.031†	36212.7	2.589 mg/L	0.0190	2.589 mg/L	0.0190	0.73%
QC value within limits for Mo 202.031 Recovery = 103.54%						
Ni 231.604†	116435.2	2.086 mg/L	0.0142	2.086 mg/L	0.0142	0.68%
QC value within limits for Ni 231.604 Recovery = 104.30%						
Na 589.592†	447448.1	23.05 mg/L	0.877	23.05 mg/L	0.877	3.80%
QC value within limits for Na 589.592 Recovery = 92.19%						
Pb 220.353†	3969.6	0.5142 mg/L	0.00626	0.5142 mg/L	0.00626	1.22%
QC value within limits for Pb 220.353 Recovery = 102.84%						
Sb 206.836†	6377.0	5.128 mg/L	0.0717	5.128 mg/L	0.0717	1.40%
QC value within limits for Sb 206.836 Recovery = 102.55%						
Se 196.026†	947.0	0.4947 mg/L	0.00518	0.4947 mg/L	0.00518	1.05%
QC value within limits for Se 196.026 Recovery = 98.94%						
Sn 189.927†	27385.2	5.248 mg/L	0.0610	5.248 mg/L	0.0610	1.16%
QC value within limits for Sn 189.927 Recovery = 104.95%						
Ti 337.279†	1527512.2	2.505 mg/L	0.0176	2.505 mg/L	0.0176	0.70%
QC value within limits for Ti 337.279 Recovery = 100.19%						
Tl 190.801†	2034.9	1.049 mg/L	0.0103	1.049 mg/L	0.0103	0.99%
QC value within limits for Tl 190.801 Recovery = 104.94%						
V 292.402†	255858.2	2.469 mg/L	0.0083	2.469 mg/L	0.0083	0.34%
QC value within limits for V 292.402 Recovery = 98.74%						
Zn 206.200†	39209.1	1.025 mg/L	0.0246	1.025 mg/L	0.0246	2.40%
QC value within limits for Zn 206.200 Recovery = 102.50%						
Ca 227.546†	8378.3	25.39 mg/L	0.375	25.39 mg/L	0.375	1.48%
QC value within limits for Ca 227.546 Recovery = 101.56%						
Sr 421.552†	2233694.6	2.371 mg/L	0.0251	2.371 mg/L	0.0251	1.06%
QC value within limits for Sr 421.552 Recovery = 94.84%						
Al 237.313†	32875.7	9.845 mg/L	0.1099	9.845 mg/L	0.1099	1.12%
QC value within limits for Al 237.313 Recovery = 98.45%						

All analyte(s) passed QC.

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Sequence No.: 109 **Autosampler Location: 5**
Sample ID: CCB **Date Collected: 12/5/2015 9:49:12 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	3994121.0	1.011 mg/L	0.0133			1.31%
Ag 328.068†	-58.2	-0.0002 mg/L	0.00011	-0.0002 mg/L	0.00011	54.96%
QC value within limits for Ag 328.068 Recovery = Not calculated						
As 188.979†	-0.8	-0.0005 mg/L	0.00002	-0.0005 mg/L	0.00002	3.51%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.772†	2572.1	0.0263 mg/L	0.00172	0.0263 mg/L	0.00172	6.55%
QC value within limits for B 249.772 Recovery = Not calculated						
Ba 233.527†	26.6	0.0005 mg/L	0.00022	0.0005 mg/L	0.00022	48.81%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	573.2	0.0002 mg/L	0.00003	0.0002 mg/L	0.00003	19.73%
QC value within limits for Be 313.107 Recovery = Not calculated						
Cd 226.502†	4.0	0.0000 mg/L	0.00006	0.0000 mg/L	0.00006	142.47%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	10.6	0.0004 mg/L	0.00006	0.0004 mg/L	0.00006	17.76%
QC value within limits for Co 228.616 Recovery = Not calculated						

Cr 267.716†	4.0	0.0000 mg/L	0.00005	0.0000 mg/L	0.00005	169.06%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	576.6	0.0020 mg/L	0.00078	0.0020 mg/L	0.00078	39.29%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 259.939†	-16.3	-0.0005 mg/L	0.00083	-0.0005 mg/L	0.00083	184.21%
QC value within limits for Fe 259.939 Recovery = Not calculated						
K 766.490†	-7.3	-0.0014 mg/L	0.00026	-0.0014 mg/L	0.00026	18.25%
QC value within limits for K 766.490 Recovery = Not calculated						
Mg 279.077†	-112.1	-0.0137 mg/L	0.00179	-0.0137 mg/L	0.00179	13.05%
QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610†	-60.6	-0.0002 mg/L	0.00005	-0.0002 mg/L	0.00005	30.75%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	55.9	0.0040 mg/L	0.00088	0.0040 mg/L	0.00088	22.02%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604†	10.5	0.0002 mg/L	0.00025	0.0002 mg/L	0.00025	130.51%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Na 589.592†	149.5	0.0077 mg/L	0.00812	0.0077 mg/L	0.00812	105.43%
QC value within limits for Na 589.592 Recovery = Not calculated						
Pb 220.353†	-6.6	-0.0009 mg/L	0.00028	-0.0009 mg/L	0.00028	32.61%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	0.6	0.0005 mg/L	0.00062	0.0005 mg/L	0.00062	132.92%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-2.2	-0.0012 mg/L	0.00186	-0.0012 mg/L	0.00186	160.67%
QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	25.1	0.0048 mg/L	0.00142	0.0048 mg/L	0.00142	29.38%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 337.279†	736.8	0.0012 mg/L	0.00013	0.0012 mg/L	0.00013	10.37%
QC value within limits for Ti 337.279 Recovery = Not calculated						
Tl 190.801†	2.5	0.0013 mg/L	0.00052	0.0013 mg/L	0.00052	40.19%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	23.3	0.0002 mg/L	0.00007	0.0002 mg/L	0.00007	30.89%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	-45.5	-0.0012 mg/L	0.00008	-0.0012 mg/L	0.00008	6.63%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	-0.2	-0.0007 mg/L	0.00285	-0.0007 mg/L	0.00285	387.58%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Sr 421.552†	111.1	0.0001 mg/L	0.00013	0.0001 mg/L	0.00013	108.95%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Al 237.313†	-7.9	-0.0024 mg/L	0.00168	-0.0024 mg/L	0.00168	71.06%
QC value within limits for Al 237.313 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 110 **Autosampler Location: 106**
Sample ID: R1509662-005 **Date Collected: 12/5/2015 9:54:56 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1509662-005

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3904490.5	0.9883	mg/L	0.00075				0.08%
Ag 328.068†	218.0	0.0002	mg/L	0.00067				362.32%
As 188.979†	4.4	0.0023	mg/L	0.00034				14.87%
B 249.772†	3033.4	0.0310	mg/L	0.00044				1.41%
Ba 233.527†	242.8	0.0041	mg/L	0.00011				2.56%
Be 313.107†	-105.1	0.0000	mg/L	0.00000				1.48%
Cd 226.502†	-5.8	-0.0001	mg/L	0.00002				34.11%
Co 228.616†	-9.7	-0.0003	mg/L	0.00019				56.82%
Cr 267.716†	-25.3	-0.0001	mg/L	0.00003				42.47%
Cu 324.752†	54.6	0.0002	mg/L	0.00016				85.18%
Fe 259.939†	61.4	0.0017	mg/L	0.00041				24.30%
K 766.490†	1969.6	0.3886	mg/L	0.00154				0.40%
Mg 279.077†	32855.0	4.017	mg/L	0.0124				0.31%
Mn 257.610†	400.8	0.0011	mg/L	0.00002				2.01%
Mo 202.031†	23.9	0.0017	mg/L	0.00022				12.89%
Ni 231.604†	-37.4	-0.0007	mg/L	0.00004				5.57%
Na 589.592†	47814.3	2.463	mg/L	0.0422				1.71%
Pb 220.353†	-8.7	-0.0008	mg/L	0.00049				63.24%
Sb 206.836†	-0.1	-0.0001	mg/L	0.00283				>999.9%

Se 196.026†	-10.7	-0.0054	mg/L	0.00385	71.34%
Sn 189.927†	-193.9	-0.0371	mg/L	0.00092	2.49%
Ti 337.279†	410.6	0.0007	mg/L	0.00006	9.25%
Tl 190.801†	2.7	0.0015	mg/L	0.00120	81.70%
V 292.402†	38.5	0.0004	mg/L	0.00022	59.23%
Zn 206.200†	-9.6	-0.0003	mg/L	0.00005	18.39%
Ca 227.546†	16464.1	49.84	mg/L	0.154	0.31%
Sr 421.552†	87173.0	0.0925	mg/L	0.00123	1.32%
Al 237.313†	-21.6	-0.0252	mg/L	0.00327	12.98%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 111
Sample ID: R1509662-006
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 107
Date Collected: 12/5/2015 10:00:39 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509662-006

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3931066.8	0.9950	mg/L	0.00160				0.16%
Ag 328.068†	183.3	0.0001	mg/L	0.00001				6.16%
As 188.979†	4.9	0.0026	mg/L	0.00166				65.10%
B 249.772†	3827.6	0.0389	mg/L	0.00051				1.31%
Ba 233.527†	679.4	0.0115	mg/L	0.00016				1.38%
Be 313.107†	162.7	0.0000	mg/L	0.00004				72.63%
Cd 226.502†	-6.2	-0.0001	mg/L	0.00000				1.64%
Co 228.616†	-16.9	-0.0006	mg/L	0.00009				15.49%
Cr 267.716†	-116.2	-0.0004	mg/L	0.00017				42.73%
Cu 324.752†	439.7	0.0015	mg/L	0.00003				1.67%
Fe 259.939†	1591.6	0.0440	mg/L	0.00049				1.12%
K 766.490†	11233.5	2.217	mg/L	0.0065				0.29%
Mg 279.077†	66027.7	8.073	mg/L	0.0353				0.44%
Mn 257.610†	1787.1	0.0047	mg/L	0.00001				0.16%
Mo 202.031†	12.3	0.0009	mg/L	0.00031				35.27%
Ni 231.604†	79.3	0.0014	mg/L	0.00008				5.36%
Na 589.592†	350195.2	18.04	mg/L	0.180				1.00%
Pb 220.353†	1.3	0.0005	mg/L	0.00030				60.00%
Sb 206.836†	-2.4	-0.0020	mg/L	0.00188				95.73%
Se 196.026†	-12.3	-0.0063	mg/L	0.00316				49.98%
Sn 189.927†	-198.6	-0.0381	mg/L	0.00033				0.88%
Ti 337.279†	447.9	0.0007	mg/L	0.00002				2.44%
Tl 190.801†	4.9	0.0027	mg/L	0.00052				19.24%
V 292.402†	29.3	0.0003	mg/L	0.00004				15.59%
Zn 206.200†	22.5	0.0006	mg/L	0.00001				2.53%
Ca 227.546†	15357.5	46.49	mg/L	0.643				1.38%
Sr 421.552†	102285.6	0.1086	mg/L	0.00045				0.41%
Al 237.313†	107.5	0.0150	mg/L	0.00236				15.67%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 112
Sample ID: R1509662-007
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 12/5/2015 10:06:23 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509662-007

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3946125.6	0.9988	mg/L	0.00019				0.02%
Ag 328.068†	106.0	-0.0001	mg/L	0.00014				130.61%
As 188.979†	2.7	0.0013	mg/L	0.00114				90.45%
B 249.772†	4044.5	0.0413	mg/L	0.00078				1.88%
Ba 233.527†	2972.2	0.0504	mg/L	0.00006				0.11%
Be 313.107†	31.9	0.0000	mg/L	0.00001				152.78%
Cd 226.502†	-1.7	0.0000	mg/L	0.00001				53.55%
Co 228.616†	-18.3	-0.0006	mg/L	0.00014				22.27%
Cr 267.716†	-63.6	-0.0002	mg/L	0.00003				14.87%

Cu 324.752†	-199.6	-0.0007	mg/L	0.00014	20.40%
Fe 259.939†	208.2	0.0058	mg/L	0.00021	3.65%
K 766.490†	5111.9	1.009	mg/L	0.0166	1.64%
Mg 279.077†	42669.9	5.217	mg/L	0.0775	1.49%
Mn 257.610†	27024.4	0.0710	mg/L	0.00110	1.54%
Mo 202.031†	10.5	0.0008	mg/L	0.00004	5.62%
Ni 231.604†	-43.4	-0.0008	mg/L	0.00002	2.98%
Na 589.592†	106241.1	5.472	mg/L	0.1206	2.20%
Pb 220.353†	-8.0	-0.0007	mg/L	0.00105	141.54%
Sb 206.836†	-3.1	-0.0025	mg/L	0.00026	10.28%
Se 196.026†	-9.1	-0.0046	mg/L	0.00038	8.13%
Sn 189.927†	-196.2	-0.0376	mg/L	0.00046	1.22%
Ti 337.279†	121.5	0.0002	mg/L	0.00015	74.51%
Tl 190.801†	2.5	0.0014	mg/L	0.00122	88.68%
V 292.402†	21.6	0.0002	mg/L	0.00013	62.08%
Zn 206.200†	-16.5	-0.0004	mg/L	0.00004	10.17%
Ca 227.546†	13713.2	41.51	mg/L	0.616	1.48%
Sr 421.552†	152018.7	0.1614	mg/L	0.00350	2.17%
Al 237.313†	-11.2	-0.0189	mg/L	0.00107	5.66%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 113
Sample ID: R1509662-008
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 109
Date Collected: 12/5/2015 10:12:06 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509662-008

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	3883187.7	0.9829	mg/L	0.00119				0.12%
Ag 328.068†	190.3	-0.0003	mg/L	0.00062				196.31%
As 188.979†	4.9	0.0020	mg/L	0.00065				31.94%
B 249.772†	3814.2	0.0389	mg/L	0.00093				2.38%
Ba 233.527†	779.5	0.0132	mg/L	0.00007				0.50%
Be 313.107†	-174.9	-0.0001	mg/L	0.00001				27.98%
Cd 226.502†	-1.9	0.0000	mg/L	0.00004				173.54%
Co 228.616†	-14.8	-0.0005	mg/L	0.00021				41.12%
Cr 267.716†	-174.0	-0.0004	mg/L	0.00049				113.49%
Cu 324.752†	-68.1	-0.0002	mg/L	0.00037				156.53%
Fe 259.939†	193.8	0.0054	mg/L	0.00059				11.10%
K 766.490†	6332.9	1.250	mg/L	0.0140				1.12%
Mg 279.077†	119899.3	14.66	mg/L	0.049				0.33%
Mn 257.610†	1703.2	0.0045	mg/L	0.00005				1.05%
Mo 202.031†	7.7	0.0005	mg/L	0.00021				38.94%
Ni 231.604†	9.5	0.0002	mg/L	0.00005				29.68%
Na 589.592†	78819.4	4.060	mg/L	0.0388				0.96%
Pb 220.353†	-4.5	0.0000	mg/L	0.00022				840.02%
Sb 206.836†	-3.5	-0.0028	mg/L	0.00030				10.67%
Se 196.026†	-17.9	-0.0092	mg/L	0.00053				5.73%
Sn 189.927†	-247.6	-0.0474	mg/L	0.00039				0.82%
Ti 337.279†	138.0	0.0002	mg/L	0.00003				14.57%
Tl 190.801†	4.3	0.0024	mg/L	0.00046				18.79%
V 292.402†	-3.9	0.0000	mg/L	0.00031				836.30%
Zn 206.200†	23.6	0.0006	mg/L	0.00003				4.56%
Ca 227.546†	28308.0	85.70	mg/L	0.288				0.34%
Sr 421.552†	174010.0	0.1847	mg/L	0.00103				0.56%
Al 237.313†	4.6	-0.0308	mg/L	0.00265				8.60%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 114
Sample ID: R1509662-009
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 110
Date Collected: 12/5/2015 10:17:47 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509662-009

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD

Analyte	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	Std.Dev.	RSD
Y 371.029	3905459.7	0.9885	mg/L	0.00487				0.49%
Ag 328.068†	14.2	-0.0002	mg/L	0.00015				80.15%
As 188.979†	12.1	0.0066	mg/L	0.00059				8.95%
B 249.772†	4508.8	0.0194	mg/L	0.00071				3.67%
Ba 233.527†	2265.8	0.0384	mg/L	0.00017				0.43%
Be 313.107†	-90.7	0.0000	mg/L	0.00003				122.80%
Cd 226.502†	79.2	-0.0001	mg/L	0.00001				7.43%
Co 228.616†	-7.8	-0.0003	mg/L	0.00031				118.10%
Cr 267.716†	-284.7	-0.0013	mg/L	0.00013				9.84%
Cu 324.752†	-232.2	-0.0008	mg/L	0.00009				11.60%
Fe 259.939†	219792.3	6.071	mg/L	0.0398				0.66%
K 766.490†	4645.9	0.9167	mg/L	0.00908				0.99%
Mg 279.077†	106231.2	12.97	mg/L	0.125				0.96%
Mn 257.610†	89638.9	0.2365	mg/L	0.00217				0.92%
Mo 202.031†	5.9	0.0004	mg/L	0.00048				113.58%
Ni 231.604†	-28.0	-0.0005	mg/L	0.00024				47.79%
Na 589.592†	72804.9	3.750	mg/L	0.0290				0.77%
Pb 220.353†	-6.4	-0.0008	mg/L	0.00003				4.21%
Sb 206.836†	-3.8	-0.0031	mg/L	0.00087				28.18%
Se 196.026†	-13.4	-0.0067	mg/L	0.00076				11.38%
Sn 189.927†	-260.6	-0.0499	mg/L	0.00002				0.03%
Ti 337.279†	283.5	0.0005	mg/L	0.00003				7.00%
Tl 190.801†	-1.3	0.0002	mg/L	0.00003				12.68%
V 292.402†	-56.7	-0.0001	mg/L	0.00023				310.81%
Zn 206.200†	34.4	0.0009	mg/L	0.00030				33.64%
Ca 227.546†	34945.0	105.8	mg/L	0.53				0.50%
Sr 421.552†	211155.9	0.2241	mg/L	0.00169				0.75%
Al 237.313†	-231.3	-0.0375	mg/L	0.01477				39.35%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 115 **Autosampler Location: 111**
Sample ID: R1509662-010 **Date Collected: 12/5/2015 10:23:30 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1509662-010

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3761684.7	0.9521	mg/L	0.01783				1.87%
Ag 328.068†	-122.2	0.0007	mg/L	0.00031				47.20%
As 188.979†	14.7	0.0058	mg/L	0.00112				19.19%
B 249.772†	12975.7	0.0079	mg/L	0.00002				0.31%
Ba 233.527†	4883.0	0.0828	mg/L	0.00112				1.35%
Be 313.107†	-423.3	-0.0001	mg/L	0.00007				52.25%
Cd 226.502†	358.9	-0.0007	mg/L	0.00021				31.73%
Co 228.616†	37.3	0.0013	mg/L	0.00022				17.73%
Cr 267.716†	-436.9	-0.0012	mg/L	0.00004				3.55%
Cu 324.752†	73.7	0.0003	mg/L	0.00032				125.55%
Fe 259.939†	1030132.0	28.46	mg/L	0.593				2.09%
K 766.490†	8516.0	1.680	mg/L	0.0432				2.57%
Mg 279.077†	228029.0	27.77	mg/L	0.603				2.17%
Mn 257.610†	1882321.3	4.949	mg/L	0.1051				2.12%
Mo 202.031†	-17.7	-0.0013	mg/L	0.00020				15.55%
Ni 231.604†	241.8	0.0043	mg/L	0.00031				7.20%
Na 589.592†	277690.2	14.30	mg/L	0.395				2.76%
Pb 220.353†	11.3	0.0004	mg/L	0.00062				140.51%
Sb 206.836†	-1.3	-0.0010	mg/L	0.00211				203.14%
Se 196.026†	-16.4	-0.0075	mg/L	0.00285				38.11%
Sn 189.927†	-301.0	-0.0577	mg/L	0.00062				1.08%
Ti 337.279†	274.3	0.0004	mg/L	0.00005				10.56%
Tl 190.801†	-60.7	-0.0276	mg/L	0.00005				0.19%
V 292.402†	-421.9	-0.0019	mg/L	0.00005				2.51%
Zn 206.200†	250.3	0.0065	mg/L	0.00016				2.44%
Ca 227.546†	101024.5	306.0	mg/L	7.37				2.41%
Sr 421.552†	626955.8	0.6655	mg/L	0.00279				0.42%
Al 237.313†	-1717.4	-0.2931	mg/L	0.00938				3.20%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 116
Sample ID: R1509662-011
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 112
Date Collected: 12/5/2015 10:29:19 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509662-011

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4010789.3	1.015	mg/L	0.0037				0.37%
Ag 328.068†	110.1	-0.0002	mg/L	0.00050				250.70%
As 188.979†	3.8	0.0017	mg/L	0.00197				112.82%
B 249.772†	4082.5	0.0417	mg/L	0.00070				1.68%
Ba 233.527†	569.9	0.0097	mg/L	0.00002				0.23%
Be 313.107†	122.1	0.0000	mg/L	0.00004				95.83%
Cd 226.502†	12.8	0.0001	mg/L	0.00006				45.04%
Co 228.616†	-17.8	-0.0006	mg/L	0.00013				22.24%
Cr 267.716†	-121.8	-0.0002	mg/L	0.00006				24.05%
Cu 324.752†	-285.2	-0.0010	mg/L	0.00021				20.99%
Fe 259.939†	-72.5	-0.0020	mg/L	0.00105				52.56%
K 766.490†	5622.2	1.109	mg/L	0.0047				0.43%
Mg 279.077†	85649.3	10.47	mg/L	0.205				1.95%
Mn 257.610†	2844.0	0.0075	mg/L	0.00008				1.01%
Mo 202.031†	16.1	0.0012	mg/L	0.00023				20.27%
Ni 231.604†	-49.8	-0.0009	mg/L	0.00004				4.58%
Na 589.592†	149194.5	7.685	mg/L	0.0234				0.30%
Pb 220.353†	-6.6	-0.0005	mg/L	0.00024				49.04%
Sb 206.836†	-4.3	-0.0035	mg/L	0.00069				19.89%
Se 196.026†	-12.2	-0.0063	mg/L	0.00119				18.93%
Sn 189.927†	-176.8	-0.0339	mg/L	0.00034				1.00%
Ti 337.279†	14.1	0.0000	mg/L	0.00007				298.98%
Tl 190.801†	-0.7	-0.0002	mg/L	0.00059				266.32%
V 292.402†	26.5	0.0003	mg/L	0.00009				33.99%
Zn 206.200†	-8.7	-0.0002	mg/L	0.00007				30.46%
Ca 227.546†	16854.7	51.03	mg/L	1.019				2.00%
Sr 421.552†	164986.8	0.1751	mg/L	0.00087				0.50%
Al 237.313†	9.6	-0.0164	mg/L	0.00057				3.47%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 117
Sample ID: R1509662-012
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 113
Date Collected: 12/5/2015 10:35:03 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509662-012

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3909989.3	0.9897	mg/L	0.00053				0.05%
Ag 328.068†	120.7	-0.0004	mg/L	0.00018				46.73%
As 188.979†	2.4	0.0007	mg/L	0.00093				131.48%
B 249.772†	1440.6	0.0146	mg/L	0.00021				1.43%
Ba 233.527†	384.5	0.0065	mg/L	0.00002				0.38%
Be 313.107†	-31.3	0.0000	mg/L	0.00003				339.39%
Cd 226.502†	1.7	0.0000	mg/L	0.00006				429.13%
Co 228.616†	-20.8	-0.0007	mg/L	0.00006				8.70%
Cr 267.716†	-51.1	-0.0002	mg/L	0.00006				25.87%
Cu 324.752†	-344.7	-0.0012	mg/L	0.00017				14.51%
Fe 259.939†	1080.0	0.0298	mg/L	0.00029				0.97%
K 766.490†	1912.9	0.3775	mg/L	0.01236				3.27%
Mg 279.077†	46965.6	5.743	mg/L	0.0378				0.66%
Mn 257.610†	1032.6	0.0027	mg/L	0.00002				0.88%
Mo 202.031†	4.8	0.0003	mg/L	0.00019				56.32%
Ni 231.604†	-56.7	-0.0010	mg/L	0.00015				14.64%
Na 589.592†	35498.2	1.828	mg/L	0.0129				0.70%
Pb 220.353†	-9.0	-0.0006	mg/L	0.00008				12.43%
Sb 206.836†	-1.8	-0.0014	mg/L	0.00146				102.64%
Se 196.026†	-16.1	-0.0081	mg/L	0.00256				31.55%

Sn 189.927†	-205.6	-0.0394	mg/L	0.00069		1.74%
Ti 337.279†	184.9	0.0003	mg/L	0.00004		12.92%
Tl 190.801†	4.7	0.0025	mg/L	0.00063		24.71%
V 292.402†	4.0	0.0000	mg/L	0.00009		207.95%
Zn 206.200†	-34.1	-0.0009	mg/L	0.00003		3.31%
Ca 227.546†	23728.8	71.84	mg/L LL	0.628		0.87%
Sr 421.552†	119488.7	0.1268	mg/L	0.00100		0.79%
Al 237.313†	57.1	-0.0097	mg/L	0.00114		11.79%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 118 **Autosampler Location: 114**
Sample ID: R1509662-013 **Date Collected: 12/5/2015 10:40:45 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1509662-013

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3922208.7	0.9928	mg/L	0.00172				0.17%
Ag 328.068†	369.4	0.0003	mg/L	0.00042				121.12%
As 188.979†	5.8	0.0027	mg/L	0.00117				43.52%
B 249.772†	2175.7	0.0224	mg/L	0.00018				0.81%
Ba 233.527†	1189.9	0.0202	mg/L	0.00010				0.48%
Be 313.107†	78.5	0.0000	mg/L	0.00002				69.78%
Cd 226.502†	71.4	0.0008	mg/L	0.00001				0.86%
Co 228.616†	-20.7	-0.0007	mg/L	0.00006				8.39%
Cr 267.716†	-57.5	0.0003	mg/L	0.00015				43.37%
Cu 324.752†	-133.2	-0.0005	mg/L	0.00005				11.12%
Fe 259.939†	-1037.1	-0.0286	mg/L	0.00064				2.23%
K 766.490†	4946.0	0.9759	mg/L	0.01084				1.11%
Mg 279.077†	106146.3	12.98	mg/L	0.086				0.67%
Mn 257.610†	1482364.9	3.894	mg/L	0.0170				0.44%
Mo 202.031†	0.4	0.0000	mg/L	0.00009				317.52%
Ni 231.604†	636.3	0.0114	mg/L	0.00001				0.11%
Na 589.592†	96316.8	4.961	mg/L	0.0369				0.74%
Pb 220.353†	-6.2	-0.0002	mg/L	0.00065				306.29%
Sb 206.836†	-3.7	-0.0029	mg/L	0.00193				65.53%
Se 196.026†	-11.7	-0.0060	mg/L	0.00649				108.64%
Sn 189.927†	-211.6	-0.0405	mg/L	0.00031				0.77%
Ti 337.279†	29.4	0.0000	mg/L	0.00002				45.25%
Tl 190.801†	-40.7	-0.0207	mg/L	0.00080				3.83%
V 292.402†	-38.5	-0.0004	mg/L	0.00019				49.98%
Zn 206.200†	61.6	0.0016	mg/L	0.00002				1.54%
Ca 227.546†	26896.9	81.43	mg/L LL	0.493				0.61%
Sr 421.552†	172204.1	0.1828	mg/L	0.00118				0.64%
Al 237.313†	-462.5	-0.1688	mg/L	0.00253				1.50%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 119 **Autosampler Location: 115**
Sample ID: R1509662-014 **Date Collected: 12/5/2015 10:46:25 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1509662-014

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4029300.1	1.020	mg/L	0.0047				0.46%
Ag 328.068†	-128.5	-0.0005	mg/L	0.00053				108.10%
As 188.979†	0.1	-0.0001	mg/L	0.00016				173.72%
B 249.772†	24511.1	0.2489	mg/L	0.00153				0.62%
Ba 233.527†	4711.8	0.0799	mg/L	0.00001				0.02%
Be 313.107†	283.4	0.0001	mg/L	0.00001				16.23%
Cd 226.502†	7.6	0.0000	mg/L	0.00005				125.60%
Co 228.616†	-19.5	-0.0007	mg/L	0.00002				3.77%
Cr 267.716†	53.9	0.0006	mg/L	0.00004				7.51%
Cu 324.752†	-398.3	-0.0014	mg/L	0.00001				0.65%

Fe 259.939†	10644.8	0.2940 mg/L	0.00408		1.39%
K 766.490†	20409.2	4.027 mg/L	0.0148		0.37%
Mg 279.077†	16287.9	1.990 mg/L	0.0271		1.36%
Mn 257.610†	15459.2	0.0407 mg/L	0.00040		0.99%
Mo 202.031†	3.3	0.0002 mg/L	0.00020		84.98%
Ni 231.604†	-35.0	-0.0006 mg/L	0.00002		3.69%
Na 589.592†	709707.9	36.56 mg/L	0.426		1.17%
Pb 220.353†	-11.1	-0.0014 mg/L	0.00058		40.59%
Sb 206.836†	-1.2	-0.0010 mg/L	0.00012		12.28%
Se 196.026†	-1.2	-0.0006 mg/L	0.00289		481.52%
Sn 189.927†	-62.4	-0.0120 mg/L	0.00011		0.94%
Ti 337.279†	434.1	0.0007 mg/L	0.00001		1.07%
Tl 190.801†	1.2	0.0007 mg/L	0.00015		23.09%
V 292.402†	36.0	0.0004 mg/L	0.00044		118.46%
Zn 206.200†	23.5	0.0006 mg/L	0.00012		18.85%
Ca 227.546†	2828.6	8.565 mg/L	0.0087		0.10%
Sr 421.552†	325825.1	0.3459 mg/L	0.00275		0.79%
Al 237.313†	539.4	0.1609 mg/L	0.00074		0.46%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 120 **Autosampler Location: 4**
Sample ID: CCV **Date Collected: 12/5/2015 10:52:13 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3851894.9	0.9750	mg/L	0.00651				0.67%
Ag 328.068†	150671.6	0.5189	mg/L	0.00471	0.5189	mg/L	0.00471	0.91%
QC value within limits for Ag 328.068 Recovery = 103.78%								
As 188.979†	1524.3	1.002	mg/L	0.0038	1.002	mg/L	0.0038	0.38%
QC value within limits for As 188.979 Recovery = 100.23%								
B 249.772†	239745.5	2.423	mg/L	0.0057	2.423	mg/L	0.0057	0.24%
QC value within limits for B 249.772 Recovery = 96.92%								
Ba 233.527†	628680.2	10.66	mg/L	0.112	10.66	mg/L	0.112	1.05%
QC value within limits for Ba 233.527 Recovery = 106.64%								
Be 313.107†	837558.3	0.2545	mg/L	0.00201	0.2545	mg/L	0.00201	0.79%
QC value within limits for Be 313.107 Recovery = 101.81%								
Cd 226.502†	48797.8	0.5248	mg/L	0.00596	0.5248	mg/L	0.00596	1.14%
QC value within limits for Cd 226.502 Recovery = 104.96%								
Co 228.616†	76742.9	2.604	mg/L	0.0303	2.604	mg/L	0.0303	1.16%
QC value within limits for Co 228.616 Recovery = 104.14%								
Cr 267.716†	69404.2	0.5460	mg/L	0.00598	0.5460	mg/L	0.00598	1.10%
QC value within limits for Cr 267.716 Recovery = 109.19%								
Cu 324.752†	367625.8	1.271	mg/L	0.0030	1.271	mg/L	0.0030	0.24%
QC value within limits for Cu 324.752 Recovery = 101.65%								
Fe 259.939†	189565.2	5.234	mg/L	0.0444	5.234	mg/L	0.0444	0.85%
QC value within limits for Fe 259.939 Recovery = 104.68%								
K 766.490†	121907.4	24.05	mg/L	0.357	24.05	mg/L	0.357	1.49%
QC value within limits for K 766.490 Recovery = 96.22%								
Mg 279.077†	210904.1	25.77	mg/L	0.286	25.77	mg/L	0.286	1.11%
QC value within limits for Mg 279.077 Recovery = 103.07%								
Mn 257.610†	304814.6	0.8017	mg/L	0.00799	0.8017	mg/L	0.00799	1.00%
QC value within limits for Mn 257.610 Recovery = 106.90%								
Mo 202.031†	38241.8	2.734	mg/L	0.0279	2.734	mg/L	0.0279	1.02%
QC value within limits for Mo 202.031 Recovery = 109.35%								
Ni 231.604†	120401.9	2.157	mg/L	0.0263	2.157	mg/L	0.0263	1.22%
QC value within limits for Ni 231.604 Recovery = 107.85%								
Na 589.592†	465572.5	23.98	mg/L	0.380	23.98	mg/L	0.380	1.58%
QC value within limits for Na 589.592 Recovery = 95.92%								
Pb 220.353†	4074.7	0.5278	mg/L	0.00496	0.5278	mg/L	0.00496	0.94%
QC value within limits for Pb 220.353 Recovery = 105.56%								
Sb 206.836†	6734.9	5.415	mg/L	0.0367	5.415	mg/L	0.0367	0.68%
QC value within limits for Sb 206.836 Recovery = 108.31%								
Se 196.026†	951.8	0.4972	mg/L	0.00357	0.4972	mg/L	0.00357	0.72%
QC value within limits for Se 196.026 Recovery = 99.44%								
Sn 189.927†	28284.8	5.420	mg/L	0.0383	5.420	mg/L	0.0383	0.71%
QC value within limits for Sn 189.927 Recovery = 108.40%								

Ti 337.279†	1546518.1	2.536 mg/L	0.0004	2.536 mg/L	0.0004	0.01%
QC value within limits for Ti 337.279 Recovery = 101.44%						
Tl 190.801†	2110.1	1.088 mg/L	0.0063	1.088 mg/L	0.0063	0.58%
QC value within limits for Tl 190.801 Recovery = 108.82%						
V 292.402†	267420.0	2.580 mg/L	0.0335	2.580 mg/L	0.0335	1.30%
QC value within limits for V 292.402 Recovery = 103.20%						
Zn 206.200†	40671.2	1.063 mg/L	0.0166	1.063 mg/L	0.0166	1.56%
QC value within limits for Zn 206.200 Recovery = 106.32%						
Ca 227.546†	8661.7	26.25 mg/L	0.113	26.25 mg/L	0.113	0.43%
QC value within limits for Ca 227.546 Recovery = 105.00%						
Sr 421.552†	2293746.9	2.435 mg/L	0.0348	2.435 mg/L	0.0348	1.43%
QC value within limits for Sr 421.552 Recovery = 97.39%						
Al 237.313†	34205.1	10.24 mg/L	0.085	10.24 mg/L	0.085	0.83%
QC value within limits for Al 237.313 Recovery = 102.42%						

All analyte(s) passed QC.

Sequence No.: 121 **Autosampler Location: 5**
Sample ID: CCB **Date Collected: 12/5/2015 10:58:03 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3976735.3	1.007	mg/L	0.0029				0.28%
Ag 328.068†	-164.6	-0.0006	mg/L	0.00039	-0.0006	mg/L	0.00039	69.35%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	0.8	0.0006	mg/L	0.00098	0.0006	mg/L	0.00098	175.86%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	1817.6	0.0186	mg/L	0.00175	0.0186	mg/L	0.00175	9.43%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	13.4	0.0002	mg/L	0.00001	0.0002	mg/L	0.00001	4.99%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	331.8	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	23.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	9.8	0.0001	mg/L	0.00008	0.0001	mg/L	0.00008	78.47%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.0	0.0003	mg/L	0.00005	0.0003	mg/L	0.00005	18.62%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	9.5	0.0001	mg/L	0.00005	0.0001	mg/L	0.00005	71.66%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	456.0	0.0016	mg/L	0.00105	0.0016	mg/L	0.00105	66.58%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	-80.2	-0.0022	mg/L	0.00007	-0.0022	mg/L	0.00007	3.33%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	50.6	0.0100	mg/L	0.01113	0.0100	mg/L	0.01113	111.39%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	-145.1	-0.0177	mg/L	0.00656	-0.0177	mg/L	0.00656	36.99%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	40.8	0.0001	mg/L	0.00001	0.0001	mg/L	0.00001	8.91%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	57.6	0.0041	mg/L	0.00113	0.0041	mg/L	0.00113	27.35%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	-9.7	-0.0002	mg/L	0.00027	-0.0002	mg/L	0.00027	156.29%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	151.1	0.0078	mg/L	0.00417	0.0078	mg/L	0.00417	53.61%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	0.5	0.0001	mg/L	0.00004	0.0001	mg/L	0.00004	65.79%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-1.7	-0.0013	mg/L	0.00261	-0.0013	mg/L	0.00261	196.58%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	0.1	0.0001	mg/L	0.00196	0.0001	mg/L	0.00196	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	20.3	0.0039	mg/L	0.00148	0.0039	mg/L	0.00148	37.97%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 337.279†	795.8	0.0013	mg/L	0.00026	0.0013	mg/L	0.00026	19.97%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	0.2	0.0001	mg/L	0.00155	0.0001	mg/L	0.00155	>999.9%
QC value within limits for Tl 190.801 Recovery = Not calculated								

V 292.402†	36.1	0.0003 mg/L	0.00039	0.0003 mg/L	0.00039	113.55%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	-50.4	-0.0013 mg/L	0.00003	-0.0013 mg/L	0.00003	2.12%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	-4.5	-0.0136 mg/L	0.01266	-0.0136 mg/L	0.01266	92.76%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Sr 421.552†	113.3	0.0001 mg/L	0.00003	0.0001 mg/L	0.00003	24.97%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Al 237.313†	-10.1	-0.0030 mg/L	0.00370	-0.0030 mg/L	0.00370	122.15%
QC value within limits for Al 237.313 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 122 **Autosampler Location:** 116
Sample ID: ~~R1509662-015~~ **Date Collected:** 12/5/2015 11:03:46 PM
Analyst: **Data Type:** Original
Initial Sample Wt: 12/7/15 **Initial Sample Vol:**
Dilution: 20 **Sample Prep Vol:** 50 mL

Mean Data: ~~R1509662-015~~

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3980223.0	1.007	mg/L	0.0074				0.73%
Ag 328.068†	-139.8	-0.0005	mg/L	0.00009				18.99%
As 188.979†	-0.4	-0.0003	mg/L	0.00033				131.03%
B 249.772†	1228.2	0.0126	mg/L	0.00005				0.37%
Ba 233.527†	-1.8	0.0000	mg/L	0.00040				>999.9%
Be 313.107†	406.9	0.0001	mg/L	0.00000				3.00%
Cd 226.502†	10.3	0.0001	mg/L	0.00013				116.48%
Co 228.616†	1.0	0.0000	mg/L	0.00012				372.28%
Cr 267.716†	11.6	0.0001	mg/L	0.00017				196.50%
Cu 324.752†	-159.2	-0.0006	mg/L	0.00018				31.83%
Fe 259.939†	-122.7	-0.0034	mg/L	0.00210				61.84%
K 766.490†	-27.5	-0.0054	mg/L	0.00184				33.94%
Mg 279.077†	-101.9	-0.0124	mg/L	0.01897				152.40%
Mn 257.610†	31.9	0.0001	mg/L	0.00011				129.11%
Mo 202.031†	9.6	0.0007	mg/L	0.00010				14.65%
Ni 231.604†	-19.4	-0.0003	mg/L	0.00010				28.61%
Na 589.592†	157.2	0.0081	mg/L	0.00132				16.31%
Pb 220.353†	-8.1	-0.0010	mg/L	0.00071				68.40%
Sb 206.836†	-1.8	-0.0014	mg/L	0.00173				121.70%
Se 196.026†	-2.2	-0.0011	mg/L	0.00098				87.01%
Sn 189.927†	-11.3	-0.0022	mg/L	0.00061				28.44%
Ti 337.279†	151.1	0.0002	mg/L	0.00004				17.36%
Tl 190.801†	1.4	0.0007	mg/L	0.00040				56.63%
V 292.402†	37.5	0.0004	mg/L	0.00004				11.88%
Zn 206.200†	1673.6	0.0437	mg/L	0.00098				2.24%
Ca 227.546†	59.9	0.1812	mg/L	0.00497				2.74%
Sr 421.552†	189.9	0.0002	mg/L	0.00009				46.76%
Al 237.313†	-2.4	-0.0008	mg/L	0.01147				>999.9%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 123 **Autosampler Location:** 117
Sample ID: R1509662-016 **Date Collected:** 12/5/2015 11:09:25 PM
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:** 50 mL

Mean Data: R1509662-016

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3951125.1	1.000	mg/L	0.0112				1.12%
Ag 328.068†	46.8	-0.0004	mg/L	0.00030				80.22%
As 188.979†	3.5	0.0017	mg/L	0.00126				73.23%
B 249.772†	2440.3	0.0249	mg/L	0.00007				0.30%
Ba 233.527†	350.5	0.0059	mg/L	0.00011				1.83%
Be 313.107†	38.7	0.0000	mg/L	0.00002				197.39%
Cd 226.502†	8.4	0.0001	mg/L	0.00014				153.14%
Co 228.616†	-16.9	-0.0006	mg/L	0.00021				36.36%

Cr 267.716†	-11.0	0.0001 mg/L	0.00011	136.51%
Cu 324.752†	-134.4	-0.0005 mg/L	0.00017	37.38%
Fe 259.939†	-252.0	-0.0070 mg/L	0.00105	15.05%
K 766.490†	1896.2	0.3742 mg/L	0.00342	0.91%
Mg 279.077†	35681.7	4.363 mg/L	0.0475	1.09%
Mn 257.610†	8.3	0.0000 mg/L	0.00005	229.57%
Mo 202.031†	14.1	0.0010 mg/L	0.00028	27.66%
Ni 231.604†	-57.5	-0.0010 mg/L	0.00001	0.58%
Na 589.592†	57115.0	2.942 mg/L	0.0229	0.78%
Pb 220.353†	-4.5	-0.0002 mg/L	0.00058	241.91%
Sb 206.836†	-1.9	-0.0015 mg/L	0.00018	12.19%
Se 196.026†	-12.5	-0.0064 mg/L	0.00255	39.94%
Sn 189.927†	-172.2	-0.0330 mg/L	0.00023	0.69%
Ti 337.279†	144.5	0.0002 mg/L	0.00001	3.93%
Tl 190.801†	4.8	0.0025 mg/L	0.00040	15.76%
V 292.402†	5.8	0.0001 mg/L	0.00009	169.95%
Zn 206.200†	4.4	0.0001 mg/L	0.00006	55.16%
Ca 227.546†	15472.4	46.84 mg/L	0.810	1.73%
Sr 421.552†	84326.8	0.0895 mg/L	0.00080	0.90%
Al 237.313†	-11.8	-0.0212 mg/L	0.00404	19.00%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 124 **Autosampler Location: 118**
Sample ID: R1509662-017 **Date Collected: 12/5/2015 11:15:07 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1509662-017

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3929637.7	0.9946	mg/L	0.01363				1.37%
Ag 328.068†	38.6	-0.0004	mg/L	0.00000				0.94%
As 188.979†	3.1	0.0015	mg/L	0.00050				34.37%
B 249.772†	10985.0	0.1116	mg/L	0.00165				1.48%
Ba 233.527†	5125.1	0.0869	mg/L	0.00076				0.88%
Be 313.107†	8.5	0.0000	mg/L	0.00000				80.83%
Cd 226.502†	-7.3	-0.0001	mg/L	0.00000				2.93%
Co 228.616†	-23.3	-0.0008	mg/L	0.00029				36.86%
Cr 267.716†	-53.3	-0.0001	mg/L	0.00007				62.39%
Cu 324.752†	-218.2	-0.0008	mg/L	0.00033				43.31%
Fe 259.939†	4757.9	0.1314	mg/L	0.00002				0.02%
K 766.490†	9691.0	1.912	mg/L	0.0480				2.51%
Mg 279.077†	46180.0	5.646	mg/L	0.0746				1.32%
Mn 257.610†	52852.0	0.1389	mg/L	0.00193				1.39%
Mo 202.031†	12.9	0.0009	mg/L	0.00016				17.07%
Ni 231.604†	-35.2	-0.0006	mg/L	0.00006				10.30%
Na 589.592†	427914.2	22.04	mg/L	0.512				2.32%
Pb 220.353†	-4.3	-0.0003	mg/L	0.00044				169.53%
Sb 206.836†	-2.8	-0.0022	mg/L	0.00067				30.02%
Se 196.026†	-13.8	-0.0071	mg/L	0.00101				14.14%
Sn 189.927†	-171.6	-0.0329	mg/L	0.00040				1.22%
Ti 337.279†	396.4	0.0006	mg/L	0.00001				1.06%
Tl 190.801†	1.0	0.0006	mg/L	0.00025				41.64%
V 292.402†	35.3	0.0004	mg/L	0.00018				51.64%
Zn 206.200†	15.8	0.0004	mg/L	0.00009				21.95%
Ca 227.546†	14746.3	44.64	mg/L	0.236				0.53%
Sr 421.552†	235395.6	0.2499	mg/L	0.00221				0.88%
Al 237.313†	203.6	0.0454	mg/L	0.00602				13.26%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 125 **Autosampler Location: 119**
Sample ID: R1509662-018 **Date Collected: 12/5/2015 11:21:01 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1509662-018

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3951018.5	1.000	mg/L	0.0054				0.54%
Ag 328.068†	81.9	-0.0002	mg/L	0.00013				56.24%
As 188.979†	4.6	0.0024	mg/L	0.00034				14.18%
B 249.772†	3609.7	0.0366	mg/L	0.00125				3.41%
Ba 233.527†	3641.0	0.0618	mg/L	0.00018				0.28%
Be 313.107†	97.3	0.0000	mg/L	0.00007				221.96%
Cd 226.502†	7.0	0.0001	mg/L	0.00004				57.85%
Co 228.616†	-16.7	-0.0006	mg/L	0.00011				18.61%
Cr 267.716†	-64.2	-0.0002	mg/L	0.00014				64.82%
Cu 324.752†	-325.1	-0.0011	mg/L	0.00010				8.86%
Fe 259.939†	2351.0	0.0649	mg/L	0.00059				0.90%
K 766.490†	4888.9	0.9647	mg/L	0.00714				0.74%
Mg 279.077†	45610.2	5.577	mg/L	0.0826				1.48%
Mn 257.610†	34255.0	0.0900	mg/L	0.00180				2.00%
Mo 202.031†	9.2	0.0007	mg/L	0.00028				43.05%
Ni 231.604†	-50.7	-0.0009	mg/L	0.00005				6.04%
Na 589.592†	90698.8	4.672	mg/L	0.1161				2.49%
Pb 220.353†	-9.5	-0.0009	mg/L	0.00073				80.19%
Sb 206.836†	-1.5	-0.0012	mg/L	0.00214				172.54%
Se 196.026†	-15.3	-0.0079	mg/L	0.00055				6.94%
Sn 189.927†	-182.7	-0.0350	mg/L	0.00020				0.57%
Ti 337.279†	23.1	0.0000	mg/L	0.00002				50.00%
Tl 190.801†	2.5	0.0014	mg/L	0.00005				3.81%
V 292.402†	15.6	0.0002	mg/L	0.00025				163.37%
Zn 206.200†	-28.5	-0.0007	mg/L	0.00002				3.27%
Ca 227.546†	15512.5	46.96	mg/L	1.077				2.29%
Sr 421.552†	148558.2	0.1577	mg/L	0.00397				2.51%
Al 237.313†	-15.9	-0.0217	mg/L	0.00497				22.95%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 126
Sample ID: R1509792-050
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 120
Date Collected: 12/5/2015 11:26:48 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1509792-050

Analyte	Mean Corrected Intensity	Calib Conc.	Units		Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3029151.5	0.7667	mg/L		0.01172				1.53%
Ag 328.068†	316.0	0.0003	mg/L		0.00053				206.24%
As 188.979†	77.6	0.0473	mg/L		0.00131				2.78%
B 249.772†	2143745.2	21.88	mg/L	LR	0.163				0.74%
Ba 233.527†	32409.1	0.5498	mg/L		0.00315				0.57%
Be 313.107†	-1677.3	-0.0005	mg/L		0.00011				20.70%
Cd 226.502†	-183.3	-0.0021	mg/L		0.00011				5.35%
Co 228.616†	301.3	0.0102	mg/L		0.00024				2.34%
Cr 267.716†	12235.5	0.1137	mg/L		0.00078				0.68%
Cu 324.752†	2632.1	0.0091	mg/L		0.00062				6.86%
Fe 259.939†	17350.3	0.4793	mg/L		0.00028				0.06%
K 766.490†	6300559.1	1243	mg/L	LR	13.5				1.09%
Mg 279.077†	1589853.5	194.4	mg/L		2.87				1.47%
Mn 257.610†	21211.7	0.0558	mg/L		0.00024				0.43%
Mo 202.031†	275.3	0.0197	mg/L		0.00023				1.15%
Ni 231.604†	3906.6	0.0700	mg/L		0.00163				2.33%
Na 589.592†	Saturated3			LR					
Pb 220.353†	108.7	0.0146	mg/L		0.00093				6.38%
Sb 206.836†	16.5	0.0132	mg/L		0.00145				10.98%
Se 196.026†	7.7	0.0001	mg/L		0.00026				336.99%
Sn 189.927†	-212.3	-0.0407	mg/L		0.00141				3.46%
Ti 337.279†	59328.9	0.0973	mg/L		0.00051				0.53%
Tl 190.801†	-4.3	0.0009	mg/L		0.00197				226.35%
V 292.402†	1697.3	0.0164	mg/L		0.00020				1.21%
Zn 206.200†	548.6	0.0143	mg/L		0.00034				2.37%
Ca 227.546†	26374.8	79.85	mg/L	LL	0.929				1.16%
Sr 421.552†	4108682.2	4.361	mg/L		0.0331				0.76%
Al 237.313†	-114.0	-0.0584	mg/L		0.01081				18.51%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 127
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/5/2015 11:32:43 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 371.029	3874635.9	0.9807	mg/L	0.02561				2.61%
Ag 328.068†	150442.4	0.5181	mg/L	0.01779	0.5181	mg/L	0.01779	3.43%
QC value within limits for Ag 328.068 Recovery = 103.62%								
As 188.979†	1514.0	0.9955	mg/L	0.03542	0.9955	mg/L	0.03542	3.56%
QC value within limits for As 188.979 Recovery = 99.55%								
B 249.772†	255581.4	2.585	mg/L	0.0902	2.585	mg/L	0.0902	3.49%
QC value within limits for B 249.772 Recovery = 103.39%								
Ba 233.527†	625767.8	10.61	mg/L	0.366	10.61	mg/L	0.366	3.45%
QC value within limits for Ba 233.527 Recovery = 106.15%								
Be 313.107†	852419.8	0.2590	mg/L	0.00439	0.2590	mg/L	0.00439	1.69%
QC value within limits for Be 313.107 Recovery = 103.62%								
Cd 226.502†	48474.6	0.5213	mg/L	0.01677	0.5213	mg/L	0.01677	3.22%
QC value within limits for Cd 226.502 Recovery = 104.26%								
Co 228.616†	76456.4	2.594	mg/L	0.0952	2.594	mg/L	0.0952	3.67%
QC value within limits for Co 228.616 Recovery = 103.75%								
Cr 267.716†	69030.4	0.5430	mg/L	0.01797	0.5430	mg/L	0.01797	3.31%
QC value within limits for Cr 267.716 Recovery = 108.61%								
Cu 324.752†	367149.1	1.269	mg/L	0.0368	1.269	mg/L	0.0368	2.90%
QC value within limits for Cu 324.752 Recovery = 101.52%								
Fe 259.939†	188216.2	5.196	mg/L	0.1679	5.196	mg/L	0.1679	3.23%
QC value within limits for Fe 259.939 Recovery = 103.93%								
K 766.490†	129273.9	25.51	mg/L	0.598	25.51	mg/L	0.598	2.34%
QC value within limits for K 766.490 Recovery = 102.03%								
Mg 279.077†	211666.5	25.86	mg/L	0.900	25.86	mg/L	0.900	3.48%
QC value within limits for Mg 279.077 Recovery = 103.45%								
Mn 257.610†	304140.0	0.7999	mg/L	0.02805	0.7999	mg/L	0.02805	3.51%
QC value within limits for Mn 257.610 Recovery = 106.66%								
Mo 202.031†	38302.4	2.738	mg/L	0.0644	2.738	mg/L	0.0644	2.35%
QC value within limits for Mo 202.031 Recovery = 109.52%								
Ni 231.604†	119931.5	2.149	mg/L	0.0689	2.149	mg/L	0.0689	3.21%
QC value within limits for Ni 231.604 Recovery = 107.43%								
Na 589.592†	489935.2	25.24	mg/L	0.547	25.24	mg/L	0.547	2.17%
QC value within limits for Na 589.592 Recovery = 100.94%								
Pb 220.353†	4008.4	0.5192	mg/L	0.01978	0.5192	mg/L	0.01978	3.81%
QC value within limits for Pb 220.353 Recovery = 103.84%								
Sb 206.836†	6785.0	5.456	mg/L	0.1736	5.456	mg/L	0.1736	3.18%
QC value within limits for Sb 206.836 Recovery = 109.11%								
Se 196.026†	958.2	0.5006	mg/L	0.02071	0.5006	mg/L	0.02071	4.14%
QC value within limits for Se 196.026 Recovery = 100.11%								
Sn 189.927†	28347.7	5.432	mg/L	0.1930	5.432	mg/L	0.1930	3.55%
QC value within limits for Sn 189.927 Recovery = 108.64%								
Ti 337.279†	1551829.3	2.545	mg/L	0.0390	2.545	mg/L	0.0390	1.53%
QC value within limits for Ti 337.279 Recovery = 101.79%								
Tl 190.801†	2095.9	1.081	mg/L	0.0373	1.081	mg/L	0.0373	3.45%
QC value within limits for Tl 190.801 Recovery = 108.08%								
V 292.402†	266891.1	2.575	mg/L	0.0760	2.575	mg/L	0.0760	2.95%
QC value within limits for V 292.402 Recovery = 103.00%								
Zn 206.200†	40491.4	1.058	mg/L	0.0429	1.058	mg/L	0.0429	4.05%
QC value within limits for Zn 206.200 Recovery = 105.85%								
Ca 227.546†	8632.5	26.16	mg/L	0.747	26.16	mg/L	0.747	2.85%
QC value within limits for Ca 227.546 Recovery = 104.64%								
Sr 421.552†	2296326.8	2.438	mg/L	0.0940	2.438	mg/L	0.0940	3.86%
QC value within limits for Sr 421.552 Recovery = 97.50%								
Al 237.313†	34540.4	10.34	mg/L	0.303	10.34	mg/L	0.303	2.93%
QC value within limits for Al 237.313 Recovery = 103.41%								

All analyte(s) passed QC.

Sequence No.: 128
Sample ID: CCB

Autosampler Location: 5
Date Collected: 12/5/2015 11:38:31 PM

Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	4103191.0	1.039	mg/L	0.0019				0.18%
Ag 328.068†	-192.0	-0.0007	mg/L	0.00010	-0.0007	mg/L	0.00010	14.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	-0.5	-0.0003	mg/L	0.00038	-0.0003	mg/L	0.00038	125.94%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	10122.0	0.1033	mg/L	0.00354	0.1033	mg/L	0.00354	3.43%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	48.1	0.0008	mg/L	0.00011	0.0008	mg/L	0.00011	13.69%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	584.2	0.0002	mg/L	0.00001	0.0002	mg/L	0.00001	7.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	26.6	0.0003	mg/L	0.00004	0.0003	mg/L	0.00004	14.16%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	19.2	0.0007	mg/L	0.00007	0.0007	mg/L	0.00007	11.40%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	35.2	0.0003	mg/L	0.00001	0.0003	mg/L	0.00001	3.28%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	711.4	0.0025	mg/L	0.00069	0.0025	mg/L	0.00069	28.07%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	43.7	0.0012	mg/L	0.00077	0.0012	mg/L	0.00077	63.69%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	344.3	0.0679	mg/L	0.01883	0.0679	mg/L	0.01883	27.72%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	68.6	0.0084	mg/L	0.00102	0.0084	mg/L	0.00102	12.14%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	46.0	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	17.56%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	53.9	0.0039	mg/L	0.00079	0.0039	mg/L	0.00079	20.51%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	0.2	0.0000	mg/L	0.00017	0.0000	mg/L	0.00017	>999.9%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	4413.0	0.2273	mg/L	0.03108	0.2273	mg/L	0.03108	13.67%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	-4.0	-0.0005	mg/L	0.00014	-0.0005	mg/L	0.00014	27.61%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-1.2	-0.0010	mg/L	0.00116	-0.0010	mg/L	0.00116	117.15%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-0.6	-0.0003	mg/L	0.00350	-0.0003	mg/L	0.00350	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	16.2	0.0031	mg/L	0.00217	0.0031	mg/L	0.00217	69.99%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 337.279†	822.1	0.0013	mg/L	0.00024	0.0013	mg/L	0.00024	17.61%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	4.2	0.0022	mg/L	0.00067	0.0022	mg/L	0.00067	30.93%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	14.1	0.0001	mg/L	0.00016	0.0001	mg/L	0.00016	116.61%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-33.3	-0.0009	mg/L	0.00005	-0.0009	mg/L	0.00005	5.38%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Ca 227.546†	-3.1	-0.0093	mg/L	0.00201	-0.0093	mg/L	0.00201	21.60%
QC value within limits for Ca 227.546 Recovery = Not calculated								
Sr 421.552†	282.2	0.0003	mg/L	0.00004	0.0003	mg/L	0.00004	13.45%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Al 237.313†	29.4	0.0088	mg/L	0.00200	0.0088	mg/L	0.00200	22.81%
QC value within limits for Al 237.313 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 129 **Autosampler Location: 6**
Sample ID: MRL **Date Collected: 12/5/2015 11:44:17 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: MRL

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3959773.4	1.002	mg/L	0.0021				0.21%
Ag 328.068†	2927.6	0.0101	mg/L	0.00000	0.0101	mg/L	0.00000	0.01%
QC value within limits for Ag 328.068 Recovery = 100.77%								
As 188.979†	30.5	0.0201	mg/L	0.00009	0.0201	mg/L	0.00009	0.45%
QC value within limits for As 188.979 Recovery = 100.37%								
B 249.772†	27785.5	0.2832	mg/L	0.00231	0.2832	mg/L	0.00231	0.82%
QC value greater than the upper limit for B 249.772 Recovery = 141.60%								
Ba 233.527†	13010.4	0.2207	mg/L	0.00145	0.2207	mg/L	0.00145	0.66%
QC value within limits for Ba 233.527 Recovery = 110.35%								
Be 313.107†	16917.4	0.0051	mg/L	0.00001	0.0051	mg/L	0.00001	0.20%
QC value within limits for Be 313.107 Recovery = 102.82%								
Cd 226.502†	976.4	0.0105	mg/L	0.00005	0.0105	mg/L	0.00005	0.49%
QC value within limits for Cd 226.502 Recovery = 105.01%								
Co 228.616†	1593.2	0.0540	mg/L	0.00049	0.0540	mg/L	0.00049	0.91%
QC value within limits for Co 228.616 Recovery = 108.10%								
Cr 267.716†	1311.6	0.0104	mg/L	0.00002	0.0104	mg/L	0.00002	0.16%
QC value within limits for Cr 267.716 Recovery = 103.68%								
Cu 324.752†	7381.8	0.0255	mg/L	0.00021	0.0255	mg/L	0.00021	0.81%
QC value within limits for Cu 324.752 Recovery = 102.06%								
Fe 259.939†	3613.0	0.0998	mg/L	0.00032	0.0998	mg/L	0.00032	0.32%
QC value within limits for Fe 259.939 Recovery = 99.75%								
K 766.490†	4080.2	0.8051	mg/L	0.02254	0.8051	mg/L	0.02254	2.80%
QC value within limits for K 766.490 Recovery = 80.51%								
Mg 279.077†	8616.0	1.053	mg/L	0.0009	1.053	mg/L	0.0009	0.08%
QC value within limits for Mg 279.077 Recovery = 105.32%								
Mn 257.610†	6060.7	0.0159	mg/L	0.00006	0.0159	mg/L	0.00006	0.35%
QC value within limits for Mn 257.610 Recovery = 106.27%								
Mo 202.031†	405.6	0.0290	mg/L	0.00028	0.0290	mg/L	0.00028	0.97%
QC value within limits for Mo 202.031 Recovery = 115.99%								
Ni 231.604†	2308.2	0.0414	mg/L	0.00039	0.0414	mg/L	0.00039	0.95%
QC value within limits for Ni 231.604 Recovery = 103.38%								
Na 589.592†	19465.5	1.003	mg/L	0.0079	1.003	mg/L	0.0079	0.79%
QC value within limits for Na 589.592 Recovery = 100.26%								
Pb 220.353†	86.6	0.0112	mg/L	0.00041	0.0112	mg/L	0.00041	3.63%
QC value within limits for Pb 220.353 Recovery = 112.27%								
Sb 206.836†	76.1	0.0612	mg/L	0.00144	0.0612	mg/L	0.00144	2.34%
QC value within limits for Sb 206.836 Recovery = 102.02%								
Se 196.026†	21.5	0.0112	mg/L	0.00251	0.0112	mg/L	0.00251	22.42%
QC value within limits for Se 196.026 Recovery = 112.08%								
Sn 189.927†	2837.0	0.5436	mg/L	0.00451	0.5436	mg/L	0.00451	0.83%
QC value within limits for Sn 189.927 Recovery = 108.73%								
Ti 337.279†	31086.6	0.0510	mg/L	0.00033	0.0510	mg/L	0.00033	0.65%
QC value within limits for Ti 337.279 Recovery = 101.95%								
Tl 190.801†	42.6	0.0220	mg/L	0.00214	0.0220	mg/L	0.00214	9.72%
QC value within limits for Tl 190.801 Recovery = 109.98%								
V 292.402†	5390.9	0.0520	mg/L	0.00061	0.0520	mg/L	0.00061	1.16%
QC value within limits for V 292.402 Recovery = 104.02%								
Zn 206.200†	735.7	0.0192	mg/L	0.00011	0.0192	mg/L	0.00011	0.60%
QC value within limits for Zn 206.200 Recovery = 96.15%								
Ca 227.546†	316.5	0.9586	mg/L	0.00246	0.9586	mg/L	0.00246	0.26%
QC value within limits for Ca 227.546 Recovery = 95.86%								
Sr 421.552†	92241.9	0.0979	mg/L	0.00093	0.0979	mg/L	0.00093	0.95%
QC value within limits for Sr 421.552 Recovery = 97.92%								
Al 237.313†	658.6	0.1970	mg/L	0.00271	0.1970	mg/L	0.00271	1.38%
QC value within limits for Al 237.313 Recovery = 98.51%								
QC Failed. Continue with analysis.								

Sequence No.: 130 **Autosampler Location: 7**
Sample ID: ICSA **Date Collected: 12/5/2015 11:50:01 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD

Y 371.029	3598477.3	0.9108 mg/L	0.00055			0.06%
Ag 328.068†	-2436.6	0.0031 mg/L	0.00014	0.0031 mg/L	0.00014	4.41%
QC value within limits for Ag 328.068 Recovery = Not calculated						
As 188.979†	15.8	0.0003 mg/L	0.00064	0.0003 mg/L	0.00064	227.43%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.772†	45524.3	0.0217 mg/L	0.00120	0.0217 mg/L	0.00120	5.53%
Ba 233.527†	-262.8	-0.0058 mg/L	0.00008	-0.0058 mg/L	0.00008	1.43%
Be 313.107†	-658.0	-0.0002 mg/L	0.00001	-0.0002 mg/L	0.00001	2.89%
QC value within limits for Be 313.107 Recovery = Not calculated						
Cd 226.502†	1126.4	0.0007 mg/L	0.00021	0.0007 mg/L	0.00021	32.52%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-19.5	-0.0007 mg/L	0.00016	-0.0007 mg/L	0.00016	24.83%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-3340.0	-0.0005 mg/L	0.00001	-0.0005 mg/L	0.00001	2.06%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-626.6	-0.0022 mg/L	0.00005	-0.0022 mg/L	0.00005	2.22%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 259.939†	3317406.8	91.57 mg/L	0.213	91.57 mg/L	0.213	0.23%
QC value within limits for Fe 259.939 Recovery = 91.57%						
K 766.490†	259.2	0.0511 mg/L	0.00810	0.0511 mg/L	0.00810	15.84%
Mg 279.077†	2088683.7	255.0 mg/L	0.45	255.0 mg/L	0.45	0.18%
QC value within limits for Mg 279.077 Recovery = 102.02%						
Mn 257.610†	-5739.4	0.0029 mg/L	0.00004	0.0029 mg/L	0.00004	1.33%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-112.4	-0.0080 mg/L	0.00015	-0.0080 mg/L	0.00015	1.86%
Ni 231.604†	19.0	0.0003 mg/L	0.00051	0.0003 mg/L	0.00051	149.23%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Na 589.592†	4273.5	0.2201 mg/L	0.00368	0.2201 mg/L	0.00368	1.67%
Pb 220.353†	194.9	-0.0003 mg/L	0.00054	-0.0003 mg/L	0.00054	202.71%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	43.9	0.0109 mg/L	0.00133	0.0109 mg/L	0.00133	12.15%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	14.5	0.0049 mg/L	0.00430	0.0049 mg/L	0.00430	88.43%
QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	-407.9	-0.0782 mg/L	0.00122	-0.0782 mg/L	0.00122	1.56%
Ti 337.279†	293.3	0.0005 mg/L	0.00001	0.0005 mg/L	0.00001	1.47%
Tl 190.801†	-20.0	0.0041 mg/L	0.00418	0.0041 mg/L	0.00418	100.98%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	-1346.8	-0.0059 mg/L	0.00004	-0.0059 mg/L	0.00004	0.74%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	164.8	0.0043 mg/L	0.00009	0.0043 mg/L	0.00009	2.19%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	91478.6	277.4 mg/L	0.17	277.4 mg/L	0.17	0.06%
QC value within limits for Ca 227.546 Recovery = 110.97%						
Sr 421.552†	3498.6	0.0037 mg/L	0.00011	0.0037 mg/L	0.00011	2.95%
Al 237.313†	902402.6	269.8 mg/L	0.14	269.8 mg/L	0.14	0.05%
QC value within limits for Al 237.313 Recovery = 107.93%						

All analyte(s) passed QC.

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Sequence No.: 131 **Autosampler Location: 8**
Sample ID: ICSAB **Date Collected: 12/5/2015 11:55:45 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3600018.7	0.9112	mg/L	0.00730				0.80%
Ag 328.068†	51571.5	0.1891	mg/L	0.00173	0.1891	mg/L	0.00173	0.92%
QC value within limits for Ag 328.068 Recovery = 94.53%								
As 188.979†	168.6	0.1007	mg/L	0.00116	0.1007	mg/L	0.00116	1.15%
QC value within limits for As 188.979 Recovery = 100.68%								
B 249.772†	44853.0	0.0088	mg/L	0.00103	0.0088	mg/L	0.00103	11.69%
Ba 233.527†	31699.4	0.5363	mg/L	0.00433	0.5363	mg/L	0.00433	0.81%
QC value within limits for Ba 233.527 Recovery = 107.27%								
Be 313.107†	1734353.1	0.5270	mg/L	0.00619	0.5270	mg/L	0.00619	1.17%
QC value within limits for Be 313.107 Recovery = 105.41%								
Cd 226.502†	95806.4	1.020	mg/L	0.0147	1.020	mg/L	0.0147	1.44%
QC value within limits for Cd 226.502 Recovery = 102.01%								

Co 228.616†	14467.8	0.4908 mg/L	0.00394	0.4908 mg/L	0.00394	0.80%
QC value within limits for Co 228.616 Recovery = 98.16%						
Cr 267.716†	63718.7	0.5250 mg/L	0.00686	0.5250 mg/L	0.00686	1.31%
QC value within limits for Cr 267.716 Recovery = 105.00%						
Cu 324.752†	153023.9	0.5289 mg/L	0.01072	0.5289 mg/L	0.01072	2.03%
QC value within limits for Cu 324.752 Recovery = 105.78%						
Fe 259.939†	3360580.9	92.76 mg/L	1.142	92.76 mg/L	1.142	1.23%
QC value within limits for Fe 259.939 Recovery = 92.76%						
K 766.490†	290.3	0.0573 mg/L	0.02171	0.0573 mg/L	0.02171	37.90%
Mg 279.077†	2119314.1	258.8 mg/L	3.01	258.8 mg/L	3.01	1.16%
QC value within limits for Mg 279.077 Recovery = 103.51%						
Mn 257.610†	194272.3	0.5286 mg/L	0.00675	0.5286 mg/L	0.00675	1.28%
QC value within limits for Mn 257.610 Recovery = 105.72%						
Mo 202.031†	-121.9	-0.0087 mg/L	0.00003	-0.0087 mg/L	0.00003	0.35%
Ni 231.604†	54873.1	0.9830 mg/L	0.01616	0.9830 mg/L	0.01616	1.64%
QC value within limits for Ni 231.604 Recovery = 98.30%						
Na 589.592†	4129.3	0.2127 mg/L	0.03307	0.2127 mg/L	0.03307	15.55%
Pb 220.353†	598.4	0.0517 mg/L	0.00041	0.0517 mg/L	0.00041	0.80%
QC value within limits for Pb 220.353 Recovery = 103.35%						
Sb 206.836†	898.3	0.6975 mg/L	0.00720	0.6975 mg/L	0.00720	1.03%
QC value within limits for Sb 206.836 Recovery = 116.25%						
Se 196.026†	110.8	0.0552 mg/L	0.00499	0.0552 mg/L	0.00499	9.04%
QC value within limits for Se 196.026 Recovery = 110.37%						
Sn 189.927†	-441.6	-0.0846 mg/L	0.00152	-0.0846 mg/L	0.00152	1.80%
Ti 337.279†	209.0	0.0003 mg/L	0.00002	0.0003 mg/L	0.00002	5.72%
Tl 190.801†	165.9	0.1001 mg/L	0.00148	0.1001 mg/L	0.00148	1.48%
QC value within limits for Tl 190.801 Recovery = 100.11%						
V 292.402†	52529.5	0.5139 mg/L	0.00485	0.5139 mg/L	0.00485	0.94%
QC value within limits for V 292.402 Recovery = 102.79%						
Zn 206.200†	38531.5	1.007 mg/L	0.0136	1.007 mg/L	0.0136	1.35%
QC value within limits for Zn 206.200 Recovery = 100.72%						
Ca 227.546†	92481.3	280.5 mg/L	4.20	280.5 mg/L	4.20	1.50%
QC value within limits for Ca 227.546 Recovery = 112.19%						
Sr 421.552†	3415.6	0.0036 mg/L	0.00011	0.0036 mg/L	0.00011	2.96%
Al 237.313†	918857.6	274.7 mg/L	1.98	274.7 mg/L	1.98	0.72%
QC value within limits for Al 237.313 Recovery = 109.89%						

All analyte(s) passed QC.

Sequence No.: 132 **Autosampler Location: 4**
Sample ID: CCV **Date Collected: 12/6/2015 12:01:29 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3916681.8	0.9914	mg/L	0.01981				2.00%
Ag 328.068†	149873.4	0.5162	mg/L	0.01423	0.5162	mg/L	0.01423	2.76%
QC value within limits for Ag 328.068 Recovery = 103.24%								
As 188.979†	1510.9	0.9935	mg/L	0.01865	0.9935	mg/L	0.01865	1.88%
QC value within limits for As 188.979 Recovery = 99.35%								
B 249.772†	246710.1	2.494	mg/L	0.0557	2.494	mg/L	0.0557	2.23%
QC value within limits for B 249.772 Recovery = 99.76%								
Ba 233.527†	630189.8	10.69	mg/L	0.306	10.69	mg/L	0.306	2.87%
QC value within limits for Ba 233.527 Recovery = 106.90%								
Be 313.107†	846394.8	0.2572	mg/L	0.00388	0.2572	mg/L	0.00388	1.51%
QC value within limits for Be 313.107 Recovery = 102.88%								
Cd 226.502†	49069.3	0.5277	mg/L	0.01772	0.5277	mg/L	0.01772	3.36%
QC value within limits for Cd 226.502 Recovery = 105.54%								
Co 228.616†	76973.7	2.611	mg/L	0.0745	2.611	mg/L	0.0745	2.85%
QC value within limits for Co 228.616 Recovery = 104.45%								
Cr 267.716†	69410.6	0.5460	mg/L	0.01530	0.5460	mg/L	0.01530	2.80%
QC value within limits for Cr 267.716 Recovery = 109.21%								
Cu 324.752†	365376.3	1.263	mg/L	0.0300	1.263	mg/L	0.0300	2.38%
QC value within limits for Cu 324.752 Recovery = 101.03%								
Fe 259.939†	190204.8	5.251	mg/L	0.1460	5.251	mg/L	0.1460	2.78%
QC value within limits for Fe 259.939 Recovery = 105.03%								
K 766.490†	123469.0	24.36	mg/L	0.940	24.36	mg/L	0.940	3.86%
QC value within limits for K 766.490 Recovery = 97.45%								

Mg 279.077†	211912.8	25.89 mg/L	0.694	25.89 mg/L	0.694	2.68%
QC value within limits for Mg 279.077 Recovery = 103.57%						
Mn 257.610†	304754.2	0.8016 mg/L	0.02232	0.8016 mg/L	0.02232	2.78%
QC value within limits for Mn 257.610 Recovery = 106.88%						
Mo 202.031†	38401.7	2.745 mg/L	0.0690	2.745 mg/L	0.0690	2.51%
QC value within limits for Mo 202.031 Recovery = 109.80%						
Ni 231.604†	120868.0	2.165 mg/L	0.0629	2.165 mg/L	0.0629	2.91%
QC value within limits for Ni 231.604 Recovery = 108.27%						
Na 589.592†	465784.2	23.99 mg/L	0.929	23.99 mg/L	0.929	3.87%
QC value within limits for Na 589.592 Recovery = 95.97%						
Pb 220.353†	4040.3	0.5233 mg/L	0.01090	0.5233 mg/L	0.01090	2.08%
QC value within limits for Pb 220.353 Recovery = 104.66%						
Sb 206.836†	6742.2	5.421 mg/L	0.1193	5.421 mg/L	0.1193	2.20%
QC value within limits for Sb 206.836 Recovery = 108.42%						
Se 196.026†	958.5	0.5007 mg/L	0.01037	0.5007 mg/L	0.01037	2.07%
QC value within limits for Se 196.026 Recovery = 100.14%						
Sn 189.927†	27767.5	5.321 mg/L	0.1036	5.321 mg/L	0.1036	1.95%
QC value within limits for Sn 189.927 Recovery = 106.42%						
Ti 337.279†	1539065.1	2.524 mg/L	0.0357	2.524 mg/L	0.0357	1.41%
QC value within limits for Ti 337.279 Recovery = 100.95%						
Tl 190.801†	2093.6	1.080 mg/L	0.0209	1.080 mg/L	0.0209	1.93%
QC value within limits for Tl 190.801 Recovery = 107.96%						
V 292.402†	267297.9	2.579 mg/L	0.0837	2.579 mg/L	0.0837	3.25%
QC value within limits for V 292.402 Recovery = 103.16%						
Zn 206.200†	41488.1	1.085 mg/L	0.0337	1.085 mg/L	0.0337	3.10%
QC value within limits for Zn 206.200 Recovery = 108.45%						
Ca 227.546†	8510.1	25.79 mg/L	0.506	25.79 mg/L	0.506	1.96%
QC value within limits for Ca 227.546 Recovery = 103.16%						
Sr 421.552†	2263308.7	2.403 mg/L	0.0327	2.403 mg/L	0.0327	1.36%
QC value within limits for Sr 421.552 Recovery = 96.10%						
Al 237.313†	34201.4	10.24 mg/L	0.308	10.24 mg/L	0.308	3.01%
QC value within limits for Al 237.313 Recovery = 102.41%						

All analyte(s) passed QC.

Sequence No.: 133 **Autosampler Location: 5**
Sample ID: CCB **Date Collected: 12/6/2015 12:07:19 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	3986885.6	1.009	mg/L	0.0010				0.10%
Ag 328.068†	-162.7	-0.0006	mg/L	0.00017	-0.0006	mg/L	0.00017	30.15%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	0.1	0.0000	mg/L	0.00035	0.0000	mg/L	0.00035	921.27%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	7638.1	0.0780	mg/L	0.00256	0.0780	mg/L	0.00256	3.29%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	8.4	0.0001	mg/L	0.00014	0.0001	mg/L	0.00014	99.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	605.1	0.0002	mg/L	0.00003	0.0002	mg/L	0.00003	14.31%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	4.6	0.0000	mg/L	0.00006	0.0000	mg/L	0.00006	128.90%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.7	0.0007	mg/L	0.00011	0.0007	mg/L	0.00011	15.03%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	2.4	0.0000	mg/L	0.00007	0.0000	mg/L	0.00007	426.35%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	671.1	0.0023	mg/L	0.00054	0.0023	mg/L	0.00054	23.27%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	181.8	0.0050	mg/L	0.00113	0.0050	mg/L	0.00113	22.41%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	98.0	0.0193	mg/L	0.02697	0.0193	mg/L	0.02697	139.44%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	-115.9	-0.0142	mg/L	0.00150	-0.0142	mg/L	0.00150	10.59%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	-73.9	-0.0002	mg/L	0.00003	-0.0002	mg/L	0.00003	15.49%
QC value within limits for Mn 257.610 Recovery = Not calculated								

Mo 202.031†	59.4	0.0042 mg/L	0.00119	0.0042 mg/L	0.00119	28.03%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604†	29.3	0.0005 mg/L	0.00002	0.0005 mg/L	0.00002	3.51%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Na 589.592†	1080.1	0.0556 mg/L	0.00040	0.0556 mg/L	0.00040	0.72%
QC value within limits for Na 589.592 Recovery = Not calculated						
Pb 220.353†	4.5	0.0006 mg/L	0.00123	0.0006 mg/L	0.00123	209.03%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	0.1	0.0001 mg/L	0.00082	0.0001 mg/L	0.00082	766.64%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-7.0	-0.0037 mg/L	0.00120	-0.0037 mg/L	0.00120	32.79%
QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	29.8	0.0057 mg/L	0.00097	0.0057 mg/L	0.00097	16.98%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 337.279†	688.9	0.0011 mg/L	0.00033	0.0011 mg/L	0.00033	29.48%
QC value within limits for Ti 337.279 Recovery = Not calculated						
Tl 190.801†	1.0	0.0005 mg/L	0.00038	0.0005 mg/L	0.00038	75.95%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	10.6	0.0001 mg/L	0.00004	0.0001 mg/L	0.00004	38.24%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	-27.5	-0.0007 mg/L	0.00025	-0.0007 mg/L	0.00025	34.33%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	-8.8	-0.0265 mg/L	0.00741	-0.0265 mg/L	0.00741	27.93%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Sr 421.552†	129.8	0.0001 mg/L	0.00005	0.0001 mg/L	0.00005	32.78%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Al 237.313†	-44.5	-0.0132 mg/L	0.00140	-0.0132 mg/L	0.00140	10.59%
QC value within limits for Al 237.313 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 134 **Autosampler Location: 121**
Sample ID: Sample121 **Date Collected: 12/6/2015 12:13:04 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Sample121

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	3939456.9	0.9971	mg/L	0.02693				2.70%
Ag 328.068†	-151.6	-0.0005	mg/L	0.00017	-0.0005	mg/L	0.00017	31.83%
As 188.979†	0.5	0.0003	mg/L	0.00025	0.0003	mg/L	0.00025	78.36%
B 249.772†	6137.6	0.0627	mg/L	0.00042	0.0627	mg/L	0.00042	0.68%
Ba 233.527†	-15.8	-0.0003	mg/L	0.00038	-0.0003	mg/L	0.00038	141.62%
Be 313.107†	300.2	0.0001	mg/L	0.00003	0.0001	mg/L	0.00003	36.01%
Cd 226.502†	-5.4	-0.0001	mg/L	0.00019	-0.0001	mg/L	0.00019	330.25%
Co 228.616†	0.3	0.0000	mg/L	0.00015	0.0000	mg/L	0.00015	>999.9%
Cr 267.716†	-18.9	-0.0002	mg/L	0.00005	-0.0002	mg/L	0.00005	30.51%
Cu 324.752†	-122.4	-0.0004	mg/L	0.00025	-0.0004	mg/L	0.00025	59.77%
Fe 259.939†	5.1	0.0001	mg/L	0.00194	0.0001	mg/L	0.00194	>999.9%
K 766.490†	53.8	0.0106	mg/L	0.00252	0.0106	mg/L	0.00252	23.77%
Mg 279.077†	-170.9	-0.0209	mg/L	0.01531	-0.0209	mg/L	0.01531	73.22%
Mn 257.610†	-87.0	-0.0002	mg/L	0.00009	-0.0002	mg/L	0.00009	40.62%
Mo 202.031†	7.5	0.0005	mg/L	0.00020	0.0005	mg/L	0.00020	38.34%
Ni 231.604†	-4.7	-0.0001	mg/L	0.00001	-0.0001	mg/L	0.00001	15.82%
Na 589.592†	1174.3	0.0605	mg/L	0.00454	0.0605	mg/L	0.00454	7.51%
Pb 220.353†	6.0	0.0008	mg/L	0.00039	0.0008	mg/L	0.00039	50.76%
Sb 206.836†	-1.9	-0.0015	mg/L	0.00012	-0.0015	mg/L	0.00012	8.19%
Se 196.026†	-3.4	-0.0018	mg/L	0.00061	-0.0018	mg/L	0.00061	34.01%
Sn 189.927†	-7.4	-0.0014	mg/L	0.00039	-0.0014	mg/L	0.00039	27.66%
Ti 337.279†	101.2	0.0002	mg/L	0.00012	0.0002	mg/L	0.00012	70.00%
Tl 190.801†	2.4	0.0012	mg/L	0.00133	0.0012	mg/L	0.00133	107.17%
V 292.402†	19.4	0.0002	mg/L	0.00023	0.0002	mg/L	0.00023	122.92%
Zn 206.200†	1278.3	0.0334	mg/L	0.00061	0.0334	mg/L	0.00061	1.83%
Ca 227.546†	41.5	0.1255	mg/L	0.01457	0.1255	mg/L	0.01457	11.61%
Sr 421.552†	235.4	0.0002	mg/L	0.00002	0.0002	mg/L	0.00002	6.70%
Al 237.313†	-42.8	-0.0128	mg/L	0.00897	-0.0128	mg/L	0.00897	70.09%

Preparation Information Benchsheet

Prep Run#: 251222
Team: Metals/CGILDAY

Prep WorkFlow: MetDigAqICP
Prep Method: EPA 3005A/3010A

Status: Prepped
Prep Date/Time: 12/2/15 01:17 PM

#	Lab Code	Client ID	B#	Amt. Ext.	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ1514901-01	MB		50mL	6010C/Ag D DOD, Ag T DOD, Al D DOD, Al T DOD, As D DOD, As T, As T DOD, Ba D DOD, Ba T DOD, Be D DOD, Be T DOD, Ca D DOD, Ca T DOD, Cd D DOD, Cd T, Cd T DOD, Co D DOD, Co T DOD, Cr D, Cr D DOD, Cr T DOD, Cu D DOD, Cu T DOD, Fe D, Fe D DOD, Fe T DOD, K D DOD, K T DOD, Mg D DOD, Mg T DOD, Mn D, Mn D DOD, Mn T DOD, Na D DOD, Na T DOD, Ni D, Ni D DOD, Ni T DOD, Pb D, Pb D DOD, Pb T, Pb T DOD, Sb D DOD, Sb T DOD, Se D DOD, Se T DOD, Tl D, Tl D DOD, Tl T DOD, V D, V D DOD, V T DOD, Zn D DOD, Zn T DOD	<2			50.00mL	colorless-clear		Hot Block #6 Well B3 Temp: 94 C Correction factor: 0.0 Corrected temp: 94 C
2	RQ1514901-02	MB		50mL	6010C/Cr D, Fe D, Mn D, Ni D, Pb D, Tl D, V D	<2			50.00mL	colorless-clear		Filter Blank
3	RQ1514901-03	LCS		50mL	6010C/Ag D DOD, Ag T DOD, Al D DOD, Al T DOD, As D DOD, As T, As T DOD, Ba D DOD, Ba T DOD, Be D DOD, Be T DOD, Ca D DOD, Ca T DOD, Cd D DOD, Cd T, Cd T DOD, Co D DOD, Co T DOD, Cr D, Cr D DOD, Cr T DOD, Cu D DOD, Cu T DOD, Fe D, Fe D DOD, Fe T DOD, K D DOD, K T DOD, Mg D DOD, Mg T DOD, Mn D, Mn D DOD, Mn T DOD, Na D DOD, Na T DOD, Ni D, Ni D DOD, Ni T DOD, Pb D, Pb D DOD, Pb T, Pb T DOD, Sb D DOD, Sb T DOD, Se D DOD, Se T DOD, Tl D, Tl D DOD, Tl T DOD, V D, V D DOD, V T DOD, Zn D DOD, Zn T DOD	<2			50.00mL	colorless-clear	0.0500 mL/74566; 0.2500 mL/84552; 0.5000 mL/82346; 0.5000 mL/82347	
4	R1510120-002	MX209B71	.04	50mL	6010C/Cr D, Fe D, Mn D, Ni D, Pb D, Tl D, V D	<2			50.00mL	colorless-clear		DoD Tier IV
5	RQ1514901-04	R1510120-002 MS	.04	50mL	6010C/Cr D, Fe D, Mn D, Ni D, Pb D, Tl D, V D	<2			50.00mL	colorless-clear	0.5000 mL/82347; 0.5000 mL/82346; 0.2500 mL/84552; 0.0500 mL/74566	
6	RQ1514901-05	R1510120-002 DUP	.04	50mL	6010C/Cr D, Fe D, Mn D, Ni D, Pb D, Tl D, V D	<2			50.00mL	colorless-clear		
7	R1510120-005	MX167B71	.04	50mL	6010C/Cr D, Fe D, Mn D, Ni D, Pb D, Tl D, V D	<2			50.00mL	colorless-clear		

Preparation Information Benchsheet

Prep Run#: 251222 **Prep WorkFlow:** MetDigAqICP **Status:** Prepped
Team: Metals/CGILDAY **Prep Method:** EPA 3005A/3010A **Prep Date/Time:** 12/2/15 01:17 PM

8	R1510161-001	FTMM-8-GW-M8MW21-13.0	.01	50mL	6010C/Pb T	<2			50.00mL	colorless-clear		DoD Tier IV
9	R1510161-002	FTMM-8-GW-M8MW17-975	.01	50mL	6010C/Pb T	<2			50.00mL	colorless-clear		
10	R1510161-004	EB-2015-11-19	.06	50mL	6010C/Pb T	<2			50.00mL	colorless-clear		
11	R1510161-007	FTMM-56-GW-80MW05-7.0	.01	50mL	6010C/As T, Cd T, Pb T	<2			50.00mL	colorless-clear		
12	R1510161-009	FTMM-57-GW-108MW04-7.5	.01	50mL	6010C/As T, Cd T, Pb T	<2			50.00mL	colorless-clear		
13	R1510161-012	FTMM-M8-GW-697MW01-16.5	.06	50mL	6010C/Pb T	<2			50.00mL	colorless-clear		
14	R1510161-017	EB-2015-11-20	.01	50mL	6010C/As T, Cd T, Pb T	<2			50.00mL	colorless-clear		
15	R1510345-001	PAR57-GW-MW02-20.25	.01	50mL	6010C/Ag T DOD, Al T DOD, As T DOD, Ba T DOD, Be T DOD, Ca T DOD, Cd T DOD, Co T DOD, Cr T DOD, Cu T DOD, Fe T DOD, K T DOD, Mg T DOD, Mn T DOD, Na T DOD, Ni T DOD, Pb T DOD, Sb T DOD, Se T DOD, Tl T DOD, V T DOD, Zn T DOD	<2			50.00mL	colorless-clear		Tier IV DoD
16	R1510345-002	PAR57-GW-MW02-20.25 Dissolved	.01	50mL	6010C/Ag D DOD, Al D DOD, As D DOD, Ba D DOD, Be D DOD, Ca D DOD, Cd D DOD, Co D DOD, Cr D DOD, Cu D DOD, Fe D DOD, K D DOD, Mg D DOD, Mn D DOD, Na D DOD, Ni D DOD, Pb D DOD, Sb D DOD, Se D DOD, Tl D DOD, V D DOD, Zn D DOD	<2			50.00mL	colorless-clear		
17	R1510345-003	PAR57-GW-MW02-15.25	.01	50mL	6010C/Ag T DOD, Al T DOD, As T DOD, Ba T DOD, Be T DOD, Ca T DOD, Cd T DOD, Co T DOD, Cr T DOD, Cu T DOD, Fe T DOD, K T DOD, Mg T DOD, Mn T DOD, Na T DOD, Ni T DOD, Pb T DOD, Sb T DOD, Se T DOD, Tl T DOD, V T DOD, Zn T DOD	<2			50.00mL	colorless-clear		
18	R1510345-004	PAR57-GW-MW02-15.25 Dissolved	.01	50mL	6010C/Ag D DOD, Al D DOD, As D DOD, Ba D DOD, Be D DOD, Ca D DOD, Cd D DOD, Co D DOD, Cr D DOD, Cu D DOD, Fe D DOD, K D DOD, Mg D DOD, Mn D DOD, Na D DOD, Ni D DOD, Pb D DOD, Sb D DOD, Se D DOD, Tl D DOD, V D DOD, Zn D DOD	<2			50.00mL	colorless-clear		

Preparation Information Benchsheet

Prep Run#: 251222 **Prep WorkFlow:** MetDigAqICP **Status:** Prepped
Team: Metals/CGILDAY **Prep Method:** EPA 3005A/3010A **Prep Date/Time:** 12/2/15 01:17 PM

19	R1510345-005	PAR57-GW-MW01-15.1	.01	50mL	6010C/Ag T DOD, Al T DOD, As T DOD, Ba T DOD, Be T DOD, Ca T DOD, Cd T DOD, Co T DOD, Cr T DOD, Cu T DOD, Fe T DOD, K T DOD, Mg T DOD, Mn T DOD, Na T DOD, Ni T DOD, Pb T DOD, Sb T DOD, Se T DOD, Tl T DOD, V T DOD, Zn T DOD	<2			50.00mL	colorless-clear		
20	R1510345-006	PAR57-GW-MW01-15.1 Dissolved	.01	50mL	6010C/Ag D DOD, Al D DOD, As D DOD, Ba D DOD, Be D DOD, Ca D DOD, Cd D DOD, Co D DOD, Cr D DOD, Cu D DOD, Fe D DOD, K D DOD, Mg D DOD, Mn D DOD, Na D DOD, Ni D DOD, Pb D DOD, Sb D DOD, Se D DOD, Tl D DOD, V D DOD, Zn D DOD	<2			50.00mL	colorless-clear		
21	R1510345-007	PAR57-GW-MW101-15.1	.01	50mL	6010C/Ag T DOD, Al T DOD, As T DOD, Ba T DOD, Be T DOD, Ca T DOD, Cd T DOD, Co T DOD, Cr T DOD, Cu T DOD, Fe T DOD, K T DOD, Mg T DOD, Mn T DOD, Na T DOD, Ni T DOD, Pb T DOD, Sb T DOD, Se T DOD, Tl T DOD, V T DOD, Zn T DOD	<2			50.00mL	colorless-clear		
22	R1510345-008	PAR57-GW-MW101-15.1 Dissolved	.01	50mL	6010C/Ag D DOD, Al D DOD, As D DOD, Ba D DOD, Be D DOD, Ca D DOD, Cd D DOD, Co D DOD, Cr D DOD, Cu D DOD, Fe D DOD, K D DOD, Mg D DOD, Mn D DOD, Na D DOD, Ni D DOD, Pb D DOD, Sb D DOD, Se D DOD, Tl D DOD, V D DOD, Zn D DOD	<2			50.00mL	colorless-clear		

Spiking Solutions

Name:	Selenium 1000 ug/mL Se	Inventory ID	74566	Logbook Ref:	M5280040P	Expires On:	03/03/2016	Lot #:	14084
Name:	Custom LCS STD A Metals	Inventory ID	82346	Logbook Ref:	M7080002F	Expires On:	06/12/2016	Lot #:	15F08
Name:	Custom LCS STD B Metals	Inventory ID	82347	Logbook Ref:	M7080002G	Expires On:	06/12/2016	Lot #:	15F09
Name:	Tin 1000 ug/mL Sn	Inventory ID	84552	Logbook Ref:	M7080004b	Expires On:	03/11/2017	Lot #:	15H05

Preparation Materials

1:1 HCl Metals Grade	M7080005N (86048)	Hot Block Cups	50 mL Lot 1501179 (84721)	Nitric Acid Metals Grade HNO3	M7080004V (85537)
Thermometer	129 (80236)				

Preparation Information Benchsheet

Prep Run#: 251222
Team: Metals/CGILDAY

Prep WorkFlow: MetDigAqICP
Prep Method: EPA 3005A/3010A

Status: Prepped
Prep Date/Time: 12/2/15 01:17 PM

Preparation Steps

Step: Digestion
Started: 12/2/15 13:17
Finished: 12/3/15 16:49
By: CGILDAY
Comments

Comments: M7240065 pipette check

Reviewed By: [signature] Date: 12/4/15 Spike Witness: ADOCKHAM Date:

Chain of Custody

Relinquished By: [signature] Date: 12/4/15

Received By: RAC) Date: ↓

Extracts Examined
Yes No

OPTIMA 3,4,5 CALIBRATION STANDARD #1 (Standard is prepared weekly or as necessary)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Cal Std.1 Int.	AL	M688005A	20.0	1.00	1000	0.020	2%HNO3	AM 10/30/15	A	M70800053	M70800042K	11/6/15	M38
	AS	M7180001A *	5.00			0.0050	5%HCl *	ARD 11/7/15	B	M70800044V	M70800044K	11/14/15	M25 M26
	CD		1.00			0.0010	*	DCA 11/15/15	C	M70800044V	M70800044K	11/22/15	M28 M21
	CO		3.00			0.0030	*	DCO 11/23/15	D	M70800044V	M70800044K	11/30/15	MA6 M31
	CR		1.00			0.0010	*	ARD 12/1/15	E	M70800044V	M70800051V	12/7/15	M26 M25
	NI		5.00			0.0050			F				
	PB		5.00			0.0050			G				
	SE		5.00			0.0050			H				
	V		3.00			0.0030			I				
Cal Std. 1	CA	M7080001AA	5000	0.100		0.500			J				
	K		5000			BELOW			K				
	MG		5000			0.500			L				
	NA		5000			0.500			M				
Single Element	BA	M5280008V	1000	0.020		0.020			N				
	CU	M5280010O	1000	0.010		0.010			O				
	K	M5280011M	10000	0.150		2.00			P				
	MN	M7080001W	1000	0.010		0.010			Q				
	MO	M7080004M	1000	0.025		0.025			R				
	SB	M7080003K	1000	0.010		0.010			S				
	TL	M5280011O	1000	0.010		0.010			T				
	ZN	M5280013Q	1000	0.010		0.010			U				
	P	—	1000	0.100		0.100			V				
									W				
									X				
									Y				
									Z				

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OPTIMA 3,4,5 CALIBRATION STANDARD #2
(Standard is prepared weekly or as necessary)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Single	AL	M5280043XE	1000	0.100	1000	0.100	2%HNO3	AM 11/2/15	A	M7080003Z	M7080004K	11/9/15	M25 M30
Element	AS	M5280037FF	1000	0.010		0.010	5%HCl	ARD 11/10/15	B	M7080004V	M7080004K	11/17/15	M11 M9
	B	M5280044B	1000	0.200		0.200		AM 11/18/15	C	M7080004V	M7080004K	11/25/15	M25 M30
	BE (1/10)	M7080003M	100	0.030		0.003		DCB 11/25/15	D	M7080004V	M7080004K	12/2/15	M11 M26
	CA	M5280041L	10000	0.100		1.00		DCB 12/3/15	E	M7080004V	M7080005N	12/10/15	M11 M26
	CD (1/10)	M7080002A	100	0.050		0.005			F				
	CU	M5280040O	1000	0.020		0.020			G				
	K	M5280041M	10000	0.200		2.00			H				
	MG	M7080003X	10000	0.100		1.00			I				
	NA	M5280040M	10000	0.100		1.00			J				
	SB	M7080003X	1000	0.060		0.060			K				
	SE	M5280040P	1000	0.010		0.010			L				
	SN	M7080001X	1000	0.500		0.500			M				
	PB	M7080001M	1000	0.050		0.005			N				
									O				
									P				
									Q				
									R				
									S				
									T				
									U				
									V				
									W				
									X				
									Y				
									Z				

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OPTIMA 3/4/5 CALIBRATION STANDARD #5 / HLCCV1 (Standard is prepared weekly or as necessary)

(CALIBRATION STANDARD #3 IS A 1/100 DILUTION OF THIS STANDARD)

(CALIBRATION STANDARD #4 IS A 1/5 DILUTION OF THIS STANDARD)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Cal Std 1	CA	m7080001AA	5000	5.00	500	50.0	2%HNO3	DCB 12/4/15	A	m7080004V	m7080005N	12/11/15	m26
	MG		5000			50.0	5%HCl		B				
	K		5000			50.0			C				
	NA		5000			50.0			D				
Cal Std 2	AG	m7080002T	100	5.00		1.00			E				
	CR		100			1.00			F				
	MN		150			1.50			G				
	NI		400			4.00			H				
	ZN		200			2.00			I				
Cal Std 3	AL	m7080004C	2000	5.00		20.0			J				
	BA		2000			20.0			K				
	BE		50			0.500			L				
	CO		500			5.00			M				
	CU		250			2.50			N				
	FE		1000			10.0			O				
	V		500			5.00			P				
Cal Std 4	AS	m7080005J	100	10.00		2.00			Q				
	CD		50			1.00			R				
	PB		50			1.00			S				
	SE		50			1.00			T				
	TL		100			2.00			U				
Single Metals	SB	m7080003K	1000	5.00		10.0			V				
	SN	m7080001X	1000	5.00		10.0			W				
	B	m5285044B	1000	2.50		5.00			X				
	MO	m7080004m	1000	2.50		5.00			Y				
	TI	m5280044D	1000	2.50		5.00			Z				
	SR	m7080004M	1000	2.50		5.00			AA				
	P	—	1000	5.00		10.0			BB				

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OPTIMA 3/4/5 ICV/CCV (Standard is prepared daily)
(ICV FOR ILM5.3 IS A ½ DILUTION OF THIS STANDARD)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Pipet ID
Cal Std 1	CA	M7080003W	5000	1.00	200	25.0	2%HNO3	ARD 12/2/15	A	M7080004V	M7080005N	M26
	MG		5000			25.0	5%HCl	ARD 12/3/15	B	M7080004V	M7080005N	M26
	K		5000			25.0		ARD 12/4/15	C	M7080004V	M7080005N	M26
	NA		5000			25.0		DCD 12/5/15	D	m7080004V	m7080005N	m26
Cal Std 2	AG	M7080004T	100	1.00		0.500		DCD 12/6/15	E	m7080004V	m7080005N	m26
	CR		100			0.500			F			
	MN		150			0.750			G			
	NI		400			2.00			H			
	ZN		200			1.00			I			
Cal Std 3	AL	M7080008V	2000	1.00		10.0			J			
	BA		2000			10.0			K			
	BE		50			0.250			L			
	CO		500			2.50			M			
	CU		250			1.25			N			
	FE		1000			5.00			O			
	V		500			2.50			P			
Cal Std 4	AS	M7080004F	100	2.00		1.00			Q			
	CD		50			0.500			R			
	PB		50			0.500			S			
	SE		50			0.500			T			
	TL		100			1.00			U			
Single Metals	SB	M7080003O	1000	1.00		5.00			V			
	SN	M7080005D	1000	1.00		5.00			W			
	B	M5280042P	1000	0.500		2.50			X			
	MO	M5280042Q	1000	0.500		2.50			Y			
	TI	M5280042R	1000	0.500		2.50			Z			
	SR	M5280044E	1000	0.500		2.50			AA			
	P	—	1000	1.00		5.00			BB			

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OPTIMA 3/4 HLCCV2 (Standard is prepared every 2 weeks or as necessary)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Cal Std 2	AG	M708000 2T	100	2.00	100	2.00	2%HNO3	ARD 11/24/15	A	M708000 4V	M708000 4M	12/31/15	M26
	CR		100			Below	5%HCl	ARD 12/3/15	B	M708000 4V	M708000 5N	ARD 12/16/15 12/16/15	M26
	MN		150			Below			C				
	NI		400			8.00			D				
	ZN		200			4.00			E				
Cal Std 3	AL	M708000 2U	2000	2.00		Below			F				
	BA		2000			40.0			G				
	BE		50			1.00			H				
	CO, V		500			10.0			I				
	CU		250			5.00			J				
	FE		1000			Below			K				
Cal Std 4	AS, TL	M708000 4D	100	4.00		4.00			L				
	CD, SE		50			2.00			M				
	PB		50			Below			N				
Single Metals	B	M528 0044B	1000	1.00		10.0			O				
	MO	M708008 4M	1000	1.00		10.0			P				
	TI	M528000 44D	1000	1.00		10.0			Q				
	SR	M708000 4A	1000	1.00		10.0			R				
	CA	M528004 1L	10000	2.50		250			S				
	MG	M708000 3L	10000	5.00		500			T				
	NA	M528004 0M	10000	1.50		150			U				
	CR	M708000 3J	1000	0.800		10.0			V				
	FE	M528004 0Q	10000	0.300		50			W				
	AL	M528004 3K	10000	4.60		500			X				
	MN	M708 0001W	1000	0.700		10.00			Y				
	PB	M708000 1M	1000	0.800		10.0			Z				
	K	M528004 1M	10000	1.50		150			AA				

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OPTIMA 3/4/5 MRL (Standard is prepared every 6 months or as needed)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Cal Std 1	CA	M7080001AA	5000	0.200	1000	1.00	2%HNO3	AM 10/20/15	A	M7080003Z	M7080004K	4/26/16	M35 M38
	MG		5000			1.00	5%HCl	AM 10/30/15	B	M7080003Z	M7080004K	4/30/16	M35 M20
	K		5000			1.00		AM 11/13/15	C	M7080003ZHV	M7080004K	5/13/16	M35 M30
	NA		5000			1.00		JCB 11/29/15	D	M7080004V	M7080004R	5/29/16	M35 M26
Cal Std 2	AG	M7080002-T	100	0.100		0.0100		ARD 12/4/15	E	M7080004V	M7080005N	6/4/16	M26 M26
	CR		100			0.0100			F				
	MN		150			0.0150			G				
	NI		400			0.0400			H				
	ZN		200			0.0200			I				
Cal Std 3	AL	M7080003Y	2000	0.100		0.200			J				
	BA		2000			0.200			K				
	BE		50			0.0050			L				
	CO		500			0.0500			M				
	CU		250			0.0250			N				
	FE		1000			0.100			O				
	V		500			0.0500			P				
Cal Std 4	AS	M7080004D	100	0.200		0.0200			Q				
	CD		50			0.0100			R				
	PB		50			0.0100			S				
	SE		50			0.0100			T				
	TL		100			0.0200			U				
Single Metals	B	M5280044B	1000	0.200		0.200			V				
	MO	M7080004M	1000	0.025		0.0250			W				
	SN	M7080001X	1000	0.500		0.500			X				
	TI	M5280044D	1000	0.050		0.0500			Y				
	SB	M7080003K	1000	0.060		0.0600			Z				
	SR	M7086001N	1000	0.100		0.100			AA				
	P	—	1000	0.100		0.100			BB				

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OPTIMA 3 & 5 ICSA STANDARD (Standard is prepared every 6 months or as necessary)

Element	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot #	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Int. A Sol'n	M70800041L	Multi	50	1000	Multi	5% HCL	AM 11/10/15	A	M70800041V	M70800042K	5/10/16	—
AL		5000			250	2%HNO3	DCA 11/24/15	B	M70800041V	M70800042K	5/24/16	—
CA		5000			250			C				
FE		2000			100			D				
MG		5000			250			E				
								F				
								G				
								H				
								I				
								J				
								K				
								L				
								M				
								N				
								O				
								P				
								Q				
								R				
								S				
								T				
								U				
								V				

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OPTIMA 3 & 5 ICSAB STANDARD (Standard is prepared every 6 months or as necessary)

Element	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot #	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Int. A Sol'n	M7080004L	Multi	25	500	Multi	5 % HCl	AM 11/3/15	A	M7080003Z	M7080004M	5/3/16	—
AL		5000			250	2%HNO3	AM 11/10/15	B	M7080003Z	M7080004K	5/10/16	—
CA		5000			250		DCO 11/24/15	C	M7080004V	M7080004K	5/24/16	—
FE		2000			100			D				
MG		5000			250			E				
Int. B Sol'n	M7080003N	Multi	5		Multi			F				
AG		20			0.200			G				
BA		50			0.500			H				
BE		50			0.500			I				
CD		100			1.00			J				
CO		50			0.500			K				
CR		50			0.500			L				
CU		50			0.500			M				
MN		50			0.500			N				
NI		100			1.00			O				
PB		5			0.0500			P				
V		50			0.500			Q				
ZN		100			1.00			R				
AS		10			0.100			S				
SB		60			0.600			T				
SE		5			0.0500			U				
TL		10			0.100			V				

OPTIMA 3/4 INTERNAL STANDARD (ADDED ON-LINE) (6mo.)

Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix
Y	M7080002L	10000	2.0	2000	10.0	5 % HCl 2%HNO3
CS	M7080002K	10000	2.0		10.0	

Analyst/ Date	Letter ID	Nitric Acid Lot #	Hydro-chloric Acid Lot #	Expiration Date	Pipet ID
AM 11/2/15	A	M7080002L	M7080004K	5/2/16	M30
AM 11/9/15	B	M7080002L	M7080004K	5/9/16	M36
AM 11/18/15	C	M7080004V	M7080004K	5/17/16	M30
ARD 11/23/15	D	M7080004V	M7080004K	5/23/16	M26
DCA 11/28/15	E	M7080004V	M7080004K	5/28/16	M26
DCA 11/29/15	F	M7080004V	M7080004K	5/29/16	M26
ARD 12/02/15	G	M7080004V	M7080005N	6/01/16	M26
DCA 12/5/15	H	M7080004V	M7080005N	6/5/16	M26
	I				
	J				
	K				
	L				
	M				
	N				
	O				
	P				
	Q				
	R				
	S				
	T				
	V				

ALS Environmental
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F: 585-288-8475
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January 06, 2016

Analytical Report for Service Request No: R1510266

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000

Dear Sandra:

Enclosed are the results of the sample(s) submitted to our laboratory on November 25, 2015. For your reference, these analyses have been assigned our service request number **R1510266**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7478. You may also contact me via email at Vanessa.Badman@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Vanessa N. Badman

Vanessa Badman

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Environmental

Client:	Parsons Engineering Science
Service Request No.:	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000
Date Received:	November 25, 2015
Sample Matrix:	Water

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Samples were received for analysis at ALS Environmental on 11/25/15. The samples were received in good condition and consistent with the accompanying chain of custody form. All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

Volatile Organics

Samples were analyzed for a site list of Volatile Organics by Methods 5035A/8260C from SW-846.

All Tuning criteria for BFB were within QC limits.

All the initial calibration criteria were met for all analytes.

All Continuing Calibration Verification (CCV) standards were within 20% Difference (D) except for Acetone which recovered low.

All Internal Standard Areas (IS) were within QC limits.

All surrogate standard recoveries were acceptable.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries were within limits.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination except for 1,2,4-Trichlorobenzene, Hexachlorobutadiene, and Naphthalene. Any hits in the samples should be considered to be estimated.

Due to sample matrix or non-target analyte concentrations, dilutions were performed and the MRLs adjusted accordingly.

No other analytical or QC problems were encountered.

Semi-Volatile Organics

Samples were analyzed for a site list of Semi-Volatile Organics by Method 3541/8270D and 3580/8270D from SW-846.

All Tuning criteria for DFTPP were within QC limits.

The ICAL recovered >15% for Deithyl Phthalate. The ICV recovered >20% for 4-Chloroaniline, 3-Nitroaniline, and 3,3-Dichlorobenzidine. Any hits in the samples should be considered estimated.

All CCV standards were within 20% D for all analytes except for 4,6-Dinitro-2-methylphenol and 2,4-Dinitro Phenol, which recovered high.

All Internal Standard Areas were within QC limits.

All surrogate standard recoveries were within limits.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries and RPD's were within limits except for 2,4-Dinitrotoluene which recovered high in the LCSD. The LCS and the LCSD have been reported as zero percent recovery for Benzidine due to a limitation in LIMs. Benzidine was detected with 12% recovery in the LCS and has been flagged with a "*"; and 16% recovery in the LCSD which should not be flagged on the summary form. The precision was calculated to be 28% RPD.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination.

Due to sample matrix or non-target analyte concentrations, dilutions were performed and the MRLs adjusted accordingly.

No other analytical or QC problems were encountered.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #:	748810-03000	Batch Complete:	Yes	Date Revised:	
Submission:	R1510266	Diskette Requested:	No	Date Due:	12/18/15
Client:	Parsons Engineering Science	Date:	1/6/16	Protocol:	SW846
Client Rep:	VBADMAN	Custody Seal: Present/Absent:		Shipping No.:	
Project:	FTMM 2015 Annual GW Sampling	Chain of Custody: Present/Absent:		SDG #:	

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1510266-001	FTMM-66-GW-886RW06-8.75	Water	8270D	11/23/15	11/25/15			
R1510266-002	FTMM-66-GW-886RW01-11.9	Water	8270D	11/23/15	11/25/15			
R1510266-003	FTMM-53-GW-699RW03-12.8	Water	8260C	11/23/15	11/25/15			
R1510266-004	FTMM-53-GW-699RW05-10	Water	8260C	11/23/15	11/25/15			
R1510266-005	FTMM-53-GW-699RW16-9.7	Water	8260C	11/23/15	11/25/15			
R1510266-006	FTMM-53-GW-MW01-12.9	Water	8260C	11/23/15	11/25/15			
R1510266-007	FTMM-53-WW-MW01-8.4	Water	8260C	11/23/15	11/25/15			
R1510266-008	EB-2015-11-23	Water	8270D, 8260C	11/23/15	11/25/15			
R1510266-009	TB-2015-11-23	Water	8260C	11/23/15	11/25/15			

Folder Comments: DoD reporting ERPTOOLS LOD

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% (25% for CLP) difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.
MRL LOQ	Method Reporting Limit. Also known as: Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

32376

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: FTMM-2015 Q4 GW Sampling	Project Number: 748810-03000
Project Manager: Cris Grill	Report CC:
Company/Address: Parsons 100 High Street Boston, MA 02210	
Phone #: (617) 449-1583	Email: cris.grill@parsons.com
Sampler's Signature: Alex DiIanno	Sampler's Printed Name: Alex DiIanno

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 0

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs • 8260 • 624 • CLP	GC/MS SVOAs • 8270 • 625	GC VOAs • 8021 • 601/602	PESTICIDES • 8081 • 608	PCBs • 8082 • 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)
FTMM-66-GW-886RW06-8.75		11/23/15	1341	GW	2		X					
FTMM-66-GW-886RW01-11.9		11/23/15	1355	GW	2		X					
FTMM-53-GW-699RW03-12.8		11/23/15	1115	GW	3	X						
FTMM-53-GW-699RW05-10		11/23/15	1505	GW	3	X						
FTMM-53-GW-699MW16-9.7		11/23/15	14558	GW	3	X						
FTMM-53-GW-MW01-12.9		11/23/15	1220	GW	3	X						
FTMM-53-GW-MW01-8.4		11/23/15	1045	GW	3	X						
EB-2015-11-23		11/23/15	1600	GW	5	X	X					
TB-2015-11-23		11/23/15	—	TB	3	X						

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data

Edata ____Yes ____No

INVOICE INFORMATION
PO #
BILL TO:

STATE WHERE SAMPLES WERE COLLECTED: New Jersey

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: C. Watson	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: PARSONS	Firm: ALS	Firm:	Firm:	Firm:	
Date/Time: 11/23 1650	Date/Time: 11/25/15 0915	Date/Time:	Date/Time:	Date/Time:	

Distribution: White - Lab Copy; Yellow - Return to Originator

R1510266 5
Parsons, Inc.
FTMM Baseline

Cooler Receipt and Preservati

R1510266 5
Parsons, Inc.
FTMM Baseline

Project/Client Parsons Folder Number

Cooler received on 11/25/15 by: @

COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y (N) NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: ~~Wet Ice~~ **Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 11/25/15 Time: 0927 ID: IR#3 (IR#5) From: (Temp Blank) Sample Bottle

Observed Temp (°C)	3.0						
Correction Factor (°C)	+0.0						
Corrected Temp (°C)	3.0°						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by @ on 11/25/15 at 0930
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: VWB

Cooler Breakdown: Date: 11/25/15 Time: 1003 by: MDS

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	4114670	10/16				

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 091415-1BLT, 042015-1BMG, 5-211-002,
Other Comments:

PC Secondary Review: VWB 11/25/15 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r9.doc 9/24/15

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1115
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-53-GW-699RW03-12.8	**Units:**	µg/L
Lab Code:	R1510266-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/2/15 16:01		474506	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/2/15 16:01		474506	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/2/15 16:01		474506	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/2/15 16:01		474506	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/2/15 16:01		474506	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/2/15 16:01		474506	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/2/15 16:01		474506	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/2/15 16:01		474506	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/2/15 16:01		474506	
1,2,4-Trimethylbenzene	**10**		5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/2/15 16:01		474506	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/2/15 16:01		474506	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/2/15 16:01		474506	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/2/15 16:01		474506	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
1,3,5-Trimethylbenzene	**0.44**	J	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/2/15 16:01		474506	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/2/15 16:01		474506	
2-Butanone (MEK)	**2.4**	J	5.0	1.0	0.81	1	NA	12/2/15 16:01		474506	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/2/15 16:01		474506	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/2/15 16:01		474506	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/2/15 16:01		474506	
p-Isopropyltoluene	**0.75**	J	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/2/15 16:01		474506	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/2/15 16:01		474506	
Benzene	**0.68**	J	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/2/15 16:01		474506	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/2/15 16:01		474506	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/2/15 16:01		474506	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/2/15 16:01		474506	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/2/15 16:01		474506	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/2/15 16:01		474506	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/2/15 16:01		474506	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1115
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-53-GW-699RW03-12.8	**Units:**	µg/L
Lab Code:	R1510266-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**0.32**	J	5.0	1.0	0.24	1	NA	12/2/15 16:01		474506	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/2/15 16:01		474506	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/2/15 16:01		474506	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/2/15 16:01		474506	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/2/15 16:01		474506	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/2/15 16:01		474506	
Ethylbenzene	**5.0**		5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/2/15 16:01		474506	
Isopropylbenzene (Cumene)	**4.5**	J	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/2/15 16:01		474506	
Naphthalene	**1.1**	J	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/2/15 16:01		474506	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/2/15 16:01		474506	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/2/15 16:01		474506	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/2/15 16:01		474506	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/2/15 16:01		474506	
m,p-Xylenes	**0.48**	J	10	2.0	0.33	1	NA	12/2/15 16:01		474506	
n-Butylbenzene	**1.1**	J	5.0	1.0	0.21	1	NA	12/2/15 16:01		474506	
n-Propylbenzene	**5.8**		5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
o-Xylene	**2.0**	J	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
sec-Butylbenzene	**2.5**	J	5.0	1.0	0.27	1	NA	12/2/15 16:01		474506	
tert-Butylbenzene	**0.49**	J	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/2/15 16:01		474506	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/2/15 16:01	
Dibromofluoromethane	112	85-115	12/2/15 16:01	
Toluene-d8	108	85-120	12/2/15 16:01	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Collected: 11/23/15
Date Received: 11/25/15
Date Analyzed: 12/2/15 1601

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-53-GW-699RW03-12.8
Lab Code: R1510266-003

Units: µg/L
Basis: NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q
000078-78-4	Butane, 2-methyl-	1.83	**9.9**	JN
000079-29-8	Butane, 2,3-dimethyl-	2.91	**15.3**	JN
000107-83-5	Pentane, 2-methyl-	2.96	**7.2**	JN
000096-14-0	Pentane, 3-methyl-	3.26	**17.1**	JN
000108-08-7	Pentane, 2,4-dimethyl-	4.42	**6.9**	JN
000096-37-7	Cyclopentane, methyl-	4.52	**8.7**	JN
000565-59-3	Pentane, 2,3-dimethyl-	5.80	**17.2**	JN
002532-58-3	Cyclopentane, 1,3-dimethyl-, cis-	6.27	**7.8**	JN
	unknown	6.35	**15.9**	J
	unknown	7.30	**7.9**	J
000565-75-3	Pentane, 2,3,4-trimethyl-	7.87	**6.9**	JN
000560-21-4	Pentane, 2,3,3-trimethyl-	7.99	**10.5**	JN
000611-14-3	Benzene, 1-ethyl-2-methyl-	11.60	**8.7**	JN
	unknown	12.24	**19.9**	J
000874-41-9	Benzene, 1-ethyl-2,4-dimethyl-	12.62	**5.1**	JN
003290-53-7	Benzene, (2-methyl-2-propenyl)-	12.71	**17.9**	JN
000095-93-2	Benzene, 1,2,4,5-tetramethyl-	12.93	**8.4**	JN
000824-22-6	1H-Indene, 2,3-dihydro-4-methyl-	13.31	**8.0**	JN

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Collected: 11/23/15 1505
Date Received: 11/25/15

Sample Name: FTMM-53-GW-699RW05-10
Lab Code: R1510266-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	13	2.5	0.55	2.5	NA	12/2/15 18:04		474506	
1,1,1-Trichloroethane (TCA)	ND	U	13	2.5	0.90	2.5	NA	12/2/15 18:04		474506	
1,1,2,2-Tetrachloroethane	ND	U	13	2.5	0.63	2.5	NA	12/2/15 18:04		474506	
1,1,2-Trichloroethane	ND	U	13	2.5	0.86	2.5	NA	12/2/15 18:04		474506	
1,1-Dichloroethane (1,1-DCA)	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
1,1-Dichloroethene (1,1-DCE)	ND	U	13	2.5	1.5	2.5	NA	12/2/15 18:04		474506	
1,1-Dichloropropene	ND	U	13	2.5	0.73	2.5	NA	12/2/15 18:04		474506	
1,2,3-Trichlorobenzene	ND	U	13	2.5	2.1	2.5	NA	12/2/15 18:04		474506	
1,2,3-Trichloropropane	ND	U	13	2.5	1.8	2.5	NA	12/2/15 18:04		474506	
1,2,4-Trichlorobenzene	ND	U	13	2.5	0.58	2.5	NA	12/2/15 18:04		474506	
1,2,4-Trimethylbenzene	**290**		13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	13	2.5	1.9	2.5	NA	12/2/15 18:04		474506	
1,2-Dibromoethane	ND	U	13	2.5	0.60	2.5	NA	12/2/15 18:04		474506	
1,2-Dichlorobenzene	ND	U	13	2.5	0.53	2.5	NA	12/2/15 18:04		474506	
1,2-Dichloroethane	ND	U	13	2.5	0.90	2.5	NA	12/2/15 18:04		474506	
1,2-Dichloropropane	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
1,3,5-Trimethylbenzene	**56**		13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
1,3-Dichlorobenzene	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
1,3-Dichloropropane	ND	U	13	2.5	0.68	2.5	NA	12/2/15 18:04		474506	
1,4-Dichlorobenzene	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
2,2-Dichloropropane	ND	U	13	2.5	0.68	2.5	NA	12/2/15 18:04		474506	
2-Butanone (MEK)	**3.5**	J	13	2.5	2.1	2.5	NA	12/2/15 18:04		474506	
2-Chlorotoluene	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
2-Hexanone	ND	U	13	13	4.2	2.5	NA	12/2/15 18:04		474506	
tert-Butyl Alcohol	ND	U	250	50	27	2.5	NA	12/2/15 18:04		474506	
4-Chlorotoluene	ND	U	13	2.5	0.60	2.5	NA	12/2/15 18:04		474506	
p-Isopropyltoluene	**2.4**	J	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
4-Methyl-2-pentanone	ND	U	13	2.5	1.7	2.5	NA	12/2/15 18:04		474506	
Acetone	**5.7**	J	13	13	3.1	2.5	NA	12/2/15 18:04		474506	
Benzene	**2.5**	J	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
Bromobenzene	ND	U	13	2.5	0.71	2.5	NA	12/2/15 18:04		474506	
Bromochloromethane	ND	U	13	2.5	0.80	2.5	NA	12/2/15 18:04		474506	
Bromodichloromethane	ND	U	13	2.5	0.80	2.5	NA	12/2/15 18:04		474506	
Bromoform	ND	U	13	2.5	1.1	2.5	NA	12/2/15 18:04		474506	
Bromomethane	ND	U	13	2.5	0.73	2.5	NA	12/2/15 18:04		474506	
Carbon Tetrachloride	ND	U	13	2.5	1.2	2.5	NA	12/2/15 18:04		474506	
Chlorobenzene	ND	U	13	2.5	0.73	2.5	NA	12/2/15 18:04		474506	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1505
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-53-GW-699RW05-10	**Units:**	µg/L
Lab Code:	R1510266-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	13	2.5	0.60	2.5	NA	12/2/15 18:04		474506	
Chloroform	ND	U	13	2.5	0.63	2.5	NA	12/2/15 18:04		474506	
Chloromethane	ND	U	13	2.5	0.53	2.5	NA	12/2/15 18:04		474506	
Dibromochloromethane	ND	U	13	2.5	0.78	2.5	NA	12/2/15 18:04		474506	
Dichlorodifluoromethane (CFC 12)	ND	U	13	2.5	1.2	2.5	NA	12/2/15 18:04		474506	
Methylene Chloride	ND	U	13	2.5	1.5	2.5	NA	12/2/15 18:04		474506	
Ethylbenzene	**190**		13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
Hexachlorobutadiene	ND	U	13	2.5	1.6	2.5	NA	12/2/15 18:04		474506	
Isopropylbenzene (Cumene)	**15**		13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
Methyl tert-Butyl Ether	ND	U	13	2.5	0.73	2.5	NA	12/2/15 18:04		474506	
Naphthalene	**120**		13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
Styrene	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
Tetrachloroethene (PCE)	ND	U	13	2.5	0.75	2.5	NA	12/2/15 18:04		474506	
Toluene	**7.5**	J	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
Trichloroethene (TCE)	ND	U	13	2.5	0.55	2.5	NA	12/2/15 18:04		474506	
Trichlorofluoromethane (CFC 11)	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
Vinyl Chloride	ND	U	13	2.5	0.80	2.5	NA	12/2/15 18:04		474506	
cis-1,2-Dichloroethene	ND	U	13	2.5	0.75	2.5	NA	12/2/15 18:04		474506	
cis-1,3-Dichloropropene	ND	U	13	2.5	0.60	2.5	NA	12/2/15 18:04		474506	
m,p-Xylenes	**370**		25	5.0	0.83	2.5	NA	12/2/15 18:04		474506	
n-Butylbenzene	**2.8**	J	13	2.5	0.53	2.5	NA	12/2/15 18:04		474506	
n-Propylbenzene	**24**		13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
o-Xylene	**280**		13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
sec-Butylbenzene	**2.4**	J	13	2.5	0.68	2.5	NA	12/2/15 18:04		474506	
tert-Butylbenzene	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
trans-1,2-Dichloroethene	ND	U	13	2.5	0.83	2.5	NA	12/2/15 18:04		474506	
trans-1,3-Dichloropropene	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	116	75-120	12/2/15 18:04	
Dibromofluoromethane	111	85-115	12/2/15 18:04	
Toluene-d8	108	85-120	12/2/15 18:04	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Analyzed:	12/2/15 1804

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-699RW05-10	**Units:**	µg/L
Lab Code:	R1510266-004	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q
000078-78-4	Butane, 2-methyl-	1.83	**78.7**	JN
000109-66-0	Pentane	2.05	**31.0**	JN
000079-29-8	Butane, 2,3-dimethyl-	2.92	**28.9**	JN
000107-83-5	Pentane, 2-methyl-	2.96	**67.6**	JN
000096-14-0	Pentane, 3-methyl-	3.25	**63.0**	JN
000096-37-7	Cyclopentane, methyl-	4.52	**148.6**	JN
000110-82-7	Cyclohexane	5.68	**28.2**	JN
000565-59-3	Pentane, 2,3-dimethyl-	5.80	**19.9**	JN
	unknown	6.35	**19.8**	J
000108-87-2	Cyclohexane, methyl-	7.32	**32.7**	JN
000611-14-3	Benzene, 1-ethyl-2-methyl-	11.36	**128.4**	JN
000622-96-8	Benzene, 1-ethyl-4-methyl-	11.60	**135.5**	JN
000526-73-8	Benzene, 1,2,3-trimethyl-	12.08	**114.1**	JN
	unknown	12.24	**135.9**	J
001758-88-9	Benzene, 2-ethyl-1,4-dimethyl-	12.53	**19.7**	JN
000874-41-9	Benzene, 1-ethyl-2,4-dimethyl-	12.62	**36.6**	JN
027133-93-3	2,3-Dihydro-1-methylindene	12.71	**28.4**	JN
000527-53-7	Benzene, 1,2,3,5-tetramethyl-	12.93	**24.0**	JN
000488-23-3	Benzene, 1,2,3,4-tetramethyl-	12.97	**19.7**	JN
000824-22-6	1H-Indene, 2,3-dihydro-4-methyl-	13.31	**39.5**	JN

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1458
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-53-GW-699RW16-9.7	**Units:**	µg/L
Lab Code:	R1510266-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 16:40		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 16:40		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 16:40		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 16:40		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 16:40		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 16:40		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 16:40		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 16:40		474290	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/1/15 16:40		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 16:40		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 16:40		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 16:40		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 16:40		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 16:40		474290	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 16:40		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 16:40		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 16:40		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 16:40		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 16:40		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 16:40		474290	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/1/15 16:40		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 16:40		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 16:40		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 16:40		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 16:40		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 16:40		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 16:40		474290	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 16:40		474290	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1458
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-53-GW-699RW16-9.7	**Units:**	µg/L
Lab Code:	R1510266-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 16:40		474290	
Chloroform	**3.0**	J	5.0	1.0	0.25	1	NA	12/1/15 16:40		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 16:40		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 16:40		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 16:40		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 16:40		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 16:40		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 16:40		474290	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
Tetrachloroethene (PCE)	**1.3**	J	5.0	1.0	0.30	1	NA	12/1/15 16:40		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 16:40		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 16:40		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 16:40		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 16:40		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 16:40		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 16:40		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 16:40		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 16:40		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/1/15 16:40	
Dibromofluoromethane	110	85-115	12/1/15 16:40	
Toluene-d8	112	85-120	12/1/15 16:40	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Analyzed:	12/1/15 1640

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-699RW16-9.7	**Units:**	µg/L
Lab Code:	R1510266-005	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1220
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-53-GW-MW01-12.9	**Units:**	µg/L
Lab Code:	R1510266-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 17:11		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 17:11		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 17:11		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 17:11		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 17:11		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 17:11		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 17:11		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 17:11		474290	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/1/15 17:11		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 17:11		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 17:11		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 17:11		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 17:11		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 17:11		474290	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 17:11		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 17:11		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 17:11		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 17:11		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 17:11		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 17:11		474290	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/1/15 17:11		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 17:11		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 17:11		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 17:11		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 17:11		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 17:11		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 17:11		474290	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 17:11		474290	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1220
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-53-GW-MW01-12.9	**Units:**	µg/L
Lab Code:	R1510266-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 17:11		474290	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/1/15 17:11		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 17:11		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 17:11		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 17:11		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 17:11		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 17:11		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 17:11		474290	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/1/15 17:11		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 17:11		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 17:11		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 17:11		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 17:11		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 17:11		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 17:11		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 17:11		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 17:11		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/1/15 17:11	
Dibromofluoromethane	110	85-115	12/1/15 17:11	
Toluene-d8	111	85-120	12/1/15 17:11	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Analyzed:	12/1/15 1711

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-MW01-12.9	**Units:**	µg/L
Lab Code:	R1510266-006	**Basis:**	NA

Prep Method:	EPA 5030C
Analytical Method:	8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1045
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-53-WW-MW01-8.4	**Units:**	µg/L
Lab Code:	R1510266-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 17:41		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 17:41		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 17:41		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 17:41		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 17:41		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 17:41		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 17:41		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 17:41		474290	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/1/15 17:41		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 17:41		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 17:41		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 17:41		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 17:41		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 17:41		474290	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 17:41		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 17:41		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 17:41		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 17:41		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 17:41		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 17:41		474290	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/1/15 17:41		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 17:41		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 17:41		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 17:41		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 17:41		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 17:41		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 17:41		474290	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 17:41		474290	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1045
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-53-WW-MW01-8.4	**Units:**	µg/L
Lab Code:	R1510266-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 17:41		474290	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/1/15 17:41		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 17:41		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 17:41		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 17:41		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 17:41		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 17:41		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 17:41		474290	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/1/15 17:41		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 17:41		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 17:41		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 17:41		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 17:41		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 17:41		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 17:41		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 17:41		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 17:41		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	12/1/15 17:41	
Dibromofluoromethane	111	85-115	12/1/15 17:41	
Toluene-d8	108	85-120	12/1/15 17:41	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Analyzed:	12/1/15 1741

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-WW-MW01-8.4	**Units:**	µg/L
Lab Code:	R1510266-007	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1600
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	EB-2015-11-23	**Units:**	µg/L
Lab Code:	R1510266-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 13:06		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 13:06		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 13:06		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 13:06		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 13:06		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 13:06		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 13:06		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 13:06		474290	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/1/15 13:06		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 13:06		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 13:06		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 13:06		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 13:06		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 13:06		474290	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 13:06		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 13:06		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 13:06		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 13:06		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 13:06		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 13:06		474290	
Acetone	7.7		5.0	5.0	1.3	1	NA	12/1/15 13:06		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 13:06		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 13:06		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 13:06		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 13:06		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 13:06		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 13:06		474290	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 13:06		474290	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1600
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	EB-2015-11-23	**Units:**	µg/L
Lab Code:	R1510266-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 13:06		474290	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/1/15 13:06		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 13:06		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 13:06		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 13:06		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 13:06		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 13:06		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 13:06		474290	
Naphthalene	**0.22**	J	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/1/15 13:06		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 13:06		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 13:06		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 13:06		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 13:06		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 13:06		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 13:06		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 13:06		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 13:06		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	12/1/15 13:06	
Dibromofluoromethane	111	85-115	12/1/15 13:06	
Toluene-d8	109	85-120	12/1/15 13:06	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Analyzed:	12/1/15 1306

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-23	**Units:**	µg/L
Lab Code:	R1510266-008	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	TB-2015-11-23	**Units:**	µg/L
Lab Code:	R1510266-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 12:35		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 12:35		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 12:35		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 12:35		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 12:35		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:35		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 12:35		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 12:35		474290	
1,2,4-Trichlorobenzene	**0.24**	J	5.0	1.0	0.23	1	NA	12/1/15 12:35		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 12:35		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:35		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:35		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 12:35		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:35		474290	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:35		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 12:35		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 12:35		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 12:35		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:35		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 12:35		474290	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/1/15 12:35		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 12:35		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:35		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:35		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 12:35		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:35		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 12:35		474290	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:35		474290	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	TB-2015-11-23	**Units:**	µg/L
Lab Code:	R1510266-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:35		474290	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/1/15 12:35		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:35		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 12:35		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 12:35		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 12:35		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 12:35		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:35		474290	
Naphthalene	**0.22**	J	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/1/15 12:35		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 12:35		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:35		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 12:35		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:35		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 12:35		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:35		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:35		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 12:35		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	12/1/15 12:35	
Dibromofluoromethane	112	85-115	12/1/15 12:35	
Toluene-d8	105	85-120	12/1/15 12:35	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Analyzed:	12/1/15 1235

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	TB-2015-11-23	**Units:**	µg/L
Lab Code:	R1510266-009	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514847-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 12:05		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 12:05		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 12:05		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 12:05		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 12:05		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:05		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 12:05		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 12:05		474290	
1,2,4-Trichlorobenzene	**0.36**	J	5.0	1.0	0.23	1	NA	12/1/15 12:05		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 12:05		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:05		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:05		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 12:05		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:05		474290	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:05		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 12:05		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 12:05		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 12:05		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:05		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 12:05		474290	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/1/15 12:05		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 12:05		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:05		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:05		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 12:05		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:05		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 12:05		474290	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:05		474290	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514847-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:05		474290	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/1/15 12:05		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:05		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 12:05		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 12:05		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 12:05		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Hexachlorobutadiene	**0.75**	J	5.0	1.0	0.62	1	NA	12/1/15 12:05		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:05		474290	
Naphthalene	**0.37**	J	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/1/15 12:05		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 12:05		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:05		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 12:05		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:05		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 12:05		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:05		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:05		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 12:05		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/1/15 12:05	
Dibromofluoromethane	110	85-115	12/1/15 12:05	
Toluene-d8	113	85-120	12/1/15 12:05	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/1/15 1205

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514847-04	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514885-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/2/15 11:25		474506	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/2/15 11:25		474506	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/2/15 11:25		474506	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/2/15 11:25		474506	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/2/15 11:25		474506	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/2/15 11:25		474506	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/2/15 11:25		474506	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/2/15 11:25		474506	
1,2,4-Trichlorobenzene	**0.40**	J	5.0	1.0	0.23	1	NA	12/2/15 11:25		474506	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/2/15 11:25		474506	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/2/15 11:25		474506	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/2/15 11:25		474506	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/2/15 11:25		474506	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/2/15 11:25		474506	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/2/15 11:25		474506	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/2/15 11:25		474506	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/2/15 11:25		474506	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/2/15 11:25		474506	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/2/15 11:25		474506	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/2/15 11:25		474506	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/2/15 11:25		474506	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/2/15 11:25		474506	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/2/15 11:25		474506	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/2/15 11:25		474506	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/2/15 11:25		474506	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/2/15 11:25		474506	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/2/15 11:25		474506	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/2/15 11:25		474506	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514885-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/2/15 11:25		474506	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/2/15 11:25		474506	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/2/15 11:25		474506	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/2/15 11:25		474506	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/2/15 11:25		474506	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/2/15 11:25		474506	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
Hexachlorobutadiene	**0.86**	J	5.0	1.0	0.62	1	NA	12/2/15 11:25		474506	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/2/15 11:25		474506	
Naphthalene	**0.39**	J	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/2/15 11:25		474506	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/2/15 11:25		474506	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/2/15 11:25		474506	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/2/15 11:25		474506	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/2/15 11:25		474506	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/2/15 11:25		474506	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/2/15 11:25		474506	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/2/15 11:25		474506	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/2/15 11:25		474506	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/2/15 11:25	
Dibromofluoromethane	110	85-115	12/2/15 11:25	
Toluene-d8	114	85-120	12/2/15 11:25	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/2/15 1125

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514885-04	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Analyzed: 12/ 1/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474290

Lab Control Sample
RQ1514847-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	20.2	20.0	101	80 - 130
1,1,1-Trichloroethane (TCA)	20.5	20.0	103	65 - 130
1,1,2,2-Tetrachloroethane	20.0	20.0	100	65 - 130
1,1,2-Trichloroethane	21.4	20.0	107	75 - 125
1,1-Dichloroethane (1,1-DCA)	21.6	20.0	108	70 - 135
1,1-Dichloroethene (1,1-DCE)	21.2	20.0	106	70 - 130
1,1-Dichloropropene	22.4	20.0	112	75 - 130
1,2,3-Trichlorobenzene	23.1	20.0	116	75 - 125
1,2,3-Trichloropropane	20.0	20.0	100	75 - 125
1,2,4-Trichlorobenzene	22.2	20.0	111	65 - 135
1,2,4-Trimethylbenzene	20.9	20.0	104	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	19.2	20.0	96	50 - 130
1,2-Dibromoethane	20.2	20.0	101	80 - 120
1,2-Dichlorobenzene	21.2	20.0	106	70 - 120
1,2-Dichloroethane	21.0	20.0	105	70 - 130
1,2-Dichloropropane	21.5	20.0	107	75 - 125
1,3,5-Trimethylbenzene	21.0	20.0	105	75 - 130
1,3-Dichlorobenzene	20.2	20.0	101	75 - 125
1,3-Dichloropropane	21.0	20.0	105	75 - 125
1,4-Dichlorobenzene	20.9	20.0	105	75 - 125
2,2-Dichloropropane	21.4	20.0	107	70 - 135
2-Butanone (MEK)	20.7	20.0	104	30 - 150
2-Chlorotoluene	20.8	20.0	104	75 - 125
2-Hexanone	20.1	20.0	101	55 - 130
tert-Butyl Alcohol	437	400	109	50 - 150
4-Chlorotoluene	20.9	20.0	104	75 - 130
p-Isopropyltoluene	21.5	20.0	108	75 - 130
4-Methyl-2-pentanone	21.2	20.0	106	60 - 135
Acetone	20.3	20.0	102	40 - 140
Benzene	21.1	20.0	106	80 - 120
Bromobenzene	20.7	20.0	103	75 - 125
Bromochloromethane	19.9	20.0	100	65 - 130
Bromodichloromethane	20.3	20.0	101	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Analyzed: 12/ 1/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474290

Lab Control Sample
RQ1514847-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	18.2	20.0	91	70 - 130
Bromomethane	19.9	20.0	100	30 - 145
Carbon Tetrachloride	20.3	20.0	101	65 - 140
Chlorobenzene	20.5	20.0	102	80 - 120
Chloroethane	21.2	20.0	106	60 - 135
Chloroform	19.7	20.0	99	65 - 135
Chloromethane	20.6	20.0	103	40 - 125
Dibromochloromethane	19.7	20.0	99	60 - 135
Dichlorodifluoromethane (CFC 12)	21.9	20.0	110	30 - 155
Methylene Chloride	19.9	20.0	100	55 - 140
Ethylbenzene	20.5	20.0	102	75 - 125
Hexachlorobutadiene	23.5	20.0	118	50 - 140
Isopropylbenzene (Cumene)	20.1	20.0	100	75 - 125
Methyl tert-Butyl Ether	20.4	20.0	102	65 - 125
Naphthalene	22.7	20.0	113	55 - 140
Styrene	20.5	20.0	103	65 - 135
Tetrachloroethene (PCE)	21.2	20.0	106	45 - 150
Toluene	21.1	20.0	106	75 - 120
Trichloroethene (TCE)	20.0	20.0	100	70 - 125
Trichlorofluoromethane (CFC 11)	21.9	20.0	109	60 - 145
Vinyl Chloride	20.8	20.0	104	50 - 145
cis-1,2-Dichloroethene	20.3	20.0	101	70 - 125
cis-1,3-Dichloropropene	20.3	20.0	101	70 - 130
m,p-Xylenes	41.4	40.0	103	75 - 130
n-Butylbenzene	21.8	20.0	109	70 - 135
n-Propylbenzene	20.6	20.0	103	70 - 130
o-Xylene	20.5	20.0	102	80 - 120
sec-Butylbenzene	20.4	20.0	102	70 - 125
tert-Butylbenzene	19.9	20.0	99	70 - 130
trans-1,2-Dichloroethene	20.5	20.0	103	60 - 140
trans-1,3-Dichloropropene	21.2	20.0	106	55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Analyzed: 12/ 2/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474506

Lab Control Sample
RQ1514885-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	19.5	20.0	98	80 - 130
1,1,1-Trichloroethane (TCA)	21.4	20.0	107	65 - 130
1,1,2,2-Tetrachloroethane	21.3	20.0	106	65 - 130
1,1,2-Trichloroethane	21.2	20.0	106	75 - 125
1,1-Dichloroethane (1,1-DCA)	22.5	20.0	112	70 - 135
1,1-Dichloroethene (1,1-DCE)	21.8	20.0	109	70 - 130
1,1-Dichloropropene	22.9	20.0	114	75 - 130
1,2,3-Trichlorobenzene	23.9	20.0	120	75 - 125
1,2,3-Trichloropropane	21.9	20.0	110	75 - 125
1,2,4-Trichlorobenzene	22.1	20.0	111	65 - 135
1,2,4-Trimethylbenzene	21.5	20.0	107	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	19.4	20.0	97	50 - 130
1,2-Dibromoethane	20.1	20.0	100	80 - 120
1,2-Dichlorobenzene	21.2	20.0	106	70 - 120
1,2-Dichloroethane	21.4	20.0	107	70 - 130
1,2-Dichloropropane	22.3	20.0	111	75 - 125
1,3,5-Trimethylbenzene	21.7	20.0	109	75 - 130
1,3-Dichlorobenzene	21.0	20.0	105	75 - 125
1,3-Dichloropropane	21.5	20.0	107	75 - 125
1,4-Dichlorobenzene	21.6	20.0	108	75 - 125
2,2-Dichloropropane	21.9	20.0	110	70 - 135
2-Butanone (MEK)	21.8	20.0	109	30 - 150
2-Chlorotoluene	21.9	20.0	110	75 - 125
2-Hexanone	20.9	20.0	104	55 - 130
tert-Butyl Alcohol	463	400	116	50 - 150
4-Chlorotoluene	21.9	20.0	109	75 - 130
p-Isopropyltoluene	22.1	20.0	111	75 - 130
4-Methyl-2-pentanone	21.3	20.0	107	60 - 135
Acetone	18.6	20.0	93	40 - 140
Benzene	21.8	20.0	109	80 - 120
Bromobenzene	20.9	20.0	105	75 - 125
Bromochloromethane	20.1	20.0	101	65 - 130
Bromodichloromethane	20.0	20.0	100	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Analyzed: 12/ 2/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474506

Lab Control Sample
RQ1514885-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	18.5	20.0	93	70 - 130
Bromomethane	17.4	20.0	87	30 - 145
Carbon Tetrachloride	19.0	20.0	95	65 - 140
Chlorobenzene	20.9	20.0	105	80 - 120
Chloroethane	21.4	20.0	107	60 - 135
Chloroform	20.4	20.0	102	65 - 135
Chloromethane	20.6	20.0	103	40 - 125
Dibromochloromethane	19.9	20.0	100	60 - 135
Dichlorodifluoromethane (CFC 12)	22.0	20.0	110	30 - 155
Methylene Chloride	20.6	20.0	103	55 - 140
Ethylbenzene	20.8	20.0	104	75 - 125
Hexachlorobutadiene	24.5	20.0	122	50 - 140
Isopropylbenzene (Cumene)	21.0	20.0	105	75 - 125
Methyl tert-Butyl Ether	21.5	20.0	107	65 - 125
Naphthalene	23.9	20.0	120	55 - 140
Styrene	20.7	20.0	104	65 - 135
Tetrachloroethene (PCE)	20.8	20.0	104	45 - 150
Toluene	21.6	20.0	108	75 - 120
Trichloroethene (TCE)	20.4	20.0	102	70 - 125
Trichlorofluoromethane (CFC 11)	22.5	20.0	112	60 - 145
Vinyl Chloride	21.7	20.0	108	50 - 145
cis-1,2-Dichloroethene	20.9	20.0	105	70 - 125
cis-1,3-Dichloropropene	20.7	20.0	104	70 - 130
m,p-Xylenes	41.7	40.0	104	75 - 130
n-Butylbenzene	22.5	20.0	112	70 - 135
n-Propylbenzene	21.7	20.0	108	70 - 130
o-Xylene	20.9	20.0	105	80 - 120
sec-Butylbenzene	21.3	20.0	107	70 - 125
tert-Butylbenzene	21.0	20.0	105	70 - 130
trans-1,2-Dichloroethene	22.2	20.0	111	60 - 140
trans-1,3-Dichloropropene	21.8	20.0	109	55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1341
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-66-GW-886RW06-8.75	**Units:**	µg/L
Lab Code:	R1510266-001	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
1,2,4-Trichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
1,2-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
1,3-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
1,4-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
2,4,5-Trichlorophenol	ND	U	9.4	5.0	1.8	1	11/30/15	12/9/15 11:59	250969	475853	
2,4,6-Trichlorophenol	ND	U	9.4	5.0	1.4	1	11/30/15	12/9/15 11:59	250969	475853	
2,4-Dichlorophenol	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 11:59	250969	475853	
2,4-Dimethylphenol	ND	U	9.4	5.0	1.5	1	11/30/15	12/9/15 11:59	250969	475853	
2,4-Dinitrophenol	ND	U	47	25	20	1	11/30/15	12/9/15 11:59	250969	475853	
2,4-Dinitrotoluene	ND	U	9.4	5.0	1.6	1	11/30/15	12/9/15 11:59	250969	475853	
2,6-Dinitrotoluene	ND	U	9.4	5.0	1.8	1	11/30/15	12/9/15 11:59	250969	475853	
2-Chloronaphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
2-Chlorophenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
2-Methylnaphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
2-Methylphenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
2-Nitroaniline	ND	U	47	25	9.1	1	11/30/15	12/9/15 11:59	250969	475853	
2-Nitrophenol	ND	U	9.4	5.0	1.4	1	11/30/15	12/9/15 11:59	250969	475853	
3,3'-Dichlorobenzidine	ND	U	9.4	5.0	4.5	1	11/30/15	12/9/15 11:59	250969	475853	
3- and 4-Methylphenol Coelution	ND	U	10	10	2.0	1	11/30/15	12/9/15 11:59	250969	475853	
3-Nitroaniline	ND	U	47	25	7.7	1	11/30/15	12/9/15 11:59	250969	475853	
4,6-Dinitro-2-methylphenol	ND	U	47	25	11	1	11/30/15	12/9/15 11:59	250969	475853	
4-Bromophenyl Phenyl Ether	ND	U	9.4	5.0	2.2	1	11/30/15	12/9/15 11:59	250969	475853	
4-Chloro-3-methylphenol	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 11:59	250969	475853	
4-Chloroaniline	ND	U	9.4	5.0	1.5	1	11/30/15	12/9/15 11:59	250969	475853	
4-Chlorophenyl Phenyl Ether	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 11:59	250969	475853	
4-Nitroaniline	ND	U	47	25	7.8	1	11/30/15	12/9/15 11:59	250969	475853	
4-Nitrophenol	ND	U	47	25	5.9	1	11/30/15	12/9/15 11:59	250969	475853	
Acenaphthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Acenaphthylene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Anthracene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Benz(a)anthracene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Benzidine	ND	U	100	100	90	1	11/30/15	12/9/15 11:59	250969	475853	
Benzo(a)pyrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Benzo(b)fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Benzo(g,h,i)perylene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Benzo(k)fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Collected: 11/23/15 1341
Date Received: 11/25/15

Sample Name: FTMM-66-GW-886RW06-8.75
Lab Code: R1510266-001

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 11:59	250969	475853	
2,2'-Oxybis(1-chloropropane)	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Bis(2-chloroethoxy)methane	ND	U	9.4	5.0	2.2	1	11/30/15	12/9/15 11:59	250969	475853	
Bis(2-chloroethyl) Ether	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 11:59	250969	475853	
Bis(2-ethylhexyl) Phthalate	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 11:59	250969	475853	
Butyl Benzyl Phthalate	ND	U	9.4	5.0	2.4	1	11/30/15	12/9/15 11:59	250969	475853	
Carbazole	ND	U	9.4	5.0	1.1	1	11/30/15	12/9/15 11:59	250969	475853	
Chrysene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Di-n-butyl Phthalate	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Di-n-octyl Phthalate	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 11:59	250969	475853	
Dibenz(a,h)anthracene	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 11:59	250969	475853	
Dibenzofuran	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Diethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Dimethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Fluorene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Hexachlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Hexachlorobutadiene	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 11:59	250969	475853	
Hexachlorocyclopentadiene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Hexachloroethane	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 11:59	250969	475853	
Indeno(1,2,3-cd)pyrene	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 11:59	250969	475853	
Isophorone	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
N-Nitrosodi-n-propylamine	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 11:59	250969	475853	
N-Nitrosodimethylamine	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
N-Nitrosodiphenylamine	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Naphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Nitrobenzene	ND	U	9.4	5.0	1.6	1	11/30/15	12/9/15 11:59	250969	475853	
Pentachlorophenol (PCP)	ND	U	47	25	6.9	1	11/30/15	12/9/15 11:59	250969	475853	
Phenanthrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Phenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Pyrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1341
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-66-GW-886RW06-8.75	**Units:**	Percent
Lab Code:	R1510266-001	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	123	40-125	12/9/15 11:59	
2-Fluorobiphenyl	98	50-110	12/9/15 11:59	
2-Fluorophenol	52	20-110	12/9/15 11:59	
Nitrobenzene-d5	97	40-110	12/9/15 11:59	
Phenol-d6	38	10-115	12/9/15 11:59	
p-Terphenyl-d14	94	50-135	12/9/15 11:59	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Extracted:	11/30/15
		Date Analyzed:	12/9/15 1159

Tentatively Identified Compounds (TIC)
Semivolatile Organic Compounds by GC/MS

Sample Name:	FTMM-66-GW-886RW06-8.75	**Units:**	µg/L
Lab Code:	R1510266-001	**Basis:**	NA

Prep Method: EPA 3510C
Analytical Method: 8270D

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1355
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-66-GW-886RW01-11.9	**Units:**	µg/L
Lab Code:	R1510266-002	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
1,2,4-Trichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
1,2-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
1,3-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
1,4-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
2,4,5-Trichlorophenol	ND	U	9.4	5.0	1.8	1	11/30/15	12/9/15 12:26	250969	475853	
2,4,6-Trichlorophenol	ND	U	9.4	5.0	1.4	1	11/30/15	12/9/15 12:26	250969	475853	
2,4-Dichlorophenol	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:26	250969	475853	
2,4-Dimethylphenol	ND	U	9.4	5.0	1.5	1	11/30/15	12/9/15 12:26	250969	475853	
2,4-Dinitrophenol	ND	U	47	25	20	1	11/30/15	12/9/15 12:26	250969	475853	
2,4-Dinitrotoluene	ND	U	9.4	5.0	1.6	1	11/30/15	12/9/15 12:26	250969	475853	
2,6-Dinitrotoluene	ND	U	9.4	5.0	1.8	1	11/30/15	12/9/15 12:26	250969	475853	
2-Chloronaphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
2-Chlorophenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
2-Methylnaphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
2-Methylphenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
2-Nitroaniline	ND	U	47	25	9.1	1	11/30/15	12/9/15 12:26	250969	475853	
2-Nitrophenol	ND	U	9.4	5.0	1.4	1	11/30/15	12/9/15 12:26	250969	475853	
3,3'-Dichlorobenzidine	ND	U	9.4	5.0	4.5	1	11/30/15	12/9/15 12:26	250969	475853	
3- and 4-Methylphenol Coelution	ND	U	10	10	2.0	1	11/30/15	12/9/15 12:26	250969	475853	
3-Nitroaniline	ND	U	47	25	7.7	1	11/30/15	12/9/15 12:26	250969	475853	
4,6-Dinitro-2-methylphenol	ND	U	47	25	11	1	11/30/15	12/9/15 12:26	250969	475853	
4-Bromophenyl Phenyl Ether	ND	U	9.4	5.0	2.2	1	11/30/15	12/9/15 12:26	250969	475853	
4-Chloro-3-methylphenol	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:26	250969	475853	
4-Chloroaniline	ND	U	9.4	5.0	1.5	1	11/30/15	12/9/15 12:26	250969	475853	
4-Chlorophenyl Phenyl Ether	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:26	250969	475853	
4-Nitroaniline	ND	U	47	25	7.8	1	11/30/15	12/9/15 12:26	250969	475853	
4-Nitrophenol	ND	U	47	25	5.9	1	11/30/15	12/9/15 12:26	250969	475853	
Acenaphthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Acenaphthylene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Anthracene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Benz(a)anthracene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Benzidine	ND	U	100	100	90	1	11/30/15	12/9/15 12:26	250969	475853	
Benzo(a)pyrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Benzo(b)fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Benzo(g,h,i)perylene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Benzo(k)fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Collected: 11/23/15 1355
Date Received: 11/25/15

Sample Name: FTMM-66-GW-886RW01-11.9
Lab Code: R1510266-002

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:26	250969	475853	
2,2'-Oxybis(1-chloropropane)	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Bis(2-chloroethoxy)methane	ND	U	9.4	5.0	2.2	1	11/30/15	12/9/15 12:26	250969	475853	
Bis(2-chloroethyl) Ether	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:26	250969	475853	
Bis(2-ethylhexyl) Phthalate	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:26	250969	475853	
Butyl Benzyl Phthalate	ND	U	9.4	5.0	2.4	1	11/30/15	12/9/15 12:26	250969	475853	
Carbazole	ND	U	9.4	5.0	1.1	1	11/30/15	12/9/15 12:26	250969	475853	
Chrysene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Di-n-butyl Phthalate	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Di-n-octyl Phthalate	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:26	250969	475853	
Dibenz(a,h)anthracene	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:26	250969	475853	
Dibenzofuran	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Diethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Dimethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Fluorene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Hexachlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Hexachlorobutadiene	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:26	250969	475853	
Hexachlorocyclopentadiene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Hexachloroethane	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:26	250969	475853	
Indeno(1,2,3-cd)pyrene	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:26	250969	475853	
Isophorone	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
N-Nitrosodi-n-propylamine	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:26	250969	475853	
N-Nitrosodimethylamine	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
N-Nitrosodiphenylamine	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Naphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Nitrobenzene	ND	U	9.4	5.0	1.6	1	11/30/15	12/9/15 12:26	250969	475853	
Pentachlorophenol (PCP)	ND	U	47	25	6.9	1	11/30/15	12/9/15 12:26	250969	475853	
Phenanthrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Phenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Pyrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1355
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-66-GW-886RW01-11.9	**Units:**	Percent
Lab Code:	R1510266-002	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	109	40-125	12/9/15 12:26	
2-Fluorobiphenyl	85	50-110	12/9/15 12:26	
2-Fluorophenol	41	20-110	12/9/15 12:26	
Nitrobenzene-d5	83	40-110	12/9/15 12:26	
Phenol-d6	28	10-115	12/9/15 12:26	
p-Terphenyl-d14	82	50-135	12/9/15 12:26	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Extracted:	11/30/15
		Date Analyzed:	12/9/15 1226

Tentatively Identified Compounds (TIC)
Semivolatile Organic Compounds by GC/MS

Sample Name:	FTMM-66-GW-886RW01-11.9	**Units:**	µg/L
Lab Code:	R1510266-002	**Basis:**	NA

Prep Method: EPA 3510C
Analytical Method: 8270D

CAS #	Analyte Name	RT	Result	Q
000105-60-2	Caprolactam	5.22	**18**	JN

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Collected: 11/23/15 1600
Date Received: 11/25/15

Sample Name: EB-2015-11-23
Lab Code: R1510266-008

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
1,2,4-Trichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
1,2-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
1,3-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
1,4-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
2,4,5-Trichlorophenol	ND	U	9.4	5.0	1.8	1	11/30/15	12/9/15 12:53	250969	475853	
2,4,6-Trichlorophenol	ND	U	9.4	5.0	1.4	1	11/30/15	12/9/15 12:53	250969	475853	
2,4-Dichlorophenol	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:53	250969	475853	
2,4-Dimethylphenol	ND	U	9.4	5.0	1.5	1	11/30/15	12/9/15 12:53	250969	475853	
2,4-Dinitrophenol	ND	U	47	25	20	1	11/30/15	12/9/15 12:53	250969	475853	
2,4-Dinitrotoluene	ND	U	9.4	5.0	1.6	1	11/30/15	12/9/15 12:53	250969	475853	
2,6-Dinitrotoluene	ND	U	9.4	5.0	1.8	1	11/30/15	12/9/15 12:53	250969	475853	
2-Chloronaphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
2-Chlorophenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
2-Methylnaphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
2-Methylphenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
2-Nitroaniline	ND	U	47	25	9.1	1	11/30/15	12/9/15 12:53	250969	475853	
2-Nitrophenol	ND	U	9.4	5.0	1.4	1	11/30/15	12/9/15 12:53	250969	475853	
3,3'-Dichlorobenzidine	ND	U	9.4	5.0	4.5	1	11/30/15	12/9/15 12:53	250969	475853	
3- and 4-Methylphenol Coelution	ND	U	10	10	2.0	1	11/30/15	12/9/15 12:53	250969	475853	
3-Nitroaniline	ND	U	47	25	7.7	1	11/30/15	12/9/15 12:53	250969	475853	
4,6-Dinitro-2-methylphenol	ND	U	47	25	11	1	11/30/15	12/9/15 12:53	250969	475853	
4-Bromophenyl Phenyl Ether	ND	U	9.4	5.0	2.2	1	11/30/15	12/9/15 12:53	250969	475853	
4-Chloro-3-methylphenol	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:53	250969	475853	
4-Chloroaniline	ND	U	9.4	5.0	1.5	1	11/30/15	12/9/15 12:53	250969	475853	
4-Chlorophenyl Phenyl Ether	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:53	250969	475853	
4-Nitroaniline	ND	U	47	25	7.8	1	11/30/15	12/9/15 12:53	250969	475853	
4-Nitrophenol	ND	U	47	25	5.9	1	11/30/15	12/9/15 12:53	250969	475853	
Acenaphthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Acenaphthylene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Anthracene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Benz(a)anthracene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Benzidine	ND	U	100	100	90	1	11/30/15	12/9/15 12:53	250969	475853	
Benzo(a)pyrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Benzo(b)fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Benzo(g,h,i)perylene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Benzo(k)fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1600
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	EB-2015-11-23	**Units:**	µg/L
Lab Code:	R1510266-008	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:53	250969	475853	
2,2'-Oxybis(1-chloropropane)	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Bis(2-chloroethoxy)methane	ND	U	9.4	5.0	2.2	1	11/30/15	12/9/15 12:53	250969	475853	
Bis(2-chloroethyl) Ether	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:53	250969	475853	
Bis(2-ethylhexyl) Phthalate	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:53	250969	475853	
Butyl Benzyl Phthalate	ND	U	9.4	5.0	2.4	1	11/30/15	12/9/15 12:53	250969	475853	
Carbazole	ND	U	9.4	5.0	1.1	1	11/30/15	12/9/15 12:53	250969	475853	
Chrysene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Di-n-butyl Phthalate	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Di-n-octyl Phthalate	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:53	250969	475853	
Dibenz(a,h)anthracene	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:53	250969	475853	
Dibenzofuran	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Diethyl Phthalate	4.0	J	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Dimethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Fluorene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Hexachlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Hexachlorobutadiene	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:53	250969	475853	
Hexachlorocyclopentadiene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Hexachloroethane	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:53	250969	475853	
Indeno(1,2,3-cd)pyrene	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:53	250969	475853	
Isophorone	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
N-Nitrosodi-n-propylamine	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:53	250969	475853	
N-Nitrosodimethylamine	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
N-Nitrosodiphenylamine	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Naphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Nitrobenzene	ND	U	9.4	5.0	1.6	1	11/30/15	12/9/15 12:53	250969	475853	
Pentachlorophenol (PCP)	ND	U	47	25	6.9	1	11/30/15	12/9/15 12:53	250969	475853	
Phenanthrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Phenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Pyrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1600
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	EB-2015-11-23	**Units:**	Percent
Lab Code:	R1510266-008	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	125	40-125	12/9/15 12:53	
2-Fluorobiphenyl	107	50-110	12/9/15 12:53	
2-Fluorophenol	51	20-110	12/9/15 12:53	
Nitrobenzene-d5	96	40-110	12/9/15 12:53	
Phenol-d6	35	10-115	12/9/15 12:53	
p-Terphenyl-d14	111	50-135	12/9/15 12:53	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Extracted:	11/30/15
		Date Analyzed:	12/9/15 1253

Tentatively Identified Compounds (TIC)
Semivolatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-23	**Units:**	µg/L
Lab Code:	R1510266-008	**Basis:**	NA

Prep Method: EPA 3510C
Analytical Method: 8270D

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514729-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
1,2,4-Trichlorobenzene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
1,2-Dichlorobenzene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
1,3-Dichlorobenzene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
1,4-Dichlorobenzene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
2,4,5-Trichlorophenol	ND	U	10	5.0	1.8	1	11/30/15	12/9/15 08:48	250969	475853	
2,4,6-Trichlorophenol	ND	U	10	5.0	1.4	1	11/30/15	12/9/15 08:48	250969	475853	
2,4-Dichlorophenol	ND	U	10	5.0	1.3	1	11/30/15	12/9/15 08:48	250969	475853	
2,4-Dimethylphenol	ND	U	10	5.0	1.5	1	11/30/15	12/9/15 08:48	250969	475853	
2,4-Dinitrophenol	ND	U	50	25	20	1	11/30/15	12/9/15 08:48	250969	475853	
2,4-Dinitrotoluene	ND	U	10	5.0	1.6	1	11/30/15	12/9/15 08:48	250969	475853	
2,6-Dinitrotoluene	ND	U	10	5.0	1.8	1	11/30/15	12/9/15 08:48	250969	475853	
2-Chloronaphthalene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
2-Chlorophenol	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
2-Methylnaphthalene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
2-Methylphenol	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
2-Nitroaniline	ND	U	50	25	9.1	1	11/30/15	12/9/15 08:48	250969	475853	
2-Nitrophenol	ND	U	10	5.0	1.4	1	11/30/15	12/9/15 08:48	250969	475853	
3,3'-Dichlorobenzidine	ND	U	10	5.0	4.5	1	11/30/15	12/9/15 08:48	250969	475853	
3- and 4-Methylphenol Coelution	ND	U	11	10	2.0	1	11/30/15	12/9/15 08:48	250969	475853	
3-Nitroaniline	ND	U	50	25	7.7	1	11/30/15	12/9/15 08:48	250969	475853	
4,6-Dinitro-2-methylphenol	ND	U	50	25	11	1	11/30/15	12/9/15 08:48	250969	475853	
4-Bromophenyl Phenyl Ether	ND	U	10	5.0	2.2	1	11/30/15	12/9/15 08:48	250969	475853	
4-Chloro-3-methylphenol	ND	U	10	5.0	1.2	1	11/30/15	12/9/15 08:48	250969	475853	
4-Chloroaniline	ND	U	10	5.0	1.5	1	11/30/15	12/9/15 08:48	250969	475853	
4-Chlorophenyl Phenyl Ether	ND	U	10	5.0	1.2	1	11/30/15	12/9/15 08:48	250969	475853	
4-Nitroaniline	ND	U	50	25	7.8	1	11/30/15	12/9/15 08:48	250969	475853	
4-Nitrophenol	ND	U	50	25	5.9	1	11/30/15	12/9/15 08:48	250969	475853	
Acenaphthene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Acenaphthylene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Anthracene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Benz(a)anthracene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Benzidine	ND	U	110	100	90	1	11/30/15	12/9/15 08:48	250969	475853	
Benzo(a)pyrene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Benzo(b)fluoranthene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Benzo(g,h,i)perylene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Benzo(k)fluoranthene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514729-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	ND	U	10	5.0	1.3	1	11/30/15	12/9/15 08:48	250969	475853	
2,2'-Oxybis(1-chloropropane)	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Bis(2-chloroethoxy)methane	ND	U	10	5.0	2.2	1	11/30/15	12/9/15 08:48	250969	475853	
Bis(2-chloroethyl) Ether	ND	U	10	5.0	1.3	1	11/30/15	12/9/15 08:48	250969	475853	
Bis(2-ethylhexyl) Phthalate	ND	U	10	5.0	1.2	1	11/30/15	12/9/15 08:48	250969	475853	
Butyl Benzyl Phthalate	ND	U	10	5.0	2.4	1	11/30/15	12/9/15 08:48	250969	475853	
Carbazole	ND	U	10	5.0	1.1	1	11/30/15	12/9/15 08:48	250969	475853	
Chrysene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Di-n-butyl Phthalate	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Di-n-octyl Phthalate	ND	U	10	5.0	1.2	1	11/30/15	12/9/15 08:48	250969	475853	
Dibenz(a,h)anthracene	ND	U	10	5.0	1.3	1	11/30/15	12/9/15 08:48	250969	475853	
Dibenzofuran	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Diethyl Phthalate	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Dimethyl Phthalate	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Fluoranthene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Fluorene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Hexachlorobenzene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Hexachlorobutadiene	ND	U	10	5.0	1.3	1	11/30/15	12/9/15 08:48	250969	475853	
Hexachlorocyclopentadiene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Hexachloroethane	ND	U	10	5.0	1.2	1	11/30/15	12/9/15 08:48	250969	475853	
Indeno(1,2,3-cd)pyrene	ND	U	10	5.0	1.2	1	11/30/15	12/9/15 08:48	250969	475853	
Isophorone	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
N-Nitrosodi-n-propylamine	ND	U	10	5.0	1.3	1	11/30/15	12/9/15 08:48	250969	475853	
N-Nitrosodimethylamine	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
N-Nitrosodiphenylamine	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Naphthalene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Nitrobenzene	ND	U	10	5.0	1.6	1	11/30/15	12/9/15 08:48	250969	475853	
Pentachlorophenol (PCP)	ND	U	50	25	6.9	1	11/30/15	12/9/15 08:48	250969	475853	
Phenanthrene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Phenol	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Pyrene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	RQ1514729-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	106	40-125	12/9/15 08:48	
2-Fluorobiphenyl	86	50-110	12/9/15 08:48	
2-Fluorophenol	46	20-110	12/9/15 08:48	
Nitrobenzene-d5	83	40-110	12/9/15 08:48	
Phenol-d6	32	10-115	12/9/15 08:48	
p-Terphenyl-d14	96	50-135	12/9/15 08:48	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	11/30/15
		Date Analyzed:	12/9/15 0848

Tentatively Identified Compounds (TIC)
Semivolatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514729-01	**Basis:**	NA

Prep Method: EPA 3510C
Analytical Method: 8270D

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Analyzed: 12/ 9/15

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 250969

Analyte Name	Lab Control Sample RQ1514729-02 Result	Spike Amount	% Rec		Duplicate Lab Control Sample RQ1514729-03 Result	Spike Amount	% Rec		% Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	60.5	100	60		61.9	100	62		35 - 105	3	30
1,2-Dichlorobenzene	61.4	100	61		65.7	100	66		35 - 100	8	30
1,3-Dichlorobenzene	58.5	100	59		62.5	100	62		30 - 100	5	30
1,4-Dichlorobenzene	56.4	100	56		62.9	100	63		30 - 100	12	30
2,4,5-Trichlorophenol	94.5	100	94		100	100	100		50 - 110	6	30
2,4,6-Trichlorophenol	90.3	100	90		96.7	100	97		50 - 115	7	30
2,4-Dichlorophenol	91.3	100	91		88.6	100	89		50 - 105	2	30
2,4-Dimethylphenol	85.0	100	85		84.7	100	85		30 - 110	<1	30
2,4-Dinitrophenol	124	100	124		125	100	125		15 - 140	<1	30
2,4-Dinitrotoluene	116	100	116		122	100	122	*	50 - 120	5	30
2,6-Dinitrotoluene	107	100	107		112	100	112		50 - 115	5	30
2-Chloronaphthalene	76.0	100	76		83.7	100	84		50 - 105	10	30
2-Chlorophenol	77.8	100	78		82.8	100	83		35 - 105	6	30
2-Methylnaphthalene	70.2	100	70		73.4	100	73		45 - 105	4	30
2-Methylphenol	75.7	100	76		82.2	100	82		40 - 110	8	30
2-Nitroaniline	108	100	108		107	100	107		50 - 115	<1	30
2-Nitrophenol	97.5	100	98		98.7	100	99		40 - 115	1	30
3,3'-Dichlorobenzidine	76.9	100	77		78.4	100	78		20 - 110	1	30
3- and 4-Methylphenol Coelution	136	200	68		150	200	75		30 - 110	10	30
3-Nitroaniline	92.3	100	92		94.7	100	95		20 - 125	3	30
4,6-Dinitro-2-methylphenol	123	100	123		119	100	119		40 - 130	3	30
4-Bromophenyl Phenyl Ether	90.3	100	90		86.5	100	87		50 - 115	3	30
4-Chloro-3-methylphenol	92.5	100	92		93.8	100	94		45 - 110	2	30
4-Chloroaniline	78.1	100	78		76.1	100	76		15 - 110	3	30
4-Chlorophenyl Phenyl Ether	83.0	100	83		90.3	100	90		50 - 110	8	30
4-Nitroaniline	99.3	100	99		108	100	108		35 - 120	9	30
4-Nitrophenol	65.5	100	65		70.2	100	70		0 - 125	7	30
Acenaphthene	79.8	100	80		88.3	100	88		45 - 110	10	30
Acenaphthylene	80.1	100	80		86.1	100	86		50 - 105	7	30
Anthracene	93.4	100	93		87.3	100	87		55 - 110	7	30
Benz(a)anthracene	92.2	100	92		88.7	100	89		55 - 110	3	30
Benzidine	ND	100	0	*	ND	100	0	*	10 - 130	NC	30
Benzo(a)pyrene	95.0	100	95		94.4	100	94		55 - 110	1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Analyzed: 12/ 9/15

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 250969

Analyte Name	Lab Control Sample RQ1514729-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1514729-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzo(b)fluoranthene	92.9	100	93	90.6	100	91	45 - 120	2	30
Benzo(g,h,i)perylene	101	100	101	98.7	100	99	40 - 125	2	30
Benzo(k)fluoranthene	90.5	100	90	90.9	100	91	45 - 125	1	30
Benzyl Alcohol	84.9	100	85	87.4	100	87	30 - 110	2	30
2,2'-Oxybis(1-chloropropane)	82.9	100	83	88.2	100	88	25 - 130	6	30
Bis(2-chloroethoxy)methane	85.8	100	86	86.4	100	86	45 - 105	<1	30
Bis(2-chloroethyl) Ether	76.4	100	76	76.9	100	77	35 - 110	1	30
Bis(2-ethylhexyl) Phthalate	95.2	100	95	95.5	100	96	40 - 125	1	30
Butyl Benzyl Phthalate	92.5	100	92	90.4	100	90	45 - 115	2	30
Carbazole	92.9	100	93	92.5	100	92	50 - 115	1	30
Chrysene	94.0	100	94	93.8	100	94	55 - 110	<1	30
Di-n-butyl Phthalate	95.4	100	95	95.5	100	95	55 - 115	<1	30
Di-n-octyl Phthalate	102	100	102	98.7	100	99	35 - 135	3	30
Dibenz(a,h)anthracene	97.7	100	98	97.4	100	97	40 - 125	1	30
Dibenzofuran	81.3	100	81	90.0	100	90	55 - 105	11	30
Diethyl Phthalate	93.5	100	94	103	100	103	40 - 120	9	30
Dimethyl Phthalate	95.1	100	95	101	100	101	25 - 125	6	30
Fluoranthene	97.3	100	97	94.4	100	94	55 - 115	3	30
Fluorene	87.2	100	87	91.5	100	91	50 - 110	4	30
Hexachlorobenzene	89.3	100	89	87.9	100	88	50 - 110	1	30
Hexachlorobutadiene	58.5	100	59	58.2	100	58	25 - 105	2	30
Hexachlorocyclopentadiene	63.0	100	63	66.6	100	67	10 - 130	6	30
Hexachloroethane	53.6	100	54	59.1	100	59	30 - 100	9	30
Indeno(1,2,3-cd)pyrene	95.9	100	96	97.5	100	98	45 - 125	2	30
Isophorone	93.6	100	94	94.2	100	94	50 - 110	<1	30
N-Nitrosodi-n-propylamine	89.5	100	89	94.1	100	94	35 - 130	5	30
N-Nitrosodimethylamine	51.9	100	52	55.4	100	55	25 - 110	6	30
N-Nitrosodiphenylamine	104	100	104	98.6	100	99	50 - 110	5	30
Naphthalene	70.7	100	71	73.2	100	73	40 - 110	3	30
Nitrobenzene	86.2	100	86	92.9	100	93	45 - 110	8	30
Pentachlorophenol (PCP)	104	100	104	99.4	100	99	40 - 115	5	30
Phenanthrene	95.4	100	95	92.1	100	92	50 - 115	3	30
Phenol	37.5	100	37	40.1	100	40	0 - 115	8	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Analyzed: 12/ 9/15

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 250969

Analyte Name	Lab Control Sample RQ1514729-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1514729-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Pyrene	103	100	103	101	100	101	50 - 130	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

January 06, 2016

Analytical Report for Service Request No: R1510266

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000

Dear Sandra:

Enclosed are the results of the sample(s) submitted to our laboratory on November 25, 2015. For your reference, these analyses have been assigned our service request number **R1510266**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7478. You may also contact me via email at Vanessa.Badman@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Vanessa N. Badman

Vanessa Badman

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Parsons, Inc.
R1510266

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ALS Environmental

SDG NARRATIVE

ALS Environmental - Rochester, NY
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Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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ALS Environmental

Client:	Parsons Engineering Science
Service Request No.:	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000
Date Received:	November 25, 2015
Sample Matrix:	Water

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Samples were received for analysis at ALS Environmental on 11/25/15. The samples were received in good condition and consistent with the accompanying chain of custody form. All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

Volatile Organics

Samples were analyzed for a site list of Volatile Organics by Methods 5035A/8260C from SW-846.

All Tuning criteria for BFB were within QC limits.

All the initial calibration criteria were met for all analytes.

All Continuing Calibration Verification (CCV) standards were within 20% Difference (D) except for Acetone which recovered low.

All Internal Standard Areas (IS) were within QC limits.

All surrogate standard recoveries were acceptable.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries were within limits.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination except for 1,2,4-Trichlorobenzene, Hexachlorobutadiene, and Naphthalene. Any hits in the samples should be considered to be estimated.

Due to sample matrix or non-target analyte concentrations, dilutions were performed and the MRLs adjusted accordingly.

No other analytical or QC problems were encountered.

Semi-Volatile Organics

Samples were analyzed for a site list of Semi-Volatile Organics by Method 3541/8270D and 3580/8270D from SW-846.

All Tuning criteria for DFTPP were within QC limits.

The ICAL recovered >15% for Deithyl Phthalate. The ICV recovered >20% for 4-Chloroaniline, 3-Nitroaniline, and 3,3-Dichlorobenzidine. Any hits in the samples should be considered estimated.

All CCV standards were within 20% D for all analytes except for 4,6-Dinitro-2-methylphenol and 2,4-Dinitro Phenol, which recovered high.

All Internal Standard Areas were within QC limits.

All surrogate standard recoveries were within limits.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries and RPD's were within limits except for 2,4-Dinitrotoluene which recovered high in the LCSD. The LCS and the LCSD have been reported as zero percent recovery for Benzidine due to a limitation in LIMs. Benzidine was detected with 12% recovery in the LCS and has been flagged with a "*"; and 16% recovery in the LCSD which should not be flagged on the summary form. The precision was calculated to be 28% RPD.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination.

Due to sample matrix or non-target analyte concentrations, dilutions were performed and the MRLs adjusted accordingly.

No other analytical or QC problems were encountered.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #:	748810-03000	Batch Complete:	Yes	Date Revised:	
Submission:	R1510266	Diskette Requested:	No	Date Due:	12/18/15
Client:	Parsons Engineering Science	Date:	1/6/16	Protocol:	SW846
Client Rep:	VBADMAN	Custody Seal: Present/Absent:		Shipping No.:	
Project:	FTMM 2015 Annual GW Sampling	Chain of Custody: Present/Absent:		SDG #:	

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1510266-001	FTMM-66-GW-886RW06-8.75	Water	8270D	11/23/15	11/25/15			
R1510266-002	FTMM-66-GW-886RW01-11.9	Water	8270D	11/23/15	11/25/15			
R1510266-003	FTMM-53-GW-699RW03-12.8	Water	8260C	11/23/15	11/25/15			
R1510266-004	FTMM-53-GW-699RW05-10	Water	8260C	11/23/15	11/25/15			
R1510266-005	FTMM-53-GW-699RW16-9.7	Water	8260C	11/23/15	11/25/15			
R1510266-006	FTMM-53-GW-MW01-12.9	Water	8260C	11/23/15	11/25/15			
R1510266-007	FTMM-53-WW-MW01-8.4	Water	8260C	11/23/15	11/25/15			
R1510266-008	EB-2015-11-23	Water	8270D, 8260C	11/23/15	11/25/15			
R1510266-009	TB-2015-11-23	Water	8260C	11/23/15	11/25/15			

Folder Comments: DoD reporting ERPTOOLS LOD

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Environmental

CHAINS OF CUSTODY

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

32376

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: FTMM-2015 Q4 GW Sampling	Project Number: 748810-03000
Project Manager: Cris Grill	Report CC:
Company/Address: Parsons 100 High Street Boston, MA 02210	
Phone #: (617) 449-1583	Email: cris.grill@parsons.com
Sampler's Signature: Alex DiIanno	Sampler's Printed Name: Alex DiIanno

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: C

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ◦ 8260 ◦ 624 ◦ CLP	GC/MS SVOAs ◦ 8270 ◦ 625	GC VOAs ◦ 8021 ◦ 601/602	PESTICIDES ◦ 8081 ◦ 608	PCBs ◦ 8082 ◦ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	REMARKS/ ALTERNATE DESCRIPTION
FTMM-66-GW-886RW06-8.75		11/23/15	1341	GW	2		X						
FTMM-66-GW-886RW01-11.9		11/23/15	1355	GW	2		X						
FTMM-53-GW-699RW03-12.8		11/23/15	1115	GW	3	X							
FTMM-53-GW-699RW05-10		11/23/15	1505	GW	3	X							
FTMM-53-GW-699MW16-9.7		11/23/15	1458	GW	3	X							
FTMM-53-GW-MW01-12.9		11/23/15	1220	GW	3	X							
FTMM-53-GW-MW01-8.4		11/23/15	1045	GW	3	X							
EB-2015-11-23		11/23/15	1600	GB	5	X	X						
TB-2015-11-23		11/23/15	—	TB	3	X							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: New Jersey

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data

Edata ____Yes ____No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: C. Watson	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Parsons	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time: 11/23 1650	Date/Time: 11/25/15 0915	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

R1510266 5
Parsons, Inc.
FTMM Baseline

Cooler Receipt and Preservati

R1510266 5
Parsons, Inc.
FTMM Baseline

Project/Client Parsons Folder Number

Cooler received on 11/25/15 by: @

COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y (N) NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 11/25/15 Time: 0927 ID: IR#3 (IR#5) From: (Temp Blank) Sample Bottle

Observed Temp (°C)	3.0						
Correction Factor (°C)	+0.0						
Corrected Temp (°C)	3.0						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by @ on 11/25/15 at 0930
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: VWB

Cooler Breakdown: Date: 11/25/15 Time: 1003 by: MDS

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	4114670	10/16				

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 091415-1BLT, 042015-1BMG, S-211-002,
Other Comments:

PC Secondary Review: VWB 11/25/15

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r9.doc 9/24/15

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Parsons, Inc. **Service Request:** R1510266
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1510266-001.04					
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-002 / MSTONE	
R1510266-001.05					
	8270D				
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-002 / MSTONE	
		11/30/15	0708	In Lab / DMURPHY	
R1510266-002.04					
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-002 / MSTONE	
R1510266-002.05					
	8270D				
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-002 / MSTONE	
		11/30/15	0707	In Lab / DMURPHY	
R1510266-003.01					
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
		12/1/15	1211	In Lab / KRUEST	
R1510266-003.02					
	8260C				
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
		12/2/15	1111	In Lab / KRUEST	
		12/2/15	1119	R-001-S12 / DLIPANI	
R1510266-003.03					
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
R1510266-004.01					
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
		12/1/15	1211	In Lab / KRUEST	
R1510266-004.02					
	8260C				
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
		12/2/15	1111	In Lab / KRUEST	
		12/2/15	1119	R-001-S12 / DLIPANI	
R1510266-004.03					
		11/25/15	1003	SMO / MSTONE	

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Parsons, Inc. **Service Request:** R1510266
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		11/25/15	1004	R-001 / MSTONE	
R1510266-005.01					
	8260C				
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
		12/1/15	1211	In Lab / KRUEST	
R1510266-005.02					
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
R1510266-005.03					
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
R1510266-006.01					
	8260C				
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
		12/1/15	1211	In Lab / KRUEST	
R1510266-006.02					
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
R1510266-006.03					
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
R1510266-007.01					
	8260C				
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
		12/1/15	1211	In Lab / KRUEST	
R1510266-007.02					
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
R1510266-007.03					
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
R1510266-008.01					
	8260C				
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
		12/1/15	1211	In Lab / KRUEST	
R1510266-008.02					

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Service Request: R1510266

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
R1510266-008.03					
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
R1510266-008.04					
	8270D				
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-002 / MSTONE	
		11/30/15	0708	In Lab / DMURPHY	
R1510266-008.05					
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-002 / MSTONE	
R1510266-009.01					
	8260C				
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
		12/1/15	1211	In Lab / KRUEST	
R1510266-009.02					
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	
R1510266-009.03					
		11/25/15	1003	SMO / MSTONE	
		11/25/15	1004	R-001 / MSTONE	

ALS Environmental

VOLATILE ORGANICS QC SUMMARY

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Analyzed: 12/ 1/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474290

Lab Control Sample
RQ1514847-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	20.2	20.0	101	80 - 130
1,1,1-Trichloroethane (TCA)	20.5	20.0	103	65 - 130
1,1,2,2-Tetrachloroethane	20.0	20.0	100	65 - 130
1,1,2-Trichloroethane	21.4	20.0	107	75 - 125
1,1-Dichloroethane (1,1-DCA)	21.6	20.0	108	70 - 135
1,1-Dichloroethene (1,1-DCE)	21.2	20.0	106	70 - 130
1,1-Dichloropropene	22.4	20.0	112	75 - 130
1,2,3-Trichlorobenzene	23.1	20.0	116	75 - 125
1,2,3-Trichloropropane	20.0	20.0	100	75 - 125
1,2,4-Trichlorobenzene	22.2	20.0	111	65 - 135
1,2,4-Trimethylbenzene	20.9	20.0	104	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	19.2	20.0	96	50 - 130
1,2-Dibromoethane	20.2	20.0	101	80 - 120
1,2-Dichlorobenzene	21.2	20.0	106	70 - 120
1,2-Dichloroethane	21.0	20.0	105	70 - 130
1,2-Dichloropropane	21.5	20.0	107	75 - 125
1,3,5-Trimethylbenzene	21.0	20.0	105	75 - 130
1,3-Dichlorobenzene	20.2	20.0	101	75 - 125
1,3-Dichloropropane	21.0	20.0	105	75 - 125
1,4-Dichlorobenzene	20.9	20.0	105	75 - 125
2,2-Dichloropropane	21.4	20.0	107	70 - 135
2-Butanone (MEK)	20.7	20.0	104	30 - 150
2-Chlorotoluene	20.8	20.0	104	75 - 125
2-Hexanone	20.1	20.0	101	55 - 130
tert-Butyl Alcohol	437	400	109	50 - 150
4-Chlorotoluene	20.9	20.0	104	75 - 130
p-Isopropyltoluene	21.5	20.0	108	75 - 130
4-Methyl-2-pentanone	21.2	20.0	106	60 - 135
Acetone	20.3	20.0	102	40 - 140
Benzene	21.1	20.0	106	80 - 120
Bromobenzene	20.7	20.0	103	75 - 125
Bromochloromethane	19.9	20.0	100	65 - 130
Bromodichloromethane	20.3	20.0	101	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Analyzed: 12/ 1/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474290

Lab Control Sample
RQ1514847-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	18.2	20.0	91	70 - 130
Bromomethane	19.9	20.0	100	30 - 145
Carbon Tetrachloride	20.3	20.0	101	65 - 140
Chlorobenzene	20.5	20.0	102	80 - 120
Chloroethane	21.2	20.0	106	60 - 135
Chloroform	19.7	20.0	99	65 - 135
Chloromethane	20.6	20.0	103	40 - 125
Dibromochloromethane	19.7	20.0	99	60 - 135
Dichlorodifluoromethane (CFC 12)	21.9	20.0	110	30 - 155
Methylene Chloride	19.9	20.0	100	55 - 140
Ethylbenzene	20.5	20.0	102	75 - 125
Hexachlorobutadiene	23.5	20.0	118	50 - 140
Isopropylbenzene (Cumene)	20.1	20.0	100	75 - 125
Methyl tert-Butyl Ether	20.4	20.0	102	65 - 125
Naphthalene	22.7	20.0	113	55 - 140
Styrene	20.5	20.0	103	65 - 135
Tetrachloroethene (PCE)	21.2	20.0	106	45 - 150
Toluene	21.1	20.0	106	75 - 120
Trichloroethene (TCE)	20.0	20.0	100	70 - 125
Trichlorofluoromethane (CFC 11)	21.9	20.0	109	60 - 145
Vinyl Chloride	20.8	20.0	104	50 - 145
cis-1,2-Dichloroethene	20.3	20.0	101	70 - 125
cis-1,3-Dichloropropene	20.3	20.0	101	70 - 130
m,p-Xylenes	41.4	40.0	103	75 - 130
n-Butylbenzene	21.8	20.0	109	70 - 135
n-Propylbenzene	20.6	20.0	103	70 - 130
o-Xylene	20.5	20.0	102	80 - 120
sec-Butylbenzene	20.4	20.0	102	70 - 125
tert-Butylbenzene	19.9	20.0	99	70 - 130
trans-1,2-Dichloroethene	20.5	20.0	103	60 - 140
trans-1,3-Dichloropropene	21.2	20.0	106	55 - 140

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QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Analyzed: 12/ 2/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474506

Lab Control Sample
RQ1514885-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	19.5	20.0	98	80 - 130
1,1,1-Trichloroethane (TCA)	21.4	20.0	107	65 - 130
1,1,2,2-Tetrachloroethane	21.3	20.0	106	65 - 130
1,1,2-Trichloroethane	21.2	20.0	106	75 - 125
1,1-Dichloroethane (1,1-DCA)	22.5	20.0	112	70 - 135
1,1-Dichloroethene (1,1-DCE)	21.8	20.0	109	70 - 130
1,1-Dichloropropene	22.9	20.0	114	75 - 130
1,2,3-Trichlorobenzene	23.9	20.0	120	75 - 125
1,2,3-Trichloropropane	21.9	20.0	110	75 - 125
1,2,4-Trichlorobenzene	22.1	20.0	111	65 - 135
1,2,4-Trimethylbenzene	21.5	20.0	107	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	19.4	20.0	97	50 - 130
1,2-Dibromoethane	20.1	20.0	100	80 - 120
1,2-Dichlorobenzene	21.2	20.0	106	70 - 120
1,2-Dichloroethane	21.4	20.0	107	70 - 130
1,2-Dichloropropane	22.3	20.0	111	75 - 125
1,3,5-Trimethylbenzene	21.7	20.0	109	75 - 130
1,3-Dichlorobenzene	21.0	20.0	105	75 - 125
1,3-Dichloropropane	21.5	20.0	107	75 - 125
1,4-Dichlorobenzene	21.6	20.0	108	75 - 125
2,2-Dichloropropane	21.9	20.0	110	70 - 135
2-Butanone (MEK)	21.8	20.0	109	30 - 150
2-Chlorotoluene	21.9	20.0	110	75 - 125
2-Hexanone	20.9	20.0	104	55 - 130
tert-Butyl Alcohol	463	400	116	50 - 150
4-Chlorotoluene	21.9	20.0	109	75 - 130
p-Isopropyltoluene	22.1	20.0	111	75 - 130
4-Methyl-2-pentanone	21.3	20.0	107	60 - 135
Acetone	18.6	20.0	93	40 - 140
Benzene	21.8	20.0	109	80 - 120
Bromobenzene	20.9	20.0	105	75 - 125
Bromochloromethane	20.1	20.0	101	65 - 130
Bromodichloromethane	20.0	20.0	100	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Analyzed: 12/ 2/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474506

Lab Control Sample
RQ1514885-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	18.5	20.0	93	70 - 130
Bromomethane	17.4	20.0	87	30 - 145
Carbon Tetrachloride	19.0	20.0	95	65 - 140
Chlorobenzene	20.9	20.0	105	80 - 120
Chloroethane	21.4	20.0	107	60 - 135
Chloroform	20.4	20.0	102	65 - 135
Chloromethane	20.6	20.0	103	40 - 125
Dibromochloromethane	19.9	20.0	100	60 - 135
Dichlorodifluoromethane (CFC 12)	22.0	20.0	110	30 - 155
Methylene Chloride	20.6	20.0	103	55 - 140
Ethylbenzene	20.8	20.0	104	75 - 125
Hexachlorobutadiene	24.5	20.0	122	50 - 140
Isopropylbenzene (Cumene)	21.0	20.0	105	75 - 125
Methyl tert-Butyl Ether	21.5	20.0	107	65 - 125
Naphthalene	23.9	20.0	120	55 - 140
Styrene	20.7	20.0	104	65 - 135
Tetrachloroethene (PCE)	20.8	20.0	104	45 - 150
Toluene	21.6	20.0	108	75 - 120
Trichloroethene (TCE)	20.4	20.0	102	70 - 125
Trichlorofluoromethane (CFC 11)	22.5	20.0	112	60 - 145
Vinyl Chloride	21.7	20.0	108	50 - 145
cis-1,2-Dichloroethene	20.9	20.0	105	70 - 125
cis-1,3-Dichloropropene	20.7	20.0	104	70 - 130
m,p-Xylenes	41.7	40.0	104	75 - 130
n-Butylbenzene	22.5	20.0	112	70 - 135
n-Propylbenzene	21.7	20.0	108	70 - 130
o-Xylene	20.9	20.0	105	80 - 120
sec-Butylbenzene	21.3	20.0	107	70 - 125
tert-Butylbenzene	21.0	20.0	105	70 - 130
trans-1,2-Dichloroethene	22.2	20.0	111	60 - 140
trans-1,3-Dichloropropene	21.8	20.0	109	55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Analytical Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Analyzed: 12/1/15 12:05

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1514847-04
Instrument ID: R-MS-12
File ID: I:\ACQUDATA\msvoa12\Data\120115\MM8419.D\

Analytical Method: 8260C
Prep Method: EPA 5030C

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1514847-03	I:\ACQUDATA\msvoa12\Data\120115\MM8417.D\	12/1/15 11:02
TB-2015-11-23	R1510266-009	I:\ACQUDATA\MSVOA12\DATA\120115\MM8420.D\	12/1/15 12:35
EB-2015-11-23	R1510266-008	I:\ACQUDATA\MSVOA12\DATA\120115\MM8421.D\	12/1/15 13:06
FTMM-53-GW-699RW16-9.7	R1510266-005	I:\ACQUDATA\MSVOA12\DATA\120115\MM8428.D\	12/1/15 16:40
FTMM-53-GW-MW01-12.9	R1510266-006	I:\ACQUDATA\MSVOA12\DATA\120115\MM8429.D\	12/1/15 17:11
FTMM-53-WW-MW01-8.4	R1510266-007	I:\ACQUDATA\MSVOA12\DATA\120115\MM8430.D\	12/1/15 17:41

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Analyzed: 12/2/15 11:25

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1514885-04

Instrument ID: R-MS-12
File ID: I:\ACQUDATA\MSVOA12\DATA\120215\MM8463.D\

Analytical Method: 8260C
Prep Method: EPA 5030C

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1514885-03	I:\ACQUDATA\MSVOA12\DATA\120215\MM8461.D\	12/2/15 10:24
FTMM-53-GW-699RW03-12.8	R1510266-003	I:\ACQUDATA\MSVOA12\DATA\120215\MM8472.D\	12/2/15 16:01
FTMM-53-GW-699RW05-10	R1510266-004	I:\ACQUDATA\MSVOA12\DATA\120215\MM8476.D\	12/2/15 18:04

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000

Service Request: R1510266
Date Analyzed: 11/18/15 15:38

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\111815\MM8183.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot:

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	18.3	72096	Pass
75	95	30	60	46.3	182827	Pass
95	95	100	100	100.0	394581	Pass
96	95	5	9	6.6	26025	Pass
173	174	0	2	1.3	3492	Pass
174	95	50	120	69.7	275072	Pass
175	174	5	9	7.4	20478	Pass
176	174	95	101	96.8	266389	Pass
177	176	5	9	6.9	18350	Pass

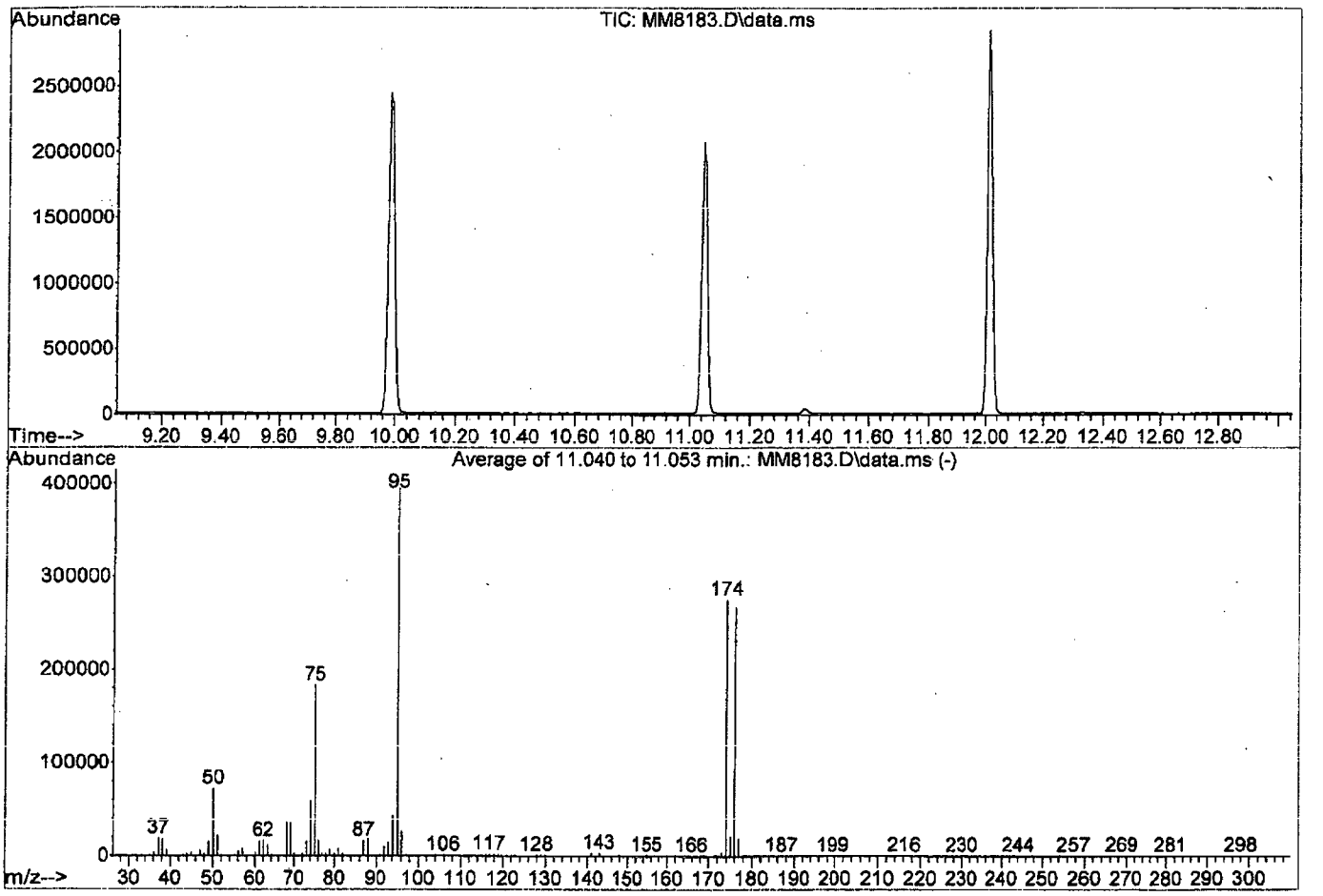
Sample Name	Lab Code	File ID	Date Analyzed	Q
Initial CalibrationICAL	0.5 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8185.D\	11/18/15 16:40	
Initial CalibrationICAL	1.0 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8186.D\	11/18/15 17:10	
Initial CalibrationICAL	2.0 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8187.D\	11/18/15 17:41	
Initial CalibrationICAL	5.0 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8188.D\	11/18/15 18:11	
Initial CalibrationICAL	20 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8189.D\	11/18/15 18:42	
Initial CalibrationICAL	50 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8190.D\	11/18/15 19:12	
Initial CalibrationICAL	100 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8191.D\	11/18/15 19:43	
Initial CalibrationICAL	150 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8192.D\	11/18/15 20:14	
Initial CalibrationICAL	200 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8193.D\	11/18/15 20:45	

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8183.D
Acq On : 18 Nov 2015 3:38 pm
Operator : K.Ruest
Sample : TUNE Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Thu Aug 27 10:55:02 2015

KR 11/18/15



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	72096	PASS
75	95	30	60	46.3	182827	PASS
95	95	100	100	100.0	394581	PASS
96	95	5	9	6.6	26025	PASS
173	174	0.00	2	1.3	3492	PASS
174	95	50	120	69.7	275072	PASS
175	174	5	9	7.4	20478	PASS
176	174	95	101	96.8	266389	PASS
177	176	5	9	6.9	18350	PASS

W111815.M Wed Nov 18 16:27:30 2015 Page: 1

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Service Request: R1510266
Date Analyzed: 12/1/15 10:01

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\120115\MM8415.D\
Instrument ID: R-MS-12
Analytical Method: 8260C
Analysis Lot: 474290

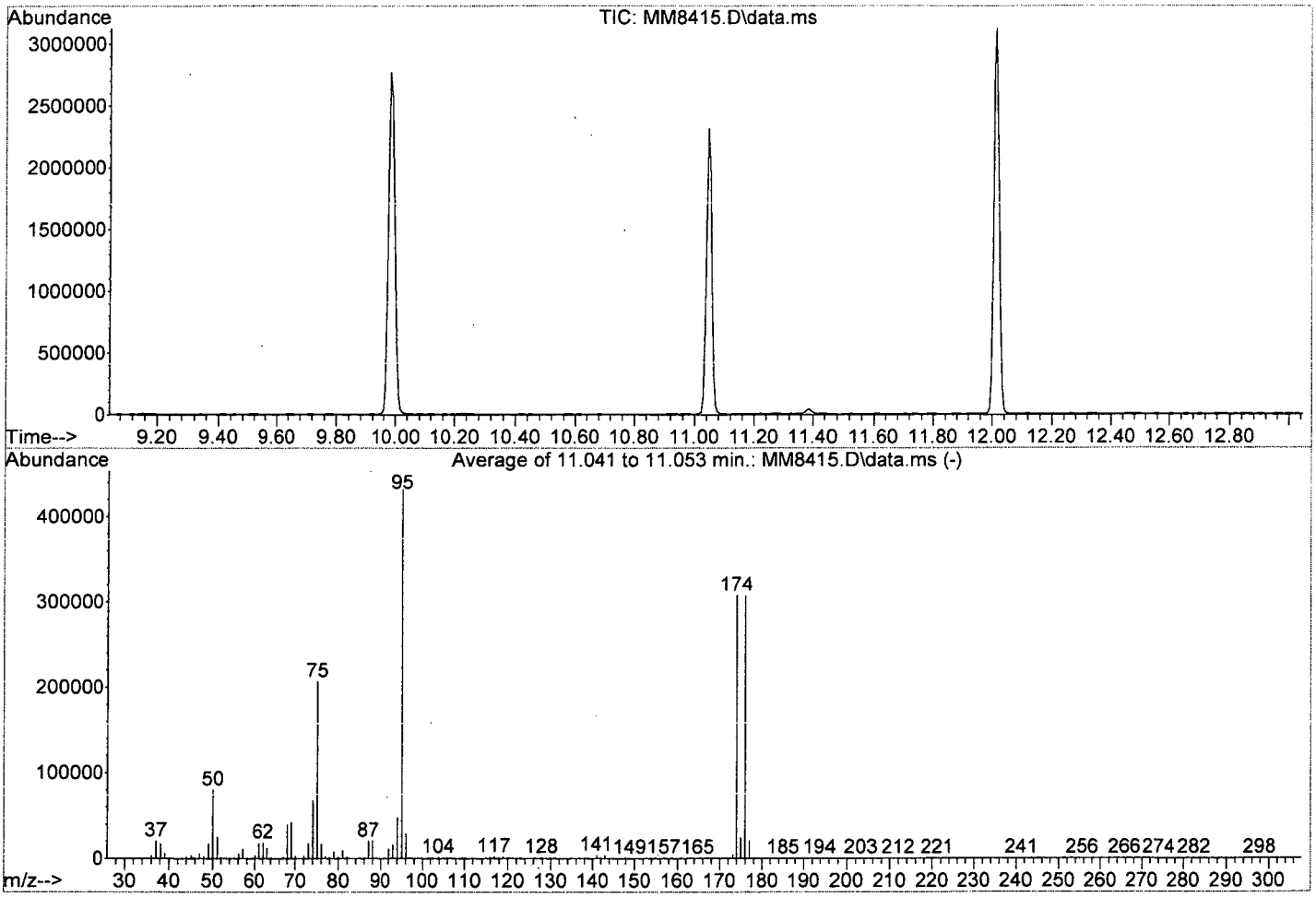
Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	18.54	80059	Pass
75	95	30	60	47.81	206443	Pass
95	95	100	100	100.00	431829	Pass
96	95	5	9	6.64	28661	Pass
173	174	0	2	1.33	4077	Pass
174	95	50	120	71.20	307477	Pass
175	174	5	9	7.78	23912	Pass
176	174	95	101	99.79	306837	Pass
177	176	5	9	6.55	20112	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1514847-02	I:\ACQUDATA\msvoa12\Data\120115\MM8416.D\	12/1/15 10:32	
Lab Control Sample	RQ1514847-03	I:\ACQUDATA\msvoa12\Data\120115\MM8417.D\	12/1/15 11:02	
Method Blank	RQ1514847-04	I:\ACQUDATA\msvoa12\Data\120115\MM8419.D\	12/1/15 12:05	
TB-2015-11-23	R1510266-009	I:\ACQUDATA\MSVOA12\DATA\120115\MM8420.D\	12/1/15 12:35	
EB-2015-11-23	R1510266-008	I:\ACQUDATA\MSVOA12\DATA\120115\MM8421.D\	12/1/15 13:06	
FTMM-53-GW-699RW16-9.7	R1510266-005	I:\ACQUDATA\MSVOA12\DATA\120115\MM8428.D\	12/1/15 16:40	
FTMM-53-GW-MW01-12.9	R1510266-006	I:\ACQUDATA\MSVOA12\DATA\120115\MM8429.D\	12/1/15 17:11	
FTMM-53-WW-MW01-8.4	R1510266-007	I:\ACQUDATA\MSVOA12\DATA\120115\MM8430.D\	12/1/15 17:41	

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8415.D
Acq On : 1 Dec 2015 10:01 am
Operator : K.Ruest
Sample : TUNE RQ1514847-01 Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Nov 25 09:49:52 2015



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	80059	PASS
75	95	30	60	47.8	206443	PASS
95	95	100	100	100.0	431829	PASS
96	95	5	9	6.6	28661	PASS
173	174	0.00	2	1.3	4077	PASS
174	95	50	120	71.2	307477	PASS
175	174	5	9	7.8	23912	PASS
176	174	95	101	99.8	306837	PASS
177	176	5	9	6.6	20112	PASS

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Service Request: R1510266
Date Analyzed: 12/2/15 09:16

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\120215\MM8459.D\
Instrument ID: R-MS-12
Analytical Method: 8260C
Analysis Lot: 474506

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	17.86	74768	Pass
75	95	30	60	47.60	199232	Pass
95	95	100	100	100.00	418541	Pass
96	95	5	9	6.60	27628	Pass
173	174	0	2	1.17	3449	Pass
174	95	50	120	70.67	295765	Pass
175	174	5	9	7.23	21397	Pass
176	174	95	101	95.67	282965	Pass
177	176	5	9	6.44	18212	Pass

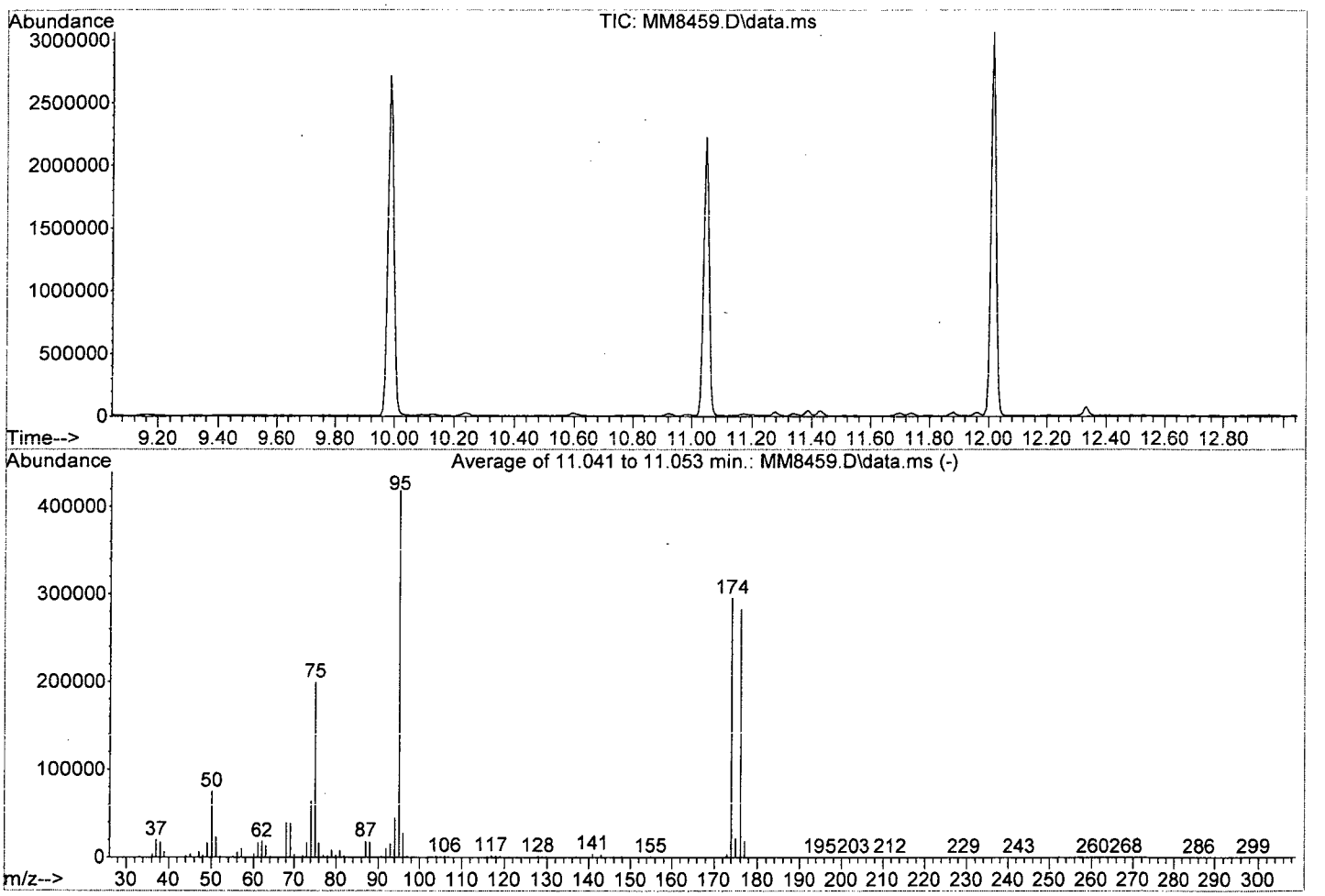
Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1514885-02	I:\ACQUDATA\MSVOA12\DATA\120215\MM8460.D\	12/2/15 09:53	
Lab Control Sample	RQ1514885-03	I:\ACQUDATA\MSVOA12\DATA\120215\MM8461.D\	12/2/15 10:24	
Method Blank	RQ1514885-04	I:\ACQUDATA\MSVOA12\DATA\120215\MM8463.D\	12/2/15 11:25	
FTMM-53-GW-699RW03-12.8	R1510266-003	I:\ACQUDATA\MSVOA12\DATA\120215\MM8472.D\	12/2/15 16:01	
FTMM-53-GW-699RW05-10	R1510266-004	I:\ACQUDATA\MSVOA12\DATA\120215\MM8476.D\	12/2/15 18:04	

Data Path : I:\ACQUDATA\MSVOA12\DATA\2015\12\20215\
Data File : MM8459.D
Acq On : 2 Dec 2015 9:16 am
Operator : K.Ruest
Sample : TUNE RQ1514883-01, 14885-01 Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Nov 25 09:49:52 2015

KR 12/2/15



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.9	74768	PASS
75	95	30	60	47.6	199232	PASS
95	95	100	100	100.0	418541	PASS
96	95	5	9	6.6	27628	PASS
173	174	0.00	2	1.2	3449	PASS
174	95	50	120	70.7	295765	PASS
175	174	5	9	7.2	21397	PASS
176	174	95	101	95.7	282965	PASS
177	176	5	9	6.4	18212	PASS

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QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000

Service Request: R1510266
Date Analyzed: 12/1/15 10:32

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\120115\MM8416.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1514847-02
Analysis Lot: 474290
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	584,579	12.02	1,304,406	6.77	1,228,517	9.99
	Upper Limit ==>	1,169,158	12.52	2,608,812	7.27	2,457,034	10.49
	Lower Limit ==>	292,290	11.52	652,203	6.27	614,259	9.49
	ICAL Result ==>	553,929	12.02	1,221,940	6.77	1,154,458	9.99
Associated Analyses							
Lab Control Sample	RQ1514847-03	592,535	12.02	1,305,254	6.77	1,214,754	9.99
Method Blank	RQ1514847-04	607,850	12.02	1,347,501	6.77	1,226,052	9.99
TB-2015-11-23	R1510266-009	557,727	12.02	1,324,125	6.77	1,217,081	9.99
EB-2015-11-23	R1510266-008	576,624	12.02	1,343,975	6.77	1,225,253	9.99
FTMM-53-GW-699RW16-9.7	R1510266-005	587,630	12.02	1,309,081	6.77	1,208,222	9.99
FTMM-53-GW-MW01-12.9	R1510266-006	596,653	12.02	1,312,778	6.77	1,214,944	9.99
FTMM-53-WW-MW01-8.4	R1510266-007	589,966	12.02	1,308,587	6.77	1,201,943	9.99

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000

Service Request: R1510266
Date Analyzed: 12/1/15 10:32

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\120115\MM8416.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1514847-02
Analysis Lot: 474290
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	780,877	5.74
	Upper Limit ==>	1,561,754	6.24
	Lower Limit ==>	390,439	5.24
	ICAL Result ==>	733,125	5.74
Associated Analyses			
Lab Control Sample	RQ1514847-03	775,960	5.74
Method Blank	RQ1514847-04	822,692	5.74
TB-2015-11-23	R1510266-009	812,103	5.74
EB-2015-11-23	R1510266-008	820,234	5.74
FTMM-53-GW-699RW16-9.7	R1510266-005	795,986	5.74
FTMM-53-GW-MW01-12.9	R1510266-006	798,416	5.74
FTMM-53-WW-MW01-8.4	R1510266-007	787,734	5.74

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000

Service Request: R1510266
Date Analyzed: 12/2/15 09:53

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA12\DATA\120215\MM8460.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1514885-02
Analysis Lot: 474506
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	RT	Area	RT	Area	RT
	Results ==>	570,215	12.02	1,237,523	6.77	1,177,438	9.99
	Upper Limit ==>	1,140,430	12.52	2,475,046	7.27	2,354,876	10.49
	Lower Limit ==>	285,108	11.52	618,762	6.27	588,719	9.49
	ICAL Result ==>	553,929	12.02	1,221,940	6.77	1,154,458	9.99
Associated Analyses							
Lab Control Sample	RQ1514885-03	563,932	12.02	1,243,298	6.77	1,164,161	9.99
Method Blank	RQ1514885-04	573,343	12.02	1,271,184	6.77	1,168,668	9.99
FTMM-53-GW-699RW03-12.8	R1510266-003	557,397	12.02	1,234,688	6.77	1,145,940	9.99
FTMM-53-GW-699RW05-10	R1510266-004	572,611	12.02	1,204,264	6.77	1,135,478	9.99

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000

Service Request: R1510266
Date Analyzed: 12/2/15 09:53

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA12\DATA\120215\MM8460.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1514885-02
Analysis Lot: 474506
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	729,742	5.74
	Upper Limit ==>	1,459,484	6.24
	Lower Limit ==>	364,871	5.24
	ICAL Result ==>	733,125	5.74
Associated Analyses			
Lab Control Sample	RQ1514885-03	733,069	5.74
Method Blank	RQ1514885-04	771,630	5.74
FTMM-53-GW-699RW03-12.8	R1510266-003	748,175	5.74
FTMM-53-GW-699RW05-10	R1510266-004	735,054	5.74

Results flagged with an asterisk (*) indicate values outside control criteria.

VOLATILE ORGANICS SAMPLE DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1115
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-53-GW-699RW03-12.8	**Units:**	µg/L
Lab Code:	R1510266-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/2/15 16:01		474506	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/2/15 16:01		474506	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/2/15 16:01		474506	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/2/15 16:01		474506	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/2/15 16:01		474506	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/2/15 16:01		474506	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/2/15 16:01		474506	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/2/15 16:01		474506	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/2/15 16:01		474506	
1,2,4-Trimethylbenzene	**10**		5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/2/15 16:01		474506	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/2/15 16:01		474506	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/2/15 16:01		474506	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/2/15 16:01		474506	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
1,3,5-Trimethylbenzene	**0.44**	J	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/2/15 16:01		474506	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/2/15 16:01		474506	
2-Butanone (MEK)	**2.4**	J	5.0	1.0	0.81	1	NA	12/2/15 16:01		474506	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/2/15 16:01		474506	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/2/15 16:01		474506	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/2/15 16:01		474506	
p-Isopropyltoluene	**0.75**	J	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/2/15 16:01		474506	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/2/15 16:01		474506	
Benzene	**0.68**	J	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/2/15 16:01		474506	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/2/15 16:01		474506	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/2/15 16:01		474506	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/2/15 16:01		474506	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/2/15 16:01		474506	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/2/15 16:01		474506	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/2/15 16:01		474506	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Collected: 11/23/15 1115
Date Received: 11/25/15

Sample Name: FTMM-53-GW-699RW03-12.8
Lab Code: R1510266-003

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**0.32**	J	5.0	1.0	0.24	1	NA	12/2/15 16:01		474506	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/2/15 16:01		474506	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/2/15 16:01		474506	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/2/15 16:01		474506	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/2/15 16:01		474506	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/2/15 16:01		474506	
Ethylbenzene	**5.0**		5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/2/15 16:01		474506	
Isopropylbenzene (Cumene)	**4.5**	J	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/2/15 16:01		474506	
Naphthalene	**1.1**	J	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/2/15 16:01		474506	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/2/15 16:01		474506	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/2/15 16:01		474506	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/2/15 16:01		474506	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/2/15 16:01		474506	
m,p-Xylenes	**0.48**	J	10	2.0	0.33	1	NA	12/2/15 16:01		474506	
n-Butylbenzene	**1.1**	J	5.0	1.0	0.21	1	NA	12/2/15 16:01		474506	
n-Propylbenzene	**5.8**		5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
o-Xylene	**2.0**	J	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
sec-Butylbenzene	**2.5**	J	5.0	1.0	0.27	1	NA	12/2/15 16:01		474506	
tert-Butylbenzene	**0.49**	J	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/2/15 16:01		474506	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 16:01		474506	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/2/15 16:01	
Dibromofluoromethane	112	85-115	12/2/15 16:01	
Toluene-d8	108	85-120	12/2/15 16:01	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Analyzed:	12/2/15 1601

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-699RW03-12.8	**Units:**	µg/L
Lab Code:	R1510266-003	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q
000078-78-4	Butane, 2-methyl-	1.83	**9.9**	JN
000079-29-8	Butane, 2,3-dimethyl-	2.91	**15.3**	JN
000107-83-5	Pentane, 2-methyl-	2.96	**7.2**	JN
000096-14-0	Pentane, 3-methyl-	3.26	**17.1**	JN
000108-08-7	Pentane, 2,4-dimethyl-	4.42	**6.9**	JN
000096-37-7	Cyclopentane, methyl-	4.52	**8.7**	JN
000565-59-3	Pentane, 2,3-dimethyl-	5.80	**17.2**	JN
002532-58-3	Cyclopentane, 1,3-dimethyl-, cis-	6.27	**7.8**	JN
	unknown	6.35	**15.9**	J
	unknown	7.30	**7.9**	J
000565-75-3	Pentane, 2,3,4-trimethyl-	7.87	**6.9**	JN
000560-21-4	Pentane, 2,3,3-trimethyl-	7.99	**10.5**	JN
000611-14-3	Benzene, 1-ethyl-2-methyl-	11.60	**8.7**	JN
	unknown	12.24	**19.9**	J
000874-41-9	Benzene, 1-ethyl-2,4-dimethyl-	12.62	**5.1**	JN
003290-53-7	Benzene, (2-methyl-2-propenyl)-	12.71	**17.9**	JN
000095-93-2	Benzene, 1,2,4,5-tetramethyl-	12.93	**8.4**	JN
000824-22-6	1H-Indene, 2,3-dihydro-4-methyl-	13.31	**8.0**	JN

Comments:

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8472.D
Acq On : 2 Dec 2015 4:01 pm
Operator : K.Ruest
Sample : R1510266-003|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 07 15:14:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

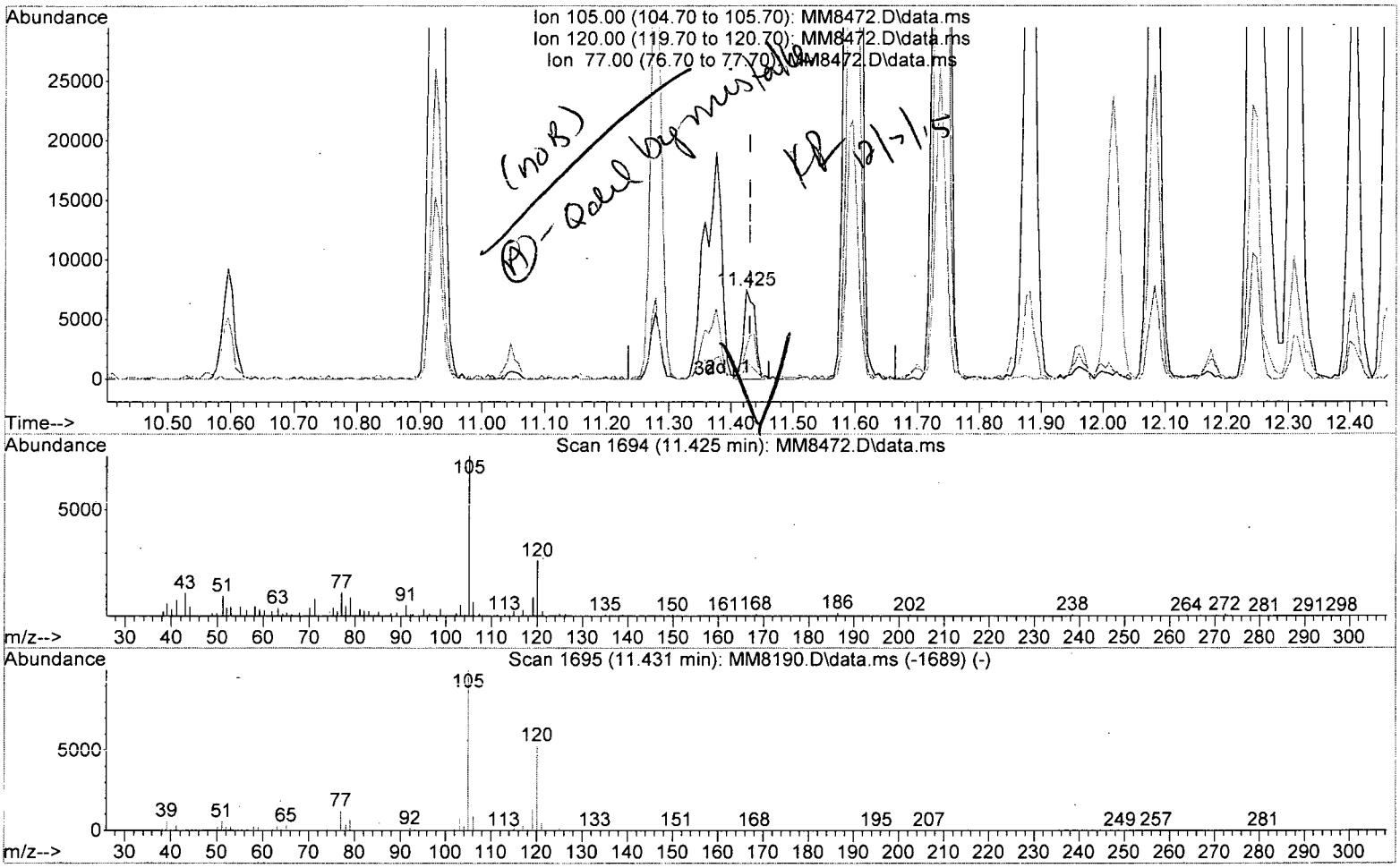
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	748175	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1234688	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1145940	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	557397	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	358358	55.82	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 111.64%				
48) surr1,1,2-dichloroetha...	6.096	65	382207	53.90	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.80%				
65) SURR3,Toluene-d8	8.529	98	1459755	54.03	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 108.06%				
70) SURR2,BFB	11.047	95	579843	56.86	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 113.72%				
Target Compounds							Qvalue
6) Chloroethane	1.768	64	2072	0.32	ppb		71
35) 2-Butanone	4.792	43	5152	2.36	ppb		81
49) Benzene	6.176	78	18590	0.68	ppb		91
82) Ethylbenzene	10.132	106	47963	5.00	ppb	#	88
83) (m+p)Xylene	10.242	106	5658	0.48	ppb	#	70
84) o-Xylene	10.596	106	24378	2.01	ppb		89
89) Isopropylbenzene	10.925	105	130297	4.50	ppb		96
95) n-Propylbenzene	11.278	91	193530	5.79	ppb		95
99) 1,3,5-Trimethylbenzene	11.425	105	9584m	0.44	ppb		
100) tert-Butylbenzene	11.699	119	9583	0.49	ppb		89
101) 1,2,4-Trimethylbenzene	11.736	105	244448	10.39	ppb		97
103) sec-Butylbenzene	11.882	105	69348	2.53	ppb		99
104) p-Isopropyltoluene	12.004	119	15846	0.75	ppb		93
109) n-Butylbenzene	12.333	91	22263m	1.11	ppb		
117) Naphthalen	13.802	128	15961	1.07	ppb		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

KB 12/7/15

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8472.D
Acq On : 2 Dec 2015 4:01 pm
Operator : K.Ruest
Sample : R1510266-003|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 02 16:17:19 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8472.D\data.ms

(99) 1,3,5-Trimethylbenzene

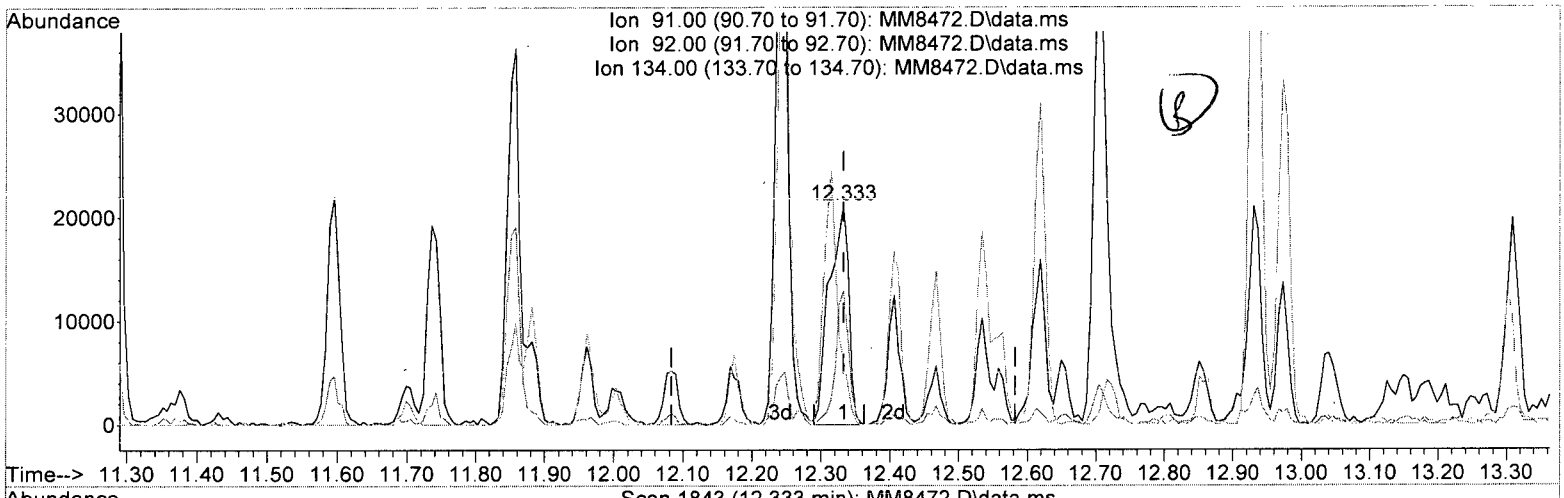
11.425min (-0.006) 0.44 ppb m

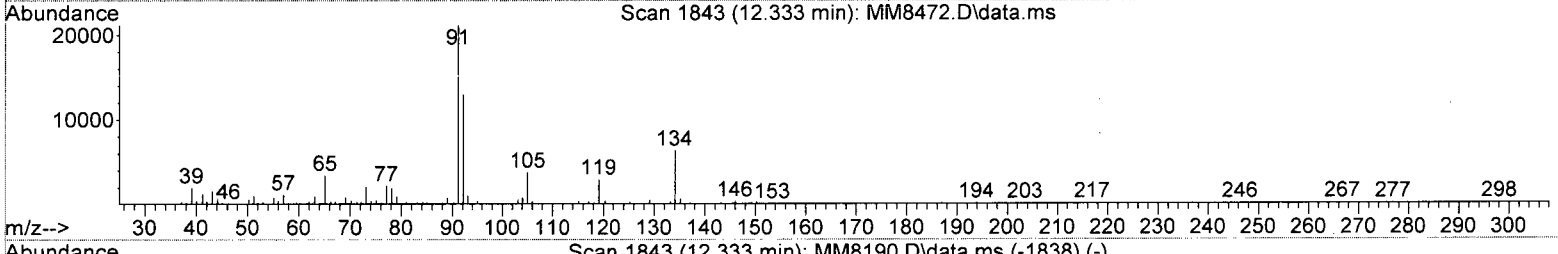
response 9584

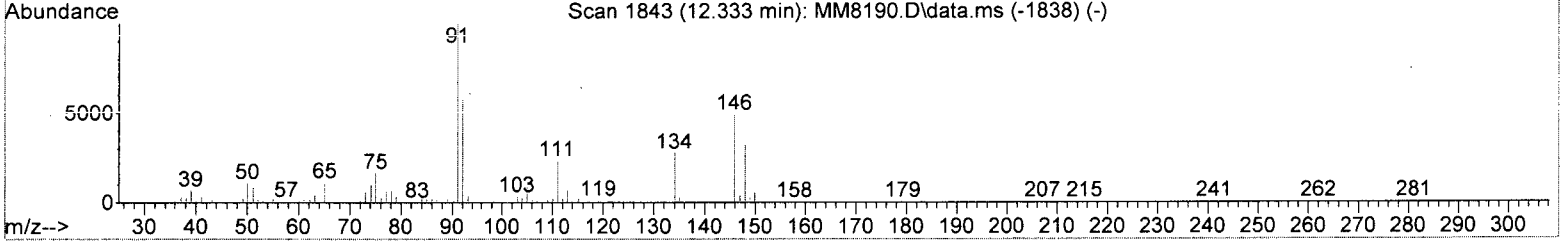
Ion	Exp%	Act%
105.00	100	100
120.00	53.00	35.46
77.00	12.50	15.82
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8472.D
Acq On : 2 Dec 2015 4:01 pm
Operator : K.Ruest
Sample : R1510266-003|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 02 16:17:19 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8472.D\data.ms

(109) n-Butylbenzene

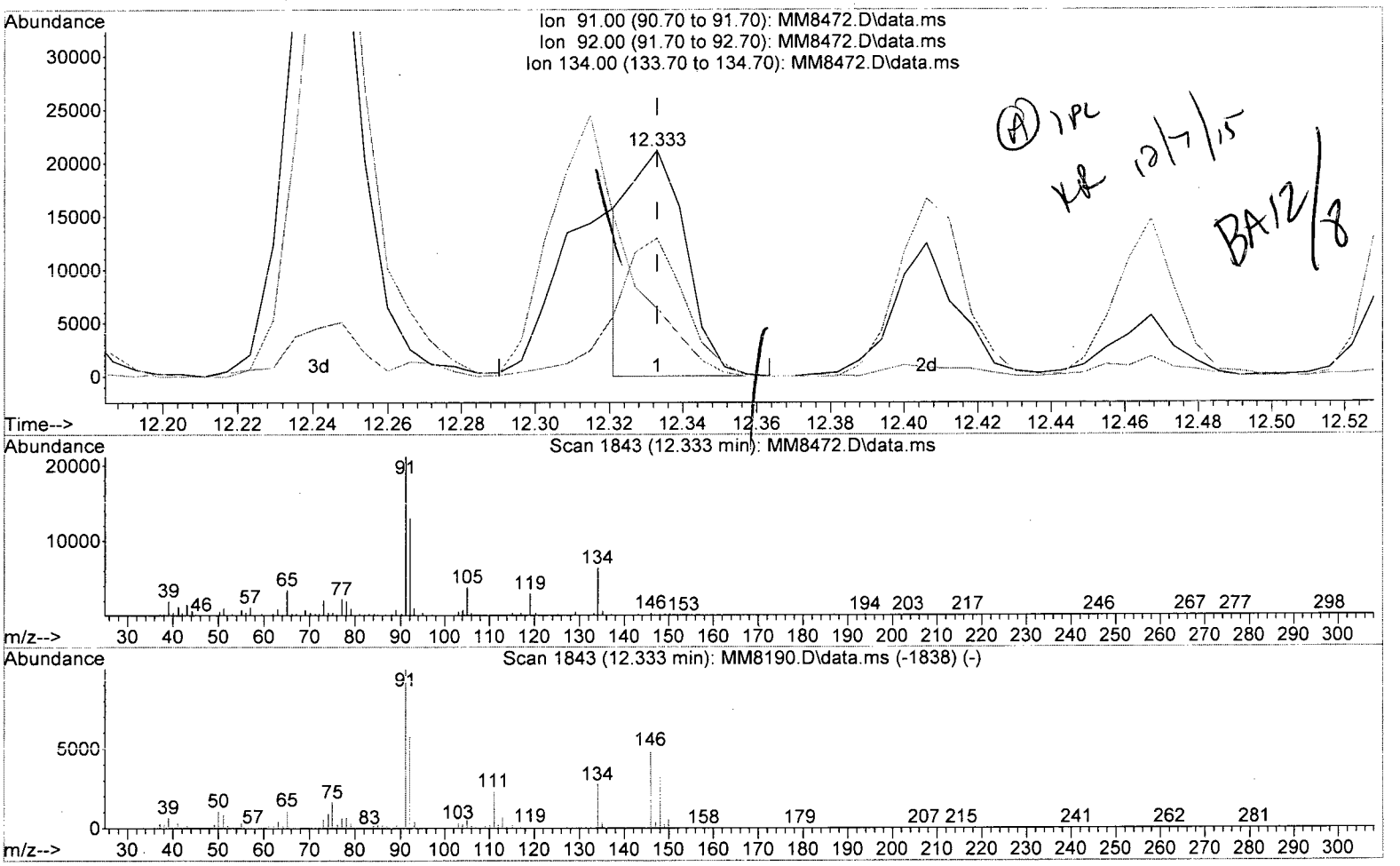
12.333min (-0.000) 2.06 ppb

response 41387

Ion	Exp%	Act%
91.00	100	100
92.00	57.00	61.14
134.00	27.20	30.07
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8472.D
Acq On : 2 Dec 2015 4:01 pm
Operator : K.Ruest
Sample : R1510266-003|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 02 16:17:19 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8472.D\data.ms

(109) n-Butylbenzene

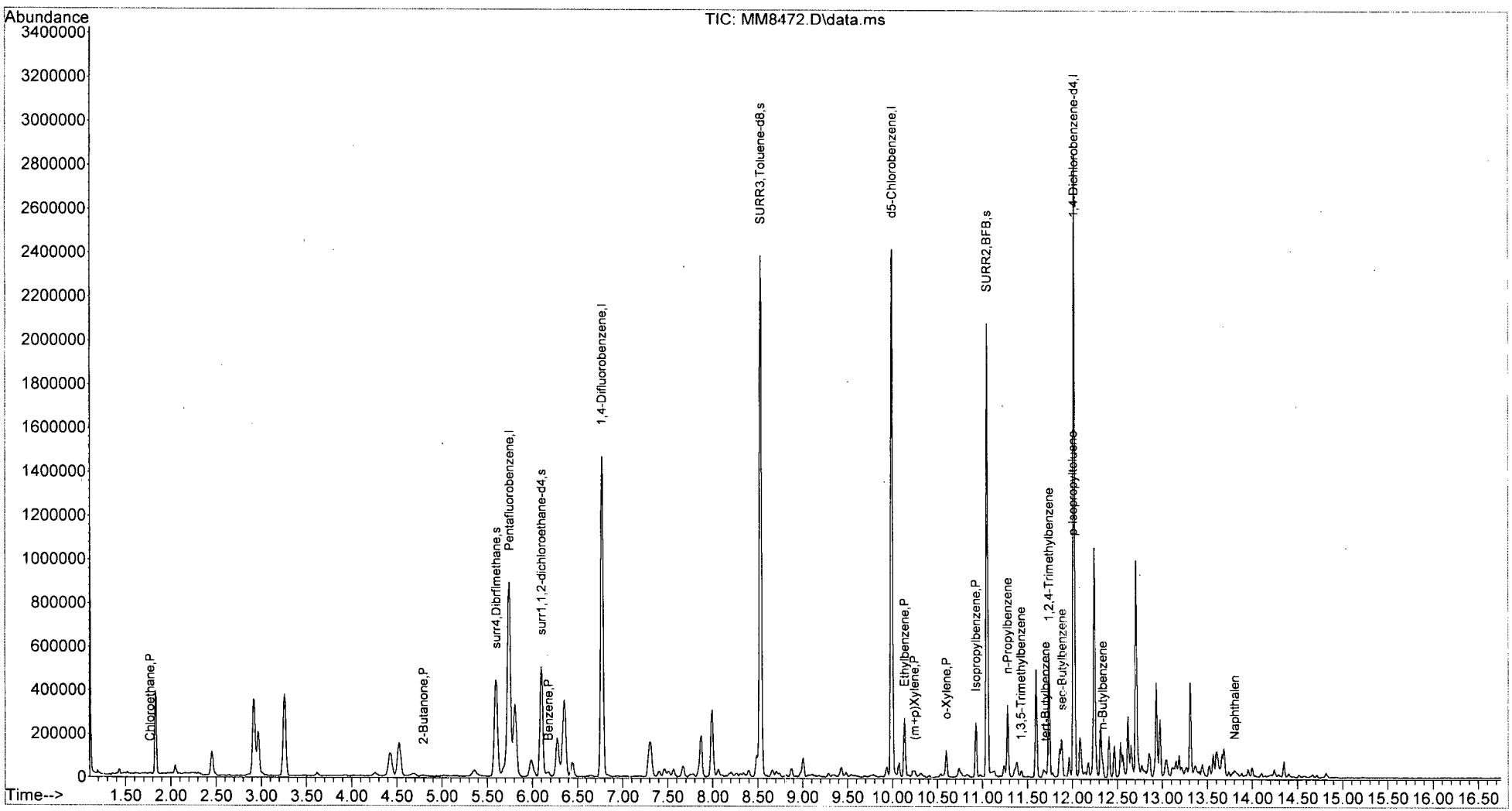
12.333min (-0.000) 1.11 ppb m

response 22263

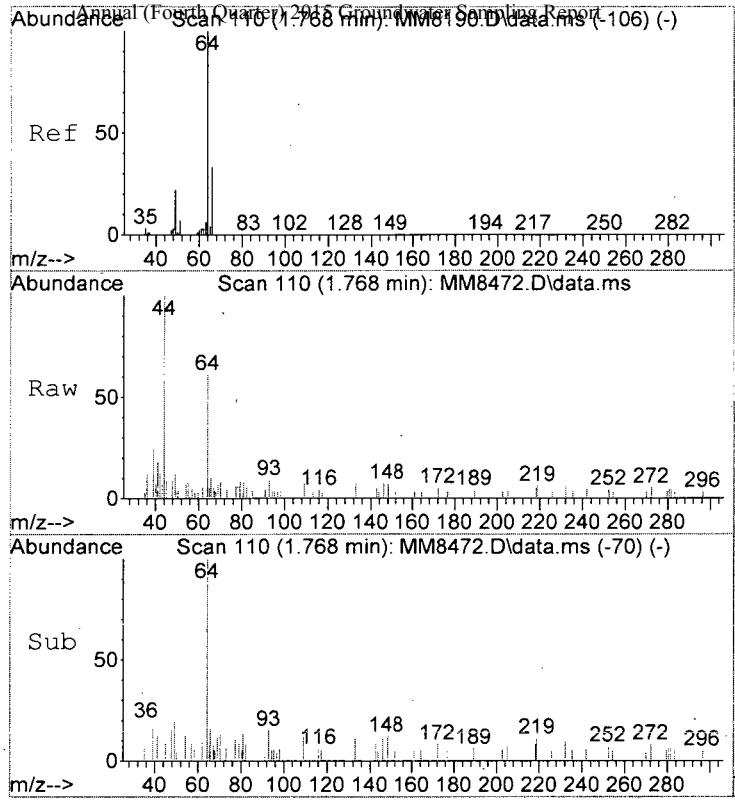
Ion	Exp%	Act%
91.00	100	100
92.00	57.00	61.14
134.00	27.20	30.07
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8472.D
Acq On : 2 Dec 2015 4:01 pm
Operator : K.Ruest
Sample : R1510266-003|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 07 15:14:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



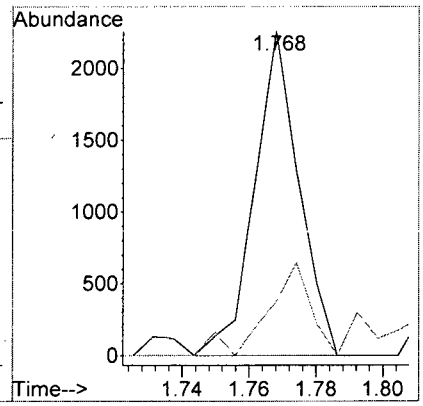
W111815A.M Mon Dec 07 15:16:15 2015 Page: 2

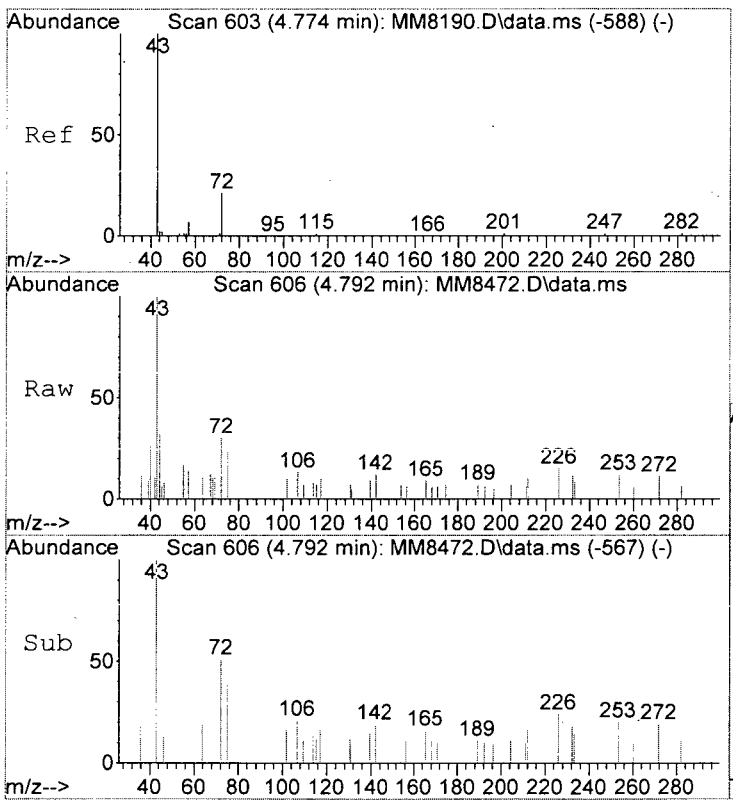


#6
Chloroethane
Concen: 0.32 ppb
RT: 1.768 min Scan# 110
Delta R.T. -0.000 min
Lab File: MM8472.D
Acq: 2 Dec 2015 4:01 pm

Tgt Ion: 64 Resp: 2072

Ion	Ratio	Lower	Upper
64	100		
66	16.4	12.9	52.9

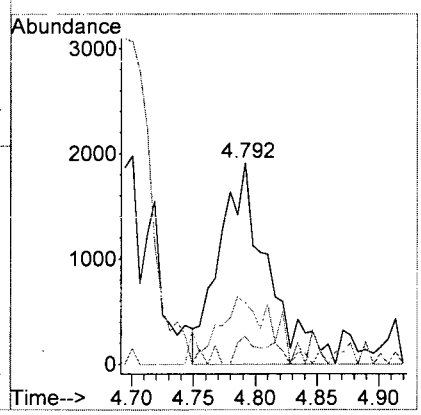


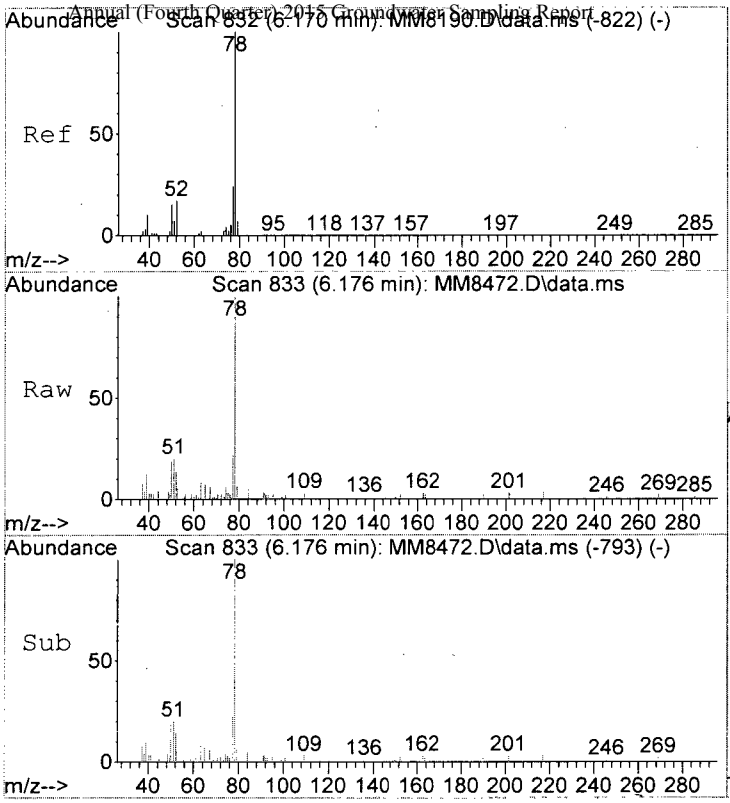


#35
2-Butanone
Concen: 2.36 ppb
RT: 4.792 min Scan# 606
Delta R.T. 0.012 min
Lab File: MM8472.D
Acq: 2 Dec 2015 4:01 pm

Tgt Ion: 43 Resp: 5152

Ion	Ratio	Lower	Upper
43	100		
57	13.8	0.0	27.5
72	30.4	1.2	41.2

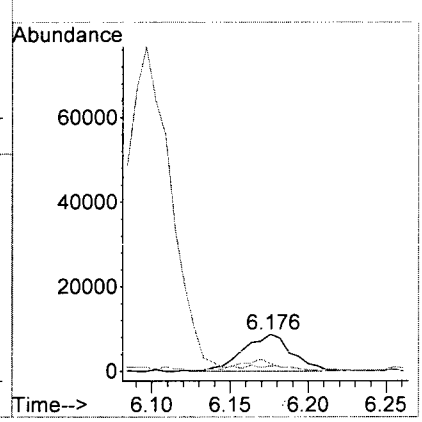


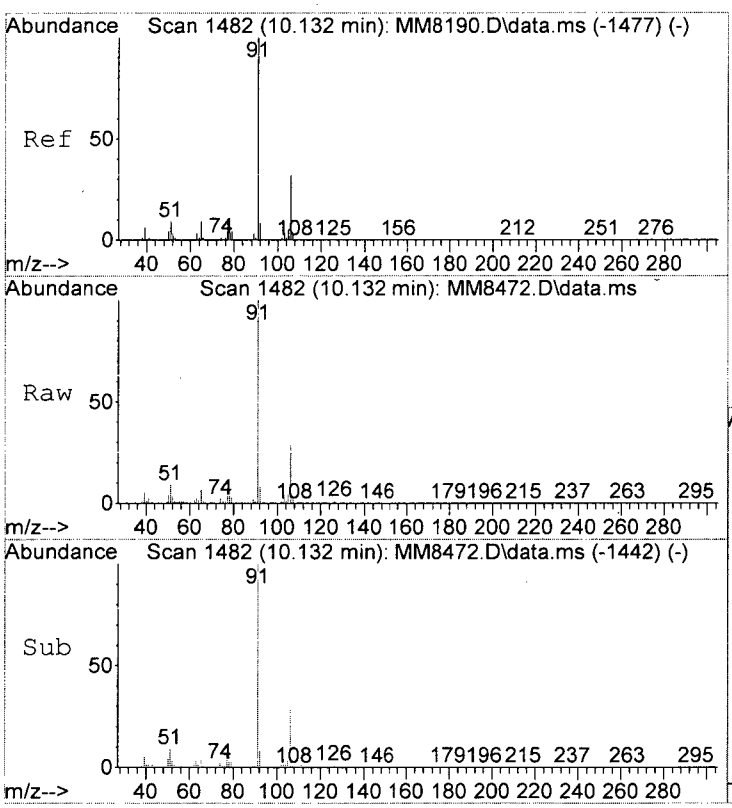


#49
Benzene
Concen: 0.68 ppb
RT: 6.176 min Scan# 833
Delta R.T. -0.000 min
Lab File: MM8472.D
Acq: 2 Dec 2015 4:01 pm

Tgt Ion: 78 Resp: 18590

Ion	Ratio	Lower	Upper
78	100		
51	20.4	0.0	36.1
52	13.7	0.0	36.8

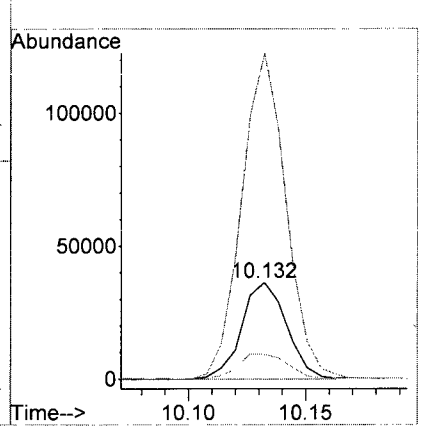




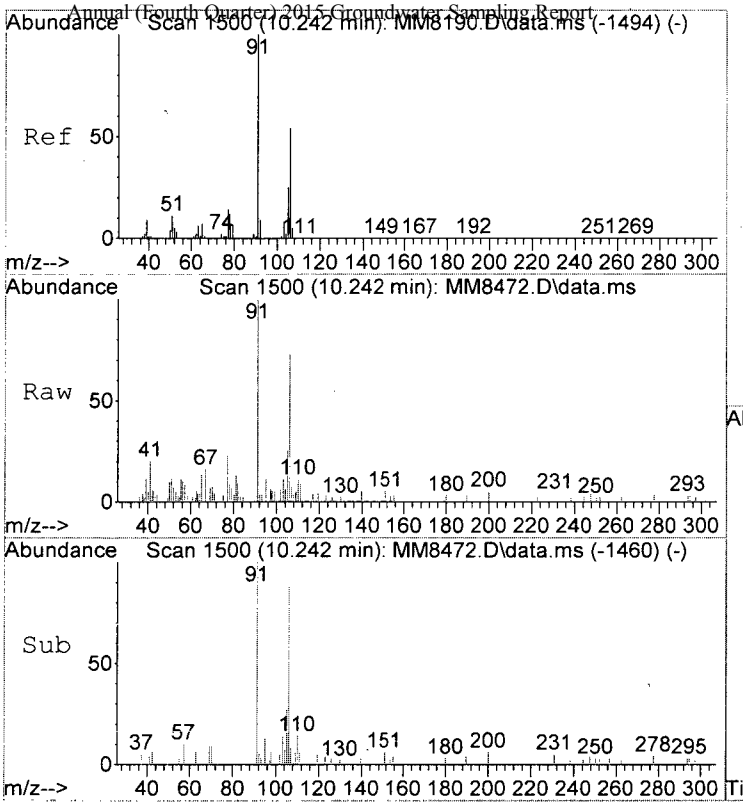
#82
Ethylbenzene
Concen: 5.00 ppb
RT: 10.132 min Scan# 1482
Delta R.T. -0.006 min
Lab File: MM8472.D
Acq: 2 Dec 2015 4:01 pm

Tgt Ion:106 Resp: 47963

Ion	Ratio	Lower	Upper
106	100		
91	339.2	293.8	333.8#
65	25.4	7.2	47.2



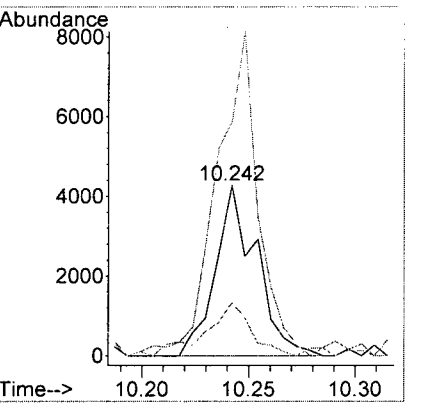
MM8472.D W111815A.M Mon Dec 07 15:16:19 2015 Page 4

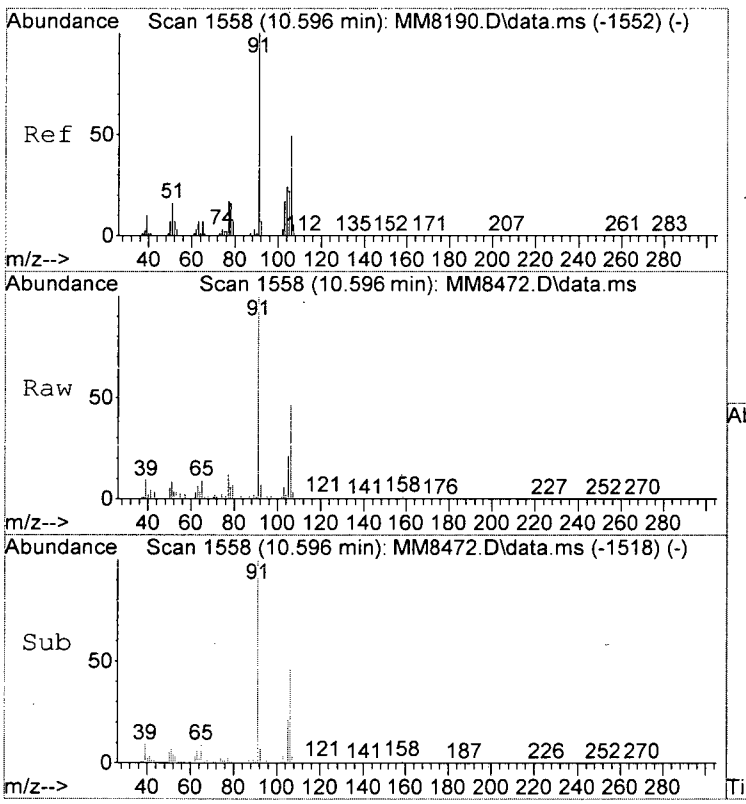


#83
(m+p)Xylene
Concen: 0.48 ppb
RT: 10.242 min Scan# 1500
Delta R.T. -0.006 min
Lab File: MM8472.D
Acq: 2 Dec 2015 4:01 pm

Tgt Ion:106 Resp: 5658

Ion	Ratio	Lower	Upper
106	100		
91	137.5	163.6	203.6#
77	31.2	5.5	45.5

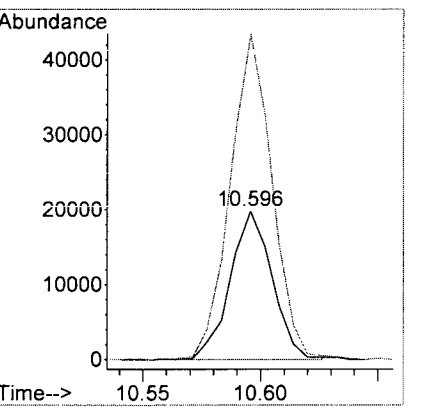


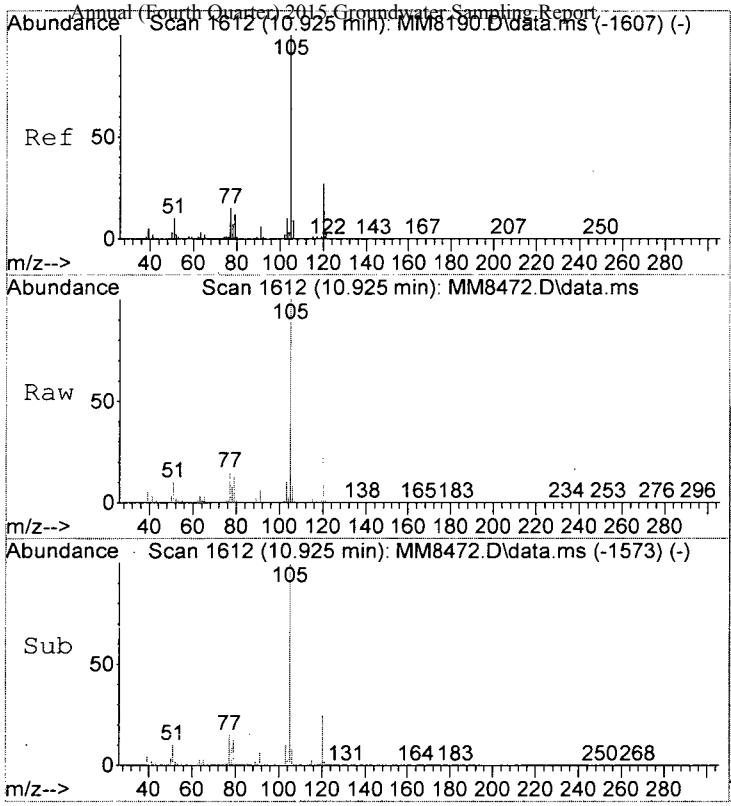


#84
o-Xylene
Concen: 2.01 ppb
RT: 10.596 min Scan# 1558
Delta R.T. -0.006 min
Lab File: MM8472.D
Acq: 2 Dec 2015 4:01 pm

Tgt Ion:106 Resp: 24378

Ion	Ratio	Lower	Upper
106	100		
91	219.4	182.5	222.5

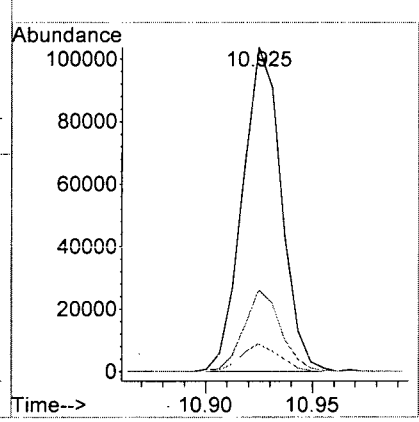


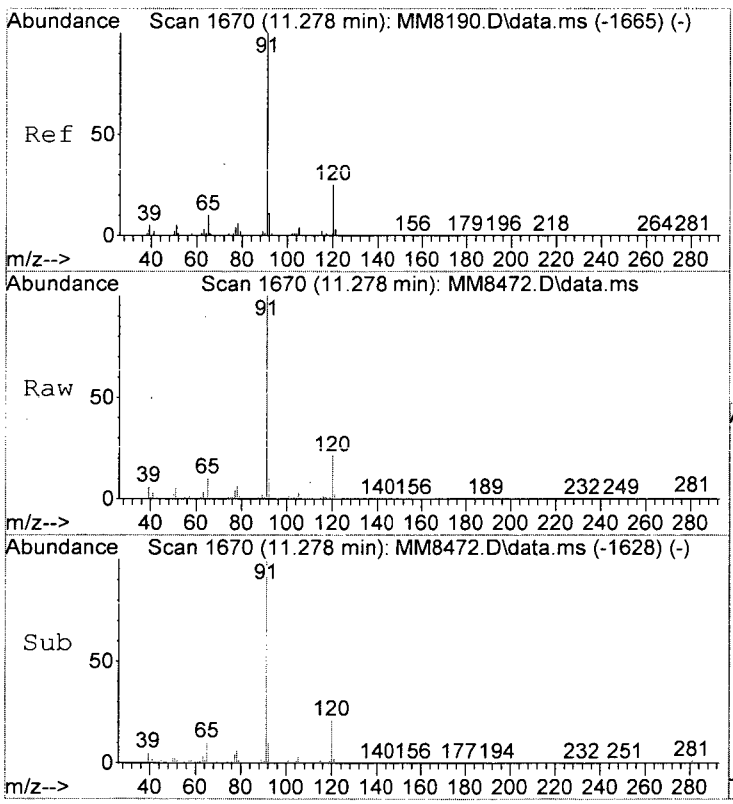


#89
Isopropylbenzene
Concen: 4.50 ppb
RT: 10.925 min Scan# 1612
Delta R.T. -0.006 min
Lab File: MM8472.D
Acq: 2 Dec 2015 4:01 pm

Tgt Ion:105 Resp: 130297

Ion	Ratio	Lower	Upper
105	100		
120	25.1	7.4	47.4
106	8.4	0.0	29.1

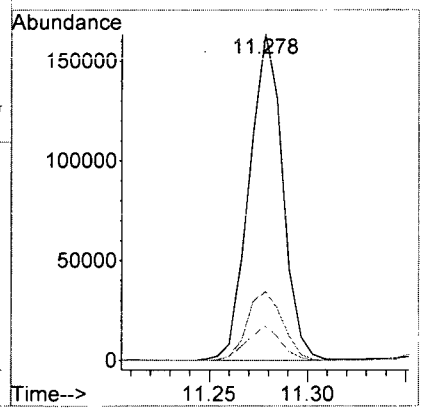


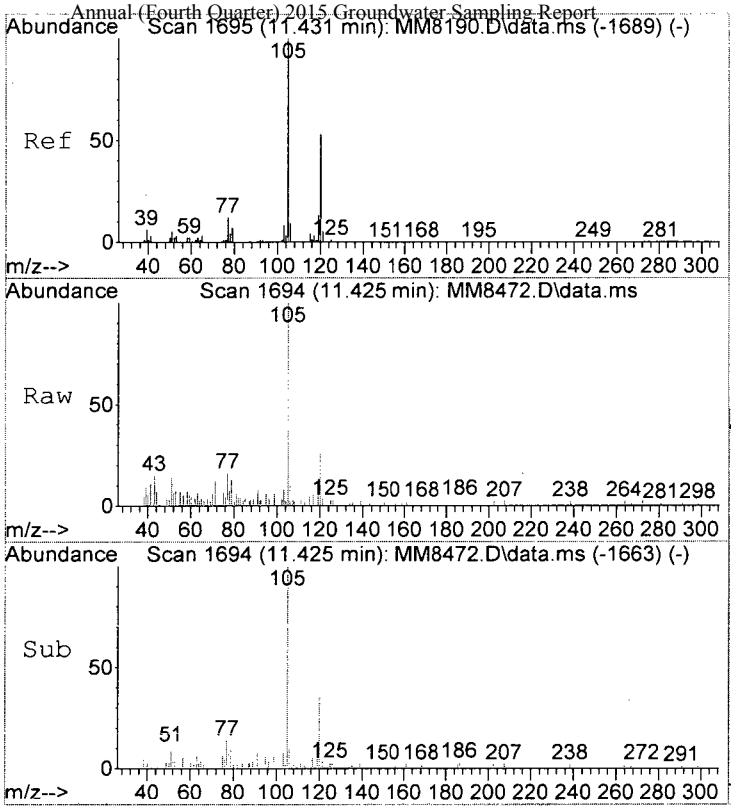


#95
n-Propylbenzene
Concen: 5.79 ppb
RT: 11.278 min Scan# 1670
Delta R.T. -0.006 min
Lab File: MM8472.D
Acq: 2 Dec 2015 4:01 pm

Tgt Ion: 91 Resp: 193530

Ion	Ratio	Lower	Upper
91	100		
120	20.9	4.8	44.8
65	10.5	0.0	30.5

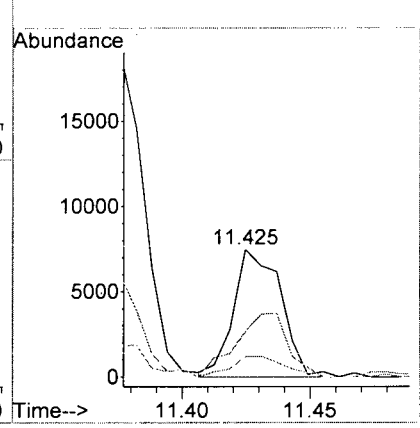


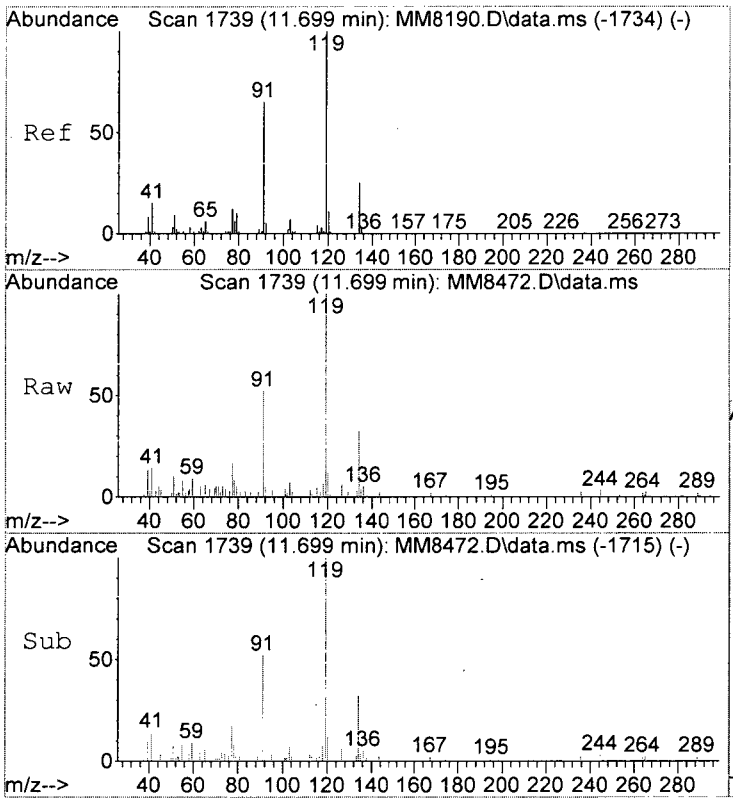


#99
1,3,5-Trimethylbenzene
Concen: 0.44 ppb m
RT: 11.425 min Scan# 1694
Delta R.T. -0.006 min
Lab File: MM8472.D
Acq: 2 Dec 2015 4:01 pm

Tgt Ion:105 Resp: 9584

Ion	Ratio	Lower	Upper
105	100		
120	35.5	33.0	73.0
77	15.8	0.0	32.5

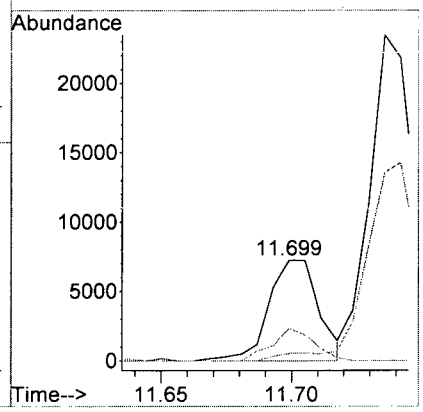


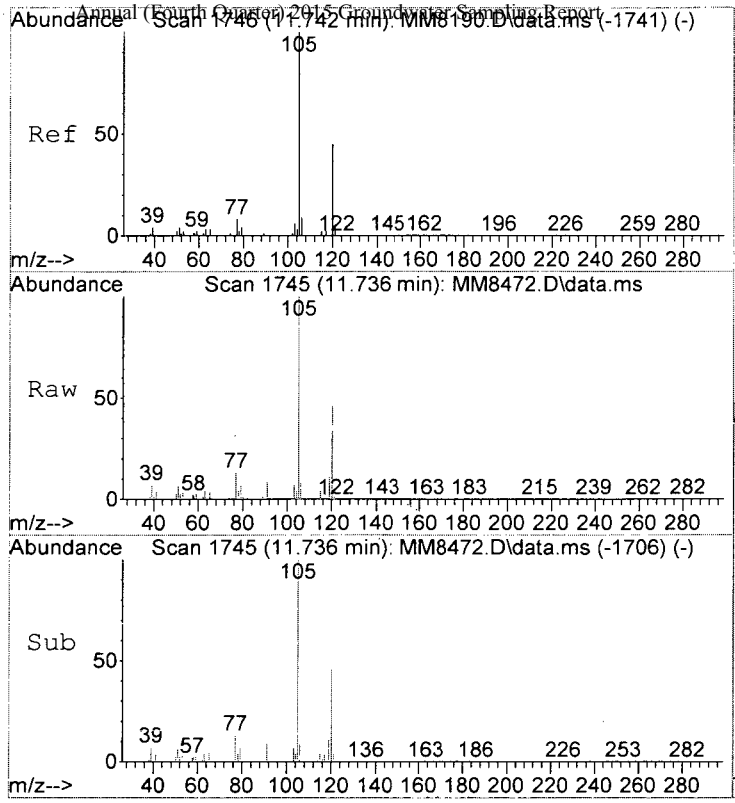


#100
tert-Butylbenzene
Concen: 0.49 ppb
RT: 11.699 min Scan# 1739
Delta R.T. -0.006 min
Lab File: MM8472.D
Acq: 2 Dec 2015 4:01 pm

Tgt Ion:119 Resp: 9583

Ion	Ratio	Lower	Upper
119	100		
134	32.1	5.0	45.0
103	6.8	0.0	26.6

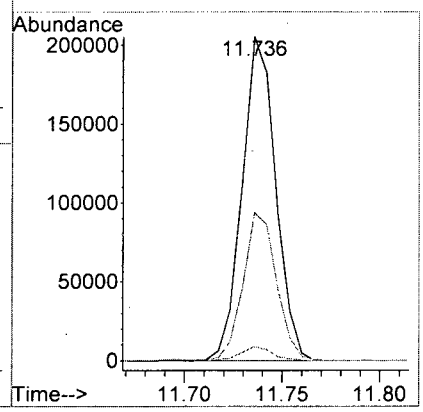


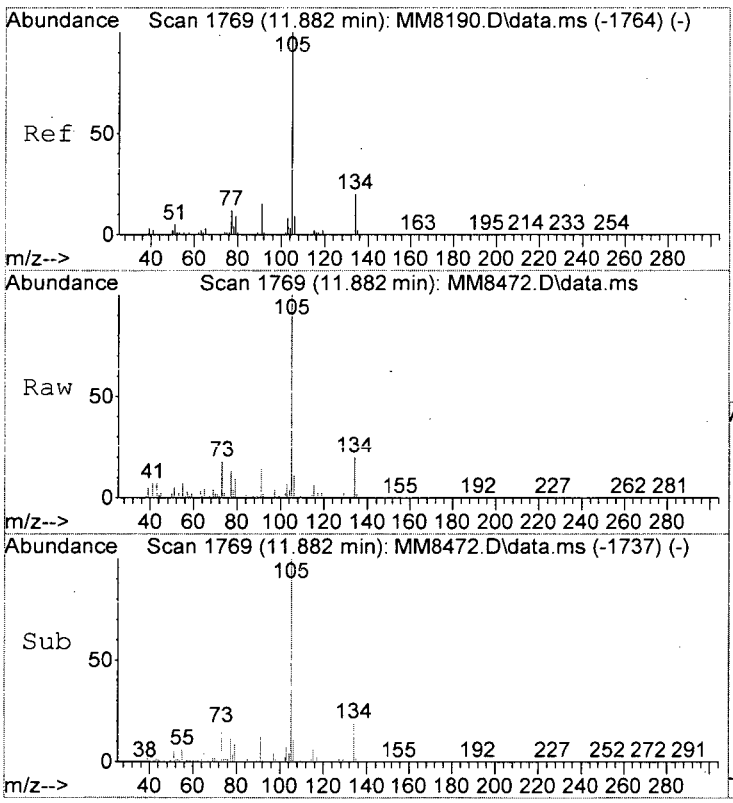


#101
1,2,4-Trimethylbenzene
Concen: 10.39 ppb
RT: 11.736 min Scan# 1745
Delta R.T. -0.006 min
Lab File: MM8472.D
Acq: 2 Dec 2015 4:01 pm

Tgt Ion:105 Resp: 244448

Ion	Ratio	Lower	Upper
105	100		
120	45.6	28.1	68.1
65	4.4	0.0	24.3

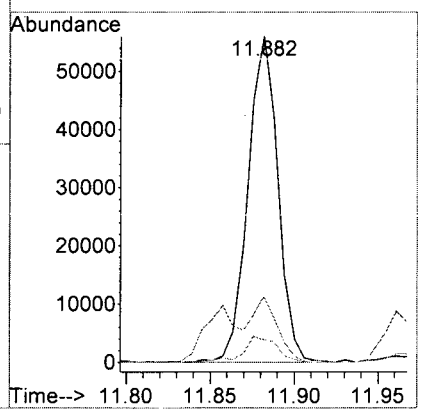


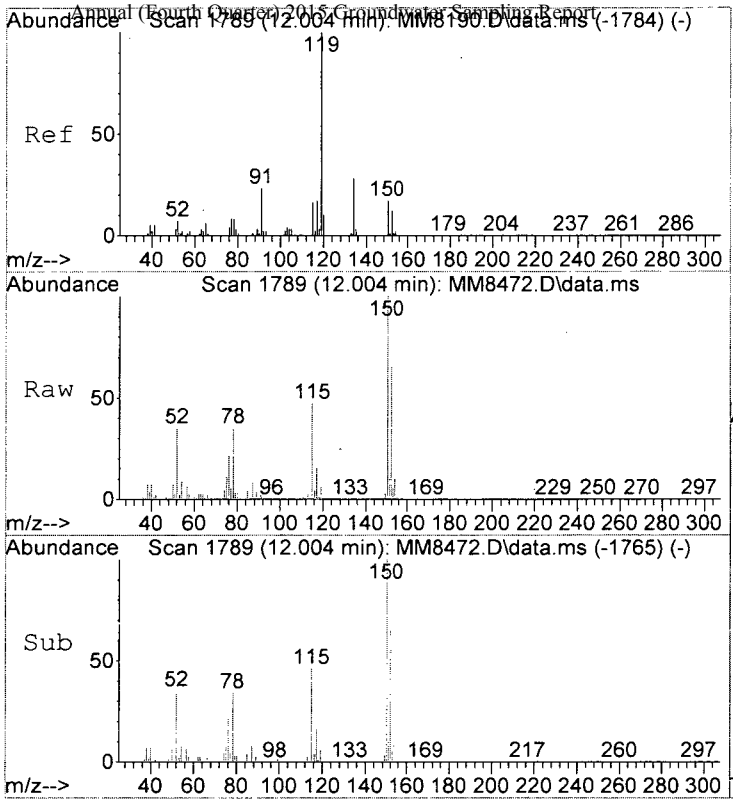


#103
sec-Butylbenzene
Concen: 2.53 ppb
RT: 11.882 min Scan# 1769
Delta R.T. -0.000 min
Lab File: MM8472.D
Acq: 2 Dec 2015 4:01 pm

Tgt Ion:105 Resp: 69348

Ion	Ratio	Lower	Upper
105	100		
134	20.2	0.2	40.2
103	6.9	0.0	27.7

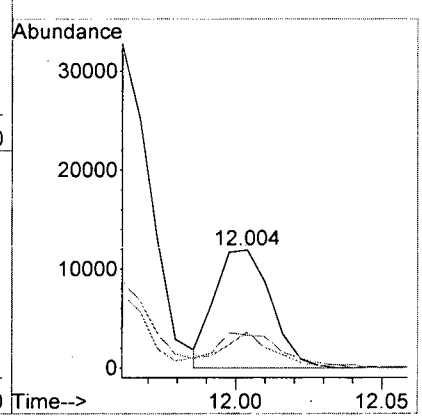


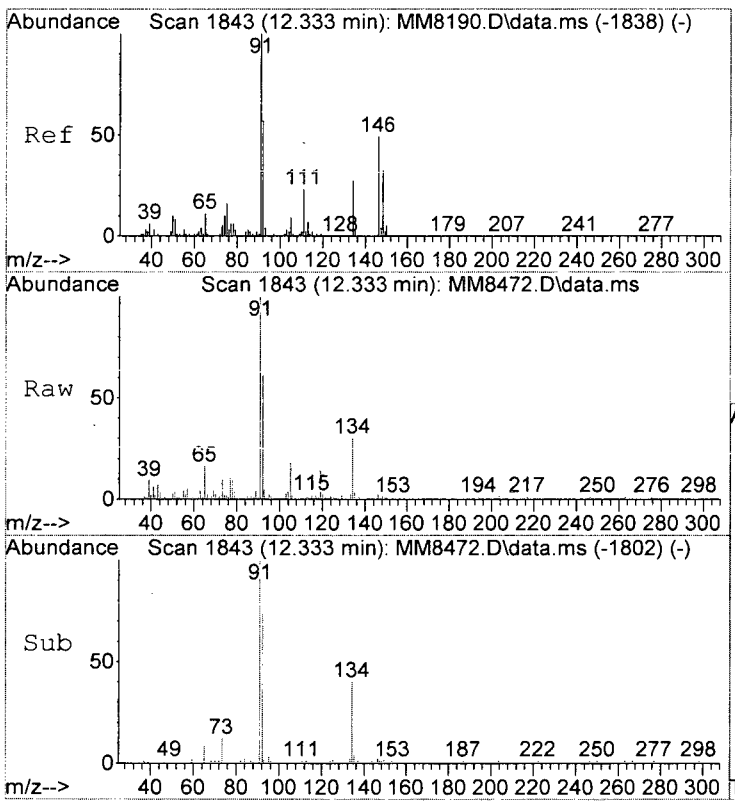


#104
p-Isopropyltoluene
Concen: 0.75 ppb
RT: 12.004 min Scan# 1789
Delta R.T. -0.000 min
Lab File: MM8472.D
Acq: 2 Dec 2015 4:01 pm

Tgt Ion:119 Resp: 15846

Ion	Ratio	Lower	Upper
119	100		
134	30.0	7.9	47.9
91	27.7	2.5	42.5

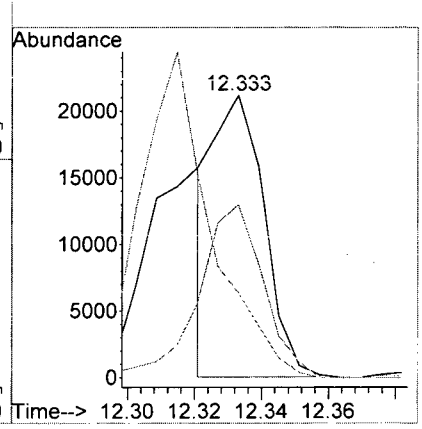


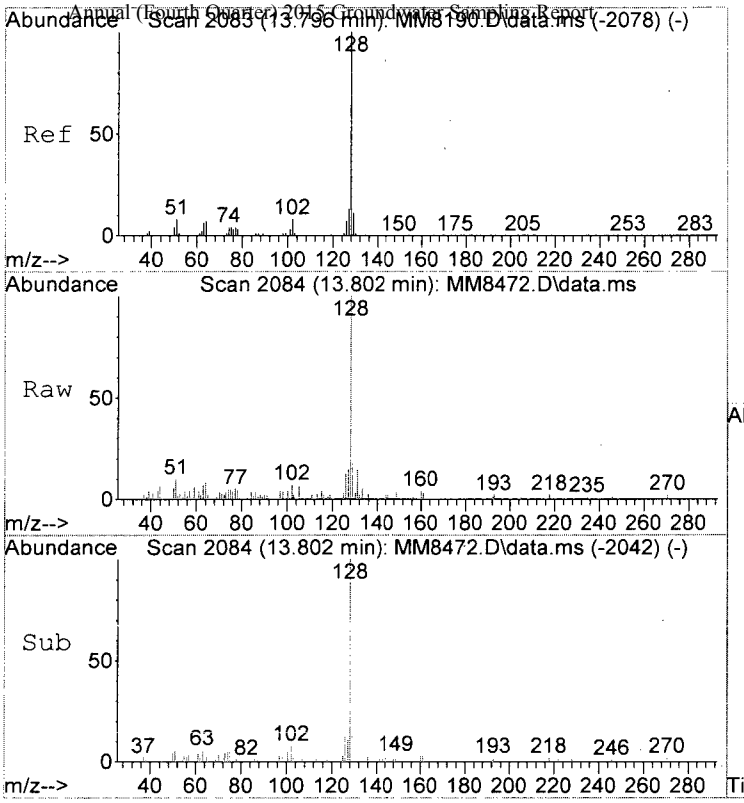


#109
n-Butylbenzene
Concen: 1.11 ppb m
RT: 12.333 min Scan# 1843
Delta R.T. -0.000 min
Lab File: MM8472.D
Acq: 2 Dec 2015 4:01 pm

Tgt Ion: 91 Resp: 22263

Ion	Ratio	Lower	Upper
91	100		
92	61.1	37.0	77.0
134	30.1	7.2	47.2

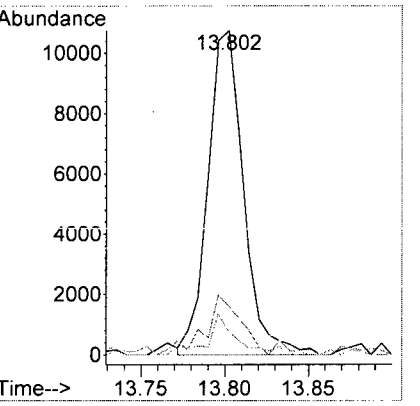




#117
Naphthalen
Concen: 1.07 ppb
RT: 13.802 min Scan# 2084
Delta R.T. -0.000 min
Lab File: MM8472.D
Acq: 2 Dec 2015 4:01 pm

Tgt Ion:128 Resp: 15961

Ion	Ratio	Lower	Upper
128	100		
127	15.0	0.0	33.1
102	7.1	0.0	28.3



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8472.D
Acq On : 2 Dec 2015 4:01 pm
Operator : K.Ruest
Sample : R1510266-003|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8472.D\data.ms

KR 12/7/15

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.829	115	120	127	rBV	380559	471153	12.18%	1.135%
2	2.048	152	156	161	rVB2	39850	55122	1.42%	0.133%
3	2.451	215	222	232	rVB	112542	226615	5.86%	0.546%
4	2.914	291	298	303	rBV	346545	731244	18.90%	1.762%
5	2.963	303	306	313	rVB2	192468	344711	8.91%	0.831%
6	3.256	340	354	362	rBV	378042	816497	21.10%	1.968%
7	4.420	532	545	554	rBV3	107439	331020	8.56%	0.798%
8	4.524	554	562	571	rVB3	153483	415184	10.73%	1.001%
9	4.688	580	589	600	rVB4	13278	49659	1.28%	0.120%
10	5.347	688	697	698	rBV5	25412	42999	1.11%	0.104%
11	5.365	698	700	709	rVB3	27554	45251	1.17%	0.109%
12	5.597	728	738	747	rBV	443735	1155666	29.87%	2.785%
13	5.743	747	762	768	rVV	890937	2388519	61.73%	5.756%
14	5.804	768	772	786	rVB	334769	821862	21.24%	1.981%
15	5.987	790	802	812	rBV5	76251	237348	6.13%	0.572%
16	6.096	812	820	828	rVV2	505232	1120711	28.97%	2.701%
17	6.176	828	833	838	rVV3	21879	48262	1.25%	0.116%
18	6.273	840	849	855	rBV3	177111	446880	11.55%	1.077%
19	6.353	855	862	870	rVV2	353610	914244	23.63%	2.203%
20	6.438	870	876	886	rVB4	64257	151537	3.92%	0.365%
21	6.767	922	930	940	rBV	1465755	2867774	74.12%	6.911%
22	7.304	1008	1018	1028	rBV4	159010	452298	11.69%	1.090%
23	7.407	1028	1035	1039	rVV3	25364	51277	1.33%	0.124%
24	7.456	1039	1043	1048	rVV4	36067	77027	1.99%	0.186%
25	7.505	1048	1051	1056	rVV	25746	50553	1.31%	0.122%
26	7.560	1056	1060	1068	rVV2	35453	65834	1.70%	0.159%
27	7.669	1070	1078	1086	rVB3	50150	101839	2.63%	0.245%
28	7.871	1101	1111	1120	rVB	190258	393797	10.18%	0.949%
29	7.992	1120	1131	1138	rBV	307356	600612	15.52%	1.447%
30	8.060	1138	1142	1146	rVB2	27936	41477	1.07%	0.100%
31	8.200	1158	1165	1170	rBV8	19466	45006	1.16%	0.108%
32	8.395	1192	1197	1203	rVB3	29026	53162	1.37%	0.128%
33	8.486	1203	1212	1213	rBV	95932	134469	3.48%	0.324%
34	8.529	1213	1219	1229	rVB	2380387	3869100	100.00%	9.324%
35	8.663	1235	1241	1245	rBV4	31640	61566	1.59%	0.148%

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8472.D
Acq On : 2 Dec 2015 4:01 pm
Operator : K.Ruest
Sample : R1510266-003|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

36	8.876	1271	1276	1281	rBV3	36891	60929	1.57%	0.147%
37	9.004	1287	1297	1302	rBV3	85594	168444	4.35%	0.406%
38	9.431	1359	1367	1370	rBV3	43984	77398	2.00%	0.187%
39	9.937	1444	1450	1453	rBV3	45601	75791	1.96%	0.183%
40	9.992	1453	1459	1467	rVV	2410852	3493992	90.31%	8.420%
41	10.071	1467	1472	1477	rVB	64321	90036	2.33%	0.217%
42	10.132	1477	1482	1487	rBV	269940	368626	9.53%	0.888%
43	10.309	1506	1511	1522	rVB8	19462	51380	1.33%	0.124%
44	10.596	1554	1558	1562	rVB	119514	148486	3.84%	0.358%
45	10.742	1576	1582	1584	rBV2	38934	59785	1.55%	0.144%
46	10.925	1606	1612	1617	rBV	249081	310724	8.03%	0.749%
47	11.047	1627	1632	1638	rBV	2073799	2641192	68.26%	6.365%
48	11.242	1658	1664	1666	rBV2	51160	72365	1.87%	0.174%
49	11.278	1666	1670	1677	rVB	330615	409900	10.59%	0.988%
50	11.358	1677	1683	1684	rBV	39348	48989	1.27%	0.118%
51	11.382	1684	1687	1692	rVV2	67117	104219	2.69%	0.251%
52	11.595	1717	1722	1731	rVB	494284	621259	16.06%	1.497%
53	11.681	1731	1736	1741	rBV3	34160	78291	2.02%	0.189%
54	11.736	1741	1745	1750	rVB	560909	665335	17.20%	1.603%
55	11.858	1758	1765	1766	rBV	128805	156685	4.05%	0.378%
56	11.876	1766	1768	1773	rVB2	168907	219057	5.66%	0.528%
57	11.961	1778	1782	1786	rBV	87065	105430	2.72%	0.254%
58	12.016	1786	1791	1798	rVB	2840365	3552528	91.82%	8.561%
59	12.083	1798	1802	1808	rBV2	179385	287476	7.43%	0.693%
60	12.175	1813	1817	1820	rVV2	65613	85403	2.21%	0.206%
61	12.242	1820	1828	1835	rVV	1050625	1413052	36.52%	3.405%
62	12.309	1835	1839	1848	rVB2	221452	374258	9.67%	0.902%
63	12.406	1850	1855	1860	rBV	188835	220558	5.70%	0.532%
64	12.467	1860	1865	1870	rVB	144912	188173	4.86%	0.453%
65	12.534	1870	1876	1878	rBV	159912	198558	5.13%	0.479%
66	12.559	1878	1880	1885	rVV3	97479	129418	3.34%	0.312%
67	12.620	1885	1890	1893	rVV	275731	363790	9.40%	0.877%
68	12.650	1893	1895	1900	rVV	145513	196259	5.07%	0.473%
69	12.705	1900	1904	1912	rVV	989911	1274149	32.93%	3.071%
70	12.772	1912	1915	1919	rVV3	52800	88978	2.30%	0.214%
71	12.851	1923	1928	1934	rVB6	106470	194843	5.04%	0.470%
72	12.931	1934	1941	1945	rBV	432236	596505	15.42%	1.438%
73	12.973	1945	1948	1953	rVV	261174	320243	8.28%	0.772%

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8472.D
Acq On : 2 Dec 2015 4:01 pm
Operator : K.Ruest
Sample : R1510266-003|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

74	13.046	1953	1960	1967	rVV4	75314	164055	4.24%	0.395%
75	13.107	1967	1970	1974	rVV3	41586	82997	2.15%	0.200%
76	13.150	1974	1977	1980	rVV2	70714	104082	2.69%	0.251%
77	13.187	1980	1983	1985	rVV	94841	117744	3.04%	0.284%
78	13.211	1985	1987	1991	rVV4	43415	63479	1.64%	0.153%
79	13.266	1991	1996	1999	rVV3	41673	79489	2.05%	0.192%
80	13.308	1999	2003	2008	rVV2	429429	569946	14.73%	1.374%
81	13.363	2008	2012	2017	rVV3	48852	102499	2.65%	0.247%
82	13.443	2021	2025	2033	rVB5	55475	82859	2.14%	0.200%
83	13.522	2033	2038	2041	rBV3	48887	70115	1.81%	0.169%
84	13.565	2041	2045	2048	rVV	98955	141227	3.65%	0.340%
85	13.601	2048	2051	2056	rVV2	111250	225068	5.82%	0.542%
86	13.662	2058	2061	2063	rVV	98973	139340	3.60%	0.336%
87	13.686	2063	2065	2070	rVB2	124758	135671	3.51%	0.327%
88	13.802	2082	2084	2094	rVB6	25158	53579	1.38%	0.129%
89	13.997	2113	2116	2119	rBV	39207	44313	1.15%	0.107%
90	14.241	2152	2156	2160	rVB2	30516	39155	1.01%	0.094%
91	14.345	2169	2173	2178	rVB	71585	85971	2.22%	0.207%

Sum of corrected areas: 41494368

```
Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8472.D
Acq On    :  2 Dec 2015    4:01 pm
Operator  : K.Ruest
Sample    : R1510266-003|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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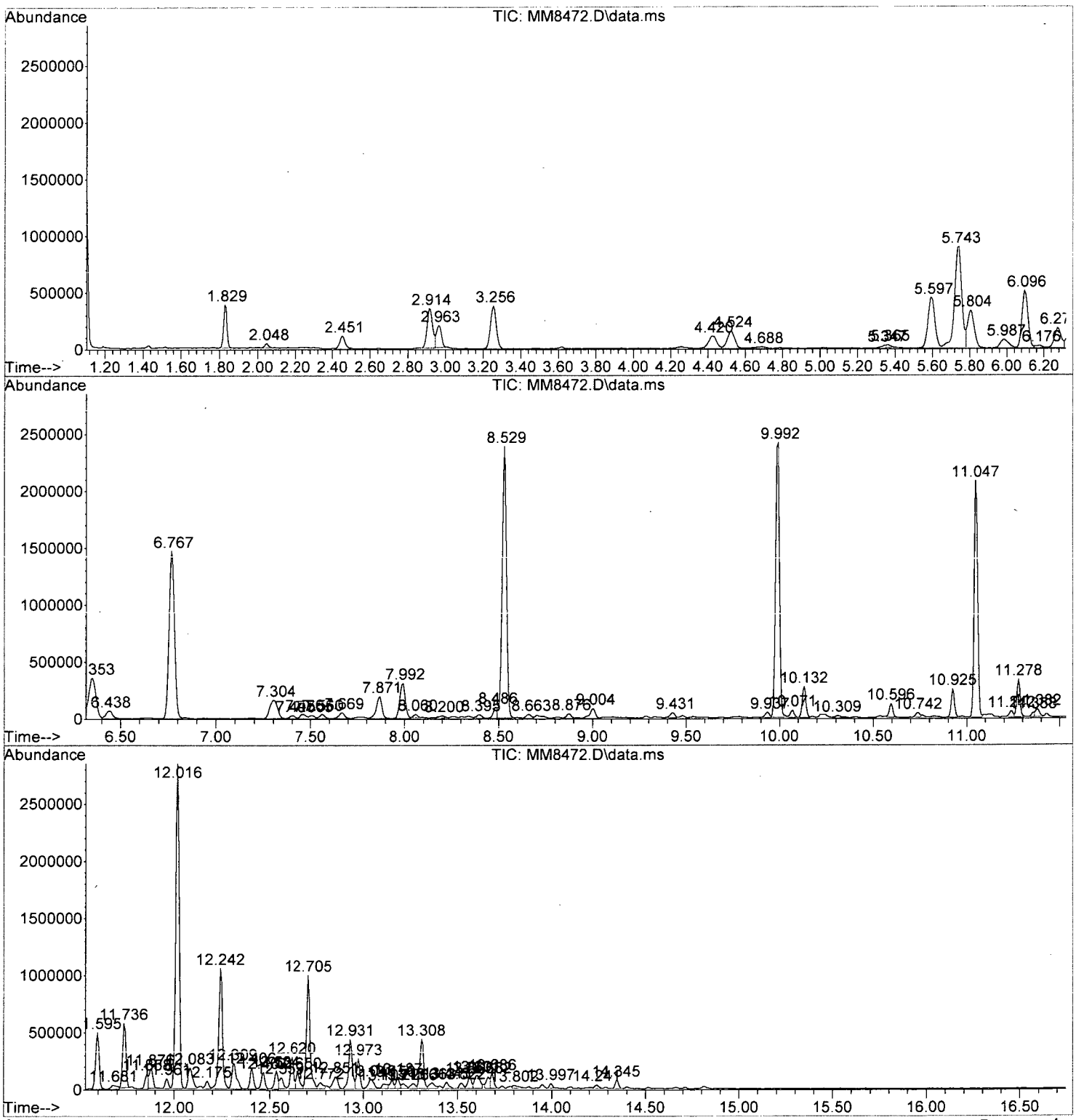

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Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8472.D
Acq On    :  2 Dec 2015    4:01 pm
Operator  : K.Ruest
Sample    : R1510266-003|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  1  Butane, 2-methyl-              Concentration Rank  8
```
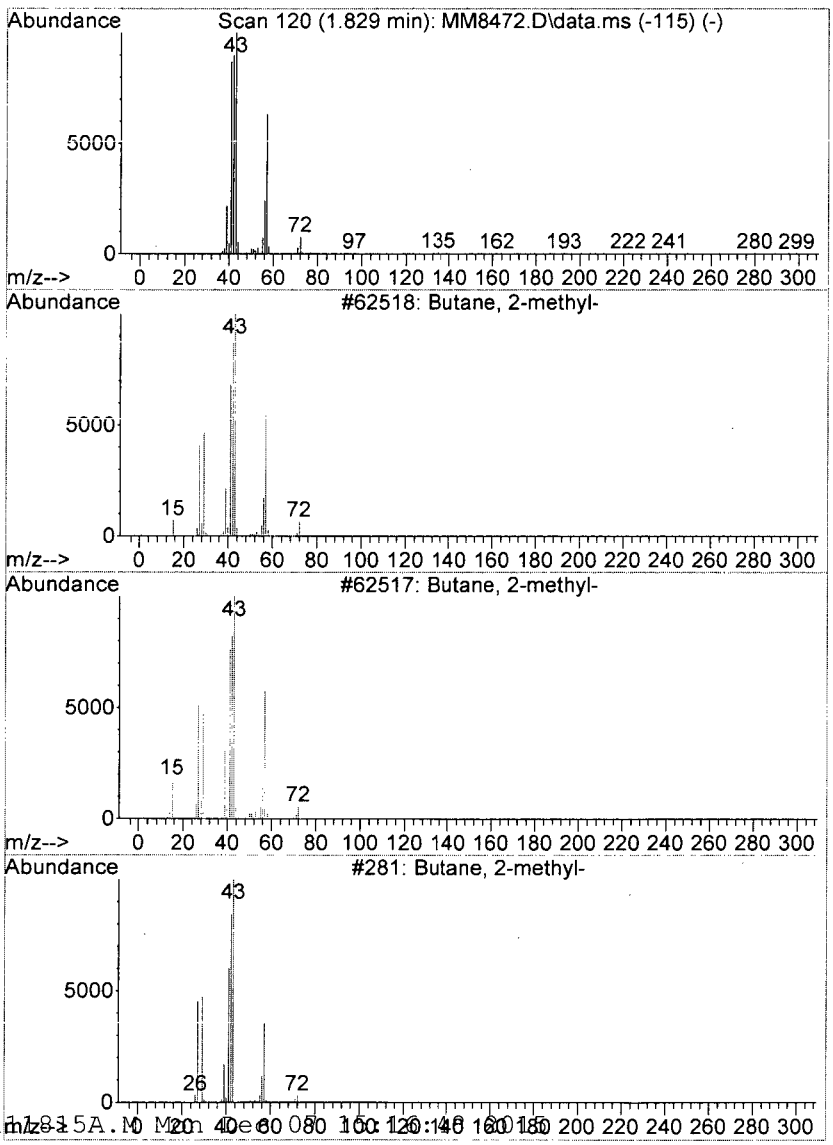
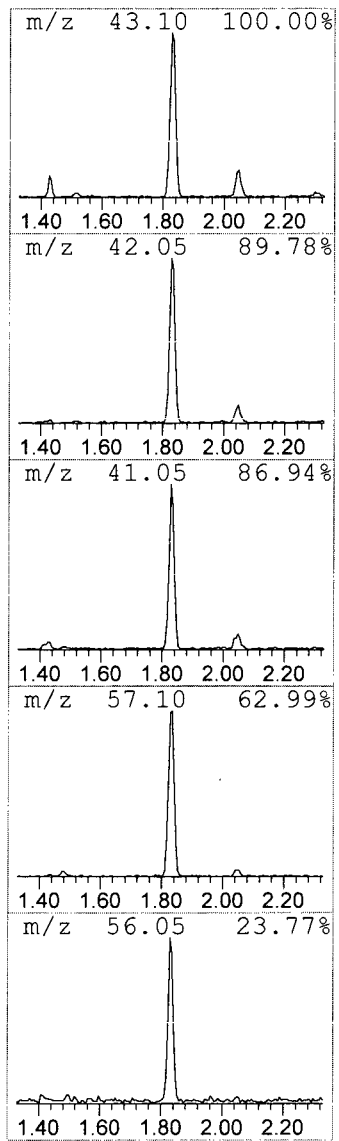

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.829	9.86 ppb	471153	Pentafluorobenzene	5.743

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	91
2	Butane, 2-methyl-	72	C5H12	000078-78-4	91
3	Butane, 2-methyl-	72	C5H12	000078-78-4	80
4	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	36
5	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	33





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Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8472.D
Acq On    :  2 Dec 2015    4:01 pm
Operator  : K.Ruest
Sample    : R1510266-003|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

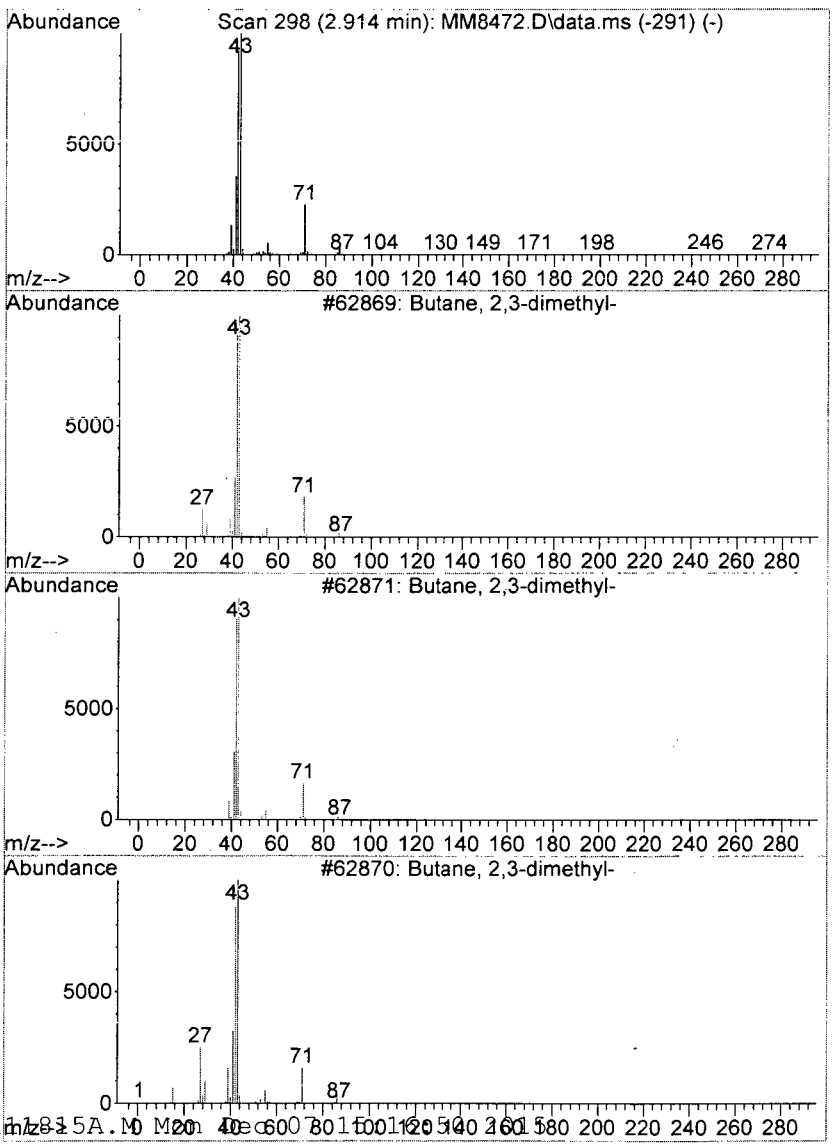
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

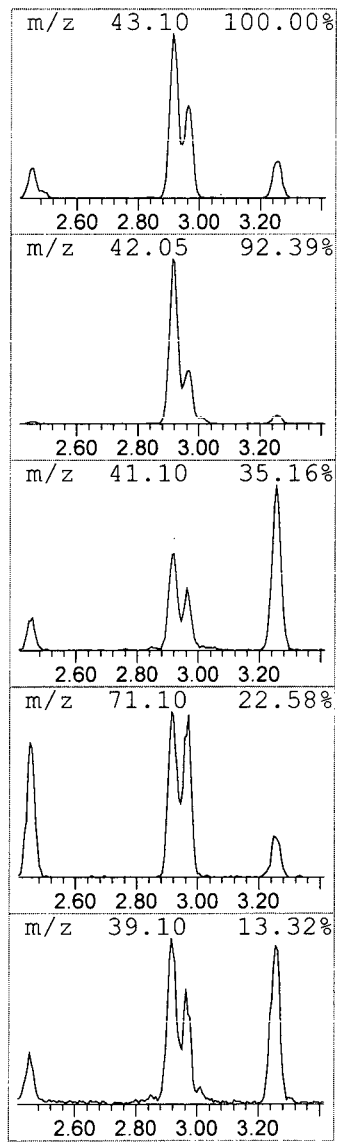
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  2  Butane, 2,3-dimethyl-          Concentration Rank  6
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.914	15.31 ppb	731244	Pentafluorobenzene	5.743

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	91
2	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	87
3	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	80
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	50
5	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	45





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Acq On    :  2 Dec 2015    4:01 pm
Operator  : K.Ruest
Sample    : R1510266-003|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  3  Pentane, 2-methyl-              Concentration Rank 15
```
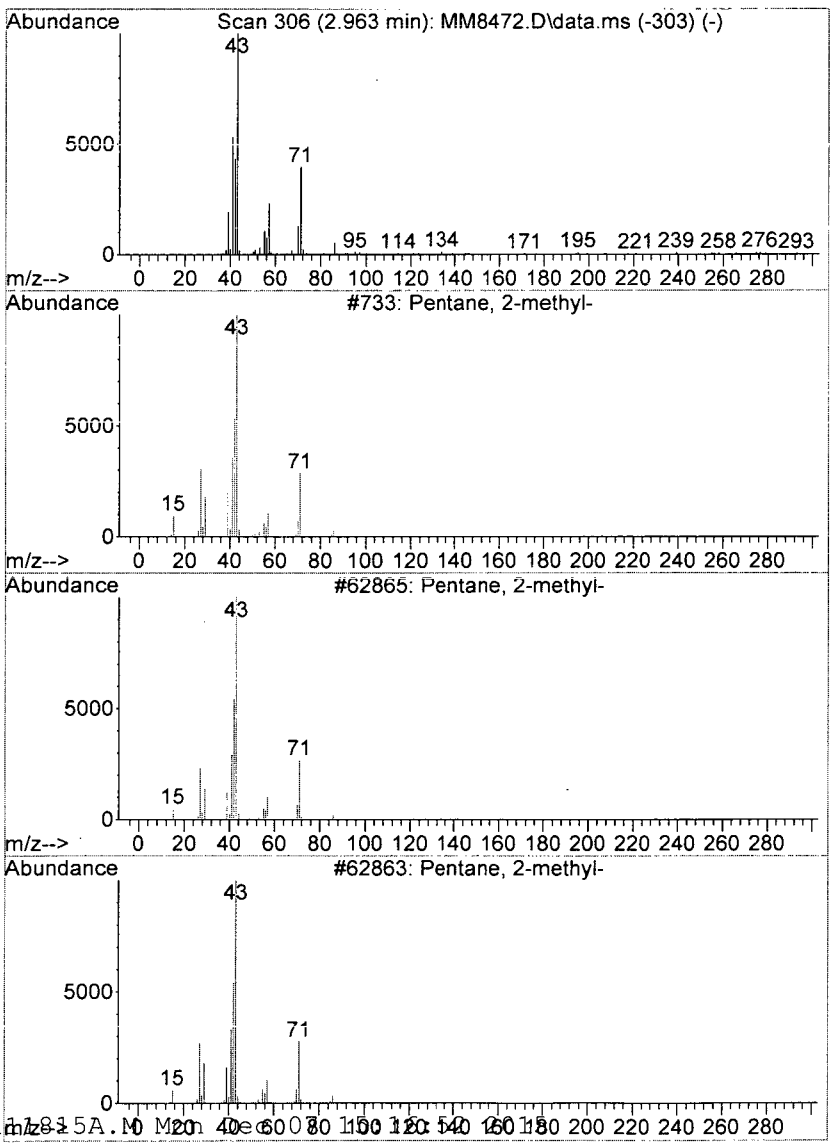
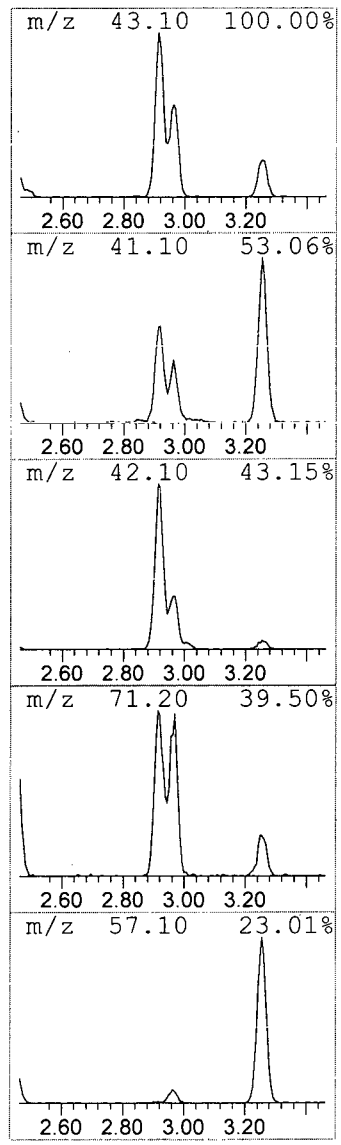

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.963	7.22 ppb	344711	Pentafluorobenzene	5.743

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	86
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	86
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	86
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	86
5	Pentane, 2-methyl-	86	C6H14	000107-83-5	37





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Operator  : K.Ruest
Sample    : R1510266-003|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

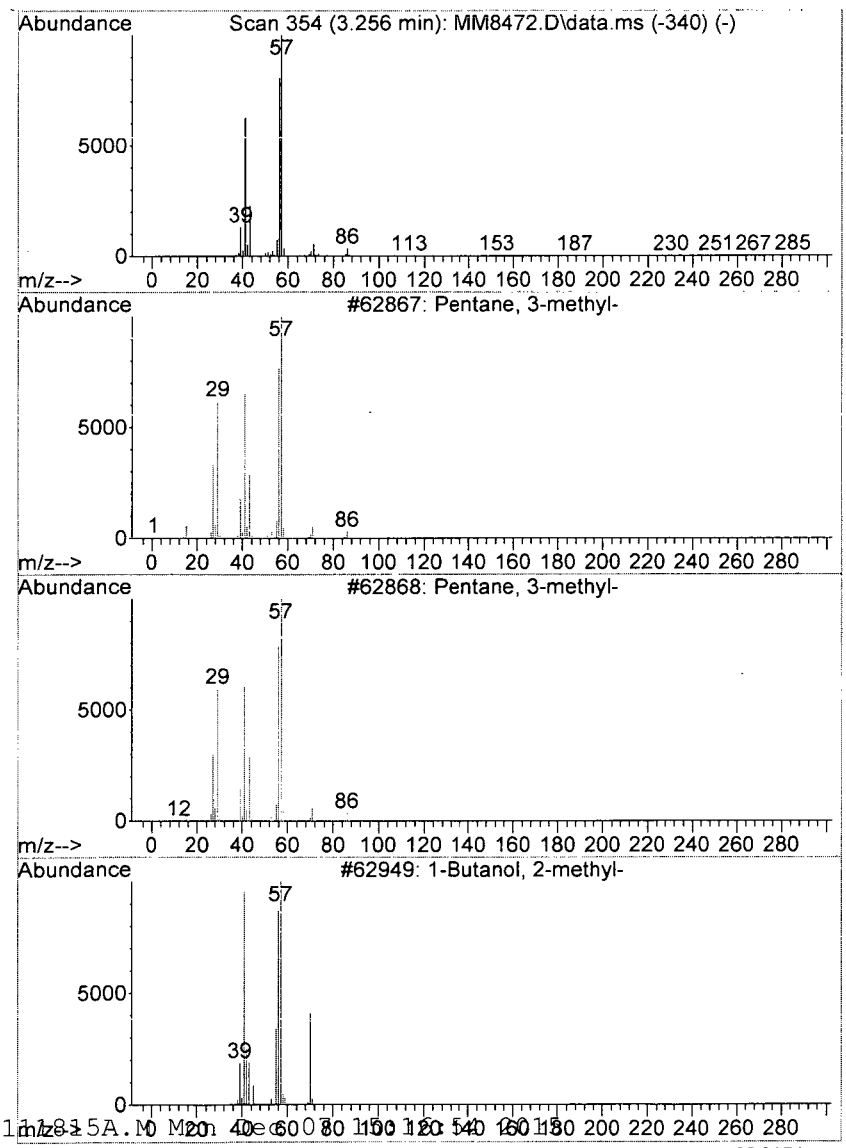
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

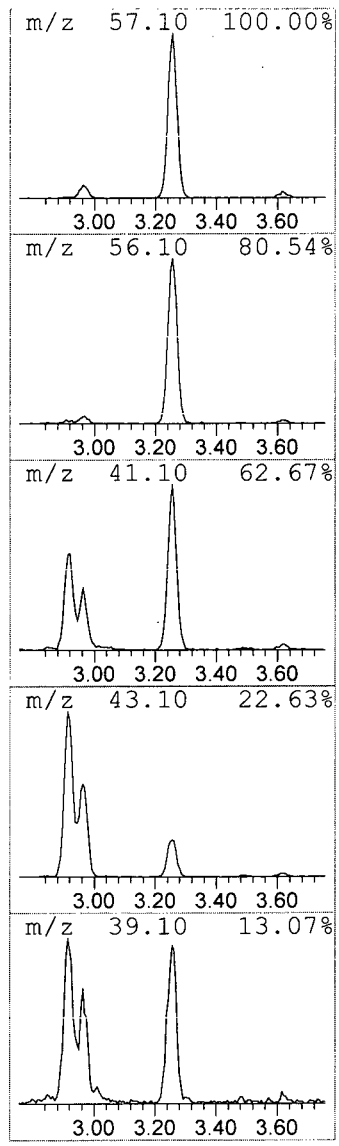
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  4  Pentane, 3-methyl-              Concentration Rank  4
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.256	17.09 ppb	816497	Pentafluorobenzene	5.743

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 3-methyl-	86	C6H14	000096-14-0	91
2	Pentane, 3-methyl-	86	C6H14	000096-14-0	91
3	1-Butanol, 2-methyl-	88	C5H12O	000137-32-6	64
4	Pentane, 3-methyl-	86	C6H14	000096-14-0	52
5	Butane, 1-chloro-	92	C4H9Cl	000109-69-3	45





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Operator  : K.Ruest
Sample    : R1510266-003|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  5  Pentane, 2,4-dimethyl-          Concentration Rank 16
```
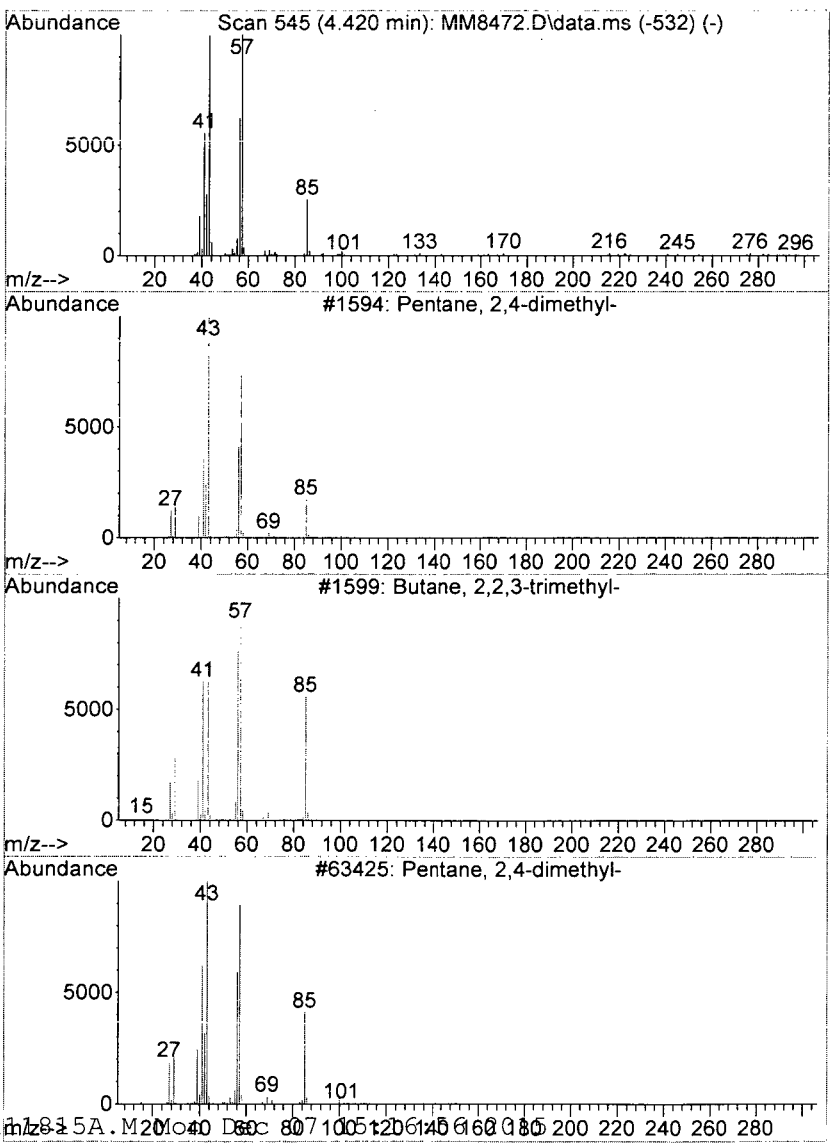
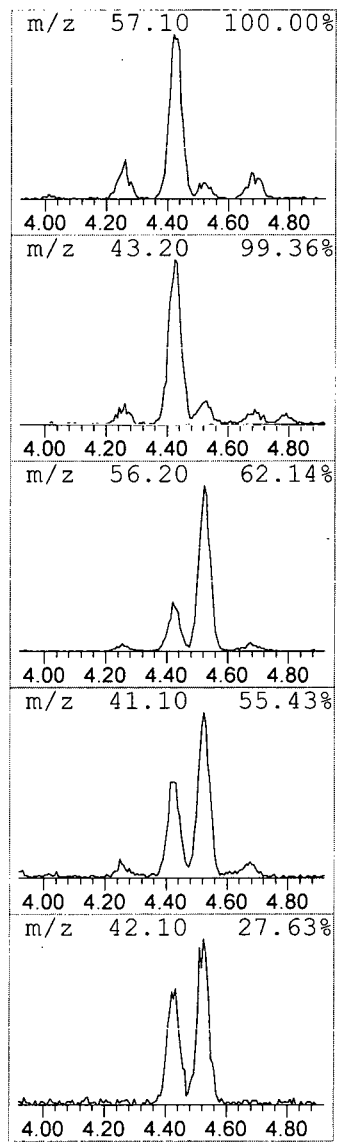

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.420	6.93 ppb	331020	Pentafluorobenzene	5.743

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2,4-dimethyl-	100	C7H16	000108-08-7	86
2	Butane, 2,2,3-trimethyl-	100	C7H16	000464-06-2	53
3	Pentane, 2,4-dimethyl-	100	C7H16	000108-08-7	49
4	Pentane, 2,4-dimethyl-	100	C7H16	000108-08-7	49
5	Butane, 2,2,3-trimethyl-	100	C7H16	000464-06-2	42





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Operator  : K.Ruest
Sample    : R1510266-003|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

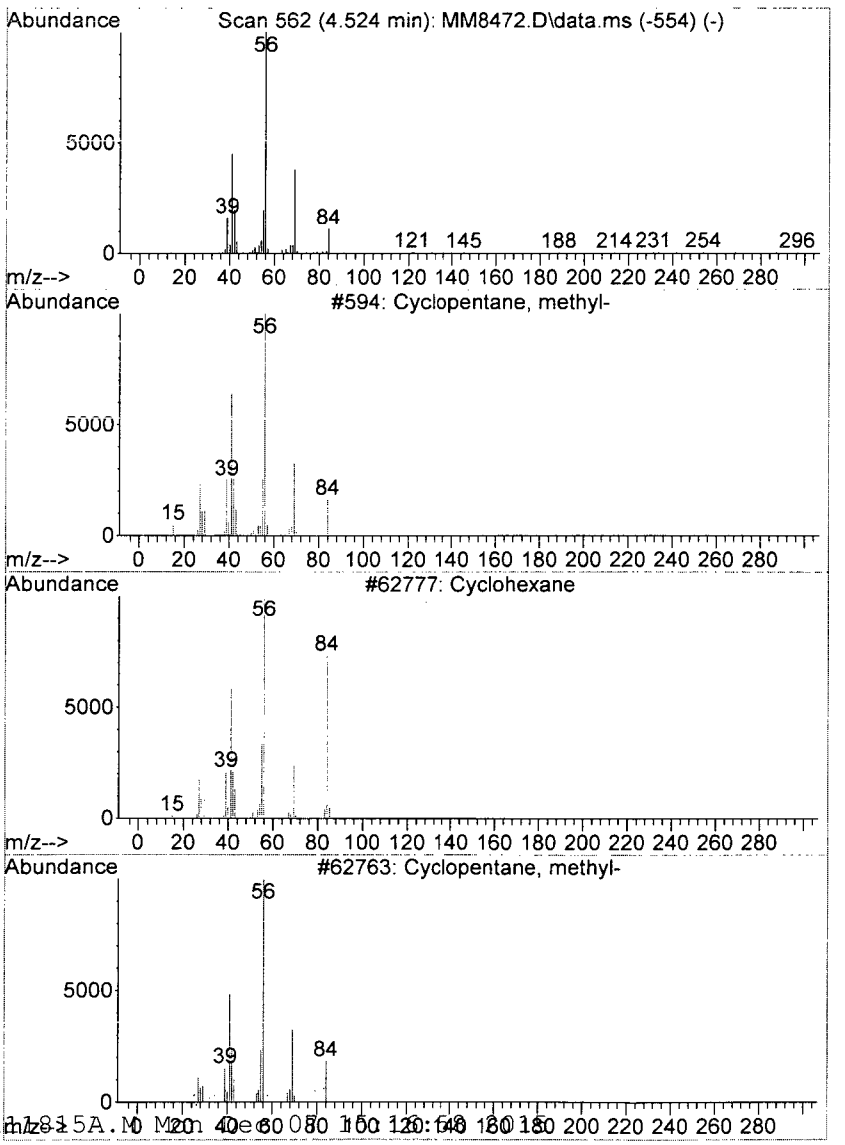
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

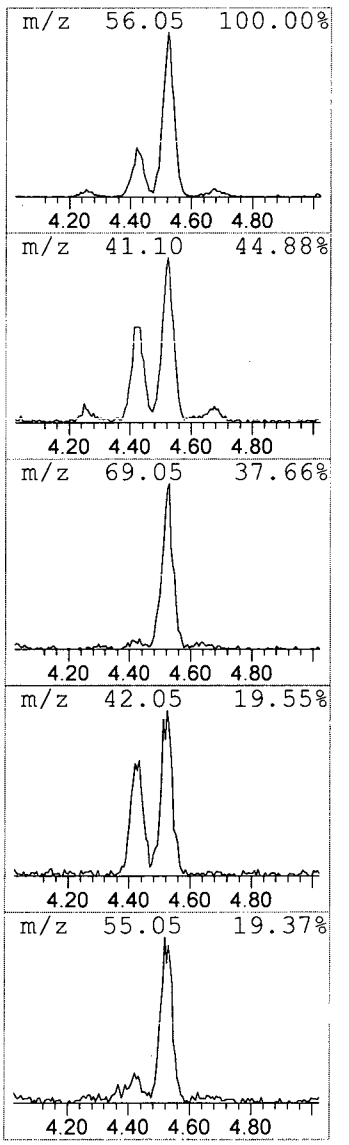
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  6  Cyclopentane, methyl-          Concentration Rank 10
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.524	8.69 ppb	415184	Pentafluorobenzene	5.743

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, methyl-	84	C6H12	000096-37-7	87
2	Cyclohexane	84	C6H12	000110-82-7	78
3	Cyclopentane, methyl-	84	C6H12	000096-37-7	72
4	1H-Tetrazole, 5-methyl-	84	C2H4N4	004076-36-2	64
5	Cyclohexane	84	C6H12	000110-82-7	64





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Operator  : K.Ruest
Sample    : R1510266-003|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

*********************************************************************
Peak Number  7  Pentane, 2,3-dimethyl-          Concentration Rank  3

  R.T.     EstConc          Area       Relative to ISTD          R.T.
---------------------------------------------------------------------
  5.804   17.20 ppb        821862   Pentafluorobenzene           5.743

 Hit# of  5    Tentative ID              MW  MolForm        CAS#        Qual
---------------------------------------------------------------------
 1 Pentane, 2,3-dimethyl-                100 C7H16          000565-59-3 91
 2 Pentane, 2,3-dimethyl-                100 C7H16          000565-59-3 87
 3 Pentane, 2,3-dimethyl-                100 C7H16          000565-59-3 72
 4 Pentane, 2,3-dimethyl-                100 C7H16          000565-59-3 72
 5 Pentane, 2,3-dimethyl-                100 C7H16          000565-59-3 72
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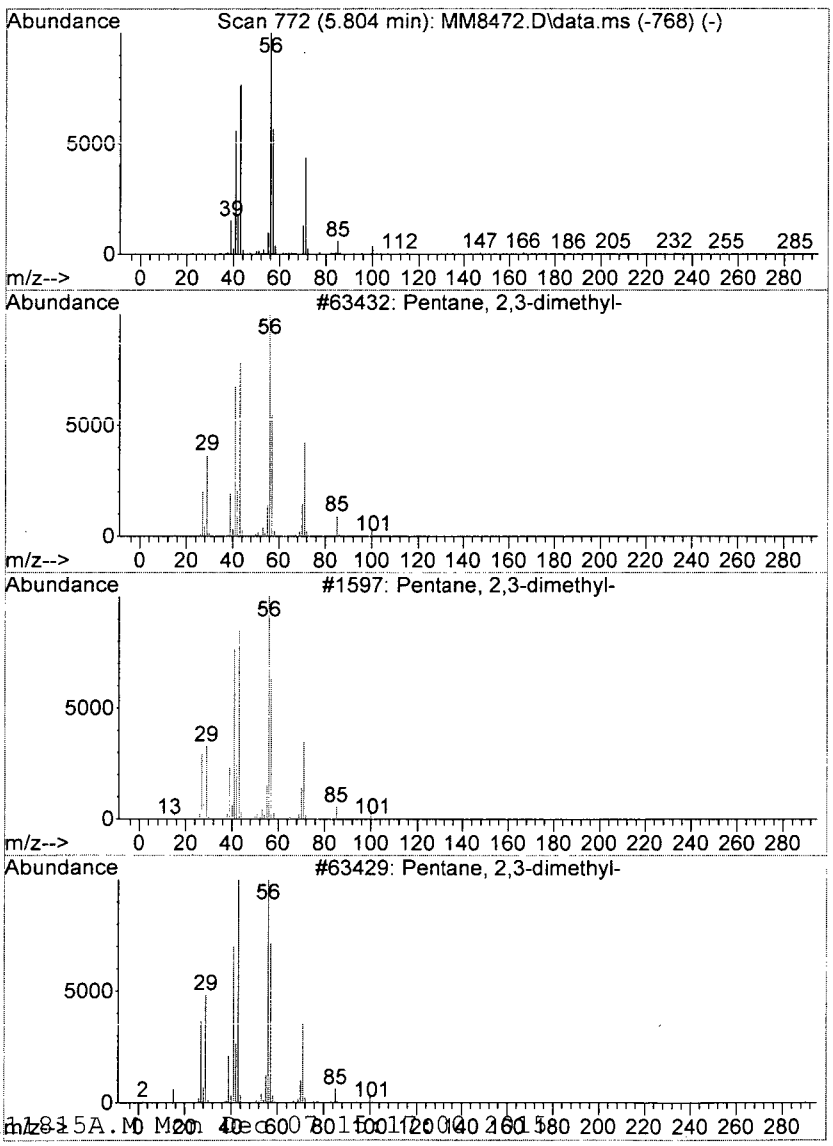

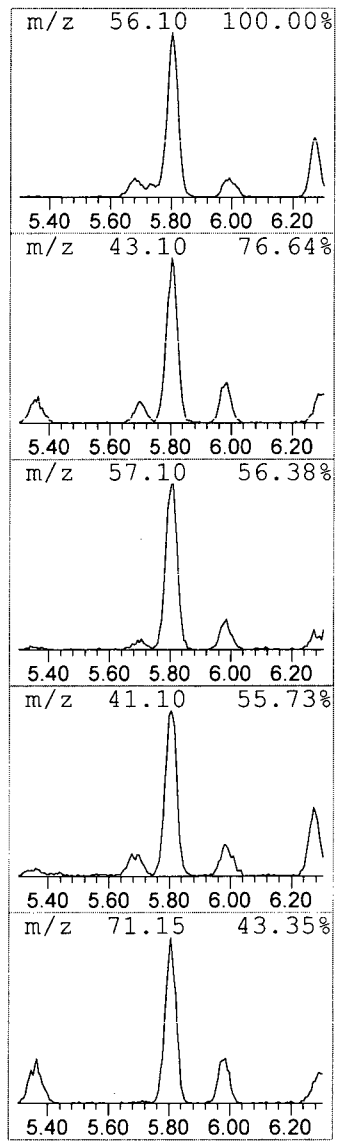

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Operator  : K.Ruest
Sample    : R1510266-003|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  8  Cyclopentane, 1,3-dimethyl-...  Concentration Rank 14
```
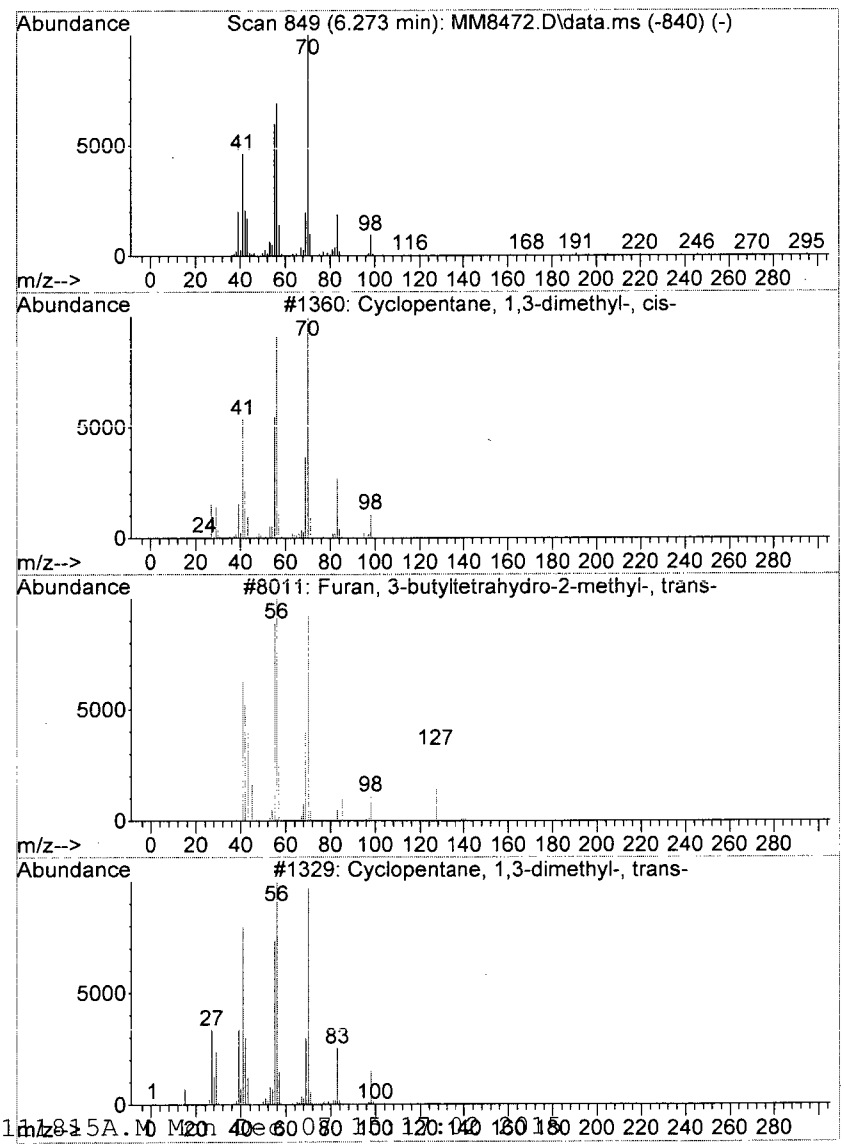
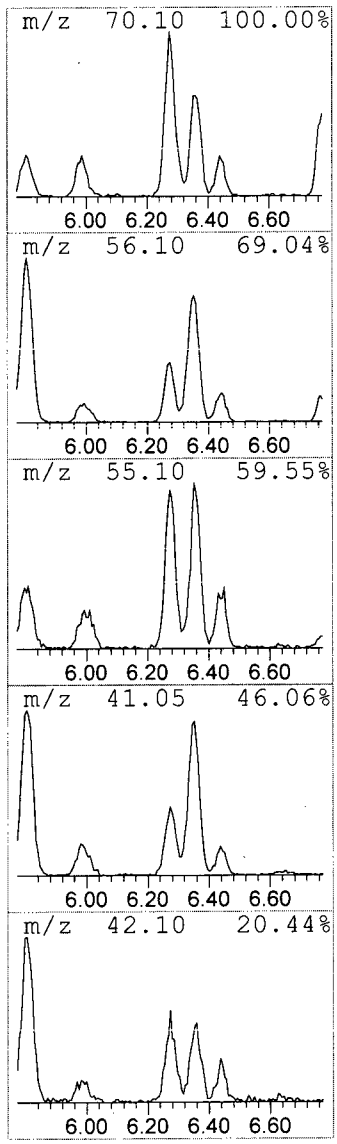

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.273	7.79 ppb	446880	1,4-Difluorobenzene	6.767

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, 1,3-dimethyl-, cis-	98	C7H14	002532-58-3	86
2	Furan, 3-butyltetrahydro-2-methy...	142	C9H18O	036712-20-6	72
3	Cyclopentane, 1,3-dimethyl-, trans-	98	C7H14	001759-58-6	70
4	Cyclopentane, 1,3-dimethyl-, cis-	98	C7H14	002532-58-3	70
5	Cyclopentane, 1,2,3-trimethyl-, ...	112	C8H16	002613-69-6	59





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Data File : MM8472.D
Acq On    :  2 Dec 2015    4:01 pm
Operator  : K.Ruest
Sample    : R1510266-003|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  9  1-Hexene, 5-methyl-            Concentration Rank  5
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.353	15.94 ppb	914244	1,4-Difluorobenzene	6.767

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Hexene, 5-methyl-	98	C7H14	003524-73-0	64
2	1-Hexene, 5-methyl-	98	C7H14	003524-73-0	64
3	Pentane, 3-ethyl-2,2-dimethyl-	128	C9H20	016747-32-3	45
4	Hexane, 2,2-dimethyl-	114	C8H18	000590-73-8	45
5	Oxetane, 2,3,4-trimethyl-, (2.al...	100	C6H12O	032347-12-9	43

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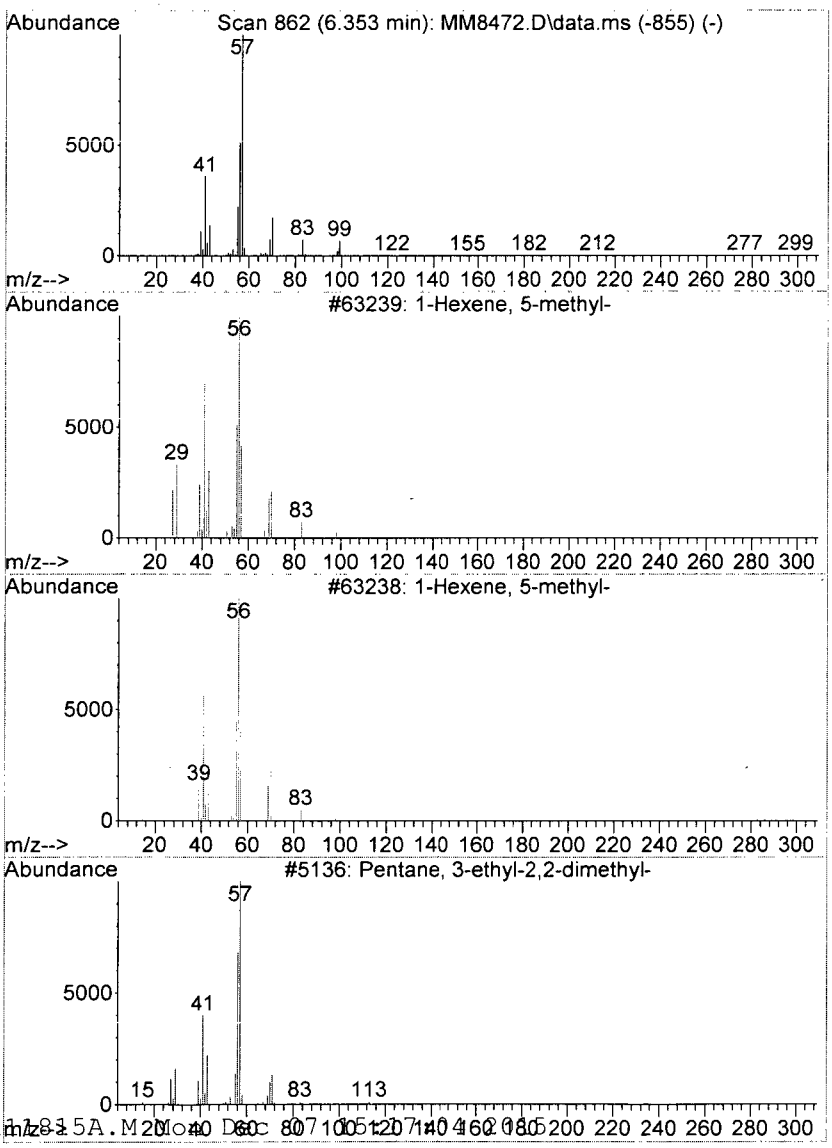

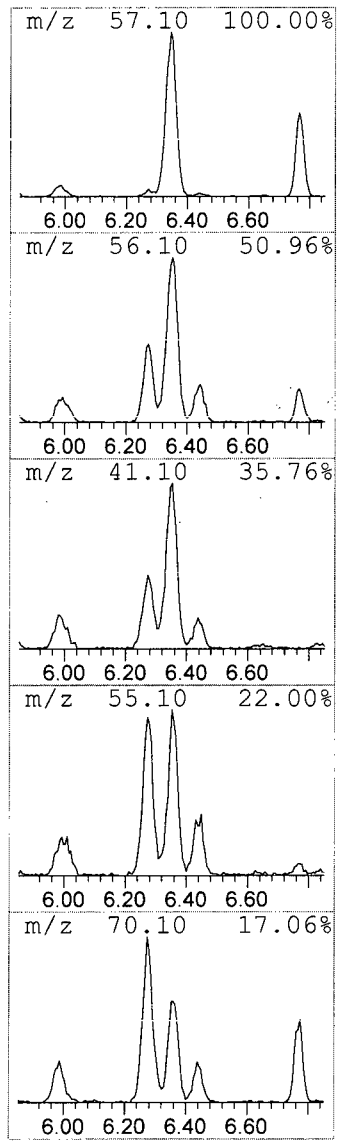

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Operator  : K.Ruest
Sample    : R1510266-003|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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****

Peak Number 10 Cycloheptane Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.304	7.89 ppb	452298	1,4-Difluorobenzene	6.767

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cycloheptane	98	C7H14	000291-64-5	53
2	4,4-Dimethyl-2-imidazoline	98	C5H10N2	002305-59-1	46
3	Cyclopentane, 1,3-dimethyl-, cis-	98	C7H14	002532-58-3	43
4	2-Pentene, 4,4-dimethyl-, (E)-	98	C7H14	000690-08-4	43
5	Cyclobutanone, 3-ethyl-	98	C6H10O	056335-73-0	43

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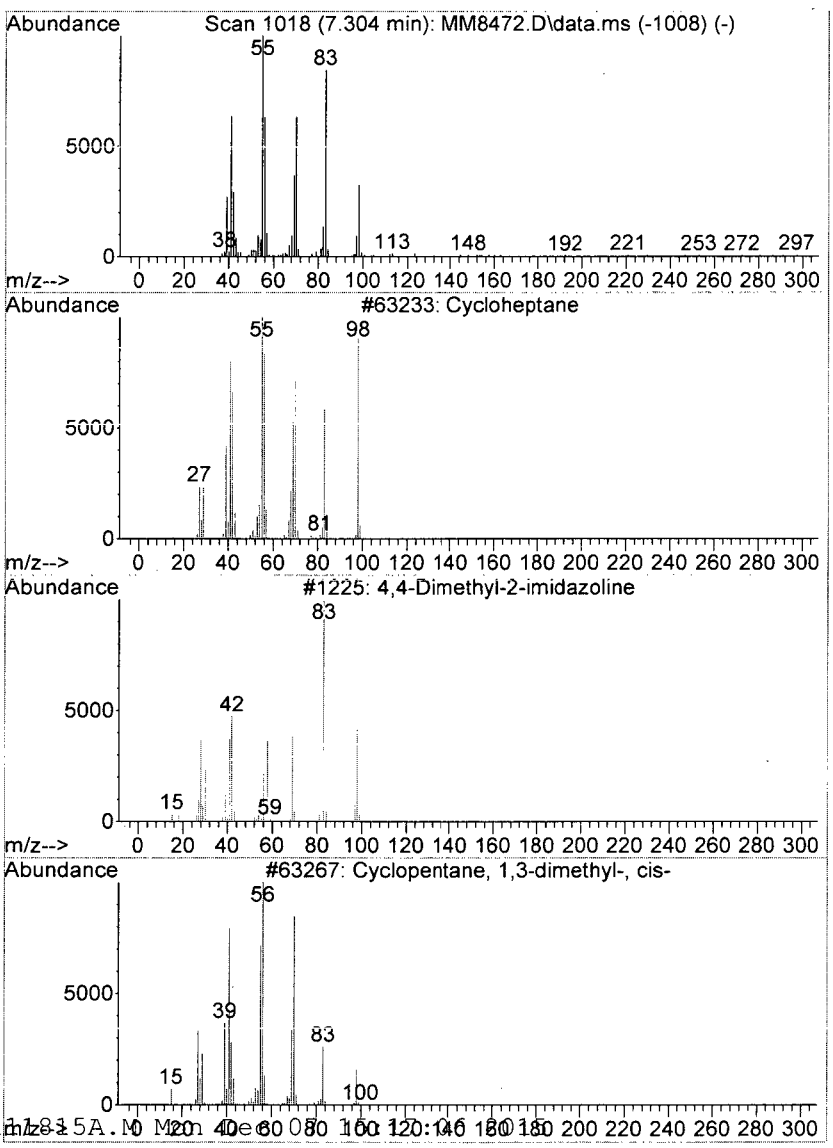

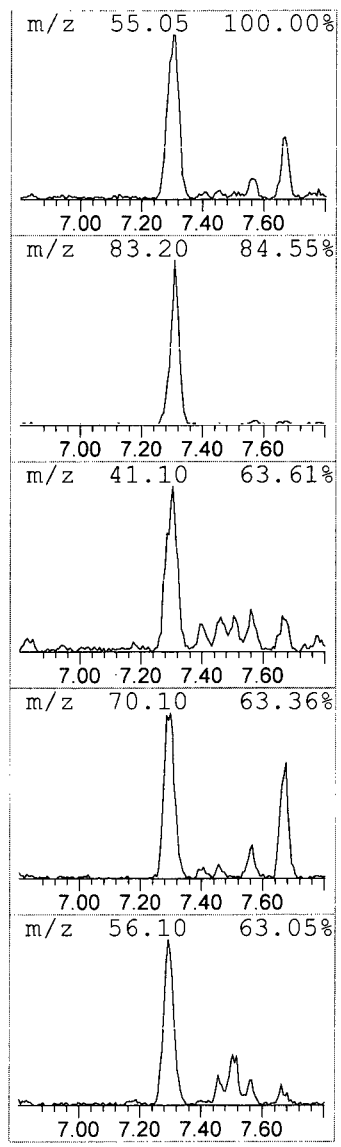

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Operator  : K.Ruest
Sample    : R1510266-003|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 11  Pentane, 2,3,4-trimethyl-       Concentration Rank 17
```
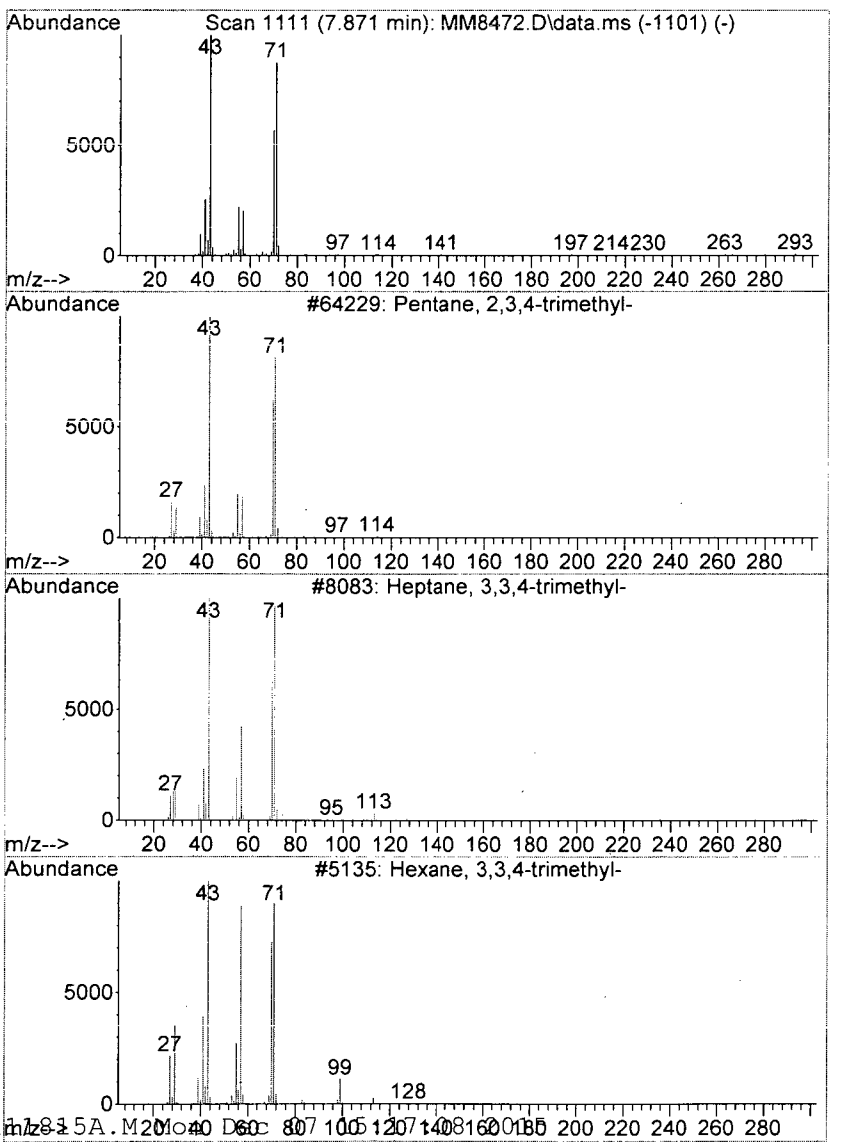
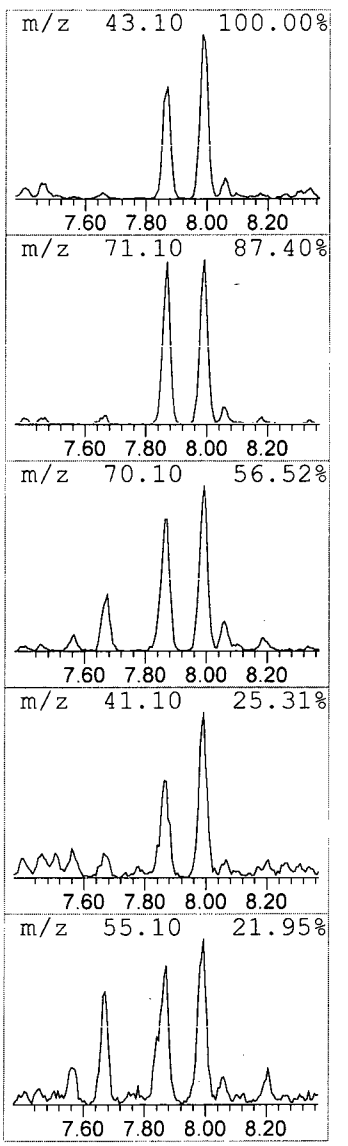

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.871	6.87 ppb	393797	1,4-Difluorobenzene	6.767

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2,3,4-trimethyl-	114	C8H18	000565-75-3	90
2	Heptane, 3,3,4-trimethyl-	142	C10H22	020278-87-9	78
3	Hexane, 3,3,4-trimethyl-	128	C9H20	016747-31-2	78
4	Pentane, 3-ethyl-	100	C7H16	000617-78-7	78
5	Pentane, 2,3,4-trimethyl-	114	C8H18	000565-75-3	72





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Operator  : K.Ruest
Sample    : R1510266-003|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

*********************************************************************
Peak Number 12  Pentane, 2,3,3-trimethyl-       Concentration Rank  7

  R.T.     EstConc          Area       Relative to ISTD          R.T.
---------------------------------------------------------------------
  7.992   10.47 ppb        600612   1,4-Difluorobenzene          6.767

 Hit# of  5    Tentative ID              MW  MolForm        CAS#        Qual
---------------------------------------------------------------------
 1 Pentane, 2,3,3-trimethyl-             114 C8H18          000560-21-4 90
 2 Hexane, 3-methyl-                     100 C7H16          000589-34-4 64
 3 Pentane, 2,3,4-trimethyl-             114 C8H18          000565-75-3 59
 4 Hexane, 3,3-dimethyl-                 114 C8H18          000563-16-6 59
 5 Hexane, 3-methyl-                     100 C7H16          000589-34-4 53
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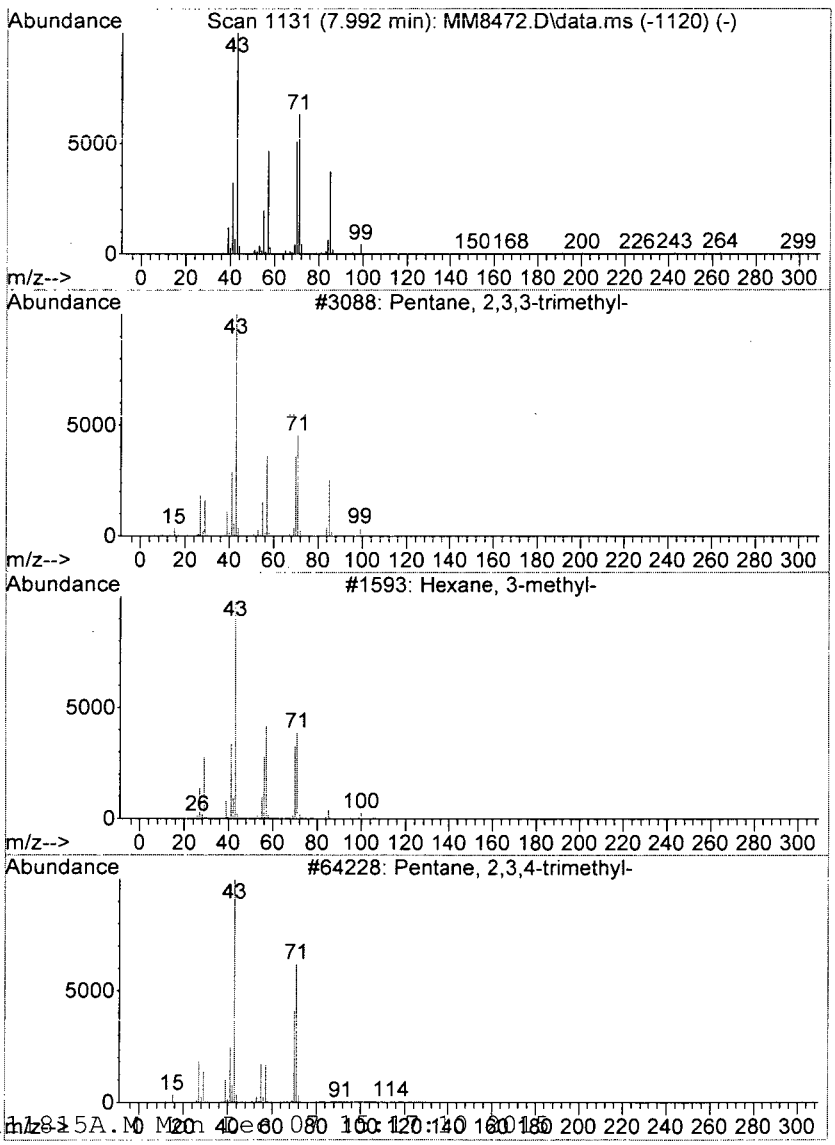

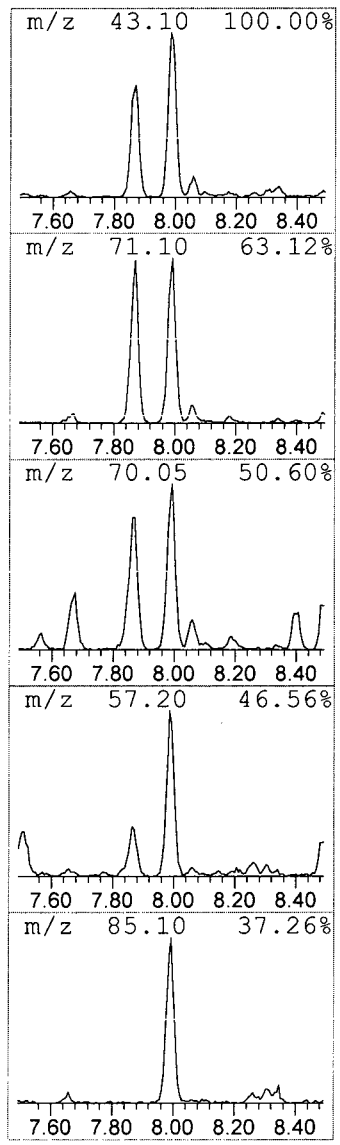

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Data File : MM8472.D
Acq On    :  2 Dec 2015    4:01 pm
Operator  : K.Ruest
Sample    : R1510266-003|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

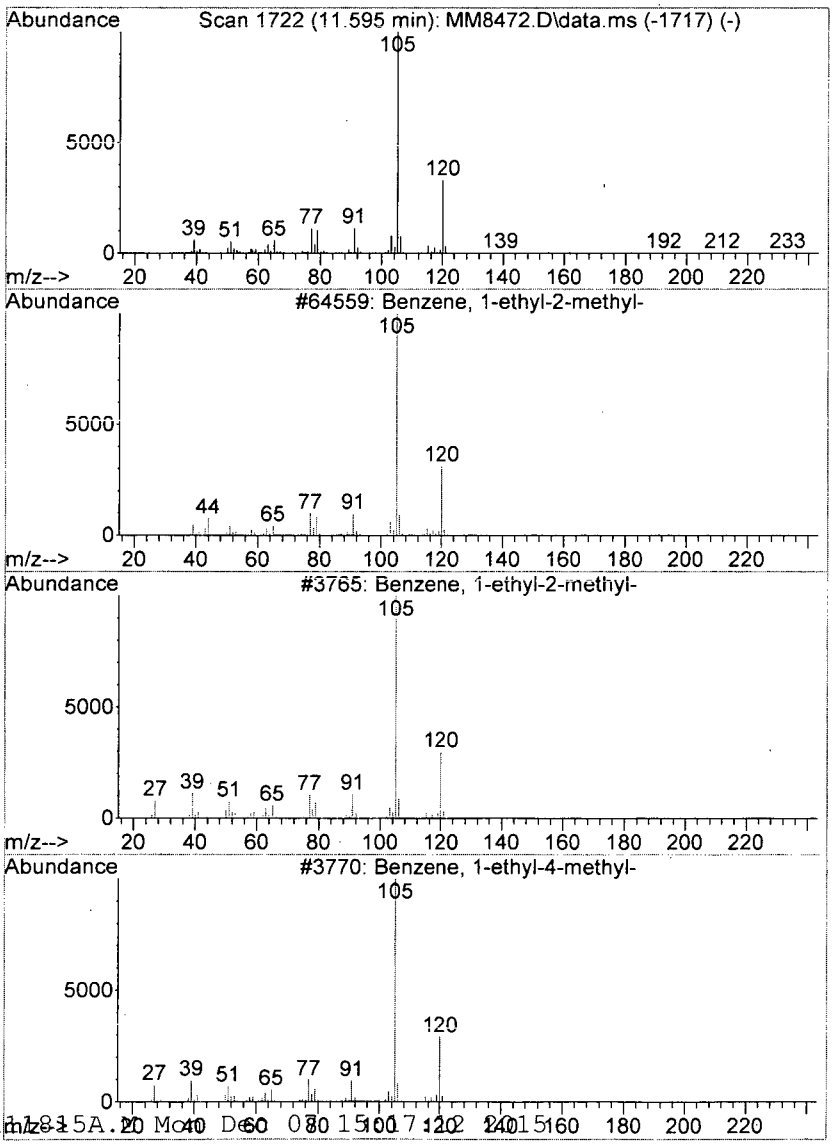
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

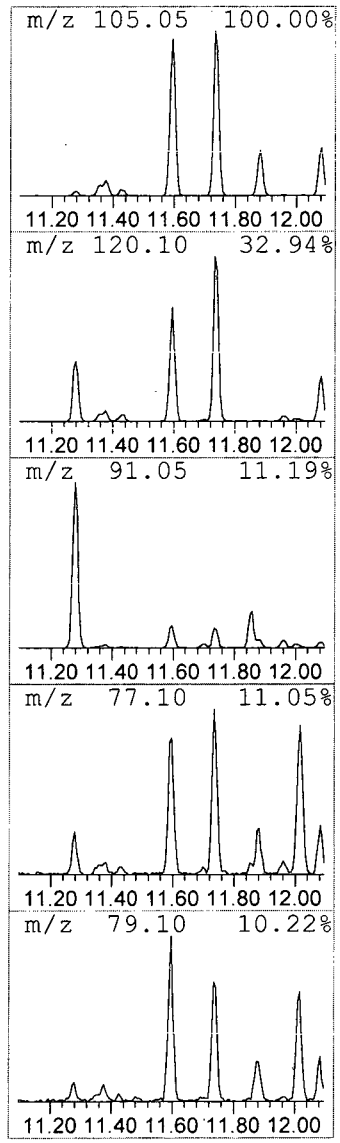
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 13  Benzene, 1-ethyl-2-methyl-      Concentration Rank  9
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.595	8.74 ppb	621259	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
3	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	94
4	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	91
5	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	91





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Data File : MM8472.D
Acq On    :  2 Dec 2015    4:01 pm
Operator  : K.Ruest
Sample    : R1510266-003|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 14  Benzene, 2-propenyl-            Concentration Rank  1
```
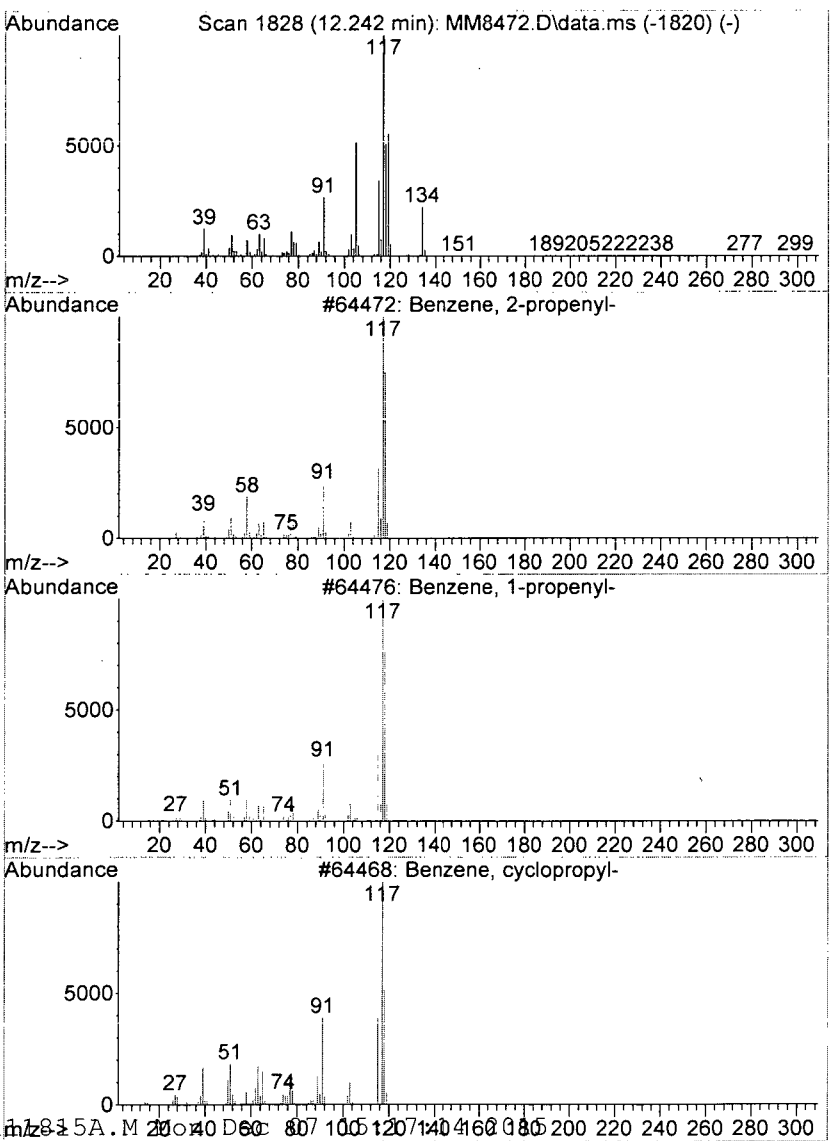
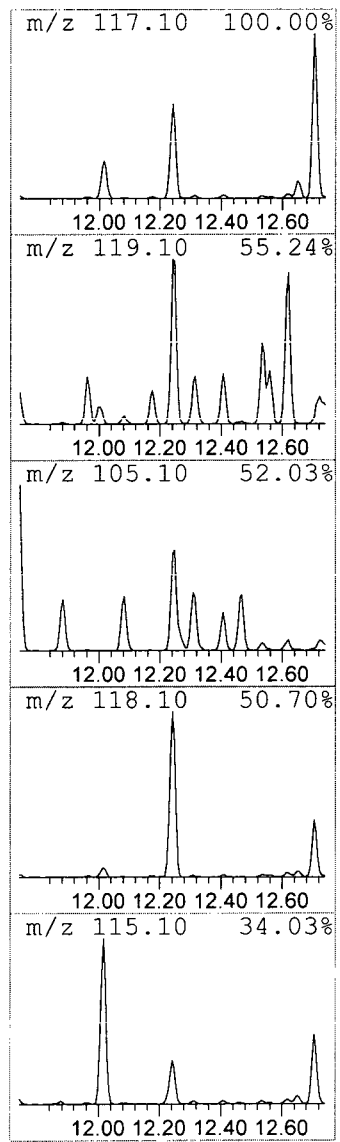

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.242	19.89 ppb	1413050	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-propenyl-	118	C9H10	000300-57-2	60
2	Benzene, 1-propenyl-	118	C9H10	000637-50-3	60
3	Benzene, cyclopropyl-	118	C9H10	000873-49-4	55
4	Indane	118	C9H10	000496-11-7	49
5	Benzene, 1-propenyl-, (E)-	118	C9H10	000873-66-5	42

unknown





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Data File : MM8472.D
Acq On : 2 Dec 2015 4:01 pm
Operator : K.Ruest
Sample : R1510266-003|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 13 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

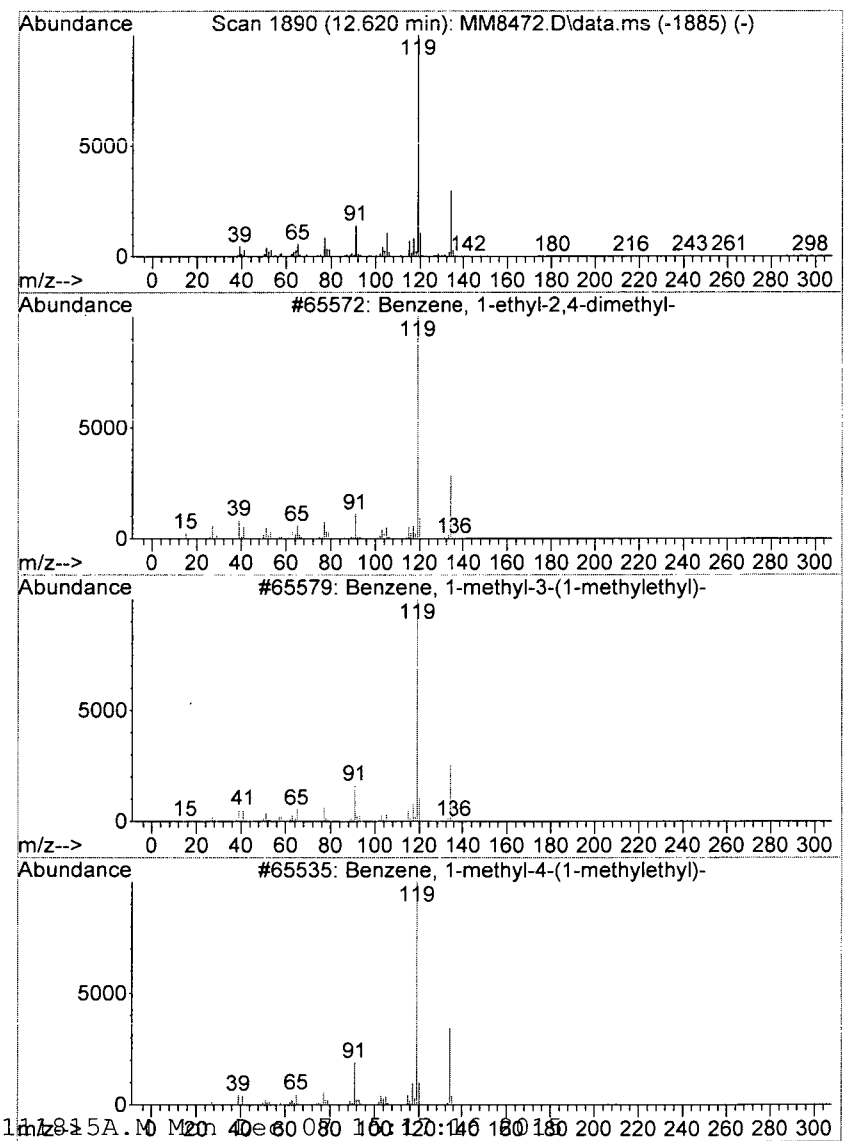
TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

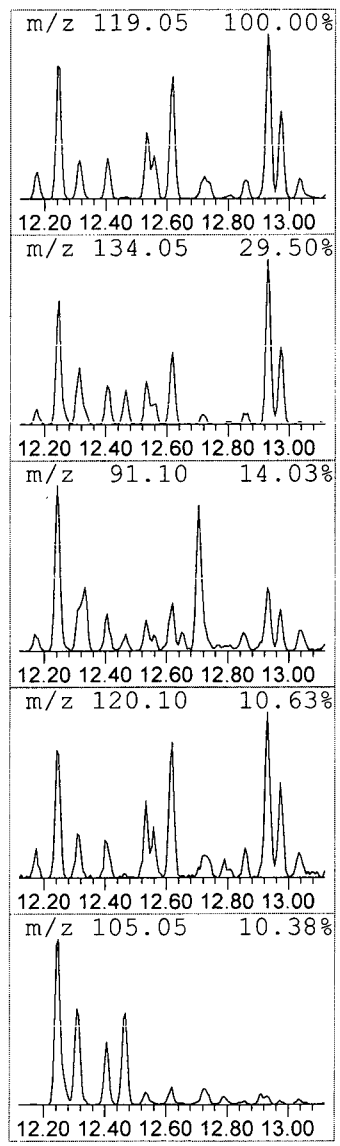
****

Peak Number 15 Benzene, 1-ethyl-2,4-dimethyl- Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.620	5.12 ppb	363790	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	94
2	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	94
3	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	93
4	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	92
5	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	91





Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8472.D
Acq On : 2 Dec 2015 4:01 pm
Operator : K.Ruest
Sample : R1510266-003|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 13 Sample Multiplier: 1

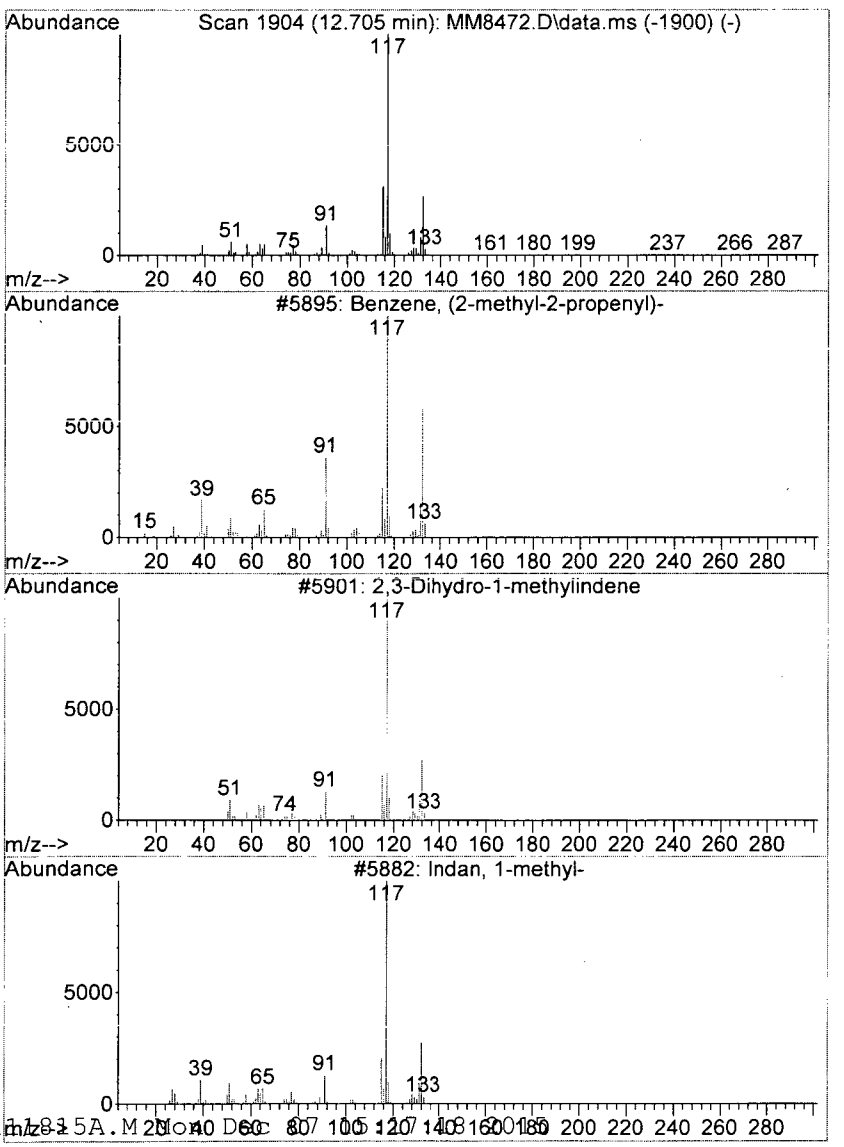
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

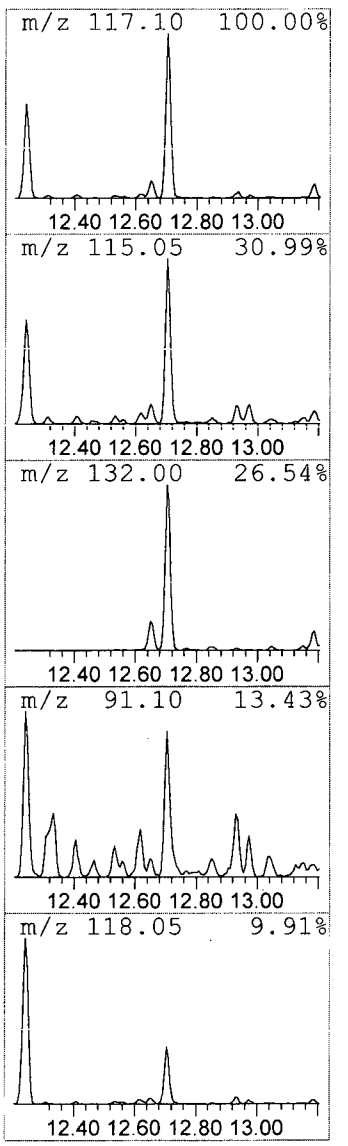
TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 16 Benzene, (2-methyl-2-propen... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.705	17.93 ppb	1274150	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, (2-methyl-2-propenyl)-	132	C10H12	003290-53-7	90
2	2,3-Dihydro-1-methylindene	132	C10H12	027133-93-3	90
3	Indan, 1-methyl-	132	C10H12	000767-58-8	90
4	Indan, 1-methyl-	132	C10H12	000767-58-8	86
5	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	83





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Data File : MM8472.D
Acq On    :  2 Dec 2015    4:01 pm
Operator  : K.Ruest
Sample    : R1510266-003|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

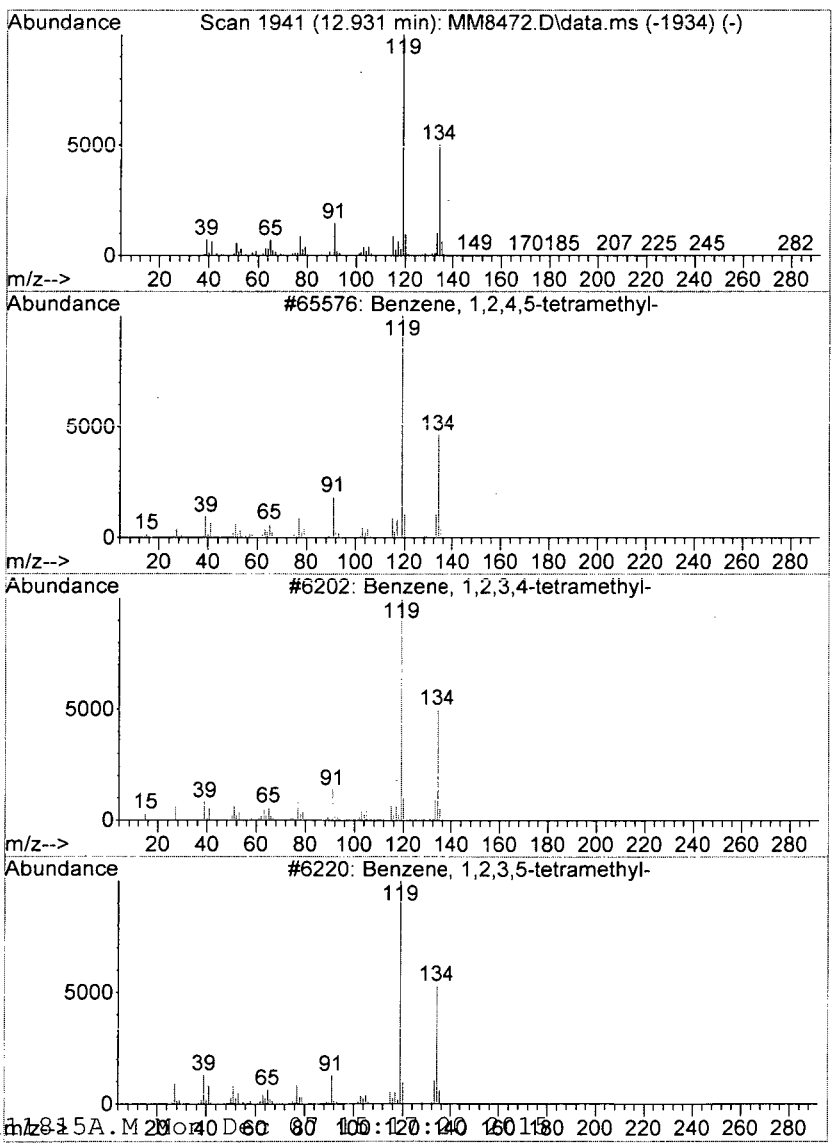
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

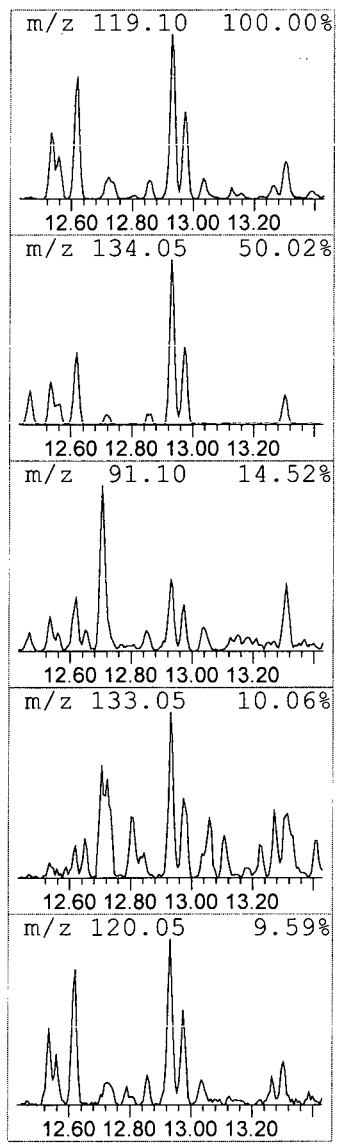
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 17  Benzene, 1,2,4,5-tetramethyl-   Concentration Rank 11
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.931	8.40 ppb	596505	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	97
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
3	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	96
4	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	95
5	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	95





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Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8472.D
Acq On    :  2 Dec 2015    4:01 pm
Operator  : K.Ruest
Sample    : R1510266-003|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 18  1H-Indene, 2,3-dihydro-4-me...  Concentration Rank 12
```
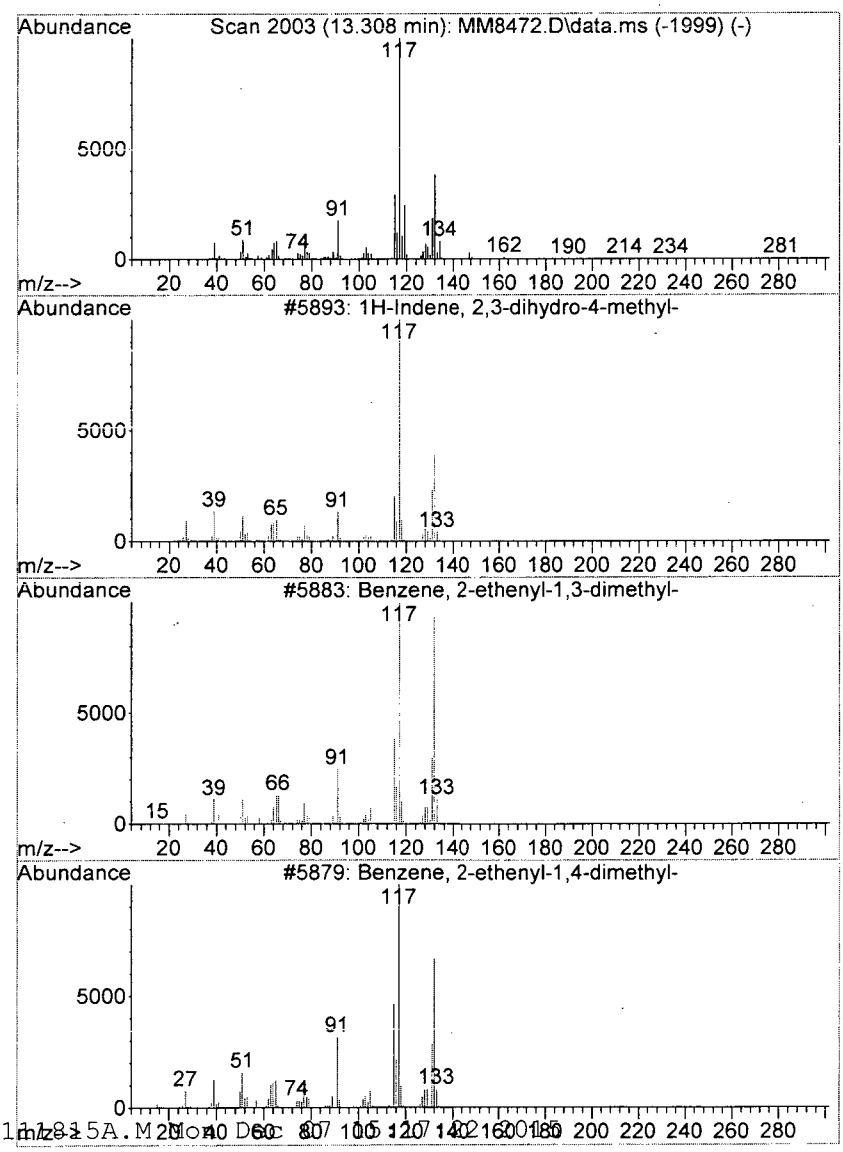
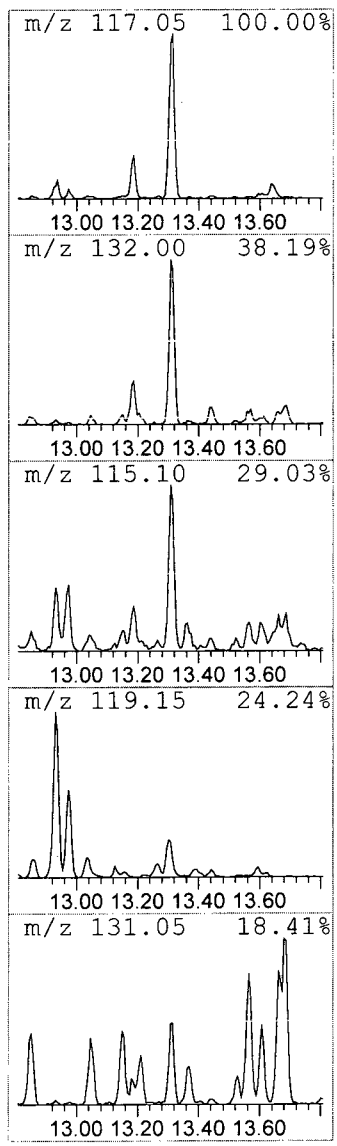

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.309	8.02 ppb	569946	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	94
2	Benzene, 2-ethenyl-1,3-dimethyl-	132	C10H12	002039-90-9	91
3	Benzene, 2-ethenyl-1,4-dimethyl-	132	C10H12	002039-89-6	83
4	Benzene, (2-methyl-2-propenyl)-	132	C10H12	003290-53-7	83
5	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	81





Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1505
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-53-GW-699RW05-10	**Units:**	µg/L
Lab Code:	R1510266-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	13	2.5	0.55	2.5	NA	12/2/15 18:04		474506	
1,1,1-Trichloroethane (TCA)	ND	U	13	2.5	0.90	2.5	NA	12/2/15 18:04		474506	
1,1,2,2-Tetrachloroethane	ND	U	13	2.5	0.63	2.5	NA	12/2/15 18:04		474506	
1,1,2-Trichloroethane	ND	U	13	2.5	0.86	2.5	NA	12/2/15 18:04		474506	
1,1-Dichloroethane (1,1-DCA)	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
1,1-Dichloroethene (1,1-DCE)	ND	U	13	2.5	1.5	2.5	NA	12/2/15 18:04		474506	
1,1-Dichloropropene	ND	U	13	2.5	0.73	2.5	NA	12/2/15 18:04		474506	
1,2,3-Trichlorobenzene	ND	U	13	2.5	2.1	2.5	NA	12/2/15 18:04		474506	
1,2,3-Trichloropropane	ND	U	13	2.5	1.8	2.5	NA	12/2/15 18:04		474506	
1,2,4-Trichlorobenzene	ND	U	13	2.5	0.58	2.5	NA	12/2/15 18:04		474506	
1,2,4-Trimethylbenzene	**290**		13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	13	2.5	1.9	2.5	NA	12/2/15 18:04		474506	
1,2-Dibromoethane	ND	U	13	2.5	0.60	2.5	NA	12/2/15 18:04		474506	
1,2-Dichlorobenzene	ND	U	13	2.5	0.53	2.5	NA	12/2/15 18:04		474506	
1,2-Dichloroethane	ND	U	13	2.5	0.90	2.5	NA	12/2/15 18:04		474506	
1,2-Dichloropropane	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
1,3,5-Trimethylbenzene	**56**		13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
1,3-Dichlorobenzene	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
1,3-Dichloropropane	ND	U	13	2.5	0.68	2.5	NA	12/2/15 18:04		474506	
1,4-Dichlorobenzene	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
2,2-Dichloropropane	ND	U	13	2.5	0.68	2.5	NA	12/2/15 18:04		474506	
2-Butanone (MEK)	**3.5**	J	13	2.5	2.1	2.5	NA	12/2/15 18:04		474506	
2-Chlorotoluene	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
2-Hexanone	ND	U	13	13	4.2	2.5	NA	12/2/15 18:04		474506	
tert-Butyl Alcohol	ND	U	250	50	27	2.5	NA	12/2/15 18:04		474506	
4-Chlorotoluene	ND	U	13	2.5	0.60	2.5	NA	12/2/15 18:04		474506	
p-Isopropyltoluene	**2.4**	J	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
4-Methyl-2-pentanone	ND	U	13	2.5	1.7	2.5	NA	12/2/15 18:04		474506	
Acetone	**5.7**	J	13	13	3.1	2.5	NA	12/2/15 18:04		474506	
Benzene	**2.5**	J	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
Bromobenzene	ND	U	13	2.5	0.71	2.5	NA	12/2/15 18:04		474506	
Bromochloromethane	ND	U	13	2.5	0.80	2.5	NA	12/2/15 18:04		474506	
Bromodichloromethane	ND	U	13	2.5	0.80	2.5	NA	12/2/15 18:04		474506	
Bromoform	ND	U	13	2.5	1.1	2.5	NA	12/2/15 18:04		474506	
Bromomethane	ND	U	13	2.5	0.73	2.5	NA	12/2/15 18:04		474506	
Carbon Tetrachloride	ND	U	13	2.5	1.2	2.5	NA	12/2/15 18:04		474506	
Chlorobenzene	ND	U	13	2.5	0.73	2.5	NA	12/2/15 18:04		474506	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1505
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-53-GW-699RW05-10	**Units:**	µg/L
Lab Code:	R1510266-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	13	2.5	0.60	2.5	NA	12/2/15 18:04		474506	
Chloroform	ND	U	13	2.5	0.63	2.5	NA	12/2/15 18:04		474506	
Chloromethane	ND	U	13	2.5	0.53	2.5	NA	12/2/15 18:04		474506	
Dibromochloromethane	ND	U	13	2.5	0.78	2.5	NA	12/2/15 18:04		474506	
Dichlorodifluoromethane (CFC 12)	ND	U	13	2.5	1.2	2.5	NA	12/2/15 18:04		474506	
Methylene Chloride	ND	U	13	2.5	1.5	2.5	NA	12/2/15 18:04		474506	
Ethylbenzene	**190**		13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
Hexachlorobutadiene	ND	U	13	2.5	1.6	2.5	NA	12/2/15 18:04		474506	
Isopropylbenzene (Cumene)	**15**		13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
Methyl tert-Butyl Ether	ND	U	13	2.5	0.73	2.5	NA	12/2/15 18:04		474506	
Naphthalene	**120**		13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
Styrene	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
Tetrachloroethene (PCE)	ND	U	13	2.5	0.75	2.5	NA	12/2/15 18:04		474506	
Toluene	**7.5**	J	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
Trichloroethene (TCE)	ND	U	13	2.5	0.55	2.5	NA	12/2/15 18:04		474506	
Trichlorofluoromethane (CFC 11)	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
Vinyl Chloride	ND	U	13	2.5	0.80	2.5	NA	12/2/15 18:04		474506	
cis-1,2-Dichloroethene	ND	U	13	2.5	0.75	2.5	NA	12/2/15 18:04		474506	
cis-1,3-Dichloropropene	ND	U	13	2.5	0.60	2.5	NA	12/2/15 18:04		474506	
m,p-Xylenes	**370**		25	5.0	0.83	2.5	NA	12/2/15 18:04		474506	
n-Butylbenzene	**2.8**	J	13	2.5	0.53	2.5	NA	12/2/15 18:04		474506	
n-Propylbenzene	**24**		13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
o-Xylene	**280**		13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
sec-Butylbenzene	**2.4**	J	13	2.5	0.68	2.5	NA	12/2/15 18:04		474506	
tert-Butylbenzene	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	
trans-1,2-Dichloroethene	ND	U	13	2.5	0.83	2.5	NA	12/2/15 18:04		474506	
trans-1,3-Dichloropropene	ND	U	13	2.5	0.50	2.5	NA	12/2/15 18:04		474506	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	116	75-120	12/2/15 18:04	
Dibromofluoromethane	111	85-115	12/2/15 18:04	
Toluene-d8	108	85-120	12/2/15 18:04	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Analyzed:	12/2/15 1804

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-699RW05-10	**Units:**	µg/L
Lab Code:	R1510266-004	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q
000078-78-4	Butane, 2-methyl-	1.83	**78.7**	JN
000109-66-0	Pentane	2.05	**31.0**	JN
000079-29-8	Butane, 2,3-dimethyl-	2.92	**28.9**	JN
000107-83-5	Pentane, 2-methyl-	2.96	**67.6**	JN
000096-14-0	Pentane, 3-methyl-	3.25	**63.0**	JN
000096-37-7	Cyclopentane, methyl-	4.52	**148.6**	JN
000110-82-7	Cyclohexane	5.68	**28.2**	JN
000565-59-3	Pentane, 2,3-dimethyl-	5.80	**19.9**	JN
	unknown	6.35	**19.8**	J
000108-87-2	Cyclohexane, methyl-	7.32	**32.7**	JN
000611-14-3	Benzene, 1-ethyl-2-methyl-	11.36	**128.4**	JN
000622-96-8	Benzene, 1-ethyl-4-methyl-	11.60	**135.5**	JN
000526-73-8	Benzene, 1,2,3-trimethyl-	12.08	**114.1**	JN
	unknown	12.24	**135.9**	J
001758-88-9	Benzene, 2-ethyl-1,4-dimethyl-	12.53	**19.7**	JN
000874-41-9	Benzene, 1-ethyl-2,4-dimethyl-	12.62	**36.6**	JN
027133-93-3	2,3-Dihydro-1-methylindene	12.71	**28.4**	JN
000527-53-7	Benzene, 1,2,3,5-tetramethyl-	12.93	**24.0**	JN
000488-23-3	Benzene, 1,2,3,4-tetramethyl-	12.97	**19.7**	JN
000824-22-6	1H-Indene, 2,3-dihydro-4-methyl-	13.31	**39.5**	JN

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8476.D
Acq On : 2 Dec 2015 6:04 pm
Operator : K.Ruest
Sample : R1510266-004|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 07 15:41:23 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

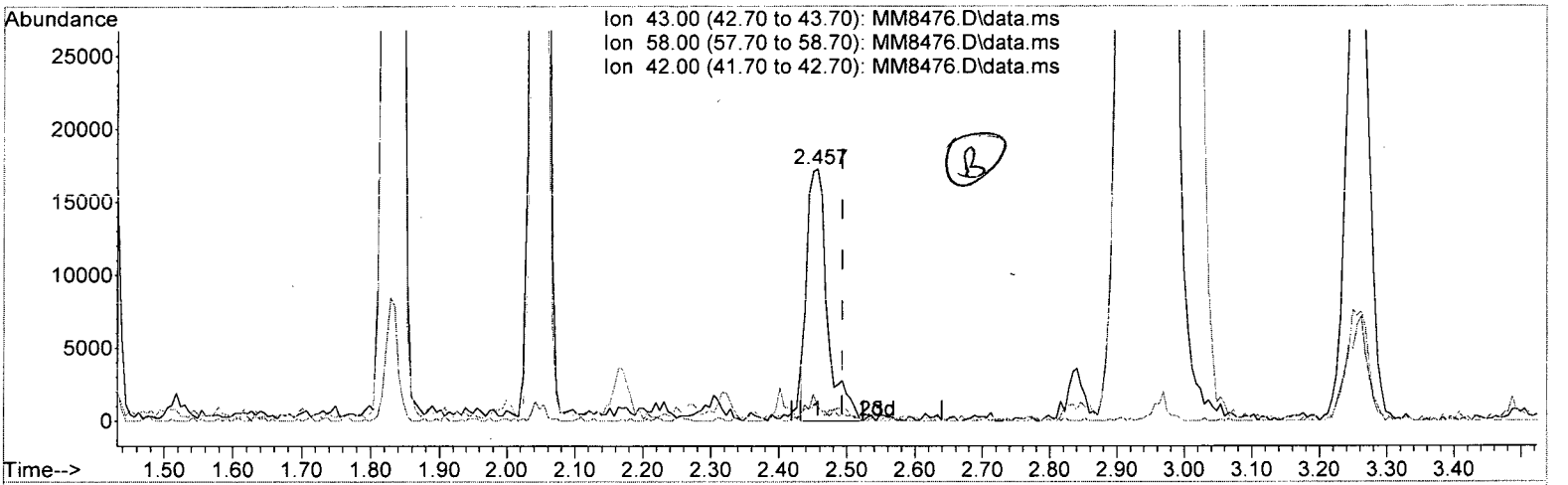
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	735054	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1204264	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1135478	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	572611	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	347356	55.48	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 110.96%				
48) surr1,1,2-dichloroetha...	6.102	65	385659	55.77	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 111.54%				
65) SURR3,Toluene-d8	8.529	98	1420336	53.90	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 107.80%				
70) SURR2,BFB	11.047	95	578845	58.19	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 116.38%				
Target Compounds							Qvalue
3) Chloromethane	1.347	50	2633	0.21	ppb		92
15) Acetone	2.493	43	3572m	2.28	ppb		
35) 2-Butanone	4.798	43	3035	1.41	ppb		85
49) Benzene	6.169	78	25954	0.98	ppb		85
66) Toluene	8.602	91	82689	3.01	ppb		94
82) Ethylbenzene	10.132	106	738599	77.63	ppb	#	90
83) (m+p)Xylene	10.248	106	1751247	149.12	ppb		93
84) o-Xylene	10.595	106	1351742	112.40	ppb		91
89) Isopropylbenzene	10.925	105	173058	5.81	ppb		93
95) n-Propylbenzene	11.278	91	326239	9.51	ppb		95
99) 1,3,5-Trimethylbenzene	11.431	105	504413	22.39	ppb		97
101) 1,2,4-Trimethylbenzene	11.742	105	2831478	117.10	ppb		91
103) sec-Butylbenzene	11.882	105	27219	0.97	ppb		98
104) p-Isopropyltoluene	12.004	119	20616	0.95	ppb		94
109) n-Butylbenzene	12.321	91	23090m	1.12	ppb		
117) Naphthalen	13.796	128	719151	46.82	ppb		99

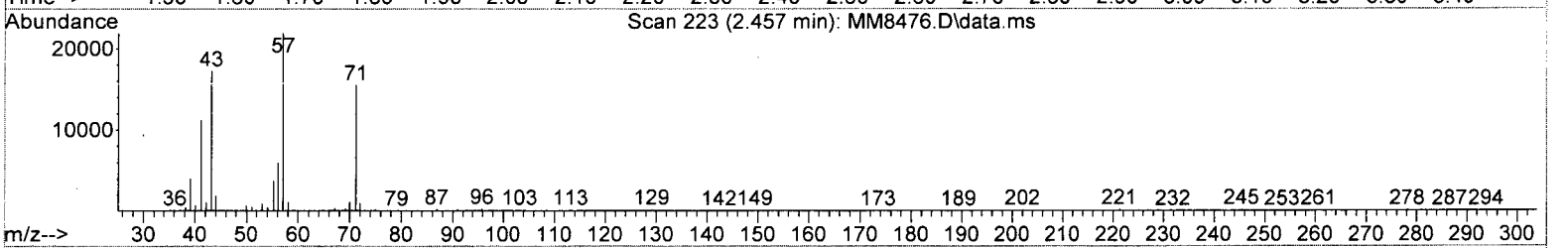
(#) = qualifier out of range (m) = manual integration (+) = signals summed

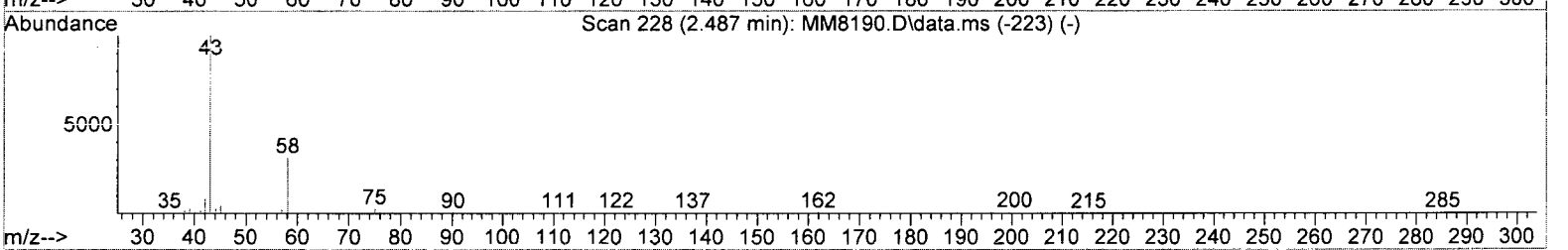
KR 12/7/15

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8476.D
Acq On : 2 Dec 2015 6:04 pm
Operator : K.Ruest
Sample : R1510266-004|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 02 18:20:10 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8476.D\data.ms

(15) Acetone (P)

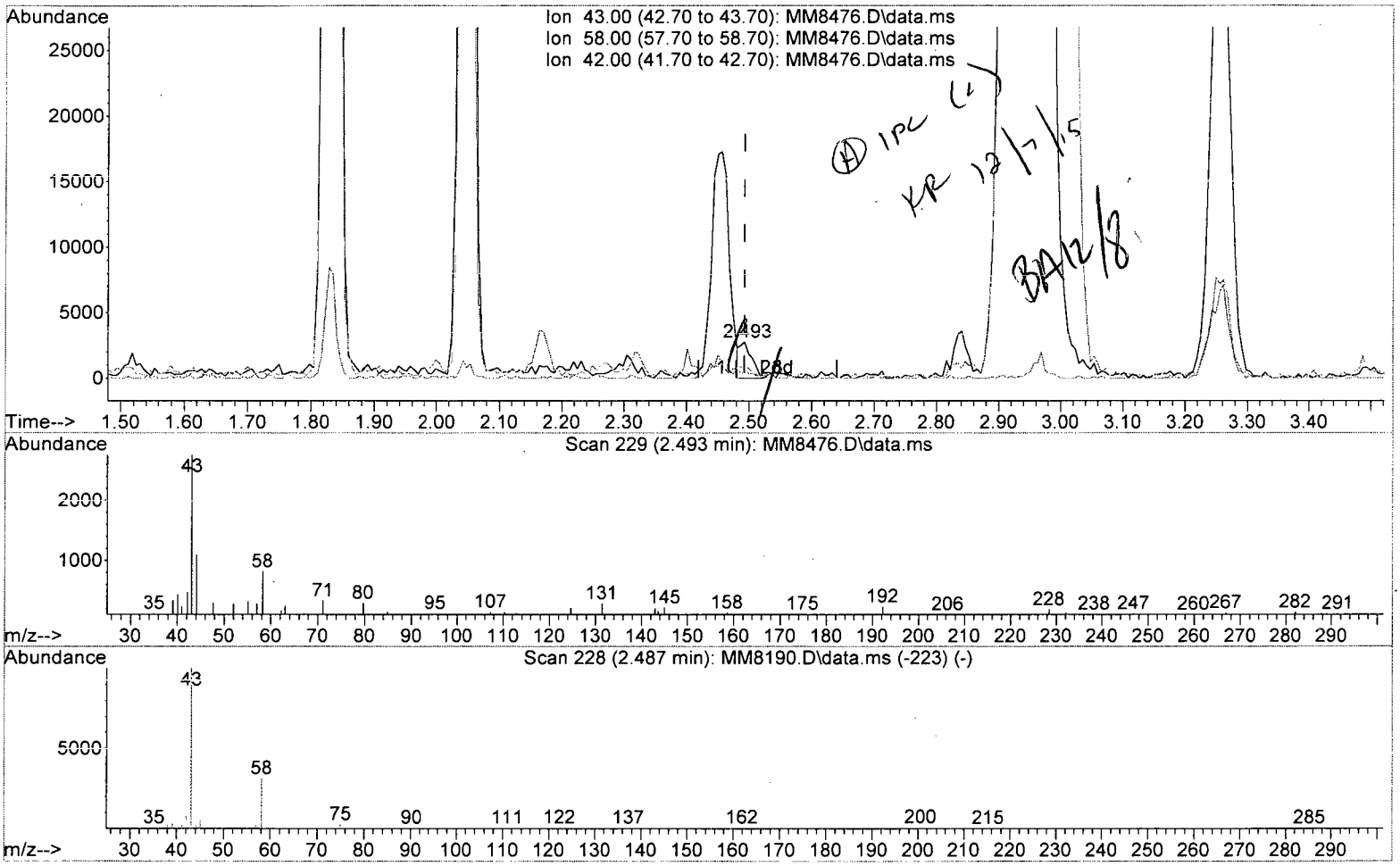
2.457min (-0.037) 22.88 ppb

response 35849

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	6.28#
42.00	8.50	6.31
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8476.D
Acq On : 2 Dec 2015 6:04 pm
Operator : K.Ruest
Sample : R1510266-004|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 02 18:20:10 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8476.D\data.ms

(15) Acetone (P)

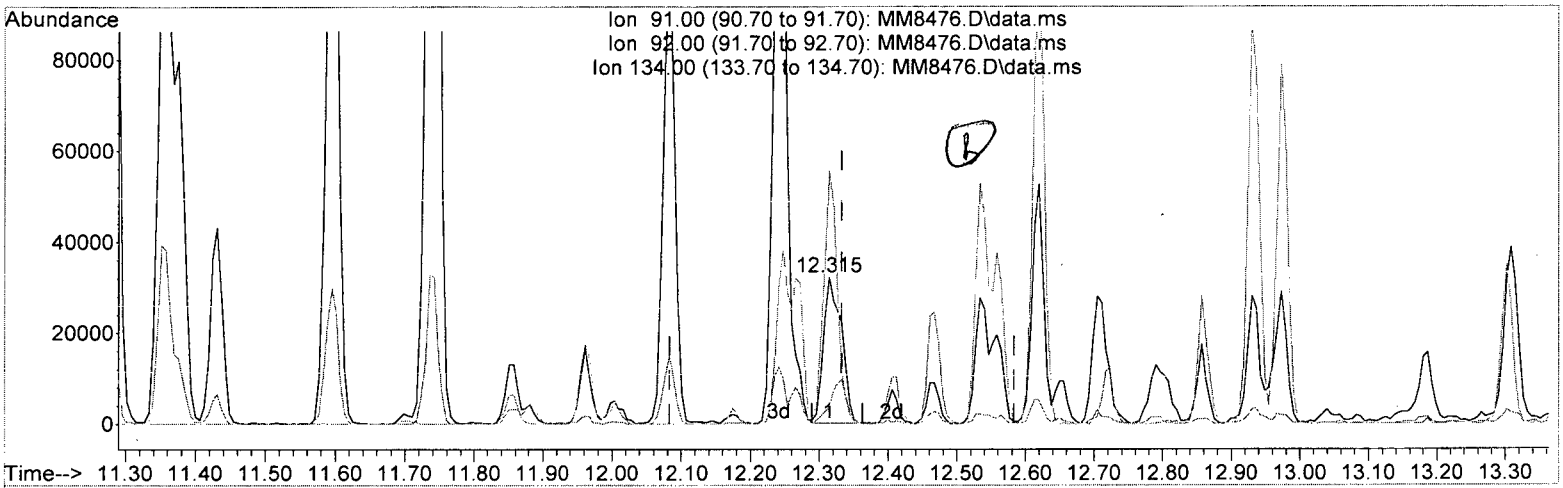
2.493min (-0.000) 2.28 ppb m

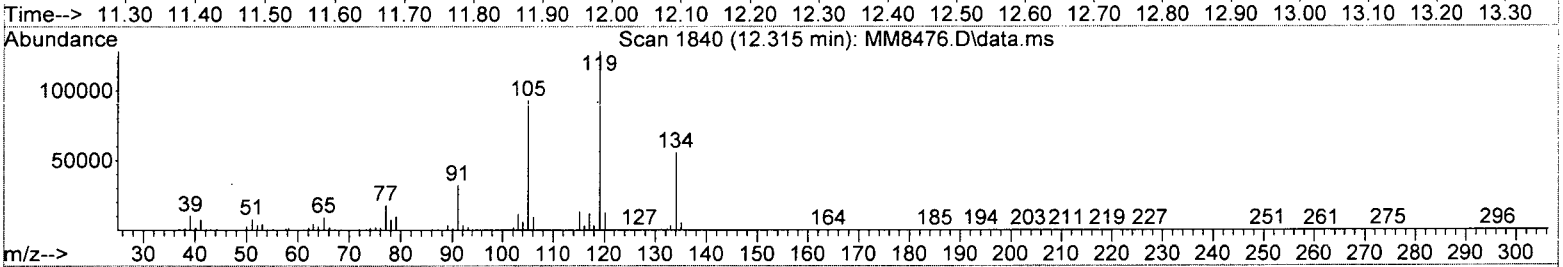
response 3572

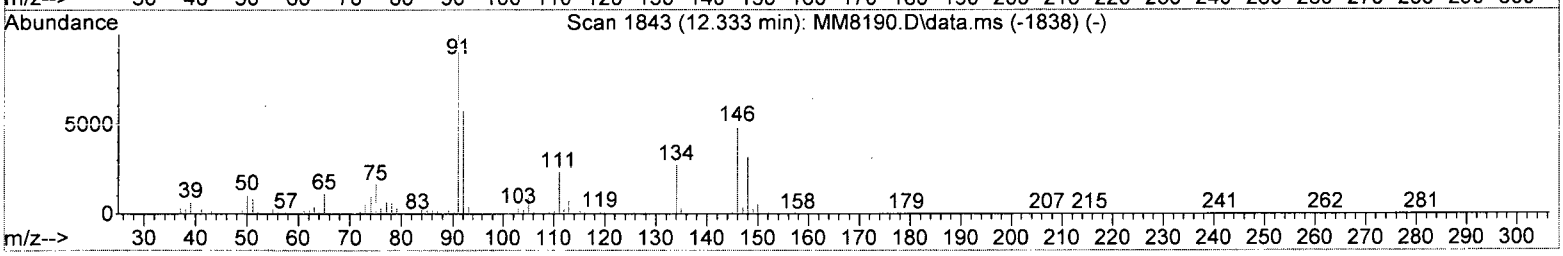
Ion	Exp%	Act%
43.00	100	100
58.00	30.90	29.51
42.00	8.50	16.86
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8476.D
Acq On : 2 Dec 2015 6:04 pm
Operator : K.Ruest
Sample : R1510266-004|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 02 18:20:10 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8476.D\data.ms

(109) n-Butylbenzene

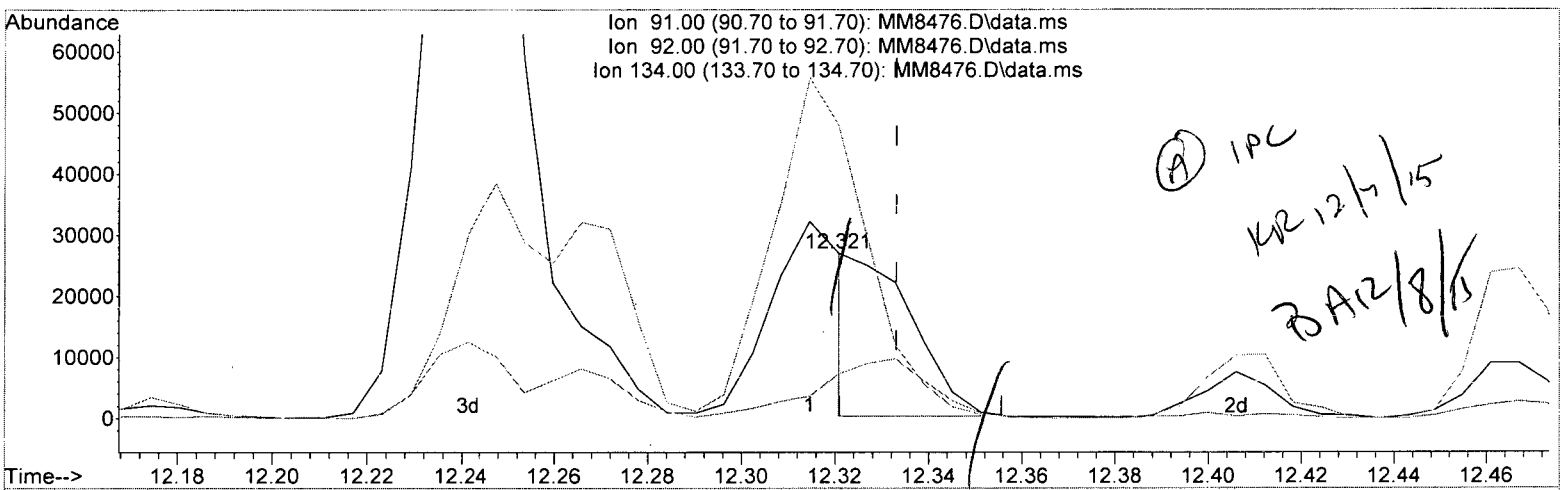
12.315min (-0.019) 2.82 ppb

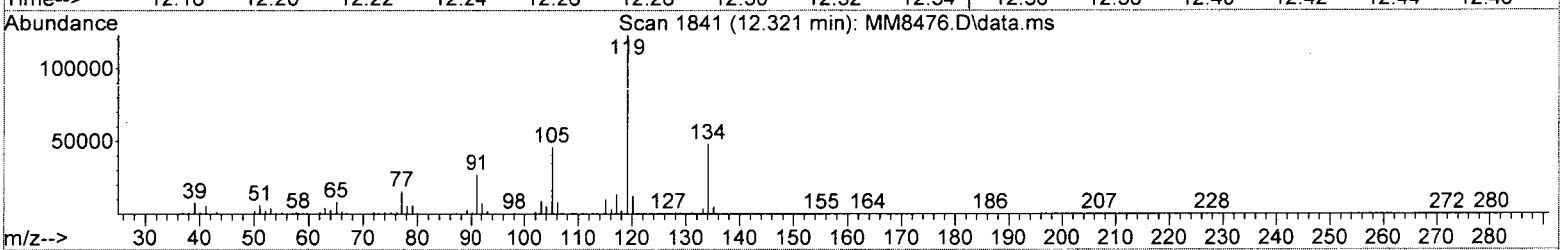
response 58014

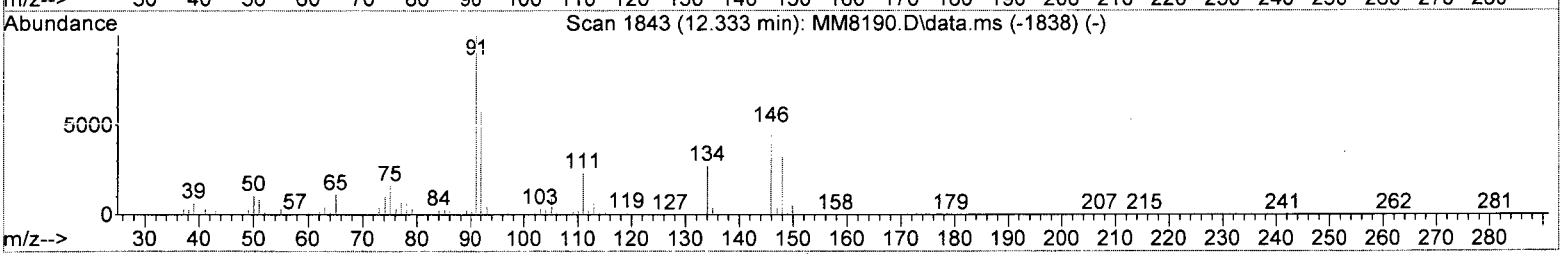
Ion	Exp%	Act%
91.00	100	100
92.00	57.00	11.17#
134.00	27.20	172.73#
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8476.D
Acq On : 2 Dec 2015 6:04 pm
Operator : K.Ruest
Sample : R1510266-004|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 02 18:20:10 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8476.D\data.ms

(109) n-Butylbenzene

12.321min (-0.012) 1.12 ppb m

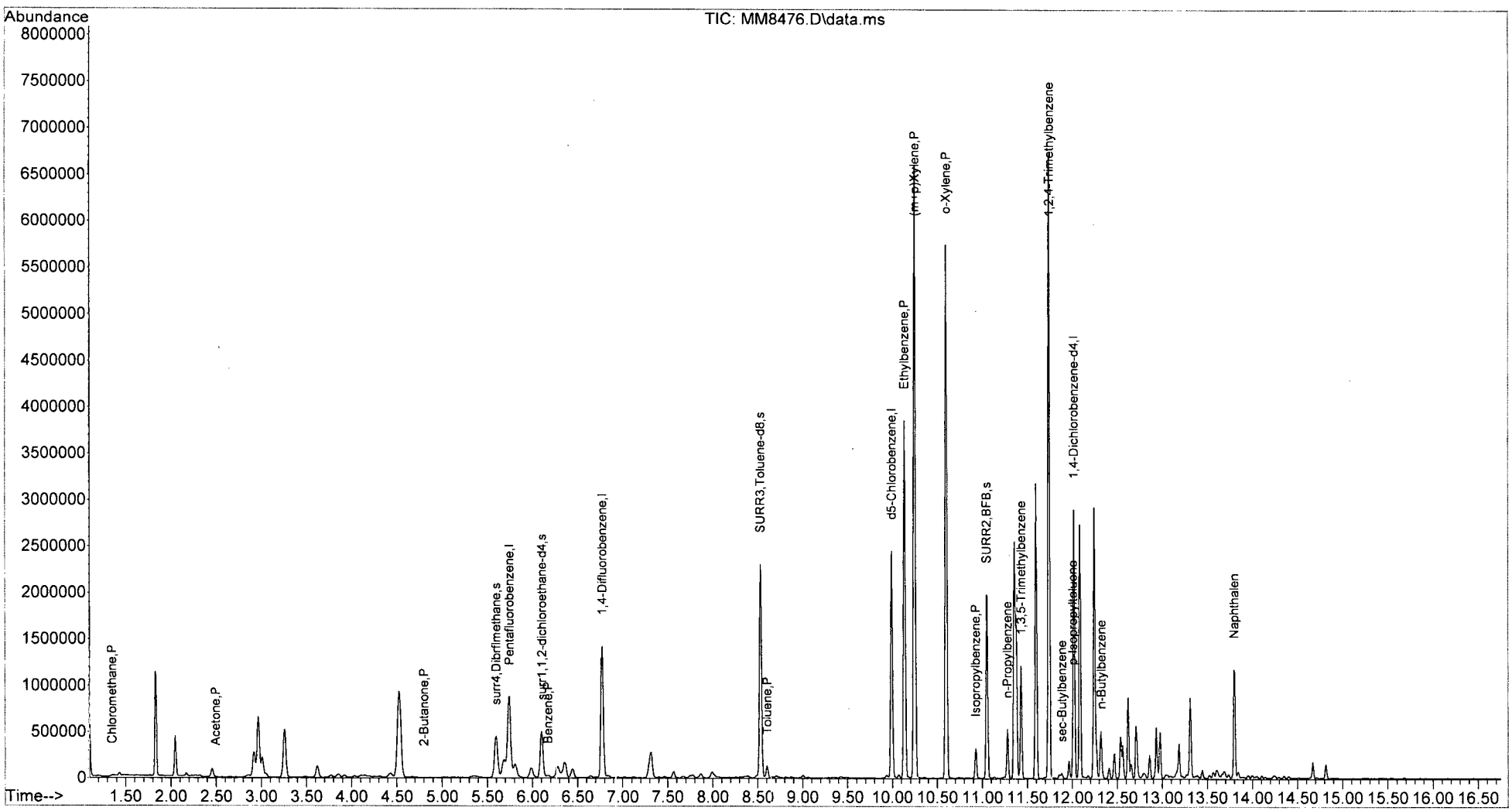
response 23090

Ion	Exp%	Act%
91.00	100	100
92.00	57.00	26.67#
134.00	27.20	177.50#
0.00	0.00	0.00

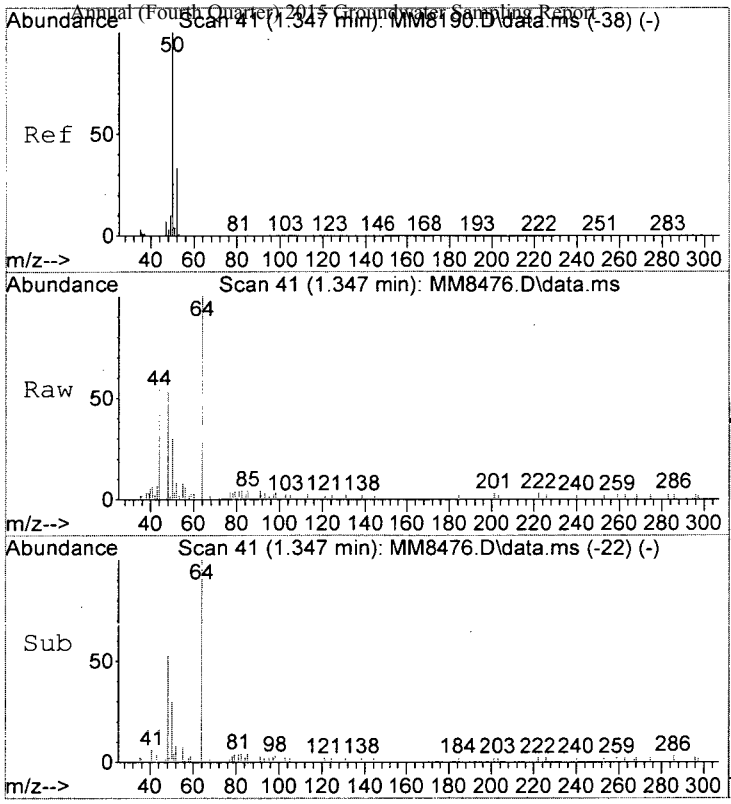
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8476.D
Acq On : 2 Dec 2015 6:04 pm
Operator : K.Ruest
Sample : R1510266-004|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 07 15:41:23 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



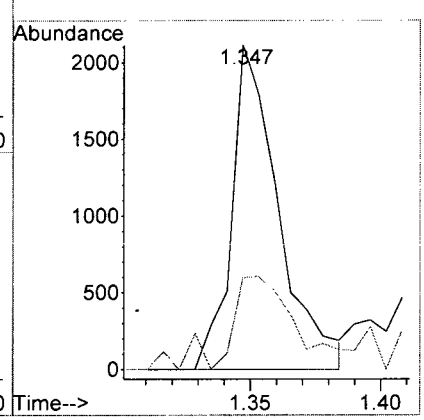
W111815A.M Mon Dec 07 15:43:10 2015 Page: 2

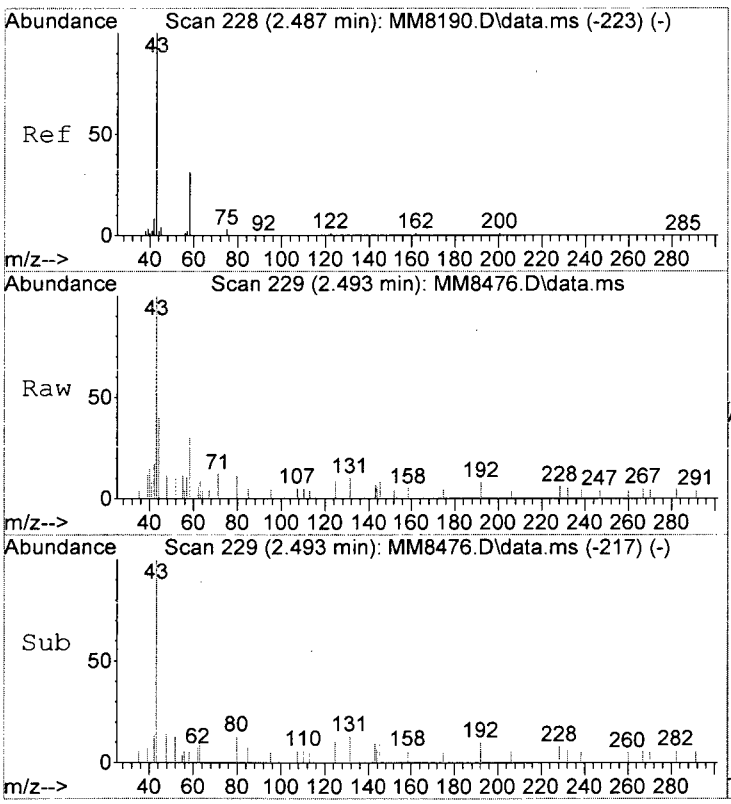


#3
Chloromethane
Concen: 0.21 ppb
RT: 1.347 min Scan# 41
Delta R.T. -0.000 min
Lab File: MM8476.D
Acq: 2 Dec 2015 6:04 pm

Tgt Ion: 50 Resp: 2633

Ion	Ratio	Lower	Upper
50	100		
52	28.2	12.9	52.9

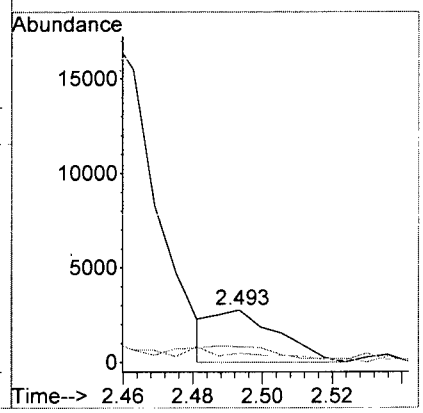


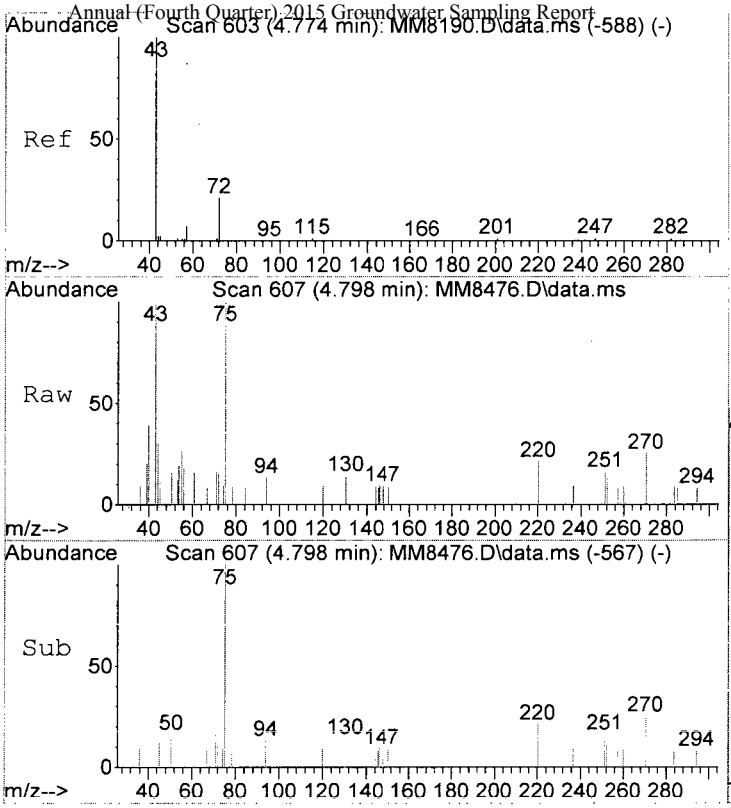


#15
Acetone
Concen: 2.28 ppb m
RT: 2.493 min Scan# 229
Delta R.T. -0.000 min
Lab File: MM8476.D
Acq: 2 Dec 2015 6:04 pm

Tgt Ion: 43 Resp: 3572

Ion	Ratio	Lower	Upper
43	100		
58	29.5	10.9	50.9
42	16.9	0.0	28.5

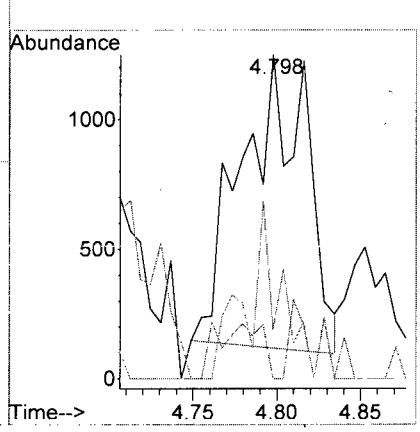


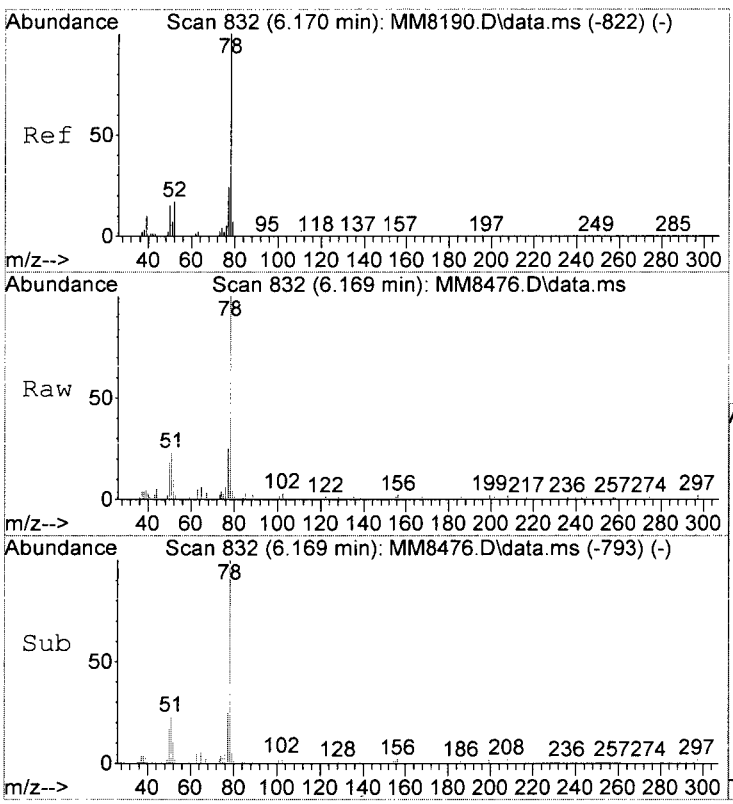


#35
2-Butanone
Concen: 1.41 ppb
RT: 4.798 min Scan# 607
Delta R.T. 0.018 min
Lab File: MM8476.D
Acq: 2 Dec 2015 6:04 pm

Tgt Ion: 43 Resp: 3035

Ion	Ratio	Lower	Upper
43	100		
57	0.0	0.0	27.5
72	15.3	1.2	41.2

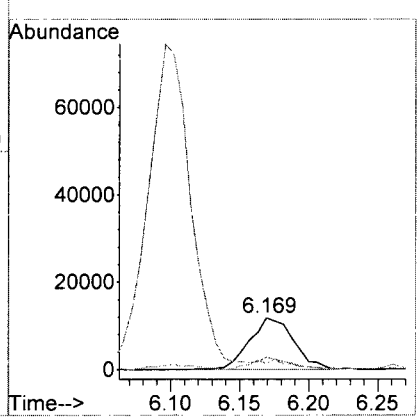


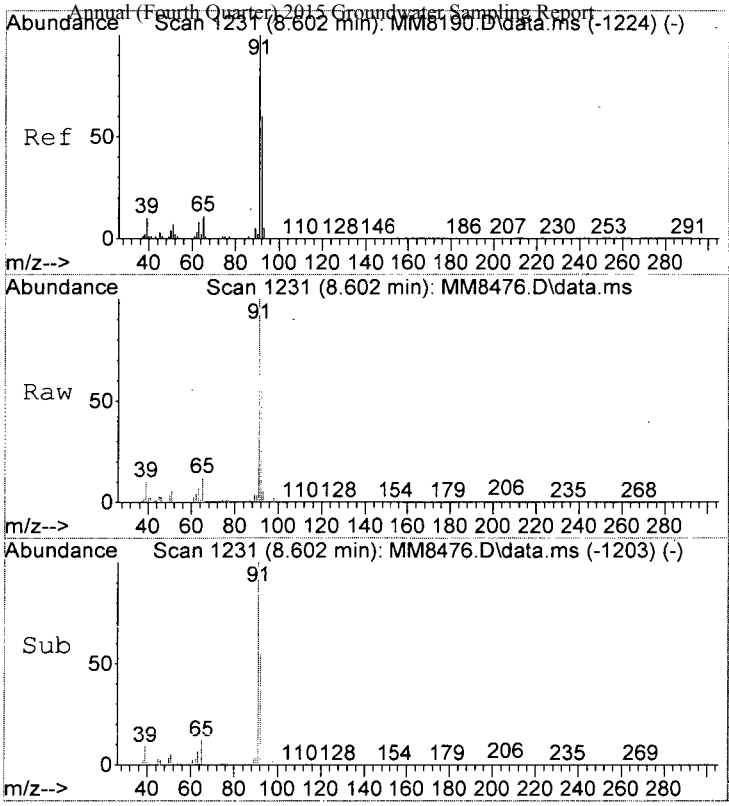


#49
Benzene
Concen: 0.98 ppb
RT: 6.169 min Scan# 832
Delta R.T. -0.006 min
Lab File: MM8476.D
Acq: 2 Dec 2015 6:04 pm

Tgt Ion: 78 Resp: 25954

Ion	Ratio	Lower	Upper
78	100		
51	23.4	0.0	36.1
52	11.3	0.0	36.8

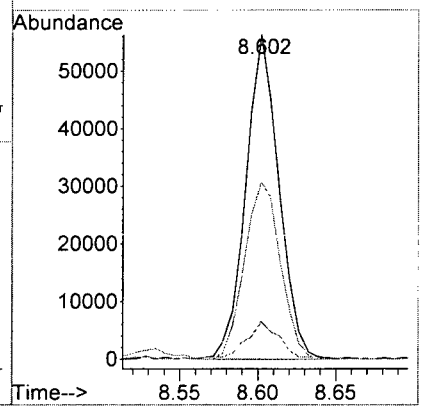


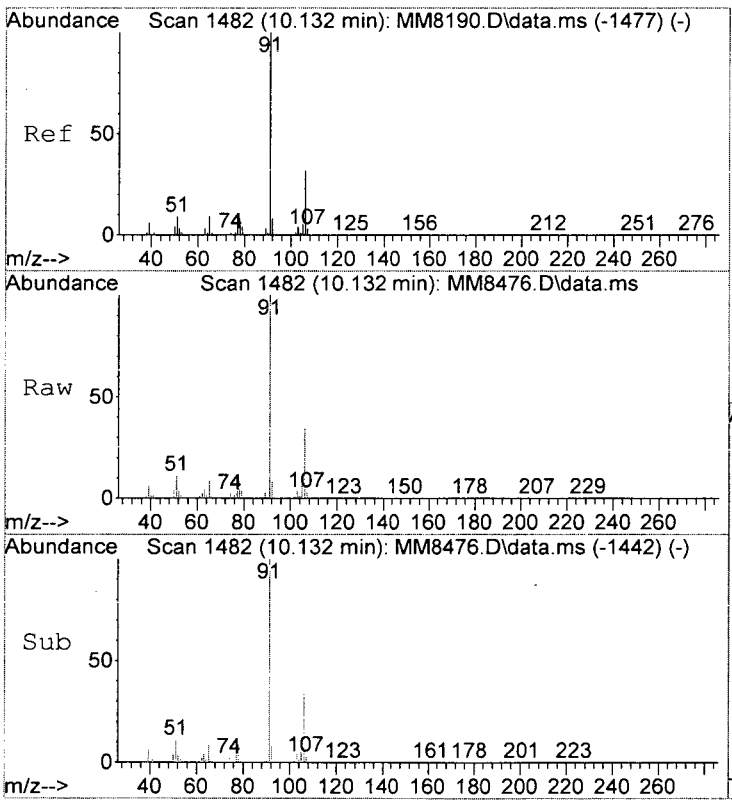


#66
Toluene
Concen: 3.01 ppb
RT: 8.602 min Scan# 1231
Delta R.T. -0.000 min
Lab File: MM8476.D
Acq: 2 Dec 2015 6:04 pm

Tgt Ion: 91 Resp: 82689

Ion	Ratio	Lower	Upper
91	100		
92	54.7	39.7	79.7
65	11.6	0.0	30.9

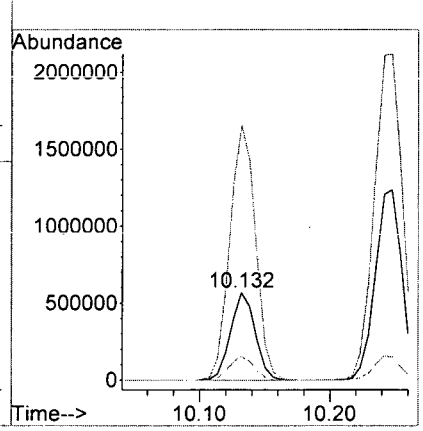


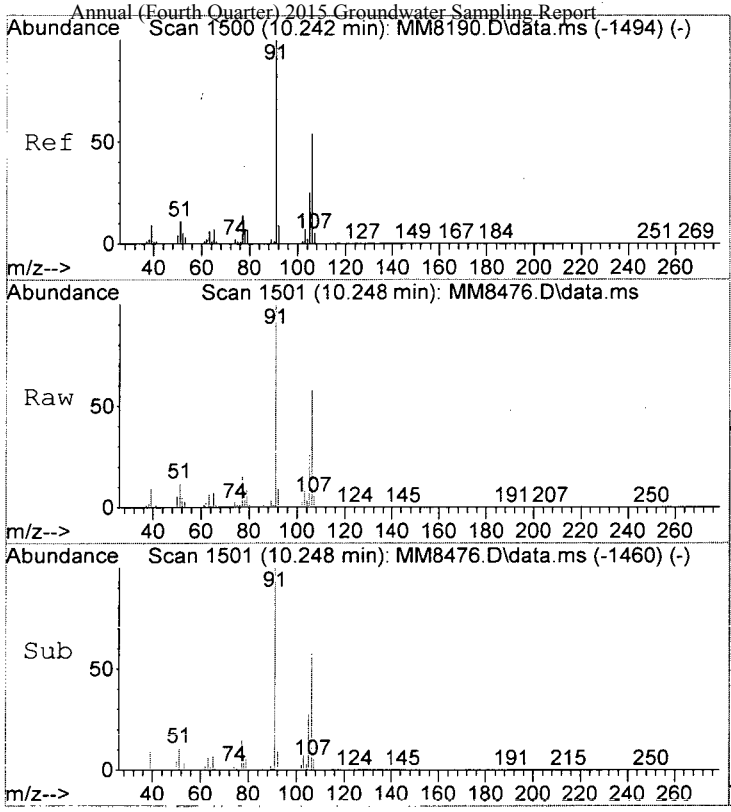


#82
Ethylbenzene
Concen: 77.63 ppb
RT: 10.132 min Scan# 1482
Delta R.T. -0.006 min
Lab File: MM8476.D
Acq: 2 Dec 2015 6:04 pm

Tgt Ion:106 Resp: 738599

Ion	Ratio	Lower	Upper
106	100		
91	291.8	293.8	333.8#
65	26.9	7.2	47.2

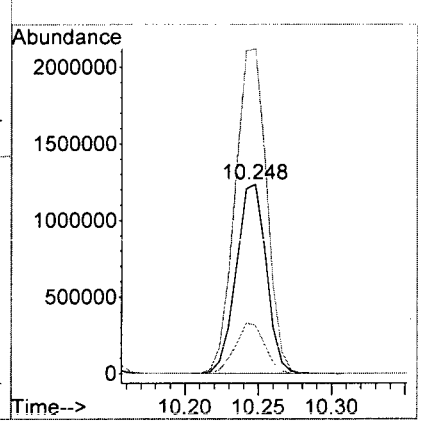


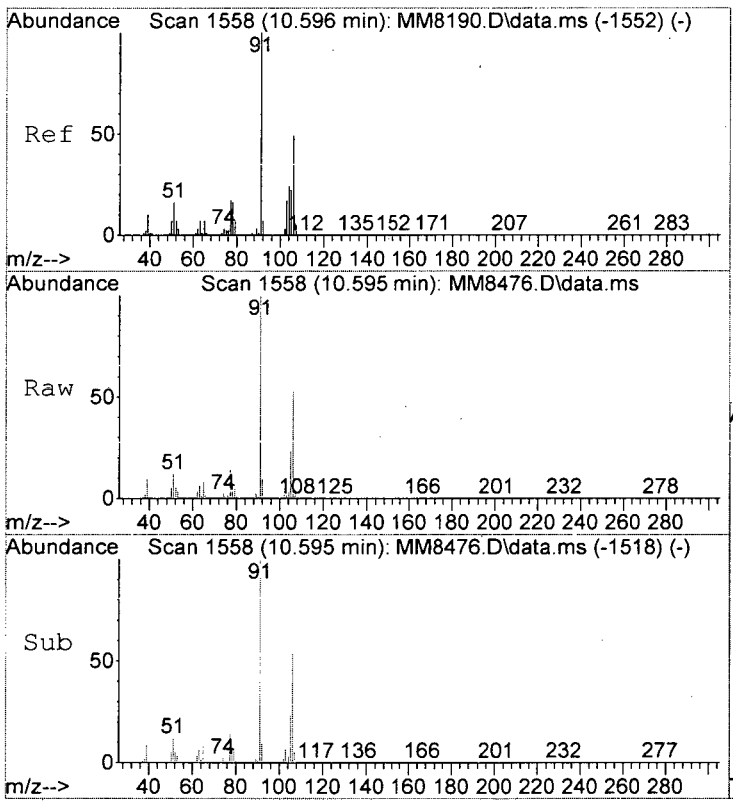


#83
(m+p)Xylene
Concen: 149.12 ppb
RT: 10.248 min Scan# 1501
Delta R.T. -0.000 min
Lab File: MM8476.D
Acq: 2 Dec 2015 6:04 pm

Tgt Ion:106 Resp: 1751247

Ion	Ratio	Lower	Upper
106	100		
91	171.5	163.6	203.6
77	25.6	5.5	45.5

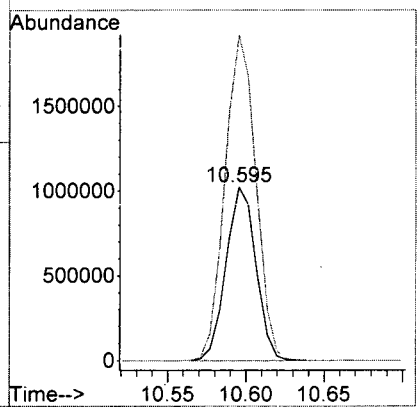


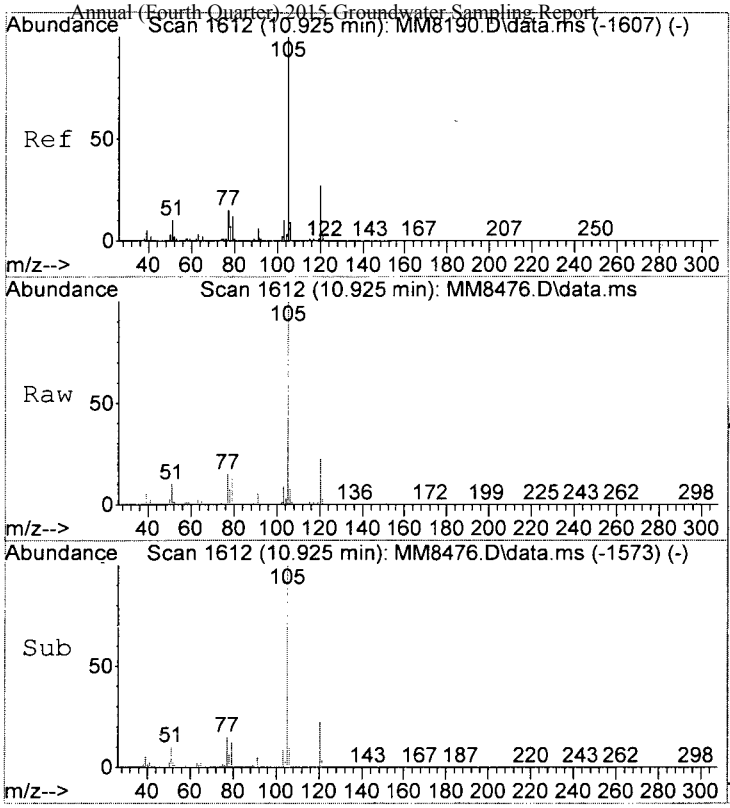


#84
o-Xylene
Concen: 112.40 ppb
RT: 10.595 min Scan# 1558
Delta R.T. -0.006 min
Lab File: MM8476.D
Acq: 2 Dec 2015 6:04 pm

Tgt Ion:106 Resp: 1351742

Ion	Ratio	Lower	Upper
106	100		
91	188.0	182.5	222.5

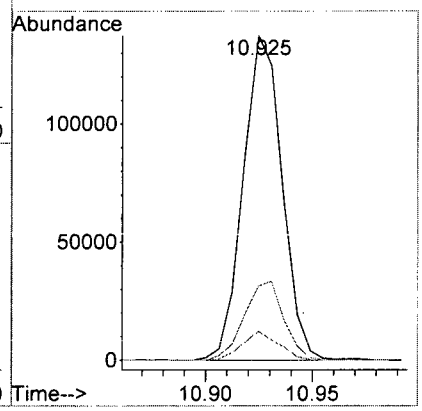


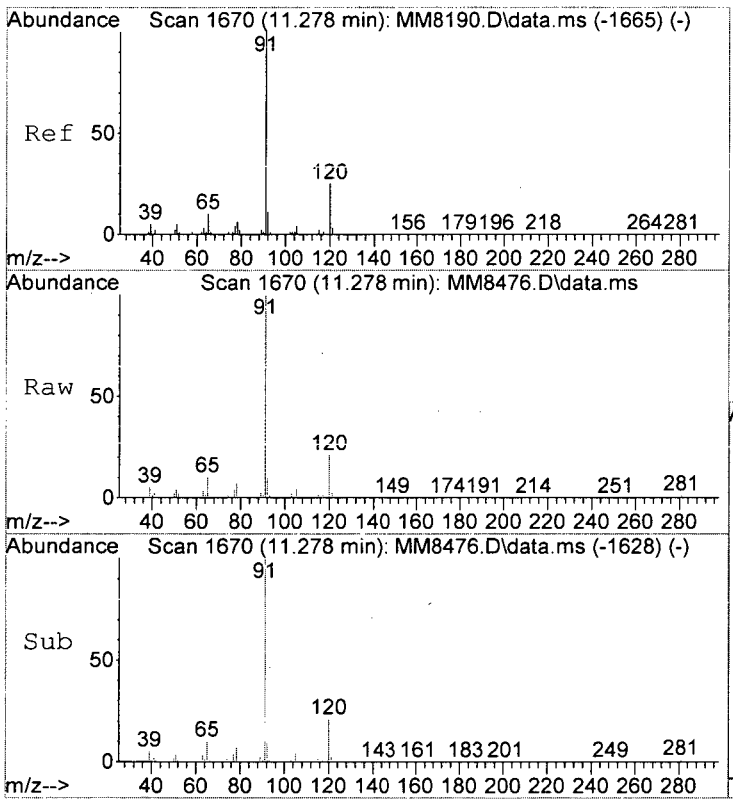


#89
Isopropylbenzene
Concen: 5.81 ppb
RT: 10.925 min Scan# 1612
Delta R.T. -0.006 min
Lab File: MM8476.D
Acq: 2 Dec 2015 6:04 pm

Tgt Ion:105 Resp: 173058

Ion	Ratio	Lower	Upper
105	100		
120	22.8	7.4	47.4
106	8.9	0.0	29.1

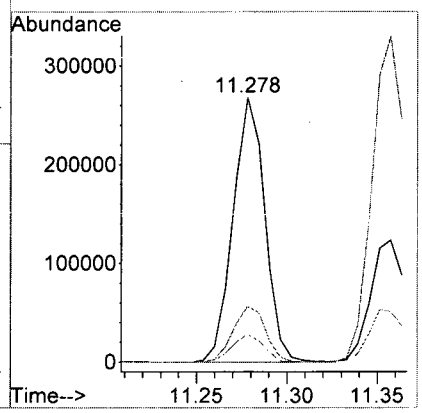


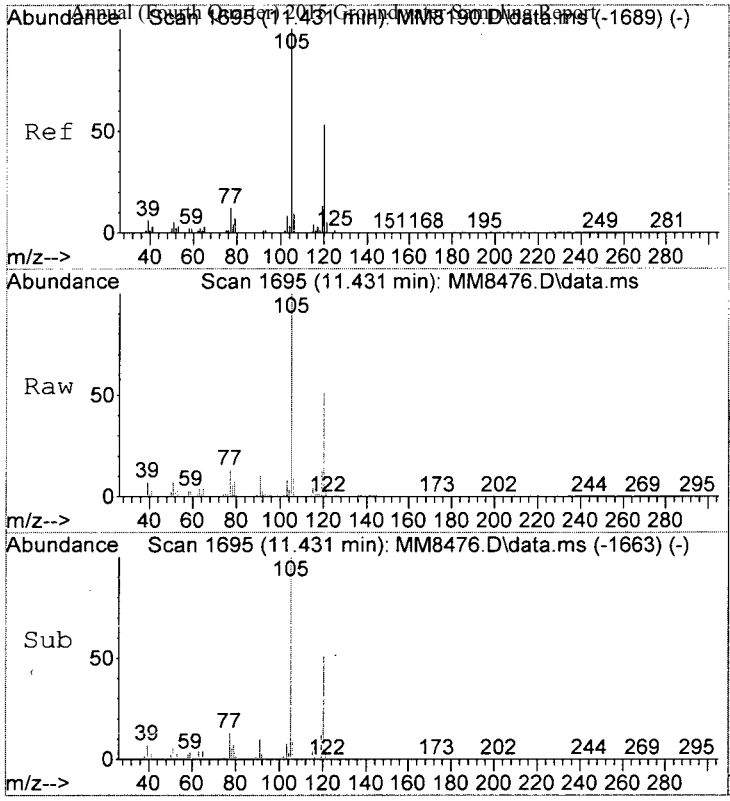


#95
n-Propylbenzene
Concen: 9.51 ppb
RT: 11.278 min Scan# 1670
Delta R.T. -0.006 min
Lab File: MM8476.D
Acq: 2 Dec 2015 6:04 pm

Tgt Ion: 91 Resp: 326239

Ion	Ratio	Lower	Upper
91	100		
120	21.0	4.8	44.8
65	10.5	0.0	30.5

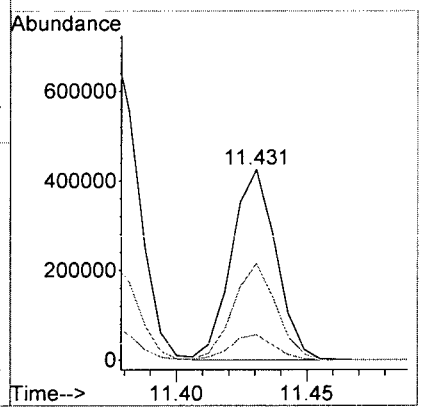


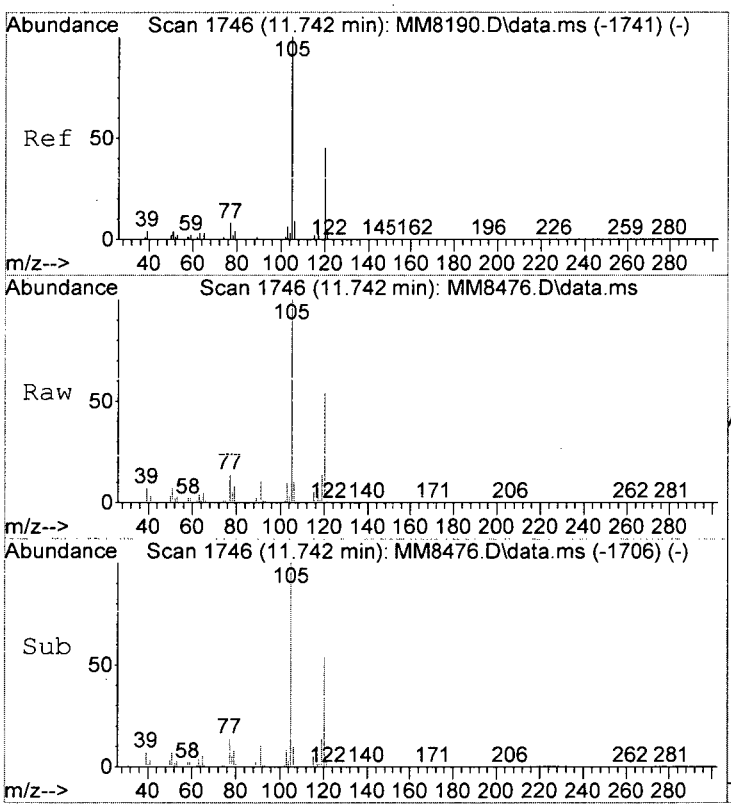


#99
1,3,5-Trimethylbenzene
Concen: 22.39 ppb
RT: 11.431 min Scan# 1695
Delta R.T. -0.000 min
Lab File: MM8476.D
Acq: 2 Dec 2015 6:04 pm

Tgt Ion:105 Resp: 504413

Ion	Ratio	Lower	Upper
105	100		
120	50.7	33.0	73.0
77	13.2	0.0	32.5

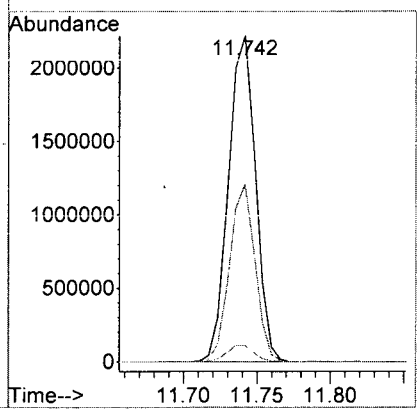


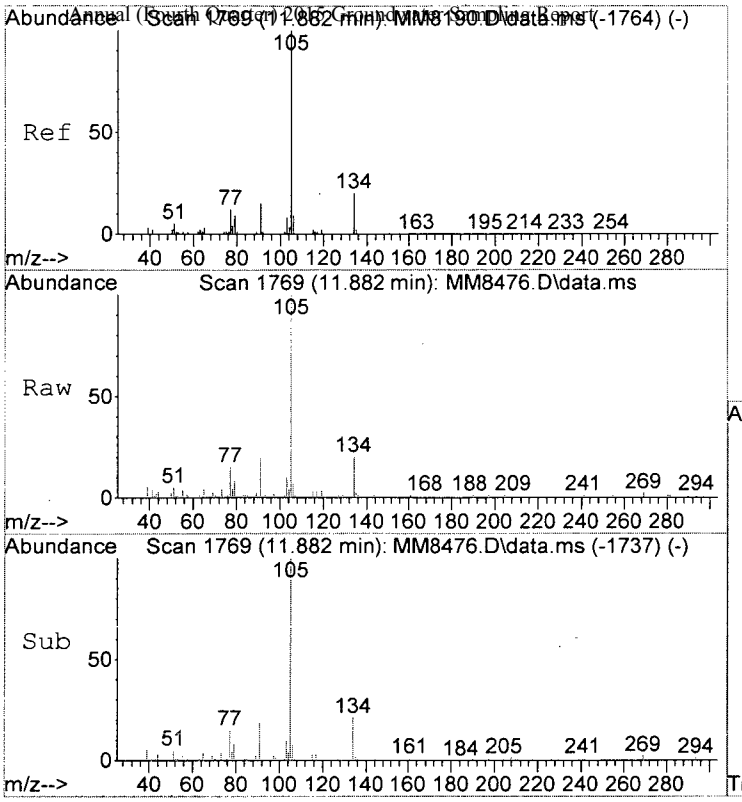


#101
1,2,4-Trimethylbenzene
Concen: 117.10 ppb
RT: 11.742 min Scan# 1746
Delta R.T. -0.000 min
Lab File: MM8476.D
Acq: 2 Dec 2015 6:04 pm

Tgt Ion:105 Resp: 2831478

Ion	Ratio	Lower	Upper
105	100		
120	54.3	28.1	68.1
65	5.0	0.0	24.3

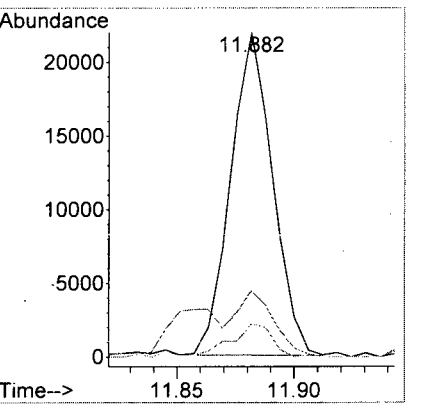


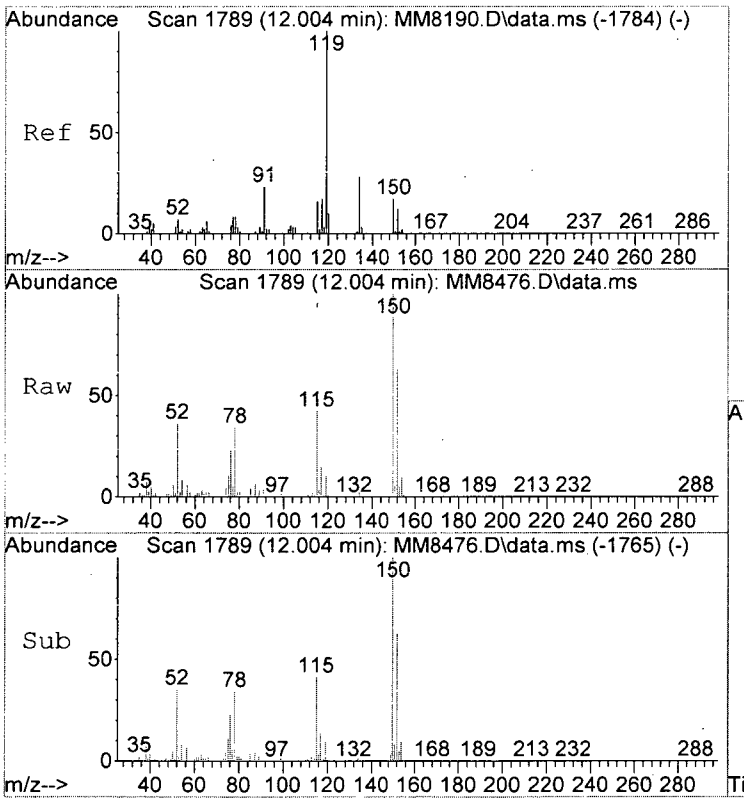


#103
sec-Butylbenzene
Concen: 0.97 ppb
RT: 11.882 min Scan# 1769
Delta R.T. -0.000 min
Lab File: MM8476.D
Acq: 2 Dec 2015 6:04 pm

Tgt Ion:105 Resp: 27219

Ion	Ratio	Lower	Upper
105	100		
134	20.5	0.2	40.2
103	10.0	0.0	27.7

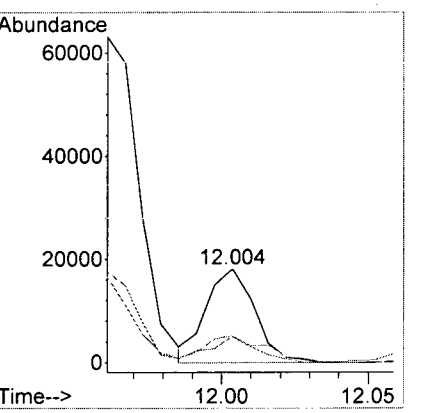


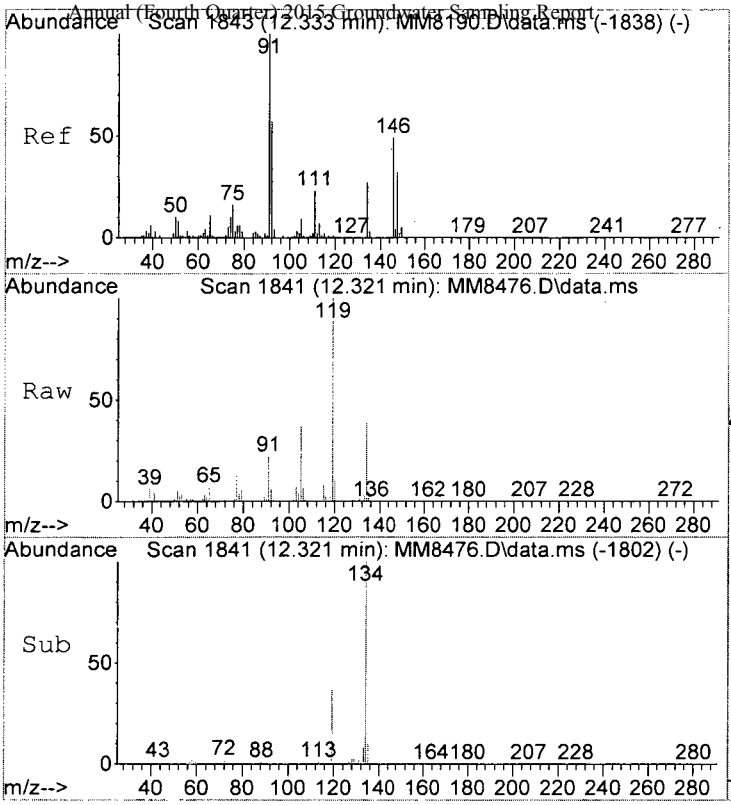


#104
p-Isopropyltoluene
Concen: 0.95 ppb
RT: 12.004 min Scan# 1789
Delta R.T. -0.000 min
Lab File: MM8476.D
Acq: 2 Dec 2015 6:04 pm

Tgt Ion:119 Resp: 20616

Ion	Ratio	Lower	Upper
119	100		
134	27.6	7.9	47.9
91	28.5	2.5	42.5

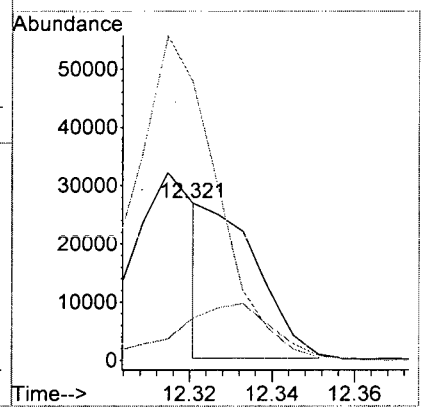


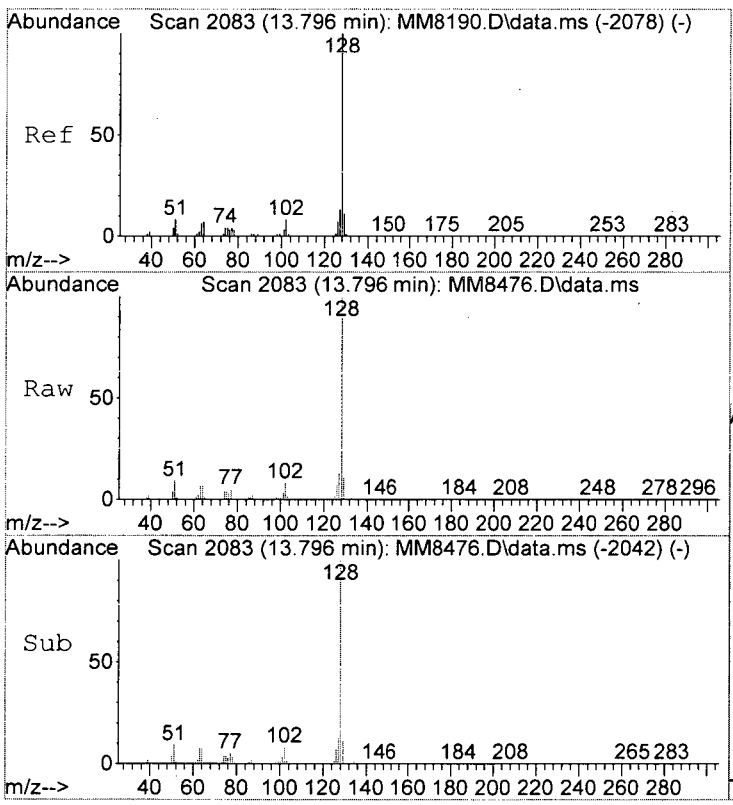


#109
n-Butylbenzene
Concen: 1.12 ppb m
RT: 12.321 min Scan# 1841
Delta R.T. -0.012 min
Lab File: MM8476.D
Acq: 2 Dec 2015 6:04 pm

Tgt Ion: 91 Resp: 23090

Ion	Ratio	Lower	Upper
91	100		
92	26.7	37.0	77.0#
134	177.5	7.2	47.2#

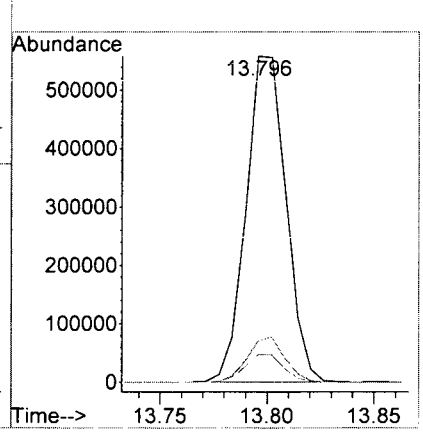




#117
Naphthalen
Concen: 46.82 ppb
RT: 13.796 min Scan# 2083
Delta R.T. -0.006 min
Lab File: MM8476.D
Acq: 2 Dec 2015 6:04 pm

Tgt Ion:128 Resp: 719151

Ion	Ratio	Lower	Upper
128	100		
127	12.6	0.0	33.1
102	8.4	0.0	28.3



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8476.D
Acq On : 2 Dec 2015 6:04 pm
Operator : K.Ruest
Sample : R1510266-004|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8476.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.829	115	120	127	rVB	1125713	1398644	14.63%	1.549%
2	2.048	151	156	162	rVB	438376	551433	5.77%	0.611%
3	2.451	215	222	234	rVB	90402	180214	1.89%	0.200%
4	2.920	292	299	302	rBV2	250831	512747	5.36%	0.568%
5	2.963	302	306	311	rVV	623156	1201682	12.57%	1.331%
6	3.012	311	314	319	rVB	178925	274985	2.88%	0.304%
7	3.255	343	354	364	rVB	520686	1119881	11.71%	1.240%
8	3.615	406	413	422	rVB	122645	267260	2.80%	0.296%
9	4.432	537	547	552	rBV3	45928	127952	1.34%	0.142%
10	4.523	552	562	576	rVB	931957	2641338	27.63%	2.925%
11	5.596	728	738	745	rBV2	446575	1130038	11.82%	1.251%
12	5.682	745	752	755	rVV5	192295	501945	5.25%	0.556%
13	5.743	755	762	768	rVV	876194	2222066	23.24%	2.460%
14	5.804	769	772	786	rVB3	147576	352865	3.69%	0.391%
15	5.980	791	801	812	rBV4	103436	281860	2.95%	0.312%
16	6.096	812	820	829	rBV	499206	1124004	11.76%	1.245%
17	6.273	840	849	855	rBV3	119551	322972	3.38%	0.358%
18	6.352	856	862	870	rVV3	167701	443231	4.64%	0.491%
19	6.438	870	876	885	rVB2	90826	217442	2.27%	0.241%
20	6.773	923	931	939	rBV	1414595	2803835	29.33%	3.104%
21	7.316	1008	1020	1028	rBV4	276266	733925	7.68%	0.813%
22	7.566	1055	1061	1067	rVB2	65188	119368	1.25%	0.132%
23	7.992	1124	1131	1140	rBV5	61889	164240	1.72%	0.182%
24	8.529	1208	1219	1226	rBV	2302846	3757391	39.30%	4.160%
25	8.602	1226	1231	1236	rVB	129104	196895	2.06%	0.218%
26	9.992	1453	1459	1468	rVB	2444614	3478420	36.39%	3.851%
27	10.132	1476	1482	1493	rVB	3855710	5157153	53.95%	5.710%
28	10.248	1494	1501	1508	rBV	6589041	9559974	100.00%	10.585%
29	10.595	1552	1558	1568	rVB	5743655	7601584	79.51%	8.417%
30	10.925	1606	1612	1618	rBV	324169	409250	4.28%	0.453%
31	11.047	1627	1632	1640	rBV	1976062	2605368	27.25%	2.885%
32	11.278	1666	1670	1677	rVB	529598	643478	6.73%	0.712%
33	11.357	1677	1683	1685	rBV	2549242	3698630	38.69%	4.095%
34	11.431	1691	1695	1702	rVB	1211119	1426642	14.92%	1.580%
35	11.595	1716	1722	1728	rBV	3181841	3902441	40.82%	4.321%

KB 12/7/15

W111815A.M Mon Dec 07 15:43:32 2015

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8476.D
Acq On : 2 Dec 2015 6:04 pm
Operator : K.Ruest
Sample : R1510266-004|2.5 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

36	11.742	1740	1746	1751	rBV	6719117	8369627	87.55%	9.267%
37	11.961	1778	1782	1786	rBV	183805	221085	2.31%	0.245%
38	12.016	1786	1791	1797	rVB	2893277	3600194	37.66%	3.986%
39	12.083	1797	1802	1807	rBV	2733607	3287136	34.38%	3.640%
40	12.241	1823	1828	1836	rBV2	2912535	3913657	40.94%	4.333%
41	12.315	1836	1840	1847	rVB2	509015	721218	7.54%	0.799%
42	12.406	1851	1855	1859	rBV2	114250	137853	1.44%	0.153%
43	12.467	1859	1865	1871	rVB	268359	337004	3.53%	0.373%
44	12.534	1871	1876	1878	rBV	452123	565775	5.92%	0.626%
45	12.558	1878	1880	1885	rVB	352251	391387	4.09%	0.433%
46	12.619	1885	1890	1893	rBV	867921	1053355	11.02%	1.166%
47	12.650	1893	1895	1900	rVV	150758	181392	1.90%	0.201%
48	12.705	1900	1904	1912	rVV2	558966	816298	8.54%	0.904%
49	12.790	1912	1918	1925	rVV3	52095	115021	1.20%	0.127%
50	12.857	1925	1929	1934	rVB	248025	295048	3.09%	0.327%
51	12.930	1934	1941	1945	rBV	549076	689554	7.21%	0.763%
52	12.973	1945	1948	1953	rVB	498160	567764	5.94%	0.629%
53	13.186	1974	1983	1987	rBV2	355190	505146	5.28%	0.559%
54	13.308	1999	2003	2009	rVB2	855771	1136653	11.89%	1.259%
55	13.442	2021	2025	2032	rVB	88905	105356	1.10%	0.117%
56	13.601	2048	2051	2058	rVV2	83545	158696	1.66%	0.176%
57	13.686	2062	2065	2070	rVB2	68310	106866	1.12%	0.118%
58	13.796	2077	2083	2088	rBV	1170723	1523575	15.94%	1.687%
59	14.668	2222	2226	2230	rVB	171094	198090	2.07%	0.219%
60	14.814	2245	2250	2255	rBV	146966	186872	1.95%	0.207%

Sum of corrected areas: 90315775

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8476.D
Acq On    :  2 Dec 2015    6:04 pm
Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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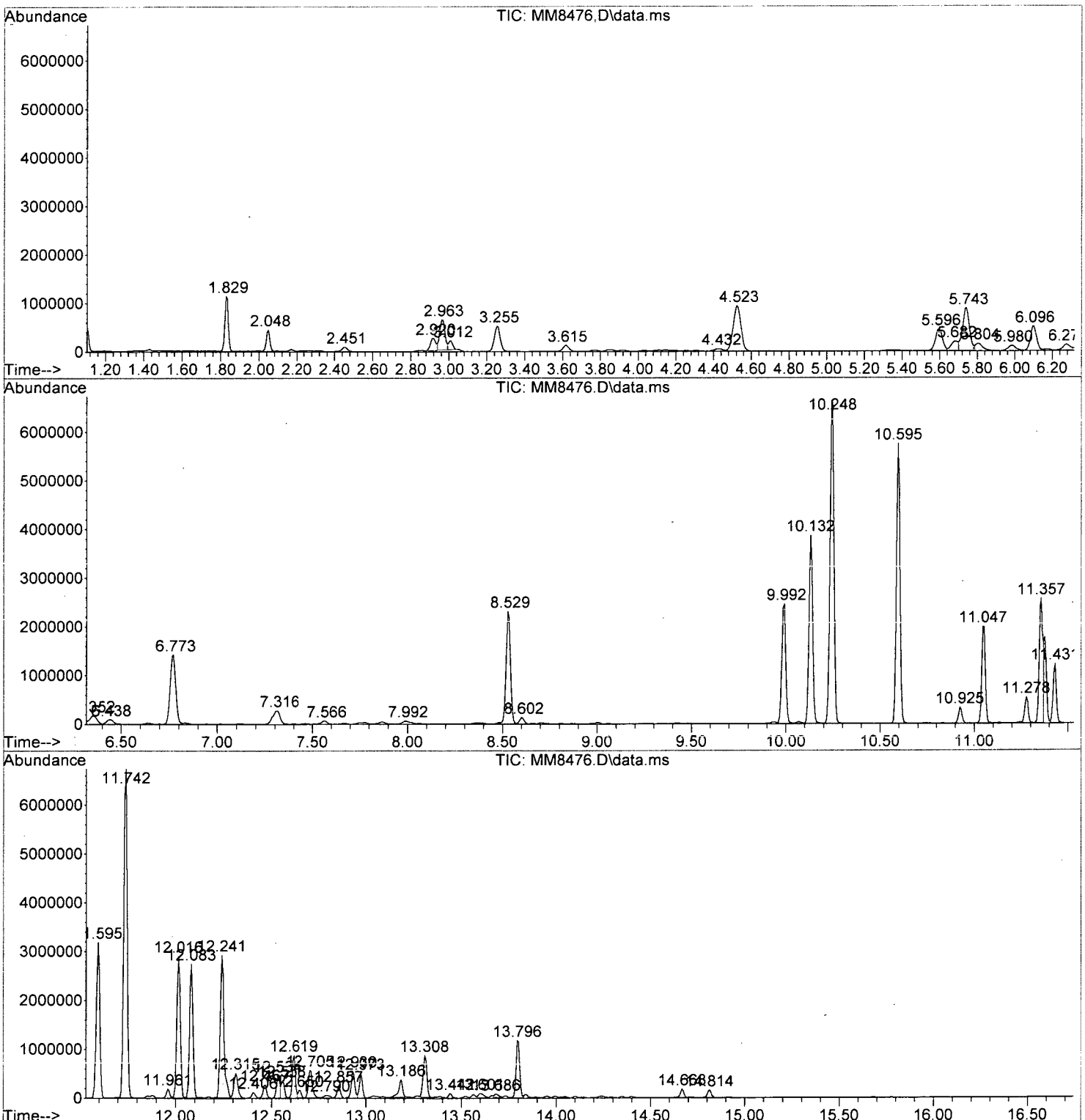


```
Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8476.D
Acq On    :  2 Dec 2015    6:04 pm
Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

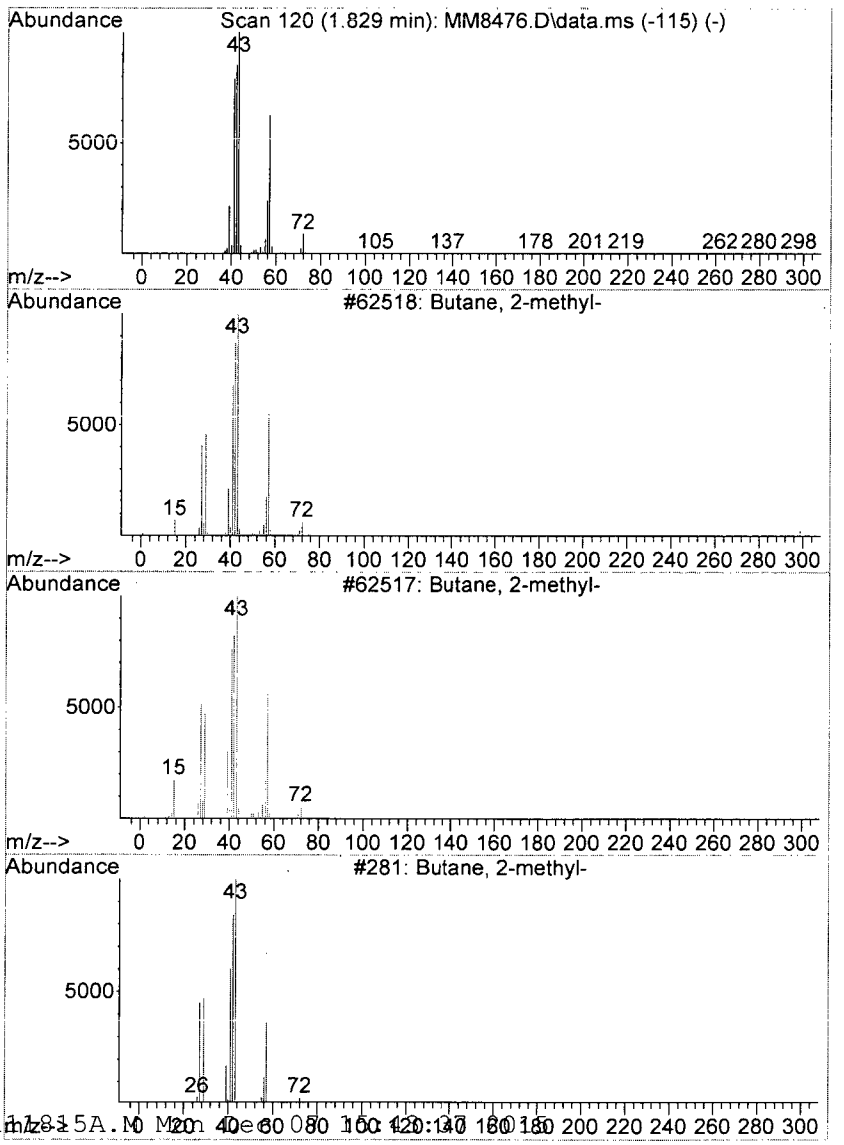
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

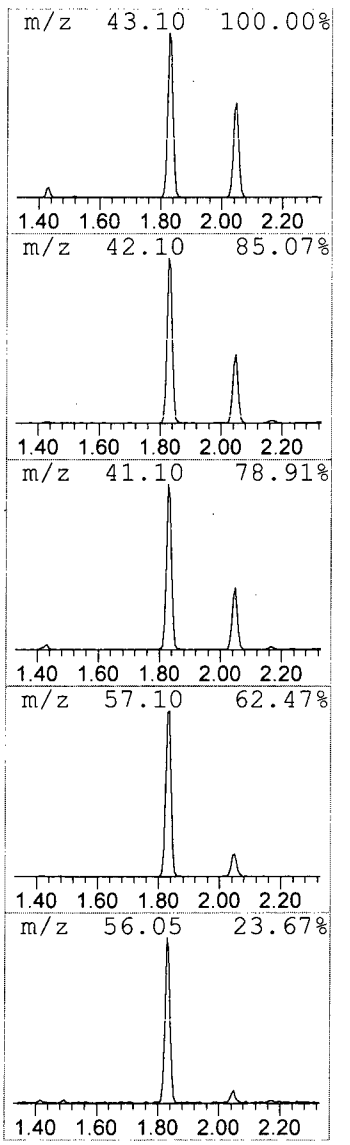
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  1  Butane, 2-methyl-              Concentration Rank  6
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.829	31.47 ppb	1398640	Pentafluorobenzene	5.743

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	91
2	Butane, 2-methyl-	72	C5H12	000078-78-4	90
3	Butane, 2-methyl-	72	C5H12	000078-78-4	90
4	Pentane	72	C5H12	000109-66-0	50
5	Pentane	72	C5H12	000109-66-0	37





```
Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8476.D
Acq On    :  2 Dec 2015   6:04 pm
Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

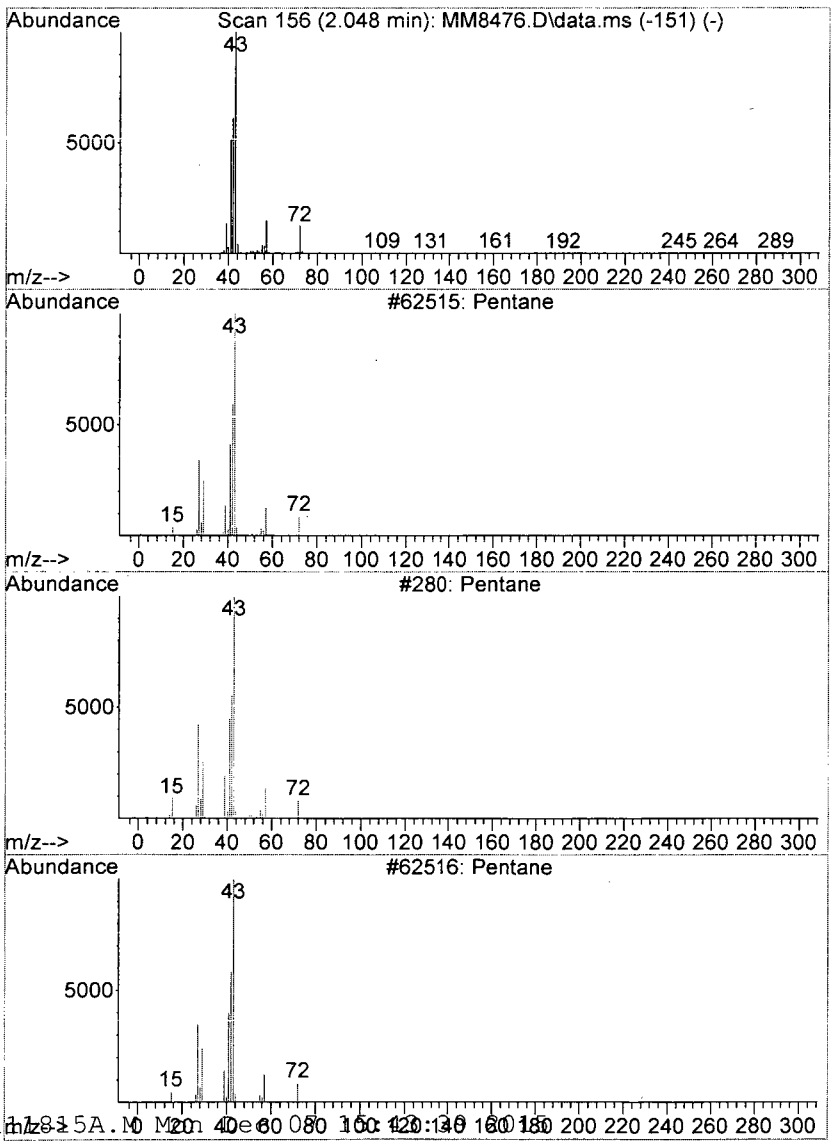
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

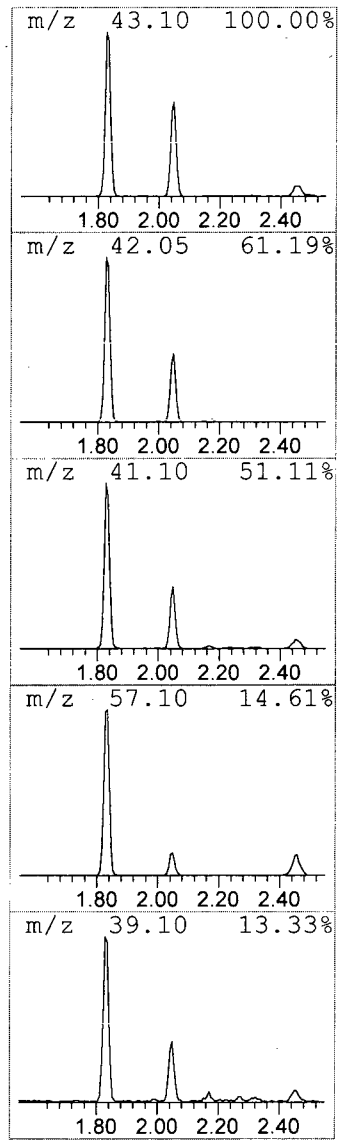
TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

*******************************************************************
Peak Number  2  Pentane                          Concentration Rank 12

  R.T.     EstConc          Area       Relative to ISTD         R.T.
-------------------------------------------------------------------
  2.048   12.41 ppb        551433   Pentafluorobenzene          5.743

 Hit# of  5    Tentative ID              MW  MolForm       CAS#       Qual
-------------------------------------------------------------------
 1 Pentane                                72 C5H12         000109-66-0 90
 2 Pentane                                72 C5H12         000109-66-0 86
 3 Pentane                                72 C5H12         000109-66-0 86
 4 Oxirane, ethyl-                        72 C4H8O         000106-88-7 9
 5 Hydrazine, 2-propenyl-                 72 C3H8N2        007422-78-8 9
```





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Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8476.D
Acq On    :  2 Dec 2015    6:04 pm
Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  3  Butane, 2,3-dimethyl-          Concentration Rank 13
```
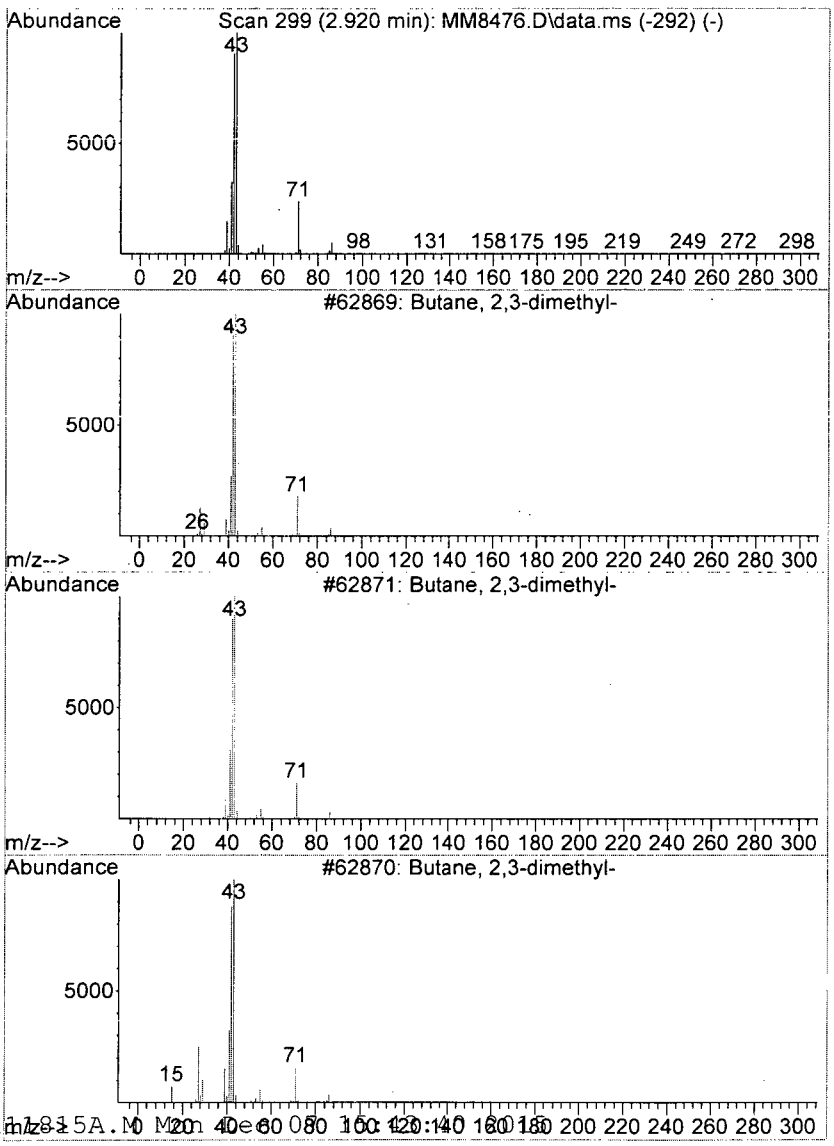
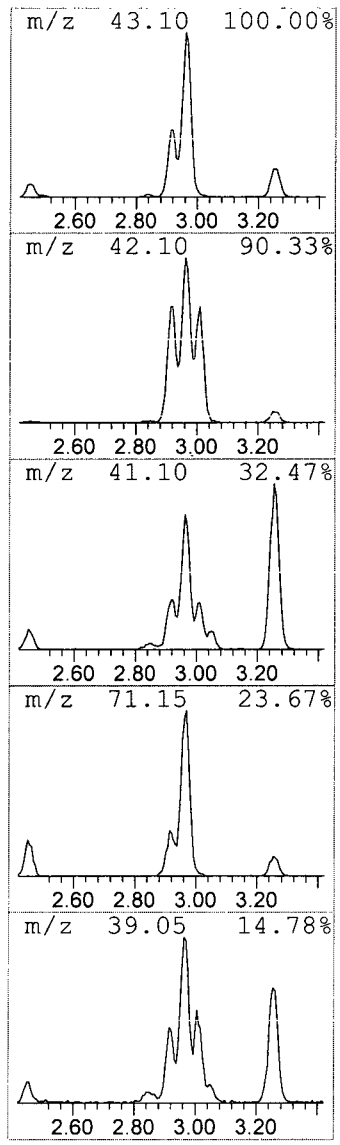

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.920	11.54 ppb	512747	Pentafluorobenzene	5.743

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	90
2	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	86
3	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	80
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	52
5	Pentane, 2-methyl-	86	C6H14	000107-83-5	50





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Data File : MM8476.D
Acq On    :  2 Dec 2015    6:04 pm
Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

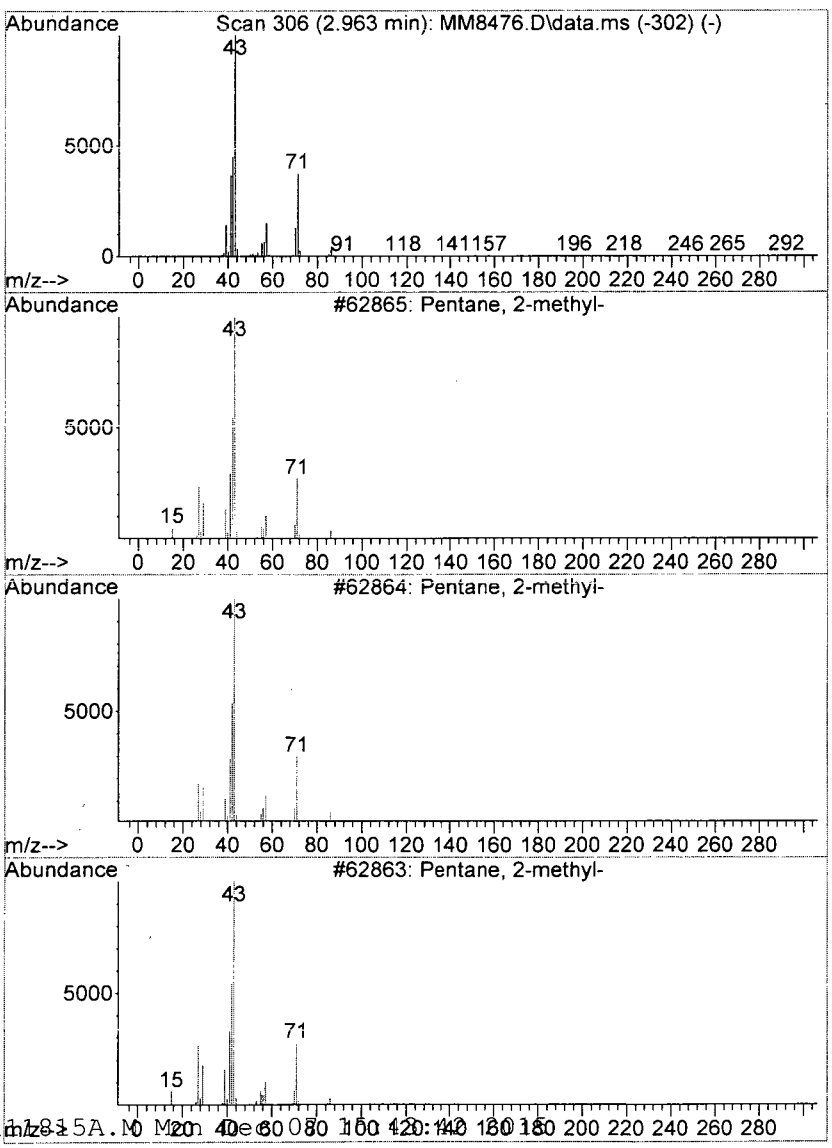
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

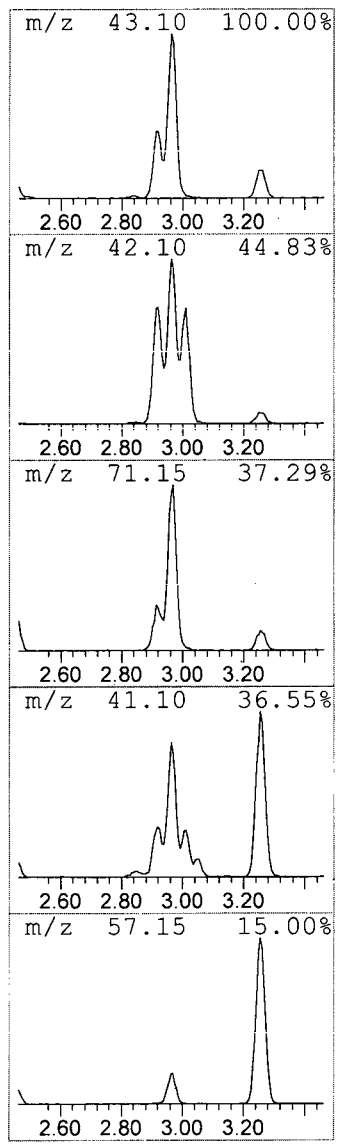
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  4  Pentane, 2-methyl-              Concentration Rank  7
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.963	27.04 ppb	1201680	Pentafluorobenzene	5.743

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	91
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	91
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	90
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	86
5	Pentane, 2-methyl-	86	C6H14	000107-83-5	72





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Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  5  Pentane, 3-methyl-              Concentration Rank  8
```
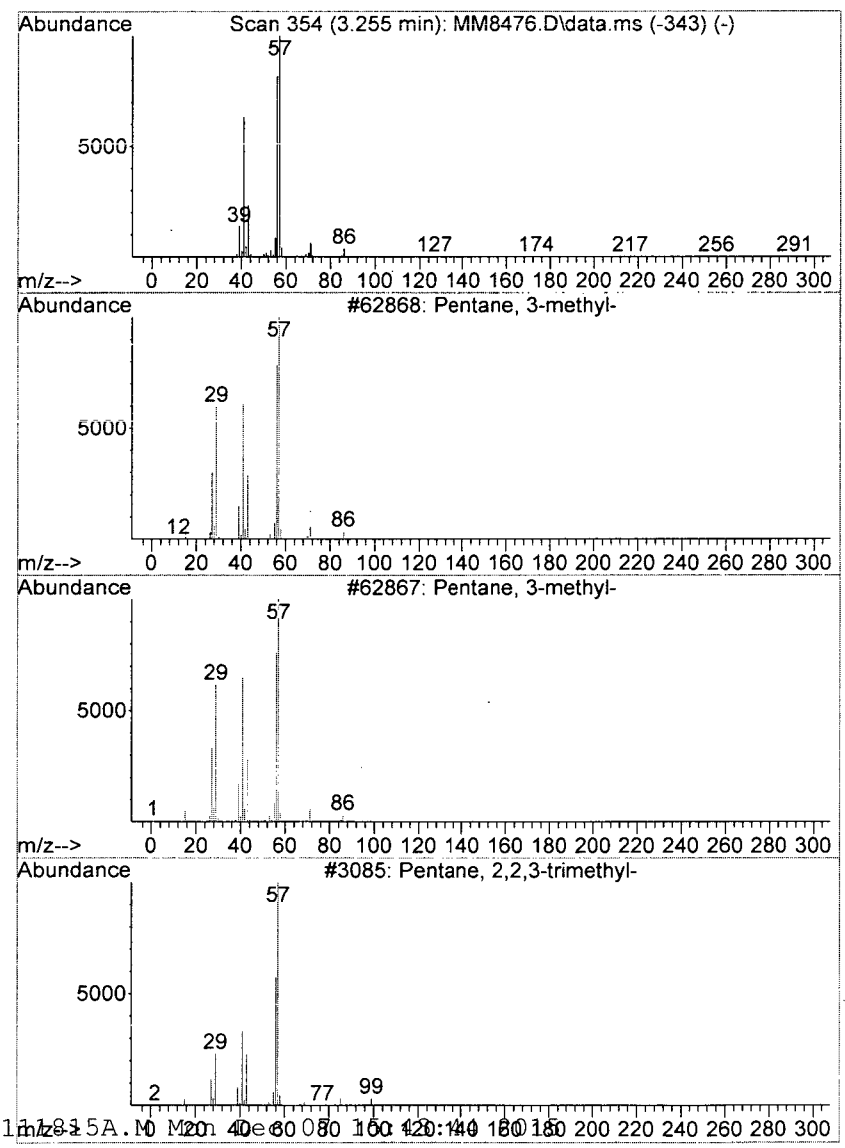
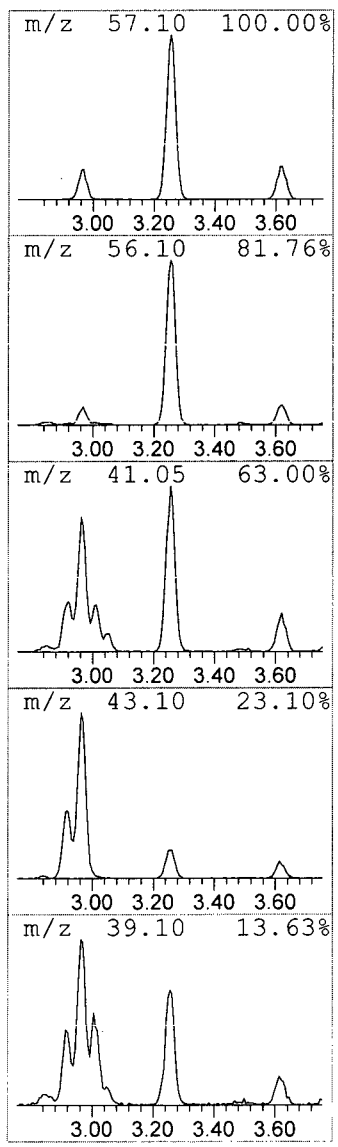

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.255	25.20 ppb	1119880	Pentafluorobenzene	5.743

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 3-methyl-	86	C6H14	000096-14-0	91
2	Pentane, 3-methyl-	86	C6H14	000096-14-0	91
3	Pentane, 2,2,3-trimethyl-	114	C8H18	000564-02-3	56
4	Pentane, 3-methyl-	86	C6H14	000096-14-0	47
5	Hexane, 3,4-dimethyl-	114	C8H18	000583-48-2	43





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Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

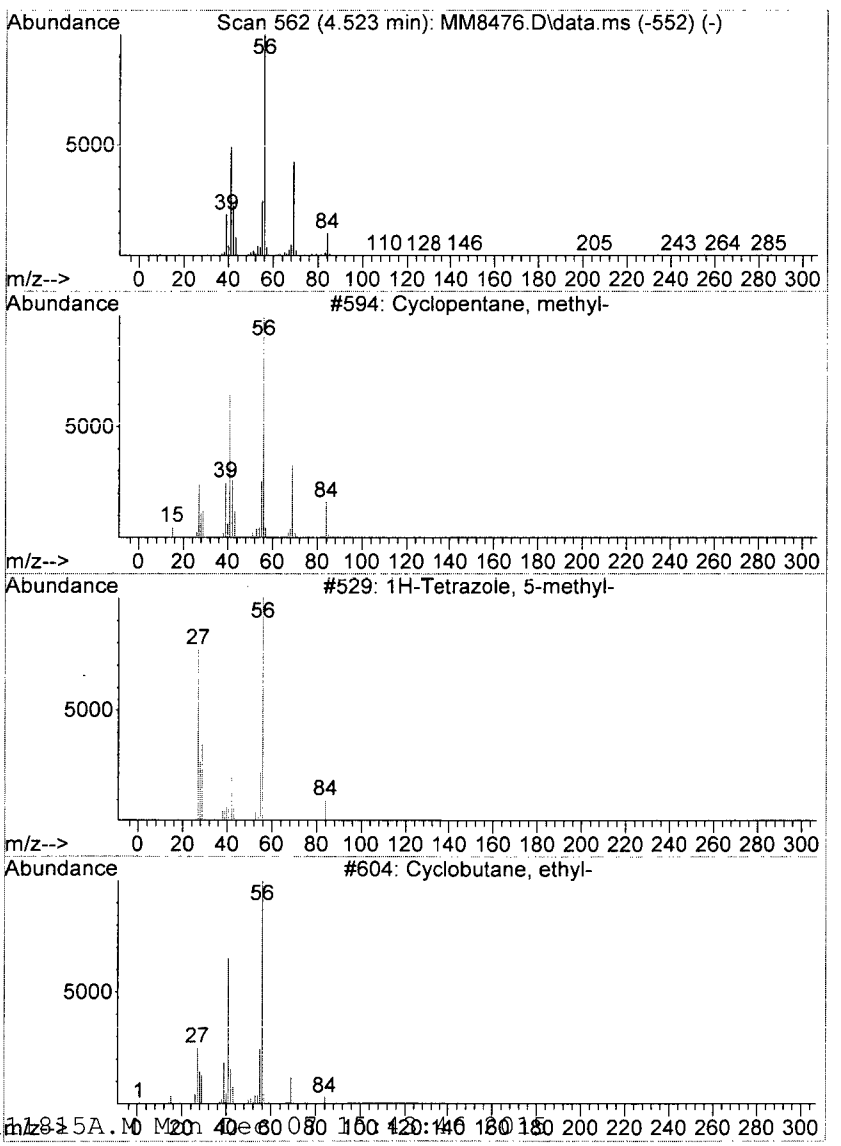
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

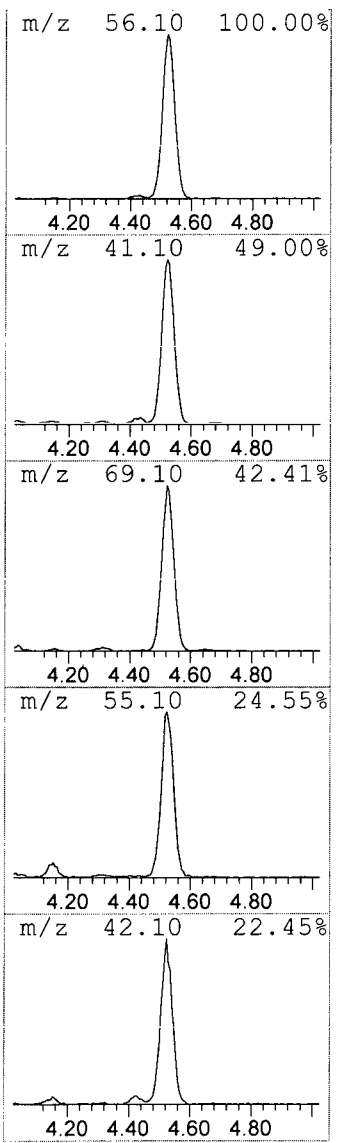
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  6  Cyclopentane, methyl-          Concentration Rank  1
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.523	59.43 ppb	2641340	Pentafluorobenzene	5.743

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, methyl-	84	C6H12	000096-37-7	91
2	1H-Tetrazole, 5-methyl-	84	C2H4N4	004076-36-2	80
3	Cyclobutane, ethyl-	84	C6H12	004806-61-5	72
4	Cyclohexane	84	C6H12	000110-82-7	50
5	Cyclohexane	84	C6H12	000110-82-7	50





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Acq On    :  2 Dec 2015    6:04 pm
Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  7  Cyclohexane                        Concentration Rank 15
```
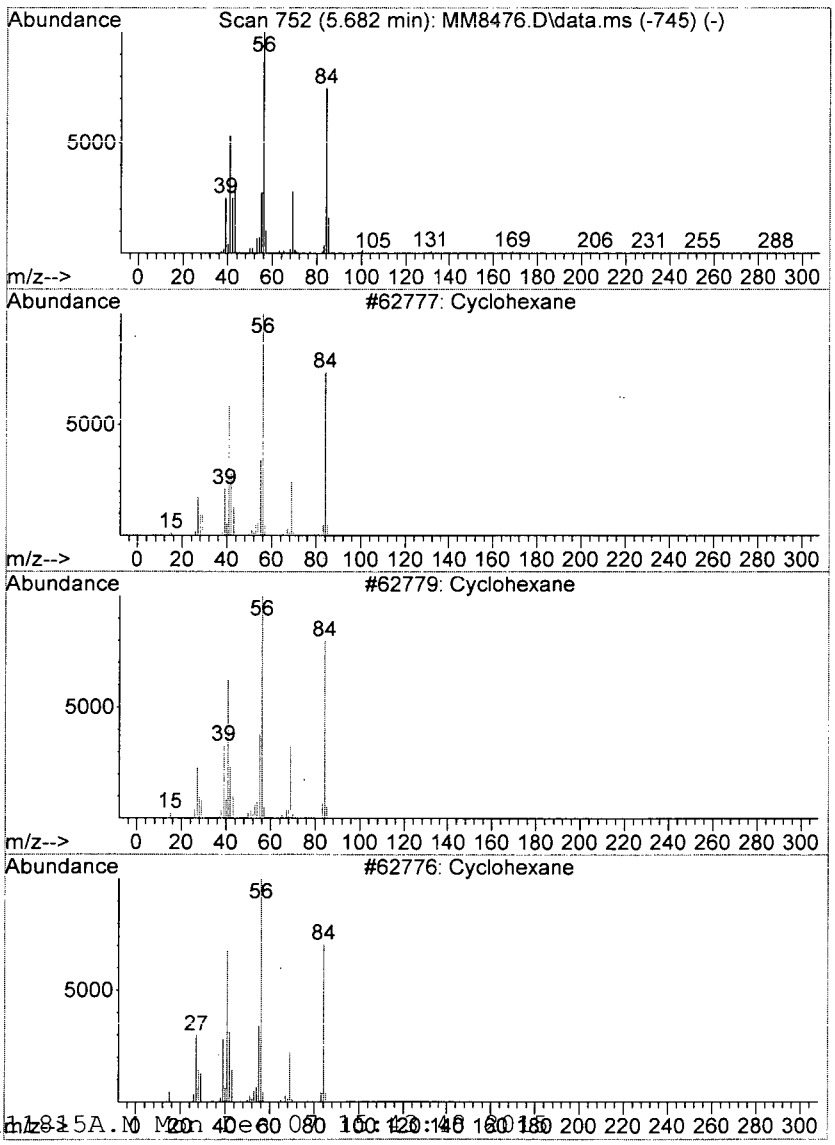
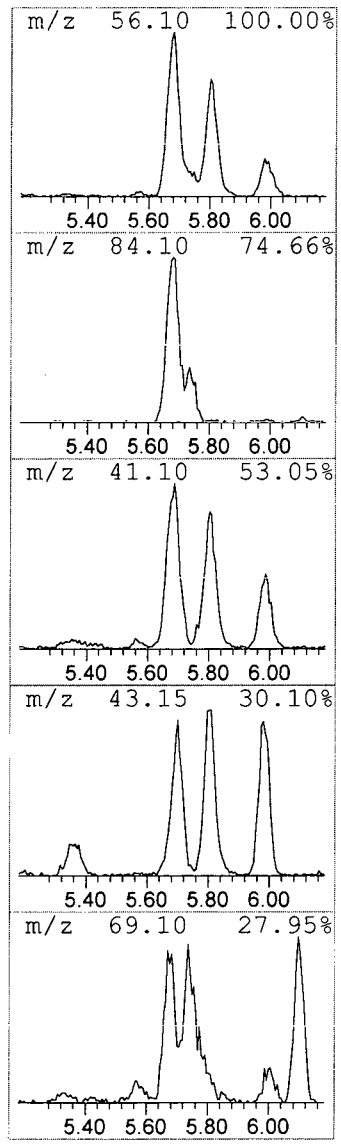

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.682	11.29 ppb	501945	Pentafluorobenzene	5.743

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane	84	C6H12	000110-82-7	90
2	Cyclohexane	84	C6H12	000110-82-7	86
3	Cyclohexane	84	C6H12	000110-82-7	83
4	Cyclohexane	84	C6H12	000110-82-7	78
5	Cyclohexane	84	C6H12	000110-82-7	64





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Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

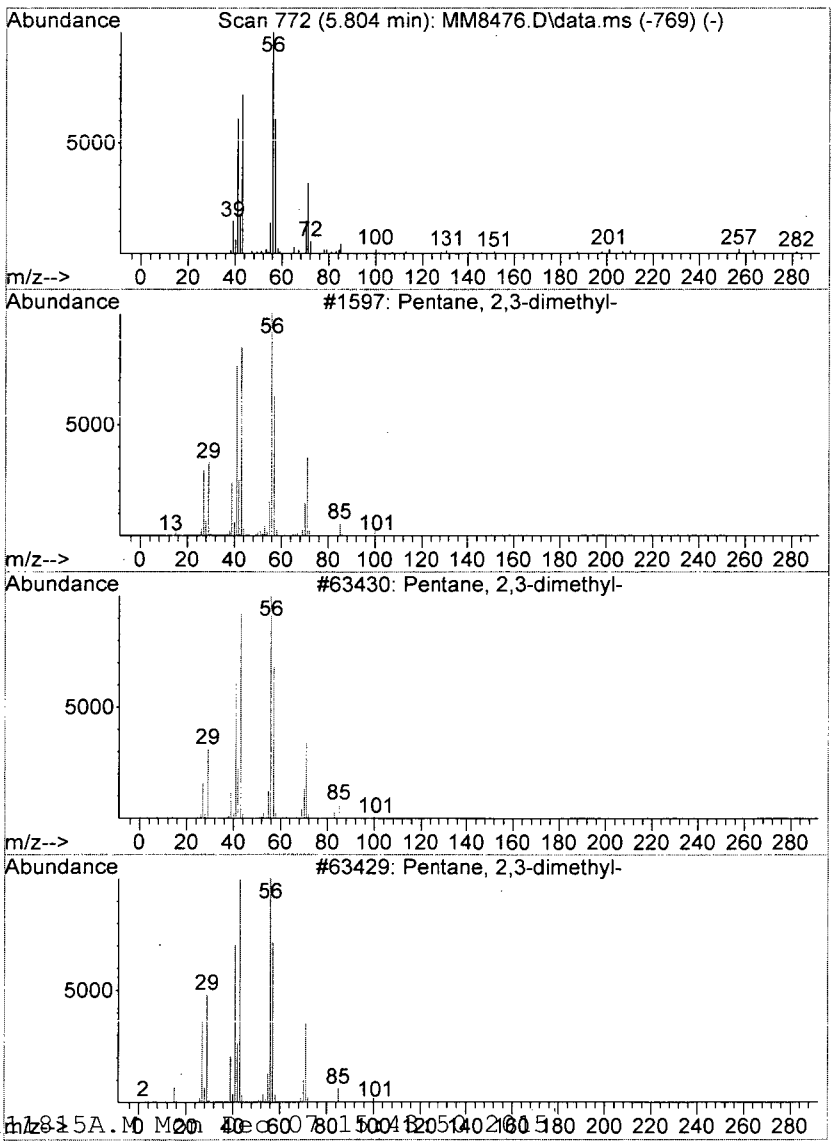
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

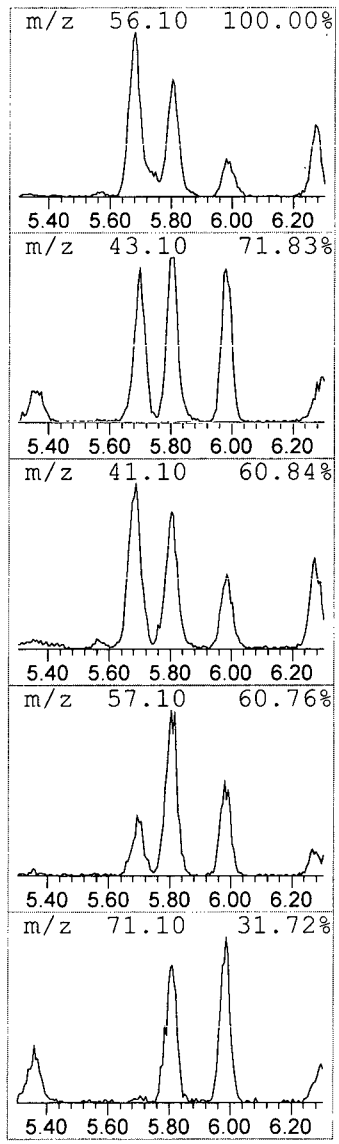
TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

*********************************************************************
Peak Number  8  Pentane, 2,3-dimethyl-          Concentration Rank 17
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.804	7.94 ppb	352865	Pentafluorobenzene	5.743

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	90
2	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	87
3	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	78
4	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	64
5	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	64





Library Search Compound Report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Acq On    :  2 Dec 2015    6:04 pm
Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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****

Peak Number 9 2-Butyl-1-decene Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.352	7.90 ppb	443231	1,4-Difluorobenzene	6.773

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Butyl-1-decene	196	C14H28	000000-00-0	64
2	3-Undecene, 7-methyl-, (E)-	168	C12H24	074630-53-8	56
3	Cyclopentane, 1,3-dimethyl-, cis-	98	C7H14	002532-58-3	47
4	Heptane, 2-chloro-	134	C7H15Cl	001001-89-4	45
5	3-Undecene, 7-methyl-, (Z)-	168	C12H24	074630-49-2	40

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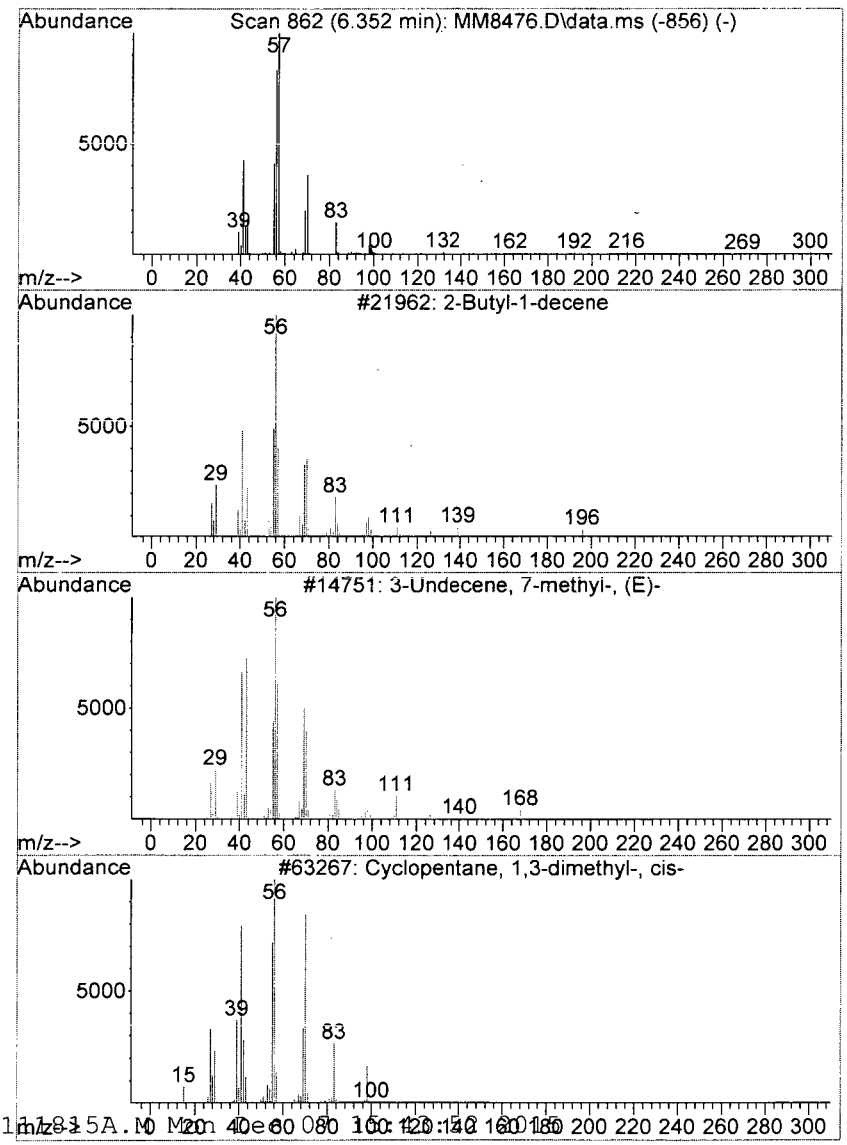

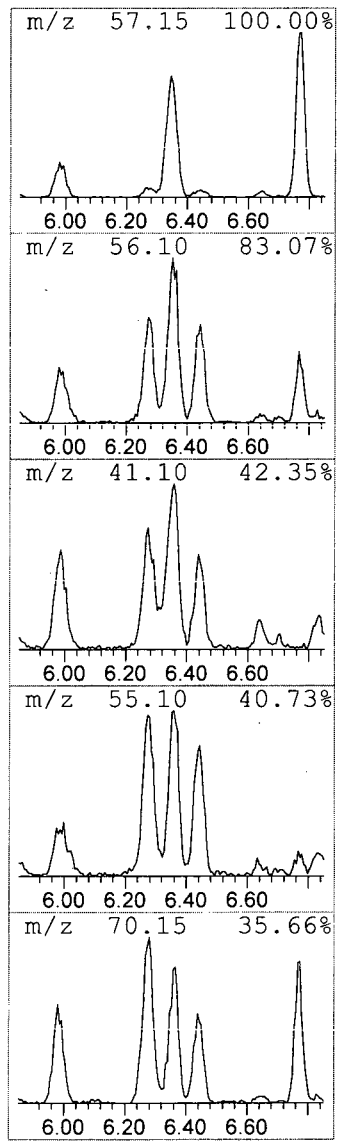

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Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

*********************************************************************
Peak Number 10  Cyclohexane, methyl-            Concentration Rank 11

  R.T.     EstConc          Area       Relative to ISTD         R.T.
---------------------------------------------------------------------
  7.316   13.09 ppb        733925   1,4-Difluorobenzene         6.773

 Hit# of  5    Tentative ID              MW  MolForm       CAS#       Qual
---------------------------------------------------------------------
 1 Cyclohexane, methyl-                   98 C7H14          000108-87-2 97
 2 Cyclohexane, methyl-                   98 C7H14          000108-87-2 94
 3 Cyclohexane, methyl-                   98 C7H14          000108-87-2 94
 4 Cyclopropane, 1,1,2,3-tetramethyl-     98 C7H14          074752-93-5 59
 5 1H-Pyrazole, 4,5-dihydro-4,5-dim...    98 C5H10N2        028019-94-5 58
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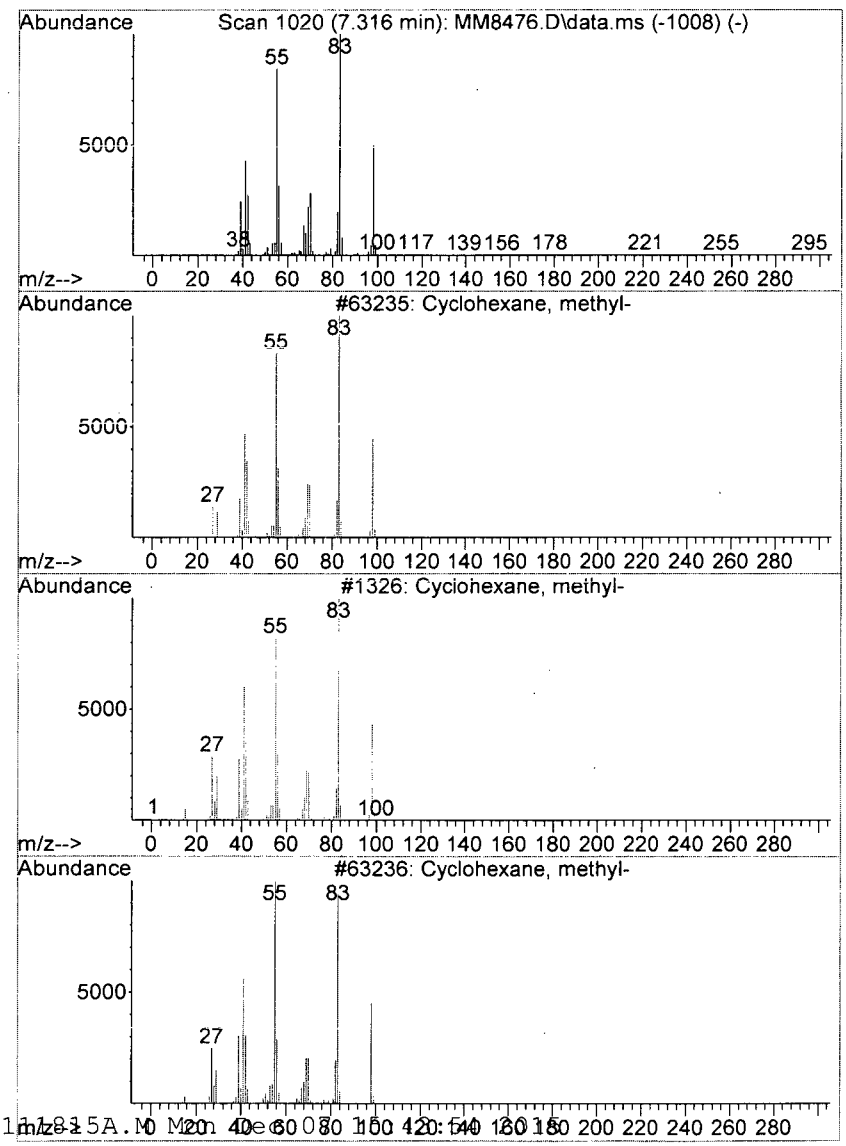

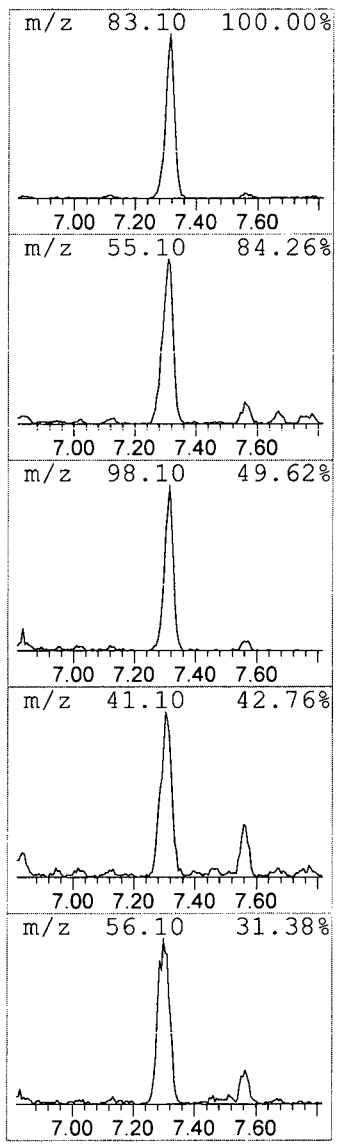

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Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 11  Benzene, 1-ethyl-2-methyl-      Concentration Rank  4
```
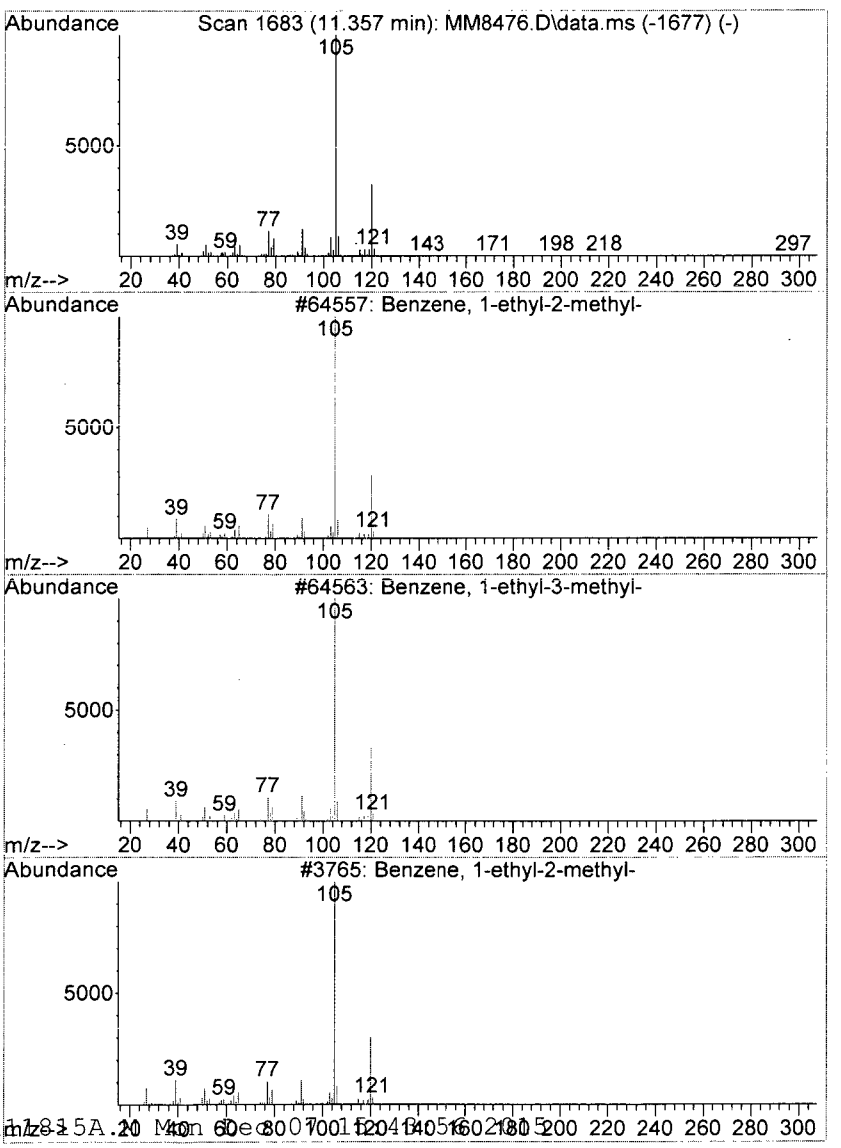
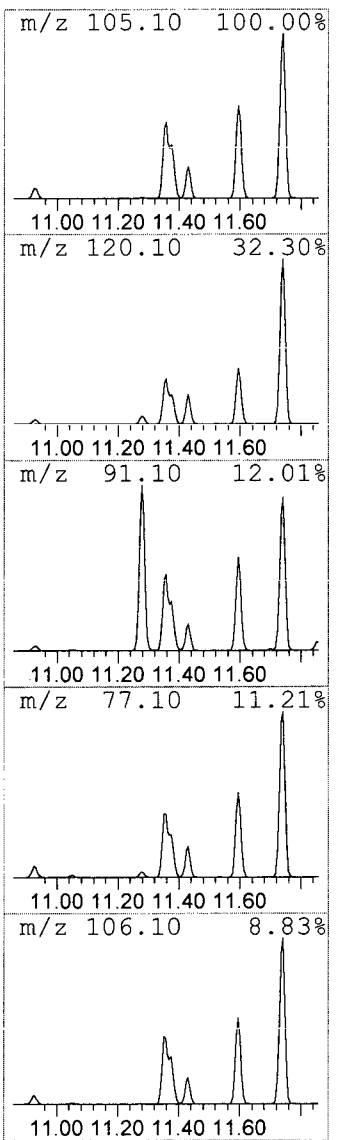

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.358	51.37 ppb	3698630	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
2	Benzene, 1-ethyl-3-methyl-	120	C9H12	000620-14-4	95
3	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
4	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	95
5	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95





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Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 12  Benzene, 1-ethyl-2-methyl-      Concentration Rank  3
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.595	54.20 ppb	3902440	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
2	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
3	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
4	Benzene, 1-ethyl-2-methyl-	120	C9H12	000611-14-3	95
5	Benzene, 1-ethyl-4-methyl-	120	C9H12	000622-96-8	94

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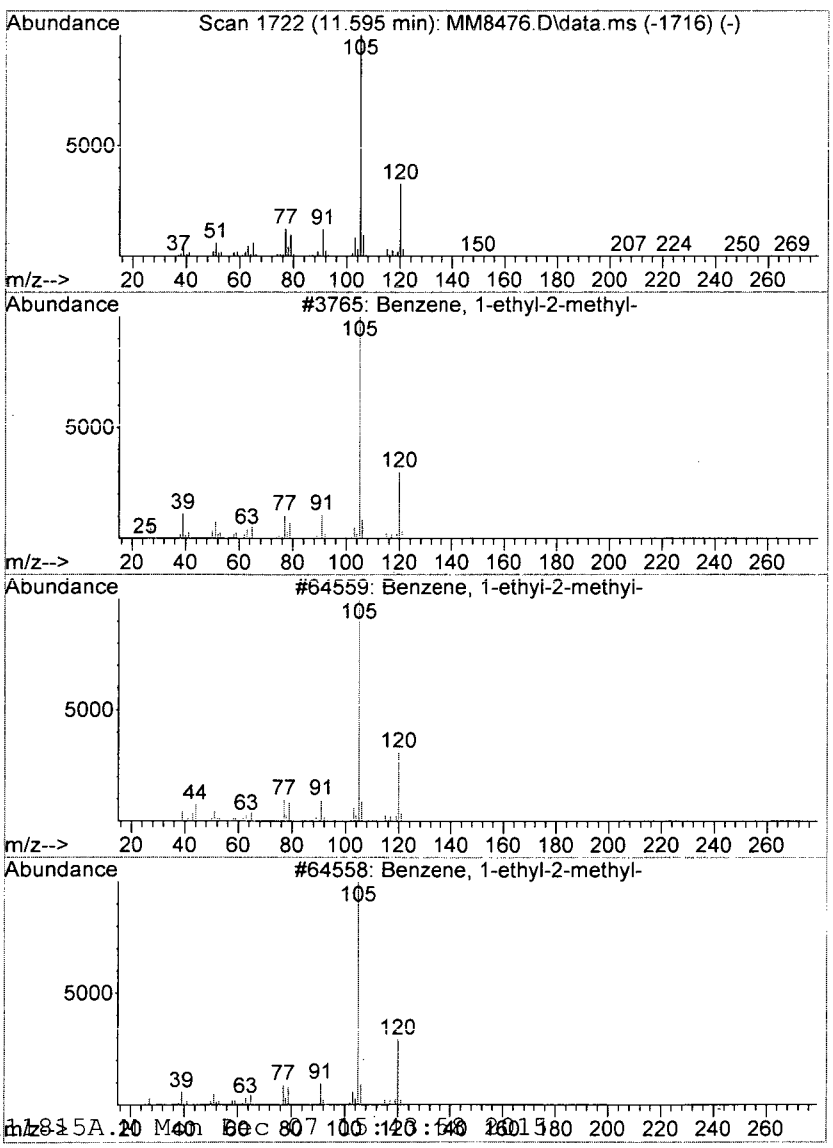

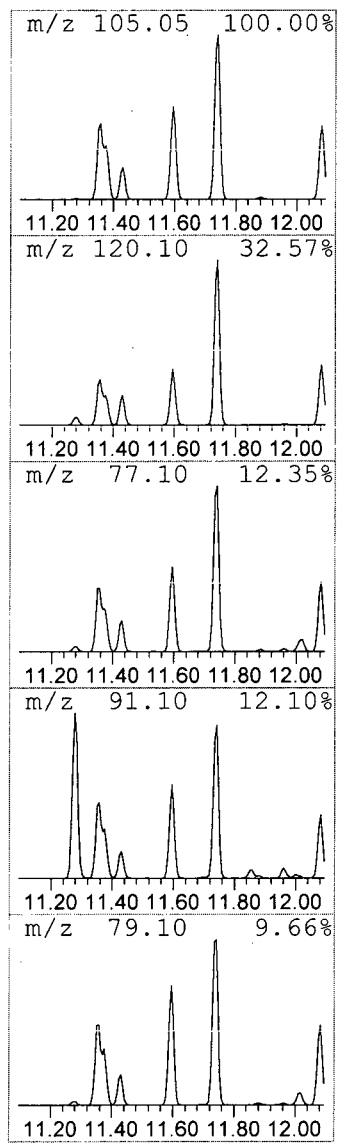

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Data Path : I:\ACQUDATA\msvoa12\Data\120215\
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Acq On    :  2 Dec 2015   6:04 pm
Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

*********************************************************************
Peak Number 13  1,2,4-Trimethylbenzene          Concentration Rank  5
```
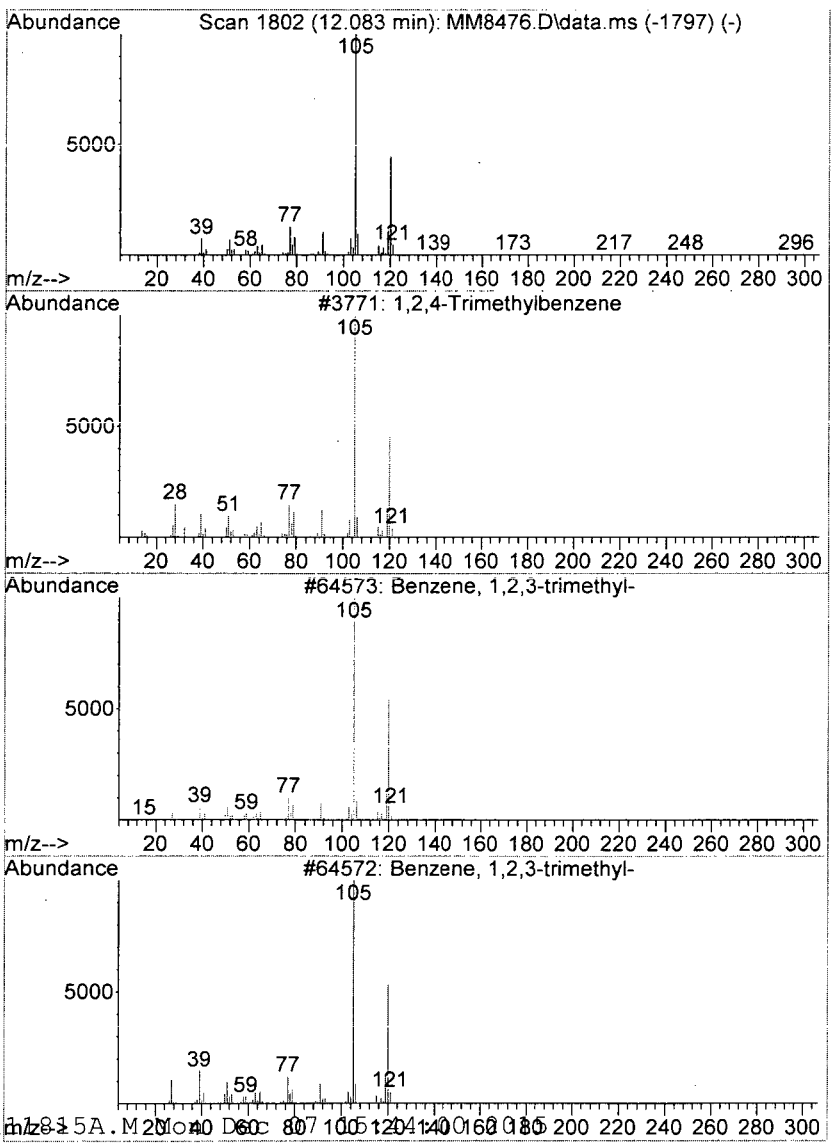
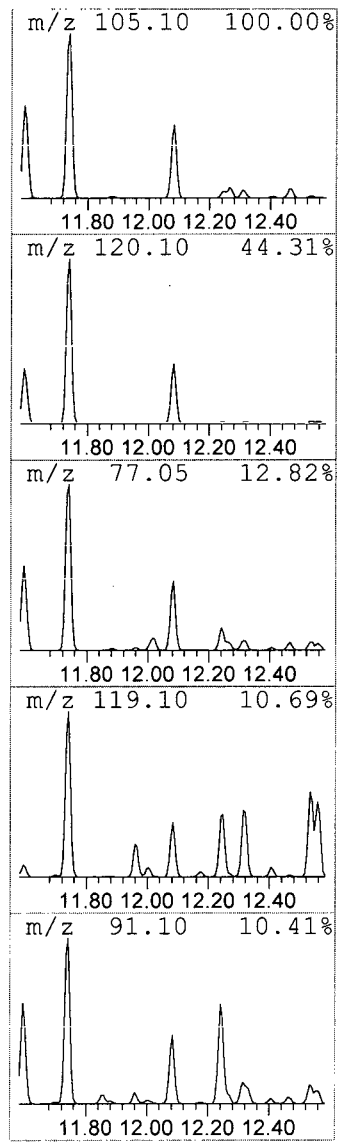

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.083	45.65 ppb	3287140	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1,2,4-Trimethylbenzene	120	C9H12	000095-36-3	97 — wrong RT
2	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	95
3	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
4	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	94
5	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	93





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Acq On    :  2 Dec 2015    6:04 pm
Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 14  Indane                              Concentration Rank  2
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.242	54.35 ppb	3913660	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indane	118	C9H10	000496-11-7	81
2	Benzene, 1-ethenyl-2-methyl-	118	C9H10	000611-15-4	68
3	Benzene, 1-propenyl-	118	C9H10	000637-50-3	64
4	Benzene, 2-propenyl-	118	C9H10	000300-57-2	59
5	Indane	118	C9H10	000496-11-7	55

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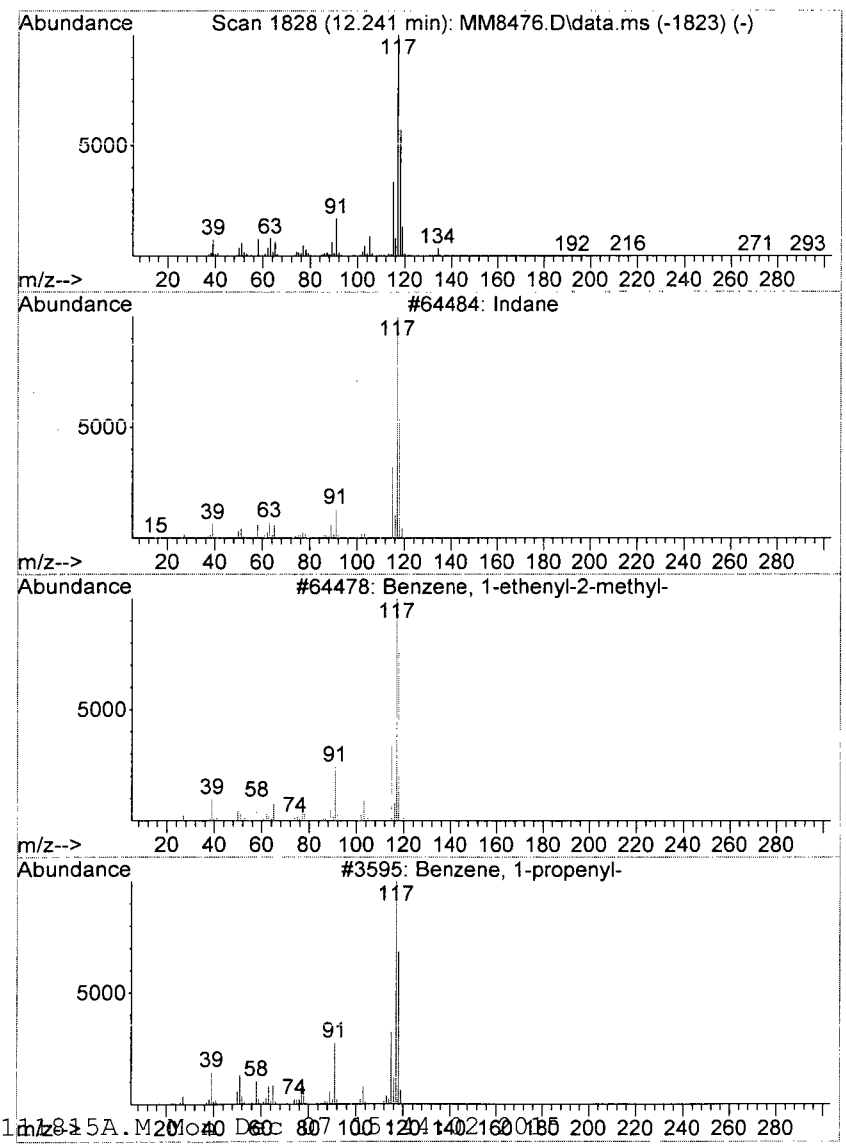

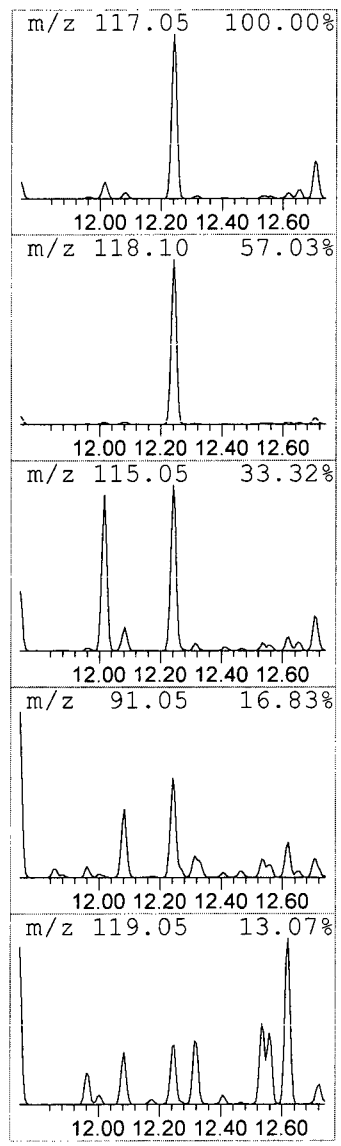

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Data File : MM8476.D
Acq On    :  2 Dec 2015    6:04 pm
Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 15  Benzene, 2-ethyl-1,4-dimethyl-  Concentration Rank 20
```
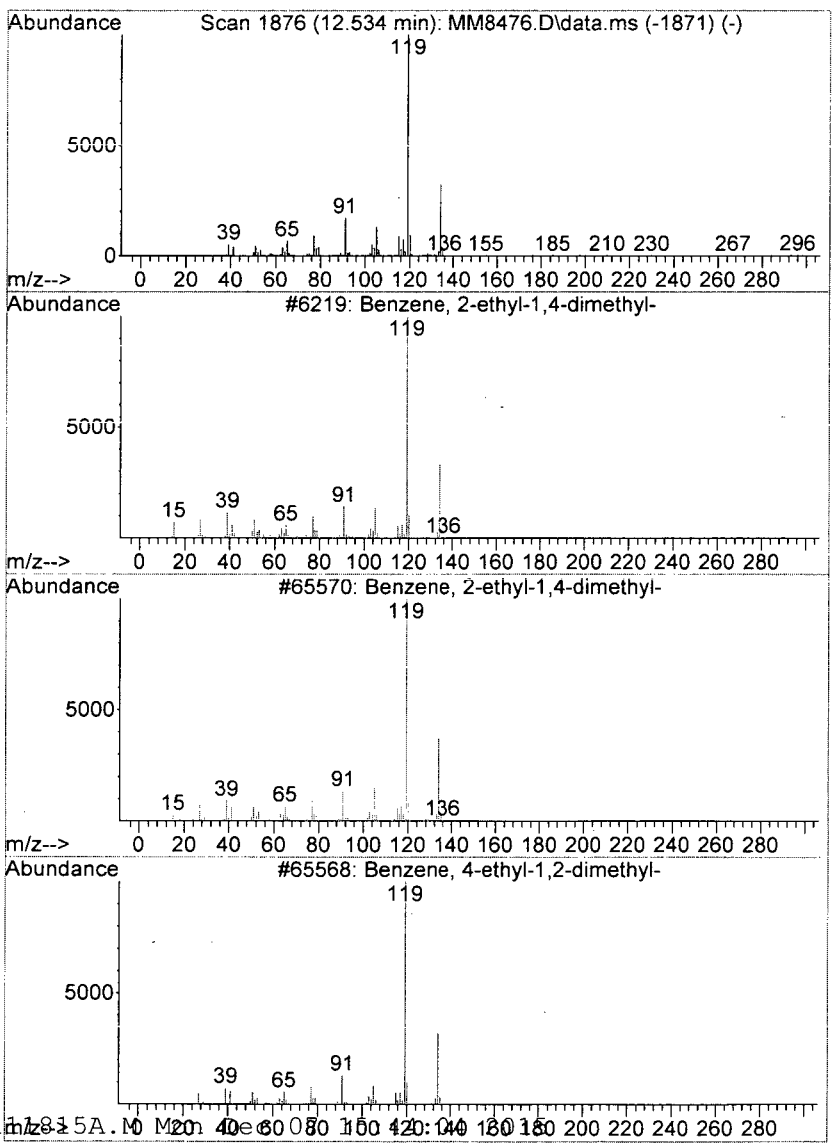
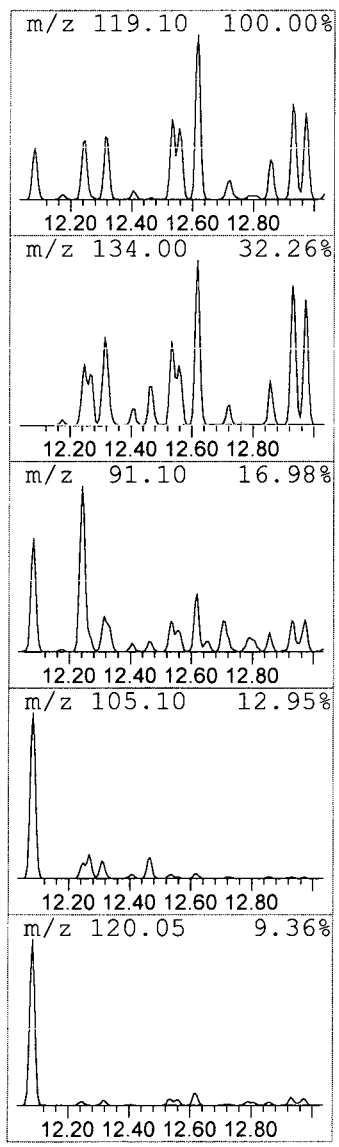

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.534	7.86 ppb	565775	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	97
2	Benzene, 2-ethyl-1,4-dimethyl-	134	C10H14	001758-88-9	95
3	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	95
4	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	95
5	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	94





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Data File : MM8476.D
Acq On    :  2 Dec 2015    6:04 pm
Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

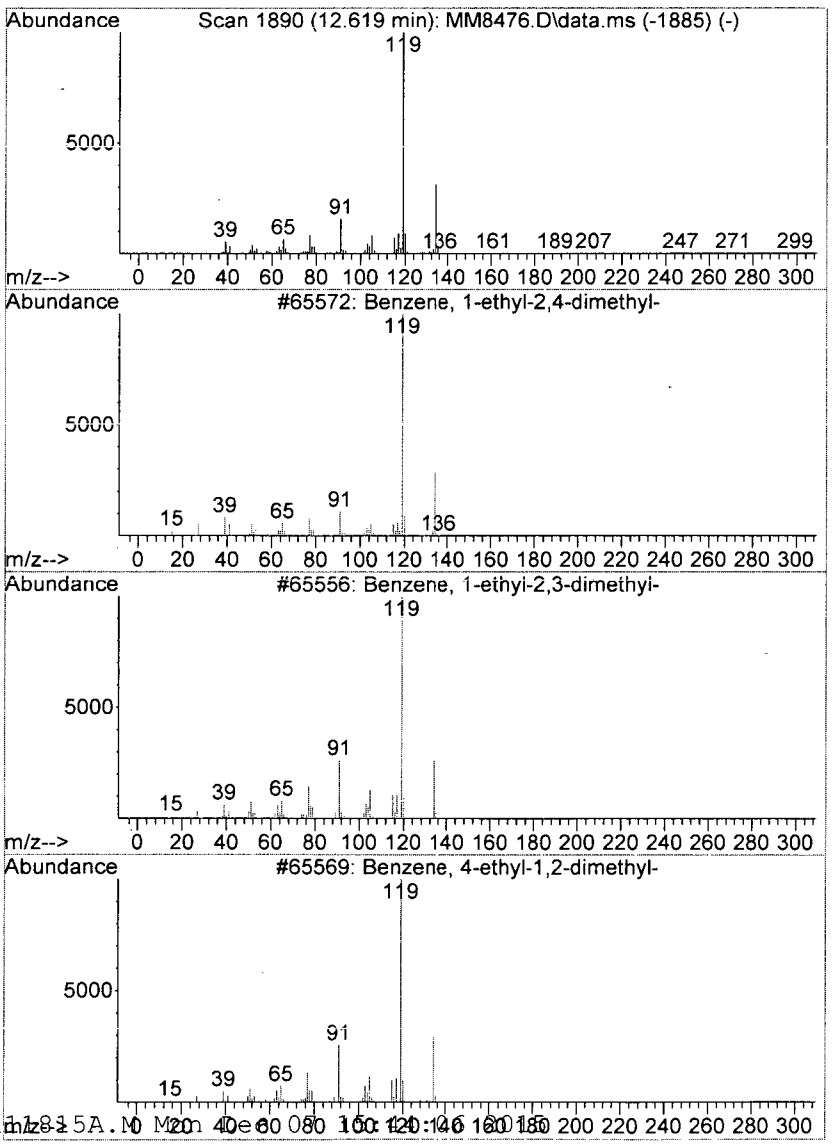
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

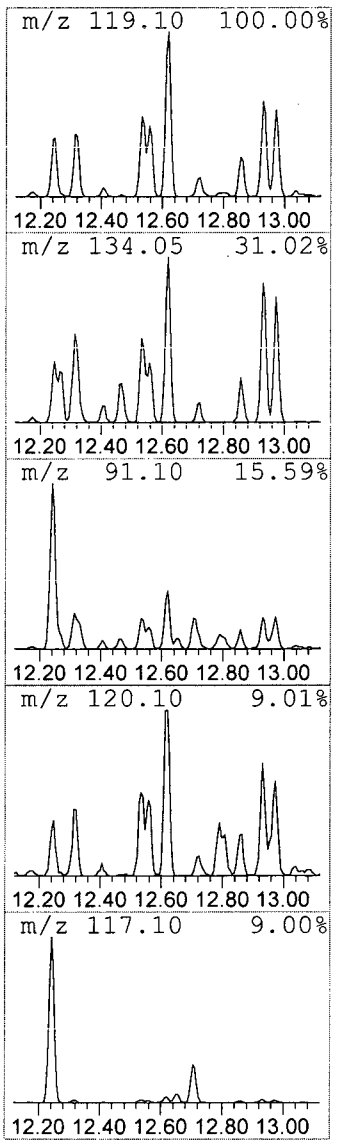
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 16  Benzene, 1-ethyl-2,4-dimethyl-  Concentration Rank 10
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.619	14.63 ppb	1053360	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	95
2	Benzene, 1-ethyl-2,3-dimethyl-	134	C10H14	000933-98-2	95
3	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	95
4	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	94
5	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	94





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Data File : MM8476.D
Acq On    :  2 Dec 2015    6:04 pm
Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 17  2,3-Dihydro-1-methylindene      Concentration Rank 14
```
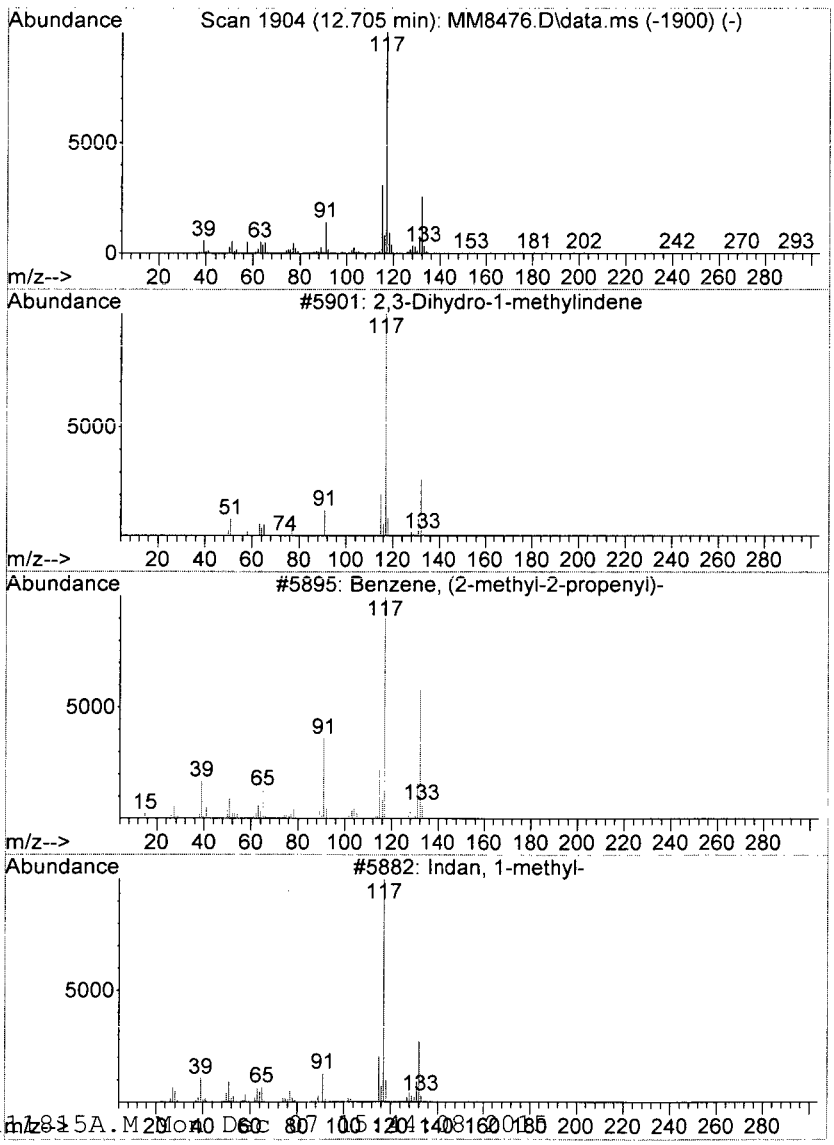
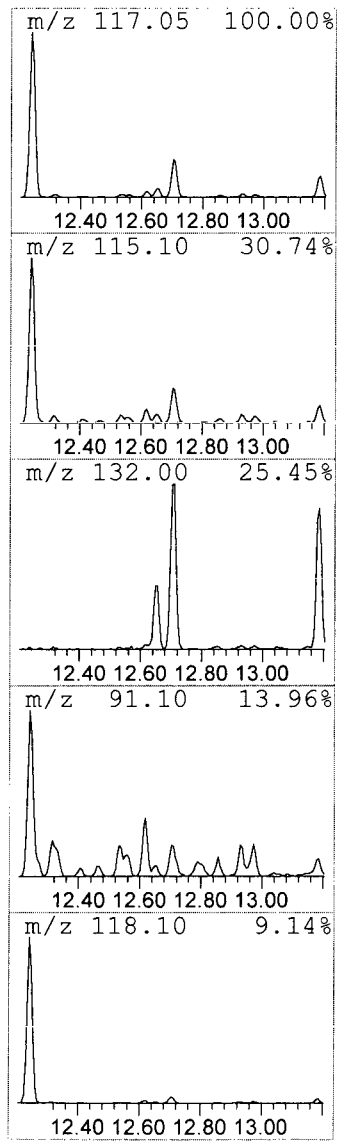

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.705	11.34 ppb	816298	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2,3-Dihydro-1-methylindene	132	C10H12	027133-93-3	87
2	Benzene, (2-methyl-2-propenyl)-	132	C10H12	003290-53-7	87
3	Indan, 1-methyl-	132	C10H12	000767-58-8	86
4	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	80
5	Benzene, 1-ethenyl-3-ethyl-, mix...	264	C20H24	055319-72-7	72





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Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8476.D
Acq On    :  2 Dec 2015    6:04 pm
Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

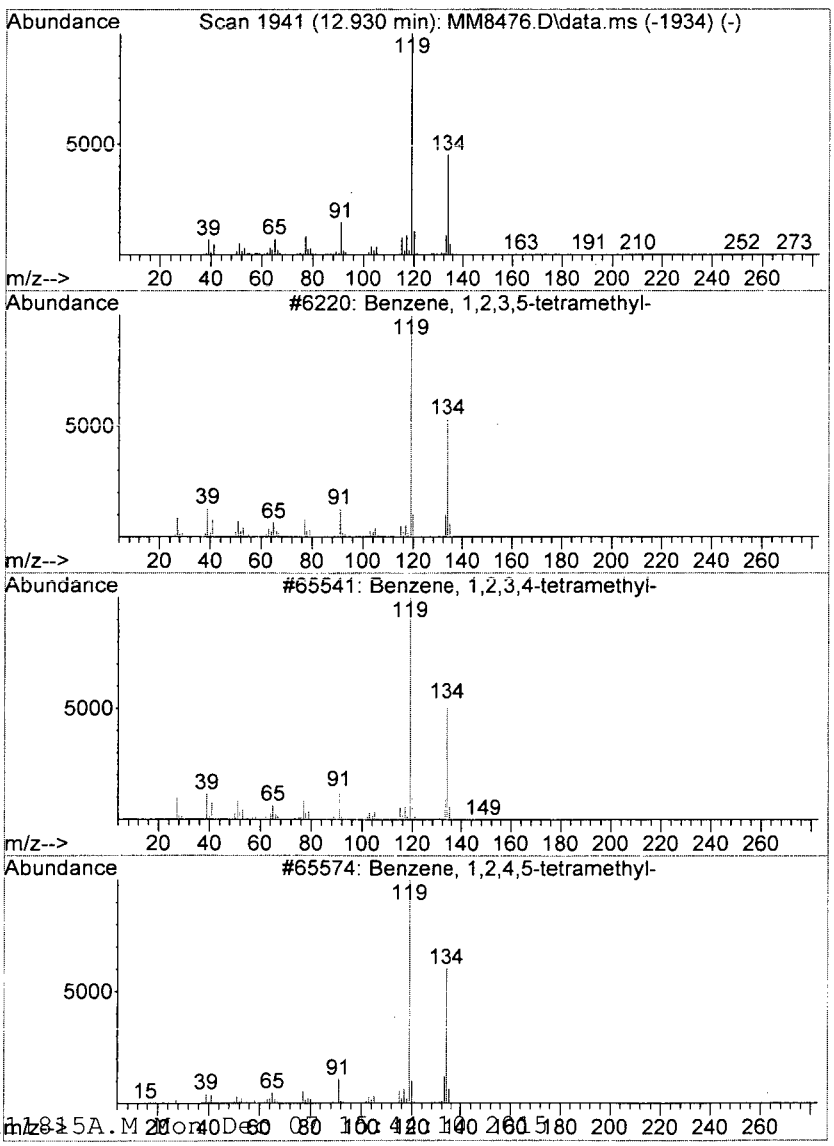
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

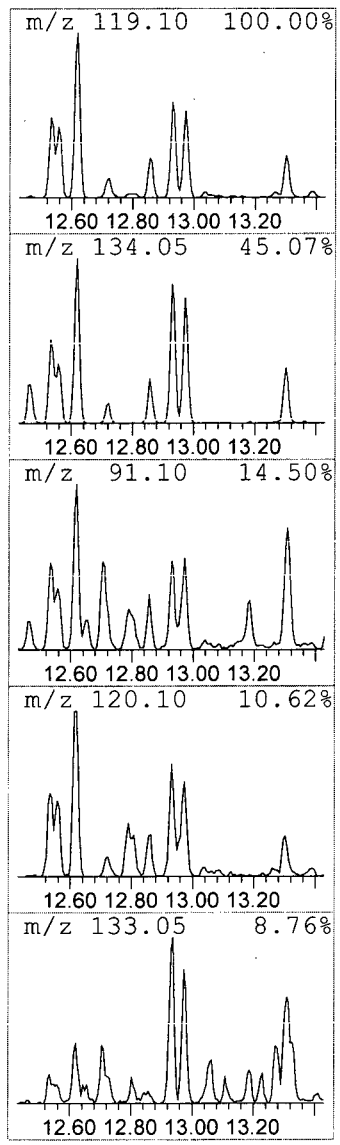
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 18  Benzene, 1,2,3,5-tetramethyl-   Concentration Rank 16
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.930	9.58 ppb	689554	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	97
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	95
3	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	95
4	Benzene, 1-methyl-4-(1-methyleth...	134	C10H14	000099-87-6	95
5	Benzene, 1-methyl-2-(1-methyleth...	134	C10H14	000527-84-4	95





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Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8476.D
Acq On    :  2 Dec 2015    6:04 pm
Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 19  Benzene, 1-ethyl-2,4-dimethyl-  Concentration Rank 19
```
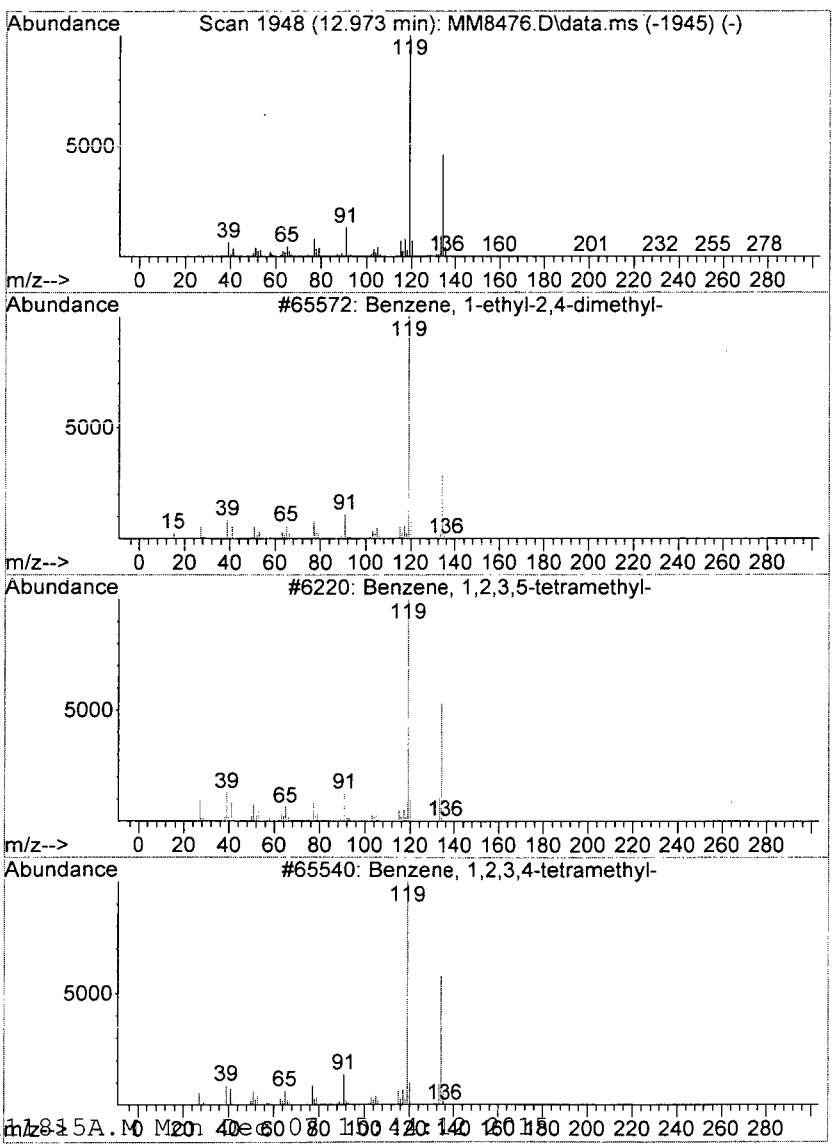
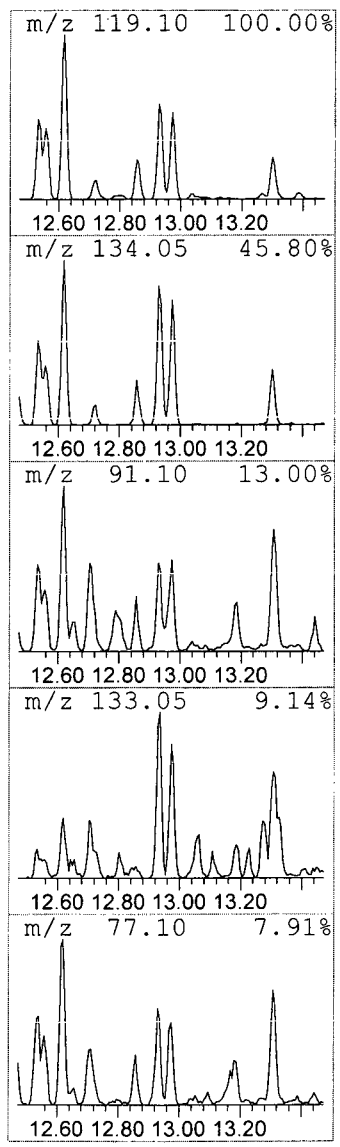

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.973	7.89 ppb	567764	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	95
2	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	94
3	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	94
4	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	93
5	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	91

already called





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Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8476.D
Acq On    :  2 Dec 2015    6:04 pm
Operator  : K.Ruest
Sample    : R1510266-004|2.5                          Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

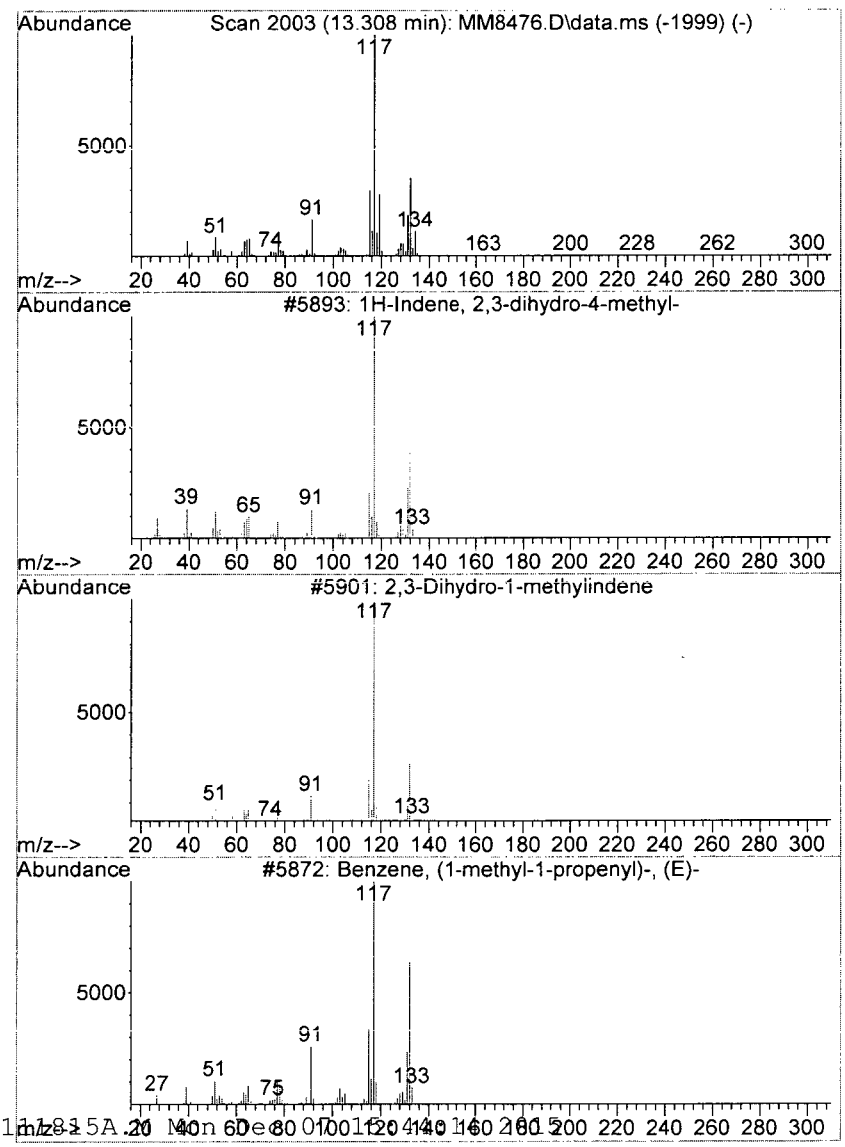
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

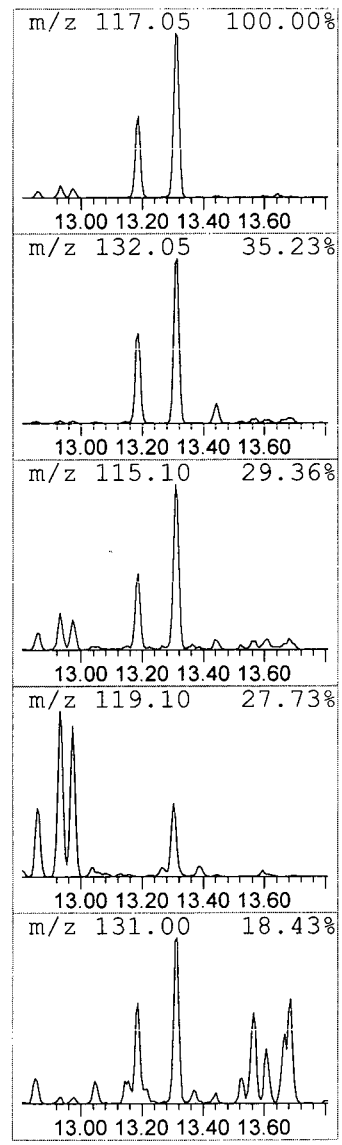
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 20  1H-Indene, 2,3-dihydro-4-me...  Concentration Rank  9
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.308	15.79 ppb	1136650	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	93
2	2,3-Dihydro-1-methylindene	132	C10H12	027133-93-3	92
3	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000768-00-3	81
4	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	76
5	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	74





Analytical Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Collected: 11/23/15 1458
Date Received: 11/25/15

Sample Name: FTMM-53-GW-699RW16-9.7
Lab Code: R1510266-005

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 16:40		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 16:40		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 16:40		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 16:40		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 16:40		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 16:40		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 16:40		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 16:40		474290	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/1/15 16:40		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 16:40		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 16:40		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 16:40		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 16:40		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 16:40		474290	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 16:40		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 16:40		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 16:40		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 16:40		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 16:40		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 16:40		474290	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/1/15 16:40		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 16:40		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 16:40		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 16:40		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 16:40		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 16:40		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 16:40		474290	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 16:40		474290	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1458
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-53-GW-699RW16-9.7	**Units:**	µg/L
Lab Code:	R1510266-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 16:40		474290	
Chloroform	**3.0**	J	5.0	1.0	0.25	1	NA	12/1/15 16:40		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 16:40		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 16:40		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 16:40		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 16:40		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 16:40		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 16:40		474290	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
Tetrachloroethene (PCE)	**1.3**	J	5.0	1.0	0.30	1	NA	12/1/15 16:40		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 16:40		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 16:40		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 16:40		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 16:40		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 16:40		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 16:40		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 16:40		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 16:40		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 16:40		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/1/15 16:40	
Dibromofluoromethane	110	85-115	12/1/15 16:40	
Toluene-d8	112	85-120	12/1/15 16:40	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Analyzed:	12/1/15 1640

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-699RW16-9.7	**Units:**	µg/L
Lab Code:	R1510266-005	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8428.D
Acq On : 1 Dec 2015 4:40 pm
Operator : K.Ruest
Sample : R1510266-005|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 04 09:53:18 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	795986	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1309081	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1208222	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	587630	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	374279	54.99	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.98%				
48) surr1,1,2-dichloroetha...	6.096	65	406303	54.05	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.10%				
65) SURR3,Toluene-d8	8.529	98	1596715	55.75	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 111.50%				
70) SURR2,BFB	11.047	95	617404	57.10	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 114.20%				
Target Compounds							Qvalue
40) Chloroform	5.334	83	37290	3.01	ppb		98
72) Tetrachloroethene	9.181	164	6692	1.34	ppb	#	81

(#) = qualifier out of range (m) = manual integration (+) = signals summed

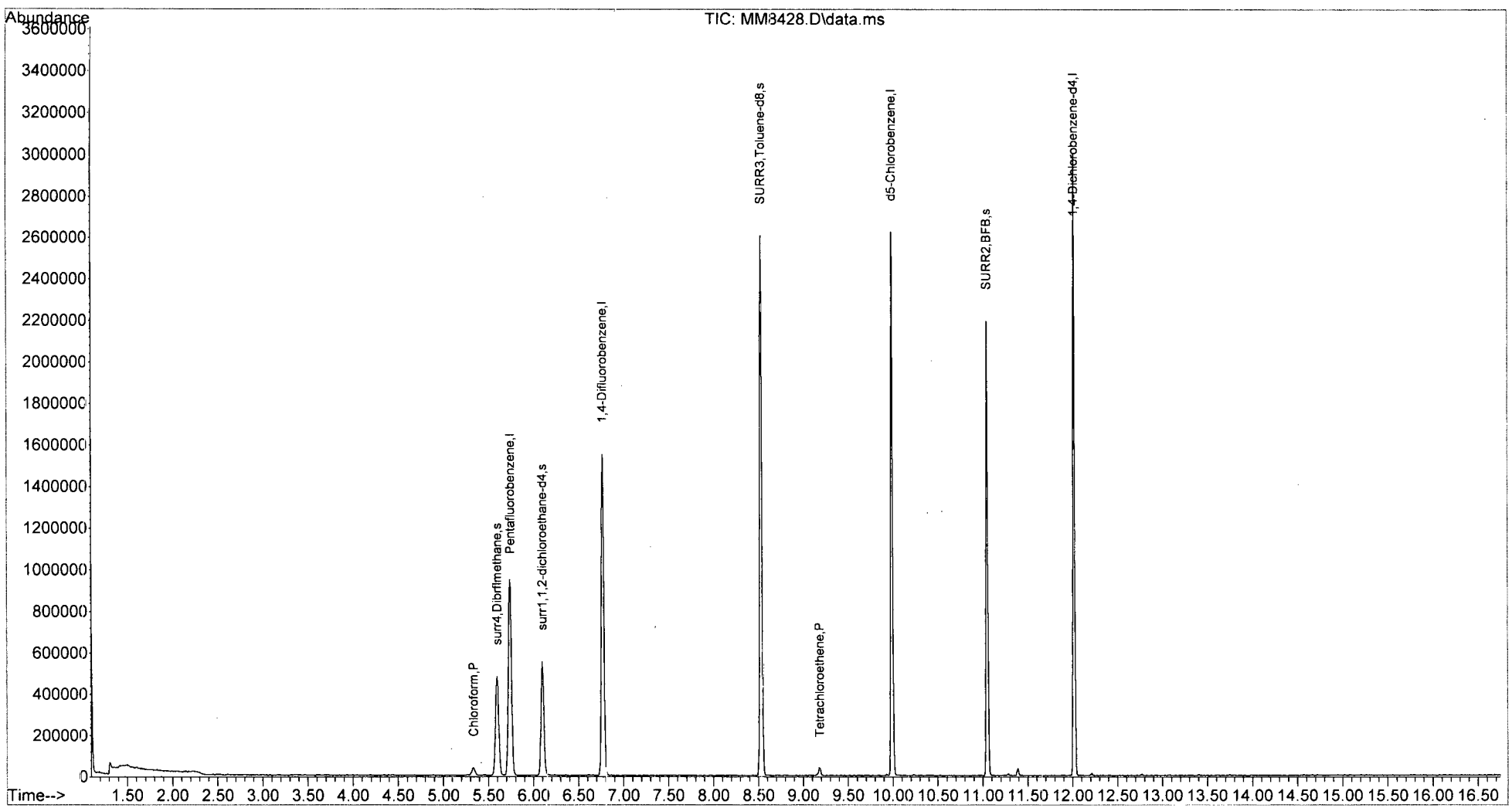
KR
12/4/15

W111815A.M Fri Dec 04 09:54:39 2015 Page: 1

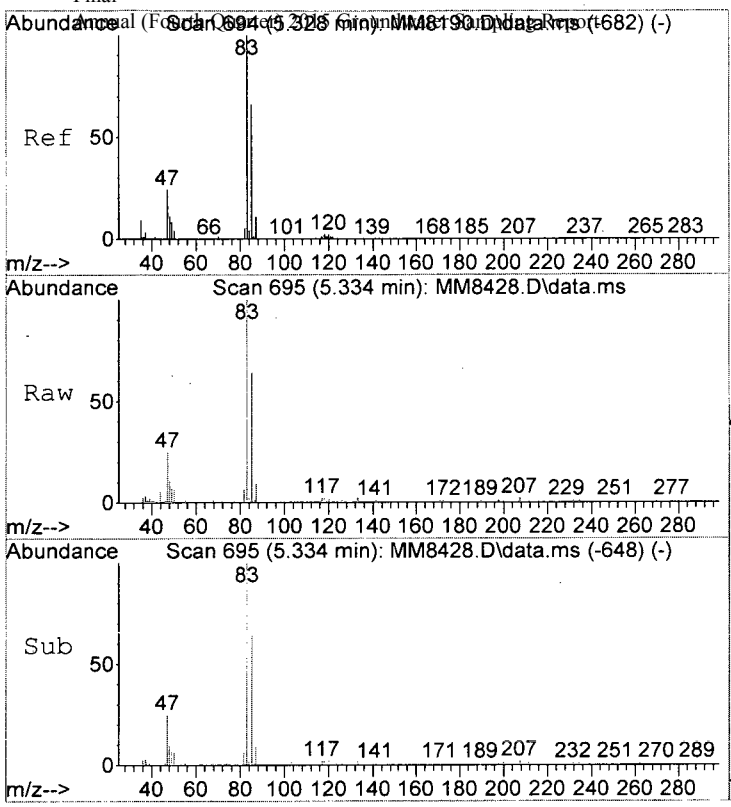
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8428.D
Acq On : 1 Dec 2015 4:40 pm
Operator : K.Ruest
Sample : R1510266-005|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 04 09:53:18 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



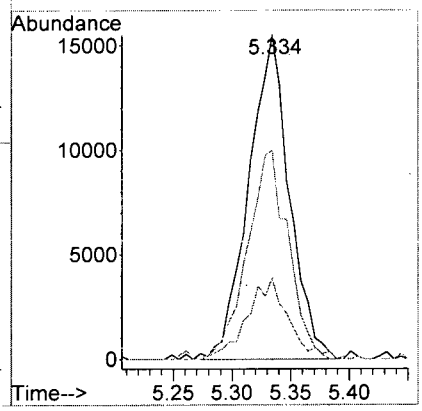
W111815A.M Fri Dec 04 09:54:41 2015 Page: 2

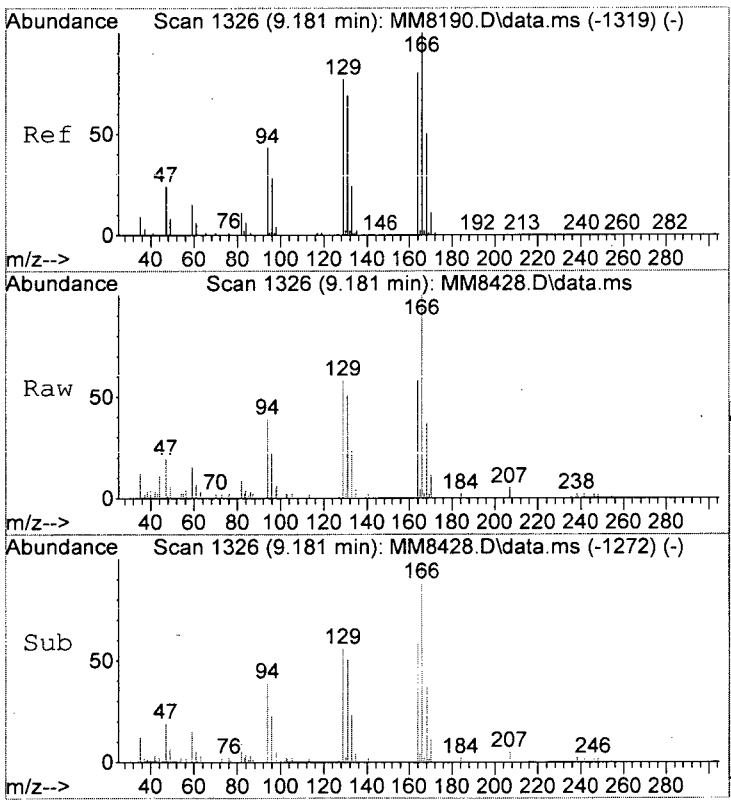


#40
Chloroform
Concen: 3.01 ppb
RT: 5.334 min Scan# 695
Delta R.T. -0.000 min
Lab File: MM8428.D
Acq: 1 Dec 2015 4:40 pm

Tgt Ion: 83 Resp: 37290

Ion	Ratio	Lower	Upper
83	100		
85	64.4	46.1	86.1
47	25.0	3.9	43.9

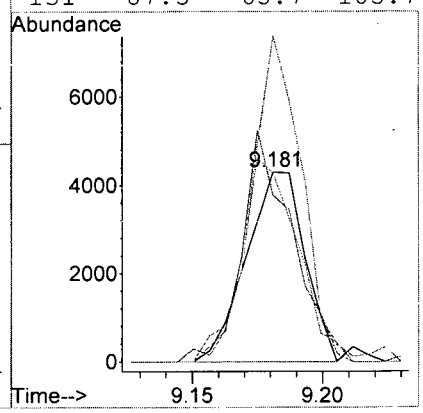




#72
Tetrachloroethene
Concen: 1.34 ppb
RT: 9.181 min Scan# 1326
Delta R.T. -0.000 min
Lab File: MM8428.D
Acq: 1 Dec 2015 4:40 pm

Tgt Ion:164 Resp: 6692

Ion	Ratio	Lower	Upper
164	100		
166	171.8	104.3	144.3#
129	99.5	75.4	115.4
131	87.5	65.7	105.7



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8428.D
Acq On : 1 Dec 2015 4:40 pm
Operator : K.Ruest
Sample : R1510266-005|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8428.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.311	31	35	40	rBV	57447	120544	2.88%	0.539%
2	5.334	687	695	704	rVB	37110	95797	2.29%	0.428%
3	5.596	728	738	748	rBV	480974	1207363	28.89%	5.396%
4	5.737	751	761	773	rVB	947303	2273173	54.40%	10.159%
5	6.096	809	820	833	rBV	553047	1215437	29.08%	5.432%
6	6.767	921	930	940	rBV	1552162	3051920	73.03%	13.639%
7	8.529	1212	1219	1228	rBV	2604249	4178980	100.00%	18.676%
8	9.175	1318	1325	1332	rVB3	39073	71943	1.72%	0.322%
9	9.986	1451	1458	1470	rBV	2621893	3662824	87.65%	16.369%
10	11.047	1626	1632	1641	rBV	2191880	2779162	66.50%	12.420%
11	11.388	1683	1688	1693	rBV2	35315	46595	1.11%	0.208%
12	12.016	1785	1791	1798	rVB	2998519	3672805	87.89%	16.414%

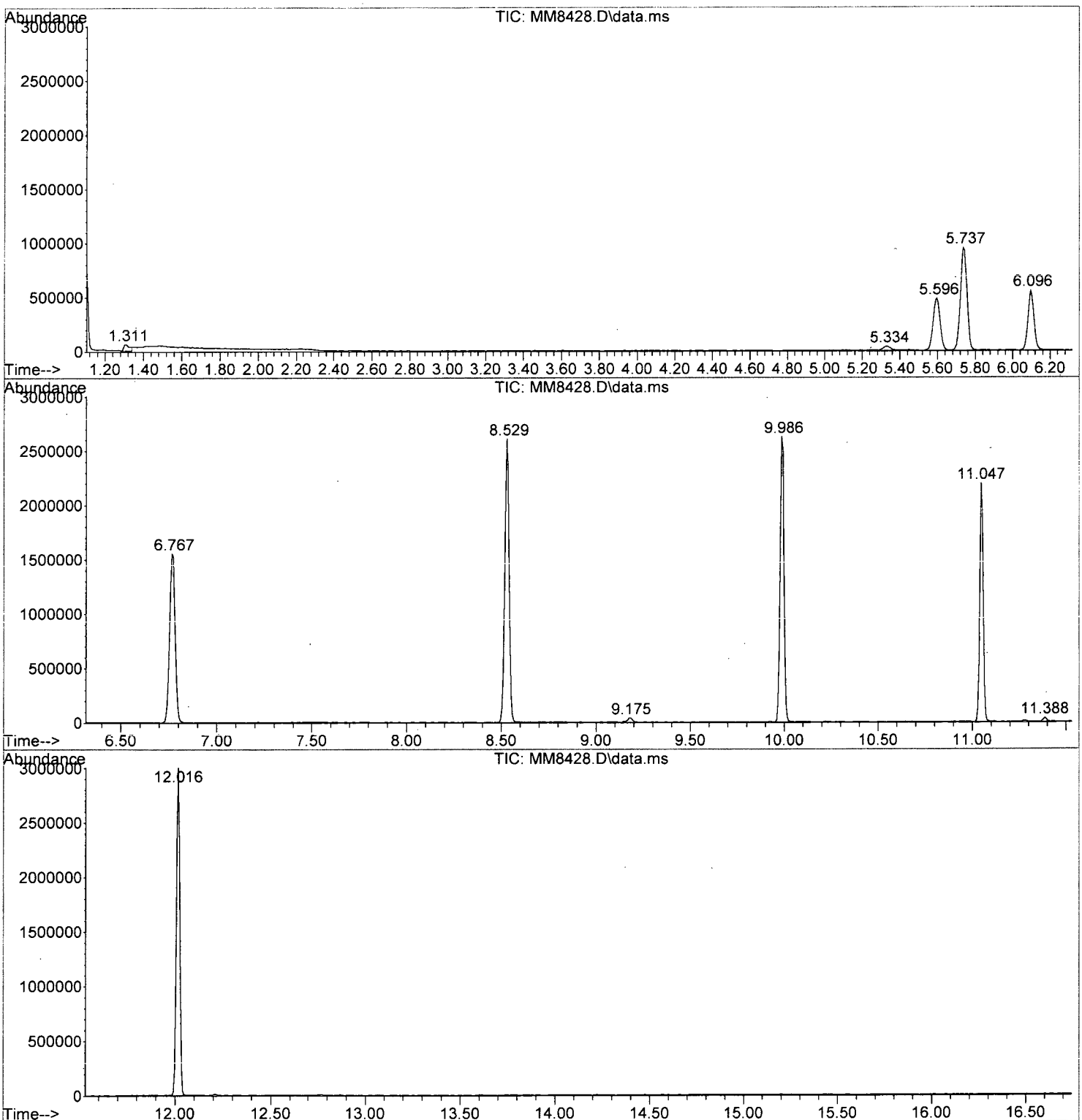
Sum of corrected areas: 22376543

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8428.D
Acq On    :  1 Dec 2015   4:40 pm
Operator  : K.Ruest
Sample    : R1510266-005|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 15   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\120115\\
Data File : MM8428.D
Acq On : 1 Dec 2015 4:40 pmm
Operator : K.Ruestt
Sample : R1510266-005|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 15 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1220
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-53-GW-MW01-12.9	**Units:**	µg/L
Lab Code:	R1510266-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 17:11		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 17:11		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 17:11		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 17:11		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 17:11		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 17:11		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 17:11		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 17:11		474290	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/1/15 17:11		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 17:11		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 17:11		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 17:11		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 17:11		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 17:11		474290	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 17:11		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 17:11		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 17:11		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 17:11		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 17:11		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 17:11		474290	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/1/15 17:11		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 17:11		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 17:11		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 17:11		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 17:11		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 17:11		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 17:11		474290	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 17:11		474290	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1220
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-53-GW-MW01-12.9	**Units:**	µg/L
Lab Code:	R1510266-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 17:11		474290	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/1/15 17:11		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 17:11		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 17:11		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 17:11		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 17:11		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 17:11		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 17:11		474290	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/1/15 17:11		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 17:11		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 17:11		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 17:11		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 17:11		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 17:11		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 17:11		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 17:11		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 17:11		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:11		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/1/15 17:11	
Dibromofluoromethane	110	85-115	12/1/15 17:11	
Toluene-d8	111	85-120	12/1/15 17:11	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Analyzed:	12/1/15 1711

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-MW01-12.9	**Units:**	µg/L
Lab Code:	R1510266-006	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120115\
Data File : MM8429.D
Acq On : 1 Dec 2015 5:11 pm
Operator : K.Ruest
Sample : R1510266-006|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 01 17:26:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.743	168	798416	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.773	114	1312778	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1214944	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	596653	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.596	113	376455	55.16	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 110.32%			
48) surr1,1,2-dichloroetha...	6.096	65	409946	54.38	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.76%			
65) SURR3,Toluene-d8	8.529	98	1591448	55.40	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 110.80%			
70) SURR2,BFB	11.047	95	619271	57.11	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 114.22%			
Target Compounds						Qvalue
6) Chloroethane	1.786	64	2821	0.41	ppb	# 49
12) Acrolein	2.420	56	459	0.67	ppb	82
15) Acetone	2.487	43	1011	0.59	ppb	89
16) 2-Propanol	2.670	45	206	0.64	ppb	58
53) 1-Butanol	7.139	56	316	2.08	ppb	80
61) 2-Nitropropane	7.986	41	300	0.23	ppb	89
90) Cyclohexanone	11.010	55	655	1.46	ppb	94

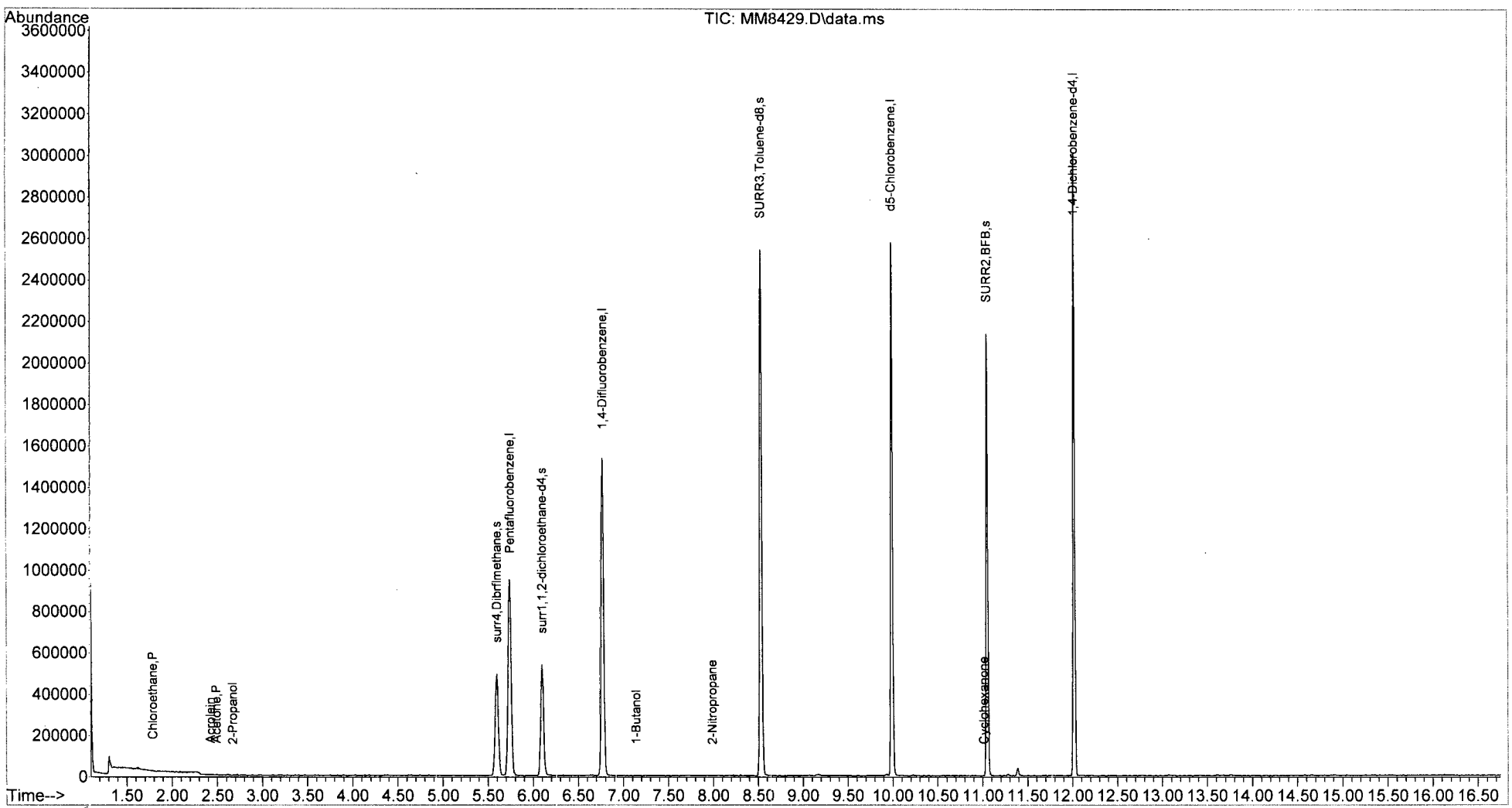
(#) = qualifier out of range (m) = manual integration (+) = signals summed

KB 12/4/15

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120115\
Data File : MM8429.D
Acq On : 1 Dec 2015 5:11 pm
Operator : K.Ruest
Sample : R1510266-006|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 01 17:26:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Tue Dec 01 17:27:03 2015 Page: 2

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8429.D
Acq On : 1 Dec 2015 5:11 pm
Operator : K.Ruest
Sample : R1510266-006|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8429.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.305	31	34	40	rBV	83736	148817	3.60%	0.670%
2	5.596	727	738	749	rBV	490690	1198641	28.98%	5.399%
3	5.737	752	761	772	rVB	948105	2265531	54.78%	10.205%
4	6.096	812	820	833	rBV	537788	1195282	28.90%	5.384%
5	6.767	918	930	943	rBV	1535738	3051133	73.77%	13.744%
6	8.529	1211	1219	1229	rBV	2541708	4135827	100.00%	18.630%
7	9.986	1452	1458	1471	rBV	2577081	3693731	89.31%	16.638%
8	11.047	1627	1632	1642	rVB	2136751	2776475	67.13%	12.507%
9	11.388	1682	1688	1692	rBV2	38504	54867	1.33%	0.247%
10	12.016	1785	1791	1798	rBV	3008491	3679695	88.97%	16.575%

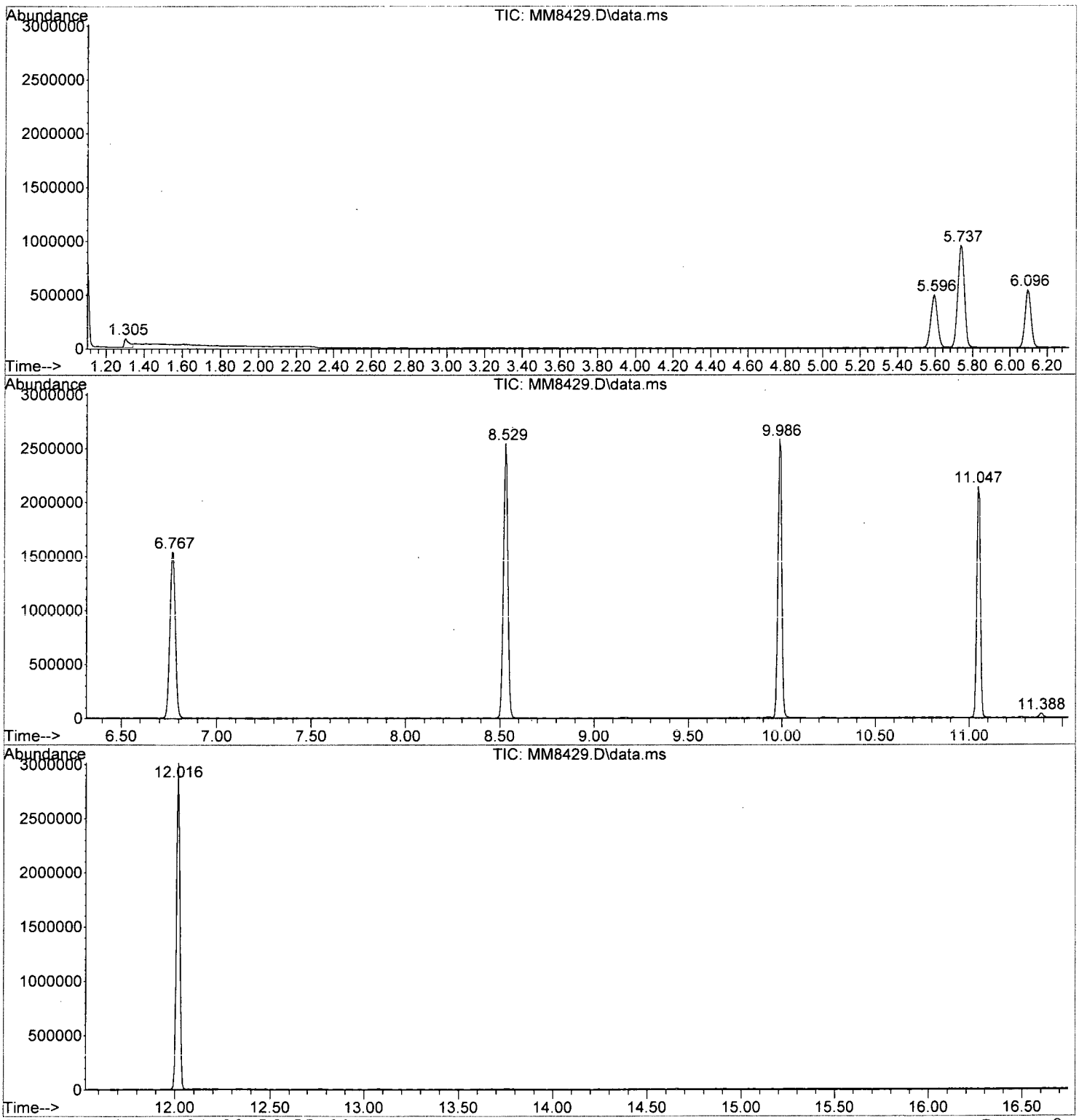
Sum of corrected areas: 22199999

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8429.D
Acq On    :  1 Dec 2015    5:11 pm
Operator  : K.Ruest
Sample    : R1510266-006|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 16   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



W111815A.M Fri Dec 04 09:56:55 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\120115\\
Data File : MM8429.D
Acq On : 1 Dec 2015 5:11 pmm
Operator : K.Ruestt
Sample : R1510266-006|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 16 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1045
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-53-WW-MW01-8.4	**Units:**	µg/L
Lab Code:	R1510266-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 17:41		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 17:41		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 17:41		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 17:41		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 17:41		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 17:41		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 17:41		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 17:41		474290	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/1/15 17:41		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 17:41		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 17:41		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 17:41		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 17:41		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 17:41		474290	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 17:41		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 17:41		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 17:41		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 17:41		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 17:41		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 17:41		474290	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/1/15 17:41		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 17:41		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 17:41		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 17:41		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 17:41		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 17:41		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 17:41		474290	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 17:41		474290	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1045
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-53-WW-MW01-8.4	**Units:**	µg/L
Lab Code:	R1510266-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 17:41		474290	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/1/15 17:41		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 17:41		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 17:41		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 17:41		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 17:41		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 17:41		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 17:41		474290	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/1/15 17:41		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 17:41		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 17:41		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 17:41		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 17:41		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 17:41		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 17:41		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 17:41		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 17:41		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 17:41		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	12/1/15 17:41	
Dibromofluoromethane	111	85-115	12/1/15 17:41	
Toluene-d8	108	85-120	12/1/15 17:41	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Analyzed:	12/1/15 1741

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-WW-MW01-8.4	**Units:**	µg/L
Lab Code:	R1510266-007	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120115\
Data File : MM8430.D
Acq On : 1 Dec 2015 5:41 pm
Operator : K.Ruest
Sample : R1510266-007|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 01 17:57:25 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	787734	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1308587	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1201943	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	589966	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	376598	55.35	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 110.70%				
48) surr1,1,2-dichloroetha...	6.103	65	418367	55.67	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 111.34%				
65) SURR3,Toluene-d8	8.529	98	1546555	54.01	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 108.02%				
70) SURR2,BFB	11.047	95	611235	56.55	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 113.10%				
Target Compounds							Qvalue
6) Chloroethane	1.780	64	1637	0.24	ppb	#	49
12) Acrolein	2.317	56	668	1.00	ppb		86
15) Acetone	2.500	43	946	0.56	ppb		95
16) 2-Propanol	2.603	45	255	0.80	ppb		57
53) 1-Butanol	7.109	56	332	2.19	ppb		81
61) 2-Nitropropane	7.962	41	283	0.22	ppb	#	1
90) Cyclohexanone	10.980	55	212	0.48	ppb	#	15
91) trans-1,4-Dichloro-2-B...	11.266	53	273	Below Cal		#	26

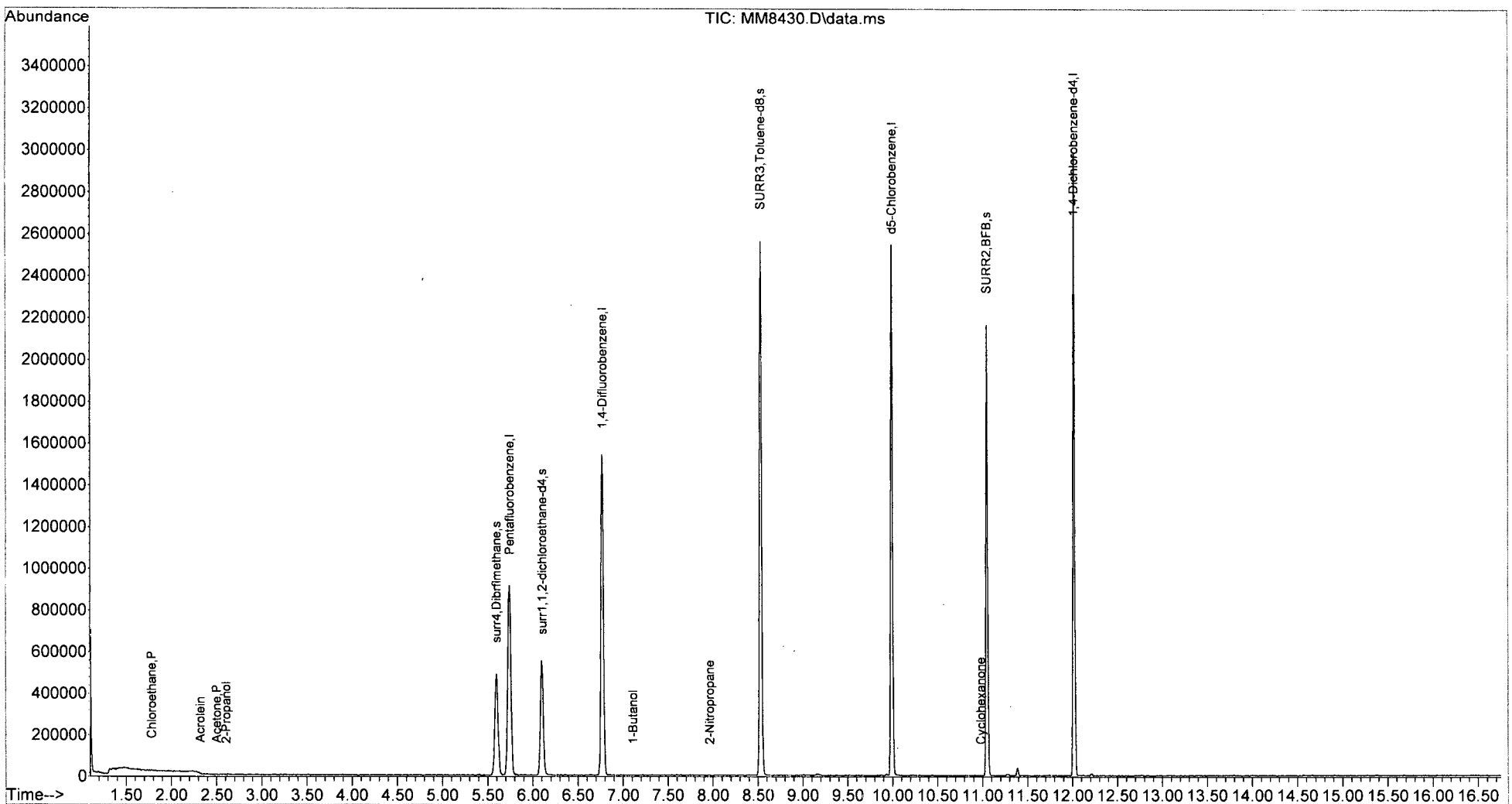
(#) = qualifier out of range (m) = manual integration (+) = signals summed

KR 12/4/15

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120115\
Data File : MM8430.D
Acq On : 1 Dec 2015 5:41 pm
Operator : K.Ruest
Sample : R1510266-007|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 01 17:57:25 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Tue Dec 01 17:57:32 2015 Page: 2

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8430.D
Acq On : 1 Dec 2015 5:41 pm
Operator : K.Ruest
Sample : R1510266-007|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8430.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.597	727	738	748	rBV	488572	1206723	29.83%	5.519%
2	5.737	750	761	772	rVV	913769	2256577	55.79%	10.321%
3	6.097	809	820	832	rBV	552056	1220689	30.18%	5.583%
4	6.767	922	930	940	rBV	1540239	3015151	74.54%	13.791%
5	8.529	1211	1219	1232	rVB	2561673	4045080	100.00%	18.501%
6	9.986	1453	1458	1468	rVB	2544426	3648587	90.20%	16.688%
7	11.047	1625	1632	1640	rBV	2163650	2774310	68.58%	12.689%
8	11.388	1683	1688	1693	rVB	36784	46603	1.15%	0.213%
9	12.016	1786	1791	1799	rVB	2980693	3649824	90.23%	16.694%

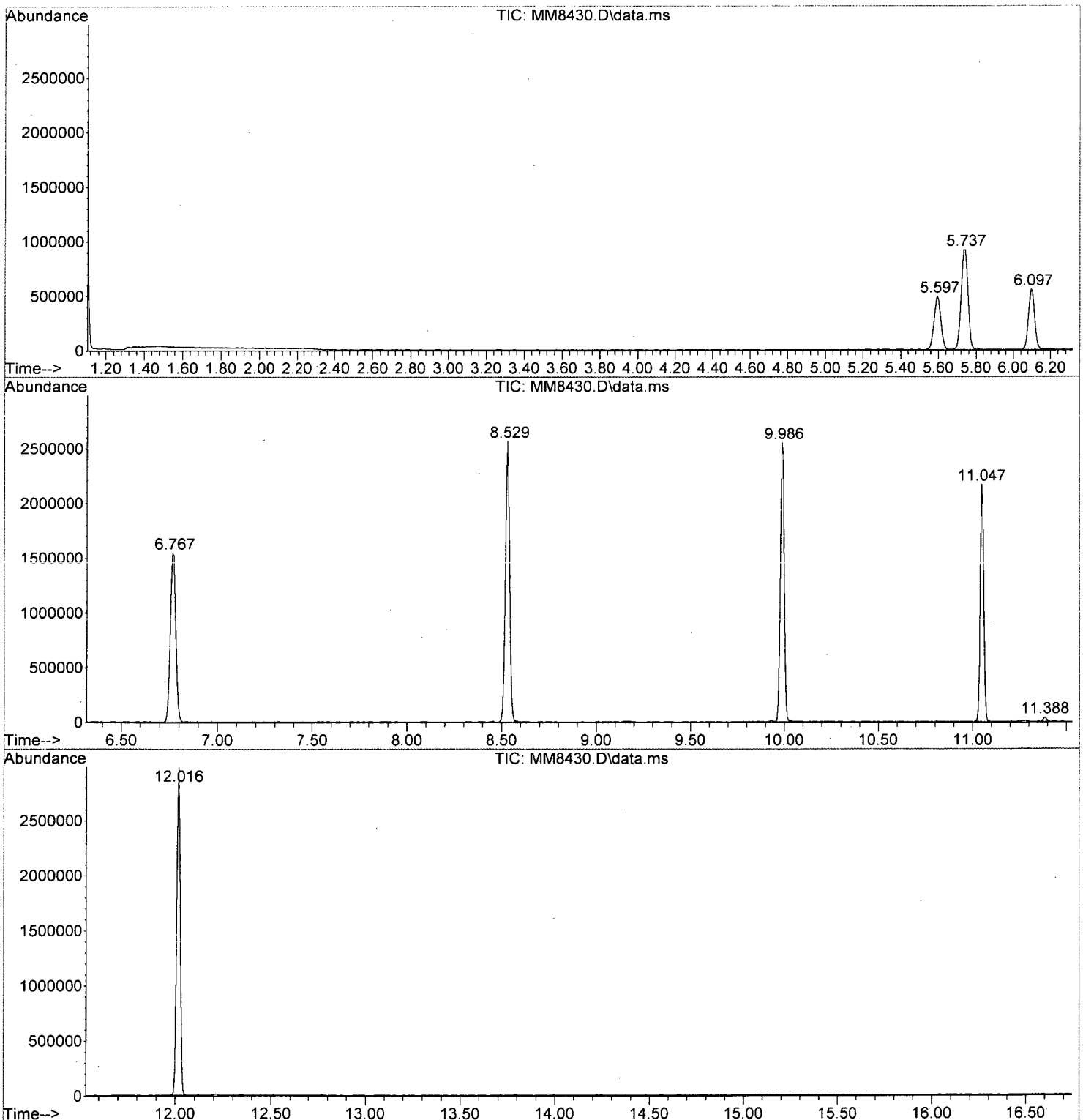
Sum of corrected areas: 21863544

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8430.D
Acq On : 1 Dec 2015 5:41 pm
Operator : K.Ruest
Sample : R1510266-007|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 17 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



W111815A.M Fri Dec 04 09:58:53 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\120115\\
Data File : MM8430.D
Acq On : 1 Dec 2015 5:41 pmm
Operator : K.Ruestt
Sample : R1510266-007|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 17 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1600
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	EB-2015-11-23	**Units:**	µg/L
Lab Code:	R1510266-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 13:06		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 13:06		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 13:06		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 13:06		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 13:06		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 13:06		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 13:06		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 13:06		474290	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/1/15 13:06		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 13:06		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 13:06		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 13:06		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 13:06		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 13:06		474290	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 13:06		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 13:06		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 13:06		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 13:06		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 13:06		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 13:06		474290	
Acetone	7.7		5.0	5.0	1.3	1	NA	12/1/15 13:06		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 13:06		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 13:06		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 13:06		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 13:06		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 13:06		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 13:06		474290	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 13:06		474290	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Collected: 11/23/15 1600
Date Received: 11/25/15

Sample Name: EB-2015-11-23
Lab Code: R1510266-008

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 13:06		474290	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/1/15 13:06		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 13:06		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 13:06		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 13:06		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 13:06		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 13:06		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 13:06		474290	
Naphthalene	**0.22**	**J**	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/1/15 13:06		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 13:06		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 13:06		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 13:06		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 13:06		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 13:06		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 13:06		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 13:06		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 13:06		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 13:06		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	12/1/15 13:06	
Dibromofluoromethane	111	85-115	12/1/15 13:06	
Toluene-d8	109	85-120	12/1/15 13:06	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Analyzed:	12/1/15 1306

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-23	**Units:**	µg/L
Lab Code:	R1510266-008	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120115\
Data File : MM8421.D
Acq On : 1 Dec 2015 1:06 pm
Operator : K.Ruest
Sample : R1510266-008|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 01 13:22:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	820234	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1343975	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1225253	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	576624	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	386623	55.33	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 110.66%				
48) surr1,1,2-dichloroetha...	6.096	65	409401	53.04	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.08%				
65) SURR3,Toluene-d8	8.529	98	1606008	54.61	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 109.22%				
70) SURR2,BFB	11.047	95	615786	55.47	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.94%				
Target Compounds							Qvalue
~~12) Acrolein~~	~~2.347~~	~~56~~	~~391~~	~~0.56~~	~~ppb~~		~~91~~
15) Acetone	2.493	43	13424	7.68	ppb		95
~~16) 2-Propanol~~	~~2.658~~	~~45~~	~~218~~	~~0.66~~	~~ppb~~		~~89~~
35) 2-Butanone	4.786	43	867	0.36	ppb		80
39) Tetrahydrofuran	5.261	42	454	0.29	ppb	#	33
53) 1-Butanol	~~7.151~~	56	238	1.53	ppb	#	10
58) 1,4-Dioxane	7.596	88	257	4.78	ppb	#	5
61) 2-Nitropropane	8.005	41	276	0.21	ppb	#	1
~~90) Cyclohexanone~~	~~10.992~~	~~55~~	~~473~~	~~1.09~~	~~ppb~~	~~#~~	~~63~~
112) Trielution Dichlorotol...	13.065	125	3401	0.33	ppb	#	60
114) Coelution Dichlorotoluene	13.406	125	2540	0.24	ppb		92
116) Hexachlorobt	13.753	225	763	0.26	ppb		94
117) Naphthalen	13.802	128	3327	0.22	ppb		86
118) 1,2,3-Tclbenzene	13.991	180	1267	0.20	ppb	#	64
119) 2,4,5-Trichlorotolene	14.570	159	2844	0.62	ppb	#	85
120) 2,3,6-Trichlorotoluene	14.570	159	2844	0.70	ppb		91

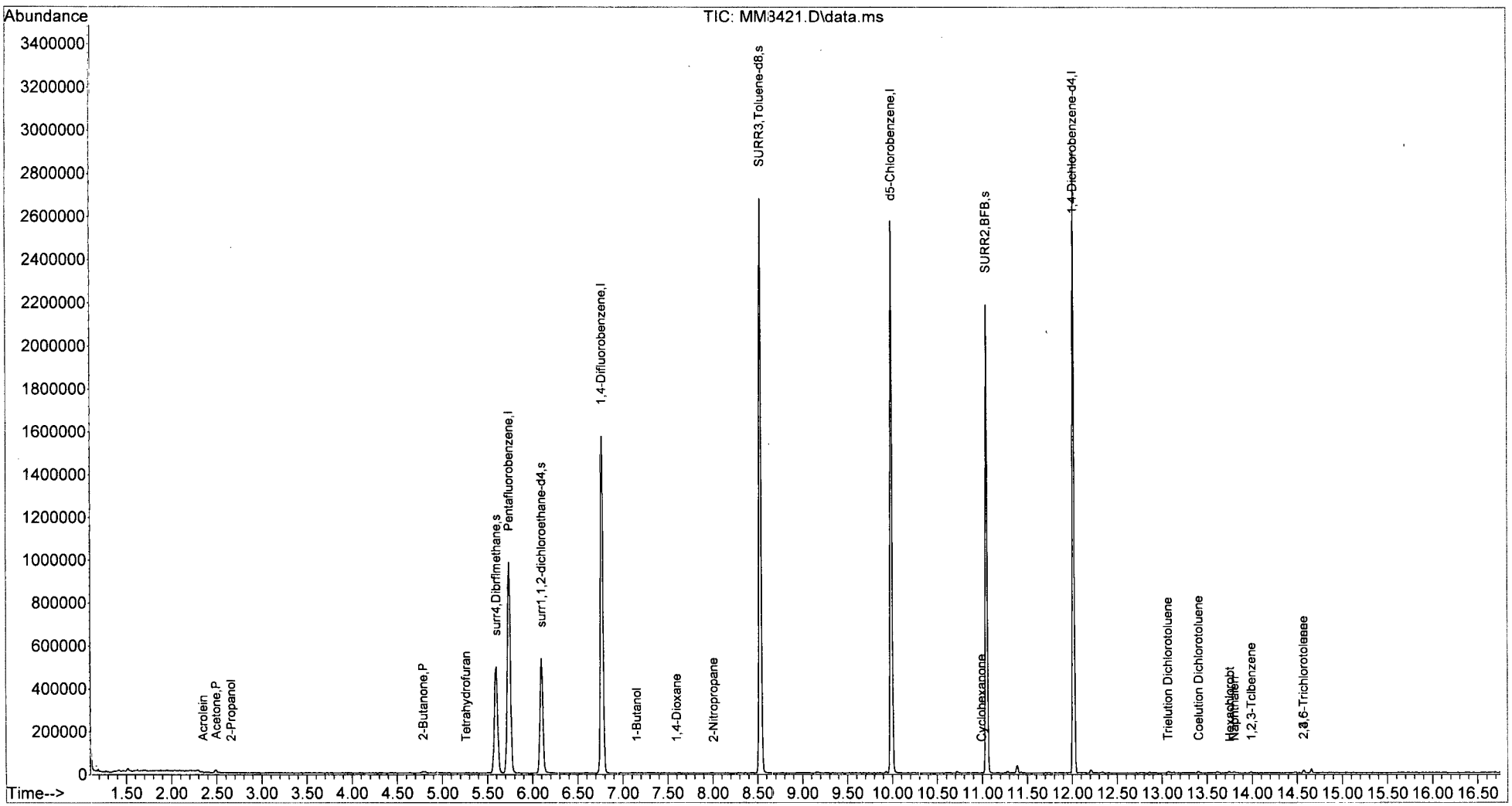
(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/3/15

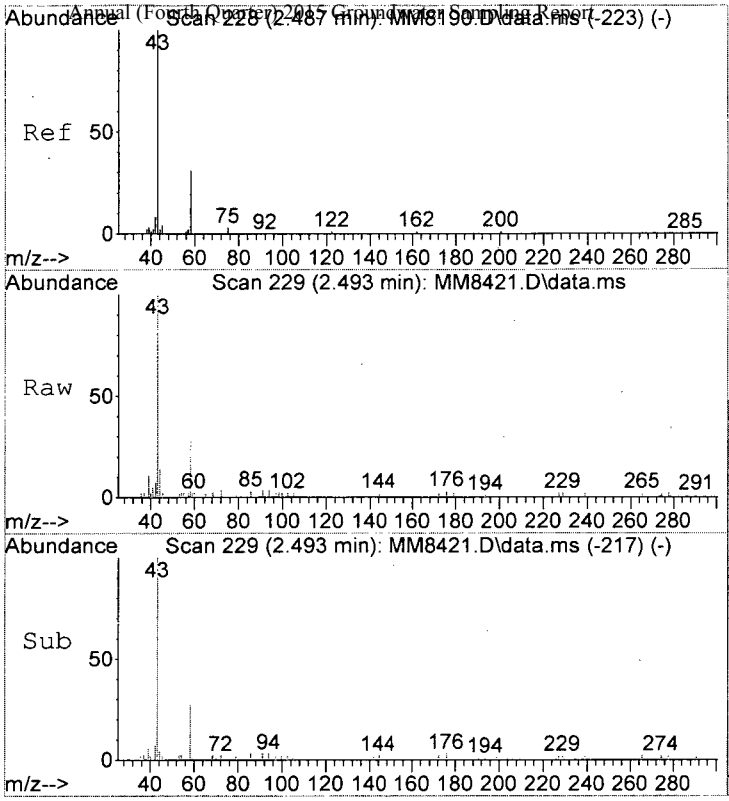
Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120115\
Data File : MM8421.D
Acq On : 1 Dec 2015 1:06 pm
Operator : K.Ruest
Sample : R1510266-008|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 01 13:22:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



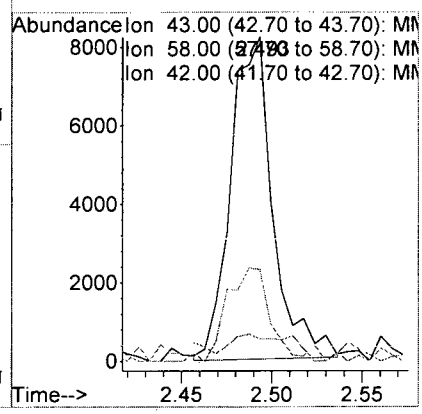
W111815A.M Tue Dec 01 13:22:12 2015 Page: 2



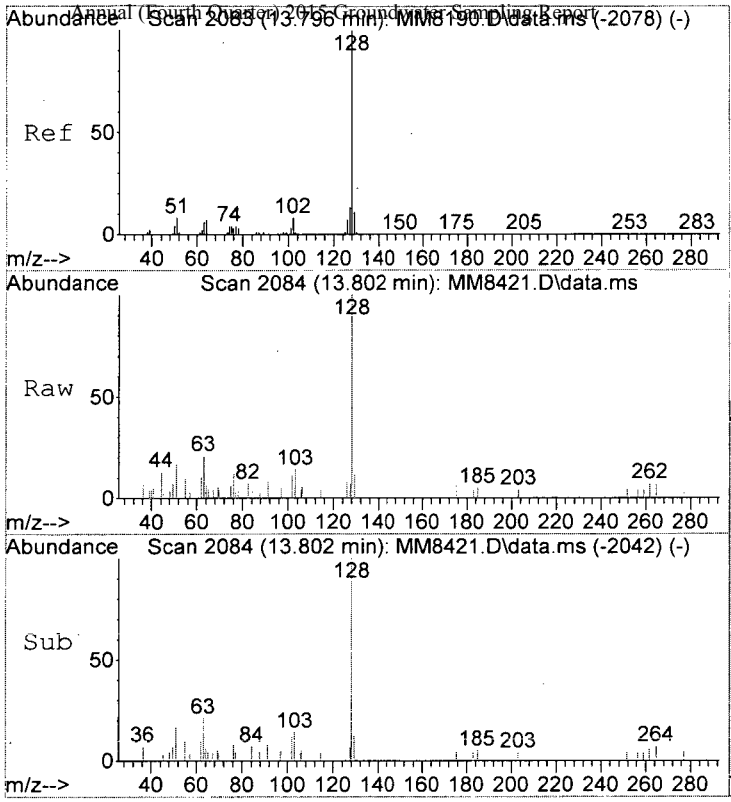
#15
Acetone
Concen: 7.68 ppb
RT: 2.493 min Scan# 229
Delta R.T. -0.000 min
Lab File: MM8421.D
Acq: 1 Dec 2015 1:06 pm

Tgt Ion: 43 Resp: 13424

Ion	Ratio	Lower	Upper
43	100		
58	28.3	10.9	50.9
42	6.9	0.0	28.5



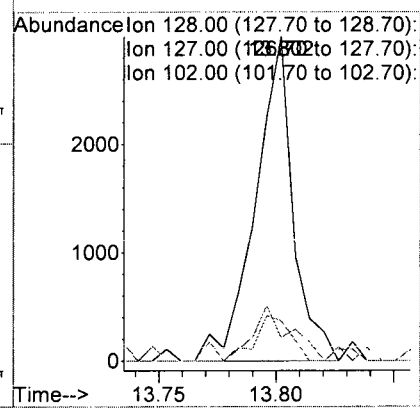
MM8421.D W111815A.M Thu Dec 03 17:41:37 2015 Page 1



#117
Naphthalen
Concen: 0.22 ppb
RT: 13.802 min Scan# 2084
Delta R.T. -0.000 min
Lab File: MM8421.D
Acq: 1 Dec 2015 1:06 pm

Tgt Ion:128 Resp: 3327

Ion	Ratio	Lower	Upper
128	100		
127	7.2	0.0	33.1
102	12.4	0.0	28.3



MM8421.D W111815A.M Thu Dec 03 17:41:48 2015 Page 1

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8421.D
Acq On : 1 Dec 2015 1:06 pm
Operator : K.Ruest
Sample : R1510266-008|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8421.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.596	727	738	751	rBV2	496938	1239782	29.65%	5.588%
2	5.737	751	761	774	rVB	982950	2326695	55.64%	10.487%
3	6.096	810	820	829	rBV	535314	1194618	28.57%	5.384%
4	6.767	919	930	940	rBV	1576417	3072204	73.47%	13.847%
5	8.529	1212	1219	1228	rBV	2677808	4181534	100.00%	18.846%
6	9.986	1452	1458	1469	rBV	2576594	3726552	89.12%	16.796%
7	11.047	1626	1632	1640	rBV	2187778	2803413	67.04%	12.635%
8	11.388	1683	1688	1692	rBV	38240	55237	1.32%	0.249%
9	12.016	1785	1791	1798	rBV	2896776	3587319	85.79%	16.168%

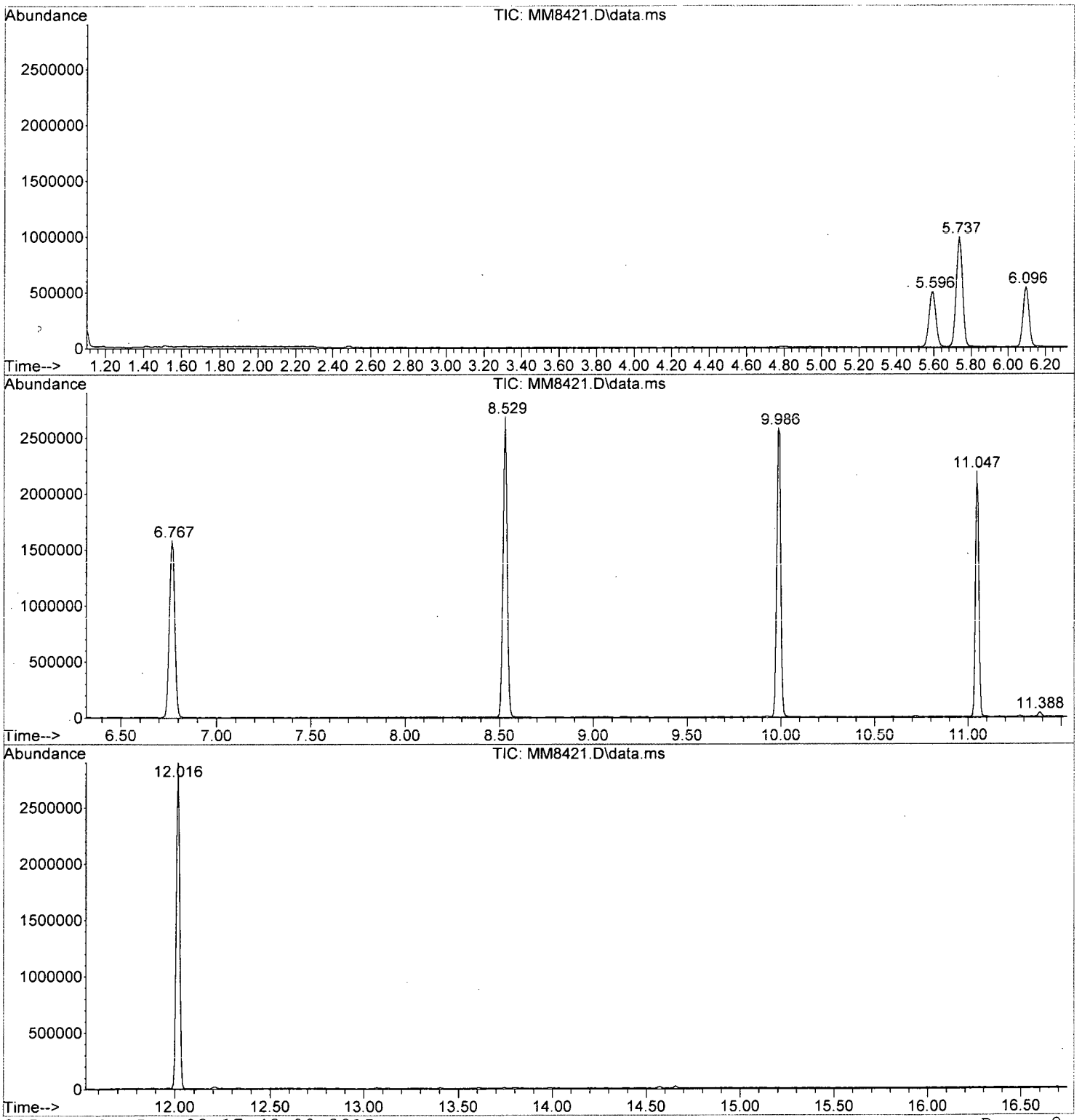
Sum of corrected areas: 22187354

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8421.D
Acq On    :  1 Dec 2015   1:06 pm
Operator  : K.Ruest
Sample    : R1510266-008|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 8   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



W111815A.M Thu Dec 03 17:42:00 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\120115\\
Data File : MM8421.D
Acq On : 1 Dec 2015 1:06 pmm
Operator : K.Ruestt
Sample : R1510266-008|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 8 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Collected: 11/23/15
Date Received: 11/25/15

Sample Name: TB-2015-11-23
Lab Code: R1510266-009

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 12:35		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 12:35		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 12:35		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 12:35		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 12:35		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:35		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 12:35		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 12:35		474290	
1,2,4-Trichlorobenzene	**0.24**	J	5.0	1.0	0.23	1	NA	12/1/15 12:35		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 12:35		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:35		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:35		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 12:35		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:35		474290	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:35		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 12:35		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 12:35		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 12:35		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:35		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 12:35		474290	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/1/15 12:35		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 12:35		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:35		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:35		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 12:35		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:35		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 12:35		474290	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:35		474290	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	TB-2015-11-23	**Units:**	µg/L
Lab Code:	R1510266-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:35		474290	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/1/15 12:35		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:35		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 12:35		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 12:35		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 12:35		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/1/15 12:35		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:35		474290	
Naphthalene	**0.22**	J	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/1/15 12:35		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 12:35		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:35		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 12:35		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:35		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 12:35		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:35		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:35		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 12:35		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:35		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	12/1/15 12:35	
Dibromofluoromethane	112	85-115	12/1/15 12:35	
Toluene-d8	105	85-120	12/1/15 12:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Analyzed:	12/1/15 1235

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	TB-2015-11-23	**Units:**	µg/L
Lab Code:	R1510266-009	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120115\
Data File : MM8420.D
Acq On : 1 Dec 2015 12:35 pm
Operator : K.Ruest
Sample : R1510266-009|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 01 12:51:40 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	812103	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1324125	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1217081	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	557727	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	384497	55.85	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 111.70%				
48) surr1,1,2-dichloroetha...	6.096	65	408000	53.66	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.32%				
65) SURR3,Toluene-d8	8.529	98	1521162	52.50	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.00%				
70) SURR2,BFB	11.047	95	600634	54.92	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 109.84%				
Target Compounds							Qvalue
12) Acrolein	2.329	56	241	0.35	ppb		86
16) 2-Propanol	2.646	45	277	0.84	ppb	#	1
19) Acetonitrile	2.774	40	917	3.82	ppb	#	22
53) 1-Butanol	7.133	56	254	1.66	ppb	#	4
61) 2-Nitropropane	7.992	41	262	0.20	ppb	#	1
90) Cyclohexanone	10.986	55	820	1.95	ppb	#	1
112) Trielution Dichlorotol...	13.077	125	4498	0.46	ppb	#	66
113) 1,3,5 Trichlorobenzene	13.132	180	1624	0.21	ppb	#	79
114) Coelution Dichlorotoluene	13.406	125	3215	0.31	ppb	#	73
115) 1,2,4-Tcbenzene	13.607	180	1709	0.24	ppb		82
116) Hexachlorobt	13.747	225	1278	0.44	ppb		91
117) Naphthalen	13.802	128	3224	0.22	ppb		88
118) 1,2,3-Tclbenzene	13.991	180	2005	0.33	ppb	#	86
119) 2,4,5-Trichlorotolene	14.576	159	4883	1.10	ppb	#	80
120) 2,3,6-Trichlorotoluene	14.662	159	5001	1.28	ppb	#	83

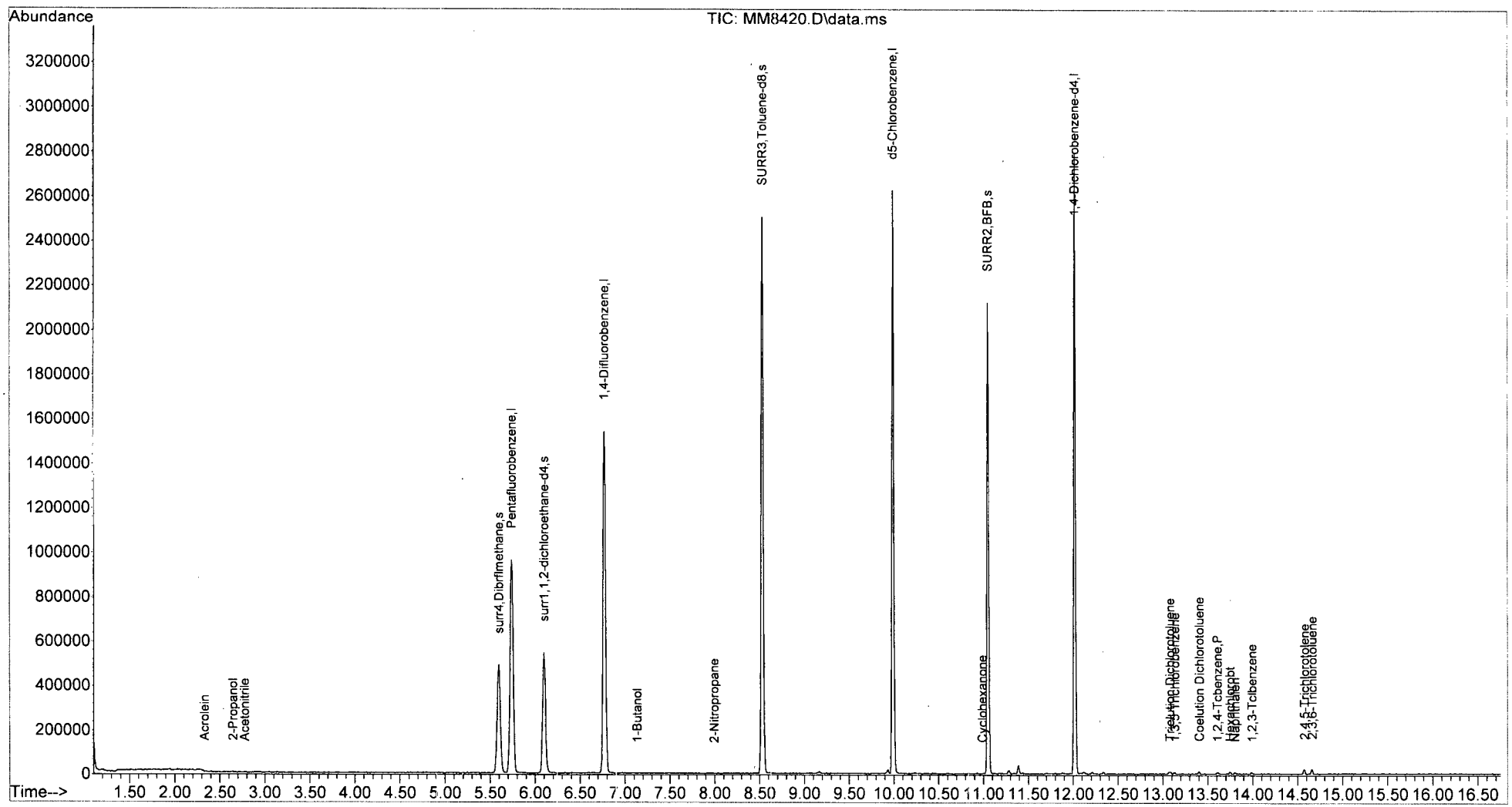
(#) = qualifier out of range (m) = manual integration (+) = signals summed

KB 12/3/15

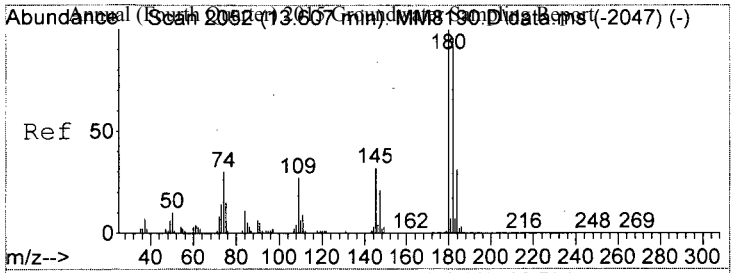
Quantitation Report (Not Reviewed)

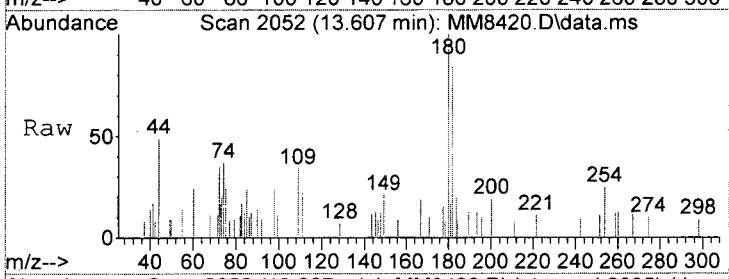
Data Path : I:\ACQUDATA\MSVOA12\DATA\120115\
Data File : MM8420.D
Acq On : 1 Dec 2015 12:35 pm
Operator : K.Ruest
Sample : R1510266-009|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 7 Sample Multiplier: 1

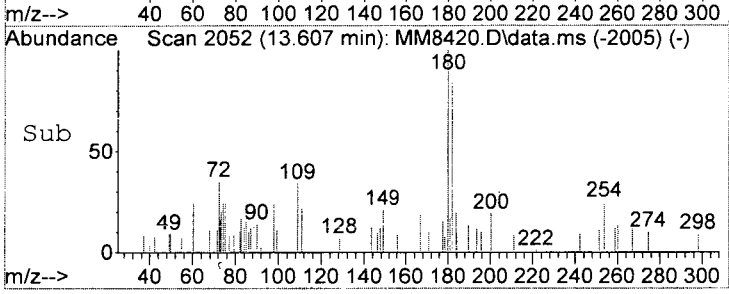
Quant Time: Dec 01 12:51:40 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Tue Dec 01 12:51:46 2015 Page: 2



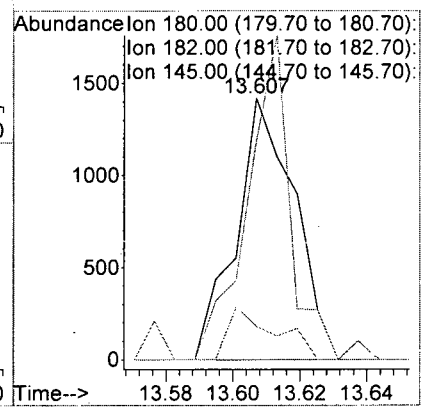


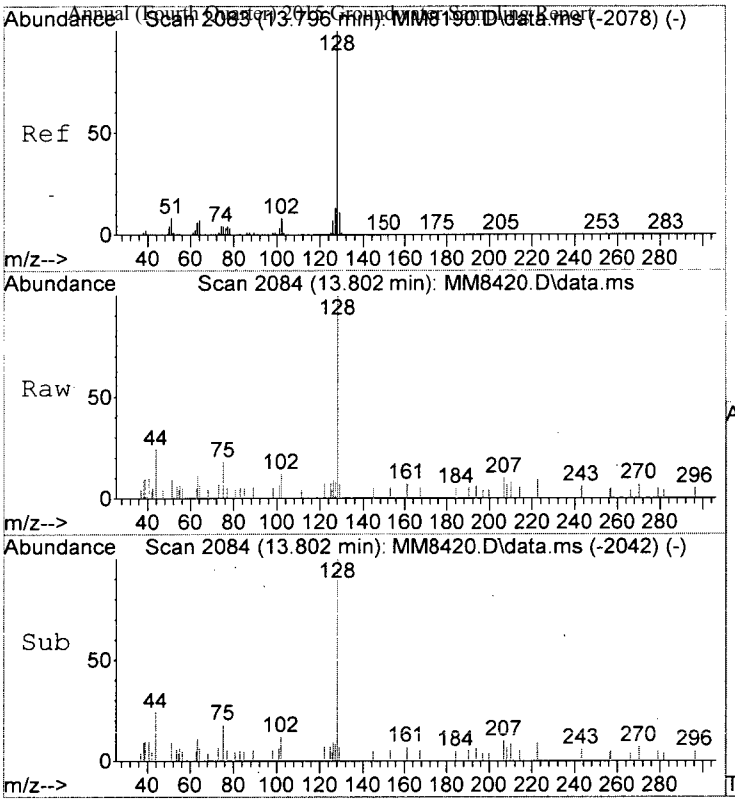


#115
1,2,4-Tcbenzene
Concen: 0.24 ppb
RT: 13.607 min Scan# 2052
Delta R.T. -0.006 min
Lab File: MM8420.D
Acq: 1 Dec 2015 12:35 pm

Tgt Ion:180 Resp: 1709

Ion	Ratio	Lower	Upper
180	100		
182	84.2	75.7	115.7
145	12.7	12.1	52.1

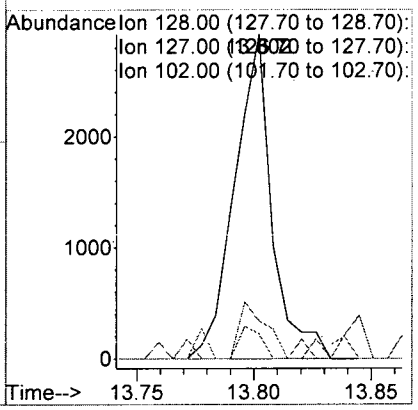




#117
Naphthalen
Concen: 0.22 ppb
RT: 13.802 min Scan# 2084
Delta R.T. -0.000 min
Lab File: MM8420.D
Acq: 1 Dec 2015 12:35 pm

Tgt Ion:128 Resp: 3224

Ion	Ratio	Lower	Upper
128	100		
127	7.7	0.0	33.1
102	11.6	0.0	28.3



MM8420.D W111815A.M Thu Dec 03 17:43:08 2015 Page 1

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8420.D
Acq On : 1 Dec 2015 12:35 pm
Operator : K.Ruest
Sample : R1510266-009|1.0 Inst : MSVOA-12
Misc : PARSONS 11603 T4*DOD4*
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8420.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.596	727	738	748	rBV	490012	1224126	30.76%	5.672%
2	5.737	751	761	771	rVB	960389	2293453	57.64%	10.627%
3	6.096	808	820	834	rBV2	543748	1208573	30.37%	5.600%
4	6.767	921	930	940	rBV	1538779	3032336	76.21%	14.051%
5	8.529	1212	1219	1228	rBV	2504895	3978981	100.00%	18.437%
6	9.986	1452	1458	1469	rBV	2623590	3693439	92.82%	17.114%
7	11.047	1627	1632	1639	rBV	2118560	2691193	67.64%	12.470%
8	11.388	1683	1688	1692	rBV	38868	45483	1.14%	0.211%
9	12.016	1785	1791	1799	rBV	2791736	3413811	85.80%	15.818%

Sum of corrected areas: 21581395

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8420.D
Acq On    :  1 Dec 2015  12:35 pm
Operator  : K.Ruest
Sample    : R1510266-009|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 11603 T4*DOD4*
ALS Vial  : 7   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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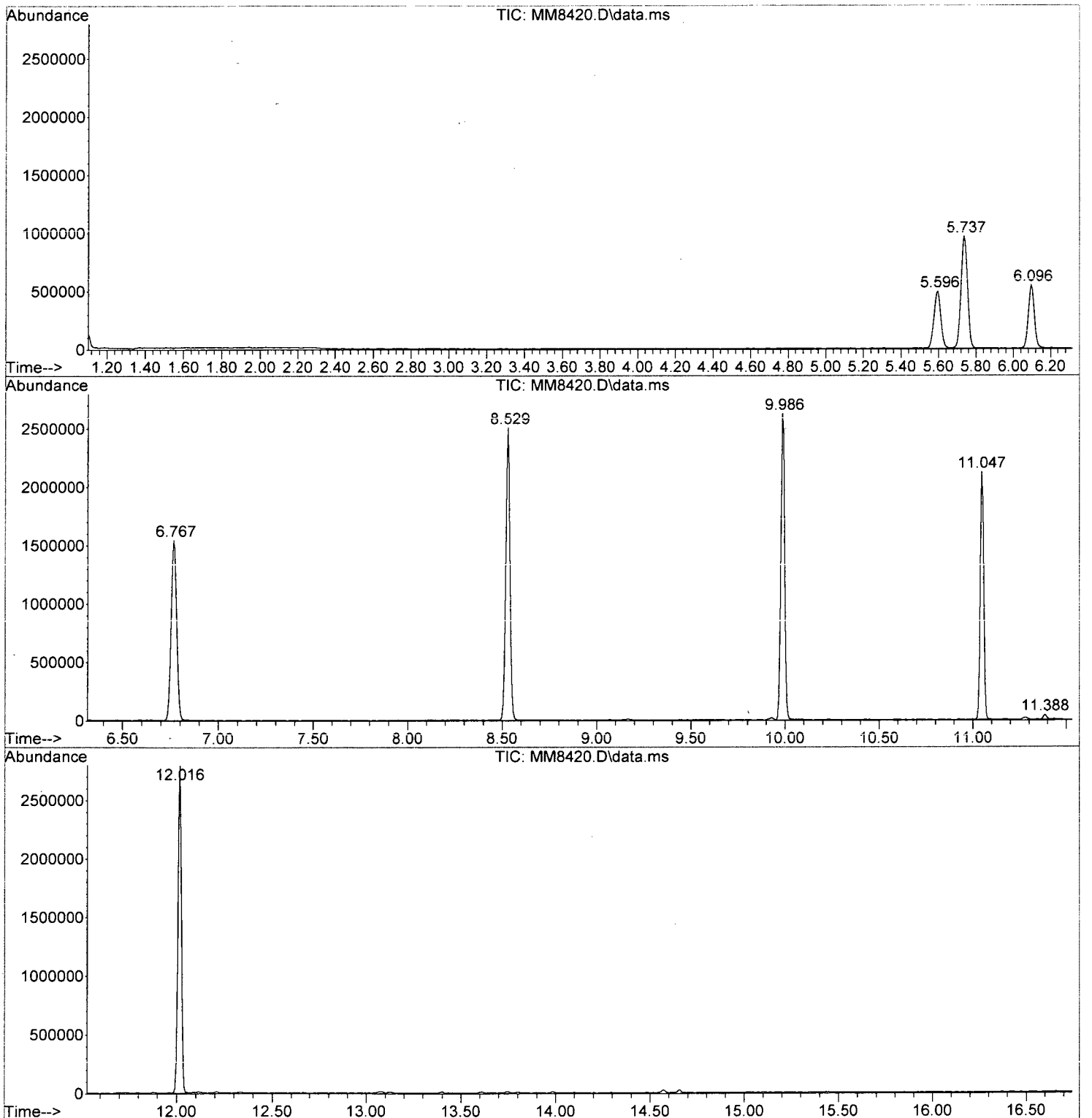

W111815A.M Thu Dec 03 17:38:41 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\120115\\
Data File : MM8420.D
Acq On : 1 Dec 2015 12:35 pmm
Operator : K.Ruestt
Sample : R1510266-009|1.0 Inst : MSVOA-122
Misc : PARSONS 11603 T4*DOD4**
ALS Vial : 7 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

ALS Environmental

VOLATILE ORGANICS STANDARDS DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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Initial Calibration - Summary Report

KR 11/30/15

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
W111615A. 8260 Waters **Column Name:** 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
1,1,1,2-Tetrachloroethane	T	Average RF			0.2556	<=15	7.6
1,1,1,2-Tetrachloroethane	T	Average RF			0.2556	<=20	7.6
1,1,1-Trichloroethane (TCA)	T	Average RF		0.100	0.6115	<=15	8.3
1,1,1-Trichloroethane (TCA)	T	Average RF		0.100	0.6115	<=20	8.3
1,1,2,2-Tetrachloroethane	T	Average RF		0.300	0.5254	<=15	9.7
1,1,2,2-Tetrachloroethane	T	Average RF		0.300	0.5254	<=20	9.7
1,1,2-Trichloroethane	T	Average RF		0.100	0.1927	<=15	4.1
1,1,2-Trichloroethane	T	Average RF		0.100	0.1927	<=20	4.1
1,1,2-Trichlorotrifluoroethane	T	Average RF		0.100	0.3806	<=15	10.6
1,1,2-Trichlorotrifluoroethane	T	Average RF		0.100	0.3806	<=20	10.6
1,1-Dichloroethane (1,1-DCA)	T	Average RF		0.200	0.8010	<=15	6.4
1,1-Dichloroethane (1,1-DCA)	T	Average RF		0.200	0.8010	<=20	6.4
1,1-Dichloroethene (1,1-DCE)	T	Average RF		0.100	0.4182	<=15	9.7
1,1-Dichloroethene (1,1-DCE)	T	Average RF		0.100	0.4182	<=20	9.7
1,1-Dichloropropene	T	Average RF			0.3528	<=15	10.8
1,1-Dichloropropene	T	Average RF			0.3528	<=20	10.8
1,2,3-Trichlorobenzene	T	Average RF			0.5379	<=15	6.4
1,2,3-Trichlorobenzene	T	Average RF			0.5379	<=20	6.4
1,2,3-Trichloropropane	T	Linear	1/X		0.1547	>=0.99	0.9998
1,2,3-Trichloropropane	T	Linear	1/X		0.1547	>=0.995	0.9998
1,2,3-Trichloropropane	T	Linear	1/X		0.1547	>=0.99	0.9998
1,2,4-Trichlorobenzene	T	Average RF		0.200	0.6467	<=15	7.9
1,2,4-Trichlorobenzene	T	Average RF		0.200	0.6467	<=20	7.9
1,2,4-Trimethylbenzene	T	Average RF			2.111	<=15	10.7
1,2,4-Trimethylbenzene	T	Average RF			2.111	<=20	10.7
1,2-Dibromo-3-chloropropane (DBCP)	T	Average RF		0.050	0.1014	<=15	8.1
1,2-Dibromo-3-chloropropane (DBCP)	T	Average RF		0.050	0.1014	<=20	8.1
1,2-Dibromoethane	T	Average RF		0.100	0.2026	<=15	4.7
1,2-Dibromoethane	T	Average RF		0.100	0.2026	<=20	4.7
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	T	Average RF			0.5453	<=15	10.0
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	T	Average RF			0.5453	<=20	10.0
1,2-Dichlorobenzene	T	Average RF		0.400	1.048	<=15	5.3
1,2-Dichlorobenzene	T	Average RF		0.400	1.048	<=20	5.3
1,2-Dichloroethane	T	Average RF		0.100	0.2821	<=15	6.5
1,2-Dichloroethane	T	Average RF		0.100	0.2821	<=20	6.5
1,2-Dichloropropane	T	Average RF		0.100	0.2727	<=15	6.9
1,2-Dichloropropane	T	Average RF		0.100	0.2727	<=20	6.9
1,3,5-Trichlorobenzene	T	Average RF			0.7046	<=15	10.1
1,3,5-Trichlorobenzene	T	Average RF			0.7046	<=20	10.1
1,3,5-Trimethylbenzene	T	Average RF			1.968	<=15	9.4
1,3,5-Trimethylbenzene	T	Average RF			1.968	<=20	9.4
1,3-Dichlorobenzene	T	Average RF		0.600	1.139	<=15	6.9
1,3-Dichlorobenzene	T	Average RF		0.600	1.139	<=20	6.9
1,3-Dichloropropane	T	Average RF			0.3801	<=15	8.1
1,3-Dichloropropane	T	Average RF			0.3801	<=20	8.1
1,4-Dichlorobenzene	T	Average RF		0.500	1.067	<=15	4.7
1,4-Dichlorobenzene	T	Average RF		0.500	1.067	<=20	4.7
1,4-Dioxane	T	Average RF			0.002000	<=15	7.3
1,4-Dioxane	T	Average RF			0.002000	<=20	7.3
1-Butanol	T	Average RF			0.005782	<=15	7.9
1-Butanol	T	Average RF			0.005782	<=20	7.9
1-Chloro-4-(trifluoromethyl)benzene	T	Average RF			0.3410	<=15	8.0

Initial Calibration - Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
1-Chloro-4-(trifluoromethyl)benzene	T	Average RF			0.3410	<=20	8.0
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	T	Average RF			0.6287	<=15	11.4
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	T	Average RF			0.6287	<=20	11.4
2,2-Dichloropropane	T	Average RF			0.6407	<=15	11.5
2,2-Dichloropropane	T	Average RF			0.6407	<=20	11.5
2,3,6-Trichlorotoluene	T	Average RF			0.3513	<=15	8.7
2,3,6-Trichlorotoluene	T	Average RF			0.3513	<=20	8.7
2,4,5-Trichlorotoluene	T	Average RF			0.3990	<=15	2.2
2,4,5-Trichlorotoluene	T	Average RF			0.3990	<=20	2.2
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	T	Average RF			0.8846	<=15	8.1
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	T	Average RF			0.8846	<=20	8.1
2,4-Dichlorobenzotrifluoride	T	Average RF			0.4432	<=15	3.7
2,4-Dichlorobenzotrifluoride	T	Average RF			0.4432	<=20	3.7
2,5-Dichlorobenzotrifluoride	T	Average RF			0.5013	<=15	4.1
2,5-Dichlorobenzotrifluoride	T	Average RF			0.5013	<=20	4.1
2-Bromo-2-chloro-1,1,1-trifluoroethane	T	Average RF				<=15	
2-Bromo-2-chloro-1,1,1-trifluoroethane	T	Average RF				<=20	
2-Butanone (MEK)	T	Average RF		0.05	0.1460	<=15	8.5
2-Butanone (MEK)	T	Average RF		0.05	0.1460	<=20	8.5
2-Chloro-1,3-butadiene	T	Average RF			0.8055	<=15	7.5
2-Chloro-1,3-butadiene	T	Average RF			0.8055	<=20	7.5
2-Chlorobenzotrifluoride	T	Average RF			0.7581	<=15	6.2
2-Chlorobenzotrifluoride	T	Average RF			0.7581	<=20	6.2
2-Chloroethyl Vinyl Ether	T	Average RF			0.1504	<=15	14.6
2-Chloroethyl Vinyl Ether	T	Average RF			0.1504	<=20	14.6
2-Chlorotoluene	T	Average RF			1.757	<=15	8.1
2-Chlorotoluene	T	Average RF			1.757	<=20	8.1
2-Hexanone	T	Average RF		0.05	0.1531	<=15	8.4
2-Hexanone	T	Average RF		0.05	0.1531	<=20	8.4
2-Methyl-1-propanol	T	Average RF			0.009224	<=15	7.5
2-Methyl-1-propanol	T	Average RF			0.009224	<=20	7.5
2-Methyl-2-propanol	T	Average RF			0.03283	<=15	4.1
2-Methyl-2-propanol	T	Average RF			0.03283	<=20	4.1
2-Nitropropane	T	Average RF			0.04924	<=15	8.3
2-Nitropropane	T	Average RF			0.04924	<=20	8.3
2-Propanol	T	Average RF			0.02023	<=15	6.8
2-Propanol	T	Average RF			0.02023	<=20	6.8
3,4- and 2,3-Dichlorotoluene Coelution	T	Average RF			0.9348	<=15	7.9
3,4- and 2,3-Dichlorotoluene Coelution	T	Average RF			0.9348	<=20	7.9
3,4-Dichlorobenzotrifluoride	T	Average RF			0.5078	<=15	7.5
3,4-Dichlorobenzotrifluoride	T	Average RF			0.5078	<=20	7.5
3-Chloro-1-propene	T	Average RF			0.2328	<=15	12.9
3-Chloro-1-propene	T	Average RF			0.2328	<=20	12.9
3-Chlorobenzotrifluoride	T	Average RF			0.3664	<=15	6.5
3-Chlorobenzotrifluoride	T	Average RF			0.3664	<=20	6.5
3-Chlorotoluene	T	Average RF			1.844	<=15	5.4
3-Chlorotoluene	T	Average RF			1.844	<=20	5.4
4-Chlorotoluene	T	Average RF			1.982	<=15	12.0
4-Chlorotoluene	T	Average RF			1.982	<=20	12.0
4-Isopropyltoluene	T	Average RF			1.899	<=15	8.5
4-Isopropyltoluene	T	Average RF			1.899	<=20	8.5
4-Methyl-2-pentanone	T	Average RF		0.05	0.1994	<=15	1.7

Initial Calibration - Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
4-Methyl-2-pentanone	T	Average RF		0.05	0.1994	<=20	1.7
Acetone	T	Average RF		0.05	0.1066	<=15	7.0
Acetone	T	Average RF		0.05	0.1066	<=20	7.0
Acetonitrile	T	Average RF			0.01478	<=15	12.7
Acetonitrile	T	Average RF			0.01478	<=20	12.7
Acrolein	T	Average RF			0.04260	<=15	6.6
Acrolein	T	Average RF			0.04260	<=20	6.6
Acrylonitrile	T	Average RF			0.1207	<=15	3.8
Acrylonitrile	T	Average RF			0.1207	<=20	3.8
Benzene	T	Average RF		0.500	1.100	<=15	7.5
Benzene	T	Average RF		0.500	1.100	<=20	7.5
Bromobenzene	T	Average RF			0.5883	<=15	5.4
Bromobenzene	T	Average RF			0.5883	<=20	5.4
Bromochloromethane	T	Average RF			0.2575	<=15	7.6
Bromochloromethane	T	Average RF			0.2575	<=20	7.6
Bromodichloromethane	T	Average RF		0.200	0.3343	<=15	6.9
Bromodichloromethane	T	Average RF		0.200	0.3343	<=20	6.9
Bromoform	T	Average RF		0.100	0.2840	<=15	5.6
Bromoform	T	Average RF		0.100	0.2840	<=20	5.6
Bromomethane	T	Average RF		0.100	0.3826	<=15	9.9
Bromomethane	T	Average RF		0.100	0.3826	<=20	9.9
Carbon Disulfide	T	Average RF		0.100	1.397	<=15	7.2
Carbon Disulfide	T	Average RF		0.100	1.397	<=20	7.2
Carbon Tetrachloride	T	Average RF		0.05	0.09574	<=15	5.1
Carbon Tetrachloride	T	Average RF		0.05	0.09574	<=20	5.1
Chlorobenzene	T	Average RF		0.500	0.7396	<=15	9.5
Chlorobenzene	T	Average RF		0.500	0.7396	<=20	9.5
Chloroethane	T	Average RF		0.100	0.4308	<=15	9.3
Chloroethane	T	Average RF		0.100	0.4308	<=20	9.3
Chloroform	T	Average RF		0.200	0.7785	<=15	14.6
Chloroform	T	Average RF		0.200	0.7785	<=20	14.6
Chloromethane	T	Average RF		0.100	0.8409	<=15	6.8
Chloromethane	T	Average RF		0.100	0.8409	<=20	6.8
Cyclohexane	T	Average RF		0.100	0.2733	<=15	15.0
Cyclohexane	T	Average RF		0.100	0.2733	<=20	15.0
Cyclohexanone	T	Average RF			0.03770	<=15	5.0
Cyclohexanone	T	Average RF			0.03770	<=20	5.0
Dibromochloromethane	T	Average RF		0.100	0.2365	<=15	3.1
Dibromochloromethane	T	Average RF		0.100	0.2365	<=20	3.1
Dibromomethane	T	Average RF			0.1343	<=15	11.7
Dibromomethane	T	Average RF			0.1343	<=20	11.7
Dichlorodifluoromethane (CFC 12)	T	Average RF		0.100	0.7043	<=15	9.5
Dichlorodifluoromethane (CFC 12)	T	Average RF		0.100	0.7043	<=20	9.5
Dichlorofluoromethane (CFC 21)	T	Average RF			0.8341	<=15	3.5
Dichlorofluoromethane (CFC 21)	T	Average RF			0.8341	<=20	3.5
Dichloromethane	T	Average RF		0.100	0.4829	<=15	10.7
Dichloromethane	T	Average RF		0.100	0.4829	<=20	10.7
Diethyl Ether	T	Average RF			0.3829	<=15	7.7
Diethyl Ether	T	Average RF			0.3829	<=20	7.7
Diisopropyl Ether	T	Average RF			1.562	<=15	8.6
Diisopropyl Ether	T	Average RF			1.562	<=20	8.6
Ethyl Methacrylate	T	Average RF			0.3152	<=15	2.7

Initial Calibration - Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
Ethyl Methacrylate	T	Average RF			0.3152	<=20	2.7
Ethyl tert-Butyl Ether	T	Average RF			1.467	<=15	5.3
Ethyl tert-Butyl Ether	T	Average RF			1.467	<=20	5.3
Ethylbenzene	T	Average RF		0.100	0.4189	<=15	6.0
Ethylbenzene	T	Average RF		0.100	0.4189	<=20	6.0
Hexachlorobutadiene	T	Average RF			0.2582	<=15	10.2
Hexachlorobutadiene	T	Average RF			0.2582	<=20	10.2
Iodomethane	T	Average RF			0.4751	<=15	9.8
Iodomethane	T	Average RF			0.4751	<=20	9.8
Isopropylbenzene (Cumene)	T	Average RF		0.100	2.600	<=15	11.9
Isopropylbenzene (Cumene)	T	Average RF		0.100	2.600	<=20	11.9
Methacrylonitrile	T	Average RF			0.1413	<=15	5.0
Methacrylonitrile	T	Average RF			0.1413	<=20	5.0
Methyl Acetate	T	Average RF		0.100	0.2484	<=15	13.5
Methyl Acetate	T	Average RF		0.100	0.2484	<=20	13.5
Methyl Methacrylate	T	Average RF			0.1578	<=15	7.3
Methyl Methacrylate	T	Average RF			0.1578	<=20	7.3
Methyl tert-Butyl Ether	T	Average RF		0.100	1.163	<=15	8.1
Methyl tert-Butyl Ether	T	Average RF		0.100	1.163	<=20	8.1
Methylcyclohexane	T	Average RF		0.100	0.3371	<=15	13.9
Methylcyclohexane	T	Average RF		0.100	0.3371	<=20	13.9
Naphthalene	T	Average RF			1.341	<=15	6.1
Naphthalene	T	Average RF			1.341	<=20	6.1
Propionitrile	T	Average RF			0.04459	<=15	6.6
Propionitrile	T	Average RF			0.04459	<=20	6.6
Styrene	T	Average RF		0.300	0.8627	<=15	8.9
Styrene	T	Average RF		0.300	0.8627	<=20	8.9
Tetrachloroethene (PCE)	T	Average RF		0.200	0.2074	<=15	9.6
Tetrachloroethene (PCE)	T	Average RF		0.200	0.2074	<=20	9.6
Tetrahydrofuran (THF)	T	Average RF			0.09390	<=15	6.9
Tetrahydrofuran (THF)	T	Average RF			0.09390	<=20	6.9
Toluene	T	Average RF		0.400	1.140	<=15	10.5
Toluene	T	Average RF		0.400	1.140	<=20	10.5
Trichloroethene (TCE)	T	Average RF		0.200	0.2796	<=15	8.1
Trichloroethene (TCE)	T	Average RF		0.200	0.2796	<=20	8.1
Trichlorofluoromethane (CFC 11)	T	Average RF		0.100	0.6103	<=15	5.3
Trichlorofluoromethane (CFC 11)	T	Average RF		0.100	0.6103	<=20	5.3
Vinyl Acetate	T	Average RF			0.08343	<=15	13.7
Vinyl Acetate	T	Average RF			0.08343	<=20	13.7
Vinyl Chloride	T	Average RF		0.100	0.7834	<=15	6.9
Vinyl Chloride	T	Average RF		0.100	0.7834	<=20	6.9
cis-1,2-Dichloroethene	T	Average RF		0.100	0.4985	<=15	10.0
cis-1,2-Dichloroethene	T	Average RF		0.100	0.4985	<=20	10.0
cis-1,3-Dichloropropene	T	Average RF		0.200	0.4481	<=15	6.3
cis-1,3-Dichloropropene	T	Average RF		0.200	0.4481	<=20	6.3
m,p-Xylenes	T	Average RF		0.100	0.5171	<=15	9.4
m,p-Xylenes	T	Average RF		0.100	0.5171	<=20	9.4
n-Butyl Acetate	T	Average RF			0.3657	<=15	3.3
n-Butyl Acetate	T	Average RF			0.3657	<=20	3.3
n-Butylbenzene	T	Average RF			1.799	<=15	11.8
n-Butylbenzene	T	Average RF			1.799	<=20	11.8
n-Heptane	T	Average RF			0.3028	<=15	12.2

Initial Calibration - Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
n-Heptane	T	Average RF			0.3028	<=20	12.2
n-Propylbenzene	T	Average RF			2.997	<=15	12.7
n-Propylbenzene	T	Average RF			2.997	<=20	12.7
o-Xylene	T	Average RF		0.300	0.5296	<=15	5.4
o-Xylene	T	Average RF		0.300	0.5296	<=20	5.4
sec-Butylbenzene	T	Average RF			2.456	<=15	10.7
sec-Butylbenzene	T	Average RF			2.456	<=20	10.7
tert-Amyl Methyl Ether	T	Average RF			1.247	<=15	5.5
tert-Amyl Methyl Ether	T	Average RF			1.247	<=20	5.5
tert-Butylbenzene	T	Average RF			1.755	<=15	8.4
tert-Butylbenzene	T	Average RF			1.755	<=20	8.4
trans-1,2-Dichloroethene	T	Average RF		0.100	0.4503	<=15	9.8
trans-1,2-Dichloroethene	T	Average RF		0.100	0.4503	<=20	9.8
trans-1,3-Dichloropropene	T	Average RF		0.100	0.3560	<=15	4.0
trans-1,3-Dichloropropene	T	Average RF		0.100	0.3560	<=20	4.0
trans-1,4-Dichloro-2-butene	T	Linear	1/X		0.1645	>=0.99	0.9996
trans-1,4-Dichloro-2-butene	T	Linear	1/X		0.1645	>=0.995	0.9996
trans-1,4-Dichloro-2-butene	T	Linear	1/X		0.1645	>=0.99	0.9996
1,2-Dichloroethane-d4	S	Average RF			0.2871	<=15	7.9
1,2-Dichloroethane-d4	S	Average RF			0.2871	<=20	7.9
4-Bromofluorobenzene	S	Average RF			0.4130	<=15	10.2
4-Bromofluorobenzene	S	Average RF			0.4130	<=20	10.2
Dibromofluoromethane	S	Average RF			0.2600	<=15	9.2
Dibromofluoromethane	S	Average RF			0.2600	<=20	9.2
Toluene-d8	S	Average RF			1.094	<=15	12.3
Toluene-d8	S	Average RF			1.094	<=20	12.3

Initial Calibration - Detailed Report

KR 11/30/15

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
L211615A - 8260 waters **Signal ID:** 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	RC1500127-01	0.5ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8185.D	11/18/15 16:40
02	RC1500127-02	1.0ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8186.D	11/18/15 17:10
03	RC1500127-03	2.0ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8187.D	11/18/15 17:41
04	RC1500127-04	5.0ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8188.D	11/18/15 18:11
05	RC1500127-05	20ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8189.D	11/18/15 18:42
06	RC1500127-06	50ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8190.D	11/18/15 19:12
07	RC1500127-07	100ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8191.D	11/18/15 19:43
08	RC1500127-08	150ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8192.D	11/18/15 20:14
09	RC1500127-09	200ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8193.D	11/18/15 20:45

Analyte **Curve Fit** **Weighting**

1,1,1,2-Tetrachloroethane Average RF RSD = 7.6 Average RF = 0.2556

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2766	02	1.000	0.2733	03	2.000	0.2639	04	5.000	0.2787
05	20.000	0.2623	06	50.000	0.2465	07	100.000	0.2321	08	150.000	0.2325
09	200.000	0.2348									

1,1,1-Trichloroethane (TCA) Average RF RSD = 8.3 Average RF = 0.6115

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7243	02	1.000	0.5697	03	2.000	0.6349	04	5.000	0.6153
05	20.000	0.6322	06	50.000	0.6112	07	100.000	0.5635	08	150.000	0.5694
09	200.000	0.5828									

1,1,2,2-Tetrachloroethane Average RF RSD = 9.7 Average RF = 0.5254

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6253	02	1.000	0.5619	03	2.000	0.5722	04	5.000	0.5046
05	20.000	0.5252	06	50.000	0.4939	07	100.000	0.4855	08	150.000	0.4831
09	200.000	0.4764									

1,1,2-Trichloroethane Average RF RSD = 4.1 Average RF = 0.1927

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1857	02	1.000	0.1923	03	2.000	0.1966	04	5.000	0.2063
05	20.000	0.2025	06	50.000	0.1931	07	100.000	0.1860	08	150.000	0.1833
09	200.000	0.1886									

1,1,2-Trichlorotrifluoroethane Average RF RSD = 10.6 Average RF = 0.3806

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4485	02	1.000	0.4102	03	2.000	0.4140	04	5.000	0.3782
05	20.000	0.3941	06	50.000	0.3737	07	100.000	0.3305	08	150.000	0.3379
09	200.000	0.3379									

1,1-Dichloroethane (1,1-DCA) Average RF RSD = 6.4 Average RF = 0.8010

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9109	02	1.000	0.7655	03	2.000	0.8254	04	5.000	0.7995
05	20.000	0.8368	06	50.000	0.7989	07	100.000	0.7611	08	150.000	0.7526
09	200.000	0.7580									

1,1-Dichloroethene (1,1-DCE) Average RF RSD = 9.7 Average RF = 0.4182

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4905	02	1.000	0.4600	03	2.000	0.4260	04	5.000	0.4220
05	20.000	0.4301	06	50.000	0.4153	07	100.000	0.3758	08	150.000	0.3694
09	200.000	0.3745									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

1,1-Dichloropropene — Curve Fit: Average RF — Weighting: RSD = 10.8 — Average RF = 0.3528

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4316	02	1.000	0.3673	03	2.000	0.3709	04	5.000	0.3483
05	20.000	0.3647	06	50.000	0.3531	07	100.000	0.3159	08	150.000	0.3107
09	200.000	0.3124									

1,2,3-Trichlorobenzene — Curve Fit: Average RF — Weighting: RSD = 6.4 — Average RF = 0.5379

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4648	02	1.000	0.5889	03	2.000	0.5303	04	5.000	0.5597
05	20.000	0.5605	06	50.000	0.5526	07	100.000	0.5303	08	150.000	0.5285
09	200.000	0.5256									

1,2,3-Trichloropropane — Curve Fit: Linear — Weighting: 1/X — R2 = 0.9998 — Y = 0.1390 X + 7.469E-4

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2170	02	1.000	0.1728	03	2.000	0.1564	04	5.000	0.1540
05	20.000	0.1370	06	50.000	0.1358	07	100.000	0.1404	08	150.000	0.1387
09	200.000	0.1402									

1,2,4-Trichlorobenzene — Curve Fit: Average RF — Weighting: RSD = 7.9 — Average RF = 0.6467

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7505	02	1.000	0.6856	03	2.000	0.6451	04	5.000	0.6332
05	20.000	0.6649	06	50.000	0.6513	07	100.000	0.6134	08	150.000	0.5904
09	200.000	0.5856									

1,2,4-Trimethylbenzene — Curve Fit: Average RF — Weighting: RSD = 10.7 — Average RF = 2.111

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.434	02	1.000	2.250	03	2.000	2.186	04	5.000	2.161
05	20.000	2.298	06	50.000	2.161	07	100.000	1.928	08	150.000	1.830
09	200.000	1.752									

1,2-Dibromo-3-chloropropane (DBCP) — Curve Fit: Average RF — Weighting: RSD = 8.1 — Average RF = 0.1014

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1169	02	1.000	0.08762	03	2.000	0.1052	04	5.000	0.09484
05	20.000	0.1000	06	50.000	0.09653	07	100.000	0.1019	08	150.000	0.1047
09	200.000	0.1046									

1,2-Dibromoethane — Curve Fit: Average RF — Weighting: RSD = 4.7 — Average RF = 0.2026

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2193	02	1.000	0.2070	03	2.000	0.2034	04	5.000	0.2093
05	20.000	0.2088	06	50.000	0.1965	07	100.000	0.1922	08	150.000	0.1902
09	200.000	0.1965									

1,2-Dichloro-1,1,2-trifluoroethane (CFC — Curve Fit: Average RF — Weighting: RSD = 10.0 — Average RF = 0.5453

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6171	02	1.000	0.6052	03	2.000	0.5960	04	5.000	0.5707
05	20.000	0.5226	06	50.000	0.5370	07	100.000	0.5039	08	150.000	0.4842
09	200.000	0.4705									

1,2-Dichlorobenzene — Curve Fit: Average RF — Weighting: RSD = 5.3 — Average RF = 1.048

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.061	02	1.000	1.145	03	2.000	1.018	04	5.000	1.038
05	20.000	1.115	06	50.000	1.068	07	100.000	1.015	08	150.000	0.9945
09	200.000	0.9783									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

1,2-Dichloroethane Average RF RSD = 6.5 Average RF = 0.2821

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2799	02	1.000	0.2745	03	2.000	0.2939	04	5.000	0.3187
05	20.000	0.2988	06	50.000	0.2762	07	100.000	0.2675	08	150.000	0.2605
09	200.000	0.2689									

1,2-Dichloroethane-d4 Average RF RSD = 7.9 Average RF = 0.2871

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.3157	03	60.000	0.3053	04	70.000	0.2982	05	100.000	0.2763
07	125.000	0.2694	08	150.000	0.2579						

1,2-Dichloropropane Average RF RSD = 6.9 Average RF = 0.2727

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3069	02	1.000	0.2895	03	2.000	0.2685	04	5.000	0.2673
05	20.000	0.2866	06	50.000	0.2745	07	100.000	0.2557	08	150.000	0.2497
09	200.000	0.2552									

1,3,5-Trichlorobenzene Average RF RSD = 10.1 Average RF = 0.7046

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8493	02	1.000	0.6796	03	2.000	0.7834	04	5.000	0.6781
05	20.000	0.7257	06	50.000	0.6873	07	100.000	0.6725	08	150.000	0.6462
09	200.000	0.6195									

1,3,5-Trimethylbenzene Average RF RSD = 9.4 Average RF = 1.968

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.098	02	1.000	2.047	03	2.000	2.146	04	5.000	2.097
05	20.000	2.123	06	50.000	2.007	07	100.000	1.798	08	150.000	1.726
09	200.000	1.667									

1,3-Dichlorobenzene Average RF RSD = 6.9 Average RF = 1.139

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.251	02	1.000	1.195	03	2.000	1.188	04	5.000	1.120
05	20.000	1.203	06	50.000	1.152	07	100.000	1.075	08	150.000	1.038
09	200.000	1.027									

1,3-Dichloropropane Average RF RSD = 8.1 Average RF = 0.3801

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3950	02	1.000	0.4291	03	2.000	0.4048	04	5.000	0.3984
05	20.000	0.3938	06	50.000	0.3612	07	100.000	0.3491	08	150.000	0.3435
09	200.000	0.3463									

1,4-Dichlorobenzene Average RF RSD = 4.7 Average RF = 1.067

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.033	02	1.000	1.024	03	2.000	1.119	04	5.000	1.090
05	20.000	1.151	06	50.000	1.108	07	100.000	1.048	08	150.000	1.020
09	200.000	1.015									

1,4-Dioxane Average RF RSD = 7.3 Average RF = 0.002000

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	40.000	0.002204	04	100.000	0.002067	05	400.000	0.001944	06	1000.000	0.001765
07	2000.000	0.001913	08	3000.000	0.001978	09	4000.000	0.002125			

1-Butanol Average RF RSD = 7.9 Average RF = 0.005782

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	50.000	0.005580	03	100.000	0.006691	04	250.000	0.005644	05	1000.000	0.005267
06	2500.000	0.005306	07	5000.000	0.005834	08	7500.000	0.005896	09	10000.000	0.006037

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

1-Chloro-4-(trifluoromethyl)benzene Average RF RSD = 8.0 Average RF = 0.3410

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3992	02	1.000	0.3564	03	2.000	0.3518	04	5.000	0.3490
05	20.000	0.3362	06	50.000	0.3231	07	100.000	0.3268	08	150.000	0.3162
09	200.000	0.3102									

2,2-Dichloro-1,1,1-trifluoroethane (CFC Average RF RSD = 11.4 Average RF = 0.6287

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7446	02	1.000	0.7318	03	2.000	0.6731	04	5.000	0.6209
05	20.000	0.5878	06	50.000	0.6105	07	100.000	0.5764	08	150.000	0.5550
09	200.000	0.5584									

2,2-Dichloropropane Average RF RSD = 11.5 Average RF = 0.6407

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.7892	03	2.000	0.6750	04	5.000	0.6285	05	20.000	0.6750
06	50.000	0.6374	07	100.000	0.5770	08	150.000	0.5733	09	200.000	0.5701

2,3,6-Trichlorotoluene Average RF RSD = 8.7 Average RF = 0.3513

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3537	03	2.000	0.4190	04	5.000	0.3638	05	20.000	0.3528
06	50.000	0.3298	07	100.000	0.3307	08	150.000	0.3304	09	200.000	0.3301

2,4,5-Trichlorotoluene Average RF RSD = 2.2 Average RF = 0.3990

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3817	03	2.000	0.3981	04	5.000	0.4134	05	20.000	0.4044
06	50.000	0.3949	07	100.000	0.4012	08	150.000	0.4009	09	200.000	0.3973

2,4-, 2,5-, and 2,6-Dichlorotoluene Coelut Average RF RSD = 8.1 Average RF = 0.8846

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.500	0.9654	02	3.000	0.9029	03	6.000	0.9376	04	15.000	0.9277
05	60.000	0.9370	06	150.000	0.8890	07	300.000	0.8561	08	450.000	0.7971
09	600.000	0.7488									

2,4-Dichlorobenzotrifluoride Average RF RSD = 3.7 Average RF = 0.4432

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4721	02	1.000	0.4291	03	2.000	0.4455	04	5.000	0.4403
05	20.000	0.4561	06	50.000	0.4421	07	100.000	0.4538	08	150.000	0.4339
09	200.000	0.4156									

2,5-Dichlorobenzotrifluoride Average RF RSD = 4.1 Average RF = 0.5013

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5474	02	1.000	0.5032	03	2.000	0.5047	04	5.000	0.5028
05	20.000	0.4996	06	50.000	0.4918	07	100.000	0.5039	08	150.000	0.4870
09	200.000	0.4717									

2-Butanone (MEK) Average RF RSD = 8.5 Average RF = 0.1460

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1700	04	5.000	0.1397	05	20.000	0.1301	06	50.000	0.1395
07	100.000	0.1490	08	150.000	0.1451	09	200.000	0.1487			

2-Chloro-1,3-butadiene Average RF RSD = 7.5 Average RF = 0.8055

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8914	02	1.000	0.8645	03	2.000	0.8551	04	5.000	0.8410
05	20.000	0.7674	06	50.000	0.8031	07	100.000	0.7667	08	150.000	0.7427
09	200.000	0.7173									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** Average RF **Weighting**

2-Chlorobenzotrifluoride Average RF RSD = 6.2 Average RF = 0.7581

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7559	02	1.000	0.8402	03	2.000	0.8224	04	5.000	0.7565
05	20.000	0.7595	06	50.000	0.7344	07	100.000	0.7414	08	150.000	0.7266
09	200.000	0.6859									

2-Chloroethyl Vinyl Ether Average RF RSD = 14.6 Average RF = 0.1504

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2024	02	1.000	0.1367	03	2.000	0.1648	04	5.000	0.1559
05	20.000	0.1379	06	50.000	0.1420	07	100.000	0.1431	08	150.000	0.1363
09	200.000	0.1349									

2-Chlorotoluene Average RF RSD = 8.1 Average RF = 1.757

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.960	02	1.000	1.695	03	2.000	1.829	04	5.000	1.793
05	20.000	1.922	06	50.000	1.814	07	100.000	1.649	08	150.000	1.589
09	200.000	1.560									

2-Hexanone Average RF RSD = 8.4 Average RF = 0.1531

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1793	04	5.000	0.1559	05	20.000	0.1391	06	50.000	0.1441
07	100.000	0.1492	08	150.000	0.1524	09	200.000	0.1514			

2-Methyl-1-propanol Average RF RSD = 7.5 Average RF = 0.009224

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.009577	03	40.000	0.01062	04	100.000	0.009398	05	400.000	0.008872
06	1000.000	0.008304	07	2000.000	0.008899	08	3000.000	0.008819	09	4000.000	0.009299

2-Methyl-2-propanol Average RF RSD = 4.1 Average RF = 0.03283

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.03151	03	40.000	0.03269	04	100.000	0.03343	05	400.000	0.03186
06	1000.000	0.03092	07	2000.000	0.03333	08	3000.000	0.03407	09	4000.000	0.03480

2-Nitropropane Average RF RSD = 8.3 Average RF = 0.04924

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	0.04620	03	4.000	0.05546	04	10.000	0.05570	05	40.000	0.04829
06	100.000	0.04502	07	200.000	0.04658	08	300.000	0.04770	09	400.000	0.04894

2-Propanol Average RF RSD = 6.8 Average RF = 0.02023

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.02227	03	40.000	0.02129	04	100.000	0.02106	05	400.000	0.01845
06	1000.000	0.01842	07	2000.000	0.01936	08	3000.000	0.02027	09	4000.000	0.02069

3,4- and 2,3-Dichlorotoluene Coelution Average RF RSD = 7.9 Average RF = 0.9348

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.8887	02	2.000	1.000	03	4.000	0.9940	04	10.000	1.005
05	40.000	0.9943	06	100.000	0.9588	07	200.000	0.9140	08	300.000	0.8566
09	400.000	0.8013									

3,4-Dichlorobenzotrifluoride Average RF RSD = 7.5 Average RF = 0.5078

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5658	02	1.000	0.5119	03	2.000	0.5742	04	5.000	0.4891
05	20.000	0.4994	06	50.000	0.4977	07	100.000	0.4902	08	150.000	0.4798
09	200.000	0.4616									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

3-Chloro-1-propene Average RF RSD = 12.9 Average RF = 0.2328

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2592	02	1.000	0.2897	03	2.000	0.2221	04	5.000	0.2380
05	20.000	0.2474	06	50.000	0.2333	07	100.000	0.2105	08	150.000	0.2014
09	200.000	0.1940									

3-Chlorobenzotrifluoride Average RF RSD = 6.5 Average RF = 0.3664

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4058	02	1.000	0.3846	03	2.000	0.3911	04	5.000	0.3697
05	20.000	0.3649	06	50.000	0.3532	07	100.000	0.3517	08	150.000	0.3451
09	200.000	0.3319									

3-Chlorotoluene Average RF RSD = 5.4 Average RF = 1.844

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.885	02	1.000	1.869	03	2.000	1.946	04	5.000	1.933
05	20.000	1.920	06	50.000	1.849	07	100.000	1.808	08	150.000	1.755
09	200.000	1.633									

4-Bromofluorobenzene Average RF RSD = 10.2 Average RF = 0.4130

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.4702	03	60.000	0.4502	04	70.000	0.4242	05	100.000	0.3855
07	125.000	0.3860	08	150.000	0.3618						

4-Chlorotoluene Average RF RSD = 12.0 Average RF = 1.982

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.344	02	1.000	2.064	03	2.000	2.164	04	5.000	2.030
05	20.000	2.132	06	50.000	2.004	07	100.000	1.798	08	150.000	1.666
09	200.000	1.633									

4-Isopropyltoluene Average RF RSD = 8.5 Average RF = 1.899

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.996	02	1.000	1.954	03	2.000	2.049	04	5.000	1.951
05	20.000	2.090	06	50.000	1.962	07	100.000	1.760	08	150.000	1.700
09	200.000	1.630									

4-Methyl-2-pentanone Average RF RSD = 1.7 Average RF = 0.1994

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1965	04	5.000	0.2002	05	20.000	0.1963	06	50.000	0.1956
07	100.000	0.2046	08	150.000	0.2004	09	200.000	0.2024			

Acetone Average RF RSD = 7.0 Average RF = 0.1066

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.1206	05	20.000	0.1026	06	50.000	0.09956	07	100.000	0.1038
08	150.000	0.1045	09	200.000	0.1085						

Acetonitrile Average RF RSD = 12.7 Average RF = 0.01478

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	10.000	0.01481	04	25.000	0.01768	05	100.000	0.01435	06	250.000	0.01274
07	500.000	0.01230	08	750.000	0.01558	09	1000.000	0.01603			

Acrolein Average RF RSD = 6.6 Average RF = 0.04260

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	4.000	0.04614	04	10.000	0.04627	05	40.000	0.03997	06	100.000	0.03934
07	200.000	0.04079	08	300.000	0.04281	09	400.000	0.04292			

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Acrylonitrile Average RF RSD = 3.8 Average RF = 0.1207

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.1250	02	5.000	0.1206	03	10.000	0.1308	04	25.000	0.1179
05	100.000	0.1190	06	250.000	0.1157	07	500.000	0.1189	08	750.000	0.1177
09	1000.000	0.1203									

Benzene Average RF RSD = 7.5 Average RF = 1.100

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.202	02	1.000	1.164	03	2.000	1.151	04	5.000	1.131
05	20.000	1.152	06	50.000	1.120	07	100.000	1.016	08	150.000	0.9768
09	200.000	0.9917									

Bromobenzene Average RF RSD = 5.4 Average RF = 0.5883

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5566	02	1.000	0.5966	03	2.000	0.6448	04	5.000	0.5726
05	20.000	0.6286	06	50.000	0.6028	07	100.000	0.5649	08	150.000	0.5648
09	200.000	0.5633									

Bromochloromethane Average RF RSD = 7.6 Average RF = 0.2575

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2922	02	1.000	0.2747	03	2.000	0.2713	04	5.000	0.2621
05	20.000	0.2540	06	50.000	0.2528	07	100.000	0.2404	08	150.000	0.2309
09	200.000	0.2391									

Bromodichloromethane Average RF RSD = 6.9 Average RF = 0.3343

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3706	02	1.000	0.3685	03	2.000	0.3325	04	5.000	0.3297
05	20.000	0.3414	06	50.000	0.3336	07	100.000	0.3110	08	150.000	0.3075
09	200.000	0.3141									

Bromoform Average RF RSD = 5.6 Average RF = 0.2840

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3238	02	1.000	0.2804	03	2.000	0.2882	04	5.000	0.2750
05	20.000	0.2769	06	50.000	0.2740	07	100.000	0.2718	08	150.000	0.2802
09	200.000	0.2861									

Bromomethane Average RF RSD = 9.9 Average RF = 0.3826

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4747	02	1.000	0.3800	03	2.000	0.4089	04	5.000	0.3635
05	20.000	0.3644	06	50.000	0.3715	07	100.000	0.3576	08	150.000	0.3577
09	200.000	0.3651									

Carbon Disulfide Average RF RSD = 7.2 Average RF = 1.397

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.520	02	1.000	1.419	03	2.000	1.514	04	5.000	1.473
05	20.000	1.371	06	50.000	1.420	07	100.000	1.345	08	150.000	1.279
09	200.000	1.231									

Carbon Tetrachloride Average RF RSD = 5.1 Average RF = 0.09574

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1013	02	1.000	0.1007	03	2.000	0.09723	04	5.000	0.09918
05	20.000	0.09811	06	50.000	0.09633	07	100.000	0.08822	08	150.000	0.08961
09	200.000	0.09097									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Chlorobenzene Average RF RSD = 9.5 Average RF = 0.7396

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8436	02	1.000	0.7725	03	2.000	0.8041	04	5.000	0.7669
05	20.000	0.7771	06	50.000	0.7211	07	100.000	0.6765	08	150.000	0.6528
09	200.000	0.6418									

Chloroethane Average RF RSD = 9.3 Average RF = 0.4308

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5222	02	1.000	0.4020	03	2.000	0.4535	04	5.000	0.4210
05	20.000	0.4456	06	50.000	0.4314	07	100.000	0.4013	08	150.000	0.3980
09	200.000	0.4022									

Chloroform Average RF RSD = 14.6 Average RF = 0.7785

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.055	02	1.000	0.8003	03	2.000	0.7870	04	5.000	0.7939
05	20.000	0.7658	06	50.000	0.7353	07	100.000	0.6882	08	150.000	0.6858
09	200.000	0.6946									

Chloromethane Average RF RSD = 6.8 Average RF = 0.8409

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9472	02	1.000	0.8222	03	2.000	0.8659	04	5.000	0.7777
05	20.000	0.9082	06	50.000	0.8460	07	100.000	0.7987	08	150.000	0.7944
09	200.000	0.8072									

Cyclohexane Average RF RSD = 15.0 Average RF = 0.2733

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3763	02	1.000	0.2791	03	2.000	0.2717	04	5.000	0.2692
05	20.000	0.2606	06	50.000	0.2690	07	100.000	0.2512	08	150.000	0.2403
09	200.000	0.2421									

Cyclohexanone Average RF RSD = 5.0 Average RF = 0.03770

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.03844	03	40.000	0.03846	04	100.000	0.03515	05	400.000	0.03553
06	1000.000	0.03579	07	2000.000	0.03914	08	3000.000	0.03927	09	4000.000	0.03980

Dibromochloromethane Average RF RSD = 3.1 Average RF = 0.2365

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2372	02	1.000	0.2511	03	2.000	0.2405	04	5.000	0.2399
05	20.000	0.2384	06	50.000	0.2361	07	100.000	0.2281	08	150.000	0.2268
09	200.000	0.2307									

Dibromofluoromethane Average RF RSD = 9.2 Average RF = 0.2600

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.2885	03	60.000	0.2816	04	70.000	0.2688	05	100.000	0.2532
07	125.000	0.2410	08	150.000	0.2267						

Dibromomethane Average RF RSD = 11.7 Average RF = 0.1343

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1651	02	1.000	0.1533	03	2.000	0.1411	04	5.000	0.1270
05	20.000	0.1307	06	50.000	0.1244	07	100.000	0.1231	08	150.000	0.1187
09	200.000	0.1248									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Dichlorodifluoromethane (CFC 12) Average RF RSD = 9.5 Average RF = 0.7043

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6362	02	1.000	0.6553	03	2.000	0.6447	04	5.000	0.6142
05	20.000	0.7894	06	50.000	0.7843	07	100.000	0.7374	08	150.000	0.7343
09	200.000	0.7431									

Dichlorofluoromethane (CFC 21) Average RF RSD = 3.5 Average RF = 0.8341

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8546	02	1.000	0.8481	03	2.000	0.8835	04	5.000	0.8253
05	20.000	0.8317	06	50.000	0.8491	07	100.000	0.8319	08	150.000	0.7926
09	200.000	0.7905									

Dichloromethane Average RF RSD = 10.7 Average RF = 0.4829

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5779	02	1.000	0.5249	03	2.000	0.5344	04	5.000	0.4713
05	20.000	0.4747	06	50.000	0.4579	07	100.000	0.4347	08	150.000	0.4312
09	200.000	0.4389									

Diethyl Ether Average RF RSD = 7.7 Average RF = 0.3829

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.4427	03	2.000	0.3602	04	5.000	0.4003	05	20.000	0.3985
06	50.000	0.3781	07	100.000	0.3666	08	150.000	0.3584	09	200.000	0.3582

Diisopropyl Ether Average RF RSD = 8.6 Average RF = 1.562

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.702	02	1.000	1.676	03	2.000	1.725	04	5.000	1.660
05	20.000	1.526	06	50.000	1.528	07	100.000	1.465	08	150.000	1.399
09	200.000	1.372									

Ethyl Methacrylate Average RF RSD = 2.7 Average RF = 0.3152

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3229	02	1.000	0.2994	03	2.000	0.3035	04	5.000	0.3178
05	20.000	0.3251	06	50.000	0.3172	07	100.000	0.3190	08	150.000	0.3123
09	200.000	0.3195									

Ethyl tert-Butyl Ether Average RF RSD = 5.3 Average RF = 1.467

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.527	02	1.000	1.532	03	2.000	1.566	04	5.000	1.553
05	20.000	1.408	06	50.000	1.441	07	100.000	1.433	08	150.000	1.382
09	200.000	1.364									

Ethylbenzene Average RF RSD = 6.0 Average RF = 0.4189

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4464	02	1.000	0.4276	03	2.000	0.4457	04	5.000	0.4296
05	20.000	0.4425	06	50.000	0.4121	07	100.000	0.3857	08	150.000	0.3867
09	200.000	0.3942									

Hexachlorobutadiene Average RF RSD = 10.2 Average RF = 0.2582

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2962	03	2.000	0.2947	04	5.000	0.2493	05	20.000	0.2641
06	50.000	0.2636	07	100.000	0.2347	08	150.000	0.2321	09	200.000	0.2311

Iodomethane Average RF RSD = 9.8 Average RF = 0.4751

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.4144	04	5.000	0.4129	05	20.000	0.4856	06	50.000	0.5369
07	100.000	0.5128	08	150.000	0.4867	09	200.000	0.4762			

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Isopropylbenzene (Cumene) Average RF RSD = 11.9 Average RF = 2.600

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.932	02	1.000	2.911	03	2.000	2.782	04	5.000	2.715
05	20.000	2.803	06	50.000	2.620	07	100.000	2.310	08	150.000	2.224
09	200.000	2.103									

Methacrylonitrile Average RF RSD = 5.0 Average RF = 0.1413

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.1380	03	2.000	0.1556	04	5.000	0.1479	05	20.000	0.1406
06	50.000	0.1340	07	100.000	0.1395	08	150.000	0.1362	09	200.000	0.1389

Methyl Acetate Average RF RSD = 13.5 Average RF = 0.2484

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3231	03	2.000	0.2642	04	5.000	0.2510	05	20.000	0.2190
06	50.000	0.2256	07	100.000	0.2309	08	150.000	0.2335	09	200.000	0.2394

Methyl Methacrylate Average RF RSD = 7.3 Average RF = 0.1578

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1827	02	1.000	0.1479	03	2.000	0.1717	04	5.000	0.1565
05	20.000	0.1540	06	50.000	0.1527	07	100.000	0.1505	08	150.000	0.1520
09	200.000	0.1520									

Methyl tert-Butyl Ether Average RF RSD = 8.1 Average RF = 1.163

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.349	02	1.000	1.197	03	2.000	1.200	04	5.000	1.226
05	20.000	1.184	06	50.000	1.104	07	100.000	1.079	08	150.000	1.061
09	200.000	1.070									

Methylcyclohexane Average RF RSD = 13.9 Average RF = 0.3371

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4454	02	1.000	0.3389	03	2.000	0.3673	04	5.000	0.3407
05	20.000	0.3184	06	50.000	0.3239	07	100.000	0.3070	08	150.000	0.2947
09	200.000	0.2974									

Naphthalene Average RF RSD = 6.1 Average RF = 1.341

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.240	02	1.000	1.188	03	2.000	1.452	04	5.000	1.323
05	20.000	1.395	06	50.000	1.384	07	100.000	1.388	08	150.000	1.364
09	200.000	1.338									

Propionitrile Average RF RSD = 6.6 Average RF = 0.04459

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	5.000	0.04921	03	10.000	0.04745	04	25.000	0.04126	05	100.000	0.04224
06	250.000	0.04136	07	500.000	0.04441	08	750.000	0.04434	09	1000.000	0.04643

Styrene Average RF RSD = 8.9 Average RF = 0.8627

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9522	02	1.000	0.9356	03	2.000	0.9260	04	5.000	0.8800
05	20.000	0.9069	06	50.000	0.8594	07	100.000	0.7921	08	150.000	0.7646
09	200.000	0.7472									

Tetrachloroethene (PCE) Average RF RSD = 9.6 Average RF = 0.2074

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2514	02	1.000	0.1948	03	2.000	0.2169	04	5.000	0.2047
05	20.000	0.2191	06	50.000	0.2071	07	100.000	0.1918	08	150.000	0.1901
09	200.000	0.1905									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Tetrahydrofuran (THF) Average RF RSD = 6.9 Average RF = 0.09390

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1024	04	5.000	0.09978	05	20.000	0.08783	06	50.000	0.08504
07	100.000	0.09461	08	150.000	0.08996	09	200.000	0.09771			

Toluene Average RF RSD = 10.5 Average RF = 1.140

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.311	02	1.000	1.147	03	2.000	1.202	04	5.000	1.225
05	20.000	1.229	06	50.000	1.161	07	100.000	1.036	08	150.000	0.9823
09	200.000	0.9641									

Toluene-d8 Average RF RSD = 12.3 Average RF = 1.094

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	1.272	03	60.000	1.201	04	70.000	1.142	05	100.000	1.040
07	125.000	0.9945	08	150.000	0.9158						

Trichloroethene (TCE) Average RF RSD = 8.1 Average RF = 0.2796

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3231	02	1.000	0.3027	03	2.000	0.2684	04	5.000	0.2854
05	20.000	0.2859	06	50.000	0.2765	07	100.000	0.2556	08	150.000	0.2541
09	200.000	0.2646									

Trichlorofluoromethane (CFC 11) Average RF RSD = 5.3 Average RF = 0.6103

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5999	02	1.000	0.6241	03	2.000	0.6351	04	5.000	0.5983
05	20.000	0.6727	06	50.000	0.6272	07	100.000	0.5890	08	150.000	0.5727
09	200.000	0.5732									

Vinyl Acetate Average RF RSD = 13.7 Average RF = 0.08343

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.08232	03	2.000	0.09504	04	5.000	0.1044	05	20.000	0.07963
06	50.000	0.07988	07	100.000	0.07962	08	150.000	0.08008	09	200.000	0.06651

Vinyl Chloride Average RF RSD = 6.9 Average RF = 0.7834

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8677	02	1.000	0.8044	03	2.000	0.7629	04	5.000	0.7438
05	20.000	0.8615	06	50.000	0.8048	07	100.000	0.7399	08	150.000	0.7296
09	200.000	0.7358									

cis-1,2-Dichloroethene Average RF RSD = 10.0 Average RF = 0.4985

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5914	02	1.000	0.5359	03	2.000	0.5321	04	5.000	0.5156
05	20.000	0.4947	06	50.000	0.4772	07	100.000	0.4456	08	150.000	0.4446
09	200.000	0.4495									

cis-1,3-Dichloropropene Average RF RSD = 6.3 Average RF = 0.4481

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4777	02	1.000	0.4720	03	2.000	0.4602	04	5.000	0.4643
05	20.000	0.4728	06	50.000	0.4477	07	100.000	0.4221	08	150.000	0.4062
09	200.000	0.4099									

m,p-Xylenes Average RF RSD = 9.4 Average RF = 0.5171

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.5958	02	2.000	0.5253	03	4.000	0.5526	04	10.000	0.5395
05	40.000	0.5471	06	100.000	0.5129	07	200.000	0.4694	08	300.000	0.4604
09	400.000	0.4511									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

n-Butyl Acetate Average RF RSD = 3.3 Average RF = 0.3657

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3780	02	1.000	0.3877	03	2.000	0.3755	04	5.000	0.3557
05	20.000	0.3621	06	50.000	0.3569	07	100.000	0.3625	08	150.000	0.3611
09	200.000	0.3520									

n-Butylbenzene Average RF RSD = 11.8 Average RF = 1.799

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.101	02	1.000	1.782	03	2.000	1.941	04	5.000	1.891
05	20.000	1.982	06	50.000	1.855	07	100.000	1.618	08	150.000	1.542
09	200.000	1.476									

n-Heptane Average RF RSD = 12.2 Average RF = 0.3028

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3672	03	2.000	0.3330	04	5.000	0.3134	05	20.000	0.3164
06	50.000	0.2952	07	100.000	0.2721	08	150.000	0.2630	09	200.000	0.2622

n-Propylbenzene Average RF RSD = 12.7 Average RF = 2.997

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	3.473	02	1.000	3.119	03	2.000	3.284	04	5.000	3.071
05	20.000	3.326	06	50.000	3.096	07	100.000	2.706	08	150.000	2.543
09	200.000	2.352									

o-Xylene Average RF RSD = 5.4 Average RF = 0.5296

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5272	02	1.000	0.5122	03	2.000	0.5633	04	5.000	0.5694
05	20.000	0.5582	06	50.000	0.5362	07	100.000	0.5009	08	150.000	0.4969
09	200.000	0.5021									

sec-Butylbenzene Average RF RSD = 10.7 Average RF = 2.456

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.755	02	1.000	2.628	03	2.000	2.597	04	5.000	2.548
05	20.000	2.680	06	50.000	2.524	07	100.000	2.230	08	150.000	2.132
09	200.000	2.013									

tert-Amyl Methyl Ether Average RF RSD = 5.5 Average RF = 1.247

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.329	02	1.000	1.310	03	2.000	1.355	04	5.000	1.253
05	20.000	1.185	06	50.000	1.211	07	100.000	1.211	08	150.000	1.185
09	200.000	1.180									

tert-Butylbenzene Average RF RSD = 8.4 Average RF = 1.755

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.970	02	1.000	1.688	03	2.000	1.829	04	5.000	1.815
05	20.000	1.910	06	50.000	1.818	07	100.000	1.624	08	150.000	1.584
09	200.000	1.561									

trans-1,2-Dichloroethene Average RF RSD = 9.8 Average RF = 0.4503

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5440	02	1.000	0.4261	03	2.000	0.4861	04	5.000	0.4457
05	20.000	0.4700	06	50.000	0.4477	07	100.000	0.4136	08	150.000	0.4102
09	200.000	0.4096									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte	Curve Fit	Weighting									
trans-1,3-Dichloropropene	Average RF			RSD = 4.0		Average RF = 0.3560					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3485	02	1.000	0.3329	03	2.000	0.3598	04	5.000	0.3762
05	20.000	0.3735	06	50.000	0.3669	07	100.000	0.3531	08	150.000	0.3448
09	200.000	0.3481									
trans-1,4-Dichloro-2-butene	Linear	1/X		R2 = 0.9996		Y = 0.1536 X + 5.212E-4					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2429	02	1.000	0.1773	03	2.000	0.1591	04	5.000	0.1371
05	20.000	0.1496	06	50.000	0.1529	07	100.000	0.1524	08	150.000	0.1539
09	200.000	0.1557									

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,1,1,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.2	02	1.000	1.07	6.9	03	2.000	2.06	3.2
04	5.000	5.45	9.0	05	20.000	20.52	2.6	06	50.000	48.21	-3.6
07	100.000	90.80	-9.2	08	150.000	136.43	-9.0	09	200.000	183.70	-8.2

1,1,1-Trichloroethane (TCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.5	02	1.000	0.93	-6.8	03	2.000	2.08	3.8
04	5.000	5.03	0.6	05	20.000	20.68	3.4	06	50.000	49.98	0.0
07	100.000	92.16	-7.8	08	150.000	139.69	-6.9	09	200.000	190.62	-4.7

1,1,2,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	19.0	02	1.000	1.07	7.0	03	2.000	2.18	8.9
04	5.000	4.80	-4.0	05	20.000	19.99	0.0	06	50.000	47.00	-6.0
07	100.000	92.42	-7.6	08	150.000	137.95	-8.0	09	200.000	181.38	-9.3

1,1,2-Trichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.7	02	1.000	1.00	-0.2	03	2.000	2.04	2.0
04	5.000	5.35	7.0	05	20.000	21.02	5.1	06	50.000	50.10	0.2
07	100.000	96.52	-3.5	08	150.000	142.70	-4.9	09	200.000	195.69	-2.2

1,1,2-Trichlorotrifluoroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.9	02	1.000	1.08	7.8	03	2.000	2.18	8.8
04	5.000	4.97	-0.6	05	20.000	20.71	3.6	06	50.000	49.10	-1.8
07	100.000	86.84	-13.2	08	150.000	133.18	-11.2	09	200.000	177.56	-11.2

1,1-Dichloroethane (1,1-DCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	13.7	02	1.000	0.96	-4.4	03	2.000	2.06	3.0
04	5.000	4.99	-0.2	05	20.000	20.89	4.5	06	50.000	49.87	-0.3
07	100.000	95.02	-5.0	08	150.000	140.95	-6.0	09	200.000	189.26	-5.4

1,1-Dichloroethene (1,1-DCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.3	02	1.000	1.10	10.0	03	2.000	2.04	1.9
04	5.000	5.05	0.9	05	20.000	20.57	2.9	06	50.000	49.65	-0.7
07	100.000	89.86	-10.1	08	150.000	132.52	-11.7	09	200.000	179.10	-10.4

1,1-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	22.3	02	1.000	1.04	4.1	03	2.000	2.10	5.1
04	5.000	4.94	-1.3	05	20.000	20.68	3.4	06	50.000	50.05	0.1
07	100.000	89.56	-10.4	08	150.000	132.11	-11.9	09	200.000	177.13	-11.4

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,2,3-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-13.6	02	1.000	1.09	9.5	03	2.000	1.97	-1.4
04	5.000	5.20	4.1	05	20.000	20.84	4.2	06	50.000	51.37	2.7
07	100.000	98.59	-1.4	08	150.000	147.38	-1.7	09	200.000	195.43	-2.3

1,2,3-Trichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.4	02	1.000	0.97	-2.5	03	2.000	1.98	-0.9
04	5.000	5.27	5.5	05	20.000	19.45	-2.7	06	50.000	48.58	-2.8
07	100.000	100.78	0.8	08	150.000	149.45	-0.4	09	200.000	201.50	0.7

1,2,4-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	16.1	02	1.000	1.06	6.0	03	2.000	2.00	-0.2
04	5.000	4.90	-2.1	05	20.000	20.56	2.8	06	50.000	50.36	0.7
07	100.000	94.85	-5.1	08	150.000	136.96	-8.7	09	200.000	181.12	-9.4

1,2,4-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.3	02	1.000	1.07	6.6	03	2.000	2.07	3.6
04	5.000	5.12	2.4	05	20.000	21.77	8.8	06	50.000	51.18	2.4
07	100.000	91.33	-8.7	08	150.000	130.03	-13.3	09	200.000	165.94	-17.0

1,2-Dibromo-3-chloropropane (DBCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.3	02	1.000	0.86	-13.6	03	2.000	2.08	3.8
04	5.000	4.68	-6.4	05	20.000	19.73	-1.3	06	50.000	47.62	-4.8
07	100.000	100.52	0.5	08	150.000	155.01	3.3	09	200.000	206.41	3.2

1,2-Dibromoethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.2	02	1.000	1.02	2.2	03	2.000	2.01	0.4
04	5.000	5.17	3.3	05	20.000	20.61	3.1	06	50.000	48.49	-3.0
07	100.000	94.90	-5.1	08	150.000	140.87	-6.1	09	200.000	193.97	-3.0

1,2-Dichloro-1,1,2-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	13.2	02	1.000	1.11	11.0	03	2.000	2.19	9.3
04	5.000	5.23	4.7	05	20.000	19.17	-4.2	06	50.000	49.25	-1.5
07	100.000	92.41	-7.6	08	150.000	133.19	-11.2	09	200.000	172.59	-13.7

1,2-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.3	02	1.000	1.09	9.3	03	2.000	1.94	-2.9
04	5.000	4.95	-1.0	05	20.000	21.27	6.4	06	50.000	50.97	1.9
07	100.000	96.85	-3.1	08	150.000	142.33	-5.1	09	200.000	186.68	-6.7

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,2-Dichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.8	02	1.000	0.97	-2.7	03	2.000	2.08	4.2
04	5.000	5.65	13.0	05	20.000	21.18	5.9	06	50.000	48.96	-2.1
07	100.000	94.83	-5.2	08	150.000	138.50	-7.7	09	200.000	190.63	-4.7

1,2-Dichloroethane-d4

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	54.97	9.9	03	60.000	63.80	6.3	04	70.000	72.70	3.9
05	100.000	96.23	-3.8	07	125.000	117.27	-6.2	08	150.000	134.71	-10.2

1,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.6	02	1.000	1.06	6.2	03	2.000	1.97	-1.5
04	5.000	4.90	-2.0	05	20.000	21.02	5.1	06	50.000	50.34	0.7
07	100.000	93.78	-6.2	08	150.000	137.38	-8.4	09	200.000	187.18	-6.4

1,3,5-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	20.5	02	1.000	0.96	-3.5	03	2.000	2.22	11.2
04	5.000	4.81	-3.8	05	20.000	20.60	3.0	06	50.000	48.77	-2.5
07	100.000	95.44	-4.6	08	150.000	137.58	-8.3	09	200.000	175.84	-12.1

1,3,5-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.6	02	1.000	1.04	4.0	03	2.000	2.18	9.1
04	5.000	5.33	6.6	05	20.000	21.58	7.9	06	50.000	51.00	2.0
07	100.000	91.40	-8.6	08	150.000	131.55	-12.3	09	200.000	169.40	-15.3

1,3-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.9	02	1.000	1.05	4.9	03	2.000	2.09	4.3
04	5.000	4.92	-1.6	05	20.000	21.13	5.6	06	50.000	50.57	1.1
07	100.000	94.39	-5.6	08	150.000	136.71	-8.9	09	200.000	180.39	-9.8

1,3-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.9	02	1.000	1.13	12.9	03	2.000	2.13	6.5
04	5.000	5.24	4.8	05	20.000	20.72	3.6	06	50.000	47.51	-5.0
07	100.000	91.83	-8.2	08	150.000	135.54	-9.6	09	200.000	182.20	-8.9

1,4-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.3	02	1.000	0.96	-4.1	03	2.000	2.10	4.8
04	5.000	5.10	2.1	05	20.000	21.56	7.8	06	50.000	51.91	3.8
07	100.000	98.19	-1.8	08	150.000	143.36	-4.4	09	200.000	190.17	-4.9

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte

1,4-Dioxane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	40.000	44.09	10.2	04	100.000	103.35	3.4	05	400.000	388.97	-2.8
06	1000.000	882.89	-11.7	07	2000.000	1,913.57	-4.3	08	3000.000	2,967.55	-1.1
09	4000.000	4,251.30	6.3								

1-Butanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	50.000	48.25	-3.5	03	100.000	115.72	15.7	04	250.000	244.04	-2.4
05	1000.000	910.99	-8.9	06	2500.000	2,294.23	-8.2	07	5000.000	5,045.29	0.9
08	7500.000	7,648.32	2.0	09	10000.000	10,441.01	4.4				

1-Chloro-4-(trifluoromethyl)benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.1	02	1.000	1.05	4.5	03	2.000	2.06	3.2
04	5.000	5.12	2.3	05	20.000	19.72	-1.4	06	50.000	47.38	-5.2
07	100.000	95.82	-4.2	08	150.000	139.09	-7.3	09	200.000	181.95	-9.0

2,2-Dichloro-1,1,1-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.4	02	1.000	1.16	16.4	03	2.000	2.14	7.1
04	5.000	4.94	-1.2	05	20.000	18.70	-6.5	06	50.000	48.55	-2.9
07	100.000	91.68	-8.3	08	150.000	132.41	-11.7	09	200.000	177.63	-11.2

2,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.23	23.2	03	2.000	2.11	5.3	04	5.000	4.90	-1.9
05	20.000	21.07	5.4	06	50.000	49.75	-0.5	07	100.000	90.06	-9.9
08	150.000	134.22	-10.5	09	200.000	177.96	-11.0				

2,3,6-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.01	0.7	03	2.000	2.39	19.3	04	5.000	5.18	3.6
05	20.000	20.09	0.4	06	50.000	46.95	-6.1	07	100.000	94.14	-5.9
08	150.000	141.09	-5.9	09	200.000	187.91	-6.0				

2,4,5-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.96	-4.3	03	2.000	2.00	-0.2	04	5.000	5.18	3.6
05	20.000	20.27	1.4	06	50.000	49.48	-1.0	07	100.000	100.54	0.5
08	150.000	150.73	0.5	09	200.000	199.18	-0.4				

2,4-, 2,5-, and 2,6-Dichlorotoluene Coelut

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.500	1.64	9.1	02	3.000	3.06	2.1	03	6.000	6.36	6.0
04	15.000	15.73	4.9	05	60.000	63.56	5.9	06	150.000	150.74	0.5
07	300.000	290.33	-3.2	08	450.000	405.46	-9.9	09	600.000	507.89	-15.4

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

2,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.5	02	1.000	0.97	-3.2	03	2.000	2.01	0.5
04	5.000	4.97	-0.7	05	20.000	20.59	2.9	06	50.000	49.88	-0.2
07	100.000	102.40	2.4	08	150.000	146.86	-2.1	09	200.000	187.55	-6.2

2,5-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.2	02	1.000	1.00	0.4	03	2.000	2.01	0.7
04	5.000	5.01	0.3	05	20.000	19.93	-0.4	06	50.000	49.05	-1.9
07	100.000	100.51	0.5	08	150.000	145.73	-2.8	09	200.000	188.17	-5.9

2-Butanone (MEK)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.33	16.4	04	5.000	4.78	-4.3	05	20.000	17.82	-10.9
06	50.000	47.75	-4.5	07	100.000	102.07	2.1	08	150.000	149.11	-0.6
09	200.000	203.61	1.8								

2-Chloro-1,3-butadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.7	02	1.000	1.07	7.3	03	2.000	2.12	6.2
04	5.000	5.22	4.4	05	20.000	19.06	-4.7	06	50.000	49.85	-0.3
07	100.000	95.18	-4.8	08	150.000	138.32	-7.8	09	200.000	178.10	-10.9

2-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.3	02	1.000	1.11	10.8	03	2.000	2.17	8.5
04	5.000	4.99	-0.2	05	20.000	20.04	0.2	06	50.000	48.44	-3.1
07	100.000	97.80	-2.2	08	150.000	143.77	-4.2	09	200.000	180.96	-9.5

2-Chloroethyl Vinyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.67	34.5	02	1.000	0.91	-9.1	03	2.000	2.19	9.5
04	5.000	5.18	3.7	05	20.000	18.34	-8.3	06	50.000	47.19	-5.6
07	100.000	95.11	-4.9	08	150.000	135.88	-9.4	09	200.000	179.30	-10.4

2-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.6	02	1.000	0.96	-3.5	03	2.000	2.08	4.1
04	5.000	5.10	2.1	05	20.000	21.88	9.4	06	50.000	51.62	3.2
07	100.000	93.85	-6.2	08	150.000	135.69	-9.5	09	200.000	177.63	-11.2

2-Hexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.34	17.2	04	5.000	5.09	1.9	05	20.000	18.18	-9.1
06	50.000	47.07	-5.9	07	100.000	97.45	-2.6	08	150.000	149.39	-0.4
09	200.000	197.86	-1.1								

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

2-Methyl-1-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	20.76	3.8	03	40.000	46.07	15.2	04	100.000	101.88	1.9
05	400.000	384.74	-3.8	06	1000.000	900.31	-10.0	07	2000.000	1,929.52	-3.5
08	3000.000	2,868.37	-4.4	09	4000.000	4,032.64	0.8				

2-Methyl-2-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	19.20	-4.0	03	40.000	39.84	-0.4	04	100.000	101.85	1.9
05	400.000	388.20	-2.9	06	1000.000	941.93	-5.8	07	2000.000	2,030.61	1.5
08	3000.000	3,113.23	3.8	09	4000.000	4,240.70	6.0				

2-Nitropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	2.000	1.88	-6.2	03	4.000	4.51	12.6	04	10.000	11.31	13.1
05	40.000	39.23	-1.9	06	100.000	91.43	-8.6	07	200.000	189.21	-5.4
08	300.000	290.65	-3.1	09	400.000	397.59	-0.6				

2-Propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	22.02	10.1	03	40.000	42.11	5.3	04	100.000	104.11	4.1
05	400.000	364.95	-8.8	06	1000.000	910.90	-8.9	07	2000.000	1,913.86	-4.3
08	3000.000	3,006.21	0.2	09	4000.000	4,090.98	2.3				

3,4- and 2,3-Dichlorotoluene Coelution

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.95	-4.9	02	2.000	2.14	7.0	03	4.000	4.25	6.3
04	10.000	10.75	7.5	05	40.000	42.55	6.4	06	100.000	102.57	2.6
07	200.000	195.55	-2.2	08	300.000	274.91	-8.4	09	400.000	342.89	-14.3

3,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.4	02	1.000	1.01	0.8	03	2.000	2.26	13.1
04	5.000	4.82	-3.7	05	20.000	19.67	-1.6	06	50.000	49.01	-2.0
07	100.000	96.54	-3.5	08	150.000	141.75	-5.5	09	200.000	181.82	-9.1

3-Chloro-1-propene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.3	02	1.000	1.24	24.4	03	2.000	1.91	-4.6
04	5.000	5.11	2.2	05	20.000	21.25	6.2	06	50.000	50.11	0.2
07	100.000	90.42	-9.6	08	150.000	129.74	-13.5	09	200.000	166.67	-16.7

3-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.7	02	1.000	1.05	5.0	03	2.000	2.13	6.7
04	5.000	5.04	0.9	05	20.000	19.92	-0.4	06	50.000	48.19	-3.6
07	100.000	95.98	-4.0	08	150.000	141.26	-5.8	09	200.000	181.15	-9.4

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

3-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.2	02	1.000	1.01	1.3	03	2.000	2.11	5.5
04	5.000	5.24	4.8	05	20.000	20.82	4.1	06	50.000	50.12	0.2
07	100.000	98.05	-1.9	08	150.000	142.71	-4.9	09	200.000	177.08	-11.5

4-Bromofluorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	56.93	13.9	03	60.000	65.41	9.0	04	70.000	71.90	2.7
05	100.000	93.35	-6.7	07	125.000	116.83	-6.5	08	150.000	131.40	-12.4

4-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.3	02	1.000	1.04	4.2	03	2.000	2.18	9.2
04	5.000	5.12	2.4	05	20.000	21.52	7.6	06	50.000	50.57	1.1
07	100.000	90.72	-9.3	08	150.000	126.08	-15.9	09	200.000	164.77	-17.6

4-Isopropyltoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	5.1	02	1.000	1.03	2.9	03	2.000	2.16	7.9
04	5.000	5.14	2.7	05	20.000	22.01	10.1	06	50.000	51.66	3.3
07	100.000	92.67	-7.3	08	150.000	134.28	-10.5	09	200.000	171.62	-14.2

4-Methyl-2-pentanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.97	-1.5	04	5.000	5.02	0.4	05	20.000	19.69	-1.6
06	50.000	49.04	-1.9	07	100.000	102.59	2.6	08	150.000	150.76	0.5
09	200.000	202.96	1.5								

Acetone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	5.000	5.66	13.1	05	20.000	19.25	-3.7	06	50.000	46.70	-6.6
07	100.000	97.39	-2.6	08	150.000	147.04	-2.0	09	200.000	203.60	1.8

Acetonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	10.000	10.02	0.2	04	25.000	29.90	19.6	05	100.000	97.04	-3.0
06	250.000	215.42	-13.8	07	500.000	415.85	-16.8	08	750.000	790.58	5.4
09	1000.000	1,084.29	8.4								

Acrolein

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	4.000	4.33	8.3	04	10.000	10.86	8.6	05	40.000	37.52	-6.2
06	100.000	92.35	-7.7	07	200.000	191.46	-4.3	08	300.000	301.41	0.5
09	400.000	402.93	0.7								

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte

Acrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.59	3.6	02	5.000	5.00	0.0	03	10.000	10.84	8.4
04	25.000	24.44	-2.3	05	100.000	98.60	-1.4	06	250.000	239.84	-4.1
07	500.000	492.60	-1.5	08	750.000	731.60	-2.5	09	1000.000	997.02	-0.3

Benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.2	02	1.000	1.06	5.8	03	2.000	2.09	4.6
04	5.000	5.14	2.7	05	20.000	20.93	4.7	06	50.000	50.87	1.7
07	100.000	92.36	-7.6	08	150.000	133.15	-11.2	09	200.000	180.25	-9.9

Bromobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.4	02	1.000	1.01	1.4	03	2.000	2.19	9.6
04	5.000	4.87	-2.7	05	20.000	21.37	6.8	06	50.000	51.23	2.5
07	100.000	96.01	-4.0	08	150.000	143.99	-4.0	09	200.000	191.49	-4.3

Bromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	13.5	02	1.000	1.07	6.7	03	2.000	2.11	5.4
04	5.000	5.09	1.8	05	20.000	19.73	-1.4	06	50.000	49.09	-1.8
07	100.000	93.35	-6.6	08	150.000	134.52	-10.3	09	200.000	185.72	-7.1

Bromodichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.9	02	1.000	1.10	10.2	03	2.000	1.99	-0.5
04	5.000	4.93	-1.4	05	20.000	20.42	2.1	06	50.000	49.89	-0.2
07	100.000	93.03	-7.0	08	150.000	137.96	-8.0	09	200.000	187.91	-6.0

Bromoform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	14.0	02	1.000	0.99	-1.3	03	2.000	2.03	1.5
04	5.000	4.84	-3.2	05	20.000	19.50	-2.5	06	50.000	48.24	-3.5
07	100.000	95.69	-4.3	08	150.000	147.99	-1.3	09	200.000	201.42	0.7

Bromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.62	24.1	02	1.000	0.99	-0.7	03	2.000	2.14	6.9
04	5.000	4.75	-5.0	05	20.000	19.05	-4.8	06	50.000	48.55	-2.9
07	100.000	93.46	-6.5	08	150.000	140.24	-6.5	09	200.000	190.86	-4.6

Carbon Disulfide

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.8	02	1.000	1.02	1.6	03	2.000	2.17	8.4
04	5.000	5.27	5.4	05	20.000	19.63	-1.9	06	50.000	50.82	1.6
07	100.000	96.29	-3.7	08	150.000	137.35	-8.4	09	200.000	176.24	-11.9

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte

Carbon Tetrachloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	5.8	02	1.000	1.05	5.2	03	2.000	2.03	1.6
04	5.000	5.18	3.6	05	20.000	20.50	2.5	06	50.000	50.31	0.6
07	100.000	92.15	-7.9	08	150.000	140.41	-6.4	09	200.000	190.05	-5.0

Chlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	14.1	02	1.000	1.04	4.4	03	2.000	2.17	8.7
04	5.000	5.18	3.7	05	20.000	21.02	5.1	06	50.000	48.75	-2.5
07	100.000	91.46	-8.5	08	150.000	132.40	-11.7	09	200.000	173.57	-13.2

Chloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	21.2	02	1.000	0.93	-6.7	03	2.000	2.11	5.3
04	5.000	4.89	-2.3	05	20.000	20.69	3.4	06	50.000	50.06	0.1
07	100.000	93.16	-6.8	08	150.000	138.58	-7.6	09	200.000	186.71	-6.6

Chloroform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.68	**35.6**	02	1.000	1.03	2.8	03	2.000	2.02	1.1
04	5.000	5.10	2.0	05	20.000	19.67	-1.6	06	50.000	47.23	-5.5
07	100.000	88.41	-11.6	08	150.000	132.15	-11.9	09	200.000	178.46	-10.8

Chloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.7	02	1.000	0.98	-2.2	03	2.000	2.06	3.0
04	5.000	4.62	-7.5	05	20.000	21.60	8.0	06	50.000	50.31	0.6
07	100.000	94.99	-5.0	08	150.000	141.72	-5.5	09	200.000	191.99	-4.0

Cyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.69	**37.7**	02	1.000	1.02	2.1	03	2.000	1.99	-0.6
04	5.000	4.93	-1.5	05	20.000	19.07	-4.6	06	50.000	49.22	-1.6
07	100.000	91.93	-8.1	08	150.000	131.90	-12.1	09	200.000	177.18	-11.4

Cyclohexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	20.39	2.0	03	40.000	40.81	2.0	04	100.000	93.25	-6.8
05	400.000	376.99	-5.8	06	1000.000	949.43	-5.1	07	2000.000	2,076.61	3.8
08	3000.000	3,125.33	4.2	09	4000.000	4,222.87	5.6				

Dibromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.3	02	1.000	1.06	6.2	03	2.000	2.03	1.7
04	5.000	5.07	1.4	05	20.000	20.16	0.8	06	50.000	49.91	-0.2
07	100.000	96.44	-3.6	08	150.000	143.83	-4.1	09	200.000	195.05	-2.5

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Dibromofluoromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	55.49	11.0	03	60.000	65.00	8.3	04	70.000	72.39	3.4
05	100.000	97.39	-2.6	07	125.000	115.86	-7.3	08	150.000	130.79	-12.8

Dibromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	23.0	02	1.000	1.14	14.2	03	2.000	2.10	5.1
04	5.000	4.73	-5.4	05	20.000	19.48	-2.6	06	50.000	46.34	-7.3
07	100.000	91.72	-8.3	08	150.000	132.66	-11.6	09	200.000	185.93	-7.0

Dichlorodifluoromethane (CFC 12)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-9.7	02	1.000	0.93	-7.0	03	2.000	1.83	-8.5
04	5.000	4.36	-12.8	05	20.000	22.42	12.1	06	50.000	55.68	11.4
07	100.000	104.70	4.7	08	150.000	156.39	4.3	09	200.000	211.01	5.5

Dichlorofluoromethane (CFC 21)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.5	02	1.000	1.02	1.7	03	2.000	2.12	5.9
04	5.000	4.95	-1.1	05	20.000	19.94	-0.3	06	50.000	50.90	1.8
07	100.000	99.73	-0.3	08	150.000	142.52	-5.0	09	200.000	189.55	-5.2

Dichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	19.7	02	1.000	1.09	8.7	03	2.000	2.21	10.7
04	5.000	4.88	-2.4	05	20.000	19.66	-1.7	06	50.000	47.42	-5.2
07	100.000	90.02	-10.0	08	150.000	133.95	-10.7	09	200.000	181.78	-9.1

Diethyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.16	15.6	03	2.000	1.88	-5.9	04	5.000	5.23	4.6
05	20.000	20.82	4.1	06	50.000	49.37	-1.3	07	100.000	95.74	-4.3
08	150.000	140.42	-6.4	09	200.000	187.13	-6.4				

Diisopropyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	9.0	02	1.000	1.07	7.3	03	2.000	2.21	10.5
04	5.000	5.32	6.3	05	20.000	19.55	-2.3	06	50.000	48.94	-2.1
07	100.000	93.83	-6.2	08	150.000	134.38	-10.4	09	200.000	175.70	-12.1

Ethyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.4	02	1.000	0.95	-5.0	03	2.000	1.93	-3.7
04	5.000	5.04	0.8	05	20.000	20.63	3.2	06	50.000	50.32	0.6
07	100.000	101.20	1.2	08	150.000	148.63	-0.9	09	200.000	202.71	1.4

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte

Ethyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.1	02	1.000	1.04	4.4	03	2.000	2.13	6.7
04	5.000	5.29	5.8	05	20.000	19.19	-4.0	06	50.000	49.08	-1.8
07	100.000	97.66	-2.3	08	150.000	141.27	-5.8	09	200.000	185.96	-7.0

Ethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.5	02	1.000	1.02	2.1	03	2.000	2.13	6.4
04	5.000	5.13	2.6	05	20.000	21.12	5.6	06	50.000	49.18	-1.6
07	100.000	92.06	-7.9	08	150.000	138.47	-7.7	09	200.000	188.19	-5.9

Hexachlorobutadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.15	14.7	03	2.000	2.28	14.1	04	5.000	4.83	-3.4
05	20.000	20.45	2.3	06	50.000	51.04	2.1	07	100.000	90.89	-9.1
08	150.000	134.84	-10.1	09	200.000	178.97	-10.5				

Iodomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.74	-12.8	04	5.000	4.35	-13.1	05	20.000	20.45	2.2
06	50.000	56.50	13.0	07	100.000	107.93	7.9	08	150.000	153.67	2.4
09	200.000	200.49	0.2								

Isopropylbenzene (Cumene)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.8	02	1.000	1.12	12.0	03	2.000	2.14	7.0
04	5.000	5.22	4.4	05	20.000	21.56	7.8	06	50.000	50.39	0.8
07	100.000	88.85	-11.1	08	150.000	128.31	-14.5	09	200.000	161.80	-19.1

Methacrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.98	-2.4	03	2.000	2.20	10.1	04	5.000	5.23	4.6
05	20.000	19.89	-0.5	06	50.000	47.40	-5.2	07	100.000	98.74	-1.3
08	150.000	144.58	-3.6	09	200.000	196.53	-1.7				

Methyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.30	**30.1**	03	2.000	2.13	6.4	04	5.000	5.05	1.1
05	20.000	17.63	-11.8	06	50.000	45.43	-9.1	07	100.000	92.96	-7.0
08	150.000	141.05	-6.0	09	200.000	192.83	-3.6				

Methyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.8	02	1.000	0.94	-6.3	03	2.000	2.18	8.8
04	5.000	4.96	-0.8	05	20.000	19.52	-2.4	06	50.000	48.39	-3.2
07	100.000	95.39	-4.6	08	150.000	144.51	-3.7	09	200.000	192.68	-3.7

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Methyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.9	02	1.000	1.03	2.9	03	2.000	2.06	3.1
04	5.000	5.27	5.4	05	20.000	20.36	1.8	06	50.000	47.45	-5.1
07	100.000	92.72	-7.3	08	150.000	136.82	-8.8	09	200.000	183.90	-8.1

Methylcyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.66	**32.1**	02	1.000	1.01	0.5	03	2.000	2.18	9.0
04	5.000	5.05	1.1	05	20.000	18.89	-5.5	06	50.000	48.05	-3.9
07	100.000	91.07	-8.9	08	150.000	131.13	-12.6	09	200.000	176.47	-11.8

Naphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.6	02	1.000	0.89	-11.4	03	2.000	2.16	8.2
04	5.000	4.93	-1.4	05	20.000	20.81	4.0	06	50.000	51.59	3.2
07	100.000	103.48	3.5	08	150.000	152.52	1.7	09	200.000	199.53	-0.2

Propionitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	5.000	5.52	10.4	03	10.000	10.64	6.4	04	25.000	23.14	-7.5
05	100.000	94.74	-5.3	06	250.000	231.89	-7.2	07	500.000	497.97	-0.4
08	750.000	745.83	-0.6	09	1000.000	1,041.30	4.1				

Styrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.4	02	1.000	1.08	8.5	03	2.000	2.15	7.3
04	5.000	5.10	2.0	05	20.000	21.02	5.1	06	50.000	49.81	-0.4
07	100.000	91.81	-8.2	08	150.000	132.95	-11.4	09	200.000	173.24	-13.4

Tetrachloroethene (PCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	21.2	02	1.000	0.94	-6.0	03	2.000	2.09	4.6
04	5.000	4.93	-1.3	05	20.000	21.13	5.7	06	50.000	49.93	-0.1
07	100.000	92.49	-7.5	08	150.000	137.48	-8.3	09	200.000	183.72	-8.1

Tetrahydrofuran (THF)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.18	9.0	04	5.000	5.31	6.3	05	20.000	18.71	-6.5
06	50.000	45.28	-9.4	07	100.000	100.76	0.8	08	150.000	143.70	-4.2
09	200.000	208.11	4.1								

Toluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.1	02	1.000	1.01	0.7	03	2.000	2.11	5.4
04	5.000	5.37	7.5	05	20.000	21.57	7.8	06	50.000	50.93	1.9
07	100.000	90.90	-9.1	08	150.000	129.29	-13.8	09	200.000	169.20	-15.4

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

Toluene-d8

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	58.14	16.3	03	60.000	65.85	9.7	04	70.000	73.04	4.3
05	100.000	95.02	-5.0	07	125.000	113.63	-9.1	08	150.000	125.57	-16.3

Trichloroethene (TCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.6	02	1.000	1.08	8.3	03	2.000	1.92	-4.0
04	5.000	5.10	2.1	05	20.000	20.45	2.3	06	50.000	49.44	-1.1
07	100.000	91.41	-8.6	08	150.000	136.35	-9.1	09	200.000	189.29	-5.4

Trichlorofluoromethane (CFC 11)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-1.7	02	1.000	1.02	2.3	03	2.000	2.08	4.1
04	5.000	4.90	-2.0	05	20.000	22.05	10.2	06	50.000	51.39	2.8
07	100.000	96.52	-3.5	08	150.000	140.76	-6.2	09	200.000	187.87	-6.1

Vinyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.99	-1.3	03	2.000	2.28	13.9	04	5.000	6.26	25.1
05	20.000	19.09	-4.6	06	50.000	47.87	-4.3	07	100.000	95.43	-4.6
08	150.000	143.96	-4.0	09	200.000	159.42	-20.3				

Vinyl Chloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.8	02	1.000	1.03	2.7	03	2.000	1.95	-2.6
04	5.000	4.75	-5.0	05	20.000	22.00	10.0	06	50.000	51.36	2.7
07	100.000	94.45	-5.6	08	150.000	139.71	-6.9	09	200.000	187.85	-6.1

cis-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.6	02	1.000	1.07	7.5	03	2.000	2.13	6.7
04	5.000	5.17	3.4	05	20.000	19.85	-0.8	06	50.000	47.86	-4.3
07	100.000	89.39	-10.6	08	150.000	133.79	-10.8	09	200.000	180.34	-9.8

cis-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.6	02	1.000	1.05	5.3	03	2.000	2.05	2.7
04	5.000	5.18	3.6	05	20.000	21.10	5.5	06	50.000	49.95	-0.1
07	100.000	94.19	-5.8	08	150.000	135.98	-9.3	09	200.000	182.96	-8.5

m,p-Xylenes

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.15	15.2	02	2.000	2.03	1.6	03	4.000	4.27	6.9
04	10.000	10.43	4.3	05	40.000	42.32	5.8	06	100.000	99.19	-0.8
07	200.000	181.55	-9.2	08	300.000	267.09	-11.0	09	400.000	348.90	-12.8

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

n-Butyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.4	02	1.000	1.06	6.0	03	2.000	2.05	2.7
04	5.000	4.86	-2.7	05	20.000	19.80	-1.0	06	50.000	48.80	-2.4
07	100.000	99.12	-0.9	08	150.000	148.11	-1.3	09	200.000	192.51	-3.7

n-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	16.8	02	1.000	0.99	-0.9	03	2.000	2.16	7.9
04	5.000	5.26	5.1	05	20.000	22.04	10.2	06	50.000	51.57	3.1
07	100.000	89.98	-10.0	08	150.000	128.58	-14.3	09	200.000	164.18	-17.9

n-Heptane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.21	21.3	03	2.000	2.20	10.0	04	5.000	5.17	3.5
05	20.000	20.90	4.5	06	50.000	48.75	-2.5	07	100.000	89.85	-10.1
08	150.000	130.27	-13.2	09	200.000	173.21	-13.4				

n-Propylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.9	02	1.000	1.04	4.1	03	2.000	2.19	9.6
04	5.000	5.12	2.5	05	20.000	22.20	11.0	06	50.000	51.66	3.3
07	100.000	90.30	-9.7	08	150.000	127.29	-15.1	09	200.000	156.99	-21.5

o-Xylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.5	02	1.000	0.97	-3.3	03	2.000	2.13	6.4
04	5.000	5.38	7.5	05	20.000	21.08	5.4	06	50.000	50.63	1.3
07	100.000	94.58	-5.4	08	150.000	140.75	-6.2	09	200.000	189.61	-5.2

sec-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.1	02	1.000	1.07	7.0	03	2.000	2.11	5.7
04	5.000	5.19	3.7	05	20.000	21.82	9.1	06	50.000	51.38	2.8
07	100.000	90.78	-9.2	08	150.000	130.19	-13.2	09	200.000	163.94	-18.0

tert-Amyl Methyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.6	02	1.000	1.05	5.1	03	2.000	2.17	8.7
04	5.000	5.02	0.5	05	20.000	19.01	-4.9	06	50.000	48.58	-2.8
07	100.000	97.13	-2.9	08	150.000	142.61	-4.9	09	200.000	189.31	-5.3

tert-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.2	02	1.000	0.96	-3.8	03	2.000	2.08	4.2
04	5.000	5.17	3.4	05	20.000	21.76	8.8	06	50.000	51.79	3.6
07	100.000	92.49	-7.5	08	150.000	135.35	-9.8	09	200.000	177.85	-11.1

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

trans-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	20.8	02	1.000	0.95	-5.4	03	2.000	2.16	7.9
04	5.000	4.95	-1.0	05	20.000	20.87	4.4	06	50.000	49.71	-0.6
07	100.000	91.85	-8.1	08	150.000	136.63	-8.9	09	200.000	181.93	-9.0

trans-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.1	02	1.000	0.94	-6.5	03	2.000	2.02	1.1
04	5.000	5.28	5.7	05	20.000	20.99	4.9	06	50.000	51.53	3.1
07	100.000	99.19	-0.8	08	150.000	145.28	-3.1	09	200.000	195.57	-2.2

trans-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.62	24.2	02	1.000	0.99	-1.5	03	2.000	1.90	-4.9
04	5.000	4.29	-14.1	05	20.000	19.31	-3.5	06	50.000	49.61	-0.8
07	100.000	99.06	-0.9	08	150.000	150.14	0.1	09	200.000	202.57	1.3

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:53:37 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	764325	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1268968	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1157078	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	575084	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	372379	49.01	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.02%				
48) surr1,1,2-dichloroetha...	6.096	65	392390	47.39	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 94.78%				
65) SURR3,Toluene-d8	8.529	98	1587219	47.01	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 94.02%				
70) SURR2,BFB	11.047	95	581975	47.84	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 95.68%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	4863	0.45	ppb		87
3) Chloromethane	1.347	50	7240	0.56	ppb		84
4) Vinyl Chloride	1.433	62	6632m	0.55	ppb		
5) Bromomethane	1.689	94	3628	0.61	ppb		87
6) Chloroethane	1.768	64	3991	0.60	ppb		70
7) Freon 21	1.926	67	6532m	0.51	ppb		
8) Trichlorofluoromethane	1.975	101	4585	0.49	ppb		76
9) Diethyl Ether	2.231	59	3589	0.61	ppb		85
10) Freon 123a	2.237	67	4717m	0.56	ppb		
11) Freon 123	2.292	83	5691m	0.58	ppb		
13) 1,1-Diclethene	2.432	96	3749m	0.57	ppb		
14) Freon 113	2.445	101	3428	0.59	ppb	#	65
17) Iodomethane	2.579	142	3304m	0.46	ppb		
18) Carbon Disulfide	2.634	76	11619	0.54	ppb		90
20) Allyl Chloride	2.804	76	1981	0.56	ppb	#	86
21) Methyl Acetate	2.841	43	2130	0.56	ppb		80
22) Methylene Chloride	2.926	84	4417	0.60	ppb	#	81
23) TBA	3.097	59	4748m	9.46	ppb		
24) Acrylonitrile	3.225	53	4777m	2.57	ppb		
25) Methyl-t-Butyl Ether	3.261	73	10309	0.58	ppb		86
26) trans-1,2-Dichloroethene	3.255	96	4158	0.61	ppb	#	83
28) 1,1-Diclethane	3.798	63	6962	0.57	ppb		80
29) Vinyl Acetate	3.895	86	611	0.46	ppb	#	1
30) DIPE	3.950	45	13005	0.54	ppb		95
31) 2-Chloro-1,3-Butadiene	3.926	53	6813	0.55	ppb		98
32) ETBE	4.536	59	11673	0.52	ppb		86
33) 2,2-Dichloropropane	4.700	77	6855m	0.70	ppb		
34) cis-1,2-Dichloroethene	4.718	96	4520m	0.59	ppb		
37) Bromochloromethane	5.133	130	2233m	0.56	ppb		
40) Chloroform	5.334	83	8066m	0.68	ppb		
41) 1,1,1-Trichloroethane	5.596	97	5536m	0.59	ppb		
42) TAME	6.401	73	10160	0.53	ppb		93
44) Cyclohexane	5.682	41	4775m	0.69	ppb		
46) Carbontetrachloride	5.852	121	1285m	0.52	ppb		

11/19/15

W111815.M Thu Nov 19 09:54:10 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:53:37 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47)	1,1-Dichloropropene	5.877	75	5477m	0.61	ppb		
49)	Benzene	6.169	78	15250	0.55	ppb		82
50)	1,2-Dichloroethane	6.218	62	3552	0.50	ppb	#	60
51)	Iso-Butyl Alcohol	6.212	43	2679	11.44	ppb	#	68
52)	n-Heptane	6.645	43	5643	0.73	ppb		78
53)	1-Butanol	7.127	56	5628m	38.45	ppb		
54)	Trichloroethene	7.084	130	4100m	0.58	ppb		
55)	Methylcyclohexane	7.303	55	5652m	0.67	ppb		
56)	1,2-Diclpropane	7.352	63	3895	0.56	ppb		98
57)	Dibromomethane	7.486	93	2095	0.61	ppb	#	66
59)	Methyl Methacrylate	7.578	69	2318	0.58	ppb		93
60)	Bromodichloromethane	7.712	83	4703	0.55	ppb		86
62)	2-Chloroethylvinyl Ether	8.120	63	2568	0.67	ppb	#	63
63)	cis-1,3-Dichloropropene	8.242	75	6062	0.53	ppb		95
64)	4-Methyl-2-pentanone	8.443	43	2936	0.58	ppb		91
66)	Toluene	8.602	91	16639	0.58	ppb		98
67)	trans-1,3-Dichloropropene	8.864	75	4422	0.49	ppb	#	72
68)	Ethyl Methacrylate	8.998	69	4097	0.51	ppb		91
69)	1,1,2-Trichloroethane	9.041	97	2356	0.48	ppb		87
72)	Tetrachloroethene	9.181	164	2909	0.61	ppb		90
73)	2-Hexanone	9.333	43	2259	0.64	ppb		75
74)	1,3-Dichloropropane	9.218	76	4570	0.52	ppb		83
75)	Dibromochloromethane	9.437	129	2745	0.50	ppb		93
76)	N-Butyl Acetate	9.486	43	4374m	0.52	ppb		
77)	1,2-Dibromoethane	9.529	107	2537m	0.54	ppb		
78)	Chlorobenzene	10.016	112	9761	0.57	ppb		93
79)	3-CBTF	10.028	180	4695	0.55	ppb		99
80)	4-CBTF	10.083	180	4619	0.58	ppb		82
81)	1,1,1,2-Tetrachloroethane	10.102	131	3201	0.54	ppb	#	76
82)	Ethylbenzene	10.132	106	5165	0.53	ppb	#	56
83)	(m+p)Xylene	10.242	106	13787	1.15	ppb	#	81
84)	o-Xylene	10.595	106	6100	0.50	ppb		97
85)	Styrene	10.608	104	11018	0.55	ppb		89
87)	Bromoform	10.760	173	1862m	0.57	ppb		
88)	2-CBTF	10.839	180	4347	0.50	ppb	#	79
89)	Isopropylbenzene	10.925	105	16861	0.56	ppb		95
90)	Cyclohexanone	10.986	55	4945	11.41	ppb		96
91)	trans-1,4-Dichloro-2-B...	11.236	53	1397m	0.74	ppb		
92)	1,1,2,2-Tetrachloroethane	11.181	83	3596	0.60	ppb		93
93)	Bromobenzene	11.175	156	3201	0.47	ppb	#	75
94)	1,2,3-Trichloropropane	11.205	110	1248	0.70	ppb	#	74
95)	n-Propylbenzene	11.278	91	19975	0.58	ppb		97
96)	2-Chlorotoluene	11.339	91	11270	0.56	ppb		91
97)	3-Chlorotoluene	11.394	91	10843	0.51	ppb		98
98)	4-Chlorotoluene	11.431	91	13481	0.59	ppb		95
99)	1,3,5-Trimethylbenzene	11.431	105	12064	0.53	ppb		93
100)	tert-Butylbenzene	11.699	119	11331	0.56	ppb		99
101)	1,2,4-Trimethylbenzene	11.742	105	14000	0.58	ppb		87
102)	3,4-DCBTF	11.796	214	3254	0.56	ppb	#	78
103)	sec-Butylbenzene	11.882	105	15842	0.56	ppb		86
104)	p-Isopropyltoluene	12.004	119	11480	0.53	ppb		78

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:53:37 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

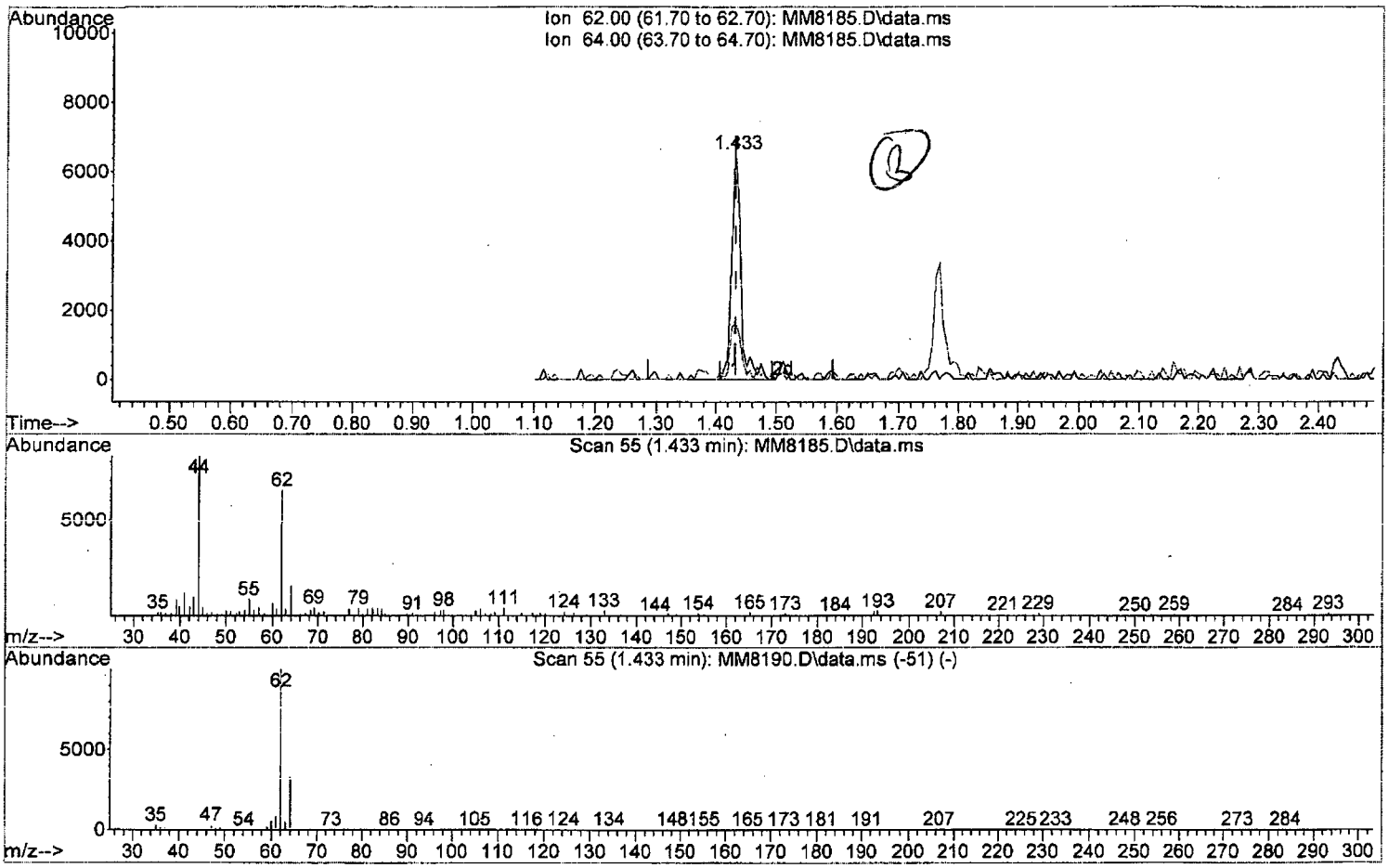
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
105) 1,3-Dclbenz	11.961	146	7197	0.55	ppb		87
106) 1,4-Dclbenz	12.040	146	5939	0.48	ppb		88
107) 2,4-DCBTF	12.083	214	2715	0.53	ppb	#	68
108) 2,5-DCBTF	12.126	214	3148	0.55	ppb	#	85
109) n-Butylbenzene	12.327	91	12081	0.58	ppb		85
110) 1,2-Dclbenz	12.333	146	6104	0.51	ppb		83
111) 1,2-Dibromo-3-chloropr...	12.955	157	672	0.57	ppb	#	65
112) Trielution Dichlorotol...	13.083	125	16655	1.64	ppb	#	88
113) 1,3,5 Trichlorobenzene	13.125	180	4884	0.60	ppb		96
114) Coelution Dichlorotoluene	13.400	125	10221	0.95	ppb	#	93
115) 1,2,4-Tcbenzene	13.613	180	4316	0.58	ppb	#	79
116) Hexachlorobt	13.747	225	2390	0.75	ppb		92
117) Naphthalen	13.796	128	7130	0.46	ppb		86
118) 1,2,3-Tclbenzene	13.985	180	2673	0.43	ppb		89
119) 2,4,5-Trichlorotolene	14.570	159	2775	0.59	ppb	#	78
120) 2,3,6-Trichlorotoluene	14.656	159	2515	0.61	ppb		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(4) Vinyl Chloride (P)

1.433min (-0.000) 0.57 ppb

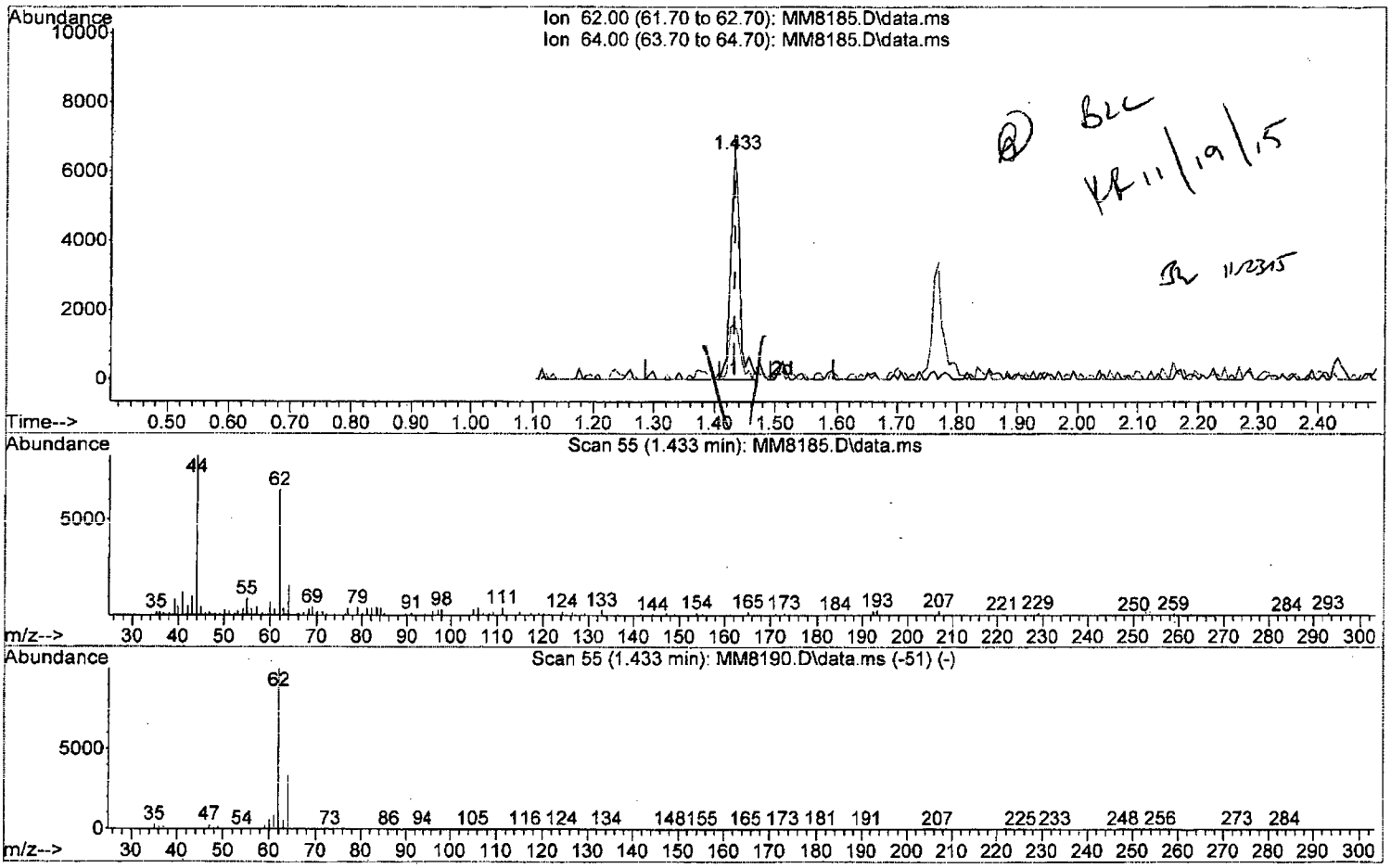
response 6846

Ion	Exp%	Act%
62.00	100	100
64.00	33.40	24.76
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(4) Vinyl Chloride (P)

1.433min (-0.000) 0.55 ppb m

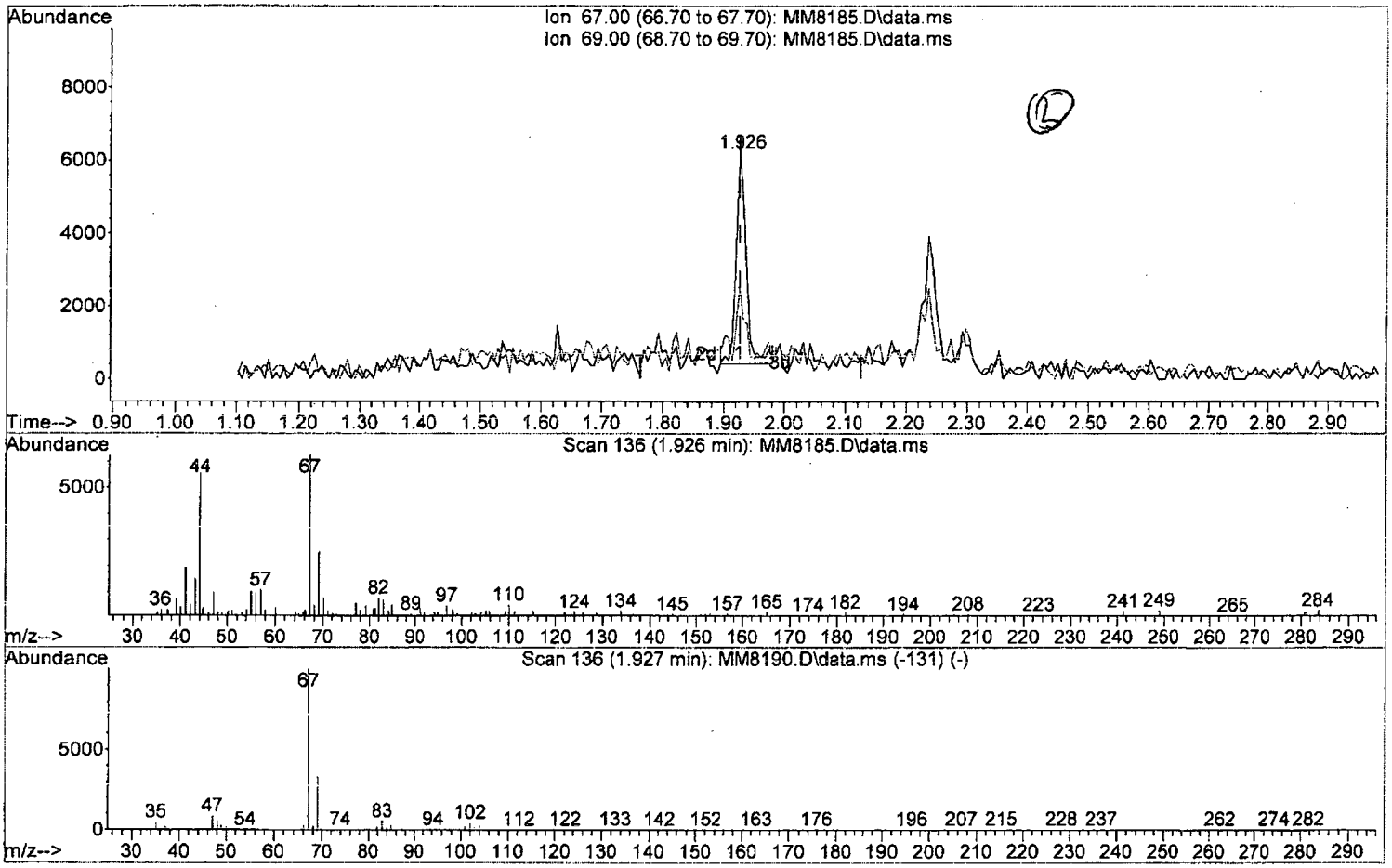
response 6632

Ion	Exp%	Act%
62.00	100	100
64.00	33.40	24.76
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(7) Freon 21

1.926min (-0.000) 0.53 ppb

response 6797

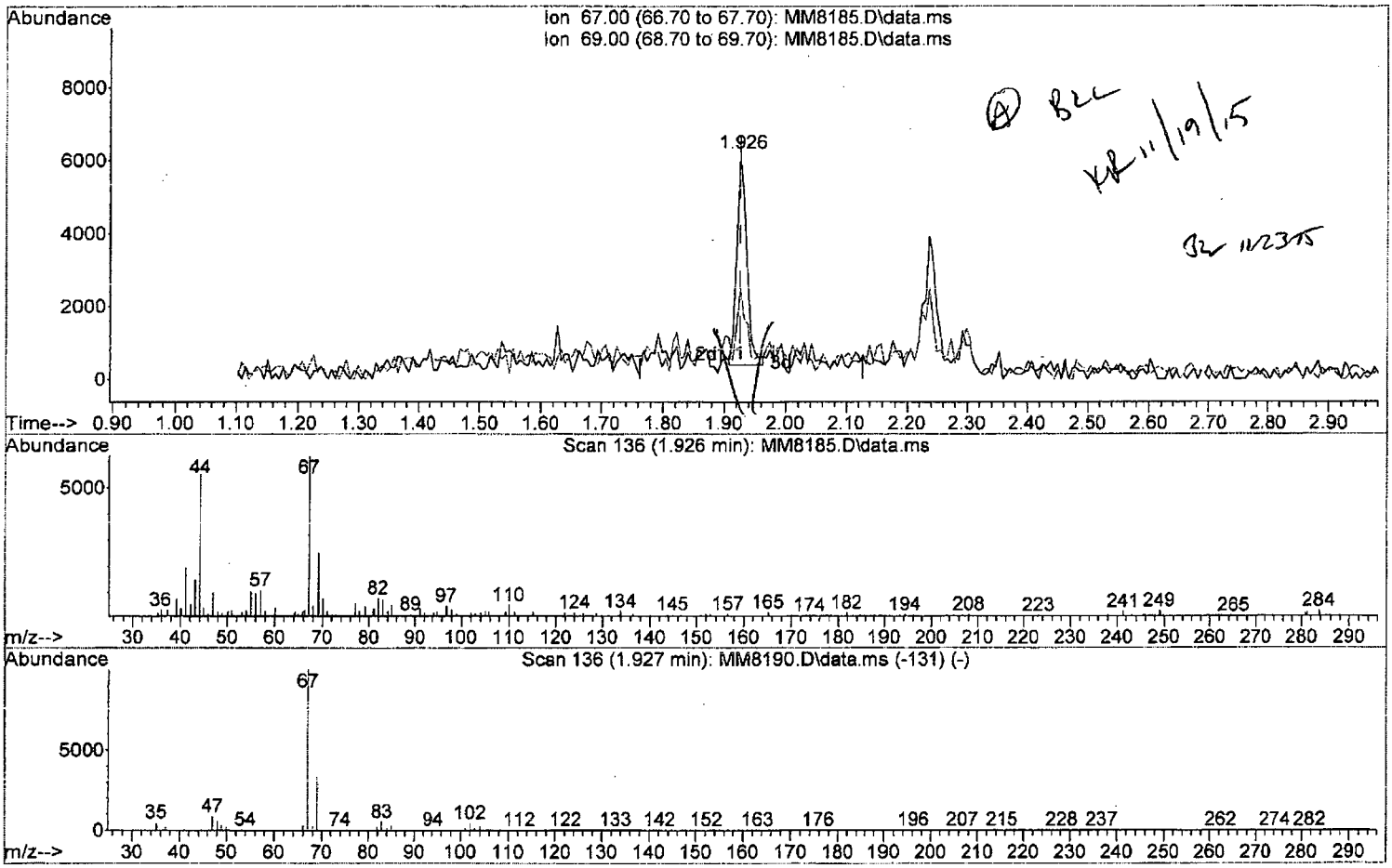
Ion	Exp%	Act%
67.00	100	100
69.00	33.10	40.44
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:37:42 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(7) Freon 21

1.926min (-0.000) 0.51 ppb m

response 6532

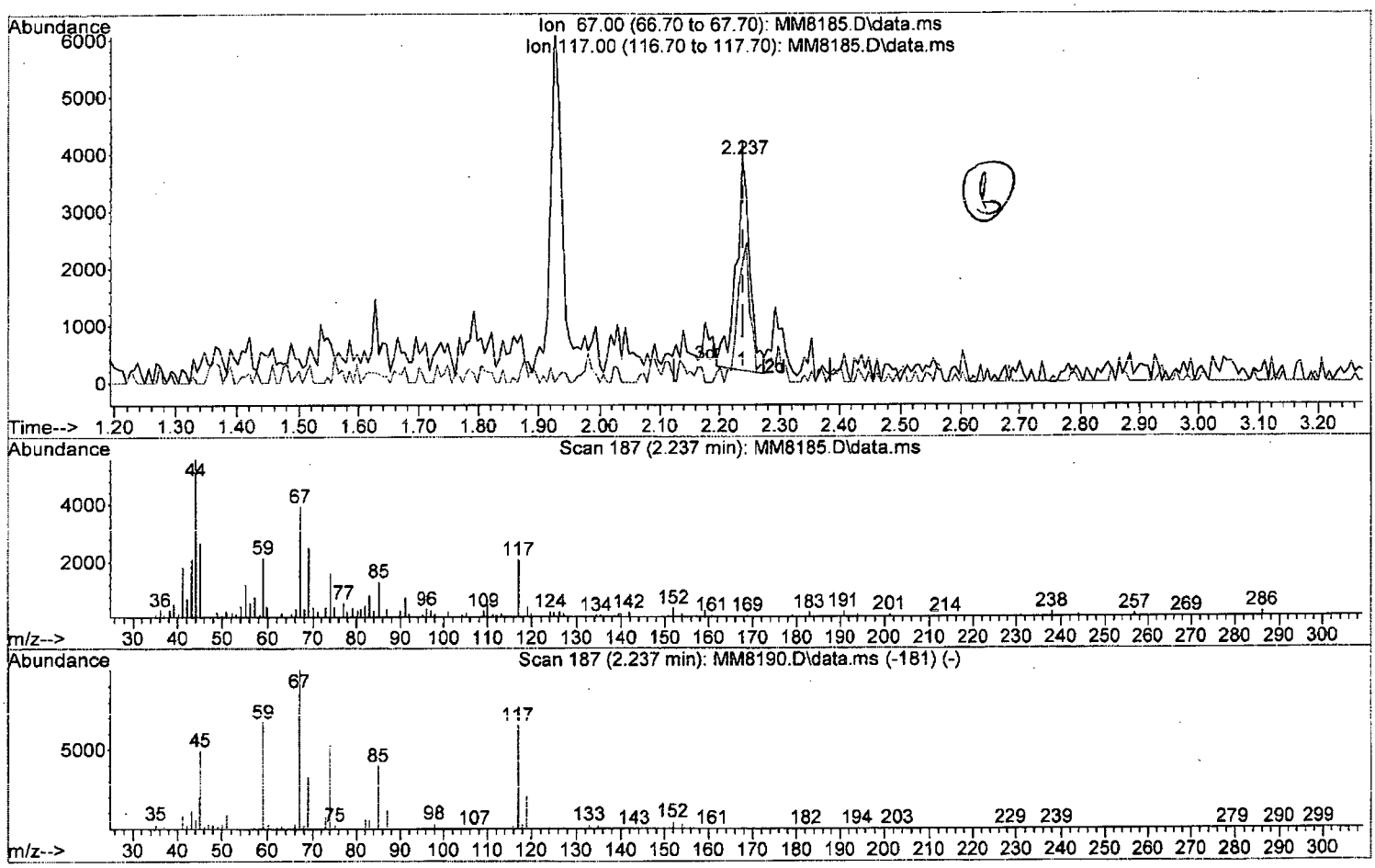
Ion	Exp%	Act%
67.00	100	100
69.00	33.10	40.44
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:37:51 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(10) Freon 123a

2.237min (-0.000) 0.70 ppb

response 5939

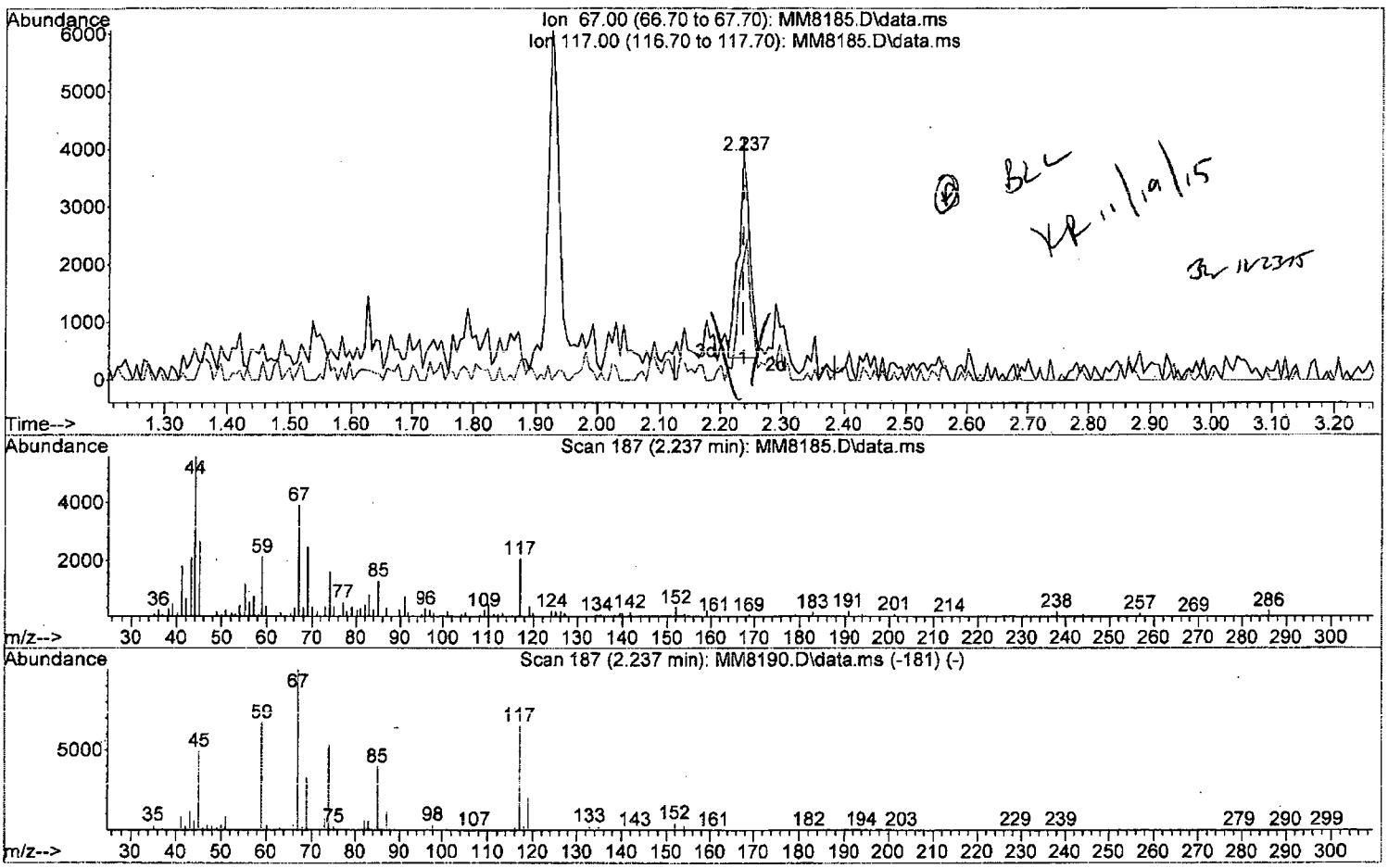
Ion	Exp%	Act%
67.00	100	100
117.00	65.50	52.87
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:38:00 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(10) Freon 123a

2.237min (-0.000) 0.56 ppb m

response 4717

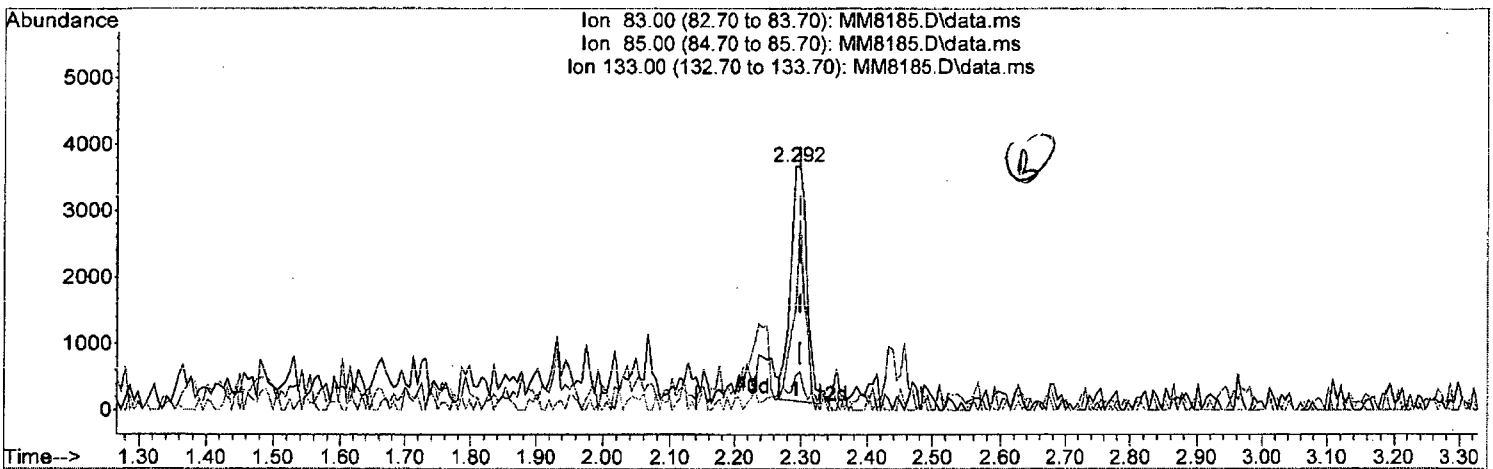
Ion	Exp%	Act%
67.00	100	100
117.00	65.50	52.87
0.00	0.00	0.00
0.00	0.00	0.00

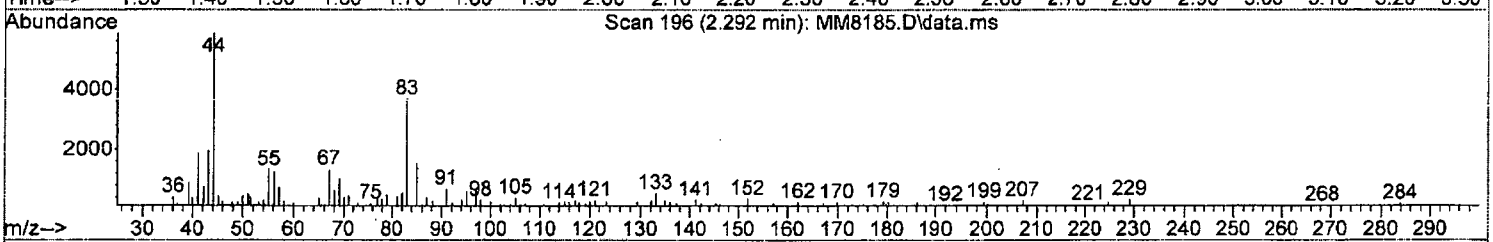
W111815.M Thu Nov 19 09:38:27 2015 Page: 1

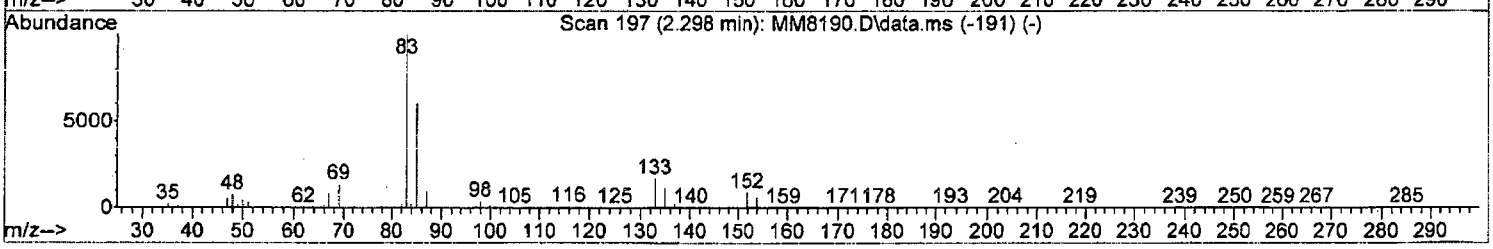
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8185.D\data.ms

(11) Freon 123

2.292min (-0.006) 0.61 ppb

response 5962

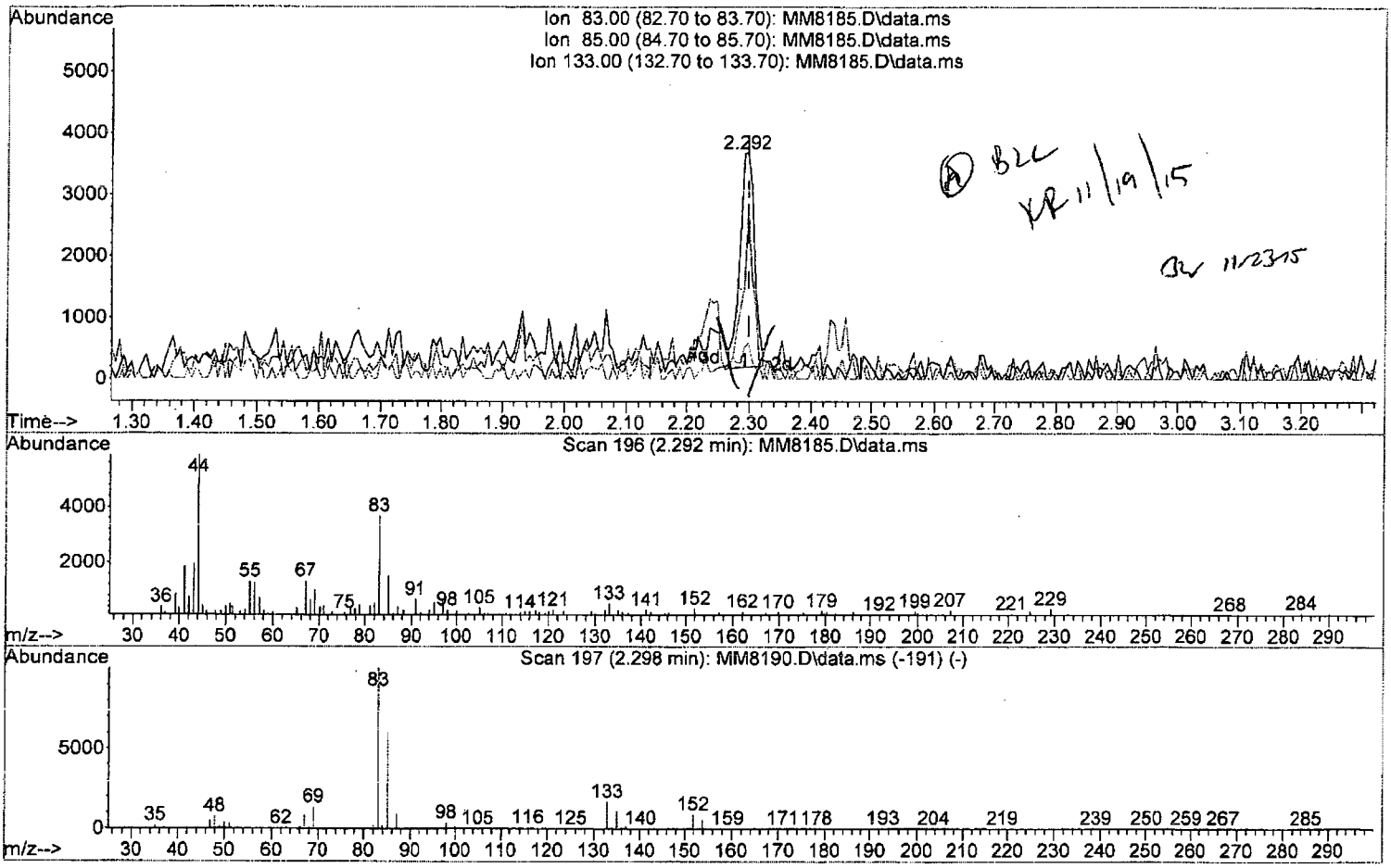
Ion	Exp%	Act%
83.00	100	100
85.00	62.90	41.14#
133.00	16.90	14.03
0.00	0.00	0.00

W111815.M Thu Nov 19 09:38:45 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(11) Freon 123

2.292min (-0.006) 0.58 ppb m

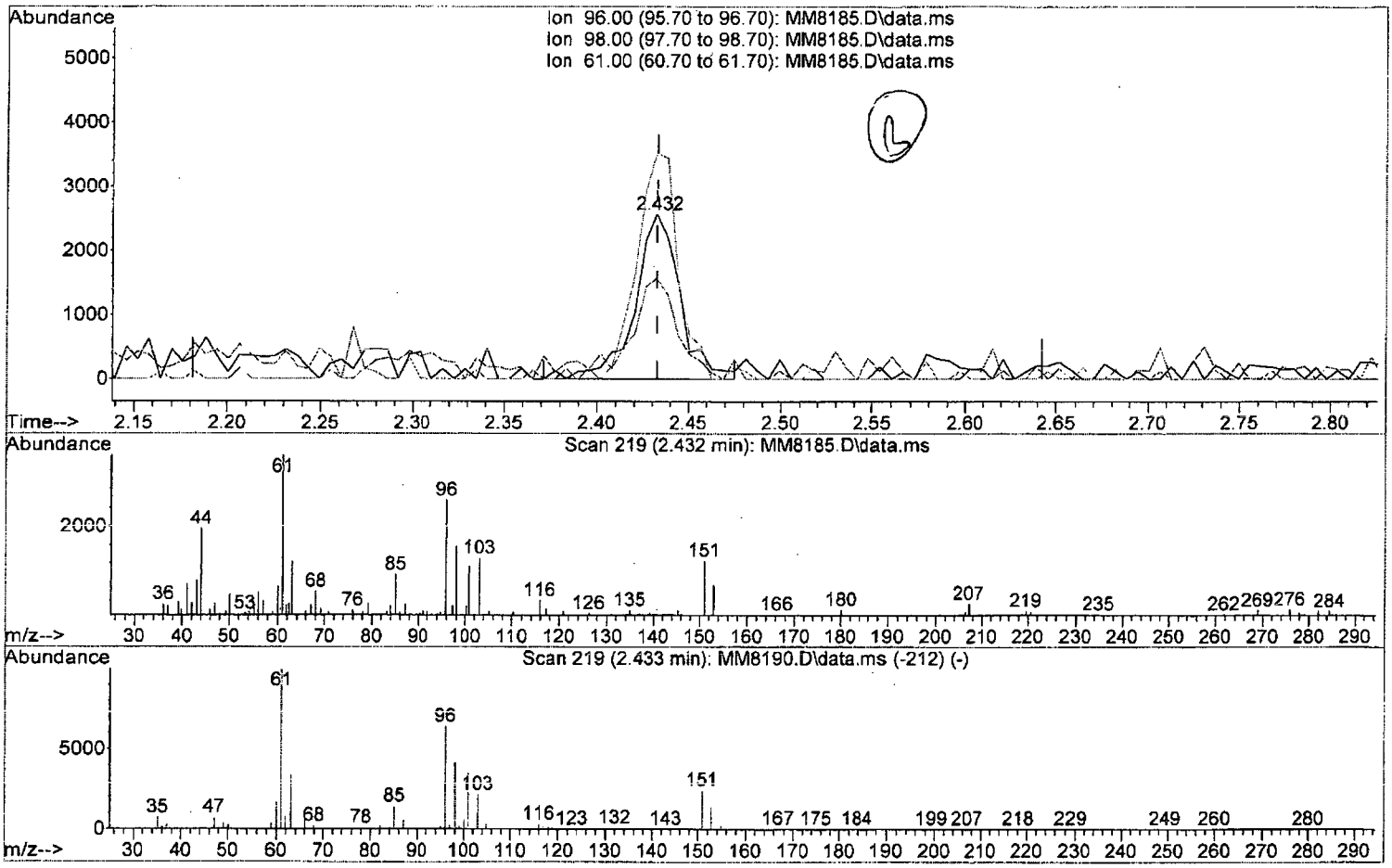
response 5691

Ion	Exp%	Act%
83.00	100	100
85.00	62.90	41.14#
133.00	16.90	14.03
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(13) 1,1-Diclethene (P)

2.432min (-0.000) 0.68 ppb

response 4440

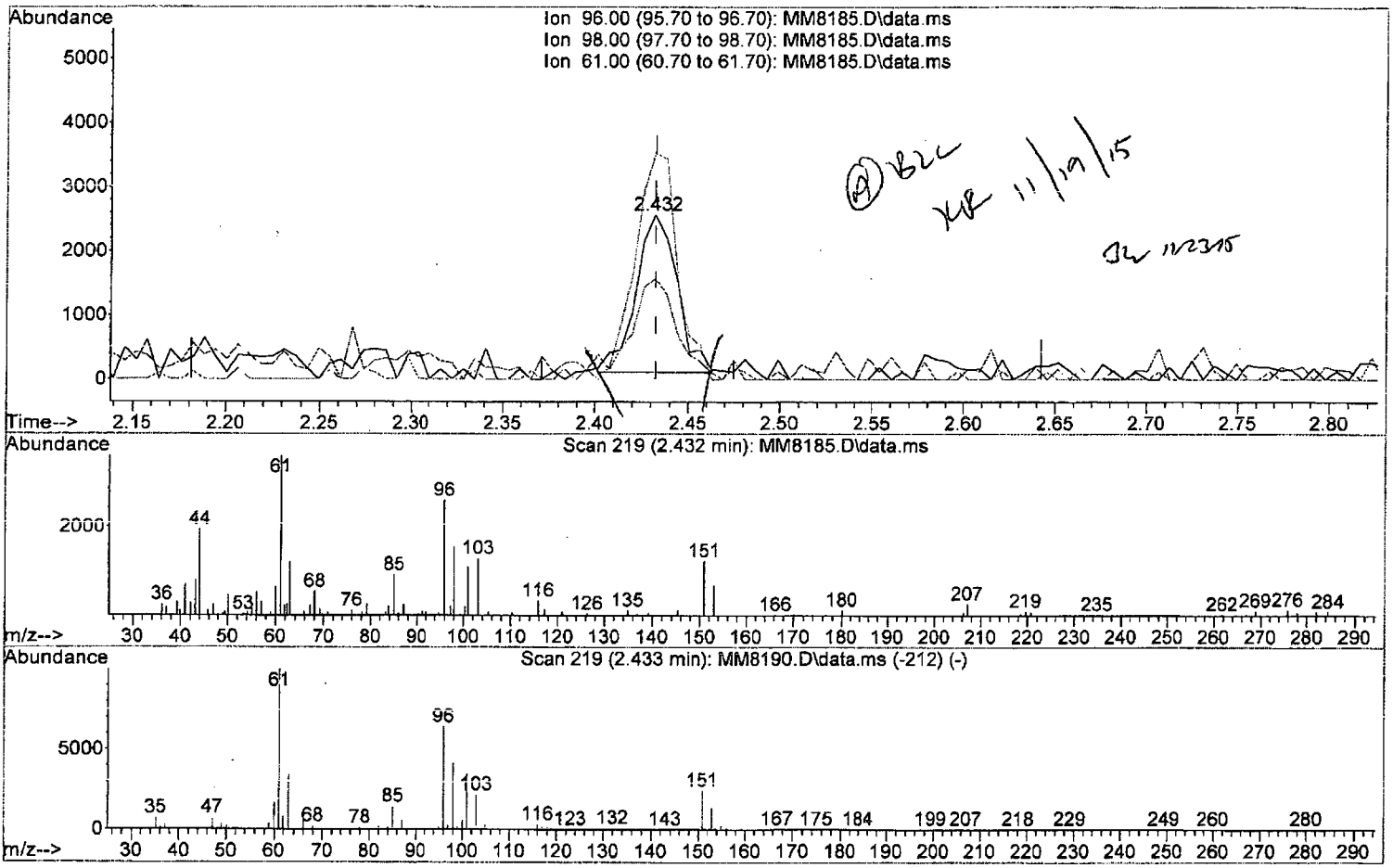
Ion	Exp%	Act%
96.00	100	100
98.00	65.00	61.16
61.00	156.20	137.31
0.00	0.00	0.00

W111815.M Thu Nov 19 09:39:27 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(13) 1,1-Diclethene (P)

2.432min (-0.000) 0.57 ppb m

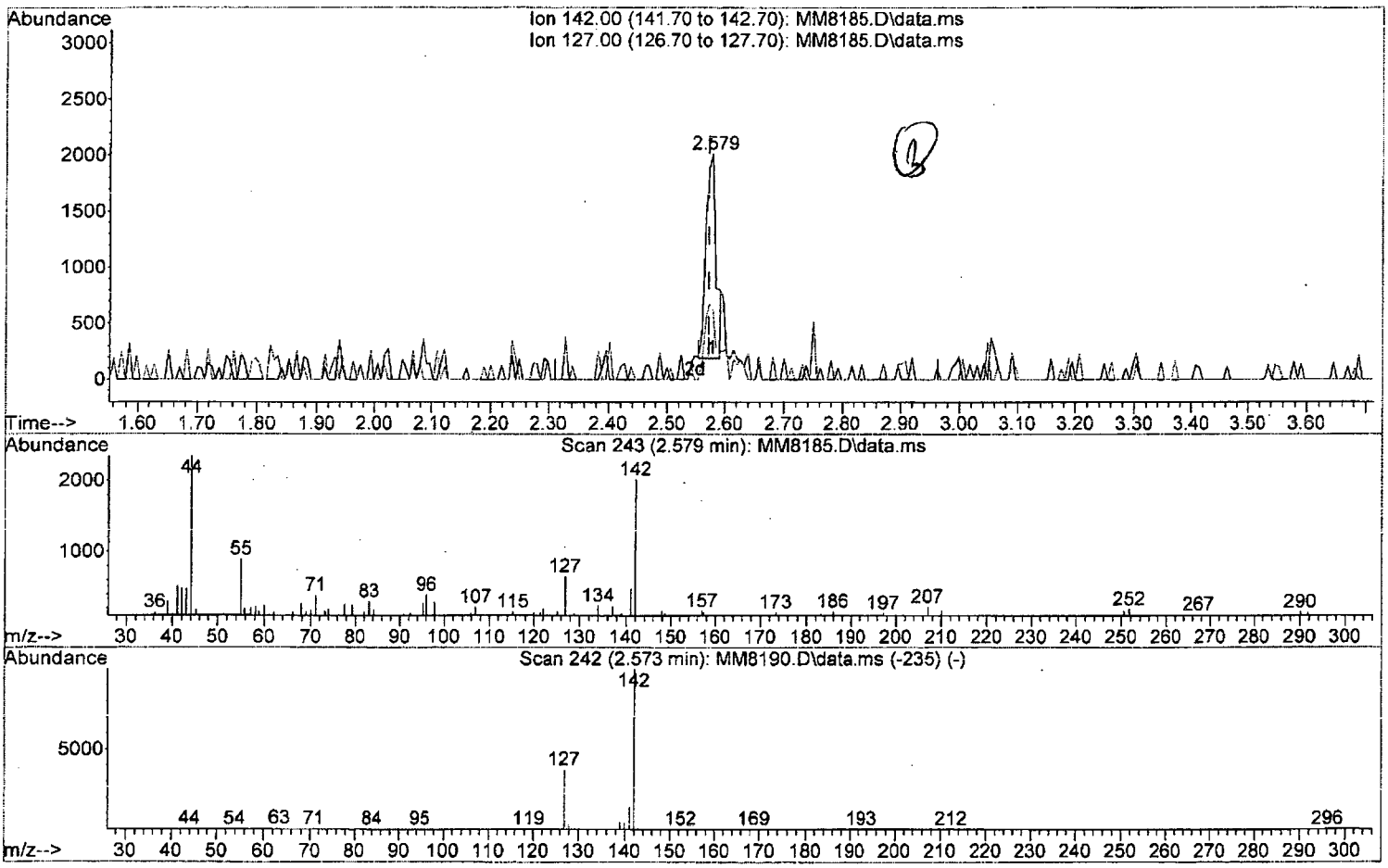
response 3749

Ion	Exp%	Act%
96.00	100	100
98.00	65.00	61.16
61.00	156.20	137.31
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(17) Iodomethane

2.579min (+0.007) 0.32 ppb

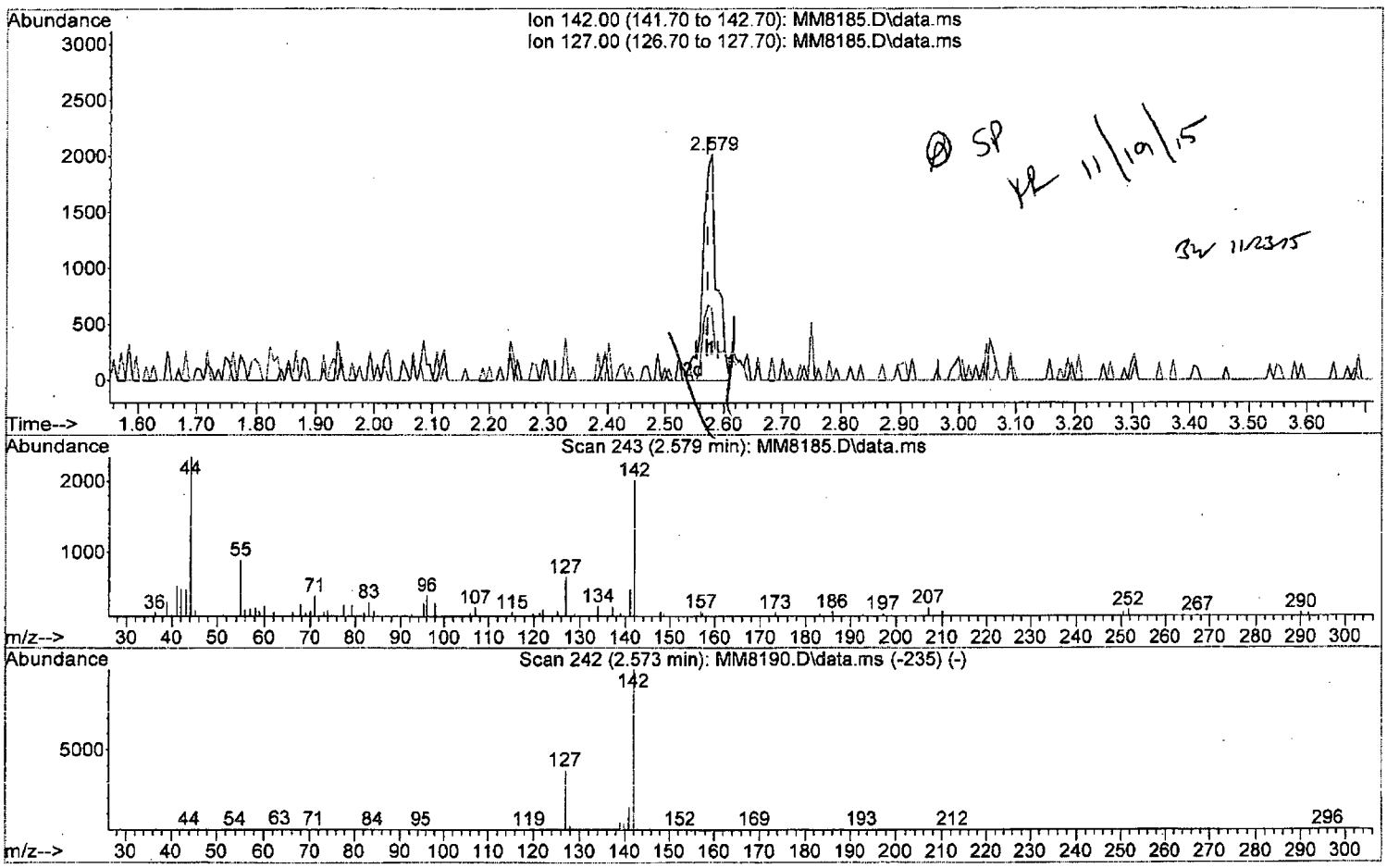
response 2266

Ion	Exp%	Act%
142.00	100	100
127.00	37.20	32.24
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(17) Iodomethane

2.579min (+0.007) 0.46 ppb m

response 3304

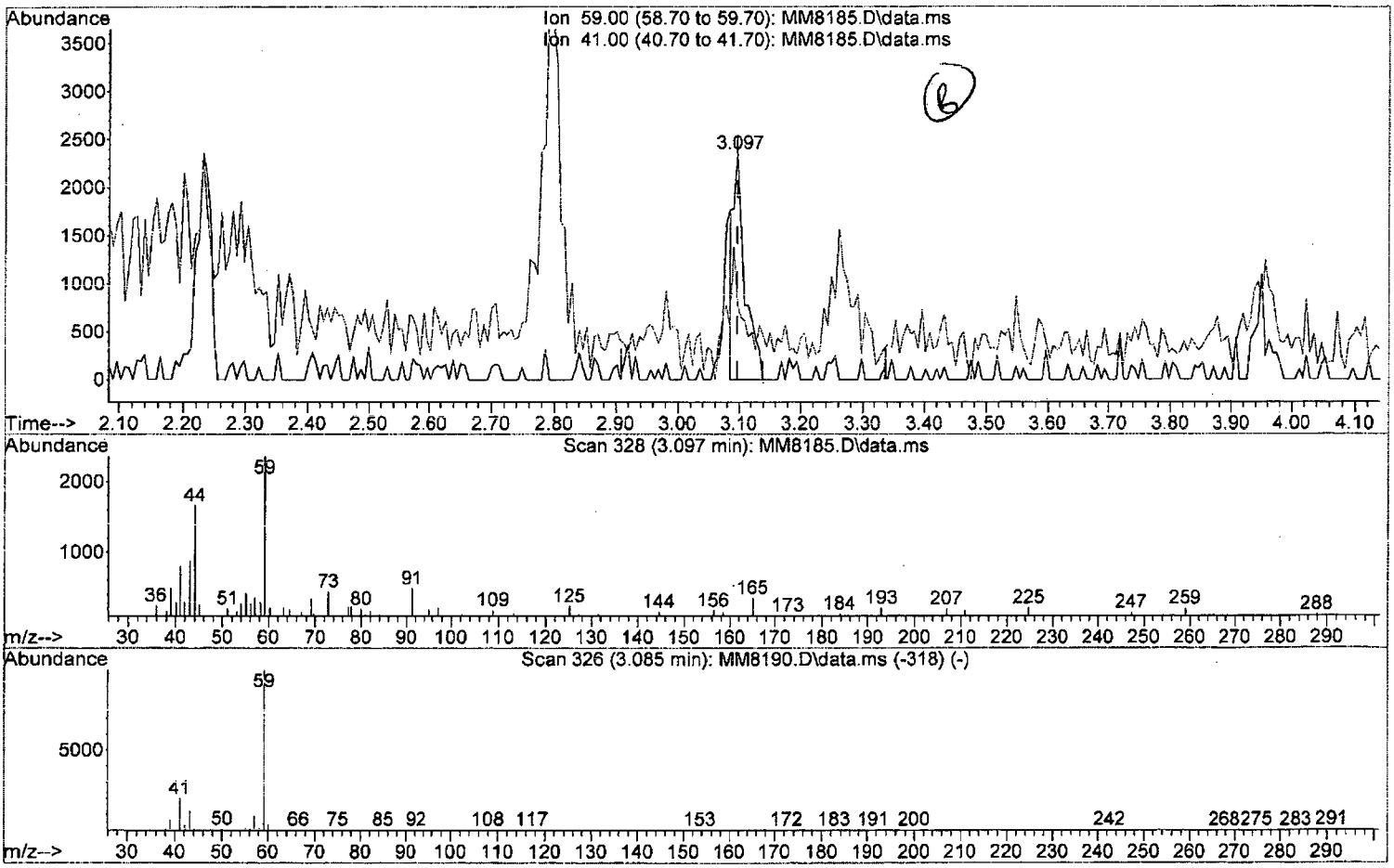
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	32.24
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:40:16 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(23) TBA

3.097min (-0.000) 6.28 ppb

response 3153

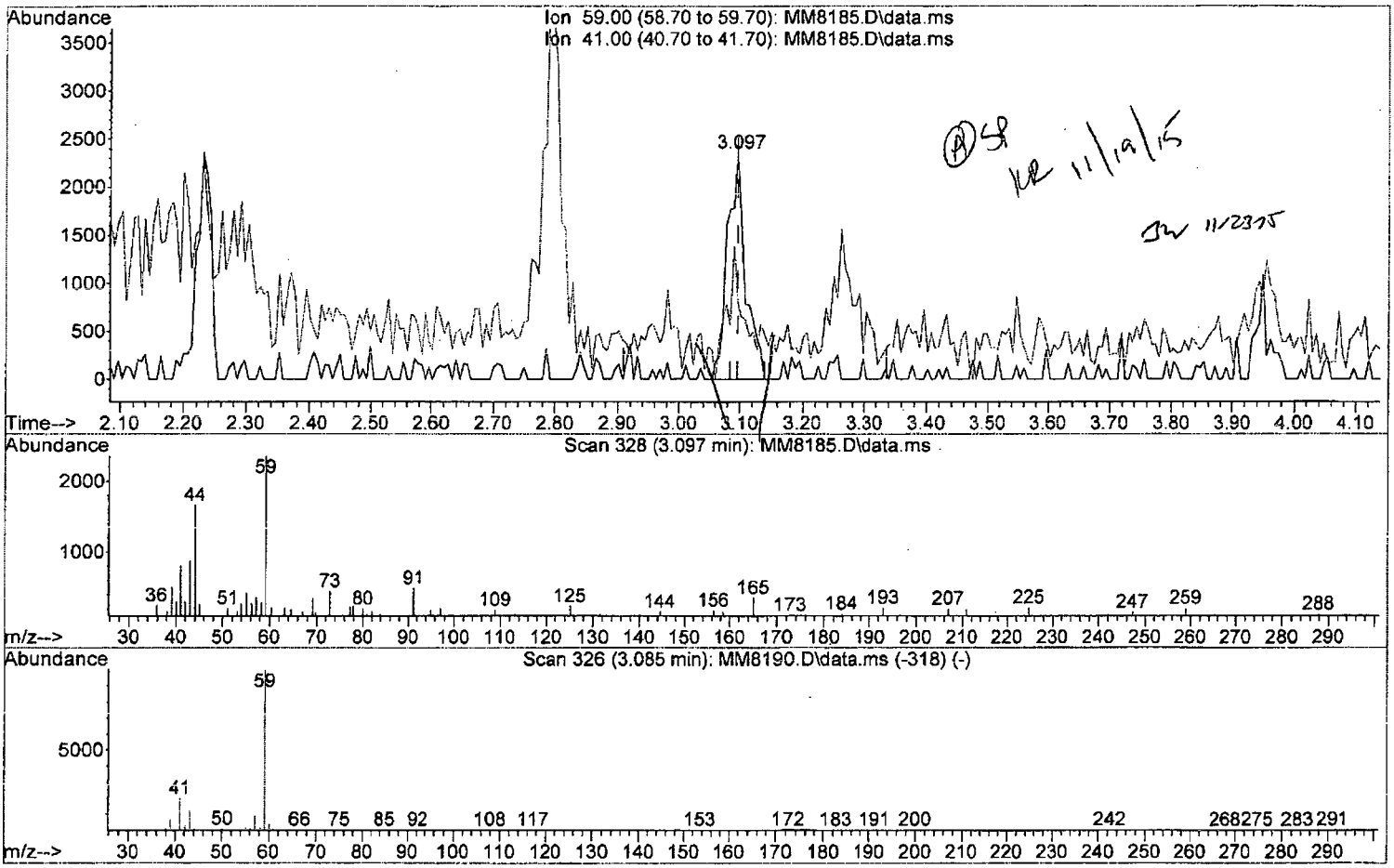
Ion	Exp%	Act%
59.00	100	100
41.00	20.00	33.98
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:40:55 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(23) TBA

3.097min (-0.000) 9.46 ppb m

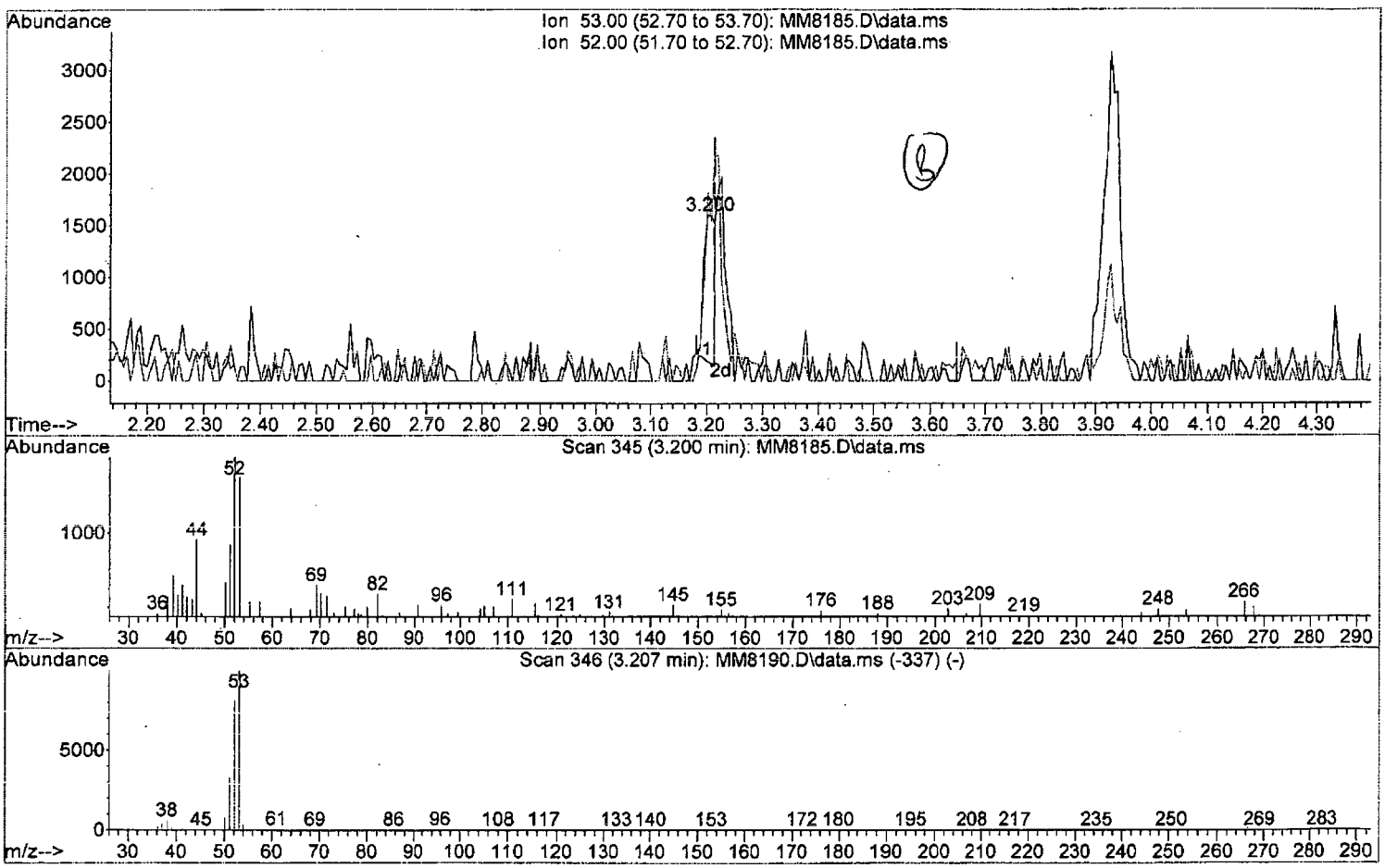
response 4748

Ion	Exp%	Act%
59.00	100	100
41.00	20.00	33.98
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(24) Acrylonitrile

3.200min (-0.012) 1.03 ppb

response 1912

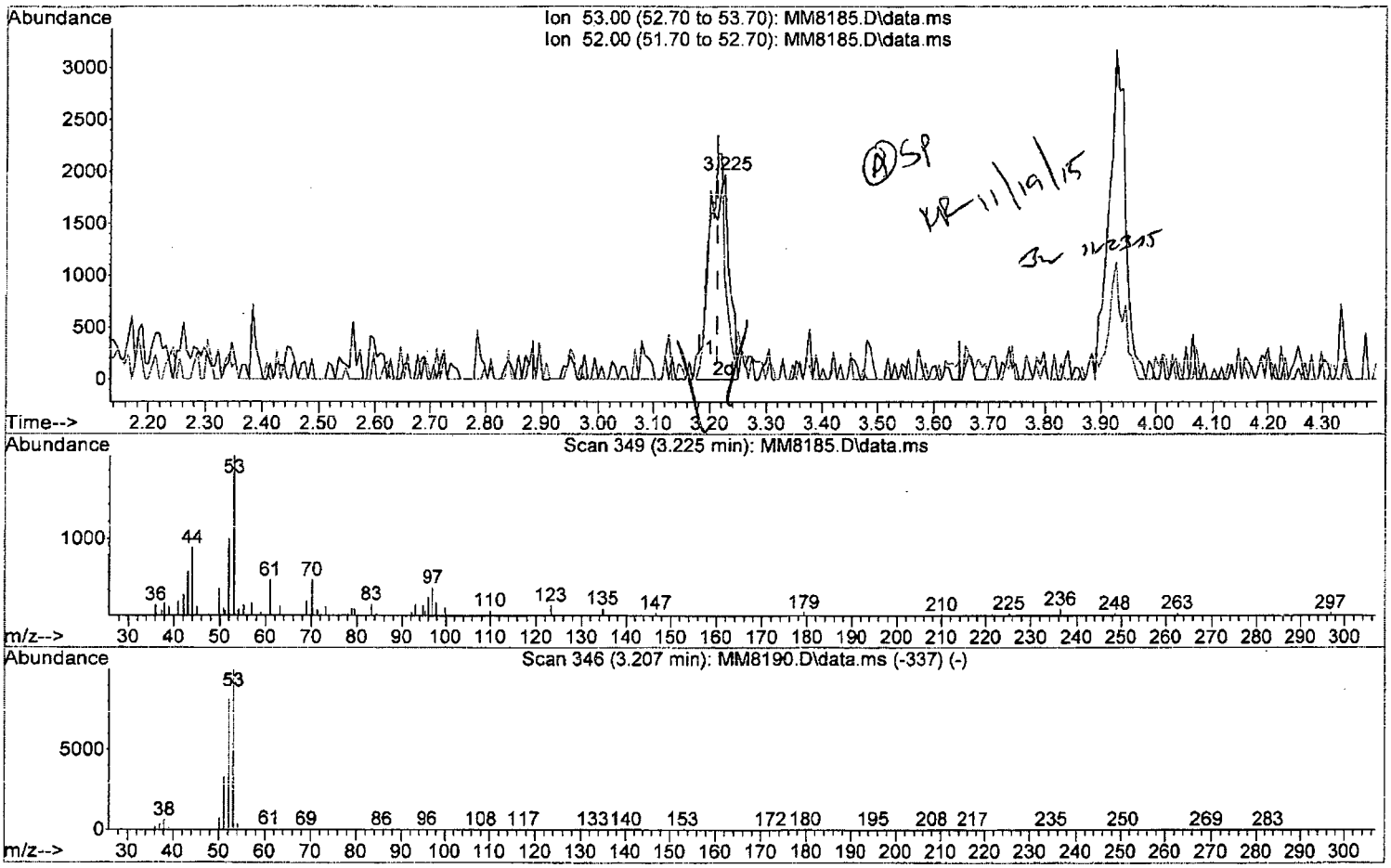
Ion	Exp%	Act%
53.00	100	100
52.00	81.00	113.38#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:41:09 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(24) Acrylonitrile

3.225min (+0.012) 2.57 ppb m

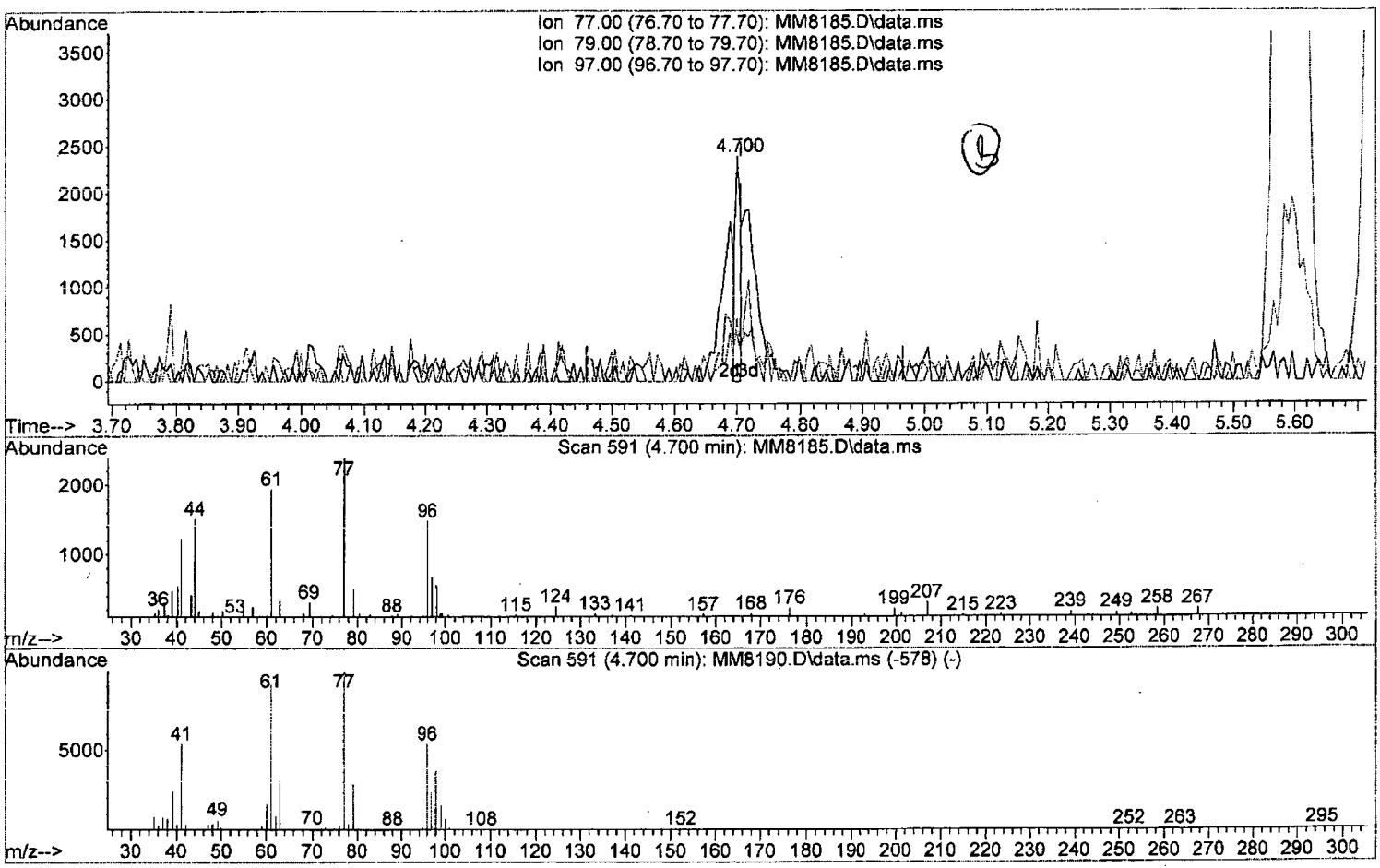
response 4777

Ion	Exp%	Act%
53.00	100	100
52.00	81.00	50.58#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(33) 2,2-Dichloropropane

4.700min (-0.006) 0.15 ppb

response 1474

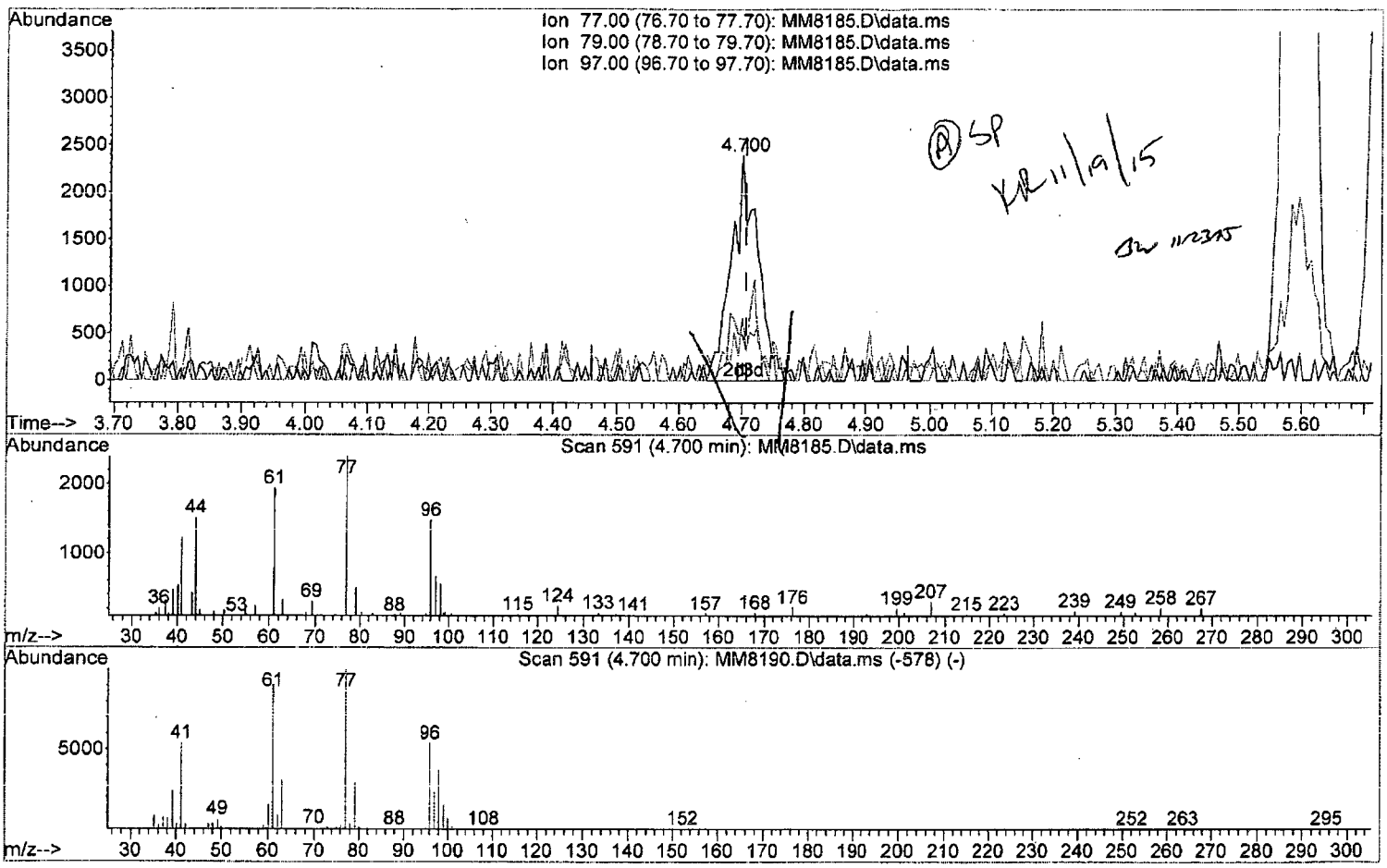
Ion	Exp%	Act%
77.00	100	100
79.00	28.80	20.85
97.00	24.00	27.68
0.00	0.00	0.00

W111815.M Thu Nov 19 09:41:56 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(33) 2,2-Dichloropropane

4.700min (-0.006) 0.70 ppb m

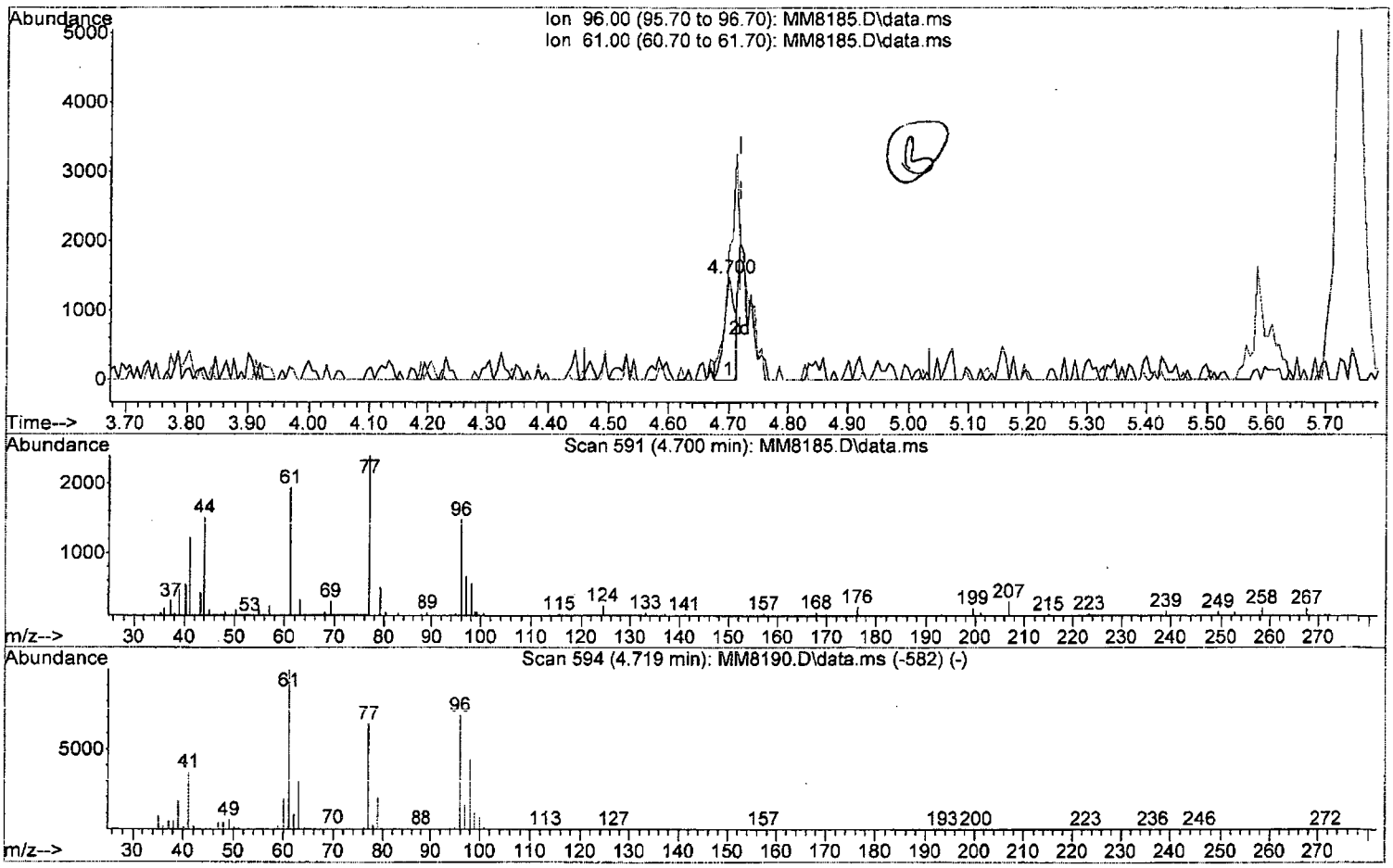
response 6855

Ion	Exp%	Act%
77.00	100	100
79.00	28.80	20.85
97.00	24.00	27.68
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.700min (-0.019) 0.24 ppb

response 1837

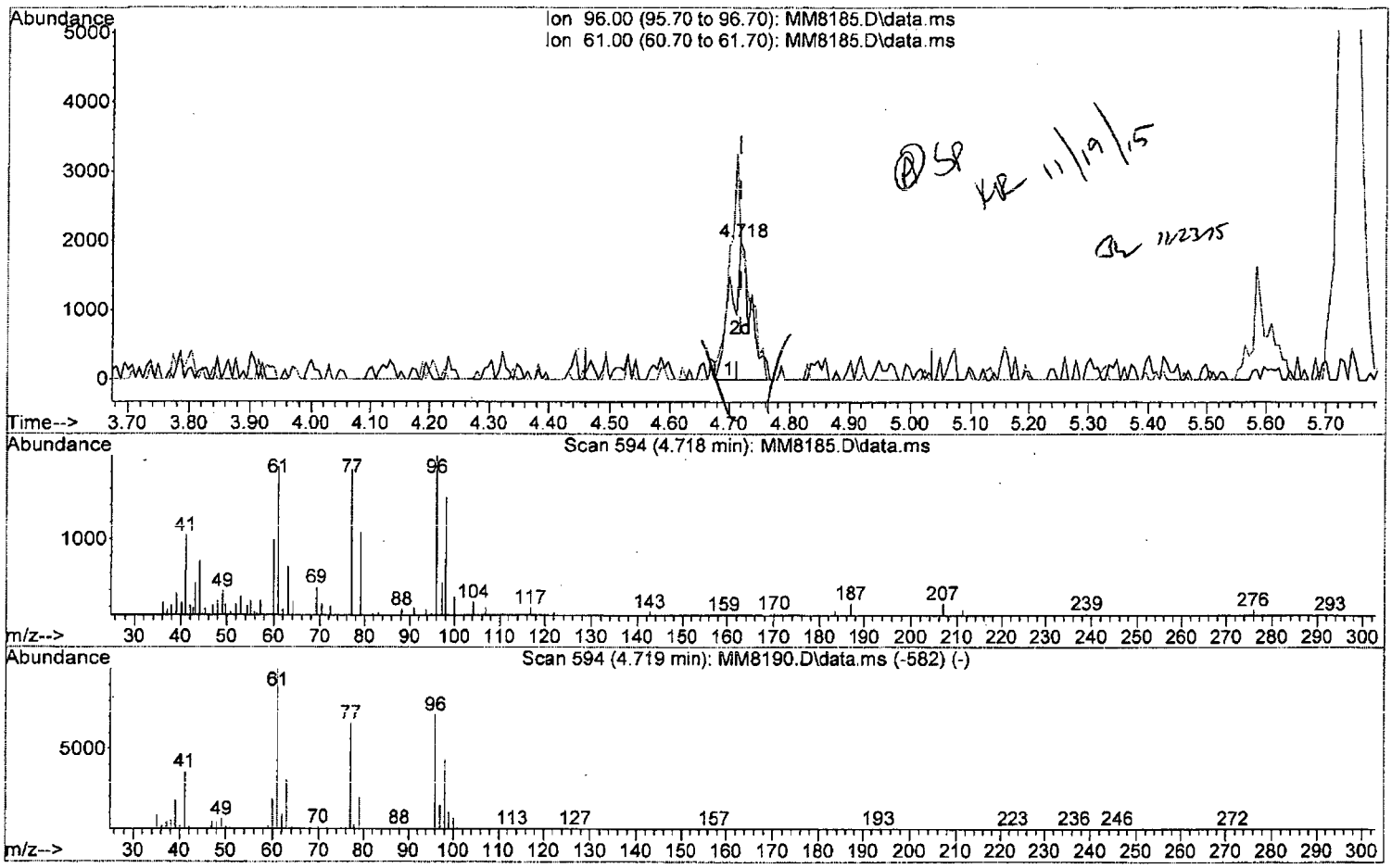
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	130.87
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:42:23 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.718min (-0.000) 0.59 ppb m

response 4520

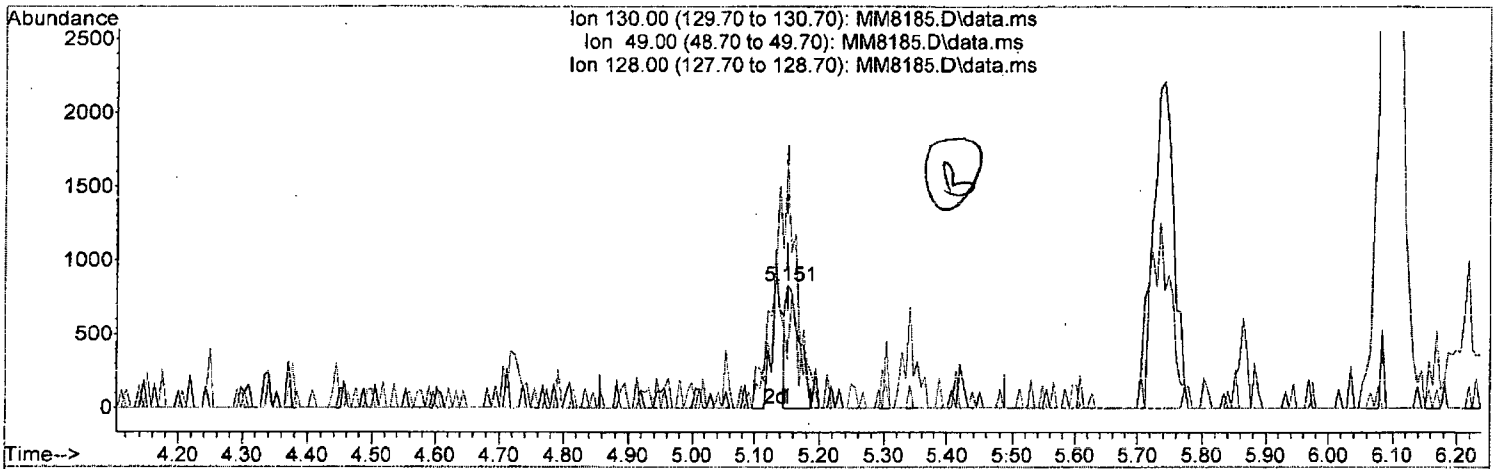
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	93.31#
0.00	0.00	0.00
0.00	0.00	0.00

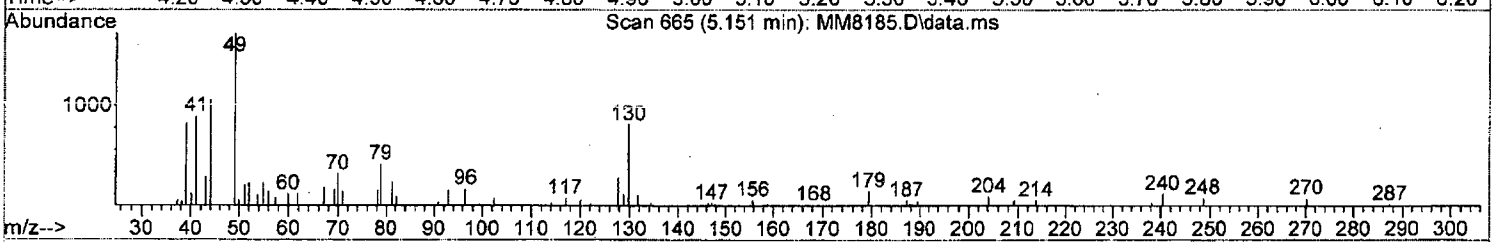
W111815.M Thu Nov 19 09:42:31 2015 Page: 1

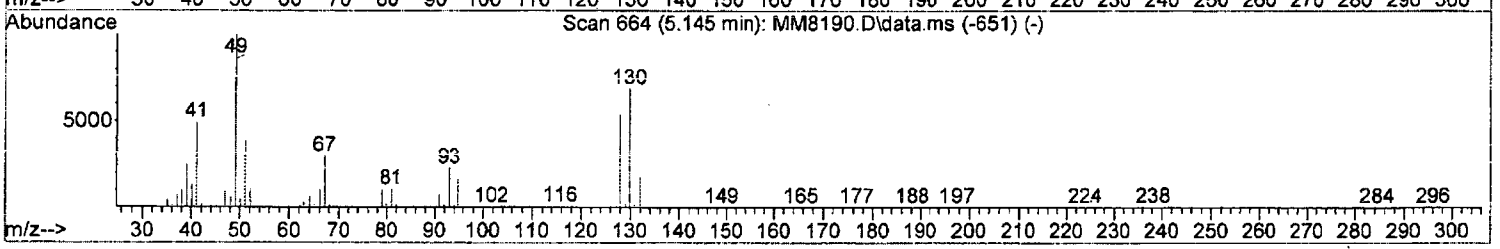
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8185.D\data.ms

(37) Bromochloromethane

5.151min (-0.000) 0.30 ppb

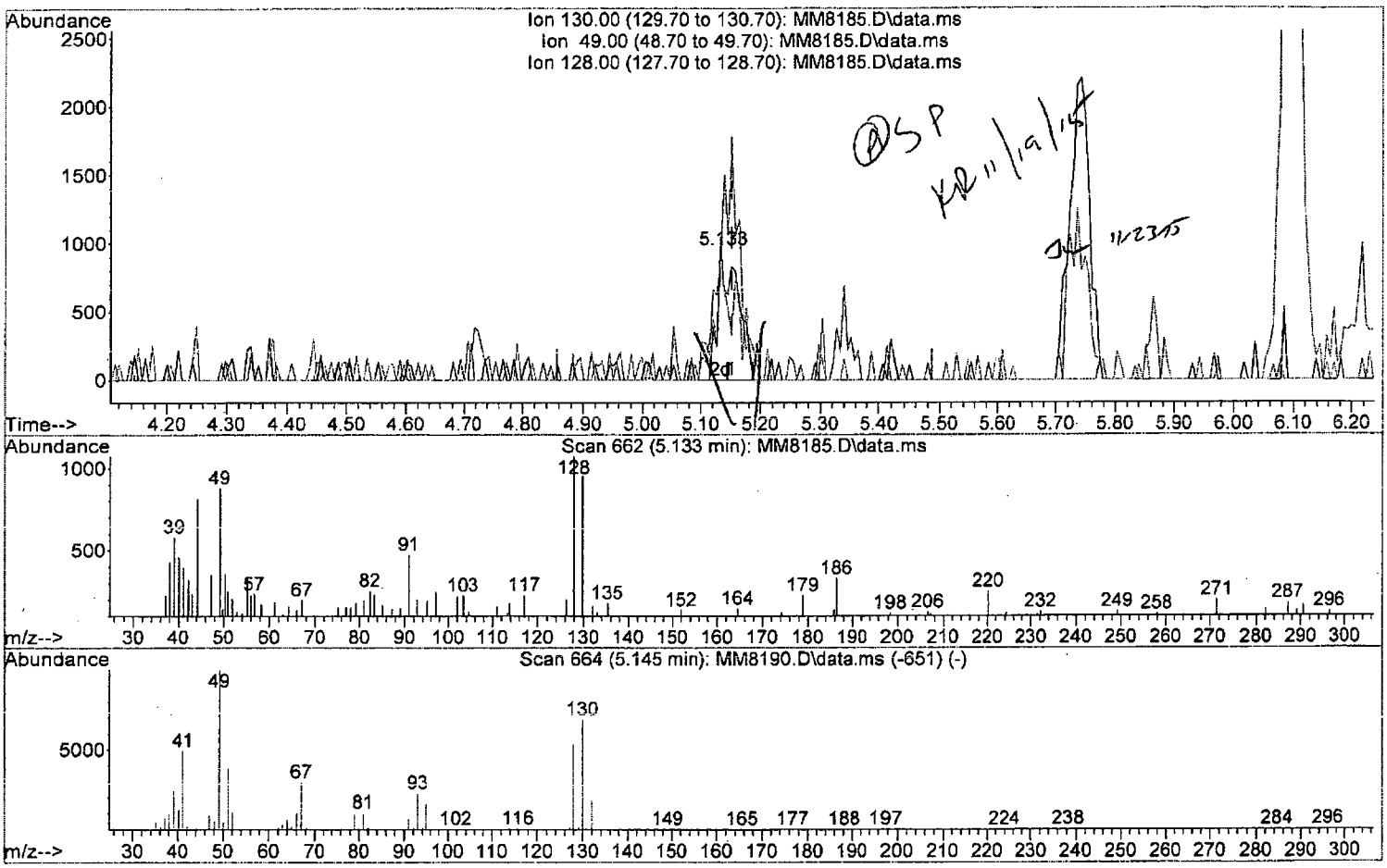
response 1181

Ion	Exp%	Act%
130.00	100	100
49.00	145.50	199.15#
128.00	77.50	41.91#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(37) Bromochloromethane

5.133min (-0.019) 0.56 ppb m

response 2233

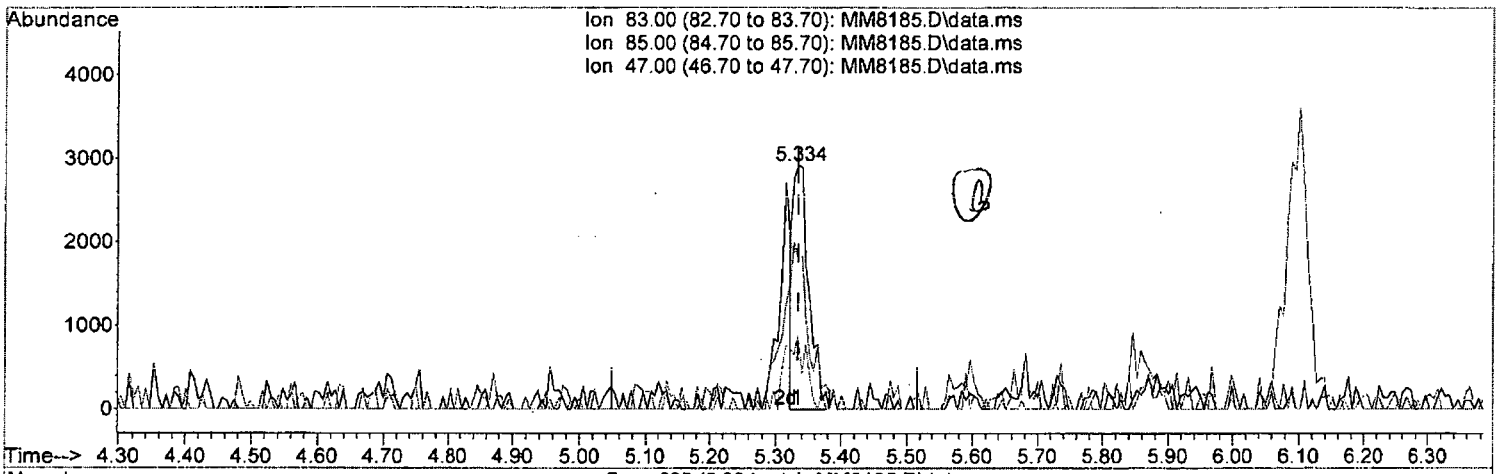
Ion	Exp%	Act%
130.00	100	100
49.00	145.50	91.94#
128.00	77.50	112.15#
0.00	0.00	0.00

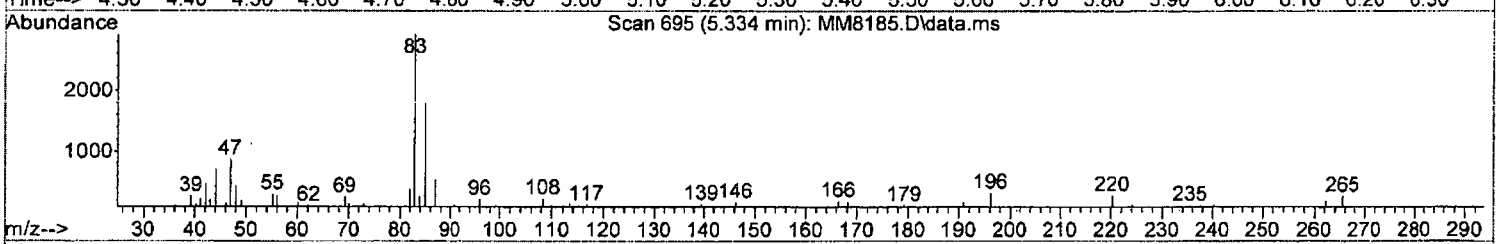
W111815.M Thu Nov 19 09:42:58 2015 Page: 1

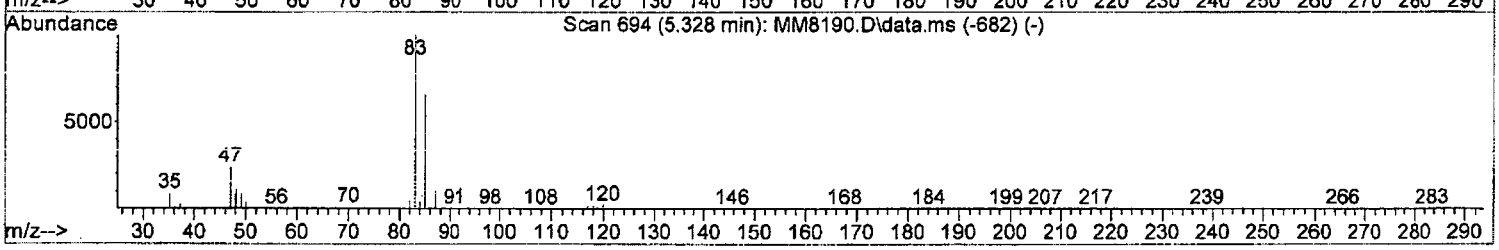
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8185.D\data.ms

(40) Chloroform (P)

5.334min (-0.000) 0.41 ppb

response 4893

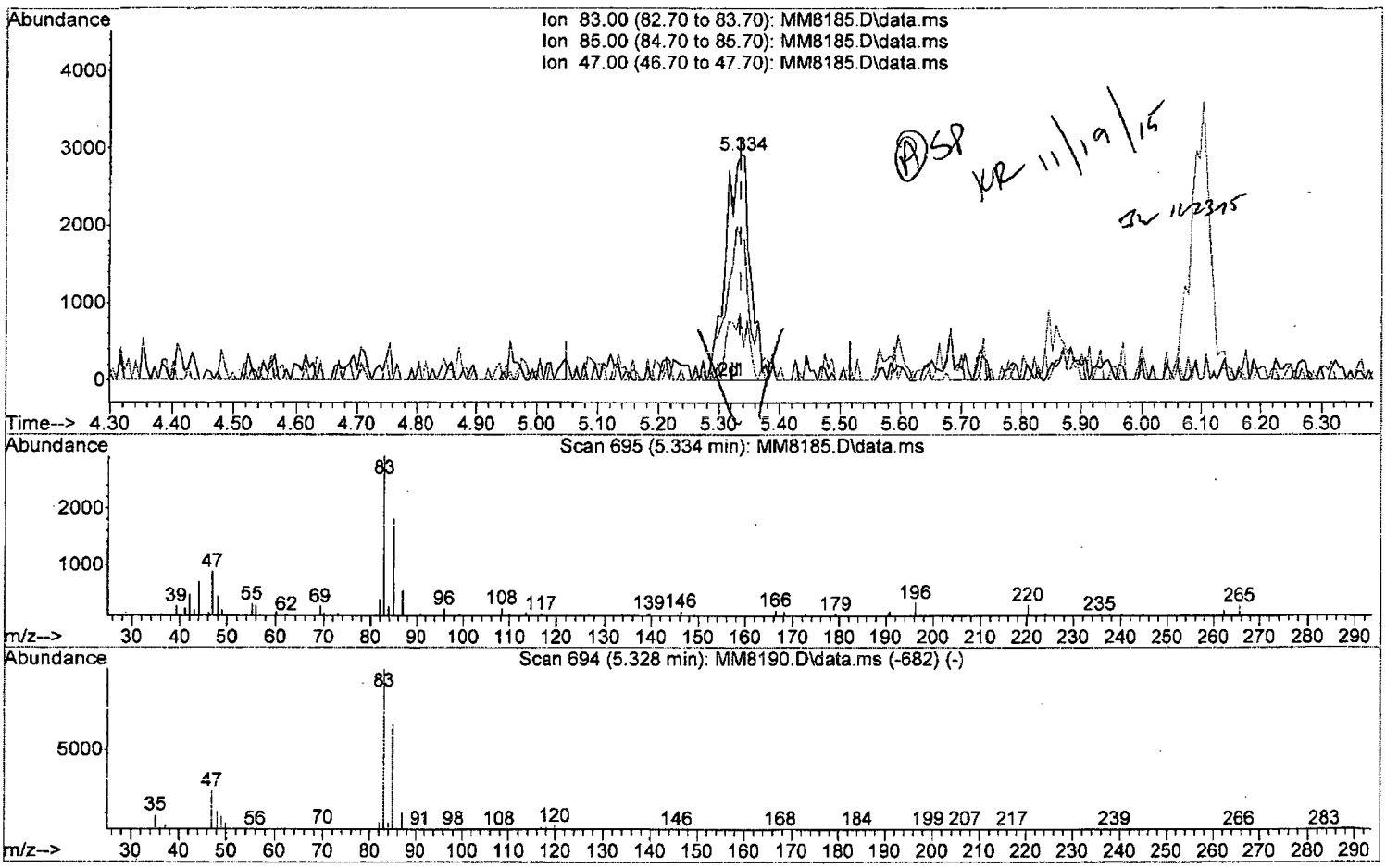
Ion	Exp%	Act%
83.00	100	100
85.00	66.10	62.14
47.00	23.90	29.97
0.00	0.00	0.00

W111815.M Thu Nov 19 09:45:57 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(40) Chloroform (P)

5.334min (-0.000) 0.68 ppb m

response 8066

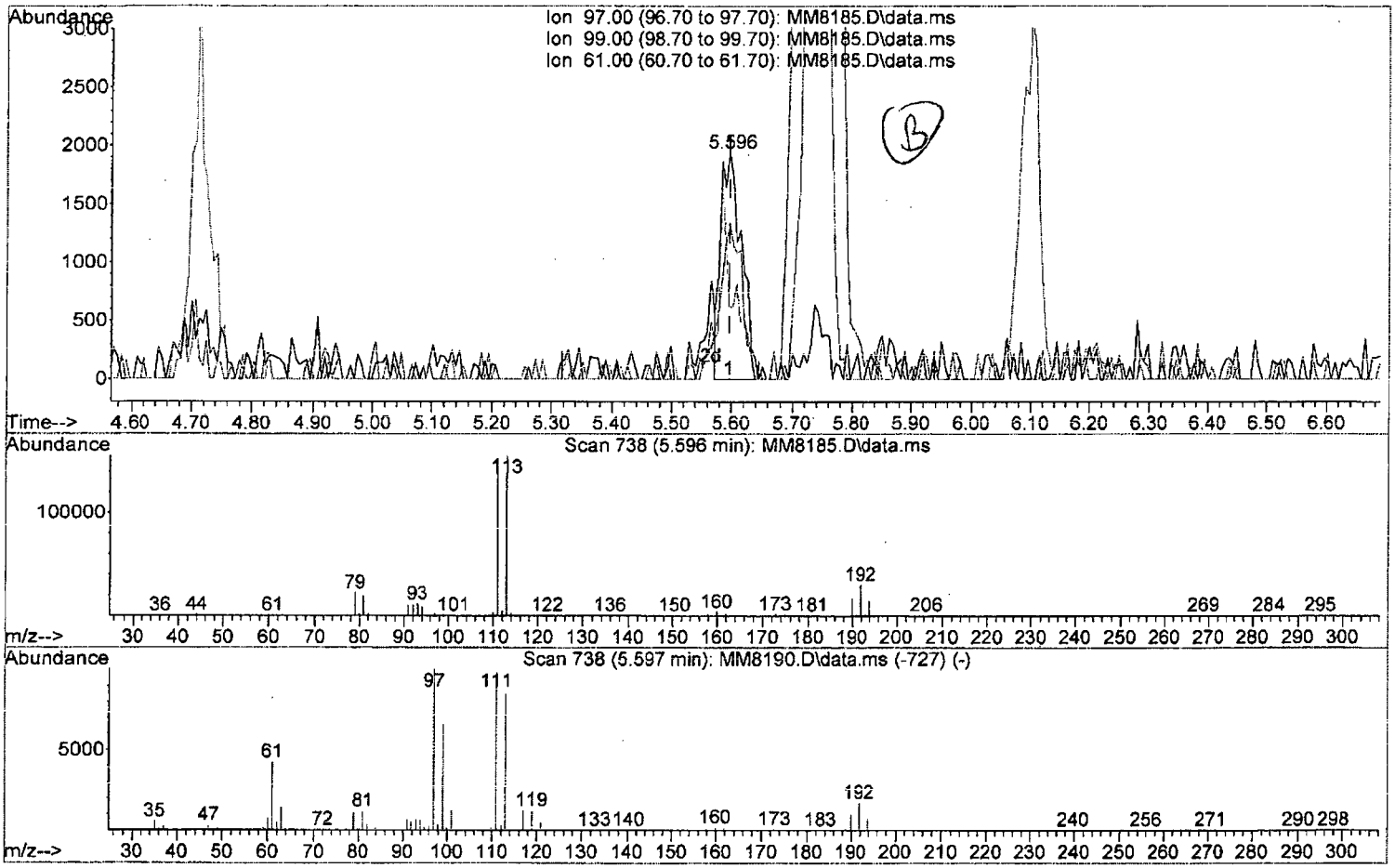
Ion	Exp%	Act%
83.00	100	100
85.00	66.10	62.14
47.00	23.90	29.97
0.00	0.00	0.00

W111815.M Thu Nov 19 09:46:08 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(41) 1,1,1-Trichloroethane (P)

5.596min (-0.000) 0.50 ppb

response 4638

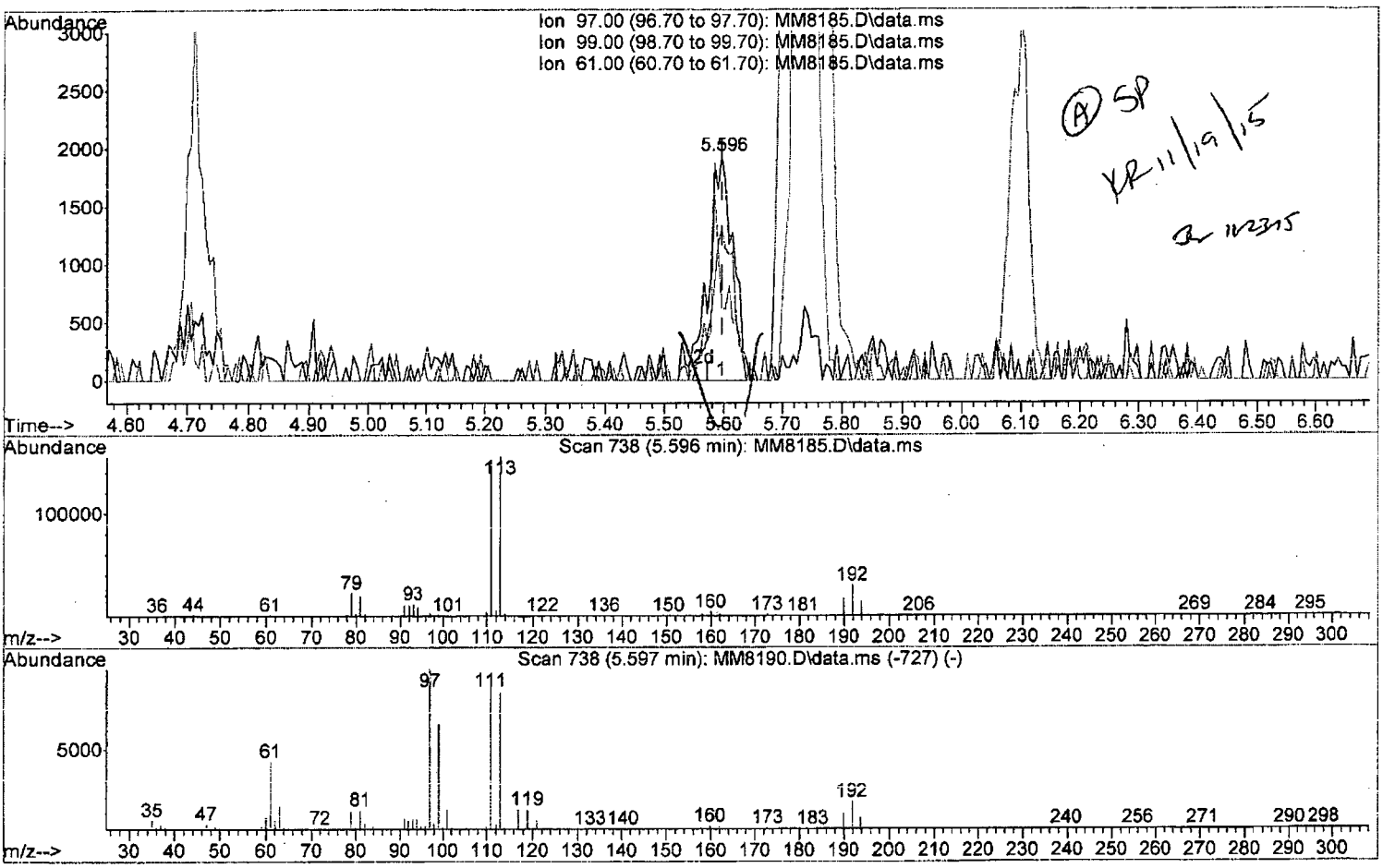
Ion	Exp%	Act%
97.00	100	100
99.00	65.60	68.66
61.00	42.20	32.16
0.00	0.00	0.00

W111815.M Thu Nov 19 09:47:02 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(41) 1,1,1-Trichloroethane (P)

5.596min (-0.000) 0.59 ppb m

response 5536

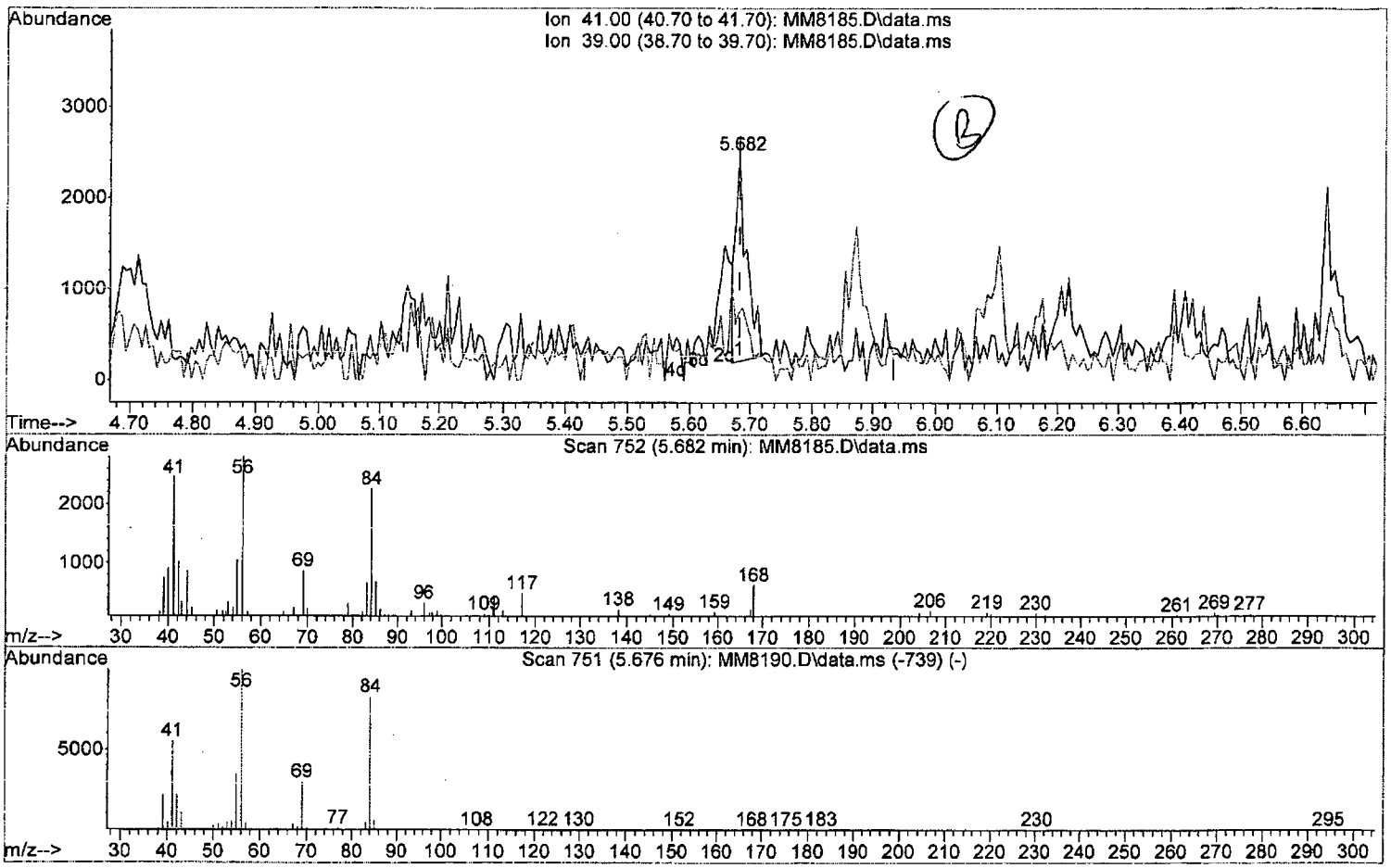
Ion	Exp%	Act%
97.00	100	100
99.00	65.60	68.66
61.00	42.20	32.16
0.00	0.00	0.00

W111815.M Thu Nov 19 09:47:17 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(44) Cyclohexane (P)

5.682min (-0.000) 0.41 ppb

response 2859

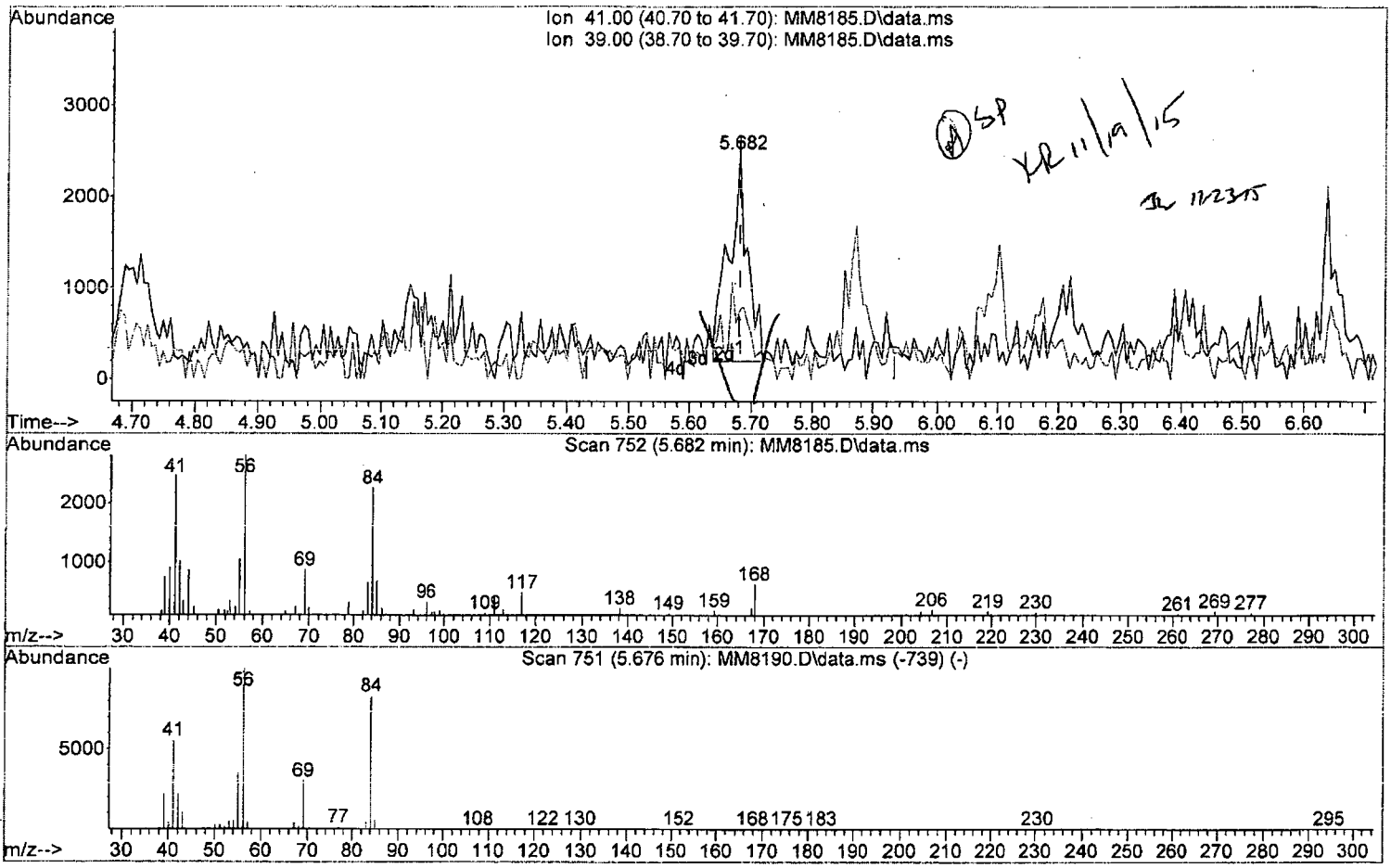
Ion	Exp%	Act%
41.00	100	100
39.00	40.00	30.10
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:47:31 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(44) Cyclohexane (P)

5.682min (-0.000) 0.69 ppb m

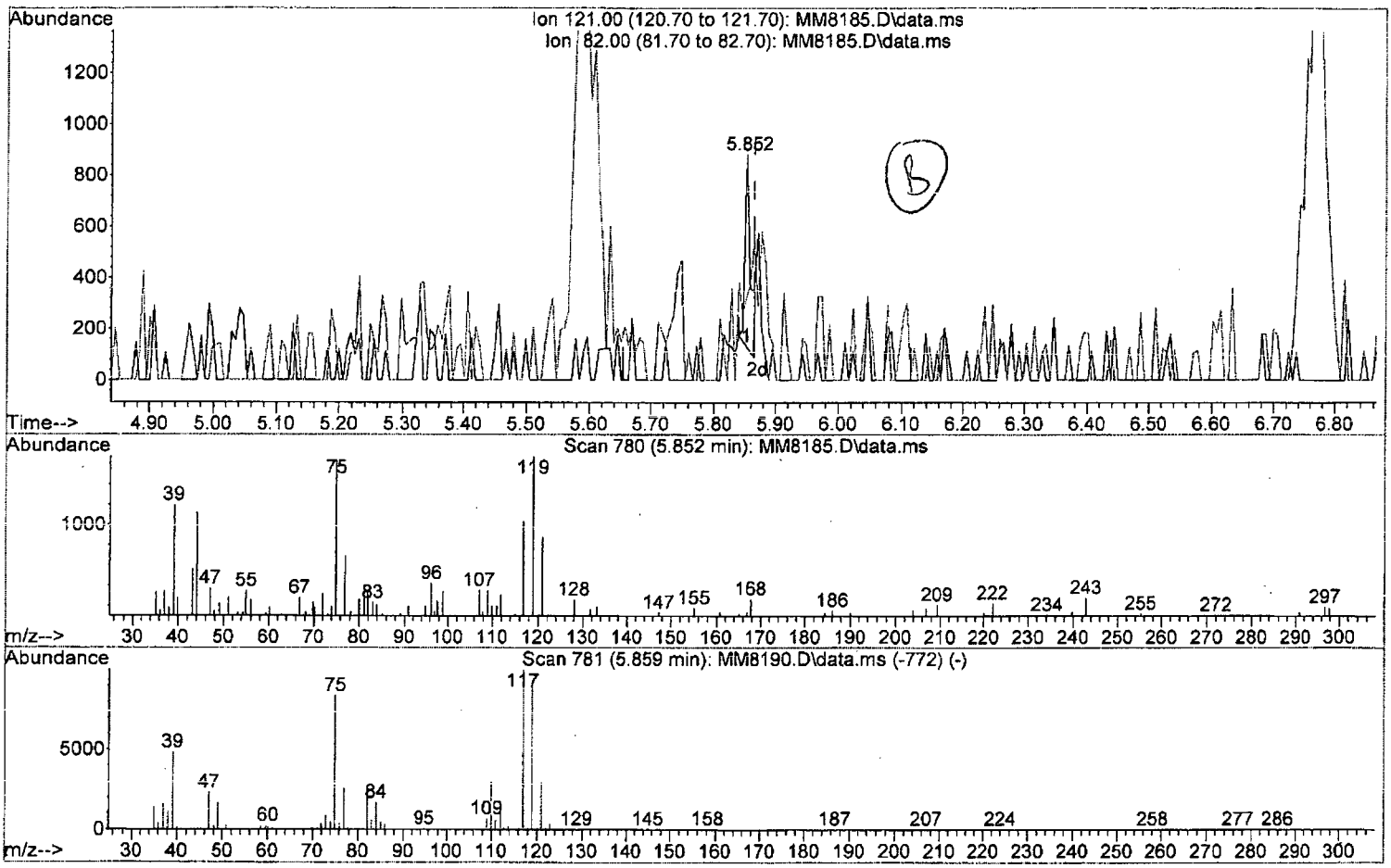
response 4775

Ion	Exp%	Act%
41.00	100	100
39.00	40.00	30.10
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(46) Carbontetrachloride (P)

5.852min (-0.012) 0.19 ppb

response 459

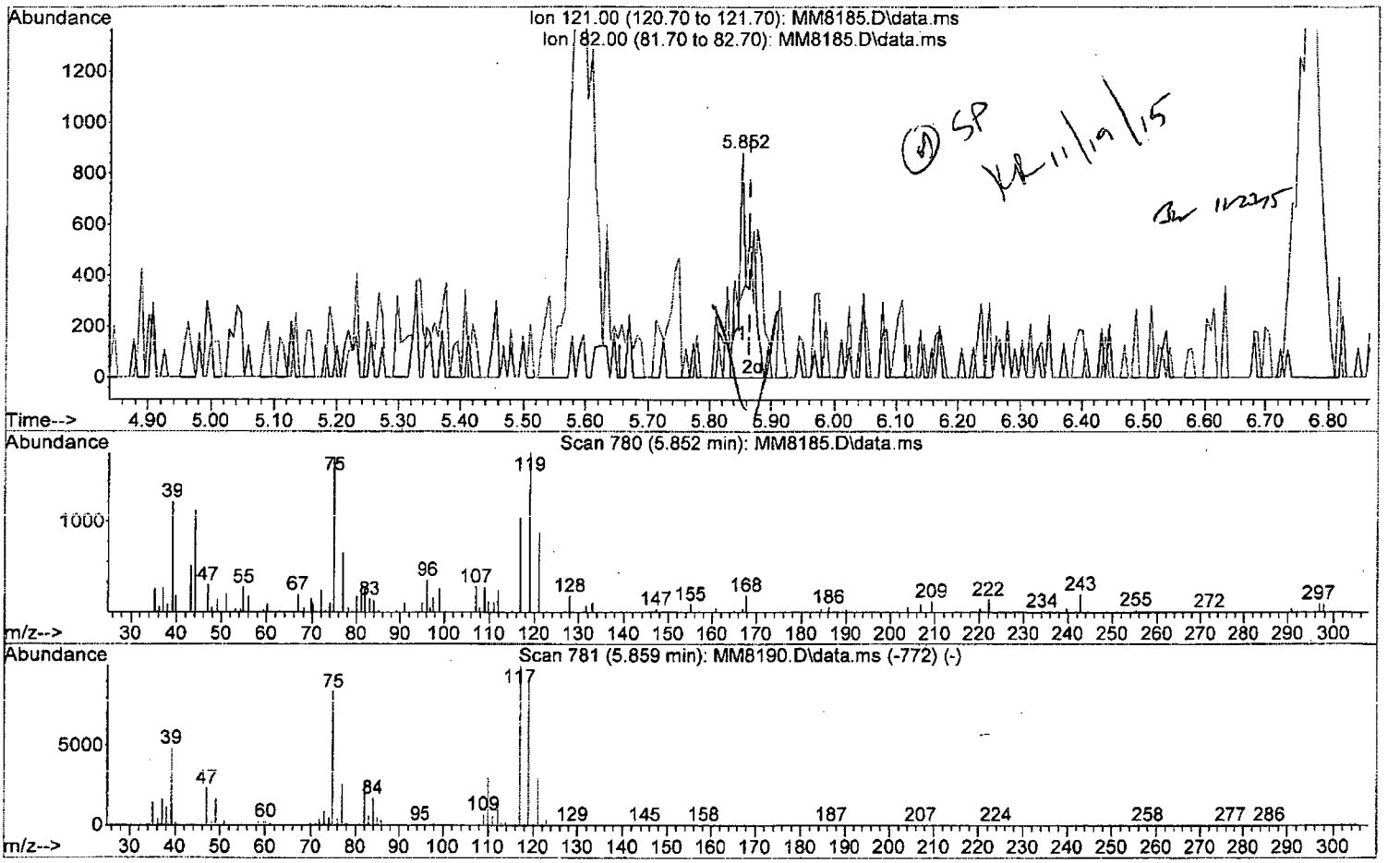
Ion	Exp%	Act%
121.00	100	100
82.00	85.40	37.00#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:48:07 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(46) Carbontetrachloride (P)

5.852min (-0.012) 0.52 ppb m

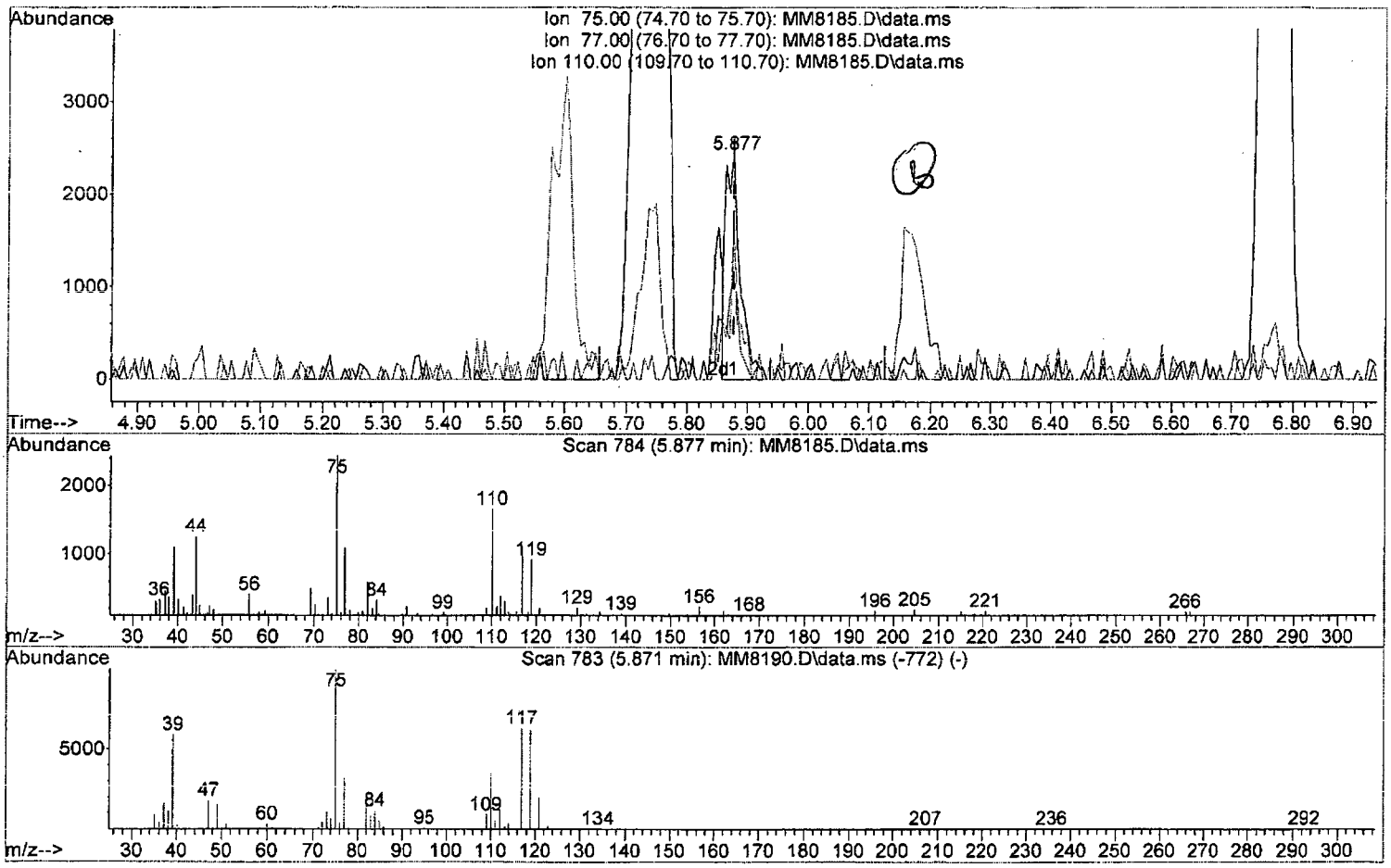
response 1285

Ion	Exp%	Act%
121.00	100	100
82.00	85.40	37.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(47) 1,1-Dichloropropene

5.877min (-0.000) 0.44 ppb

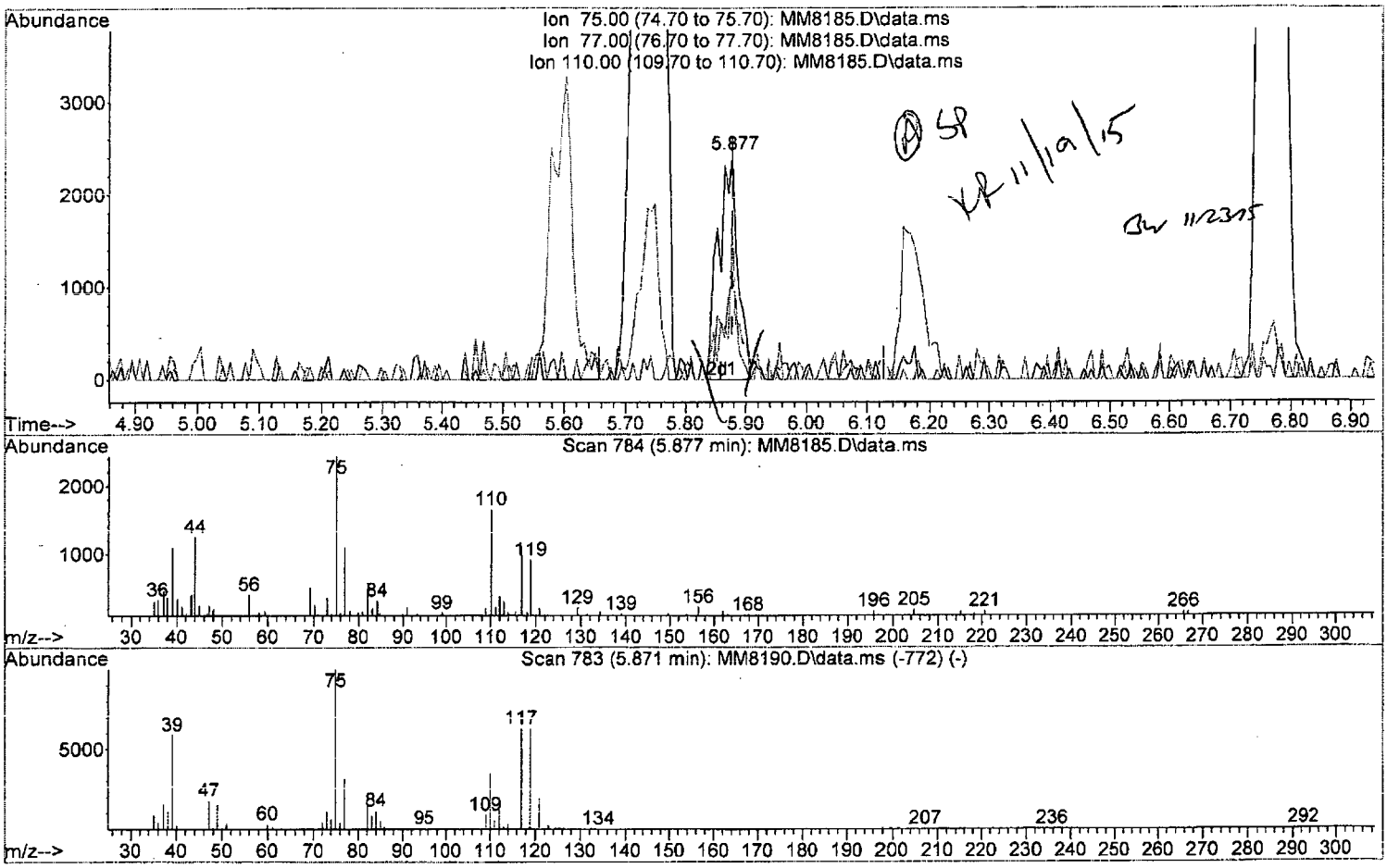
response 3996

Ion	Exp%	Act%
75.00	100	100
77.00	31.20	44.85
110.00	35.00	67.97#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(47) 1,1-Dichloropropene

5.877min (-0.000) 0.61 ppb m

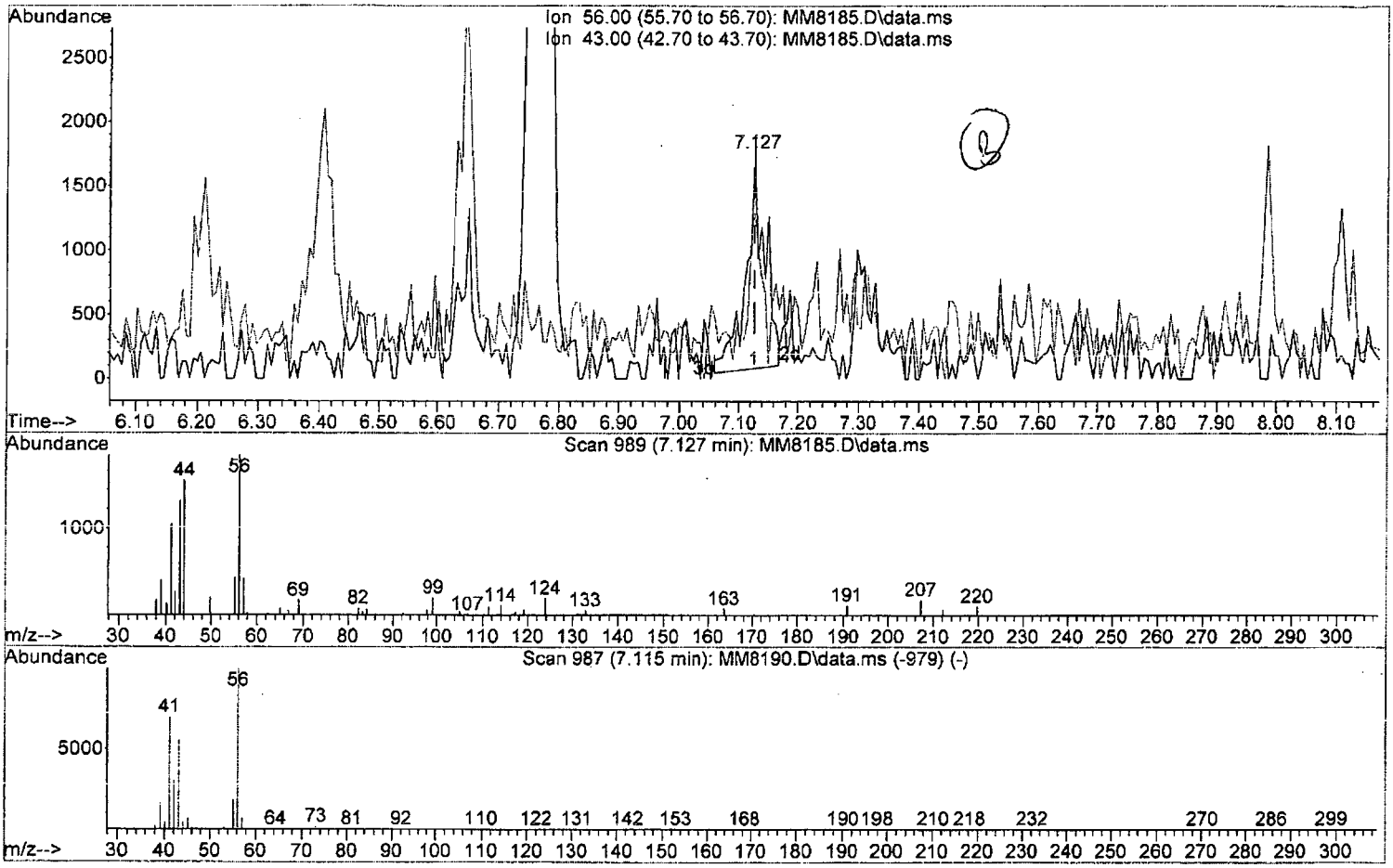
response 5477

Ion	Exp%	Act%
75.00	100	100
77.00	31.20	44.85
110.00	35.00	67.97#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(53) 1-Butanol

7.127min (-0.000) 25.67 ppb

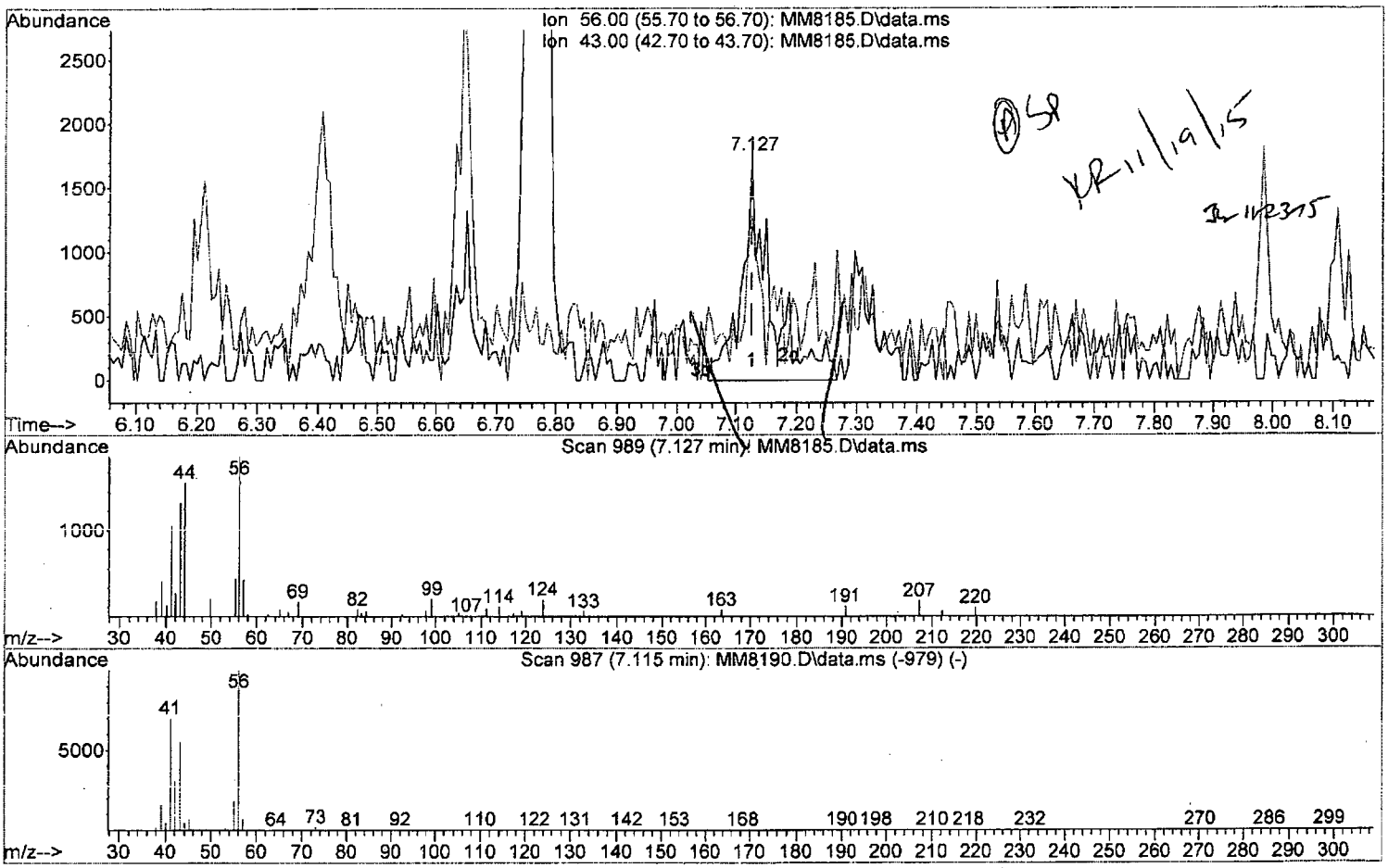
response 3757

Ion	Exp%	Act%
56.00	100	100
43.00	54.90	51.21
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(53) 1-Butanol

7.127min (-0.000) 38.45 ppb m

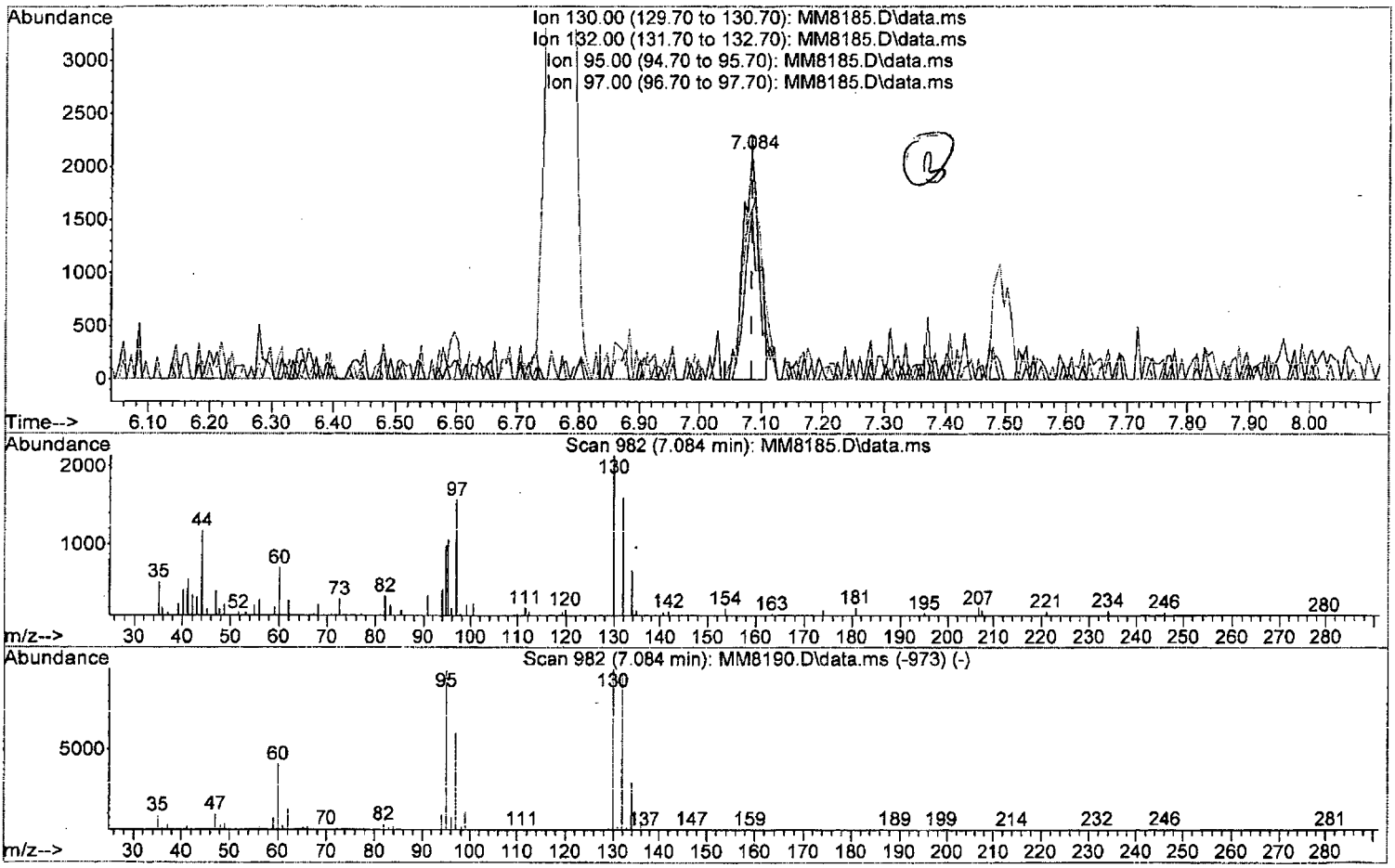
response 5628

Ion	Exp%	Act%
56.00	100	100
43.00	54.90	34.19#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(54) Trichloroethene (P)

7.084min (-0.000) 0.55 ppb

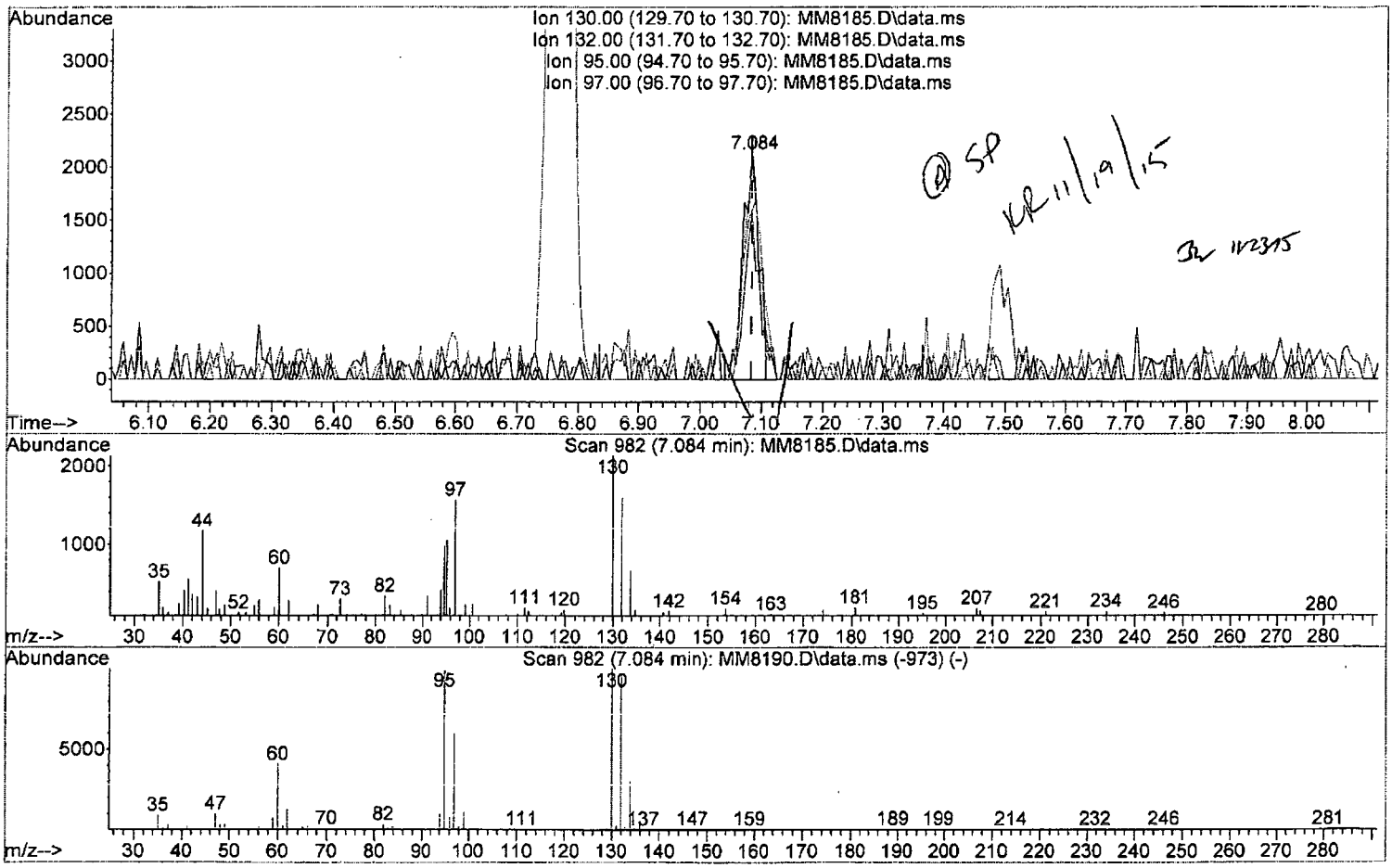
response 3932

Ion	Exp%	Act%
130.00	100	100
132.00	97.40	74.85#
95.00	99.20	95.44
97.00	60.30	78.51

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(54) Trichloroethene (P)

7.084min (-0.000) 0.58 ppb m

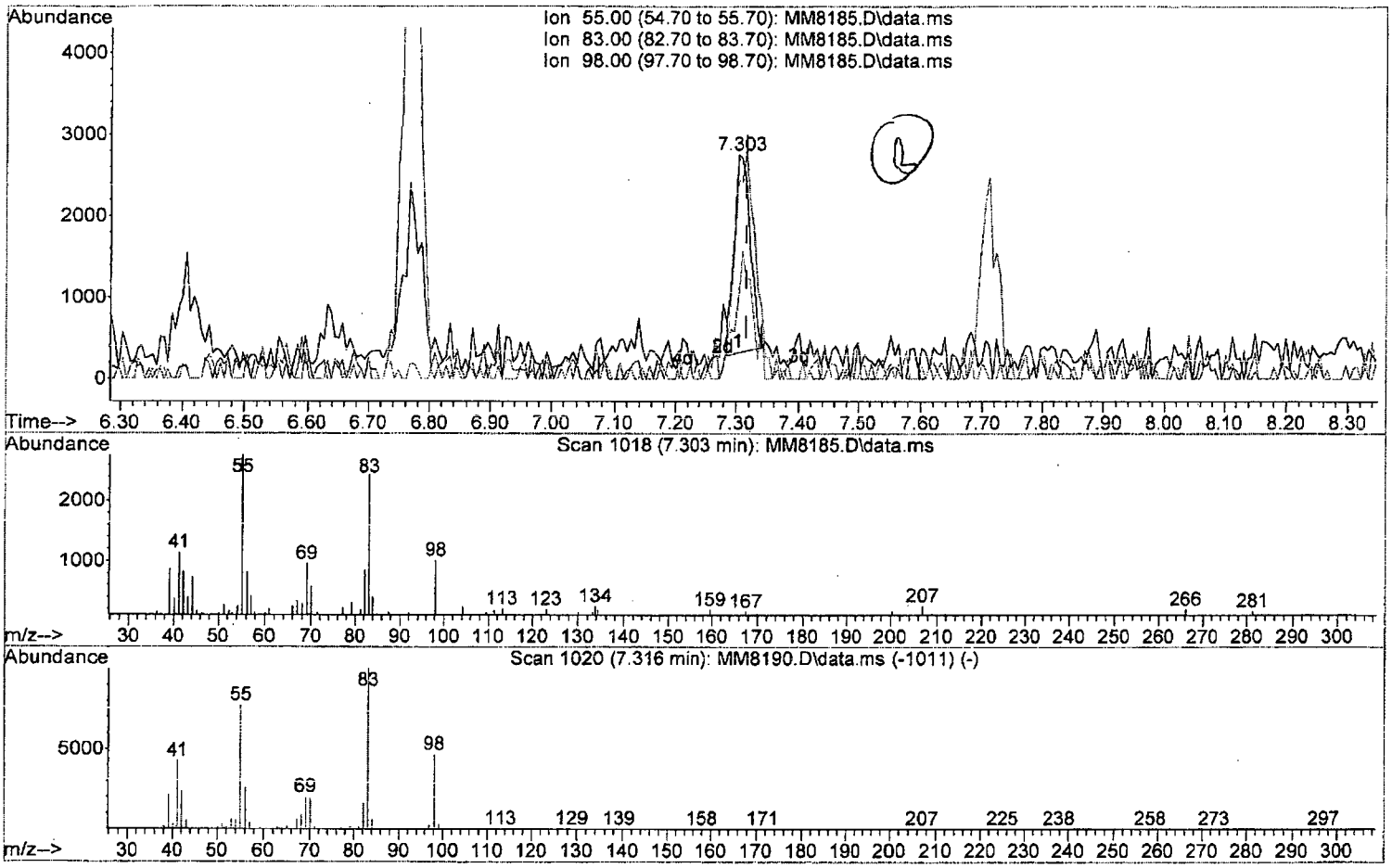
response 4100

Ion	Exp%	Act%
130.00	100	100
132.00	97.40	74.85#
95.00	99.20	49.65#
97.00	60.30	73.53

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(55) Methylcyclohexane (P)

7.303min (-0.012) 0.50 ppb

response 4238

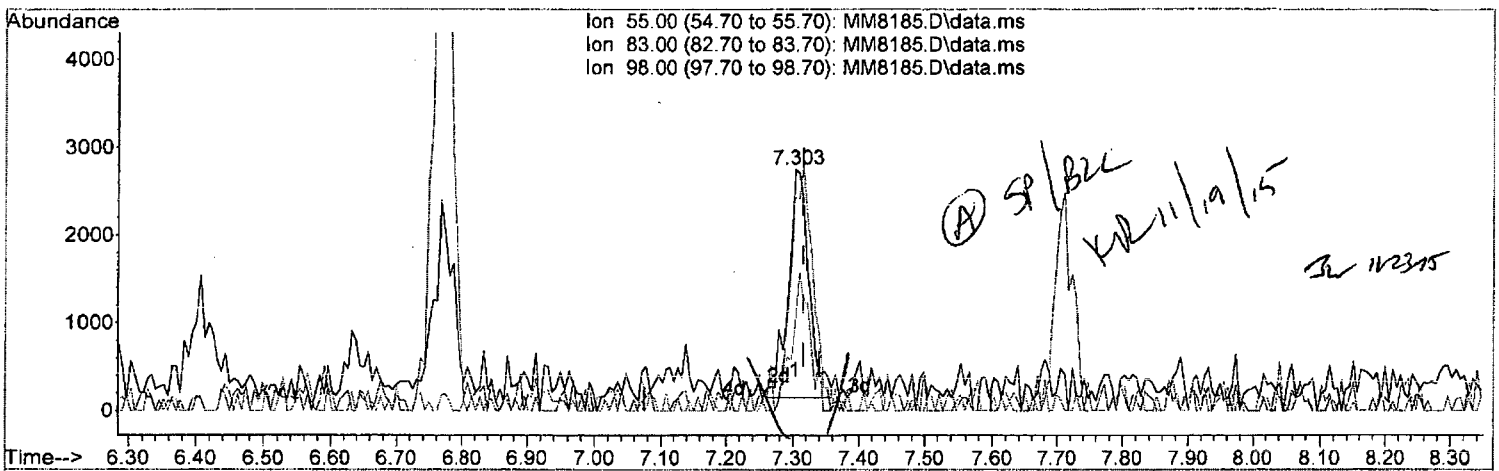
Ion	Exp%	Act%
55.00	100	100
83.00	129.00	88.48#
98.00	60.10	36.53#
0.00	0.00	0.00

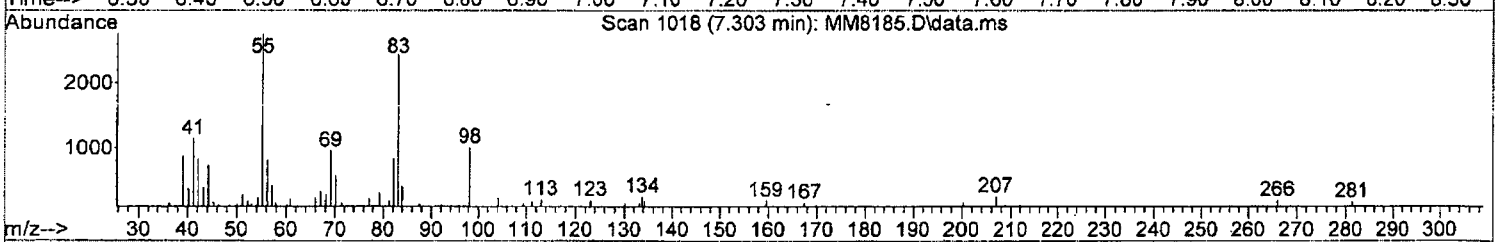
W111815.M Thu Nov 19 09:50:39 2015 Page: 1

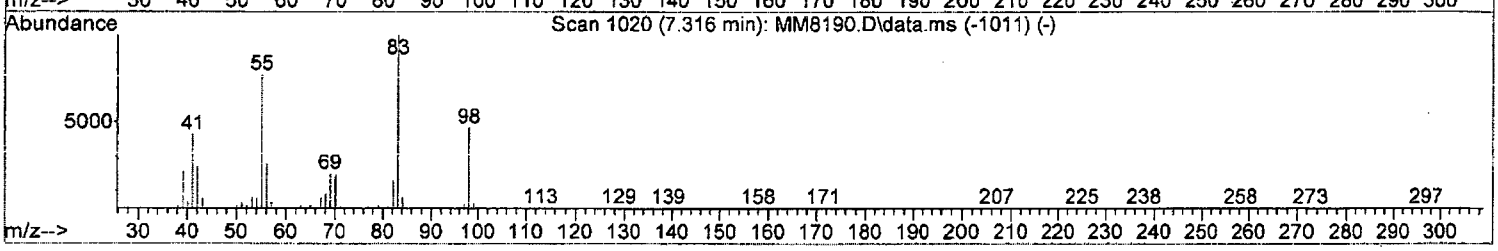
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8185.D\data.ms

(55) Methylcyclohexane (P)

7.303min (-0.012) 0.67 ppb m

response 5652

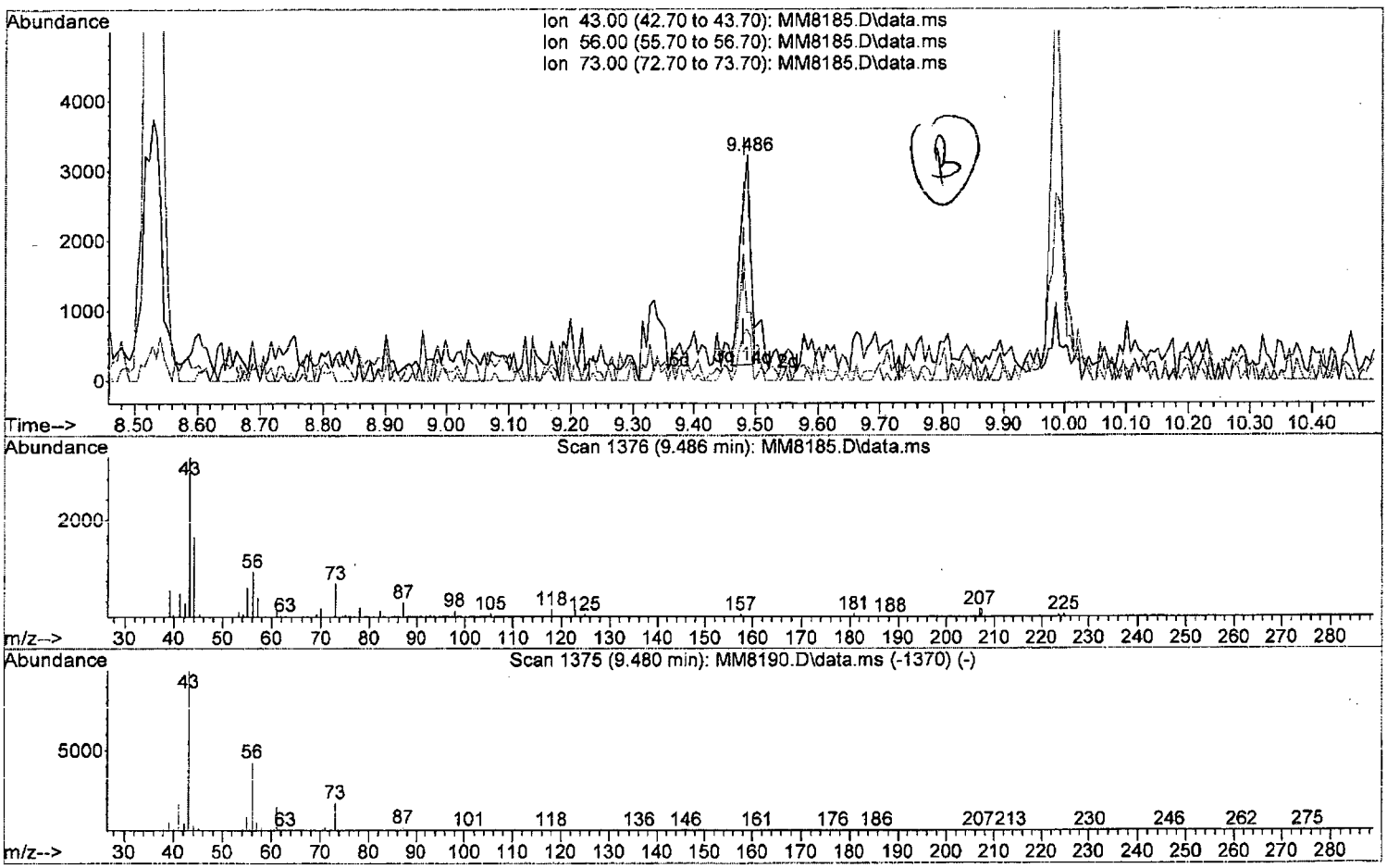
Ion	Exp%	Act%
55.00	100	100
83.00	129.00	88.48#
98.00	60.10	36.53#
0.00	0.00	0.00

W111815.M Thu Nov 19 09:50:51 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(76) N-Butyl Acetate

9.486min (+0.006) 0.41 ppb

response 3490

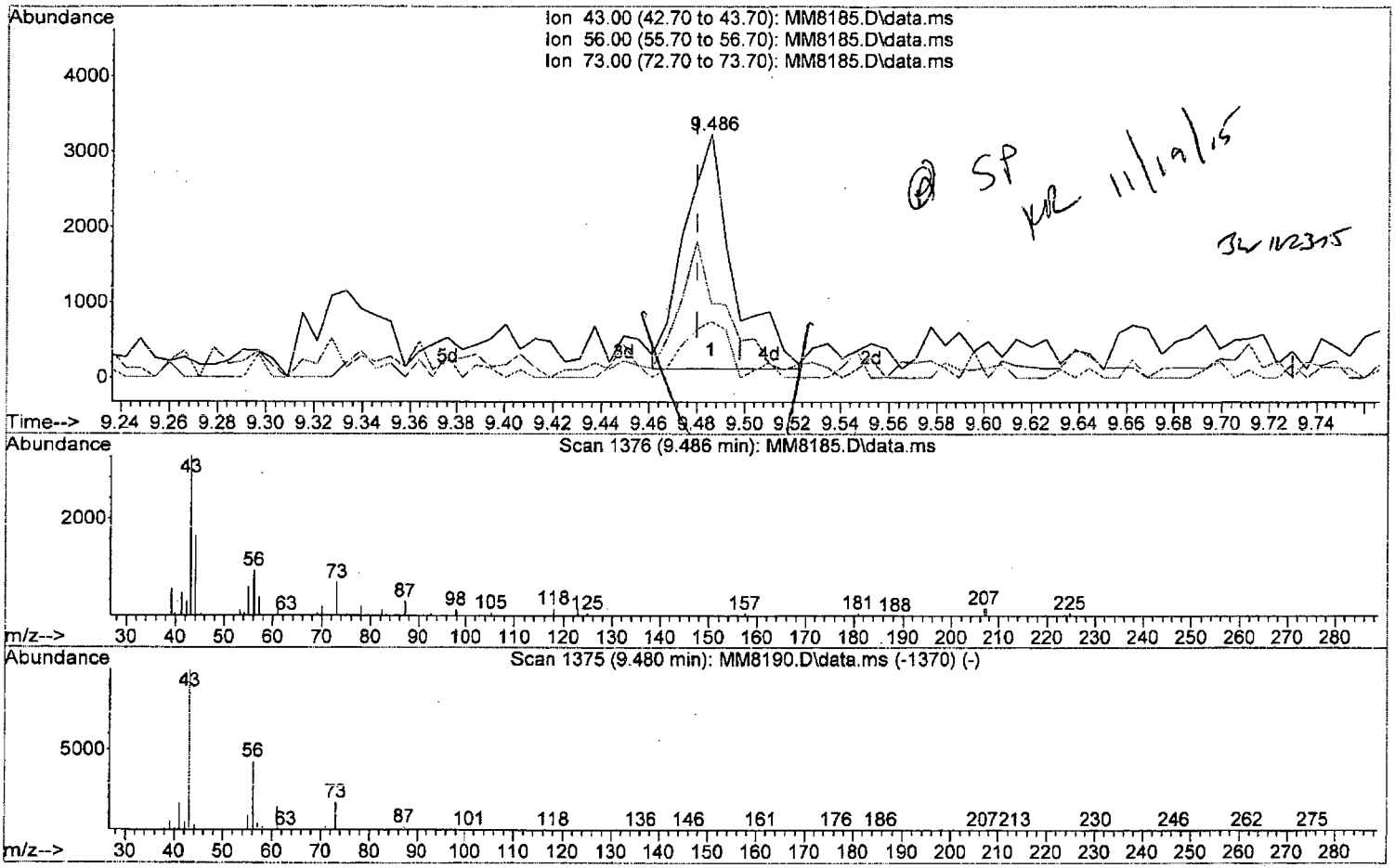
Ion	Exp%	Act%
43.00	100	100
56.00	42.50	30.55
73.00	17.20	23.19
0.00	0.00	0.00

W111815.M Thu Nov 19 09:51:49 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(76) N-Butyl Acetate

9.486min (+0.006) 0.52 ppb m

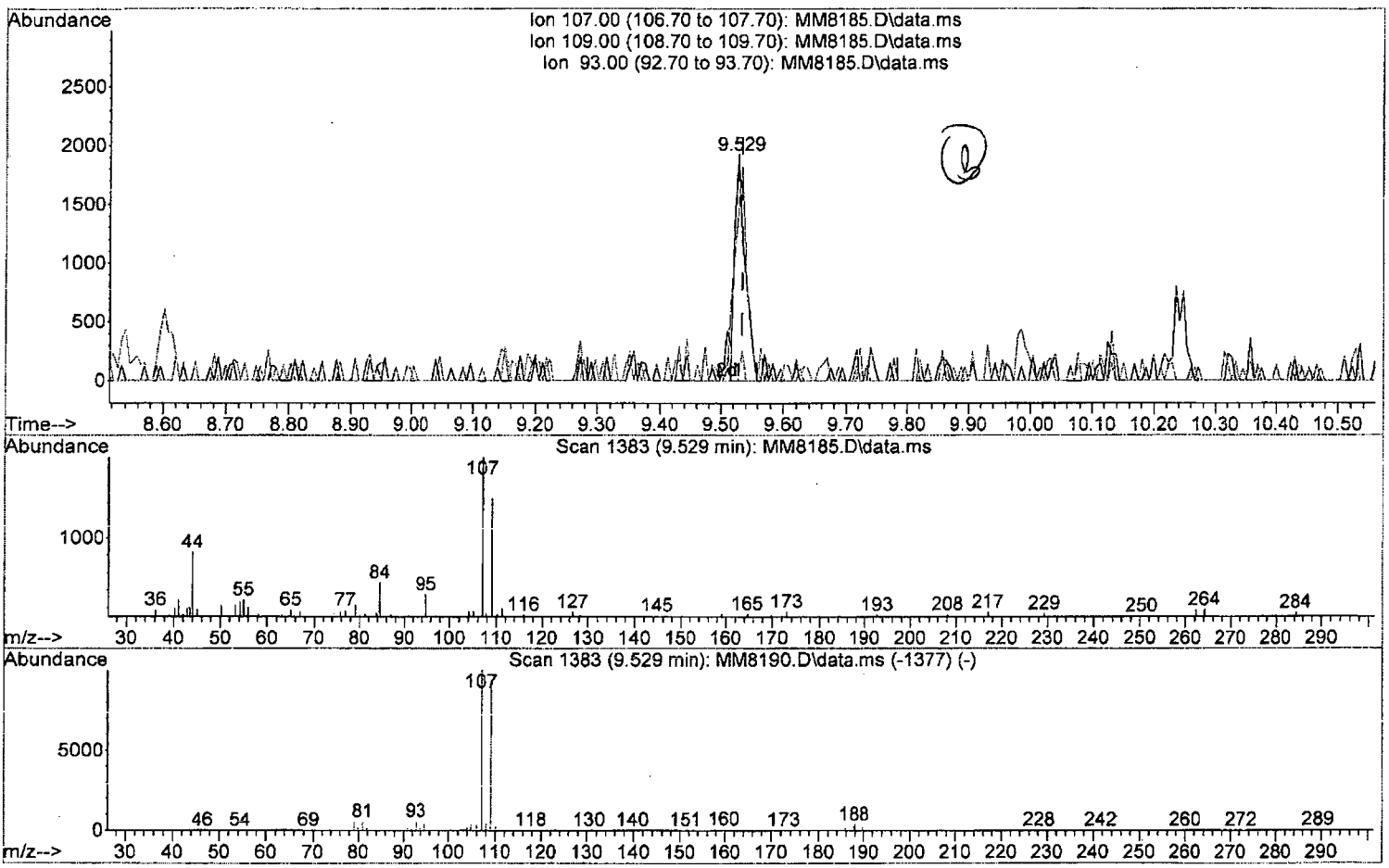
response 4374

Ion	Exp%	Act%
43.00	100	100
56.00	42.50	30.55
73.00	17.20	23.19
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(77) 1,2-Dibromoethane (P)

9.529min (-0.006) 0.48 ppb

response 2238

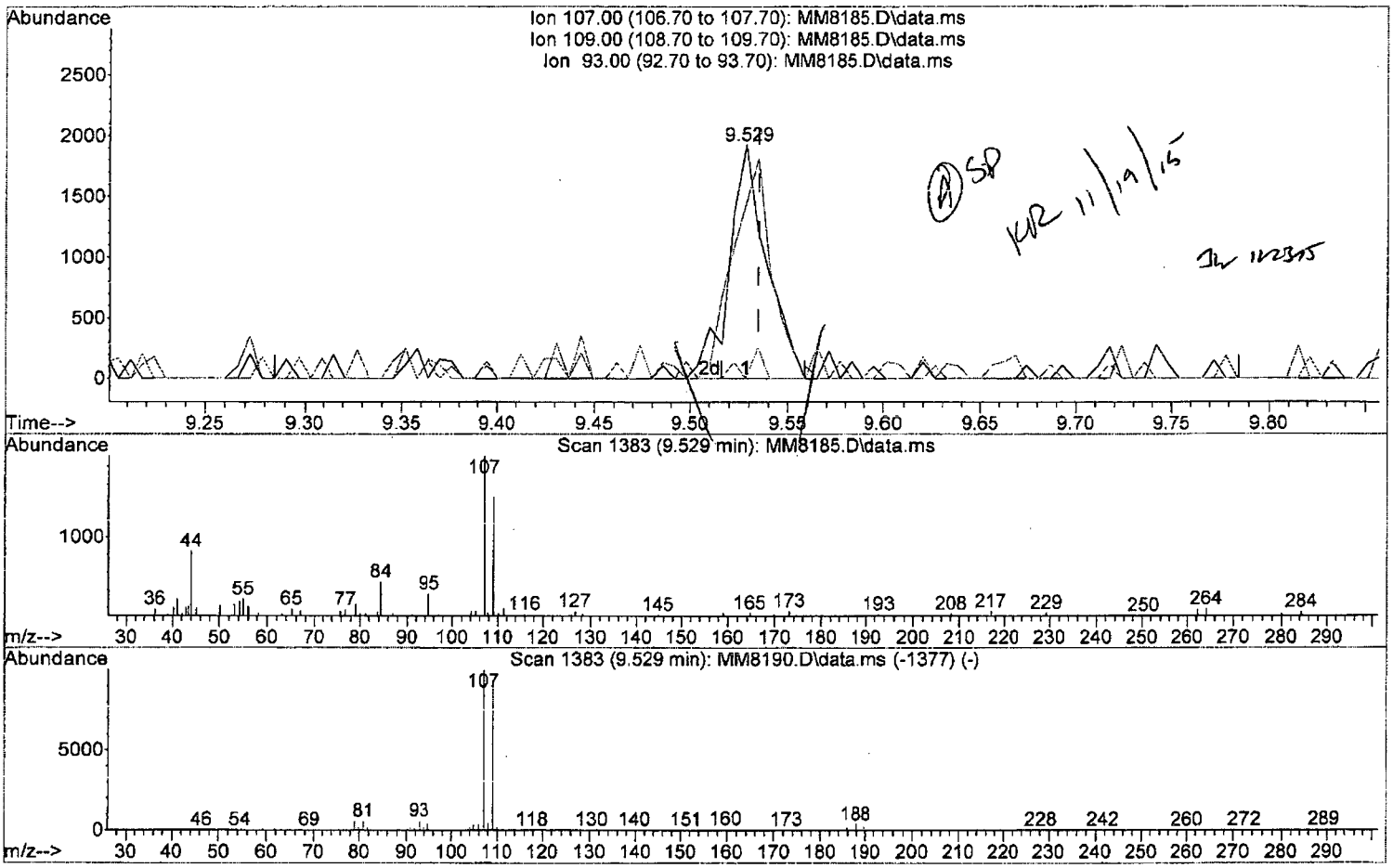
Ion	Exp%	Act%
107.00	100	100
109.00	93.40	75.44
93.00	5.70	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:52:38 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(77) 1,2-Dibromoethane (P)

9.529min (-0.006) 0.54 ppb m

response 2537

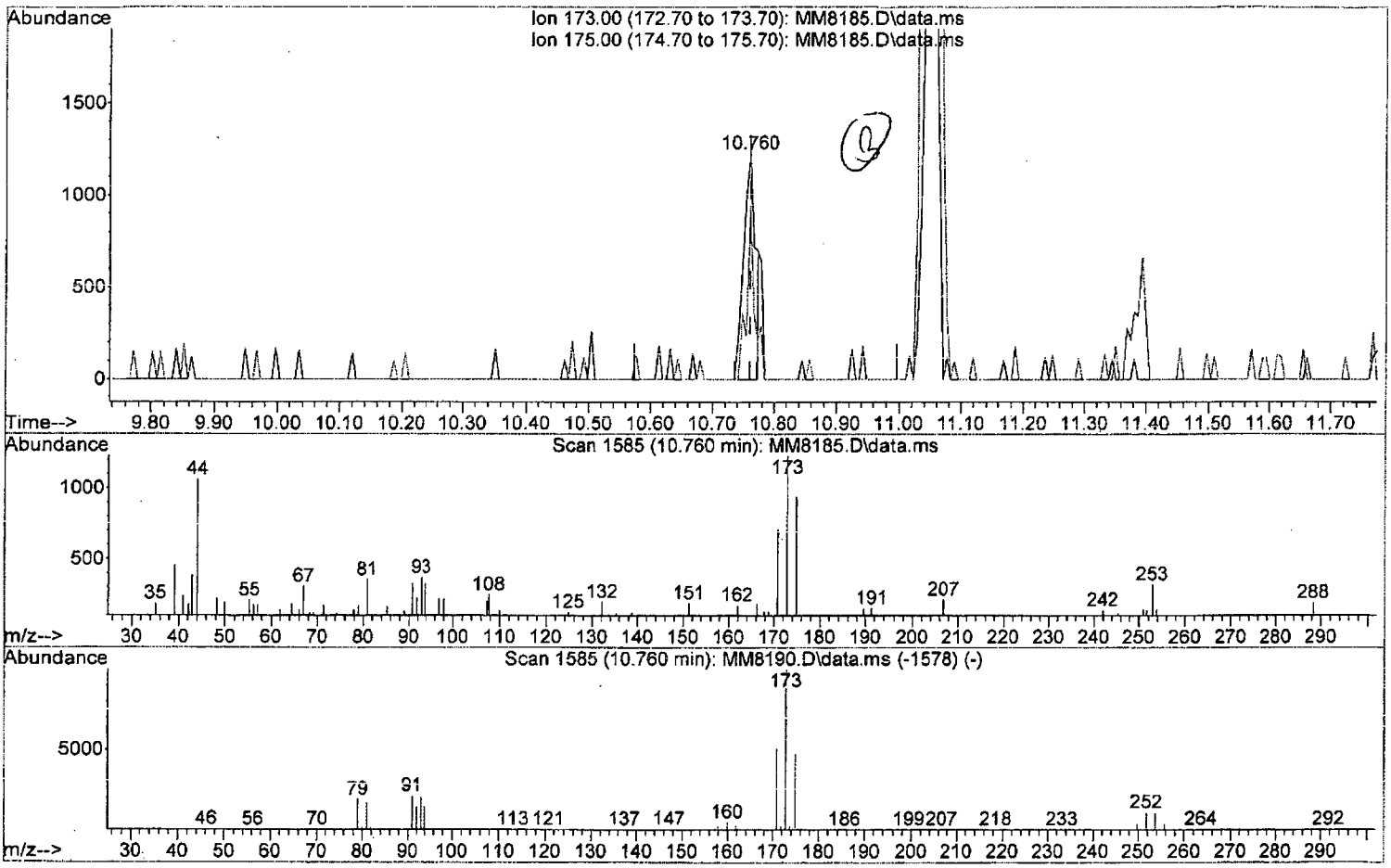
Ion	Exp%	Act%
107.00	100	100
109.00	93.40	75.44
93.00	5.70	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:52:49 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(87) Bromoform (P)

10.760min (-0.000) 0.50 ppb

response 1628

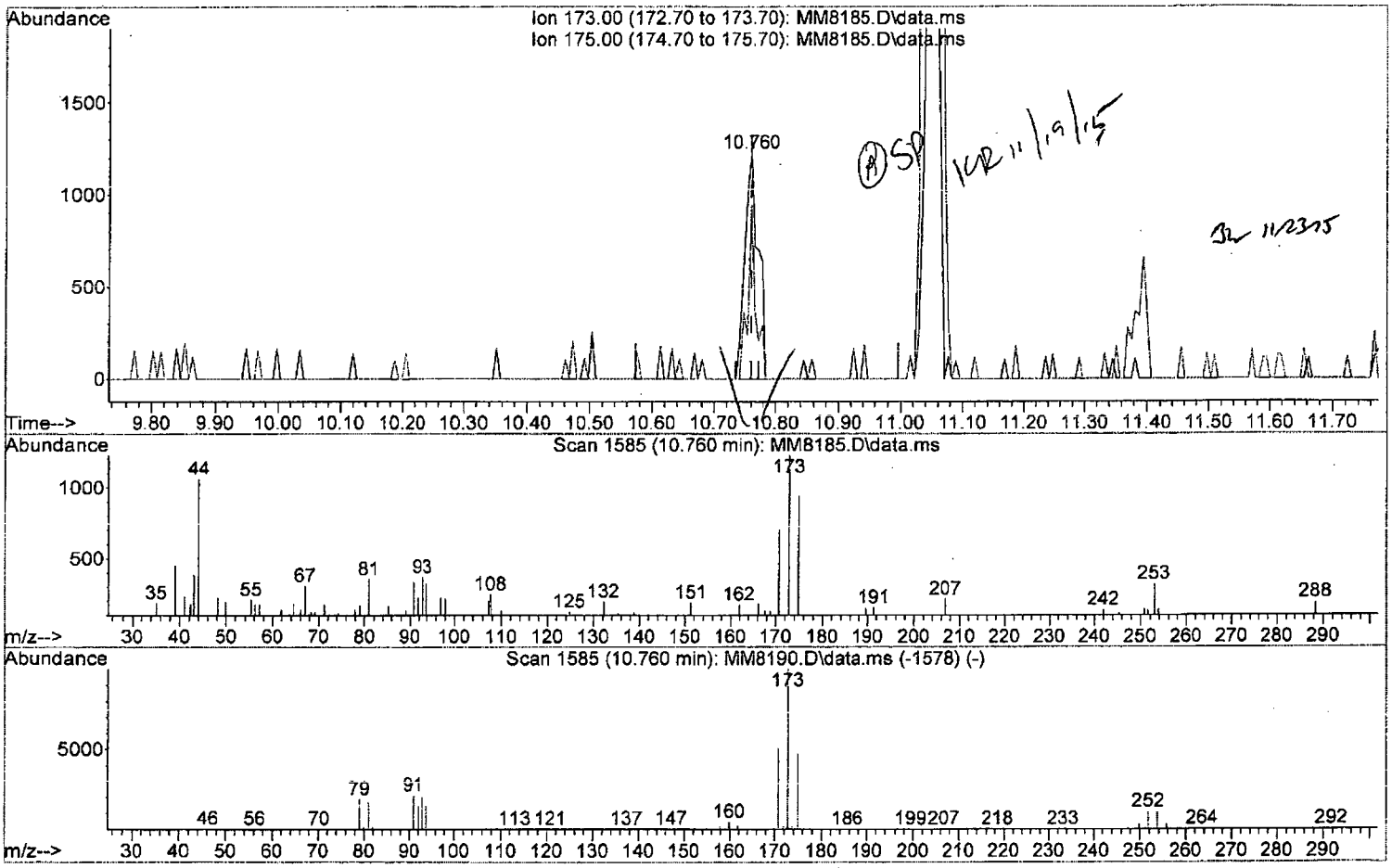
Ion	Exp%	Act%
173.00	100	100
175.00	47.50	76.49#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:53:02 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(87) Bromoform (P)

10.760min (-0.000) 0.57 ppb m

response 1862

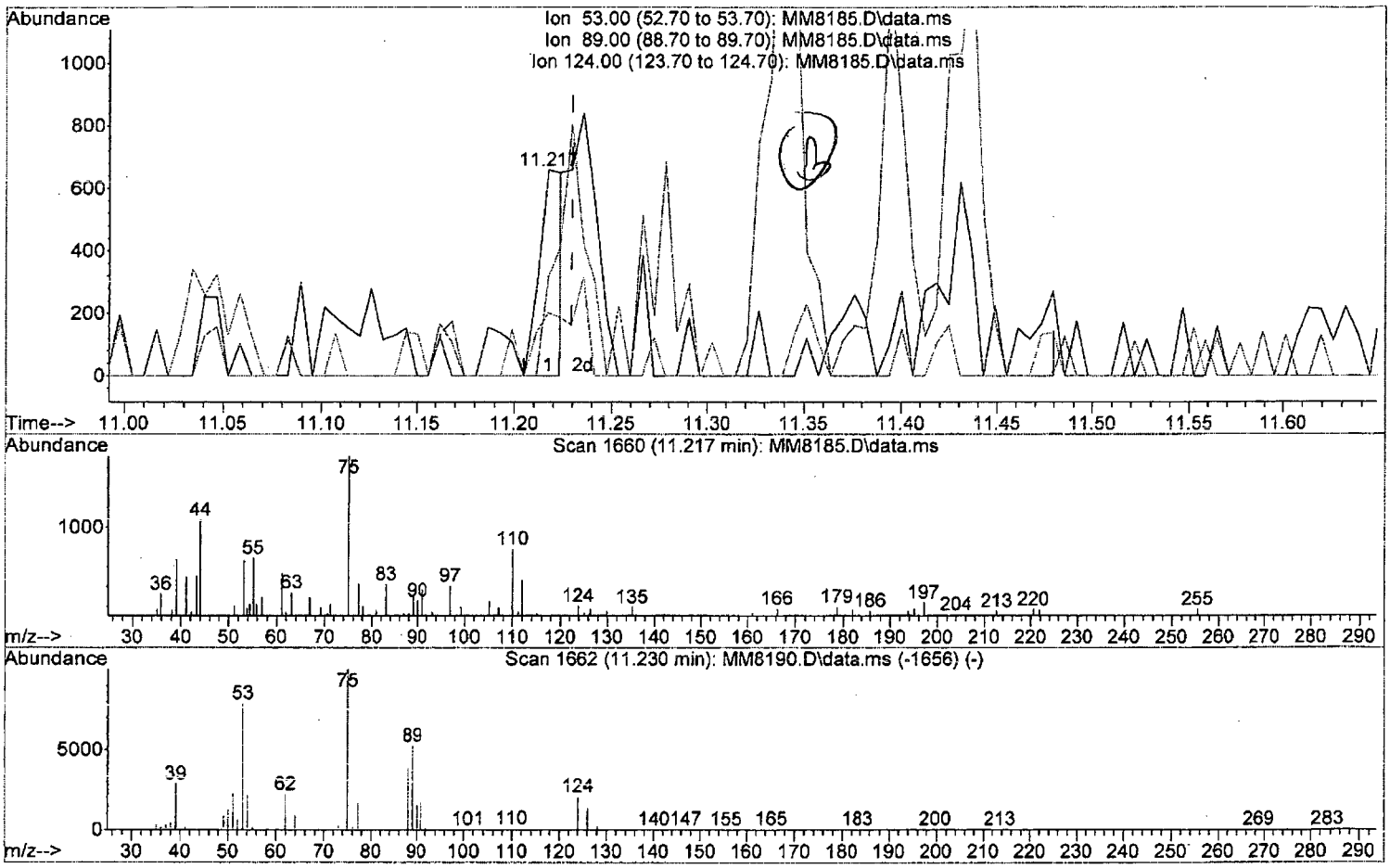
Ion	Exp%	Act%
173.00	100	100
175.00	47.50	76.49#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:53:10 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(91) trans-1,4-Dichloro-2-Butene

11.217min (-0.012) 0.31 ppb

response 578

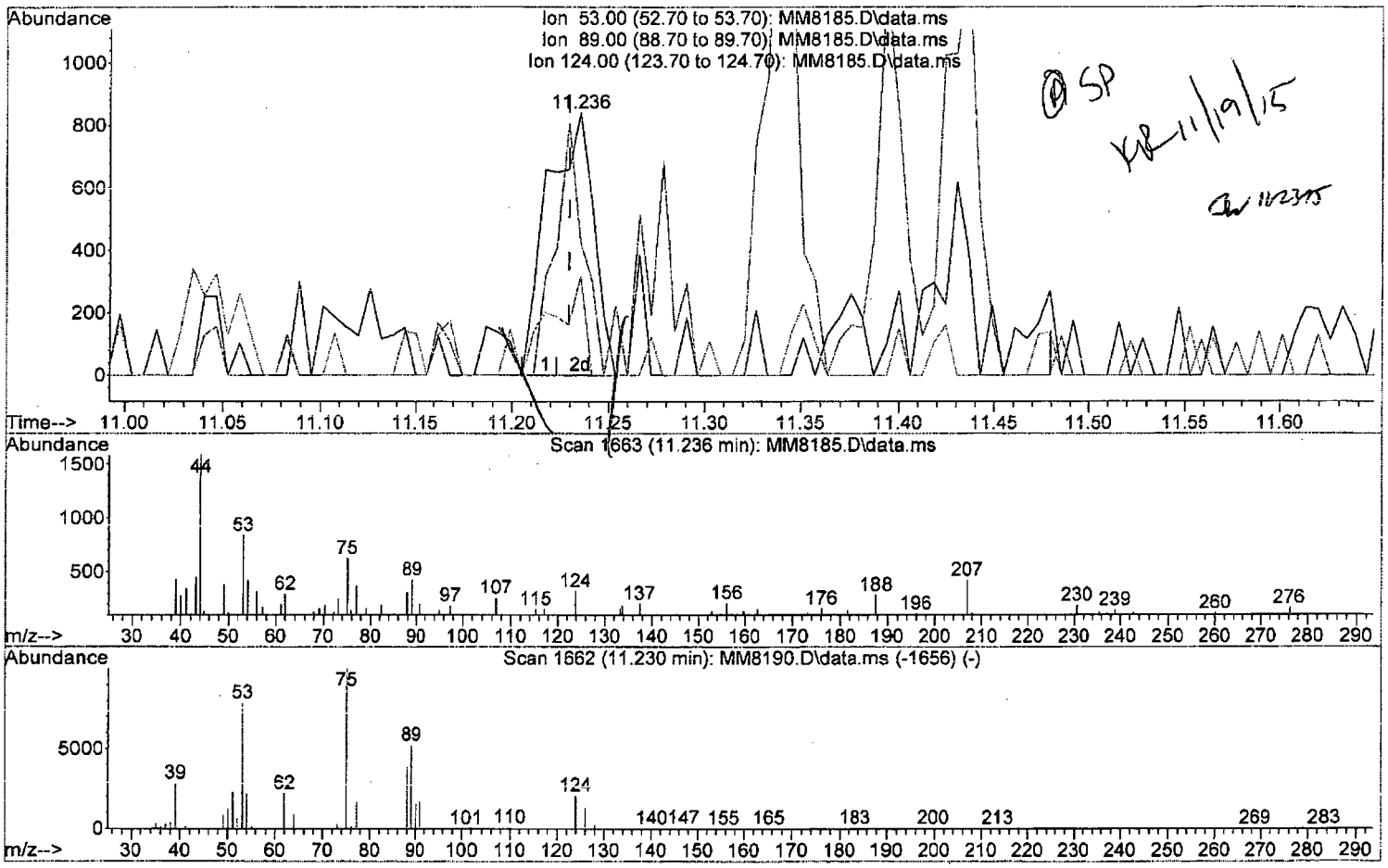
Ion	Exp%	Act%
53.00	100	100
89.00	66.30	48.25
124.00	26.20	30.75
0.00	0.00	0.00

W111815.M Thu Nov 19 09:53:23 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(91) trans-1,4-Dichloro-2-Butene

11.236min (+0.006) 0.74 ppb m

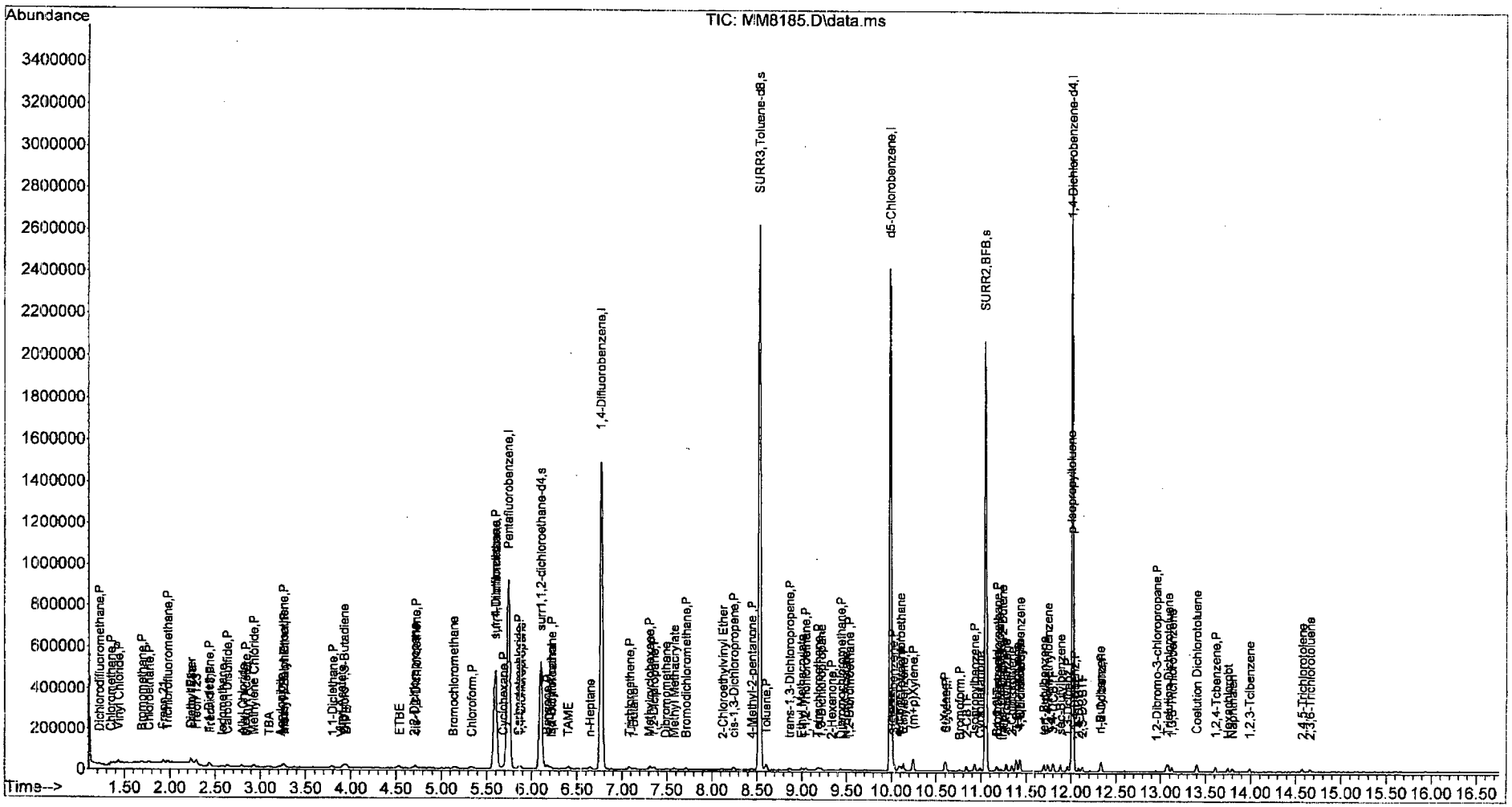
response 1397

Ion	Exp%	Act%
53.00	100	100
89.00	66.30	50.48
124.00	26.20	37.86
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:53:37 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 09:54:14 2015 Page: 4

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	770178	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1273925	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1155799	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	572378	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	363057	46.86	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 93.72%				
48) surr1,1,2-dichloroetha...	6.097	65	391455	46.97	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 93.94%				
65) SURR3,Toluene-d8	8.529	98	1594345	47.06	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 94.12%				
70) SURR2,BFB	11.047	95	588371	48.36	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.72%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	10094m	0.93	ppb		
3) Chloromethane	1.347	50	12665	0.98	ppb		93
4) Vinyl Chloride	1.433	62	12390	1.03	ppb		100
5) Bromomethane	1.683	94	5854m	0.98	ppb		
6) Chloroethane	1.768	64	6193	0.92	ppb		88
7) Freon 21	1.927	67	13063	1.00	ppb		95
8) Trichlorofluoromethane	1.981	101	9613	1.02	ppb		93
9) Diethyl Ether	2.231	59	6819	1.16	ppb		90
10) Freon 123a	2.238	67	9323m	1.10	ppb		
11) Freon 123	2.292	83	11273	1.14	ppb		93
12) Acrolein	2.341	56	1746	2.66	ppb	#	41
13) 1,1-Diclethene	2.433	96	7085	1.07	ppb		96
14) Freon 113	2.445	101	6318	1.08	ppb		94
16) 2-Propanol	2.652	45	6862	22.02	ppb		97
17) Iodomethane	2.567	142	5251	0.73	ppb		94
18) Carbon Disulfide	2.640	76	21855	1.02	ppb		92
20) Allyl Chloride	2.798	76	4462	1.24	ppb	#	37
21) Methyl Acetate	2.829	43	4977	1.30	ppb		77
22) Methylene Chloride	2.933	84	8085	1.09	ppb	#	81
23) TBA	3.097	59	9708	19.20	ppb		97
24) Acrylonitrile	3.207	53	9288	4.96	ppb		97
25) Methyl-t-Butyl Ether	3.262	73	18444	1.03	ppb		89
26) trans-1,2-Dichloroethene	3.250	96	6563m	0.95	ppb		
28) 1,1-Diclethane	3.792	63	11792	0.96	ppb		92
29) Vinyl Acetate	3.920	86	1268m	0.95	ppb		
30) DIPE	3.951	45	25821	1.07	ppb		91
31) 2-Chloro-1,3-Butadiene	3.926	53	13316	1.08	ppb		87
32) ETBE	4.524	59	23601	1.04	ppb		85
33) 2,2-Dichloropropane	4.707	77	12157m	1.23	ppb		
34) cis-1,2-Dichloroethene	4.725	96	8254m	1.07	ppb		
36) Propionitrile	4.889	54	3790m	5.52	ppb		
37) Bromochloromethane	5.146	130	4232m	1.06	ppb		
38) Methacrylonitrile	5.164	67	2125m	0.91	ppb		
40) Chloroform	5.334	83	12327	1.03	ppb		88

KR 11/19/15

W111815.M Thu Nov 19 14:18:48 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41)	1,1,1-Trichloroethane	5.584	97	8775	0.93	ppb	#	74
42)	TAME	6.401	73	20180	1.05	ppb		80
44)	Cyclohexane	5.682	41	7112	1.03	ppb		84
46)	Carbontetrachloride	5.865	121	2566m	1.04	ppb		
47)	1,1-Dichloropropene	5.871	75	9357	1.04	ppb		89
49)	Benzene	6.176	78	29669	1.06	ppb		95
50)	1,2-Dichloroethane	6.206	62	6994	0.97	ppb		93
51)	Iso-Butyl Alcohol	6.206	43	4880	20.76	ppb		95
52)	n-Heptane	6.645	43	9356	1.21	ppb		89
53)	1-Butanol	7.121	56	7108m	48.37	ppb		
54)	Trichloroethene	7.078	130	7713	1.08	ppb	#	77
55)	Methylcyclohexane	7.304	55	8635	1.02	ppb		97
56)	1,2-Diclpropane	7.352	63	7376	1.06	ppb		100
57)	Dibromomethane	7.487	93	3907	1.14	ppb	#	76
59)	Methyl Methacrylate	7.578	69	3768m	0.94	ppb		
60)	Bromodichloromethane	7.712	83	9389	1.10	ppb		85
61)	2-Nitropropane	7.986	41	2354m	1.86	ppb		
62)	2-Chloroethylvinyl Ether	8.108	63	3482	0.91	ppb		77
63)	cis-1,3-Dichloropropene	8.236	75	12027	1.05	ppb		87
64)	4-Methyl-2-pentanone	8.438	43	4664	0.92	ppb		77
66)	Toluene	8.602	91	29226	1.01	ppb		96
67)	trans-1,3-Dichloropropene	8.858	75	8481	0.94	ppb		89
68)	Ethyl Methacrylate	8.998	69	7627	0.95	ppb		88
69)	1,1,2-Trichloroethane	9.047	97	4900	1.00	ppb	#	83
72)	Tetrachloroethene	9.181	164	4504	0.94	ppb		90
73)	2-Hexanone	9.328	43	3994	1.13	ppb		87
74)	1,3-Dichloropropane	9.212	76	9920	1.13	ppb		90
75)	Dibromochloromethane	9.431	129	5804	1.06	ppb		100
76)	N-Butyl Acetate	9.480	43	8961	1.07	ppb		95
77)	1,2-Dibromoethane	9.535	107	4785	1.02	ppb		98
78)	Chlorobenzene	10.010	112	17857	1.04	ppb		91
79)	3-CBTF	10.035	180	8890	1.05	ppb	#	82
80)	4-CBTF	10.084	180	8238m	1.04	ppb		
81)	1,1,1,2-Tetrachloroethane	10.102	131	6317	1.07	ppb		98
82)	Ethylbenzene	10.138	106	9885	1.02	ppb	#	86
83)	(m+p)Xylene	10.242	106	24285	2.03	ppb		89
84)	o-Xylene	10.596	106	11839	0.97	ppb		98
85)	Styrene	10.608	104	21628	1.08	ppb		96
87)	Bromoform	10.754	173	3210	0.99	ppb	#	69
88)	2-CBTF	10.833	180	9618	1.11	ppb		97
89)	Isopropylbenzene	10.925	105	33324	1.12	ppb		86
90)	Cyclohexanone	10.986	55	8800	20.39	ppb		99
91)	trans-1,4-Dichloro-2-B...	11.224	53	2030	1.09	ppb		86
92)	1,1,2,2-Tetrachloroethane	11.181	83	6432m	1.07	ppb		
93)	Bromobenzene	11.169	156	6830	1.01	ppb	#	80
94)	1,2,3-Trichloropropane	11.217	110	1978	1.12	ppb	#	51
95)	n-Propylbenzene	11.278	91	35704	1.04	ppb		93
96)	2-Chlorotoluene	11.345	91	19406	0.96	ppb		96
97)	3-Chlorotoluene	11.394	91	21392m	1.01	ppb		
98)	4-Chlorotoluene	11.431	91	23630	1.04	ppb		89
99)	1,3,5-Trimethylbenzene	11.431	105	23434	1.04	ppb		96

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

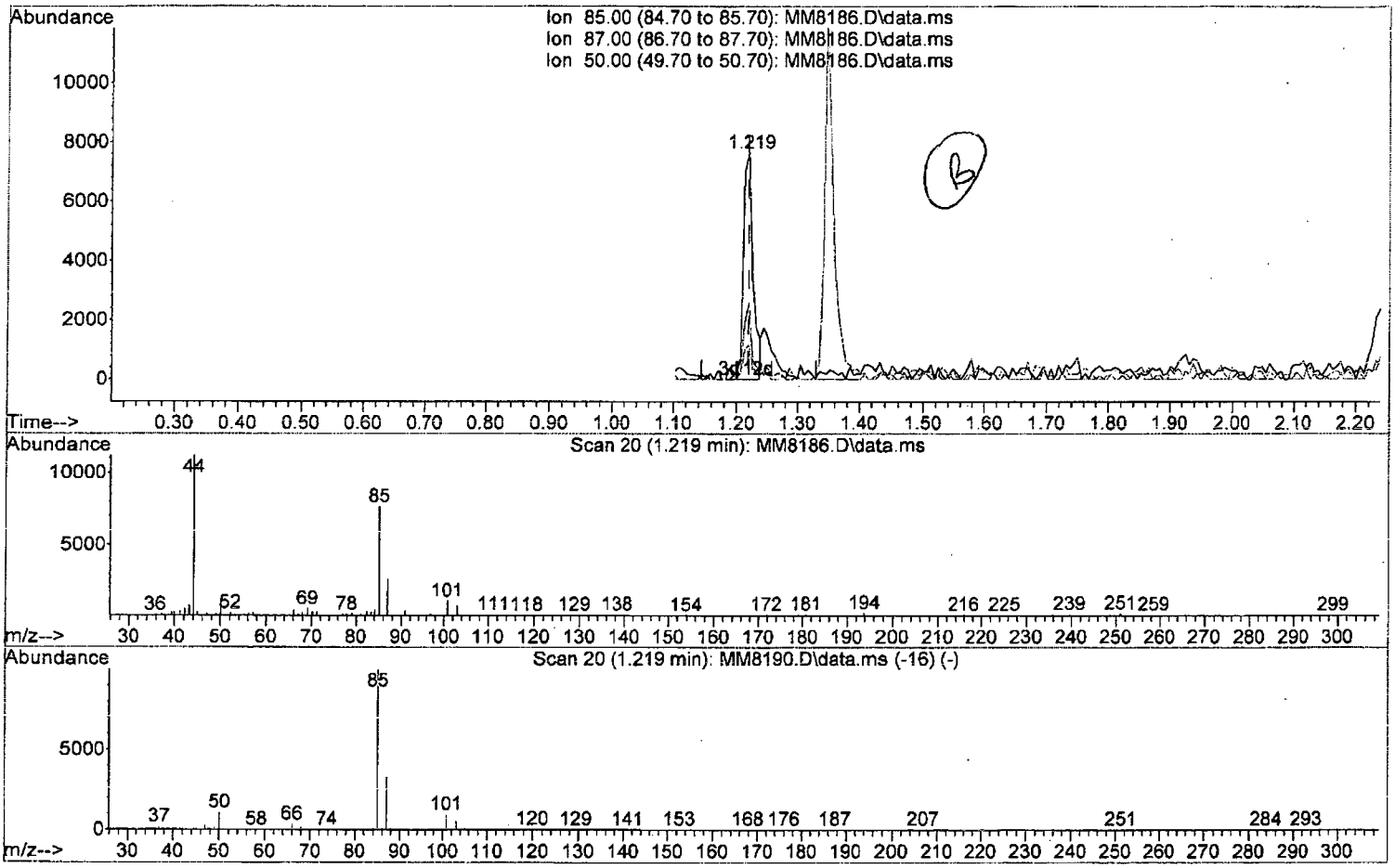
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
100) tert-Butylbenzene	11.699	119	19326	0.96	ppb		98
101) 1,2,4-Trimethylbenzene	11.742	105	25761	1.07	ppb		93
102) 3,4-DCBTF	11.803	214	5860	1.01	ppb		91
103) sec-Butylbenzene	11.882	105	30086	1.07	ppb		91
104) p-Isopropyltoluene	12.004	119	22364	1.03	ppb		95
105) 1,3-Dclbenz	11.961	146	13676	1.05	ppb		98
106) 1,4-Dclbenz	12.034	146	11720	0.96	ppb		84
107) 2,4-DCBTF	12.089	214	4912	0.97	ppb	#	81
108) 2,5-DCBTF	12.126	214	5760	1.00	ppb		98
109) n-Butylbenzene	12.333	91	20401	0.99	ppb		92
110) 1,2-Dclbenz	12.339	146	13110	1.09	ppb		88
111) 1,2-Dibromo-3-chloropr...	12.961	157	1003	0.85	ppb	#	57
112) Trielution Dichlorotol...	13.083	125	31009	3.06	ppb	#	87
113) 1,3,5 Trichlorobenzene	13.126	180	7780	0.96	ppb	#	92
114) Coelution Dichlorotoluene	13.400	125	22904	2.14	ppb		98
115) 1,2,4-Tcbenzene	13.607	180	7848	1.06	ppb		86
116) Hexachlorobt	13.747	225	3391	1.07	ppb		90
117) Naphthalen	13.802	128	13597	0.89	ppb		94
118) 1,2,3-Tclbenzene	13.985	180	6741	1.09	ppb		86
119) 2,4,5-Trichlorotolene	14.570	159	4370	0.94	ppb	#	85
120) 2,3,6-Trichlorotoluene	14.656	159	4049	0.98	ppb	#	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(2) Dichlorodifluoromethane (P)

1.219min (0.000) 0.73 ppb

response 7969

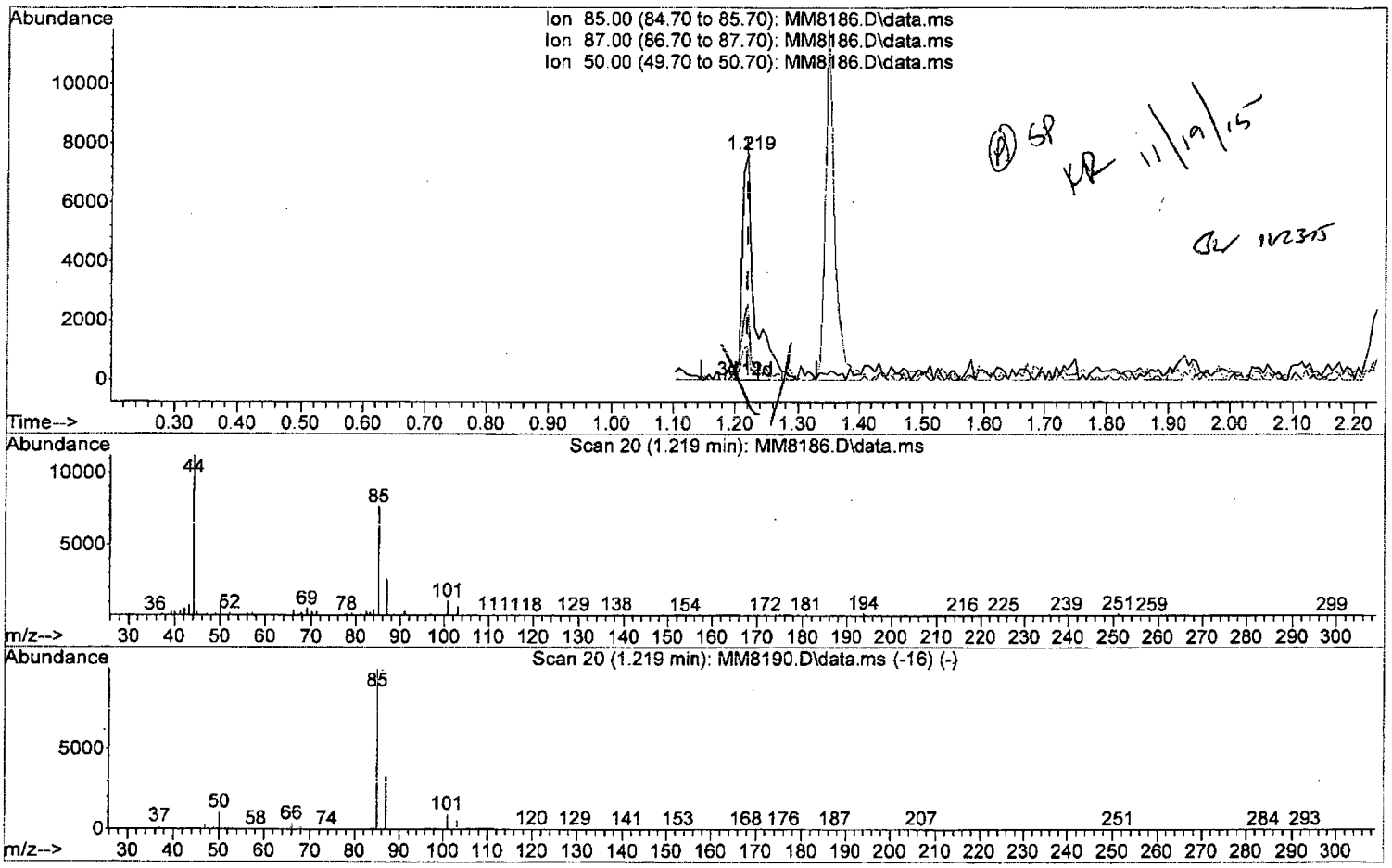
Ion	Exp%	Act%
85.00	100	100
87.00	32.70	33.97
50.00	10.60	15.05
0.00	0.00	0.00

W111815.M Thu Nov 19 09:58:28 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(2) Dichlorodifluoromethane (P)

1.219min (0.000) 0.93 ppb m

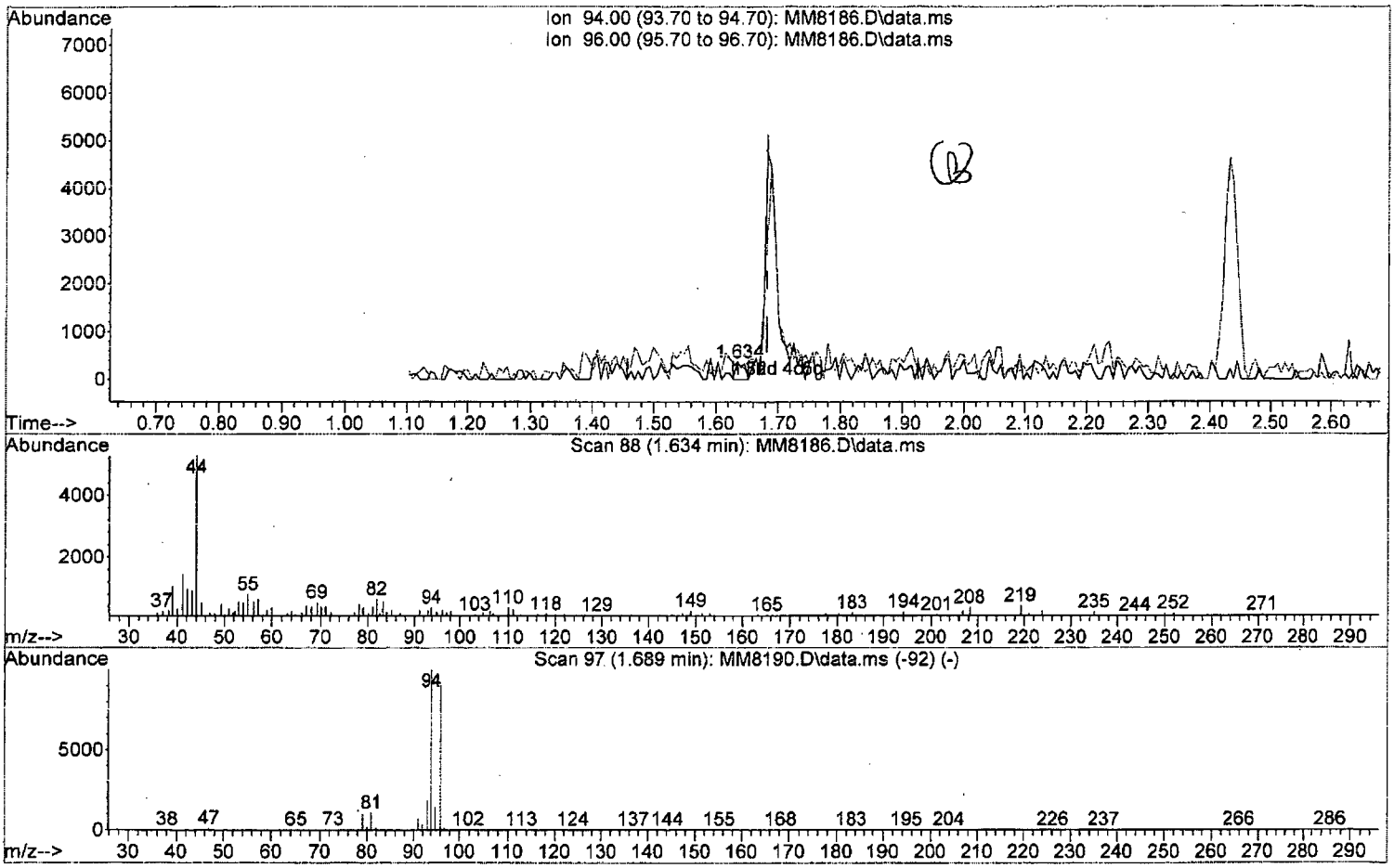
response 10094

Ion	Exp%	Act%
85.00	100	100
87.00	32.70	33.97
50.00	10.60	15.05
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(5) Bromomethane (P)

1.634min (-0.049) 0.06 ppb

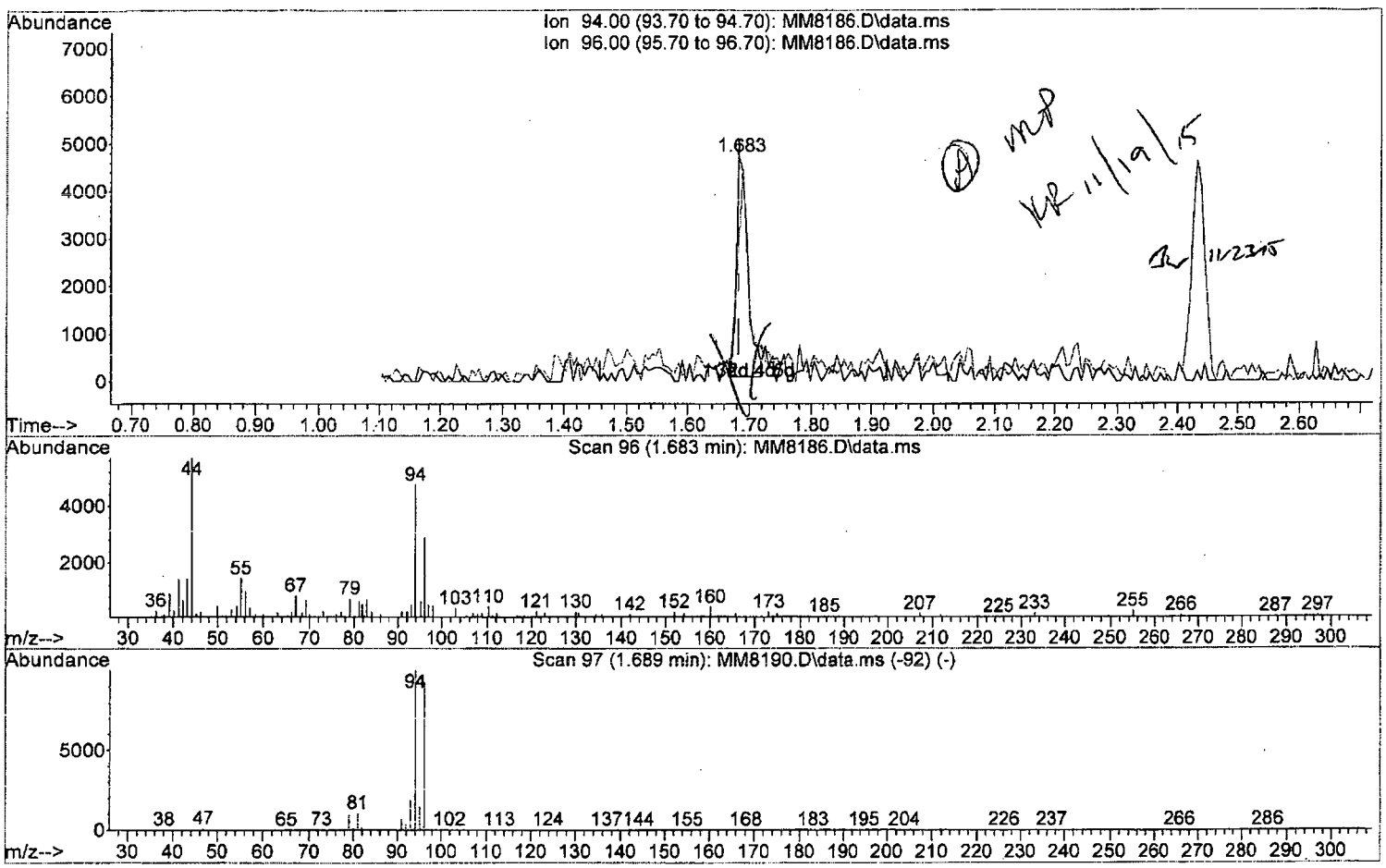
response 343

Ion	Exp%	Act%
94.00	100	100
96.00	92.80	74.72
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(5) Bromomethane (P)

1.683min (-0.000) 0.98 ppb m

response 5854

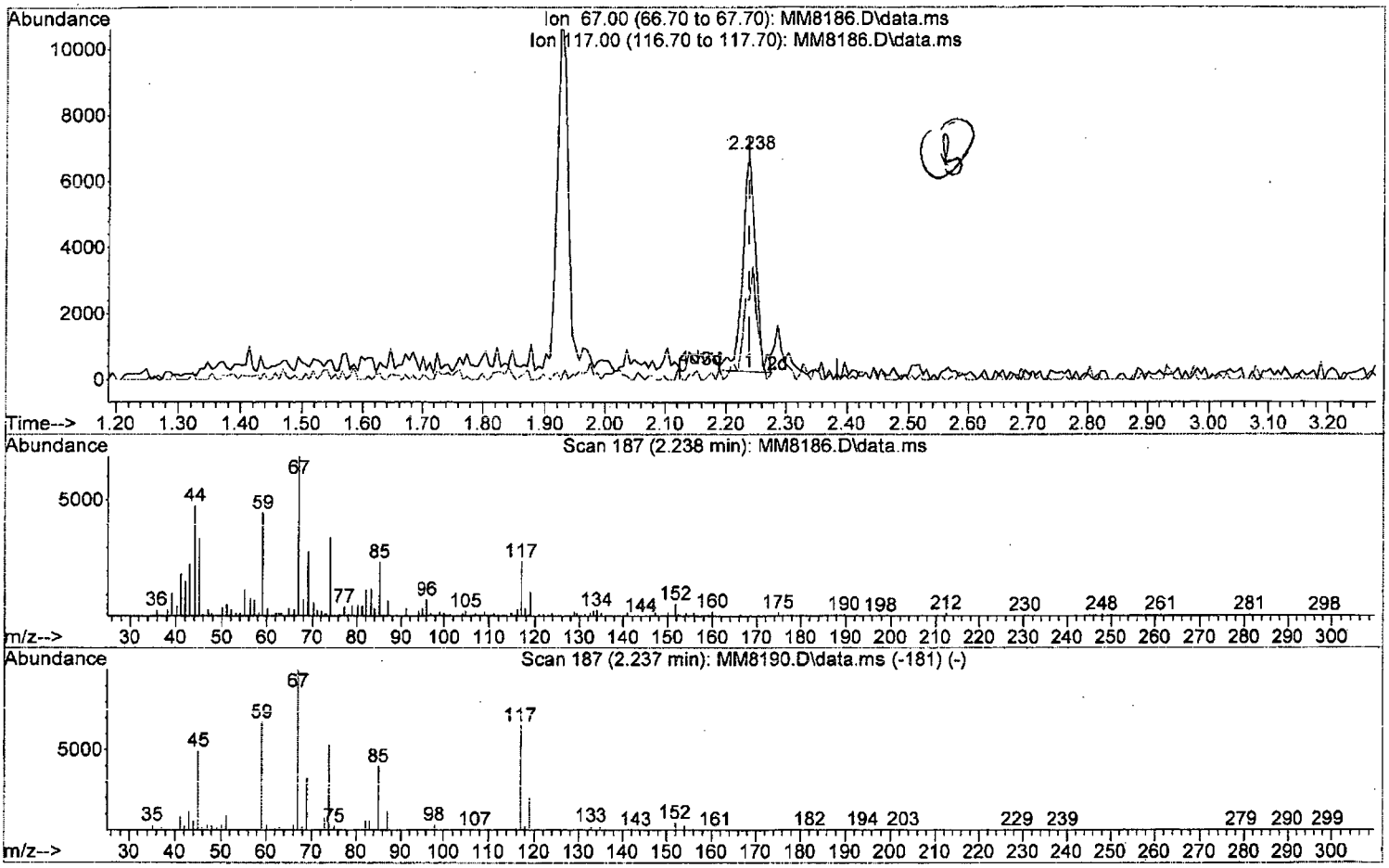
Ion	Exp%	Act%
94.00	100	100
96.00	92.80	60.76#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:59:18 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(10) Freon 123a

2.238min (0.000) 1.19 ppb

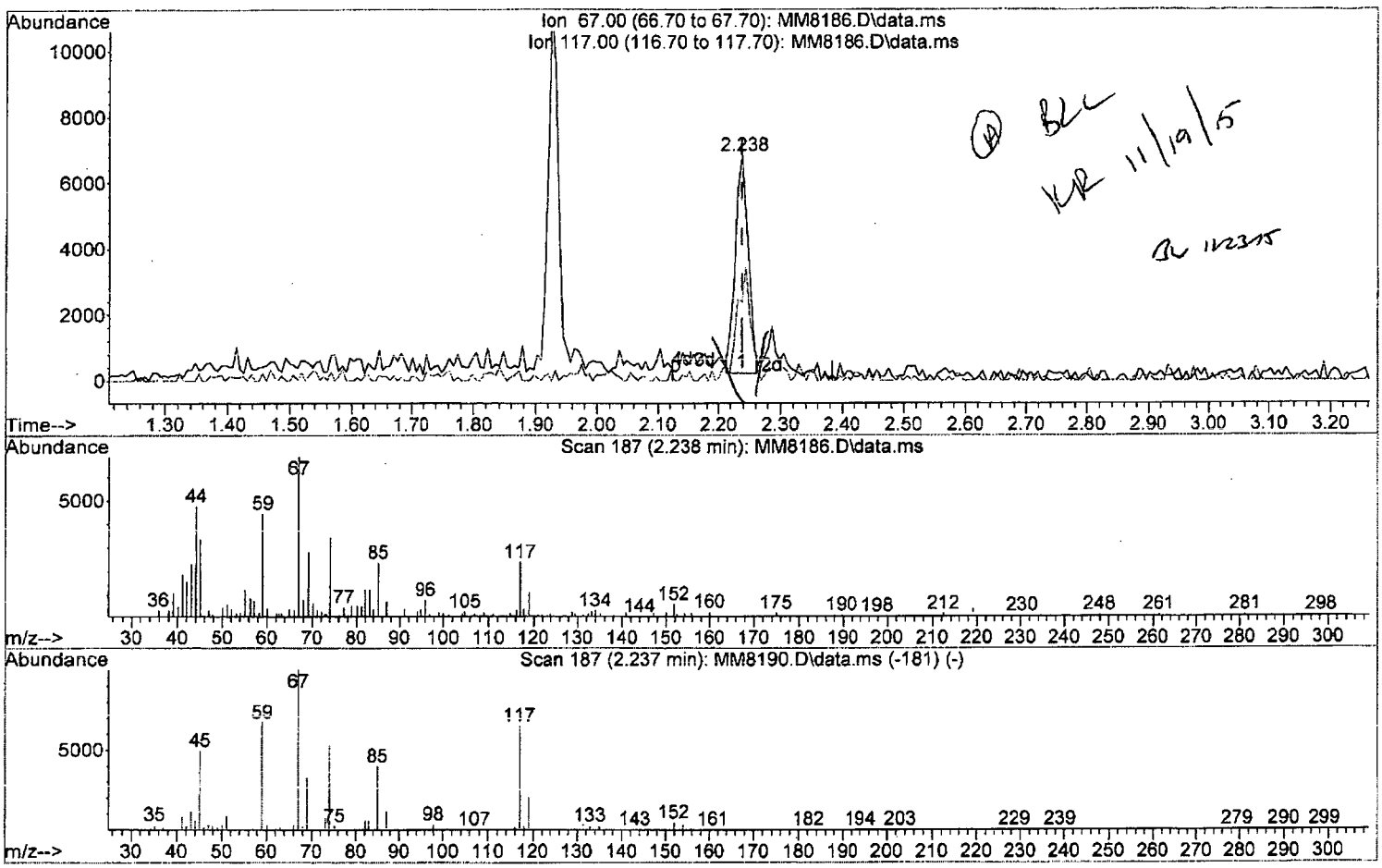
response 10134

Ion	Exp%	Act%
67.00	100	100
117.00	65.50	34.95#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(10) Freon 123a

2.238min (0.000) 1.10 ppb m

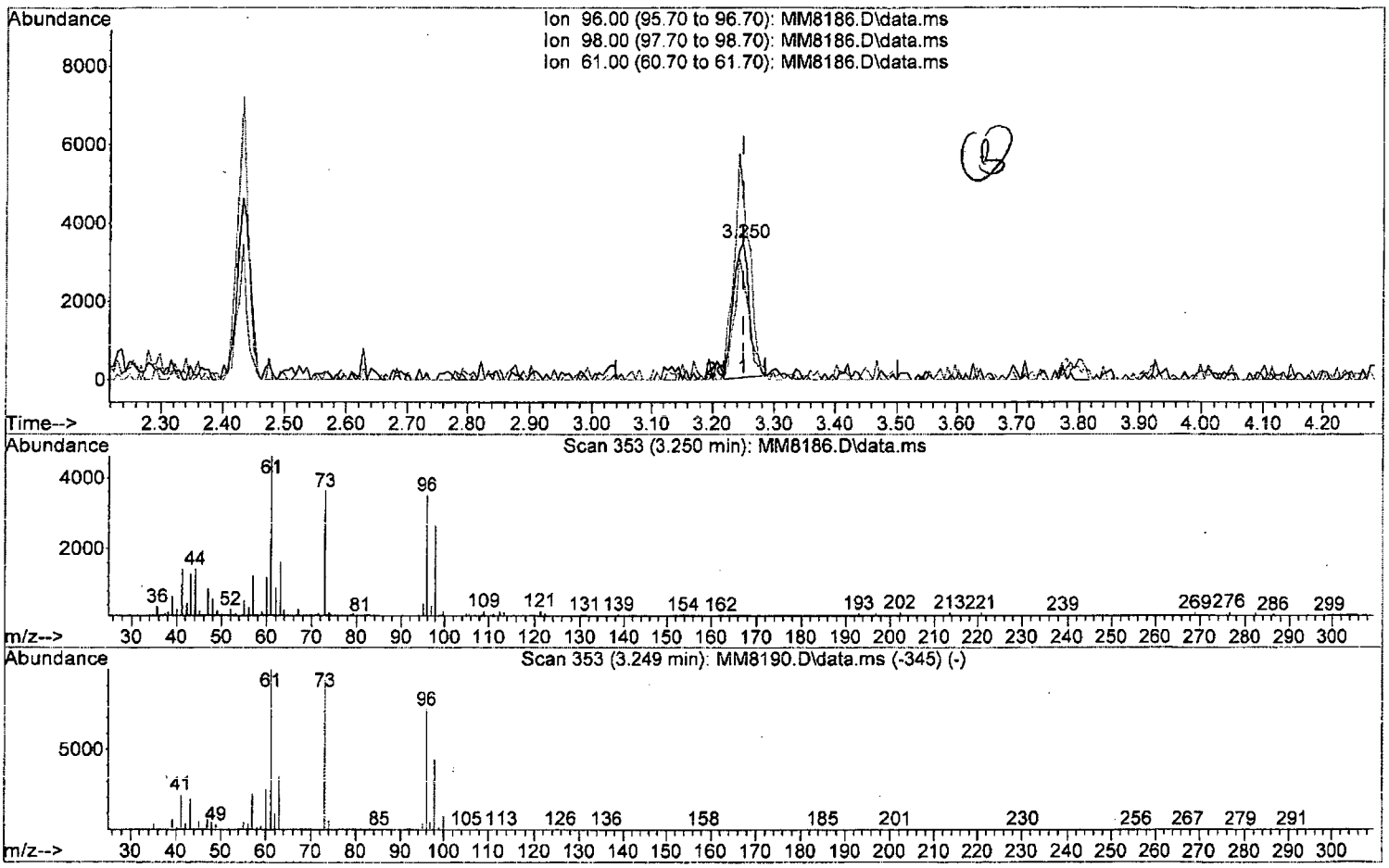
response 9323

Ion	Exp%	Act%
67.00	100	100
117.00	65.50	34.95#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(26) trans-1,2-Dichloroethene (P)

3.250min (0.000) 0.90 ppb

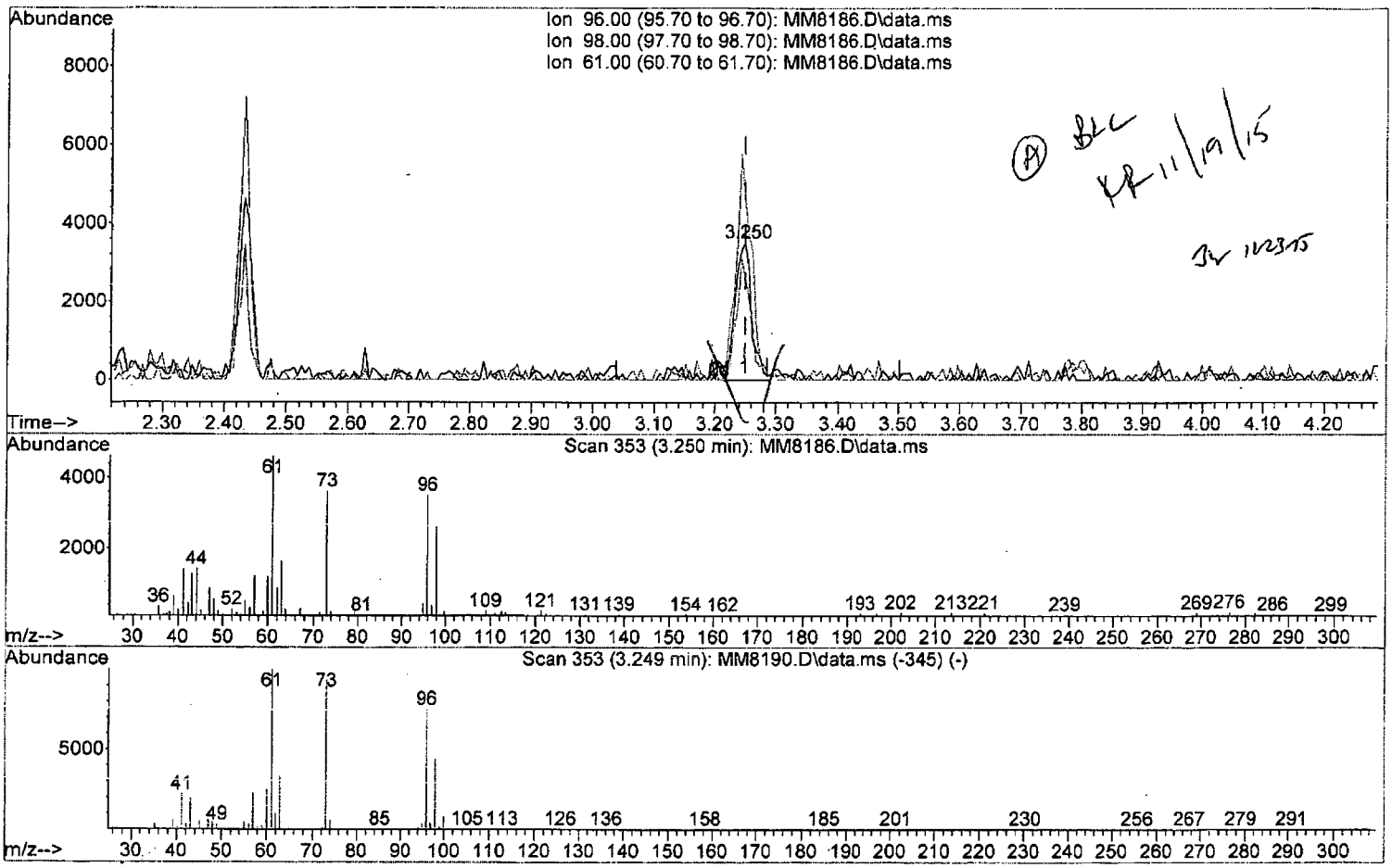
response 6211

Ion	Exp%	Act%
96.00	100	100
98.00	57.60	74.85
61.00	133.00	131.57
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(26) trans-1,2-Dichloroethene (P)

3.250min (0.000) 0.95 ppb m

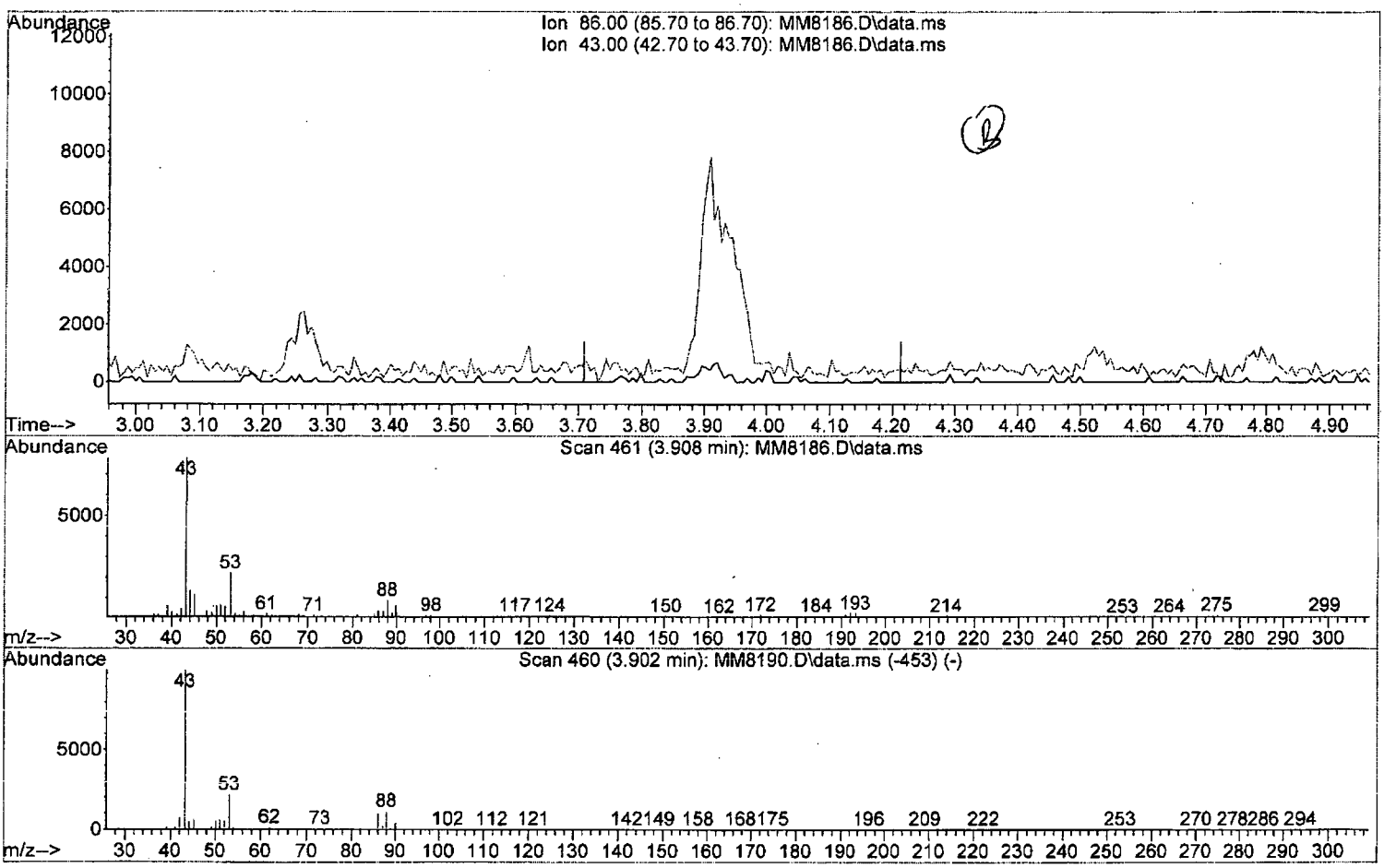
response 6563

Ion	Exp%	Act%
96.00	100	100
98.00	57.60	74.85
61.00	133.00	131.57
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(29) Vinyl Acetate

3.908min (-3.908) 0.00 ppb

response 0

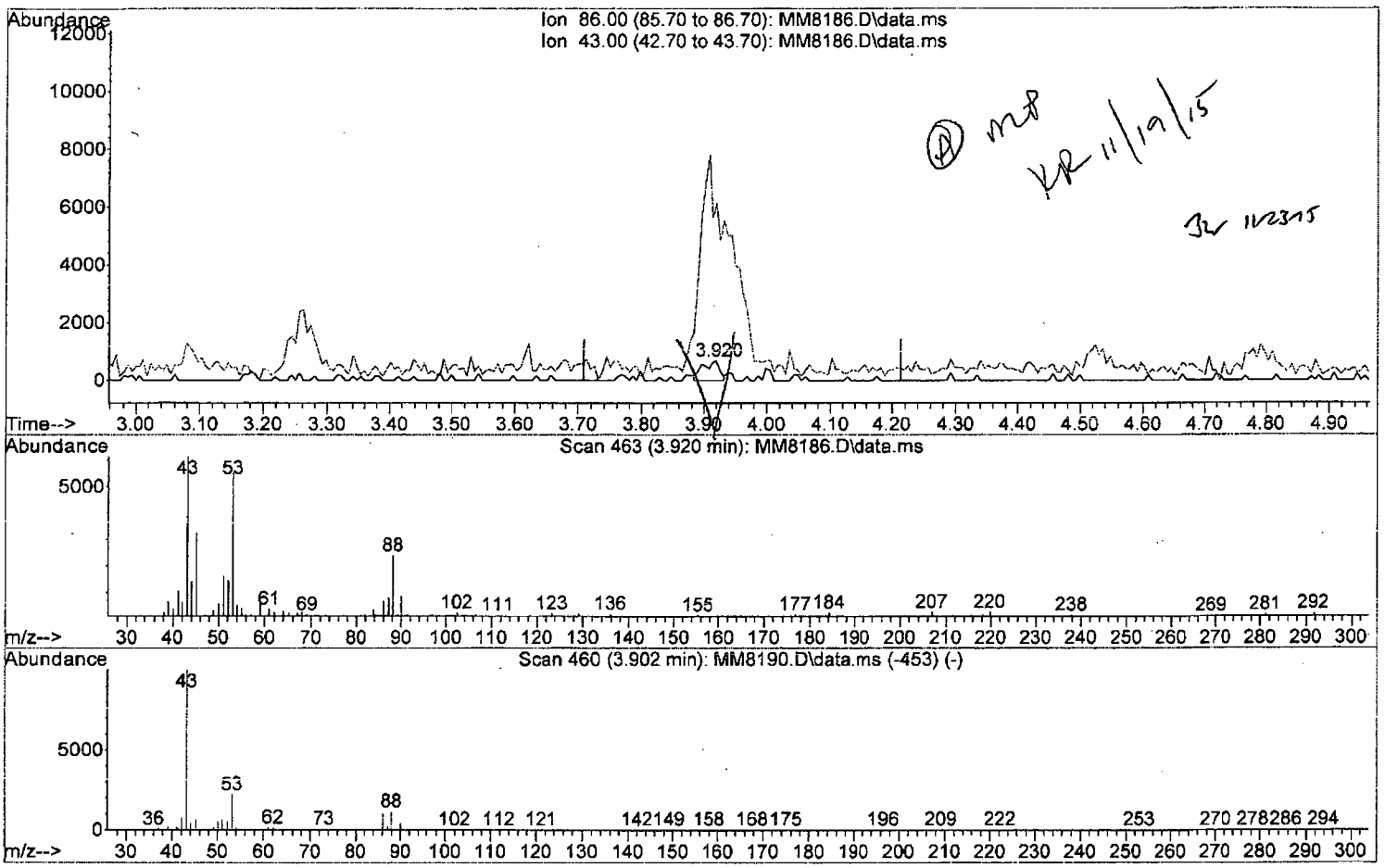
Ion	Exp%	Act%
86.00	100	0.00
43.00	979.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:01:52 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(29) Vinyl Acetate

3.920min (+0.012) 0.95 ppb m

response 1268

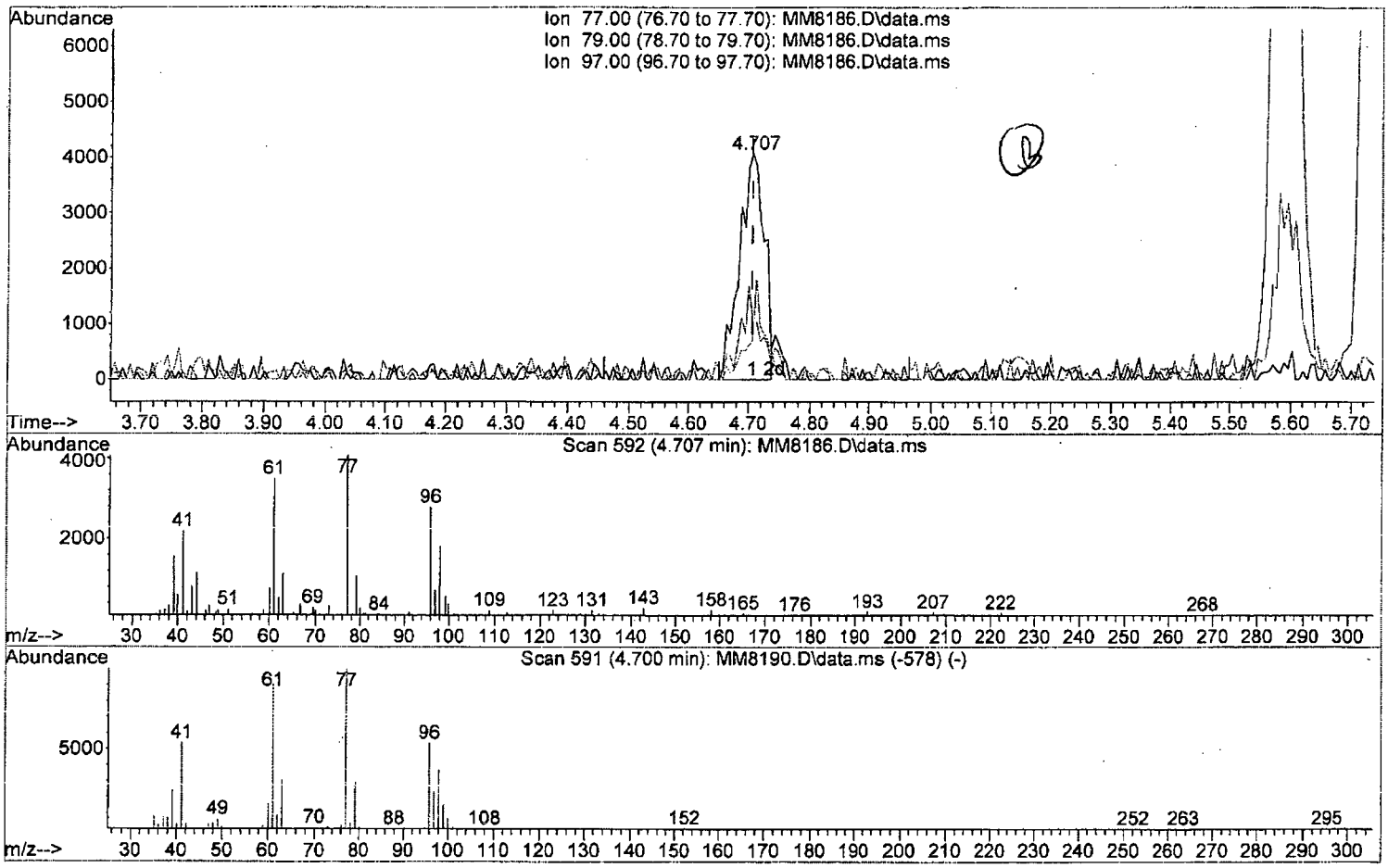
Ion	Exp%	Act%
86.00	100	100
43.00	979.70	913.13#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:02:11 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(33) 2,2-Dichloropropane

4.707min (+0.001) 1.15 ppb

response 11367

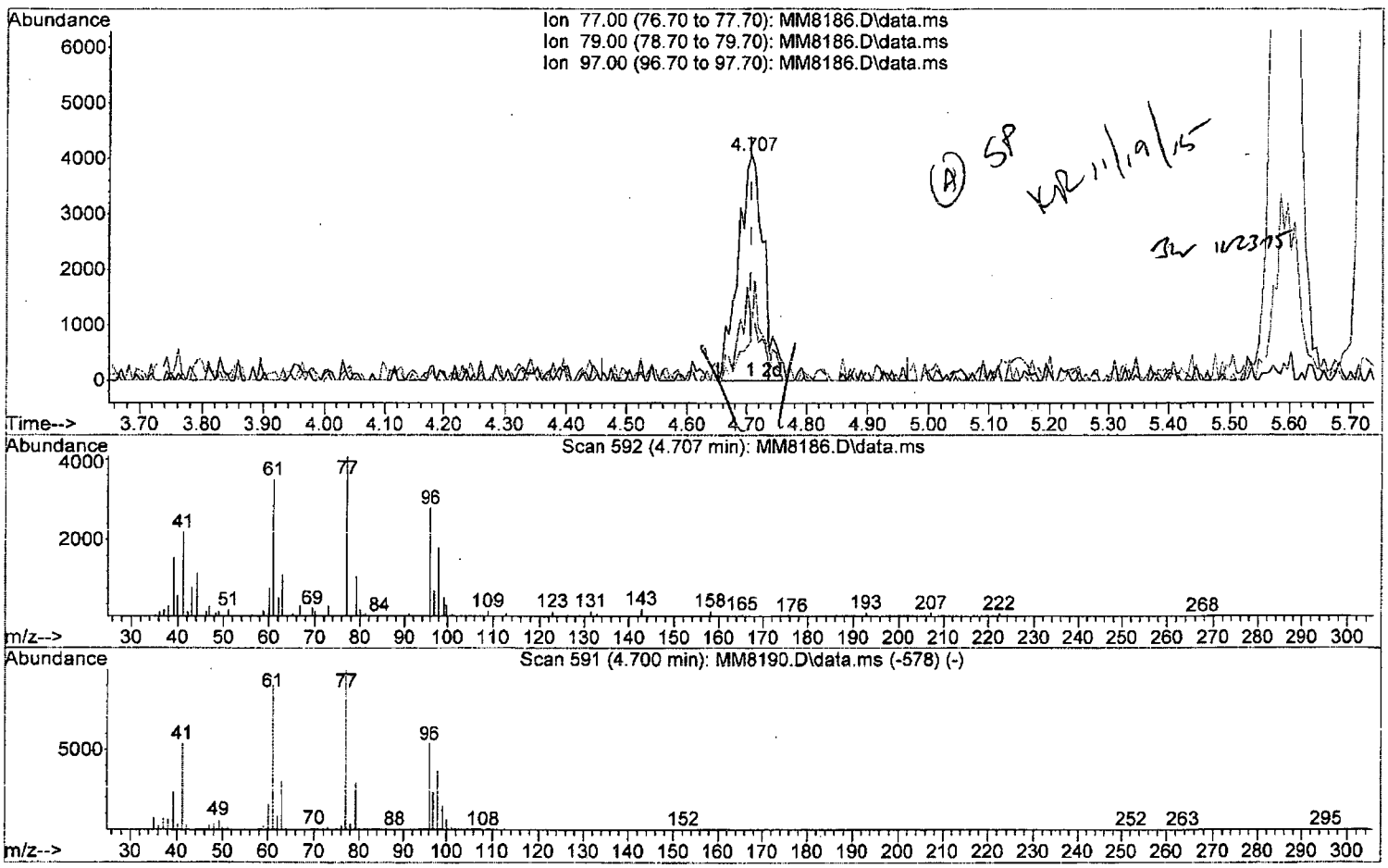
Ion	Exp%	Act%
77.00	100	100
79.00	28.80	26.63
97.00	24.00	17.64
0.00	0.00	0.00

W111815.M Thu Nov 19 10:02:36 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(33) 2,2-Dichloropropane

4.707min (+0.001) 1.23 ppb m

response 12157

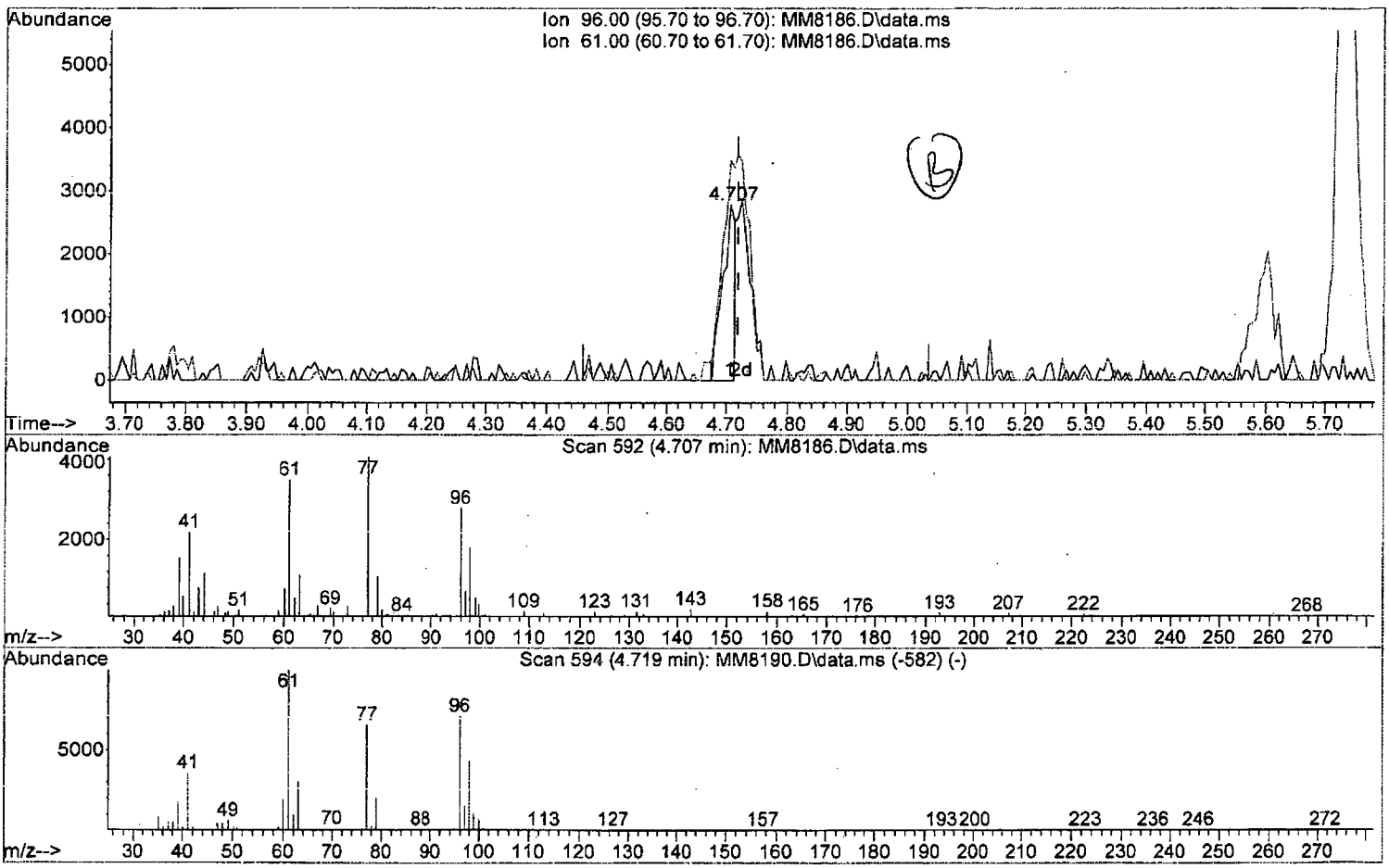
Ion	Exp%	Act%
77.00	100	100
79.00	28.80	26.63
97.00	24.00	17.64
0.00	0.00	0.00

W111815.M Thu Nov 19 10:02:43 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.707min (-0.012) 0.51 ppb

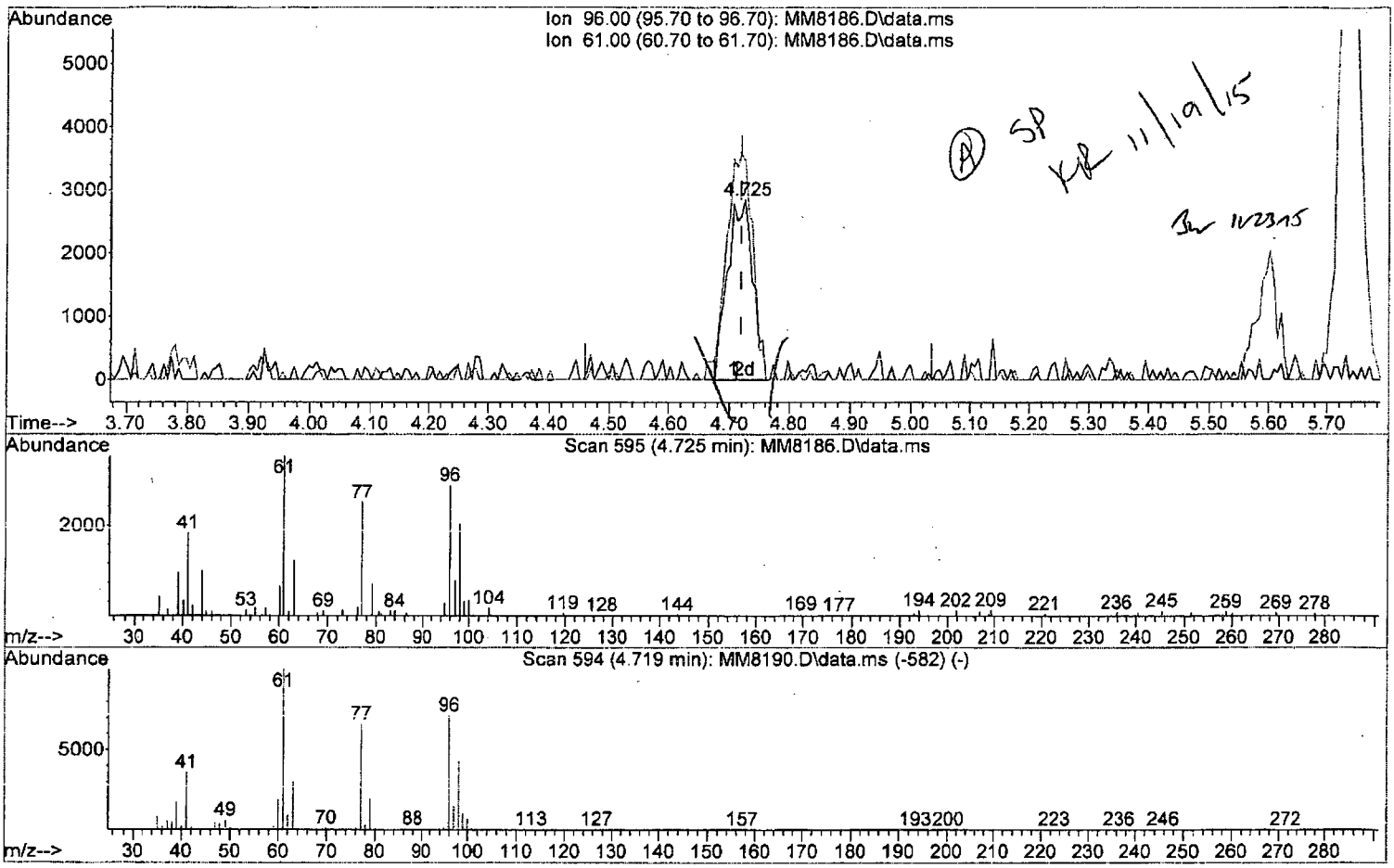
response 3913

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	125.40
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.725min (+0.006) 1.07 ppb m

response 8254

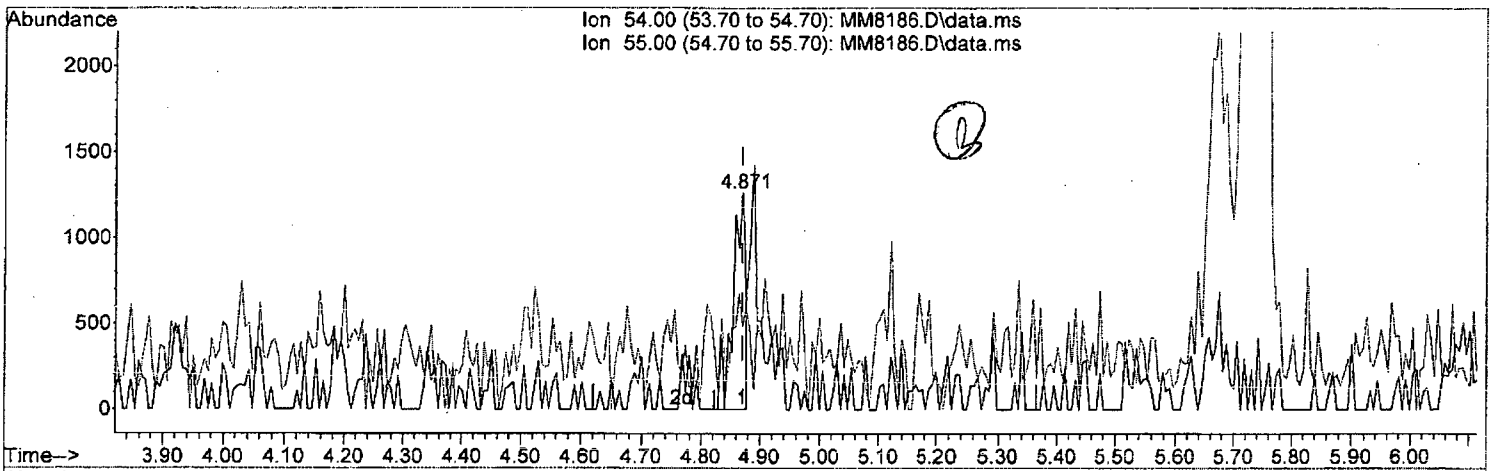
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	121.62
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:02:56 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(36) Propionitrile

4.871min (0.000) 2.75 ppb

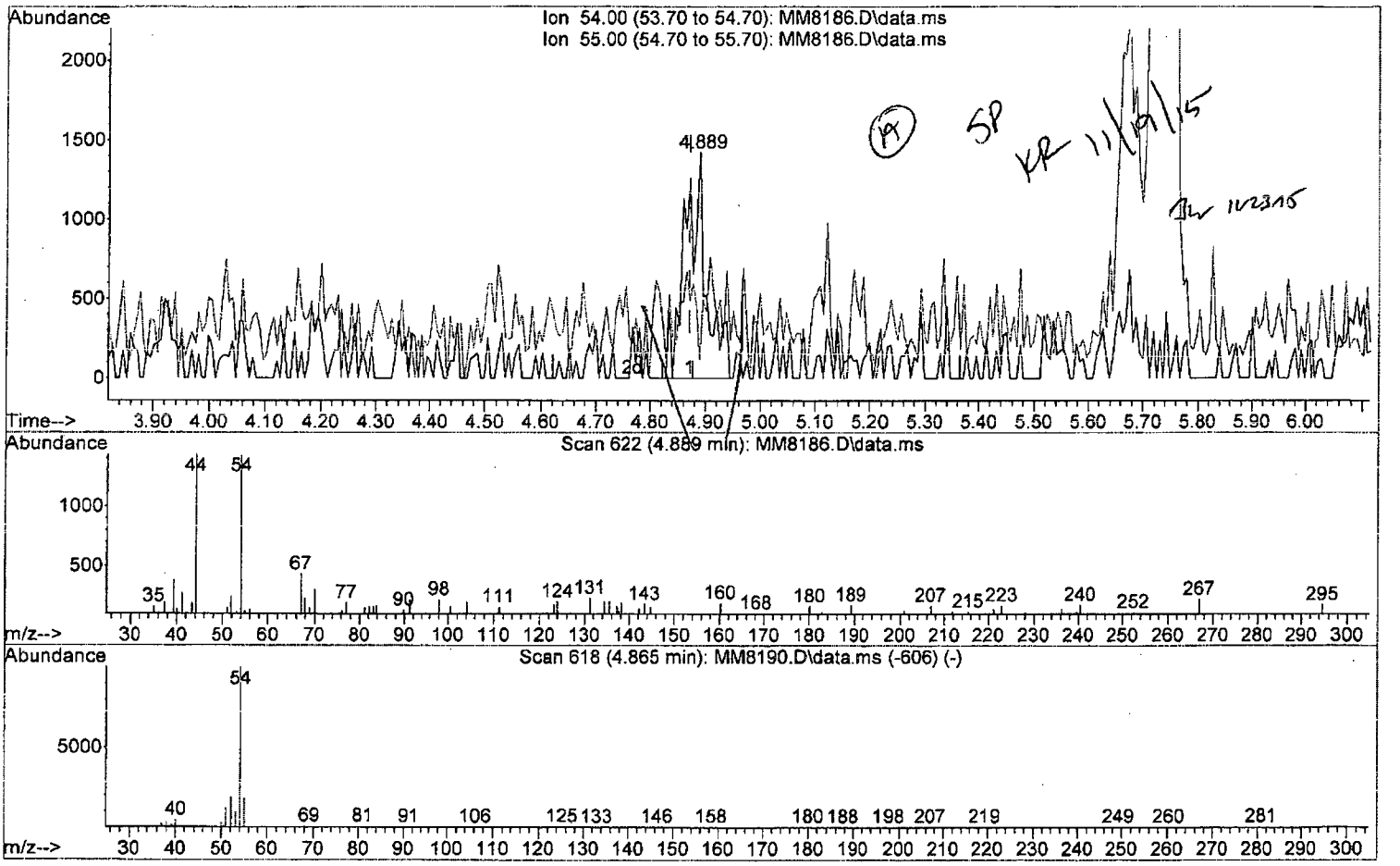
response 1890

Ion	Exp%	Act%
54.00	100	100
55.00	19.40	38.63
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(36) Propionitrile

4.889min (+0.018) 5.52 ppb m

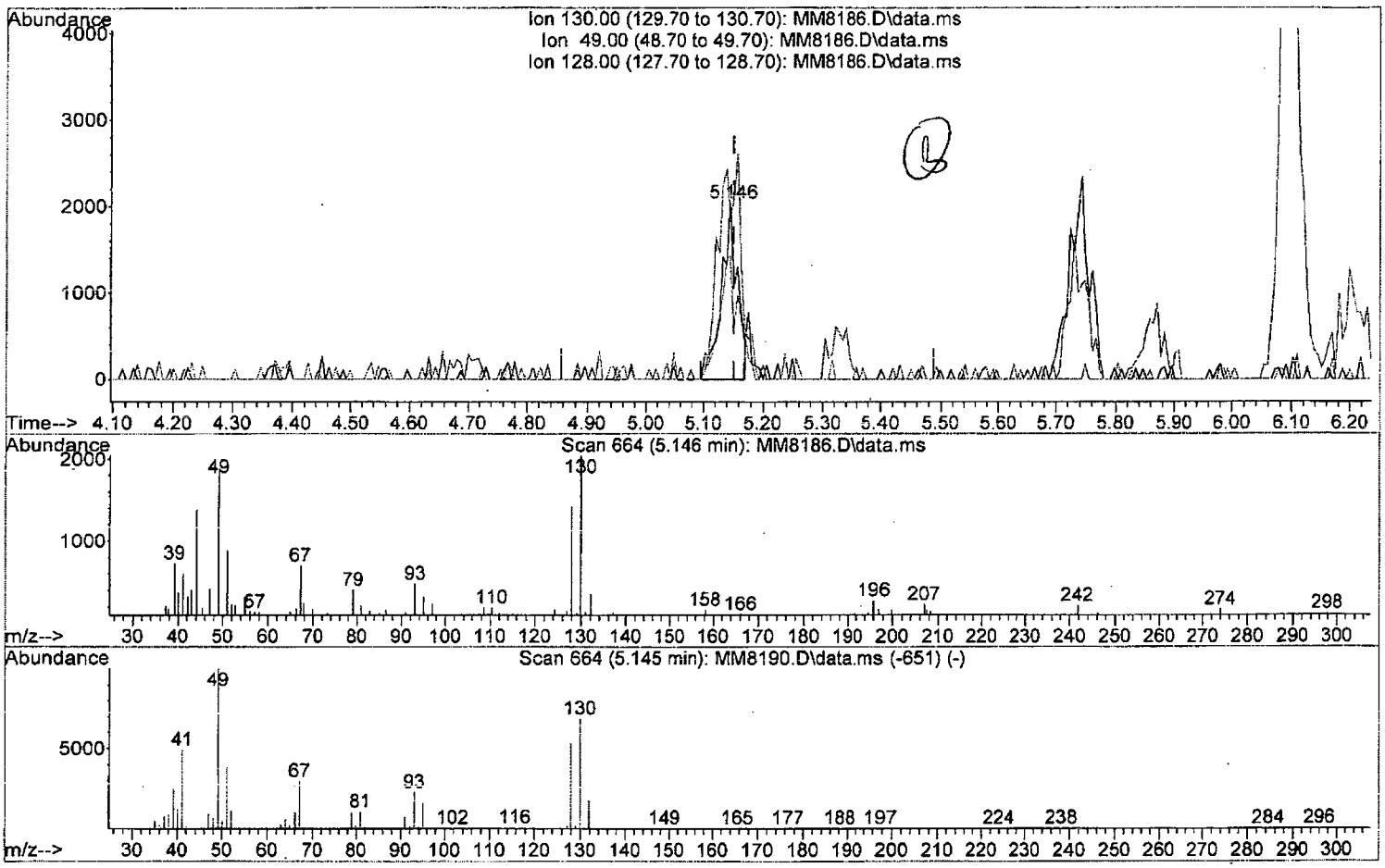
response 3790

Ion	Exp%	Act%
54.00	100	100
55.00	19.40	8.32
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(37) Bromochloromethane

5.146min (-0.006) 0.95 ppb

response 3786

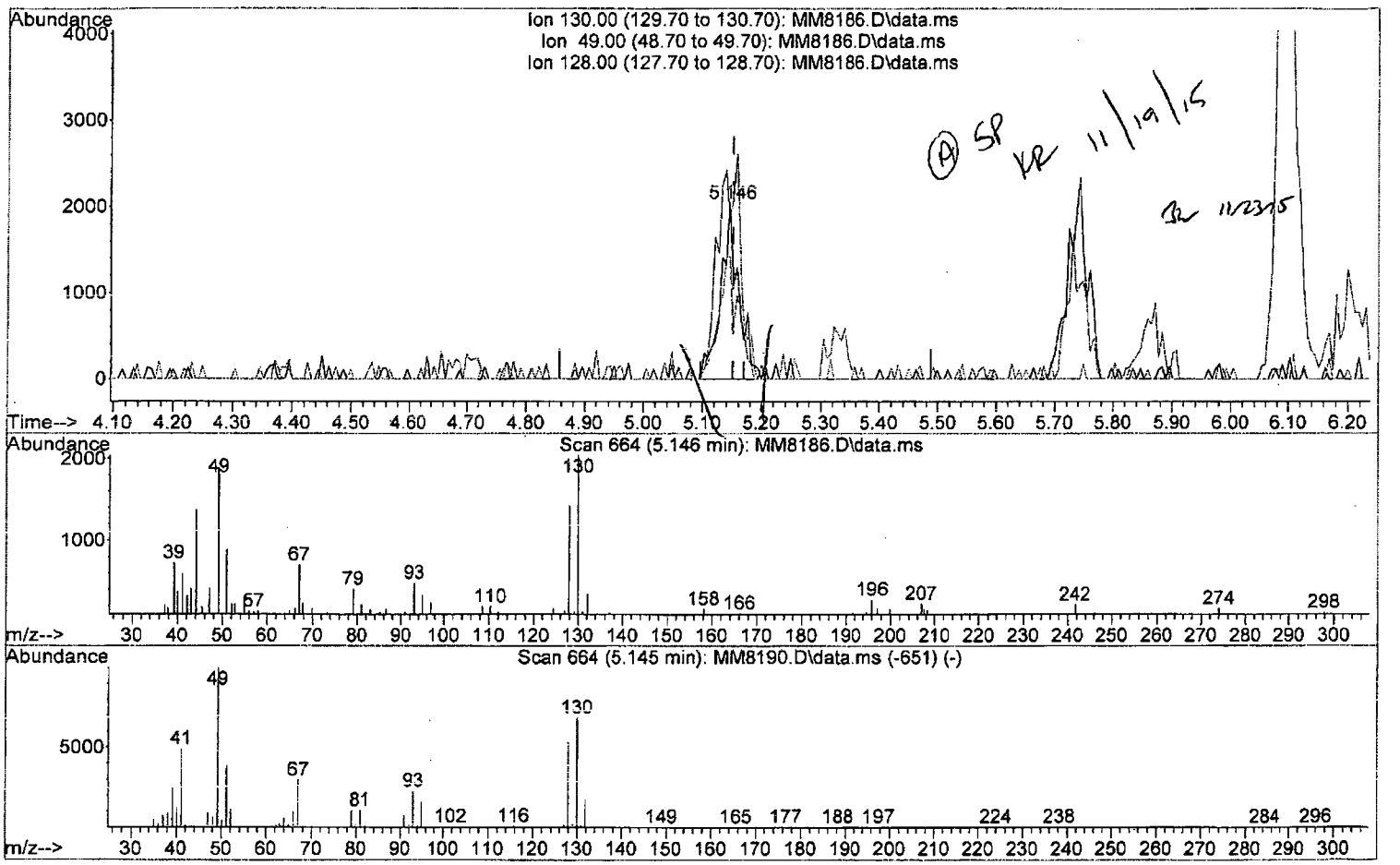
Ion	Exp%	Act%
130.00	100	100
49.00	145.50	92.39#
128.00	77.50	69.86
0.00	0.00	0.00

W111815.M Thu Nov 19 10:03:25 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(37) Bromochloromethane

5.146min (-0.006) 1.06 ppb m

response 4232

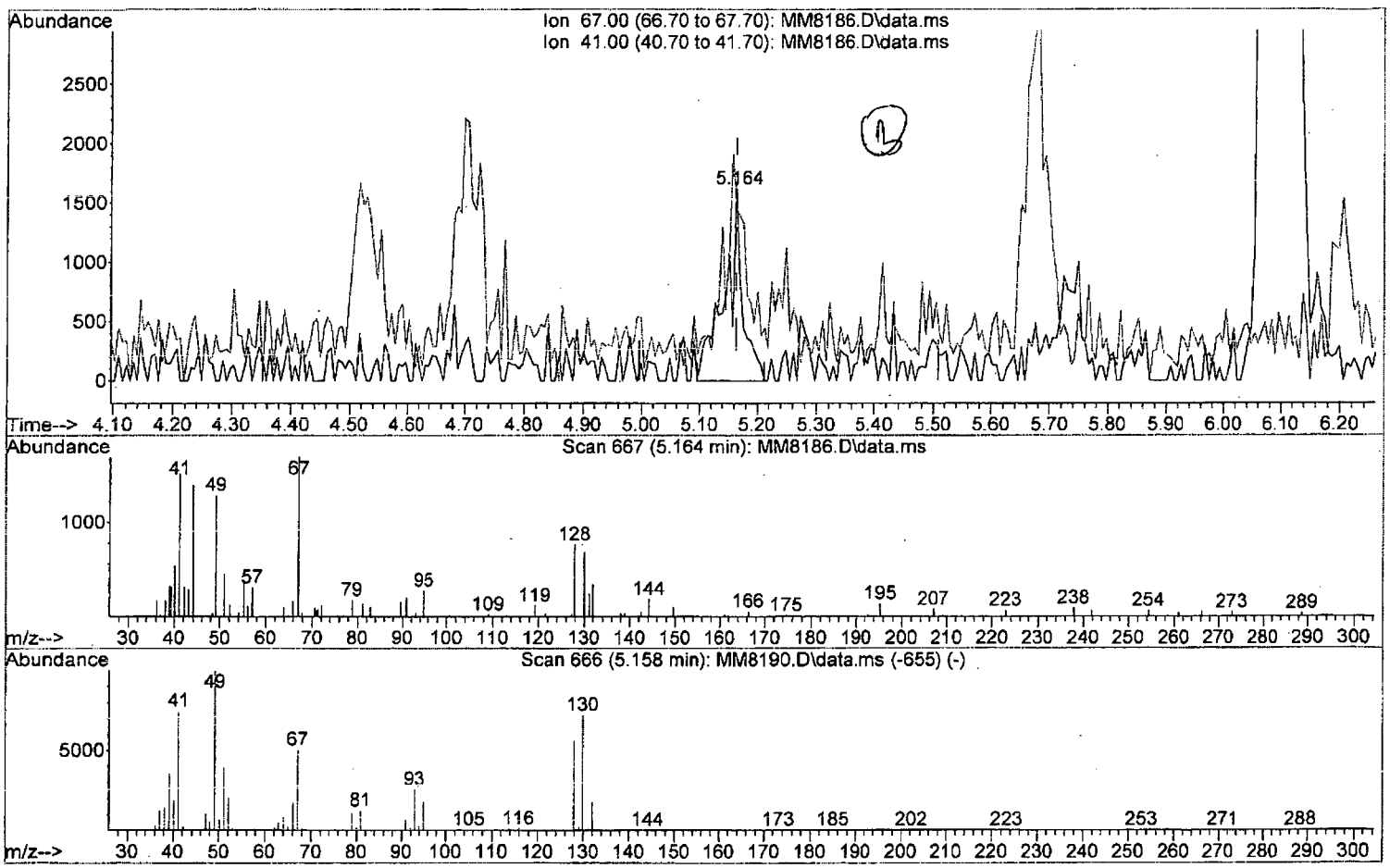
Ion	Exp%	Act%
130.00	100	100
49.00	145.50	92.39#
128.00	77.50	69.86
0.00	0.00	0.00

W111815.M Thu Nov 19 10:03:33 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(38) Methacrylonitrile

5.164min (0.000) 1.47 ppb

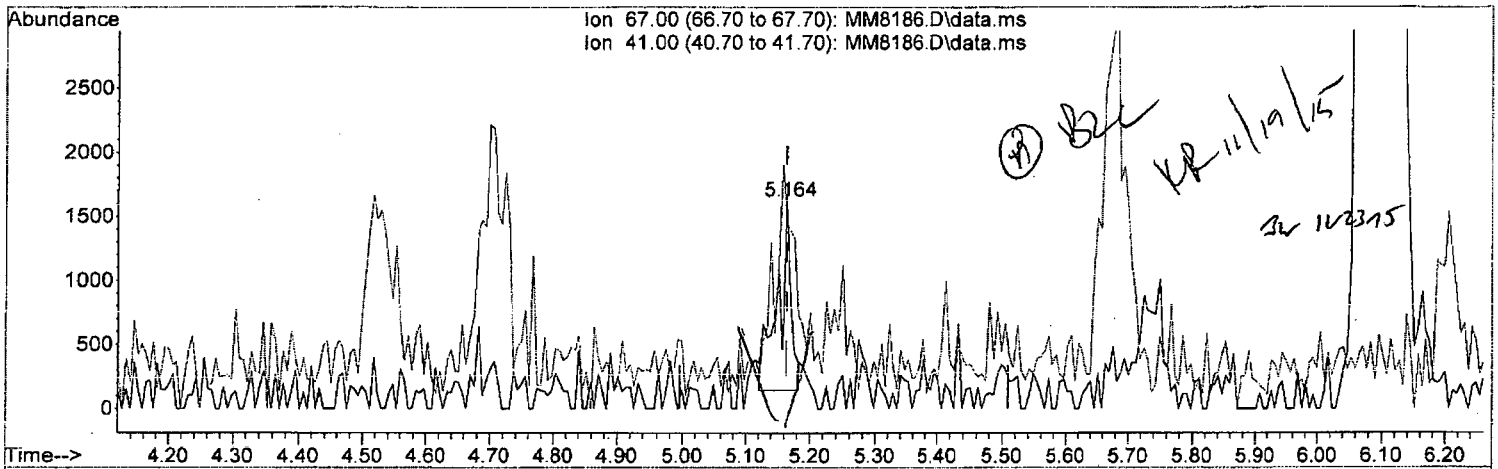
response 3449

Ion	Exp%	Act%
67.00	100	100
41.00	148.70	90.23#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(38) Methacrylonitrile

5.164min (0.000) 0.91 ppb m

response 2125

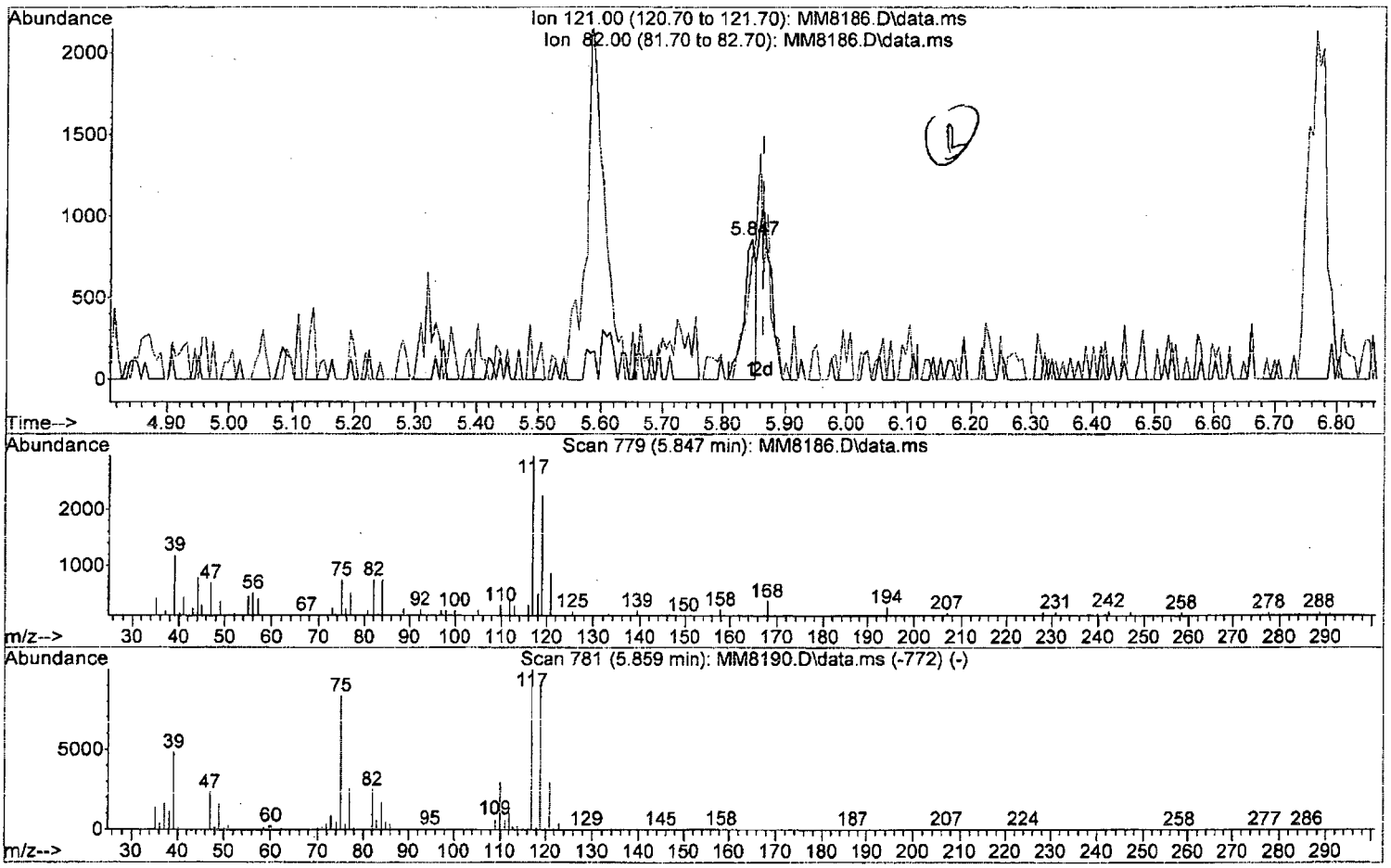
Ion	Exp%	Act%
67.00	100	100
41.00	148.70	90.23#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:04:22 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(46) Carbontetrachloride (P)

5.847min (-0.018) 0.47 ppb

response 1154

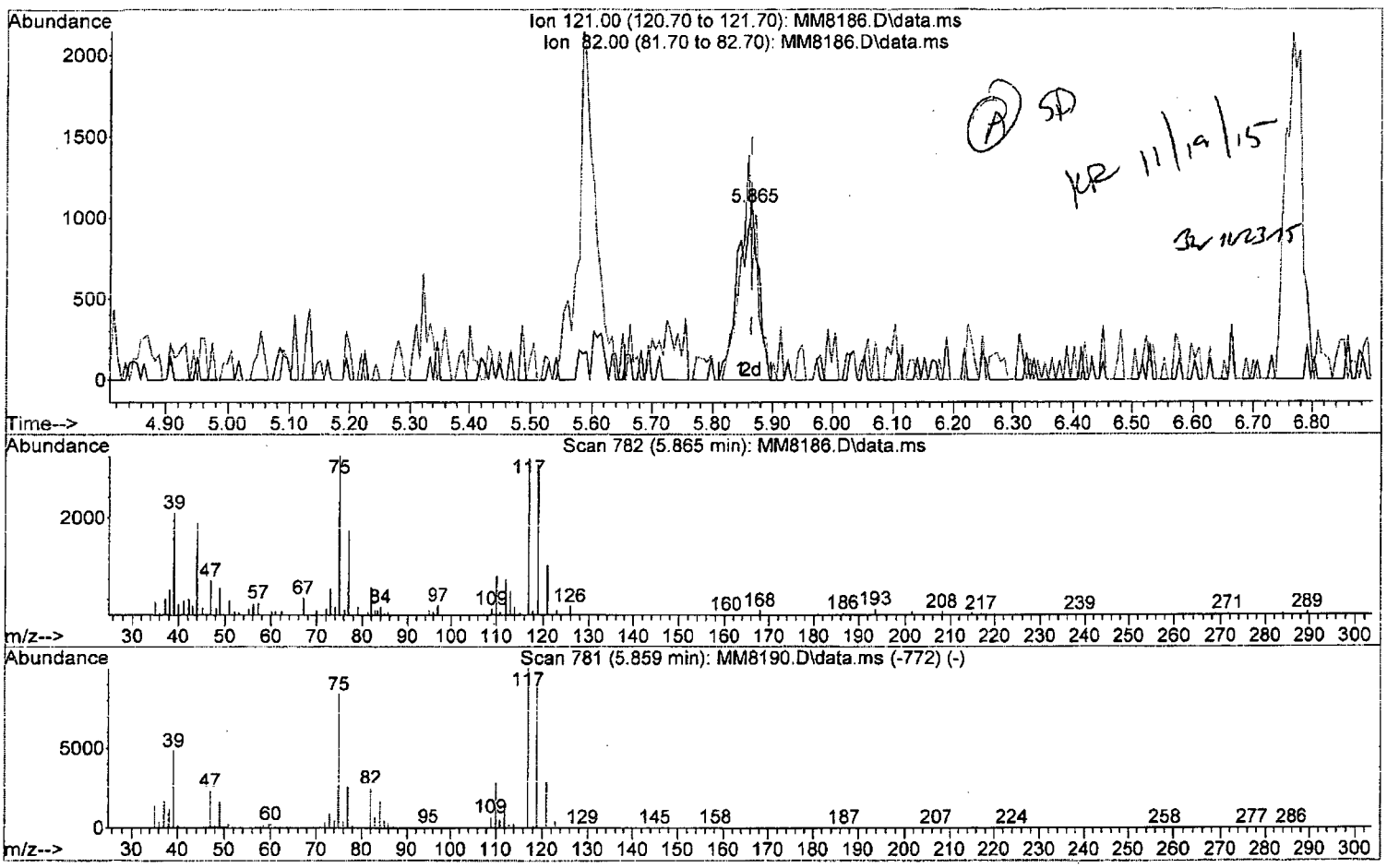
Ion	Exp%	Act%
121.00	100	100
82.00	85.40	86.13
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:04:38 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(46) Carbontetrachloride (P)

5.865min (0.000) 1.04 ppb m

response 2566

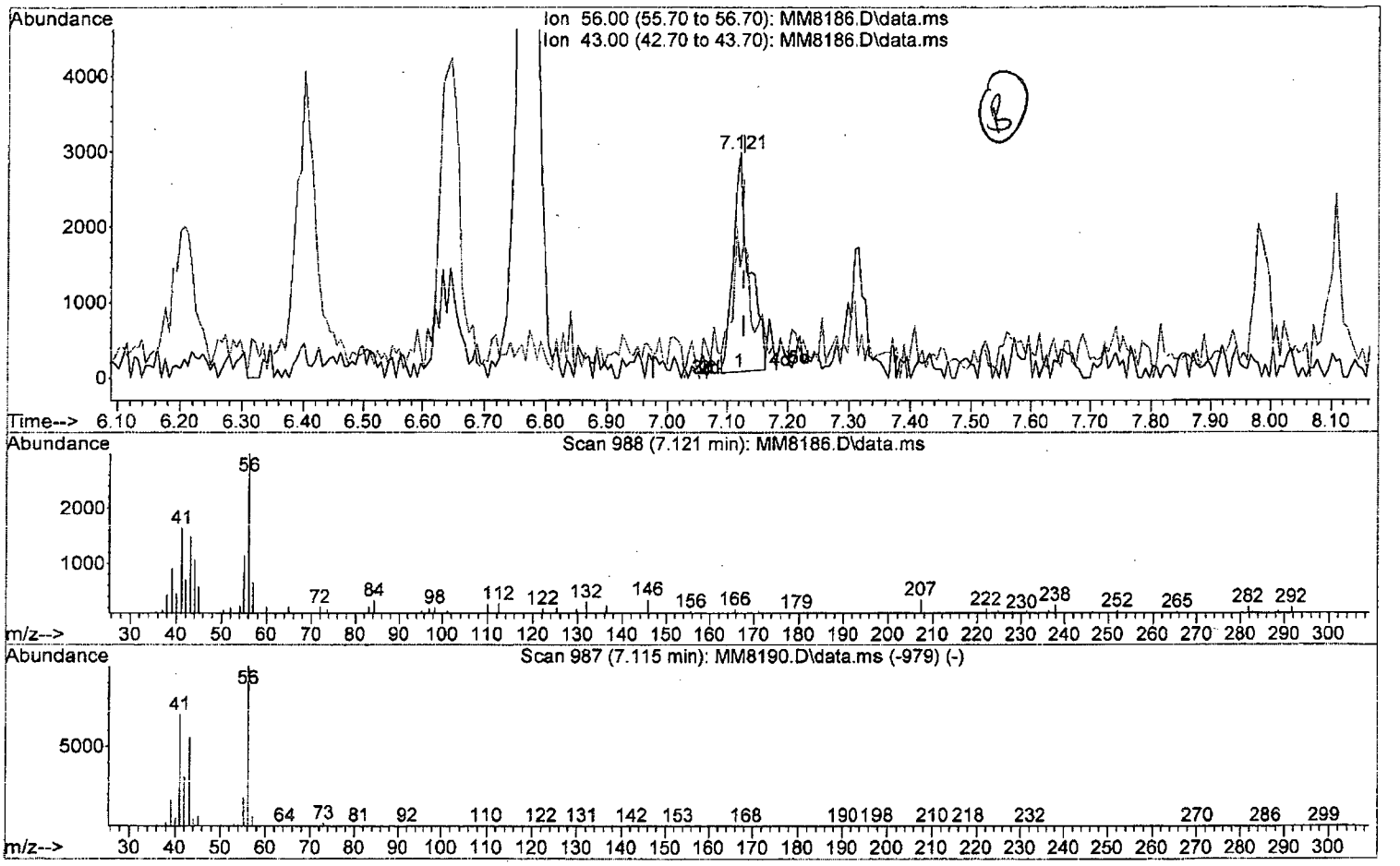
Ion	Exp%	Act%
121.00	100	100
82.00	85.40	59.19#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 14:17:10 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(53) 1-Butanol

7.121min (-0.006) 37.24 ppb

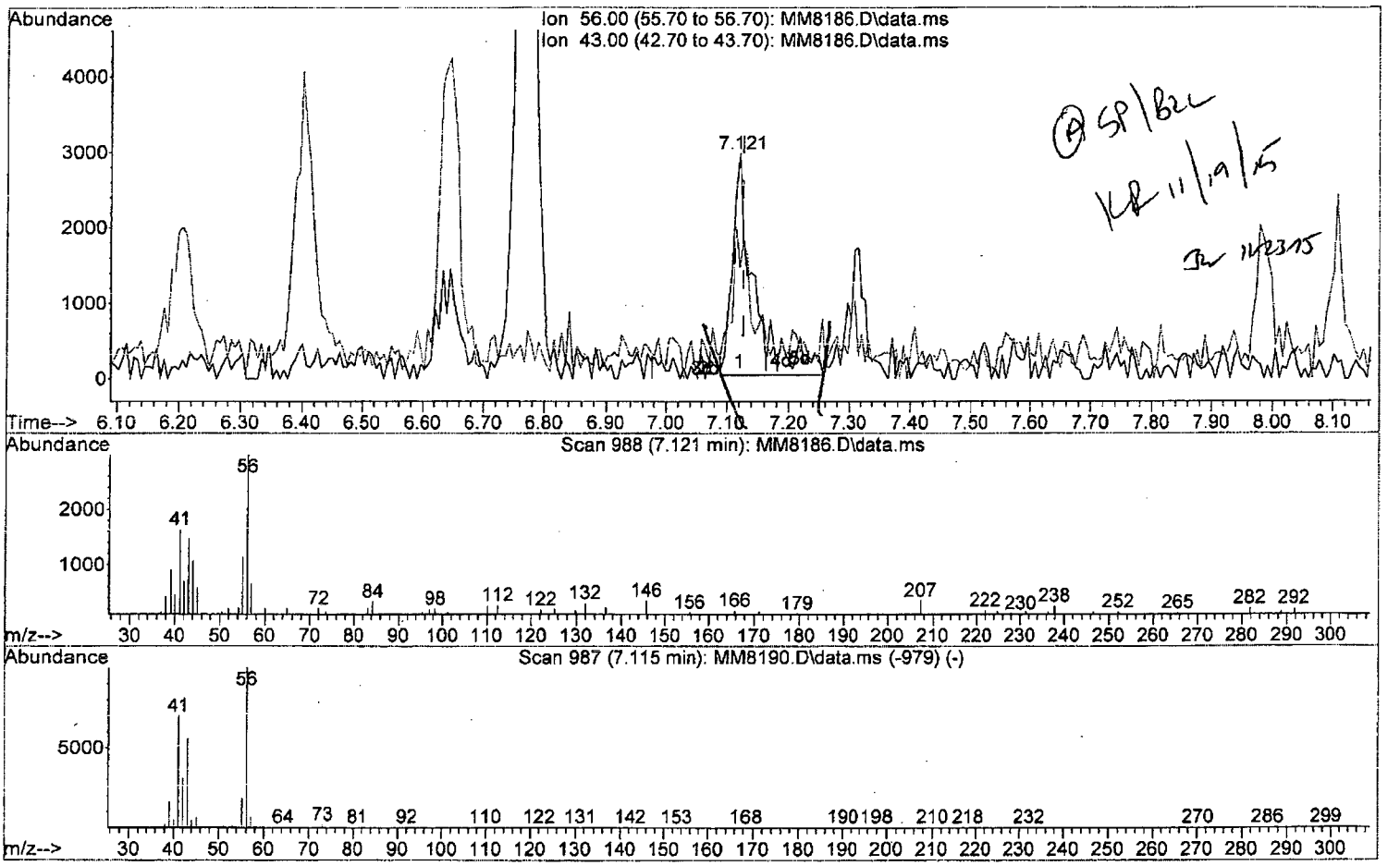
response 5473

Ion	Exp%	Act%
56.00	100	100
43.00	54.90	76.70#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(53) 1-Butanol

7.121min (-0.006) 48.37 ppb m

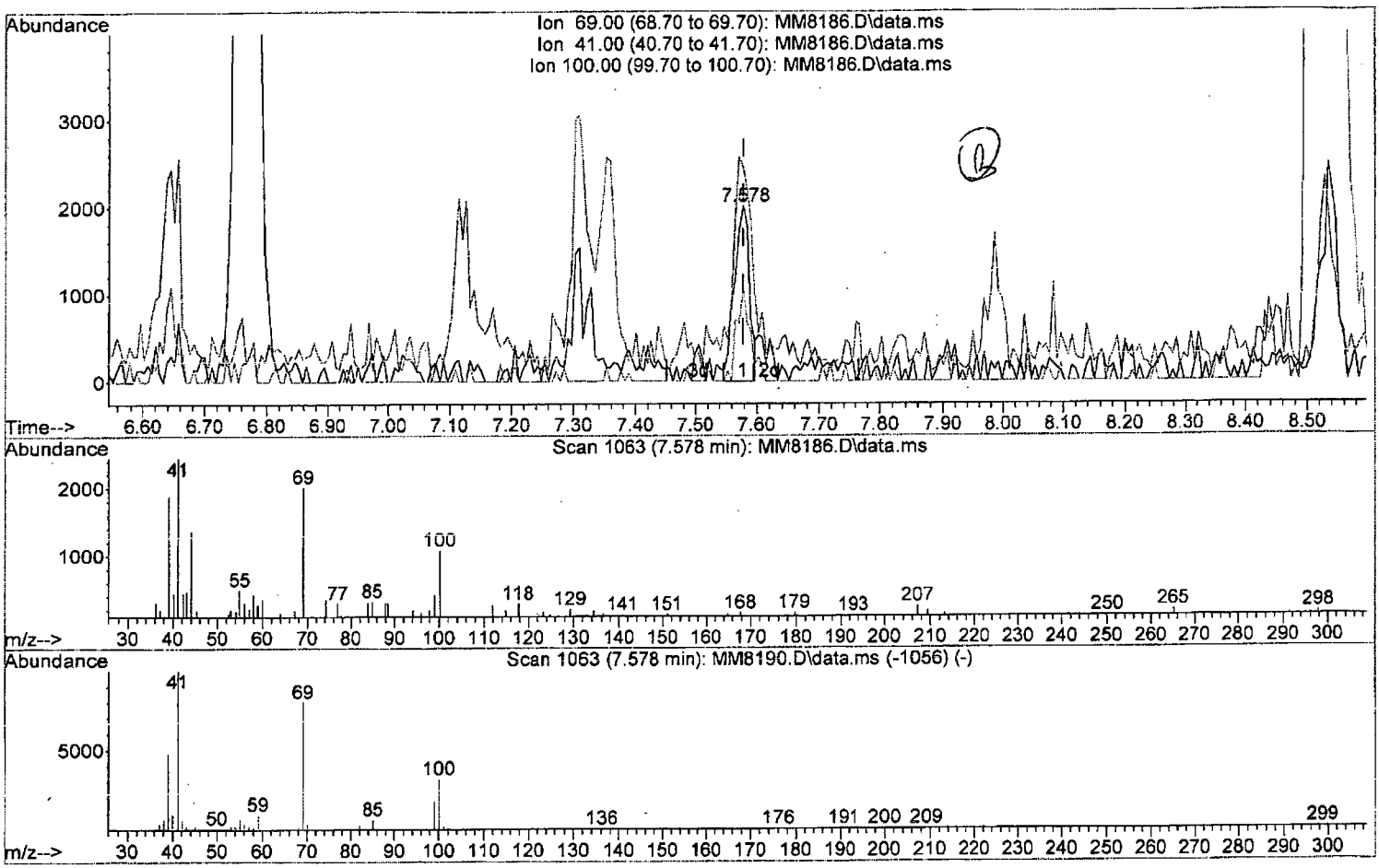
response 7108

Ion	Exp%	Act%
56.00	100	100
43.00	54.90	59.06
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(59) Methyl Methacrylate

7.578min (0.000) 0.83 ppb

response 3317

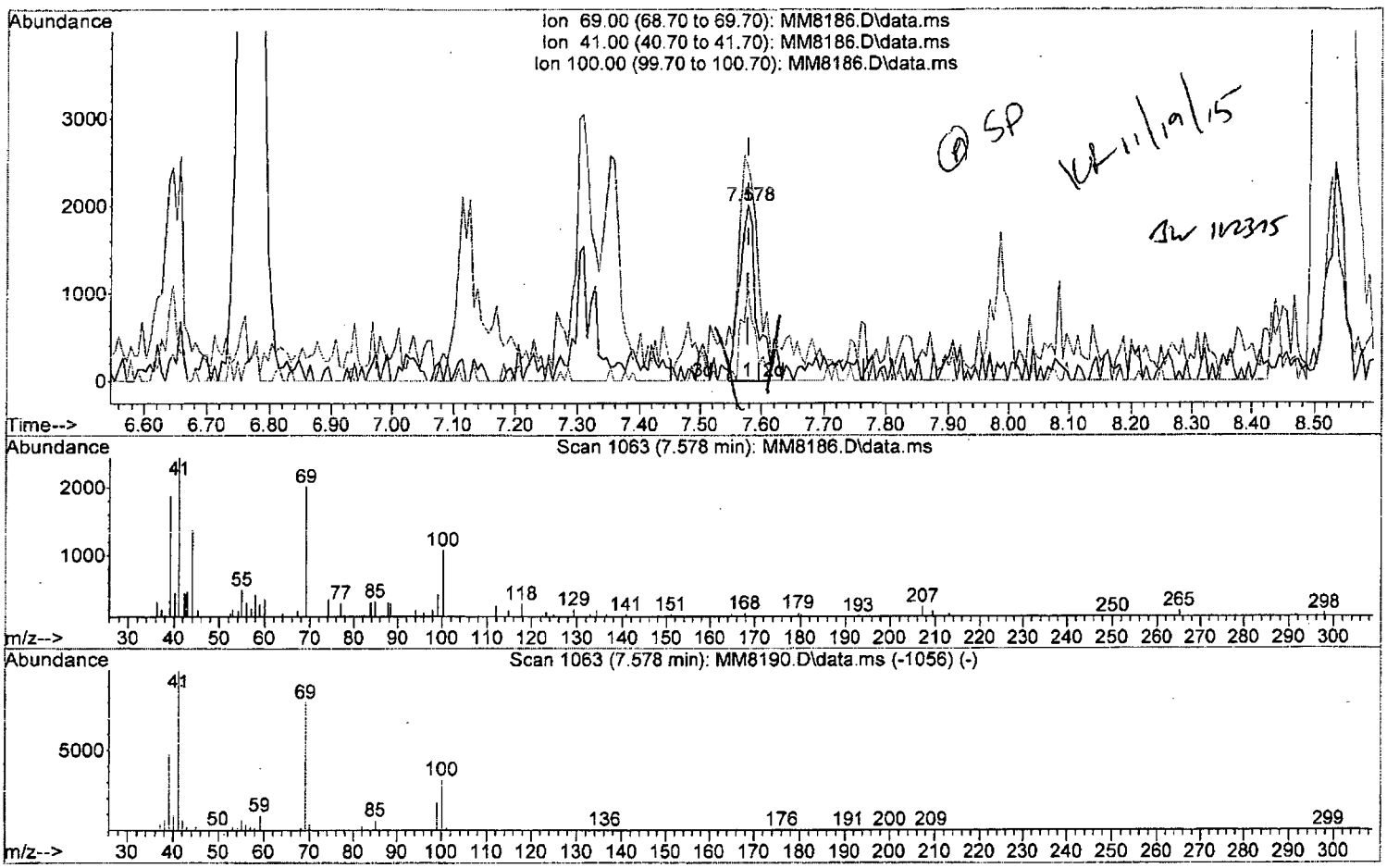
Ion	Exp%	Act%
69.00	100	100
41.00	125.30	121.57
100.00	39.20	53.46
0.00	0.00	0.00

W111815.M Thu Nov 19 10:06:20 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(59) Methyl Methacrylate

7.578min (0.000) 0.94 ppb m

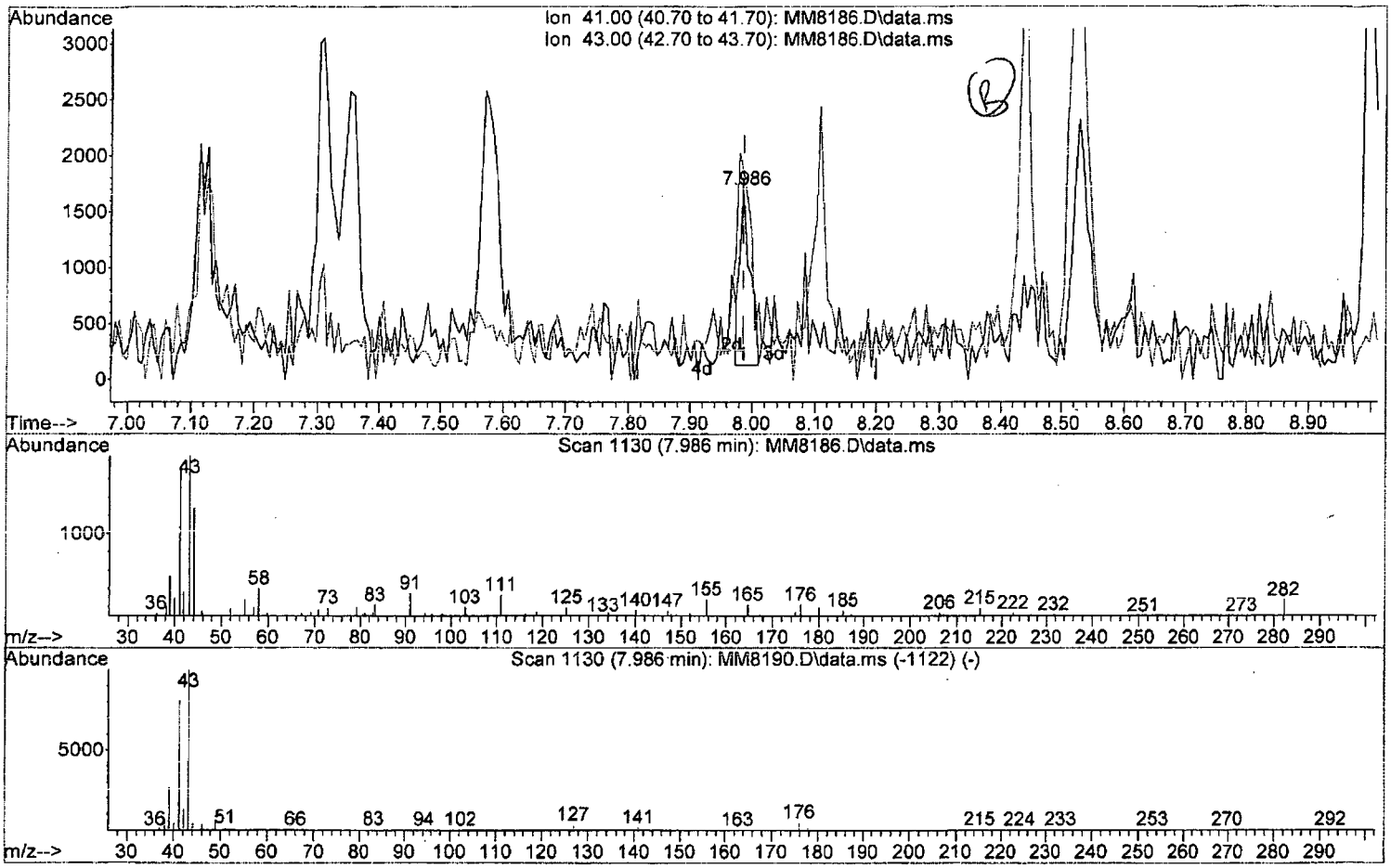
response 3768

Ion	Exp%	Act%
69.00	100	100
41.00	125.30	121.57
100.00	39.20	53.46
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(61) 2-Nitropropane

7.986min (-0.000) 1.38 ppb

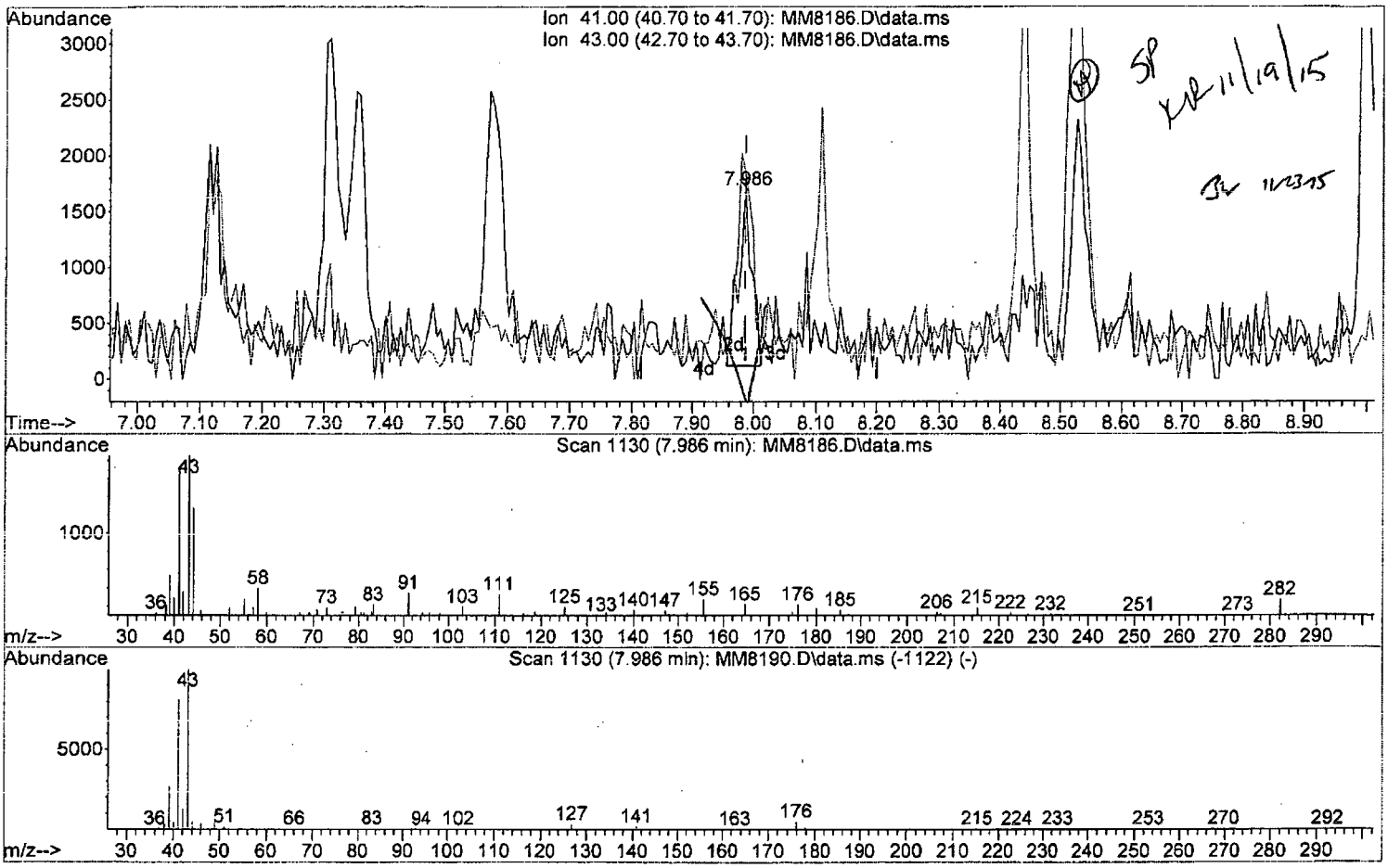
response 1743

Ion	Exp%	Act%
41.00	100	100
43.00	123.30	108.72
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:06:41 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(61) 2-Nitropropane

7.986min (-0.000) 1.86 ppb m

response 2354

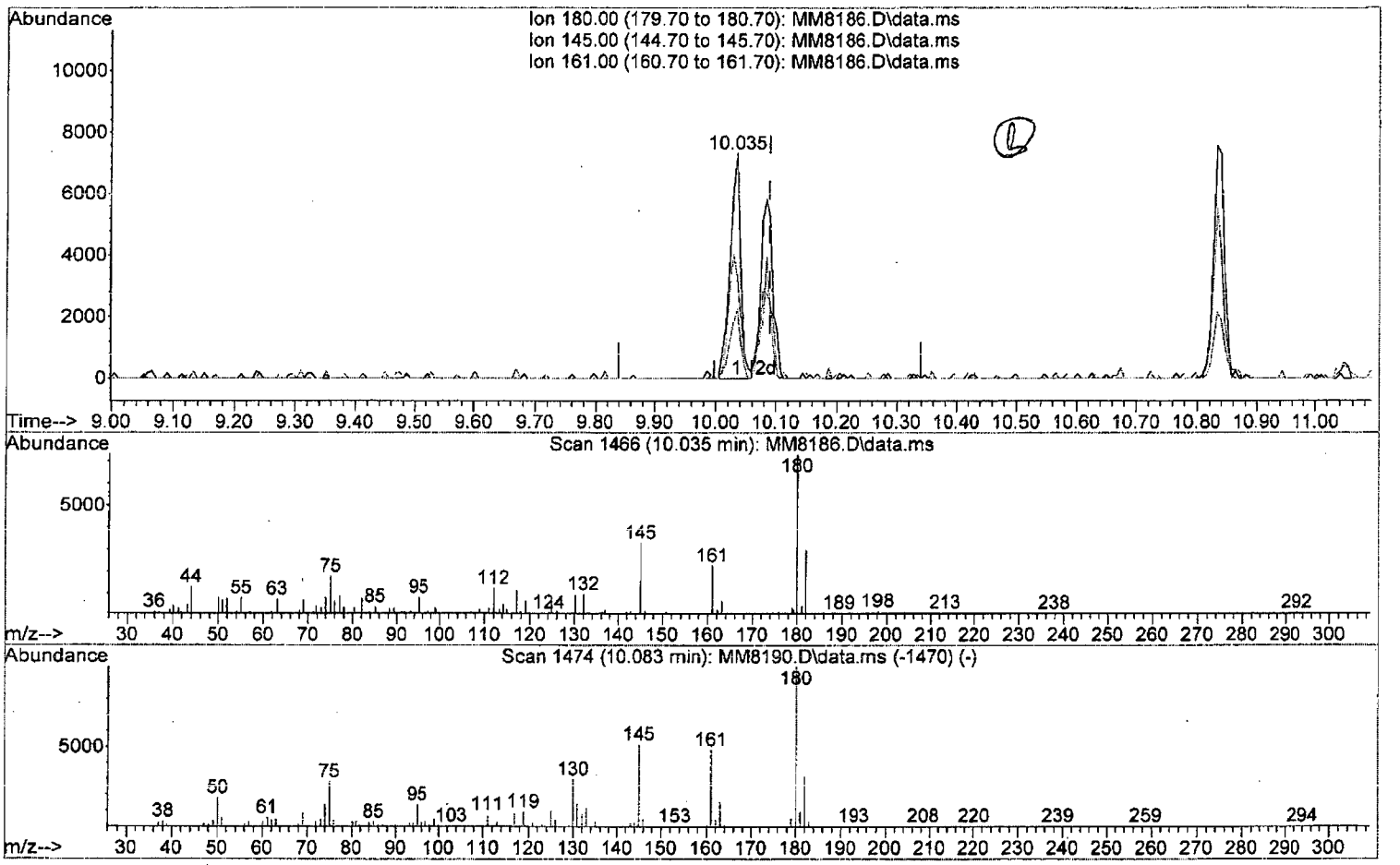
Ion	Exp%	Act%
41.00	100	100
43.00	123.30	108.72
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:06:57 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(80) 4-CBTF

10.035min (-0.055) 1.13 ppb

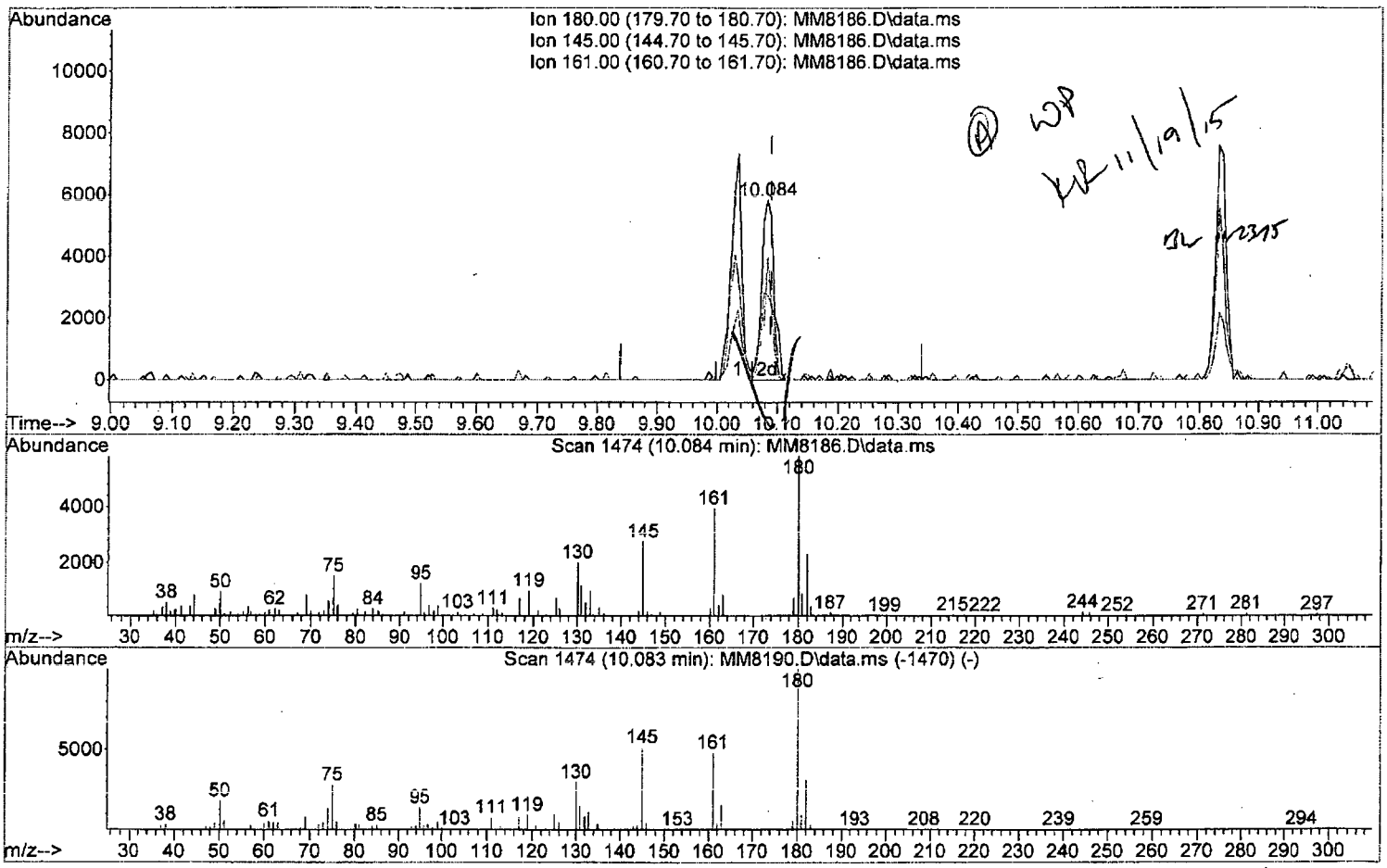
response 8890

Ion	Exp%	Act%
180.00	100	100
145.00	51.80	44.88
161.00	47.80	30.85
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(80) 4-CBTF

10.084min (-0.006) 1.04 ppb m

response 8238

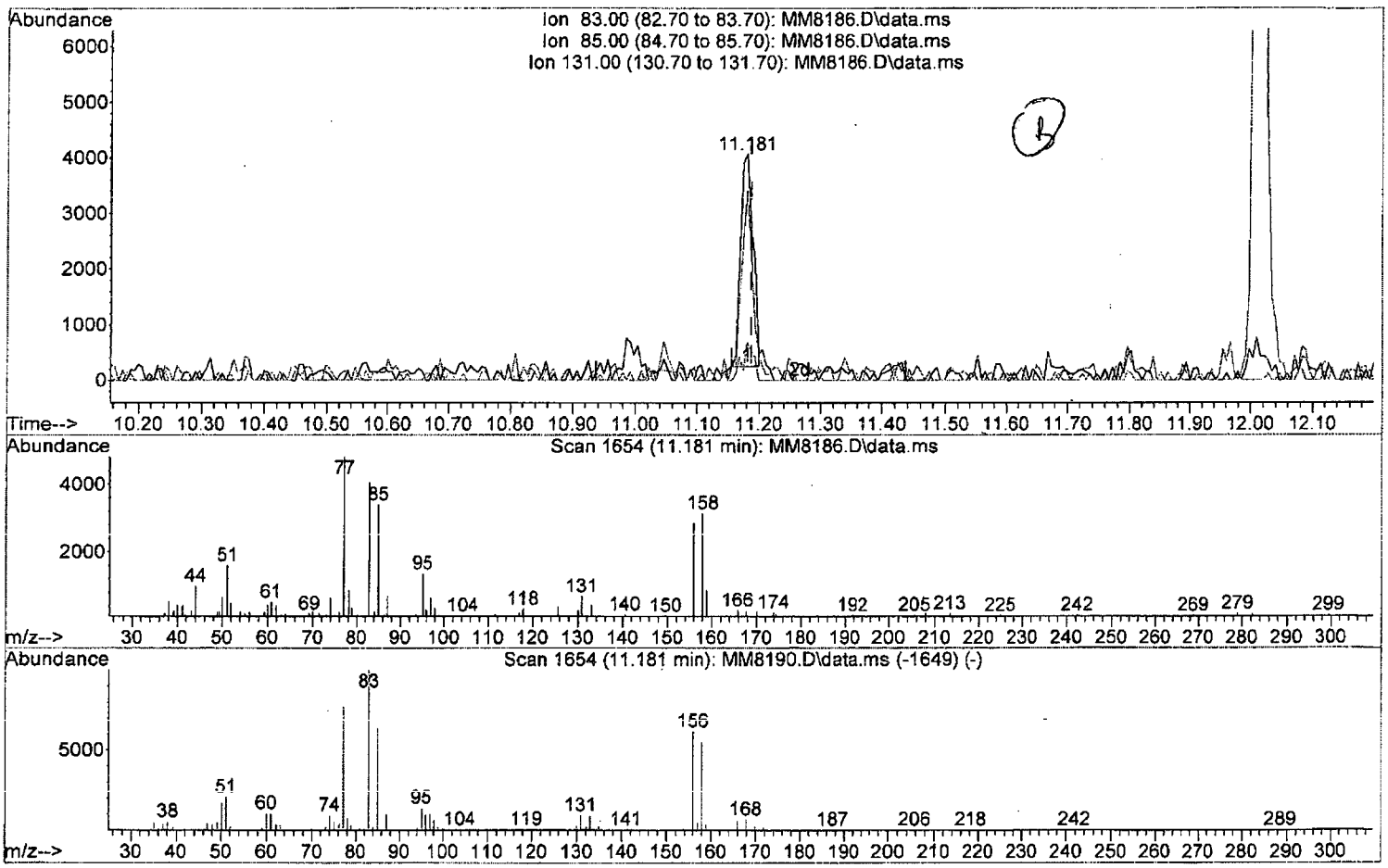
Ion	Exp%	Act%
180.00	100	100
145.00	51.80	47.49
161.00	47.80	67.95#
0.00	0.00	0.00

W111815.M Thu Nov 19 10:07:34 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(92) 1,1,2,2-Tetrachloroethane (P)

11.181min (-0.006) 0.86 ppb

response 5194

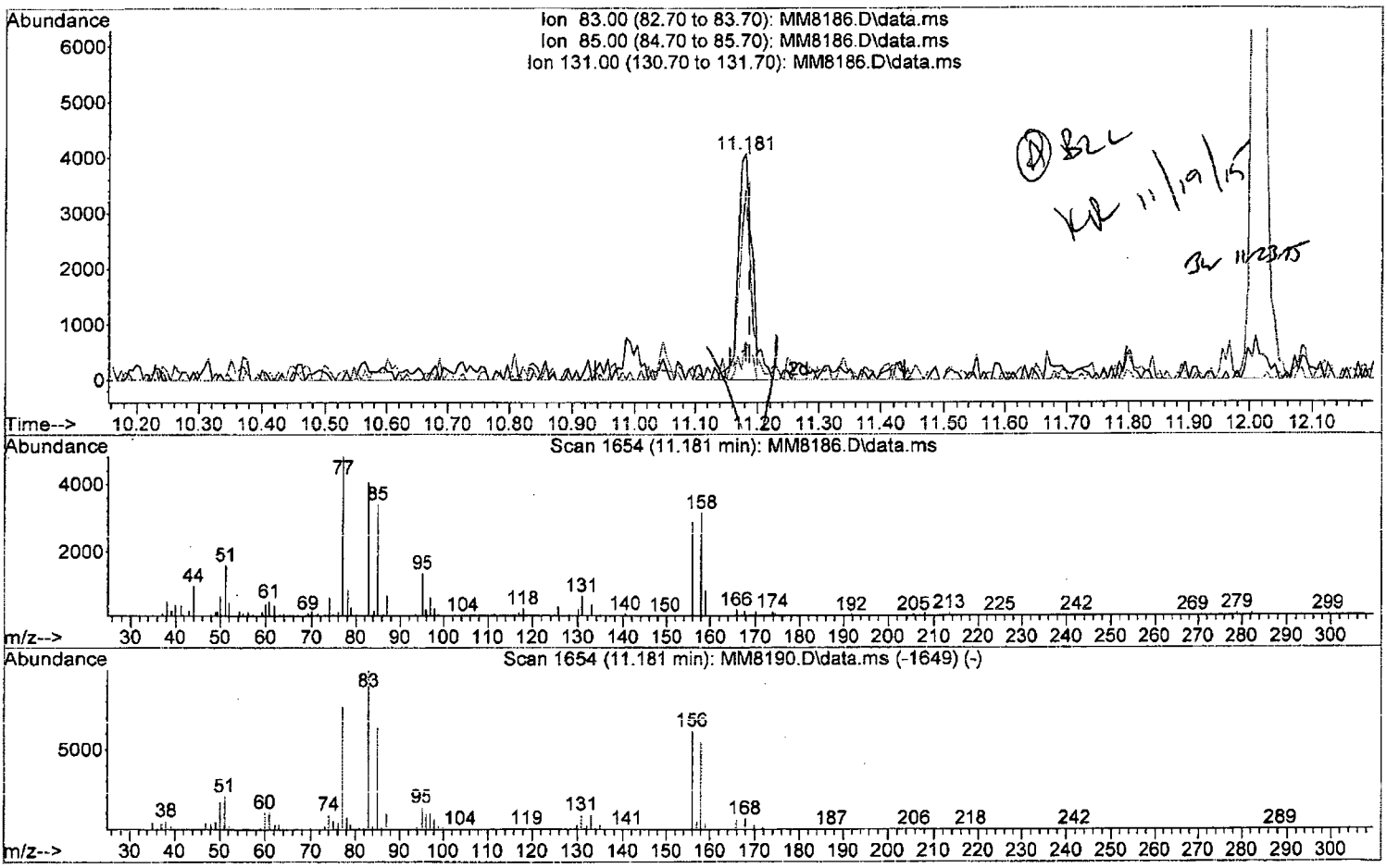
Ion	Exp%	Act%
83.00	100	100
85.00	63.60	83.77#
131.00	9.20	16.80
0.00	0.00	0.00

W111815.M Thu Nov 19 10:07:51 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(92) 1,1,2,2-Tetrachloroethane (P)

11.181min (-0.006) 1.07 ppb m

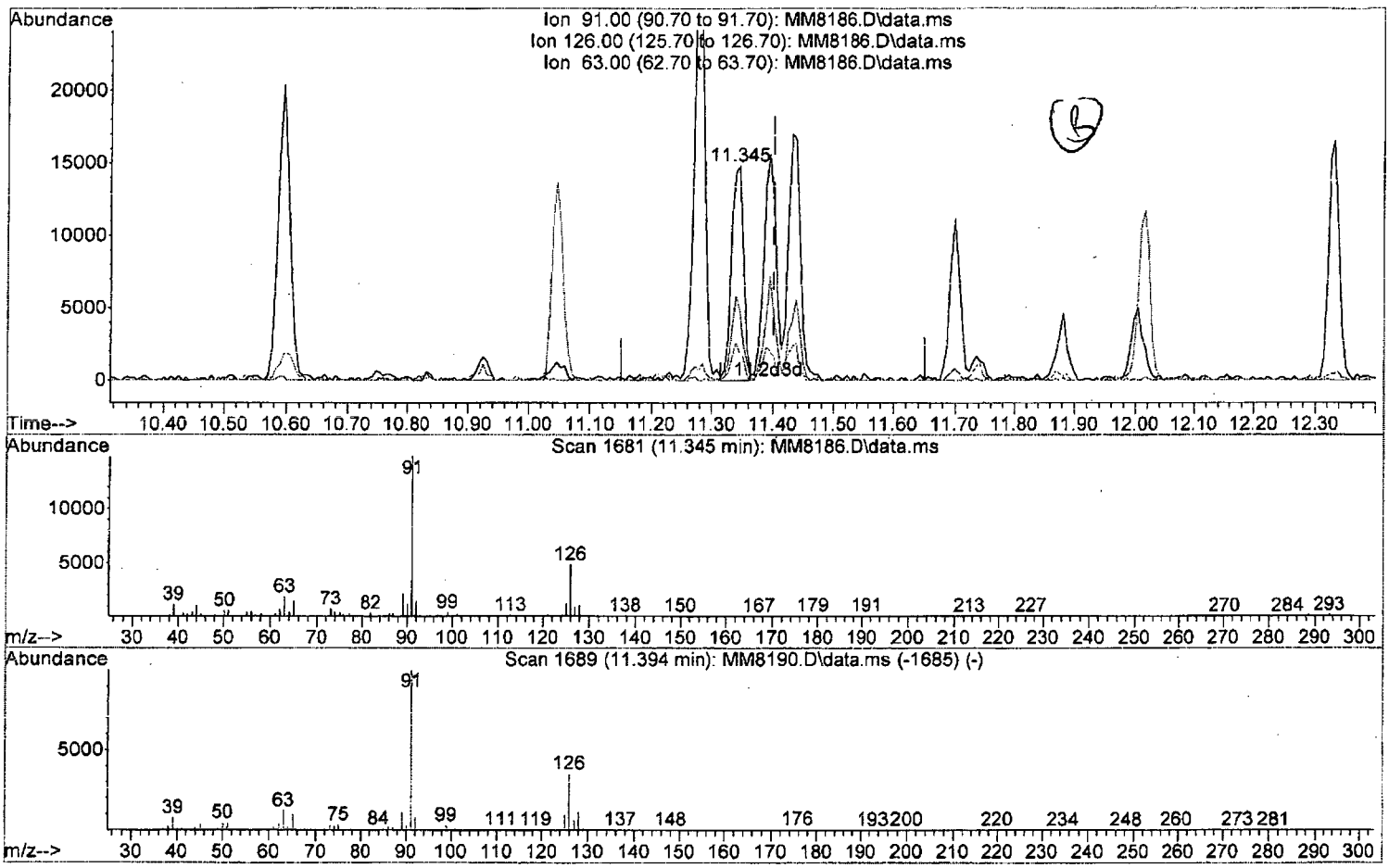
response 6432

Ion	Exp%	Act%
83.00	100	100
85.00	63.60	83.77#
131.00	9.20	16.80
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(97) 3-Chlorotoluene

11.345min (-0.055) 0.95 ppb

response 20042

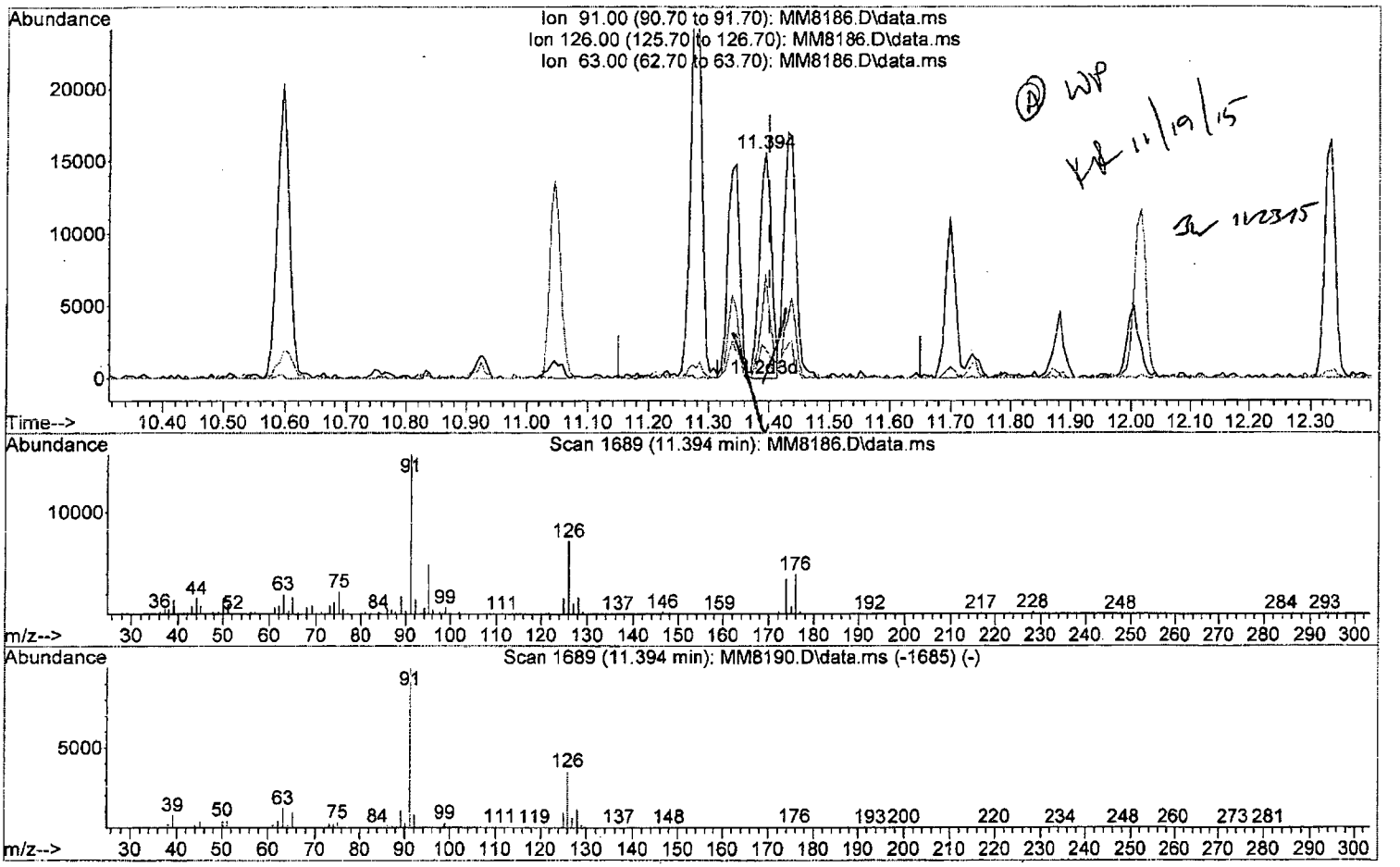
Ion	Exp%	Act%
91.00	100	100
126.00	35.20	32.78
63.00	12.10	12.79
0.00	0.00	0.00

W111815.M Thu Nov 19 10:08:10 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(97) 3-Chlorotoluene

11.394min (-0.006) 1.01 ppb m

response 21392

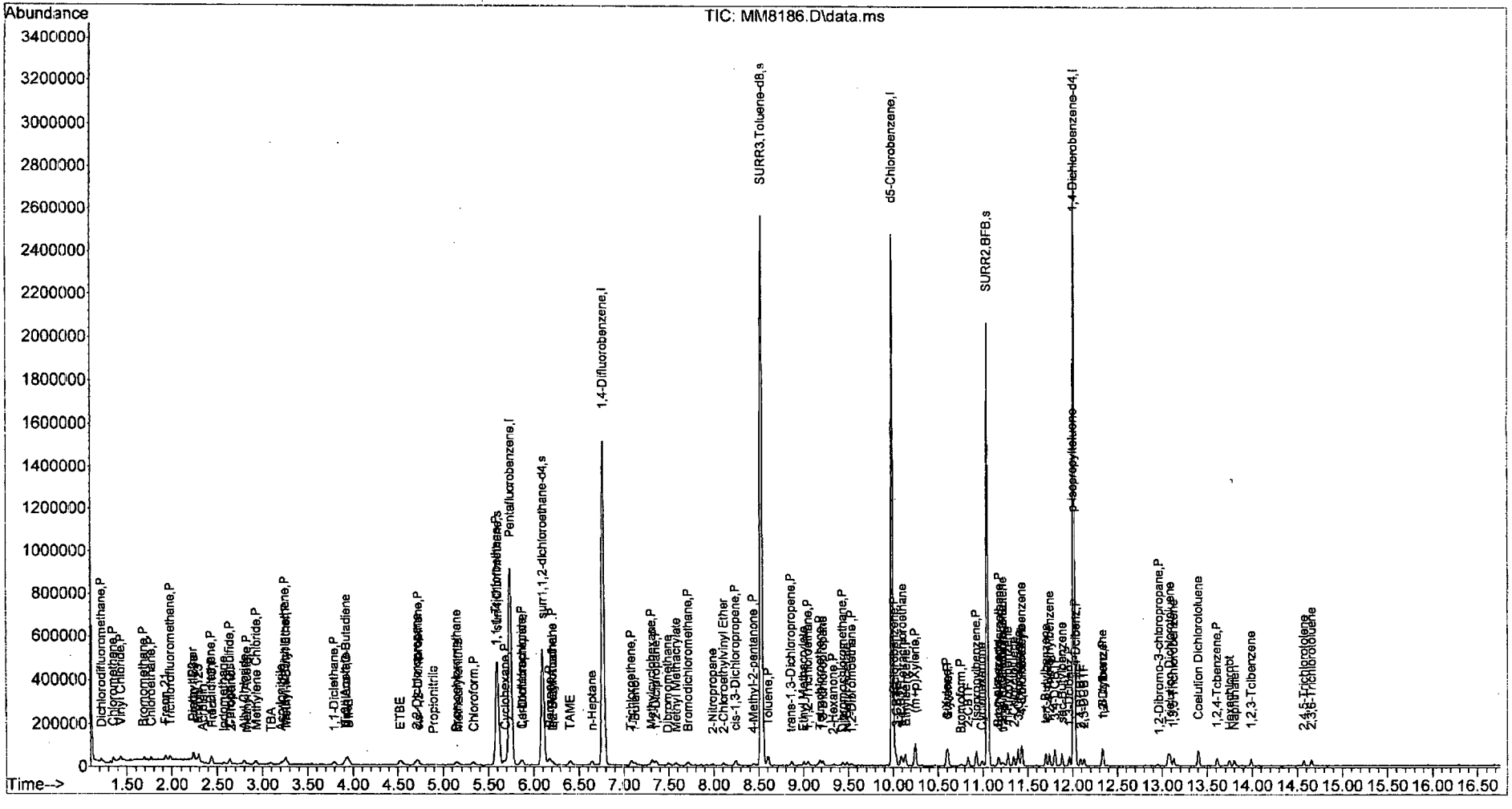
Ion	Exp%	Act%
91.00	100	100
126.00	35.20	45.92#
63.00	12.10	12.97
0.00	0.00	0.00

W111815.M Thu Nov 19 10:08:19 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 10:30:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	761220	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1261233	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1134883	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	567136	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	426248	60.27	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 120.54%#				
48) surr1,1,2-dichloroetha...	6.096	65	462111	59.83	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 119.66%				
65) SURR3,Toluene-d8	8.529	98	1817117	59.60	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 119.20%				
70) SURR2,BFB	11.047	95	681412	60.91	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 121.82%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	19630m	1.82	ppb		
3) Chloromethane	1.347	50	26367	2.06	ppb		100
4) Vinyl Chloride	1.433	62	23228	1.95	ppb		97
5) Bromomethane	1.689	94	12452	2.11	ppb		92
6) Chloroethane	1.768	64	13809	2.07	ppb		91
7) Freon 21	1.926	67	26902m	2.09	ppb		
8) Trichlorofluoromethane	1.975	101	19339	2.08	ppb		88
9) Diethyl Ether	2.237	59	10967	1.88	ppb		91
10) Freon 123a	2.237	67	18149	2.16	ppb		93
11) Freon 123	2.292	83	20494	2.10	ppb		97
12) Acrolein	2.347	56	2810	4.33	ppb		85
13) 1,1-Diclethene	2.432	96	12972	1.99	ppb		97
14) Freon 113	2.438	101	12607	2.18	ppb		92
15) Acetone	2.493	43	4914	3.04	ppb		95
16) 2-Propanol	2.670	45	12966	42.11	ppb		85
17) Iodomethane	2.573	142	12617m	1.77	ppb		
18) Carbon Disulfide	2.634	76	46103	2.17	ppb		95
19) Acetonitrile	2.768	40	2255	10.02	ppb	#	79
20) Allyl Chloride	2.798	76	6762	1.91	ppb	#	74
21) Methyl Acetate	2.841	43	8044	2.13	ppb		97
22) Methylene Chloride	2.926	84	16272	2.21	ppb		90
23) TBA	3.097	59	19908	39.84	ppb		98
24) Acrylonitrile	3.213	53	19909	10.76	ppb	#	81
25) Methyl-t-Butyl Ether	3.268	73	36529	2.06	ppb		97
26) trans-1,2-Dichloroethene	3.249	96	14800	2.17	ppb	#	79
28) 1,1-Diclethane	3.786	63	25132	2.06	ppb		92
29) Vinyl Acetate	3.914	86	2894m	2.20	ppb		
30) DIPE	3.944	45	52538	2.21	ppb		98
31) 2-Chloro-1,3-Butadiene	3.926	53	26038	2.13	ppb		90
32) ETBE	4.530	59	47683	2.13	ppb		87
33) 2,2-Dichloropropane	4.700	77	20552	2.11	ppb	#	75
34) cis-1,2-Dichloroethene	4.725	96	16202m	2.13	ppb		
35) 2-Butanone	4.786	43	5176m	2.30	ppb		
36) Propionitrile	4.883	54	7224m	10.64	ppb		

KR 11/19/15

W111815.M Thu Nov 19 10:31:03 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 10:30:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	8261m	2.09	ppb		
38) Methacrylonitrile	5.157	67	4737	2.05	ppb	#	83
39) Tetrahydrofuran	5.249	42	3117	2.10	ppb		84
40) Chloroform	5.328	83	23962	2.02	ppb		96
41) 1,1,1-Trichloroethane	5.603	97	19331	2.08	ppb		90
42) TAME	6.407	73	41257	2.17	ppb		91
44) Cyclohexane	5.682	41	13705	2.00	ppb		94
46) Carbontetrachloride	5.859	121	4905	2.02	ppb	#	73
47) 1,1-Dichloropropene	5.871	75	18711	2.09	ppb		94
49) Benzene	6.169	78	58050	2.09	ppb		97
50) 1,2-Dichloroethane	6.212	62	14828	2.08	ppb		85
51) Iso-Butyl Alcohol	6.212	43	10719	46.07	ppb		77
52) n-Heptane	6.639	43	16798	2.20	ppb		79
53) 1-Butanol	7.127	56	16877m	116.00	ppb		
54) Trichloroethene	7.078	130	13540	1.92	ppb		87
55) Methylcyclohexane	7.316	55	18529	2.21	ppb	#	80
56) 1,2-Diclpropane	7.358	63	13548	1.97	ppb		87
57) Dibromomethane	7.498	93	7116m	2.10	ppb		
58) 1,4-Dioxane	7.559	88	2224m	43.47	ppb		
59) Methyl Methacrylate	7.578	69	8662	2.18	ppb	#	72
60) Bromodichloromethane	7.712	83	16774	1.99	ppb		91
61) 2-Nitropropane	7.992	41	5596m	4.47	ppb		
62) 2-Chloroethylvinyl Ether	8.108	63	8312	2.19	ppb		98
63) cis-1,3-Dichloropropene	8.236	75	23217	2.05	ppb		93
64) 4-Methyl-2-pentanone	8.443	43	9911	1.97	ppb		94
66) Toluene	8.602	91	60621	2.11	ppb		99
67) trans-1,3-Dichloropropene	8.864	75	18154	2.02	ppb		91
68) Ethyl Methacrylate	8.998	69	15311	1.93	ppb		89
69) 1,1,2-Trichloroethane	9.053	97	9918	2.04	ppb		98
72) Tetrachloroethene	9.181	164	9847	2.09	ppb	#	81
73) 2-Hexanone	9.333	43	8140	2.34	ppb		86
74) 1,3-Dichloropropane	9.212	76	18377	2.13	ppb		90
75) Dibromochloromethane	9.431	129	10916	2.03	ppb		94
76) N-Butyl Acetate	9.480	43	17047	2.07	ppb		90
77) 1,2-Dibromoethane	9.529	107	9232	2.01	ppb		83
78) Chlorobenzene	10.016	112	36503	2.17	ppb		90
79) 3-CBTF	10.028	180	17756	2.13	ppb		92
80) 4-CBTF	10.083	180	15972	2.06	ppb		96
81) 1,1,1,2-Tetrachloroethane	10.096	131	11978	2.06	ppb		84
82) Ethylbenzene	10.132	106	20233	2.13	ppb		98
83) (m+p)Xylene	10.242	106	50175	4.27	ppb		99
84) o-Xylene	10.595	106	25571	2.13	ppb		99
85) Styrene	10.608	104	42037	2.15	ppb		99
87) Bromoform	10.760	173	6538	2.03	ppb		97
88) 2-CBTF	10.839	180	18656	2.17	ppb		87
89) Isopropylbenzene	10.925	105	63113	2.14	ppb		97
90) Cyclohexanone	10.992	55	17449	40.81	ppb		84
91) trans-1,4-Dichloro-2-B...	11.229	53	3610m	1.95	ppb		
92) 1,1,2,2-Tetrachloroethane	11.181	83	12981	2.18	ppb		89
93) Bromobenzene	11.168	156	14628	2.19	ppb		99
94) 1,2,3-Trichloropropane	11.211	110	3547	2.02	ppb		93

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 10:30:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

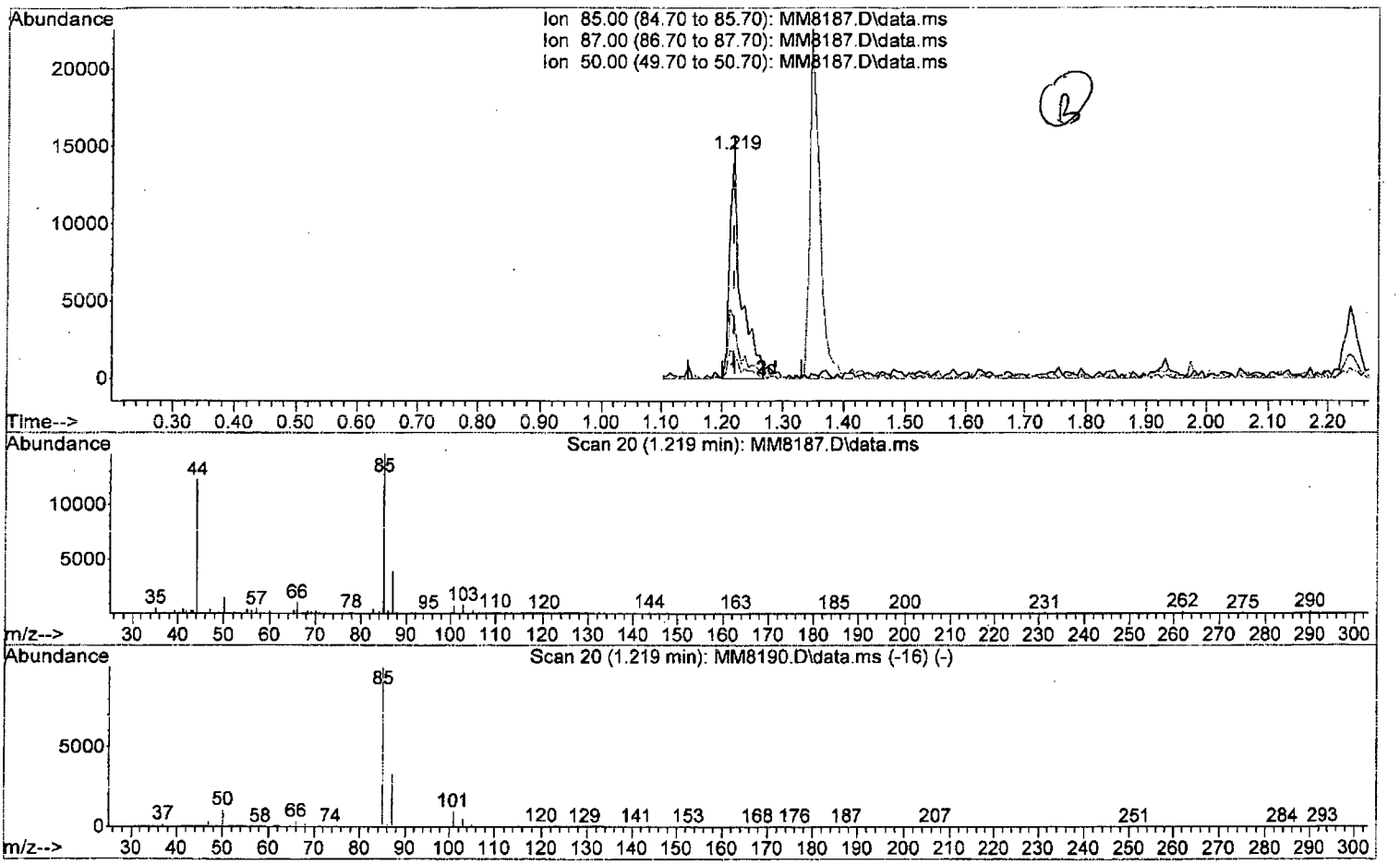
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
95)	n-Propylbenzene	11.278	91	74492	2.19	ppb		93
96)	2-Chlorotoluene	11.339	91	41495	2.08	ppb		94
97)	3-Chlorotoluene	11.394	91	44152	2.11	ppb		95
98)	4-Chlorotoluene	11.437	91	49091	2.18	ppb		95
99)	1,3,5-Trimethylbenzene	11.431	105	48689	2.18	ppb		95
100)	tert-Butylbenzene	11.699	119	41489	2.08	ppb		97
101)	1,2,4-Trimethylbenzene	11.742	105	49599	2.07	ppb		96
102)	3,4-DCBTF	11.796	214	13026	2.26	ppb		95
103)	sec-Butylbenzene	11.882	105	58903	2.11	ppb		95
104)	p-Isopropyltoluene	12.004	119	46482	2.16	ppb		90
105)	1,3-Dclbenz	11.961	146	26952	2.09	ppb		92
106)	1,4-Dclbenz	12.034	146	25381	2.10	ppb		90
107)	2,4-DCBTF	12.083	214	10106	2.01	ppb	#	84
108)	2,5-DCBTF	12.132	214	11449	2.01	ppb		95
109)	n-Butylbenzene	12.333	91	44025	2.16	ppb		91
110)	1,2-Dclbenz	12.333	146	23088	1.94	ppb		97
111)	1,2-Dibromo-3-chloropr...	12.955	157	2386	2.04	ppb	#	77
112)	Trielution Dichlorotol...	13.077	125	63807	6.36	ppb		94
113)	1,3,5 Trichlorobenzene	13.125	180	17771	2.22	ppb		86
114)	Coelution Dichlorotoluene	13.400	125	45098	4.25	ppb		98
115)	1,2,4-Tcbenzene	13.607	180	14634	2.00	ppb		91
116)	Hexachlorobt	13.747	225	6685	2.14	ppb		89
117)	Naphthalen	13.802	128	32930	2.16	ppb		93
118)	1,2,3-Tclbenzene	13.985	180	12030	1.97	ppb	#	79
119)	2,4,5-Trichlorotolene	14.570	159	9031	1.95	ppb		96
120)	2,3,6-Trichlorotoluene	14.656	159	9505	2.32	ppb		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(2) Dichlorodifluoromethane (P)

1.219min (-0.000) 1.75 ppb

response 18830

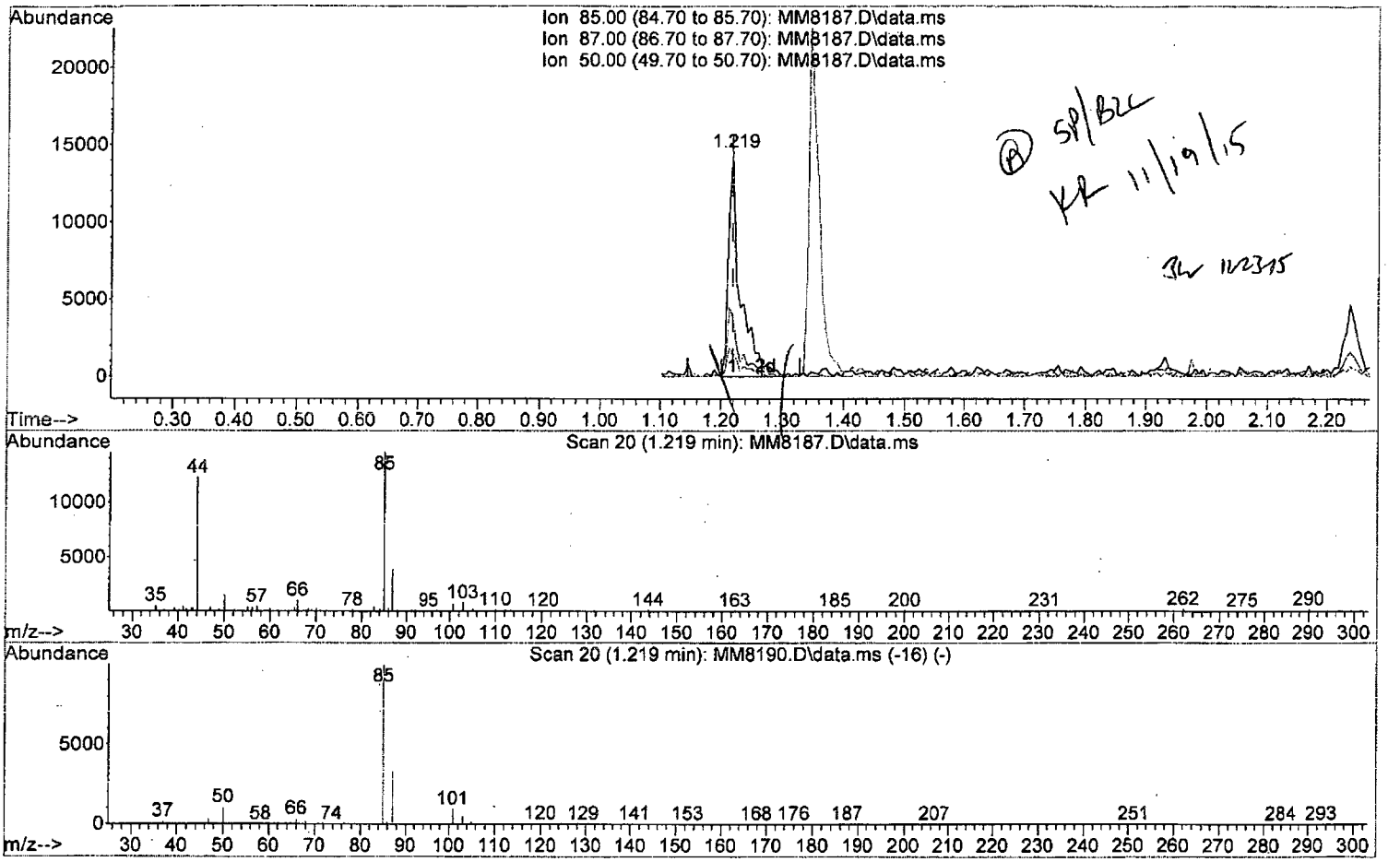
Ion	Exp%	Act%
85.00	100	100
87.00	32.70	26.76
50.00	10.60	10.62
0.00	0.00	0.00

W111815.M Thu Nov 19 10:20:08 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(2) Dichlorodifluoromethane (P)

1.219min (-0.000) 1.82 ppb m

response 19630

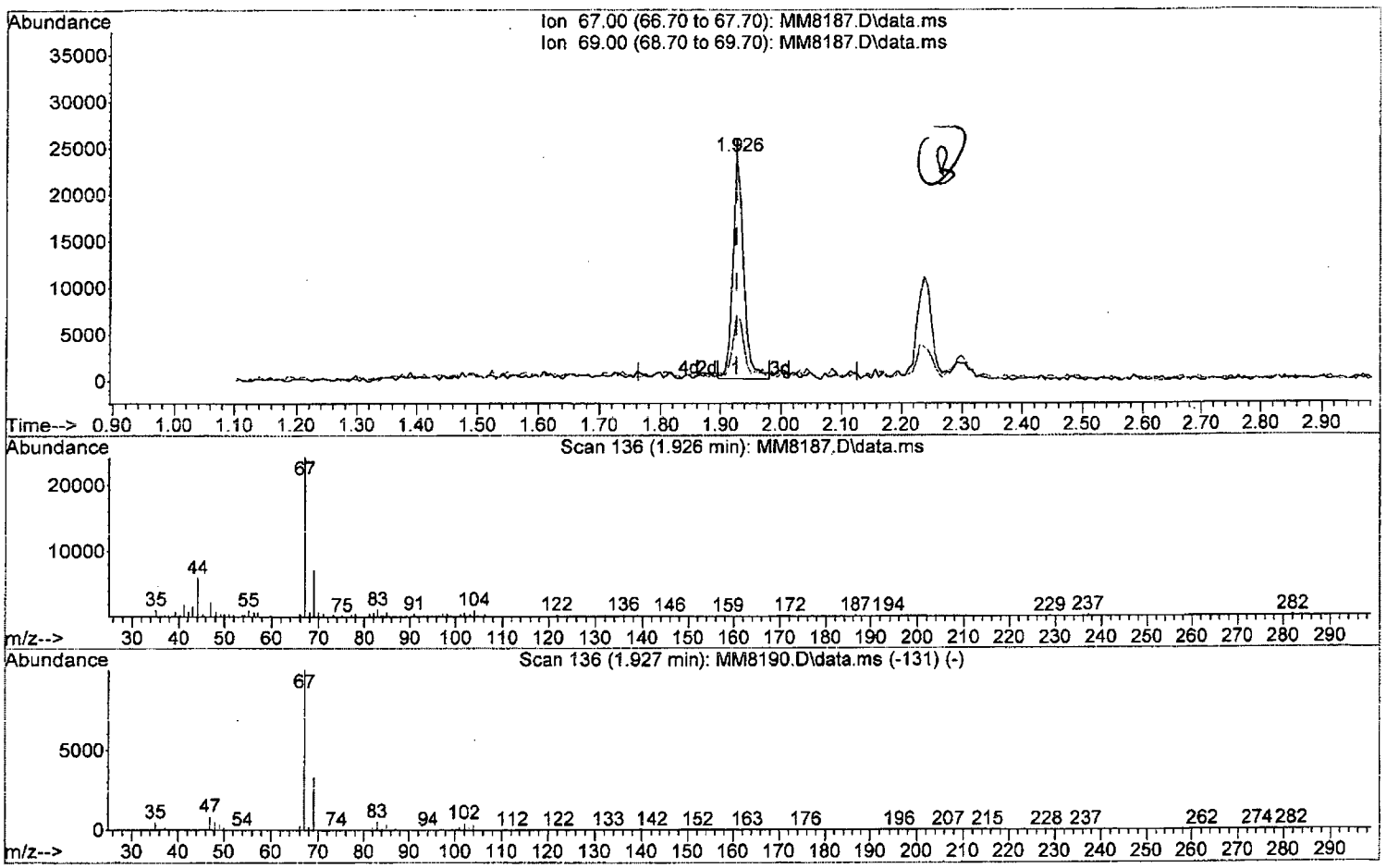
Ion	Exp%	Act%
85.00	100	100
87.00	32.70	26.76
50.00	10.60	10.62
0.00	0.00	0.00

W111815.M Thu Nov 19 10:20:14 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(7) Freon 21

1.926min (-0.000) 2.31 ppb

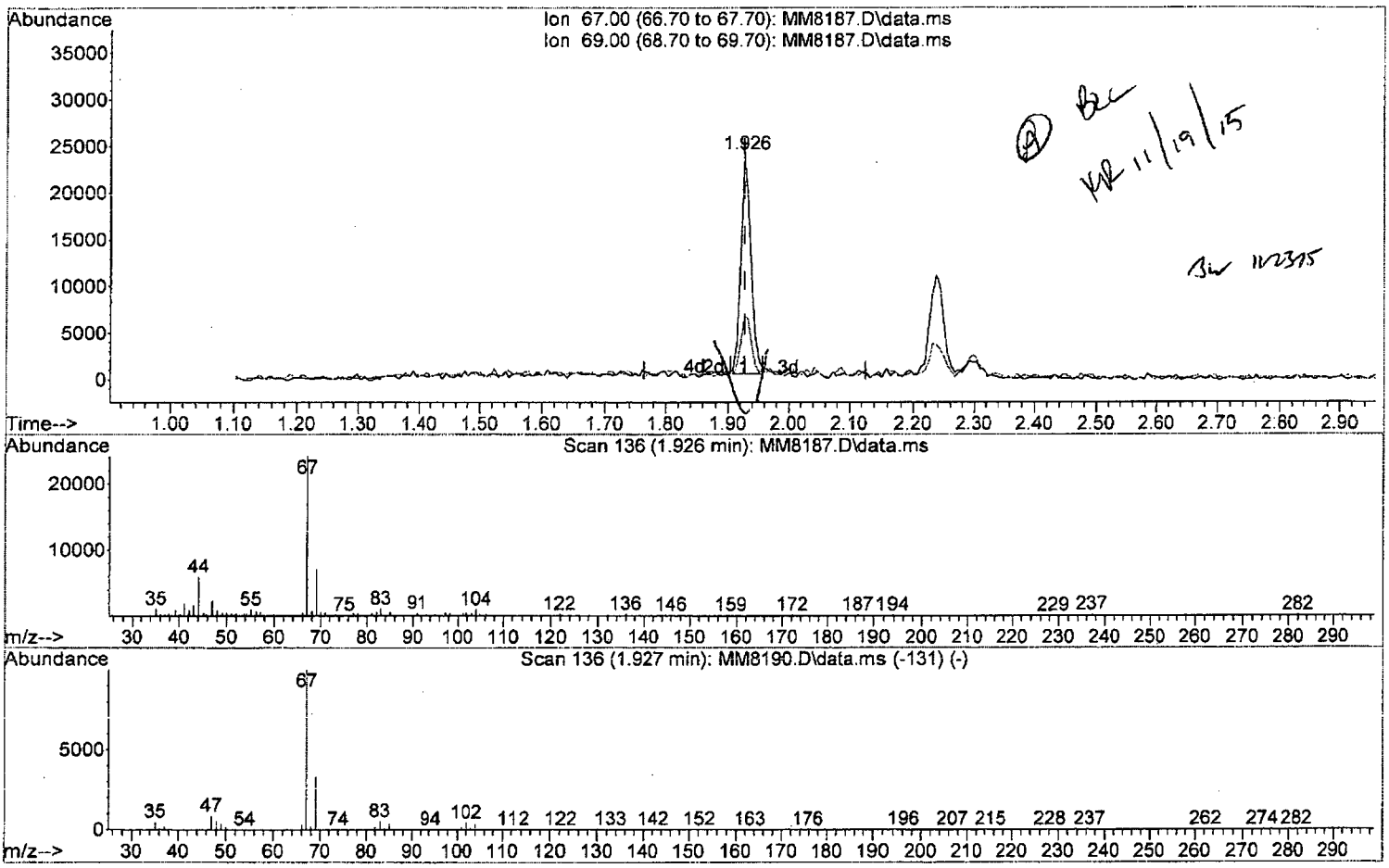
response 29617

Ion	Exp%	Act%
67.00	100	100
69.00	33.10	29.18
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(7) Freon 21

1.926min (-0.000) 2.09 ppb m

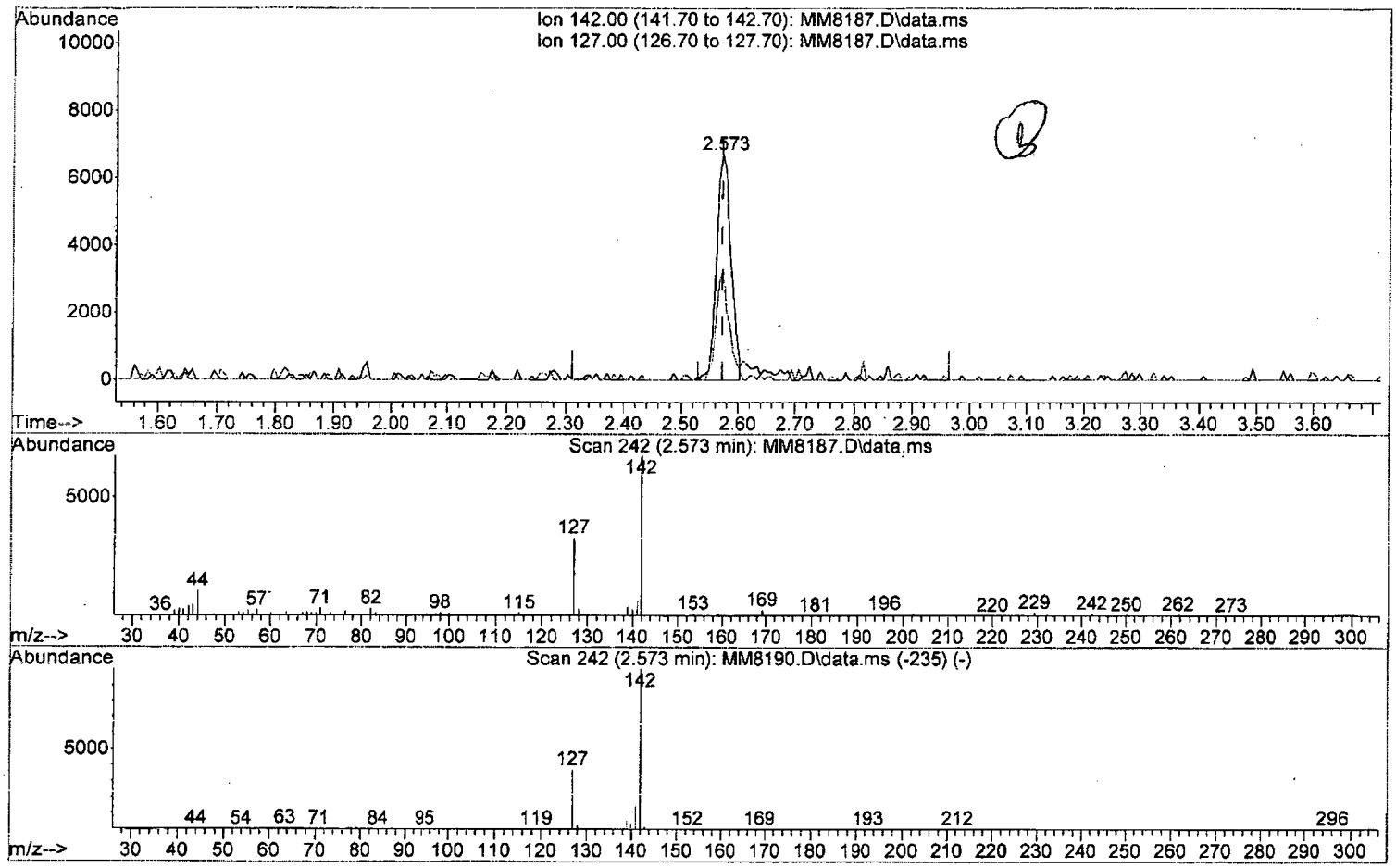
response 26902

Ion	Exp%	Act%
67.00	100	100
69.00	33.10	29.18
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(17) Iodomethane

2.573min (+0.001) 1.65 ppb

response 11773

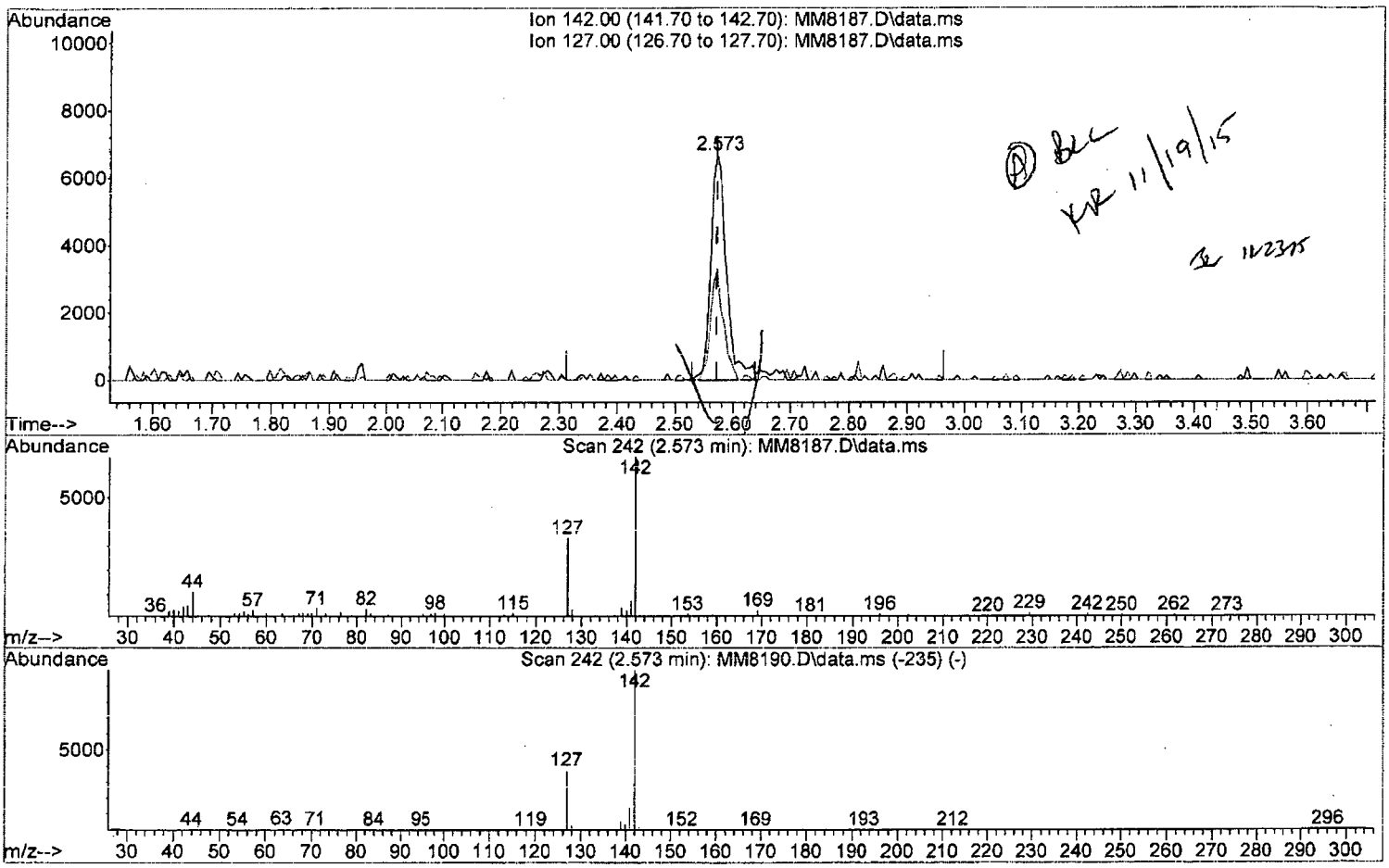
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	49.54
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:21:47 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(17) Iodomethane

2.573min (+0.001) 1.77 ppb m

response 12617

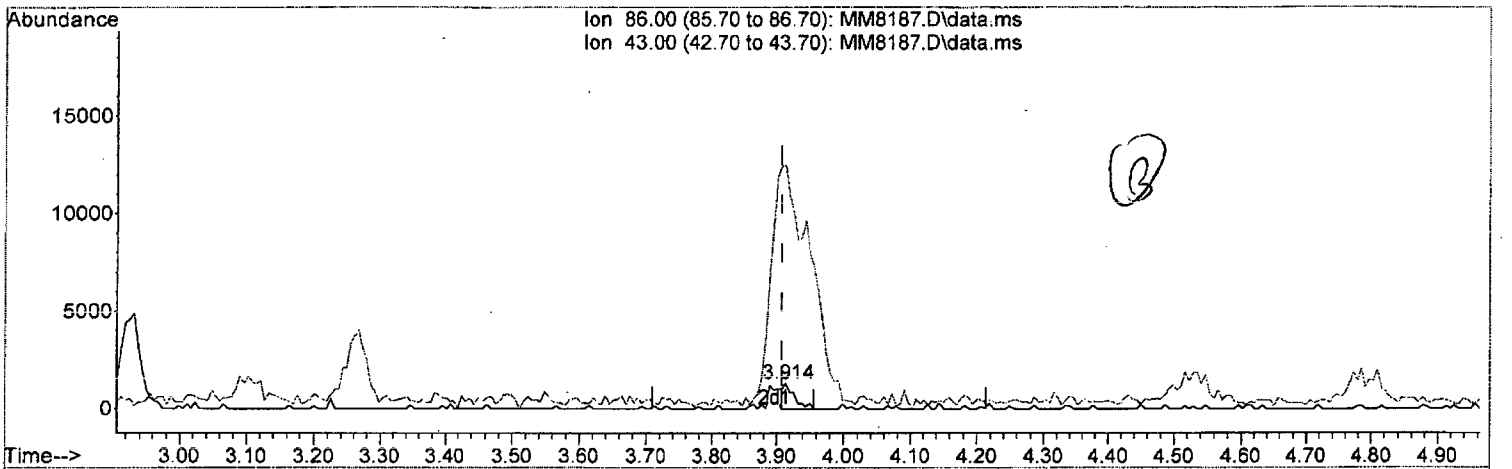
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	49.54
0.00	0.00	0.00
0.00	0.00	0.00

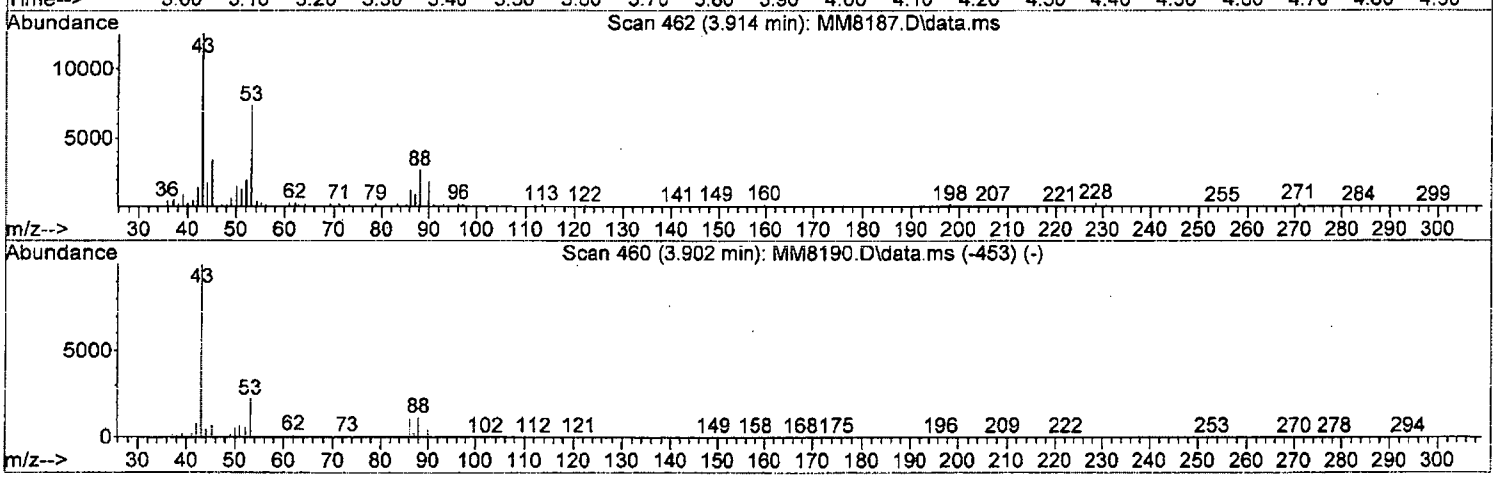
W111815.M Thu Nov 19 10:21:59 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration





TIC: MM8187.D\data.ms

(29) Vinyl Acetate

3.914min (+0.006) 1.11 ppb

response 1463

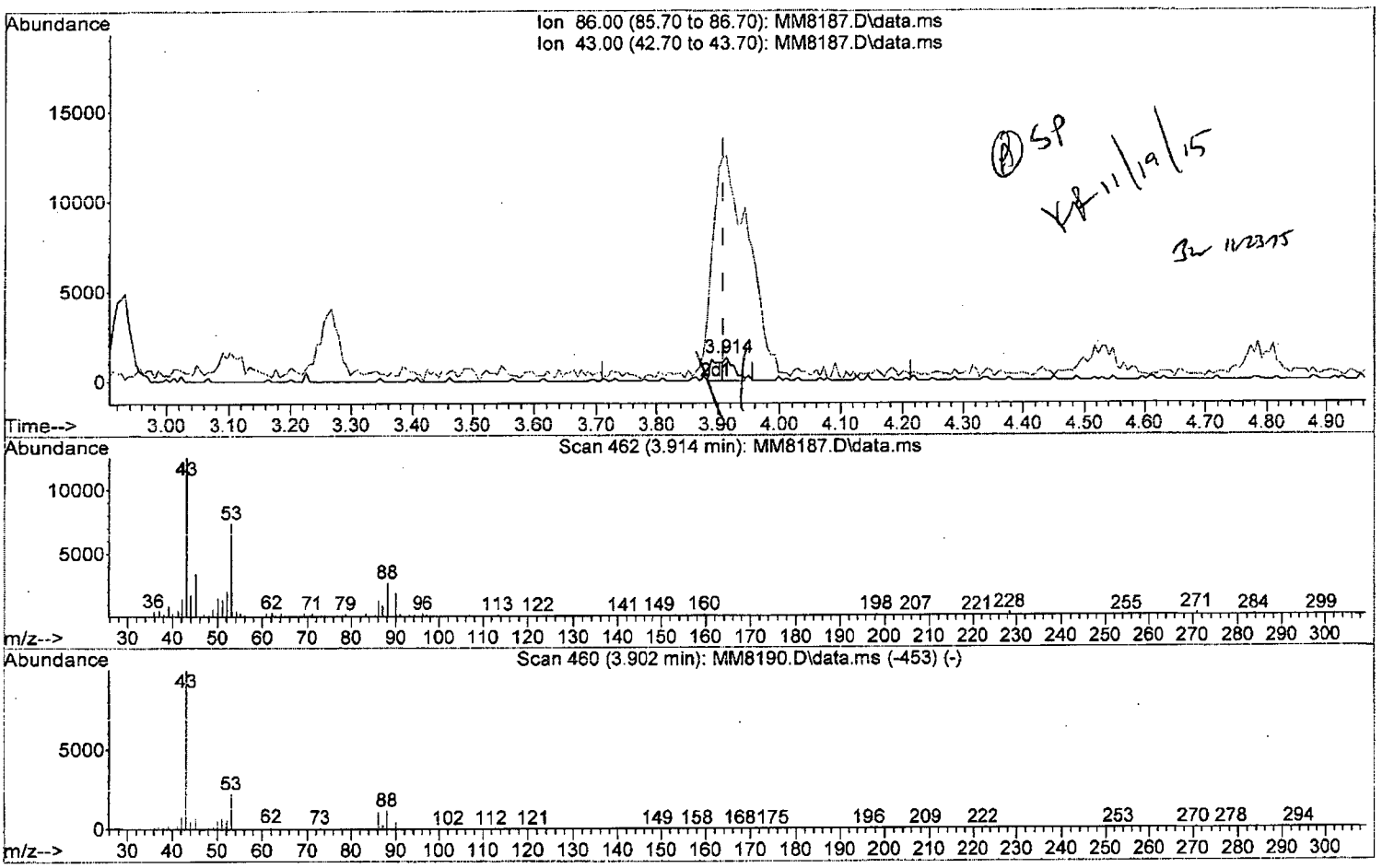
Ion	Exp%	Act%
86.00	100	100
43.00	979.70	957.56#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:22:20 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(29) Vinyl Acetate

3.914min (+0.006) 2.20 ppb m

response 2894

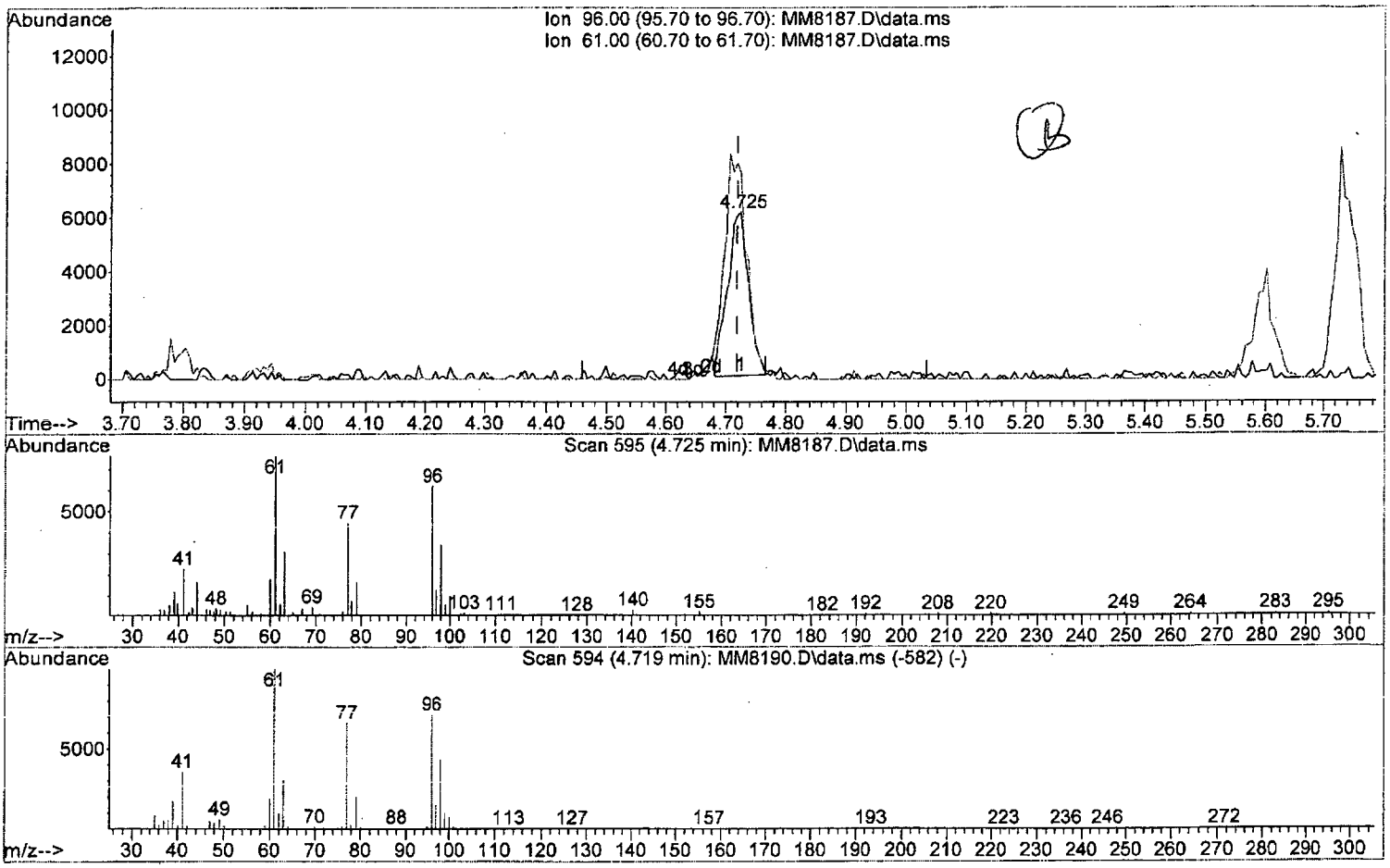
Ion	Exp%	Act%
86.00	100	100
43.00	979.70	957.56#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:22:28 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.725min (+0.006) 1.97 ppb

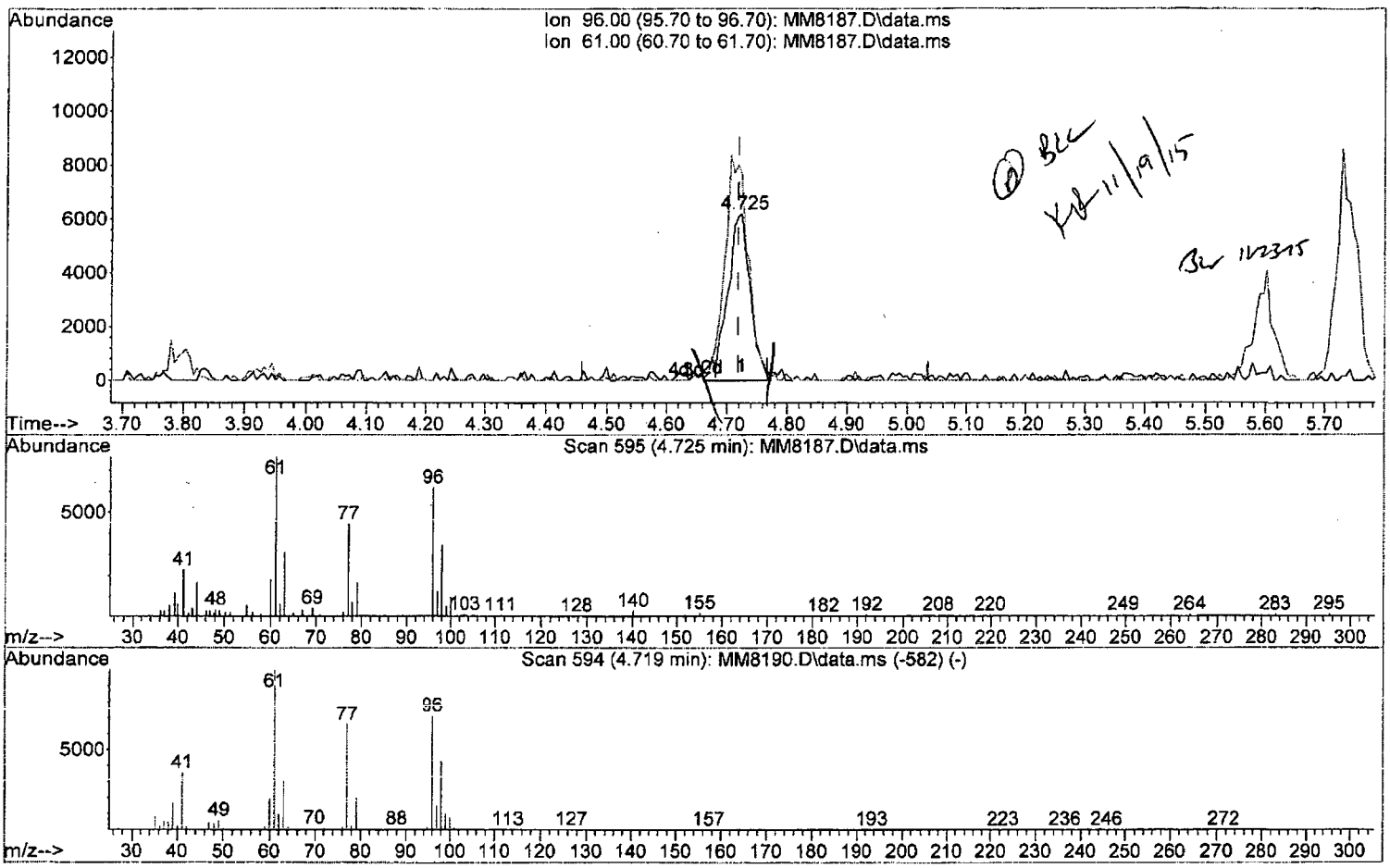
response 14951

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	123.36
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.725min (+0.006) 2.13 ppb m

response 16202

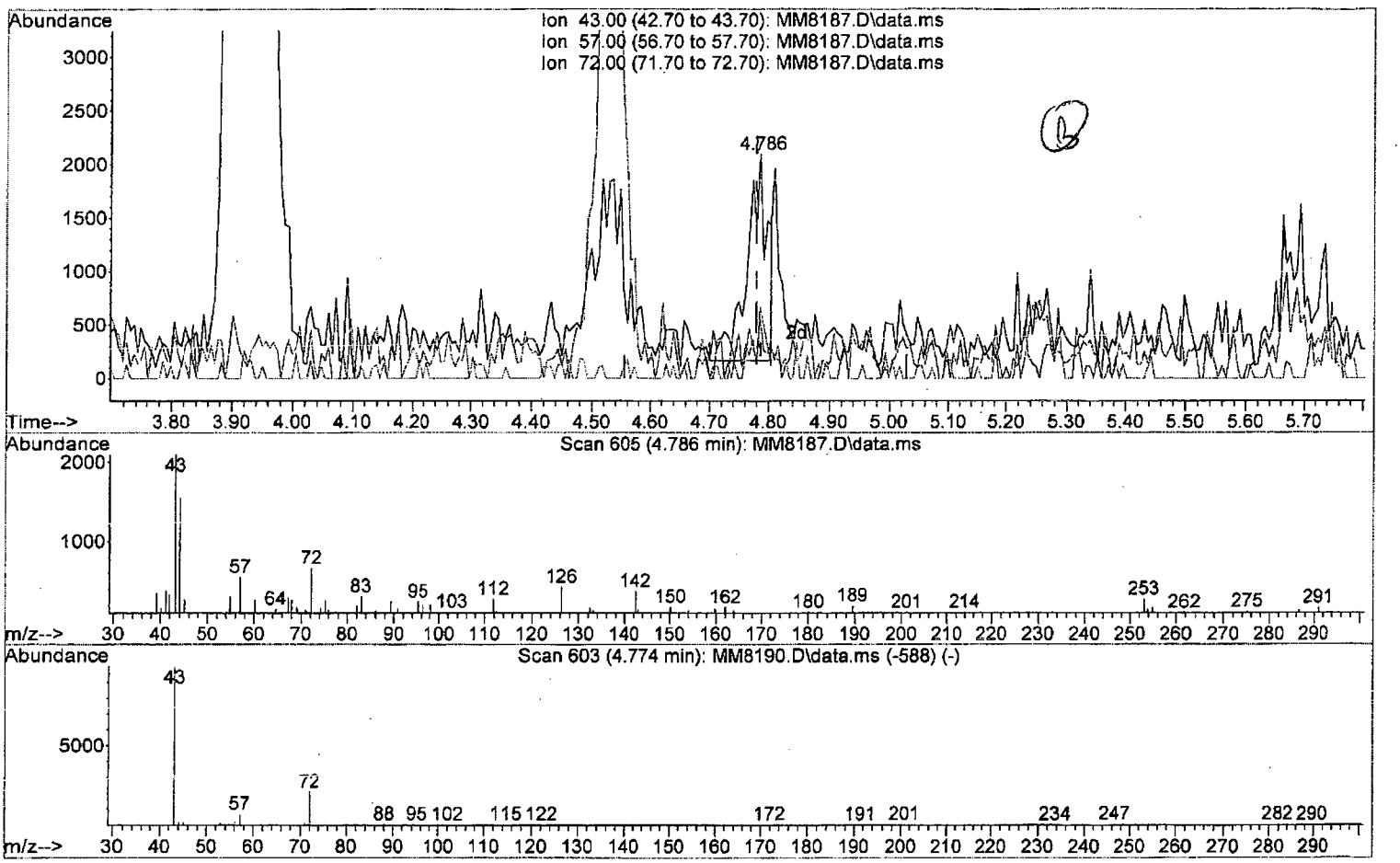
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	123.36
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:23:01 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(35) 2-Butanone (P)

4.786min (+0.006) 2.09 ppb

response 4696

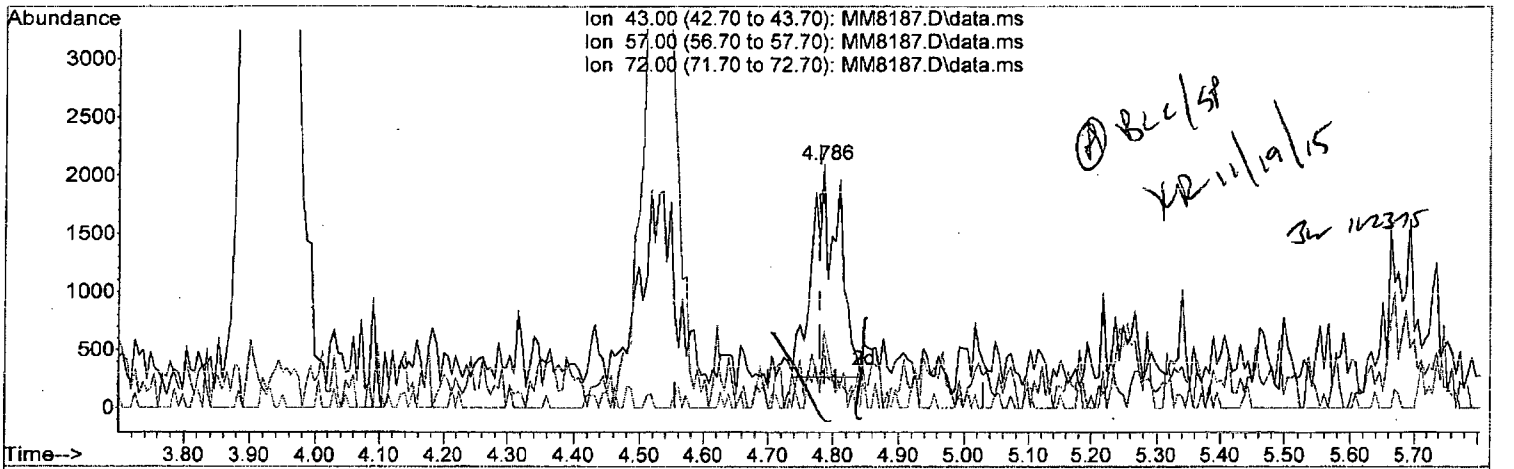
Ion	Exp%	Act%
43.00	100	100
57.00	7.50	26.42
72.00	21.20	31.72
0.00	0.00	0.00

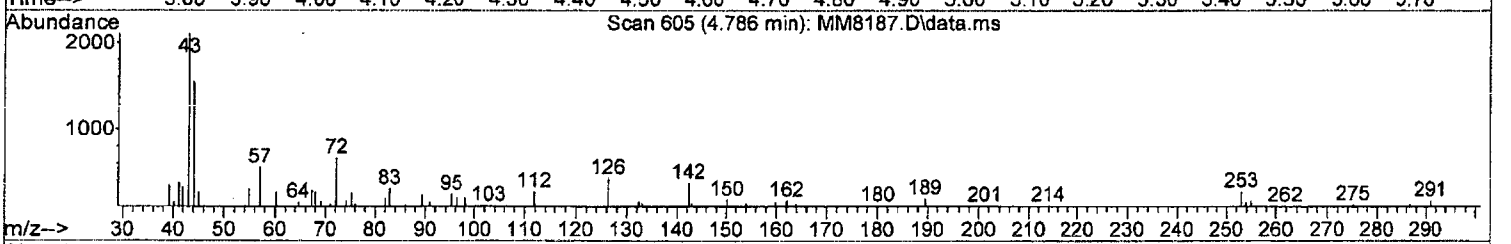
W111815.M Thu Nov 19 10:23:11 2015 Page: 1

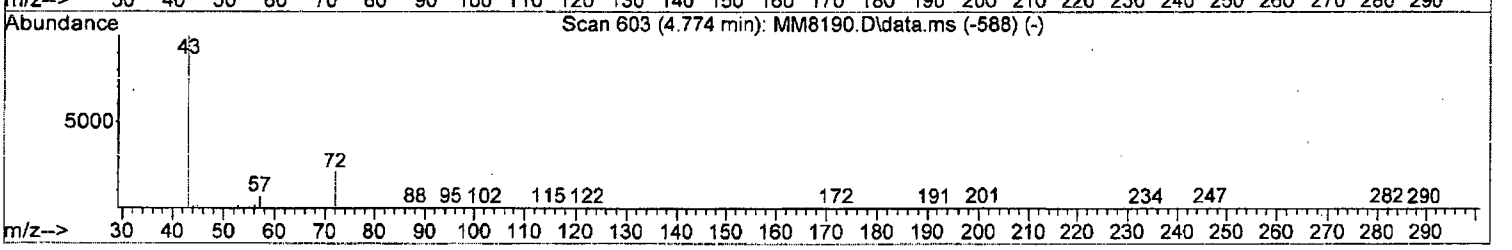
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8187.D\data.ms

(35) 2-Butanone (P)

4.786min (+0.006) 2.30 ppb m

response 5176

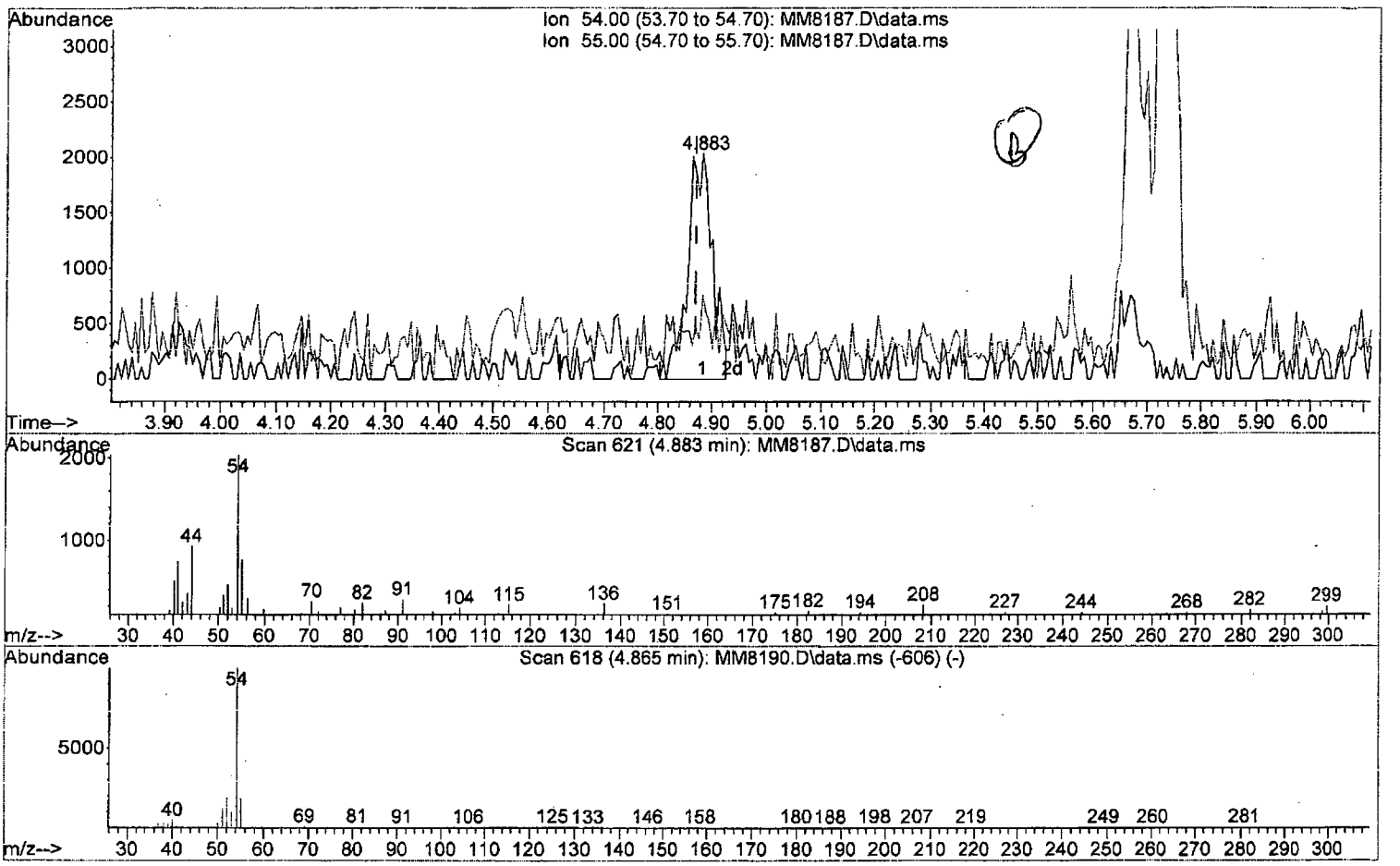
Ion	Exp%	Act%
43.00	100	100
57.00	7.50	26.42
72.00	21.20	31.72
0.00	0.00	0.00

W111815.M Thu Nov 19 10:23:18 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(36) Propionitrile

4.883min (+0.012) 9.36 ppb

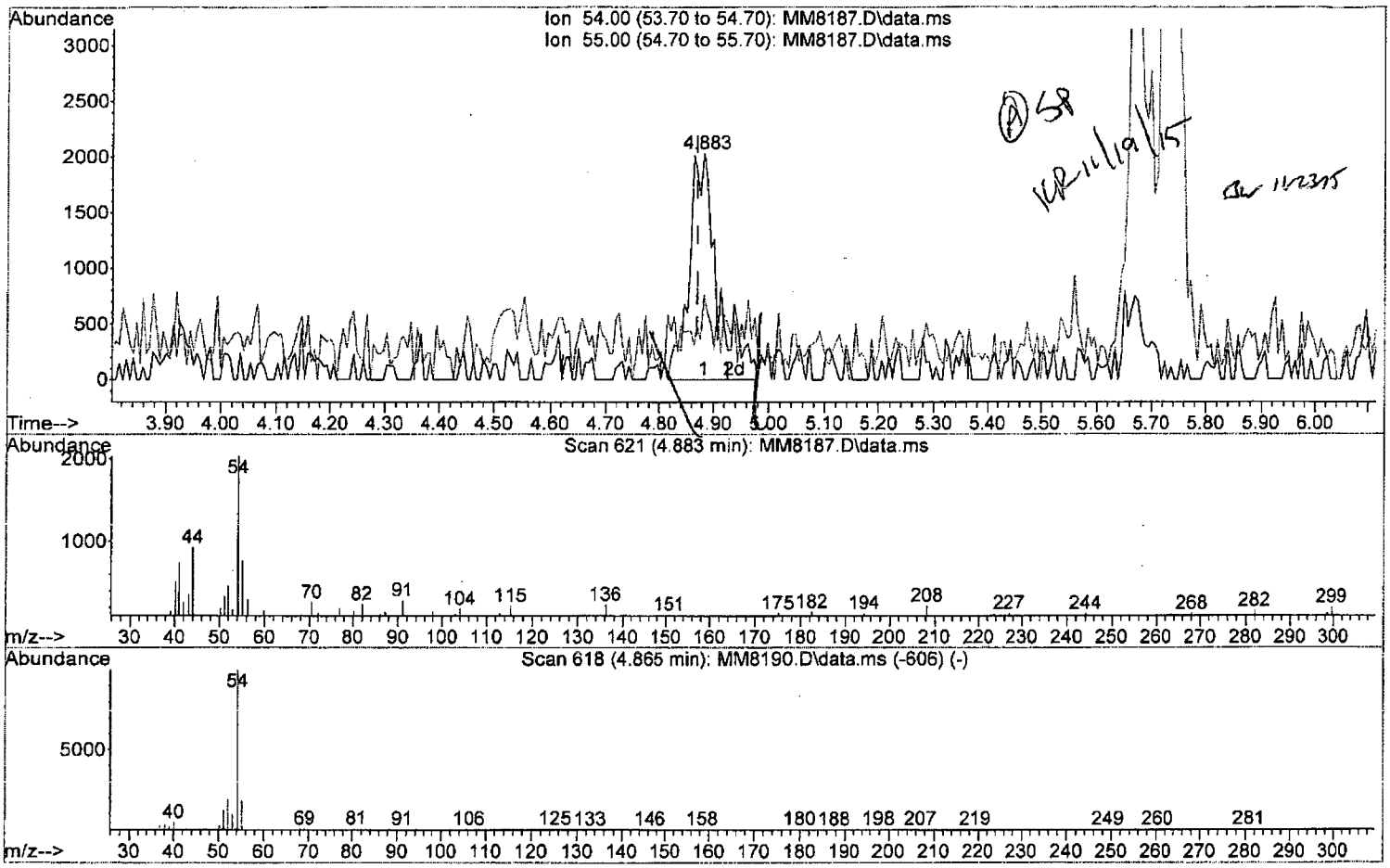
response 6355

Ion	Exp%	Act%
54.00	100	100
55.00	19.40	37.23
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(36) Propionitrile

4.883min (+0.012) 10.64 ppb m

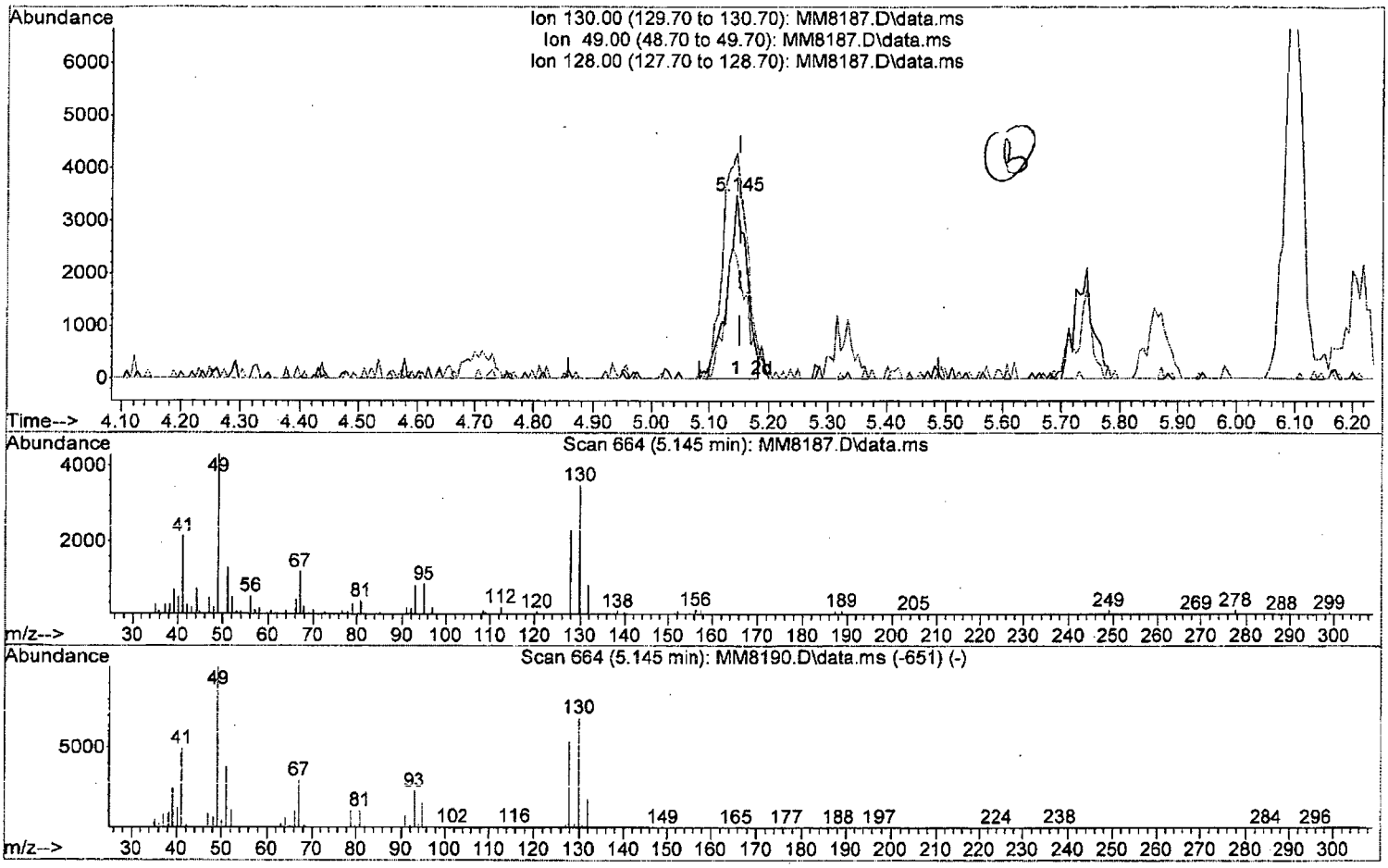
response 7224

Ion	Exp%	Act%
54.00	100	100
55.00	19.40	37.23
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(37) Bromochloromethane

5.145min (-0.006) 2.03 ppb

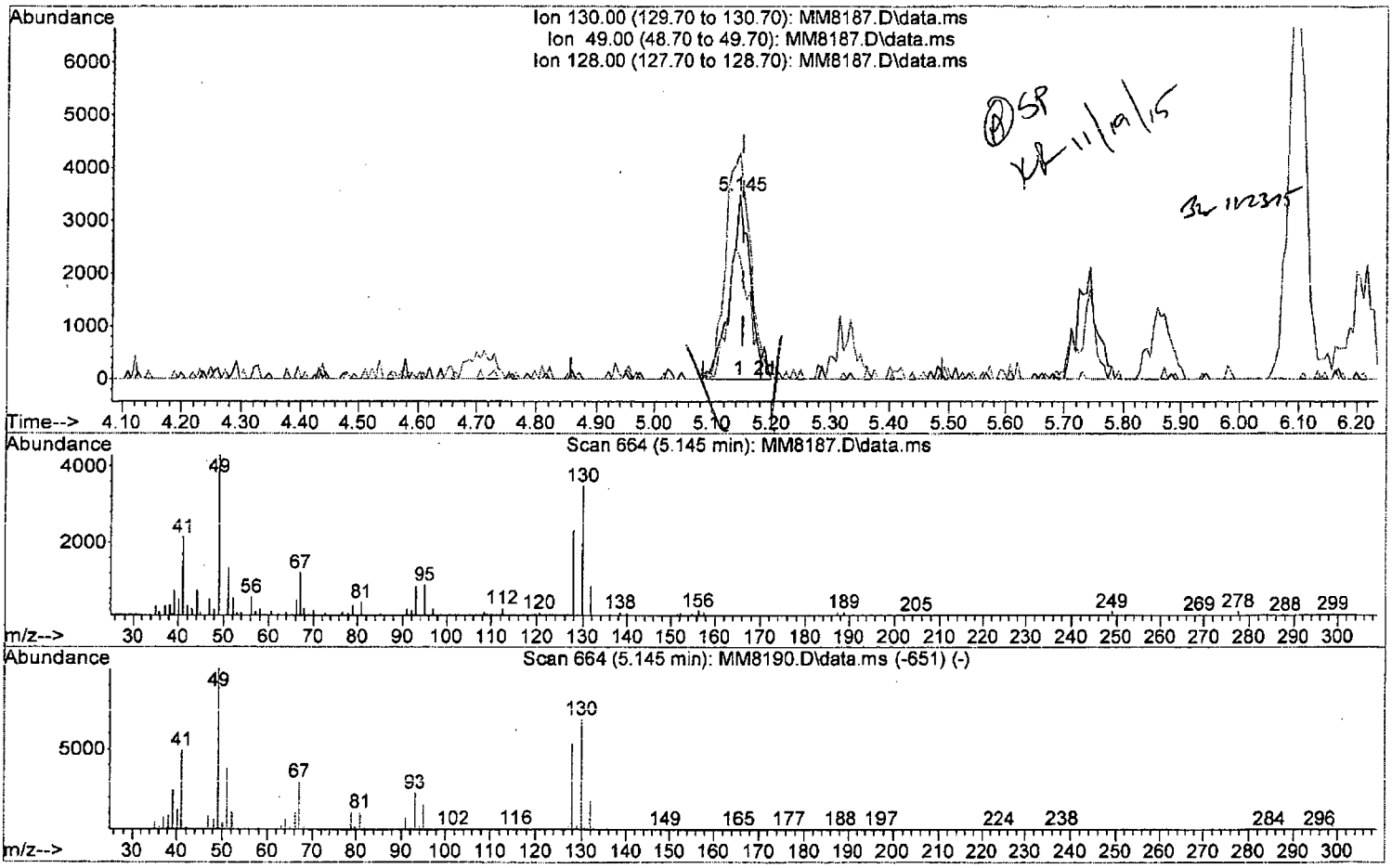
response 8025

Ion	Exp%	Act%
130.00	100	100
49.00	145.50	122.92#
128.00	77.50	66.05
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(37) Bromochloromethane

5.145min (-0.006) 2.09 ppb m

response 8261

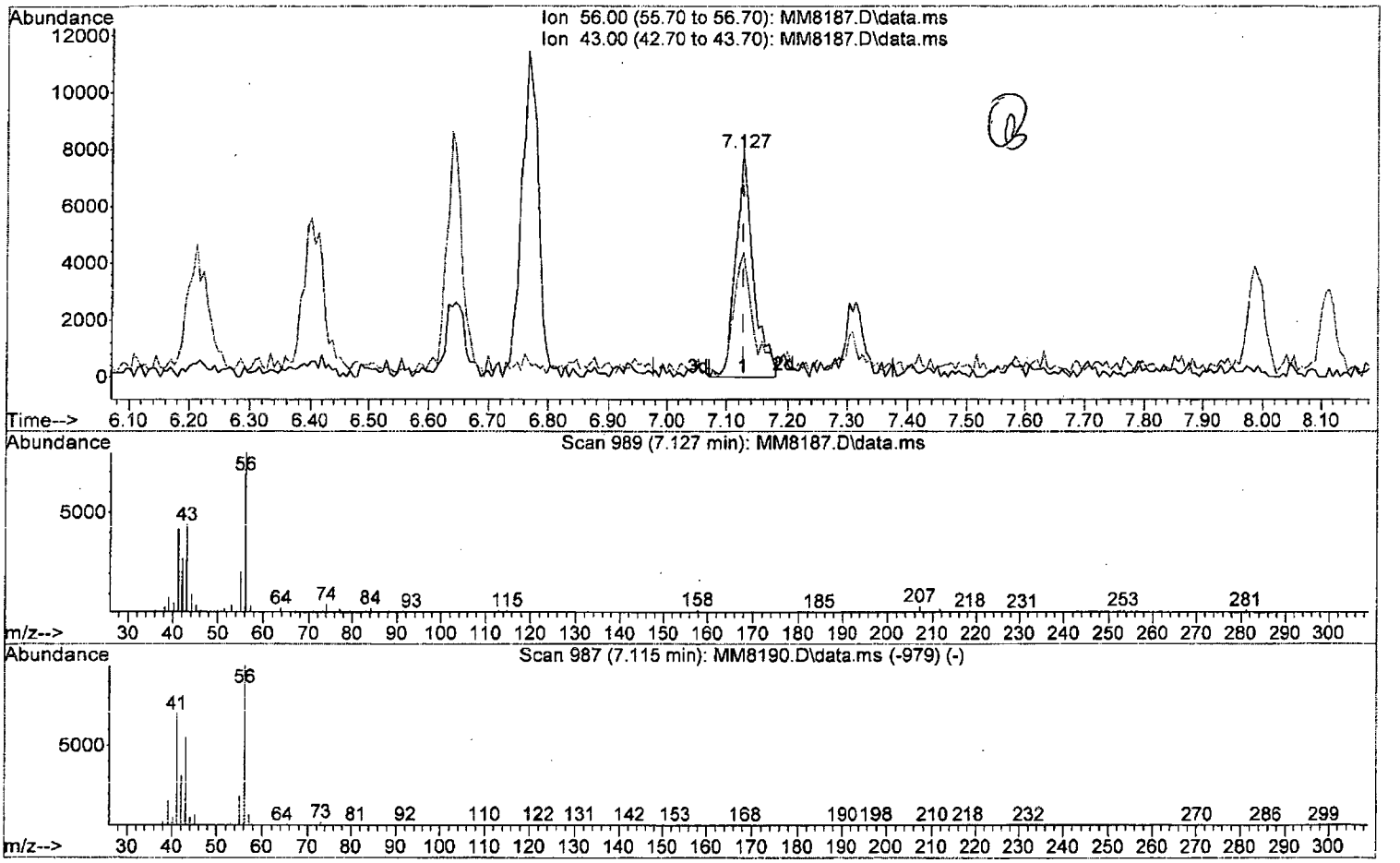
Ion	Exp%	Act%
130.00	100	100
49.00	145.50	122.92#
128.00	77.50	66.05
0.00	0.00	0.00

W111815.M Thu Nov 19 10:24:14 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(53) 1-Butanol

7.127min (-0.000) 108.49 ppb

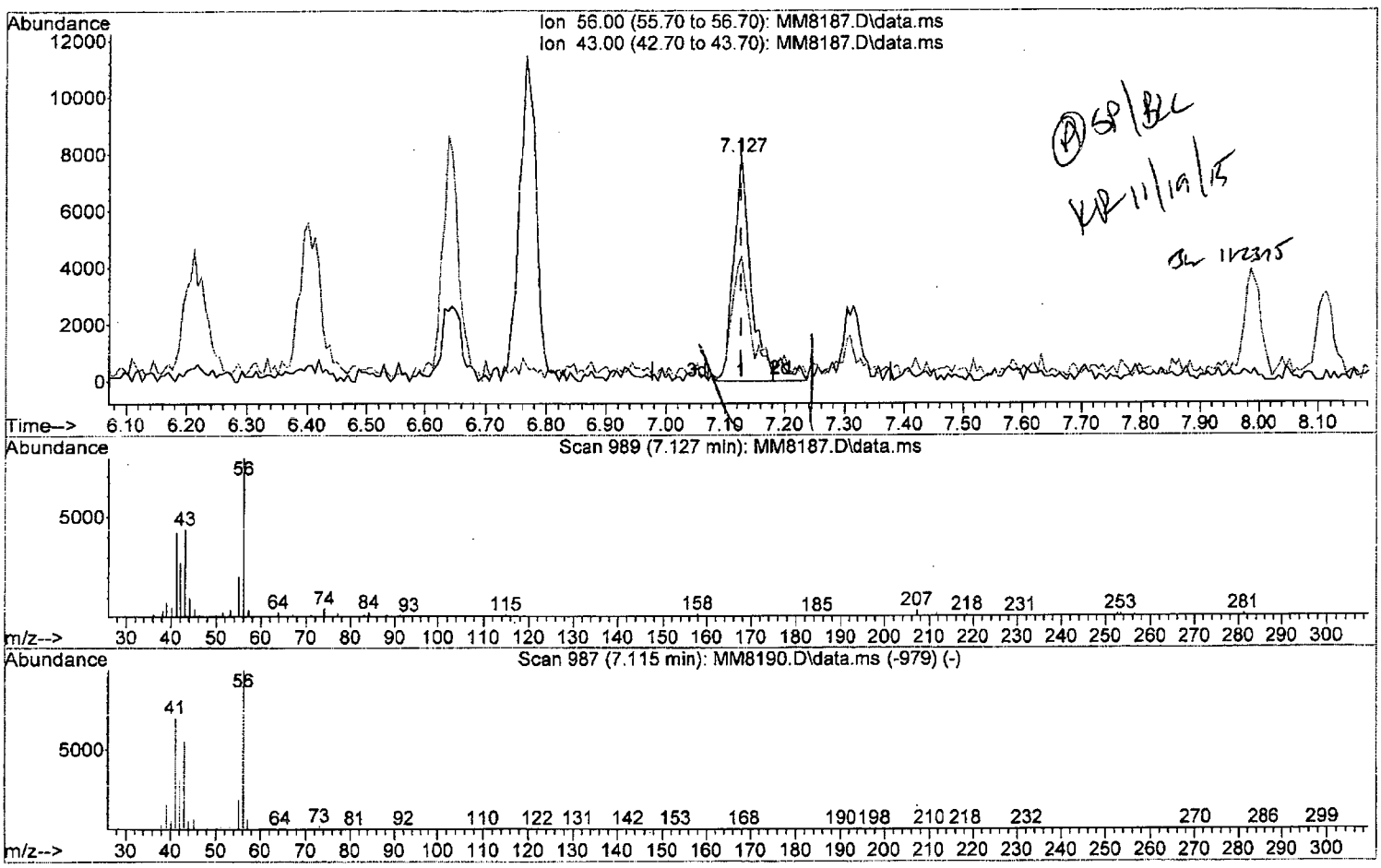
response 15785

Ion	Exp%	Act%
56.00	100	100
43.00	54.90	63.55
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(53) 1-Butanol

7.127min (-0.000) 116.00 ppb m

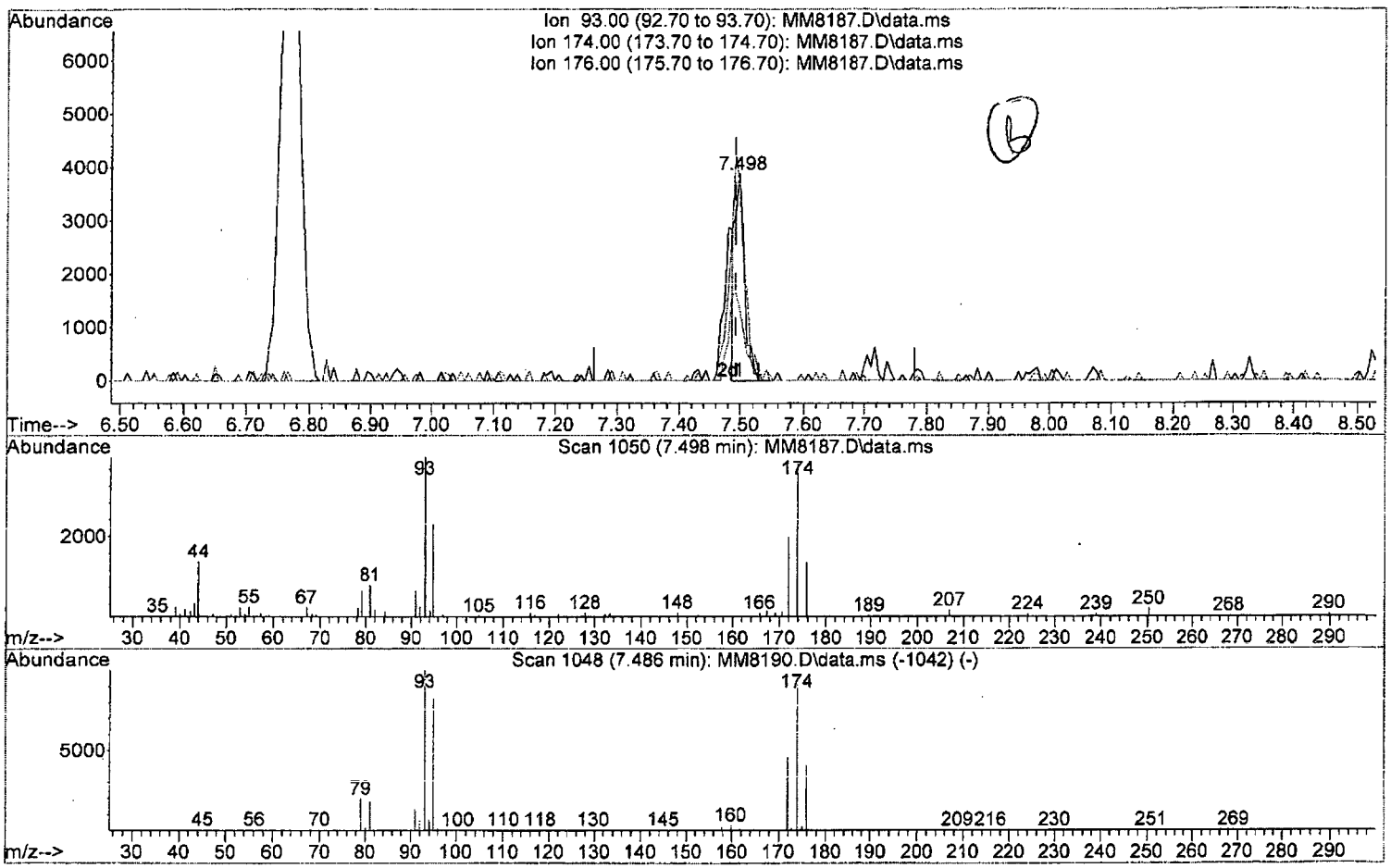
response 16877

Ion	Exp%	Act%
56.00	100	100
43.00	54.90	59.44
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(57) Dibromomethane

7.498min (+0.006) 1.20 ppb

response 4062

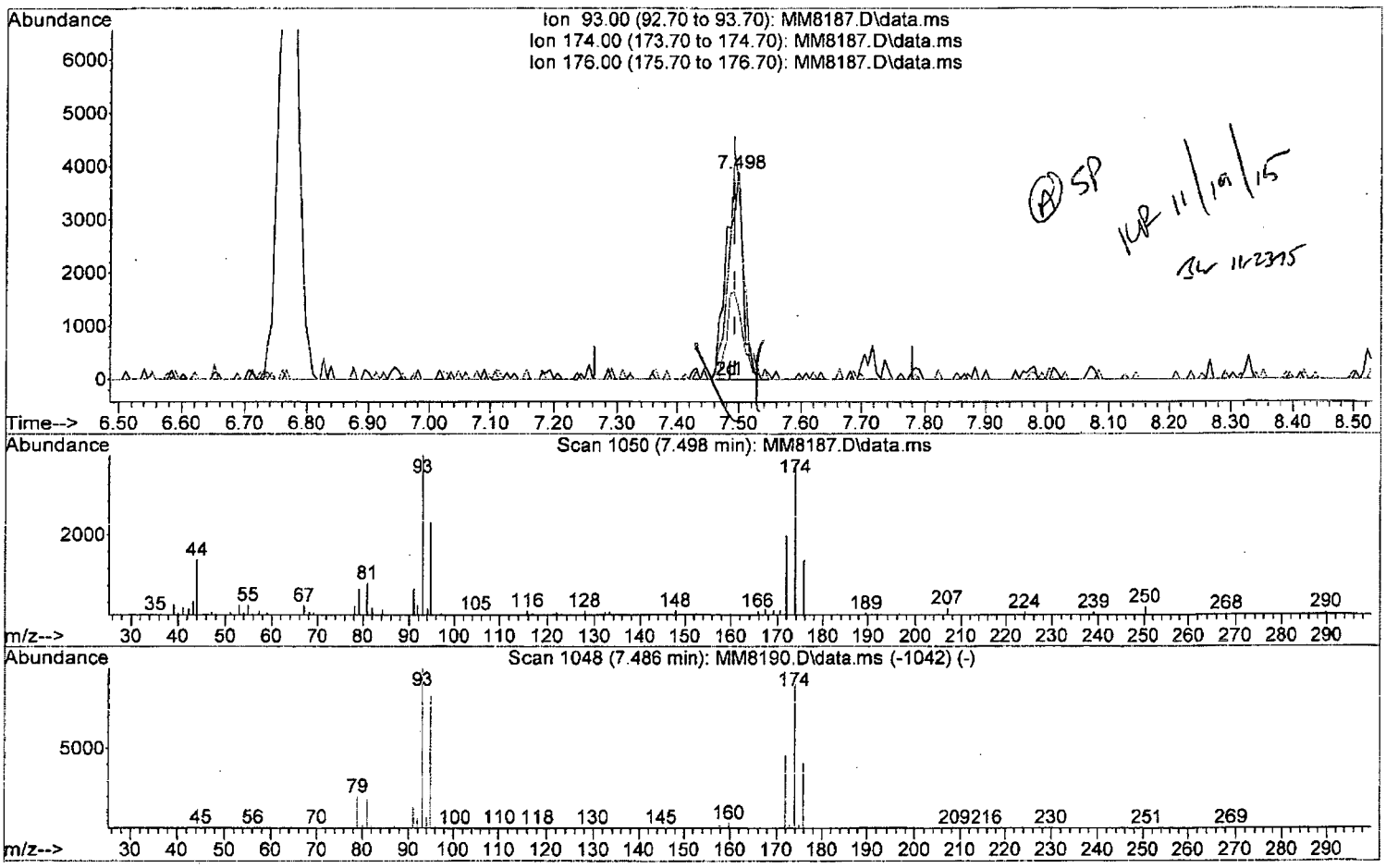
Ion	Exp%	Act%
93.00	100	100
174.00	91.10	95.71
176.00	40.50	35.53
0.00	0.00	0.00

W111815.M Thu Nov 19 10:25:43 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(57) Dibromomethane

7.498min (+0.006) 2.10 ppb m

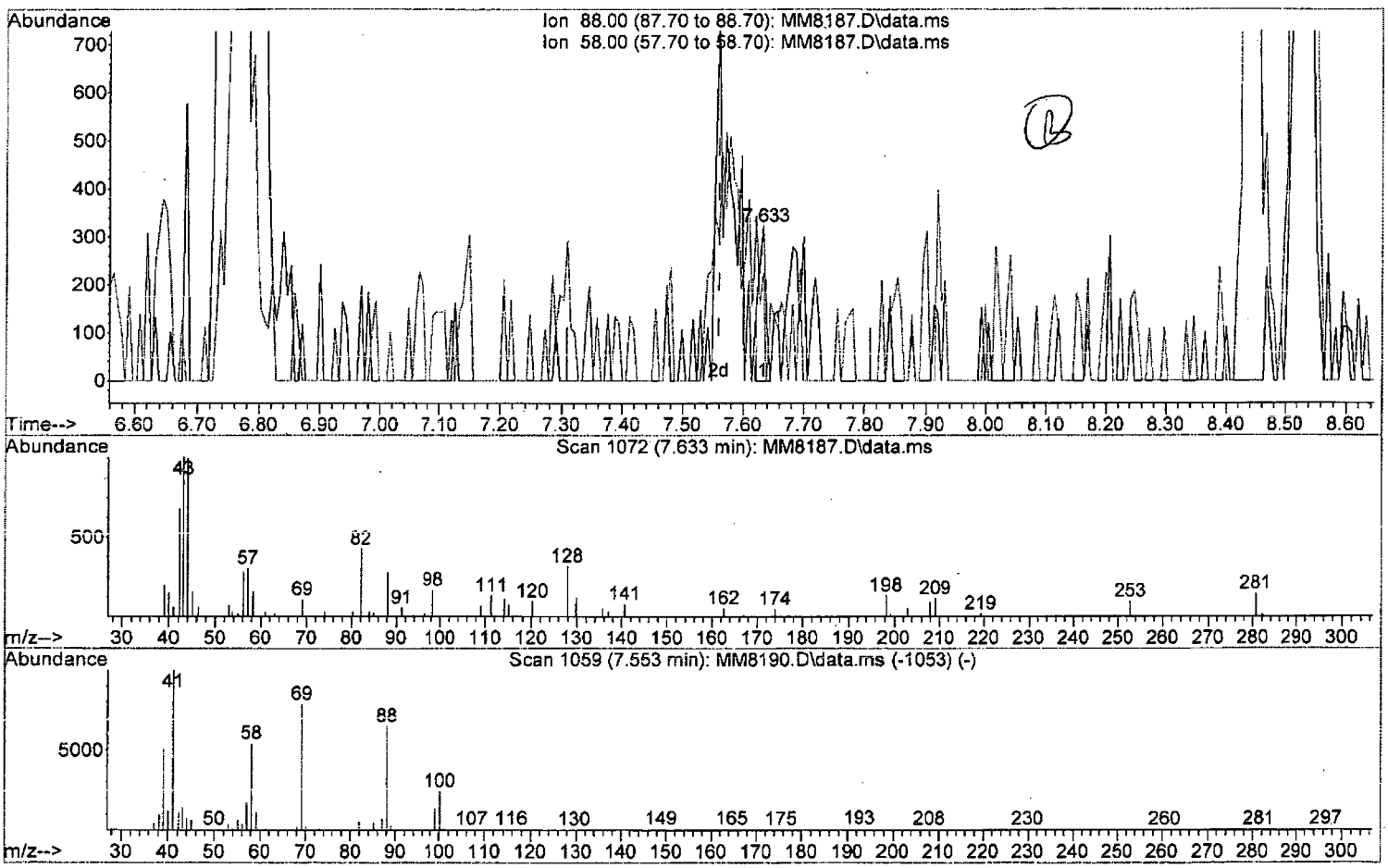
response 7116

Ion	Exp%	Act%
93.00	100	100
174.00	91.10	95.71
176.00	40.50	35.53
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(58) 1,4-Dioxane

7.633min (+0.073) 4.87 ppb

response 249

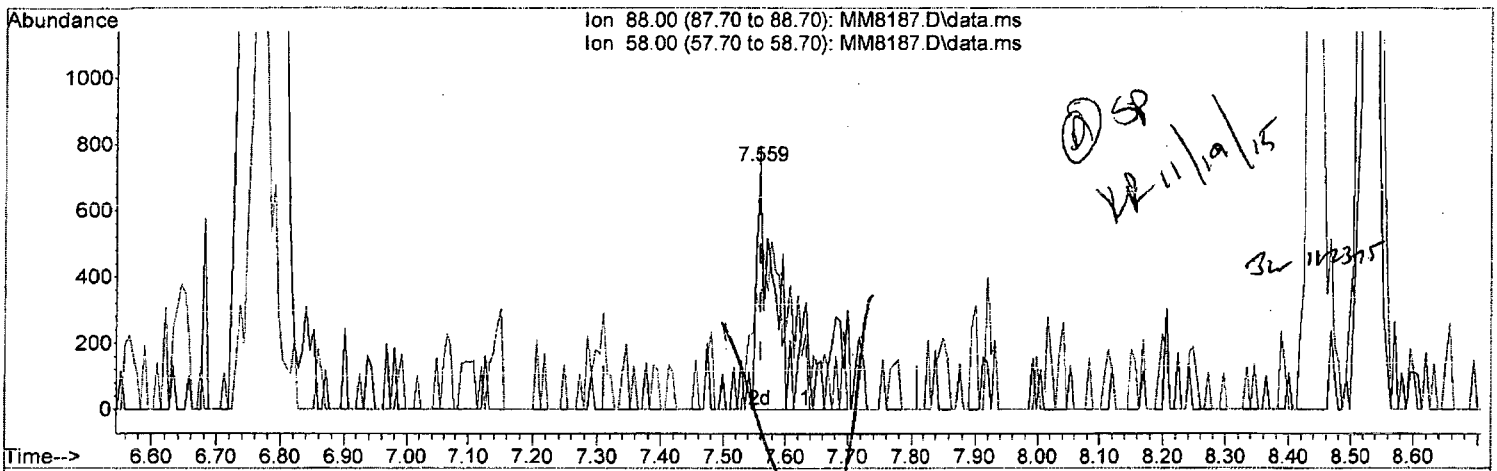
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	69.88
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:25:53 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(58) 1,4-Dioxane

7.559min (-0.000) 43.47 ppb m

response 2224

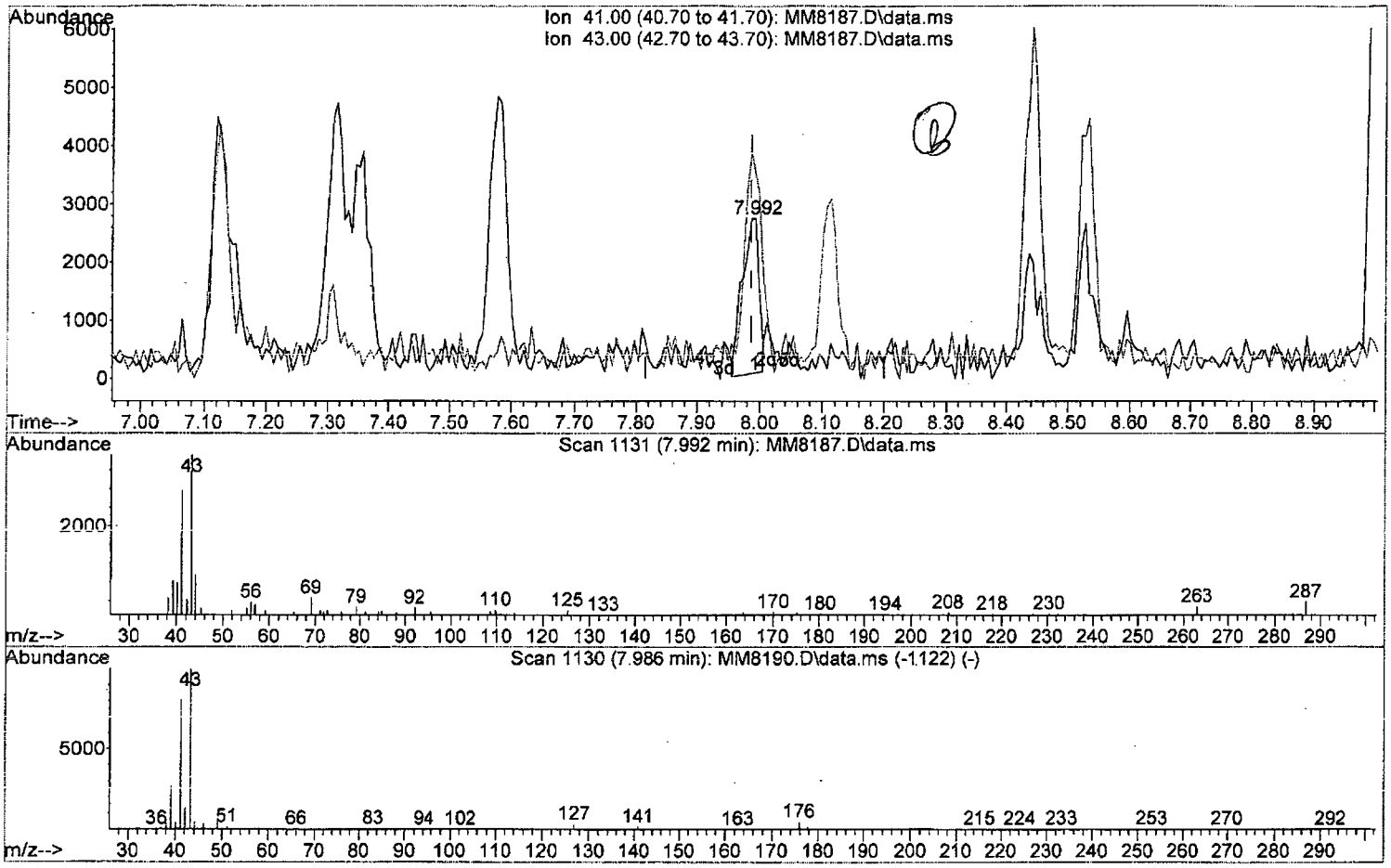
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	39.92#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:27:24 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(61) 2-Nitropropane

7.992min (+0.006) 3.89 ppb

response 4875

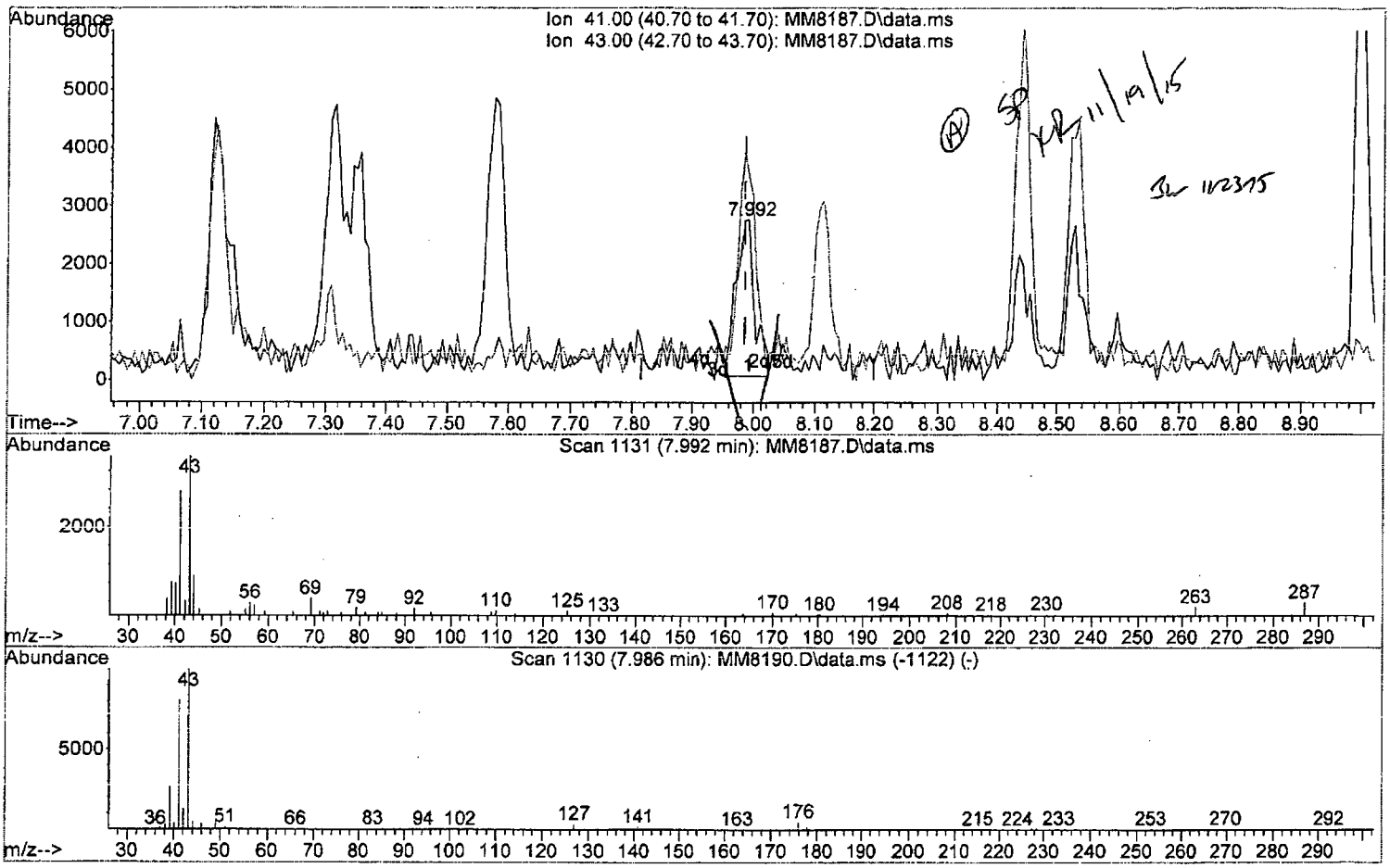
Ion	Exp%	Act%
41.00	100	100
43.00	123.30	127.55
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:28:13 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(61) 2-Nitropropane

7.992min (+0.006) 4.47 ppb m

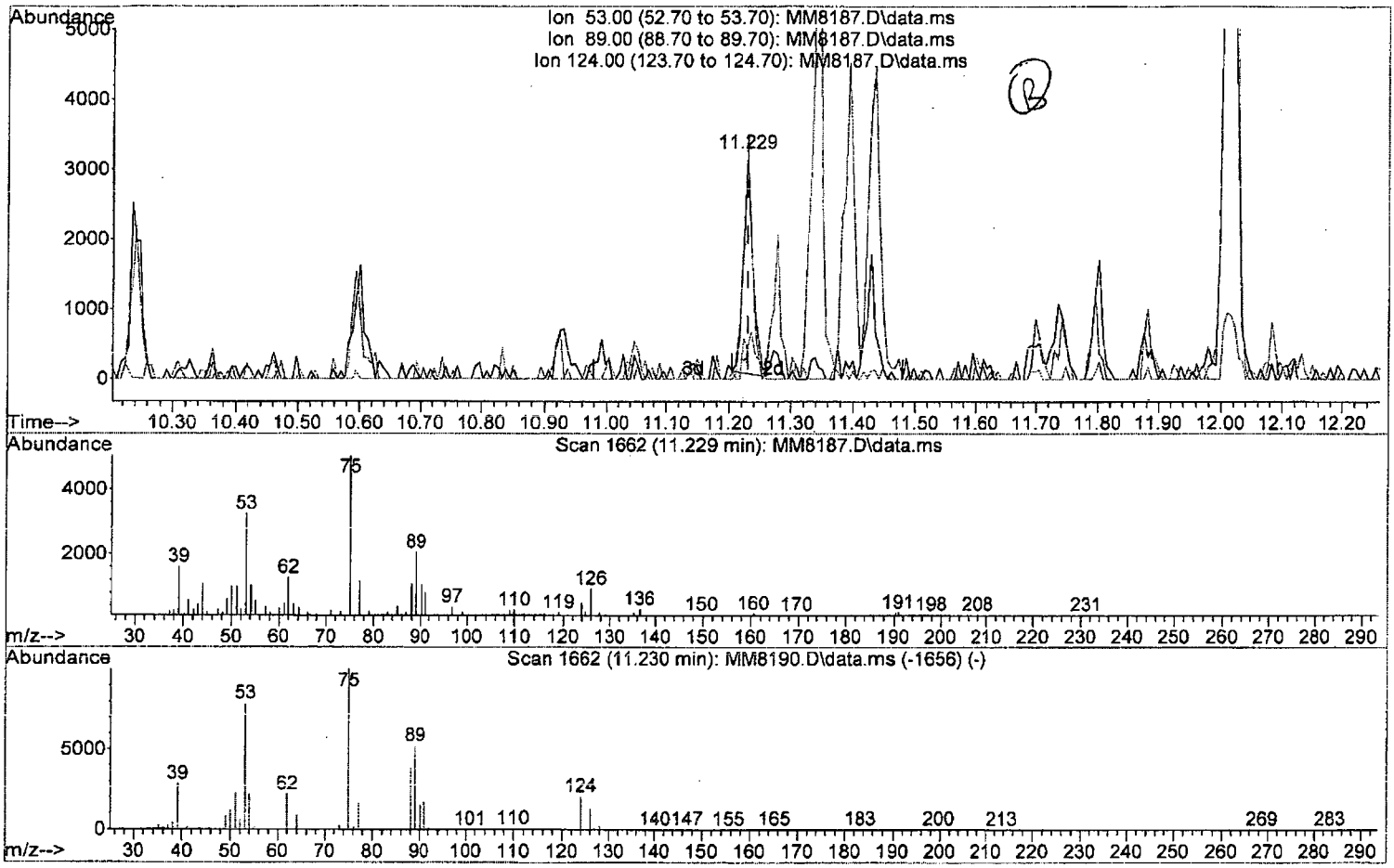
response 5596

Ion	Exp%	Act%
41.00	100	100
43.00	123.30	127.55
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(91) trans-1,4-Dichloro-2-Butene

11.229min (-0.000) 1.81 ppb

response 3358

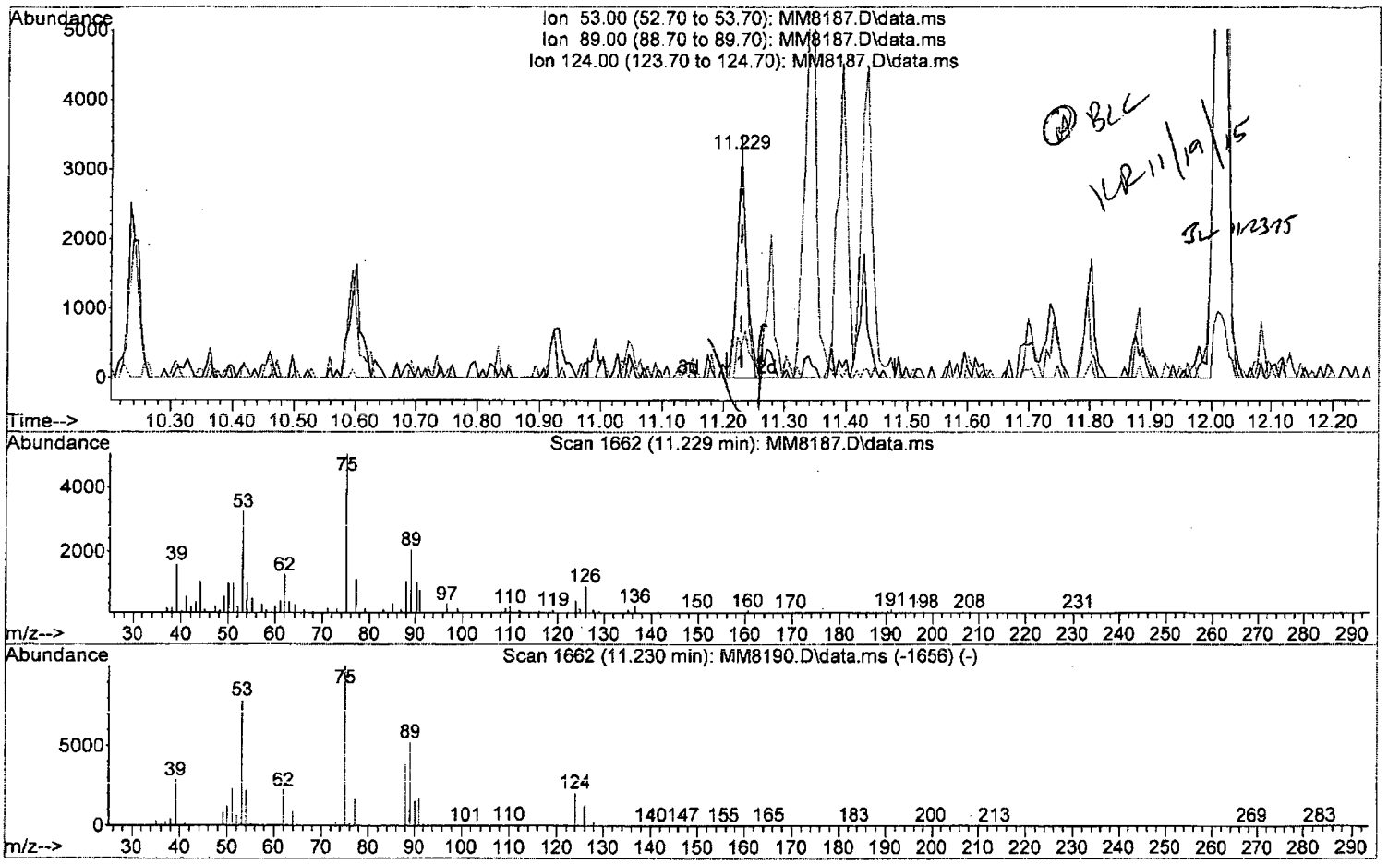
Ion	Exp%	Act%
53.00	100	100
89.00	66.30	63.03
124.00	26.20	13.95
0.00	0.00	0.00

W111815.M Thu Nov 19 10:30:12 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(91) trans-1,4-Dichloro-2-Butene

11.229min (-0.000) 1.95 ppb m

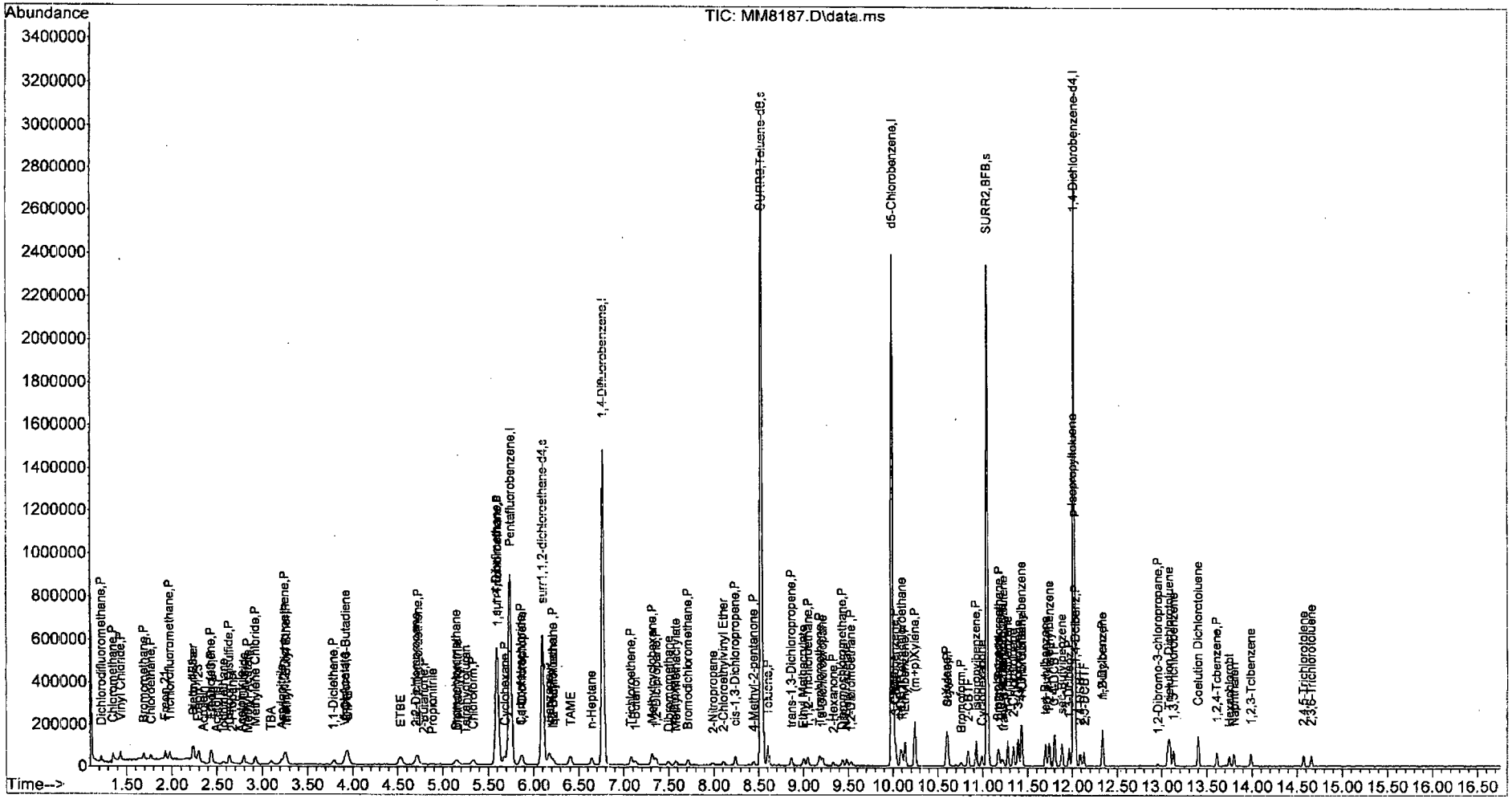
response 3610

Ion	Exp%	Act%
53.00	100	100
89.00	66.30	63.03
124.00	26.20	13.95
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 10:30:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 10:31:06 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 10:40:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	754433	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1237078	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1147756	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	571375	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	465568	69.99	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 139.98%#				
48) surr1,1,2-dichloroetha...	6.096	65	516480	70.95	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 141.90%#				
65) SURR3,Toluene-d8	8.529	98	1977109	70.03	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 140.06%#				
70) SURR2,BFB	11.047	95	734666	69.49	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 138.98%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	46335	4.34	ppb		100
3) Chloromethane	1.347	50	58675	4.62	ppb		96
4) Vinyl Chloride	1.433	62	56117	4.75	ppb		96
5) Bromomethane	1.689	94	27426	4.69	ppb		93
6) Chloroethane	1.768	64	31762	4.81	ppb		98
7) Freon 21	1.927	67	62264	4.89	ppb		100
8) Trichlorofluoromethane	1.975	101	45134	4.90	ppb		98
9) Diethyl Ether	2.231	59	30200	5.23	ppb		93
10) Freon 123a	2.237	67	43059	5.16	ppb		93
11) Freon 123	2.292	83	46844	4.85	ppb		93
12) Acrolein	2.341	56	6982	10.86	ppb		82
13) 1,1-Diclethene	2.433	96	31837	4.93	ppb		93
14) Freon 113	2.445	101	28536	4.97	ppb		95
15) Acetone	2.487	43	9097	5.69	ppb		87
16) 2-Propanol	2.646	45	31774	104.11	ppb		96
17) Iodomethane	2.573	142	31152m	4.40	ppb		
18) Carbon Disulfide	2.634	76	111102	5.27	ppb		100
19) Acetonitrile	2.768	40	6669	29.90	ppb	#	82
20) Allyl Chloride	2.798	76	17955	5.11	ppb		96
21) Methyl Acetate	2.829	43	18940	5.05	ppb		93
22) Methylene Chloride	2.926	84	35558	4.88	ppb		95
23) TBA	3.091	59	50447	101.85	ppb		97
24) Acrylonitrile	3.213	53	44486	24.26	ppb		92
25) Methyl-t-Butyl Ether	3.262	73	92527	5.27	ppb		96
26) trans-1,2-Dichloroethene	3.249	96	33625	4.98	ppb		95
28) 1,1-Diclethane	3.792	63	60318	4.99	ppb		99
29) Vinyl Acetate	3.902	86	7875	6.04	ppb	#	28
30) DIPE	3.951	45	125231	5.32	ppb		98
31) 2-Chloro-1,3-Butadiene	3.932	53	63446	5.23	ppb		88
32) ETBE	4.530	59	117155	5.29	ppb		99
33) 2,2-Dichloropropane	4.713	77	47414	4.90	ppb		95
34) cis-1,2-Dichloroethene	4.719	96	38898	5.17	ppb		86
35) 2-Butanone	4.786	43	10539m	4.73	ppb		
36) Propionitrile	4.871	54	15565	23.14	ppb		83

KR 11/19/15

W111815.M Thu Nov 19 10:40:33 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 10:40:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.152	130	19776	5.06	ppb		91
38) Methacrylonitrile	5.164	67	11156	4.86	ppb	#	66
39) Tetrahydrofuran	5.255	42	7528	5.12	ppb		77
40) Chloroform	5.334	83	59895	5.10	ppb		96
41) 1,1,1-Trichloroethane	5.590	97	46419	5.03	ppb		93
42) TAME	6.401	73	94514	5.02	ppb		95
44) Cyclohexane	5.676	41	33300	4.95	ppb		99
46) Carbontetrachloride	5.859	121	12269	5.14	ppb		93
47) 1,1-Dichloropropene	5.871	75	43084	4.92	ppb		99
49) Benzene	6.170	78	139872	5.14	ppb		92
50) 1,2-Dichloroethane	6.212	62	39424	5.65	ppb		98
51) Iso-Butyl Alcohol	6.206	43	23251	101.88	ppb		98
52) n-Heptane	6.651	43	38767	5.17	ppb		94
53) 1-Butanol	7.121	56	34910	244.63	ppb		100
54) Trichloroethene	7.084	130	35311	5.10	ppb		89
55) Methylcyclohexane	7.310	55	42151	5.13	ppb		95
56) 1,2-Diclpropane	7.358	63	33071	4.90	ppb		96
57) Dibromomethane	7.499	93	15706	4.73	ppb		93
58) 1,4-Dioxane	7.553	88	5113m	101.90	ppb		
59) Methyl Methacrylate	7.578	69	19364	4.96	ppb		90
60) Bromodichloromethane	7.712	83	40787	4.93	ppb		96
61) 2-Nitropropane	7.992	41	13782	11.22	ppb	#	78
62) 2-Chloroethylvinyl Ether	8.108	63	19291	5.18	ppb		88
63) cis-1,3-Dichloropropene	8.242	75	57442	5.18	ppb		96
64) 4-Methyl-2-pentanone	8.444	43	24764	5.02	ppb		97
66) Toluene	8.602	91	151507	5.37	ppb		96
67) trans-1,3-Dichloropropene	8.864	75	46539	5.28	ppb		96
68) Ethyl Methacrylate	8.998	69	39319	5.04	ppb		98
69) 1,1,2-Trichloroethane	9.053	97	25521	5.35	ppb		87
72) Tetrachloroethene	9.181	164	23491	4.93	ppb	#	82
73) 2-Hexanone	9.334	43	17893	5.09	ppb		92
74) 1,3-Dichloropropane	9.212	76	45730	5.24	ppb		90
75) Dibromochloromethane	9.437	129	27530	5.07	ppb		96
76) N-Butyl Acetate	9.480	43	40826	4.89	ppb		94
77) 1,2-Dibromoethane	9.535	107	24026	5.17	ppb		90
78) Chlorobenzene	10.016	112	88016	5.18	ppb		97
79) 3-CBTF	10.029	180	42429	5.04	ppb		96
80) 4-CBTF	10.084	180	40057	5.11	ppb		95
81) 1,1,1,2-Tetrachloroethane	10.102	131	31987	5.45	ppb		90
82) Ethylbenzene	10.132	106	49311	5.13	ppb	#	87
83) (m+p)Xylene	10.242	106	123837	10.43	ppb		89
84) o-Xylene	10.596	106	65348	5.38	ppb		98
85) Styrene	10.608	104	101000	5.10	ppb		95
87) Bromoform	10.760	173	15710	4.84	ppb		86
88) 2-CBTF	10.833	180	43223	4.99	ppb		97
89) Isopropylbenzene	10.925	105	155103	5.22	ppb		97
90) Cyclohexanone	10.992	55	40168	93.25	ppb		97
91) trans-1,4-Dichloro-2-B...	11.230	53	7834	4.20	ppb		89
92) 1,1,2,2-Tetrachloroethane	11.181	83	28831	4.80	ppb		86
93) Bromobenzene	11.169	156	32718	4.87	ppb		94
94) 1,2,3-Trichloropropane	11.211	110	8802	4.98	ppb		96

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 10:40:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

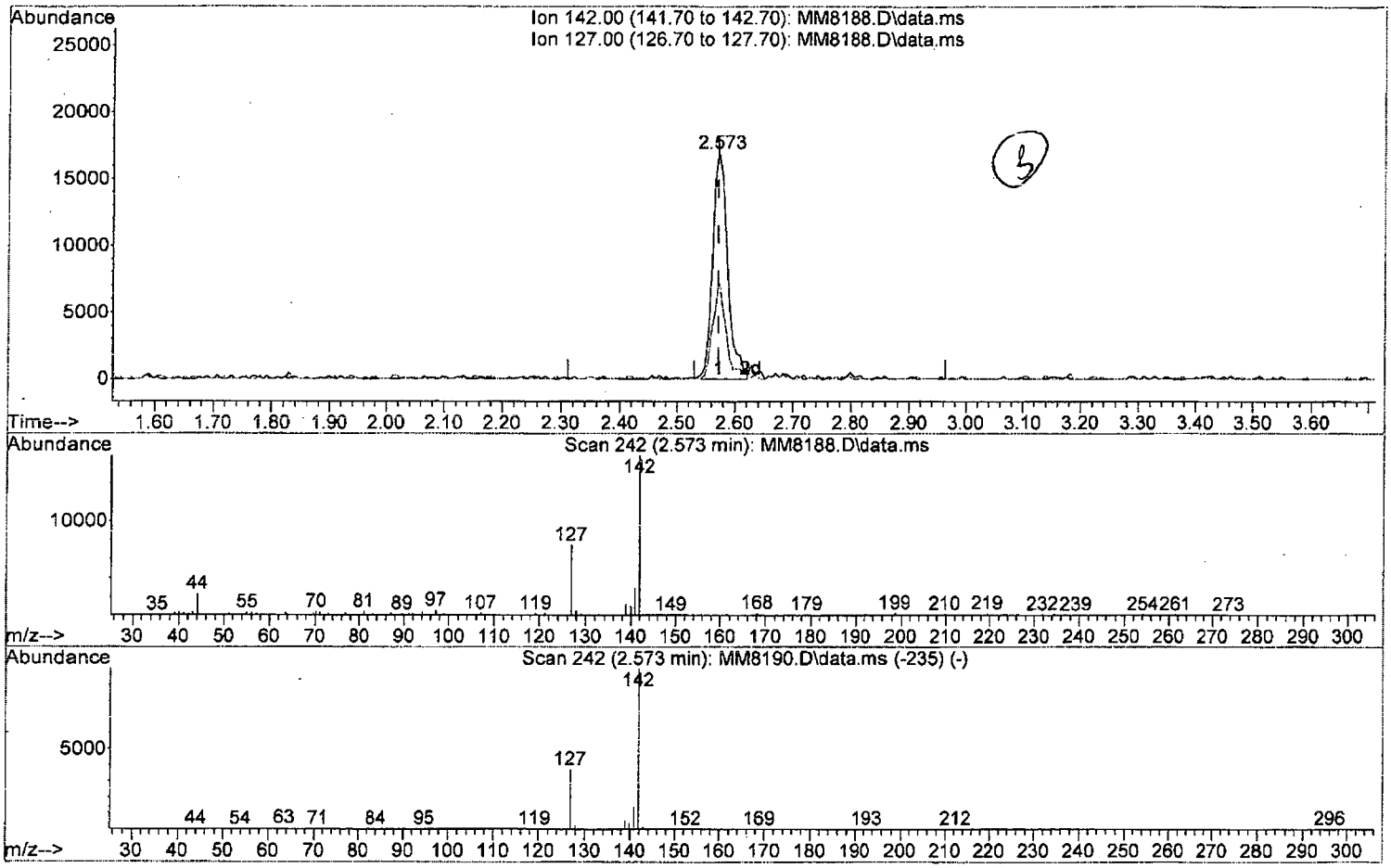
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
95)	n-Propylbenzene	11.278	91	175450	5.12	ppb		99
96)	2-Chlorotoluene	11.339	91	102448	5.10	ppb		99
97)	3-Chlorotoluene	11.394	91	110461	5.25	ppb		99
98)	4-Chlorotoluene	11.437	91	116003	5.12	ppb		96
99)	1,3,5-Trimethylbenzene	11.431	105	119820	5.33	ppb		92
100)	tert-Butylbenzene	11.699	119	103689	5.17	ppb		97
101)	1,2,4-Trimethylbenzene	11.736	105	123489	5.12	ppb		94
102)	3,4-DCBTF	11.797	214	27946	4.82	ppb	#	88
103)	sec-Butylbenzene	11.882	105	145596	5.19	ppb		98
104)	p-Isopropyltoluene	12.004	119	111489	5.14	ppb		99
105)	1,3-Dclbenz	11.961	146	64008	4.92	ppb		96
106)	1,4-Dclbenz	12.034	146	62260	5.10	ppb		99
107)	2,4-DCBTF	12.089	214	25156	4.97	ppb		96
108)	2,5-DCBTF	12.126	214	28728	5.01	ppb		96
109)	n-Butylbenzene	12.333	91	108028	5.26	ppb		94
110)	1,2-Dclbenz	12.339	146	59284	4.95	ppb		94
111)	1,2-Dibromo-3-chloropr...	12.961	157	5419	4.59	ppb		91
112)	Trielution Dichlorotol...	13.071	125	159023	15.73	ppb		98
113)	1,3,5 Trichlorobenzene	13.126	180	38744	4.81	ppb		87
114)	Coelution Dichlorotoluene	13.400	125	114845	10.75	ppb	#	91
115)	1,2,4-Tcbenzene	13.607	180	36182	4.90	ppb		95
116)	Hexachlorobt	13.747	225	14247	4.52	ppb		94
117)	Naphthalen	13.802	128	75597	4.93	ppb		96
118)	1,2,3-Tclbenzene	13.985	180	31980	5.20	ppb		94
119)	2,4,5-Trichlorotolene	14.570	159	23619	5.06	ppb		94
120)	2,3,6-Trichlorotoluene	14.656	159	20789m	5.04	ppb		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(17) Iodomethane

2.573min (+0.001) 4.27 ppb

response 30237

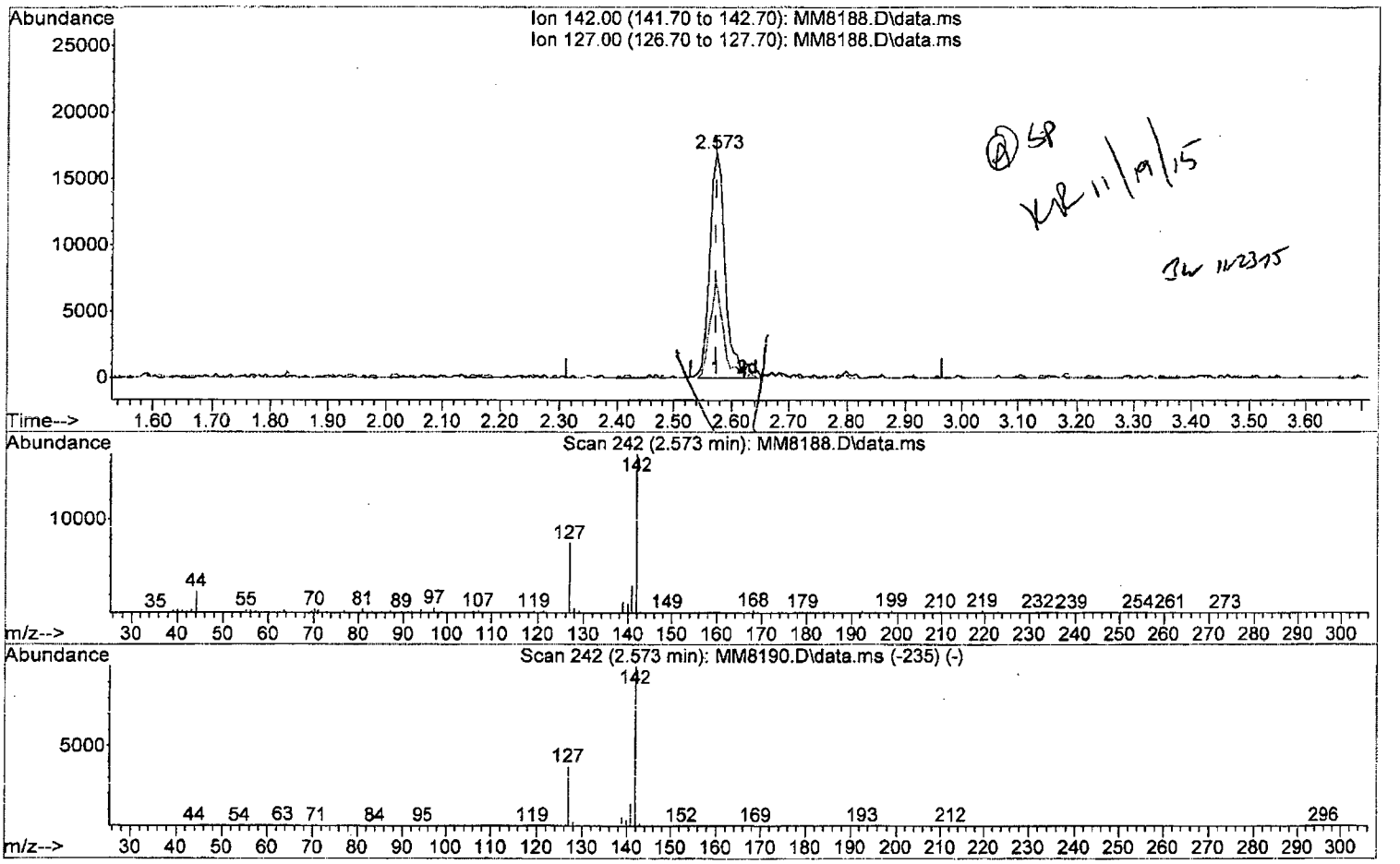
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	44.19
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:37:19 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(17) Iodomethane

2.573min (+0.001) 4.40 ppb m

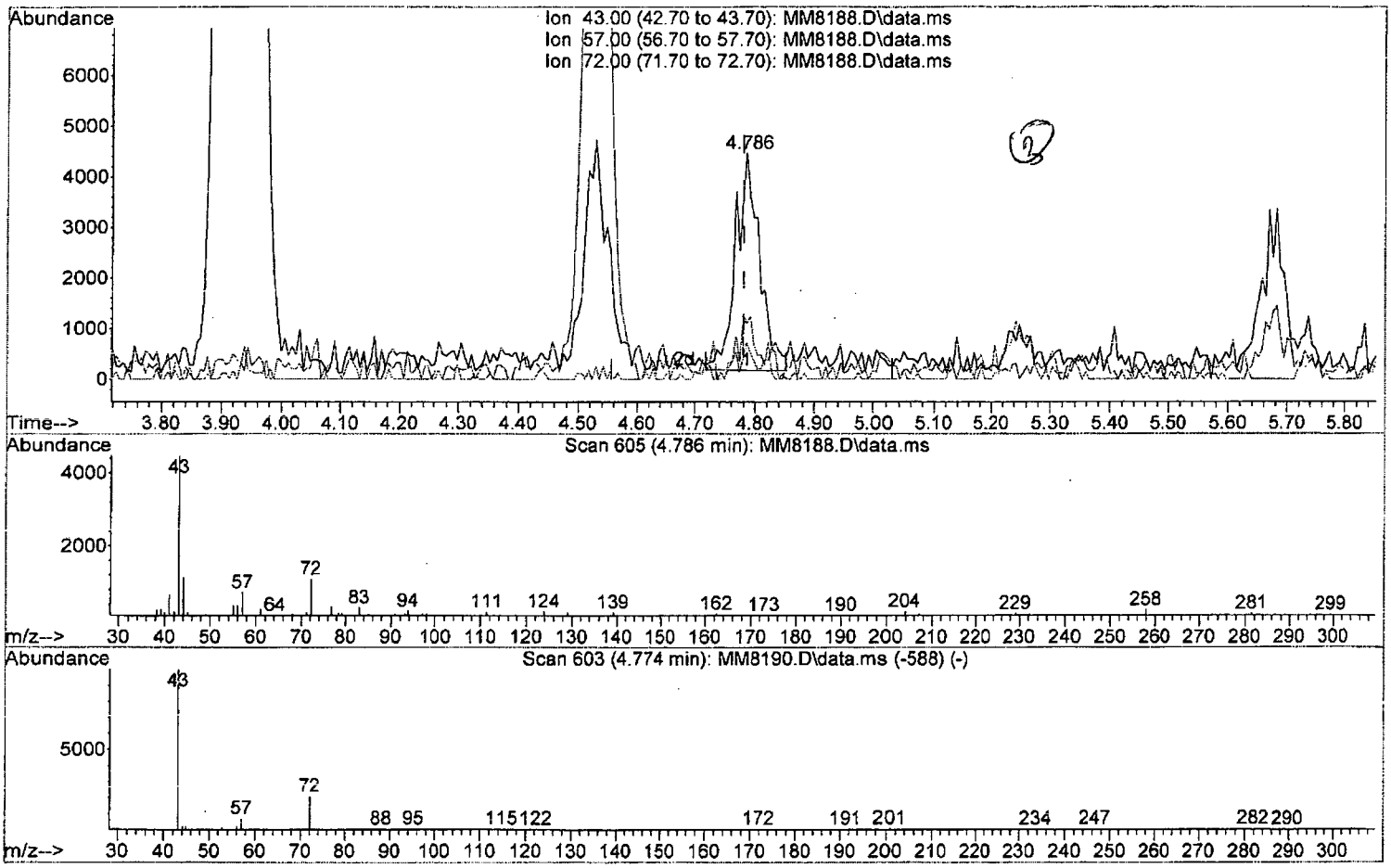
response 31152

Ion	Exp%	Act%
142.00	100	100
127.00	37.20	44.19
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(35) 2-Butanone (P)

4.786min (+0.006) 5.40 ppb

response 12026

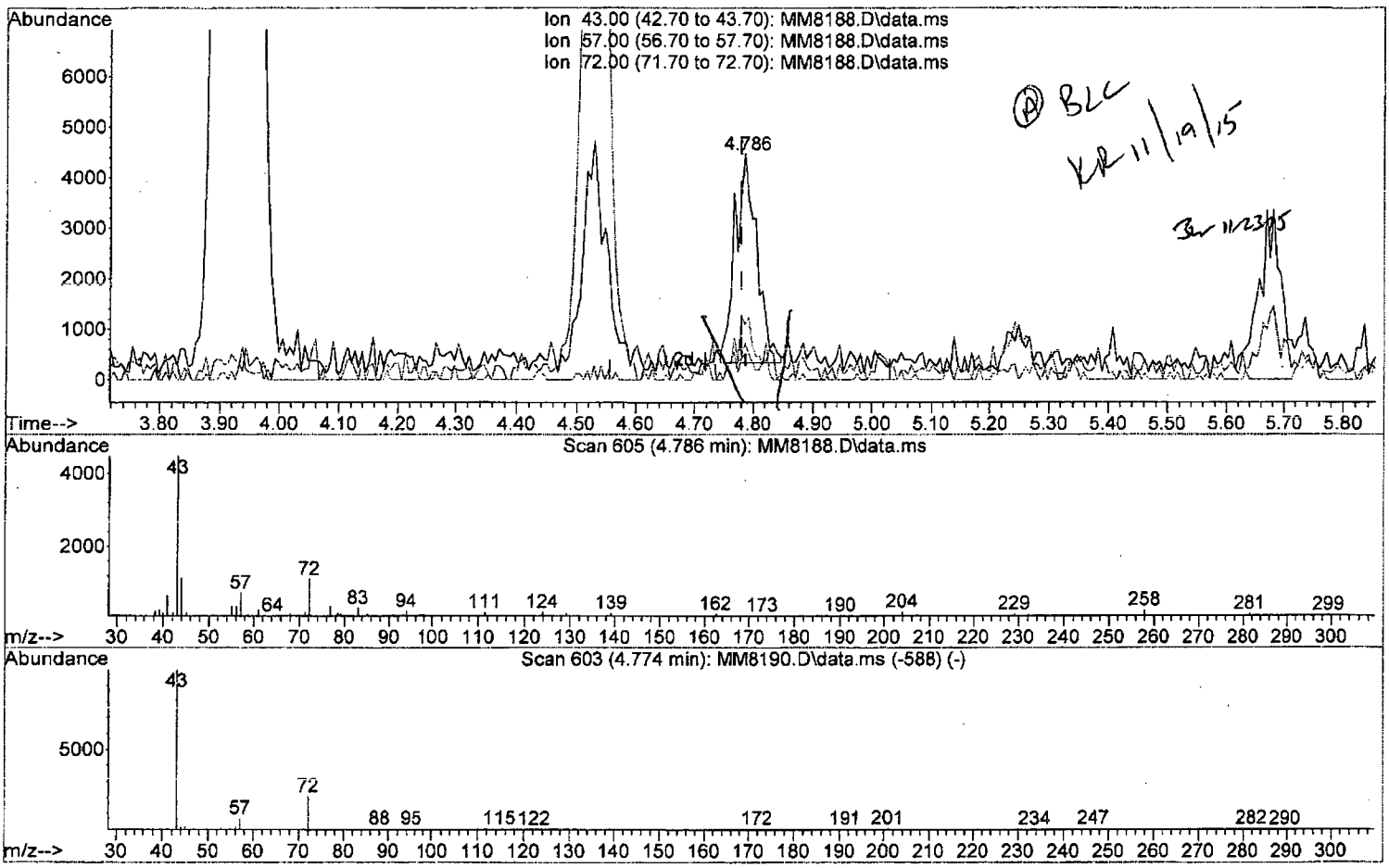
Ion	Exp%	Act%
43.00	100	100
57.00	7.50	16.19
72.00	21.20	24.53
0.00	0.00	0.00

W111815.M Thu Nov 19 10:38:15 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(35) 2-Butanone (P)

4.786min (+0.006) 4.73 ppb m

response 10539

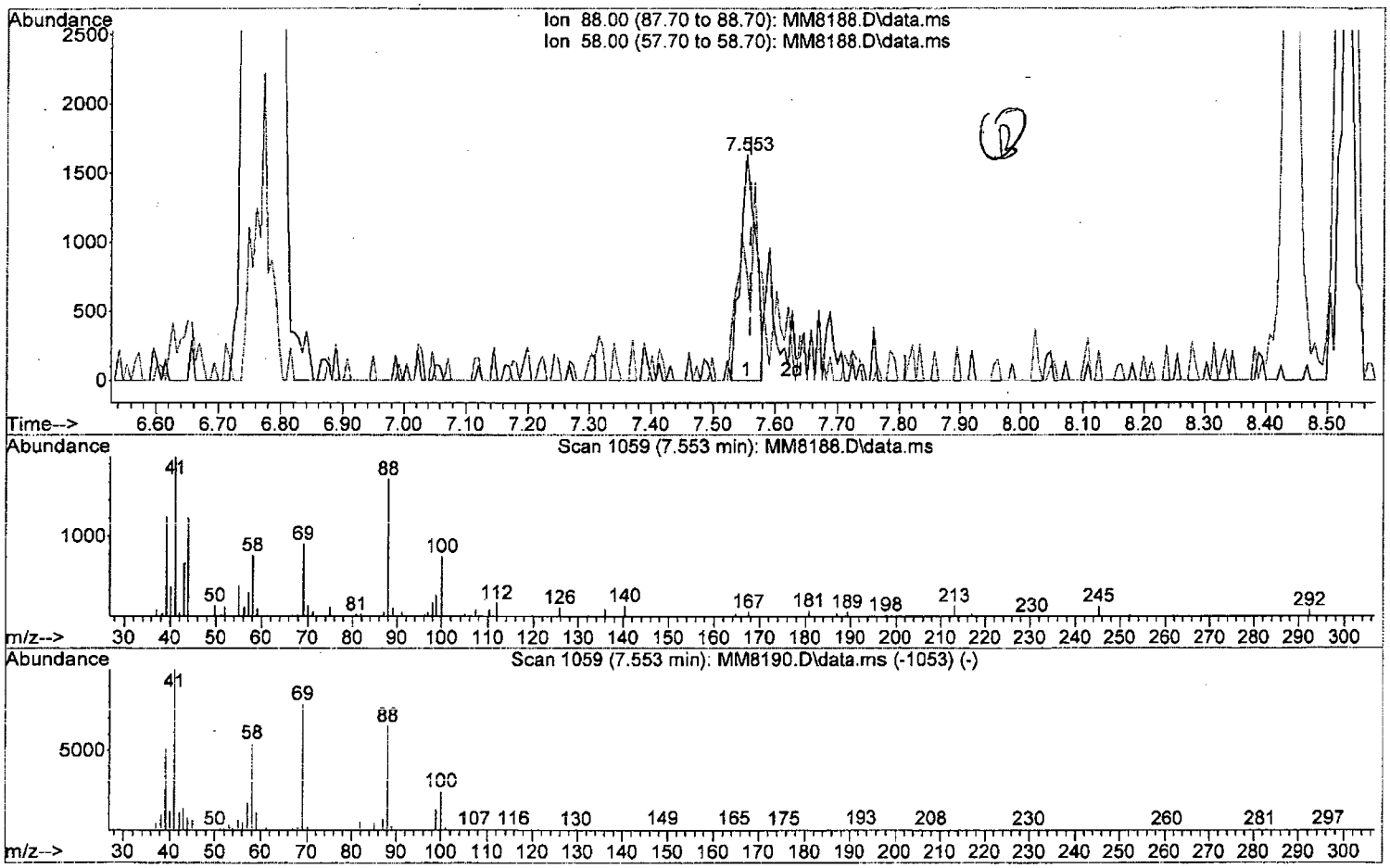
Ion	Exp%	Act%
43.00	100	100
57.00	7.50	16.19
72.00	21.20	24.53
0.00	0.00	0.00

W111815.M Thu Nov 19 10:38:32 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 55.24 ppb

response 2772

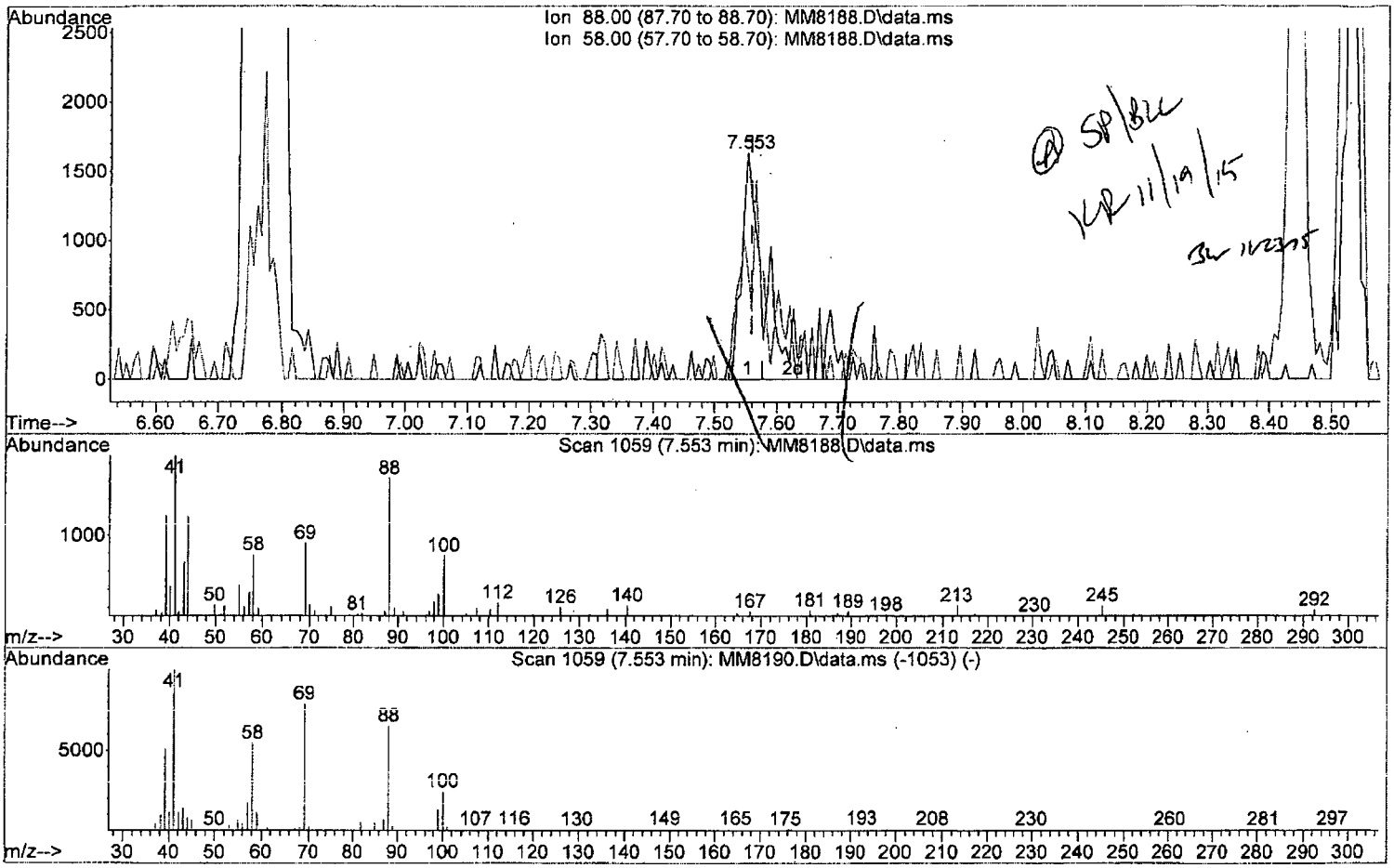
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	47.98#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:39:03 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 101.90 ppb m

response 5113

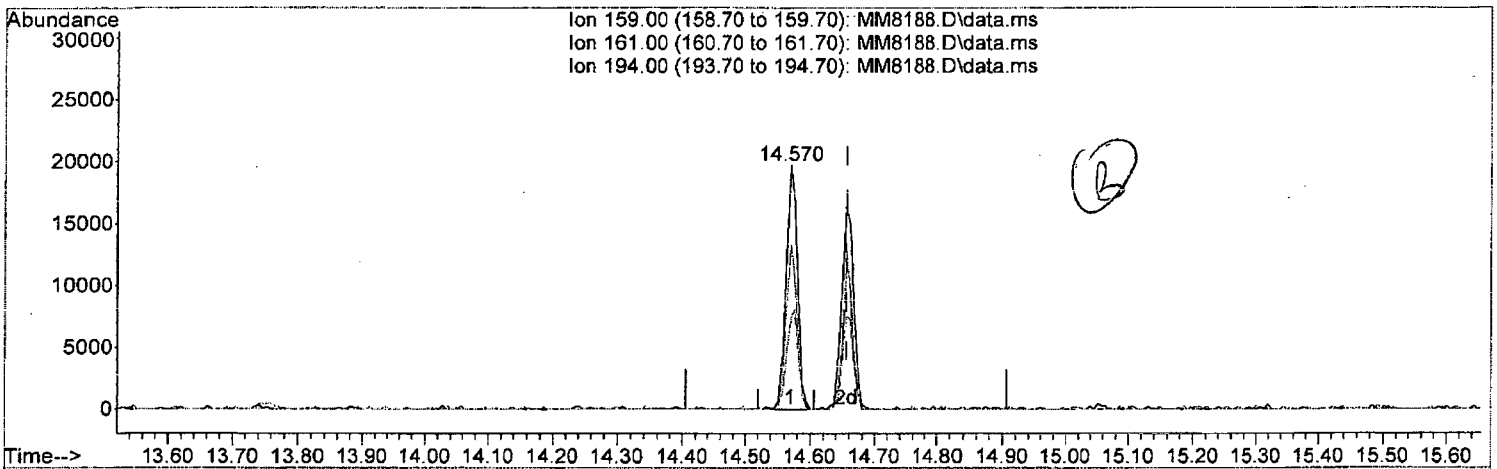
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	47.98#
0.00	0.00	0.00
0.00	0.00	0.00

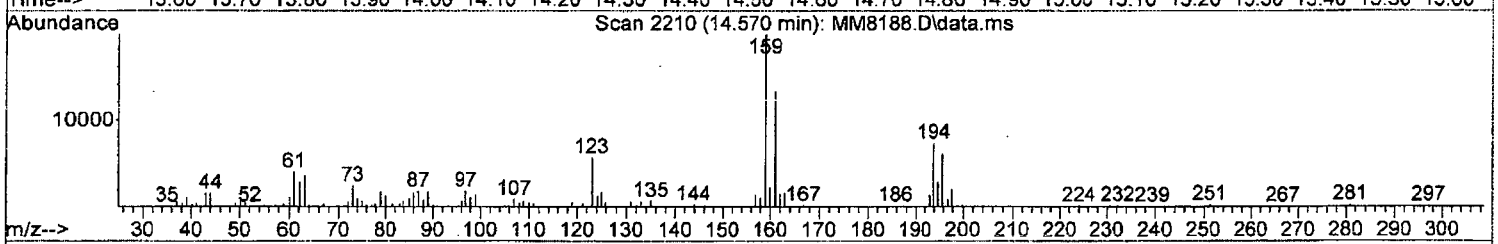
W111815.M Thu Nov 19 10:39:13 2015 Page: 1

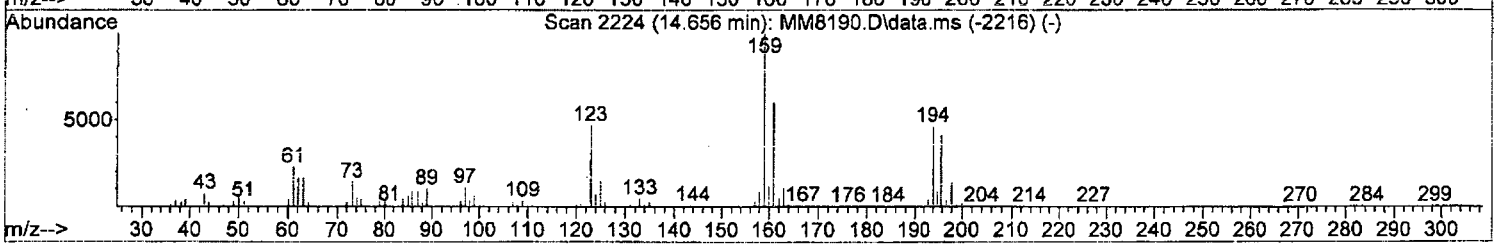
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8188.D\data.ms

(120) 2,3,6-Trichlorotoluene

14.570min (-0.085) 5.73 ppb

response 23619

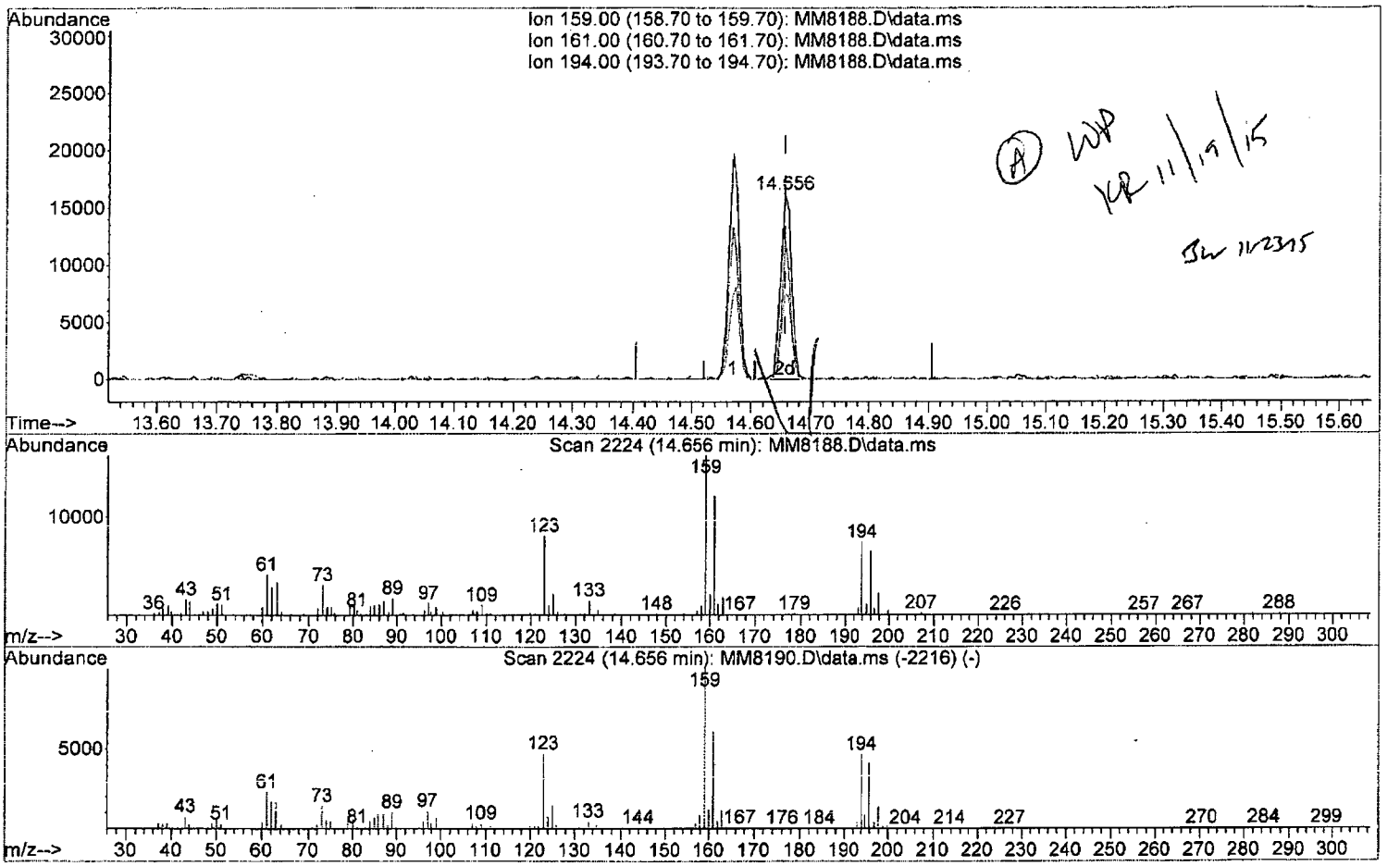
Ion	Exp%	Act%
159.00	100	100
161.00	60.80	67.25
194.00	46.40	37.24
0.00	0.00	0.00

W111815.M Thu Nov 19 10:39:52 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(120) 2,3,6-Trichlorotoluene

14.656min (-0.000) 5.04 ppb m

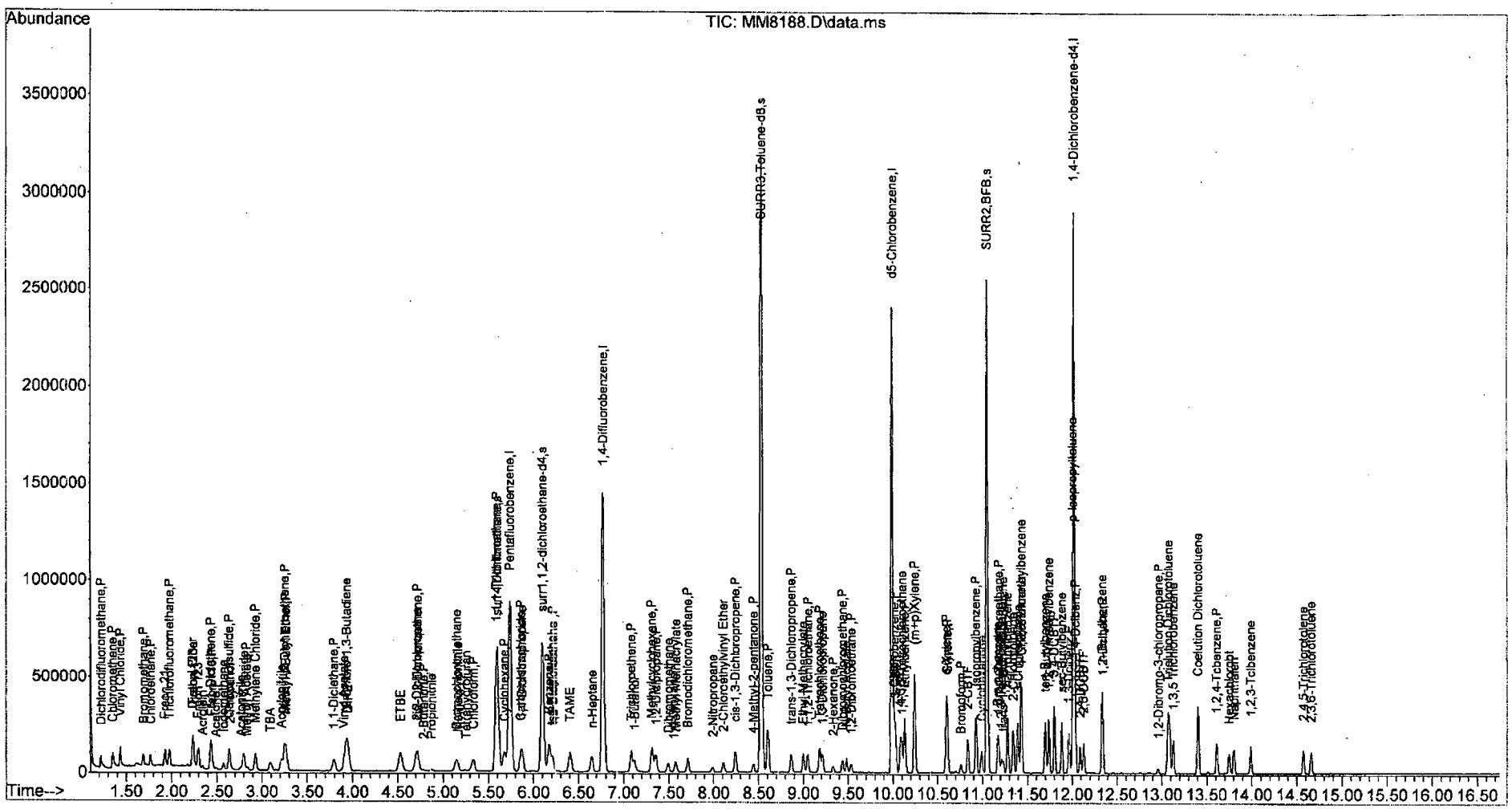
response 20789

Ion	Exp%	Act%
159.00	100	100
161.00	60.80	74.81#
194.00	46.40	45.95
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 10:40:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 10:51:14 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	746894	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1235612	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1138984	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	553172	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	625642	102.90	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 205.80%#				
48) surr1,1,2-dichloroetha...	6.096	65	682863	100.35	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 200.70%#				
65) SURR3,Toluene-d8	8.529	98	2568861	101.89	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 203.78%#				
70) SURR2,BFB	11.047	95	952681	97.85	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 195.70%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	235839	22.29	ppb		97
3) Chloromethane	1.347	50	271342	21.60	ppb		97
4) Vinyl Chloride	1.433	62	257391	22.00	ppb		98
5) Bromomethane	1.689	94	108855	18.79	ppb		94
6) Chloroethane	1.768	64	133130	20.35	ppb		99
7) Freon 21	1.927	67	248468	19.71	ppb		97
8) Trichlorofluoromethane	1.975	101	200987	22.02	ppb		96
9) Diethyl Ether	2.231	59	119049	20.82	ppb		97
10) Freon 123a	2.237	67	156125	18.91	ppb		97
11) Freon 123	2.298	83	175618	18.37	ppb		93
12) Acrolein	2.341	56	23880	37.52	ppb		98
13) 1,1-Diclethene	2.433	96	128509	20.09	ppb		96
14) Freon 113	2.445	101	117743	20.71	ppb		91
15) Acetone	2.487	43	30654m	19.36	ppb		
16) 2-Propanol	2.646	45	110266	364.95	ppb		95
17) Iodomethane	2.573	142	145090	20.69	ppb		98
18) Carbon Disulfide	2.634	76	409570	19.63	ppb		99
19) Acetonitrile	2.756	40	21431	97.04	ppb		88
20) Allyl Chloride	2.798	76	73906	21.25	ppb		98
21) Methyl Acetate	2.829	43	65421	17.63	ppb		94
22) Methylene Chloride	2.926	84	141816	19.66	ppb		94
23) TBA	3.091	59	190356	388.20	ppb		100
24) Acrylonitrile	3.207	53	177703	97.88	ppb		98
25) Methyl-t-Butyl Ether	3.262	73	353828	20.36	ppb		99
26) trans-1,2-Dichloroethene	3.249	96	140413	20.99	ppb		89
28) 1,1-Diclethane	3.792	63	249997	20.89	ppb		93
29) Vinyl Acetate	3.902	86	23791	18.43	ppb	#	93
30) DIPE	3.944	45	456019	19.55	ppb		100
31) 2-Chloro-1,3-Butadiene	3.926	53	229273	19.10	ppb		97
32) ETBE	4.524	59	420713	19.19	ppb		97
33) 2,2-Dichloropropane	4.707	77	201674	21.07	ppb		96
34) cis-1,2-Dichloroethene	4.719	96	147787	19.84	ppb		93
35) 2-Butanone	4.780	43	38879	17.62	ppb		88
36) Propionitrile	4.865	54	63104	94.74	ppb		100

JCR 11/19/15

W111815.M Thu Nov 19 10:51:52 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 10:51:14 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.139	130	75893	19.61	ppb		98
38) Methacrylonitrile	5.158	67	41997	18.49	ppb		87
39) Tetrahydrofuran	5.243	42	26241	18.02	ppb		95
40) Chloroform	5.328	83	228784	19.67	ppb		99
41) 1,1,1-Trichloroethane	5.603	97	188877	20.68	ppb		96
42) TAME	6.407	73	354005	19.01	ppb		97
44) Cyclohexane	5.676	41	128800	19.16	ppb		92
46) Carbontetrachloride	5.859	121	48489	20.34	ppb		99
47) 1,1-Dichloropropene	5.871	75	180256	20.60	ppb		98
49) Benzene	6.176	78	569231	20.93	ppb		97
50) 1,2-Dichloroethane	6.212	62	147678	21.18	ppb		98
51) Iso-Butyl Alcohol	6.200	43	87699	384.74	ppb		86
52) n-Heptane	6.645	43	156368	20.90	ppb		95
53) 1-Butanol	7.115	56	130164	913.20	ppb		98
54) Trichloroethene	7.084	130	141316	20.45	ppb		95
55) Methylcyclohexane	7.310	55	157368	19.18	ppb		92
56) 1,2-Diclpropane	7.358	63	141654	21.02	ppb		97
57) Dibromomethane	7.486	93	64616	19.48	ppb		97
58) 1,4-Dioxane	7.560	88	19220m	383.50	ppb		
59) Methyl Methacrylate	7.578	69	76126	19.52	ppb		93
60) Bromodichloromethane	7.712	83	168733	20.42	ppb		98
61) 2-Nitropropane	7.986	41	47739	38.93	ppb		92
62) 2-Chloroethylvinyl Ether	8.108	63	68173	18.34	ppb		98
63) cis-1,3-Dichloropropene	8.242	75	233657	21.10	ppb		98
64) 4-Methyl-2-pentanone	8.444	43	97024	19.69	ppb		98
66) Toluene	8.602	91	607465	21.57	ppb		98
67) trans-1,3-Dichloropropene	8.864	75	184608	20.99	ppb		97
68) Ethyl Methacrylate	8.998	69	160688	20.63	ppb		99
69) 1,1,2-Trichloroethane	9.047	97	100108	21.02	ppb		99
72) Tetrachloroethene	9.181	164	99831	21.13	ppb		91
73) 2-Hexanone	9.328	43	63376	18.18	ppb		98
74) 1,3-Dichloropropane	9.212	76	179404	20.72	ppb		97
75) Dibromochloromethane	9.437	129	108632	20.16	ppb		97
76) N-Butyl Acetate	9.480	43	164957	19.91	ppb		98
77) 1,2-Dibromoethane	9.529	107	95116	20.61	ppb		98
78) Chlorobenzene	10.016	112	354056	21.02	ppb		98
79) 3-CBTF	10.029	180	166251	19.92	ppb		99
80) 4-CBTF	10.084	180	153182	19.70	ppb		98
81) 1,1,1,2-Tetrachloroethane	10.102	131	119487	20.52	ppb		94
82) Ethylbenzene	10.132	106	201581	21.12	ppb		96
83) (m+p)Xylene	10.242	106	498501	42.32	ppb		96
84) o-Xylene	10.596	106	254290	21.08	ppb		94
85) Styrene	10.608	104	413167	21.02	ppb		98
87) Bromoform	10.760	173	61267	19.50	ppb		94
88) 2-CBTF	10.839	180	168048	20.04	ppb		94
89) Isopropylbenzene	10.925	105	620263	21.56	ppb		98
90) Cyclohexanone	10.986	55	157226	376.99	ppb		99
91) trans-1,4-Dichloro-2-B...	11.230	53	33092	18.32	ppb		93
92) 1,1,2,2-Tetrachloroethane	11.181	83	116208	19.99	ppb		92
93) Bromobenzene	11.175	156	139093	21.37	ppb	#	85
94) 1,2,3-Trichloropropane	11.211	110	30318	17.71	ppb		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 10:51:14 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

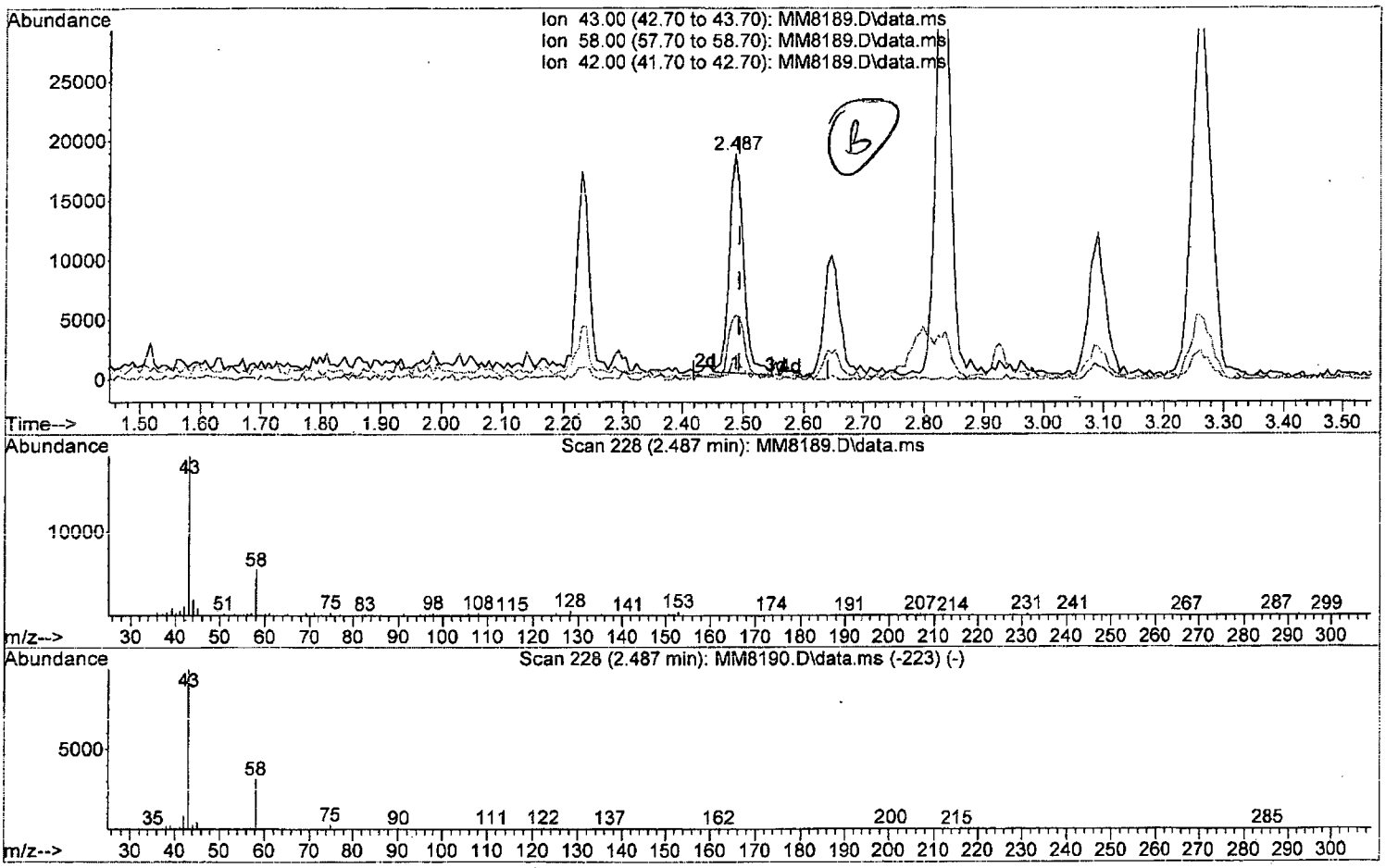
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) n-Propylbenzene	11.278	91	736008	22.20	ppb	96
96) 2-Chlorotoluene	11.339	91	425256	21.88	ppb	98
97) 3-Chlorotoluene	11.394	91	424784	20.84	ppb	98
98) 4-Chlorotoluene	11.431	91	471833	21.52	ppb	94
99) 1,3,5-Trimethylbenzene	11.431	105	469663	21.58	ppb	98
100) tert-Butylbenzene	11.699	119	422608	21.76	ppb	99
101) 1,2,4-Trimethylbenzene	11.736	105	508453	21.77	ppb	96
102) 3,4-DCBTF	11.797	214	110506	19.67	ppb	99
103) sec-Butylbenzene	11.882	105	592992	21.82	ppb	98
104) p-Isopropyltoluene	12.004	119	462544	22.01	ppb	99
105) 1,3-Dclbenz	11.961	146	266226	21.13	ppb	98
106) 1,4-Dclbenz	12.034	146	254619	21.56	ppb	98
107) 2,4-DCBTF	12.089	214	100928	20.59	ppb	94
108) 2,5-DCBTF	12.126	214	110539	19.93	ppb	96
109) n-Butylbenzene	12.333	91	438516	22.04	ppb	99
110) 1,2-Dclbenz	12.339	146	246674	21.27	ppb	96
111) 1,2-Dibromo-3-chloropr...	12.955	157	22127	19.35	ppb	87
112) Trielution Dichlorotol...	13.077	125	622015	63.56	ppb	98
113) 1,3,5 Trichlorobenzene	13.126	180	160567	20.60	ppb	95
114) Coelution Dichlorotoluene	13.400	125	440014	42.55	ppb	99
115) 1,2,4-Tcbenzene	13.607	180	147114	20.56	ppb	98
116) Hexachlorobt	13.747	225	58439	19.16	ppb	91
117) Naphthalen	13.796	128	308728	20.81	ppb	99
118) 1,2,3-Tclbenzene	13.985	180	124012	20.84	ppb	98
119) 2,4,5-Trichlorotolene	14.570	159	89484	19.81	ppb	98
120) 2,3,6-Trichlorotoluene	14.656	159	78074	19.55	ppb	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 09:36:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8189.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 18.88 ppb

response 29898

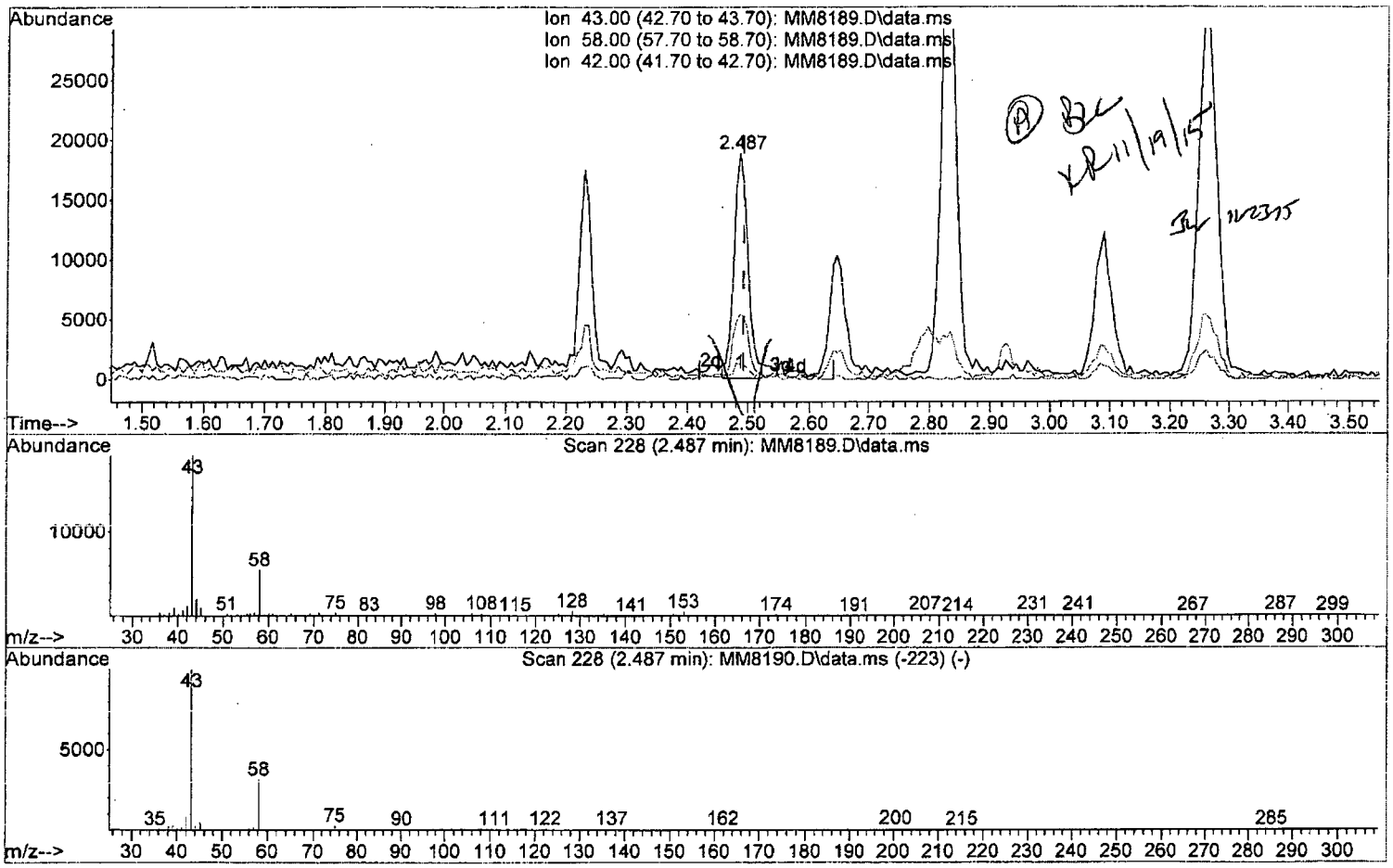
Ion	Exp%	Act%
43.00	100	100
58.00	30.90	28.87
42.00	8.50	6.21
0.00	0.00	0.00

W111815.M Thu Nov 19 10:50:00 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 09:36:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8189.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 19.36 ppb m

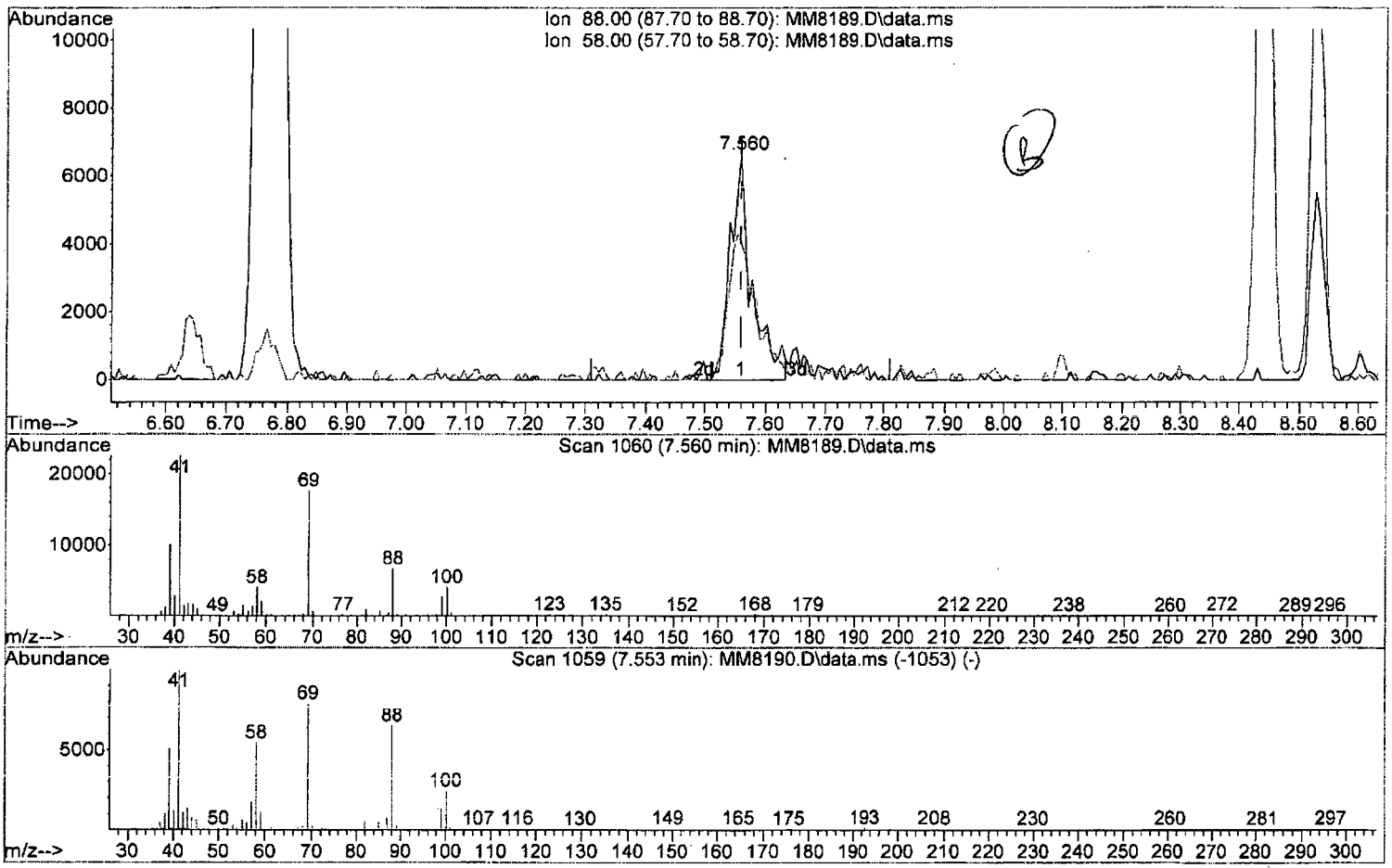
response 30654

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	28.87
42.00	8.50	6.21
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 09:36:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8189.D\data.ms

(58) 1,4-Dioxane

7.560min (-0.000) 324.02 ppb

response 16239

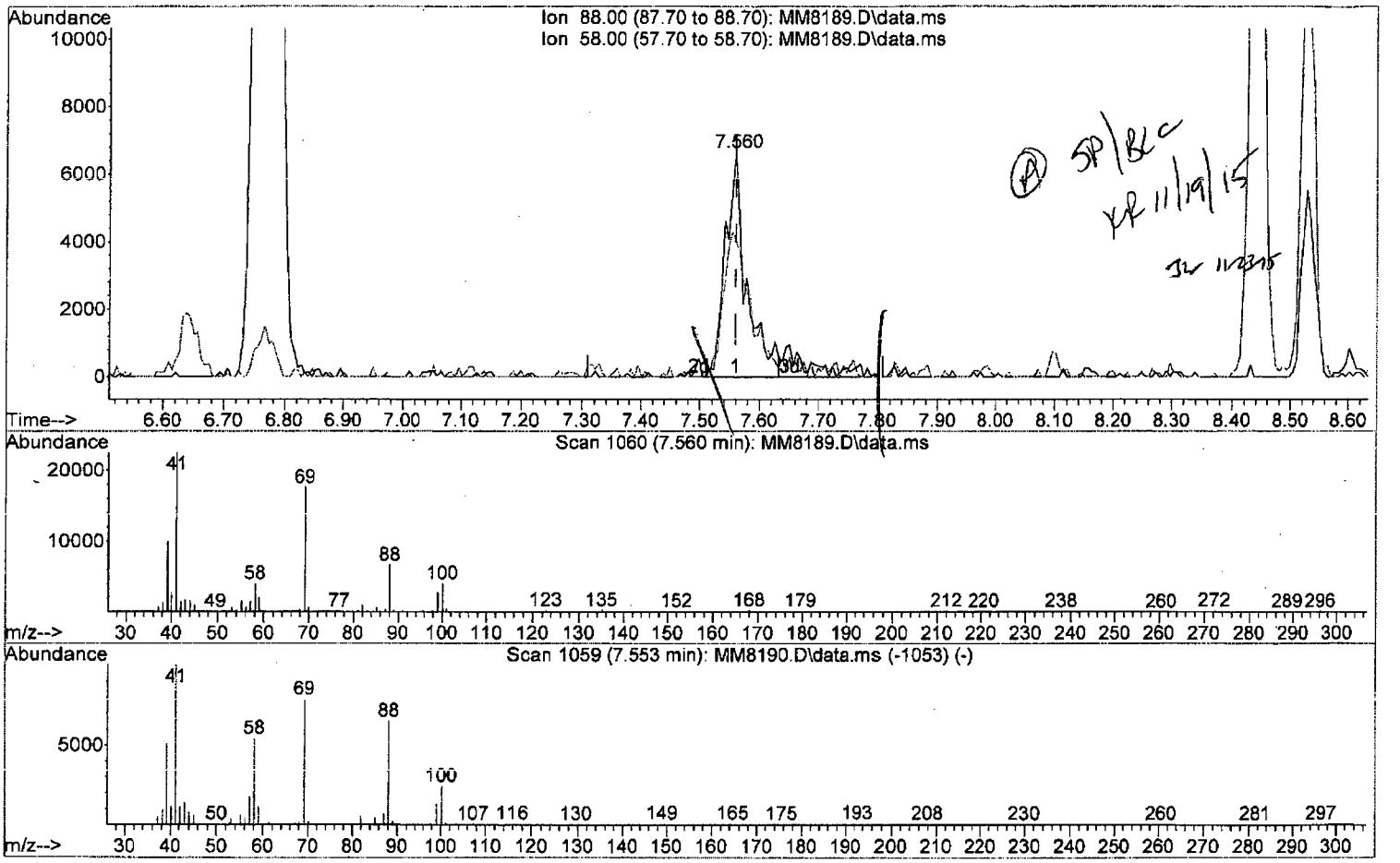
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	60.62#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:51:00 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 09:36:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8189.D\data.ms

(58) 1,4-Dioxane

7.560min (-0.000) 383.50 ppb m

response 19220

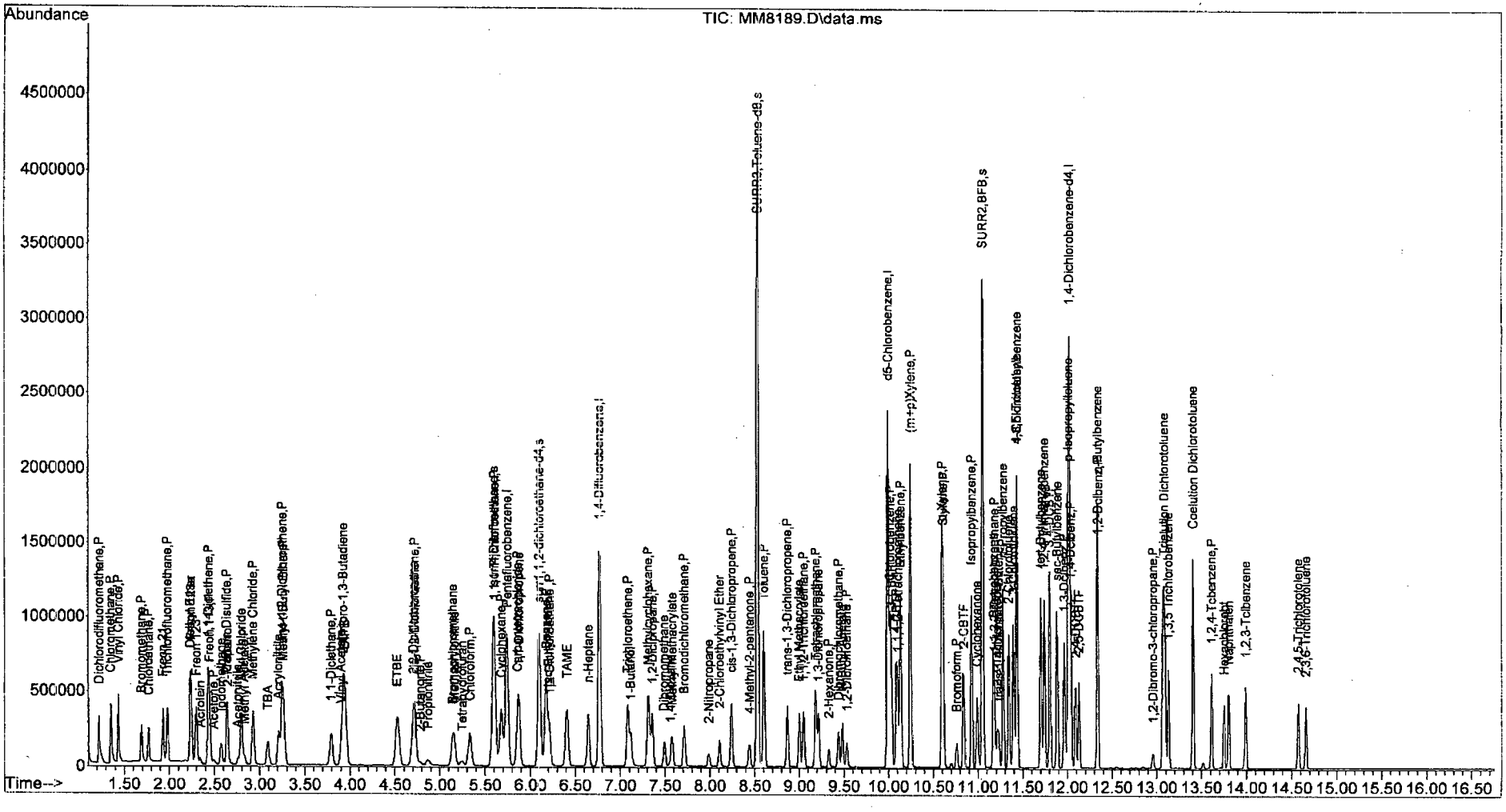
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	60.62#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:51:07 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 10:51:14 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 10:51:56 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 10:54:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.743	168	733125	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1221940	50.00	ppb	0.00
71) d5-Chlorobenzene	9.992	117	1154458	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	553929	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.597	113	352544	47.76	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 95.52%			
48) surr1,1,2-dichloroetha...	6.096	65	385774	48.80	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 97.60%			
65) SURR3,Toluene-d8	8.529	98	1554415	48.42	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 96.84%			
70) SURR2,BFB	11.047	95	574554	49.69	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.38%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.219	85	574986	55.36	ppb	100
3) Chloromethane	1.347	50	620223	50.31	ppb	100
4) Vinyl Chloride	1.433	62	589983	51.36	ppb	100
5) Bromomethane	1.689	94	272364	47.91	ppb	100
6) Chloroethane	1.768	64	316235	49.25	ppb	100
7) Freon 21	1.927	67	622497	50.31	ppb	100
8) Trichlorofluoromethane	1.975	101	459849	51.34	ppb	100
9) Diethyl Ether	2.231	59	277168	49.37	ppb	100
10) Freon 123a	2.237	67	393722	48.59	ppb	100
11) Freon 123	2.298	83	447567	47.71	ppb	100
12) Acrolein	2.341	56	57688	92.34	ppb	100
13) 1,1-Dicléthene	2.433	96	304457	48.49	ppb	100
14) Freon 113	2.439	101	273994	49.10	ppb	100
15) Acetone	2.487	43	72992m	46.95	ppb	
16) 2-Propanol	2.646	45	270149	910.90	ppb	100
17) Iodomethane	2.573	142	393581	57.19	ppb	100
18) Carbon Disulfide	2.634	76	1040806	50.82	ppb	100
19) Acetonitrile	2.762	40	46696	215.42	ppb	100
20) Allyl Chloride	2.798	76	171067	50.11	ppb	100
21) Methyl Acetate	2.829	43	165414	45.43	ppb	100
22) Methylene Chloride	2.926	84	335728	47.42	ppb	100
23) TBA	3.085	59	453364	941.93	ppb	100
24) Acrylonitrile	3.207	53	424290	238.10	ppb	100
25) Methyl-t-Butyl Ether	3.262	73	809434	47.45	ppb	100
26) trans-1,2-Dichloroethene	3.249	96	328228	49.99	ppb	100
28) 1,1-Diclethane	3.792	63	585724	49.87	ppb	100
29) Vinyl Acetate	3.902	86	58562	46.23	ppb	100
30) DIPE	3.944	45	1120425	48.94	ppb	100
31) 2-Chloro-1,3-Butadiene	3.926	53	588782	49.97	ppb	100
32) ETBE	4.524	59	1056072	49.08	ppb	100
33) 2,2-Dichloropropane	4.700	77	467328	49.75	ppb	100
34) cis-1,2-Dichloroethene	4.719	96	349816	47.84	ppb	100
35) 2-Butanone	4.774	43	102240	47.20	ppb	100
36) Propionitrile	4.865	54	151601	231.88	ppb	100

KR 11/19/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 10:54:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Bromochloromethane	5.145	130	185345	48.78	ppb	100
38) Methacrylonitrile	5.158	67	98211	44.05	ppb	100
39) Tetrahydrofuran	5.237	42	62344	43.61	ppb	100
40) Chloroform	5.328	83	539092	47.23	ppb	100
41) 1,1,1-Trichloroethane	5.597	97	448066	49.98	ppb	100
42) TAME	6.401	73	888035	48.58	ppb	100
44) Cyclohexane	5.676	41	328688	49.44	ppb	100
46) Carbontetrachloride	5.859	121	117711	49.94	ppb	100
47) 1,1-Dichloropropene	5.871	75	431513	49.85	ppb	100
49) Benzene	6.170	78	1368032	50.87	ppb	100
50) 1,2-Dichloroethane	6.212	62	337529	48.96	ppb	100
51) Iso-Butyl Alcohol	6.200	43	202950	900.31	ppb	100
52) n-Heptane	6.645	43	360771	48.75	ppb	100
53) 1-Butanol	7.115	56	324175	2299.79	ppb	100
54) Trichloroethene	7.084	130	337817	49.44	ppb	100
55) Methylcyclohexane	7.316	55	395842	48.79	ppb	100
56) 1,2-Diclpropane	7.352	63	335429	50.34	ppb	100
57) Dibromomethane	7.486	93	152034	46.34	ppb	100
58) 1,4-Dioxane	7.553	88	43143m	870.47	ppb	
59) Methyl Methacrylate	7.578	69	186578	48.39	ppb	100
60) Bromodichloromethane	7.712	83	407587	49.89	ppb	100
61) 2-Nitropropane	7.986	41	110019	90.71	ppb	100
62) 2-Chloroethylvinyl Ether	8.108	63	173496	47.19	ppb	100
63) cis-1,3-Dichloropropene	8.242	75	547036	49.95	ppb	100
64) 4-Methyl-2-pentanone	8.437	43	238996	49.04	ppb	100
66) Toluene	8.602	91	1418406	50.93	ppb	100
67) trans-1,3-Dichloropropene	8.864	75	448276	51.53	ppb	100
68) Ethyl Methacrylate	8.998	69	387625	50.32	ppb	100
69) 1,1,2-Trichloroethane	9.047	97	235977	50.10	ppb	100
72) Tetrachloroethene	9.181	164	239087	49.93	ppb	100
73) 2-Hexanone	9.328	43	166329	47.07	ppb	100
74) 1,3-Dichloropropane	9.212	76	416990	47.51	ppb	100
75) Dibromochloromethane	9.437	129	272559	49.91	ppb	100
76) N-Butyl Acetate	9.480	43	412079	49.08	ppb	100
77) 1,2-Dibromoethane	9.529	107	226815	48.49	ppb	100
78) Chlorobenzene	10.016	112	832436	48.75	ppb	100
79) 3-CBTF	10.029	180	407757	48.19	ppb	100
80) 4-CBTF	10.083	180	373055	47.34	ppb	100
81) 1,1,1,2-Tetrachloroethane	10.102	131	284530	48.21	ppb	100
82) Ethylbenzene	10.132	106	475699	49.18	ppb	100
83) (m+p)Xylene	10.242	106	1184332	99.19	ppb	100
84) o-Xylene	10.596	106	619072	50.63	ppb	100
85) Styrene	10.608	104	992156	49.81	ppb	100
87) Bromoform	10.760	173	151800	48.24	ppb	100
88) 2-CBTF	10.833	180	406831	48.44	ppb	100
89) Isopropylbenzene	10.925	105	1451555	50.39	ppb	100
90) Cyclohexanone	10.986	55	396507	949.43	ppb	100
91) trans-1,4-Dichloro-2-B...	11.230	53	84694	46.81	ppb	100
92) 1,1,2,2-Tetrachloroethane	11.181	83	273575	47.00	ppb	100
93) Bromobenzene	11.169	156	333923	51.23	ppb	100
94) 1,2,3-Trichloropropane	11.211	110	75214	43.88	ppb	100

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 10:54:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

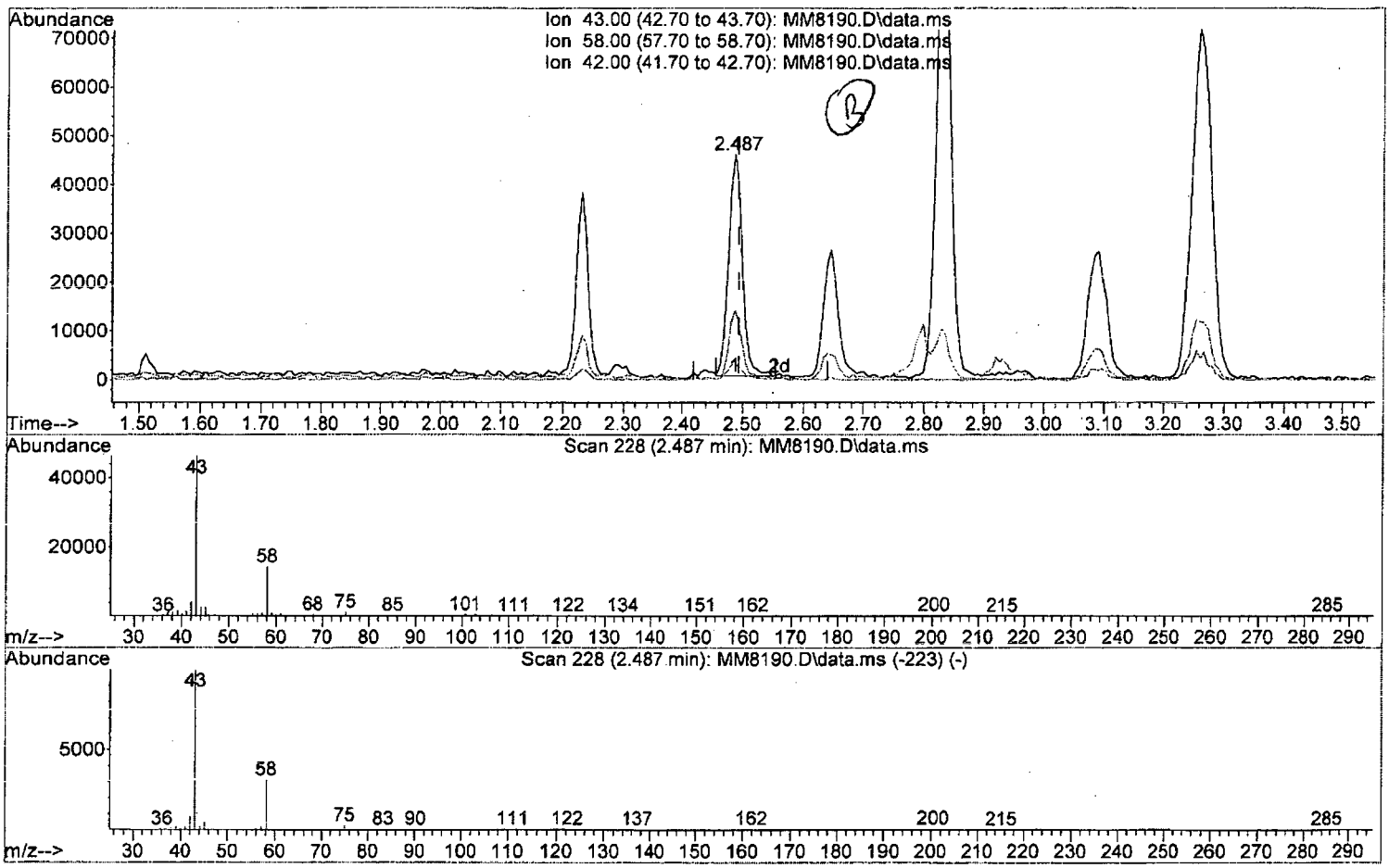
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	1715030	51.66	ppb	100
96)	2-Chlorotoluene	11.339	91	1004690	51.62	ppb	100
97)	3-Chlorotoluene	11.394	91	1024114	50.17	ppb	100
98)	4-Chlorotoluene	11.437	91	1110175	50.57	ppb	100
99)	1,3,5-Trimethylbenzene	11.431	105	1111728	51.00	ppb	100
100)	tert-Butylbenzene	11.699	119	1007300	51.79	ppb	100
101)	1,2,4-Trimethylbenzene	11.742	105	1197157	51.18	ppb	100
102)	3,4-DCBTF	11.797	214	275696	49.01	ppb	100
103)	sec-Butylbenzene	11.882	105	1398223	51.38	ppb	100
104)	p-Isopropyltoluene	12.004	119	1087020	51.66	ppb	100
105)	1,3-Dclbenz	11.961	146	638059	50.57	ppb	100
106)	1,4-Dclbenz	12.034	146	613936	51.91	ppb	100
107)	2,4-DCBTF	12.089	214	244902	49.88	ppb	100
108)	2,5-DCBTF	12.126	214	272399	49.05	ppb	100
109)	n-Butylbenzene	12.333	91	1027520	51.57	ppb	100
110)	1,2-Dclbenz	12.339	146	591846	50.97	ppb	100
111)	1,2-Dibromo-3-chloropr...	12.955	157	53472	46.71	ppb	100
112)	Trielution Dichlorotol...	13.077	125	1477263	150.74	ppb	100
113)	1,3,5 Trichlorobenzene	13.132	180	380708	48.77	ppb	100
114)	Coelution Dichlorotoluene	13.400	125	1062223	102.57	ppb	100
115)	1,2,4-Tcbenzene	13.607	180	360767	50.36	ppb	100
116)	Hexachlorobt	13.747	225	146014	47.80	ppb	100
117)	Naphthalen	13.796	128	766508	51.59	ppb	100
118)	1,2,3-Tclbenzene	13.985	180	306118	51.37	ppb	100
119)	2,4,5-Trichlorotolene	14.570	159	218733	48.36	ppb	100
120)	2,3,6-Trichlorotoluene	14.656	159	182713	45.69	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 09:36:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8190.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 45.46 ppb

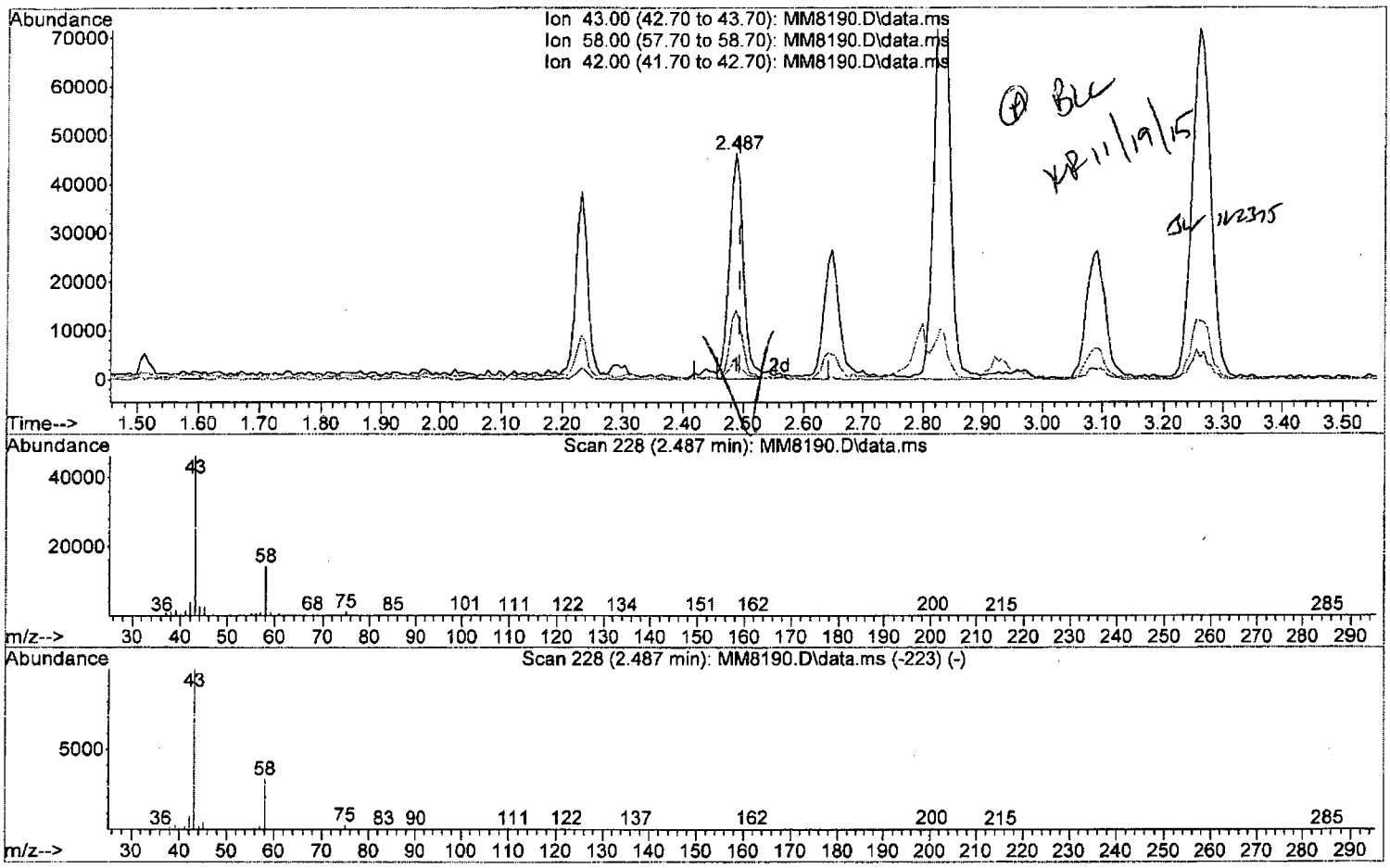
response 70668

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	30.87
42.00	8.50	8.48
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 09:36:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8190.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 46.95 ppb m

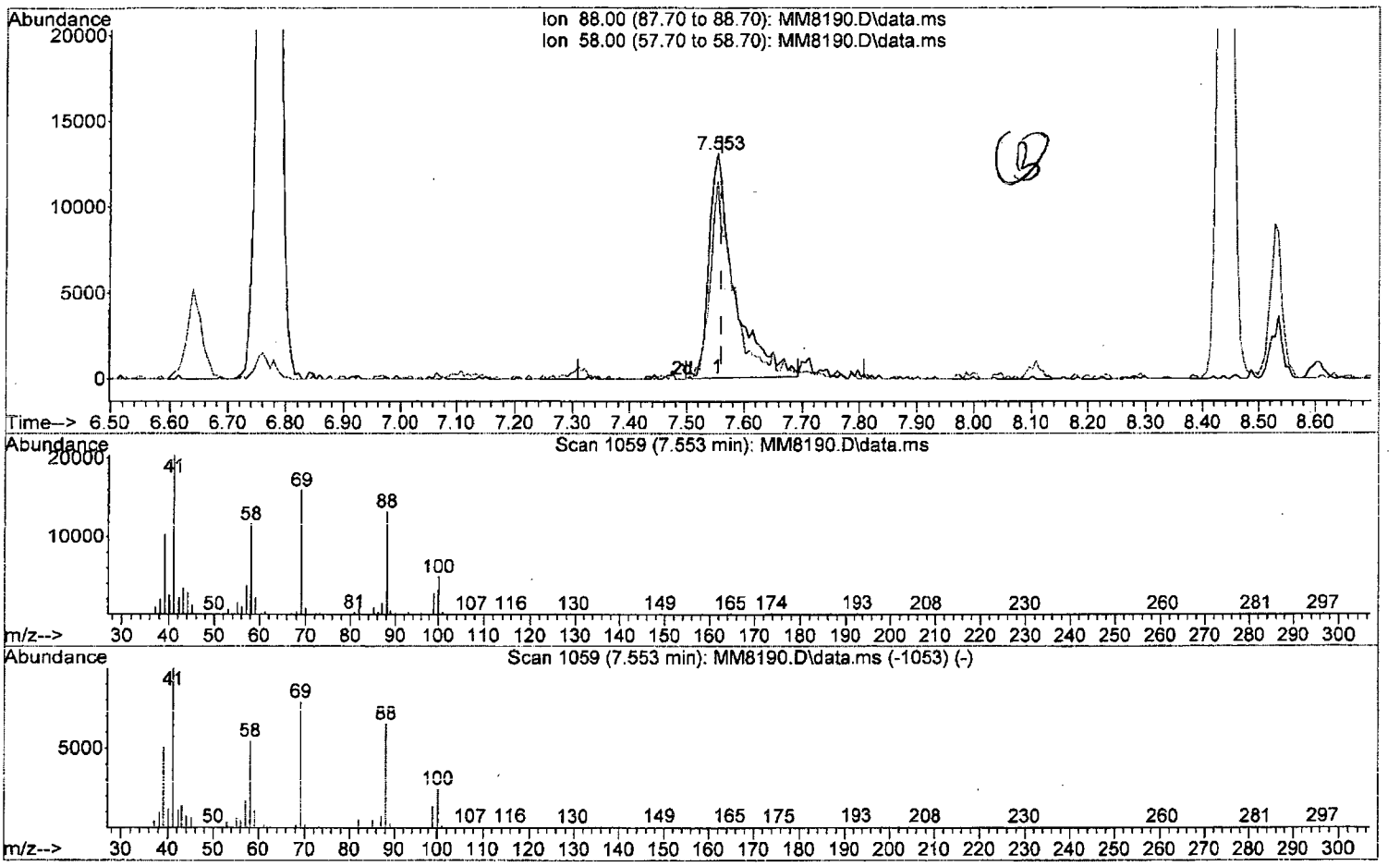
response 72992

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	30.87
42.00	8.50	8.48
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 09:36:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8190.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 809.02 ppb

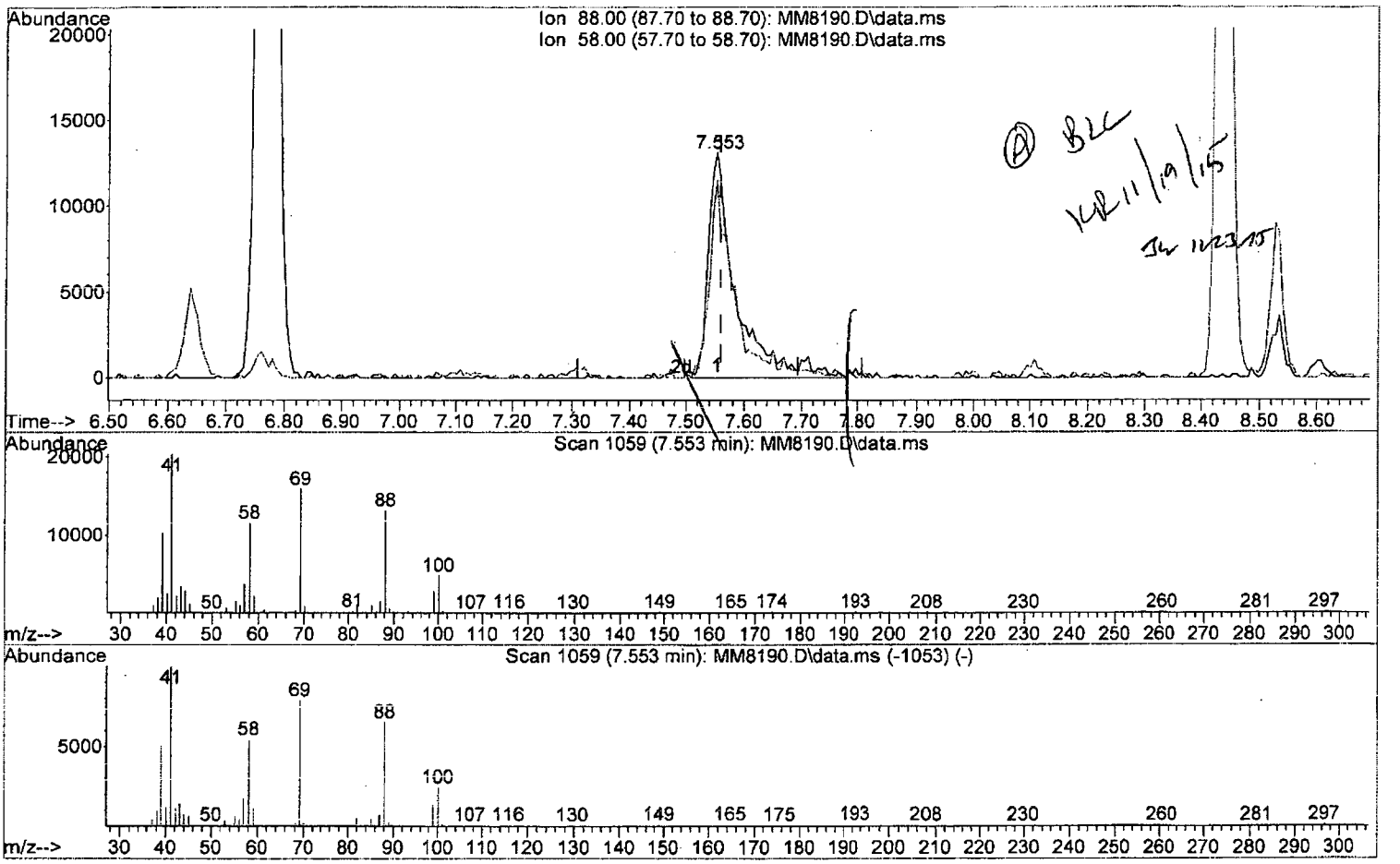
response 40097

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	87.86
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 09:36:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8190.D\data.ms

(58) 1,4-Dioxane

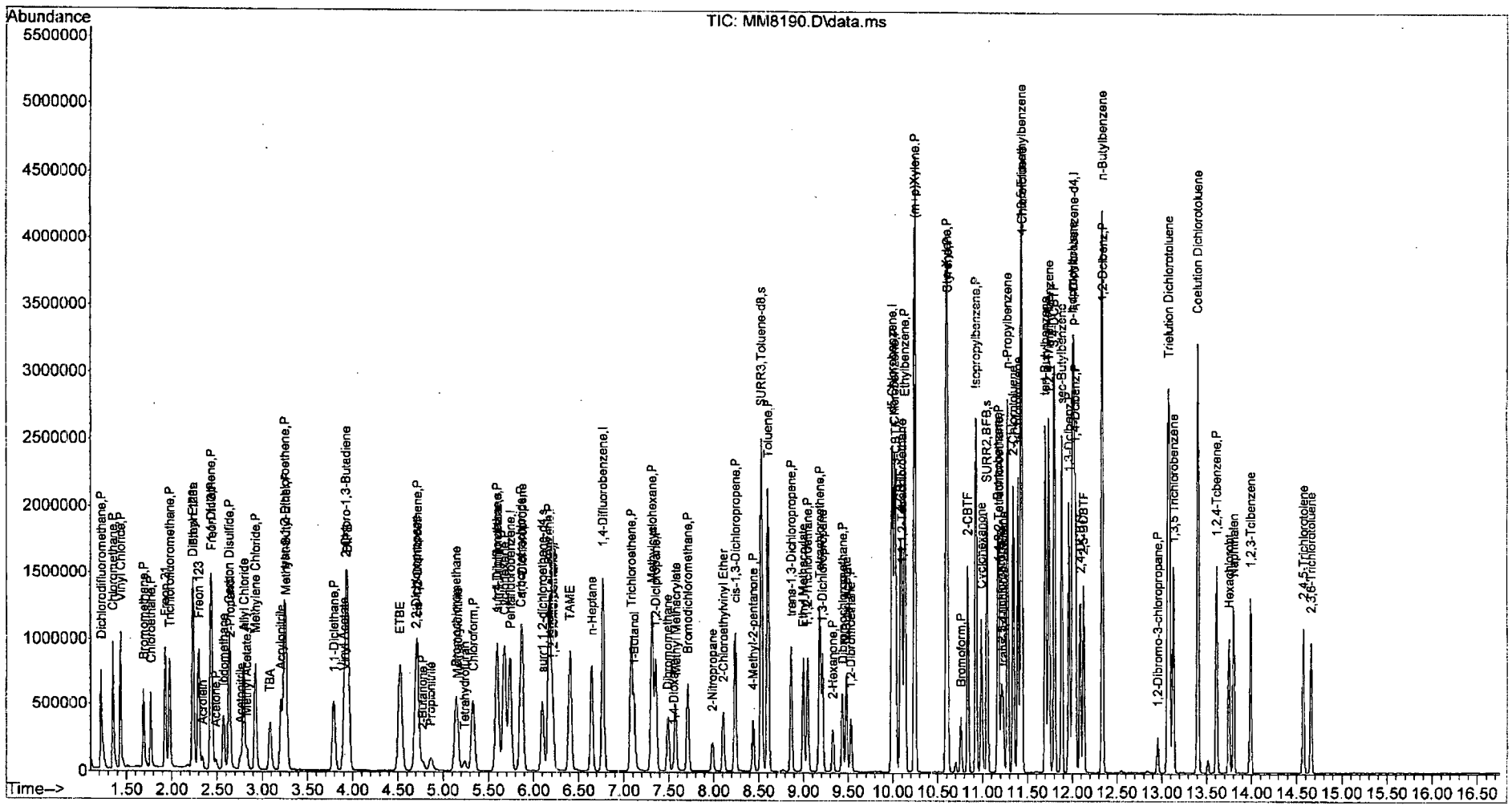
7.553min (-0.006) 870.47 ppb m

response 43143

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	87.86
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 10:54:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 10:58:00 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 11:00:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	713860	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1202753	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1137171	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	550506	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	724533	127.22	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 254.44%#				
48) surr1,1,2-dichloroetha...	6.096	65	810008	126.64	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 253.28%#				
65) SURR3,Toluene-d8	8.529	98	2990251	128.87	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 257.74%#				
70) SURR2,BFB	11.053	95	1160630	128.90	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 257.80%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	1052840	104.11	ppb		100
3) Chloromethane	1.347	50	1140391	94.99	ppb		99
4) Vinyl Chloride	1.433	62	1056349	94.45	ppb		99
5) Bromomethane	1.689	94	510510	92.22	ppb		99
6) Chloroethane	1.768	64	573008	91.66	ppb		98
7) Freon 21	1.926	67	1187769	98.58	ppb		100
8) Trichlorofluoromethane	1.975	101	840992	96.42	ppb		99
9) Diethyl Ether	2.231	59	523351	95.74	ppb		96
10) Freon 123a	2.237	67	719400	91.17	ppb		98
11) Freon 123	2.298	83	822956	90.09	ppb		97
12) Acrolein	2.341	56	116462	191.45	ppb		99
13) 1,1-Diclethene	2.432	96	536474	87.75	ppb		99
14) Freon 113	2.445	101	471815	86.84	ppb		89
15) Acetone	2.487	43	148224	97.92	ppb		99
16) 2-Propanol	2.646	45	552682	1913.86	ppb		98
17) Iodomethane	2.573	142	732076	109.24	ppb		100
18) Carbon Disulfide	2.634	76	1920148	96.29	ppb		98
19) Acetonitrile	2.762	40	87773	415.85	ppb		97
20) Allyl Chloride	2.798	76	300603	90.42	ppb		98
21) Methyl Acetate	2.835	43	329628	92.96	ppb		98
22) Methylene Chloride	2.926	84	620581	90.02	ppb		97
23) TBA	3.091	59	951681	2030.61	ppb		98
24) Acrylonitrile	3.213	53	848533	489.02	ppb		100
25) Methyl-t-Butyl Ether	3.262	73	1539975	92.72	ppb		98
26) trans-1,2-Dichloroethene	3.243	96	590566	92.37	ppb		92
28) 1,1-Diclethane	3.792	63	1086572	95.02	ppb		98
29) Vinyl Acetate	3.902	86	113675	92.16	ppb	#	84
30) DIPE	3.944	45	2091790	93.83	ppb		99
31) 2-Chloro-1,3-Butadiene	3.932	53	1094579	95.40	ppb		99
32) ETBE	4.530	59	2046007	97.66	ppb		99
33) 2,2-Dichloropropane	4.706	77	823814	90.06	ppb		97
34) cis-1,2-Dichloroethene	4.719	96	636168	89.36	ppb		97
35) 2-Butanone	4.780	43	212788	100.89	ppb		92
36) Propionitrile	4.865	54	317003	497.96	ppb		95

KR 11/19/15

W111815.M Thu Nov 19 11:08:13 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 11:00:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	343229	92.77	ppb		99
38) Methacrylonitrile	5.158	67	199214	91.76	ppb		97
39) Tetrahydrofuran	5.243	42	135076	97.04	ppb		95
40) Chloroform	5.334	83	982598	88.41	ppb		98
41) 1,1,1-Trichloroethane	5.596	97	804545	92.16	ppb		99
42) TAME	6.407	73	1728717	97.13	ppb		99
44) Cyclohexane	5.676	41	604347	92.36	ppb		95
46) Carbontetrachloride	5.865	121	212215	91.46	ppb		92
47) 1,1-Dichloropropene	5.871	75	759998	89.21	ppb		99
49) Benzene	6.176	78	2444912	92.36	ppb		99
50) 1,2-Dichloroethane	6.212	62	643542	94.83	ppb		97
51) Iso-Butyl Alcohol	6.206	43	428127	1929.52	ppb		95
52) n-Heptane	6.639	43	654510	89.85	ppb		97
53) 1-Butanol	7.121	56	701707	5057.53	ppb		99
54) Trichloroethene	7.084	130	614789	91.41	ppb		99
55) Methylcyclohexane	7.310	55	738463	92.47	ppb		97
56) 1,2-Diclpropane	7.358	63	615093	93.78	ppb		100
57) Dibromomethane	7.492	93	296199	91.72	ppb		92
58) 1,4-Dioxane	7.553	88	92040m	1886.67	ppb		
59) Methyl Methacrylate	7.578	69	362036	95.39	ppb		98
60) Bromodichloromethane	7.712	83	748127	93.03	ppb		98
61) 2-Nitropropane	7.986	41	224095	187.72	ppb		93
62) 2-Chloroethylvinyl Ether	8.108	63	344148	95.11	ppb		94
63) cis-1,3-Dichloropropene	8.242	75	1015287	94.19	ppb		98
64) 4-Methyl-2-pentanone	8.444	43	492121	102.59	ppb		97
66) Toluene	8.602	91	2491884	90.90	ppb		96
67) trans-1,3-Dichloropropene	8.864	75	849380	99.19	ppb		99
68) Ethyl Methacrylate	8.998	69	767246	101.20	ppb		100
69) 1,1,2-Trichloroethane	9.047	97	447446	96.52	ppb		96
72) Tetrachloroethene	9.181	164	436264	92.49	ppb		97
73) 2-Hexanone	9.327	43	339220	97.45	ppb		96
74) 1,3-Dichloropropane	9.212	76	793935	91.83	ppb		99
75) Dibromochloromethane	9.437	129	518817	96.44	ppb		96
76) N-Butyl Acetate	9.480	43	824438	99.69	ppb		96
77) 1,2-Dibromoethane	9.529	107	437198	94.90	ppb		98
78) Chlorobenzene	10.016	112	1538484	91.46	ppb		99
79) 3-CBTF	10.035	180	799901	95.98	ppb		97
80) 4-CBTF	10.083	180	743144	95.73	ppb		98
81) 1,1,1,2-Tetrachloroethane	10.102	131	527907	90.80	ppb		97
82) Ethylbenzene	10.132	106	877167	92.06	ppb	#	85
83) (m+p)Xylene	10.242	106	2135222	181.54	ppb		90
84) o-Xylene	10.596	106	1139130	94.58	ppb		91
85) Styrene	10.608	104	1801396	91.81	ppb		97
87) Bromoform	10.760	173	299241	95.69	ppb		100
88) 2-CBTF	10.839	180	816266	97.80	ppb		92
89) Isopropylbenzene	10.931	105	2543602	88.85	ppb		95
90) Cyclohexanone	10.992	55	861885	2076.61	ppb		98
91) trans-1,4-Dichloro-2-B...	11.230	53	167780	93.31	ppb		94
92) 1,1,2,2-Tetrachloroethane	11.181	83	534585	92.42	ppb		97
93) Bromobenzene	11.175	156	621913	96.01	ppb	#	89
94) 1,2,3-Trichloropropane	11.211	110	154613	90.77	ppb	#	89

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 11:00:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

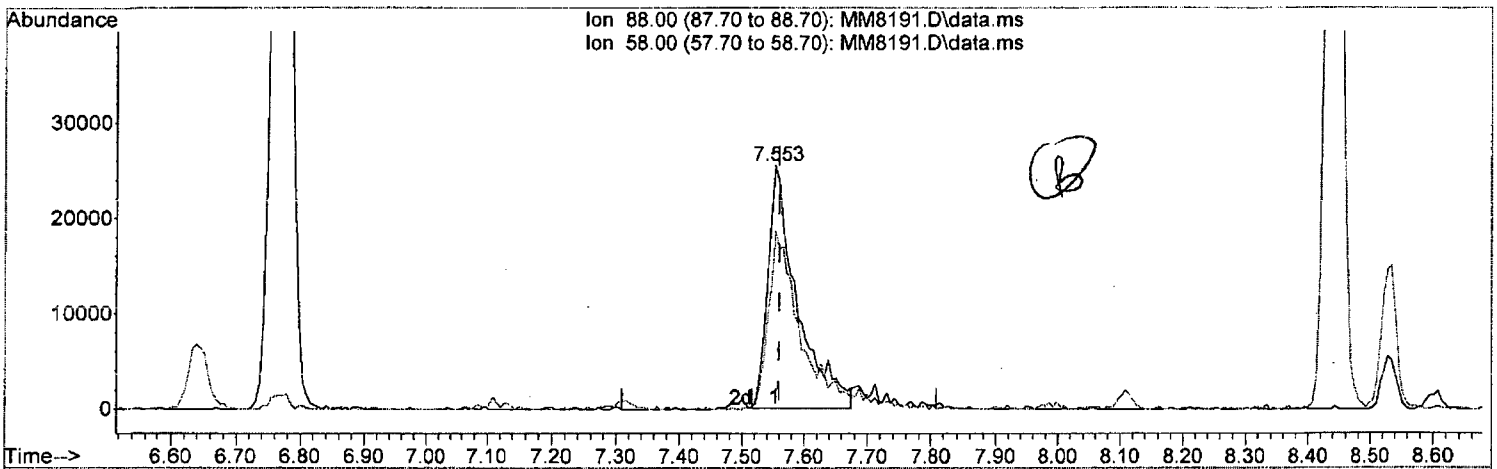
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	2979403	90.30	ppb	99
96)	2-Chlorotoluene	11.345	91	1815210	93.85	ppb	96
97)	3-Chlorotoluene	11.394	91	1990978	98.14	ppb	99
98)	4-Chlorotoluene	11.437	91	1979448	90.72	ppb	97
99)	1,3,5-Trimethylbenzene	11.431	105	1980142	91.41	ppb	99
100)	tert-Butylbenzene	11.699	119	1787654	92.49	ppb	97
101)	1,2,4-Trimethylbenzene	11.742	105	2123052	91.33	ppb	96
102)	3,4-DCBTF	11.803	214	539722	96.54	ppb	94
103)	sec-Butylbenzene	11.882	105	2455158	90.78	ppb	98
104)	p-Isopropyltoluene	12.004	119	1937749	92.67	ppb	99
105)	1,3-Dclbenz	11.961	146	1183579	94.39	ppb	99
106)	1,4-Dclbenz	12.034	146	1153999	98.19	ppb	98
107)	2,4-DCBTF	12.089	214	499620	102.40	ppb	96
108)	2,5-DCBTF	12.126	214	554776	100.51	ppb	98
109)	n-Butylbenzene	12.333	91	1781804	89.98	ppb	97
110)	1,2-Dclbenz	12.339	146	1117710	96.85	ppb	97
111)	1,2-Dibromo-3-chloropr...	12.955	157	112189	98.61	ppb	88
112)	Trielution Dichlorotol...	13.077	125	2827694	290.33	ppb	98
113)	1,3,5 Trichlorobenzene	13.132	180	740388	95.44	ppb	98
114)	Coelution Dichlorotoluene	13.400	125	2012590	195.55	ppb	99
115)	1,2,4-Tcbenzene	13.613	180	675356	94.85	ppb	96
116)	Hexachlorobt	13.747	225	258408	85.12	ppb	97
117)	Naphthalen	13.802	128	1528038	103.48	ppb	100
118)	1,2,3-Tclbenzene	13.985	180	583888	98.59	ppb	97
119)	2,4,5-Trichlorotolene	14.570	159	441673	98.26	ppb	96
120)	2,3,6-Trichlorotoluene	14.656	159	364114	91.63	ppb	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 09:36:11 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8191.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 1703.82 ppb

response 83120

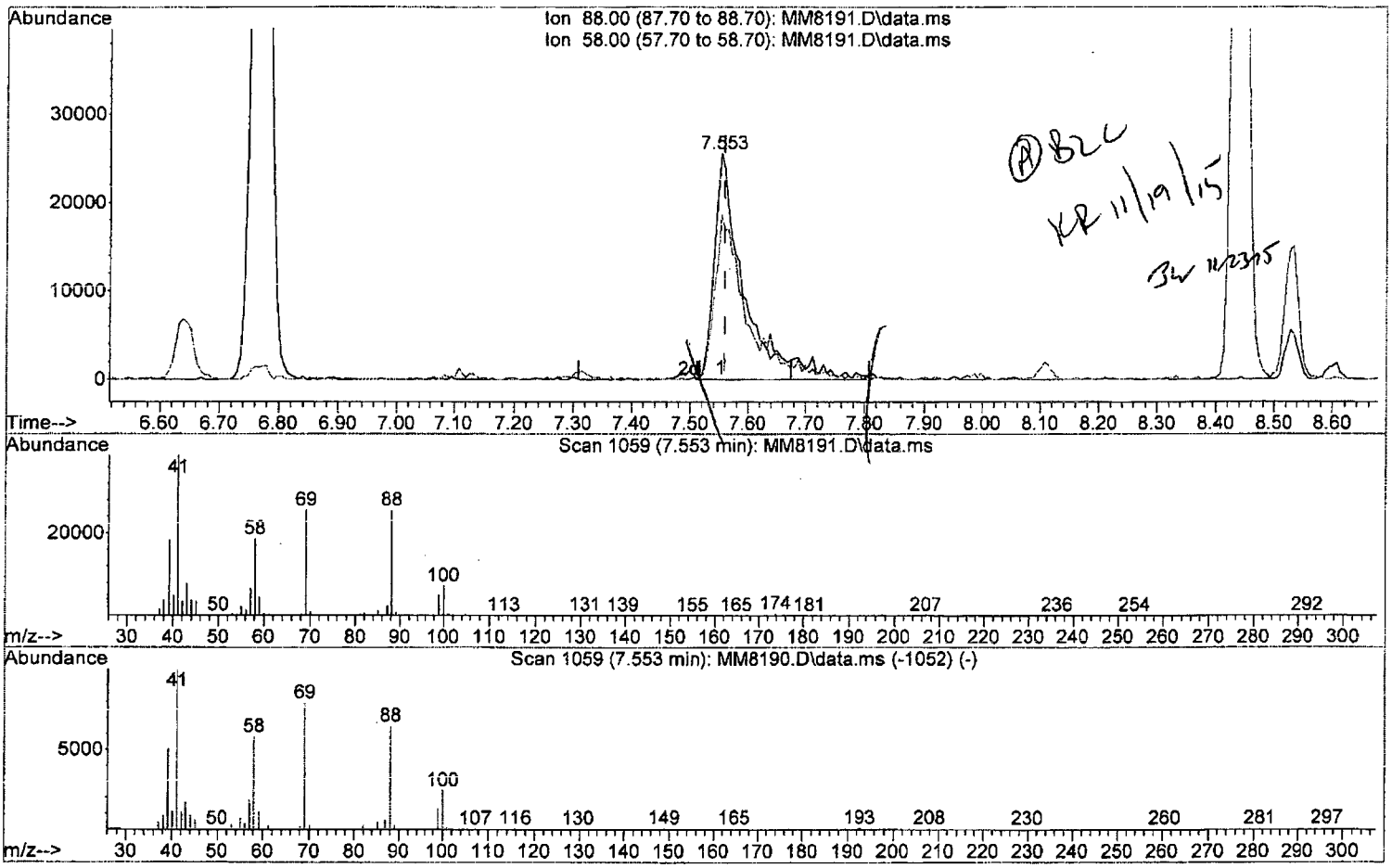
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	72.99
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 11:00:19 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 09:36:11 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8191.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 1886.67 ppb m

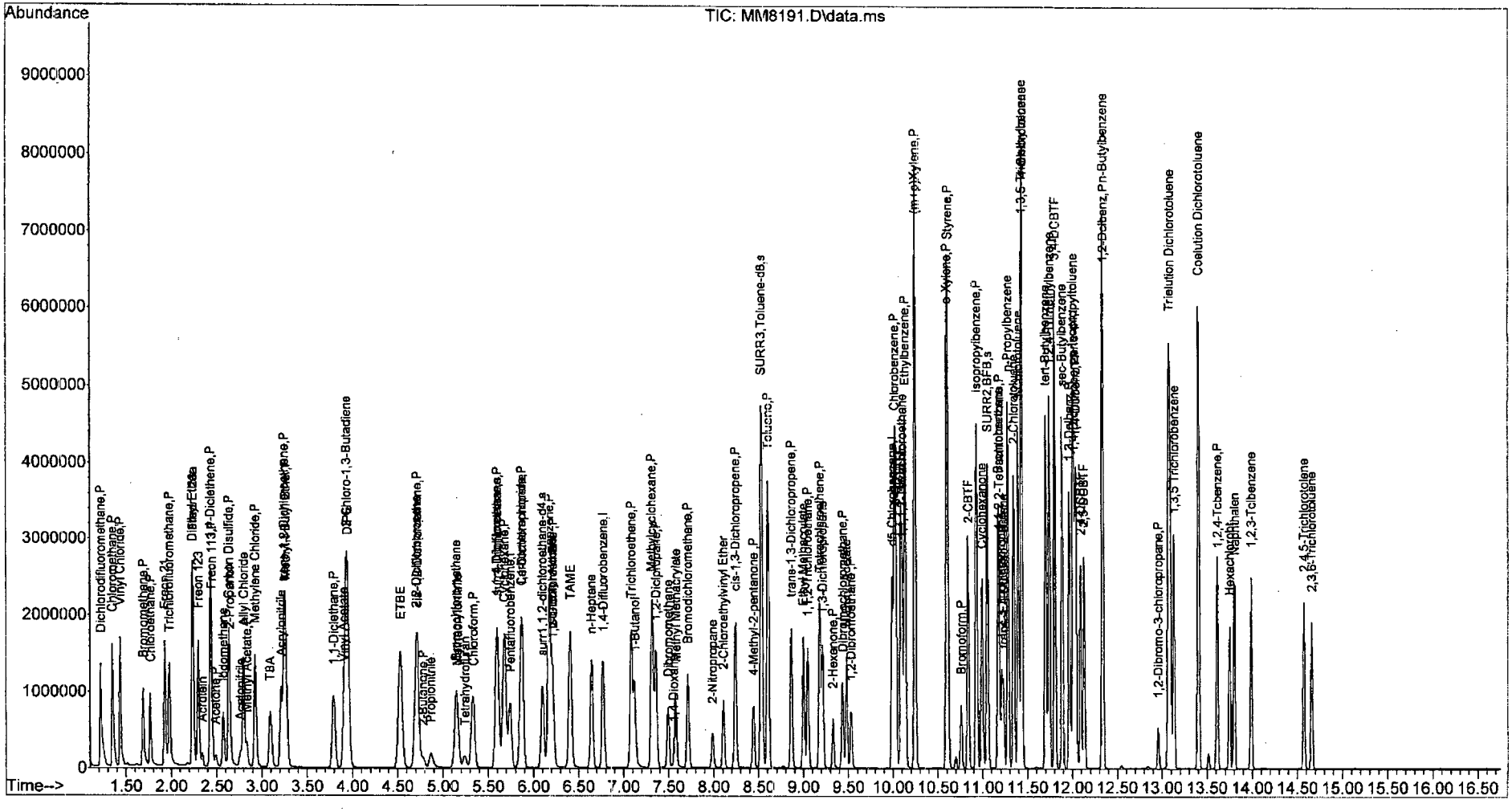
response 92040

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	72.99
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 11:00:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 11:08:17 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 11:03:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	710676	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1214199	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1136182	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.022	152	548662	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	825636	146.86	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 293.72%#				
48) surr1,1,2-dichloroetha...	6.096	65	939275	148.42	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 296.84%#				
65) SURR3,Toluene-d8	8.535	98	3335998	146.19	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 292.38%#				
70) SURR2,BFB	11.053	95	1317781	148.16	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 296.32%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	1565617	155.51	ppb		99
3) Chloromethane	1.347	50	1693779	141.72	ppb		99
4) Vinyl Chloride	1.433	62	1555618	139.71	ppb		99
5) Bromomethane	1.683	94	762632	138.37	ppb		98
6) Chloroethane	1.768	64	848527	136.34	ppb		99
7) Freon 21	1.926	67	1689782	140.87	ppb		98
8) Trichlorofluoromethane	1.975	101	1220950	140.61	ppb		98
9) Diethyl Ether	2.231	59	764131	140.42	ppb		99
10) Freon 123a	2.237	67	1032224	131.40	ppb		98
11) Freon 123	2.298	83	1183276	130.11	ppb		95
12) Acrolein	2.341	56	182525	301.40	ppb		98
13) 1,1-Diclethene	2.432	96	787653	129.41	ppb		98
14) Freon 113	2.439	101	720367	133.18	ppb		94
15) Acetone	2.487	43	222785	147.84	ppb		98
16) 2-Propanol	2.652	45	864260	3006.21	ppb		98
17) Iodomethane	2.573	142	1037636	155.53	ppb		99
18) Carbon Disulfide	2.634	76	2726802	137.35	ppb		97
19) Acetonitrile	2.762	40	166122	790.58	ppb		97
20) Allyl Chloride	2.798	76	429392	129.74	ppb		97
21) Methyl Acetate	2.829	43	497897	141.05	ppb		100
22) Methylene Chloride	2.926	84	919352	133.95	ppb		99
23) TBA	3.097	59	1452559	3113.23	ppb		97
24) Acrylonitrile	3.213	53	1254588	726.27	ppb		100
25) Methyl-t-Butyl Ether	3.268	73	2262406	136.82	ppb		99
26) trans-1,2-Dichloroethene	3.243	96	874569	137.41	ppb		95
28) 1,1-Diclethane	3.792	63	1604654	140.95	ppb		99
29) Vinyl Acetate	3.908	86	170723	139.03	ppb	#	86
30) DIPE	3.950	45	2982611	134.38	ppb		97
31) 2-Chloro-1,3-Butadiene	3.926	53	1583512	138.63	ppb		97
32) ETBE	4.530	59	2946391	141.27	ppb		98
33) 2,2-Dichloropropane	4.706	77	1222286	134.22	ppb		96
34) cis-1,2-Dichloroethene	4.719	96	947943	133.75	ppb		98
35) 2-Butanone	4.780	43	309457	147.39	ppb		89
36) Propionitrile	4.871	54	472669	745.81	ppb		95

KR 11/19/15

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 11:03:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	492369	133.68	ppb		97
38) Methacrylonitrile	5.158	67	290395	134.36	ppb		98
39) Tetrahydrofuran	5.237	42	191788	138.40	ppb		96
40) Chloroform	5.334	83	1462167	132.15	ppb		98
41) 1,1,1-Trichloroethane	5.596	97	1214044	139.69	ppb		100
42) TAME	6.407	73	2526840	142.61	ppb		97
44) Cyclohexane	5.676	41	875301	132.50	ppb		99
46) Carbontetrachloride	5.859	121	326428	139.36	ppb		95
47) 1,1-Dichloropropene	5.871	75	1131779	131.59	ppb		99
49) Benzene	6.176	78	3558177	133.15	ppb		99
50) 1,2-Dichloroethane	6.212	62	948792	138.50	ppb		97
51) Iso-Butyl Alcohol	6.206	43	642497	2868.37	ppb		92
52) n-Heptane	6.645	43	957961	130.27	ppb		97
53) 1-Butanol	7.121	56	1073863	7666.87	ppb		99
54) Trichloroethene	7.084	130	925764	136.35	ppb		97
55) Methylcyclohexane	7.316	55	1073401	133.15	ppb		96
56) 1,2-Diclpropane	7.358	63	909656	137.38	ppb		98
57) Dibromomethane	7.492	93	432490	132.66	ppb		94
58) 1,4-Dioxane	7.559	88	144093m	2925.83	ppb		
59) Methyl Methacrylate	7.578	69	553711	144.51	ppb		98
60) Bromodichloromethane	7.712	83	1120065	137.96	ppb		99
61) 2-Nitropropane	7.986	41	347518	288.36	ppb		100
62) 2-Chloroethylvinyl Ether	8.108	63	496357	135.88	ppb		95
63) cis-1,3-Dichloropropene	8.242	75	1479683	135.98	ppb		97
64) 4-Methyl-2-pentanone	8.443	43	730089	150.76	ppb		99
66) Toluene	8.602	91	3577978	129.28	ppb		93
67) trans-1,3-Dichloropropene	8.864	75	1255814	145.28	ppb		98
68) Ethyl Methacrylate	9.004	69	1137541	148.63	ppb		97
69) 1,1,2-Trichloroethane	9.047	97	667805	142.70	ppb		95
72) Tetrachloroethene	9.181	164	647893	137.48	ppb		96
73) 2-Hexanone	9.327	43	519587	149.39	ppb		98
74) 1,3-Dichloropropane	9.212	76	1170845	135.54	ppb		98
75) Dibromochloromethane	9.437	129	773056	143.83	ppb		100
76) N-Butyl Acetate	9.480	43	1230914	148.97	ppb		96
77) 1,2-Dibromoethane	9.535	107	648465	140.87	ppb		97
78) Chlorobenzene	10.016	112	2225190	132.40	ppb		94
79) 3-CBTF	10.035	180	1176260	141.26	ppb		98
80) 4-CBTF	10.089	180	1077762	138.96	ppb		98
81) 1,1,1,2-Tetrachloroethane	10.102	131	792449	136.43	ppb		99
82) Ethylbenzene	10.138	106	1318233	138.47	ppb	#	75
83) (m+p)Xylene	10.248	106	3138503m	267.08	ppb		
84) o-Xylene	10.595	106	1693787	140.75	ppb		87
85) Styrene	10.614	104	2606319	132.95	ppb		99
87) Bromoform	10.760	173	461256	147.99	ppb		94
88) 2-CBTF	10.839	180	1195929	143.77	ppb		92
89) Isopropylbenzene	10.931	105	3660912	128.31	ppb		92
90) Cyclohexanone	10.992	55	1292803	3125.33	ppb		100
91) trans-1,4-Dichloro-2-B...	11.230	53	253282	141.34	ppb		96
92) 1,1,2,2-Tetrachloroethane	11.181	83	795258	137.95	ppb		98
93) Bromobenzene	11.175	156	929632	143.99	ppb	#	88
94) 1,2,3-Trichloropropane	11.211	110	228309	134.49	ppb		92

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 11:03:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

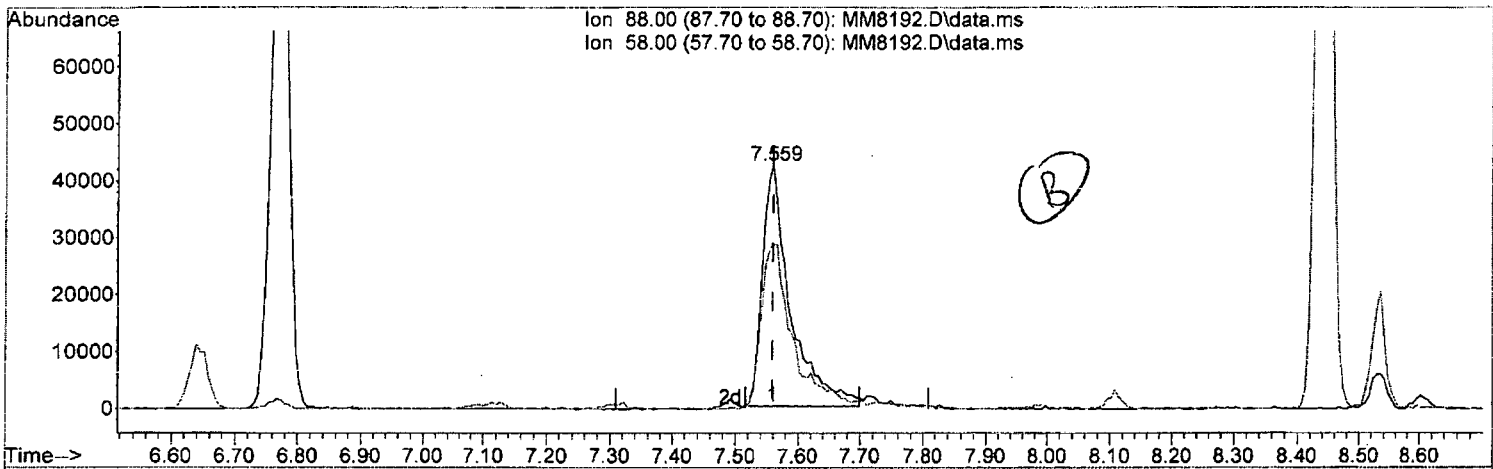
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	4185644	127.29	ppb	94
96)	2-Chlorotoluene	11.345	91	2615833	135.69	ppb	94
97)	3-Chlorotoluene	11.394	91	2888038	142.84	ppb	96
98)	4-Chlorotoluene	11.437	91	2741806	126.08	ppb	93
99)	1,3,5-Trimethylbenzene	11.431	105	2840305	131.55	ppb	95
100)	tert-Butylbenzene	11.705	119	2607257	135.35	ppb	94
101)	1,2,4-Trimethylbenzene	11.742	105	3012536	130.03	ppb	92
102)	3,4-DCBTF	11.803	214	789792	141.75	ppb	96
103)	sec-Butylbenzene	11.882	105	3509043	130.19	ppb	94
104)	p-Isopropyltoluene	12.004	119	2798351	134.28	ppb	96
105)	1,3-Dclbenz	11.967	146	1708389	136.71	ppb	95
106)	1,4-Dclbenz	12.040	146	1679324	143.36	ppb	96
107)	2,4-DCBTF	12.089	214	714139	146.86	ppb	95
108)	2,5-DCBTF	12.126	214	801663	145.73	ppb	97
109)	n-Butylbenzene	12.333	91	2537652	128.58	ppb	94
110)	1,2-Dclbenz	12.339	146	1636957	142.33	ppb	98
111)	1,2-Dibromo-3-chloropr...	12.955	157	172416	152.05	ppb	93
112)	Trielution Dichlorotol...	13.077	125	3935809	405.46	ppb	94
113)	1,3,5 Trichlorobenzene	13.132	180	1063709	137.58	ppb	97
114)	Coelution Dichlorotoluene	13.406	125	2819863	274.91	ppb	96
115)	1,2,4-Tcbenzene	13.613	180	971872	136.96	ppb	98
116)	Hexachlorobt	13.747	225	382092	126.29	ppb	94
117)	Naphthalen	13.802	128	2244720	152.52	ppb	99
118)	1,2,3-Tclbenzene	13.985	180	869917	147.38	ppb	98
119)	2,4,5-Trichlorotolene	14.570	159	659950	147.31	ppb	99
120)	2,3,6-Trichlorotoluene	14.656	159	543904	137.33	ppb	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 09:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8192.D\data.ms

(58) 1,4-Dioxane

7.559min (-0.000) 2679.06 ppb

response 131940

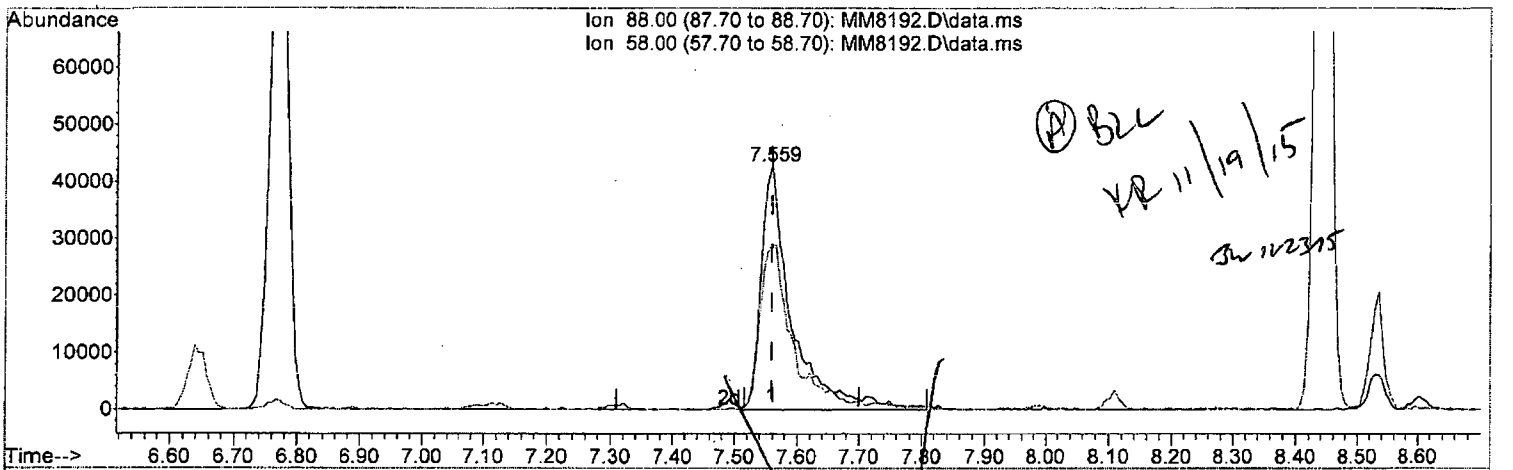
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	67.45#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 11:03:10 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 09:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8192.D\data.ms

(58) 1,4-Dioxane

7.559min (-0.000) 2925.83 ppb m

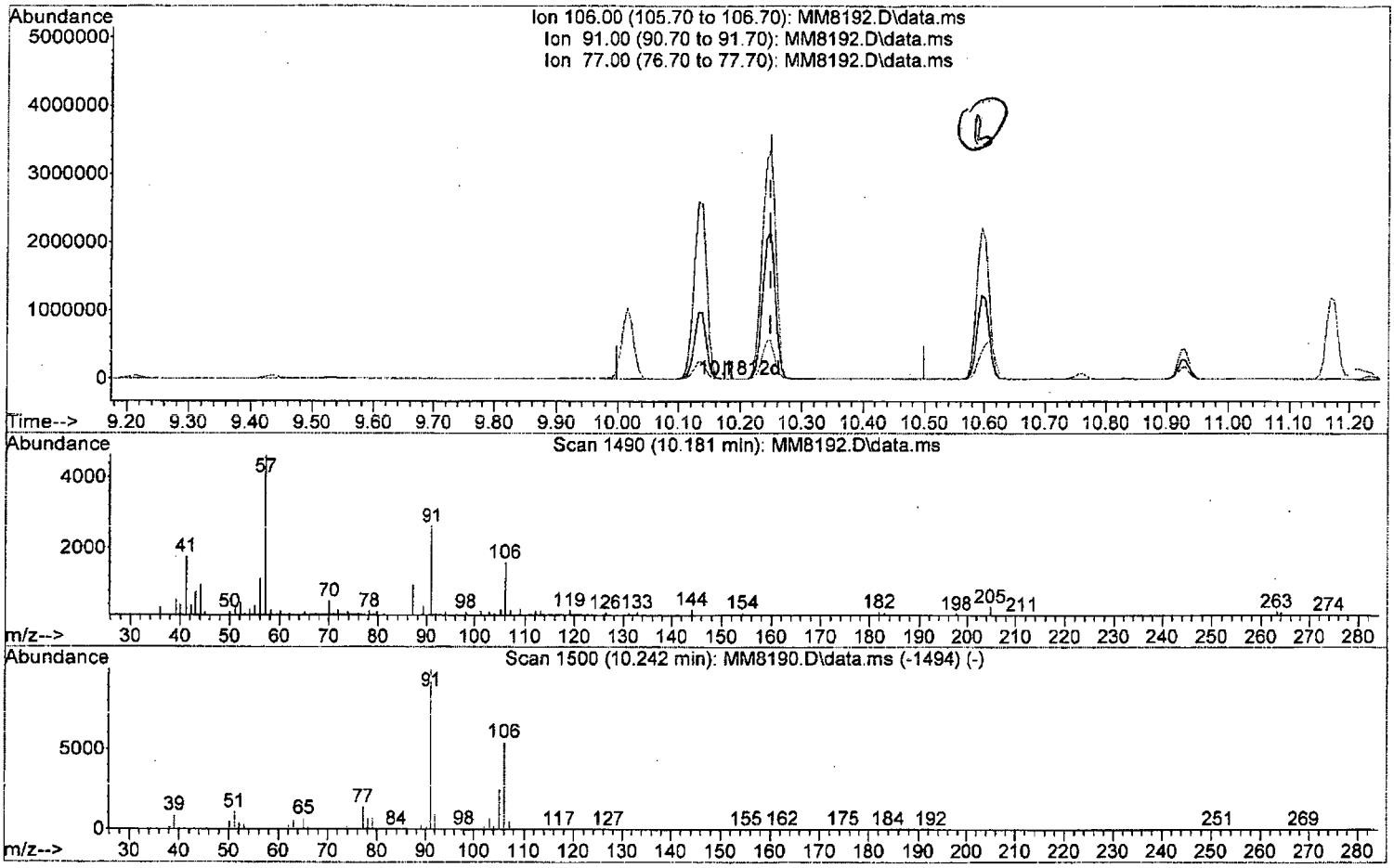
response 144093

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	67.45#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 09:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8192.D\data.ms

(83) (m+p)Xylene (P)

10.181min (-0.067) 0.06 ppb

response 673

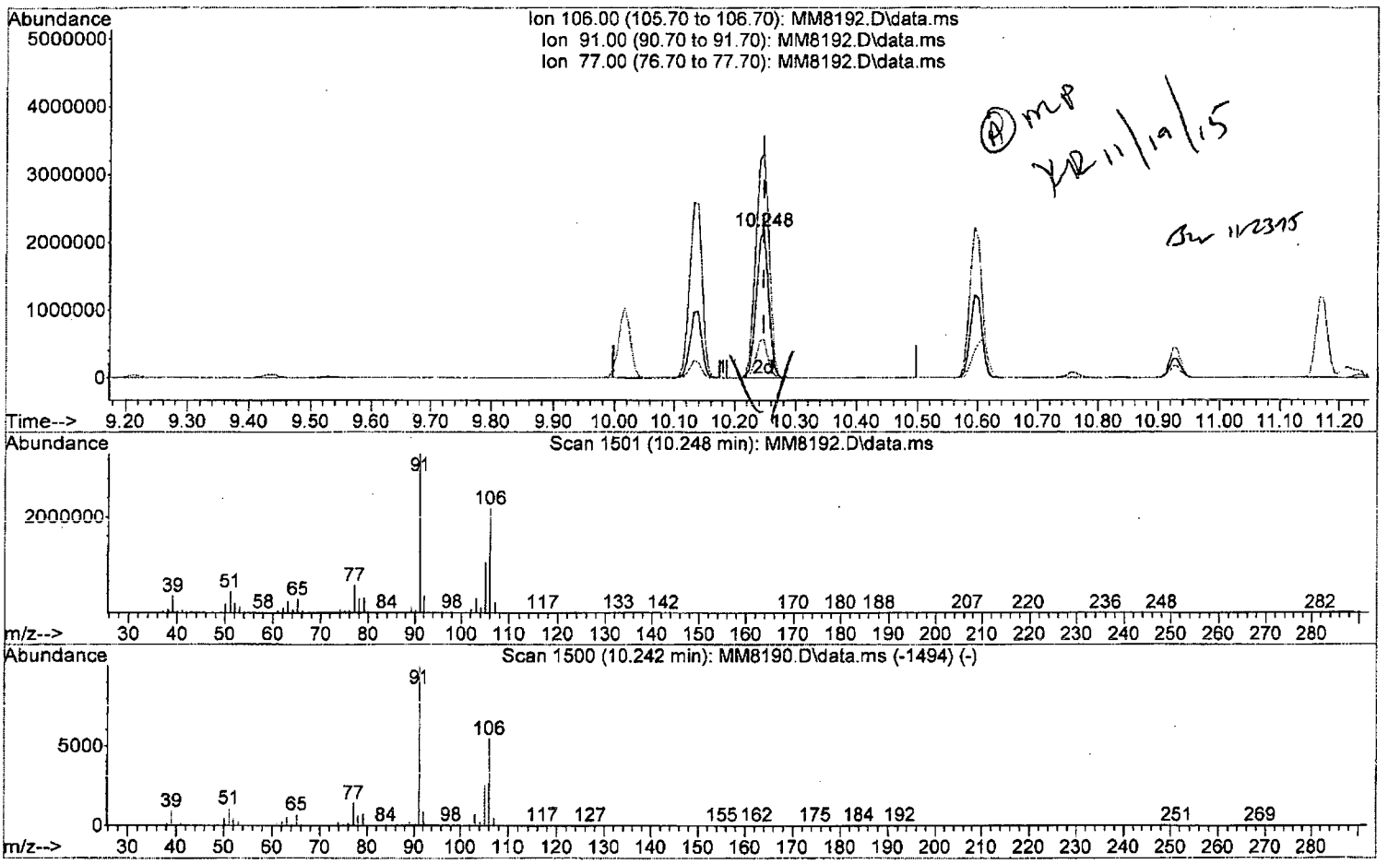
Ion	Exp%	Act%
106.00	100	100
91.00	183.60	164.93
77.00	25.50	8.05
0.00	0.00	0.00

W111815.M Thu Nov 19 11:03:44 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 09:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8192.D\data.ms

(83) (m+p)Xylene (P)

10.248min (-0.000) 267.08 ppb m

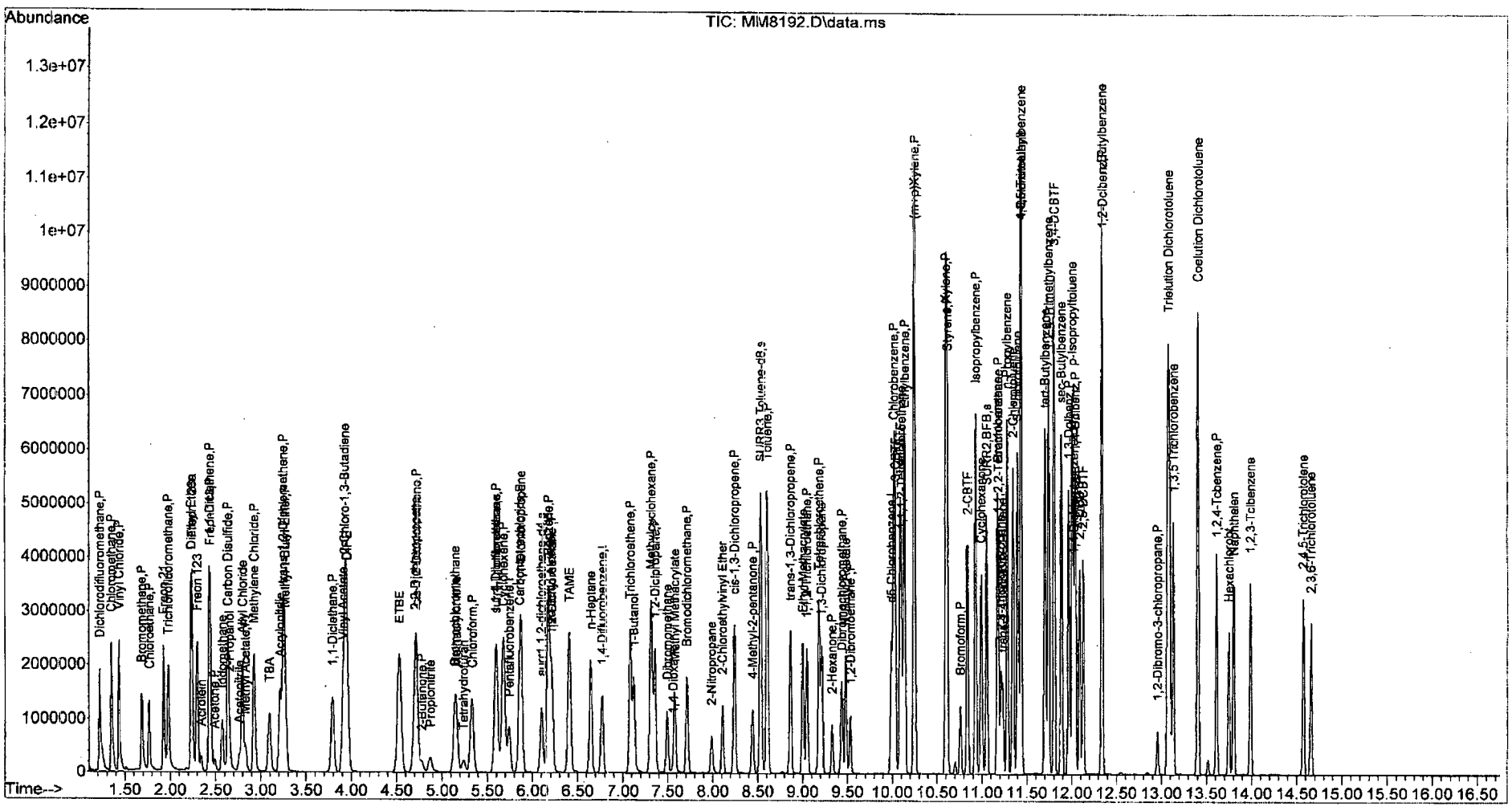
response 3138503

Ion	Exp%	Act%
106.00	100	100
91.00	183.60	152.68#
77.00	25.50	26.16
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 11:03:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 11:04:26 2015 Page: 4

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 11:05:54 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	703832	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1195128	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1140706	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.022	152	554977	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	330414	44.71	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 89.42%				
48) surr1,1,2-dichloroetha...	6.103	65	378347	48.99	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 97.98%				
65) SURR3,Toluene-d8	8.535	98	1519766	48.39	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 96.78%				
70) SURR2,BFB	11.053	95	567632	50.45	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	2092040	209.82	ppb		98
3) Chloromethane	1.347	50	2272496	191.99	ppb		95
4) Vinyl Chloride	1.433	62	2071430	187.85	ppb		96
5) Bromomethane	1.683	94	1027924	188.32	ppb		97
6) Chloroethane	1.768	64	1132219	183.69	ppb		100
7) Freon 21	1.927	67	2225652	187.35	ppb		97
8) Trichlorofluoromethane	1.975	101	1613867	187.67	ppb		97
9) Diethyl Ether	2.231	59	1008514	187.13	ppb		97
10) Freon 123a	2.238	67	1324744	170.28	ppb		98
11) Freon 123	2.299	83	1572089	174.54	ppb		94
12) Acrolein	2.341	56	241653	402.91	ppb		98
13) 1,1-Diclethene	2.433	96	1054287	174.90	ppb		97
14) Freon 113	2.439	101	951160	177.56	ppb		93
15) Acetone	2.494	43	305505	204.70	ppb		95
16) 2-Propanol	2.652	45	1164796	4090.98	ppb		96
17) Iodomethane	2.573	142	1340719	202.92	ppb		98
18) Carbon Disulfide	2.634	76	3465268	176.24	ppb		96
19) Acetonitrile	2.762	40	225645	1084.29	ppb		92
20) Allyl Chloride	2.798	76	546311	166.67	ppb		97
21) Methyl Acetate	2.835	43	674129	192.83	ppb		99
22) Methylene Chloride	2.926	84	1235575	181.78	ppb		98
23) TBA	3.097	59	1959556	4240.70	ppb		100
24) Acrylonitrile	3.213	53	1693296	989.77	ppb		98
25) Methyl-t-Butyl Ether	3.268	73	3011541	183.90	ppb		97
26) trans-1,2-Dichloroethene	3.250	96	1153276	182.96	ppb		97
28) 1,1-Diclethane	3.792	63	2133933	189.26	ppb		99
29) Vinyl Acetate	3.908	86	187234	153.96	ppb	#	93
30) DIPE	3.951	45	3862105	175.70	ppb		98
31) 2-Chloro-1,3-Butadiene	3.926	53	2019337	178.50	ppb		99
32) ETBE	4.530	59	3841038	185.96	ppb		99
33) 2,2-Dichloropropane	4.707	77	1604984	177.96	ppb		97
34) cis-1,2-Dichloroethene	4.719	96	1265451	180.28	ppb		100
35) 2-Butanone	4.780	43	418507	201.26	ppb		95
36) Propionitrile	4.871	54	653564	1041.26	ppb		96

11/19/15

W111815.M Thu Nov 19 11:06:54 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 11:05:54 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.152	130	673212	184.56	ppb		97
38) Methacrylonitrile	5.164	67	390941	182.64	ppb		95
39) Tetrahydrofuran	5.243	42	275080	200.43	ppb		96
40) Chloroform	5.334	83	1955568	178.46	ppb		99
41) 1,1,1-Trichloroethane	5.597	97	1640741	190.62	ppb		97
42) TAME	6.407	73	3321988	189.31	ppb		97
44) Cyclohexane	5.682	41	1157315	177.99	ppb		100
46) Carbontetrachloride	5.865	121	434900	188.63	ppb		98
47) 1,1-Dichloropropene	5.877	75	1493566	176.43	ppb		97
49) Benzene	6.176	78	4740991	180.25	ppb		99
50) 1,2-Dichloroethane	6.212	62	1285396	190.62	ppb		99
51) Iso-Butyl Alcohol	6.212	43	889100	4032.64	ppb		94
52) n-Heptane	6.645	43	1253689	173.21	ppb		97
53) 1-Butanol	7.127	56	1442946	10466.33	ppb		99
54) Trichloroethene	7.084	130	1265022	189.29	ppb		97
55) Methylcyclohexane	7.316	55	1421884	179.19	ppb		96
56) 1,2-Diclpropane	7.358	63	1219995	187.18	ppb		97
57) Dibromomethane	7.493	93	596647	185.93	ppb		94
58) 1,4-Dioxane	7.560	88	203185m	4191.53	ppb		
59) Methyl Methacrylate	7.578	69	726668	192.68	ppb		98
60) Bromodichloromethane	7.712	83	1501648	187.91	ppb		98
61) 2-Nitropropane	7.986	41	467925	394.47	ppb		99
62) 2-Chloroethylvinyl Ether	8.108	63	644683	179.30	ppb		94
63) cis-1,3-Dichloropropene	8.242	75	1959627	182.96	ppb		98
64) 4-Methyl-2-pentanone	8.444	43	967422	202.96	ppb		99
66) Toluene	8.602	91	4608955	169.19	ppb		88
67) trans-1,3-Dichloropropene	8.864	75	1664049	195.57	ppb		99
68) Ethyl Methacrylate	9.005	69	1527148	202.71	ppb		97
69) 1,1,2-Trichloroethane	9.047	97	901440	195.69	ppb		98
72) Tetrachloroethene	9.181	164	869257	183.72	ppb		96
73) 2-Hexanone	9.334	43	690884	197.86	ppb		98
74) 1,3-Dichloropropane	9.212	76	1580151	182.20	ppb		99
75) Dibromochloromethane	9.437	129	1052557	195.05	ppb		100
76) N-Butyl Acetate	9.480	43	1606266	193.63	ppb		95
77) 1,2-Dibromoethane	9.535	107	896451	193.97	ppb		97
78) Chlorobenzene	10.017	112	2928618	173.57	ppb		94
79) 3-CBTF	10.035	180	1514418	181.15	ppb		99
80) 4-CBTF	10.090	180	1415456	181.78	ppb		98
81) 1,1,1,2-Tetrachloroethane	10.102	131	1071284	183.70	ppb		98
82) Ethylbenzene	10.138	106	1798670	188.19	ppb	#	66
83) (m+p)Xylene	10.248	106	4116134	348.88	ppb	#	74
84) o-Xylene	10.602	106	2290838	189.61	ppb	#	74
85) Styrene	10.614	104	3409568	173.24	ppb		97
87) Bromoform	10.760	173	635021	201.42	ppb		97
88) 2-CBTF	10.840	180	1522656	180.96	ppb		94
89) Isopropylbenzene	10.931	105	4669450	161.80	ppb		87
90) Cyclohexanone	10.992	55	1766909	4222.87	ppb		98
91) trans-1,4-Dichloro-2-B...	11.230	53	345568	190.64	ppb		97
92) 1,1,2,2-Tetrachloroethane	11.187	83	1057661	181.38	ppb		98
93) Bromobenzene	11.175	156	1250476	191.49	ppb	#	87
94) 1,2,3-Trichloropropane	11.211	110	311222	181.24	ppb	#	88

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 11:05:54 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

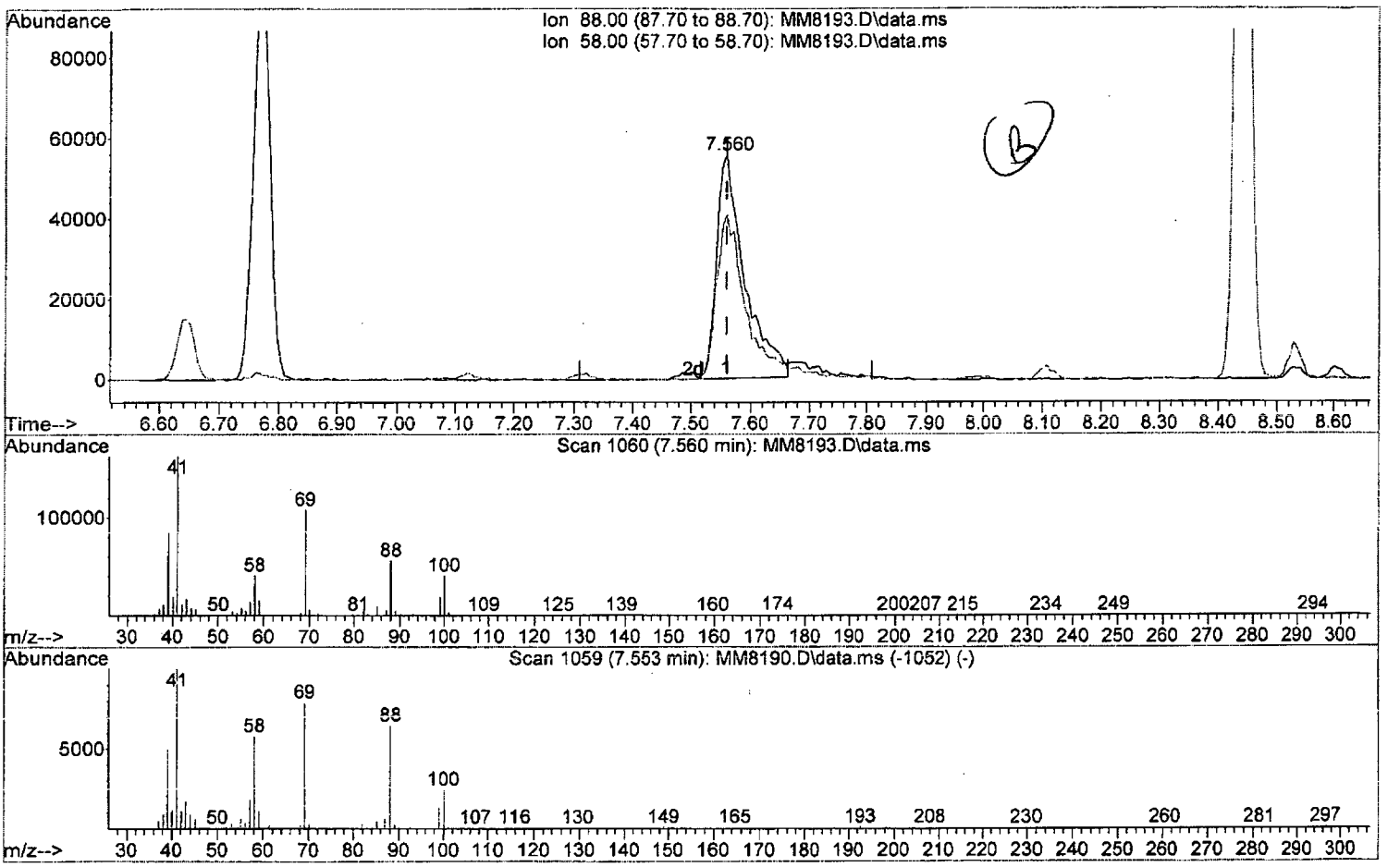
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.285	91	5221769	156.99	ppb	86
96)	2-Chlorotoluene	11.346	91	3463585	177.63	ppb	91
97)	3-Chlorotoluene	11.400	91	3624761	177.24	ppb	92
98)	4-Chlorotoluene	11.437	91	3624296	164.77	ppb	90
99)	1,3,5-Trimethylbenzene	11.431	105	3699680	169.41	ppb	91
100)	tert-Butylbenzene	11.705	119	3465289	177.85	ppb	91
101)	1,2,4-Trimethylbenzene	11.742	105	3888852	165.94	ppb	86
102)	3,4-DCBTF	11.803	214	1024694	181.82	ppb	96
103)	sec-Butylbenzene	11.882	105	4469687	163.94	ppb	91
104)	p-Isopropyltoluene	12.004	119	3617754	171.62	ppb	91
105)	1,3-Dclbenz	11.967	146	2280239	180.39	ppb	94
106)	1,4-Dclbenz	12.041	146	2253249	190.17	ppb	93
107)	2,4-DCBTF	12.089	214	922510	187.55	ppb	98
108)	2,5-DCBTF	12.132	214	1047045	188.17	ppb	96
109)	n-Butylbenzene	12.333	91	3277624	164.18	ppb	91
110)	1,2-Dclbenz	12.339	146	2171827	186.68	ppb	96
111)	1,2-Dibromo-3-chloropr...	12.955	157	232234	202.48	ppb	91
112)	Trielution Dichlorotol...	13.077	125	4986913	507.89	ppb	93
113)	1,3,5 Trichlorobenzene	13.132	180	1375190	175.84	ppb	97
114)	Coelution Dichlorotoluene	13.406	125	3557724	342.89	ppb	92
115)	1,2,4-Tcbenzene	13.613	180	1300053	181.12	ppb	97
116)	Hexachlorobt	13.747	225	512980	167.62	ppb	95
117)	Naphthalen	13.802	128	2970452	199.53	ppb	98
118)	1,2,3-Tclbenzene	13.991	180	1166852	195.43	ppb	98
119)	2,4,5-Trichlorotolene	14.570	159	882074	194.65	ppb	99
120)	2,3,6-Trichlorotoluene	14.656	159	732703	182.89	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 09:36:19 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8193.D\data.ms

(58) 1,4-Dioxane

7.560min (0.000) 3728.92 ppb

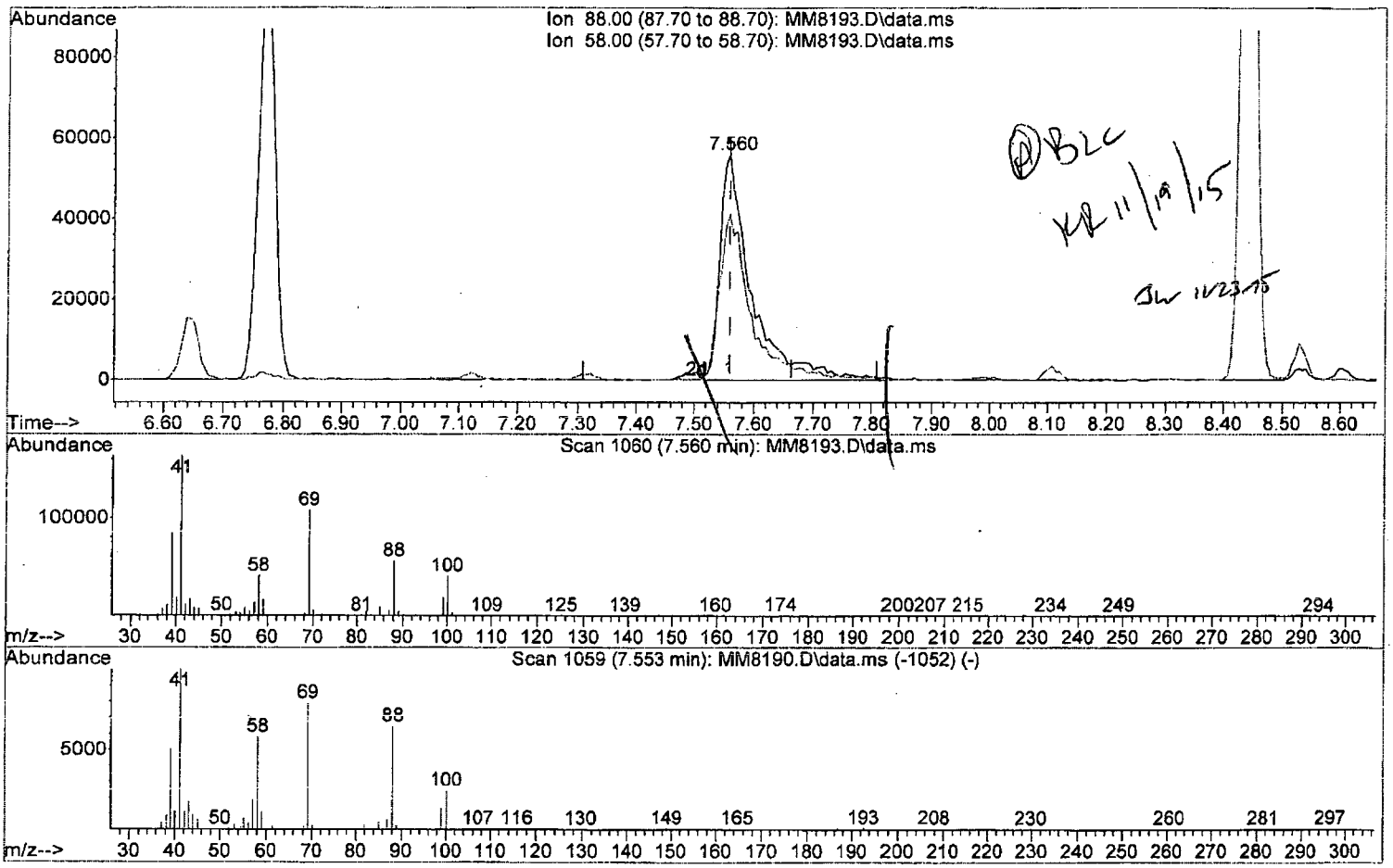
response 180760

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	73.08
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 09:36:19 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8193.D\data.ms

(58) 1,4-Dioxane

7.560min (0.000) 4191.53 ppb m

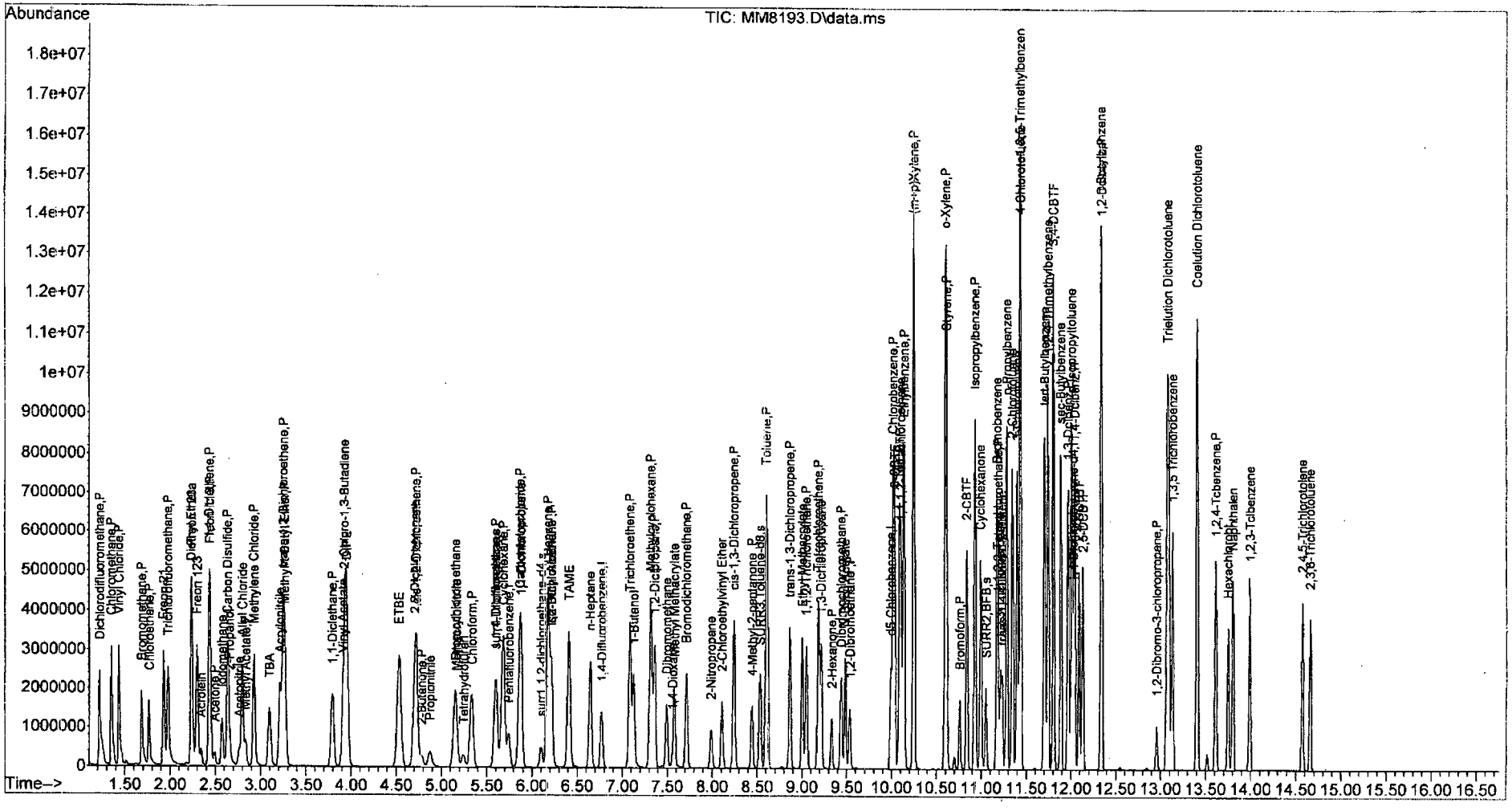
response 203185

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	73.08
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 11:05:54 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 11:06:58 2015 Page: 4

Initial Calibration Verification Summary Report

KR 11/30/15

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
W111815A - 8260 waters **Column Name:** 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1,1,1,2-Tetrachloroethane	RC1500127-10	T	Average RF	50	48.54	ppm	-2.9	<=20
1,1,1,2-Tetrachloroethane	RC1500127-10	T	Average RF	50	48.54	ppm	-2.9	<=30
1,1,1-Trichloroethane (TCA)	RC1500127-10	T	Average RF	50	52.64	ppm	5.3	<=20
1,1,1-Trichloroethane (TCA)	RC1500127-10	T	Average RF	50	52.64	ppm	5.3	<=30
1,1,2,2-Tetrachloroethane	RC1500127-10	T	Average RF	50	50.34	ppm	0.7	<=20
1,1,2,2-Tetrachloroethane	RC1500127-10	T	Average RF	50	50.34	ppm	0.7	<=30
1,1,2-Trichloroethane	RC1500127-10	T	Average RF	50	51.43	ppm	2.9	<=30
1,1,2-Trichloroethane	RC1500127-10	T	Average RF	50	51.43	ppm	2.9	<=20
1,1,2-Trichlorotrifluoroethane	RC1500127-10	T	Average RF	50	53.36	ppm	6.7	<=30
1,1,2-Trichlorotrifluoroethane	RC1500127-10	T	Average RF	50	53.36	ppm	6.7	<=20
1,1-Dichloroethane (1,1-DCA)	RC1500127-10	T	Average RF	50	53.31	ppm	6.6	<=20
1,1-Dichloroethane (1,1-DCA)	RC1500127-10	T	Average RF	50	53.31	ppm	6.6	<=30
1,1-Dichloroethene (1,1-DCE)	RC1500127-10	T	Average RF	50	50.36	ppm	0.7	<=30
1,1-Dichloroethene (1,1-DCE)	RC1500127-10	T	Average RF	50	50.36	ppm	0.7	<=20
1,1-Dichloropropene	RC1500127-10	T	Average RF	50	51.92	ppm	3.8	<=20
1,1-Dichloropropene	RC1500127-10	T	Average RF	50	51.92	ppm	3.8	<=30
1,2,3-Trichlorobenzene	RC1500127-10	T	Average RF	50	53.80	ppm	7.6	<=20
1,2,3-Trichlorobenzene	RC1500127-10	T	Average RF	50	53.80	ppm	7.6	<=30
1,2,3-Trichloropropane	RC1500127-10	T	Linear	50	51.15	ppm	2.3	<=20
1,2,3-Trichloropropane	RC1500127-10	T	Linear	50	51.15	ppm	2.3	<=30
1,2,4-Trichlorobenzene	RC1500127-10	T	Average RF	50	51.73	ppm	3.5	<=20
1,2,4-Trichlorobenzene	RC1500127-10	T	Average RF	50	51.73	ppm	3.5	<=30
1,2,4-Trimethylbenzene	RC1500127-10	T	Average RF	50	49.51	ppm	-1.0	<=30
1,2,4-Trimethylbenzene	RC1500127-10	T	Average RF	50	49.51	ppm	-1.0	<=20
1,2-Dibromo-3-chloropropane (DBCP)	RC1500127-10	T	Average RF	50	50.08	ppm	0.2	<=20
1,2-Dibromo-3-chloropropane (DBCP)	RC1500127-10	T	Average RF	50	50.08	ppm	0.2	<=30
1,2-Dibromoethane	RC1500127-10	T	Average RF	50	48.51	ppm	-3.0	<=20
1,2-Dibromoethane	RC1500127-10	T	Average RF	50	48.51	ppm	-3.0	<=30
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	RC1500127-10	T	Average RF	50	52.94	ppm	5.9	<=20
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	RC1500127-10	T	Average RF	50	52.94	ppm	5.9	<=30
1,2-Dichlorobenzene	RC1500127-10	T	Average RF	50	51.17	ppm	2.3	<=30
1,2-Dichlorobenzene	RC1500127-10	T	Average RF	50	51.17	ppm	2.3	<=20
1,2-Dichloroethane	RC1500127-10	T	Average RF	50	51.31	ppm	2.6	<=30
1,2-Dichloroethane	RC1500127-10	T	Average RF	50	51.31	ppm	2.6	<=20
1,2-Dichloropropane	RC1500127-10	T	Average RF	50	51.97	ppm	3.9	<=30
1,2-Dichloropropane	RC1500127-10	T	Average RF	50	51.97	ppm	3.9	<=20
1,3,5-Trichlorobenzene	RC1500127-10	T	Average RF	50	52.04	ppm	4.1	<=20
1,3,5-Trichlorobenzene	RC1500127-10	T	Average RF	50	52.04	ppm	4.1	<=30
1,3,5-Trimethylbenzene	RC1500127-10	T	Average RF	50	50.19	ppm	0.4	<=30
1,3,5-Trimethylbenzene	RC1500127-10	T	Average RF	50	50.19	ppm	0.4	<=20
1,3-Dichlorobenzene	RC1500127-10	T	Average RF	50	50.54	ppm	1.1	<=20
1,3-Dichlorobenzene	RC1500127-10	T	Average RF	50	50.54	ppm	1.1	<=30
1,3-Dichloropropane	RC1500127-10	T	Average RF	50	50.27	ppm	0.5	<=20
1,3-Dichloropropane	RC1500127-10	T	Average RF	50	50.27	ppm	0.5	<=30
1,4-Dichlorobenzene	RC1500127-10	T	Average RF	50	52.30	ppm	4.6	<=20
1,4-Dichlorobenzene	RC1500127-10	T	Average RF	50	52.30	ppm	4.6	<=30
1,4-Dioxane	RC1500127-10	T	Average RF	1000	1102	ppm	10.2	<=20
1,4-Dioxane	RC1500127-10	T	Average RF	1000	1102	ppm	10.2	<=30
1-Butanol	RC1500127-10	T	Average RF	2500	2715	ppm	8.6	<=30
1-Butanol	RC1500127-10	T	Average RF	2500	2715	ppm	8.6	<=20
1-Chloro-4-(trifluoromethyl)benzene	RC1500127-10	T	Average RF	50	49.39	ppm	-1.2	<=20

Initial Calibration Verification Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1-Chloro-4-(trifluoromethyl)benzene	RC1500127-10	T	Average RF	50	49.39	ppm	-1.2	<=30
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	RC1500127-10	T	Average RF	50	49.21	ppm	-1.6	<=30
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	RC1500127-10	T	Average RF	50	49.21	ppm	-1.6	<=20
2,2-Dichloropropane	RC1500127-10	T	Average RF	50	53.05	ppm	6.1	<=30
2,2-Dichloropropane	RC1500127-10	T	Average RF	50	53.05	ppm	6.1	<=20
2,3,6-Trichlorotoluene	RC1500127-10	T	Average RF	50	53.85	ppm	7.7	<=20
2,3,6-Trichlorotoluene	RC1500127-10	T	Average RF	50	53.85	ppm	7.7	<=30
2,4,5-Trichlorotoluene	RC1500127-10	T	Average RF	50	55.45	ppm	10.9	<=30
2,4,5-Trichlorotoluene	RC1500127-10	T	Average RF	50	55.45	ppm	10.9	<=20
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	RC1500127-10	T	Average RF	150	156.2	ppm	4.1	<=20
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	RC1500127-10	T	Average RF	150	156.2	ppm	4.1	<=30
2,4-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	51.82	ppm	3.6	<=20
2,4-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	51.82	ppm	3.6	<=30
2,5-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.60	ppm	1.2	<=20
2,5-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.60	ppm	1.2	<=30
2-Butanone (MEK)	RC1500127-10	T	Average RF	50	51.81	ppm	3.6	<=30
2-Butanone (MEK)	RC1500127-10	T	Average RF	50	51.81	ppm	3.6	<=20
2-Chloro-1,3-butadiene	RC1500127-10	T	Average RF	50	47.73	ppm	-4.5	<=20
2-Chloro-1,3-butadiene	RC1500127-10	T	Average RF	50	47.73	ppm	-4.5	<=30
2-Chlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.78	ppm	1.6	<=30
2-Chlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.78	ppm	1.6	<=20
2-Chloroethyl Vinyl Ether	RC1500127-10	T	Average RF	50	48.85	ppm	-2.3	<=30
2-Chloroethyl Vinyl Ether	RC1500127-10	T	Average RF	50	48.85	ppm	-2.3	<=20
2-Chlorotoluene	RC1500127-10	T	Average RF	50	51.26	ppm	2.5	<=30
2-Chlorotoluene	RC1500127-10	T	Average RF	50	51.26	ppm	2.5	<=20
2-Hexanone	RC1500127-10	T	Average RF	50	49.30	ppm	-1.4	<=20
2-Hexanone	RC1500127-10	T	Average RF	50	49.30	ppm	-1.4	<=30
2-Methyl-1-propanol	RC1500127-10	T	Average RF	1000	1066	ppm	6.6	<=20
2-Methyl-1-propanol	RC1500127-10	T	Average RF	1000	1066	ppm	6.6	<=30
2-Methyl-2-propanol	RC1500127-10	T	Average RF	1000	1091	ppm	9.1	<=20
2-Methyl-2-propanol	RC1500127-10	T	Average RF	1000	1091	ppm	9.1	<=30
2-Nitropropane	RC1500127-10	T	Average RF	100	104.9	ppm	4.9	<=30
2-Nitropropane	RC1500127-10	T	Average RF	100	104.9	ppm	4.9	<=20
2-Propanol	RC1500127-10	T	Average RF	1000	964.3	ppm	-3.6	<=30
2-Propanol	RC1500127-10	T	Average RF	1000	964.3	ppm	-3.6	<=20
3,4- and 2,3-Dichlorotoluene Coelution	RC1500127-10	T	Average RF	100	107.4	ppm	7.4	<=30
3,4- and 2,3-Dichlorotoluene Coelution	RC1500127-10	T	Average RF	100	107.4	ppm	7.4	<=20
3,4-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.07	ppm	0.1	<=20
3,4-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.07	ppm	0.1	<=30
3-Chloro-1-propene	RC1500127-10	T	Average RF	50	58.61	ppm	17.2	<=30
3-Chloro-1-propene	RC1500127-10	T	Average RF	50	58.61	ppm	17.2	<=20
3-Chlorobenzotrifluoride	RC1500127-10	T	Average RF	50	49.06	ppm	-1.9	<=30
3-Chlorobenzotrifluoride	RC1500127-10	T	Average RF	50	49.06	ppm	-1.9	<=20
3-Chlorotoluene	RC1500127-10	T	Average RF	50	51.03	ppm	2.1	<=30
3-Chlorotoluene	RC1500127-10	T	Average RF	50	51.03	ppm	2.1	<=20
4-Chlorotoluene	RC1500127-10	T	Average RF	50	50.24	ppm	0.5	<=20
4-Chlorotoluene	RC1500127-10	T	Average RF	50	50.24	ppm	0.5	<=30
4-Isopropyltoluene	RC1500127-10	T	Average RF	50	52.15	ppm	4.3	<=20
4-Isopropyltoluene	RC1500127-10	T	Average RF	50	52.15	ppm	4.3	<=30
4-Methyl-2-pentanone	RC1500127-10	T	Average RF	50	52.44	ppm	4.9	<=30
4-Methyl-2-pentanone	RC1500127-10	T	Average RF	50	52.44	ppm	4.9	<=20

Initial Calibration Verification Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Acetone	RC1500127-10	T	Average RF	50	44.91	ppm	-10.2	<=30
Acetone	RC1500127-10	T	Average RF	50	44.91	ppm	-10.2	<=20
Acetonitrile	RC1500127-10	T	Average RF	250	230.4	ppm	-7.9	<=30
Acetonitrile	RC1500127-10	T	Average RF	250	230.4	ppm	-7.9	<=20
Acrolein	RC1500127-10	T	Average RF	100	124.8	ppm	24.8	<=20
Acrolein	RC1500127-10	T	Average RF	100	124.8	ppm	24.8	<=30
Acrylonitrile	RC1500127-10	T	Average RF	250	260.9	ppm	4.4	<=20
Acrylonitrile	RC1500127-10	T	Average RF	250	260.9	ppm	4.4	<=30
Benzene	RC1500127-10	T	Average RF	50	50.05	ppm	0.1	<=30
Benzene	RC1500127-10	T	Average RF	50	50.05	ppm	0.1	<=20
Bromobenzene	RC1500127-10	T	Average RF	50	51.06	ppm	2.1	<=20
Bromobenzene	RC1500127-10	T	Average RF	50	51.06	ppm	2.1	<=30
Bromochloromethane	RC1500127-10	T	Average RF	50	50.47	ppm	0.9	<=20
Bromochloromethane	RC1500127-10	T	Average RF	50	50.47	ppm	0.9	<=30
Bromodichloromethane	RC1500127-10	T	Average RF	50	50.54	ppm	1.1	<=20
Bromodichloromethane	RC1500127-10	T	Average RF	50	50.54	ppm	1.1	<=30
Bromoform	RC1500127-10	T	Average RF	50	50.56	ppm	1.1	<=20
Bromoform	RC1500127-10	T	Average RF	50	50.56	ppm	1.1	<=30
Bromomethane	RC1500127-10	T	Average RF	50	51.41	ppm	2.8	<=20
Bromomethane	RC1500127-10	T	Average RF	50	51.41	ppm	2.8	<=30
Carbon Disulfide	RC1500127-10	T	Average RF	50	49.80	ppm	-0.4	<=20
Carbon Disulfide	RC1500127-10	T	Average RF	50	49.80	ppm	-0.4	<=30
Carbon Tetrachloride	RC1500127-10	T	Average RF	50	49.41	ppm	-1.2	<=30
Carbon Tetrachloride	RC1500127-10	T	Average RF	50	49.41	ppm	-1.2	<=20
Chlorobenzene	RC1500127-10	T	Average RF	50	49.46	ppm	-1.1	<=20
Chlorobenzene	RC1500127-10	T	Average RF	50	49.46	ppm	-1.1	<=30
Chloroethane	RC1500127-10	T	Average RF	50	50.64	ppm	1.3	<=20
Chloroethane	RC1500127-10	T	Average RF	50	50.64	ppm	1.3	<=30
Chloroform	RC1500127-10	T	Average RF	50	48.45	ppm	-3.1	<=20
Chloroform	RC1500127-10	T	Average RF	50	48.45	ppm	-3.1	<=30
Chloromethane	RC1500127-10	T	Average RF	50	50.25	ppm	0.5	<=20
Chloromethane	RC1500127-10	T	Average RF	50	50.25	ppm	0.5	<=30
Cyclohexane	RC1500127-10	T	Average RF	50	45.87	ppm	-8.3	<=20
Cyclohexane	RC1500127-10	T	Average RF	50	45.87	ppm	-8.3	<=30
Cyclohexanone	RC1500127-10	T	Average RF	1000	1179	ppm	17.9	<=30
Cyclohexanone	RC1500127-10	T	Average RF	1000	1179	ppm	17.9	<=20
Dibromochloromethane	RC1500127-10	T	Average RF	50	50.62	ppm	1.2	<=20
Dibromochloromethane	RC1500127-10	T	Average RF	50	50.62	ppm	1.2	<=30
Dibromomethane	RC1500127-10	T	Average RF	50	48.11	ppm	-3.8	<=30
Dibromomethane	RC1500127-10	T	Average RF	50	48.11	ppm	-3.8	<=20
Dichlorodifluoromethane (CFC 12)	RC1500127-10	T	Average RF	50	56.51	ppm	13.0	<=30
Dichlorodifluoromethane (CFC 12)	RC1500127-10	T	Average RF	50	56.51	ppm	13.0	<=20
Dichlorofluoromethane (CFC 21)	RC1500127-10	T	Average RF	50	57.03	ppm	14.1	<=30
Dichlorofluoromethane (CFC 21)	RC1500127-10	T	Average RF	50	57.03	ppm	14.1	<=20
Dichloromethane	RC1500127-10	T	Average RF	50	47.77	ppm	-4.5	<=20
Dichloromethane	RC1500127-10	T	Average RF	50	47.77	ppm	-4.5	<=30
Diethyl Ether	RC1500127-10	T	Average RF	50	54.17	ppm	8.3	<=20
Diethyl Ether	RC1500127-10	T	Average RF	50	54.17	ppm	8.3	<=30
Diisopropyl Ether	RC1500127-10	T	Average RF	50	48.19	ppm	-3.6	<=20
Diisopropyl Ether	RC1500127-10	T	Average RF	50	48.19	ppm	-3.6	<=30
Ethyl Methacrylate	RC1500127-10	T	Average RF	50	53.51	ppm	7.0	<=20

Initial Calibration Verification Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Ethyl Methacrylate	RC1500127-10	T	Average RF	50	53.51	ppm	7.0	<=30
Ethyl tert-Butyl Ether	RC1500127-10	T	Average RF	50	48.25	ppm	-3.5	<=20
Ethyl tert-Butyl Ether	RC1500127-10	T	Average RF	50	48.25	ppm	-3.5	<=30
Ethylbenzene	RC1500127-10	T	Average RF	50	49.68	ppm	-0.6	<=20
Ethylbenzene	RC1500127-10	T	Average RF	50	49.68	ppm	-0.6	<=30
Hexachlorobutadiene	RC1500127-10	T	Average RF	50	52.67	ppm	5.3	<=30
Hexachlorobutadiene	RC1500127-10	T	Average RF	50	52.67	ppm	5.3	<=20
Iodomethane	RC1500127-10	T	Average RF	50	53.60	ppm	7.2	<=30
Iodomethane	RC1500127-10	T	Average RF	50	53.60	ppm	7.2	<=20
Isopropylbenzene (Cumene)	RC1500127-10	T	Average RF	50	48.42	ppm	-3.2	<=30
Isopropylbenzene (Cumene)	RC1500127-10	T	Average RF	50	48.42	ppm	-3.2	<=20
Methacrylonitrile	RC1500127-10	T	Average RF	50	52.29	ppm	4.6	<=30
Methacrylonitrile	RC1500127-10	T	Average RF	50	52.29	ppm	4.6	<=20
Methyl Acetate	RC1500127-10	T	Average RF	50	47.56	ppm	-4.9	<=30
Methyl Acetate	RC1500127-10	T	Average RF	50	47.56	ppm	-4.9	<=20
Methyl Methacrylate	RC1500127-10	T	Average RF	50	51.03	ppm	2.1	<=30
Methyl Methacrylate	RC1500127-10	T	Average RF	50	51.03	ppm	2.1	<=20
Methyl tert-Butyl Ether	RC1500127-10	T	Average RF	50	50.99	ppm	2.0	<=30
Methyl tert-Butyl Ether	RC1500127-10	T	Average RF	50	50.99	ppm	2.0	<=20
Methylcyclohexane	RC1500127-10	T	Average RF	50	46.97	ppm	-6.1	<=20
Methylcyclohexane	RC1500127-10	T	Average RF	50	46.97	ppm	-6.1	<=30
Naphthalene	RC1500127-10	T	Average RF	50	55.14	ppm	10.3	<=20
Naphthalene	RC1500127-10	T	Average RF	50	55.14	ppm	10.3	<=30
Propionitrile	RC1500127-10	T	Average RF	250	259.2	ppm	3.7	<=20
Propionitrile	RC1500127-10	T	Average RF	250	259.2	ppm	3.7	<=30
Styrene	RC1500127-10	T	Average RF	50	49.59	ppm	-0.8	<=30
Styrene	RC1500127-10	T	Average RF	50	49.59	ppm	-0.8	<=20
Tetrachloroethene (PCE)	RC1500127-10	T	Average RF	50	50.04	ppm	0.1	<=20
Tetrachloroethene (PCE)	RC1500127-10	T	Average RF	50	50.04	ppm	0.1	<=30
Tetrahydrofuran (THF)	RC1500127-10	T	Average RF	50	57.10	ppm	14.2	<=30
Tetrahydrofuran (THF)	RC1500127-10	T	Average RF	50	57.10	ppm	14.2	<=20
Toluene	RC1500127-10	T	Average RF	50	49.67	ppm	-0.7	<=30
Toluene	RC1500127-10	T	Average RF	50	49.67	ppm	-0.7	<=20
Trichloroethene (TCE)	RC1500127-10	T	Average RF	50	49.06	ppm	-1.9	<=30
Trichloroethene (TCE)	RC1500127-10	T	Average RF	50	49.06	ppm	-1.9	<=20
Trichlorofluoromethane (CFC 11)	RC1500127-10	T	Average RF	50	54.52	ppm	9.0	<=20
Trichlorofluoromethane (CFC 11)	RC1500127-10	T	Average RF	50	54.52	ppm	9.0	<=30
Vinyl Acetate	RC1500127-10	T	Average RF	50	53.96	ppm	7.9	<=30
Vinyl Acetate	RC1500127-10	T	Average RF	50	53.96	ppm	7.9	<=20
Vinyl Chloride	RC1500127-10	T	Average RF	50	52.01	ppm	4.0	<=20
Vinyl Chloride	RC1500127-10	T	Average RF	50	52.01	ppm	4.0	<=30
cis-1,2-Dichloroethene	RC1500127-10	T	Average RF	50	49.33	ppm	-1.3	<=20
cis-1,2-Dichloroethene	RC1500127-10	T	Average RF	50	49.33	ppm	-1.3	<=30
cis-1,3-Dichloropropene	RC1500127-10	T	Average RF	50	50.14	ppm	0.3	<=30
cis-1,3-Dichloropropene	RC1500127-10	T	Average RF	50	50.14	ppm	0.3	<=20
m,p-Xylenes	RC1500127-10	T	Average RF	100	98.54	ppm	-1.5	<=20
m,p-Xylenes	RC1500127-10	T	Average RF	100	98.54	ppm	-1.5	<=30
n-Butyl Acetate	RC1500127-10	T	Average RF	50	52.15	ppm	4.3	<=30
n-Butyl Acetate	RC1500127-10	T	Average RF	50	52.15	ppm	4.3	<=20
n-Butylbenzene	RC1500127-10	T	Average RF	50	51.38	ppm	2.8	<=30
n-Butylbenzene	RC1500127-10	T	Average RF	50	51.38	ppm	2.8	<=20

Initial Calibration Verification Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
n-Heptane	RC1500127-10	T	Average RF	50	51.14	ppm	2.3	<=20
n-Heptane	RC1500127-10	T	Average RF	50	51.14	ppm	2.3	<=30
n-Propylbenzene	RC1500127-10	T	Average RF	50	49.10	ppm	-1.8	<=20
n-Propylbenzene	RC1500127-10	T	Average RF	50	49.10	ppm	-1.8	<=30
o-Xylene	RC1500127-10	T	Average RF	50	49.20	ppm	-1.6	<=30
o-Xylene	RC1500127-10	T	Average RF	50	49.20	ppm	-1.6	<=20
sec-Butylbenzene	RC1500127-10	T	Average RF	50	49.37	ppm	-1.3	<=20
sec-Butylbenzene	RC1500127-10	T	Average RF	50	49.37	ppm	-1.3	<=30
tert-Amyl Methyl Ether	RC1500127-10	T	Average RF	50	50.27	ppm	0.5	<=30
tert-Amyl Methyl Ether	RC1500127-10	T	Average RF	50	50.27	ppm	0.5	<=20
tert-Butylbenzene	RC1500127-10	T	Average RF	50	49.68	ppm	-0.6	<=30
tert-Butylbenzene	RC1500127-10	T	Average RF	50	49.68	ppm	-0.6	<=20
trans-1,2-Dichloroethene	RC1500127-10	T	Average RF	50	51.91	ppm	3.8	<=30
trans-1,2-Dichloroethene	RC1500127-10	T	Average RF	50	51.91	ppm	3.8	<=20
trans-1,3-Dichloropropene	RC1500127-10	T	Average RF	50	53.61	ppm	7.2	<=20
trans-1,3-Dichloropropene	RC1500127-10	T	Average RF	50	53.61	ppm	7.2	<=30
trans-1,4-Dichloro-2-butene	RC1500127-10	T	Linear	50	51.73	ppm	3.5	<=30
trans-1,4-Dichloro-2-butene	RC1500127-10	T	Linear	50	51.73	ppm	3.5	<=20
1,2-Dichloroethane-d4	RC1500127-10	S	Average RF	50	55.42	ppm	10.8	<=20
1,2-Dichloroethane-d4	RC1500127-10	S	Average RF	50	55.42	ppm	10.8	<=30
4-Bromofluorobenzene	RC1500127-10	S	Average RF	50	55.98	ppm	12.0	<=20
4-Bromofluorobenzene	RC1500127-10	S	Average RF	50	55.98	ppm	12.0	<=30
Dibromofluoromethane	RC1500127-10	S	Average RF	50	54.09	ppm	8.2	<=20
Dibromofluoromethane	RC1500127-10	S	Average RF	50	54.09	ppm	8.2	<=30
Toluene-d8	RC1500127-10	S	Average RF	50	57.39	ppm	14.8	<=20
Toluene-d8	RC1500127-10	S	Average RF	50	57.39	ppm	14.8	<=30

Exceptions

QAP	Method
DOD QSM V4.2 Rochester	8260C

Compound	Type	Criteria	Result
Acrolein	Percent Difference	<= 20	24.79

Exceptions

QAP	Method
DOD QSM v5.0 Rochester	8260C

Compound	Type	Criteria	Result
Acrolein	Percent Difference	<= 20	24.79

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:41:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	726113	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1257122	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1174218	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	568495	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	353544	45.91	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 91.82%				
48) surr1,1,2-dichloroetha...	6.096	65	400078	49.36	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 98.72%				
65) SURR3,Toluene-d8	8.535	98	1578449	47.33	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 94.66%				
70) SURR2,BFB	11.047	95	581217	48.43	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.86%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	578049	56.51	ppb		100
3) Chloromethane	1.347	50	613656	50.25	ppb		96
4) Vinyl Chloride	1.433	62	591690	52.01	ppb		99
5) Bromomethane	1.689	94	285633	51.41	ppb		98
6) Chloroethane	1.768	64	316784	50.64	ppb		100
7) Freon 21	1.926	67	690841	57.03	ppb		100
8) Trichlorofluoromethane	1.981	101	483194	54.52	ppb		99
9) Diethyl Ether	2.231	59	301204	54.17	ppb		97
10) Freon 123a	2.237	67	419242	52.94	ppb		100
11) Freon 123	2.298	83	449302	49.21	ppb		96
12) Acrolein	2.341	56	77212	124.79	ppb		98
13) 1,1-Diclethene	2.432	96	305820	50.36	ppb		96
14) Freon 113	2.445	101	294916	53.36	ppb		96
15) Acetone	2.493	43	69526	44.91	ppb		90
16) 2-Propanol	2.646	45	283254	964.31	ppb		97
17) Iodomethane	2.573	142	369790	53.60	ppb		98
18) Carbon Disulfide	2.634	76	1010201	49.80	ppb		99
19) Acetonitrile	2.762	40	49458	230.37	ppb		94
20) Allyl Chloride	2.798	76	198188	58.61	ppb		98
21) Methyl Acetate	2.829	43	171541	47.56	ppb		97
22) Methylene Chloride	2.926	84	334994	47.77	ppb		95
23) TBA	3.091	59	520016	1090.84	ppb		98
24) Acrylonitrile	3.213	53	457105	260.89	ppb		99
25) Methyl-t-Butyl Ether	3.268	73	861417	50.99	ppb		99
26) trans-1,2-Dichloroethene	3.249	96	339517	51.91	ppb		97
28) 1,1-Diclethane	3.792	63	620067	53.31	ppb		97
29) Vinyl Acetate	3.902	86	65375	53.96	ppb	#	95
30) DIPE	3.944	45	1092805	48.19	ppb		98
31) 2-Chloro-1,3-Butadiene	3.932	53	558315	47.73	ppb		99
32) ETBE	4.530	59	1028142	48.25	ppb		98
33) 2,2-Dichloropropane	4.706	77	493585	53.05	ppb		97
34) cis-1,2-Dichloroethene	4.718	96	357118	49.33	ppb		95
35) 2-Butanone	4.779	43	109862	51.81	ppb		99
36) Propionitrile	4.871	54	167834	259.20	ppb		93

KP 11/19/15

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:41:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Bromochloromethane	5.151	130	188732	50.47	ppb	92
38) Methacrylonitrile	5.157	67	107303	52.29	ppb	96
39) Tetrahydrofuran	5.243	42	77870	57.10	ppb	95
40) Chloroform	5.328	83	547722	48.45	ppb	99
41) 1,1,1-Trichloroethane	5.596	97	467481	52.64	ppb	97
42) TAME	6.407	73	910074	50.27	ppb	99
44) Cyclohexane	5.682	41	315164	45.87	ppb	98
46) Carbontetrachloride	5.859	121	118942	49.41	ppb	98
47) 1,1-Dichloropropene	5.877	75	460497	51.92	ppb	99
49) Benzene	6.176	78	1384782	50.05	ppb	100
50) 1,2-Dichloroethane	6.212	62	363912	51.31	ppb	100
51) Iso-Butyl Alcohol	6.200	43	247157	1065.73	ppb	90
52) n-Heptane	6.645	43	389344	51.14	ppb	99
53) 1-Butanol	7.114	56	394692	2715.11	ppb	99
54) Trichloroethene	7.084	130	344877	49.06	ppb	97
55) Methylcyclohexane	7.316	55	398059	46.97	ppb	95
56) 1,2-Diclpropane	7.352	63	356308	51.97	ppb	99
57) Dibromomethane	7.492	93	162395	48.11	ppb	97
58) 1,4-Dioxane	7.566	88	55398m	1101.95	ppb	
59) Methyl Methacrylate	7.578	69	202427	51.03	ppb	96
60) Bromodichloromethane	7.712	83	424820	50.54	ppb	99
61) 2-Nitropropane	7.986	41	129864	104.90	ppb	96
62) 2-Chloroethylvinyl Ether	8.108	63	184748	48.85	ppb	98
63) cis-1,3-Dichloropropene	8.242	75	564924	50.14	ppb	97
64) 4-Methyl-2-pentanone	8.443	43	262899	52.44	ppb	95
66) Toluene	8.602	91	1423229	49.67	ppb	99
67) trans-1,3-Dichloropropene	8.864	75	479777	53.61	ppb	97
68) Ethyl Methacrylate	8.998	69	424063	53.51	ppb	99
69) 1,1,2-Trichloroethane	9.047	97	249204	51.43	ppb	99
72) Tetrachloroethene	9.181	164	243689	50.04	ppb	95
73) 2-Hexanone	9.327	43	177208	49.30	ppb	98
74) 1,3-Dichloropropane	9.212	76	448747	50.27	ppb	98
75) Dibromochloromethane	9.437	129	281182	50.62	ppb	98
76) N-Butyl Acetate	9.480	43	447943	52.15	ppb	99
77) 1,2-Dibromoethane	9.529	107	230782	48.51	ppb	98
78) Chlorobenzene	10.016	112	859029	49.46	ppb	99
79) 3-CBTF	10.035	180	422230	49.06	ppb	99
80) 4-CBTF	10.083	180	395512	49.39	ppb	99
81) 1,1,1,2-Tetrachloroethane	10.102	131	291371	48.54	ppb	98
82) Ethylbenzene	10.132	106	488737	49.68	ppb	96
83) (m+p)Xylene	10.242	106	1196691	98.54	ppb	99
84) o-Xylene	10.595	106	611940	49.20	ppb	98
85) Styrene	10.608	104	1004572	49.59	ppb	99
87) Bromoform	10.760	173	163273	50.56	ppb	96
88) 2-CBTF	10.839	180	437719	50.78	ppb	91
89) Isopropylbenzene	10.925	105	1431318	48.42	ppb	100
90) Cyclohexanone	10.992	55	505453	1179.29	ppb	95
91) trans-1,4-Dichloro-2-B...	11.229	53	90609	51.73	ppb	96
92) 1,1,2,2-Tetrachloroethane	11.181	83	300721	50.34	ppb	99
93) Bromobenzene	11.175	156	341544	51.06	ppb	93
94) 1,2,3-Trichloropropane	11.211	110	81243	51.15	ppb	99

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:41:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration

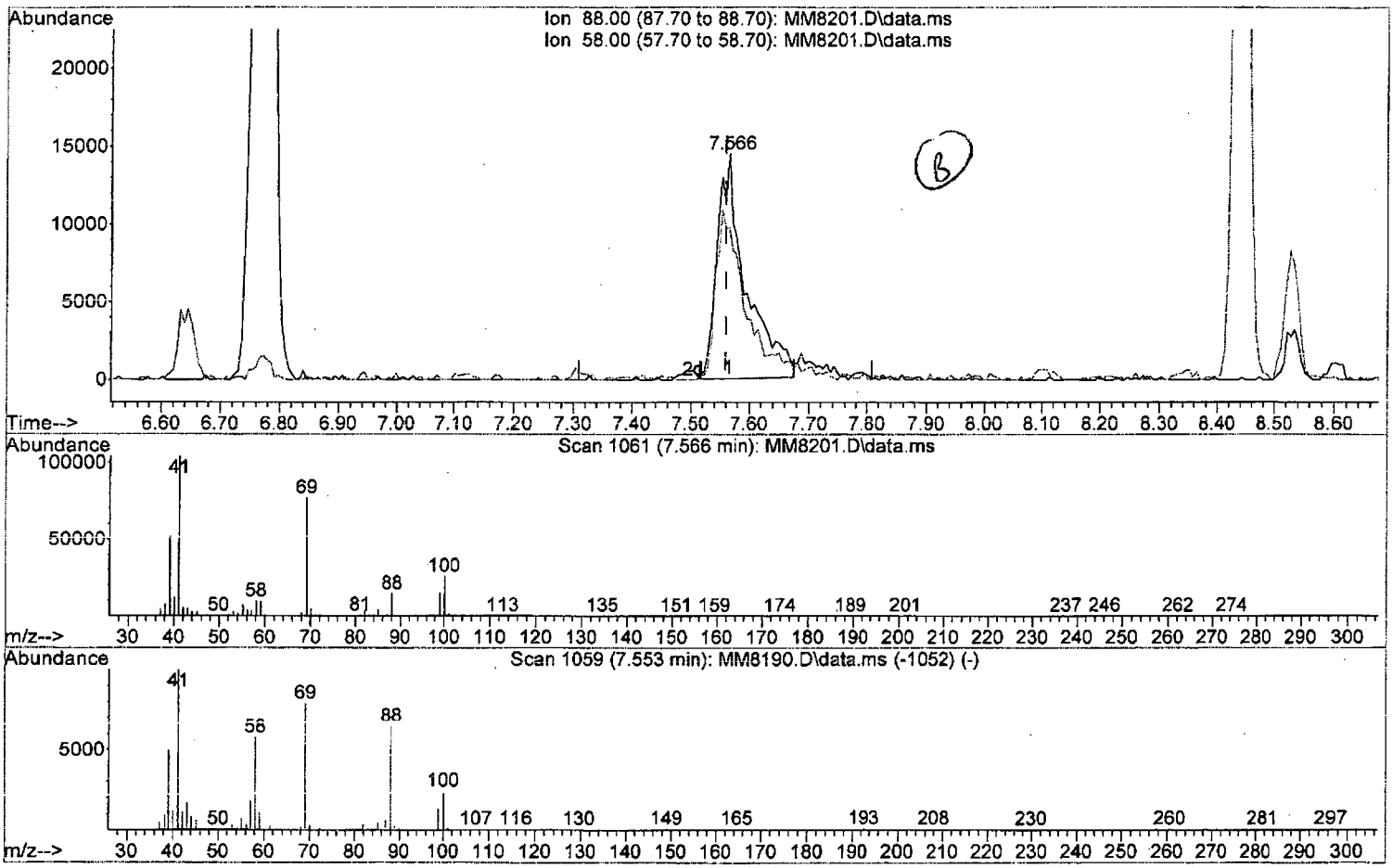
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	1673087	49.10	ppb	97
96)	2-Chlorotoluene	11.339	91	1023798	51.26	ppb	99
97)	3-Chlorotoluene	11.394	91	1069978	51.03	ppb	99
98)	4-Chlorotoluene	11.437	91	1131967	50.24	ppb	98
99)	1,3,5-Trimethylbenzene	11.431	105	1122828	50.19	ppb	99
100)	tert-Butylbenzene	11.699	119	991555	49.68	ppb	97
101)	1,2,4-Trimethylbenzene	11.742	105	1188534	49.51	ppb	97
102)	3,4-DCBTF	11.796	214	289050	50.07	ppb	99
103)	sec-Butylbenzene	11.882	105	1378727	49.37	ppb	99
104)	p-Isopropyltoluene	12.004	119	1126128	52.15	ppb	99
105)	1,3-Dclbenz	11.961	146	654399	50.54	ppb	99
106)	1,4-Dclbenz	12.034	146	634822	52.30	ppb	99
107)	2,4-DCBTF	12.089	214	261082	51.82	ppb	97
108)	2,5-DCBTF	12.126	214	288419	50.60	ppb	99
109)	n-Butylbenzene	12.333	91	1050775	51.38	ppb	99
110)	1,2-Dclbenz	12.339	146	609837	51.17	ppb	97
111)	1,2-Dibromo-3-chloropr...	12.955	157	57714	50.08	ppb	88
112)	Trielution Dichlorotol...	13.071	125	1570646	156.16	ppb	96
113)	1,3,5 Trichlorobenzene	13.132	180	416902	52.04	ppb	96
114)	Coelution Dichlorotoluene	13.400	125	1141239	107.38	ppb	99
115)	1,2,4-Tcbenzene	13.613	180	380370	51.73	ppb	97
116)	Hexachlorobt	13.747	225	154653	52.67	ppb	92
117)	Naphthalen	13.802	128	840880	55.14	ppb	99
118)	1,2,3-Tclbenzene	13.985	180	329024	53.80	ppb	97
119)	2,4,5-Trichlorotolene	14.570	159	251568	55.45	ppb	96
120)	2,3,6-Trichlorotoluene	14.656	159	215078	53.85	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:40:01 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration



TIC: MM8201.D\data.ms

(58) 1,4-Dioxane

7.566min (+0.006) 980.03 ppb

response 49269

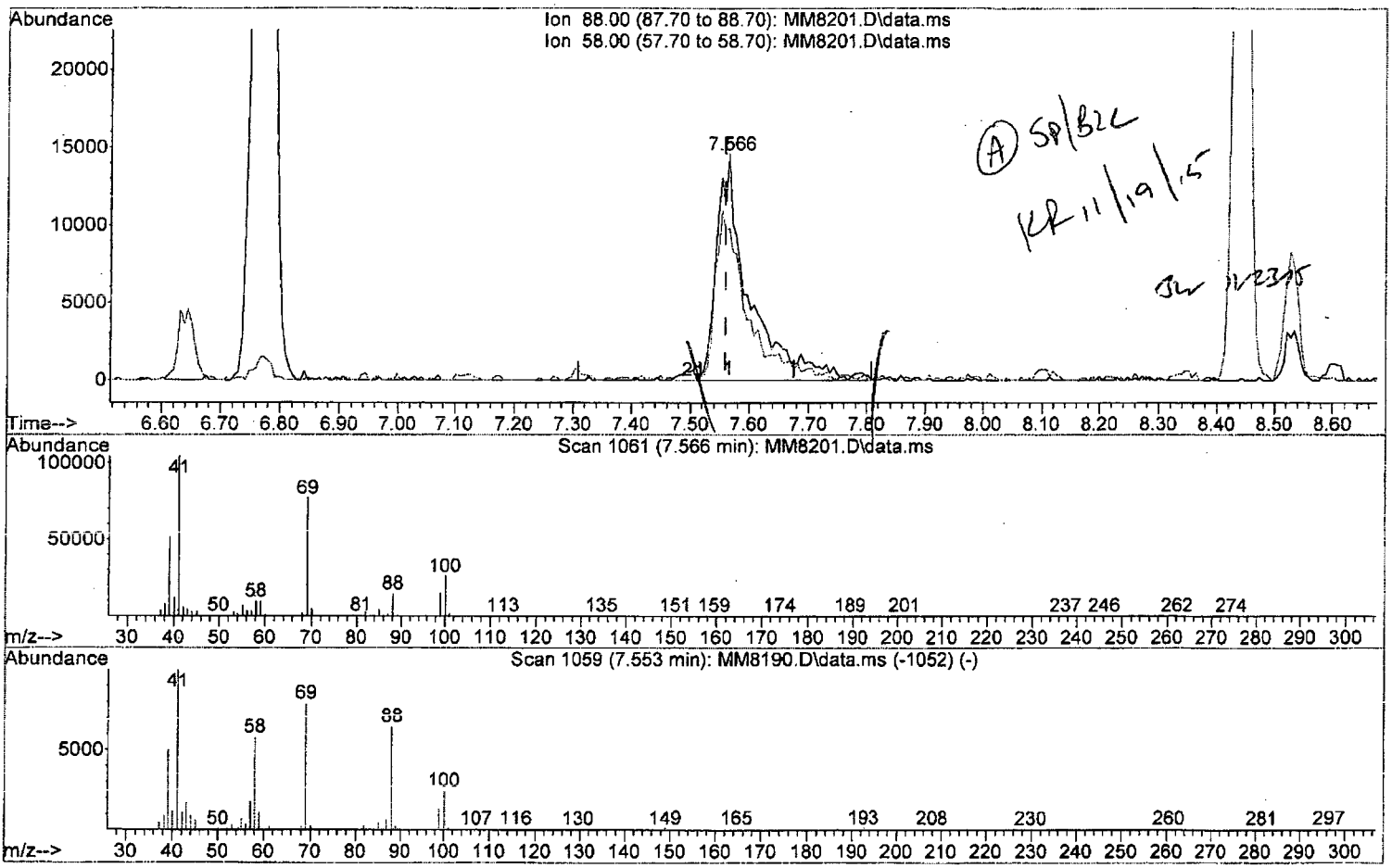
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	67.10#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 11:41:44 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:40:01 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration



TIC: MM8201.D\data.ms

(58) 1,4-Dioxane

7.566min (+0.006) 1101.95 ppb m

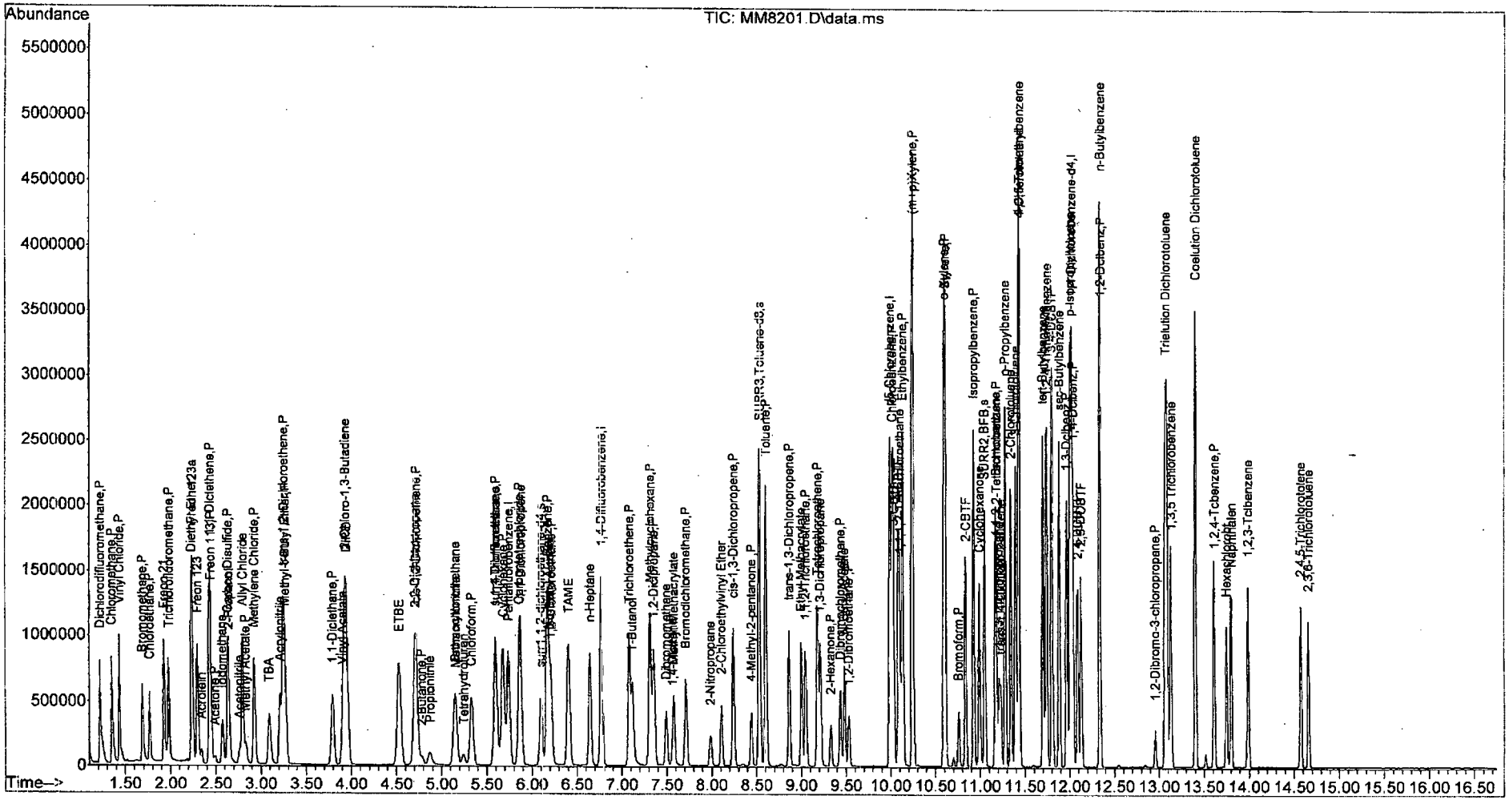
response 55398

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	67.10#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:41:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 11:43:06 2015 Page: 4

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 09:22:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815AS.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.743	168	726113	50.00	ppb	0.00
2) 1,4-Difluorobenzene	6.773	114	1257122	50.00	ppb	0.00
7) d5-Chlorobenzene	9.992	117	1174218	50.00	ppb	0.00
8) 1,4-Dichlorobenzene-d4	12.016	152	568495	50.00	ppb	0.00
System Monitoring Compounds						
3) surr4,Dibrflmethane	5.596	113	353544	54.09	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.18%			
4) surr1,1,2-dichloroetha...	6.096	65	400078	55.42	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 110.84%			
5) SURR3,Toluene-d8	8.535	98	1578449	57.39	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 114.78%			
6) SURR2,BFB	11.047	95	581217	55.98	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.96%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

SW requant

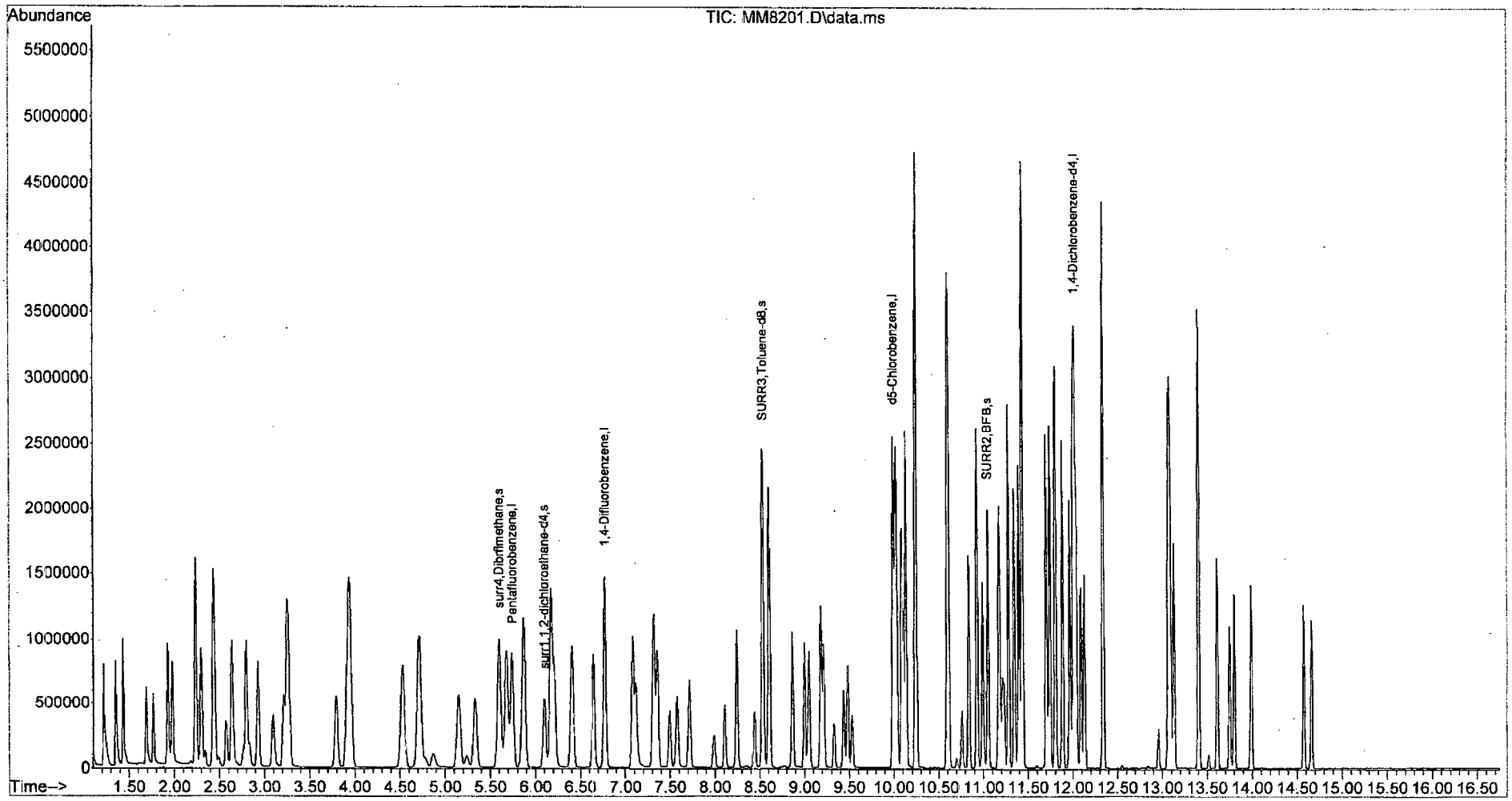
KR 11/30/15

W111815AS.M Mon Nov 30 14:24:47 2015 Page: 1

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 09:22:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815AS.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815AS.M Mon Nov 30 14:24:49 2015 Page: 2

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:53:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

12/1/15

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.0000	1.0000	0.0	107	0.00
2	P	Dichlorodifluoromethane	0.7043	0.6572	6.7	89	0.00
3	P	Chloromethane	0.8409	0.7828	6.9	99	0.00
4	P	Vinyl Chloride	0.7834	0.7533	3.8	100	0.00
5	P	Bromomethane	0.3826	0.3463	9.5	99	0.00
6	P	Chloroethane	0.4308	0.4152	3.6	103	0.00
7		Freon 21	0.8341	0.8511	-2.0	107	0.00
8	P	Trichlorofluoromethane	0.6103	0.6027	1.2	102	0.00
9		Diethyl Ether	0.3829	0.3687	3.7	104	0.00
10		Freon 123a	0.5453	0.5272	3.3	105	0.00
11		Freon 123	0.6287	0.6104	2.9	107	0.00
12		Acrolein	0.0426	0.1271	-193 ~~-198.4#~~	344#	0.00
13	P	1,1-Diclethene	0.4182	0.3953	5.5	101	0.00
14	P	Freon 113	0.3806	0.3557	6.5	101	0.00
15	P	Acetone	0.1066	0.0896	15.9	96	0.00
16		2-Propanol	0.0202	0.0194	4.0	112	0.00
17		Iodomethane	0.4751	0.4630	2.5	92	0.00
18	P	Carbon Disulfide	1.3968	1.3627	2.4	102	0.00
19		Acetonitrile	0.0148	0.0155	-4.7	130	0.00
20		Allyl Chloride	0.2328	0.2165	7.0	99	0.00
21	P	Methyl Acetate	0.2484	0.2186	12.0	103	0.00
22	P	Methylene Chloride	0.4829	0.4551	5.8	106	0.00
23		TBA	0.0328	0.0303	7.6	104	0.00
24		Acrylonitrile	0.1207	0.1136	5.9	105	0.00
25	P	Methyl-t-Butyl Ether	1.1634	1.0540	9.4	102	0.00
26	P	trans-1,2-Dichloroethene	0.4503	0.4424	1.8	105	0.00
27		Halothane	0.0000	0.0000	0.0	0#	-4.13#
28	P	1,1-Diclethane	0.8010	0.7872	1.7	105	0.00
29		Vinyl Acetate	0.0834	0.0832	0.2	111	0.00
30		DIPE	1.5615	1.4883	4.7	104	0.00
31		2-Chloro-1,3-Butadiene	0.8055	0.8374	-4.0	111	0.00
32		ETBE	1.4674	1.3427	8.5	99	0.00
33		2,2-Dichloropropane	0.6407	0.6304	1.6	105	0.00
34	P	cis-1,2-Dichloroethene	0.4985	0.4606	7.6	103	0.00
35	P	2-Butanone	0.1460	0.1323	9.4	101	0.00
36		Propionitrile	0.0446	0.0399	10.5	103	0.00
37		Bromochloromethane	0.2575	0.2431	5.6	102	0.00
38		Methacrylonitrile	0.1413	0.1290	8.7	103	0.00
39		Tetrahydrofuran	0.0939	0.0839	10.6	105	0.00
40	P	Chloroform	0.7785	0.7150	8.2	104	0.00
41	P	1,1,1-Trichloroethane	0.6115	0.5748	6.0	100	0.00
42		TAME	1.2466	1.1306	9.3	99	0.00
43	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	107	0.00
44	P	Cyclohexane	0.2733	0.2607	4.6	103	0.00
45	s	surr4,Dibrflmethane	0.2600	0.2804	-7.8	104	0.00
46	P	Carbontetrachloride	0.0957	0.0918	4.1	102	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:53:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47		1,1-Dichloropropene	0.3528	0.3315	6.0	100	0.00
48	s	surr1,1,2-dichloroethane-d4	0.2871	0.3066	-6.8	104	0.00
49	P	Benzene	1.1004	1.0691	2.8	102	0.00
50	P	1,2-Dichloroethane	0.2821	0.2681	5.0	104	0.00
51		Iso-Butyl Alcohol	0.0092	0.0084	8.7	108	0.00
52		n-Heptane	0.3028	0.2999	1.0	108	0.00
53		1-Butanol	0.0058	0.0055	5.2	110	-0.01
54	P	Trichloroethene	0.2796	0.2584	7.6	100	0.00
55	P	Methylcyclohexane	0.3371	0.3266	3.1	108	0.00
56	P	1,2-Diclpropane	0.2727	0.2616	4.1	102	0.00
57		Dibromomethane	0.1343	0.1186	11.7	102	0.00
58		1,4-Dioxane	0.0020	0.0020	0.0	120	-0.01
59		Methyl Methacrylate	0.1578	0.1421	9.9	99	0.00
60	P	Bromodichloromethane	0.3343	0.3126	6.5	100	0.00
61		2-Nitropropane	0.0492	0.0406	17.5	96	0.00
62		2-Chloroethylvinyl Ether	0.1504	0.1174	21.9#	88	0.00
63	P	cis-1,3-Dichloropropene	0.4481	0.4221	5.8	101	0.00
64	P	4-Methyl-2-pentanone	0.1994	0.1836	7.9	100	0.00
65	s	SURR3,Toluene-d8	1.0940	1.2475	-14.0	105	0.00
66	P	Toluene	1.1396	1.1125	2.4	102	0.00
67	P	trans-1,3-Dichloropropene	0.3560	0.3439	3.4	100	0.00
68		Ethyl Methacrylate	0.3152	0.2925	7.2	98	0.00
69	P	1,1,2-Trichloroethane	0.1927	0.1806	6.3	100	0.00
70	s	SURR2,BFB	0.4130	0.4616	-11.8	105	0.00
71	I	d5-Chlorobenzene	1.0000	1.0000	0.0	106	0.00
72	P	Tetrachloroethene	0.2074	0.2006	3.3	103	0.00
73	P	2-Hexanone	0.1531	0.1339	12.5	99	0.00
74		1,3-Dichloropropane	0.3801	0.3447	9.3	102	0.00
75	P	Dibromochloromethane	0.2365	0.2152	9.0	97	0.00
76		N-Butyl Acetate	0.3657	0.3409	6.8	102	0.00
77	P	1,2-Dibromoethane	0.2026	0.1893	6.6	103	0.00
78	P	Chlorobenzene	0.7396	0.7053	4.6	104	0.00
79		3-CBTF	0.3664	0.3425	6.5	103	0.00
80		4-CBTF	0.3410	0.3147	7.7	104	0.00
81		1,1,1,2-Tetrachloroethane	0.2556	0.2333	8.7	101	0.00
82	P	Ethylbenzene	0.4189	0.4005	4.4	103	0.00
83	P	(m+p)Xylene	0.5171	0.4906	5.1	102	0.00
84	P	o-Xylene	0.5296	0.5139	3.0	102	0.00
85	P	Styrene	0.8627	0.8058	6.6	100	0.00
86	I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	106	0.00
87	P	Bromoform	0.2840	0.2557	10.0	98	0.00
88		2-CBTF	0.7581	0.7154	5.6	103	0.00
89	P	Isopropylbenzene	2.6001	2.5325	2.6	102	0.00
90		Cyclohexanone	0.0377	0.0511	MT -35.5#	151	0.00
91		trans-1,4-Dichloro-2-Butene	0.1645	0.1449	6.0 ~~11.9~~	100	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:53:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
92	P	1,1,2,2-Tetrachloroethane	0.5254	0.4819	8.3	103	0.00
93		Bromobenzene	0.5883	0.5748	2.3	101	0.00
94		1,2,3-Trichloropropane	0.1547	0.1264	9.6 ~~18.3~~	98	0.00
95		n-Propylbenzene	2.9967	3.0054	-0.3	102	0.00
96		2-Chlorotoluene	1.7568	1.7634	-0.4	103	0.00
97		3-Chlorotoluene	1.8442	1.8328	0.6	105	0.00
98		4-Chlorotoluene	1.9817	1.9504	1.6	103	0.00
99		1,3,5-Trimethylbenzene	1.9676	1.9450	1.1	102	0.00
100		tert-Butylbenzene	1.7555	1.7530	0.1	102	0.00
101		1,2,4-Trimethylbenzene	2.1113	2.0738	1.8	101	0.00
102		3,4-DCBTF	0.5078	0.4788	5.7	102	0.00
103		sec-Butylbenzene	2.4563	2.4872	-1.3	104	0.00
104		p-Isopropyltoluene	1.8992	1.9232	-1.3	103	0.00
105	P	1,3-Dclbenz	1.1388	1.1111	2.4	102	0.00
106	P	1,4-Dclbenz	1.0675	1.0775	-0.9	103	0.00
107		2,4-DCBTF	0.4432	0.4430	0.0	106	0.00
108		2,5-DCBTF	0.5013	0.4810	4.0	103	0.00
109		n-Butylbenzene	1.7986	1.8251	-1.5	104	0.00
110	P	1,2-Dclbenz	1.0481	1.0124	3.4	100	0.00
111	P	1,2-Dibromo-3-chloropropane	0.1014	0.0879	13.3	96	0.00
112		Trielution Dichlorotoluene	0.8846	0.8655	2.2	103	0.00
113		1,3,5 Trichlorobenzene	0.7046	0.6750	4.2	104	0.00
114		Coelution Dichlorotoluene	0.9348	0.9246	1.1	102	0.00
115	P	1,2,4-Tcbenzene	0.6467	0.6101	5.7	99	0.00
116		Hexachlorobt	0.2582	0.2473	4.2	99	0.00
117		Naphthalen	1.3412	1.2709	5.2	97	0.00
118		1,2,3-Tclbenzene	0.5379	0.5200	3.3	99	0.00
119		2,4,5-Trichlorotolene	0.3990	0.3713	6.9	99	0.00
120		2,3,6-Trichlorotoluene	0.3513	0.3108	11.5	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV RQ1574847-02 Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:53:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	780877	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1304406	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1228517	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	584579	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	365799	53.94	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 107.88%				
48) surr1,1,2-dichloroetha...	6.096	65	399882	53.38	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.76%				
65) SURR3,Toluene-d8	8.529	98	1627289	57.02	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 114.04%				
70) SURR2,BFB	11.047	95	602110	55.89	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.78%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	513170	46.65	ppb		97
3) Chloromethane	1.353	50	611255	46.55	ppb		98
4) Vinyl Chloride	1.433	62	588259	48.08	ppb		100
5) Bromomethane	1.689	94	270453	45.26	ppb		99
6) Chloroethane	1.768	64	324198	48.19	ppb		100
7) Freon 21	1.926	67	664575	51.01	ppb		96
8) Trichlorofluoromethane	1.975	101	470627	49.38	ppb		100
9) Diethyl Ether	2.231	59	287877	48.14	ppb		94
10) Freon 123a	2.237	67	411693	48.35	ppb		99
11) Freon 123	2.298	83	476683	48.55	ppb		99
12) Acrolein W = 250	2.341	56	198519	298.35	ppb		89
13) 1,1-Diclethene	2.432	96	308667	47.26	ppb		98
14) Freon 113	2.445	101	277793	46.74	ppb		91
15) Acetone	2.487	43	69983	42.04	ppb		95
16) 2-Propanol	2.646	45	302959	959.07	ppb		98
17) Iodomethane	2.573	142	361572	48.73	ppb		98
18) Carbon Disulfide	2.634	76	1064081	48.78	ppb		99
19) Acetonitrile	2.762	40	60620	262.56	ppb	#	87
20) Allyl Chloride	2.798	76	169058	46.49	ppb		97
21) Methyl Acetate	2.829	43	170737	44.02	ppb		97
22) Methylene Chloride	2.926	84	355339	47.12	ppb		98
23) TBA	3.091	59	473646	923.89	ppb		99
24) Acrylonitrile	3.207	53	443661	235.46	ppb		98
25) Methyl-t-Butyl Ether	3.262	73	823034	45.30	ppb		100
26) trans-1,2-Dichloroethene	3.249	96	345444	49.12	ppb		96
28) 1,1-Diclethane	3.792	63	614710	49.14	ppb		97
29) Vinyl Acetate	3.908	86	64993	49.88	ppb		99
30) DIPE	3.944	45	1162142	47.65	ppb		99
31) 2-Chloro-1,3-Butadiene	3.926	53	653919	51.98	ppb		98
32) ETBE	4.530	59	1048446	45.75	ppb		98
33) 2,2-Dichloropropane	4.706	77	492276	49.20	ppb		98
34) cis-1,2-Dichloroethene	4.719	96	359659	46.20	ppb		98
35) 2-Butanone	4.773	43	103287	45.29	ppb		96
36) Propionitrile	4.865	54	155697	223.59	ppb		95

KR 12/1/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:53:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	189839	47.20	ppb		96
38) Methacrylonitrile	5.157	67	100763	45.66	ppb		100
39) Tetrahydrofuran	5.237	42	65531	44.69	ppb		95
40) Chloroform	5.328	83	558356	45.93	ppb		99
41) 1,1,1-Trichloroethane	5.596	97	448868	47.00	ppb		98
42) TAME	6.401	73	882881	45.35	ppb		99
44) Cyclohexane	5.676	41	340030	47.70	ppb		97
46) Carbontetrachloride	5.859	121	119783	47.96	ppb		97
47) 1,1-Dichloropropene	5.871	75	432395	46.98	ppb		99
49) Benzene	6.169	78	1394576	48.58	ppb		99
50) 1,2-Dichloroethane	6.212	62	349724	47.52	ppb		97
51) Iso-Butyl Alcohol	6.206	43	218751	909.06	ppb		99
52) n-Heptane	6.645	43	391250	49.53	ppb		99
53) 1-Butanol	7.114	56	355524	2357.02	ppb		99
54) Trichloroethene	7.084	130	337122	46.22	ppb		96
55) Methylcyclohexane	7.309	55	426017	48.44	ppb		94
56) 1,2-Diclpropane	7.352	63	341285	47.98	ppb		99
57) Dibromomethane	7.492	93	154753	44.18	ppb		91
58) 1,4-Dioxane	7.547	88	51790m	992.84	ppb		
59) Methyl Methacrylate	7.572	69	185300	45.02	ppb		99
60) Bromodichloromethane	7.712	83	407711	46.75	ppb		98
61) 2-Nitropropane	7.986	41	105890	82.44	ppb		99
62) 2-Chloroethylvinyl Ether	8.108	63	153104	39.01	ppb		95
63) cis-1,3-Dichloropropene	8.236	75	550535	47.09	ppb		98
64) 4-Methyl-2-pentanone	8.437	43	239486	46.03	ppb		97
66) Toluene	8.602	91	1451182	48.81	ppb		99
67) trans-1,3-Dichloropropene	8.864	75	448548	48.30	ppb		98
68) Ethyl Methacrylate	8.998	69	381513	46.40	ppb		97
69) 1,1,2-Trichloroethane	9.047	97	235546	46.85	ppb		95
72) Tetrachloroethene	9.181	164	246451	48.37	ppb		97
73) 2-Hexanone	9.327	43	164510	43.75	ppb		98
74) 1,3-Dichloropropane	9.212	76	423513	45.34	ppb		98
75) Dibromochloromethane	9.431	129	264401	45.50	ppb		96
76) N-Butyl Acetate	9.480	43	418809	46.61	ppb		99
77) 1,2-Dibromoethane	9.529	107	232543	46.72	ppb		99
78) Chlorobenzene	10.016	112	866450	47.68	ppb		99
79) 3-CBTF	10.028	180	420725	46.73	ppb		98
80) 4-CBTF	10.083	180	386624	46.15	ppb		99
81) 1,1,1,2-Tetrachloroethane	10.102	131	286667	45.64	ppb		94
82) Ethylbenzene	10.132	106	492056	47.80	ppb		94
83) (m+p)Xylene	10.242	106	1205305	94.86	ppb		100
84) o-Xylene	10.595	106	631322	48.52	ppb		97
85) Styrene	10.608	104	989975	46.71	ppb		99
87) Bromoform	10.760	173	149491	45.02	ppb		95
88) 2-CBTF	10.833	180	418197	47.18	ppb		97
89) Isopropylbenzene	10.925	105	1480475	48.70	ppb		100
90) Cyclohexanone	10.986	55	597411	1355.50	ppb		98
91) trans-1,4-Dichloro-2-B...	11.229	53	84679	46.99	ppb		92
92) 1,1,2,2-Tetrachloroethane	11.181	83	281726	45.87	ppb		100
93) Bromobenzene	11.169	156	335997	48.85	ppb		99
94) 1,2,3-Trichloropropane	11.211	110	73890	45.21	ppb	#	89

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:53:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

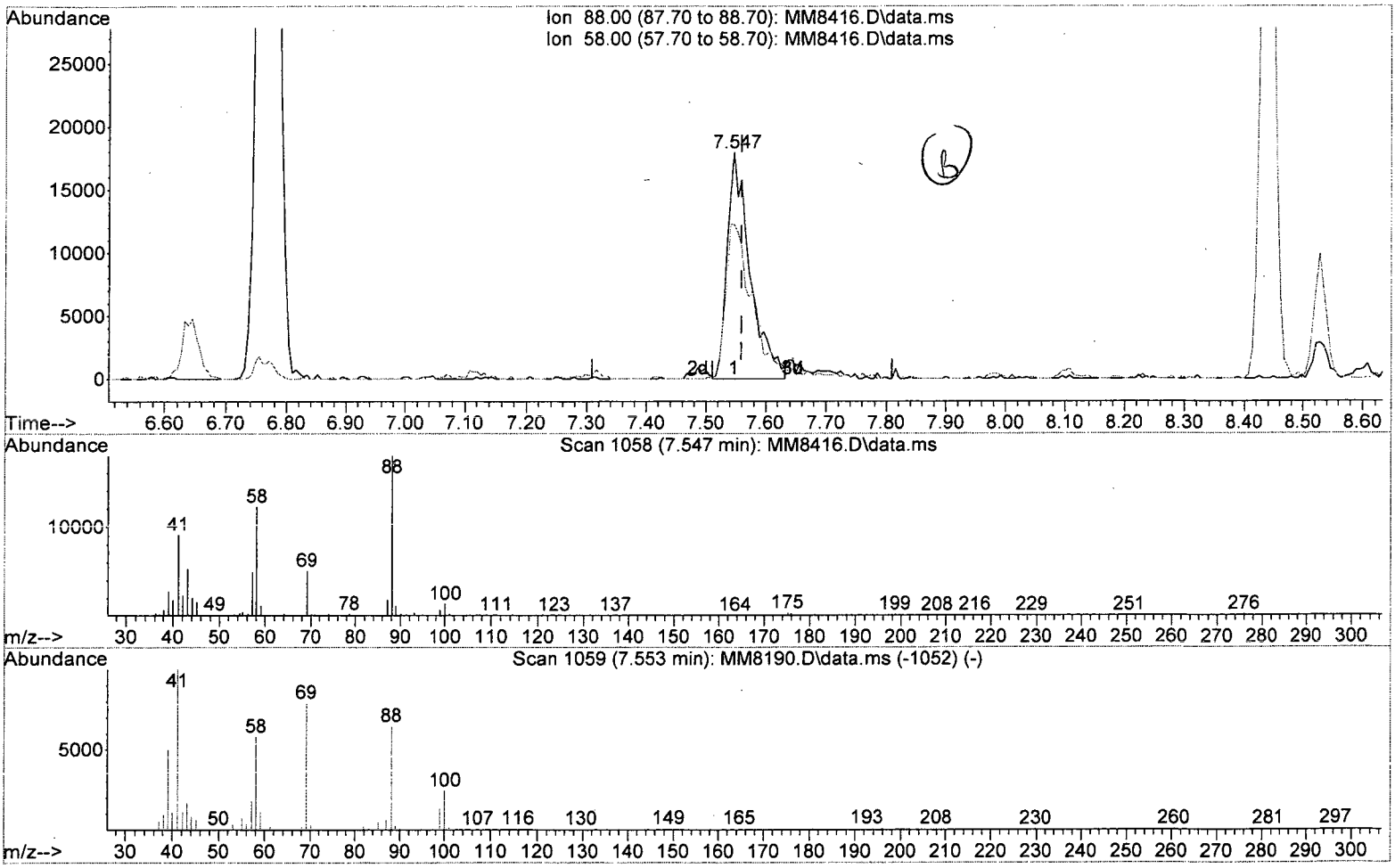
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	1756914	50.15	ppb	99
96)	2-Chlorotoluene	11.339	91	1030850	50.19	ppb	99
97)	3-Chlorotoluene	11.394	91	1071408	49.69	ppb	99
98)	4-Chlorotoluene	11.437	91	1140181	49.21	ppb	99
99)	1,3,5-Trimethylbenzene	11.431	105	1137034	49.43	ppb	100
100)	tert-Butylbenzene	11.699	119	1024791	49.93	ppb	99
101)	1,2,4-Trimethylbenzene	11.735	105	1212327	49.11	ppb	100
102)	3,4-DCBTF	11.796	214	279910	47.15	ppb	98
103)	sec-Butylbenzene	11.882	105	1453979	50.63	ppb	99
104)	p-Isopropyltoluene	12.004	119	1124257	50.63	ppb	99
105)	1,3-Dclbenz	11.961	146	649526	48.78	ppb	99
106)	1,4-Dclbenz	12.034	146	629855	50.47	ppb	98
107)	2,4-DCBTF	12.089	214	258952	49.98	ppb	96
108)	2,5-DCBTF	12.126	214	281177	47.97	ppb	99
109)	n-Butylbenzene	12.333	91	1066906	50.74	ppb	97
110)	1,2-Dclbenz	12.333	146	591833	48.30	ppb	94
111)	1,2-Dibromo-3-chloropr...	12.955	157	51389	43.36	ppb	87
112)	Trielution Dichlorotol...	13.071	125	1517836	146.76	ppb	97
113)	1,3,5 Trichlorobenzene	13.125	180	394594	47.90	ppb	98
114)	Coelution Dichlorotoluene	13.400	125	1081036	98.91	ppb	98
115)	1,2,4-Tcbenzene	13.607	180	356637	47.17	ppb	99
116)	Hexachlorobt	13.747	225	144581	47.89	ppb	93
117)	Naphthalen	13.796	128	742945	47.38	ppb	99
118)	1,2,3-Tclbenzene	13.985	180	303987	48.34	ppb	95
119)	2,4,5-Trichlorotolene	14.570	159	217032	46.52	ppb	99
120)	2,3,6-Trichlorotoluene	14.656	159	181677	44.23	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:48:00 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8416.D\data.ms

(58) 1,4-Dioxane

7.547min (-0.012) 903.52 ppb

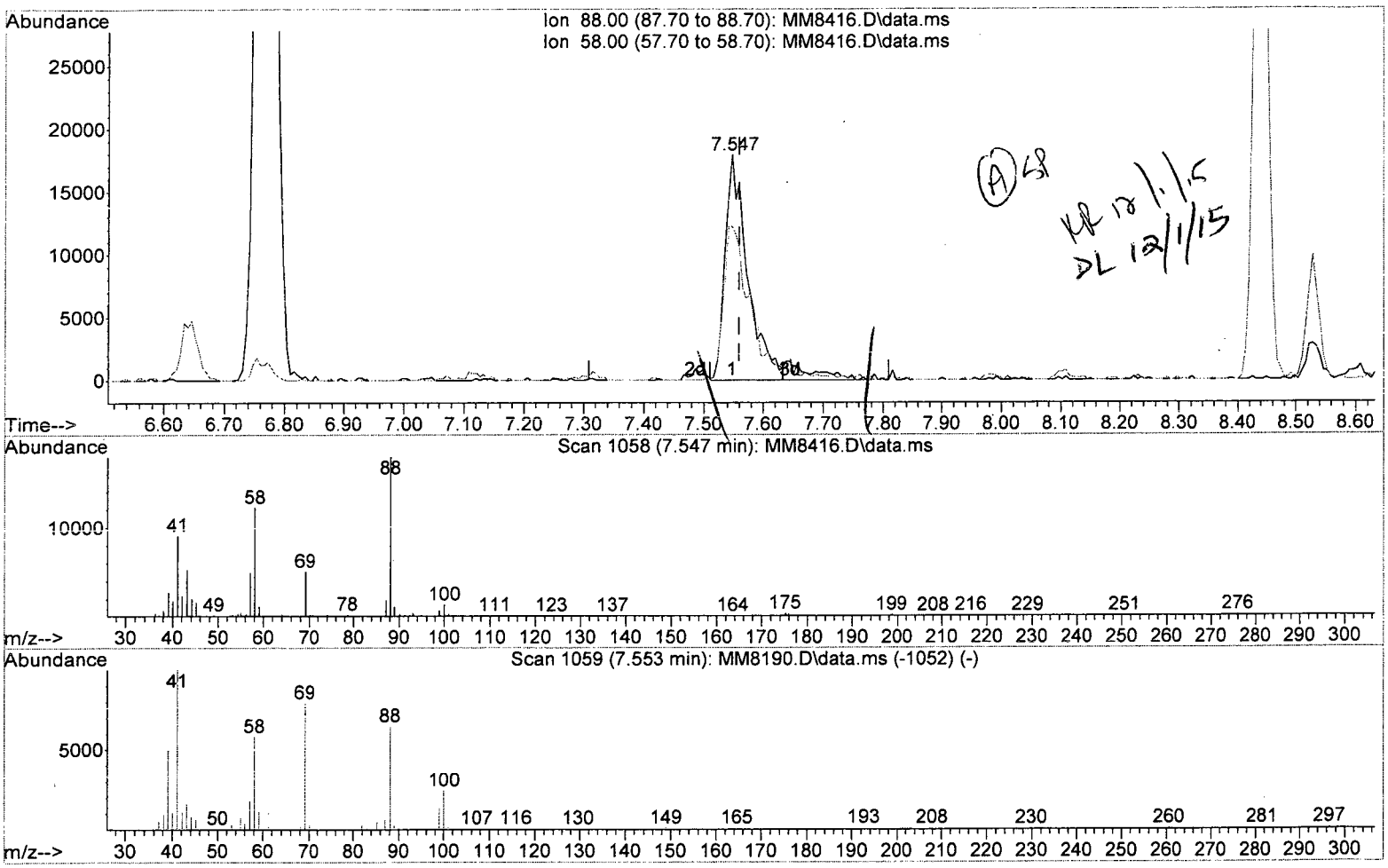
response 47131

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	68.27
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:48:00 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8416.D\data.ms

(58) 1,4-Dioxane

7.547min (-0.012) 992.84 ppb m

response 51790

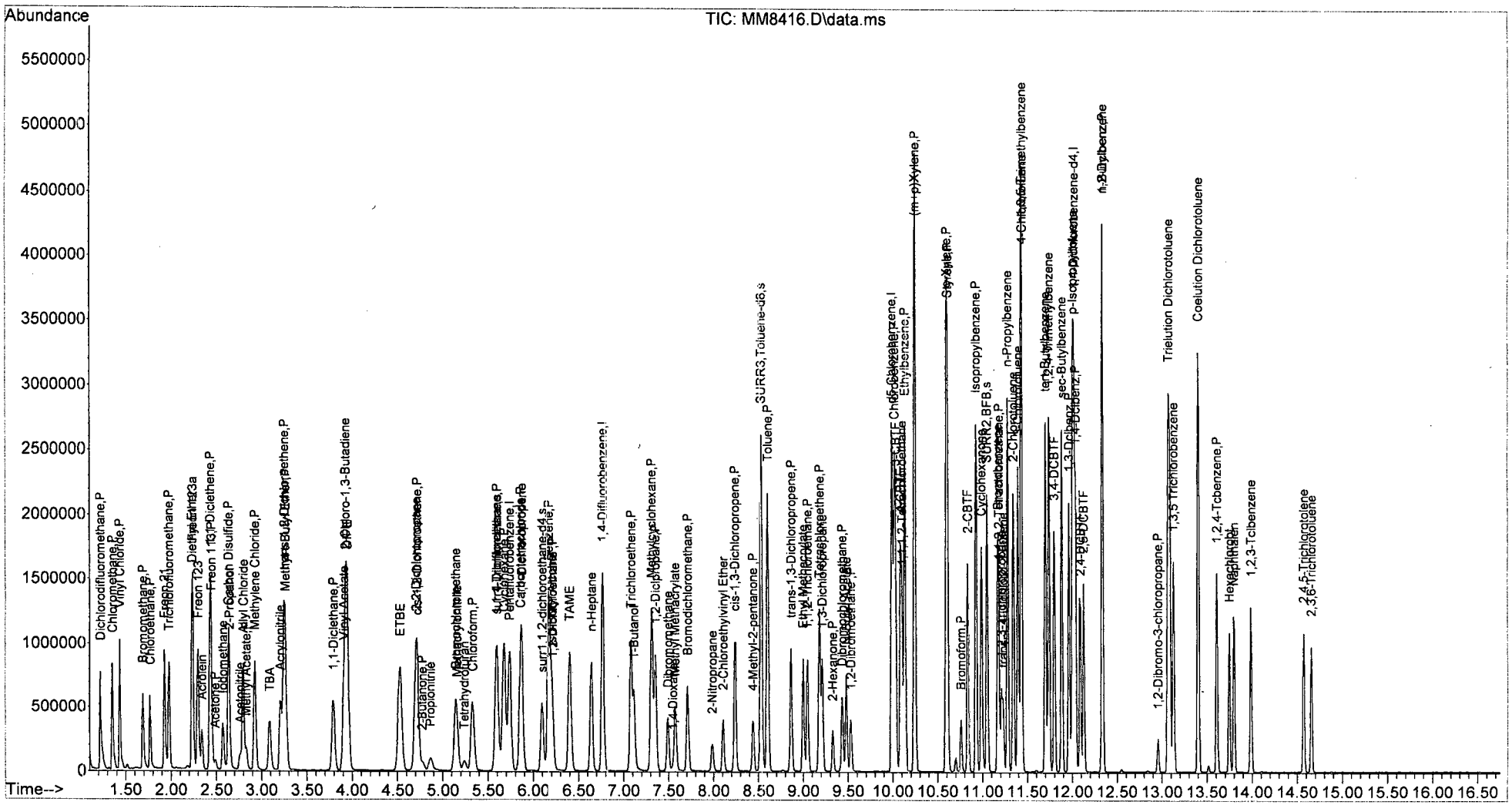
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	68.27
0.00	0.00	0.00
0.00	0.00	0.00

W111815A.M Tue Dec 01 10:53:19 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8416.D
Acq On : 1 Dec 2015 10:32 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 10:53:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Tue Dec 01 10:54:13 2015 Page: 4

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\MSVOA12\Data\I20215\
Data File : MM8460.D
Acq On : 2 Dec 2015 9:53 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 02 10:09:40 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

KR 12/1/15

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.0000	1.0000	0.0	100	0.00
2	P	Dichlorodifluoromethane	0.7043	0.6880	2.3	87	0.00
3	P	Chloromethane	0.8409	0.8298	1.3	98	0.00
4	P	Vinyl Chloride	0.7834	0.8142	-3.9	101	0.00
5	P	Bromomethane	0.3826	0.3128	18.2	84	0.00
6	P	Chloroethane	0.4308	0.4429	-2.8	102	0.00
7		Freon 21	0.8341	0.8947	-7.3	105	0.00
8	P	Trichlorofluoromethane	0.6103	0.6482	-6.2	103	0.00
9		Diethyl Ether	0.3829	0.3976	-3.8	105	0.00
10		Freon 123a	0.5453	0.5662	-3.8	105	0.00
11		Freon 123	0.6287	0.6363	-1.2	104	0.00
12		Acrolein TV= 250ppb	0.0426	0.1276	~~-19.5~~ ~~199.5#~~	323#	0.00
13	P	1,1-Diclethene	0.4182	0.4294	-2.7	103	0.00
14	P	Freon 113	0.3806	0.3811	-0.1	101	0.00
15	P	Acetone	0.1066	0.0838	21.4#	84	0.00 (V)
16		2-Propanol	0.0202	0.0216	-6.9	117	0.00
17		Iodomethane	0.4751	0.4072	14.3	75	0.00
18	P	Carbon Disulfide	1.3968	1.4083	-0.8	99	0.00
19		Acetonitrile	0.0148	0.0161	-8.8	125	0.00
20		Allyl Chloride	0.2328	0.2267	2.6	97	0.00
21	P	Methyl Acetate	0.2484	0.2461	0.9	109	0.00
22	P	Methylene Chloride	0.4829	0.4661	3.5	101	0.00
23		TBA	0.0328	0.0350	-6.7	113	0.00
24		Acrylonitrile	0.1207	0.1278	-5.9	110	0.00
25	P	Methyl-t-Butyl Ether	1.1634	1.1287	3.0	102	0.00
26	P	trans-1,2-Dichloroethene	0.4503	0.4670	-3.7	104	0.00
27		Halothane	0.0000	0.0000	0.0	0#	-4.13#
28	P	1,1-Diclethane	0.8010	0.8514	-6.3	106	0.00
29		Vinyl Acetate	0.0834	0.0878	-5.3	109	0.00
30		DIPE	1.5615	1.6248	-4.1	106	0.00
31		2-Chloro-1,3-Butadiene	0.8055	0.8730	-8.4	108	0.00
32		ETBE	1.4674	1.4691	-0.1	102	0.00
33		2,2-Dichloropropane	0.6407	0.6628	-3.4	104	0.00
34	P	cis-1,2-Dichloroethene	0.4985	0.4832	3.1	101	0.00
35	P	2-Butanone	0.1460	0.1390	4.8	99	0.00
36		Propionitrile	0.0446	0.0452	-1.3	109	0.00
37		Bromochloromethane	0.2575	0.2511	2.5	99	0.00
38		Methacrylonitrile	0.1413	0.1413	0.0	105	0.00
39		Tetrahydrofuran	0.0939	0.0946	-0.7	111	0.00
40	P	Chloroform	0.7785	0.7620	2.1	103	0.00
41	P	1,1,1-Trichloroethane	0.6115	0.6195	-1.3	101	0.00
42		TAME	1.2466	1.2227	1.9	100	0.00
43	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	101	0.00
44	P	Cyclohexane	0.2733	0.2795	-2.3	105	0.00
45	s	surr4,Dibrflmethane	0.2600	0.2820	-8.5	99	0.00
46	P	Carbontetrachloride	0.0957	0.0930	2.8	98	-0.01

W111815A.M Wed Dec 02 10:11:40 2015 Page: 1

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\MSVOA12\Data\120215\
Data File : MM8460.D
Acq On : 2 Dec 2015 9:53 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 02 10:09:40 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47		1,1-Dichloropropene	0.3528	0.3511	0.5	101	0.00
48	s	surr1,1,2-dichloroethane-d4	0.2871	0.3184	-10.9	102	0.00
49	P	Benzene	1.1004	1.1262	-2.3	102	0.00
50	P	1,2-Dichloroethane	0.2821	0.2898	-2.7	106	0.00
51		Iso-Butyl Alcohol	0.0092	0.0095	-3.3	116	-0.01
52		n-Heptane	0.3028	0.3416	-12.8	117	0.00
53		1-Butanol	0.0058	0.0062	-6.9	119	-0.01
54	P	Trichloroethene	0.2796	0.2638	5.7	97	0.00
55	P	Methylcyclohexane	0.3371	0.3435	-1.9	107	0.00
56	P	1,2-Diclpropane	0.2727	0.2787	-2.2	103	0.00
57		Dibromomethane	0.1343	0.1273	5.2	104	0.00
58		1,4-Dioxane	0.0020	0.0022	-10.0	124	0.00
59		Methyl Methacrylate	0.1578	0.1529	3.1	101	0.00
60	P	Bromodichloromethane	0.3343	0.3292	1.5	100	0.00
61		2-Nitropropane	0.0492	0.0454	7.7	102	0.00
62		2-Chloroethylvinyl Ether	0.1504	0.1178	MT 21.7#	84	0.00
63	P	cis-1,3-Dichloropropene	0.4481	0.4408	1.6	100	0.00
64	P	4-Methyl-2-pentanone	0.1994	0.1986	0.4	103	0.00
65	s	SURR3,Toluene-d8	1.0940	1.2584	-15.0	100	0.00
66	P	Toluene	1.1396	1.1725	-2.9	102	0.00
67	P	trans-1,3-Dichloropropene	0.3560	0.3615	-1.5	100	0.00
68		Ethyl Methacrylate	0.3152	0.3256	-3.3	104	0.00
69	P	1,1,2-Trichloroethane	0.1927	0.1931	-0.2	101	0.00
70	s	SURR2,BFB	0.4130	0.4761	-15.3	103	0.00
71	I	d5-Chlorobenzene	1.0000	1.0000	0.0	102	0.00
72	P	Tetrachloroethene	0.2074	0.2053	1.0	101	0.00
73	P	2-Hexanone	0.1531	0.1477	3.5	105	0.00
74		1,3-Dichloropropane	0.3801	0.3711	2.4	105	0.00
75	P	Dibromochloromethane	0.2365	0.2206	6.7	95	0.00
76		N-Butyl Acetate	0.3657	0.3715	-1.6	106	0.00
77	P	1,2-Dibromoethane	0.2026	0.1960	3.3	102	0.00
78	P	Chlorobenzene	0.7396	0.7233	2.2	102	0.00
79		3-CBTF	0.3664	0.3599	1.8	104	0.00
80		4-CBTF	0.3410	0.3355	1.6	106	0.00
81		1,1,1,2-Tetrachloroethane	0.2556	0.2407	5.8	100	0.00
82	P	Ethylbenzene	0.4189	0.4206	-0.4	104	0.00
83	P	(m+p)Xylene	0.5171	0.5096	1.5	101	0.00
84	P	o-Xylene	0.5296	0.5345	-0.9	102	0.00
85	P	Styrene	0.8627	0.8431	2.3	100	0.00
86	I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	103	0.00
87	P	Bromoform	0.2840	0.2535	10.7	95	0.00
88		2-CBTF	0.7581	0.7475	1.4	105	0.00
89	P	Isopropylbenzene	2.6001	2.6055	-0.2	102	0.00
90		Cyclohexanone	0.0377	0.0227	MT 39.8#	65	0.00
91		trans-1,4-Dichloro-2-Butene	0.1645	0.1420	-7.9 ~~13.7~~	96	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8460.D
Acq On : 2 Dec 2015 9:53 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 02 10:09:40 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
92	P	1,1,2,2-Tetrachloroethane	0.5254	0.5139	2.2	107	0.00
93		Bromobenzene	0.5883	0.5838	0.8	100	0.00
94		1,2,3-Trichloropropane	0.1547	0.1387	~~10.3~~ 6.1	105	0.00
95		n-Propylbenzene	2.9967	3.1130	-3.9	104	0.00
96		2-Chlorotoluene	1.7568	1.8229	-3.8	103	0.00
97		3-Chlorotoluene	1.8442	1.9016	-3.1	106	0.00
98		4-Chlorotoluene	1.9817	2.0205	-2.0	104	0.00
99		1,3,5-Trimethylbenzene	1.9676	2.0112	-2.2	103	0.00
100		tert-Butylbenzene	1.7555	1.8099	-3.1	102	0.00
101		1,2,4-Trimethylbenzene	2.1113	2.1376	-1.2	102	0.00
102		3,4-DCBTF	0.5078	0.5030	0.9	104	0.00
103		sec-Butylbenzene	2.4563	2.6021	-5.9	106	0.00
104		p-Isopropyltoluene	1.8992	1.9970	-5.1	105	0.00
105	P	1,3-Dclbenz	1.1388	1.1311	0.7	101	0.00
106	P	1,4-Dclbenz	1.0675	1.0944	-2.5	102	0.00
107		2,4-DCBTF	0.4432	0.4675	-5.5	109	0.00
108		2,5-DCBTF	0.5013	0.5156	-2.9	108	0.00
109		n-Butylbenzene	1.7986	1.9240	-7.0	107	0.00
110	P	1,2-Dclbenz	1.0481	1.0516	-0.3	101	0.00
111	P	1,2-Dibromo-3-chloropropane	0.1014	0.0905	10.7	97	0.00
112		Trielution Dichlorotoluene	0.8846	0.8949	-1.2	104	0.00
113		1,3,5 Trichlorobenzene	0.7046	0.6953	1.3	104	0.00
114		Coelution Dichlorotoluene	0.9348	0.9501	-1.6	102	0.00
115	P	1,2,4-Tcbenzene	0.6467	0.6332	2.1	100	0.00
116		Hexachlorobt	0.2582	0.2873	-11.3	112	0.00
117		Naphthalen	1.3412	1.3385	0.2	100	0.00
118		1,2,3-Tclbenzene	0.5379	0.5478	-1.8	102	0.00
119		2,4,5-Trichlorotolene	0.3990	0.3767	5.6	98	0.00
120		2,3,6-Trichlorotoluene	0.3513	0.3158	10.1	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120215\
Data File : MM8460.D
Acq On : 2 Dec 2015 9:53 am
Operator : K.Ruest
Sample : CCV RQ1514883-02, 14885-02 Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 02 10:09:40 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	729742	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1237523	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1177438	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	570215	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	348922	54.23	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.46%				
48) surr1,1,2-dichloroetha...	6.096	65	394087	55.45	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 110.90%				
65) SURR3,Toluene-d8	8.529	98	1557271	57.51	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 115.02%				
70) SURR2,BFB	11.047	95	589179	57.64	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 115.28%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	502053	48.84	ppb		99
3) Chloromethane	1.347	50	605542	49.34	ppb		99
4) Vinyl Chloride	1.433	62	594135	51.97	ppb		98
5) Bromomethane	1.689	94	228235	40.87	ppb		98
6) Chloroethane	1.768	64	323207	51.41	ppb		98
7) Freon 21	1.927	67	652880	53.63	ppb		99
8) Trichlorofluoromethane	1.975	101	472994	53.11	ppb		99
9) Diethyl Ether	2.231	59	290131	51.92	ppb		94
10) Freon 123a	2.237	67	413148	51.92	ppb		94
11) Freon 123	2.298	83	464309	50.60	ppb		97
12) Acrolein	2.341	56	186222	299.48	ppb		96
13) 1,1-Diclethene	2.433	96	313333	51.34	ppb		99
14) Freon 113	2.445	101	278074	50.07	ppb		98
15) Acetone	2.487	43	61185	39.33	ppb		93
16) 2-Propanol	2.646	45	314866	1066.60	ppb		97
17) Iodomethane	2.573	142	297120	42.85	ppb		100
18) Carbon Disulfide	2.634	76	1027691	50.41	ppb		99
19) Acetonitrile	2.762	40	58597	271.58	ppb		89
20) Allyl Chloride	2.798	76	165461	48.69	ppb		97
21) Methyl Acetate	2.829	43	179583	49.55	ppb		99
22) Methylene Chloride	2.926	84	340138	48.26	ppb		94
23) TBA	3.091	59	510535	1065.63	ppb		100
24) Acrylonitrile	3.207	53	466473	264.91	ppb		98
25) Methyl-t-Butyl Ether	3.262	73	823641	48.51	ppb		96
26) trans-1,2-Dichloroethene	3.249	96	340807	51.85	ppb		96
28) 1,1-Diclethane	3.792	63	621287	53.15	ppb		99
29) Vinyl Acetate	3.908	86	64102	52.64	ppb	#	80
30) DIPE	3.944	45	1185664	52.03	ppb		98
31) 2-Chloro-1,3-Butadiene	3.926	53	637096	54.20	ppb		99
32) ETBE	4.524	59	1072079	50.06	ppb		99
33) 2,2-Dichloropropane	4.706	77	483698	51.73	ppb		94
34) cis-1,2-Dichloroethene	4.713	96	352592	48.46	ppb		99
35) 2-Butanone	4.780	43	101438	47.60	ppb		88
36) Propionitrile	4.865	54	165019	253.58	ppb		91

12/2/15

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120215\
Data File : MM8460.D
Acq On : 2 Dec 2015 9:53 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 02 10:09:40 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	183237	48.75	ppb		96
38) Methacrylonitrile	5.164	67	103127	50.00	ppb		93
39) Tetrahydrofuran	5.237	42	69063	50.39	ppb		82
40) Chloroform	5.328	83	556058	48.94	ppb		96
41) 1,1,1-Trichloroethane	5.597	97	452061	50.65	ppb		98
42) TAME	6.401	73	892274	49.04	ppb		98
44) Cyclohexane	5.676	41	345830	51.13	ppb		99
46) Carbontetrachloride	5.853	121	115098	48.57	ppb		97
47) 1,1-Dichloropropene	5.871	75	434437	49.76	ppb		98
49) Benzene	6.170	78	1393724	51.17	ppb		99
50) 1,2-Dichloroethane	6.212	62	358616	51.36	ppb		98
51) Iso-Butyl Alcohol	6.200	43	236201	1034.62	ppb		90
52) n-Heptane	6.639	43	422799	56.41	ppb		99
53) 1-Butanol	7.115	56	384354	2685.87	ppb		99
54) Trichloroethene	7.084	130	326489	47.18	ppb		98
55) Methylcyclohexane	7.310	55	425110	50.95	ppb		97
56) 1,2-Diclpropane	7.352	63	344910	51.11	ppb		98
57) Dibromomethane	7.492	93	157585	47.42	ppb		92
58) 1,4-Dioxane	7.553	88	53629	1083.66	ppb		84
59) Methyl Methacrylate	7.572	69	189217	48.45	ppb		94
60) Bromodichloromethane	7.712	83	407445	49.24	ppb		98
61) 2-Nitropropane	7.986	41	112283	92.14	ppb		94
62) 2-Chloroethylvinyl Ether	8.108	63	145815	39.16	ppb		94
63) cis-1,3-Dichloropropene	8.236	75	545469	49.18	ppb		98
64) 4-Methyl-2-pentanone	8.437	43	245801	49.80	ppb		99
66) Toluene	8.602	91	1451038	51.44	ppb		99
67) trans-1,3-Dichloropropene	8.864	75	447322	50.77	ppb		99
68) Ethyl Methacrylate	8.998	69	402899	51.65	ppb		98
69) 1,1,2-Trichloroethane	9.047	97	238948	50.10	ppb		97
72) Tetrachloroethene	9.181	164	241694	49.49	ppb		97
73) 2-Hexanone	9.328	43	173946	48.26	ppb		98
74) 1,3-Dichloropropane	9.212	76	436987	48.82	ppb		99
75) Dibromochloromethane	9.431	129	259787	46.64	ppb		99
76) N-Butyl Acetate	9.480	43	437459	50.79	ppb		98
77) 1,2-Dibromoethane	9.529	107	230819	48.39	ppb		96
78) Chlorobenzene	10.016	112	851589	48.90	ppb		98
79) 3-CBTF	10.029	180	423722	49.10	ppb		98
80) 4-CBTF	10.083	180	394999	49.19	ppb		99
81) 1,1,1,2-Tetrachloroethane	10.102	131	283451	47.09	ppb		95
82) Ethylbenzene	10.132	106	495216	50.20	ppb		98
83) (m+p)Xylene	10.242	106	1199984	98.54	ppb		99
84) o-Xylene	10.596	106	629398	50.47	ppb		100
85) Styrene	10.608	104	992719	48.87	ppb		99
87) Bromoform	10.760	173	144544	44.62	ppb		96
88) 2-CBTF	10.833	180	426214	49.30	ppb		95
89) Isopropylbenzene	10.925	105	1485694	50.10	ppb		98
90) Cyclohexanone	10.986	55	258689	601.74	ppb		96
91) trans-1,4-Dichloro-2-B...	11.230	53	80981	46.07	ppb		95
92) 1,1,2,2-Tetrachloroethane	11.181	83	293053	48.91	ppb		96
93) Bromobenzene	11.169	156	332869	49.61	ppb		98
94) 1,2,3-Trichloropropane	11.211	110	79082	49.63	ppb	#	85

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120215\
Data File : MM8460.D
Acq On : 2 Dec 2015 9:53 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 02 10:09:40 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

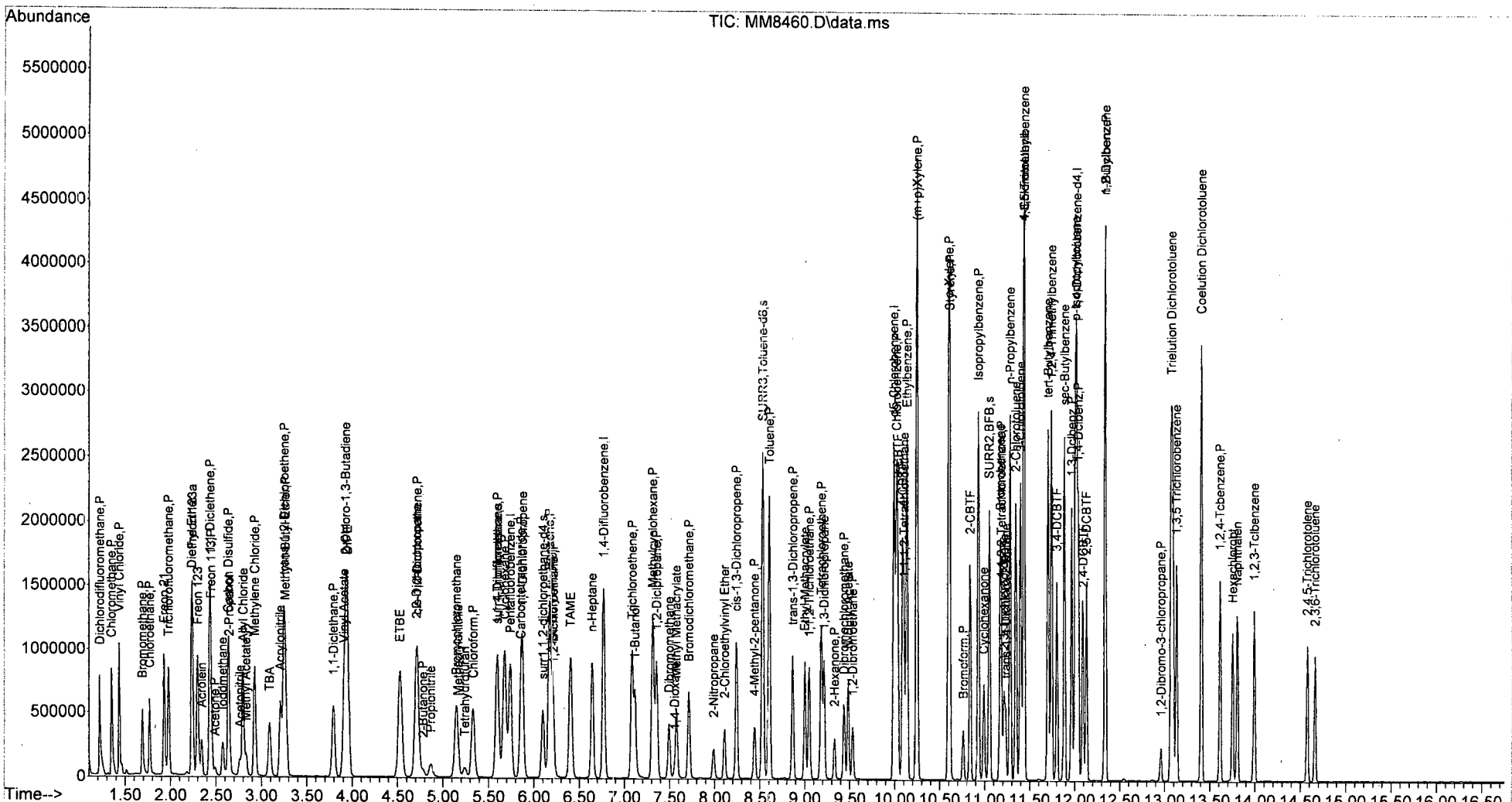
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	1775070	51.94	ppb	99
96)	2-Chlorotoluene	11.339	91	1039446	51.88	ppb	99
97)	3-Chlorotoluene	11.394	91	1084303	51.55	ppb	99
98)	4-Chlorotoluene	11.431	91	1152135	50.98	ppb	95
99)	1,3,5-Trimethylbenzene	11.431	105	1146797	51.11	ppb	99
100)	tert-Butylbenzene	11.699	119	1032018	51.55	ppb	99
101)	1,2,4-Trimethylbenzene	11.736	105	1218893	50.62	ppb	100
102)	3,4-DCBTF	11.797	214	286846	49.54	ppb	99
103)	sec-Butylbenzene	11.882	105	1483770	52.97	ppb	99
104)	p-Isopropyltoluene	12.004	119	1138698	52.57	ppb	99
105)	1,3-Dclbenz	11.961	146	644947	49.66	ppb	98
106)	1,4-Dclbenz	12.034	146	624068	51.26	ppb	99
107)	2,4-DCBTF	12.089	214	266557	52.74	ppb	92
108)	2,5-DCBTF	12.126	214	293981	51.42	ppb	98
109)	n-Butylbenzene	12.333	91	1097090	53.49	ppb	99
110)	1,2-Dclbenz	12.333	146	599653	50.17	ppb	93
111)	1,2-Dibromo-3-chloropr...	12.955	157	51627	44.66	ppb	91
112)	Trielution Dichlorotol...	13.071	125	1530833	151.74	ppb	97
113)	1,3,5 Trichlorobenzene	13.126	180	396481	49.34	ppb	99
114)	Coelution Dichlorotoluene	13.400	125	1083509	101.64	ppb	98
115)	1,2,4-Tcbenzene	13.607	180	361047	48.96	ppb	98
116)	Hexachlorobt	13.747	225	163851	55.64	ppb	92
117)	Naphthalen	13.796	128	763241	49.90	ppb	99
118)	1,2,3-Tclbenzene	13.985	180	312339	50.92	ppb	95
119)	2,4,5-Trichlorotolene	14.570	159	214809	47.21	ppb	99
120)	2,3,6-Trichlorotoluene	14.656	159	180062	44.94	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120215\
Data File : MM8460.D
Acq On : 2 Dec 2015 9:53 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 02 10:09:40 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Wed Dec 02 10:09:52 2015 Page: 4

VOLATILE ORGANICS
RAW QC DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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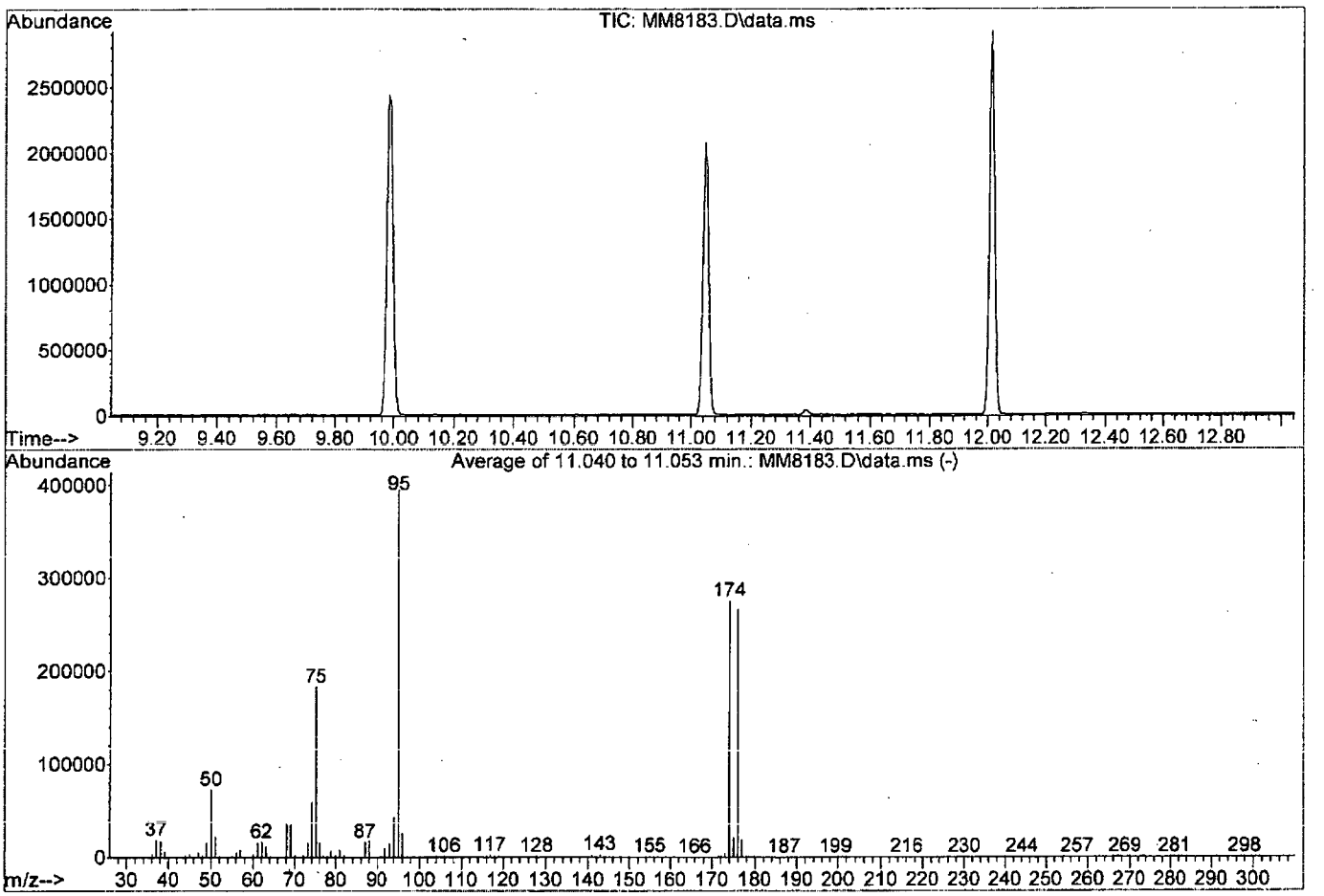
Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8183.D
Acq On : 18 Nov 2015 3:38 pm
Operator : K.Ruest
Sample : TUNE Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Thu Aug 27 10:55:02 2015

KB 11/18/15



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	72096	PASS
75	95	30	60	46.3	182827	PASS
95	95	100	100	100.0	394581	PASS
96	95	5	9	6.6	26025	PASS
173	174	0.00	2	1.3	3492	PASS
174	95	50	120	69.7	275072	PASS
175	174	5	9	7.4	20478	PASS
176	174	95	101	96.8	266389	PASS
177	176	5	9	6.9	18350	PASS

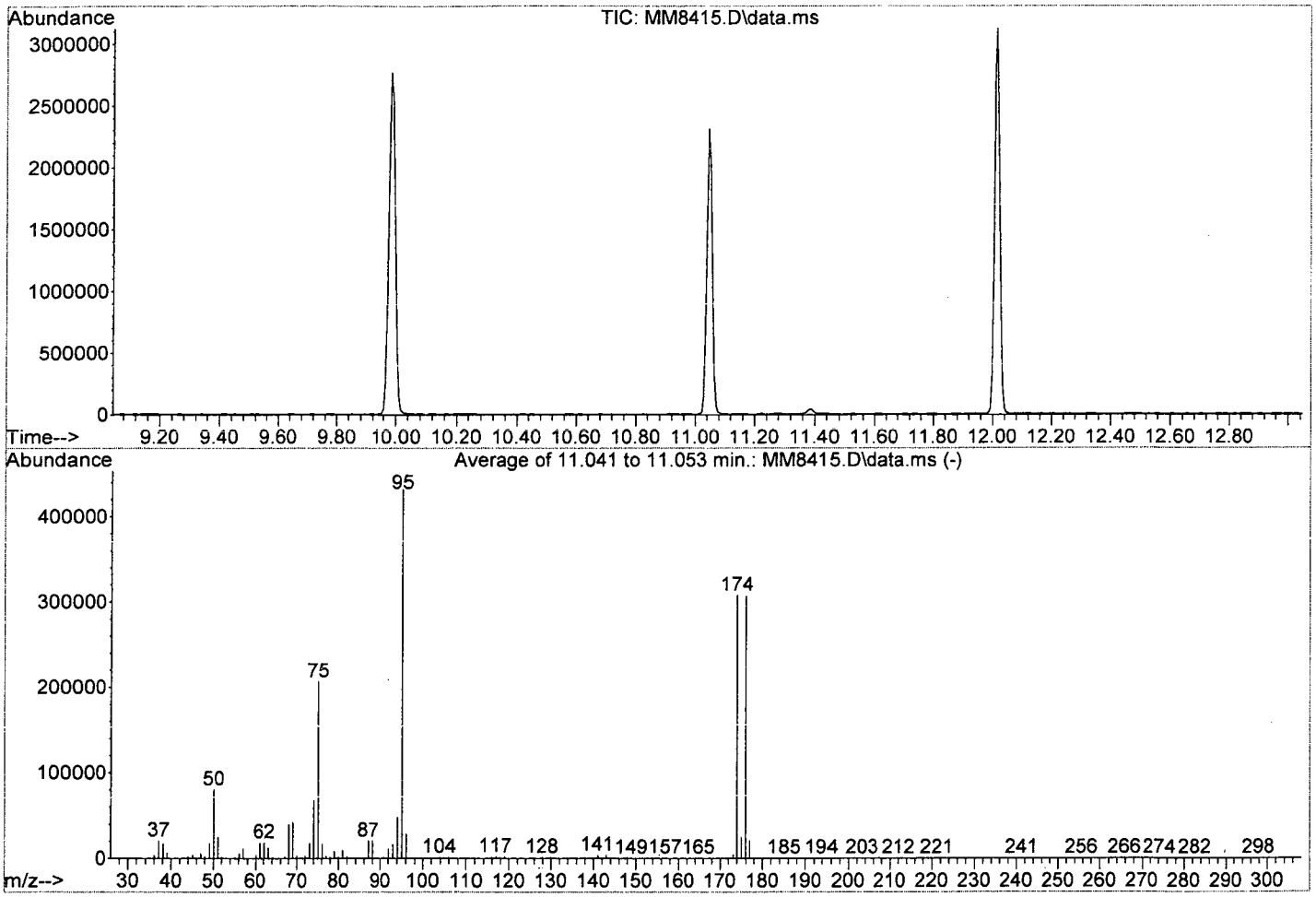
W111815.M Wed Nov 18 16:27:30 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8415.D
Acq On : 1 Dec 2015 10:01 am
Operator : K.Ruest
Sample : TUNE R0151418417-01 Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Nov 25 09:49:52 2015

12/1/15



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1626

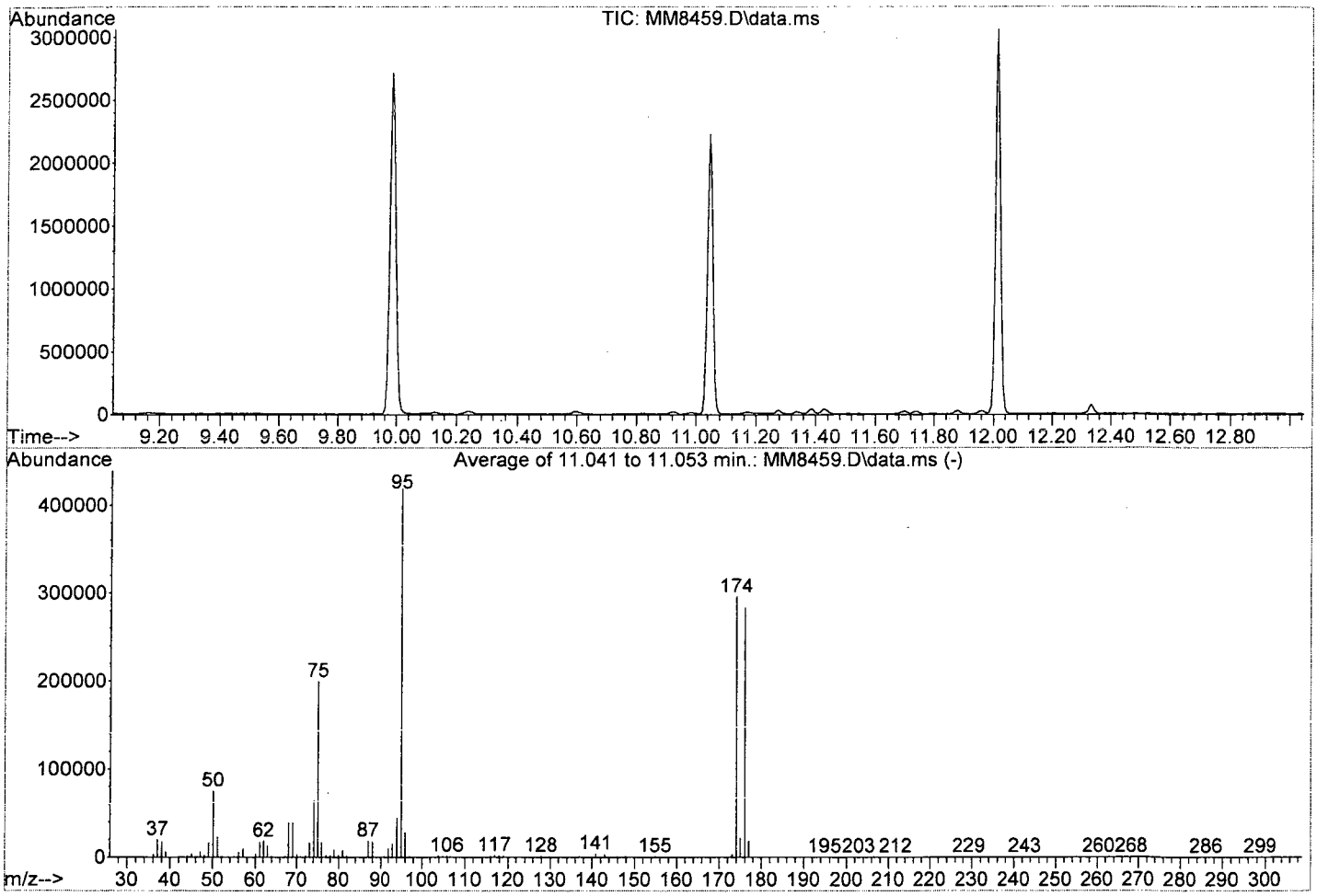
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	80059	PASS
75	95	30	60	47.8	206443	PASS
95	95	100	100	100.0	431829	PASS
96	95	5	9	6.6	28661	PASS
173	174	0.00	2	1.3	4077	PASS
174	95	50	120	71.2	307477	PASS
175	174	5	9	7.8	23912	PASS
176	174	95	101	99.8	306837	PASS
177	176	5	9	6.6	20112	PASS

Data Path : I:\ACQUDATA\MSVOA12\Data\120215\
Data File : MM8459.D
Acq On : 2 Dec 2015 9:16 am
Operator : K.Ruest
Sample : TUNE RQ1574883-01, 14885-01 Inst : MSVOA-12
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Nov 25 09:49:52 2015

KR, 12/2/15



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.9	74768	PASS
75	95	30	60	47.6	199232	PASS
95	95	100	100	100.0	418541	PASS
96	95	5	9	6.6	27628	PASS
173	174	0.00	2	1.2	3449	PASS
174	95	50	120	70.7	295765	PASS
175	174	5	9	7.2	21397	PASS
176	174	95	101	95.7	282965	PASS
177	176	5	9	6.4	18212	PASS

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514847-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/1/15 12:05		474290	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/1/15 12:05		474290	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/1/15 12:05		474290	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/1/15 12:05		474290	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/1/15 12:05		474290	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:05		474290	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/1/15 12:05		474290	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/1/15 12:05		474290	
1,2,4-Trichlorobenzene	**0.36**	J	5.0	1.0	0.23	1	NA	12/1/15 12:05		474290	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/1/15 12:05		474290	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:05		474290	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:05		474290	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/1/15 12:05		474290	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:05		474290	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:05		474290	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/1/15 12:05		474290	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/1/15 12:05		474290	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/1/15 12:05		474290	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:05		474290	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/1/15 12:05		474290	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/1/15 12:05		474290	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/1/15 12:05		474290	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:05		474290	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:05		474290	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/1/15 12:05		474290	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:05		474290	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/1/15 12:05		474290	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:05		474290	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514847-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:05		474290	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/1/15 12:05		474290	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:05		474290	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/1/15 12:05		474290	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/1/15 12:05		474290	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/1/15 12:05		474290	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Hexachlorobutadiene	**0.75**	J	5.0	1.0	0.62	1	NA	12/1/15 12:05		474290	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/1/15 12:05		474290	
Naphthalene	**0.37**	J	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/1/15 12:05		474290	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/1/15 12:05		474290	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/1/15 12:05		474290	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/1/15 12:05		474290	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/1/15 12:05		474290	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/1/15 12:05		474290	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/1/15 12:05		474290	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/1/15 12:05		474290	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/1/15 12:05		474290	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/1/15 12:05		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/1/15 12:05	
Dibromofluoromethane	110	85-115	12/1/15 12:05	
Toluene-d8	113	85-120	12/1/15 12:05	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/1/15 1205

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514847-04	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8419.D
Acq On : 1 Dec 2015 12:05 pm
Operator : K.Ruest
Sample : VBLK PQ1514817-04 Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 02 10:14:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	822692	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1347501	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1226052	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	607850	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	386795	55.21	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 110.42%				
48) surr1,1,2-dichloroetha...	6.097	65	418000	54.02	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.04%				
65) SURR3,Toluene-d8	8.529	98	1668928	56.61	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 113.22%				
70) SURR2,BFB	11.047	95	632797	56.86	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 113.72%				
Target Compounds							Qvalue
~~91) trans 1,4-Dichloro-2-B...~~	~~11.230~~	~~53~~	~~252~~	~~Below Cal~~		~~#~~	~~35~~
112) Trielution Dichlorotol...	13.071	125	7048	0.66	ppb		94 MD
113) 1,3,5 Trichlorobenzene	13.126	180	2080	0.24	ppb		94
114) Coelution Dichlorotoluene	13.400	125	6259	0.55	ppb	#	87 MD
115) 1,2,4-Tcbenzene	13.613	180	2854	0.36	ppb		89
116) Hexachlorobt	13.754	225	2369	0.75	ppb		91
117) Naphthalen	13.796	128	6012	0.37	ppb		89
118) 1,2,3-Tclbenzene	13.985	180	3158	0.48	ppb	#	71
119) 2,4,5-Trichlorotolene	14.577	159	8790	1.81	ppb	#	88 MD
120) 2,3,6-Trichlorotoluene	14.656	159	7456	1.75	ppb	#	85 ↓

KB 12/2/15

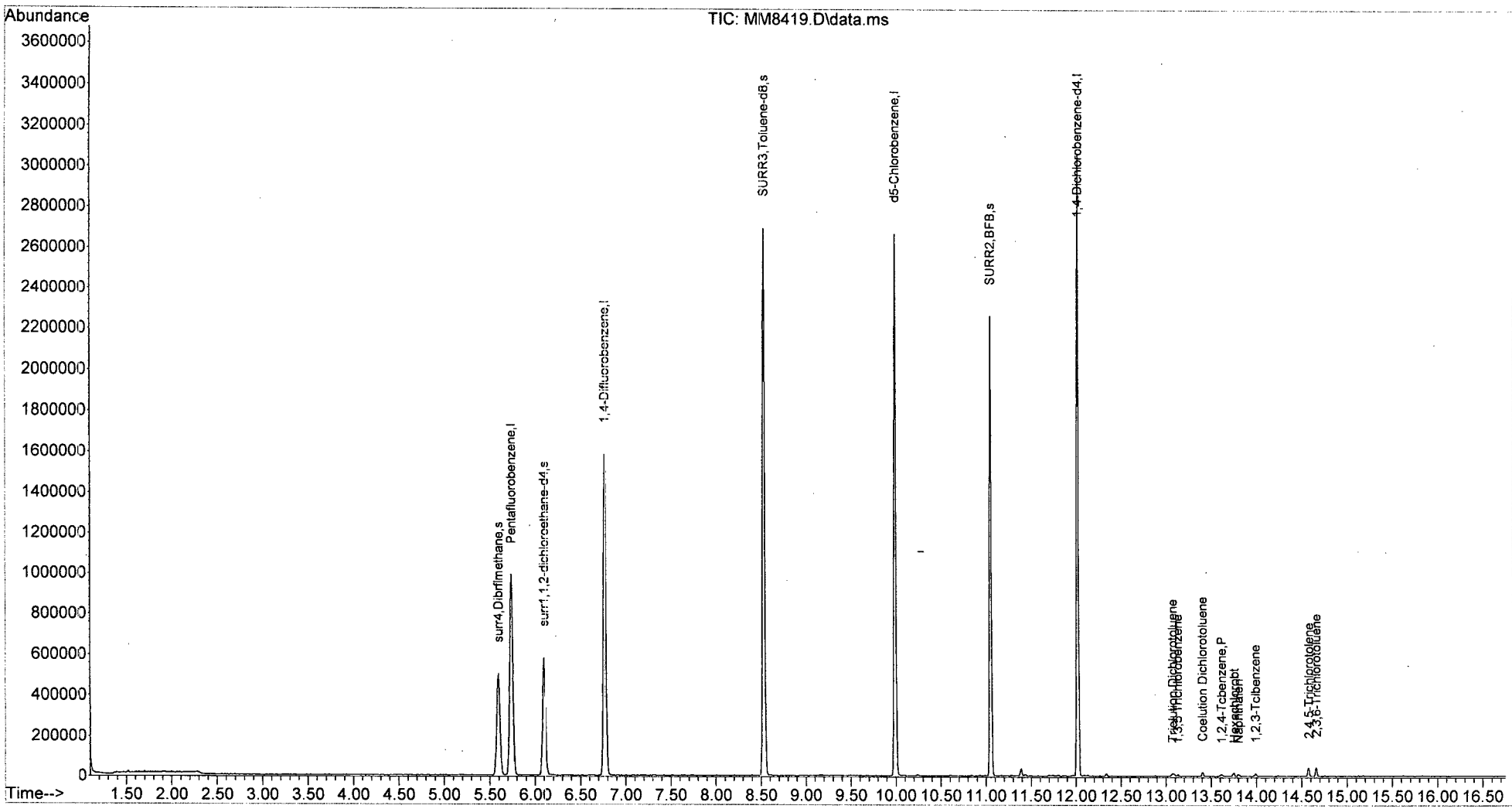
(#) = qualifier out of range (m) = manual integration (+) = signals summed

W111815A.M Wed Dec 02 10:16:48 2015 Page: 1

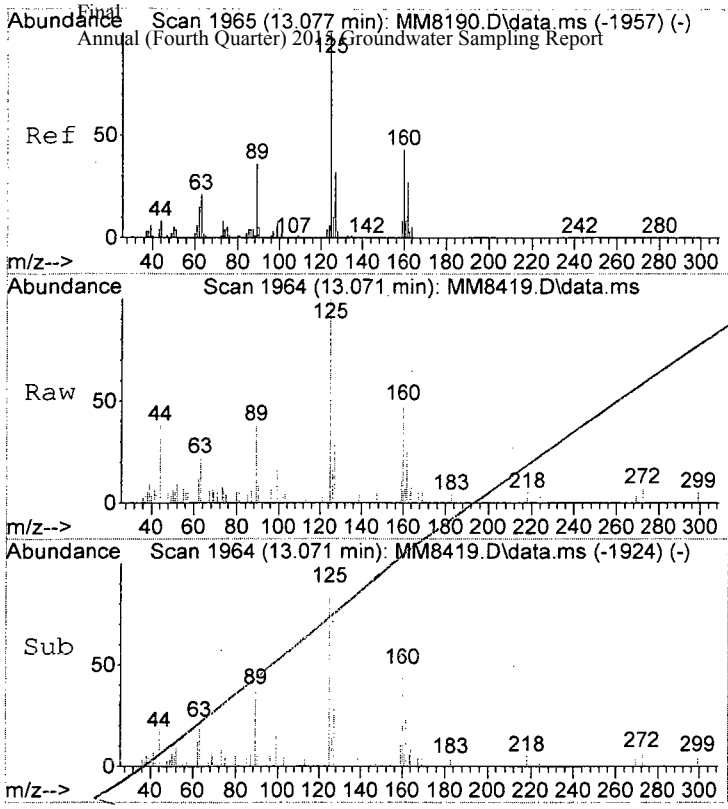
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8419.D
Acq On : 1 Dec 2015 12:05 pm
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 02 10:14:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



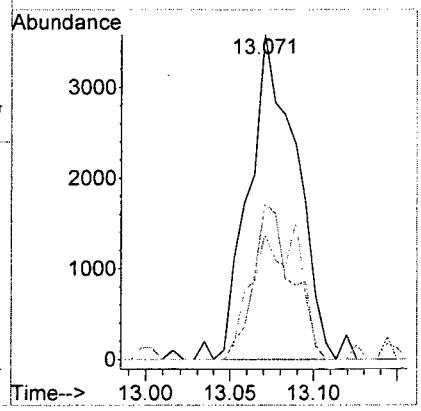
W111815A.M Wed Dec 02 10:16:51 2015 Page: 2

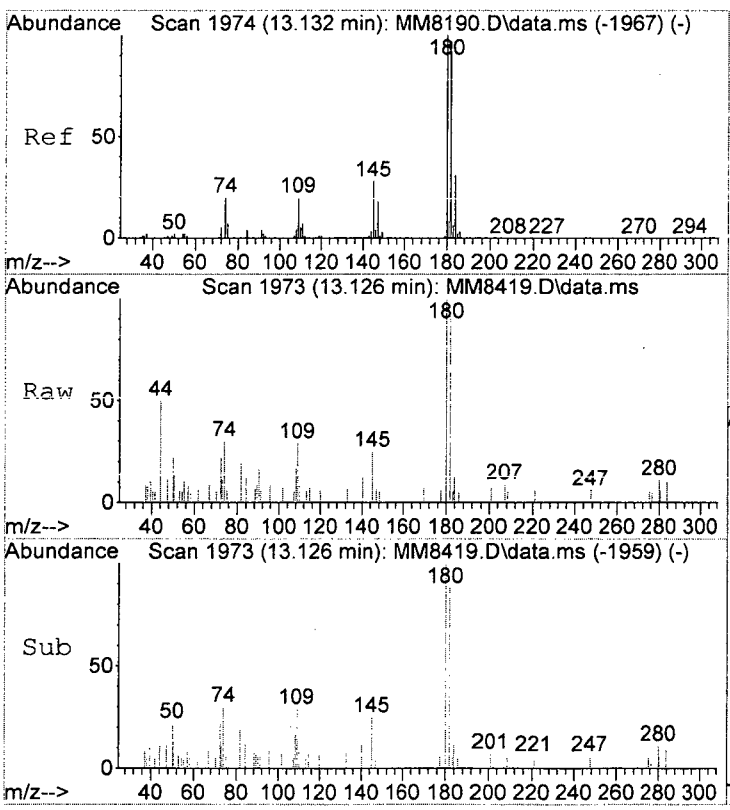


#112
Trielution Dichlorotoluene
Concen: 0.66 ppb
RT: 13.071 min Scan# 1964
Delta R.T. -0.006 min
Lab File: MM8419.D
Acq: 1 Dec 2015 12:05 pm

Tgt Ion:125 Resp: 7048

Ion	Ratio	Lower	Upper
125	100		
160	47.7	34.3	51.5
89	38.4	28.6	43.0

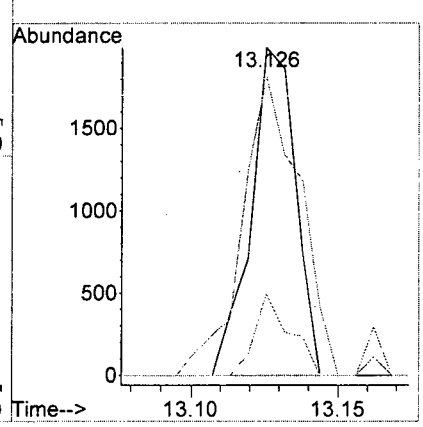


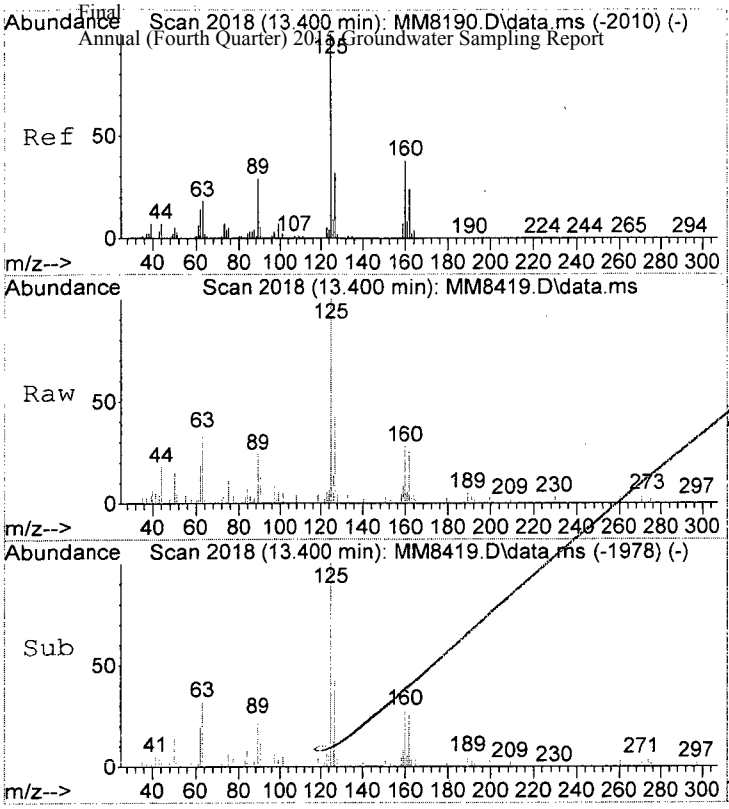


#113
1,3,5 Trichlorobenzene
Concen: 0.24 ppb
RT: 13.126 min Scan# 1973
Delta R.T. -0.006 min
Lab File: MM8419.D
Acq: 1 Dec 2015 12:05 pm

Tgt Ion:180 Resp: 2080

Ion	Ratio	Lower	Upper
180	100		
182	90.9	77.5	116.3
145	24.8	22.6	33.8

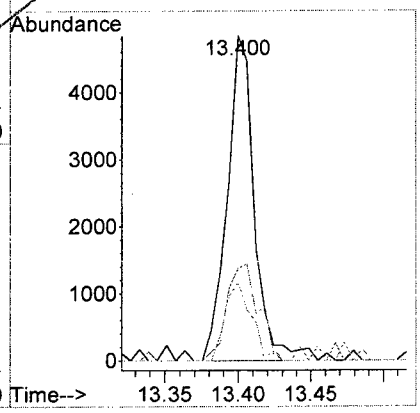


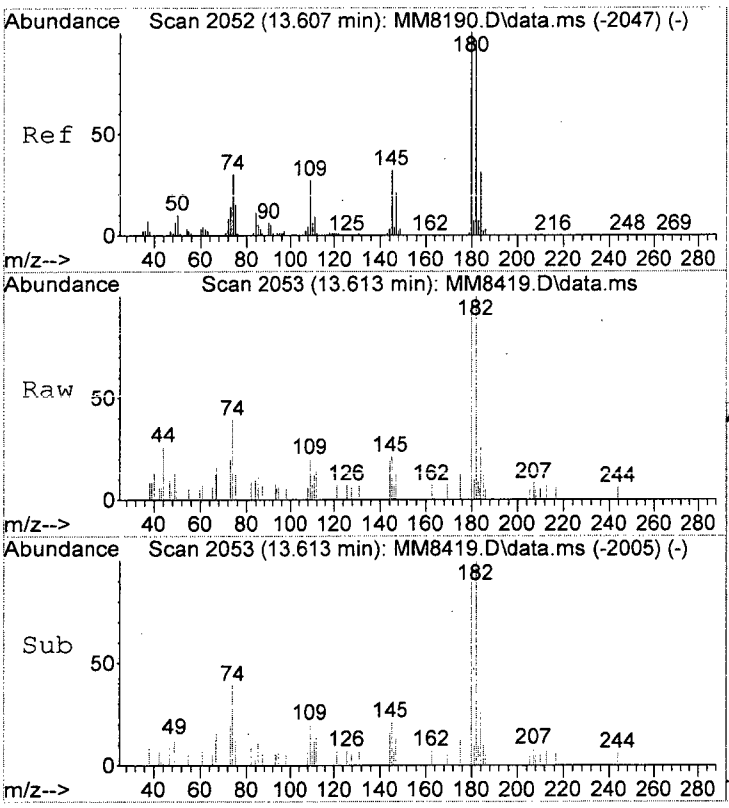


#114
Coelution Dichlorotoluene
Concen: 0.55 ppb
RT: 13.400 min Scan# 2018
Delta R.T. -0.006 min
Lab File: MM8419.D
Acq: 1 Dec 2015 12:05 pm

Tgt Ion:125 Resp: 6259

Ion	Ratio	Lower	Upper
125	100		
160	28.3	30.6	46.0#
89	24.1	23.0	34.6

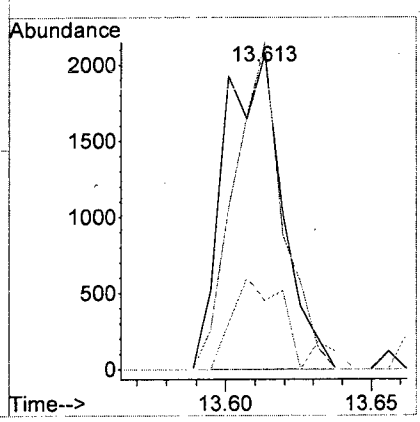


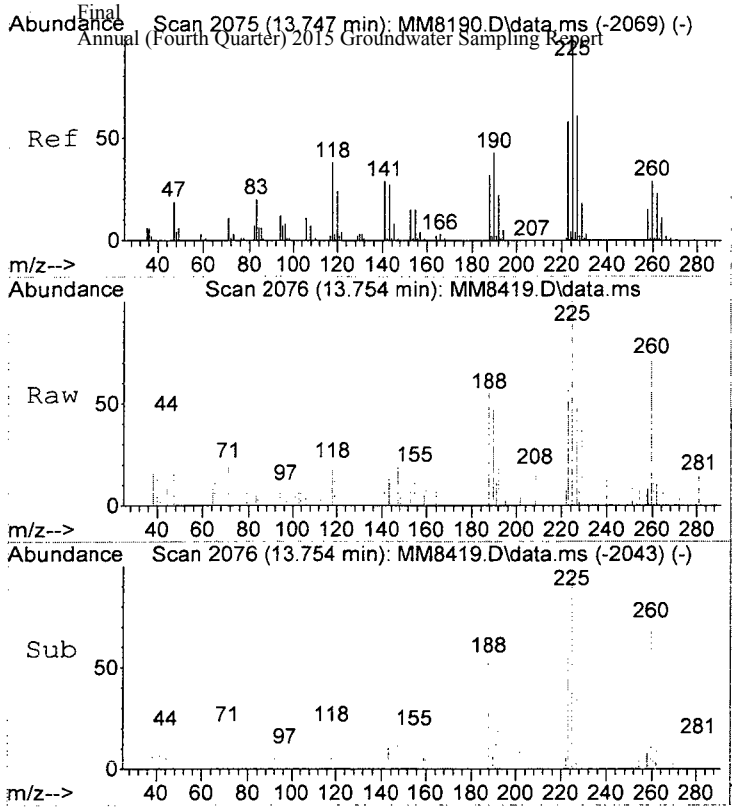


#115
1,2,4-Tcbenzene
Concen: 0.36 ppb
RT: 13.613 min Scan# 2053
Delta R.T. -0.000 min
Lab File: MM8419.D
Acq: 1 Dec 2015 12:05 pm

Tgt Ion:180 Resp: 2854

Ion	Ratio	Lower	Upper
180	100		
182	103.6	75.7	115.7
145	21.6	12.1	52.1

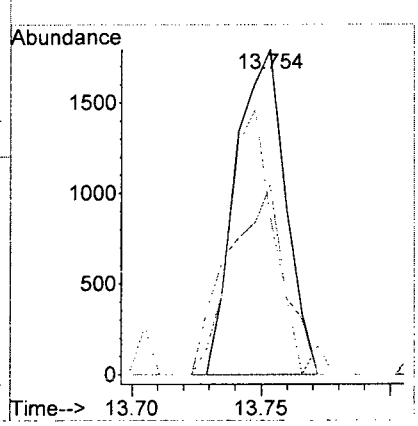


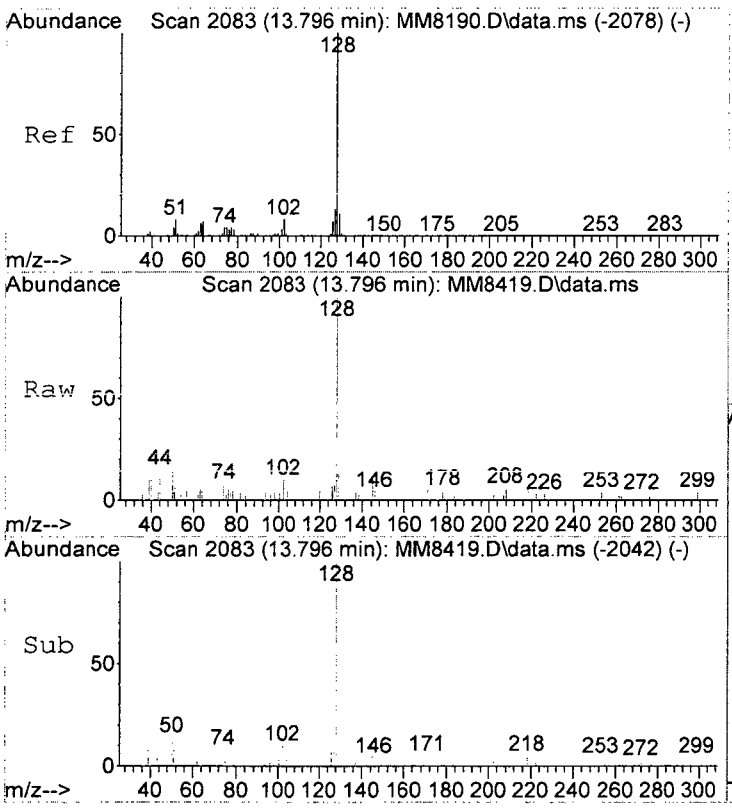


#116
Hexachlorobt
Concen: 0.75 ppb
RT: 13.754 min Scan# 2076
Delta R.T. 0.007 min
Lab File: MM8419.D
Acq: 1 Dec 2015 12:05 pm

Tgt Ion:225 Resp: 2369

Ion	Ratio	Lower	Upper
225	100		
223	58.3	38.1	78.1
227	48.4	41.1	81.1

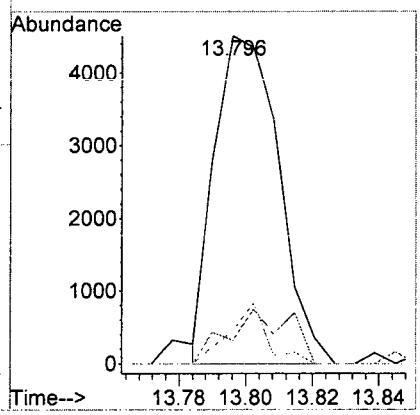


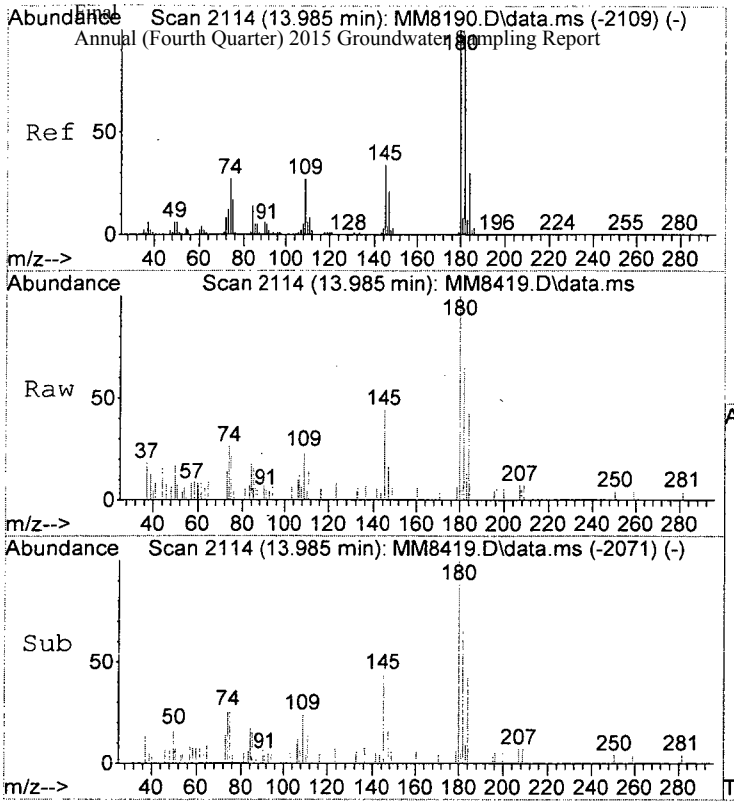


#117
Naphthalen
Concen: 0.37 ppb
RT: 13.796 min Scan# 2083
Delta R.T. -0.006 min
Lab File: MM8419.D
Acq: 1 Dec 2015 12:05 pm

Tgt Ion:128 Resp: 6012

Ion	Ratio	Lower	Upper
128	100		
127	7.1	0.0	33.1
102	10.0	0.0	28.3

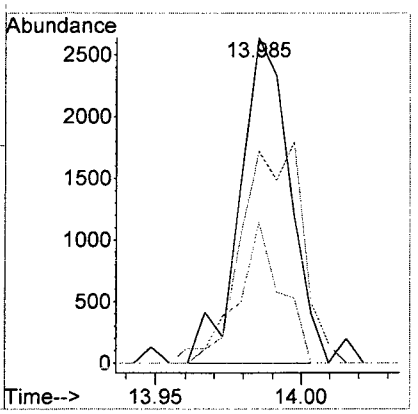


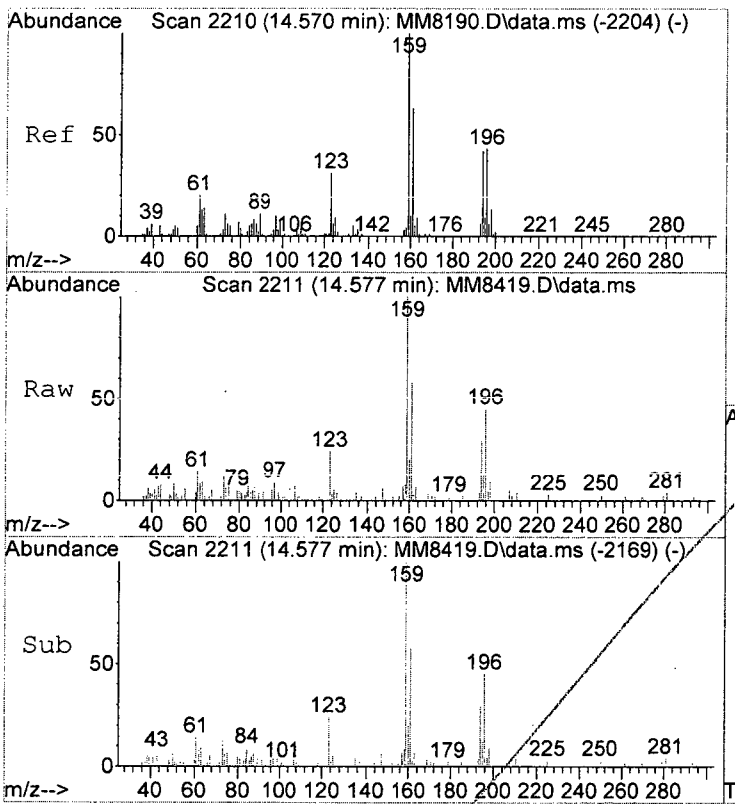


#118
1,2,3-Tclbenzene
Concen: 0.48 ppb
RT: 13.985 min Scan# 2114
Delta R.T. -0.006 min
Lab File: MM8419.D
Acq: 1 Dec 2015 12:05 pm

Tgt Ion:180 Resp: 3158

Ion	Ratio	Lower	Upper
180	100		
182	65.2	78.5	118.5#
145	43.5	14.2	54.2

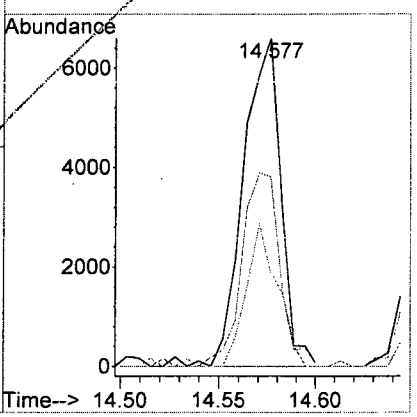




#119
2,4,5-Trichlorotolene
Concen: 1.81 ppb
RT: 14.577 min Scan# 2211
Delta R.T. 0.007 min
Lab File: MM8419.D
Acq: 1 Dec 2015 12:05 pm

Tgt Ion:159 Resp: 8790

Ion	Ratio	Lower	Upper
159	100		
161	57.9	50.7	76.1
194	28.8	33.3	49.9#



MM8419.D W111815A.M Wed Dec 02 10:16:57 2015 Page 6

Esc Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8419.D
Acq On : 1 Dec 2015 12:05 pm
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8419.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.597	727	738	748	rBV2	500047	1241616	28.57%	5.444%
2	5.737	751	761	774	rVB	990479	2346685	54.00%	10.289%
3	6.097	812	820	830	rBV	576906	1222103	28.12%	5.358%
4	6.767	922	930	940	rBV	1585986	3082188	70.92%	13.514%
5	8.529	1211	1219	1228	rBV	2696975	4346082	100.00%	19.055%
6	9.986	1452	1458	1470	rBV	2670049	3763039	86.58%	16.499%
7	11.047	1627	1632	1641	rVB	2266658	2850354	65.58%	12.497%
8	11.388	1684	1688	1692	rVB3	36022	47628	1.10%	0.209%
9	12.016	1785	1791	1799	rBV	3060787	3789473	87.19%	16.615%
10	14.570	2205	2210	2216	rVB2	42923	58133	1.34%	0.255%
11	14.656	2220	2224	2229	rBV2	44221	60309	1.39%	0.264%

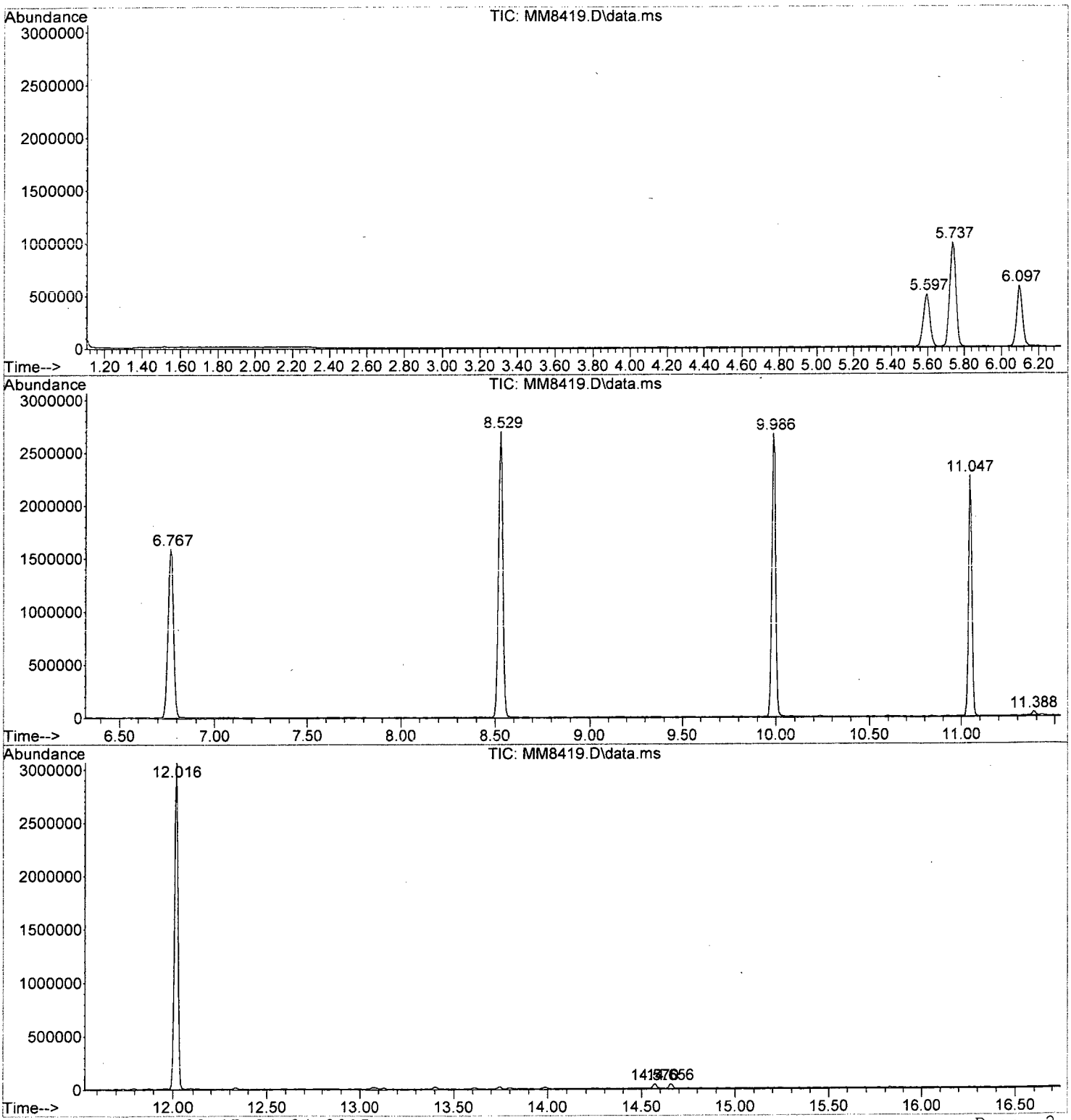
Sum of corrected areas: 22807610

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8419.D
Acq On : 1 Dec 2015 12:05 pm
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



W111815A.M Thu Dec 03 17:34:24 2015 Page: 2

Tentatively Identified Compound (LSC) Summary

Data Path : I:\ACQUDATA\msvoa12\Data\120115\\
Data File : MM8419.D
Acq On : 1 Dec 2015 12:05 pmm
Operator : K.Ruestt
Sample : VBLK Inst : MSVOA-122
Misc :
ALS Vial : 6 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514885-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/2/15 11:25		474506	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/2/15 11:25		474506	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/2/15 11:25		474506	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/2/15 11:25		474506	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/2/15 11:25		474506	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/2/15 11:25		474506	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/2/15 11:25		474506	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/2/15 11:25		474506	
1,2,4-Trichlorobenzene	**0.40**	J	5.0	1.0	0.23	1	NA	12/2/15 11:25		474506	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/2/15 11:25		474506	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/2/15 11:25		474506	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/2/15 11:25		474506	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/2/15 11:25		474506	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/2/15 11:25		474506	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/2/15 11:25		474506	
2-Butanone (MEK)	ND	U	5.0	1.0	0.81	1	NA	12/2/15 11:25		474506	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
2-Hexanone	ND	U	5.0	5.0	1.7	1	NA	12/2/15 11:25		474506	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/2/15 11:25		474506	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/2/15 11:25		474506	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
4-Methyl-2-pentanone	ND	U	5.0	1.0	0.67	1	NA	12/2/15 11:25		474506	
Acetone	ND	U	5.0	5.0	1.3	1	NA	12/2/15 11:25		474506	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/2/15 11:25		474506	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/2/15 11:25		474506	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/2/15 11:25		474506	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/2/15 11:25		474506	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/2/15 11:25		474506	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/2/15 11:25		474506	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/2/15 11:25		474506	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514885-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/2/15 11:25		474506	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/2/15 11:25		474506	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/2/15 11:25		474506	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/2/15 11:25		474506	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/2/15 11:25		474506	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/2/15 11:25		474506	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
Hexachlorobutadiene	**0.86**	J	5.0	1.0	0.62	1	NA	12/2/15 11:25		474506	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/2/15 11:25		474506	
Naphthalene	**0.39**	J	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/2/15 11:25		474506	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/2/15 11:25		474506	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/2/15 11:25		474506	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/2/15 11:25		474506	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/2/15 11:25		474506	
m,p-Xylenes	ND	U	10	2.0	0.33	1	NA	12/2/15 11:25		474506	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/2/15 11:25		474506	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/2/15 11:25		474506	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/2/15 11:25		474506	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/2/15 11:25		474506	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/2/15 11:25	
Dibromofluoromethane	110	85-115	12/2/15 11:25	
Toluene-d8	114	85-120	12/2/15 11:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/2/15 1125

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514885-04	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8463.D
Acq On : 2 Dec 2015 11:25 am
Operator : K.Ruest
Sample : VBLK RQ1514863-04, 1514855-04 Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 07 14:06:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	771630	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1271184	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1168668	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	573343	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	362416	54.84	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.68%				
48) surr1,1,2-dichloroetha...	6.096	65	399350	54.70	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 109.40%				
65) SURR3,Toluene-d8	8.529	98	1586833	57.05	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 114.10%				
70) SURR2,BFB	11.047	95	597474	56.90	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 113.80%				
Target Compounds							Qvalue
5) Bromomethane	1.695	94	1458	0.25	ppb		90
17) Iodomethane	2.579	142	2378m	0.32	ppb		
109) n-Butylbenzene	12.333	91	4163	0.20	ppb		85
113) 1,3,5 Trichlorobenzene	13.132	180	2227	0.28	ppb	#	66
115) 1,2,4-Tcbenzene	13.613	180	2936	0.40	ppb	#	67
116) Hexachlorobt	13.747	225	2536	0.86	ppb	#	61
117) Naphthalen	13.802	128	5979	0.39	ppb		74
118) 1,2,3-Tclbenzene	13.985	180	3741	0.61	ppb		86

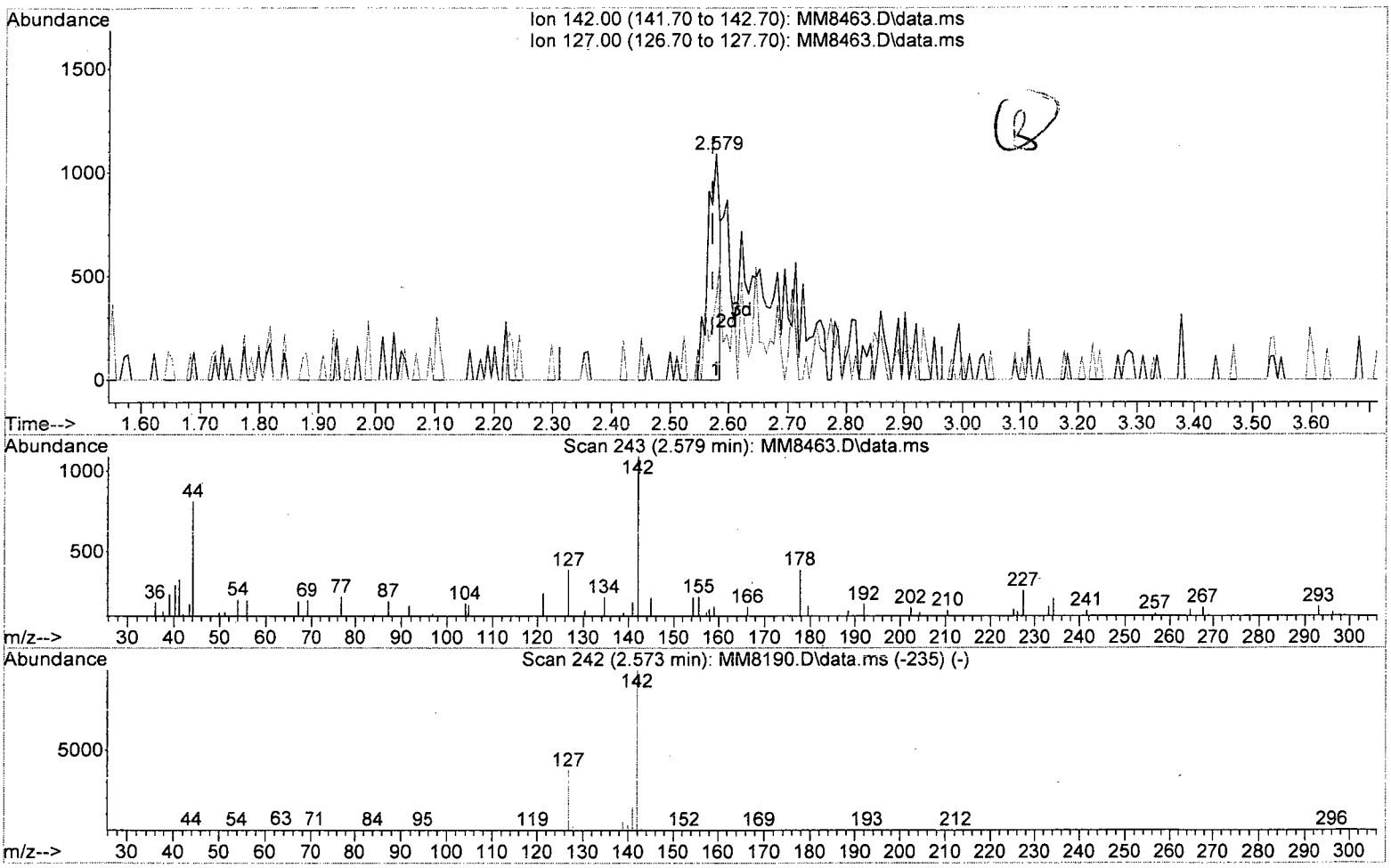
(#) = qualifier out of range (m) = manual integration (+) = signals summed

KB 12/7/15

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8463.D
Acq On : 2 Dec 2015 11:25 am
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 02 11:41:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8463.D\data.ms

(17) Iodomethane

2.579min (+0.006) 0.21 ppb

response 1508

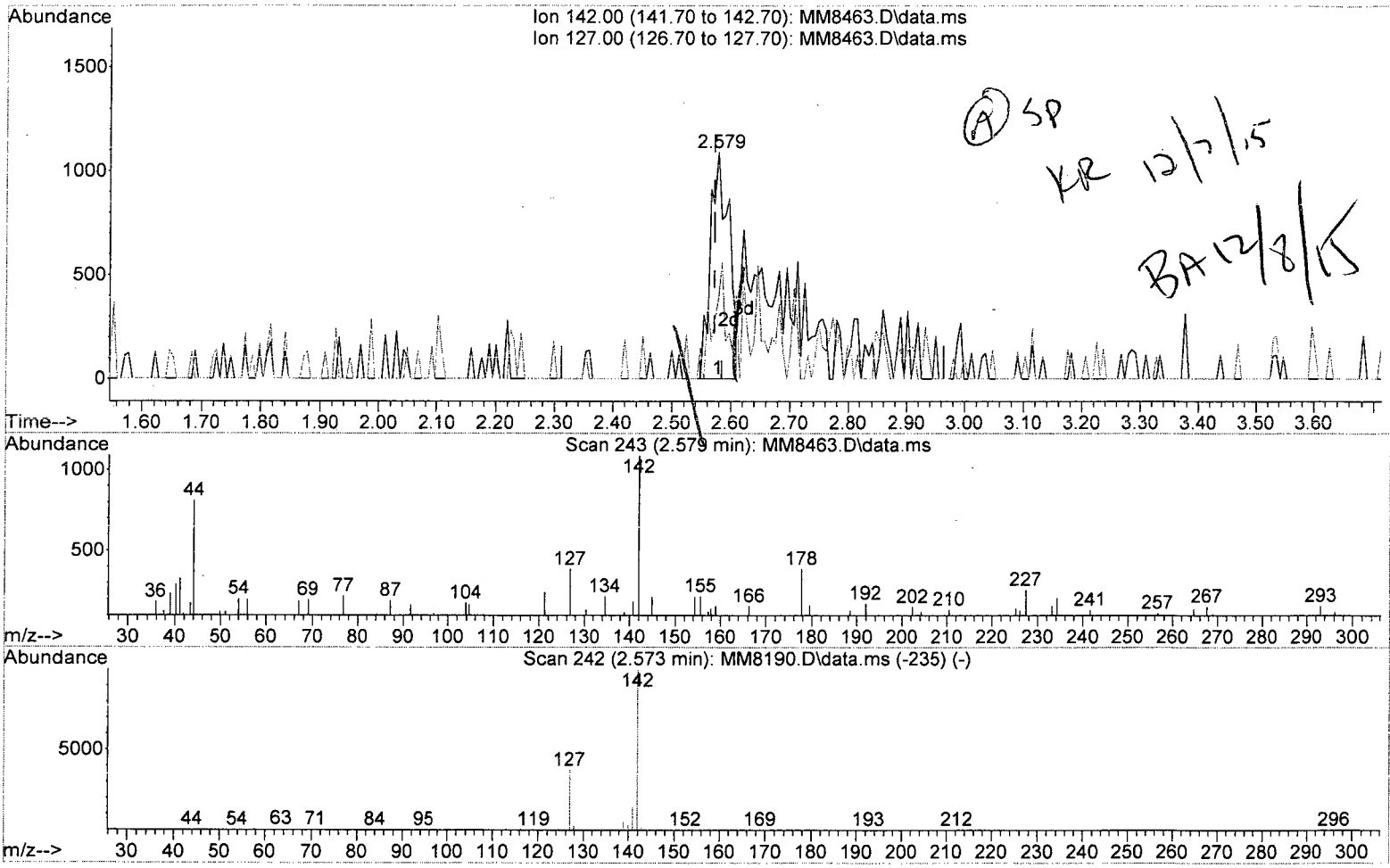
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	35.39
0.00	0.00	0.00
0.00	0.00	0.00

W111815A.M Mon Dec 07 14:02:46 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8463.D
Acq On : 2 Dec 2015 11:25 am
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 02 11:41:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



SP 12/7/15
BA 12/8/15

TIC: MM8463.D\data.ms

(17) Iodomethane

2.579min (+0.006) 0.32 ppb m

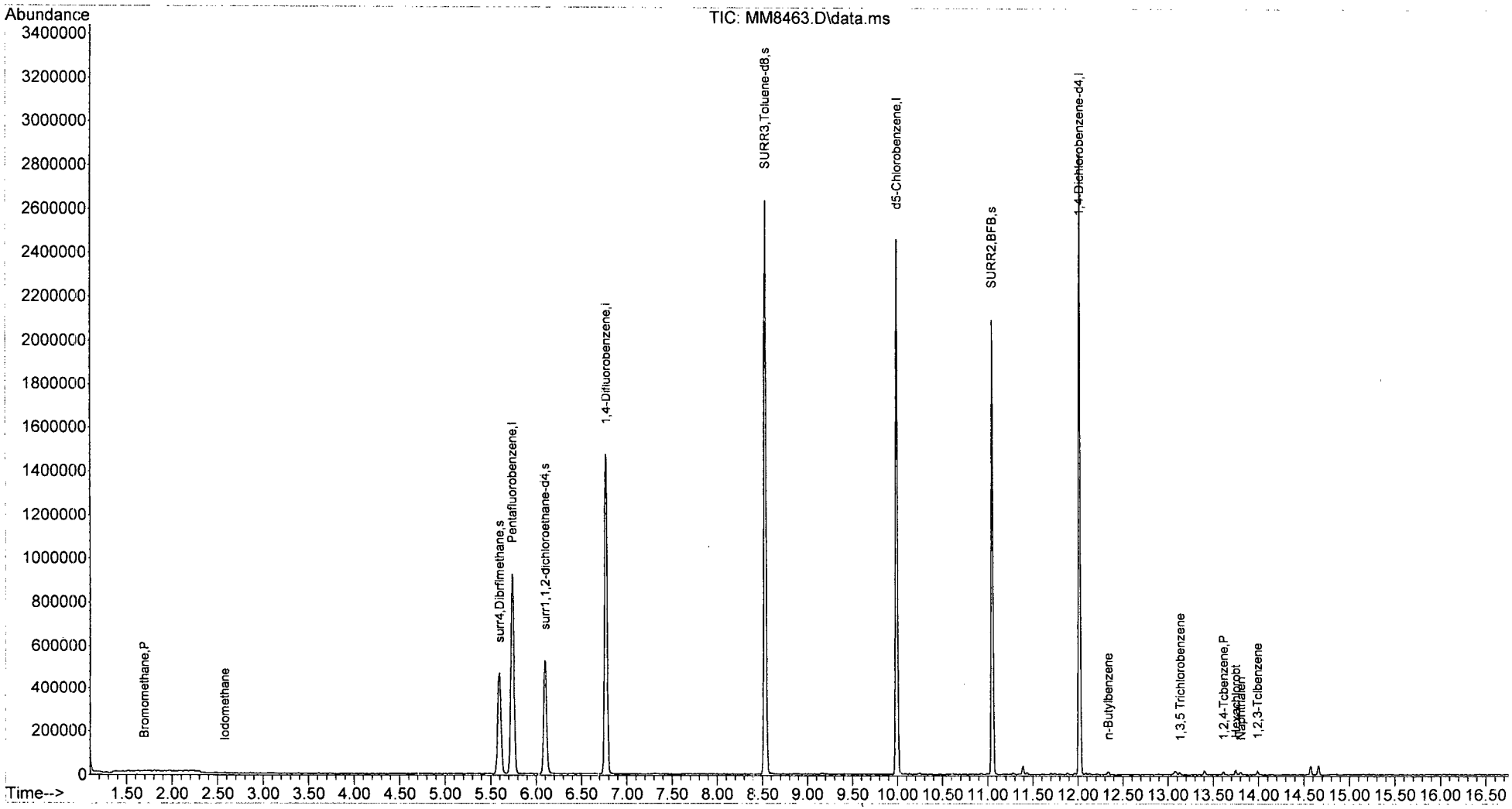
response 2378

Ion	Exp%	Act%
142.00	100	100
127.00	37.20	35.39
0.00	0.00	0.00
0.00	0.00	0.00

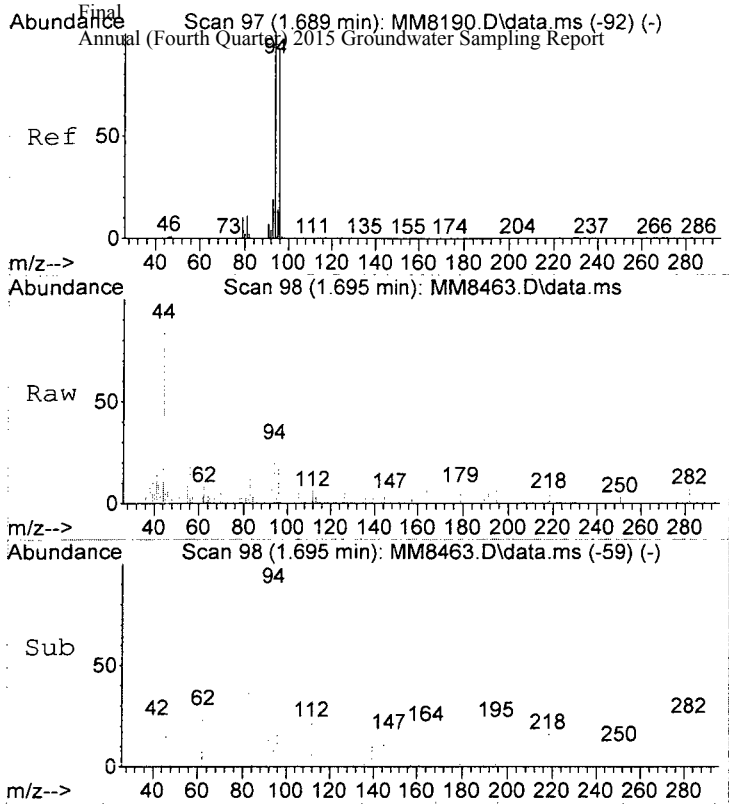
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8463.D
Acq On : 2 Dec 2015 11:25 am
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 07 14:06:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



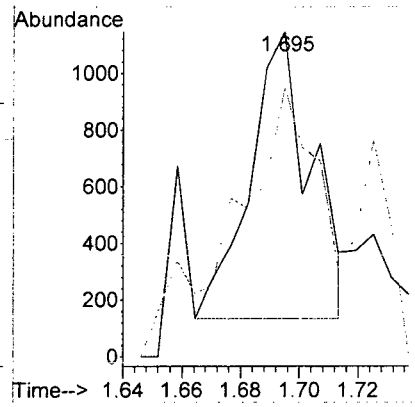
W111815A.M Mon Dec 07 14:06:15 2015 Page: 2

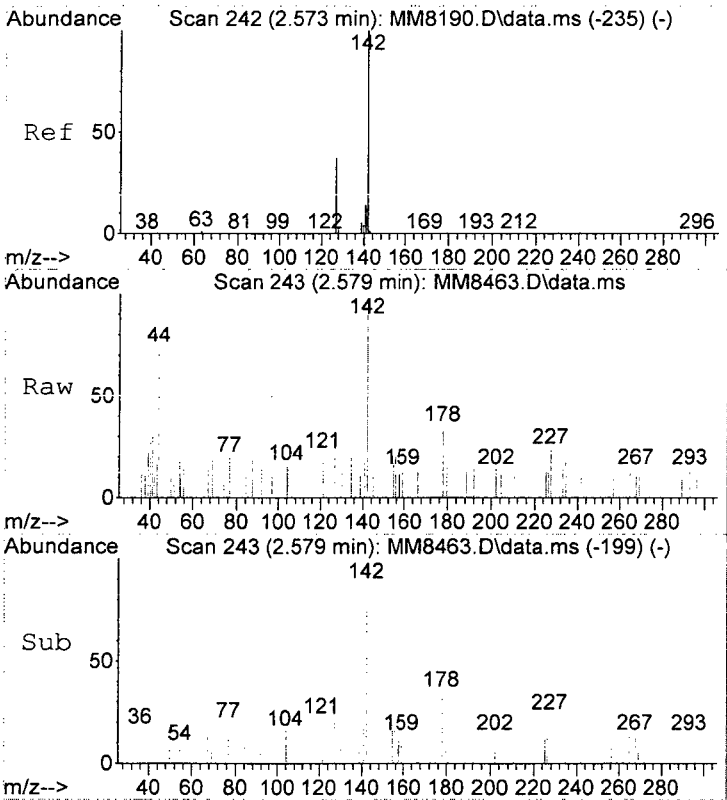


#5
Bromomethane
Concen: 0.25 ppb
RT: 1.695 min Scan# 98
Delta R.T. 0.012 min
Lab File: MM8463.D
Acq: 2 Dec 2015 11:25 am

Tgt Ion: 94 Resp: 1458

Ion	Ratio	Lower	Upper
94	100		
96	82.8	72.8	112.8

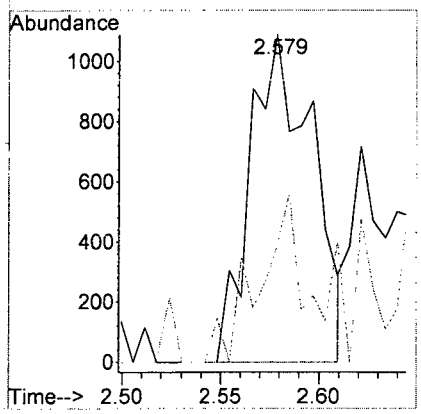


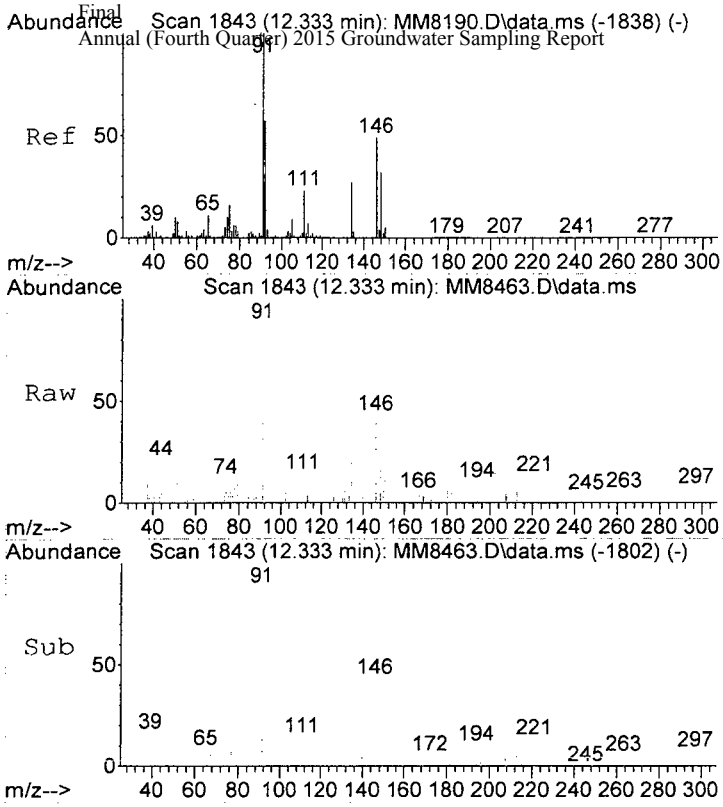


#17
Iodomethane
Concen: 0.32 ppb m
RT: 2.579 min Scan# 243
Delta R.T. 0.006 min
Lab File: MM8463.D
Acq: 2 Dec 2015 11:25 am

Tgt Ion:142 Resp: 2378

Ion	Ratio	Lower	Upper
142	100		
127	35.4	17.2	57.2

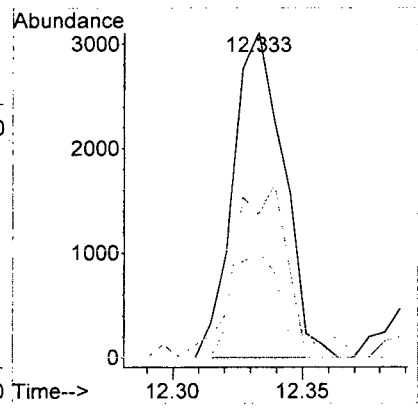


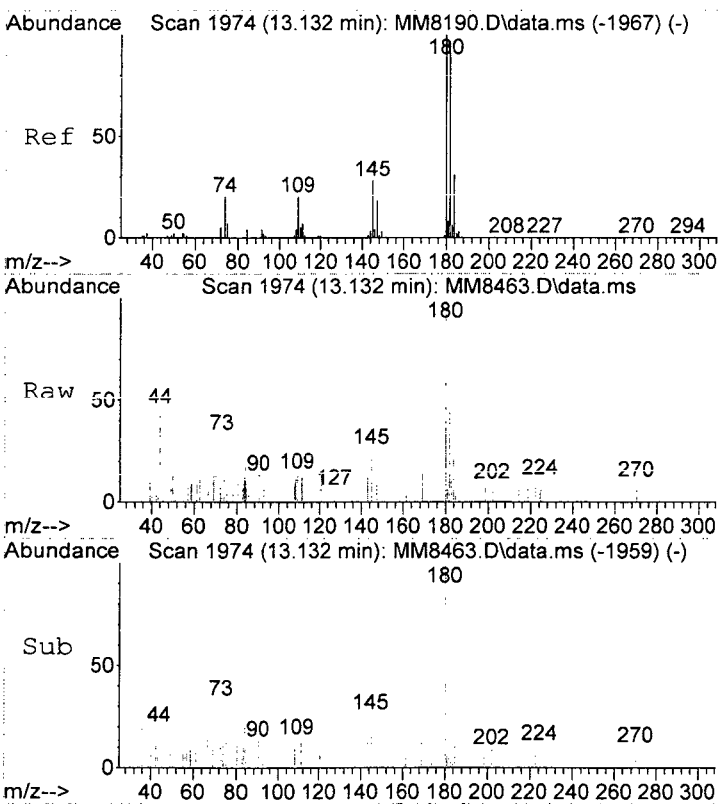


#109
n-Butylbenzene
Concen: 0.20 ppb
RT: 12.333 min Scan# 1843
Delta R.T. -0.000 min
Lab File: MM8463.D
Acq: 2 Dec 2015 11:25 am

Tgt Ion: 91 Resp: 4163

Ion	Ratio	Lower	Upper
91	100		
92	44.1	37.0	77.0
134	32.3	7.2	47.2

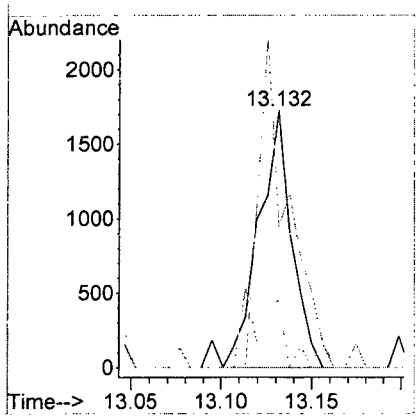


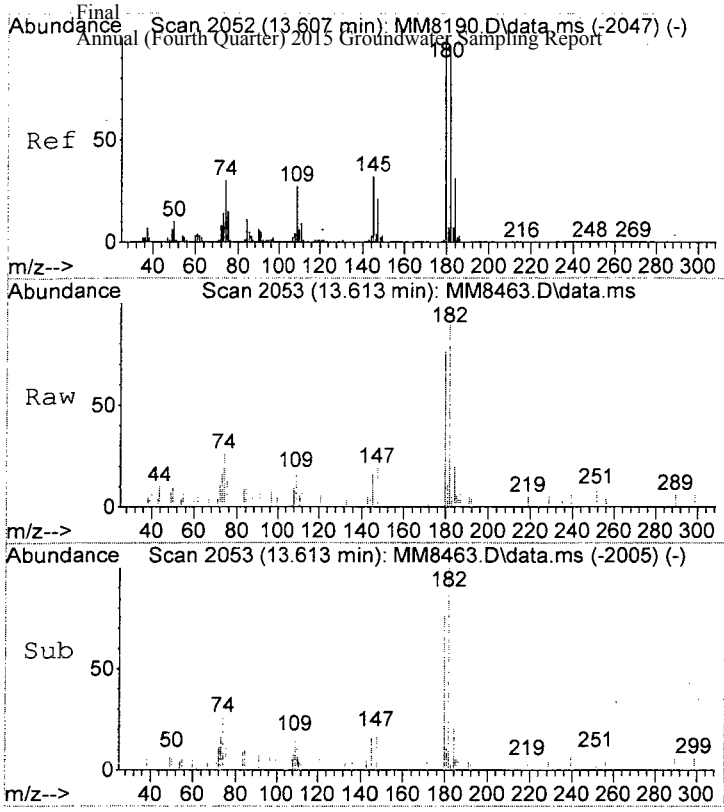


#113
1,3,5 Trichlorobenzene
Concen: 0.28 ppb
RT: 13.132 min Scan# 1974
Delta R.T. -0.000 min
Lab File: MM8463.D
Acq: 2 Dec 2015 11:25 am

Tgt Ion:180 Resp: 2227

Ion	Ratio	Lower	Upper
180	100		
182	54.8	77.5	116.3#
145	26.3	22.6	33.8

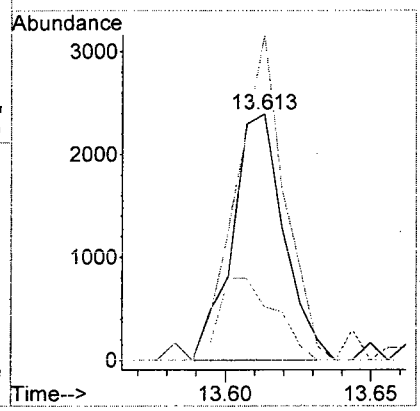


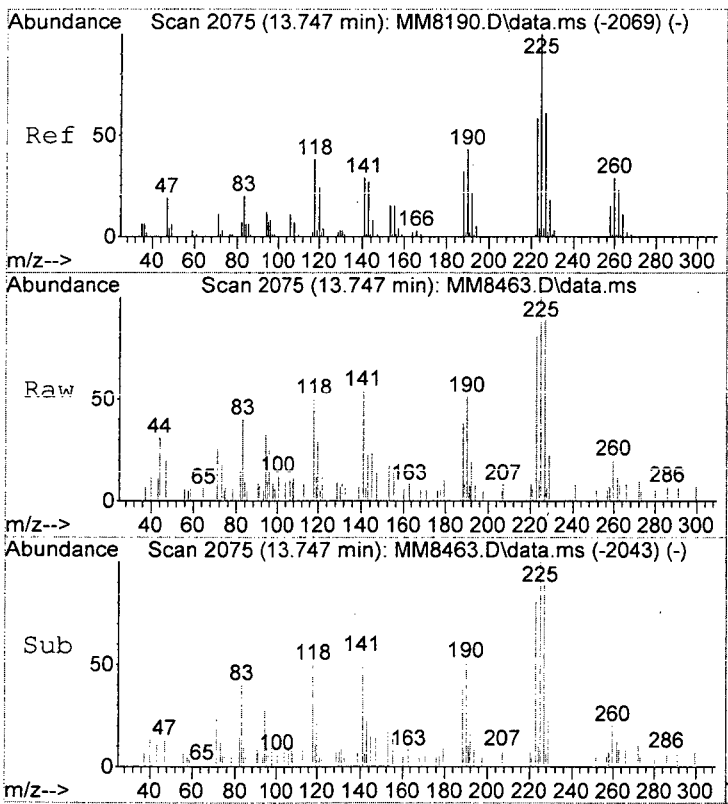


#115
1,2,4-Tcbenzene
Concen: 0.40 ppb
RT: 13.613 min Scan# 2053
Delta R.T. -0.000 min
Lab File: MM8463.D
Acq: 2 Dec 2015 11:25 am

Tgt Ion:180 Resp: 2936

Ion	Ratio	Lower	Upper
180	100		
182	132.0	75.7	115.7#
145	21.7	12.1	52.1

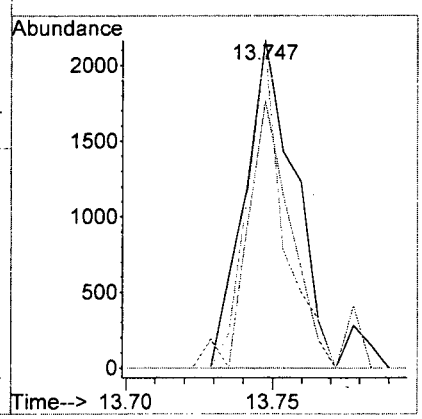


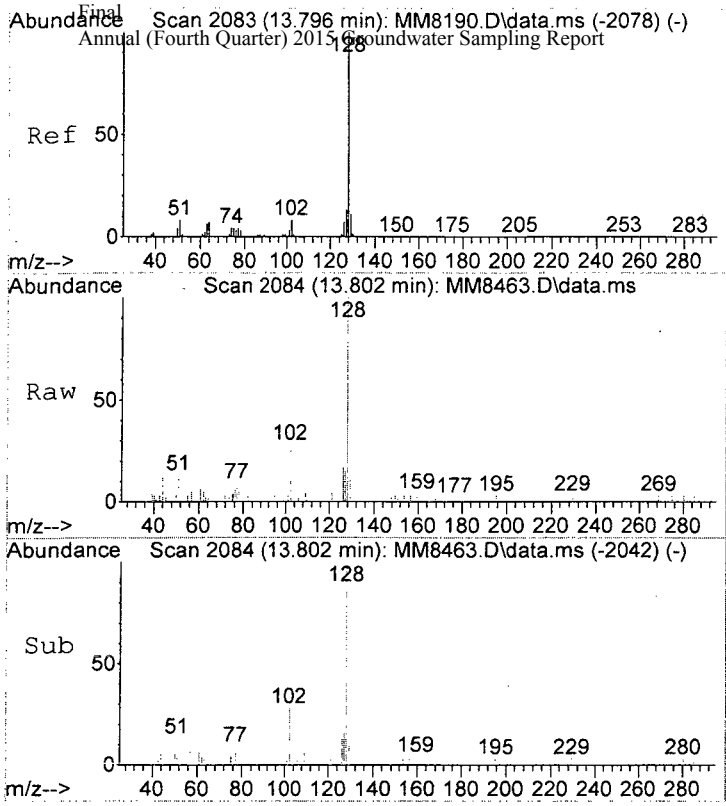


#116
Hexachlorobt
Concen: 0.86 ppb
RT: 13.747 min Scan# 2075
Delta R.T. 0.000 min
Lab File: MM8463.D
Acq: 2 Dec 2015 11:25 am

Tgt Ion:225 Resp: 2536

Ion	Ratio	Lower	Upper
225	100		
223	81.4	38.1	78.1#
227	95.8	41.1	81.1#

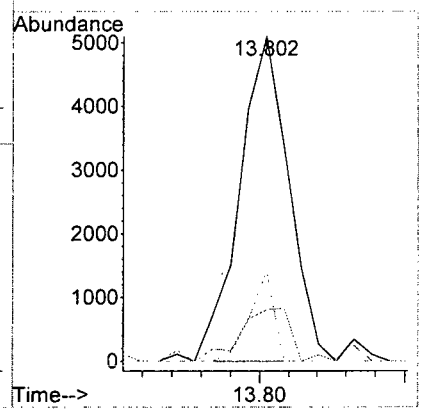


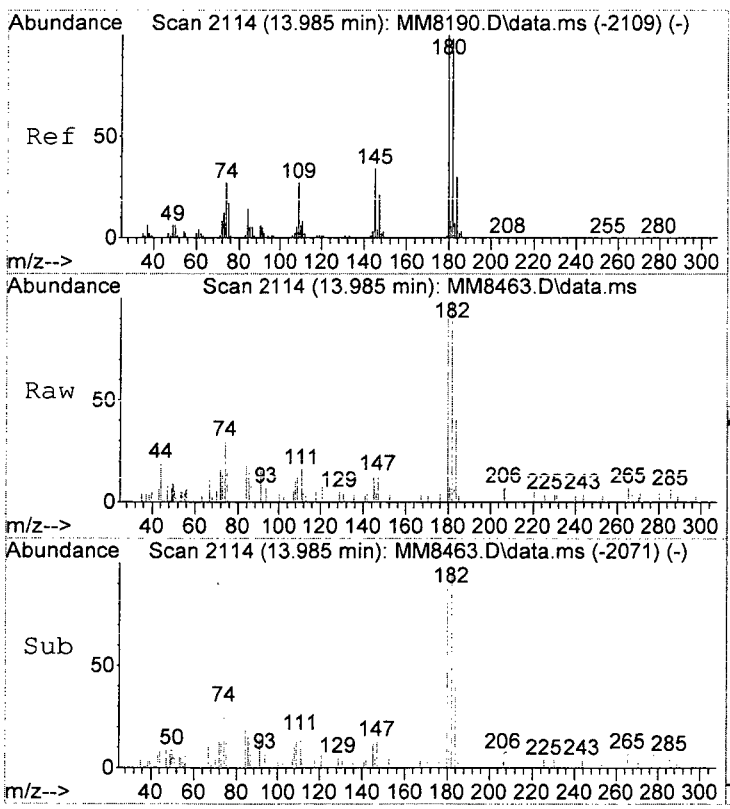


#117
Naphthalen
Concen: 0.39 ppb
RT: 13.802 min Scan# 2084
Delta R.T. -0.000 min
Lab File: MM8463.D
Acq: 2 Dec 2015 11:25 am

Tgt Ion:128 Resp: 5979

Ion	Ratio	Lower	Upper
128	100		
127	15.8	0.0	33.1
102	28.0	0.0	28.3

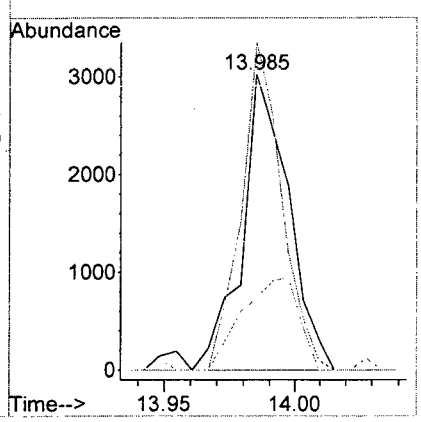




#118
1,2,3-Tclbenzene
Concen: 0.61 ppb
RT: 13.985 min Scan# 2114
Delta R.T. -0.006 min
Lab File: MM8463.D
Acq: 2 Dec 2015 11:25 am

Tgt Ion:180 Resp: 3741

Ion	Ratio	Lower	Upper
180	100		
182	110.9	78.5	118.5
145	24.2	14.2	54.2



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8463.D
Acq On : 2 Dec 2015 11:25 am
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8463.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.597	727	738	751	rBV	469904	1192309	28.73%	5.494%
2	5.737	751	761	771	rVV	922222	2184358	52.64%	10.065%
3	6.096	810	820	831	rBV	527582	1183459	28.52%	5.453%
4	6.767	922	930	941	rBV	1475315	2932318	70.66%	13.511%
5	8.529	1211	1219	1228	rBV	2643614	4149730	100.00%	19.121%
6	9.986	1451	1458	1468	rBV	2468878	3584336	86.38%	16.516%
7	11.047	1627	1632	1644	rVB	2097667	2701578	65.10%	12.448%
8	11.388	1684	1688	1692	rBV2	39563	53815	1.30%	0.248%
9	12.016	1786	1791	1798	rVB	2862408	3570023	86.03%	16.450%
10	13.077	1957	1965	1971	rBV5	18322	42440	1.02%	0.196%
11	14.570	2206	2210	2214	rVB3	40022	49825	1.20%	0.230%
12	14.656	2218	2224	2229	rBV3	43259	58643	1.41%	0.270%

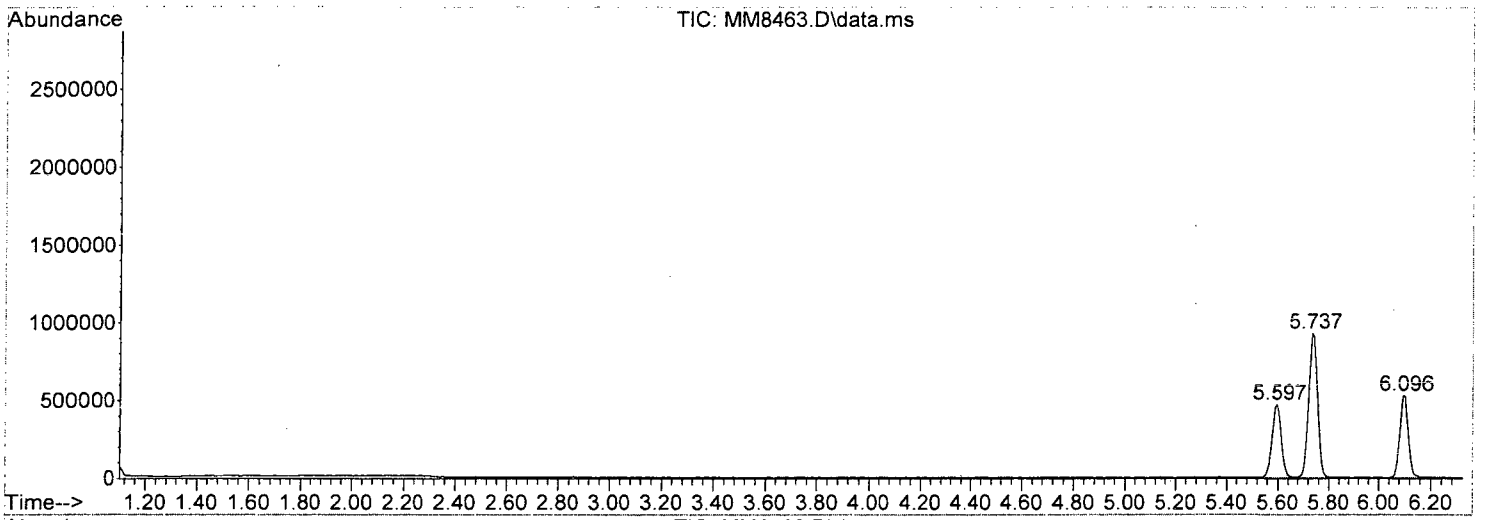
Sum of corrected areas: 21702834

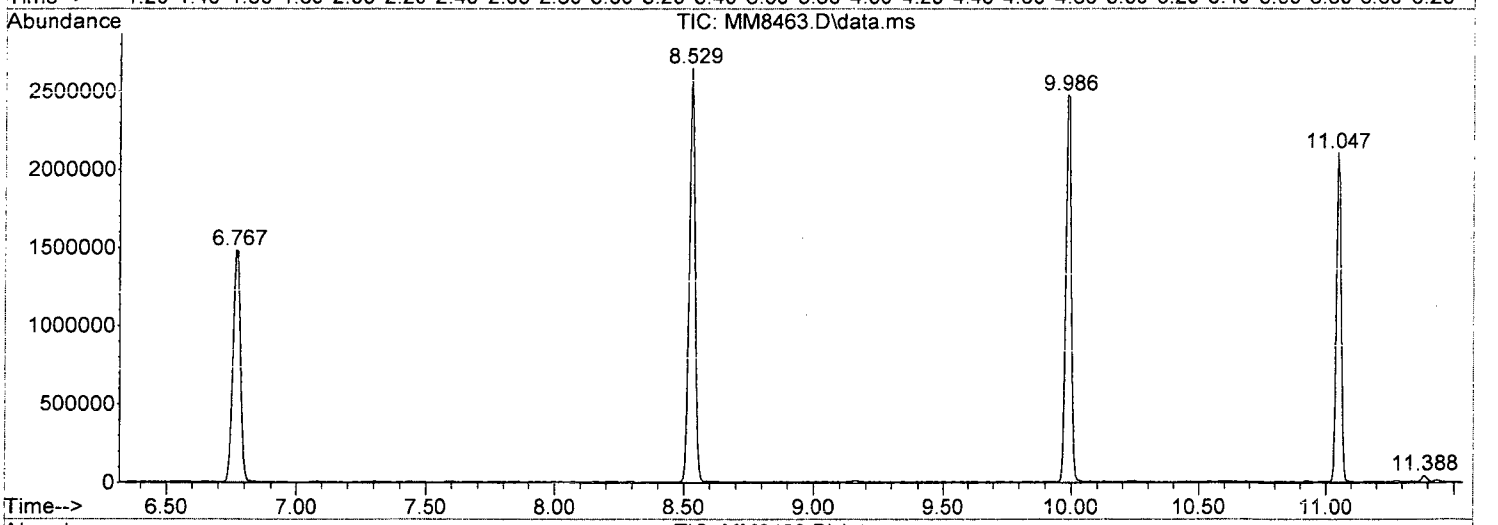
LSC Report - Integrated Chromatogram

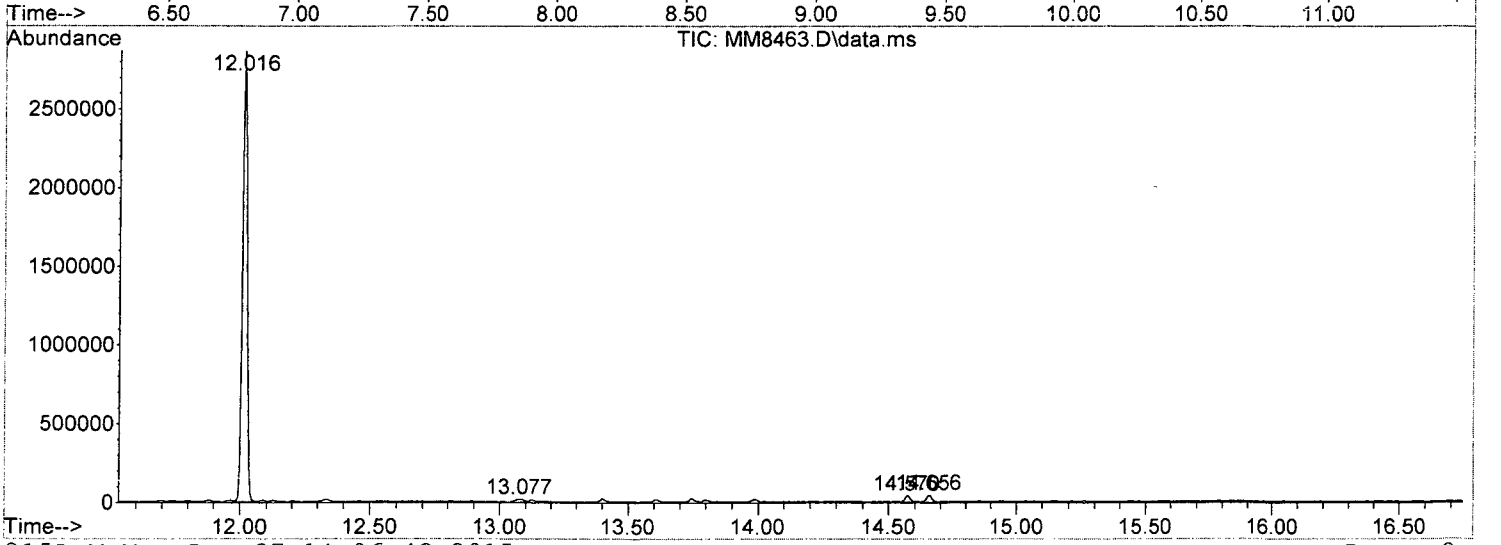
Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8463.D
Acq On : 2 Dec 2015 11:25 am
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P







W111815A.M Mon Dec 07 14:06:42 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\120215\\
Data File : MM8463.D
Acq On : 2 Dec 2015 11:25 amm
Operator : K.Ruestt
Sample : VBLK Inst : MSVOA-122
Misc :
ALS Vial : 4 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514847-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**20.2**		5.0	1.0	0.22	1	NA	12/1/15 11:02		474290	
1,1,1-Trichloroethane (TCA)	**20.5**		5.0	1.0	0.36	1	NA	12/1/15 11:02		474290	
1,1,2,2-Tetrachloroethane	**20.0**		5.0	1.0	0.25	1	NA	12/1/15 11:02		474290	
1,1,2-Trichloroethane	**21.4**		5.0	1.0	0.34	1	NA	12/1/15 11:02		474290	
1,1-Dichloroethane (1,1-DCA)	**21.6**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
1,1-Dichloroethene (1,1-DCE)	**21.2**		5.0	1.0	0.57	1	NA	12/1/15 11:02		474290	
1,1-Dichloropropene	**22.4**		5.0	1.0	0.29	1	NA	12/1/15 11:02		474290	
1,2,3-Trichlorobenzene	**23.1**		5.0	1.0	0.82	1	NA	12/1/15 11:02		474290	
1,2,3-Trichloropropane	**20.0**		5.0	1.0	0.70	1	NA	12/1/15 11:02		474290	
1,2,4-Trichlorobenzene	**22.2**		5.0	1.0	0.23	1	NA	12/1/15 11:02		474290	
1,2,4-Trimethylbenzene	**20.9**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
1,2-Dibromo-3-chloropropane (DBCP)	**19.2**		5.0	1.0	0.74	1	NA	12/1/15 11:02		474290	
1,2-Dibromoethane	**20.2**		5.0	1.0	0.24	1	NA	12/1/15 11:02		474290	
1,2-Dichlorobenzene	**21.2**		5.0	1.0	0.21	1	NA	12/1/15 11:02		474290	
1,2-Dichloroethane	**21.0**		5.0	1.0	0.36	1	NA	12/1/15 11:02		474290	
1,2-Dichloropropane	**21.5**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
1,3,5-Trimethylbenzene	**21.0**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
1,3-Dichlorobenzene	**20.2**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
1,3-Dichloropropane	**21.0**		5.0	1.0	0.27	1	NA	12/1/15 11:02		474290	
1,4-Dichlorobenzene	**20.9**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
2,2-Dichloropropane	**21.4**		5.0	1.0	0.27	1	NA	12/1/15 11:02		474290	
2-Butanone (MEK)	**20.7**		5.0	1.0	0.81	1	NA	12/1/15 11:02		474290	
2-Chlorotoluene	**20.8**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
2-Hexanone	**20.1**		5.0	5.0	1.7	1	NA	12/1/15 11:02		474290	
tert-Butyl Alcohol	**437**		100	20	11	1	NA	12/1/15 11:02		474290	
4-Chlorotoluene	**20.9**		5.0	1.0	0.24	1	NA	12/1/15 11:02		474290	
p-Isopropyltoluene	**21.5**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
4-Methyl-2-pentanone	**21.2**		5.0	1.0	0.67	1	NA	12/1/15 11:02		474290	
Acetone	**20.3**		5.0	5.0	1.3	1	NA	12/1/15 11:02		474290	
Benzene	**21.1**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
Bromobenzene	**20.7**		5.0	1.0	0.28	1	NA	12/1/15 11:02		474290	
Bromochloromethane	**19.9**		5.0	1.0	0.32	1	NA	12/1/15 11:02		474290	
Bromodichloromethane	**20.3**		5.0	1.0	0.32	1	NA	12/1/15 11:02		474290	
Bromoform	**18.2**		5.0	1.0	0.42	1	NA	12/1/15 11:02		474290	
Bromomethane	**19.9**		5.0	1.0	0.29	1	NA	12/1/15 11:02		474290	
Carbon Tetrachloride	**20.3**		5.0	1.0	0.45	1	NA	12/1/15 11:02		474290	
Chlorobenzene	**20.5**		5.0	1.0	0.29	1	NA	12/1/15 11:02		474290	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514847-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**21.2**		5.0	1.0	0.24	1	NA	12/1/15 11:02		474290	
Chloroform	**19.7**		5.0	1.0	0.25	1	NA	12/1/15 11:02		474290	
Chloromethane	**20.6**		5.0	1.0	0.21	1	NA	12/1/15 11:02		474290	
Dibromochloromethane	**19.7**		5.0	1.0	0.31	1	NA	12/1/15 11:02		474290	
Dichlorodifluoromethane (CFC 12)	**21.9**		5.0	1.0	0.46	1	NA	12/1/15 11:02		474290	
Methylene Chloride	**19.9**		5.0	1.0	0.60	1	NA	12/1/15 11:02		474290	
Ethylbenzene	**20.5**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
Hexachlorobutadiene	**23.5**		5.0	1.0	0.62	1	NA	12/1/15 11:02		474290	
Isopropylbenzene (Cumene)	**20.1**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
Methyl tert-Butyl Ether	**20.4**		5.0	1.0	0.29	1	NA	12/1/15 11:02		474290	
Naphthalene	**22.7**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
Styrene	**20.5**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
Tetrachloroethene (PCE)	**21.2**		5.0	1.0	0.30	1	NA	12/1/15 11:02		474290	
Toluene	**21.1**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
Trichloroethene (TCE)	**20.0**		5.0	1.0	0.22	1	NA	12/1/15 11:02		474290	
Trichlorofluoromethane (CFC 11)	**21.9**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
Vinyl Chloride	**20.8**		5.0	1.0	0.32	1	NA	12/1/15 11:02		474290	
cis-1,2-Dichloroethene	**20.3**		5.0	1.0	0.30	1	NA	12/1/15 11:02		474290	
cis-1,3-Dichloropropene	**20.3**		5.0	1.0	0.24	1	NA	12/1/15 11:02		474290	
m,p-Xylenes	**41.4**		10	2.0	0.33	1	NA	12/1/15 11:02		474290	
n-Butylbenzene	**21.8**		5.0	1.0	0.21	1	NA	12/1/15 11:02		474290	
n-Propylbenzene	**20.6**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
o-Xylene	**20.5**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
sec-Butylbenzene	**20.4**		5.0	1.0	0.27	1	NA	12/1/15 11:02		474290	
tert-Butylbenzene	**19.9**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	
trans-1,2-Dichloroethene	**20.5**		5.0	1.0	0.33	1	NA	12/1/15 11:02		474290	
trans-1,3-Dichloropropene	**21.2**		5.0	1.0	0.20	1	NA	12/1/15 11:02		474290	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	12/1/15 11:02	
Dibromofluoromethane	109	85-115	12/1/15 11:02	
Toluene-d8	114	85-120	12/1/15 11:02	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8417.D
Acq On : 1 Dec 2015 11:02 am
Operator : K.Ruest
Sample : LCS RQ1514817-03 Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:23:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	775960	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1305254	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1214754	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	592535	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	370082	54.53	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.06%				
48) surr1,1,2-dichloroetha...	6.096	65	407557	54.37	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.74%				
65) SURR3,Toluene-d8	8.529	98	1623442	56.84	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 113.68%				
70) SURR2,BFB	11.047	95	594617	55.15	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.30%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	239472	21.91	ppb		98
3) Chloromethane	1.347	50	268258	20.56	ppb		99
4) Vinyl Chloride	1.433	62	253179	20.83	ppb		98
5) Bromomethane	1.689	94	118402	19.94	ppb		97
6) Chloroethane	1.768	64	141554	21.17	ppb		98
7) Freon 21	1.926	67	289152	22.34	ppb		100
8) Trichlorofluoromethane	1.975	101	207173	21.88	ppb		97
9) Diethyl Ether	2.231	59	127876	21.52	ppb		90
10) Freon 123a	2.237	67	179162	21.17	ppb		100
11) Freon 123	2.298	83	190203	19.49	ppb		96
12) Acrolein	2.341	56	27919	42.23	ppb		89
13) 1,1-Diclethene	2.432	96	137391	21.17	ppb		93
14) Freon 113	2.445	101	134487	22.77	ppb		95
15) Acetone	2.487	43	33579	20.30	ppb		92
16) 2-Propanol	2.646	45	129398	412.23	ppb		97
17) Iodomethane	2.573	142	139998	18.99	ppb		97
18) Carbon Disulfide	2.634	76	425315	19.62	ppb		98
19) Acetonitrile	2.762	40	23266m	101.41	ppb		
20) Allyl Chloride	2.798	76	83215	23.03	ppb		97
21) Methyl Acetate	2.829	43	73213	19.00	ppb		94
22) Methylene Chloride	2.926	84	149287	19.92	ppb		98
23) TBA	3.091	59	222550	436.85	ppb		99
24) Acrylonitrile	3.213	53	191913	102.50	ppb		95
25) Methyl-t-Butyl Ether	3.262	73	368363	20.40	ppb		95
26) trans-1,2-Dichloroethene	3.243	96	143463	20.53	ppb		89
28) 1,1-Diclethane	3.798	63	268031	21.56	ppb		97
29) Vinyl Acetate	3.908	86	28663	22.14	ppb	#	93
30) DIPE	3.944	45	520137	21.46	ppb		99
31) 2-Chloro-1,3-Butadiene	3.926	53	241861	19.35	ppb		100
32) ETBE	4.530	59	468350	20.57	ppb		99
33) 2,2-Dichloropropane	4.706	77	212301	21.35	ppb		94
34) cis-1,2-Dichloroethene	4.719	96	156982	20.29	ppb		95
35) 2-Butanone	4.780	43	46906	20.70	ppb		89
36) Propionitrile	4.871	54	68669	99.24	ppb		91

KR 12/1/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8417.D
Acq On : 1 Dec 2015 11:02 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:23:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	79520	19.90	ppb		97
38) Methacrylonitrile	5.170	67	45296	20.65	ppb	#	76
39) Tetrahydrofuran	5.243	42	31389	21.54	ppb		86
40) Chloroform	5.328	83	238163	19.71	ppb		93
41) 1,1,1-Trichloroethane	5.596	97	194896	20.54	ppb		98
42) TAME	6.407	73	407347	21.06	ppb		99
44) Cyclohexane	5.676	41	128678	18.04	ppb		98
46) Carbontetrachloride	5.865	121	50610	20.25	ppb		99
47) 1,1-Dichloropropene	5.871	75	206683	22.44	ppb		97
49) Benzene	6.170	78	606337	21.11	ppb		99
50) 1,2-Dichloroethane	6.206	62	154320	20.96	ppb		96
51) Iso-Butyl Alcohol	6.206	43	100141	415.88	ppb		98
52) n-Heptane	6.645	43	171221	21.66	ppb		99
53) 1-Butanol	7.114	56	181918	1205.28	ppb		99
54) Trichloroethene	7.084	130	145606	19.95	ppb		96
55) Methylcyclohexane	7.310	55	161405	18.34	ppb		96
56) 1,2-Diclpropane	7.352	63	152684	21.45	ppb		90
57) Dibromomethane	7.492	93	69136	19.73	ppb		92
58) 1,4-Dioxane	7.559	88	25322m	485.12	ppb		
59) Methyl Methacrylate	7.578	69	83672	20.31	ppb		92
60) Bromodichloromethane	7.712	83	176700	20.25	ppb		95
61) 2-Nitropropane	7.986	41	49308	38.36	ppb		92
62) 2-Chloroethylvinyl Ether	8.108	63	76342	19.44	ppb		88
63) cis-1,3-Dichloropropene	8.242	75	237032	20.26	ppb		97
64) 4-Methyl-2-pentanone	8.437	43	110442	21.22	ppb		94
66) Toluene	8.602	91	627715	21.10	ppb		97
67) trans-1,3-Dichloropropene	8.864	75	196516	21.15	ppb		95
68) Ethyl Methacrylate	8.998	69	169968	20.66	ppb		100
69) 1,1,2-Trichloroethane	9.047	97	107847	21.44	ppb		94
72) Tetrachloroethene	9.181	164	106823	21.20	ppb		95
73) 2-Hexanone	9.327	43	74886	20.14	ppb		100
74) 1,3-Dichloropropane	9.212	76	193750	20.98	ppb		94
75) Dibromochloromethane	9.431	129	113285	19.71	ppb		95
76) N-Butyl Acetate	9.480	43	171155	19.26	ppb		97
77) 1,2-Dibromoethane	9.529	107	99375	20.19	ppb		97
78) Chlorobenzene	10.016	112	367834	20.47	ppb		97
79) 3-CBTF	10.028	180	178777	20.08	ppb		98
80) 4-CBTF	10.083	180	164763	19.89	ppb		99
81) 1,1,1,2-Tetrachloroethane	10.102	131	125310	20.18	ppb		98
82) Ethylbenzene	10.132	106	208186	20.45	ppb		93
83) (m+p)Xylene	10.242	106	519524	41.35	ppb		94
84) o-Xylene	10.595	106	263820	20.50	ppb		99
85) Styrene	10.608	104	430178	20.52	ppb		99
87) Bromoform	10.760	173	61294	18.21	ppb		94
88) 2-CBTF	10.833	180	181651	20.22	ppb		96
89) Isopropylbenzene	10.925	105	618619	20.08	ppb		98
90) Cyclohexanone	10.986	55	287707	644.03	ppb		97
91) trans-1,4-Dichloro-2-B...	11.229	53	35927	19.57	ppb		96
92) 1,1,2,2-Tetrachloroethane	11.181	83	124586	20.01	ppb		97
93) Bromobenzene	11.169	156	144102	20.67	ppb		99
94) 1,2,3-Trichloropropane	11.211	110	33425	20.03	ppb		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8417.D
Acq On : 1 Dec 2015 11:02 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:23:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

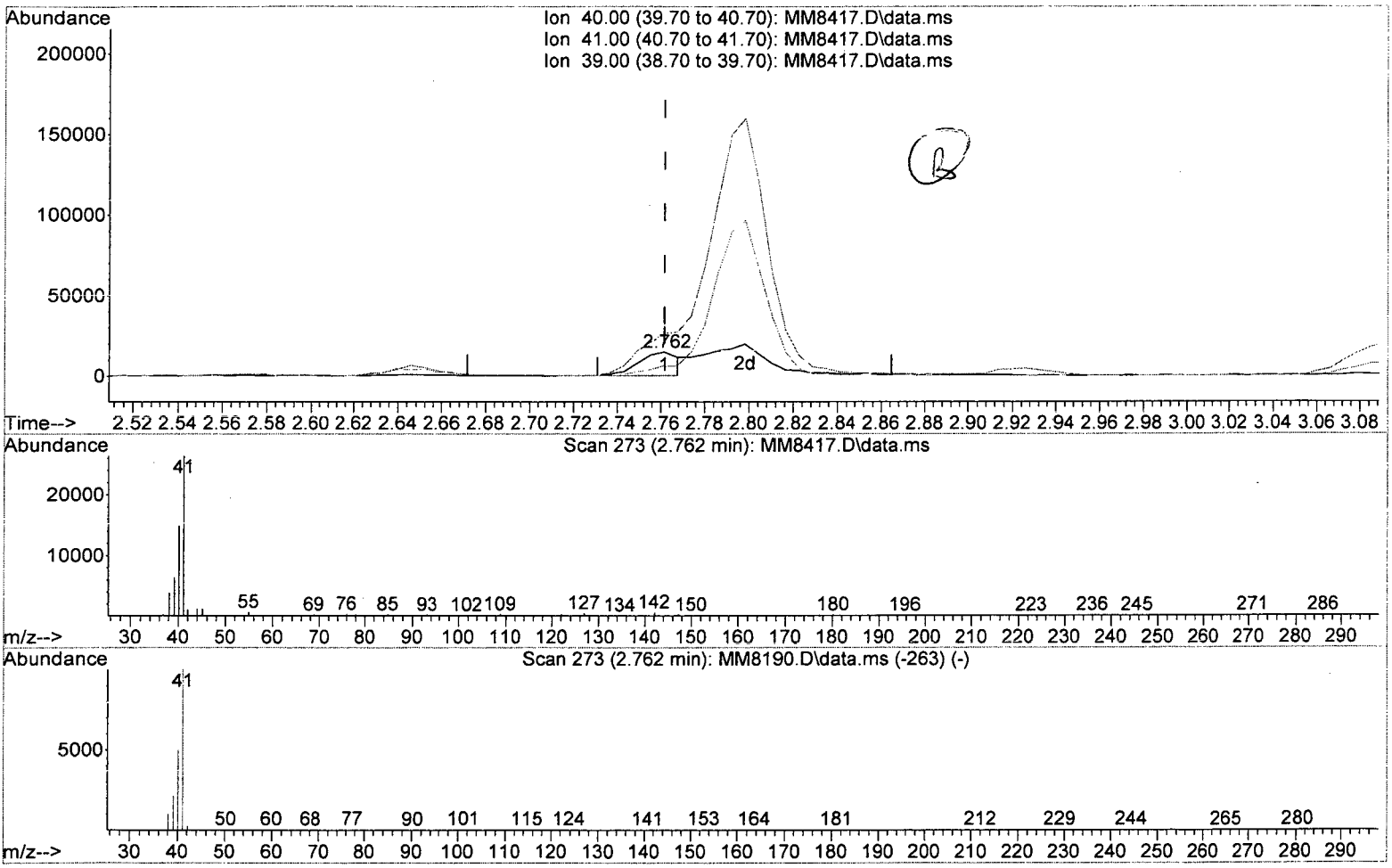
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	732540	20.63	ppb	97
96)	2-Chlorotoluene	11.339	91	433115	20.80	ppb	99
97)	3-Chlorotoluene	11.394	91	468135	21.42	ppb	98
98)	4-Chlorotoluene	11.431	91	490146	20.87	ppb	93
99)	1,3,5-Trimethylbenzene	11.431	105	488588	20.95	ppb	97
100)	tert-Butylbenzene	11.699	119	413139	19.86	ppb	100
101)	1,2,4-Trimethylbenzene	11.735	105	522985	20.90	ppb	96
102)	3,4-DCBTF	11.796	214	119577	19.87	ppb	93
103)	sec-Butylbenzene	11.882	105	592589	20.36	ppb	99
104)	p-Isopropyltoluene	12.004	119	484340	21.52	ppb	100
105)	1,3-Dclbenz	11.961	146	272720	20.21	ppb	97
106)	1,4-Dclbenz	12.034	146	264861	20.94	ppb	99
107)	2,4-DCBTF	12.089	214	112825	21.48	ppb	93
108)	2,5-DCBTF	12.126	214	123498	20.79	ppb	98
109)	n-Butylbenzene	12.333	91	465573	21.84	ppb	97
110)	1,2-Dclbenz	12.333	146	263505	21.21	ppb	96
111)	1,2-Dibromo-3-chloropr...	12.955	157	23012	19.16	ppb	84
112)	Trielution Dichlorotol...	13.077	125	686647	65.50	ppb	99
113)	1,3,5 Trichlorobenzene	13.125	180	185826	22.25	ppb	91
114)	Coelution Dichlorotoluene	13.400	125	506968	45.76	ppb	96
115)	1,2,4-Tcbenzene	13.607	180	170229	22.21	ppb	97
116)	Hexachlorobt	13.747	225	71934	23.51	ppb	99
117)	Naphthalen	13.796	128	360173	22.66	ppb	100
118)	1,2,3-Tclbenzene	13.985	180	147356	23.12	ppb	99
119)	2,4,5-Trichlorotolene	14.570	159	128503	27.18	ppb	98
120)	2,3,6-Trichlorotoluene	14.656	159	108230	26.00	ppb	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8417.D
Acq On : 1 Dec 2015 11:02 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:18:45 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8417.D\data.ms

(19) Acetonitrile

2.762min (-0.000) 79.06 ppb

response 18138

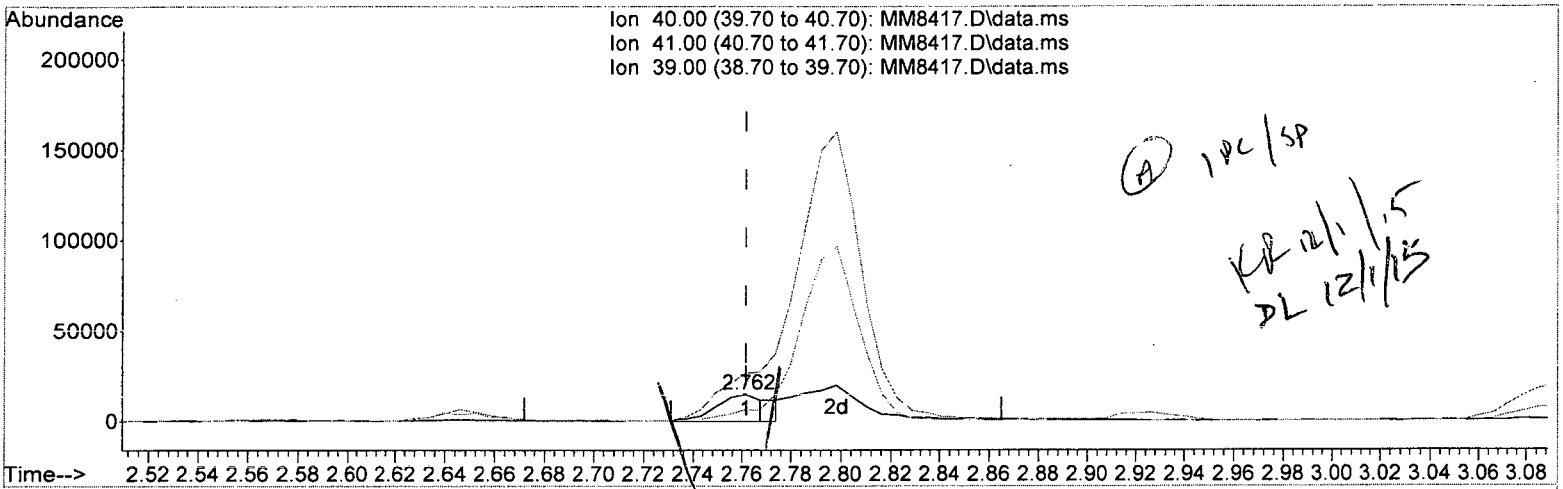
Ion	Exp%	Act%
40.00	100	100
41.00	202.00	177.95#
39.00	45.70	42.85
0.00	0.00	0.00

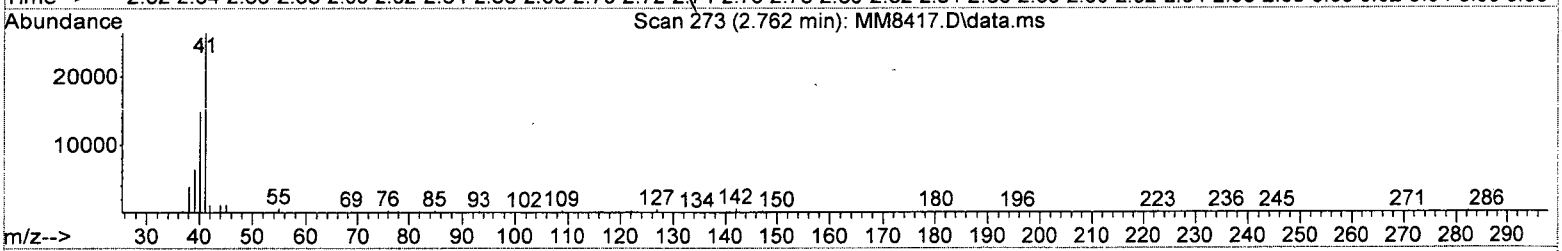
W111815A.M Tue Dec 01 11:23:04 2015 Page: 1

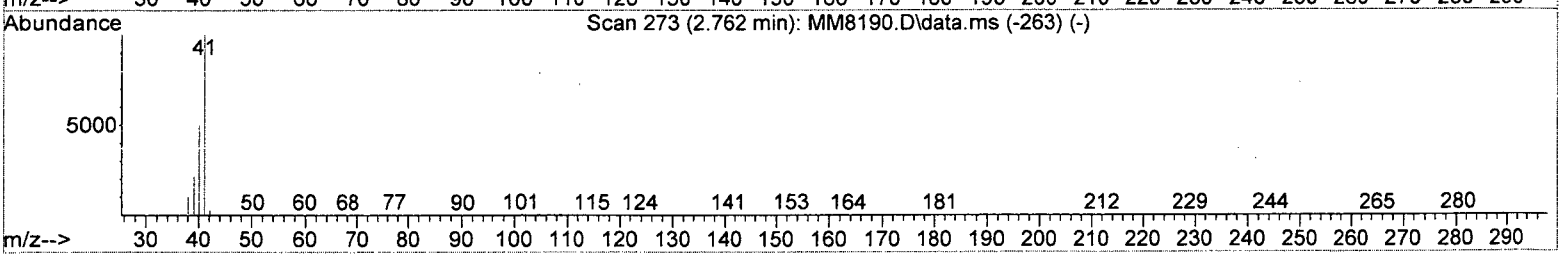
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8417.D
Acq On : 1 Dec 2015 11:02 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:18:45 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8417.D\data.ms

(19) Acetonitrile

2.762min (-0.000) 101.41 ppb m

response 23266

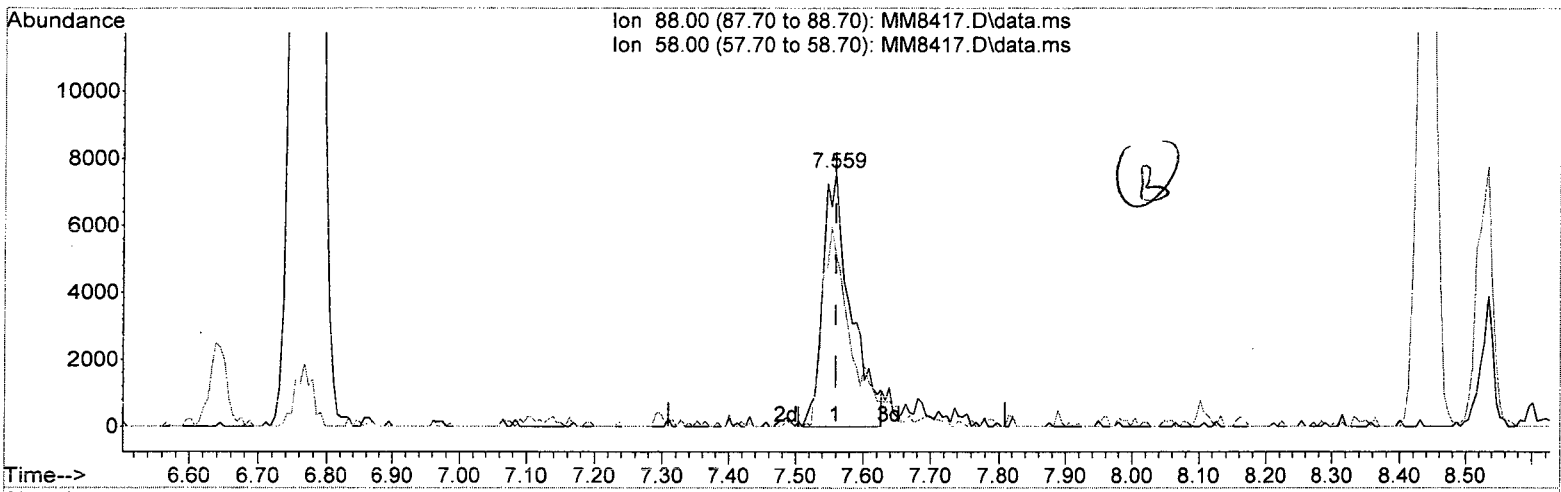
Ion	Exp%	Act%
40.00	100	100
41.00	202.00	177.95#
39.00	45.70	42.85
0.00	0.00	0.00

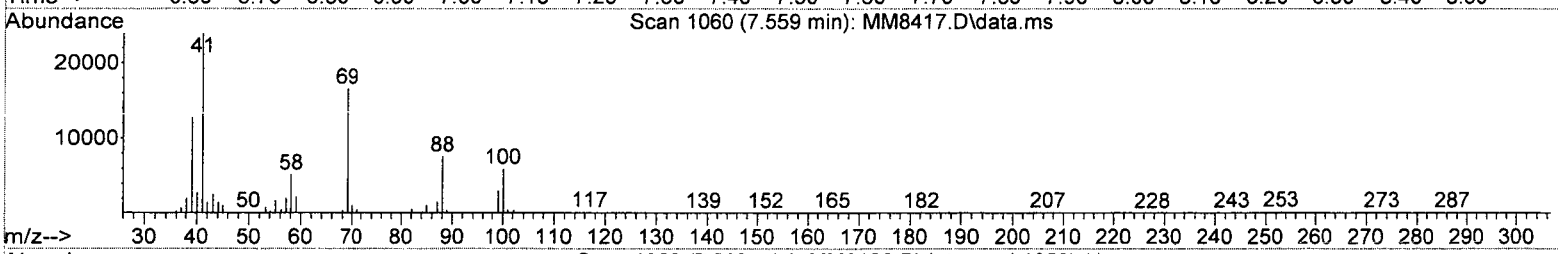
W111815A.M Tue Dec 01 11:23:12 2015 Page: 1

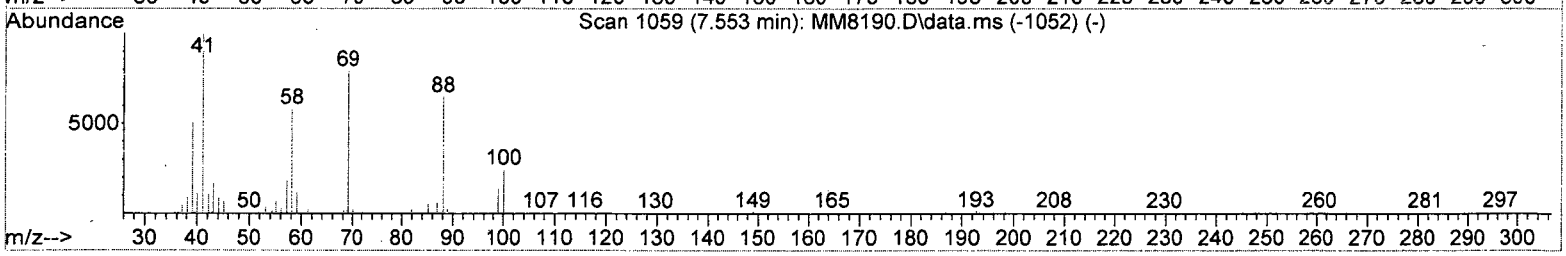
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8417.D
Acq On : 1 Dec 2015 11:02 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:18:45 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8417.D\data.ms

(58) 1,4-Dioxane

7.559min (-0.000) 415.84 ppb

response 21706

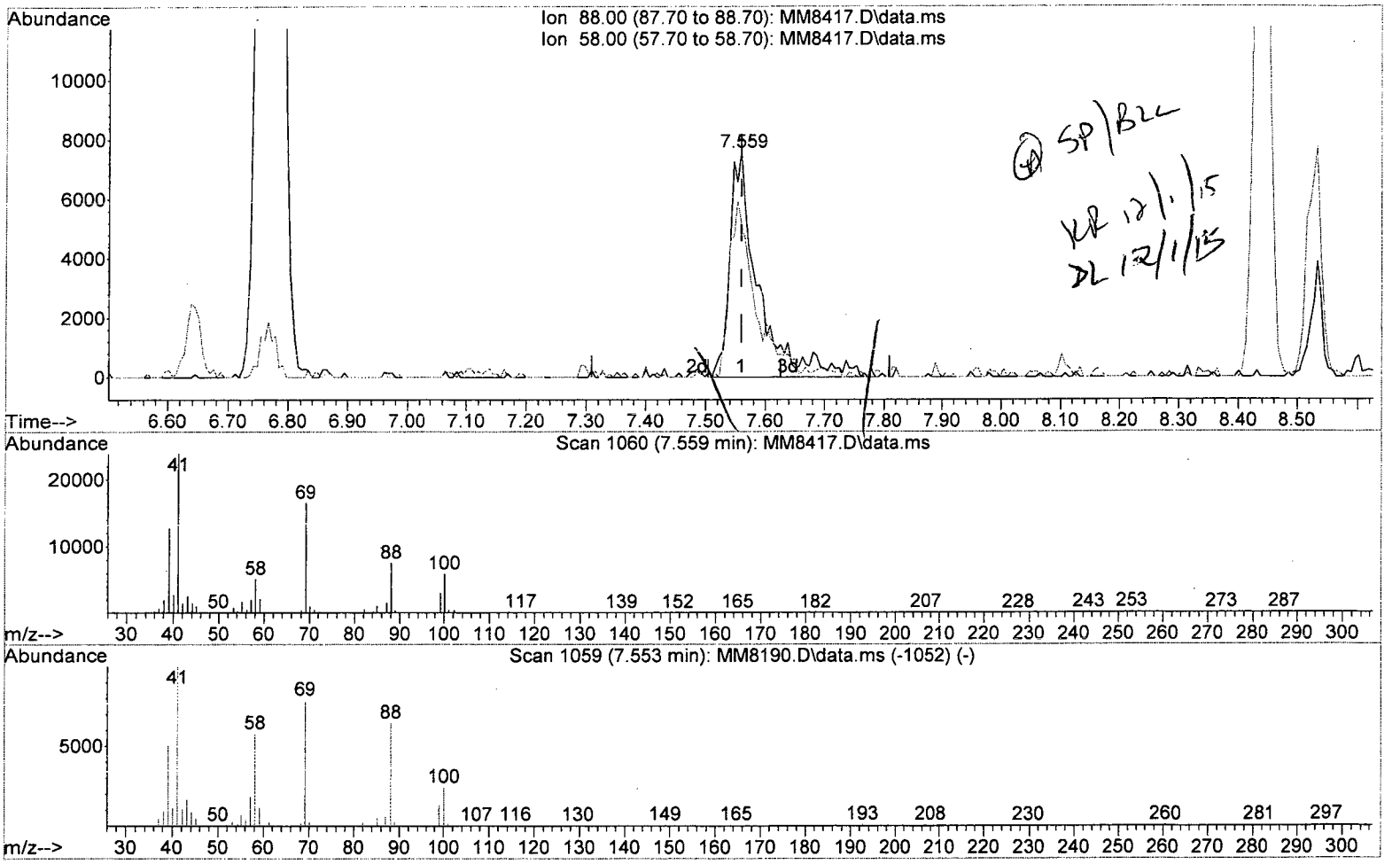
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	68.14
0.00	0.00	0.00
0.00	0.00	0.00

W111815A.M Tue Dec 01 11:23:42 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8417.D
Acq On : 1 Dec 2015 11:02 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:18:45 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8417.D\data.ms

(58) 1,4-Dioxane

7.559min (-0.000) 485.12 ppb m

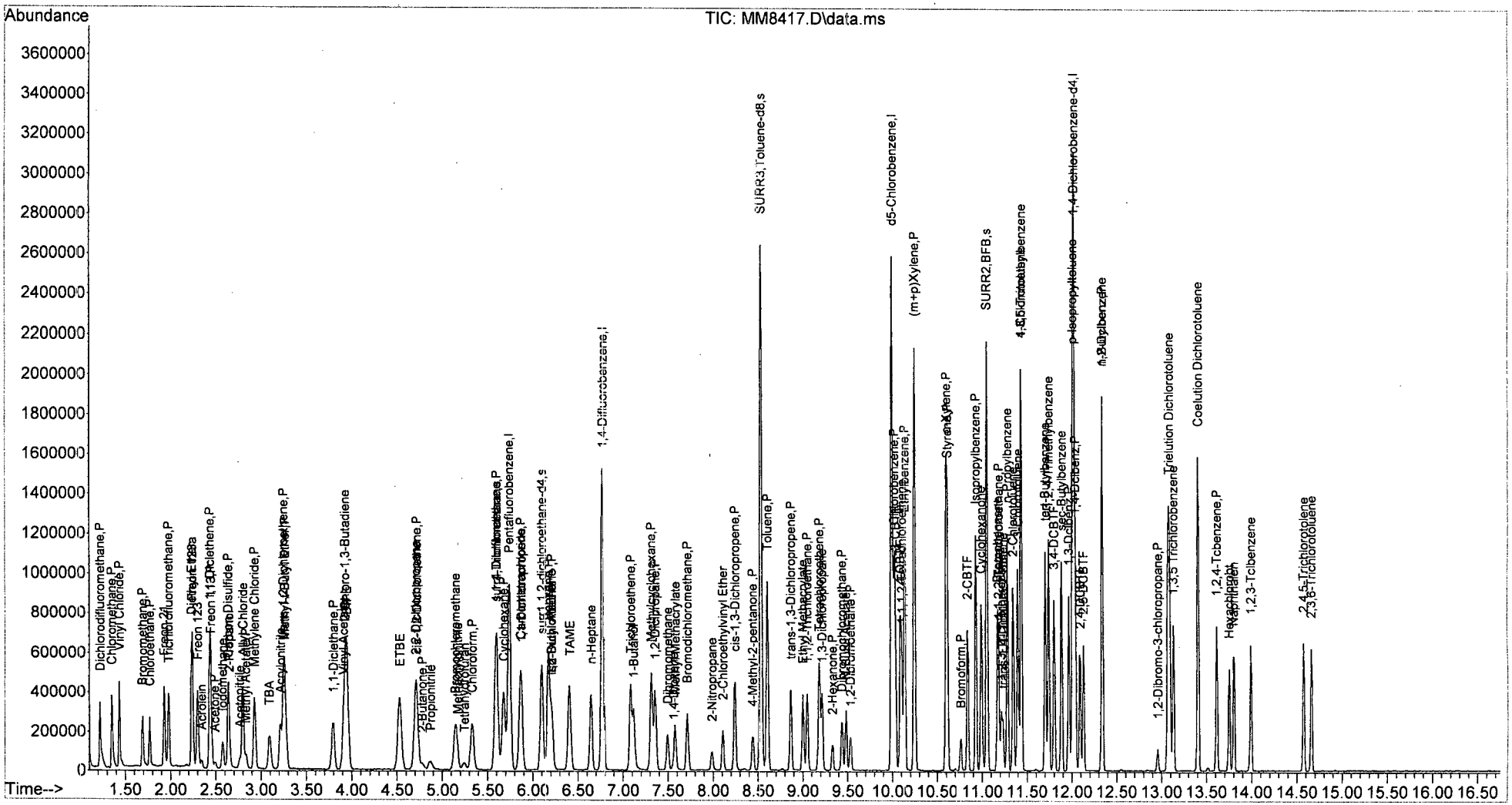
response 25322

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	68.14
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120115\
Data File : MM8417.D
Acq On : 1 Dec 2015 11:02 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:23:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Tue Dec 01 11:24:33 2015 Page: 4

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514885-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**19.5**		5.0	1.0	0.22	1	NA	12/2/15 10:24		474506	
1,1,1-Trichloroethane (TCA)	**21.4**		5.0	1.0	0.36	1	NA	12/2/15 10:24		474506	
1,1,2,2-Tetrachloroethane	**21.3**		5.0	1.0	0.25	1	NA	12/2/15 10:24		474506	
1,1,2-Trichloroethane	**21.2**		5.0	1.0	0.34	1	NA	12/2/15 10:24		474506	
1,1-Dichloroethane (1,1-DCA)	**22.5**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
1,1-Dichloroethene (1,1-DCE)	**21.8**		5.0	1.0	0.57	1	NA	12/2/15 10:24		474506	
1,1-Dichloropropene	**22.9**		5.0	1.0	0.29	1	NA	12/2/15 10:24		474506	
1,2,3-Trichlorobenzene	**23.9**		5.0	1.0	0.82	1	NA	12/2/15 10:24		474506	
1,2,3-Trichloropropane	**21.9**		5.0	1.0	0.70	1	NA	12/2/15 10:24		474506	
1,2,4-Trichlorobenzene	**22.1**		5.0	1.0	0.23	1	NA	12/2/15 10:24		474506	
1,2,4-Trimethylbenzene	**21.5**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
1,2-Dibromo-3-chloropropane (DBCP)	**19.4**		5.0	1.0	0.74	1	NA	12/2/15 10:24		474506	
1,2-Dibromoethane	**20.1**		5.0	1.0	0.24	1	NA	12/2/15 10:24		474506	
1,2-Dichlorobenzene	**21.2**		5.0	1.0	0.21	1	NA	12/2/15 10:24		474506	
1,2-Dichloroethane	**21.4**		5.0	1.0	0.36	1	NA	12/2/15 10:24		474506	
1,2-Dichloropropane	**22.3**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
1,3,5-Trimethylbenzene	**21.7**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
1,3-Dichlorobenzene	**21.0**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
1,3-Dichloropropane	**21.5**		5.0	1.0	0.27	1	NA	12/2/15 10:24		474506	
1,4-Dichlorobenzene	**21.6**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
2,2-Dichloropropane	**21.9**		5.0	1.0	0.27	1	NA	12/2/15 10:24		474506	
2-Butanone (MEK)	**21.8**		5.0	1.0	0.81	1	NA	12/2/15 10:24		474506	
2-Chlorotoluene	**21.9**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
2-Hexanone	**20.9**		5.0	5.0	1.7	1	NA	12/2/15 10:24		474506	
tert-Butyl Alcohol	**463**		100	20	11	1	NA	12/2/15 10:24		474506	
4-Chlorotoluene	**21.9**		5.0	1.0	0.24	1	NA	12/2/15 10:24		474506	
p-Isopropyltoluene	**22.1**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
4-Methyl-2-pentanone	**21.3**		5.0	1.0	0.67	1	NA	12/2/15 10:24		474506	
Acetone	**18.6**		5.0	5.0	1.3	1	NA	12/2/15 10:24		474506	
Benzene	**21.8**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
Bromobenzene	**20.9**		5.0	1.0	0.28	1	NA	12/2/15 10:24		474506	
Bromochloromethane	**20.1**		5.0	1.0	0.32	1	NA	12/2/15 10:24		474506	
Bromodichloromethane	**20.0**		5.0	1.0	0.32	1	NA	12/2/15 10:24		474506	
Bromoform	**18.5**		5.0	1.0	0.42	1	NA	12/2/15 10:24		474506	
Bromomethane	**17.4**		5.0	1.0	0.29	1	NA	12/2/15 10:24		474506	
Carbon Tetrachloride	**19.0**		5.0	1.0	0.45	1	NA	12/2/15 10:24		474506	
Chlorobenzene	**20.9**		5.0	1.0	0.29	1	NA	12/2/15 10:24		474506	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514885-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**21.4**		5.0	1.0	0.24	1	NA	12/2/15 10:24		474506	
Chloroform	**20.4**		5.0	1.0	0.25	1	NA	12/2/15 10:24		474506	
Chloromethane	**20.6**		5.0	1.0	0.21	1	NA	12/2/15 10:24		474506	
Dibromochloromethane	**19.9**		5.0	1.0	0.31	1	NA	12/2/15 10:24		474506	
Dichlorodifluoromethane (CFC 12)	**22.0**		5.0	1.0	0.46	1	NA	12/2/15 10:24		474506	
Methylene Chloride	**20.6**		5.0	1.0	0.60	1	NA	12/2/15 10:24		474506	
Ethylbenzene	**20.8**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
Hexachlorobutadiene	**24.5**		5.0	1.0	0.62	1	NA	12/2/15 10:24		474506	
Isopropylbenzene (Cumene)	**21.0**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
Methyl tert-Butyl Ether	**21.5**		5.0	1.0	0.29	1	NA	12/2/15 10:24		474506	
Naphthalene	**23.9**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
Styrene	**20.7**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
Tetrachloroethene (PCE)	**20.8**		5.0	1.0	0.30	1	NA	12/2/15 10:24		474506	
Toluene	**21.6**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
Trichloroethene (TCE)	**20.4**		5.0	1.0	0.22	1	NA	12/2/15 10:24		474506	
Trichlorofluoromethane (CFC 11)	**22.5**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
Vinyl Chloride	**21.7**		5.0	1.0	0.32	1	NA	12/2/15 10:24		474506	
cis-1,2-Dichloroethene	**20.9**		5.0	1.0	0.30	1	NA	12/2/15 10:24		474506	
cis-1,3-Dichloropropene	**20.7**		5.0	1.0	0.24	1	NA	12/2/15 10:24		474506	
m,p-Xylenes	**41.7**		10	2.0	0.33	1	NA	12/2/15 10:24		474506	
n-Butylbenzene	**22.5**		5.0	1.0	0.21	1	NA	12/2/15 10:24		474506	
n-Propylbenzene	**21.7**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
o-Xylene	**20.9**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
sec-Butylbenzene	**21.3**		5.0	1.0	0.27	1	NA	12/2/15 10:24		474506	
tert-Butylbenzene	**21.0**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	
trans-1,2-Dichloroethene	**22.2**		5.0	1.0	0.33	1	NA	12/2/15 10:24		474506	
trans-1,3-Dichloropropene	**21.8**		5.0	1.0	0.20	1	NA	12/2/15 10:24		474506	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/2/15 10:24	
Dibromofluoromethane	106	85-115	12/2/15 10:24	
Toluene-d8	115	85-120	12/2/15 10:24	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8461.D
Acq On : 2 Dec 2015 10:24 am
Operator : K.Ruest
Sample : LCS R0154883-03, 154885-03 Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 02 10:41:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	733069	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1243298	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1164161	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	563932	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	344109	53.23	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 106.46%				
48) surr1,1,2-dichloroetha...	6.096	65	391800	54.87	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 109.74%				
65) SURR3,Toluene-d8	8.529	98	1559123	57.31	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 114.62%				
70) SURR2,BFB	11.047	95	585065	56.97	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 113.94%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	227440	22.03	ppb		95
3) Chloromethane	1.347	50	254440	20.64	ppb		98
4) Vinyl Chloride	1.433	62	248827	21.66	ppb		100
5) Bromomethane	1.689	94	97596	17.40	ppb		93
6) Chloroethane	1.768	64	135342	21.43	ppb		99
7) Freon 21	1.926	67	280860	22.97	ppb		96
8) Trichlorofluoromethane	1.975	101	201195	22.49	ppb		99
9) Diethyl Ether	2.231	59	126566	22.55	ppb		94
10) Freon 123a	2.237	67	174811	21.87	ppb		95
11) Freon 123	2.298	83	182661	19.82	ppb		95
12) Acrolein	2.341	56	23387	37.44	ppb		95
13) 1,1-Diclethene	2.432	96	133741	21.81	ppb		94
14) Freon 113	2.445	101	129529	23.22	ppb		95
15) Acetone	2.487	43	29034	18.58	ppb		97
16) 2-Propanol	2.646	45	133589	450.48	ppb		98
17) Iodomethane	2.579	142	113375	16.28	ppb		96
18) Carbon Disulfide	2.634	76	403423	19.70	ppb		99
19) Acetonitrile	2.762	40	27065	124.87	ppb		94
20) Allyl Chloride	2.792	76	81485	23.87	ppb		97
21) Methyl Acetate	2.835	43	74453	20.45	ppb		94
22) Methylene Chloride	2.926	84	146133	20.64	ppb		97
23) TBA	3.097	59	222967	463.28	ppb		98
24) Acrylonitrile	3.207	53	186629	105.51	ppb		97
25) Methyl-t-Butyl Ether	3.268	73	366190	21.47	ppb		100
26) trans-1,2-Dichloroethene	3.243	96	146398	22.17	ppb		97
28) 1,1-Diclethane	3.792	63	264086	22.49	ppb		96
29) Vinyl Acetate	3.902	86	28256	23.10	ppb	#	85
30) DIPE	3.944	45	450801	19.69	ppb		97
31) 2-Chloro-1,3-Butadiene	3.932	53	236427	20.02	ppb		93
32) ETBE	4.524	59	403929	18.78	ppb		98
33) 2,2-Dichloropropane	4.713	77	205916	21.92	ppb		97
34) cis-1,2-Dichloroethene	4.719	96	152800	20.91	ppb		95
35) 2-Butanone	4.780	43	46615	21.77	ppb		90
36) Propionitrile	4.871	54	70185	107.36	ppb		94

KR 12/2/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8461.D
Acq On : 2 Dec 2015 10:24 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 02 10:41:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	76021	20.14	ppb		91
38) Methacrylonitrile	5.164	67	44140	21.30	ppb		96
39) Tetrahydrofuran	5.243	42	31743	23.06	ppb		94
40) Chloroform	5.328	83	232564	20.38	ppb		92
41) 1,1,1-Trichloroethane	5.596	97	191666	21.38	ppb		95
42) TAME	6.401	73	358173	19.60	ppb		99
44) Cyclohexane	5.676	41	131110	19.29	ppb		96
46) Carbontetrachloride	5.859	121	45310	19.03	ppb		98
47) 1,1-Dichloropropene	5.871	75	200419	22.85	ppb		96
49) Benzene	6.170	78	595875	21.78	ppb		97
50) 1,2-Dichloroethane	6.212	62	149838	21.36	ppb		96
51) Iso-Butyl Alcohol	6.200	43	108059	471.13	ppb		94
52) n-Heptane	6.645	43	174181	23.13	ppb		96
53) 1-Butanol	7.114	56	170793	1187.96	ppb		99
54) Trichloroethene	7.084	130	142125	20.44	ppb		94
55) Methylcyclohexane	7.310	55	165399	19.73	ppb		92
56) 1,2-Diclpropane	7.358	63	150959	22.26	ppb		99
57) Dibromomethane	7.492	93	66437	19.90	ppb		93
58) 1,4-Dioxane	7.553	88	28215m	567.48	ppb		
59) Methyl Methacrylate	7.578	69	80276	20.46	ppb		96
60) Bromodichloromethane	7.712	83	165855	19.95	ppb		99
61) 2-Nitropropane	7.992	41	44990	36.75	ppb	#	81
62) 2-Chloroethylvinyl Ether	8.108	63	74887	20.02	ppb		98
63) cis-1,3-Dichloropropene	8.242	75	230901	20.72	ppb		98
64) 4-Methyl-2-pentanone	8.437	43	105807	21.34	ppb		98
66) Toluene	8.602	91	612721	21.62	ppb		96
67) trans-1,3-Dichloropropene	8.864	75	192700	21.77	ppb		99
68) Ethyl Methacrylate	8.998	69	169860	21.67	ppb		96
69) 1,1,2-Trichloroethane	9.047	97	101643	21.21	ppb		97
72) Tetrachloroethene	9.181	164	100558	20.83	ppb		94
73) 2-Hexanone	9.327	43	74413	20.88	ppb		87
74) 1,3-Dichloropropane	9.212	76	190095	21.48	ppb		100
75) Dibromochloromethane	9.431	129	109752	19.93	ppb		93
76) N-Butyl Acetate	9.480	43	177962	20.90	ppb		97
77) 1,2-Dibromoethane	9.529	107	94735	20.09	ppb		100
78) Chlorobenzene	10.016	112	360417	20.93	ppb		99
79) 3-CBTF	10.029	180	175466	20.57	ppb		96
80) 4-CBTF	10.083	180	167845	21.14	ppb		99
81) 1,1,1,2-Tetrachloroethane	10.102	131	116212	19.53	ppb		96
82) Ethylbenzene	10.132	106	203134	20.83	ppb		92
83) (m+p)Xylene	10.242	106	502449	41.73	ppb		90
84) o-Xylene	10.595	106	257986	20.92	ppb		98
85) Styrene	10.608	104	415828	20.70	ppb		99
87) Bromoform	10.760	173	59335	18.52	ppb		97
88) 2-CBTF	10.833	180	180736	21.14	ppb		99
89) Isopropylbenzene	10.925	105	614871	20.97	ppb		100
90) Cyclohexanone	10.986	55	324635	763.55	ppb		99
91) trans-1,4-Dichloro-2-B...	11.230	53	35033	20.06	ppb		96
92) 1,1,2,2-Tetrachloroethane	11.181	83	125983	21.26	ppb		100
93) Bromobenzene	11.169	156	138735	20.91	ppb		96
94) 1,2,3-Trichloropropane	11.211	110	34802	21.94	ppb	#	88

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8461.D
Acq On : 2 Dec 2015 10:24 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 02 10:41:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

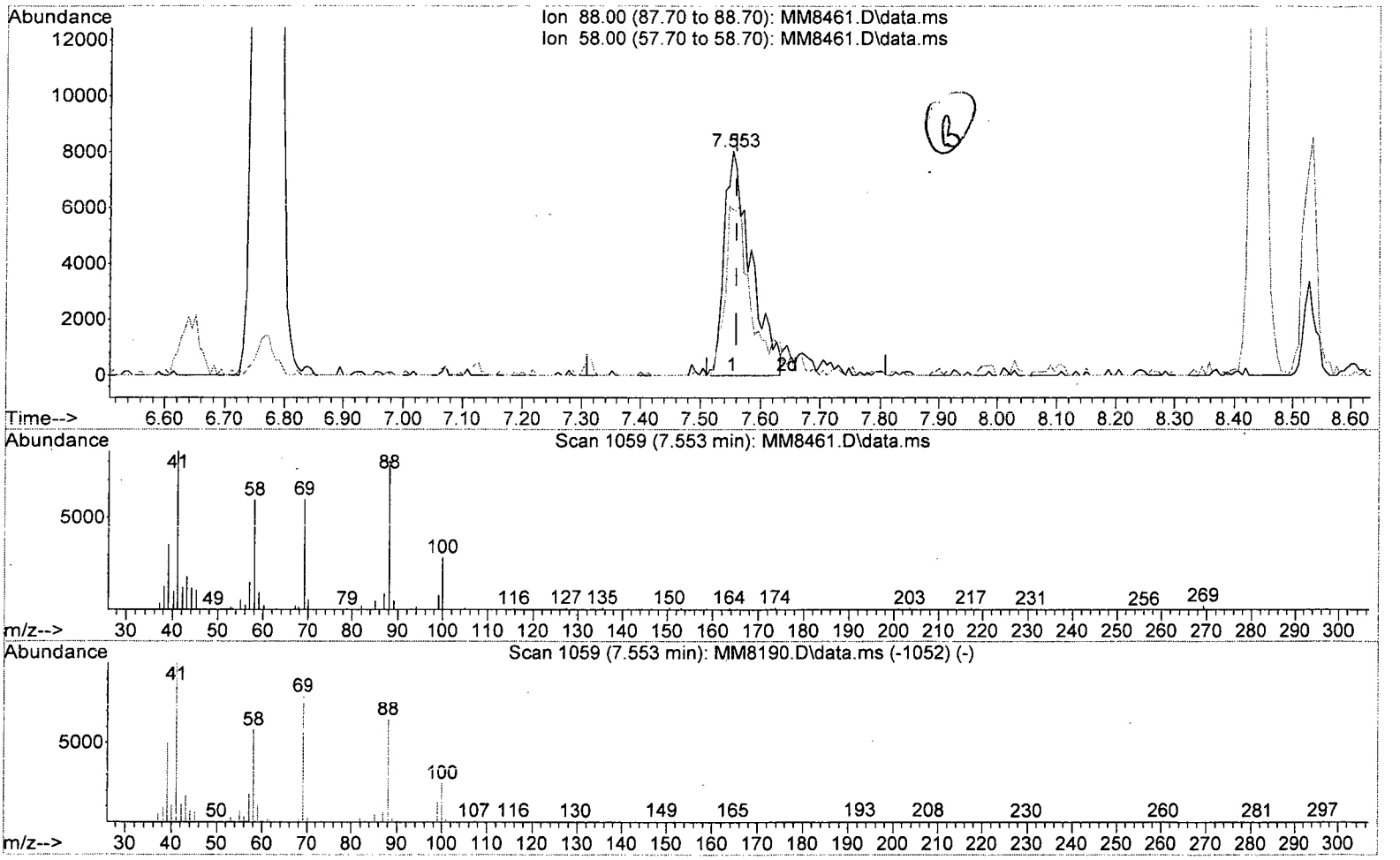
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	731995	21.66	ppb	97
96)	2-Chlorotoluene	11.339	91	433834	21.90	ppb	99
97)	3-Chlorotoluene	11.394	91	451614	21.71	ppb	99
98)	4-Chlorotoluene	11.431	91	488836	21.87	ppb	92
99)	1,3,5-Trimethylbenzene	11.431	105	482556	21.74	ppb	96
100)	tert-Butylbenzene	11.699	119	416177	21.02	ppb	99
101)	1,2,4-Trimethylbenzene	11.736	105	511556	21.48	ppb	95
102)	3,4-DCBTF	11.796	214	124515	21.74	ppb	93
103)	sec-Butylbenzene	11.882	105	590509	21.31	ppb	99
104)	p-Isopropyltoluene	12.004	119	474213	22.14	ppb	97
105)	1,3-Dclbenz	11.961	146	270148	21.03	ppb	99
106)	1,4-Dclbenz	12.034	146	260420	21.63	ppb	99
107)	2,4-DCBTF	12.089	214	109692	21.95	ppb	97
108)	2,5-DCBTF	12.126	214	122249	21.62	ppb	99
109)	n-Butylbenzene	12.333	91	455540	22.46	ppb	98
110)	1,2-Dclbenz	12.333	146	250100	21.16	ppb	97
111)	1,2-Dibromo-3-chloropr...	12.955	157	22172	19.39	ppb	80
112)	Trielution Dichlorotol...	13.071	125	684061	68.56	ppb	96
113)	1,3,5 Trichlorobenzene	13.126	180	180145	22.67	ppb	96
114)	Coelution Dichlorotoluene	13.400	125	491062	46.58	ppb	99
115)	1,2,4-Tcbenzene	13.613	180	161284	22.11	ppb	100
116)	Hexachlorobt	13.747	225	71330	24.49	ppb	91
117)	Naphthalen	13.802	128	361751	23.91	ppb	99
118)	1,2,3-Tclbenzene	13.985	180	145224	23.94	ppb	96
119)	2,4,5-Trichlorotolene	14.570	159	124191	27.60	ppb	96
120)	2,3,6-Trichlorotoluene	14.656	159	108870	27.48	ppb	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8461.D
Acq On : 2 Dec 2015 10:24 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 02 10:40:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8461.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 497.43 ppb

response 24732

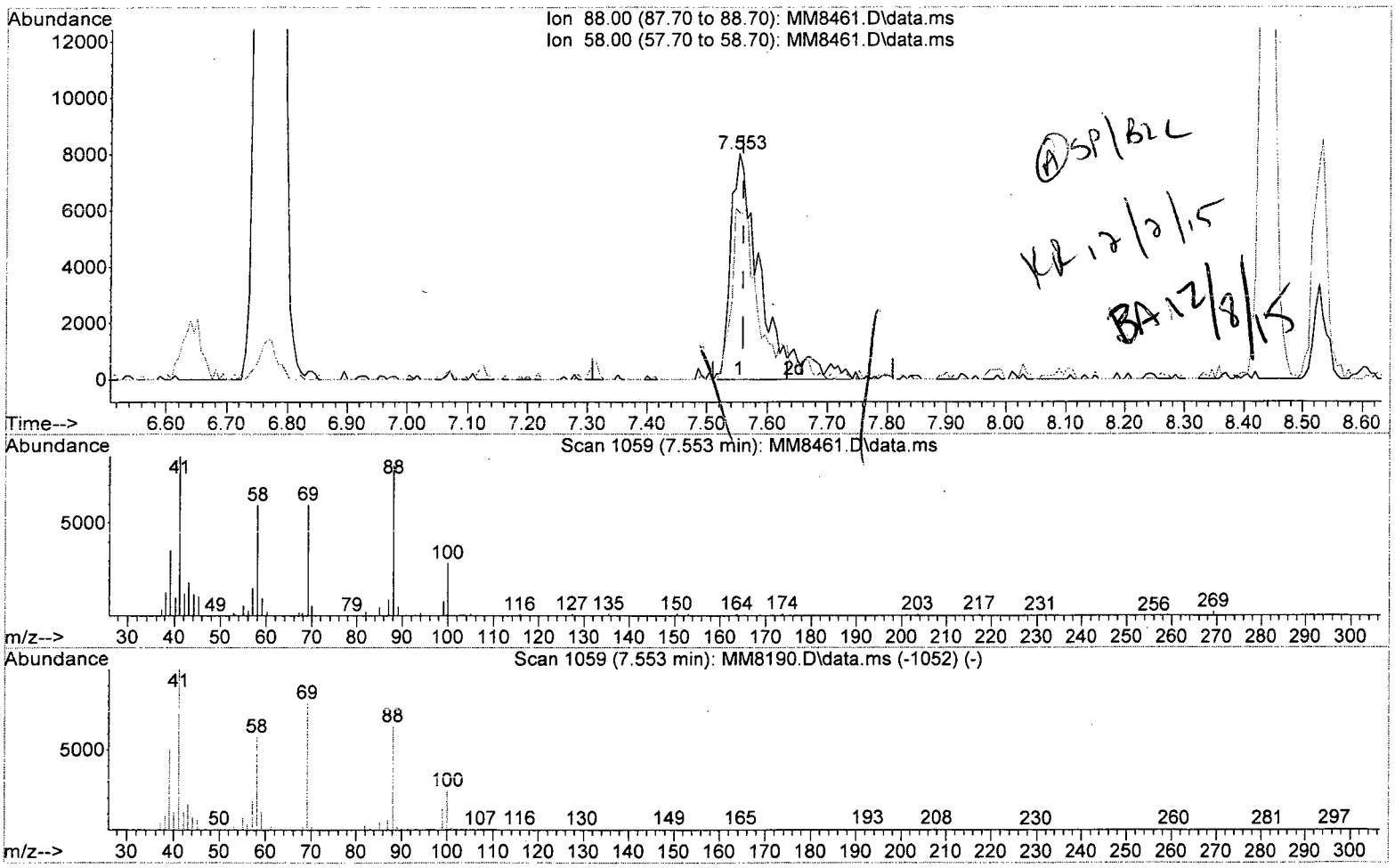
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	73.94
0.00	0.00	0.00
0.00	0.00	0.00

W111815A.M Wed Dec 02 10:41:42 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8461.D
Acq On : 2 Dec 2015 10:24 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 02 10:40:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8461.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 567.48 ppb m

response 28215

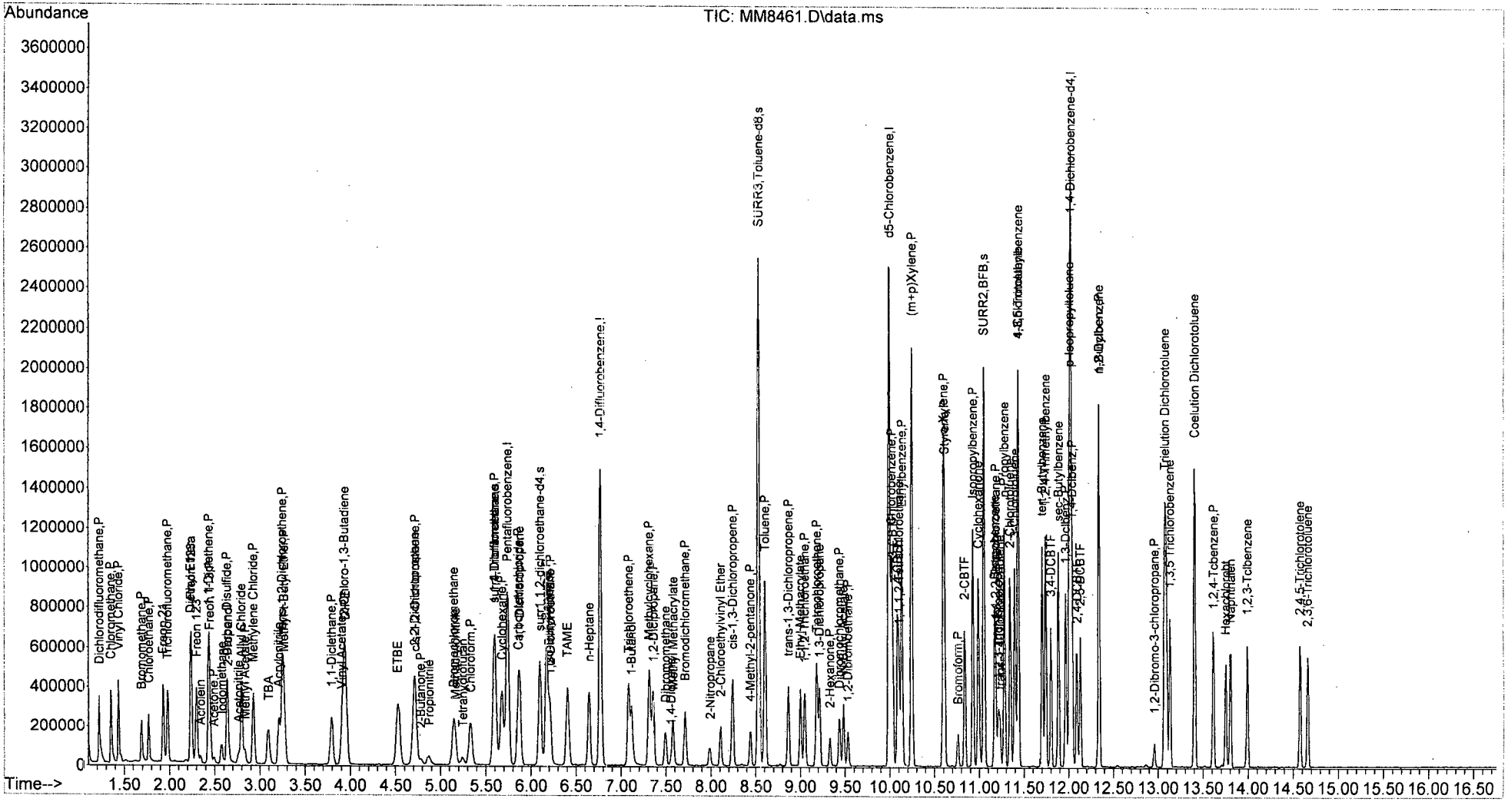
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	73.94
0.00	0.00	0.00
0.00	0.00	0.00

W111815A.M Wed Dec 02 10:41:51 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120215\
Data File : MM8461.D
Acq On : 2 Dec 2015 10:24 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 02 10:41:46 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Wed Dec 02 10:42:43 2015 Page: 4

Analysis: 8260 waters | Analyst: K. Ruest | Tune Method: W111815
Date: 11/18/15 | Data Path: j:\acqudata\msvoa2\111815 | Run Method: ↓
Instr. 12 | LIMS Run#: -8260 Water ICAL-

Pos.	Sample	Diln.	Diln. Prep.		Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK									MM8182		
2	MNE									MM8183	YT	(auto) 15:38
3	1 BLK	5ppm	500ppm	5mL(500)	FV					MM8184	YB	
4	0.5 ppb	5mL	—	—	50mLs					MM8185	Y	
5	1.0 ppb	10mL	—	—						MM8186	Y	
6	2.0	20mL	—	1mL						MM8187	Y	
7	5.0	50mL	—	2mL						MM8188	Y	
8	20	—	2mL	5mL						MM8189	Y	
9	50	—	5mL	—						MM8190	Y	
10 (KR)	~~5~~ 100	—	10mL	7.5mL						MM8191	Y	
11	150	—	15mL	10mL						MM8192	Y	
12	200	—	20mL	—	↓					MM8193	Y	
13	BLK							—	—	MM8194	—	
14	↓							—	—	MM8195	—	
15								—	—	MM8196	—	

EOD
KR 11/18/15

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500
Primary Occ : 85996
Primary HBO : 85871 | 10uL → 1.0mL MeOH
Primary ~~Ft~~ : 85806 | ~~5uL~~ → ~~50mLs~~ = 5ppm
Primary Tb : 85998 | = (KR)
Primary HSL : 85740

Secondary :
Secondary :
Secondary :
Secondary :
Secondary :

Combined IS/Surr 500: 85986
Surrogate 500: 85821
Internal Std —

Runlog-MSVOAr2 9/20/13
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Analysis: 8260 Waters | Analyst: K. Quest | Tune Method: W111815
Date: 11/19/15 | Data Path: j:\acqudata\msvoa2\111915 | Run Method: ↓
Instr. 12 | LIMS Run#: 472937

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								MM8197		
2	↓								MM8198		
3	TUNE		RQ1514404-01						MM8199	YT	(am to) 10:06
4	CCV		02						MM8200	YC	
5	ICV/LCS @ 50ppb		03						MM8201	YC	
6	VBLK		—						MM8202	(N)	up to 10
7	↓		04						MM8203	YB	
8	R1509899-002	1.0		Oswego	6673	2	1		MM8204	Y	
9	R1509859-012	1.0		Tetra	67165	2	1		MM8205	Y	
10	002	1.0					1		MM8206	Y	
11	003	1.0					1		MM8207		
12	004	1.0					1		MM8208		
13	010	5.0	10/50mls				1		MM8209		
14	011	2.0	25/50mls				1		MM8210		

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500 Primary OCC : 859916
Primary HBO : 855871
Primary Fit : 855806 5uL → 50mls = CCV
Primary T6 : 859098
Primary HSL : 855740

200 Secondary 85627 Fit - 12.5uL
500 Secondary 859097 OCC
Secondary 855875 HBO 5.0uL
Secondary 86000 T6
Secondary 859109 HSL
} 50mls = ICV/LCS

Combined IS/Surr 500 : 859886
Surrogate :
Internal Std :

Runlog-MSVOAr2 9/20/13
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Analysis: 8260 Waters | Analyst: K. Ruest | Tune Method: W111815A
Date: 12/1/15 | Data Path: j:\acqudata\msvoa2\12120115 | Run Method: ↓
Instr. 12 | LIMS Run#: 474290

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								MM8414		
2	TUNE		R1514847-01						MM8415	YT	(auto) 10:01
3	CCV		02						MM8416	YC	
4	LCS		03						MM8417	YQ	
5	VBLK		—						MM8418	@	vpt c/o
6	↓		↓ 04						MM8419	YB	
7	R1510266-009	1.0		Parsons	11603	4	1	CL	MM8420	Y	
8	↓ 005	1.0		DOD			1	CL	MM8421	Y	
9	R1510161-003	1.0					2	CL	MM8422	Y	
10	011	1.0					1	CL	MM8423	Y	
11	012	1.0					1	CL	MM8424	Y	
12	↓ 015	1.0				↓	1	CL	MM8425	Y	
13	R1510232-001	1.0		OBG	9145	2	1	CL	MM8426	Y	
14	↓ 002	1.0		↓	↓	↓	1	CL	MM8427	Y	
15	R1510266-005	1.0		Parsons	11603	4	1	CL	MM8428	Y	
16	006	1.0					1	CL	MM8429	Y	
17	007	1.0					1	CL	MM8430	Y	
18	003	2.5	20/50mls				1	CL	MM8431	@	vpt 1.0
19	↓ 004	20	2.5/50mls	↓	↓	↓	1	CL	MM8432	@	vpt 5.0
20	BLK						—	—	MM8433	—	
21	R1510364-001	1.0		CHD	6093	2	1	CL	MM8434	Y	
22	R1510232-002	1.0	MS	OBG	9145	2	2	CL	MM8435	YQ	
23	↓ 002	1.0	MSD	↓	↓	2	3	CL	MM8436	YQ	20:46 ✓
24	BLK						—	—	MM8437	—	

1730
KR 12/1/15

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500 Primary OCC : 855916
Primary HBO : 855871
Primary Fr+ : 855806 5uL → 50mls = CCV
Primary HSL : 86114
Primary TG : 855998

200 Secondary Fr+ : 85637 - 5uL
500 Secondary OCC : 855997
Secondary HBO : 855875 2uL } 50mls = LCS
Secondary TG : 860000
Secondary HSL : 859109

-10.6uL Combined IS/Surr 500 : 86137
Surrogate :
4.2uL Internal Std :
47ml vial = MS/D

Analysis: 8260 Waters
Analyst: K. Ruest
Tune Method: W111815A
Date: 12/2/15
Data Path: j:\acqudata\msvoa R1120215
Run Method: ↓
Instr. 12
LIMS Run# : 474505 (LL), 474506

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	TUNE		RQ1514883-01	Q14885-01					MM8459	YT	9:16
1	CCV		(LL) 02	02					MM8460	YC	
2	LCS		03	03					MM8461	YQ	
3	WBLK		–	–					MM8462	(N)	not c/o
4	↓		↓ 04	↓ 04					MM8463	YB	
5	R1510261-001	1.0		NASA-LL	6656	3	1	<2	MM8464	Y	
6	002	1.0					1	<2	MM8465	Y	
7	003	1.0					1	<2	MM8466	Y	
8	004	1.0					1	<2	MM8467	Y	
9	005	1.0					1	<2	MM8468	Y	
10	006	1.0					1	<2	MM8469	Y	
11	007	1.0					1	<2	MM8470	Y	
12	↓ 008	1.0		↓	↓	↓	1	<2	MM8471	Y	
13	R1510266-003	1.0		Parsons	11603	4	2	<2	MM8472	Y	
14	↓ 004	5.0	10/50mls	(DOD-4)	↓	↓	2	<2	MM8473	(N)	not 2.5 - (weak)
15	R15010361-001	1.0		OB6	9145	2	1	<2	MM8474	Y	
16	↓ 002	1.0		↓	↓	↓	1	<2	MM8475	Y	
17	R1510266-004	2.5	20/50mls	Parsons	11603	4	3	<2	MM8476	Y	
18	BLK						–	–	MM8477	–	
19	R1510262-001	1.0		NASA	6656	3	1	<2	MM8478	Y	
20	↓ 002	1.0		↓	↓	↓	1	<2	MM8479	Y	
21	↓ 003	1.0		↓	↓	↓	1	<2	MM8480	Y	
22	R1510354-001	10	5/50mls	Casella	8974	4	1	<2	MM8481	Y	Foamy
23	R1510261-008	1.0	MS RQ1514883-05	NASA-LL	6656	3	2	<2	MM8482	YQ	Run QL
24	↓ 008	1.0	MS ↓ 06	↓	↓	↓	3	<2	MM8483	YQ	out - 21:39 ↓
25	BLK						–	–	MM8484	–	

EOD
KR 12/2/15

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500 Primary OCC : 85996
Primary HBO : 85871
Primary Frt : 85806
Primary HSL : 86114
Primary TG : 85998
5uL → 50mls = CCV

200 Secondary Frt : 85637 - 5uL
500 Secondary OCC : 85997
Secondary HBO : 85875 2uL
Secondary TG : 86000
Secondary HSL : 85909
50mls = LCS
- 10.6uL
4.2uL
42ml vial = MS/D

Combined IS/Surr 500 : 86137
Surrogate :
Internal Std :

Runlog-MSVOAr2 9/20/13
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ALS Environmental

SEMI-VOLATILE ORGANICS
QC SUMMARY

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Analyzed: 12/ 9/15

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 250969

Analyte Name	Lab Control Sample RQ1514729-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1514729-03 Result	Spike Amount	% Rec		% Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	60.5	100	60	61.9	100	62		35 - 105	3	30
1,2-Dichlorobenzene	61.4	100	61	65.7	100	66		35 - 100	8	30
1,3-Dichlorobenzene	58.5	100	59	62.5	100	62		30 - 100	5	30
1,4-Dichlorobenzene	56.4	100	56	62.9	100	63		30 - 100	12	30
2,4,5-Trichlorophenol	94.5	100	94	100	100	100		50 - 110	6	30
2,4,6-Trichlorophenol	90.3	100	90	96.7	100	97		50 - 115	7	30
2,4-Dichlorophenol	91.3	100	91	88.6	100	89		50 - 105	2	30
2,4-Dimethylphenol	85.0	100	85	84.7	100	85		30 - 110	<1	30
2,4-Dinitrophenol	124	100	124	125	100	125		15 - 140	<1	30
2,4-Dinitrotoluene	116	100	116	122	100	122	*	50 - 120	5	30
2,6-Dinitrotoluene	107	100	107	112	100	112		50 - 115	5	30
2-Chloronaphthalene	76.0	100	76	83.7	100	84		50 - 105	10	30
2-Chlorophenol	77.8	100	78	82.8	100	83		35 - 105	6	30
2-Methylnaphthalene	70.2	100	70	73.4	100	73		45 - 105	4	30
2-Methylphenol	75.7	100	76	82.2	100	82		40 - 110	8	30
2-Nitroaniline	108	100	108	107	100	107		50 - 115	<1	30
2-Nitrophenol	97.5	100	98	98.7	100	99		40 - 115	1	30
3,3'-Dichlorobenzidine	76.9	100	77	78.4	100	78		20 - 110	1	30
3- and 4-Methylphenol Coelution	136	200	68	150	200	75		30 - 110	10	30
3-Nitroaniline	92.3	100	92	94.7	100	95		20 - 125	3	30
4,6-Dinitro-2-methylphenol	123	100	123	119	100	119		40 - 130	3	30
4-Bromophenyl Phenyl Ether	90.3	100	90	86.5	100	87		50 - 115	3	30
4-Chloro-3-methylphenol	92.5	100	92	93.8	100	94		45 - 110	2	30
4-Chloroaniline	78.1	100	78	76.1	100	76		15 - 110	3	30
4-Chlorophenyl Phenyl Ether	83.0	100	83	90.3	100	90		50 - 110	8	30
4-Nitroaniline	99.3	100	99	108	100	108		35 - 120	9	30
4-Nitrophenol	65.5	100	65	70.2	100	70		0 - 125	7	30
Acenaphthene	79.8	100	80	88.3	100	88		45 - 110	10	30
Acenaphthylene	80.1	100	80	86.1	100	86		50 - 105	7	30
Anthracene	93.4	100	93	87.3	100	87		55 - 110	7	30
Benz(a)anthracene	92.2	100	92	88.7	100	89		55 - 110	3	30
Benzidine	ND	100	0	* ND	100	0	*	10 - 130	NC	30
Benzo(a)pyrene	95.0	100	95	94.4	100	94		55 - 110	1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Analyzed: 12/ 9/15

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 250969

Analyte Name	Lab Control Sample RQ1514729-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1514729-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzo(b)fluoranthene	92.9	100	93	90.6	100	91	45 - 120	2	30
Benzo(g,h,i)perylene	101	100	101	98.7	100	99	40 - 125	2	30
Benzo(k)fluoranthene	90.5	100	90	90.9	100	91	45 - 125	1	30
Benzyl Alcohol	84.9	100	85	87.4	100	87	30 - 110	2	30
2,2'-Oxybis(1-chloropropane)	82.9	100	83	88.2	100	88	25 - 130	6	30
Bis(2-chloroethoxy)methane	85.8	100	86	86.4	100	86	45 - 105	<1	30
Bis(2-chloroethyl) Ether	76.4	100	76	76.9	100	77	35 - 110	1	30
Bis(2-ethylhexyl) Phthalate	95.2	100	95	95.5	100	96	40 - 125	1	30
Butyl Benzyl Phthalate	92.5	100	92	90.4	100	90	45 - 115	2	30
Carbazole	92.9	100	93	92.5	100	92	50 - 115	1	30
Chrysene	94.0	100	94	93.8	100	94	55 - 110	<1	30
Di-n-butyl Phthalate	95.4	100	95	95.5	100	95	55 - 115	<1	30
Di-n-octyl Phthalate	102	100	102	98.7	100	99	35 - 135	3	30
Dibenz(a,h)anthracene	97.7	100	98	97.4	100	97	40 - 125	1	30
Dibenzofuran	81.3	100	81	90.0	100	90	55 - 105	11	30
Diethyl Phthalate	93.5	100	94	103	100	103	40 - 120	9	30
Dimethyl Phthalate	95.1	100	95	101	100	101	25 - 125	6	30
Fluoranthene	97.3	100	97	94.4	100	94	55 - 115	3	30
Fluorene	87.2	100	87	91.5	100	91	50 - 110	4	30
Hexachlorobenzene	89.3	100	89	87.9	100	88	50 - 110	1	30
Hexachlorobutadiene	58.5	100	59	58.2	100	58	25 - 105	2	30
Hexachlorocyclopentadiene	63.0	100	63	66.6	100	67	10 - 130	6	30
Hexachloroethane	53.6	100	54	59.1	100	59	30 - 100	9	30
Indeno(1,2,3-cd)pyrene	95.9	100	96	97.5	100	98	45 - 125	2	30
Isophorone	93.6	100	94	94.2	100	94	50 - 110	<1	30
N-Nitrosodi-n-propylamine	89.5	100	89	94.1	100	94	35 - 130	5	30
N-Nitrosodimethylamine	51.9	100	52	55.4	100	55	25 - 110	6	30
N-Nitrosodiphenylamine	104	100	104	98.6	100	99	50 - 110	5	30
Naphthalene	70.7	100	71	73.2	100	73	40 - 110	3	30
Nitrobenzene	86.2	100	86	92.9	100	93	45 - 110	8	30
Pentachlorophenol (PCP)	104	100	104	99.4	100	99	40 - 115	5	30
Phenanthrene	95.4	100	95	92.1	100	92	50 - 115	3	30
Phenol	37.5	100	37	40.1	100	40	0 - 115	8	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Analyzed: 12/ 9/15

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 250969

Analyte Name	Lab Control Sample RQ1514729-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1514729-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Pyrene	103	100	103	101	100	101	50 - 130	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Analyzed:**	12/9/15 08:48
Sample Matrix:	Water	**Date Extracted:**	11/30/15

Method Blank Summary
Semivolatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Instrument ID:**	R-MS-51
Lab Code:	RQ1514729-01	**File ID:**	I:\ACQUDATA\5973A\DATA\120915\DC455.D\
Analytical Method:	8270D		
Prep Method:	EPA 3510C		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1514729-02	I:\ACQUDATA\5973A\DATA\120915\DC456.D\	12/9/15 09:15
Duplicate Lab Control Sample	RQ1514729-03	I:\ACQUDATA\5973A\DATA\120915\DC457.D\	12/9/15 09:42
FTMM-66-GW-886RW06-8.75	R1510266-001	I:\ACQUDATA\5973A\DATA\120915\DC462.D\	12/9/15 11:59
FTMM-66-GW-886RW01-11.9	R1510266-002	I:\ACQUDATA\5973A\DATA\120915\DC463.D\	12/9/15 12:26
EB-2015-11-23	R1510266-008	I:\ACQUDATA\5973A\DATA\120915\DC464.D\	12/9/15 12:53

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000

Service Request: R1510266
Date Analyzed: 12/4/15 11:23

Tune Summary
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973A\DATA\120415\DC309.D\
Instrument ID: R-MS-51

Analytical Method: 8270D
Analysis Lot: 475481

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	30.03	45295	Pass
68	69	0.00	2	0.00	0	Pass
69	198	0.00	100	35.89	54139	Pass
70	69	0.00	2	0.55	298	Pass
127	198	10	80	42.41	63971	Pass
197	198	0.00	2	0.00	0	Pass
198	198	100	100	100.00	150829	Pass
199	198	5	9	6.65	10033	Pass
275	198	10	60	23.23	35035	Pass
365	198	1	100	2.79	4208	Pass
441	442	0.01	24	17.38	28611	Pass
442	442	100	100	100.00	164619	Pass
443	442	15	24	19.33	31821	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
SSTD005	5 ppm STD	I:\ACQUDATA\5973A\DATA\120415\DC311.D\	12/4/15 12:18	
SSTD010	10 ppm STD	I:\ACQUDATA\5973A\DATA\120415\DC312.D\	12/4/15 12:45	
SSTD050	50 ppm STD	I:\ACQUDATA\5973A\DATA\120415\DC313.D\	12/4/15 13:11	
SSTD080	80 ppm STD	I:\ACQUDATA\5973A\DATA\120415\DC314.D\	12/4/15 13:38	
SSTD100	100 ppm STD	I:\ACQUDATA\5973A\DATA\120415\DC315.D\	12/4/15 14:05	
SSTD120	120 ppm STD	I:\ACQUDATA\5973A\DATA\120415\DC316.D\	12/4/15 14:31	
SST160	160 ppm STD	I:\ACQUDATA\5973A\DATA\120415\DC317.D\	12/4/15 14:58	
ICV	80 ppm STD	I:\ACQUDATA\5973A\DATA\120415\DC318.D\	12/4/15 15:26	
ICV	80 ppm STD	I:\ACQUDATA\5973A\DATA\120415\DC319.D\	12/4/15 15:53	

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000

Service Request: R1510266
Date Analyzed: 12/9/15 07:07

Tune Summary
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973A\DATA\120915\DC451.D\
Instrument ID: R-MS-51

Analytical Method: 8270D
Analysis Lot: 475853

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	30.36	40678	Pass
68	69	0.00	2	0.64	323	Pass
69	198	0.00	100	37.62	50405	Pass
70	69	0.00	2	0.00	0	Pass
127	198	10	80	41.02	54960	Pass
197	198	0.00	2	0.00	0	Pass
198	198	100	100	100.00	133984	Pass
199	198	5	9	6.65	8906	Pass
275	198	10	60	26.54	35555	Pass
365	198	1	100	2.95	3952	Pass
441	442	0.01	24	18.76	23074	Pass
442	442	100	100	100.00	122973	Pass
443	442	15	24	19.56	24057	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1515280-02	I:\ACQUDATA\5973A\DATA\120915\DC452.D\	12/9/15 07:27	
Method Blank	RQ1514729-01	I:\ACQUDATA\5973A\DATA\120915\DC455.D\	12/9/15 08:48	
Lab Control Sample	RQ1514729-02	I:\ACQUDATA\5973A\DATA\120915\DC456.D\	12/9/15 09:15	
Duplicate Lab Control Sample	RQ1514729-03	I:\ACQUDATA\5973A\DATA\120915\DC457.D\	12/9/15 09:42	
FTMM-66-GW-886RW06-8.75	R1510266-001	I:\ACQUDATA\5973A\DATA\120915\DC462.D\	12/9/15 11:59	
FTMM-66-GW-886RW01-11.9	R1510266-002	I:\ACQUDATA\5973A\DATA\120915\DC463.D\	12/9/15 12:26	
EB-2015-11-23	R1510266-008	I:\ACQUDATA\5973A\DATA\120915\DC464.D\	12/9/15 12:53	
Continuing Cal. VerificationCCVA	RQ1515280-03	I:\ACQUDATA\5973A\DATA\120915\DC477.D\	12/9/15 18:49	

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000

Service Request: R1510266
Date Analyzed: 12/9/15 07:27

Internal Standard Area and RT Summary
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973A\DATA\120915\DC452.D\
Instrument ID: R-MS-51
Analytical Method: 8270D

Lab Code: RQ1515280-02
Analysis Lot: 475853
Signal ID:

		1,4-Dichlorobenzene-d4		Acenaphthene-d10		Chrysene-d12	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	179,312	4.08	469,393	6.18	793,790	10.00
	Upper Limit ==>	358,624	4.58	938,786	6.68	1,587,580	10.50
	Lower Limit ==>	89,656	3.58	234,697	5.68	396,895	9.50
	ICAL Result ==>						
Associated Analyses							
Method Blank	RQ1514729-01	188,321	4.08	439,602	6.17	752,837	9.99
Lab Control Sample	RQ1514729-02	205,160	4.08	488,134	6.18	773,740	9.99
Duplicate Lab Control Sample	RQ1514729-03	178,301	4.08	421,490	6.18	714,483	9.99
FTMM-66-GW-886RW06-8.75	R1510266-001	155,742	4.08	351,917	6.17	611,464	9.98
FTMM-66-GW-886RW01-11.9	R1510266-002	145,117	4.08	323,240	6.17	546,809	9.99
EB-2015-11-23	R1510266-008	142,084	4.08	336,181	6.17	535,018	9.99
Continuing Cal. VerificationCCVA	RQ1515280-03	176,562	4.08	456,401	6.17	770,264	9.99

Results flagged with an asterisk (*) indicate values outside control criteria.

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QA/QC Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000

Service Request: R1510266
Date Analyzed: 12/9/15 07:27

Internal Standard Area and RT Summary
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973A\DATA\120915\DC452.D\
Instrument ID: R-MS-51
Analytical Method: 8270D

Lab Code: RQ1515280-02
Analysis Lot: 475853
Signal ID:

		Naphthalene-d8		Perylene-d12		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	729,683	4.94	816,737	12.71	738,901	7.23
	Upper Limit ==>	1,459,366	5.44	1,633,474	13.21	1,477,802	7.73
	Lower Limit ==>	364,842	4.44	408,369	12.21	369,451	6.73
	ICAL Result ==>						
Associated Analyses							
Method Blank	RQ1514729-01	747,224	4.94	844,090	12.72	733,374	7.24
Lab Control Sample	RQ1514729-02	812,771	4.94	804,114	12.72	770,390	7.24
Duplicate Lab Control Sample	RQ1514729-03	743,737	4.94	748,159	12.71	721,882	7.23
FTMM-66-GW-886RW06-8.75	R1510266-001	615,142	4.94	668,578	12.71	586,874	7.23
FTMM-66-GW-886RW01-11.9	R1510266-002	559,400	4.94	584,071	12.71	528,802	7.24
EB-2015-11-23	R1510266-008	590,469	4.94	631,375	12.71	563,058	7.23
Continuing Cal. VerificationCCVA	RQ1515280-03	752,742	4.94	812,694	12.72	729,381	7.24

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Environmental

SEMI-VOLATILE ORGANICS SAMPLE DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1341
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-66-GW-886RW06-8.75	**Units:**	µg/L
Lab Code:	R1510266-001	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
1,2,4-Trichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
1,2-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
1,3-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
1,4-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
2,4,5-Trichlorophenol	ND	U	9.4	5.0	1.8	1	11/30/15	12/9/15 11:59	250969	475853	
2,4,6-Trichlorophenol	ND	U	9.4	5.0	1.4	1	11/30/15	12/9/15 11:59	250969	475853	
2,4-Dichlorophenol	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 11:59	250969	475853	
2,4-Dimethylphenol	ND	U	9.4	5.0	1.5	1	11/30/15	12/9/15 11:59	250969	475853	
2,4-Dinitrophenol	ND	U	47	25	20	1	11/30/15	12/9/15 11:59	250969	475853	
2,4-Dinitrotoluene	ND	U	9.4	5.0	1.6	1	11/30/15	12/9/15 11:59	250969	475853	
2,6-Dinitrotoluene	ND	U	9.4	5.0	1.8	1	11/30/15	12/9/15 11:59	250969	475853	
2-Chloronaphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
2-Chlorophenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
2-Methylnaphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
2-Methylphenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
2-Nitroaniline	ND	U	47	25	9.1	1	11/30/15	12/9/15 11:59	250969	475853	
2-Nitrophenol	ND	U	9.4	5.0	1.4	1	11/30/15	12/9/15 11:59	250969	475853	
3,3'-Dichlorobenzidine	ND	U	9.4	5.0	4.5	1	11/30/15	12/9/15 11:59	250969	475853	
3- and 4-Methylphenol Coelution	ND	U	10	10	2.0	1	11/30/15	12/9/15 11:59	250969	475853	
3-Nitroaniline	ND	U	47	25	7.7	1	11/30/15	12/9/15 11:59	250969	475853	
4,6-Dinitro-2-methylphenol	ND	U	47	25	11	1	11/30/15	12/9/15 11:59	250969	475853	
4-Bromophenyl Phenyl Ether	ND	U	9.4	5.0	2.2	1	11/30/15	12/9/15 11:59	250969	475853	
4-Chloro-3-methylphenol	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 11:59	250969	475853	
4-Chloroaniline	ND	U	9.4	5.0	1.5	1	11/30/15	12/9/15 11:59	250969	475853	
4-Chlorophenyl Phenyl Ether	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 11:59	250969	475853	
4-Nitroaniline	ND	U	47	25	7.8	1	11/30/15	12/9/15 11:59	250969	475853	
4-Nitrophenol	ND	U	47	25	5.9	1	11/30/15	12/9/15 11:59	250969	475853	
Acenaphthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Acenaphthylene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Anthracene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Benz(a)anthracene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Benzidine	ND	U	100	100	90	1	11/30/15	12/9/15 11:59	250969	475853	
Benzo(a)pyrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Benzo(b)fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Benzo(g,h,i)perylene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Benzo(k)fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Collected: 11/23/15 1341
Date Received: 11/25/15

Sample Name: FTMM-66-GW-886RW06-8.75
Lab Code: R1510266-001

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 11:59	250969	475853	
2,2'-Oxybis(1-chloropropane)	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Bis(2-chloroethoxy)methane	ND	U	9.4	5.0	2.2	1	11/30/15	12/9/15 11:59	250969	475853	
Bis(2-chloroethyl) Ether	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 11:59	250969	475853	
Bis(2-ethylhexyl) Phthalate	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 11:59	250969	475853	
Butyl Benzyl Phthalate	ND	U	9.4	5.0	2.4	1	11/30/15	12/9/15 11:59	250969	475853	
Carbazole	ND	U	9.4	5.0	1.1	1	11/30/15	12/9/15 11:59	250969	475853	
Chrysene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Di-n-butyl Phthalate	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Di-n-octyl Phthalate	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 11:59	250969	475853	
Dibenz(a,h)anthracene	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 11:59	250969	475853	
Dibenzofuran	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Diethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Dimethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Fluorene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Hexachlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Hexachlorobutadiene	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 11:59	250969	475853	
Hexachlorocyclopentadiene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Hexachloroethane	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 11:59	250969	475853	
Indeno(1,2,3-cd)pyrene	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 11:59	250969	475853	
Isophorone	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
N-Nitrosodi-n-propylamine	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 11:59	250969	475853	
N-Nitrosodimethylamine	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
N-Nitrosodiphenylamine	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Naphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Nitrobenzene	ND	U	9.4	5.0	1.6	1	11/30/15	12/9/15 11:59	250969	475853	
Pentachlorophenol (PCP)	ND	U	47	25	6.9	1	11/30/15	12/9/15 11:59	250969	475853	
Phenanthrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Phenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	
Pyrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 11:59	250969	475853	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1341
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-66-GW-886RW06-8.75	**Units:**	Percent
Lab Code:	R1510266-001	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	123	40-125	12/9/15 11:59	
2-Fluorobiphenyl	98	50-110	12/9/15 11:59	
2-Fluorophenol	52	20-110	12/9/15 11:59	
Nitrobenzene-d5	97	40-110	12/9/15 11:59	
Phenol-d6	38	10-115	12/9/15 11:59	
p-Terphenyl-d14	94	50-135	12/9/15 11:59	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Extracted:	11/30/15
		Date Analyzed:	12/9/15 1159

Tentatively Identified Compounds (TIC)
Semivolatile Organic Compounds by GC/MS

Sample Name:	FTMM-66-GW-886RW06-8.75	**Units:**	µg/L
Lab Code:	R1510266-001	**Basis:**	NA

Prep Method: EPA 3510C
Analytical Method: 8270D

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC462.D Vial: 13
Acq On : 9 Dec 2015 11:59 am Operator: J.Misiurewicz
Sample : R1510266-001 Inst : 5973-A
Misc : 250969 8270D Parson TCL + IV TICs DOD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:41 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

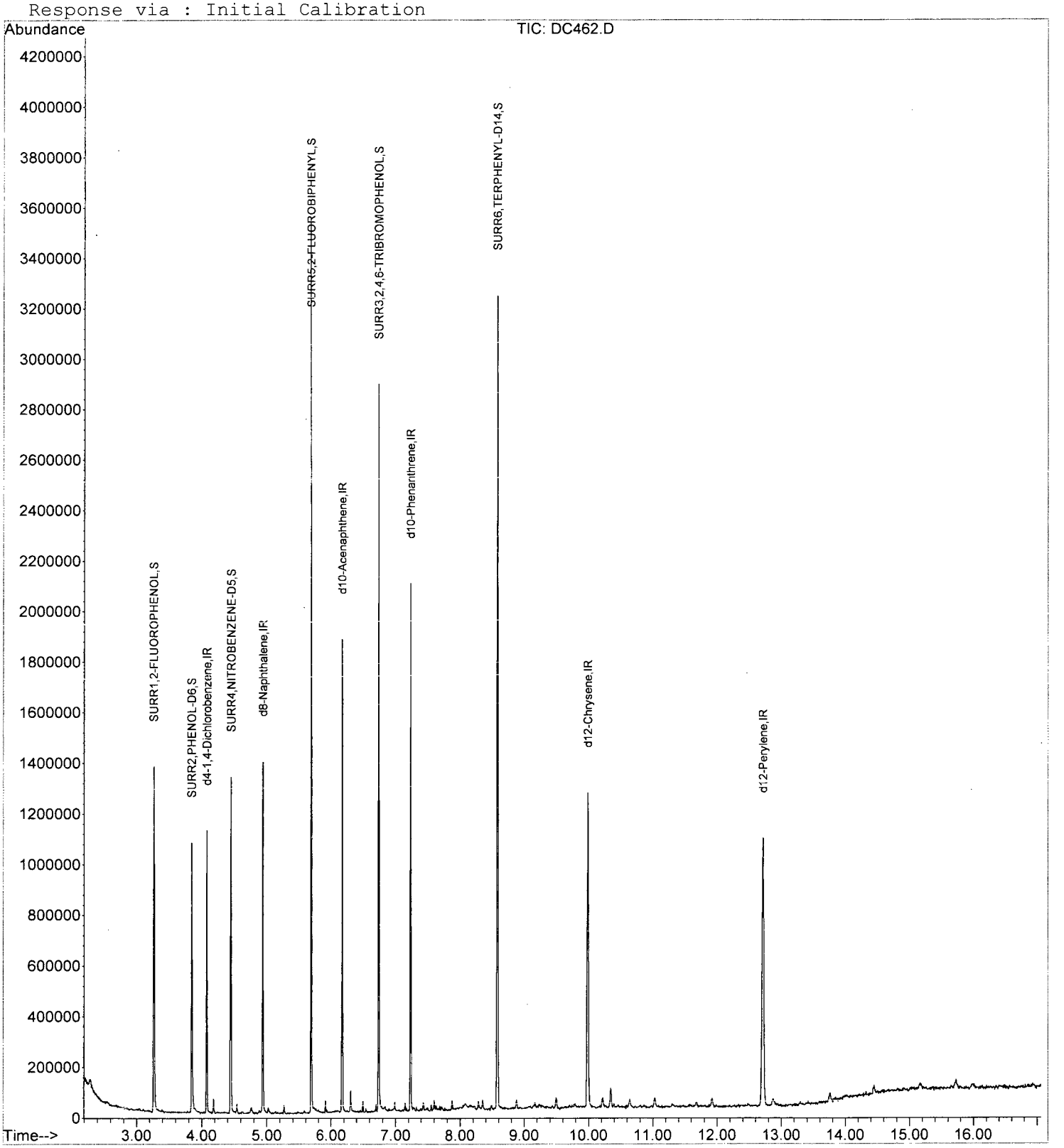
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	4.08	152	155742	40.00	ppm	-0.01
22) d8-Naphthalene	4.94	136	615142	40.00	ppm	0.00
39) d10-Acenaphthene	6.17	164	351917	40.00	ppm	-0.01
61) d10-Phenanthrene	7.23	188	586874	40.00	ppm	-0.01
74) d12-Chrysene	9.98	240	611464	40.00	ppm	-0.02
83) d12-Perylene	12.71	264	668578	40.00	ppm	-0.02
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.27	112	411534	103.53	ppm	-0.01
Spiked Amount 200.000	Range 10 - 105		Recovery = 51.77%			
7) SURR2,PHENOL-D6	3.85	99	376720	75.96	ppm	-0.01
Spiked Amount 200.000	Range 10 - 107		Recovery = 37.98%			
23) SURR4,NITROBENZENE-D5	4.45	82	373605	97.39	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 97.39%			
43) SURR5,2-FLUOROBIPHENYL	5.68	172	883806	98.33	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 98.33%			
60) SURR3,2,4,6-TRIBROMOPHENOL	6.74	330	288950	245.97	ppm	-0.01
Spiked Amount 200.000	Range 28 - 157		Recovery = 122.98%			
77) SURR6,TERPHENYL-D14	8.58	244	1038527	93.86	ppm	-0.01
Spiked Amount 100.000	Range 40 - 133		Recovery = 93.86%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
DC462.D 82701204.M Fri Dec 11 07:41:51 2015

Data File : I:\ACQUDATA\5973A\DATA\120915\DC462.D Vial: 13
Acq On : 9 Dec 2015 11:59 am Operator: J.Misiurewicz
Sample : R1510266-001 Inst : 5973-A
Misc : 250969 8270D Parson TCL + IV TICs DOD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:41 2015 Quant Results File: 82701204.RES

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration



DC462.D 82701204.M Fri Dec 11 07:41:53 2015 Page 2

Tentatively Identified Compound (LSC) summary

Operator ID: J.Misiurewicz Date Acquired: 9 Dec 2015 11:59 am
Data File: I:\ACQUDATA\5973A\DATA\120915\DC462.D
Name: R1510266-001
Misc: 250969 8270D Parson TCL + IV TICs DOD
Method: I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title: 8270 BNA ANALYSIS
Library Searched: C:\DATABASE\NIST08.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

DC462.D 82701204.M Fri Dec 11 09:32:14 2015

LSC Area Percent Report

Data File : I:\ACQUDATA\5973A\DATA\120915\DC462.D Vial: 13
Acq On : 9 Dec 2015 11:59 am Operator: J.Misiurewicz
Sample : R1510266-001 Inst : 5973-A
Misc : 250969 8270D Parson TCL + IV TICs DOD Multiplr: 1.00
MS Integration Params: TEBINT.P

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 25000 Area counts
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

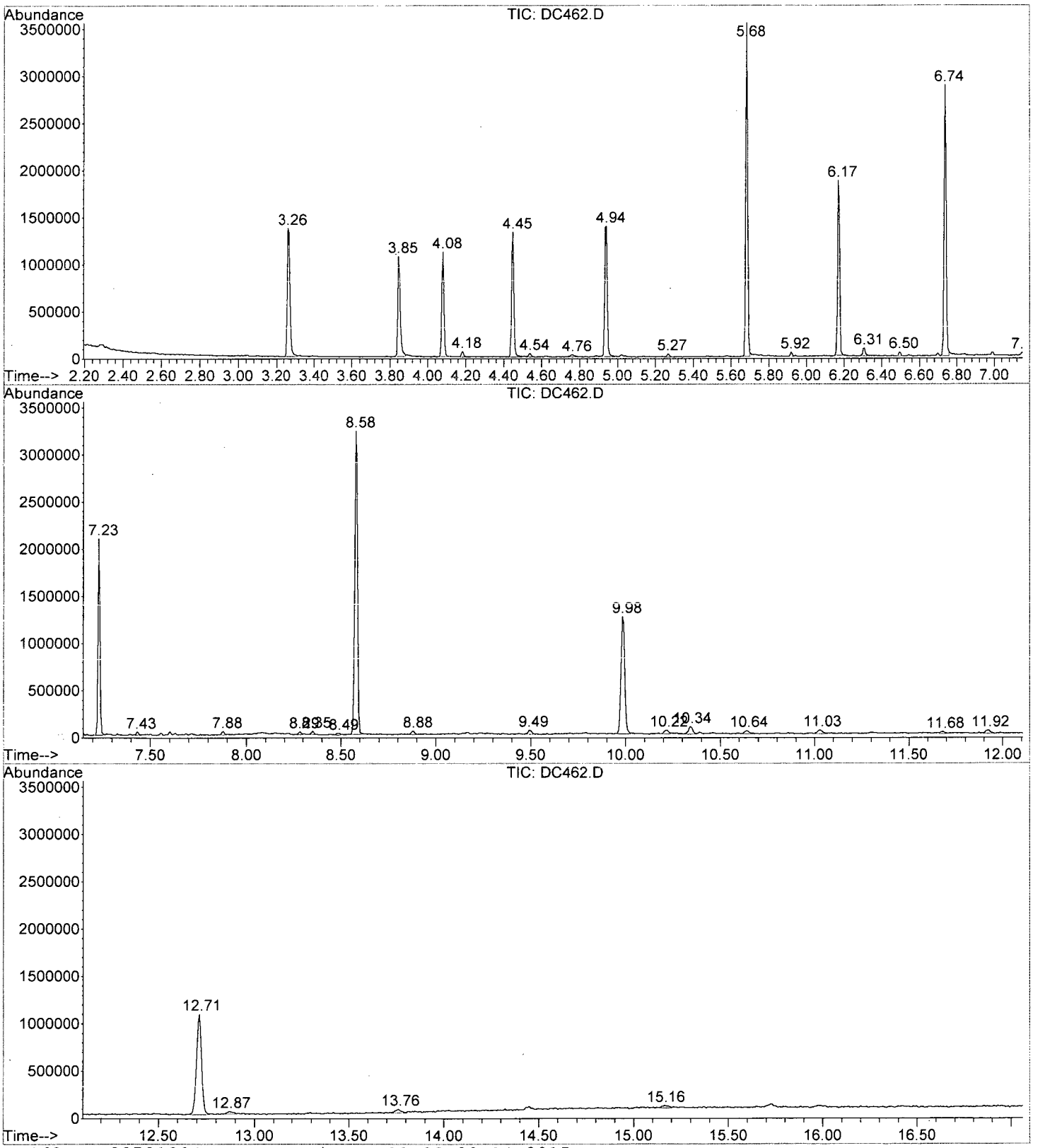
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.263	198	201	210	rBV	1358726	1333036	41.69%	6.320%
2	3.846	307	310	317	rBV	1061107	948277	29.66%	4.496%
3	4.081	350	354	360	rBV	1111359	872277	27.28%	4.136%
4	4.182	370	373	378	rVB2	58058	49876	1.56%	0.236%
5	4.449	419	423	432	rBV	1325466	1111578	34.76%	5.270%
6	4.540	436	440	444	rVB4	35995	34404	1.08%	0.163%
7	4.765	476	482	489	rVB5	23171	37909	1.19%	0.180%
8	4.941	511	515	523	rVB	1383570	1212847	37.93%	5.750%
9	5.267	573	576	581	rBV2	34608	33096	1.04%	0.157%
10	5.683	650	654	657	rBV	3538984	2458742	76.89%	11.657%
11	5.919	696	698	701	rBV	47476	32807	1.03%	0.156%
12	6.170	742	745	749	rBV	1857134	1435866	44.90%	6.808%
13	6.309	767	771	776	rBV3	82787	80897	2.53%	0.384%
14	6.495	803	806	809	rVB	44250	33060	1.03%	0.157%
15	6.736	847	851	855	rBV	2872714	2201503	68.85%	10.438%
16	7.147	924	928	931	rBV3	33069	30059	0.94%	0.143%
17	7.233	940	944	948	rBV	2078942	1498112	46.85%	7.103%
18	7.430	979	981	985	rVB3	30944	26788	0.84%	0.127%
19	7.879	1062	1065	1068	rBV3	36342	31867	1.00%	0.151%
20	8.285	1137	1141	1144	rBV6	31220	31313	0.98%	0.148%
21	8.349	1150	1153	1156	rVB3	33379	30289	0.95%	0.144%
22	8.493	1175	1180	1181	rBV5	20246	26219	0.82%	0.124%
23	8.579	1191	1196	1201	rBV	3214430	3197671	100.00%	15.161%
24	8.883	1248	1253	1256	rBV2	35595	43353	1.36%	0.206%
25	9.492	1361	1367	1372	rBV3	42949	61779	1.93%	0.293%
26	9.984	1453	1459	1467	rBV	1238315	1722003	53.85%	8.164%
27	10.219	1497	1503	1507	rBV4	39999	63349	1.98%	0.300%
28	10.342	1519	1526	1532	rBV3	77957	119671	3.74%	0.567%
29	10.641	1575	1582	1590	rBV3	34039	60214	1.88%	0.285%
30	11.031	1648	1655	1662	rBV9	40283	76544	2.39%	0.363%
31	11.683	1773	1777	1781	rVB6	20612	30365	0.95%	0.144%
32	11.923	1817	1822	1828	rVB8	35915	64830	2.03%	0.307%
33	12.714	1960	1970	1979	rBV	1056718	1909317	59.71%	9.052%
34	12.869	1994	1999	2006	rBV9	25524	53456	1.67%	0.253%
35	13.761	2159	2166	2174	rBV9	38486	81592	2.55%	0.387%
36	15.160	2424	2428	2436	rVB10	25292	56761	1.78%	0.269%

Sum of corrected areas: 21091727

DC462.D 82701204.M Fri Dec 11 09:32:12 2015

LSC Report - Integrated Chromatogram

File : I:\ACQUDATA\5973A\DATA\120915\DC462.D
Operator : J.Misiurewicz
Acquired : 9 Dec 2015 11:59 am using AcqMethod 82701204
Instrument : 5973-A
Sample Name: R1510266-001
Misc Info : 250969 8270D Parson TCL + IV TICs DOD
Vial Number: 13
Quant File :82701204.RES (RTE Integrator)



DC462.D 82701204.M Fri Dec 11 09:32:14 2015

Analytical Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Collected: 11/23/15 1355
Date Received: 11/25/15

Sample Name: FTMM-66-GW-886RW01-11.9
Lab Code: R1510266-002

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
1,2,4-Trichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
1,2-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
1,3-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
1,4-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
2,4,5-Trichlorophenol	ND	U	9.4	5.0	1.8	1	11/30/15	12/9/15 12:26	250969	475853	
2,4,6-Trichlorophenol	ND	U	9.4	5.0	1.4	1	11/30/15	12/9/15 12:26	250969	475853	
2,4-Dichlorophenol	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:26	250969	475853	
2,4-Dimethylphenol	ND	U	9.4	5.0	1.5	1	11/30/15	12/9/15 12:26	250969	475853	
2,4-Dinitrophenol	ND	U	47	25	20	1	11/30/15	12/9/15 12:26	250969	475853	
2,4-Dinitrotoluene	ND	U	9.4	5.0	1.6	1	11/30/15	12/9/15 12:26	250969	475853	
2,6-Dinitrotoluene	ND	U	9.4	5.0	1.8	1	11/30/15	12/9/15 12:26	250969	475853	
2-Chloronaphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
2-Chlorophenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
2-Methylnaphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
2-Methylphenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
2-Nitroaniline	ND	U	47	25	9.1	1	11/30/15	12/9/15 12:26	250969	475853	
2-Nitrophenol	ND	U	9.4	5.0	1.4	1	11/30/15	12/9/15 12:26	250969	475853	
3,3'-Dichlorobenzidine	ND	U	9.4	5.0	4.5	1	11/30/15	12/9/15 12:26	250969	475853	
3- and 4-Methylphenol Coelution	ND	U	10	10	2.0	1	11/30/15	12/9/15 12:26	250969	475853	
3-Nitroaniline	ND	U	47	25	7.7	1	11/30/15	12/9/15 12:26	250969	475853	
4,6-Dinitro-2-methylphenol	ND	U	47	25	11	1	11/30/15	12/9/15 12:26	250969	475853	
4-Bromophenyl Phenyl Ether	ND	U	9.4	5.0	2.2	1	11/30/15	12/9/15 12:26	250969	475853	
4-Chloro-3-methylphenol	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:26	250969	475853	
4-Chloroaniline	ND	U	9.4	5.0	1.5	1	11/30/15	12/9/15 12:26	250969	475853	
4-Chlorophenyl Phenyl Ether	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:26	250969	475853	
4-Nitroaniline	ND	U	47	25	7.8	1	11/30/15	12/9/15 12:26	250969	475853	
4-Nitrophenol	ND	U	47	25	5.9	1	11/30/15	12/9/15 12:26	250969	475853	
Acenaphthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Acenaphthylene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Anthracene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Benz(a)anthracene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Benzidine	ND	U	100	100	90	1	11/30/15	12/9/15 12:26	250969	475853	
Benzo(a)pyrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Benzo(b)fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Benzo(g,h,i)perylene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Benzo(k)fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Collected: 11/23/15 1355
Date Received: 11/25/15

Sample Name: FTMM-66-GW-886RW01-11.9
Lab Code: R1510266-002

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:26	250969	475853	
2,2'-Oxybis(1-chloropropane)	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Bis(2-chloroethoxy)methane	ND	U	9.4	5.0	2.2	1	11/30/15	12/9/15 12:26	250969	475853	
Bis(2-chloroethyl) Ether	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:26	250969	475853	
Bis(2-ethylhexyl) Phthalate	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:26	250969	475853	
Butyl Benzyl Phthalate	ND	U	9.4	5.0	2.4	1	11/30/15	12/9/15 12:26	250969	475853	
Carbazole	ND	U	9.4	5.0	1.1	1	11/30/15	12/9/15 12:26	250969	475853	
Chrysene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Di-n-butyl Phthalate	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Di-n-octyl Phthalate	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:26	250969	475853	
Dibenz(a,h)anthracene	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:26	250969	475853	
Dibenzofuran	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Diethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Dimethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Fluorene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Hexachlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Hexachlorobutadiene	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:26	250969	475853	
Hexachlorocyclopentadiene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Hexachloroethane	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:26	250969	475853	
Indeno(1,2,3-cd)pyrene	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:26	250969	475853	
Isophorone	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
N-Nitrosodi-n-propylamine	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:26	250969	475853	
N-Nitrosodimethylamine	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
N-Nitrosodiphenylamine	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Naphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Nitrobenzene	ND	U	9.4	5.0	1.6	1	11/30/15	12/9/15 12:26	250969	475853	
Pentachlorophenol (PCP)	ND	U	47	25	6.9	1	11/30/15	12/9/15 12:26	250969	475853	
Phenanthrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Phenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	
Pyrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:26	250969	475853	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1355
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	FTMM-66-GW-886RW01-11.9	**Units:**	Percent
Lab Code:	R1510266-002	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	109	40-125	12/9/15 12:26	
2-Fluorobiphenyl	85	50-110	12/9/15 12:26	
2-Fluorophenol	41	20-110	12/9/15 12:26	
Nitrobenzene-d5	83	40-110	12/9/15 12:26	
Phenol-d6	28	10-115	12/9/15 12:26	
p-Terphenyl-d14	82	50-135	12/9/15 12:26	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Extracted:	11/30/15
		Date Analyzed:	12/9/15 1226

Tentatively Identified Compounds (TIC)
Semivolatile Organic Compounds by GC/MS

Sample Name:	FTMM-66-GW-886RW01-11.9	**Units:**	µg/L
Lab Code:	R1510266-002	**Basis:**	NA

Prep Method: EPA 3510C
Analytical Method: 8270D

CAS #	Analyte Name	RT	Result	Q
000105-60-2	Caprolactam	5.22	**18**	JN

Comments:

Data File : I:\ACQUDATA\5973A\DATA\120915\DC463.D Vial: 14
Acq On : 9 Dec 2015 12:26 pm Operator: J.Misiurewicz
Sample : R1510266-002 Inst : 5973-A
Misc : 250969 8270D Parson TCL + IV TICs DOD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:44 2015 Quant Results File: 82701204.RES

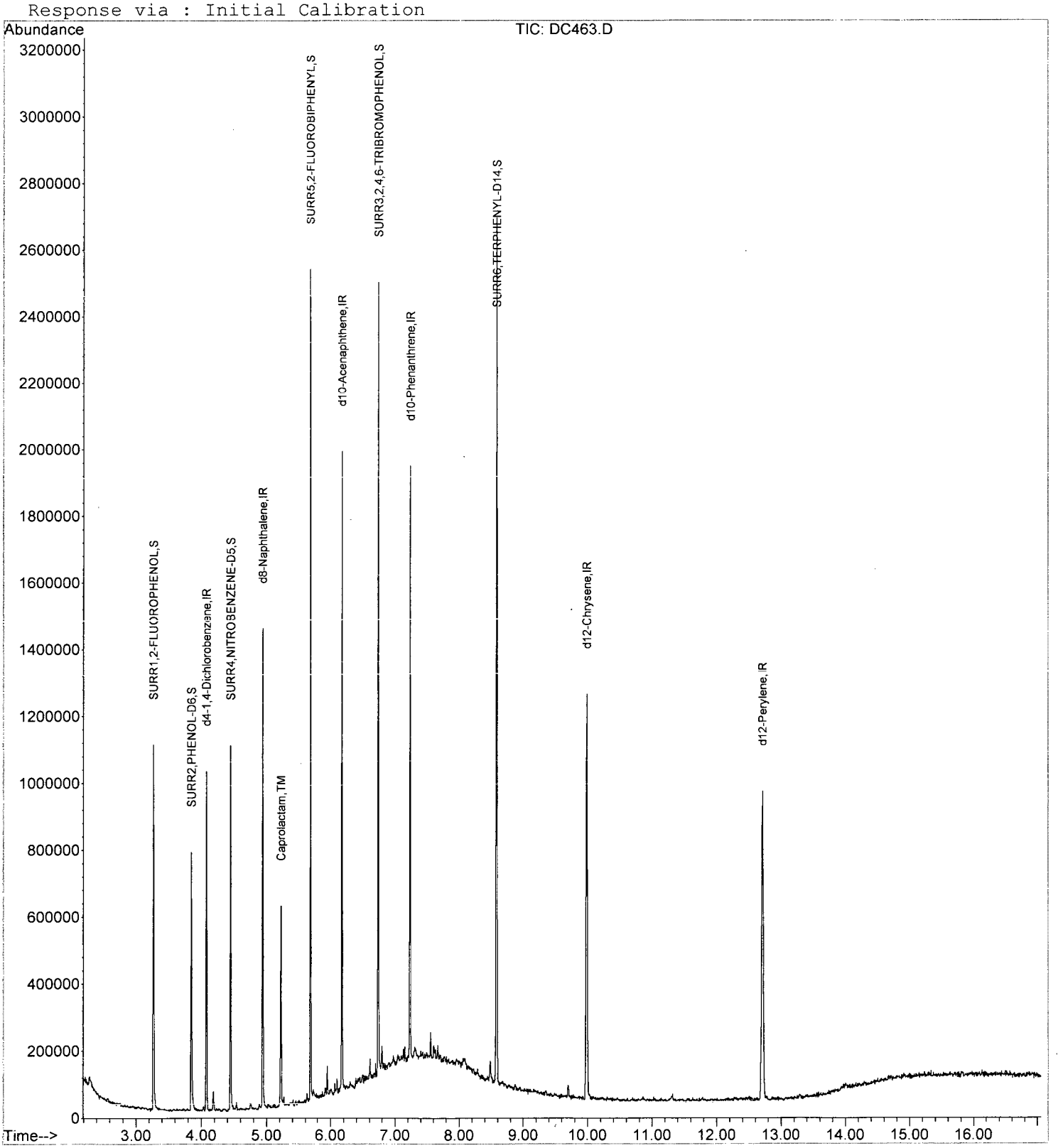
Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	4.08	152	145117	40.00	ppm	-0.01
22) d8-Naphthalene	4.94	136	559400	40.00	ppm	-0.01
39) d10-Acenaphthene	6.17	164	323240	40.00	ppm	-0.01
61) d10-Phenanthrene	7.24	188	528802	40.00	ppm	0.00
74) d12-Chrysene	9.99	240	546809	40.00	ppm	-0.02
83) d12-Perylene	12.71	264	584071	40.00	ppm	-0.02
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.27	112	305164	82.39	ppm	-0.01
Spiked Amount 200.000	Range 10 - 105		Recovery = 41.20%			
7) SURR2,PHENOL-D6	3.85	99	262749	56.86	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 28.43%			
23) SURR4,NITROBENZENE-D5	4.45	82	289997	83.13	ppm	-0.01
Spiked Amount 100.000	Range 37 - 117		Recovery = 83.13%			
43) SURR5,2-FLUOROBIPHENYL	5.69	172	702203	85.06	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 85.06%			
60) SURR3,2,4,6-TRIBROMOPHENOL	6.74	330	234236	217.08	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 108.54%			
77) SURR6,TERPHENYL-D14	8.58	244	813010	82.16	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 82.16%			
Target Compounds						Qvalue
36) Caprolactam	5.22	113	72078	60.71	ppm	94

(#) = qualifier out of range (m) = manual integration
DC463.D 82701204.M Fri Dec 11 07:44:40 2015 Page 1

Data File : I:\ACQUDATA\5973A\DATA\120915\DC463.D Vial: 14
Acq On : 9 Dec 2015 12:26 pm Operator: J.Misiurewicz
Sample : R1510266-002 Inst : 5973-A
Misc : 250969 8270D Parson TCL + IV TICs DOD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:44 2015 Quant Results File: 82701204.RES

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration



DC463.D 82701204.M Fri Dec 11 07:44:41 2015 Page 2

Tentatively Identified Compound (LSC) summary

Operator ID: J.Misiurewicz Date Acquired: 9 Dec 2015 12:26 pm
Data File: I:\ACQUDATA\5973A\DATA\120915\DC463.D
Name: R1510266-002
Misc: 250969 8270D Parson TCL + IV TICs DOD
Method: I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title: 8270 BNA ANALYSIS
Library Searched: C:\DATABASE\NIST08.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Caprolactam	5.22	18.6	ppm	519988	ISTD02	4.94	1120980	40.0

DC463.D 82701204.M Fri Dec 11 10:25:53 2015

LSC Area Percent Report

Data File : I:\ACQUDATA\5973A\DATA\120915\DC463.D Vial: 14
Acq On : 9 Dec 2015 12:26 pm Operator: J.Misiurewicz
Sample : R1510266-002 Inst : 5973-A
Misc : 250969 8270D Parson TCL + IV TICs DOD Multiplr: 1.00
MS Integration Params: TEBINT.P

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 25000 Area counts
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

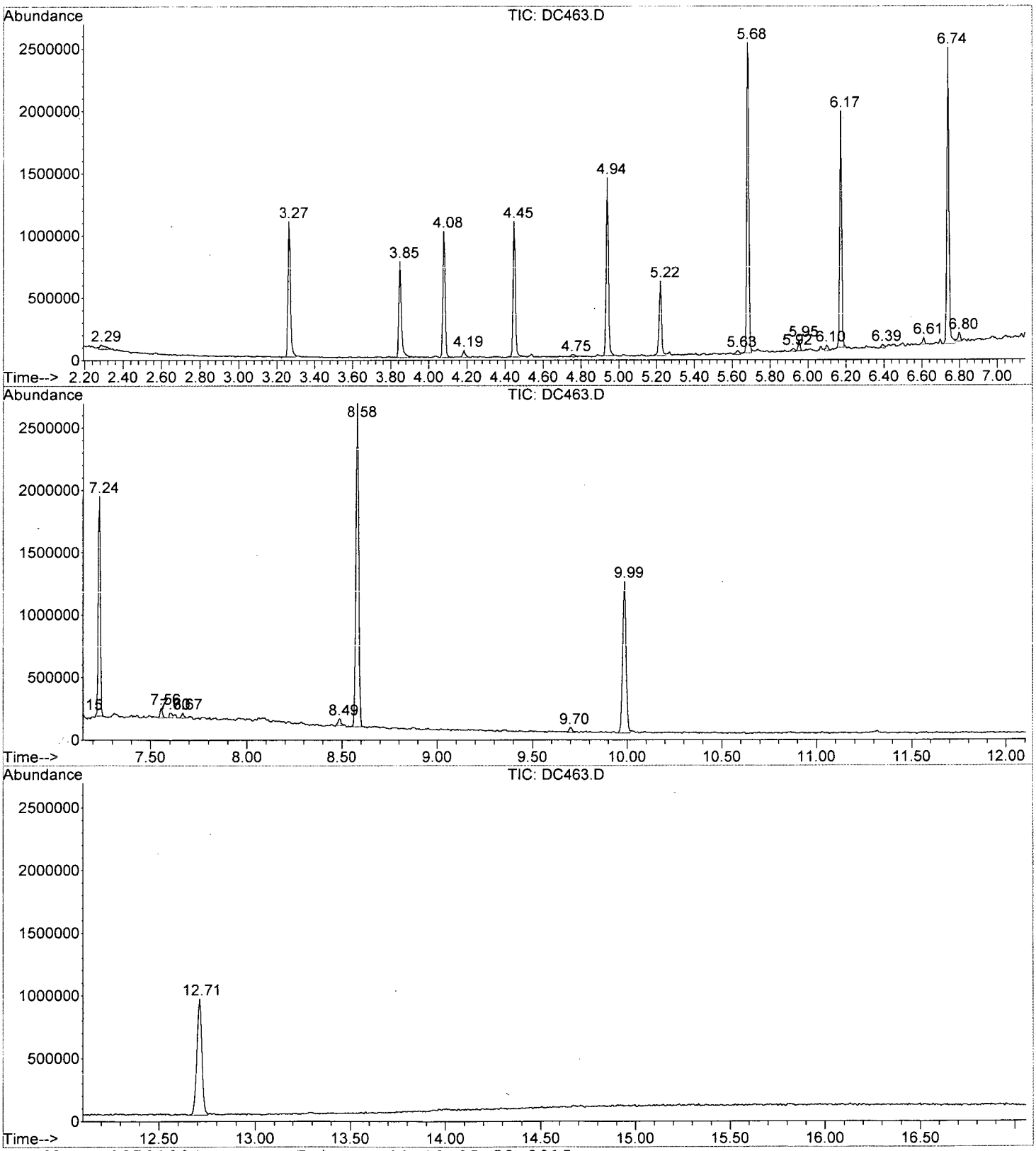
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.289	16	19	28	rVB5	33495	69443	2.85%	0.390%
2	3.266	199	202	209	rBV	1087996	984100	40.34%	5.523%
3	3.849	307	311	321	rBV	771271	700491	28.72%	3.931%
4	4.078	351	354	361	rVB	1013842	816145	33.46%	4.580%
5	4.185	370	374	378	rBV2	56126	48871	2.00%	0.274%
6	4.447	420	423	429	rBV	1087516	863109	35.38%	4.844%
7	4.751	474	480	486	rBV7	17542	26515	1.09%	0.149%
8	4.938	511	515	522	rBV	1429273	1120983	45.96%	6.291%
9	5.222	562	568	573	rBV	598615	519988	21.32%	2.918%
10	5.628	640	644	647	rBV5	30552	38058	1.56%	0.214%
11	5.681	651	654	658	rBV	2487585	1973705	80.91%	11.076%
12	5.921	696	699	702	rBV4	24407	26916	1.10%	0.151%
13	5.953	702	705	708	rVV3	84472	58091	2.38%	0.326%
14	6.098	730	732	735	rVB4	43204	34229	1.40%	0.192%
15	6.172	743	746	749	rBV	1896382	1306324	53.55%	7.331%
16	6.391	785	787	790	rBV4	26088	25984	1.07%	0.146%
17	6.611	825	828	831	rVB5	57000	40660	1.67%	0.228%
18	6.739	848	852	859	rBV	2376348	1840033	75.43%	10.326%
19	6.797	861	863	866	rVB3	66982	55441	2.27%	0.311%
20	7.150	927	929	933	rVB5	45855	39571	1.62%	0.222%
21	7.236	941	945	948	rVB	1757916	1351953	55.42%	7.587%
22	7.556	1002	1005	1008	rVB2	76617	60654	2.49%	0.340%
23	7.604	1011	1014	1016	rBV3	36947	36697	1.50%	0.206%
24	7.668	1024	1026	1030	rVB5	42186	31243	1.28%	0.175%
25	8.486	1176	1179	1183	rVB3	52130	54063	2.22%	0.303%
26	8.582	1192	1197	1202	rVB	2588395	2439251	100.00%	13.689%
27	9.698	1403	1406	1411	rBV5	38235	47196	1.93%	0.265%
28	9.987	1453	1460	1466	rBV	1212664	1549654	63.53%	8.696%
29	12.711	1960	1970	1978	rBV2	924157	1660295	68.07%	9.317%

Sum of corrected areas: 17819663

DC463.D 82701204.M Fri Dec 11 10:25:50 2015

LSC Report - Integrated Chromatogram

File : I:\ACQUDATA\5973A\DATA\120915\DC463.D
Operator : J.Misiurewicz
Acquired : 9 Dec 2015 12:26 pm using AcqMethod 82701204
Instrument : 5973-A
Sample Name: R1510266-002
Misc Info : 250969 8270D Parson TCL + IV TICs DOD
Vial Number: 14
Quant File :82701204.RES (RTE Integrator)



DC463.D 82701204.M Fri Dec 11 10:25:52 2015

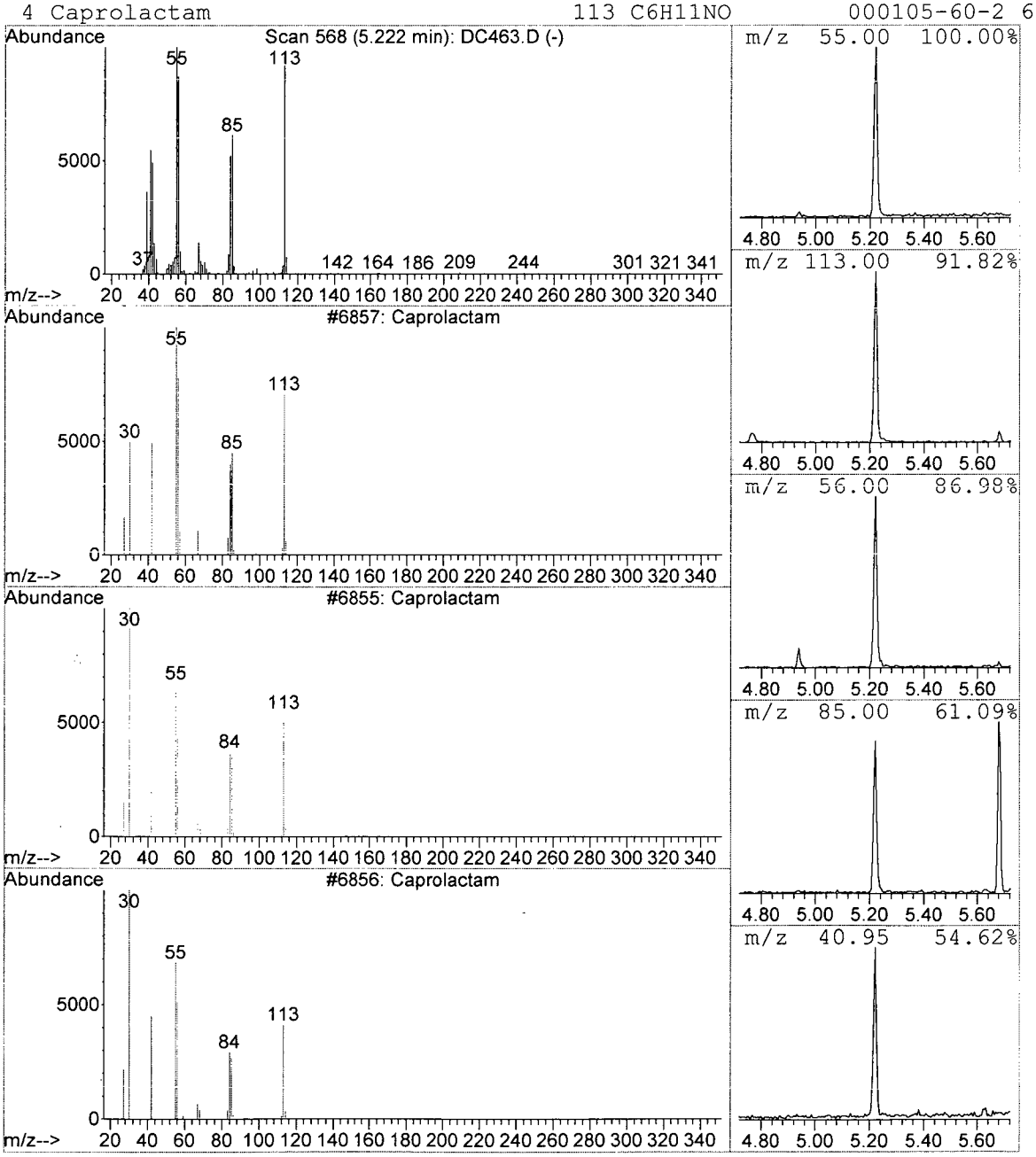
Library Search Compound Report

```
  Data File : I:\ACQUDATA\5973A\DATA\120915\DC463.D        Vial: 14
  Acq On    :  9 Dec 2015  12:26 pm                    Operator: J.Misiurewicz
  Sample    : R1510266-002                             Inst    : 5973-A
  Misc      : 250969 8270D Parson TCL + IV TICs DOD    Multiplr: 1.00
  MS Integration Params: TEBINT.P

  Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
  Title        : 8270 BNA ANALYSIS
  Library      : C:\DATABASE\NIST08.L
**********************************************************************
Peak Number  1  Caprolactam                    Concentration Rank  1

  R.T.    EstConc           Area       Relative to ISTD         R.T.
----------------------------------------------------------------------
  5.22    18.55 ppm         519988     d8-Naphthalene            4.94

 Hit# of  5    Tentative ID                MW  MolForm       CAS#       Qual
----------------------------------------------------------------------------
 1 Caprolactam                            113 C6H11NO       000105-60-2 97
 2 Caprolactam                            113 C6H11NO       000105-60-2 93
 3 Caprolactam                            113 C6H11NO       000105-60-2 74
 4 Caprolactam                            113 C6H11NO       000105-60-2 68
```



Analytical Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Collected: 11/23/15 1600
Date Received: 11/25/15

Sample Name: EB-2015-11-23
Lab Code: R1510266-008

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
1,2,4-Trichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
1,2-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
1,3-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
1,4-Dichlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
2,4,5-Trichlorophenol	ND	U	9.4	5.0	1.8	1	11/30/15	12/9/15 12:53	250969	475853	
2,4,6-Trichlorophenol	ND	U	9.4	5.0	1.4	1	11/30/15	12/9/15 12:53	250969	475853	
2,4-Dichlorophenol	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:53	250969	475853	
2,4-Dimethylphenol	ND	U	9.4	5.0	1.5	1	11/30/15	12/9/15 12:53	250969	475853	
2,4-Dinitrophenol	ND	U	47	25	20	1	11/30/15	12/9/15 12:53	250969	475853	
2,4-Dinitrotoluene	ND	U	9.4	5.0	1.6	1	11/30/15	12/9/15 12:53	250969	475853	
2,6-Dinitrotoluene	ND	U	9.4	5.0	1.8	1	11/30/15	12/9/15 12:53	250969	475853	
2-Chloronaphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
2-Chlorophenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
2-Methylnaphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
2-Methylphenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
2-Nitroaniline	ND	U	47	25	9.1	1	11/30/15	12/9/15 12:53	250969	475853	
2-Nitrophenol	ND	U	9.4	5.0	1.4	1	11/30/15	12/9/15 12:53	250969	475853	
3,3'-Dichlorobenzidine	ND	U	9.4	5.0	4.5	1	11/30/15	12/9/15 12:53	250969	475853	
3- and 4-Methylphenol Coelution	ND	U	10	10	2.0	1	11/30/15	12/9/15 12:53	250969	475853	
3-Nitroaniline	ND	U	47	25	7.7	1	11/30/15	12/9/15 12:53	250969	475853	
4,6-Dinitro-2-methylphenol	ND	U	47	25	11	1	11/30/15	12/9/15 12:53	250969	475853	
4-Bromophenyl Phenyl Ether	ND	U	9.4	5.0	2.2	1	11/30/15	12/9/15 12:53	250969	475853	
4-Chloro-3-methylphenol	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:53	250969	475853	
4-Chloroaniline	ND	U	9.4	5.0	1.5	1	11/30/15	12/9/15 12:53	250969	475853	
4-Chlorophenyl Phenyl Ether	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:53	250969	475853	
4-Nitroaniline	ND	U	47	25	7.8	1	11/30/15	12/9/15 12:53	250969	475853	
4-Nitrophenol	ND	U	47	25	5.9	1	11/30/15	12/9/15 12:53	250969	475853	
Acenaphthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Acenaphthylene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Anthracene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Benz(a)anthracene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Benzidine	ND	U	100	100	90	1	11/30/15	12/9/15 12:53	250969	475853	
Benzo(a)pyrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Benzo(b)fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Benzo(g,h,i)perylene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Benzo(k)fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1600
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	EB-2015-11-23	**Units:**	µg/L
Lab Code:	R1510266-008	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:53	250969	475853	
2,2'-Oxybis(1-chloropropane)	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Bis(2-chloroethoxy)methane	ND	U	9.4	5.0	2.2	1	11/30/15	12/9/15 12:53	250969	475853	
Bis(2-chloroethyl) Ether	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:53	250969	475853	
Bis(2-ethylhexyl) Phthalate	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:53	250969	475853	
Butyl Benzyl Phthalate	ND	U	9.4	5.0	2.4	1	11/30/15	12/9/15 12:53	250969	475853	
Carbazole	ND	U	9.4	5.0	1.1	1	11/30/15	12/9/15 12:53	250969	475853	
Chrysene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Di-n-butyl Phthalate	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Di-n-octyl Phthalate	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:53	250969	475853	
Dibenz(a,h)anthracene	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:53	250969	475853	
Dibenzofuran	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Diethyl Phthalate	4.6	J	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Dimethyl Phthalate	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Fluoranthene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Fluorene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Hexachlorobenzene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Hexachlorobutadiene	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:53	250969	475853	
Hexachlorocyclopentadiene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Hexachloroethane	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:53	250969	475853	
Indeno(1,2,3-cd)pyrene	ND	U	9.4	5.0	1.2	1	11/30/15	12/9/15 12:53	250969	475853	
Isophorone	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
N-Nitrosodi-n-propylamine	ND	U	9.4	5.0	1.3	1	11/30/15	12/9/15 12:53	250969	475853	
N-Nitrosodimethylamine	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
N-Nitrosodiphenylamine	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Naphthalene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Nitrobenzene	ND	U	9.4	5.0	1.6	1	11/30/15	12/9/15 12:53	250969	475853	
Pentachlorophenol (PCP)	ND	U	47	25	6.9	1	11/30/15	12/9/15 12:53	250969	475853	
Phenanthrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Phenol	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	
Pyrene	ND	U	9.4	5.0	1.0	1	11/30/15	12/9/15 12:53	250969	475853	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15 1600
Sample Matrix:	Water	**Date Received:**	11/25/15
Sample Name:	EB-2015-11-23	**Units:**	Percent
Lab Code:	R1510266-008	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	125	40-125	12/9/15 12:53	
2-Fluorobiphenyl	107	50-110	12/9/15 12:53	
2-Fluorophenol	51	20-110	12/9/15 12:53	
Nitrobenzene-d5	96	40-110	12/9/15 12:53	
Phenol-d6	35	10-115	12/9/15 12:53	
p-Terphenyl-d14	111	50-135	12/9/15 12:53	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	11/23/15
Sample Matrix:	Water	**Date Received:**	11/25/15
		Date Extracted:	11/30/15
		Date Analyzed:	12/9/15 1253

Tentatively Identified Compounds (TIC)
Semivolatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-23	**Units:**	µg/L
Lab Code:	R1510266-008	**Basis:**	NA

Prep Method: EPA 3510C
Analytical Method: 8270D

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Data File : I:\ACQUDATA\5973A\DATA\120915\DC464.D Vial: 15
Acq On : 9 Dec 2015 12:53 pm Operator: J.Misiurewicz
Sample : R1510266-008 Inst : 5973-A
Misc : 250969 8270D Parson TCL + IV TICs DOD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:45 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

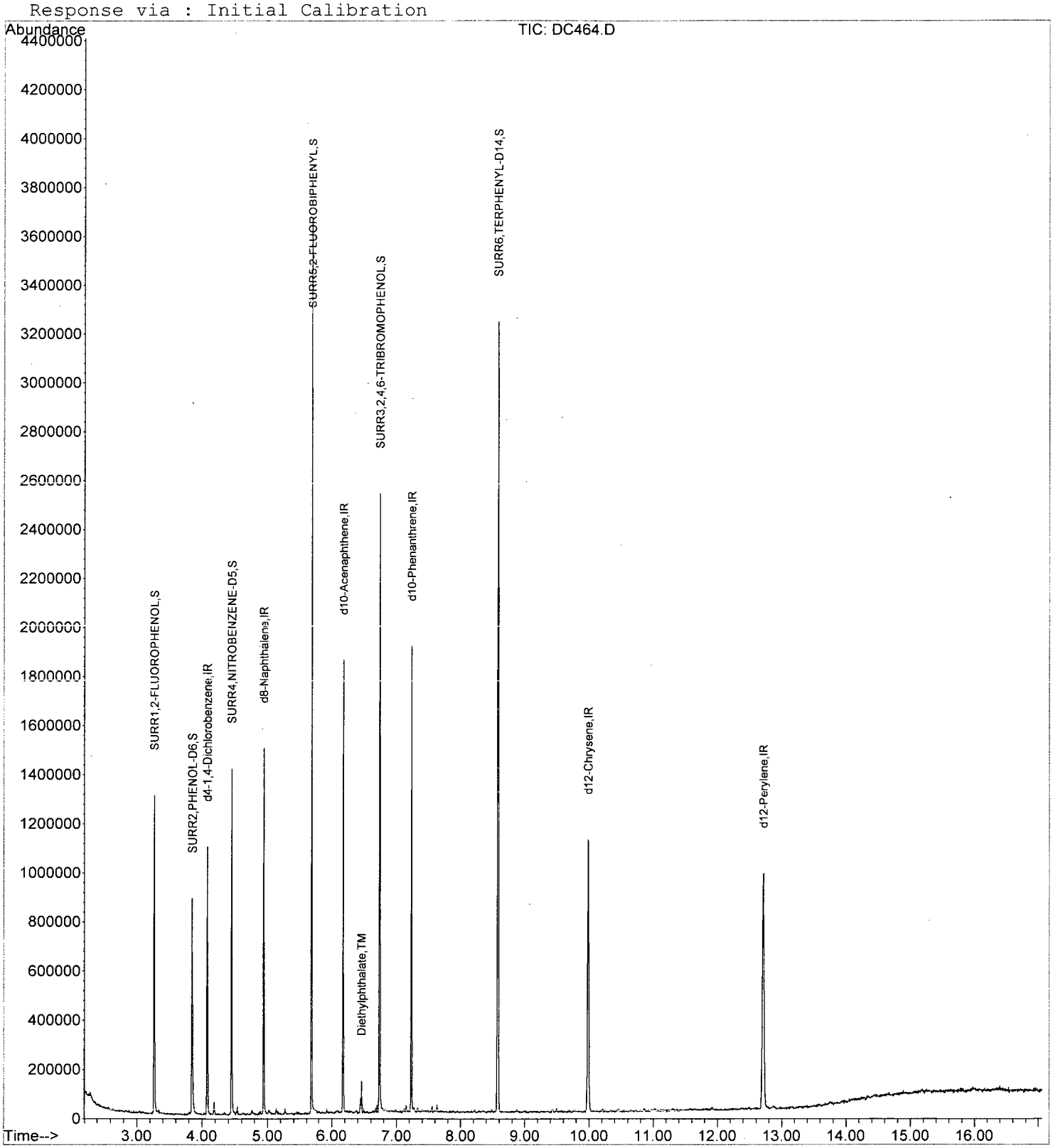
DM 12/11/15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	4.08	152	142084	40.00	ppm	-0.01
22) d8-Naphthalene	4.94	136	590469	40.00	ppm	-0.01
39) d10-Acenaphthene	6.17	164	336181	40.00	ppm	0.00
61) d10-Phenanthrene	7.23	188	563058	40.00	ppm	-0.01
74) d12-Chrysene	9.99	240	535018	40.00	ppm	-0.01
83) d12-Perylene	12.71	264	631375	40.00	ppm	-0.02
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.27	112	372136	102.61	ppm	-0.01
Spiked Amount 200.000	Range 10 - 105		Recovery = 51.31%			
7) SURR2,PHENOL-D6	3.85	99	315202	69.66	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 34.83%			
23) SURR4,NITROBENZENE-D5	4.45	82	352787	95.81	ppm	-0.01
Spiked Amount 100.000	Range 37 - 117		Recovery = 95.81%			
43) SURR5,2-FLUOROBIPHENYL	5.68	172	921386	107.31	ppm	-0.01
Spiked Amount 100.000	Range 39 - 119		Recovery = 107.31%			
60) SURR3,2,4,6-TRIBROMOPHENOL	6.74	330	279913	249.43	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 124.72%			
77) SURR6,TERPHENYL-D14	8.58	244	1079078	111.46	ppm	-0.01
Spiked Amount 100.000	Range 40 - 133		Recovery = 111.46%			
Target Compounds						Qvalue
58) Diethylphthalate	6.46	149	34568	4.22	ppm	94

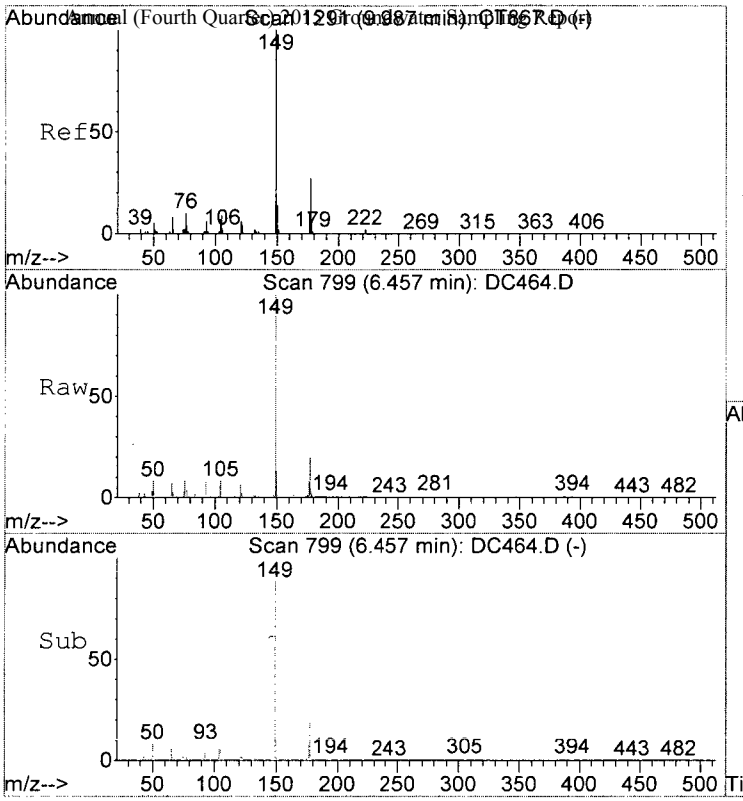
(#) = qualifier out of range (m) = manual integration
DC464.D 82701204.M Fri Dec 11 07:45:48 2015 Page 1

Data File : I:\ACQUDATA\5973A\DATA\120915\DC464.D Vial: 15
Acq On : 9 Dec 2015 12:53 pm Operator: J.Misiurewicz
Sample : R1510266-008 Inst : 5973-A
Misc : 250969 8270D Parson TCL + IV TICs DOD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:45 2015 Quant Results File: 82701204.RES

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration



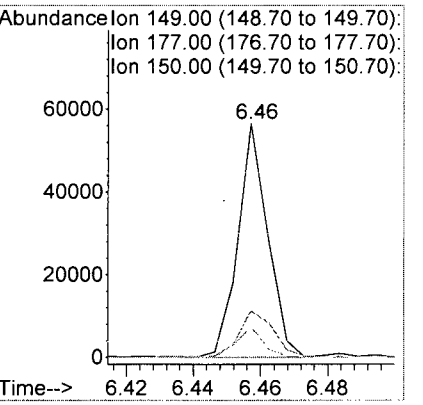
DC464.D 82701204.M Fri Dec 11 07:45:49 2015 Page 2



#58
Diethylphthalate
Concen: 4.22 ppm
RT: 6.46 min Scan# 799
Delta R.T. -0.01 min
Lab File: DC464.D
Acq: 9 Dec 2015 12:53 pm

Tgt Ion:149 Resp: 34568

Ion	Ratio	Lower	Upper
149	100		
177	19.5	3.9	43.9
150	13.1	0.0	32.7



Tentatively Identified Compound (LSC) summary

Operator ID: J.Misiurewicz Date Acquired: 9 Dec 2015 12:53 pm
Data File: I:\ACQUDATA\5973A\DATA\120915\DC464.D
Name: R1510266-008
Misc: 250969 8270D Parson TCL + IV TICs DOD
Method: I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title: 8270 BNA ANALYSIS
Library Searched: C:\DATABASE\NIST08.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

DC464.D 82701204.M Fri Dec 11 09:32:24 2015

LSC Area Percent Report

Data File : I:\ACQUDATA\5973A\DATA\120915\DC464.D Vial: 15
Acq On : 9 Dec 2015 12:53 pm Operator: J.Misiurewicz
Sample : R1510266-008 Inst : 5973-A
Misc : 250969 8270D Parson TCL + IV TICs DOD Multiplr: 1.00
MS Integration Params: TEBINT.P

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 25000 Area counts
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

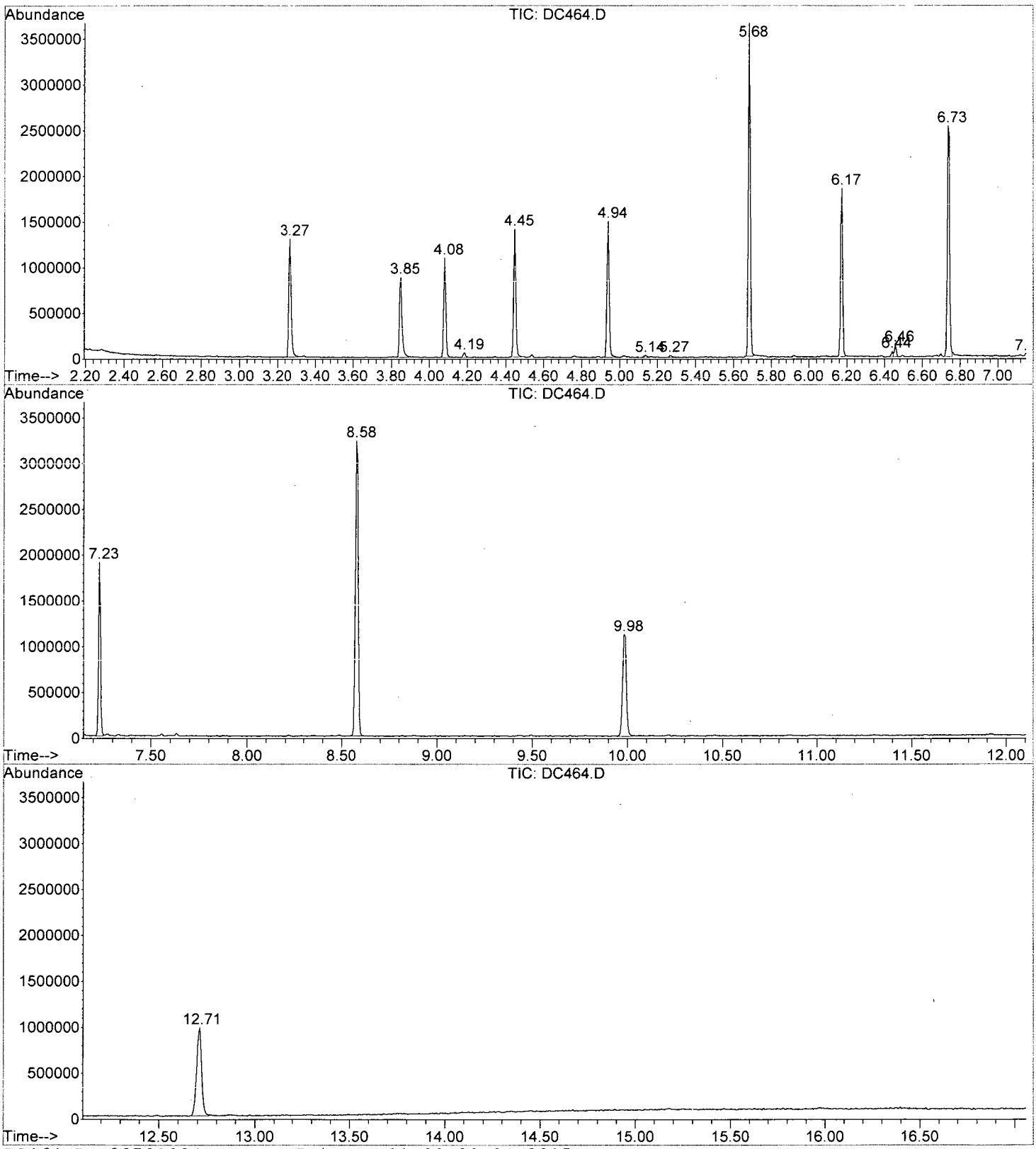
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.268	198	202	210	rBV	1292229	1185302	36.34%	6.130%
2	3.850	307	311	319	rBV	875172	827325	25.36%	4.279%
3	4.080	350	354	363	rBV	1090556	848508	26.01%	4.388%
4	4.187	371	374	379	rVB	50897	47650	1.46%	0.246%
5	4.448	420	423	431	rBV	1399484	1061706	32.55%	5.491%
6	4.940	511	515	523	rBV	1488076	1166918	35.77%	6.035%
7	5.138	546	552	556	rVB2	23359	27948	0.86%	0.145%
8	5.266	573	576	583	rBV4	22578	25165	0.77%	0.130%
9	5.683	651	654	658	rBV	3643232	2518164	77.20%	13.024%
10	6.174	742	746	749	rBV	1840242	1363109	41.79%	7.050%
11	6.441	793	796	797	rBV	58839	39609	1.21%	0.205%
12	6.457	797	799	802	rVB	128241	81254	2.49%	0.420%
13	6.735	848	851	855	rBV	2519754	2147092	65.82%	11.105%
14	7.146	925	928	935	rBV6	26970	30926	0.95%	0.160%
15	7.232	941	944	948	rBV	1895136	1404806	43.07%	7.266%
16	8.578	1191	1196	1202	rBV	3220056	3261864	100.00%	16.870%
17	9.983	1452	1459	1467	rBV	1110494	1534510	47.04%	7.936%
18	12.713	1962	1970	1979	rBV	957481	1763435	54.06%	9.120%

Sum of corrected areas: 19335291

DC464.D 82701204.M Fri Dec 11 09:32:22 2015

LSC Report - Integrated Chromatogram

File : I:\ACQUDATA\5973A\DATA\120915\DC464.D
Operator : J.Misiurewicz
Acquired : 9 Dec 2015 12:53 pm using AcqMethod 82701204
Instrument : 5973-A
Sample Name: R1510266-008
Misc Info : 250969 8270D Parson TCL + IV TICs DOD
Vial Number: 15
Quant File :82701204.RES (RTE Integrator)



DC464.D 82701204.M Fri Dec 11 09:32:24 2015

ALS Environmental

SEMI-VOLATILE ORGANICS STANDARDS DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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Initial Calibration - Summary Report

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
1,2,4-Trichlorobenzene	T	Average RF			0.2655	<=15	8.9
1,2,4-Trichlorobenzene	T	Average RF			0.2655	<=20	8.9
1,2,4-Trichlorobenzene	T	Average RF			0.2655	<=35	8.9
1,2-Dichlorobenzene	T	Average RF			1.273	<=15	9.9
1,2-Dichlorobenzene	T	Average RF			1.273	<=20	9.9
1,2-Diphenylhydrazine	T	Average RF			0.5853	<=15	14.1
1,2-Diphenylhydrazine	T	Average RF			0.5853	<=20	14.1
1,2-Diphenylhydrazine	T	Average RF			0.5853	<=35	14.1
1,3-Dichlorobenzene	T	Average RF			1.329	<=15	8.7
1,3-Dichlorobenzene	T	Average RF			1.329	<=20	8.7
1,4-Dichlorobenzene	T	Average RF			1.364	<=15	8.1
1,4-Dichlorobenzene	T	Average RF			1.364	<=20	8.1
1-Methyl-2-pyrrolidinone	T	Average RF			0.7419	<=15	5.7
1-Methyl-2-pyrrolidinone	T	Average RF			0.7419	<=20	5.7
1-Methyl-2-pyrrolidinone	T	Average RF			0.7419	<=35	5.7
1-Methylnaphthalene	T	Average RF			0.5360	<=15	8.4
1-Methylnaphthalene	T	Average RF			0.5360	<=20	8.4
1-Methylnaphthalene	T	Average RF			0.5360	<=35	8.4
2,4,5-Trichlorophenol	T	Average RF		0.200	0.3053	<=15	8.4
2,4,5-Trichlorophenol	T	Average RF		0.200	0.3053	<=20	8.4
2,4,5-Trichlorophenol	T	Average RF			0.3053	<=35	8.4
2,4,6-Trichlorophenol	T	Average RF		0.200	0.2846	<=15	9.4
2,4,6-Trichlorophenol	T	Average RF		0.200	0.2846	<=20	9.4
2,4,6-Trichlorophenol	T	Average RF			0.2846	<=35	9.4
2,4-Dichlorophenol	T	Average RF		0.200	0.2454	<=15	3.4
2,4-Dichlorophenol	T	Average RF		0.200	0.2454	<=20	3.4
2,4-Dichlorophenol	T	Average RF			0.2454	<=35	3.4
2,4-Dimethylphenol	T	Average RF		0.200	0.2920	<=15	5.1
2,4-Dimethylphenol	T	Average RF		0.200	0.2920	<=20	5.1
2,4-Dimethylphenol	T	Average RF			0.2920	<=35	5.1
2,4-Dinitrophenol	T	Quadratic	1/X2	0.010	0.06790	>=0.99	0.9982
2,4-Dinitrotoluene	T	Average RF		0.200	0.2549	<=15	7.4
2,4-Dinitrotoluene	T	Average RF		0.200	0.2549	<=20	7.4
2,4-Dinitrotoluene	T	Average RF			0.2549	<=35	7.4
2,6-Dinitrotoluene	T	Average RF		0.200	0.2062	<=15	3.2
2,6-Dinitrotoluene	T	Average RF		0.200	0.2062	<=20	3.2
2,6-Dinitrotoluene	T	Average RF			0.2062	<=35	3.2
2-Chloronaphthalene	T	Average RF		0.800	0.9294	<=15	9.8
2-Chloronaphthalene	T	Average RF		0.800	0.9294	<=20	9.8
2-Chloronaphthalene	T	Average RF			0.9294	<=35	9.8
2-Chlorophenol	T	Average RF		0.800	1.217	<=15	7.8
2-Chlorophenol	T	Average RF		0.800	1.217	<=20	7.8
2-Chlorophenol	T	Average RF			1.217	<=35	7.8
2-Methylnaphthalene	T	Average RF		0.400	0.5582	<=15	8.7
2-Methylnaphthalene	T	Average RF		0.400	0.5582	<=20	8.7
2-Methylnaphthalene	T	Average RF			0.5582	<=35	8.7
2-Methylphenol	T	Average RF		0.700	1.106	<=15	5.2
2-Methylphenol	T	Average RF		0.700	1.106	<=20	5.2
2-Methylphenol	T	Average RF			1.106	<=35	5.2
2-Nitroaniline	T	Average RF		0.010	0.2140	<=15	2.1
2-Nitroaniline	T	Average RF		0.010	0.2140	<=20	2.1
2-Nitroaniline	T	Average RF			0.2140	<=35	2.1

Initial Calibration - Summary Report

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
2-Nitrophenol	T	Average RF		0.100	0.1452	<=15	4.0
2-Nitrophenol	T	Average RF		0.100	0.1452	<=20	4.0
2-Nitrophenol	T	Average RF			0.1452	<=35	4.0
3,3'-Dichlorobenzidine	T	Average RF		0.010	0.3555	<=15	7.6
3,3'-Dichlorobenzidine	T	Average RF		0.010	0.3555	<=20	7.6
3,3'-Dichlorobenzidine	T	Average RF			0.3555	<=35	7.6
3- and 4-Methylphenol Coelution	T	Average RF		0.600	1.123	<=15	7.7
3- and 4-Methylphenol Coelution	T	Average RF		0.600	1.123	<=20	7.7
3- and 4-Methylphenol Coelution	T	Average RF			1.123	<=35	7.7
3-Nitroaniline	T	Average RF		0.010	0.2292	<=15	3.5
3-Nitroaniline	T	Average RF		0.010	0.2292	<=20	3.5
3-Nitroaniline	T	Average RF			0.2292	<=35	3.5
4,6-Dinitro-2-methylphenol	T	Quadratic	1/X2	0.010	0.07735	>=0.99	0.9991
4-Bromophenyl Phenyl Ether	T	Average RF		0.100	0.1854	<=15	9.9
4-Bromophenyl Phenyl Ether	T	Average RF		0.100	0.1854	<=20	9.9
4-Bromophenyl Phenyl Ether	T	Average RF			0.1854	<=35	9.9
4-Chloro-3-methylphenol	T	Average RF		0.200	0.2484	<=15	4.8
4-Chloro-3-methylphenol	T	Average RF		0.200	0.2484	<=20	4.8
4-Chloro-3-methylphenol	T	Average RF			0.2484	<=35	4.8
4-Chloroaniline	T	Average RF		0.010	0.3290	<=15	10.1
4-Chloroaniline	T	Average RF		0.010	0.3290	<=20	10.1
4-Chloroaniline	T	Average RF			0.3290	<=35	10.1
4-Chlorophenyl Phenyl Ether	T	Average RF		0.400	0.5131	<=15	13.3
4-Chlorophenyl Phenyl Ether	T	Average RF		0.400	0.5131	<=20	13.3
4-Chlorophenyl Phenyl Ether	T	Average RF			0.5131	<=35	13.3
4-Nitroaniline	T	Average RF		0.010	0.2569	<=15	6.7
4-Nitroaniline	T	Average RF		0.010	0.2569	<=20	6.7
4-Nitroaniline	T	Average RF			0.2569	<=35	6.7
4-Nitrophenol	T	Average RF		0.010	0.1473	<=15	11.3
4-Nitrophenol	T	Average RF		0.010	0.1473	<=20	11.3
4-Nitrophenol	T	Average RF			0.1473	<=35	11.3
Acenaphthene	T	Average RF		0.900	0.9333	<=15	11.2
Acenaphthene	T	Average RF		0.900	0.9333	<=20	11.2
Acenaphthene	T	Average RF			0.9333	<=35	11.2
Acenaphthylene	T	Average RF		0.900	1.479	<=15	11.0
Acenaphthylene	T	Average RF		0.900	1.479	<=20	11.0
Acenaphthylene	T	Average RF			1.479	<=35	11.0
Acetophenone	T	Average RF		0.010	1.460	<=15	8.8
Acetophenone	T	Average RF		0.010	1.460	<=20	8.8
Acetophenone	T	Average RF			1.460	<=35	8.8
Aniline	T	Average RF			1.554	<=15	11.2
Aniline	T	Average RF			1.554	<=20	11.2
Aniline	T	Average RF			1.554	<=35	11.2
Anthracene	T	Average RF		0.700	0.9333	<=15	10.7
Anthracene	T	Average RF		0.700	0.9333	<=20	10.7
Anthracene	T	Average RF			0.9333	<=35	10.7
Atrazine	T	Average RF		0.010	0.09783	<=15	3.7
Atrazine	T	Average RF		0.010	0.09783	<=20	3.7
Atrazine	T	Average RF			0.09783	<=35	3.7
Benz(a)anthracene	T	Average RF		0.800	1.003	<=15	8.2
Benz(a)anthracene	T	Average RF		0.800	1.003	<=20	8.2
Benz(a)anthracene	T	Average RF			1.003	<=35	8.2

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
Benzaldehyde	T	Average RF		0.010	0.2530	<=15	19.6
Benzaldehyde	T	Average RF		0.010	0.2530	<=20	19.6
Benzaldehyde	T	Average RF			0.2530	<=35	19.6
Benzidine	T	Average RF			0.3174	<=15	6.9
Benzidine	T	Average RF			0.3174	<=20	6.9
Benzidine	T	Average RF			0.3174	<=35	6.9
Benzo(a)pyrene	T	Average RF		0.700	0.8843	<=15	5.6
Benzo(a)pyrene	T	Average RF		0.700	0.8843	<=20	5.6
Benzo(a)pyrene	T	Average RF			0.8843	<=35	5.6
Benzo(b)fluoranthene	T	Average RF		0.700	0.9060	<=15	4.0
Benzo(b)fluoranthene	T	Average RF		0.700	0.9060	<=20	4.0
Benzo(b)fluoranthene	T	Average RF			0.9060	<=35	4.0
Benzo(g,h,i)perylene	T	Average RF		0.500	0.8248	<=15	8.3
Benzo(g,h,i)perylene	T	Average RF		0.500	0.8248	<=20	8.3
Benzo(g,h,i)perylene	T	Average RF			0.8248	<=35	8.3
Benzo(k)fluoranthene	T	Average RF		0.700	0.8889	<=15	4.6
Benzo(k)fluoranthene	T	Average RF		0.700	0.8889	<=20	4.6
Benzo(k)fluoranthene	T	Average RF			0.8889	<=35	4.6
Benzoic Acid	T	Average RF			0.1553	<=15	9.6
Benzoic Acid	T	Average RF			0.1553	<=20	9.6
Benzoic Acid	T	Average RF			0.1553	<=35	9.6
Benzyl Alcohol	T	Average RF			0.7500	<=15	6.2
Benzyl Alcohol	T	Average RF			0.7500	<=20	6.2
Benzyl Alcohol	T	Average RF			0.7500	<=35	6.2
Biphenyl	T	Average RF		0.010	1.165	<=15	11.0
Biphenyl	T	Average RF		0.010	1.165	<=20	11.0
Biphenyl	T	Average RF			1.165	<=35	11.0
Bis(1-chloroisopropyl) Ether	T	Average RF		0.010	0.9377	<=15	11.4
Bis(1-chloroisopropyl) Ether	T	Average RF		0.010	0.9377	<=20	11.4
Bis(1-chloroisopropyl) Ether	T	Average RF			0.9377	<=35	11.4
Bis(2-chloroethoxy) Methane	T	Average RF		0.300	0.3067	<=15	8.9
Bis(2-chloroethoxy) Methane	T	Average RF		0.300	0.3067	<=20	8.9
Bis(2-chloroethoxy) Methane	T	Average RF			0.3067	<=35	8.9
Bis(2-chloroethyl) Ether	T	Average RF		0.700	1.045	<=15	7.3
Bis(2-chloroethyl) Ether	T	Average RF		0.700	1.045	<=20	7.3
Bis(2-chloroethyl) Ether	T	Average RF			1.045	<=35	7.3
Bis(2-ethylhexyl) Phthalate	T	Average RF		0.010	0.6881	<=15	9.9
Bis(2-ethylhexyl) Phthalate	T	Average RF		0.010	0.6881	<=20	9.9
Bis(2-ethylhexyl) Phthalate	T	Average RF			0.6881	<=35	9.9
Butyl Benzyl Phthalate	T	Average RF		0.010	0.5017	<=15	9.1
Butyl Benzyl Phthalate	T	Average RF		0.010	0.5017	<=20	9.1
Butyl Benzyl Phthalate	T	Average RF			0.5017	<=35	9.1
Caprolactam	T	Average RF		0.010	0.08490	<=15	3.9
Caprolactam	T	Average RF		0.010	0.08490	<=20	3.9
Caprolactam	T	Average RF			0.08490	<=35	3.9
Carbazole	T	Average RF		0.010	0.9096	<=15	9.5
Carbazole	T	Average RF		0.010	0.9096	<=20	9.5
Carbazole	T	Average RF			0.9096	<=35	9.5
Chrysene	T	Average RF		0.700	0.9231	<=15	7.8
Chrysene	T	Average RF		0.700	0.9231	<=20	7.8
Chrysene	T	Average RF			0.9231	<=35	7.8
Di-n-butyl Phthalate	T	Average RF		0.010	1.066	<=15	8.2

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
Di-n-butyl Phthalate	T	Average RF		0.010	1.066	<=20	8.2
Di-n-butyl Phthalate	T	Average RF			1.066	<=35	8.2
Di-n-octyl Phthalate	T	Average RF		0.010	1.101	<=15	3.3
Di-n-octyl Phthalate	T	Average RF		0.010	1.101	<=20	3.3
Di-n-octyl Phthalate	T	Average RF			1.101	<=35	3.3
Dibenz(a,h)anthracene	T	Average RF		0.400	0.8772	<=15	8.7
Dibenz(a,h)anthracene	T	Average RF		0.400	0.8772	<=20	8.7
Dibenz(a,h)anthracene	T	Average RF			0.8772	<=35	8.7
Dibenzofuran	T	Average RF		0.800	1.312	<=15	12.7
Dibenzofuran	T	Average RF		0.800	1.312	<=20	12.7
Dibenzofuran	T	Average RF			1.312	<=35	12.7
Diethyl Phthalate	T	Average RF		0.010	0.9741	<=15	15.2
Diethyl Phthalate	T	Average RF		0.010	0.9741	<=20	15.2
Diethyl Phthalate	T	Average RF			0.9741	<=35	15.2
Dimethyl Phthalate	T	Average RF		0.010	0.9937	<=15	12.3
Dimethyl Phthalate	T	Average RF		0.010	0.9937	<=20	12.3
Dimethyl Phthalate	T	Average RF			0.9937	<=35	12.3
Fluoranthene	T	Average RF		0.600	0.9895	<=15	6.9
Fluoranthene	T	Average RF		0.600	0.9895	<=20	6.9
Fluoranthene	T	Average RF			0.9895	<=35	6.9
Fluorene	T	Average RF		0.900	1.075	<=15	11.9
Fluorene	T	Average RF		0.900	1.075	<=20	11.9
Fluorene	T	Average RF			1.075	<=35	11.9
Hexachlorobenzene	T	Average RF		0.100	0.2062	<=15	12.2
Hexachlorobenzene	T	Average RF		0.100	0.2062	<=20	12.2
Hexachlorobenzene	T	Average RF			0.2062	<=35	12.2
Hexachlorobutadiene	T	Average RF		0.010	0.1442	<=15	7.5
Hexachlorobutadiene	T	Average RF		0.010	0.1442	<=20	7.5
Hexachlorobutadiene	T	Average RF			0.1442	<=35	7.5
Hexachlorocyclopentadiene	T	Quadratic	1/X	0.050	0.1671	>=0.99	0.9990
Hexachloroethane	T	Average RF		0.300	0.4853	<=15	6.6
Hexachloroethane	T	Average RF		0.300	0.4853	<=20	6.6
Hexachloroethane	T	Average RF			0.4853	<=35	6.6
Indeno(1,2,3-cd)pyrene	T	Average RF		0.500	0.8639	<=15	5.5
Indeno(1,2,3-cd)pyrene	T	Average RF		0.500	0.8639	<=20	5.5
Indeno(1,2,3-cd)pyrene	T	Average RF			0.8639	<=35	5.5
Isophorone	T	Average RF		0.400	0.5104	<=15	8.0
Isophorone	T	Average RF		0.400	0.5104	<=20	8.0
Isophorone	T	Average RF			0.5104	<=35	8.0
N-Nitrosodi-n-propylamine	T	Average RF		0.500	0.7723	<=15	12.3
N-Nitrosodi-n-propylamine	T	Average RF		0.500	0.7723	<=20	12.3
N-Nitrosodi-n-propylamine	T	Average RF			0.7723	<=35	12.3
N-Nitrosodimethylamine	T	Average RF			0.6632	<=15	3.3
N-Nitrosodimethylamine	T	Average RF			0.6632	<=20	3.3
N-Nitrosodimethylamine	T	Average RF			0.6632	<=35	3.3
N-Nitrosodiphenylamine	T	Average RF		0.010	0.4396	<=15	10.0
N-Nitrosodiphenylamine	T	Average RF		0.010	0.4396	<=20	10.0
N-Nitrosodiphenylamine	T	Average RF			0.4396	<=35	10.0
Naphthalene	T	Average RF		0.700	0.8227	<=15	8.8
Naphthalene	T	Average RF		0.700	0.8227	<=20	8.8
Naphthalene	T	Average RF			0.8227	<=35	8.8
Nitrobenzene	T	Average RF		0.200	0.2582	<=15	5.3

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
Nitrobenzene	T	Average RF		0.200	0.2582	<=20	5.3
Nitrobenzene	T	Average RF			0.2582	<=35	5.3
Pentachlorophenol (PCP)	T	Average RF		0.050	0.09088	<=15	7.5
Pentachlorophenol (PCP)	T	Average RF		0.050	0.09088	<=20	7.5
Pentachlorophenol (PCP)	T	Average RF			0.09088	<=35	7.5
Phenanthrene	T	Average RF		0.700	0.8763	<=15	10.5
Phenanthrene	T	Average RF		0.700	0.8763	<=20	10.5
Phenanthrene	T	Average RF			0.8763	<=35	10.5
Phenol	T	Average RF		0.800	1.511	<=15	10.5
Phenol	T	Average RF		0.800	1.511	<=20	10.5
Phenol	T	Average RF			1.511	<=35	10.5
Pyrene	T	Average RF		0.600	1.012	<=15	6.1
Pyrene	T	Average RF		0.600	1.012	<=20	6.1
Pyrene	T	Average RF			1.012	<=35	6.1
Pyridine	T	Average RF			1.160	<=15	3.0
Pyridine	T	Average RF			1.160	<=20	3.0
Pyridine	T	Average RF			1.160	<=35	3.0
2,4,6-Tribromophenol	S	Average RF			0.1335	<=15	3.9
2,4,6-Tribromophenol	S	Average RF			0.1335	<=20	3.9
2,4,6-Tribromophenol	S	Average RF			0.1335	<=35	3.9
2-Fluorobiphenyl	S	Average RF			1.022	<=15	10.4
2-Fluorobiphenyl	S	Average RF			1.022	<=20	10.4
2-Fluorobiphenyl	S	Average RF			1.022	<=35	10.4
2-Fluorophenol	S	Average RF			1.021	<=15	4.3
2-Fluorophenol	S	Average RF			1.021	<=20	4.3
2-Fluorophenol	S	Average RF			1.021	<=35	4.3
Nitrobenzene-d5	S	Average RF			0.2494	<=15	4.9
Nitrobenzene-d5	S	Average RF			0.2494	<=20	4.9
Nitrobenzene-d5	S	Average RF			0.2494	<=35	4.9
Phenol-d6	S	Average RF			1.274	<=15	8.0
Phenol-d6	S	Average RF			1.274	<=20	8.0
Phenol-d6	S	Average RF			1.274	<=35	8.0
p-Terphenyl-d14	S	Average RF			0.7238	<=15	10.4
p-Terphenyl-d14	S	Average RF			0.7238	<=20	10.4
p-Terphenyl-d14	S	Average RF			0.7238	<=35	10.4

Exceptions

QAP	Method
DOD QSM v5.0 Rochester	8270D

Compound	Type	Criteria	Result
Benzaldehyde	RSD	<= 15	19.6
Diethyl Phthalate	RSD	<= 15	15.2

Initial Calibration - Detailed Report

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	RC1500135-01	STD 1	I:\ACQUDATA\5973A\DATA\120415\DC311.D	12/4/15 12:18
02	RC1500135-02	STD 2	I:\ACQUDATA\5973A\DATA\120415\DC312.D	12/4/15 12:45
03	RC1500135-03	STD 3	I:\ACQUDATA\5973A\DATA\120415\DC313.D	12/4/15 13:11
04	RC1500135-04	STD 4	I:\ACQUDATA\5973A\DATA\120415\DC314.D	12/4/15 13:38
05	RC1500135-05	STD 5	I:\ACQUDATA\5973A\DATA\120415\DC315.D	12/4/15 14:05
06	RC1500135-06	STD 6	I:\ACQUDATA\5973A\DATA\120415\DC316.D	12/4/15 14:31
07	RC1500135-07	STD 7	I:\ACQUDATA\5973A\DATA\120415\DC317.D	12/4/15 14:58

Analyte **Curve Fit** **Weighting**

1,2,4-Trichlorobenzene Average RF RSD = 8.9 Average RF = 0.2655

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.3066	02	10.000	0.2847	03	50.000	0.2739	04	80.000	0.2511
05	100.000	0.2446	06	120.000	0.2457	07	160.000	0.2520			

1,2-Dichlorobenzene Average RF RSD = 9.9 Average RF = 1.273

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.547	02	10.000	1.275	03	50.000	1.233	04	80.000	1.245
05	100.000	1.167	06	120.000	1.247	07	160.000	1.193			

1,2-Diphenylhydrazine Average RF RSD = 14.1 Average RF = 0.5853

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.7349	02	10.000	0.6248	03	50.000	0.6201	04	80.000	0.5695
05	100.000	0.5392	06	120.000	0.5054	07	160.000	0.5033			

1,3-Dichlorobenzene Average RF RSD = 8.7 Average RF = 1.329

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.562	02	10.000	1.363	03	50.000	1.346	04	80.000	1.306
05	100.000	1.247	06	120.000	1.254	07	160.000	1.223			

1,4-Dichlorobenzene Average RF RSD = 8.1 Average RF = 1.364

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.573	02	10.000	1.424	03	50.000	1.377	04	80.000	1.332
05	100.000	1.247	06	120.000	1.330	07	160.000	1.266			

1-Methyl-2-pyrrolidinone Average RF RSD = 5.7 Average RF = 0.7419

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.7779	02	10.000	0.8105	03	50.000	0.7550	04	80.000	0.7230
05	100.000	0.6859	06	120.000	0.7271	07	160.000	0.7138			

1-Methylnaphthalene Average RF RSD = 8.4 Average RF = 0.5360

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.6130	02	10.000	0.5853	03	50.000	0.5257	04	80.000	0.5157
05	100.000	0.5171	06	120.000	0.4951	07	160.000	0.5002			

2,4,5-Trichlorophenol Average RF RSD = 8.4 Average RF = 0.3053

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.3559	02	10.000	0.3203	03	50.000	0.2919	04	80.000	0.2992
05	100.000	0.2786	06	120.000	0.2917	07	160.000	0.2993			

2,4,6-Tribromophenol Average RF RSD = 3.9 Average RF = 0.1335

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.1414	02	10.000	0.1395	03	50.000	0.1291	04	80.000	0.1332
05	100.000	0.1328	06	120.000	0.1268	07	160.000	0.1319			

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
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Analyte **Curve Fit** **Weighting**

2,4,6-Trichlorophenol Average RF RSD = 9.4 Average RF = 0.2846

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.3419	02	10.000	0.2906	03	50.000	0.2737	04	80.000	0.2816
05	100.000	0.2633	06	120.000	0.2684	07	160.000	0.2727			

2,4-Dichlorophenol Average RF RSD = 3.4 Average RF = 0.2454

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2583	02	10.000	0.2543	03	50.000	0.2483	04	80.000	0.2405
05	100.000	0.2375	06	120.000	0.2397	07	160.000	0.2387			

2,4-Dimethylphenol Average RF RSD = 5.1 Average RF = 0.2920

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.3128	02	10.000	0.3086	03	50.000	0.3000	04	80.000	0.2763
05	100.000	0.2808	06	120.000	0.2806	07	160.000	0.2850			

2,4-Dinitrophenol Quadratic 1/X2 COD = 0.9982 $Y = 0.01460 X^2 + 0.04134 X + -0.004850$

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.02583	03	50.000	0.05253	04	80.000	0.06982	05	100.000	0.07902
06	120.000	0.08336	07	160.000	0.09686						

2,4-Dinitrotoluene Average RF RSD = 7.4 Average RF = 0.2549

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2443	02	10.000	0.2231	03	50.000	0.2508	04	80.000	0.2559
05	100.000	0.2677	06	120.000	0.2597	07	160.000	0.2829			

2,6-Dinitrotoluene Average RF RSD = 3.2 Average RF = 0.2062

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2106	02	10.000	0.1981	03	50.000	0.2126	04	80.000	0.2057
05	100.000	0.2043	06	120.000	0.1980	07	160.000	0.2141			

2-Chloronaphthalene Average RF RSD = 9.8 Average RF = 0.9294

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.094	02	10.000	1.009	03	50.000	0.9216	04	80.000	0.9123
05	100.000	0.8666	06	120.000	0.8406	07	160.000	0.8617			

2-Chlorophenol Average RF RSD = 7.8 Average RF = 1.217

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.403	02	10.000	1.287	03	50.000	1.191	04	80.000	1.171
05	100.000	1.159	06	120.000	1.179	07	160.000	1.130			

2-Fluorobiphenyl Average RF RSD = 10.4 Average RF = 1.022

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.210	02	10.000	1.107	03	50.000	1.047	04	80.000	0.9870
05	100.000	0.9436	06	120.000	0.9199	07	160.000	0.9373			

2-Fluorophenol Average RF RSD = 4.3 Average RF = 1.021

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.101	02	10.000	0.9812	03	50.000	1.058	04	80.000	1.011
05	100.000	0.9963	06	120.000	1.017	07	160.000	0.9830			

2-Methylnaphthalene Average RF RSD = 8.7 Average RF = 0.5582

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.6472	02	10.000	0.6006	03	50.000	0.5596	04	80.000	0.5313
05	100.000	0.5314	06	120.000	0.5167	07	160.000	0.5209			

Initial Calibration - Detailed Report

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Signal ID: 1

Analyte **Curve Fit** **Weighting**

2-Methylphenol Average RF RSD = 5.2 Average RF = 1.106

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.195	02	10.000	1.160	03	50.000	1.093	04	80.000	1.133
05	100.000	1.037	06	120.000	1.066	07	160.000	1.062			

2-Nitroaniline Average RF RSD = 2.1 Average RF = 0.2140

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2163	02	10.000	0.2075	03	50.000	0.2173	04	80.000	0.2190
05	100.000	0.2174	06	120.000	0.2090	07	160.000	0.2116			

2-Nitrophenol Average RF RSD = 4.0 Average RF = 0.1452

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.1358	02	10.000	0.1431	03	50.000	0.1441	04	80.000	0.1444
05	100.000	0.1439	06	120.000	0.1520	07	160.000	0.1529			

3,3'-Dichlorobenzidine Average RF RSD = 7.6 Average RF = 0.3555

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.4132	02	10.000	0.3634	03	50.000	0.3374	04	80.000	0.3483
05	100.000	0.3450	06	120.000	0.3341	07	160.000	0.3472			

3- and 4-Methylphenol Coelution Average RF RSD = 7.7 Average RF = 1.123

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.259	02	10.000	1.210	03	50.000	1.124	04	80.000	1.125
05	100.000	1.026	06	120.000	1.086	07	160.000	1.033			

3-Nitroaniline Average RF RSD = 3.5 Average RF = 0.2292

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2180	02	10.000	0.2270	03	50.000	0.2309	04	80.000	0.2261
05	100.000	0.2313	06	120.000	0.2262	07	160.000	0.2445			

4,6-Dinitro-2-methylphenol Quadratic 1/X2 COD = 0.9991 $Y = 0.004575 X^2 + 0.07690 X + -0.009029$

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	10.000	0.04185	03	50.000	0.07685	04	80.000	0.07852	05	100.000	0.08643
06	120.000	0.08737	07	160.000	0.09312						

4-Bromophenyl Phenyl Ether Average RF RSD = 9.9 Average RF = 0.1854

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2051	02	10.000	0.1992	03	50.000	0.2077	04	80.000	0.1801
05	100.000	0.1741	06	120.000	0.1668	07	160.000	0.1645			

4-Chloro-3-methylphenol Average RF RSD = 4.8 Average RF = 0.2484

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2687	02	10.000	0.2556	03	50.000	0.2570	04	80.000	0.2398
05	100.000	0.2390	06	120.000	0.2380	07	160.000	0.2406			

4-Chloroaniline Average RF RSD = 10.1 Average RF = 0.3290

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.3703	02	10.000	0.3778	03	50.000	0.3337	04	80.000	0.3180
05	100.000	0.2999	06	120.000	0.3048	07	160.000	0.2987			

4-Chlorophenyl Phenyl Ether Average RF RSD = 13.3 Average RF = 0.5131

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.6181	02	10.000	0.5978	03	50.000	0.4958	04	80.000	0.5010
05	100.000	0.4765	06	120.000	0.4667	07	160.000	0.4357			

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Signal ID: 1

Analyte **Curve Fit** **Weighting**

4-Nitroaniline Average RF RSD = 6.7 Average RF = 0.2569

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2451	02	10.000	0.2324	03	50.000	0.2447	04	80.000	0.2652
05	100.000	0.2600	06	120.000	0.2681	07	160.000	0.2826			

4-Nitrophenol Average RF RSD = 11.3 Average RF = 0.1473

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.1203	02	10.000	0.1296	03	50.000	0.1453	04	80.000	0.1572
05	100.000	0.1571	06	120.000	0.1554	07	160.000	0.1664			

Acenaphthene Average RF RSD = 11.2 Average RF = 0.9333

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.102	02	10.000	1.058	03	50.000	0.9089	04	80.000	0.8882
05	100.000	0.8873	06	120.000	0.8356	07	160.000	0.8523			

Acenaphthylene Average RF RSD = 11.0 Average RF = 1.479

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.791	02	10.000	1.589	03	50.000	1.455	04	80.000	1.438
05	100.000	1.414	06	120.000	1.341	07	160.000	1.327			

Acetophenone Average RF RSD = 8.8 Average RF = 1.460

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.652	02	10.000	1.605	03	50.000	1.469	04	80.000	1.451
05	100.000	1.358	06	120.000	1.373	07	160.000	1.309			

Aniline Average RF RSD = 11.2 Average RF = 1.554

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.860	02	10.000	1.647	03	50.000	1.600	04	80.000	1.544
05	100.000	1.370	06	120.000	1.505	07	160.000	1.351			

Anthracene Average RF RSD = 10.7 Average RF = 0.9333

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.079	02	10.000	1.025	03	50.000	0.9921	04	80.000	0.9072
05	100.000	0.8704	06	120.000	0.8456	07	160.000	0.8144			

Atrazine Average RF RSD = 3.7 Average RF = 0.09783

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.09489	02	10.000	0.09600	03	50.000	0.1041	04	80.000	0.09806
05	100.000	0.09616									

Benz(a)anthracene Average RF RSD = 8.2 Average RF = 1.003

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.171	02	10.000	1.039	03	50.000	0.9857	04	80.000	0.9856
05	100.000	0.9584	06	120.000	0.9229	07	160.000	0.9612			

Benzaldehyde Average RF RSD = 19.6 Average RF = 0.2530

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2377	02	10.000	0.2641	03	50.000	0.3311	04	80.000	0.2332
05	100.000	0.1987									

Benzidine Average RF RSD = 6.9 Average RF = 0.3174

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	50.000	0.3452	04	80.000	0.3226	05	100.000	0.3274	06	120.000	0.3023
07	160.000	0.2895									

Initial Calibration - Detailed Report

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Signal ID: 1

Analyte	Curve Fit	Weighting								
Benzo(a)pyrene	Average RF		RSD = 5.6		Average RF = 0.8843					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.9928	02	10.000	0.8622	03	50.000	0.8781	04	80.000	0.8823
05	100.000	0.8669	06	120.000	0.8559	07	160.000	0.8521			
Benzo(b)fluoranthene	Average RF		RSD = 4.0		Average RF = 0.9060					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.9744	02	10.000	0.8839	03	50.000	0.9170	04	80.000	0.9246
05	100.000	0.8758	06	120.000	0.8976	07	160.000	0.8684			
Benzo(g,h,i)perylene	Average RF		RSD = 8.3		Average RF = 0.8248					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.9682	02	10.000	0.8346	03	50.000	0.8273	04	80.000	0.8115
05	100.000	0.7925	06	120.000	0.7773	07	160.000	0.7627			
Benzo(k)fluoranthene	Average RF		RSD = 4.6		Average RF = 0.8889					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.9643	02	10.000	0.8469	03	50.000	0.9045	04	80.000	0.9062
05	100.000	0.8844	06	120.000	0.8542	07	160.000	0.8621			
Benzoic Acid	Average RF		RSD = 9.6		Average RF = 0.1553					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	50.000	0.1369	04	80.000	0.1484	05	100.000	0.1556	06	120.000	0.1577
07	160.000	0.1778									
Benzyl Alcohol	Average RF		RSD = 6.2		Average RF = 0.7500					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.6988	02	10.000	0.6760	03	50.000	0.7823	04	80.000	0.8012
05	100.000	0.7435	06	120.000	0.7749	07	160.000	0.7735			
Biphenyl	Average RF		RSD = 11.0		Average RF = 1.165					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.395	02	10.000	1.275	03	50.000	1.145	04	80.000	1.146
05	100.000	1.099	06	120.000	1.029	07	160.000	1.068			
Bis(1-chloroisopropyl) Ether	Average RF		RSD = 11.4		Average RF = 0.9377					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.143	02	10.000	1.015	03	50.000	0.9063	04	80.000	0.9131
05	100.000	0.8304	06	120.000	0.8609	07	160.000	0.8956			
Bis(2-chloroethoxy) Methane	Average RF		RSD = 8.9		Average RF = 0.3067					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.3633	02	10.000	0.3177	03	50.000	0.3038	04	80.000	0.2977
05	100.000	0.2861	06	120.000	0.2894	07	160.000	0.2892			
Bis(2-chloroethyl) Ether	Average RF		RSD = 7.3		Average RF = 1.045					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.187	02	10.000	1.030	03	50.000	1.083	04	80.000	1.070
05	100.000	1.001	06	120.000	0.9833	07	160.000	0.9604			
Bis(2-ethylhexyl) Phthalate	Average RF		RSD = 9.9		Average RF = 0.6881					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.8235	02	10.000	0.7352	03	50.000	0.6513	04	80.000	0.6586
05	100.000	0.6562	06	120.000	0.6313	07	160.000	0.6606			

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Butyl Benzyl Phthalate Average RF RSD = 9.1 Average RF = 0.5017

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.6015	02	10.000	0.5070	03	50.000	0.4808	04	80.000	0.4927
05	100.000	0.4811	06	120.000	0.4680	07	160.000	0.4811			

Caprolactam Average RF RSD = 3.9 Average RF = 0.08490

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.08336	02	10.000	0.09089	03	50.000	0.08532	04	80.000	0.08336
05	100.000	0.08085	06	120.000	0.08308	07	160.000	0.08742			

Carbazole Average RF RSD = 9.5 Average RF = 0.9096

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.063	02	10.000	0.9123	03	50.000	0.9771	04	80.000	0.8790
05	100.000	0.8870	06	120.000	0.8432	07	160.000	0.8058			

Chrysene Average RF RSD = 7.8 Average RF = 0.9231

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.072	02	10.000	0.9594	03	50.000	0.8890	04	80.000	0.9109
05	100.000	0.8875	06	120.000	0.8753	07	160.000	0.8676			

Di-n-butyl Phthalate Average RF RSD = 8.2 Average RF = 1.066

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.134	02	10.000	1.112	03	50.000	1.175	04	80.000	1.071
05	100.000	1.059	06	120.000	0.9776	07	160.000	0.9290			

Di-n-octyl Phthalate Average RF RSD = 3.3 Average RF = 1.101

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.174	02	10.000	1.073	03	50.000	1.095	04	80.000	1.123
05	100.000	1.089	06	120.000	1.082	07	160.000	1.074			

Dibenz(a,h)anthracene Average RF RSD = 8.7 Average RF = 0.8772

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.043	02	10.000	0.8827	03	50.000	0.8601	04	80.000	0.8656
05	100.000	0.8271	06	120.000	0.8435	07	160.000	0.8183			

Dibenzofuran Average RF RSD = 12.7 Average RF = 1.312

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.593	02	10.000	1.457	03	50.000	1.346	04	80.000	1.271
05	100.000	1.231	06	120.000	1.144	07	160.000	1.140			

Diethyl Phthalate Average RF RSD = 15.2 Average RF = 0.9741

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.244	02	10.000	1.120	03	50.000	0.8886	04	80.000	0.9202
05	100.000	0.9046	06	120.000	0.8552	07	160.000	0.8857			

Dimethyl Phthalate Average RF RSD = 12.3 Average RF = 0.9937

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.204	02	10.000	1.112	03	50.000	1.008	04	80.000	0.9466
05	100.000	0.8972	06	120.000	0.9013	07	160.000	0.8868			

Fluoranthene Average RF RSD = 6.9 Average RF = 0.9895

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.021	02	10.000	1.010	03	50.000	1.108	04	80.000	0.9889
05	100.000	0.9770	06	120.000	0.9136	07	160.000	0.9087			

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Signal ID: 1

Analyte	Curve Fit	Weighting			
Fluorene	Average RF		RSD = 11.9	Average RF = 1.075	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.314	02	10.000	1.162	03	50.000	1.075	04	80.000	1.047
05	100.000	1.020	06	120.000	0.9624	07	160.000	0.9441			

Hexachlorobenzene	Average RF		RSD = 12.2	Average RF = 0.2062	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2493	02	10.000	0.2197	03	50.000	0.2226	04	80.000	0.1964
05	100.000	0.1912	06	120.000	0.1805	07	160.000	0.1835			

Hexachlorobutadiene	Average RF		RSD = 7.5	Average RF = 0.1442	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.1560	02	10.000	0.1624	03	50.000	0.1448	04	80.000	0.1369
05	100.000	0.1373	06	120.000	0.1357	07	160.000	0.1362			

Hexachlorocyclopentadiene	Quadratic	1/X	COD = 0.9990	$Y = 0.01845 X^2 + 0.1560 X + -0.01151$	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.08563	02	10.000	0.09639	03	50.000	0.1626	04	80.000	0.1882
05	100.000	0.2040	06	120.000	0.2090	07	160.000	0.2241			

Hexachloroethane	Average RF		RSD = 6.6	Average RF = 0.4853	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.5479	02	10.000	0.4778	03	50.000	0.4943	04	80.000	0.4973
05	100.000	0.4537	06	120.000	0.4664	07	160.000	0.4597			

Indeno(1,2,3-cd)pyrene	Average RF		RSD = 5.5	Average RF = 0.8639	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.9682	02	10.000	0.8528	03	50.000	0.8609	04	80.000	0.8384
05	100.000	0.8494	06	120.000	0.8549	07	160.000	0.8231			

Isophorone	Average RF		RSD = 8.0	Average RF = 0.5104	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.5692	02	10.000	0.5570	03	50.000	0.5295	04	80.000	0.4687
05	100.000	0.4885	06	120.000	0.4749	07	160.000	0.4853			

N-Nitrosodi-n-propylamine	Average RF		RSD = 12.3	Average RF = 0.7723	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.9744	02	10.000	0.7834	03	50.000	0.7782	04	80.000	0.7347
05	100.000	0.6872	06	120.000	0.7326	07	160.000	0.7156			

N-Nitrosodimethylamine	Average RF		RSD = 3.3	Average RF = 0.6632	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.6938	02	10.000	0.6765	03	50.000	0.6680	04	80.000	0.6647
05	100.000	0.6263	06	120.000	0.6689	07	160.000	0.6445			

N-Nitrosodiphenylamine	Average RF		RSD = 10.0	Average RF = 0.4396	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.4977	02	10.000	0.4842	03	50.000	0.4751	04	80.000	0.4060
05	100.000	0.4148	06	120.000	0.4026	07	160.000	0.3971			

Naphthalene	Average RF		RSD = 8.8	Average RF = 0.8227	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.9366	02	10.000	0.8821	03	50.000	0.8651	04	80.000	0.8033
05	100.000	0.7605	06	120.000	0.7571	07	160.000	0.7541			

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Nitrobenzene Average RF RSD = 5.3 Average RF = 0.2582

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2850	02	10.000	0.2628	03	50.000	0.2607	04	80.000	0.2522
05	100.000	0.2507	06	120.000	0.2422	07	160.000	0.2542			

Nitrobenzene-d5 Average RF RSD = 4.9 Average RF = 0.2494

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.2687	02	10.000	0.2614	03	50.000	0.2514	04	80.000	0.2344
05	100.000	0.2449	06	120.000	0.2390	07	160.000	0.2464			

Pentachlorophenol (PCP) Average RF RSD = 7.5 Average RF = 0.09088

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	50.000	0.08072	04	80.000	0.09120	05	100.000	0.09187	06	120.000	0.09085
07	160.000	0.09977									

Phenanthrene Average RF RSD = 10.5 Average RF = 0.8763

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.044	02	10.000	0.9127	03	50.000	0.9273	04	80.000	0.8468
05	100.000	0.8279	06	120.000	0.7971	07	160.000	0.7785			

Phenol Average RF RSD = 10.5 Average RF = 1.511

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.828	02	10.000	1.589	03	50.000	1.487	04	80.000	1.501
05	100.000	1.386	06	120.000	1.389	07	160.000	1.398			

Phenol-d6 Average RF RSD = 8.0 Average RF = 1.274

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.473	02	10.000	1.347	03	50.000	1.253	04	80.000	1.217
05	100.000	1.183	06	120.000	1.233	07	160.000	1.211			

Pyrene Average RF RSD = 6.1 Average RF = 1.012

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.113	02	10.000	1.063	03	50.000	0.9869	04	80.000	1.040
05	100.000	0.9749	06	120.000	0.9481	07	160.000	0.9571			

Pyridine Average RF RSD = 3.0 Average RF = 1.160

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	1.207	02	10.000	1.172	03	50.000	1.191	04	80.000	1.165
05	100.000	1.115	06	120.000	1.157	07	160.000	1.116			

p-Terphenyl-d14 Average RF RSD = 10.4 Average RF = 0.7238

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.000	0.8752	02	10.000	0.7610	03	50.000	0.6800	04	80.000	0.7224
05	100.000	0.6960	06	120.000	0.6604	07	160.000	0.6718			

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Signal ID: 1

Analyte

1,2,4-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.77	15.5	02	10.000	10.72	7.2	03	50.000	51.57	3.1
04	80.000	75.67	-5.4	05	100.000	92.13	-7.9	06	120.000	111.06	-7.5
07	160.000	151.84	-5.1								

1,2-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	6.08	21.6	02	10.000	10.02	0.2	03	50.000	48.44	-3.1
04	80.000	78.29	-2.1	05	100.000	91.72	-8.3	06	120.000	117.62	-2.0
07	160.000	150.03	-6.2								

1,2-Diphenylhydrazine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	6.28	25.6	02	10.000	10.68	6.8	03	50.000	52.97	5.9
04	80.000	77.84	-2.7	05	100.000	92.12	-7.9	06	120.000	103.61	-13.7
07	160.000	137.58	-14.0								

1,3-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.88	17.5	02	10.000	10.26	2.6	03	50.000	50.66	1.3
04	80.000	78.64	-1.7	05	100.000	93.85	-6.1	06	120.000	113.26	-5.6
07	160.000	147.30	-7.9								

1,4-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.76	15.3	02	10.000	10.44	4.4	03	50.000	50.47	0.9
04	80.000	78.12	-2.3	05	100.000	91.42	-8.6	06	120.000	117.02	-2.5
07	160.000	148.43	-7.2								

1-Methyl-2-pyrrolidinone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.24	4.9	02	10.000	10.92	9.2	03	50.000	50.88	1.8
04	80.000	77.96	-2.5	05	100.000	92.46	-7.5	06	120.000	117.60	-2.0
07	160.000	153.94	-3.8								

1-Methylnaphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.72	14.4	02	10.000	10.92	9.2	03	50.000	49.03	-1.9
04	80.000	76.97	-3.8	05	100.000	96.47	-3.5	06	120.000	110.84	-7.6
07	160.000	149.32	-6.7								

2,4,5-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.83	16.6	02	10.000	10.49	4.9	03	50.000	47.80	-4.4
04	80.000	78.41	-2.0	05	100.000	91.26	-8.7	06	120.000	114.65	-4.5
07	160.000	156.90	-1.9								

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Signal ID: 1

Analyte

2,4,6-Tribromophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.29	5.9	02	10.000	10.45	4.5	03	50.000	48.33	-3.3
04	80.000	79.81	-0.2	05	100.000	99.44	-0.6	06	120.000	113.98	-5.0
07	160.000	158.01	-1.2								

2,4,6-Trichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	6.01	20.1	02	10.000	10.21	2.1	03	50.000	48.08	-3.8
04	80.000	79.15	-1.1	05	100.000	92.52	-7.5	06	120.000	113.18	-5.7
07	160.000	153.34	-4.2								

2,4-Dichlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.26	5.3	02	10.000	10.37	3.7	03	50.000	50.61	1.2
04	80.000	78.43	-2.0	05	100.000	96.79	-3.2	06	120.000	117.23	-2.3
07	160.000	155.69	-2.7								

2,4-Dimethylphenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.36	7.1	02	10.000	10.57	5.7	03	50.000	51.36	2.7
04	80.000	75.69	-5.4	05	100.000	96.16	-3.8	06	120.000	115.30	-3.9
07	160.000	156.16	-2.4								

2,4-Dinitrophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	10.000	10.05	0.5	03	50.000	47.93	-4.1	04	80.000	81.36	1.7
05	100.000	102.70	2.7	06	120.000	119.84	-0.1	07	160.000	158.29	-1.1

2,4-Dinitrotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.79	-4.2	02	10.000	8.75	-12.5	03	50.000	49.19	-1.6
04	80.000	80.31	0.4	05	100.000	105.03	5.0	06	120.000	122.27	1.9
07	160.000	177.57	11.0								

2,6-Dinitrotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.11	2.1	02	10.000	9.61	-3.9	03	50.000	51.56	3.1
04	80.000	79.80	-0.3	05	100.000	99.08	-0.9	06	120.000	115.25	-4.0
07	160.000	166.11	3.8								

2-Chloronaphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.89	17.7	02	10.000	10.85	8.5	03	50.000	49.58	-0.8
04	80.000	78.53	-1.8	05	100.000	93.25	-6.8	06	120.000	108.53	-9.6
07	160.000	148.35	-7.3								

Initial Calibration - Detailed Report

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
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Analyte

2-Chlorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.76	15.3	02	10.000	10.58	5.8	03	50.000	48.94	-2.1
04	80.000	76.95	-3.8	05	100.000	95.23	-4.8	06	120.000	116.22	-3.1
07	160.000	148.55	-7.2								

2-Fluorobiphenyl

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.92	18.4	02	10.000	10.83	8.3	03	50.000	51.27	2.5
04	80.000	77.28	-3.4	05	100.000	92.36	-7.6	06	120.000	108.06	-10.0
07	160.000	146.79	-8.3								

2-Fluorophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.39	7.8	02	10.000	9.61	-3.9	03	50.000	51.80	3.6
04	80.000	79.22	-1.0	05	100.000	97.58	-2.4	06	120.000	119.53	-0.4
07	160.000	154.05	-3.7								

2-Methylnaphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.80	15.9	02	10.000	10.76	7.6	03	50.000	50.12	0.2
04	80.000	76.14	-4.8	05	100.000	95.18	-4.8	06	120.000	111.07	-7.4
07	160.000	149.29	-6.7								

2-Methylphenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.40	8.0	02	10.000	10.49	4.9	03	50.000	49.37	-1.3
04	80.000	81.89	2.4	05	100.000	93.75	-6.2	06	120.000	115.61	-3.7
07	160.000	153.50	-4.1								

2-Nitroaniline

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.05	1.1	02	10.000	9.70	-3.0	03	50.000	50.76	1.5
04	80.000	81.85	2.3	05	100.000	101.60	1.6	06	120.000	117.19	-2.3
07	160.000	158.19	-1.1								

2-Nitrophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.68	-6.4	02	10.000	9.86	-1.4	03	50.000	49.64	-0.7
04	80.000	79.58	-0.5	05	100.000	99.10	-0.9	06	120.000	125.60	4.7
07	160.000	168.51	5.3								

3,3'-Dichlorobenzidine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.81	16.2	02	10.000	10.22	2.2	03	50.000	47.45	-5.1
04	80.000	78.37	-2.0	05	100.000	97.04	-3.0	06	120.000	112.78	-6.0
07	160.000	156.26	-2.3								

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Analyte

3- and 4-Methylphenol Coelution

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.60	12.1	02	10.000	10.77	7.7	03	50.000	50.03	0.1
04	80.000	80.13	0.2	05	100.000	91.35	-8.6	06	120.000	116.04	-3.3
07	160.000	147.07	-8.1								

3-Nitroaniline

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.76	-4.9	02	10.000	9.91	-0.9	03	50.000	50.38	0.8
04	80.000	78.94	-1.3	05	100.000	100.94	0.9	06	120.000	118.45	-1.3
07	160.000	170.73	6.7								

4,6-Dinitro-2-methylphenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	10.000	9.99	-0.1	03	50.000	50.82	1.6	04	80.000	77.46	-3.2
05	100.000	101.70	1.7	06	120.000	119.72	-0.2	07	160.000	160.25	0.2

4-Bromophenyl Phenyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.53	10.7	02	10.000	10.74	7.4	03	50.000	56.02	12.0
04	80.000	77.73	-2.8	05	100.000	93.94	-6.1	06	120.000	107.99	-10.0
07	160.000	142.02	-11.2								

4-Chloro-3-methylphenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.41	8.2	02	10.000	10.29	2.9	03	50.000	51.74	3.5
04	80.000	77.24	-3.5	05	100.000	96.22	-3.8	06	120.000	114.96	-4.2
07	160.000	154.98	-3.1								

4-Chloroaniline

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.63	12.6	02	10.000	11.48	14.8	03	50.000	50.70	1.4
04	80.000	77.33	-3.3	05	100.000	91.14	-8.9	06	120.000	111.17	-7.4
07	160.000	145.24	-9.2								

4-Chlorophenyl Phenyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	6.02	20.5	02	10.000	11.65	16.5	03	50.000	48.32	-3.4
04	80.000	78.12	-2.4	05	100.000	92.86	-7.1	06	120.000	109.15	-9.0
07	160.000	135.87	-15.1								

4-Nitroaniline

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.77	-4.6	02	10.000	9.05	-9.5	03	50.000	47.62	-4.8
04	80.000	82.59	3.2	05	100.000	101.21	1.2	06	120.000	125.26	4.4
07	160.000	176.03	10.0								

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Analyte

4-Nitrophenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.08	-18.4	02	10.000	8.80	-12.0	03	50.000	49.32	-1.4
04	80.000	85.38	6.7	05	100.000	106.62	6.6	06	120.000	126.61	5.5
07	160.000	180.70	12.9								

Acenaphthene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.91	18.1	02	10.000	11.34	13.4	03	50.000	48.70	-2.6
04	80.000	76.14	-4.8	05	100.000	95.07	-4.9	06	120.000	107.44	-10.5
07	160.000	146.13	-8.7								

Acenaphthylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	6.05	21.0	02	10.000	10.74	7.4	03	50.000	49.18	-1.6
04	80.000	77.76	-2.8	05	100.000	95.59	-4.4	06	120.000	108.80	-9.3
07	160.000	143.53	-10.3								

Acetophenone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.66	13.2	02	10.000	11.00	10.0	03	50.000	50.32	0.6
04	80.000	79.53	-0.6	05	100.000	93.05	-6.9	06	120.000	112.91	-5.9
07	160.000	143.45	-10.3								

Aniline

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.99	19.7	02	10.000	10.60	6.0	03	50.000	51.47	2.9
04	80.000	79.52	-0.6	05	100.000	88.15	-11.8	06	120.000	116.21	-3.2
07	160.000	139.11	-13.1								

Anthracene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.78	15.6	02	10.000	10.98	9.8	03	50.000	53.15	6.3
04	80.000	77.76	-2.8	05	100.000	93.26	-6.7	06	120.000	108.72	-9.4
07	160.000	139.62	-12.7								

Atrazine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.85	-3.0	02	10.000	9.81	-1.9	03	50.000	53.18	6.4
04	80.000	80.19	0.2	05	100.000	98.29	-1.7				

Benz(a)anthracene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.83	16.7	02	10.000	10.35	3.5	03	50.000	49.12	-1.8
04	80.000	78.58	-1.8	05	100.000	95.52	-4.5	06	120.000	110.38	-8.0
07	160.000	153.28	-4.2								

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Analyte

Benzaldehyde

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.70	-6.1	02	10.000	10.44	4.4	03	50.000	65.45	**30.9**
04	80.000	73.76	-7.8	05	100.000	78.56	-21.4				

Benzidine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	50.000	54.37	8.7	04	80.000	81.31	1.6	05	100.000	103.15	3.1
06	120.000	114.30	-4.8	07	160.000	145.96	-8.8				

Benzo(a)pyrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.61	12.3	02	10.000	9.75	-2.5	03	50.000	49.65	-0.7
04	80.000	79.81	-0.2	05	100.000	98.03	-2.0	06	120.000	116.14	-3.2
07	160.000	154.16	-3.6								

Benzo(b)fluoranthene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.38	7.6	02	10.000	9.76	-2.4	03	50.000	50.61	1.2
04	80.000	81.65	2.1	05	100.000	96.67	-3.3	06	120.000	118.89	-0.9
07	160.000	153.37	-4.1								

Benzo(g,h,i)perylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.87	17.4	02	10.000	10.12	1.2	03	50.000	50.15	0.3
04	80.000	78.71	-1.6	05	100.000	96.07	-3.9	06	120.000	113.09	-5.8
07	160.000	147.94	-7.5								

Benzo(k)fluoranthene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.42	8.5	02	10.000	9.53	-4.7	03	50.000	50.88	1.8
04	80.000	81.55	1.9	05	100.000	99.49	-0.5	06	120.000	115.32	-3.9
07	160.000	155.16	-3.0								

Benzoic Acid

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	50.000	44.07	-11.9	04	80.000	76.47	-4.4	05	100.000	100.23	0.2
06	120.000	121.87	1.6	07	160.000	183.16	14.5				

Benzyl Alcohol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.66	-6.8	02	10.000	9.01	-9.9	03	50.000	52.15	4.3
04	80.000	85.46	6.8	05	100.000	99.12	-0.9	06	120.000	123.98	3.3
07	160.000	165.00	3.1								

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Analyte

Biphenyl

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.98	19.7	02	10.000	10.94	9.4	03	50.000	49.12	-1.8
04	80.000	78.68	-1.6	05	100.000	94.32	-5.7	06	120.000	105.98	-11.7
07	160.000	146.68	-8.3								

Bis(1-chloroisopropyl) Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	6.09	21.9	02	10.000	10.82	8.2	03	50.000	48.33	-3.3
04	80.000	77.90	-2.6	05	100.000	88.56	-11.4	06	120.000	110.17	-8.2
07	160.000	152.83	-4.5								

Bis(2-chloroethoxy) Methane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.92	18.4	02	10.000	10.36	3.6	03	50.000	49.51	-1.0
04	80.000	77.65	-2.9	05	100.000	93.26	-6.7	06	120.000	113.23	-5.6
07	160.000	150.83	-5.7								

Bis(2-chloroethyl) Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.68	13.6	02	10.000	9.85	-1.5	03	50.000	51.81	3.6
04	80.000	81.92	2.4	05	100.000	95.83	-4.2	06	120.000	112.93	-5.9
07	160.000	147.05	-8.1								

Bis(2-ethylhexyl) Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.98	19.7	02	10.000	10.69	6.9	03	50.000	47.32	-5.4
04	80.000	76.57	-4.3	05	100.000	95.37	-4.6	06	120.000	110.10	-8.3
07	160.000	153.60	-4.0								

Butyl Benzyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.99	19.9	02	10.000	10.10	1.0	03	50.000	47.91	-4.2
04	80.000	78.56	-1.8	05	100.000	95.89	-4.1	06	120.000	111.94	-6.7
07	160.000	153.41	-4.1								

Caprolactam

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	4.91	-1.8	02	10.000	10.71	7.1	03	50.000	50.25	0.5
04	80.000	78.55	-1.8	05	100.000	95.24	-4.8	06	120.000	117.44	-2.1
07	160.000	164.76	3.0								

Carbazole

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.84	16.8	02	10.000	10.03	0.3	03	50.000	53.71	7.4
04	80.000	77.31	-3.4	05	100.000	97.52	-2.5	06	120.000	111.24	-7.3
07	160.000	141.74	-11.4								

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Analyte

Chrysene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.81	16.1	02	10.000	10.39	3.9	03	50.000	48.15	-3.7
04	80.000	78.94	-1.3	05	100.000	96.15	-3.9	06	120.000	113.79	-5.2
07	160.000	150.38	-6.0								

Di-n-butyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.32	6.4	02	10.000	10.44	4.4	03	50.000	55.16	10.3
04	80.000	80.42	0.5	05	100.000	99.40	-0.6	06	120.000	110.10	-8.3
07	160.000	139.50	-12.8								

Di-n-octyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.33	6.6	02	10.000	9.74	-2.6	03	50.000	49.71	-0.6
04	80.000	81.58	2.0	05	100.000	98.86	-1.1	06	120.000	117.89	-1.8
07	160.000	156.02	-2.5								

Dibenz(a,h)anthracene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.94	18.9	02	10.000	10.06	0.6	03	50.000	49.03	-1.9
04	80.000	78.95	-1.3	05	100.000	94.30	-5.7	06	120.000	115.39	-3.8
07	160.000	149.26	-6.7								

Dibenzofuran

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	6.07	21.5	02	10.000	11.11	11.1	03	50.000	51.31	2.6
04	80.000	77.51	-3.1	05	100.000	93.83	-6.2	06	120.000	104.68	-12.8
07	160.000	139.05	-13.1								

Diethyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	6.39	27.7	02	10.000	11.50	15.0	03	50.000	45.61	-8.8
04	80.000	75.57	-5.5	05	100.000	92.87	-7.1	06	120.000	105.35	-12.2
07	160.000	145.48	-9.1								

Dimethyl Phthalate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	6.06	21.2	02	10.000	11.19	11.9	03	50.000	50.70	1.4
04	80.000	76.21	-4.7	05	100.000	90.29	-9.7	06	120.000	108.84	-9.3
07	160.000	142.80	-10.8								

Fluoranthene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.16	3.1	02	10.000	10.21	2.1	03	50.000	55.97	11.9
04	80.000	79.96	-0.1	05	100.000	98.74	-1.3	06	120.000	110.80	-7.7
07	160.000	146.94	-8.2								

Initial Calibration - Detailed Report

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Signal ID: 1

Analyte

Fluorene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	6.11	22.2	02	10.000	10.81	8.1	03	50.000	50.02	0.0
04	80.000	77.94	-2.6	05	100.000	94.85	-5.1	06	120.000	107.42	-10.5
07	160.000	140.52	-12.2								

Hexachlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	6.05	20.9	02	10.000	10.66	6.6	03	50.000	53.99	8.0
04	80.000	76.21	-4.7	05	100.000	92.75	-7.3	06	120.000	105.05	-12.5
07	160.000	142.39	-11.0								

Hexachlorobutadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.41	8.2	02	10.000	11.26	12.6	03	50.000	50.20	0.4
04	80.000	75.96	-5.1	05	100.000	95.20	-4.8	06	120.000	112.98	-5.8
07	160.000	151.16	-5.5								

Hexachlorocyclopentadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.60	12.0	02	10.000	8.90	-11.0	03	50.000	48.19	-3.6
04	80.000	80.35	0.4	05	100.000	102.59	2.6	06	120.000	120.67	0.6
07	160.000	158.49	-0.9								

Hexachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.64	12.9	02	10.000	9.84	-1.6	03	50.000	50.92	1.8
04	80.000	81.98	2.5	05	100.000	93.49	-6.5	06	120.000	115.33	-3.9
07	160.000	151.57	-5.3								

Indeno(1,2,3-cd)pyrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.60	12.1	02	10.000	9.87	-1.3	03	50.000	49.82	-0.4
04	80.000	77.63	-3.0	05	100.000	98.32	-1.7	06	120.000	118.74	-1.1
07	160.000	152.43	-4.7								

Isophorone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.58	11.5	02	10.000	10.91	9.1	03	50.000	51.86	3.7
04	80.000	73.47	-8.2	05	100.000	95.71	-4.3	06	120.000	111.64	-7.0
07	160.000	152.11	-4.9								

N-Nitrosodi-n-propylamine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	6.31	26.2	02	10.000	10.14	1.4	03	50.000	50.38	0.8
04	80.000	76.11	-4.9	05	100.000	88.98	-11.0	06	120.000	113.83	-5.1
07	160.000	148.25	-7.3								

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Signal ID: 1

Analyte

N-Nitrosodimethylamine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.23	4.6	02	10.000	10.20	2.0	03	50.000	50.36	0.7
04	80.000	80.18	0.2	05	100.000	94.44	-5.6	06	120.000	121.02	0.9
07	160.000	155.47	-2.8								

N-Nitrosodiphenylamine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.66	13.2	02	10.000	11.01	10.1	03	50.000	54.03	8.1
04	80.000	73.88	-7.7	05	100.000	94.35	-5.7	06	120.000	109.88	-8.4
07	160.000	144.53	-9.7								

Naphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.69	13.8	02	10.000	10.72	7.2	03	50.000	52.58	5.2
04	80.000	78.12	-2.4	05	100.000	92.44	-7.6	06	120.000	110.44	-8.0
07	160.000	146.66	-8.3								

Nitrobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.52	10.4	02	10.000	10.17	1.7	03	50.000	50.47	0.9
04	80.000	78.11	-2.4	05	100.000	97.07	-2.9	06	120.000	112.54	-6.2
07	160.000	157.52	-1.6								

Nitrobenzene-d5

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.39	7.7	02	10.000	10.48	4.8	03	50.000	50.39	0.8
04	80.000	75.18	-6.0	05	100.000	98.16	-1.8	06	120.000	114.98	-4.2
07	160.000	158.05	-1.2								

Pentachlorophenol (PCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	50.000	44.41	-11.2	04	80.000	80.28	0.3	05	100.000	101.08	1.1
06	120.000	119.96	0.0	07	160.000	175.65	9.8				

Phenanthrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.96	19.1	02	10.000	10.41	4.1	03	50.000	52.91	5.8
04	80.000	77.30	-3.4	05	100.000	94.48	-5.5	06	120.000	109.15	-9.0
07	160.000	142.14	-11.2								

Phenol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	6.05	21.0	02	10.000	10.51	5.1	03	50.000	49.19	-1.6
04	80.000	79.47	-0.7	05	100.000	91.70	-8.3	06	120.000	110.32	-8.1
07	160.000	148.05	-7.5								

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Signal ID: 1

Analyte

Phenol-d6

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.78	15.6	02	10.000	10.57	5.7	03	50.000	49.18	-1.6
04	80.000	76.46	-4.4	05	100.000	92.84	-7.2	06	120.000	116.20	-3.2
07	160.000	152.07	-5.0								

Pyrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.50	10.0	02	10.000	10.51	5.1	03	50.000	48.77	-2.5
04	80.000	82.21	2.8	05	100.000	96.35	-3.6	06	120.000	112.45	-6.3
07	160.000	151.35	-5.4								

Pyridine

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	5.20	4.0	02	10.000	10.10	1.0	03	50.000	51.32	2.6
04	80.000	80.30	0.4	05	100.000	96.11	-3.9	06	120.000	119.63	-0.3
07	160.000	153.91	-3.8								

p-Terphenyl-d14

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	5.000	6.05	20.9	02	10.000	10.51	5.1	03	50.000	46.97	-6.1
04	80.000	79.85	-0.2	05	100.000	96.16	-3.8	06	120.000	109.48	-8.8
07	160.000	148.49	-7.2								

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration

Calibration Files
5 =DC311.D 10 =DC312.D 50 =DC313.D
80 =DC314.D 100 =DC315.D 120 =DC316.D 160= DC317.D

		Compound	5	10	50	80	100	120	Avg	%RSD
1)	IR	d4-1,4-Dichlorobenzen	----------ISTD----------							
2)	TM	Pyridine	1.207	1.172	1.191	1.165	1.115	1.157	1.160	2.99
3)	TM	N-Nitrosodimethylam	0.694	0.676	0.668	0.665	0.626	0.669	0.663	3.30
4)	S	SURR1,2-FLUOROPHENO	1.101	0.981	1.058	1.011	0.996	1.017	1.021	4.28
5)	TM	Benzaldehyde	0.238	0.264	0.331	0.233	0.199		0.253	19.57
6)	TM	Aniline	1.860	1.647	1.600	1.544	1.370	1.505	1.554	11.22
7)	S	SURR2,PHENOL-D6	1.473	1.347	1.253	1.217	1.183	1.233	1.274	8.01
8)	TMC	Phenol	1.828	1.589	1.487	1.501	1.386	1.389	1.511	10.48
9)	TM	bis(2-Clethyl)Ether	1.187	1.030	1.083	1.070	1.001	0.983	1.045	7.34
10)	TM	2-Chlorophenol	1.403	1.287	1.191	1.171	1.159	1.179	1.217	7.84
11)	TM	1,3-Diclbenzene	1.562	1.363	1.346	1.306	1.247	1.254	1.329	8.67
12)	TMC	1,4-Dichlorobenzene	1.573	1.424	1.377	1.332	1.247	1.330	1.364	8.08
13)	TM	1,2-Diclbenzene	1.547	1.275	1.233	1.245	1.167	1.247	1.273	9.93
14)	TM	Benzyl Alcohol	0.699	0.676	0.782	0.801	0.743	0.775	0.750	6.20
15)	TM	2,2'-oxybis(1-Chlor	1.143	1.015	0.906	0.913	0.830	0.861	0.938	11.42
16)	TM	2-Methylphenol	1.195	1.160	1.093	1.133	1.037	1.066	1.106	5.22
17)	TM	Acetophenone	1.652	1.605	1.469	1.451	1.358	1.373	1.460	8.80
18)	TMP	N-Nitroso-Di-n-prop	0.974	0.783	0.778	0.735	0.687	0.733	0.772	12.33
19)	TM	Hexachloroethane	0.548	0.478	0.494	0.497	0.454	0.466	0.485	6.63
20)	TM	3+4-Methylphenol	1.259	1.210	1.124	1.125	1.026	1.086	1.123	7.71
21)	T	1-Methyl-2-pyrrolid	0.778	0.810	0.755	0.723	0.686	0.727	0.742	5.68
22)	IR	d8-Naphthalene	----------ISTD----------							
23)	S	SURR4,NITROBENZENE-	0.269	0.261	0.251	0.234	0.245	0.239	0.249	4.86
24)	TM	Nitrobenzene	0.285	0.263	0.261	0.252	0.251	0.242	0.258	5.27
25)	TM	Isophorone	0.569	0.557	0.529	0.469	0.489	0.475	0.510	8.04
26)	TCM	2-Nitrophenol	0.136	0.143	0.144	0.144	0.144	0.152	0.145	3.98
27)	TM	Benzoic Acid			0.137	0.148	0.156	0.158	0.155	9.64
28)	TM	2,4-Dimethylphenol	0.313	0.309	0.300	0.276	0.281	0.281	0.292	5.09
29)	TM	bis(-2-Chloroethoxy	0.363	0.318	0.304	0.298	0.286	0.289	0.307	8.88
30)	TCM	2,4-Dichlorophenol	0.258	0.254	0.248	0.241	0.237	0.240	0.245	3.41
31)	TM	1,2,4-Trichlorobenz	0.307	0.285	0.274	0.251	0.245	0.246	0.266	8.89
32)	TM	Naphthalene	0.937	0.882	0.865	0.803	0.761	0.757	0.823	8.81
33)	TM	4-Chloroaniline	0.370	0.378	0.334	0.318	0.300	0.305	0.329	10.07
34)	TCM	Hexachlorobutadiene	0.156	0.162	0.145	0.137	0.137	0.136	0.144	7.53
35)	TMC	4-Chloro-3-methylph	0.269	0.256	0.257	0.240	0.239	0.238	0.248	4.85
36)	TM	Caprolactam	0.083	0.091	0.085	0.083	0.081	0.083	0.085	3.93
37)	TM	2-Methylnaphthalene	0.647	0.601	0.560	0.531	0.531	0.517	0.558	8.74
38)	TM	1-Methylnaphthalene	0.613	0.585	0.526	0.516	0.517	0.495	0.536	8.41
39)	IR	d10-Acenaphthene	----------ISTD----------							
40)	TPM	Hexachlorocyclopent	0.086	0.096	0.163	0.188	0.204	0.209	0.167	33.20 Q
41)	TCM	2,4,6-Trichlorophen	0.342	0.291	0.274	0.282	0.263	0.268	0.285	9.41
42)	TM	2,4,5-Trichlorophen	0.356	0.320	0.292	0.299	0.279	0.292	0.305	8.39
43)	S	SURR5,2-FLUOROBIPHE	1.210	1.107	1.047	0.987	0.944	0.920	1.022	10.42
44)	TM	1,1'-Biphenyl	1.395	1.275	1.145	1.146	1.099	1.029	1.165	10.95
45)	TM	2-Chloronaphthalene	1.094	1.009	0.922	0.912	0.867	0.841	0.929	9.84
46)	TM	2-Nitroaniline	0.216	0.208	0.217	0.219	0.217	0.209	0.214	2.13
47)	TM	Acenaphthylene	1.791	1.589	1.455	1.438	1.414	1.341	1.479	10.96
48)	TM	Dimethyl phthalate	1.204	1.112	1.008	0.947	0.897	0.901	0.994	12.32
49)	TM	2,6-Dinitrotoluene	0.211	0.198	0.213	0.206	0.204	0.198	0.206	3.19
50)	TMC	Acenaphthene	1.102	1.058	0.909	0.888	0.887	0.836	0.933	11.15

(#) = Out of Range ### Number of calibration levels exceeded format ###
82701204.M Mon Dec 07 07:16:11 2015

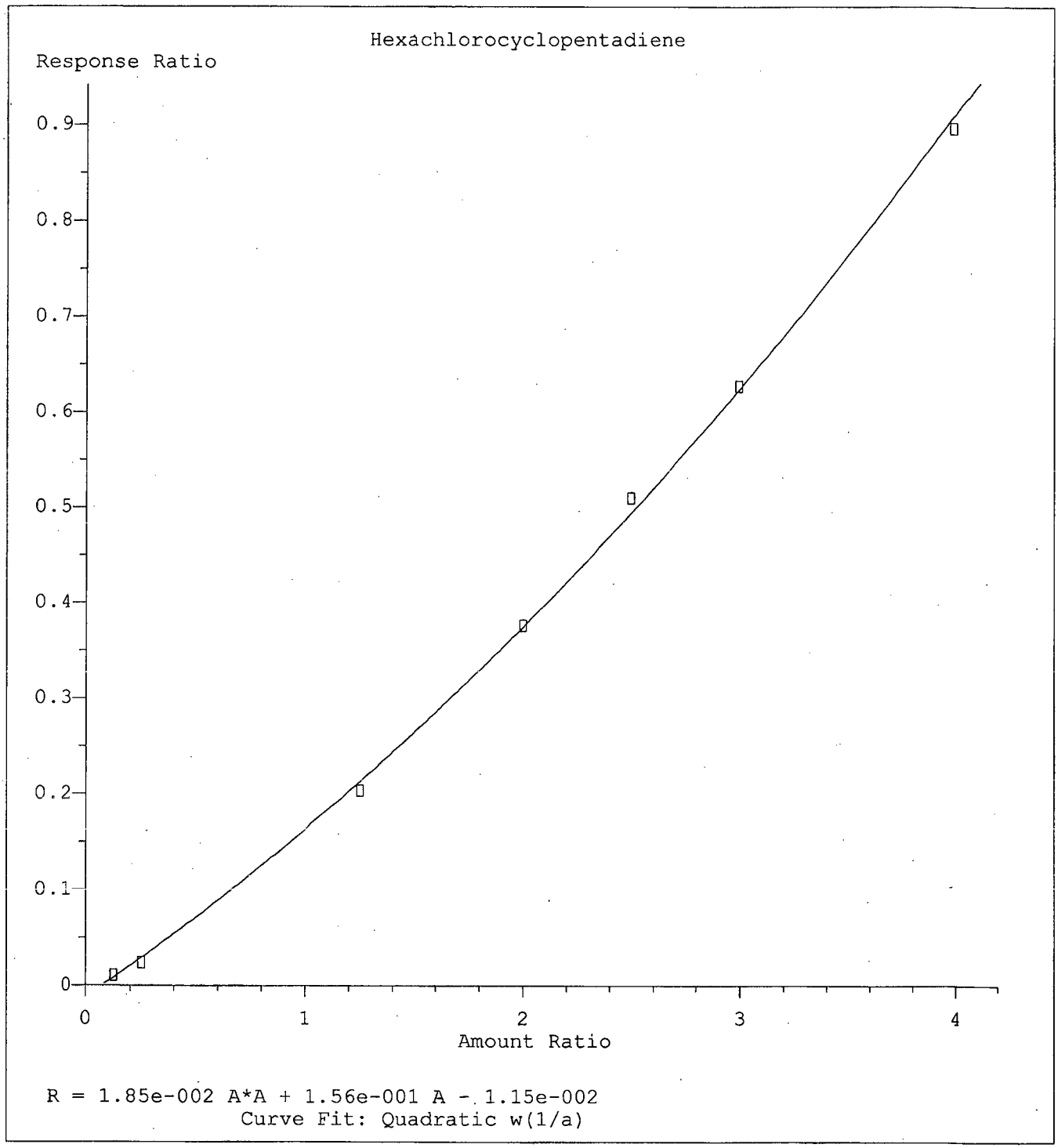
Response Factor Report 5973-A

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration

Calibration Files
5 =DC311.D 10 =DC312.D 50 =DC313.D
80 =DC314.D 100 =DC315.D 120 =DC316.D

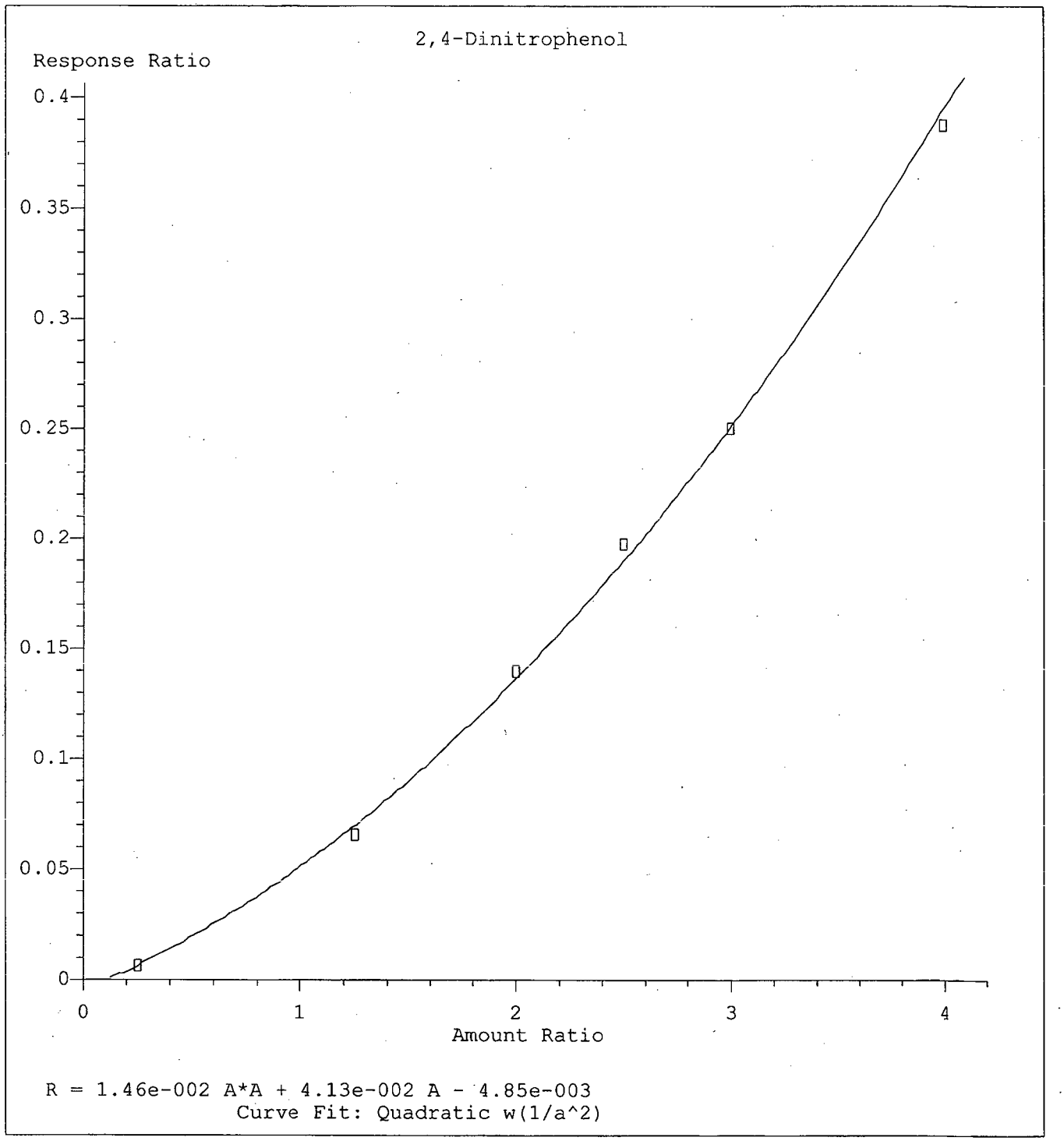
		Compound	5	10	50	80	100	120	Avg	%RSD	
51)	TM	3-Nitroaniline	0.218	0.227	0.231	0.226	0.231	0.226	0.229	3.52	
52)	TPM	2,4-Dinitrophenol		0.026	0.053	0.070	0.079	0.083	0.068	37.32	Q
53)	TM	Dibenzofuran	1.593	1.457	1.346	1.271	1.231	1.144	1.312	12.73	
54)	TM	2,4-Dinitrotoluene	0.244	0.223	0.251	0.256	0.268	0.260	0.255	7.37	
55)	TMP	4-Nitrophenol	0.120	0.130	0.145	0.157	0.157	0.155	0.147	11.34	
56)	TM	Fluorene	1.314	1.162	1.075	1.047	1.020	0.962	1.075	11.91	
57)	TM	4-Chlorophenyl-phen	0.618	0.598	0.496	0.501	0.476	0.467	0.513	13.34	
58)	TM	Diethylphthalate	1.244	1.120	0.889	0.920	0.905	0.855	0.974	15.18	
59)	TM	4-Nitroaniline	0.245	0.232	0.245	0.265	0.260	0.268	0.257	6.66	
60)	S	SURR3,2,4,6-TRIBROM	0.141	0.140	0.129	0.133	0.133	0.127	0.134	3.94	
61)	IR	d10-Phenanthrene	ISTD								
62)	TM	4,6-Dinitro-2-methy		0.042	0.077	0.079	0.086	0.087	0.077	23.79	Q
63)	TM	1,2 Diphenylhydrazi	0.735	0.625	0.620	0.570	0.539	0.505	0.585	14.06	
64)	TCM	N-Nitrosodiphenylam	0.498	0.484	0.475	0.406	0.415	0.403	0.440	9.98	
65)	TM	4-Bromophenyl-pheny	0.205	0.199	0.208	0.180	0.174	0.167	0.185	9.88	
66)	TM	Hexachlorobenzene	0.249	0.220	0.223	0.196	0.191	0.180	0.206	12.22	
67)	TM	Atrazine	0.095	0.096	0.104	0.098	0.096	0.088	0.095	5.70	
68)	TCM	Pentachlorophenol			0.081	0.091	0.092	0.091	0.091	7.45	
69)	TM	Phenanthrene	1.044	0.913	0.927	0.847	0.828	0.797	0.876	10.53	
70)	TM	Anthracene	1.079	1.025	0.992	0.907	0.870	0.846	0.933	10.67	
71)	TM	Carbazole	1.063	0.912	0.977	0.879	0.887	0.843	0.910	9.48	
72)	TM	Di-n-butylphthalate	1.134	1.112	1.175	1.071	1.059	0.978	1.066	8.16	
73)	TCM	Fluoranthene	1.021	1.010	1.108	0.989	0.977	0.914	0.989	6.88	
74)	IR	d12-Chrysene	ISTD								
75)	TM	Benzidine		0.325	0.345	0.323	0.327	0.302	0.319	6.20	
76)	TM	Pyrene	1.113	1.063	0.987	1.040	0.975	0.948	1.012	6.07	
77)	S	SURR6,TERPHENYL-D14	0.875	0.761	0.680	0.722	0.696	0.660	0.724	10.36	
78)	TM	Butyl benzyl phthal	0.601	0.507	0.481	0.493	0.481	0.468	0.502	9.09	
79)	TM	3,3'-Dichlorobenzid	0.413	0.363	0.337	0.348	0.345	0.334	0.356	7.62	
80)	TM	Benzo(a)anthracene	1.171	1.039	0.986	0.986	0.958	0.923	1.003	8.16	
81)	TM	Chrysene	1.072	0.959	0.889	0.911	0.888	0.875	0.923	7.84	
82)	TM	bis(2-Ethylhexyl)ph	0.823	0.735	0.651	0.659	0.656	0.631	0.688	9.89	
83)	IR	d12-Perylene	ISTD								
84)	TCM	Di-n-octyl phthalat	1.174	1.073	1.095	1.123	1.089	1.082	1.101	3.29	
85)	TM	Benzo(b)Fluoranthen	0.974	0.884	0.917	0.925	0.876	0.898	0.906	4.04	
86)	TM	Benzo(k)fluoranthen	0.964	0.847	0.905	0.906	0.884	0.854	0.889	4.58	
87)	TCM	Benzo(a)pyrene	0.993	0.862	0.878	0.882	0.867	0.856	0.884	5.55	
88)	TM	Indeno(1,2,3-cd)Pyr	0.968	0.853	0.861	0.838	0.849	0.855	0.864	5.52	
89)	TM	Dibenz(a,h)anthrace	1.043	0.883	0.860	0.866	0.827	0.843	0.877	8.71	
90)	TM	Benzo(g,h,i)perylen	0.968	0.835	0.827	0.811	0.792	0.777	0.825	8.28	

(#) = Out of Range ### Number of calibration levels exceeded format ###



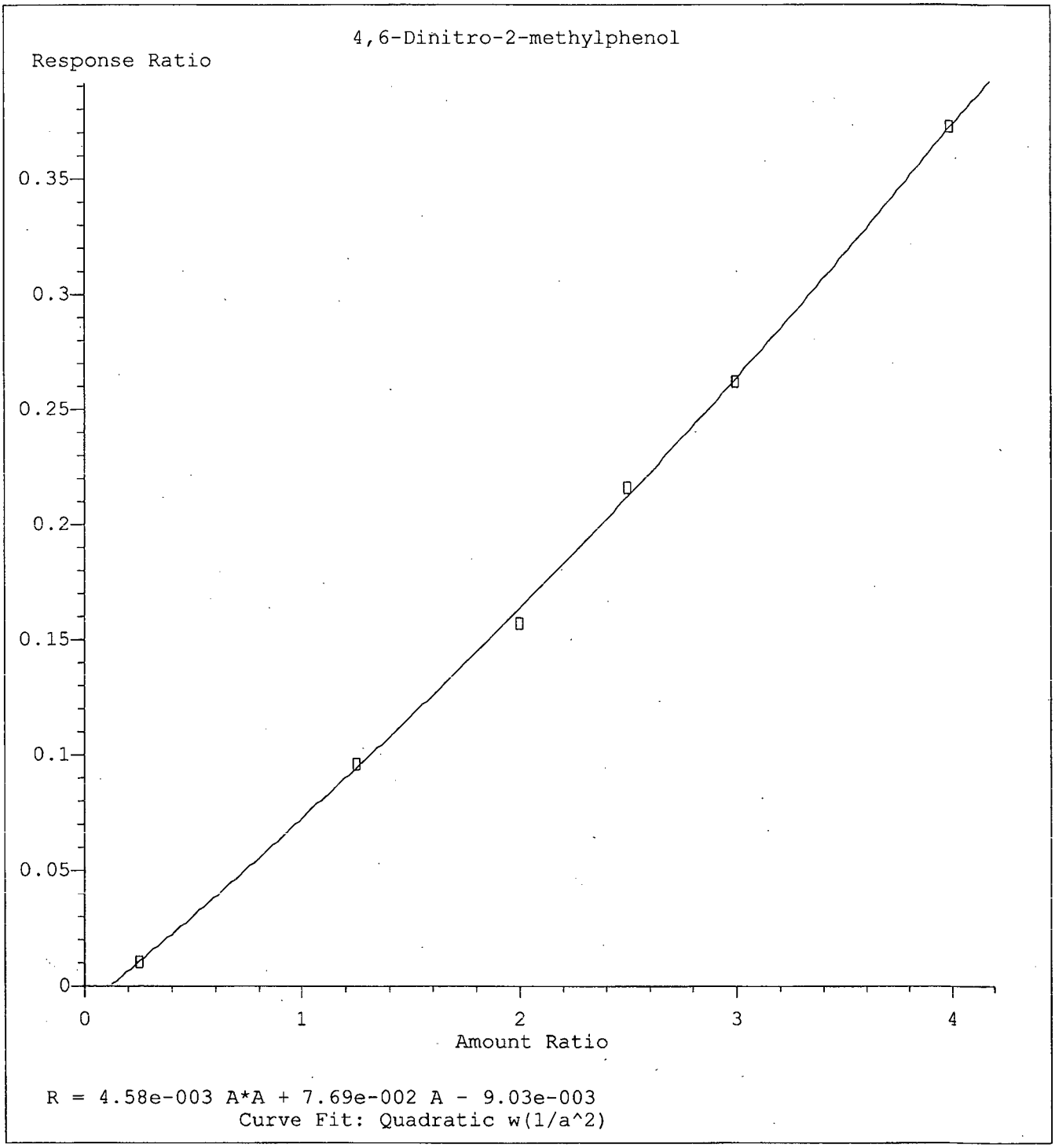
Method Name: I:\ACQUDATA\5973A\METHODS\82701204.M
Calibration Table Last Updated: Mon Dec 07 07:10:14 2015

DM 12/7/15



Method Name: I:\ACQUDATA\5973A\METHODS\82701204.M
Calibration Table Last Updated: Mon Dec 07 07:10:14 2015

OM 12/1/15



Method Name: I:\ACQUDATA\5973A\METHODS\82701204.M
Calibration Table Last Updated: Mon Dec 07 07:10:14 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC311.D Vial: 4
Acq On : 4 Dec 2015 12:18 pm Operator: B.ALLGEIER
Sample : STD 1 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:08 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:08:16 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) d4-1,4-Dichlorobenzene	4.09	152	225061	40.00	ppm		0.00
22) d8-Naphthalene	4.95	136	922258	40.00	ppm		0.00
39) d10-Acenaphthene	6.18	164	512795	40.00	ppm		0.00
61) d10-Phenanthrene	7.24	188	820738	40.00	ppm		0.00
74) d12-Chrysene	10.00	240	798940	40.00	ppm		0.00
83) d12-Perylene	12.73	264	939857	40.00	ppm		0.00
System Monitoring Compounds							
4) SURR1,2-FLUOROPHENOL	3.28	112	30962	4.53	ppm		0.00
Spiked Amount 200.000	Range 10 - 105		Recovery =	2.27%#			
7) SURR2,PHENOL-D6	3.86	99	41437	5.01	ppm		0.00
Spiked Amount 200.000	Range 10 - 107		Recovery =	2.50%#			
23) SURR4,NITROBENZENE-D5	4.46	82	30972	4.79	ppm		0.00
Spiked Amount 100.000	Range 37 - 117		Recovery =	4.79%#			
43) SURR5,2-FLUOROBIPHENYL	5.69	172	77529	4.90	ppm		0.00
Spiked Amount 100.000	Range 39 - 119		Recovery =	4.90%#			
60) SURR3,2,4,6-TRIBROMOPHENOL	6.74	330	9062	3.86	ppm		0.00
Spiked Amount 200.000	Range 28 - 157		Recovery =	1.93%#			
77) SURR6,TERPHENYL-D14	8.59	244	87406	5.23	ppm		0.00
Spiked Amount 100.000	Range 40 - 133		Recovery =	5.23%#			
Target Compounds							Qvalue
2) Pyridine	2.43	79	33945	4.86	ppm		95
3) N-Nitrosodimethylamine	2.40	74	19519	4.98	ppm		90
5) Benzaldehyde	3.82	106	6686	2.69	ppm		92
6) Aniline	3.88	93	52338	6.08	ppm		93
8) Phenol	3.86	94	51425	5.75	ppm		99
9) bis(2-Clethyl)Ether	3.91	93	33396	5.04	ppm		94
10) 2-Chlorophenol	3.97	128	39458	4.98	ppm		98
11) 1,3-Diclbenzene	4.06	146	43939	4.99	ppm		96
12) 1,4-Dichlorobenzene	4.10	146	44249	4.92	ppm		95
13) 1,2-Diclbenzene	4.20	146	43532	5.17	ppm		87
14) Benzyl Alcohol	4.18	79	19660	3.93	ppm		88
15) 2,2'-oxybis(1-Chloropropan	4.25	45	32147	4.84	ppm	#	76
16) 2-Methylphenol	4.25	108	33612	4.88	ppm		95
17) Acetophenone	4.35	105	46473	4.98	ppm		96
18) N-Nitroso-Di-n-propylamine	4.34	70	27412	6.10	ppm		95
19) Hexachloroethane	4.43	117	15414	4.91	ppm		97
20) 3+4-Methylphenol	4.36	108	35424	4.82	ppm	#	81
21) 1-Methyl-2-pyrrolidinone	4.19	99	21884	4.67	ppm		93
24) Nitrobenzene	4.47	77	32860	5.06	ppm		99
25) Isophorone	4.62	82	65614	5.27	ppm		97
26) 2-Nitrophenol	4.69	139	15660	3.59	ppm		89
28) 2,4-Dimethylphenol	4.71	107	36055	5.08	ppm		98
29) bis(-2-Chloroethoxy)Methan	4.76	93	41886	5.35	ppm		98
30) 2,4-Dichlorophenol	4.86	162	29782	4.40	ppm		94
31) 1,2,4-Trichlorobenzene	4.91	180	35348	5.03	ppm	#	81
32) Naphthalene	4.96	128	107974	4.74	ppm		96
33) 4-Chloroaniline	5.00	127	42694	5.02	ppm		87
34) Hexachlorobutadiene	5.03	225	17982	5.14	ppm		98
35) 4-Chloro-3-methylphenol	5.34	107	30975	5.14	ppm		95

(#) = qualifier out of range (m) = manual integration
DC311.D 82701204.M Mon Dec 07 07:17:26 2015

Data File: I:\ACQUDATA\5973A\DATA\120415\DC311.D Vial: 4
Acq On : 4 Dec 2015 12:18 pm Operator: B.ALLGEIER
Sample : STD 1 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:08 2015 Quant Results File: 82701204.RES

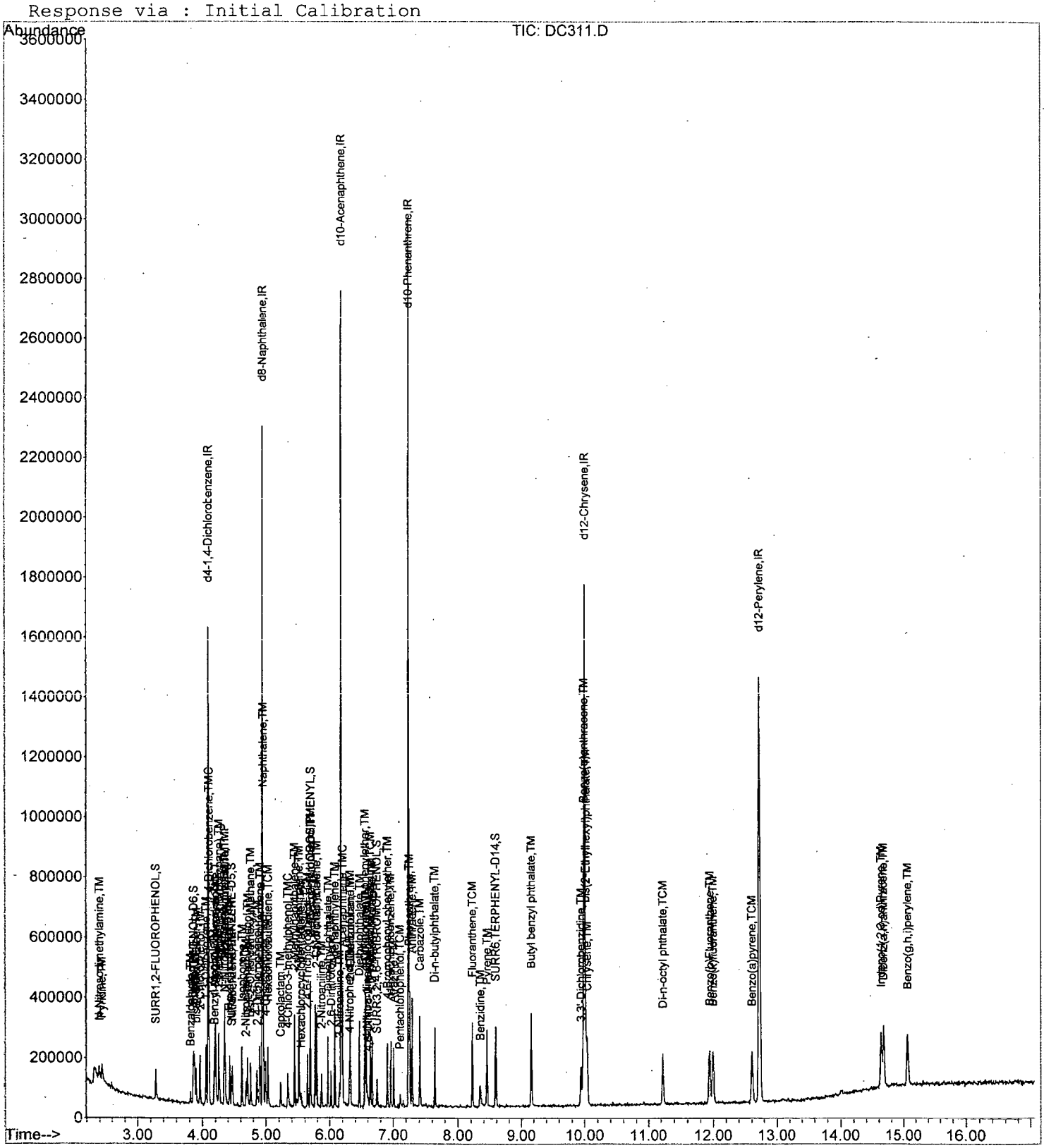
Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:08:16 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
36)	Caprolactam	5.23	113	9610	4.41	ppm	#	87
37)	2-Methylnaphthalene	5.44	142	74613	5.10	ppm		96
38)	1-Methylnaphthalene	5.51	142	70663	4.89	ppm		99
40)	Hexachlorocyclopentadiene	5.55	237	5489	3.90	ppm		96
41)	2,4,6-Trichlorophenol	5.64	196	21914	5.03	ppm		91
42)	2,4,5-Trichlorophenol	5.69	196	22813	5.07	ppm		87
44)	1,1'-Biphenyl	5.77	154	89387	5.02	ppm		97
45)	2-Chloronaphthalene	5.79	162	70135	5.01	ppm		95
46)	2-Nitroaniline	5.86	65	13864	4.54	ppm		85
47)	Acenaphthylene	6.08	152	114785	5.24	ppm		97
48)	Dimethyl phthalate	5.97	163	77169	5.14	ppm		99
49)	2,6-Dinitrotoluene	6.02	165	13502	3.95	ppm		90
50)	Acenaphthene	6.20	153	70655	5.04	ppm		97
51)	3-Nitroaniline	6.16	138	13974	3.55	ppm		76
53)	Dibenzofuran	6.33	168	102118	5.13	ppm		100
54)	2,4-Dinitrotoluene	6.32	165	15657	3.56	ppm		86
55)	4-Nitrophenol	6.31	65	7708	3.76	ppm	#	77
56)	Fluorene	6.57	166	84238	5.30	ppm		95
57)	4-Chlorophenyl-phenylether	6.56	204	39619	5.45	ppm		97
58)	Diethylphthalate	6.47	149	79741	5.71	ppm		98
59)	4-Nitroaniline	6.59	138	15713	4.00	ppm		92
62)	4,6-Dinitro-2-methylphenol	6.61	198	3986	1.45	ppm		74
63)	1,2 Diphenylhydrazine	6.67	77	75397	5.43	ppm		84
64)	N-Nitrosodiphenylamine	6.64	169	51060	4.44	ppm		97
65)	4-Bromophenyl-phenylether	6.91	248	21044	4.57	ppm		88
66)	Hexachlorobenzene	6.96	284	25575	4.74	ppm		90
67)	Atrazine	7.01	215	9735	5.48	ppm		86
68)	Pentachlorophenol	7.11	266	4340	1.37	ppm		83
69)	Phenanthrene	7.26	178	107110	4.91	ppm		95
70)	Anthracene	7.29	178	110694	4.83	ppm		99
71)	Carbazole	7.41	167	109010	4.83	ppm		95
72)	Di-n-butylphthalate	7.64	149	116332	4.37	ppm		99
73)	Fluoranthene	8.22	202	104699	4.53	ppm		96
75)	Benzidine	8.35	184	37196	7.19	ppm		96
76)	Pyrene	8.45	202	111130	4.82	ppm		99
78)	Butyl benzyl phthalate	9.16	149	60068	5.01	ppm		94
79)	3,3'-Dichlorobenzidine	9.94	252	41268	5.11	ppm		90
80)	Benzo(a)anthracene	9.98	228	116934	5.31	ppm		98
81)	Chrysene	10.04	228	107043	5.24	ppm		96
82)	bis(2-Ethylhexyl)phthalate	10.02	149	82238	5.04	ppm		86
84)	Di-n-octyl phthalate	11.23	149	137911	4.56	ppm		99
85)	Benzo(b)Fluoranthene	11.94	252	114474	4.50	ppm		95
86)	Benzo(k)fluoranthene	12.00	252	113285	4.49	ppm		99
87)	Benzo(a)pyrene	12.60	252	116641	4.78	ppm		95
88)	Indeno(1,2,3-cd)Pyrene	14.63	276	113748	4.92	ppm		100
89)	Dibenz(a,h)anthracene	14.67	278	122516	5.00	ppm		96
90)	Benzo(g,h,i)perylene	15.07	276	113742	5.01	ppm		97

(#) = qualifier out of range (m) = manual integration
DC311.D 82701204.M Mon Dec 07 07:17:27 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC311.D Vial: 4
Acq On : 4 Dec 2015 12:18 pm Operator: B.ALLGEIER
Sample : STD 1 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:08 2015 Quant Results File: 82701204.RES

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration



Data File : I:\ACQUDATA\5973A\DATA\120415\DC312.D Vial: 5
Acq On : 4 Dec 2015 12:45 pm Operator: B.ALLGEIER
Sample : STD 2 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:11 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:10:11 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) d4-1,4-Dichlorobenzene	4.09	152	220151	40.00	ppm		0.00
22) d8-Naphthalene	4.95	136	863614	40.00	ppm		0.00
39) d10-Acenaphthene	6.18	164	501164	40.00	ppm		0.00
61) d10-Phenanthrene	7.24	188	833165	40.00	ppm		0.00
74) d12-Chrysene	10.00	240	830907	40.00	ppm		0.00
83) d12-Perylene	12.73	264	936017	40.00	ppm		0.00
System Monitoring Compounds							
4) SURR1,2-FLUOROPHENOL	3.28	112	54002	8.19	ppm		0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 4.09%#				
7) SURR2,PHENOL-D6	3.86	99	74116	9.17	ppm		0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 4.59%#				
23) SURR4,NITROBENZENE-D5	4.46	82	56439	9.44	ppm		0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 9.44%#				
43) SURR5,2-FLUOROBIPHENYL	5.69	172	138654	9.07	ppm		0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 9.07%#				
60) SURR3,2,4,6-TRIBROMOPHENOL	6.75	330	17484	7.78	ppm		0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 3.89%#				
77) SURR6,TERPHENYL-D14	8.59	244	158081	9.09	ppm		0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 9.09%#				
Target Compounds							Qvalue
2) Pyridine	2.43	79	64516	9.47	ppm		96
3) N-Nitrosodimethylamine	2.39	74	37232	9.73	ppm		94
5) Benzaldehyde	3.82	106	14535	6.12	ppm	#	77
6) Aniline	3.88	93	90622	10.74	ppm		83
8) Phenol	3.86	94	87446	9.79	ppm		95
9) bis(2-Clethyl)Ether	3.91	93	56669	8.78	ppm		89
10) 2-Chlorophenol	3.96	128	70833	9.13	ppm		95
11) 1,3-Diclbenzene	4.06	146	75008	8.78	ppm		98
12) 1,4-Dichlorobenzene	4.10	146	78389	9.04	ppm		99
13) 1,2-Diclbenzene	4.21	146	70150	8.52	ppm		92
14) Benzyl Alcohol	4.18	79	37208	7.81	ppm		93
15) 2,2'-oxybis(1-Chloropropan	4.25	45	55849	8.71	ppm	#	80
16) 2-Methylphenol	4.25	108	63868	9.44	ppm		99
17) Acetophenone	4.35	105	88347	9.75	ppm		86
18) N-Nitroso-Di-n-propylamine	4.34	70	43118	9.56	ppm		97
19) Hexachloroethane	4.42	117	26295	8.65	ppm		93
20) 3+4-Methylphenol	4.35	108	66603	9.42	ppm		97
21) 1-Methyl-2-pyrrolidinone	4.19	99	44608	9.85	ppm		92
24) Nitrobenzene	4.47	77	56729	9.33	ppm		97
25) Isophorone	4.62	82	120255	10.25	ppm		94
26) 2-Nitrophenol	4.69	139	30905	7.89	ppm		93
27) Benzoic Acid	4.77	105	13817	2.95	ppm		67
28) 2,4-Dimethylphenol	4.71	107	66634	10.00	ppm		94
29) bis(-2-Chloroethoxy)Methan	4.76	93	68599	9.30	ppm		89
30) 2,4-Dichlorophenol	4.86	162	54912	8.84	ppm		94
31) 1,2,4-Trichlorobenzene	4.91	180	61460	9.36	ppm		90
32) Naphthalene	4.96	128	190440	9.14	ppm		95
33) 4-Chloroaniline	5.00	127	81576	10.48	ppm		93
34) Hexachlorobutadiene	5.03	225	35060	10.66	ppm		86

(#) = qualifier out of range (m) = manual integration
DC312.D 82701204.M Mon Dec 07 07:17:32 2015

Data File : I:\ACQUDATA\5973A\DATA\L20415\DC312.D Vial: 5
Acq On : 4 Dec 2015 12:45 pm Operator: B.ALLGEIER
Sample : STD 2 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:11 2015 Quant Results File: 82701204.RES

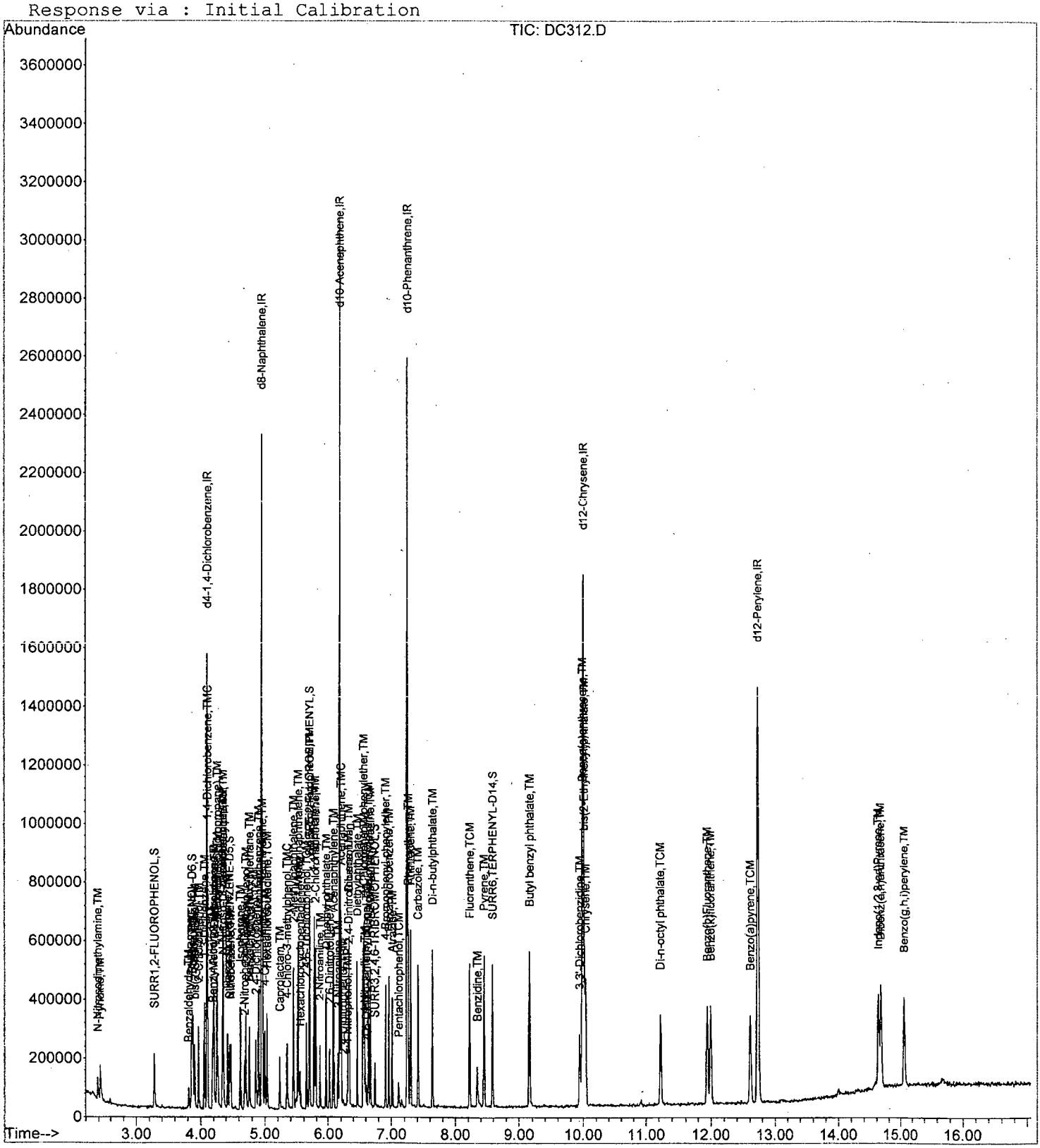
Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:10:11 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
35)	4-Chloro-3-methylphenol	5.34	107	55186	9.69	ppm		94
36)	Caprolactam	5.23	113	19624	9.96	ppm		95
37)	2-Methylnaphthalene	5.44	142	129682	9.54	ppm		98
38)	1-Methylnaphthalene	5.51	142	126375	9.40	ppm		99
40)	Hexachlorocyclopentadiene	5.55	237	12077	7.29	ppm		89
41)	2,4,6-Trichlorophenol	5.64	196	36408	8.51	ppm		99
42)	2,4,5-Trichlorophenol	5.69	196	40134	9.06	ppm		93
44)	1,1'-Biphenyl	5.77	154	159791	9.22	ppm		95
45)	2-Chloronaphthalene	5.79	162	126372	9.26	ppm		96
46)	2-Nitroaniline	5.86	65	26002	8.83	ppm	#	81
47)	Acenaphthylene	6.09	152	199143	9.32	ppm		98
48)	Dimethyl phthalate	5.97	163	139354	9.53	ppm		98
49)	2,6-Dinitrotoluene	6.03	165	24818	7.62	ppm		94
50)	Acenaphthene	6.20	153	132590	9.73	ppm		89
51)	3-Nitroaniline	6.16	138	28446	7.79	ppm		96
52)	2,4-Dinitrophenol	6.24	184	3236	1.83	ppm		59
53)	Dibenzofuran	6.33	168	182496	9.43	ppm		98
54)	2,4-Dinitrotoluene	6.32	165	27951	6.86	ppm		94
55)	4-Nitrophenol	6.30	65	16237	8.26	ppm	#	74
56)	Fluorene	6.57	166	145588	9.40	ppm		95
57)	4-Chlorophenyl-phenylether	6.56	204	74893	10.44	ppm		90
58)	Diethylphthalate	6.47	149	140377	10.19	ppm		95
59)	4-Nitroaniline	6.59	138	29115	7.68	ppm		92
62)	4,6-Dinitro-2-methylphenol	6.61	198	8717	3.12	ppm		98
63)	1,2 Diphenylhydrazine	6.67	77	130149	9.13	ppm		93
64)	N-Nitrosodiphenylamine	6.65	169	100849	8.87	ppm		97
65)	4-Bromophenyl-phenylether	6.91	248	41485	8.99	ppm		94
66)	Hexachlorobenzene	6.96	284	45770	8.33	ppm		96
67)	Atrazine	7.02	215	19996	11.16	ppm		91
68)	Pentachlorophenol	7.11	266	10209	3.18	ppm		87
69)	Phenanthrene	7.26	178	190107	8.68	ppm		96
70)	Anthracene	7.29	178	213433	9.27	ppm		94
71)	Carbazole	7.41	167	190019	8.39	ppm		95
72)	Di-n-butylphthalate	7.64	149	231705	8.61	ppm		100
73)	Fluoranthene	8.23	202	210330	8.95	ppm		97
75)	Benzidine	8.35	184	67601	12.56	ppm		96
76)	Pyrene	8.45	202	220817	9.26	ppm		99
78)	Butyl benzyl phthalate	9.16	149	105308	8.43	ppm		94
79)	3,3'-Dichlorobenzidine	9.94	252	75495	8.96	ppm		92
80)	Benzo(a)anthracene	9.98	228	215795	9.39	ppm		98
81)	Chrysene	10.04	228	199301	9.40	ppm		96
82)	bis(2-Ethylhexyl)phthalate	10.02	149	152730	9.02	ppm		91
84)	Di-n-octyl phthalate	11.23	149	251044	8.36	ppm		99
85)	Benzo(b)Fluoranthene	11.94	252	206832	8.28	ppm		99
86)	Benzo(k)fluoranthene	11.99	252	198175	8.00	ppm		97
87)	Benzo(a)pyrene	12.61	252	201769	8.30	ppm		97
88)	Indeno(1,2,3-cd)Pyrene	14.63	276	199559m	8.58	ppm		
89)	Dibenz(a,h)anthracene	14.67	278	206554	8.40	ppm		96
90)	Benzo(g,h,i)perylene	15.07	276	195292	8.64	ppm		95

(#) = qualifier out of range (m) = manual integration
DC312.D 82701204.M Mon Dec 07 07:17:33 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC312.D Vial: 5
Acq On : 4 Dec 2015 12:45 pm Operator: B.ALLGEIER
Sample : STD 2 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:11 2015 Quant Results File: 82701204.RES

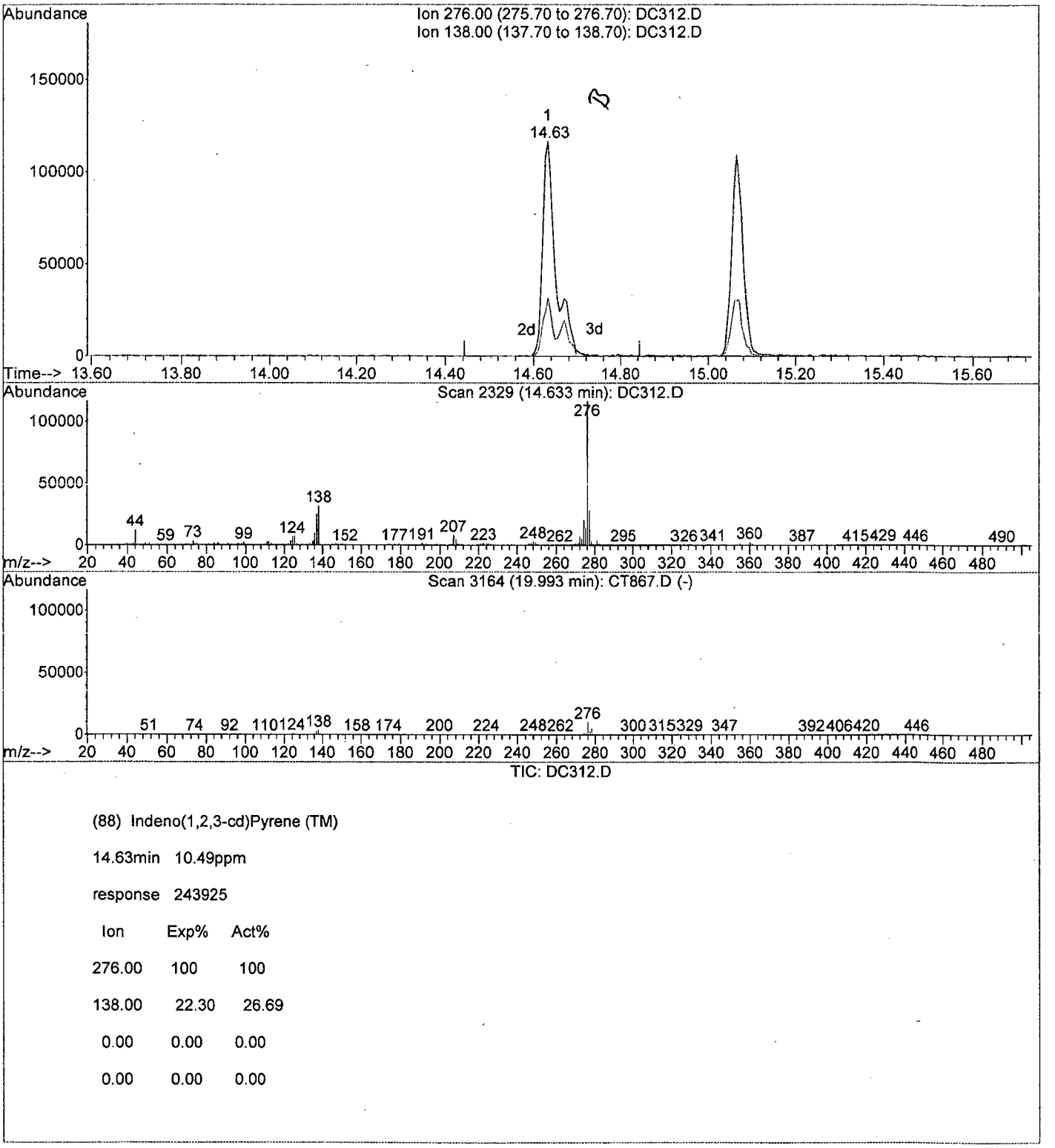
Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration



DC312.D 82701204.M Mon Dec 07 07:17:35 2015 Page 3

Data File : I:\ACQUDATA\5973A\DATA\120415\DC312.D Vial: 5
Acq On : 4 Dec 2015 12:45 pm Operator: B.ALLGEIER
Sample : STD 2 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:10 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:10:11 2015
Response via : Multiple Level Calibration



(88) Indeno(1,2,3-cd)Pyrene (TM)

14.63min 10.49ppm

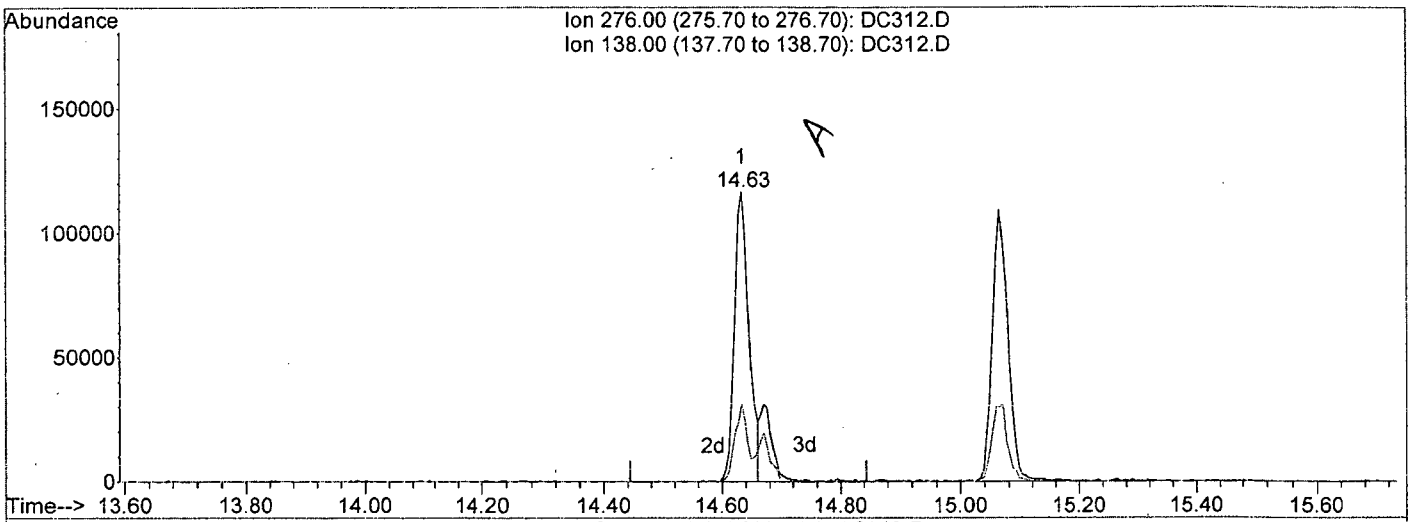
response 243925

Ion	Exp%	Act%
276.00	100	100
138.00	22.30	26.69
0.00	0.00	0.00
0.00	0.00	0.00

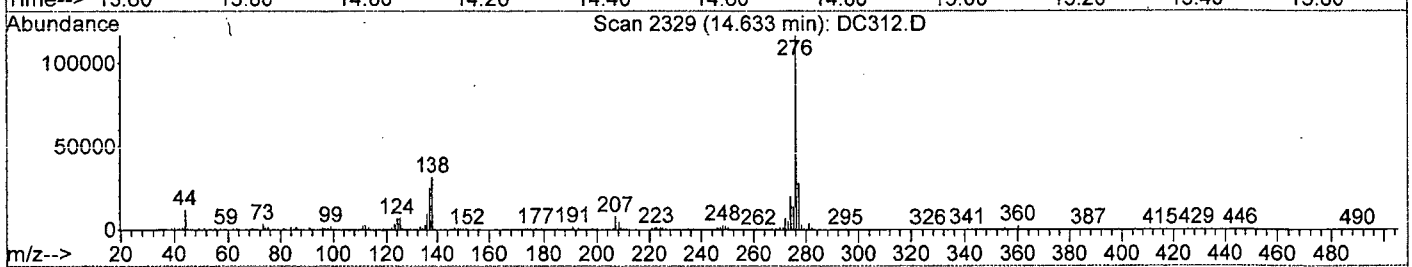
DC312.D 82701204.M Fri Dec 04 15:11:45 2015

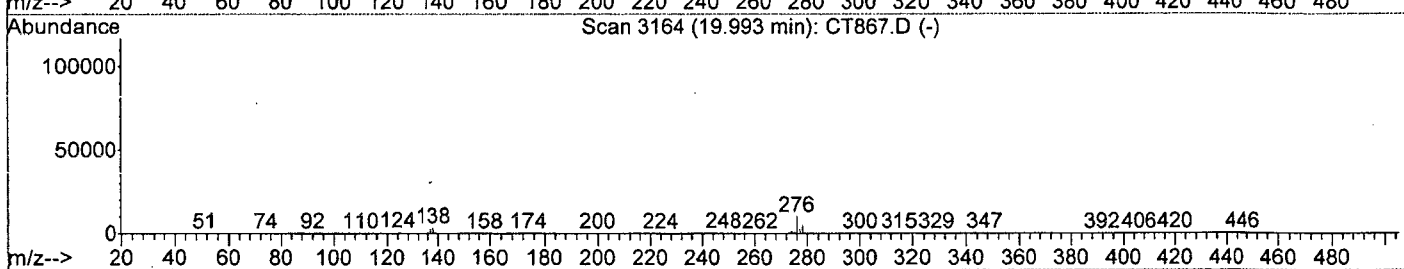
Data File : I:\ACQUDATA\5973A\DATA\120415\DC312.D Vial: 5
Acq On : 4 Dec 2015 12:45 pm Operator: B.ALLGEIER
Sample : STD 2 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:11 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:10:11 2015
Response via : Multiple Level Calibration



A





TIC: DC312.D

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.63min 8.58ppm m

response 199559

Ion	Exp%	Act%
276.00	100	100
138.00	22.30	26.98
0.00	0.00	0.00
0.00	0.00	0.00

remove shoulder

JM 12/7/15

m 12/8

DC312.D 82701204.M Fri Dec 04 15:11:53 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC313.D Vial: 6
Acq On : 4 Dec 2015 1:11 pm Operator: B.ALLGEIER
Sample : STD 3 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:12 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:12:10 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	4.09	152	224571	40.00	ppm	0.00
22) d8-Naphthalene	4.95	136	902521	40.00	ppm	0.00
39) d10-Acenaphthene	6.18	164	541453	40.00	ppm	0.00
61) d10-Phenanthrene	7.24	188	796780	40.00	ppm	0.00
74) d12-Chrysene	10.00	240	919040	40.00	ppm	0.00
83) d12-Perylene	12.73	264	951461	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.28	112	296926	45.64	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 22.82%			
7) SURR2,PHENOL-D6	3.86	99	351697	43.41	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 21.70%			
23) SURR4,NITROBENZENE-D5	4.46	82	283593	46.07	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 46.07%			
43) SURR5,2-FLUOROBIPHENYL	5.69	172	708964	44.13	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 44.13%			
60) SURR3,2,4,6-TRIBROMOPHENOL	6.75	330	87360	37.43	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 18.72%#			
77) SURR6,TERPHENYL-D14	8.59	244	781189	41.39	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 41.39%			
Target Compounds						Qvalue
2) Pyridine	2.42	79	334331	48.48	ppm	98
3) N-Nitrosodimethylamine	2.39	74	187511	47.87	ppm	92
5) Benzaldehyde	3.82	106	92957	41.17	ppm	87
6) Aniline	3.88	93	449006	53.56	ppm	95
8) Phenol	3.87	94	417306	46.03	ppm	98
9) bis(2-Clethyl)Ether	3.91	93	303936	47.32	ppm	91
10) 2-Chlorophenol	3.96	128	334348	43.13	ppm	94
11) 1,3-Diclbenzene	4.06	146	377947	44.59	ppm	92
12) 1,4-Dichlorobenzene	4.10	146	386577	44.71	ppm	97
13) 1,2-Diclbenzene	4.20	146	346102	42.46	ppm	94
14) Benzyl Alcohol	4.18	79	219608	47.09	ppm	93
15) 2,2'-oxybis(1-Chloropropan	4.25	45	254417	40.34	ppm	88
16) 2-Methylphenol	4.26	108	306684	44.99	ppm	98
17) Acetophenone	4.35	105	412361	45.03	ppm	98
18) N-Nitroso-Di-n-propylamine	4.34	70	218458	47.95	ppm	95
19) Hexachloroethane	4.43	117	138743	46.05	ppm	98
20) 3+4-Methylphenol	4.35	108	315562	44.49	ppm	93
21) 1-Methyl-2-pyrrolidinone	4.20	99	211940	46.52	ppm	96
24) Nitrobenzene	4.47	77	294066	47.23	ppm	97
25) Isophorone	4.62	82	597305	48.89	ppm	94
26) 2-Nitrophenol	4.69	139	162615	41.04	ppm	91
27) Benzoic Acid	4.77	105	154409	35.26	ppm	97
28) 2,4-Dimethylphenol	4.70	107	338394	48.83	ppm	93
29) bis(-2-Chloroethoxy)Methan	4.76	93	342679	45.01	ppm	91
30) 2,4-Dichlorophenol	4.86	162	280170	44.18	ppm	99
31) 1,2,4-Trichlorobenzene	4.91	180	308945	45.78	ppm	88
32) Naphthalene	4.97	128	975983	46.12	ppm	99
33) 4-Chloroaniline	5.00	127	376418	46.82	ppm	92
34) Hexachlorobutadiene	5.04	225	163300	47.21	ppm	93

(#) = qualifier out of range (m) = manual integration
DC313.D 82701204.M Mon Dec 07 07:17:38 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC313.D Vial: 6
Acq On : 4 Dec 2015 1:11 pm Operator: B.ALLGEIER
Sample : STD 3 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:12 2015 Quant Results File: 82701204.RES

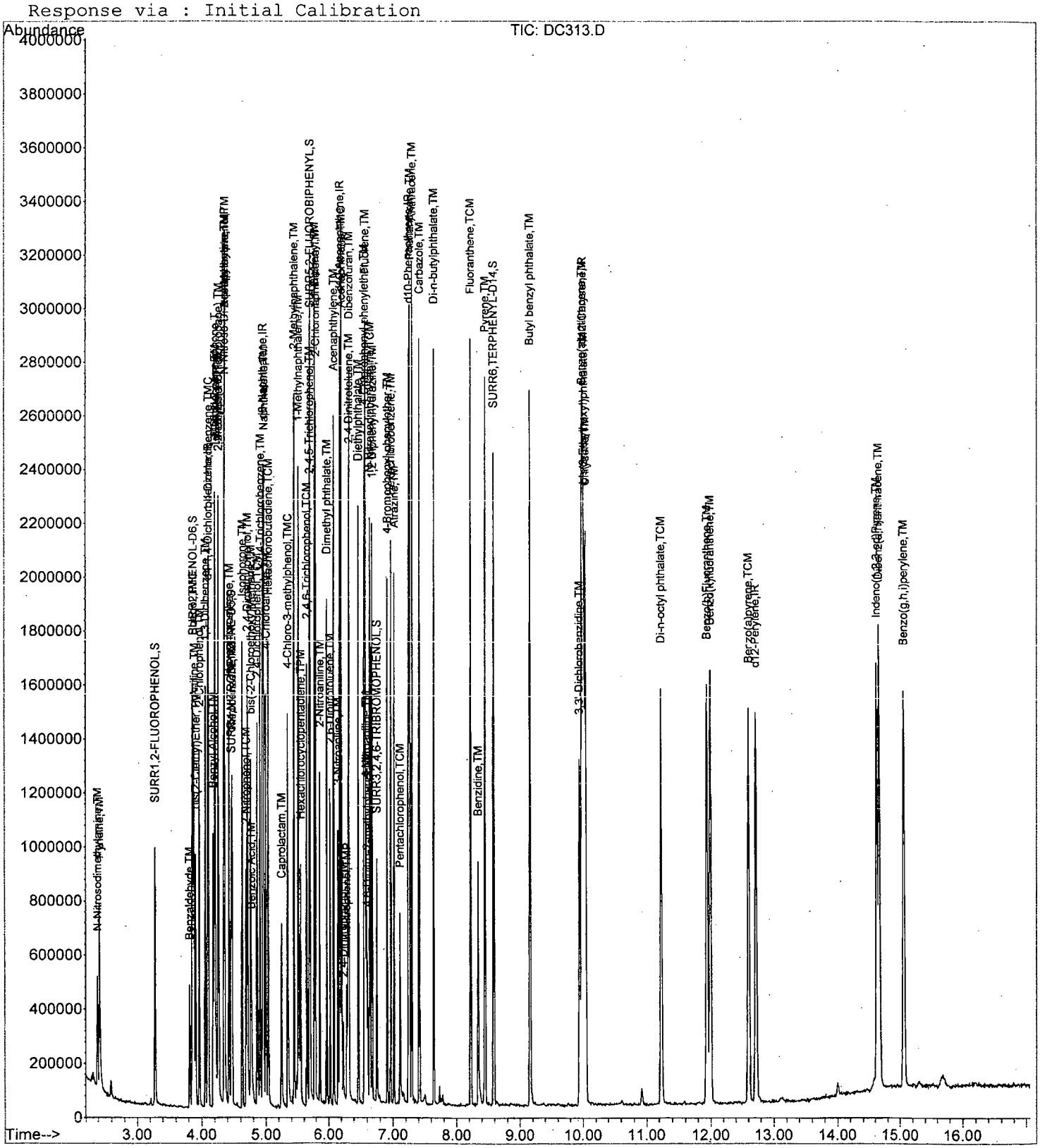
Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:12:10 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
35)	4-Chloro-3-methylphenol	5.34	107	289982	49.16	ppm	93
36)	Caprolactam	5.24	113	96254	47.14	ppm	86
37)	2-Methylnaphthalene	5.44	142	631313	45.16	ppm	94
38)	1-Methylnaphthalene	5.51	142	593017	43.06	ppm	94
40)	Hexachlorocyclopentadiene	5.55	237	110040	41.14	ppm	95
41)	2,4,6-Trichlorophenol	5.64	196	185225	40.90	ppm	100
42)	2,4,5-Trichlorophenol	5.68	196	197531	41.84	ppm	98
44)	1,1'-Biphenyl	5.77	154	774877	42.28	ppm	97
45)	2-Chloronaphthalene	5.79	162	623776	43.09	ppm	98
46)	2-Nitroaniline	5.86	65	147061	47.05	ppm	96
47)	Acenaphthylene	6.08	152	984748	43.58	ppm	98
48)	Dimethyl phthalate	5.98	163	681967	44.11	ppm	99
49)	2,6-Dinitrotoluene	6.03	165	143915	42.51	ppm	96
50)	Acenaphthene	6.21	153	615173	42.39	ppm	97
51)	3-Nitroaniline	6.15	138	156274	41.91	ppm	96
52)	2,4-Dinitrophenol	6.23	184	35552	18.59	ppm	97
53)	Dibenzofuran	6.33	168	911002	44.43	ppm	94
54)	2,4-Dinitrotoluene	6.32	165	169732	40.87	ppm	93
55)	4-Nitrophenol	6.29	65	98353	46.87	ppm	97
56)	Fluorene	6.57	166	727885	44.54	ppm	98
57)	4-Chlorophenyl-phenylether	6.56	204	335575	43.35	ppm	98
58)	Diethylphthalate	6.47	149	601434	40.94	ppm	98
59)	4-Nitroaniline	6.59	138	165590	41.21	ppm	94
62)	4,6-Dinitro-2-methylphenol	6.61	198	76539	31.36	ppm	97
63)	1,2 Diphenylhydrazine	6.68	77	617604	46.52	ppm	98
64)	N-Nitrosodiphenylamine	6.64	169	473166	45.15	ppm	95
65)	4-Bromophenyl-phenylether	6.91	248	206851	48.24	ppm	96
66)	Hexachlorobenzene	6.96	284	221746	43.43	ppm	100
67)	Atrazine	7.02	215	103634	59.70	ppm	96
68)	Pentachlorophenol	7.11	266	80391	26.20	ppm	96
69)	Phenanthrene	7.26	178	923609	45.64	ppm	97
70)	Anthracene	7.30	178	988102	45.97	ppm	96
71)	Carbazole	7.41	167	973199	46.00	ppm	97
72)	Di-n-butylphthalate	7.64	149	1170727	46.42	ppm	99
73)	Fluoranthene	8.22	202	1103220	49.28	ppm	99
75)	Benzidine	8.34	184	396514	66.61	ppm	95
76)	Pyrene	8.45	202	1133784	43.71	ppm	99
78)	Butyl benzyl phthalate	9.16	149	552287	41.23	ppm	92
79)	3,3'-Dichlorobenzidine	9.95	252	387649	42.60	ppm	94
80)	Benzo(a)anthracene	9.98	228	1132384	45.07	ppm	100
81)	Chrysene	10.05	228	1021300	44.35	ppm	98
82)	bis(2-Ethylhexyl)phthalate	10.02	149	748176	40.81	ppm	95
84)	Di-n-octyl phthalate	11.23	149	1302289	43.85	ppm	99
85)	Benzo(b)Fluoranthene	11.94	252	1090602	44.03	ppm	95
86)	Benzo(k)fluoranthene	12.00	252	1075750	44.51	ppm	94
87)	Benzo(a)pyrene	12.61	252	1044379	43.39	ppm	98
88)	Indeno(1,2,3-cd)Pyrene	14.64	276	1023862	43.98	ppm	100
89)	Dibenz(a,h)anthracene	14.67	278	1022937	41.72	ppm	99
90)	Benzo(g,h,i)perylene	15.07	276	983888	43.85	ppm	98

(#) = qualifier out of range (m) = manual integration
DC313.D 82701204.M Mon Dec 07 07:17:39 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC313.D Vial: 6
Acq On : 4 Dec 2015 1:11 pm Operator: B.ALLGEIER
Sample : STD 3 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:12 2015 Quant Results File: 82701204.RES

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration



DC313.D 82701204.M Mon Dec 07 07:17:41 2015 Page 3

Data File : I:\ACQUDATA\5973A\DATA\120415\DC314.D Vial: 7
Acq On : 4 Dec 2015 1:38 pm Operator: B.ALLGEIER
Sample : STD 4 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:05 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:03:29 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) d4-1,4-Dichlorobenzene	4.09	152	229245	40.00	ppm		0.00
22) d8-Naphthalene	4.95	136	955300	40.00	ppm		0.00
39) d10-Acenaphthene	6.19	164	545790	40.00	ppm		0.00
61) d10-Phenanthrene	7.24	188	866621	40.00	ppm		0.00
74) d12-Chrysene	10.01	240	897998	40.00	ppm		0.00
83) d12-Perylene	12.73	264	941685	40.00	ppm		0.00
System Monitoring Compounds							
4) SURR1,2-FLUOROPHENOL	3.28	112	463520	64.26	ppm		0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 32.13%				
7) SURR2,PHENOL-D6	3.86	99	558166	63.97	ppm		0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 31.98%				
23) SURR4,NITROBENZENE-D5	4.46	82	447877	65.18	ppm		0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 65.18%				
43) SURR5,2-FLUOROBIPHENYL	5.69	172	1077339	61.93	ppm		0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 61.93%				
60) SURR3,2,4,6-TRIBROMOPHENOL	6.75	330	145407	55.43	ppm		0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 27.72%#				
77) SURR6,TERPHENYL-D14	8.59	244	1297501	67.53	ppm		0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 67.53%				
Target Compounds							Qvalue
2) Pyridine	2.42	79	534048	74.04	ppm		92
3) N-Nitrosodimethylamine	2.39	74	304764	75.13	ppm		91
5) Benzaldehyde	3.81	106	106932	37.47	ppm		85
6) Aniline	3.88	93	708056	81.55	ppm		83
8) Phenol	3.86	94	688172	74.37	ppm		86
9) bis(2-Clethyl)Ether	3.91	93	490604	71.04	ppm		98
10) 2-Chlorophenol	3.96	128	536667	64.02	ppm		92
11) 1,3-Diclbenzene	4.05	146	598918	64.74	ppm		93
12) 1,4-Dichlorobenzene	4.10	146	610817	64.69	ppm		96
13) 1,2-Diclbenzene	4.20	146	570992	64.49	ppm		97
14) Benzyl Alcohol	4.18	79	367365	70.39	ppm		86
15) 2,2'-oxybis(1-Chloropropan	4.25	45	418647	59.36	ppm	#	75
16) 2-Methylphenol	4.26	108	519253	72.43	ppm		94
17) Acetophenone	4.35	105	665285	68.17	ppm	#	68
18) N-Nitroso-Di-n-propylamine	4.35	70	336857	72.27	ppm		94
19) Hexachloroethane	4.43	117	228026	69.78	ppm		92
20) 3+4-Methylphenol	4.35	108	515939	66.84	ppm		99
21) 1-Methyl-2-pyrrolidinone	4.21	99	331492	67.57	ppm		95
24) Nitrobenzene	4.47	77	481758	70.52	ppm		85
25) Isophorone	4.63	82	895590	67.85	ppm		98
26) 2-Nitrophenol	4.68	139	275947	58.63	ppm		79
27) Benzoic Acid	4.79	105	283611	51.06	ppm		90
28) 2,4-Dimethylphenol	4.71	107	527840	70.48	ppm		90
29) bis(-2-Chloroethoxy)Methan	4.76	93	568852	68.59	ppm		93
30) 2,4-Dichlorophenol	4.86	162	459559	63.55	ppm		92
31) 1,2,4-Trichlorobenzene	4.91	180	479809	64.14	ppm		92
32) Naphthalene	4.97	128	1534860	63.23	ppm		98
33) 4-Chloroaniline	5.00	127	607659	67.25	ppm		94
34) Hexachlorobutadiene	5.04	225	261547	71.06	ppm		100

(#) = qualifier out of range (m) = manual integration
DC314.D 82701204.M Mon Dec 07 07:17:44 2015

Data File : I:\ACQUDATA\5973A\DATA\L204\DC314.D Vial: 7
Acq On : 4 Dec 2015 1:38 pm Operator: B.ALLGEIER
Sample : STD 4 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:05 2015 Quant Results File: 82701204.RES

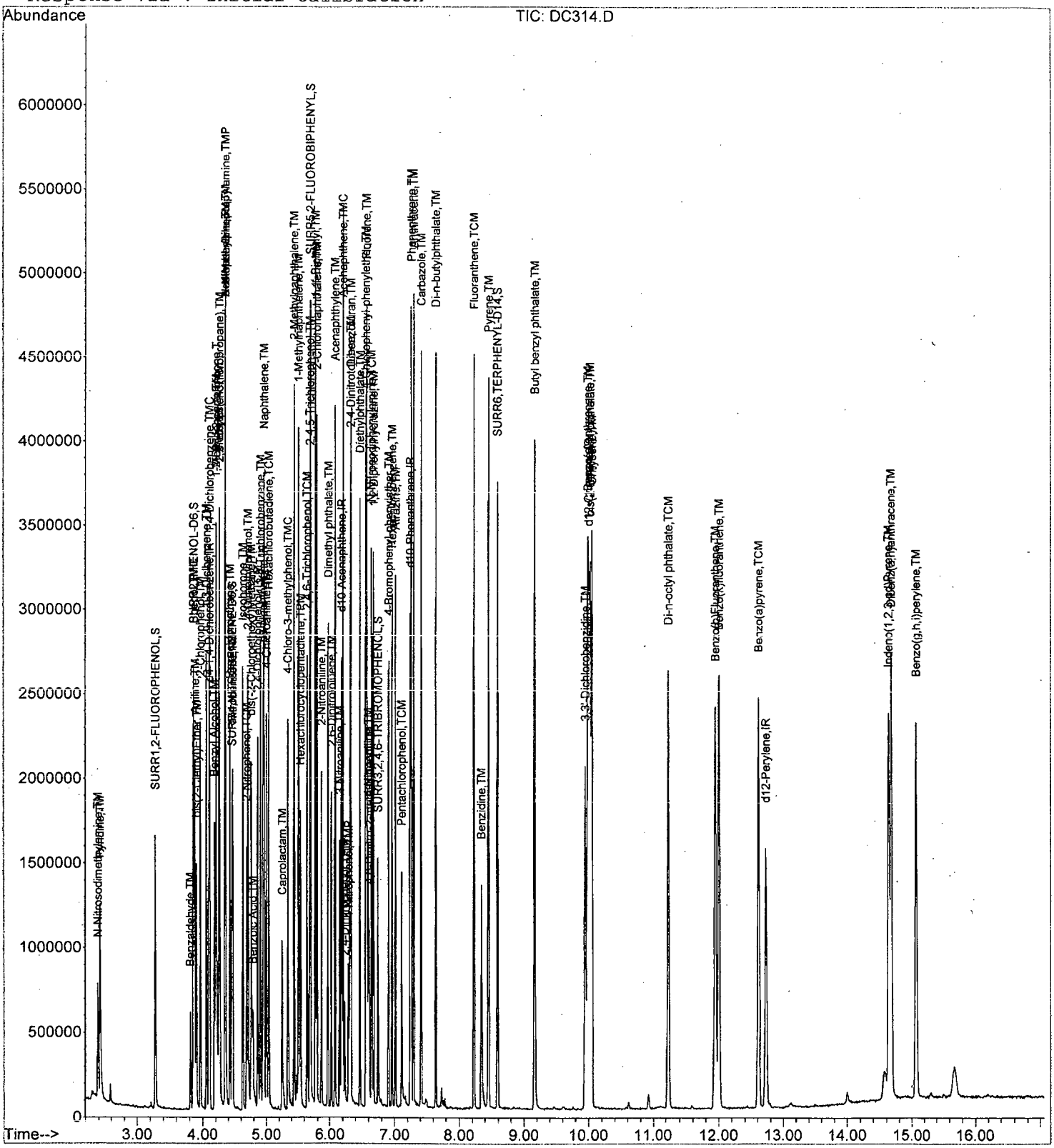
Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:03:29 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
35)	4-Chloro-3-methylphenol	5.34	107	458188	72.06 ppm	79
36)	Caprolactam	5.25	113	159263	68.85 ppm	94
37)	2-Methylnaphthalene	5.44	142	1015158	65.15 ppm	96
38)	1-Methylnaphthalene	5.51	142	985357	63.70 ppm	95
40)	Hexachlorocyclopentadiene	5.54	237	205391	63.51 ppm	99
41)	2,4,6-Trichlorophenol	5.65	196	307336	64.24 ppm	97
42)	2,4,5-Trichlorophenol	5.68	196	326581	66.22 ppm	94
44)	1,1'-Biphenyl	5.77	154	1251154	64.04 ppm	98
45)	2-Chloronaphthalene	5.79	162	995804	64.92 ppm	97
46)	2-Nitroaniline	5.87	65	239003	72.21 ppm	88
47)	Acenaphthylene	6.08	152	1569568	65.41 ppm	99
48)	Dimethyl phthalate	5.98	163	1033287	62.51 ppm	99
49)	2,6-Dinitrotoluene	6.03	165	224540	58.97 ppm	90
50)	Acenaphthene	6.21	153	969526	62.97 ppm	95
51)	3-Nitroaniline	6.16	138	246819	56.31 ppm	84
52)	2,4-Dinitrophenol	6.23	184	76217	35.03 ppm	86
53)	Dibenzofuran	6.33	168	1387040	63.48 ppm	98
54)	2,4-Dinitrotoluene	6.32	165	279354	57.06 ppm	76
55)	4-Nitrophenol	6.29	65	171647	77.72 ppm	84
56)	Fluorene	6.57	166	1143328	65.66 ppm	96
57)	4-Chlorophenyl-phenylether	6.56	204	546893	68.96 ppm	86
58)	Diethylphthalate	6.47	149	1004428	66.00 ppm	99
59)	4-Nitroaniline	6.60	138	289465	66.63 ppm	83
62)	4,6-Dinitro-2-methylphenol	6.61	198	136086	42.48 ppm	86
63)	1,2 Diphenylhydrazine	6.68	77	987139	65.33 ppm	97
64)	N-Nitrosodiphenylamine	6.65	169	703689	55.48 ppm	94
65)	4-Bromophenyl-phenylether	6.91	248	312148	62.16 ppm	94
66)	Hexachlorobenzene	6.97	284	340442	56.79 ppm	98
67)	Atrazine	7.02	215	169962	97.72 ppm	84
68)	Pentachlorophenol	7.11	266	158067	42.84 ppm	99
69)	Phenanthrene	7.26	178	1467623	61.65 ppm	100
70)	Anthracene	7.30	178	1572457	62.58 ppm	98
71)	Carbazole	7.41	167	1523555	61.41 ppm	96
72)	Di-n-butylphthalate	7.64	149	1856377	63.56 ppm	99
73)	Fluoranthene	8.23	202	1714051	67.81 ppm	98
75)	Benzidine	8.34	184	579348	104.05 ppm	98
76)	Pyrene	8.46	202	1867286	70.60 ppm	98
78)	Butyl benzyl phthalate	9.17	149	884940	63.58 ppm	97
79)	3,3'-Dichlorobenzidine	9.95	252	625506	67.10 ppm	97
80)	Benzo(a)anthracene	9.99	228	1770085	70.23 ppm	98
81)	Chrysene	10.05	228	1635946	69.92 ppm	96
82)	bis(2-Ethylhexyl)phthalate	10.02	149	1182795	62.33 ppm	98
84)	Di-n-octyl phthalate	11.24	149	2115086	67.84 ppm	100
85)	Benzo(b)Fluoranthene	11.95	252	1741449	66.30 ppm	96
86)	Benzo(k)fluoranthene	12.01	252	1706689	65.86 ppm	98
87)	Benzo(a)pyrene	12.62	252	1661667	66.00 ppm	97
88)	Indeno(1,2,3-cd)Pyrene	14.65	276	1579001	66.25 ppm	86
89)	Dibenz(a,h)anthracene	14.68	278	1630247	64.23 ppm	96
90)	Benzo(g,h,i)perylene	15.07	276	1528352	65.38 ppm	95

(#) = qualifier out of range (m) = manual integration
DC314.D 82701204.M Mon Dec 07 07:17:45 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC314.D Vial: 7
Acq On : 4 Dec 2015 1:38 pm Operator: B.ALLGEIER
Sample : STD 4 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:05 2015 Quant Results File: 82701204.RES

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration



Data File: I:\ACQUDATA\5973A\DATA\120415\DC315.D Vial: 8
Acq On : 4 Dec 2015 2:05 pm Operator: B.ALLGEIER
Sample : STD 5 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:13 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:13:42 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	4.09	152	240161	40.00	ppm	0.00
22) d8-Naphthalene	4.95	136	955974	40.00	ppm	0.00
39) d10-Acenaphthene	6.18	164	559140	40.00	ppm	0.00
61) d10-Phenanthrene	7.24	188	880442	40.00	ppm	0.00
74) d12-Chrysene	10.01	240	903102	40.00	ppm	0.00
83) d12-Perylene	12.73	264	967401	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.28	112	598157	87.81	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 43.91%			
7) SURR2,PHENOL-D6	3.86	99	710041	84.38	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 42.19%			
23) SURR4,NITROBENZENE-D5	4.46	82	585180	91.14	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 91.14%			
43) SURR5,2-FLUOROBIPHENYL	5.70	172	1318998	81.47	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 81.47%			
60) SURR3,2,4,6-TRIBROMOPHENOL	6.75	330	185604	80.14	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 40.07%			
77) SURR6,TERPHENYL-D14	8.60	244	1571488	86.79	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 86.79%			
Target Compounds						Qvalue
2) Pyridine	2.42	79	669595	91.52	ppm	95
3) N-Nitrosodimethylamine	2.39	74	376057	90.64	ppm	96
5) Benzaldehyde	3.81	106	119315	57.68	ppm	97
6) Aniline	3.88	93	822347	91.32	ppm	91
8) Phenol	3.87	94	831902	86.65	ppm	95
9) bis(2-Clethyl)Ether	3.91	93	601258	88.68	ppm	96
10) 2-Chlorophenol	3.96	128	695771	86.05	ppm	97
11) 1,3-Diclbenzene	4.06	146	748826	84.56	ppm	91
12) 1,4-Dichlorobenzene	4.10	146	748824	82.80	ppm	96
13) 1,2-Diclbenzene	4.20	146	700768	82.74	ppm	99
14) Benzyl Alcohol	4.18	79	446379	91.32	ppm	96
15) 2,2'-oxybis(1-Chloropropan	4.25	45	498557	76.60	ppm	89
16) 2-Methylphenol	4.26	108	622813	86.96	ppm	96
17) Acetophenone	4.35	105	815449	84.99	ppm	89
18) N-Nitroso-Di-n-propylamine	4.35	70	412583	85.04	ppm	95
19) Hexachloroethane	4.43	117	272415	85.93	ppm	97
20) 3+4-Methylphenol	4.35	108	616183	83.09	ppm	94
21) 1-Methyl-2-pyrrolidinone	4.22	99	411842	86.23	ppm	99
24) Nitrobenzene	4.48	77	599126	91.90	ppm	93
25) Isophorone	4.63	82	1167498	90.86	ppm	99
26) 2-Nitrophenol	4.69	139	343875	85.48	ppm	96
27) Benzoic Acid	4.80	105	371973	86.61	ppm	93
28) 2,4-Dimethylphenol	4.71	107	671028	91.74	ppm	96
29) bis(-2-Chloroethoxy)Methan	4.76	93	683657	86.24	ppm	97
30) 2,4-Dichlorophenol	4.86	162	567563	86.50	ppm	94
31) 1,2,4-Trichlorobenzene	4.90	180	584594	83.07	ppm	96
32) Naphthalene	4.97	128	1817639	83.11	ppm	98
33) 4-Chloroaniline	5.00	127	716679	86.63	ppm	95
34) Hexachlorobutadiene	5.04	225	328029	90.08	ppm	95

(#) = qualifier out of range (m) = manual integration
DC315.D 82701204.M Mon Dec 07 07:17:51 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC315.D Vial: 8
Acq On : 4 Dec 2015 2:05 pm Operator: B.ALLGEIER
Sample : STD 5 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:13 2015 Quant Results File: 82701204.RES

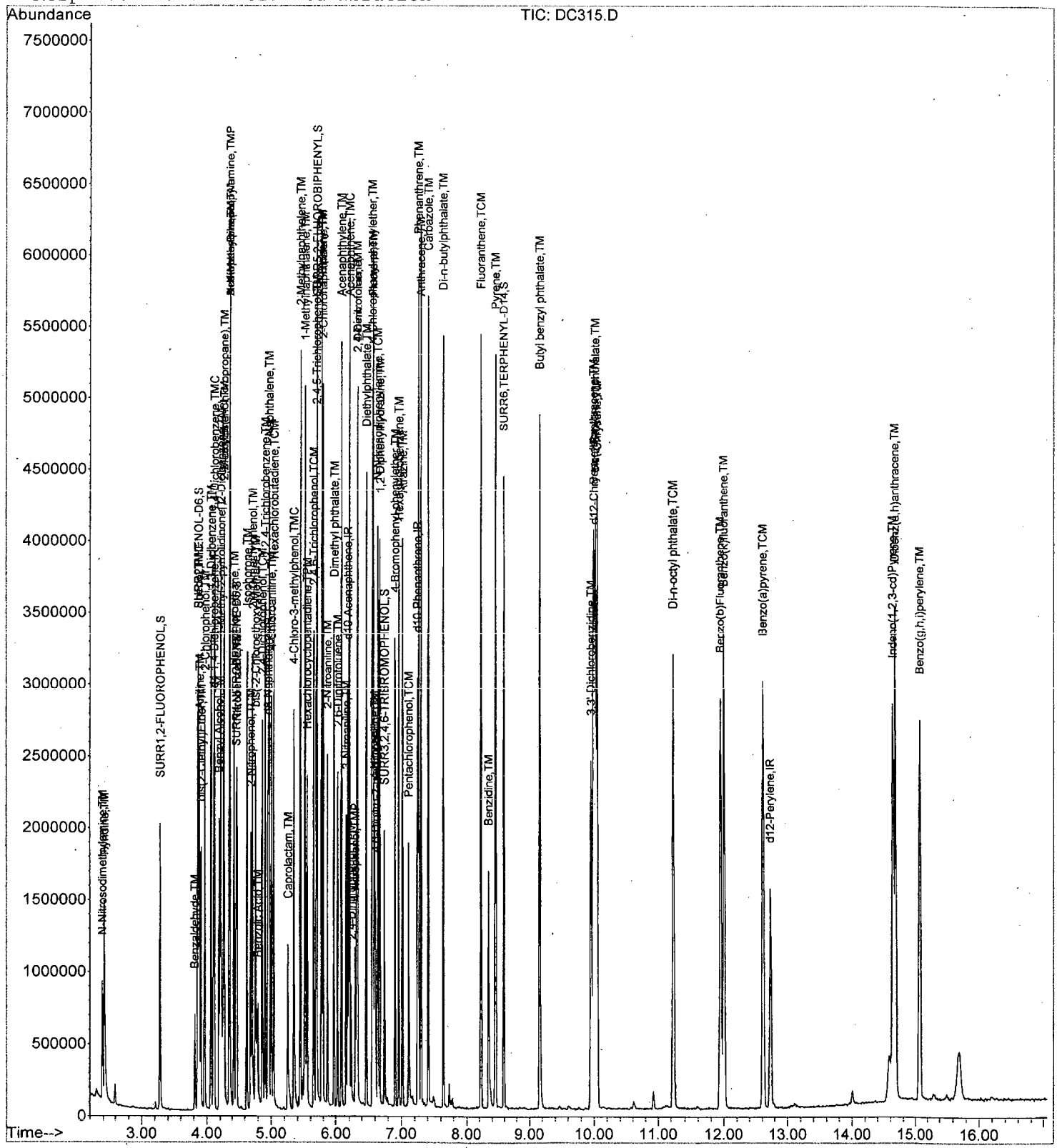
Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:13:42 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
35)	4-Chloro-3-methylphenol	5.34	107	571176	92.04	ppm	89
36)	Caprolactam	5.26	113	193237	91.29	ppm	91
37)	2-Methylnaphthalene	5.44	142	1269920	87.69	ppm	97
38)	1-Methylnaphthalene	5.51	142	1235805	87.32	ppm	98
40)	Hexachlorocyclopentadiene	5.55	237	285177	92.94	ppm	99
41)	2,4,6-Trichlorophenol	5.65	196	368052	80.87	ppm	93
42)	2,4,5-Trichlorophenol	5.68	196	389428	81.83	ppm	99
44)	1,1'-Biphenyl	5.77	154	1536433	83.70	ppm	100
45)	2-Chloronaphthalene	5.79	162	1211411	83.16	ppm	94
46)	2-Nitroaniline	5.87	65	303937	95.69	ppm	96
47)	Acenaphthylene	6.09	152	1976788	87.05	ppm	99
48)	Dimethyl phthalate	5.98	163	1254173	80.73	ppm	99
49)	2,6-Dinitrotoluene	6.03	165	285607	85.06	ppm	95
50)	Acenaphthene	6.21	153	1240304	85.16	ppm	94
51)	3-Nitroaniline	6.16	138	323328	87.78	ppm	99
52)	2,4-Dinitrophenol	6.23	184	110455	63.52	ppm	89
53)	Dibenzofuran	6.33	168	1720310	83.25	ppm	99
54)	2,4-Dinitrotoluene	6.32	165	374259	91.23	ppm	95
55)	4-Nitrophenol	6.29	65	219587	103.01	ppm	95
56)	Fluorene	6.57	166	1425412	86.32	ppm	95
57)	4-Chlorophenyl-phenylether	6.56	204	666010	84.95	ppm	97
58)	Diethylphthalate	6.47	149	1264492	85.41	ppm	97
59)	4-Nitroaniline	6.60	138	363405	91.30	ppm	99
62)	4,6-Dinitro-2-methylphenol	6.61	198	190237	77.62	ppm	99
63)	1,2 Diphenylhydrazine	6.68	77	1186844	82.78	ppm	99
64)	N-Nitrosodiphenylamine	6.65	169	912958	81.48	ppm	91
65)	4-Bromophenyl-phenylether	6.91	248	383272	82.75	ppm	95
66)	Hexachlorobenzene	6.97	284	420932	77.19	ppm	96
67)	Atrazine	7.02	215	211648	105.86	ppm	95
68)	Pentachlorophenol	7.11	266	202209	65.28	ppm	93
69)	Phenanthrene	7.26	178	1822364	83.53	ppm	98
70)	Anthracene	7.30	178	1915839	82.57	ppm	98
71)	Carbazole	7.42	167	1952487	86.25	ppm	97
72)	Di-n-butylphthalate	7.65	149	2331318	86.60	ppm	99
73)	Fluoranthene	8.23	202	2150557	88.78	ppm	100
75)	Benzidine	8.34	184	739173	126.85	ppm	99
76)	Pyrene	8.46	202	2201040	88.13	ppm	95
78)	Butyl benzyl phthalate	9.17	149	1086189	85.30	ppm	93
79)	3,3'-Dichlorobenzidine	9.95	252	778986	89.73	ppm	99
80)	Benzo(a)anthracene	9.99	228	2163781	89.06	ppm	96
81)	Chrysene	10.05	228	2003839	90.20	ppm	98
82)	bis(2-Ethylhexyl)phthalate	10.02	149	1481594	84.90	ppm	92
84)	Di-n-octyl phthalate	11.24	149	2633106	89.54	ppm	100
85)	Benzo(b)Fluoranthene	11.95	252	2118115	86.29	ppm	99
86)	Benzo(k)fluoranthene	12.01	252	2138908	89.25	ppm	98
87)	Benzo(a)pyrene	12.62	252	2096594	87.95	ppm	97
88)	Indeno(1,2,3-cd)Pyrene	14.65	276	2054252	88.54	ppm	96
89)	Dibenz(a,h)anthracene	14.69	278	2000456	82.33	ppm	98
90)	Benzo(g,h,i)perylene	15.09	276	1916558	85.89	ppm	98

(#) = qualifier out of range (m) = manual integration
DC315.D 82701204.M Mon Dec 07 07:17:51 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC315.D Vial: 8
Acq On : 4 Dec 2015 2:05 pm Operator: B.ALLGEIER
Sample : STD 5 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:13 2015 Quant Results File: 82701204.RES

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration



DC315.D 82701204.M Mon Dec 07 07:17:54 2015 Page 3

Data File : I:\ACQUDATA\5973A\DATA\120415\DC316.D Vial: 9
Acq On : 4 Dec 2015 2:31 pm Operator: B.ALLGEIER
Sample : STD 6 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:15 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:15:11 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	4.09	152	232714	40.00	ppm	0.00
22) d8-Naphthalene	4.95	136	974812	40.00	ppm	0.00
39) d10-Acenaphthene	6.18	164	580669	40.00	ppm	0.00
61) d10-Phenanthrene	7.24	188	924673	40.00	ppm	0.00
74) d12-Chrysene	10.01	240	939137	40.00	ppm	0.00
83) d12-Perylene	12.73	264	986501	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.28	112	709988	111.38	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 55.69%			
7) SURR2,PHENOL-D6	3.86	99	861123	109.57	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 54.78%			
23) SURR4,NITROBENZENE-D5	4.46	82	698950	109.44	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 109.44%			
43) SURR5,2-FLUOROBIPHENYL	5.69	172	1602549	99.39	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 99.39%			
60) SURR3,2,4,6-TRIBROMOPHENOL	6.75	330	220937	97.66	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 48.83%			
77) SURR6,TERPHENYL-D14	8.59	244	1860522	101.95	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 101.95%			
Target Compounds						Qvalue
2) Pyridine	2.42	79	807643	116.19	ppm	94
3) N-Nitrosodimethylamine	2.39	74	466986	118.42	ppm	95
5) Benzaldehyde	3.81	106	121526	70.81	ppm	99
6) Aniline	3.88	93	1050445	119.92	ppm	94
8) Phenol	3.87	94	969868	106.56	ppm	97
9) bis(2-Clethyl)Ether	3.91	93	686515	107.23	ppm	97
10) 2-Chlorophenol	3.97	128	822828	108.68	ppm	96
11) 1,3-Diclbenzene	4.06	146	875606	105.68	ppm	93
12) 1,4-Dichlorobenzene	4.10	146	928805	110.05	ppm	98
13) 1,2-Diclbenzene	4.20	146	870789	110.60	ppm	95
14) Benzyl Alcohol	4.18	79	541014	118.24	ppm	93
15) 2,2'-oxybis(1-Chloropropan	4.26	45	600996	100.33	ppm	88
16) 2-Methylphenol	4.26	108	744207	110.34	ppm	93
17) Acetophenone	4.35	105	958780	106.38	ppm	91
18) N-Nitroso-Di-n-propylamine	4.35	70	511473	111.27	ppm	93
19) Hexachloroethane	4.43	117	325619	109.20	ppm	98
20) 3+4-Methylphenol	4.36	108	758475	109.51	ppm	93
21) 1-Methyl-2-pyrrolidinone	4.22	99	507600	112.93	ppm	93
24) Nitrobenzene	4.47	77	708242	108.43	ppm	95
25) Isophorone	4.63	82	1388700	107.85	ppm	98
26) 2-Nitrophenol	4.69	139	444403	114.21	ppm	90
27) Benzoic Acid	4.80	105	461189	114.37	ppm	95
28) 2,4-Dimethylphenol	4.71	107	820489	111.90	ppm	97
29) bis(-2-Chloroethoxy)Methan	4.76	93	846439	107.62	ppm	97
30) 2,4-Dichlorophenol	4.86	162	700939	108.99	ppm	97
31) 1,2,4-Trichlorobenzene	4.91	180	718596	103.83	ppm	97
32) Naphthalene	4.97	128	2214203	103.16	ppm	95
33) 4-Chloroaniline	5.00	127	891465	108.48	ppm	95
34) Hexachlorobutadiene	5.04	225	396965	108.79	ppm	96

(#) = qualifier out of range (m) = manual integration
DC316.D 82701204.M Mon Dec 07 07:17:57 2015

Data File: I:\ACQUDATA\5973A\DATA\120415\DC316.D Vial: 9
Acq On : 4 Dec 2015 2:31 pm Operator: B.ALLGEIER
Sample : STD 6 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:15 2015 Quant Results File: 82701204.RES

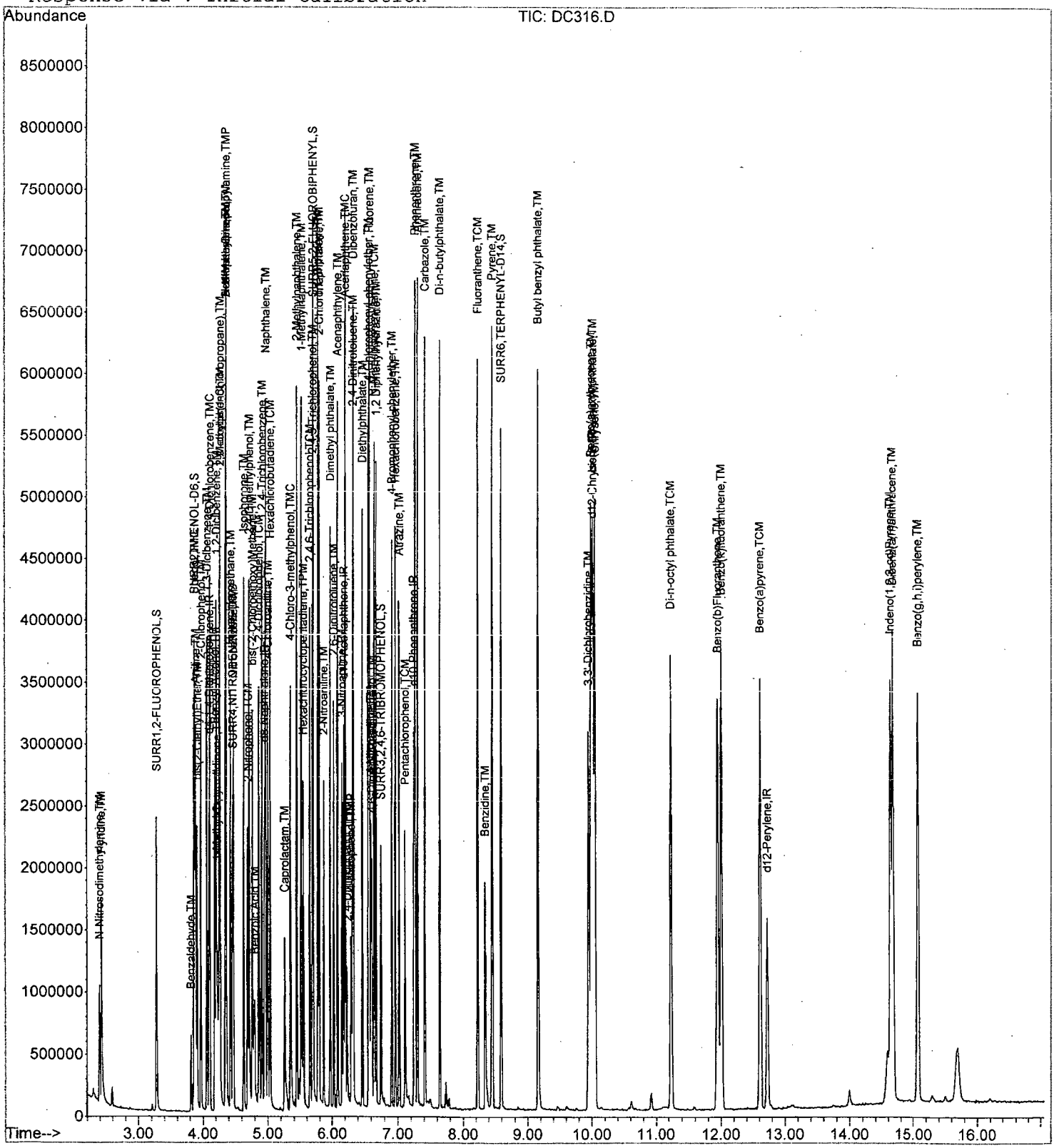
Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:15:11 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
35)	4-Chloro-3-methylphenol	5.35	107	695906	111.71 ppm	91
36)	Caprolactam	5.26	113	242976	116.32 ppm	95
37)	2-Methylnaphthalene	5.44	142	1511067	105.22 ppm	99
38)	1-Methylnaphthalene	5.52	142	1447830	103.76 ppm	93
40)	Hexachlorocyclopentadiene	5.55	237	364118	111.75 ppm	99
41)	2,4,6-Trichlorophenol	5.64	196	467568	103.54 ppm	95
42)	2,4,5-Trichlorophenol	5.68	196	508073	107.23 ppm	96
44)	1,1'-Biphenyl	5.77	154	1792866	97.54 ppm	93
45)	2-Chloronaphthalene	5.79	162	1464245	100.64 ppm	96
46)	2-Nitroaniline	5.86	65	364067	112.58 ppm	96
47)	Acenaphthylene	6.09	152	2336541	102.18 ppm	99
48)	Dimethyl phthalate	5.98	163	1570055	101.50 ppm	100
49)	2,6-Dinitrotoluene	6.03	165	345003	104.59 ppm	90
50)	Acenaphthene	6.21	153	1455589	99.47 ppm	97
51)	3-Nitroaniline	6.16	138	394012	108.34 ppm	93
52)	2,4-Dinitrophenol	6.23	184	145206	93.20 ppm	97
53)	Dibenzofuran	6.33	168	1993044	96.44 ppm	96
54)	2,4-Dinitrotoluene	6.32	165	452464	111.37 ppm	94
55)	4-Nitrophenol	6.29	65	270792	124.12 ppm	97
56)	Fluorene	6.57	166	1676473	100.85 ppm	98
57)	4-Chlorophenyl-phenylether	6.56	204	812983	102.45 ppm	97
58)	Diethylphthalate	6.47	149	1489773	99.59 ppm	97
59)	4-Nitroaniline	6.60	138	467076	117.84 ppm	97
62)	4,6-Dinitro-2-methylphenol	6.61	198	242374	104.65 ppm	92
63)	1,2 Diphenylhydrazine	6.68	77	1401923	96.54 ppm	96
64)	N-Nitrosodiphenylamine	6.65	169	1116700	99.57 ppm	93
65)	4-Bromophenyl-phenylether	6.91	248	462746	99.13 ppm	96
66)	Hexachlorobenzene	6.96	284	500687	92.42 ppm	97
67)	Atrazine	7.02	215	244557	108.14 ppm	84
68)	Pentachlorophenol	7.11	266	252027	87.46 ppm	94
69)	Phenanthrene	7.26	178	2211250	100.35 ppm	98
70)	Anthracene	7.30	178	2345677	100.14 ppm	98
71)	Carbazole	7.41	167	2338962	102.04 ppm	96
72)	Di-n-butylphthalate	7.64	149	2711828	99.83 ppm	97
73)	Fluoranthene	8.23	202	2534271	102.62 ppm	99
75)	Benzidine	8.34	184	851758	131.32 ppm	98
76)	Pyrene	8.45	202	2671169	106.08 ppm	94
78)	Butyl benzyl phthalate	9.17	149	1318651	103.27 ppm	94
79)	3,3'-Dichlorobenzidine	9.95	252	941435	107.30 ppm	98
80)	Benzo(a)anthracene	9.99	228	2600256	105.42 ppm	99
81)	Chrysene	10.05	228	2466027	108.99 ppm	97
82)	bis(2-Ethylhexyl)phthalate	10.03	149	1778648	101.65 ppm	96
84)	Di-n-octyl phthalate	11.24	149	3202143	110.04 ppm	99
85)	Benzo(b)Fluoranthene	11.95	252	2656339	109.99 ppm	99
86)	Benzo(k)fluoranthene	12.01	252	2528119	107.17 ppm	100
87)	Benzo(a)pyrene	12.62	252	2532971	107.85 ppm	99
88)	Indeno(1,2,3-cd)Pyrene	14.65	276	2529976	110.75 ppm	98
89)	Dibenz(a,h)anthracene	14.69	278	2496198	105.37 ppm	99
90)	Benzo(g,h,i)perylene	15.08	276	2300508	105.16 ppm	97

(#) = qualifier out of range (m) = manual integration
DC316.D 82701204.M Mon Dec 07 07:17:58 2015

Data File : I:\ACQUDATA\5973A\DATA\L20415\DC316.D Vial: 9
Acq On : 4 Dec 2015 2:31 pm Operator: B.ALLGEIER
Sample : STD 6 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:15 2015 Quant Results File: 82701204.RES

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration



Data File : I:\ACQUDATA\5973A\DATA\120415\DC317.D Vial: 10
Acq On : 4 Dec 2015 2:58 pm Operator: B.ALLGEIER
Sample : STD 7 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:18 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:16:42 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	4.10	152	240135	40.00	ppm	0.00
22) d8-Naphthalene	4.95	136	966808	40.00	ppm	0.00
39) d10-Acenaphthene	6.18	164	578213	40.00	ppm	0.00
61) d10-Phenanthrene	7.25	188	944222	40.00	ppm	0.00
74) d12-Chrysene	10.01	240	913563	40.00	ppm	0.00
83) d12-Perylene	12.74	264	1010992	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.28	112	944204	148.29	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 74.14%			
7) SURR2,PHENOL-D6	3.86	99	1162918	147.77	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 73.89%			
23) SURR4,NITROBENZENE-D5	4.46	82	952918	154.00	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 154.00%#			
43) SURR5,2-FLUOROBIPHENYL	5.70	172	2167747	141.34	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 141.34%#			
60) SURR3,2,4,6-TRIBROMOPHENOL	6.75	330	304972	145.44	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 72.72%			
77) SURR6,TERPHENYL-D14	8.59	244	2454867	143.71	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 143.71%#			
Target Compounds						Qvalue
2) Pyridine	2.42	79	1072243	151.09	ppm	95
3) N-Nitrosodimethylamine	2.39	74	619052	153.40	ppm	95
5) Benzaldehyde	3.82	106	132748	86.80	ppm	92
6) Aniline	3.88	93	1297522	140.57	ppm	93
8) Phenol	3.87	94	1343017	145.63	ppm	94
9) bis(2-Clethyl)Ether	3.91	93	922480	143.56	ppm	94
10) 2-Chlorophenol	3.97	128	1085231	143.11	ppm	95
11) 1,3-Diclbenzene	4.06	146	1175104	142.15	ppm	97
12) 1,4-Dichlorobenzene	4.11	146	1215661	143.51	ppm	95
13) 1,2-Diclbenzene	4.21	146	1146233	145.15	ppm	97
14) Benzyl Alcohol	4.18	79	742939	161.15	ppm	98
15) 2,2'-oxybis(1-Chloropropan	4.26	45	860295	146.16	ppm	91
16) 2-Methylphenol	4.27	108	1019614	149.90	ppm	99
17) Acetophenone	4.36	105	1256945	138.81	ppm	97
18) N-Nitroso-Di-n-propylamine	4.35	70	687352	146.29	ppm	94
19) Hexachloroethane	4.43	117	441608	147.29	ppm	94
20) 3+4-Methylphenol	4.36	108	991930	142.31	ppm	93
21) 1-Methyl-2-pyrrolidinone	4.26	99	685603	150.71	ppm #	82
24) Nitrobenzene	4.47	77	983182	155.00	ppm	98
25) Isophorone	4.63	82	1876612	149.67	ppm	97
26) 2-Nitrophenol	4.69	139	591351	160.13	ppm	95
27) Benzoic Acid	4.81	105	687449	187.68	ppm	98
28) 2,4-Dimethylphenol	4.71	107	1102111	153.90	ppm	96
29) bis(-2-Chloroethoxy)Methan	4.76	93	1118223	147.03	ppm	94
30) 2,4-Dichlorophenol	4.86	162	923255	149.47	ppm	92
31) 1,2,4-Trichlorobenzene	4.91	180	974395	147.02	ppm	89
32) Naphthalene	4.97	128	2916260	141.93	ppm	91
33) 4-Chloroaniline	5.00	127	1155122	144.51	ppm	96
34) Hexachlorobutadiene	5.04	225	526753	147.98	ppm	96

(#) = qualifier out of range (m) = manual integration
DC317.D 82701204.M Mon Dec 07 07:18:03 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC317.D Vial: 10
Acq On : 4 Dec 2015 2:58 pm Operator: B.ALLGEIER
Sample : STD 7 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:18 2015 Quant Results File: 82701204.RES

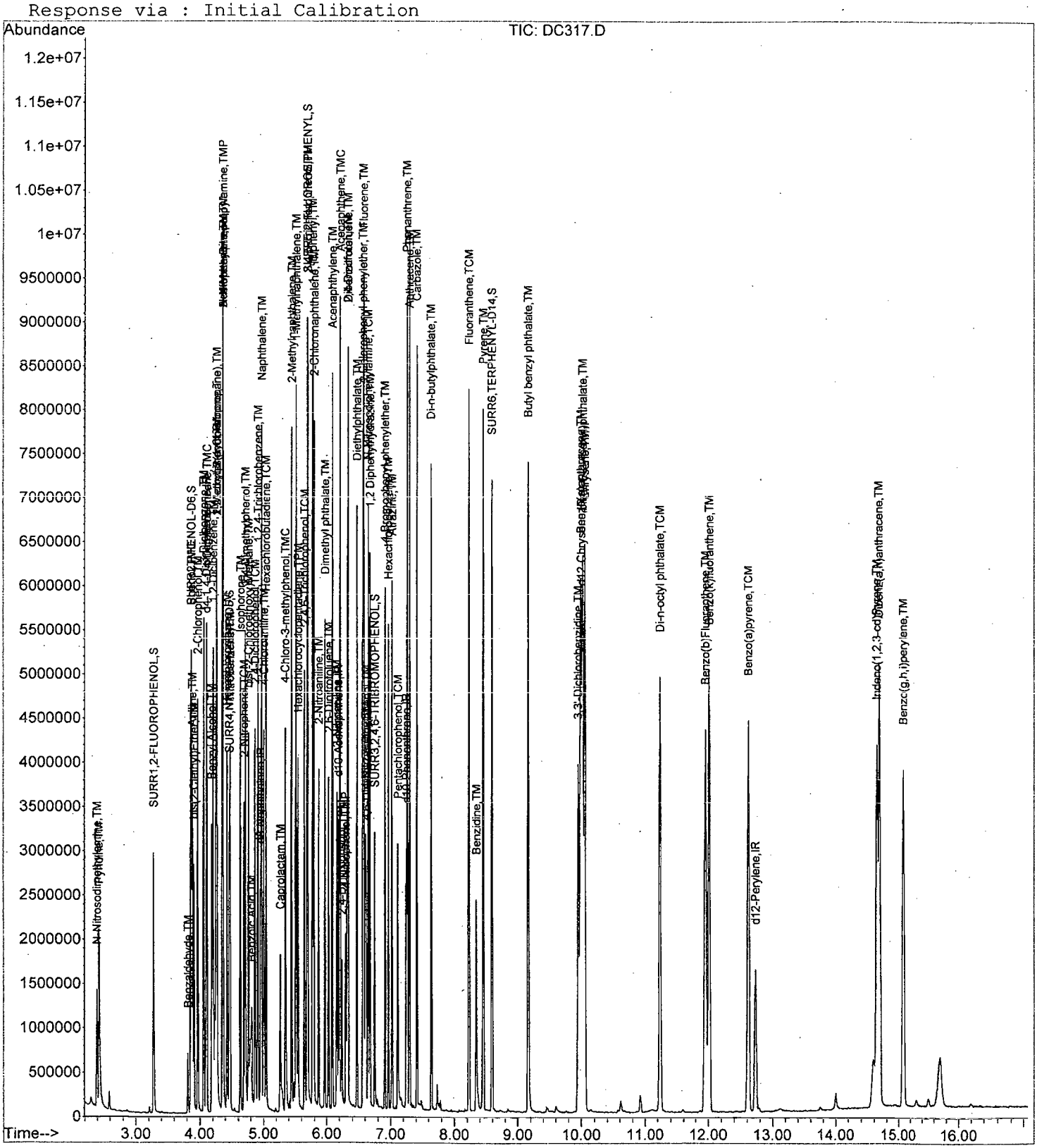
Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:16:42 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
35)	4-Chloro-3-methylphenol	5.35	107	930434	152.70	ppm	91
36)	Caprolactam	5.27	113	338087	167.29	ppm	97
37)	2-Methylnaphthalene	5.45	142	2014318	145.26	ppm	96
38)	1-Methylnaphthalene	5.52	142	1934578	144.65	ppm	98
40)	Hexachlorocyclopentadiene	5.55	237	518307	148.79	ppm	97
41)	2,4,6-Trichlorophenol	5.65	196	630825	146.81	ppm	97
42)	2,4,5-Trichlorophenol	5.69	196	692342	152.34	ppm	95
44)	1,1'-Biphenyl	5.77	154	2471009	141.57	ppm	97
45)	2-Chloronaphthalene	5.79	162	1992917	143.56	ppm	95
46)	2-Nitroaniline	5.87	65	489386	155.46	ppm	98
47)	Acenaphthylene	6.09	152	3069431	139.54	ppm	97
48)	Dimethyl phthalate	5.98	163	2051079	138.18	ppm	100
49)	2,6-Dinitrotoluene	6.03	165	495171	159.22	ppm	84
50)	Acenaphthene	6.21	153	1971321	141.14	ppm	97
51)	3-Nitroaniline	6.16	138	565532	164.64	ppm	95
52)	2,4-Dinitrophenol	6.24	184	224018	169.39	ppm	90
53)	Dibenzofuran	6.33	168	2636221	133.82	ppm	96
54)	2,4-Dinitrotoluene	6.32	165	654331	170.20	ppm	92
55)	4-Nitrophenol	6.30	65	384858	179.90	ppm	91
56)	Fluorene	6.57	166	2183612	136.42	ppm	98
57)	4-Chlorophenyl-phenylether	6.56	204	1007678	131.42	ppm	93
58)	Diethylphthalate	6.47	149	2048437	141.98	ppm	98
59)	4-Nitroaniline	6.61	138	653594	171.63	ppm	96
62)	4,6-Dinitro-2-methylphenol	6.62	198	351685	168.55	ppm	98
63)	1,2 Diphenylhydrazine	6.68	77	1900979	133.12	ppm	94
64)	N-Nitrosodiphenylamine	6.65	169	1499876	137.23	ppm	99
65)	4-Bromophenyl-phenylether	6.91	248	621411	135.80	ppm	92
66)	Hexachlorobenzene	6.97	284	693018	133.27	ppm	92
67)	Atrazine	7.02	215	335941	145.47	ppm	94
68)	Pentachlorophenol	7.11	266	376831	148.74	ppm	97
69)	Phenanthrene	7.26	178	2940296	136.11	ppm	99
70)	Anthracene	7.30	178	3076039	133.89	ppm	96
71)	Carbazole	7.42	167	3043252	135.59	ppm	99
72)	Di-n-butylphthalate	7.65	149	3508775	132.92	ppm	98
73)	Fluoranthene	8.23	202	3431984	141.72	ppm	98
75)	Benzidine	8.35	184	1058054	156.97	ppm	99
76)	Pyrene	8.46	202	3497532	147.36	ppm	93
78)	Butyl benzyl phthalate	9.17	149	1757991	148.02	ppm	95
79)	3,3'-Dichlorobenzidine	9.96	252	1268850	153.22	ppm	98
80)	Benzo(a)anthracene	10.00	228	3512478	150.48	ppm	97
81)	Chrysene	10.06	228	3170268	147.43	ppm	98
82)	bis(2-Ethylhexyl)phthalate	10.03	149	2413902	148.31	ppm	90
84)	Di-n-octyl phthalate	11.25	149	4342984	150.75	ppm	99
85)	Benzo(b)Fluoranthene	11.96	252	3511731	147.00	ppm	97
86)	Benzo(k)fluoranthene	12.02	252	3486140	149.93	ppm	99
87)	Benzo(a)pyrene	12.63	252	3445752	148.44	ppm	98
88)	Indeno(1,2,3-cd)Pyrene	14.66	276	3328562m	146.53	ppm	
89)	Dibenz(a,h)anthracene	14.70	278	3309081	142.08	ppm	98
90)	Benzo(g,h,i)perylene	15.09	276	3084140	142.64	ppm	97

(#) = qualifier out of range (m) = manual integration
DC317.D 82701204.M Mon Dec 07 07:18:04 2015

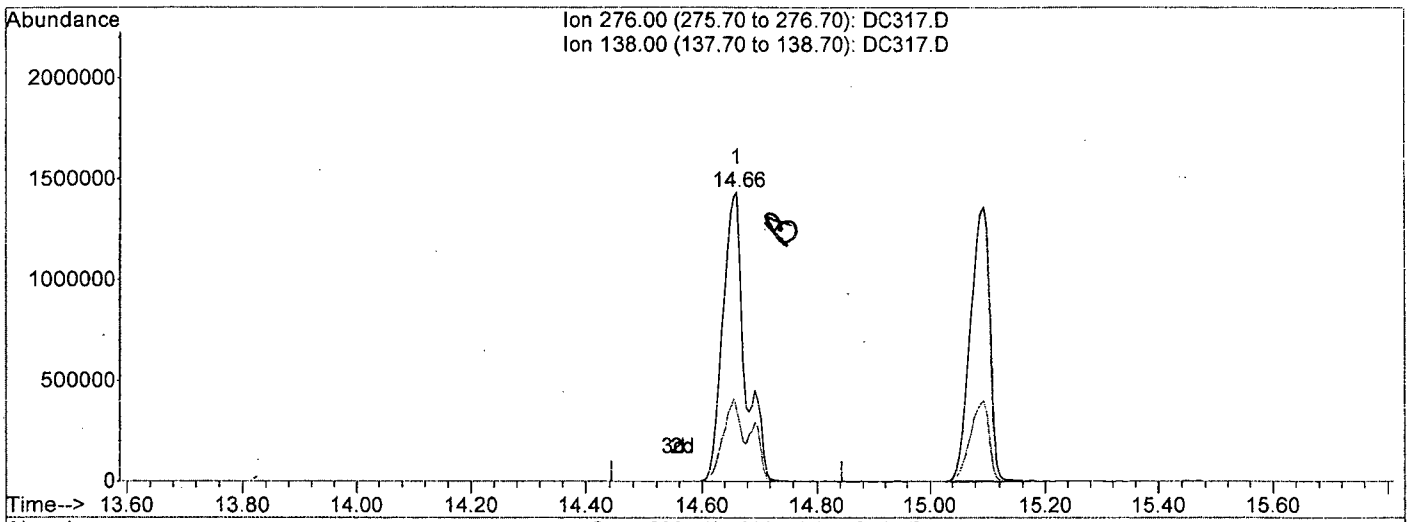
Data File : I:\ACQUDATA\5973A\DATA\K20415\DC317.D Vial: 10
Acq On : 4 Dec 2015 2:58 pm Operator: B.ALLGEIER
Sample : STD 7 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:18 2015 Quant Results File: 82701204.RES

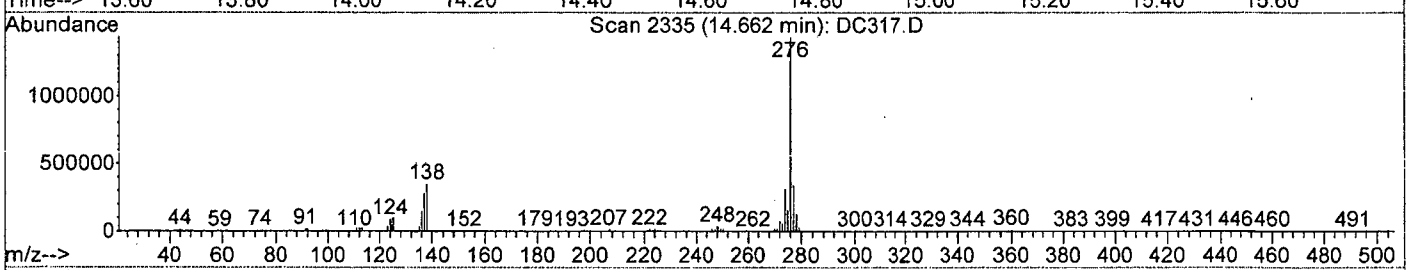
Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration

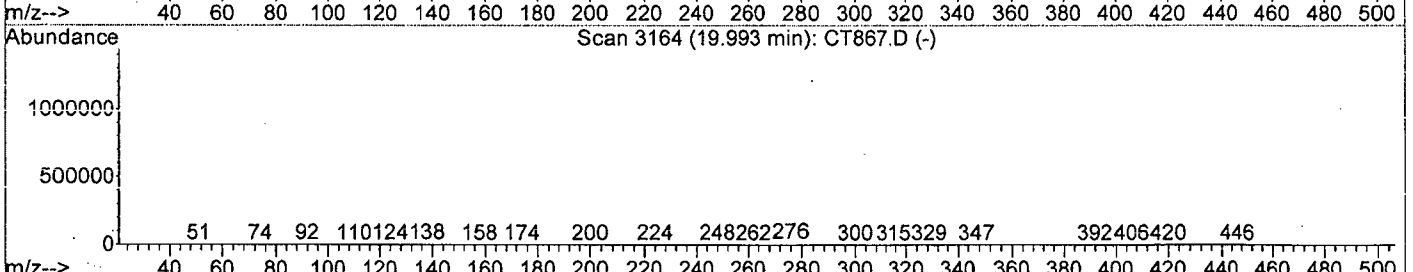


Data File : I:\ACQUDATA\5973A\DATA\120415\DC317.D Vial: 10
Acq On : 4 Dec 2015 2:58 pm Operator: B.ALLGEIER
Sample : STD 7 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:16 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:16:42 2015
Response via : Multiple Level Calibration







TIC: DC317.D

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.66min 171.63ppm

response 3898708

Ion	Exp%	Act%
276.00	100	100
138.00	22.30	24.15
0.00	0.00	0.00
0.00	0.00	0.00

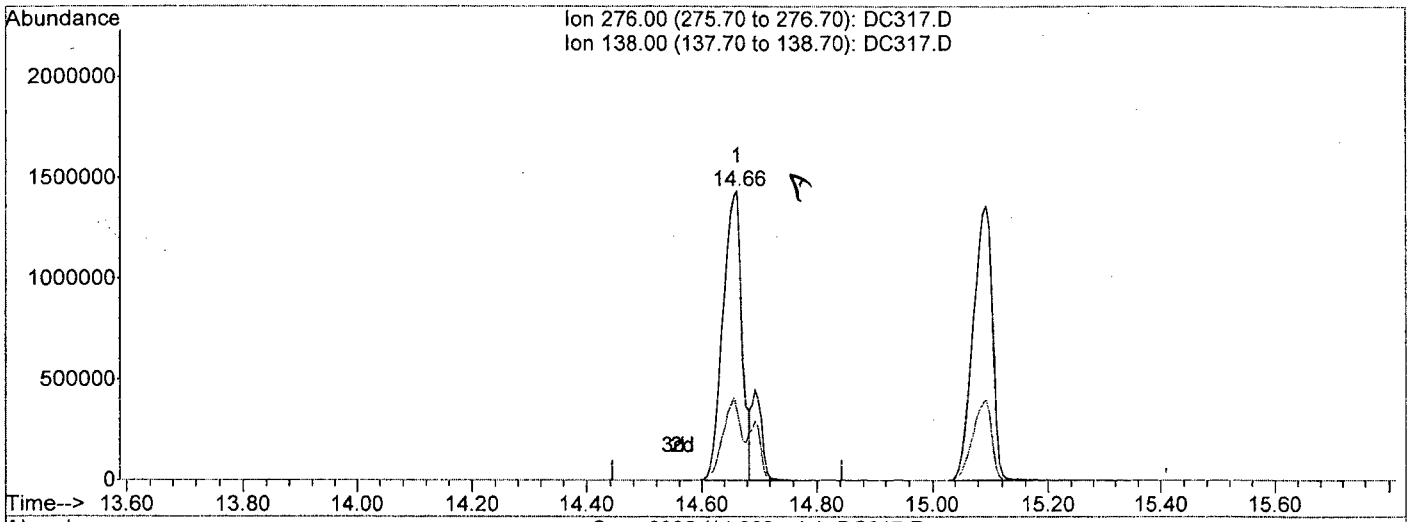
remove shoulder
JM 12/7/15

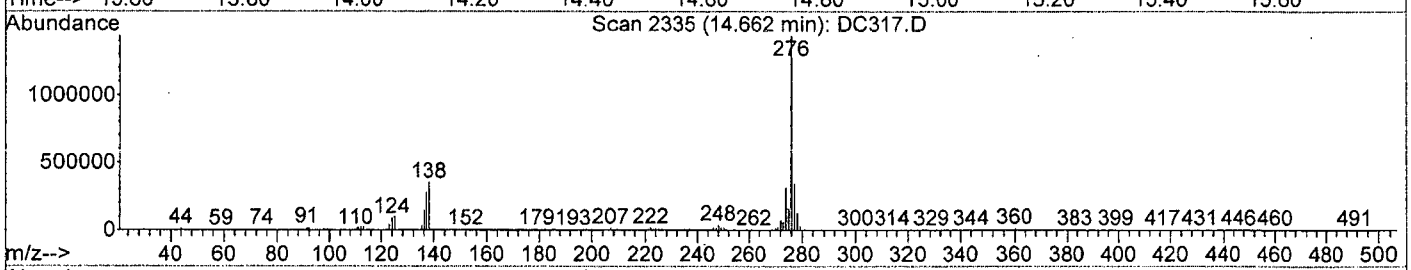
M.

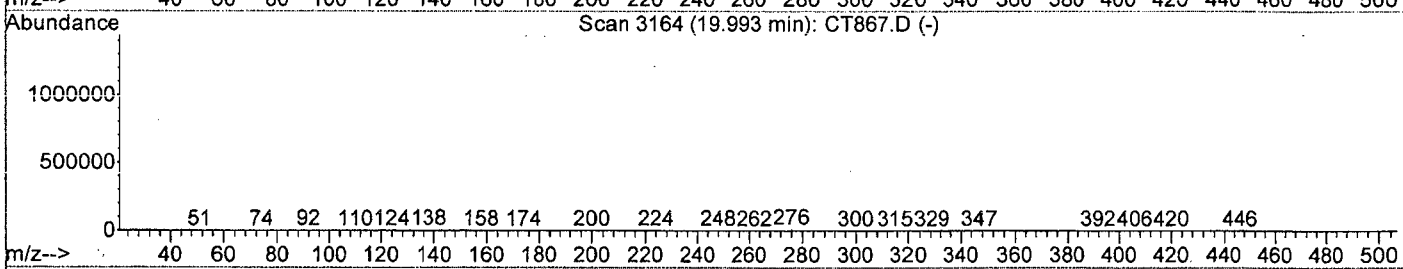
DC317.D 82701204.M Fri Dec 04 15:17:59 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC317.D Vial: 10
Acq On : 4 Dec 2015 2:58 pm Operator: B.ALLGEIER
Sample : STD 7 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 15:18 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Fri Dec 04 15:16:42 2015
Response via : Multiple Level Calibration







TIC: DC317.D

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.66min 146.53ppm m

response 3328562

Ion	Exp%	Act%
276.00	100	100
138.00	22.30	24.18
0.00	0.00	0.00
0.00	0.00	0.00

remove shoulder

DM 12/7/15

mc 1/8

DC317.D 82701204.M Fri Dec 04 15:18:06 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC310.D Vial: 3
Acq On : 4 Dec 2015 11:51 am Operator: B.ALLGEIER
Sample : BLK Inst : 5973-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 7:11 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

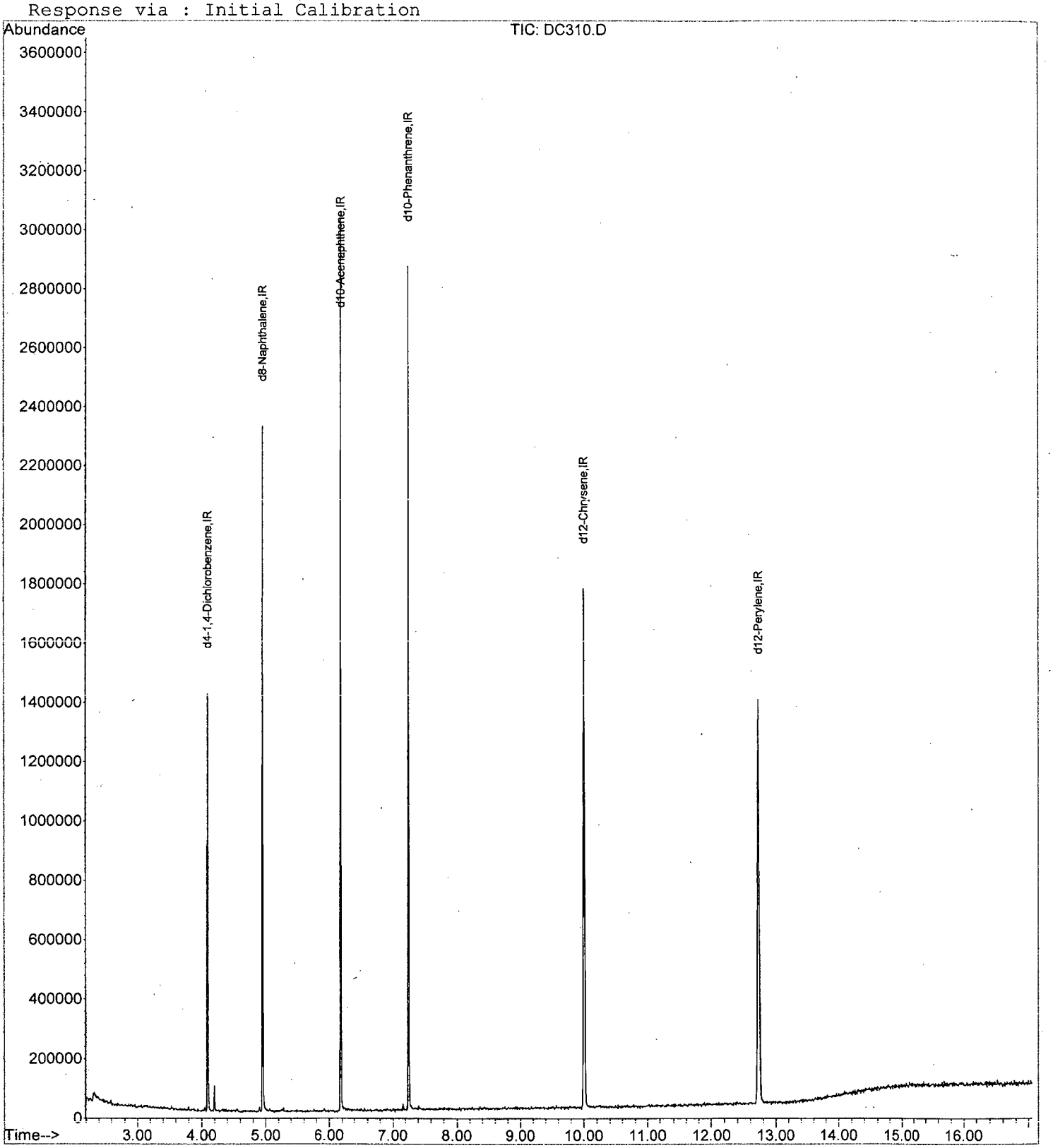
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	4.09	152	232886	40.00	ppm	0.00
22) d8-Naphthalene	4.95	136	912914	40.00	ppm	0.00
39) d10-Acenaphthene	6.18	164	510657	40.00	ppm	0.00
61) d10-Phenanthrene	7.25	188	821260	40.00	ppm	0.00
74) d12-Chrysene	10.00	240	845471	40.00	ppm	0.00
83) d12-Perylene	12.74	264	876569	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.44	112	121	0.02	ppm	0.16
Spiked Amount 200.000	Range 10 - 105		Recovery =	0.01%#		
7) SURR2,PHENOL-D6	3.82	99	113	0.02	ppm	-0.04
Spiked Amount 200.000	Range 10 - 107		Recovery =	0.01%#		
23) SURR4,NITROBENZENE-D5	4.46	82	141	0.02	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery =	0.02%#		
43) SURR5,2-FLUOROBIPHENYL	0.00	172	0	0.00	ppm	
Spiked Amount 100.000	Range 39 - 119		Recovery =	0.00%#		
60) SURR3,2,4,6-TRIBROMOPHENOL	0.00	330	0	0.00	ppm	
Spiked Amount 200.000	Range 28 - 157		Recovery =	0.00%#		
77) SURR6,TERPHENYL-D14	0.00	244	0	0.00	ppm	
Spiked Amount 100.000	Range 40 - 133		Recovery =	0.00%#		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
DC310.D 82701204.M Mon Dec 07 07:17:21 2015

Data File : I:\ACQUDATA\5973A\DATA\12015\DC310.D Vial: 3
Acq On : 4 Dec 2015 11:51 am Operator: B.ALLGEIER
Sample : BLK Inst : 5973-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 7:11 2015 Quant Results File: 82701204.RES

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration



DC310.D 82701204.M Mon Dec 07 07:17:23 2015 Page 2

Initial Calibration Verification Summary Report

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1,2,4-Trichlorobenzene	RC1500135-08	T	Average RF	80.000	80.62	ppm	0.8	<=20
1,2,4-Trichlorobenzene	RC1500135-08	T	Average RF	80.000	80.62	ppm	0.8	<=30
1,2-Dichlorobenzene	RC1500135-08	T	Average RF	80.000	81.74	ppm	2.2	<=20
1,2-Dichlorobenzene	RC1500135-08	T	Average RF	80.000	81.74	ppm	2.2	<=30
1,2-Diphenylhydrazine	RC1500135-08	T	Average RF	80.000	76.18	ppm	-4.8	<=20
1,2-Diphenylhydrazine	RC1500135-08	T	Average RF	80.000	76.18	ppm	-4.8	<=30
1,3-Dichlorobenzene	RC1500135-08	T	Average RF	80.000	80.95	ppm	1.2	<=30
1,3-Dichlorobenzene	RC1500135-08	T	Average RF	80.000	80.95	ppm	1.2	<=20
1,4-Dichlorobenzene	RC1500135-08	T	Average RF	80.000	79.07	ppm	-1.2	<=20
1,4-Dichlorobenzene	RC1500135-08	T	Average RF	80.000	79.07	ppm	-1.2	<=30
1-Methyl-2-pyrrolidinone	RC1500135-09	T	Average RF	80.000	86.69	ppm	8.4	<=30
1-Methyl-2-pyrrolidinone	RC1500135-09	T	Average RF	80.000	86.69	ppm	8.4	<=20
1-Methylnaphthalene	RC1500135-08	T	Average RF	80.000	81.33	ppm	1.7	<=30
1-Methylnaphthalene	RC1500135-08	T	Average RF	80.000	81.33	ppm	1.7	<=20
2,4,5-Trichlorophenol	RC1500135-08	T	Average RF	80.000	81.74	ppm	2.2	<=20
2,4,5-Trichlorophenol	RC1500135-08	T	Average RF	80.000	81.74	ppm	2.2	<=30
2,4,6-Trichlorophenol	RC1500135-08	T	Average RF	80.000	79.77	ppm	-0.3	<=20
2,4,6-Trichlorophenol	RC1500135-08	T	Average RF	80.000	79.77	ppm	-0.3	<=30
2,4-Dichlorophenol	RC1500135-08	T	Average RF	80.000	78.45	ppm	-1.9	<=30
2,4-Dichlorophenol	RC1500135-08	T	Average RF	80.000	78.45	ppm	-1.9	<=20
2,4-Dimethylphenol	RC1500135-08	T	Average RF	80.000	77.82	ppm	-2.7	<=30
2,4-Dimethylphenol	RC1500135-08	T	Average RF	80.000	77.82	ppm	-2.7	<=20
2,4-Dinitrophenol	RC1500135-08	T	Quadratic	80.000	87.78	ppm	9.7	<=20
2,4-Dinitrophenol	RC1500135-08	T	Quadratic	80.000	87.78	ppm	9.7	<=30
2,4-Dinitrotoluene	RC1500135-08	T	Average RF	80.000	86.89	ppm	8.6	<=20
2,4-Dinitrotoluene	RC1500135-08	T	Average RF	80.000	86.89	ppm	8.6	<=30
2,6-Dinitrotoluene	RC1500135-08	T	Average RF	80.000	81.95	ppm	2.4	<=20
2,6-Dinitrotoluene	RC1500135-08	T	Average RF	80.000	81.95	ppm	2.4	<=30
2-Chloronaphthalene	RC1500135-08	T	Average RF	80.000	80.98	ppm	1.2	<=20
2-Chloronaphthalene	RC1500135-08	T	Average RF	80.000	80.98	ppm	1.2	<=30
2-Chlorophenol	RC1500135-08	T	Average RF	80.000	82.64	ppm	3.3	<=30
2-Chlorophenol	RC1500135-08	T	Average RF	80.000	82.64	ppm	3.3	<=20
2-Methylnaphthalene	RC1500135-08	T	Average RF	80.000	80.12	ppm	0.1	<=30
2-Methylnaphthalene	RC1500135-08	T	Average RF	80.000	80.12	ppm	0.1	<=20
2-Methylphenol	RC1500135-08	T	Average RF	80.000	82.15	ppm	2.7	<=20
2-Methylphenol	RC1500135-08	T	Average RF	80.000	82.15	ppm	2.7	<=30
2-Nitroaniline	RC1500135-08	T	Average RF	80.000	78.06	ppm	-2.4	<=20
2-Nitroaniline	RC1500135-08	T	Average RF	80.000	78.06	ppm	-2.4	<=30
2-Nitrophenol	RC1500135-08	T	Average RF	80.000	84.46	ppm	5.6	<=20
2-Nitrophenol	RC1500135-08	T	Average RF	80.000	84.46	ppm	5.6	<=30
3,3'-Dichlorobenzidine	RC1500135-09	T	Average RF	80.000	83.36	ppm	4.2	<=20
3,3'-Dichlorobenzidine	RC1500135-09	T	Average RF	80.000	83.36	ppm	4.2	<=30
3- and 4-Methylphenol Coelution	RC1500135-08	T	Average RF	160	160.6	ppm	0.4	<=20
3- and 4-Methylphenol Coelution	RC1500135-08	T	Average RF	160	160.6	ppm	0.4	<=30
3-Nitroaniline	RC1500135-08	T	Average RF	80.000	42.16	ppm	-47.3	<=30
3-Nitroaniline	RC1500135-08	T	Average RF	80.000	42.16	ppm	-47.3	<=20
4,6-Dinitro-2-methylphenol	RC1500135-08	T	Quadratic	80.000	87.07	ppm	8.8	<=30
4,6-Dinitro-2-methylphenol	RC1500135-08	T	Quadratic	80.000	87.07	ppm	8.8	<=20
4-Bromophenyl Phenyl Ether	RC1500135-08	T	Average RF	80.000	77.81	ppm	-2.7	<=30
4-Bromophenyl Phenyl Ether	RC1500135-08	T	Average RF	80.000	77.81	ppm	-2.7	<=20
4-Chloro-3-methylphenol	RC1500135-08	T	Average RF	80.000	80.01	ppm	0.0	<=20

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
4-Chloro-3-methylphenol	RC1500135-08	T	Average RF	80.000	80.01	ppm	0.0	<=30
4-Chloroaniline	RC1500135-08	T	Average RF	80.000	26.63	ppm	-66.7	<=20
4-Chloroaniline	RC1500135-08	T	Average RF	80.000	26.63	ppm	-66.7	<=30
4-Chlorophenyl Phenyl Ether	RC1500135-08	T	Average RF	80.000	78.31	ppm	-2.1	<=30
4-Chlorophenyl Phenyl Ether	RC1500135-08	T	Average RF	80.000	78.31	ppm	-2.1	<=20
4-Nitroaniline	RC1500135-08	T	Average RF	80.000	77.65	ppm	-2.9	<=30
4-Nitroaniline	RC1500135-08	T	Average RF	80.000	77.65	ppm	-2.9	<=20
4-Nitrophenol	RC1500135-08	T	Average RF	80.000	94.00	ppm	17.5	<=20
4-Nitrophenol	RC1500135-08	T	Average RF	80.000	94.00	ppm	17.5	<=30
Acenaphthene	RC1500135-08	T	Average RF	80.000	79.05	ppm	-1.2	<=20
Acenaphthene	RC1500135-08	T	Average RF	80.000	79.05	ppm	-1.2	<=30
Acenaphthylene	RC1500135-08	T	Average RF	80.000	79.93	ppm	-0.1	<=30
Acenaphthylene	RC1500135-08	T	Average RF	80.000	79.93	ppm	-0.1	<=20
Acetophenone	RC1500135-09	T	Average RF	80.000	85.71	ppm	7.1	<=20
Acetophenone	RC1500135-09	T	Average RF	80.000	85.71	ppm	7.1	<=30
Aniline	RC1500135-08	T	Average RF	80.000	67.89	ppm	-15.1	<=20
Aniline	RC1500135-08	T	Average RF	80.000	67.89	ppm	-15.1	<=30
Anthracene	RC1500135-08	T	Average RF	80.000	79.30	ppm	-0.9	<=30
Anthracene	RC1500135-08	T	Average RF	80.000	79.30	ppm	-0.9	<=20
Atrazine	RC1500135-09	T	Average RF	80.000	100.7	ppm	25.9	<=30
Atrazine	RC1500135-09	T	Average RF	80.000	100.7	ppm	25.9	<=20
Benz(a)anthracene	RC1500135-08	T	Average RF	80.000	78.98	ppm	-1.3	<=20
Benz(a)anthracene	RC1500135-08	T	Average RF	80.000	78.98	ppm	-1.3	<=30
Benzaldehyde	RC1500135-09	T	Average RF	80.000	90.99	ppm	13.7	<=20
Benzaldehyde	RC1500135-09	T	Average RF	80.000	90.99	ppm	13.7	<=30
Benzo(a)pyrene	RC1500135-08	T	Average RF	80.000	80.72	ppm	0.9	<=20
Benzo(a)pyrene	RC1500135-08	T	Average RF	80.000	80.72	ppm	0.9	<=30
Benzo(b)fluoranthene	RC1500135-08	T	Average RF	80.000	79.16	ppm	-1.1	<=20
Benzo(b)fluoranthene	RC1500135-08	T	Average RF	80.000	79.16	ppm	-1.1	<=30
Benzo(g,h,i)perylene	RC1500135-08	T	Average RF	80.000	78.05	ppm	-2.4	<=20
Benzo(g,h,i)perylene	RC1500135-08	T	Average RF	80.000	78.05	ppm	-2.4	<=30
Benzo(k)fluoranthene	RC1500135-08	T	Average RF	80.000	81.58	ppm	2.0	<=20
Benzo(k)fluoranthene	RC1500135-08	T	Average RF	80.000	81.58	ppm	2.0	<=30
Benzoic Acid	RC1500135-08	T	Average RF	80.000	73.58	ppm	-8.0	<=30
Benzoic Acid	RC1500135-08	T	Average RF	80.000	73.58	ppm	-8.0	<=20
Benzyl Alcohol	RC1500135-08	T	Average RF	80.000	91.50	ppm	14.4	<=30
Benzyl Alcohol	RC1500135-08	T	Average RF	80.000	91.50	ppm	14.4	<=20
Biphenyl	RC1500135-09	T	Average RF	80.000	74.73	ppm	-6.6	<=20
Biphenyl	RC1500135-09	T	Average RF	80.000	74.73	ppm	-6.6	<=30
Bis(1-chloroisopropyl) Ether	RC1500135-08	T	Average RF	80.000	94.82	ppm	18.5	<=30
Bis(1-chloroisopropyl) Ether	RC1500135-08	T	Average RF	80.000	94.82	ppm	18.5	<=20
Bis(2-chloroethoxy) Methane	RC1500135-08	T	Average RF	80.000	77.74	ppm	-2.8	<=30
Bis(2-chloroethoxy) Methane	RC1500135-08	T	Average RF	80.000	77.74	ppm	-2.8	<=20
Bis(2-chloroethyl) Ether	RC1500135-08	T	Average RF	80.000	83.33	ppm	4.2	<=30
Bis(2-chloroethyl) Ether	RC1500135-08	T	Average RF	80.000	83.33	ppm	4.2	<=20
Bis(2-ethylhexyl) Phthalate	RC1500135-08	T	Average RF	80.000	82.33	ppm	2.9	<=30
Bis(2-ethylhexyl) Phthalate	RC1500135-08	T	Average RF	80.000	82.33	ppm	2.9	<=20
Butyl Benzyl Phthalate	RC1500135-08	T	Average RF	80.000	81.76	ppm	2.2	<=30
Butyl Benzyl Phthalate	RC1500135-08	T	Average RF	80.000	81.76	ppm	2.2	<=20
Caprolactam	RC1500135-09	T	Average RF	80.000	83.84	ppm	4.8	<=30
Caprolactam	RC1500135-09	T	Average RF	80.000	83.84	ppm	4.8	<=20

Initial Calibration Verification Summary Report

Calibration ID: RC1500135 **Instrument ID:** R-MS-51
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Carbazole	RC1500135-08	T	Average RF	80.000	80.45	ppm	0.6	<=20
Carbazole	RC1500135-08	T	Average RF	80.000	80.45	ppm	0.6	<=30
Chrysene	RC1500135-08	T	Average RF	80.000	83.23	ppm	4.0	<=20
Chrysene	RC1500135-08	T	Average RF	80.000	83.23	ppm	4.0	<=30
Di-n-butyl Phthalate	RC1500135-08	T	Average RF	80.000	83.22	ppm	4.0	<=30
Di-n-butyl Phthalate	RC1500135-08	T	Average RF	80.000	83.22	ppm	4.0	<=20
Di-n-octyl Phthalate	RC1500135-08	T	Average RF	80.000	86.84	ppm	8.6	<=30
Di-n-octyl Phthalate	RC1500135-08	T	Average RF	80.000	86.84	ppm	8.6	<=20
Dibenz(a,h)anthracene	RC1500135-08	T	Average RF	80.000	79.77	ppm	-0.3	<=30
Dibenz(a,h)anthracene	RC1500135-08	T	Average RF	80.000	79.77	ppm	-0.3	<=20
Dibenzofuran	RC1500135-08	T	Average RF	80.000	75.54	ppm	-5.6	<=20
Dibenzofuran	RC1500135-08	T	Average RF	80.000	75.54	ppm	-5.6	<=30
Diethyl Phthalate	RC1500135-08	T	Average RF	80.000	80.27	ppm	0.3	<=30
Diethyl Phthalate	RC1500135-08	T	Average RF	80.000	80.27	ppm	0.3	<=20
Dimethyl Phthalate	RC1500135-08	T	Average RF	80.000	72.83	ppm	-9.0	<=30
Dimethyl Phthalate	RC1500135-08	T	Average RF	80.000	72.83	ppm	-9.0	<=20
Fluoranthene	RC1500135-08	T	Average RF	80.000	83.15	ppm	3.9	<=30
Fluoranthene	RC1500135-08	T	Average RF	80.000	83.15	ppm	3.9	<=20
Fluorene	RC1500135-08	T	Average RF	80.000	73.52	ppm	-8.1	<=20
Fluorene	RC1500135-08	T	Average RF	80.000	73.52	ppm	-8.1	<=30
Hexachlorobenzene	RC1500135-08	T	Average RF	80.000	77.81	ppm	-2.7	<=20
Hexachlorobenzene	RC1500135-08	T	Average RF	80.000	77.81	ppm	-2.7	<=30
Hexachlorobutadiene	RC1500135-08	T	Average RF	80.000	79.31	ppm	-0.9	<=20
Hexachlorobutadiene	RC1500135-08	T	Average RF	80.000	79.31	ppm	-0.9	<=30
Hexachlorocyclopentadiene	RC1500135-08	T	Quadratic	80.000	86.22	ppm	7.8	<=20
Hexachlorocyclopentadiene	RC1500135-08	T	Quadratic	80.000	86.22	ppm	7.8	<=30
Hexachloroethane	RC1500135-08	T	Average RF	80.000	81.28	ppm	1.6	<=30
Hexachloroethane	RC1500135-08	T	Average RF	80.000	81.28	ppm	1.6	<=20
Indeno(1,2,3-cd)pyrene	RC1500135-08	T	Average RF	80.000	79.75	ppm	-0.3	<=30
Indeno(1,2,3-cd)pyrene	RC1500135-08	T	Average RF	80.000	79.75	ppm	-0.3	<=20
Isophorone	RC1500135-08	T	Average RF	80.000	81.39	ppm	1.7	<=20
Isophorone	RC1500135-08	T	Average RF	80.000	81.39	ppm	1.7	<=30
N-Nitrosodi-n-propylamine	RC1500135-08	T	Average RF	80.000	80.13	ppm	0.2	<=20
N-Nitrosodi-n-propylamine	RC1500135-08	T	Average RF	80.000	80.13	ppm	0.2	<=30
N-Nitrosodimethylamine	RC1500135-08	T	Average RF	80.000	83.26	ppm	4.1	<=30
N-Nitrosodimethylamine	RC1500135-08	T	Average RF	80.000	83.26	ppm	4.1	<=20
N-Nitrosodiphenylamine	RC1500135-08	T	Average RF	80.000	85.27	ppm	6.6	<=30
N-Nitrosodiphenylamine	RC1500135-08	T	Average RF	80.000	85.27	ppm	6.6	<=20
Naphthalene	RC1500135-08	T	Average RF	80.000	80.72	ppm	0.9	<=30
Naphthalene	RC1500135-08	T	Average RF	80.000	80.72	ppm	0.9	<=20
Nitrobenzene	RC1500135-08	T	Average RF	80.000	79.79	ppm	-0.3	<=20
Nitrobenzene	RC1500135-08	T	Average RF	80.000	79.79	ppm	-0.3	<=30
Pentachlorophenol (PCP)	RC1500135-08	T	Average RF	80.000	78.24	ppm	-2.2	<=30
Pentachlorophenol (PCP)	RC1500135-08	T	Average RF	80.000	78.24	ppm	-2.2	<=20
Phenanthrene	RC1500135-08	T	Average RF	80.000	83.54	ppm	4.4	<=30
Phenanthrene	RC1500135-08	T	Average RF	80.000	83.54	ppm	4.4	<=20
Phenol	RC1500135-08	T	Average RF	80.000	78.14	ppm	-2.3	<=20
Phenol	RC1500135-08	T	Average RF	80.000	78.14	ppm	-2.3	<=30
Pyrene	RC1500135-08	T	Average RF	80.000	90.77	ppm	13.5	<=20
Pyrene	RC1500135-08	T	Average RF	80.000	90.77	ppm	13.5	<=30
Pyridine	RC1500135-08	T	Average RF	80.000	82.84	ppm	3.5	<=30

Calibration ID:	RC1500135	**Instrument ID:**	R-MS-51
		Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Pyridine	RC1500135-08	T	Average RF	80.000	82.84	ppm	3.5	<=20
2,4,6-Tribromophenol	RC1500135-08	S	Average RF	80.000	83.23	ppm	4.0	<=20
2,4,6-Tribromophenol	RC1500135-08	S	Average RF	80.000	83.23	ppm	4.0	<=30
2-Fluorobiphenyl	RC1500135-08	S	Average RF	80.000	84.81	ppm	6.0	<=30
2-Fluorobiphenyl	RC1500135-08	S	Average RF	80.000	84.81	ppm	6.0	<=20
2-Fluorophenol	RC1500135-08	S	Average RF	80.000	92.51	ppm	15.6	<=30
2-Fluorophenol	RC1500135-08	S	Average RF	80.000	92.51	ppm	15.6	<=20
Nitrobenzene-d5	RC1500135-08	S	Average RF	80.000	88.92	ppm	11.1	<=20
Nitrobenzene-d5	RC1500135-08	S	Average RF	80.000	88.92	ppm	11.1	<=30
Phenol-d6	RC1500135-08	S	Average RF	80.000	86.80	ppm	8.5	<=20
Phenol-d6	RC1500135-08	S	Average RF	80.000	86.80	ppm	8.5	<=30
p-Terphenyl-d14	RC1500135-08	S	Average RF	80.000	87.36	ppm	9.2	<=30
p-Terphenyl-d14	RC1500135-08	S	Average RF	80.000	87.36	ppm	9.2	<=20

Exceptions

QAP **Method**

LAB QAP 625

Compound	Type	Criteria	Result
4-Chloroaniline	Percent Difference	<= 30	-66.71
3-Nitroaniline	Percent Difference	<= 30	-47.30

LAB QAP 8270D

Compound	Type	Criteria	Result
3-Nitroaniline	Percent Difference	<= 30	-47.30
4-Chloroaniline	Percent Difference	<= 30	-66.71

Exceptions

QAP **Method**

DOD QSM v5.0 Rochester 8270D

Compound	Type	Criteria	Result
4-Chloroaniline	Percent Difference	<= 20	-66.71
3-Nitroaniline	Percent Difference	<= 20	-47.30
Atrazine	Percent Difference	<= 20	25.92

Data File : I:\ACQUDATA\5973A\DATA\120415\DC318.D Vial: 11
Acq On : 4 Dec 2015 3:26 pm Operator: B.ALLGEIER
Sample : ICV 1 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	d4-1,4-Dichlorobenzene	1.000	1.000	0.0	106	0.00
2	TM	Pyridine	1.160	1.202	-3.6	109	0.01
3	TM	N-Nitrosodimethylamine	0.663	0.690	-4.1	110	0.01
4	S	SURR1,2-FLUOROPHENOL	1.021	1.181	-15.7	124	0.00
5	TM	Benzaldehyde	0.253	0.000	100.0#	0#	-3.82#
6	TM	Aniline	1.554	1.319	15.1	91	0.00
7	S	SURR2,PHENOL-D6	1.274	1.382	-8.5	120	0.00
8	TMC	Phenol	1.511	1.476	2.3	104	0.00
9	TM	bis(2-Clethyl)Ether	1.045	1.088	-4.1	108	0.00
10	TM	2-Chlorophenol	1.217	1.257	-3.3	114	0.00
11	TM	1,3-Diclbenzene	1.329	1.345	-1.2	109	0.00
12	TMC	1,4-Dichlorobenzene	1.364	1.348	1.2	107	0.00
13	TM	1,2-Diclbenzene	1.273	1.300	-2.1	111	0.00
14	TM	Benzyl Alcohol	0.750	0.858	-14.4	114	0.00
15	TM	2,2'-oxybis(1-Chloropropane	0.938	1.111	-18.4	129	0.00
16	TM	2-Methylphenol	1.106	1.136	-2.7	106	0.00
17	TM	Acetophenone	1.460	0.000	100.0#	0#	-4.35#
18	TMP	N-Nitroso-Di-n-propylamine	0.772	0.774	-0.3	112	0.00
19	TM	Hexachloroethane	0.485	0.493	-1.6	105	0.00
20	TM	3+4-Methylphenol	1.123	2.255	-100.8#	213#	0.00
21	T	1-Methyl-2-pyrrolidinone	0.742	0.000	100.0#	0#	-4.21#
22	IR	d8-Naphthalene	1.000	1.000	0.0	106	0.00
23	S	SURR4,NITROBENZENE-D5	0.249	0.277	-11.2	125	0.00
24	TM	Nitrobenzene	0.258	0.258	0.0	108	0.00
25	TM	Isophorone	0.510	0.519	-1.8	117	0.00
26	TCM	2-Nitrophenol	0.145	0.153	-5.5	112	0.00
27	TM	Benzoic Acid	0.155	0.143	7.7	102	0.00
28	TM	2,4-Dimethylphenol	0.292	0.284	2.7	109	0.00
29	TM	bis(-2-Chloroethoxy)Methane	0.307	0.298	2.9	106	0.00
30	TCM	2,4-Dichlorophenol	0.245	0.241	1.6	106	0.00
31	TM	1,2,4-Trichlorobenzene	0.266	0.268	-0.8	113	0.00
32	TM	Naphthalene	0.823	0.830	-0.9	109	0.00
33	TM	4-Chloroaniline	0.329	0.110	66.6#	36#	0.00
34	TCM	Hexachlorobutadiene	0.144	0.143	0.7	110	0.00
35	TMC	4-Chloro-3-methylphenol	0.248	0.248	0.0	109	0.00
36	TM	Caprolactam	0.085	0.000	100.0#	0#	-5.25#
37	TM	2-Methylnaphthalene	0.558	0.559	-0.2	111	0.00
38	TM	1-Methylnaphthalene	0.536	0.545	-1.7	112	0.00
39	IR	d10-Acenaphthene	1.000	1.000	0.0	107	0.00
40	TPM	Hexachlorocyclopentadiene	0.167	0.205	-7.8 -22.8#	116	0.00 Q
41	TCM	2,4,6-Trichlorophenol	0.285	0.284	0.4	107	0.00
42	TM	2,4,5-Trichlorophenol	0.305	0.312	-2.3	111	0.00
43	S	SURR5,2-FLUOROBIPHENYL	1.022	1.083	-6.0	117	0.00
44	TM	1,1'-Biphenyl	1.165	0.000	100.0#	0#	-5.77#
45	TM	2-Chloronaphthalene	0.929	0.941	-1.3	110	0.00
46	TM	2-Nitroaniline	0.214	0.209	2.3	102	0.00
47	TM	Acenaphthylene	1.479	1.478	0.1	110	0.00
48	TM	Dimethyl phthalate	0.994	0.905	9.0	102	0.00

(#) = Out of Range
DC318.D 82701204.M Mon Dec 07 07:18:32 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC318.D Vial: 11
Acq On : 4 Dec 2015 3:26 pm Operator: B.ALLGEIER
Sample : ICV 1 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	TM	2,6-Dinitrotoluene	0.206	0.211	-2.4	109	0.00
50	TMC	Acenaphthene	0.933	0.922	1.2	111	0.00
51	TM	3-Nitroaniline	0.229	0.121	47.2#	57	0.00
52	TPM	2,4-Dinitrophenol	0.068	0.078	~~-14.7~~ -9.7	119	0.00 Q
53	TM	Dibenzofuran	1.312	1.238	5.6	104	0.00
54	TM	2,4-Dinitrotoluene	0.255	0.277	-8.6	115	0.00
55	TMP	4-Nitrophenol	0.147	0.173	-17.7	117	0.00
56	TM	Fluorene	1.075	0.988	8.1	100	0.00
57	TM	4-Chlorophenyl-phenylether	0.513	0.502	2.1	107	0.00
58	TM	Diethylphthalate	0.974	0.977	-0.3	113	0.00
59	TM	4-Nitroaniline	0.257	0.249	3.1	100	0.00
60	S	SURR3,2,4,6-TRIBROMOPHENOL	0.134	0.139	-3.7	111	0.00
61	IR	d10-Phenanthrene	1.000	1.000	0.0	102	0.00
62	TM	4,6-Dinitro-2-methylphenol	0.077	0.090	~~-16.9~~ -8.8	117	0.00 Q
63	TM	1,2 Diphenylhydrazine	0.585	0.557	4.8	100	0.00
64	TCM	N-Nitrosodiphenylamine	0.440	0.469	-6.6	117	0.00
65	TM	4-Bromophenyl-phenylether	0.185	0.180	2.7	102	0.00
66	TM	Hexachlorobenzene	0.206	0.201	2.4	104	0.00
67	TM	Atrazine	0.095	0.000	100.0#	0#	-7.02#
68	TCM	Pentachlorophenol	0.091	0.089	2.2	99	0.00
69	TM	Phenanthrene	0.876	0.915	-4.5	110	0.00
70	TM	Anthracene	0.933	0.925	0.9	104	0.00
71	TM	Carbazole	0.910	0.915	-0.5	106	0.00
72	TM	Di-n-butylphthalate	1.066	1.108	-3.9	105	0.00
73	TCM	Fluoranthene	0.989	1.028	-3.9	106	0.00
74	IR	d12-Chrysene	1.000	1.000	0.0	95	0.00
75	TM	Benzidine	0.319	0.000	100.0#	0#	-8.34#
76	TM	Pyrene	1.012	1.148	-13.4	105	0.00
77	S	SURR6,TERPHENYL-D14	0.724	0.790	-9.1	104	0.00
78	TM	Butyl benzyl phthalate	0.502	0.513	-2.2	99	0.00
79	TM	3,3'-Dichlorobenzidine	0.356	0.244	31.5#	67	0.00
80	TM	Benzo(a)anthracene	1.003	0.991	1.2	96	0.00
81	TM	Chrysene	0.923	0.960	-4.0	100	0.00
82	TM	bis(2-Ethylhexyl)phthalate	0.688	0.708	-2.9	102	0.00
83	IR	d12-Perylene	1.000	1.000	0.0	92	0.00
84	TCM	Di-n-octyl phthalate	1.101	1.196	-8.6	98	0.00
85	TM	Benzo(b)Fluoranthene	0.906	0.896	1.1	89	0.00
86	TM	Benzo(k)fluoranthene	0.889	0.907	-2.0	92	0.00
87	TCM	Benzo(a)pyrene	0.884	0.892	-0.9	93	0.00
88	TM	Indeno(1,2,3-cd)Pyrene	0.864	0.861	0.3	95	0.00
89	TM	Dibenz(a,h)anthracene	0.877	0.875	0.2	93	0.00
90	TM	Benzo(g,h,i)perylene	0.825	0.805	2.4	91	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
DC318.D 82701204.M Mon Dec 07 07:18:34 2015

Data File : I:\ACQUDATA\5973N\DATA\120415\DC318.D Vial: 11
Acq On : 4 Dec 2015 3:26 pm Operator: B.ALLGEIER
Sample : ICV 1 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 7:13 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	4.09	152	243097	40.00	ppm	0.00
22) d8-Naphthalene	4.95	136	1009210	40.00	ppm	0.00
39) d10-Acenaphthene	6.18	164	581480	40.00	ppm	0.00
61) d10-Phenanthrene	7.25	188	881585	40.00	ppm	0.00
74) d12-Chrysene	10.01	240	853750	40.00	ppm	0.00
83) d12-Perylene	12.73	264	868596	40.00	ppm	0.00
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.29	112	574023	92.51	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 46.26%			
7) SURR2,PHENOL-D6	3.86	99	671951	86.80	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 43.40%			
23) SURR4,NITROBENZENE-D5	4.46	82	559628	88.92	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 88.92%			
43) SURR5,2-FLUOROBIPHENYL	5.70	172	1259587	84.81	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 84.81%			
60) SURR3,2,4,6-TRIBROMOPHENOL	6.75	330	161547	83.23	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 41.62%			
77) SURR6,TERPHENYL-D14	8.59	244	1349700	87.36	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 87.36%			
Target Compounds						Qvalue
2) Pyridine	2.43	79	584198	82.84	ppm	99
3) N-Nitrosodimethylamine	2.40	74	335624	83.26	ppm	94
6) Aniline	3.89	93	641089	67.89	ppm	93
8) Phenol	3.86	94	717602	78.14	ppm	99
9) bis(2-Clethyl)Ether	3.91	93	529208	83.33	ppm	82
10) 2-Chlorophenol	3.97	128	611169	82.64	ppm	96
11) 1,3-Diclbenzene	4.06	146	653734	80.95	ppm	98
12) 1,4-Dichlorobenzene	4.10	146	655539	79.07	ppm	96
13) 1,2-Diclbenzene	4.21	146	632207	81.74	ppm	98
14) Benzyl Alcohol	4.18	79	417094	91.50	ppm	96
15) 2,2'-oxybis(1-Chloropropan	4.25	45	540372	94.82	ppm	96
16) 2-Methylphenol	4.25	108	552400	82.15	ppm	97
18) N-Nitroso-Di-n-propylamine	4.35	70	376095	80.13	ppm	93
19) Hexachloroethane	4.43	117	239741	81.28	ppm	92
20) 3+4-Methylphenol	4.36	108	1096516	160.60	ppm	92
24) Nitrobenzene	4.47	77	519850	79.79	ppm	95
25) Isophorone	4.63	82	1048177	81.39	ppm	96
26) 2-Nitrophenol	4.69	139	309390	84.46	ppm	90
27) Benzoic Acid	4.79	105	288270	73.58	ppm	88
28) 2,4-Dimethylphenol	4.71	107	573286	77.82	ppm	94
29) bis(-2-Chloroethoxy)Methan	4.76	93	601679	77.74	ppm	92
30) 2,4-Dichlorophenol	4.86	162	485605	78.45	ppm	94
31) 1,2,4-Trichlorobenzene	4.91	180	540072	80.62	ppm	86
32) Naphthalene	4.96	128	1675485	80.72	ppm	98
33) 4-Chloroaniline	5.00	127	221082	26.63	ppm	99
34) Hexachlorobutadiene	5.04	225	288494	79.31	ppm	99
35) 4-Chloro-3-methylphenol	5.34	107	501418m	80.01	ppm	
37) 2-Methylnaphthalene	5.45	142	1128417	80.12	ppm	96
38) 1-Methylnaphthalene	5.52	142	1099881	81.33	ppm	99

(#) = qualifier out of range (m) = manual integration
DC318.D 82701204.M Mon Dec 07 07:18:09 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC318.D Vial: 11
Acq On : 4 Dec 2015 3:26 pm Operator: B.ALLGEIER
Sample : ICV 1 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 7:13 2015 Quant Results File: 82701204.RES

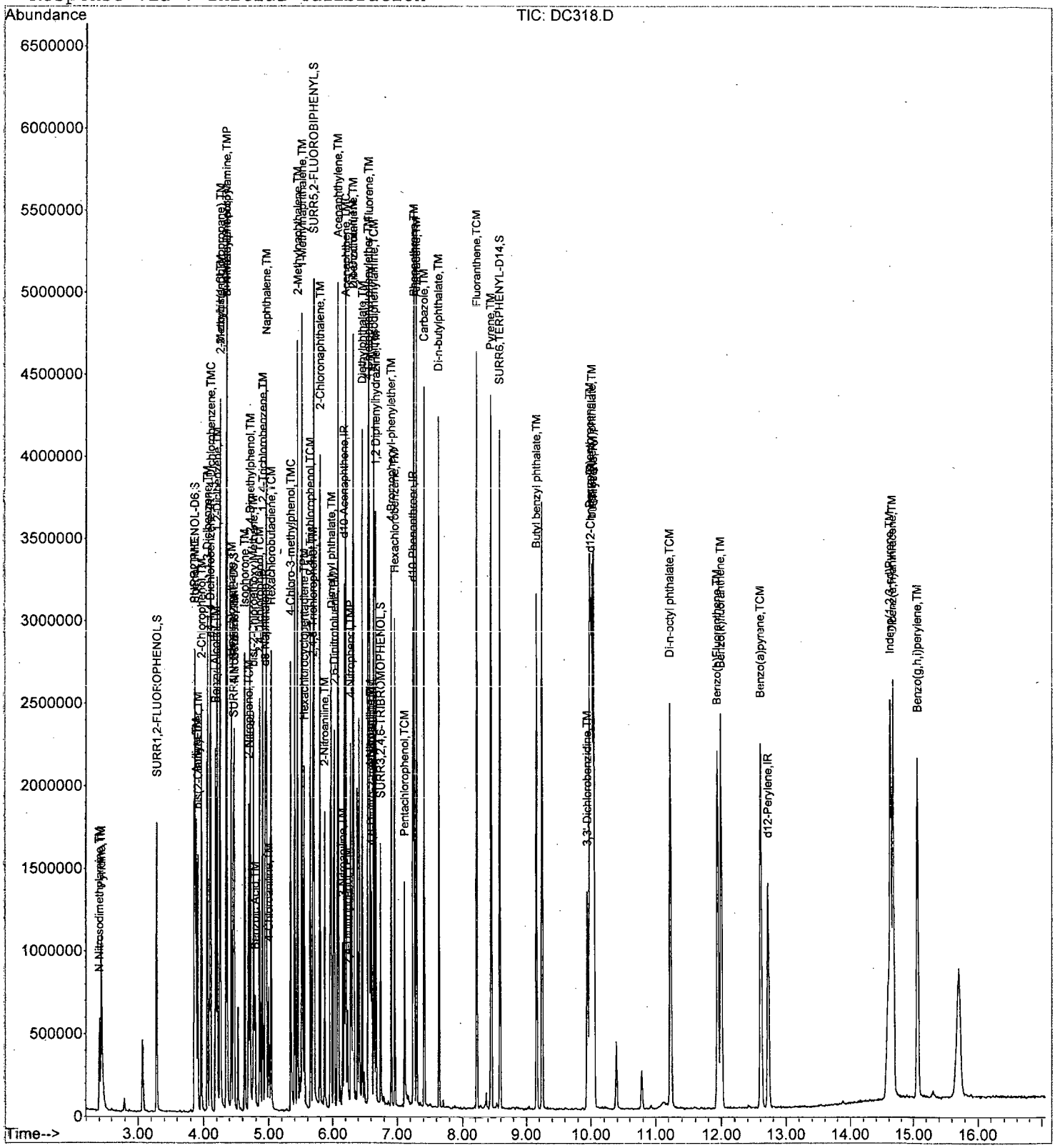
Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40)	Hexachlorocyclopentadiene	5.55	237	238712	86.22	ppm	100
41)	2,4,6-Trichlorophenol	5.64	196	330020	79.77	ppm	99
42)	2,4,5-Trichlorophenol	5.68	196	362738	81.74	ppm	99
45)	2-Chloronaphthalene	5.79	162	1094035	80.98	ppm	97
46)	2-Nitroaniline	5.87	65	242850	78.06	ppm	88
47)	Acenaphthylene	6.09	152	1718920	79.93	ppm	99
48)	Dimethyl phthalate	5.98	163	1052079	72.83	ppm	99
49)	2,6-Dinitrotoluene	6.03	165	245674	81.95	ppm	91
50)	Acenaphthene	6.21	153	1072444	79.05	ppm	96
51)	3-Nitroaniline	6.16	138	140438	42.16	ppm	99
52)	2,4-Dinitrophenol	6.24	184	90825	87.78	ppm	84
53)	Dibenzofuran	6.33	168	1440272	75.54	ppm	99
54)	2,4-Dinitrotoluene	6.32	165	321979	86.89	ppm	96
55)	4-Nitrophenol	6.29	65	201331	94.00	ppm	89
56)	Fluorene	6.57	166	1149015	73.52	ppm	94
57)	4-Chlorophenyl-phenylether	6.56	204	584097	78.31	ppm	89
58)	Diethylphthalate	6.47	149	1136713	80.27	ppm	97
59)	4-Nitroaniline	6.59	138	289951	77.65	ppm	97
62)	4,6-Dinitro-2-methylphenol	6.61	198	158711	87.07	ppm	94
63)	1,2 Diphenylhydrazine	6.67	77	982779	76.18	ppm	96
64)	N-Nitrosodiphenylamine	6.65	169	826176	85.27	ppm	98
65)	4-Bromophenyl-phenylether	6.91	248	317891	77.81	ppm	89
66)	Hexachlorobenzene	6.97	284	353595	77.81	ppm	91
68)	Pentachlorophenol	7.11	266	156705	78.24	ppm	89
69)	Phenanthrene	7.26	178	1613567	83.54	ppm	99
70)	Anthracene	7.30	178	1631201	79.30	ppm	99
71)	Carbazole	7.42	167	1612768	80.45	ppm	100
72)	Di-n-butylphthalate	7.64	149	1954309	83.22	ppm	97
73)	Fluoranthene	8.23	202	1813256	83.15	ppm	98
76)	Pyrene	8.45	202	1960275	90.77	ppm	99
78)	Butyl benzyl phthalate	9.16	149	875572	81.76	ppm	98
79)	3,3'-Dichlorobenzidine	9.95	252	416893	54.94	ppm	97
80)	Benzo(a)anthracene	9.99	228	1691452	78.98	ppm	97
81)	Chrysene	10.05	228	1639709	83.23	ppm	98
82)	bis(2-Ethylhexyl)phthalate	10.02	149	1209209	82.33	ppm	96
84)	Di-n-octyl phthalate	11.24	149	2076889	86.84	ppm	97
85)	Benzo(b)Fluoranthene	11.95	252	1557200	79.16	ppm	98
86)	Benzo(k)fluoranthene	12.01	252	1574784	81.58	ppm	97
87)	Benzo(a)pyrene	12.62	252	1549990	80.72	ppm	97
88)	Indeno(1,2,3-cd)Pyrene	14.64	276	1496231	79.75	ppm	95
89)	Dibenz(a,h)anthracene	14.68	278	1519413	79.77	ppm	96
90)	Benzo(g,h,i)perylene	15.08	276	1397925	78.05	ppm	98

(#) = qualifier out of range (m) = manual integration
DC318.D 82701204.M Mon Dec 07 07:18:10 2015

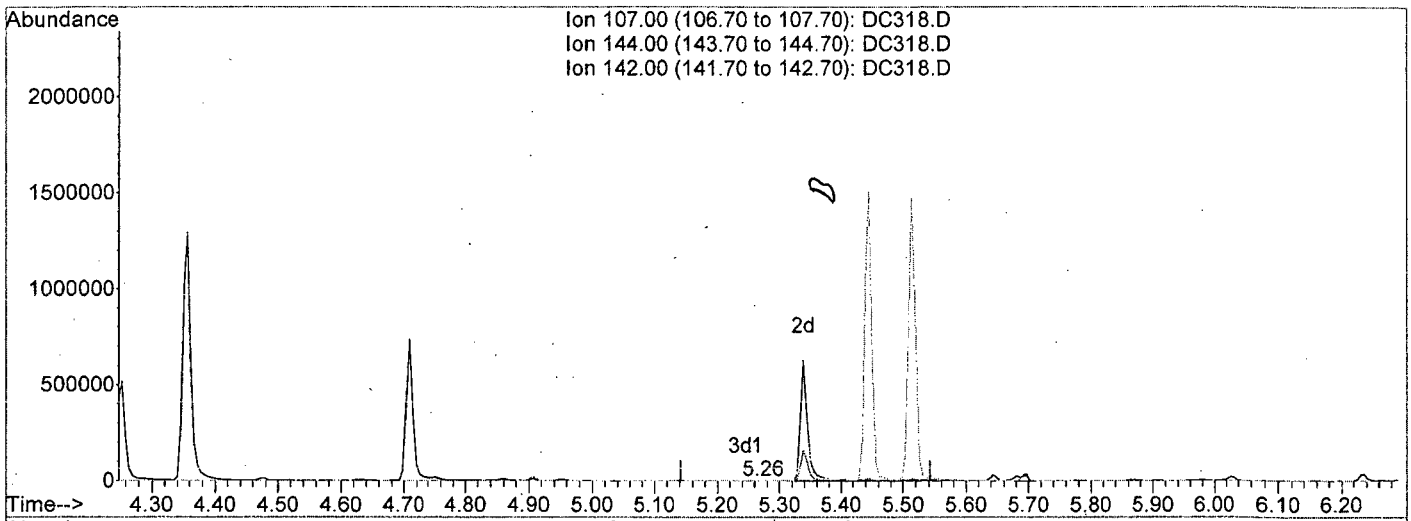
Data File : I:\ACQUDATA\5973A\DATA\12015\DC318.D Vial: 11
Acq On : 4 Dec 2015 3:26 pm Operator: B.ALLGEIER
Sample : ICV 1 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 7:13 2015 Quant Results File: 82701204.RES

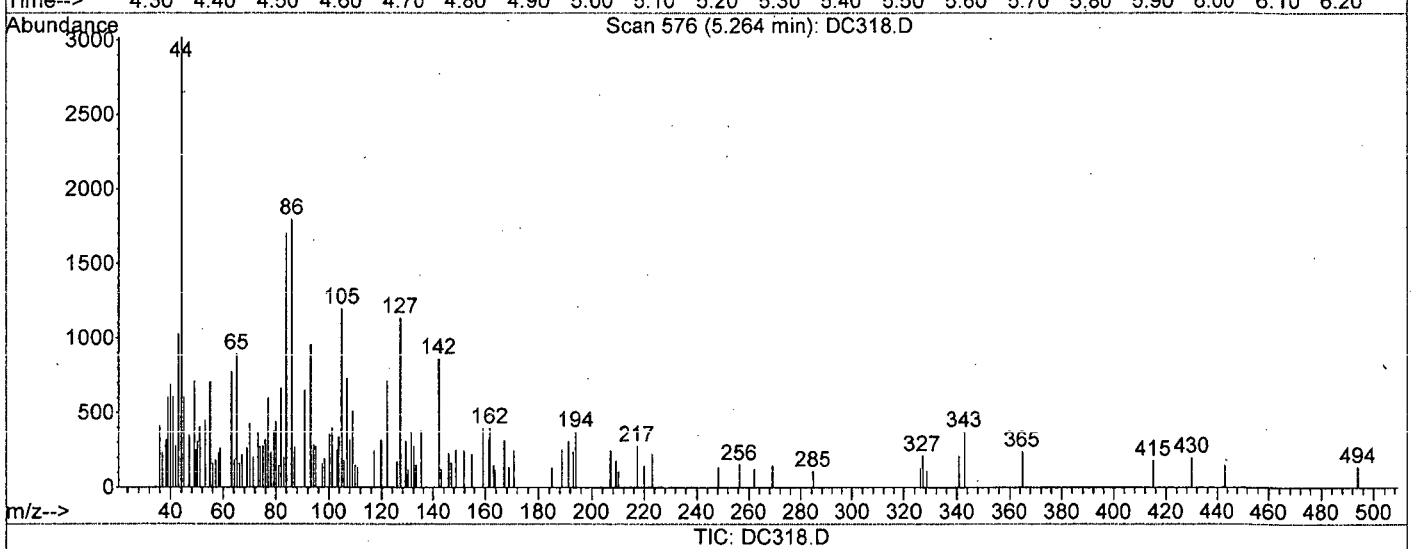
Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration



Data File : I:\ACQUDATA\5973A\DATA\120415\DC318.D Vial: 11
Acq On : 4 Dec 2015 3:26 pm Operator: B.ALLGEIER
Sample : ICV 1 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 7:12 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Multiple Level Calibration





TIC: DC318.D

(35) 4-Chloro-3-methylphenol (TMC)

5.26min 0.06ppm

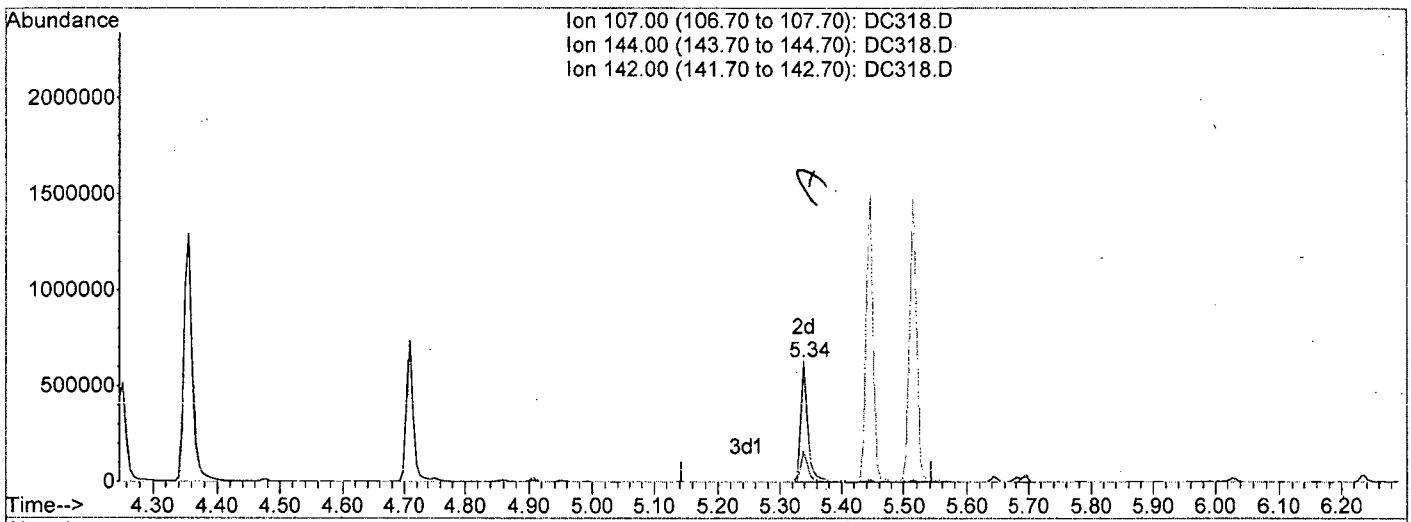
response 404

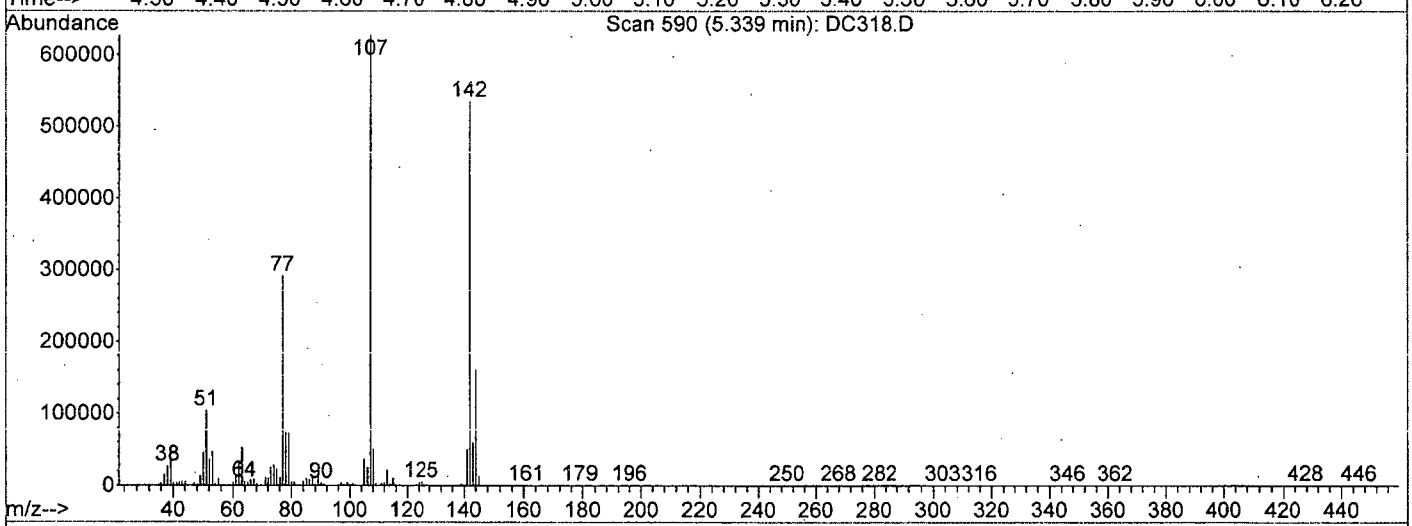
Ion	Exp%	Act%
107.00	100	100
144.00	29.10	0.00
142.00	76.50	54.31
0.00	0.00	0.00

DC318.D 82701204.M Mon Dec 07 07:12:32 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC318.D Vial: 11
Acq On : 4 Dec 2015 3:26 pm Operator: B.ALLGEIER
Sample : ICV 1 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 7:12 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Multiple Level Calibration





TIC: DC318.D

(35) 4-Chloro-3-methylphenol (TMC)

5.34min 80.01ppm m

response 501418

Ion	Exp%	Act%
107.00	100	100
144.00	29.10	25.55
142.00	76.50	85.30
0.00	0.00	0.00

DC318.D 82701204.M Mon Dec 07 07:12:37 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC319.D Vial: 12
Acq On : 4 Dec 2015 3:53 pm Operator: B.ALLGEIER
Sample : ICV 2 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	d4-1,4-Dichlorobenzene	1.000	1.000	0.0	108	0.00
2	TM	Pyridine	1.160	1.250	-7.8	116	0.00
3	TM	N-Nitrosodimethylamine	0.663	0.000	100.0#	0#	-2.39#
4	S	SURR1,2-FLUOROPHENOL	1.021	0.000	100.0#	0#	-3.28#
5	TM	Benzaldehyde	0.253	0.288	-13.8	133	0.00
6	TM	Aniline	1.554	1.071	31.1#	75	0.00
7	S	SURR2,PHENOL-D6	1.274	0.000	100.0#	0#	-3.86#
8	TMC	Phenol	1.511	1.515	-0.3	109	0.00
9	TM	bis(2-Clethyl)Ether	1.045	1.114	-6.6	113	0.00
10	TM	2-Chlorophenol	1.217	0.000	100.0#	0#	-3.96#
11	TM	1,3-Diclbenzene	1.329	0.000	100.0#	0#	-4.06#
12	TMC	1,4-Dichlorobenzene	1.364	0.000	100.0#	0#	-4.10#
13	TM	1,2-Diclbenzene	1.273	0.000	100.0#	0#	-4.20#
14	TM	Benzyl Alcohol	0.750	0.000	100.0#	0#	-4.18#
15	TM	2,2'-oxybis(1-Chloropropane	0.938	0.000	100.0#	0#	-4.25#
16	TM	2-Methylphenol	1.106	1.106	0.0	106	0.00
17	TM	Acetophenone	1.460	1.564	-7.1	117	0.00
18	TMP	N-Nitroso-Di-n-propylamine	0.772	0.000#	100.0#	0#	-4.34#
19	TM	Hexachloroethane	0.485	0.000	100.0#	0#	-4.43#
20	TM	3+4-Methylphenol	1.123	2.241	-99.6#	216#	0.00
21	T	1-Methyl-2-pyrrolidinone	0.742	0.804	-8.4	120	0.00
22	IR	d8-Naphthalene	1.000	1.000	0.0	105	0.00
23	S	SURR4,NITROBENZENE-D5	0.249	0.000	100.0#	0#	-4.46#
24	TM	Nitrobenzene	0.258	0.000	100.0#	0#	-4.47#
25	TM	Isophorone	0.510	0.000	100.0#	0#	-4.63#
26	TCM	2-Nitrophenol	0.145	0.000	100.0#	0#	-4.69#
27	TM	Benzoic Acid	0.155	0.000	100.0#	0#	-4.78#
28	TM	2,4-Dimethylphenol	0.292	0.304	-4.1	116	0.00
29	TM	bis(-2-Chloroethoxy)Methane	0.307	0.000	100.0#	0#	0.02
30	TCM	2,4-Dichlorophenol	0.245	0.261	-6.5	114	0.00
31	TM	1,2,4-Trichlorobenzene	0.266	0.000	100.0#	0#	-4.91#
32	TM	Naphthalene	0.823	0.000	100.0#	0#	-4.97#
33	TM	4-Chloroaniline	0.329	0.000	100.0#	0#	-5.00#
34	TCM	Hexachlorobutadiene	0.144	0.000	100.0#	0#	-5.04#
35	TMC	4-Chloro-3-methylphenol	0.248	0.000	100.0#	0#	-5.34#
36	TM	Caprolactam	0.085	0.089	-4.7	112	0.00
37	TM	2-Methylnaphthalene	0.558	0.000	100.0#	0#	-5.44#
38	TM	1-Methylnaphthalene	0.536	0.000	100.0#	0#	-5.51#
39	IR	d10-Acenaphthene	1.000	1.000	0.0	124	0.00
40	TPM	Hexachlorocyclopentadiene	0.167	0.000#	100.0#	0#	-5.55#
41	TCM	2,4,6-Trichlorophenol	0.285	0.000	100.0#	0#	-5.64#
42	TM	2,4,5-Trichlorophenol	0.305	0.000	100.0#	0#	-5.68#
43	S	SURR5,2-FLUOROBIPHENYL	1.022	0.000	100.0#	0#	-5.69#
44	TM	1,1'-Biphenyl	1.165	1.089	6.5	118	0.00
45	TM	2-Chloronaphthalene	0.929	0.000	100.0#	0#	-5.79#
46	TM	2-Nitroaniline	0.214	0.000	100.0#	0#	-5.86#
47	TM	Acenaphthylene	1.479	0.000	100.0#	0#	-6.08#
48	TM	Dimethyl phthalate	0.994	0.000	100.0#	0#	-5.97#

(#) = Out of Range
DC319.D 82701204.M Mon Dec 07 07:18:55 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC319.D Vial: 12
Acq On : 4 Dec 2015 3:53 pm Operator: B.ALLGEIER
Sample : ICV 2 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	TM	2,6-Dinitrotoluene	0.206	0.192	6.8	116	0.00
50	TMC	Acenaphthene	0.933	0.002	99.8#	0#	0.00
51	TM	3-Nitroaniline	0.229	0.000	100.0#	0#	0.11
52	TPM	2,4-Dinitrophenol	0.068	0.000#	100.0#	0#	-6.24#
53	TM	Dibenzofuran	1.312	0.002	99.8#	0#	0.00
54	TM	2,4-Dinitrotoluene	0.255	0.212	16.9	103	0.00
55	TMP	4-Nitrophenol	0.147	0.000#	100.0#	0#	-6.30#
56	TM	Fluorene	1.075	0.000	100.0#	0#	-6.57#
57	TM	4-Chlorophenyl-phenylether	0.513	0.000	100.0#	0#	-6.56#
58	TM	Diethylphthalate	0.974	0.000	100.0#	0#	-6.47#
59	TM	4-Nitroaniline	0.257	0.000	100.0#	0#	-6.59#
60	S	SURR3,2,4,6-TRIBROMOPHENOL	0.134	0.000	100.0#	0#	-6.75#
61	IR	d10-Phenanthrene	1.000	1.000	0.0	91	0.00
62	TM	4,6-Dinitro-2-methylphenol	0.077	0.000	100.0#	0#	-6.61#
63	TM	1,2 Diphenylhydrazine	0.585	0.000	100.0#	0#	-6.67#
64	TCM	N-Nitrosodiphenylamine	0.440	0.000	100.0#	0#	-6.65#
65	TM	4-Bromophenyl-phenylether	0.185	0.000	100.0#	0#	-6.91#
66	TM	Hexachlorobenzene	0.206	0.000	100.0#	0#	-6.96#
67	TM	Atrazine	0.095	0.123	-29.5#	114	0.00
68	TCM	Pentachlorophenol	0.091	0.000	100.0#	0#	-7.11#
69	TM	Phenanthrene	0.876	0.000	100.0#	0#	-7.26#
70	TM	Anthracene	0.933	0.000	100.0#	0#	-7.30#
71	TM	Carbazole	0.910	0.000	100.0#	0#	-7.41#
72	TM	Di-n-butylphthalate	1.066	1.306	-22.5#	110	0.00
73	TCM	Fluoranthene	0.989	0.000	100.0#	0#	-8.23#
74	IR	d12-Chrysene	1.000	1.000	0.0	112	0.00
75	TM	Benzidine	0.319	0.272	14.7	94	0.00
76	TM	Pyrene	1.012	0.000	100.0#	0#	-8.45#
77	S	SURR6,TERPHENYL-D14	0.724	0.000	100.0#	0#	-8.59#
78	TM	Butyl benzyl phthalate	0.502	0.000	100.0#	0#	-9.16#
79	TM	3,3'-Dichlorobenzidine	0.356	0.370	-3.9	119	0.00
80	TM	Benzo(a)anthracene	1.003	0.000	100.0#	0#	-9.99#
81	TM	Chrysene	0.923	0.000	100.0#	0#	-10.05#
82	TM	bis(2-Ethylhexyl)phthalate	0.688	0.664	3.5	112	0.00
83	IR	d12-Perylene	1.000	1.000	0.0	102	0.00
84	TCM	Di-n-octyl phthalate	1.101	0.000	100.0#	0#	-11.24#
85	TM	Benzo(b)Fluoranthene	0.906	0.000	100.0#	0#	-11.95#
86	TM	Benzo(k)fluoranthene	0.889	0.000	100.0#	0#	-12.00#
87	TCM	Benzo(a)pyrene	0.884	0.000	100.0#	0#	-12.61#
88	TM	Indeno(1,2,3-cd)Pyrene	0.864	0.000	100.0#	0#	-14.64#
89	TM	Dibenz(a,h)anthracene	0.877	0.000	100.0#	0#	-14.68#
90	TM	Benzo(g,h,i)perylene	0.825	0.000	100.0#	0#	-15.07#

(#) = Out of Range SPCC's out = 4 CCC's out = 11
DC319.D 82701204.M Mon Dec 07 07:18:57 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC319.D Vial: 12
Acq On : 4 Dec 2015 3:53 pm Operator: B.ALLGEIER
Sample : ICV 2 Inst : 5973-A
Misc : INITIAL CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 7:16 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

DM 7/7/15

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	4.09	152	248061	40.00 ppm	0.00
22) d8-Naphthalene	4.95	136	1005035	40.00 ppm	0.00
39) d10-Acenaphthene	6.19	164	678702	40.00 ppm	0.00
61) d10-Phenanthrene	7.24	188	785154	40.00 ppm	0.00
74) d12-Chrysene	10.01	240	1001332	40.00 ppm	0.00
83) d12-Perylene	12.73	264	955961	40.00 ppm	0.00

System Monitoring Compounds

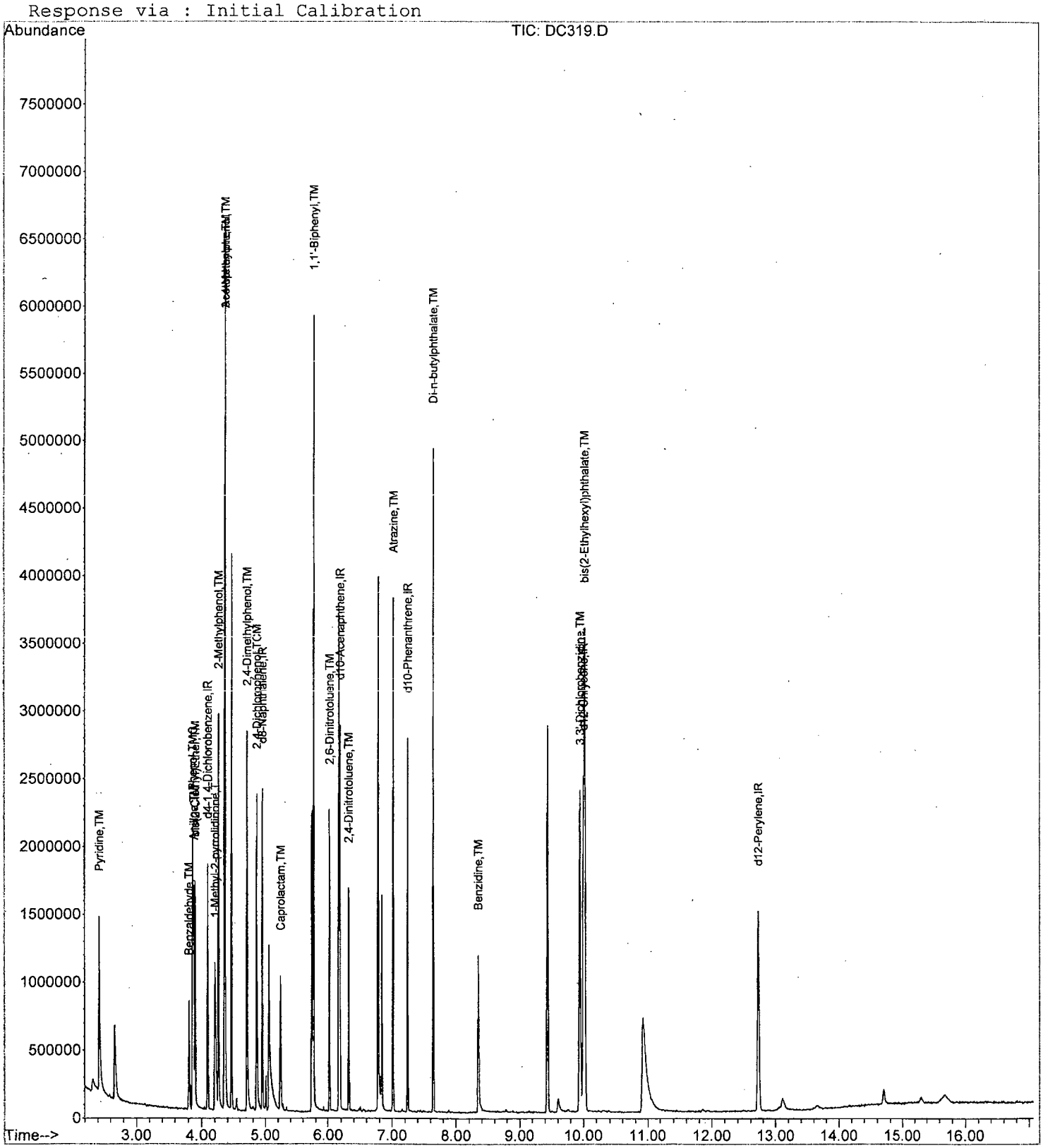
4) SURR1,2-FLUOROPHENOL	0.00	112	0d	0.00 ppm	
Spiked Amount 200.000	Range 10 - 105		Recovery =	0.00%#	
7) SURR2,PHENOL-D6	0.00	99	0d	0.00 ppm	
Spiked Amount 200.000	Range 10 - 107		Recovery =	0.00%#	
23) SURR4,NITROBENZENE-D5	0.00	82	0d	0.00 ppm	
Spiked Amount 100.000	Range 37 - 117		Recovery =	0.00%#	
43) SURR5,2-FLUOROBIPHENYL	0.00	172	0d	0.00 ppm	
Spiked Amount 100.000	Range 39 - 119		Recovery =	0.00%#	
60) SURR3,2,4,6-TRIBROMOPHENOL	0.00	330	0d	0.00 ppm	
Spiked Amount 200.000	Range 28 - 157		Recovery =	0.00%#	
77) SURR6,TERPHENYL-D14	0.00	244	0d	0.00 ppm	
Spiked Amount 100.000	Range 40 - 133		Recovery =	0.00%#	

Target Compounds					Qvalue
2) Pyridine	2.42	79	620295	86.19 ppm	98
5) Benzaldehyde	3.81	106	142740	90.99 ppm	99
6) Aniline	3.88	93	531548	55.17 ppm	96
8) Phenol	3.87	94	751581	80.20 ppm	94
9) bis(2-Clethyl)Ether	3.90	93	552511	85.26 ppm	93
16) 2-Methylphenol	4.26	108	548590	79.95 ppm	92
17) Acetophenone	4.35	105	775812	85.71 ppm	95
20) 3+4-Methylphenol	4.36	108	1112043	159.61 ppm	97
21) 1-Methyl-2-pyrrolidinone	4.20	99	398849	86.69 ppm	93
28) 2,4-Dimethylphenol	4.71	107	611287	83.32 ppm	95
30) 2,4-Dichlorophenol	4.86	162	523858	84.98 ppm	98
36) Caprolactam	5.24	113	178842	83.84 ppm	97
44) 1,1'-Biphenyl	5.77	154	1477646	74.73 ppm	99
49) 2,6-Dinitrotoluene	6.03	165	260849	74.55 ppm	94
54) 2,4-Dinitrotoluene	6.32	165	287762	66.53 ppm	84
67) Atrazine	7.02	215	193449	103.54 ppm	86
72) Di-n-butylphthalate	7.64	149	2050109	98.02 ppm	99
75) Benzidine	8.34	184	545344	68.35 ppm	99
79) 3,3'-Dichlorobenzidine	9.95	252	741955	83.36 ppm	99
82) bis(2-Ethylhexyl)phthalate	10.02	149	1329935	77.21 ppm	96

(#) = qualifier out of range (m) = manual integration
DC319.D 82701204.M Mon Dec 07 07:18:16 2015

```
Data File : I:\ACQUDATA\5973A\DATA\120415\DC319.D          Vial: 12
Acq On    :  4 Dec 2015   3:53 pm                        Operator: B.ALLGEIER
Sample    : ICV 2                                       Inst    : 5973-A
Misc      : INITIAL CAL                                 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec  7  7:16 2015              Quant Results File: 82701204.RES

Method        : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title         : 8270 BNA ANALYSIS
Last Update   : Mon Dec 07 07:10:14 2015
Response via  : Initial Calibration
```



Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\5973A\DATA\120915\DC452.D Vial: 3
Acq On : 9 Dec 2015 7:27 am Operator: J.Misiurewicz
Sample : CCV Inst : 5973-A
Misc : 80 ppm STD 8270D/625 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

DM 2/14/16

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	d4-1,4-Dichlorobenzene	1.000	1.000	0.0	78	-0.01
2	TM	Pyridine	1.160	1.108	4.5	74	-0.03
3	TM	N-Nitrosodimethylamine	0.663	0.625	5.7	74	-0.03
4	S	SURR1,2-FLUOROPHENOL	1.021	0.996	2.4	77	-0.01
5	TM	Benzaldehyde	0.253	0.187	26.1#	63	-0.01
6	TM	Aniline	1.554	1.395	10.2	71	0.00
7	S	SURR2,PHENOL-D6	1.274	1.228	3.6	79	0.00
8	TMC	Phenol	1.511	1.466	3.0	76	0.00
9	TM	bis(2-Clethyl)Ether	1.045	1.054	-0.9	77	0.00
10	TM	2-Chlorophenol	1.217	1.174	3.5	78	0.00
11	TM	1,3-Diclbenzene	1.329	1.280	3.7	77	-0.01
12	TMC	1,4-Dichlorobenzene	1.364	1.321	3.2	78	-0.01
13	TM	1,2-Diclbenzene	1.273	1.259	1.1	79	-0.01
14	TM	Benzyl Alcohol	0.750	0.818	-9.1	80	0.00
15	TM	2,2'-oxybis(1-Chloropropane	0.938	0.852	9.2	73	0.00
16	TM	2-Methylphenol	1.106	1.140	-3.1	79	0.00
17	TM	Acetophenone	1.460	1.483	-1.6	80	0.00
18	TMP	N-Nitroso-Di-n-propylamine	0.772	0.788	-2.1	84	0.00
19	TM	Hexachloroethane	0.485	0.481	0.8	76	0.00
20	TM	3+4-Methylphenol	1.123	1.175	-4.6	82	0.00
21	T	1-Methyl-2-pyrrolidinone	0.742	0.748	-0.8	81	-0.01
22	IR	d8-Naphthalene	1.000	1.000	0.0	76	0.00
23	S	SURR4,NITROBENZENE-D5	0.249	0.273	-9.6	89	0.00
24	TM	Nitrobenzene	0.258	0.278	-7.8	84	0.00
25	TM	Isophorone	0.510	0.538	-5.5	88	0.00
26	TCM	2-Nitrophenol	0.145	0.162	-11.7	86	0.00
27	TM	Benzoic Acid	0.155	0.211	-36.1#	108	0.00
28	TM	2,4-Dimethylphenol	0.292	0.301	-3.1	83	0.00
29	TM	bis(-2-Chloroethoxy)Methane	0.307	0.308	-0.3	79	0.00
30	TCM	2,4-Dichlorophenol	0.245	0.258	-5.3	82	0.00
31	TM	1,2,4-Trichlorobenzene	0.266	0.269	-1.1	82	0.00
32	TM	Naphthalene	0.823	0.841	-2.2	80	0.00
33	TM	4-Chloroaniline	0.329	0.310	5.8	74	-0.01
34	TCM	Hexachlorobutadiene	0.144	0.146	-1.4	81	0.00
35	TMC	4-Chloro-3-methylphenol	0.248	0.258	-4.0	82	0.00
36	TM	Caprolactam	0.085	0.090	-5.9	83	0.00
37	TM	2-Methylnaphthalene	0.558	0.570	-2.2	82	0.00
38	TM	1-Methylnaphthalene	0.536	0.565	-5.4	84	0.00
39	IR	d10-Acenaphthene	1.000	1.000	0.0	86	0.00
40	TPM	Hexachlorocyclopentadiene	0.167	0.191	~~-14.4~~ -1.8	87	0.00
41	TCM	2,4,6-Trichlorophenol	0.285	0.284	0.4	87	0.00
42	TM	2,4,5-Trichlorophenol	0.305	0.291	4.6	84	0.00
43	S	SURR5,2-FLUOROBIPHENYL	1.022	0.966	5.5	84	0.00
44	TM	1,1'-Biphenyl	1.165	1.080	7.3	81	0.00
45	TM	2-Chloronaphthalene	0.929	0.869	6.5	82	0.00
46	TM	2-Nitroaniline	0.214	0.235	-9.8	92	0.00
47	TM	Acenaphthylene	1.479	1.341	9.3	80	0.00
48	TM	Dimethyl phthalate	0.994	0.947	4.7	86	0.00

(#) = Out of Range

DC452.D 82701204.M Fri Dec 11 07:13:31 2015 Page 1

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\5973A\DATA\120915\DC452.D Vial: 3
Acq On : 9 Dec 2015 7:27 am Operator: J.Misiurewicz
Sample : CCV Inst : 5973-A
Misc : 80 ppm STD 8270D/625 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
49	TM	2,6-Dinitrotoluene	0.206	0.222	-7.8	93	0.00	
50	TMC	Acenaphthene	0.933	0.878	5.9	85	0.00	
51	TM	3-Nitroaniline	0.229	0.235	-2.6	89	0.00	
52	TPM	2,4-Dinitrophenol	0.068	0.115 -47.)	~~-69.1#~~	142	0.00	Q
53	TM	Dibenzofuran	1.312	1.268	3.4	86	0.00	
54	TM	2,4-Dinitrotoluene	0.255	0.288	-12.9	97	0.00	
55	TMP	4-Nitrophenol	0.147	0.173	-17.7	94	0.00	
56	TM	Fluorene	1.075	1.022	4.9	84	0.00	
57	TM	4-Chlorophenyl-phenylether	0.513	0.497	3.1	85	0.00	
58	TM	Diethylphthalate	0.974	0.906	7.0	85	0.00	
59	TM	4-Nitroaniline	0.257	0.276	-7.4	89	0.00	
60	S	SURR3,2,4,6-TRIBROMOPHENOL	0.134	0.133	0.7	86	0.00	
61	IR	d10-Phenanthrene	1.000	1.000	0.0	85	-0.01	
62	TM	4,6-Dinitro-2-methylphenol	0.077	0.113 -31.9	~~-46.8#~~	123	0.00	Q
63	TM	1,2 Diphenylhydrazine	0.585	0.560	4.3	84	0.00	
64	TCM	N-Nitrosodiphenylamine	0.440	0.433	1.6	91	0.00	
65	TM	4-Bromophenyl-phenylether	0.185	0.175	5.4	83	0.00	
66	TM	Hexachlorobenzene	0.206	0.201	2.4	87	0.00	
67	TM	Atrazine	0.095	0.095	0.0	83	0.00	
68	TCM	Pentachlorophenol	0.091	0.100	-9.9	94	0.00	
69	TM	Phenanthrene	0.876	0.864	1.4	87	0.00	
70	TM	Anthracene	0.933	0.942	-1.0	89	0.00	
71	TM	Carbazole	0.910	0.914	-0.4	89	0.00	
72	TM	Di-n-butylphthalate	1.066	1.124	-5.4	90	0.00	
73	TCM	Fluoranthene	0.989	1.001	-1.2	86	-0.01	
74	IR	d12-Chrysene	1.000	1.000	0.0	88	0.00	
75	TM	Benzidine	0.319	0.279	12.5	76	-0.01	
76	TM	Pyrene	1.012	0.980	3.2	83	0.00	
77	S	SURR6,TERPHENYL-D14	0.724	0.668	7.7	82	-0.01	
78	TM	Butyl benzyl phthalate	0.502	0.482	4.0	87	-0.01	
79	TM	3,3'-Dichlorobenzidine	0.356	0.328	7.9	83	0.00	
80	TM	Benzo(a)anthracene	1.003	0.971	3.2	87	0.00	
81	TM	Chrysene	0.923	0.879	4.8	85	0.00	
82	TM	bis(2-Ethylhexyl)phthalate	0.688	0.646	6.1	87	0.00	
83	IR	d12-Perylene	1.000	1.000	0.0	87	-0.02	
84	TCM	Di-n-octyl phthalate	1.101	1.144	-3.9	88	-0.01	
85	TM	Benzo(b)Fluoranthene	0.906	0.902	0.4	85	-0.01	
86	TM	Benzo(k)fluoranthene	0.889	0.900	-1.2	86	-0.01	
87	TCM	Benzo(a)pyrene	0.884	0.878	0.7	86	-0.01	
88	TM	Indeno(1,2,3-cd)Pyrene	0.864	0.860	0.5	89	0.00	
89	TM	Dibenz(a,h)anthracene	0.877	0.894	-1.9	90	-0.01	
90	TM	Benzo(g,h,i)perylene	0.825	0.862	-4.5	92	0.00	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
DC452.D 82701204.M Fri Dec 11 07:13:33 2015 Page 2

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC452.D Vial: 3
Acq On : 9 Dec 2015 7:27 am Operator: J.Misiurewicz
Sample : CCV Inst : 5973-A
Misc : 80 ppm STD 8270D/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:13 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	4.08	152	179312	40.00	ppm	-0.01
22) d8-Naphthalene	4.94	136	729683	40.00	ppm	0.00
39) d10-Acenaphthene	6.18	164	469393	40.00	ppm	0.00
61) d10-Phenanthrene	7.23	188	738901	40.00	ppm	-0.01
74) d12-Chrysene	10.00	240	793790	40.00	ppm	0.00
83) d12-Perylene	12.71	264	816737	40.00	ppm	-0.02
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.27	112	357136	78.03	ppm	-0.01
Spiked Amount 200.000	Range 10 - 105		Recovery = 39.02%			
7) SURR2,PHENOL-D6	3.85	99	440469	77.14	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 38.57%			
23) SURR4,NITROBENZENE-D5	4.45	82	398602	87.60	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 87.60%			
43) SURR5,2-FLUOROBIPHENYL	5.68	172	906507	75.61	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 75.61%			
60) SURR3,2,4,6-TRIBROMOPHENOL	6.74	330	124845	79.68	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 39.84%			
77) SURR6,TERPHENYL-D14	8.58	244	1061164	73.87	ppm	-0.01
Spiked Amount 100.000	Range 40 - 133		Recovery = 73.87%			
Target Compounds						Qvalue
2) Pyridine	2.39	79	397437	76.40	ppm	97
3) N-Nitrosodimethylamine	2.36	74	224229	75.42	ppm	93
5) Benzaldehyde	3.80	106	66899	58.99	ppm	88
6) Aniline	3.87	93	500414	71.85	ppm	88
8) Phenol	3.86	94	525691	77.61	ppm	81
9) bis(2-Clethyl)Ether	3.90	93	378079	80.71	ppm	94
10) 2-Chlorophenol	3.96	128	420871	77.15	ppm	94
11) 1,3-Diclbenzene	4.04	146	459187	77.08	ppm	96
12) 1,4-Dichlorobenzene	4.09	146	473681	77.45	ppm	97
13) 1,2-Diclbenzene	4.19	146	451412	79.13	ppm	95
14) Benzyl Alcohol	4.17	79	293373	87.25	ppm	92
15) 2,2'-oxybis(1-Chloropropan	4.25	45	305523	72.68	ppm	98
16) 2-Methylphenol	4.25	108	408931	82.45	ppm	91
17) Acetophenone	4.34	105	531705	81.26	ppm	88
18) N-Nitroso-Di-n-propylamine	4.34	70	282529	81.61	ppm	92
19) Hexachloroethane	4.42	117	172573	79.32	ppm	94
20) 3+4-Methylphenol	4.35	108	421547	83.70	ppm	97
21) 1-Methyl-2-pyrrolidinone	4.19	99	268193	80.64	ppm	95
24) Nitrobenzene	4.47	77	405531	86.08	ppm	98
25) Isophorone	4.62	82	784618	84.27	ppm	99
26) 2-Nitrophenol	4.68	139	236596	89.33	ppm	93
27) Benzoic Acid	4.79	105	307351	108.50	ppm	96
28) 2,4-Dimethylphenol	4.70	107	438998	82.42	ppm	95
29) bis(-2-Chloroethoxy)Methan	4.75	93	449040	80.25	ppm	96
30) 2,4-Dichlorophenol	4.86	162	377169	84.27	ppm	97
31) 1,2,4-Trichlorobenzene	4.90	180	392969	81.13	ppm	88
32) Naphthalene	4.96	128	1226921	81.75	ppm	95
33) 4-Chloroaniline	4.99	127	452233	75.34	ppm	96
34) Hexachlorobutadiene	5.03	225	213038	81.00	ppm	90

(#) = qualifier out of range (m) = manual integration
DC452.D 82701204.M Fri Dec 11 07:13:38 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC452.D Vial: 3
Acq On : 9 Dec 2015 7:27 am Operator: J.Misiurewicz
Sample : CCV Inst : 5973-A
Misc : 80 ppm STD 8270D/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:13 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

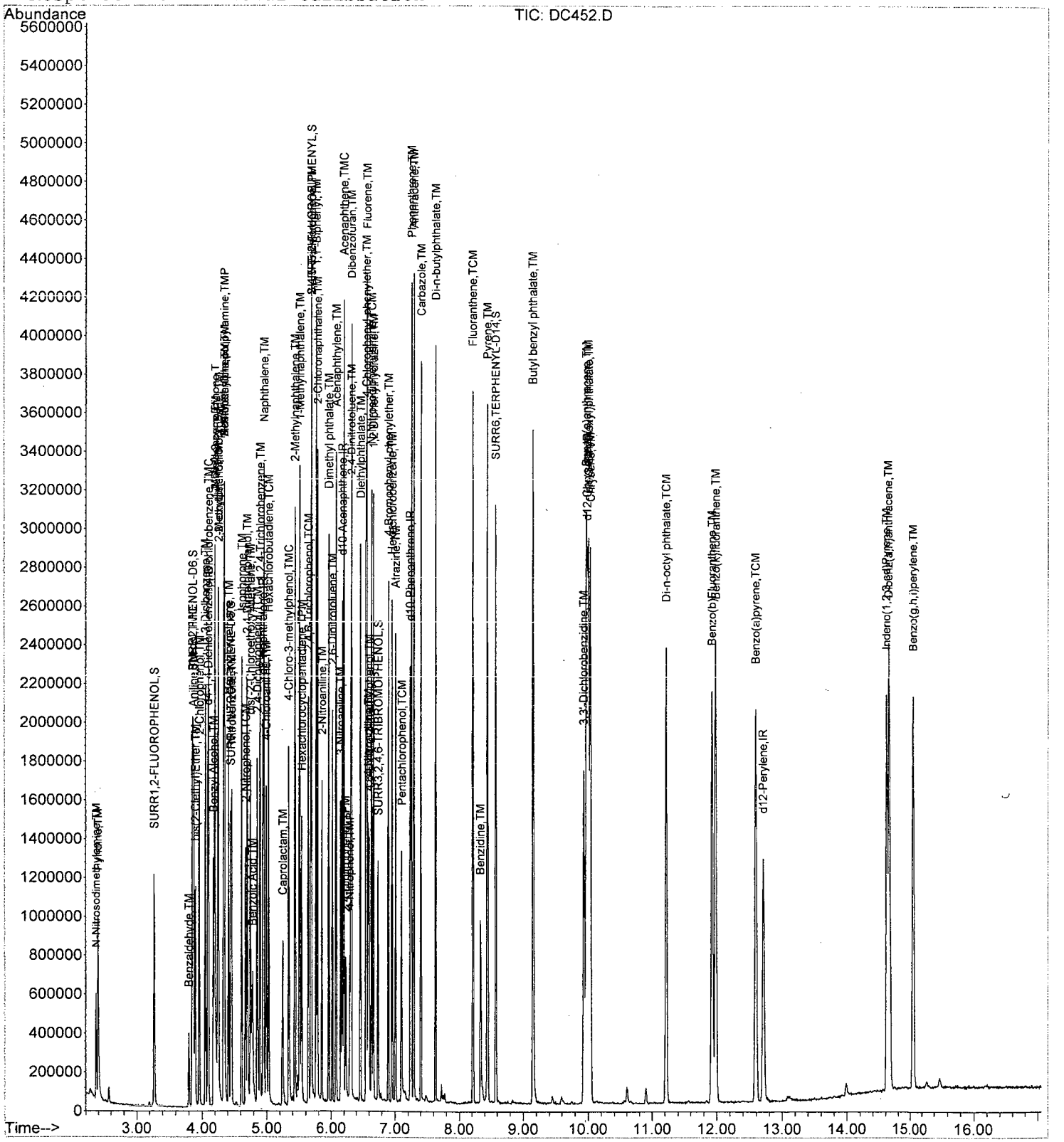
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
35)	4-Chloro-3-methylphenol	5.34	107	376691	83.14 ppm	93
36)	Caprolactam	5.25	113	131394	84.84 ppm	98
37)	2-Methylnaphthalene	5.44	142	831249	81.63 ppm	95
38)	1-Methylnaphthalene	5.51	142	824347	84.31 ppm	94
40)	Hexachlorocyclopentadiene	5.54	237	179597	81.44 ppm	98
41)	2,4,6-Trichlorophenol	5.64	196	266345	79.75 ppm	99
42)	2,4,5-Trichlorophenol	5.68	196	273305	76.29 ppm	94
44)	1,1'-Biphenyl	5.76	154	1013702	74.13 ppm	95
45)	2-Chloronaphthalene	5.78	162	815492	74.78 ppm	93
46)	2-Nitroaniline	5.86	65	220270	87.71 ppm	90
47)	Acenaphthylene	6.08	152	1258723	72.51 ppm	100
48)	Dimethyl phthalate	5.97	163	889030	76.24 ppm	100
49)	2,6-Dinitrotoluene	6.02	165	208469	86.15 ppm	91
50)	Acenaphthene	6.20	153	823797	75.22 ppm	92
51)	3-Nitroaniline	6.15	138	220557	82.02 ppm	98
52)	2,4-Dinitrophenol	6.23	184	108367	113.77 ppm	97
53)	Dibenzofuran	6.32	168	1190742	77.37 ppm	97
54)	2,4-Dinitrotoluene	6.31	165	270605	90.46 ppm	86
55)	4-Nitrophenol	6.29	65	162021	93.71 ppm	92
56)	Fluorene	6.57	166	959012	76.02 ppm	99
57)	4-Chlorophenyl-phenylether	6.55	204	466489	77.48 ppm	93
58)	Diethylphthalate	6.46	149	850673	74.42 ppm	98
59)	4-Nitroaniline	6.59	138	258741	85.84 ppm	96
62)	4,6-Dinitro-2-methylphenol	6.60	198	166770	105.53 ppm	87
63)	1,2 Diphenylhydrazine	6.67	77	827130	76.50 ppm	95
64)	N-Nitrosodiphenylamine	6.64	169	640562	78.88 ppm	96
65)	4-Bromophenyl-phenylether	6.90	248	258127	75.38 ppm	84
66)	Hexachlorobenzene	6.96	284	296824	77.93 ppm	93
67)	Atrazine	7.01	215	140777	80.07 ppm	95
68)	Pentachlorophenol	7.11	266	148473	88.44 ppm	92
69)	Phenanthrene	7.25	178	1276424	78.85 ppm	98
70)	Anthracene	7.29	178	1392508	80.77 ppm	99
71)	Carbazole	7.41	167	1349978	80.35 ppm	95
72)	Di-n-butylphthalate	7.63	149	1661621	84.42 ppm	99
73)	Fluoranthene	8.22	202	1479403	80.94 ppm	97
75)	Benzidine	8.33	184	442573	69.97 ppm	99
76)	Pyrene	8.45	202	1555495	77.47 ppm	95
78)	Butyl benzyl phthalate	9.15	149	765548	76.89 ppm	90
79)	3,3'-Dichlorobenzidine	9.94	252	521208	73.87 ppm	99
80)	Benzo(a)anthracene	9.98	228	1541250	77.41 ppm	99
81)	Chrysene	10.04	228	1394965	76.15 ppm	100
82)	bis(2-Ethylhexyl)phthalate	10.01	149	1026007	75.14 ppm	94
84)	Di-n-octyl phthalate	11.22	149	1869350	83.13 ppm	99
85)	Benzo(b)Fluoranthene	11.93	252	1472809	79.62 ppm	99
86)	Benzo(k)fluoranthene	11.99	252	1470895	81.04 ppm	99
87)	Benzo(a)pyrene	12.60	252	1434557	79.45 ppm	98
88)	Indeno(1,2,3-cd)Pyrene	14.63	276	1404758m	79.63 ppm	
89)	Dibenz(a,h)anthracene	14.66	278	1459523	81.49 ppm	97
90)	Benzo(g,h,i)perylene	15.06	276	1407388	83.56 ppm	98

(#) = qualifier out of range (m) = manual integration
DC452.D 82701204.M Fri Dec 11 07:13:39 2015

Quantitation Report

Data File : I:\ACQUDATA\5973A\DATA\120915\DC452.D Vial: 3
Acq On : 9 Dec 2015 7:27 am Operator: J.Misiurewicz
Sample : CCV Inst : 5973-A
Misc : 80 ppm STD 8270D/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:13 2015 Quant Results File: 82701204.RES

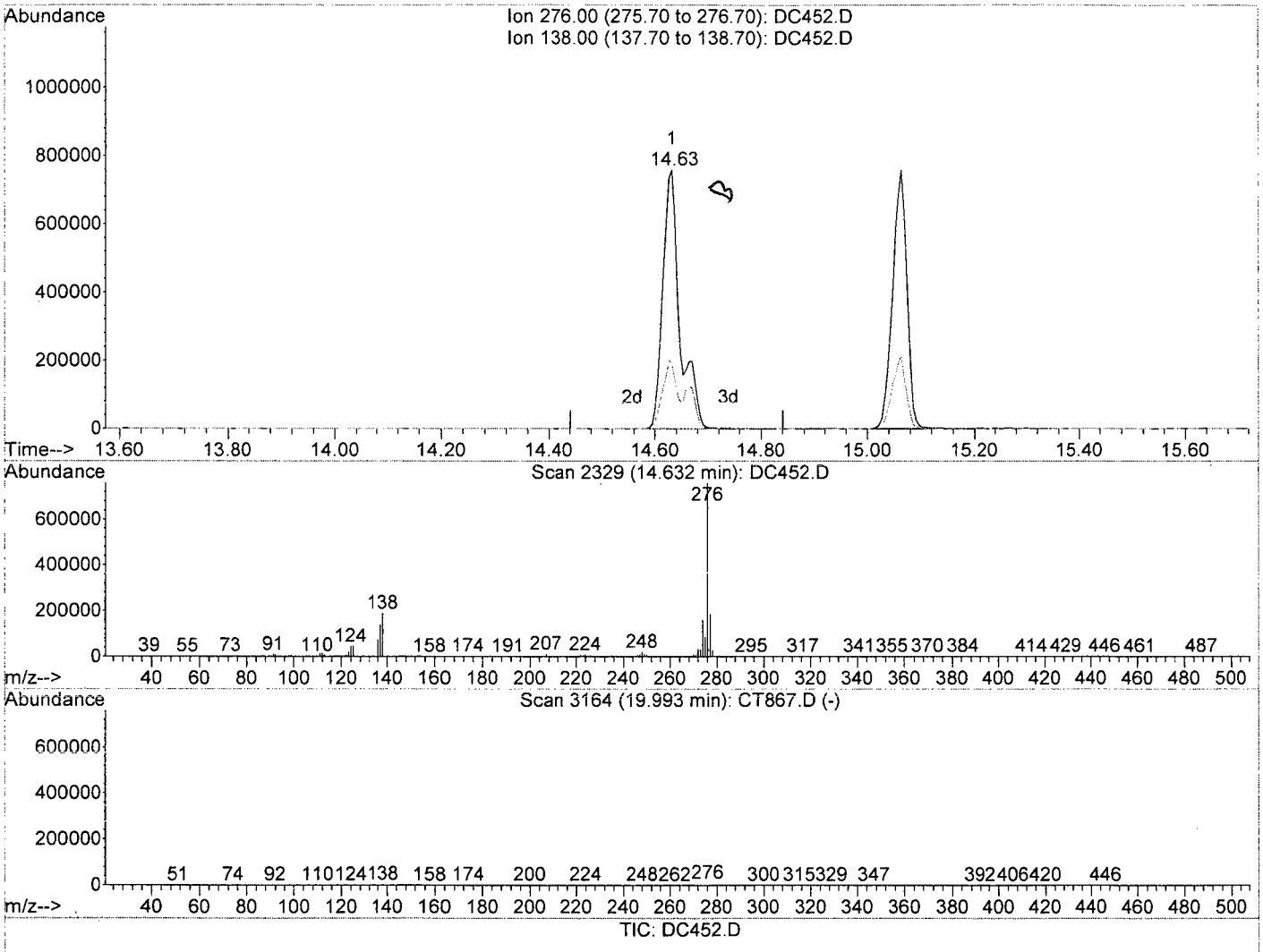
Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC452.D Vial: 3
Acq On : 9 Dec 2015 7:27 am Operator: J.Misiurewicz
Sample : CCV Inst : 5973-A
Misc : 80 ppm STD 8270D/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:10 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Multiple Level Calibration



TIC: DC452.D

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.63min 95.32ppm

response 1681572

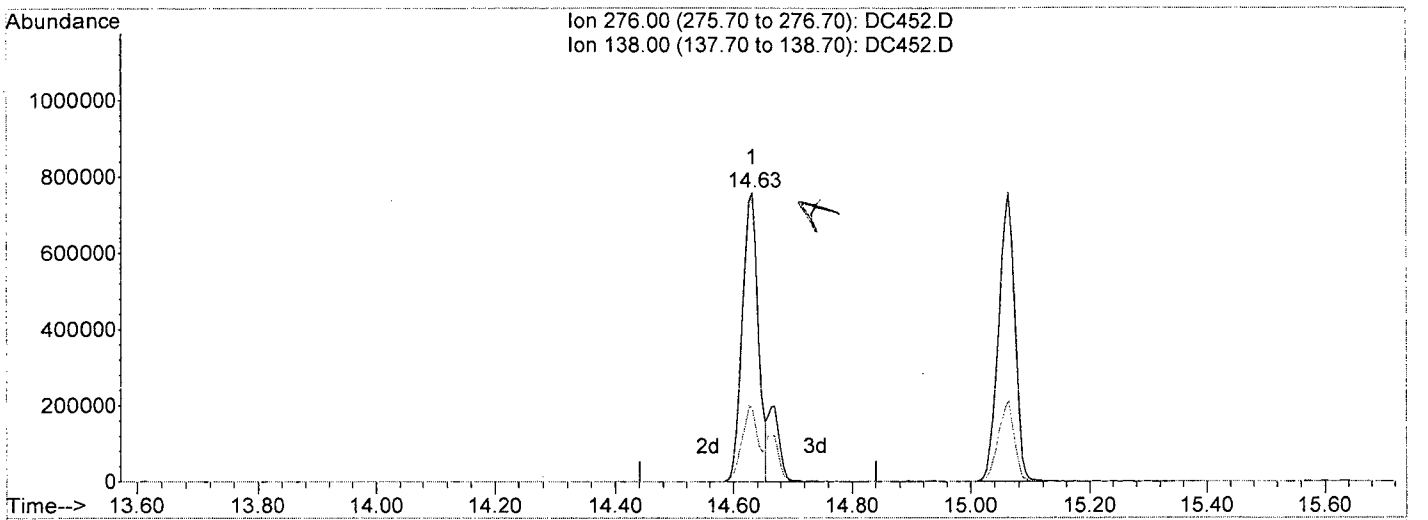
Ion	Exp%	Act%
276.00	100	100
138.00	22.30	24.83
0.00	0.00	0.00
0.00	0.00	0.00

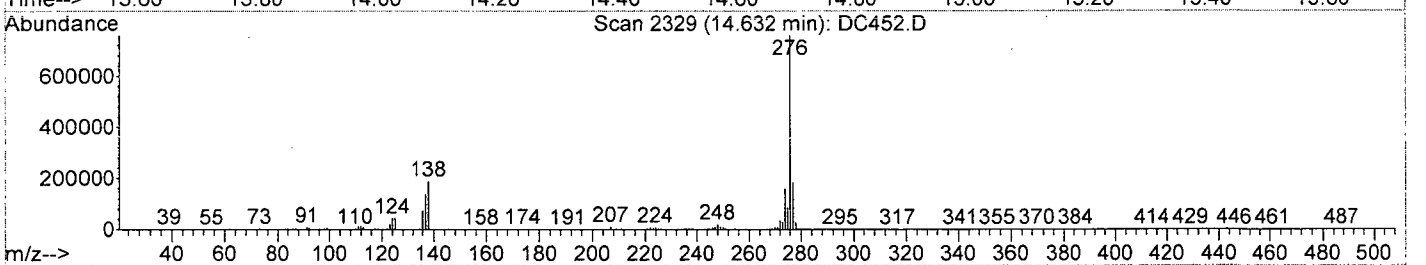
DC452.D 82701204.M Fri Dec 11 07:13:06 2015

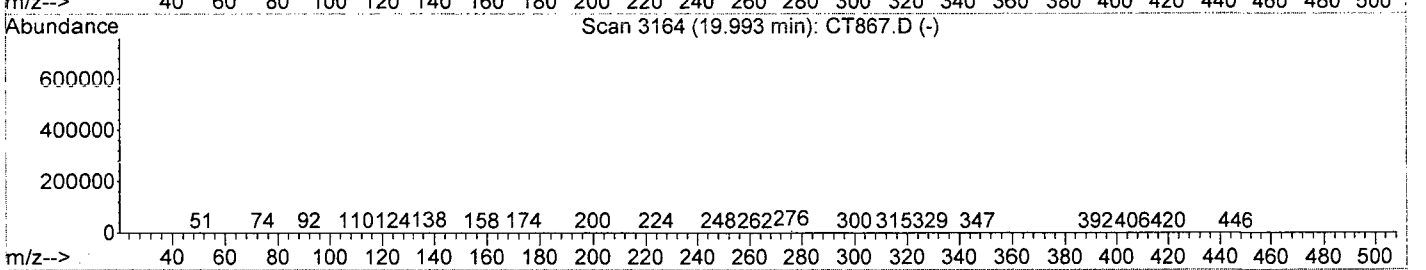
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC452.D Vial: 3
Acq On : 9 Dec 2015 7:27 am Operator: J.Misiurewicz
Sample : CCV Inst : 5973-A
Misc : 80 ppm STD 8270D/625 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:13 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Multiple Level Calibration







TIC: DC452.D

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.63min 79.63ppm m

response 1404758

Ion	Exp%	Act%
276.00	100	100
138.00	22.30	24.90
0.00	0.00	0.00
0.00	0.00	0.00

DC452.D 82701204.M Fri Dec 11 07:13:16 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC309.D Vial: 2
Acq On : 4 Dec 2015 11:23 am Operator: B.ALLGEIER
Sample : TUNE Inst : 5973-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 11:34 2015 Quant Results File: TUNED.RES

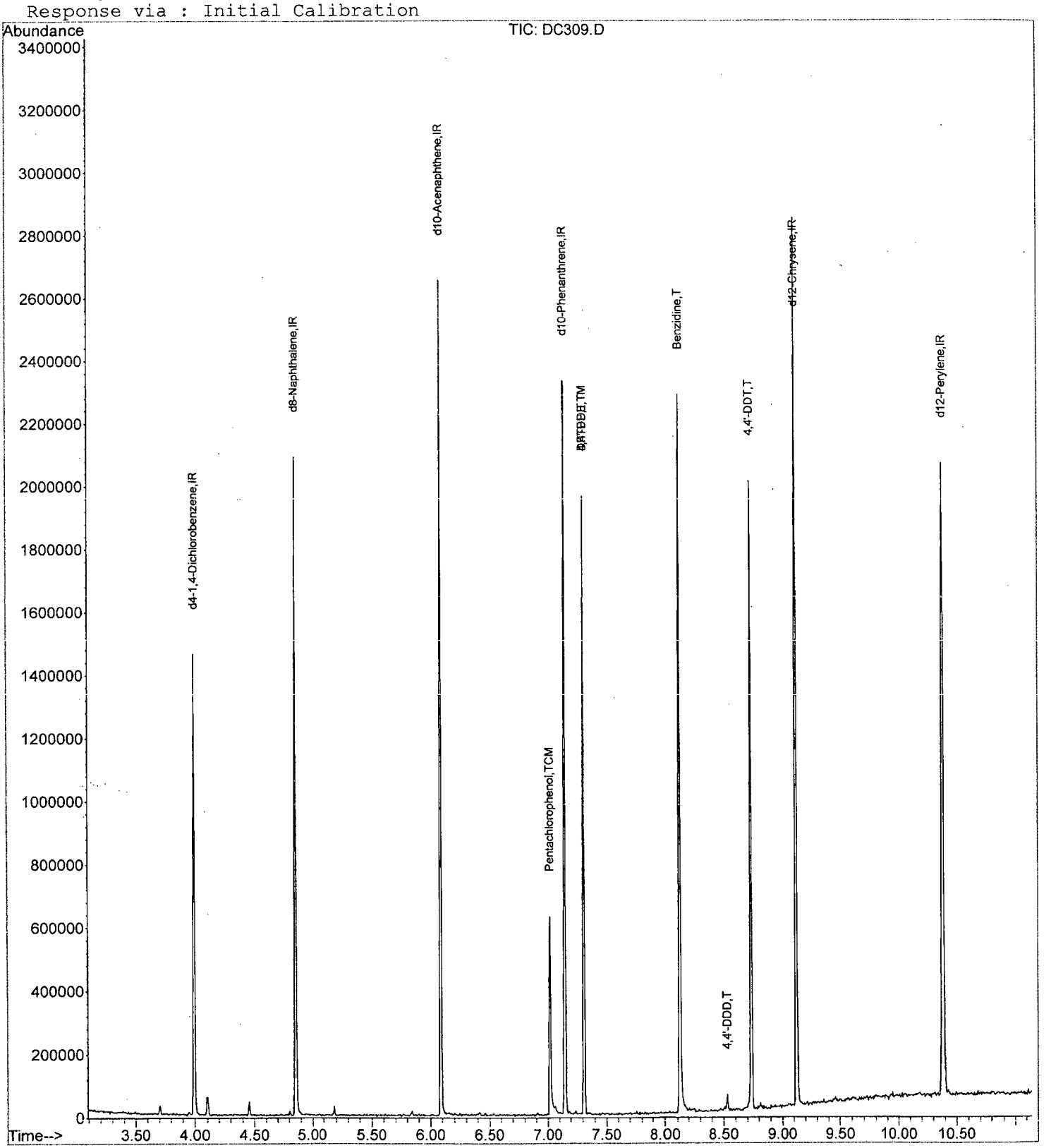
Quant Method : I:\ACQUDATA\5973A\METHODS\TUNED.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Thu Oct 29 14:30:43 2015
Response via : Initial Calibration
DataAcq Meth : TUNED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	3.99	152	198130	40.00	ppm	-0.10
2) d8-Naphthalene	4.86	136	797698	40.00	ppm	-0.09
3) d10-Acenaphthene	6.09	164	465718	40.00	ppm	-0.10
4) d10-Phenanthrene	7.15	188	764895	40.00	ppm	-0.09
7) d12-Chrysene	9.12	240	747962	40.00	ppm	-0.11
12) d12-Perylene	10.38	264	793627	40.00	ppm	-0.15
Target Compounds						Qvalue
5) Pentachlorophenol	7.02	266	75875	33.90	ppm	# 69
6) DFTPP	7.31	198	150631	60.59	ppm	# 57
8) Benzidine	8.12	184	845523	51.16	ppm	95
9) 4,4'-DDE	7.31	246	2524	55.34	ppm	76
10) 4,4'-DDD	8.53	235	5970	116.52	ppm	87
11) 4,4'-DDT	8.74	235	313190	67.27	ppm	81

(#) = qualifier out of range (m) = manual integration
DC309.D TUNED.M Fri Dec 04 11:35:06 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC309.D Vial: 2
Acq On : 4 Dec 2015 11:23 am Operator: B.ALLGEIER
Sample : TUNE Inst : 5973-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 11:34 2015 Quant Results File: TUNED.RES

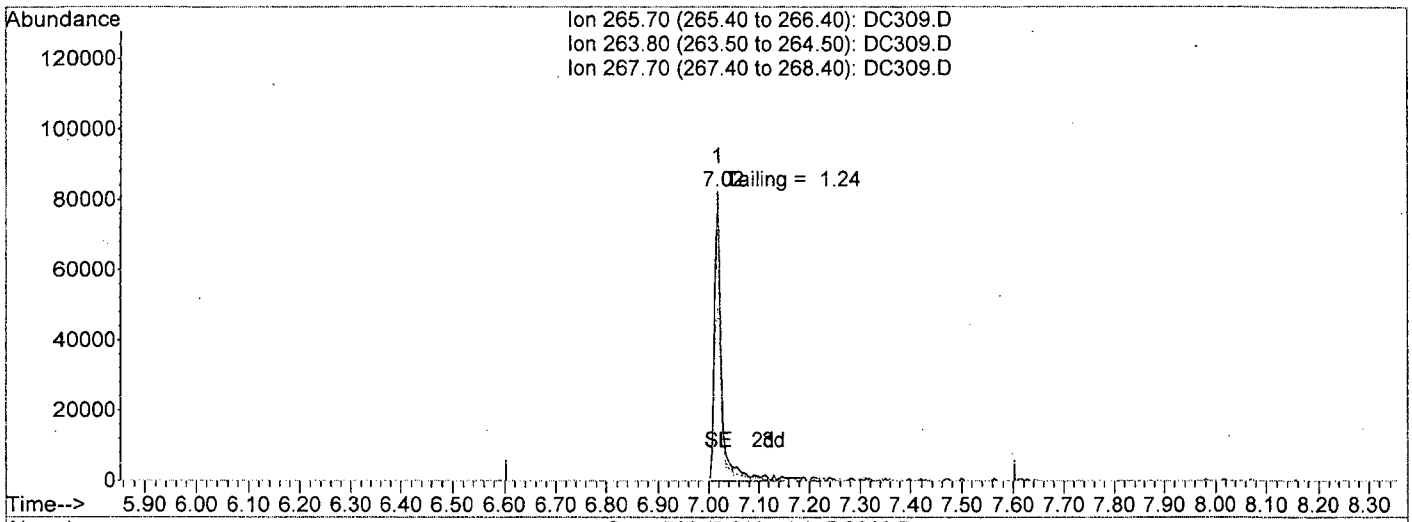
Method : I:\ACQUDATA\5973A\METHODS\TUNED.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Thu Oct 29 14:30:43 2015
Response via : Initial Calibration

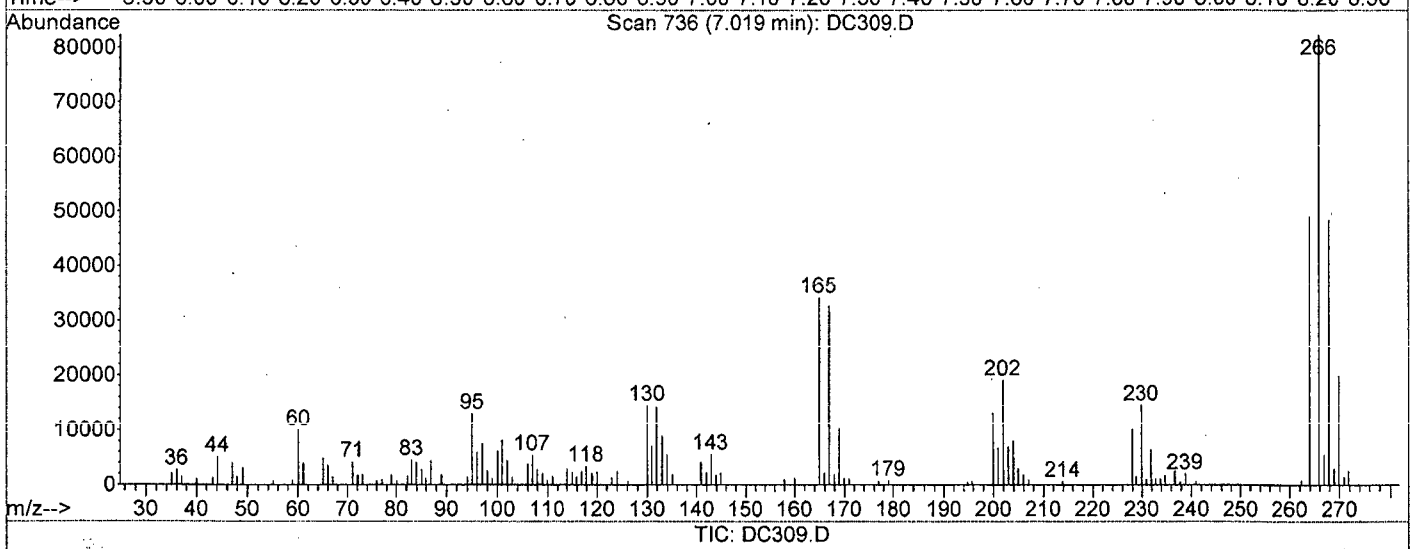


DC309.D TUNED.M Fri Dec 04 11:35:07 2015 Page 2

Data File : I:\ACQUDATA\5973A\DATA\120415\DC309.D Vial: 2
Acq On : 4 Dec 2015 11:23 am Operator: B.ALLGEIER
Sample : TUNE Inst : 5973-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 11:39 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\TUNED.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Thu Oct 29 14:30:43 2015
Response via : Single Level Calibration





TIC: DC309.D

(5) Pentachlorophenol (TCM)

7.02min 33.90ppm

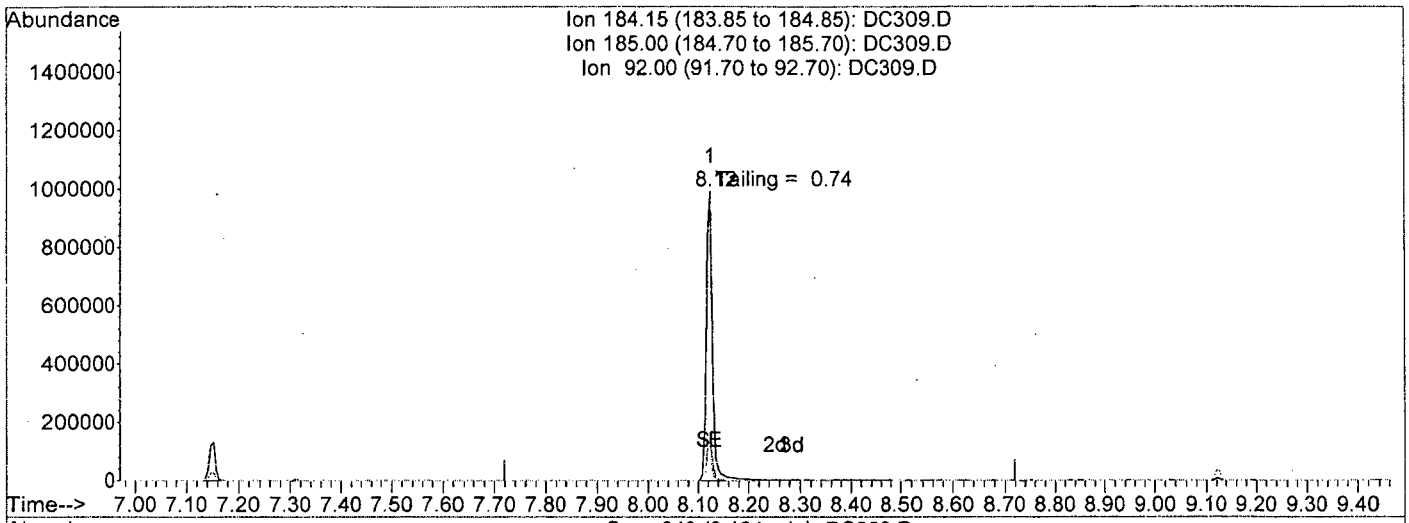
response 75875

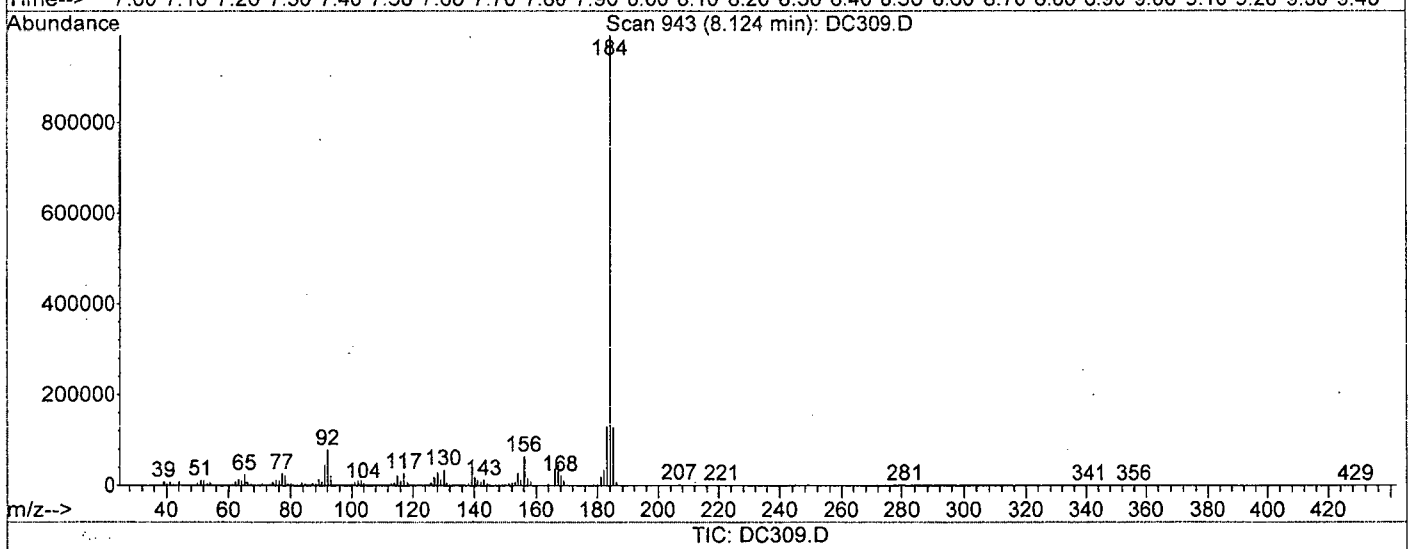
Ion	Exp%	Act%
265.70	100	100
263.80	92.40	59.27#
267.70	81.90	58.19#
0.00	0.00	0.00

DC309.D TUNED.M Fri Dec 04 11:40:09 2015

Data File : I:\ACQUDATA\5973A\DATA\120415\DC309.D Vial: 2
Acq On : 4 Dec 2015 11:23 am Operator: B.ALLGEIER
Sample : TUNE Inst : 5973-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 4 11:39 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\TUNED.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Thu Oct 29 14:30:43 2015
Response via : Single Level Calibration





(8) Benzidine (T)

8.12min 51.16ppm

response 845523

Ion	Exp%	Act%
184.15	100	100
185.00	14.60	12.83
92.00	5.30	7.83
0.00	0.00	0.00

12/7/16

DC309.D TUNED.M Fri Dec 04 11:40:21 2015

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC451.D Vial: 2
Acq On : 9 Dec 2015 7:07 am Operator: J.Misiurewicz
Sample : TUNE Inst : 5973-A
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 9 7:18 2015 Quant Results File: TUNED.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\TUNED.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Thu Oct 29 14:30:43 2015
Response via : Initial Calibration
DataAcq Meth : TUNED

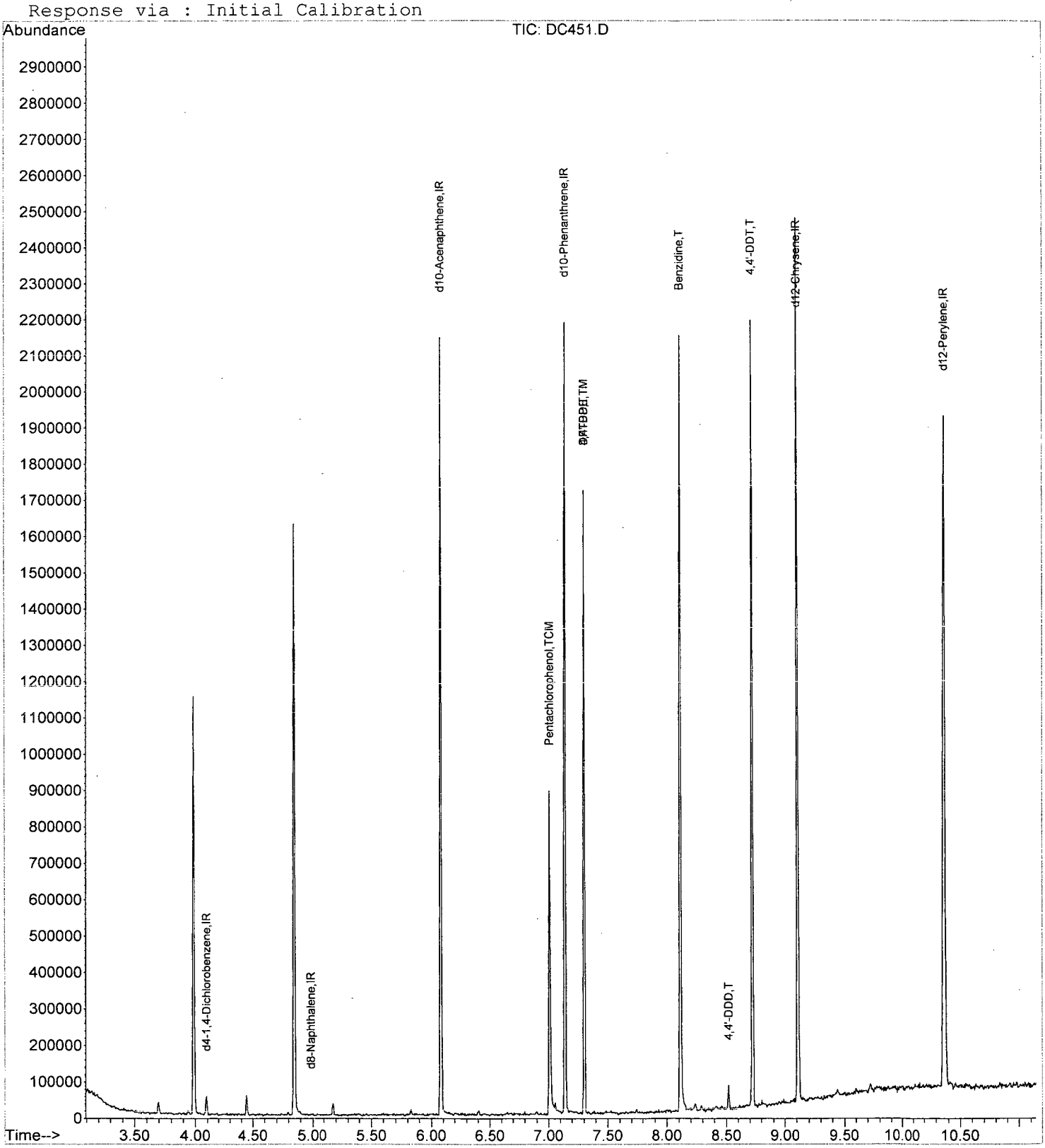
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	4.09	152	6903	40.00	ppm	0.00
2) d8-Naphthalene	4.98	136	895	40.00	ppm	0.04
3) d10-Acenaphthene	6.08	164	384620	40.00	ppm	-0.11
4) d10-Phenanthrene	7.14	188	629344	40.00	ppm	-0.10
7) d12-Chrysene	9.11	240	681382	40.00	ppm	-0.12
12) d12-Perylene	10.37	264	735143	40.00	ppm	-0.17
Target Compounds						Qvalue
5) Pentachlorophenol	7.01	266	91127	49.49	ppm	# 80
6) DFTPP	7.30	198	133998	65.51	ppm	73
8) Benzidine	8.11	184	682297	45.31	ppm	97
9) 4,4'-DDE	7.30	246	1645	39.59	ppm	75
10) 4,4'-DDD	8.52	235	7345	157.37	ppm	91
11) 4,4'-DDT	8.72	235	312299	73.64	ppm	86

(#) = qualifier out of range (m) = manual integration
DC451.D TUNED.M Fri Dec 11 07:10:19 2015 Page 1

Quantitation Report

Data File : I:\ACQUDATA\5973A\DATA\120915\DC451.D Vial: 2
Acq On : 9 Dec 2015 7:07 am Operator: J.Misiurewicz
Sample : TUNE Inst : 5973-A
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 9 7:18 2015 Quant Results File: TUNED.RES

Method : I:\ACQUDATA\5973A\METHODS\TUNED.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Thu Oct 29 14:30:43 2015
Response via : Initial Calibration

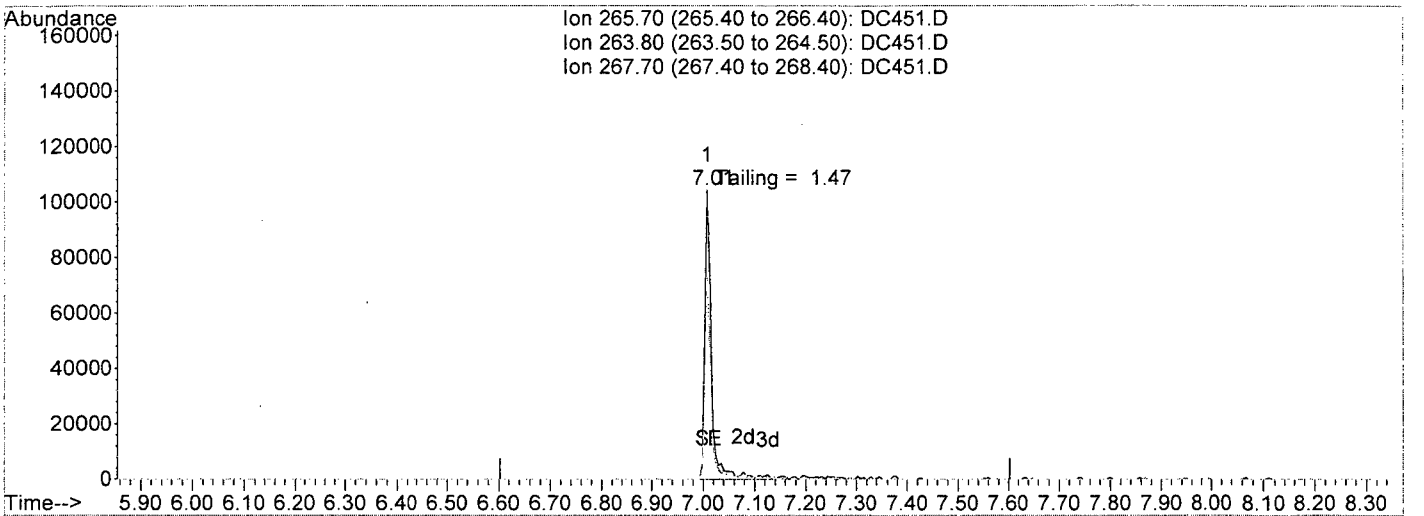


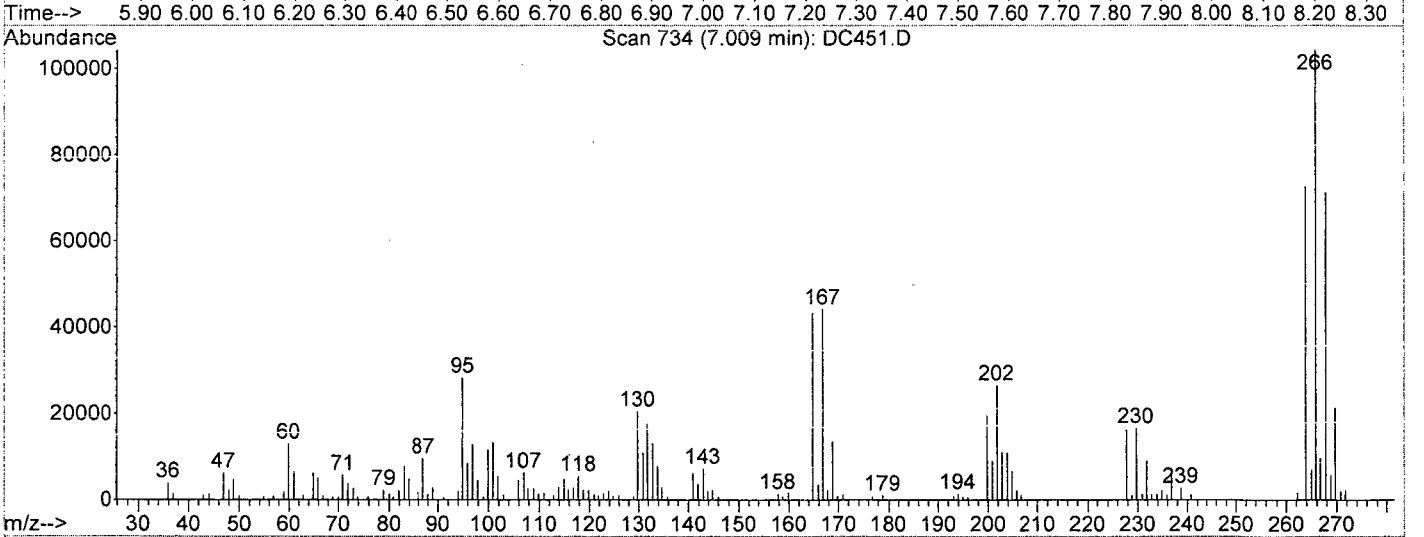
DC451.D TUNED.M Fri Dec 11 07:10:20 2015 Page 2

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC451.D Vial: 2
Acq On : 9 Dec 2015 7:07 am Operator: J.Misiurewicz
Sample : TUNE Inst : 5973-A
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 9 7:18 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\TUNED.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Thu Oct 29 14:30:43 2015
Response via : Single Level Calibration





TIC: DC451.D

(5) Pentachlorophenol (TCM)

7.01min 49.49ppm

response 91127

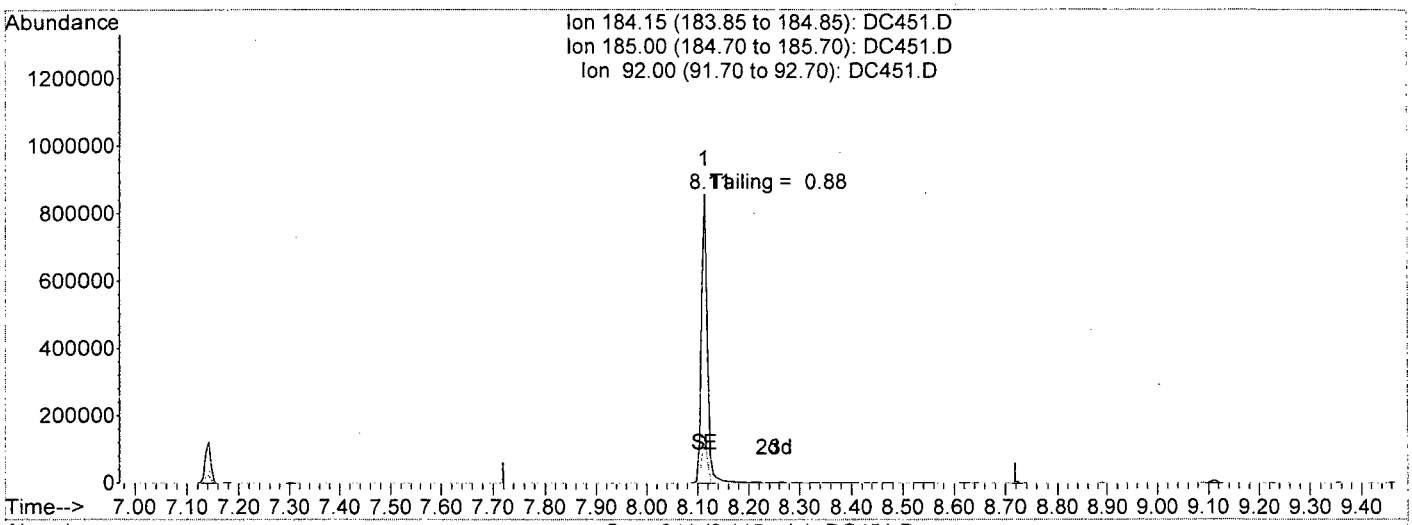
Ion	Exp%	Act%
265.70	100	100
263.80	92.40	69.27#
267.70	81.90	67.99
0.00	0.00	0.00

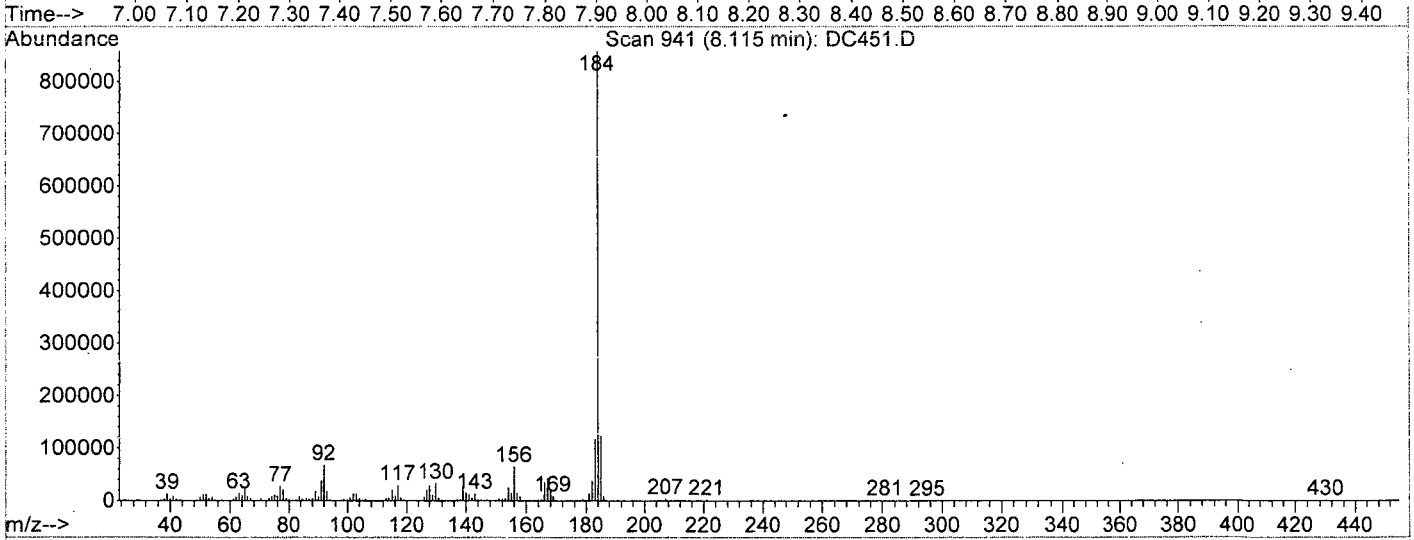
DC451.D TUNED.M Fri Dec 11 07:10:30 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC451.D Vial: 2
Acq On : 9 Dec 2015 7:07 am Operator: J.Misiurewicz
Sample : TUNE Inst : 5973-A
Misc : 50 ng DFTPP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 9 7:18 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\TUNED.M (RTE Integrator)
Title : TUNE CHECK
Last Update : Thu Oct 29 14:30:43 2015
Response via : Single Level Calibration





TIC: DC451.D

(8) Benzidine (T)

8.11min 45.31ppm

response 682297

Ion	Exp%	Act%
184.15	100	100
185.00	14.60	14.30
92.00	5.30	7.84
0.00	0.00	0.00

DC451.D TUNED.M Fri Dec 11 07:10:37 2015

ALS Environmental

SEMI-VOLATILE ORGANICS
RAW QC DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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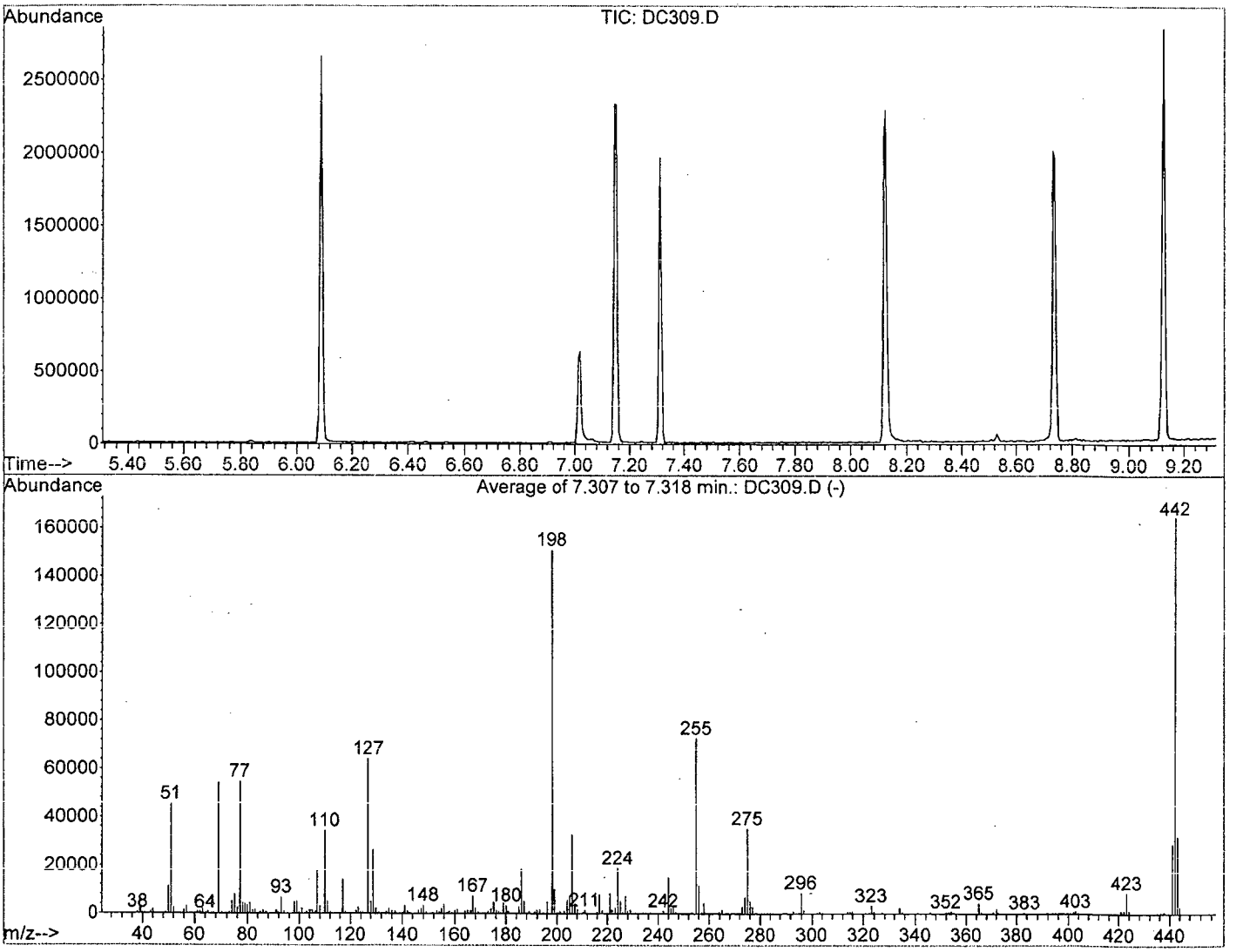
Data File : I:\ACQUDATA\5973A\DATA\120415\DC309.D Vial: 2
Acq On : 4 Dec 2015 11:23 am Operator: B.ALLGEIER
Sample : TUNE Inst : 5973-A
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : I:\ACQUDATA\5973A\METHODS\TUNED.M (RTE Integrator)
Title : TUNE CHECK



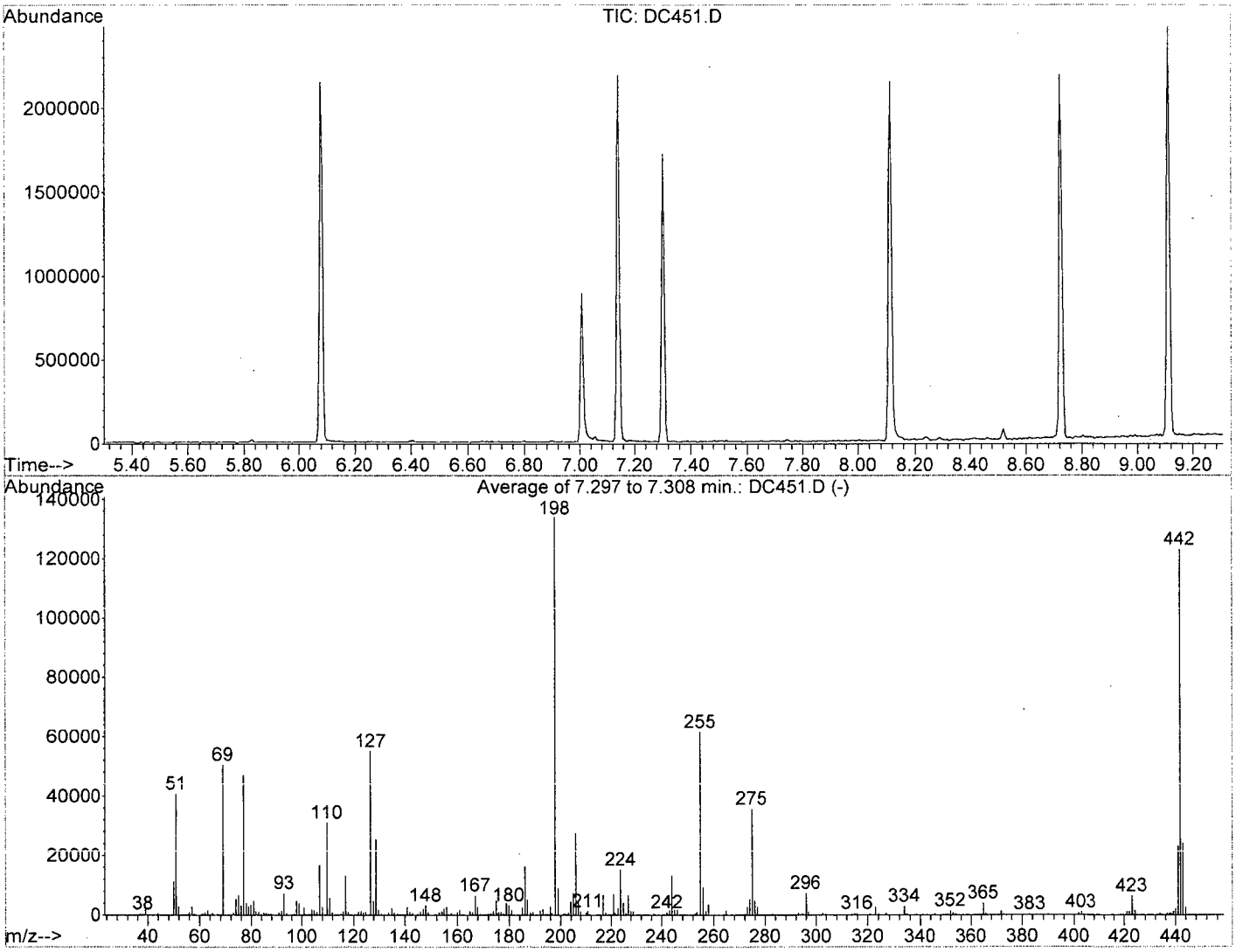
AutoFind: Scans 790, 791, 792; Background Corrected with Scan 785

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	30.0	45295	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	298	PASS
127	198	10	80	42.4	63971	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	150829	PASS
199	198	5	9	6.7	10033	PASS
275	198	10	60	23.2	35035	PASS
365	198	1	500	2.8	4208	PASS
441	442	0.01	24	17.4	28611	PASS
442	442	100	100	100.0	164619	PASS
443	442	15	24	19.3	31821	PASS

DM 12/7/15

DC309.D TUNED.M Fri Dec 04 11:39:45 2015

```
Data File : I:\ACQUDATA\5973A\DATA\120915\DC451.D        Vial: 2
Acq On    :  9 Dec 2015   7:07 am                    Operator: J.Misiurewicz
Sample    : TUNE                                    Inst    : 5973-A
Misc      : 50 ng DFTPP                             Multiplr: 1.00
MS Integration Params: RTEINT.P
Method    : I:\ACQUDATA\5973A\METHODS\TUNED.M (RTE Integrator)
Title     : TUNE CHECK
```



AutoFind: Scans 788, 789, 790; Background Corrected with Scan 784

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	30.4	40678	PASS
68	69	0.00	2	0.6	323	PASS
70	69	0.00	2	0.0	0	PASS
127	198	10	80	41.0	54960	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	133984	PASS
199	198	5	9	6.6	8906	PASS
275	198	10	60	26.5	35555	PASS
365	198	1	500	2.9	3952	PASS
441	442	0.01	24	18.8	23074	PASS
442	442	100	100	100.0	122973	PASS
443	442	15	24	19.6	24057	PASS

DM 12/15/15

DC451.D TUNED.M Fri Dec 11 07:11:01 2015

Analytical Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1514729-01

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
1,2,4-Trichlorobenzene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
1,2-Dichlorobenzene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
1,3-Dichlorobenzene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
1,4-Dichlorobenzene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
2,4,5-Trichlorophenol	ND	U	10	5.0	1.8	1	11/30/15	12/9/15 08:48	250969	475853	
2,4,6-Trichlorophenol	ND	U	10	5.0	1.4	1	11/30/15	12/9/15 08:48	250969	475853	
2,4-Dichlorophenol	ND	U	10	5.0	1.3	1	11/30/15	12/9/15 08:48	250969	475853	
2,4-Dimethylphenol	ND	U	10	5.0	1.5	1	11/30/15	12/9/15 08:48	250969	475853	
2,4-Dinitrophenol	ND	U	50	25	20	1	11/30/15	12/9/15 08:48	250969	475853	
2,4-Dinitrotoluene	ND	U	10	5.0	1.6	1	11/30/15	12/9/15 08:48	250969	475853	
2,6-Dinitrotoluene	ND	U	10	5.0	1.8	1	11/30/15	12/9/15 08:48	250969	475853	
2-Chloronaphthalene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
2-Chlorophenol	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
2-Methylnaphthalene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
2-Methylphenol	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
2-Nitroaniline	ND	U	50	25	9.1	1	11/30/15	12/9/15 08:48	250969	475853	
2-Nitrophenol	ND	U	10	5.0	1.4	1	11/30/15	12/9/15 08:48	250969	475853	
3,3'-Dichlorobenzidine	ND	U	10	5.0	4.5	1	11/30/15	12/9/15 08:48	250969	475853	
3- and 4-Methylphenol Coelution	ND	U	11	10	2.0	1	11/30/15	12/9/15 08:48	250969	475853	
3-Nitroaniline	ND	U	50	25	7.7	1	11/30/15	12/9/15 08:48	250969	475853	
4,6-Dinitro-2-methylphenol	ND	U	50	25	11	1	11/30/15	12/9/15 08:48	250969	475853	
4-Bromophenyl Phenyl Ether	ND	U	10	5.0	2.2	1	11/30/15	12/9/15 08:48	250969	475853	
4-Chloro-3-methylphenol	ND	U	10	5.0	1.2	1	11/30/15	12/9/15 08:48	250969	475853	
4-Chloroaniline	ND	U	10	5.0	1.5	1	11/30/15	12/9/15 08:48	250969	475853	
4-Chlorophenyl Phenyl Ether	ND	U	10	5.0	1.2	1	11/30/15	12/9/15 08:48	250969	475853	
4-Nitroaniline	ND	U	50	25	7.8	1	11/30/15	12/9/15 08:48	250969	475853	
4-Nitrophenol	ND	U	50	25	5.9	1	11/30/15	12/9/15 08:48	250969	475853	
Acenaphthene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Acenaphthylene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Anthracene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Benz(a)anthracene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Benzidine	ND	U	110	100	90	1	11/30/15	12/9/15 08:48	250969	475853	
Benzo(a)pyrene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Benzo(b)fluoranthene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Benzo(g,h,i)perylene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Benzo(k)fluoranthene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514729-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	ND	U	10	5.0	1.3	1	11/30/15	12/9/15 08:48	250969	475853	
2,2'-Oxybis(1-chloropropane)	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Bis(2-chloroethoxy)methane	ND	U	10	5.0	2.2	1	11/30/15	12/9/15 08:48	250969	475853	
Bis(2-chloroethyl) Ether	ND	U	10	5.0	1.3	1	11/30/15	12/9/15 08:48	250969	475853	
Bis(2-ethylhexyl) Phthalate	ND	U	10	5.0	1.2	1	11/30/15	12/9/15 08:48	250969	475853	
Butyl Benzyl Phthalate	ND	U	10	5.0	2.4	1	11/30/15	12/9/15 08:48	250969	475853	
Carbazole	ND	U	10	5.0	1.1	1	11/30/15	12/9/15 08:48	250969	475853	
Chrysene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Di-n-butyl Phthalate	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Di-n-octyl Phthalate	ND	U	10	5.0	1.2	1	11/30/15	12/9/15 08:48	250969	475853	
Dibenz(a,h)anthracene	ND	U	10	5.0	1.3	1	11/30/15	12/9/15 08:48	250969	475853	
Dibenzofuran	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Diethyl Phthalate	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Dimethyl Phthalate	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Fluoranthene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Fluorene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Hexachlorobenzene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Hexachlorobutadiene	ND	U	10	5.0	1.3	1	11/30/15	12/9/15 08:48	250969	475853	
Hexachlorocyclopentadiene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Hexachloroethane	ND	U	10	5.0	1.2	1	11/30/15	12/9/15 08:48	250969	475853	
Indeno(1,2,3-cd)pyrene	ND	U	10	5.0	1.2	1	11/30/15	12/9/15 08:48	250969	475853	
Isophorone	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
N-Nitrosodi-n-propylamine	ND	U	10	5.0	1.3	1	11/30/15	12/9/15 08:48	250969	475853	
N-Nitrosodimethylamine	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
N-Nitrosodiphenylamine	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Naphthalene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Nitrobenzene	ND	U	10	5.0	1.6	1	11/30/15	12/9/15 08:48	250969	475853	
Pentachlorophenol (PCP)	ND	U	50	25	6.9	1	11/30/15	12/9/15 08:48	250969	475853	
Phenanthrene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Phenol	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	
Pyrene	ND	U	10	5.0	1.0	1	11/30/15	12/9/15 08:48	250969	475853	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	RQ1514729-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	106	40-125	12/9/15 08:48	
2-Fluorobiphenyl	86	50-110	12/9/15 08:48	
2-Fluorophenol	46	20-110	12/9/15 08:48	
Nitrobenzene-d5	83	40-110	12/9/15 08:48	
Phenol-d6	32	10-115	12/9/15 08:48	
p-Terphenyl-d14	96	50-135	12/9/15 08:48	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	11/30/15
		Date Analyzed:	12/9/15 0848

Tentatively Identified Compounds (TIC)
Semivolatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514729-01	**Basis:**	NA

Prep Method: EPA 3510C
Analytical Method: 8270D

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC455.D Vial: 6
Acq On : 9 Dec 2015 8:48 am Operator: J.Misiurewicz
Sample : RQ1514729-01 Inst : 5973-A
Misc : 250969 8270D BLK Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:29 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	4.08	152	188321	40.00	ppm	0.00
22) d8-Naphthalene	4.94	136	747224	40.00	ppm	-0.01
39) d10-Acenaphthene	6.17	164	439602	40.00	ppm	-0.01
61) d10-Phenanthrene	7.24	188	733374	40.00	ppm	0.00
74) d12-Chrysene	9.99	240	752837	40.00	ppm	-0.02
83) d12-Perylene	12.72	264	844090	40.00	ppm	-0.01
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.27	112	438039	91.13	ppm	-0.01
Spiked Amount 200.000	Range 10 - 105		Recovery = 45.56%			
7) SURR2,PHENOL-D6	3.85	99	381248	63.57	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 31.79%			
23) SURR4,NITROBENZENE-D5	4.45	82	388382	83.35	ppm	-0.01
Spiked Amount 100.000	Range 37 - 117		Recovery = 83.35%			
43) SURR5,2-FLUOROBIPHENYL	5.69	172	963164	85.78	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 85.78%			
60) SURR3,2,4,6-TRIBROMOPHENOL	6.74	330	311807	212.48	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 106.24%			
77) SURR6,TERPHENYL-D14	8.58	244	1312525	96.34	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 96.34%			

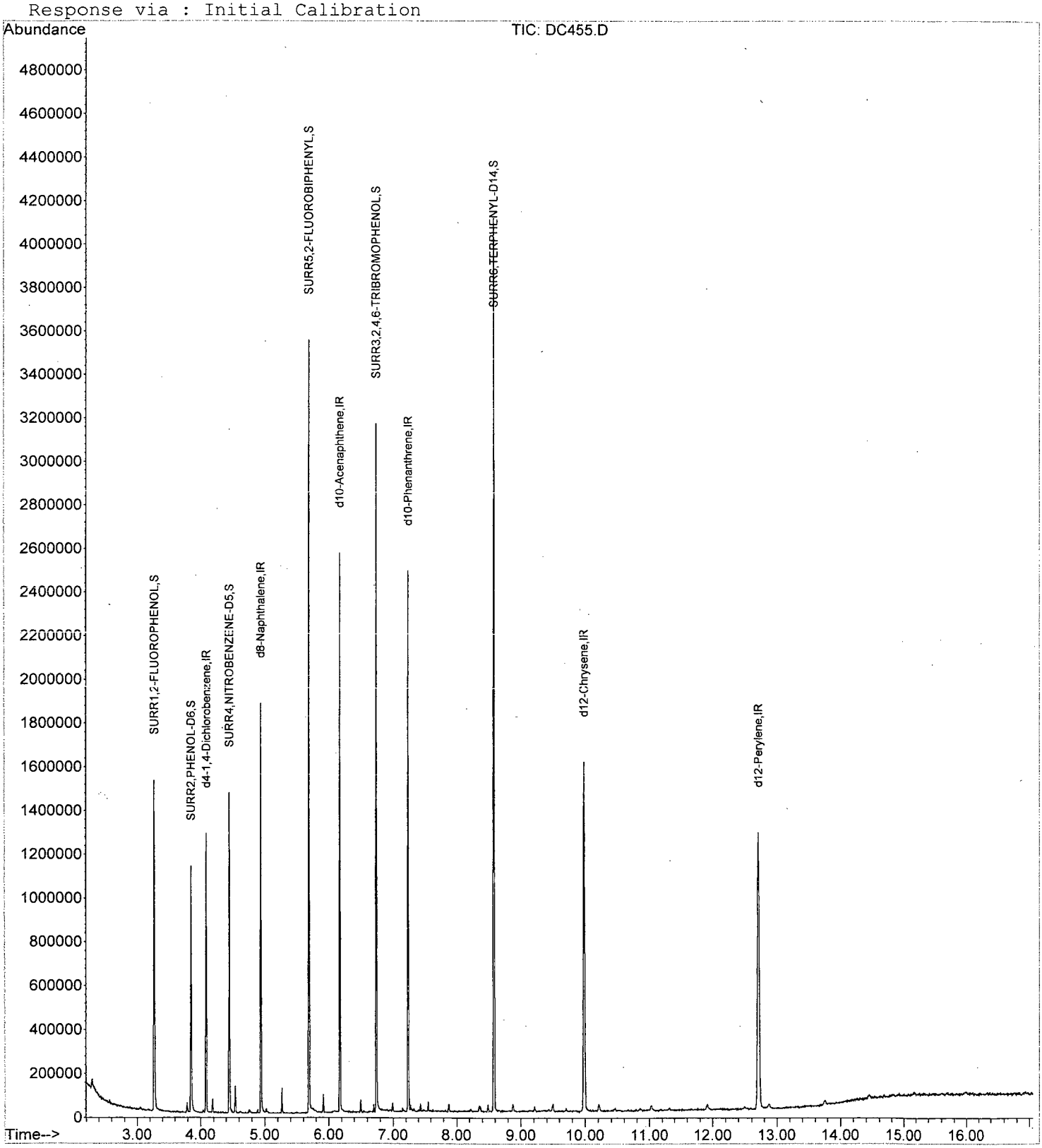
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
DC455.D 82701204.M Fri Dec 11 07:29:39 2015 Page 1

Quantitation Report

Data File : I:\ACQUDATA\5973A\DATA\120915\DC455.D Vial: 6
Acq On : 9 Dec 2015 8:48 am Operator: J.Misiurewicz
Sample : RQ1514729-01 Inst : 5973-A
Misc : 250969 8270D BLK Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:29 2015 Quant Results File: 82701204.RES

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration



DC455.D 82701204.M Fri Dec 11 07:29:40 2015 Page 2

Tentatively Identified Compound (LSC) summary

Operator ID: J.Misiurewicz Date Acquired: 9 Dec 2015 8:48 am
Data File: I:\ACQUDATA\5973A\DATA\120915\DC455.D
Name: RQ1514729-01
Misc: 250969 8270D BLK
Method: I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title: 8270 BNA ANALYSIS
Library Searched: C:\DATABASE\NIST08.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

DC455.D 82701204.M Fri Dec 11 09:31:27 2015

LSC Area Percent Report

Data File : I:\ACQUDATA\5973A\DATA\120915\DC455.D Vial: 6
Acq On : 9 Dec 2015 8:48 am Operator: J.Misiurewicz
Sample : RQ1514729-01 Inst : 5973-A
Misc : 250969 8270D BLK Multiplr: 1.00
MS Integration Params: TEBINT.P

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 25000 Area counts
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.294	16	20	28	rVB3	51889	88555	2.26%	0.361%
2	3.267	199	202	212	rBV	1502068	1368835	34.87%	5.584%
3	3.790	296	300	304	rBV	46681	42499	1.08%	0.173%
4	3.849	308	311	322	rVV	1123897	988910	25.19%	4.034%
5	4.084	351	355	365	rVB	1274100	1084275	27.62%	4.423%
6	4.185	371	374	380	rVB	64191	53874	1.37%	0.220%
7	4.447	420	423	431	rBV	1460092	1183292	30.14%	4.827%
8	4.538	437	440	447	rVB	126777	112989	2.88%	0.461%
9	4.762	476	482	486	rBV3	18442	26263	0.67%	0.107%
10	4.939	512	515	522	rBV	1867320	1503818	38.31%	6.135%
11	5.024	528	531	539	rVB5	21543	29699	0.76%	0.121%
12	5.270	574	577	581	rBV	117155	84082	2.14%	0.343%
13	5.687	651	655	658	rBV	3537695	2686309	68.43%	10.958%
14	5.922	694	699	702	rVB	83938	61547	1.57%	0.251%
15	6.173	743	746	750	rBV	2544431	1826961	46.54%	7.453%
16	6.499	802	807	812	rBV	60566	54414	1.39%	0.222%
17	6.739	848	852	863	rBV	3151923	2504123	63.79%	10.215%
18	6.990	896	899	902	rBV	39019	33985	0.87%	0.139%
19	7.236	941	945	948	rBV	2469464	1889255	48.12%	7.707%
20	7.433	980	982	985	rVB	35759	27352	0.70%	0.112%
21	7.556	1002	1005	1008	rBV2	45774	33423	0.85%	0.136%
22	7.877	1060	1065	1070	rBV3	35970	39573	1.01%	0.161%
23	8.347	1150	1153	1156	rBV3	26754	30072	0.77%	0.123%
24	8.486	1176	1179	1182	rBV4	33872	29152	0.74%	0.119%
25	8.582	1192	1197	1201	rBV	4087428	3925860	100.00%	16.015%
26	8.876	1249	1252	1257	rVB3	32002	36207	0.92%	0.148%
27	9.212	1311	1315	1321	rVB9	24518	26791	0.68%	0.109%
28	9.501	1364	1369	1375	rVB4	34733	47487	1.21%	0.194%
29	9.987	1453	1460	1466	rBV	1591493	2071896	52.78%	8.452%
30	10.211	1497	1502	1510	rBV7	33801	63837	1.63%	0.260%
31	11.034	1649	1656	1663	rBV7	23108	45492	1.16%	0.186%
32	11.921	1817	1822	1825	rBV7	26062	39093	1.00%	0.159%
33	12.717	1961	1971	1979	rBV	1265104	2439832	62.15%	9.953%
34	12.877	1997	2001	2008	rVB7	19241	34234	0.87%	0.140%

Sum of corrected areas: 24513986

DC455.D 82701204.M Fri Dec 11 09:31:26 2015

```
File       : I:\ACQUDATA\5973A\DATA\120915\DC455.D
Operator   : J.Misiurewicz
Acquired   :  9 Dec 2015   8:48 am using AcqMethod 82701204
Instrument :   5973-A
Sample Name: RQ1514729-01
Misc Info  : 250969 8270D BLK
Vial Number: 6
Quant File :82701204.RES (RTE Integrator)
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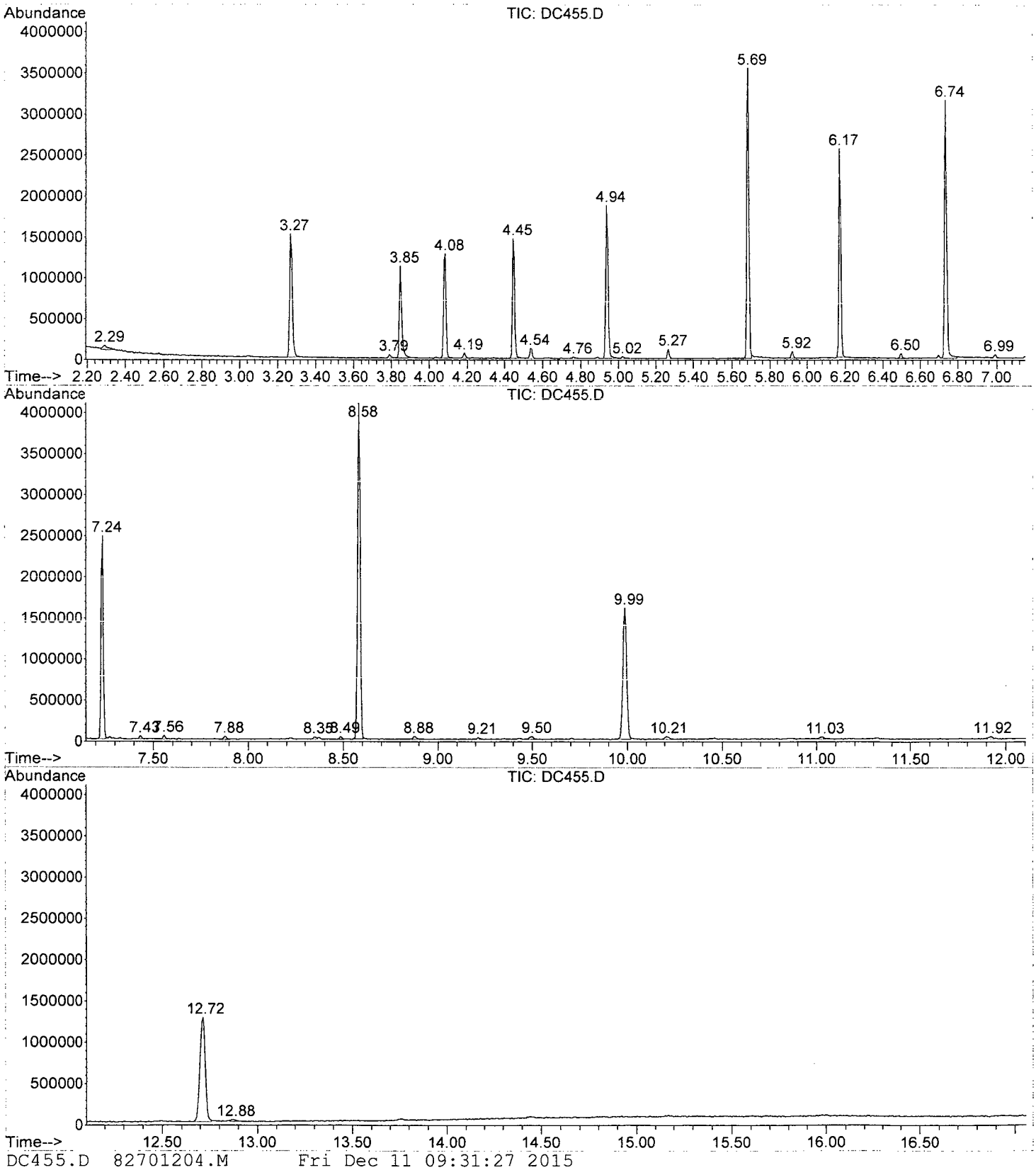


DC455.D 82701204.M Fri Dec 11 09:31:27 2015

Analytical Report

Client: Parsons Engineering Science
Project: FTMM 2015 Annual GW Sampling/748810-03000/748810-03000
Sample Matrix: Water

Service Request: R1510266
Date Collected: NA
Date Received: NA

Sample Name: Lab Control Sample
Lab Code: RQ1514729-02

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	**92.0**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
1,2,4-Trichlorobenzene	**60.5**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
1,2-Dichlorobenzene	**61.4**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
1,3-Dichlorobenzene	**58.5**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
1,4-Dichlorobenzene	**56.4**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
2,4,5-Trichlorophenol	**94.5**		10	5.0	1.8	1	11/30/15	12/9/15 09:15	250969	475853	
2,4,6-Trichlorophenol	**90.3**		10	5.0	1.4	1	11/30/15	12/9/15 09:15	250969	475853	
2,4-Dichlorophenol	**91.3**		10	5.0	1.3	1	11/30/15	12/9/15 09:15	250969	475853	
2,4-Dimethylphenol	**85.0**		10	5.0	1.5	1	11/30/15	12/9/15 09:15	250969	475853	
2,4-Dinitrophenol	**124**		50	25	20	1	11/30/15	12/9/15 09:15	250969	475853	
2,4-Dinitrotoluene	**116**		10	5.0	1.6	1	11/30/15	12/9/15 09:15	250969	475853	
2,6-Dinitrotoluene	**107**		10	5.0	1.8	1	11/30/15	12/9/15 09:15	250969	475853	
2-Chloronaphthalene	**76.0**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
2-Chlorophenol	**77.8**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
2-Methylnaphthalene	**70.2**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
2-Methylphenol	**75.7**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
2-Nitroaniline	**108**		50	25	9.1	1	11/30/15	12/9/15 09:15	250969	475853	
2-Nitrophenol	**97.5**		10	5.0	1.4	1	11/30/15	12/9/15 09:15	250969	475853	
3,3'-Dichlorobenzidine	**76.9**		10	5.0	4.5	1	11/30/15	12/9/15 09:15	250969	475853	
3- and 4-Methylphenol Coelution	**136**		11	10	2.0	1	11/30/15	12/9/15 09:15	250969	475853	
3-Nitroaniline	**92.3**		50	25	7.7	1	11/30/15	12/9/15 09:15	250969	475853	
4,6-Dinitro-2-methylphenol	**123**		50	25	11	1	11/30/15	12/9/15 09:15	250969	475853	
4-Bromophenyl Phenyl Ether	**90.3**		10	5.0	2.2	1	11/30/15	12/9/15 09:15	250969	475853	
4-Chloro-3-methylphenol	**92.5**		10	5.0	1.2	1	11/30/15	12/9/15 09:15	250969	475853	
4-Chloroaniline	**78.1**		10	5.0	1.5	1	11/30/15	12/9/15 09:15	250969	475853	
4-Chlorophenyl Phenyl Ether	**83.0**		10	5.0	1.2	1	11/30/15	12/9/15 09:15	250969	475853	
4-Nitroaniline	**99.3**		50	25	7.8	1	11/30/15	12/9/15 09:15	250969	475853	
4-Nitrophenol	**65.5**		50	25	5.9	1	11/30/15	12/9/15 09:15	250969	475853	
Acenaphthene	**79.8**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Acenaphthylene	**80.1**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Anthracene	**93.4**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Benz(a)anthracene	**92.2**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Benzidine	ND	U	110	100	90	1	11/30/15	12/9/15 09:15	250969	475853	
Benzo(a)pyrene	**95.0**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Benzo(b)fluoranthene	**92.9**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Benzo(g,h,i)perylene	**101**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Benzo(k)fluoranthene	**90.5**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514729-02	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	**84.9**		10	5.0	1.3	1	11/30/15	12/9/15 09:15	250969	475853	
2,2'-Oxybis(1-chloropropane)	**82.9**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Bis(2-chloroethoxy)methane	**85.8**		10	5.0	2.2	1	11/30/15	12/9/15 09:15	250969	475853	
Bis(2-chloroethyl) Ether	**76.4**		10	5.0	1.3	1	11/30/15	12/9/15 09:15	250969	475853	
Bis(2-ethylhexyl) Phthalate	**95.2**		10	5.0	1.2	1	11/30/15	12/9/15 09:15	250969	475853	
Butyl Benzyl Phthalate	**92.5**		10	5.0	2.4	1	11/30/15	12/9/15 09:15	250969	475853	
Carbazole	**92.9**		10	5.0	1.1	1	11/30/15	12/9/15 09:15	250969	475853	
Chrysene	**94.0**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Di-n-butyl Phthalate	**95.4**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Di-n-octyl Phthalate	**102**		10	5.0	1.2	1	11/30/15	12/9/15 09:15	250969	475853	
Dibenz(a,h)anthracene	**97.7**		10	5.0	1.3	1	11/30/15	12/9/15 09:15	250969	475853	
Dibenzofuran	**81.3**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Diethyl Phthalate	**93.5**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Dimethyl Phthalate	**95.1**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Fluoranthene	**97.3**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Fluorene	**87.2**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Hexachlorobenzene	**89.3**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Hexachlorobutadiene	**58.5**		10	5.0	1.3	1	11/30/15	12/9/15 09:15	250969	475853	
Hexachlorocyclopentadiene	**63.0**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Hexachloroethane	**53.6**		10	5.0	1.2	1	11/30/15	12/9/15 09:15	250969	475853	
Indeno(1,2,3-cd)pyrene	**95.9**		10	5.0	1.2	1	11/30/15	12/9/15 09:15	250969	475853	
Isophorone	**93.6**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
N-Nitrosodi-n-propylamine	**89.5**		10	5.0	1.3	1	11/30/15	12/9/15 09:15	250969	475853	
N-Nitrosodimethylamine	**51.9**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
N-Nitrosodiphenylamine	**104**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Naphthalene	**70.7**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Nitrobenzene	**86.2**		10	5.0	1.6	1	11/30/15	12/9/15 09:15	250969	475853	
Pentachlorophenol (PCP)	**104**		50	25	6.9	1	11/30/15	12/9/15 09:15	250969	475853	
Phenanthrene	**95.4**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Phenol	**37.5**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	
Pyrene	**103**		10	5.0	1.0	1	11/30/15	12/9/15 09:15	250969	475853	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	RQ1514729-02	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	96	40-125	12/9/15 09:15	
2-Fluorobiphenyl	90	50-110	12/9/15 09:15	
2-Fluorophenol	52	20-110	12/9/15 09:15	
Nitrobenzene-d5	95	40-110	12/9/15 09:15	
Phenol-d6	37	10-115	12/9/15 09:15	
p-Terphenyl-d14	95	50-135	12/9/15 09:15	

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC456.D Vial: 7
Acq On : 9 Dec 2015 9:15 am Operator: J.Misiurewicz
Sample : RQ1514729-02 Inst : 5973-A
Misc : 250969 8270D LCS Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:30 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	4.08	152	205160	40.00	ppm	0.00
22) d8-Naphthalene	4.94	136	812771	40.00	ppm	0.00
39) d10-Acenaphthene	6.18	164	488134	40.00	ppm	0.00
61) d10-Phenanthrene	7.24	188	770390	40.00	ppm	0.00
74) d12-Chrysene	9.99	240	773740	40.00	ppm	0.00
83) d12-Perylene	12.72	264	804114	40.00	ppm	-0.01
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.27	112	546998	104.46	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 52.23%			
7) SURR2,PHENOL-D6	3.86	99	488639	74.79	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 37.40%			
23) SURR4,NITROBENZENE-D5	4.45	82	481272	94.95	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 94.95%			
43) SURR5,2-FLUOROBIPHENYL	5.69	172	1119761	89.82	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 89.82%			
60) SURR3,2,4,6-TRIBROMOPHENOL	6.75	330	312807	191.97	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 95.98%			
77) SURR6,TERPHENYL-D14	8.58	244	1326460	94.74	ppm	0.00
Spiked Amount 100.000	Range 40 - 133		Recovery = 94.74%			
Target Compounds						Qvalue
2) Pyridine	2.40	79	191598	32.19	ppm	94
3) N-Nitrosodimethylamine	2.36	74	176455	51.87	ppm	96
5) Benzaldehyde	3.81	106	325518	250.88	ppm	95
6) Aniline	3.88	93	479599	60.18	ppm	94
8) Phenol	3.86	94	290260	37.45	ppm	88
9) bis(2-Clethyl)Ether	3.90	93	409676	76.44	ppm	91
10) 2-Chlorophenol	3.96	128	485397	77.77	ppm	97
11) 1,3-Diclbenzene	4.05	146	398823	58.51	ppm	95
12) 1,4-Dichlorobenzene	4.10	146	394617	56.40	ppm	96
13) 1,2-Diclbenzene	4.20	146	400514	61.36	ppm	96
14) Benzyl Alcohol	4.18	79	326603	84.90	ppm	95
15) 2,2'-oxybis(1-Chloropropan	4.25	45	398798	82.92	ppm	98
16) 2-Methylphenol	4.25	108	429474	75.68	ppm	93
17) Acetophenone	4.35	105	638233	85.25	ppm	90
18) N-Nitroso-Di-n-propylamine	4.34	70	354453	89.48	ppm	95
19) Hexachloroethane	4.42	117	133349	53.57	ppm	91
20) 3+4-Methylphenol	4.35	108	780792	135.50	ppm	90
24) Nitrobenzene	4.46	77	452402	86.22	ppm	96
25) Isophorone	4.62	82	970452	93.57	ppm	99
26) 2-Nitrophenol	4.68	139	287758	97.54	ppm	94
27) Benzoic Acid	4.77	105	166322	52.71	ppm	97
28) 2,4-Dimethylphenol	4.70	107	504361	85.01	ppm	94
29) bis(-2-Chloroethoxy)Methan	4.75	93	534828	85.81	ppm	98
30) 2,4-Dichlorophenol	4.85	162	455305	91.33	ppm	98
31) 1,2,4-Trichlorobenzene	4.90	180	326285	60.48	ppm	87
32) Naphthalene	4.96	128	1181812	70.70	ppm	100
33) 4-Chloroaniline	4.99	127	522114	78.09	ppm	96
34) Hexachlorobutadiene	5.03	225	171410	58.51	ppm	92
35) 4-Chloro-3-methylphenol	5.33	107	466636m	92.46	ppm	

(#) = qualifier out of range (m) = manual integration
DC456.D 82701204.M Fri Dec 11 07:30:56 2015

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC456.D Vial: 7
Acq On : 9 Dec 2015 9:15 am Operator: J.Misiurewicz
Sample : RQ1514729-02 Inst : 5973-A
Misc : 250969 8270D LCS Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:30 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

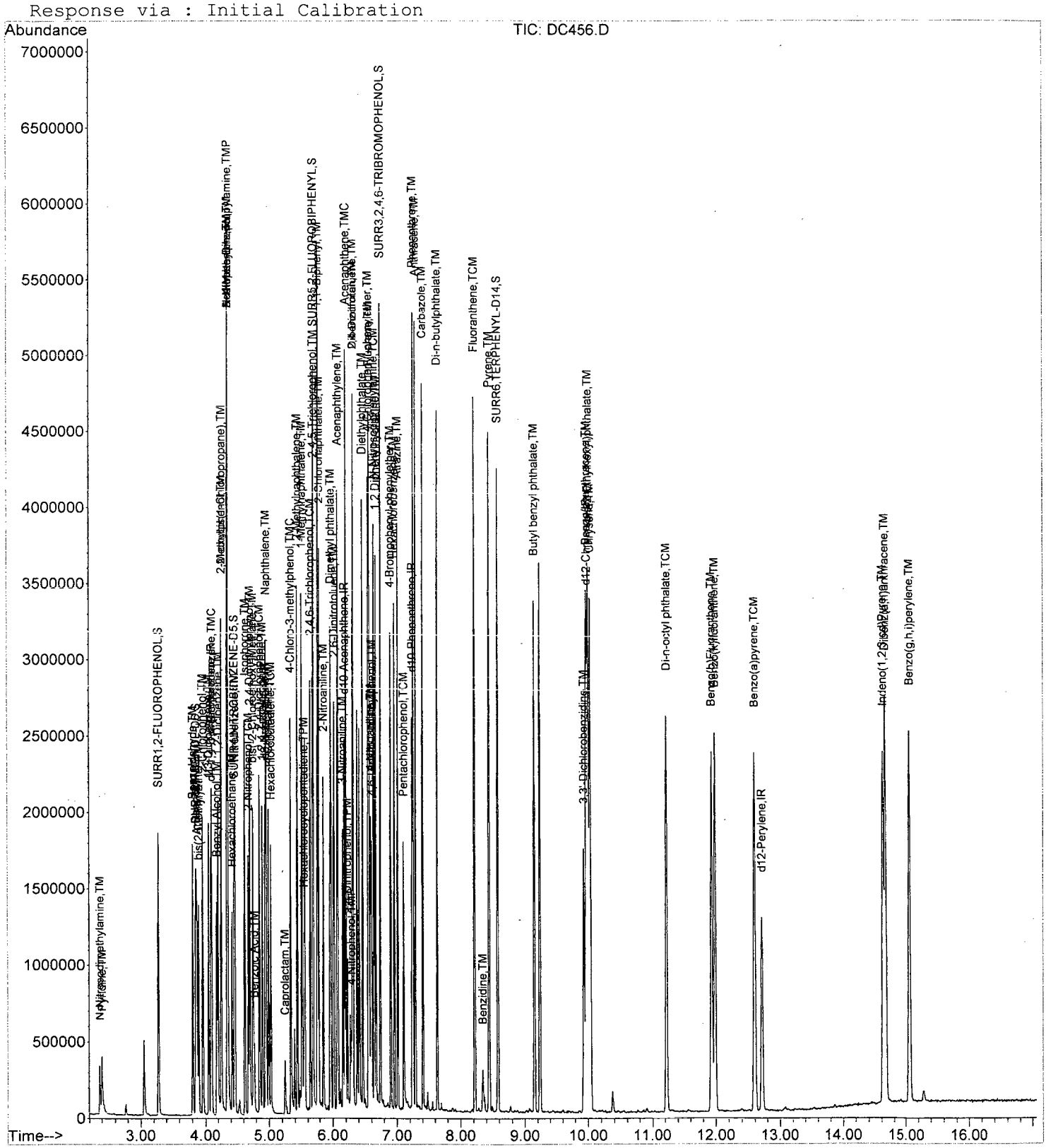
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36)	Caprolactam	5.24	113	53374	30.94	ppm	96
37)	2-Methylnaphthalene	5.44	142	796584	70.23	ppm	97
38)	1-Methylnaphthalene	5.51	142	770038	70.70	ppm	97
40)	Hexachlorocyclopentadiene	5.54	237	136763	63.04	ppm	98
41)	2,4,6-Trichlorophenol	5.64	196	313728	90.33	ppm	97
42)	2,4,5-Trichlorophenol	5.68	196	351931	94.47	ppm	96
44)	1,1'-Biphenyl	5.76	154	1065992	74.96	ppm	98
45)	2-Chloronaphthalene	5.78	162	862150	76.02	ppm	98
46)	2-Nitroaniline	5.86	65	280812	107.52	ppm	84
47)	Acenaphthylene	6.08	152	1445939	80.09	ppm	98
48)	Dimethyl phthalate	5.97	163	1152809	95.07	ppm	99
49)	2,6-Dinitrotoluene	6.02	165	268036	106.51	ppm	92
50)	Acenaphthene	6.20	153	909190	79.83	ppm	98
51)	3-Nitroaniline	6.15	138	257974	92.25	ppm	93
52)	2,4-Dinitrophenol	6.23	184	128784	124.06	ppm	92
53)	Dibenzofuran	6.32	168	1300907	81.28	ppm	97
54)	2,4-Dinitrotoluene	6.31	165	359970	115.71	ppm	95
55)	4-Nitrophenol	6.29	65	117736	65.48	ppm	94
56)	Fluorene	6.56	166	1144469	87.24	ppm	98
57)	4-Chlorophenyl-phenylether	6.55	204	519815	83.02	ppm	96
58)	Diethylphthalate	6.46	149	1111828	93.53	ppm	98
59)	4-Nitroaniline	6.59	138	311259	99.30	ppm	87
62)	4,6-Dinitro-2-methylphenol	6.61	198	209131	123.29	ppm	94
63)	1,2 Diphenylhydrazine	6.67	77	1037534	92.03	ppm	96
64)	N-Nitrosodiphenylamine	6.64	169	884041	104.41	ppm	95
65)	4-Bromophenyl-phenylether	6.91	248	322403	90.31	ppm	95
66)	Hexachlorobenzene	6.96	284	354441	89.26	ppm	99
67)	Atrazine	7.01	215	201419	109.88	ppm	85
68)	Pentachlorophenol	7.10	266	181466	103.67	ppm	91
69)	Phenanthrene	7.25	178	1610739	95.43	ppm	99
70)	Anthracene	7.29	178	1678567	93.38	ppm	98
71)	Carbazole	7.41	167	1627264	92.89	ppm	99
72)	Di-n-butylphthalate	7.64	149	1958537	95.44	ppm	99
73)	Fluoranthene	8.22	202	1853887	97.28	ppm	98
75)	Benzidine	8.34	184	71356	11.57	ppm	94
76)	Pyrene	8.45	202	2013320	102.87	ppm	100
78)	Butyl benzyl phthalate	9.15	149	897553	92.48	ppm	89
79)	3,3'-Dichlorobenzidine	9.94	252	528940	76.91	ppm	96
80)	Benzo(a)anthracene	9.98	228	1788661	92.16	ppm	98
81)	Chrysene	10.04	228	1677764	93.96	ppm	98
82)	bis(2-Ethylhexyl)phthalate	10.01	149	1267638	95.24	ppm	98
84)	Di-n-octyl phthalate	11.23	149	2255748	101.89	ppm	99
85)	Benzo(b)Fluoranthene	11.94	252	1691086	92.85	ppm	94
86)	Benzo(k)fluoranthene	11.99	252	1616469	90.46	ppm	97
87)	Benzo(a)pyrene	12.61	252	1688715	94.99	ppm	96
88)	Indeno(1,2,3-cd)Pyrene	14.64	276	1665891m	95.92	ppm	
89)	Dibenz(a,h)anthracene	14.67	278	1723221	97.72	ppm	98
90)	Benzo(g,h,i)perylene	15.06	276	1677990	101.19	ppm	97

(#) = qualifier out of range (m) = manual integration
DC456.D 82701204.M Fri Dec 11 07:30:57 2015

Quantitation Report

Data File : I:\ACQUDATA\5973A\DATA\120915\DC456.D Vial: 7
Acq On : 9 Dec 2015 9:15 am Operator: J.Misiurewicz
Sample : RQ1514729-02 Inst : 5973-A
Misc : 250969 8270D LCS Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:30 2015 Quant Results File: 82701204.RES

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration

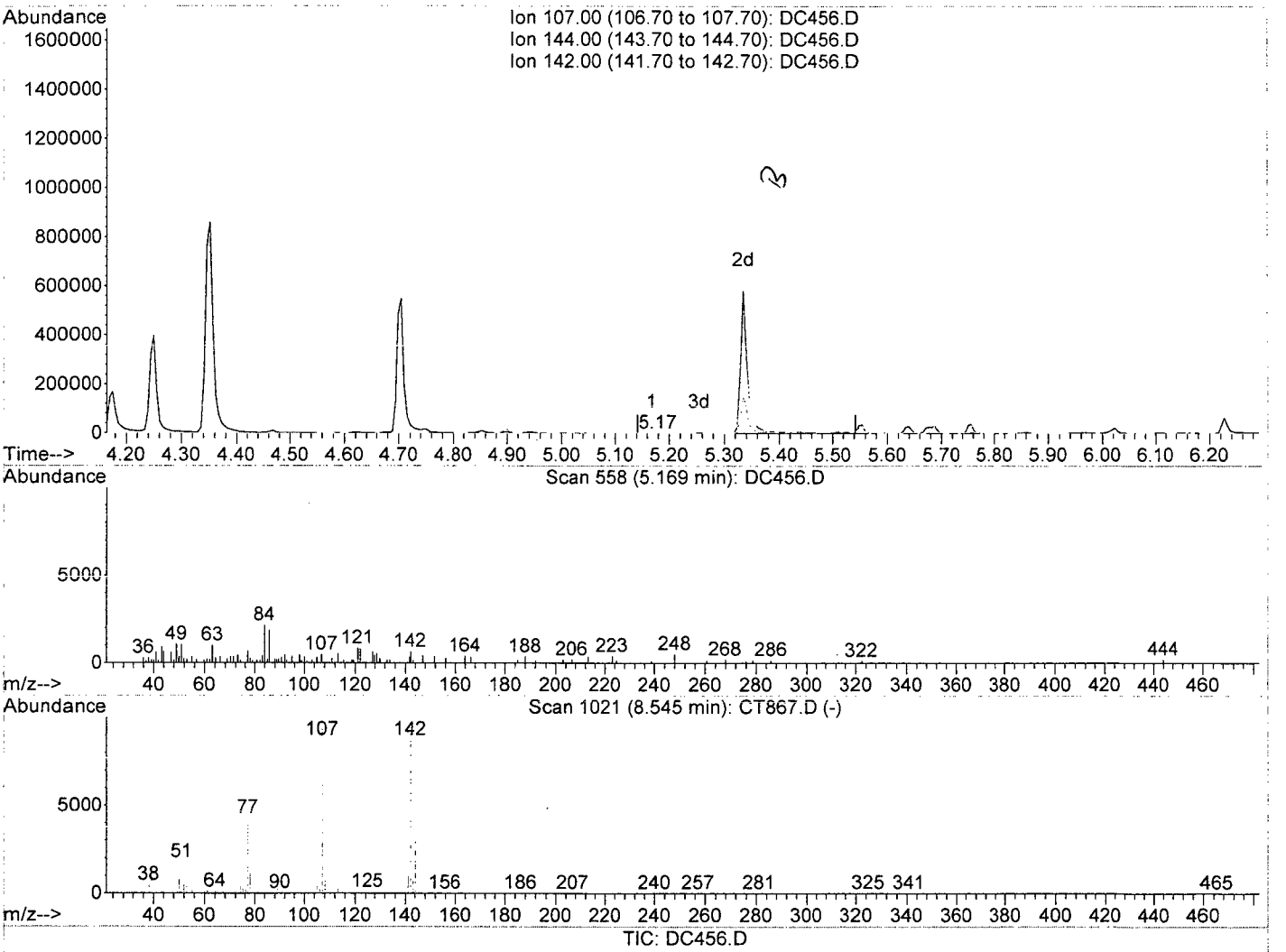


DC456.D 82701204.M Fri Dec 11 07:30:59 2015 Page 3

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC456.D Vial: 7
Acq On : 9 Dec 2015 9:15 am Operator: J.Misiurewicz
Sample : RQ1514729-02 Inst : 5973-A
Misc : 250969 8270D LCS Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:21 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Multiple Level Calibration



TIC: DC456.D

(35) 4-Chloro-3-methylphenol (TMC)

5.17min 0.10ppm

response 516

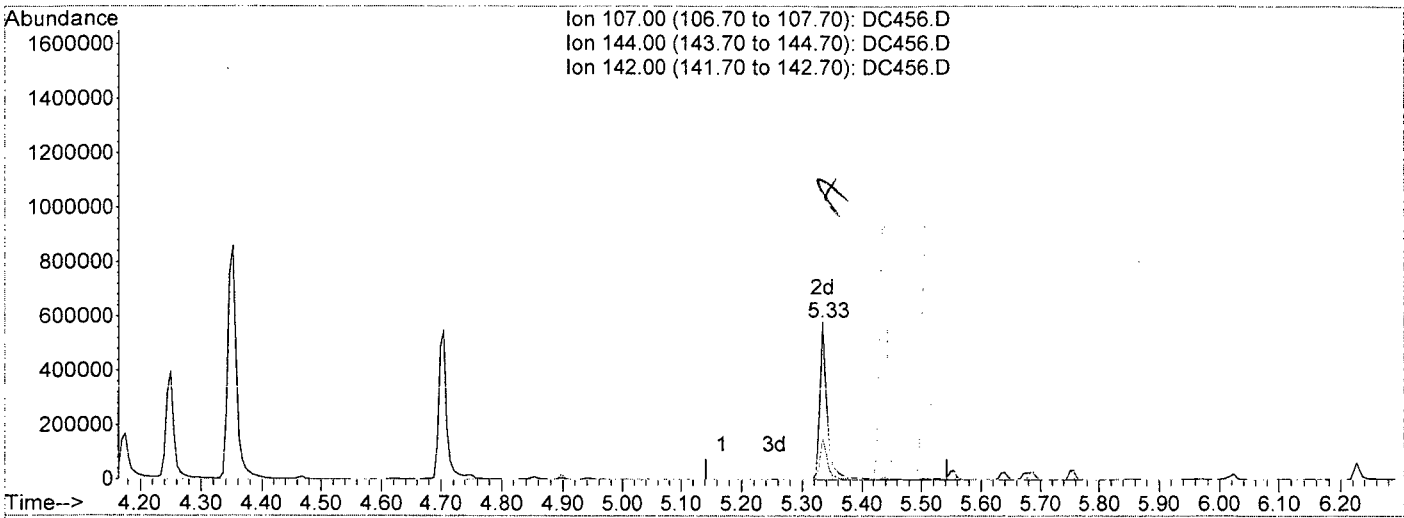
Ion	Exp%	Act%
107.00	100	100
144.00	29.10	0.00
142.00	76.50	50.10
0.00	0.00	0.00

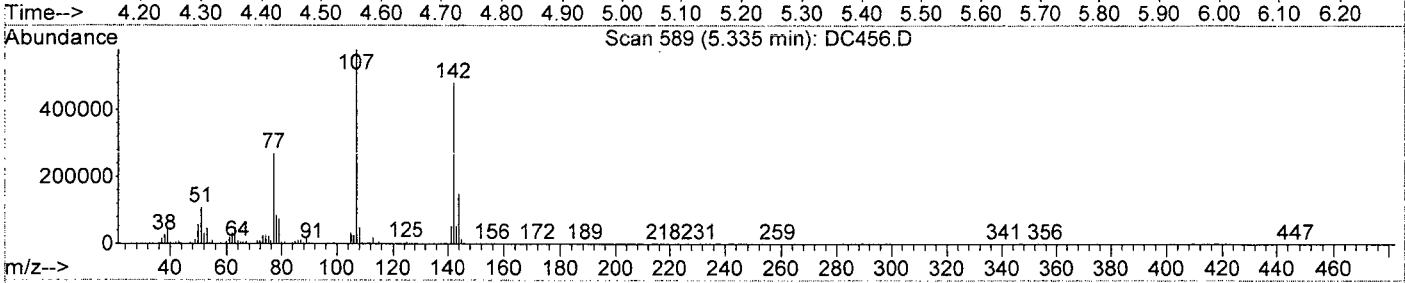
DC456.D 82701204.M Fri Dec 11 07:30:10 2015

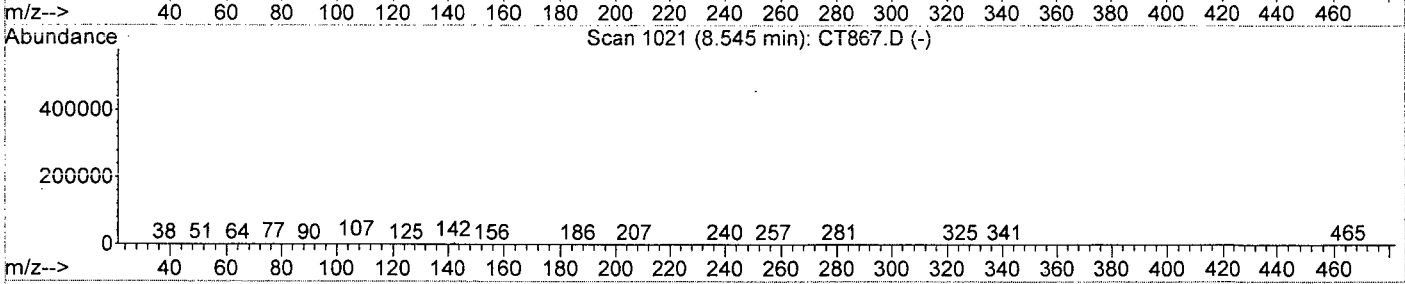
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC456.D Vial: 7
Acq On : 9 Dec 2015 9:15 am Operator: J.Misiurewicz
Sample : RQ1514729-02 Inst : 5973-A
Misc : 250969 8270D LCS Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:30 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Multiple Level Calibration







TIC: DC456.D

(35) 4-Chloro-3-methylphenol (TMC)

5.33min 92.46ppm m

response 466636

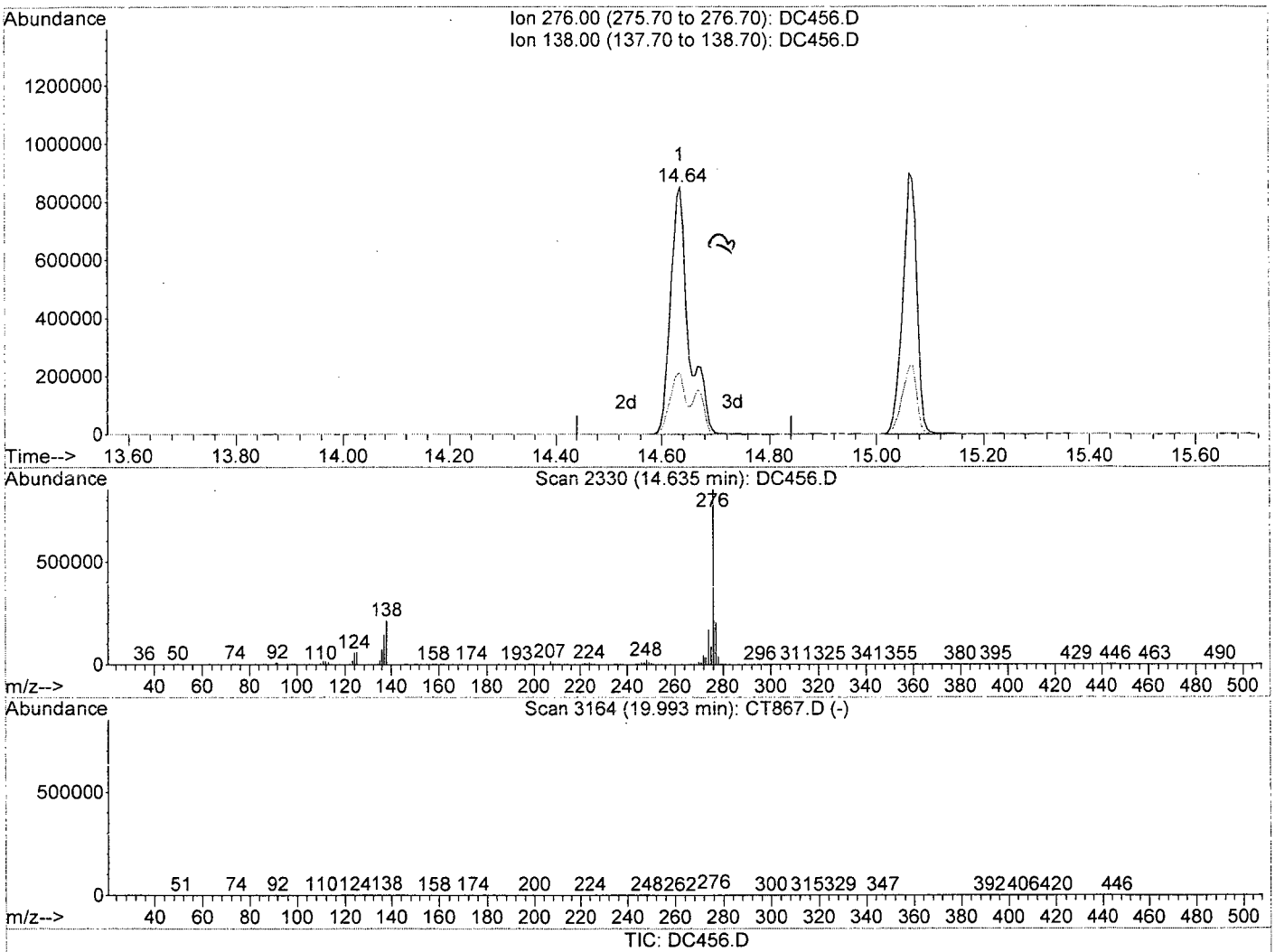
Ion	Exp%	Act%
107.00	100	100
144.00	29.10	25.81
142.00	76.50	83.01
0.00	0.00	0.00

DC456.D 82701204.M Fri Dec 11 07:30:13 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC456.D Vial: 7
Acq On : 9 Dec 2015 9:15 am Operator: J.Misiurewicz
Sample : RQ1514729-02 Inst : 5973-A
Misc : 250969 8270D LCS Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:30 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Multiple Level Calibration



TIC: DC456.D

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.64min 114.83ppm

response 1994263

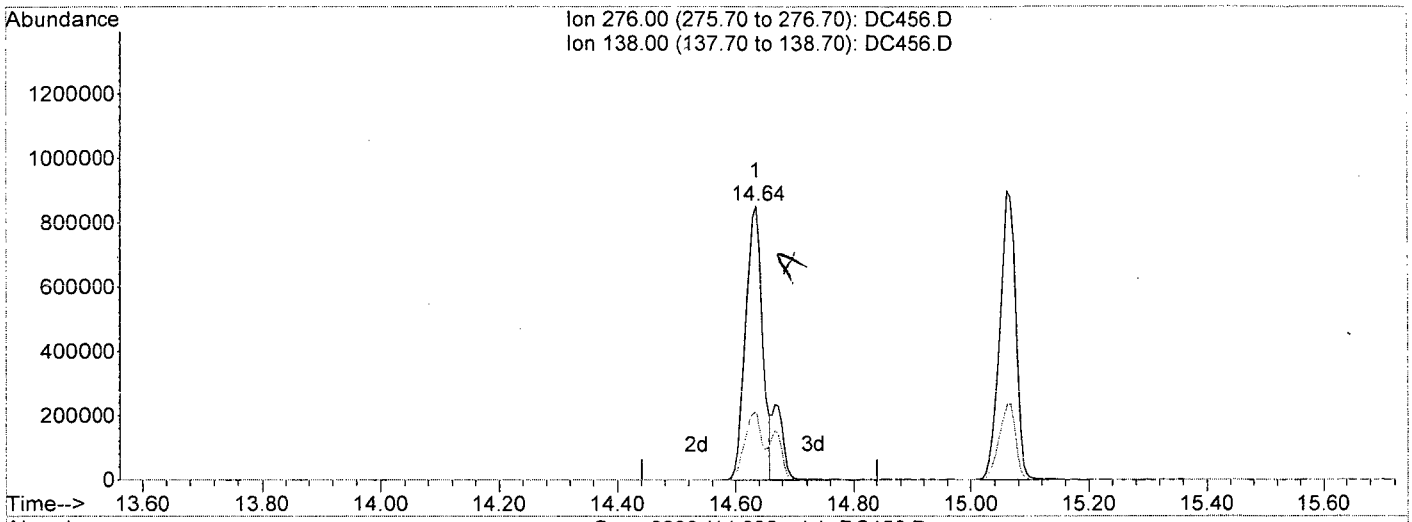
Ion	Exp%	Act%
276.00	100	100
138.00	22.30	24.88
0.00	0.00	0.00
0.00	0.00	0.00

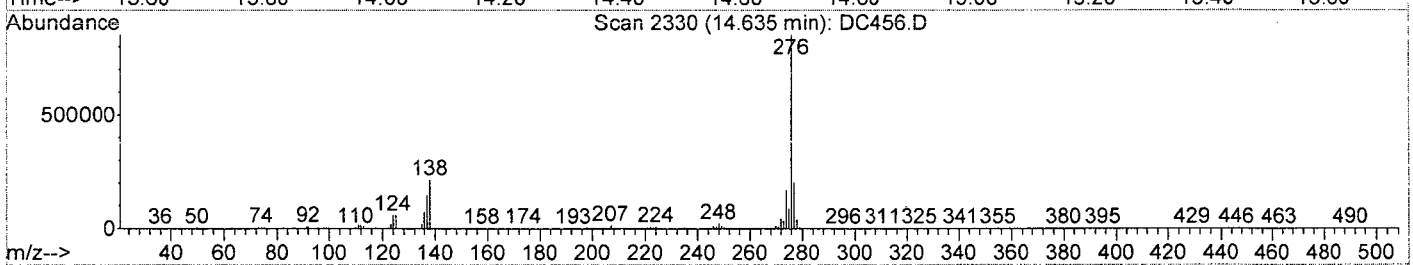
DC456.D 82701204.M Fri Dec 11 07:30:42 2015

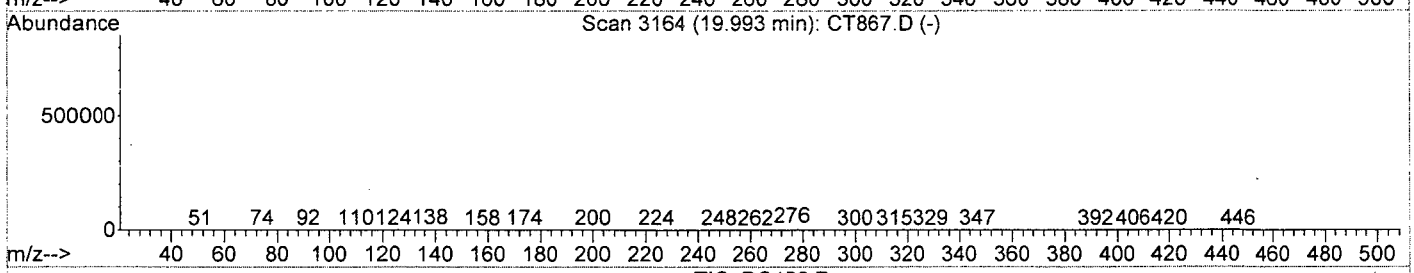
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC456.D Vial: 7
Acq On : 9 Dec 2015 9:15 am Operator: J.Misiurewicz
Sample : RQ1514729-02 Inst : 5973-A
Misc : 250969 8270D LCS Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:30 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Multiple Level Calibration







TIC: DC456.D

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.64min 95.92ppm m

response 1665891

Ion	Exp%	Act%
276.00	100	100
138.00	22.30	24.93
0.00	0.00	0.00
0.00	0.00	0.00

Review Only 12/11/15

DC456.D 82701204.M Fri Dec 11 07:30:49 2015

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514729-03	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2-Diphenylhydrazine/Azobenzene	**89.9**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
1,2,4-Trichlorobenzene	**61.9**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
1,2-Dichlorobenzene	**65.7**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
1,3-Dichlorobenzene	**62.5**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
1,4-Dichlorobenzene	**62.9**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
2,4,5-Trichlorophenol	**100**		10	5.0	1.8	1	11/30/15	12/9/15 09:42	250969	475853	
2,4,6-Trichlorophenol	**96.7**		10	5.0	1.4	1	11/30/15	12/9/15 09:42	250969	475853	
2,4-Dichlorophenol	**88.6**		10	5.0	1.3	1	11/30/15	12/9/15 09:42	250969	475853	
2,4-Dimethylphenol	**84.7**		10	5.0	1.5	1	11/30/15	12/9/15 09:42	250969	475853	
2,4-Dinitrophenol	**125**		50	25	20	1	11/30/15	12/9/15 09:42	250969	475853	
2,4-Dinitrotoluene	**122**		10	5.0	1.6	1	11/30/15	12/9/15 09:42	250969	475853	
2,6-Dinitrotoluene	**112**		10	5.0	1.8	1	11/30/15	12/9/15 09:42	250969	475853	
2-Chloronaphthalene	**83.7**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
2-Chlorophenol	**82.8**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
2-Methylnaphthalene	**73.4**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
2-Methylphenol	**82.2**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
2-Nitroaniline	**107**		50	25	9.1	1	11/30/15	12/9/15 09:42	250969	475853	
2-Nitrophenol	**98.7**		10	5.0	1.4	1	11/30/15	12/9/15 09:42	250969	475853	
3,3'-Dichlorobenzidine	**78.4**		10	5.0	4.5	1	11/30/15	12/9/15 09:42	250969	475853	
3- and 4-Methylphenol Coelution	**150**		11	10	2.0	1	11/30/15	12/9/15 09:42	250969	475853	
3-Nitroaniline	**94.7**		50	25	7.7	1	11/30/15	12/9/15 09:42	250969	475853	
4,6-Dinitro-2-methylphenol	**119**		50	25	11	1	11/30/15	12/9/15 09:42	250969	475853	
4-Bromophenyl Phenyl Ether	**86.5**		10	5.0	2.2	1	11/30/15	12/9/15 09:42	250969	475853	
4-Chloro-3-methylphenol	**93.8**		10	5.0	1.2	1	11/30/15	12/9/15 09:42	250969	475853	
4-Chloroaniline	**76.1**		10	5.0	1.5	1	11/30/15	12/9/15 09:42	250969	475853	
4-Chlorophenyl Phenyl Ether	**90.3**		10	5.0	1.2	1	11/30/15	12/9/15 09:42	250969	475853	
4-Nitroaniline	**108**		50	25	7.8	1	11/30/15	12/9/15 09:42	250969	475853	
4-Nitrophenol	**70.2**		50	25	5.9	1	11/30/15	12/9/15 09:42	250969	475853	
Acenaphthene	**88.3**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Acenaphthylene	**86.1**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Anthracene	**87.3**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Benz(a)anthracene	**88.7**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Benzidine	ND	U	110	100	90	1	11/30/15	12/9/15 09:42	250969	475853	
Benzo(a)pyrene	**94.4**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Benzo(b)fluoranthene	**90.6**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Benzo(g,h,i)perylene	**98.7**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Benzo(k)fluoranthene	**90.9**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514729-03	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzyl Alcohol	**87.4**		10	5.0	1.3	1	11/30/15	12/9/15 09:42	250969	475853	
2,2'-Oxybis(1-chloropropane)	**88.2**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Bis(2-chloroethoxy)methane	**86.4**		10	5.0	2.2	1	11/30/15	12/9/15 09:42	250969	475853	
Bis(2-chloroethyl) Ether	**76.9**		10	5.0	1.3	1	11/30/15	12/9/15 09:42	250969	475853	
Bis(2-ethylhexyl) Phthalate	**95.5**		10	5.0	1.2	1	11/30/15	12/9/15 09:42	250969	475853	
Butyl Benzyl Phthalate	**90.4**		10	5.0	2.4	1	11/30/15	12/9/15 09:42	250969	475853	
Carbazole	**92.5**		10	5.0	1.1	1	11/30/15	12/9/15 09:42	250969	475853	
Chrysene	**93.8**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Di-n-butyl Phthalate	**95.5**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Di-n-octyl Phthalate	**98.7**		10	5.0	1.2	1	11/30/15	12/9/15 09:42	250969	475853	
Dibenz(a,h)anthracene	**97.4**		10	5.0	1.3	1	11/30/15	12/9/15 09:42	250969	475853	
Dibenzofuran	**90.0**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Diethyl Phthalate	**103**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Dimethyl Phthalate	**101**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Fluoranthene	**94.4**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Fluorene	**91.5**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Hexachlorobenzene	**87.9**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Hexachlorobutadiene	**58.2**		10	5.0	1.3	1	11/30/15	12/9/15 09:42	250969	475853	
Hexachlorocyclopentadiene	**66.6**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Hexachloroethane	**59.1**		10	5.0	1.2	1	11/30/15	12/9/15 09:42	250969	475853	
Indeno(1,2,3-cd)pyrene	**97.5**		10	5.0	1.2	1	11/30/15	12/9/15 09:42	250969	475853	
Isophorone	**94.2**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
N-Nitrosodi-n-propylamine	**94.1**		10	5.0	1.3	1	11/30/15	12/9/15 09:42	250969	475853	
N-Nitrosodimethylamine	**55.4**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
N-Nitrosodiphenylamine	**98.6**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Naphthalene	**73.2**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Nitrobenzene	**92.9**		10	5.0	1.6	1	11/30/15	12/9/15 09:42	250969	475853	
Pentachlorophenol (PCP)	**99.4**		50	25	6.9	1	11/30/15	12/9/15 09:42	250969	475853	
Phenanthrene	**92.1**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Phenol	**40.1**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	
Pyrene	**101**		10	5.0	1.0	1	11/30/15	12/9/15 09:42	250969	475853	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510266
Project:	FTMM 2015 Annual GW Sampling/748810-03000/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	Percent
Lab Code:	RQ1514729-03	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3510C

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	100	40-125	12/9/15 09:42	
2-Fluorobiphenyl	95	50-110	12/9/15 09:42	
2-Fluorophenol	58	20-110	12/9/15 09:42	
Nitrobenzene-d5	94	40-110	12/9/15 09:42	
Phenol-d6	40	10-115	12/9/15 09:42	
p-Terphenyl-d14	91	50-135	12/9/15 09:42	

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC457.D Vial: 8
Acq On : 9 Dec 2015 9:42 am Operator: J.Misiurewicz
Sample : RQ1514729-03 Inst : 5973-A
Misc : 250969 8270D LCSD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:31 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

DM 12/14/15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) d4-1,4-Dichlorobenzene	4.08	152	178301	40.00	ppm	-0.01
22) d8-Naphthalene	4.94	136	743737	40.00	ppm	0.00
39) d10-Acenaphthene	6.18	164	421490	40.00	ppm	0.00
61) d10-Phenanthrene	7.23	188	721882	40.00	ppm	-0.01
74) d12-Chrysene	9.99	240	714483	40.00	ppm	-0.01
83) d12-Perylene	12.71	264	748159	40.00	ppm	-0.02
System Monitoring Compounds						
4) SURR1,2-FLUOROPHENOL	3.27	112	526492	115.69	ppm	0.00
Spiked Amount 200.000	Range 10 - 105		Recovery = 57.84%			
7) SURR2,PHENOL-D6	3.85	99	456330	80.37	ppm	0.00
Spiked Amount 200.000	Range 10 - 107		Recovery = 40.19%			
23) SURR4,NITROBENZENE-D5	4.45	82	437300	94.28	ppm	0.00
Spiked Amount 100.000	Range 37 - 117		Recovery = 94.28%			
43) SURR5,2-FLUOROBIPHENYL	5.68	172	1024045	95.13	ppm	0.00
Spiked Amount 100.000	Range 39 - 119		Recovery = 95.13%			
60) SURR3,2,4,6-TRIBROMOPHENOL	6.74	330	280314	199.23	ppm	0.00
Spiked Amount 200.000	Range 28 - 157		Recovery = 99.61%			
77) SURR6,TERPHENYL-D14	8.58	244	1181761	91.40	ppm	-0.01
Spiked Amount 100.000	Range 40 - 133		Recovery = 91.40%			
Target Compounds						Qvalue
2) Pyridine	2.40	79	194720	37.64	ppm	95
3) N-Nitrosodimethylamine	2.37	74	163844	55.42	ppm	99
5) Benzaldehyde	3.80	106	297030	263.41	ppm	91
6) Aniline	3.87	93	460320	66.47	ppm	86
8) Phenol	3.86	94	269758	40.05	ppm	94
9) bis(2-Clethyl)Ether	3.90	93	358061	76.87	ppm	97
10) 2-Chlorophenol	3.96	128	449171	82.81	ppm	94
11) 1,3-Diclbenzene	4.05	146	369922	62.45	ppm	94
12) 1,4-Dichlorobenzene	4.09	146	382489	62.90	ppm	95
13) 1,2-Diclbenzene	4.19	146	372562	65.68	ppm	96
14) Benzyl Alcohol	4.17	79	292049	87.35	ppm	95
15) 2,2'-oxybis(1-Chloropropan	4.25	45	368601	88.19	ppm	84
16) 2-Methylphenol	4.25	108	405384	82.20	ppm	92
17) Acetophenone	4.34	105	597620	91.85	ppm	96
18) N-Nitroso-Di-n-propylamine	4.34	70	323767	94.05	ppm	94
19) Hexachloroethane	4.42	117	127779	59.07	ppm	95
20) 3+4-Methylphenol	4.35	108	749726	149.71	ppm	98
24) Nitrobenzene	4.47	77	446102	92.91	ppm	93
25) Isophorone	4.62	82	893751	94.17	ppm	98
26) 2-Nitrophenol	4.68	139	266516	98.73	ppm	92
27) Benzoic Acid	4.77	105	146670	50.80	ppm	99
28) 2,4-Dimethylphenol	4.70	107	459680	84.67	ppm	98
29) bis(-2-Chloroethoxy)Methan	4.75	93	492699	86.39	ppm	91
30) 2,4-Dichlorophenol	4.85	162	404196	88.60	ppm	89
31) 1,2,4-Trichlorobenzene	4.90	180	305677	61.92	ppm	96
32) Naphthalene	4.96	128	1119219	73.17	ppm	97
33) 4-Chloroaniline	4.99	127	465449	76.08	ppm	98
34) Hexachlorobutadiene	5.03	225	155995	58.19	ppm	98
35) 4-Chloro-3-methylphenol	5.33	107	432951	93.75	ppm	99

(#) = qualifier out of range (m) = manual integration
DC457.D 82701204.M Fri Dec 11 07:32:06 2015

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC457.D Vial: 8
Acq On : 9 Dec 2015 9:42 am Operator: J.Misiurewicz
Sample : RQ1514729-03 Inst : 5973-A
Misc : 250969 8270D LCSD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:31 2015 Quant Results File: 82701204.RES

Quant Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration
DataAcq Meth : 82701204

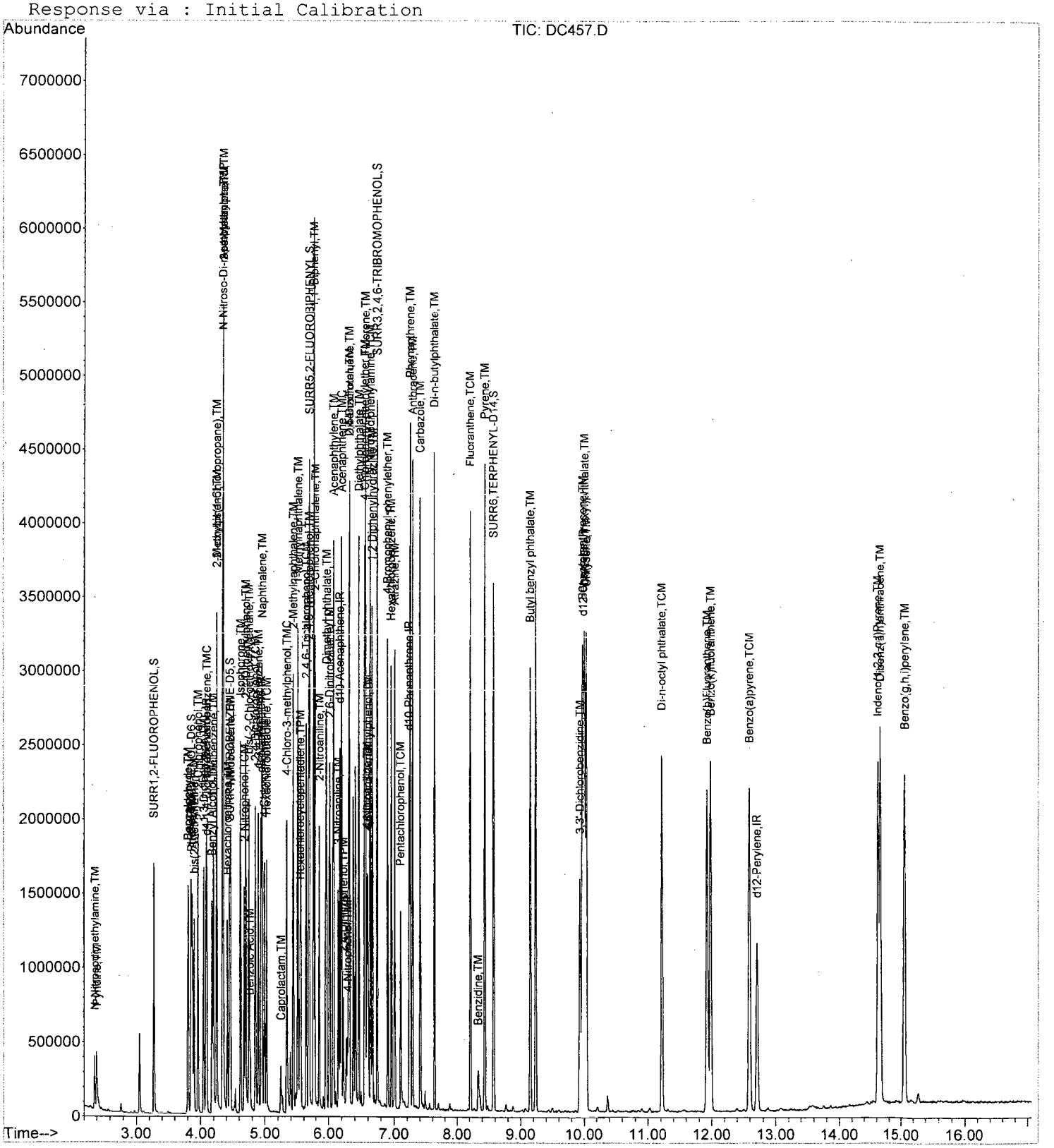
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
36)	Caprolactam	5.25	113	48683	30.84	ppm	94
37)	2-Methylnaphthalene	5.43	142	762209	73.43	ppm	93
38)	1-Methylnaphthalene	5.51	142	767741	77.03	ppm	98
40)	Hexachlorocyclopentadiene	5.54	237	126152	66.58	ppm	97
41)	2,4,6-Trichlorophenol	5.64	196	289964	96.69	ppm	97
42)	2,4,5-Trichlorophenol	5.67	196	322366	100.22	ppm	96
44)	1,1'-Biphenyl	5.76	154	1049703	85.48	ppm	99
45)	2-Chloronaphthalene	5.78	162	819858	83.72	ppm	97
46)	2-Nitroaniline	5.86	65	241772	107.21	ppm	95
47)	Acenaphthylene	6.08	152	1342121	86.10	ppm	99
48)	Dimethyl phthalate	5.97	163	1057142	100.96	ppm	98
49)	2,6-Dinitrotoluene	6.02	165	242865	111.77	ppm	94
50)	Acenaphthene	6.20	153	867817	88.25	ppm	96
51)	3-Nitroaniline	6.15	138	228611	94.68	ppm	95
52)	2,4-Dinitrophenol	6.23	184	112756	125.17	ppm	94
53)	Dibenzofuran	6.32	168	1244074	90.02	ppm	94
54)	2,4-Dinitrotoluene	6.31	165	326932	121.71	ppm	95
55)	4-Nitrophenol	6.29	65	108989	70.20	ppm	93
56)	Fluorene	6.57	166	1036220	91.47	ppm	93
57)	4-Chlorophenyl-phenylether	6.55	204	488202	90.30	ppm	96
58)	Diethylphthalate	6.46	149	1056492	102.93	ppm	99
59)	4-Nitroaniline	6.59	138	293067	108.28	ppm	98
62)	4,6-Dinitro-2-methylphenol	6.60	198	187661	118.90	ppm	83
63)	1,2 Diphenylhydrazine	6.67	77	949341	89.87	ppm	89
64)	N-Nitrosodiphenylamine	6.64	169	782487	98.62	ppm	98
65)	4-Bromophenyl-phenylether	6.90	248	289458	86.53	ppm	90
66)	Hexachlorobenzene	6.96	284	327055	87.89	ppm	95
67)	Atrazine	7.01	215	200519	116.73	ppm	95
68)	Pentachlorophenol	7.10	266	162957	99.36	ppm	98
69)	Phenanthrene	7.25	178	1456483	92.09	ppm	98
70)	Anthracene	7.29	178	1470615	87.31	ppm	99
71)	Carbazole	7.41	167	1518019	92.48	ppm	97
72)	Di-n-butylphthalate	7.63	149	1836055	95.48	ppm	98
73)	Fluoranthene	8.22	202	1686437	94.44	ppm	100
75)	Benzidine	8.34	184	93186	16.37	ppm	95
76)	Pyrene	8.45	202	1832608	101.40	ppm	100
78)	Butyl benzyl phthalate	9.15	149	810163	90.40	ppm	95
79)	3,3'-Dichlorobenzidine	9.94	252	497892	78.40	ppm	96
80)	Benzo(a)anthracene	9.98	228	1589097	88.67	ppm	97
81)	Chrysene	10.03	228	1546527	93.80	ppm	100
82)	bis(2-Ethylhexyl)phthalate	10.01	149	1174088	95.53	ppm	99
84)	Di-n-octyl phthalate	11.22	149	2032731	98.68	ppm	99
85)	Benzo(b)Fluoranthene	11.93	252	1534985	90.59	ppm	99
86)	Benzo(k)fluoranthene	11.99	252	1512081	90.94	ppm	96
87)	Benzo(a)pyrene	12.60	252	1561499	94.40	ppm	97
88)	Indeno(1,2,3-cd)Pyrene	14.63	276	1576026m	97.53	ppm	
89)	Dibenz(a,h)anthracene	14.67	278	1598704	97.44	ppm	99
90)	Benzo(g,h,i)perylene	15.06	276	1522325	98.67	ppm	98

(#) = qualifier out of range (m) = manual integration
DC457.D 82701204.M Fri Dec 11 07:32:07 2015

Quantitation Report

Data File : I:\ACQUDATA\5973A\DATA\120915\DC457.D Vial: 8
Acq On : 9 Dec 2015 9:42 am Operator: J.Misiurewicz
Sample : RQ1514729-03 Inst : 5973-A
Misc : 250969 8270D LCSD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:31 2015 Quant Results File: 82701204.RES

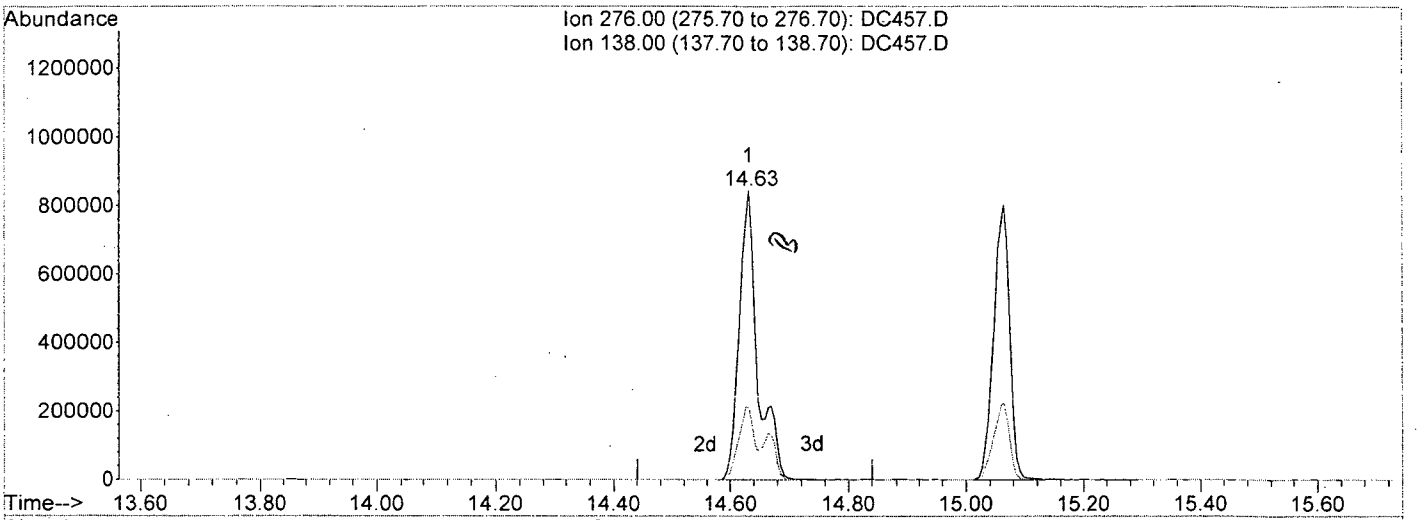
Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Initial Calibration

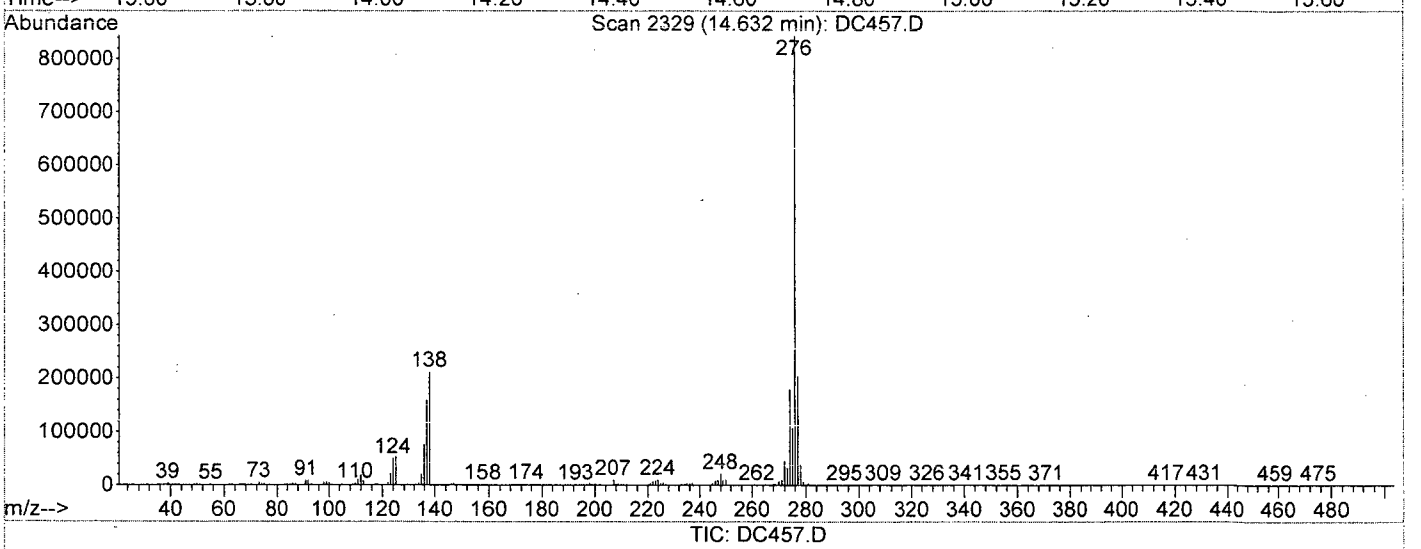


Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC457.D Vial: 8
Acq On : 9 Dec 2015 9:42 am Operator: J.Misiurewicz
Sample : RQ1514729-03 Inst : 5973-A
Misc : 250969 8270D LCSD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:22 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Multiple Level Calibration





TIC: DC457.D

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.63min 112.97ppm

response 1825512

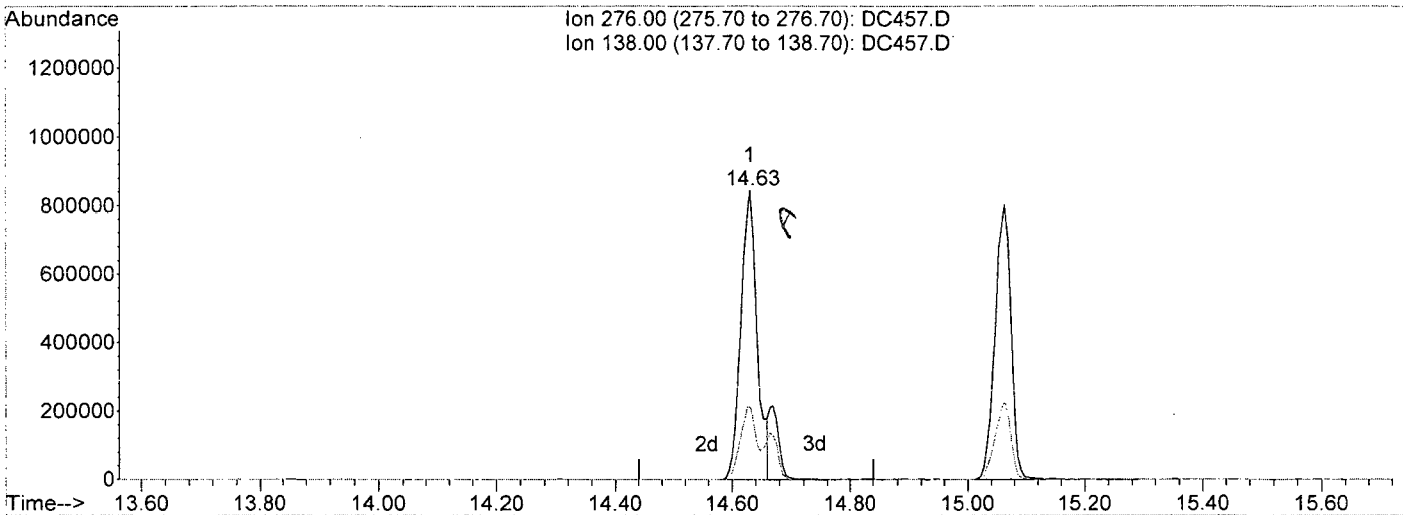
Ion	Exp%	Act%
276.00	100	100
138.00	22.30	25.03
0.00	0.00	0.00
0.00	0.00	0.00

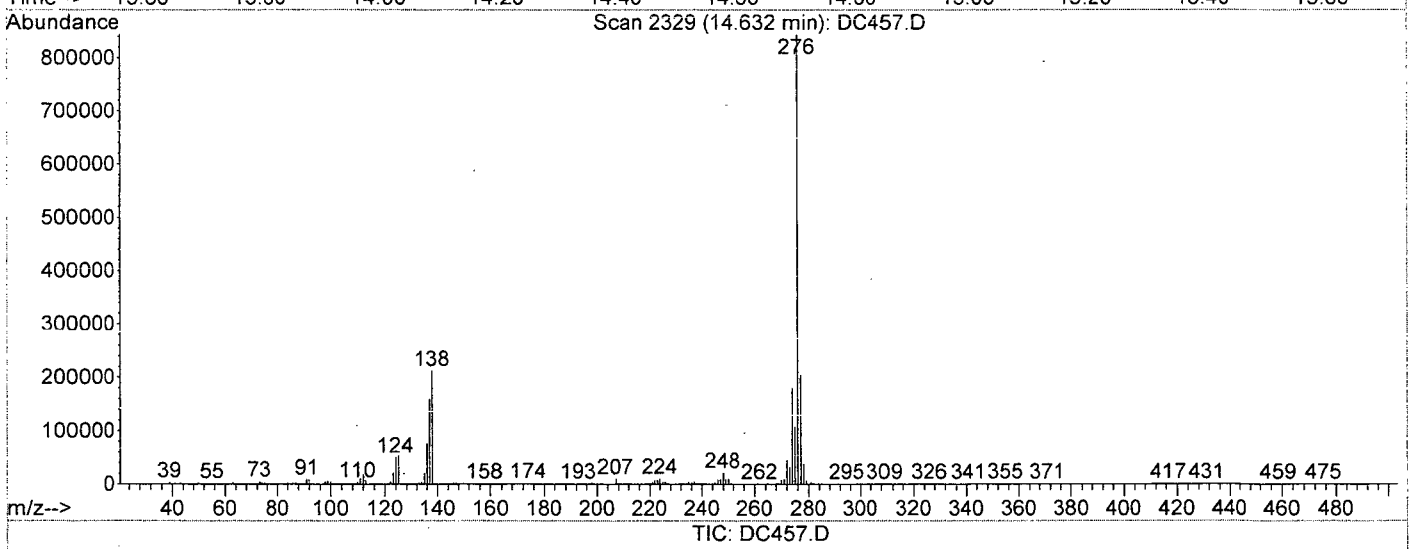
DC457.D 82701204.M Fri Dec 11 07:31:45 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\5973A\DATA\120915\DC457.D Vial: 8
Acq On : 9 Dec 2015 9:42 am Operator: J.Misiurewicz
Sample : RQ1514729-03 Inst : 5973-A
Misc : 250969 8270D LCSD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 7:31 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\5973A\METHODS\82701204.M (RTE Integrator)
Title : 8270 BNA ANALYSIS
Last Update : Mon Dec 07 07:10:14 2015
Response via : Multiple Level Calibration





TIC: DC457.D

(88) Indeno(1,2,3-cd)Pyrene (TM)

14.63min 97.53ppm m

response 1576026

Ion	Exp%	Act%
276.00	100	100
138.00	22.30	25.07
0.00	0.00	0.00
0.00	0.00	0.00

DC457.D 82701204.M Fri Dec 11 07:31:58 2015

Preparation Information Benchsheet

Prep Run#: 250969
Team: Semivoa GCMS/DMURPHY
Prep WorkFlow: OrgExtAq(7)
Prep Method: EPA 3510C
Status: Prepped
Prep Date/Time: 11/30/15 06:23 AM

#	Lab Code	Client ID	B#	Amt. Ext.	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ1514729-01	MB		1000mL	625/SVO	6	x	x	1.00mL	clear-colorless	1.0000 mL/84556	
2	RQ1514729-01	MB		1000mL	8270D/SVO	6	x	x	1.00mL	clear-colorless	1.0000 mL/84556	
3	RQ1514729-02	LCS		1000mL	625/SVO	6	x	x	1.00mL	clear-colorless	1.0000 mL/85804; 1.0000 mL/85868; 1.0000 mL/85954; 1.0000 mL/84556	
4	RQ1514729-02	LCS		1000mL	8270D/SVO	6	x	x	1.00mL	clear-colorless	1.0000 mL/84556; 1.0000 mL/85954; 1.0000 mL/85804; 1.0000 mL/85868	
5	RQ1514729-03	DLCS		1000mL	625/SVO	6	x	x	1.00mL	clear-colorless	1.0000 mL/84556; 1.0000 mL/85954; 1.0000 mL/85868; 1.0000 mL/85804	
6	RQ1514729-03	DLCS		1000mL	8270D/SVO	6	x	x	1.00mL	clear-colorless	1.0000 mL/85954; 1.0000 mL/85804; 1.0000 mL/85868; 1.0000 mL/84556	
7	R1509900-001RE	#1	.01	900mL	625/SVO	7	x	x	1.00mL	orange-opaaque	1.0000 mL/84556	
8	R1509900-002RE	#3	.01	900mL	625/SVO	7	x	x	1.00mL	yellow-cloudy	1.0000 mL/84556	
9	R1509900-003RE	#4	.07	900mL	625/SVO	7	x	x	1.00mL	yellow-cloudy	1.0000 mL/84556	
10	R1510231-001	Ontario County WWTP Lagoon	.05	1060mL	8270D/SVO	8	x	x	1.00mL	black-opaque	1.0000 mL/84556	
11	R1510263-001	1511231514B BLM-32-543	.01	1060mL	8270D/SVO	7	x	x	1.00mL	yellow-cloudy	1.0000 mL/84556	
12	R1510263-003	1511231524B BLM-32-571	.01	1060mL	8270D/SVO	7	x	x	1.00mL	clear-colorless	1.0000 mL/84556	
13	R1510263-005	1511231612B BLM-32-632	.01	1060mL	8270D/SVO	7	x	x	1.00mL	clear-colorless	1.0000 mL/84556	
14	R1510266-001	FTMM-66-GW-886RW06-8.75	.05	1060mL	8270D/SVO	7	x	x	1.00mL	yellow-cloudy	1.0000 mL/84556	
15	R1510266-008	EB-2015-11-23	.04	1060mL	8270D/SVO	7	x	x	1.00mL	yellow-cloudy	1.0000 mL/84556	
16	R1510277-001	TS LOC G-308	.02	1060mL	8270D/SVO	7	x	x	1.00mL	clear-colorless	1.0000 mL/84556	
17	R1510299-001	WT-6488-112415-SG-SPDES	.04	1060mL	625/SVO	7	x	x	1.00mL	brown-opaque	1.0000 mL/84556	
18	R1510302-001	B-731 151124	.05	1060mL	625/SVO	7	x	x	1.00mL	yellow-cloudy	1.0000 mL/84556	
19	R1510266-002	FTMM-66-GW-886RW01-11.9	.05	1060mL	8270D/SVO	7	x	x	1.00mL	yellow-cloudy	1.0000 mL/84556	

Preparation Information Benchsheet

Prep Run#: 250969
Team: Semivoa GCMS/DMURPHY

Prep WorkFlow: OrgExtAq(7)
Prep Method: EPA 3510C

Status: Prepped
Prep Date/Time: 11/30/15 06:23 AM

Spiking Solutions

Name:	Color Coded BNA Surrogate Solution 10	Inventory ID	84556	Logbook Ref:	Expires On:	08/03/2017	Lot #:	2568
Name:	Benzidine LCS Spike 100ppm	Inventory ID	85804	Logbook Ref:	Expires On:	11/30/2015		
Name:	8270 LCS Mix1: 100 ug/mL	Inventory ID	85868	Logbook Ref:	Expires On:	02/28/2016	Lot #:	lc11
Name:	OLM/SOM additionals Spike 100ppm	Inventory ID	85954	Logbook Ref:	Expires On:	02/21/2016		

Preparation Steps

Step:	Extraction	Step:	Concentration	Step:	Final Volume
Started:	11/30/15 06:23	Started:	12/1/15 10:33	Started:	12/1/15 10:33
Finished:	11/30/15 17:00	Finished:	12/1/15 12:33	Finished:	12/1/15 12:33
By:	DMURPHY	By:	EBRUEN	By:	EBRUEN
Comments		Comments		Comments	

Comments: _____

Reviewed By: MPedro Date: 12/6/15 Spike Witness: MPEDRO Date: _____

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Printed 12/1/.. .5:07 Prepara.. .nformation Benchsheet

Analysis: 8270D/625 **Analyst:** BA/MP **Run Method:** 82701204.m
Date: 12/4/15 **Instr.** 5973A **Quant Method:** 82701204.m
LIMS Run#: 475128

Pos.	Sample	Diln.	Stds. ID	File#	OK?	Comments
1	Blk			DC306	Y	
2	Tune			307	N	
2	Tune			308	N	
2	Tune		85837	309	YT	
3	Blk			310	Y	
4	Std 1		86295	311	Y	
5	2		296	312	Y	
6	3		297	313	Y	
7	4		298	314	Y	
8	5		299	315	Y	
9	6		300	316	Y	
10	7		301	317	Y	
11	ICV#1		86333	318	YQ	
12	#2		85639	319	YQ	
13	RQ1514550-01	Blk	250443 11/19 w	320	Y ~~N~~	On 12/7/15 ~~RPT for MAP compounds~~ use for 625
14	02	LCS		321	YQ	
15	03	LCSD		322	YQ	
16	R1510084-001			323	N	RPT for MAP ~~compounds~~ compounds on 12/7/15
17	002			324		
18	003			325		
19	004			326		
20	005			327		
21	RQ1514550-04			328		
22	05			329		
23	R1510084-010			330		
24	012			331		
25	013			332		
26	~~R1510134~~ R1510096-001	5.0	PPL II	333	Y	
27	R1510097-001		phenol II	334	Y	
28	R1510110-009		PPL II	335	Y	
29	010			336	Y	
30	011			337	Y	
31	012			338	Y	
32	R1510115-002		PPL II	339	Y	
33	RQ1514729-01	Blk	250969 11/20 w	340	N	RPTT
34	02	LCS		341		
35	03	LCSD		342		
36	R1509900-001		phenol I	343	N	Needs alpha-ter
37	002			344		
38	003			345		
39	R1510299-001			346	N	
40	R1510302-001	5.0	PPL II	~~347~~	N	RPT 1/1

All samples = 1 mL + 10 uL Combined IS/Surr.; 84662

Primary: R1510302-001 exp: Secondary: II exp:
Primary: exp: Secondary: exp:

Runlog GCEXT r1 12/5/12

Analysis: 8270/625 **Analyst:** DMISURewicz **Run Method:** 8270 12.04.m
Date: 12/9/15 **Instr.** 5973A **Quant Method:** 8270 12.04.m
LIMS Run#: 475853

Pos.	Sample	Diln.	Stds. ID	File#	OK?	Comments
2	Tune		85837	DC451	YT	
3	CCV 80 ppm	8270 1204	86298	52	YCC	
4	CCV ↓	366E 12-07	86422	53	YCC	
5	CCV 500 ppm	HEXA 1209		54	YCC	
6	RQ1514729-01	BIL	250969	55	Y	
7	-02	LCS	(8270)	56	YQ	
8	↓ -03	LCSD		57	YQ	
9	R1510231-001	10	366E II	58	Y	
10	R1510263-001		NASA TICs III	59	Y	
11	-003			60	Y	
12	↓ -005			61	Y	
13	R1510266-001		TCL + TICs IV DOD	62	Y	
14	-002			63	Y	
15	↓ -028			64	Y	
16	R1510277-001		BEHP IV DOD	65	Y	
17	R1510134-013		250443 PAH III	66	Y	
18	RQ1514926-01	BIL	251259 10/3	67	Y	
19	-02	LCS	(8270/625)	68	YQ	
20	↓ -03	LCSD		69	YQ	
21	R1510409-007		NASP III TICs	70	Y	
22	R1510419-001		TCL II	71	Y	
23	-002			72	Y	
24	-003			73	Y	
25	-004			74	Y	
26	↓ -005			75	Y	
27	R1510426-001		366E II	76	Y	
28	CCV 80 ppm	8270 1204		77	Y	
29	RQ1514857-01	BIL	251171 10/2	78	Y	
30	-02	LCS	(625)	79	YQ	
31	↓ -03	LCSD		80	YQ	
32	R1516305-001		PPL II	81	Y	
33	R1510348-001		Phenols II 251259	82	Y	
34	R1510394-003		625 + NNP II	83	Y	
35	R1510152-001		Phenols 250879 III	84	Y	
~~36~~	~~R1510184-001~~					DM 12/9/15
36	R1510184-001	10	BEHP I	85	(N)	Didn't Run

All samples = 1 mL + 10 uL Combined IS/Surr.; 84662

Primary : exp: Secondary : exp:
Primary: exp: Secondary : exp:

Runlog GCEXT r1 12/5/12

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

January 07, 2016

Analytical Report for Service Request No: R1510346

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: FTMM Baseline/748810-03000

Dear Sandra:

Enclosed are the results of the sample(s) submitted to our laboratory on November 30, 2015. For your reference, these analyses have been assigned our service request number **R1510346**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7478. You may also contact me via email at Vanessa.Badman@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Vanessa M. Badman

Vanessa Badman
Customer Service Manager

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Environmental

Client:	Parsons Engineering Science
Service Request No.:	R1510346
Project:	FTMM Baseline 2015 Q4 GW Sampling
Date Received:	November 30, 2015
Sample Matrix:	Water

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Samples were received for analysis at ALS Environmental on 11/30/15. The samples were received in good condition and consistent with the accompanying chain of custody form. All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

Metals

Samples were analyzed for a site specific list of Metals. Please see attached report pages for method numbers.

All LCS recoveries were within limits.

Site specific QC was not requested on these samples.

All Method blanks were free of contamination, except for Aluminum, Total, Chromium, Total, and Magnesium, Total. Any hits in the samples should be considered estimated.

All samples related QC were within limits.

No other analytical or QC problems were encountered.

Volatile Organics

Samples were analyzed for a site list of Volatile Organics by Methods 5035A/8260C from SW-846.

All Tuning criteria for BFB were within QC limits.

All the initial calibration criteria were met for all analytes.

All Continuing Calibration Verification (CCV) standards were within 20% Difference (D), except for Bromomethane which recovered low.

All Internal Standard Areas (IS) were within QC limits.

All surrogate standard recoveries were acceptable.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries were within limits.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination except for 1,2,4-Trichlorobenzene, Hexachlorobutadiene, and Naphthalene. Any hits in the samples should be considered to be estimated.

In the Matrix Spike (MS), Styrene recovered low. All RPDs were within acceptable limits except for Bromomethane, which recovered high.

Due to sample matrix or non-target analyte concentrations, dilutions were performed and the MRLs adjusted accordingly. R1510346-014 was diluted due to foaming in the sample.

No other analytical or QC problems were encountered.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 748810-03000	Batch Complete: Yes	Date Revised:
Submission: R1510346	Diskette Requested: No	Date Due: 12/22/15
Client: Parsons Engineering Science	Date: 1/7/16	Protocol: SW846
Client Rep: VBADMAN	Custody Seal: Present/Absent:	Shipping No.:
Project: FTMM Baseline	Chain of Custody: Present/Absent:	SDG #:

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1510346-001	FTMM-2-GW-M2MW10-14.3	Water	8260C	11/24/15	11/30/15			
R1510346-002	FTMM-2-GW-M2MW03-12.2	Water	8260C	11/24/15	11/30/15			
R1510346-003	FTMM-2-GW-M2MW11-42	Water	8260C	11/24/15	11/30/15			
R1510346-004	FTMM-2-GW-M2MW22-14	Water	8260C	11/24/15	11/30/15			
R1510346-005	FTMM-2-GW-M2MW21-15.2	Water	8260C	11/24/15	11/30/15			
R1510346-006	FTMM-2-GW-M2MW24-14.6	Water	8260C	11/24/15	11/30/15			
R1510346-007QC	FTMM-53-GW-699MW09-9.0	Water	8260C	11/25/15	11/30/15			
R1510346-008	FTMM-53-GW-699RW11-12.8	Water	8260C, 6010C	11/25/15	11/30/15			
R1510346-009	FTMM-53-GW-699RW11-12.8 Dissolved	Water	6010C	11/25/15	11/30/15			
R1510346-010	FTMM-53-GW-699MW06-8.5	Water	6010C, 8260C	11/25/15	11/30/15			
R1510346-011	FTMM-53-GW-699MW06-8.5 Dissolved	Water	6010C	11/25/15	11/30/15			
R1510346-012	FTMM-58-GW-2567MW03-8	Water	8260C	11/25/15	11/30/15			
R1510346-013	FTMM-58-GW-2567MW01-8.3	Water	8260C	11/25/15	11/30/15			
R1510346-014	FTMM-8-GW-M2MW11-21.5	Water	8260C, 6010C	11/25/15	11/30/15			
R1510346-015	FTMM-8-GW-M2MW11-21.5 Dissolved	Water	6010C	11/25/15	11/30/15			
R1510346-016	FTMM-64-GW-812MW04-4.7	Water	8260C	11/25/15	11/30/15			
R1510346-017	EB-2015-11-24	Water	6010C, 7470A, 8260C	11/24/15	11/30/15			
R1510346-018	EB-2015-11-24 Dissolved	Water	6010C, 7470A	11/24/15	11/30/15			
R1510346-019	EB-2015-11-25	Water	6010C, 8260C	11/25/15	11/30/15			
R1510346-020	EB-2015-11-25 Dissolved	Water	6010C	11/25/15	11/30/15			
R1510346-021	TB-2015-11-25	Water	8260C	11/25/15	11/30/15			

Folder Comments: DoD reporting ERPTOOLS LOD

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name: FTMM-2015 Q4 GW	Project Number: 748810-03000
Project Manager: Cris Grill	Report CC:
Company/Address: PARSONS 100 High Street Boston, MA 02210	
Phone #: 617-749-1583	Email: cris.grill@parsons.com
Sampler's Signature:	Sampler's Printed Name: C. Watson

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ◦ 8260 ◦ 624 ◦ CLP	GC/MS SVOAs ◦ 8270 ◦ 625	GC VOAs ◦ 8021 ◦ 601/602	PESTICIDES ◦ 8081 ◦ 608	PCBs ◦ 8082 ◦ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOC + TICs 8260C including EDB + 1,2 DCA	LEAD	LEAD - Filtered *					REMARKS/ ALTERNATE DESCRIPTION
1 FTMM-2-GW-M2MW10-14.3		11/24/15	1220	GW	3								X							
2 FTMM-2-GW-M2MW03-12.2		11/24/15	1425	GW									X							
3 FTMM-2-GW-M2MW11-4.2		11/24/15	1660	GW									X							
4 FTMM-2-GW-M2MW22-14		11/24/15	1425	GW									X							
5 FTMM-2-GW-M2MW21-15.2		11/24/15	1330	GW									X							
6 FTMM-2-GW-M2MW24-14.6		11/24/15	1535	GW									X							
7 FTMM-53-GW-699MW09-9.0		11/25/15	1425	GW									X							
FTMM-53-GW-699MW09-9.0-MS		11/25/15	1425	GW									X							
FTMM-53-GW-699MW09-9.0-MSD		11/25/15	1425	GW									X							
FTMM-53-GW-699PW11-12.8		11/25/15	1105	GW	5								X	X	X					
9 FTMM-53-GW-699MW06-8.5		11/25/15	1245	GW	5								X	X	X					

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals * FIELD FILTERED

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: NJ

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
STANDARD
REQUESTED REPORT DATE
_____

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data
Edata _____ Yes _____ No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	
Printed Name	Printed Name: Michael Rogerson	Printed Name	Printed Name	Printed Name	
Firm: PARSONS	Firm: ALS	Firm	Firm	Firm	
Date/Time: 11/25/15	Date/Time: 12/1/15 0925	Date/Time	Date/Time	Date/Time	Date/Time

R1510346 5
Parsons, Inc.
FTMM Baseline

Distribution: White - Lab Copy; Yellow - Return to Originator

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

32379

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Project Name: FTMM-2015 Q4 GW	Project Number: 748810 03000
Project Manager: Cris Grill	Report CC:
Company/Address: PARSONS 100 High Street Boston, MA 02210	
Phone #: 617-449-1583	Email: cris.grill@parsons.com
Sampler's Signature: C Watson	Sampler's Printed Name: C. Watson

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1 | 2 | 2

NUMBER OF CONTAINERS | GC/MS VOAs • 8260 • 624 • CLP | GC/MS SVOAs • 8270 • 625 | GC VOAs • 8021 • 601/602 | PESTICIDES • 8081 • 608 | PCBs • 8082 • 608 | METALS, TOTAL (List in comments below) | METALS, DISSOLVED (List in comments below) | VOC + TICs 8260C Industry EDD + 1,2 DCA | VOCs - TBA only | LEAD | LEAD - Filtered * | REMARKS/ ALTERNATE DESCRIPTION

Preservative Key
0. NONE
1. HCl
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	VOC + TICs 8260C Industry EDD + 1,2 DCA	VOCs - TBA only	LEAD	LEAD - Filtered *	REMARKS/ ALTERNATE DESCRIPTION
FTMM-58-GW-2567MW03-8		11/25/15	1200	GW		X	X			TBA only -12
FTMM-58-GW-2567MW01-8.3		11/25/15	1050	GW		X	X			TBA only -13
FTMM-8-GW-MWMW11-21.5		11/25/15	1415	GW		X		X	X	
FTMM-64-GW-812MW04-47		11/25/15	1325	GW		X				
EB-2015-11-24		11/24/15	1500	W	5	X	X	X	X	
EB-2015-11-25		11/25/15	1500	W	5	X		X	X	
TB-2015-11-25		11/25/15	—	TB		X				

SPECIAL INSTRUCTIONS/COMMENTS
Metals * FIELD FILTERED

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED NJ

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
STANDARD
REQUESTED REPORT DATE
_____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ____Yes ____No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: C Watson	Signature:	Signature:	Signature:	Signature:	
Printed Name:	Printed Name: Michael Rogerson	Printed Name:	Printed Name:	Printed Name:	
Firm: PARSONS	Firm: ALS	Firm:	Firm:	Firm:	
Date/Time: 11/25/15	Date/Time: 11/27/15 0925	Date/Time:	Date/Time:	Date/Time:	Date/Time:

R1510346 5
Parsons, Inc.
FTMM Baseline

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R1510346 5
Parsons, Inc.
FTMM Baseline

Cooler Receipt and Preservation Check Form

Project/Client Parsons Folder Number _____.

Cooler received on 12/1/15 by: MAR

COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	Y (N)
2	**Custody papers** properly completed (ink, signed)?	(Y) N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N
4	Circle: **Wet Ice** **Dry Ice** **Gel packs** present?	(Y) N

5a	**Perchlorate** samples have required headspace?	Y N (NA)
5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y N NA
6	Where did the bottles originate?	(ALS/ROC) CLIENT
7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 12/1/15 Time: 0929 ID: (IR#3) IR#5 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	1.9						
Correction Factor (°C)	-0.6						
Corrected Temp (°C)	1.3						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R002 by MAR on 12/1/15 at 0935
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: VNB

Cooler Breakdown: Date: 12/1/15 Time: 1131 by: MAR

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? ~~YES~~ (NO) – MW22-14 → MW22-15?
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (~~NA~~)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3	X		BDB22147H	10/16				
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	4114070	10/16				

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: S-211-002, 092815-2A10, *071315-2AAW
Other Comments:

PC Secondary Review: VNB 12/1/15

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r9.doc 9/24/15

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/24/15 1220
Date Received: 11/30/15

Sample Name: FTMM-2-GW-M2MW10-14.3
Lab Code: R1510346-001

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 14:21		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 14:21		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 14:21		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 14:21		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 14:21		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 14:21		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 14:21		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 14:21		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 14:21		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 14:21		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 14:21		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 14:21		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 14:21		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 14:21		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 14:21		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 14:21		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 14:21		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 14:21		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 14:21		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 14:21		474713	
Acetone	ND	U	10	5.0	1.3	1	NA	12/3/15 14:21		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 14:21		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 14:21		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 14:21		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 14:21		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 14:21		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 14:21		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 14:21		474713	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1220
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-2-GW-M2MW10-14.3	**Units:**	µg/L
Lab Code:	R1510346-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 14:21		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 14:21		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 14:21		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 14:21		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 14:21		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 14:21		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 14:21		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 14:21		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 14:21		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 14:21		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 14:21		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 14:21		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 14:21		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 14:21		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 14:21		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 14:21		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 14:21		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/3/15 14:21	
Dibromofluoromethane	112	85-115	12/3/15 14:21	
Toluene-d8	101	85-120	12/3/15 14:21	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1421

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-2-GW-M2MW10-14.3	**Units:**	µg/L
Lab Code:	R1510346-001	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/24/15 1425
Date Received: 11/30/15

Sample Name: FTMM-2-GW-M2MW03-12.2
Lab Code: R1510346-002

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 14:52		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 14:52		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 14:52		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 14:52		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 14:52		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 14:52		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 14:52		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 14:52		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 14:52		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 14:52		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 14:52		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 14:52		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 14:52		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 14:52		474713	
1,4-Dichlorobenzene	**0.32**	J	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 14:52		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 14:52		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 14:52		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 14:52		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 14:52		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 14:52		474713	
Acetone	**2.5**	J	10	5.0	1.3	1	NA	12/3/15 14:52		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 14:52		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 14:52		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 14:52		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 14:52		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 14:52		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 14:52		474713	
Chlorobenzene	**2.5**	J	5.0	1.0	0.29	1	NA	12/3/15 14:52		474713	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1425
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-2-GW-M2MW03-12.2	**Units:**	µg/L
Lab Code:	R1510346-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 14:52		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 14:52		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 14:52		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 14:52		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 14:52		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 14:52		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 14:52		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 14:52		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
Tetrachloroethene (PCE)	**0.30**	J	5.0	1.0	0.30	1	NA	12/3/15 14:52		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 14:52		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 14:52		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 14:52		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 14:52		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 14:52		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 14:52		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 14:52		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 14:52		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	115	75-120	12/3/15 14:52	
Dibromofluoromethane	110	85-115	12/3/15 14:52	
Toluene-d8	105	85-120	12/3/15 14:52	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1452

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-2-GW-M2MW03-12.2	**Units:**	µg/L
Lab Code:	R1510346-002	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/24/15 1600
Date Received: 11/30/15

Sample Name: FTMM-2-GW-M2MW11-42
Lab Code: R1510346-003

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 15:22		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 15:22		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 15:22		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 15:22		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 15:22		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 15:22		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 15:22		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 15:22		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 15:22		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 15:22		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 15:22		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 15:22		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 15:22		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 15:22		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 15:22		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 15:22		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 15:22		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 15:22		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 15:22		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 15:22		474713	
Acetone	ND	U	10	5.0	1.3	1	NA	12/3/15 15:22		474713	
Benzene	**0.33**	J	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 15:22		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 15:22		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 15:22		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 15:22		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 15:22		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 15:22		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 15:22		474713	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1600
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-2-GW-M2MW11-42	**Units:**	µg/L
Lab Code:	R1510346-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 15:22		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 15:22		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 15:22		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 15:22		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 15:22		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 15:22		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 15:22		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 15:22		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 15:22		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 15:22		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 15:22		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 15:22		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 15:22		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 15:22		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 15:22		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 15:22		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 15:22		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	12/3/15 15:22	
Dibromofluoromethane	109	85-115	12/3/15 15:22	
Toluene-d8	110	85-120	12/3/15 15:22	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1522

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-2-GW-M2MW11-42	**Units:**	µg/L
Lab Code:	R1510346-003	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/24/15 1425
Date Received: 11/30/15

Sample Name: FTMM-2-GW-M2MW22-14
Lab Code: R1510346-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 15:53		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 15:53		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 15:53		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 15:53		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 15:53		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 15:53		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 15:53		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 15:53		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 15:53		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 15:53		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 15:53		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 15:53		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 15:53		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 15:53		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 15:53		474713	
2-Butanone (MEK)	**1.9**	J	10	1.0	0.81	1	NA	12/3/15 15:53		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 15:53		474713	
tert-Butyl Alcohol	**150**		100	20	11	1	NA	12/3/15 15:53		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 15:53		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 15:53		474713	
Acetone	**3.9**	J	10	5.0	1.3	1	NA	12/3/15 15:53		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 15:53		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 15:53		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 15:53		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 15:53		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 15:53		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 15:53		474713	
Chlorobenzene	**1.6**	J	5.0	1.0	0.29	1	NA	12/3/15 15:53		474713	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1425
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-2-GW-M2MW22-14	**Units:**	µg/L
Lab Code:	R1510346-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 15:53		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 15:53		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 15:53		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 15:53		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 15:53		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 15:53		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 15:53		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
Methyl tert-Butyl Ether	**73**		5.0	1.0	0.29	1	NA	12/3/15 15:53		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 15:53		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 15:53		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 15:53		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 15:53		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 15:53		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 15:53		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 15:53		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 15:53		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 15:53		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	116	75-120	12/3/15 15:53	
Dibromofluoromethane	113	85-115	12/3/15 15:53	
Toluene-d8	107	85-120	12/3/15 15:53	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1553

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-2-GW-M2MW22-14	**Units:**	µg/L
Lab Code:	R1510346-004	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q
	unknown	6.31	**34**	J
	unknown	8.28	**8.0**	J
	unknown	8.35	**24**	J
	unknown	8.71	**14**	J

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/24/15 1330
Date Received: 11/30/15

Sample Name: FTMM-2-GW-M2MW21-15.2
Lab Code: R1510346-005

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 16:24		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 16:24		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 16:24		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 16:24		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 16:24		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 16:24		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 16:24		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 16:24		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 16:24		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 16:24		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 16:24		474713	
1,2-Dichlorobenzene	**0.67**	J	5.0	1.0	0.21	1	NA	12/3/15 16:24		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 16:24		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
1,3-Dichlorobenzene	**1.4**	J	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 16:24		474713	
1,4-Dichlorobenzene	**2.7**	J	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 16:24		474713	
2-Butanone (MEK)	**2.1**	J	10	1.0	0.81	1	NA	12/3/15 16:24		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 16:24		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 16:24		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 16:24		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 16:24		474713	
Acetone	**26**		10	5.0	1.3	1	NA	12/3/15 16:24		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 16:24		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 16:24		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 16:24		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 16:24		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 16:24		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 16:24		474713	
Chlorobenzene	**20**		5.0	1.0	0.29	1	NA	12/3/15 16:24		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1330
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-2-GW-M2MW21-15.2	**Units:**	µg/L
Lab Code:	R1510346-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 16:24		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 16:24		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 16:24		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 16:24		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 16:24		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 16:24		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 16:24		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 16:24		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 16:24		474713	
Toluene	**2.8**	J	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 16:24		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 16:24		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 16:24		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 16:24		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 16:24		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 16:24		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 16:24		474713	
tert-Butylbenzene	**0.27**	J	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 16:24		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	116	75-120	12/3/15 16:24	
Dibromofluoromethane	112	85-115	12/3/15 16:24	
Toluene-d8	107	85-120	12/3/15 16:24	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1624

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-2-GW-M2MW21-15.2	**Units:**	µg/L
Lab Code:	R1510346-005	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1535
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-2-GW-M2MW24-14.6	**Units:**	µg/L
Lab Code:	R1510346-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 16:54		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 16:54		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 16:54		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 16:54		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 16:54		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 16:54		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 16:54		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 16:54		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 16:54		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 16:54		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 16:54		474713	
1,2-Dichlorobenzene	**0.33**	J	5.0	1.0	0.21	1	NA	12/3/15 16:54		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 16:54		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
1,3-Dichlorobenzene	**0.57**	J	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 16:54		474713	
1,4-Dichlorobenzene	**3.2**	J	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 16:54		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 16:54		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 16:54		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 16:54		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 16:54		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 16:54		474713	
Acetone	**1.8**	J	10	5.0	1.3	1	NA	12/3/15 16:54		474713	
Benzene	**0.33**	J	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 16:54		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 16:54		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 16:54		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 16:54		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 16:54		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 16:54		474713	
Chlorobenzene	**6.2**		5.0	1.0	0.29	1	NA	12/3/15 16:54		474713	

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1535
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-2-GW-M2MW24-14.6	**Units:**	µg/L
Lab Code:	R1510346-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 16:54		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 16:54		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 16:54		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 16:54		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 16:54		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 16:54		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 16:54		474713	
Isopropylbenzene (Cumene)	**5.9**		5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 16:54		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 16:54		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 16:54		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 16:54		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 16:54		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 16:54		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 16:54		474713	
n-Butylbenzene	**1.9**	J	5.0	1.0	0.21	1	NA	12/3/15 16:54		474713	
n-Propylbenzene	**4.4**	J	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
sec-Butylbenzene	**4.7**	J	5.0	1.0	0.27	1	NA	12/3/15 16:54		474713	
tert-Butylbenzene	**1.1**	J	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 16:54		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	12/3/15 16:54	
Dibromofluoromethane	110	85-115	12/3/15 16:54	
Toluene-d8	109	85-120	12/3/15 16:54	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/24/15
Date Received: 11/30/15
Date Analyzed: 12/3/15 1654

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-2-GW-M2MW24-14.6
Lab Code: R1510346-006

Units: µg/L
Basis: NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q
	unknown	12.24	**17**	J
000535-77-3	Benzene, 1-methyl-3-(1-methylethyl	12.62	7.7	JN
000767-58-8	Indan, 1-methyl-	12.71	**14**	JN
000095-93-2	Benzene, 1,2,4,5-tetramethyl-	12.93	**11**	JN
027133-93-3	2,3-Dihydro-1-methylindene	13.31	**23**	JN
000091-57-6	Naphthalene, 2-methyl-	14.81	**8.3**	JN

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/25/15 1425
Date Received: 11/30/15

Sample Name: FTMM-53-GW-699MW09-9.0
Lab Code: R1510346-007

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 13:51		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 13:51		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 13:51		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 13:51		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 13:51		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 13:51		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 13:51		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 13:51		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 13:51		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 13:51		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 13:51		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 13:51		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 13:51		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 13:51		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 13:51		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 13:51		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 13:51		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 13:51		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 13:51		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 13:51		474713	
Acetone	ND	U	10	5.0	1.3	1	NA	12/3/15 13:51		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 13:51		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 13:51		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 13:51		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 13:51		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 13:51		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 13:51		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 13:51		474713	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1425
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-53-GW-699MW09-9.0	**Units:**	µg/L
Lab Code:	R1510346-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 13:51		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 13:51		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 13:51		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 13:51		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 13:51		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 13:51		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 13:51		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
Methyl tert-Butyl Ether	**1.1**	J	5.0	1.0	0.29	1	NA	12/3/15 13:51		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
Tetrachloroethene (PCE)	**0.51**	J	5.0	1.0	0.30	1	NA	12/3/15 13:51		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 13:51		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 13:51		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 13:51		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 13:51		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 13:51		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 13:51		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 13:51		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 13:51		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/3/15 13:51	
Dibromofluoromethane	109	85-115	12/3/15 13:51	
Toluene-d8	113	85-120	12/3/15 13:51	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1351

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-699MW09-9.0	**Units:**	µg/L
Lab Code:	R1510346-007	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1105
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-53-GW-699RW11-12.8	**Units:**	µg/L
Lab Code:	R1510346-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 17:25		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 17:25		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 17:25		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 17:25		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 17:25		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 17:25		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 17:25		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 17:25		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 17:25		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 17:25		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 17:25		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 17:25		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 17:25		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 17:25		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 17:25		474713	
2-Butanone (MEK)	**4.0**	J	10	1.0	0.81	1	NA	12/3/15 17:25		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 17:25		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 17:25		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 17:25		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 17:25		474713	
Acetone	**5.8**	J	10	5.0	1.3	1	NA	12/3/15 17:25		474713	
Benzene	**3.3**	J	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 17:25		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 17:25		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 17:25		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 17:25		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 17:25		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 17:25		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 17:25		474713	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1105
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-53-GW-699RW11-12.8	**Units:**	µg/L
Lab Code:	R1510346-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 17:25		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 17:25		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 17:25		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 17:25		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 17:25		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 17:25		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 17:25		474713	
Isopropylbenzene (Cumene)	**4.9**	J	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 17:25		474713	
Naphthalene	**1.0**	BJ	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 17:25		474713	
Toluene	**0.23**	J	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 17:25		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 17:25		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 17:25		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 17:25		474713	
m,p-Xylenes	**0.44**	J	5.0	2.0	0.33	1	NA	12/3/15 17:25		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 17:25		474713	
n-Propylbenzene	**2.4**	J	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
sec-Butylbenzene	**1.6**	J	5.0	1.0	0.27	1	NA	12/3/15 17:25		474713	
tert-Butylbenzene	**0.34**	J	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 17:25		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	117	75-120	12/3/15 17:25	
Dibromofluoromethane	114	85-115	12/3/15 17:25	
Toluene-d8	107	85-120	12/3/15 17:25	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/25/15
Date Received: 11/30/15
Date Analyzed: 12/3/15 1725

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-53-GW-699RW11-12.8
Lab Code: R1510346-008

Units: µg/L
Basis: NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q
000078-78-4	Butane, 2-methyl-	1.83	**16**	JN
000079-29-8	Butane, 2,3-dimethyl-	2.91	**21**	JN
	unknown	2.96	**8.2**	J
000096-14-0	Pentane, 3-methyl-	3.26	**17**	JN
000108-08-7	Pentane, 2,4-dimethyl-	4.43	**8.4**	JN
	unknown	4.52	**14**	J
	unknown	5.80	**22**	J
	unknown	6.35	**16**	J
002532-58-3	Cyclopentane, 1,3-dimethyl-, cis-	7.29	**6.8**	JN
000565-75-3	Pentane, 2,3,4-trimethyl-	7.87	**7.2**	JN
	unknown	7.99	**11**	J
	unknown	12.24	**8.8**	J
027133-93-3	2,3-Dihydro-1-methylindene	12.71	**11**	JN
000488-23-3	Benzene, 1,2,3,4-tetramethyl-	12.94	**6.9**	JN
002039-89-6	Benzene, 2-ethenyl-1,4-dimethyl-	13.19	**5.7**	JN
000767-58-8	Indan, 1-methyl-	13.31	**14**	JN

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/25/15 1245
Date Received: 11/30/15

Sample Name: FTMM-53-GW-699MW06-8.5
Lab Code: R1510346-010

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 17:56		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 17:56		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 17:56		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 17:56		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 17:56		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 17:56		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 17:56		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 17:56		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 17:56		474713	
1,2,4-Trimethylbenzene	**3.9**	J	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 17:56		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 17:56		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 17:56		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 17:56		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
1,3,5-Trimethylbenzene	**0.23**	J	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 17:56		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 17:56		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 17:56		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 17:56		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 17:56		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 17:56		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 17:56		474713	
Acetone	**2.1**	J	10	5.0	1.3	1	NA	12/3/15 17:56		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 17:56		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 17:56		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 17:56		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 17:56		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 17:56		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 17:56		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 17:56		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1245
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-53-GW-699MW06-8.5	**Units:**	µg/L
Lab Code:	R1510346-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 17:56		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 17:56		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 17:56		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 17:56		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 17:56		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 17:56		474713	
Ethylbenzene	**4.0**	J	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 17:56		474713	
Isopropylbenzene (Cumene)	**0.74**	J	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 17:56		474713	
Naphthalene	**0.64**	BJ	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 17:56		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 17:56		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 17:56		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 17:56		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 17:56		474713	
m,p-Xylenes	**2.9**	J	5.0	2.0	0.33	1	NA	12/3/15 17:56		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 17:56		474713	
n-Propylbenzene	**0.81**	J	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
o-Xylene	**0.38**	J	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 17:56		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 17:56		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	12/3/15 17:56	
Dibromofluoromethane	108	85-115	12/3/15 17:56	
Toluene-d8	108	85-120	12/3/15 17:56	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1756

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-699MW06-8.5	**Units:**	µg/L
Lab Code:	R1510346-010	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1200
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-58-GW-2567MW03-8	**Units:**	µg/L
Lab Code:	R1510346-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
2-Methyl-2-propanol	ND	U	100	20	11	1	NA	12/3/15 18:26		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	12/3/15 18:26	
Dibromofluoromethane	112	85-115	12/3/15 18:26	
Toluene-d8	98	85-120	12/3/15 18:26	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1826

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-58-GW-2567MW03-8	**Units:**	µg/L
Lab Code:	R1510346-012	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1050
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-58-GW-2567MW01-8.3	**Units:**	µg/L
Lab Code:	R1510346-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
2-Methyl-2-propanol	**240**		100	20	11	1	NA	12/3/15 18:57		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	12/3/15 18:57	
Dibromofluoromethane	111	85-115	12/3/15 18:57	
Toluene-d8	101	85-120	12/3/15 18:57	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1857

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-58-GW-2567MW01-8.3	**Units:**	µg/L
Lab Code:	R1510346-013	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1415
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-8-GW-M2MW11-21.5	**Units:**	µg/L
Lab Code:	R1510346-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	50	10	2.2	10	NA	12/3/15 19:58		474713	
1,1,1-Trichloroethane (TCA)	ND	U	50	10	3.6	10	NA	12/3/15 19:58		474713	
1,1,2,2-Tetrachloroethane	ND	U	50	10	2.5	10	NA	12/3/15 19:58		474713	
1,1,2-Trichloroethane	ND	U	50	10	3.5	10	NA	12/3/15 19:58		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	50	10	5.7	10	NA	12/3/15 19:58		474713	
1,1-Dichloropropene	ND	U	50	10	2.9	10	NA	12/3/15 19:58		474713	
1,2,3-Trichlorobenzene	ND	U	50	10	8.2	10	NA	12/3/15 19:58		474713	
1,2,3-Trichloropropane	ND	U	50	10	7.0	10	NA	12/3/15 19:58		474713	
1,2,4-Trichlorobenzene	ND	U	50	10	2.4	10	NA	12/3/15 19:58		474713	
1,2,4-Trimethylbenzene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	50	10	7.4	10	NA	12/3/15 19:58		474713	
1,2-Dibromoethane	ND	U	50	10	2.4	10	NA	12/3/15 19:58		474713	
1,2-Dichlorobenzene	ND	U	50	10	2.1	10	NA	12/3/15 19:58		474713	
1,2-Dichloroethane	ND	U	50	10	3.6	10	NA	12/3/15 19:58		474713	
1,2-Dichloropropane	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
1,3,5-Trimethylbenzene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
1,3-Dichlorobenzene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
1,3-Dichloropropane	ND	U	50	10	2.7	10	NA	12/3/15 19:58		474713	
1,4-Dichlorobenzene	**3.8**	J	50	10	2.0	10	NA	12/3/15 19:58		474713	
2,2-Dichloropropane	ND	U	50	10	2.7	10	NA	12/3/15 19:58		474713	
2-Butanone (MEK)	ND	U	100	10	8.2	10	NA	12/3/15 19:58		474713	
2-Chlorotoluene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
2-Hexanone	ND	U	100	50	17	10	NA	12/3/15 19:58		474713	
tert-Butyl Alcohol	ND	U	1000	200	110	10	NA	12/3/15 19:58		474713	
4-Chlorotoluene	ND	U	50	10	2.4	10	NA	12/3/15 19:58		474713	
p-Isopropyltoluene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
4-Methyl-2-pentanone	ND	U	100	10	6.7	10	NA	12/3/15 19:58		474713	
Acetone	**26**	J	100	50	13	10	NA	12/3/15 19:58		474713	
Benzene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
Bromobenzene	ND	U	50	10	2.9	10	NA	12/3/15 19:58		474713	
Bromochloromethane	ND	U	50	10	3.2	10	NA	12/3/15 19:58		474713	
Bromodichloromethane	ND	U	50	10	3.2	10	NA	12/3/15 19:58		474713	
Bromoform	ND	U	50	10	4.2	10	NA	12/3/15 19:58		474713	
Bromomethane	ND	U	50	10	2.9	10	NA	12/3/15 19:58		474713	
Carbon Tetrachloride	ND	U	50	10	4.5	10	NA	12/3/15 19:58		474713	
Chlorobenzene	**6.4**	J	50	10	2.9	10	NA	12/3/15 19:58		474713	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1415
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-8-GW-M2MW11-21.5	**Units:**	µg/L
Lab Code:	R1510346-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	50	10	2.4	10	NA	12/3/15 19:58		474713	
Chloroform	**3.0**	J	50	10	2.5	10	NA	12/3/15 19:58		474713	
Chloromethane	ND	U	50	10	2.1	10	NA	12/3/15 19:58		474713	
Dibromochloromethane	ND	U	50	10	3.1	10	NA	12/3/15 19:58		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	50	10	4.7	10	NA	12/3/15 19:58		474713	
Methylene Chloride	ND	U	50	10	6.0	10	NA	12/3/15 19:58		474713	
Ethylbenzene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
Hexachlorobutadiene	ND	U	50	10	6.2	10	NA	12/3/15 19:58		474713	
Isopropylbenzene (Cumene)	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
Methyl tert-Butyl Ether	ND	U	50	10	2.9	10	NA	12/3/15 19:58		474713	
Naphthalene	**3.2**	BJ	50	10	2.0	10	NA	12/3/15 19:58		474713	
Styrene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
Tetrachloroethene (PCE)	ND	U	50	10	3.0	10	NA	12/3/15 19:58		474713	
Toluene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
Trichloroethene (TCE)	ND	U	50	10	2.2	10	NA	12/3/15 19:58		474713	
Trichlorofluoromethane (CFC 11)	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
Vinyl Chloride	ND	U	50	10	3.2	10	NA	12/3/15 19:58		474713	
cis-1,2-Dichloroethene	ND	U	50	10	3.0	10	NA	12/3/15 19:58		474713	
cis-1,3-Dichloropropene	ND	U	50	10	2.4	10	NA	12/3/15 19:58		474713	
m,p-Xylenes	ND	U	50	20	3.4	10	NA	12/3/15 19:58		474713	
n-Butylbenzene	ND	U	50	10	2.1	10	NA	12/3/15 19:58		474713	
n-Propylbenzene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
o-Xylene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
sec-Butylbenzene	ND	U	50	10	2.7	10	NA	12/3/15 19:58		474713	
tert-Butylbenzene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
trans-1,2-Dichloroethene	ND	U	50	10	3.4	10	NA	12/3/15 19:58		474713	
trans-1,3-Dichloropropene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	12/3/15 19:58	
Dibromofluoromethane	114	85-115	12/3/15 19:58	
Toluene-d8	109	85-120	12/3/15 19:58	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1958

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-8-GW-M2MW11-21.5	**Units:**	µg/L
Lab Code:	R1510346-014	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/25/15 1325
Date Received: 11/30/15

Sample Name: FTMM-64-GW-812MW04-4.7
Lab Code: R1510346-016

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 19:28		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 19:28		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 19:28		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 19:28		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 19:28		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 19:28		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 19:28		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 19:28		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 19:28		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 19:28		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 19:28		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 19:28		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 19:28		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 19:28		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 19:28		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 19:28		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 19:28		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 19:28		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 19:28		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 19:28		474713	
Acetone	**2.2**	J	10	5.0	1.3	1	NA	12/3/15 19:28		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 19:28		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 19:28		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 19:28		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 19:28		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 19:28		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 19:28		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 19:28		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1325
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-64-GW-812MW04-4.7	**Units:**	µg/L
Lab Code:	R1510346-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 19:28		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 19:28		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 19:28		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 19:28		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 19:28		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 19:28		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 19:28		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 19:28		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 19:28		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 19:28		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 19:28		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 19:28		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 19:28		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 19:28		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 19:28		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 19:28		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 19:28		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	115	75-120	12/3/15 19:28	
Dibromofluoromethane	112	85-115	12/3/15 19:28	
Toluene-d8	111	85-120	12/3/15 19:28	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1928

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-64-GW-812MW04-4.7	**Units:**	µg/L
Lab Code:	R1510346-016	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1500
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	EB-2015-11-24	**Units:**	µg/L
Lab Code:	R1510346-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 12:49		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 12:49		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 12:49		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 12:49		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 12:49		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 12:49		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 12:49		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 12:49		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 12:49		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 12:49		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 12:49		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 12:49		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 12:49		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 12:49		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 12:49		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 12:49		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 12:49		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 12:49		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 12:49		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 12:49		474713	
Acetone	**12**		10	5.0	1.3	1	NA	12/3/15 12:49		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 12:49		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 12:49		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 12:49		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 12:49		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 12:49		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 12:49		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 12:49		474713	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1500
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	EB-2015-11-24	**Units:**	µg/L
Lab Code:	R1510346-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 12:49		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 12:49		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 12:49		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 12:49		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 12:49		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 12:49		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 12:49		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 12:49		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 12:49		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 12:49		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 12:49		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 12:49		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 12:49		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 12:49		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 12:49		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 12:49		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 12:49		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/3/15 12:49	
Dibromofluoromethane	110	85-115	12/3/15 12:49	
Toluene-d8	112	85-120	12/3/15 12:49	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1249

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-24	**Units:**	µg/L
Lab Code:	R1510346-017	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/25/15 1500
Date Received: 11/30/15

Sample Name: EB-2015-11-25
Lab Code: R1510346-019

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 13:20		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 13:20		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 13:20		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 13:20		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 13:20		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 13:20		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 13:20		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 13:20		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 13:20		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 13:20		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 13:20		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 13:20		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 13:20		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 13:20		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 13:20		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 13:20		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 13:20		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 13:20		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 13:20		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 13:20		474713	
Acetone	**12**		10	5.0	1.3	1	NA	12/3/15 13:20		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 13:20		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 13:20		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 13:20		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 13:20		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 13:20		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 13:20		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 13:20		474713	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1500
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	EB-2015-11-25	**Units:**	µg/L
Lab Code:	R1510346-019	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 13:20		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 13:20		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 13:20		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 13:20		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 13:20		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 13:20		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 13:20		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 13:20		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 13:20		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 13:20		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 13:20		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 13:20		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 13:20		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 13:20		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 13:20		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 13:20		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 13:20		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	12/3/15 13:20	
Dibromofluoromethane	109	85-115	12/3/15 13:20	
Toluene-d8	110	85-120	12/3/15 13:20	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1320

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-25	**Units:**	µg/L
Lab Code:	R1510346-019	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	TB-2015-11-25	**Units:**	µg/L
Lab Code:	R1510346-021	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 12:19		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 12:19		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 12:19		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 12:19		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 12:19		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 12:19		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 12:19		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 12:19		474713	
1,2,4-Trichlorobenzene	**0.25**	BJ	5.0	1.0	0.23	1	NA	12/3/15 12:19		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 12:19		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 12:19		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 12:19		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 12:19		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 12:19		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 12:19		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 12:19		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 12:19		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 12:19		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 12:19		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 12:19		474713	
Acetone	ND	U	10	5.0	1.3	1	NA	12/3/15 12:19		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 12:19		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 12:19		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 12:19		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 12:19		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 12:19		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 12:19		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 12:19		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	TB-2015-11-25	**Units:**	µg/L
Lab Code:	R1510346-021	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 12:19		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 12:19		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 12:19		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 12:19		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 12:19		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 12:19		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 12:19		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 12:19		474713	
Naphthalene	**0.23**	BJ	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 12:19		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 12:19		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 12:19		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 12:19		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 12:19		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 12:19		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 12:19		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 12:19		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 12:19		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	75-120	12/3/15 12:19	
Dibromofluoromethane	109	85-115	12/3/15 12:19	
Toluene-d8	109	85-120	12/3/15 12:19	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1219

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	TB-2015-11-25	**Units:**	µg/L
Lab Code:	R1510346-021	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1514947-04

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 11:48		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 11:48		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 11:48		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 11:48		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 11:48		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 11:48		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 11:48		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 11:48		474713	
1,2,4-Trichlorobenzene	0.37	J	5.0	1.0	0.23	1	NA	12/3/15 11:48		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 11:48		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 11:48		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 11:48		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 11:48		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 11:48		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 11:48		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 11:48		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 11:48		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 11:48		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 11:48		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 11:48		474713	
Acetone	ND	U	10	5.0	1.3	1	NA	12/3/15 11:48		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 11:48		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 11:48		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 11:48		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 11:48		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 11:48		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 11:48		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 11:48		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514947-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 11:48		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 11:48		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 11:48		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 11:48		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 11:48		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 11:48		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
Hexachlorobutadiene	**0.75**	J	5.0	1.0	0.62	1	NA	12/3/15 11:48		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 11:48		474713	
Naphthalene	**0.38**	J	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 11:48		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 11:48		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 11:48		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 11:48		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 11:48		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 11:48		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 11:48		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 11:48		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 11:48		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	12/3/15 11:48	
Dibromofluoromethane	111	85-115	12/3/15 11:48	
Toluene-d8	113	85-120	12/3/15 11:48	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/3/15 1148

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514947-04	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/25/15
Date Received: 11/30/15
Date Analyzed: 12/ 3/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-53-GW-699MW09-9.0
Lab Code: R1510346-007

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		FTMM-53-GW-699MW09-9.0 MS Matrix Spike RQ1514947-05			FTMM-53-GW-699MW09-9.0 DMS Duplicate Matrix Spike RQ1514947-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1,2-Tetrachloroethane	ND	45.7	50.0	91	47.0	50.0	94	80 - 130	3	30
1,1,1-Trichloroethane (TCA)	ND	51.8	50.0	104	51.8	50.0	104	65 - 130	<1	30
1,1,2,2-Tetrachloroethane	ND	50.3	50.0	100	51.9	50.0	104	65 - 130	3	30
1,1,2-Trichloroethane	ND	51.2	50.0	102	52.1	50.0	104	75 - 125	2	30
1,1-Dichloroethane (1,1-DCA)	ND	53.8	50.0	108	54.3	50.0	108	70 - 135	<1	30
1,1-Dichloroethene (1,1-DCE)	ND	50.2	50.0	100	52.4	50.0	105	70 - 130	4	30
1,1-Dichloropropene	ND	53.1	50.0	106	55.2	50.0	110	75 - 130	4	30
1,2,3-Trichlorobenzene	ND	45.8	50.0	92	51.4	50.0	103	55 - 140	12	30
1,2,3-Trichloropropane	ND	50.5	50.0	101	53.1	50.0	106	75 - 125	5	30
1,2,4-Trichlorobenzene	ND	44.8	50.0	90	50.1	50.0	100	65 - 135	11	30
1,2,4-Trimethylbenzene	ND	43.1	50.0	86	42.9	50.0	86	75 - 130	<1	30
1,2-Dibromo-3-chloropropane (DBC	ND	44.9	50.0	90	47.2	50.0	94	50 - 130	5	30
1,2-Dibromoethane	ND	47.8	50.0	96	49.1	50.0	98	80 - 120	3	30
1,2-Dichlorobenzene	ND	48.1	50.0	96	49.9	50.0	100	70 - 120	4	30
1,2-Dichloroethane	ND	50.9	50.0	102	52.2	50.0	104	70 - 130	3	30
1,2-Dichloropropane	ND	53.3	50.0	107	54.4	50.0	109	75 - 125	2	30
1,3,5-Trimethylbenzene	ND	45.5	50.0	91	46.3	50.0	93	75 - 130	2	30
1,3-Dichlorobenzene	ND	47.8	50.0	96	48.8	50.0	98	75 - 125	2	30
1,3-Dichloropropane	ND	51.3	50.0	103	51.4	50.0	103	75 - 125	<1	30
1,4-Dichlorobenzene	ND	49.7	50.0	99	51.2	50.0	102	75 - 125	3	30
2,2-Dichloropropane	ND	49.1	50.0	98	48.4	50.0	97	70 - 135	1	30
2-Butanone (MEK)	ND	48.4	50.0	97	51.0	50.0	102	30 - 150	5	30
2-Chlorotoluene	ND	50.0	50.0	100	51.4	50.0	103	75 - 125	3	30
2-Hexanone	ND	46.7	50.0	93	50.4	50.0	101	55 - 130	8	30
tert-Butyl Alcohol	ND	1080	1000	108	1160	1000	116	50 - 150	7	30
4-Chlorotoluene	ND	47.8	50.0	96	49.9	50.0	100	75 - 130	4	30
p-Isopropyltoluene	ND	48.3	50.0	97	49.7	50.0	99	75 - 130	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/25/15
Date Received: 11/30/15
Date Analyzed: 12/ 3/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-53-GW-699MW09-9.0
Lab Code: R1510346-007

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		FTMM-53-GW-699MW09-9.0 MS Matrix Spike RQ1514947-05				FTMM-53-GW-699MW09-9.0 DMS Duplicate Matrix Spike RQ1514947-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**		**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
4-Methyl-2-pentanone	ND	51.3	50.0	103		54.6	50.0	109	60 - 135	6	30
Acetone	ND	38.7	50.0	77		40.0	50.0	80	40 - 140	3	30
Benzene	ND	51.1	50.0	102		52.1	50.0	104	80 - 120	2	30
Bromobenzene	ND	48.2	50.0	96		50.1	50.0	100	75 - 125	4	30
Bromochloromethane	ND	49.4	50.0	99		46.6	50.0	93	65 - 130	6	30
Bromodichloromethane	ND	46.9	50.0	94		47.5	50.0	95	75 - 120	1	30
Bromoform	ND	37.7	50.0	75		37.8	50.0	76	70 - 130	<1	30
Bromomethane	ND	21.1	50.0	42		30.4	50.0	61	30 - 145	36 *	30
Carbon Tetrachloride	ND	44.5	50.0	89		44.4	50.0	89	65 - 140	<1	30
Chlorobenzene	ND	48.3	50.0	97		48.7	50.0	97	80 - 120	<1	30
Chloroethane	ND	52.4	50.0	105		51.9	50.0	104	60 - 135	<1	30
Chloroform	ND	48.5	50.0	97		48.5	50.0	97	65 - 135	<1	30
Chloromethane	ND	47.0	50.0	94		47.4	50.0	95	40 - 125	<1	30
Dibromochloromethane	ND	42.6	50.0	85		42.6	50.0	85	60 - 135	<1	30
Dichlorodifluoromethane (CFC 12)	ND	52.5	50.0	105		53.1	50.0	106	30 - 155	1	30
Methylene Chloride	ND	48.8	50.0	98		50.2	50.0	100	55 - 140	3	30
Ethylbenzene	ND	47.9	50.0	96		48.5	50.0	97	75 - 125	1	30
Hexachlorobutadiene	ND	45.7	50.0	91		48.5	50.0	97	50 - 140	6	30
Isopropylbenzene (Cumene)	ND	46.5	50.0	93		48.3	50.0	97	75 - 125	4	30
Methyl tert-Butyl Ether	1.1	50.9	50.0	100		51.8	50.0	101	65 - 125	2	30
Naphthalene	ND	46.8	50.0	94		53.3	50.0	107	55 - 140	13	30
Styrene	ND	29.9	50.0	60	*	39.0	50.0	78	65 - 135	26	30
Tetrachloroethene (PCE)	0.51	49.3	50.0	98		49.0	50.0	97	45 - 150	<1	30
Toluene	ND	50.9	50.0	102		51.5	50.0	103	75 - 120	1	30
Trichloroethene (TCE)	ND	47.2	50.0	94		49.5	50.0	99	70 - 125	5	30
Trichlorofluoromethane (CFC 11)	ND	52.8	50.0	106		54.1	50.0	108	60 - 145	2	30
Vinyl Chloride	ND	50.3	50.0	101		51.9	50.0	104	50 - 145	3	30

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/25/15
Date Received: 11/30/15
Date Analyzed: 12/ 3/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-53-GW-699MW09-9.0
Lab Code: R1510346-007

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		FTMM-53-GW-699MW09-9.0 MS Matrix Spike RQ1514947-05			FTMM-53-GW-699MW09-9.0 DMS Duplicate Matrix Spike RQ1514947-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
cis-1,2-Dichloroethene	ND	50.4	50.0	101	51.0	50.0	102	70 - 125	1	30
cis-1,3-Dichloropropene	ND	37.3	50.0	75	43.2	50.0	86	70 - 130	15	30
m,p-Xylenes	ND	94.5	100	94	93.7	100	94	75 - 130	<1	30
n-Butylbenzene	ND	47.6	50.0	95	49.8	50.0	100	70 - 135	5	30
n-Propylbenzene	ND	47.1	50.0	94	49.2	50.0	98	70 - 130	4	30
o-Xylene	ND	46.7	50.0	93	47.2	50.0	94	80 - 120	1	30
sec-Butylbenzene	ND	46.2	50.0	92	48.0	50.0	96	70 - 125	4	30
tert-Butylbenzene	ND	46.4	50.0	93	48.9	50.0	98	70 - 130	5	30
trans-1,2-Dichloroethene	ND	50.1	50.0	100	51.8	50.0	104	60 - 140	3	30
trans-1,3-Dichloropropene	ND	38.0	50.0	76	44.9	50.0	90	55 - 140	17	30

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Analyzed: 12/ 3/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474713

Lab Control Sample
RQ1514947-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	19.2	20.0	96	80 - 130
1,1,1-Trichloroethane (TCA)	20.7	20.0	103	65 - 130
1,1,2,2-Tetrachloroethane	19.7	20.0	98	65 - 130
1,1,2-Trichloroethane	20.7	20.0	104	75 - 125
1,1-Dichloroethane (1,1-DCA)	21.7	20.0	109	70 - 135
1,1-Dichloroethene (1,1-DCE)	20.9	20.0	104	70 - 130
1,1-Dichloropropene	21.8	20.0	109	75 - 130
1,2,3-Trichlorobenzene	22.4	20.0	112	55 - 140
1,2,3-Trichloropropane	19.4	20.0	97	75 - 125
1,2,4-Trichlorobenzene	21.9	20.0	109	65 - 135
1,2,4-Trimethylbenzene	21.2	20.0	106	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	17.0	20.0	85	50 - 130
1,2-Dibromoethane	19.1	20.0	96	80 - 120
1,2-Dichlorobenzene	20.6	20.0	103	70 - 120
1,2-Dichloroethane	21.4	20.0	107	70 - 130
1,2-Dichloropropane	22.4	20.0	112	75 - 125
1,3,5-Trimethylbenzene	21.3	20.0	106	75 - 130
1,3-Dichlorobenzene	20.4	20.0	102	75 - 125
1,3-Dichloropropane	20.7	20.0	104	75 - 125
1,4-Dichlorobenzene	21.4	20.0	107	75 - 125
2,2-Dichloropropane	20.6	20.0	103	70 - 135
2-Butanone (MEK)	18.4	20.0	92	30 - 150
2-Chlorotoluene	21.6	20.0	108	75 - 125
2-Hexanone	17.9	20.0	89	55 - 130
tert-Butyl Alcohol	400	400	100	50 - 150
4-Chlorotoluene	21.2	20.0	106	75 - 130
p-Isopropyltoluene	21.9	20.0	109	75 - 130
4-Methyl-2-pentanone	19.6	20.0	98	60 - 135
Acetone	16.9	20.0	84	40 - 140
Benzene	21.3	20.0	106	80 - 120
Bromobenzene	21.2	20.0	106	75 - 125
Bromochloromethane	19.9	20.0	100	65 - 130
Bromodichloromethane	19.9	20.0	99	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Analyzed: 12/ 3/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474713

Lab Control Sample
RQ1514947-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	17.4	20.0	87	70 - 130
Bromomethane	16.6	20.0	83	30 - 145
Carbon Tetrachloride	19.9	20.0	99	65 - 140
Chlorobenzene	20.7	20.0	104	80 - 120
Chloroethane	21.0	20.0	105	60 - 135
Chloroform	19.9	20.0	99	65 - 135
Chloromethane	19.8	20.0	99	40 - 125
Dibromochloromethane	18.9	20.0	94	60 - 135
Dichlorodifluoromethane (CFC 12)	21.9	20.0	110	30 - 155
Methylene Chloride	19.9	20.0	100	55 - 140
Ethylbenzene	20.0	20.0	100	75 - 125
Hexachlorobutadiene	22.9	20.0	114	50 - 140
Isopropylbenzene (Cumene)	20.4	20.0	102	75 - 125
Methyl tert-Butyl Ether	20.2	20.0	101	65 - 125
Naphthalene	21.6	20.0	108	55 - 140
Styrene	20.6	20.0	103	65 - 135
Tetrachloroethene (PCE)	20.4	20.0	102	45 - 150
Toluene	21.3	20.0	106	75 - 120
Trichloroethene (TCE)	20.0	20.0	100	70 - 125
Trichlorofluoromethane (CFC 11)	21.7	20.0	108	60 - 145
Vinyl Chloride	20.8	20.0	104	50 - 145
cis-1,2-Dichloroethene	20.5	20.0	103	70 - 125
cis-1,3-Dichloropropene	20.1	20.0	101	70 - 130
m,p-Xylenes	40.3	40.0	101	75 - 130
n-Butylbenzene	22.2	20.0	111	70 - 135
n-Propylbenzene	20.8	20.0	104	70 - 130
o-Xylene	20.3	20.0	102	80 - 120
sec-Butylbenzene	20.3	20.0	102	70 - 125
tert-Butylbenzene	20.2	20.0	101	70 - 130
trans-1,2-Dichloroethene	21.1	20.0	106	60 - 140
trans-1,3-Dichloropropene	21.1	20.0	106	55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

METALS
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: R1510346 SDG No.: FTMM-53-GW-

Lab Code: Case No.: SAS No.:

SOW No.: SW846 CLP-M

Sample ID.	Lab Sample No.
FTMM-53-GW-699RW11-12.8	R1510346-008
FTMM-53-GW-699RW11-12.8D	R1510346-008D
FTMM-53-GW-699RW11-12.8S	R1510346-008S
FTMM-53-GW-699RW11-12.8 Dissol	R1510346-009
FTMM-53-GW-699MW06-8.5	R1510346-010
FTMM-53-GW-699MW06-8.5 Dissolv	R1510346-011
FTMM-8-GW-M2MW11-21.5	R1510346-014
FTMM-8-GW-M2MW11-21.5 Dissolve	R1510346-015
EB-2015-11-24	R1510346-017
EB-2015-11-24 Dissolved	R1510346-018
EB-2015-11-25	R1510346-019
EB-2015-11-25 Dissolved	R1510346-020

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments: See Attatched Case Narrative

Signature: Vanessa N. Badman Name: Vanessa N. Badman

Date: 1/8/16 Title: Project Manager

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510346
Project Name:
Matrix: WATER

Service Request: FTMM-53-GW-699RW11-12.8
Date Collected: 11/25/2015
Date Received: 11/30/2015
Units: ug/L
Basis:

Sample Name: FTMM-53-GW-699RW11-12.8 **Lab Code:** R1510346-008

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.5	U	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client:	Parsons Engineering Science	**Service Request:**	FTMM-53-GW-699RW11-12.8
Project No.:	R1510346	**Date Collected:**	11/25/2015
Project Name:		**Date Received:**	11/30/2015
Matrix:	WATER	**Units:**	ug/L
		Basis:	

Sample Name: FTMM-53-GW-699RW11-12.8 Dissolv **Lab Code:** R1510346-009

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.5	U	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client:	Parsons Engineering Science	**Service Request:**	FTMM-53-GW-699RW11-12.8
Project No.:	R1510346	**Date Collected:**	11/25/2015
Project Name:		**Date Received:**	11/30/2015
Matrix:	WATER	**Units:**	ug/L
		Basis:	

Sample Name: FTMM-53-GW-699MW06-8.5 **Lab Code:** R1510346-010

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.5	U	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client:	Parsons Engineering Science	**Service Request:**	FTMM-53-GW-699RW11-12.8
Project No.:	R1510346	**Date Collected:**	11/25/2015
Project Name:		**Date Received:**	11/30/2015
Matrix:	WATER	**Units:**	ug/L
		Basis:	

Sample Name: FTMM-53-GW-699MW06-8.5 Dissolve **Lab Code:** R1510346-011

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.5	U	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510346
Project Name:
Matrix: WATER

Service Request: FTMM-53-GW-699RW11-12.8
Date Collected: 11/25/2015
Date Received: 11/30/2015
Units: ug/L
Basis:

Sample Name: FTMM-8-GW-M2MW11-21.5 **Lab Code:** R1510346-014

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	211		

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client:	Parsons Engineering Science	**Service Request:**	FTMM-53-GW-699RW11-12.8
Project No.:	R1510346	**Date Collected:**	11/25/2015
Project Name:		**Date Received:**	11/30/2015
Matrix:	WATER	**Units:**	ug/L
		Basis:	

Sample Name: FTMM-8-GW-M2MW11-21.5 Dissolved **Lab Code:** R1510346-015

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.5	U	

% Solids: 0.0

Comments:

ALS Environmental

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510346
Project Name:
Matrix: WATER

Service Request: FTMM-53-GW-699RW11-12.8
Date Collected: 11/24/2015
Date Received: 11/30/2015
Units: ug/L
Basis:

Sample Name: EB-2015-11-24 **Lab Code:** R1510346-017

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Silver	6010C	10.0	5.0	0.540	1.0	12/07/15	12/17/15	5.0	U	
Aluminum	6010C	100	50.0	3.8	1.0	12/07/15	12/17/15	30.6	J	
Arsenic	6010C	10.0	5.0	1.1	1.0	12/07/15	12/18/15	5.0	U	
Barium	6010C	20.0	10.0	0.671	1.0	12/07/15	12/17/15	1.1	J	
Beryllium	6010C	3.0	2.5	0.120	1.0	12/07/15	12/17/15	2.5	U	
Calcium	6010C	1000	500	26.6	1.0	12/07/15	12/17/15	33.6	J	
Cobalt	6010C	50.0	25.0	0.366	1.0	12/07/15	12/17/15	25.0	U	
Chromium	6010C	10.0	5.0	0.240	1.0	12/07/15	12/17/15	0.601	J	
Copper	6010C	20.0	10.0	1.9	1.0	12/07/15	12/17/15	10.0	U	
Iron	6010C	100	50.0	8.7	1.0	12/07/15	12/18/15	14.2	J	
Potassium	6010C	2000	1000	44.4	1.0	12/07/15	12/17/15	1000	U	
Magnesium	6010C	1000	500	9.0	1.0	12/07/15	12/17/15	58.5	J	
Cadmium	6010C	5.0	2.5	0.196	1.0	12/07/15	12/18/15	2.5	U	
Manganese	6010C	10.0	5.0	0.499	1.0	12/07/15	12/17/15	1.0	J	
Mercury	7470A	0.200	0.100	0.040	1.0	12/16/15	12/16/15	0.100	U	
Sodium	6010C	1000	500	37.5	1.0	12/07/15	12/17/15	104	J	
Nickel	6010C	40.0	20.0	0.755	1.0	12/07/15	12/17/15	20.0	U	
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.5	U	
Antimony	6010C	60.0	30.0	1.3	1.0	12/07/15	12/18/15	30.0	U	
Selenium	6010C	10.0	5.0	4.0	1.0	12/07/15	12/17/15	5.0	U	
Thallium	6010C	10.0	10.0	1.6	1.0	12/07/15	12/17/15	10.0	U	
Vanadium	6010C	50.0	25.0	0.479	1.0	12/07/15	12/17/15	25.0	U	
Zinc	6010C	20.0	10.0	6.2	1.0	12/07/15	12/17/15	10.0	U	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510346
Project Name:
Matrix: WATER

Service Request: FTMM-53-GW-699RW11-12.8
Date Collected: 11/24/2015
Date Received: 11/30/2015
Units: ug/L
Basis:

Sample Name: EB-2015-11-24 Dissolved **Lab Code:** R1510346-018

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Silver	6010C	10.0	5.0	0.540	1.0	12/07/15	12/17/15	5.0	U	
Aluminum	6010C	100	50.0	3.8	1.0	12/07/15	12/17/15	50.0	U	
Arsenic	6010C	10.0	5.0	1.1	1.0	12/07/15	12/18/15	5.0	U	
Barium	6010C	20.0	10.0	0.671	1.0	12/07/15	12/17/15	10.0	U	
Beryllium	6010C	3.0	2.5	0.120	1.0	12/07/15	12/17/15	2.5	U	
Calcium	6010C	1000	500	26.6	1.0	12/07/15	12/17/15	500	U	
Cobalt	6010C	50.0	25.0	0.366	1.0	12/07/15	12/17/15	25.0	U	
Chromium	6010C	10.0	5.0	0.240	1.0	12/07/15	12/17/15	5.0	U	
Copper	6010C	20.0	10.0	1.9	1.0	12/07/15	12/17/15	10.0	U	
Iron	6010C	100	50.0	8.7	1.0	12/07/15	12/18/15	12.6	J	
Potassium	6010C	2000	1000	44.4	1.0	12/07/15	12/17/15	60.4	J	
Magnesium	6010C	1000	500	9.0	1.0	12/07/15	12/17/15	500	U	
Cadmium	6010C	5.0	2.5	0.196	1.0	12/07/15	12/18/15	2.5	U	
Manganese	6010C	10.0	5.0	0.499	1.0	12/07/15	12/17/15	5.0	U	
Mercury	7470A	0.200	0.100	0.040	1.0	12/16/15	12/16/15	0.100	U	
Sodium	6010C	1000	500	37.5	1.0	12/07/15	12/17/15	49.0	J	
Nickel	6010C	40.0	20.0	0.755	1.0	12/07/15	12/17/15	20.0	U	
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.3	J	
Antimony	6010C	60.0	30.0	1.3	1.0	12/07/15	12/18/15	30.0	U	
Selenium	6010C	10.0	5.0	4.0	1.0	12/07/15	12/17/15	5.0	U	
Thallium	6010C	10.0	10.0	1.6	1.0	12/07/15	12/17/15	10.0	U	
Vanadium	6010C	50.0	25.0	0.479	1.0	12/07/15	12/17/15	25.0	U	
Zinc	6010C	20.0	10.0	6.2	1.0	12/07/15	12/17/15	10.0	U	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client:	Parsons Engineering Science	**Service Request:**	FTMM-53-GW-699RW11-12.8
Project No.:	R1510346	**Date Collected:**	11/25/2015
Project Name:		**Date Received:**	11/30/2015
Matrix:	WATER	**Units:**	ug/L
		Basis:	

Sample Name: EB-2015-11-25 **Lab Code:** R1510346-019

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.5	U	

% Solids: 0.0

Comments:

ALS Environmental

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client:	Parsons Engineering Science	**Service Request:**	FTMM-53-GW-699RW11-12.8
Project No.:	R1510346	**Date Collected:**	11/25/2015
Project Name:		**Date Received:**	11/30/2015
Matrix:	WATER	**Units:**	ug/L
		Basis:	

Sample Name: EB-2015-11-25 Dissolved **Lab Code:** R1510346-020

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.5	U	

% Solids: 0.0

Comments:

ALS Environmental

METALS

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BLANKS

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-6

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	C	Continuing Calibration Blank ug/L 1	C	2	C	3	C	Preparation Blank	C	M
Silver	0.54	U	-1.14	J	-1.31	J	-0.93	J	-1.466	J	P
Aluminum	-16.32	J	21.04	J	32.02	J	12.20	J	26.887	J	P
Arsenic	1.23	J	1.25	J	1.12	U	2.79	J	1.120	U	P
Barium	0.67	U	1.58	J	1.81	J	1.25	J	0.671	U	P
Beryllium	0.12	U	0.12	U	0.12	U	0.12	U	0.120	U	P
Calcium	26.60	U	26.60	U	26.60	U	26.60	U	26.600	U	P
Cobalt	0.37	U	0.37	U	0.37	U	0.37	U	0.366	U	P
Chromium	-0.35	J	0.44	J	0.53	J	0.24	U	0.517	J	P
Copper	2.24	J	1.89	U	1.89	U	1.89	U	1.890	U	P
Iron	8.65	U	8.65	U	8.65	U	8.65	U	8.650	U	P
Potassium	44.40	U	44.40	U	44.40	U	44.40	U	44.400	U	P
Magnesium	-26.10	J	38.96	J	53.38	J	30.56	J	71.602	J	P
Cadmium	0.80	J	0.20	U	0.20	U	0.20	U	0.196	U	P
Manganese	0.50	U	0.71	J	0.78	J	0.59	J	0.691	J	P
Mercury	0.040	U	0.040	U	0.040	U	0.040	U	0.040	U	CV
Sodium	37.50	U	37.50	U	37.50	U	37.50	U	37.500	U	P
Nickel	0.76	U	0.76	U	0.76	U	0.76	U	0.755	U	P
Lead	1.34	J	1.32	U	-2.05	J	1.32	U	-1.693	J	P
Antimony	2.85	J	2.79	J	1.89	J	2.98	J	1.250	U	P
Selenium	4.02	U	4.02	U	4.02	U	4.02	U	4.020	U	P
Thallium	1.55	U	1.55	U	1.55	U	1.55	U	1.550	U	P
Vanadium	0.58	J	0.61	J	0.48	U	0.48	U	0.479	U	P
Zinc	6.23	U	6.23	U	6.23	U	6.23	U	6.230	U	P

Comments:

METALS

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BLANKS

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-6

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	C	Continuing Calibration Blank ug/L 1	C	2	C	3	C	Preparation Blank	C	M
Silver			-1.14	J	-1.42	J					P
Aluminum			15.53	J	20.89	J					P
Arsenic			2.16	J							P
Barium			2.23	J	1.91	J					P
Beryllium			0.12	U	0.12	U					P
Calcium			26.60	U	26.60	U					P
Cobalt			0.37	U	0.37	U					P
Chromium			0.29	J	0.41	J					P
Copper			1.89	U	1.89	U					P
Iron			8.65	U							P
Potassium			57.39	J	49.87	J					P
Magnesium			38.30	J	36.39	J					P
Cadmium			0.20	U	0.20	U					P
Manganese			0.70	J	0.65	J					P
Mercury			0.040	U							CV
Sodium			39.30	J	37.50	U					P
Nickel			0.76	U	0.76	U					P
Lead			1.32	U	1.32	U					P
Antimony			5.34	J							P
Selenium			4.02	U	4.02	U					P
Thallium			1.55	U	1.55	U					P
Vanadium			0.48	U	0.48	U					P
Zinc			6.23	U	6.23	U					P

Comments:

METALS

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SPIKE SAMPLE RECOVERY

Client:	Parsons Engineering Science	**Service Request:**	FTMM-53-GW-699RW11-12.8
Project No.:	R1510346	**Units:**	UG/L
Project Name:	NA	**Basis:**	
Matrix:	WATER	**% Solids:**	0.0

Sample Name: FTMM-53-GW-699RW11-12.8S **Lab Code:** R1510346-008S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Lead	75 - 125	512.00		2.50	U	500.00	102		6010C

An empty field in the Control Limit column indicates the control limit is not applicable

METALS

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POST SPIKE SAMPLE RECOVERY

Client: Parsons Engineering Science
Service Request: FTMM-53-GW-699RW11-12.8
Project No.: R1510346
Units: UG/L
Project Name: NA
Basis:
Matrix: WATER

Sample Name: FTMM-53-GW-699RW11-12.8A
Lab Code: R1510346-008A

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Lead	75 - 125	482.00		2.50	U	500.0	96		6010C

ALS Environmental

METALS

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DUPLICATES

Client: Parsons Engineering Science

Service Request: FTMM-53-GW-699RW11-12.8

Project No.: R1510346

Units: UG/L

Project Name: NA

Basis:

Matrix: WATER

% Solids: 0.0

Sample Name: FTMM-53-GW-699RW11-12.8D **Lab Code:** R1510346-008D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Lead		2.50	U	2.50	U			6010C

An empty field in the Control Limit column indicates the control limit is not applicable.

Form VI - IN

METALS

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LABORATORY CONTROL SAMPLE

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-6

Solid LCS Source: _____

Aqueous LCS Source: CPI

Analyte	Aqueous (ug/L			Solid (mg/K				
	True	Found	%R	True	Found	C	Limits	%R
Silver	50	51	102					
Aluminum	2000	2070	104					
Arsenic	40	42	105					
Barium	2000	2260	113					
Beryllium	50	51	102					
Calcium	2000	2170	108					
Cobalt	500	531	106					
Chromium	200	220	110					
Copper	250	283	113					
Iron	1000	1030	103					
Potassium	20000	19300	96					
Magnesium	2000	2030	102					
Cadmium	50	52	104					
Manganese	500	537	107					
Mercury	1.000	0.940	94					
Sodium	20000	21200	106					
Nickel	500	547	109					
Lead	500	550	110					
Antimony	500	488	98					
Selenium	1010	1030	102					
Thallium	2000	2250	112					
Vanadium	500	530	106					
Zinc	500	534	107					

Comments: _____

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January 07, 2016

Analytical Report for Service Request No: R1510346

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: FTMM Baseline/748810-03000

Dear Sandra:

Enclosed are the results of the sample(s) submitted to our laboratory on November 30, 2015. For your reference, these analyses have been assigned our service request number **R1510346**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7478. You may also contact me via email at Vanessa.Badman@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Vanessa M. Badman

Vanessa Badman
Customer Service Manager

Parsons, Inc.
R1510346

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ALS Environmental

SDG NARRATIVE

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Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Environmental

Client:	Parsons Engineering Science
Service Request No.:	R1510346
Project:	FTMM Baseline 2015 Q4 GW Sampling
Date Received:	November 30, 2015
Sample Matrix:	Water

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Samples were received for analysis at ALS Environmental on 11/30/15. The samples were received in good condition and consistent with the accompanying chain of custody form. All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

Metals

Samples were analyzed for a site specific list of Metals. Please see attached report pages for method numbers.

All LCS recoveries were within limits.

Site specific QC was not requested on these samples.

All Method blanks were free of contamination, except for Aluminum, Total, Chromium, Total, and Magnesium, Total. Any hits in the samples should be considered estimated.

All samples related QC were within limits.

No other analytical or QC problems were encountered.

Volatile Organics

Samples were analyzed for a site list of Volatile Organics by Methods 5035A/8260C from SW-846.

All Tuning criteria for BFB were within QC limits.

All the initial calibration criteria were met for all analytes.

All Continuing Calibration Verification (CCV) standards were within 20% Difference (D), except for Bromomethane which recovered low.

All Internal Standard Areas (IS) were within QC limits.

All surrogate standard recoveries were acceptable.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries were within limits.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination except for 1,2,4-Trichlorobenzene, Hexachlorobutadiene, and Naphthalene. Any hits in the samples should be considered to be estimated.

In the Matrix Spike (MS), Styrene recovered low. All RPDs were within acceptable limits except for Bromomethane, which recovered high.

Due to sample matrix or non-target analyte concentrations, dilutions were performed and the MRLs adjusted accordingly. R1510346-014 was diluted due to foaming in the sample.

No other analytical or QC problems were encountered.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #: 748810-03000	Batch Complete: Yes	Date Revised:
Submission: R1510346	Diskette Requested: No	Date Due: 12/22/15
Client: Parsons Engineering Science	Date: 1/7/16	Protocol: SW846
Client Rep: VBADMAN	Custody Seal: Present/Absent:	Shipping No.:
Project: FTMM Baseline	Chain of Custody: Present/Absent:	SDG #:

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1510346-001	FTMM-2-GW-M2MW10-14.3	Water	8260C	11/24/15	11/30/15			
R1510346-002	FTMM-2-GW-M2MW03-12.2	Water	8260C	11/24/15	11/30/15			
R1510346-003	FTMM-2-GW-M2MW11-42	Water	8260C	11/24/15	11/30/15			
R1510346-004	FTMM-2-GW-M2MW22-14	Water	8260C	11/24/15	11/30/15			
R1510346-005	FTMM-2-GW-M2MW21-15.2	Water	8260C	11/24/15	11/30/15			
R1510346-006	FTMM-2-GW-M2MW24-14.6	Water	8260C	11/24/15	11/30/15			
R1510346-007QC	FTMM-53-GW-699MW09-9.0	Water	8260C	11/25/15	11/30/15			
R1510346-008	FTMM-53-GW-699RW11-12.8	Water	8260C, 6010C	11/25/15	11/30/15			
R1510346-009	FTMM-53-GW-699RW11-12.8 Dissolved	Water	6010C	11/25/15	11/30/15			
R1510346-010	FTMM-53-GW-699MW06-8.5	Water	6010C, 8260C	11/25/15	11/30/15			
R1510346-011	FTMM-53-GW-699MW06-8.5 Dissolved	Water	6010C	11/25/15	11/30/15			
R1510346-012	FTMM-58-GW-2567MW03-8	Water	8260C	11/25/15	11/30/15			
R1510346-013	FTMM-58-GW-2567MW01-8.3	Water	8260C	11/25/15	11/30/15			
R1510346-014	FTMM-8-GW-M2MW11-21.5	Water	8260C, 6010C	11/25/15	11/30/15			
R1510346-015	FTMM-8-GW-M2MW11-21.5 Dissolved	Water	6010C	11/25/15	11/30/15			
R1510346-016	FTMM-64-GW-812MW04-4.7	Water	8260C	11/25/15	11/30/15			
R1510346-017	EB-2015-11-24	Water	6010C, 7470A, 8260C	11/24/15	11/30/15			
R1510346-018	EB-2015-11-24 Dissolved	Water	6010C, 7470A	11/24/15	11/30/15			
R1510346-019	EB-2015-11-25	Water	6010C, 8260C	11/25/15	11/30/15			
R1510346-020	EB-2015-11-25 Dissolved	Water	6010C	11/25/15	11/30/15			
R1510346-021	TB-2015-11-25	Water	8260C	11/25/15	11/30/15			

Folder Comments: DoD reporting ERPTOOLS LOD

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Arcolor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

ALS Environmental

CHAINS OF CUSTODY

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

32378

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name: FTMM-2015 Q4 GW	Project Number: 748810-03000G
Project Manager: Cris Grill	Report CC:
Company/Address: PARSONS 100 High Street Boston, MA 02110	
Phone #: 617-749-1583	Email: cris.grill@parsons.com
Sampler's Signature:	Sampler's Printed Name: C. Watson

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1

NUMBER OF CONTAINERS | GC/MS VOAs ○ 8260 ○ 624 ○ CLP | GC/MS SVOAs ○ 8270 ○ 625 | GC VOAs ○ 8021 ○ 601/602 | PESTICIDES ○ 8081 ○ 608 | PCBs ○ 8082 ○ 608 | METALS, TOTAL (List in comments below) | METALS, DISSOLVED (List in comments below) | VOC + TICs including EDB + 1,2 DCA | LEAD | LEAD - Filtered * | REMARKS/ ALTERNATE DESCRIPTION

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

	CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	VOC + TICs including EDB + 1,2 DCA	LEAD	LEAD - Filtered *
1	FTMM-2-GW-M2MW10-14.3		11/24/15	1220	GW	3	X		
2	FTMM-2-GW-M2MW03-12.2		11/24/15	1425	GW		X		
3	FTMM-2-GW-M2MW11-42		11/24/15	1600	GW		X		
4	FTMM-2-GW-M2MW22-14		11/24/15	1425	GW		X		
5	FTMM-2-GW-M2MW21-15.2		11/24/15	1330	GW		X		
6	FTMM-2-GW-M2MW24-14.6		11/24/15	1535	GW		X		
7	FTMM-53-GW-699MW09-9.0		11/25/15	1425	GW		X		
	FTMM-53-GW-699MW09-9.0-MS		11/25/15	1425	GW		X		
	FTMM-53-GW-699MW09-9.0-MSD		11/25/15	1425	GW		X		
8	FTMM-53-GW-699PW11-12.8		11/25/15	1105	GW	5	X	X	X
10	FTMM-53-GW-699MW06-8.5		11/25/15	1245	GW	5	X	X	X

SPECIAL INSTRUCTIONS/COMMENTS
Metals * FIELD FILTERED

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED NJ

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
STANDARD
REQUESTED REPORT DATE
_____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ____Yes ____No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	
Printed Name	Printed Name: Melanie Rogerson	Printed Name	Printed Name	Printed Name	
Firm: PARSONS	Firm: ALS	Firm	Firm	Firm	
Date/Time: 11/25/15	Date/Time: 12/1/15 0925	Date/Time	Date/Time	Date/Time	Date/Time

R1510346 5
Parsons, Inc.
FTMM Baseline

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

32379

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 2

Project Name: FTMM-2015 Q4 GW	Project Number: 748816 03000
Project Manager: Cris Grill	Report CC:
Company/Address: PARSONS 100 High Street Boston, MA 02210	
Phone #: 617-449-1583	Email: cris.grill@parsons.com
Sampler's Signature: C Watson	Sampler's Printed Name: C. Watson

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1 2 2

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOC + TICs 8260C including EDB - L2 DCA	VOC's - TBA only	LEAD	LEAD - Filtered *	REMARKS/ ALTERNATE DESCRIPTION
FTMM-58-GW-2567MW03-8		11/25/15	1200	GW									X	X			TBA only -13
FTMM-58-GW-2567MW01-8.3		11/25/15	1050	GW									X	X			TBA only -13
FTMM-8-GW-MPMW11-21.5		11/25/15	1415	GW									X		X	X	
FTMM-64-GW-812MW04-4.7		11/25/15	1325	GW									X				
EB-2015-11-24		11/24/15	1500	W	5						X	X	X		X	X	
EB-2015-11-25		11/25/15	1500	W	5								X		X	X	
TB-2015-11-25		11/25/15	—	TB									X				

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals * FIELD FILTERED

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: NJ

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
STANDARD
REQUESTED REPORT DATE
_____

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data
Edata _____ Yes _____ No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: C Watson	Signature:	Signature:	Signature:	Signature:	
Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:	
Firm: PARSONS	Firm: ALS	Firm:	Firm:	Firm:	
Date/Time: 11/25/15	Date/Time: 12/1/15 0925	Date/Time:	Date/Time:	Date/Time:	Date/Time:

R1510346 5
Parsons, Inc.
FTMM Baseline

Distribution: White - Lab Copy; Yellow - Return to Originator

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R1510346 5
Parsons, Inc.
FTMM Baseline

Cooler Receipt and Preservation Check Form

Project/Client Parsons Folder Number _____.

Cooler received on 12/1/15 by: MAR

COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	Y (N)	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y N NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: ~~Wet Ice~~ **Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 12/1/15 Time: 0929 ID: (IR#3) IR#5 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	1.9						
Correction Factor (°C)	-0.6						
Corrected Temp (°C)	1.3						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: 12002 by MAR on 12/1/15 at 0935
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: VNB

Cooler Breakdown: Date: 12/1/15 Time: 1131 by: MAR

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? ~~YES~~ (NO) MW22-14 → MW22-15?
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated ~~NA~~

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3	X		BDB2614T17	10/16				
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	4114070	10/16				

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: S-211-002, 092815-2AA0, *071315-2AAW
Other Comments:

PC Secondary Review: VNB 12/1/15

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r9.doc 9/24/15

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Baseline/748810-03000

Service Request: R1510346

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1510346-001.01					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-001.02					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-001.03					
	8260C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
		12/3/15	1146	In Lab / KRUEST	
R1510346-002.01					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-002.02					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-002.03					
	8260C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
		12/3/15	1146	In Lab / KRUEST	
R1510346-003.01					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-003.02					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-003.03					
	8260C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
		12/3/15	1146	In Lab / KRUEST	
R1510346-004.01					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-004.02					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-004.03					

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Baseline/748810-03000
Service Request: R1510346

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
	8260C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
		12/3/15	1146	In Lab / KRUEST	
R1510346-005.01					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-005.02					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-005.03					
	8260C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
		12/3/15	1146	In Lab / KRUEST	
R1510346-006.01					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-006.02					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-006.03					
	8260C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
		12/3/15	1147	In Lab / KRUEST	
R1510346-007.01					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-007.02					
	8260C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
		12/3/15	1147	In Lab / KRUEST	
R1510346-007.03					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-007.04					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Baseline/748810-03000

Service Request: R1510346

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1510346-007.05					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-007.06					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-007.07					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-007.08					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-007.09					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-008.01					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-008.02					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-008.03					
	8260C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
		12/3/15	1147	In Lab / KRUEST	
R1510346-008.04					
	6010C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1139	R-A01 / ROCHESTER SMO	
		12/7/15	1240	In Lab / CGILDAY	
		12/7/15	1345	R-002 / CGILDAY	
R1510346-009.01					
	6010C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1139	R-A01 / ROCHESTER SMO	
		12/7/15	1240	In Lab / CGILDAY	
		12/7/15	1345	R-002 / CGILDAY	
R1510346-010.01					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Baseline/748810-03000
Service Request: R1510346

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1510346-010.02					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-010.03					
	8260C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
		12/3/15	1147	In Lab / KRUEST	
R1510346-010.04					
	6010C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1139	R-A01 / ROCHESTER SMO	
		12/1/15	1139	R-A01 / ROCHESTER SMO	
		12/7/15	1240	In Lab / CGILDAY	
		12/7/15	1345	R-002 / CGILDAY	
R1510346-011.01					
	6010C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1139	R-A01 / ROCHESTER SMO	
		12/1/15	1139	R-A01 / ROCHESTER SMO	
		12/7/15	1240	In Lab / CGILDAY	
		12/7/15	1345	R-002 / CGILDAY	
R1510346-012.01					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-012.02					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-012.03					
	8260C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
		12/3/15	1147	In Lab / KRUEST	
R1510346-013.01					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-013.02					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-013.03					
	8260C				

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Baseline/748810-03000

Service Request: R1510346

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
		12/3/15	1147	In Lab / KRUEST	
R1510346-014.01					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-014.02					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-014.03					
	8260C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
		12/3/15	1147	In Lab / KRUEST	
R1510346-014.04					
	6010C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1139	R-A01 / ROCHESTER SMO	
		12/1/15	1139	R-A01 / ROCHESTER SMO	
		12/7/15	1240	In Lab / CGILDAY	
		12/7/15	1345	R-002 / CGILDAY	
R1510346-015.01					
	6010C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1139	R-A01 / ROCHESTER SMO	
		12/1/15	1139	R-A01 / ROCHESTER SMO	
		12/7/15	1240	In Lab / CGILDAY	
		12/7/15	1345	R-002 / CGILDAY	
R1510346-016.01					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-016.02					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-016.03					
	8260C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
		12/3/15	1147	In Lab / KRUEST	
R1510346-017.01					
		12/1/15	1135	SMO / ROCHESTER SMO	

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Baseline/748810-03000

Service Request: R1510346

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-017.02					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-017.03					
	8260C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
		12/3/15	1146	In Lab / KRUEST	
R1510346-017.04					
	6010C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1139	R-A01 / ROCHESTER SMO	
		12/1/15	1139	R-A01 / ROCHESTER SMO	
		12/7/15	1240	In Lab / CGILDAY	
		12/7/15	1345	R-002 / CGILDAY	
R1510346-017.05					
	7470A				
		12/1/15	1138	SMO / ROCHESTER SMO	
		12/1/15	1138	R-002 / ROCHESTER SMO	
		12/14/15	1134	In Lab / CGILDAY	
		12/14/15	1240	R-002 / CGILDAY	
R1510346-018.01					
	6010C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1139	R-A01 / ROCHESTER SMO	
		12/1/15	1139	R-A01 / ROCHESTER SMO	
		12/7/15	1240	In Lab / CGILDAY	
		12/7/15	1345	R-002 / CGILDAY	
R1510346-018.02					
	7470A				
		12/1/15	1137	SMO / ROCHESTER SMO	
		12/1/15	1138	R-002 / ROCHESTER SMO	
		12/14/15	1134	In Lab / CGILDAY	
		12/14/15	1240	R-002 / CGILDAY	
R1510346-019.01					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-019.02					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-019.03					

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Baseline/748810-03000
Service Request: R1510346

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
	8260C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
		12/3/15	1146	In Lab / KRUEST	
R1510346-019.04					
	6010C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1139	R-A01 / ROCHESTER SMO	
		12/1/15	1139	R-A01 / ROCHESTER SMO	
		12/7/15	1240	In Lab / CGILDAY	
		12/7/15	1345	R-002 / CGILDAY	
R1510346-020.01					
	6010C				
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1139	R-A01 / ROCHESTER SMO	
		12/7/15	1240	In Lab / CGILDAY	
		12/7/15	1345	R-002 / CGILDAY	
R1510346-021.01					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-021.02					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-021.03					
		12/1/15	1135	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-021.04					
		12/1/15	1137	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-021.05					
		12/1/15	1137	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
R1510346-021.06					
	8260C				
		12/1/15	1137	SMO / ROCHESTER SMO	
		12/1/15	1138	R-001 / ROCHESTER SMO	
		12/3/15	1146	In Lab / KRUEST	

ALS Environmental

VOLATILE ORGANICS QC SUMMARY

ALS Environmental - Rochester, NY
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QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/25/15
Date Received: 11/30/15
Date Analyzed: 12/ 3/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-53-GW-699MW09-9.0
Lab Code: R1510346-007

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		FTMM-53-GW-699MW09-9.0 MS Matrix Spike RQ1514947-05			FTMM-53-GW-699MW09-9.0 DMS Duplicate Matrix Spike RQ1514947-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1,2-Tetrachloroethane	ND	45.7	50.0	91	47.0	50.0	94	80 - 130	3	30
1,1,1-Trichloroethane (TCA)	ND	51.8	50.0	104	51.8	50.0	104	65 - 130	<1	30
1,1,2,2-Tetrachloroethane	ND	50.3	50.0	100	51.9	50.0	104	65 - 130	3	30
1,1,2-Trichloroethane	ND	51.2	50.0	102	52.1	50.0	104	75 - 125	2	30
1,1-Dichloroethane (1,1-DCA)	ND	53.8	50.0	108	54.3	50.0	108	70 - 135	<1	30
1,1-Dichloroethene (1,1-DCE)	ND	50.2	50.0	100	52.4	50.0	105	70 - 130	4	30
1,1-Dichloropropene	ND	53.1	50.0	106	55.2	50.0	110	75 - 130	4	30
1,2,3-Trichlorobenzene	ND	45.8	50.0	92	51.4	50.0	103	55 - 140	12	30
1,2,3-Trichloropropane	ND	50.5	50.0	101	53.1	50.0	106	75 - 125	5	30
1,2,4-Trichlorobenzene	ND	44.8	50.0	90	50.1	50.0	100	65 - 135	11	30
1,2,4-Trimethylbenzene	ND	43.1	50.0	86	42.9	50.0	86	75 - 130	<1	30
1,2-Dibromo-3-chloropropane (DBC	ND	44.9	50.0	90	47.2	50.0	94	50 - 130	5	30
1,2-Dibromoethane	ND	47.8	50.0	96	49.1	50.0	98	80 - 120	3	30
1,2-Dichlorobenzene	ND	48.1	50.0	96	49.9	50.0	100	70 - 120	4	30
1,2-Dichloroethane	ND	50.9	50.0	102	52.2	50.0	104	70 - 130	3	30
1,2-Dichloropropane	ND	53.3	50.0	107	54.4	50.0	109	75 - 125	2	30
1,3,5-Trimethylbenzene	ND	45.5	50.0	91	46.3	50.0	93	75 - 130	2	30
1,3-Dichlorobenzene	ND	47.8	50.0	96	48.8	50.0	98	75 - 125	2	30
1,3-Dichloropropane	ND	51.3	50.0	103	51.4	50.0	103	75 - 125	<1	30
1,4-Dichlorobenzene	ND	49.7	50.0	99	51.2	50.0	102	75 - 125	3	30
2,2-Dichloropropane	ND	49.1	50.0	98	48.4	50.0	97	70 - 135	1	30
2-Butanone (MEK)	ND	48.4	50.0	97	51.0	50.0	102	30 - 150	5	30
2-Chlorotoluene	ND	50.0	50.0	100	51.4	50.0	103	75 - 125	3	30
2-Hexanone	ND	46.7	50.0	93	50.4	50.0	101	55 - 130	8	30
tert-Butyl Alcohol	ND	1080	1000	108	1160	1000	116	50 - 150	7	30
4-Chlorotoluene	ND	47.8	50.0	96	49.9	50.0	100	75 - 130	4	30
p-Isopropyltoluene	ND	48.3	50.0	97	49.7	50.0	99	75 - 130	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/25/15
Date Received: 11/30/15
Date Analyzed: 12/ 3/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-53-GW-699MW09-9.0
Lab Code: R1510346-007

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		FTMM-53-GW-699MW09-9.0 MS Matrix Spike RQ1514947-05			FTMM-53-GW-699MW09-9.0 DMS Duplicate Matrix Spike RQ1514947-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
4-Methyl-2-pentanone	ND	51.3	50.0	103	54.6	50.0	109	60 - 135	6	30
Acetone	ND	38.7	50.0	77	40.0	50.0	80	40 - 140	3	30
Benzene	ND	51.1	50.0	102	52.1	50.0	104	80 - 120	2	30
Bromobenzene	ND	48.2	50.0	96	50.1	50.0	100	75 - 125	4	30
Bromochloromethane	ND	49.4	50.0	99	46.6	50.0	93	65 - 130	6	30
Bromodichloromethane	ND	46.9	50.0	94	47.5	50.0	95	75 - 120	1	30
Bromoform	ND	37.7	50.0	75	37.8	50.0	76	70 - 130	<1	30
Bromomethane	ND	21.1	50.0	42	30.4	50.0	61	30 - 145	36 *	30
Carbon Tetrachloride	ND	44.5	50.0	89	44.4	50.0	89	65 - 140	<1	30
Chlorobenzene	ND	48.3	50.0	97	48.7	50.0	97	80 - 120	<1	30
Chloroethane	ND	52.4	50.0	105	51.9	50.0	104	60 - 135	<1	30
Chloroform	ND	48.5	50.0	97	48.5	50.0	97	65 - 135	<1	30
Chloromethane	ND	47.0	50.0	94	47.4	50.0	95	40 - 125	<1	30
Dibromochloromethane	ND	42.6	50.0	85	42.6	50.0	85	60 - 135	<1	30
Dichlorodifluoromethane (CFC 12)	ND	52.5	50.0	105	53.1	50.0	106	30 - 155	1	30
Methylene Chloride	ND	48.8	50.0	98	50.2	50.0	100	55 - 140	3	30
Ethylbenzene	ND	47.9	50.0	96	48.5	50.0	97	75 - 125	1	30
Hexachlorobutadiene	ND	45.7	50.0	91	48.5	50.0	97	50 - 140	6	30
Isopropylbenzene (Cumene)	ND	46.5	50.0	93	48.3	50.0	97	75 - 125	4	30
Methyl tert-Butyl Ether	1.1	50.9	50.0	100	51.8	50.0	101	65 - 125	2	30
Naphthalene	ND	46.8	50.0	94	53.3	50.0	107	55 - 140	13	30
Styrene	ND	29.9	50.0	60 *	39.0	50.0	78	65 - 135	26	30
Tetrachloroethene (PCE)	0.51	49.3	50.0	98	49.0	50.0	97	45 - 150	<1	30
Toluene	ND	50.9	50.0	102	51.5	50.0	103	75 - 120	1	30
Trichloroethene (TCE)	ND	47.2	50.0	94	49.5	50.0	99	70 - 125	5	30
Trichlorofluoromethane (CFC 11)	ND	52.8	50.0	106	54.1	50.0	108	60 - 145	2	30
Vinyl Chloride	ND	50.3	50.0	101	51.9	50.0	104	50 - 145	3	30

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Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/25/15
Date Received: 11/30/15
Date Analyzed: 12/ 3/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-53-GW-699MW09-9.0
Lab Code: R1510346-007

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		FTMM-53-GW-699MW09-9.0 MS Matrix Spike RQ1514947-05			FTMM-53-GW-699MW09-9.0 DMS Duplicate Matrix Spike RQ1514947-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
cis-1,2-Dichloroethene	ND	50.4	50.0	101	51.0	50.0	102	70 - 125	1	30
cis-1,3-Dichloropropene	ND	37.3	50.0	75	43.2	50.0	86	70 - 130	15	30
m,p-Xylenes	ND	94.5	100	94	93.7	100	94	75 - 130	<1	30
n-Butylbenzene	ND	47.6	50.0	95	49.8	50.0	100	70 - 135	5	30
n-Propylbenzene	ND	47.1	50.0	94	49.2	50.0	98	70 - 130	4	30
o-Xylene	ND	46.7	50.0	93	47.2	50.0	94	80 - 120	1	30
sec-Butylbenzene	ND	46.2	50.0	92	48.0	50.0	96	70 - 125	4	30
tert-Butylbenzene	ND	46.4	50.0	93	48.9	50.0	98	70 - 130	5	30
trans-1,2-Dichloroethene	ND	50.1	50.0	100	51.8	50.0	104	60 - 140	3	30
trans-1,3-Dichloropropene	ND	38.0	50.0	76	44.9	50.0	90	55 - 140	17	30

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QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Analyzed: 12/ 3/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474713

Lab Control Sample
RQ1514947-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	19.2	20.0	96	80 - 130
1,1,1-Trichloroethane (TCA)	20.7	20.0	103	65 - 130
1,1,2,2-Tetrachloroethane	19.7	20.0	98	65 - 130
1,1,2-Trichloroethane	20.7	20.0	104	75 - 125
1,1-Dichloroethane (1,1-DCA)	21.7	20.0	109	70 - 135
1,1-Dichloroethene (1,1-DCE)	20.9	20.0	104	70 - 130
1,1-Dichloropropene	21.8	20.0	109	75 - 130
1,2,3-Trichlorobenzene	22.4	20.0	112	55 - 140
1,2,3-Trichloropropane	19.4	20.0	97	75 - 125
1,2,4-Trichlorobenzene	21.9	20.0	109	65 - 135
1,2,4-Trimethylbenzene	21.2	20.0	106	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	17.0	20.0	85	50 - 130
1,2-Dibromoethane	19.1	20.0	96	80 - 120
1,2-Dichlorobenzene	20.6	20.0	103	70 - 120
1,2-Dichloroethane	21.4	20.0	107	70 - 130
1,2-Dichloropropane	22.4	20.0	112	75 - 125
1,3,5-Trimethylbenzene	21.3	20.0	106	75 - 130
1,3-Dichlorobenzene	20.4	20.0	102	75 - 125
1,3-Dichloropropane	20.7	20.0	104	75 - 125
1,4-Dichlorobenzene	21.4	20.0	107	75 - 125
2,2-Dichloropropane	20.6	20.0	103	70 - 135
2-Butanone (MEK)	18.4	20.0	92	30 - 150
2-Chlorotoluene	21.6	20.0	108	75 - 125
2-Hexanone	17.9	20.0	89	55 - 130
tert-Butyl Alcohol	400	400	100	50 - 150
4-Chlorotoluene	21.2	20.0	106	75 - 130
p-Isopropyltoluene	21.9	20.0	109	75 - 130
4-Methyl-2-pentanone	19.6	20.0	98	60 - 135
Acetone	16.9	20.0	84	40 - 140
Benzene	21.3	20.0	106	80 - 120
Bromobenzene	21.2	20.0	106	75 - 125
Bromochloromethane	19.9	20.0	100	65 - 130
Bromodichloromethane	19.9	20.0	99	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Analyzed: 12/ 3/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 474713

Lab Control Sample
RQ1514947-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	17.4	20.0	87	70 - 130
Bromomethane	16.6	20.0	83	30 - 145
Carbon Tetrachloride	19.9	20.0	99	65 - 140
Chlorobenzene	20.7	20.0	104	80 - 120
Chloroethane	21.0	20.0	105	60 - 135
Chloroform	19.9	20.0	99	65 - 135
Chloromethane	19.8	20.0	99	40 - 125
Dibromochloromethane	18.9	20.0	94	60 - 135
Dichlorodifluoromethane (CFC 12)	21.9	20.0	110	30 - 155
Methylene Chloride	19.9	20.0	100	55 - 140
Ethylbenzene	20.0	20.0	100	75 - 125
Hexachlorobutadiene	22.9	20.0	114	50 - 140
Isopropylbenzene (Cumene)	20.4	20.0	102	75 - 125
Methyl tert-Butyl Ether	20.2	20.0	101	65 - 125
Naphthalene	21.6	20.0	108	55 - 140
Styrene	20.6	20.0	103	65 - 135
Tetrachloroethene (PCE)	20.4	20.0	102	45 - 150
Toluene	21.3	20.0	106	75 - 120
Trichloroethene (TCE)	20.0	20.0	100	70 - 125
Trichlorofluoromethane (CFC 11)	21.7	20.0	108	60 - 145
Vinyl Chloride	20.8	20.0	104	50 - 145
cis-1,2-Dichloroethene	20.5	20.0	103	70 - 125
cis-1,3-Dichloropropene	20.1	20.0	101	70 - 130
m,p-Xylenes	40.3	40.0	101	75 - 130
n-Butylbenzene	22.2	20.0	111	70 - 135
n-Propylbenzene	20.8	20.0	104	70 - 130
o-Xylene	20.3	20.0	102	80 - 120
sec-Butylbenzene	20.3	20.0	102	70 - 125
tert-Butylbenzene	20.2	20.0	101	70 - 130
trans-1,2-Dichloroethene	21.1	20.0	106	60 - 140
trans-1,3-Dichloropropene	21.1	20.0	106	55 - 140

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Analyzed: 12/3/15 11:48

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1514947-04

Instrument ID: R-MS-12
File ID: I:\ACQUDATA\MSVOA12\DATA\120315\MM8490.D\

Analytical Method: 8260C
Prep Method: EPA 5030C

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1514947-03	I:\ACQUDATA\MSVOA12\DATA\120315\MM8488.D\	12/3/15 10:46
TB-2015-11-25	R1510346-021	I:\ACQUDATA\MSVOA12\DATA\120315\MM8491.D\	12/3/15 12:19
EB-2015-11-24	R1510346-017	I:\ACQUDATA\MSVOA12\DATA\120315\MM8492.D\	12/3/15 12:49
EB-2015-11-25	R1510346-019	I:\ACQUDATA\MSVOA12\DATA\120315\MM8493.D\	12/3/15 13:20
FTMM-53-GW-699MW09-9.0	R1510346-007	I:\ACQUDATA\MSVOA12\DATA\120315\MM8494.D\	12/3/15 13:51
FTMM-2-GW-M2MW10-14.3	R1510346-001	I:\ACQUDATA\MSVOA12\DATA\120315\MM8495.D\	12/3/15 14:21
FTMM-2-GW-M2MW03-12.2	R1510346-002	I:\ACQUDATA\MSVOA12\DATA\120315\MM8496.D\	12/3/15 14:52
FTMM-2-GW-M2MW11-42	R1510346-003	I:\ACQUDATA\MSVOA12\DATA\120315\MM8497.D\	12/3/15 15:22
FTMM-2-GW-M2MW22-14	R1510346-004	I:\ACQUDATA\msvoa12\Data\120315\MM8498.D\	12/3/15 15:53
FTMM-2-GW-M2MW21-15.2	R1510346-005	I:\ACQUDATA\MSVOA12\DATA\120315\MM8499.D\	12/3/15 16:24
FTMM-2-GW-M2MW24-14.6	R1510346-006	I:\ACQUDATA\MSVOA12\DATA\120315\MM8500.D\	12/3/15 16:54
FTMM-53-GW-699RW11-12.8	R1510346-008	I:\ACQUDATA\msvoa12\Data\120315\MM8501.D\	12/3/15 17:25
FTMM-53-GW-699MW06-8.5	R1510346-010	I:\ACQUDATA\MSVOA12\DATA\120315\MM8502.D\	12/3/15 17:56
FTMM-58-GW-2567MW03-8	R1510346-012	I:\ACQUDATA\MSVOA12\DATA\120315\MM8503.D\	12/3/15 18:26
FTMM-58-GW-2567MW01-8.3	R1510346-013	I:\ACQUDATA\MSVOA12\DATA\120315\MM8504.D\	12/3/15 18:57
FTMM-64-GW-812MW04-4.7	R1510346-016	I:\ACQUDATA\MSVOA12\DATA\120315\MM8505.D\	12/3/15 19:28
FTMM-8-GW-M2MW11-21.5	R1510346-014	I:\ACQUDATA\MSVOA12\DATA\120315\MM8506.D\	12/3/15 19:58
FTMM-53-GW-699MW09-9.0MS	RQ1514947-05	I:\ACQUDATA\MSVOA12\DATA\120315\MM8507.D\	12/3/15 20:29
FTMM-53-GW-699MW09-9.0DMS	RQ1514947-06	I:\ACQUDATA\MSVOA12\DATA\120315\MM8508.D\	12/3/15 21:00

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000

Service Request: R1510346
Date Analyzed: 11/18/15 15:38

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\111815\MM8183.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot:

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	18.3	72096	Pass
75	95	30	60	46.3	182827	Pass
95	95	100	100	100.0	394581	Pass
96	95	5	9	6.6	26025	Pass
173	174	0	2	1.3	3492	Pass
174	95	50	120	69.7	275072	Pass
175	174	5	9	7.4	20478	Pass
176	174	95	101	96.8	266389	Pass
177	176	5	9	6.9	18350	Pass

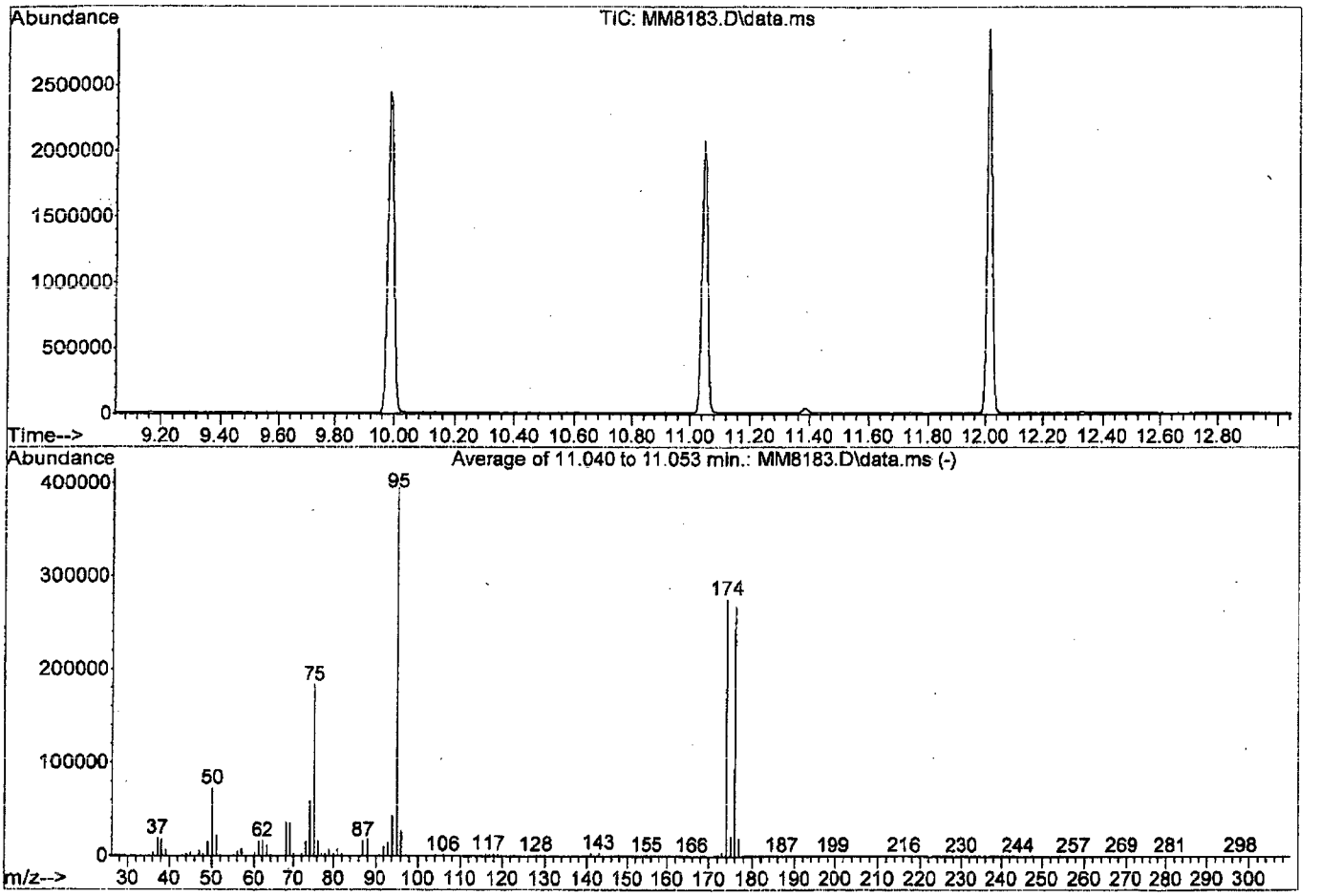
Sample Name	Lab Code	File ID	Date Analyzed	Q
Initial CalibrationICAL	0.5 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8185.D\	11/18/15 16:40	
Initial CalibrationICAL	1.0 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8186.D\	11/18/15 17:10	
Initial CalibrationICAL	2.0 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8187.D\	11/18/15 17:41	
Initial CalibrationICAL	5.0 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8188.D\	11/18/15 18:11	
Initial CalibrationICAL	20 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8189.D\	11/18/15 18:42	
Initial CalibrationICAL	50 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8190.D\	11/18/15 19:12	
Initial CalibrationICAL	100 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8191.D\	11/18/15 19:43	
Initial CalibrationICAL	150 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8192.D\	11/18/15 20:14	
Initial CalibrationICAL	200 ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8193.D\	11/18/15 20:45	

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8183.D
Acq On : 18 Nov 2015 3:38 pm
Operator : K.Ruest
Sample : TUNE Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Thu Aug 27 10:55:02 2015

KR 11/18/15



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	72096	PASS
75	95	30	60	46.3	182827	PASS
95	95	100	100	100.0	394581	PASS
96	95	5	9	6.6	26025	PASS
173	174	0.00	2	1.3	3492	PASS
174	95	50	120	69.7	275072	PASS
175	174	5	9	7.4	20478	PASS
176	174	95	101	96.8	266389	PASS
177	176	5	9	6.9	18350	PASS

W111815.M Wed Nov 18 16:27:30 2015 Page: 1

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Service Request: R1510346
Date Analyzed: 12/3/15 09:44

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\120315\MM8486.D\
Instrument ID: R-MS-12
Analytical Method: 8260C
Analysis Lot: 474713

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	17.98	76885	Pass
75	95	30	60	48.76	208512	Pass
95	95	100	100	100.00	427669	Pass
96	95	5	9	6.57	28083	Pass
173	174	0	2	1.23	3704	Pass
174	95	50	120	70.51	301547	Pass
175	174	5	9	7.62	22992	Pass
176	174	95	101	98.64	297451	Pass
177	176	5	9	6.24	18550	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1514947-02	I:\ACQUDATA\MSVOA12\DATA\120315\MM8487.D\	12/3/15 10:15	
Lab Control Sample	RQ1514947-03	I:\ACQUDATA\MSVOA12\DATA\120315\MM8488.D\	12/3/15 10:46	
Method Blank	RQ1514947-04	I:\ACQUDATA\MSVOA12\DATA\120315\MM8490.D\	12/3/15 11:48	
TB-2015-11-25	R1510346-021	I:\ACQUDATA\MSVOA12\DATA\120315\MM8491.D\	12/3/15 12:19	
EB-2015-11-24	R1510346-017	I:\ACQUDATA\MSVOA12\DATA\120315\MM8492.D\	12/3/15 12:49	
EB-2015-11-25	R1510346-019	I:\ACQUDATA\MSVOA12\DATA\120315\MM8493.D\	12/3/15 13:20	
FTMM-53-GW-699MW09-9.0	R1510346-007	I:\ACQUDATA\MSVOA12\DATA\120315\MM8494.D\	12/3/15 13:51	
FTMM-2-GW-M2MW10-14.3	R1510346-001	I:\ACQUDATA\MSVOA12\DATA\120315\MM8495.D\	12/3/15 14:21	
FTMM-2-GW-M2MW03-12.2	R1510346-002	I:\ACQUDATA\MSVOA12\DATA\120315\MM8496.D\	12/3/15 14:52	
FTMM-2-GW-M2MW11-42	R1510346-003	I:\ACQUDATA\MSVOA12\DATA\120315\MM8497.D\	12/3/15 15:22	
FTMM-2-GW-M2MW22-14	R1510346-004	I:\ACQUDATA\msvoa12\Data\120315\MM8498.D\	12/3/15 15:53	
FTMM-2-GW-M2MW21-15.2	R1510346-005	I:\ACQUDATA\MSVOA12\DATA\120315\MM8499.D\	12/3/15 16:24	
FTMM-2-GW-M2MW24-14.6	R1510346-006	I:\ACQUDATA\MSVOA12\DATA\120315\MM8500.D\	12/3/15 16:54	
FTMM-53-GW-699RW11-12.8	R1510346-008	I:\ACQUDATA\msvoa12\Data\120315\MM8501.D\	12/3/15 17:25	
FTMM-53-GW-699MW06-8.5	R1510346-010	I:\ACQUDATA\MSVOA12\DATA\120315\MM8502.D\	12/3/15 17:56	
FTMM-58-GW-2567MW03-8	R1510346-012	I:\ACQUDATA\MSVOA12\DATA\120315\MM8503.D\	12/3/15 18:26	
FTMM-58-GW-2567MW01-8.3	R1510346-013	I:\ACQUDATA\MSVOA12\DATA\120315\MM8504.D\	12/3/15 18:57	
FTMM-64-GW-812MW04-4.7	R1510346-016	I:\ACQUDATA\MSVOA12\DATA\120315\MM8505.D\	12/3/15 19:28	
FTMM-8-GW-M2MW11-21.5	R1510346-014	I:\ACQUDATA\MSVOA12\DATA\120315\MM8506.D\	12/3/15 19:58	
FTMM-53-GW-699MW09-9.0MS	RQ1514947-05	I:\ACQUDATA\MSVOA12\DATA\120315\MM8507.D\	12/3/15 20:29	
FTMM-53-GW-699MW09-9.0DMS	RQ1514947-06	I:\ACQUDATA\MSVOA12\DATA\120315\MM8508.D\	12/3/15 21:00	

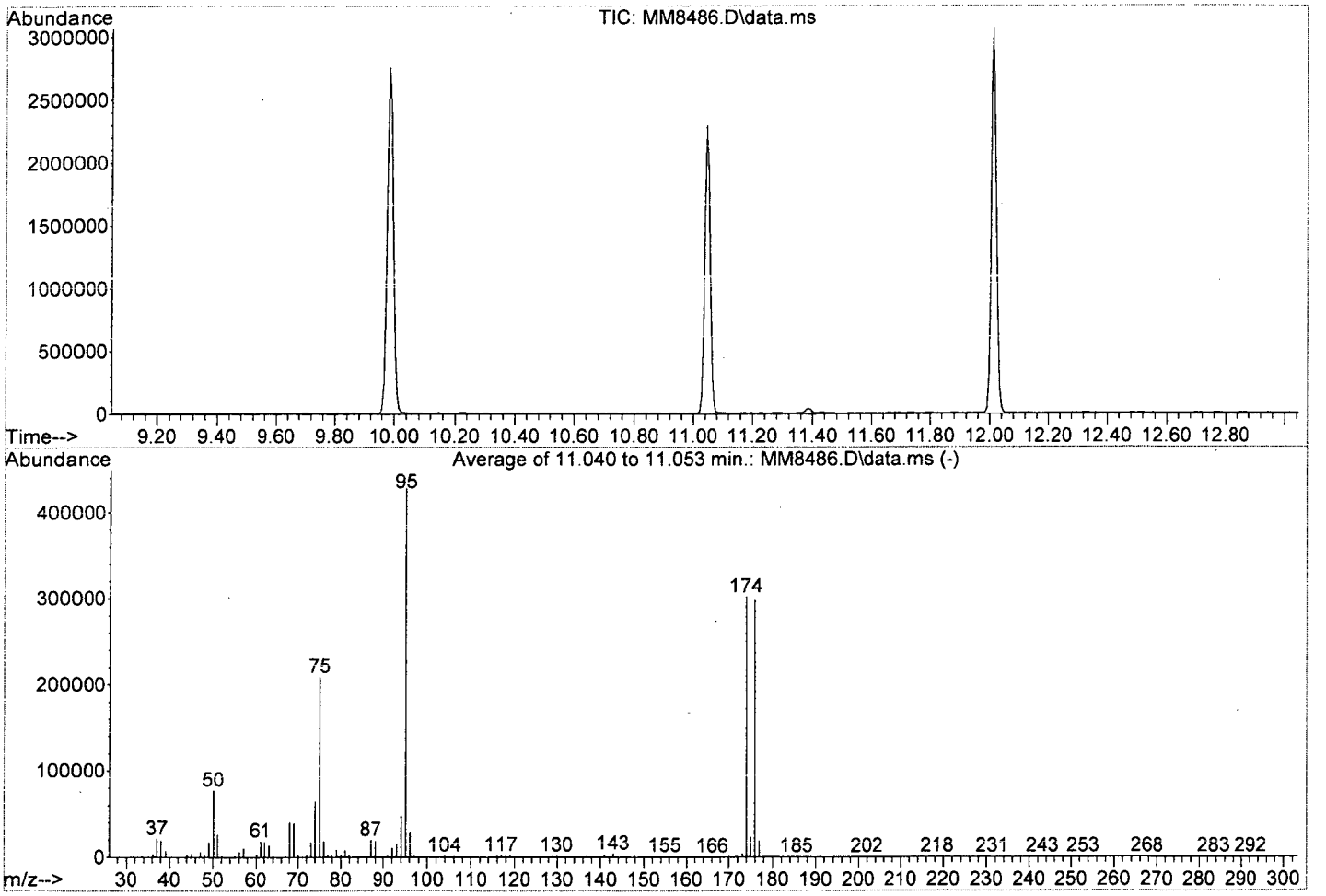
Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8486.D
Acq On : 3 Dec 2015 9:44 am
Operator : K.Ruest
Sample : TUNE RQ1574947-01
Misc :
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Integration File: INTP60.P

KR 12/3/15

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Nov 25 09:49:52 2015



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	76885	PASS
75	95	30	60	48.8	208512	PASS
95	95	100	100	100.0	427669	PASS
96	95	5	9	6.6	28083	PASS
173	174	0.00	2	1.2	3704	PASS
174	95	50	120	70.5	301547	PASS
175	174	5	9	7.6	22992	PASS
176	174	95	101	98.6	297451	PASS
177	176	5	9	6.2	18550	PASS

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000

Service Request: R1510346
Date Analyzed: 12/3/15 10:15

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA12\DATA\120315\MM8487.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1514947-02
Analysis Lot: 474713
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	580,189	12.02	1,242,702	6.77	1,175,397	9.99
	Upper Limit ==>	1,160,378	12.52	2,485,404	7.27	2,350,794	10.49
	Lower Limit ==>	290,095	11.52	621,351	6.27	587,699	9.49
	ICAL Result ==>	553,929	12.02	1,221,940	6.77	1,154,458	9.99
Associated Analyses							
Lab Control Sample	RQ1514947-03	567,477	12.02	1,257,070	6.77	1,183,291	9.99
Method Blank	RQ1514947-04	578,816	12.02	1,286,437	6.77	1,182,297	9.99
TB-2015-11-25	R1510346-021	524,378	12.02	1,285,355	6.77	1,167,558	9.99
EB-2015-11-24	R1510346-017	554,417	12.02	1,273,251	6.77	1,169,232	9.99
EB-2015-11-25	R1510346-019	561,554	12.02	1,301,390	6.77	1,198,621	9.99
FTMM-53-GW-699MW09-9.0	R1510346-007	572,024	12.02	1,268,754	6.77	1,163,043	9.99
FTMM-2-GW-M2MW10-14.3	R1510346-001	574,676	12.02	1,264,613	6.77	1,180,423	9.99
FTMM-2-GW-M2MW03-12.2	R1510346-002	565,033	12.02	1,258,159	6.77	1,172,037	9.99
FTMM-2-GW-M2MW11-42	R1510346-003	575,002	12.02	1,277,283	6.77	1,179,724	9.99
FTMM-2-GW-M2MW22-14	R1510346-004	576,955	12.02	1,223,692	6.77	1,140,364	9.99
FTMM-2-GW-M2MW21-15.2	R1510346-005	577,124	12.02	1,232,319	6.77	1,155,264	9.99
FTMM-2-GW-M2MW24-14.6	R1510346-006	563,775	12.02	1,261,385	6.77	1,171,851	9.99
FTMM-53-GW-699RW11-12.8	R1510346-008	567,256	12.02	1,214,200	6.77	1,137,710	9.99
FTMM-53-GW-699MW06-8.5	R1510346-010	570,213	12.02	1,263,159	6.77	1,173,465	9.99
FTMM-58-GW-2567MW03-8	R1510346-012	562,195	12.02	1,243,474	6.77	1,157,452	9.99
FTMM-58-GW-2567MW01-8.3	R1510346-013	557,966	12.02	1,247,187	6.77	1,158,945	9.99
FTMM-64-GW-812MW04-4.7	R1510346-016	556,751	12.02	1,242,971	6.77	1,153,224	9.99
FTMM-8-GW-M2MW11-21.5	R1510346-014	529,533	12.02	1,194,409	6.77	1,071,747	9.99
FTMM-53-GW-699MW09-9.0MS	RQ1514947-05	559,601	12.02	1,221,136	6.77	1,155,022	9.99
FTMM-53-GW-699MW09-9.0DMS	RQ1514947-06	552,806	12.02	1,211,113	6.77	1,159,473	9.99

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000

Service Request: R1510346
Date Analyzed: 12/3/15 10:15

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA12\DATA\120315\MM8487.D\
Instrument ID: R-MS-12
Analytical Method: 8260C

Lab Code: RQ1514947-02
Analysis Lot: 474713
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	735,427	5.74
	Upper Limit ==>	1,470,854	6.24
	Lower Limit ==>	367,714	5.24
	ICAL Result ==>	733,125	5.74
Associated Analyses			
Lab Control Sample	RQ1514947-03	754,268	5.74
Method Blank	RQ1514947-04	772,007	5.74
TB-2015-11-25	R1510346-021	765,294	5.74
EB-2015-11-24	R1510346-017	757,852	5.74
EB-2015-11-25	R1510346-019	773,192	5.74
FTMM-53-GW-699MW09-9.0	R1510346-007	758,417	5.74
FTMM-2-GW-M2MW10-14.3	R1510346-001	769,180	5.74
FTMM-2-GW-M2MW03-12.2	R1510346-002	765,017	5.74
FTMM-2-GW-M2MW11-42	R1510346-003	765,317	5.74
FTMM-2-GW-M2MW22-14	R1510346-004	758,167	5.74
FTMM-2-GW-M2MW21-15.2	R1510346-005	757,111	5.74
FTMM-2-GW-M2MW24-14.6	R1510346-006	768,531	5.74
FTMM-53-GW-699RW11-12.8	R1510346-008	738,982	5.74
FTMM-53-GW-699MW06-8.5	R1510346-010	755,198	5.74
FTMM-58-GW-2567MW03-8	R1510346-012	749,383	5.74
FTMM-58-GW-2567MW01-8.3	R1510346-013	757,251	5.74
FTMM-64-GW-812MW04-4.7	R1510346-016	758,577	5.74
FTMM-8-GW-M2MW11-21.5	R1510346-014	747,375	5.74
FTMM-53-GW-699MW09-9.0MS	RQ1514947-05	715,416	5.74
FTMM-53-GW-699MW09-9.0DMS	RQ1514947-06	710,478	5.74

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Environmental

VOLATILE ORGANICS SAMPLE DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/24/15 1220
Date Received: 11/30/15

Sample Name: FTMM-2-GW-M2MW10-14.3
Lab Code: R1510346-001

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 14:21		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 14:21		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 14:21		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 14:21		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 14:21		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 14:21		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 14:21		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 14:21		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 14:21		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 14:21		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 14:21		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 14:21		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 14:21		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 14:21		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 14:21		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 14:21		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 14:21		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 14:21		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 14:21		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 14:21		474713	
Acetone	ND	U	10	5.0	1.3	1	NA	12/3/15 14:21		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 14:21		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 14:21		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 14:21		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 14:21		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 14:21		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 14:21		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 14:21		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1220
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-2-GW-M2MW10-14.3	**Units:**	µg/L
Lab Code:	R1510346-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 14:21		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 14:21		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 14:21		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 14:21		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 14:21		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 14:21		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 14:21		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 14:21		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 14:21		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 14:21		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 14:21		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 14:21		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 14:21		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 14:21		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 14:21		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 14:21		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 14:21		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:21		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/3/15 14:21	
Dibromofluoromethane	112	85-115	12/3/15 14:21	
Toluene-d8	101	85-120	12/3/15 14:21	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1421

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-2-GW-M2MW10-14.3	**Units:**	µg/L
Lab Code:	R1510346-001	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120315\
Data File : MM8495.D
Acq On : 3 Dec 2015 2:21 pm
Operator : K.Ruest
Sample : R1510346-001|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 03 14:37:25 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	769180	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1264613	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1180423	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	574676	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	368503	56.05	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 112.10%				
48) surr1,1,2-dichloroetha...	6.096	65	393492	54.18	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.36%				
65) SURR3,Toluene-d8	8.529	98	1402928	50.70	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.40%				
70) SURR2,BFB	11.047	95	593358	56.81	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 113.62%				
Target Compounds							Qvalue
12) Acrolein	2.292	56	832	1.27	ppb		96
15) Acetone	2.487	43	1069	0.65	ppb		86
16) 2-Propanol	2.646	45	167	0.54	ppb	#	1
35) 2-Butanone	4.804	43	493	0.22	ppb	#	46
53) 1-Butanol	7.133	56	203	1.39	ppb	#	1
61) 2-Nitropropane	8.017	41	272	0.22	ppb	#	1
90) Cyclohexanone	11.010	55	508	1.17	ppb	#	47
119) 2,4,5-Trichlorotolene	14.662	159	1194	0.26	ppb		90
120) 2,3,6-Trichlorotoluene	14.662	159	1194	0.30	ppb	#	85

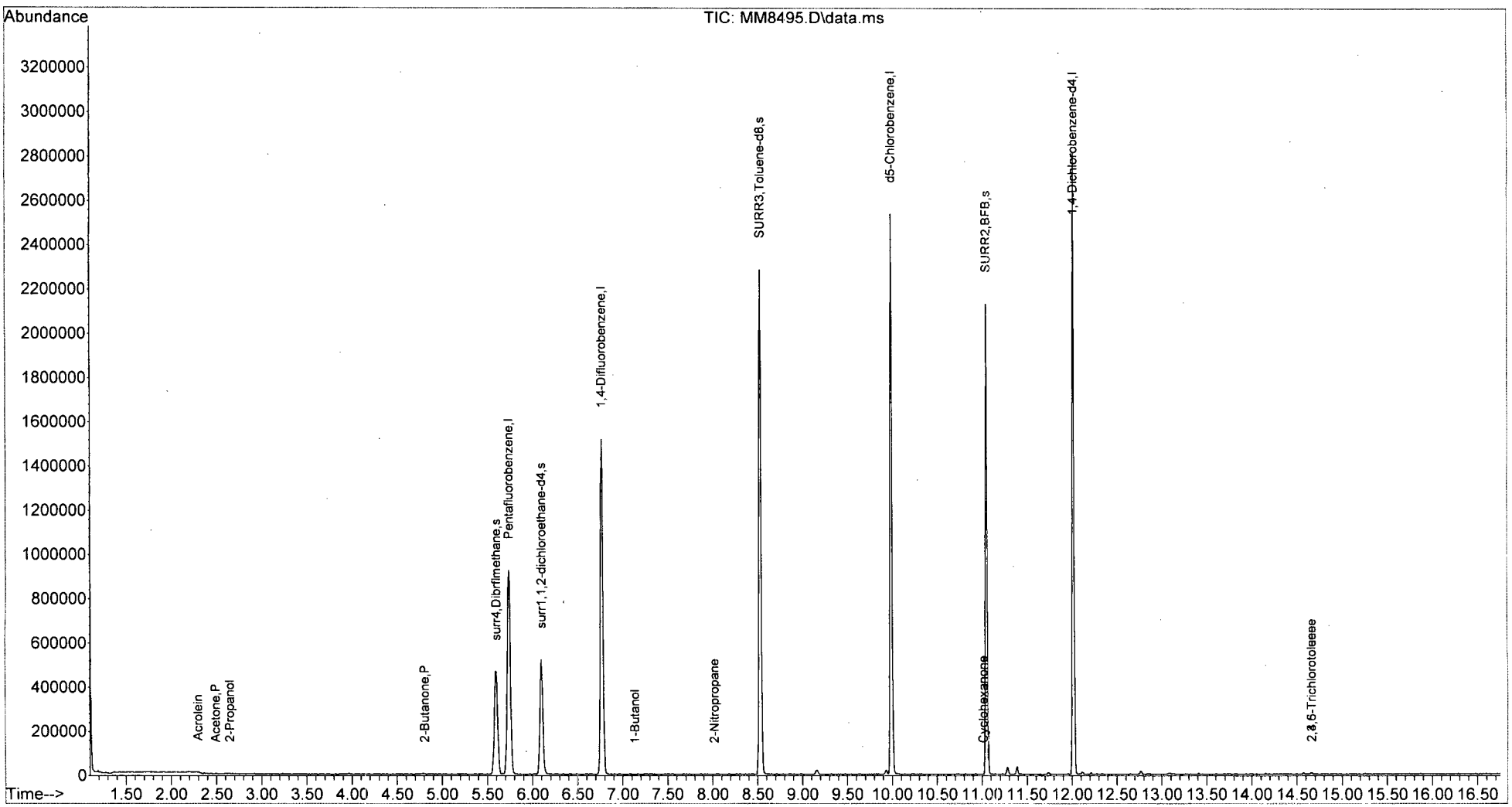
KR 12/9/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120315\
Data File : MM8495.D
Acq On : 3 Dec 2015 2:21 pm
Operator : K.Ruest
Sample : R1510346-001|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 03 14:37:25 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Thu Dec 03 14:37:33 2015 Page: 2

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8495.D
Acq On : 3 Dec 2015 2:21 pm
Operator : K.Ruest
Sample : R1510346-001|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 11 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8495.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.590	728	737	748	rBV	467132	1166118	31.82%	5.541%
2	5.737	750	761	773	rVB	923537	2205318	60.19%	10.479%
3	6.096	812	820	832	rBV	519171	1145038	31.25%	5.441%
4	6.767	918	930	941	rBV	1519401	2945672	80.39%	13.997%
5	8.529	1212	1219	1229	rBV	2284266	3664183	100.00%	17.411%
6	9.163	1316	1323	1328	rVB2	19294	39550	1.08%	0.188%
7	9.986	1452	1458	1468	rVV	2534452	3581216	97.74%	17.017%
8	11.047	1627	1632	1640	rVB	2130310	2672091	72.92%	12.697%
9	11.278	1666	1670	1677	rBV2	34762	53812	1.47%	0.256%
10	11.388	1683	1688	1693	rVB2	36624	45752	1.25%	0.217%
11	12.016	1785	1791	1799	rBV	2812883	3526754	96.25%	16.758%

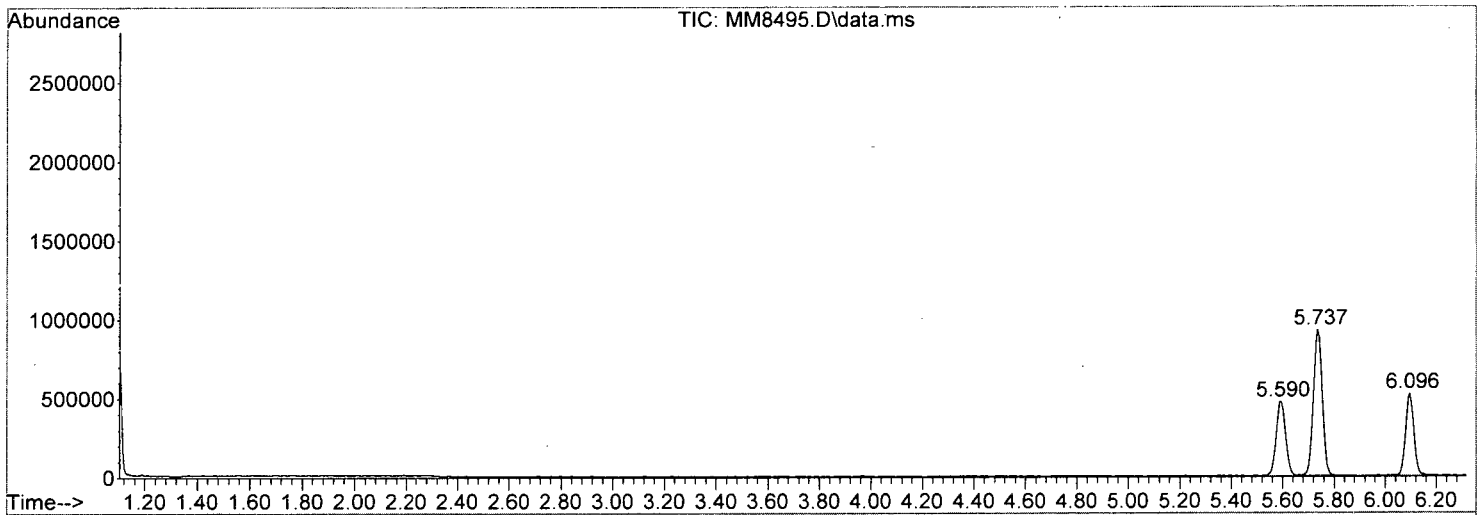
Sum of corrected areas: 21045504

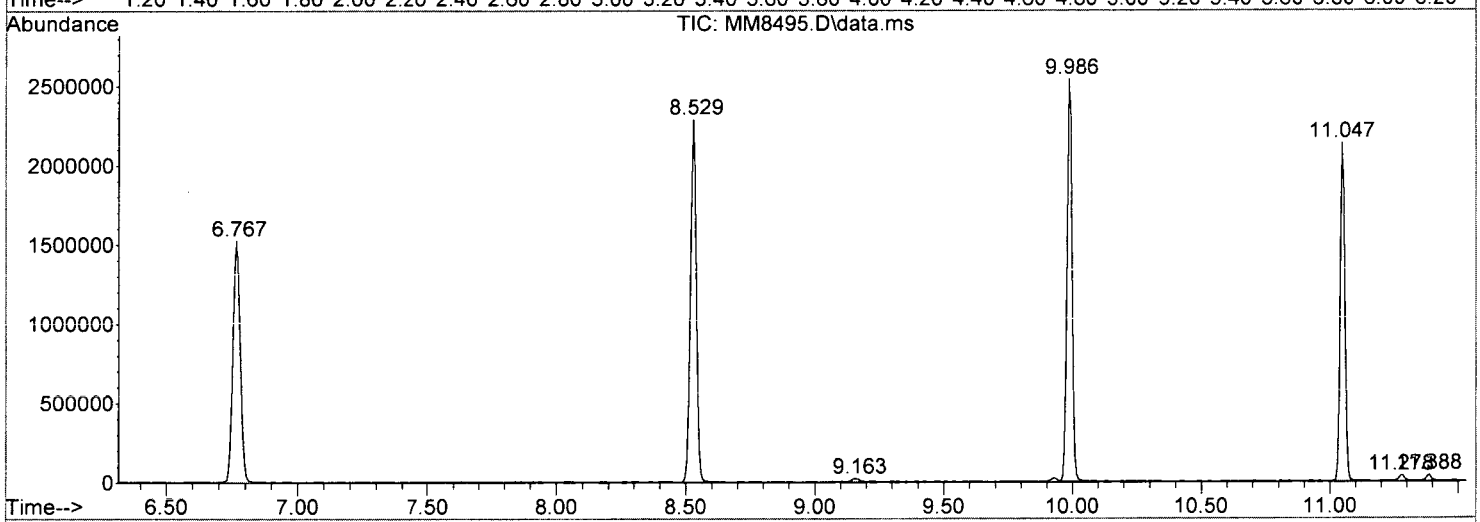
LSC Report - Integrated Chromatogram

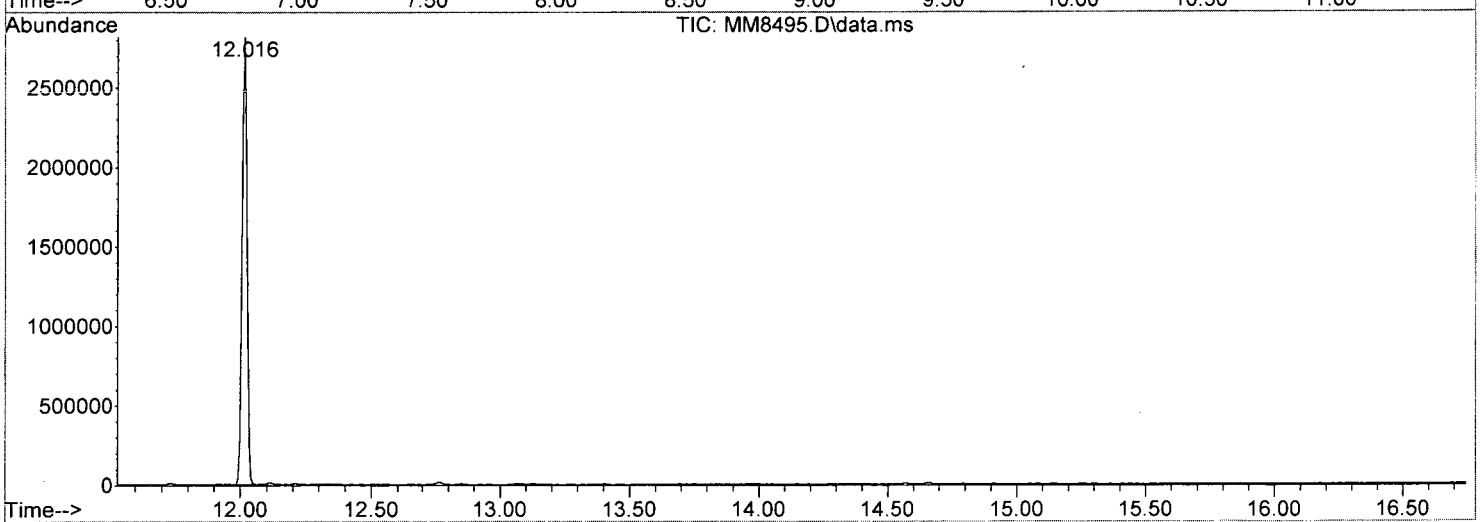

```
Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8495.D
Acq On    :  3 Dec 2015    2:21 pm
Operator  : K.Ruest
Sample    : R1510346-001|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 11   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```







Data Path : I:\ACQUDATA\msvoa12\Data\120315\\
Data File : MM8495.D
Acq On : 3 Dec 2015 2:21 pmm
Operator : K.Ruestt
Sample : R1510346-001|1.0 Inst : MSVOA-122
Misc : PARSONS 14517 T4*DOD44
ALS Vial : 11 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1425
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-2-GW-M2MW03-12.2	**Units:**	µg/L
Lab Code:	R1510346-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 14:52		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 14:52		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 14:52		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 14:52		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 14:52		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 14:52		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 14:52		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 14:52		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 14:52		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 14:52		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 14:52		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 14:52		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 14:52		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 14:52		474713	
1,4-Dichlorobenzene	**0.32**	J	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 14:52		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 14:52		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 14:52		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 14:52		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 14:52		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 14:52		474713	
Acetone	**2.5**	J	10	5.0	1.3	1	NA	12/3/15 14:52		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 14:52		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 14:52		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 14:52		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 14:52		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 14:52		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 14:52		474713	
Chlorobenzene	**2.5**	J	5.0	1.0	0.29	1	NA	12/3/15 14:52		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1425
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-2-GW-M2MW03-12.2	**Units:**	µg/L
Lab Code:	R1510346-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 14:52		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 14:52		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 14:52		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 14:52		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 14:52		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 14:52		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 14:52		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 14:52		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
Tetrachloroethene (PCE)	**0.30**	J	5.0	1.0	0.30	1	NA	12/3/15 14:52		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 14:52		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 14:52		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 14:52		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 14:52		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 14:52		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 14:52		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 14:52		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 14:52		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 14:52		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	115	75-120	12/3/15 14:52	
Dibromofluoromethane	110	85-115	12/3/15 14:52	
Toluene-d8	105	85-120	12/3/15 14:52	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1452

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-2-GW-M2MW03-12.2	**Units:**	µg/L
Lab Code:	R1510346-002	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8496.D
Acq On : 3 Dec 2015 2:52 pm
Operator : K.Ruest
Sample : R1510346-002|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 09 14:58:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	765017	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1258159	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1172037	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	565033	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	361038	55.19	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 110.38%				
48) surr1,1,2-dichloroetha...	6.096	65	391957	54.25	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.50%				
65) SURR3,Toluene-d8	8.529	98	1445525	52.51	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.02%				
70) SURR2,BFB	11.047	95	597795	57.52	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 115.04%				
Target Compounds							Qvalue
15) Acetone	2.493	43	3996	2.45	ppb		88
72) Tetrachloroethene	9.175	164	1451	0.30	ppb	#	70
78) Chlorobenzene	10.016	112	42713	2.46	ppb		94
106) 1,4-Dclbenz	12.034	146	3894	0.32	ppb	#	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

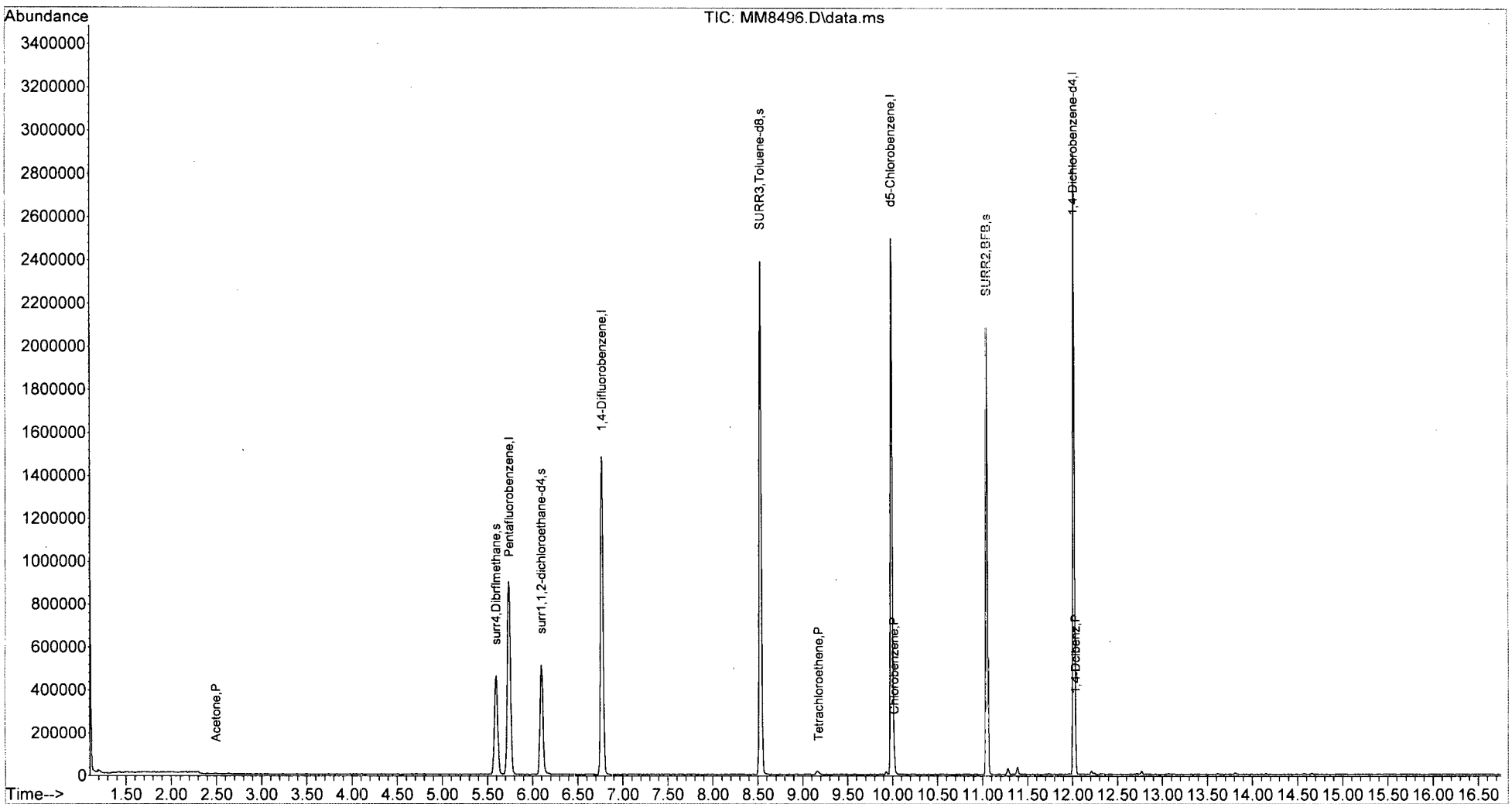
KP 12/9/15

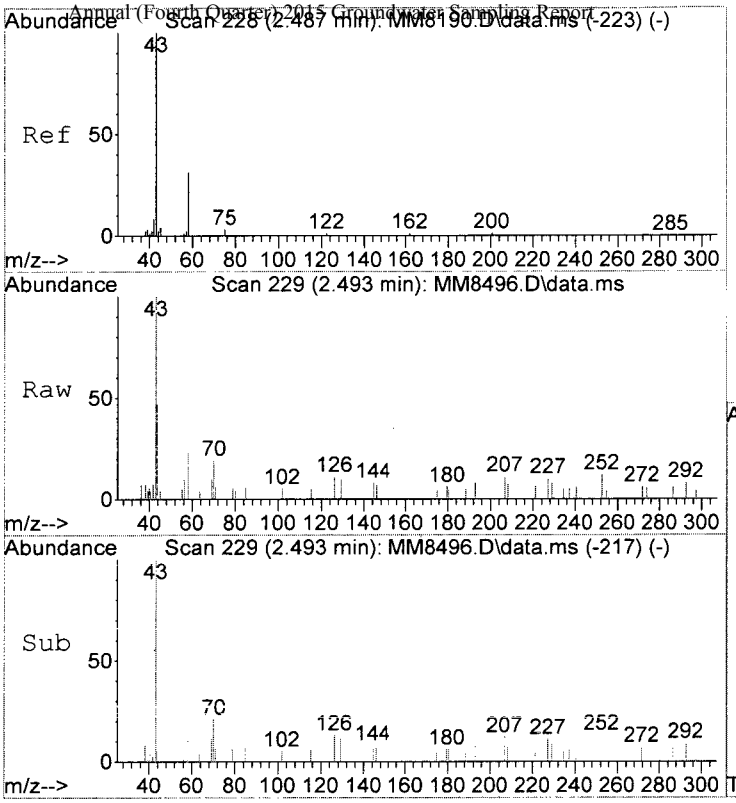
SL 12/10/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8496.D
Acq On : 3 Dec 2015 2:52 pm
Operator : K.Ruest
Sample : R1510346-002|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 09 14:58:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

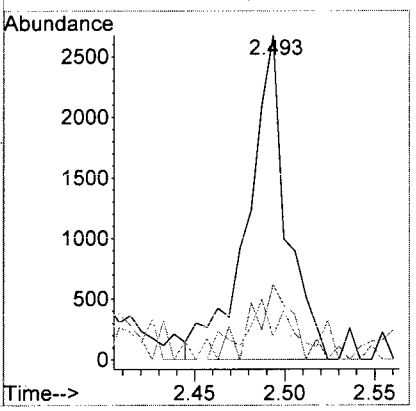


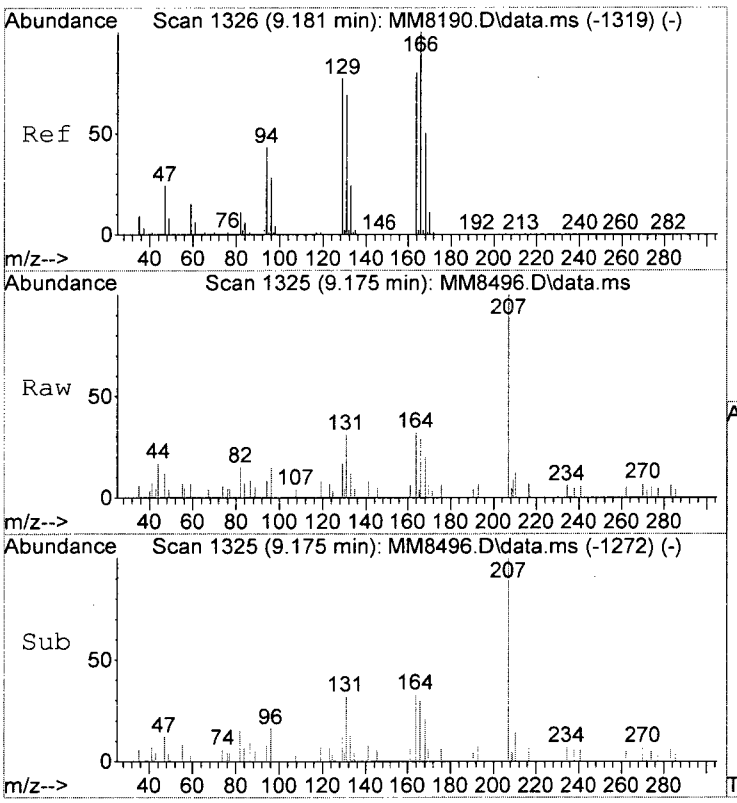


#15
Acetone
Concen: 2.45 ppb
RT: 2.493 min Scan# 229
Delta R.T. -0.000 min
Lab File: MM8496.D
Acq: 3 Dec 2015 2:52 pm

Tgt Ion: 43 Resp: 3996

Ion	Ratio	Lower	Upper
43	100		
58	23.0	10.9	50.9
42	7.2	0.0	28.5

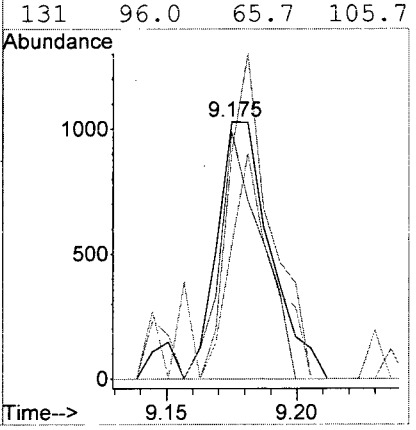


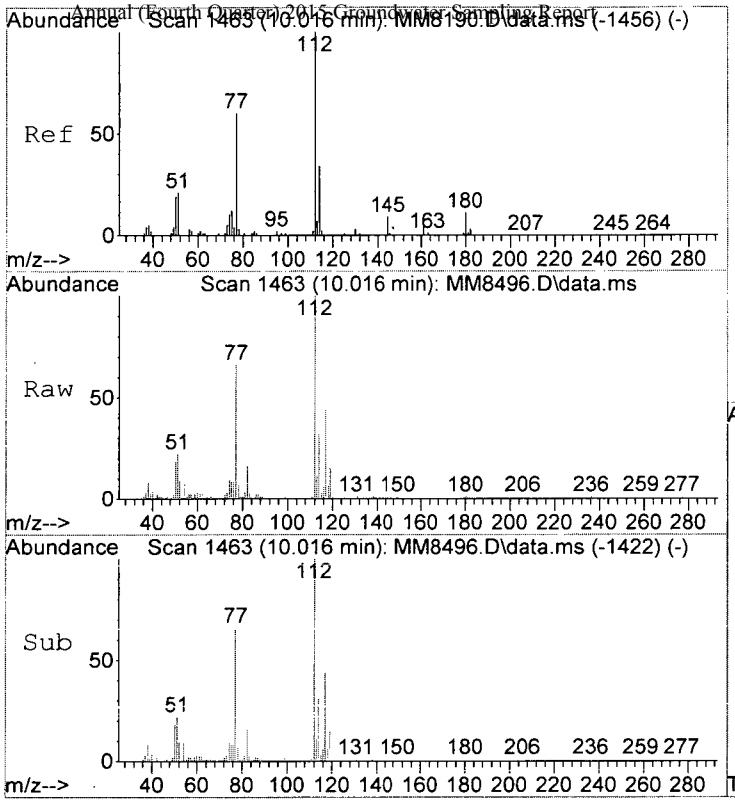


#72
Tetrachloroethene
Concen: 0.30 ppb
RT: 9.175 min Scan# 1325
Delta R.T. -0.006 min
Lab File: MM8496.D
Acq: 3 Dec 2015 2:52 pm

Tgt Ion:164 Resp: 1451

Ion	Ratio	Lower	Upper
164	100		
166	88.4	104.3	144.3#
129	52.1	75.4	115.4#
131	96.0	65.7	105.7

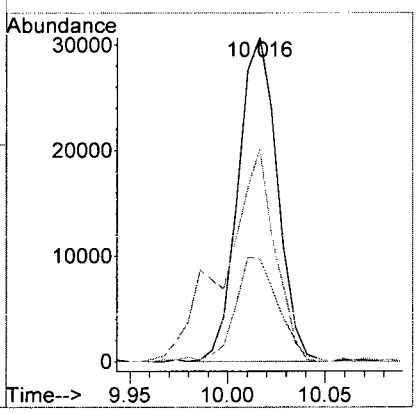


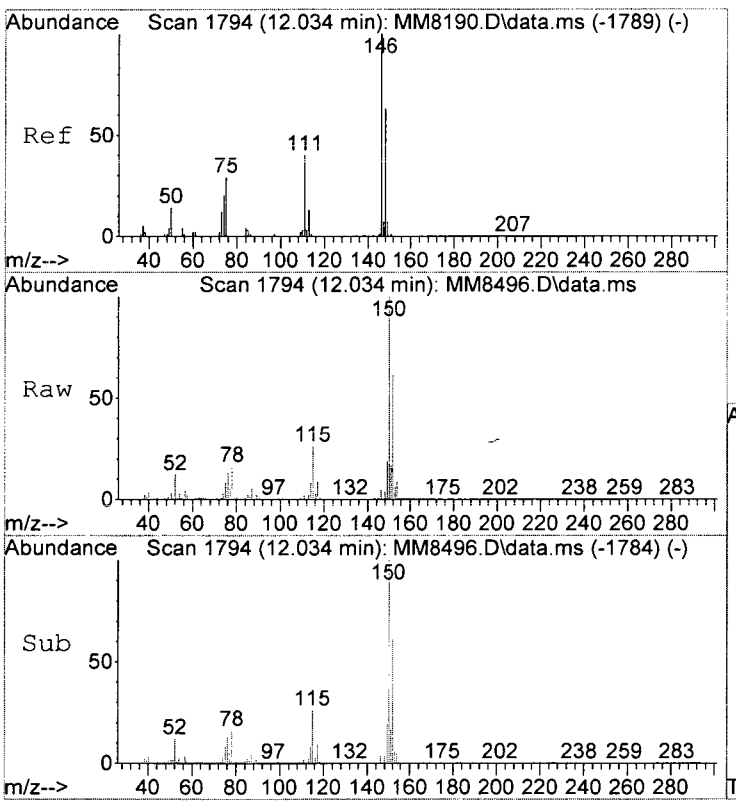


#78
Chlorobenzene
Concen: 2.46 ppb
RT: 10.016 min Scan# 1463
Delta R.T. -0.000 min
Lab File: MM8496.D
Acq: 3 Dec 2015 2:52 pm

Tgt Ion:112 Resp: 42713

Ion	Ratio	Lower	Upper
112	100		
114	31.7	13.7	53.7
77	65.5	40.2	80.2

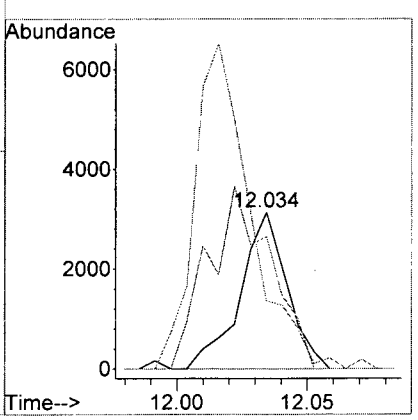




#106
1,4-Dclbenz
Concen: 0.32 ppb
RT: 12.034 min Scan# 1794
Delta R.T. -0.006 min
Lab File: MM8496.D
Acq: 3 Dec 2015 2:52 pm

Tgt Ion:146 Resp: 3894

Ion	Ratio	Lower	Upper
146	100		
148	84.3	43.5	83.5#
111	43.2	20.3	60.3



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8496.D
Acq On : 3 Dec 2015 2:52 pm
Operator : K.Ruest
Sample : R1510346-002|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8496.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.597	728	738	749	rBV2	460684	1155565	30.73%	5.433%
2	5.737	751	761	774	rVB	900321	2193833	58.34%	10.315%
3	6.096	811	820	831	rBV	510987	1174594	31.23%	5.523%
4	6.767	922	930	946	rVB	1484382	2910346	77.39%	13.684%
5	8.529	1212	1219	1232	rVB	2389761	3760671	100.00%	17.682%
6	9.163	1317	1323	1333	rVB4	17747	48224	1.28%	0.227%
7	9.986	1452	1458	1471	rVB	2498738	3686812	98.04%	17.334%
8	11.047	1626	1632	1643	rBV	2084768	2689553	71.52%	12.646%
9	11.278	1666	1670	1676	rBV2	31249	48602	1.29%	0.229%
10	11.388	1683	1688	1693	rBV2	35778	46128	1.23%	0.217%
11	12.016	1785	1791	1799	rBV	2895224	3554388	94.51%	16.712%

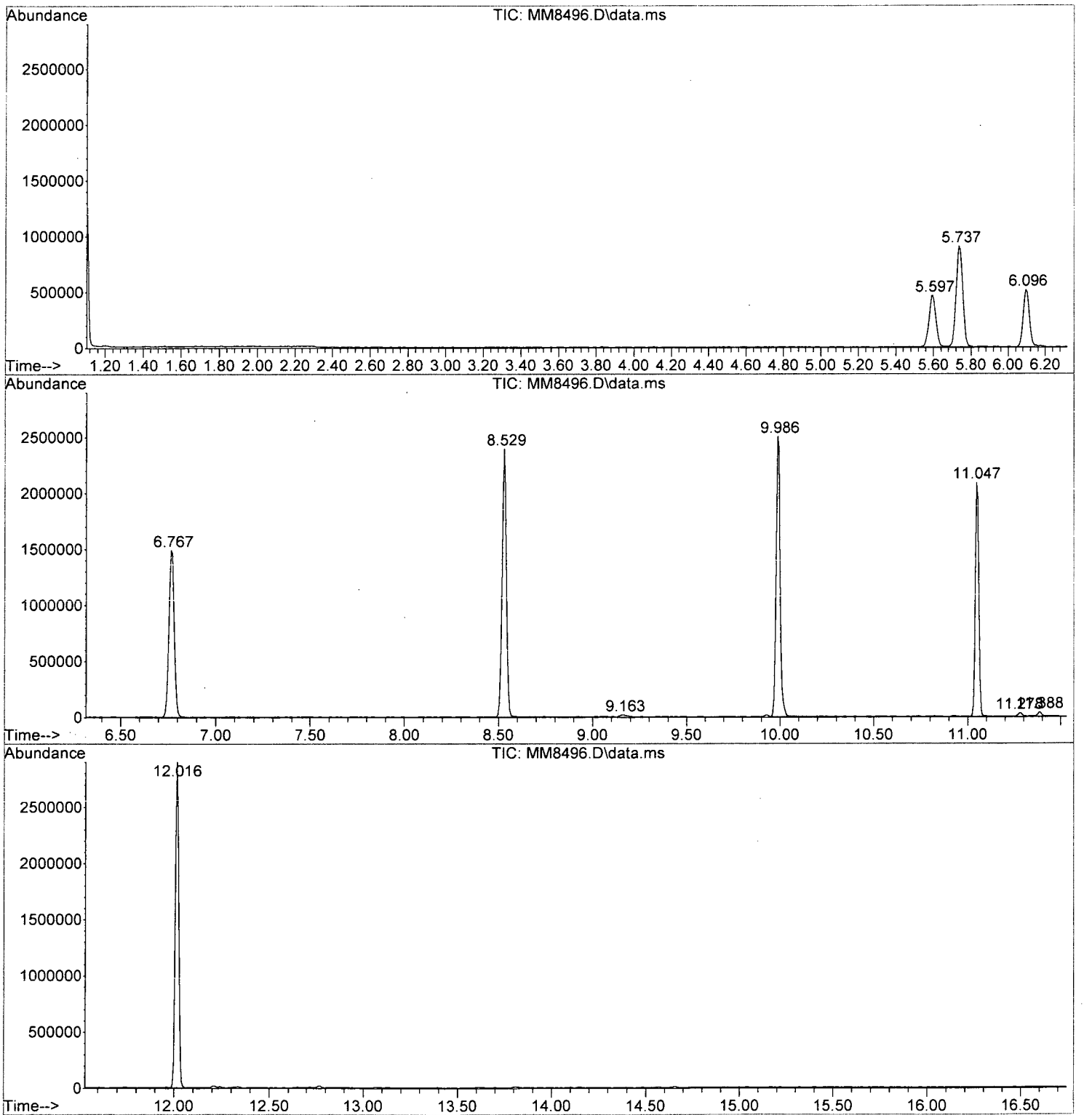
Sum of corrected areas: 21268716

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8496.D
Acq On : 3 Dec 2015 2:52 pm
Operator : K.Ruest
Sample : R1510346-002|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 12 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\120315\\
Data File : MM8496.D
Acq On : 3 Dec 2015 2:52 pmm
Operator : K.Ruestt
Sample : R1510346-002|1.0 Inst : MSVOA-122
Misc : PARSONS 14517 T4*DOD44
ALS Vial : 12 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1600
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-2-GW-M2MW11-42	**Units:**	µg/L
Lab Code:	R1510346-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 15:22		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 15:22		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 15:22		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 15:22		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 15:22		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 15:22		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 15:22		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 15:22		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 15:22		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 15:22		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 15:22		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 15:22		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 15:22		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 15:22		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 15:22		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 15:22		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 15:22		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 15:22		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 15:22		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 15:22		474713	
Acetone	ND	U	10	5.0	1.3	1	NA	12/3/15 15:22		474713	
Benzene	**0.33**	J	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 15:22		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 15:22		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 15:22		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 15:22		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 15:22		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 15:22		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 15:22		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1600
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-2-GW-M2MW11-42	**Units:**	µg/L
Lab Code:	R1510346-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 15:22		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 15:22		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 15:22		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 15:22		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 15:22		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 15:22		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 15:22		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 15:22		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 15:22		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 15:22		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 15:22		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 15:22		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 15:22		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 15:22		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 15:22		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 15:22		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 15:22		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:22		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	12/3/15 15:22	
Dibromofluoromethane	109	85-115	12/3/15 15:22	
Toluene-d8	110	85-120	12/3/15 15:22	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1522

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-2-GW-M2MW11-42	**Units:**	µg/L
Lab Code:	R1510346-003	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120315\
Data File : MM8497.D
Acq On : 3 Dec 2015 3:22 pm
Operator : K.Ruest
Sample : R1510346-003|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 03 15:38:40 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	765317	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1277283	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1179724	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	575002	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	362121	54.53	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.06%				
48) surr1,1,2-dichloroetha...	6.096	65	388116	52.91	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 105.82%				
65) SURR3,Toluene-d8	8.529	98	1542203	55.18	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 110.36%				
70) SURR2,BFB	11.047	95	593965	56.30	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 112.60%				
Target Compounds							Qvalue
12) Acrolein	2.353	56	707	1.08	ppb	#	~~16~~
15) Acetone	2.493	43	~~787~~	0.48	ppb	#	63
16) 2-Propanol	2.640	45	352	1.14	ppb		73
~~39) Tetrahydrofuran~~	~~5.322~~	~~42~~	~~319~~	~~0.22~~	~~ppb~~	~~#~~	~~33~~
49) Benzene	6.176	78	9295	0.33	ppb		94
~~53) 1-Butanol~~	~~7.114~~	~~56~~	~~328~~	~~2.22~~	~~ppb~~		~~87~~
61) 2-Nitropropane	8.023	41	~~316~~	0.25	ppb	#	55
90) Cyclohexanone	10.937	55	345	0.80	ppb		81

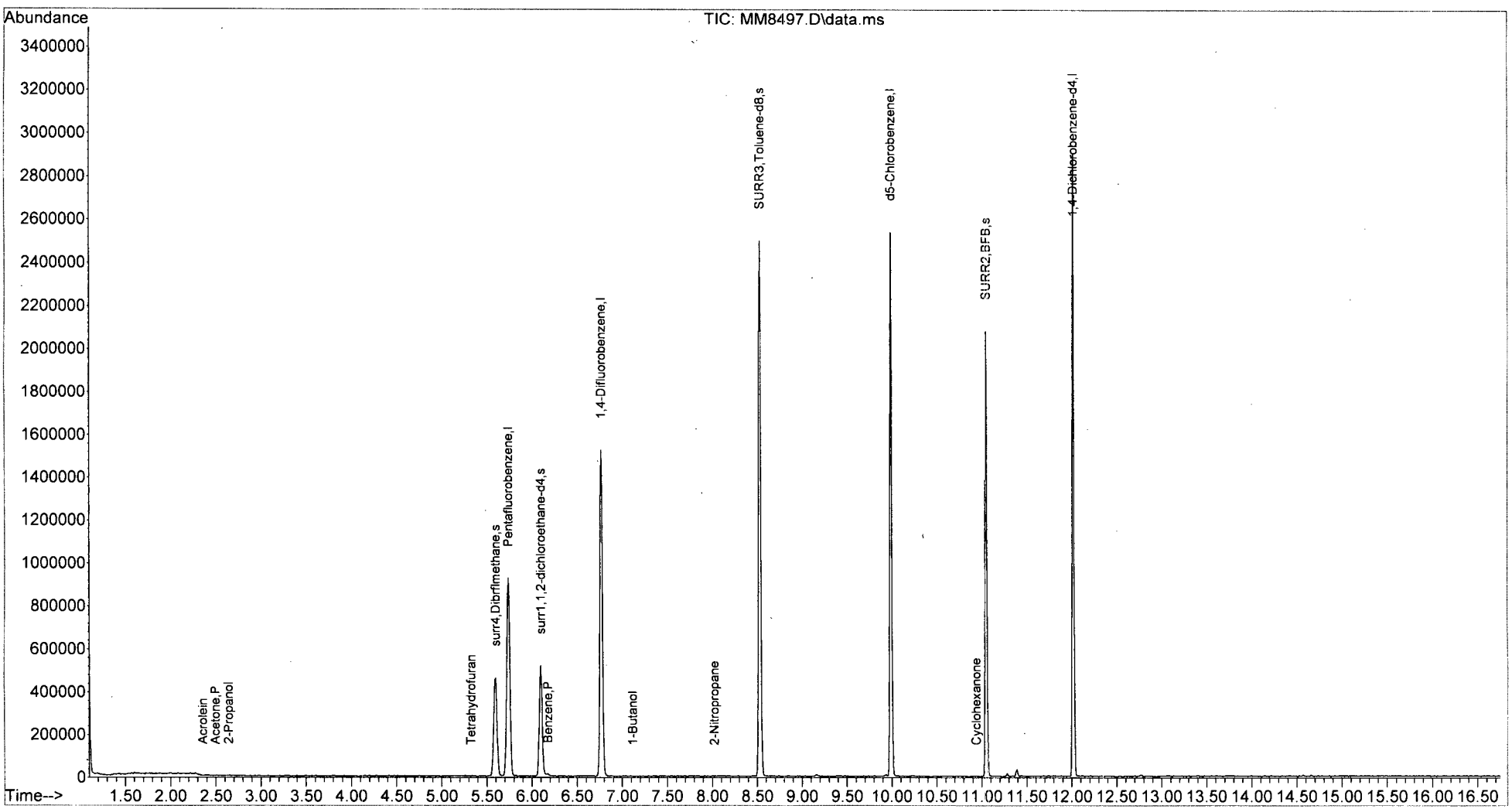
(#) = qualifier out of range (m) = manual integration (+) = signals summed

12/9/15

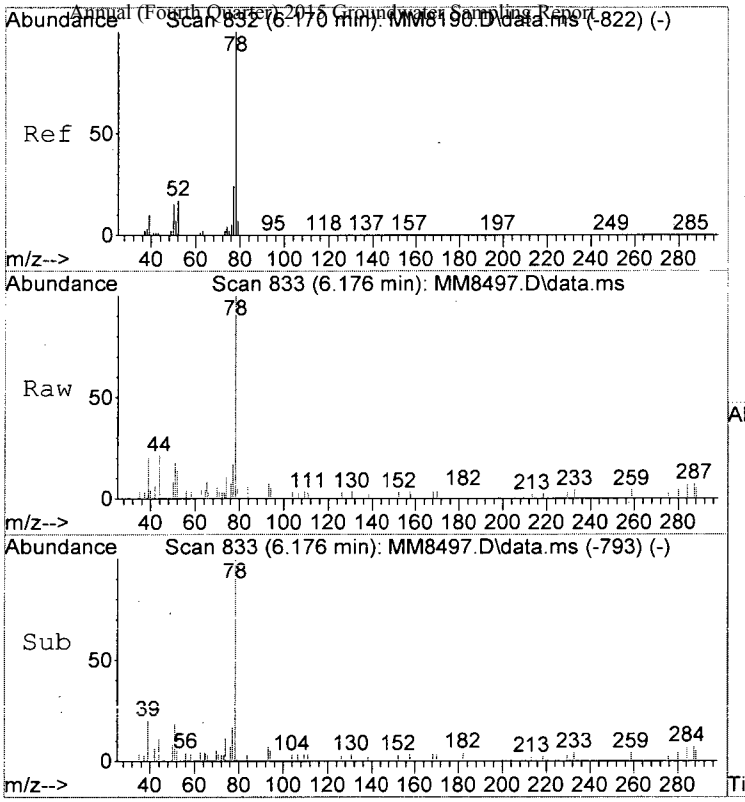
Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120315\
Data File : MM8497.D
Acq On : 3 Dec 2015 3:22 pm
Operator : K.Ruest
Sample : R1510346-003|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 03 15:38:40 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



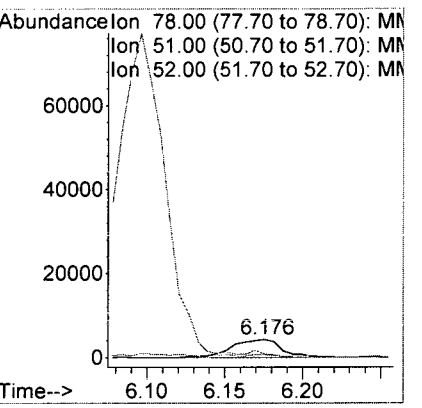
W111815A.M Thu Dec 03 15:38:48 2015 Page: 2



#49
Benzene
Concen: 0.33 ppb
RT: 6.176 min Scan# 833
Delta R.T. -0.000 min
Lab File: MM8497.D
Acq: 3 Dec 2015 3:22 pm

Tgt Ion: 78 Resp: 9295

Ion	Ratio	Lower	Upper
78	100		
51	18.4	0.0	36.1
52	14.1	0.0	36.8



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8497.D
Acq On : 3 Dec 2015 3:22 pm
Operator : K.Ruest
Sample : R1510346-003|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 13 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8497.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.596	728	738	751	rVV	459266	1152890	28.78%	5.404%
2	5.737	751	761	773	rVB	925371	2204066	55.03%	10.331%
3	6.096	810	820	830	rBV	518195	1145317	28.60%	5.369%
4	6.767	918	930	943	rBV	1524121	2967532	74.09%	13.910%
5	8.529	1212	1219	1228	rBV	2498334	4005257	100.00%	18.774%
6	9.986	1452	1458	1468	rVB	2537223	3571631	89.17%	16.742%
7	11.047	1626	1632	1643	rVB	2080343	2666371	66.57%	12.499%
8	11.388	1684	1688	1693	rVB2	33635	48804	1.22%	0.229%
9	12.016	1785	1791	1800	rBV	2901904	3571652	89.17%	16.742%

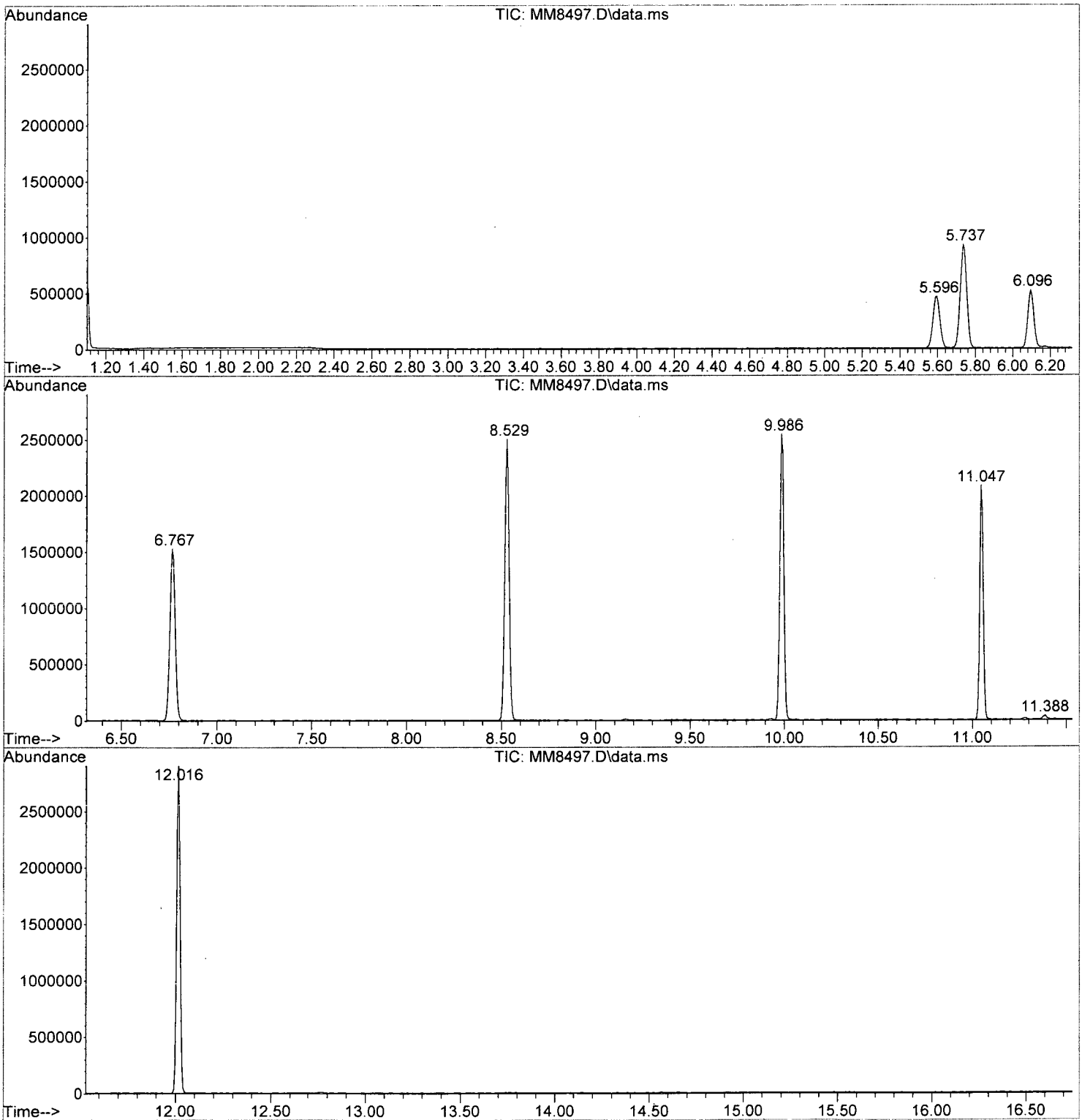
Sum of corrected areas: 21333520

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8497.D
Acq On    :  3 Dec 2015    3:22 pm
Operator  : K.Ruest
Sample    : R1510346-003|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



W111815A.M Wed Dec 09 15:05:45 2015 Page: 2

Data Path : I:\ACQUDATA\msvoa12\Data\120315\\
Data File : MM8497.D
Acq On : 3 Dec 2015 3:22 pmm
Operator : K.Ruestt
Sample : R1510346-003|1.0 Inst : MSVOA-122
Misc : PARSONS 14517 T4*DOD44
ALS Vial : 13 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/24/15 1425
Date Received: 11/30/15

Sample Name: FTMM-2-GW-M2MW22-14
Lab Code: R1510346-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 15:53		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 15:53		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 15:53		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 15:53		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 15:53		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 15:53		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 15:53		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 15:53		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 15:53		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 15:53		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 15:53		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 15:53		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 15:53		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 15:53		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 15:53		474713	
2-Butanone (MEK)	**1.9**	J	10	1.0	0.81	1	NA	12/3/15 15:53		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 15:53		474713	
tert-Butyl Alcohol	**150**		100	20	11	1	NA	12/3/15 15:53		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 15:53		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 15:53		474713	
Acetone	**3.9**	J	10	5.0	1.3	1	NA	12/3/15 15:53		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 15:53		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 15:53		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 15:53		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 15:53		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 15:53		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 15:53		474713	
Chlorobenzene	**1.6**	J	5.0	1.0	0.29	1	NA	12/3/15 15:53		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1425
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-2-GW-M2MW22-14	**Units:**	µg/L
Lab Code:	R1510346-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 15:53		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 15:53		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 15:53		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 15:53		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 15:53		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 15:53		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 15:53		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
Methyl tert-Butyl Ether	**73**		5.0	1.0	0.29	1	NA	12/3/15 15:53		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 15:53		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 15:53		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 15:53		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 15:53		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 15:53		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 15:53		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 15:53		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 15:53		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 15:53		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 15:53		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	116	75-120	12/3/15 15:53	
Dibromofluoromethane	113	85-115	12/3/15 15:53	
Toluene-d8	107	85-120	12/3/15 15:53	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1553

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-2-GW-M2MW22-14	**Units:**	µg/L
Lab Code:	R1510346-004	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q
	unknown	6.31	**34**	J
	unknown	8.28	**8.0**	J
	unknown	8.35	**24**	J
	unknown	8.71	**14**	J

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8498.D
Acq On : 3 Dec 2015 3:53 pm
Operator : K.Ruest
Sample : R1510346-004|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 09 15:09:01 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	758167	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.773	114	1223692	50.00	ppb	0.00
71) d5-Chlorobenzene	9.992	117	1140364	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	576955	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.596	113	359058	56.44	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 112.88%			
48) surr1,1,2-dichloroetha...	6.096	65	383663	54.60	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 109.20%			
65) SURR3,Toluene-d8	8.529	98	1433145	53.53	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 107.06%			
70) SURR2,BFB	11.047	95	588091	58.19	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 116.38%			
Target Compounds						Qvalue
15) Acetone	2.487	43	6293	3.89	ppb	84
23) TBA	3.091	59	75049	150.77	ppb	99
25) Methyl-t-Butyl Ether	3.262	73	1285099	72.85	ppb	98
35) 2-Butanone	4.786	43	4148m	1.87	ppb	
78) Chlorobenzene	10.016	112	26822	1.59	ppb	99

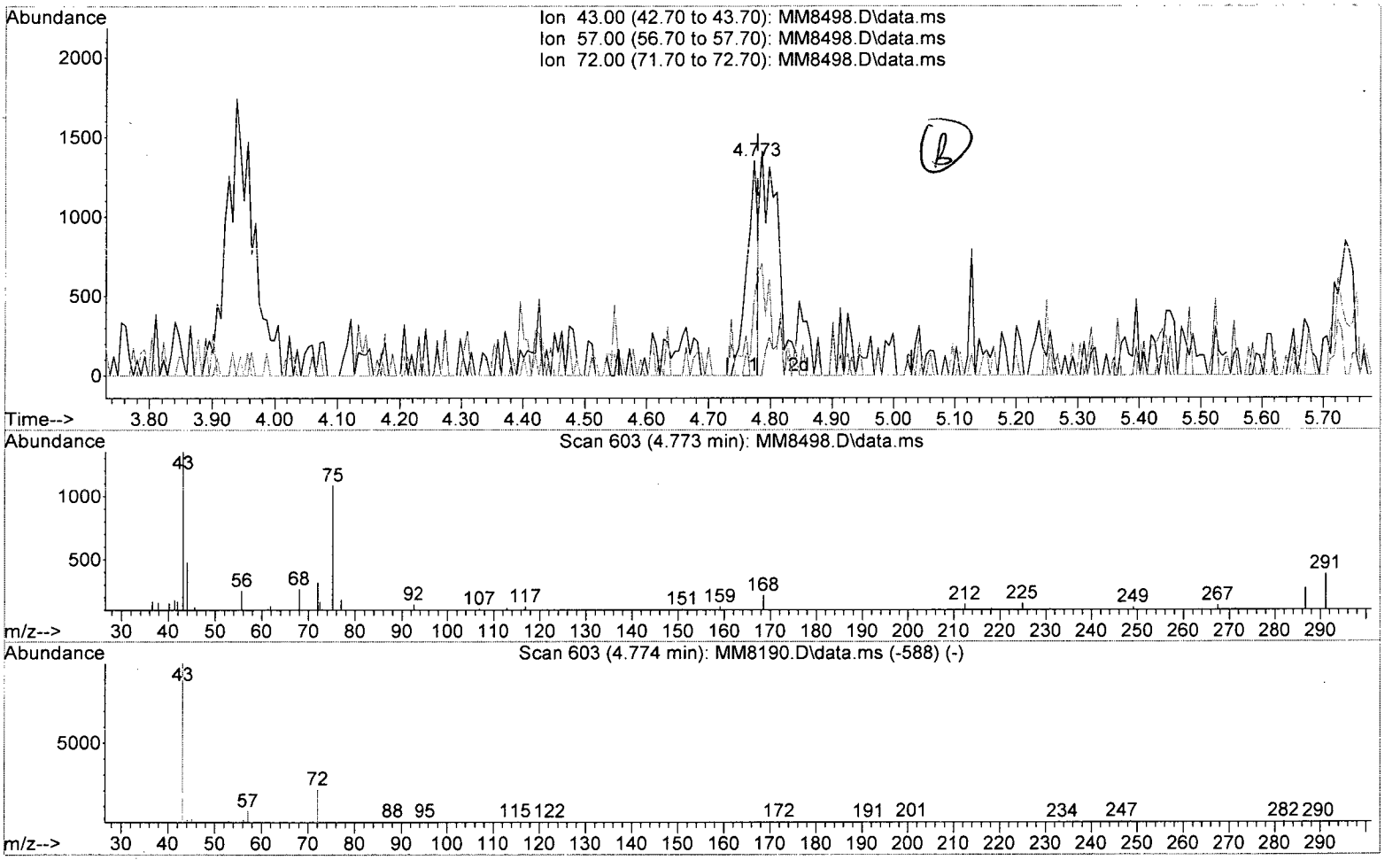
(#) = qualifier out of range (m) = manual integration (+) = signals summed

KR 12/9/15

DL 12/10/15

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8498.D
Acq On : 3 Dec 2015 3:53 pm
Operator : K.Ruest
Sample : R1510346-004|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 03 16:09:19 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8498.D\data.ms

(35) 2-Butanone (P)

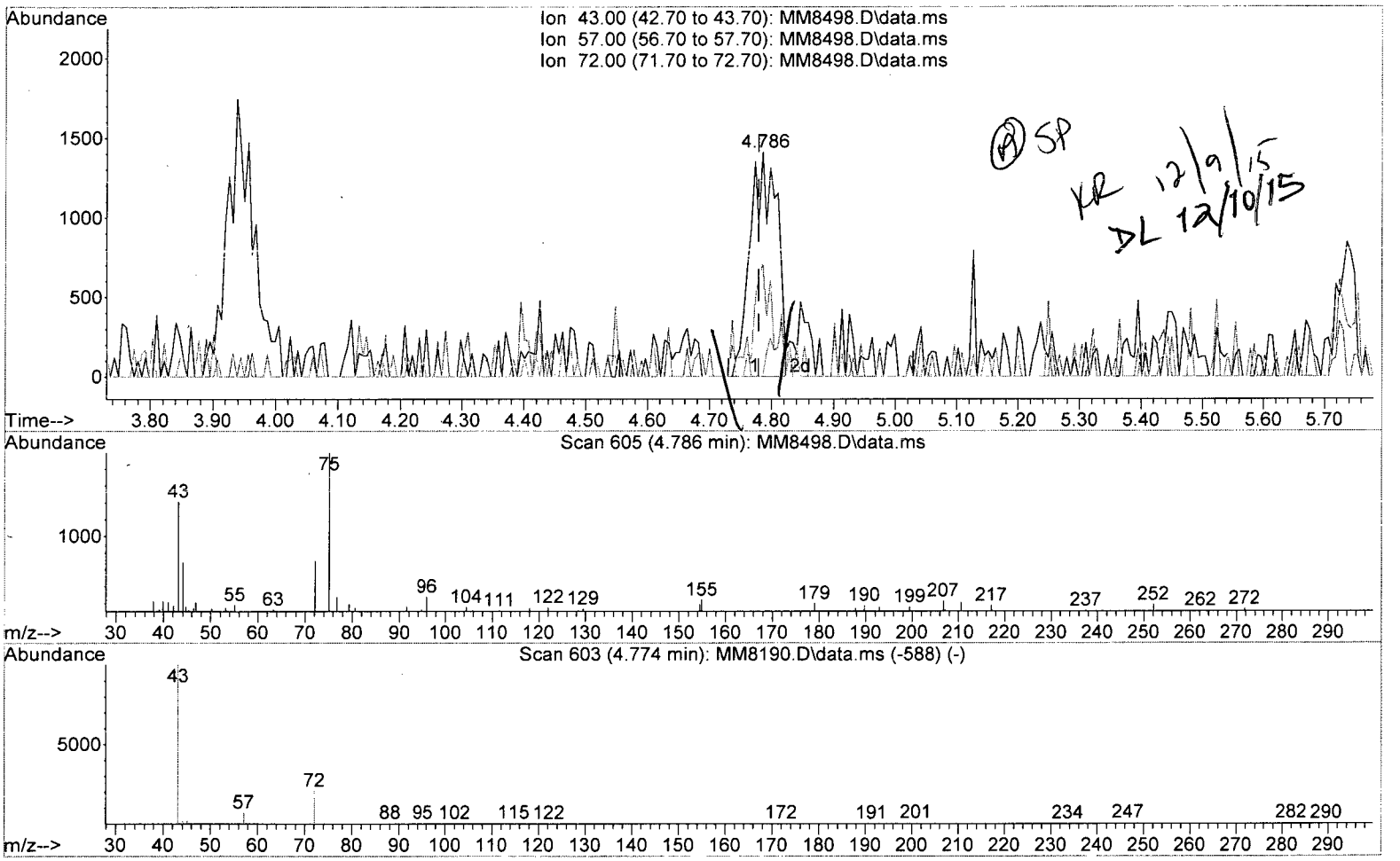
4.773min (-0.006) 0.76 ppb

response 1673

Ion	Exp%	Act%
43.00	100	100
57.00	7.50	0.00
72.00	21.20	35.60
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8498.D
Acq On : 3 Dec 2015 3:53 pm
Operator : K.Ruest
Sample : R1510346-004|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 03 16:09:19 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8498.D\data.ms

(35) 2-Butanone (P)

4.786min (+0.006) 1.87 ppb m

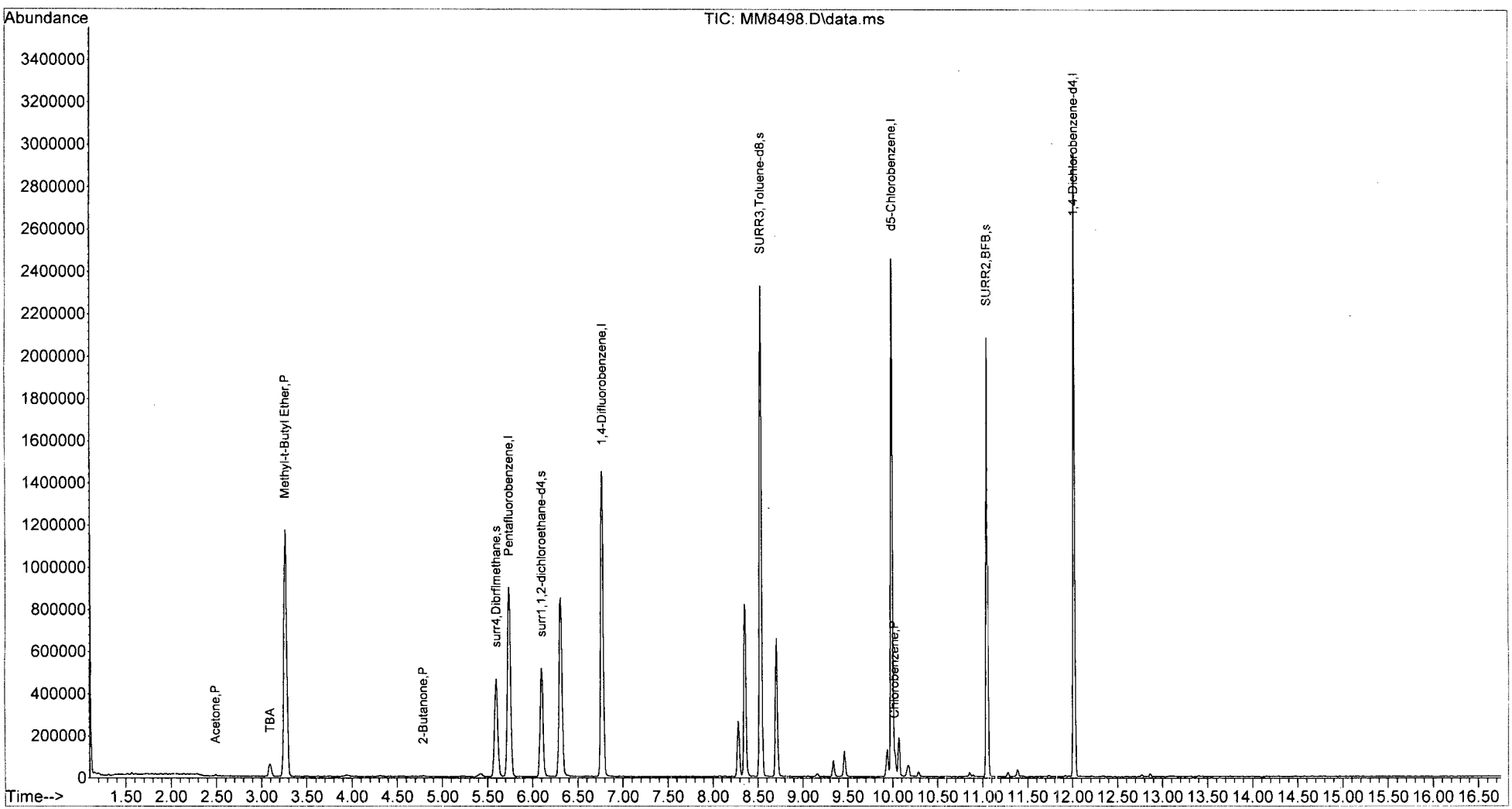
response 4148

Ion	Exp%	Act%
43.00	100	100
57.00	7.50	0.00
72.00	21.20	49.86#
0.00	0.00	0.00

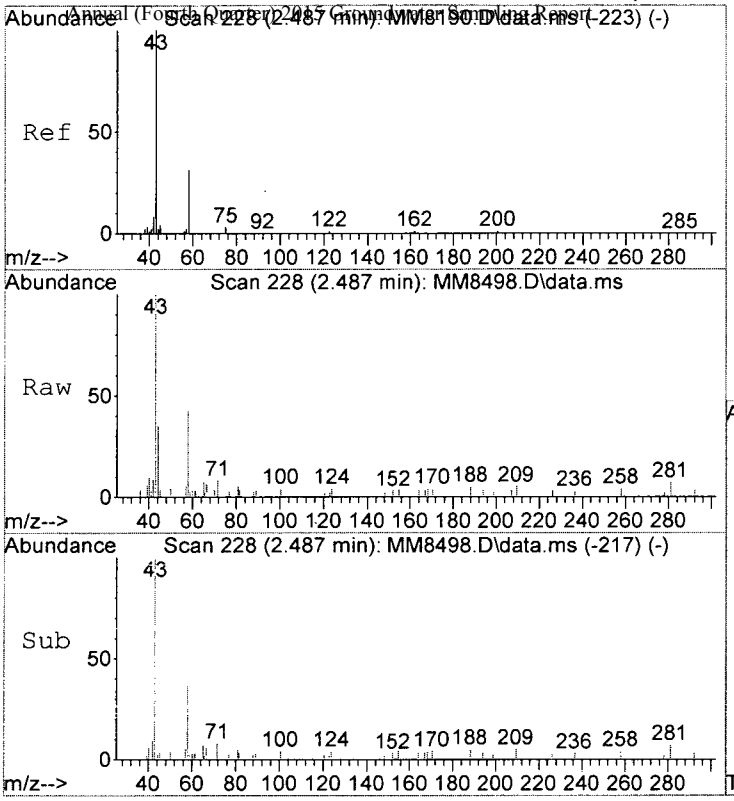
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8498.D
Acq On : 3 Dec 2015 3:53 pm
Operator : K.Ruest
Sample : R1510346-004|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 09 15:09:01 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



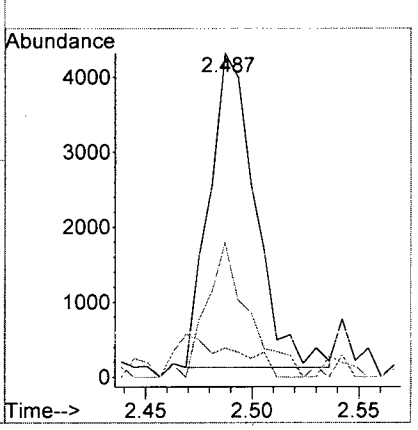
W111815A.M Wed Dec 09 15:10:16 2015 Page: 2

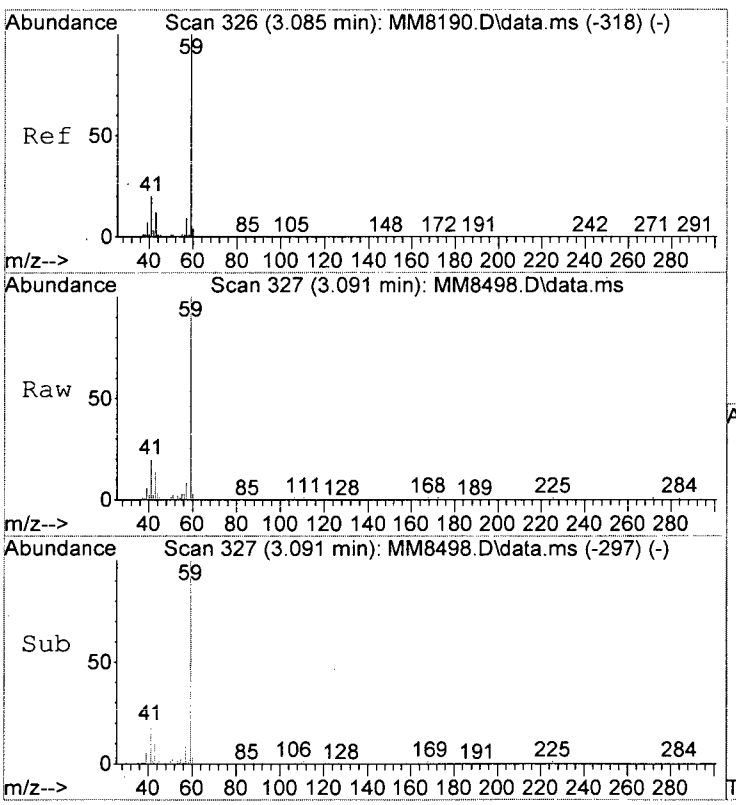


#15
Acetone
Concen: 3.89 ppb
RT: 2.487 min Scan# 228
Delta R.T. -0.006 min
Lab File: MM8498.D
Acq: 3 Dec 2015 3:53 pm

Tgt Ion: 43 Resp: 6293

Ion	Ratio	Lower	Upper
43	100		
58	41.6	10.9	50.9
42	9.0	0.0	28.5

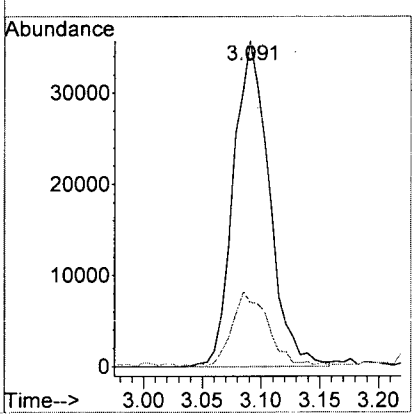


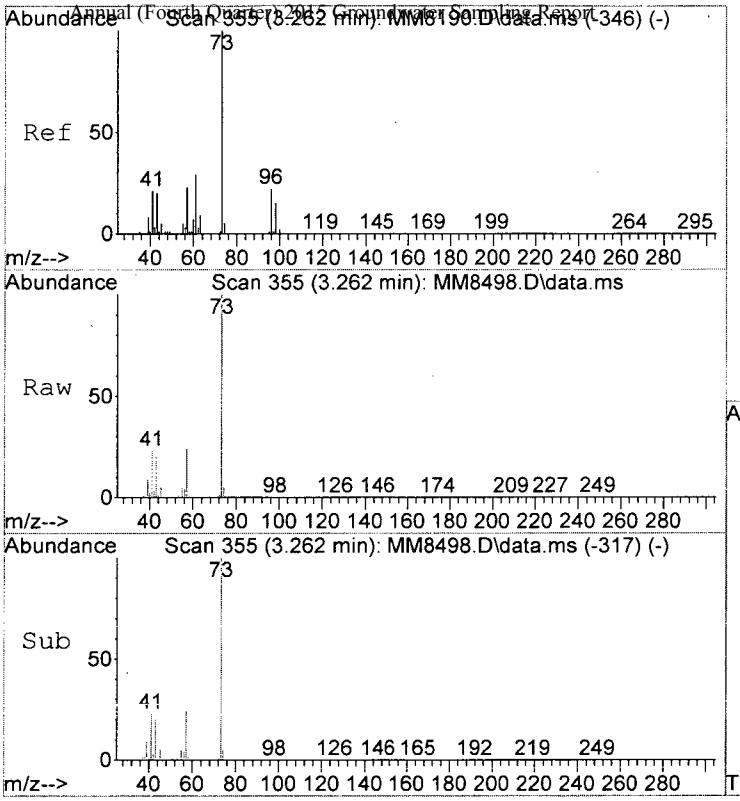


#23
TBA
Concen: 150.77 ppb
RT: 3.091 min Scan# 327
Delta R.T. -0.006 min
Lab File: MM8498.D
Acq: 3 Dec 2015 3:53 pm

Tgt Ion: 59 Resp: 75049

Ion	Ratio	Lower	Upper
59	100		
41	19.7	0.0	40.0

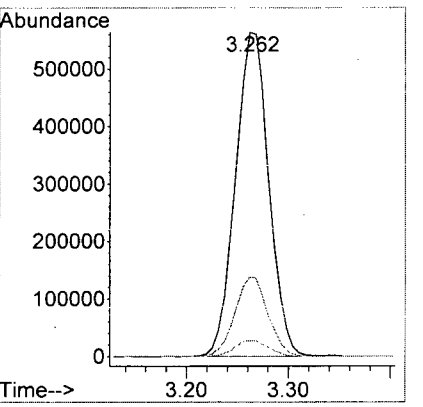


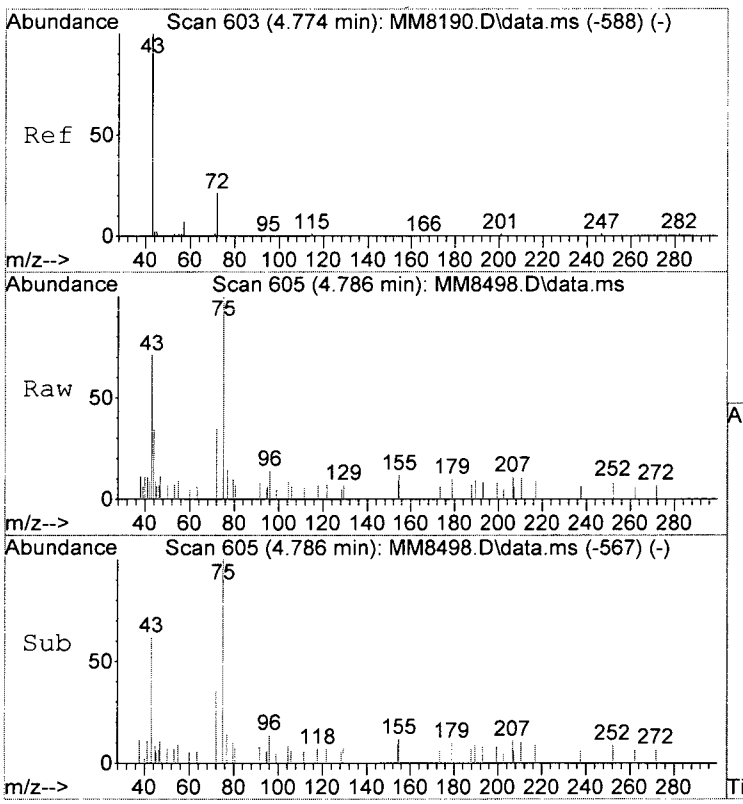


#25
Methyl-t-Butyl Ether
Concen: 72.85 ppb
RT: 3.262 min Scan# 355
Delta R.T. -0.006 min
Lab File: MM8498.D
Acq: 3 Dec 2015 3:53 pm

Tgt Ion: 73 Resp: 1285099

Ion	Ratio	Lower	Upper
73	100		
57	24.3	3.3	43.3
55	4.8	0.0	24.8

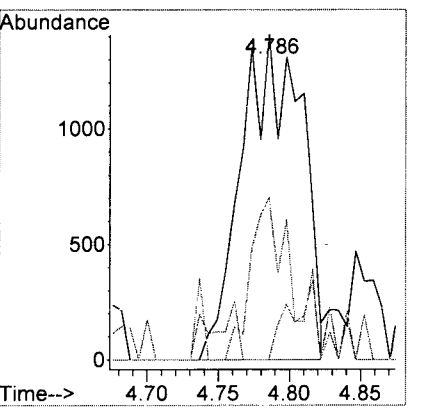


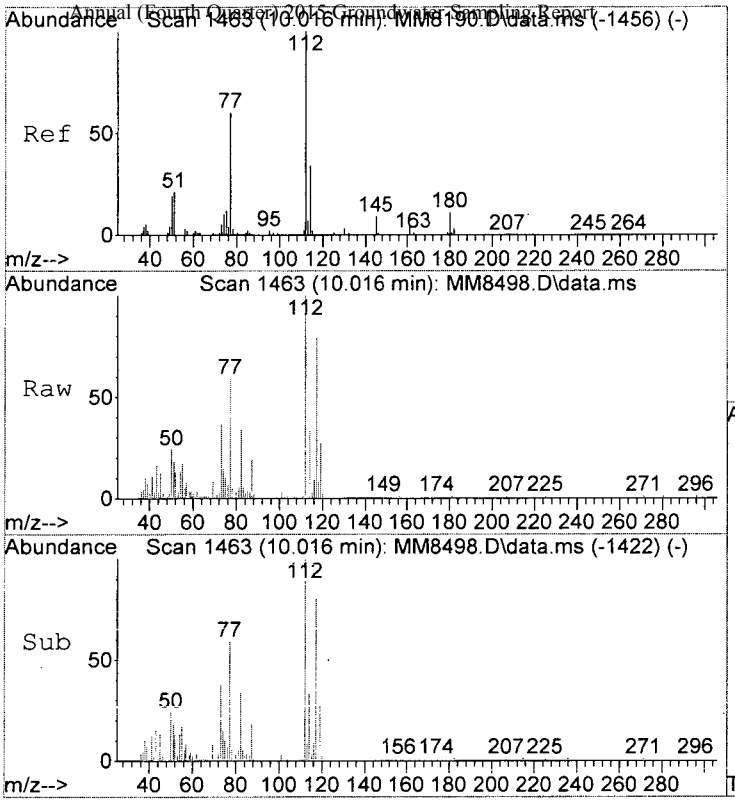


#35
2-Butanone
Concen: 1.87 ppb m
RT: 4.786 min Scan# 605
Delta R.T. 0.006 min
Lab File: MM8498.D
Acq: 3 Dec 2015 3:53 pm

Tgt Ion: 43 Resp: 4148

Ion	Ratio	Lower	Upper
43	100		
57	0.0	0.0	27.5
72	49.9	1.2	41.2#

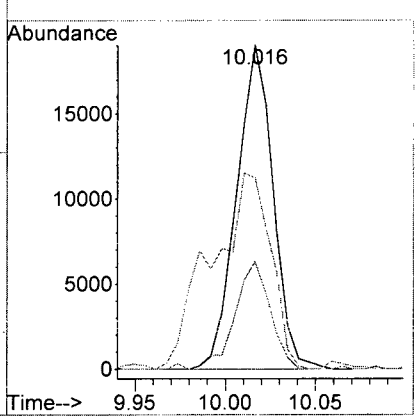




#78
Chlorobenzene
Concen: 1.59 ppb
RT: 10.016 min Scan# 1463
Delta R.T. -0.000 min
Lab File: MM8498.D
Acq: 3 Dec 2015 3:53 pm

Tgt Ion:112 Resp: 26822

Ion	Ratio	Lower	Upper
112	100		
114	33.2	13.7	53.7
77	59.0	40.2	80.2



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8498.D
Acq On : 3 Dec 2015 3:53 pm
Operator : K.Ruest
Sample : R1510346-004|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 14 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\WJ11815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8498.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.091	321	327	334	rBV2	58122	124377	3.34%	0.421%
2	3.262	345	355	367	rVB	1171691	2654514	71.36%	8.977%
3	5.420	698	709	714	rBV3	15513	48102	1.29%	0.163%
4	5.597	727	738	749	rBV	466150	1146599	30.82%	3.878%
5	5.737	749	761	772	rVB	900239	2156508	57.97%	7.293%
6	6.096	812	820	830	rBV	516825	1159597	31.17%	3.921%
7	6.310	845	855	867	rBV	849454	1955681	52.57%	6.614%
8	6.767	920	930	940	rBV	1451047	2863063	76.96%	9.682%
9	8.279	1171	1178	1184	rBV	264881	457106	12.29%	1.546%
10	8.352	1184	1190	1202	rVB	820542	1377463	37.03%	4.658%
11	8.529	1212	1219	1228	rBV	2328667	3720095	100.00%	12.580%
12	8.706	1241	1248	1262	rVB	656973	1065343	28.64%	3.603%
13	9.340	1345	1352	1359	rBV2	75145	117778	3.17%	0.398%
14	9.462	1367	1372	1380	rVB	120406	181403	4.88%	0.613%
15	9.937	1442	1450	1453	rBV	131809	210315	5.65%	0.711%
16	9.986	1453	1458	1468	rVV	2457878	3682090	98.98%	12.452%
17	10.065	1468	1471	1478	rVV	184237	255656	6.87%	0.865%
18	10.169	1481	1488	1494	rBV4	52677	106440	2.86%	0.360%
19	11.047	1626	1632	1642	rBV	2086567	2674624	71.90%	9.045%
20	11.382	1680	1687	1693	rBV2	33049	51739	1.39%	0.175%
21	12.016	1784	1791	1798	rBV	2955017	3562007	95.75%	12.046%

Sum of corrected areas: 29570500

12/9/15

```
Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8498.D
Acq On    :  3 Dec 2015    3:53 pm
Operator  : K.Ruest
Sample    : R1510346-004|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 14   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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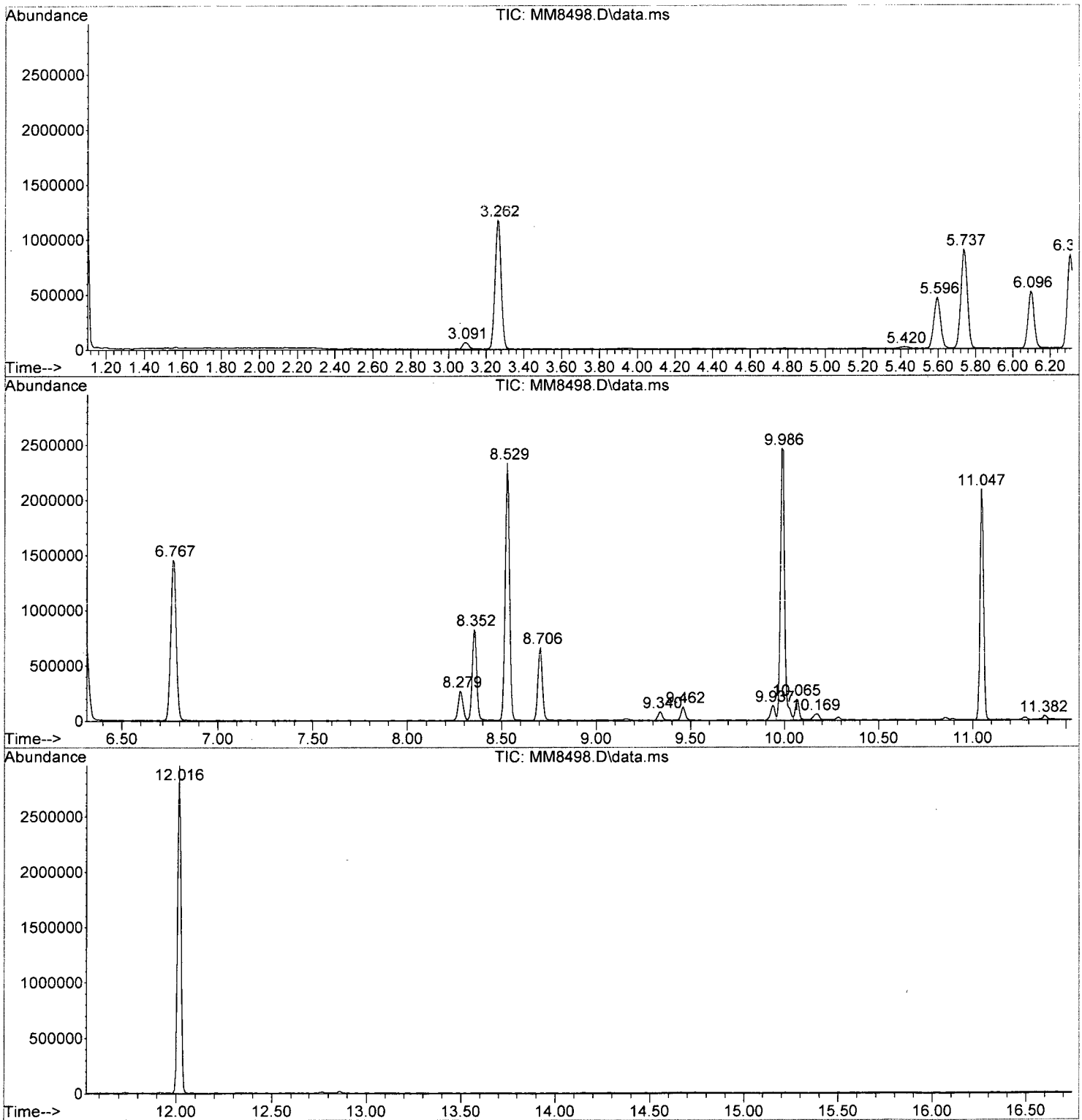

W111815A.M Wed Dec 09 15:10:32 2015 Page: 2

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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8498.D
Acq On    :  3 Dec 2015    3:53 pm
Operator  : K.Ruest
Sample    : R1510346-004|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 14   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

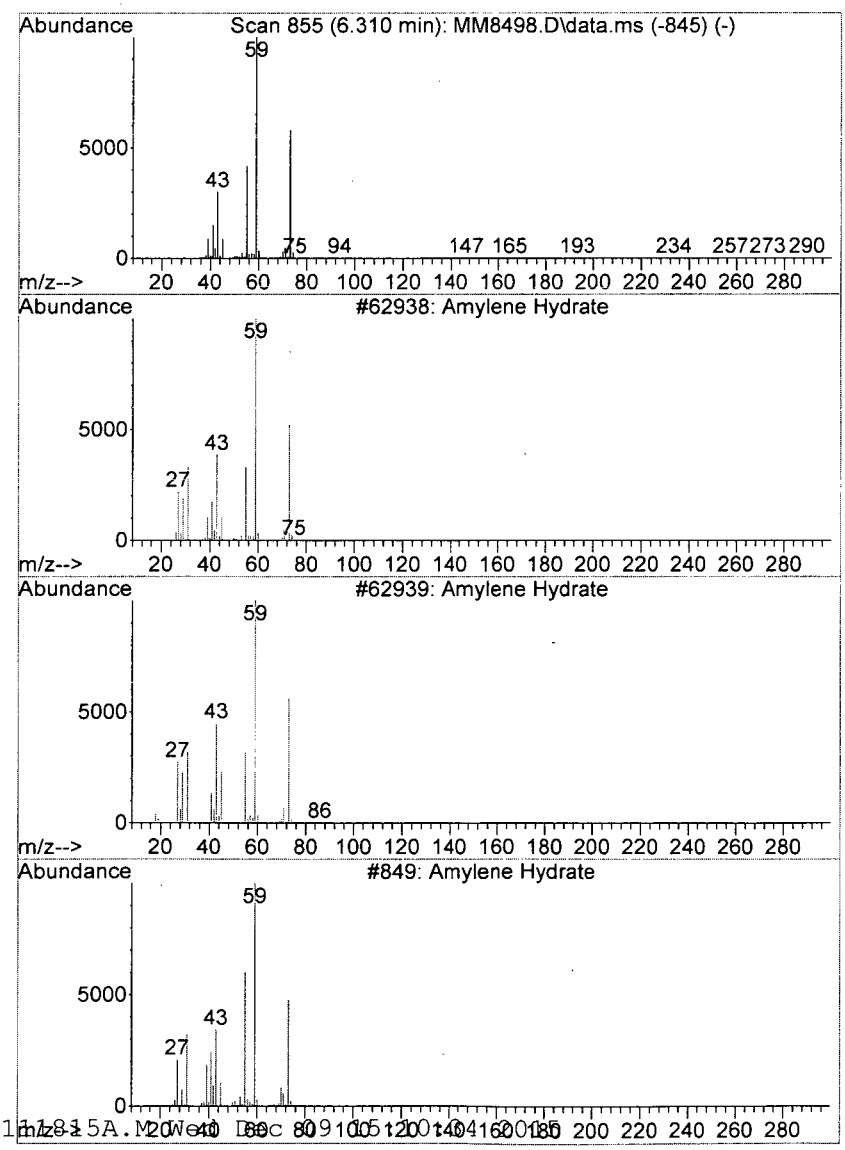
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

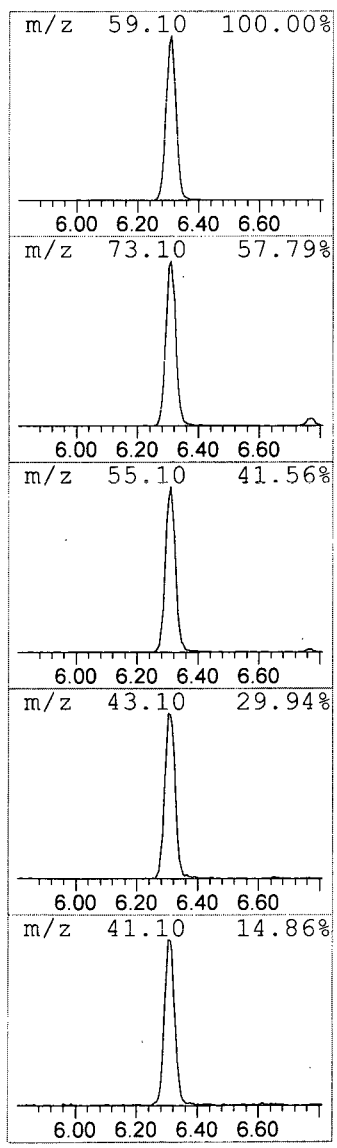
**********************************************************************
Peak Number  1  Amylene Hydrate                 Concentration Rank  1
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.310	34.15 ppb	1955680	1,4-Difluorobenzene	6.773

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Amylene Hydrate	88	C5H12O	000075-85-4	78
2	Amylene Hydrate	88	C5H12O	000075-85-4	78
3	Amylene Hydrate	88	C5H12O	000075-85-4	50
4	Silane, trimethyl-	74	C3H10Si	000993-07-7	39
5	3-Hexanol	102	C6H14O	000623-37-0	39

unknown





Library Search Compound Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8498.D
Acq On : 3 Dec 2015 3:53 pm
Operator : K.Ruest
Sample : R1510346-004|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 14 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

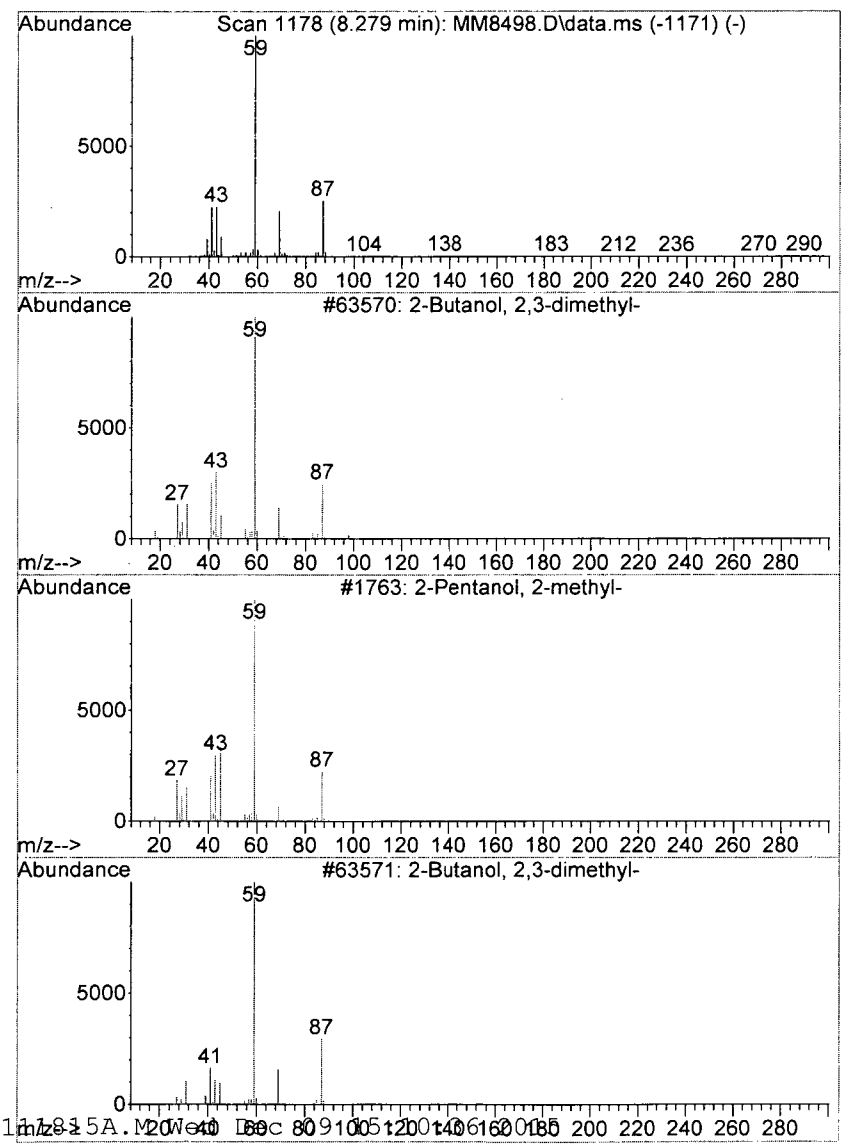
****

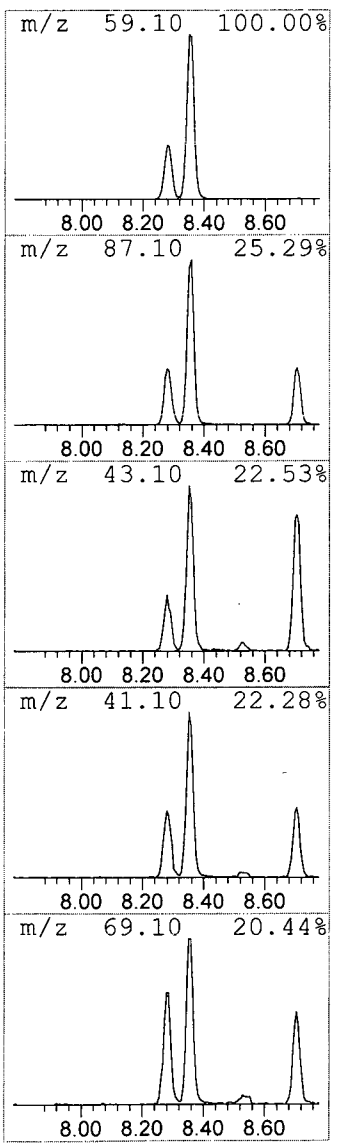
Peak Number 2 2-Butanol, 2,3-dimethyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.279	7.98 ppb	457106	1,4-Difluorobenzene	6.773

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Butanol, 2,3-dimethyl-	102	C6H14O	000594-60-5	78
2	2-Pentanol, 2-methyl-	102	C6H14O	000590-36-3	64
3	2-Butanol, 2,3-dimethyl-	102	C6H14O	000594-60-5	64
4	Propane, 2-ethoxy-2-methyl-	102	C6H14O	000637-92-3	56
5	Propane, 2-ethoxy-2-methyl-	102	C6H14O	000637-92-3	56

unknown





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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8498.D
Acq On    :  3 Dec 2015   3:53 pm
Operator  : K.Ruest
Sample    : R1510346-004|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 14   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

*********************************************************************
Peak Number  3  2-Pentanol, 2-methyl-          Concentration Rank  2
```
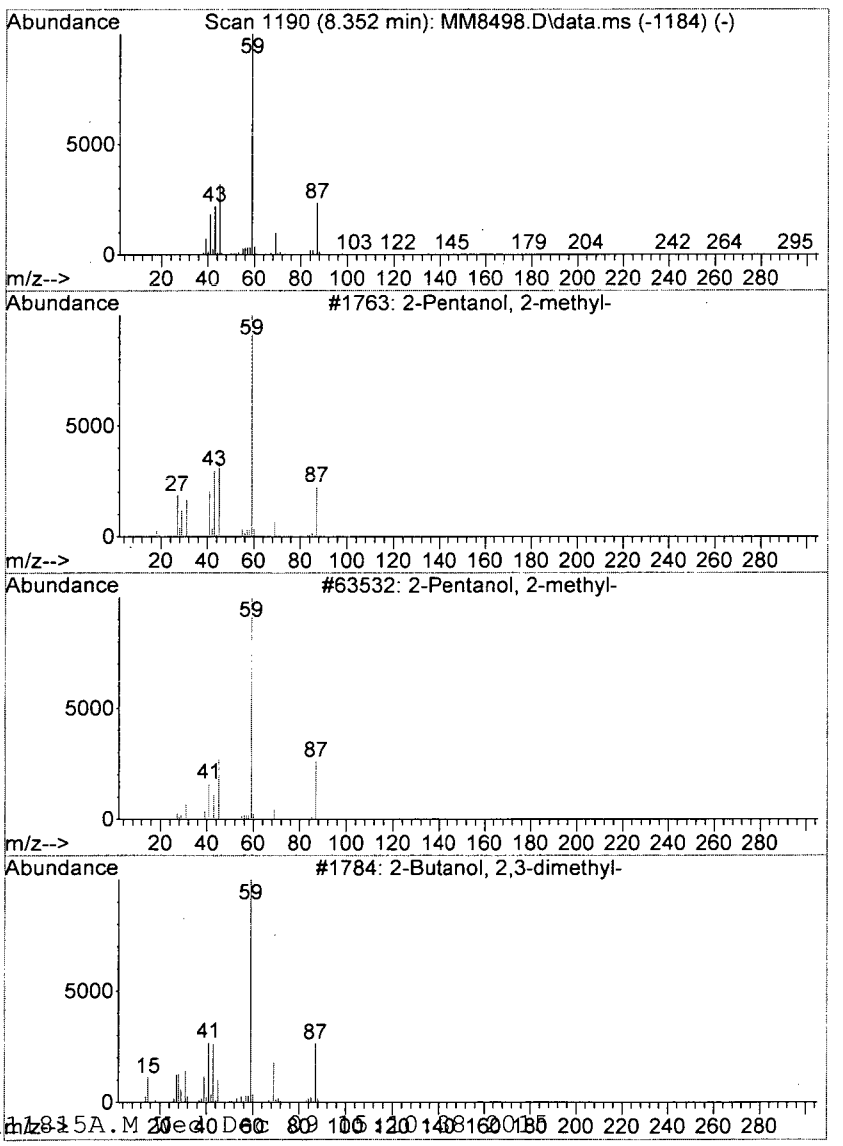
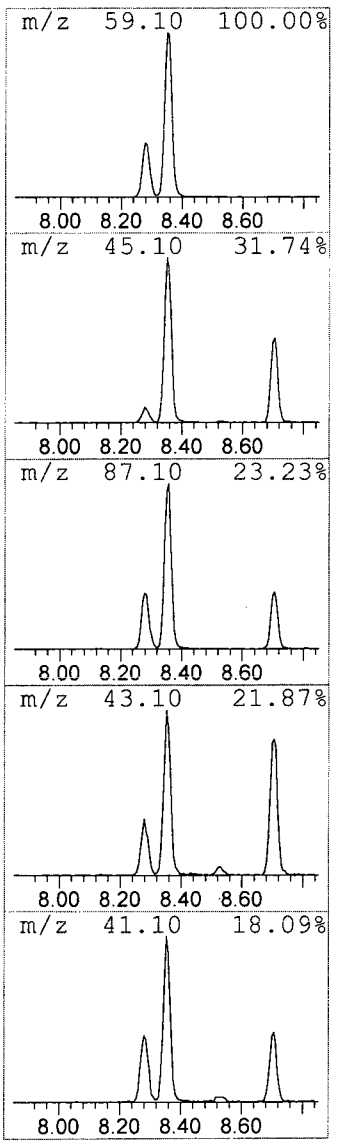

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.352	24.06 ppb	1377460	1,4-Difluorobenzene	6.773

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanol, 2-methyl-	102	C6H14O	000590-36-3	83
2	2-Pentanol, 2-methyl-	102	C6H14O	000590-36-3	78
3	2-Butanol, 2,3-dimethyl-	102	C6H14O	000594-60-5	64
4	2-Butanol, 2,3-dimethyl-	102	C6H14O	000594-60-5	59
5	2-Pentanol, 2-methyl-	102	C6H14O	000590-36-3	47

unknown





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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8498.D
Acq On    :  3 Dec 2015   3:53 pm
Operator  : K.Ruest
Sample    : R1510346-004|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 14   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

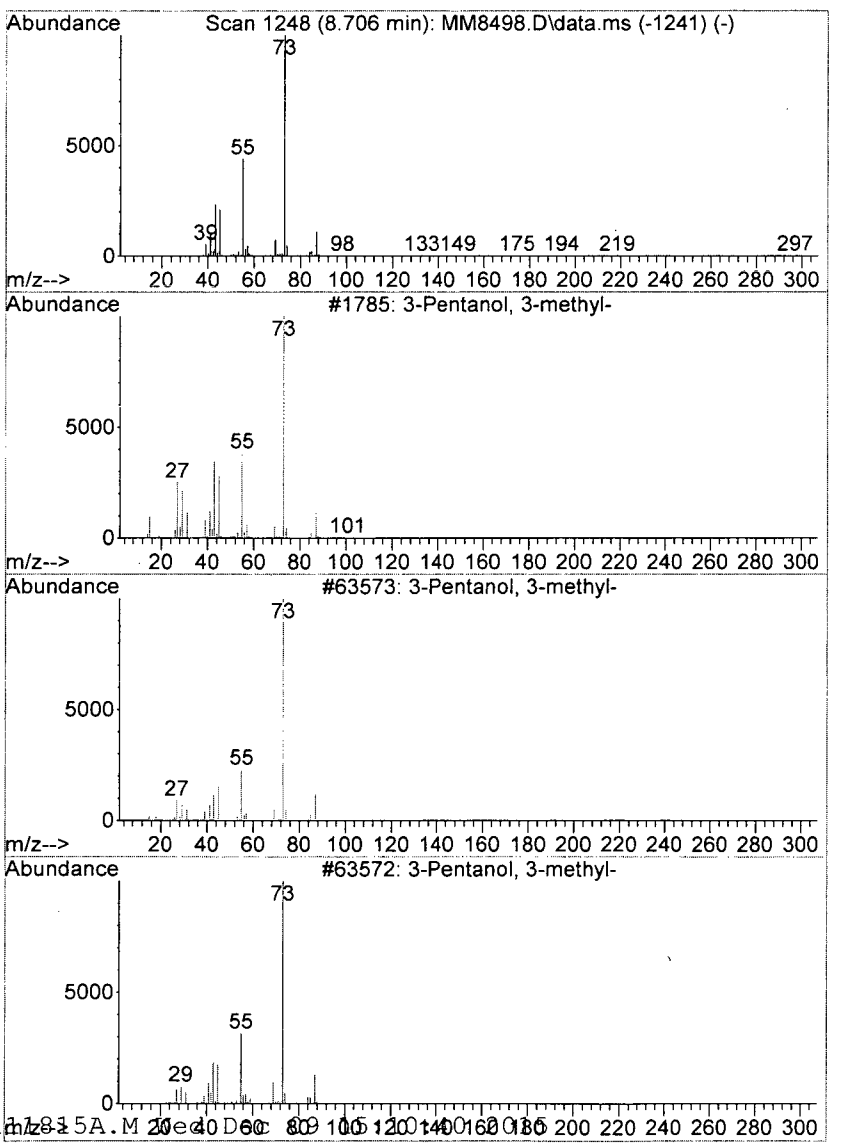
TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

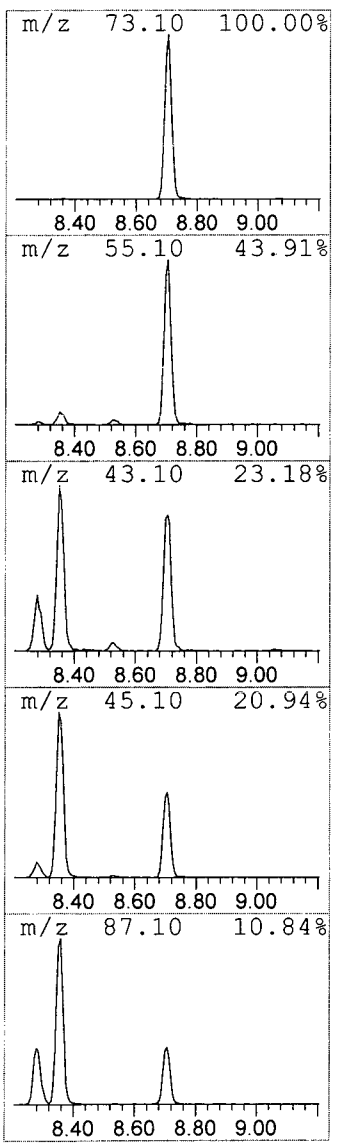
*********************************************************************
Peak Number  4  3-Pentanol, 3-methyl-          Concentration Rank  3
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.706	14.47 ppb	1065340	d5-Chlorobenzene	9.992

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Pentanol, 3-methyl-	102	C6H14O	000077-74-7	78
2	3-Pentanol, 3-methyl-	102	C6H14O	000077-74-7	72
3	3-Pentanol, 3-methyl-	102	C6H14O	000077-74-7	45
4	1,3-Dioxolane, 2-methyl-	88	C4H8O2	000497-26-7	25
5	Silane, tetramethyl-	88	C4H12Si	000075-76-3	9

unknown





Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1330
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-2-GW-M2MW21-15.2	**Units:**	µg/L
Lab Code:	R1510346-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 16:24		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 16:24		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 16:24		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 16:24		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 16:24		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 16:24		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 16:24		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 16:24		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 16:24		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 16:24		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 16:24		474713	
1,2-Dichlorobenzene	**0.67**	J	5.0	1.0	0.21	1	NA	12/3/15 16:24		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 16:24		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
1,3-Dichlorobenzene	**1.4**	J	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 16:24		474713	
1,4-Dichlorobenzene	**2.7**	J	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 16:24		474713	
2-Butanone (MEK)	**2.1**	J	10	1.0	0.81	1	NA	12/3/15 16:24		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 16:24		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 16:24		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 16:24		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 16:24		474713	
Acetone	**26**		10	5.0	1.3	1	NA	12/3/15 16:24		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 16:24		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 16:24		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 16:24		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 16:24		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 16:24		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 16:24		474713	
Chlorobenzene	**20**		5.0	1.0	0.29	1	NA	12/3/15 16:24		474713	

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/24/15 1330
Date Received: 11/30/15

Sample Name: FTMM-2-GW-M2MW21-15.2
Lab Code: R1510346-005

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 16:24		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 16:24		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 16:24		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 16:24		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 16:24		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 16:24		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 16:24		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 16:24		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 16:24		474713	
Toluene	**2.8**	J	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 16:24		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 16:24		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 16:24		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 16:24		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 16:24		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 16:24		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 16:24		474713	
tert-Butylbenzene	**0.27**	J	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 16:24		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:24		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	116	75-120	12/3/15 16:24	
Dibromofluoromethane	112	85-115	12/3/15 16:24	
Toluene-d8	107	85-120	12/3/15 16:24	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1624

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-2-GW-M2MW21-15.2	**Units:**	µg/L
Lab Code:	R1510346-005	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8499.D
Acq On : 3 Dec 2015 4:24 pm
Operator : K.Ruest
Sample : R1510346-005|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 09 15:37:45 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	757111	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1232319	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1155264	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	577124	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	357282	55.76	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 111.52%				
48) surr1,1,2-dichloroetha...	6.096	65	387993	54.83	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 109.66%				
65) SURR3,Toluene-d8	8.529	98	1437942	53.33	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 106.66%				
70) SURR2,BFB	11.047	95	590125	57.98	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 115.96%				
Target Compounds							Qvalue
15) Acetone	2.487	43	42476	26.32	ppb		99
16) 2-Propanol	2.646	45	32741	106.90	ppb		96
35) 2-Butanone	4.786	43	4573	2.07	ppb		77
44) Cyclohexane	5.664	41	3563	0.53	ppb	#	46
66) Toluene	8.602	91	77138	2.75	ppb		96
78) Chlorobenzene	10.016	112	348438	20.39	ppb		98
100) tert-Butylbenzene	11.705	119	5389	0.27	ppb		89
103) sec-Butylbenzene	11.882	105	6534	0.23	ppb		93
105) 1,3-Dclbenz	11.961	146	18325	1.39	ppb		92
106) 1,4-Dclbenz	12.034	146	33747	2.74	ppb		93
110) 1,2-Dclbenz	12.333	146	8054	0.67	ppb		84

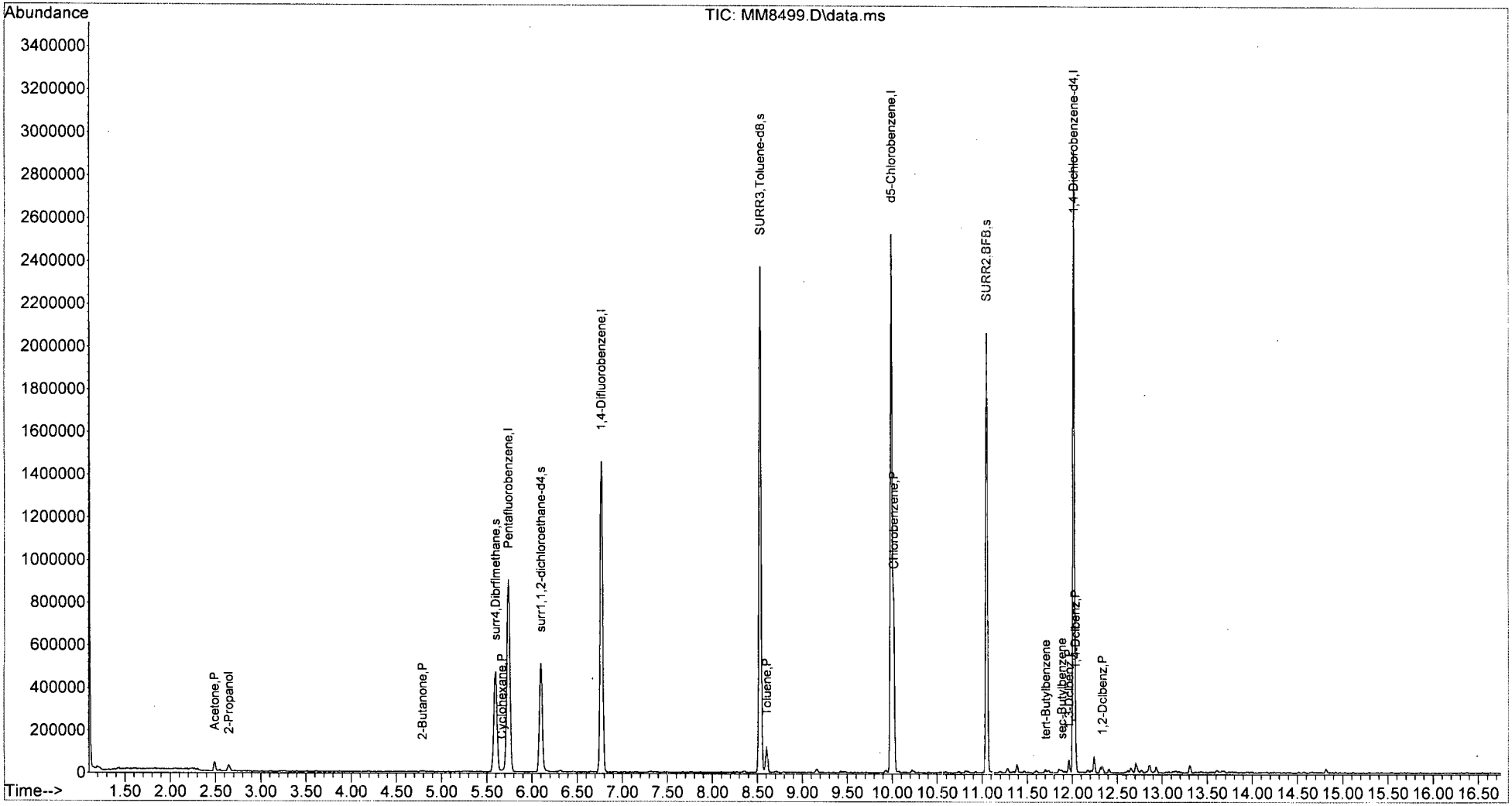
(#) = qualifier out of range (m) = manual integration (+) = signals summed

KL 12/9/15

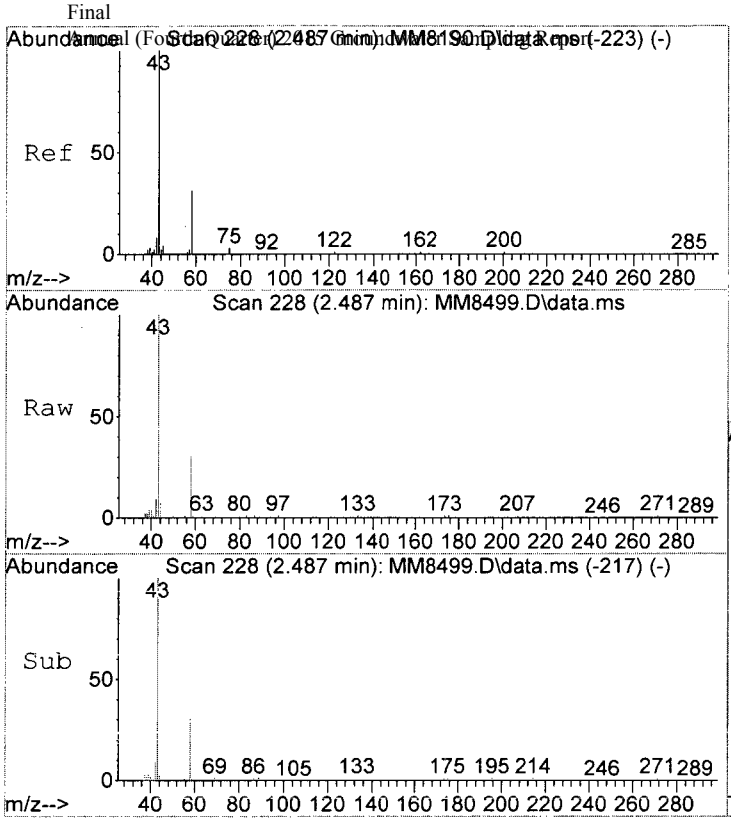
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8499.D
Acq On : 3 Dec 2015 4:24 pm
Operator : K.Ruest
Sample : R1510346-005|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 09 15:37:45 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



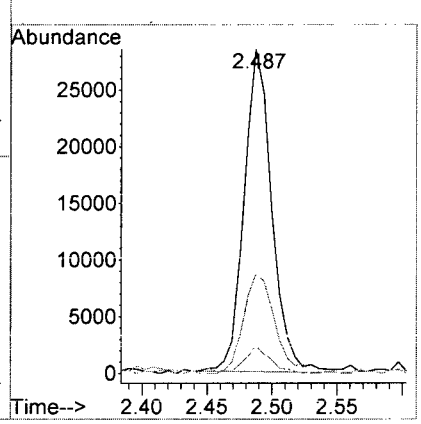
W111815A.M Wed Dec 09 15:39:48 2015 Page: 2

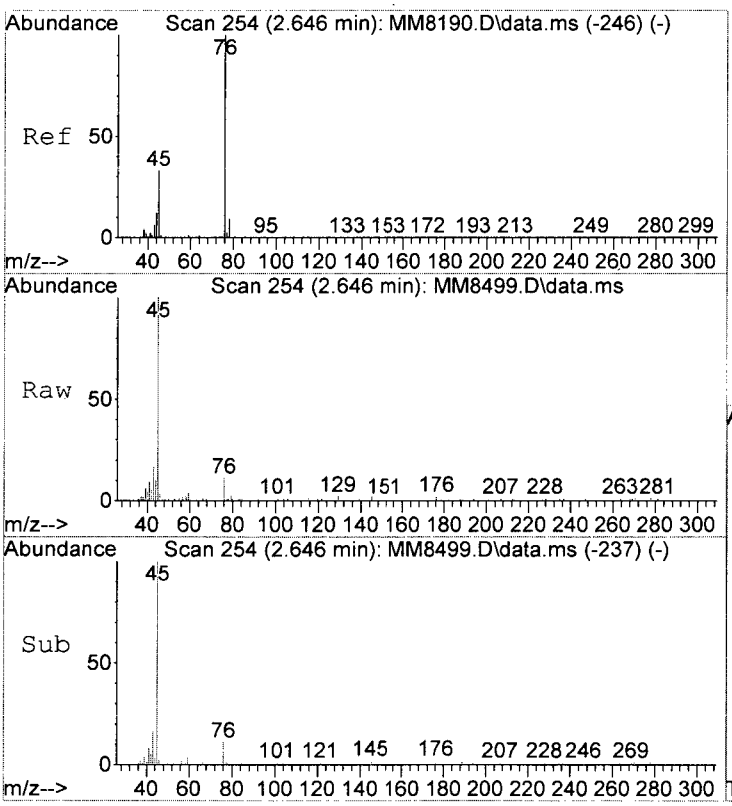


#15
Acetone
Concen: 26.32 ppb
RT: 2.487 min Scan# 228
Delta R.T. -0.006 min
Lab File: MM8499.D
Acq: 3 Dec 2015 4:24 pm

Tgt Ion: 43 Resp: 42476

Ion	Ratio	Lower	Upper
43	100		
58	30.4	10.9	50.9
42	8.6	0.0	28.5

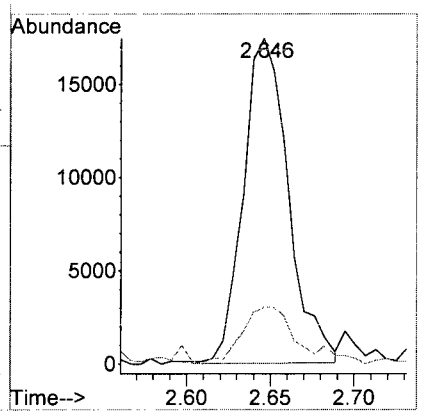


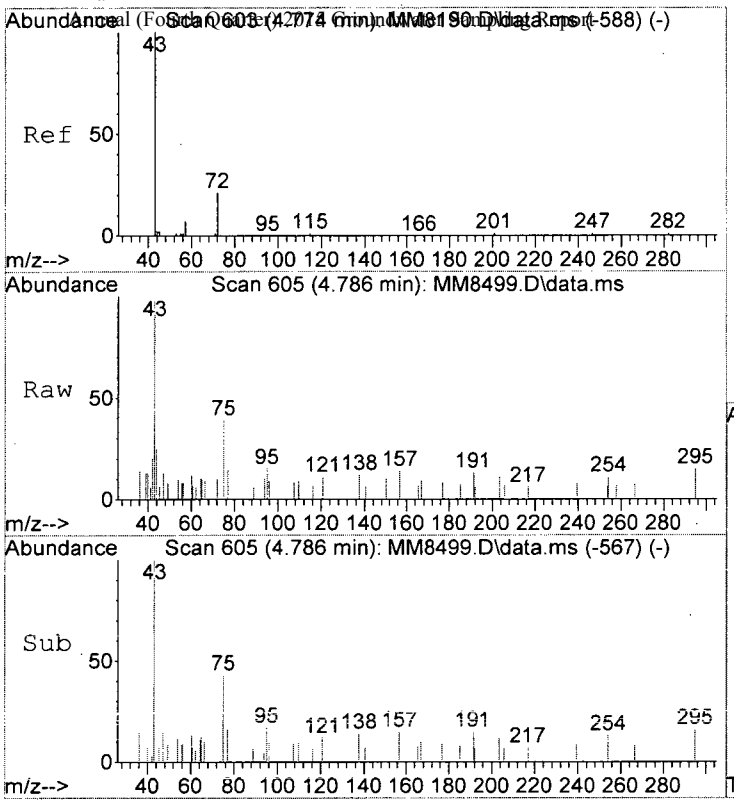


#16
2-Propanol
Concen: 106.90 ppb
RT: 2.646 min Scan# 254
Delta R.T. -0.006 min
Lab File: MM8499.D
Acq: 3 Dec 2015 4:24 pm

Tgt Ion: 45 Resp: 32741

Ion	Ratio	Lower	Upper
45	100		
43	17.3	0.0	39.0

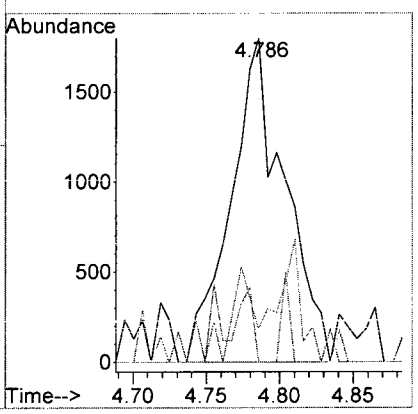


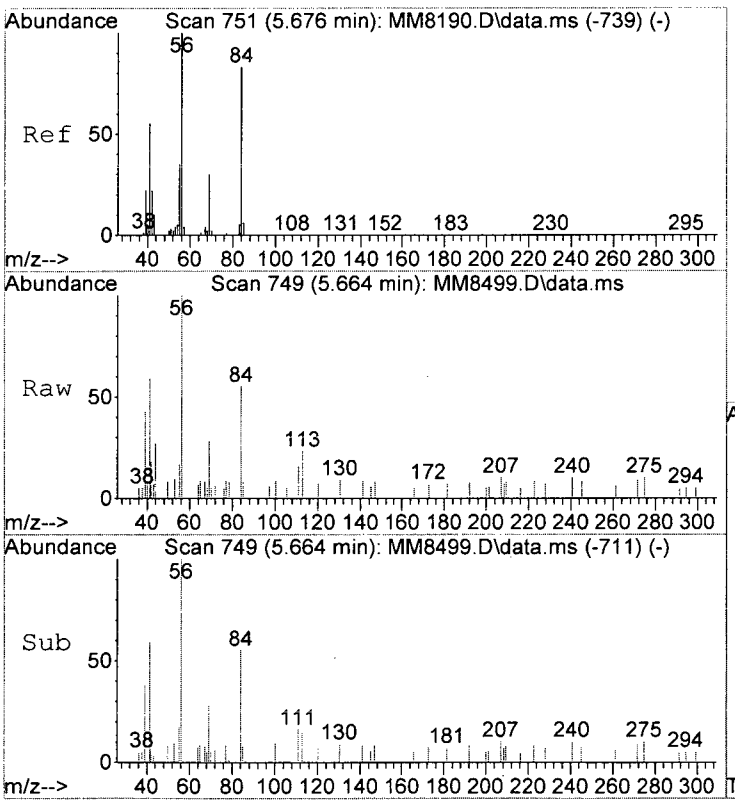


#35
2-Butanone
Concen: 2.07 ppb
RT: 4.786 min Scan# 605
Delta R.T. 0.006 min
Lab File: MM8499.D
Acq: 3 Dec 2015 4:24 pm

Tgt Ion: 43 Resp: 4573

Ion	Ratio	Lower	Upper
43	100		
57	0.0	0.0	27.5
72	10.3	1.2	41.2

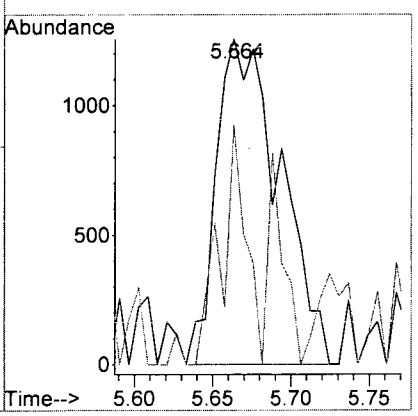


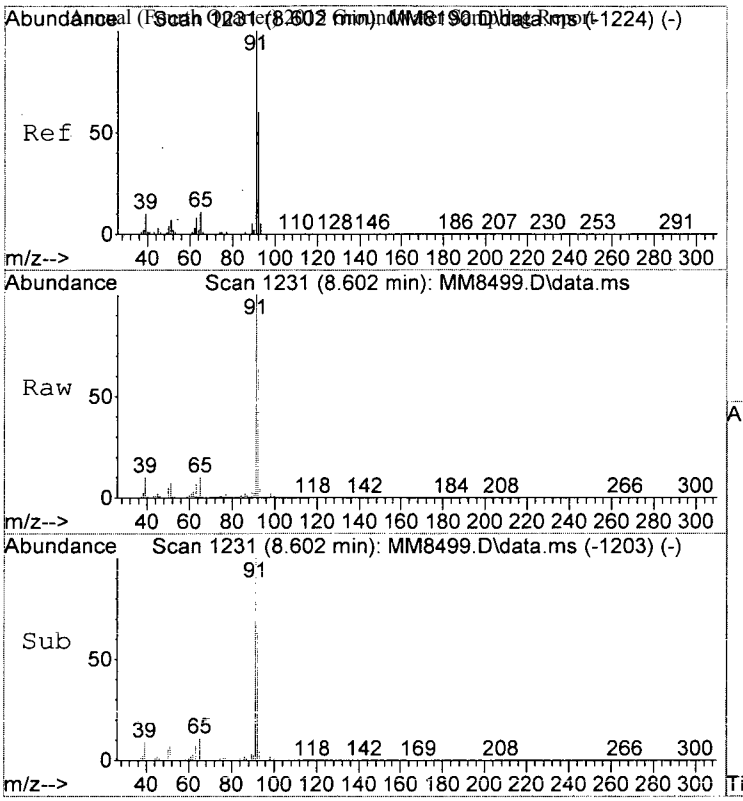


#44
Cyclohexane
Concen: 0.53 ppb
RT: 5.664 min Scan# 749
Delta R.T. -0.018 min
Lab File: MM8499.D
Acq: 3 Dec 2015 4:24 pm

Tgt Ion: 41 Resp: 3563

Ion	Ratio	Lower	Upper
41	100		
39	73.4	20.0	60.0#

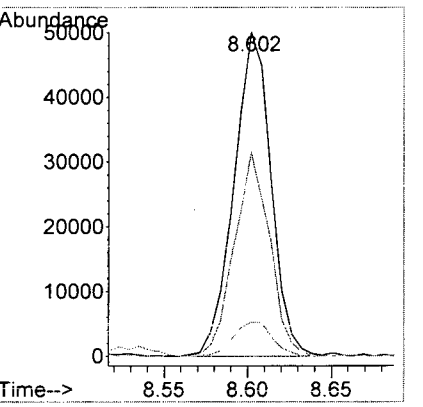


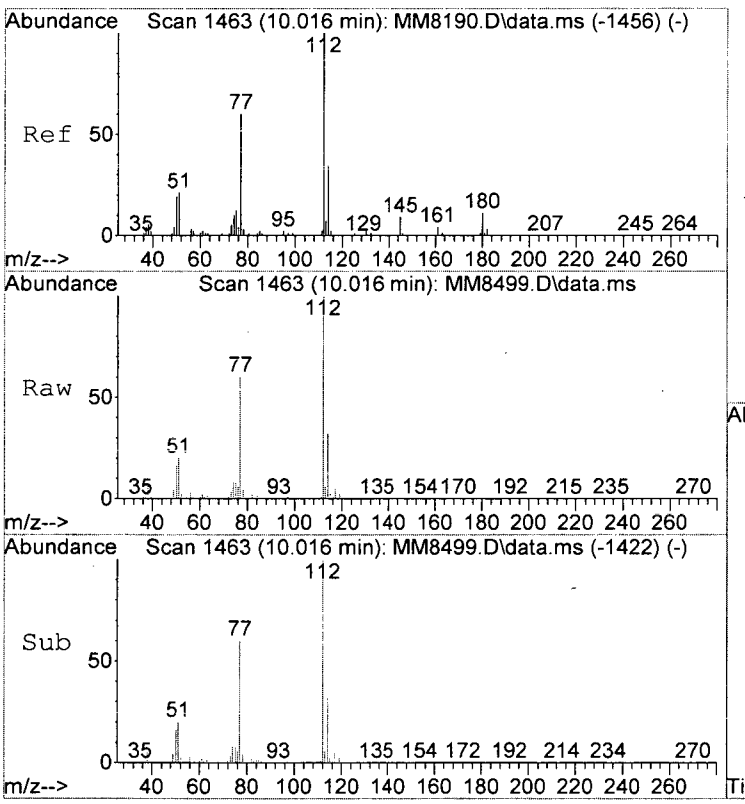


#66
Toluene
Concen: 2.75 ppb
RT: 8.602 min Scan# 1231
Delta R.T. -0.000 min
Lab File: MM8499.D
Acq: 3 Dec 2015 4:24 pm

Tgt Ion: 91 Resp: 77138

Ion	Ratio	Lower	Upper
91	100		
92	62.9	39.7	79.7
65	10.5	0.0	30.9

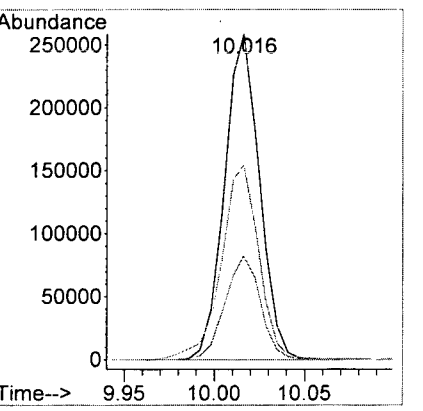


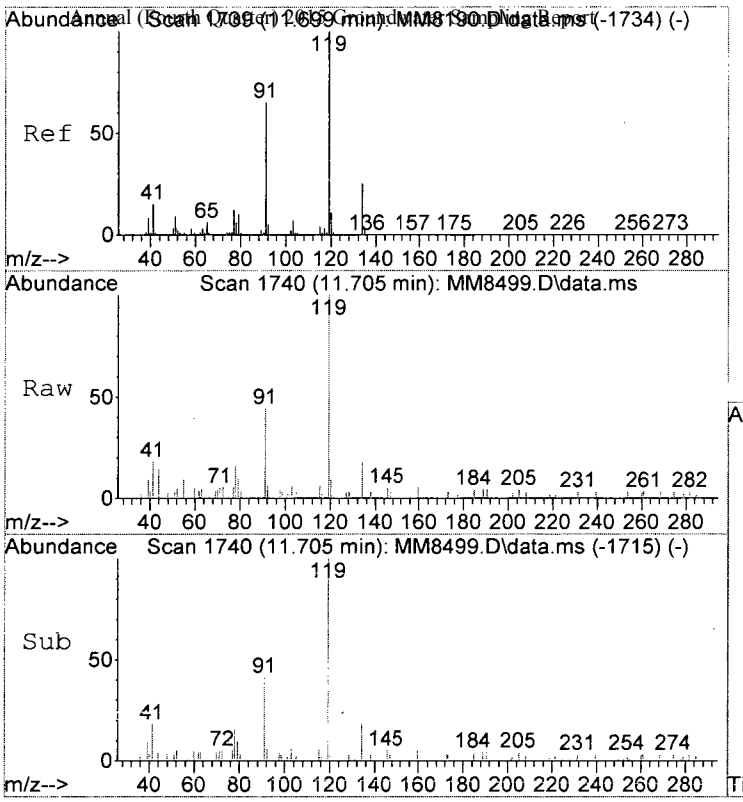


#78
Chlorobenzene
Concen: 20.39 ppb
RT: 10.016 min Scan# 1463
Delta R.T. -0.000 min
Lab File: MM8499.D
Acq: 3 Dec 2015 4:24 pm

Tgt Ion:112 Resp: 348438

Ion	Ratio	Lower	Upper
112	100		
114	31.8	13.7	53.7
77	59.8	40.2	80.2

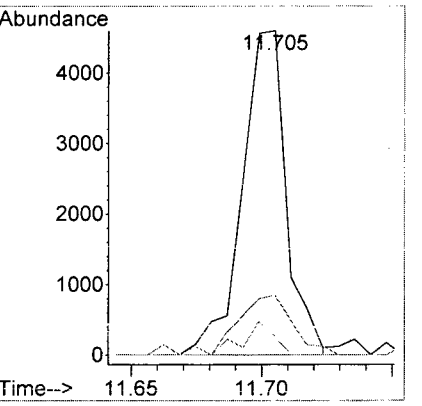


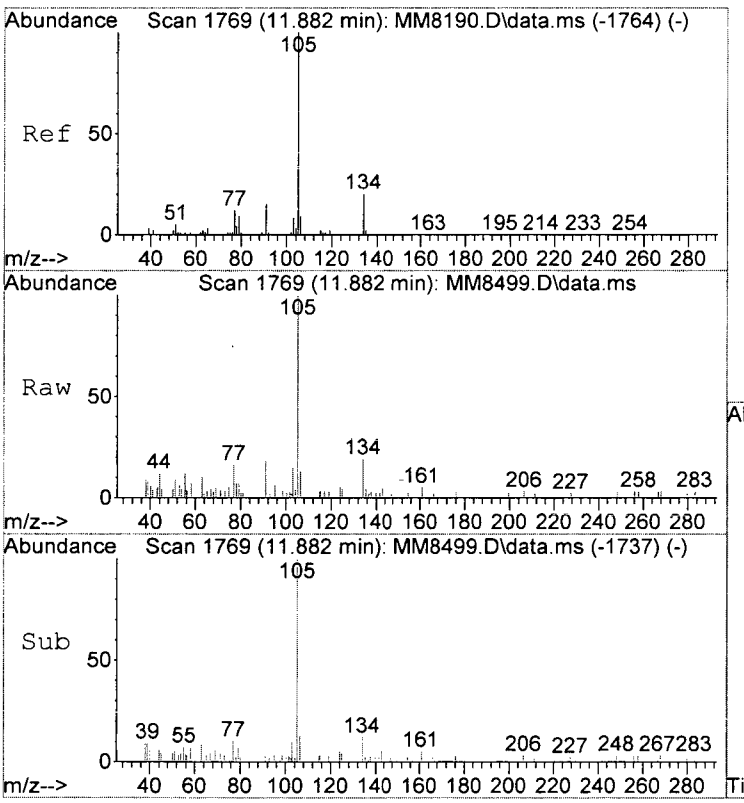


#100
tert-Butylbenzene
Concen: 0.27 ppb
RT: 11.705 min Scan# 1740
Delta R.T. -0.000 min
Lab File: MM8499.D
Acq: 3 Dec 2015 4:24 pm

Tgt Ion:119 Resp: 5389

Ion	Ratio	Lower	Upper
119	100		
134	18.2	5.0	45.0
103	5.6	0.0	26.6

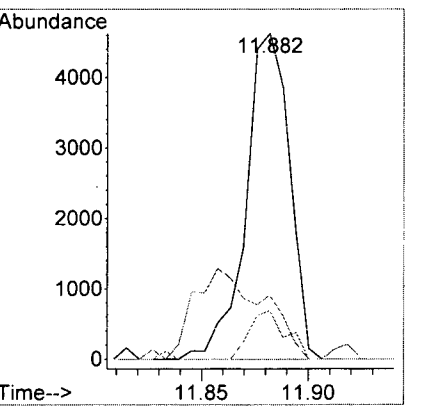


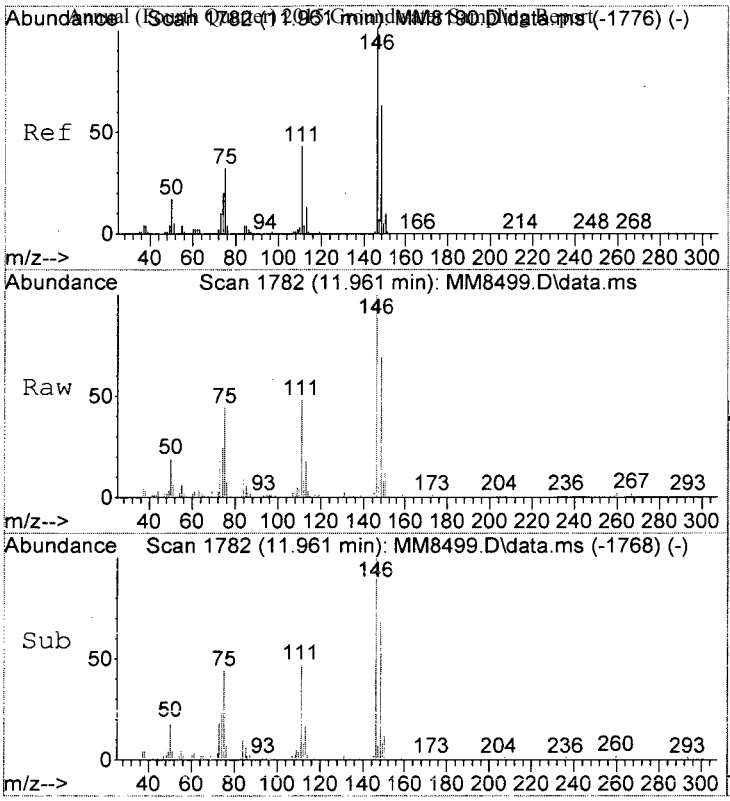


#103
sec-Butylbenzene
Concen: 0.23 ppb
RT: 11.882 min Scan# 1769
Delta R.T. -0.000 min
Lab File: MM8499.D
Acq: 3 Dec 2015 4:24 pm

Tgt Ion:105 Resp: 6534

Ion	Ratio	Lower	Upper
105	100		
134	19.5	0.2	40.2
103	14.8	0.0	27.7

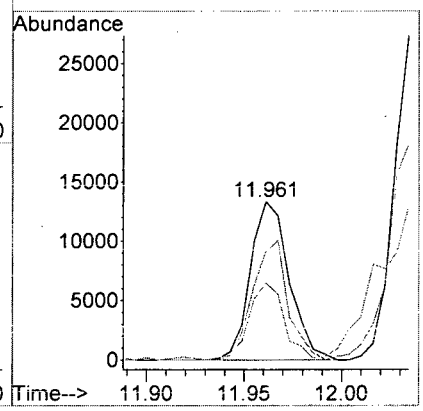


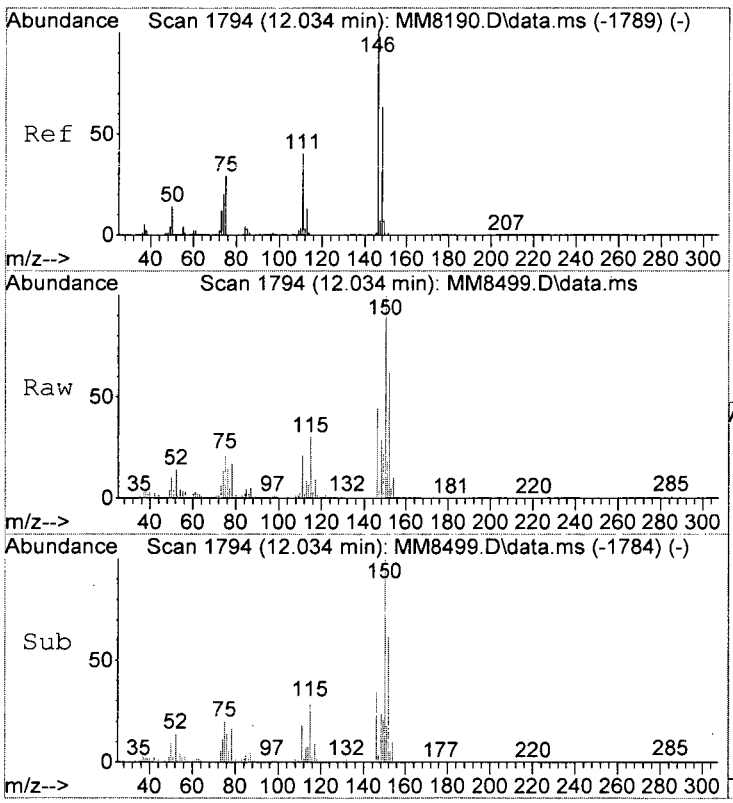


#105
1,3-Dclbenz
Concen: 1.39 ppb
RT: 11.961 min Scan# 1782
Delta R.T. -0.006 min
Lab File: MM8499.D
Acq: 3 Dec 2015 4:24 pm

Tgt Ion:146 Resp: 18325

Ion	Ratio	Lower	Upper
146	100		
148	68.9	43.1	83.1
111	48.5	22.6	62.6

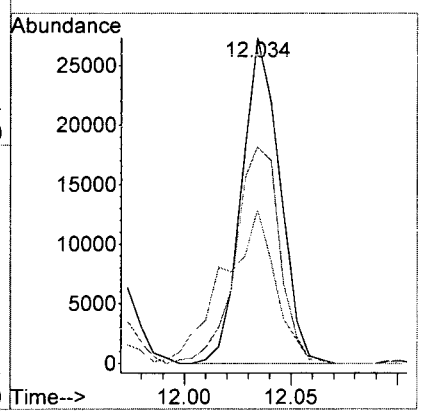


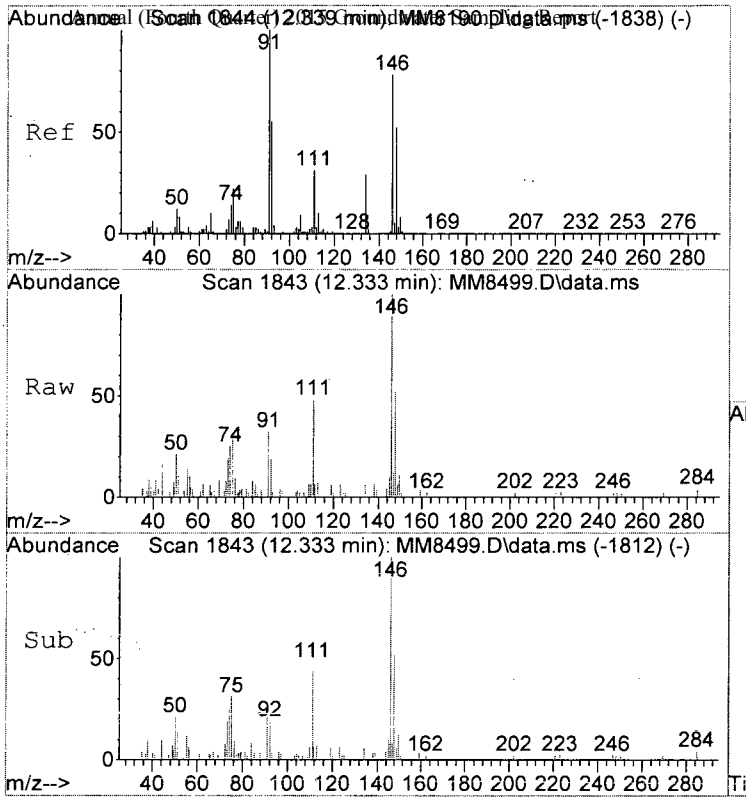


#106
1,4-Dclbenz
Concen: 2.74 ppb
RT: 12.034 min Scan# 1794
Delta R.T. -0.006 min
Lab File: MM8499.D
Acq: 3 Dec 2015 4:24 pm

Tgt Ion:146 Resp: 33747

Ion	Ratio	Lower	Upper
146	100		
148	66.5	43.5	83.5
111	47.1	20.3	60.3

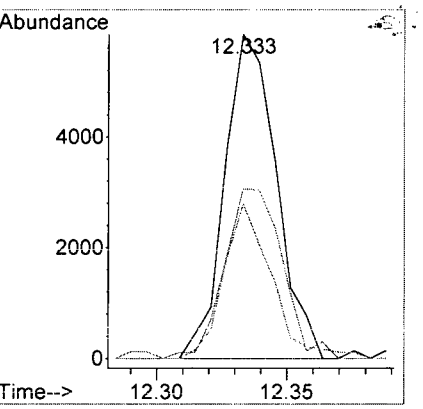




#110
1,2-Dclbenz
Concen: 0.67 ppb
RT: 12.333 min Scan# 1843
Delta R.T. -0.006 min
Lab File: MM8499.D
Acq: 3 Dec 2015 4:24 pm

Tgt Ion:146 Resp: 8054

Ion	Ratio	Lower	Upper
146	100		
148	52.2	46.9	86.9
111	47.6	19.6	59.6



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8499.D
Acq On : 3 Dec 2015 4:24 pm
Operator : K.Ruest
Sample : R1510346-005|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8499.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.487	223	228	233	rBV	43667	64557	1.41%	0.284%
2	2.646	248	254	261	rBV3	29805	57815	1.27%	0.254%
3	5.597	729	738	747	rBV	470382	1141749	24.99%	5.023%
4	5.737	751	761	773	rVB	902644	2172868	47.56%	9.559%
5	6.097	811	820	830	rBV	510656	1147598	25.12%	5.049%
6	6.767	921	930	941	rBV	1459271	2879025	63.02%	12.666%
7	8.529	1210	1219	1226	rBV	2374046	3768437	82.49%	16.578%
8	8.602	1226	1231	1239	rVB	121092	188058	4.12%	0.827%
9	9.986	1452	1458	1469	rBV2	2525668	4568233	100.00%	20.097%
10	11.047	1627	1632	1640	rBV	2065240	2645519	57.91%	11.638%
11	11.382	1683	1687	1696	rBV3	40005	53756	1.18%	0.236%
12	11.961	1778	1782	1786	rBV2	61269	79191	1.73%	0.348%
13	12.016	1786	1791	1799	rVV	2914247	3696700	80.92%	16.263%
14	12.242	1825	1828	1833	rVB2	75962	90047	1.97%	0.396%
15	12.705	1900	1904	1911	rVB2	46288	67989	1.49%	0.299%
16	12.857	1925	1929	1936	rVB4	34396	54261	1.19%	0.239%
17	13.309	1998	2003	2008	rVB3	35895	55367	1.21%	0.244%

Sum of corrected areas: 22731170

KR 12/9/15

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8499.D
Acq On    :  3 Dec 2015    4:24 pm
Operator  : K.Ruest
Sample    : R1510346-005|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 15   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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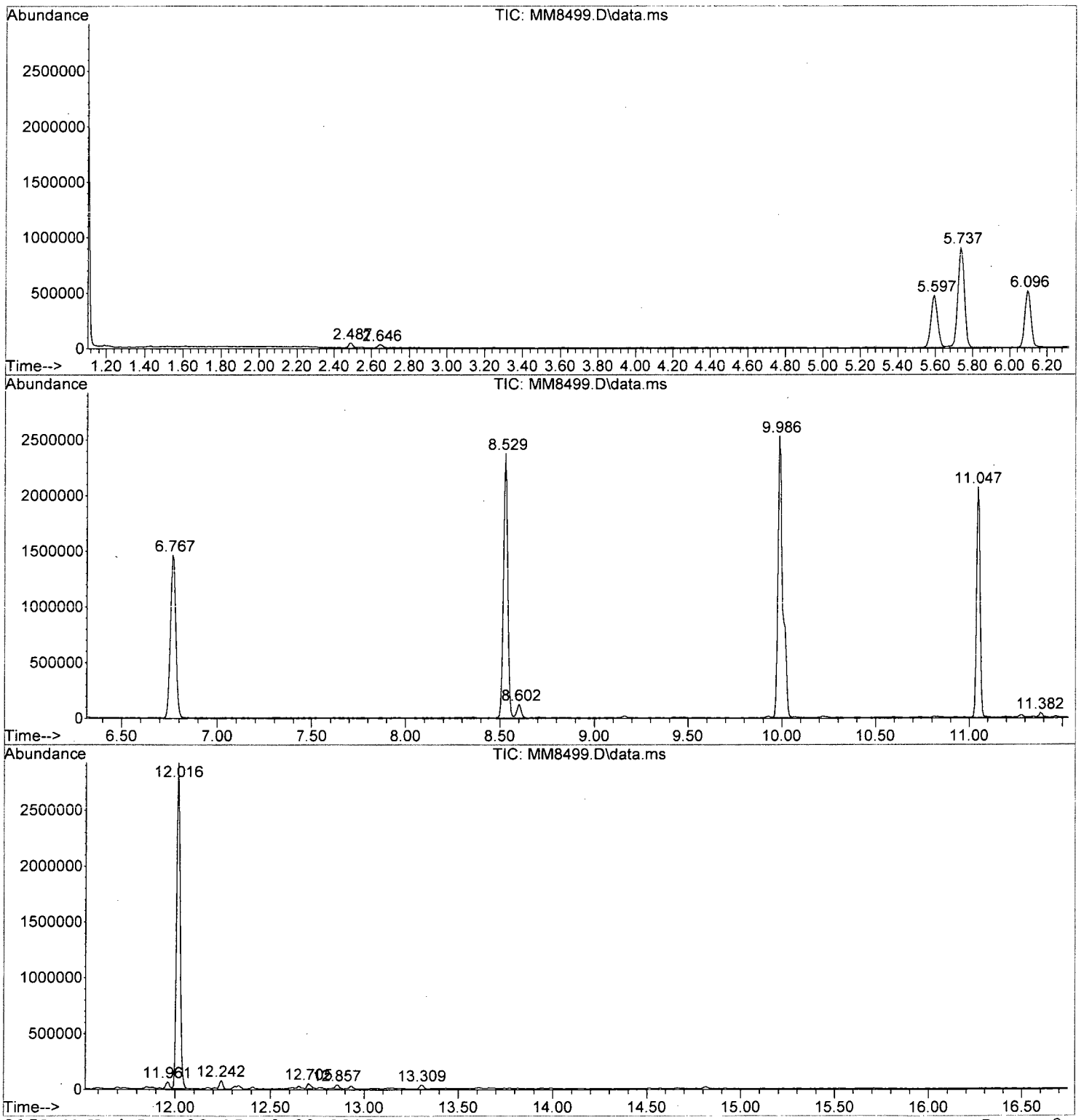


Data Path : I:\ACQUDATA\msvoa12\Data\120315\\
Data File : MM8499.D
Acq On : 3 Dec 2015 4:24 pmm
Operator : K.Ruestt
Sample : R1510346-005|1.0 Inst : MSVOA-122
Misc : PARSONS 14517 T4*DOD44
ALS Vial : 15 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1535
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-2-GW-M2MW24-14.6	**Units:**	µg/L
Lab Code:	R1510346-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 16:54		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 16:54		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 16:54		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 16:54		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 16:54		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 16:54		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 16:54		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 16:54		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 16:54		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 16:54		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 16:54		474713	
1,2-Dichlorobenzene	**0.33**	J	5.0	1.0	0.21	1	NA	12/3/15 16:54		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 16:54		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
1,3-Dichlorobenzene	**0.57**	J	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 16:54		474713	
1,4-Dichlorobenzene	**3.2**	J	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 16:54		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 16:54		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 16:54		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 16:54		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 16:54		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 16:54		474713	
Acetone	**1.8**	J	10	5.0	1.3	1	NA	12/3/15 16:54		474713	
Benzene	**0.33**	J	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 16:54		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 16:54		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 16:54		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 16:54		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 16:54		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 16:54		474713	
Chlorobenzene	**6.2**		5.0	1.0	0.29	1	NA	12/3/15 16:54		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1535
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-2-GW-M2MW24-14.6	**Units:**	µg/L
Lab Code:	R1510346-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 16:54		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 16:54		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 16:54		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 16:54		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 16:54		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 16:54		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 16:54		474713	
Isopropylbenzene (Cumene)	**5.9**		5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 16:54		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 16:54		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 16:54		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 16:54		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 16:54		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 16:54		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 16:54		474713	
n-Butylbenzene	**1.9**	J	5.0	1.0	0.21	1	NA	12/3/15 16:54		474713	
n-Propylbenzene	**4.4**	J	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
sec-Butylbenzene	**4.7**	J	5.0	1.0	0.27	1	NA	12/3/15 16:54		474713	
tert-Butylbenzene	**1.1**	J	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 16:54		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 16:54		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	12/3/15 16:54	
Dibromofluoromethane	110	85-115	12/3/15 16:54	
Toluene-d8	109	85-120	12/3/15 16:54	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/24/15
Date Received: 11/30/15
Date Analyzed: 12/3/15 1654

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-2-GW-M2MW24-14.6
Lab Code: R1510346-006

Units: µg/L
Basis: NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q
	unknown	12.24	**17**	J
000535-77-3	Benzene, 1-methyl-3-(1-methylethyl	12.62	**7.7**	JN
000767-58-8	Indan, 1-methyl-	12.71	**14**	JN
000095-93-2	Benzene, 1,2,4,5-tetramethyl-	12.93	**11**	JN
027133-93-3	2,3-Dihydro-1-methylindene	13.31	**23**	JN
000091-57-6	Naphthalene, 2-methyl-	14.81	**8.3**	JN

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8500.D
Acq On : 3 Dec 2015 4:54 pm
Operator : K.Ruest
Sample : R1510346-006|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 09 15:43:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

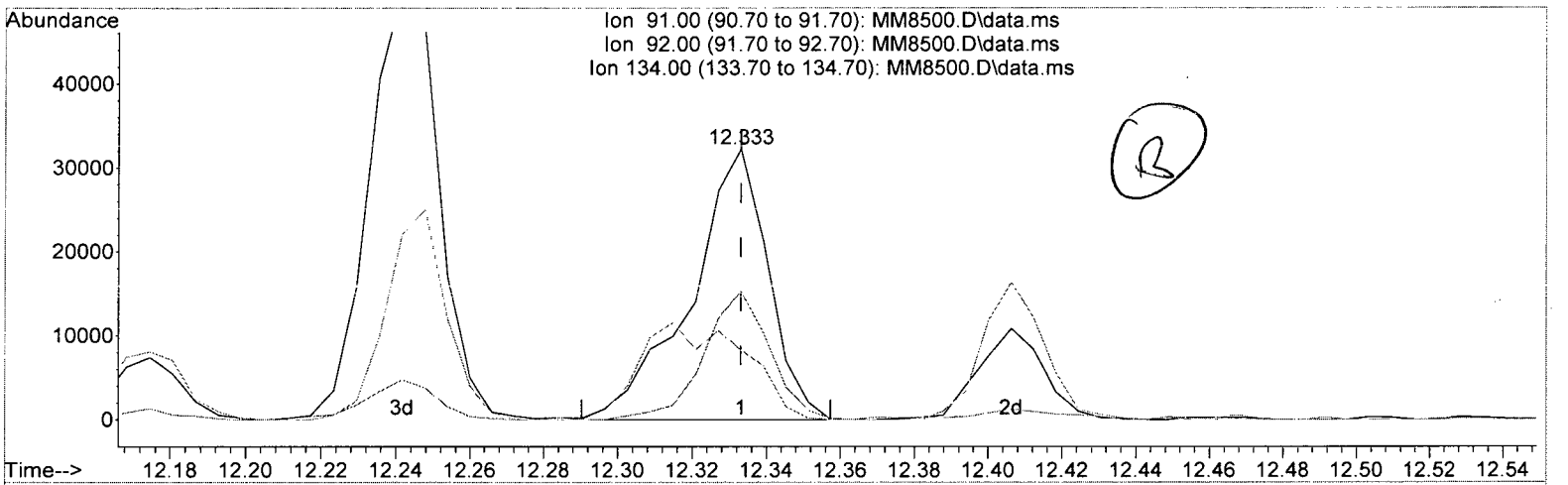
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	768531	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1261385	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1171851	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	563775	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	360969	55.04	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 110.08%				
48) surr1,1,2-dichloroetha...	6.096	65	390505	53.91	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.82%				
65) SURR3,Toluene-d8	8.529	98	1502970	54.46	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 108.92%				
70) SURR2,BFB	11.047	95	587714	56.41	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 112.82%				
Target Compounds							Qvalue
15) Acetone	2.487	43	2993	1.83	ppb		72
49) Benzene	6.176	78	9138	0.33	ppb		91
78) Chlorobenzene	10.016	112	106864	6.17	ppb		92
89) Isopropylbenzene	10.925	105	172792	5.89	ppb		99
95) n-Propylbenzene	11.278	91	148306	4.39	ppb		94
100) tert-Butylbenzene	11.699	119	20889	1.06	ppb		92
103) sec-Butylbenzene	11.882	105	130293	4.70	ppb		97
105) 1,3-Dclbenz	11.961	146	7328	0.57	ppb		92
106) 1,4-Dclbenz	12.034	146	39023	3.24	ppb		95
109) n-Butylbenzene	12.333	91	37983m	1.87	ppb		
110) 1,2-Dclbenz	12.333	146	3882	0.33	ppb	#	83

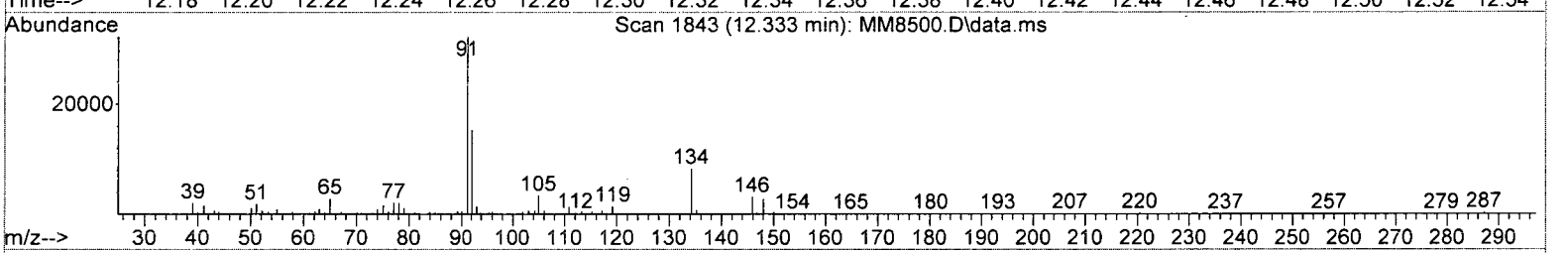
(#) = qualifier out of range (m) = manual integration (+) = signals summed

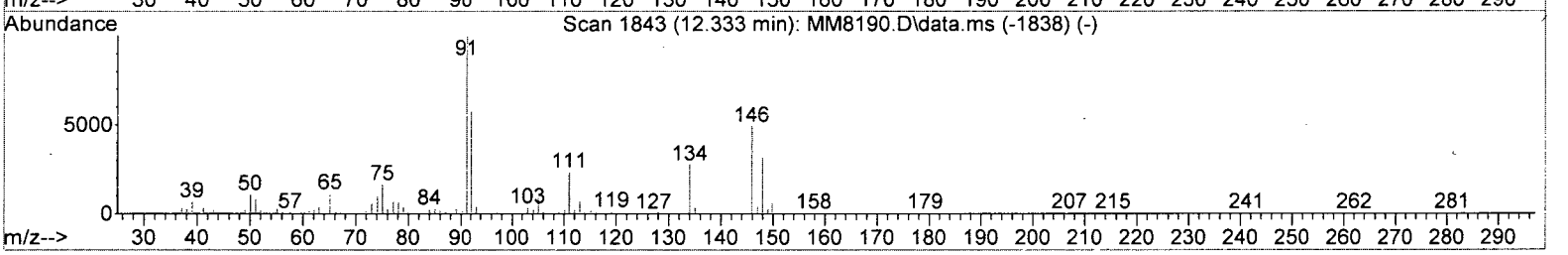
KR 12/9/15

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8500.D
Acq On : 3 Dec 2015 4:54 pm
Operator : K.Ruest
Sample : R1510346-006|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 03 17:10:32 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8500.D\data.ms

(109) n-Butylbenzene

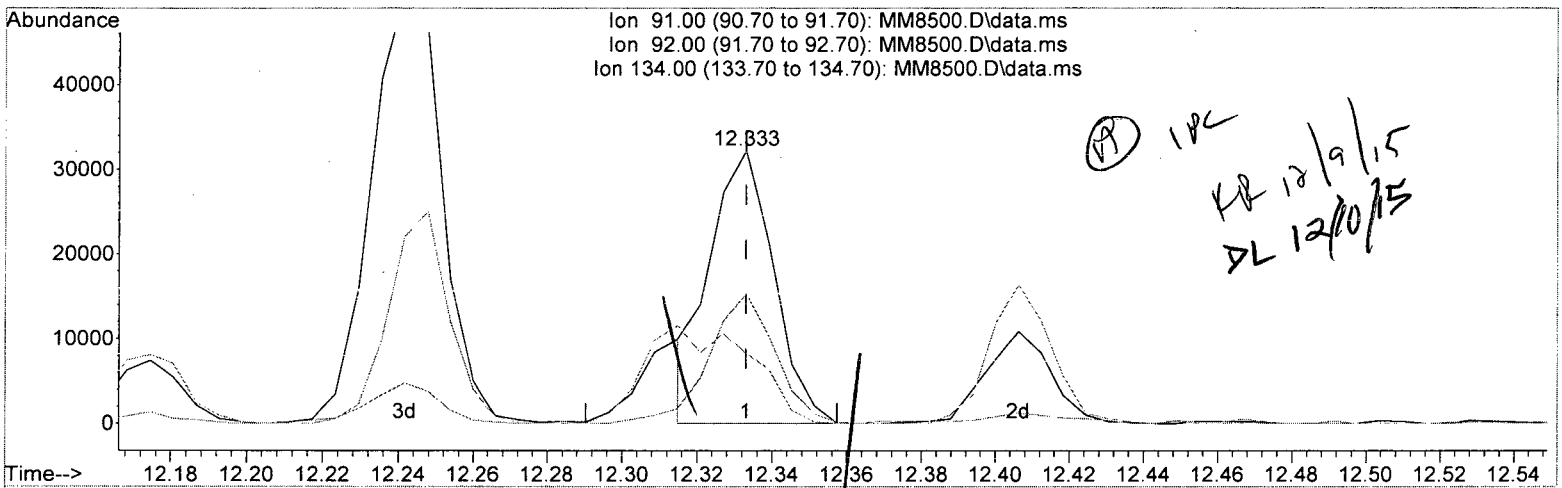
12.333min (-0.000) 2.29 ppb

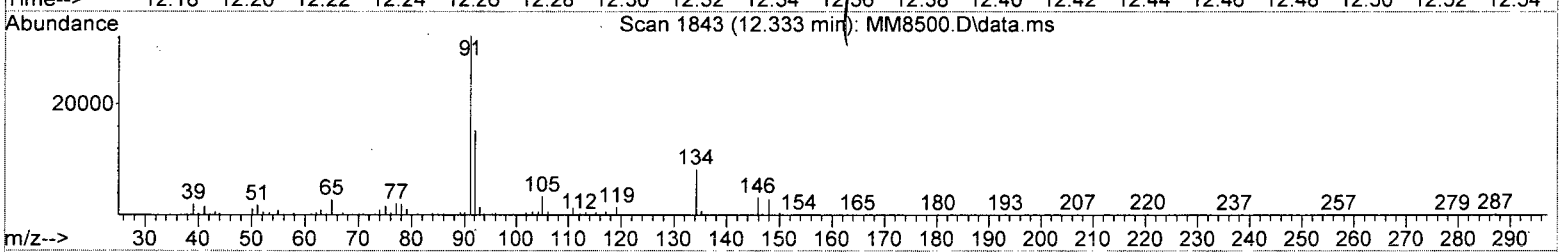
response 46434

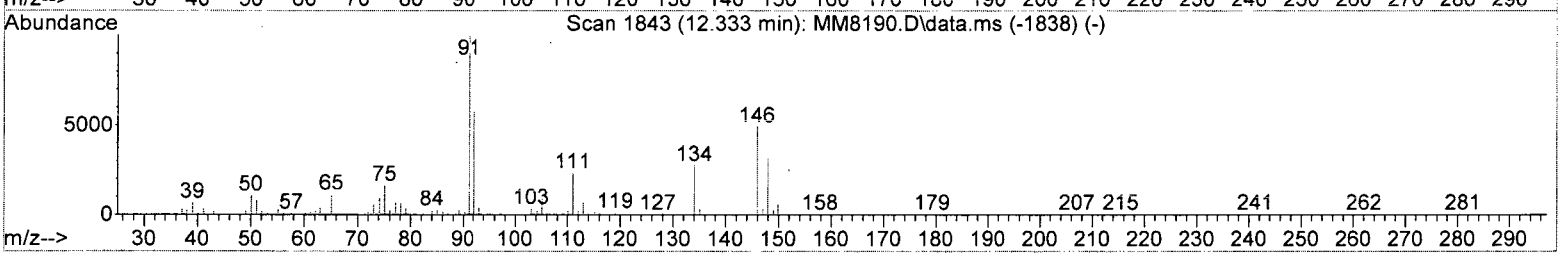
Ion	Exp%	Act%
91.00	100	100
92.00	57.00	47.52
134.00	27.20	25.72
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8500.D
Acq On : 3 Dec 2015 4:54 pm
Operator : K.Ruest
Sample : R1510346-006|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 03 17:10:32 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8500.D\data.ms

(109) n-Butylbenzene

12.333min (-0.000) 1.87 ppb m

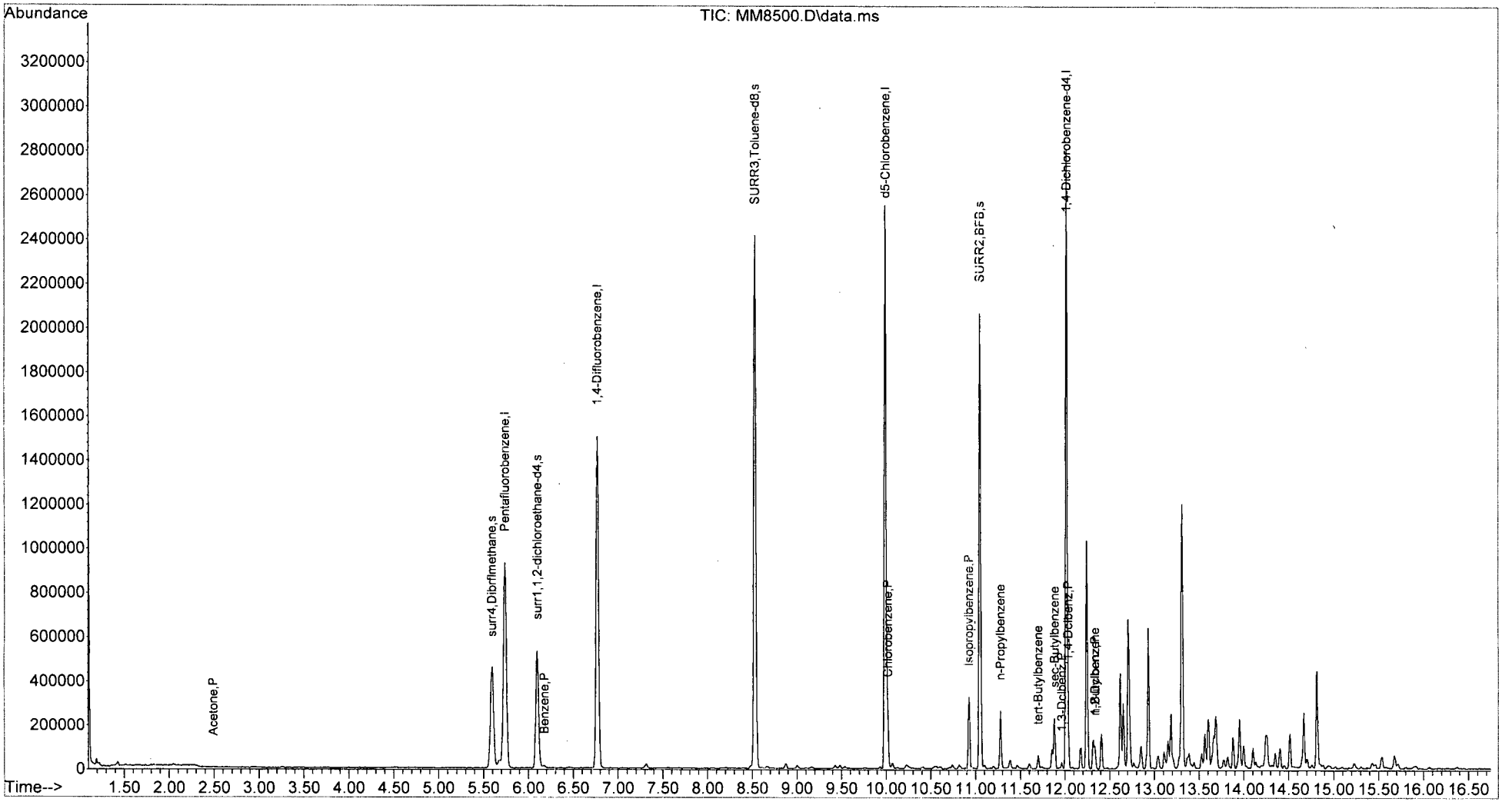
response 37983

Ion	Exp%	Act%
91.00	100	100
92.00	57.00	47.52
134.00	27.20	25.72
0.00	0.00	0.00

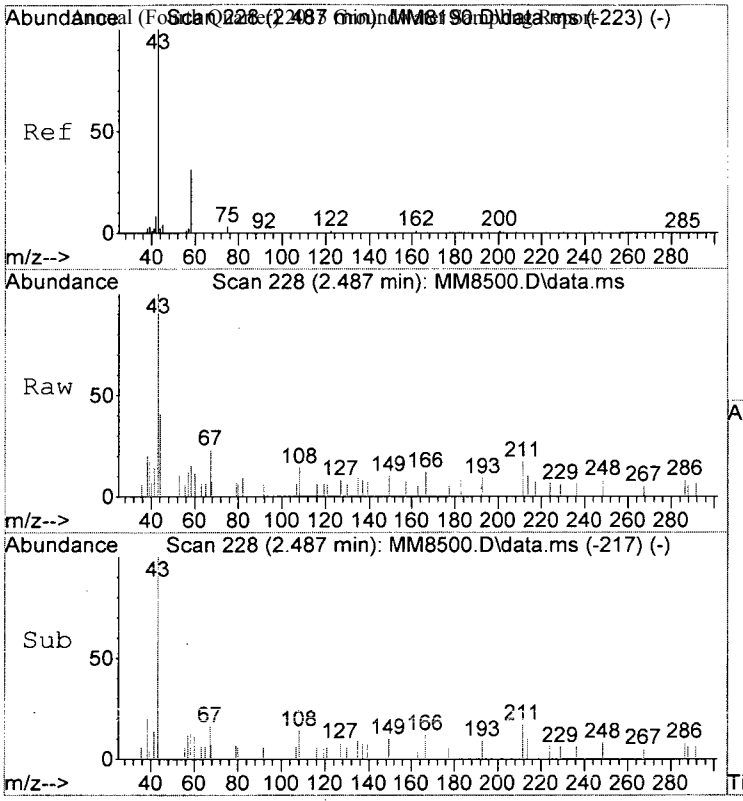
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8500.D
Acq On : 3 Dec 2015 4:54 pm
Operator : K.Ruest
Sample : R1510346-006|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 09 15:43:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



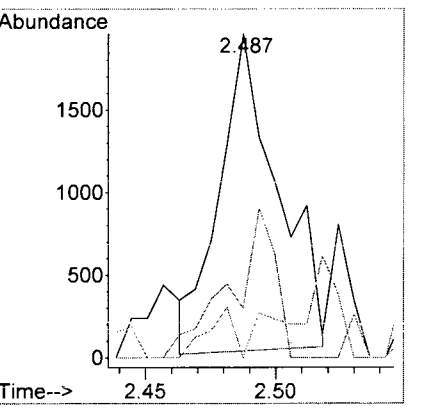
W111815A.M Wed Dec 09 15:46:13 2015 Page: 2

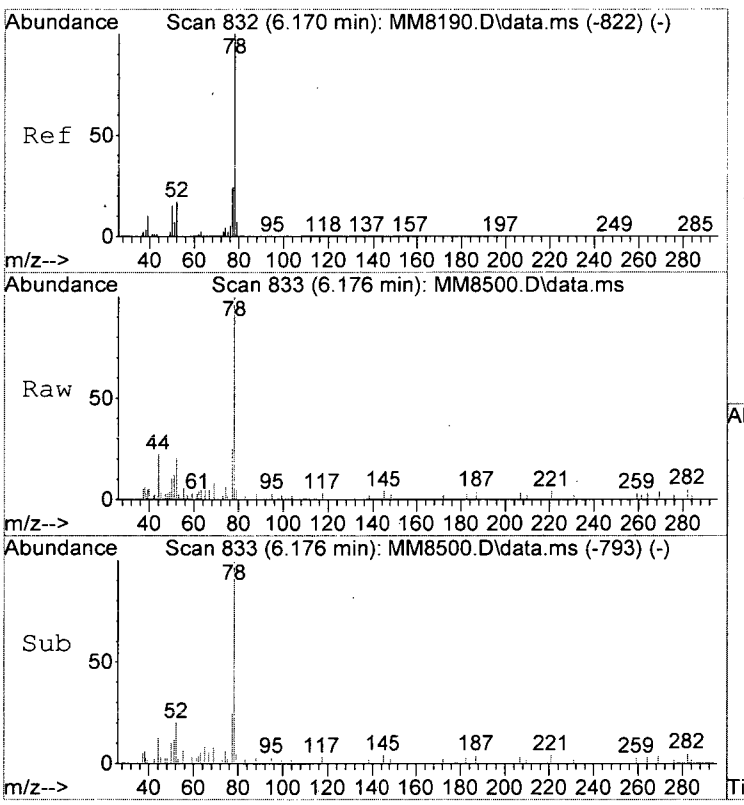


#15
Acetone
Concen: 1.83 ppb
RT: 2.487 min Scan# 228
Delta R.T. -0.006 min
Lab File: MM8500.D
Acq: 3 Dec 2015 4:54 pm

Tgt Ion: 43 Resp: 2993

Ion	Ratio	Lower	Upper
43	100		
58	15.1	10.9	50.9
42	0.0	0.0	28.5

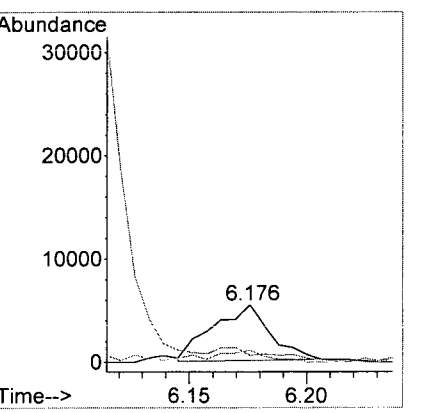


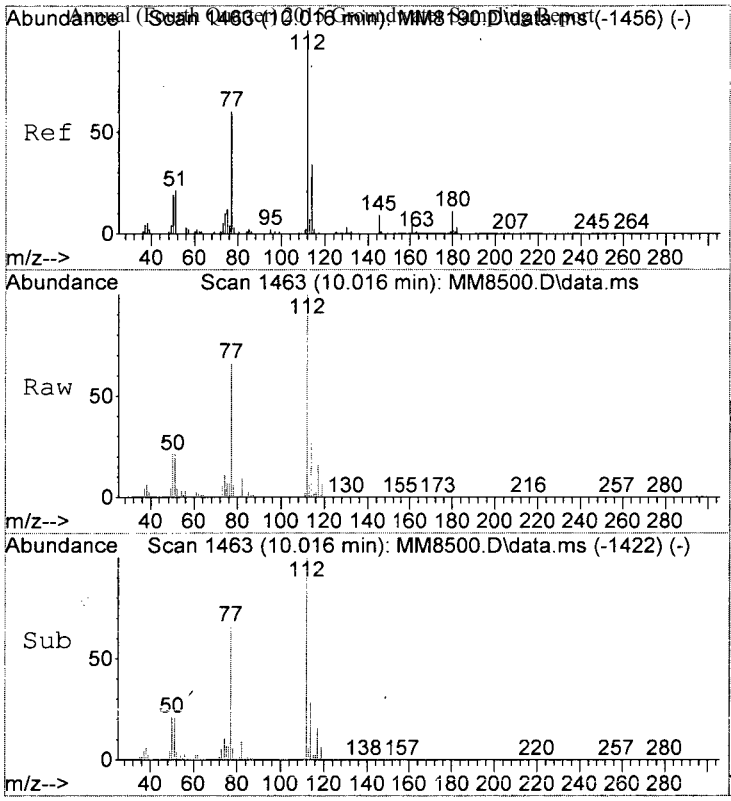


#49
Benzene
Concen: 0.33 ppb
RT: 6.176 min Scan# 833
Delta R.T. -0.000 min
Lab File: MM8500.D
Acq: 3 Dec 2015 4:54 pm

Tgt Ion: 78 Resp: 9138

Ion	Ratio	Lower	Upper
78	100		
51	11.8	0.0	36.1
52	20.0	0.0	36.8

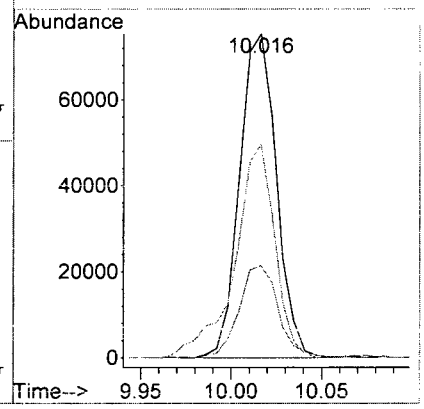


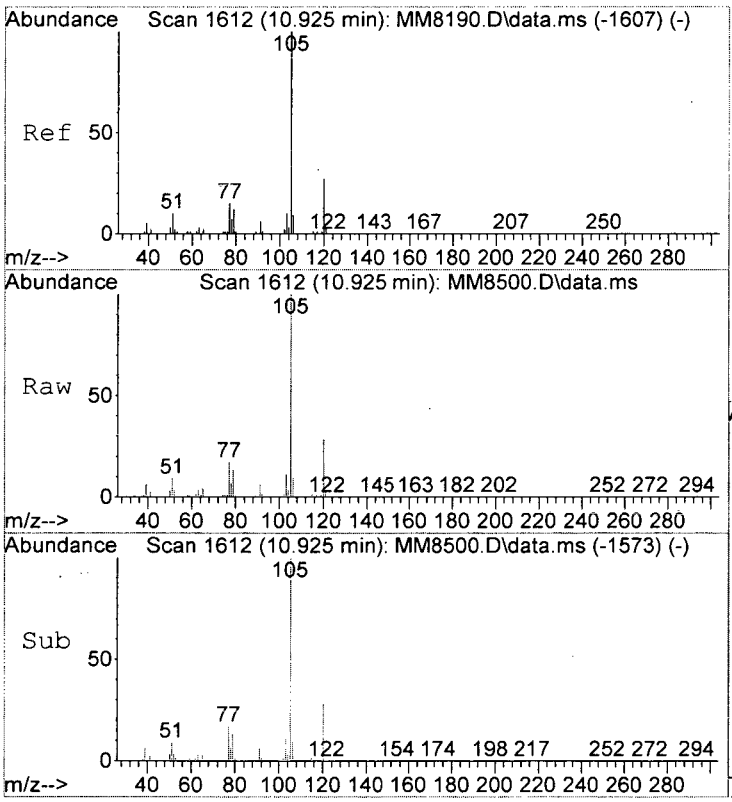


#78
Chlorobenzene
Concen: 6.17 ppb
RT: 10.016 min Scan# 1463
Delta R.T. -0.000 min
Lab File: MM8500.D
Acq: 3 Dec 2015 4:54 pm

Tgt Ion:112 Resp: 106864

Ion	Ratio	Lower	Upper
112	100		
114	28.5	13.7	53.7
77	65.8	40.2	80.2

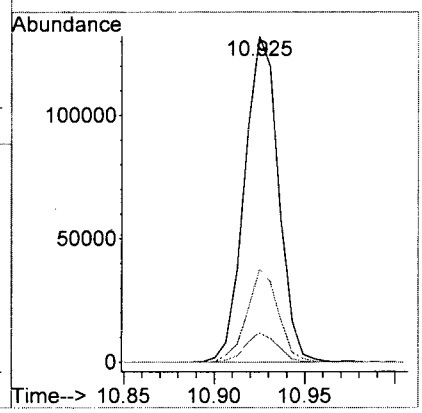


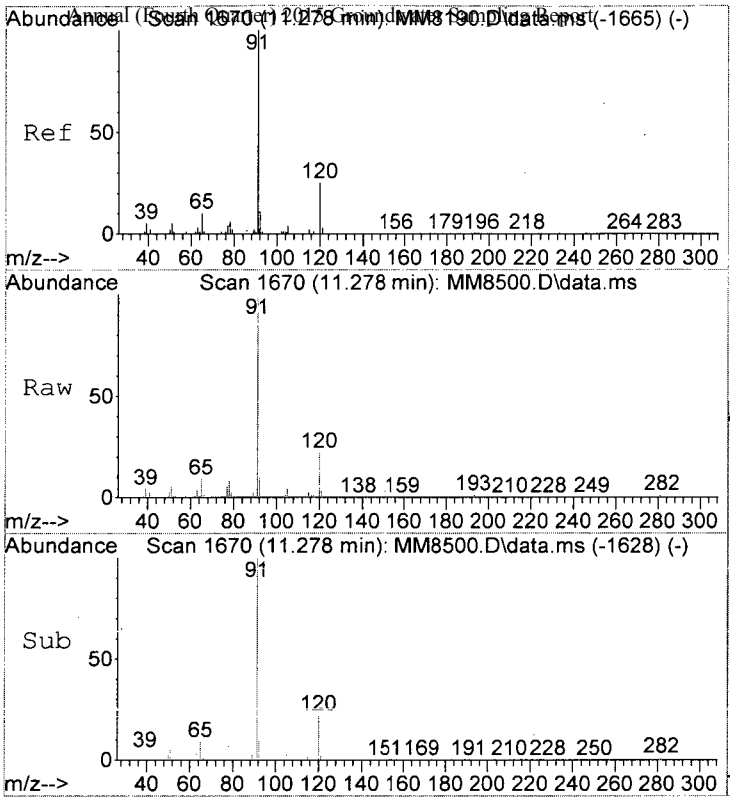


#89
Isopropylbenzene
Concen: 5.89 ppb
RT: 10.925 min Scan# 1612
Delta R.T. -0.006 min
Lab File: MM8500.D
Acq: 3 Dec 2015 4:54 pm

Tgt Ion:105 Resp: 172792

Ion	Ratio	Lower	Upper
105	100		
120	28.3	7.4	47.4
106	9.0	0.0	29.1

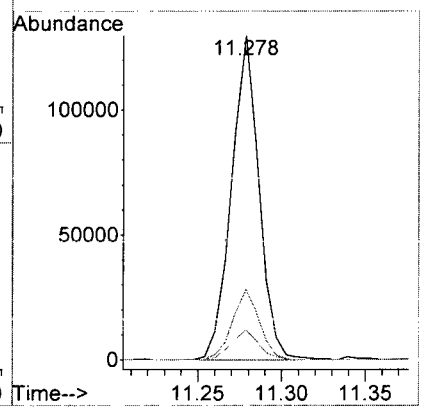


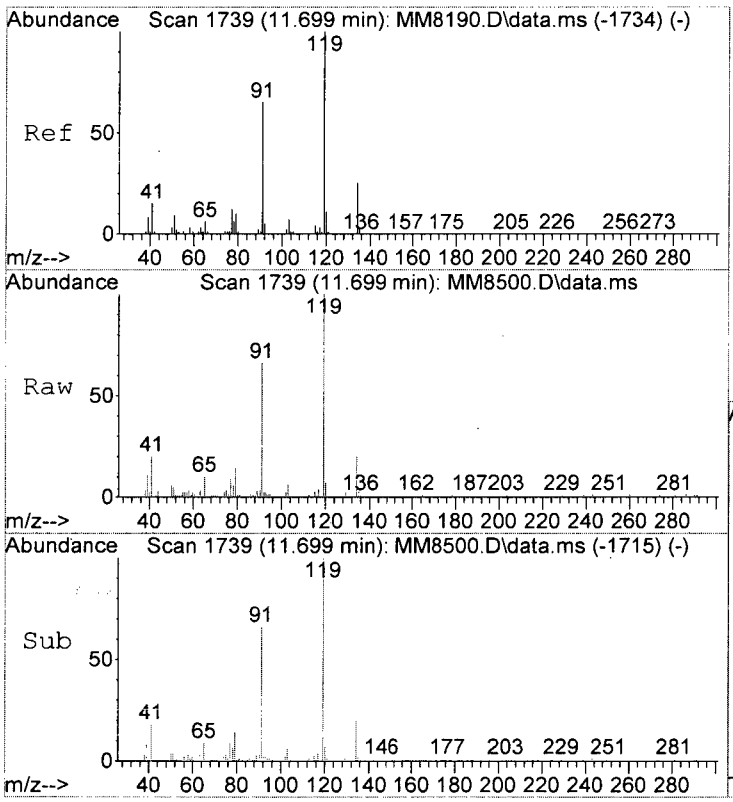


#95
n-Propylbenzene
Concen: 4.39 ppb
RT: 11.278 min Scan# 1670
Delta R.T. -0.006 min
Lab File: MM8500.D
Acq: 3 Dec 2015 4:54 pm

Tgt Ion: 91 Resp: 148306

Ion	Ratio	Lower	Upper
91	100		
120	21.6	4.8	44.8
65	9.1	0.0	30.5

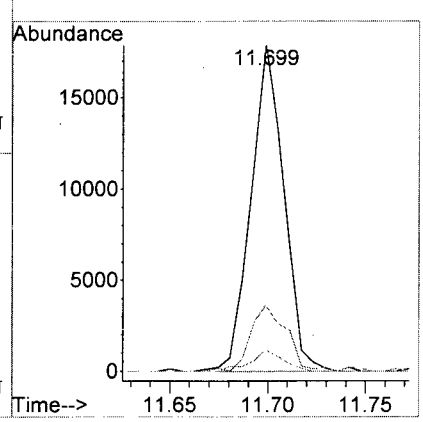


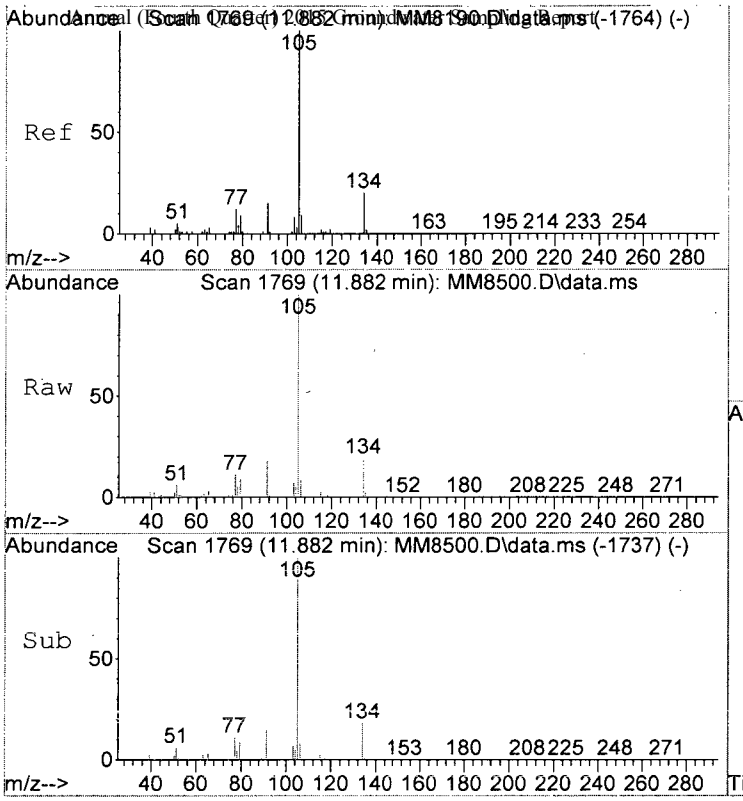


#100
tert-Butylbenzene
Concen: 1.06 ppb
RT: 11.699 min Scan# 1739
Delta R.T. -0.006 min
Lab File: MM8500.D
Acq: 3 Dec 2015 4:54 pm

Tgt Ion:119 Resp: 20889

Ion	Ratio	Lower	Upper
119	100		
134	20.3	5.0	45.0
103	6.3	0.0	26.6

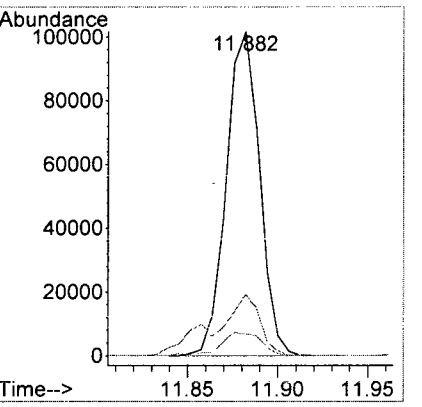


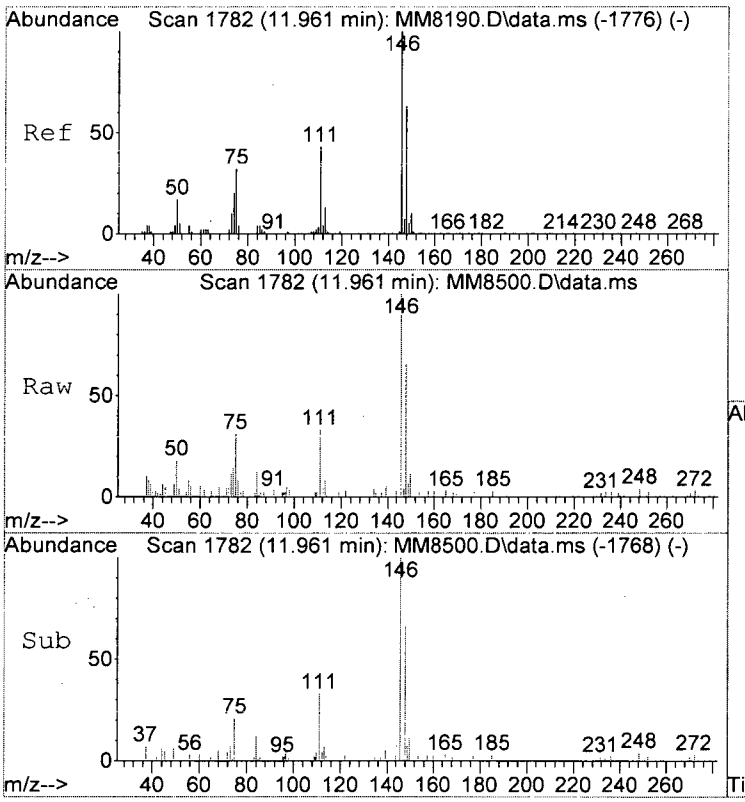


#103
sec-Butylbenzene
Concen: 4.70 ppb
RT: 11.882 min Scan# 1769
Delta R.T. -0.000 min
Lab File: MM8500.D
Acq: 3 Dec 2015 4:54 pm

Tgt Ion:105 Resp: 130293

Ion	Ratio	Lower	Upper
105	100		
134	18.8	0.2	40.2
103	6.7	0.0	27.7

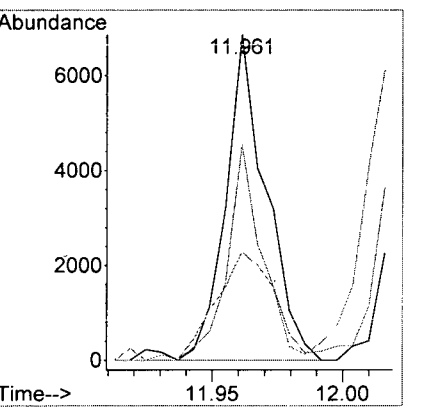


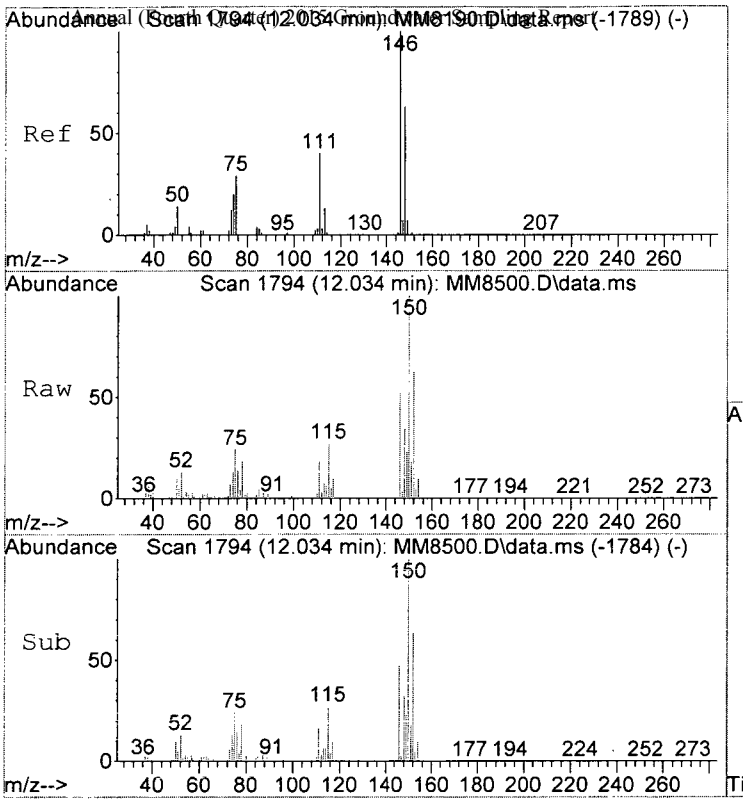


#105
1,3-Dclbenz
Concen: 0.57 ppb
RT: 11.961 min Scan# 1782
Delta R.T. -0.006 min
Lab File: MM8500.D
Acq: 3 Dec 2015 4:54 pm

Tgt Ion:146 Resp: 7328

Ion	Ratio	Lower	Upper
146	100		
148	66.2	43.1	83.1
111	33.2	22.6	62.6

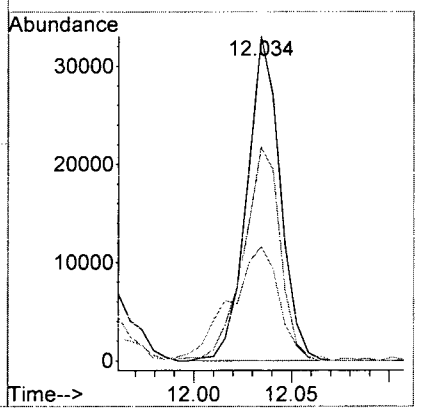


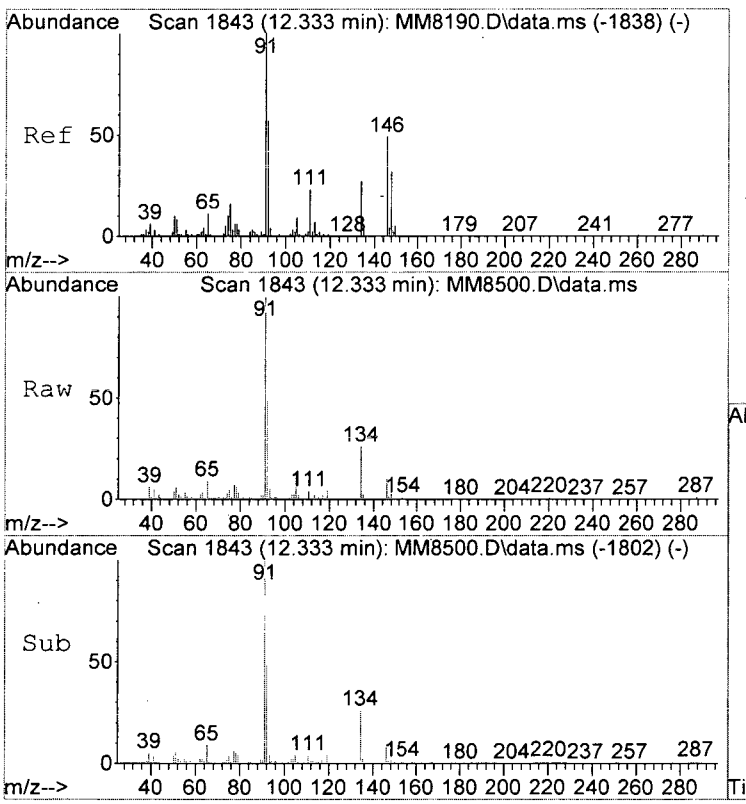


#106
1,4-Dclbenz
Concen: 3.24 ppb
RT: 12.034 min Scan# 1794
Delta R.T. -0.006 min
Lab File: MM8500.D
Acq: 3 Dec 2015 4:54 pm

Tgt Ion:146 Resp: 39023

Ion	Ratio	Lower	Upper
146	100		
148	65.9	43.5	83.5
111	35.2	20.3	60.3

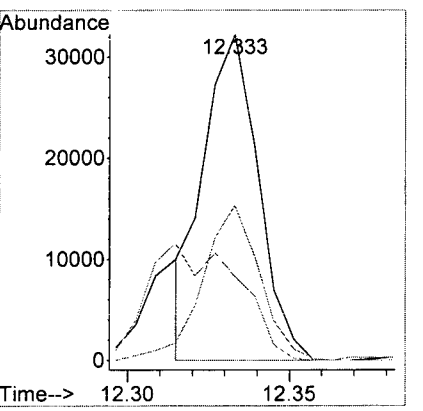


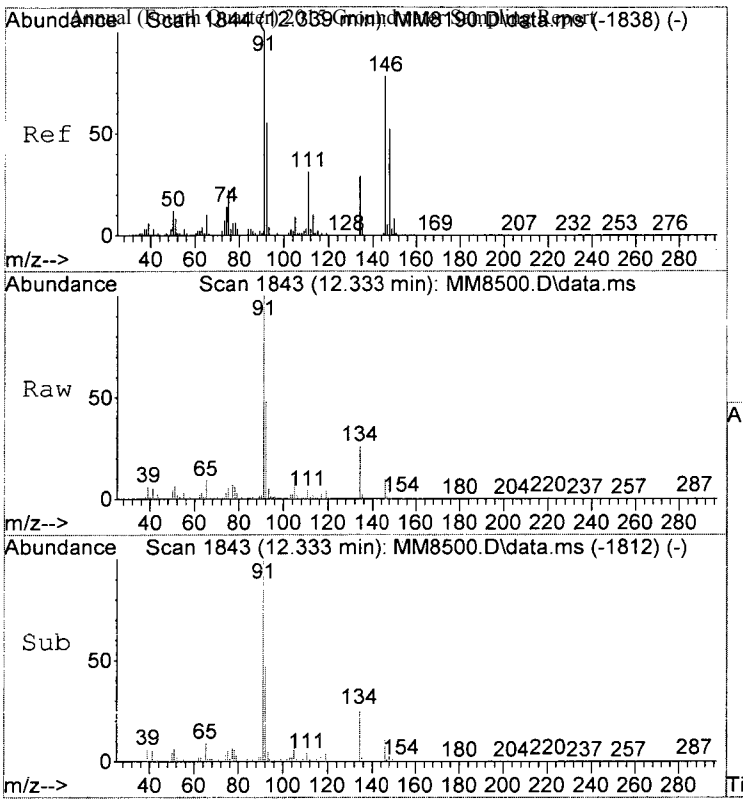


#109
n-Butylbenzene
Concen: 1.87 ppb m
RT: 12.333 min Scan# 1843
Delta R.T. -0.000 min
Lab File: MM8500.D
Acq: 3 Dec 2015 4:54 pm

Tgt Ion: 91 Resp: 37983

Ion	Ratio	Lower	Upper
91	100		
92	47.5	37.0	77.0
134	25.7	7.2	47.2

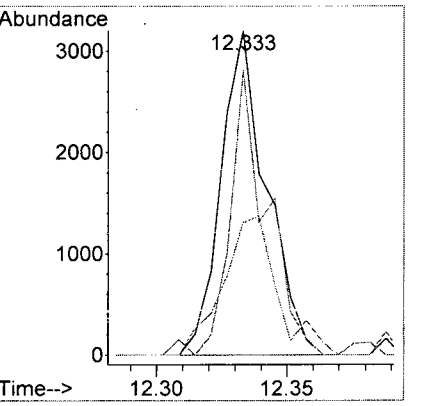




#110
1,2-Dclbenz
Concen: 0.33 ppb
RT: 12.333 min Scan# 1843
Delta R.T. -0.006 min
Lab File: MM8500.D
Acq: 3 Dec 2015 4:54 pm

Tgt Ion:146 Resp: 3882

Ion	Ratio	Lower	Upper
146	100		
148	87.8	46.9	86.9#
111	40.8	19.6	59.6



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8500.D
Acq On : 3 Dec 2015 4:54 pm
Operator : K.Ruest
Sample : R1510346-006|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8500.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.597	727	738	746	rBV	461515	1161586	29.89%	3.399%
2	5.682	746	752	753	rVV3	34975	75570	1.94%	0.221%
3	5.737	753	761	772	rVB	929151	2193255	56.44%	6.419%
4	6.096	811	820	828	rBV	533002	1148843	29.56%	3.362%
5	6.767	921	930	941	rBV	1504944	2917933	75.09%	8.540%
6	7.316	1011	1020	1025	rBV4	20956	43974	1.13%	0.129%
7	8.529	1212	1219	1229	rVB	2412284	3885519	99.99%	11.371%
8	9.986	1452	1458	1468	rBV	2553584	3885975	100.00%	11.373%
9	10.224	1491	1497	1506	rBV10	17444	42577	1.10%	0.125%
10	10.925	1607	1612	1619	rBV	324411	419356	10.79%	1.227%
11	11.047	1626	1632	1638	rBV	2065395	2649840	68.19%	7.755%
12	11.278	1665	1670	1680	rBV	260430	307978	7.93%	0.901%
13	11.388	1681	1688	1692	rVB	36293	54368	1.40%	0.159%
14	11.602	1718	1723	1730	rBV3	24661	39028	1.00%	0.114%
15	11.699	1733	1739	1743	rBV	59176	74399	1.91%	0.218%
16	11.851	1760	1764	1766	rBV	82491	108696	2.80%	0.318%
17	11.882	1766	1769	1774	rVB	226646	279620	7.20%	0.818%
18	12.016	1785	1791	1799	rBV	2801752	3683709	94.79%	10.781%
19	12.175	1811	1817	1821	rBV	94271	121291	3.12%	0.355%
20	12.242	1823	1828	1835	rVB	1033205	1282228	33.00%	3.753%
21	12.315	1835	1840	1841	rBV	131003	155127	3.99%	0.454%
22	12.406	1850	1855	1861	rBV	157993	203615	5.24%	0.596%
23	12.620	1880	1890	1893	rBV	432676	568119	14.62%	1.663%
24	12.650	1893	1895	1900	rVV	295667	323938	8.34%	0.948%
25	12.705	1900	1904	1912	rVV2	676189	1017670	26.19%	2.978%
26	12.851	1921	1928	1933	rVB2	101768	160897	4.14%	0.471%
27	12.931	1933	1941	1947	rBV	637953	786664	20.24%	2.302%
28	13.040	1953	1959	1966	rBV2	57727	97421	2.51%	0.285%
29	13.107	1966	1970	1974	rVV	77900	117245	3.02%	0.343%
30	13.150	1974	1977	1980	rVV	126480	174447	4.49%	0.511%
31	13.187	1980	1983	1992	rVV	248726	349561	9.00%	1.023%
32	13.272	1992	1997	1998	rVV	52069	55710	1.43%	0.163%
33	13.309	1998	2003	2009	rVV2	1197902	1691749	43.53%	4.951%
34	13.388	2013	2016	2022	rVV	70000	114816	2.95%	0.336%
35	13.528	2034	2039	2041	rBV2	67782	84253	2.17%	0.247%

KB 12/9/15

```
Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8500.D
Acq On    :  3 Dec 2015    4:54 pm
Operator  : K.Ruest
Sample    : R1510346-006|1.0                        Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 16   Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF                              Filtering: 5
Sampling  : 1                                 Min Area: 1 % of largest Peak
Start Thrs: 0.2                              Max Peaks: 100
Stop Thrs : 0                              Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method    : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title     : MS#12 - 8260B WATERS 10mL Purge
```

36	13.565	2041	2045	2048	rVV	153432	206956	5.33%	0.606%
37	13.601	2048	2051	2055	rVV3	217791	314945	8.10%	0.922%
38	13.662	2055	2061	2062	rVV3	143559	208248	5.36%	0.609%
39	13.686	2062	2065	2074	rVB2	235146	356478	9.17%	1.043%
40	13.772	2074	2079	2083	rBV	35515	53157	1.37%	0.156%
41	13.821	2083	2087	2092	rVB2	49263	70443	1.81%	0.206%
42	13.875	2092	2096	2101	rVB	140390	168247	4.33%	0.492%
43	13.949	2101	2108	2112	rBV2	223348	327498	8.43%	0.958%
44	13.997	2112	2116	2120	rVB	93108	107634	2.77%	0.315%
45	14.101	2128	2133	2136	rBV	90875	110952	2.86%	0.325%
46	14.247	2151	2157	2164	rVB3	143125	297945	7.67%	0.872%
47	14.345	2170	2173	2178	rVB	65284	78026	2.01%	0.228%
48	14.400	2178	2182	2187	rVB	90136	121687	3.13%	0.356%
49	14.509	2195	2200	2205	rBV2	158730	207185	5.33%	0.606%
50	14.668	2217	2226	2229	rBV	250031	339271	8.73%	0.993%
51	14.705	2229	2232	2237	rVB2	39124	51639	1.33%	0.151%
52	14.814	2245	2250	2259	rBV	439106	610143	15.70%	1.786%
53	15.229	2311	2318	2324	rBV7	22580	41839	1.08%	0.122%
54	15.430	2347	2351	2354	rBV2	23581	39870	1.03%	0.117%
55	15.534	2364	2368	2374	rBV2	49250	82738	2.13%	0.242%
56	15.674	2385	2391	2395	rBV	58769	97680	2.51%	0.286%

Sum of corrected areas: 34169558

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8500.D
Acq On    :  3 Dec 2015   4:54 pm
Operator  : K.Ruest
Sample    : R1510346-006|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 16   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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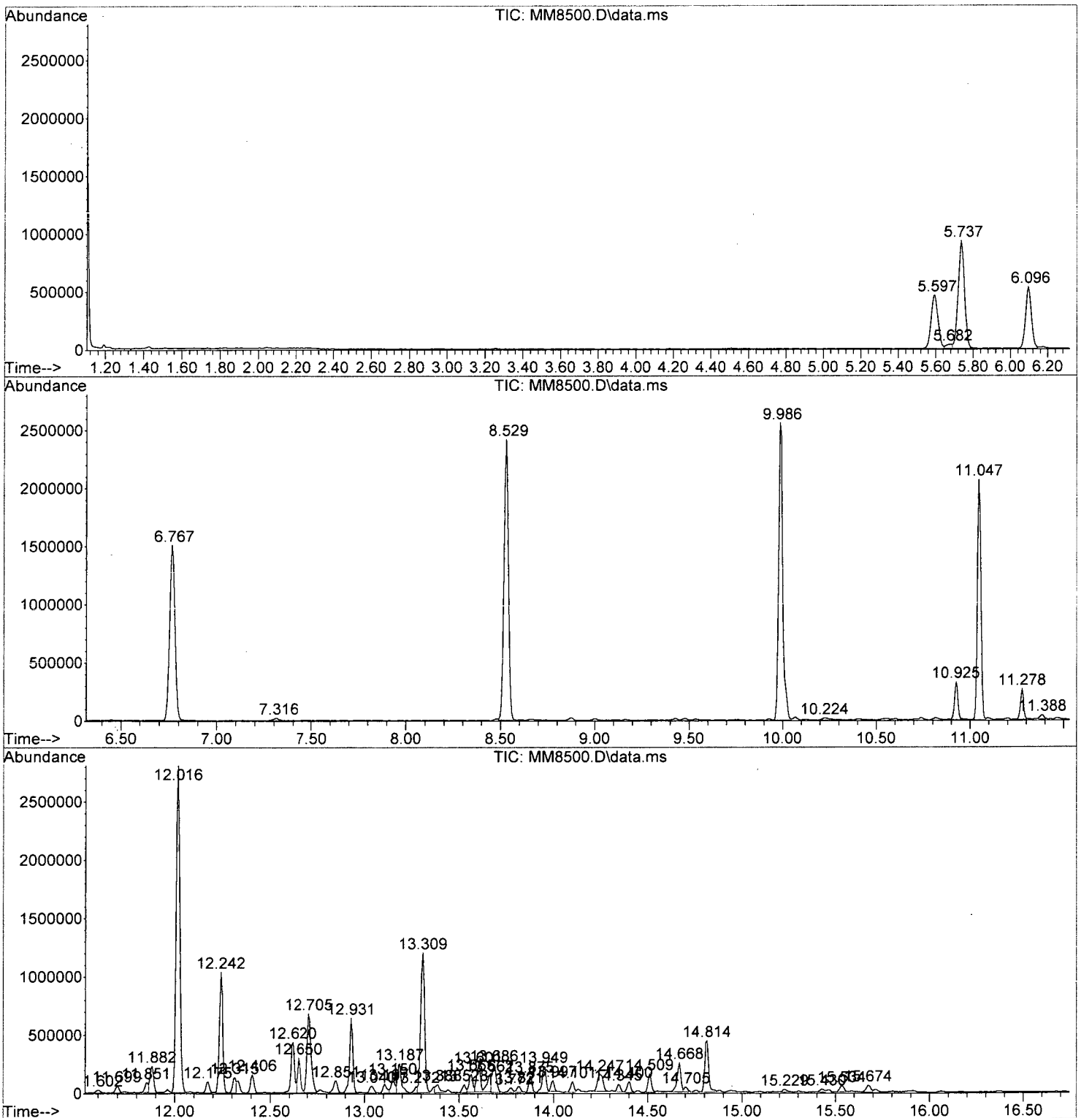


Library Search Compound Report


```
Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8500.D
Acq On    :  3 Dec 2015    4:54 pm
Operator  : K.Ruest
Sample    : R1510346-006|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 16   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

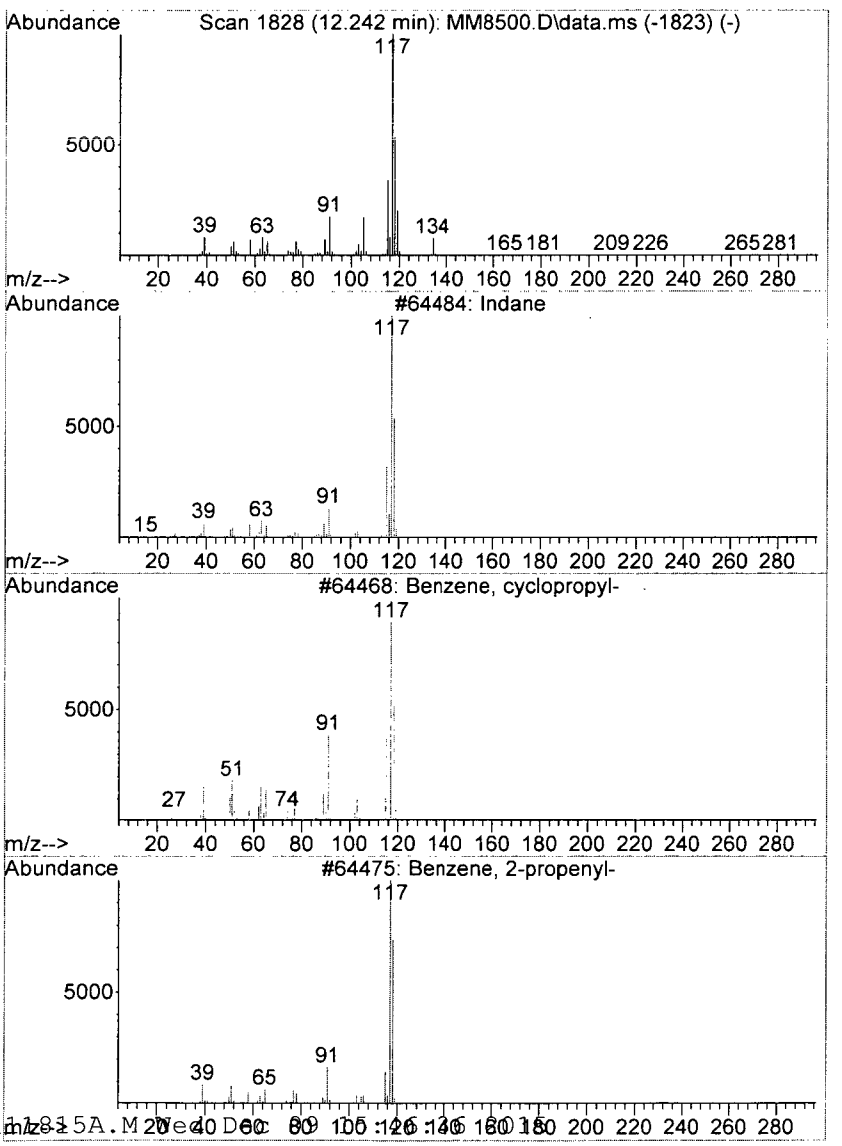
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

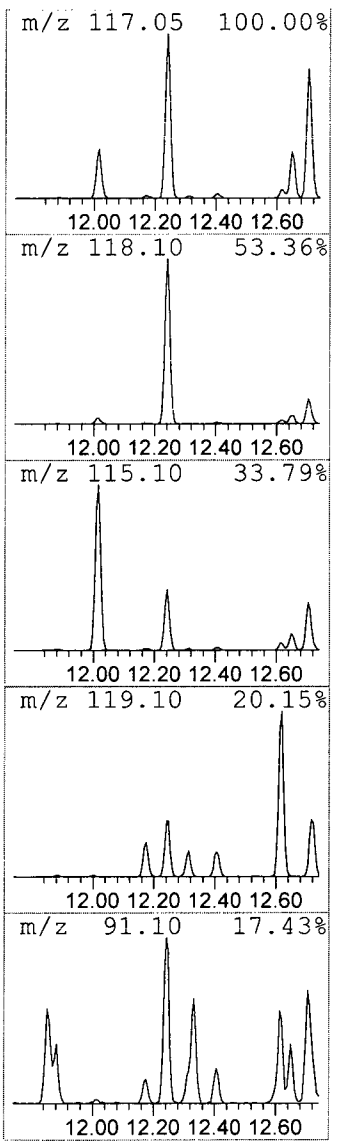
**********************************************************************
Peak Number  1  Indane                              Concentration Rank  2
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.242	17.40 ppb	1282230	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indane	118	C9H10	000496-11-7	76
2	Benzene, cyclopropyl-	118	C9H10	000873-49-4	70
3	Benzene, 2-propenyl-	118	C9H10	000300-57-2	64
4	Benzene, 1-propenyl-	118	C9H10	000637-50-3	53
5	Benzene, 2-propenyl-	118	C9H10	000300-57-2	53

confirm





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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8500.D
Acq On    :  3 Dec 2015    4:54 pm
Operator  : K.Ruest
Sample    : R1510346-006|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 16   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  2  Benzene, 1-methyl-3-(1-meth...  Concentration Rank  6
```
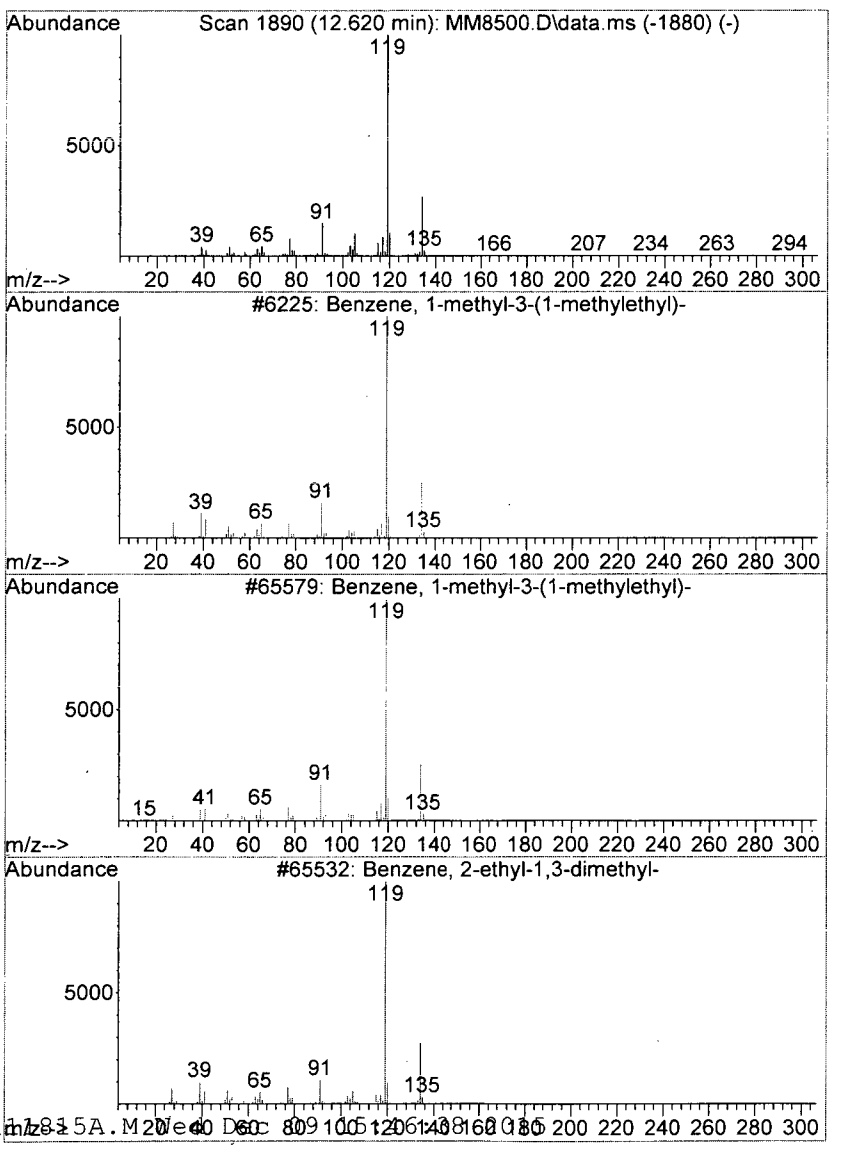
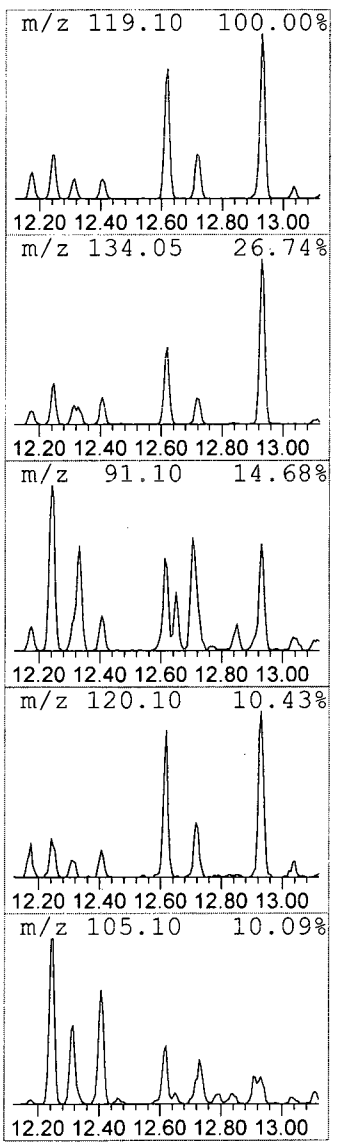

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.620	7.71 ppb	568119	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	93
2	Benzene, 1-methyl-3-(1-methyleth...	134	C10H14	000535-77-3	93
3	Benzene, 2-ethyl-1,3-dimethyl-	134	C10H14	002870-04-4	91
4	Benzene, 1-ethyl-2,4-dimethyl-	134	C10H14	000874-41-9	91
5	Benzene, 4-ethyl-1,2-dimethyl-	134	C10H14	000934-80-5	91





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Data File : MM8500.D
Acq On    :  3 Dec 2015    4:54 pm
Operator  : K.Ruest
Sample    : R1510346-006|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 16   Sample Multiplier: 1

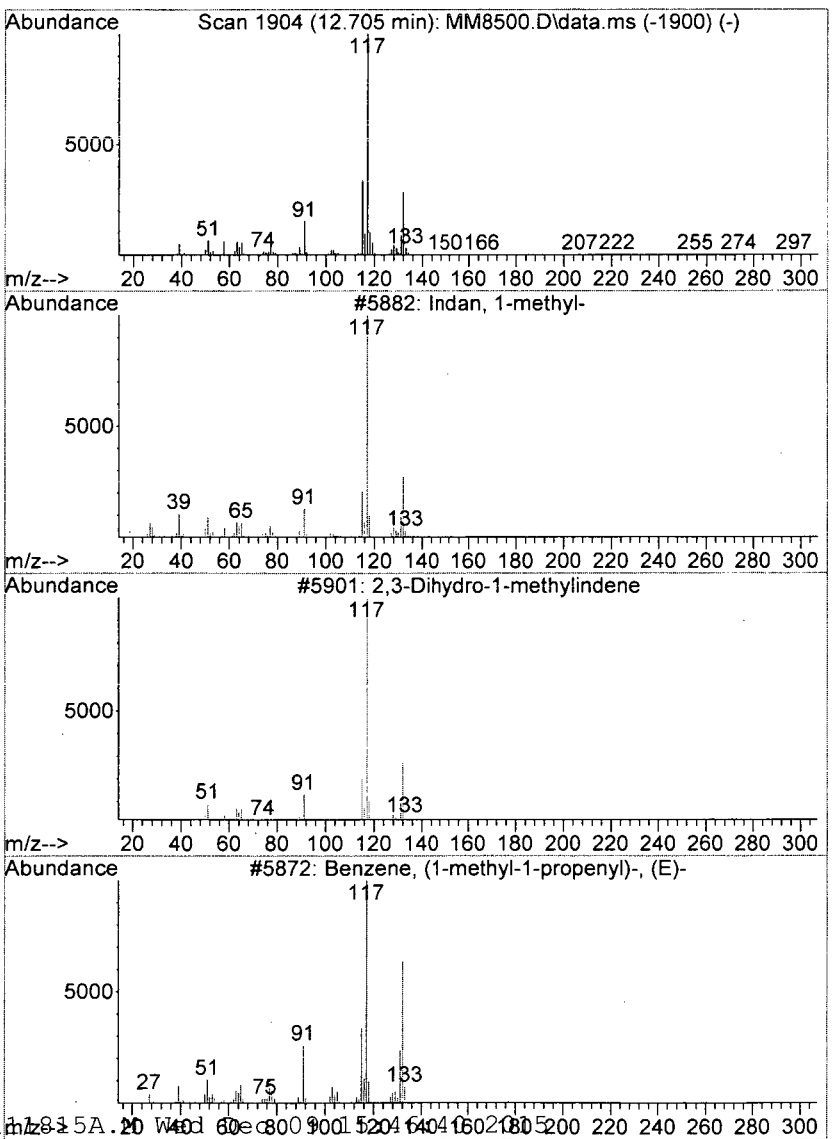
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

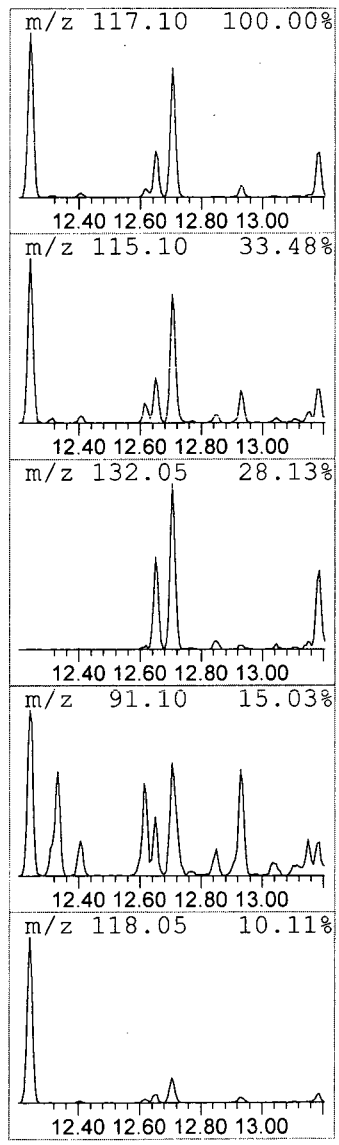
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  3  Indan, 1-methyl-                Concentration Rank  3
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.705	13.81 ppb	1017670	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indan, 1-methyl-	132	C10H12	000767-58-8	90
2	2,3-Dihydro-1-methylindene	132	C10H12	027133-93-3	90
3	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000768-00-3	87
4	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	83
5	(E)-1-Phenyl-1-butene	132	C10H12	001005-64-7	83





Library Search Compound Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8500.D
Acq On : 3 Dec 2015 4:54 pm
Operator : K.Ruest
Sample : R1510346-006|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 16 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

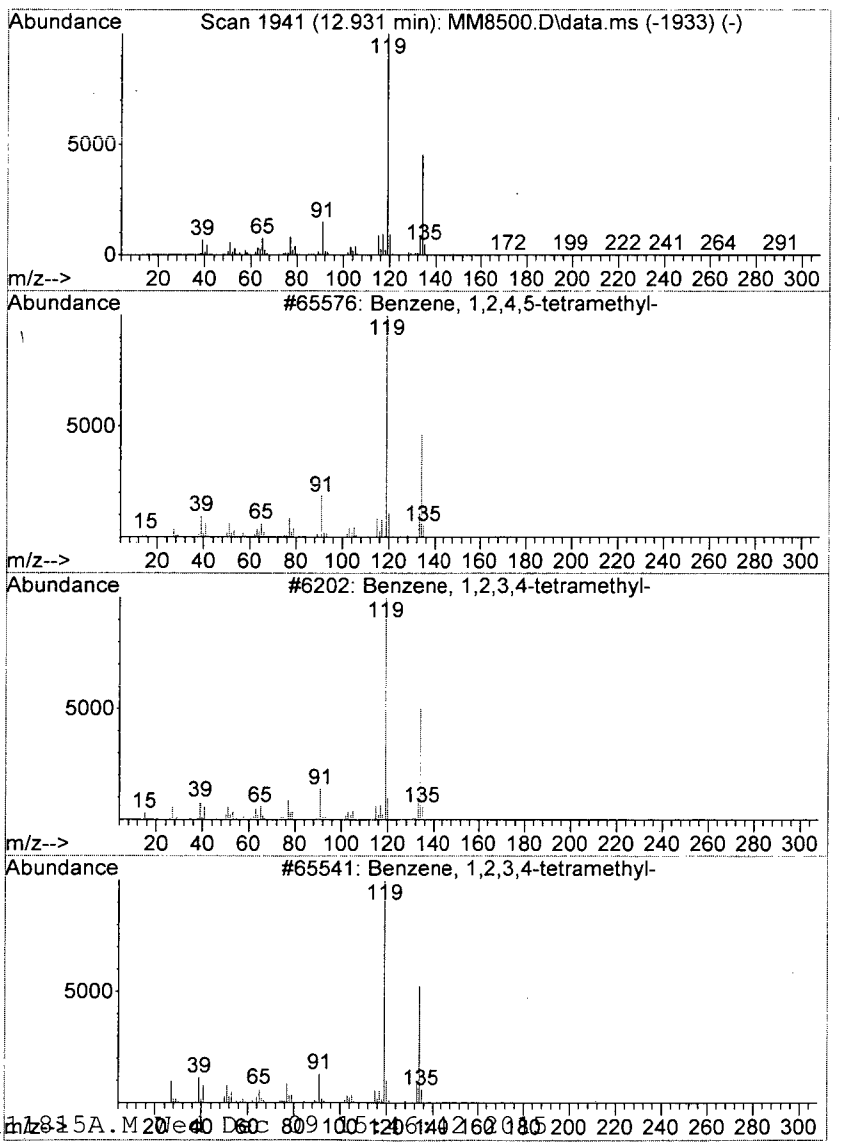
TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

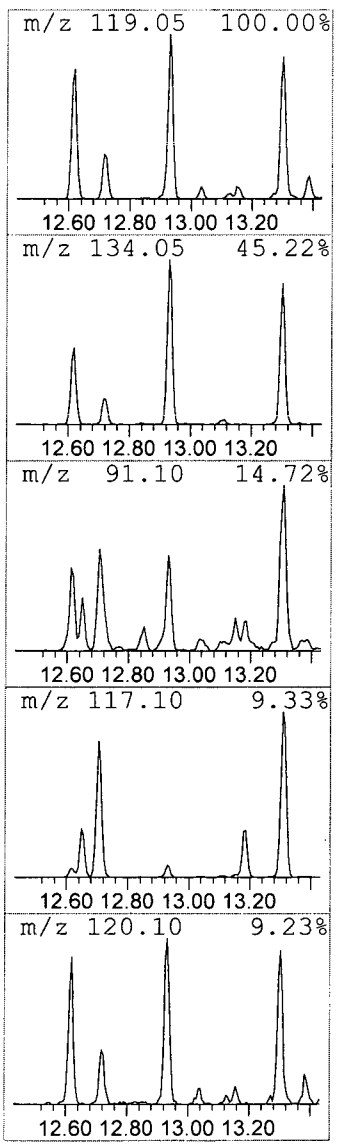
****

Peak Number 4 Benzene, 1,2,4,5-tetramethyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.931	10.68 ppb	786664	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	97
2	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	97
3	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	95
4	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	95
5	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	95





Library Search Compound Report

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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8500.D
Acq On    :  3 Dec 2015   4:54 pm
Operator  : K.Ruest
Sample    : R1510346-006|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 16   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

*********************************************************************
Peak Number  5  2,3-Dihydro-1-methylindene      Concentration Rank  1
```
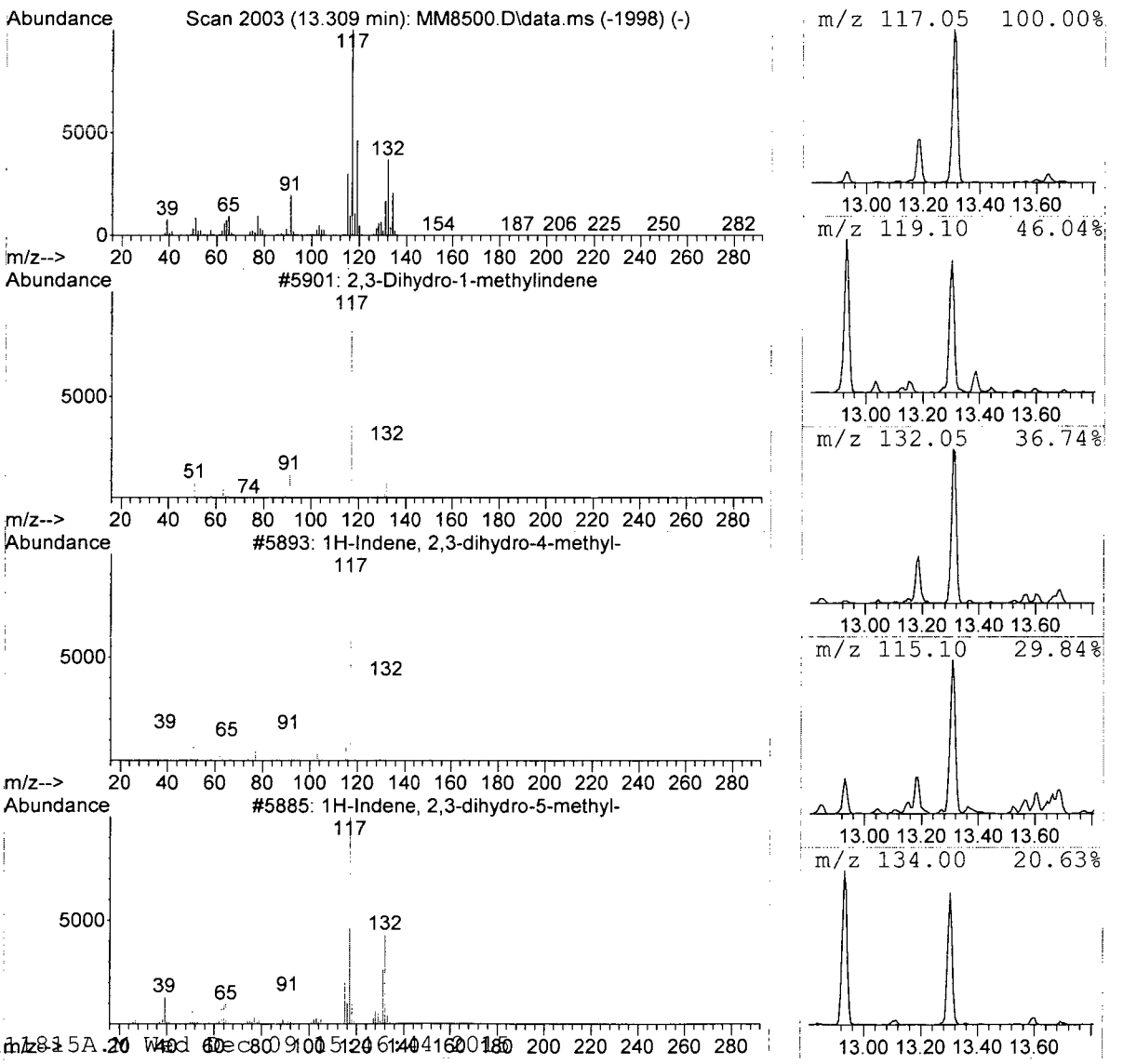

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.309	22.96 ppb	1691750	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2,3-Dihydro-1-methylindene	132	C10H12	027133-93-3	92
2	1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	91
3	1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	70
4	Benzene, 1-methyl-4-(2-propenyl)-	132	C10H12	003333-13-9	70
5	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000768-00-3	70



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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8500.D
Acq On    :  3 Dec 2015    4:54 pm
Operator  : K.Ruest
Sample    : R1510346-006|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 16   Sample Multiplier: 1

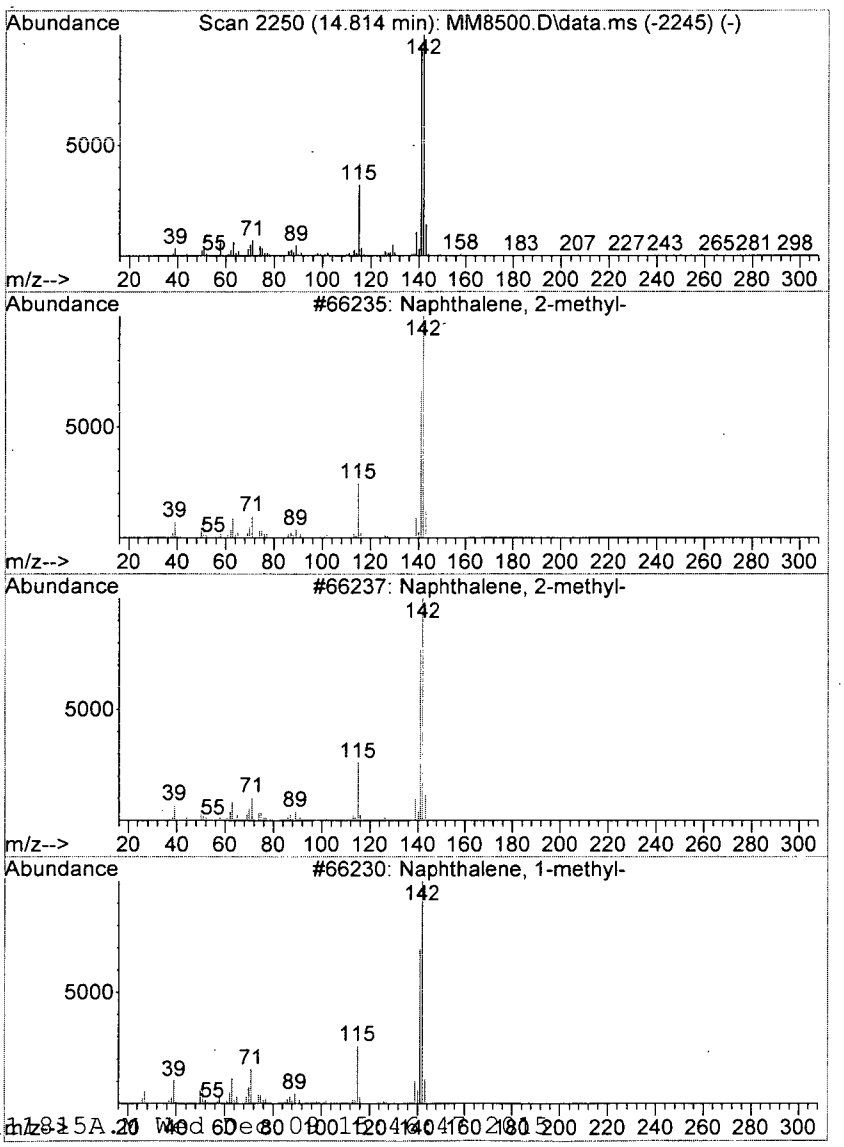
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

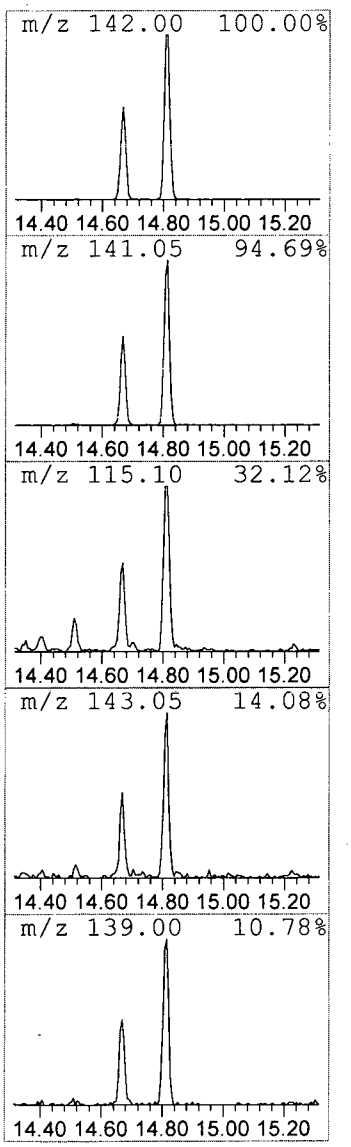
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  6  Naphthalene, 2-methyl-          Concentration Rank  5
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.814	8.28 ppb	610143	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	94
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	94
3	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91
4	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91
5	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	91





Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1425
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-53-GW-699MW09-9.0	**Units:**	µg/L
Lab Code:	R1510346-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 13:51		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 13:51		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 13:51		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 13:51		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 13:51		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 13:51		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 13:51		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 13:51		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 13:51		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 13:51		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 13:51		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 13:51		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 13:51		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 13:51		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 13:51		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 13:51		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 13:51		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 13:51		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 13:51		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 13:51		474713	
Acetone	ND	U	10	5.0	1.3	1	NA	12/3/15 13:51		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 13:51		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 13:51		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 13:51		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 13:51		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 13:51		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 13:51		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 13:51		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1425
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-53-GW-699MW09-9.0	**Units:**	µg/L
Lab Code:	R1510346-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 13:51		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 13:51		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 13:51		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 13:51		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 13:51		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 13:51		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 13:51		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
Methyl tert-Butyl Ether	1.1	J	5.0	1.0	0.29	1	NA	12/3/15 13:51		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
Tetrachloroethene (PCE)	0.51	J	5.0	1.0	0.30	1	NA	12/3/15 13:51		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 13:51		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 13:51		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 13:51		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 13:51		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 13:51		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 13:51		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 13:51		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 13:51		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:51		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/3/15 13:51	
Dibromofluoromethane	109	85-115	12/3/15 13:51	
Toluene-d8	113	85-120	12/3/15 13:51	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1351

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-699MW09-9.0	**Units:**	µg/L
Lab Code:	R1510346-007	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8494.D
Acq On : 3 Dec 2015 1:51 pm
Operator : K.Ruest
Sample : R1510346-007|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 08 17:29:04 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	758417	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1268754	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1163043	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	572024	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	360919	54.71	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.42%				
48) surr1,1,2-dichloroetha...	6.096	65	398093	54.64	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 109.28%				
65) SURR3,Toluene-d8	8.529	98	1573488	56.68	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 113.36%				
70) SURR2,BFB	11.047	95	597158	56.98	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 113.96%				
Target Compounds							Qvalue
25) Methyl-t-Butyl Ether	3.262	73	19440	1.10	ppb		95
72) Tetrachloroethene	9.175	164	2459	0.51	ppb	#	61

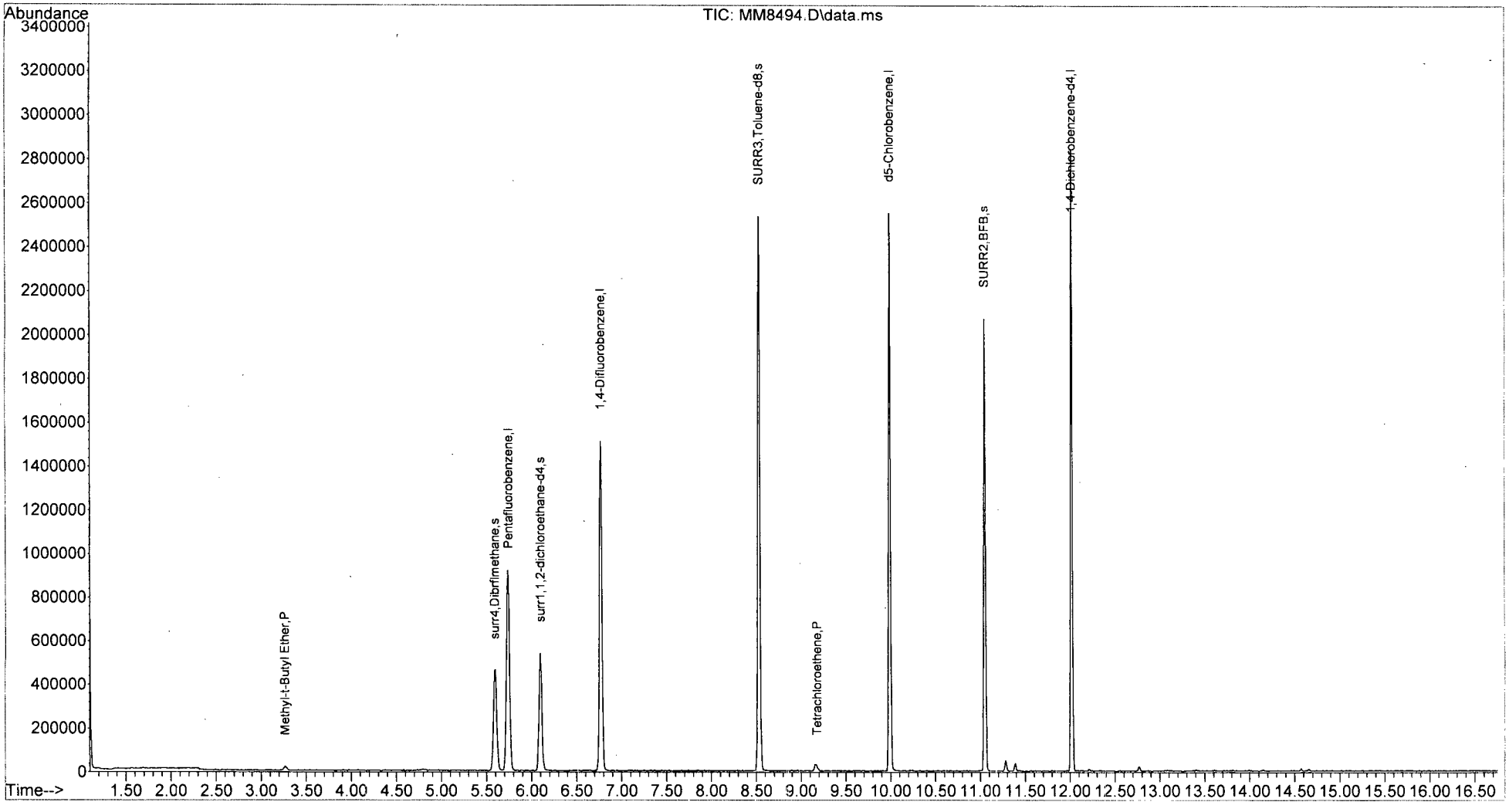
KR 12/8/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed

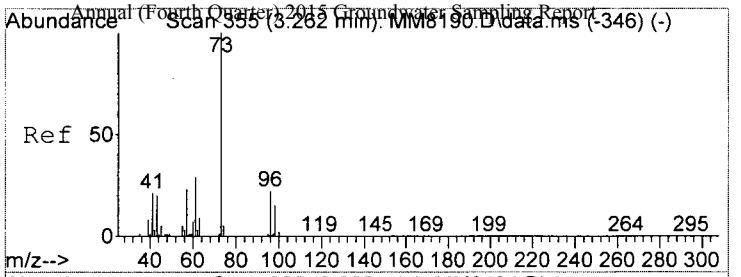
Quantitation Report (QT Reviewed)

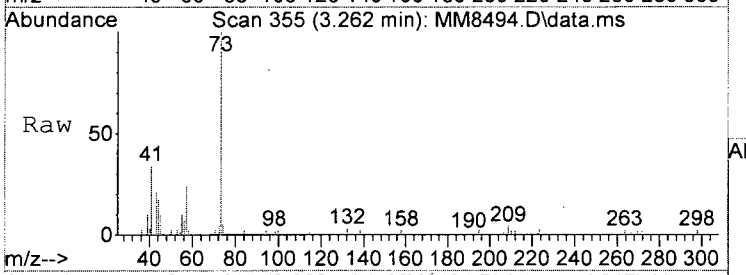
Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8494.D
Acq On : 3 Dec 2015 1:51 pm
Operator : K.Ruest
Sample : R1510346-007|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 10 Sample Multiplier: 1

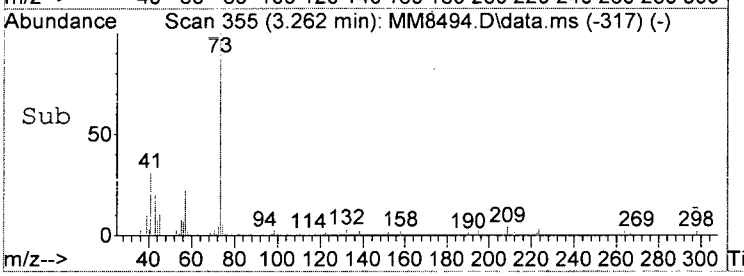
Quant Time: Dec 08 17:29:04 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Tue Dec 08 17:30:18 2015



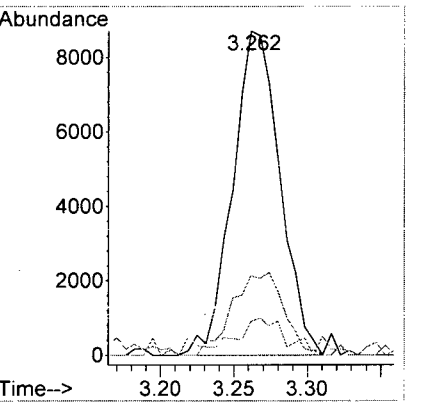


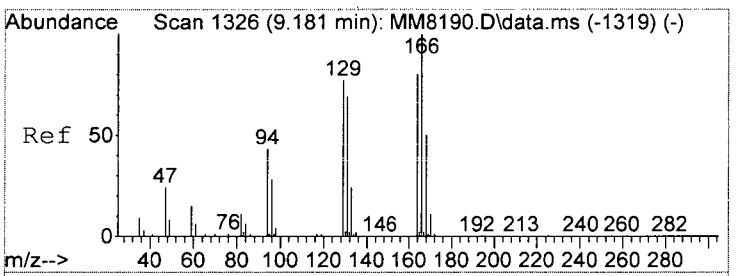


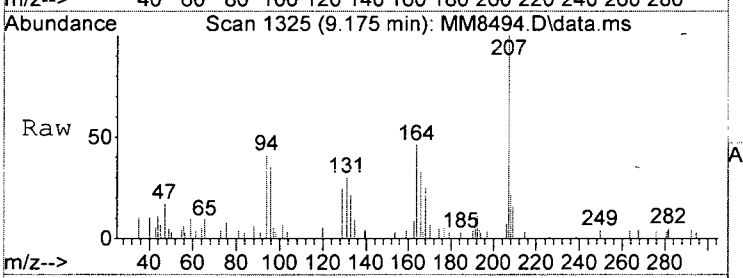
#25
Methyl-t-Butyl Ether
Concen: 1.10 ppb
RT: 3.262 min Scan# 355
Delta R.T. -0.006 min
Lab File: MM8494.D
Acq: 3 Dec 2015 1:51 pm

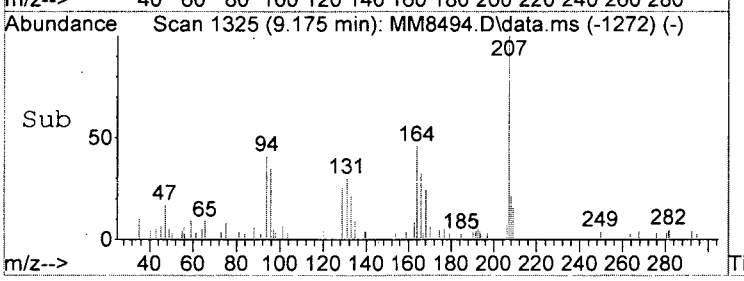
Tgt Ion: 73 Resp: 19440

Ion	Ratio	Lower	Upper
73	100		
57	24.5	3.3	43.3
55	10.3	0.0	24.8





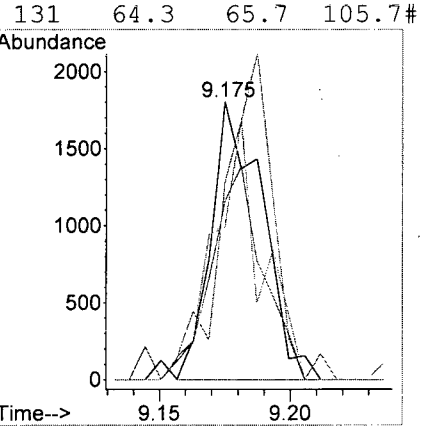




#72
Tetrachloroethene
Concen: 0.51 ppb
RT: 9.175 min Scan# 1325
Delta R.T. -0.006 min
Lab File: MM8494.D
Acq: 3 Dec 2015 1:51 pm

Tgt Ion:164 Resp: 2459

Ion	Ratio	Lower	Upper
164	100		
166	71.0	104.3	144.3#
129	55.0	75.4	115.4#
131	64.3	65.7	105.7#



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8494.D
Acq On : 3 Dec 2015 1:51 pm
Operator : K.Ruest
Sample : R1510346-007|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8494.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.268	349	356	362	rVB3	19912	44742	1.09%	0.207%
2	5.597	725	738	750	rBV2	463331	1173975	28.73%	5.433%
3	5.737	752	761	775	rVB	919915	2183873	53.44%	10.107%
4	6.096	812	820	838	rVB	538037	1177573	28.82%	5.450%
5	6.767	921	930	939	rBV	1511311	2936976	71.87%	13.592%
6	8.529	1212	1219	1227	rBV	2534876	4086397	100.00%	18.911%
7	9.163	1315	1323	1331	rBV3	31947	74716	1.83%	0.346%
8	9.986	1452	1458	1466	rBV	2551574	3582751	87.68%	16.580%
9	11.047	1627	1632	1642	rVB	2071246	2701261	66.10%	12.501%
10	11.284	1664	1671	1677	rBV	50310	76684	1.88%	0.355%
11	11.388	1682	1688	1692	rVB3	35114	45951	1.12%	0.213%
12	12.016	1785	1791	1798	rBV	2841067	3523584	86.23%	16.306%

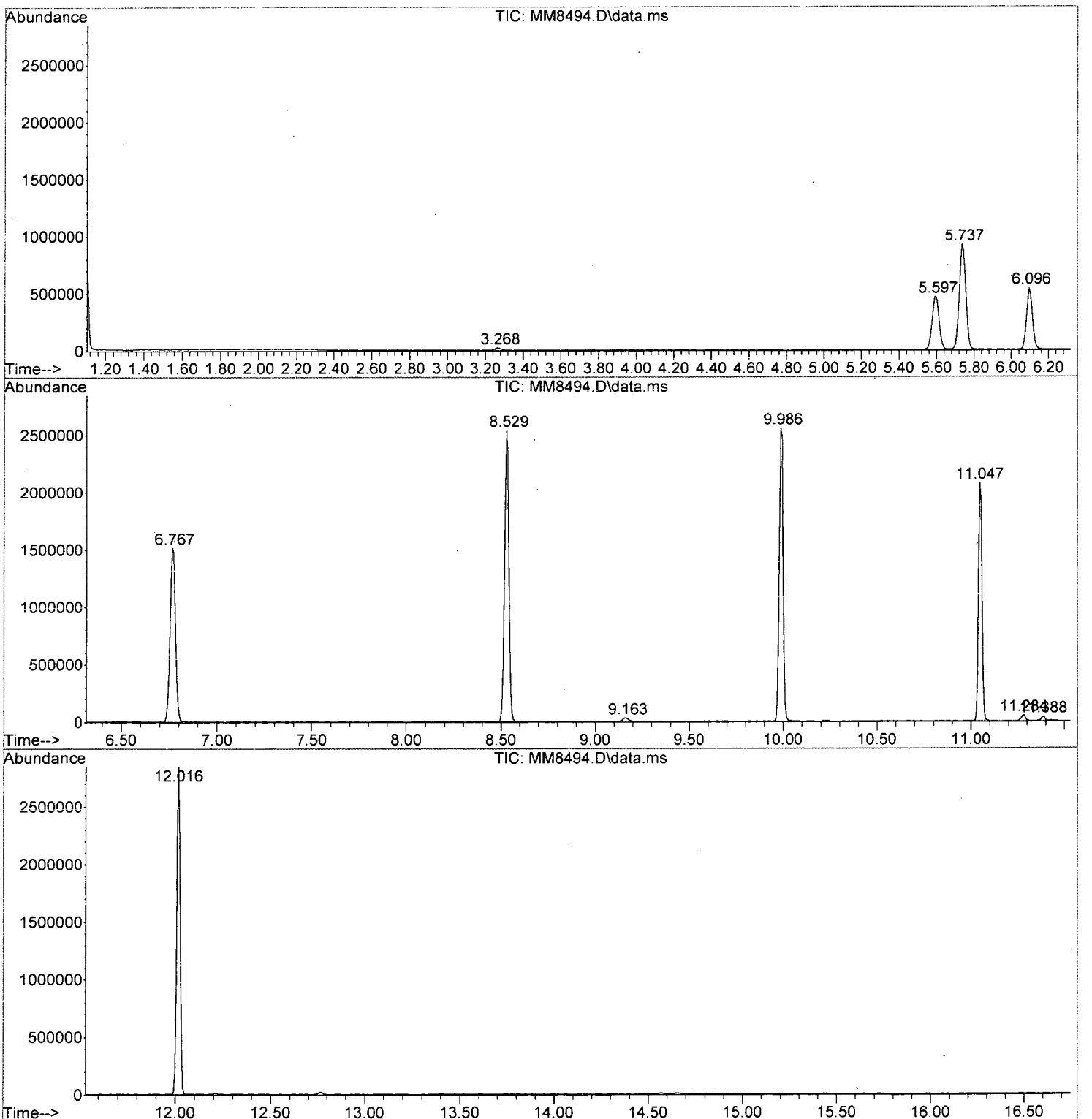
Sum of corrected areas: 21608483

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8494.D
Acq On    :  3 Dec 2015    1:51 pm
Operator  : K.Ruest
Sample    : R1510346-007|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 10   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\120315\\
Data File : MM8494.D
Acq On : 3 Dec 2015 1:51 pmm
Operator : K.Ruestt
Sample : R1510346-007|1.0 Inst : MSVOA-122
Misc : PARSONS 14517 T4*DOD44
ALS Vial : 10 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1105
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-53-GW-699RW11-12.8	**Units:**	µg/L
Lab Code:	R1510346-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 17:25		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 17:25		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 17:25		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 17:25		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 17:25		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 17:25		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 17:25		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 17:25		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 17:25		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 17:25		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 17:25		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 17:25		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 17:25		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 17:25		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 17:25		474713	
2-Butanone (MEK)	**4.0**	J	10	1.0	0.81	1	NA	12/3/15 17:25		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 17:25		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 17:25		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 17:25		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 17:25		474713	
Acetone	**5.8**	J	10	5.0	1.3	1	NA	12/3/15 17:25		474713	
Benzene	**3.3**	J	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 17:25		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 17:25		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 17:25		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 17:25		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 17:25		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 17:25		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 17:25		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1105
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-53-GW-699RW11-12.8	**Units:**	µg/L
Lab Code:	R1510346-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 17:25		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 17:25		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 17:25		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 17:25		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 17:25		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 17:25		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 17:25		474713	
Isopropylbenzene (Cumene)	**4.9**	J	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 17:25		474713	
Naphthalene	**1.0**	BJ	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 17:25		474713	
Toluene	**0.23**	J	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 17:25		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 17:25		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 17:25		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 17:25		474713	
m,p-Xylenes	**0.44**	J	5.0	2.0	0.33	1	NA	12/3/15 17:25		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 17:25		474713	
n-Propylbenzene	**2.4**	J	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
sec-Butylbenzene	**1.6**	J	5.0	1.0	0.27	1	NA	12/3/15 17:25		474713	
tert-Butylbenzene	**0.34**	J	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 17:25		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:25		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	117	75-120	12/3/15 17:25	
Dibromofluoromethane	114	85-115	12/3/15 17:25	
Toluene-d8	107	85-120	12/3/15 17:25	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/25/15
Date Received: 11/30/15
Date Analyzed: 12/3/15 1725

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-53-GW-699RW11-12.8
Lab Code: R1510346-008

Units: µg/L
Basis: NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q
000078-78-4	Butane, 2-methyl-	1.83	**16**	JN
000079-29-8	Butane, 2,3-dimethyl-	2.91	**21**	JN
	unknown	2.96	**8.2**	J
000096-14-0	Pentane, 3-methyl-	3.26	**17**	JN
000108-08-7	Pentane, 2,4-dimethyl-	4.43	**8.4**	JN
	unknown	4.52	**14**	J
	unknown	5.80	**22**	J
	unknown	6.35	**16**	J
002532-58-3	Cyclopentane, 1,3-dimethyl-, cis-	7.29	**6.8**	JN
000565-75-3	Pentane, 2,3,4-trimethyl-	7.87	**7.2**	JN
	unknown	7.99	**11**	J
	unknown	12.24	**8.8**	J
027133-93-3	2,3-Dihydro-1-methylindene	12.71	**11**	JN
000488-23-3	Benzene, 1,2,3,4-tetramethyl-	12.94	**6.9**	JN
002039-89-6	Benzene, 2-ethenyl-1,4-dimethyl-	13.19	**5.7**	JN
000767-58-8	Indan, 1-methyl-	13.31	**14**	JN

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On : 3 Dec 2015 5:25 pm
Operator : K.Ruest
Sample : R1510346-008|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 09 15:49:20 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

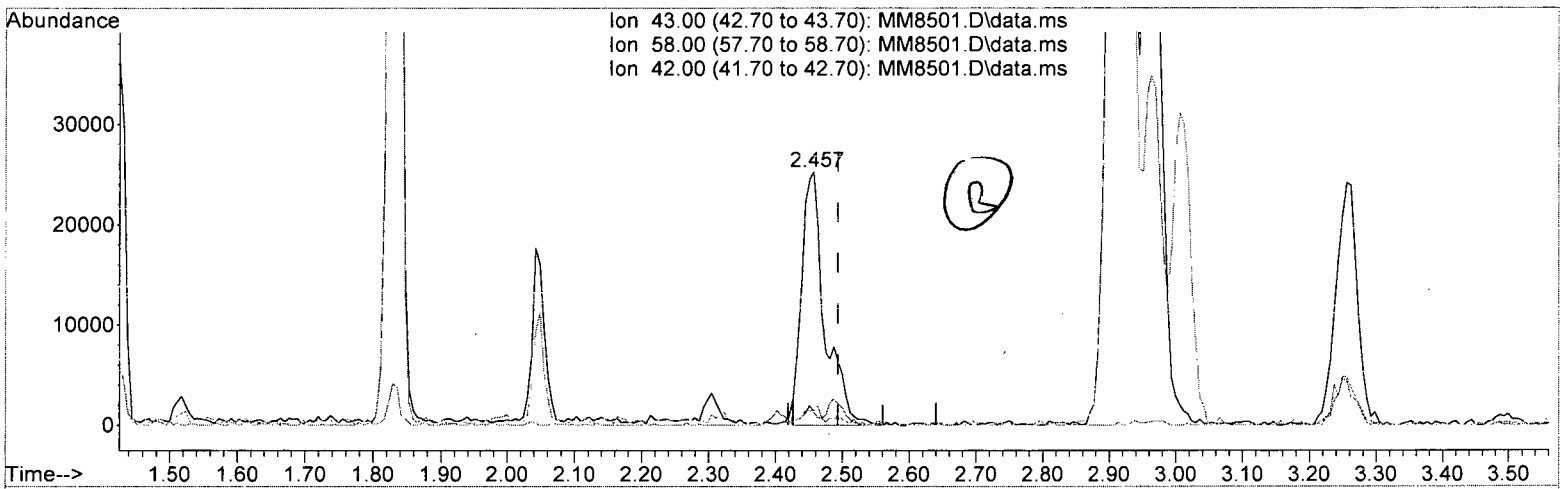
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	738982	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1214200	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1137710	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	567256	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.597	113	358812	56.84	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 113.68%			
48) surr1,1,2-dichloroetha...	6.097	65	382467	54.85	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 109.70%			
65) SURR3,Toluene-d8	8.529	98	1422246	53.53	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 107.06%			
70) SURR2,BFB	11.047	95	584579	58.29	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 116.58%			
Target Compounds						Qvalue
15) Acetone	2.487	43	9052m	5.75	ppb	
35) 2-Butanone	4.780	43	8629	4.00	ppb	90
49) Benzene	6.170	78	88916	3.33	ppb	98
66) Toluene	8.596	91	6398	0.23	ppb	79
83) (m+p)Xylene	10.242	106	5236	0.44	ppb	93
89) Isopropylbenzene	10.925	105	145049	4.92	ppb	98
95) n-Propylbenzene	11.278	91	80697	2.37	ppb	97
100) tert-Butylbenzene	11.699	119	6677	0.34	ppb	89
103) sec-Butylbenzene	11.882	105	45646	1.64	ppb	97
117) Naphthalen	13.802	128	15809	1.04	ppb	93

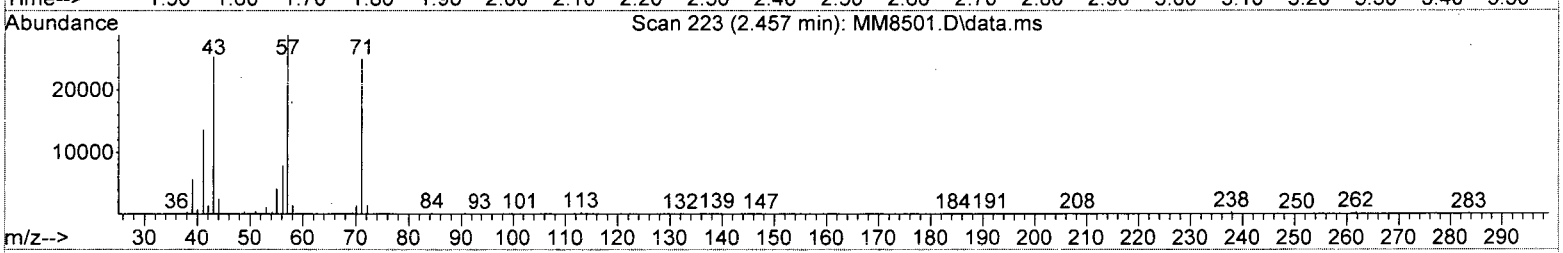
(#) = qualifier out of range (m) = manual integration (+) = signals summed

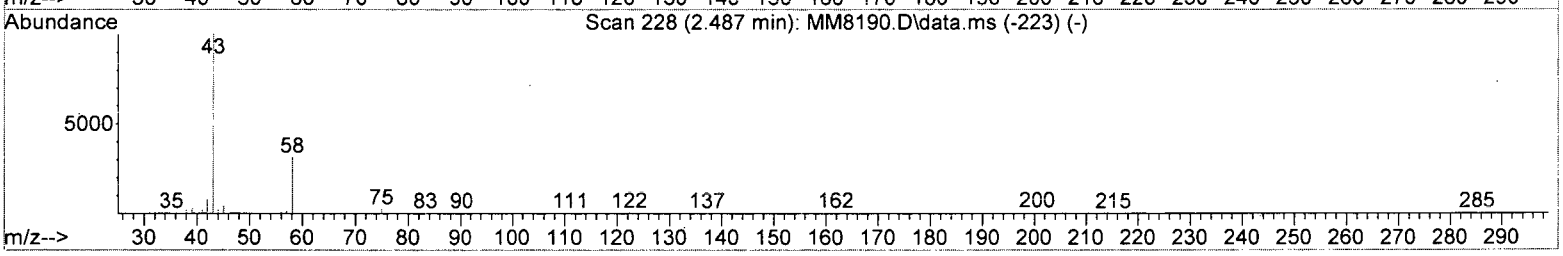
KR 12/9/15

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On : 3 Dec 2015 5:25 pm
Operator : K.Ruest
Sample : R1510346-008|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 03 17:41:12 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8501.D\data.ms

(15) Acetone (P)

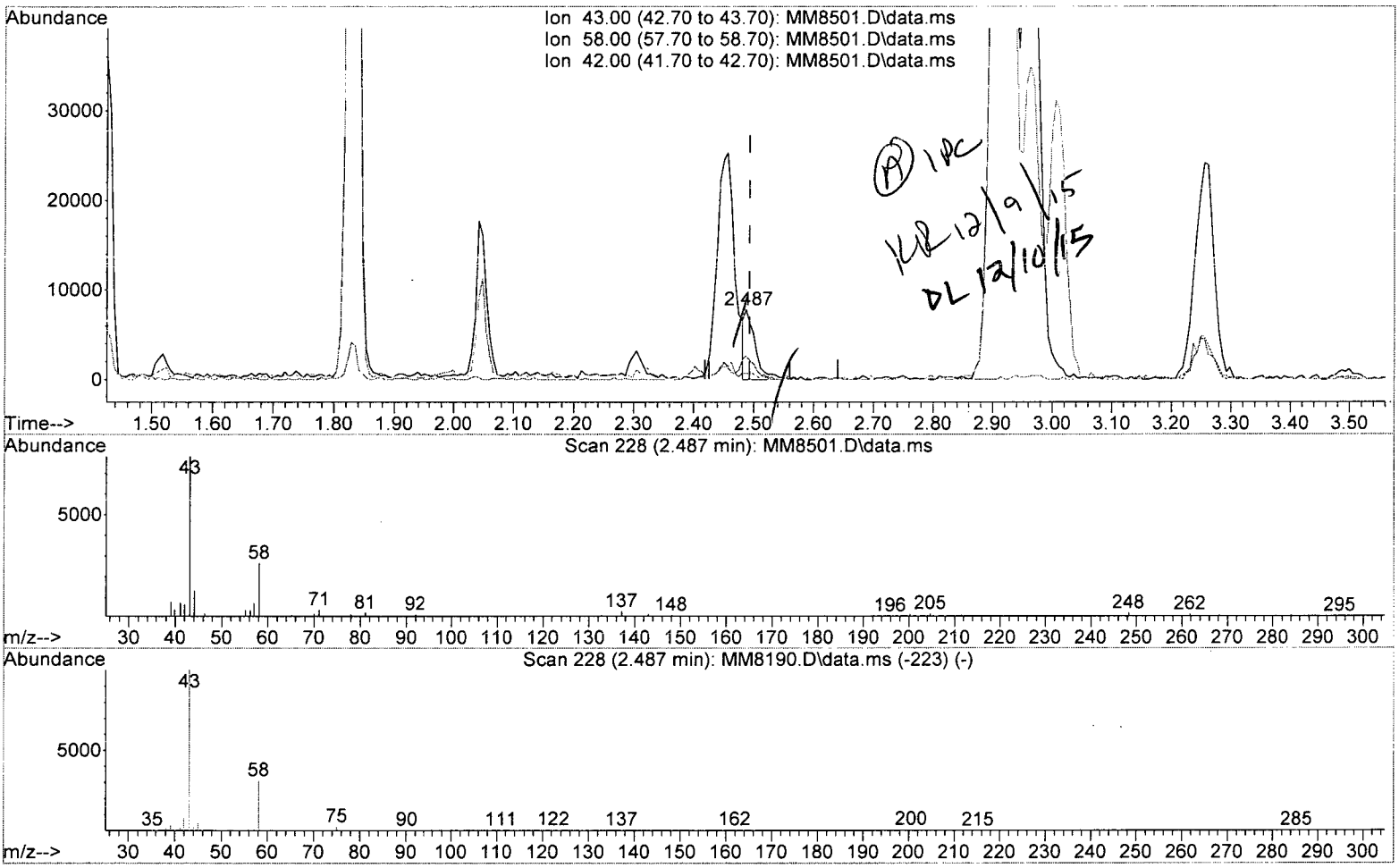
2.457min (-0.037) 38.11 ppb

response 60035

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	5.72#
42.00	8.50	5.72
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On : 3 Dec 2015 5:25 pm
Operator : K.Ruest
Sample : R1510346-008|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 03 17:41:12 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8501.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 5.75 ppb m

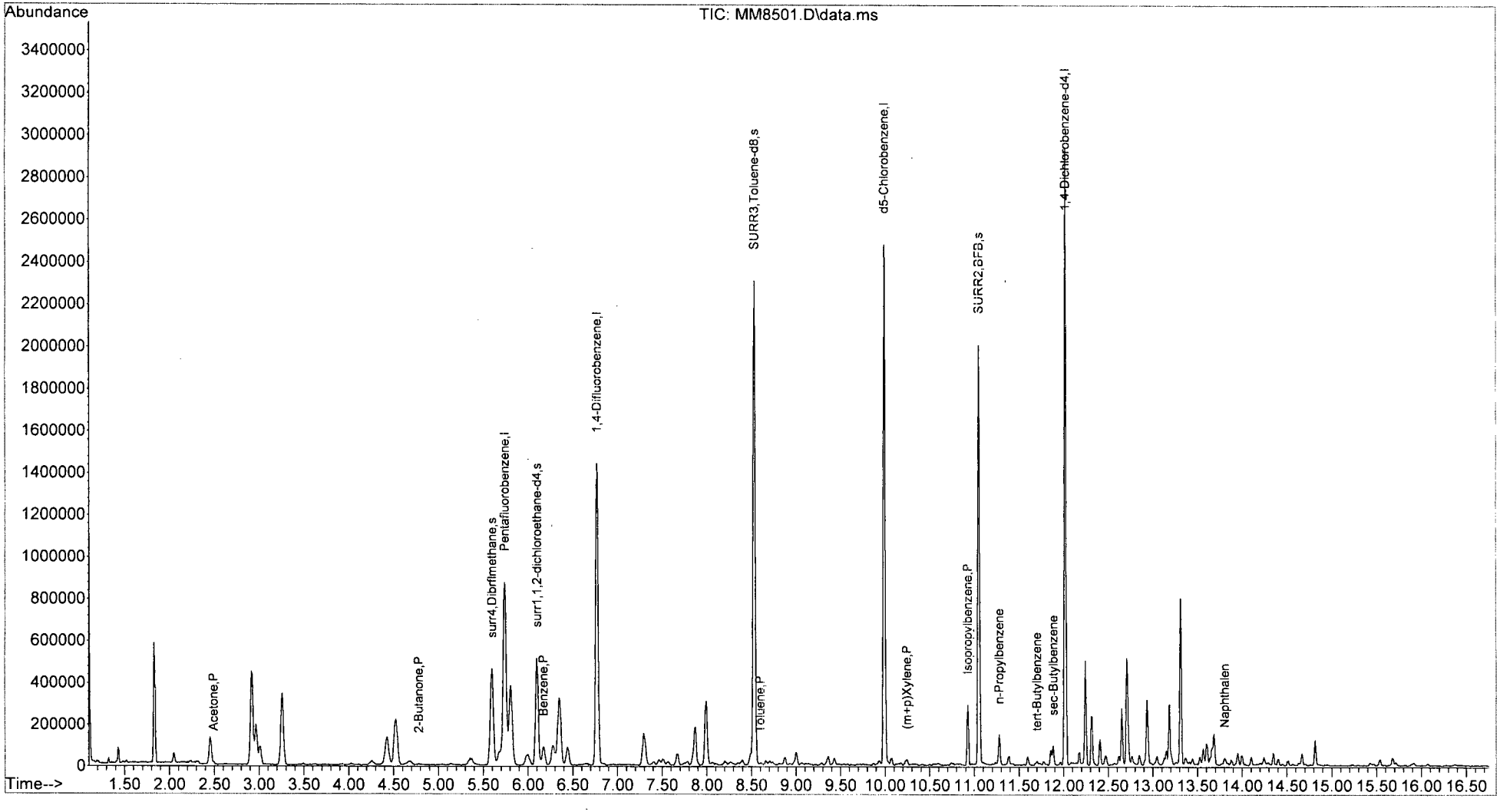
response 9052

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	34.08
42.00	8.50	8.49
0.00	0.00	0.00

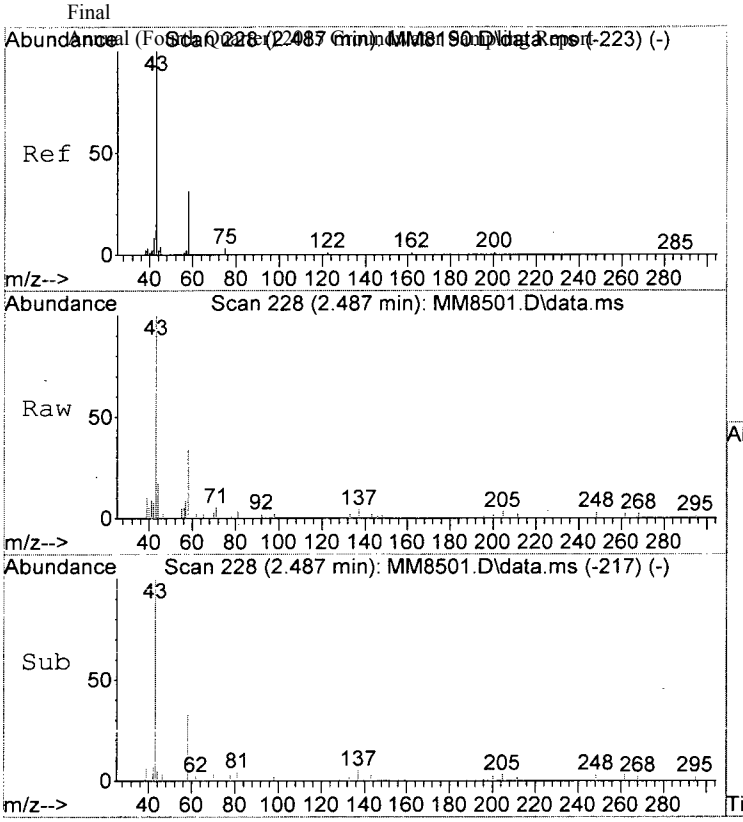
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On : 3 Dec 2015 5:25 pm
Operator : K.Ruest
Sample : R1510346-008|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 09 15:49:20 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



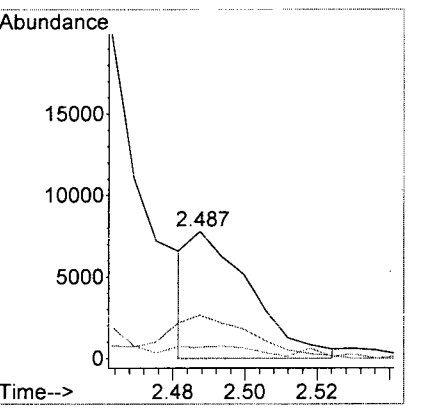
W111815A.M Wed Dec 09 15:50:42 2015 Page: 2

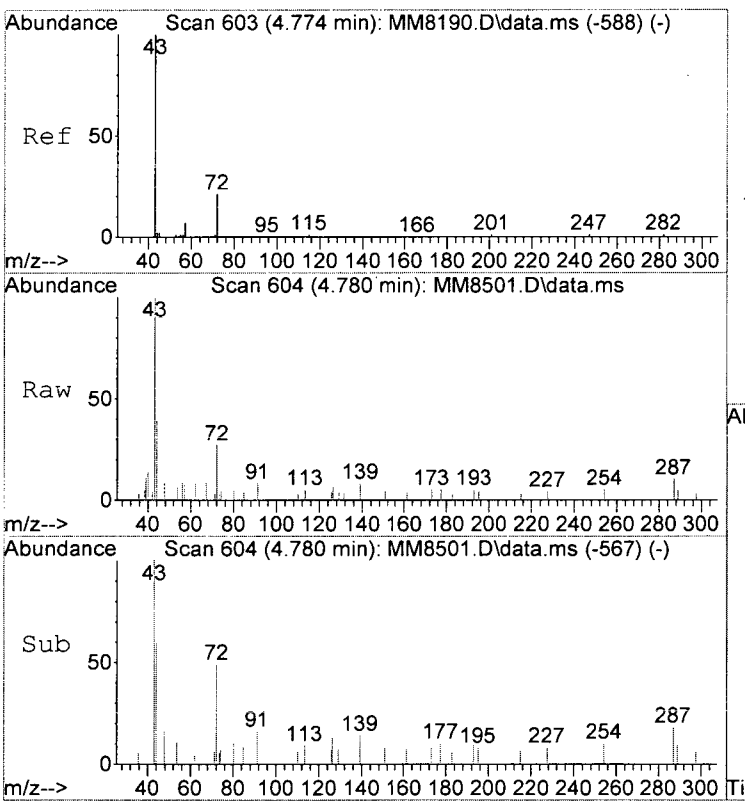


#15
Acetone
Concen: 5.75 ppb m
RT: 2.487 min Scan# 228
Delta R.T. -0.006 min
Lab File: MM8501.D
Acq: 3 Dec 2015 5:25 pm

Tgt Ion: 43 Resp: 9052

Ion	Ratio	Lower	Upper
43	100		
58	34.1	10.9	50.9
42	8.5	0.0	28.5

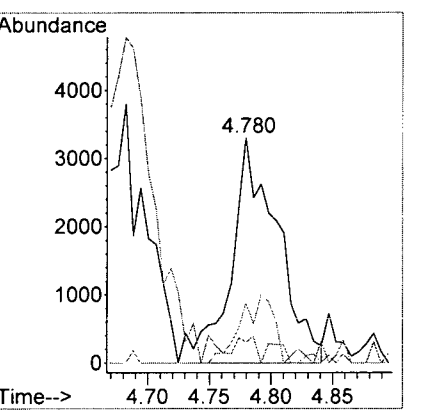


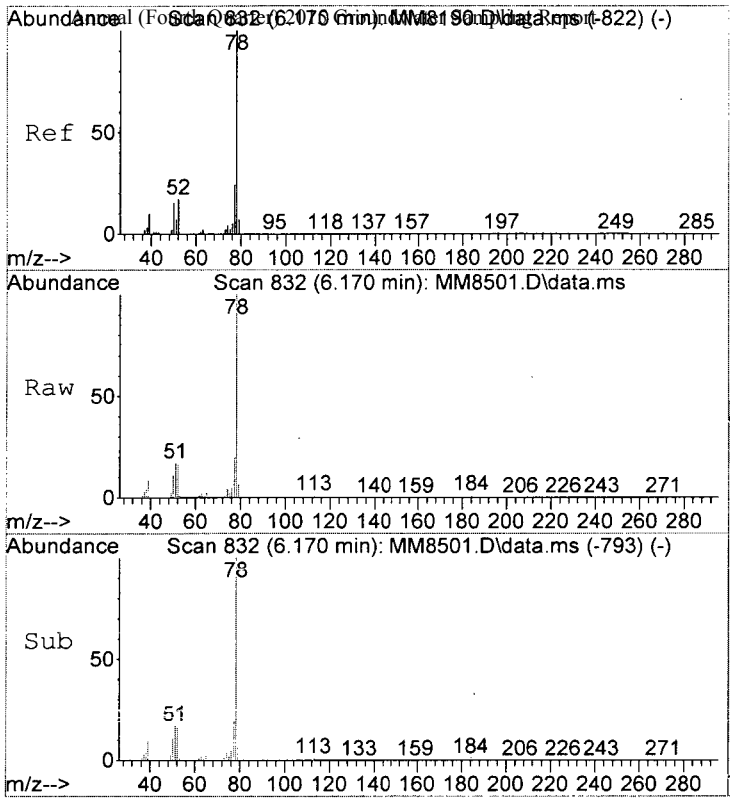


#35
2-Butanone
Concen: 4.00 ppb
RT: 4.780 min Scan# 604
Delta R.T. -0.000 min
Lab File: MM8501.D
Acq: 3 Dec 2015 5:25 pm

Tgt Ion: 43 Resp: 8629

Ion	Ratio	Lower	Upper
43	100		
57	9.2	0.0	27.5
72	26.6	1.2	41.2

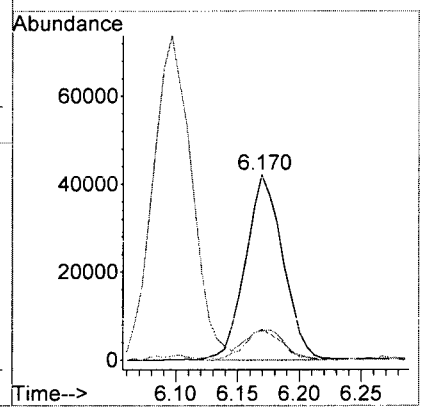


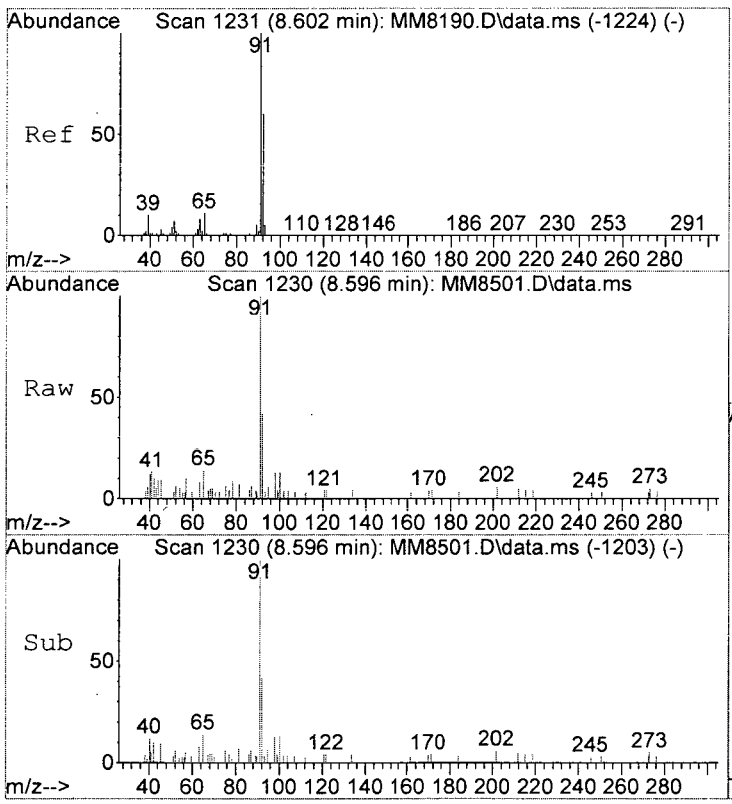


#49
Benzene
Concen: 3.33 ppb
RT: 6.170 min Scan# 832
Delta R.T. -0.006 min
Lab File: MM8501.D
Acq: 3 Dec 2015 5:25 pm

Tgt Ion: 78 Resp: 88916

Ion	Ratio	Lower	Upper
78	100		
51	16.5	0.0	36.1
52	15.6	0.0	36.8

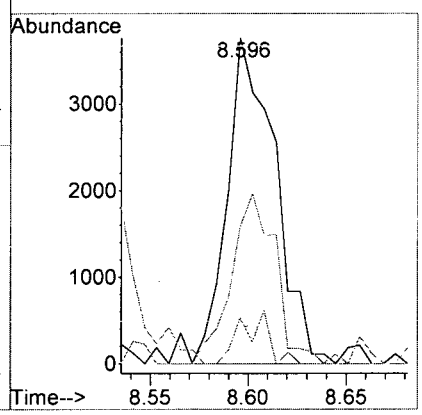


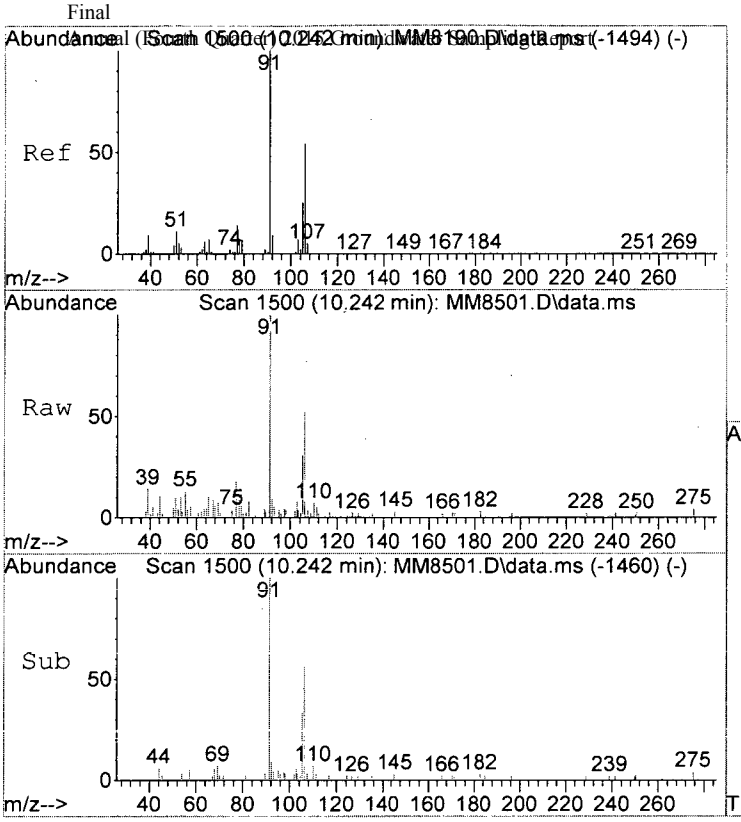


#66
Toluene
Concen: 0.23 ppb
RT: 8.596 min Scan# 1230
Delta R.T. -0.006 min
Lab File: MM8501.D
Acq: 3 Dec 2015 5:25 pm

Tgt Ion: 91 Resp: 6398

Ion	Ratio	Lower	Upper
91	100		
92	42.0	39.7	79.7
65	13.9	0.0	30.9

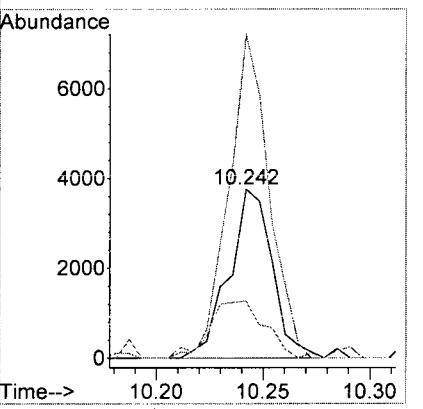


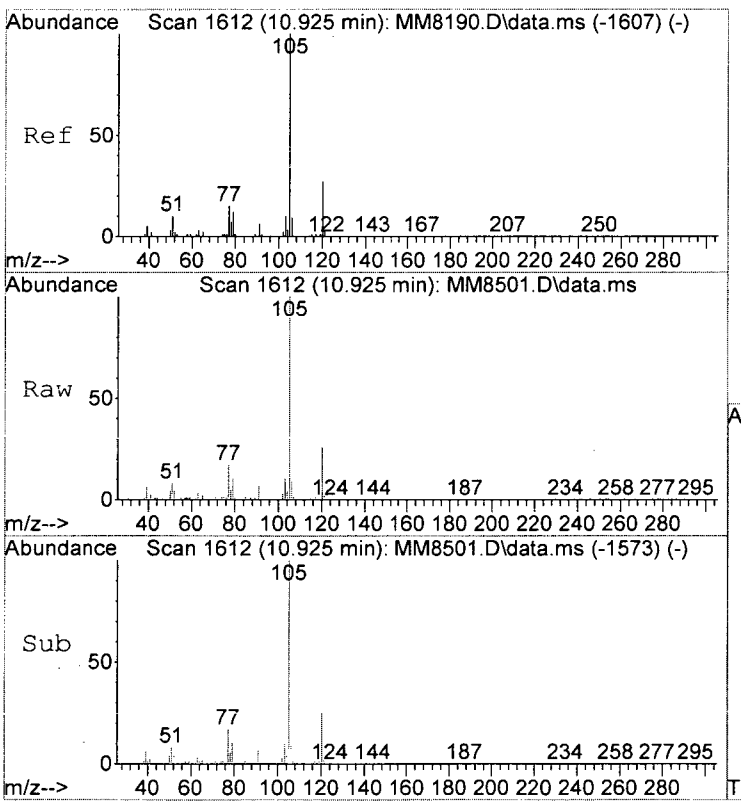


#83
(m+p)Xylene
Concen: 0.44 ppb
RT: 10.242 min Scan# 1500
Delta R.T. -0.006 min
Lab File: MM8501.D
Acq: 3 Dec 2015 5:25 pm

Tgt Ion:106 Resp: 5236

Ion	Ratio	Lower	Upper
106	100		
91	192.2	163.6	203.6
77	33.7	5.5	45.5

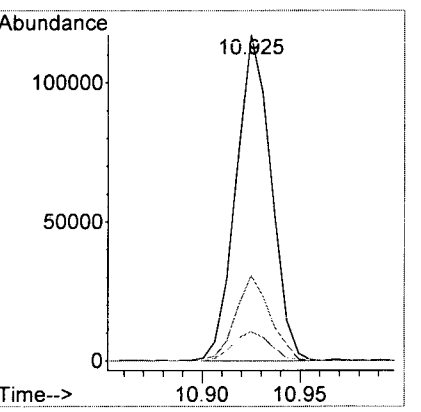


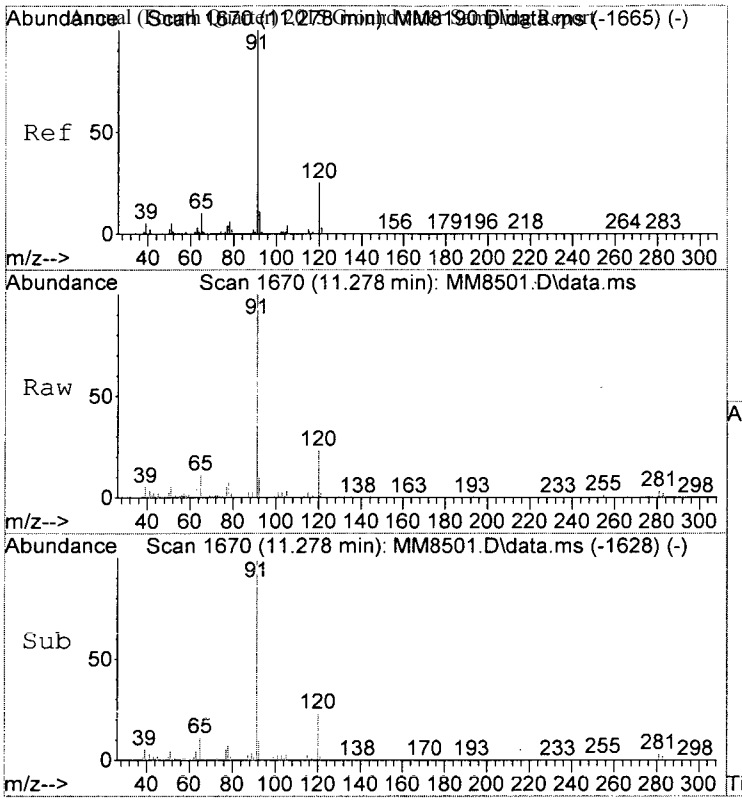


#89
Isopropylbenzene
Concen: 4.92 ppb
RT: 10.925 min Scan# 1612
Delta R.T. -0.006 min
Lab File: MM8501.D
Acq: 3 Dec 2015 5:25 pm

Tgt Ion:105 Resp: 145049

Ion	Ratio	Lower	Upper
105	100		
120	26.1	7.4	47.4
106	9.0	0.0	29.1

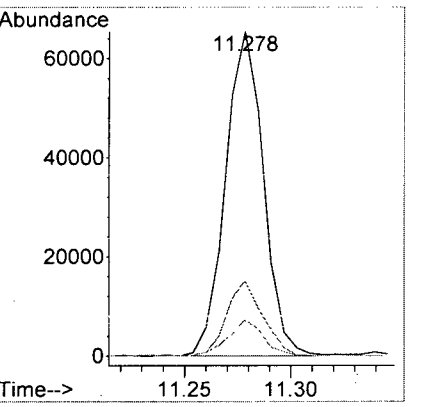


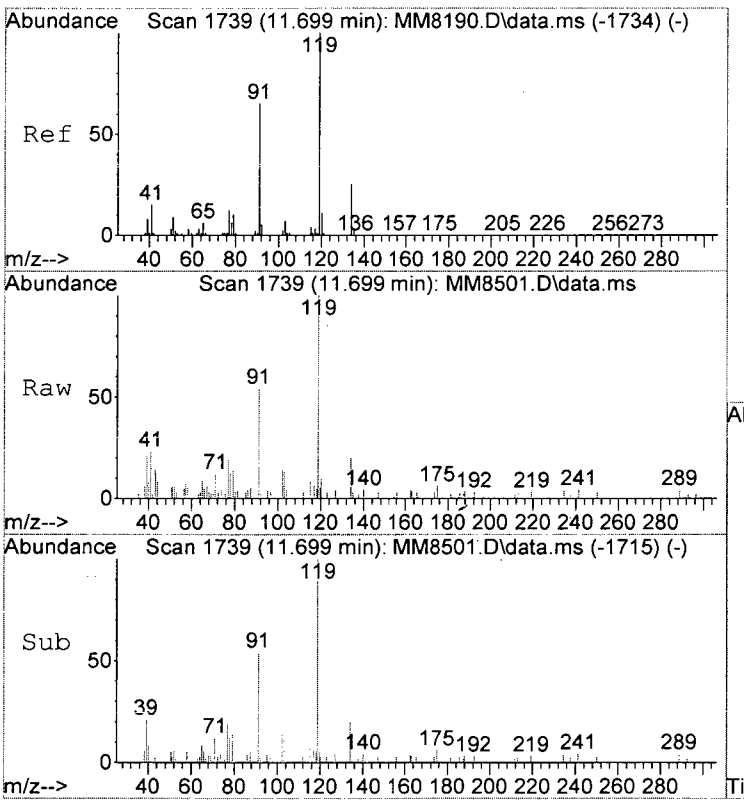


#95
n-Propylbenzene
Concen: 2.37 ppb
RT: 11.278 min Scan# 1670
Delta R.T. -0.006 min
Lab File: MM8501.D
Acq: 3 Dec 2015 5:25 pm

Tgt Ion: 91 Resp: 80697

Ion	Ratio	Lower	Upper
91	100		
120	23.1	4.8	44.8
65	10.9	0.0	30.5

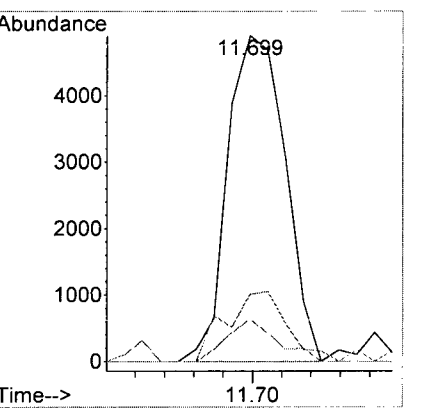


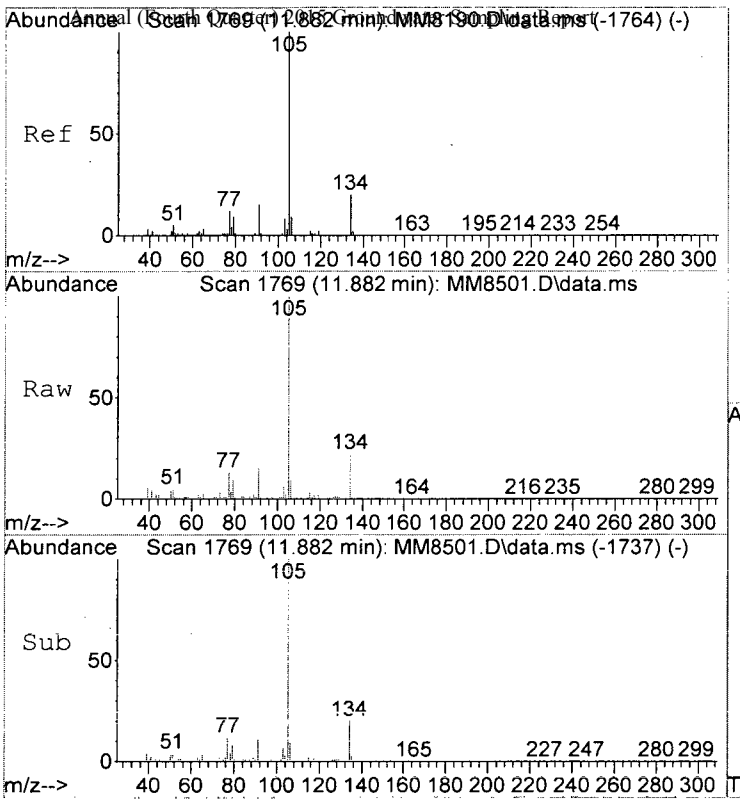


#100
tert-Butylbenzene
Concen: 0.34 ppb
RT: 11.699 min Scan# 1739
Delta R.T. -0.006 min
Lab File: MM8501.D
Acq: 3 Dec 2015 5:25 pm

Tgt Ion:119 Resp: 6677

Ion	Ratio	Lower	Upper
119	100		
134	20.5	5.0	45.0
103	12.9	0.0	26.6

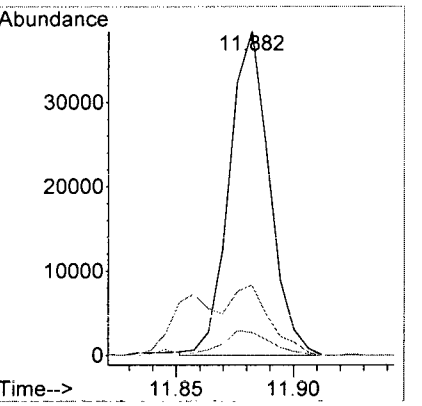


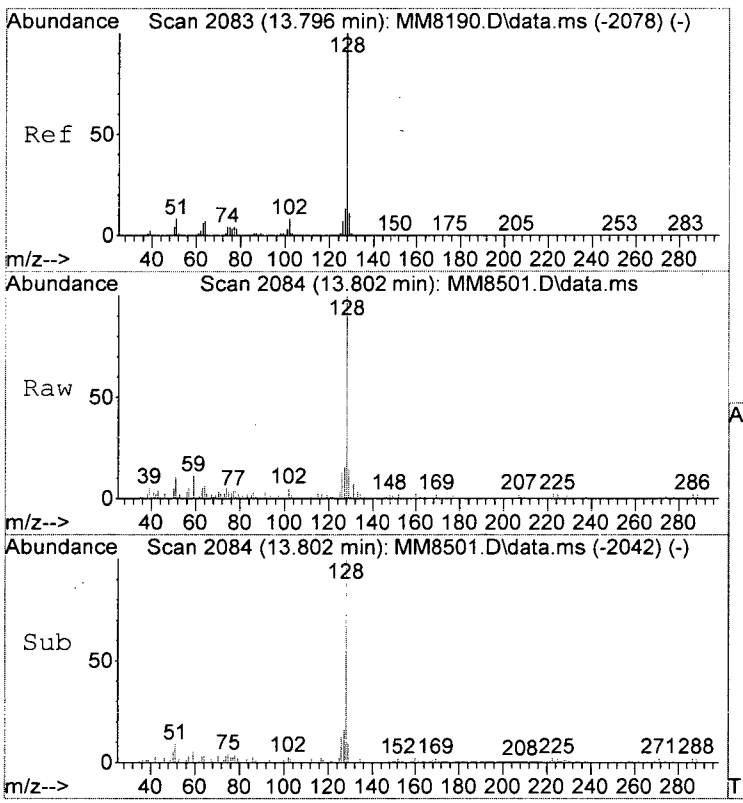


#103
sec-Butylbenzene
Concen: 1.64 ppb
RT: 11.882 min Scan# 1769
Delta R.T. 0.000 min
Lab File: MM8501.D
Acq: 3 Dec 2015 5:25 pm

Tgt Ion:105 Resp: 45646

Ion	Ratio	Lower	Upper
105	100		
134	21.7	0.2	40.2
103	7.1	0.0	27.7

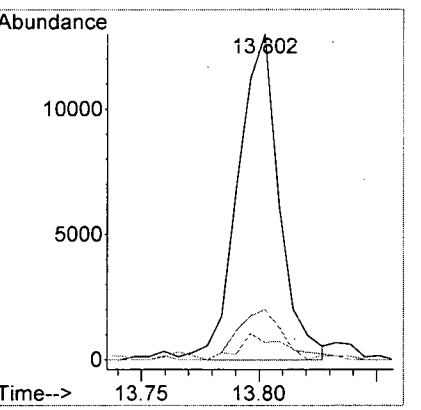




#117
Naphthalen
Concen: 1.04 ppb
RT: 13.802 min Scan# 2084
Delta R.T. -0.000 min
Lab File: MM8501.D
Acq: 3 Dec 2015 5:25 pm

Tgt Ion:128 Resp: 15809

Ion	Ratio	Lower	Upper
128	100		
127	15.4	0.0	33.1
102	5.3	0.0	28.3



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On : 3 Dec 2015 5:25 pm
Operator : K.Ruest
Sample : R1510346-008|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8501.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.427	49	54	58	rVB	73331	71060	1.90%	0.192%
2	1.829	116	120	126	rVB	574667	693124	18.51%	1.869%
3	2.049	150	156	160	rBV	47533	69341	1.85%	0.187%
4	2.451	215	222	234	rVB2	131228	262781	7.02%	0.708%
5	2.914	288	298	303	rBV	446190	942292	25.16%	2.541%
6	2.963	303	306	311	rVV	192714	362175	9.67%	0.976%
7	3.006	311	313	321	rVB	85763	144981	3.87%	0.391%
8	3.256	345	354	365	rVB	344941	739535	19.75%	1.994%
9	4.255	508	518	527	rBV3	20403	58475	1.56%	0.158%
10	4.426	535	546	554	rBV	131812	371812	9.93%	1.002%
11	4.524	554	562	573	rVB2	217902	607950	16.23%	1.639%
12	4.682	580	588	597	rVB6	17779	60379	1.61%	0.163%
13	5.353	689	698	700	rBV3	33395	68961	1.84%	0.186%
14	5.597	728	738	746	rBV2	459989	1134999	30.31%	3.060%
15	5.676	746	751	752	rVV	65297	104545	2.79%	0.282%
16	5.737	753	761	767	rVV	872642	2208745	58.98%	5.955%
17	5.804	767	772	784	rVB	381381	976578	26.08%	2.633%
18	5.993	793	803	812	rBV6	50980	166694	4.45%	0.449%
19	6.097	812	820	827	rVV	511878	1121152	29.94%	3.023%
20	6.170	827	832	839	rVV3	87196	201009	5.37%	0.542%
21	6.273	841	849	854	rVV3	93254	254919	6.81%	0.687%
22	6.346	854	861	870	rVV2	324563	878018	23.45%	2.367%
23	6.438	870	876	888	rVB	87064	200007	5.34%	0.539%
24	6.767	921	930	940	rBV	1441028	2819782	75.30%	7.602%
25	7.291	1007	1016	1025	rBV3	155186	384892	10.28%	1.038%
26	7.462	1038	1044	1048	rBV3	23984	46869	1.25%	0.126%
27	7.505	1048	1051	1056	rVV2	28509	51939	1.39%	0.140%
28	7.669	1071	1078	1085	rBV2	55335	114230	3.05%	0.308%
29	7.871	1101	1111	1120	rVB	184185	403971	10.79%	1.089%
30	7.993	1122	1131	1139	rBV	308530	636557	17.00%	1.716%
31	8.395	1192	1197	1203	rVB3	24386	48096	1.28%	0.130%
32	8.486	1206	1212	1213	rBV2	55372	74506	1.99%	0.201%
33	8.529	1213	1219	1228	rVB	2301591	3744955	100.00%	10.097%
34	8.876	1271	1276	1282	rVB4	35134	60426	1.61%	0.163%
35	9.004	1288	1297	1302	rVB2	60339	115345	3.08%	0.311%

KR 12/9/15

W111815A.M Wed Dec 09 15:51:02 2015

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On : 3 Dec 2015 5:25 pm
Operator : K.Ruest
Sample : R1510346-008|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

36	9.358	1347	1355	1360	rBV2	42713	75795	2.02%	0.204%
37	9.431	1360	1367	1371	rBV3	32308	52401	1.40%	0.141%
38	9.931	1442	1449	1453	rBV8	22623	47242	1.26%	0.127%
39	9.986	1453	1458	1468	rVV	2478840	3519283	93.97%	9.488%
40	10.071	1468	1472	1477	rVB4	35580	59051	1.58%	0.159%
41	10.242	1493	1500	1504	rBV5	27572	60882	1.63%	0.164%
42	10.925	1607	1612	1617	rBV	289743	359403	9.60%	0.969%
43	11.047	1627	1632	1639	rBV	1999159	2624803	70.09%	7.077%
44	11.278	1666	1670	1677	rVB	146928	192451	5.14%	0.519%
45	11.388	1682	1688	1693	rVV2	39747	60560	1.62%	0.163%
46	11.595	1718	1722	1728	rBV	42097	58593	1.56%	0.158%
47	11.858	1759	1765	1767	rBV	70298	108404	2.89%	0.292%
48	11.882	1767	1769	1775	rVB	92346	101851	2.72%	0.275%
49	12.016	1785	1791	1798	rBV	2933222	3571917	95.38%	9.630%
50	12.175	1813	1817	1821	rVV	53226	59114	1.58%	0.159%
51	12.242	1821	1828	1835	rVB	502136	625408	16.70%	1.686%
52	12.309	1835	1839	1849	rBV	235508	317358	8.47%	0.856%
53	12.406	1850	1855	1859	rBV	122444	156811	4.19%	0.423%
54	12.467	1859	1865	1871	rVB3	46998	90644	2.42%	0.244%
55	12.620	1885	1890	1892	rBV2	39975	55773	1.49%	0.150%
56	12.650	1892	1895	1900	rVV	267203	308798	8.25%	0.833%
57	12.705	1900	1904	1911	rVV2	507263	773915	20.67%	2.087%
58	12.766	1911	1914	1922	rVB3	39346	60118	1.61%	0.162%
59	12.845	1923	1927	1934	rVB3	47257	72603	1.94%	0.196%
60	12.937	1934	1942	1947	rBV2	312829	495916	13.24%	1.337%
61	13.046	1952	1960	1966	rVB3	40190	73104	1.95%	0.197%
62	13.126	1968	1973	1975	rBV3	32335	46928	1.25%	0.127%
63	13.150	1975	1977	1979	rVV	66483	72332	1.93%	0.195%
64	13.187	1979	1983	1991	rVB	289748	409263	10.93%	1.103%
65	13.309	1998	2003	2009	rVB	792306	984981	26.30%	2.656%
66	13.363	2009	2012	2017	rVV4	30270	50564	1.35%	0.136%
67	13.443	2021	2025	2029	rVB3	30295	39574	1.06%	0.107%
68	13.528	2035	2039	2041	rBV2	36324	46320	1.24%	0.125%
69	13.565	2041	2045	2048	rVV	76765	106639	2.85%	0.288%
70	13.601	2048	2051	2055	rVV3	100941	151668	4.05%	0.409%
71	13.687	2055	2065	2071	rVB2	146863	314337	8.39%	0.847%
72	13.802	2081	2084	2089	rBV2	28138	46553	1.24%	0.126%
73	13.949	2102	2108	2112	rBV3	56972	87488	2.34%	0.236%

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On : 3 Dec 2015 5:25 pm
Operator : K.Ruest
Sample : R1510346-008|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

74	13.997	2112	2116	2120	rVB2	44176	60634	1.62%	0.163%
75	14.101	2128	2133	2137	rBV2	38515	49987	1.33%	0.135%
76	14.241	2152	2156	2160	rBV2	31555	42037	1.12%	0.113%
77	14.345	2170	2173	2177	rBV	55711	70256	1.88%	0.189%
78	14.668	2222	2226	2230	rVB	50265	61102	1.63%	0.165%
79	14.814	2245	2250	2256	rBV	118318	149733	4.00%	0.404%
80	15.540	2362	2369	2374	rBV2	29061	50055	1.34%	0.135%
81	15.674	2384	2391	2396	rBV2	35278	66987	1.79%	0.181%

Sum of corrected areas: 37090736

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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On    :  3 Dec 2015    5:25 pm
Operator  : K.Ruest
Sample    : R1510346-008|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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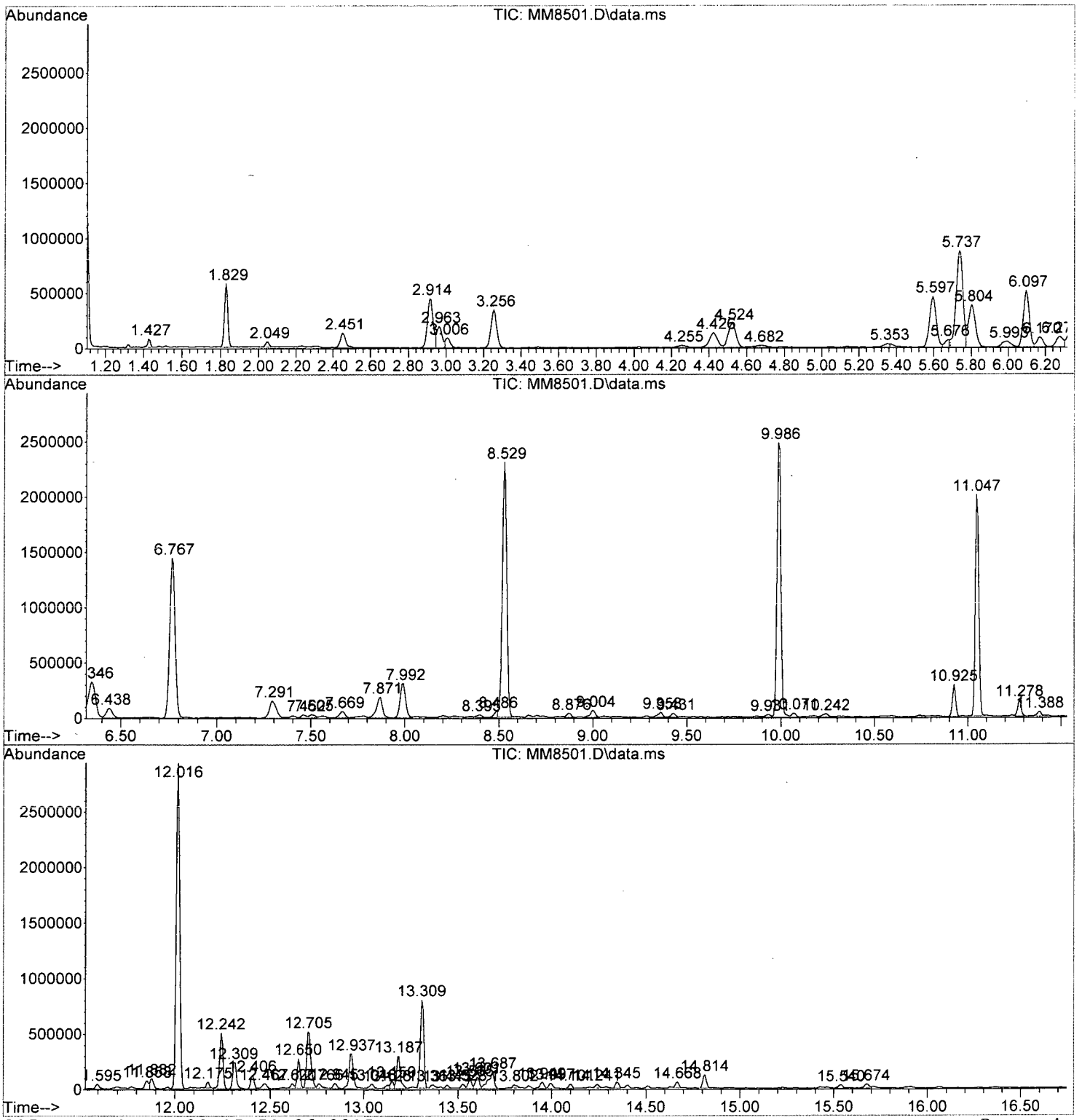

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Data File : MM8501.D
Acq On    :  3 Dec 2015    5:25 pm
Operator  : K.Ruest
Sample    : R1510346-008|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  1  Butane, 2-methyl-              Concentration Rank  4
```
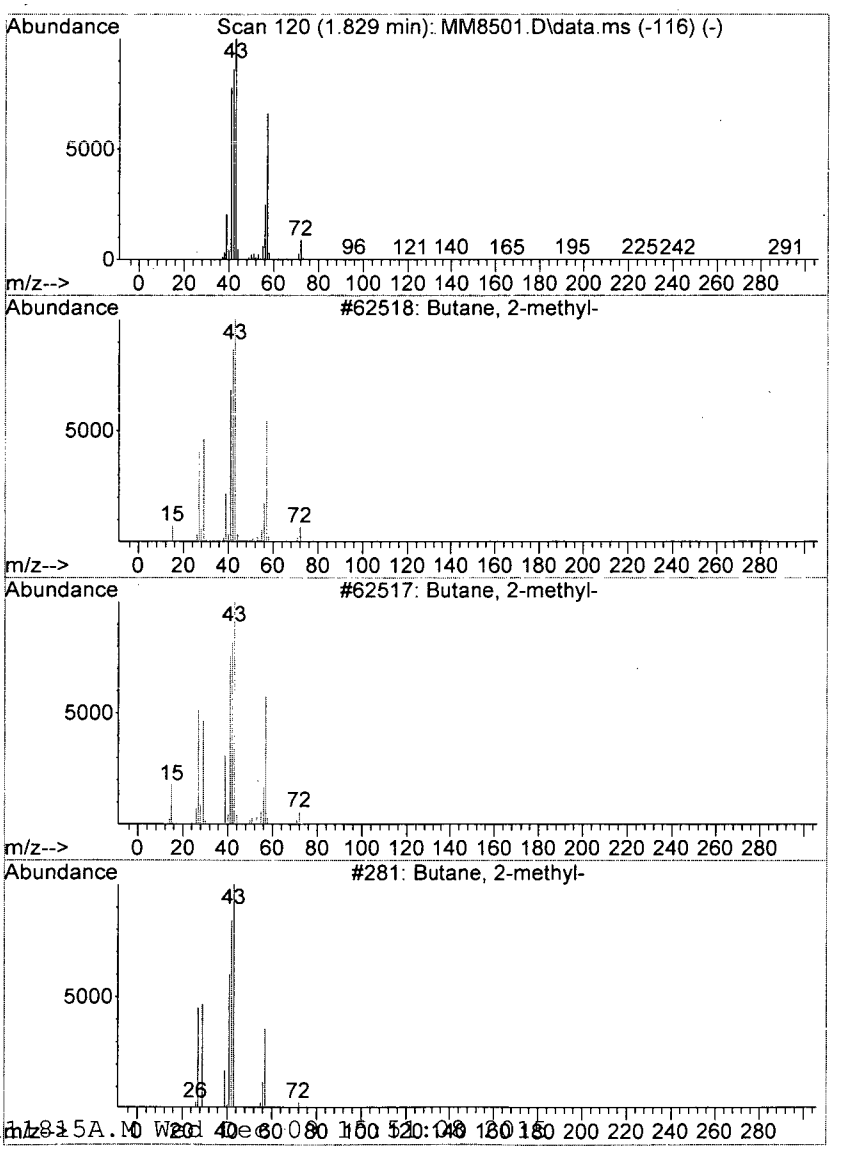
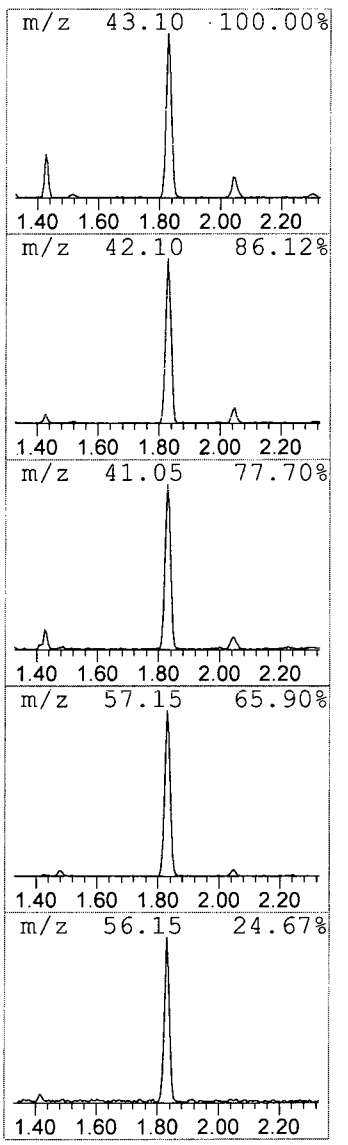

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.829	15.69 ppb	693124	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	91
2	Butane, 2-methyl-	72	C5H12	000078-78-4	91
3	Butane, 2-methyl-	72	C5H12	000078-78-4	90
4	Pentane	72	C5H12	000109-66-0	64
5	Pentane	72	C5H12	000109-66-0	50





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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On    :  3 Dec 2015    5:25 pm
Operator  : K.Ruest
Sample    : R1510346-008|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

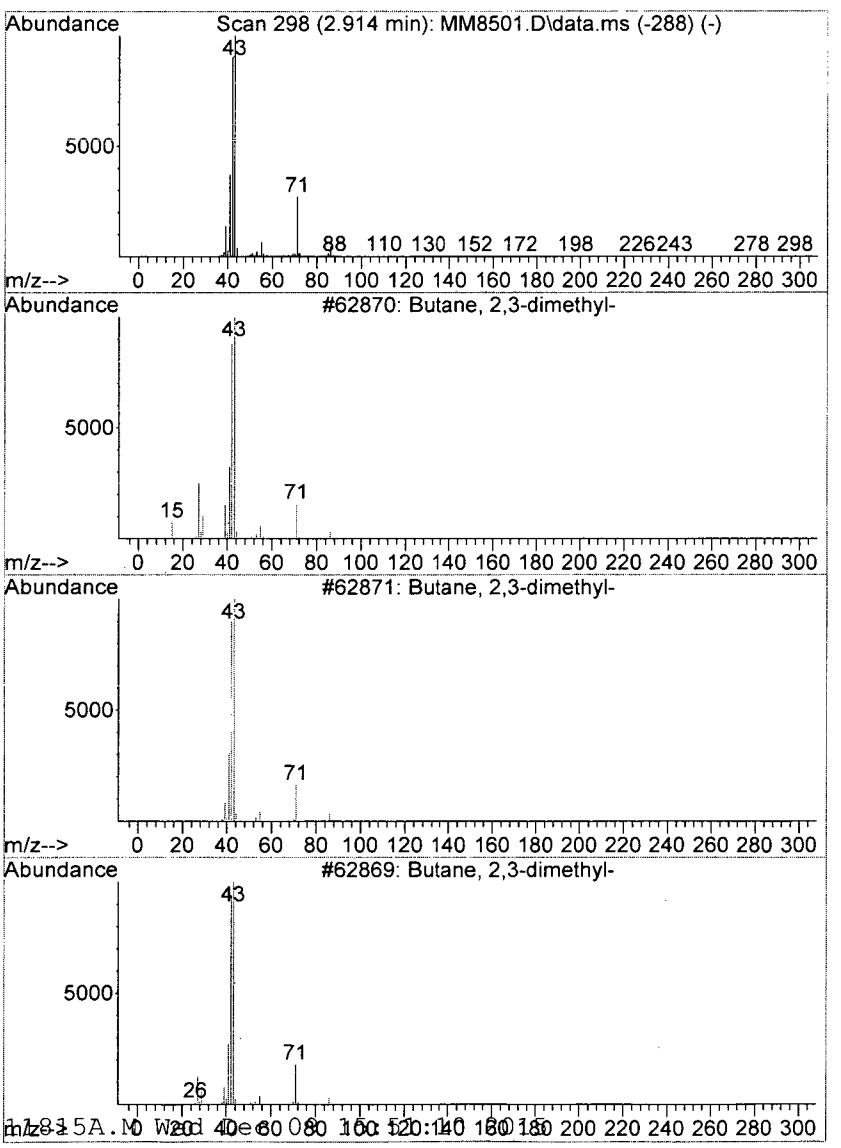
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

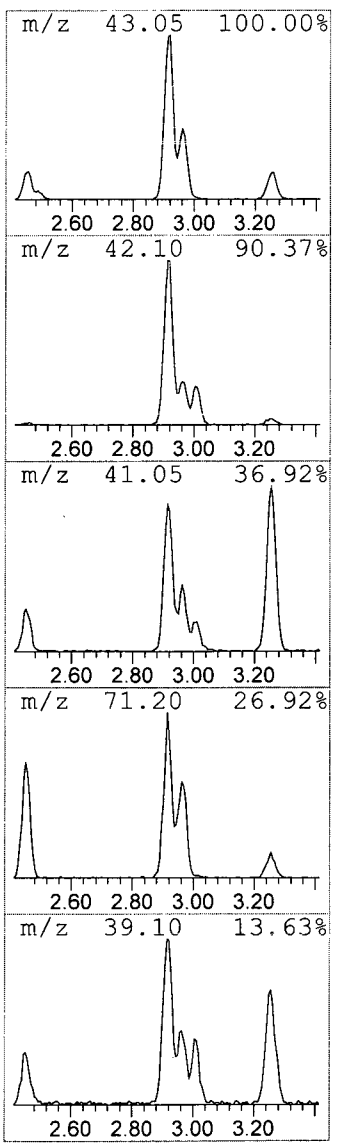
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  2  Butane, 2,3-dimethyl-          Concentration Rank  2
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.914	21.33 ppb	942292	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	86
2	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	86
3	Butane, 2,3-dimethyl-	86	C6H14	000079-29-8	86
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	50
5	Pentane, 2-methyl-	86	C6H14	000107-83-5	50





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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On    :  3 Dec 2015    5:25 pm
Operator  : K.Ruest
Sample    : R1510346-008|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  3  Pentane, 2-methyl-              Concentration Rank 12
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.963	8.20 ppb	362175	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2-methyl-	86	C6H14	000107-83-5	50
2	Pentane, 2-methyl-	86	C6H14	000107-83-5	47
3	Pentane, 2-methyl-	86	C6H14	000107-83-5	40
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	40
5	Pentane, 2-methyl-	86	C6H14	000107-83-5	40

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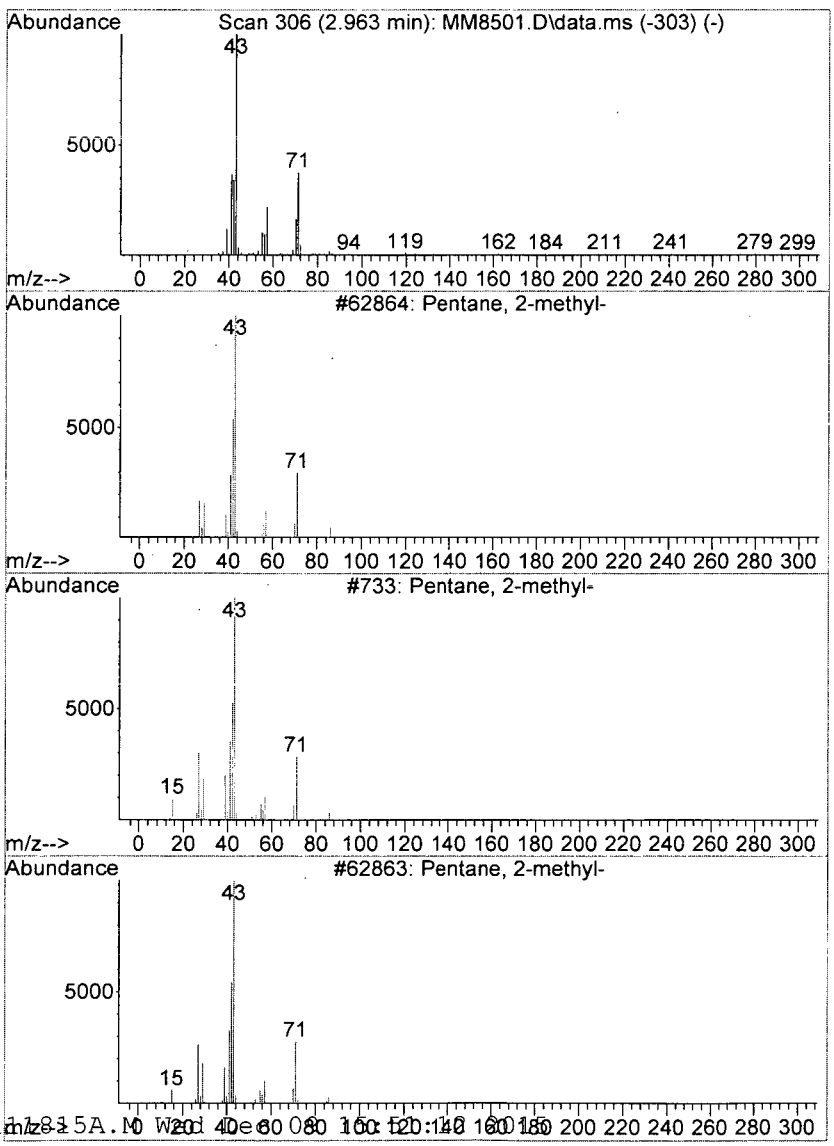

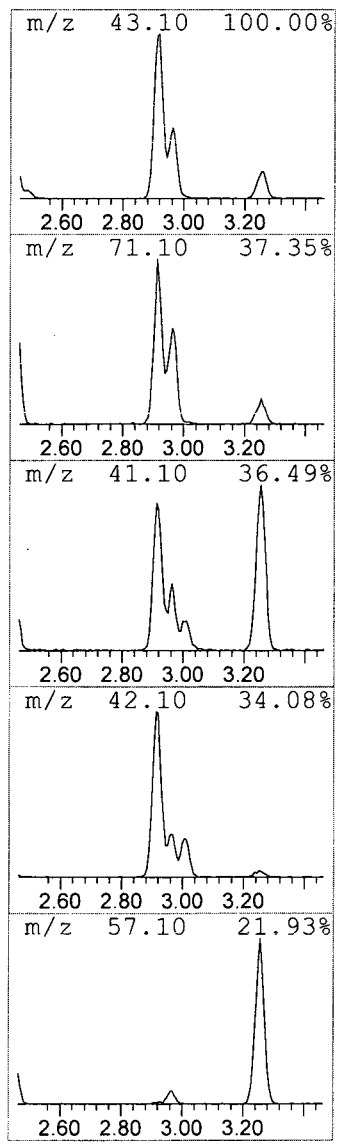

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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On    :  3 Dec 2015    5:25 pm
Operator  : K.Ruest
Sample    : R1510346-008|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

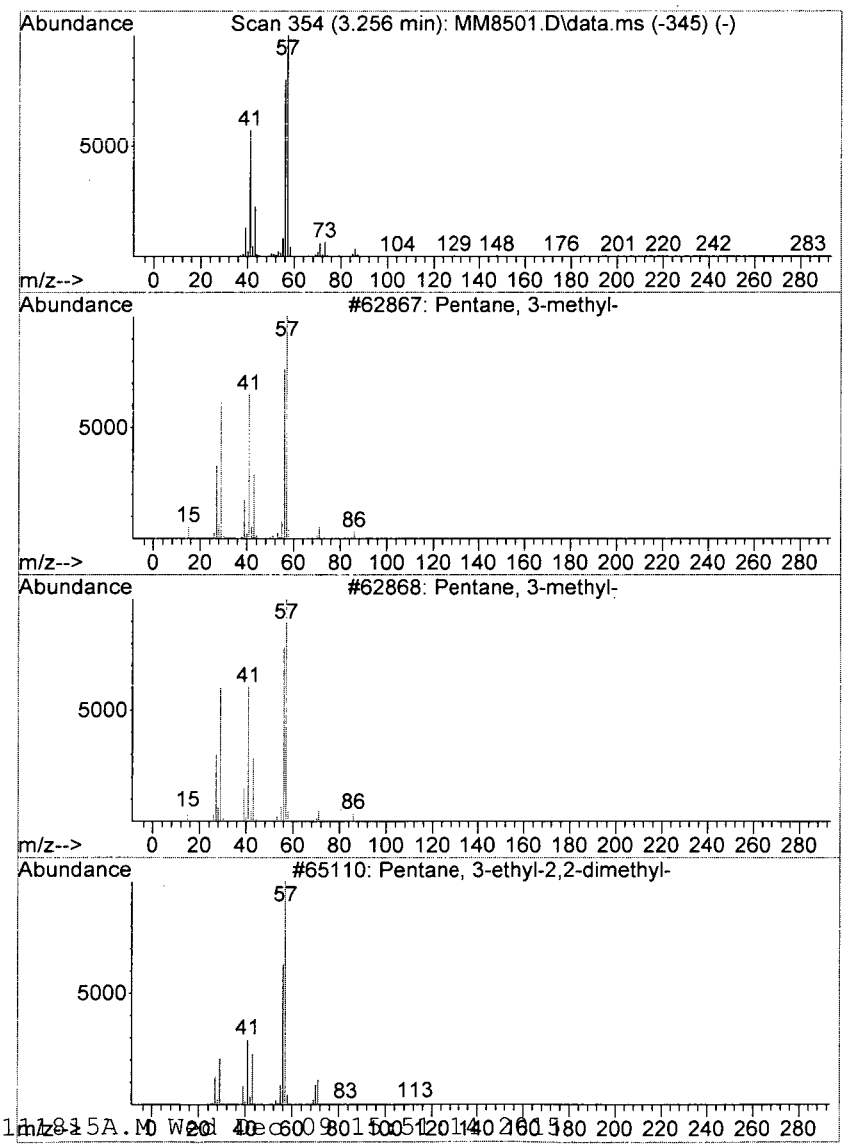
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```

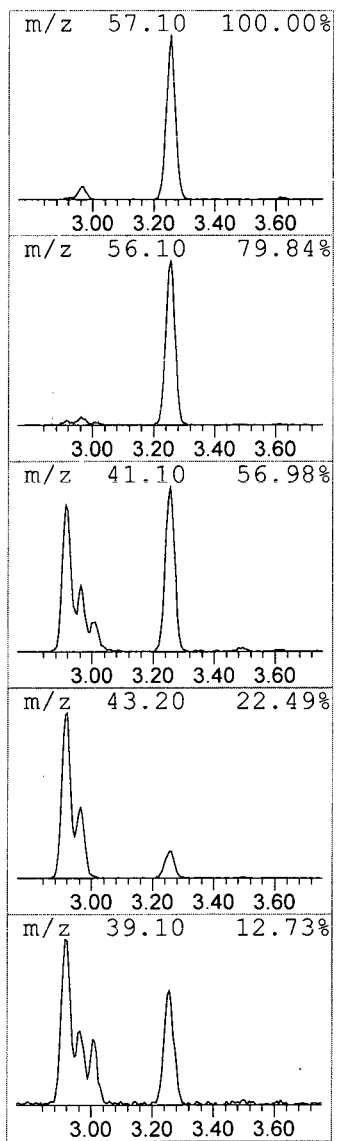
****

Peak Number 4 Pentane, 3-methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.256	16.74 ppb	739535	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 3-methyl-	86	C6H14	000096-14-0	91
2	Pentane, 3-methyl-	86	C6H14	000096-14-0	91
3	Pentane, 3-ethyl-2,2-dimethyl-	128	C9H20	016747-32-3	56
4	Pentane, 2,2,3-trimethyl-	114	C8H18	000564-02-3	56
5	Oxirane, (1-methylethyl)-	86	C5H10O	001438-14-8	45





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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On    :  3 Dec 2015    5:25 pm
Operator  : K.Ruest
Sample    : R1510346-008|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```
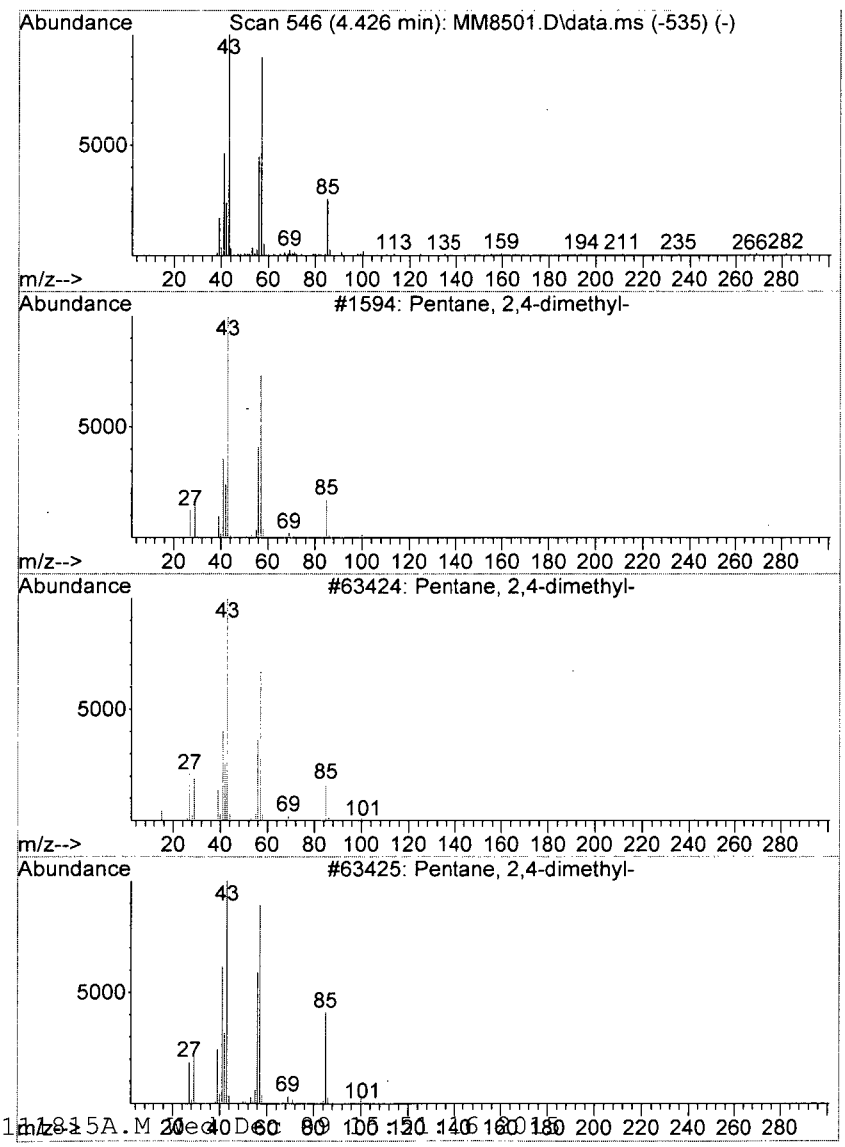
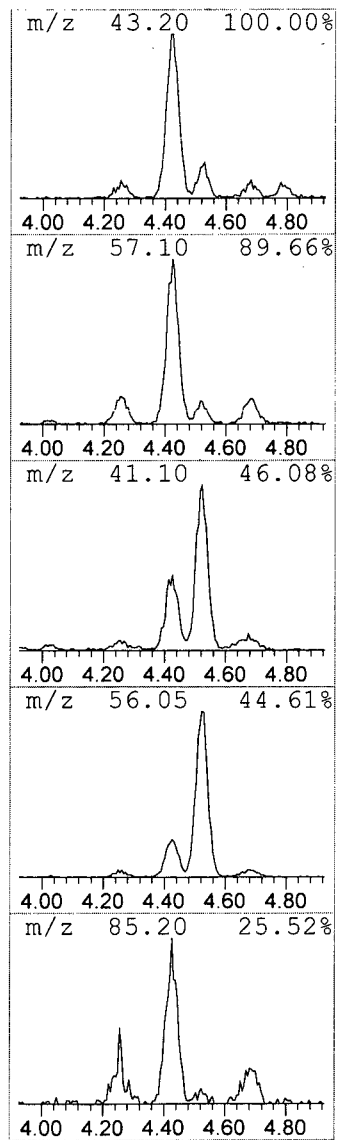

****

Peak Number 5 Pentane, 2,4-dimethyl- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.426	8.42 ppb	371812	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2,4-dimethyl-	100	C7H16	000108-08-7	90
2	Pentane, 2,4-dimethyl-	100	C7H16	000108-08-7	86
3	Pentane, 2,4-dimethyl-	100	C7H16	000108-08-7	64
4	Butane, 2,2,3-trimethyl-	100	C7H16	000464-06-2	53
5	Hexane, 2,4-dimethyl-	114	C8H18	000589-43-5	50





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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On    :  3 Dec 2015    5:25 pm
Operator  : K.Ruest
Sample    : R1510346-008|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```

****

Peak Number 6 Cyclopentane, methyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.524	13.76 ppb	607950	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, methyl-	84	C6H12	000096-37-7	83
2	Cyclopentane, methyl-	84	C6H12	000096-37-7	80
3	Cyclobutane, ethyl-	84	C6H12	004806-61-5	64
4	Cyclopropane, propyl-	84	C6H12	002415-72-7	64
5	1H-Tetrazole, 5-methyl-	84	C2H4N4	004076-36-2	64

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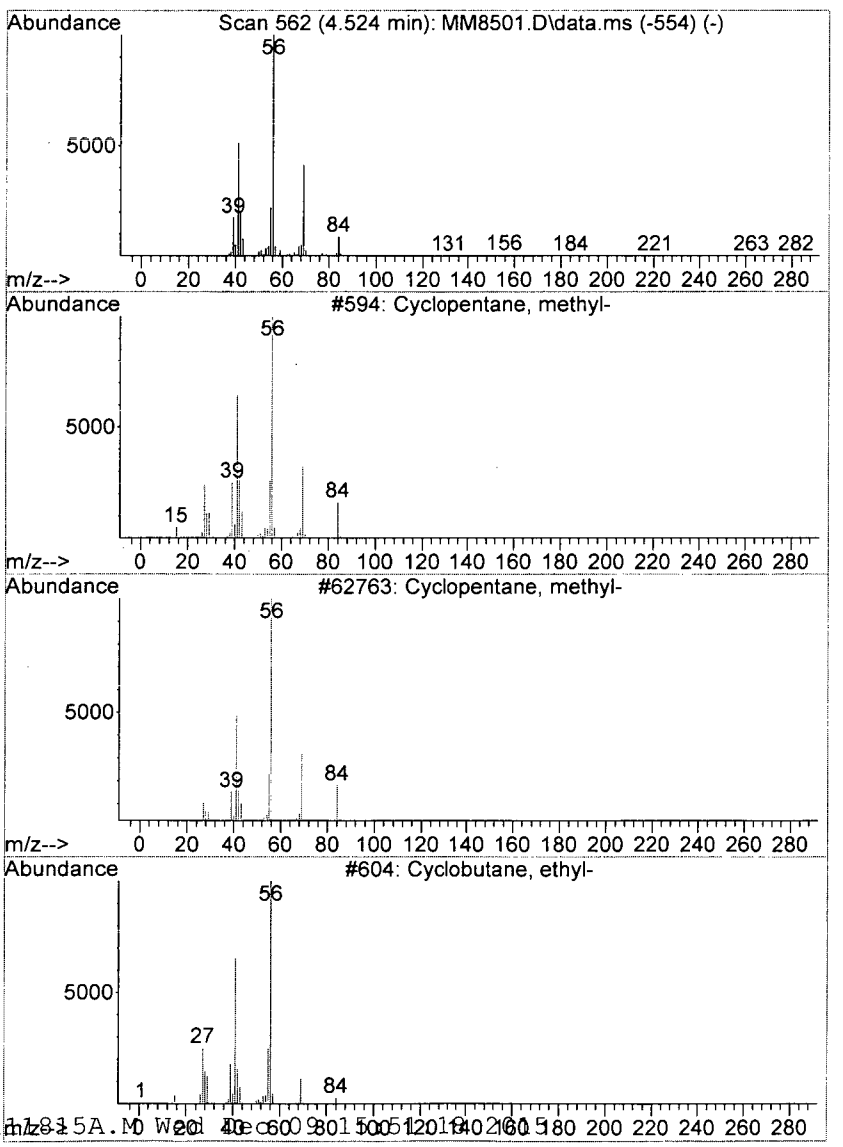

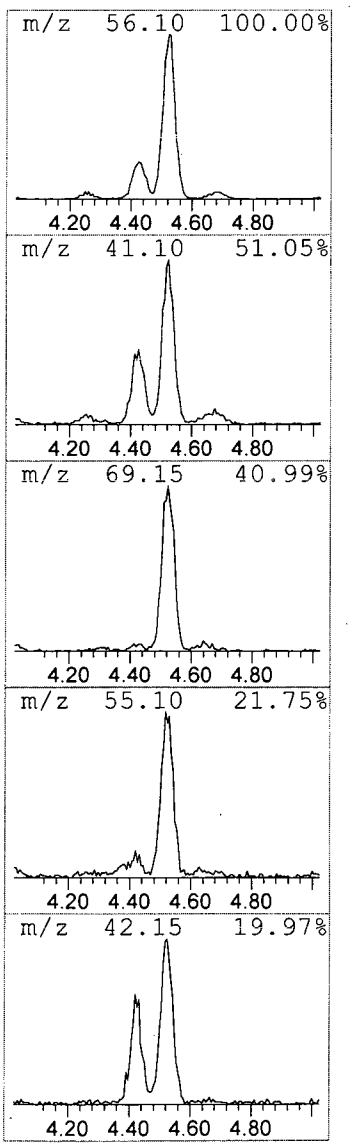

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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On    :  3 Dec 2015    5:25 pm
Operator  : K.Ruest
Sample    : R1510346-008|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  7  Pentane, 2,3-dimethyl-          Concentration Rank  1
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.804	22.11 ppb	976578	Pentafluorobenzene	5.737

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	83
2	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	83
3	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	83
4	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	72
5	Pentane, 2,3-dimethyl-	100	C7H16	000565-59-3	47

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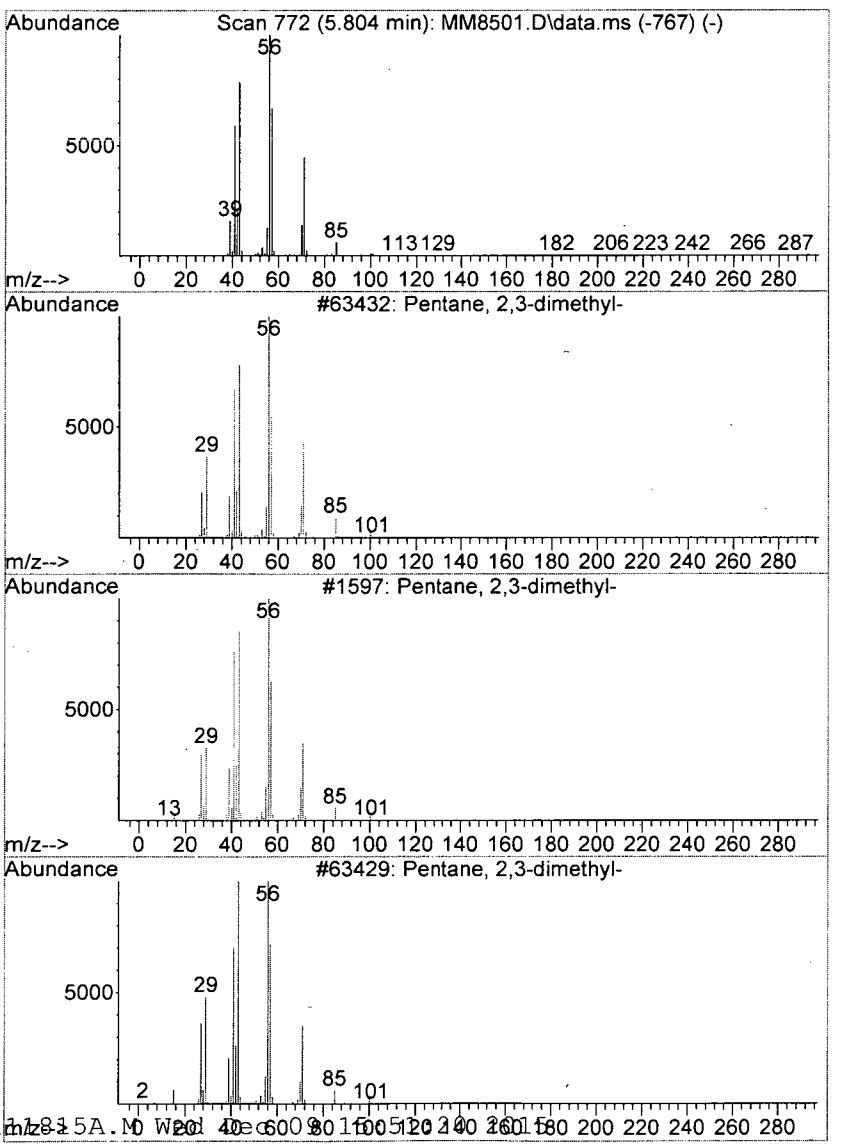

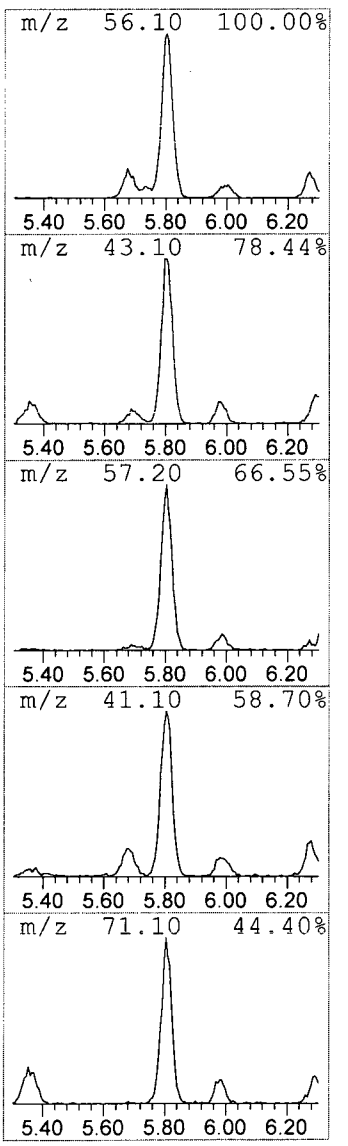

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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On    :  3 Dec 2015    5:25 pm
Operator  : K.Ruest
Sample    : R1510346-008|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number  8  Heptane, 2,2,4,6,6-pentamet...  Concentration Rank  5
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.346	15.57 ppb	878018	1,4-Difluorobenzene	6.767

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Heptane, 2,2,4,6,6-pentamethyl-	170	C12H26	013475-82-6	56
2	Decane, 2,2,7-trimethyl-	184	C13H28	062237-99-4	40
3	Butane, 2,2,3,3-tetramethyl-	114	C8H18	000594-82-1	40
4	Undecane, 2,2-dimethyl-	184	C13H28	017312-64-0	40
5	Heptane, 2,2,4-trimethyl-	142	C10H22	014720-74-2	39

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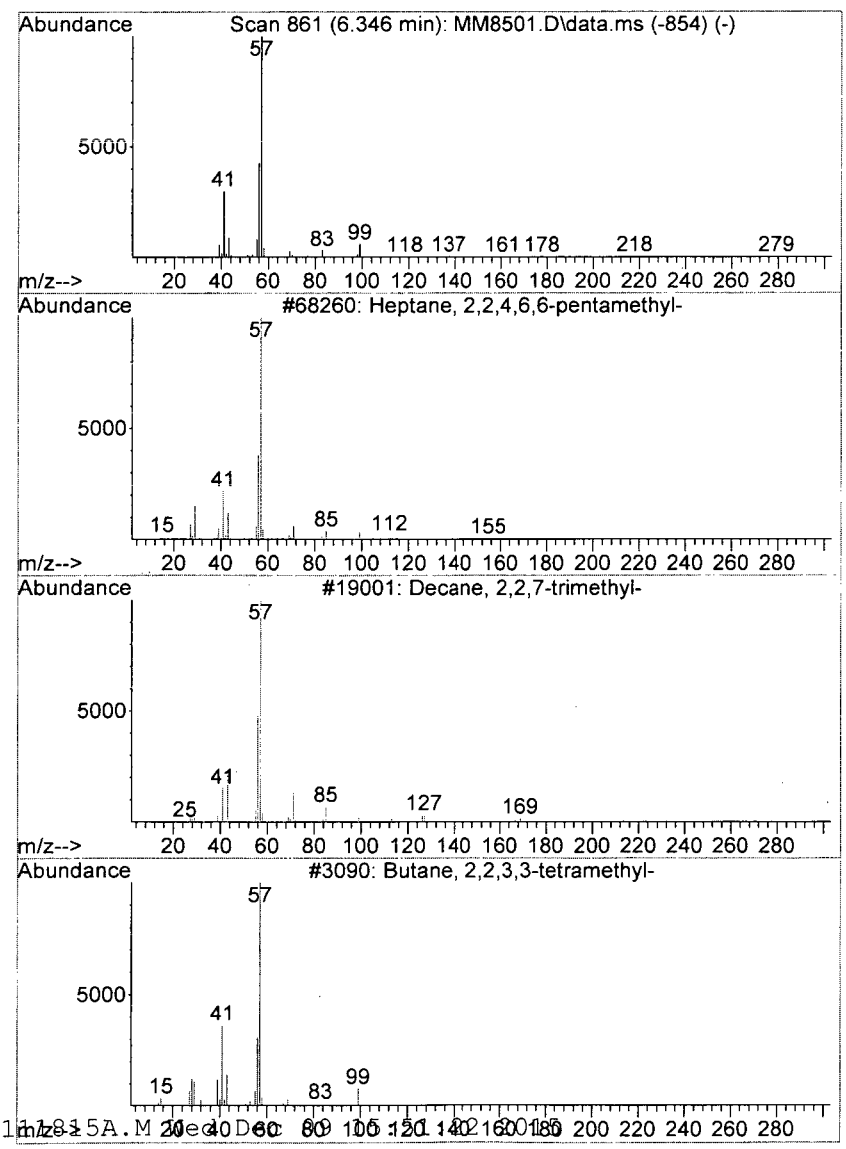

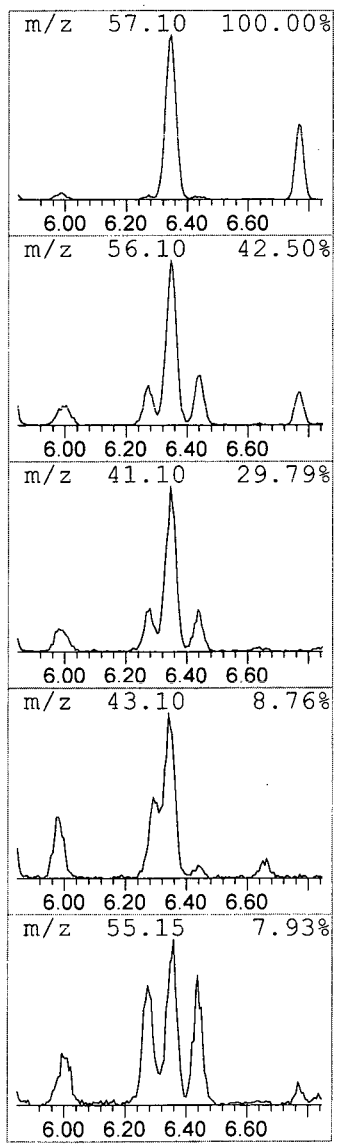

Library Search Compound Report

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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On    :  3 Dec 2015   5:25 pm
Operator  : K.Ruest
Sample    : R1510346-008|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library    : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

*********************************************************************
Peak Number  9  Cyclopentane, 1,3-dimethyl-...  Concentration Rank 15
```
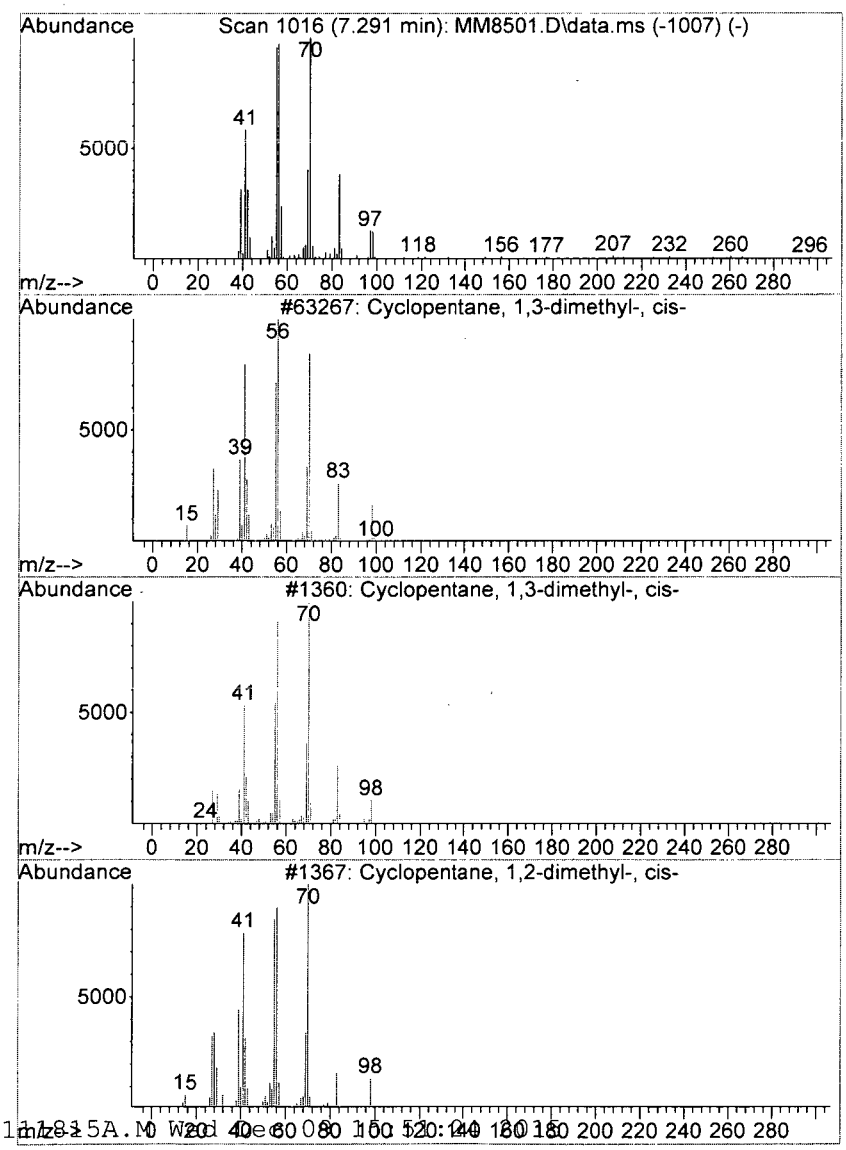
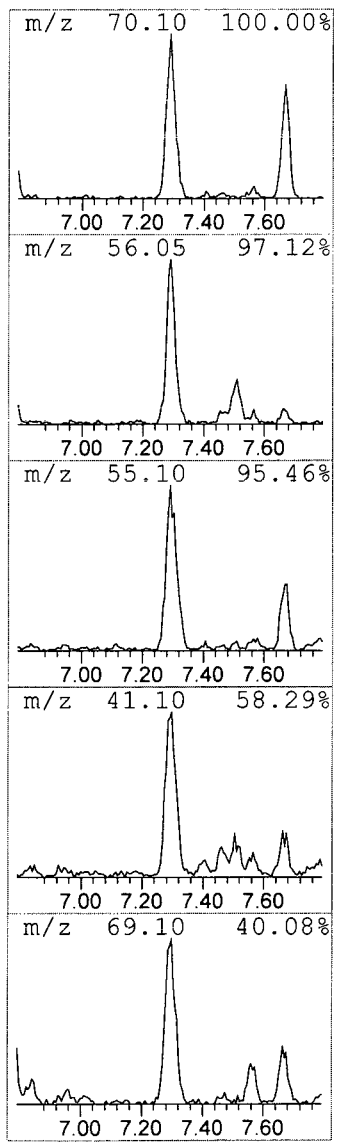

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.291	6.82 ppb	384892	1,4-Difluorobenzene	6.767

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, 1,3-dimethyl-, cis-	98	C7H14	002532-58-3	87
2	Cyclopentane, 1,3-dimethyl-, cis-	98	C7H14	002532-58-3	78
3	Cyclopentane, 1,2-dimethyl-, cis-	98	C7H14	001192-18-3	72
4	Cyclopentane, 1,2-dimethyl-, cis-	98	C7H14	001192-18-3	72
5	Cyclopentane, 1,3-dimethyl-, trans-	98	C7H14	001759-58-6	64





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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On    :  3 Dec 2015    5:25 pm
Operator  : K.Ruest
Sample    : R1510346-008|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

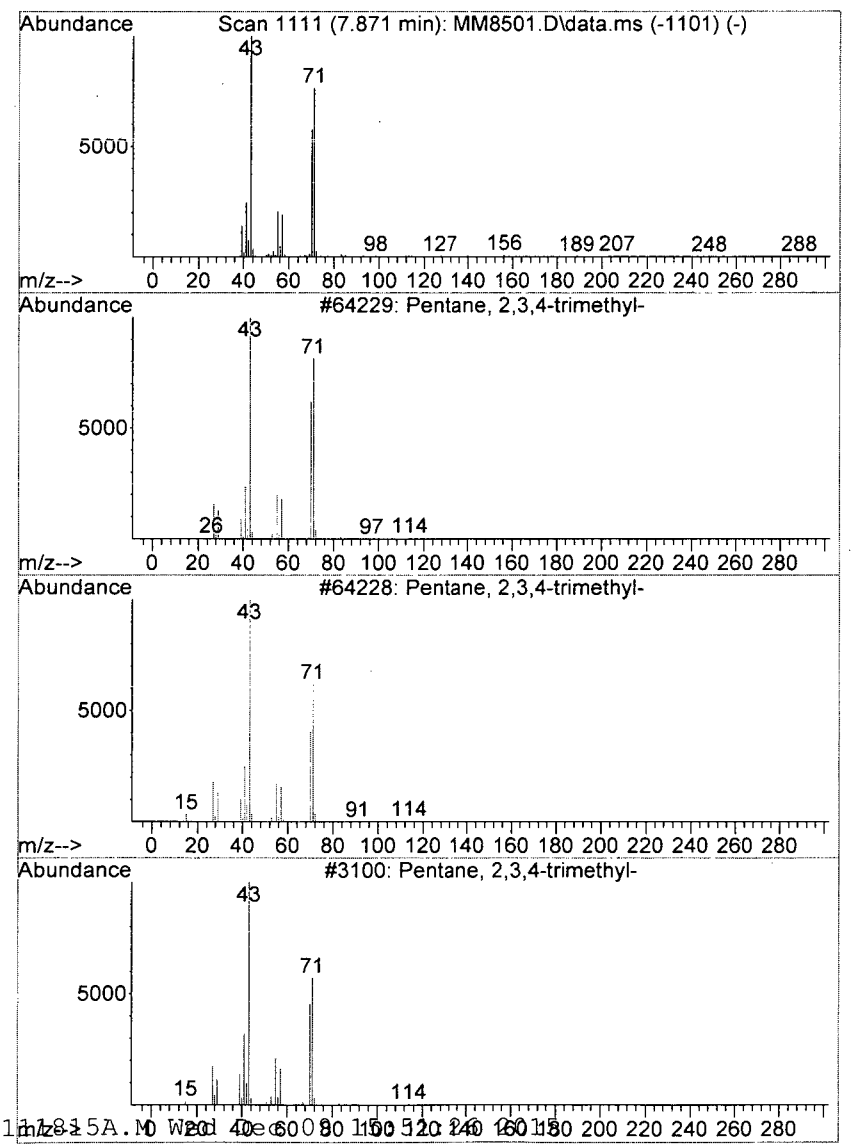
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

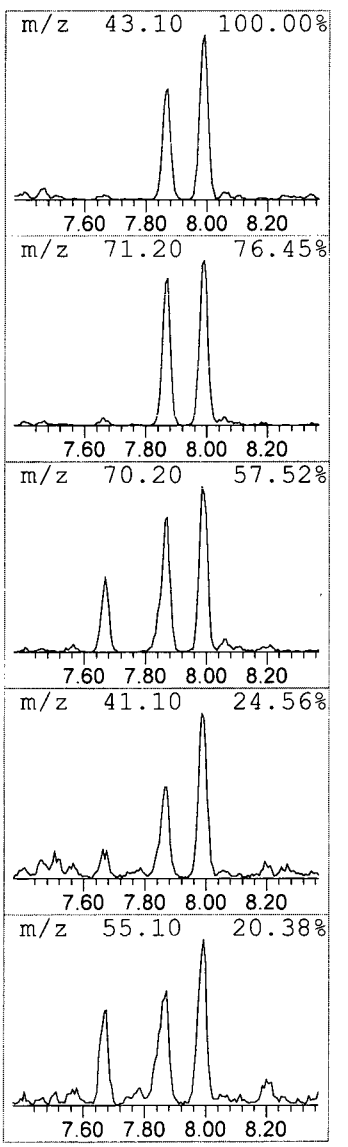
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 10  Pentane, 2,3,4-trimethyl-       Concentration Rank 13
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.871	7.16 ppb	403971	1,4-Difluorobenzene	6.767

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2,3,4-trimethyl-	114	C8H18	000565-75-3	91
2	Pentane, 2,3,4-trimethyl-	114	C8H18	000565-75-3	91
3	Pentane, 2,3,4-trimethyl-	114	C8H18	000565-75-3	91
4	Hexane, 3,3,4-trimethyl-	128	C9H20	016747-31-2	72
5	Pentane, 3-ethyl-	100	C7H16	000617-78-7	53





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Data File : MM8501.D
Acq On    :  3 Dec 2015    5:25 pm
Operator  : K.Ruest
Sample    : R1510346-008|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 11  Pentane, 2,3,3-trimethyl-       Concentration Rank  8
```
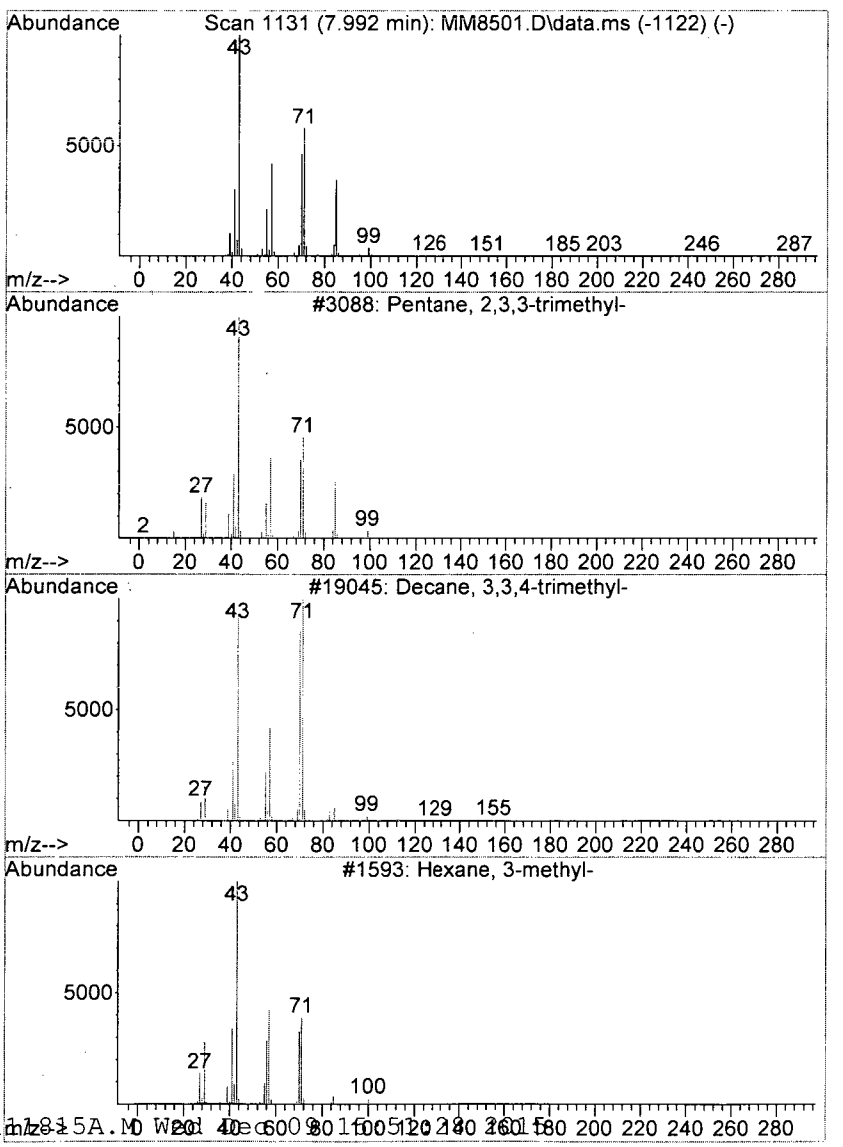
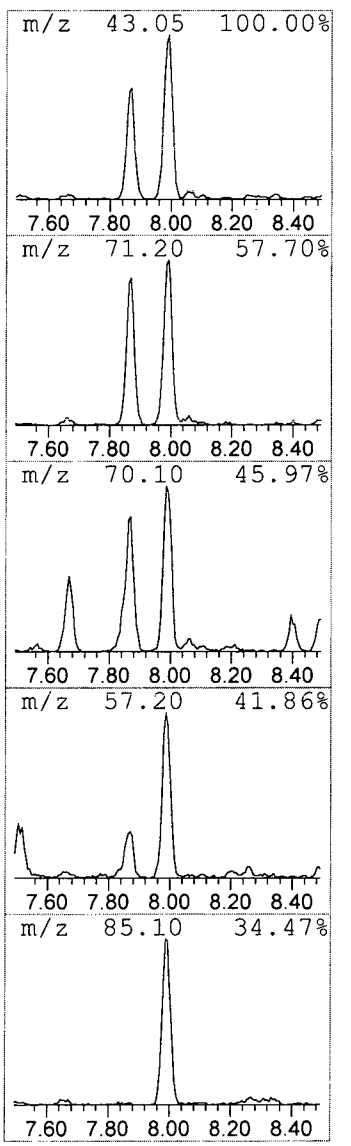

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.992	11.29 ppb	636557	1,4-Difluorobenzene	6.767

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Pentane, 2,3,3-trimethyl-	114	C8H18	000560-21-4	83
2	Decane, 3,3,4-trimethyl-	184	C13H28	049622-18-6	59
3	Hexane, 3-methyl-	100	C7H16	000589-34-4	59
4	Pentane, 3-ethyl-	100	C7H16	000617-78-7	53
5	Hexane, 3,3-dimethyl-	114	C8H18	000563-16-6	53

unknown





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Data File : MM8501.D
Acq On    :  3 Dec 2015    5:25 pm
Operator  : K.Ruest
Sample    : R1510346-008|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

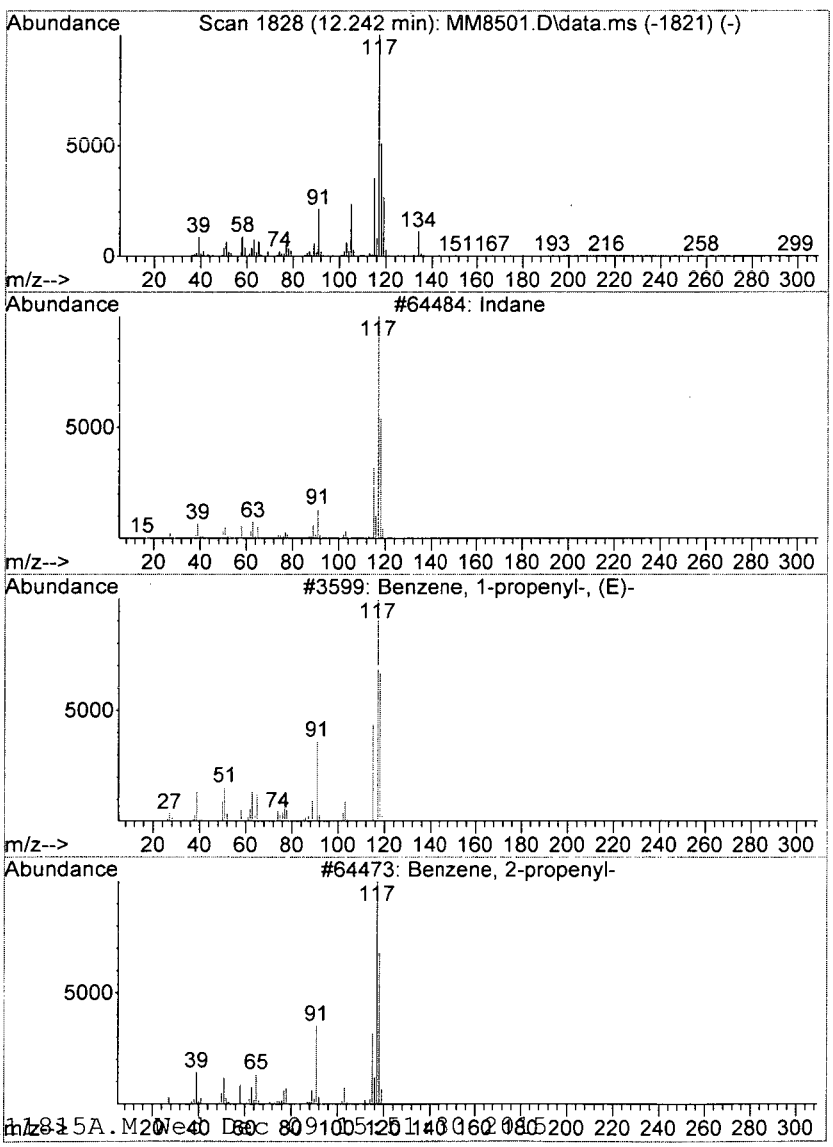
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

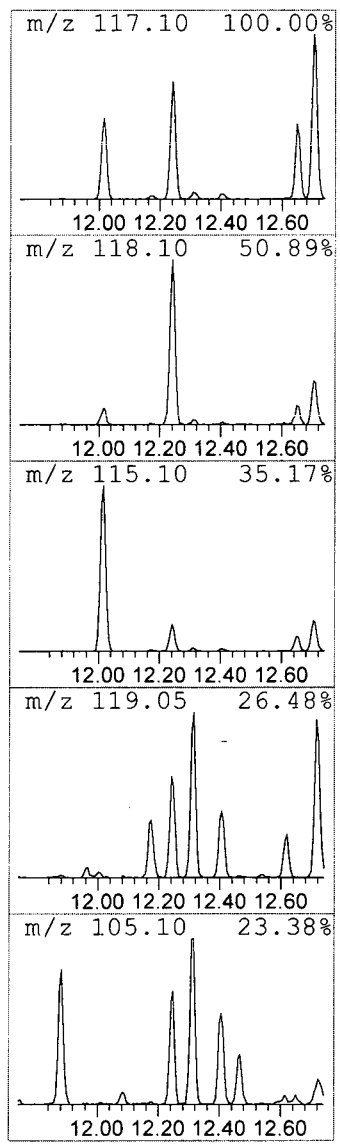
**********************************************************************
Peak Number 12  Indane                              Concentration Rank 10
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.242	8.75 ppb	625408	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Indane	118	C9H10	000496-11-7	64
2	Benzene, 1-propenyl-, (E)-	118	C9H10	000873-66-5	58
3	Benzene, 2-propenyl-	118	C9H10	000300-57-2	58
4	Benzene, 2-propenyl-	118	C9H10	000300-57-2	52
5	Benzene, cyclopropyl-	118	C9H10	000873-49-4	50

unknown





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Data File : MM8501.D
Acq On    :  3 Dec 2015    5:25 pm
Operator  : K.Ruest
Sample    : R1510346-008|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 13  2,3-Dihydro-1-methylindene      Concentration Rank  9
```
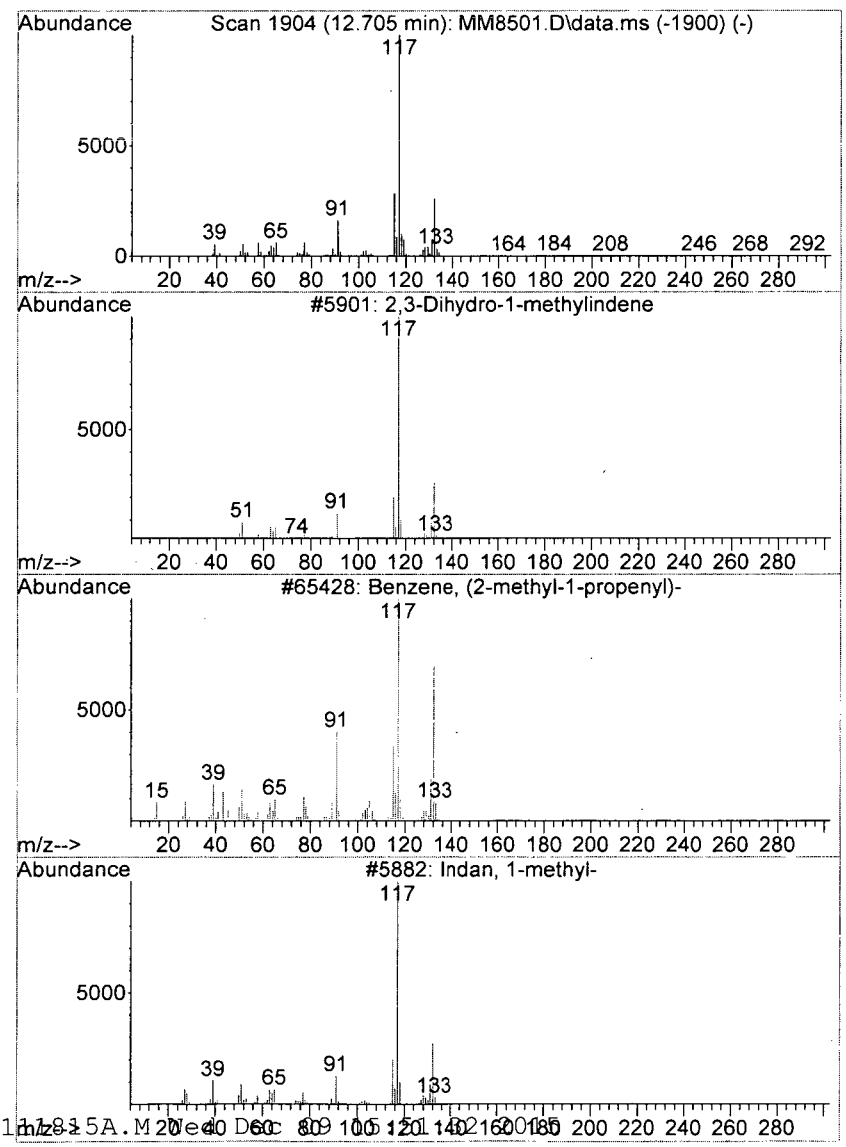
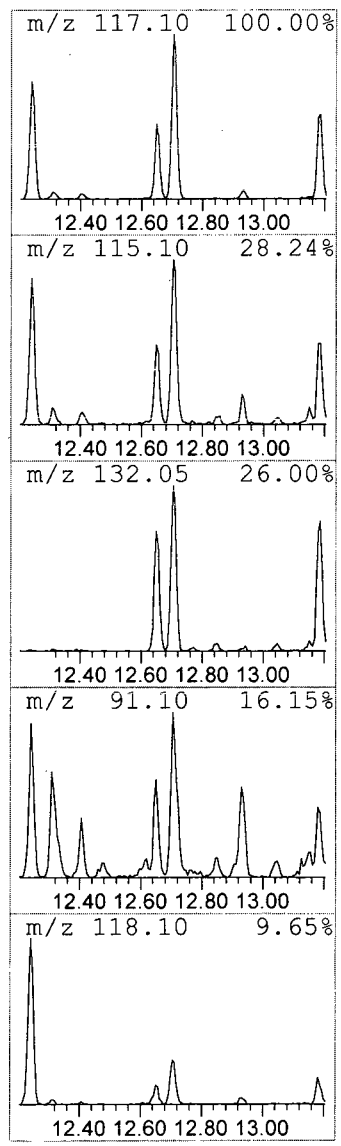

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.705	10.83 ppb	773915	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2,3-Dihydro-1-methylindene	132	C10H12	027133-93-3	90
2	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	90
3	Indan, 1-methyl-	132	C10H12	000767-58-8	87
4	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	83
5	Benzene, (2-methyl-2-propenyl)-	132	C10H12	003290-53-7	72





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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On    :  3 Dec 2015    5:25 pm
Operator  : K.Ruest
Sample    : R1510346-008|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

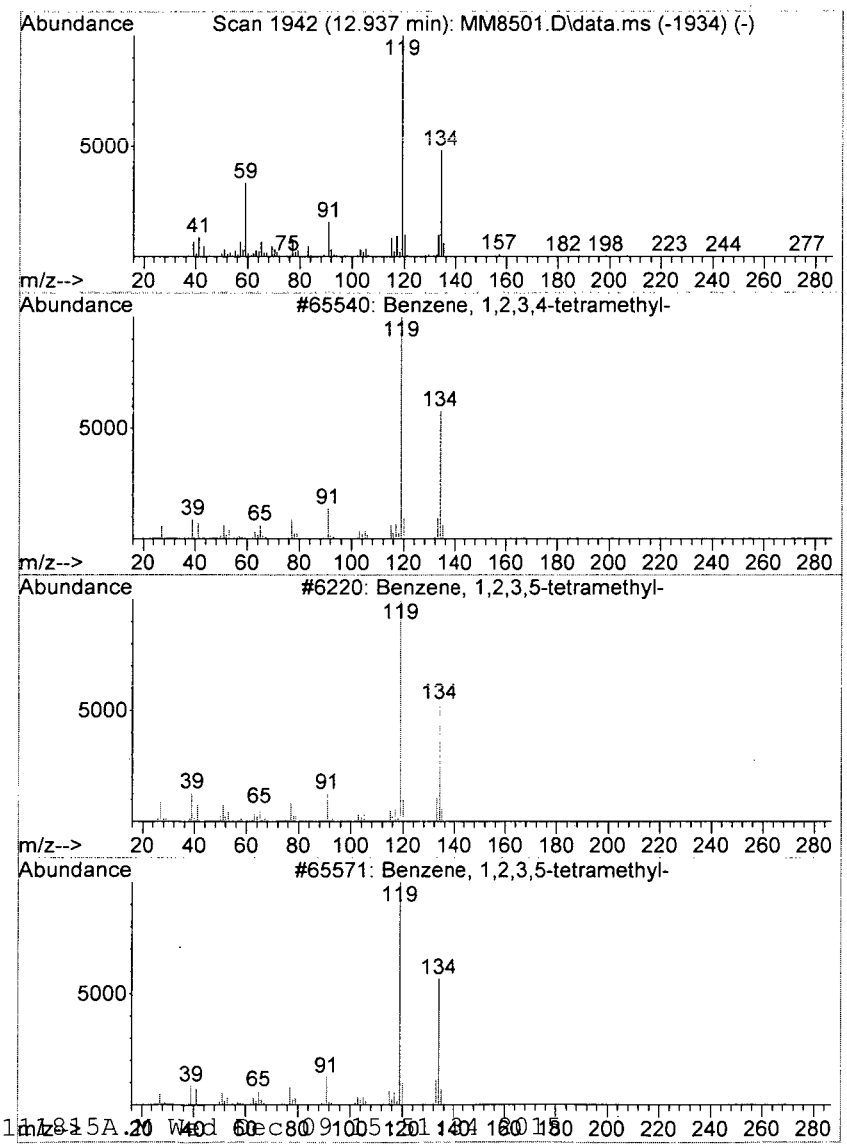
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

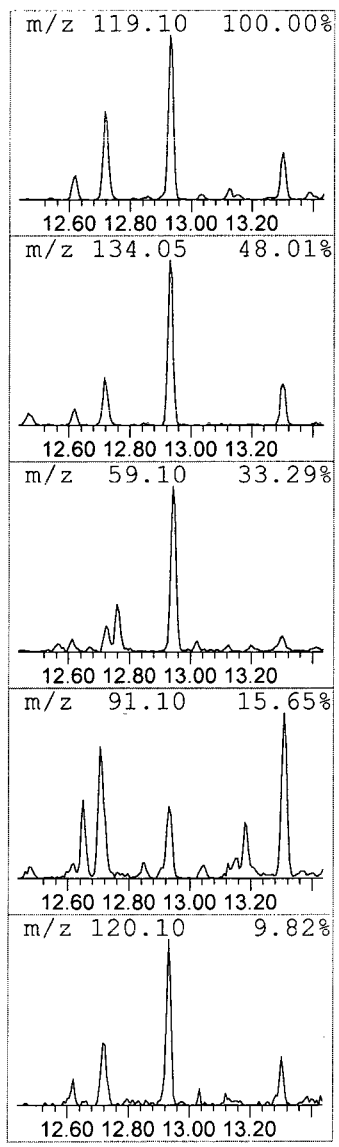
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 14  Benzene, 1,2,3,4-tetramethyl-   Concentration Rank 14
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.937	6.94 ppb	495916	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	94
2	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	94
3	Benzene, 1,2,3,5-tetramethyl-	134	C10H14	000527-53-7	93
4	Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	93
5	Benzene, 1,2,3,4-tetramethyl-	134	C10H14	000488-23-3	91





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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On    :  3 Dec 2015    5:25 pm
Operator  : K.Ruest
Sample    : R1510346-008|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

**********************************************************************
Peak Number 15  2,3-Dihydro-1-methylindene      Concentration Rank 16

  R.T.      EstConc          Area       Relative to ISTD          R.T.
-------------------------------------------------------------------------
 13.187    5.73 ppb         409263   1,4-Dichlorobenzene-d4      12.016
```
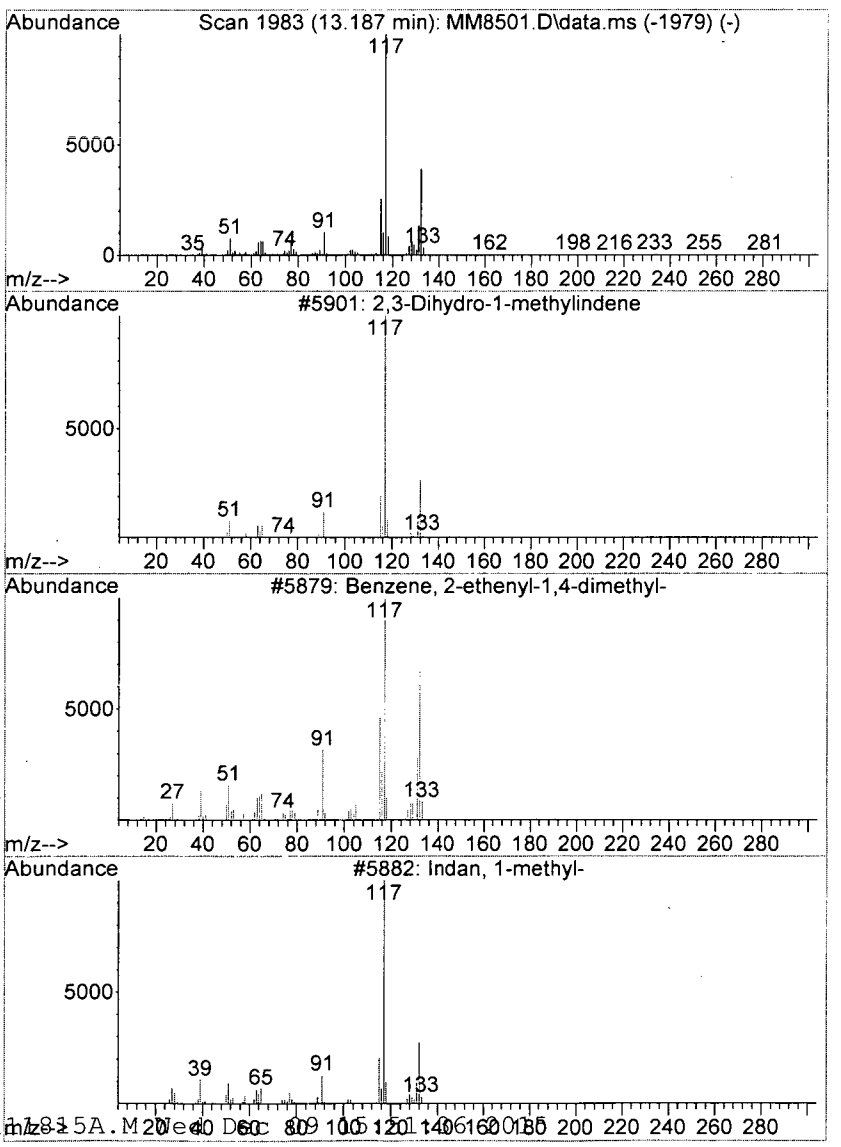
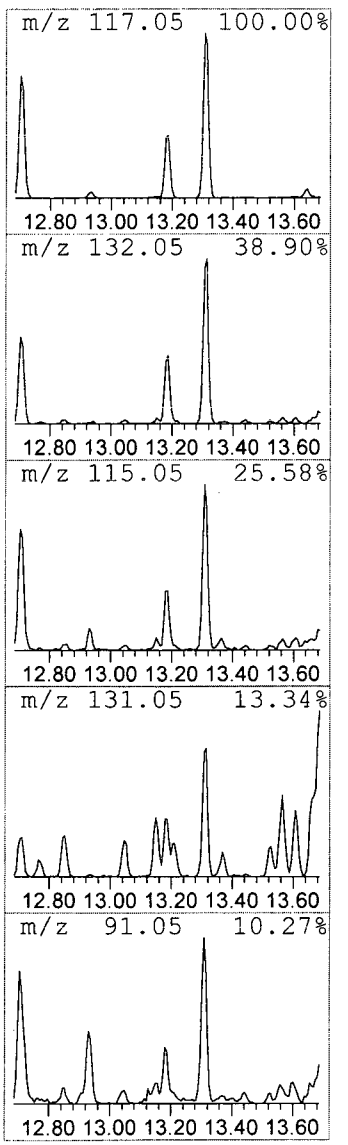

O.K - already called O.K! DL 12/10/15

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2,3-Dihydro-1-methylindene	132	C10H12	027133-93-3	93
2	Benzene, 2-ethenyl-1,4-dimethyl-	132	C10H12	002039-89-6	91
3	Indan, 1-methyl-	132	C10H12	000767-58-8	90
4	Benzene, (1-methyl-1-propenyl)-,...	132	C10H12	000768-00-3	90
5	Indan, 1-methyl-	132	C10H12	000767-58-8	90

yes KR 12/10/15





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Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8501.D
Acq On    :  3 Dec 2015    5:25 pm
Operator  : K.Ruest
Sample    : R1510346-008|1.0                          Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

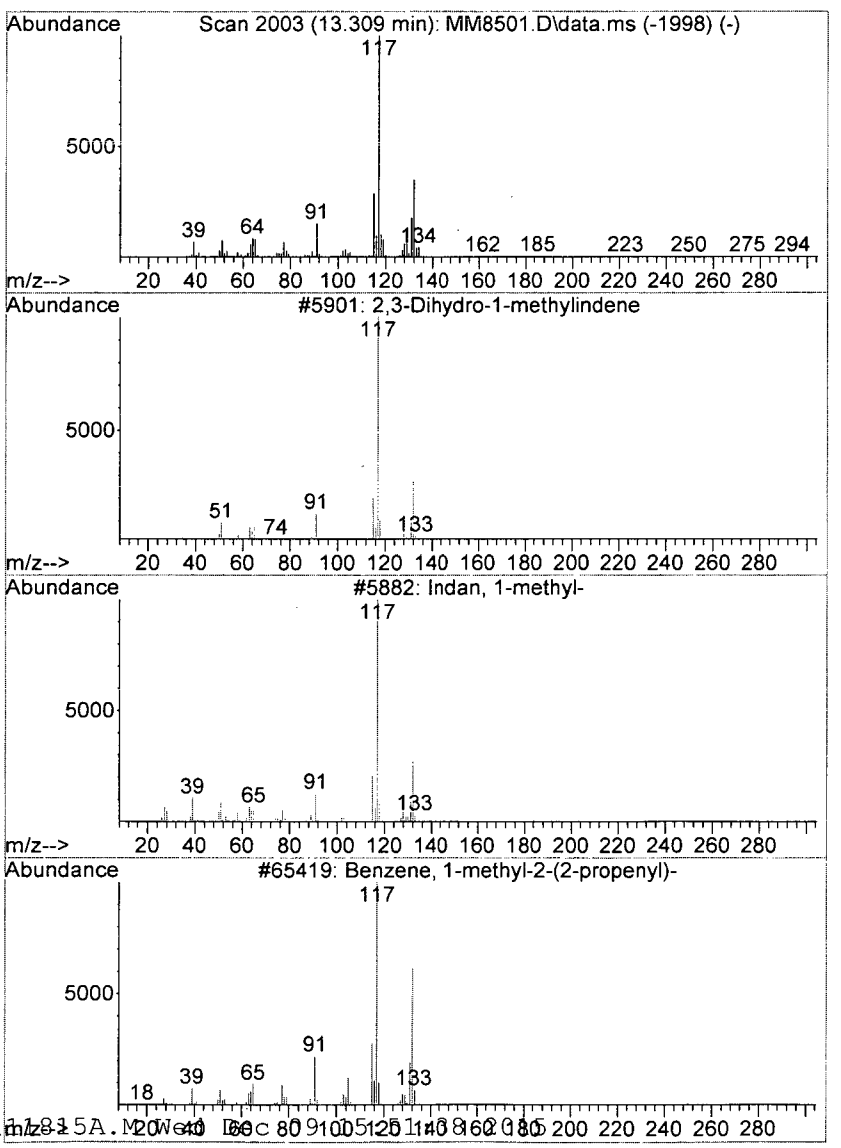
TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

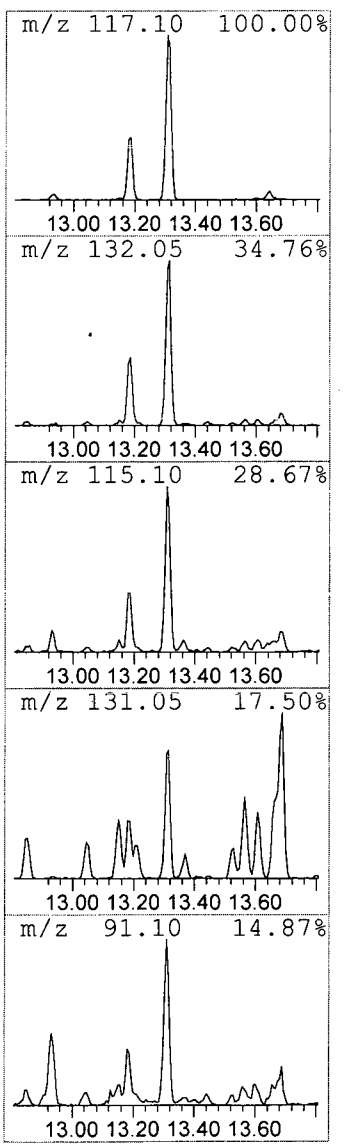
**********************************************************************
Peak Number 16  2,3-Dihydro-1-methylindene      Concentration Rank  6
```

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.309	13.79 ppb	984981	1,4-Dichlorobenzene-d4	12.016

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2,3-Dihydro-1-methylindene	132	C10H12	027133-93-3	94
2	Indan, 1-methyl-	132	C10H12	000767-58-8	91
3	Benzene, 1-methyl-2-(2-propenyl)-	132	C10H12	001587-04-8	91
4	Benzene, (2-methyl-1-propenyl)-	132	C10H12	000768-49-0	90
5	Benzene, (2-methyl-2-propenyl)-	132	C10H12	003290-53-7	90

already called





Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1245
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-53-GW-699MW06-8.5	**Units:**	µg/L
Lab Code:	R1510346-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 17:56		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 17:56		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 17:56		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 17:56		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 17:56		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 17:56		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 17:56		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 17:56		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 17:56		474713	
1,2,4-Trimethylbenzene	**3.9**	J	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 17:56		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 17:56		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 17:56		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 17:56		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
1,3,5-Trimethylbenzene	**0.23**	J	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 17:56		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 17:56		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 17:56		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 17:56		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 17:56		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 17:56		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 17:56		474713	
Acetone	**2.1**	J	10	5.0	1.3	1	NA	12/3/15 17:56		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 17:56		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 17:56		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 17:56		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 17:56		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 17:56		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 17:56		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 17:56		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1245
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-53-GW-699MW06-8.5	**Units:**	µg/L
Lab Code:	R1510346-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 17:56		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 17:56		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 17:56		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 17:56		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 17:56		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 17:56		474713	
Ethylbenzene	**4.0**	J	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 17:56		474713	
Isopropylbenzene (Cumene)	**0.74**	J	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 17:56		474713	
Naphthalene	**0.64**	BJ	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 17:56		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 17:56		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 17:56		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 17:56		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 17:56		474713	
m,p-Xylenes	**2.9**	J	5.0	2.0	0.33	1	NA	12/3/15 17:56		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 17:56		474713	
n-Propylbenzene	**0.81**	J	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
o-Xylene	**0.38**	J	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 17:56		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 17:56		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 17:56		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	12/3/15 17:56	
Dibromofluoromethane	108	85-115	12/3/15 17:56	
Toluene-d8	108	85-120	12/3/15 17:56	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1756

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-53-GW-699MW06-8.5	**Units:**	µg/L
Lab Code:	R1510346-010	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8502.D
Acq On : 3 Dec 2015 5:56 pm
Operator : K.Ruest
Sample : R1510346-010|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 09 15:59:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	755198	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1263159	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1173465	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	570213	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	355237	54.09	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.18%				
48) surr1,1,2-dichloroetha...	6.096	65	389873	53.75	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.50%				
65) SURR3,Toluene-d8	8.529	98	1495797	54.12	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 108.24%				
70) SURR2,BFB	11.047	95	588699	56.43	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 112.86%				
Target Compounds							Qvalue
15) Acetone	2.487	43	3399	2.11	ppb		95
82) Ethylbenzene	10.132	106	39702	4.04	ppb	#	88
83) (m+p)Xylene	10.248	106	35056	2.89	ppb		94
84) o-Xylene	10.589	106	4759	0.38	ppb	#	47
89) Isopropylbenzene	10.931	105	22006	0.74	ppb		95
95) n-Propylbenzene	11.278	91	27579	0.81	ppb		97
99) 1,3,5-Trimethylbenzene	11.431	105	5268	0.23	ppb		75
101) 1,2,4-Trimethylbenzene	11.735	105	93144	3.87	ppb		94
117) Naphthalen	13.802	128	9750	0.64	ppb		90

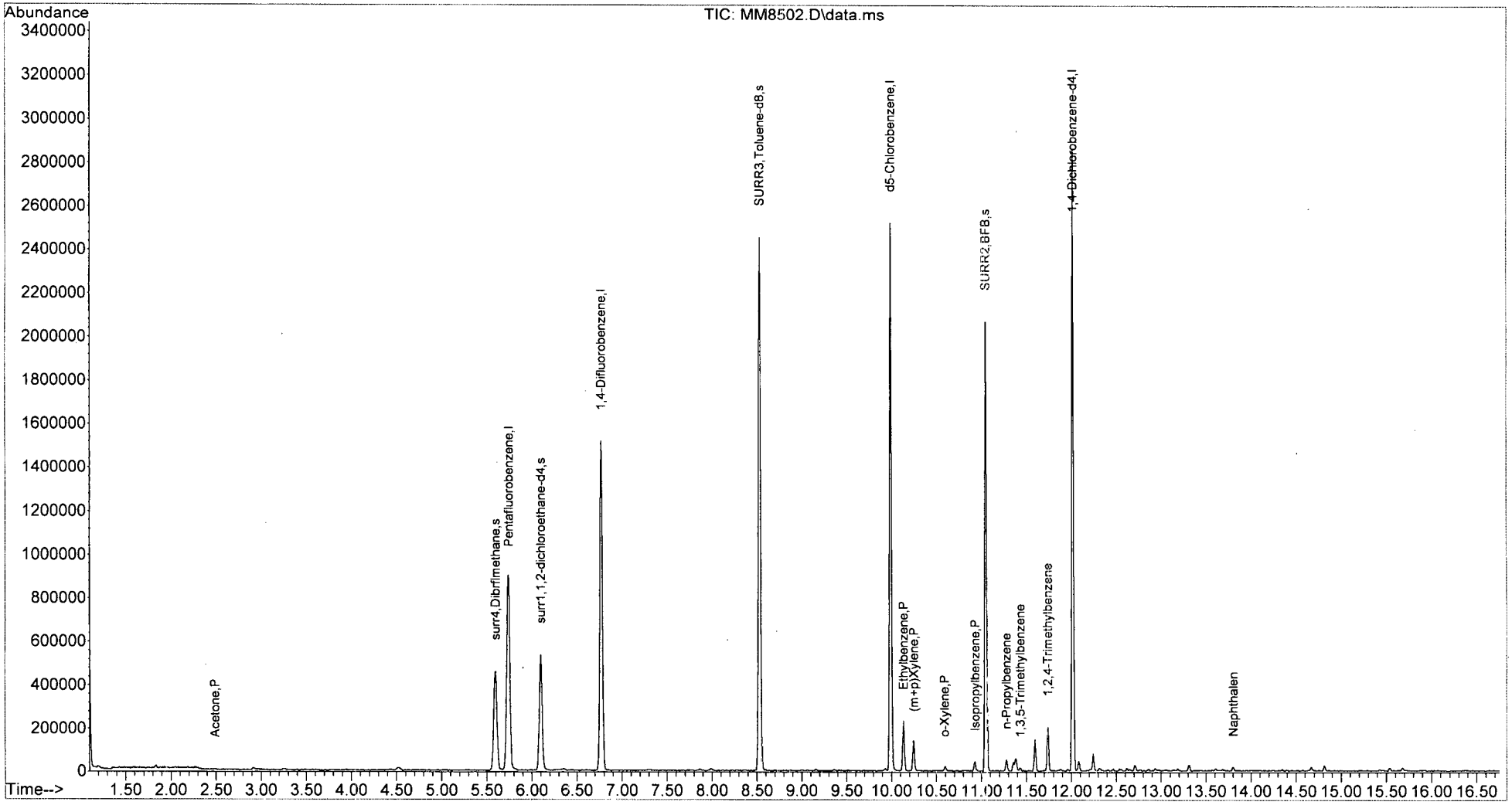
(#) = qualifier out of range (m) = manual integration (+) = signals summed

KR 12/9/15

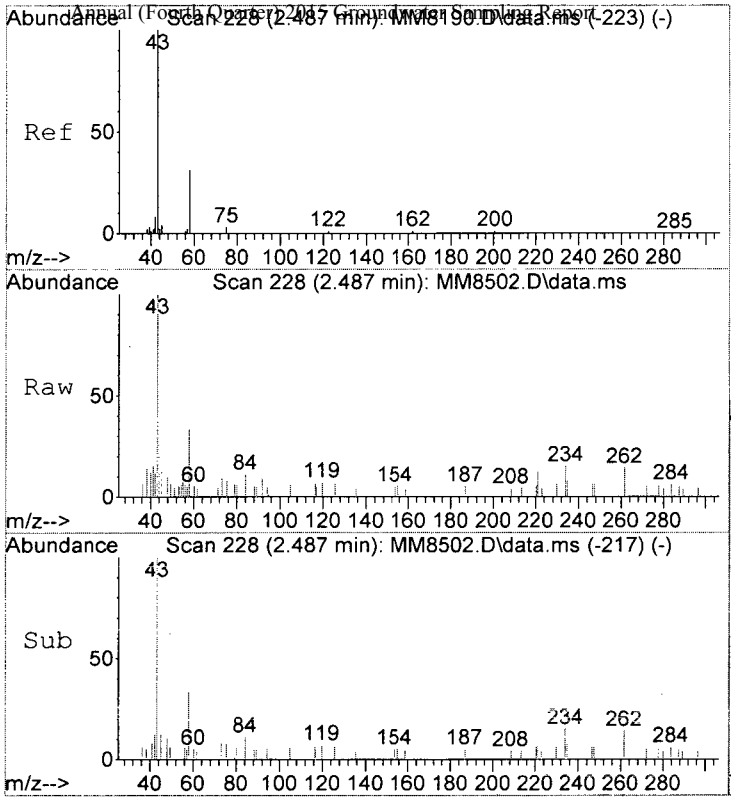
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8502.D
Acq On : 3 Dec 2015 5:56 pm
Operator : K.Ruest
Sample : R1510346-010|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 09 15:59:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



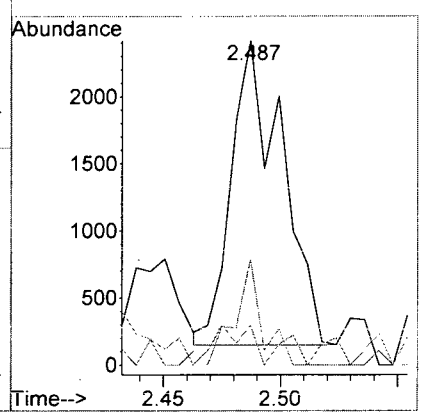
W111815A.M Wed Dec 09 16:00:45 2015 Page: 2

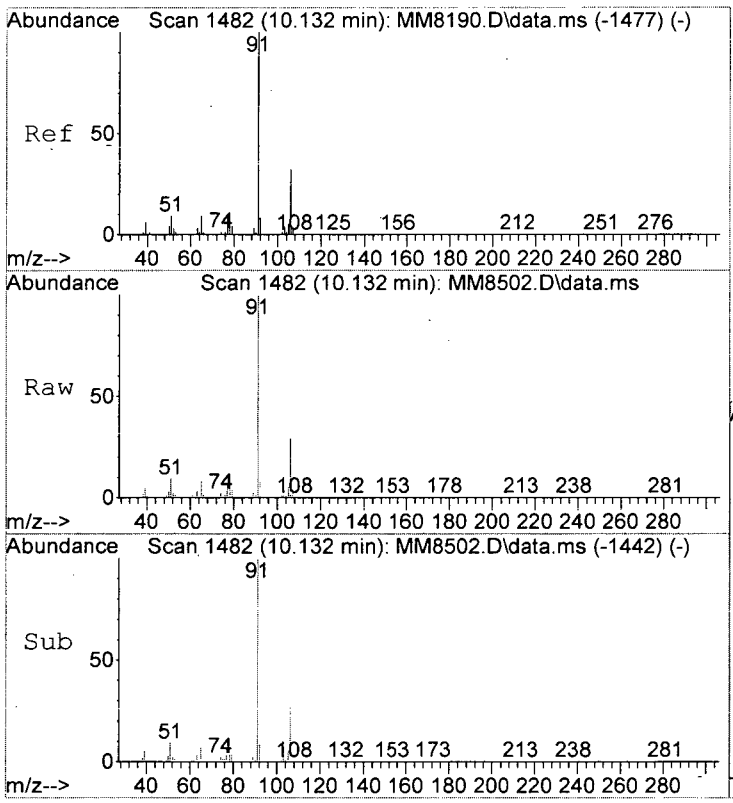


#15
Acetone
Concen: 2.11 ppb
RT: 2.487 min Scan# 228
Delta R.T. -0.006 min
Lab File: MM8502.D
Acq: 3 Dec 2015 5:56 pm

Tgt Ion: 43 Resp: 3399

Ion	Ratio	Lower	Upper
43	100		
58	32.5	10.9	50.9
42	12.2	0.0	28.5

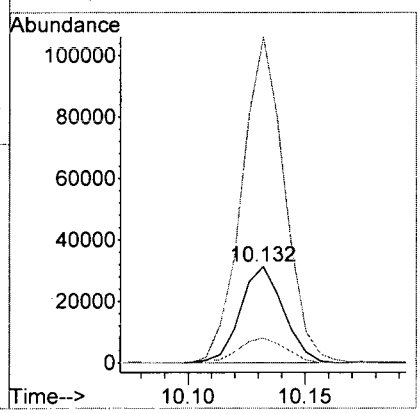


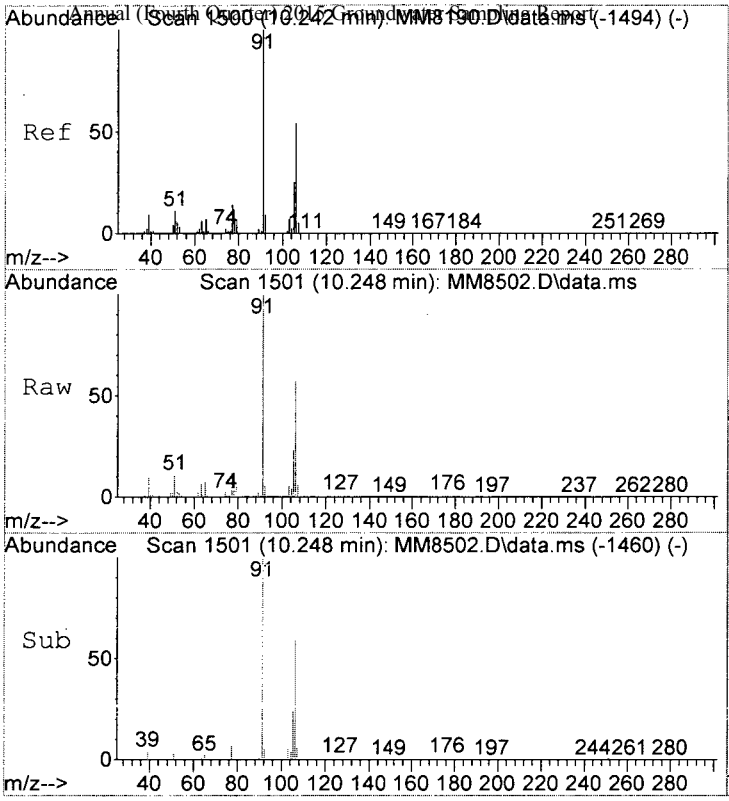


#82
Ethylbenzene
Concen: 4.04 ppb
RT: 10.132 min Scan# 1482
Delta R.T. -0.006 min
Lab File: MM8502.D
Acq: 3 Dec 2015 5:56 pm

Tgt Ion:106 Resp: 39702

Ion	Ratio	Lower	Upper
106	100		
91	339.6	293.8	333.8#
65	25.5	7.2	47.2

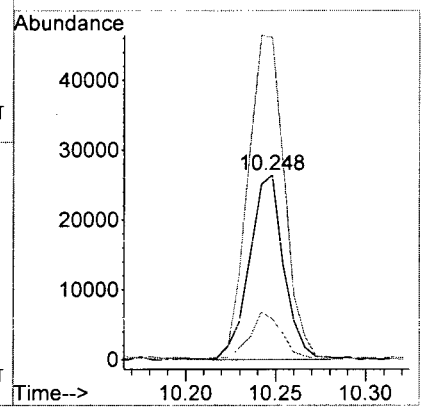


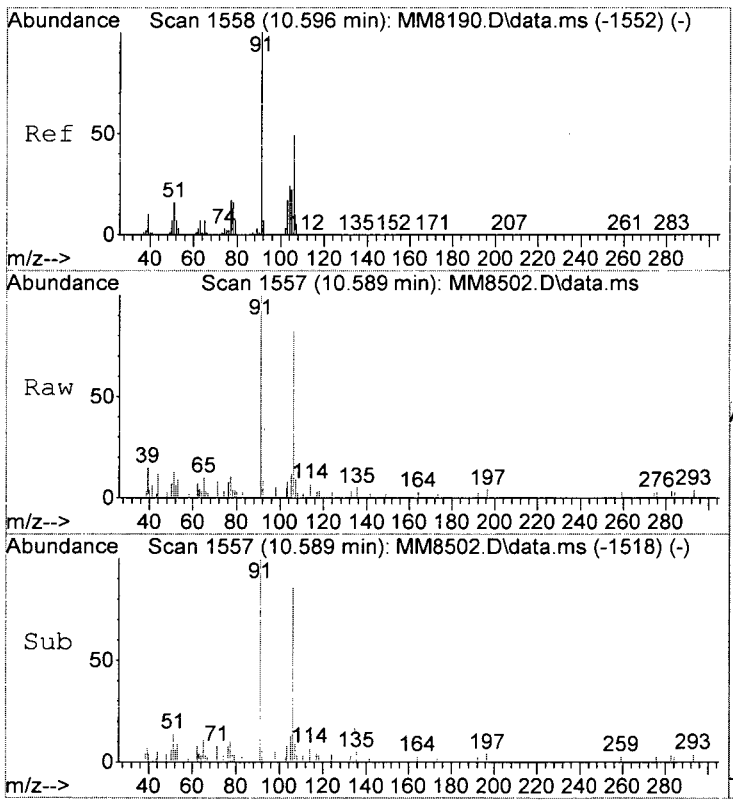


#83
(m+p)Xylene
Concen: 2.89 ppb
RT: 10.248 min Scan# 1501
Delta R.T. -0.000 min
Lab File: MM8502.D
Acq: 3 Dec 2015 5:56 pm

Tgt Ion:106 Resp: 35056

Ion	Ratio	Lower	Upper
106	100		
91	174.6	163.6	203.6
77	22.0	5.5	45.5

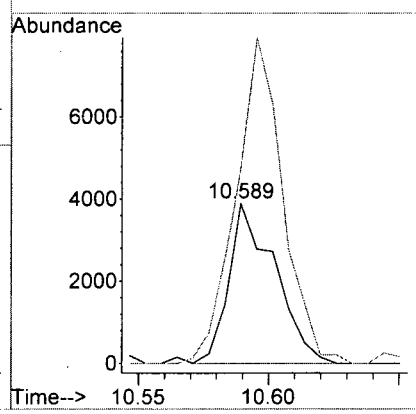


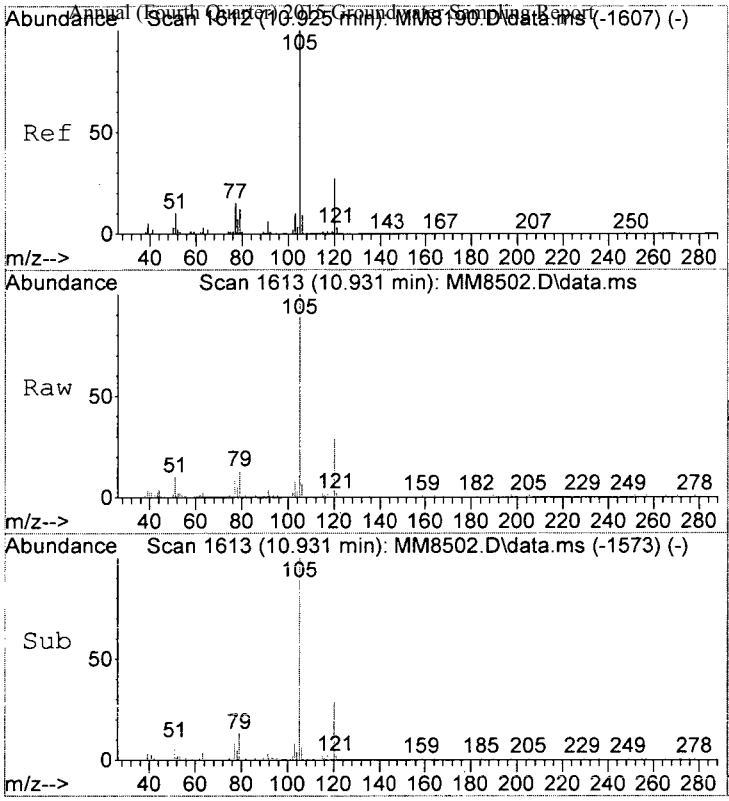


#84
o-Xylene
Concen: 0.38 ppb
RT: 10.589 min Scan# 1557
Delta R.T. -0.012 min
Lab File: MM8502.D
Acq: 3 Dec 2015 5:56 pm

Tgt Ion:106 Resp: 4759

Ion	Ratio	Lower	Upper
106	100		
91	121.8	182.5	222.5#

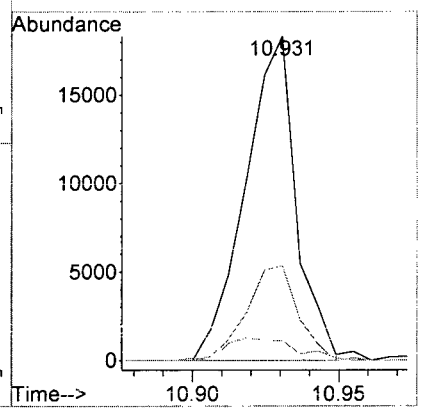


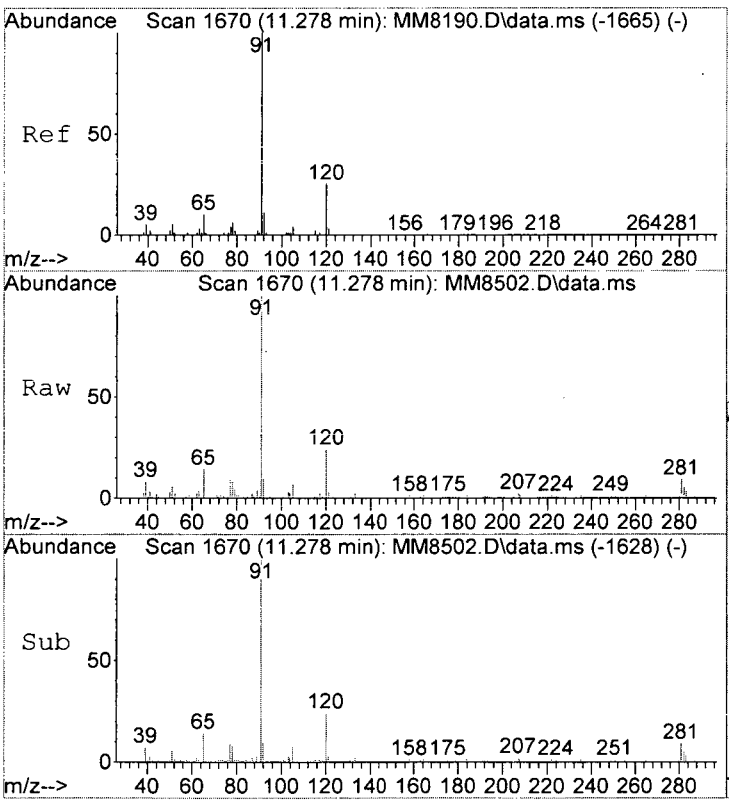


#89
Isopropylbenzene
Concen: 0.74 ppb
RT: 10.931 min Scan# 1613
Delta R.T. -0.000 min
Lab File: MM8502.D
Acq: 3 Dec 2015 5:56 pm

Tgt Ion:105 Resp: 22006

Ion	Ratio	Lower	Upper
105	100		
120	29.1	7.4	47.4
106	6.0	0.0	29.1

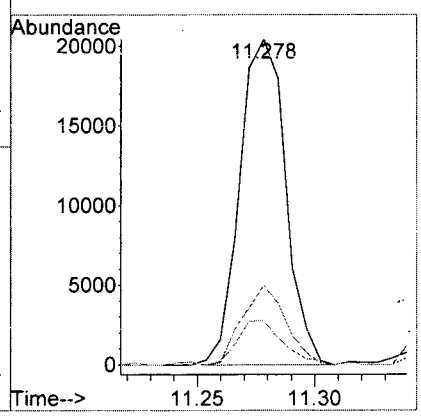


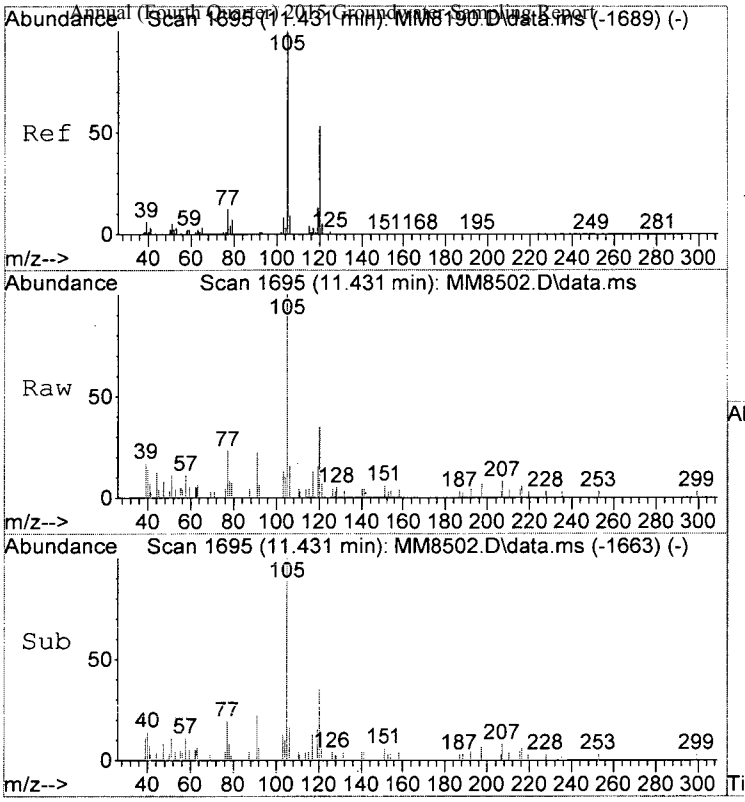


#95
n-Propylbenzene
Concen: 0.81 ppb
RT: 11.278 min Scan# 1670
Delta R.T. -0.006 min
Lab File: MM8502.D
Acq: 3 Dec 2015 5:56 pm

Tgt Ion: 91 Resp: 27579

Ion	Ratio	Lower	Upper
91	100		
120	24.4	4.8	44.8
65	13.6	0.0	30.5

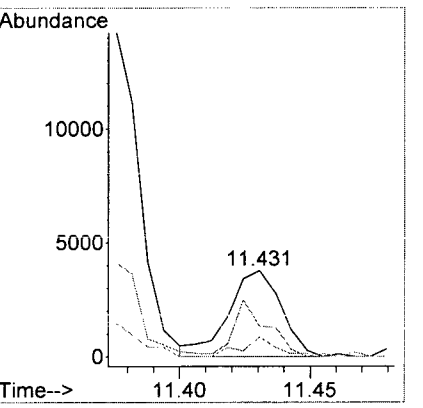


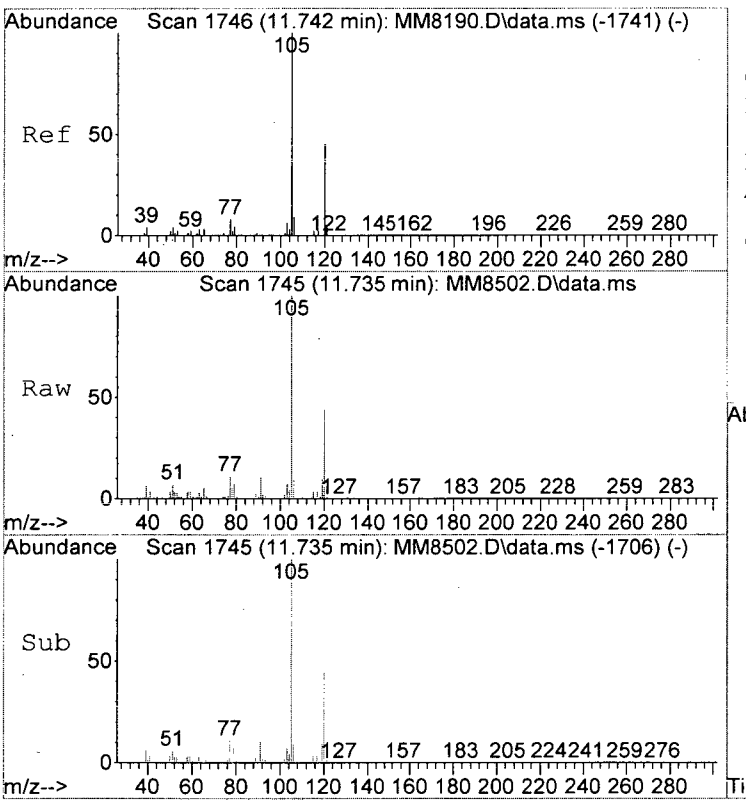


#99
1,3,5-Trimethylbenzene
Concen: 0.23 ppb
RT: 11.431 min Scan# 1695
Delta R.T. -0.000 min
Lab File: MM8502.D
Acq: 3 Dec 2015 5:56 pm

Tgt Ion:105 Resp: 5268

Ion	Ratio	Lower	Upper
105	100		
120	35.2	33.0	73.0
77	23.1	0.0	32.5

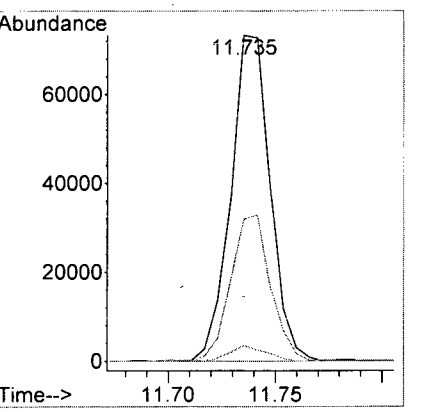


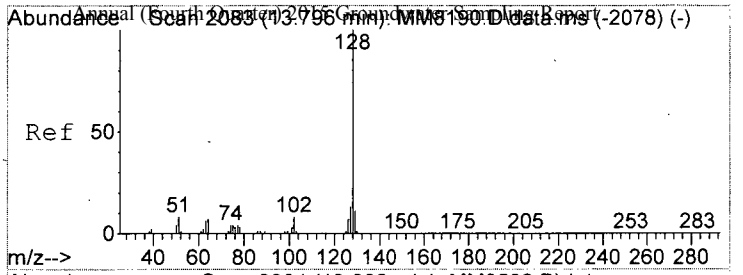


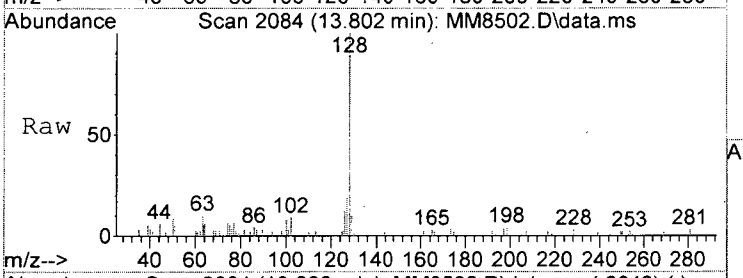
#101
1,2,4-Trimethylbenzene
Concen: 3.87 ppb
RT: 11.735 min Scan# 1745
Delta R.T. -0.006 min
Lab File: MM8502.D
Acq: 3 Dec 2015 5:56 pm

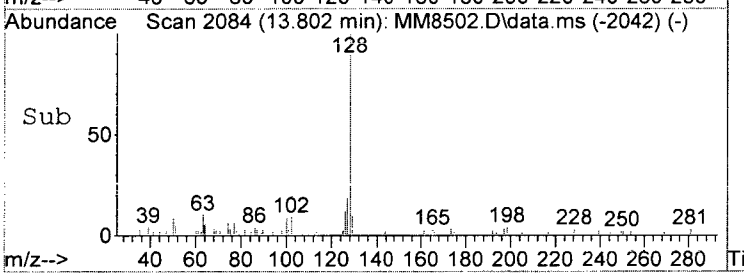
Tgt Ion:105 Resp: 93144

Ion	Ratio	Lower	Upper
105	100		
120	43.6	28.1	68.1
65	4.7	0.0	24.3





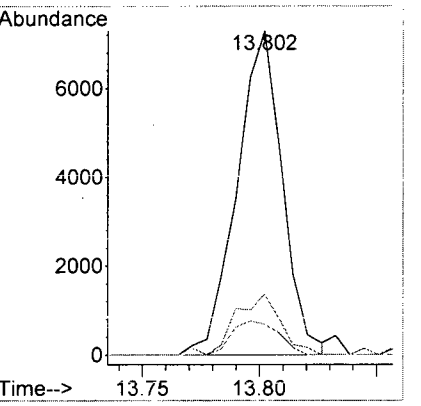




#117
Naphthalen
Concen: 0.64 ppb
RT: 13.802 min Scan# 2084
Delta R.T. -0.000 min
Lab File: MM8502.D
Acq: 3 Dec 2015 5:56 pm

Tgt Ion:128 Resp: 9750

Ion	Ratio	Lower	Upper
128	100		
127	18.6	0.0	33.1
102	9.4	0.0	28.3



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8502.D
Acq On : 3 Dec 2015 5:56 pm
Operator : K.Ruest
Sample : R1510346-010|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 18 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8502.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.596	727	738	746	rBV	458220	1155108	29.85%	5.150%
2	5.737	751	761	772	rBV	899019	2169318	56.05%	9.671%
3	6.096	810	820	832	rBV	532610	1138271	29.41%	5.075%
4	6.767	922	930	940	rBV	1515187	2928249	75.66%	13.055%
5	8.529	1212	1219	1228	rBV	2450042	3870144	100.00%	17.254%
6	9.986	1452	1458	1472	rBV	2519814	3555473	91.87%	15.851%
7	10.132	1476	1482	1488	rVB	231019	299073	7.73%	1.333%
8	10.242	1492	1500	1508	rBV	138885	195091	5.04%	0.870%
9	10.925	1607	1612	1618	rBV	44481	63948	1.65%	0.285%
10	11.047	1627	1632	1640	rBV	2068928	2646861	68.39%	11.800%
11	11.278	1665	1670	1676	rVB	51955	71191	1.84%	0.317%
12	11.357	1678	1683	1684	rBV	39542	50516	1.31%	0.225%
13	11.382	1684	1687	1692	rVB3	54589	80343	2.08%	0.358%
14	11.595	1717	1722	1729	rVB	145115	178544	4.61%	0.796%
15	11.735	1740	1745	1751	rVB	202323	259095	6.69%	1.155%
16	12.016	1786	1791	1798	rVV	2856256	3533013	91.29%	15.751%
17	12.083	1798	1802	1808	rVB	43397	55104	1.42%	0.246%
18	12.241	1824	1828	1834	rVB	78959	94980	2.45%	0.423%
19	12.705	1900	1904	1910	rBV3	27791	40615	1.05%	0.181%
20	13.308	1998	2003	2009	rVB2	28313	45428	1.17%	0.203%

Sum of corrected areas: 22430365

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8502.D
Acq On    :  3 Dec 2015   5:56 pm
Operator  : K.Ruest
Sample    : R1510346-010|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 18   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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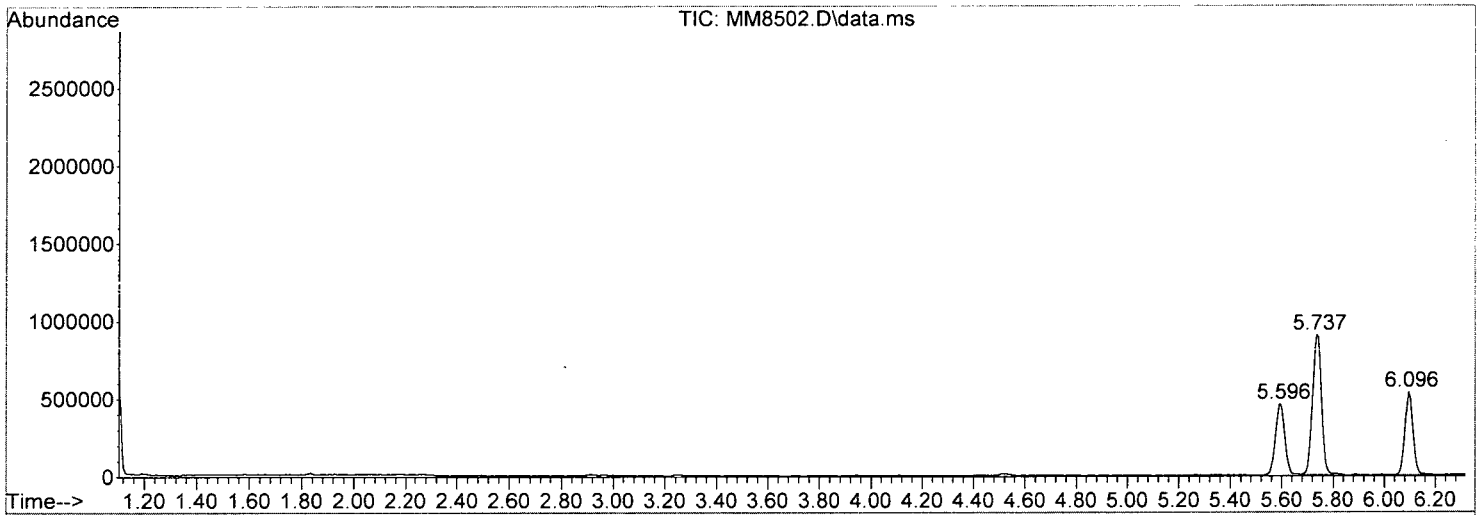
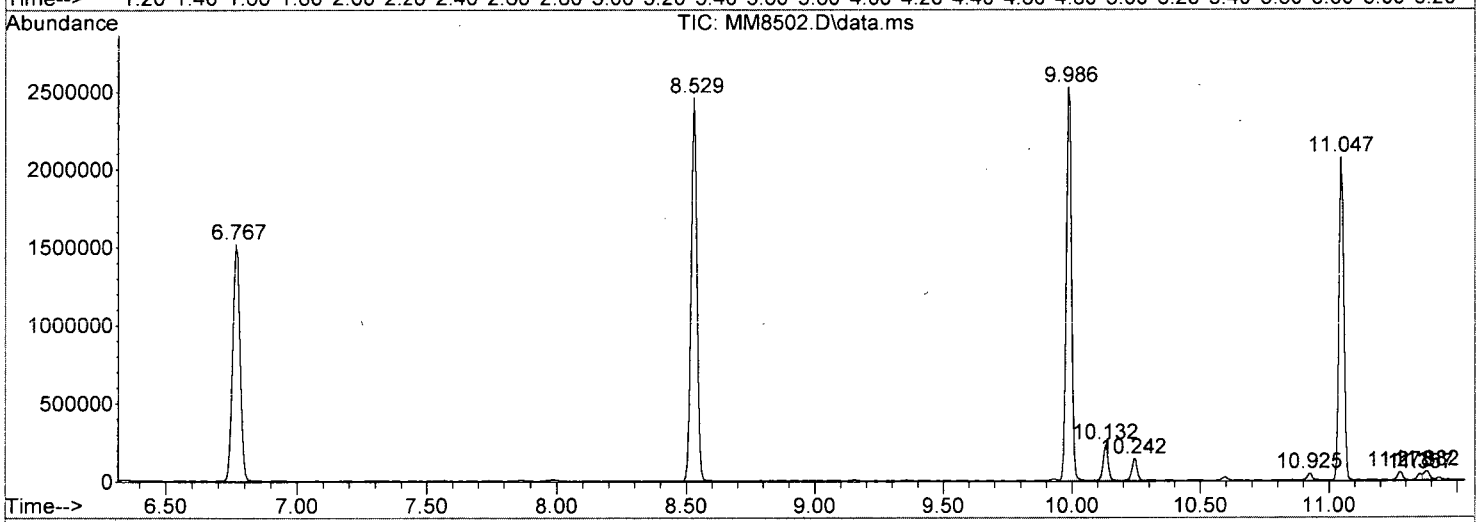
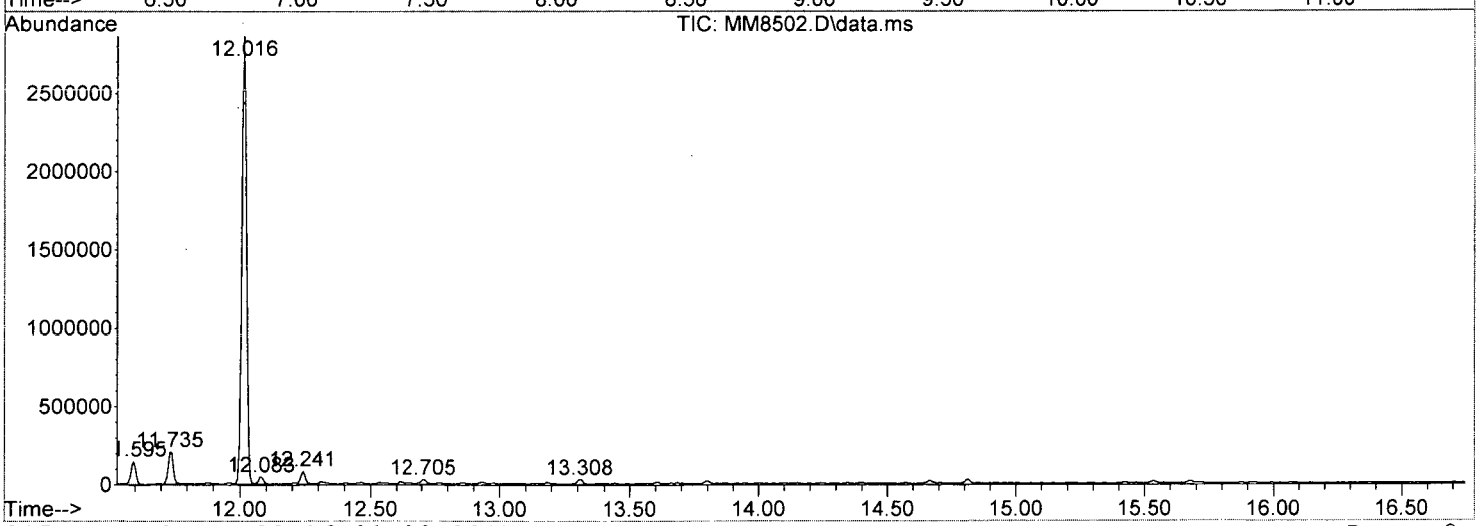






Data Path : I:\ACQUDATA\msvoa12\Data\120315\\
Data File : MM8502.D
Acq On : 3 Dec 2015 5:56 pmm
Operator : K.Ruestt
Sample : R1510346-010|1.0 Inst : MSVOA-122
Misc : PARSONS 14517 T4*DOD44
ALS Vial : 18 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1200
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-58-GW-2567MW03-8	**Units:**	µg/L
Lab Code:	R1510346-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
2-Methyl-2-propanol	ND	U	100	20	11	1	NA	12/3/15 18:26		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	12/3/15 18:26	
Dibromofluoromethane	112	85-115	12/3/15 18:26	
Toluene-d8	98	85-120	12/3/15 18:26	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1826

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-58-GW-2567MW03-8	**Units:**	µg/L
Lab Code:	R1510346-012	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8503.D
Acq On : 3 Dec 2015 6:26 pm
Operator : K.Ruest
Sample : R1510346-012|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 09 16:02:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	749383	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1243474	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1157452	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	562195	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.596	113	360755	55.80	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 111.60%			
48) surr1,1,2-dichloroetha...	6.096	65	393742	55.14	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 110.28%			
65) SURR3,Toluene-d8	8.529	98	1334398	49.05	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.10%			
70) SURR2,BFB	11.047	95	577956	56.27	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 112.54%			
Target Compounds						Qvalue
3) Chloromethane	1.353	50	3425	0.27	ppb	68m
15) Acetone	2.493	43	2862	1.79	ppb	79
25) Methyl-t-Butyl Ether	3.268	73	10802	0.62	ppb	68
89) Isopropylbenzene	10.925	105	8337	0.29	ppb	85
95) n-Propylbenzene	11.278	91	7214	0.21	ppb	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

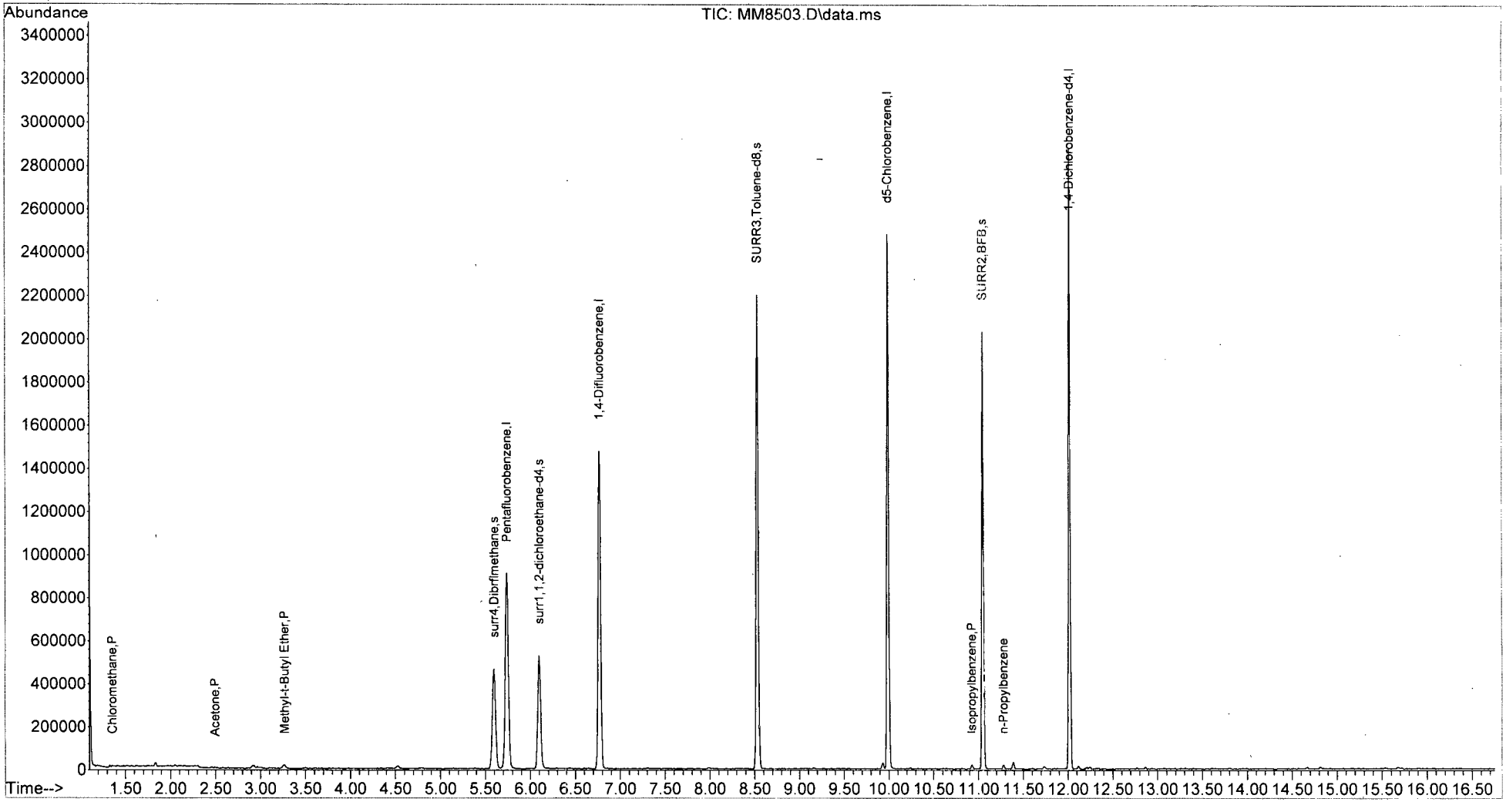
KB 12/9/15

TBA only!

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8503.D
Acq On : 3 Dec 2015 6:26 pm
Operator : K.Ruest
Sample : R1510346-012|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 09 16:02:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Wed Dec 09 16:03:27 2015 Page: 2

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8503.D
Acq On : 3 Dec 2015 6:26 pm
Operator : K.Ruest
Sample : R1510346-012|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 19 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8503.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.261	346	355	361	rBV3	17324	45180	1.29%	0.219%
2	5.596	727	738	749	rBV	465165	1160125	33.05%	5.631%
3	5.737	749	761	772	rVV	906662	2163056	61.61%	10.500%
4	6.096	810	820	833	rBV	528590	1175525	33.48%	5.706%
5	6.767	921	930	940	rBV	1477515	2874992	81.89%	13.956%
6	8.529	1212	1219	1227	rBV	2200774	3483857	99.24%	16.911%
7	9.931	1443	1449	1453	rBV	28246	38079	1.08%	0.185%
8	9.986	1453	1458	1469	rVB	2479680	3510670	100.00%	17.041%
9	11.047	1627	1632	1641	rVB	2030561	2626379	74.81%	12.749%
10	11.388	1683	1688	1693	rVB	34536	47719	1.36%	0.232%
11	12.016	1786	1791	1799	rVB	2877679	3475330	98.99%	16.870%

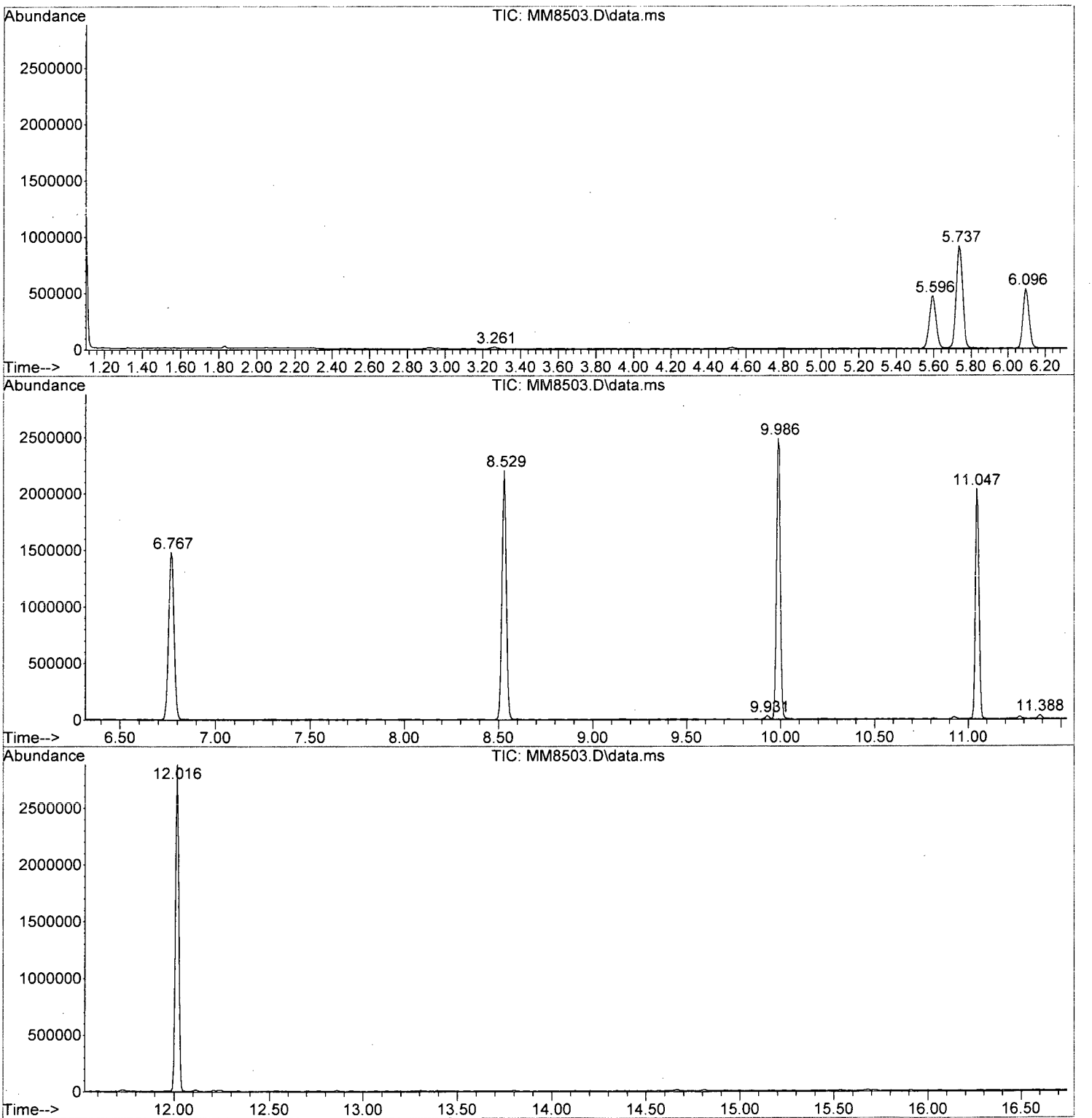
Sum of corrected areas: 20600912

LSC Report - Integrated Chromatogram


```
Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8503.D
Acq On    :  3 Dec 2015    6:26 pm
Operator  : K.Ruest
Sample    : R1510346-012|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 19   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



W111815A.M Wed Dec 09 16:03:39 2015 Page: 2

```
Data Path : I:\ACQUDATA\msvoa12\Data\120315\\
Data File : MM8503.D
Acq On    :  3 Dec 2015    6:26 pmm
Operator  : K.Ruestt
Sample    : R1510346-012|1.0                          Inst    : MSVOA-122
Misc      : PARSONS 14517 T4*DOD44
ALS Vial  : 19   Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title  : MS#12 - 8260B WATERS 10mL Purgee

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP
```

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected

****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1050
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-58-GW-2567MW01-8.3	**Units:**	µg/L
Lab Code:	R1510346-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
2-Methyl-2-propanol	**240**		100	20	11	1	NA	12/3/15 18:57		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	12/3/15 18:57	
Dibromofluoromethane	111	85-115	12/3/15 18:57	
Toluene-d8	101	85-120	12/3/15 18:57	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1857

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-58-GW-2567MW01-8.3	**Units:**	µg/L
Lab Code:	R1510346-013	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8504.D
Acq On : 3 Dec 2015 6:57 pm
Operator : K.Ruest
Sample : R1510346-013|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 09 16:04:10 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	757251	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1247187	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1158945	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	557966	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.597	113	359450	55.43	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 110.86%			
48) surr1,1,2-dichloroetha...	6.097	65	386720	53.99	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.98%			
65) SURR3,Toluene-d8	8.529	98	1374745	50.38	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.76%			
70) SURR2,BFB	11.047	95	576628	55.98	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.96%			
Target Compounds						Qvalue
15) Acetone	2.481	43	2960	1.83	ppb	82 m
23) TBA	3.085	59	119916	241.20	ppb	92
25) Methyl-t-Butyl Ether	3.262	73	16421	0.93	ppb	79 m

(#) = qualifier out of range (m) = manual integration (+) = signals summed

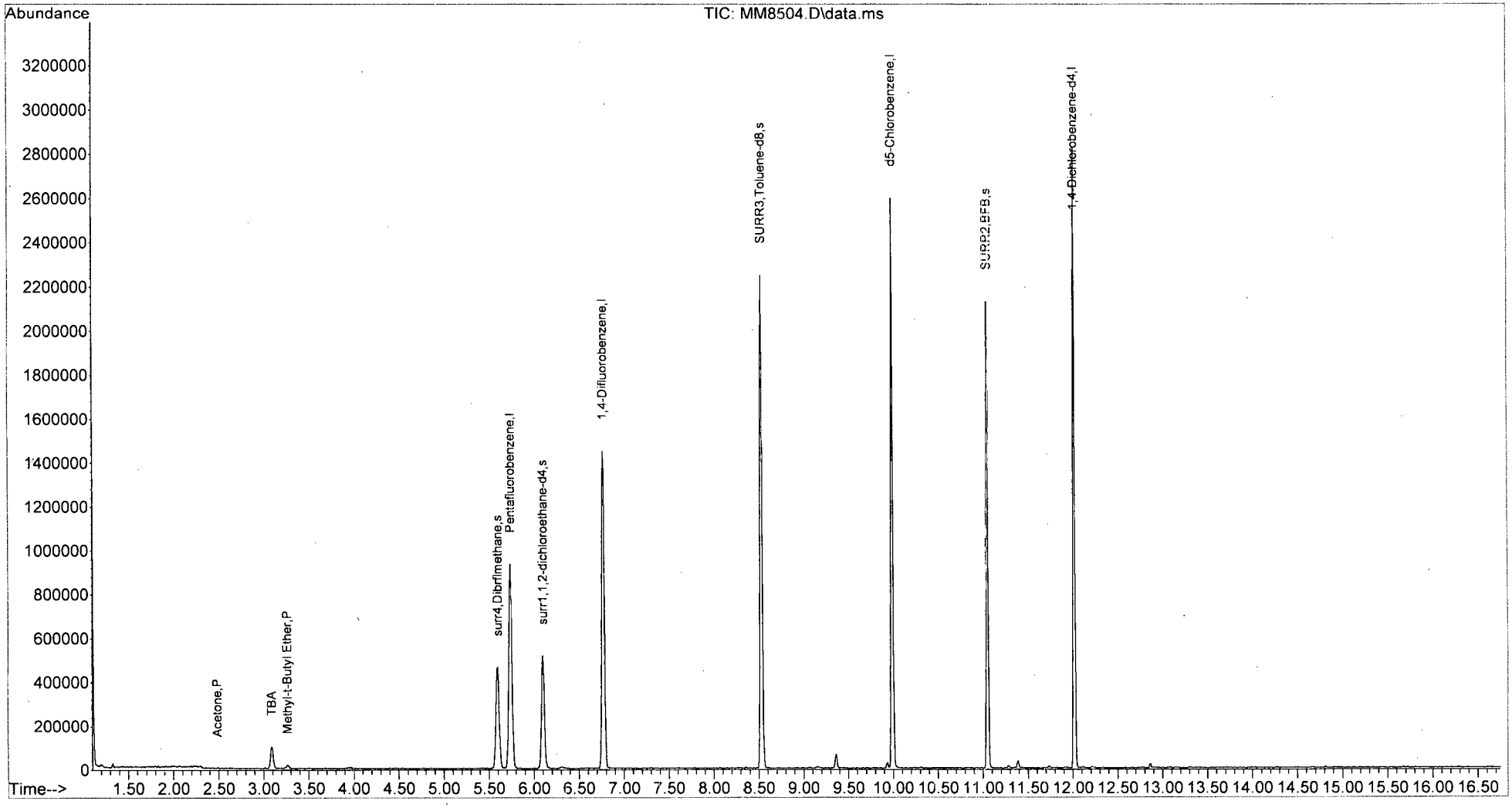
KR 12/9/15

TBA only!

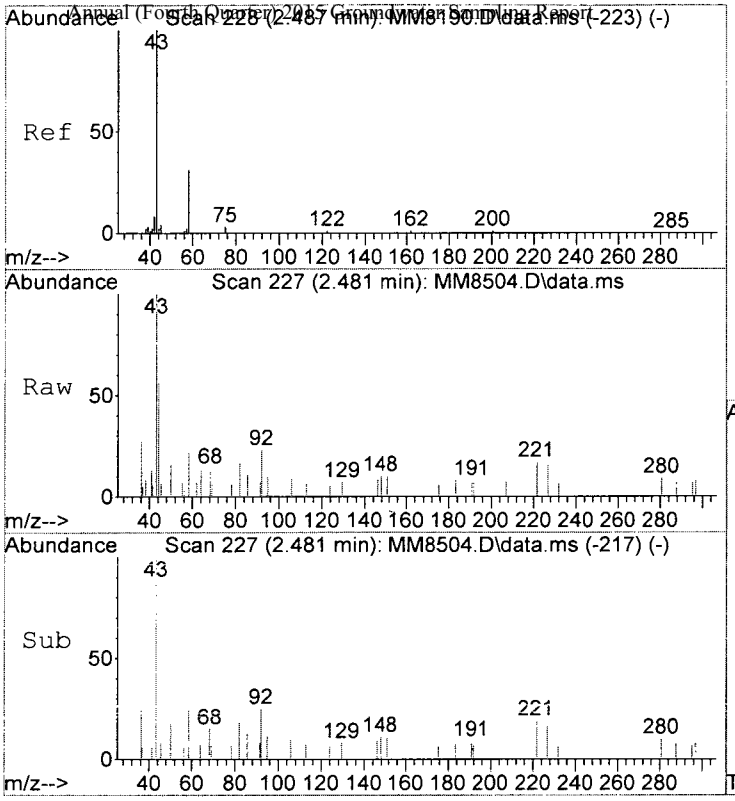
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8504.D
Acq On : 3 Dec 2015 6:57 pm
Operator : K.Ruest
Sample : R1510346-013|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 09 16:04:10 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



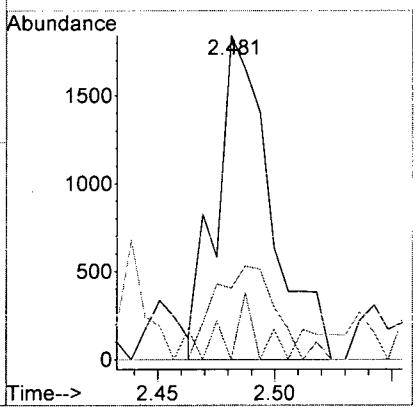
W111815A.M Wed Dec 09 16:05:39 2015 Page: 2

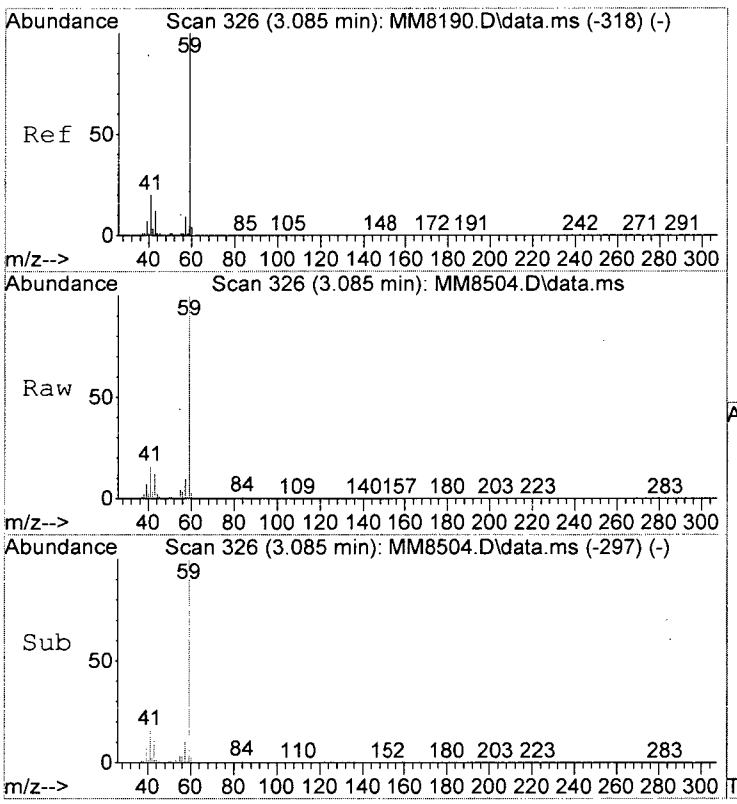


#15
Acetone
Concen: 1.83 ppb
RT: 2.481 min Scan# 227
Delta R.T. -0.012 min
Lab File: MM8504.D
Acq: 3 Dec 2015 6:57 pm

Tgt Ion: 43 Resp: 2960

Ion	Ratio	Lower	Upper
43	100		
58	22.0	10.9	50.9
42	0.0	0.0	28.5

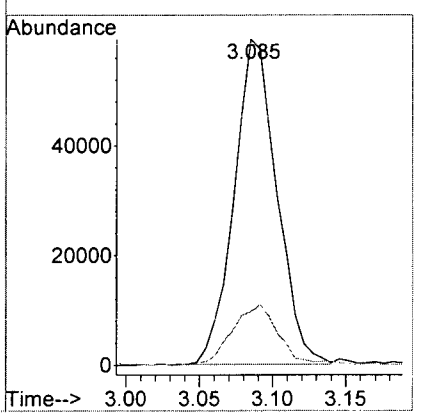




#23
TBA
Concen: 241.20 ppb
RT: 3.085 min Scan# 326
Delta R.T. -0.012 min
Lab File: MM8504.D
Acq: 3 Dec 2015 6:57 pm

Tgt Ion: 59 Resp: 119916

Ion	Ratio	Lower	Upper
59	100		
41	16.4	0.0	40.0



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8504.D
Acq On : 3 Dec 2015 6:57 pm
Operator : K.Ruest
Sample : R1510346-013|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 20 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8504.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.085	319	326	335	rBV	99081	207956	5.86%	0.990%
2	3.262	348	355	363	rBV4	16583	37575	1.06%	0.179%
3	5.597	727	738	747	rBV	462558	1156077	32.55%	5.503%
4	5.737	750	761	773	rVB	934044	2179775	61.38%	10.376%
5	6.097	809	820	834	rBV	515200	1150627	32.40%	5.477%
6	6.767	922	930	940	rBV	1449262	2879845	81.09%	13.708%
7	8.529	1212	1219	1227	rBV	2245383	3551483	100.00%	16.905%
8	9.358	1350	1355	1362	rVB	63535	95726	2.70%	0.456%
9	9.931	1440	1449	1452	rBV2	28109	44869	1.26%	0.214%
10	9.986	1453	1458	1470	rVB	2595794	3546453	99.86%	16.881%
11	11.047	1626	1632	1642	rBV	2127431	2620245	73.78%	12.472%
12	11.388	1684	1688	1692	rVB2	33129	45327	1.28%	0.216%
13	12.016	1785	1791	1798	rBV	2823565	3492768	98.35%	16.625%

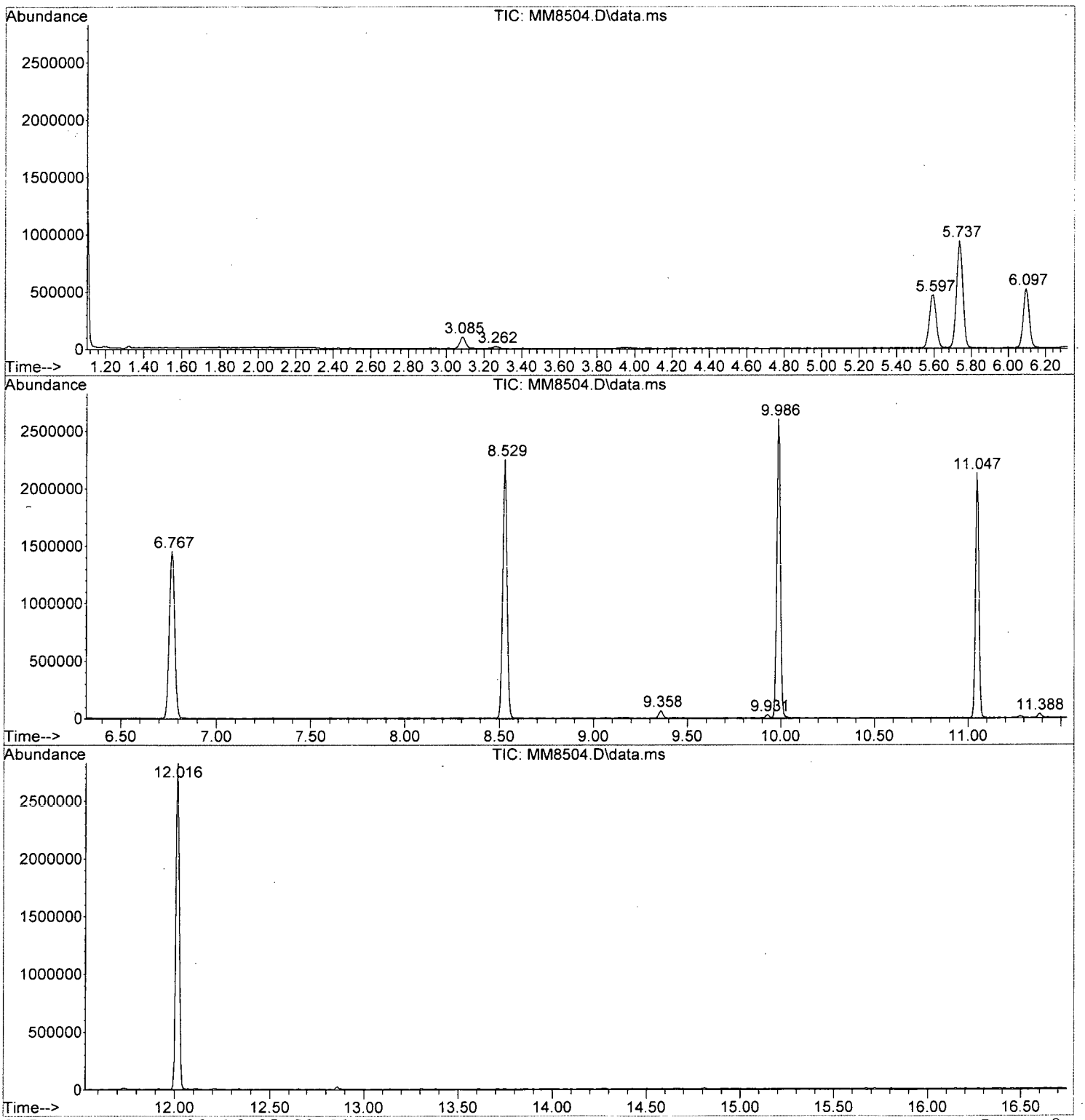
Sum of corrected areas: 21008726

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8504.D
Acq On : 3 Dec 2015 6:57 pm
Operator : K.Ruest
Sample : R1510346-013|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 20 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



Data Path : I:\ACQUDATA\msvoa12\Data\120315\\
Data File : MM8504.D
Acq On : 3 Dec 2015 6:57 pmm
Operator : K.Ruestt
Sample : R1510346-013|1.0 Inst : MSVOA-122
Misc : PARSONS 14517 T4*DOD44
ALS Vial : 20 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1415
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-8-GW-M2MW11-21.5	**Units:**	µg/L
Lab Code:	R1510346-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	50	10	2.2	10	NA	12/3/15 19:58		474713	
1,1,1-Trichloroethane (TCA)	ND	U	50	10	3.6	10	NA	12/3/15 19:58		474713	
1,1,2,2-Tetrachloroethane	ND	U	50	10	2.5	10	NA	12/3/15 19:58		474713	
1,1,2-Trichloroethane	ND	U	50	10	3.5	10	NA	12/3/15 19:58		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	50	10	5.7	10	NA	12/3/15 19:58		474713	
1,1-Dichloropropene	ND	U	50	10	2.9	10	NA	12/3/15 19:58		474713	
1,2,3-Trichlorobenzene	ND	U	50	10	8.2	10	NA	12/3/15 19:58		474713	
1,2,3-Trichloropropane	ND	U	50	10	7.0	10	NA	12/3/15 19:58		474713	
1,2,4-Trichlorobenzene	ND	U	50	10	2.4	10	NA	12/3/15 19:58		474713	
1,2,4-Trimethylbenzene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	50	10	7.4	10	NA	12/3/15 19:58		474713	
1,2-Dibromoethane	ND	U	50	10	2.4	10	NA	12/3/15 19:58		474713	
1,2-Dichlorobenzene	ND	U	50	10	2.1	10	NA	12/3/15 19:58		474713	
1,2-Dichloroethane	ND	U	50	10	3.6	10	NA	12/3/15 19:58		474713	
1,2-Dichloropropane	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
1,3,5-Trimethylbenzene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
1,3-Dichlorobenzene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
1,3-Dichloropropane	ND	U	50	10	2.7	10	NA	12/3/15 19:58		474713	
1,4-Dichlorobenzene	**3.8**	J	50	10	2.0	10	NA	12/3/15 19:58		474713	
2,2-Dichloropropane	ND	U	50	10	2.7	10	NA	12/3/15 19:58		474713	
2-Butanone (MEK)	ND	U	100	10	8.2	10	NA	12/3/15 19:58		474713	
2-Chlorotoluene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
2-Hexanone	ND	U	100	50	17	10	NA	12/3/15 19:58		474713	
tert-Butyl Alcohol	ND	U	1000	200	110	10	NA	12/3/15 19:58		474713	
4-Chlorotoluene	ND	U	50	10	2.4	10	NA	12/3/15 19:58		474713	
p-Isopropyltoluene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
4-Methyl-2-pentanone	ND	U	100	10	6.7	10	NA	12/3/15 19:58		474713	
Acetone	**26**	J	100	50	13	10	NA	12/3/15 19:58		474713	
Benzene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
Bromobenzene	ND	U	50	10	2.9	10	NA	12/3/15 19:58		474713	
Bromochloromethane	ND	U	50	10	3.2	10	NA	12/3/15 19:58		474713	
Bromodichloromethane	ND	U	50	10	3.2	10	NA	12/3/15 19:58		474713	
Bromoform	ND	U	50	10	4.2	10	NA	12/3/15 19:58		474713	
Bromomethane	ND	U	50	10	2.9	10	NA	12/3/15 19:58		474713	
Carbon Tetrachloride	ND	U	50	10	4.5	10	NA	12/3/15 19:58		474713	
Chlorobenzene	**6.4**	J	50	10	2.9	10	NA	12/3/15 19:58		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1415
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-8-GW-M2MW11-21.5	**Units:**	µg/L
Lab Code:	R1510346-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	50	10	2.4	10	NA	12/3/15 19:58		474713	
Chloroform	**3.0**	J	50	10	2.5	10	NA	12/3/15 19:58		474713	
Chloromethane	ND	U	50	10	2.1	10	NA	12/3/15 19:58		474713	
Dibromochloromethane	ND	U	50	10	3.1	10	NA	12/3/15 19:58		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	50	10	4.7	10	NA	12/3/15 19:58		474713	
Methylene Chloride	ND	U	50	10	6.0	10	NA	12/3/15 19:58		474713	
Ethylbenzene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
Hexachlorobutadiene	ND	U	50	10	6.2	10	NA	12/3/15 19:58		474713	
Isopropylbenzene (Cumene)	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
Methyl tert-Butyl Ether	ND	U	50	10	2.9	10	NA	12/3/15 19:58		474713	
Naphthalene	**3.2**	BJ	50	10	2.0	10	NA	12/3/15 19:58		474713	
Styrene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
Tetrachloroethene (PCE)	ND	U	50	10	3.0	10	NA	12/3/15 19:58		474713	
Toluene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
Trichloroethene (TCE)	ND	U	50	10	2.2	10	NA	12/3/15 19:58		474713	
Trichlorofluoromethane (CFC 11)	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
Vinyl Chloride	ND	U	50	10	3.2	10	NA	12/3/15 19:58		474713	
cis-1,2-Dichloroethene	ND	U	50	10	3.0	10	NA	12/3/15 19:58		474713	
cis-1,3-Dichloropropene	ND	U	50	10	2.4	10	NA	12/3/15 19:58		474713	
m,p-Xylenes	ND	U	50	20	3.4	10	NA	12/3/15 19:58		474713	
n-Butylbenzene	ND	U	50	10	2.1	10	NA	12/3/15 19:58		474713	
n-Propylbenzene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
o-Xylene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
sec-Butylbenzene	ND	U	50	10	2.7	10	NA	12/3/15 19:58		474713	
tert-Butylbenzene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	
trans-1,2-Dichloroethene	ND	U	50	10	3.4	10	NA	12/3/15 19:58		474713	
trans-1,3-Dichloropropene	ND	U	50	10	2.0	10	NA	12/3/15 19:58		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	12/3/15 19:58	
Dibromofluoromethane	114	85-115	12/3/15 19:58	
Toluene-d8	109	85-120	12/3/15 19:58	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1958

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-8-GW-M2MW11-21.5	**Units:**	µg/L
Lab Code:	R1510346-014	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8506.D
Acq On : 3 Dec 2015 7:58 pm
Operator : K.Ruest
Sample : R1510346-014|10 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 09 16:09:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

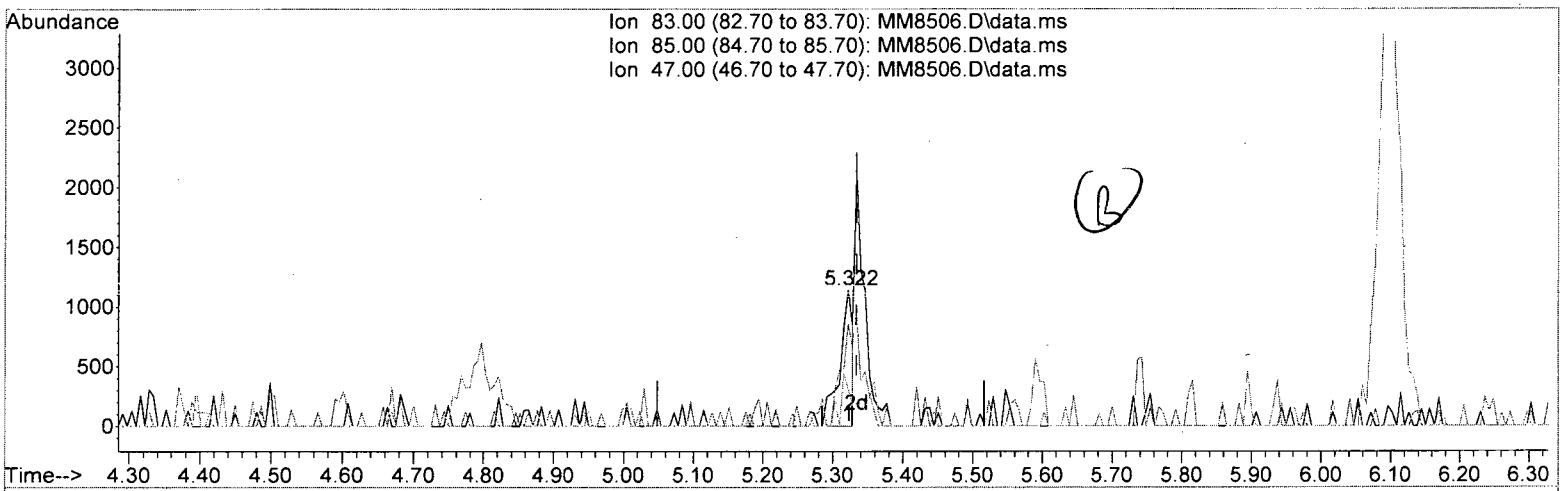
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	747375	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1194409	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1071747	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	529533	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.596	113	355510	57.25	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 114.50%			
48) surr1,1,2-dichloroetha...	6.096	65	392450	57.22	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 114.44%			
65) SURR3,Toluene-d8	8.529	98	1422167	54.42	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 108.84%			
70) SURR2,BFB	11.047	95	552284	55.98	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.96%			
Target Compounds						Qvalue
15) Acetone	2.493	43	4129	2.59	ppb	72
23) TBA	3.091	59	2665	5.43	ppb	93
40) Chloroform	5.334	83	3526m	0.30	ppb	
78) Chlorobenzene	10.016	112	10151	0.64	ppb	90
106) 1,4-Dclbenz	12.040	146	4350	0.38	ppb	82
117) Naphthalen	13.802	128	4498	0.32	ppb	92

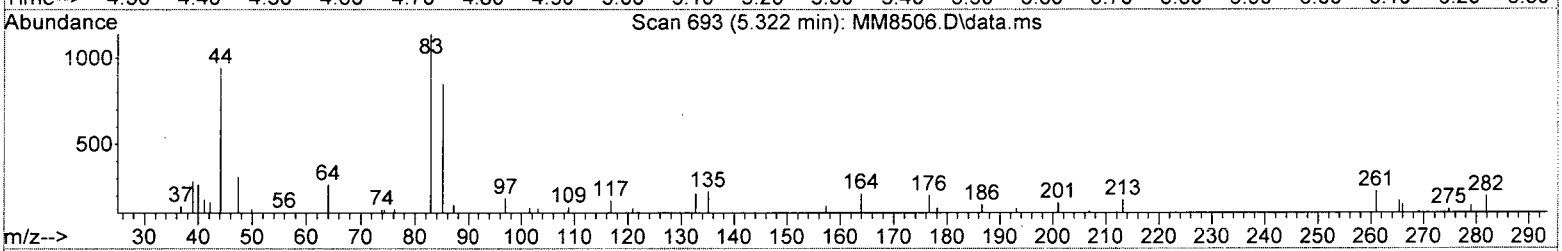
KR 12/9/15

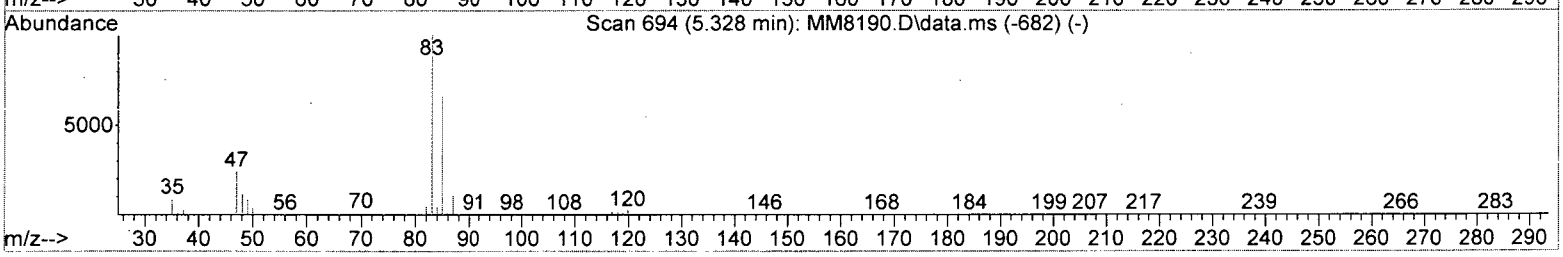
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8506.D
Acq On : 3 Dec 2015 7:58 pm
Operator : K.Ruest
Sample : R1510346-014|10 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 03 20:14:40 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8506.D\data.ms

(40) Chloroform (P)

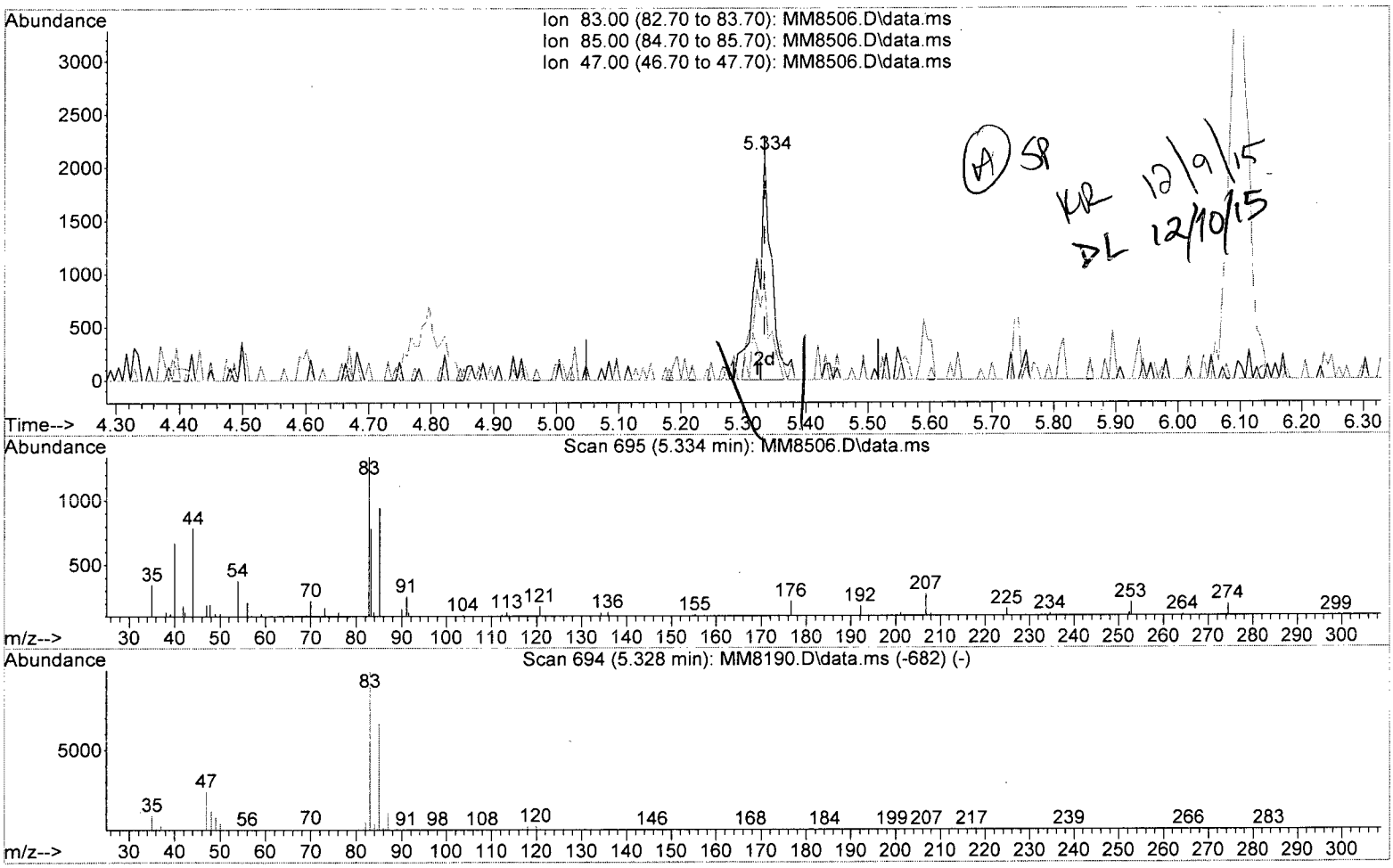
5.322min (-0.012) 0.12 ppb

response 1452

Ion	Exp%	Act%
83.00	100	100
85.00	66.10	74.58
47.00	23.90	27.26
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8506.D
Acq On : 3 Dec 2015 7:58 pm
Operator : K.Ruest
Sample : R1510346-014|10 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 03 20:14:40 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8506.D\data.ms

(40) Chloroform (P)

5.334min (-0.000) 0.30 ppb m

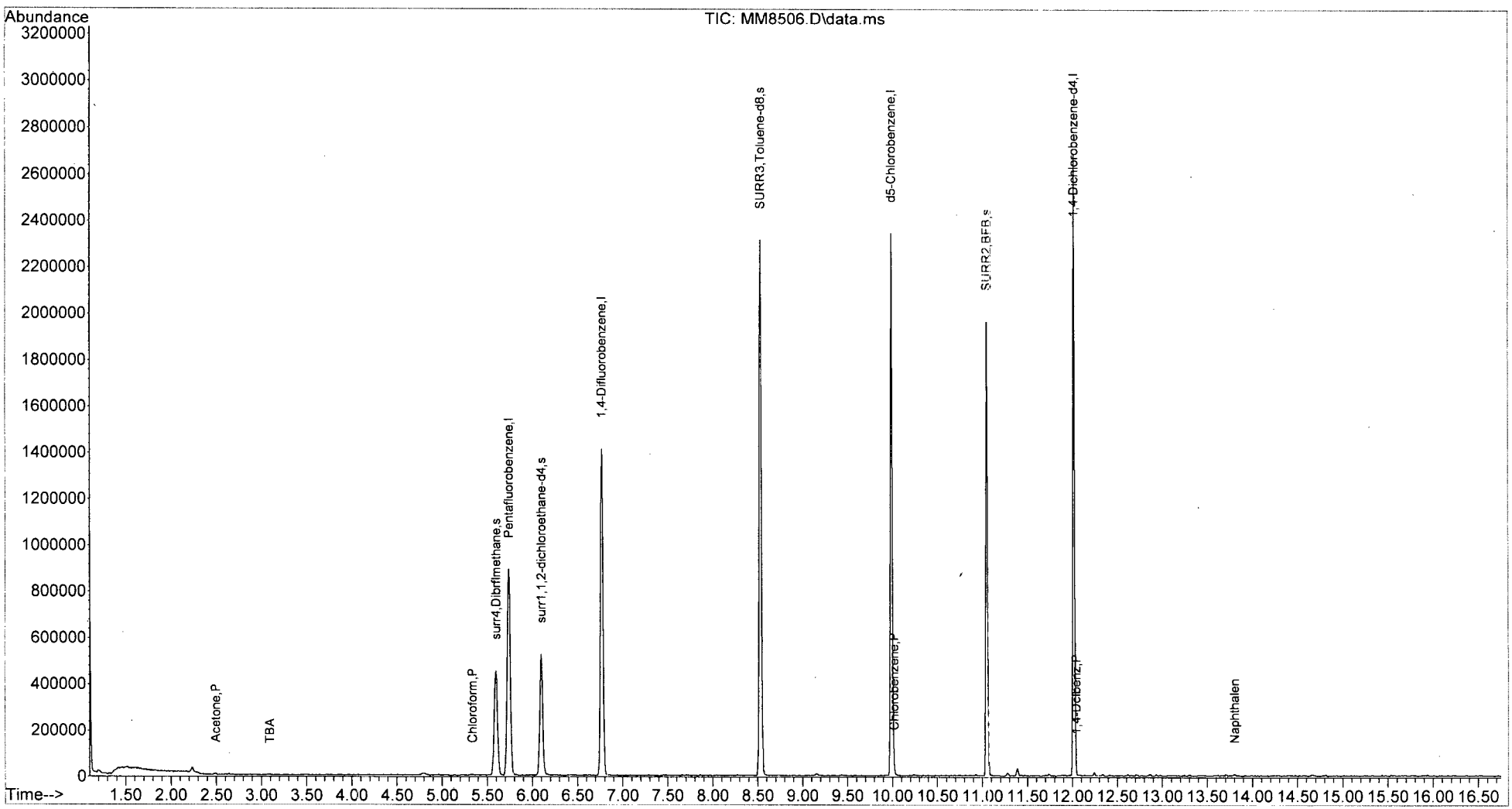
response 3526

Ion	Exp%	Act%
83.00	100	100
85.00	66.10	70.55
47.00	23.90	13.98
0.00	0.00	0.00

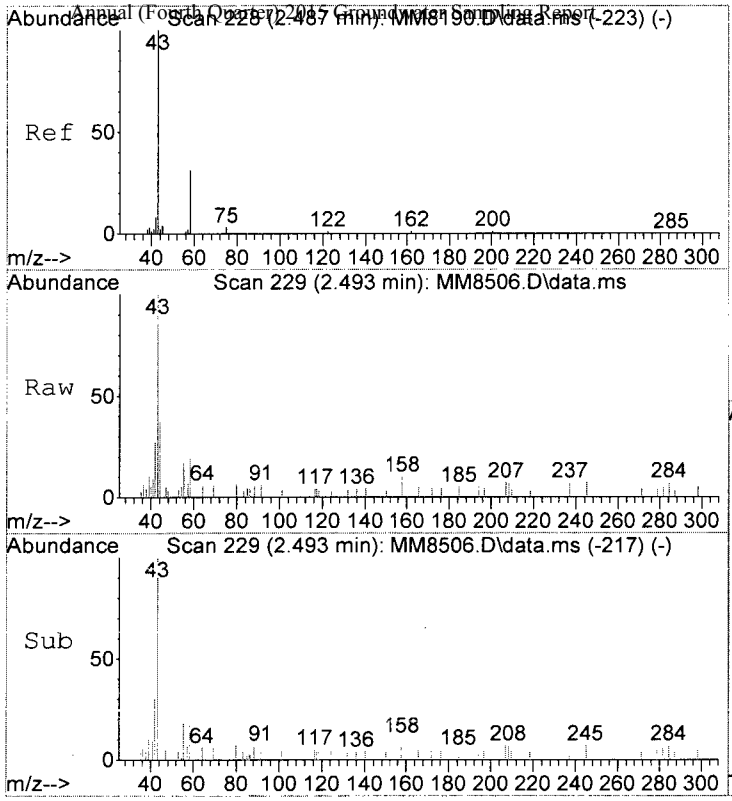
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8506.D
Acq On : 3 Dec 2015 7:58 pm
Operator : K.Ruest
Sample : R1510346-014|10 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 09 16:09:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



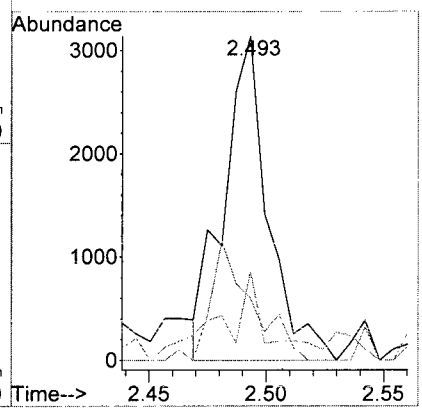
W111815A.M Wed Dec 09 16:10:54 2015 Page: 2

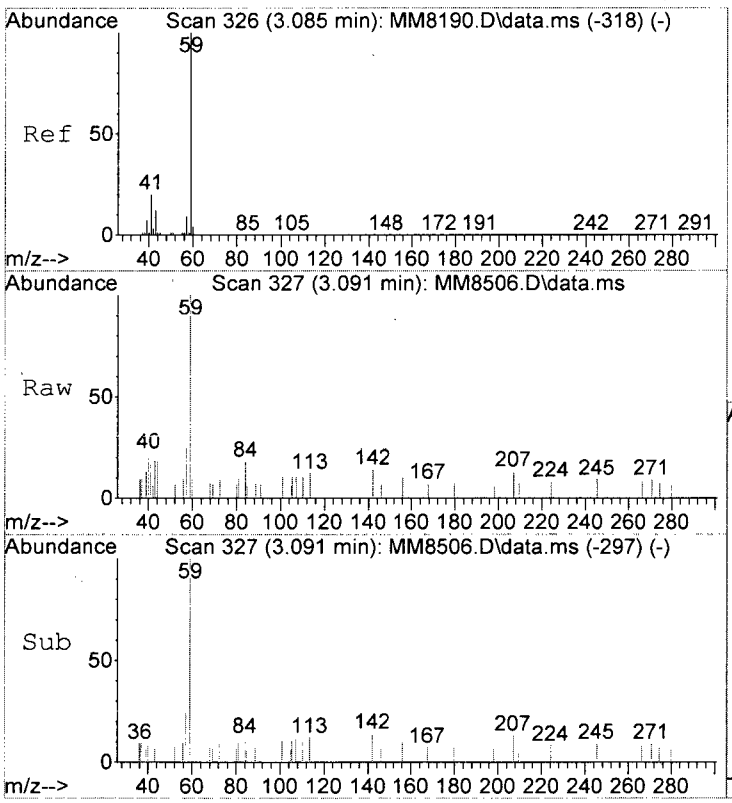


#15
Acetone
Concen: 2.59 ppb
RT: 2.493 min Scan# 229
Delta R.T. -0.000 min
Lab File: MM8506.D
Acq: 3 Dec 2015 7:58 pm

Tgt Ion: 43 Resp: 4129

Ion	Ratio	Lower	Upper
43	100		
58	19.1	10.9	50.9
42	27.5	0.0	28.5

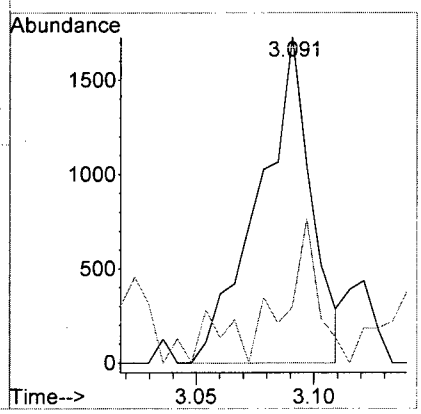


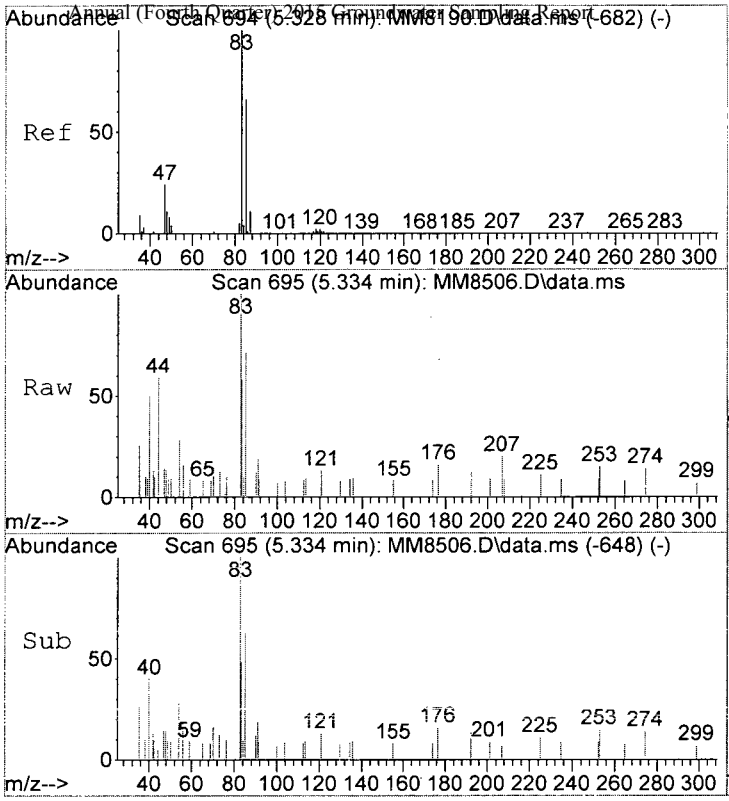


#23
TBA
Concen: 5.43 ppb
RT: 3.091 min Scan# 327
Delta R.T. -0.006 min
Lab File: MM8506.D
Acq: 3 Dec 2015 7:58 pm

Tgt Ion: 59 Resp: 2665

Ion	Ratio	Lower	Upper
59	100		
41	17.0	0.0	40.0

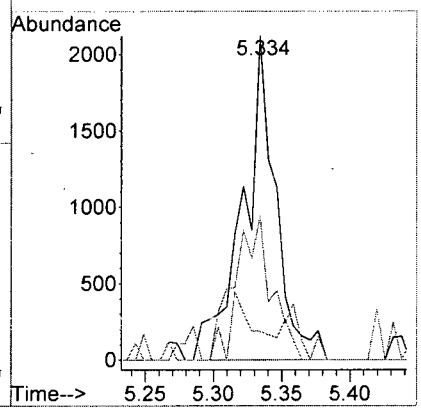


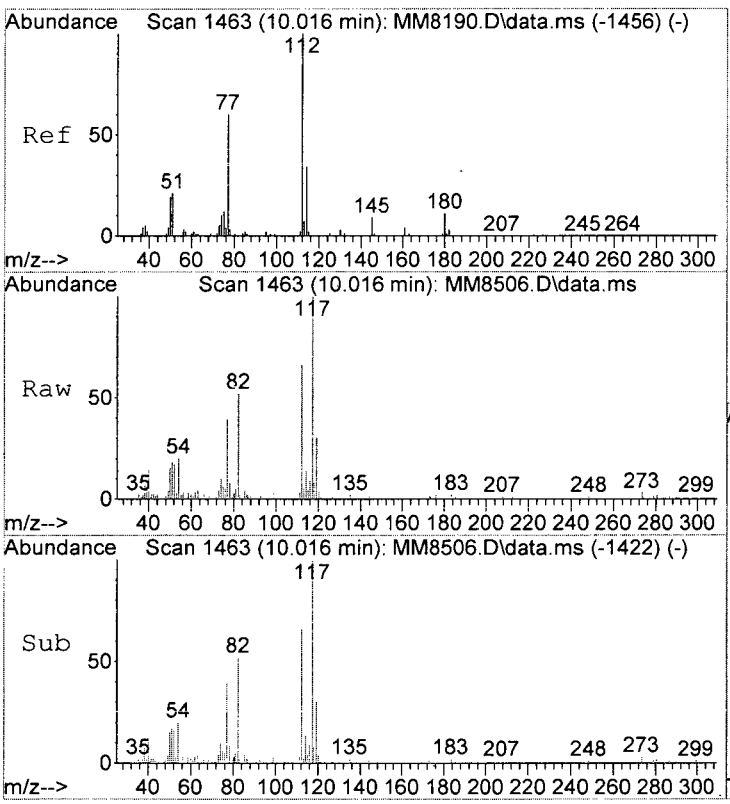


#40
Chloroform
Concen: 0.30 ppb m
RT: 5.334 min Scan# 695
Delta R.T. -0.000 min
Lab File: MM8506.D
Acq: 3 Dec 2015 7:58 pm

Tgt Ion: 83 Resp: 3526

Ion	Ratio	Lower	Upper
83	100		
85	70.6	46.1	86.1
47	14.0	3.9	43.9

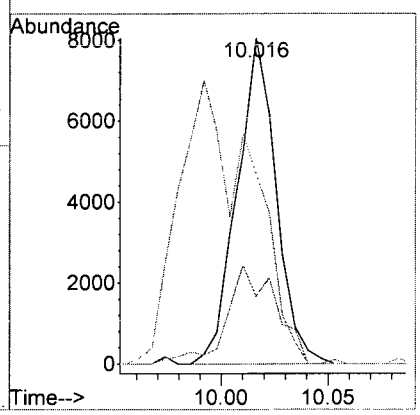


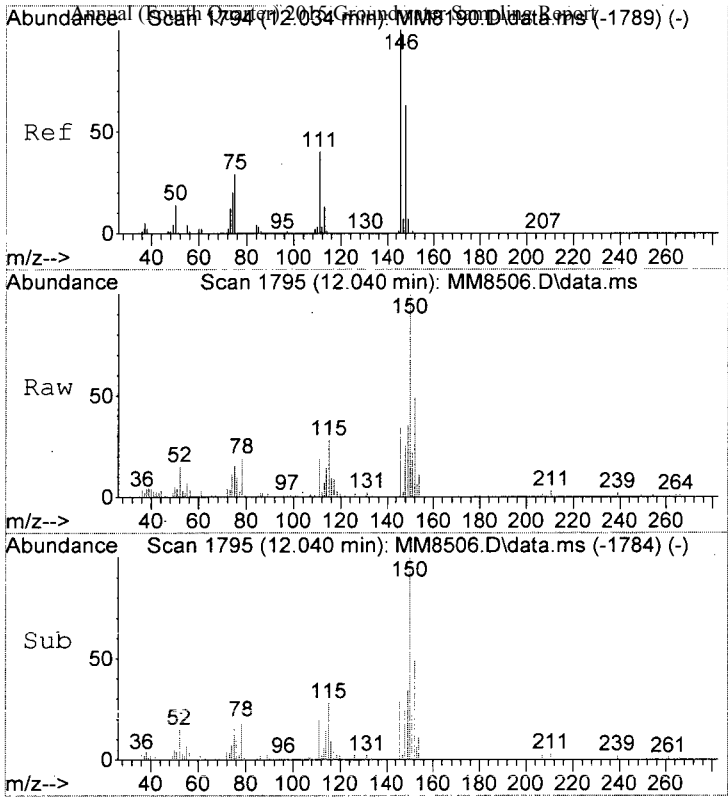


#78
Chlorobenzene
Concen: 0.64 ppb
RT: 10.016 min Scan# 1463
Delta R.T. -0.000 min
Lab File: MM8506.D
Acq: 3 Dec 2015 7:58 pm

Tgt Ion:112 Resp: 10151

Ion	Ratio	Lower	Upper
112	100		
114	20.7	13.7	53.7
77	58.5	40.2	80.2

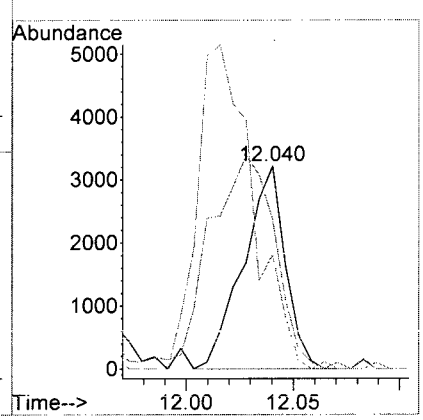


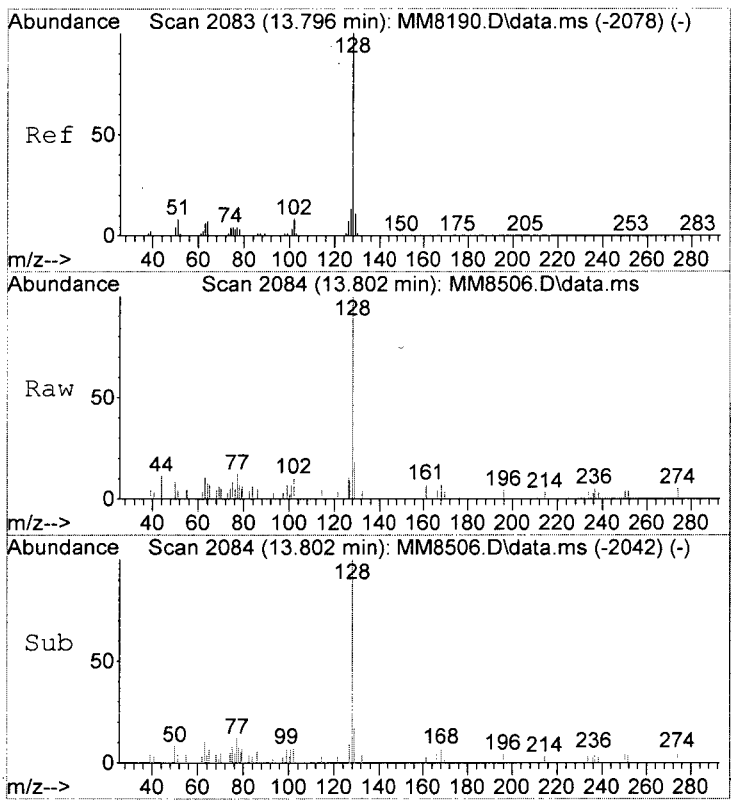


#106
1,4-Dclbenz
Concen: 0.38 ppb
RT: 12.040 min Scan# 1795
Delta R.T. -0.000 min
Lab File: MM8506.D
Acq: 3 Dec 2015 7:58 pm

Tgt Ion:146 Resp: 4350

Ion	Ratio	Lower	Upper
146	100		
148	73.3	43.5	83.5
111	56.2	20.3	60.3

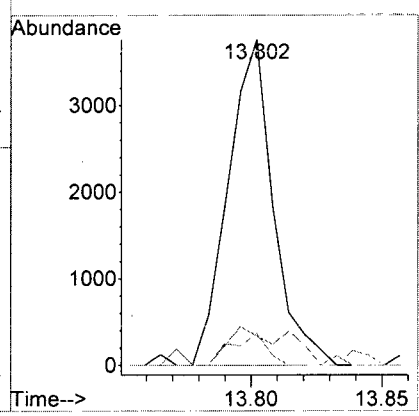




#117
Naphthalen
Concen: 0.32 ppb
RT: 13.802 min Scan# 2084
Delta R.T. -0.000 min
Lab File: MM8506.D
Acq: 3 Dec 2015 7:58 pm

Tgt Ion:128 Resp: 4498

Ion	Ratio	Lower	Upper
128	100		
127	8.9	0.0	33.1
102	9.8	0.0	28.3



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8506.D
Acq On : 3 Dec 2015 7:58 pm
Operator : K.Ruest
Sample : R1510346-014|10 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 22 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8506.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.237	180	187	194	rVB5	23011	48861	1.31%	0.242%
2	5.596	728	738	751	rVB2	453164	1160621	31.15%	5.760%
3	5.737	751	761	771	rBV	892353	2156129	57.87%	10.700%
4	6.096	810	820	829	rBV	524743	1159362	31.12%	5.754%
5	6.767	922	930	940	rBV	1410355	2763536	74.17%	13.715%
6	8.529	1212	1219	1231	rBV	2313385	3725809	100.00%	18.490%
7	9.986	1452	1458	1468	rBV	2342500	3295049	88.44%	16.352%
8	11.047	1627	1632	1641	rBV	1962423	2483123	66.65%	12.323%
9	11.388	1684	1688	1692	rVB3	33365	44005	1.18%	0.218%
10	12.016	1785	1791	1798	rBV	2683742	3313816	88.94%	16.445%

Sum of corrected areas: 20150311

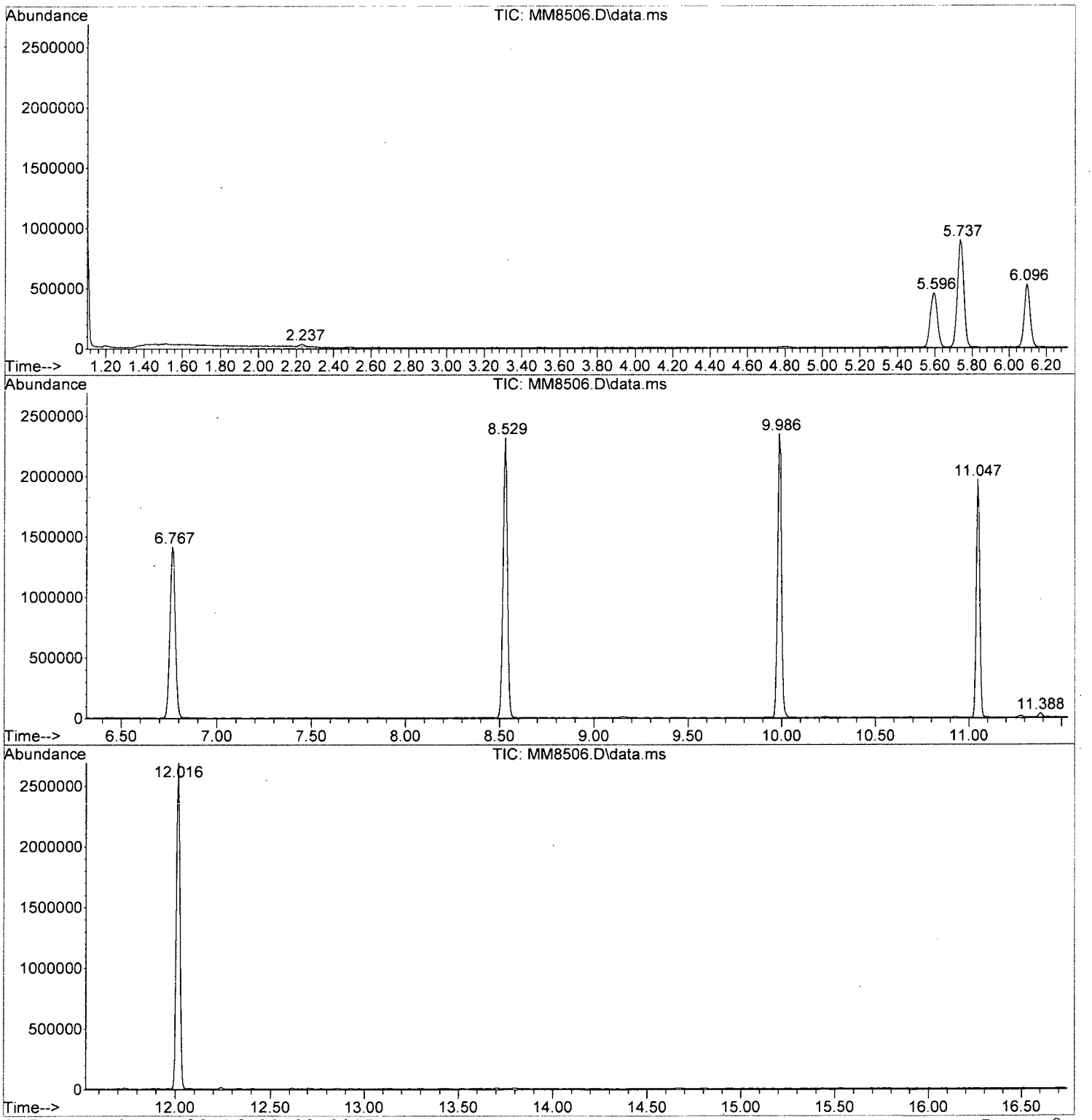
W111815A.M Wed Dec 09 16:11:05 2015 Page: 1

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8506.D
Acq On : 3 Dec 2015 7:58 pm
Operator : K.Ruest
Sample : R1510346-014|10 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 22 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



W111815A.M Wed Dec 09 16:11:08 2015 Page: 2

Data Path : I:\ACQUDATA\msvoa12\Data\120315\\
Data File : MM8506.D
Acq On : 3 Dec 2015 7:58 pmm
Operator : K.Ruestt
Sample : R1510346-014|10 Inst : MSVOA-122
Misc : PARSONS 14517 T4*DOD44
ALS Vial : 22 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/25/15 1325
Date Received: 11/30/15

Sample Name: FTMM-64-GW-812MW04-4.7
Lab Code: R1510346-016

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 19:28		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 19:28		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 19:28		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 19:28		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 19:28		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 19:28		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 19:28		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 19:28		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 19:28		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 19:28		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 19:28		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 19:28		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 19:28		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 19:28		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 19:28		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 19:28		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 19:28		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 19:28		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 19:28		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 19:28		474713	
Acetone	**2.2**	J	10	5.0	1.3	1	NA	12/3/15 19:28		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 19:28		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 19:28		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 19:28		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 19:28		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 19:28		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 19:28		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 19:28		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1325
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-64-GW-812MW04-4.7	**Units:**	µg/L
Lab Code:	R1510346-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 19:28		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 19:28		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 19:28		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 19:28		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 19:28		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 19:28		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 19:28		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 19:28		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 19:28		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 19:28		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 19:28		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 19:28		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 19:28		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 19:28		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 19:28		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 19:28		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 19:28		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 19:28		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	115	75-120	12/3/15 19:28	
Dibromofluoromethane	112	85-115	12/3/15 19:28	
Toluene-d8	111	85-120	12/3/15 19:28	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1928

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-64-GW-812MW04-4.7	**Units:**	µg/L
Lab Code:	R1510346-016	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8505.D
Acq On : 3 Dec 2015 7:28 pm
Operator : K.Ruest
Sample : R1510346-016|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 09 16:06:58 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

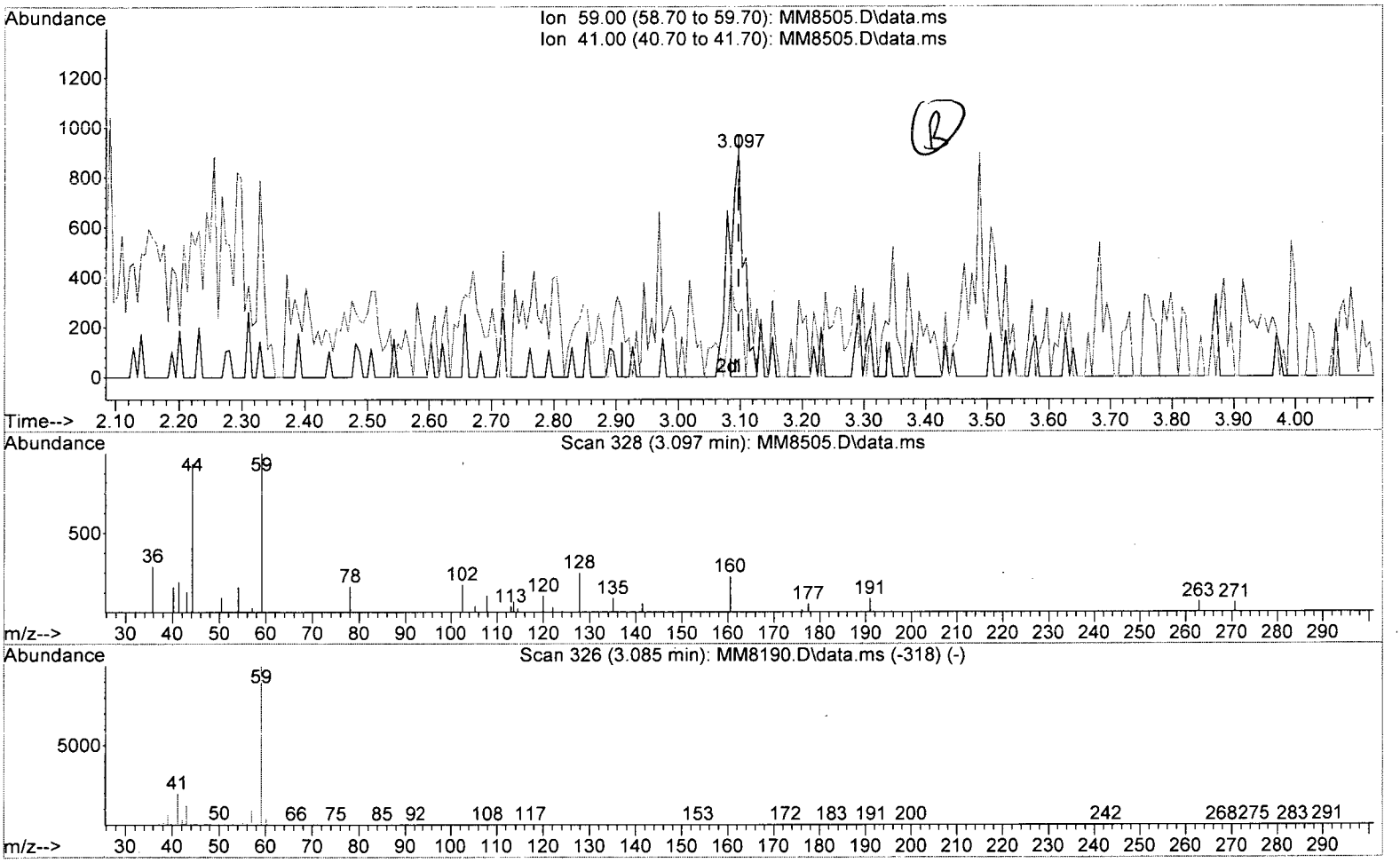
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.743	168	758577	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1242971	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1153224	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	556751	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.597	113	360854	55.84	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 111.68%			
48) surr1,1,2-dichloroetha...	6.096	65	390123	54.65	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 109.30%			
65) SURR3,Toluene-d8	8.529	98	1510917	55.56	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 111.12%			
70) SURR2,BFB	11.047	95	589308	57.40	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 114.80%			
Target Compounds						Qvalue
15) Acetone	2.500	43	3539	2.19	ppb	# 50
23) TBA	3.097	59	1546m	3.10	ppb	
94) 1,2,3-Trichloropropane	11.303	110	286	Below Cal		# 1

(#) = qualifier out of range (m) = manual integration (+) = signals summed

JCR 12/9/15

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8505.D
Acq On : 3 Dec 2015 7:28 pm
Operator : K.Ruest
Sample : R1510346-016|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 03 19:43:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8505.D\data.ms

(23) TBA

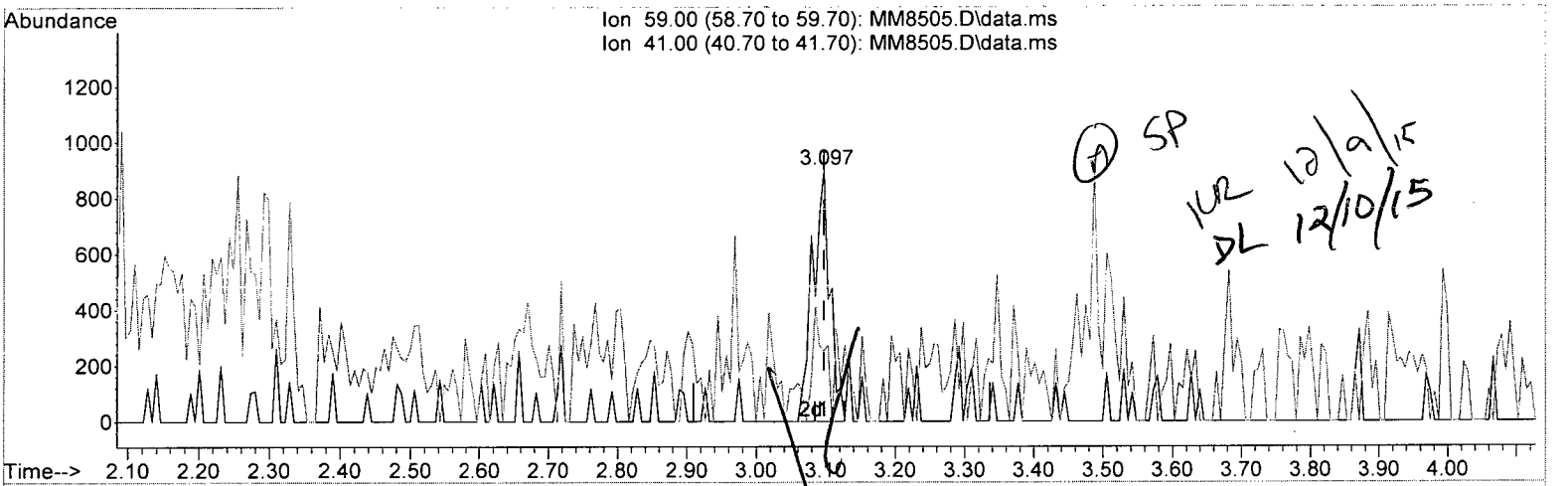
3.097min (-0.000) 2.04 ppb

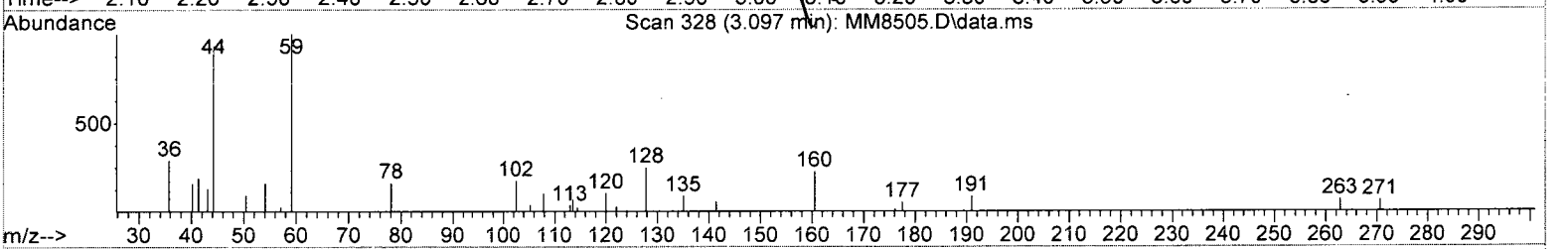
response 1017

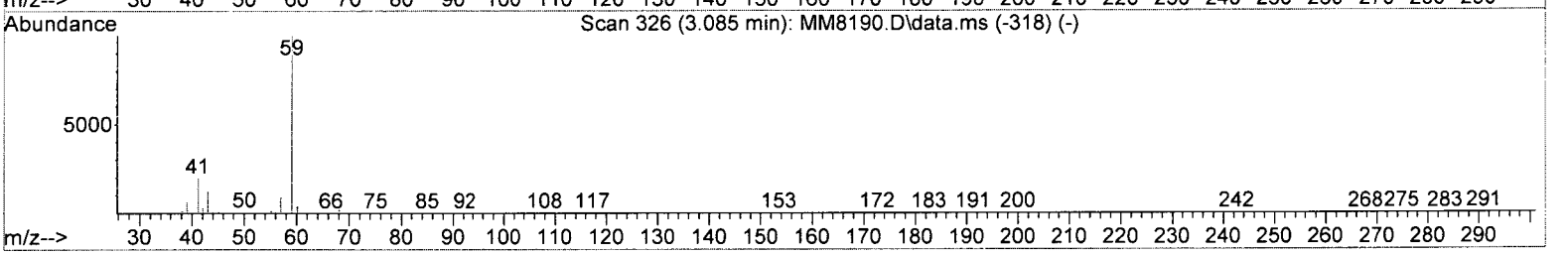
Ion	Exp%	Act%
59.00	100	100
41.00	20.00	28.00
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8505.D
Acq On : 3 Dec 2015 7:28 pm
Operator : K.Ruest
Sample : R1510346-016|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 03 19:43:51 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8505.D\data.ms

(23) TBA

3.097min (-0.000) 3.10 ppb m

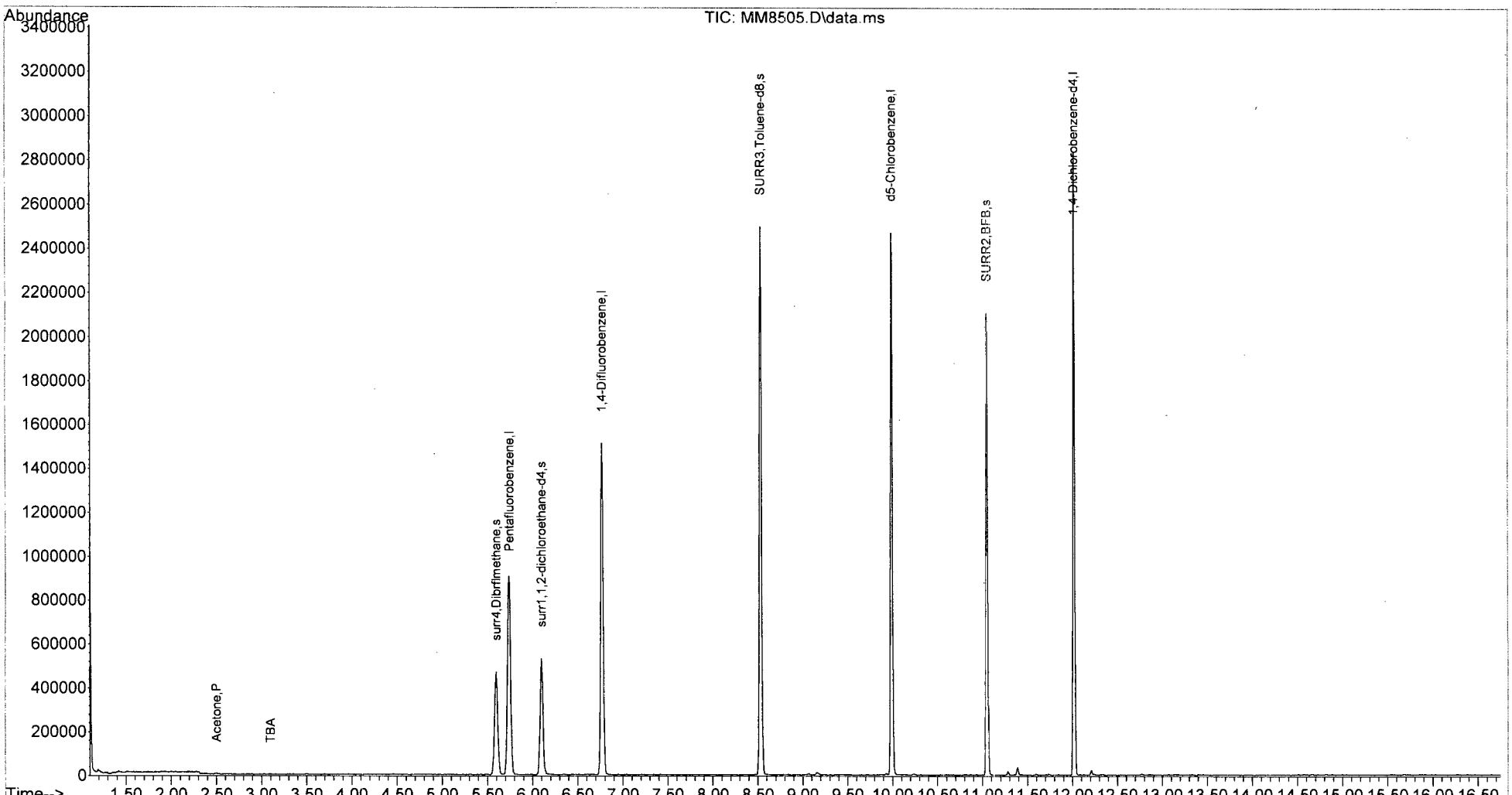
response 1546

Ion	Exp%	Act%
59.00	100	100
41.00	20.00	28.00
0.00	0.00	0.00
0.00	0.00	0.00

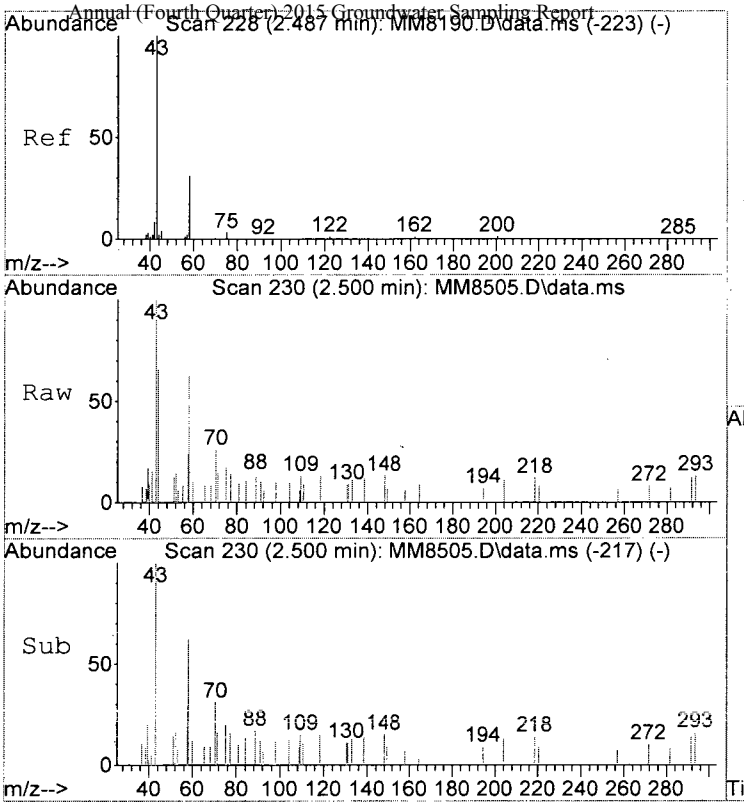
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8505.D
Acq On : 3 Dec 2015 7:28 pm
Operator : K.Ruest
Sample : R1510346-016|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 09 16:06:58 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



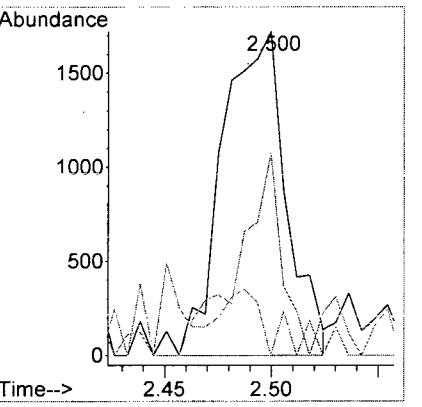
W111815A.M Wed Dec 09 16:08:15 2015 Page: 2

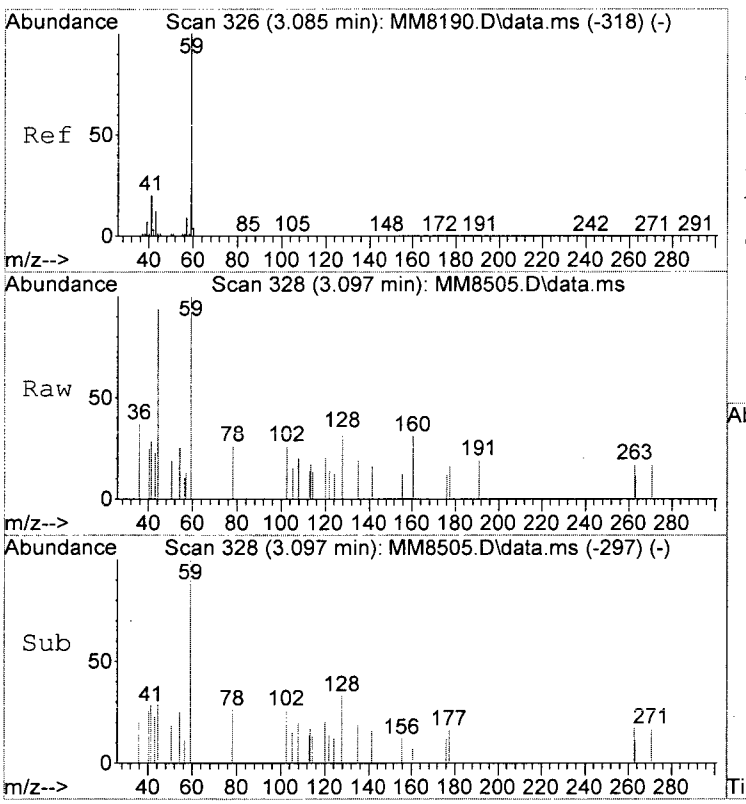


#15
Acetone
Concen: 2.19 ppb
RT: 2.500 min Scan# 230
Delta R.T. 0.006 min
Lab File: MM8505.D
Acq: 3 Dec 2015 7:28 pm

Tgt Ion: 43 Resp: 3539

Ion	Ratio	Lower	Upper
43	100		
58	62.4	10.9	50.9#
42	0.0	0.0	28.5

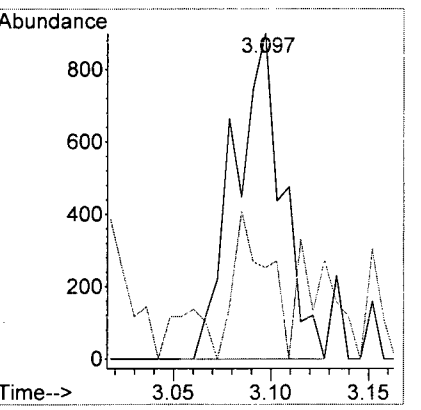




#23
TBA
Concen: 3.10 ppb m
RT: 3.097 min Scan# 328
Delta R.T. -0.000 min
Lab File: MM8505.D
Acq: 3 Dec 2015 7:28 pm

Tgt Ion: 59 Resp: 1546

Ion	Ratio	Lower	Upper
59	100		
41	28.0	0.0	40.0



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8505.D
Acq On : 3 Dec 2015 7:28 pm
Operator : K.Ruest
Sample : R1510346-016|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 21 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8505.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.597	727	738	747	rBV	469390	1151774	29.44%	5.484%
2	5.737	750	761	772	rVV	906666	2162190	55.27%	10.296%
3	6.096	811	820	832	rBV	530788	1164927	29.78%	5.547%
4	6.767	922	930	943	rVB	1512651	2877546	73.56%	13.702%
5	8.529	1212	1219	1230	rBV	2494582	3911997	100.00%	18.628%
6	9.986	1452	1458	1468	rBV	2468417	3518906	89.95%	16.756%
7	11.047	1627	1632	1642	rVB	2105882	2674202	68.36%	12.734%
8	11.388	1683	1688	1693	rVB	35494	47529	1.21%	0.226%
9	12.016	1785	1791	1800	rBV	2836244	3491798	89.26%	16.627%

Sum of corrected areas: 21000869

```
Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8505.D
Acq On    :  3 Dec 2015    7:28 pm
Operator  : K.Ruest
Sample    : R1510346-016|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 21   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
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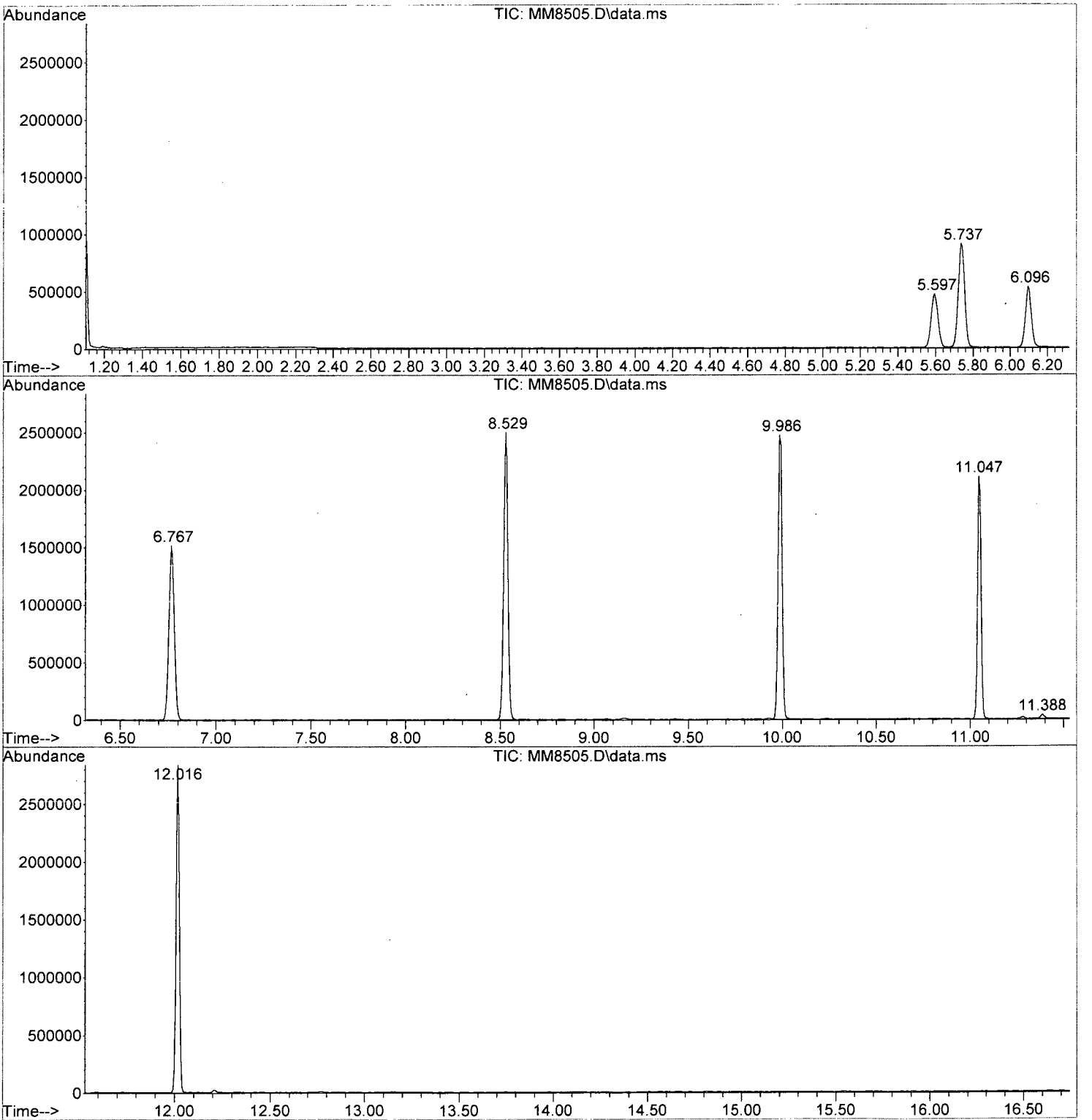


Tentatively Identified Compound (LSC) summary

```
Data Path : I:\ACQUDATA\msvoa12\Data\120315\\
Data File : MM8505.D
Acq On    :  3 Dec 2015    7:28 pmm
Operator  : K.Ruestt
Sample    : R1510346-016|1.0                          Inst    : MSVOA-122
Misc      : PARSONS 14517 T4*DOD44
ALS Vial  : 21   Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title  : MS#12 - 8260B WATERS 10mL Purgee

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP
```

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected

****

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/24/15 1500
Date Received: 11/30/15

Sample Name: EB-2015-11-24
Lab Code: R1510346-017

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 12:49		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 12:49		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 12:49		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 12:49		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 12:49		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 12:49		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 12:49		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 12:49		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 12:49		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 12:49		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 12:49		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 12:49		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 12:49		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 12:49		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 12:49		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 12:49		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 12:49		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 12:49		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 12:49		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 12:49		474713	
Acetone	**12**		10	5.0	1.3	1	NA	12/3/15 12:49		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 12:49		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 12:49		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 12:49		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 12:49		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 12:49		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 12:49		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 12:49		474713	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15 1500
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	EB-2015-11-24	**Units:**	µg/L
Lab Code:	R1510346-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 12:49		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 12:49		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 12:49		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 12:49		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 12:49		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 12:49		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 12:49		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 12:49		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 12:49		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 12:49		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 12:49		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 12:49		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 12:49		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 12:49		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 12:49		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 12:49		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 12:49		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:49		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/3/15 12:49	
Dibromofluoromethane	110	85-115	12/3/15 12:49	
Toluene-d8	112	85-120	12/3/15 12:49	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/24/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1249

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-24	**Units:**	µg/L
Lab Code:	R1510346-017	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8492.D
Acq On : 3 Dec 2015 12:49 pm
Operator : K.Ruest
Sample : R1510346-017|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 17:20:25 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	757852	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1273251	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1169232	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	554417	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	364436	55.05	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 110.10%				
48) surr1,1,2-dichloroetha...	6.096	65	396160	54.18	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.36%				
65) SURR3,Toluene-d8	8.529	98	1560454	56.01	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 112.02%				
70) SURR2,BFB	11.047	95	597019	56.77	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 113.54%				
Target Compounds							Qvalue
5) Bromomethane	1.695	94	1577	0.27	ppb	#	70
15) Acetone	2.487	43	19732	12.21	ppb		93
73) 2-Hexanone	9.334	43	1066	0.30	ppb	#	54
116) Hexachlorobt	13.753	225	1199	0.42	ppb	#	68
118) 1,2,3-Tclbenzene	13.991	180	1464	0.25	ppb	#	54

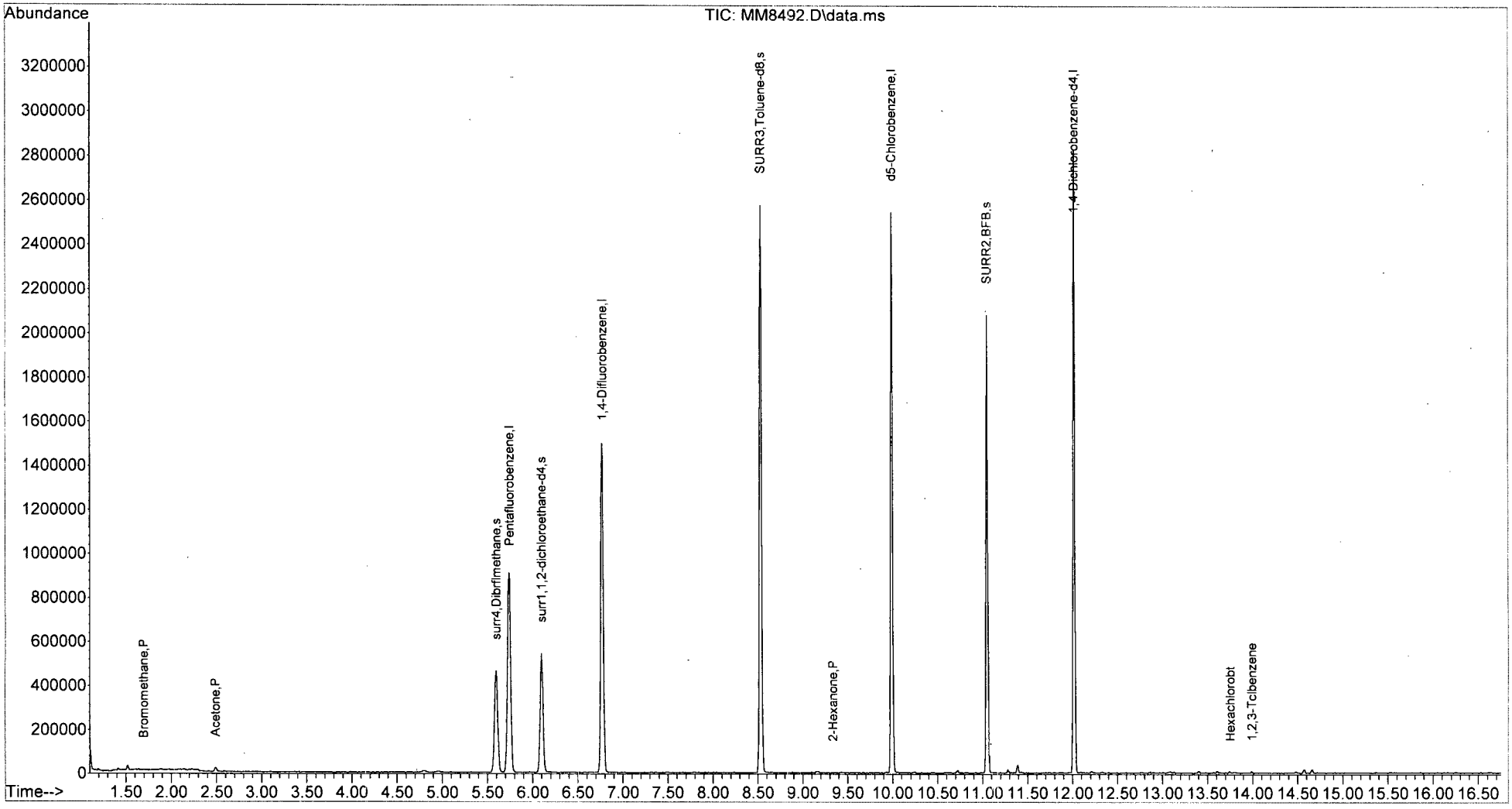
KR 12/8/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed

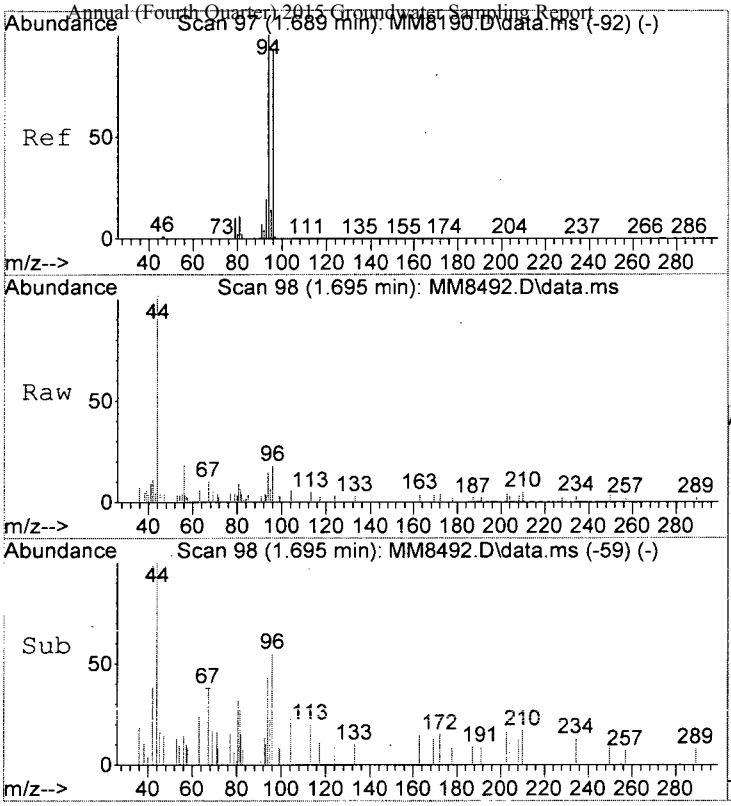
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8492.D
Acq On : 3 Dec 2015 12:49 pm
Operator : K.Ruest
Sample : R1510346-017|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 17:20:25 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



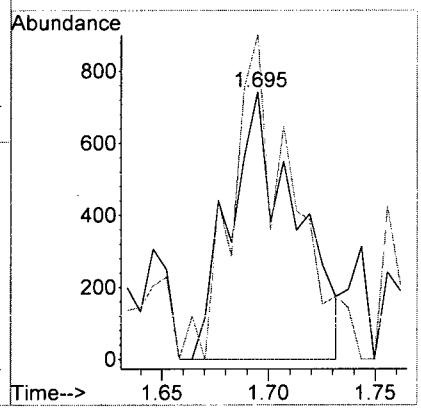
W111815A.M Tue Dec 08 17:21:39 2015 Page: 2

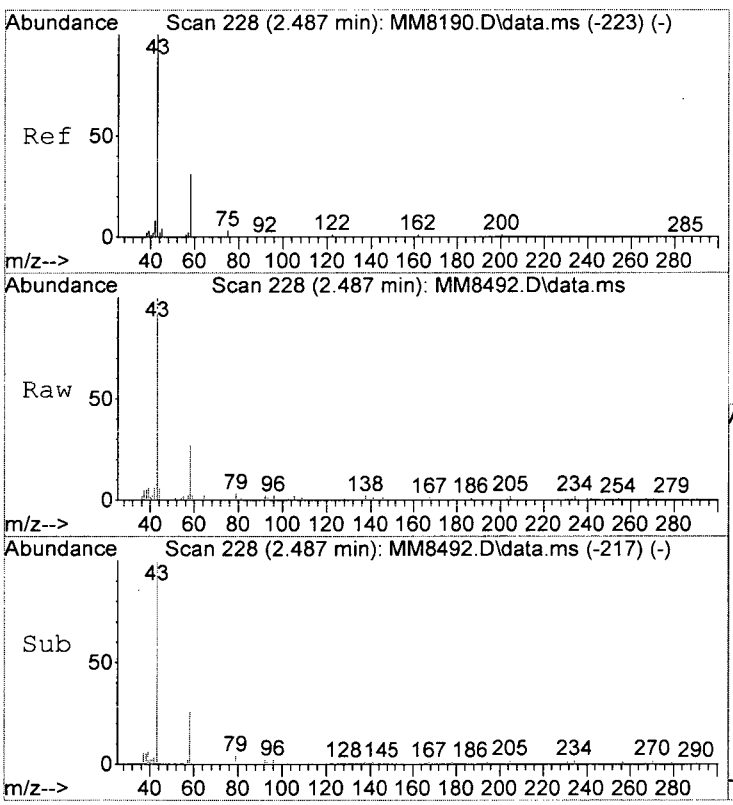


#5
Bromomethane
Concen: 0.27 ppb
RT: 1.695 min Scan# 98
Delta R.T. 0.012 min
Lab File: MM8492.D
Acq: 3 Dec 2015 12:49 pm

Tgt Ion: 94 Resp: 1577

Ion	Ratio	Lower	Upper
94	100		
96	121.3	72.8	112.8#

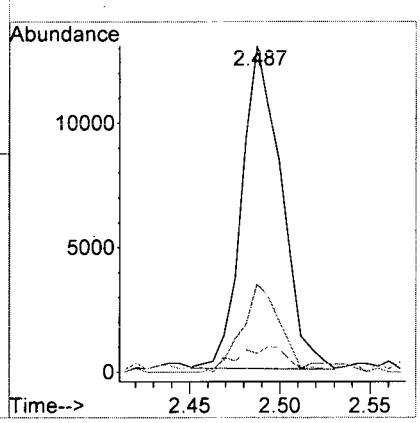


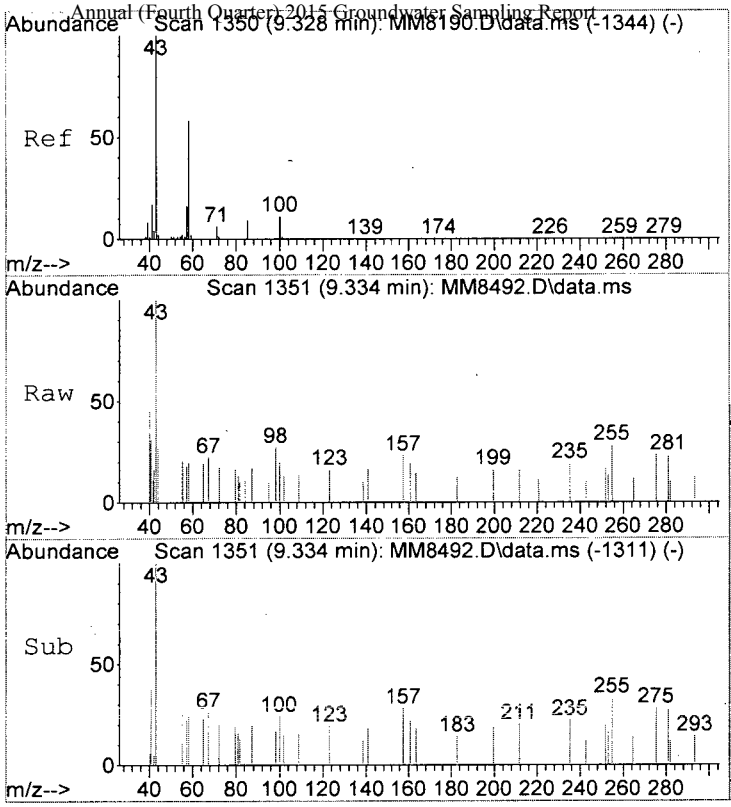


#15
Acetone
Concen: 12.21 ppb
RT: 2.487 min Scan# 228
Delta R.T. -0.006 min
Lab File: MM8492.D
Acq: 3 Dec 2015 12:49 pm

Tgt Ion: 43 Resp: 19732

Ion	Ratio	Lower	Upper
43	100		
58	26.9	10.9	50.9
42	5.6	0.0	28.5

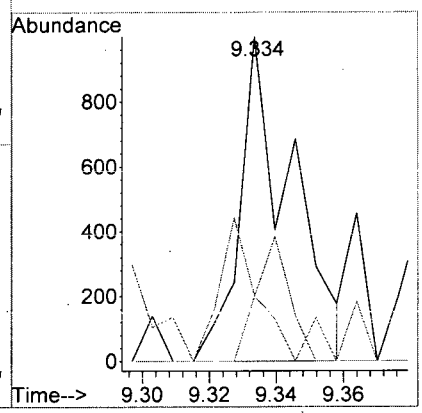


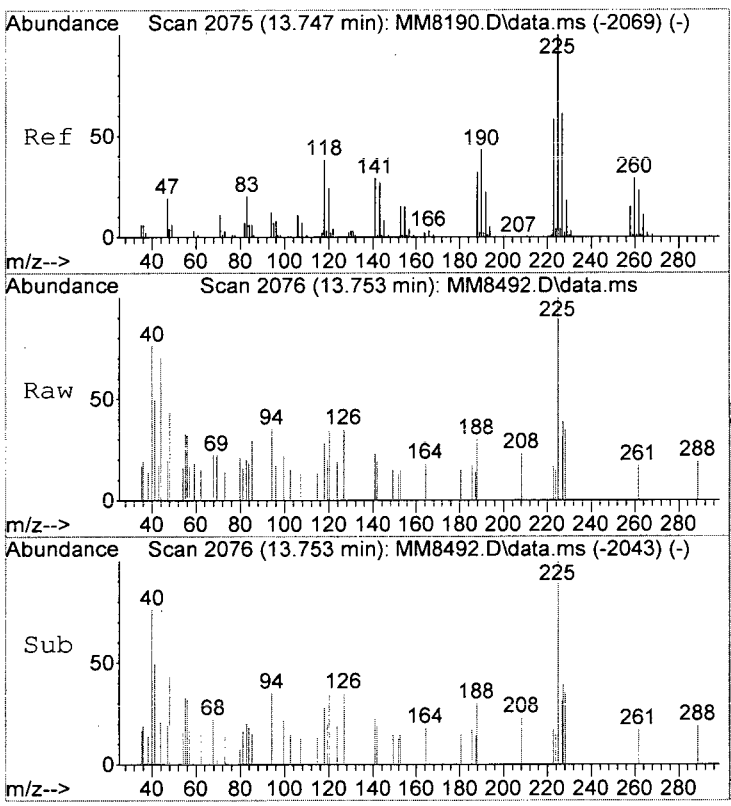


#73
2-Hexanone
Concen: 0.30 ppb
RT: 9.334 min Scan# 1351
Delta R.T. -0.000 min
Lab File: MM8492.D
Acq: 3 Dec 2015 12:49 pm

Tgt Ion: 43 Resp: 1066

Ion	Ratio	Lower	Upper
43	100		
58	20.1	37.6	77.6#
100	20.0	0.0	31.3

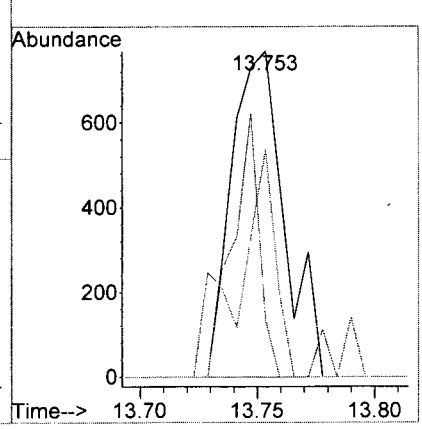


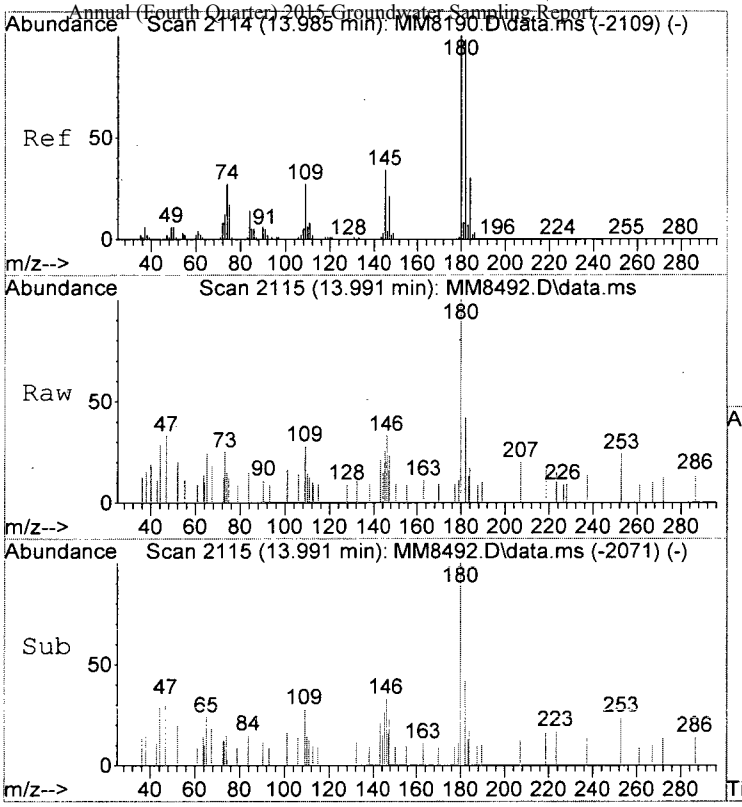


#116
Hexachlorobt
Concen: 0.42 ppb
RT: 13.753 min Scan# 2076
Delta R.T. 0.006 min
Lab File: MM8492.D
Acq: 3 Dec 2015 12:49 pm

Tgt Ion:225 Resp: 1199

Ion	Ratio	Lower	Upper
225	100		
223	17.3	38.1	78.1#
227	69.6	41.1	81.1

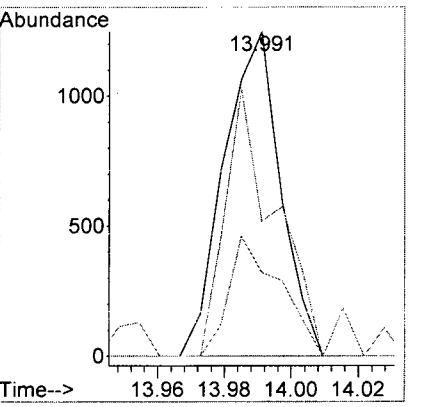




#118
1,2,3-Tclbenzene
Concen: 0.25 ppb
RT: 13.991 min Scan# 2115
Delta R.T. -0.000 min
Lab File: MM8492.D
Acq: 3 Dec 2015 12:49 pm

Tgt Ion:180 Resp: 1464

Ion	Ratio	Lower	Upper
180	100		
182	41.5	78.5	118.5#
145	25.8	14.2	54.2



MM8492.D W111815A.M Tue Dec 08 17:21:43 2015 Page 5

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8492.D
Acq On : 3 Dec 2015 12:49 pm
Operator : K.Ruest
Sample : R1510346-017|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8492.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.590	727	737	748	rBV3	462894	1171021	28.83%	5.491%
2	5.737	750	761	776	rVB	909620	2200259	54.17%	10.317%
3	6.096	810	820	830	rBV	540295	1175421	28.94%	5.512%
4	6.767	920	930	942	rBV	1497644	2934458	72.25%	13.760%
5	8.529	1212	1219	1229	rBV	2574558	4061395	100.00%	19.045%
6	9.986	1452	1458	1467	rBV	2541421	3571472	87.94%	16.747%
7	11.047	1625	1632	1640	rBV	2079652	2682367	66.05%	12.578%
8	11.388	1683	1688	1692	rBV2	37405	49063	1.21%	0.230%
9	12.016	1785	1791	1798	rVB	2824220	3480117	85.69%	16.319%

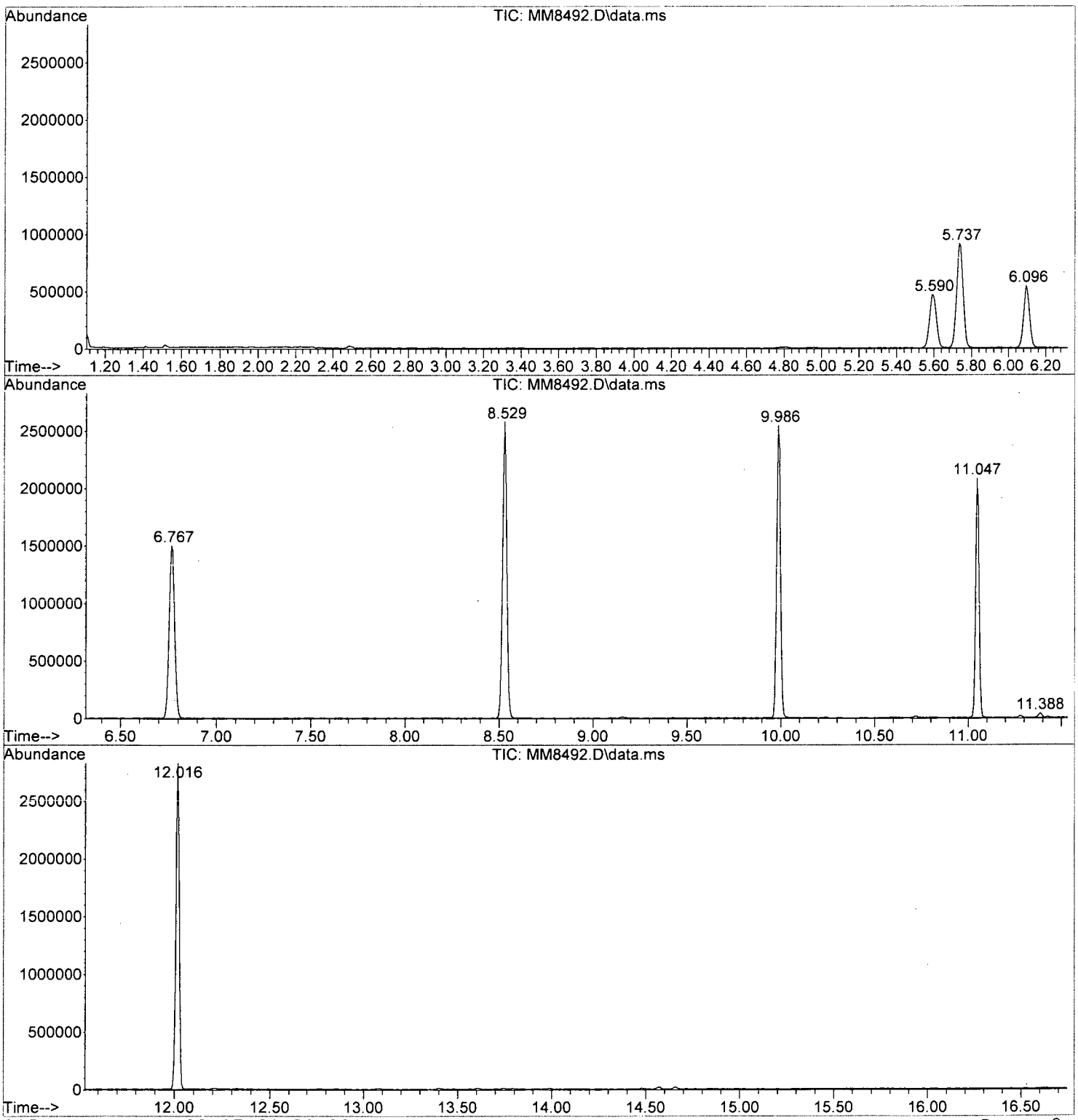
Sum of corrected areas: 21325573

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8492.D
Acq On : 3 Dec 2015 12:49 pm
Operator : K.Ruest
Sample : R1510346-017|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 8 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



W111815A.M Tue Dec 08 17:21:52 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\120315\\
Data File : MM8492.D
Acq On : 3 Dec 2015 12:49 pmm
Operator : K.Ruestt
Sample : R1510346-017|1.0 Inst : MSVOA-122
Misc : PARSONS 14517 T4*DOD44
ALS Vial : 8 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1500
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	EB-2015-11-25	**Units:**	µg/L
Lab Code:	R1510346-019	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 13:20		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 13:20		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 13:20		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 13:20		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 13:20		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 13:20		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 13:20		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 13:20		474713	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/3/15 13:20		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 13:20		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 13:20		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 13:20		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 13:20		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 13:20		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 13:20		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 13:20		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 13:20		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 13:20		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 13:20		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 13:20		474713	
Acetone	**12**		10	5.0	1.3	1	NA	12/3/15 13:20		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 13:20		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 13:20		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 13:20		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 13:20		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 13:20		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 13:20		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 13:20		474713	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/25/15 1500
Date Received: 11/30/15

Sample Name: EB-2015-11-25
Lab Code: R1510346-019

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 13:20		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 13:20		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 13:20		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 13:20		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 13:20		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 13:20		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 13:20		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 13:20		474713	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 13:20		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 13:20		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 13:20		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 13:20		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 13:20		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 13:20		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 13:20		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 13:20		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 13:20		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 13:20		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	12/3/15 13:20	
Dibromofluoromethane	109	85-115	12/3/15 13:20	
Toluene-d8	110	85-120	12/3/15 13:20	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1320

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	EB-2015-11-25	**Units:**	µg/L
Lab Code:	R1510346-019	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8493.D
Acq On : 3 Dec 2015 1:20 pm
Operator : K.Ruest
Sample : R1510346-019|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 17:23:16 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

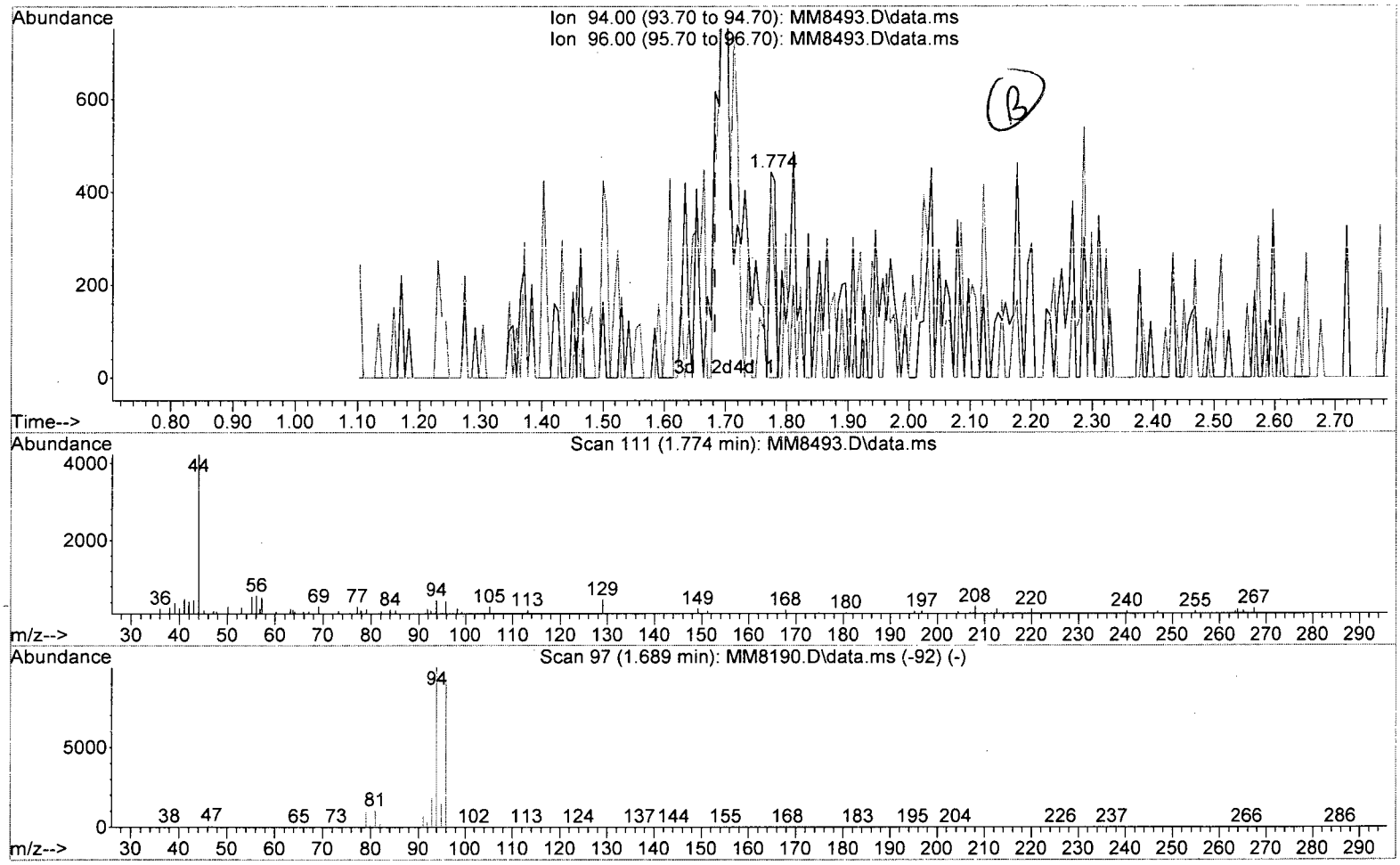
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	773192	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1301390	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1198621	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	561554	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	368695	54.49	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.98%				
48) surr1,1,2-dichloroetha...	6.096	65	395762	52.96	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 105.92%				
65) SURR3,Toluene-d8	8.529	98	1559295	54.76	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 109.52%				
70) SURR2,BFB	11.047	95	592099	55.08	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.16%				
Target Compounds							Qvalue
5) Bromomethane	1.695	94	1362m	0.23	ppb		
15) Acetone	2.487	43	19555	11.86	ppb		89
112) Trielution Dichlorotol...	13.083	125	2700	0.27	ppb	#	58
116) Hexachlorobt	13.747	225	601	0.21	ppb	#	35

KR 12/8/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8493.D
Acq On : 3 Dec 2015 1:20 pm
Operator : K.Ruest
Sample : R1510346-019|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 03 13:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8493.D\data.ms

(5) Bromomethane (P)

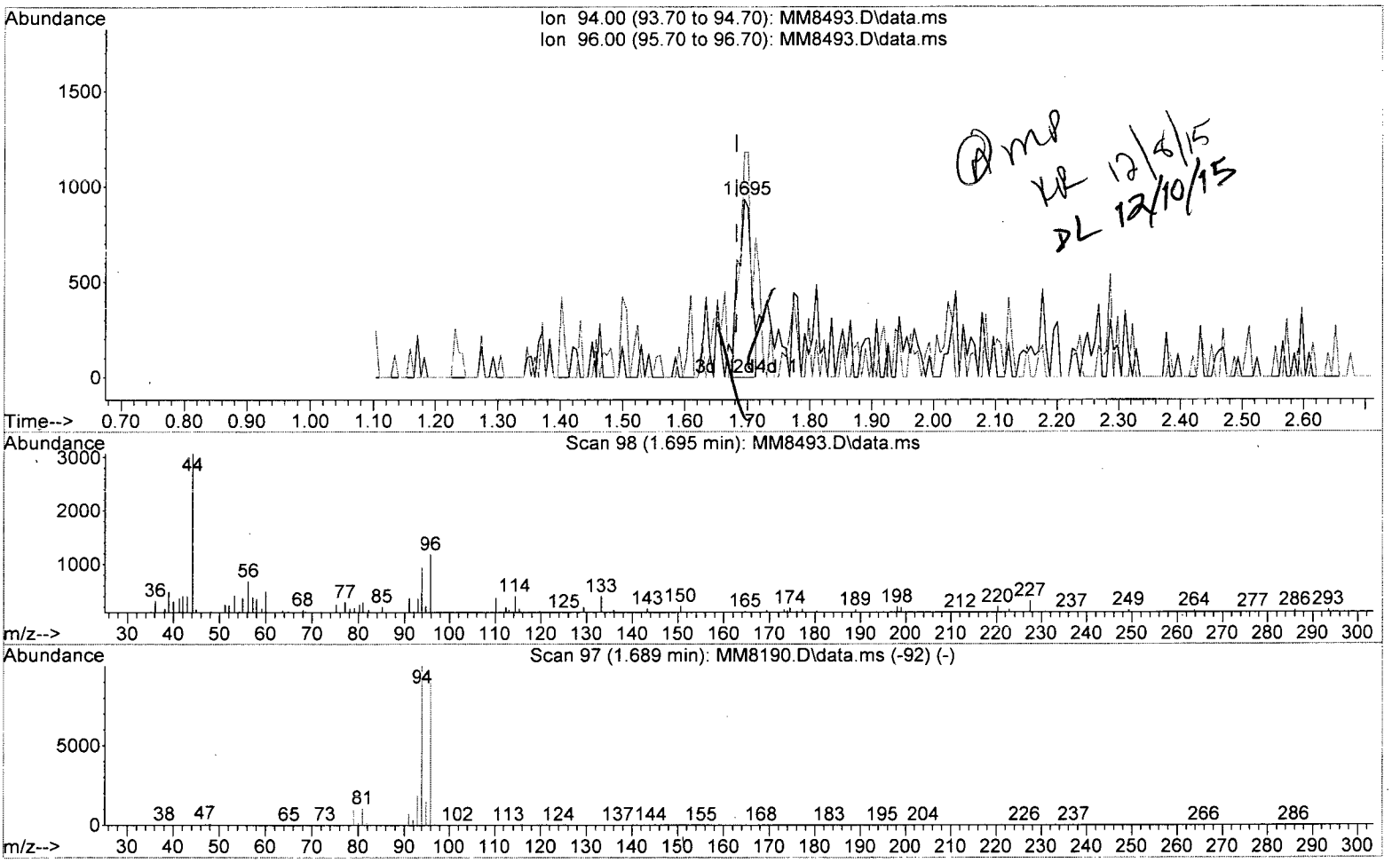
1.774min (+0.091) 0.05 ppb

response 316

Ion	Exp%	Act%
94.00	100	100
96.00	92.80	92.76
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8493.D
Acq On : 3 Dec 2015 1:20 pm
Operator : K.Ruest
Sample : R1510346-019|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 03 13:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8493.D\data.ms

(5) Bromomethane (P)

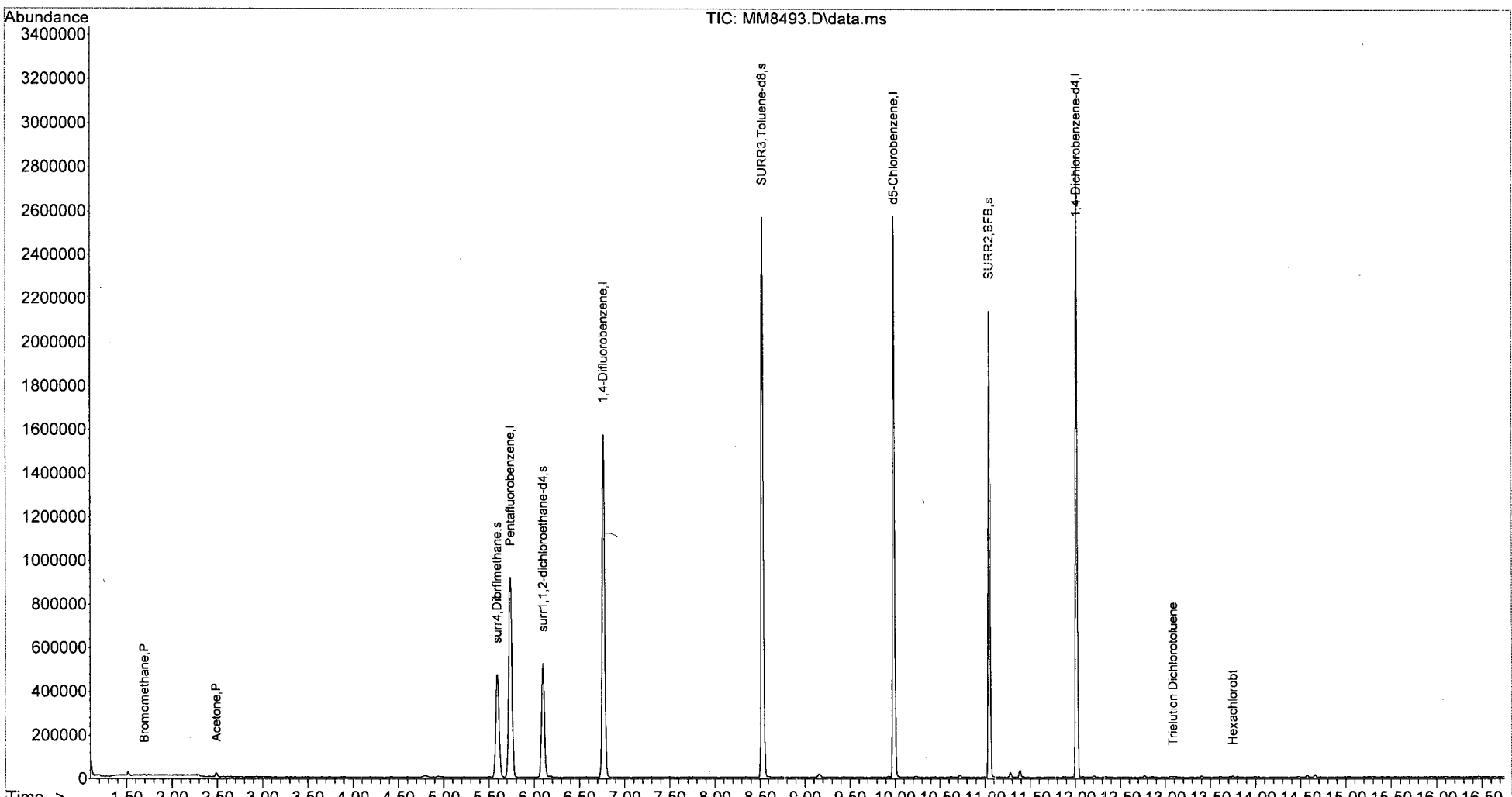
1.695min (+0.012) 0.23 ppb m

response 1362

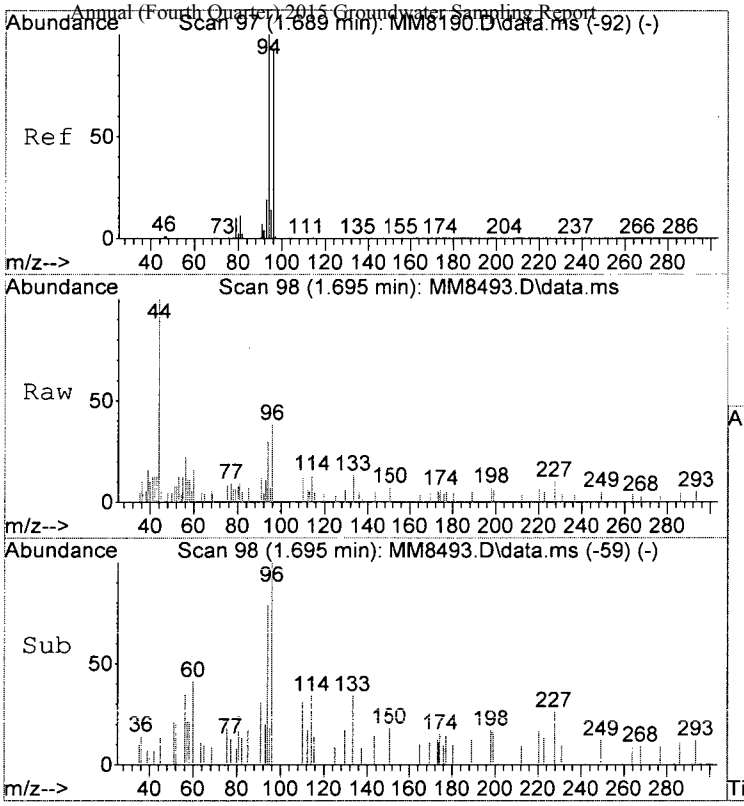
Ion	Exp%	Act%
94.00	100	100
96.00	92.80	126.39#
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8493.D
Acq On : 3 Dec 2015 1:20 pm
Operator : K.Ruest
Sample : R1510346-019|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 17:23:16 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



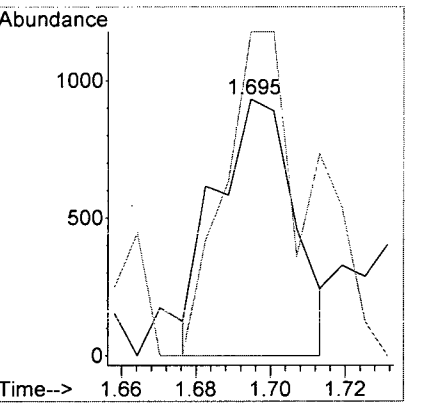
W111815A.M Tue Dec 08 17:24:54 2015 Page: 2

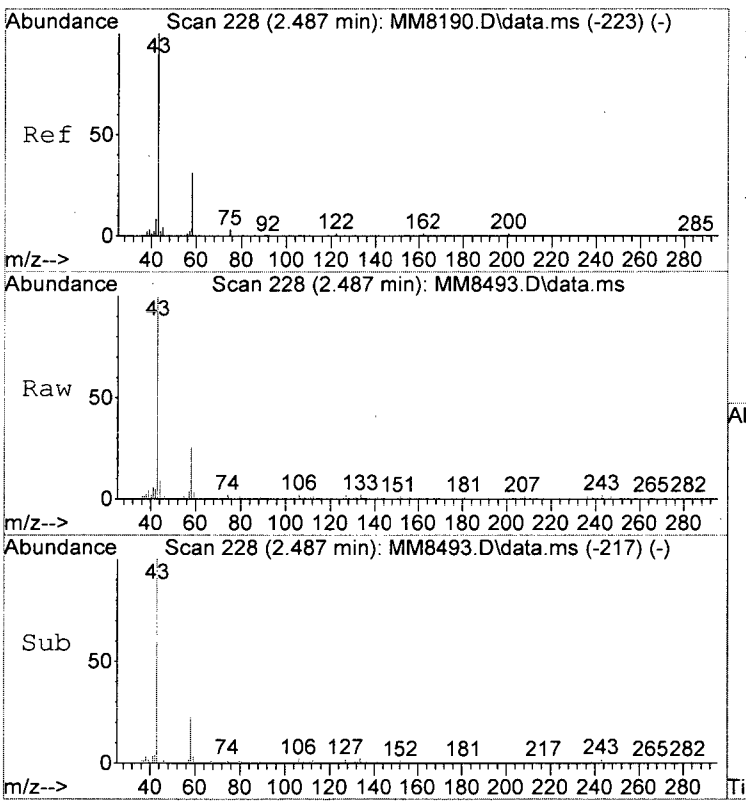


#5
Bromomethane
Concen: 0.23 ppb m
RT: 1.695 min Scan# 98
Delta R.T. 0.012 min
Lab File: MM8493.D
Acq: 3 Dec 2015 1:20 pm

Tgt Ion: 94 Resp: 1362

Ion	Ratio	Lower	Upper
94	100		
96	126.4	72.8	112.8#

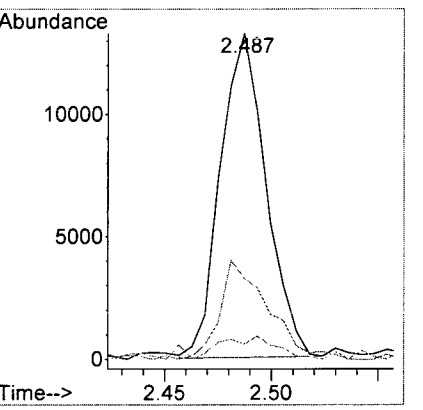


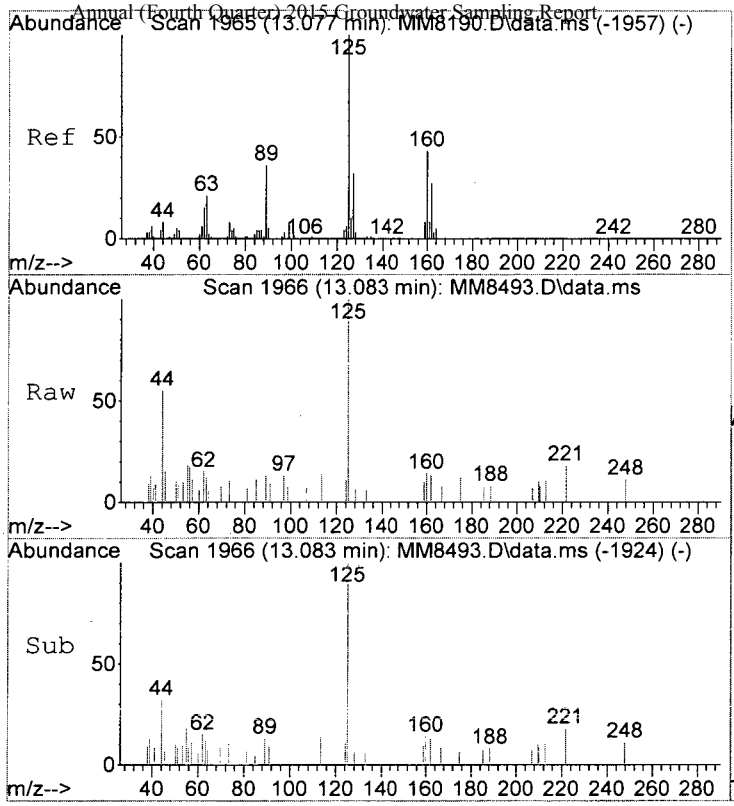


#15
Acetone
Concen: 11.86 ppb
RT: 2.487 min Scan# 228
Delta R.T. -0.006 min
Lab File: MM8493.D
Acq: 3 Dec 2015 1:20 pm

Tgt Ion: 43 Resp: 19555

Ion	Ratio	Lower	Upper
43	100		
58	24.9	10.9	50.9
42	4.7	0.0	28.5

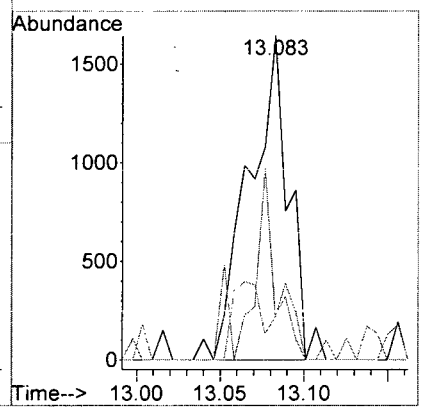


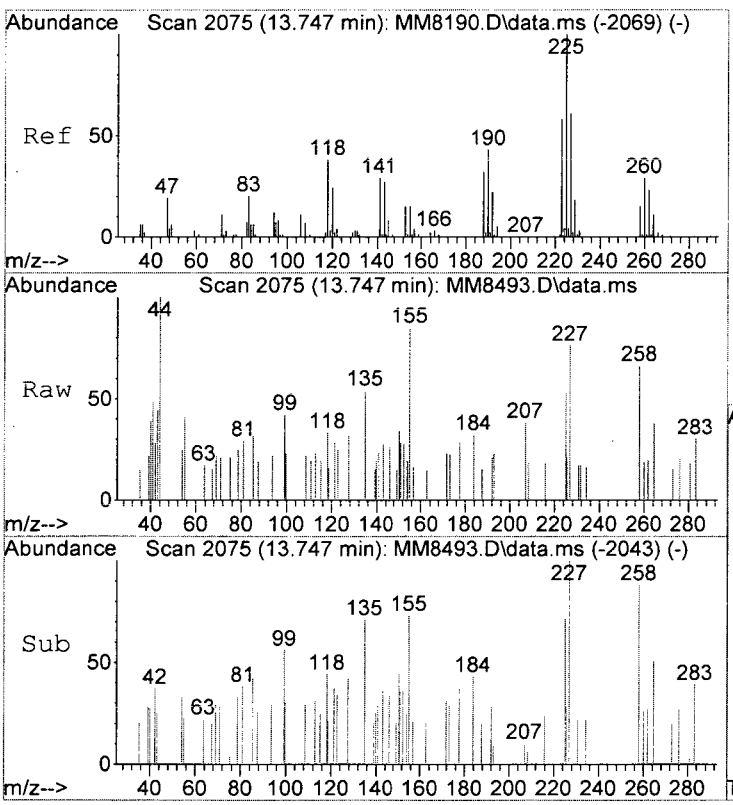


#112
Trielution Dichlorotoluene
Concen: 0.27 ppb
RT: 13.083 min Scan# 1966
Delta R.T. 0.006 min
Lab File: MM8493.D
Acq: 3 Dec 2015 1:20 pm

Tgt Ion:125 Resp: 2700

Ion	Ratio	Lower	Upper
125	100		
160	13.8	34.3	51.5#
89	13.1	28.6	43.0#

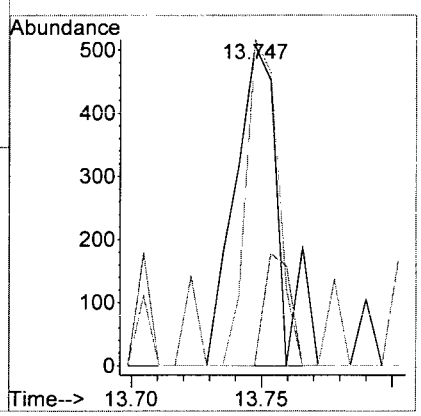




#116
Hexachlorobt
Concen: 0.21 ppb
RT: 13.747 min Scan# 2075
Delta R.T. 0.000 min
Lab File: MM8493.D
Acq: 3 Dec 2015 1:20 pm

Tgt Ion:225 Resp: 601

Ion	Ratio	Lower	Upper
225	100		
223	0.0	38.1	78.1#
227	101.8	41.1	81.1#



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8493.D
Acq On : 3 Dec 2015 1:20 pm
Operator : K.Ruest
Sample : R1510346-019|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8493.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.590	727	737	750	rBV	471649	1191090	29.18%	5.533%
2	5.737	750	761	770	rBV	918507	2224159	54.48%	10.331%
3	6.096	810	820	829	rBV	522976	1147952	28.12%	5.332%
4	6.767	920	930	942	rBV	1573149	3004849	73.60%	13.957%
5	8.529	1212	1219	1229	rBV	2569826	4082446	100.00%	18.963%
6	9.986	1452	1458	1464	rBV	2573275	3628460	88.88%	16.854%
7	11.047	1627	1632	1642	rBV	2141776	2696246	66.04%	12.524%
8	11.388	1684	1688	1692	rBV3	33310	47222	1.16%	0.219%
9	12.016	1785	1791	1797	rVB	2855065	3506162	85.88%	16.286%

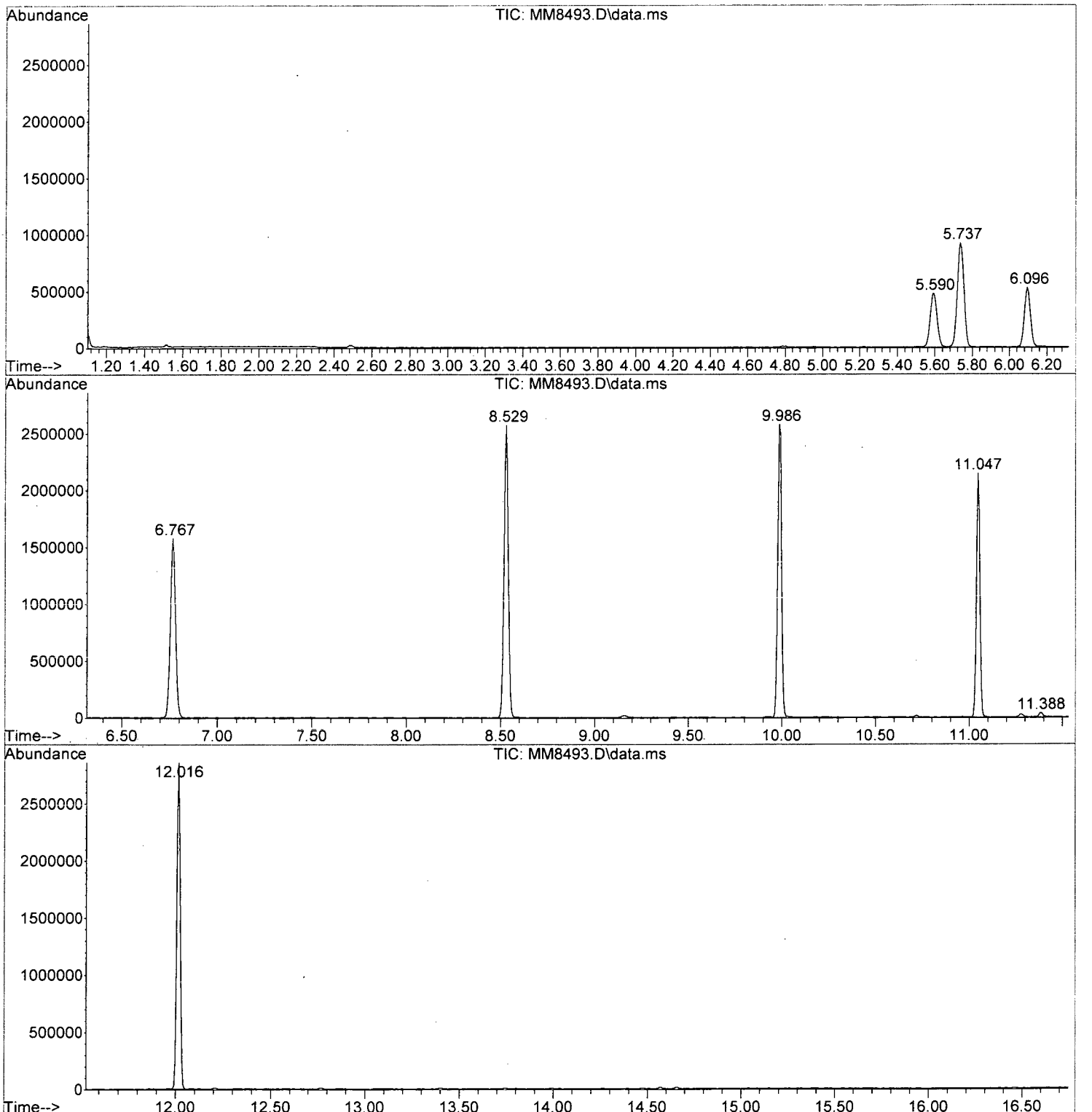
Sum of corrected areas: 21528586

LSC Report - Integrated Chromatogram

```
Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8493.D
Acq On    :  3 Dec 2015   1:20 pm
Operator  : K.Ruest
Sample    : R1510346-019|1.0                    Inst    : MSVOA-12
Misc      : PARSONS 14517 T4*DOD4
ALS Vial  : 9   Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title  : MS#12 - 8260B WATERS 10mL Purge

TIC Library   : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P
```



Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\120315\\
Data File : MM8493.D
Acq On : 3 Dec 2015 1:20 pmm
Operator : K.Ruestt
Sample : R1510346-019|1.0 Inst : MSVOA-122
Misc : PARSONS 14517 T4*DOD44
ALS Vial : 9 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	TB-2015-11-25	**Units:**	µg/L
Lab Code:	R1510346-021	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 12:19		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 12:19		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 12:19		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 12:19		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 12:19		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 12:19		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 12:19		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 12:19		474713	
1,2,4-Trichlorobenzene	**0.25**	BJ	5.0	1.0	0.23	1	NA	12/3/15 12:19		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 12:19		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 12:19		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 12:19		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 12:19		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 12:19		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 12:19		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 12:19		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 12:19		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 12:19		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 12:19		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 12:19		474713	
Acetone	ND	U	10	5.0	1.3	1	NA	12/3/15 12:19		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 12:19		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 12:19		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 12:19		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 12:19		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 12:19		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 12:19		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 12:19		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	TB-2015-11-25	**Units:**	µg/L
Lab Code:	R1510346-021	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 12:19		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 12:19		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 12:19		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 12:19		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 12:19		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 12:19		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/3/15 12:19		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 12:19		474713	
Naphthalene	**0.23**	BJ	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 12:19		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 12:19		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 12:19		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 12:19		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 12:19		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 12:19		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 12:19		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 12:19		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 12:19		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 12:19		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	75-120	12/3/15 12:19	
Dibromofluoromethane	109	85-115	12/3/15 12:19	
Toluene-d8	109	85-120	12/3/15 12:19	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15
Sample Matrix:	Water	**Date Received:**	11/30/15
		Date Analyzed:	12/3/15 1219

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	TB-2015-11-25	**Units:**	µg/L
Lab Code:	R1510346-021	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8491.D
Acq On : 3 Dec 2015 12:19 pm
Operator : K.Ruest
Sample : R1510346-021|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 08 17:15:48 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	765294	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1285355	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1167558	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	524378	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	365228	54.65	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.30%				
48) surr1,1,2-dichloroetha...	6.096	65	382936	51.88	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 103.76%				
65) SURR3,Toluene-d8	8.529	98	1527700	54.32	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 108.64%				
70) SURR2,BFB	11.047	95	576311	54.28	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 108.56%				
Target Compounds							Qvalue
115) 1,2,4-Tcbenzene	13.607	180	1705	0.25	ppb		96
116) Hexachlorobt	13.747	225	1399	0.52	ppb		84
117) Naphthalen	13.796	128	3179	0.23	ppb		93
118) 1,2,3-Tclbenzene	13.991	180	2050	0.36	ppb	#	77

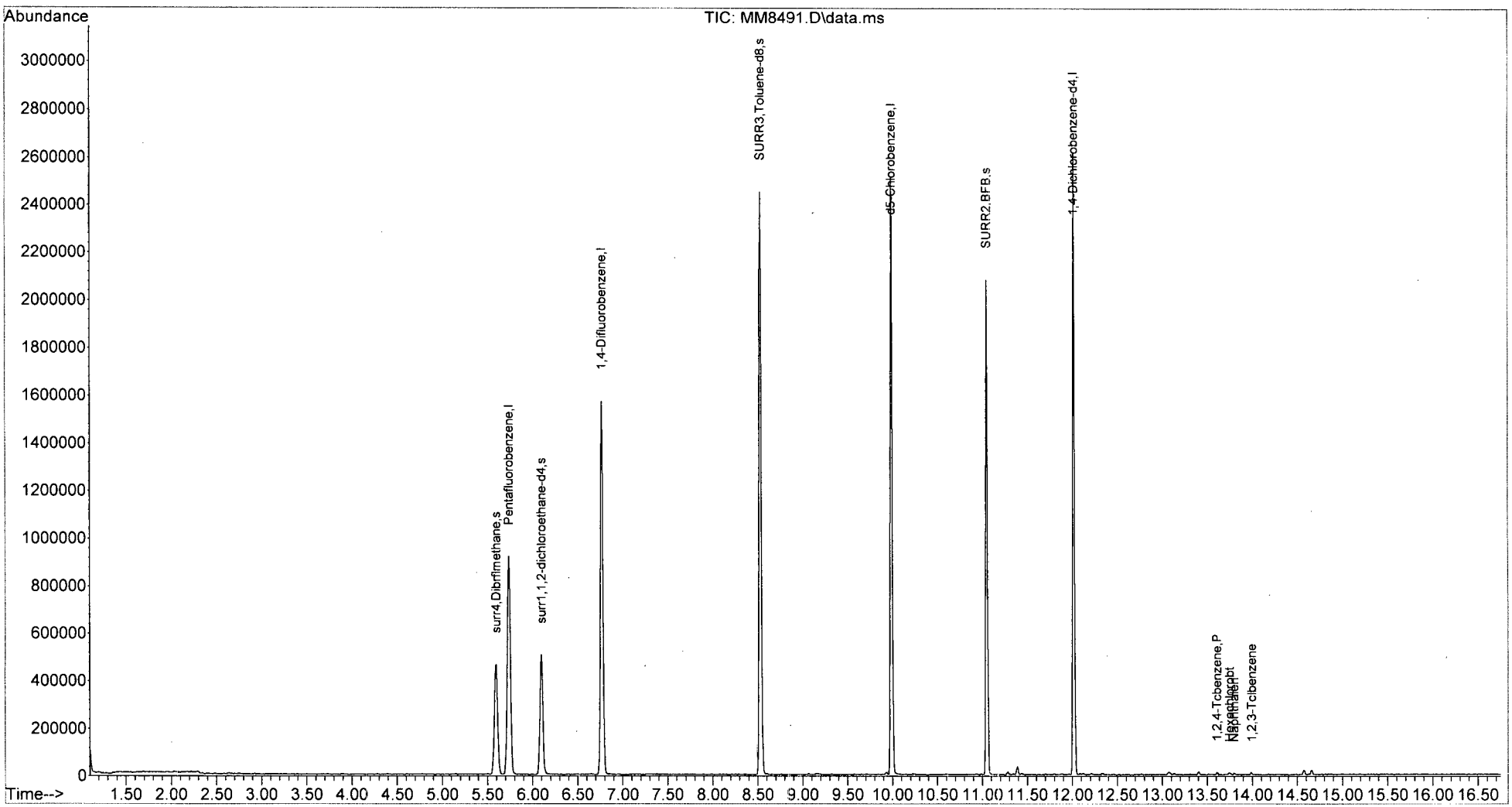
KA 12/8/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed

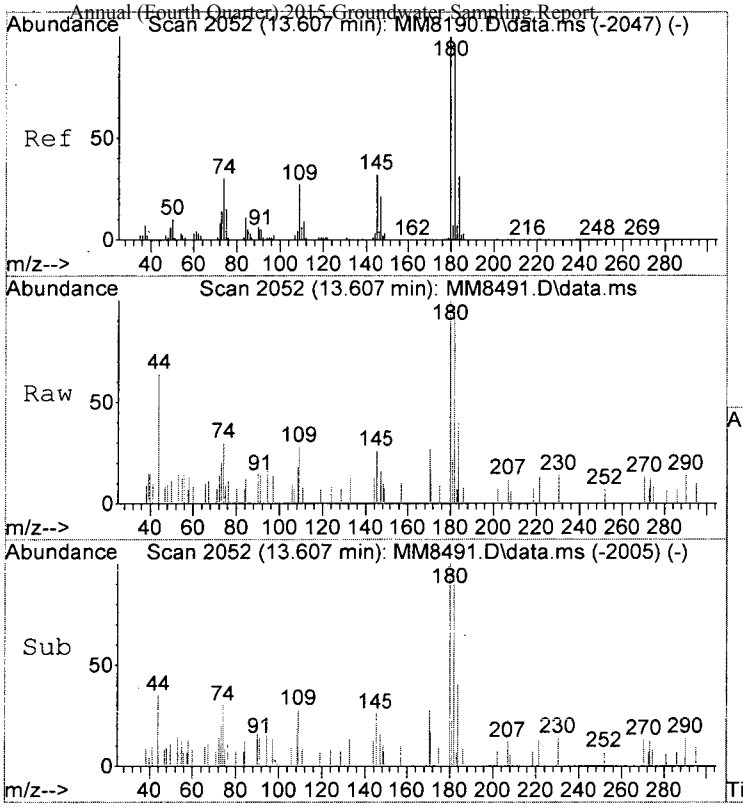
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8491.D
Acq On : 3 Dec 2015 12:19 pm
Operator : K.Ruest
Sample : R1510346-021|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 08 17:15:48 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



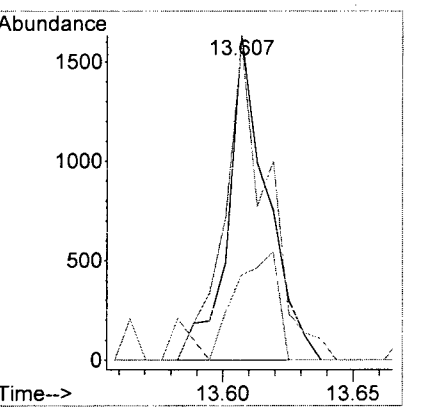
W111815A.M Tue Dec 08 17:17:15 2015 Page: 2

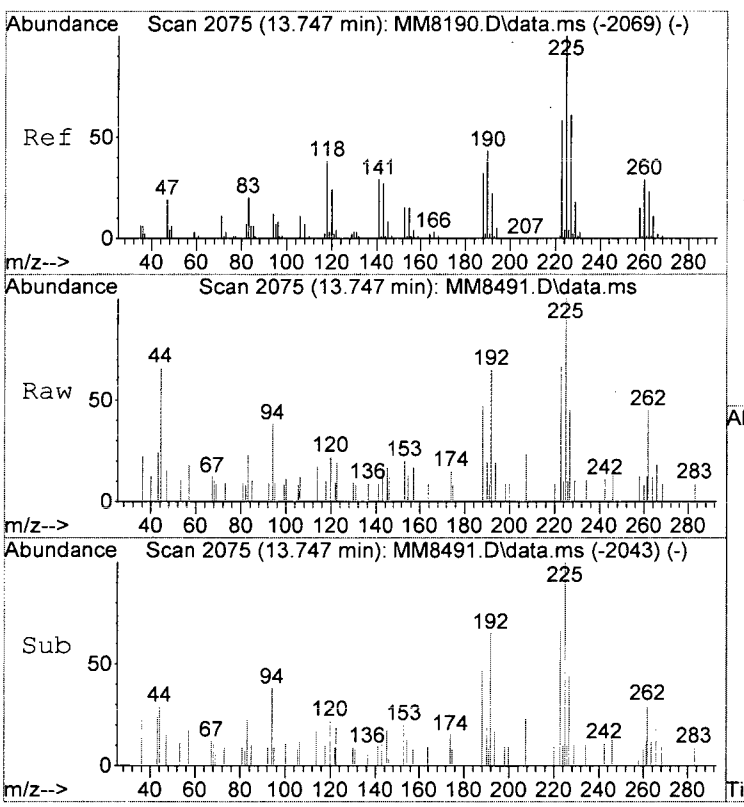


#115
1,2,4-Tcbenzene
Concen: 0.25 ppb
RT: 13.607 min Scan# 2052
Delta R.T. -0.006 min
Lab File: MM8491.D
Acq: 3 Dec 2015 12:19 pm

Tgt Ion:180 Resp: 1705

Ion	Ratio	Lower	Upper
180	100		
182	97.9	75.7	115.7
145	26.2	12.1	52.1

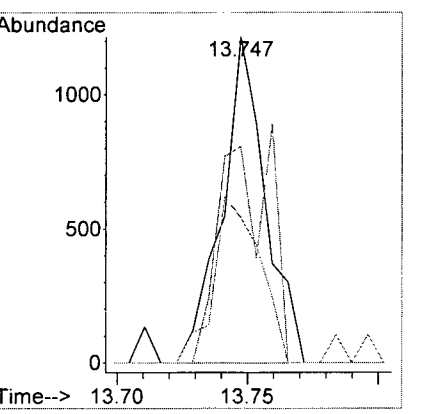


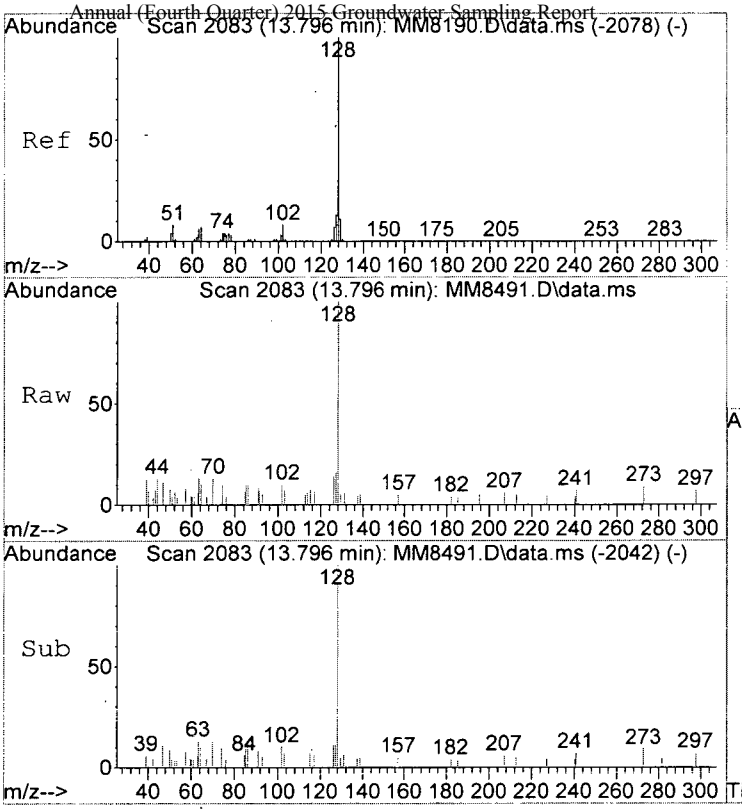


#116
Hexachlorobt
Concen: 0.52 ppb
RT: 13.747 min Scan# 2075
Delta R.T. 0.000 min
Lab File: MM8491.D
Acq: 3 Dec 2015 12:19 pm

Tgt Ion:225 Resp: 1399

Ion	Ratio	Lower	Upper
225	100		
223	66.4	38.1	78.1
227	44.7	41.1	81.1

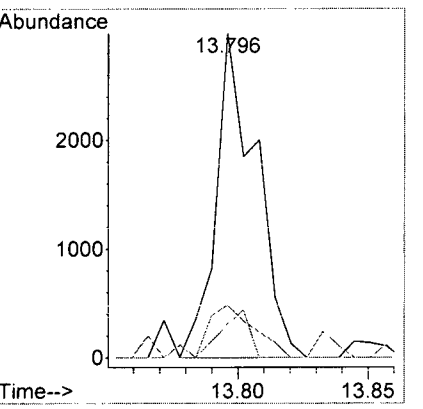


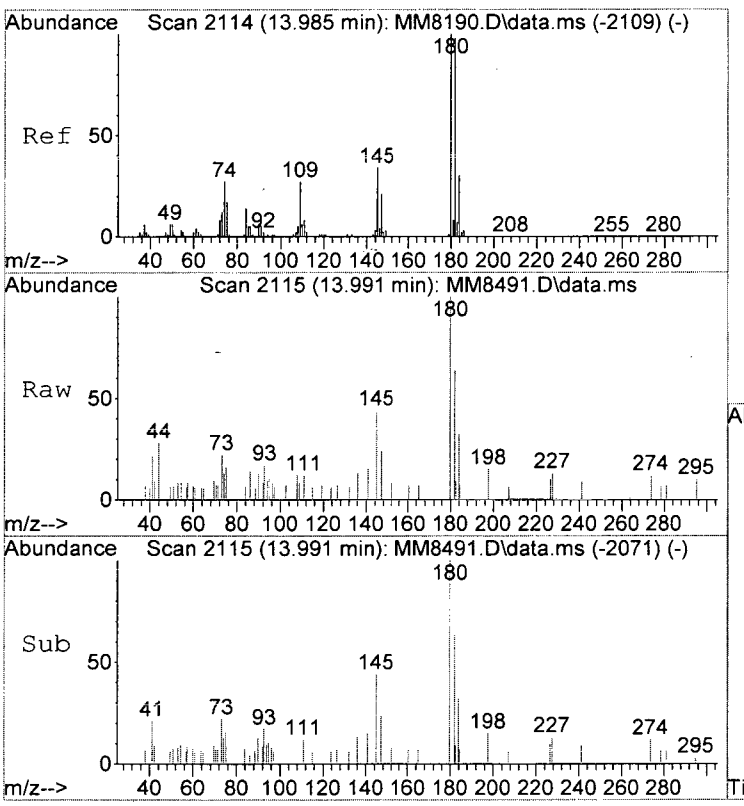


#117
Naphthalen
Concen: 0.23 ppb
RT: 13.796 min Scan# 2083
Delta R.T. -0.006 min
Lab File: MM8491.D
Acq: 3 Dec 2015 12:19 pm

Tgt Ion:128 Resp: 3179

Ion	Ratio	Lower	Upper
128	100		
127	16.2	0.0	33.1
102	10.4	0.0	28.3

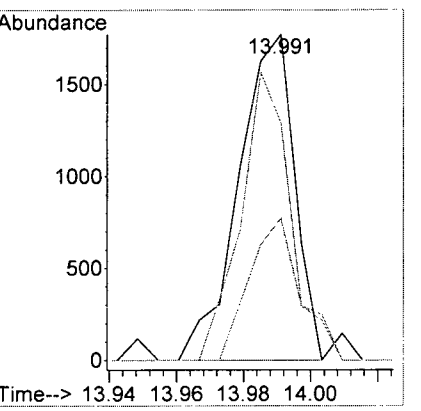




#118
1,2,3-Tclbenzene
Concen: 0.36 ppb
RT: 13.991 min Scan# 2115
Delta R.T. -0.000 min
Lab File: MM8491.D
Acq: 3 Dec 2015 12:19 pm

Tgt Ion:180 Resp: 2050

Ion	Ratio	Lower	Upper
180	100		
182	72.7	78.5	118.5#
145	43.6	14.2	54.2



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8491.D
Acq On : 3 Dec 2015 12:19 pm
Operator : K.Ruest
Sample : R1510346-021|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8491.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.596	726	738	749	rBV	462919	1168112	29.57%	5.575%
2	5.737	752	761	775	rVB	919248	2209045	55.91%	10.544%
3	6.096	811	820	831	rBV2	505202	1134664	28.72%	5.416%
4	6.767	922	930	940	rBV	1571882	2974585	75.29%	14.198%
5	8.529	1212	1219	1228	rBV	2449597	3950873	100.00%	18.857%
6	9.986	1452	1458	1470	rBV	2515638	3580022	90.61%	17.087%
7	11.047	1627	1632	1643	rBV	2081092	2628712	66.53%	12.547%
8	11.388	1683	1688	1693	rBV2	35093	46836	1.19%	0.224%
9	12.016	1785	1791	1799	rBV	2615872	3258476	82.47%	15.553%

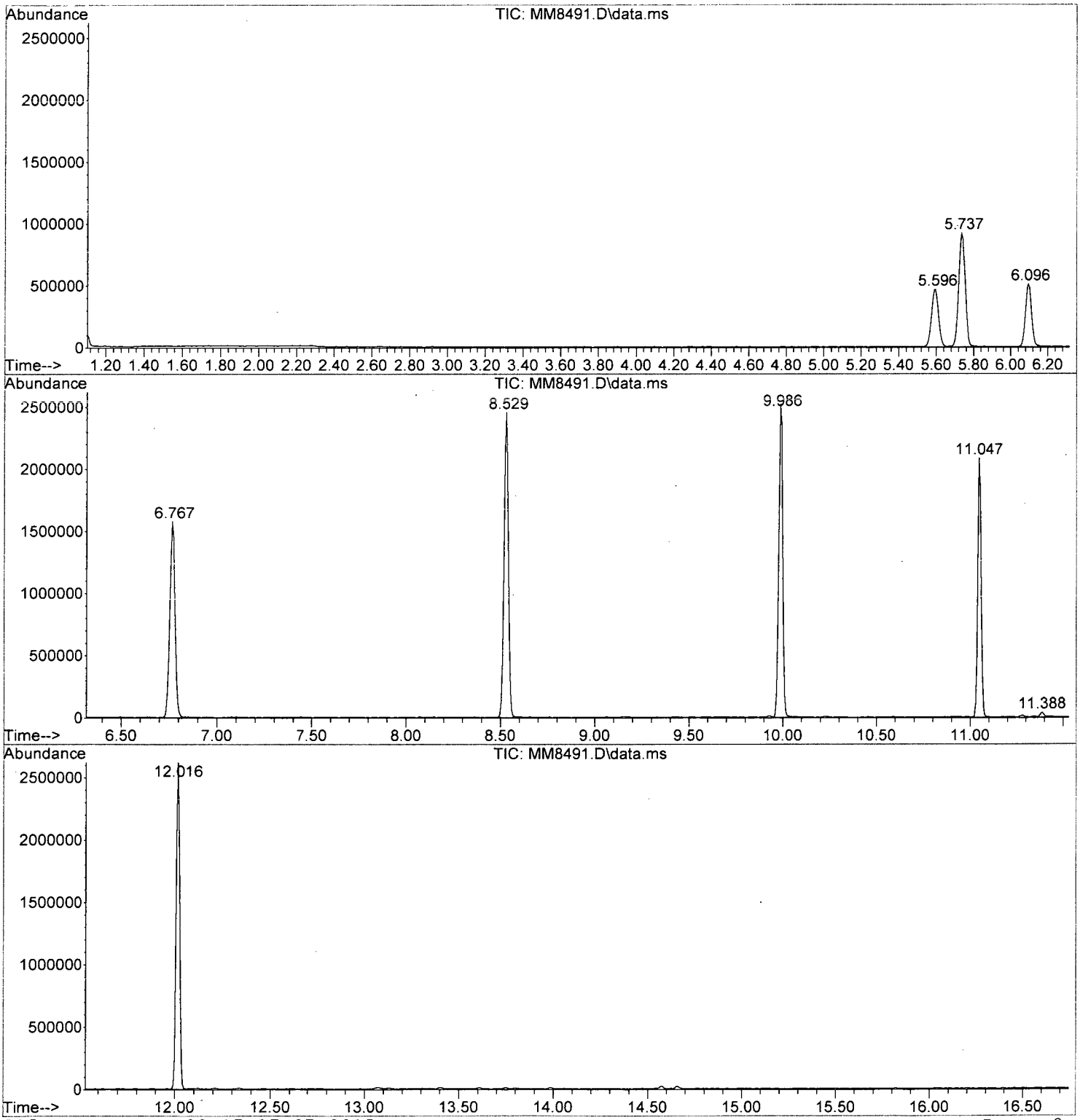
Sum of corrected areas: 20951325

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8491.D
Acq On : 3 Dec 2015 12:19 pm
Operator : K.Ruest
Sample : R1510346-021|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 7 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



W111815A.M Tue Dec 08 17:17:27 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\120315\\
Data File : MM8491.D
Acq On : 3 Dec 2015 12:19 pmm
Operator : K.Ruestt
Sample : R1510346-021|1.0 Inst : MSVOA-122
Misc : PARSONS 14517 T4*DOD44
ALS Vial : 7 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

No Library Search Compounds Detected
****

ALS Environmental

VOLATILE ORGANICS STANDARDS DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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Initial Calibration - Summary Report

KR 11/30/15

Calibration ID: RC1500127
W111615A. 8260 Waters

Instrument ID: R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
1,1,1,2-Tetrachloroethane	T	Average RF			0.2556	<=15	7.6
1,1,1,2-Tetrachloroethane	T	Average RF			0.2556	<=20	7.6
1,1,1-Trichloroethane (TCA)	T	Average RF		0.100	0.6115	<=15	8.3
1,1,1-Trichloroethane (TCA)	T	Average RF		0.100	0.6115	<=20	8.3
1,1,2,2-Tetrachloroethane	T	Average RF		0.300	0.5254	<=15	9.7
1,1,2,2-Tetrachloroethane	T	Average RF		0.300	0.5254	<=20	9.7
1,1,2-Trichloroethane	T	Average RF		0.100	0.1927	<=15	4.1
1,1,2-Trichloroethane	T	Average RF		0.100	0.1927	<=20	4.1
1,1,2-Trichlorotrifluoroethane	T	Average RF		0.100	0.3806	<=15	10.6
1,1,2-Trichlorotrifluoroethane	T	Average RF		0.100	0.3806	<=20	10.6
1,1-Dichloroethane (1,1-DCA)	T	Average RF		0.200	0.8010	<=15	6.4
1,1-Dichloroethane (1,1-DCA)	T	Average RF		0.200	0.8010	<=20	6.4
1,1-Dichloroethene (1,1-DCE)	T	Average RF		0.100	0.4182	<=15	9.7
1,1-Dichloroethene (1,1-DCE)	T	Average RF		0.100	0.4182	<=20	9.7
1,1-Dichloropropene	T	Average RF			0.3528	<=15	10.8
1,1-Dichloropropene	T	Average RF			0.3528	<=20	10.8
1,2,3-Trichlorobenzene	T	Average RF			0.5379	<=15	6.4
1,2,3-Trichlorobenzene	T	Average RF			0.5379	<=20	6.4
1,2,3-Trichloropropane	T	Linear	1/X		0.1547	>=0.99	0.9998
1,2,3-Trichloropropane	T	Linear	1/X		0.1547	>=0.995	0.9998
1,2,3-Trichloropropane	T	Linear	1/X		0.1547	>=0.99	0.9998
1,2,4-Trichlorobenzene	T	Average RF		0.200	0.6467	<=15	7.9
1,2,4-Trichlorobenzene	T	Average RF		0.200	0.6467	<=20	7.9
1,2,4-Trimethylbenzene	T	Average RF			2.111	<=15	10.7
1,2,4-Trimethylbenzene	T	Average RF			2.111	<=20	10.7
1,2-Dibromo-3-chloropropane (DBCP)	T	Average RF		0.050	0.1014	<=15	8.1
1,2-Dibromo-3-chloropropane (DBCP)	T	Average RF		0.050	0.1014	<=20	8.1
1,2-Dibromoethane	T	Average RF		0.100	0.2026	<=15	4.7
1,2-Dibromoethane	T	Average RF		0.100	0.2026	<=20	4.7
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	T	Average RF			0.5453	<=15	10.0
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	T	Average RF			0.5453	<=20	10.0
1,2-Dichlorobenzene	T	Average RF		0.400	1.048	<=15	5.3
1,2-Dichlorobenzene	T	Average RF		0.400	1.048	<=20	5.3
1,2-Dichloroethane	T	Average RF		0.100	0.2821	<=15	6.5
1,2-Dichloroethane	T	Average RF		0.100	0.2821	<=20	6.5
1,2-Dichloropropane	T	Average RF		0.100	0.2727	<=15	6.9
1,2-Dichloropropane	T	Average RF		0.100	0.2727	<=20	6.9
1,3,5-Trichlorobenzene	T	Average RF			0.7046	<=15	10.1
1,3,5-Trichlorobenzene	T	Average RF			0.7046	<=20	10.1
1,3,5-Trimethylbenzene	T	Average RF			1.968	<=15	9.4
1,3,5-Trimethylbenzene	T	Average RF			1.968	<=20	9.4
1,3-Dichlorobenzene	T	Average RF		0.600	1.139	<=15	6.9
1,3-Dichlorobenzene	T	Average RF		0.600	1.139	<=20	6.9
1,3-Dichloropropane	T	Average RF			0.3801	<=15	8.1
1,3-Dichloropropane	T	Average RF			0.3801	<=20	8.1
1,4-Dichlorobenzene	T	Average RF		0.500	1.067	<=15	4.7
1,4-Dichlorobenzene	T	Average RF		0.500	1.067	<=20	4.7
1,4-Dioxane	T	Average RF			0.002000	<=15	7.3
1,4-Dioxane	T	Average RF			0.002000	<=20	7.3
1-Butanol	T	Average RF			0.005782	<=15	7.9
1-Butanol	T	Average RF			0.005782	<=20	7.9
1-Chloro-4-(trifluoromethyl)benzene	T	Average RF			0.3410	<=15	8.0

Initial Calibration - Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
1-Chloro-4-(trifluoromethyl)benzene	T	Average RF			0.3410	<=20	8.0
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	T	Average RF			0.6287	<=15	11.4
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	T	Average RF			0.6287	<=20	11.4
2,2-Dichloropropane	T	Average RF			0.6407	<=15	11.5
2,2-Dichloropropane	T	Average RF			0.6407	<=20	11.5
2,3,6-Trichlorotoluene	T	Average RF			0.3513	<=15	8.7
2,3,6-Trichlorotoluene	T	Average RF			0.3513	<=20	8.7
2,4,5-Trichlorotoluene	T	Average RF			0.3990	<=15	2.2
2,4,5-Trichlorotoluene	T	Average RF			0.3990	<=20	2.2
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	T	Average RF			0.8846	<=15	8.1
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	T	Average RF			0.8846	<=20	8.1
2,4-Dichlorobenzotrifluoride	T	Average RF			0.4432	<=15	3.7
2,4-Dichlorobenzotrifluoride	T	Average RF			0.4432	<=20	3.7
2,5-Dichlorobenzotrifluoride	T	Average RF			0.5013	<=15	4.1
2,5-Dichlorobenzotrifluoride	T	Average RF			0.5013	<=20	4.1
2-Bromo-2-chloro-1,1,1-trifluoroethane	T	Average RF				<=15	
2-Bromo-2-chloro-1,1,1-trifluoroethane	T	Average RF				<=20	
2-Butanone (MEK)	T	Average RF		0.05	0.1460	<=15	8.5
2-Butanone (MEK)	T	Average RF		0.05	0.1460	<=20	8.5
2-Chloro-1,3-butadiene	T	Average RF			0.8055	<=15	7.5
2-Chloro-1,3-butadiene	T	Average RF			0.8055	<=20	7.5
2-Chlorobenzotrifluoride	T	Average RF			0.7581	<=15	6.2
2-Chlorobenzotrifluoride	T	Average RF			0.7581	<=20	6.2
2-Chloroethyl Vinyl Ether	T	Average RF			0.1504	<=15	14.6
2-Chloroethyl Vinyl Ether	T	Average RF			0.1504	<=20	14.6
2-Chlorotoluene	T	Average RF			1.757	<=15	8.1
2-Chlorotoluene	T	Average RF			1.757	<=20	8.1
2-Hexanone	T	Average RF		0.05	0.1531	<=15	8.4
2-Hexanone	T	Average RF		0.05	0.1531	<=20	8.4
2-Methyl-1-propanol	T	Average RF			0.009224	<=15	7.5
2-Methyl-1-propanol	T	Average RF			0.009224	<=20	7.5
2-Methyl-2-propanol	T	Average RF			0.03283	<=15	4.1
2-Methyl-2-propanol	T	Average RF			0.03283	<=20	4.1
2-Nitropropane	T	Average RF			0.04924	<=15	8.3
2-Nitropropane	T	Average RF			0.04924	<=20	8.3
2-Propanol	T	Average RF			0.02023	<=15	6.8
2-Propanol	T	Average RF			0.02023	<=20	6.8
3,4- and 2,3-Dichlorotoluene Coelution	T	Average RF			0.9348	<=15	7.9
3,4- and 2,3-Dichlorotoluene Coelution	T	Average RF			0.9348	<=20	7.9
3,4-Dichlorobenzotrifluoride	T	Average RF			0.5078	<=15	7.5
3,4-Dichlorobenzotrifluoride	T	Average RF			0.5078	<=20	7.5
3-Chloro-1-propene	T	Average RF			0.2328	<=15	12.9
3-Chloro-1-propene	T	Average RF			0.2328	<=20	12.9
3-Chlorobenzotrifluoride	T	Average RF			0.3664	<=15	6.5
3-Chlorobenzotrifluoride	T	Average RF			0.3664	<=20	6.5
3-Chlorotoluene	T	Average RF			1.844	<=15	5.4
3-Chlorotoluene	T	Average RF			1.844	<=20	5.4
4-Chlorotoluene	T	Average RF			1.982	<=15	12.0
4-Chlorotoluene	T	Average RF			1.982	<=20	12.0
4-Isopropyltoluene	T	Average RF			1.899	<=15	8.5
4-Isopropyltoluene	T	Average RF			1.899	<=20	8.5
4-Methyl-2-pentanone	T	Average RF		0.05	0.1994	<=15	1.7

Initial Calibration - Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
4-Methyl-2-pentanone	T	Average RF		0.05	0.1994	<=20	1.7
Acetone	T	Average RF		0.05	0.1066	<=15	7.0
Acetone	T	Average RF		0.05	0.1066	<=20	7.0
Acetonitrile	T	Average RF			0.01478	<=15	12.7
Acetonitrile	T	Average RF			0.01478	<=20	12.7
Acrolein	T	Average RF			0.04260	<=15	6.6
Acrolein	T	Average RF			0.04260	<=20	6.6
Acrylonitrile	T	Average RF			0.1207	<=15	3.8
Acrylonitrile	T	Average RF			0.1207	<=20	3.8
Benzene	T	Average RF		0.500	1.100	<=15	7.5
Benzene	T	Average RF		0.500	1.100	<=20	7.5
Bromobenzene	T	Average RF			0.5883	<=15	5.4
Bromobenzene	T	Average RF			0.5883	<=20	5.4
Bromochloromethane	T	Average RF			0.2575	<=15	7.6
Bromochloromethane	T	Average RF			0.2575	<=20	7.6
Bromodichloromethane	T	Average RF		0.200	0.3343	<=15	6.9
Bromodichloromethane	T	Average RF		0.200	0.3343	<=20	6.9
Bromoform	T	Average RF		0.100	0.2840	<=15	5.6
Bromoform	T	Average RF		0.100	0.2840	<=20	5.6
Bromomethane	T	Average RF		0.100	0.3826	<=15	9.9
Bromomethane	T	Average RF		0.100	0.3826	<=20	9.9
Carbon Disulfide	T	Average RF		0.100	1.397	<=15	7.2
Carbon Disulfide	T	Average RF		0.100	1.397	<=20	7.2
Carbon Tetrachloride	T	Average RF		0.05	0.09574	<=15	5.1
Carbon Tetrachloride	T	Average RF		0.05	0.09574	<=20	5.1
Chlorobenzene	T	Average RF		0.500	0.7396	<=15	9.5
Chlorobenzene	T	Average RF		0.500	0.7396	<=20	9.5
Chloroethane	T	Average RF		0.100	0.4308	<=15	9.3
Chloroethane	T	Average RF		0.100	0.4308	<=20	9.3
Chloroform	T	Average RF		0.200	0.7785	<=15	14.6
Chloroform	T	Average RF		0.200	0.7785	<=20	14.6
Chloromethane	T	Average RF		0.100	0.8409	<=15	6.8
Chloromethane	T	Average RF		0.100	0.8409	<=20	6.8
Cyclohexane	T	Average RF		0.100	0.2733	<=15	15.0
Cyclohexane	T	Average RF		0.100	0.2733	<=20	15.0
Cyclohexanone	T	Average RF			0.03770	<=15	5.0
Cyclohexanone	T	Average RF			0.03770	<=20	5.0
Dibromochloromethane	T	Average RF		0.100	0.2365	<=15	3.1
Dibromochloromethane	T	Average RF		0.100	0.2365	<=20	3.1
Dibromomethane	T	Average RF			0.1343	<=15	11.7
Dibromomethane	T	Average RF			0.1343	<=20	11.7
Dichlorodifluoromethane (CFC 12)	T	Average RF		0.100	0.7043	<=15	9.5
Dichlorodifluoromethane (CFC 12)	T	Average RF		0.100	0.7043	<=20	9.5
Dichlorofluoromethane (CFC 21)	T	Average RF			0.8341	<=15	3.5
Dichlorofluoromethane (CFC 21)	T	Average RF			0.8341	<=20	3.5
Dichloromethane	T	Average RF		0.100	0.4829	<=15	10.7
Dichloromethane	T	Average RF		0.100	0.4829	<=20	10.7
Diethyl Ether	T	Average RF			0.3829	<=15	7.7
Diethyl Ether	T	Average RF			0.3829	<=20	7.7
Diisopropyl Ether	T	Average RF			1.562	<=15	8.6
Diisopropyl Ether	T	Average RF			1.562	<=20	8.6
Ethyl Methacrylate	T	Average RF			0.3152	<=15	2.7

Initial Calibration - Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
Ethyl Methacrylate	T	Average RF			0.3152	<=20	2.7
Ethyl tert-Butyl Ether	T	Average RF			1.467	<=15	5.3
Ethyl tert-Butyl Ether	T	Average RF			1.467	<=20	5.3
Ethylbenzene	T	Average RF		0.100	0.4189	<=15	6.0
Ethylbenzene	T	Average RF		0.100	0.4189	<=20	6.0
Hexachlorobutadiene	T	Average RF			0.2582	<=15	10.2
Hexachlorobutadiene	T	Average RF			0.2582	<=20	10.2
Iodomethane	T	Average RF			0.4751	<=15	9.8
Iodomethane	T	Average RF			0.4751	<=20	9.8
Isopropylbenzene (Cumene)	T	Average RF		0.100	2.600	<=15	11.9
Isopropylbenzene (Cumene)	T	Average RF		0.100	2.600	<=20	11.9
Methacrylonitrile	T	Average RF			0.1413	<=15	5.0
Methacrylonitrile	T	Average RF			0.1413	<=20	5.0
Methyl Acetate	T	Average RF		0.100	0.2484	<=15	13.5
Methyl Acetate	T	Average RF		0.100	0.2484	<=20	13.5
Methyl Methacrylate	T	Average RF			0.1578	<=15	7.3
Methyl Methacrylate	T	Average RF			0.1578	<=20	7.3
Methyl tert-Butyl Ether	T	Average RF		0.100	1.163	<=15	8.1
Methyl tert-Butyl Ether	T	Average RF		0.100	1.163	<=20	8.1
Methylcyclohexane	T	Average RF		0.100	0.3371	<=15	13.9
Methylcyclohexane	T	Average RF		0.100	0.3371	<=20	13.9
Naphthalene	T	Average RF			1.341	<=15	6.1
Naphthalene	T	Average RF			1.341	<=20	6.1
Propionitrile	T	Average RF			0.04459	<=15	6.6
Propionitrile	T	Average RF			0.04459	<=20	6.6
Styrene	T	Average RF		0.300	0.8627	<=15	8.9
Styrene	T	Average RF		0.300	0.8627	<=20	8.9
Tetrachloroethene (PCE)	T	Average RF		0.200	0.2074	<=15	9.6
Tetrachloroethene (PCE)	T	Average RF		0.200	0.2074	<=20	9.6
Tetrahydrofuran (THF)	T	Average RF			0.09390	<=15	6.9
Tetrahydrofuran (THF)	T	Average RF			0.09390	<=20	6.9
Toluene	T	Average RF		0.400	1.140	<=15	10.5
Toluene	T	Average RF		0.400	1.140	<=20	10.5
Trichloroethene (TCE)	T	Average RF		0.200	0.2796	<=15	8.1
Trichloroethene (TCE)	T	Average RF		0.200	0.2796	<=20	8.1
Trichlorofluoromethane (CFC 11)	T	Average RF		0.100	0.6103	<=15	5.3
Trichlorofluoromethane (CFC 11)	T	Average RF		0.100	0.6103	<=20	5.3
Vinyl Acetate	T	Average RF			0.08343	<=15	13.7
Vinyl Acetate	T	Average RF			0.08343	<=20	13.7
Vinyl Chloride	T	Average RF		0.100	0.7834	<=15	6.9
Vinyl Chloride	T	Average RF		0.100	0.7834	<=20	6.9
cis-1,2-Dichloroethene	T	Average RF		0.100	0.4985	<=15	10.0
cis-1,2-Dichloroethene	T	Average RF		0.100	0.4985	<=20	10.0
cis-1,3-Dichloropropene	T	Average RF		0.200	0.4481	<=15	6.3
cis-1,3-Dichloropropene	T	Average RF		0.200	0.4481	<=20	6.3
m,p-Xylenes	T	Average RF		0.100	0.5171	<=15	9.4
m,p-Xylenes	T	Average RF		0.100	0.5171	<=20	9.4
n-Butyl Acetate	T	Average RF			0.3657	<=15	3.3
n-Butyl Acetate	T	Average RF			0.3657	<=20	3.3
n-Butylbenzene	T	Average RF			1.799	<=15	11.8
n-Butylbenzene	T	Average RF			1.799	<=20	11.8
n-Heptane	T	Average RF			0.3028	<=15	12.2

Initial Calibration - Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
n-Heptane	T	Average RF			0.3028	<=20	12.2
n-Propylbenzene	T	Average RF			2.997	<=15	12.7
n-Propylbenzene	T	Average RF			2.997	<=20	12.7
o-Xylene	T	Average RF		0.300	0.5296	<=15	5.4
o-Xylene	T	Average RF		0.300	0.5296	<=20	5.4
sec-Butylbenzene	T	Average RF			2.456	<=15	10.7
sec-Butylbenzene	T	Average RF			2.456	<=20	10.7
tert-Amyl Methyl Ether	T	Average RF			1.247	<=15	5.5
tert-Amyl Methyl Ether	T	Average RF			1.247	<=20	5.5
tert-Butylbenzene	T	Average RF			1.755	<=15	8.4
tert-Butylbenzene	T	Average RF			1.755	<=20	8.4
trans-1,2-Dichloroethene	T	Average RF		0.100	0.4503	<=15	9.8
trans-1,2-Dichloroethene	T	Average RF		0.100	0.4503	<=20	9.8
trans-1,3-Dichloropropene	T	Average RF		0.100	0.3560	<=15	4.0
trans-1,3-Dichloropropene	T	Average RF		0.100	0.3560	<=20	4.0
trans-1,4-Dichloro-2-butene	T	Linear	1/X		0.1645	>=0.99	0.9996
trans-1,4-Dichloro-2-butene	T	Linear	1/X		0.1645	>=0.995	0.9996
trans-1,4-Dichloro-2-butene	T	Linear	1/X		0.1645	>=0.99	0.9996
1,2-Dichloroethane-d4	S	Average RF			0.2871	<=15	7.9
1,2-Dichloroethane-d4	S	Average RF			0.2871	<=20	7.9
4-Bromofluorobenzene	S	Average RF			0.4130	<=15	10.2
4-Bromofluorobenzene	S	Average RF			0.4130	<=20	10.2
Dibromofluoromethane	S	Average RF			0.2600	<=15	9.2
Dibromofluoromethane	S	Average RF			0.2600	<=20	9.2
Toluene-d8	S	Average RF			1.094	<=15	12.3
Toluene-d8	S	Average RF			1.094	<=20	12.3

Initial Calibration - Detailed Report

KR 11/30/15

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
W211815A - 9260 waters **Signal ID:** 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	RC1500127-01	0.5ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8185.D	11/18/15 16:40
02	RC1500127-02	1.0ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8186.D	11/18/15 17:10
03	RC1500127-03	2.0ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8187.D	11/18/15 17:41
04	RC1500127-04	5.0ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8188.D	11/18/15 18:11
05	RC1500127-05	20ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8189.D	11/18/15 18:42
06	RC1500127-06	50ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8190.D	11/18/15 19:12
07	RC1500127-07	100ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8191.D	11/18/15 19:43
08	RC1500127-08	150ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8192.D	11/18/15 20:14
09	RC1500127-09	200ppb	I:\ACQUDATA\msvoa12\Data\111815\MM8193.D	11/18/15 20:45

Analyte **Curve Fit** **Weighting**

1,1,1,2-Tetrachloroethane Average RF RSD = 7.6 Average RF = 0.2556

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2766	02	1.000	0.2733	03	2.000	0.2639	04	5.000	0.2787
05	20.000	0.2623	06	50.000	0.2465	07	100.000	0.2321	08	150.000	0.2325
09	200.000	0.2348									

1,1,1-Trichloroethane (TCA) Average RF RSD = 8.3 Average RF = 0.6115

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7243	02	1.000	0.5697	03	2.000	0.6349	04	5.000	0.6153
05	20.000	0.6322	06	50.000	0.6112	07	100.000	0.5635	08	150.000	0.5694
09	200.000	0.5828									

1,1,2,2-Tetrachloroethane Average RF RSD = 9.7 Average RF = 0.5254

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6253	02	1.000	0.5619	03	2.000	0.5722	04	5.000	0.5046
05	20.000	0.5252	06	50.000	0.4939	07	100.000	0.4855	08	150.000	0.4831
09	200.000	0.4764									

1,1,2-Trichloroethane Average RF RSD = 4.1 Average RF = 0.1927

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1857	02	1.000	0.1923	03	2.000	0.1966	04	5.000	0.2063
05	20.000	0.2025	06	50.000	0.1931	07	100.000	0.1860	08	150.000	0.1833
09	200.000	0.1886									

1,1,2-Trichlorotrifluoroethane Average RF RSD = 10.6 Average RF = 0.3806

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4485	02	1.000	0.4102	03	2.000	0.4140	04	5.000	0.3782
05	20.000	0.3941	06	50.000	0.3737	07	100.000	0.3305	08	150.000	0.3379
09	200.000	0.3379									

1,1-Dichloroethane (1,1-DCA) Average RF RSD = 6.4 Average RF = 0.8010

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9109	02	1.000	0.7655	03	2.000	0.8254	04	5.000	0.7995
05	20.000	0.8368	06	50.000	0.7989	07	100.000	0.7611	08	150.000	0.7526
09	200.000	0.7580									

1,1-Dichloroethene (1,1-DCE) Average RF RSD = 9.7 Average RF = 0.4182

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4905	02	1.000	0.4600	03	2.000	0.4260	04	5.000	0.4220
05	20.000	0.4301	06	50.000	0.4153	07	100.000	0.3758	08	150.000	0.3694
09	200.000	0.3745									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte	Curve Fit	Weighting			
1,1-Dichloropropene	Average RF		RSD = 10.8	Average RF = 0.3528	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4316	02	1.000	0.3673	03	2.000	0.3709	04	5.000	0.3483
05	20.000	0.3647	06	50.000	0.3531	07	100.000	0.3159	08	150.000	0.3107
09	200.000	0.3124									

1,2,3-Trichlorobenzene	Average RF		RSD = 6.4	Average RF = 0.5379	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4648	02	1.000	0.5889	03	2.000	0.5303	04	5.000	0.5597
05	20.000	0.5605	06	50.000	0.5526	07	100.000	0.5303	08	150.000	0.5285
09	200.000	0.5256									

1,2,3-Trichloropropane	Linear	1/X	R2 = 0.9998	Y = 0.1390 X + 7.469E-4	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2170	02	1.000	0.1728	03	2.000	0.1564	04	5.000	0.1540
05	20.000	0.1370	06	50.000	0.1358	07	100.000	0.1404	08	150.000	0.1387
09	200.000	0.1402									

1,2,4-Trichlorobenzene	Average RF		RSD = 7.9	Average RF = 0.6467	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7505	02	1.000	0.6856	03	2.000	0.6451	04	5.000	0.6332
05	20.000	0.6649	06	50.000	0.6513	07	100.000	0.6134	08	150.000	0.5904
09	200.000	0.5856									

1,2,4-Trimethylbenzene	Average RF		RSD = 10.7	Average RF = 2.111	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.434	02	1.000	2.250	03	2.000	2.186	04	5.000	2.161
05	20.000	2.298	06	50.000	2.161	07	100.000	1.928	08	150.000	1.830
09	200.000	1.752									

1,2-Dibromo-3-chloropropane (DBCP)	Average RF		RSD = 8.1	Average RF = 0.1014	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1169	02	1.000	0.08762	03	2.000	0.1052	04	5.000	0.09484
05	20.000	0.1000	06	50.000	0.09653	07	100.000	0.1019	08	150.000	0.1047
09	200.000	0.1046									

1,2-Dibromoethane	Average RF		RSD = 4.7	Average RF = 0.2026	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2193	02	1.000	0.2070	03	2.000	0.2034	04	5.000	0.2093
05	20.000	0.2088	06	50.000	0.1965	07	100.000	0.1922	08	150.000	0.1902
09	200.000	0.1965									

1,2-Dichloro-1,1,2-trifluoroethane (CFC	Average RF		RSD = 10.0	Average RF = 0.5453	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6171	02	1.000	0.6052	03	2.000	0.5960	04	5.000	0.5707
05	20.000	0.5226	06	50.000	0.5370	07	100.000	0.5039	08	150.000	0.4842
09	200.000	0.4705									

1,2-Dichlorobenzene	Average RF		RSD = 5.3	Average RF = 1.048	

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.061	02	1.000	1.145	03	2.000	1.018	04	5.000	1.038
05	20.000	1.115	06	50.000	1.068	07	100.000	1.015	08	150.000	0.9945
09	200.000	0.9783									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

1,2-Dichloroethane Average RF RSD = 6.5 Average RF = 0.2821

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2799	02	1.000	0.2745	03	2.000	0.2939	04	5.000	0.3187
05	20.000	0.2988	06	50.000	0.2762	07	100.000	0.2675	08	150.000	0.2605
09	200.000	0.2689									

1,2-Dichloroethane-d4 Average RF RSD = 7.9 Average RF = 0.2871

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.3157	03	60.000	0.3053	04	70.000	0.2982	05	100.000	0.2763
07	125.000	0.2694	08	150.000	0.2579						

1,2-Dichloropropane Average RF RSD = 6.9 Average RF = 0.2727

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3069	02	1.000	0.2895	03	2.000	0.2685	04	5.000	0.2673
05	20.000	0.2866	06	50.000	0.2745	07	100.000	0.2557	08	150.000	0.2497
09	200.000	0.2552									

1,3,5-Trichlorobenzene Average RF RSD = 10.1 Average RF = 0.7046

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8493	02	1.000	0.6796	03	2.000	0.7834	04	5.000	0.6781
05	20.000	0.7257	06	50.000	0.6873	07	100.000	0.6725	08	150.000	0.6462
09	200.000	0.6195									

1,3,5-Trimethylbenzene Average RF RSD = 9.4 Average RF = 1.968

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.098	02	1.000	2.047	03	2.000	2.146	04	5.000	2.097
05	20.000	2.123	06	50.000	2.007	07	100.000	1.798	08	150.000	1.726
09	200.000	1.667									

1,3-Dichlorobenzene Average RF RSD = 6.9 Average RF = 1.139

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.251	02	1.000	1.195	03	2.000	1.188	04	5.000	1.120
05	20.000	1.203	06	50.000	1.152	07	100.000	1.075	08	150.000	1.038
09	200.000	1.027									

1,3-Dichloropropane Average RF RSD = 8.1 Average RF = 0.3801

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3950	02	1.000	0.4291	03	2.000	0.4048	04	5.000	0.3984
05	20.000	0.3938	06	50.000	0.3612	07	100.000	0.3491	08	150.000	0.3435
09	200.000	0.3463									

1,4-Dichlorobenzene Average RF RSD = 4.7 Average RF = 1.067

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.033	02	1.000	1.024	03	2.000	1.119	04	5.000	1.090
05	20.000	1.151	06	50.000	1.108	07	100.000	1.048	08	150.000	1.020
09	200.000	1.015									

1,4-Dioxane Average RF RSD = 7.3 Average RF = 0.002000

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	40.000	0.002204	04	100.000	0.002067	05	400.000	0.001944	06	1000.000	0.001765
07	2000.000	0.001913	08	3000.000	0.001978	09	4000.000	0.002125			

1-Butanol Average RF RSD = 7.9 Average RF = 0.005782

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	50.000	0.005580	03	100.000	0.006691	04	250.000	0.005644	05	1000.000	0.005267
06	2500.000	0.005306	07	5000.000	0.005834	08	7500.000	0.005896	09	10000.000	0.006037

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

1-Chloro-4-(trifluoromethyl)benzene Average RF RSD = 8.0 Average RF = 0.3410

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3992	02	1.000	0.3564	03	2.000	0.3518	04	5.000	0.3490
05	20.000	0.3362	06	50.000	0.3231	07	100.000	0.3268	08	150.000	0.3162
09	200.000	0.3102									

2,2-Dichloro-1,1,1-trifluoroethane (CFC Average RF RSD = 11.4 Average RF = 0.6287

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7446	02	1.000	0.7318	03	2.000	0.6731	04	5.000	0.6209
05	20.000	0.5878	06	50.000	0.6105	07	100.000	0.5764	08	150.000	0.5550
09	200.000	0.5584									

2,2-Dichloropropane Average RF RSD = 11.5 Average RF = 0.6407

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.7892	03	2.000	0.6750	04	5.000	0.6285	05	20.000	0.6750
06	50.000	0.6374	07	100.000	0.5770	08	150.000	0.5733	09	200.000	0.5701

2,3,6-Trichlorotoluene Average RF RSD = 8.7 Average RF = 0.3513

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3537	03	2.000	0.4190	04	5.000	0.3638	05	20.000	0.3528
06	50.000	0.3298	07	100.000	0.3307	08	150.000	0.3304	09	200.000	0.3301

2,4,5-Trichlorotoluene Average RF RSD = 2.2 Average RF = 0.3990

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3817	03	2.000	0.3981	04	5.000	0.4134	05	20.000	0.4044
06	50.000	0.3949	07	100.000	0.4012	08	150.000	0.4009	09	200.000	0.3973

2,4-, 2,5-, and 2,6-Dichlorotoluene Coelut Average RF RSD = 8.1 Average RF = 0.8846

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.500	0.9654	02	3.000	0.9029	03	6.000	0.9376	04	15.000	0.9277
05	60.000	0.9370	06	150.000	0.8890	07	300.000	0.8561	08	450.000	0.7971
09	600.000	0.7488									

2,4-Dichlorobenzotrifluoride Average RF RSD = 3.7 Average RF = 0.4432

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4721	02	1.000	0.4291	03	2.000	0.4455	04	5.000	0.4403
05	20.000	0.4561	06	50.000	0.4421	07	100.000	0.4538	08	150.000	0.4339
09	200.000	0.4156									

2,5-Dichlorobenzotrifluoride Average RF RSD = 4.1 Average RF = 0.5013

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5474	02	1.000	0.5032	03	2.000	0.5047	04	5.000	0.5028
05	20.000	0.4996	06	50.000	0.4918	07	100.000	0.5039	08	150.000	0.4870
09	200.000	0.4717									

2-Butanone (MEK) Average RF RSD = 8.5 Average RF = 0.1460

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1700	04	5.000	0.1397	05	20.000	0.1301	06	50.000	0.1395
07	100.000	0.1490	08	150.000	0.1451	09	200.000	0.1487			

2-Chloro-1,3-butadiene Average RF RSD = 7.5 Average RF = 0.8055

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8914	02	1.000	0.8645	03	2.000	0.8551	04	5.000	0.8410
05	20.000	0.7674	06	50.000	0.8031	07	100.000	0.7667	08	150.000	0.7427
09	200.000	0.7173									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

2-Chlorobenzotrifluoride Average RF RSD = 6.2 Average RF = 0.7581

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7559	02	1.000	0.8402	03	2.000	0.8224	04	5.000	0.7565
05	20.000	0.7595	06	50.000	0.7344	07	100.000	0.7414	08	150.000	0.7266
09	200.000	0.6859									

2-Chloroethyl Vinyl Ether Average RF RSD = 14.6 Average RF = 0.1504

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2024	02	1.000	0.1367	03	2.000	0.1648	04	5.000	0.1559
05	20.000	0.1379	06	50.000	0.1420	07	100.000	0.1431	08	150.000	0.1363
09	200.000	0.1349									

2-Chlorotoluene Average RF RSD = 8.1 Average RF = 1.757

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.960	02	1.000	1.695	03	2.000	1.829	04	5.000	1.793
05	20.000	1.922	06	50.000	1.814	07	100.000	1.649	08	150.000	1.589
09	200.000	1.560									

2-Hexanone Average RF RSD = 8.4 Average RF = 0.1531

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1793	04	5.000	0.1559	05	20.000	0.1391	06	50.000	0.1441
07	100.000	0.1492	08	150.000	0.1524	09	200.000	0.1514			

2-Methyl-1-propanol Average RF RSD = 7.5 Average RF = 0.009224

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.009577	03	40.000	0.01062	04	100.000	0.009398	05	400.000	0.008872
06	1000.000	0.008304	07	2000.000	0.008899	08	3000.000	0.008819	09	4000.000	0.009299

2-Methyl-2-propanol Average RF RSD = 4.1 Average RF = 0.03283

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.03151	03	40.000	0.03269	04	100.000	0.03343	05	400.000	0.03186
06	1000.000	0.03092	07	2000.000	0.03333	08	3000.000	0.03407	09	4000.000	0.03480

2-Nitropropane Average RF RSD = 8.3 Average RF = 0.04924

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	2.000	0.04620	03	4.000	0.05546	04	10.000	0.05570	05	40.000	0.04829
06	100.000	0.04502	07	200.000	0.04658	08	300.000	0.04770	09	400.000	0.04894

2-Propanol Average RF RSD = 6.8 Average RF = 0.02023

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.02227	03	40.000	0.02129	04	100.000	0.02106	05	400.000	0.01845
06	1000.000	0.01842	07	2000.000	0.01936	08	3000.000	0.02027	09	4000.000	0.02069

3,4- and 2,3-Dichlorotoluene Coelution Average RF RSD = 7.9 Average RF = 0.9348

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.8887	02	2.000	1.000	03	4.000	0.9940	04	10.000	1.005
05	40.000	0.9943	06	100.000	0.9588	07	200.000	0.9140	08	300.000	0.8566
09	400.000	0.8013									

3,4-Dichlorobenzotrifluoride Average RF RSD = 7.5 Average RF = 0.5078

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5658	02	1.000	0.5119	03	2.000	0.5742	04	5.000	0.4891
05	20.000	0.4994	06	50.000	0.4977	07	100.000	0.4902	08	150.000	0.4798
09	200.000	0.4616									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

3-Chloro-1-propene Average RF RSD = 12.9 Average RF = 0.2328

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2592	02	1.000	0.2897	03	2.000	0.2221	04	5.000	0.2380
05	20.000	0.2474	06	50.000	0.2333	07	100.000	0.2105	08	150.000	0.2014
09	200.000	0.1940									

3-Chlorobenzotrifluoride Average RF RSD = 6.5 Average RF = 0.3664

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4058	02	1.000	0.3846	03	2.000	0.3911	04	5.000	0.3697
05	20.000	0.3649	06	50.000	0.3532	07	100.000	0.3517	08	150.000	0.3451
09	200.000	0.3319									

3-Chlorotoluene Average RF RSD = 5.4 Average RF = 1.844

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.885	02	1.000	1.869	03	2.000	1.946	04	5.000	1.933
05	20.000	1.920	06	50.000	1.849	07	100.000	1.808	08	150.000	1.755
09	200.000	1.633									

4-Bromofluorobenzene Average RF RSD = 10.2 Average RF = 0.4130

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.4702	03	60.000	0.4502	04	70.000	0.4242	05	100.000	0.3855
07	125.000	0.3860	08	150.000	0.3618						

4-Chlorotoluene Average RF RSD = 12.0 Average RF = 1.982

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.344	02	1.000	2.064	03	2.000	2.164	04	5.000	2.030
05	20.000	2.132	06	50.000	2.004	07	100.000	1.798	08	150.000	1.666
09	200.000	1.633									

4-Isopropyltoluene Average RF RSD = 8.5 Average RF = 1.899

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.996	02	1.000	1.954	03	2.000	2.049	04	5.000	1.951
05	20.000	2.090	06	50.000	1.962	07	100.000	1.760	08	150.000	1.700
09	200.000	1.630									

4-Methyl-2-pentanone Average RF RSD = 1.7 Average RF = 0.1994

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1965	04	5.000	0.2002	05	20.000	0.1963	06	50.000	0.1956
07	100.000	0.2046	08	150.000	0.2004	09	200.000	0.2024			

Acetone Average RF RSD = 7.0 Average RF = 0.1066

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	5.000	0.1206	05	20.000	0.1026	06	50.000	0.09956	07	100.000	0.1038
08	150.000	0.1045	09	200.000	0.1085						

Acetonitrile Average RF RSD = 12.7 Average RF = 0.01478

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	10.000	0.01481	04	25.000	0.01768	05	100.000	0.01435	06	250.000	0.01274
07	500.000	0.01230	08	750.000	0.01558	09	1000.000	0.01603			

Acrolein Average RF RSD = 6.6 Average RF = 0.04260

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	4.000	0.04614	04	10.000	0.04627	05	40.000	0.03997	06	100.000	0.03934
07	200.000	0.04079	08	300.000	0.04281	09	400.000	0.04292			

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Acrylonitrile Average RF RSD = 3.8 Average RF = 0.1207

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.500	0.1250	02	5.000	0.1206	03	10.000	0.1308	04	25.000	0.1179
05	100.000	0.1190	06	250.000	0.1157	07	500.000	0.1189	08	750.000	0.1177
09	1000.000	0.1203									

Benzene Average RF RSD = 7.5 Average RF = 1.100

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.202	02	1.000	1.164	03	2.000	1.151	04	5.000	1.131
05	20.000	1.152	06	50.000	1.120	07	100.000	1.016	08	150.000	0.9768
09	200.000	0.9917									

Bromobenzene Average RF RSD = 5.4 Average RF = 0.5883

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5566	02	1.000	0.5966	03	2.000	0.6448	04	5.000	0.5726
05	20.000	0.6286	06	50.000	0.6028	07	100.000	0.5649	08	150.000	0.5648
09	200.000	0.5633									

Bromochloromethane Average RF RSD = 7.6 Average RF = 0.2575

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2922	02	1.000	0.2747	03	2.000	0.2713	04	5.000	0.2621
05	20.000	0.2540	06	50.000	0.2528	07	100.000	0.2404	08	150.000	0.2309
09	200.000	0.2391									

Bromodichloromethane Average RF RSD = 6.9 Average RF = 0.3343

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3706	02	1.000	0.3685	03	2.000	0.3325	04	5.000	0.3297
05	20.000	0.3414	06	50.000	0.3336	07	100.000	0.3110	08	150.000	0.3075
09	200.000	0.3141									

Bromoform Average RF RSD = 5.6 Average RF = 0.2840

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3238	02	1.000	0.2804	03	2.000	0.2882	04	5.000	0.2750
05	20.000	0.2769	06	50.000	0.2740	07	100.000	0.2718	08	150.000	0.2802
09	200.000	0.2861									

Bromomethane Average RF RSD = 9.9 Average RF = 0.3826

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4747	02	1.000	0.3800	03	2.000	0.4089	04	5.000	0.3635
05	20.000	0.3644	06	50.000	0.3715	07	100.000	0.3576	08	150.000	0.3577
09	200.000	0.3651									

Carbon Disulfide Average RF RSD = 7.2 Average RF = 1.397

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.520	02	1.000	1.419	03	2.000	1.514	04	5.000	1.473
05	20.000	1.371	06	50.000	1.420	07	100.000	1.345	08	150.000	1.279
09	200.000	1.231									

Carbon Tetrachloride Average RF RSD = 5.1 Average RF = 0.09574

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1013	02	1.000	0.1007	03	2.000	0.09723	04	5.000	0.09918
05	20.000	0.09811	06	50.000	0.09633	07	100.000	0.08822	08	150.000	0.08961
09	200.000	0.09097									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** Average RF **Weighting**

Chlorobenzene RSD = 9.5 Average RF = 0.7396

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8436	02	1.000	0.7725	03	2.000	0.8041	04	5.000	0.7669
05	20.000	0.7771	06	50.000	0.7211	07	100.000	0.6765	08	150.000	0.6528
09	200.000	0.6418									

Chloroethane RSD = 9.3 Average RF = 0.4308

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5222	02	1.000	0.4020	03	2.000	0.4535	04	5.000	0.4210
05	20.000	0.4456	06	50.000	0.4314	07	100.000	0.4013	08	150.000	0.3980
09	200.000	0.4022									

Chloroform RSD = 14.6 Average RF = 0.7785

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.055	02	1.000	0.8003	03	2.000	0.7870	04	5.000	0.7939
05	20.000	0.7658	06	50.000	0.7353	07	100.000	0.6882	08	150.000	0.6858
09	200.000	0.6946									

Chloromethane RSD = 6.8 Average RF = 0.8409

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9472	02	1.000	0.8222	03	2.000	0.8659	04	5.000	0.7777
05	20.000	0.9082	06	50.000	0.8460	07	100.000	0.7987	08	150.000	0.7944
09	200.000	0.8072									

Cyclohexane RSD = 15.0 Average RF = 0.2733

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3763	02	1.000	0.2791	03	2.000	0.2717	04	5.000	0.2692
05	20.000	0.2606	06	50.000	0.2690	07	100.000	0.2512	08	150.000	0.2403
09	200.000	0.2421									

Cyclohexanone RSD = 5.0 Average RF = 0.03770

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	20.000	0.03844	03	40.000	0.03846	04	100.000	0.03515	05	400.000	0.03553
06	1000.000	0.03579	07	2000.000	0.03914	08	3000.000	0.03927	09	4000.000	0.03980

Dibromochloromethane RSD = 3.1 Average RF = 0.2365

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2372	02	1.000	0.2511	03	2.000	0.2405	04	5.000	0.2399
05	20.000	0.2384	06	50.000	0.2361	07	100.000	0.2281	08	150.000	0.2268
09	200.000	0.2307									

Dibromofluoromethane RSD = 9.2 Average RF = 0.2600

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	0.2885	03	60.000	0.2816	04	70.000	0.2688	05	100.000	0.2532
07	125.000	0.2410	08	150.000	0.2267						

Dibromomethane RSD = 11.7 Average RF = 0.1343

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1651	02	1.000	0.1533	03	2.000	0.1411	04	5.000	0.1270
05	20.000	0.1307	06	50.000	0.1244	07	100.000	0.1231	08	150.000	0.1187
09	200.000	0.1248									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Dichlorodifluoromethane (CFC 12) Average RF RSD = 9.5 Average RF = 0.7043

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6362	02	1.000	0.6553	03	2.000	0.6447	04	5.000	0.6142
05	20.000	0.7894	06	50.000	0.7843	07	100.000	0.7374	08	150.000	0.7343
09	200.000	0.7431									

Dichlorofluoromethane (CFC 21) Average RF RSD = 3.5 Average RF = 0.8341

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8546	02	1.000	0.8481	03	2.000	0.8835	04	5.000	0.8253
05	20.000	0.8317	06	50.000	0.8491	07	100.000	0.8319	08	150.000	0.7926
09	200.000	0.7905									

Dichloromethane Average RF RSD = 10.7 Average RF = 0.4829

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5779	02	1.000	0.5249	03	2.000	0.5344	04	5.000	0.4713
05	20.000	0.4747	06	50.000	0.4579	07	100.000	0.4347	08	150.000	0.4312
09	200.000	0.4389									

Diethyl Ether Average RF RSD = 7.7 Average RF = 0.3829

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.4427	03	2.000	0.3602	04	5.000	0.4003	05	20.000	0.3985
06	50.000	0.3781	07	100.000	0.3666	08	150.000	0.3584	09	200.000	0.3582

Diisopropyl Ether Average RF RSD = 8.6 Average RF = 1.562

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.702	02	1.000	1.676	03	2.000	1.725	04	5.000	1.660
05	20.000	1.526	06	50.000	1.528	07	100.000	1.465	08	150.000	1.399
09	200.000	1.372									

Ethyl Methacrylate Average RF RSD = 2.7 Average RF = 0.3152

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3229	02	1.000	0.2994	03	2.000	0.3035	04	5.000	0.3178
05	20.000	0.3251	06	50.000	0.3172	07	100.000	0.3190	08	150.000	0.3123
09	200.000	0.3195									

Ethyl tert-Butyl Ether Average RF RSD = 5.3 Average RF = 1.467

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.527	02	1.000	1.532	03	2.000	1.566	04	5.000	1.553
05	20.000	1.408	06	50.000	1.441	07	100.000	1.433	08	150.000	1.382
09	200.000	1.364									

Ethylbenzene Average RF RSD = 6.0 Average RF = 0.4189

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4464	02	1.000	0.4276	03	2.000	0.4457	04	5.000	0.4296
05	20.000	0.4425	06	50.000	0.4121	07	100.000	0.3857	08	150.000	0.3867
09	200.000	0.3942									

Hexachlorobutadiene Average RF RSD = 10.2 Average RF = 0.2582

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.2962	03	2.000	0.2947	04	5.000	0.2493	05	20.000	0.2641
06	50.000	0.2636	07	100.000	0.2347	08	150.000	0.2321	09	200.000	0.2311

Iodomethane Average RF RSD = 9.8 Average RF = 0.4751

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.4144	04	5.000	0.4129	05	20.000	0.4856	06	50.000	0.5369
07	100.000	0.5128	08	150.000	0.4867	09	200.000	0.4762			

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Isopropylbenzene (Cumene) Average RF RSD = 11.9 Average RF = 2.600

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.932	02	1.000	2.911	03	2.000	2.782	04	5.000	2.715
05	20.000	2.803	06	50.000	2.620	07	100.000	2.310	08	150.000	2.224
09	200.000	2.103									

Methacrylonitrile Average RF RSD = 5.0 Average RF = 0.1413

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.1380	03	2.000	0.1556	04	5.000	0.1479	05	20.000	0.1406
06	50.000	0.1340	07	100.000	0.1395	08	150.000	0.1362	09	200.000	0.1389

Methyl Acetate Average RF RSD = 13.5 Average RF = 0.2484

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3231	03	2.000	0.2642	04	5.000	0.2510	05	20.000	0.2190
06	50.000	0.2256	07	100.000	0.2309	08	150.000	0.2335	09	200.000	0.2394

Methyl Methacrylate Average RF RSD = 7.3 Average RF = 0.1578

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.1827	02	1.000	0.1479	03	2.000	0.1717	04	5.000	0.1565
05	20.000	0.1540	06	50.000	0.1527	07	100.000	0.1505	08	150.000	0.1520
09	200.000	0.1520									

Methyl tert-Butyl Ether Average RF RSD = 8.1 Average RF = 1.163

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.349	02	1.000	1.197	03	2.000	1.200	04	5.000	1.226
05	20.000	1.184	06	50.000	1.104	07	100.000	1.079	08	150.000	1.061
09	200.000	1.070									

Methylcyclohexane Average RF RSD = 13.9 Average RF = 0.3371

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4454	02	1.000	0.3389	03	2.000	0.3673	04	5.000	0.3407
05	20.000	0.3184	06	50.000	0.3239	07	100.000	0.3070	08	150.000	0.2947
09	200.000	0.2974									

Naphthalene Average RF RSD = 6.1 Average RF = 1.341

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.240	02	1.000	1.188	03	2.000	1.452	04	5.000	1.323
05	20.000	1.395	06	50.000	1.384	07	100.000	1.388	08	150.000	1.364
09	200.000	1.338									

Propionitrile Average RF RSD = 6.6 Average RF = 0.04459

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	5.000	0.04921	03	10.000	0.04745	04	25.000	0.04126	05	100.000	0.04224
06	250.000	0.04136	07	500.000	0.04441	08	750.000	0.04434	09	1000.000	0.04643

Styrene Average RF RSD = 8.9 Average RF = 0.8627

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.9522	02	1.000	0.9356	03	2.000	0.9260	04	5.000	0.8800
05	20.000	0.9069	06	50.000	0.8594	07	100.000	0.7921	08	150.000	0.7646
09	200.000	0.7472									

Tetrachloroethene (PCE) Average RF RSD = 9.6 Average RF = 0.2074

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2514	02	1.000	0.1948	03	2.000	0.2169	04	5.000	0.2047
05	20.000	0.2191	06	50.000	0.2071	07	100.000	0.1918	08	150.000	0.1901
09	200.000	0.1905									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Tetrahydrofuran (THF) Average RF RSD = 6.9 Average RF = 0.09390

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	2.000	0.1024	04	5.000	0.09978	05	20.000	0.08783	06	50.000	0.08504
07	100.000	0.09461	08	150.000	0.08996	09	200.000	0.09771			

Toluene Average RF RSD = 10.5 Average RF = 1.140

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.311	02	1.000	1.147	03	2.000	1.202	04	5.000	1.225
05	20.000	1.229	06	50.000	1.161	07	100.000	1.036	08	150.000	0.9823
09	200.000	0.9641									

Toluene-d8 Average RF RSD = 12.3 Average RF = 1.094

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	50.000	1.272	03	60.000	1.201	04	70.000	1.142	05	100.000	1.040
07	125.000	0.9945	08	150.000	0.9158						

Trichloroethene (TCE) Average RF RSD = 8.1 Average RF = 0.2796

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3231	02	1.000	0.3027	03	2.000	0.2684	04	5.000	0.2854
05	20.000	0.2859	06	50.000	0.2765	07	100.000	0.2556	08	150.000	0.2541
09	200.000	0.2646									

Trichlorofluoromethane (CFC 11) Average RF RSD = 5.3 Average RF = 0.6103

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5999	02	1.000	0.6241	03	2.000	0.6351	04	5.000	0.5983
05	20.000	0.6727	06	50.000	0.6272	07	100.000	0.5890	08	150.000	0.5727
09	200.000	0.5732									

Vinyl Acetate Average RF RSD = 13.7 Average RF = 0.08343

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.08232	03	2.000	0.09504	04	5.000	0.1044	05	20.000	0.07963
06	50.000	0.07988	07	100.000	0.07962	08	150.000	0.08008	09	200.000	0.06651

Vinyl Chloride Average RF RSD = 6.9 Average RF = 0.7834

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.8677	02	1.000	0.8044	03	2.000	0.7629	04	5.000	0.7438
05	20.000	0.8615	06	50.000	0.8048	07	100.000	0.7399	08	150.000	0.7296
09	200.000	0.7358									

cis-1,2-Dichloroethene Average RF RSD = 10.0 Average RF = 0.4985

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5914	02	1.000	0.5359	03	2.000	0.5321	04	5.000	0.5156
05	20.000	0.4947	06	50.000	0.4772	07	100.000	0.4456	08	150.000	0.4446
09	200.000	0.4495									

cis-1,3-Dichloropropene Average RF RSD = 6.3 Average RF = 0.4481

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.4777	02	1.000	0.4720	03	2.000	0.4602	04	5.000	0.4643
05	20.000	0.4728	06	50.000	0.4477	07	100.000	0.4221	08	150.000	0.4062
09	200.000	0.4099									

m,p-Xylenes Average RF RSD = 9.4 Average RF = 0.5171

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.000	0.5958	02	2.000	0.5253	03	4.000	0.5526	04	10.000	0.5395
05	40.000	0.5471	06	100.000	0.5129	07	200.000	0.4694	08	300.000	0.4604
09	400.000	0.4511									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte **Curve Fit** **Weighting**

n-Butyl Acetate Average RF RSD = 3.3 Average RF = 0.3657

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3780	02	1.000	0.3877	03	2.000	0.3755	04	5.000	0.3557
05	20.000	0.3621	06	50.000	0.3569	07	100.000	0.3625	08	150.000	0.3611
09	200.000	0.3520									

n-Butylbenzene Average RF RSD = 11.8 Average RF = 1.799

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.101	02	1.000	1.782	03	2.000	1.941	04	5.000	1.891
05	20.000	1.982	06	50.000	1.855	07	100.000	1.618	08	150.000	1.542
09	200.000	1.476									

n-Heptane Average RF RSD = 12.2 Average RF = 0.3028

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	1.000	0.3672	03	2.000	0.3330	04	5.000	0.3134	05	20.000	0.3164
06	50.000	0.2952	07	100.000	0.2721	08	150.000	0.2630	09	200.000	0.2622

n-Propylbenzene Average RF RSD = 12.7 Average RF = 2.997

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	3.473	02	1.000	3.119	03	2.000	3.284	04	5.000	3.071
05	20.000	3.326	06	50.000	3.096	07	100.000	2.706	08	150.000	2.543
09	200.000	2.352									

o-Xylene Average RF RSD = 5.4 Average RF = 0.5296

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5272	02	1.000	0.5122	03	2.000	0.5633	04	5.000	0.5694
05	20.000	0.5582	06	50.000	0.5362	07	100.000	0.5009	08	150.000	0.4969
09	200.000	0.5021									

sec-Butylbenzene Average RF RSD = 10.7 Average RF = 2.456

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	2.755	02	1.000	2.628	03	2.000	2.597	04	5.000	2.548
05	20.000	2.680	06	50.000	2.524	07	100.000	2.230	08	150.000	2.132
09	200.000	2.013									

tert-Amyl Methyl Ether Average RF RSD = 5.5 Average RF = 1.247

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.329	02	1.000	1.310	03	2.000	1.355	04	5.000	1.253
05	20.000	1.185	06	50.000	1.211	07	100.000	1.211	08	150.000	1.185
09	200.000	1.180									

tert-Butylbenzene Average RF RSD = 8.4 Average RF = 1.755

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.970	02	1.000	1.688	03	2.000	1.829	04	5.000	1.815
05	20.000	1.910	06	50.000	1.818	07	100.000	1.624	08	150.000	1.584
09	200.000	1.561									

trans-1,2-Dichloroethene Average RF RSD = 9.8 Average RF = 0.4503

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5440	02	1.000	0.4261	03	2.000	0.4861	04	5.000	0.4457
05	20.000	0.4700	06	50.000	0.4477	07	100.000	0.4136	08	150.000	0.4102
09	200.000	0.4096									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte	Curve Fit	Weighting									
trans-1,3-Dichloropropene	Average RF			RSD = 4.0		Average RF = 0.3560					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3485	02	1.000	0.3329	03	2.000	0.3598	04	5.000	0.3762
05	20.000	0.3735	06	50.000	0.3669	07	100.000	0.3531	08	150.000	0.3448
09	200.000	0.3481									
trans-1,4-Dichloro-2-butene	Linear	1/X		R2 = 0.9996		Y = 0.1536 X + 5.212E-4					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.2429	02	1.000	0.1773	03	2.000	0.1591	04	5.000	0.1371
05	20.000	0.1496	06	50.000	0.1529	07	100.000	0.1524	08	150.000	0.1539
09	200.000	0.1557									

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte

1,1,1,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.2	02	1.000	1.07	6.9	03	2.000	2.06	3.2
04	5.000	5.45	9.0	05	20.000	20.52	2.6	06	50.000	48.21	-3.6
07	100.000	90.80	-9.2	08	150.000	136.43	-9.0	09	200.000	183.70	-8.2

1,1,1-Trichloroethane (TCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.5	02	1.000	0.93	-6.8	03	2.000	2.08	3.8
04	5.000	5.03	0.6	05	20.000	20.68	3.4	06	50.000	49.98	0.0
07	100.000	92.16	-7.8	08	150.000	139.69	-6.9	09	200.000	190.62	-4.7

1,1,2,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	19.0	02	1.000	1.07	7.0	03	2.000	2.18	8.9
04	5.000	4.80	-4.0	05	20.000	19.99	0.0	06	50.000	47.00	-6.0
07	100.000	92.42	-7.6	08	150.000	137.95	-8.0	09	200.000	181.38	-9.3

1,1,2-Trichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.7	02	1.000	1.00	-0.2	03	2.000	2.04	2.0
04	5.000	5.35	7.0	05	20.000	21.02	5.1	06	50.000	50.10	0.2
07	100.000	96.52	-3.5	08	150.000	142.70	-4.9	09	200.000	195.69	-2.2

1,1,2-Trichlorotrifluoroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.9	02	1.000	1.08	7.8	03	2.000	2.18	8.8
04	5.000	4.97	-0.6	05	20.000	20.71	3.6	06	50.000	49.10	-1.8
07	100.000	86.84	-13.2	08	150.000	133.18	-11.2	09	200.000	177.56	-11.2

1,1-Dichloroethane (1,1-DCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	13.7	02	1.000	0.96	-4.4	03	2.000	2.06	3.0
04	5.000	4.99	-0.2	05	20.000	20.89	4.5	06	50.000	49.87	-0.3
07	100.000	95.02	-5.0	08	150.000	140.95	-6.0	09	200.000	189.26	-5.4

1,1-Dichloroethene (1,1-DCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.3	02	1.000	1.10	10.0	03	2.000	2.04	1.9
04	5.000	5.05	0.9	05	20.000	20.57	2.9	06	50.000	49.65	-0.7
07	100.000	89.86	-10.1	08	150.000	132.52	-11.7	09	200.000	179.10	-10.4

1,1-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	22.3	02	1.000	1.04	4.1	03	2.000	2.10	5.1
04	5.000	4.94	-1.3	05	20.000	20.68	3.4	06	50.000	50.05	0.1
07	100.000	89.56	-10.4	08	150.000	132.11	-11.9	09	200.000	177.13	-11.4

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte

1,2,3-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.43	-13.6	02	1.000	1.09	9.5	03	2.000	1.97	-1.4
04	5.000	5.20	4.1	05	20.000	20.84	4.2	06	50.000	51.37	2.7
07	100.000	98.59	-1.4	08	150.000	147.38	-1.7	09	200.000	195.43	-2.3

1,2,3-Trichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.4	02	1.000	0.97	-2.5	03	2.000	1.98	-0.9
04	5.000	5.27	5.5	05	20.000	19.45	-2.7	06	50.000	48.58	-2.8
07	100.000	100.78	0.8	08	150.000	149.45	-0.4	09	200.000	201.50	0.7

1,2,4-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	16.1	02	1.000	1.06	6.0	03	2.000	2.00	-0.2
04	5.000	4.90	-2.1	05	20.000	20.56	2.8	06	50.000	50.36	0.7
07	100.000	94.85	-5.1	08	150.000	136.96	-8.7	09	200.000	181.12	-9.4

1,2,4-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.3	02	1.000	1.07	6.6	03	2.000	2.07	3.6
04	5.000	5.12	2.4	05	20.000	21.77	8.8	06	50.000	51.18	2.4
07	100.000	91.33	-8.7	08	150.000	130.03	-13.3	09	200.000	165.94	-17.0

1,2-Dibromo-3-chloropropane (DBCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.3	02	1.000	0.86	-13.6	03	2.000	2.08	3.8
04	5.000	4.68	-6.4	05	20.000	19.73	-1.3	06	50.000	47.62	-4.8
07	100.000	100.52	0.5	08	150.000	155.01	3.3	09	200.000	206.41	3.2

1,2-Dibromoethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.2	02	1.000	1.02	2.2	03	2.000	2.01	0.4
04	5.000	5.17	3.3	05	20.000	20.61	3.1	06	50.000	48.49	-3.0
07	100.000	94.90	-5.1	08	150.000	140.87	-6.1	09	200.000	193.97	-3.0

1,2-Dichloro-1,1,2-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	13.2	02	1.000	1.11	11.0	03	2.000	2.19	9.3
04	5.000	5.23	4.7	05	20.000	19.17	-4.2	06	50.000	49.25	-1.5
07	100.000	92.41	-7.6	08	150.000	133.19	-11.2	09	200.000	172.59	-13.7

1,2-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	1.3	02	1.000	1.09	9.3	03	2.000	1.94	-2.9
04	5.000	4.95	-1.0	05	20.000	21.27	6.4	06	50.000	50.97	1.9
07	100.000	96.85	-3.1	08	150.000	142.33	-5.1	09	200.000	186.68	-6.7

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

1,2-Dichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.8	02	1.000	0.97	-2.7	03	2.000	2.08	4.2
04	5.000	5.65	13.0	05	20.000	21.18	5.9	06	50.000	48.96	-2.1
07	100.000	94.83	-5.2	08	150.000	138.50	-7.7	09	200.000	190.63	-4.7

1,2-Dichloroethane-d4

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	54.97	9.9	03	60.000	63.80	6.3	04	70.000	72.70	3.9
05	100.000	96.23	-3.8	07	125.000	117.27	-6.2	08	150.000	134.71	-10.2

1,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.6	02	1.000	1.06	6.2	03	2.000	1.97	-1.5
04	5.000	4.90	-2.0	05	20.000	21.02	5.1	06	50.000	50.34	0.7
07	100.000	93.78	-6.2	08	150.000	137.38	-8.4	09	200.000	187.18	-6.4

1,3,5-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	20.5	02	1.000	0.96	-3.5	03	2.000	2.22	11.2
04	5.000	4.81	-3.8	05	20.000	20.60	3.0	06	50.000	48.77	-2.5
07	100.000	95.44	-4.6	08	150.000	137.58	-8.3	09	200.000	175.84	-12.1

1,3,5-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.6	02	1.000	1.04	4.0	03	2.000	2.18	9.1
04	5.000	5.33	6.6	05	20.000	21.58	7.9	06	50.000	51.00	2.0
07	100.000	91.40	-8.6	08	150.000	131.55	-12.3	09	200.000	169.40	-15.3

1,3-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.9	02	1.000	1.05	4.9	03	2.000	2.09	4.3
04	5.000	4.92	-1.6	05	20.000	21.13	5.6	06	50.000	50.57	1.1
07	100.000	94.39	-5.6	08	150.000	136.71	-8.9	09	200.000	180.39	-9.8

1,3-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.9	02	1.000	1.13	12.9	03	2.000	2.13	6.5
04	5.000	5.24	4.8	05	20.000	20.72	3.6	06	50.000	47.51	-5.0
07	100.000	91.83	-8.2	08	150.000	135.54	-9.6	09	200.000	182.20	-8.9

1,4-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.48	-3.3	02	1.000	0.96	-4.1	03	2.000	2.10	4.8
04	5.000	5.10	2.1	05	20.000	21.56	7.8	06	50.000	51.91	3.8
07	100.000	98.19	-1.8	08	150.000	143.36	-4.4	09	200.000	190.17	-4.9

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte

1,4-Dioxane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	40.000	44.09	10.2	04	100.000	103.35	3.4	05	400.000	388.97	-2.8
06	1000.000	882.89	-11.7	07	2000.000	1,913.57	-4.3	08	3000.000	2,967.55	-1.1
09	4000.000	4,251.30	6.3								

1-Butanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	50.000	48.25	-3.5	03	100.000	115.72	15.7	04	250.000	244.04	-2.4
05	1000.000	910.99	-8.9	06	2500.000	2,294.23	-8.2	07	5000.000	5,045.29	0.9
08	7500.000	7,648.32	2.0	09	10000.000	10,441.01	4.4				

1-Chloro-4-(trifluoromethyl)benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	17.1	02	1.000	1.05	4.5	03	2.000	2.06	3.2
04	5.000	5.12	2.3	05	20.000	19.72	-1.4	06	50.000	47.38	-5.2
07	100.000	95.82	-4.2	08	150.000	139.09	-7.3	09	200.000	181.95	-9.0

2,2-Dichloro-1,1,1-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.4	02	1.000	1.16	16.4	03	2.000	2.14	7.1
04	5.000	4.94	-1.2	05	20.000	18.70	-6.5	06	50.000	48.55	-2.9
07	100.000	91.68	-8.3	08	150.000	132.41	-11.7	09	200.000	177.63	-11.2

2,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.23	23.2	03	2.000	2.11	5.3	04	5.000	4.90	-1.9
05	20.000	21.07	5.4	06	50.000	49.75	-0.5	07	100.000	90.06	-9.9
08	150.000	134.22	-10.5	09	200.000	177.96	-11.0				

2,3,6-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.01	0.7	03	2.000	2.39	19.3	04	5.000	5.18	3.6
05	20.000	20.09	0.4	06	50.000	46.95	-6.1	07	100.000	94.14	-5.9
08	150.000	141.09	-5.9	09	200.000	187.91	-6.0				

2,4,5-Trichlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.96	-4.3	03	2.000	2.00	-0.2	04	5.000	5.18	3.6
05	20.000	20.27	1.4	06	50.000	49.48	-1.0	07	100.000	100.54	0.5
08	150.000	150.73	0.5	09	200.000	199.18	-0.4				

2,4-, 2,5-, and 2,6-Dichlorotoluene Coelut

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.500	1.64	9.1	02	3.000	3.06	2.1	03	6.000	6.36	6.0
04	15.000	15.73	4.9	05	60.000	63.56	5.9	06	150.000	150.74	0.5
07	300.000	290.33	-3.2	08	450.000	405.46	-9.9	09	600.000	507.89	-15.4

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte

2,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.5	02	1.000	0.97	-3.2	03	2.000	2.01	0.5
04	5.000	4.97	-0.7	05	20.000	20.59	2.9	06	50.000	49.88	-0.2
07	100.000	102.40	2.4	08	150.000	146.86	-2.1	09	200.000	187.55	-6.2

2,5-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.2	02	1.000	1.00	0.4	03	2.000	2.01	0.7
04	5.000	5.01	0.3	05	20.000	19.93	-0.4	06	50.000	49.05	-1.9
07	100.000	100.51	0.5	08	150.000	145.73	-2.8	09	200.000	188.17	-5.9

2-Butanone (MEK)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.33	16.4	04	5.000	4.78	-4.3	05	20.000	17.82	-10.9
06	50.000	47.75	-4.5	07	100.000	102.07	2.1	08	150.000	149.11	-0.6
09	200.000	203.61	1.8								

2-Chloro-1,3-butadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.7	02	1.000	1.07	7.3	03	2.000	2.12	6.2
04	5.000	5.22	4.4	05	20.000	19.06	-4.7	06	50.000	49.85	-0.3
07	100.000	95.18	-4.8	08	150.000	138.32	-7.8	09	200.000	178.10	-10.9

2-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.3	02	1.000	1.11	10.8	03	2.000	2.17	8.5
04	5.000	4.99	-0.2	05	20.000	20.04	0.2	06	50.000	48.44	-3.1
07	100.000	97.80	-2.2	08	150.000	143.77	-4.2	09	200.000	180.96	-9.5

2-Chloroethyl Vinyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.67	34.5	02	1.000	0.91	-9.1	03	2.000	2.19	9.5
04	5.000	5.18	3.7	05	20.000	18.34	-8.3	06	50.000	47.19	-5.6
07	100.000	95.11	-4.9	08	150.000	135.88	-9.4	09	200.000	179.30	-10.4

2-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.6	02	1.000	0.96	-3.5	03	2.000	2.08	4.1
04	5.000	5.10	2.1	05	20.000	21.88	9.4	06	50.000	51.62	3.2
07	100.000	93.85	-6.2	08	150.000	135.69	-9.5	09	200.000	177.63	-11.2

2-Hexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.34	17.2	04	5.000	5.09	1.9	05	20.000	18.18	-9.1
06	50.000	47.07	-5.9	07	100.000	97.45	-2.6	08	150.000	149.39	-0.4
09	200.000	197.86	-1.1								

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte

2-Methyl-1-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	20.76	3.8	03	40.000	46.07	15.2	04	100.000	101.88	1.9
05	400.000	384.74	-3.8	06	1000.000	900.31	-10.0	07	2000.000	1,929.52	-3.5
08	3000.000	2,868.37	-4.4	09	4000.000	4,032.64	0.8				

2-Methyl-2-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	19.20	-4.0	03	40.000	39.84	-0.4	04	100.000	101.85	1.9
05	400.000	388.20	-2.9	06	1000.000	941.93	-5.8	07	2000.000	2,030.61	1.5
08	3000.000	3,113.23	3.8	09	4000.000	4,240.70	6.0				

2-Nitropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	2.000	1.88	-6.2	03	4.000	4.51	12.6	04	10.000	11.31	13.1
05	40.000	39.23	-1.9	06	100.000	91.43	-8.6	07	200.000	189.21	-5.4
08	300.000	290.65	-3.1	09	400.000	397.59	-0.6				

2-Propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	22.02	10.1	03	40.000	42.11	5.3	04	100.000	104.11	4.1
05	400.000	364.95	-8.8	06	1000.000	910.90	-8.9	07	2000.000	1,913.86	-4.3
08	3000.000	3,006.21	0.2	09	4000.000	4,090.98	2.3				

3,4- and 2,3-Dichlorotoluene Coelution

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	0.95	-4.9	02	2.000	2.14	7.0	03	4.000	4.25	6.3
04	10.000	10.75	7.5	05	40.000	42.55	6.4	06	100.000	102.57	2.6
07	200.000	195.55	-2.2	08	300.000	274.91	-8.4	09	400.000	342.89	-14.3

3,4-Dichlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.4	02	1.000	1.01	0.8	03	2.000	2.26	13.1
04	5.000	4.82	-3.7	05	20.000	19.67	-1.6	06	50.000	49.01	-2.0
07	100.000	96.54	-3.5	08	150.000	141.75	-5.5	09	200.000	181.82	-9.1

3-Chloro-1-propene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	11.3	02	1.000	1.24	24.4	03	2.000	1.91	-4.6
04	5.000	5.11	2.2	05	20.000	21.25	6.2	06	50.000	50.11	0.2
07	100.000	90.42	-9.6	08	150.000	129.74	-13.5	09	200.000	166.67	-16.7

3-Chlorobenzotrifluoride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.7	02	1.000	1.05	5.0	03	2.000	2.13	6.7
04	5.000	5.04	0.9	05	20.000	19.92	-0.4	06	50.000	48.19	-3.6
07	100.000	95.98	-4.0	08	150.000	141.26	-5.8	09	200.000	181.15	-9.4

Initial Calibration - Detailed Report

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		Signal ID:	1

Analyte

3-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.2	02	1.000	1.01	1.3	03	2.000	2.11	5.5
04	5.000	5.24	4.8	05	20.000	20.82	4.1	06	50.000	50.12	0.2
07	100.000	98.05	-1.9	08	150.000	142.71	-4.9	09	200.000	177.08	-11.5

4-Bromofluorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	56.93	13.9	03	60.000	65.41	9.0	04	70.000	71.90	2.7
05	100.000	93.35	-6.7	07	125.000	116.83	-6.5	08	150.000	131.40	-12.4

4-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.3	02	1.000	1.04	4.2	03	2.000	2.18	9.2
04	5.000	5.12	2.4	05	20.000	21.52	7.6	06	50.000	50.57	1.1
07	100.000	90.72	-9.3	08	150.000	126.08	-15.9	09	200.000	164.77	-17.6

4-Isopropyltoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	5.1	02	1.000	1.03	2.9	03	2.000	2.16	7.9
04	5.000	5.14	2.7	05	20.000	22.01	10.1	06	50.000	51.66	3.3
07	100.000	92.67	-7.3	08	150.000	134.28	-10.5	09	200.000	171.62	-14.2

4-Methyl-2-pentanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.97	-1.5	04	5.000	5.02	0.4	05	20.000	19.69	-1.6
06	50.000	49.04	-1.9	07	100.000	102.59	2.6	08	150.000	150.76	0.5
09	200.000	202.96	1.5								

Acetone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
04	5.000	5.66	13.1	05	20.000	19.25	-3.7	06	50.000	46.70	-6.6
07	100.000	97.39	-2.6	08	150.000	147.04	-2.0	09	200.000	203.60	1.8

Acetonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	10.000	10.02	0.2	04	25.000	29.90	19.6	05	100.000	97.04	-3.0
06	250.000	215.42	-13.8	07	500.000	415.85	-16.8	08	750.000	790.58	5.4
09	1000.000	1,084.29	8.4								

Acrolein

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	4.000	4.33	8.3	04	10.000	10.86	8.6	05	40.000	37.52	-6.2
06	100.000	92.35	-7.7	07	200.000	191.46	-4.3	08	300.000	301.41	0.5
09	400.000	402.93	0.7								

Initial Calibration - Detailed Report

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		Signal ID:	1

Analyte

Acrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.500	2.59	3.6	02	5.000	5.00	0.0	03	10.000	10.84	8.4
04	25.000	24.44	-2.3	05	100.000	98.60	-1.4	06	250.000	239.84	-4.1
07	500.000	492.60	-1.5	08	750.000	731.60	-2.5	09	1000.000	997.02	-0.3

Benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	9.2	02	1.000	1.06	5.8	03	2.000	2.09	4.6
04	5.000	5.14	2.7	05	20.000	20.93	4.7	06	50.000	50.87	1.7
07	100.000	92.36	-7.6	08	150.000	133.15	-11.2	09	200.000	180.25	-9.9

Bromobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.47	-5.4	02	1.000	1.01	1.4	03	2.000	2.19	9.6
04	5.000	4.87	-2.7	05	20.000	21.37	6.8	06	50.000	51.23	2.5
07	100.000	96.01	-4.0	08	150.000	143.99	-4.0	09	200.000	191.49	-4.3

Bromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	13.5	02	1.000	1.07	6.7	03	2.000	2.11	5.4
04	5.000	5.09	1.8	05	20.000	19.73	-1.4	06	50.000	49.09	-1.8
07	100.000	93.35	-6.6	08	150.000	134.52	-10.3	09	200.000	185.72	-7.1

Bromodichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.9	02	1.000	1.10	10.2	03	2.000	1.99	-0.5
04	5.000	4.93	-1.4	05	20.000	20.42	2.1	06	50.000	49.89	-0.2
07	100.000	93.03	-7.0	08	150.000	137.96	-8.0	09	200.000	187.91	-6.0

Bromoform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	14.0	02	1.000	0.99	-1.3	03	2.000	2.03	1.5
04	5.000	4.84	-3.2	05	20.000	19.50	-2.5	06	50.000	48.24	-3.5
07	100.000	95.69	-4.3	08	150.000	147.99	-1.3	09	200.000	201.42	0.7

Bromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.62	24.1	02	1.000	0.99	-0.7	03	2.000	2.14	6.9
04	5.000	4.75	-5.0	05	20.000	19.05	-4.8	06	50.000	48.55	-2.9
07	100.000	93.46	-6.5	08	150.000	140.24	-6.5	09	200.000	190.86	-4.6

Carbon Disulfide

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	8.8	02	1.000	1.02	1.6	03	2.000	2.17	8.4
04	5.000	5.27	5.4	05	20.000	19.63	-1.9	06	50.000	50.82	1.6
07	100.000	96.29	-3.7	08	150.000	137.35	-8.4	09	200.000	176.24	-11.9

Initial Calibration - Detailed Report

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		Signal ID:	1

Analyte

Carbon Tetrachloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	5.8	02	1.000	1.05	5.2	03	2.000	2.03	1.6
04	5.000	5.18	3.6	05	20.000	20.50	2.5	06	50.000	50.31	0.6
07	100.000	92.15	-7.9	08	150.000	140.41	-6.4	09	200.000	190.05	-5.0

Chlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.57	14.1	02	1.000	1.04	4.4	03	2.000	2.17	8.7
04	5.000	5.18	3.7	05	20.000	21.02	5.1	06	50.000	48.75	-2.5
07	100.000	91.46	-8.5	08	150.000	132.40	-11.7	09	200.000	173.57	-13.2

Chloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	21.2	02	1.000	0.93	-6.7	03	2.000	2.11	5.3
04	5.000	4.89	-2.3	05	20.000	20.69	3.4	06	50.000	50.06	0.1
07	100.000	93.16	-6.8	08	150.000	138.58	-7.6	09	200.000	186.71	-6.6

Chloroform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.68	35.6	02	1.000	1.03	2.8	03	2.000	2.02	1.1
04	5.000	5.10	2.0	05	20.000	19.67	-1.6	06	50.000	47.23	-5.5
07	100.000	88.41	-11.6	08	150.000	132.15	-11.9	09	200.000	178.46	-10.8

Chloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.7	02	1.000	0.98	-2.2	03	2.000	2.06	3.0
04	5.000	4.62	-7.5	05	20.000	21.60	8.0	06	50.000	50.31	0.6
07	100.000	94.99	-5.0	08	150.000	141.72	-5.5	09	200.000	191.99	-4.0

Cyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.69	37.7	02	1.000	1.02	2.1	03	2.000	1.99	-0.6
04	5.000	4.93	-1.5	05	20.000	19.07	-4.6	06	50.000	49.22	-1.6
07	100.000	91.93	-8.1	08	150.000	131.90	-12.1	09	200.000	177.18	-11.4

Cyclohexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	20.000	20.39	2.0	03	40.000	40.81	2.0	04	100.000	93.25	-6.8
05	400.000	376.99	-5.8	06	1000.000	949.43	-5.1	07	2000.000	2,076.61	3.8
08	3000.000	3,125.33	4.2	09	4000.000	4,222.87	5.6				

Dibromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	0.3	02	1.000	1.06	6.2	03	2.000	2.03	1.7
04	5.000	5.07	1.4	05	20.000	20.16	0.8	06	50.000	49.91	-0.2
07	100.000	96.44	-3.6	08	150.000	143.83	-4.1	09	200.000	195.05	-2.5

Initial Calibration - Detailed Report

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		Signal ID:	1

Analyte

Dibromofluoromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	55.49	11.0	03	60.000	65.00	8.3	04	70.000	72.39	3.4
05	100.000	97.39	-2.6	07	125.000	115.86	-7.3	08	150.000	130.79	-12.8

Dibromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	23.0	02	1.000	1.14	14.2	03	2.000	2.10	5.1
04	5.000	4.73	-5.4	05	20.000	19.48	-2.6	06	50.000	46.34	-7.3
07	100.000	91.72	-8.3	08	150.000	132.66	-11.6	09	200.000	185.93	-7.0

Dichlorodifluoromethane (CFC 12)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.45	-9.7	02	1.000	0.93	-7.0	03	2.000	1.83	-8.5
04	5.000	4.36	-12.8	05	20.000	22.42	12.1	06	50.000	55.68	11.4
07	100.000	104.70	4.7	08	150.000	156.39	4.3	09	200.000	211.01	5.5

Dichlorofluoromethane (CFC 21)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.5	02	1.000	1.02	1.7	03	2.000	2.12	5.9
04	5.000	4.95	-1.1	05	20.000	19.94	-0.3	06	50.000	50.90	1.8
07	100.000	99.73	-0.3	08	150.000	142.52	-5.0	09	200.000	189.55	-5.2

Dichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	19.7	02	1.000	1.09	8.7	03	2.000	2.21	10.7
04	5.000	4.88	-2.4	05	20.000	19.66	-1.7	06	50.000	47.42	-5.2
07	100.000	90.02	-10.0	08	150.000	133.95	-10.7	09	200.000	181.78	-9.1

Diethyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.16	15.6	03	2.000	1.88	-5.9	04	5.000	5.23	4.6
05	20.000	20.82	4.1	06	50.000	49.37	-1.3	07	100.000	95.74	-4.3
08	150.000	140.42	-6.4	09	200.000	187.13	-6.4				

Diisopropyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.54	9.0	02	1.000	1.07	7.3	03	2.000	2.21	10.5
04	5.000	5.32	6.3	05	20.000	19.55	-2.3	06	50.000	48.94	-2.1
07	100.000	93.83	-6.2	08	150.000	134.38	-10.4	09	200.000	175.70	-12.1

Ethyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.51	2.4	02	1.000	0.95	-5.0	03	2.000	1.93	-3.7
04	5.000	5.04	0.8	05	20.000	20.63	3.2	06	50.000	50.32	0.6
07	100.000	101.20	1.2	08	150.000	148.63	-0.9	09	200.000	202.71	1.4

Initial Calibration - Detailed Report

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		Signal ID:	1

Analyte

Ethyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	4.1	02	1.000	1.04	4.4	03	2.000	2.13	6.7
04	5.000	5.29	5.8	05	20.000	19.19	-4.0	06	50.000	49.08	-1.8
07	100.000	97.66	-2.3	08	150.000	141.27	-5.8	09	200.000	185.96	-7.0

Ethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.5	02	1.000	1.02	2.1	03	2.000	2.13	6.4
04	5.000	5.13	2.6	05	20.000	21.12	5.6	06	50.000	49.18	-1.6
07	100.000	92.06	-7.9	08	150.000	138.47	-7.7	09	200.000	188.19	-5.9

Hexachlorobutadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.15	14.7	03	2.000	2.28	14.1	04	5.000	4.83	-3.4
05	20.000	20.45	2.3	06	50.000	51.04	2.1	07	100.000	90.89	-9.1
08	150.000	134.84	-10.1	09	200.000	178.97	-10.5				

Iodomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	1.74	-12.8	04	5.000	4.35	-13.1	05	20.000	20.45	2.2
06	50.000	56.50	13.0	07	100.000	107.93	7.9	08	150.000	153.67	2.4
09	200.000	200.49	0.2								

Isopropylbenzene (Cumene)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.8	02	1.000	1.12	12.0	03	2.000	2.14	7.0
04	5.000	5.22	4.4	05	20.000	21.56	7.8	06	50.000	50.39	0.8
07	100.000	88.85	-11.1	08	150.000	128.31	-14.5	09	200.000	161.80	-19.1

Methacrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.98	-2.4	03	2.000	2.20	10.1	04	5.000	5.23	4.6
05	20.000	19.89	-0.5	06	50.000	47.40	-5.2	07	100.000	98.74	-1.3
08	150.000	144.58	-3.6	09	200.000	196.53	-1.7				

Methyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.30	30.1	03	2.000	2.13	6.4	04	5.000	5.05	1.1
05	20.000	17.63	-11.8	06	50.000	45.43	-9.1	07	100.000	92.96	-7.0
08	150.000	141.05	-6.0	09	200.000	192.83	-3.6				

Methyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.8	02	1.000	0.94	-6.3	03	2.000	2.18	8.8
04	5.000	4.96	-0.8	05	20.000	19.52	-2.4	06	50.000	48.39	-3.2
07	100.000	95.39	-4.6	08	150.000	144.51	-3.7	09	200.000	192.68	-3.7

Initial Calibration - Detailed Report

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		Signal ID:	1

Analyte

Methyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.9	02	1.000	1.03	2.9	03	2.000	2.06	3.1
04	5.000	5.27	5.4	05	20.000	20.36	1.8	06	50.000	47.45	-5.1
07	100.000	92.72	-7.3	08	150.000	136.82	-8.8	09	200.000	183.90	-8.1

Methylcyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.66	**32.1**	02	1.000	1.01	0.5	03	2.000	2.18	9.0
04	5.000	5.05	1.1	05	20.000	18.89	-5.5	06	50.000	48.05	-3.9
07	100.000	91.07	-8.9	08	150.000	131.13	-12.6	09	200.000	176.47	-11.8

Naphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.46	-7.6	02	1.000	0.89	-11.4	03	2.000	2.16	8.2
04	5.000	4.93	-1.4	05	20.000	20.81	4.0	06	50.000	51.59	3.2
07	100.000	103.48	3.5	08	150.000	152.52	1.7	09	200.000	199.53	-0.2

Propionitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	5.000	5.52	10.4	03	10.000	10.64	6.4	04	25.000	23.14	-7.5
05	100.000	94.74	-5.3	06	250.000	231.89	-7.2	07	500.000	497.97	-0.4
08	750.000	745.83	-0.6	09	1000.000	1,041.30	4.1				

Styrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.4	02	1.000	1.08	8.5	03	2.000	2.15	7.3
04	5.000	5.10	2.0	05	20.000	21.02	5.1	06	50.000	49.81	-0.4
07	100.000	91.81	-8.2	08	150.000	132.95	-11.4	09	200.000	173.24	-13.4

Tetrachloroethene (PCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.61	21.2	02	1.000	0.94	-6.0	03	2.000	2.09	4.6
04	5.000	4.93	-1.3	05	20.000	21.13	5.7	06	50.000	49.93	-0.1
07	100.000	92.49	-7.5	08	150.000	137.48	-8.3	09	200.000	183.72	-8.1

Tetrahydrofuran (THF)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
03	2.000	2.18	9.0	04	5.000	5.31	6.3	05	20.000	18.71	-6.5
06	50.000	45.28	-9.4	07	100.000	100.76	0.8	08	150.000	143.70	-4.2
09	200.000	208.11	4.1								

Toluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.1	02	1.000	1.01	0.7	03	2.000	2.11	5.4
04	5.000	5.37	7.5	05	20.000	21.57	7.8	06	50.000	50.93	1.9
07	100.000	90.90	-9.1	08	150.000	129.29	-13.8	09	200.000	169.20	-15.4

Initial Calibration - Detailed Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Signal ID: 1

Analyte

Toluene-d8

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
06	50.000	58.14	16.3	03	60.000	65.85	9.7	04	70.000	73.04	4.3
05	100.000	95.02	-5.0	07	125.000	113.63	-9.1	08	150.000	125.57	-16.3

Trichloroethene (TCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.6	02	1.000	1.08	8.3	03	2.000	1.92	-4.0
04	5.000	5.10	2.1	05	20.000	20.45	2.3	06	50.000	49.44	-1.1
07	100.000	91.41	-8.6	08	150.000	136.35	-9.1	09	200.000	189.29	-5.4

Trichlorofluoromethane (CFC 11)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-1.7	02	1.000	1.02	2.3	03	2.000	2.08	4.1
04	5.000	4.90	-2.0	05	20.000	22.05	10.2	06	50.000	51.39	2.8
07	100.000	96.52	-3.5	08	150.000	140.76	-6.2	09	200.000	187.87	-6.1

Vinyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	0.99	-1.3	03	2.000	2.28	13.9	04	5.000	6.26	25.1
05	20.000	19.09	-4.6	06	50.000	47.87	-4.3	07	100.000	95.43	-4.6
08	150.000	143.96	-4.0	09	200.000	159.42	-20.3				

Vinyl Chloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.55	10.8	02	1.000	1.03	2.7	03	2.000	1.95	-2.6
04	5.000	4.75	-5.0	05	20.000	22.00	10.0	06	50.000	51.36	2.7
07	100.000	94.45	-5.6	08	150.000	139.71	-6.9	09	200.000	187.85	-6.1

cis-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.59	18.6	02	1.000	1.07	7.5	03	2.000	2.13	6.7
04	5.000	5.17	3.4	05	20.000	19.85	-0.8	06	50.000	47.86	-4.3
07	100.000	89.39	-10.6	08	150.000	133.79	-10.8	09	200.000	180.34	-9.8

cis-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.6	02	1.000	1.05	5.3	03	2.000	2.05	2.7
04	5.000	5.18	3.6	05	20.000	21.10	5.5	06	50.000	49.95	-0.1
07	100.000	94.19	-5.8	08	150.000	135.98	-9.3	09	200.000	182.96	-8.5

m,p-Xylenes

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.000	1.15	15.2	02	2.000	2.03	1.6	03	4.000	4.27	6.9
04	10.000	10.43	4.3	05	40.000	42.32	5.8	06	100.000	99.19	-0.8
07	200.000	181.55	-9.2	08	300.000	267.09	-11.0	09	400.000	348.90	-12.8

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

n-Butyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.52	3.4	02	1.000	1.06	6.0	03	2.000	2.05	2.7
04	5.000	4.86	-2.7	05	20.000	19.80	-1.0	06	50.000	48.80	-2.4
07	100.000	99.12	-0.9	08	150.000	148.11	-1.3	09	200.000	192.51	-3.7

n-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	16.8	02	1.000	0.99	-0.9	03	2.000	2.16	7.9
04	5.000	5.26	5.1	05	20.000	22.04	10.2	06	50.000	51.57	3.1
07	100.000	89.98	-10.0	08	150.000	128.58	-14.3	09	200.000	164.18	-17.9

n-Heptane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
02	1.000	1.21	21.3	03	2.000	2.20	10.0	04	5.000	5.17	3.5
05	20.000	20.90	4.5	06	50.000	48.75	-2.5	07	100.000	89.85	-10.1
08	150.000	130.27	-13.2	09	200.000	173.21	-13.4				

n-Propylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.58	15.9	02	1.000	1.04	4.1	03	2.000	2.19	9.6
04	5.000	5.12	2.5	05	20.000	22.20	11.0	06	50.000	51.66	3.3
07	100.000	90.30	-9.7	08	150.000	127.29	-15.1	09	200.000	156.99	-21.5

o-Xylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.50	-0.5	02	1.000	0.97	-3.3	03	2.000	2.13	6.4
04	5.000	5.38	7.5	05	20.000	21.08	5.4	06	50.000	50.63	1.3
07	100.000	94.58	-5.4	08	150.000	140.75	-6.2	09	200.000	189.61	-5.2

sec-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.1	02	1.000	1.07	7.0	03	2.000	2.11	5.7
04	5.000	5.19	3.7	05	20.000	21.82	9.1	06	50.000	51.38	2.8
07	100.000	90.78	-9.2	08	150.000	130.19	-13.2	09	200.000	163.94	-18.0

tert-Amyl Methyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.53	6.6	02	1.000	1.05	5.1	03	2.000	2.17	8.7
04	5.000	5.02	0.5	05	20.000	19.01	-4.9	06	50.000	48.58	-2.8
07	100.000	97.13	-2.9	08	150.000	142.61	-4.9	09	200.000	189.31	-5.3

tert-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.56	12.2	02	1.000	0.96	-3.8	03	2.000	2.08	4.2
04	5.000	5.17	3.4	05	20.000	21.76	8.8	06	50.000	51.79	3.6
07	100.000	92.49	-7.5	08	150.000	135.35	-9.8	09	200.000	177.85	-11.1

Initial Calibration - Detailed Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Signal ID:	1

Analyte

trans-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.60	20.8	02	1.000	0.95	-5.4	03	2.000	2.16	7.9
04	5.000	4.95	-1.0	05	20.000	20.87	4.4	06	50.000	49.71	-0.6
07	100.000	91.85	-8.1	08	150.000	136.63	-8.9	09	200.000	181.93	-9.0

trans-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.49	-2.1	02	1.000	0.94	-6.5	03	2.000	2.02	1.1
04	5.000	5.28	5.7	05	20.000	20.99	4.9	06	50.000	51.53	3.1
07	100.000	99.19	-0.8	08	150.000	145.28	-3.1	09	200.000	195.57	-2.2

trans-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.500	0.62	24.2	02	1.000	0.99	-1.5	03	2.000	1.90	-4.9
04	5.000	4.29	-14.1	05	20.000	19.31	-3.5	06	50.000	49.61	-0.8
07	100.000	99.06	-0.9	08	150.000	150.14	0.1	09	200.000	202.57	1.3

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:53:37 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	764325	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1268968	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1157078	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	575084	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	372379	49.01	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.02%				
48) surr1,1,2-dichloroetha...	6.096	65	392390	47.39	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 94.78%				
65) SURR3,Toluene-d8	8.529	98	1587219	47.01	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 94.02%				
70) SURR2,BFB	11.047	95	581975	47.84	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 95.68%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	4863	0.45	ppb		87
3) Chloromethane	1.347	50	7240	0.56	ppb		84
4) Vinyl Chloride	1.433	62	6632m	0.55	ppb		
5) Bromomethane	1.689	94	3628	0.61	ppb		87
6) Chloroethane	1.768	64	3991	0.60	ppb		70
7) Freon 21	1.926	67	6532m	0.51	ppb		
8) Trichlorofluoromethane	1.975	101	4585	0.49	ppb		76
9) Diethyl Ether	2.231	59	3589	0.61	ppb		85
10) Freon 123a	2.237	67	4717m	0.56	ppb		
11) Freon 123	2.292	83	5691m	0.58	ppb		
13) 1,1-Diclethene	2.432	96	3749m	0.57	ppb		
14) Freon 113	2.445	101	3428	0.59	ppb	#	65
17) Iodomethane	2.579	142	3304m	0.46	ppb		
18) Carbon Disulfide	2.634	76	11619	0.54	ppb		90
20) Allyl Chloride	2.804	76	1981	0.56	ppb	#	86
21) Methyl Acetate	2.841	43	2130	0.56	ppb		80
22) Methylene Chloride	2.926	84	4417	0.60	ppb	#	81
23) TBA	3.097	59	4748m	9.46	ppb		
24) Acrylonitrile	3.225	53	4777m	2.57	ppb		
25) Methyl-t-Butyl Ether	3.261	73	10309	0.58	ppb		86
26) trans-1,2-Dichloroethene	3.255	96	4158	0.61	ppb	#	83
28) 1,1-Diclethane	3.798	63	6962	0.57	ppb		80
29) Vinyl Acetate	3.895	86	611	0.46	ppb	#	1
30) DIPE	3.950	45	13005	0.54	ppb		95
31) 2-Chloro-1,3-Butadiene	3.926	53	6813	0.55	ppb		98
32) ETBE	4.536	59	11673	0.52	ppb		86
33) 2,2-Dichloropropane	4.700	77	6855m	0.70	ppb		
34) cis-1,2-Dichloroethene	4.718	96	4520m	0.59	ppb		
37) Bromochloromethane	5.133	130	2233m	0.56	ppb		
40) Chloroform	5.334	83	8066m	0.68	ppb		
41) 1,1,1-Trichloroethane	5.596	97	5536m	0.59	ppb		
42) TAME	6.401	73	10160	0.53	ppb		93
44) Cyclohexane	5.682	41	4775m	0.69	ppb		
46) Carbontetrachloride	5.852	121	1285m	0.52	ppb		

KB 11/19/15

W111815.M Thu Nov 19 09:54:10 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:53:37 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47)	1,1-Dichloropropene	5.877	75	5477m	0.61	ppb		
49)	Benzene	6.169	78	15250	0.55	ppb		82
50)	1,2-Dichloroethane	6.218	62	3552	0.50	ppb	#	60
51)	Iso-Butyl Alcohol	6.212	43	2679	11.44	ppb	#	68
52)	n-Heptane	6.645	43	5643	0.73	ppb		78
53)	1-Butanol	7.127	56	5628m	38.45	ppb		
54)	Trichloroethene	7.084	130	4100m	0.58	ppb		
55)	Methylcyclohexane	7.303	55	5652m	0.67	ppb		
56)	1,2-Diclpropane	7.352	63	3895	0.56	ppb		98
57)	Dibromomethane	7.486	93	2095	0.61	ppb	#	66
59)	Methyl Methacrylate	7.578	69	2318	0.58	ppb		93
60)	Bromodichloromethane	7.712	83	4703	0.55	ppb		86
62)	2-Chloroethylvinyl Ether	8.120	63	2568	0.67	ppb	#	63
63)	cis-1,3-Dichloropropene	8.242	75	6062	0.53	ppb		95
64)	4-Methyl-2-pentanone	8.443	43	2936	0.58	ppb		91
66)	Toluene	8.602	91	16639	0.58	ppb		98
67)	trans-1,3-Dichloropropene	8.864	75	4422	0.49	ppb	#	72
68)	Ethyl Methacrylate	8.998	69	4097	0.51	ppb		91
69)	1,1,2-Trichloroethane	9.041	97	2356	0.48	ppb		87
72)	Tetrachloroethene	9.181	164	2909	0.61	ppb		90
73)	2-Hexanone	9.333	43	2259	0.64	ppb		75
74)	1,3-Dichloropropane	9.218	76	4570	0.52	ppb		83
75)	Dibromochloromethane	9.437	129	2745	0.50	ppb		93
76)	N-Butyl Acetate	9.486	43	4374m	0.52	ppb		
77)	1,2-Dibromoethane	9.529	107	2537m	0.54	ppb		
78)	Chlorobenzene	10.016	112	9761	0.57	ppb		93
79)	3-CBTF	10.028	180	4695	0.55	ppb		99
80)	4-CBTF	10.083	180	4619	0.58	ppb		82
81)	1,1,1,2-Tetrachloroethane	10.102	131	3201	0.54	ppb	#	76
82)	Ethylbenzene	10.132	106	5165	0.53	ppb	#	56
83)	(m+p)Xylene	10.242	106	13787	1.15	ppb	#	81
84)	o-Xylene	10.595	106	6100	0.50	ppb		97
85)	Styrene	10.608	104	11018	0.55	ppb		89
87)	Bromoform	10.760	173	1862m	0.57	ppb		
88)	2-CBTF	10.839	180	4347	0.50	ppb	#	79
89)	Isopropylbenzene	10.925	105	16861	0.56	ppb		95
90)	Cyclohexanone	10.986	55	4945	11.41	ppb		96
91)	trans-1,4-Dichloro-2-B...	11.236	53	1397m	0.74	ppb		
92)	1,1,2,2-Tetrachloroethane	11.181	83	3596	0.60	ppb		93
93)	Bromobenzene	11.175	156	3201	0.47	ppb	#	75
94)	1,2,3-Trichloropropane	11.205	110	1248	0.70	ppb	#	74
95)	n-Propylbenzene	11.278	91	19975	0.58	ppb		97
96)	2-Chlorotoluene	11.339	91	11270	0.56	ppb		91
97)	3-Chlorotoluene	11.394	91	10843	0.51	ppb		98
98)	4-Chlorotoluene	11.431	91	13481	0.59	ppb		95
99)	1,3,5-Trimethylbenzene	11.431	105	12064	0.53	ppb		93
100)	tert-Butylbenzene	11.699	119	11331	0.56	ppb		99
101)	1,2,4-Trimethylbenzene	11.742	105	14000	0.58	ppb		87
102)	3,4-DCBTF	11.796	214	3254	0.56	ppb	#	78
103)	sec-Butylbenzene	11.882	105	15842	0.56	ppb		86
104)	p-Isopropyltoluene	12.004	119	11480	0.53	ppb		78

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:53:37 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

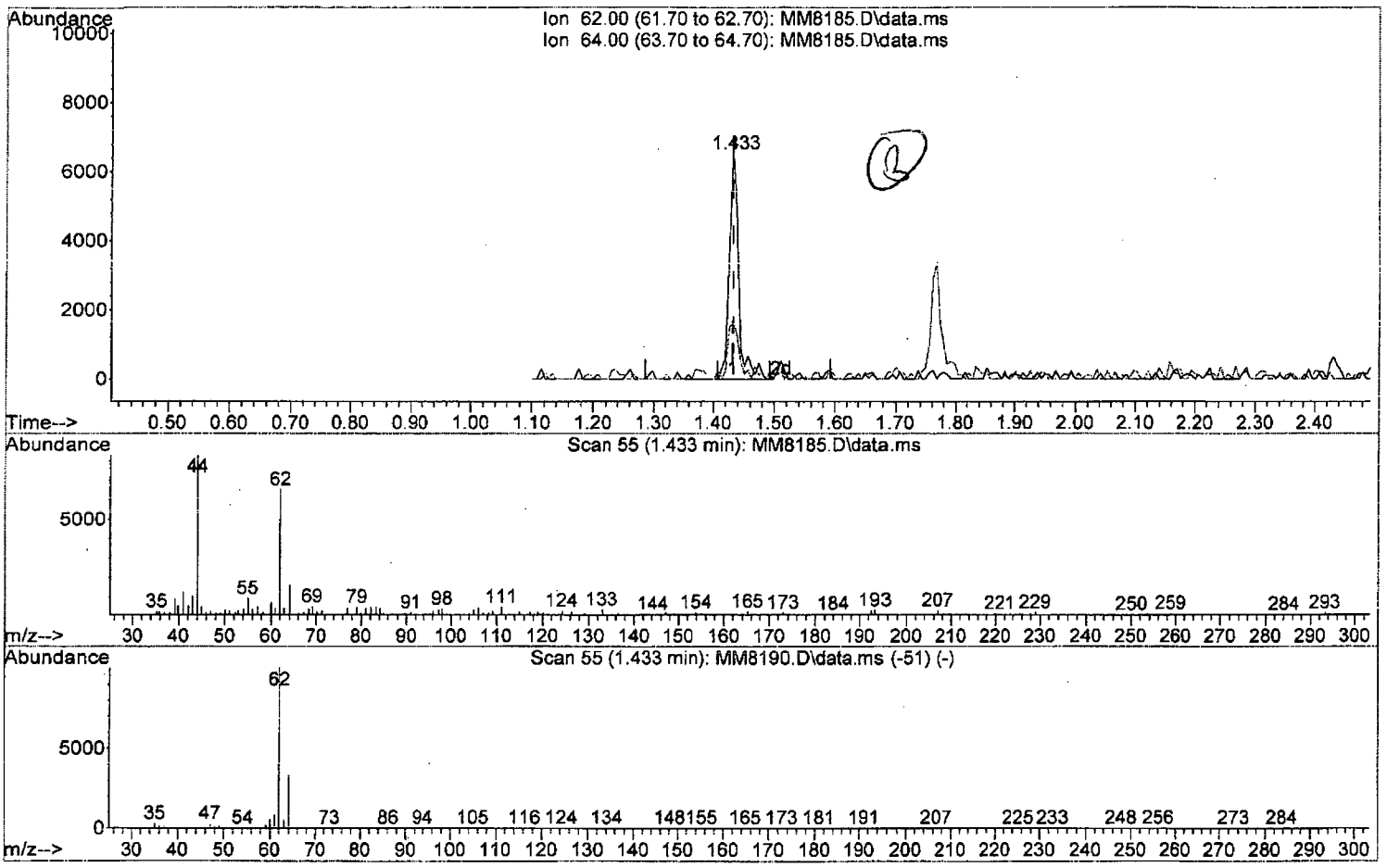
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
105) 1,3-Dclbenz	11.961	146	7197	0.55	ppb		87
106) 1,4-Dclbenz	12.040	146	5939	0.48	ppb		88
107) 2,4-DCBTF	12.083	214	2715	0.53	ppb	#	68
108) 2,5-DCBTF	12.126	214	3148	0.55	ppb	#	85
109) n-Butylbenzene	12.327	91	12081	0.58	ppb		85
110) 1,2-Dclbenz	12.333	146	6104	0.51	ppb		83
111) 1,2-Dibromo-3-chloropr...	12.955	157	672	0.57	ppb	#	65
112) Trielution Dichlorotol...	13.083	125	16655	1.64	ppb	#	88
113) 1,3,5 Trichlorobenzene	13.125	180	4884	0.60	ppb		96
114) Coelution Dichlorotoluene	13.400	125	10221	0.95	ppb	#	93
115) 1,2,4-Tcbenzene	13.613	180	4316	0.58	ppb	#	79
116) Hexachlorobt	13.747	225	2390	0.75	ppb		92
117) Naphthalen	13.796	128	7130	0.46	ppb		86
118) 1,2,3-Tclbenzene	13.985	180	2673	0.43	ppb		89
119) 2,4,5-Trichlorotolene	14.570	159	2775	0.59	ppb	#	78
120) 2,3,6-Trichlorotoluene	14.656	159	2515	0.61	ppb		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(4) Vinyl Chloride (P)

1.433min (-0.000) 0.57 ppb

response 6846

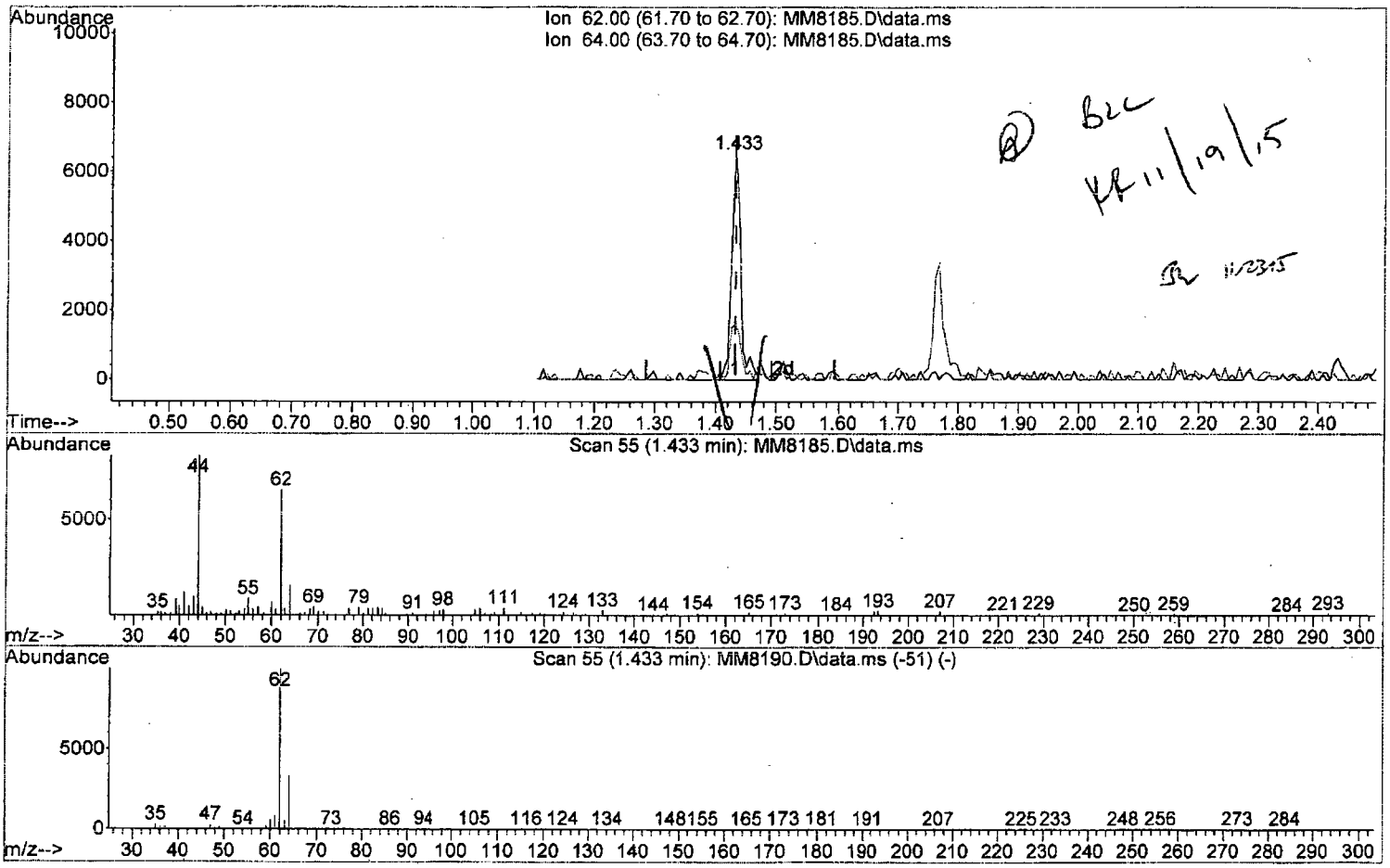
Ion	Exp%	Act%
62.00	100	100
64.00	33.40	24.76
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:37:15 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(4) Vinyl Chloride (P)

1.433min (-0.000) 0.55 ppb m

response 6632

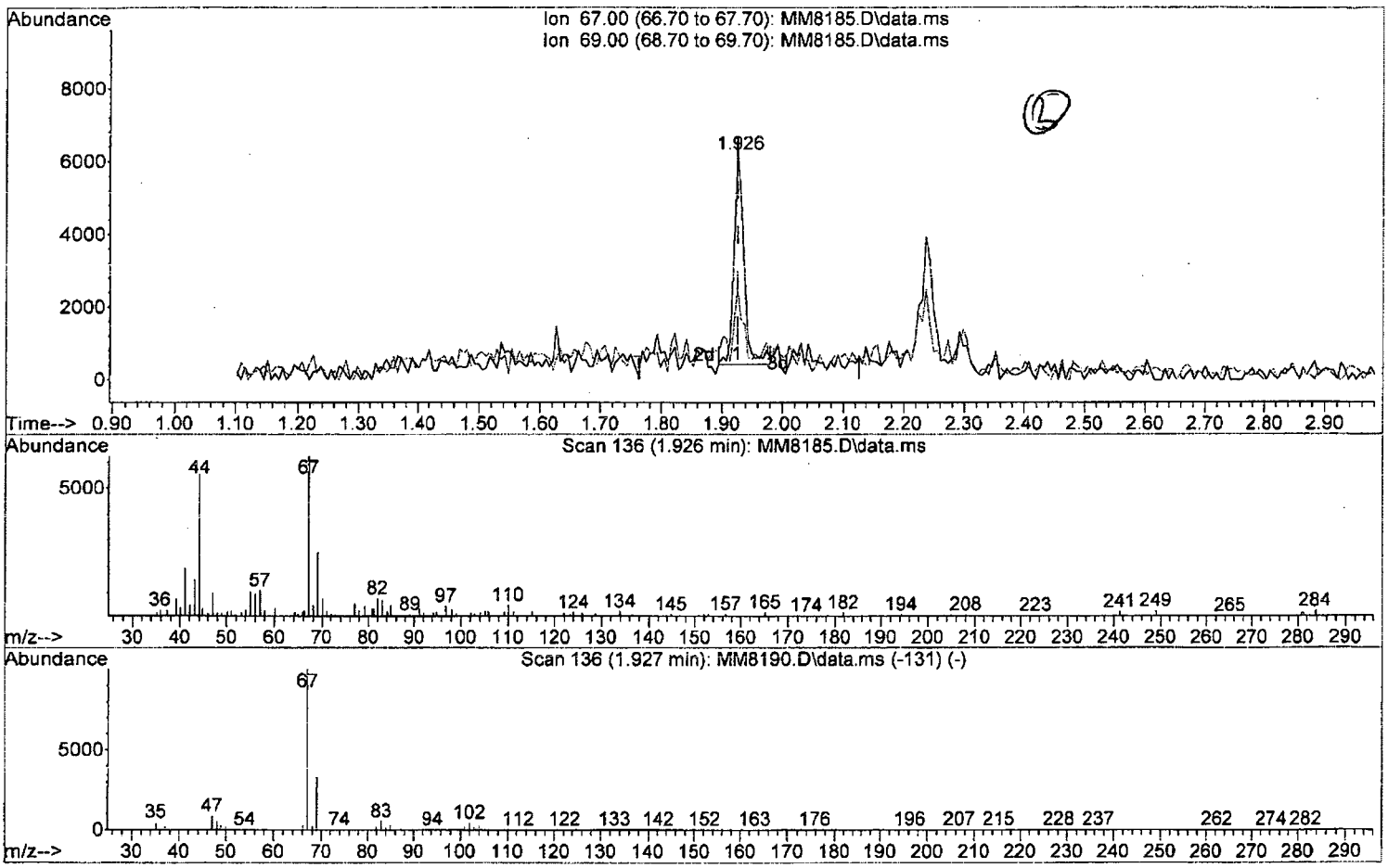
Ion	Exp%	Act%
62.00	100	100
64.00	33.40	24.76
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:37:26 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(7) Freon 21

1.926min (-0.000) 0.53 ppb

response 6797

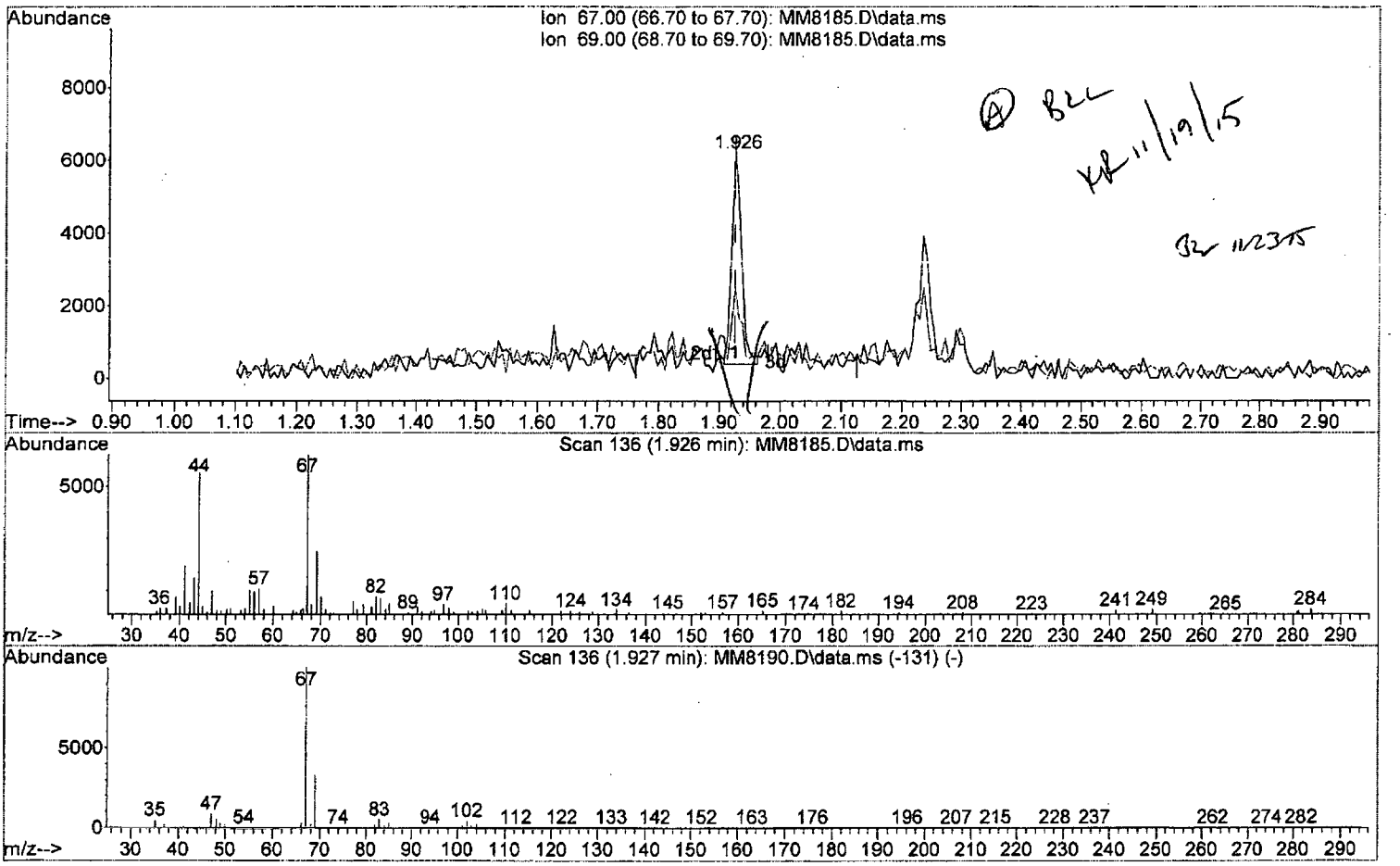
Ion	Exp%	Act%
67.00	100	100
69.00	33.10	40.44
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:37:42 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(7) Freon 21

1.926min (-0.000) 0.51 ppb m

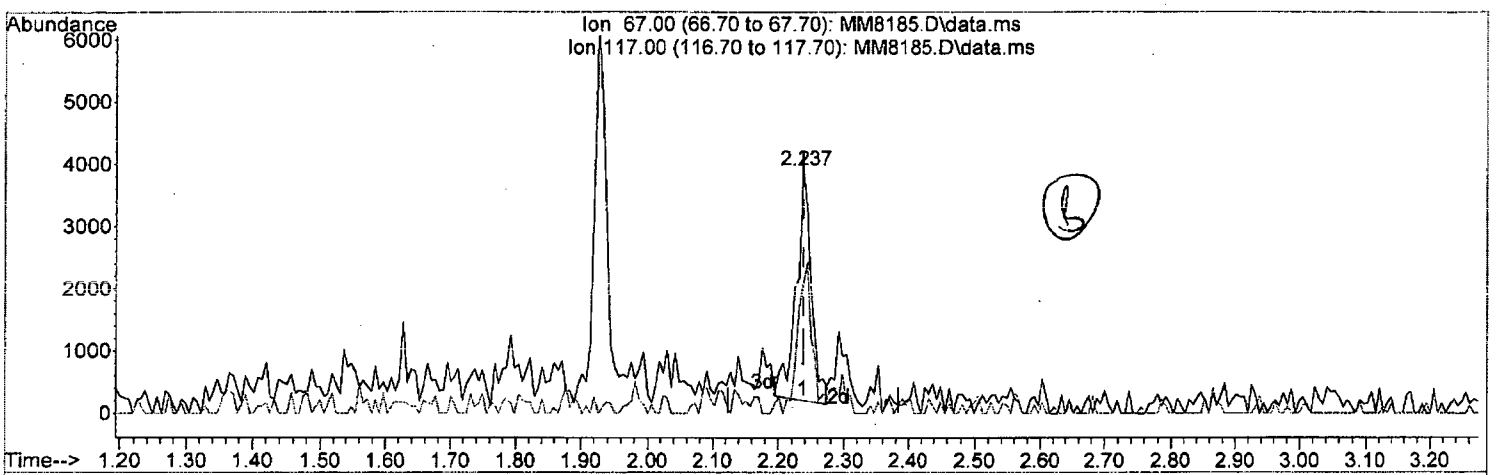
response 6532

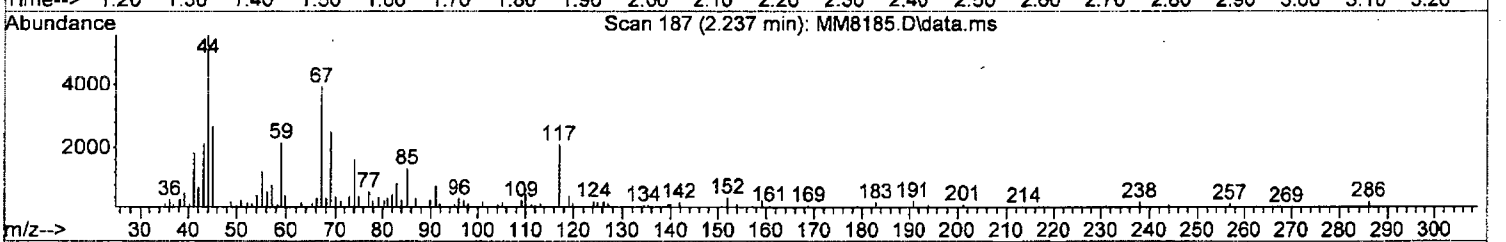
Ion	Exp%	Act%
67.00	100	100
69.00	33.10	40.44
0.00	0.00	0.00
0.00	0.00	0.00

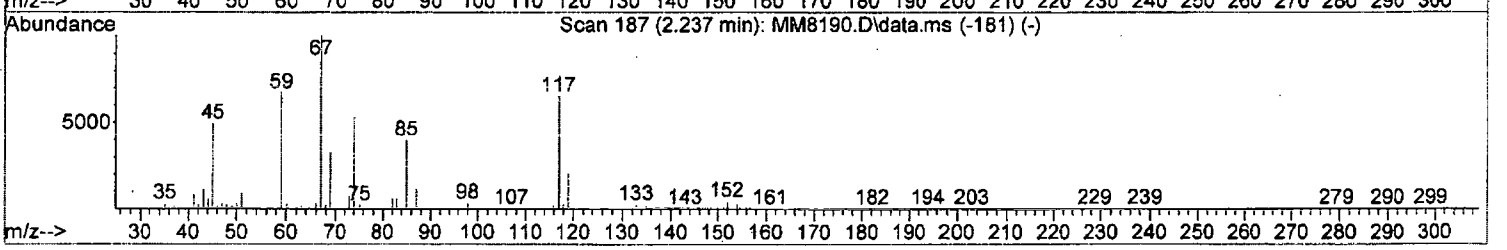
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8185.D\data.ms

(10) Freon 123a

2.237min (-0.000) 0.70 ppb

response 5939

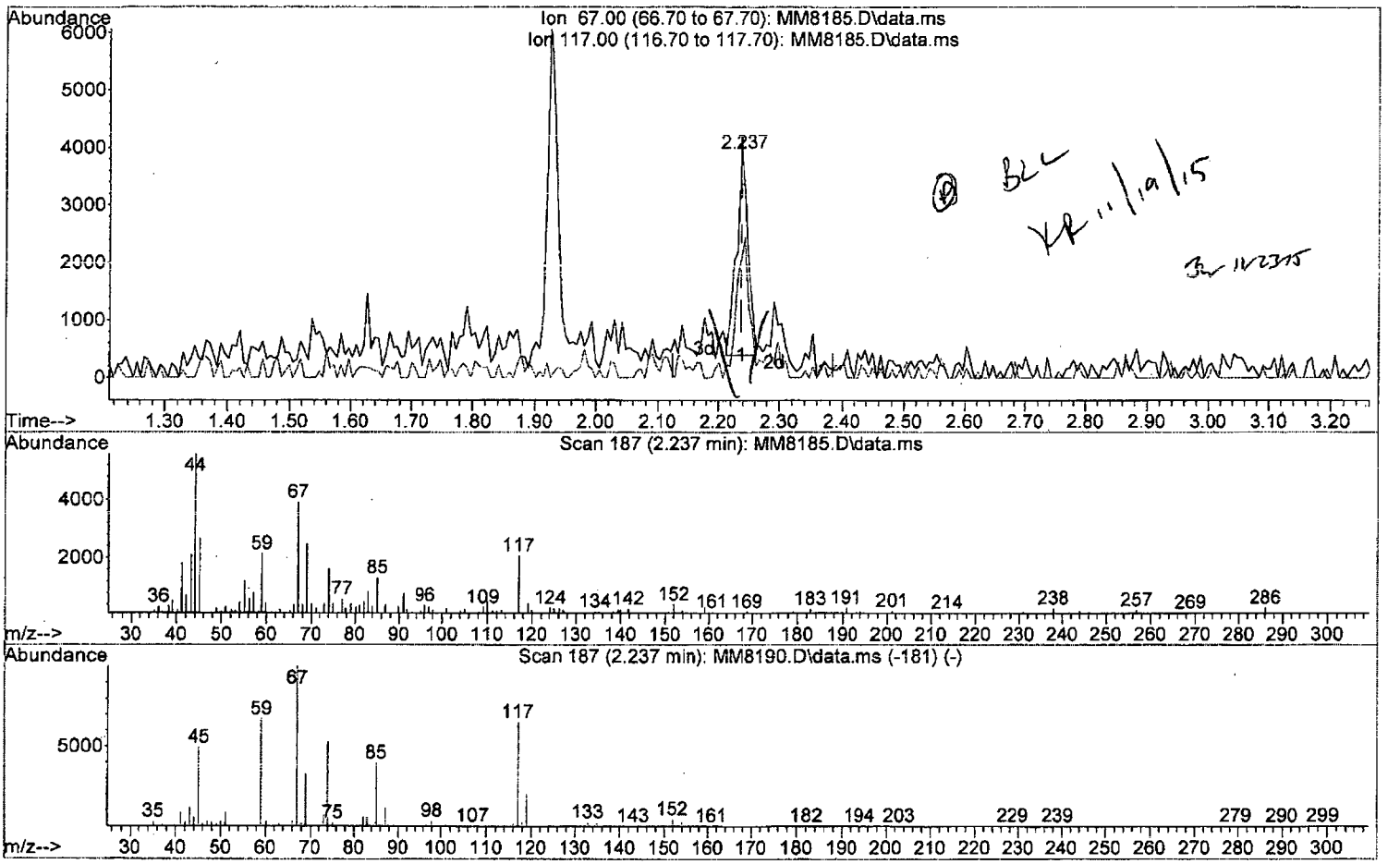
Ion	Exp%	Act%
67.00	100	100
117.00	65.50	52.87
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:38:00 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(10) Freon 123a

2.237min (-0.000) 0.56 ppb m

response 4717

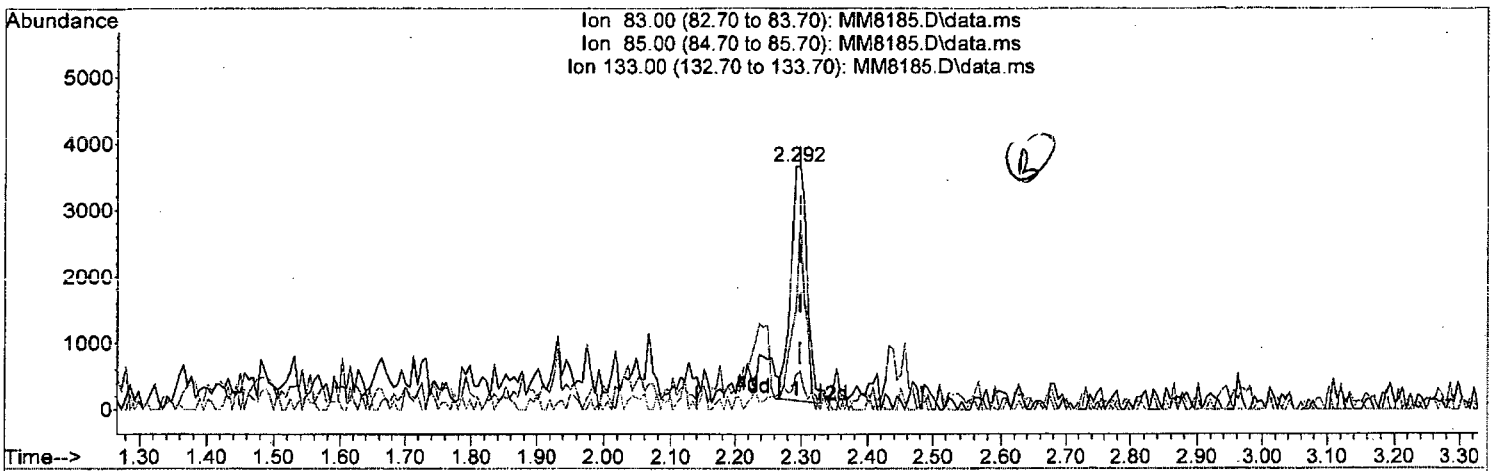
Ion	Exp%	Act%
67.00	100	100
117.00	65.50	52.87
0.00	0.00	0.00
0.00	0.00	0.00

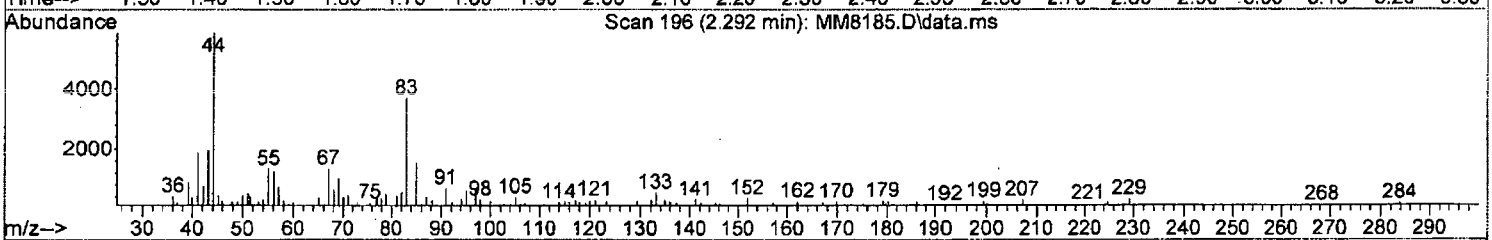
W111815.M Thu Nov 19 09:38:27 2015 Page: 1

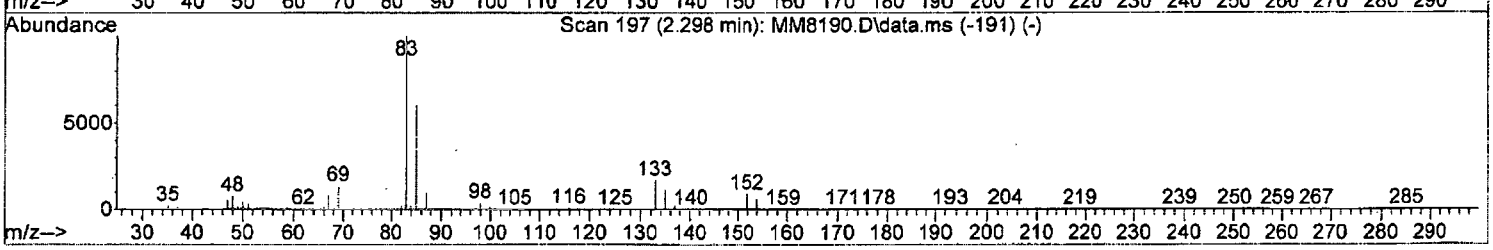
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8185.D\data.ms

(11) Freon 123

2.292min (-0.006) 0.61 ppb

response 5962

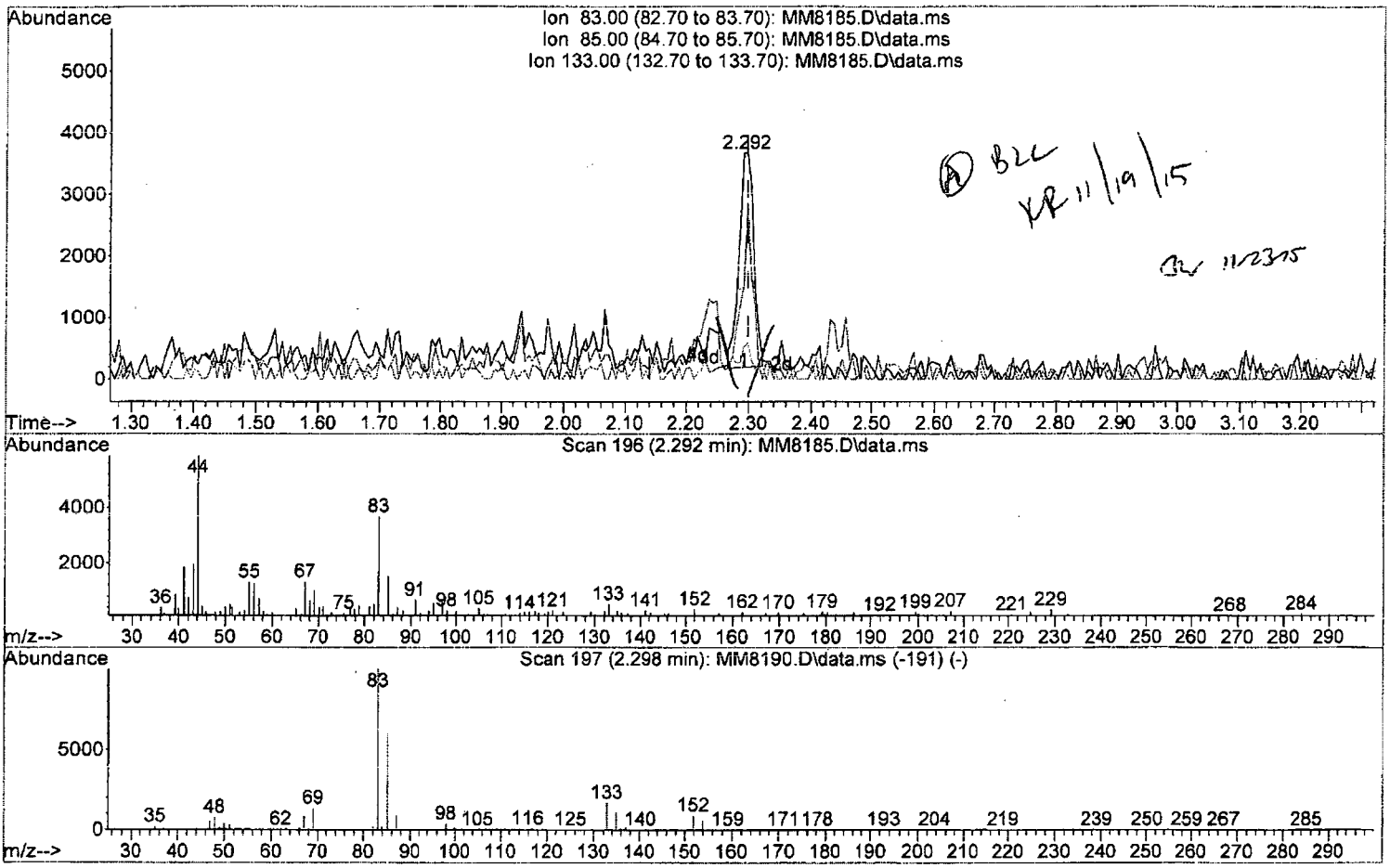
Ion	Exp%	Act%
83.00	100	100
85.00	62.90	41.14#
133.00	16.90	14.03
0.00	0.00	0.00

W111815.M Thu Nov 19 09:38:45 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(11) Freon 123

2.292min (-0.006) 0.58 ppb m

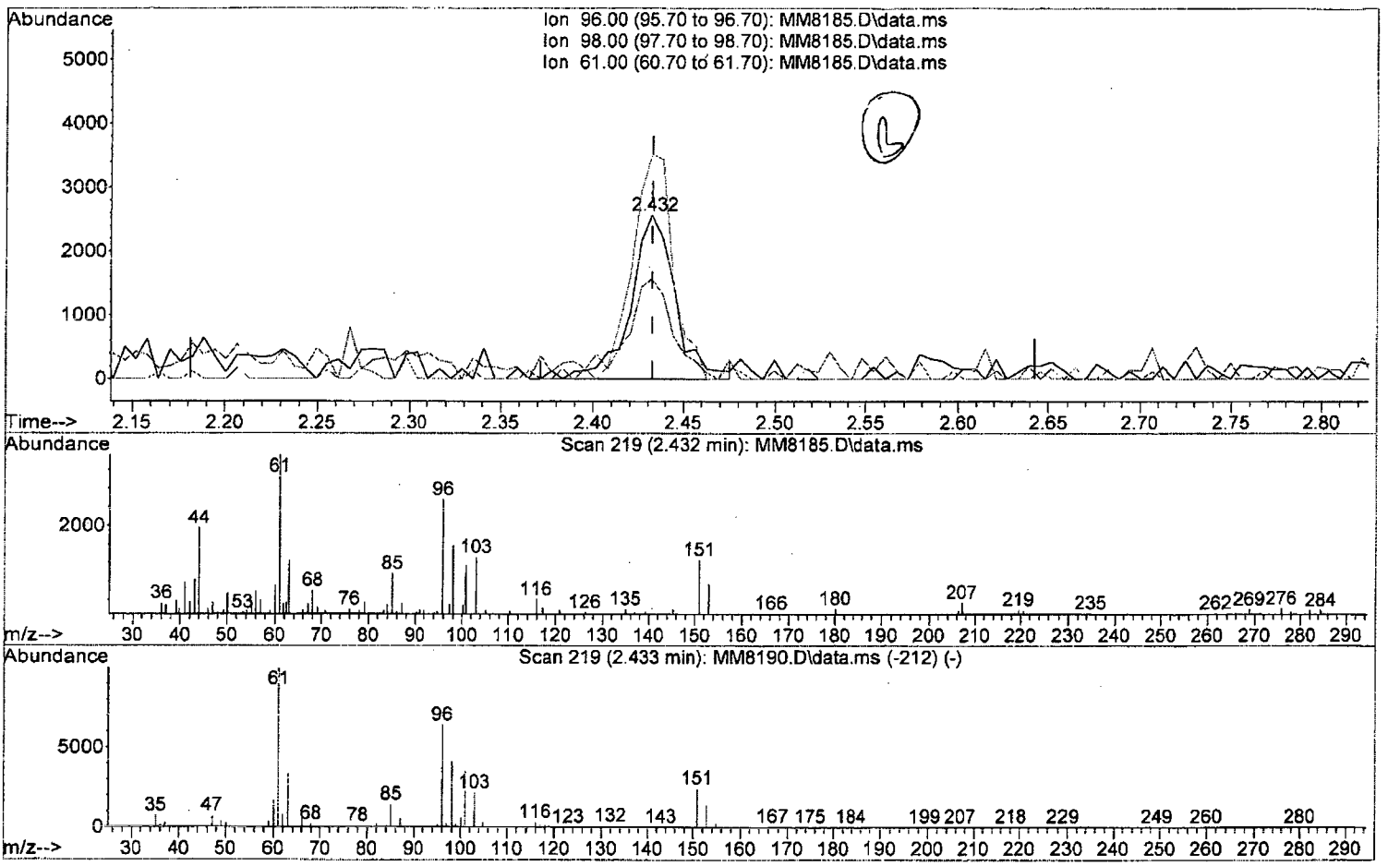
response 5691

Ion	Exp%	Act%
83.00	100	100
85.00	62.90	41.14#
133.00	16.90	14.03
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(13) 1,1-Diclethene (P)

2.432min (-0.000) 0.68 ppb

response 4440

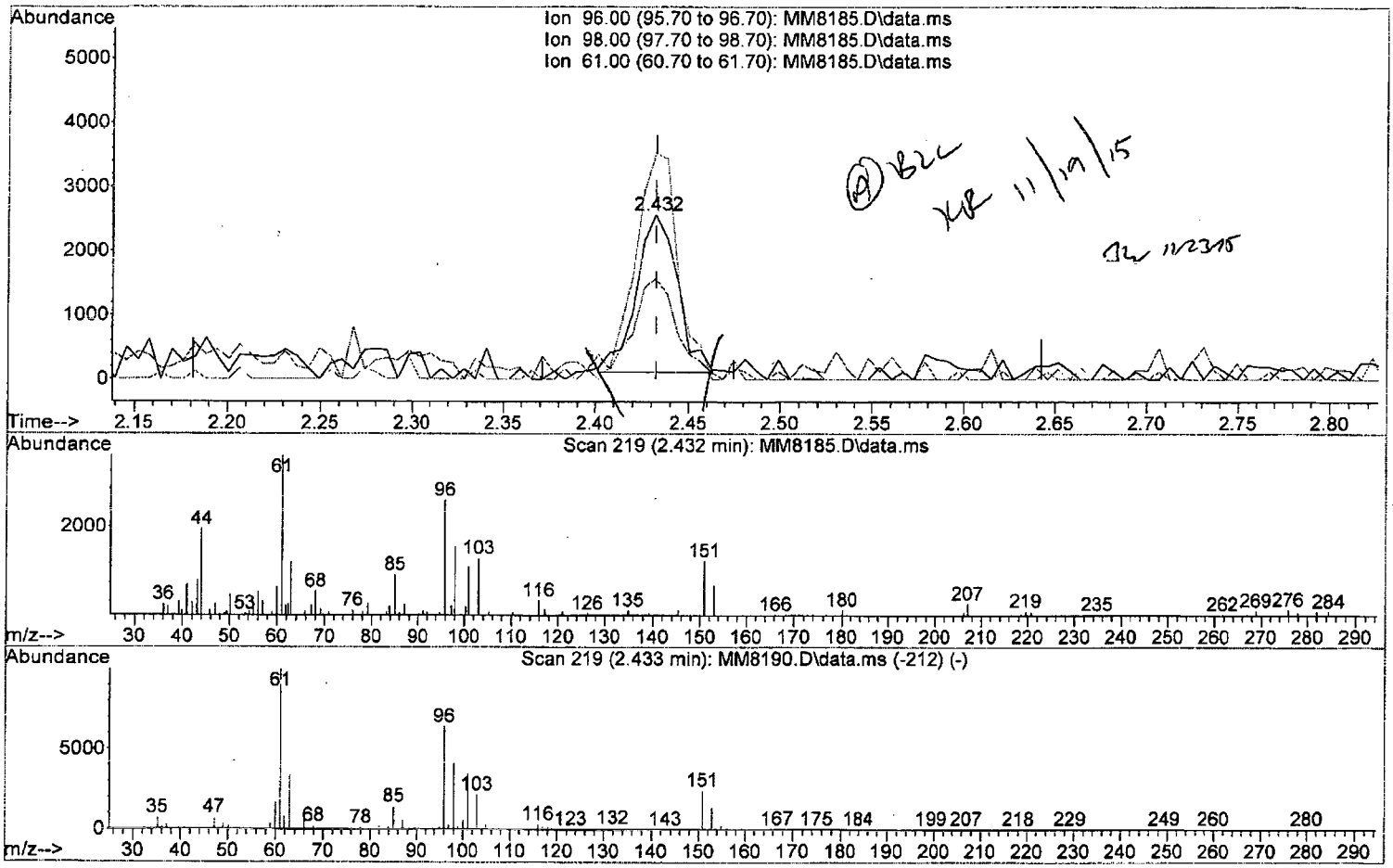
Ion	Exp%	Act%
96.00	100	100
98.00	65.00	61.16
61.00	156.20	137.31
0.00	0.00	0.00

W111815.M Thu Nov 19 09:39:27 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(13) 1,1-Diclethene (P)

2.432min (-0.000) 0.57 ppb m

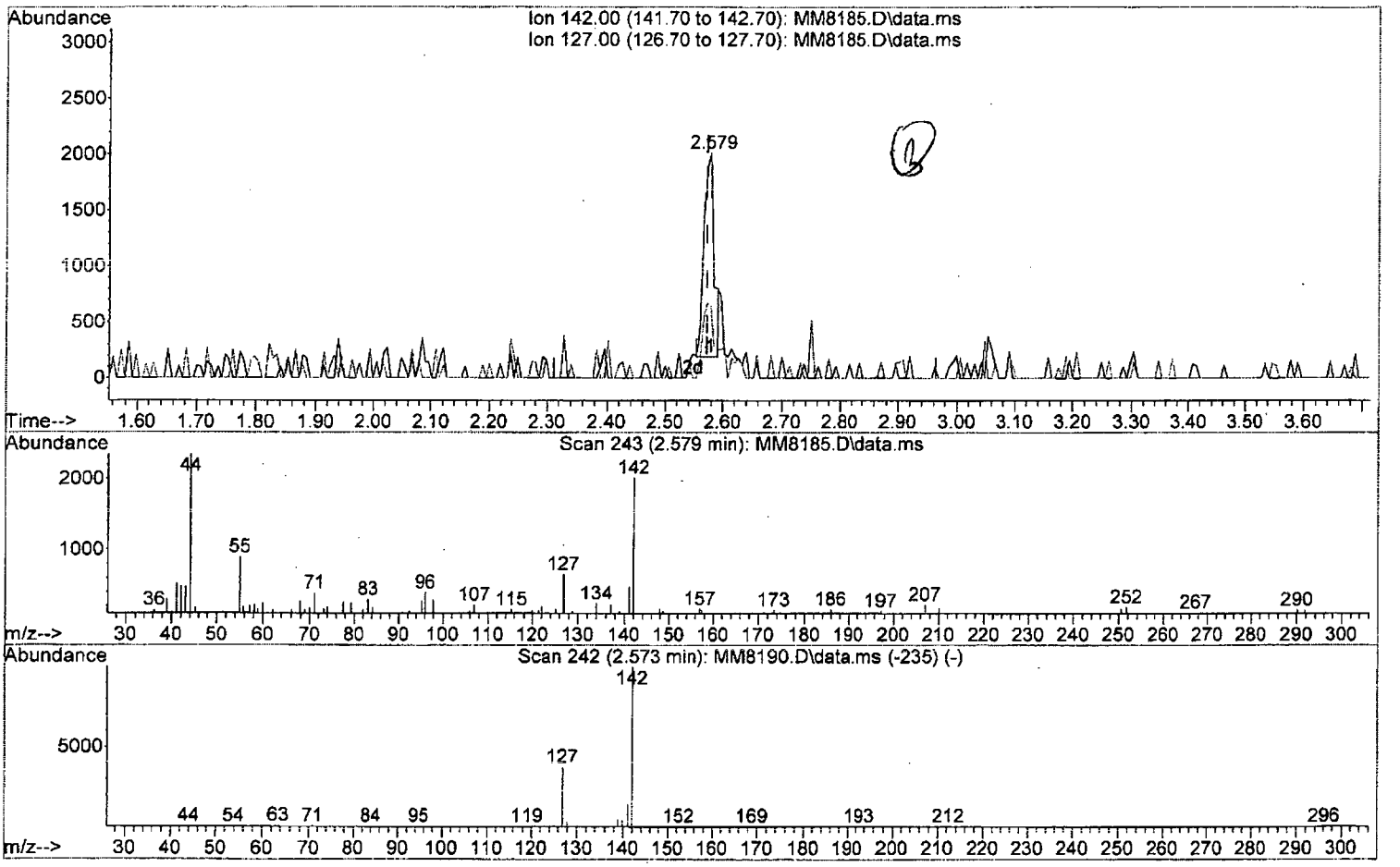
response 3749

Ion	Exp%	Act%
96.00	100	100
98.00	65.00	61.16
61.00	156.20	137.31
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(17) Iodomethane

2.579min (+0.007) 0.32 ppb

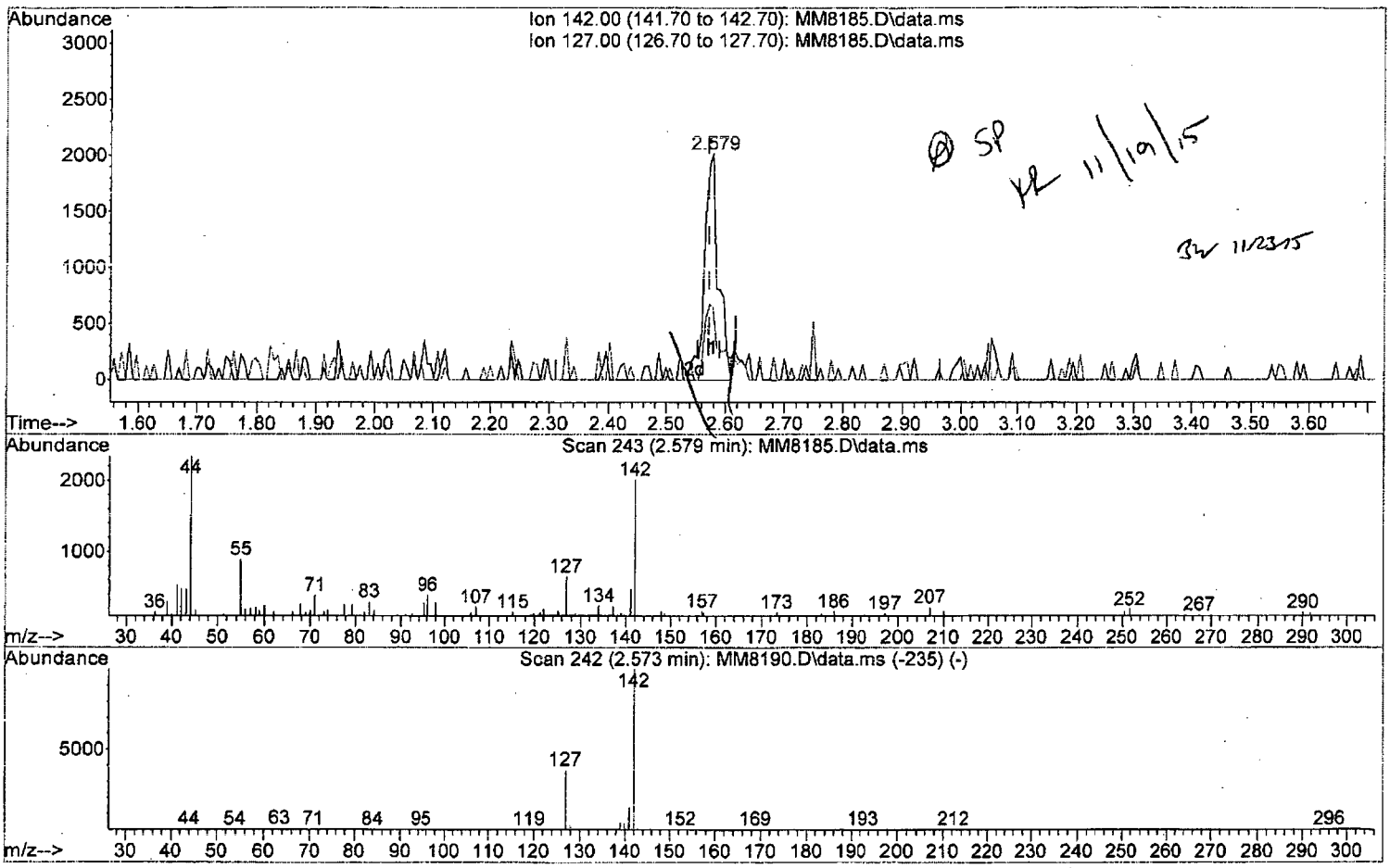
response 2266

Ion	Exp%	Act%
142.00	100	100
127.00	37.20	32.24
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(17) Iodomethane

2.579min (+0.007) 0.46 ppb m

response 3304

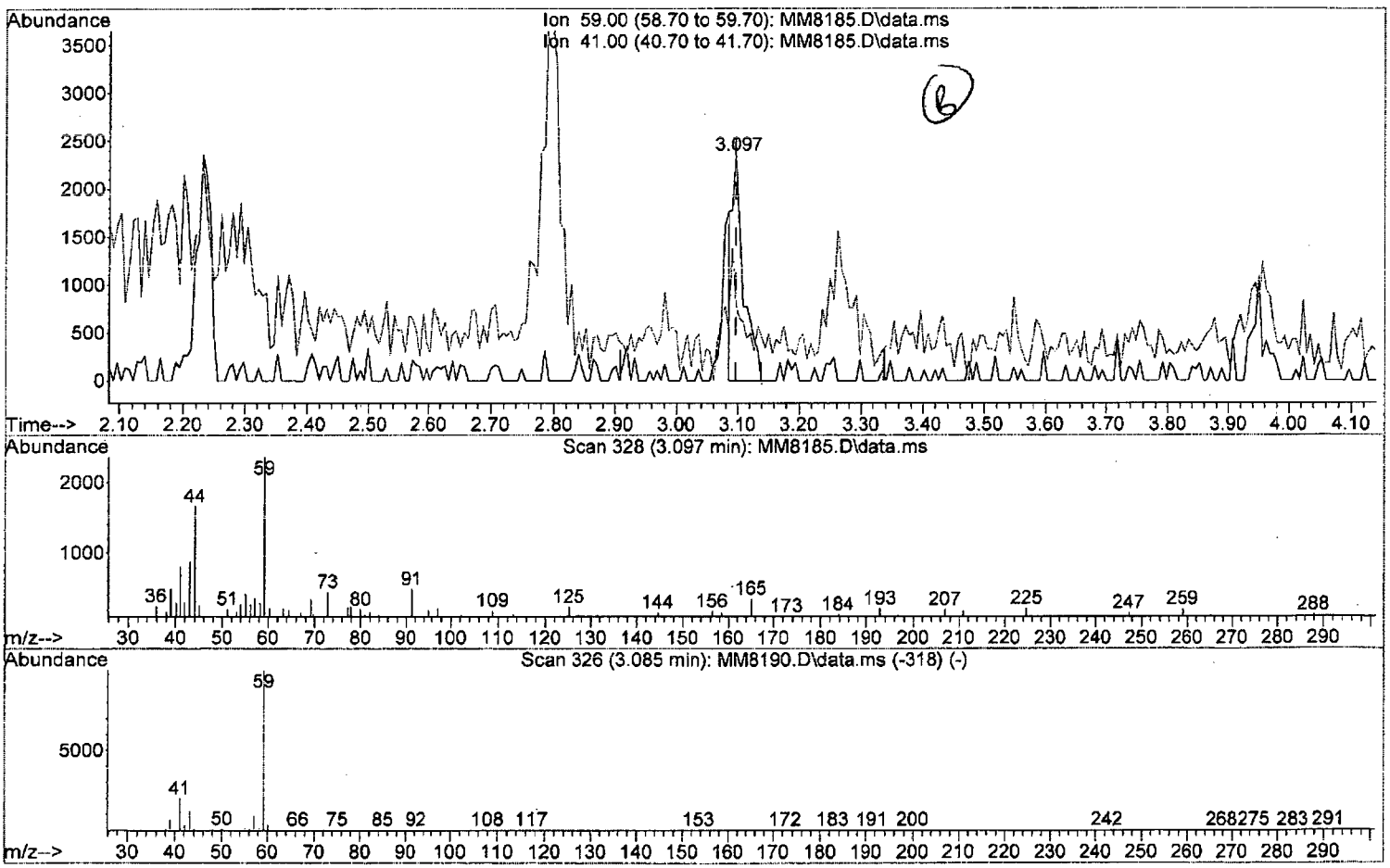
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	32.24
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:40:16 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(23) TBA

3.097min (-0.000) 6.28 ppb

response 3153

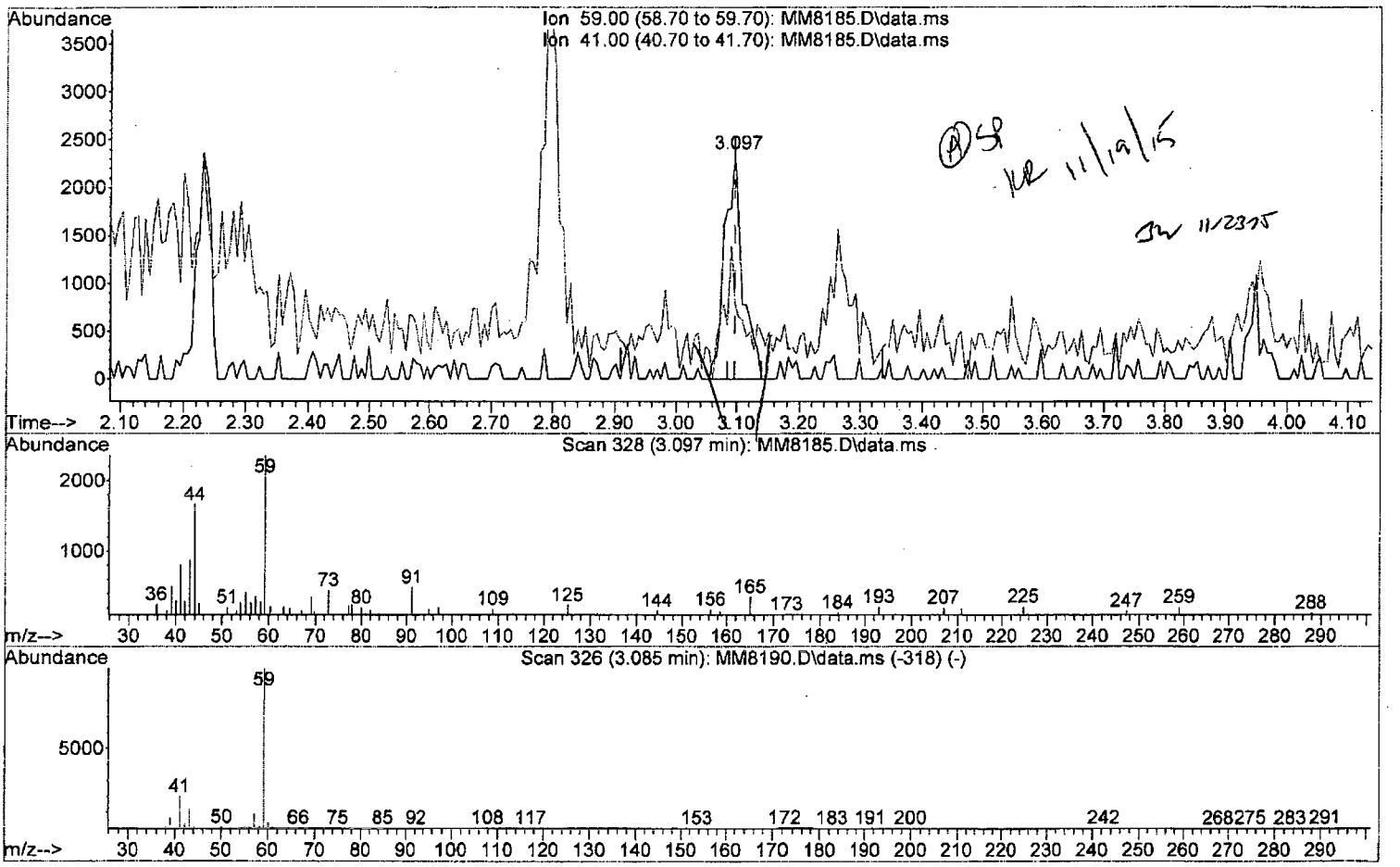
Ion	Exp%	Act%
59.00	100	100
41.00	20.00	33.98
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:40:55 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(23) TBA

3.097min (-0.000) 9.46 ppb m

response 4748

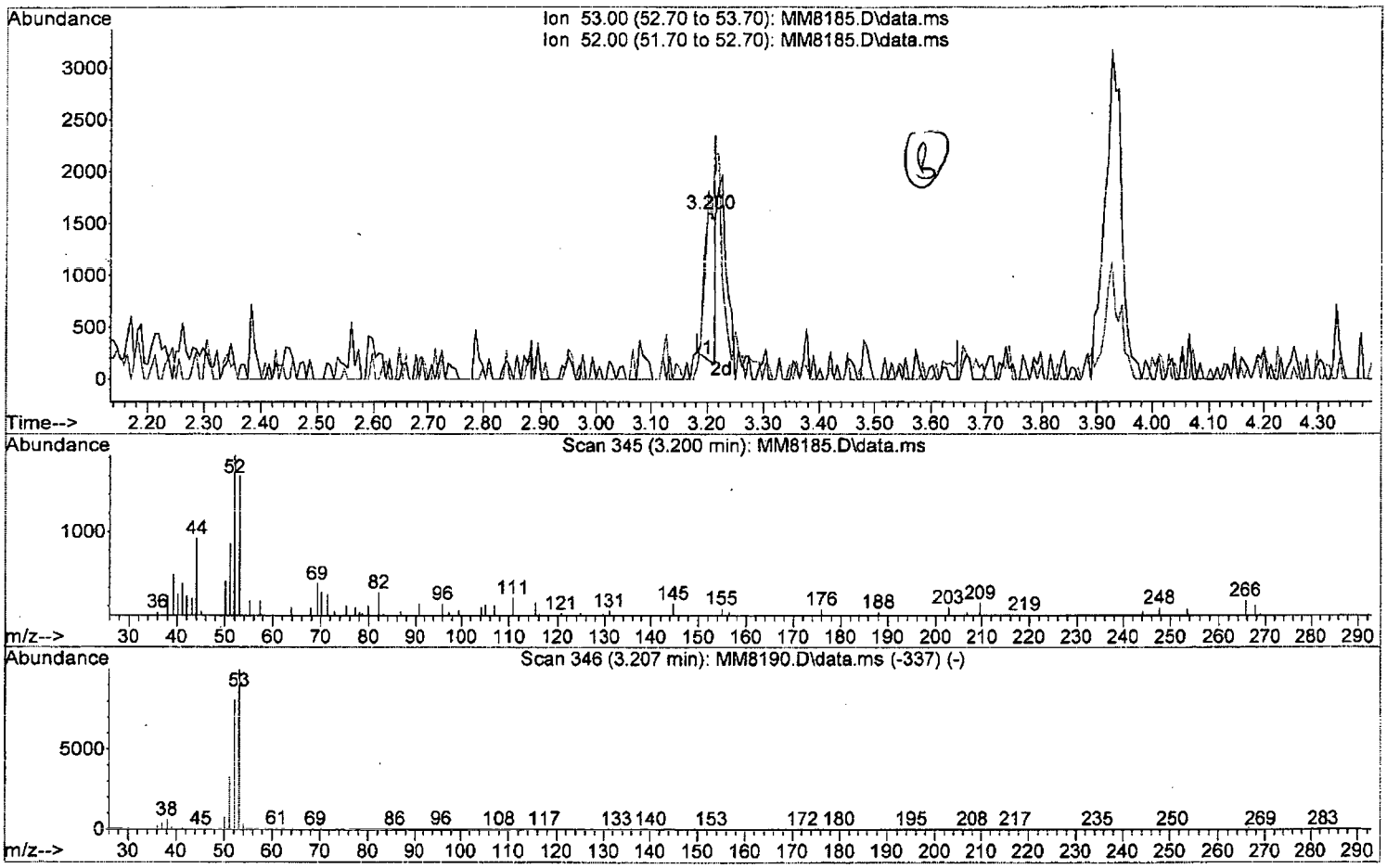
Ion	Exp%	Act%
59.00	100	100
41.00	20.00	33.98
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:41:02 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(24) Acrylonitrile

3.200min (-0.012) 1.03 ppb

response 1912

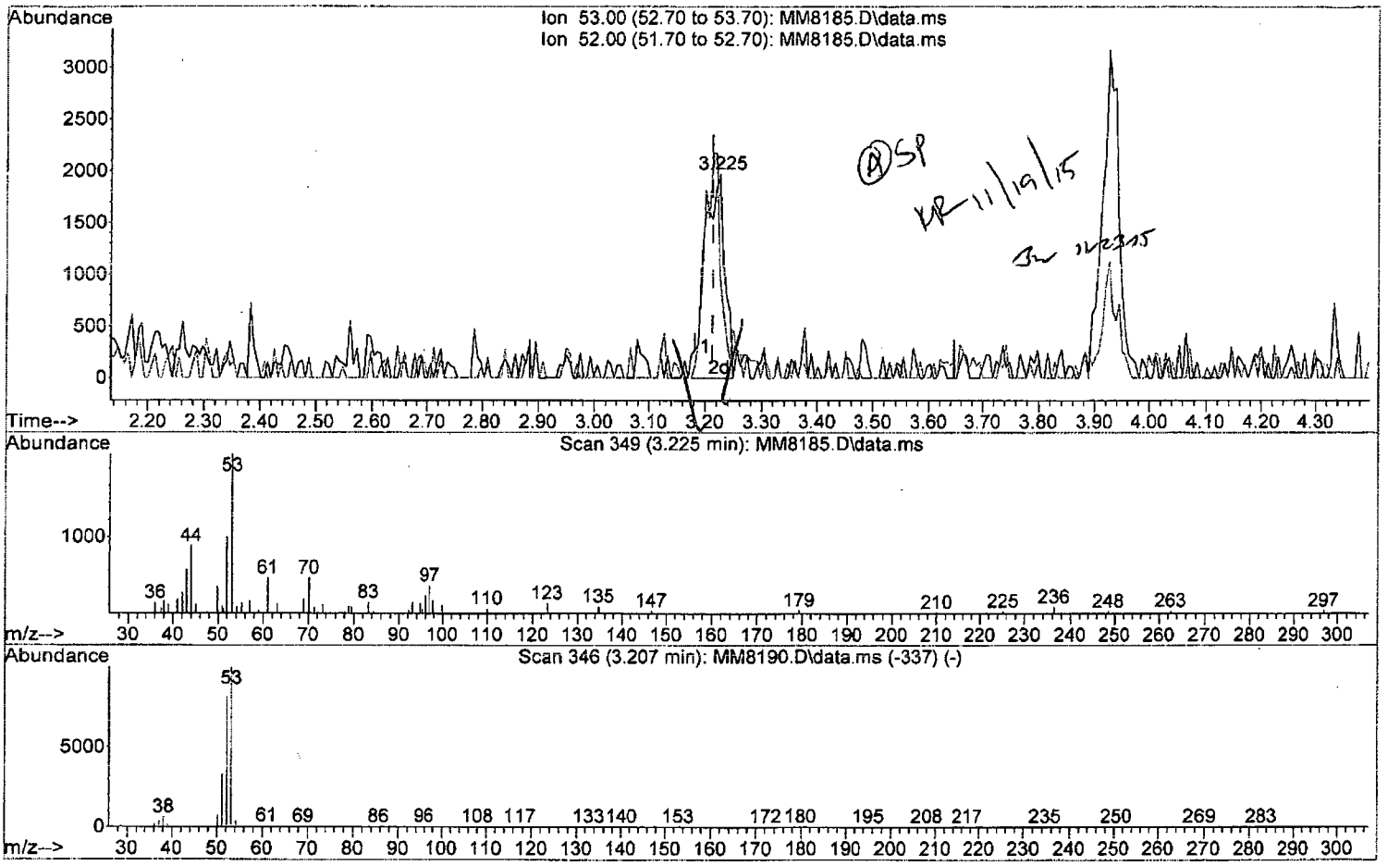
Ion	Exp%	Act%
53.00	100	100
52.00	81.00	113.38#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:41:09 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(24) Acrylonitrile

3.225min (+0.012) 2.57 ppb m

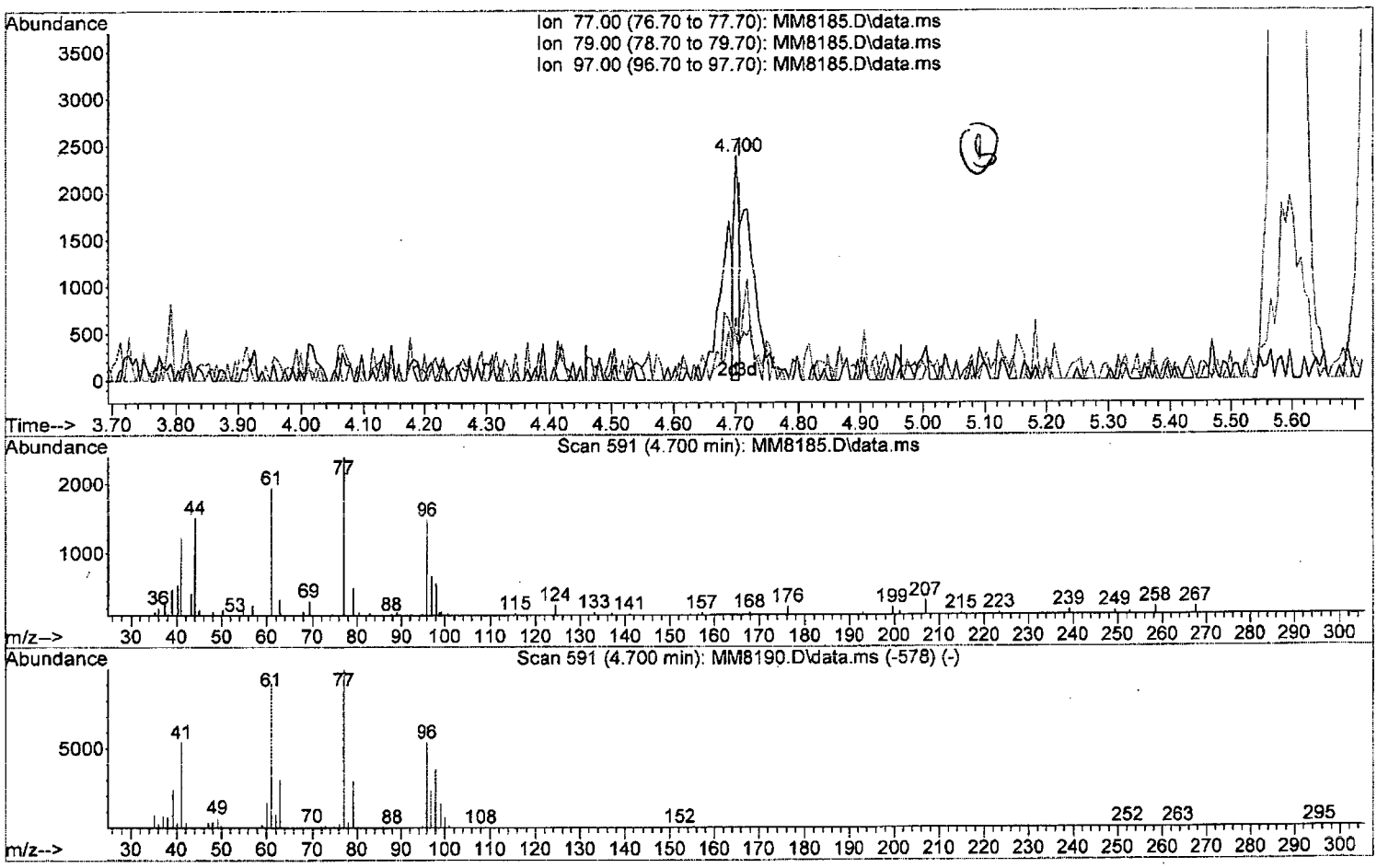
response 4777

Ion	Exp%	Act%
53.00	100	100
52.00	81.00	50.58#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(33) 2,2-Dichloropropane

4.700min (-0.006) 0.15 ppb

response 1474

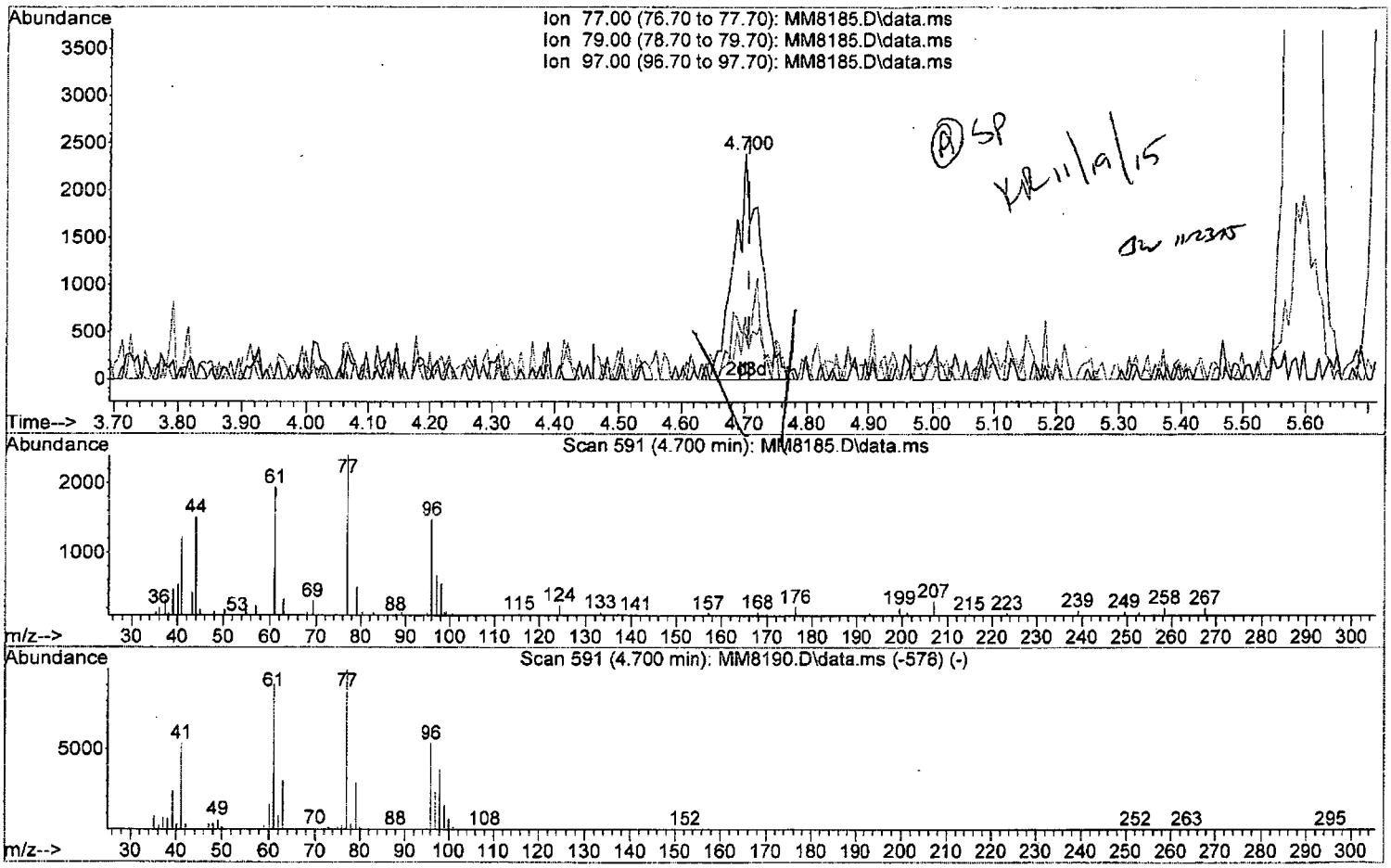
Ion	Exp%	Act%
77.00	100	100
79.00	28.80	20.85
97.00	24.00	27.68
0.00	0.00	0.00

W111815.M Thu Nov 19 09:41:56 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(33) 2,2-Dichloropropane

4.700min (-0.006) 0.70 ppb m

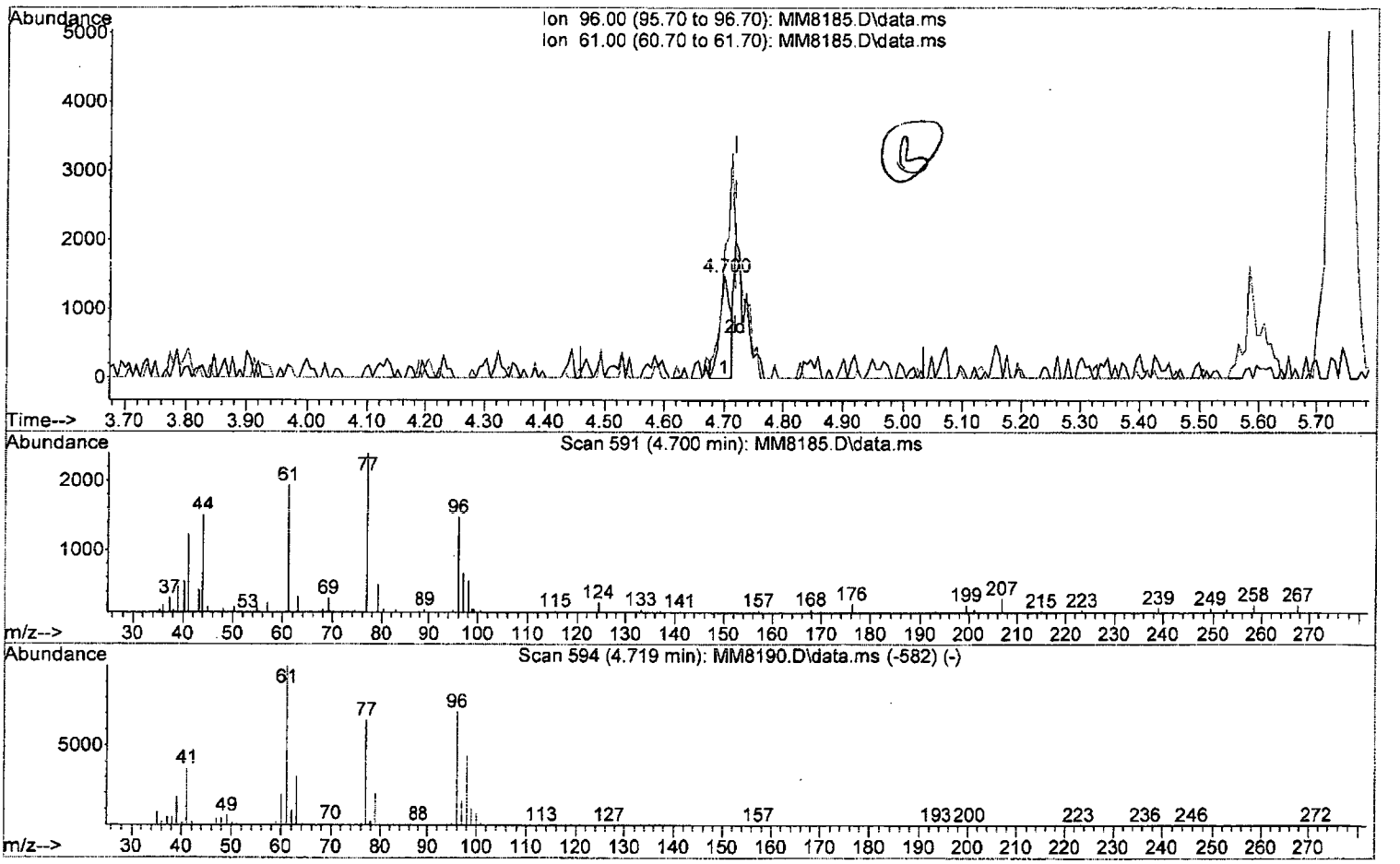
response 6855

Ion	Exp%	Act%
77.00	100	100
79.00	28.80	20.85
97.00	24.00	27.68
0.00	0.00	0.00

W111815.M Thu Nov 19 09:42:09 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.700min (-0.019) 0.24 ppb

response 1837

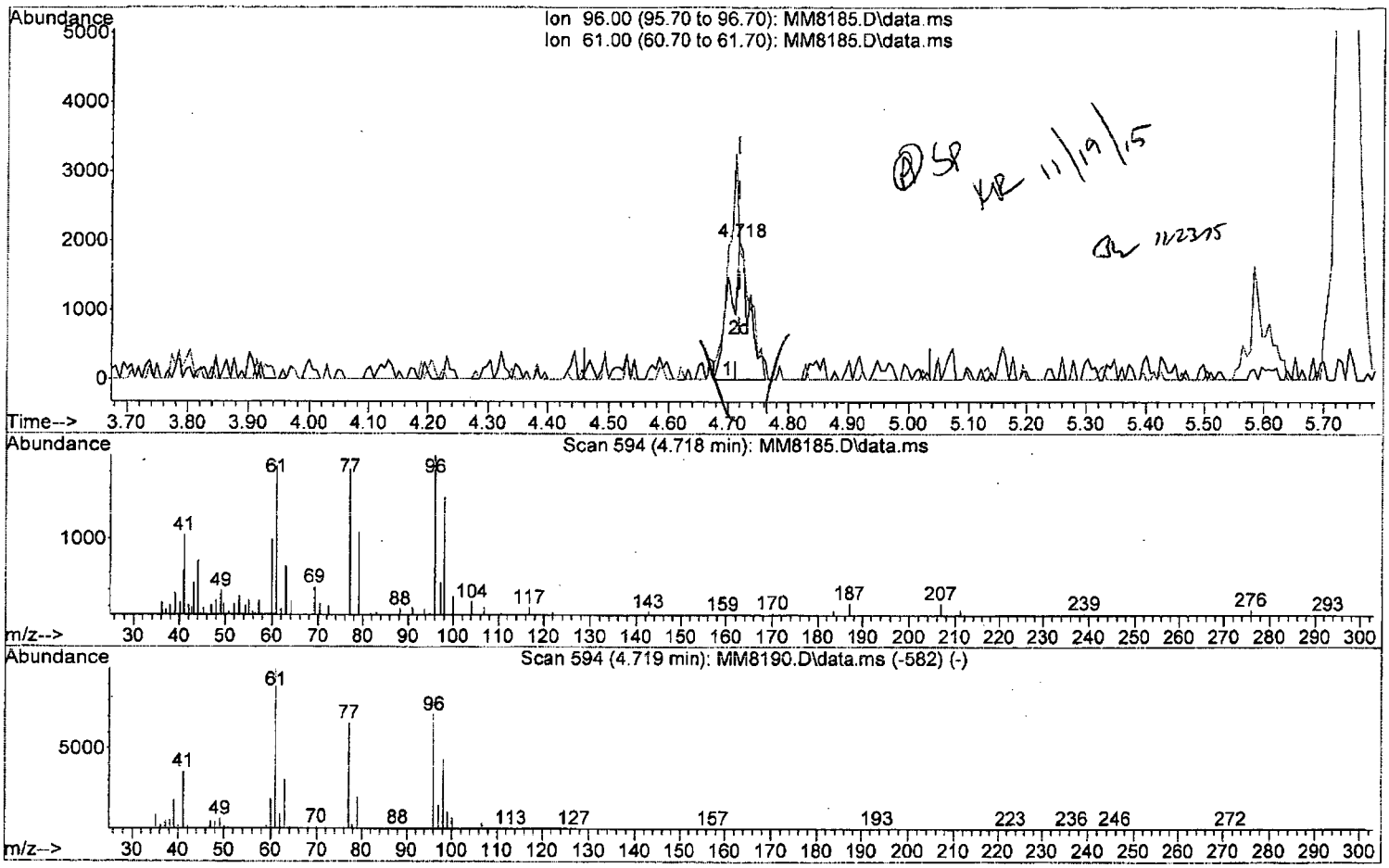
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	130.87
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:42:23 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.718min (-0.000) 0.59 ppb m

response 4520

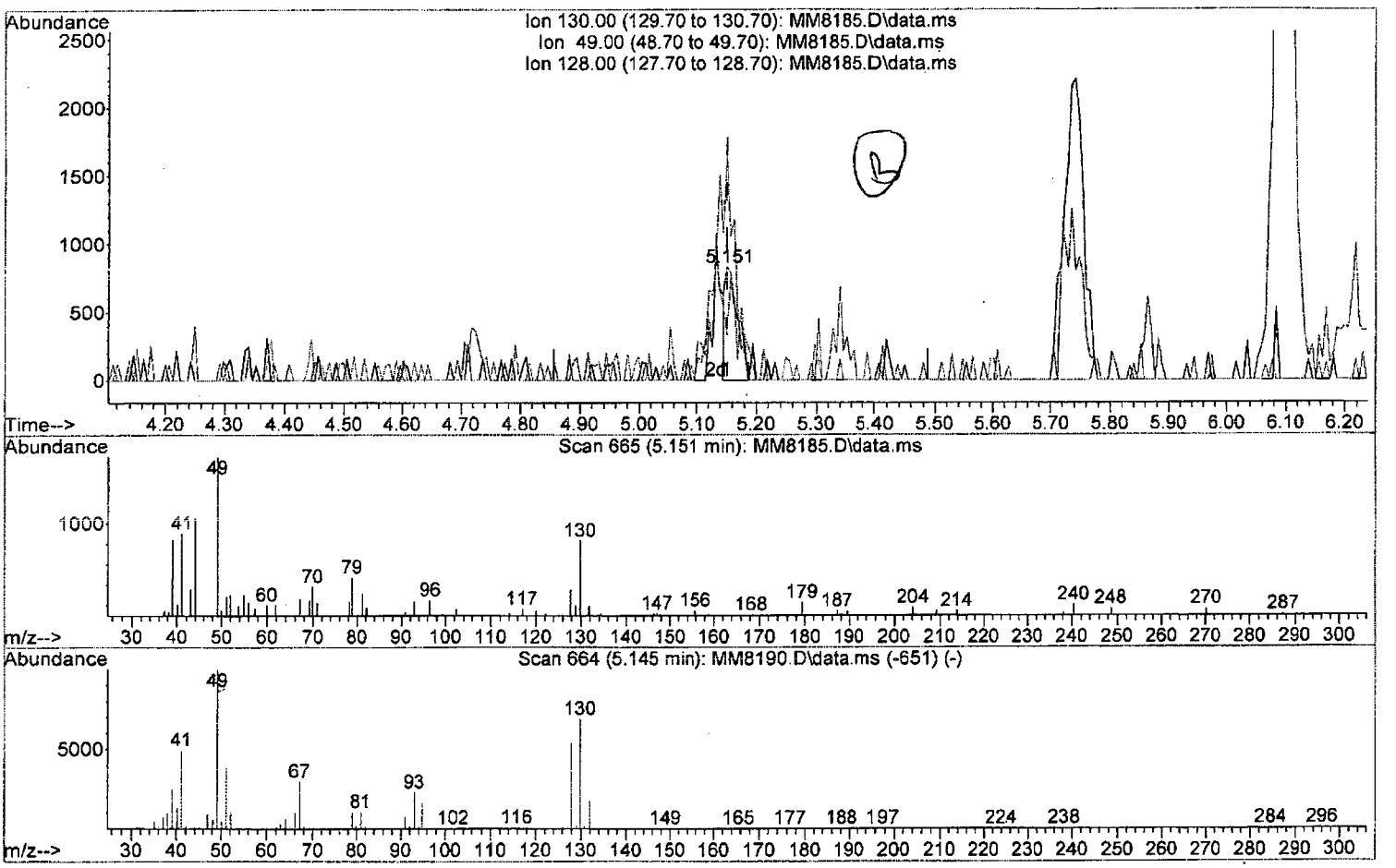
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	93.31#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:42:31 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(37) Bromochloromethane

5.151min (-0.000) 0.30 ppb

response 1181

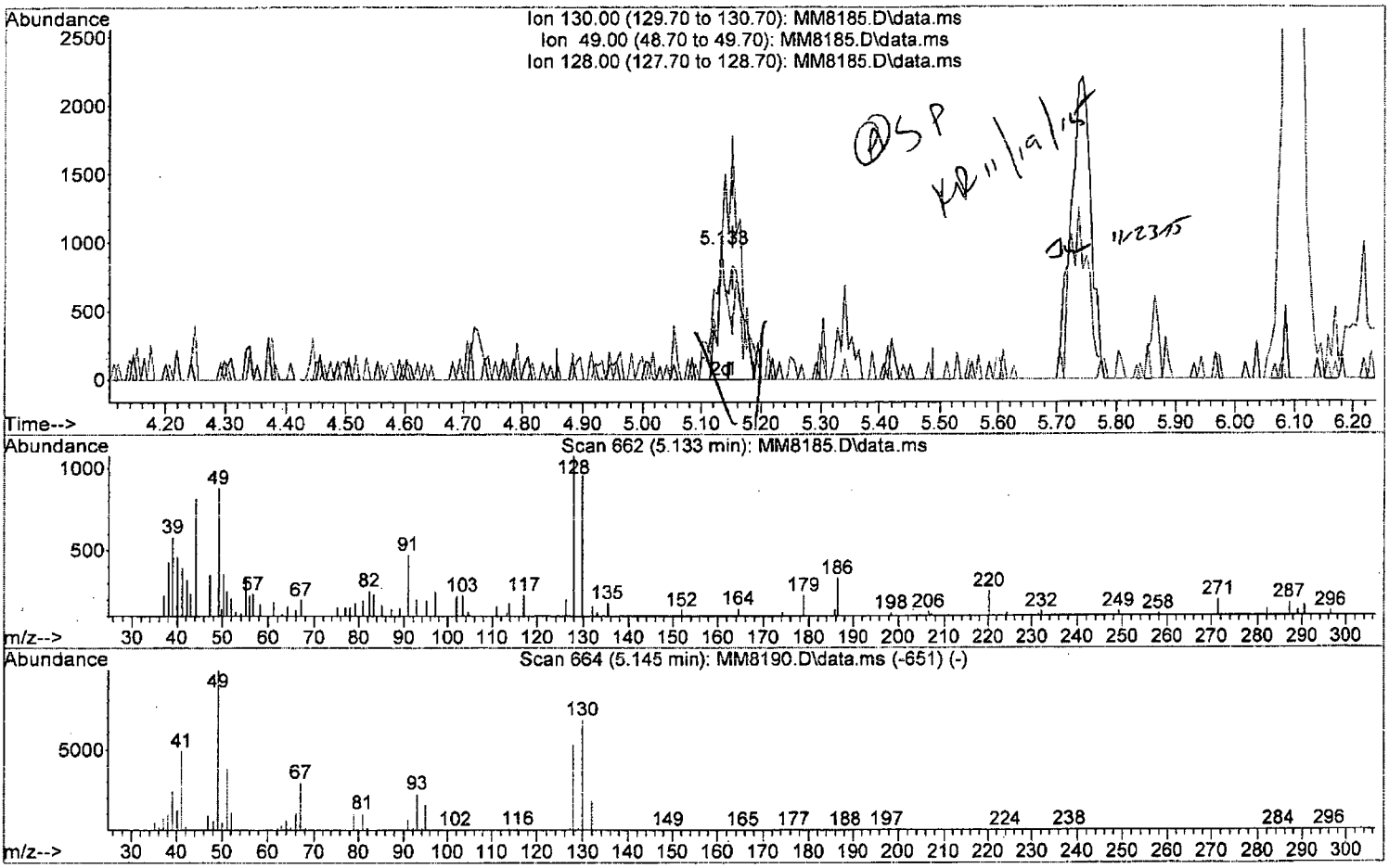
Ion	Exp%	Act%
130.00	100	100
49.00	145.50	199.15#
128.00	77.50	41.91#
0.00	0.00	0.00

W111815.M Thu Nov 19 09:42:49 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(37) Bromochloromethane

5.133min (-0.019) 0.56 ppb m

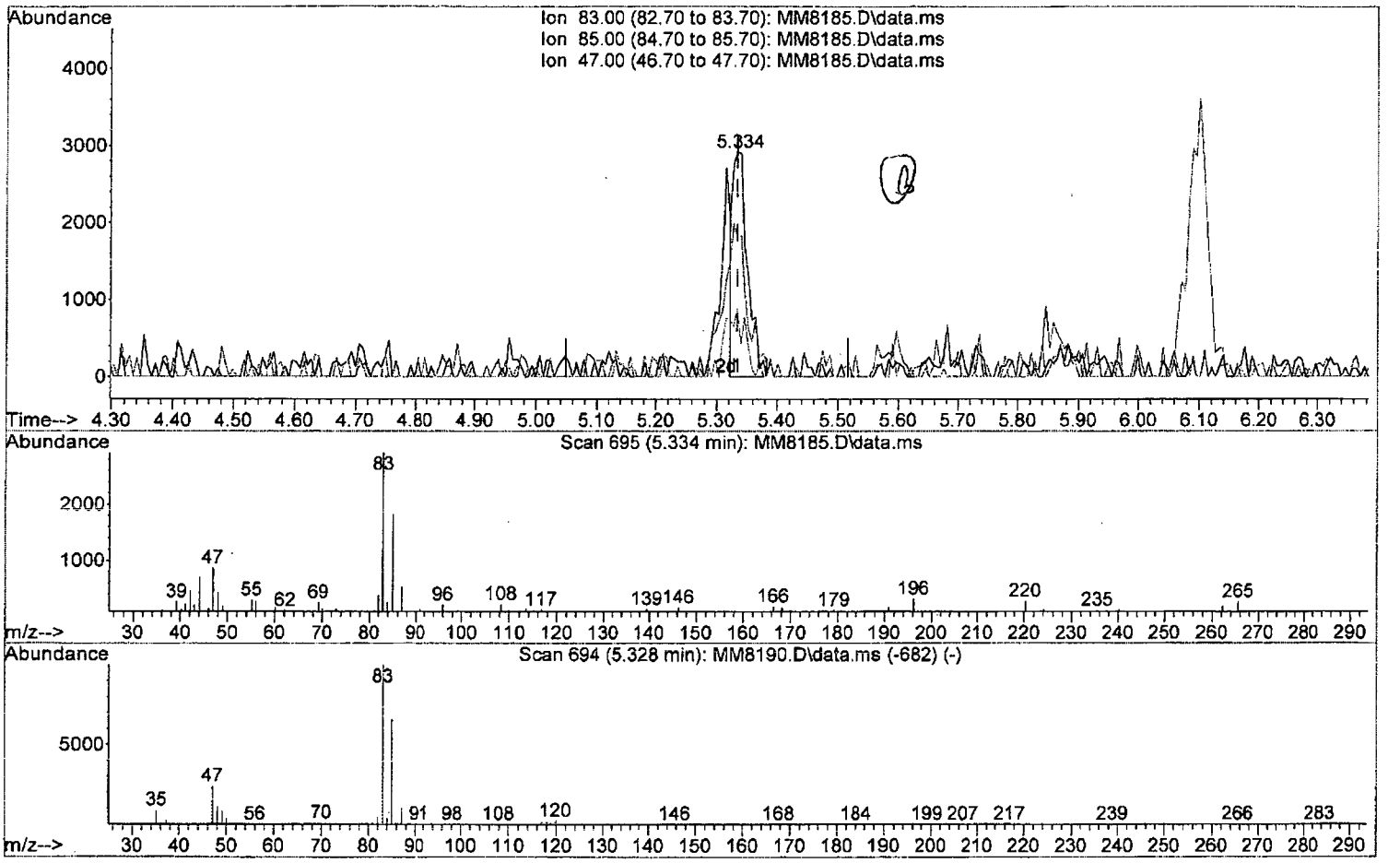
response 2233

Ion	Exp%	Act%
130.00	100	100
49.00	145.50	91.94#
128.00	77.50	112.15#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(40) Chloroform (P)

5.334min (-0.000) 0.41 ppb

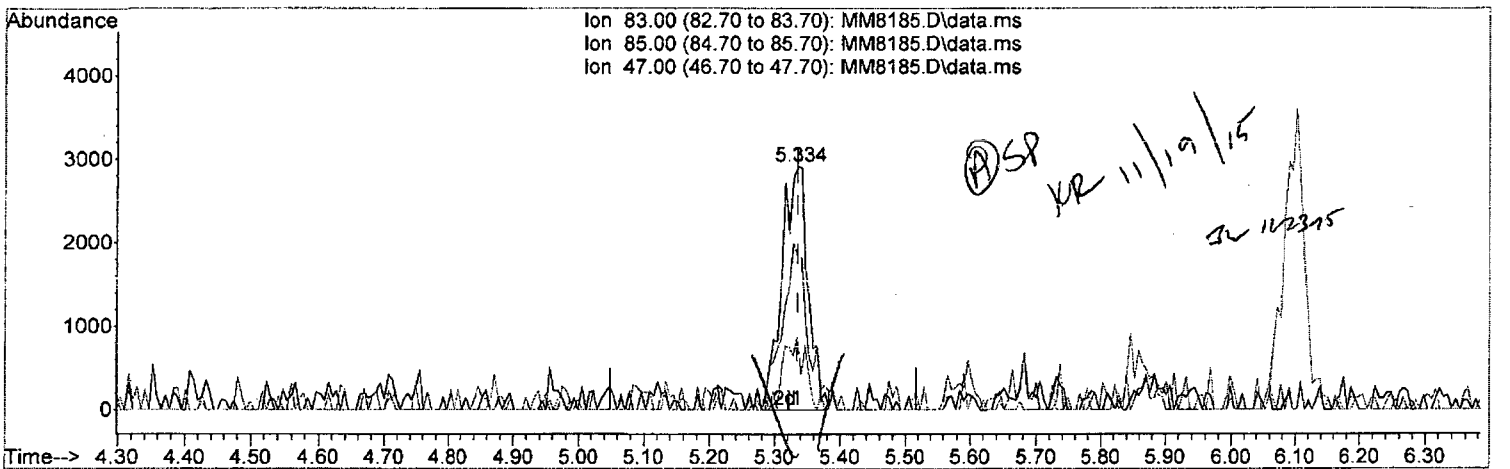
response 4893

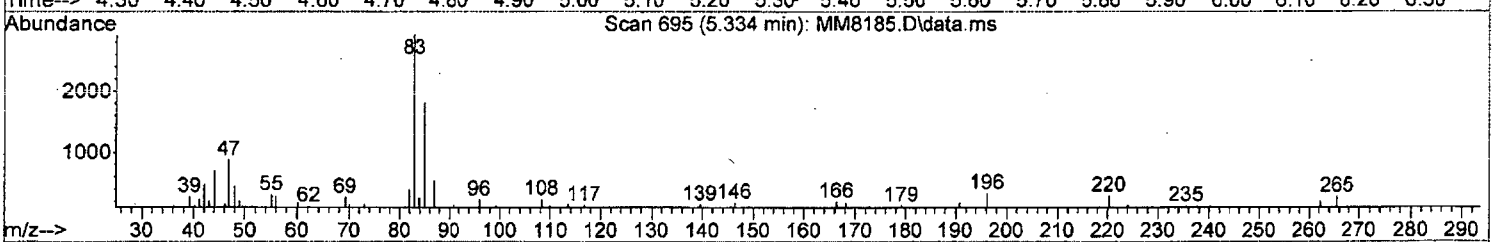
Ion	Exp%	Act%
83.00	100	100
85.00	66.10	62.14
47.00	23.90	29.97
0.00	0.00	0.00

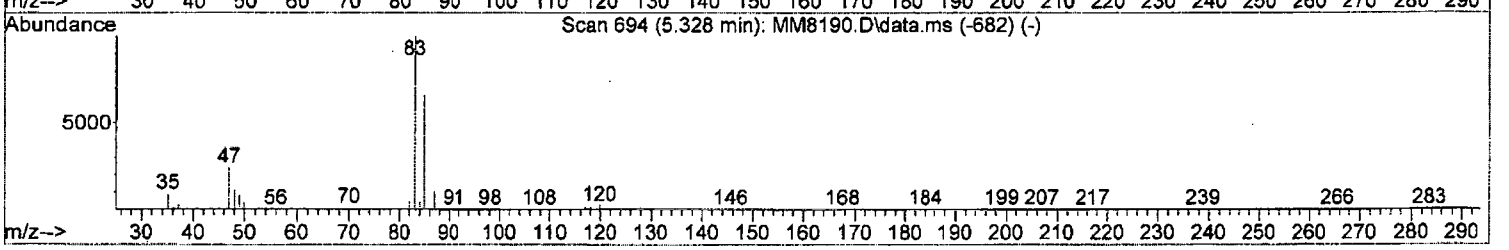
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8185.D\data.ms

(40) Chloroform (P)

5.334min (-0.000) 0.68 ppb m

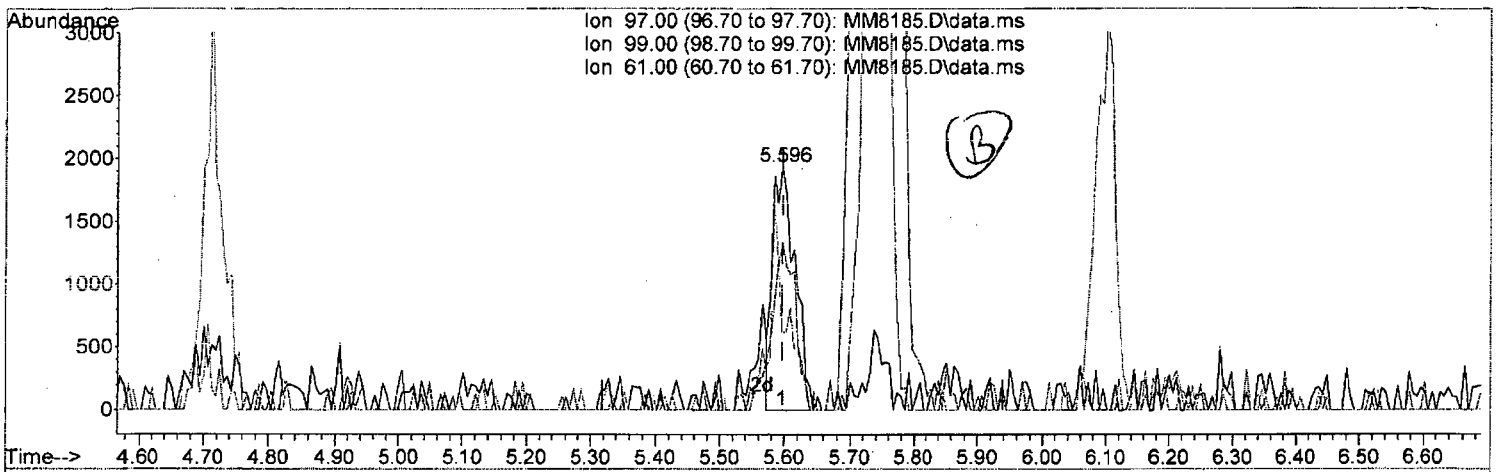
response 8066

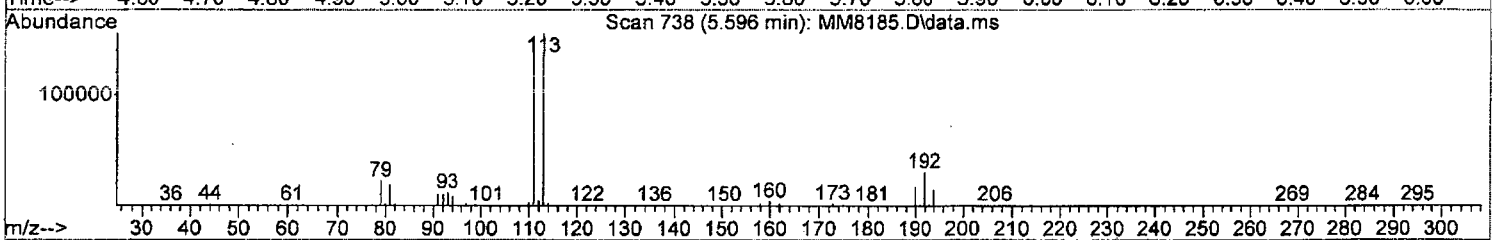
Ion	Exp%	Act%
83.00	100	100
85.00	66.10	62.14
47.00	23.90	29.97
0.00	0.00	0.00

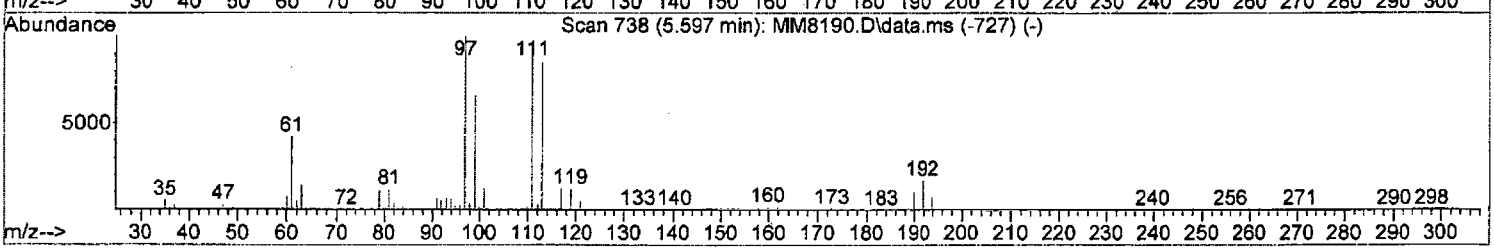
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8185.D\data.ms

(41) 1,1,1-Trichloroethane (P)

5.596min (-0.000) 0.50 ppb

response 4638

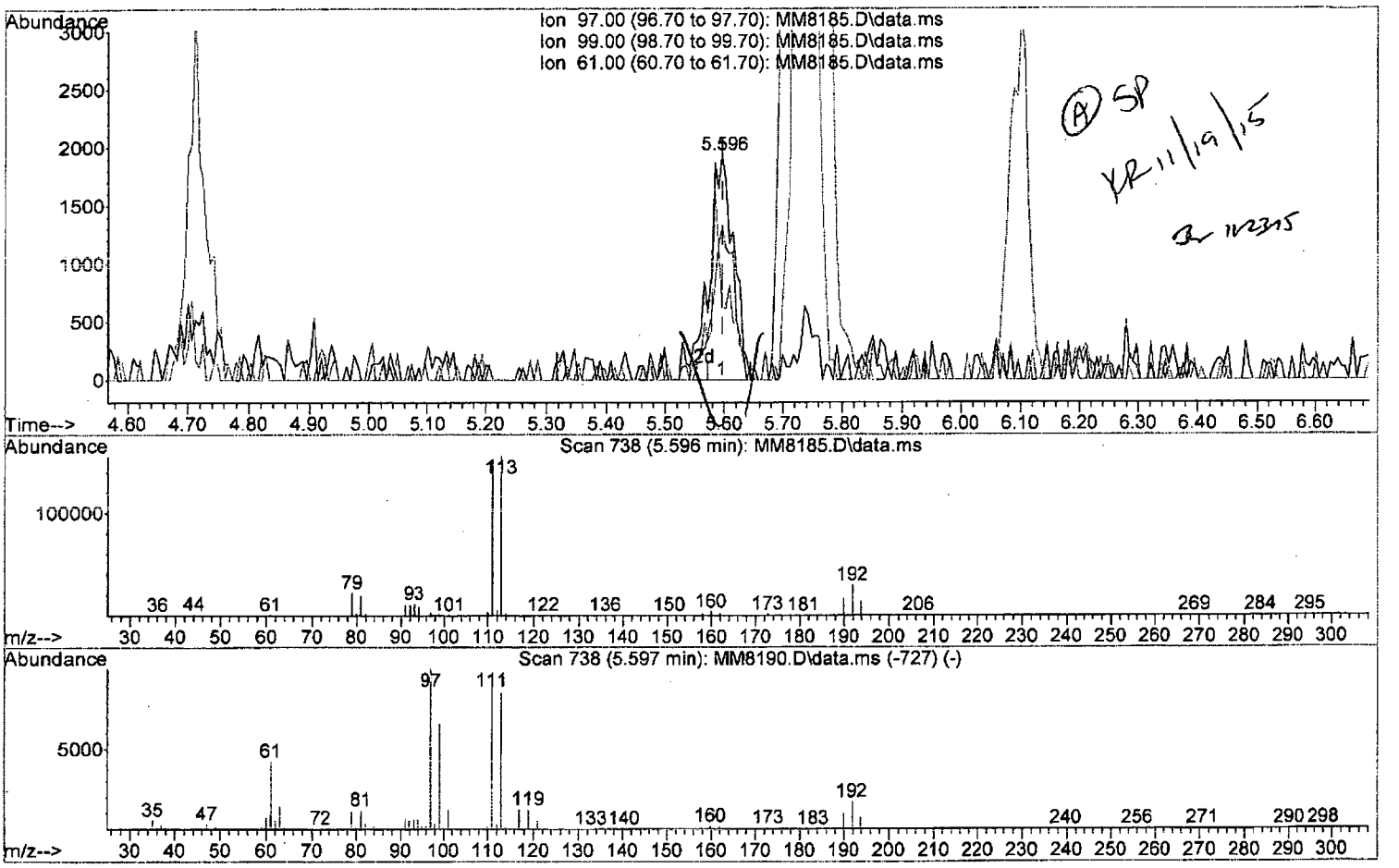
Ion	Exp%	Act%
97.00	100	100
99.00	65.60	68.66
61.00	42.20	32.16
0.00	0.00	0.00

W111815.M Thu Nov 19 09:47:02 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(41) 1,1,1-Trichloroethane (P)

5.596min (-0.000) 0.59 ppb m

response 5536

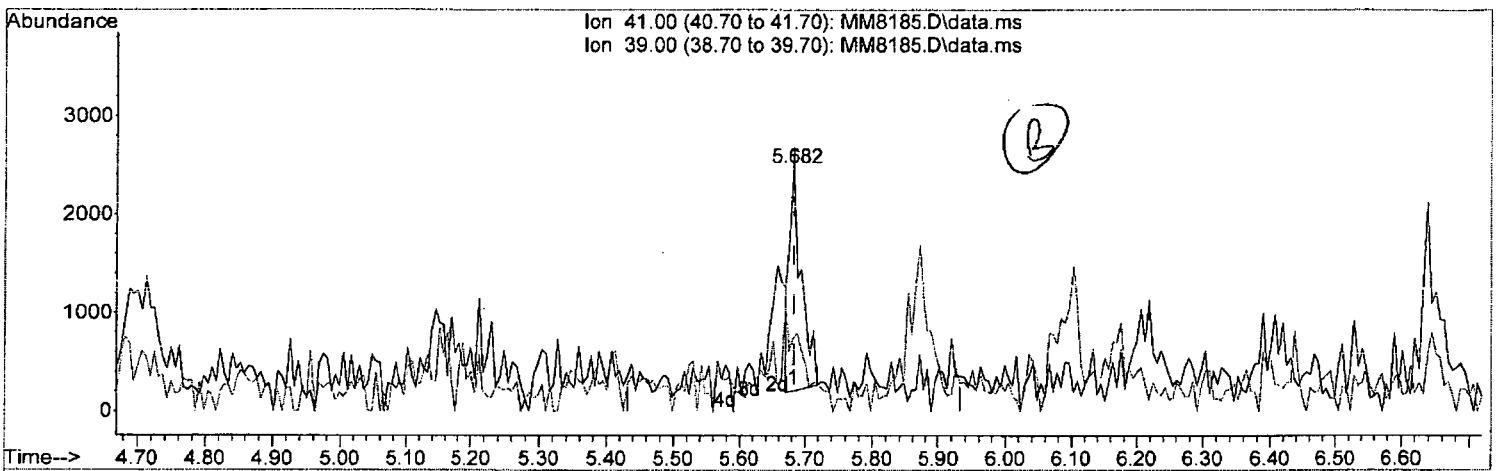
Ion	Exp%	Act%
97.00	100	100
99.00	65.60	68.66
61.00	42.20	32.16
0.00	0.00	0.00

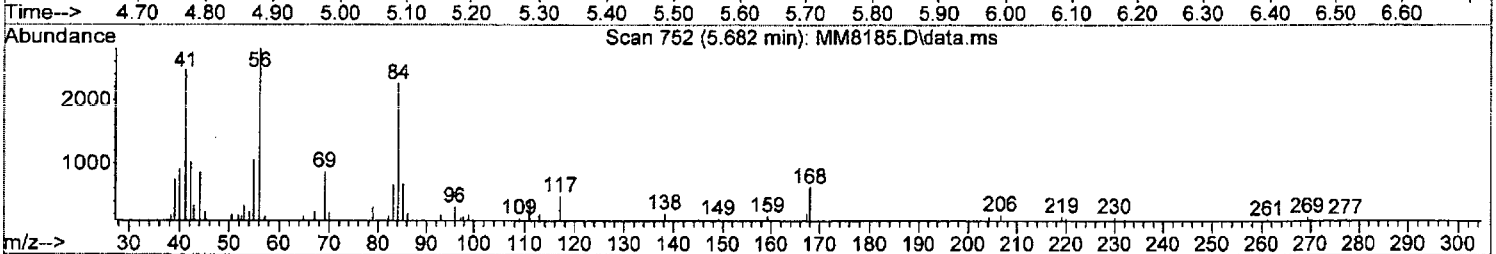
W111815.M Thu Nov 19 09:47:17 2015 Page: 1

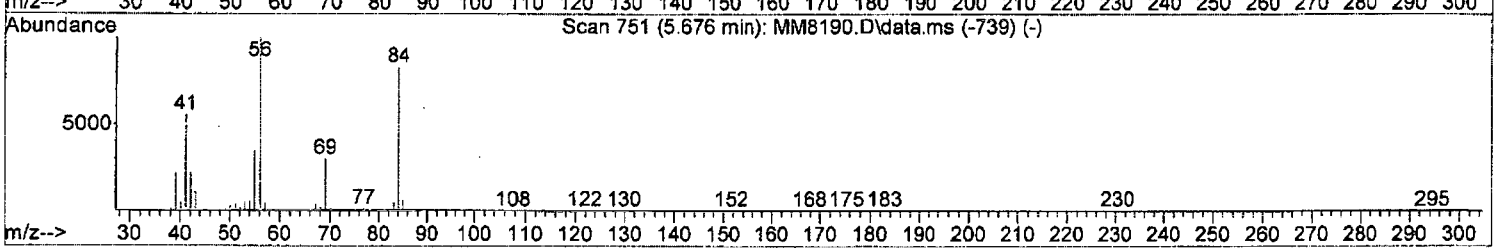
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8185.D\data.ms

(44) Cyclohexane (P)

5.682min (-0.000) 0.41 ppb

response 2859

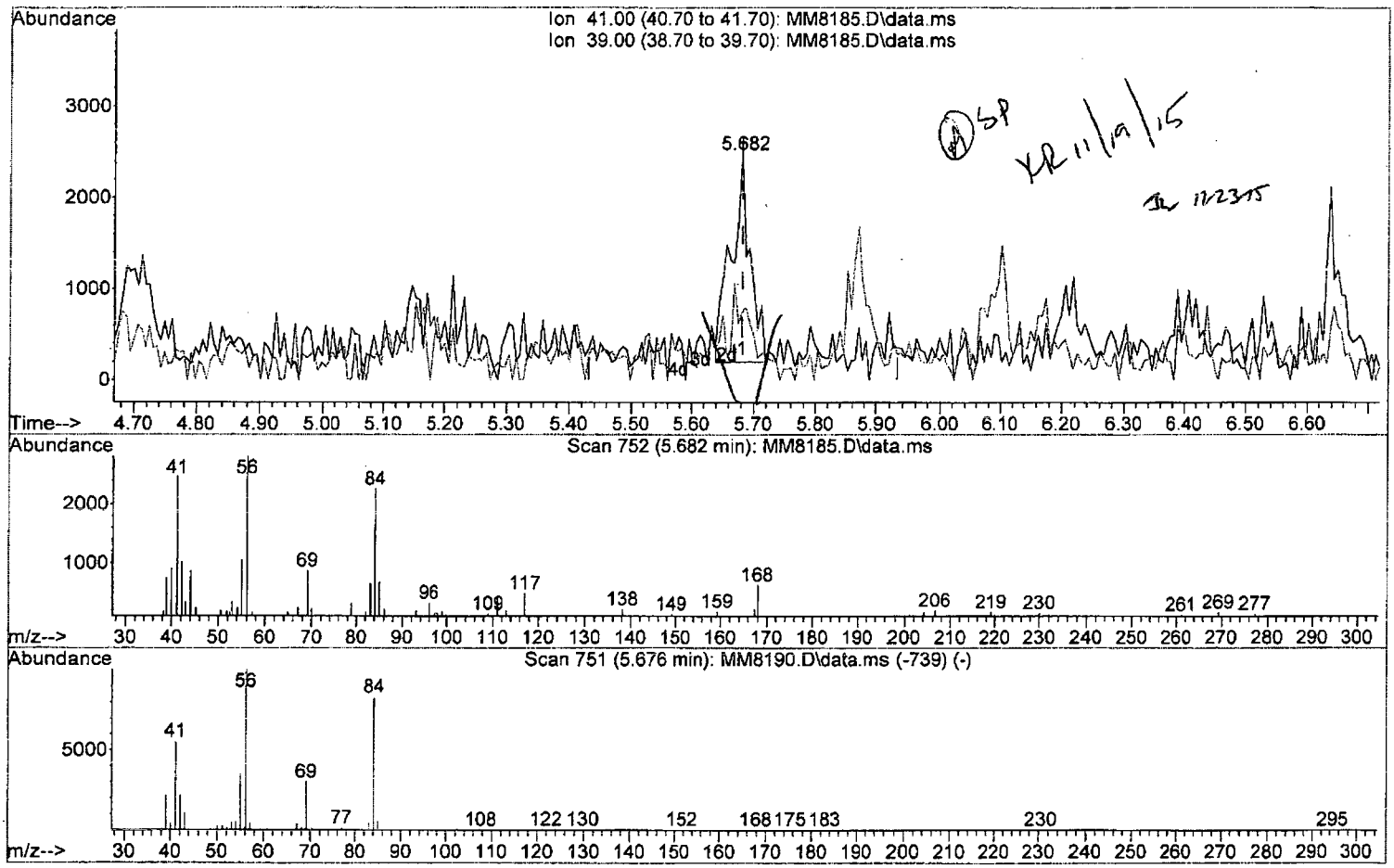
Ion	Exp%	Act%
41.00	100	100
39.00	40.00	30.10
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:47:31 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(44) Cyclohexane (P)

5.682min (-0.000) 0.69 ppb m

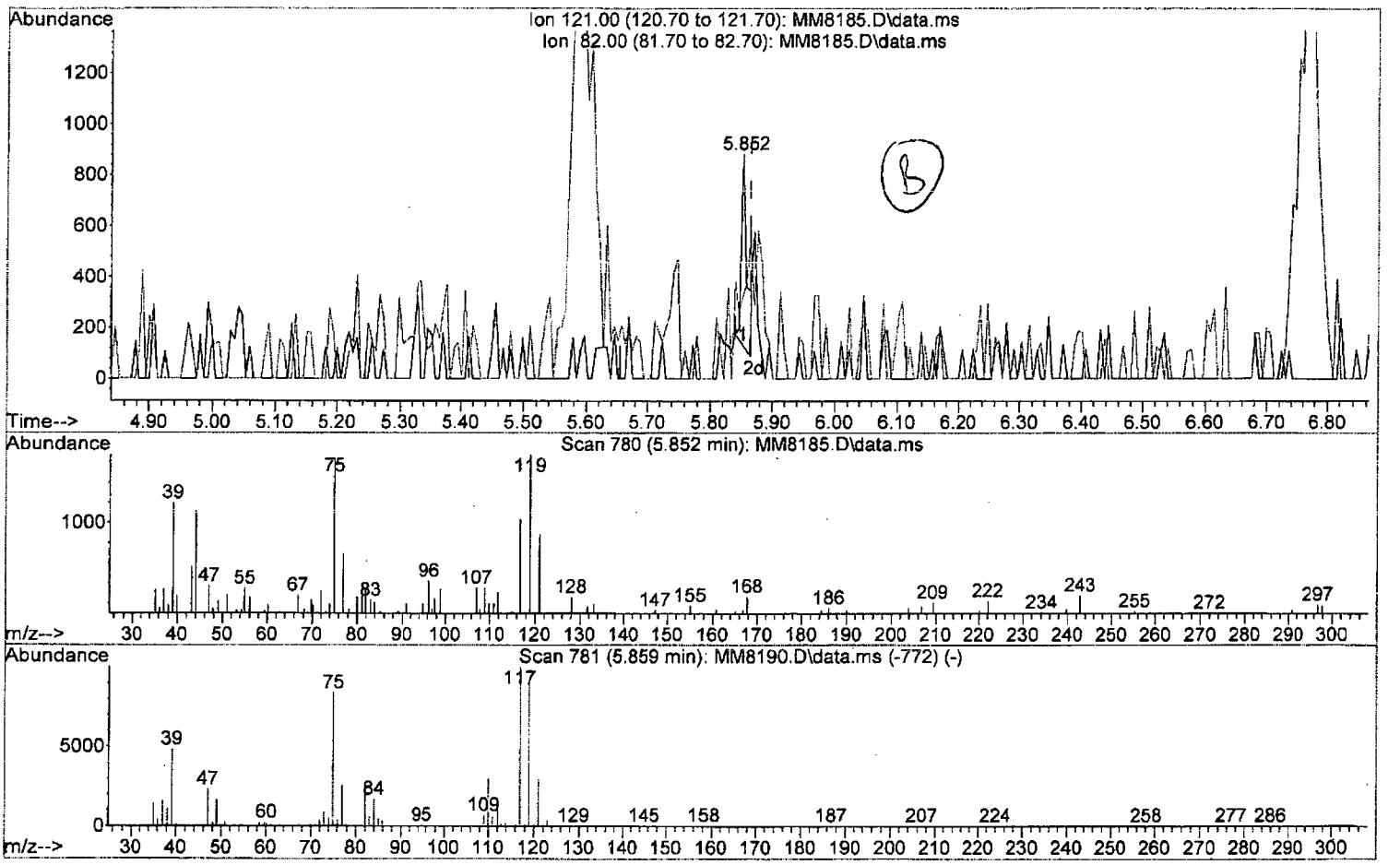
response 4775

Ion	Exp%	Act%
41.00	100	100
39.00	40.00	30.10
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(46) Carbontetrachloride (P)

5.852min (-0.012) 0.19 ppb

response 459

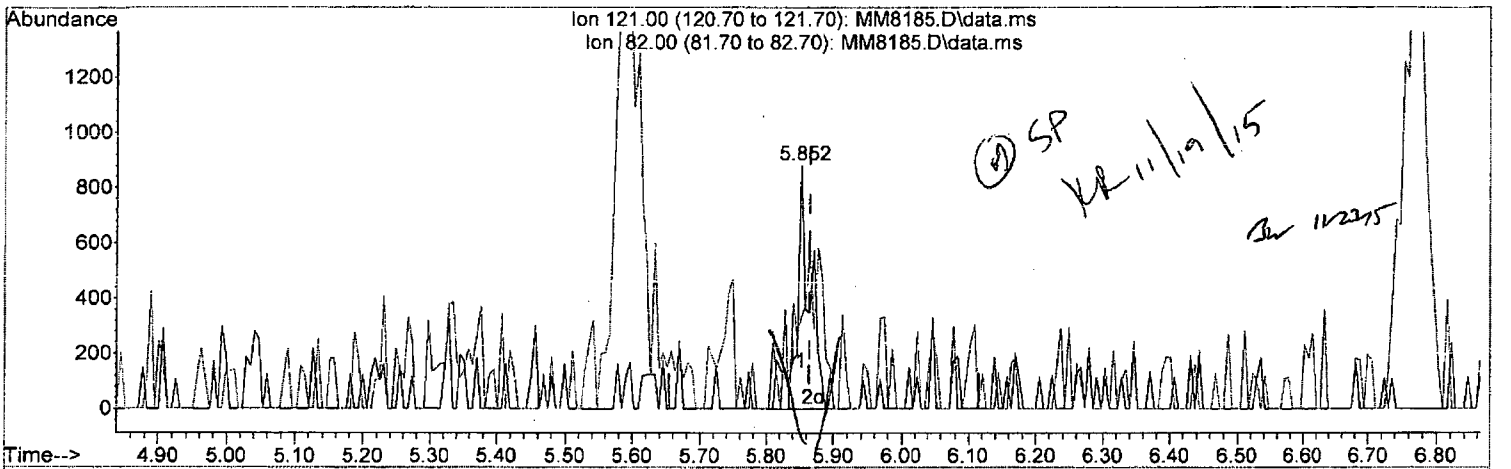
Ion	Exp%	Act%
121.00	100	100
82.00	85.40	37.00#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:48:07 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(46) Carbontetrachloride (P)

5.852min (-0.012) 0.52 ppb m

response 1285

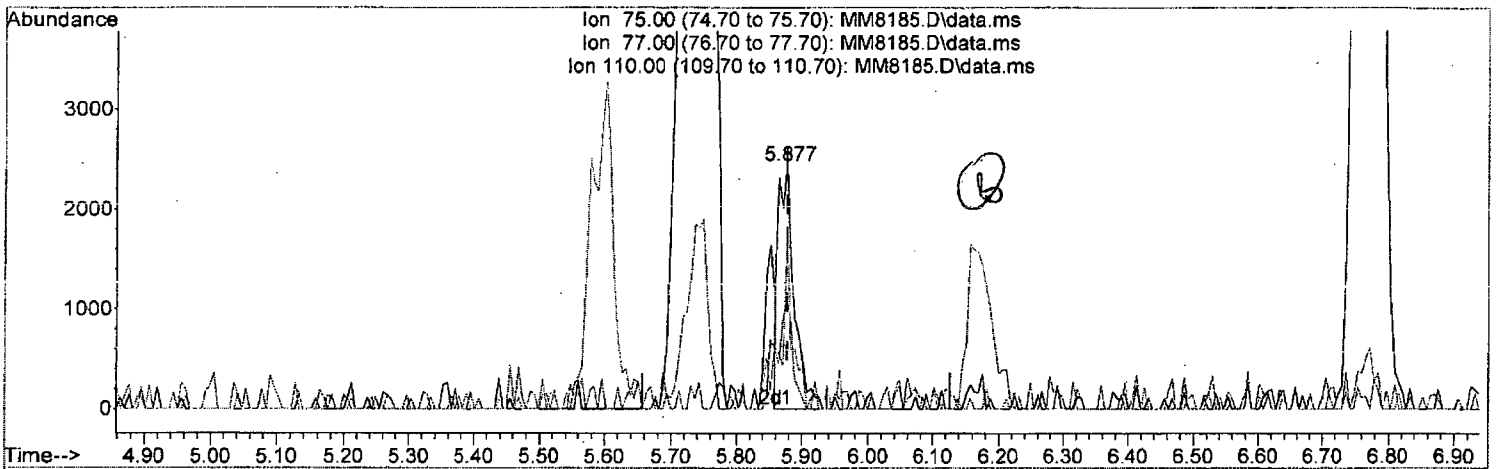
Ion	Exp%	Act%
121.00	100	100
82.00	85.40	37.00#
0.00	0.00	0.00
0.00	0.00	0.00

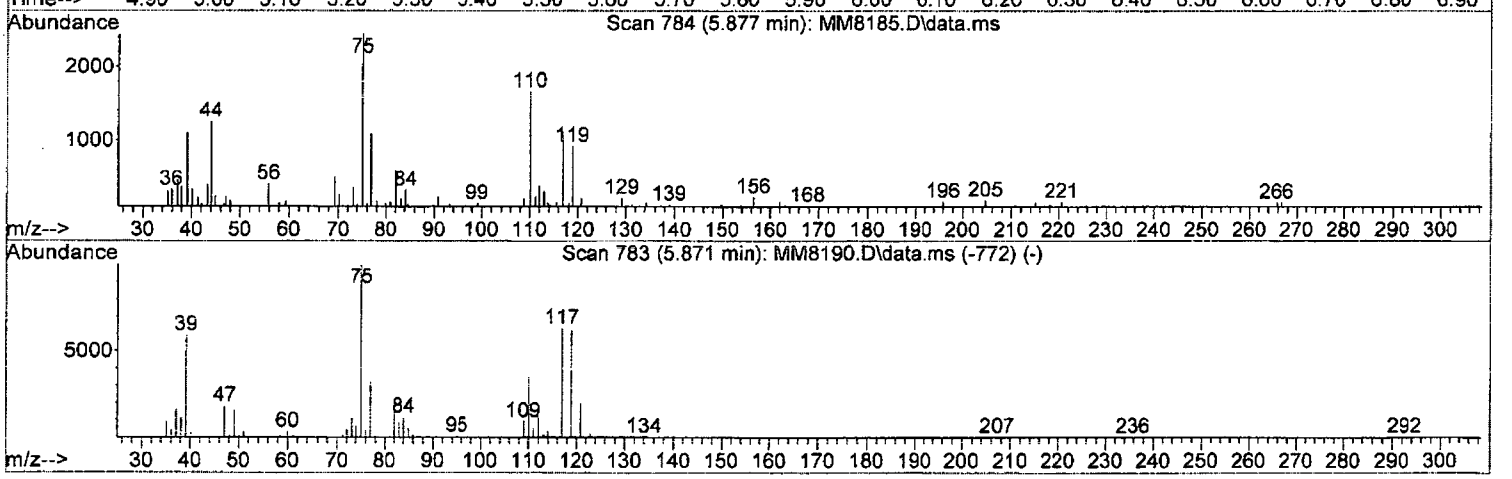
W111815.M Thu Nov 19 09:48:37 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration





TIC: MM8185.D\data.ms

(47) 1,1-Dichloropropene

5.877min (-0.000) 0.44 ppb

response 3996

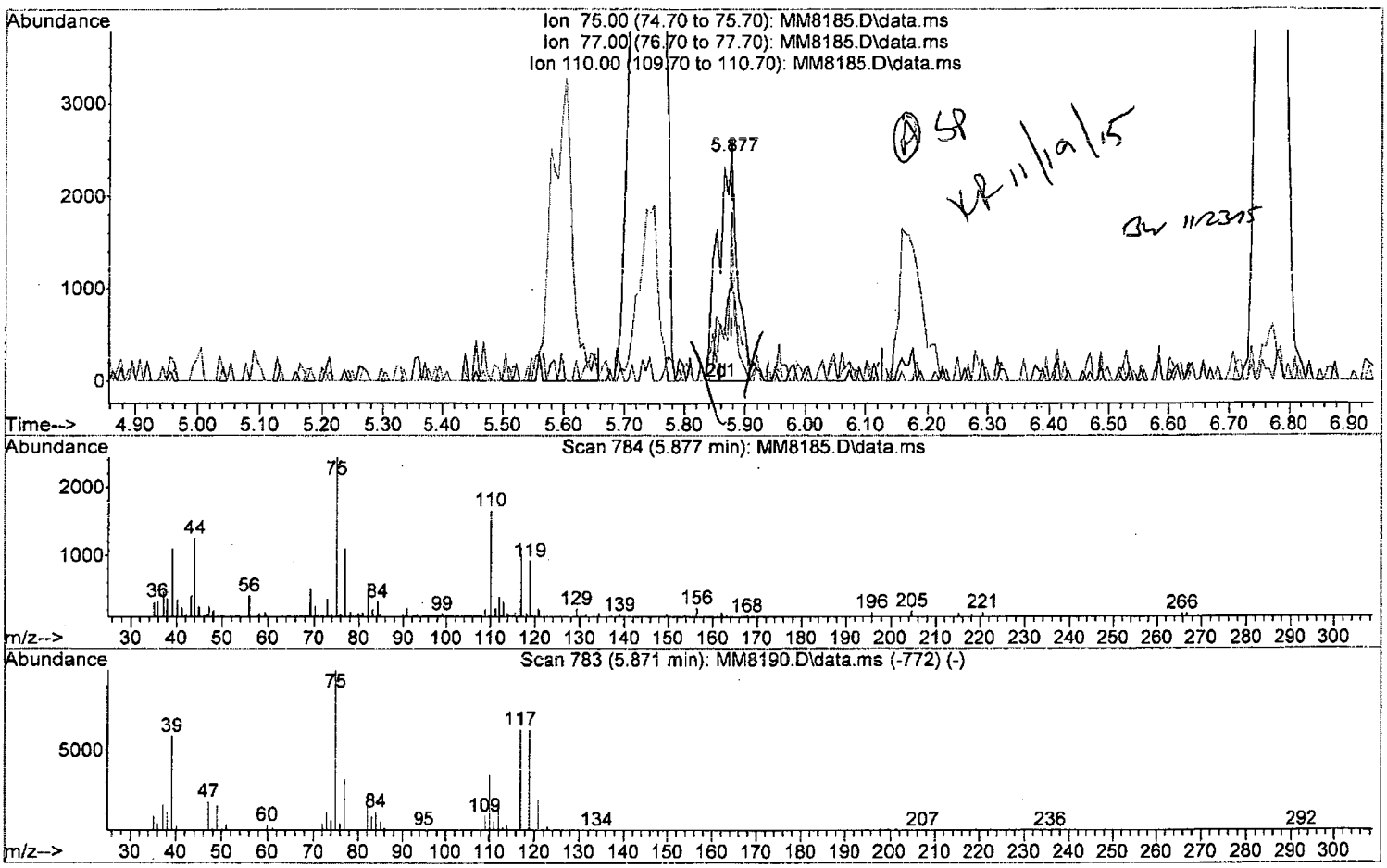
Ion	Exp%	Act%
75.00	100	100
77.00	31.20	44.85
110.00	35.00	67.97#
0.00	0.00	0.00

W111815.M Thu Nov 19 09:48:47 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(47) 1,1-Dichloropropene

5.877min (-0.000) 0.61 ppb m

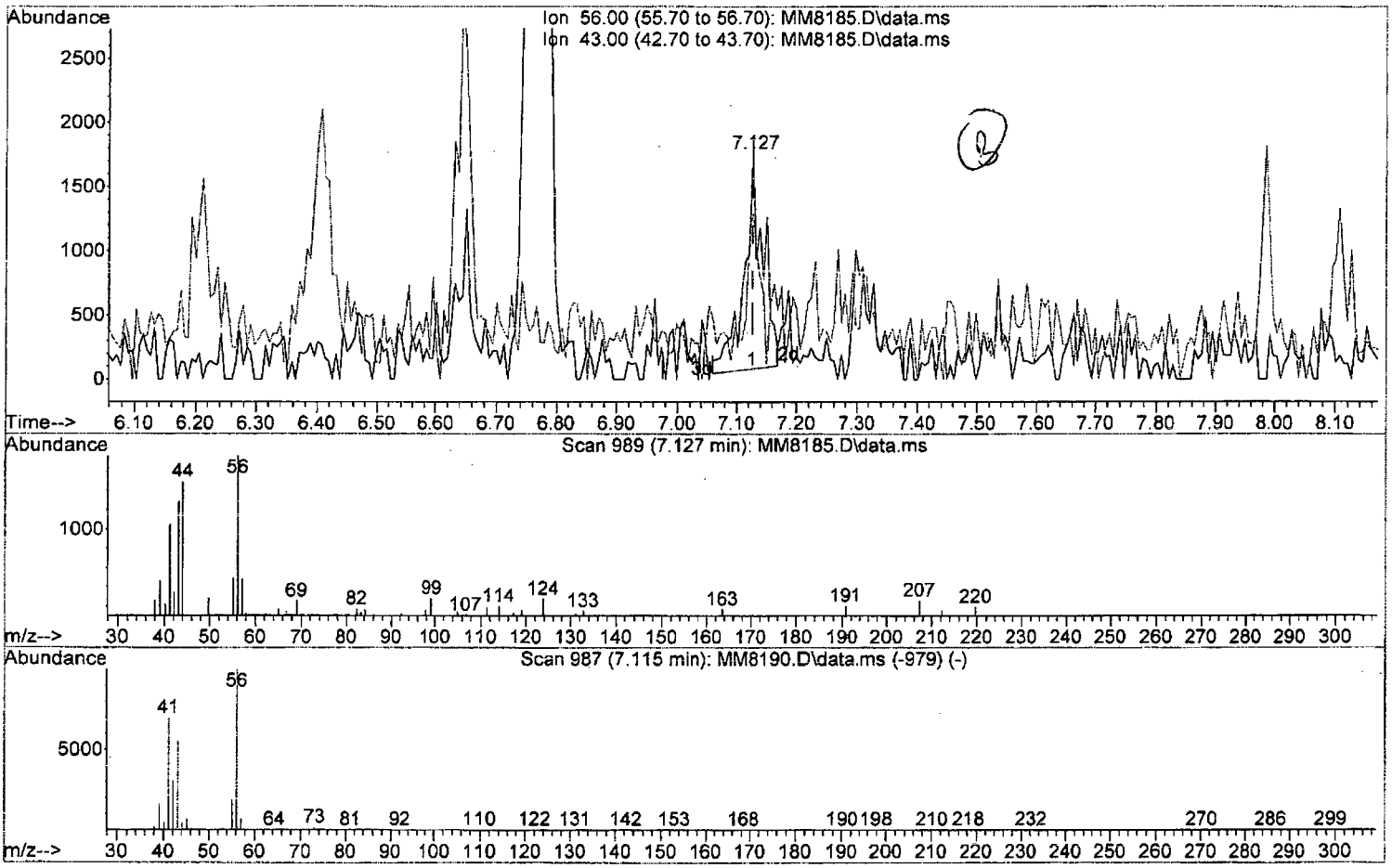
response 5477

Ion	Exp%	Act%
75.00	100	100
77.00	31.20	44.85
110.00	35.00	67.97#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(53) 1-Butanol

7.127min (-0.000) 25.67 ppb

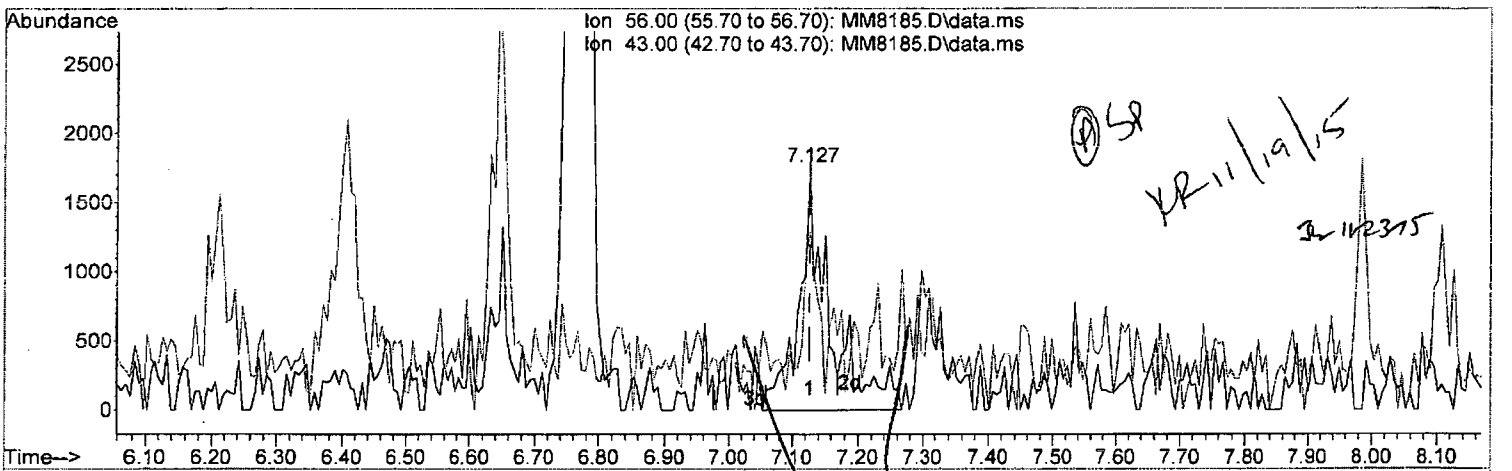
response 3757

Ion	Exp%	Act%
56.00	100	100
43.00	54.90	51.21
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(53) 1-Butanol

7.127min (-0.000) 38.45 ppb m

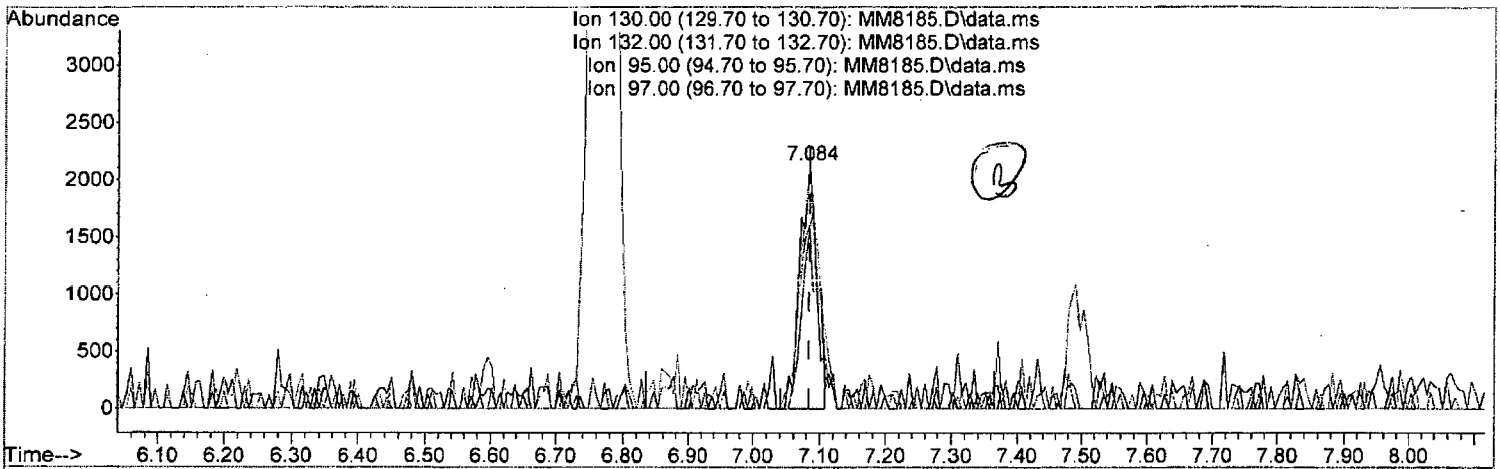
response 5628

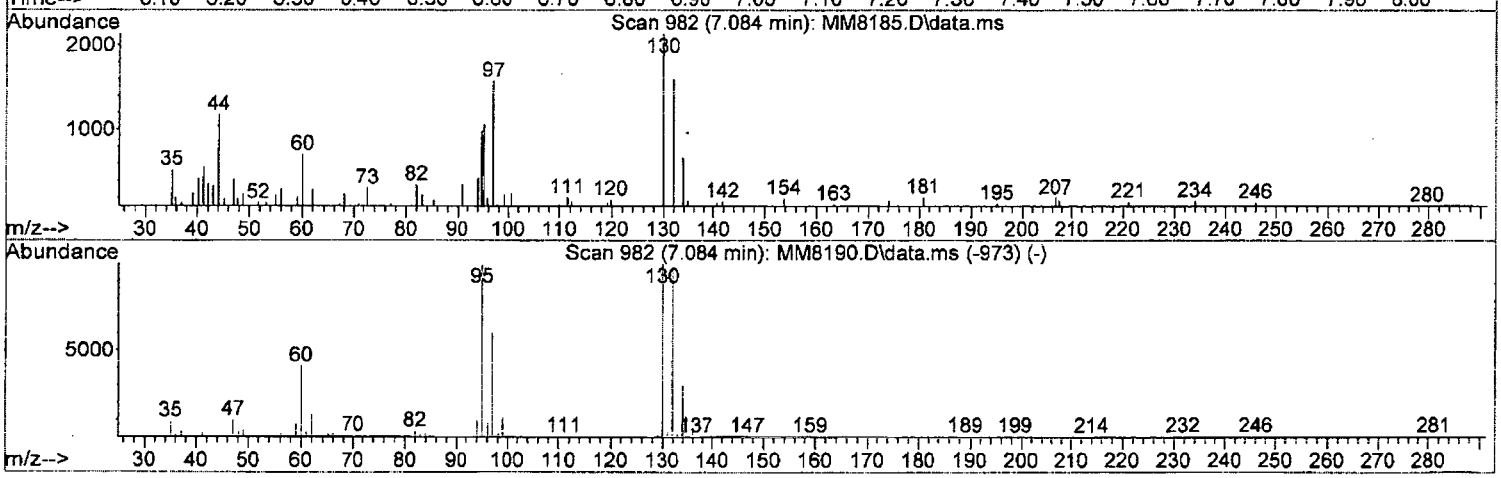
Ion	Exp%	Act%
56.00	100	100
43.00	54.90	34.19#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration





TIC: MM8185.D\data.ms

(54) Trichloroethene (P)

7.084min (-0.000) 0.55 ppb

response 3932

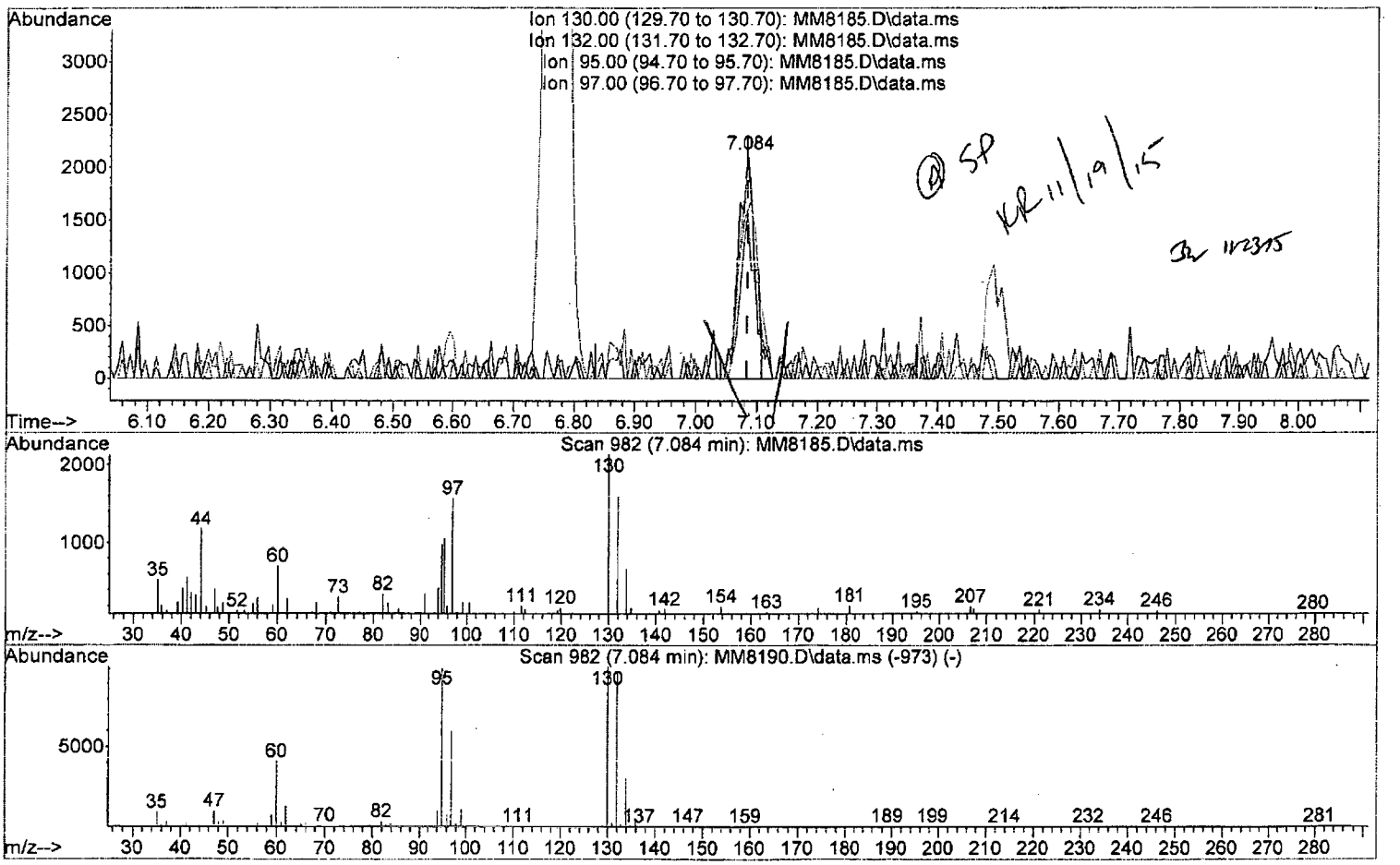
Ion	Exp%	Act%
130.00	100	100
132.00	97.40	74.85#
95.00	99.20	95.44
97.00	60.30	78.51

W111815.M Thu Nov 19 09:50:10 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(54) Trichloroethene (P)

7.084min (-0.000) 0.58 ppb m

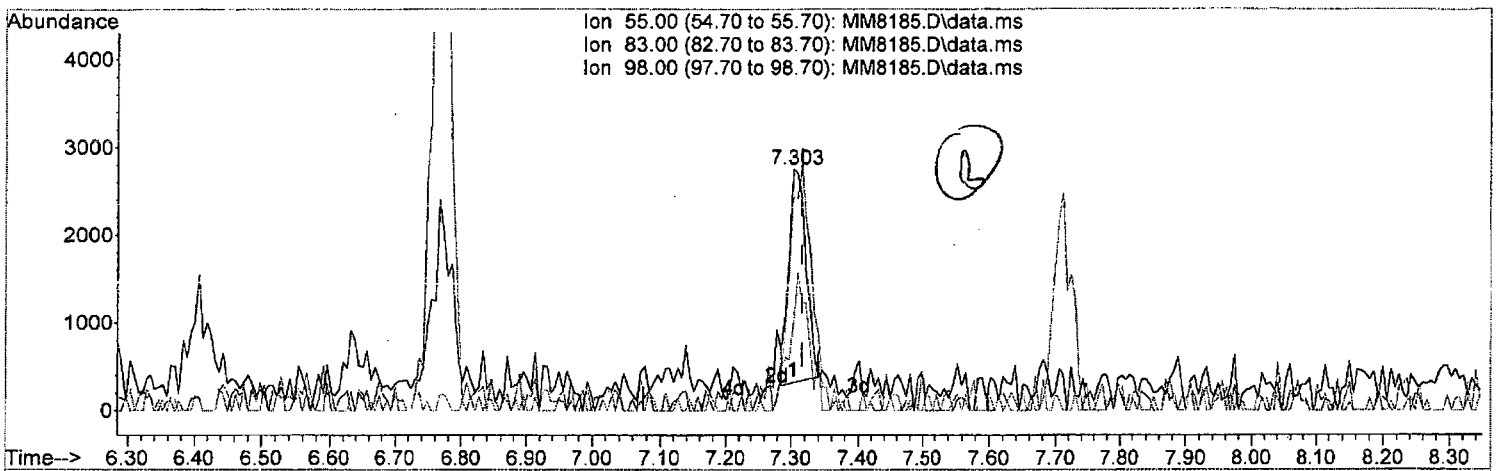
response 4100

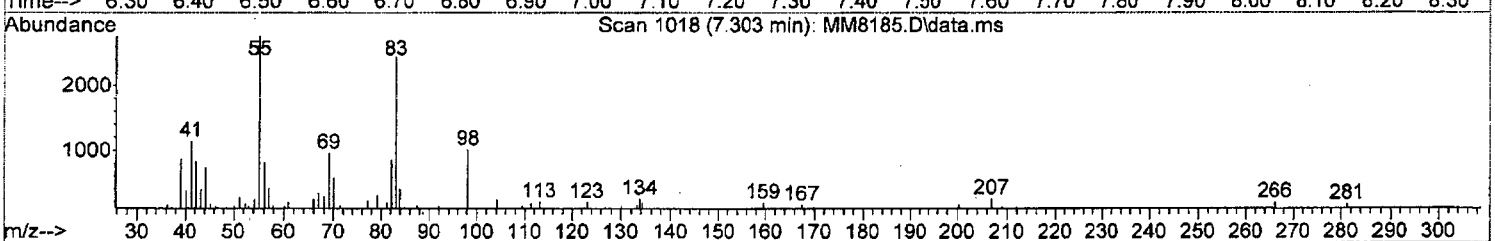
Ion	Exp%	Act%
130.00	100	100
132.00	97.40	74.85#
95.00	99.20	49.65#
97.00	60.30	73.53

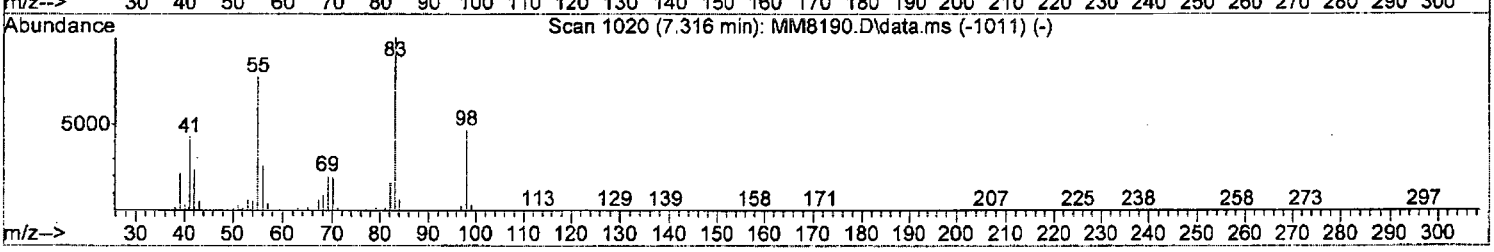
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8185.D\data.ms

(55) Methylcyclohexane (P)

7.303min (-0.012) 0.50 ppb

response 4238

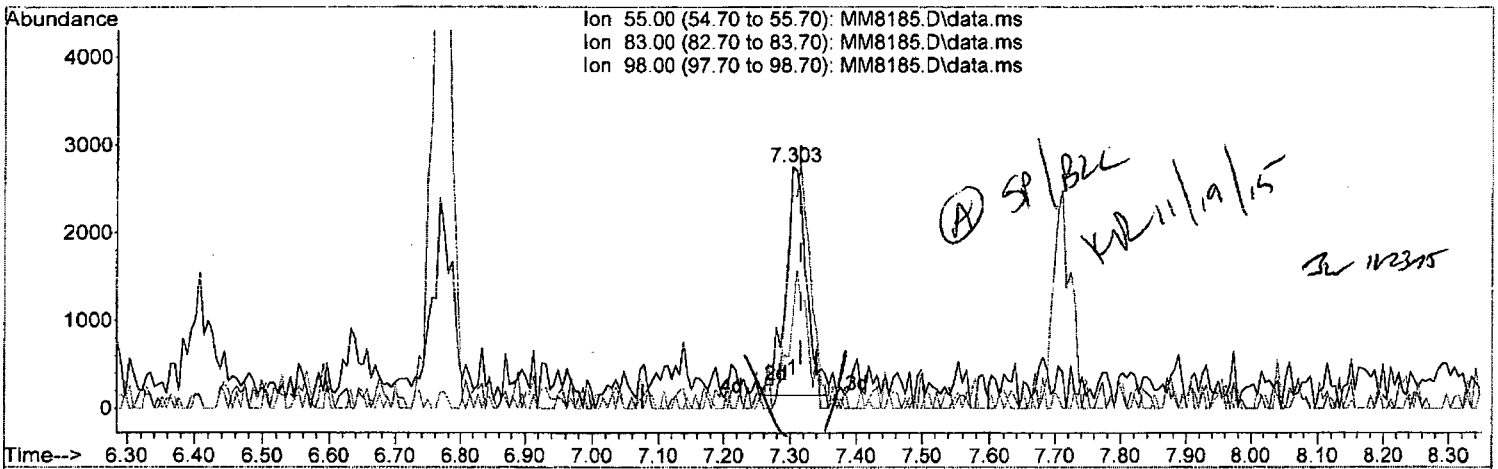
Ion	Exp%	Act%
55.00	100	100
83.00	129.00	88.48#
98.00	60.10	36.53#
0.00	0.00	0.00

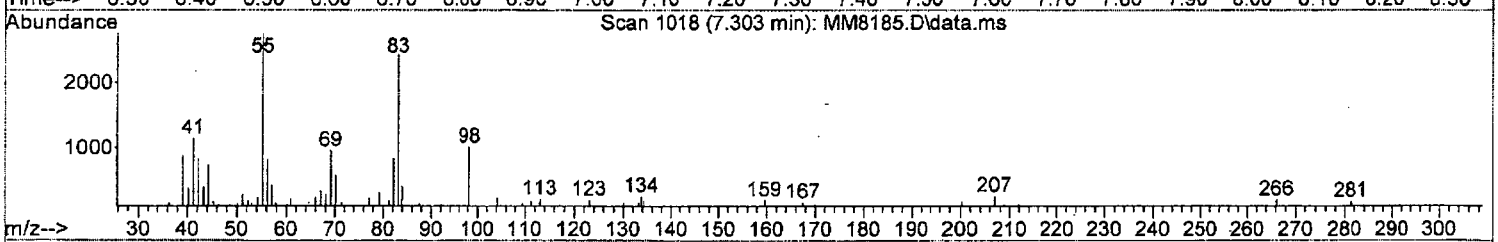
W111815.M Thu Nov 19 09:50:39 2015 Page: 1

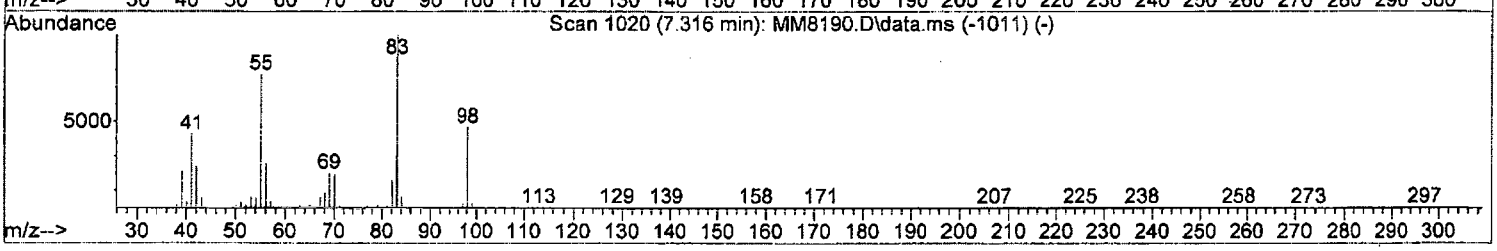
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8185.D\data.ms

(55) Methylcyclohexane (P)

7.303min (-0.012) 0.67 ppb m

response 5652

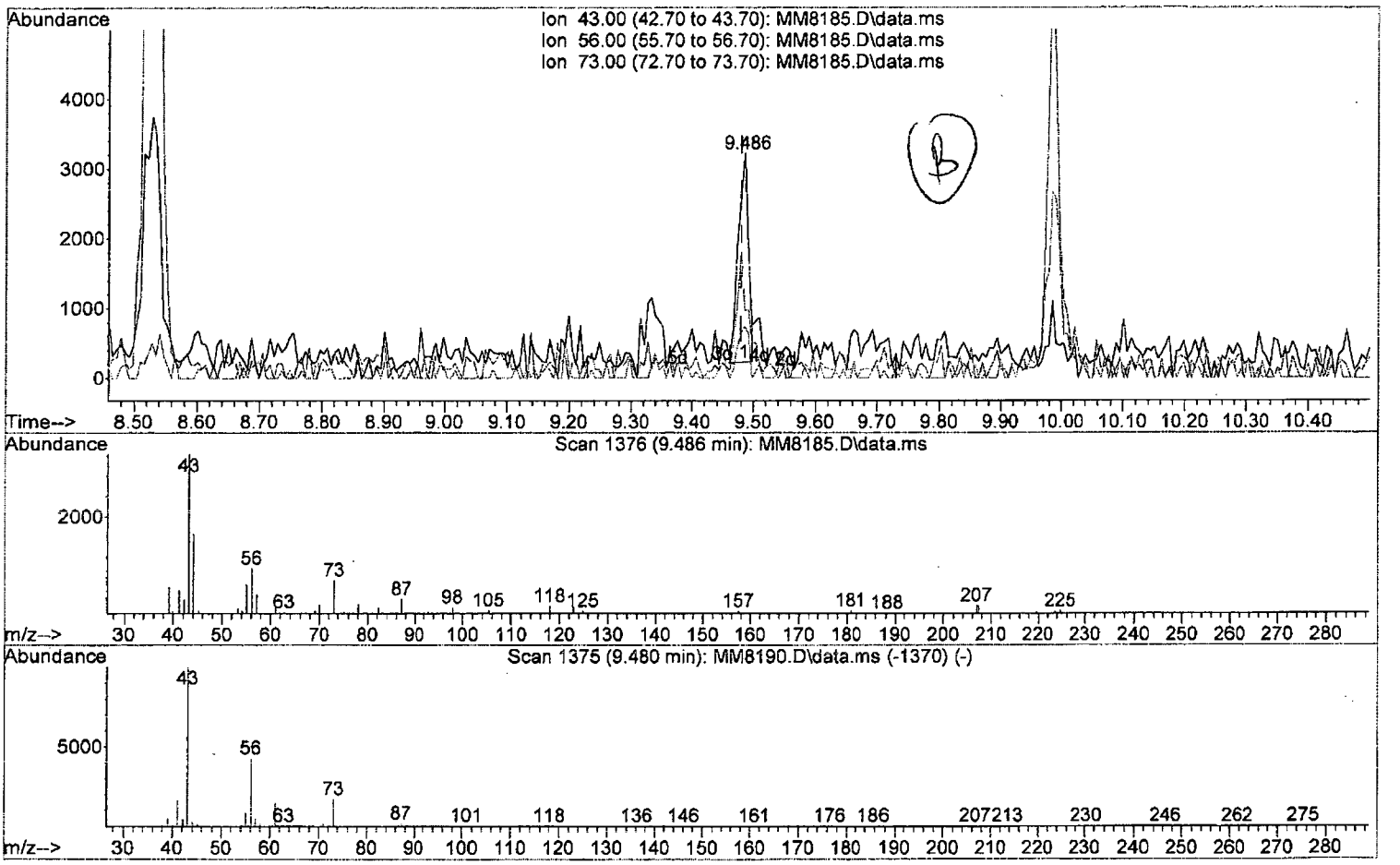
Ion	Exp%	Act%
55.00	100	100
83.00	129.00	88.48#
98.00	60.10	36.53#
0.00	0.00	0.00

W111815.M Thu Nov 19 09:50:51 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(76) N-Butyl Acetate

9.486min (+0.006) 0.41 ppb

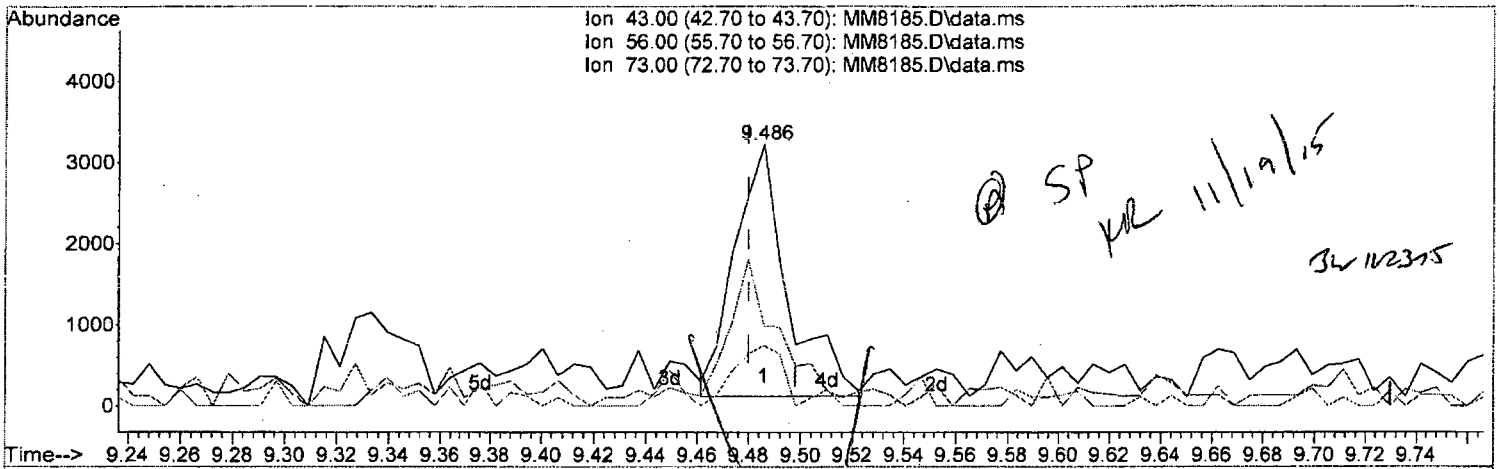
response 3490

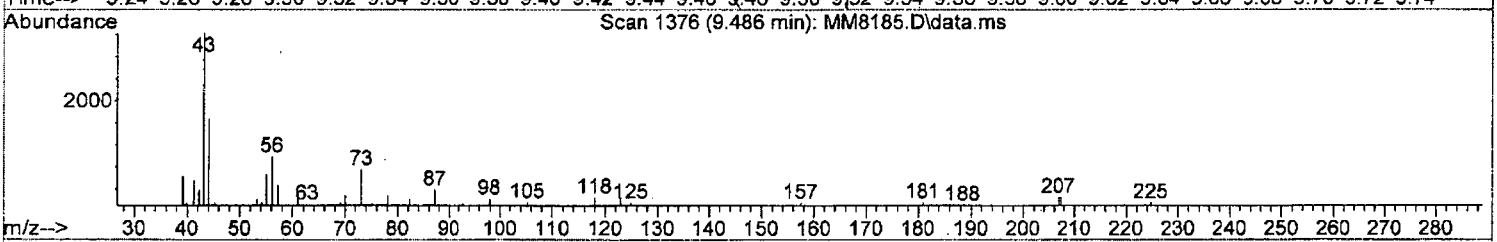
Ion	Exp%	Act%
43.00	100	100
56.00	42.50	30.55
73.00	17.20	23.19
0.00	0.00	0.00

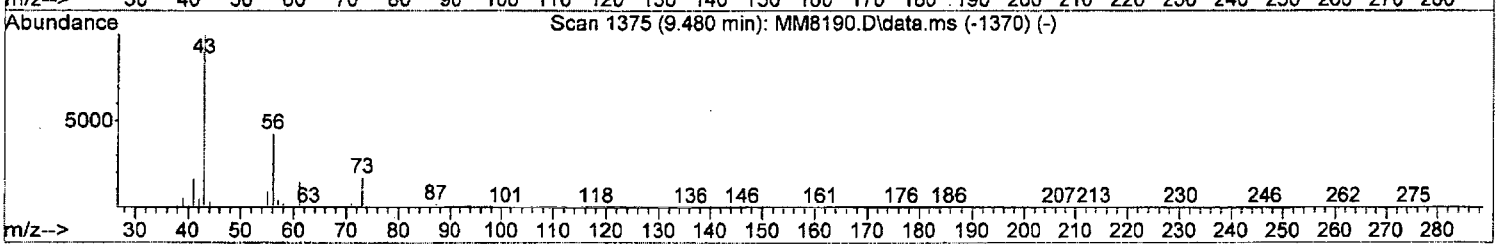
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8185.D\data.ms

(76) N-Butyl Acetate

9.486min (+0.006) 0.52 ppb m

response 4374

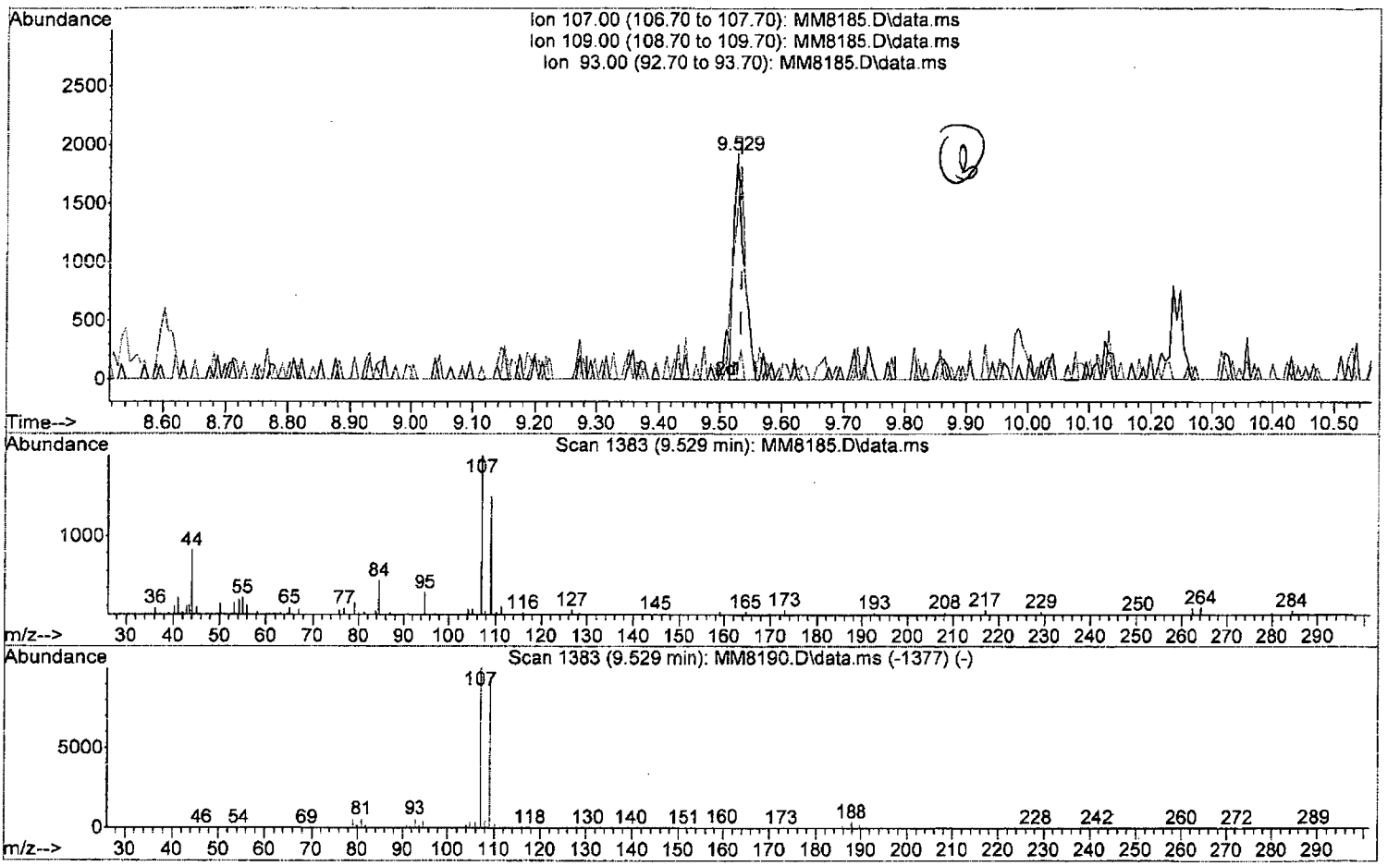
Ion	Exp%	Act%
43.00	100	100
56.00	42.50	30.55
73.00	17.20	23.19
0.00	0.00	0.00

W111815.M Thu Nov 19 09:52:30 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(77) 1,2-Dibromoethane (P)

9.529min (-0.006) 0.48 ppb

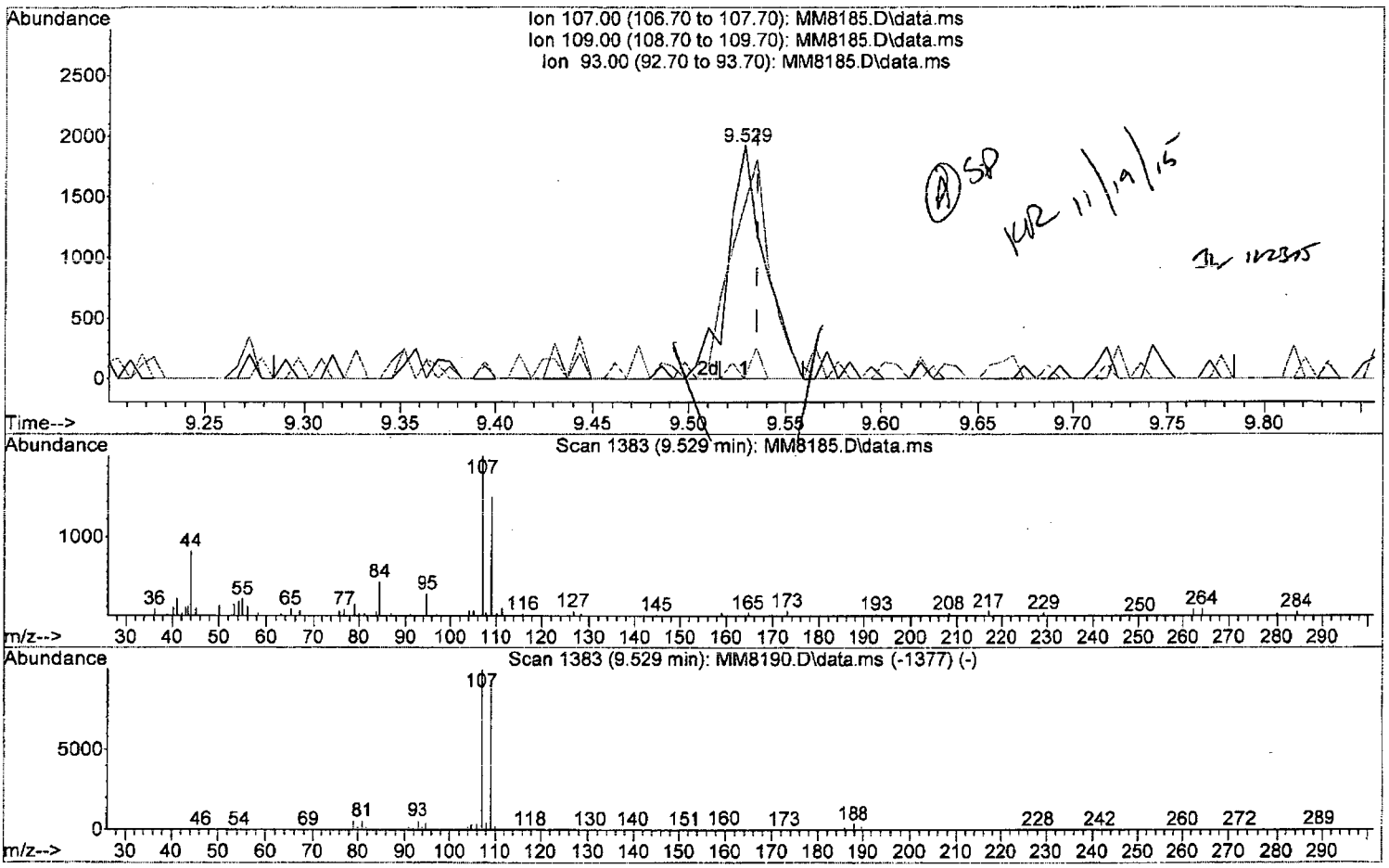
response 2238

Ion	Exp%	Act%
107.00	100	100
109.00	93.40	75.44
93.00	5.70	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(77) 1,2-Dibromoethane (P)

9.529min (-0.006) 0.54 ppb m

response 2537

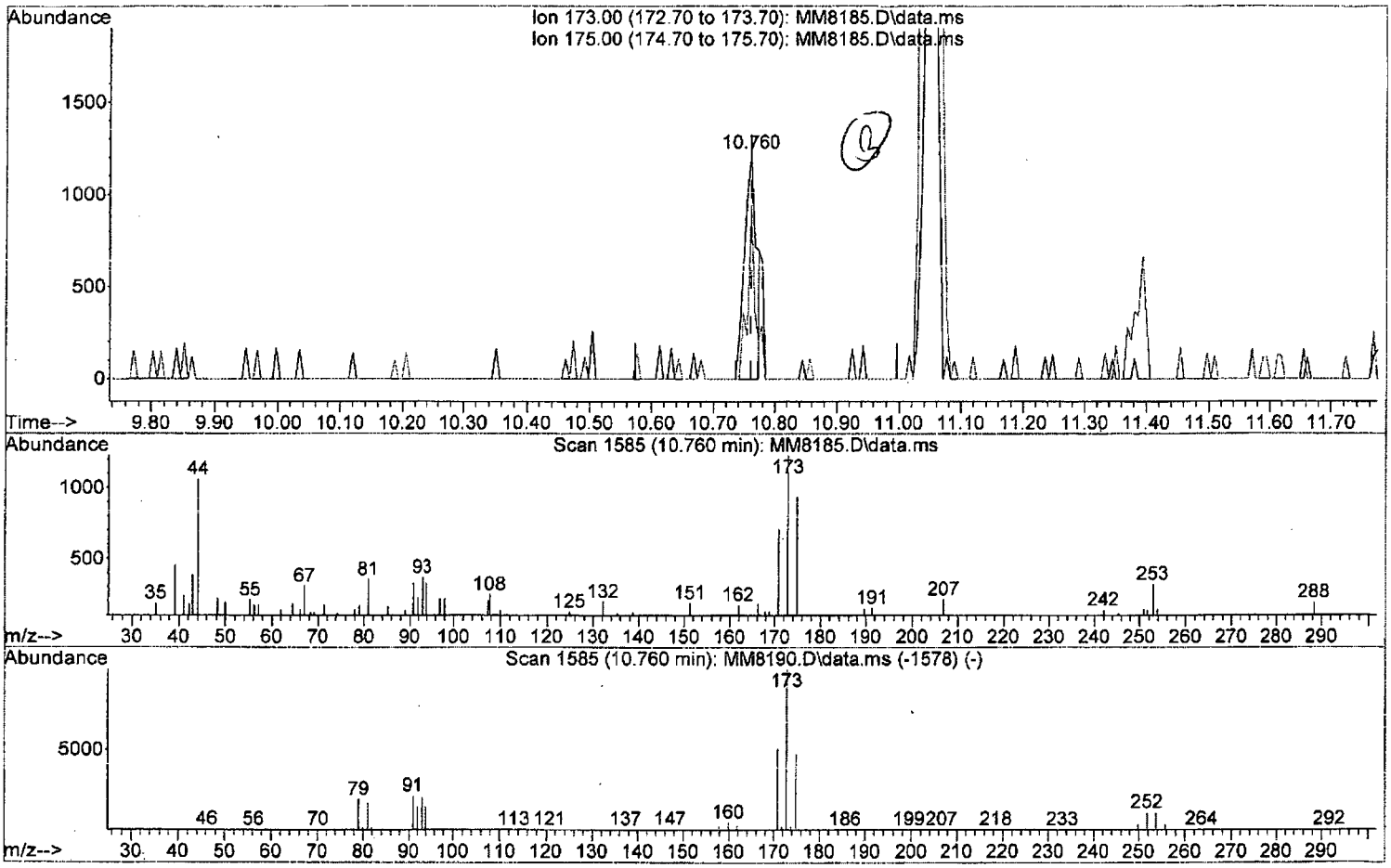
Ion	Exp%	Act%
107.00	100	100
109.00	93.40	75.44
93.00	5.70	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:52:49 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(87) Bromoform (P)

10.760min (-0.000) 0.50 ppb

response 1628

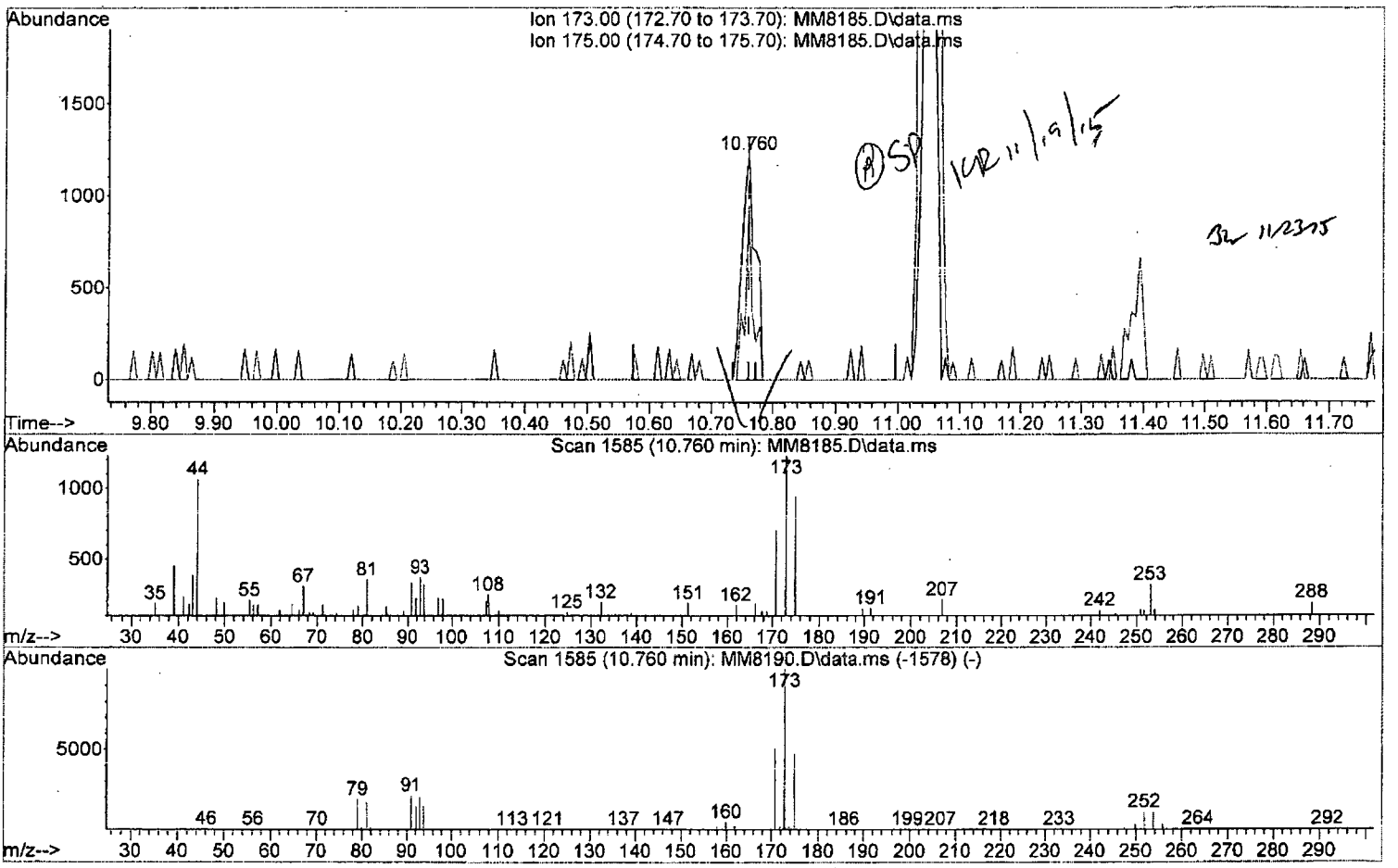
Ion	Exp%	Act%
173.00	100	100
175.00	47.50	76.49#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:53:02 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(87) Bromoform (P)

10.760min (-0.000) 0.57 ppb m

response 1862

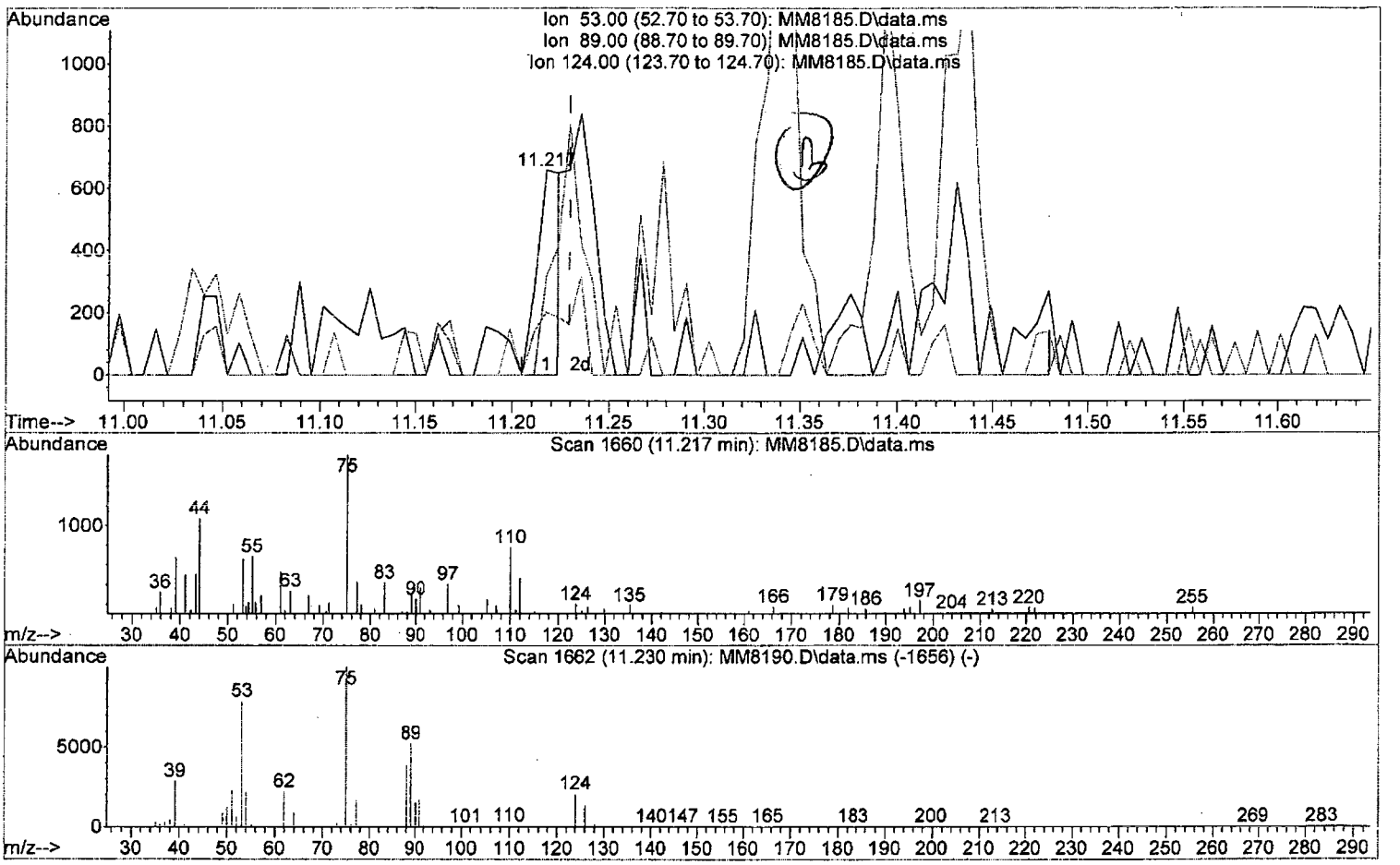
Ion	Exp%	Act%
173.00	100	100
175.00	47.50	76.49#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:53:10 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(91) trans-1,4-Dichloro-2-Butene

11.217min (-0.012) 0.31 ppb

response 578

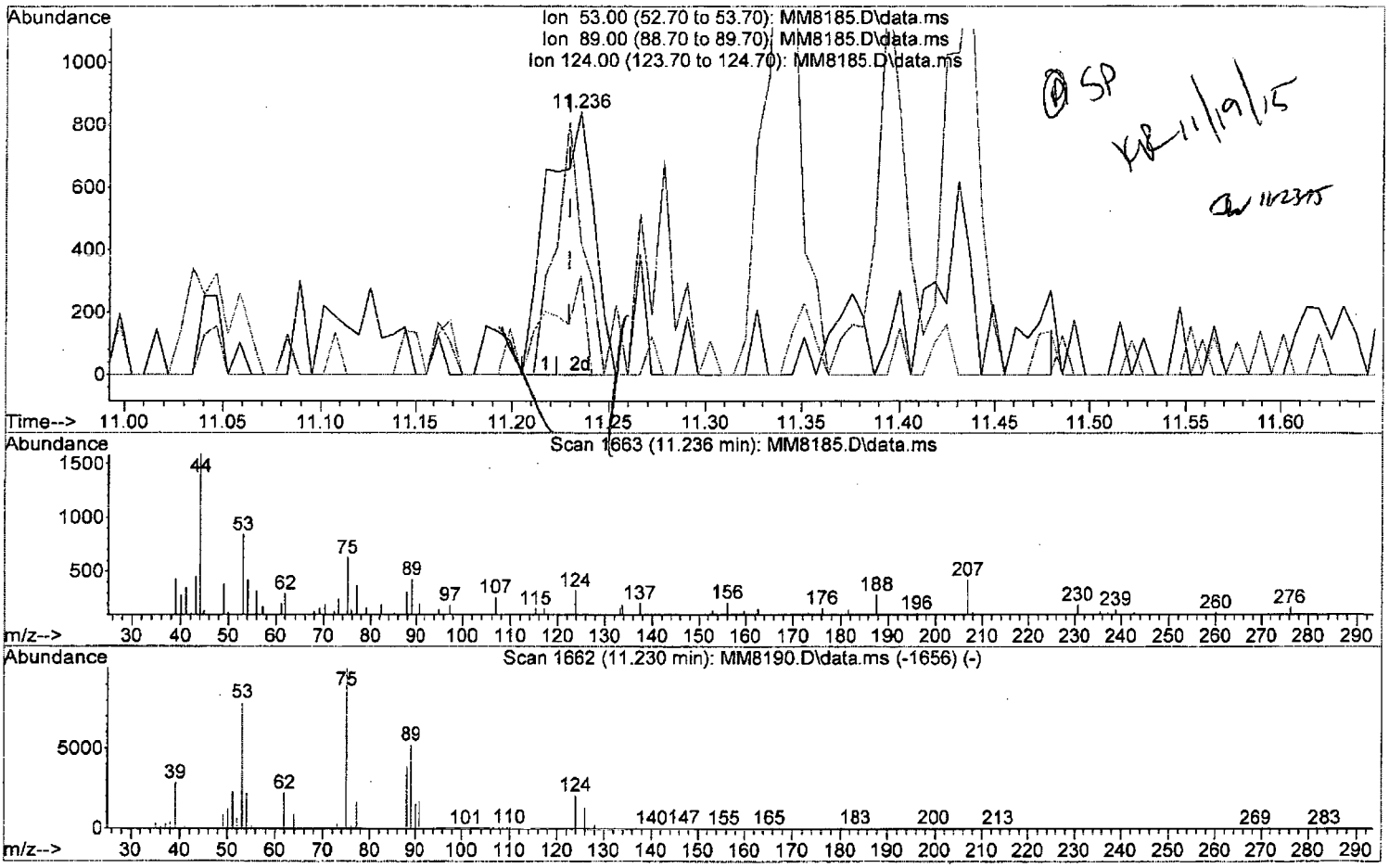
Ion	Exp%	Act%
53.00	100	100
89.00	66.30	48.25
124.00	26.20	30.75
0.00	0.00	0.00

W111815.M Thu Nov 19 09:53:23 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:35:47 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8185.D\data.ms

(91) trans-1,4-Dichloro-2-Butene

11.236min (+0.006) 0.74 ppb m

response 1397

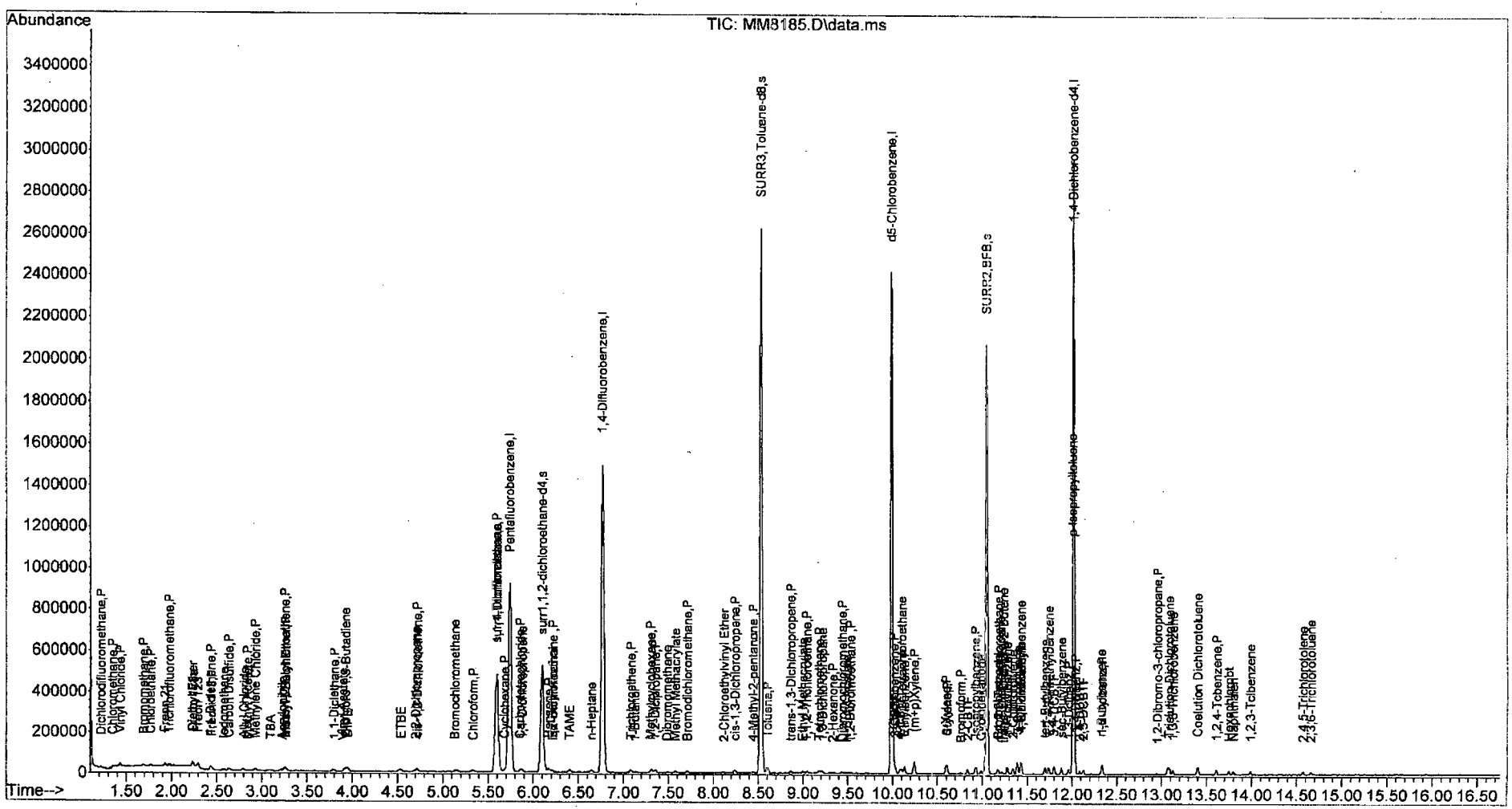
Ion	Exp%	Act%
53.00	100	100
89.00	66.30	50.48
124.00	26.20	37.86
0.00	0.00	0.00

W111815.M Thu Nov 19 09:53:31 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8185.D
Acq On : 18 Nov 2015 4:40 pm
Operator : K.Ruest
Sample : 0.5ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 19 09:53:37 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 09:54:14 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	770178	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1273925	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1155799	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	572378	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	363057	46.86	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 93.72%				
48) surr1,1,2-dichloroetha...	6.097	65	391455	46.97	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 93.94%				
65) SURR3,Toluene-d8	8.529	98	1594345	47.06	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 94.12%				
70) SURR2,BFB	11.047	95	588371	48.36	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.72%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	10094m	0.93	ppb		
3) Chloromethane	1.347	50	12665	0.98	ppb		93
4) Vinyl Chloride	1.433	62	12390	1.03	ppb		100
5) Bromomethane	1.683	94	5854m	0.98	ppb		
6) Chloroethane	1.768	64	6193	0.92	ppb		88
7) Freon 21	1.927	67	13063	1.00	ppb		95
8) Trichlorofluoromethane	1.981	101	9613	1.02	ppb		93
9) Diethyl Ether	2.231	59	6819	1.16	ppb		90
10) Freon 123a	2.238	67	9323m	1.10	ppb		
11) Freon 123	2.292	83	11273	1.14	ppb		93
12) Acrolein	2.341	56	1746	2.66	ppb	#	41
13) 1,1-Diclethene	2.433	96	7085	1.07	ppb		96
14) Freon 113	2.445	101	6318	1.08	ppb		94
16) 2-Propanol	2.652	45	6862	22.02	ppb		97
17) Iodomethane	2.567	142	5251	0.73	ppb		94
18) Carbon Disulfide	2.640	76	21855	1.02	ppb		92
20) Allyl Chloride	2.798	76	4462	1.24	ppb	#	37
21) Methyl Acetate	2.829	43	4977	1.30	ppb		77
22) Methylene Chloride	2.933	84	8085	1.09	ppb	#	81
23) TBA	3.097	59	9708	19.20	ppb		97
24) Acrylonitrile	3.207	53	9288	4.96	ppb		97
25) Methyl-t-Butyl Ether	3.262	73	18444	1.03	ppb		89
26) trans-1,2-Dichloroethene	3.250	96	6563m	0.95	ppb		
28) 1,1-Diclethane	3.792	63	11792	0.96	ppb		92
29) Vinyl Acetate	3.920	86	1268m	0.95	ppb		
30) DIPE	3.951	45	25821	1.07	ppb		91
31) 2-Chloro-1,3-Butadiene	3.926	53	13316	1.08	ppb		87
32) ETBE	4.524	59	23601	1.04	ppb		85
33) 2,2-Dichloropropane	4.707	77	12157m	1.23	ppb		
34) cis-1,2-Dichloroethene	4.725	96	8254m	1.07	ppb		
36) Propionitrile	4.889	54	3790m	5.52	ppb		
37) Bromochloromethane	5.146	130	4232m	1.06	ppb		
38) Methacrylonitrile	5.164	67	2125m	0.91	ppb		
40) Chloroform	5.334	83	12327	1.03	ppb		88

11/19/15

W111815.M Thu Nov 19 14:18:48 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) 1,1,1-Trichloroethane	5.584	97	8775	0.93	ppb	#	74
42) TAME	6.401	73	20180	1.05	ppb		80
44) Cyclohexane	5.682	41	7112	1.03	ppb		84
46) Carbontetrachloride	5.865	121	2566m	1.04	ppb		
47) 1,1-Dichloropropene	5.871	75	9357	1.04	ppb		89
49) Benzene	6.176	78	29669	1.06	ppb		95
50) 1,2-Dichloroethane	6.206	62	6994	0.97	ppb		93
51) Iso-Butyl Alcohol	6.206	43	4880	20.76	ppb		95
52) n-Heptane	6.645	43	9356	1.21	ppb		89
53) 1-Butanol	7.121	56	7108m	48.37	ppb		
54) Trichloroethene	7.078	130	7713	1.08	ppb	#	77
55) Methylcyclohexane	7.304	55	8635	1.02	ppb		97
56) 1,2-Diclpropane	7.352	63	7376	1.06	ppb		100
57) Dibromomethane	7.487	93	3907	1.14	ppb	#	76
59) Methyl Methacrylate	7.578	69	3768m	0.94	ppb		
60) Bromodichloromethane	7.712	83	9389	1.10	ppb		85
61) 2-Nitropropane	7.986	41	2354m	1.86	ppb		
62) 2-Chloroethylvinyl Ether	8.108	63	3482	0.91	ppb		77
63) cis-1,3-Dichloropropene	8.236	75	12027	1.05	ppb		87
64) 4-Methyl-2-pentanone	8.438	43	4664	0.92	ppb		77
66) Toluene	8.602	91	29226	1.01	ppb		96
67) trans-1,3-Dichloropropene	8.858	75	8481	0.94	ppb		89
68) Ethyl Methacrylate	8.998	69	7627	0.95	ppb		88
69) 1,1,2-Trichloroethane	9.047	97	4900	1.00	ppb	#	83
72) Tetrachloroethene	9.181	164	4504	0.94	ppb		90
73) 2-Hexanone	9.328	43	3994	1.13	ppb		87
74) 1,3-Dichloropropane	9.212	76	9920	1.13	ppb		90
75) Dibromochloromethane	9.431	129	5804	1.06	ppb		100
76) N-Butyl Acetate	9.480	43	8961	1.07	ppb		95
77) 1,2-Dibromoethane	9.535	107	4785	1.02	ppb		98
78) Chlorobenzene	10.010	112	17857	1.04	ppb		91
79) 3-CBTF	10.035	180	8890	1.05	ppb	#	82
80) 4-CBTF	10.084	180	8238m	1.04	ppb		
81) 1,1,1,2-Tetrachloroethane	10.102	131	6317	1.07	ppb		98
82) Ethylbenzene	10.138	106	9885	1.02	ppb	#	86
83) (m+p)Xylene	10.242	106	24285	2.03	ppb		89
84) o-Xylene	10.596	106	11839	0.97	ppb		98
85) Styrene	10.608	104	21628	1.08	ppb		96
87) Bromoform	10.754	173	3210	0.99	ppb	#	69
88) 2-CBTF	10.833	180	9618	1.11	ppb		97
89) Isopropylbenzene	10.925	105	33324	1.12	ppb		86
90) Cyclohexanone	10.986	55	8800	20.39	ppb		99
91) trans-1,4-Dichloro-2-B...	11.224	53	2030	1.09	ppb		86
92) 1,1,2,2-Tetrachloroethane	11.181	83	6432m	1.07	ppb		
93) Bromobenzene	11.169	156	6830	1.01	ppb	#	80
94) 1,2,3-Trichloropropane	11.217	110	1978	1.12	ppb	#	51
95) n-Propylbenzene	11.278	91	35704	1.04	ppb		93
96) 2-Chlorotoluene	11.345	91	19406	0.96	ppb		96
97) 3-Chlorotoluene	11.394	91	21392m	1.01	ppb		
98) 4-Chlorotoluene	11.431	91	23630	1.04	ppb		89
99) 1,3,5-Trimethylbenzene	11.431	105	23434	1.04	ppb		96

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

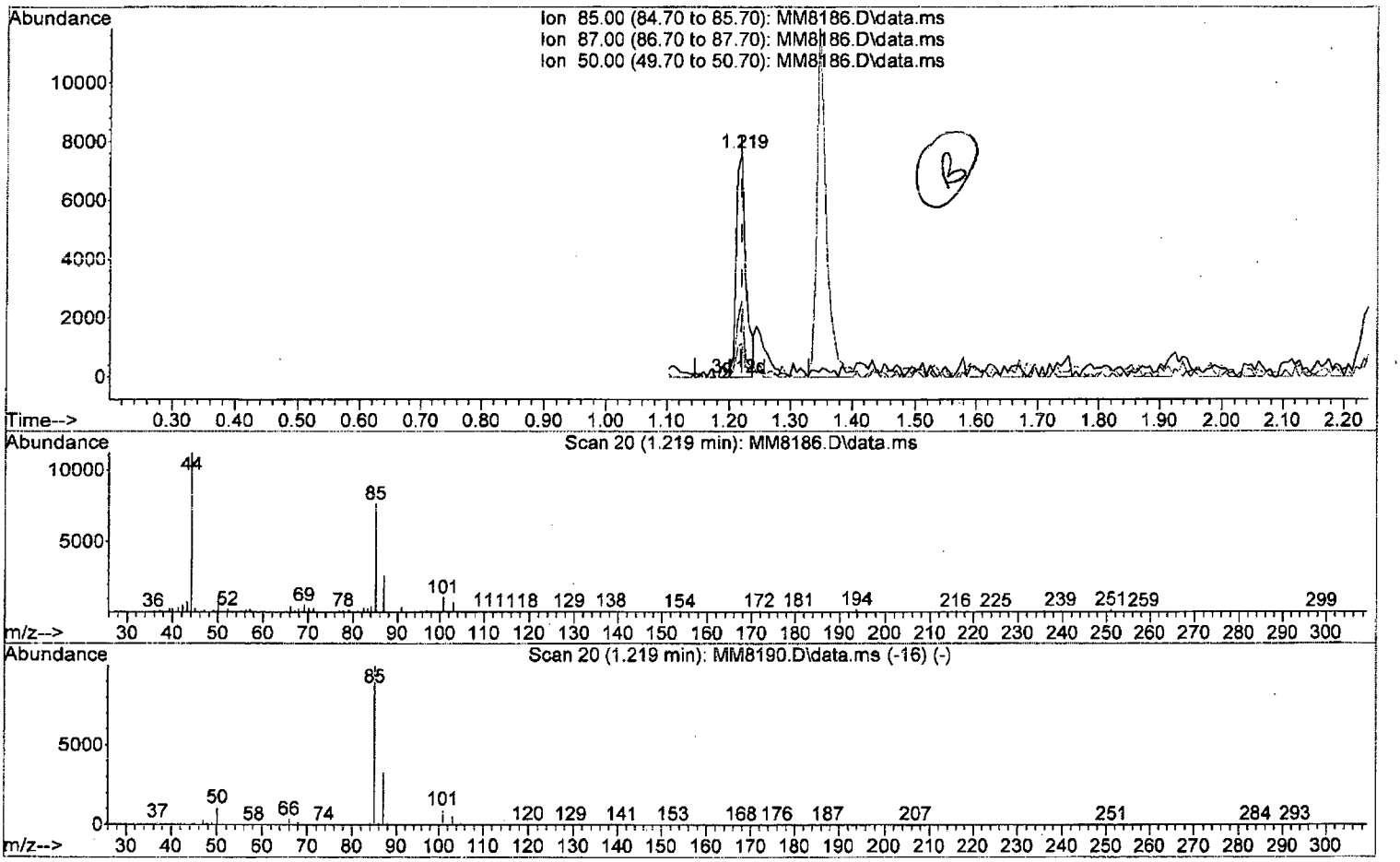
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
100) tert-Butylbenzene	11.699	119	19326	0.96	ppb		98
101) 1,2,4-Trimethylbenzene	11.742	105	25761	1.07	ppb		93
102) 3,4-DCBTF	11.803	214	5860	1.01	ppb		91
103) sec-Butylbenzene	11.882	105	30086	1.07	ppb		91
104) p-Isopropyltoluene	12.004	119	22364	1.03	ppb		95
105) 1,3-Dclbenz	11.961	146	13676	1.05	ppb		98
106) 1,4-Dclbenz	12.034	146	11720	0.96	ppb		84
107) 2,4-DCBTF	12.089	214	4912	0.97	ppb	#	81
108) 2,5-DCBTF	12.126	214	5760	1.00	ppb		98
109) n-Butylbenzene	12.333	91	20401	0.99	ppb		92
110) 1,2-Dclbenz	12.339	146	13110	1.09	ppb		88
111) 1,2-Dibromo-3-chloropr...	12.961	157	1003	0.85	ppb	#	57
112) Trielution Dichlorotol...	13.083	125	31009	3.06	ppb	#	87
113) 1,3,5 Trichlorobenzene	13.126	180	7780	0.96	ppb	#	92
114) Coelution Dichlorotoluene	13.400	125	22904	2.14	ppb		98
115) 1,2,4-Tcbenzene	13.607	180	7848	1.06	ppb		86
116) Hexachlorobt	13.747	225	3391	1.07	ppb		90
117) Naphthalen	13.802	128	13597	0.89	ppb		94
118) 1,2,3-Tclbenzene	13.985	180	6741	1.09	ppb		86
119) 2,4,5-Trichlorotolene	14.570	159	4370	0.94	ppb	#	85
120) 2,3,6-Trichlorotoluene	14.656	159	4049	0.98	ppb	#	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(2) Dichlorodifluoromethane (P)

1.219min (0.000) 0.73 ppb

response 7969

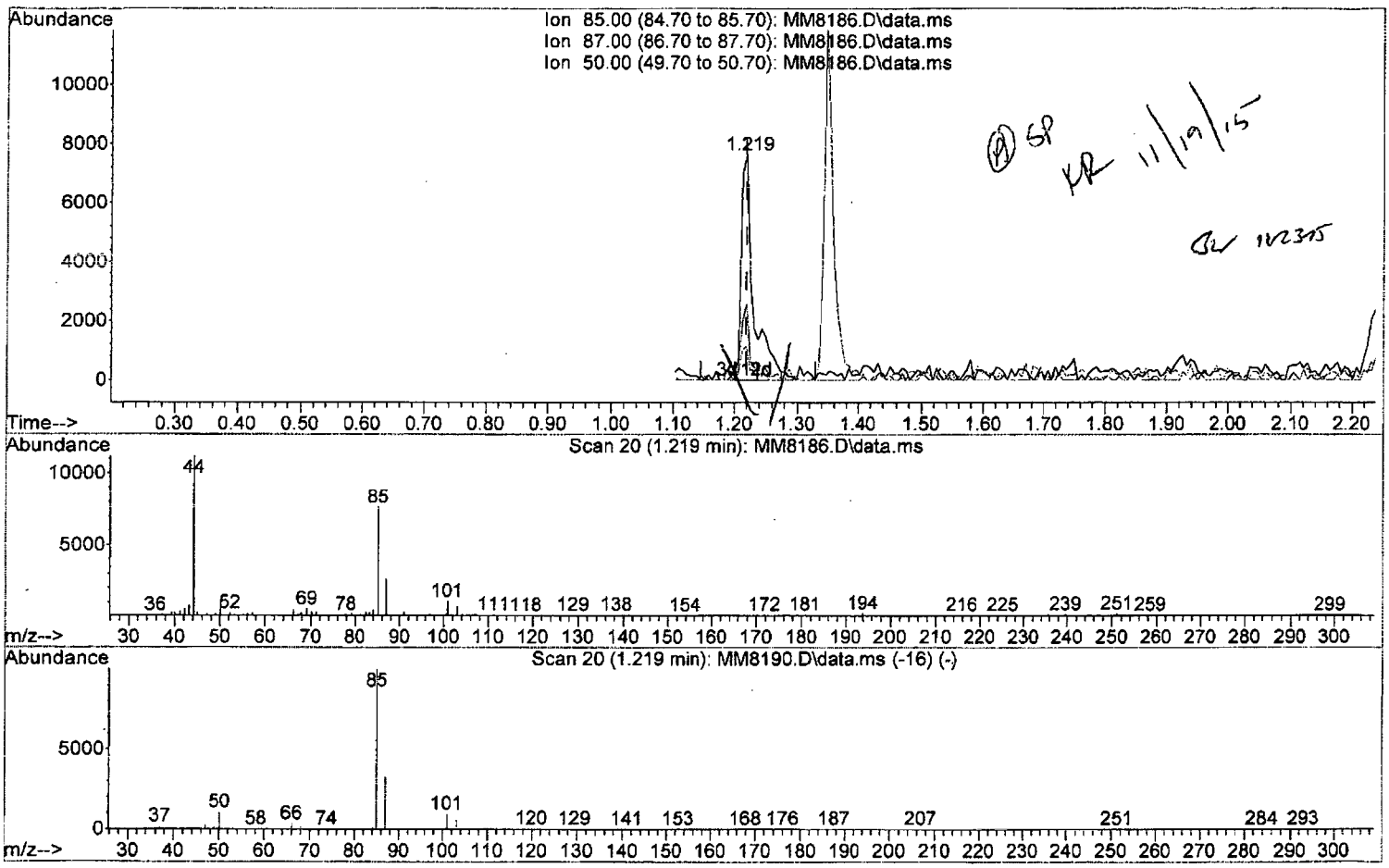
Ion	Exp%	Act%
85.00	100	100
87.00	32.70	33.97
50.00	10.60	15.05
0.00	0.00	0.00

W111815.M Thu Nov 19 09:58:28 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(2) Dichlorodifluoromethane (P)

1.219min (0.000) 0.93 ppb m

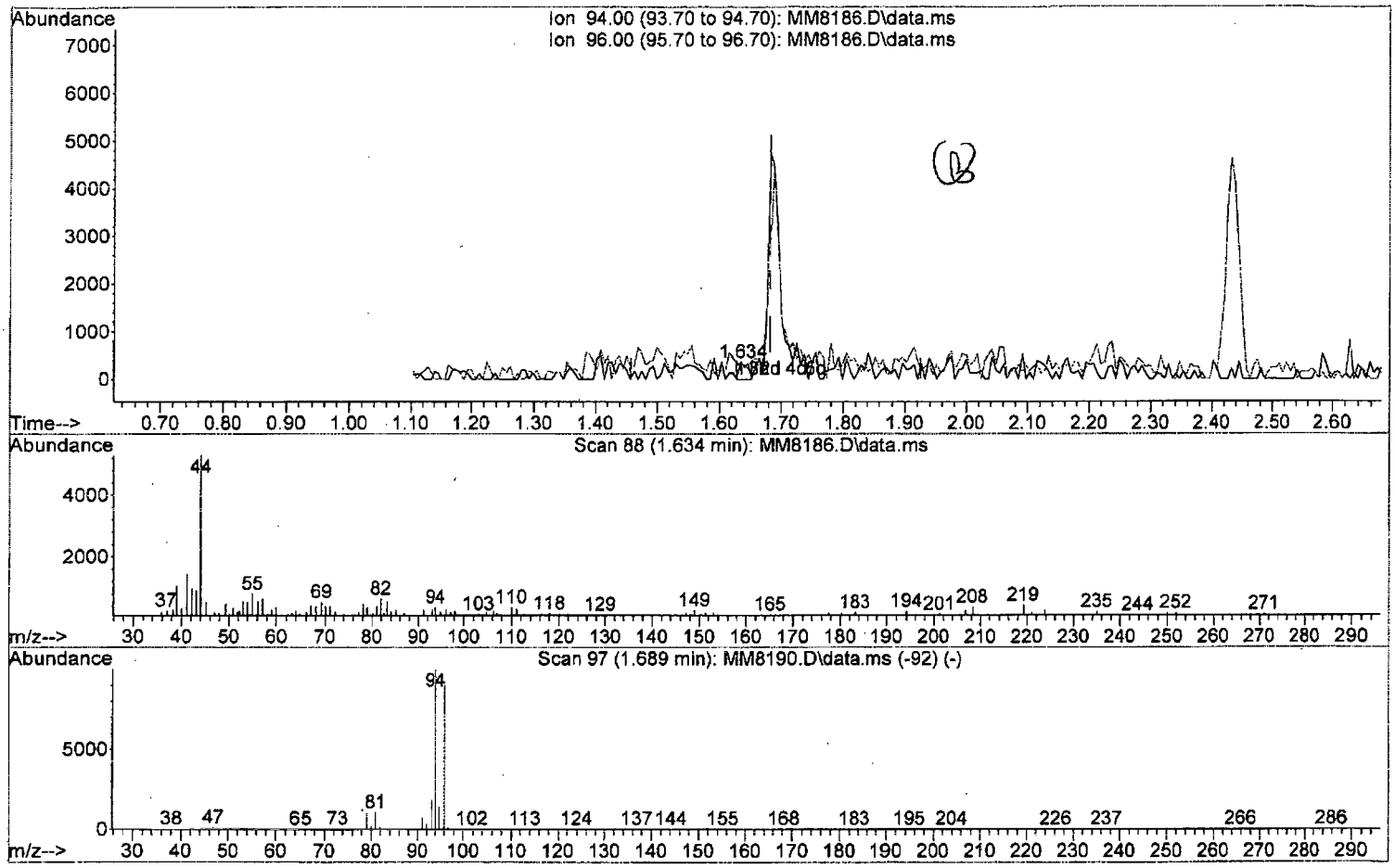
response 10094

Ion	Exp%	Act%
85.00	100	100
87.00	32.70	33.97
50.00	10.60	15.05
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(5) Bromomethane (P)

1.634min (-0.049) 0.06 ppb

response 343

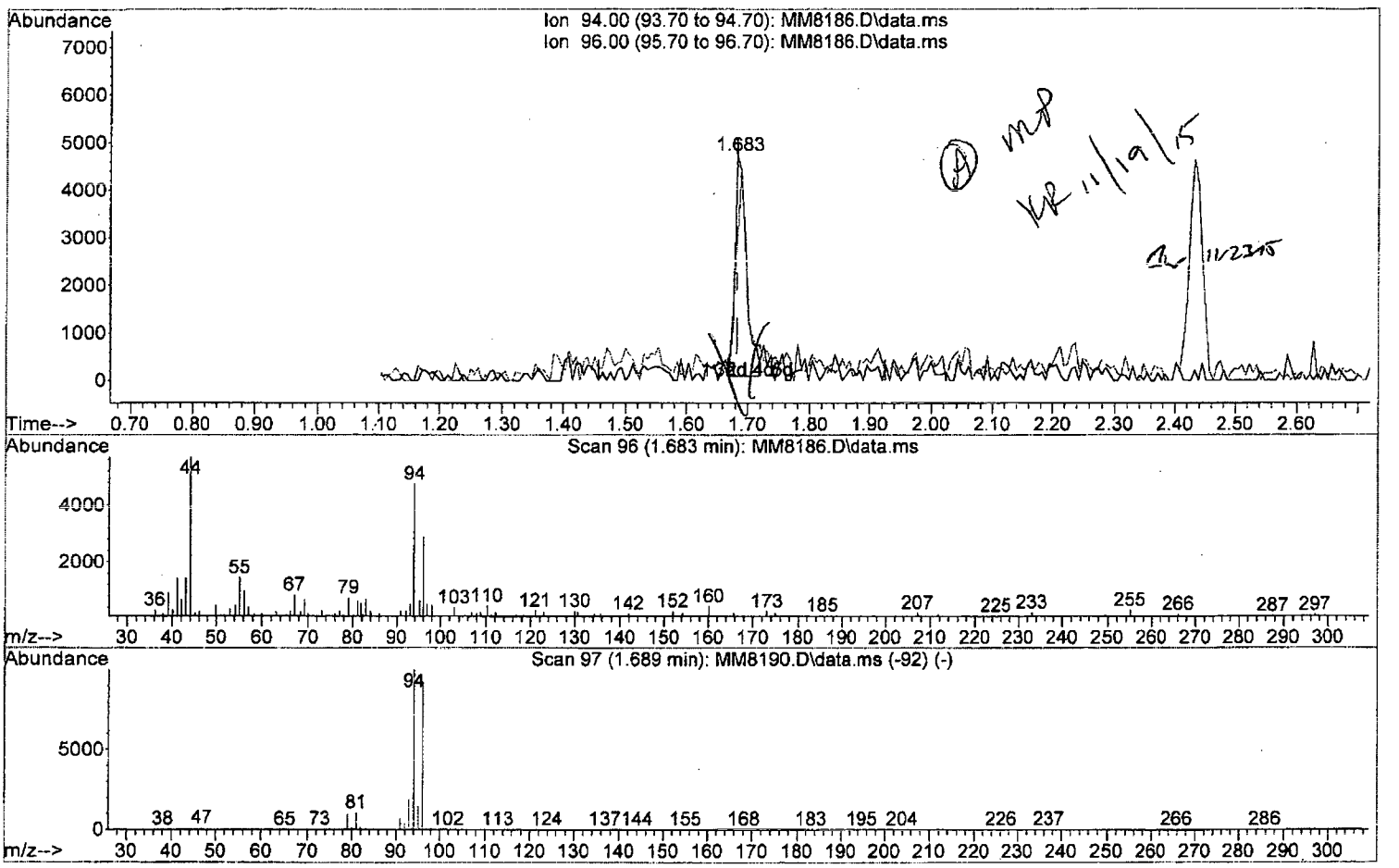
Ion	Exp%	Act%
94.00	100	100
96.00	92.80	74.72
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:58:44 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(5) Bromomethane (P)

1.683min (-0.000) 0.98 ppb m

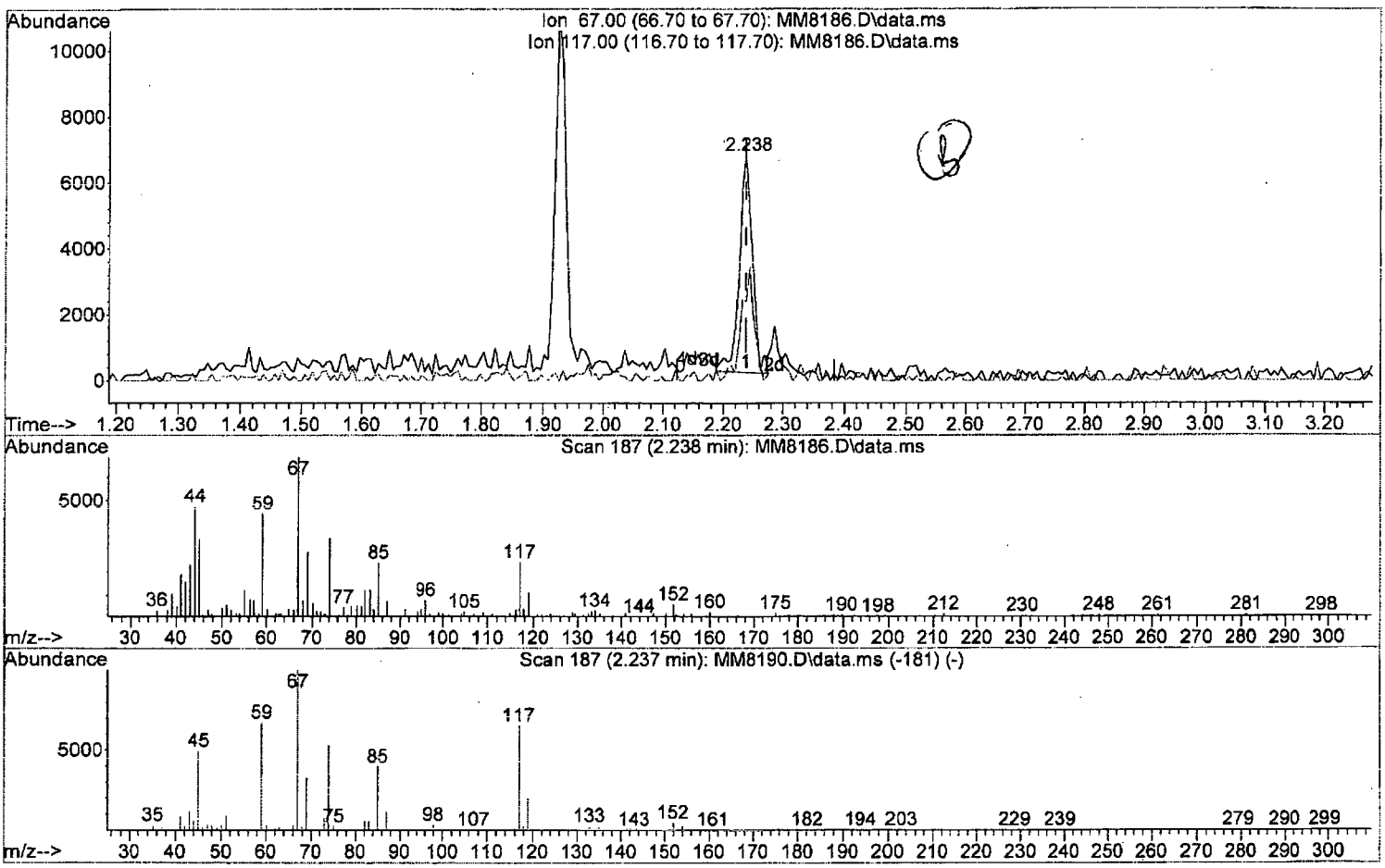
response 5854

Ion	Exp%	Act%
94.00	100	100
96.00	92.80	60.76#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(10) Freon 123a

2.238min (0.000) 1.19 ppb

response 10134

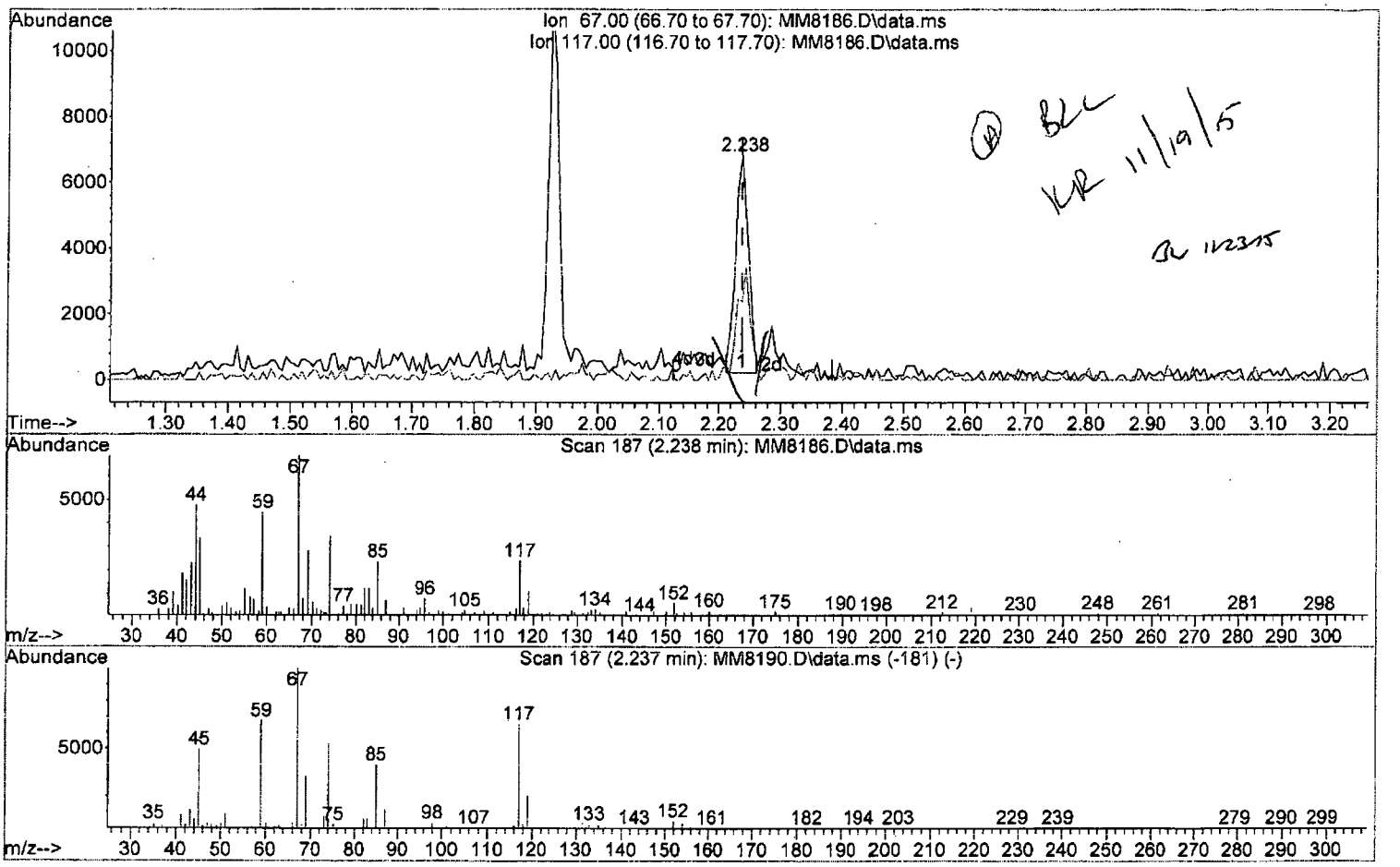
Ion	Exp%	Act%
67.00	100	100
117.00	65.50	34.95#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 09:59:33 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(10) Freon 123a

2.238min (0.000) 1.10 ppb m

response 9323

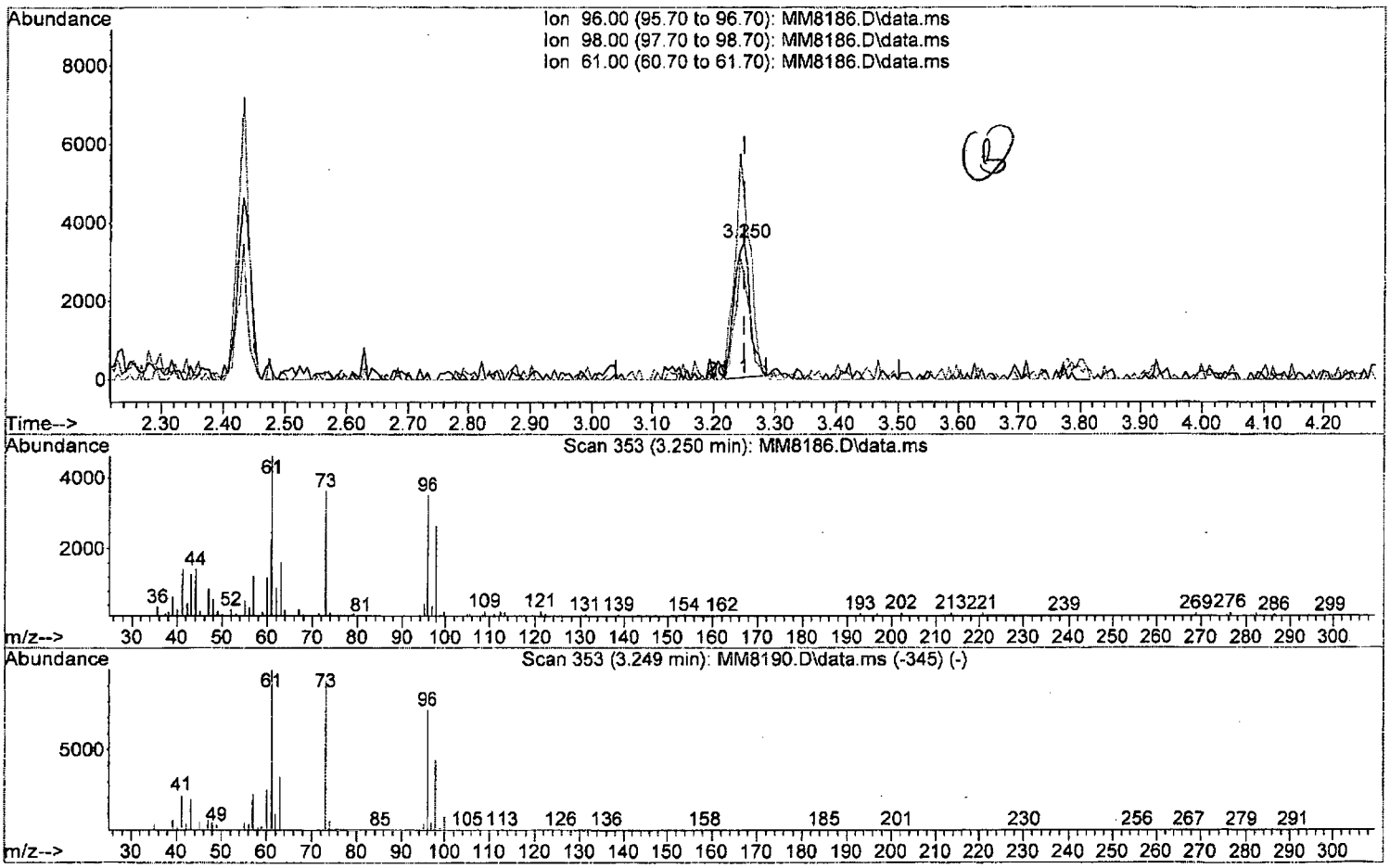
Ion	Exp%	Act%
67.00	100	100
117.00	65.50	34.95#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:00:01 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(26) trans-1,2-Dichloroethene (P)

3.250min (0.000) 0.90 ppb

response 6211

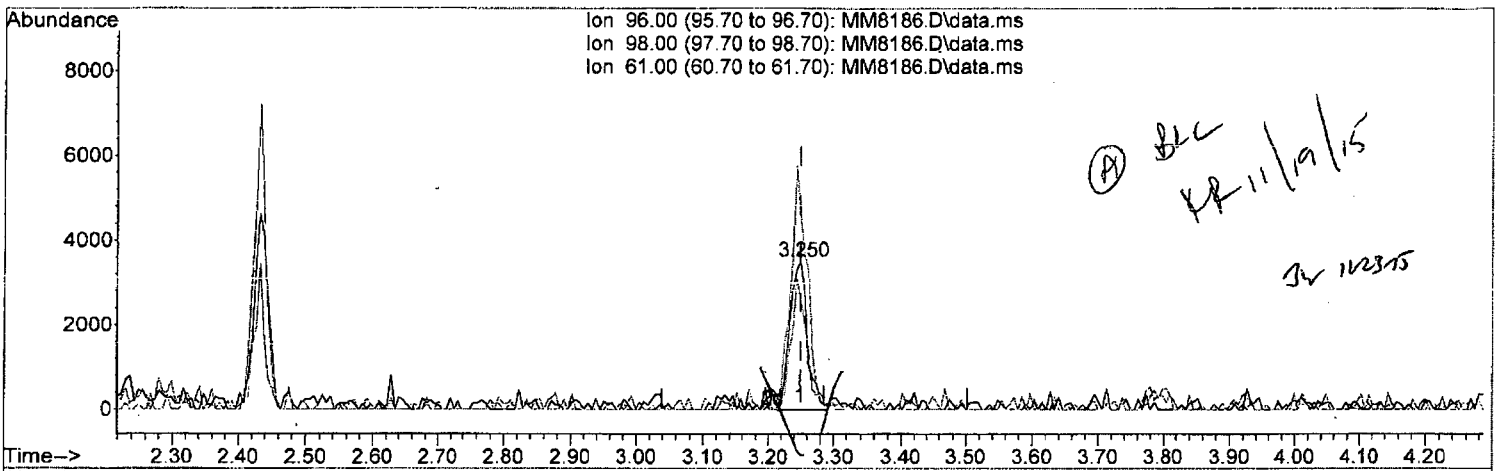
Ion	Exp%	Act%
96.00	100	100
98.00	57.60	74.85
61.00	133.00	131.57
0.00	0.00	0.00

W111815.M Thu Nov 19 10:01:23 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(26) trans-1,2-Dichloroethene (P)

3.250min (0.000) 0.95 ppb m

response 6563

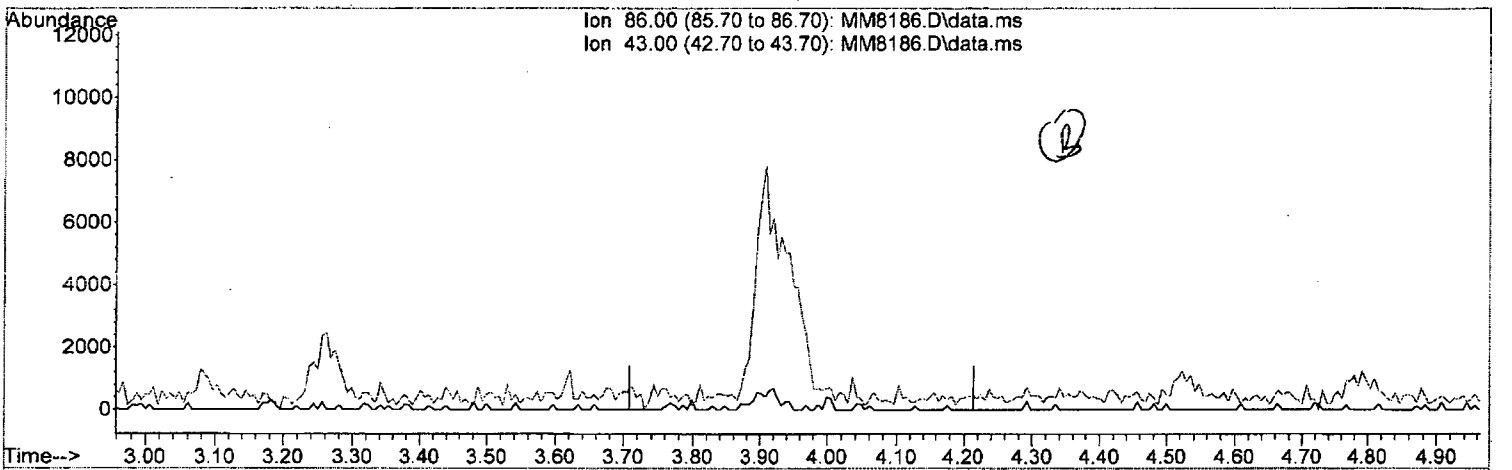
Ion	Exp%	Act%
96.00	100	100
98.00	57.60	74.85
61.00	133.00	131.57
0.00	0.00	0.00

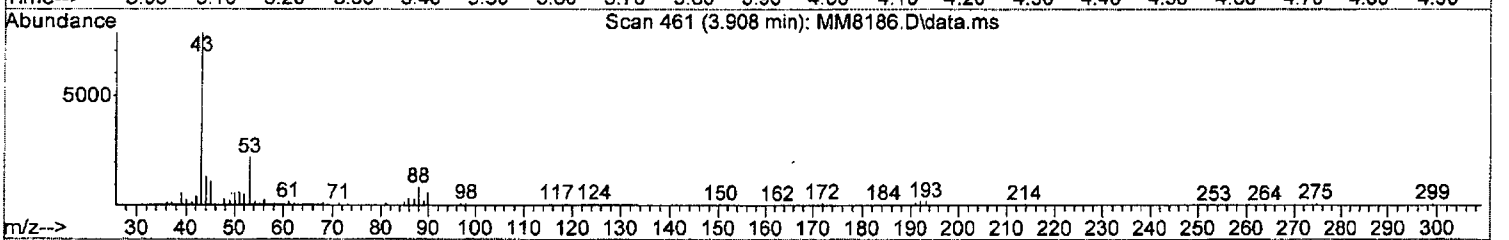
W111815.M Thu Nov 19 10:01:31 2015 Page: 1

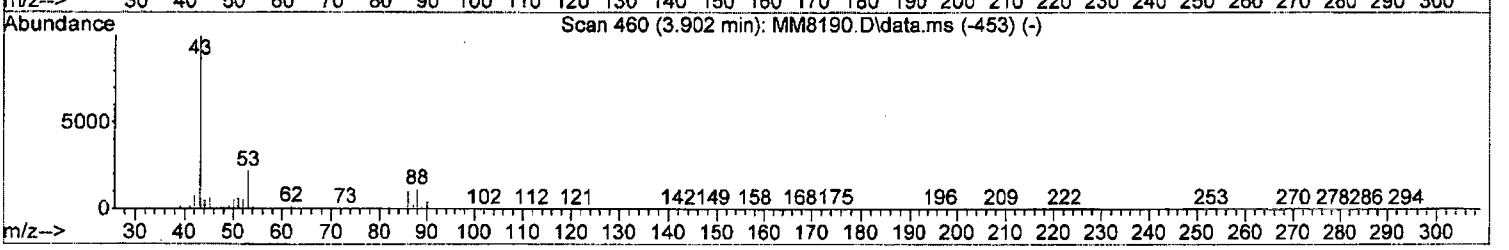
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8186.D\data.ms

(29) Vinyl Acetate

3.908min (-3.908) 0.00 ppb

response 0

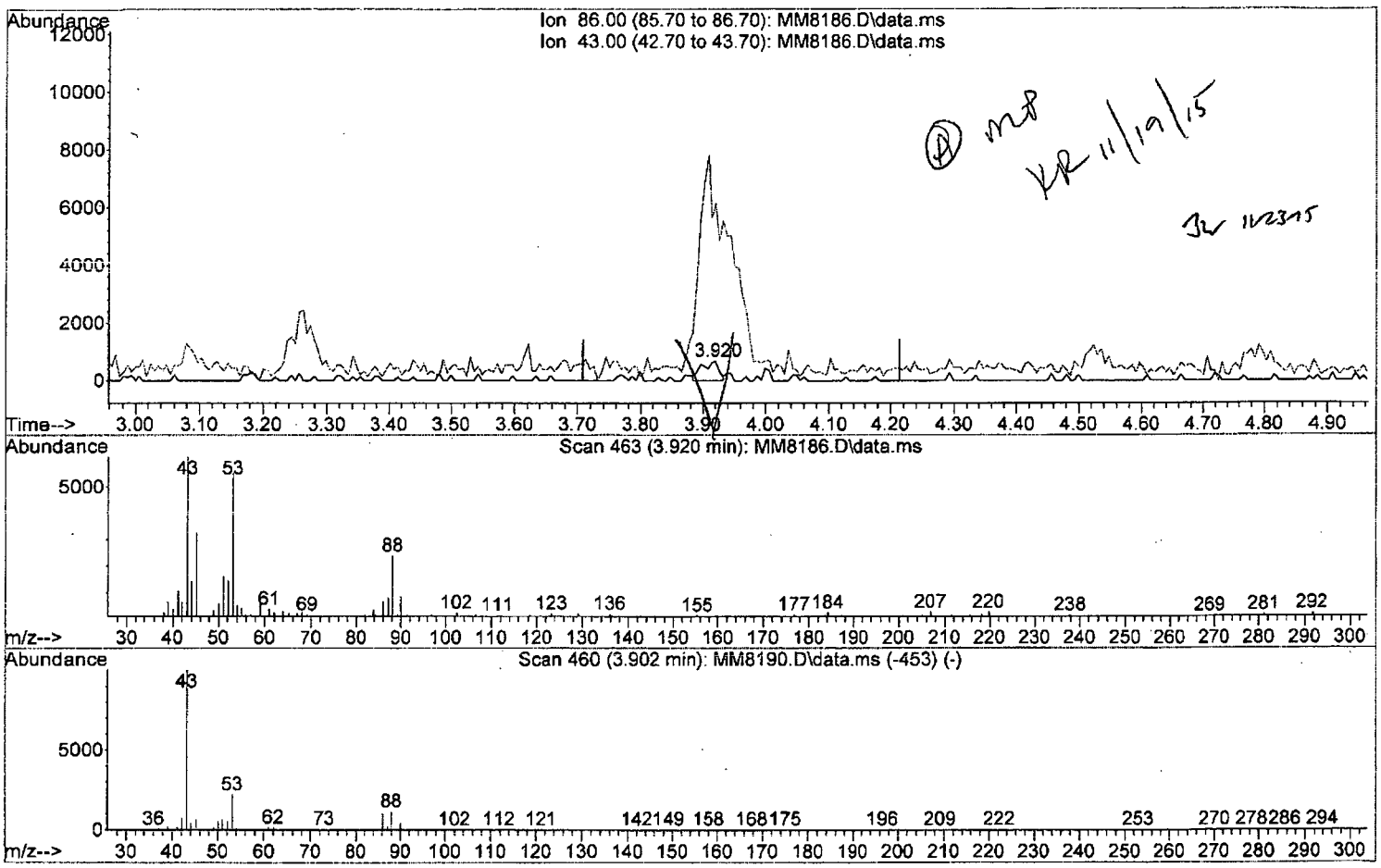
Ion	Exp%	Act%
86.00	100	0.00
43.00	979.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:01:52 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(29) Vinyl Acetate

3.920min (+0.012) 0.95 ppb m

response 1268

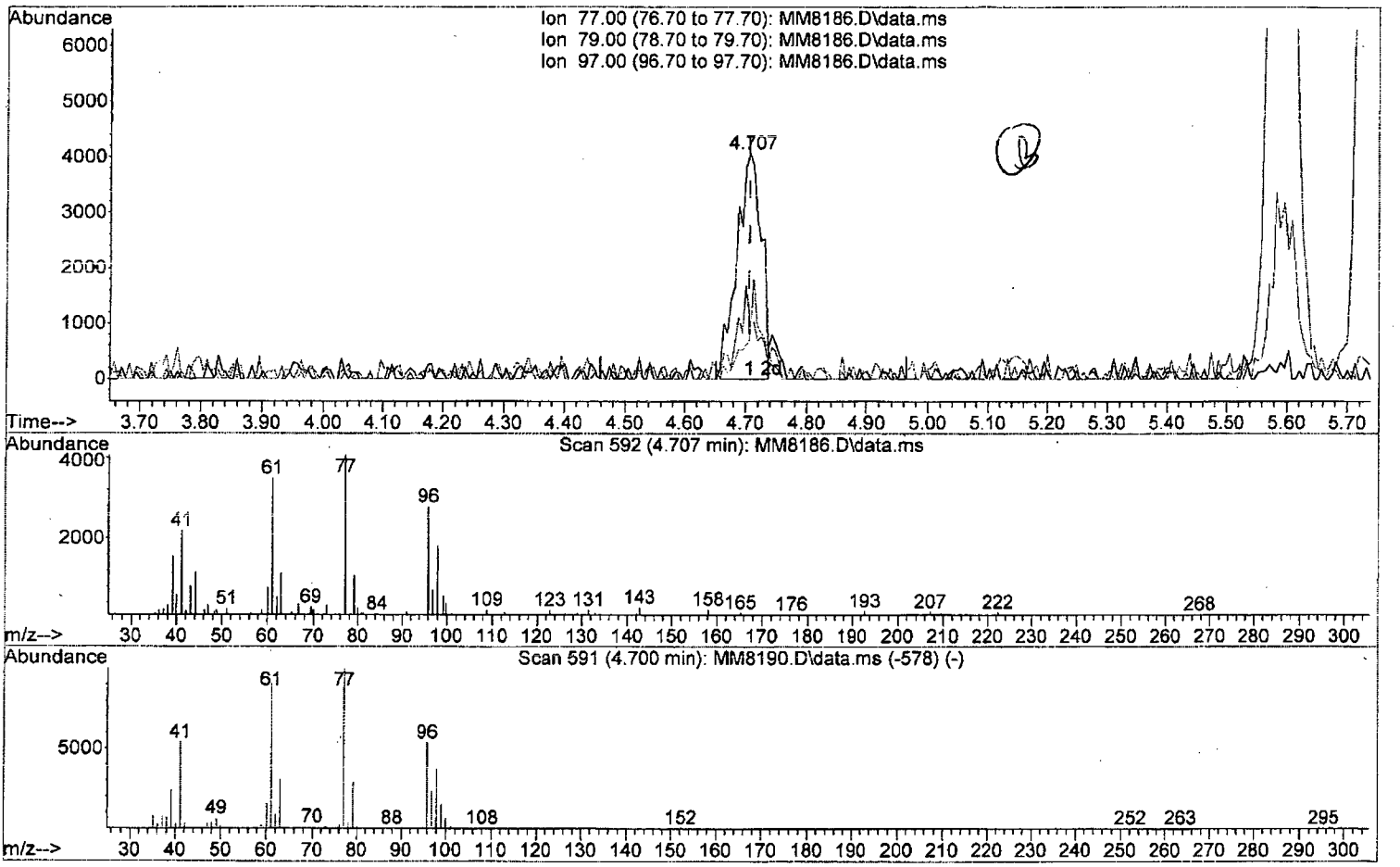
Ion	Exp%	Act%
86.00	100	100
43.00	979.70	913.13#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:02:11 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(33) 2,2-Dichloropropane

4.707min (+0.001) 1.15 ppb

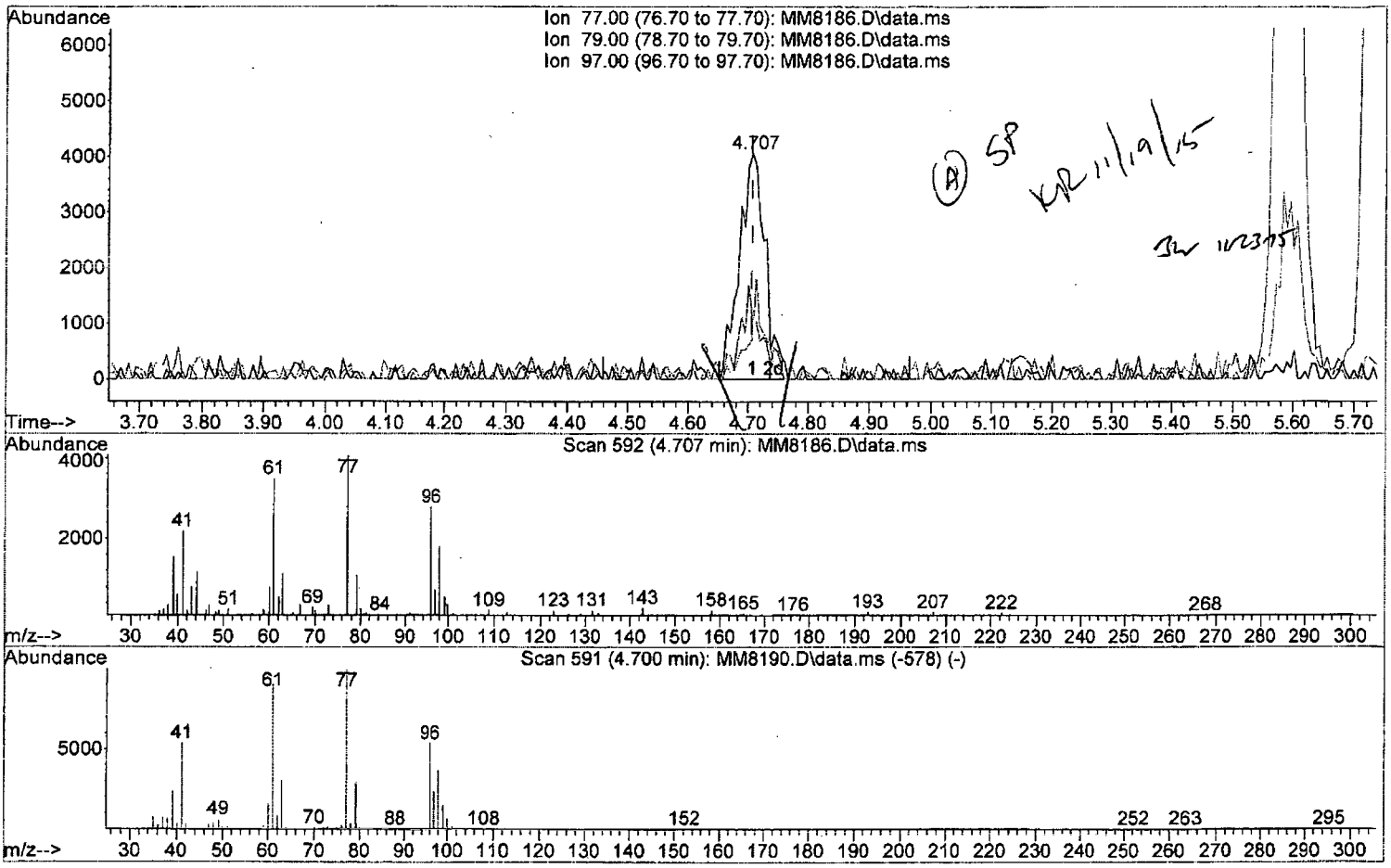
response 11367

Ion	Exp%	Act%
77.00	100	100
79.00	28.80	26.63
97.00	24.00	17.64
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(33) 2,2-Dichloropropane

4.707min (+0.001) 1.23 ppb m

response 12157

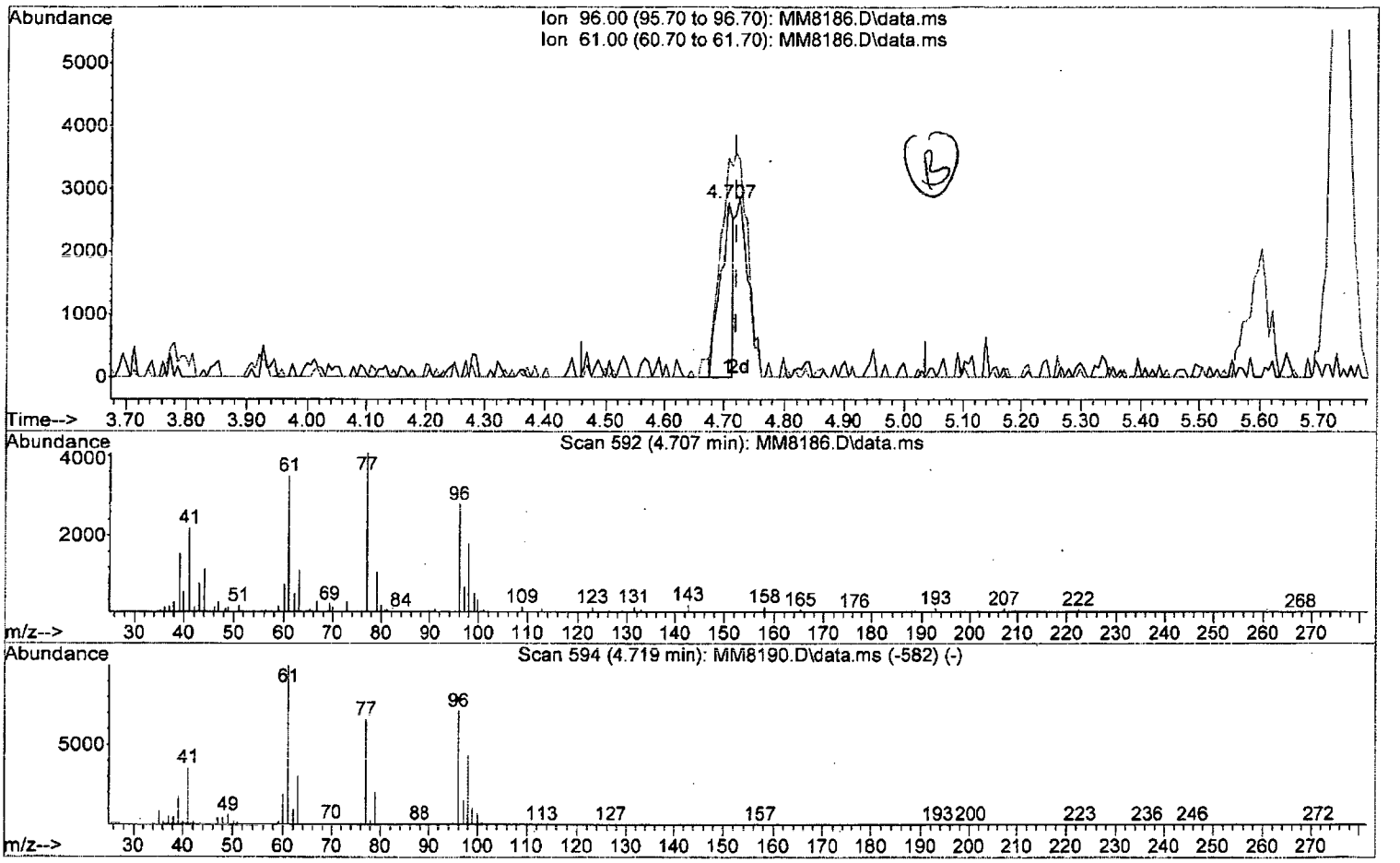
Ion	Exp%	Act%
77.00	100	100
79.00	28.80	26.63
97.00	24.00	17.64
0.00	0.00	0.00

W111815.M Thu Nov 19 10:02:43 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.707min (-0.012) 0.51 ppb

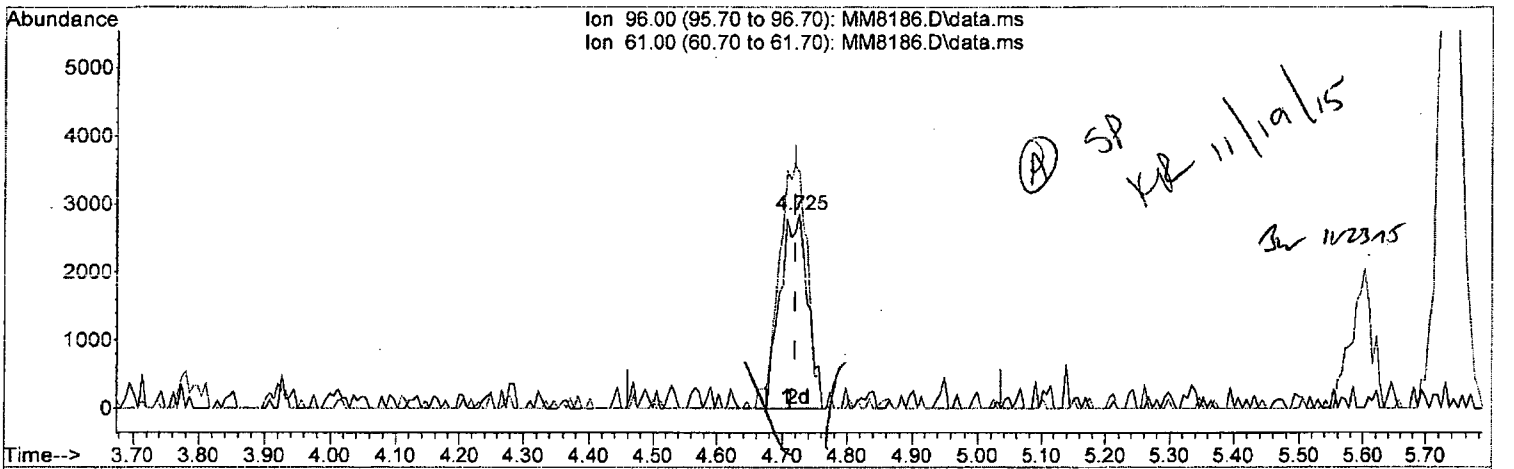
response 3913

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	125.40
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.725min (+0.006) 1.07 ppb m

response 8254

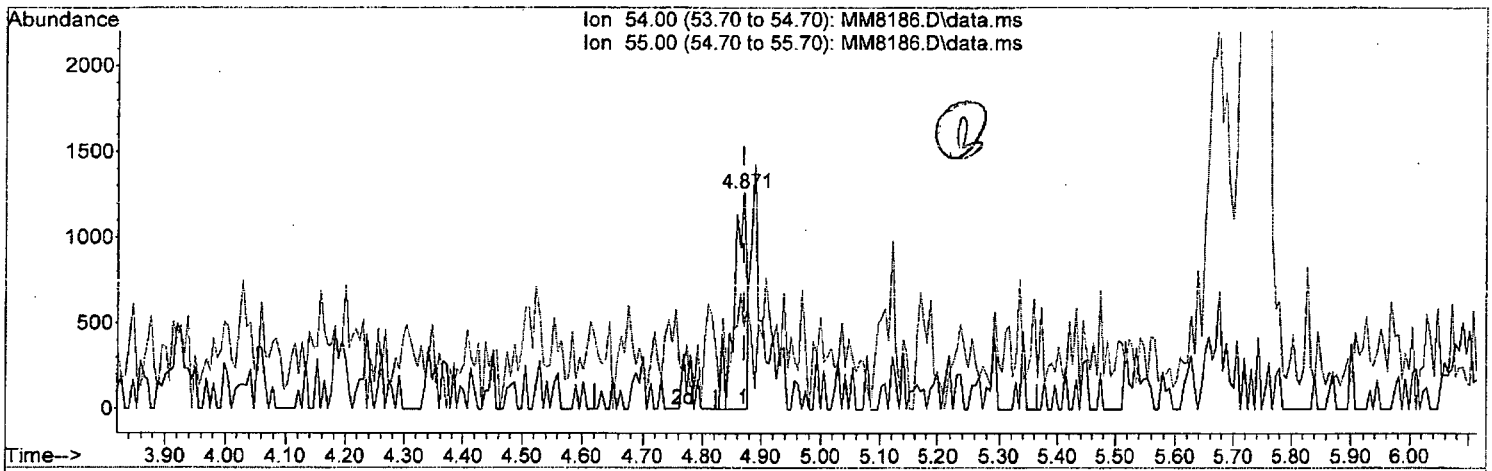
Ion	Exp%	Act%
96.00	100	100
61.00	140.70	121.62
0.00	0.00	0.00
0.00	0.00	0.00

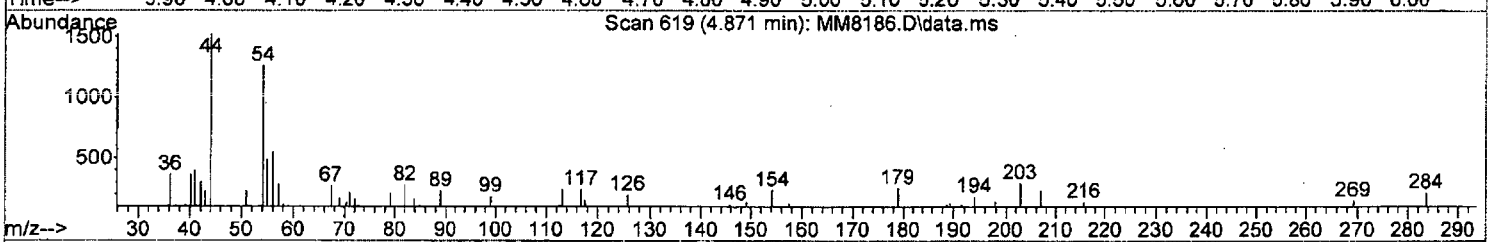
W111815.M Thu Nov 19 10:02:56 2015 Page: 1

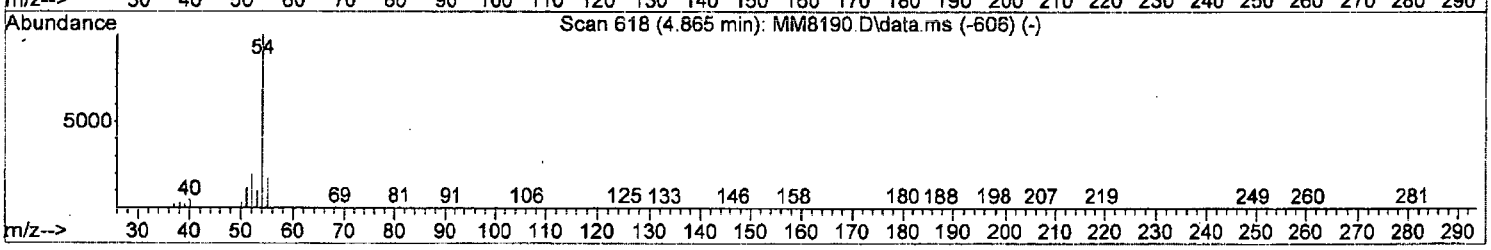
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8186.D\data.ms

(36) Propionitrile

4.871min (0.000) 2.75 ppb

response 1890

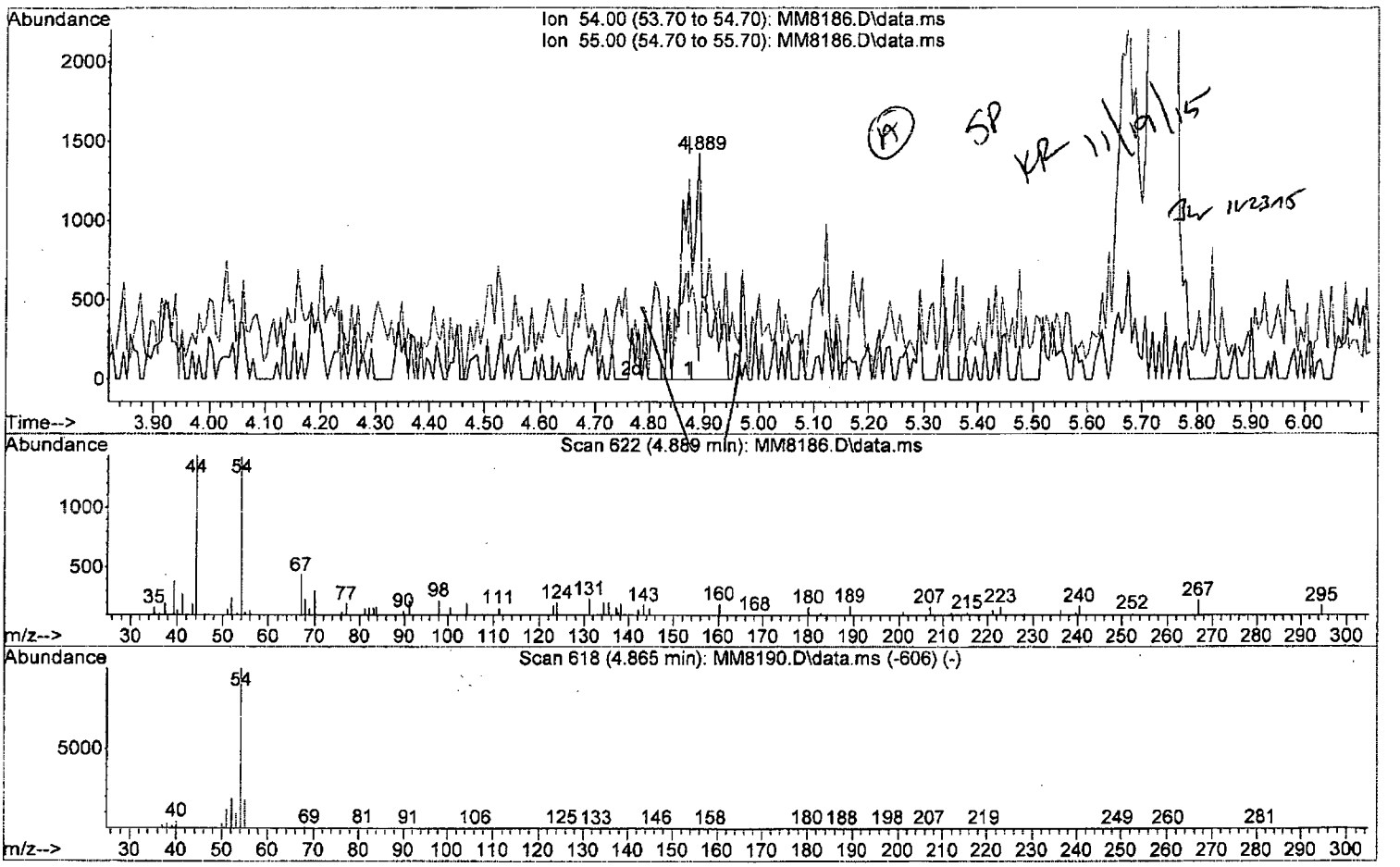
Ion	Exp%	Act%
54.00	100	100
55.00	19.40	38.63
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:03:05 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(36) Propionitrile

4.889min (+0.018) 5.52 ppb m

response 3790

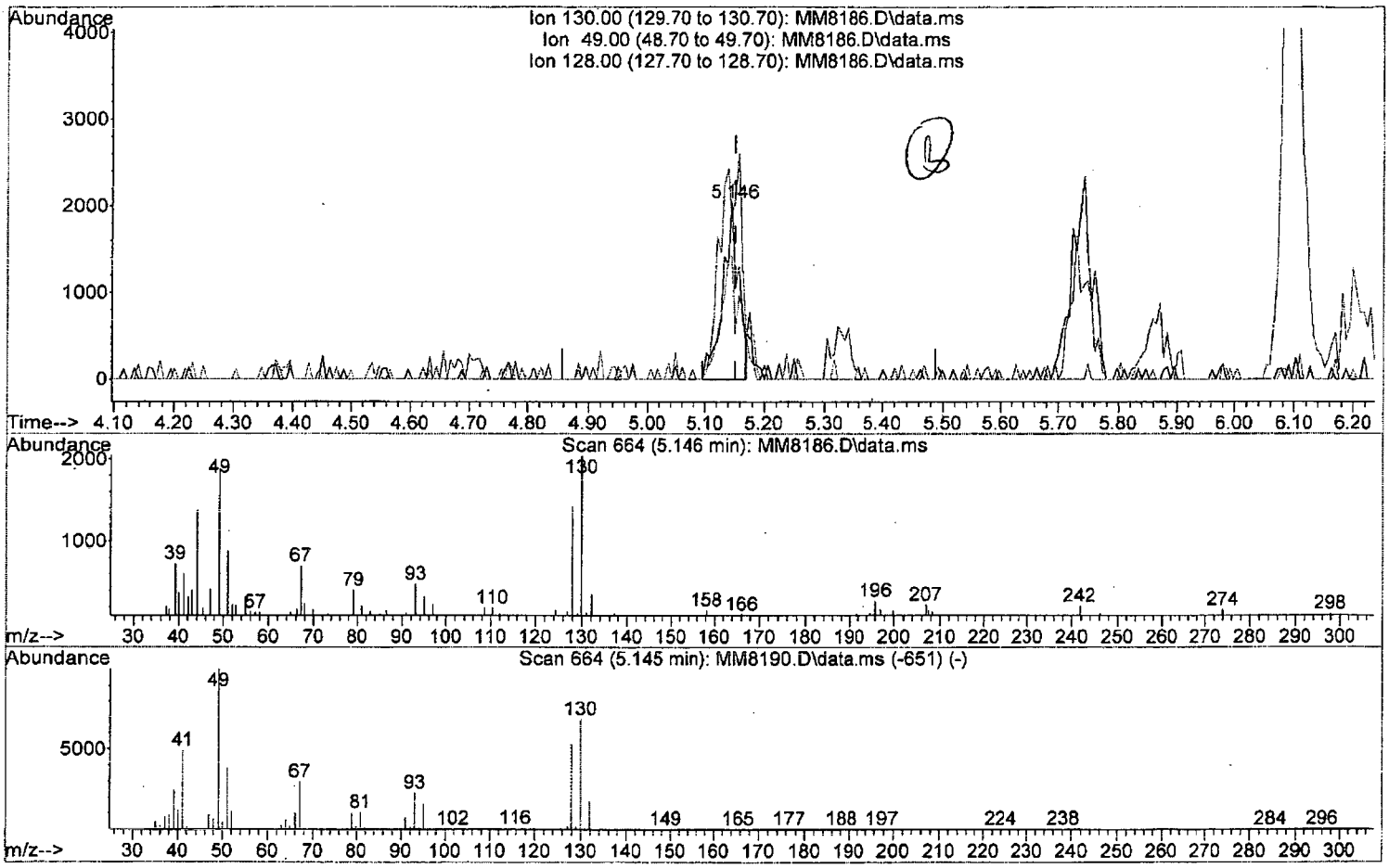
Ion	Exp%	Act%
54.00	100	100
55.00	19.40	8.32
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:03:19 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(37) Bromochloromethane

5.146min (-0.006) 0.95 ppb

response 3786

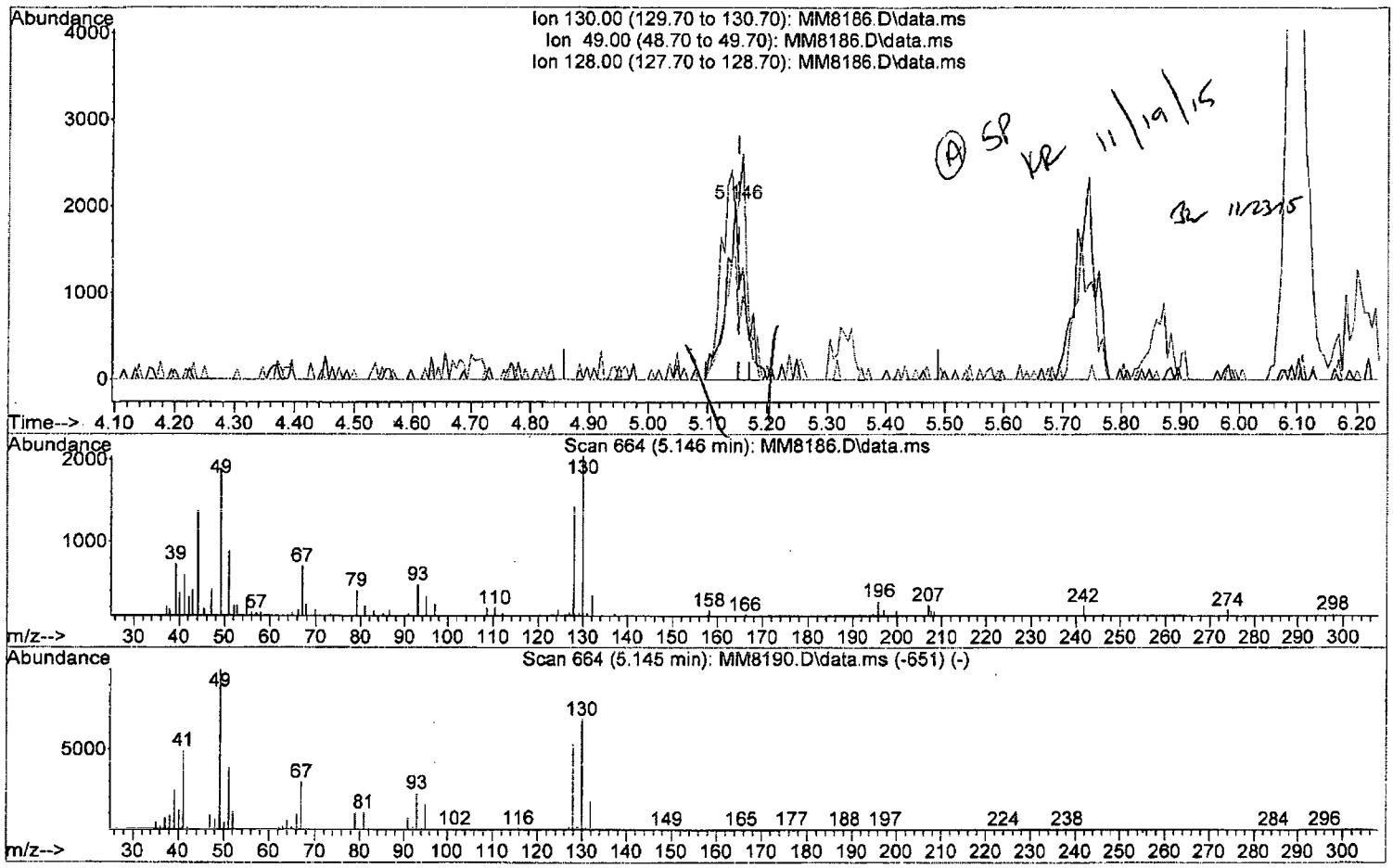
Ion	Exp%	Act%
130.00	100	100
49.00	145.50	92.39#
128.00	77.50	69.86
0.00	0.00	0.00

W111815.M Thu Nov 19 10:03:25 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(37) Bromochloromethane

5.146min (-0.006) 1.06 ppb m

response 4232

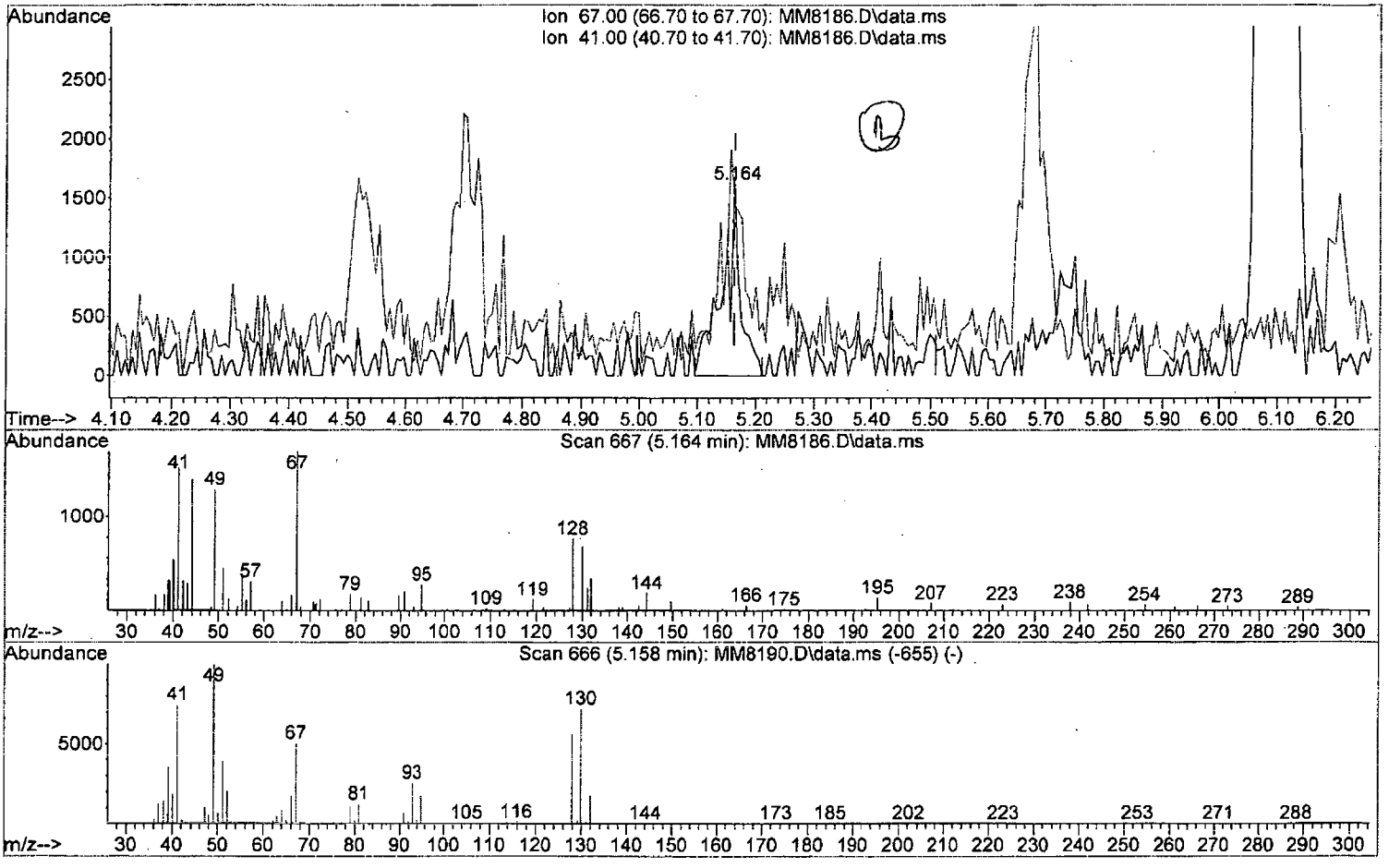
Ion	Exp%	Act%
130.00	100	100
49.00	145.50	92.39#
128.00	77.50	69.86
0.00	0.00	0.00

W111815.M Thu Nov 19 10:03:33 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(38) Methacrylonitrile

5.164min (0.000) 1.47 ppb

response 3449

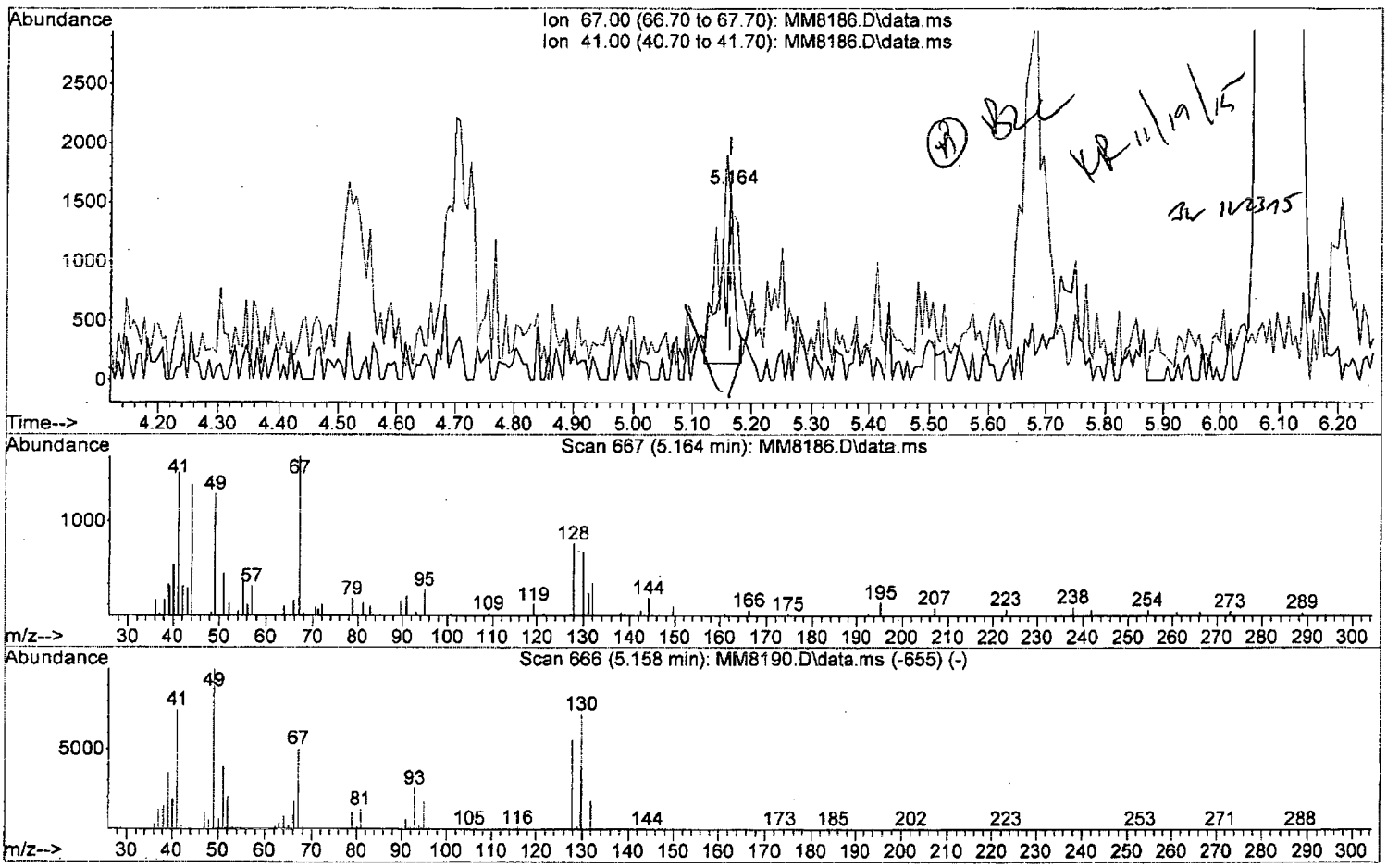
Ion	Exp%	Act%
67.00	100	100
41.00	148.70	90.23#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:03:51 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(38) Methacrylonitrile

5.164min (0.000) 0.91 ppb m

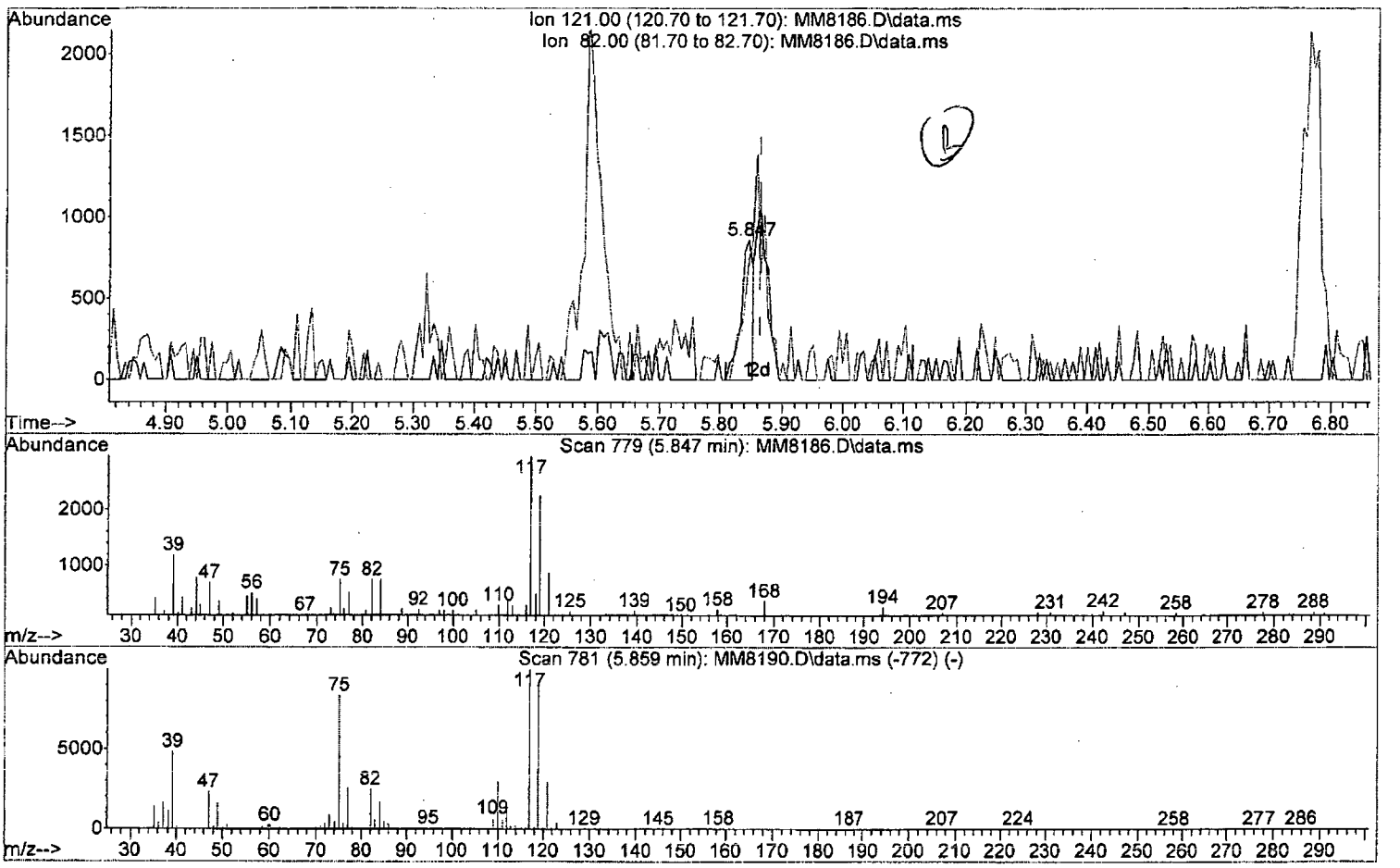
response 2125

Ion	Exp%	Act%
67.00	100	100
41.00	148.70	90.23#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(46) Carbontetrachloride (P)

5.847min (-0.018) 0.47 ppb

response 1154

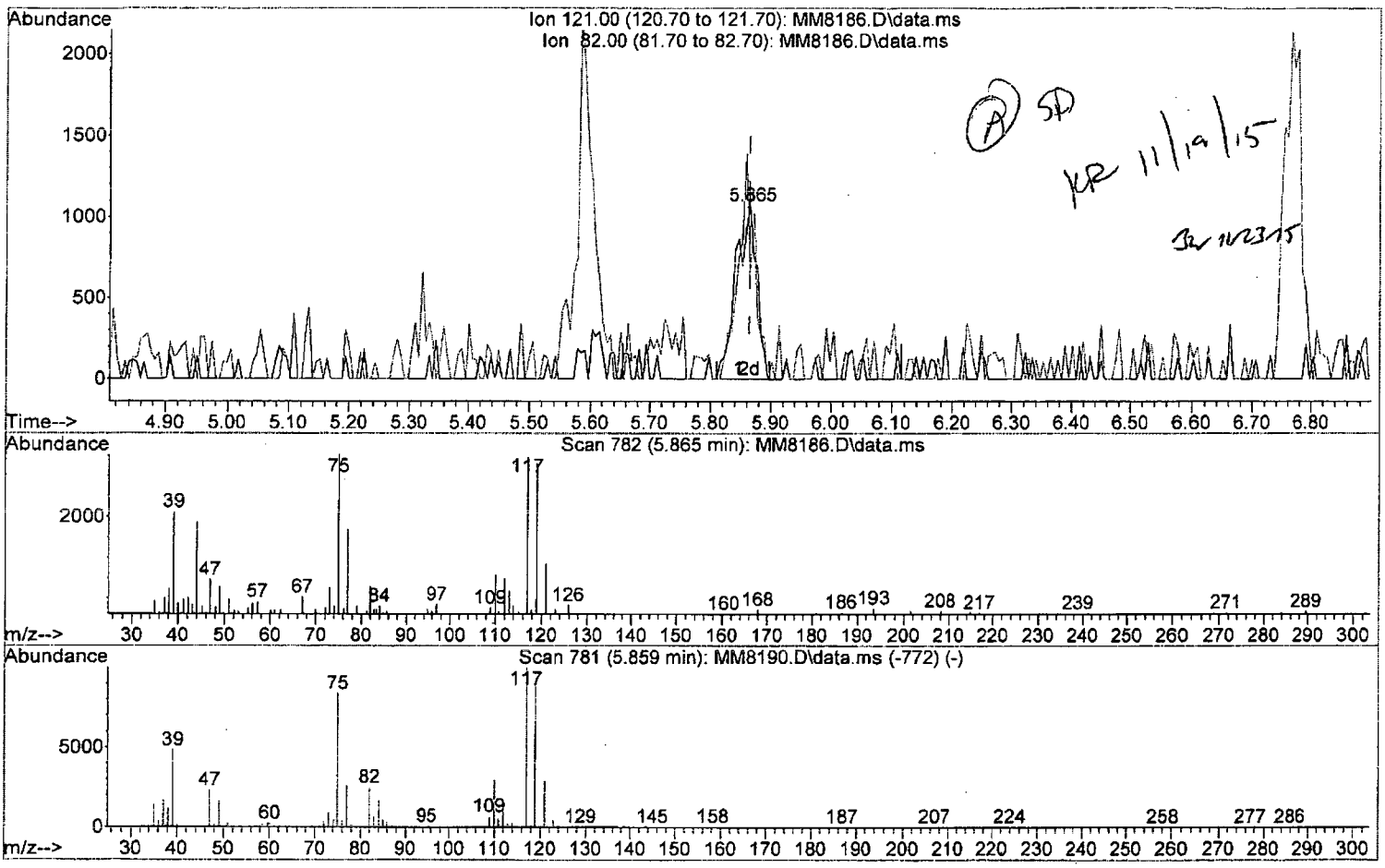
Ion	Exp%	Act%
121.00	100	100
82.00	85.40	86.13
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:04:38 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(46) Carbontetrachloride (P)

5.865min (0.000) 1.04 ppb m

response 2566

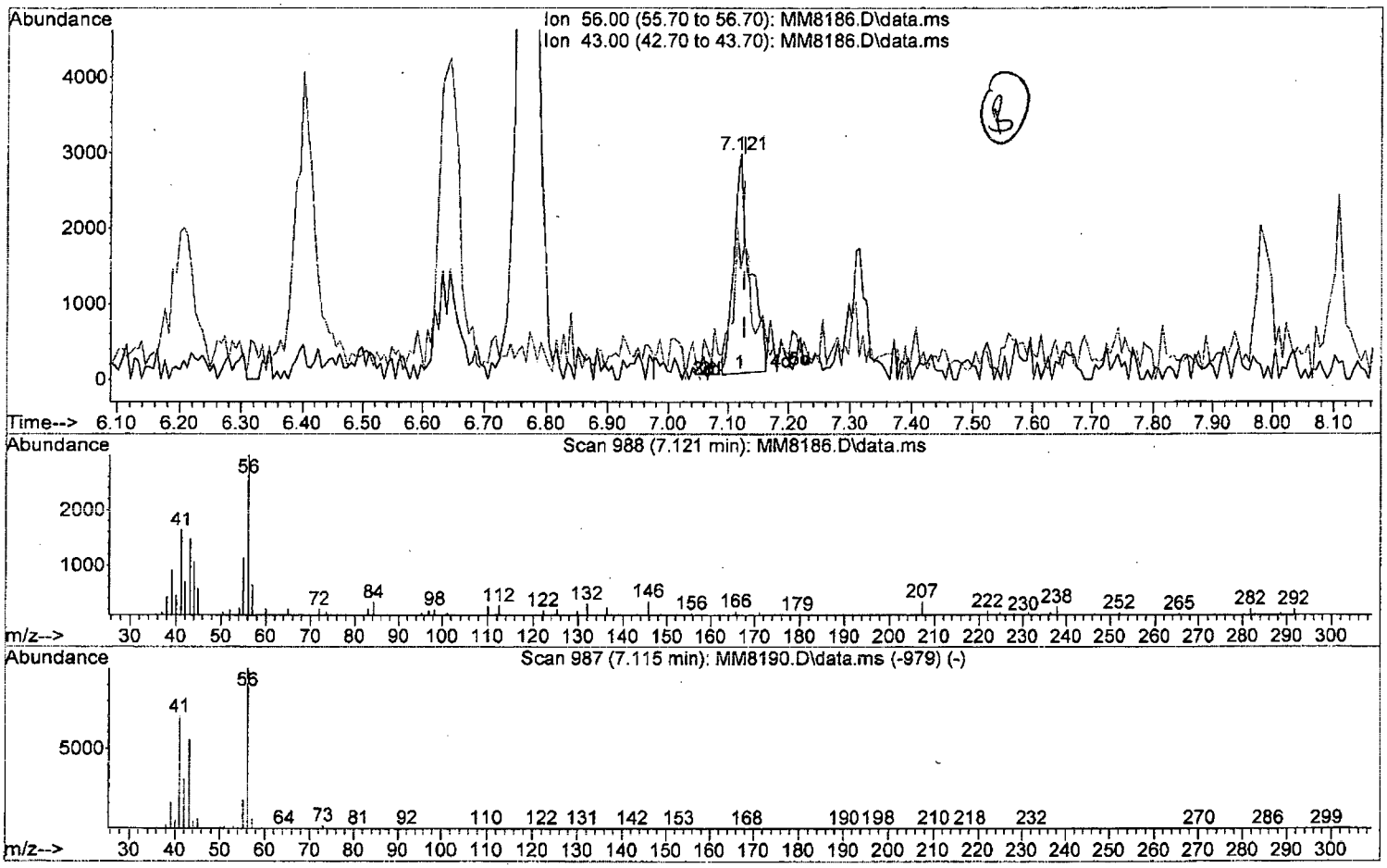
Ion	Exp%	Act%
121.00	100	100
82.00	85.40	59.19#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 14:17:10 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(53) 1-Butanol

7.121min (-0.006) 37.24 ppb

response 5473

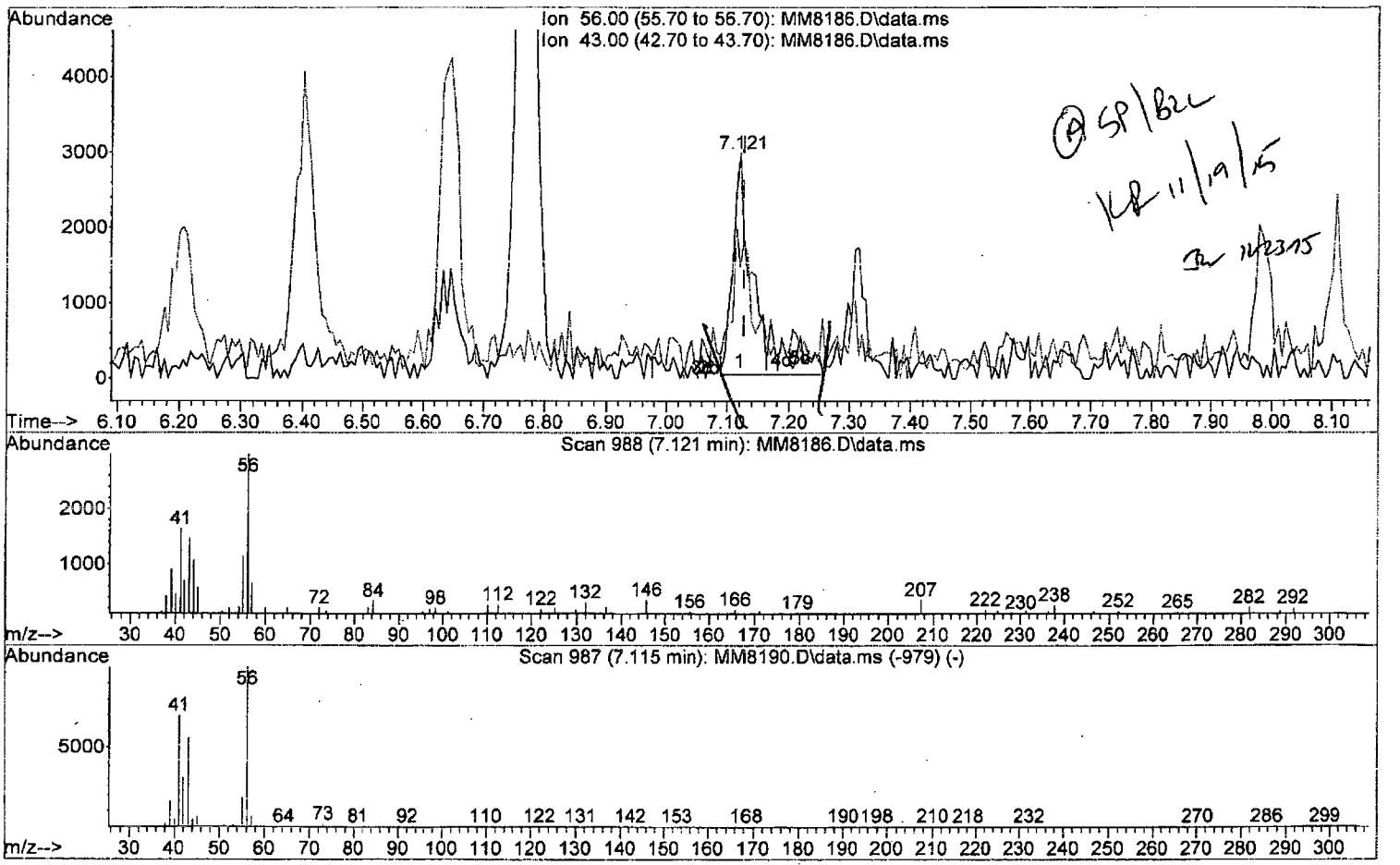
Ion	Exp%	Act%
56.00	100	100
43.00	54.90	76.70#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:05:24 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(53) 1-Butanol

7.121min (-0.006) 48.37 ppb m

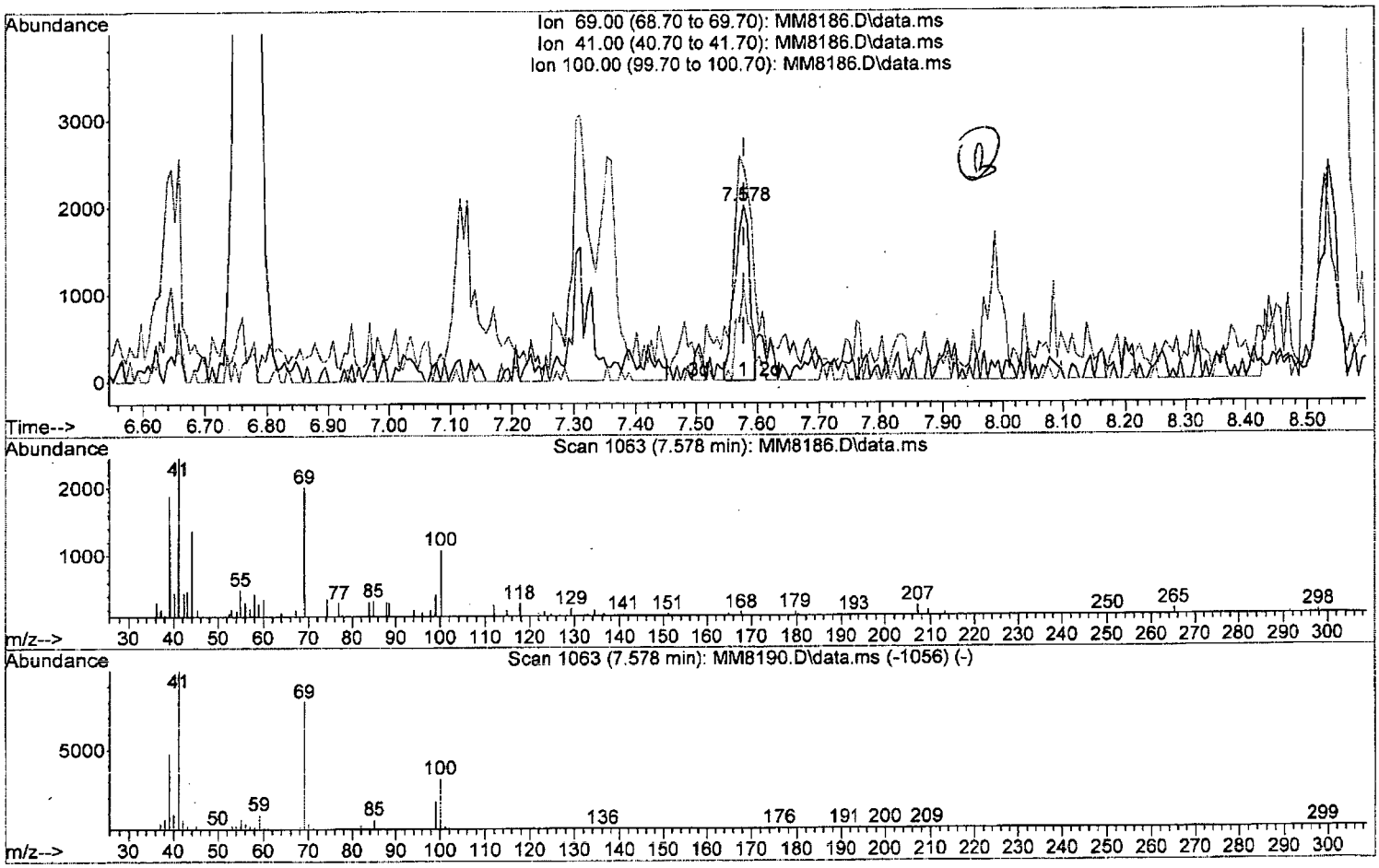
response 7108

Ion	Exp%	Act%
56.00	100	100
43.00	54.90	59.06
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(59) Methyl Methacrylate

7.578min (0.000) 0.83 ppb

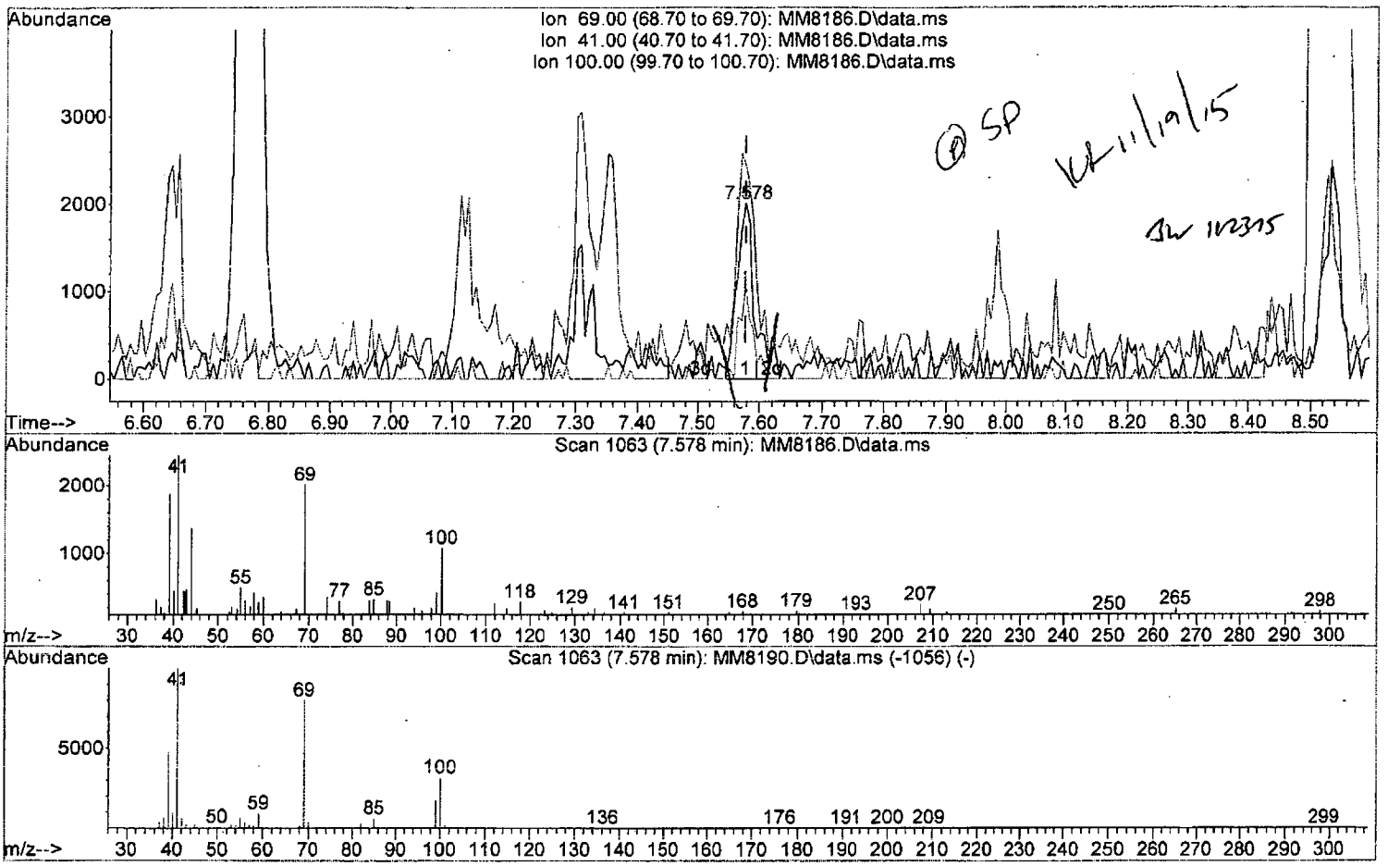
response 3317

Ion	Exp%	Act%
69.00	100	100
41.00	125.30	121.57
100.00	39.20	53.46
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(59) Methyl Methacrylate

7.578min (0.000) 0.94 ppb m

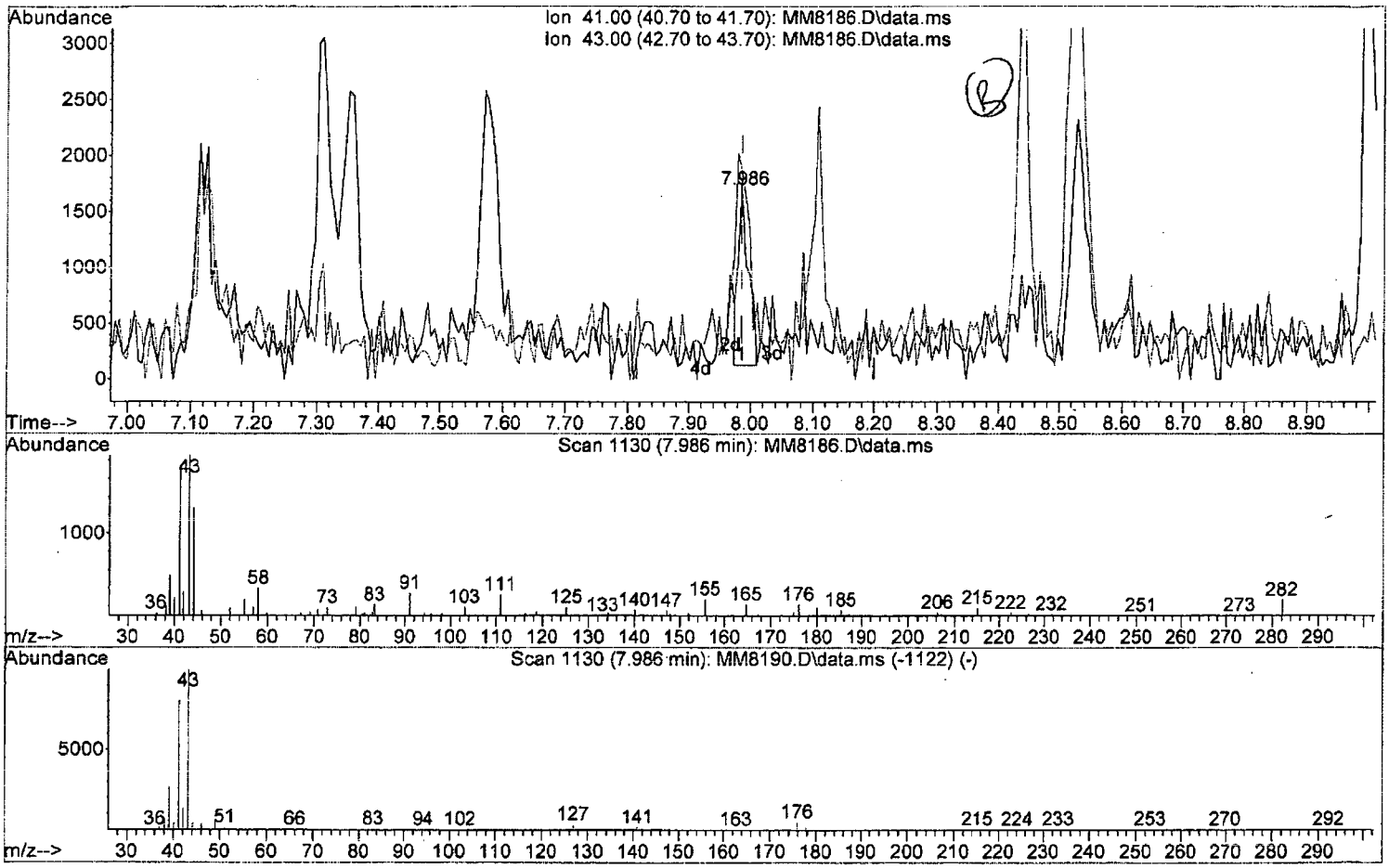
response 3768

Ion	Exp%	Act%
69.00	100	100
41.00	125.30	121.57
100.00	39.20	53.46
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(61) 2-Nitropropane

7.986min (-0.000) 1.38 ppb

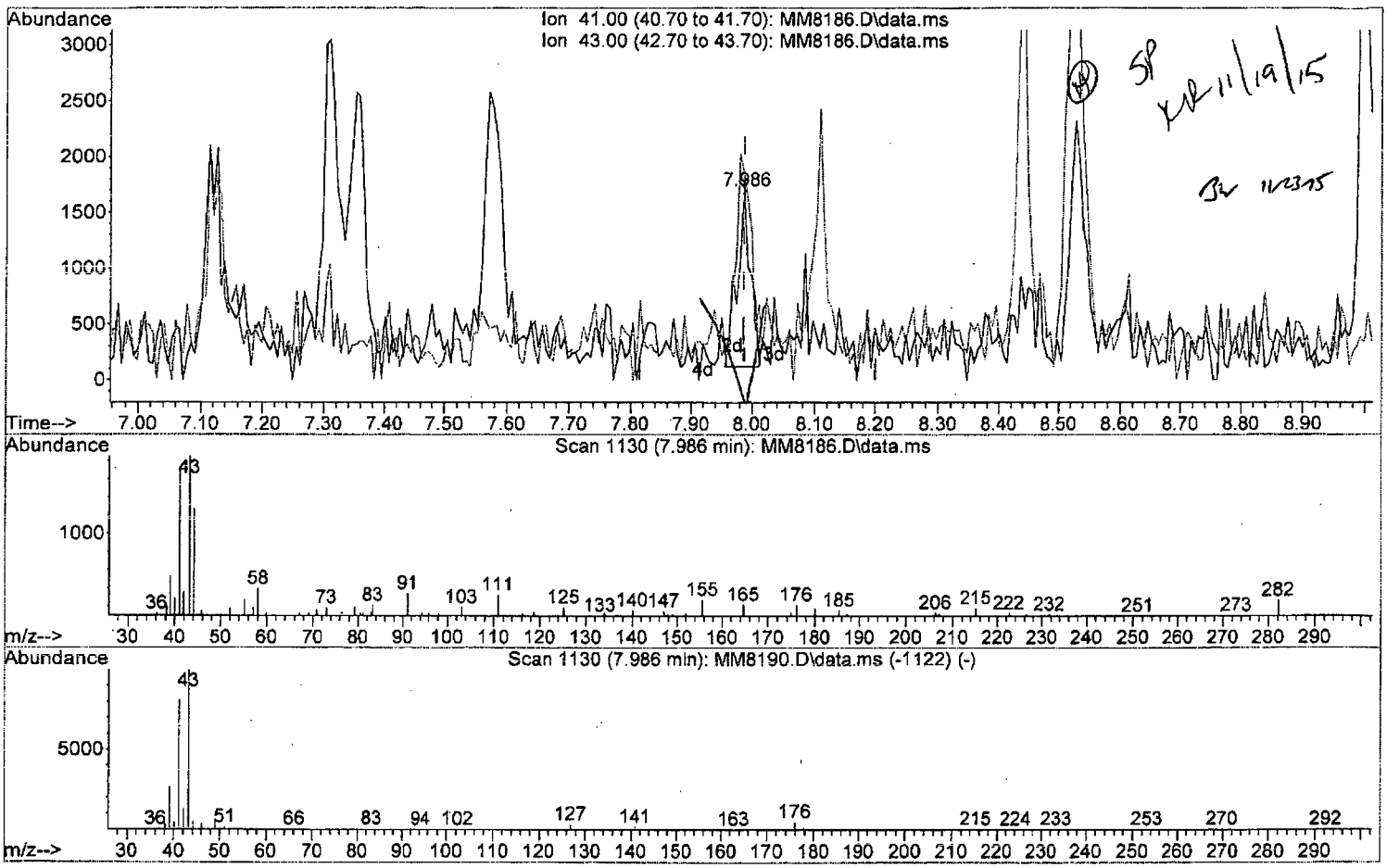
response 1743

Ion	Exp%	Act%
41.00	100	100
43.00	123.30	108.72
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:06:41 2015 Page: 1

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(61) 2-Nitropropane

7.986min (-0.000) 1.86 ppb m

response 2354

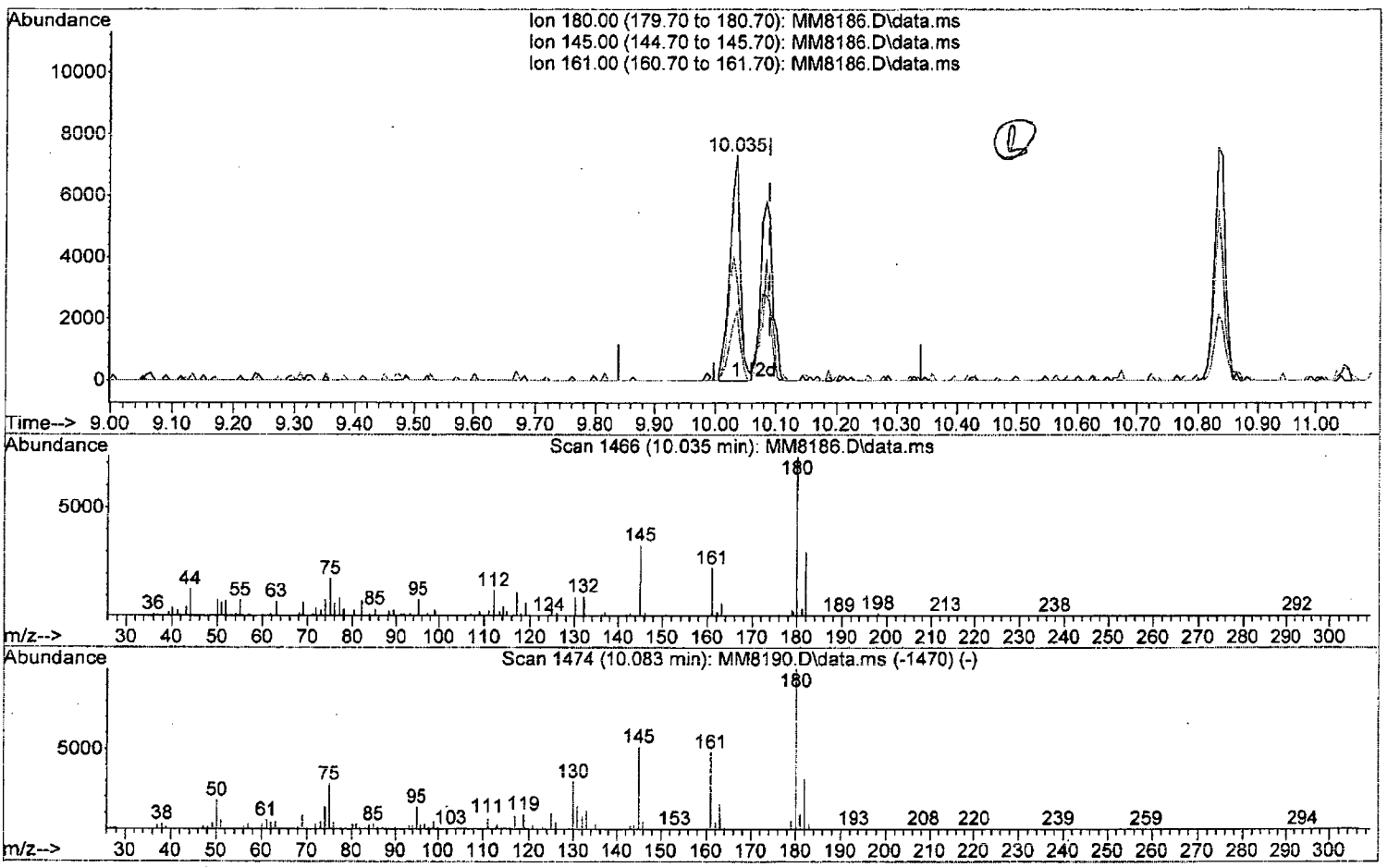
Ion	Exp%	Act%
41.00	100	100
43.00	123.30	108.72
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:06:57 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(80) 4-CBTF

10.035min (-0.055) 1.13 ppb

response 8890

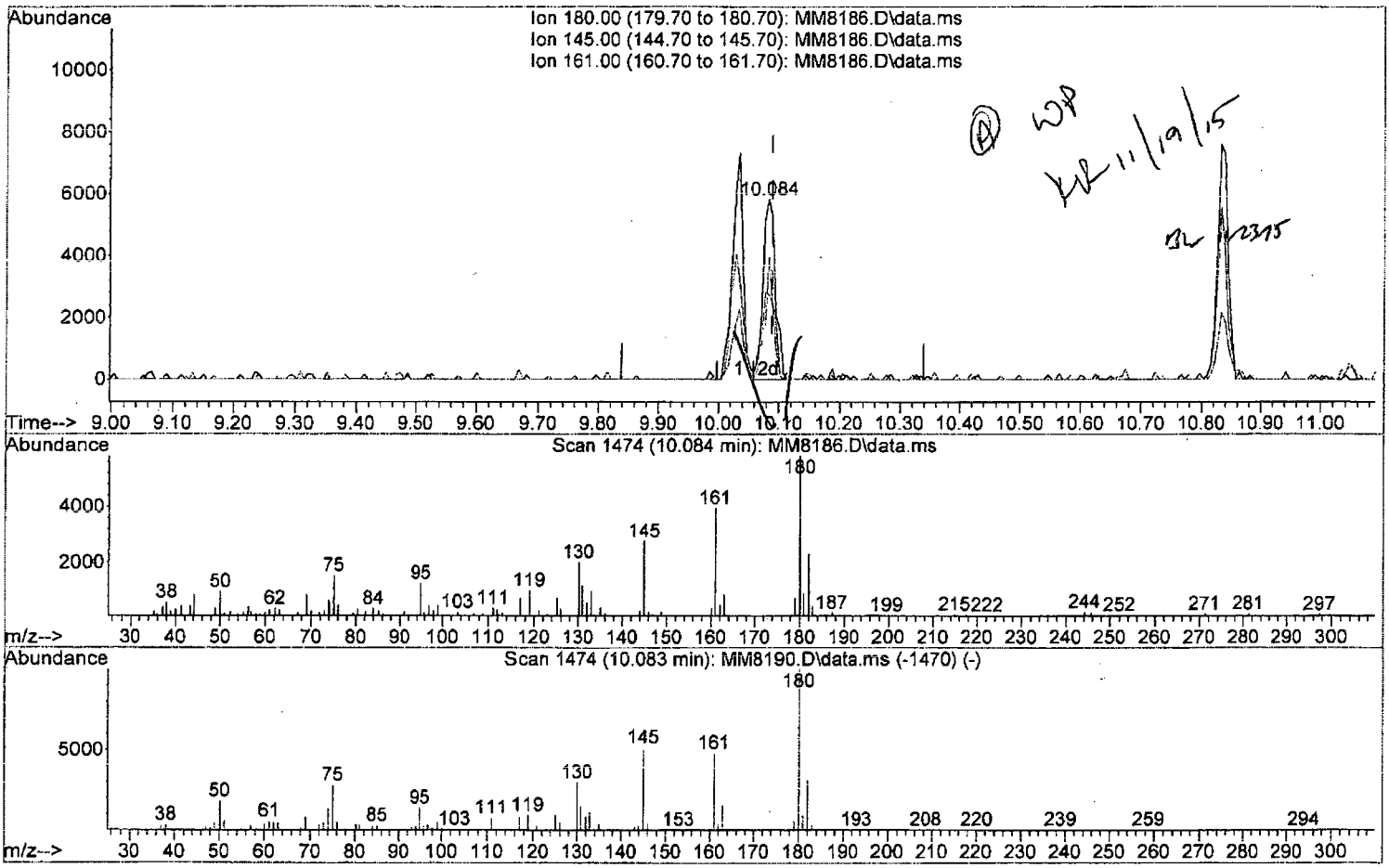
Ion	Exp%	Act%
180.00	100	100
145.00	51.80	44.88
161.00	47.80	30.85
0.00	0.00	0.00

W111815.M Thu Nov 19 10:07:27 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(80) 4-CBTF

10.084min (-0.006) 1.04 ppb m

response 8238

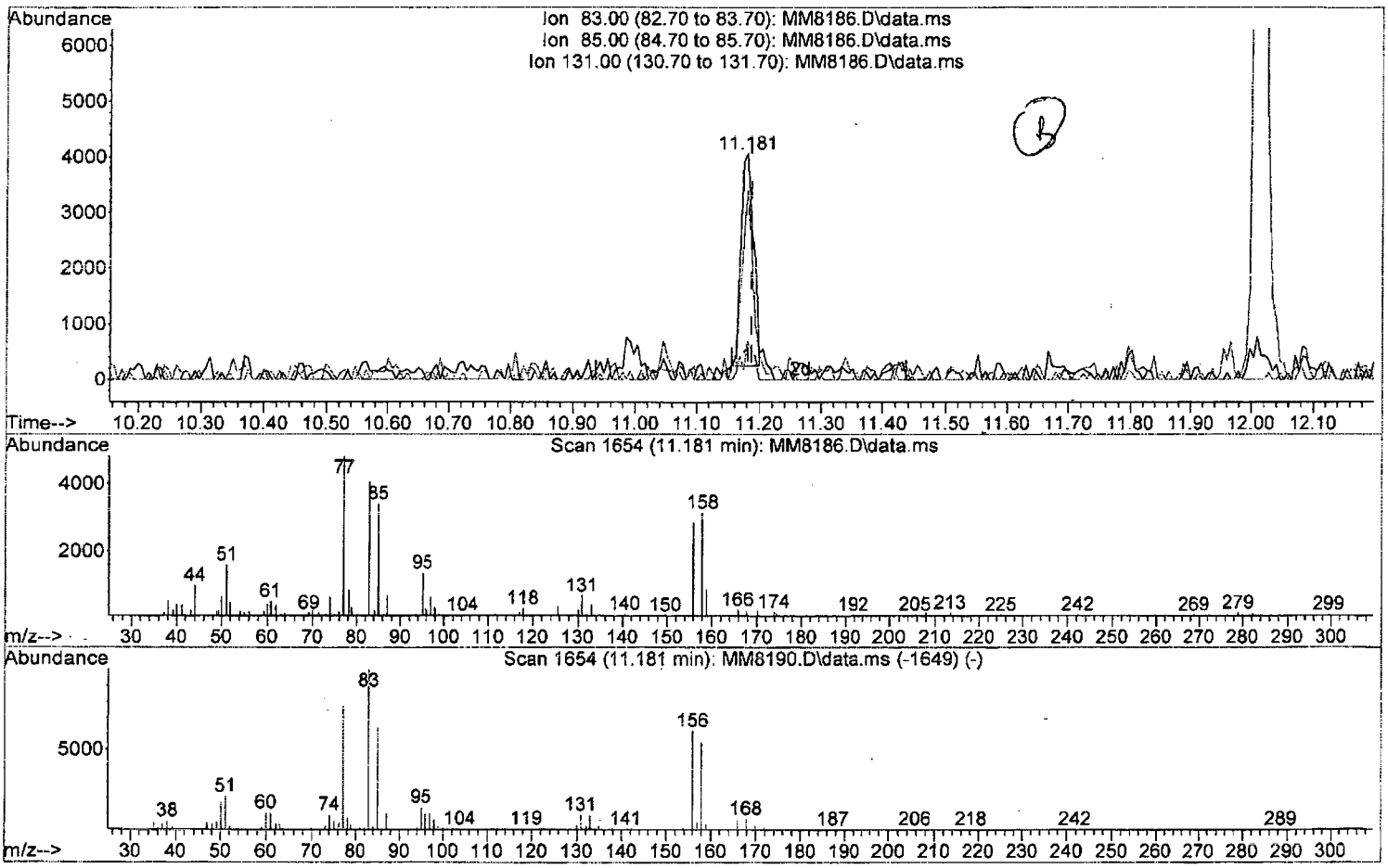
Ion	Exp%	Act%
180.00	100	100
145.00	51.80	47.49
161.00	47.80	67.95#
0.00	0.00	0.00

W111815.M Thu Nov 19 10:07:34 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(92) 1,1,2,2-Tetrachloroethane (P)

11.181min (-0.006) 0.86 ppb

response 5194

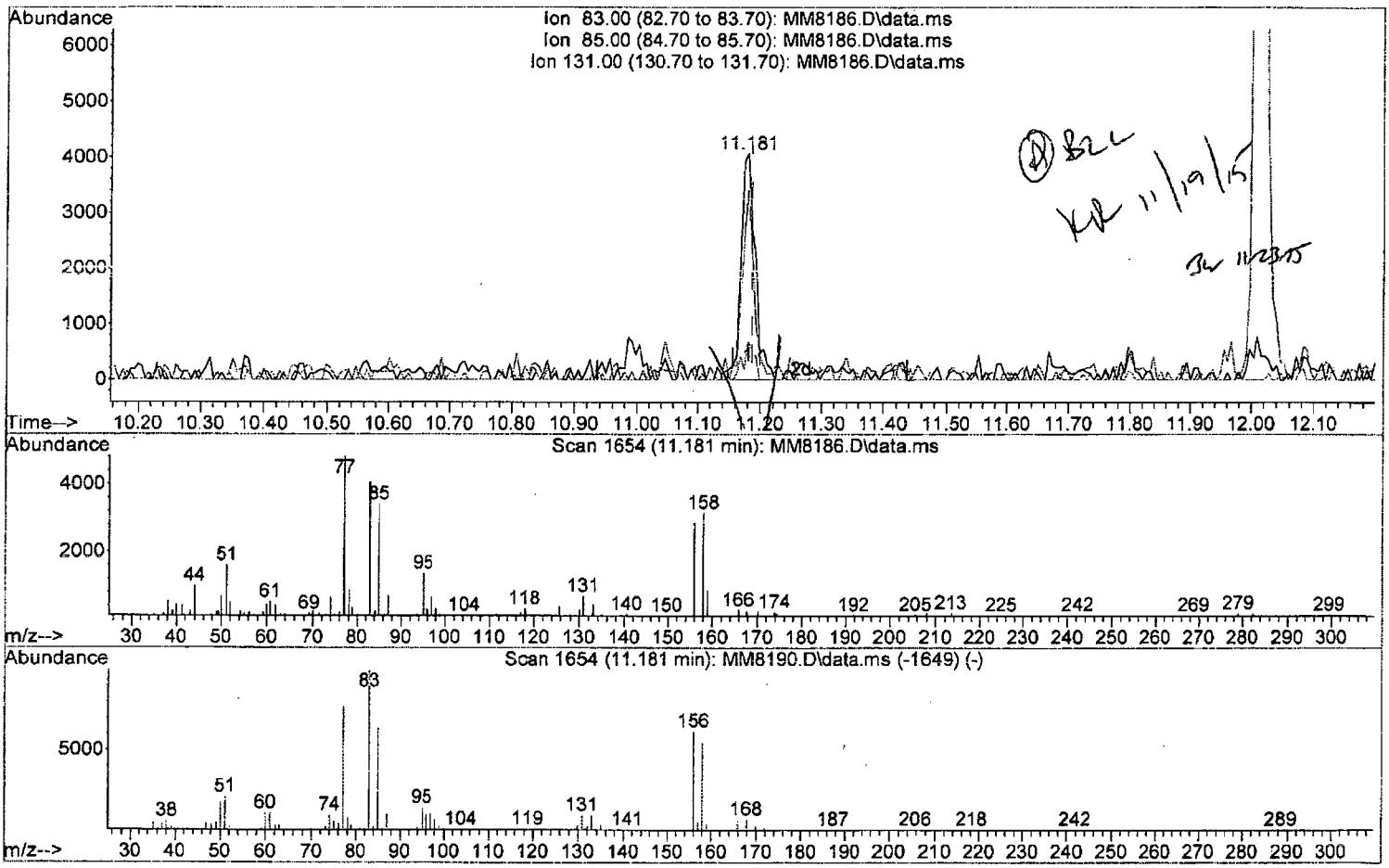
Ion	Exp%	Act%
83.00	100	100
85.00	63.60	83.77#
131.00	9.20	16.80
0.00	0.00	0.00

W111815.M Thu Nov 19 10:07:51 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(92) 1,1,2,2-Tetrachloroethane (P)

11.181min (-0.006) 1.07 ppb m

response 6432

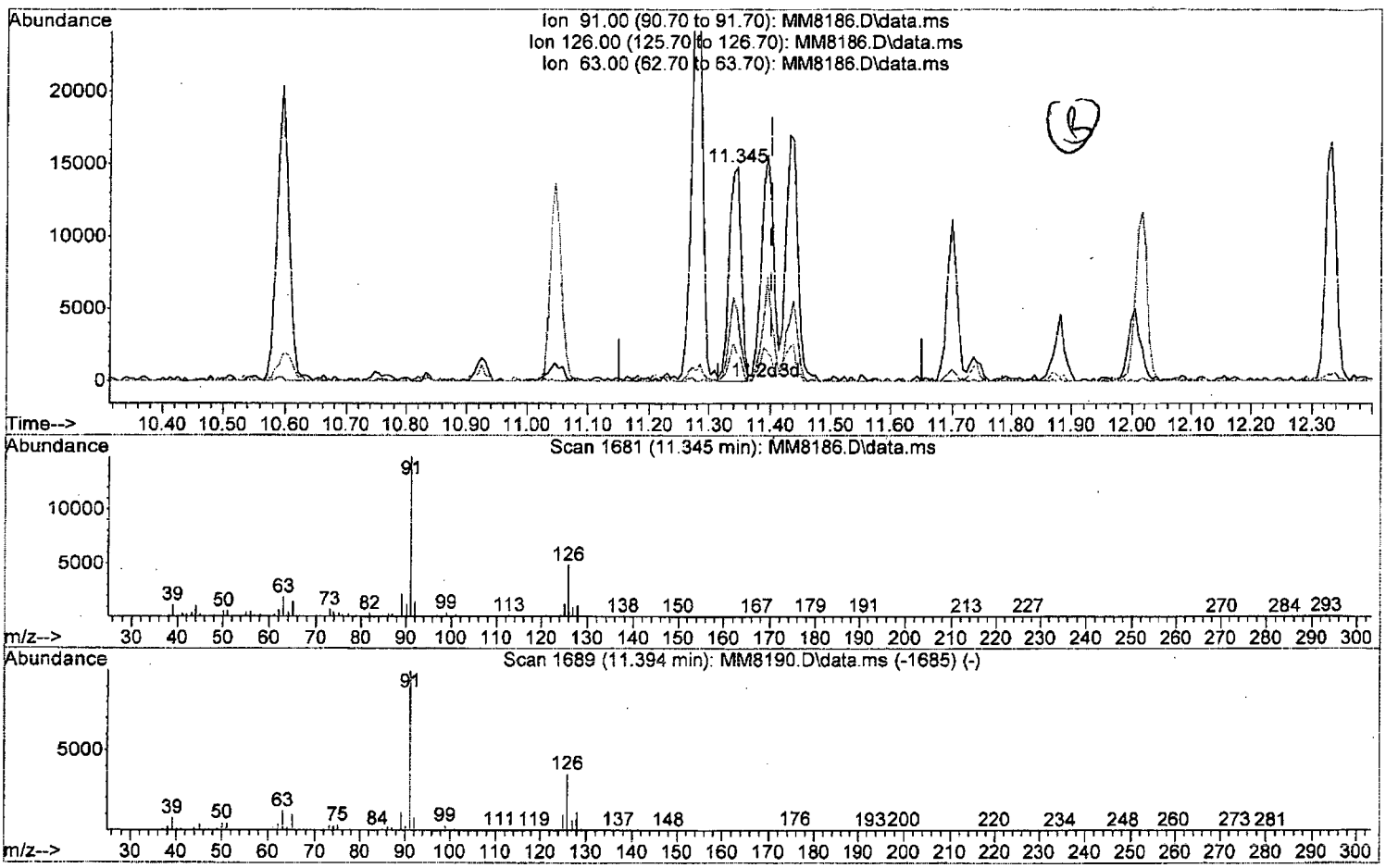
Ion	Exp%	Act%
83.00	100	100
85.00	63.60	83.77#
131.00	9.20	16.80
0.00	0.00	0.00

W111815.M Thu Nov 19 10:07:58 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(97) 3-Chlorotoluene

11.345min (-0.055) 0.95 ppb

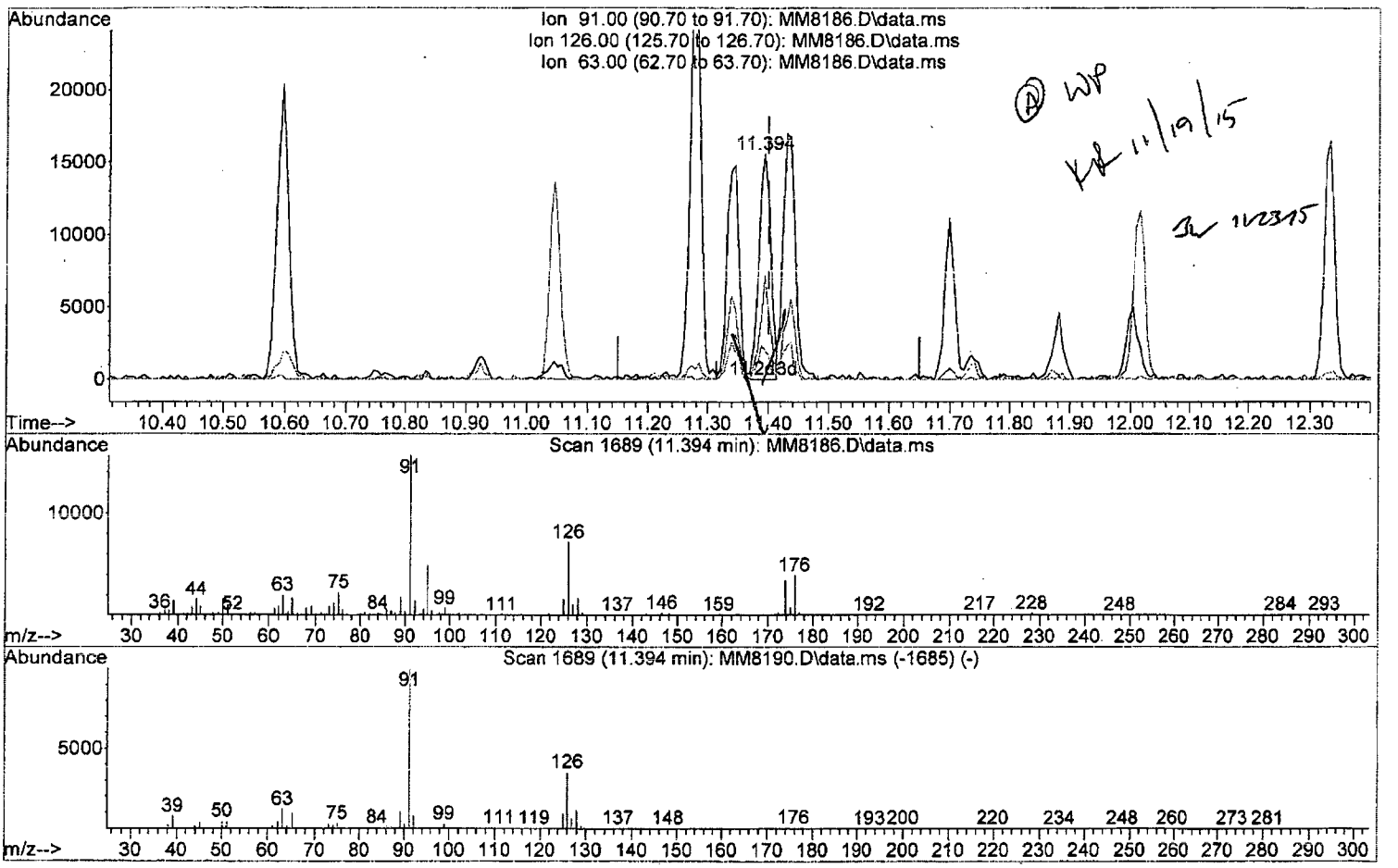
response 20042

Ion	Exp%	Act%
91.00	100	100
126.00	35.20	32.78
63.00	12.10	12.79
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 09:35:50 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8186.D\data.ms

(97) 3-Chlorotoluene

11.394min (-0.006) 1.01 ppb m

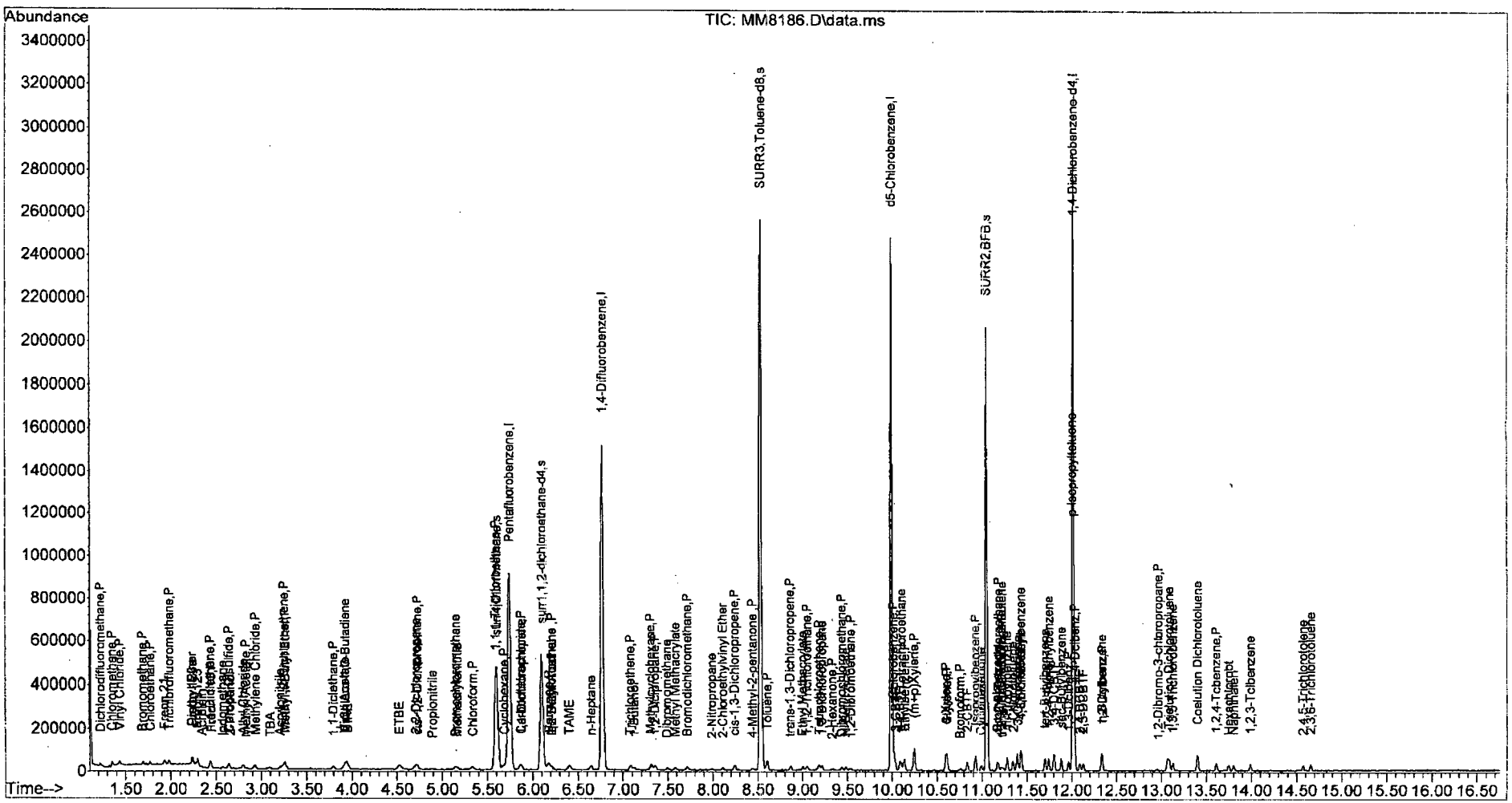
response 21392

Ion	Exp%	Act%
91.00	100	100
126.00	35.20	45.92#
63.00	12.10	12.97
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8186.D
Acq On : 18 Nov 2015 5:10 pm
Operator : K.Ruest
Sample : 1.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 10:08:24 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 10:30:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	761220	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1261233	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1134883	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	567136	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	426248	60.27	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 120.54%#				
48) surr1,1,2-dichloroetha...	6.096	65	462111	59.83	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 119.66%				
65) SURR3,Toluene-d8	8.529	98	1817117	59.60	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 119.20%				
70) SURR2,BFB	11.047	95	681412	60.91	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 121.82%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	19630m	1.82	ppb		
3) Chloromethane	1.347	50	26367	2.06	ppb		100
4) Vinyl Chloride	1.433	62	23228	1.95	ppb		97
5) Bromomethane	1.689	94	12452	2.11	ppb		92
6) Chloroethane	1.768	64	13809	2.07	ppb		91
7) Freon 21	1.926	67	26902m	2.09	ppb		
8) Trichlorofluoromethane	1.975	101	19339	2.08	ppb		88
9) Diethyl Ether	2.237	59	10967	1.88	ppb		91
10) Freon 123a	2.237	67	18149	2.16	ppb		93
11) Freon 123	2.292	83	20494	2.10	ppb		97
12) Acrolein	2.347	56	2810	4.33	ppb		85
13) 1,1-Diclethene	2.432	96	12972	1.99	ppb		97
14) Freon 113	2.438	101	12607	2.18	ppb		92
15) Acetone	2.493	43	4914	3.04	ppb		95
16) 2-Propanol	2.670	45	12966	42.11	ppb		85
17) Iodomethane	2.573	142	12617m	1.77	ppb		
18) Carbon Disulfide	2.634	76	46103	2.17	ppb		95
19) Acetonitrile	2.768	40	2255	10.02	ppb	#	79
20) Allyl Chloride	2.798	76	6762	1.91	ppb	#	74
21) Methyl Acetate	2.841	43	8044	2.13	ppb		97
22) Methylene Chloride	2.926	84	16272	2.21	ppb		90
23) TBA	3.097	59	19908	39.84	ppb		98
24) Acrylonitrile	3.213	53	19909	10.76	ppb	#	81
25) Methyl-t-Butyl Ether	3.268	73	36529	2.06	ppb		97
26) trans-1,2-Dichloroethene	3.249	96	14800	2.17	ppb	#	79
28) 1,1-Diclethane	3.786	63	25132	2.06	ppb		92
29) Vinyl Acetate	3.914	86	2894m	2.20	ppb		
30) DIPE	3.944	45	52538	2.21	ppb		98
31) 2-Chloro-1,3-Butadiene	3.926	53	26038	2.13	ppb		90
32) ETBE	4.530	59	47683	2.13	ppb		87
33) 2,2-Dichloropropane	4.700	77	20552	2.11	ppb	#	75
34) cis-1,2-Dichloroethene	4.725	96	16202m	2.13	ppb		
35) 2-Butanone	4.786	43	5176m	2.30	ppb		
36) Propionitrile	4.883	54	7224m	10.64	ppb		

KR 11/19/15

W111815.M Thu Nov 19 10:31:03 2015

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 10:30:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	Bromochloromethane	5.145	130	8261m	2.09	ppb		
38)	Methacrylonitrile	5.157	67	4737	2.05	ppb	#	83
39)	Tetrahydrofuran	5.249	42	3117	2.10	ppb		84
40)	Chloroform	5.328	83	23962	2.02	ppb		96
41)	1,1,1-Trichloroethane	5.603	97	19331	2.08	ppb		90
42)	TAME	6.407	73	41257	2.17	ppb		91
44)	Cyclohexane	5.682	41	13705	2.00	ppb		94
46)	Carbontetrachloride	5.859	121	4905	2.02	ppb	#	73
47)	1,1-Dichloropropene	5.871	75	18711	2.09	ppb		94
49)	Benzene	6.169	78	58050	2.09	ppb		97
50)	1,2-Dichloroethane	6.212	62	14828	2.08	ppb		85
51)	Iso-Butyl Alcohol	6.212	43	10719	46.07	ppb		77
52)	n-Heptane	6.639	43	16798	2.20	ppb		79
53)	1-Butanol	7.127	56	16877m	116.00	ppb		
54)	Trichloroethene	7.078	130	13540	1.92	ppb		87
55)	Methylcyclohexane	7.316	55	18529	2.21	ppb	#	80
56)	1,2-Diclpropane	7.358	63	13548	1.97	ppb		87
57)	Dibromomethane	7.498	93	7116m	2.10	ppb		
58)	1,4-Dioxane	7.559	88	2224m	43.47	ppb		
59)	Methyl Methacrylate	7.578	69	8662	2.18	ppb	#	72
60)	Bromodichloromethane	7.712	83	16774	1.99	ppb		91
61)	2-Nitropropane	7.992	41	5596m	4.47	ppb		
62)	2-Chloroethylvinyl Ether	8.108	63	8312	2.19	ppb		98
63)	cis-1,3-Dichloropropene	8.236	75	23217	2.05	ppb		93
64)	4-Methyl-2-pentanone	8.443	43	9911	1.97	ppb		94
66)	Toluene	8.602	91	60621	2.11	ppb		99
67)	trans-1,3-Dichloropropene	8.864	75	18154	2.02	ppb		91
68)	Ethyl Methacrylate	8.998	69	15311	1.93	ppb		89
69)	1,1,2-Trichloroethane	9.053	97	9918	2.04	ppb		98
72)	Tetrachloroethene	9.181	164	9847	2.09	ppb	#	81
73)	2-Hexanone	9.333	43	8140	2.34	ppb		86
74)	1,3-Dichloropropane	9.212	76	18377	2.13	ppb		90
75)	Dibromochloromethane	9.431	129	10916	2.03	ppb		94
76)	N-Butyl Acetate	9.480	43	17047	2.07	ppb		90
77)	1,2-Dibromoethane	9.529	107	9232	2.01	ppb		83
78)	Chlorobenzene	10.016	112	36503	2.17	ppb		90
79)	3-CBTF	10.028	180	17756	2.13	ppb		92
80)	4-CBTF	10.083	180	15972	2.06	ppb		96
81)	1,1,1,2-Tetrachloroethane	10.096	131	11978	2.06	ppb		84
82)	Ethylbenzene	10.132	106	20233	2.13	ppb		98
83)	(m+p)Xylene	10.242	106	50175	4.27	ppb		99
84)	o-Xylene	10.595	106	25571	2.13	ppb		99
85)	Styrene	10.608	104	42037	2.15	ppb		99
87)	Bromoform	10.760	173	6538	2.03	ppb		97
88)	2-CBTF	10.839	180	18656	2.17	ppb		87
89)	Isopropylbenzene	10.925	105	63113	2.14	ppb		97
90)	Cyclohexanone	10.992	55	17449	40.81	ppb		84
91)	trans-1,4-Dichloro-2-B...	11.229	53	3610m	1.95	ppb		
92)	1,1,2,2-Tetrachloroethane	11.181	83	12981	2.18	ppb		89
93)	Bromobenzene	11.168	156	14628	2.19	ppb		99
94)	1,2,3-Trichloropropane	11.211	110	3547	2.02	ppb		93

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 10:30:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

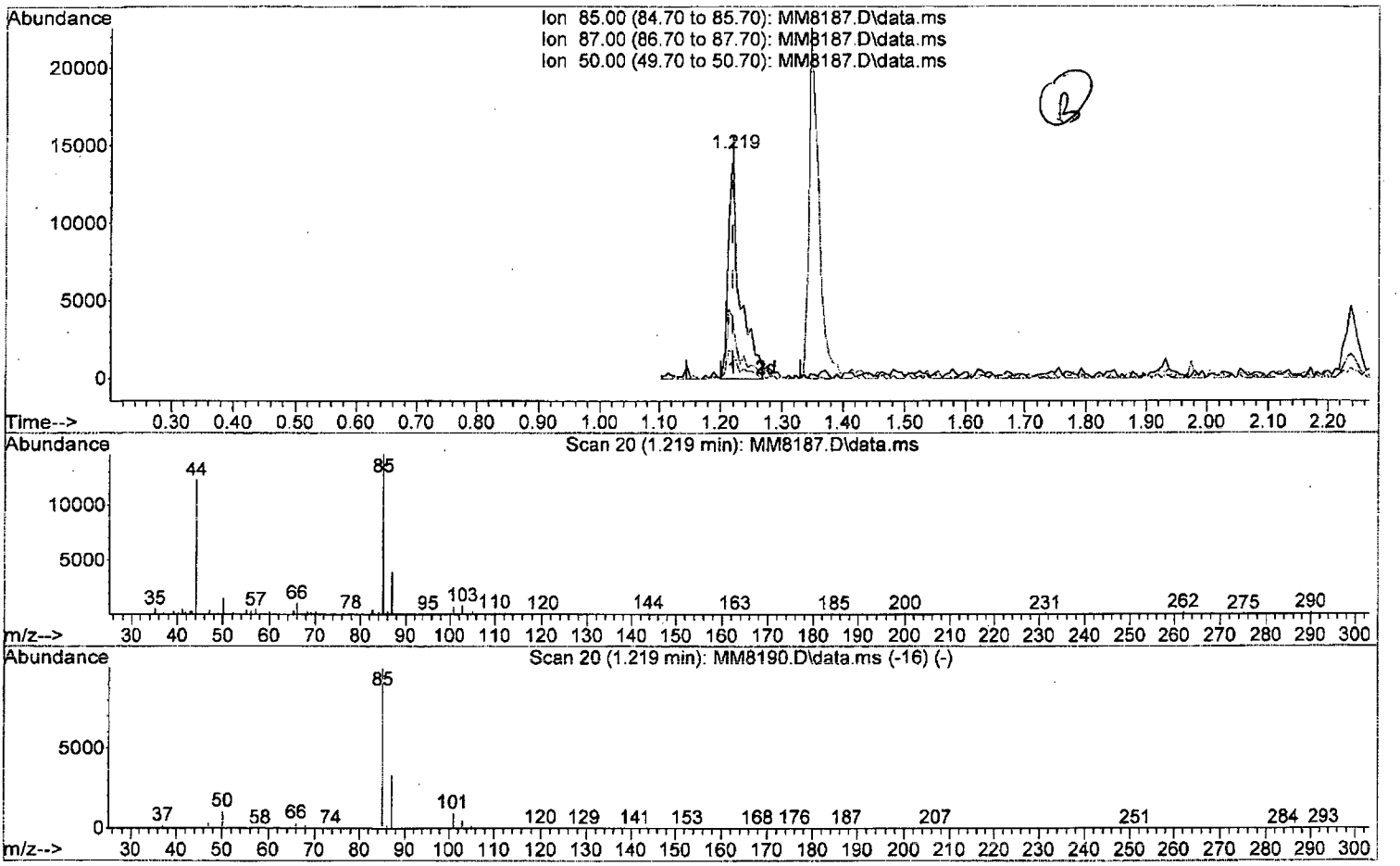
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
95)	n-Propylbenzene	11.278	91	74492	2.19	ppb		93
96)	2-Chlorotoluene	11.339	91	41495	2.08	ppb		94
97)	3-Chlorotoluene	11.394	91	44152	2.11	ppb		95
98)	4-Chlorotoluene	11.437	91	49091	2.18	ppb		95
99)	1,3,5-Trimethylbenzene	11.431	105	48689	2.18	ppb		95
100)	tert-Butylbenzene	11.699	119	41489	2.08	ppb		97
101)	1,2,4-Trimethylbenzene	11.742	105	49599	2.07	ppb		96
102)	3,4-DCBTF	11.796	214	13026	2.26	ppb		95
103)	sec-Butylbenzene	11.882	105	58903	2.11	ppb		95
104)	p-Isopropyltoluene	12.004	119	46482	2.16	ppb		90
105)	1,3-Dclbenz	11.961	146	26952	2.09	ppb		92
106)	1,4-Dclbenz	12.034	146	25381	2.10	ppb		90
107)	2,4-DCBTF	12.083	214	10106	2.01	ppb	#	84
108)	2,5-DCBTF	12.132	214	11449	2.01	ppb		95
109)	n-Butylbenzene	12.333	91	44025	2.16	ppb		91
110)	1,2-Dclbenz	12.333	146	23088	1.94	ppb		97
111)	1,2-Dibromo-3-chloropr...	12.955	157	2386	2.04	ppb	#	77
112)	Trielution Dichlorotol...	13.077	125	63807	6.36	ppb		94
113)	1,3,5 Trichlorobenzene	13.125	180	17771	2.22	ppb		86
114)	Coelution Dichlorotoluene	13.400	125	45098	4.25	ppb		98
115)	1,2,4-Tcbenzene	13.607	180	14634	2.00	ppb		91
116)	Hexachlorobt	13.747	225	6685	2.14	ppb		89
117)	Naphthalen	13.802	128	32930	2.16	ppb		93
118)	1,2,3-Tclbenzene	13.985	180	12030	1.97	ppb	#	79
119)	2,4,5-Trichlorotolene	14.570	159	9031	1.95	ppb		96
120)	2,3,6-Trichlorotoluene	14.656	159	9505	2.32	ppb		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(2) Dichlorodifluoromethane (P)

1.219min (-0.000) 1.75 ppb

response 18830

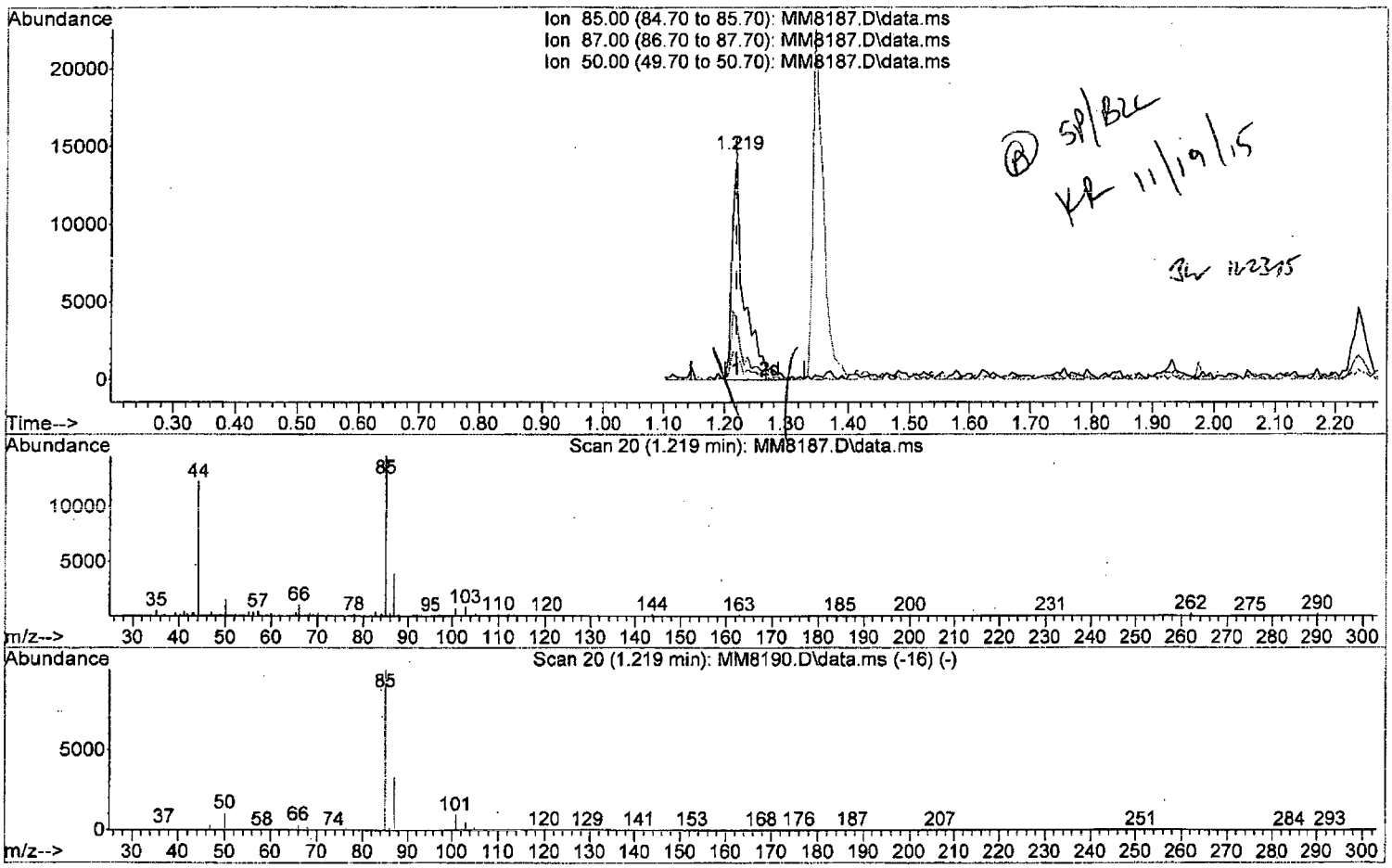
Ion	Exp%	Act%
85.00	100	100
87.00	32.70	26.76
50.00	10.60	10.62
0.00	0.00	0.00

W111815.M Thu Nov 19 10:20:08 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(2) Dichlorodifluoromethane (P)

1.219min (-0.000) 1.82 ppb m

response 19630

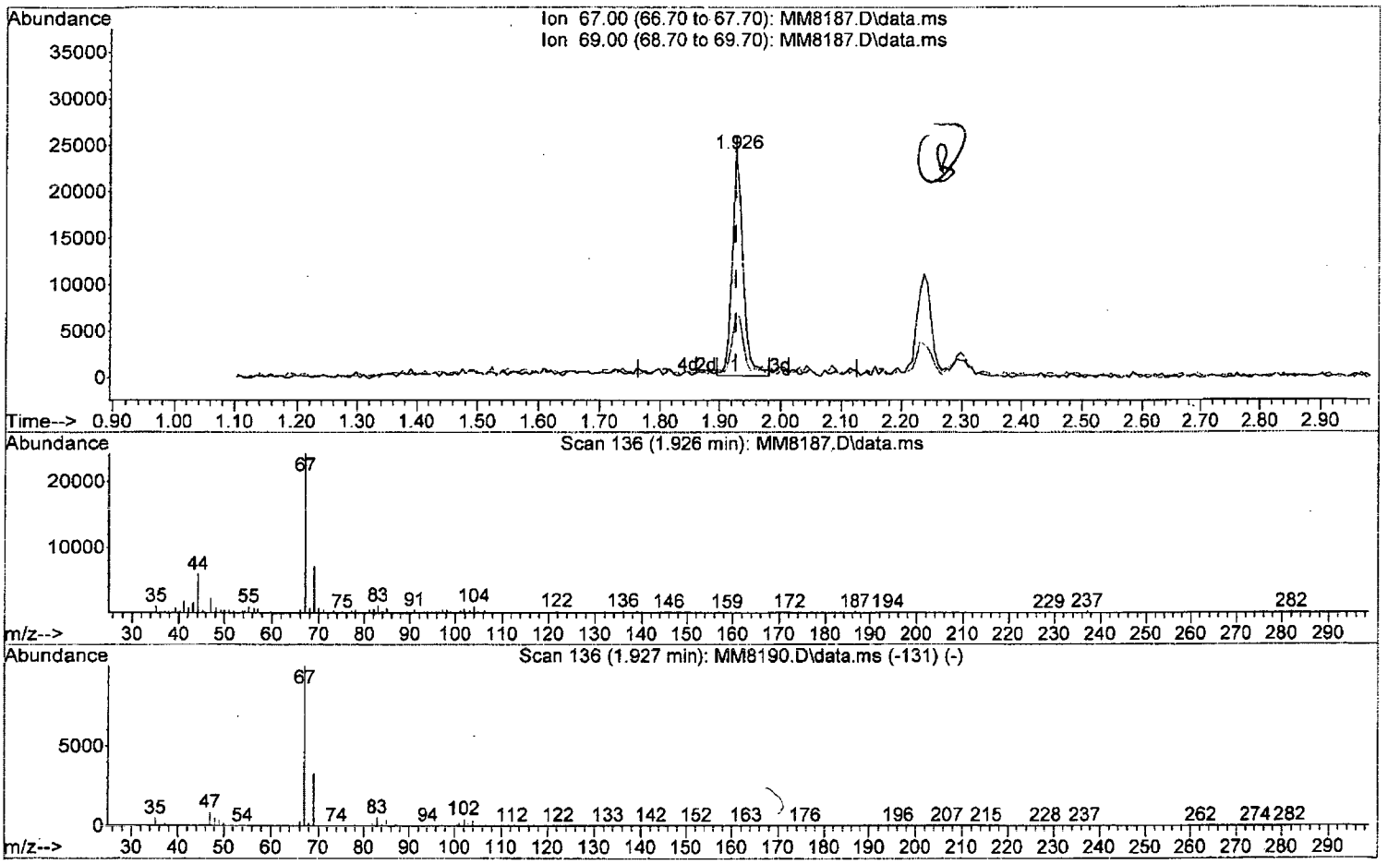
Ion	Exp%	Act%
85.00	100	100
87.00	32.70	26.76
50.00	10.60	10.62
0.00	0.00	0.00

W111815.M Thu Nov 19 10:20:14 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(7) Freon 21

1.926min (-0.000) 2.31 ppb

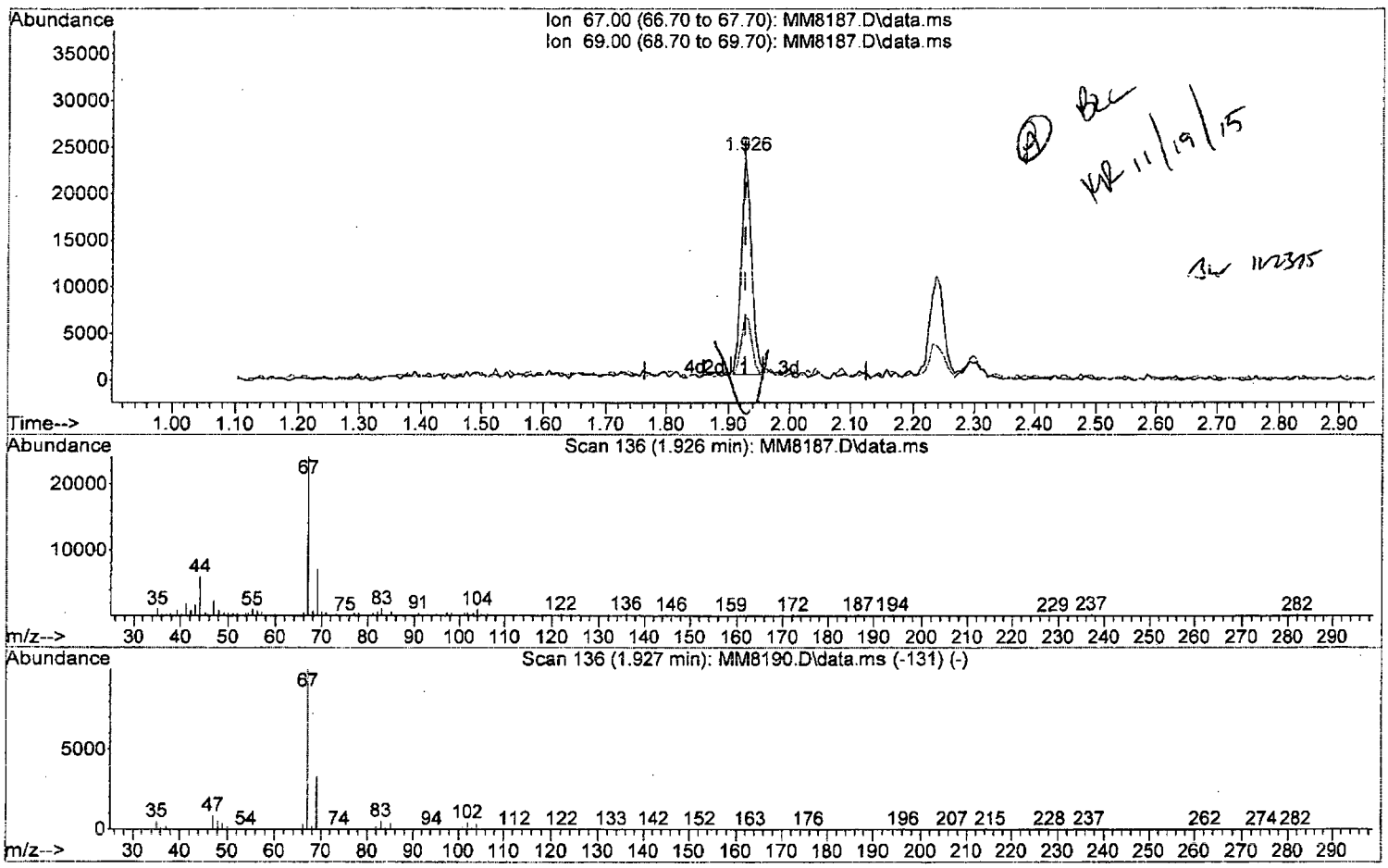
response 29617

Ion	Exp%	Act%
67.00	100	100
69.00	33.10	29.18
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(7) Freon 21

1.926min (-0.000) 2.09 ppb m

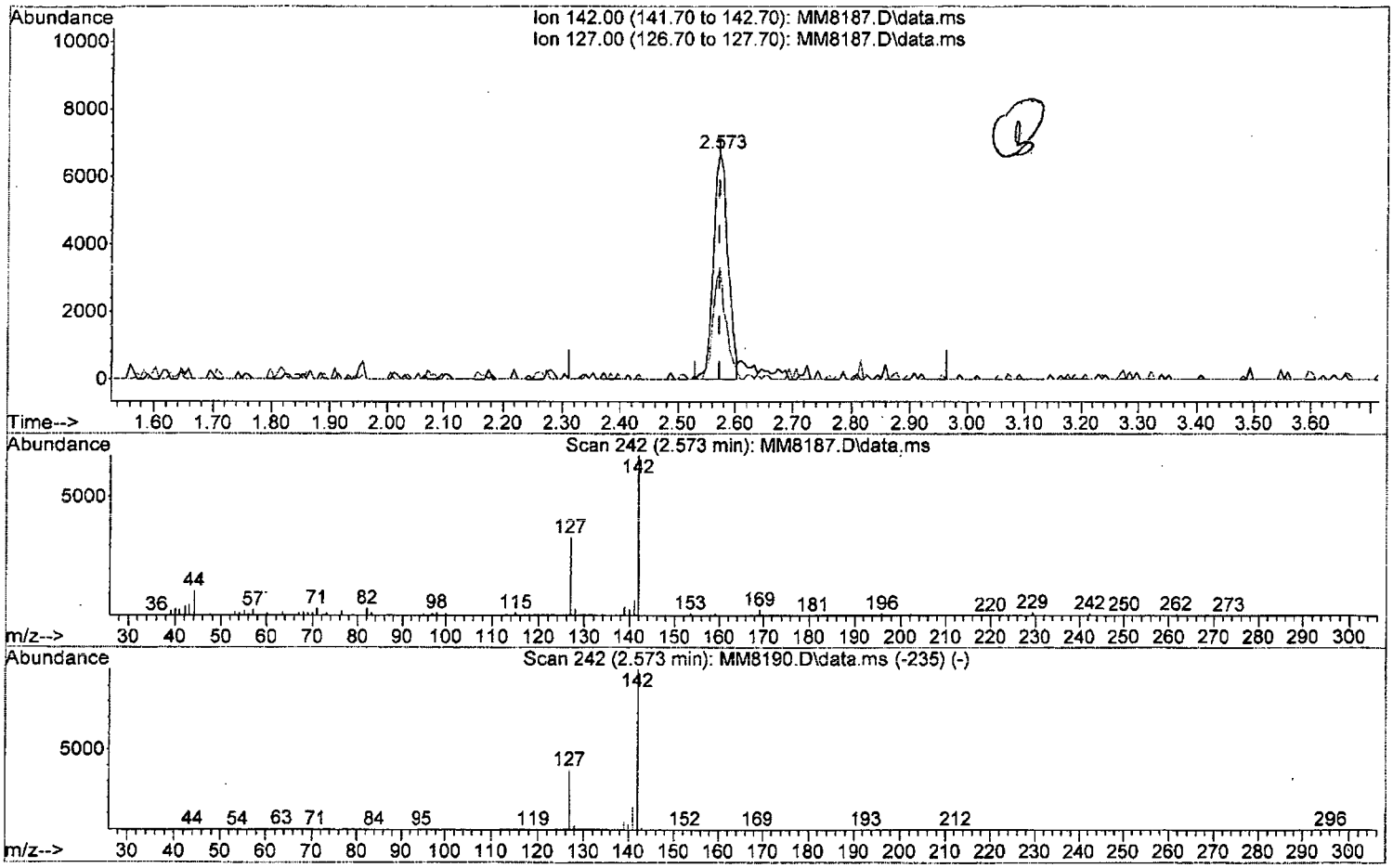
response 26902

Ion	Exp%	Act%
67.00	100	100
69.00	33.10	29.18
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(17) Iodomethane

2.573min (+0.001) 1.65 ppb

response 11773

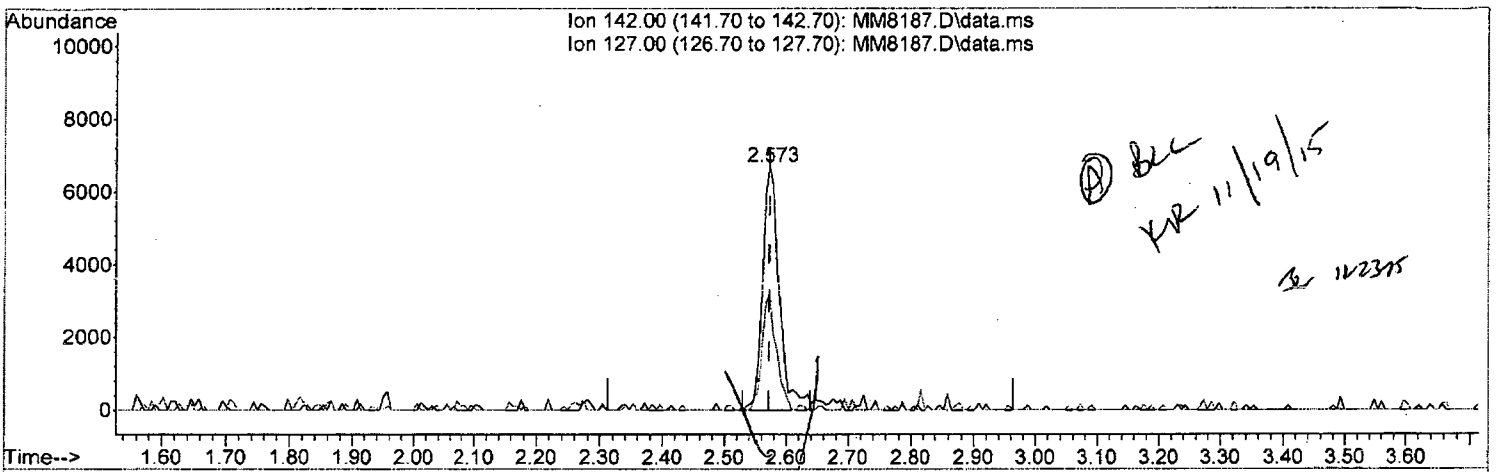
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	49.54
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:21:47 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(17) Iodomethane

2.573min (+0.001) 1.77 ppb m

response 12617

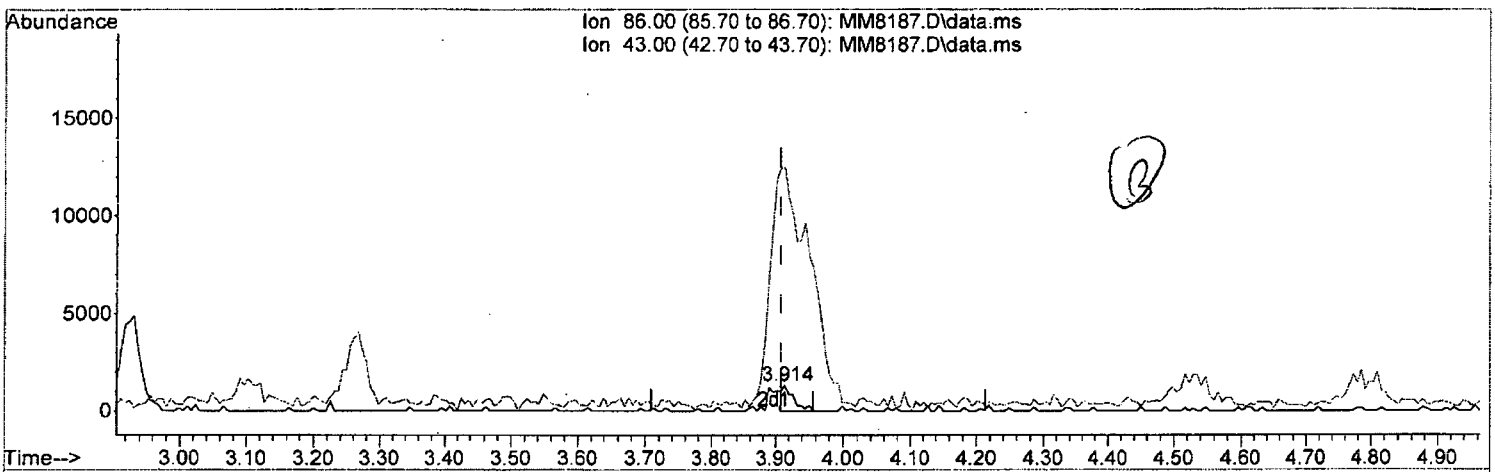
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	49.54
0.00	0.00	0.00
0.00	0.00	0.00

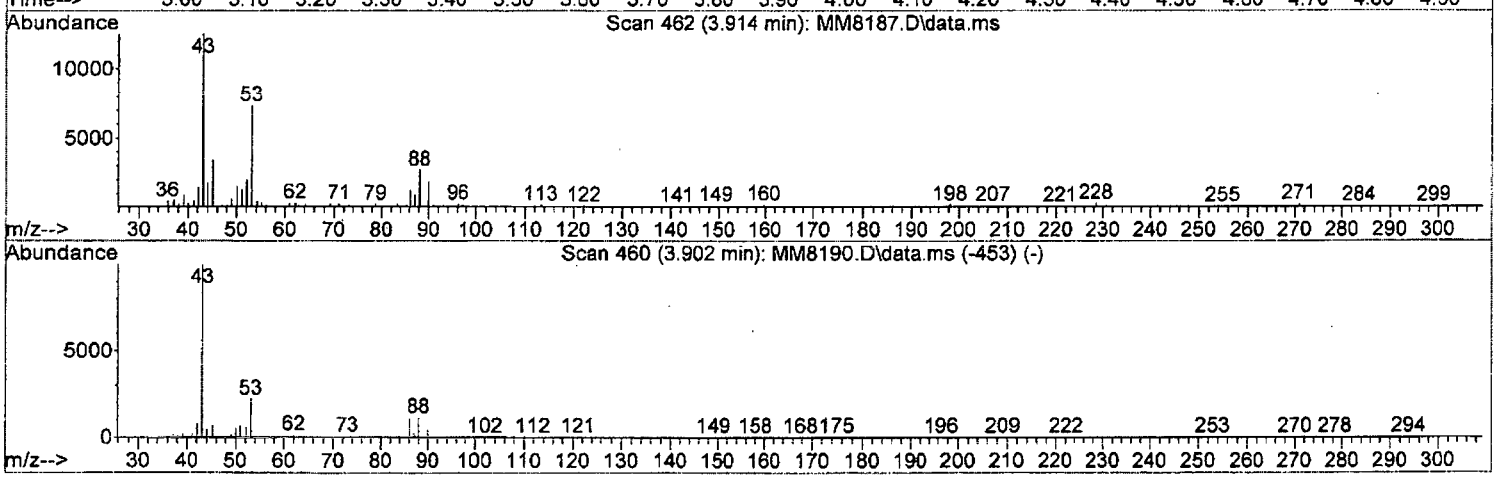
W111815.M Thu Nov 19 10:21:59 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration





TIC: MM8187.D\data.ms

(29) Vinyl Acetate

3.914min (+0.006) 1.11 ppb

response 1463

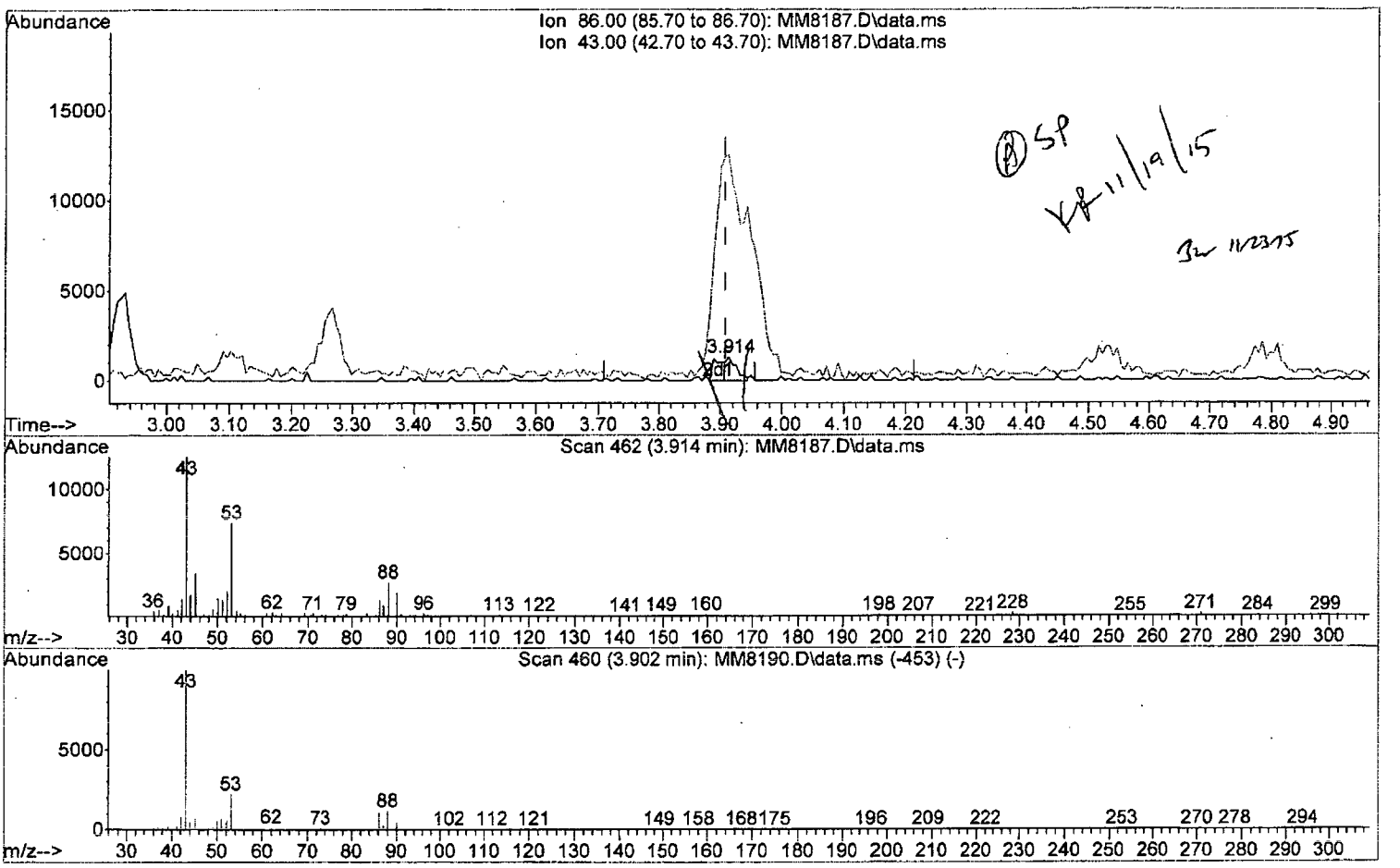
Ion	Exp%	Act%
86.00	100	100
43.00	979.70	957.56#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:22:20 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(29) Vinyl Acetate

3.914min (+0.006) 2.20 ppb m

response 2894

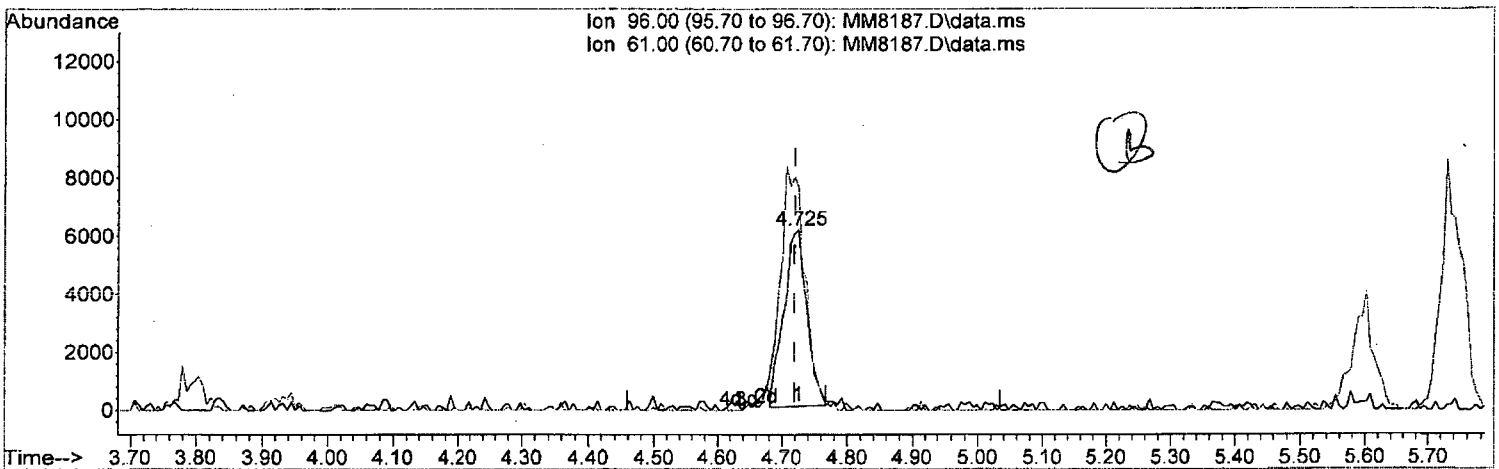
Ion	Exp%	Act%
86.00	100	100
43.00	979.70	957.56#
0.00	0.00	0.00
0.00	0.00	0.00

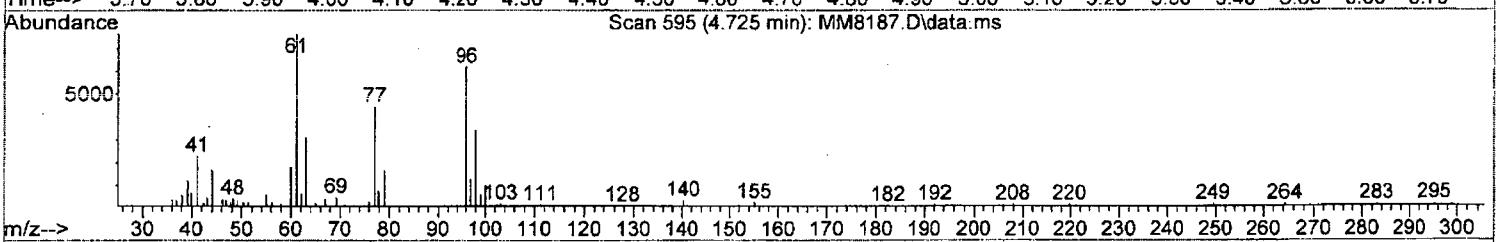
W111815.M Thu Nov 19 10:22:28 2015 Page: 1

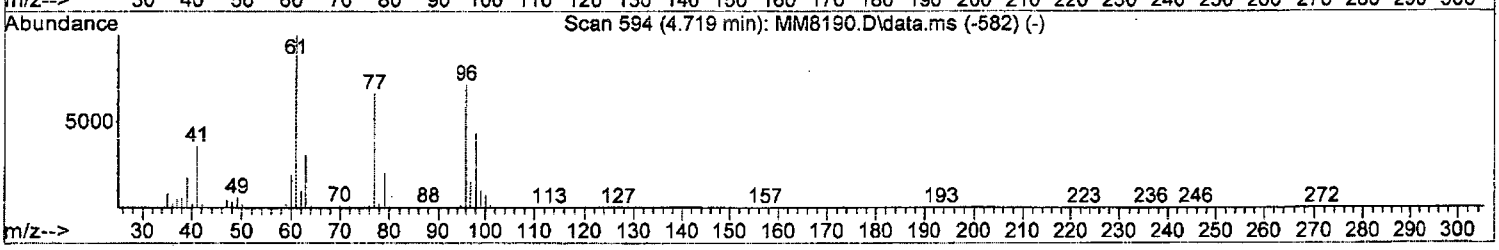
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8187.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.725min (+0.006) 1.97 ppb

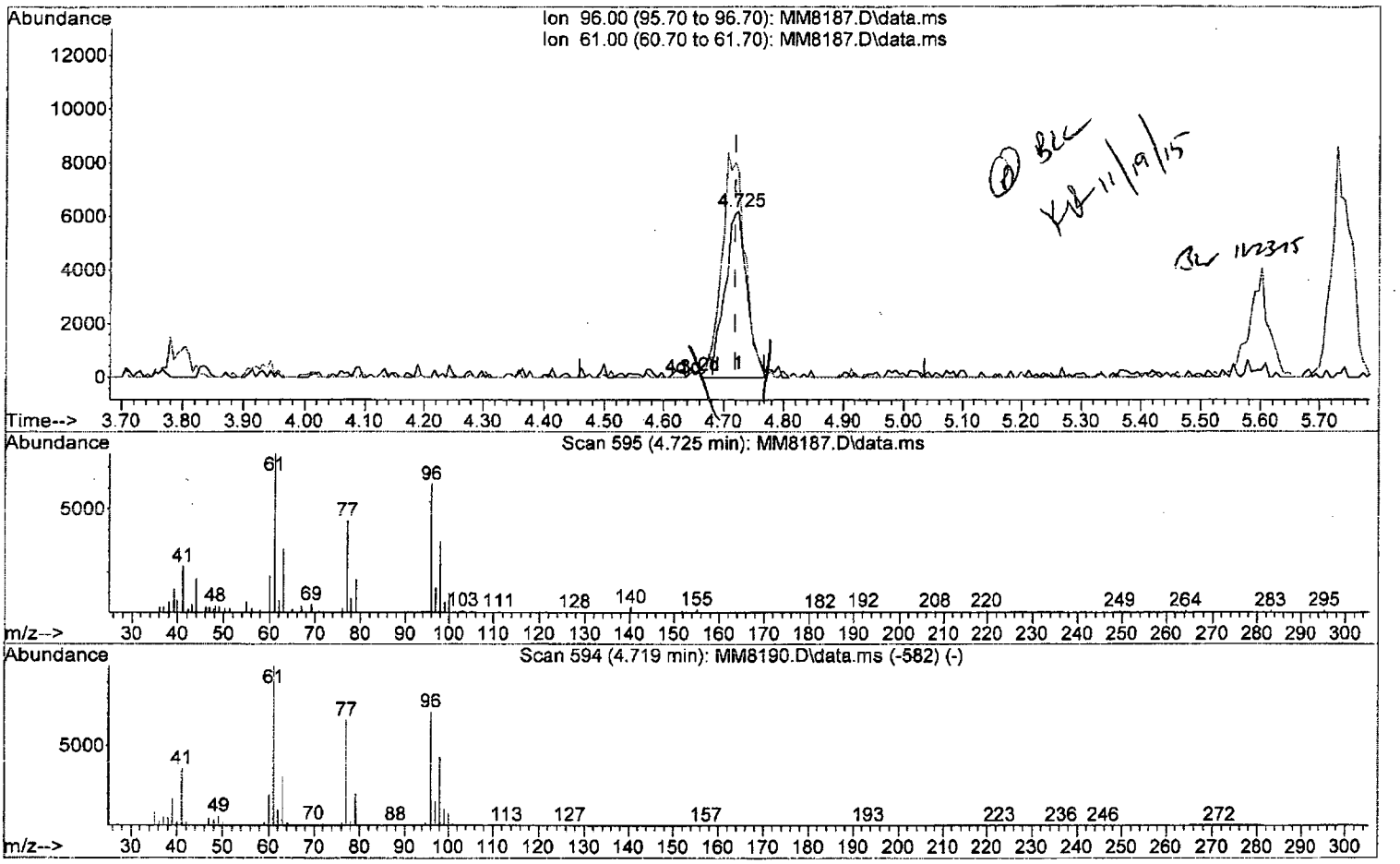
response 14951

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	123.36
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.725min (+0.006) 2.13 ppb m

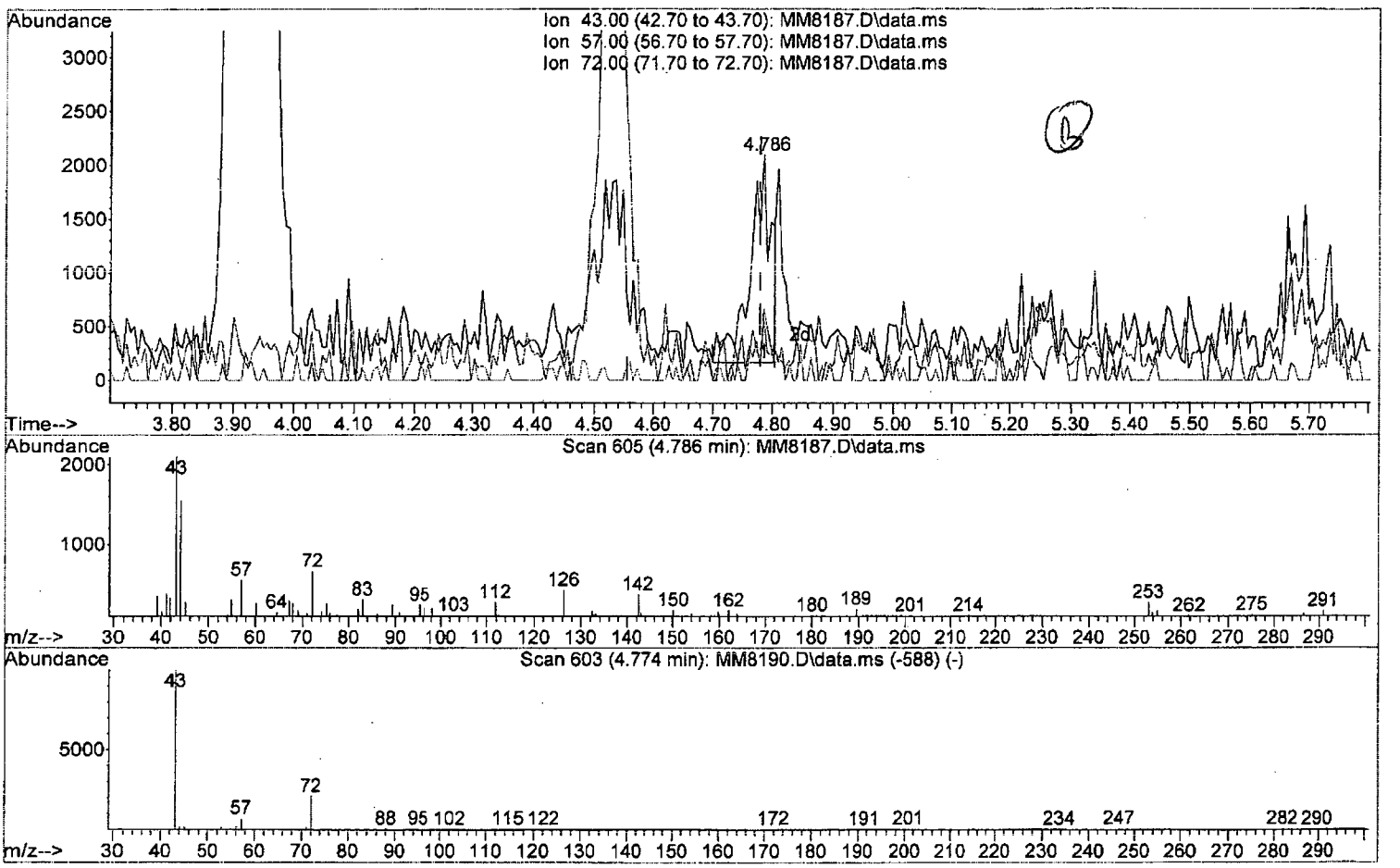
response 16202

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	123.36
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(35) 2-Butanone (P)

4.786min (+0.006) 2.09 ppb

response 4696

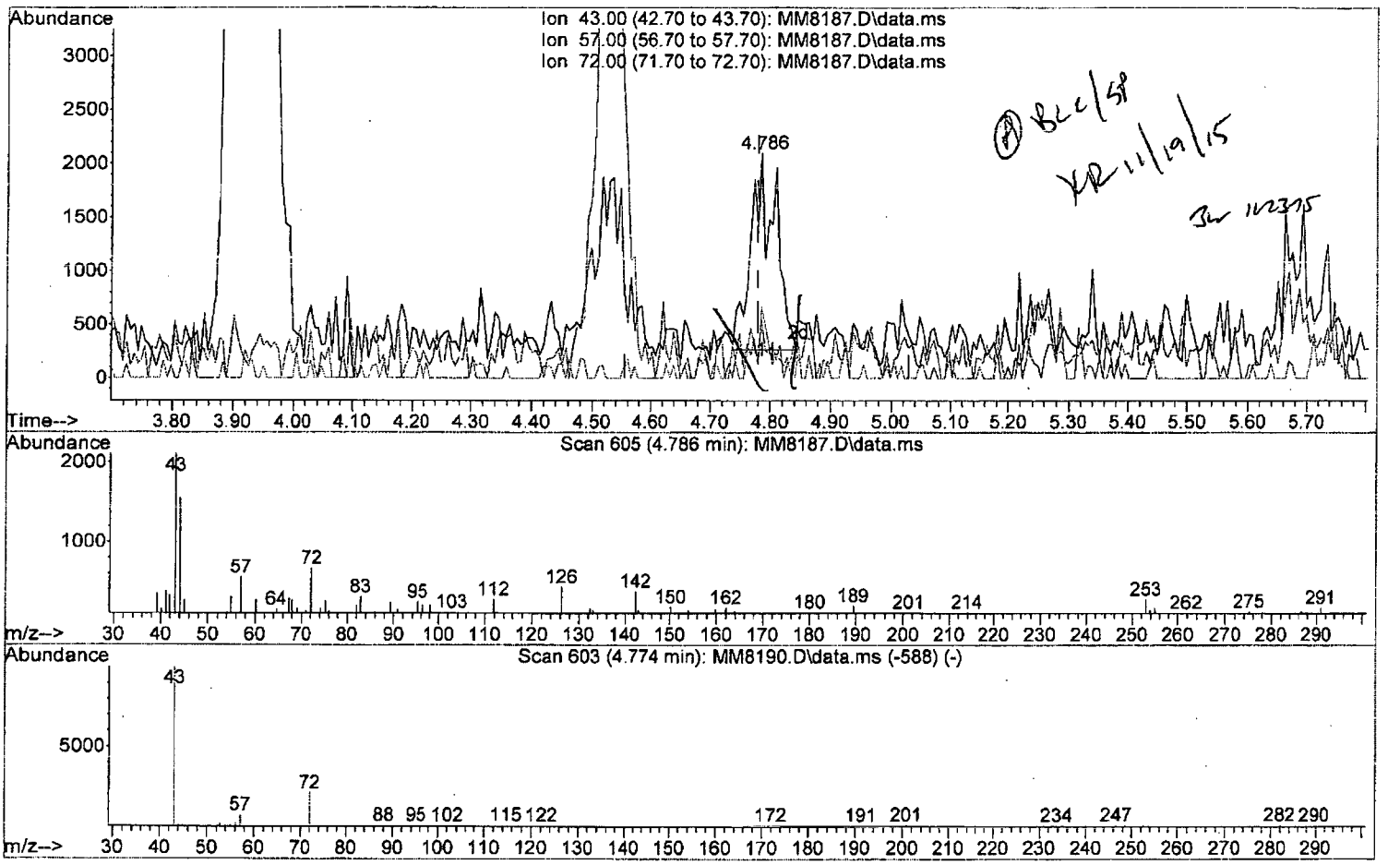
Ion	Exp%	Act%
43.00	100	100
57.00	7.50	26.42
72.00	21.20	31.72
0.00	0.00	0.00

W111815.M Thu Nov 19 10:23:11 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(35) 2-Butanone (P)

4.786min (+0.006) 2.30 ppb m

response 5176

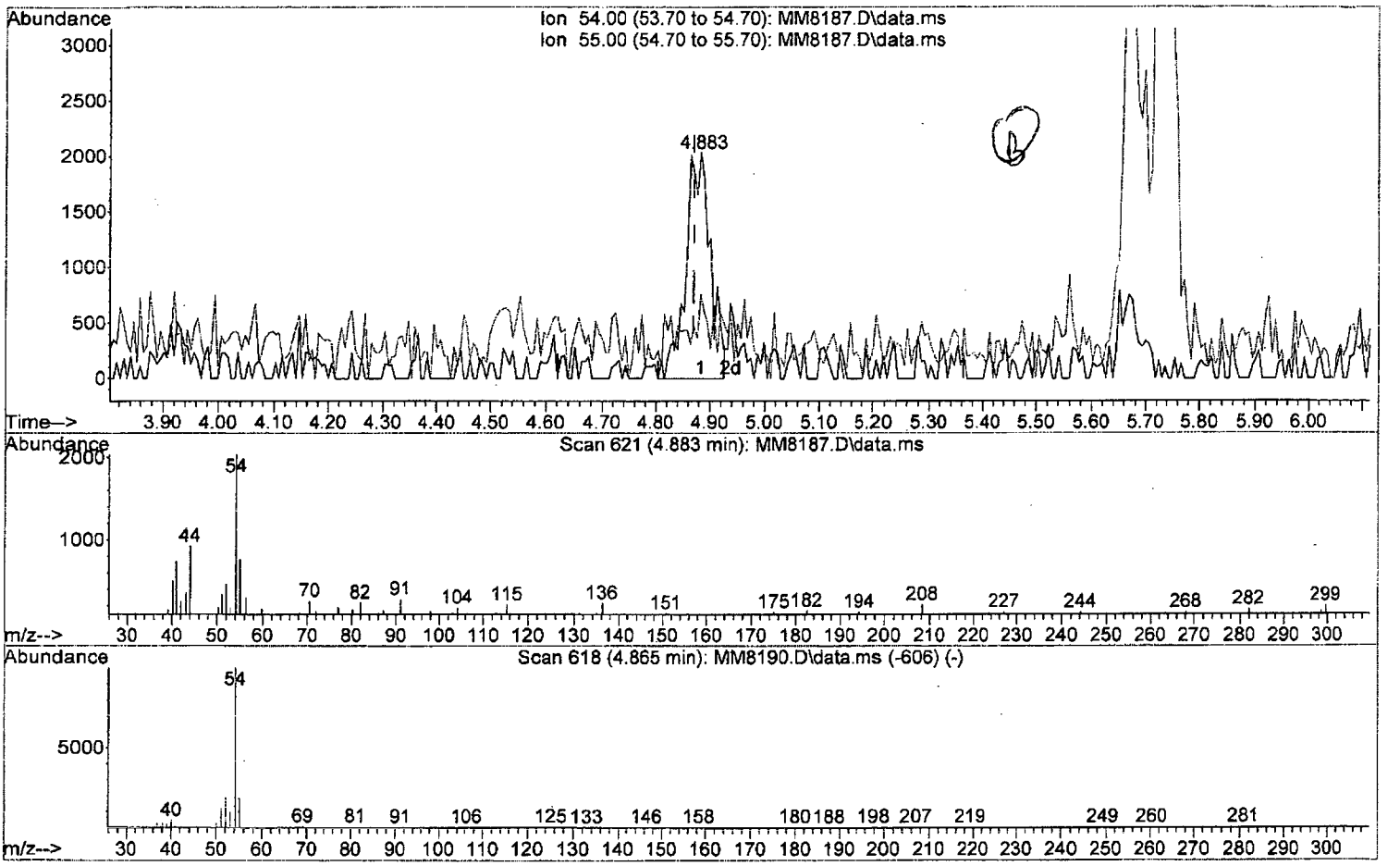
Ion	Exp%	Act%
43.00	100	100
57.00	7.50	26.42
72.00	21.20	31.72
0.00	0.00	0.00

W111815.M Thu Nov 19 10:23:18 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(36) Propionitrile

4.883min (+0.012) 9.36 ppb

response 6355

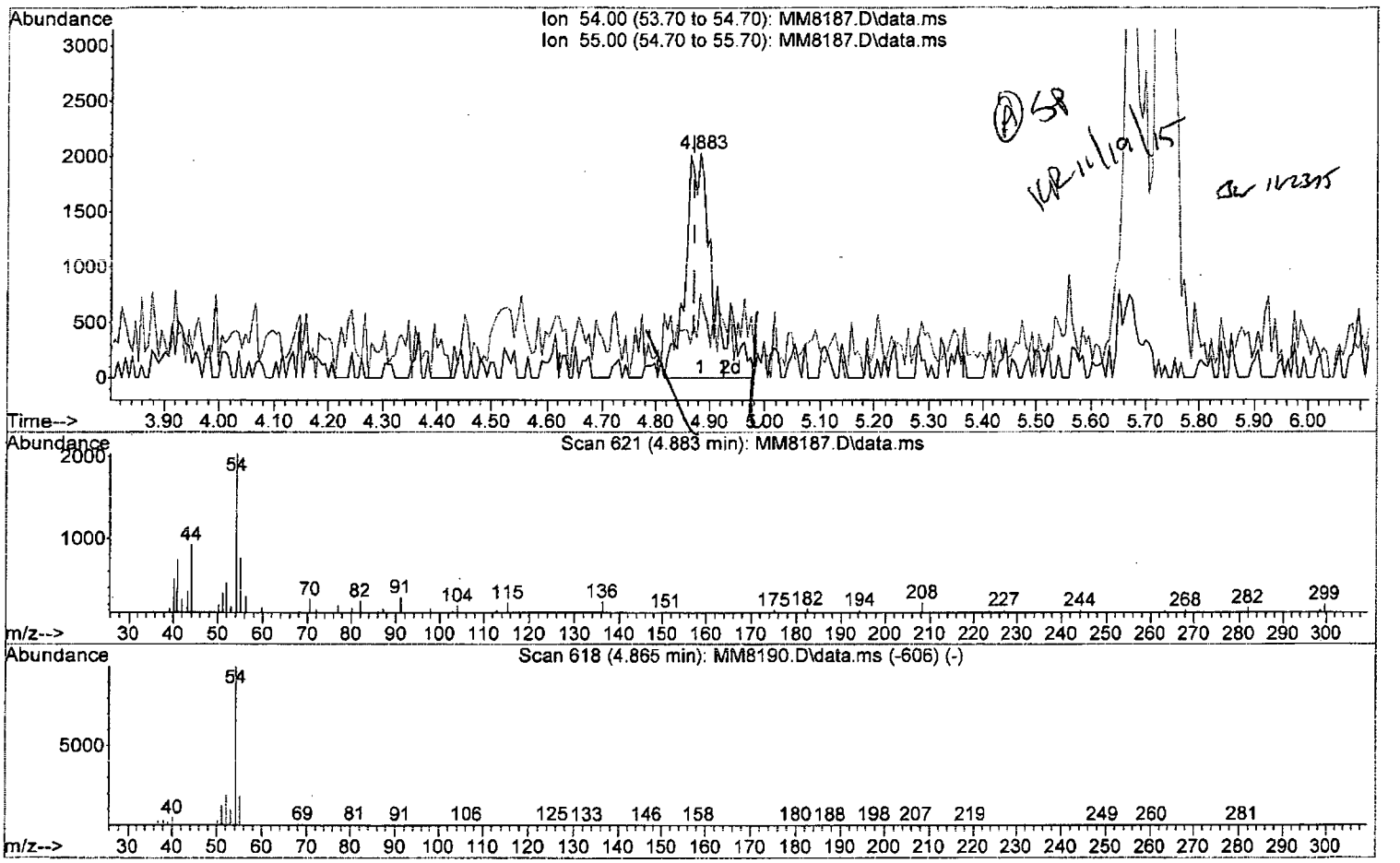
Ion	Exp%	Act%
54.00	100	100
55.00	19.40	37.23
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:23:26 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(36) Propionitrile

4.883min (+0.012) 10.64 ppb m

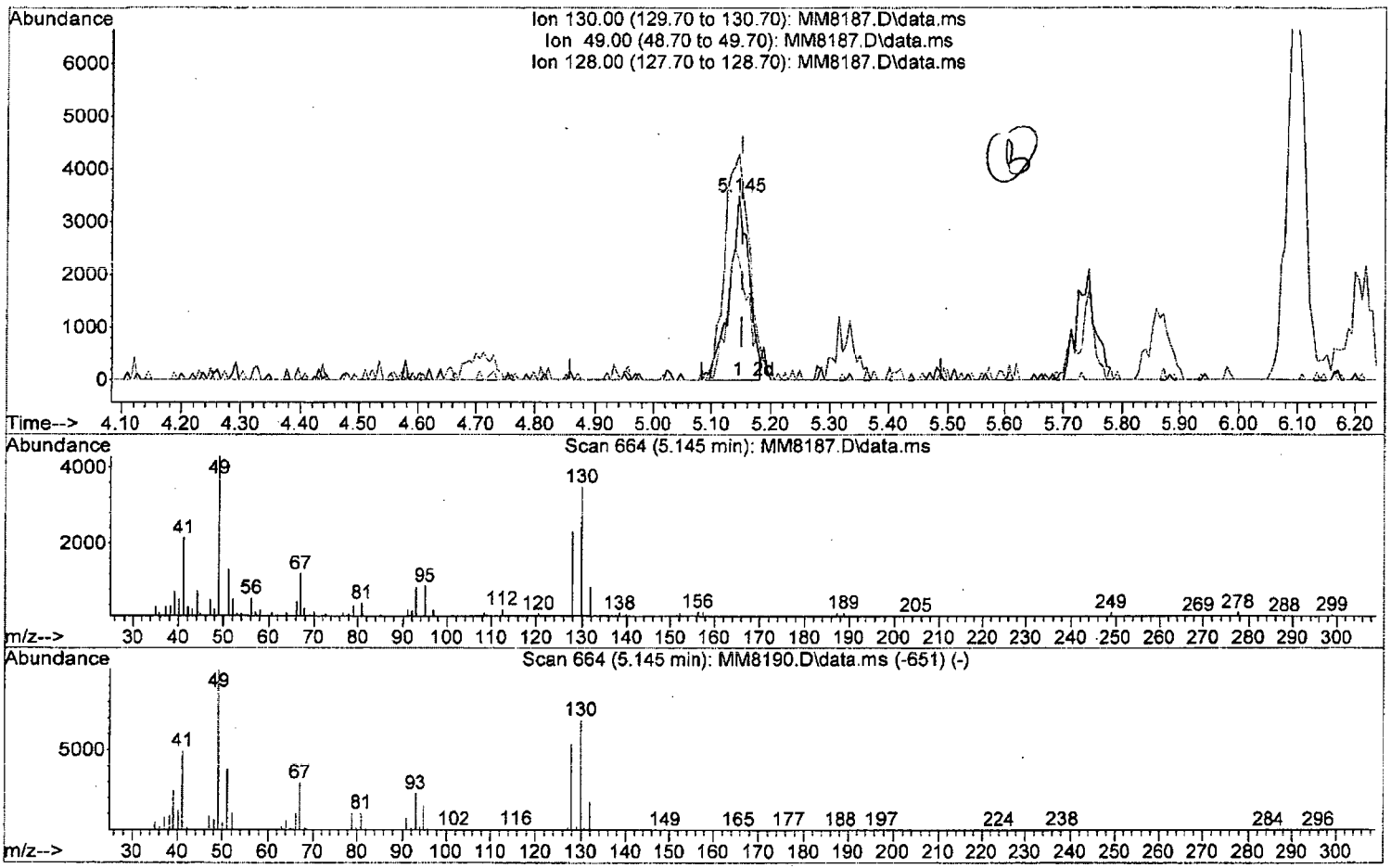
response 7224

Ion	Exp%	Act%
54.00	100	100
55.00	19.40	37.23
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(37) Bromochloromethane

5.145min (-0.006) 2.03 ppb

response 8025

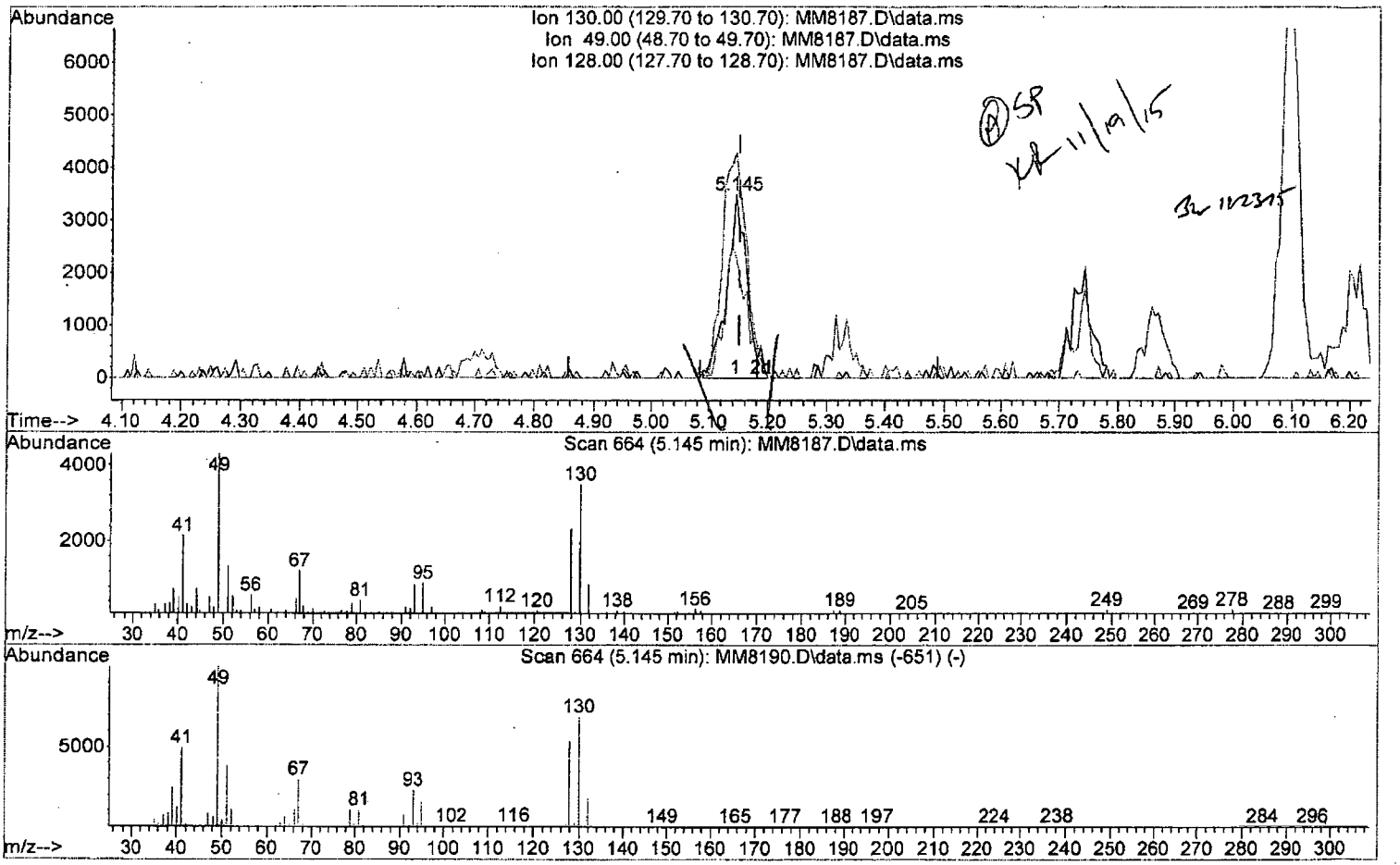
Ion	Exp%	Act%
130.00	100	100
49.00	145.50	122.92#
128.00	77.50	66.05
0.00	0.00	0.00

W111815.M Thu Nov 19 10:24:08 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(37) Bromochloromethane

5.145min (-0.006) 2.09 ppb m

response 8261

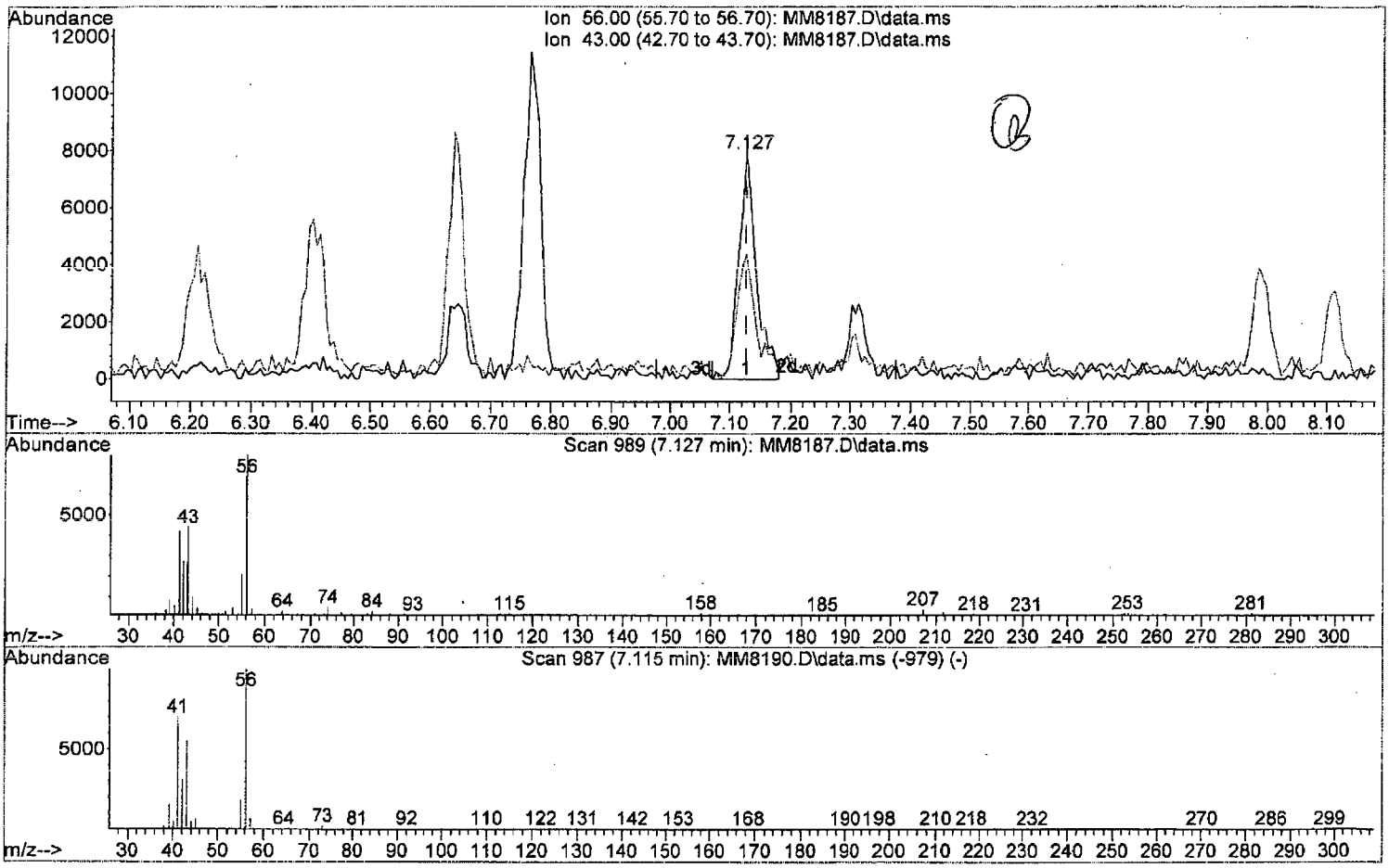
Ion	Exp%	Act%
130.00	100	100
49.00	145.50	122.92#
128.00	77.50	66.05
0.00	0.00	0.00

W111815.M Thu Nov 19 10:24:14 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(53) 1-Butanol

7.127min (-0.000) 108.49 ppb

response 15785

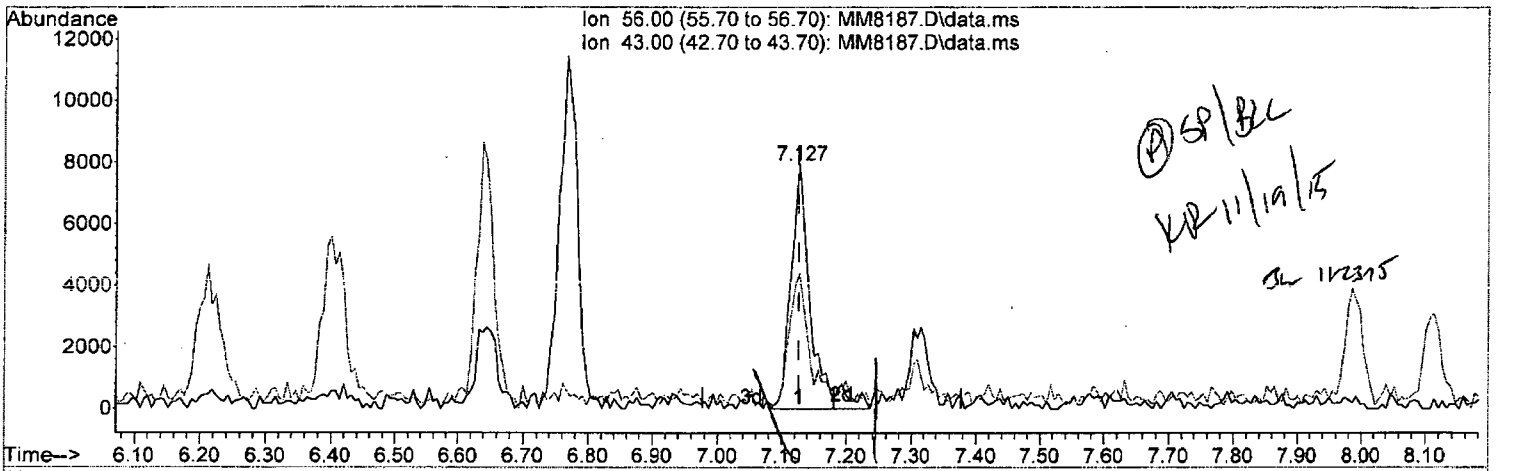
Ion	Exp%	Act%
56.00	100	100
43.00	54.90	63.55
0.00	0.00	0.00
0.00	0.00	0.00

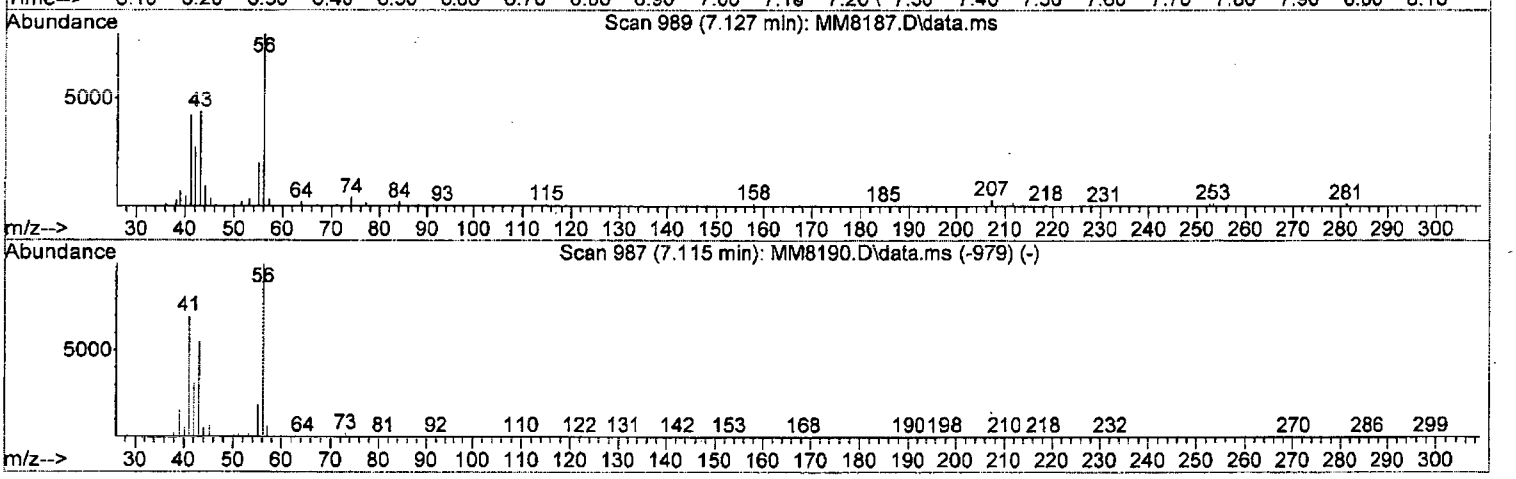
W111815.M Thu Nov 19 10:25:22 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration





TIC: MM8187.D\data.ms

(53) 1-Butanol

7.127min (-0.000) 116.00 ppb m

response 16877

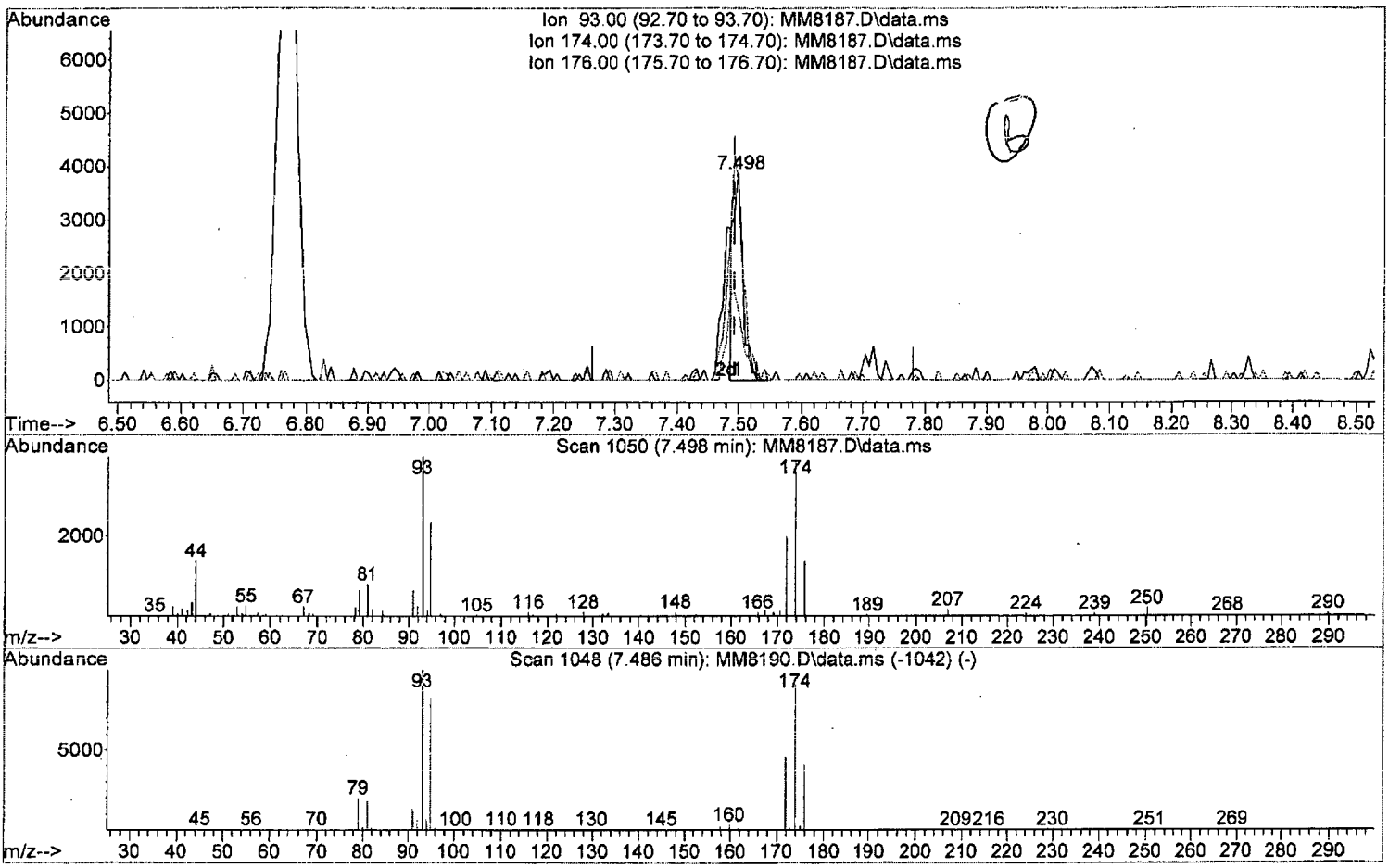
Ion	Exp%	Act%
56.00	100	100
43.00	54.90	59.44
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:25:34 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(57) Dibromomethane

7.498min (+0.006) 1.20 ppb

response 4062

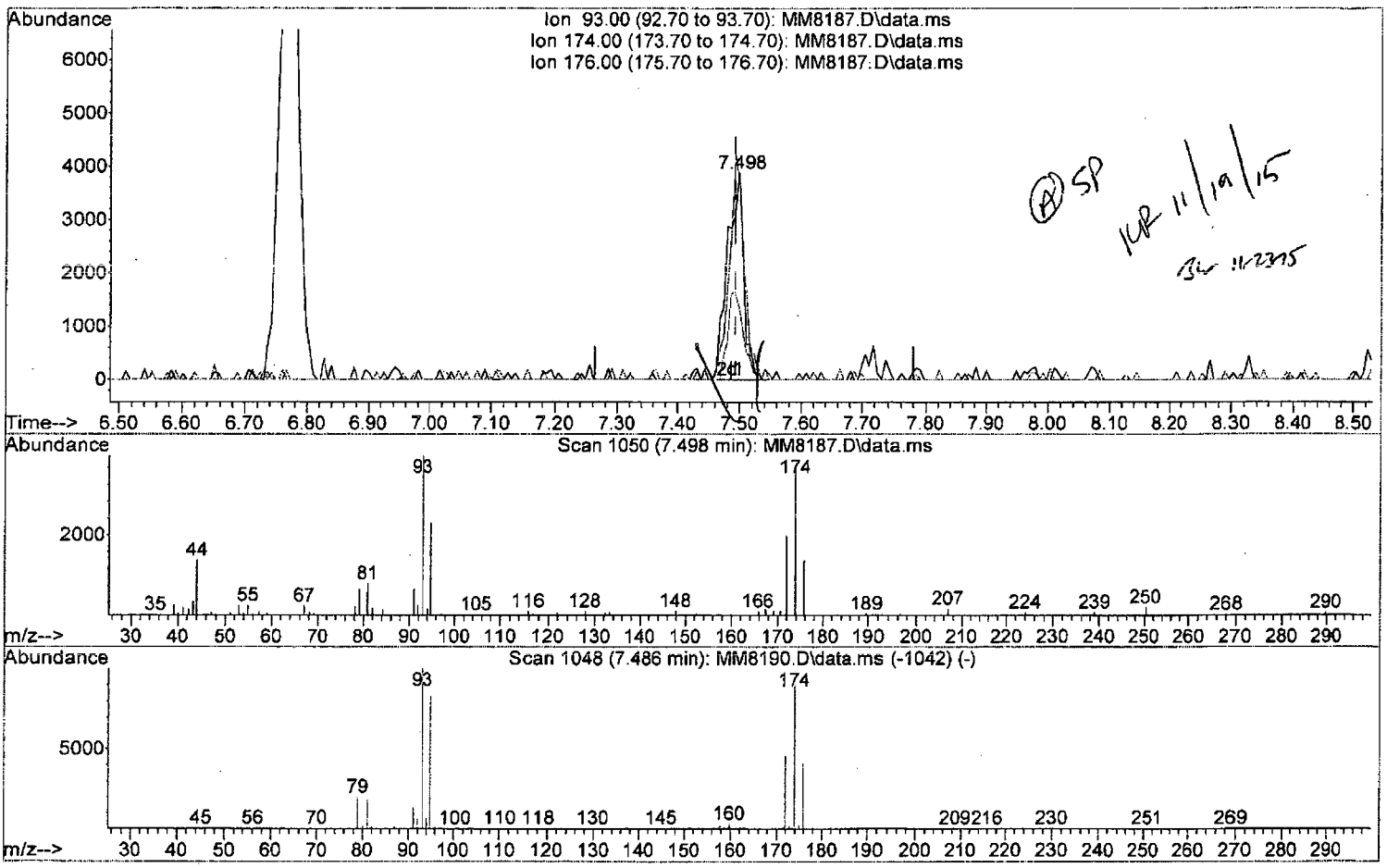
Ion	Exp%	Act%
93.00	100	100
174.00	91.10	95.71
176.00	40.50	35.53
0.00	0.00	0.00

W111815.M Thu Nov 19 10:25:43 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(57) Dibromomethane

7.498min (+0.006) 2.10 ppb m

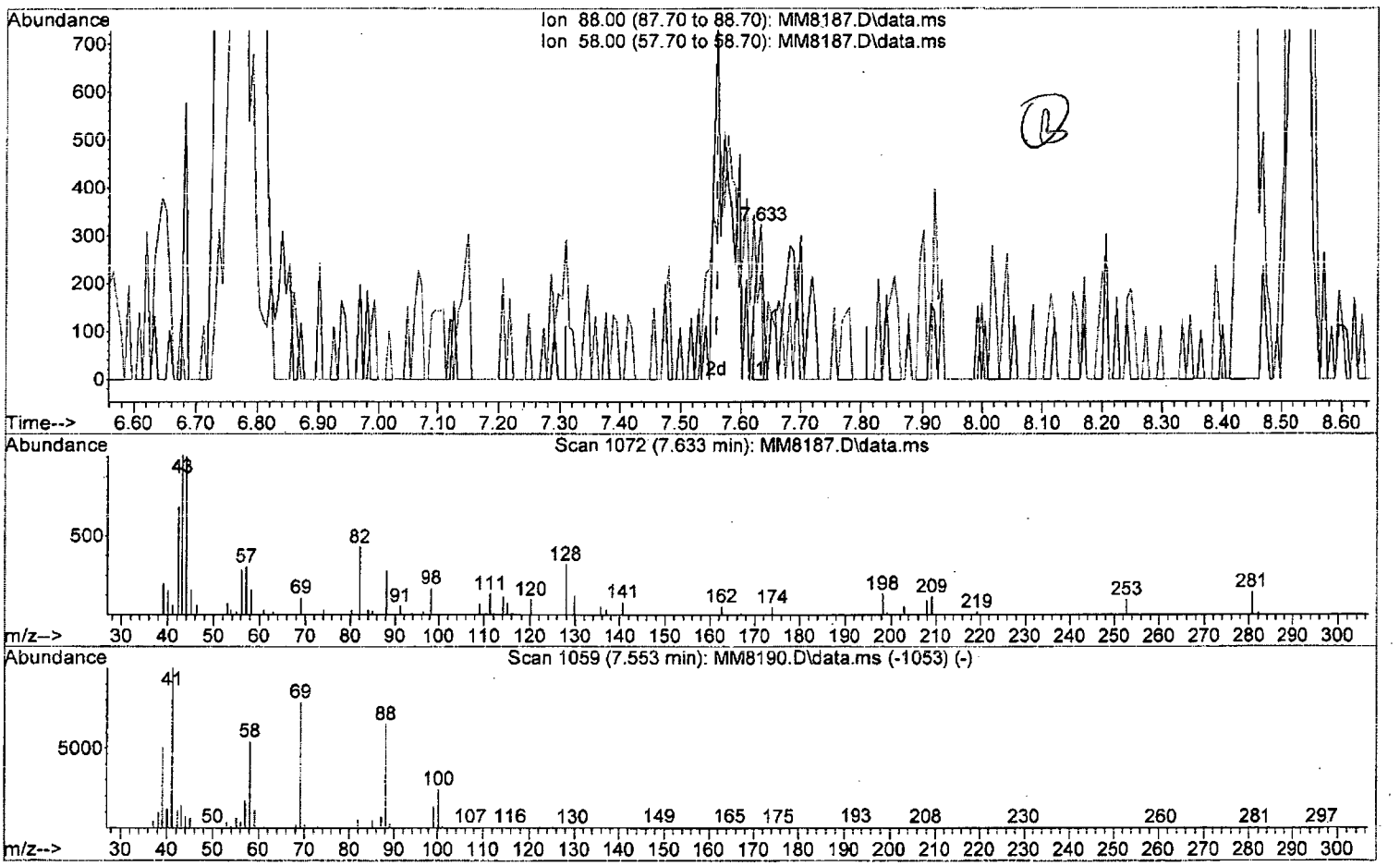
response 7116

Ion	Exp%	Act%
93.00	100	100
174.00	91.10	95.71
176.00	40.50	35.53
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(58) 1,4-Dioxane

7.633min (+0.073) 4.87 ppb

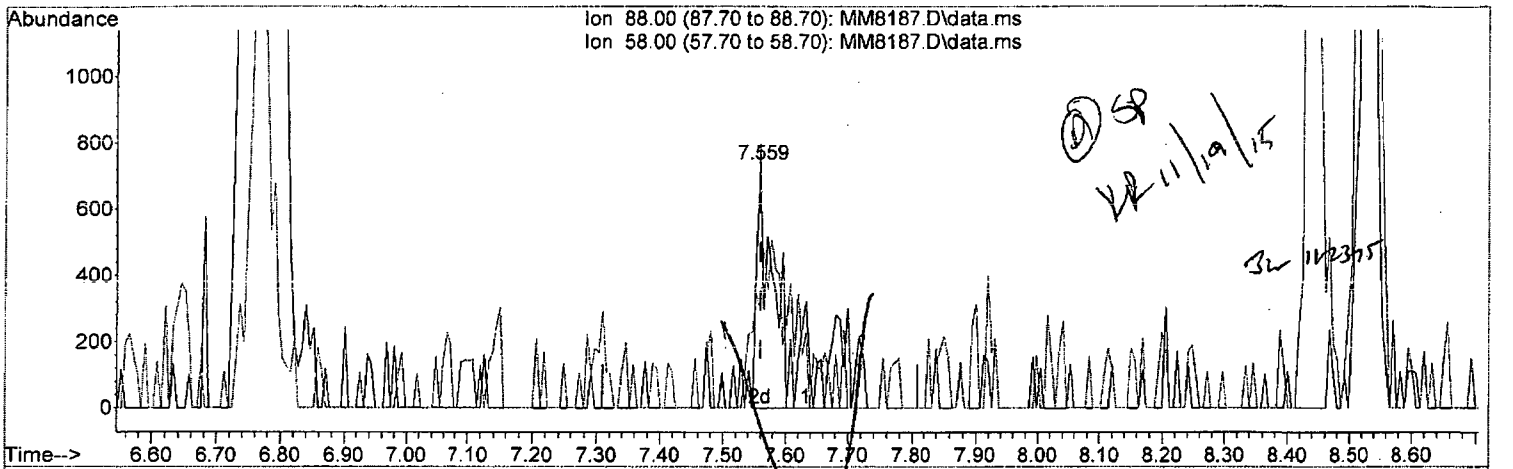
response 249

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	69.88
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(58) 1,4-Dioxane

7.559min (-0.000) 43.47 ppb m

response 2224

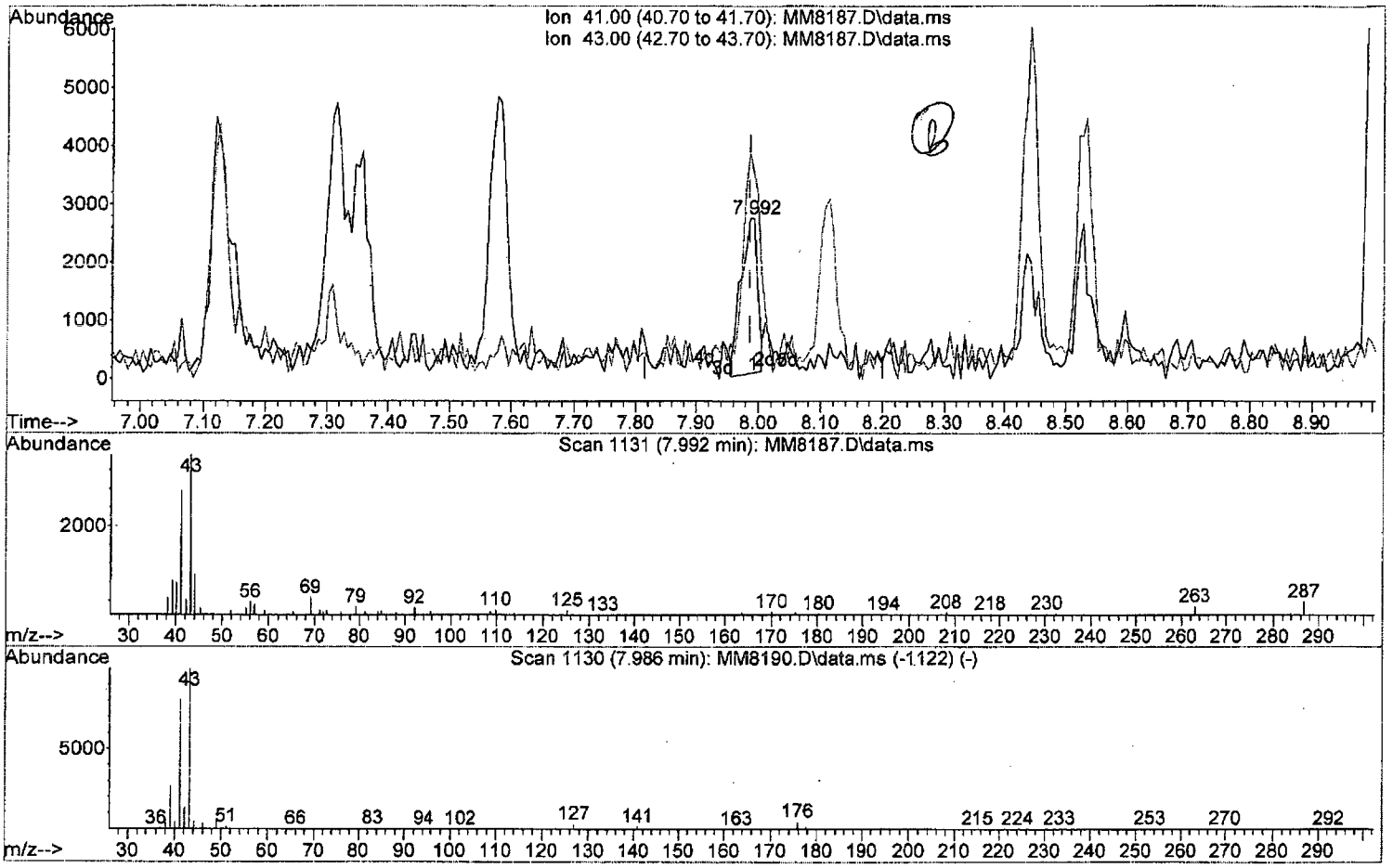
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	39.92#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:27:24 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(61) 2-Nitropropane

7.992min (+0.006) 3.89 ppb

response 4875

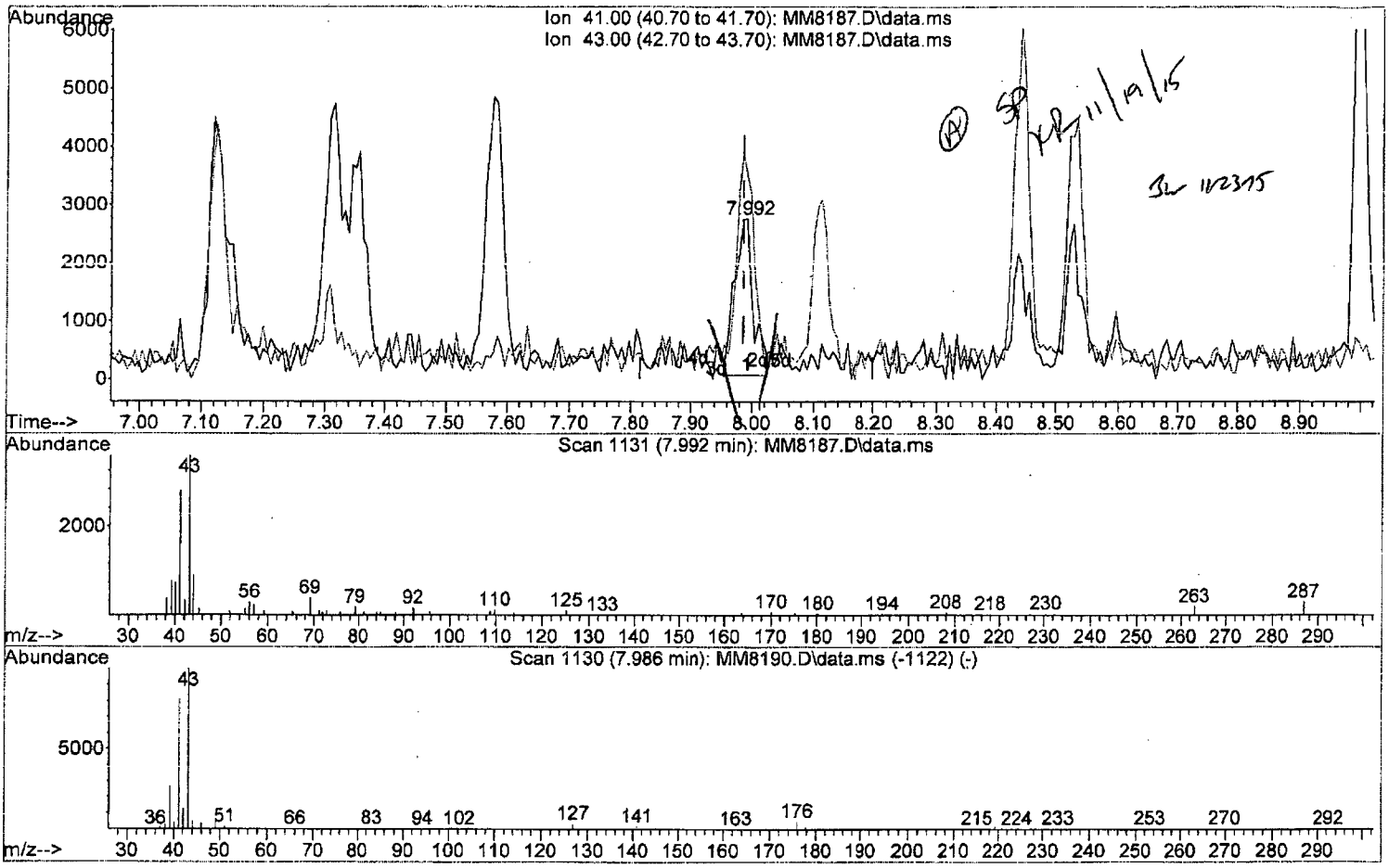
Ion	Exp%	Act%
41.00	100	100
43.00	123.30	127.55
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:28:13 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(61) 2-Nitropropane

7.992min (+0.006) 4.47 ppb m

response 5596

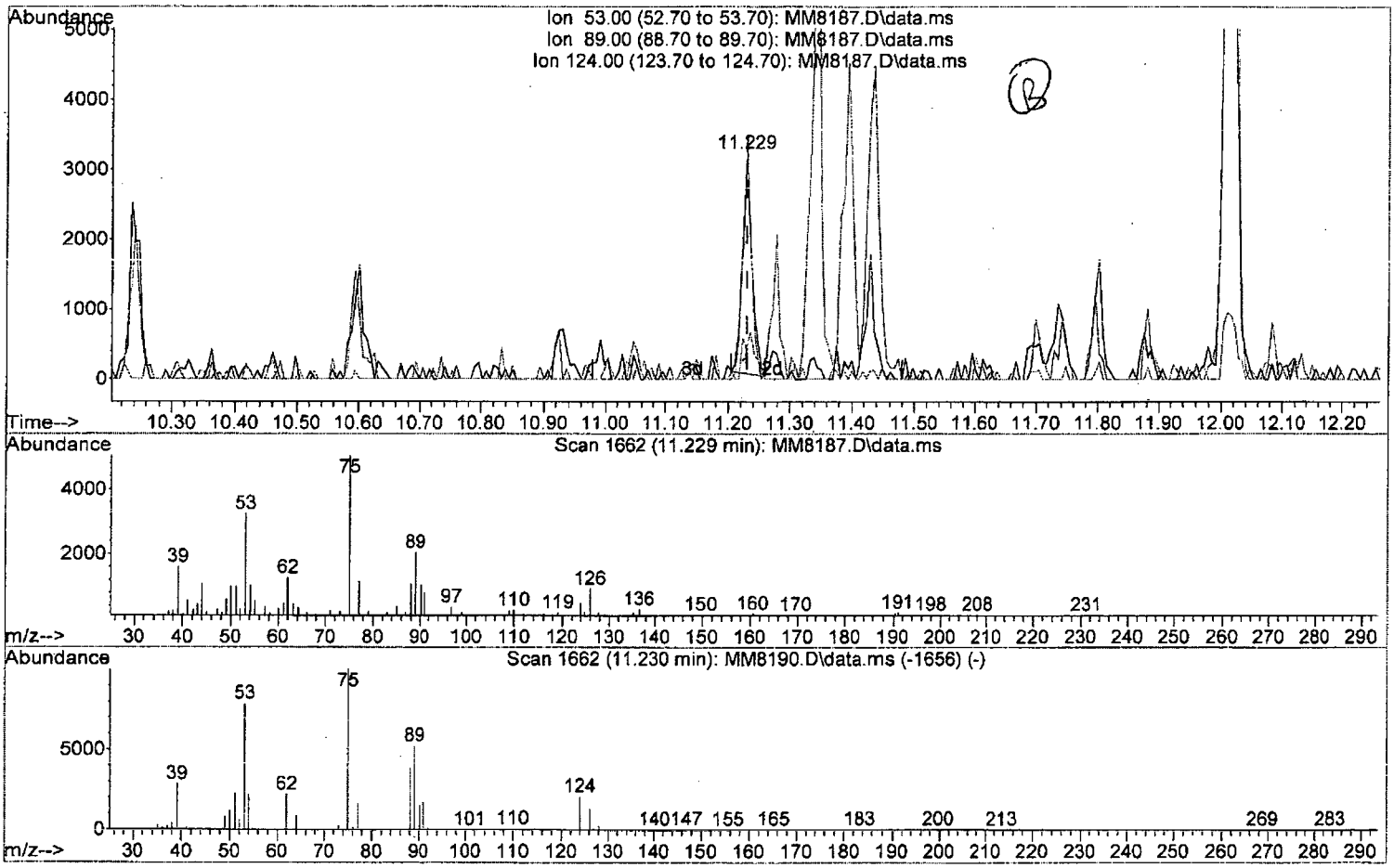
Ion	Exp%	Act%
41.00	100	100
43.00	123.30	127.55
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:28:47 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(91) trans-1,4-Dichloro-2-Butene

11.229min (-0.000) 1.81 ppb

response 3358

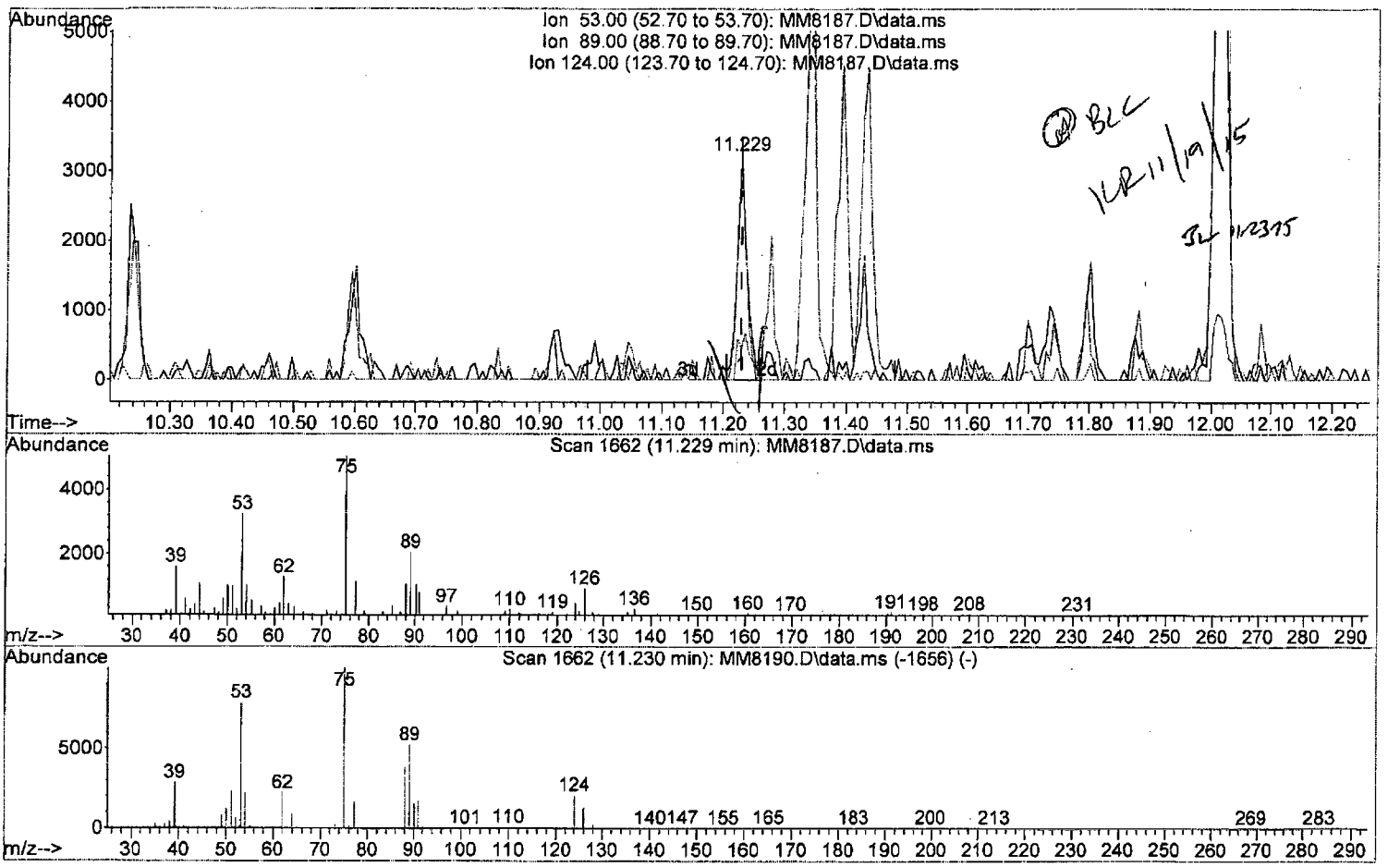
Ion	Exp%	Act%
53.00	100	100
89.00	66.30	63.03
124.00	26.20	13.95
0.00	0.00	0.00

W111815.M Thu Nov 19 10:30:12 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 09:35:55 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8187.D\data.ms

(91) trans-1,4-Dichloro-2-Butene

11.229min (-0.000) 1.95 ppb m

response 3610

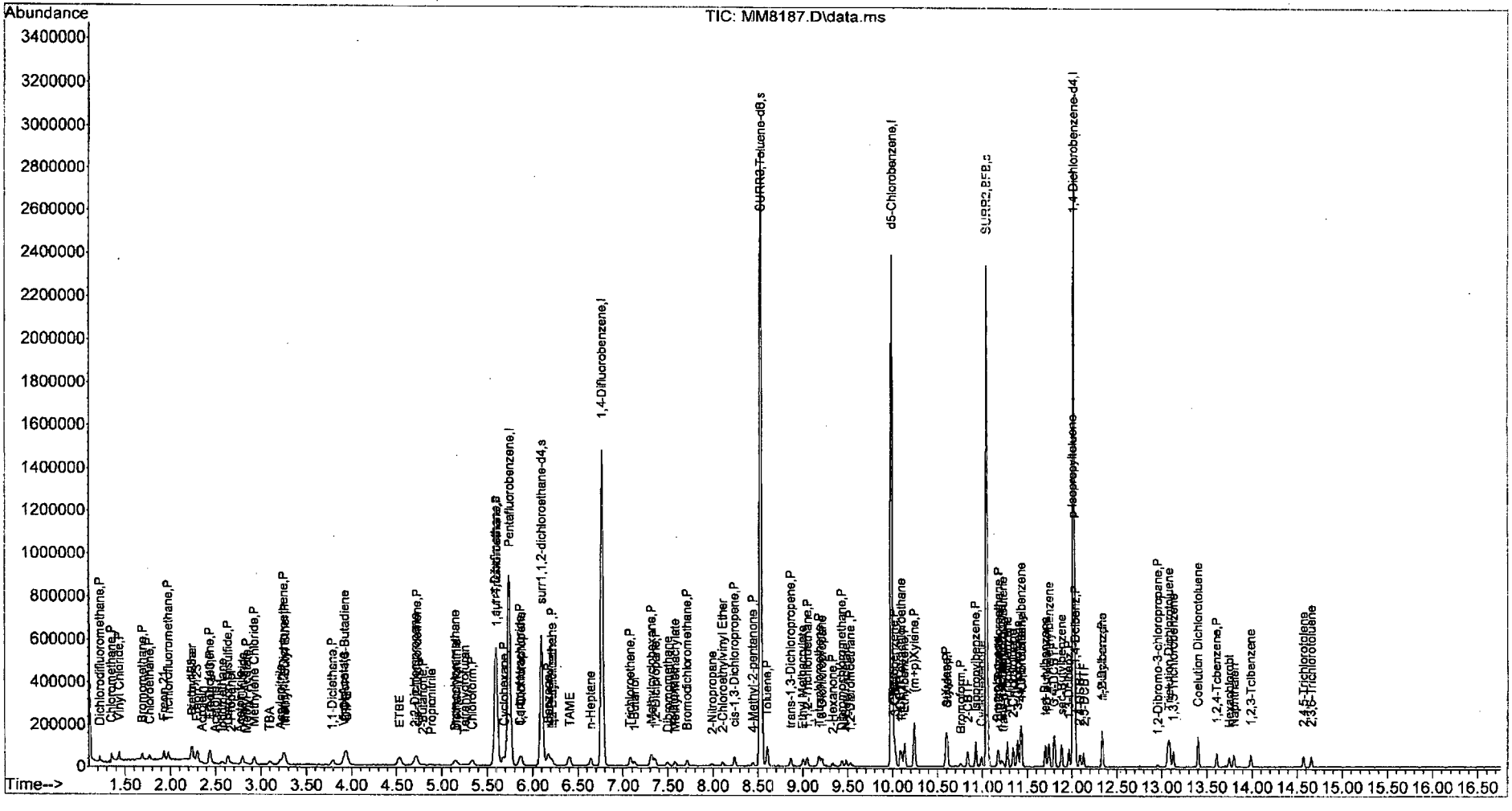
Ion	Exp%	Act%
53.00	100	100
89.00	66.30	63.03
124.00	26.20	13.95
0.00	0.00	0.00

W111815.M Thu Nov 19 10:30:20 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8187.D
Acq On : 18 Nov 2015 5:41 pm
Operator : K.Ruest
Sample : 2.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 19 10:30:27 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 10:31:06 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 10:40:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	754433	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1237078	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1147756	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	571375	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	465568	69.99	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 139.98%#				
48) surr1,1,2-dichloroetha...	6.096	65	516480	70.95	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 141.90%#				
65) SURR3,Toluene-d8	8.529	98	1977109	70.03	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 140.06%#				
70) SURR2,BFB	11.047	95	734666	69.49	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 138.98%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	46335	4.34	ppb		100
3) Chloromethane	1.347	50	58675	4.62	ppb		96
4) Vinyl Chloride	1.433	62	56117	4.75	ppb		96
5) Bromomethane	1.689	94	27426	4.69	ppb		93
6) Chloroethane	1.768	64	31762	4.81	ppb		98
7) Freon 21	1.927	67	62264	4.89	ppb		100
8) Trichlorofluoromethane	1.975	101	45134	4.90	ppb		98
9) Diethyl Ether	2.231	59	30200	5.23	ppb		93
10) Freon 123a	2.237	67	43059	5.16	ppb		93
11) Freon 123	2.292	83	46844	4.85	ppb		93
12) Acrolein	2.341	56	6982	10.86	ppb		82
13) 1,1-Diclethene	2.433	96	31837	4.93	ppb		93
14) Freon 113	2.445	101	28536	4.97	ppb		95
15) Acetone	2.487	43	9097	5.69	ppb		87
16) 2-Propanol	2.646	45	31774	104.11	ppb		96
17) Iodomethane	2.573	142	31152m	4.40	ppb		
18) Carbon Disulfide	2.634	76	111102	5.27	ppb		100
19) Acetonitrile	2.768	40	6669	29.90	ppb	#	82
20) Allyl Chloride	2.798	76	17955	5.11	ppb		96
21) Methyl Acetate	2.829	43	18940	5.05	ppb		93
22) Methylene Chloride	2.926	84	35558	4.88	ppb		95
23) TBA	3.091	59	50447	101.85	ppb		97
24) Acrylonitrile	3.213	53	44486	24.26	ppb		92
25) Methyl-t-Butyl Ether	3.262	73	92527	5.27	ppb		96
26) trans-1,2-Dichloroethene	3.249	96	33625	4.98	ppb		95
28) 1,1-Diclethane	3.792	63	60318	4.99	ppb		99
29) Vinyl Acetate	3.902	86	7875	6.04	ppb	#	28
30) DIPE	3.951	45	125231	5.32	ppb		98
31) 2-Chloro-1,3-Butadiene	3.932	53	63446	5.23	ppb		88
32) ETBE	4.530	59	117155	5.29	ppb		99
33) 2,2-Dichloropropane	4.713	77	47414	4.90	ppb		95
34) cis-1,2-Dichloroethene	4.719	96	38898	5.17	ppb		86
35) 2-Butanone	4.786	43	10539m	4.73	ppb		
36) Propionitrile	4.871	54	15565	23.14	ppb		83

11/19/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 10:40:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.152	130	19776	5.06	ppb		91
38) Methacrylonitrile	5.164	67	11156	4.86	ppb	#	66
39) Tetrahydrofuran	5.255	42	7528	5.12	ppb		77
40) Chloroform	5.334	83	59895	5.10	ppb		96
41) 1,1,1-Trichloroethane	5.590	97	46419	5.03	ppb		93
42) TAME	6.401	73	94514	5.02	ppb		95
44) Cyclohexane	5.676	41	33300	4.95	ppb		99
46) Carbontetrachloride	5.859	121	12269	5.14	ppb		93
47) 1,1-Dichloropropene	5.871	75	43084	4.92	ppb		99
49) Benzene	6.170	78	139872	5.14	ppb		92
50) 1,2-Dichloroethane	6.212	62	39424	5.65	ppb		98
51) Iso-Butyl Alcohol	6.206	43	23251	101.88	ppb		98
52) n-Heptane	6.651	43	38767	5.17	ppb		94
53) 1-Butanol	7.121	56	34910	244.63	ppb		100
54) Trichloroethene	7.084	130	35311	5.10	ppb		89
55) Methylcyclohexane	7.310	55	42151	5.13	ppb		95
56) 1,2-Diclpropane	7.358	63	33071	4.90	ppb		96
57) Dibromomethane	7.499	93	15706	4.73	ppb		93
58) 1,4-Dioxane	7.553	88	5113m	101.90	ppb		
59) Methyl Methacrylate	7.578	69	19364	4.96	ppb		90
60) Bromodichloromethane	7.712	83	40787	4.93	ppb		96
61) 2-Nitropropane	7.992	41	13782	11.22	ppb	#	78
62) 2-Chloroethylvinyl Ether	8.108	63	19291	5.18	ppb		88
63) cis-1,3-Dichloropropene	8.242	75	57442	5.18	ppb		96
64) 4-Methyl-2-pentanone	8.444	43	24764	5.02	ppb		97
66) Toluene	8.602	91	151507	5.37	ppb		96
67) trans-1,3-Dichloropropene	8.864	75	46539	5.28	ppb		96
68) Ethyl Methacrylate	8.998	69	39319	5.04	ppb		98
69) 1,1,2-Trichloroethane	9.053	97	25521	5.35	ppb		87
72) Tetrachloroethene	9.181	164	23491	4.93	ppb	#	82
73) 2-Hexanone	9.334	43	17893	5.09	ppb		92
74) 1,3-Dichloropropane	9.212	76	45730	5.24	ppb		90
75) Dibromochloromethane	9.437	129	27530	5.07	ppb		96
76) N-Butyl Acetate	9.480	43	40826	4.89	ppb		94
77) 1,2-Dibromoethane	9.535	107	24026	5.17	ppb		90
78) Chlorobenzene	10.016	112	88016	5.18	ppb		97
79) 3-CBTF	10.029	180	42429	5.04	ppb		96
80) 4-CBTF	10.084	180	40057	5.11	ppb		95
81) 1,1,1,2-Tetrachloroethane	10.102	131	31987	5.45	ppb		90
82) Ethylbenzene	10.132	106	49311	5.13	ppb	#	87
83) (m+p)Xylene	10.242	106	123837	10.43	ppb		89
84) o-Xylene	10.596	106	65348	5.38	ppb		98
85) Styrene	10.608	104	101000	5.10	ppb		95
87) Bromoform	10.760	173	15710	4.84	ppb		86
88) 2-CBTF	10.833	180	43223	4.99	ppb		97
89) Isopropylbenzene	10.925	105	155103	5.22	ppb		97
90) Cyclohexanone	10.992	55	40168	93.25	ppb		97
91) trans-1,4-Dichloro-2-B...	11.230	53	7834	4.20	ppb		89
92) 1,1,2,2-Tetrachloroethane	11.181	83	28831	4.80	ppb		86
93) Bromobenzene	11.169	156	32718	4.87	ppb		94
94) 1,2,3-Trichloropropane	11.211	110	8802	4.98	ppb		96

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 10:40:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

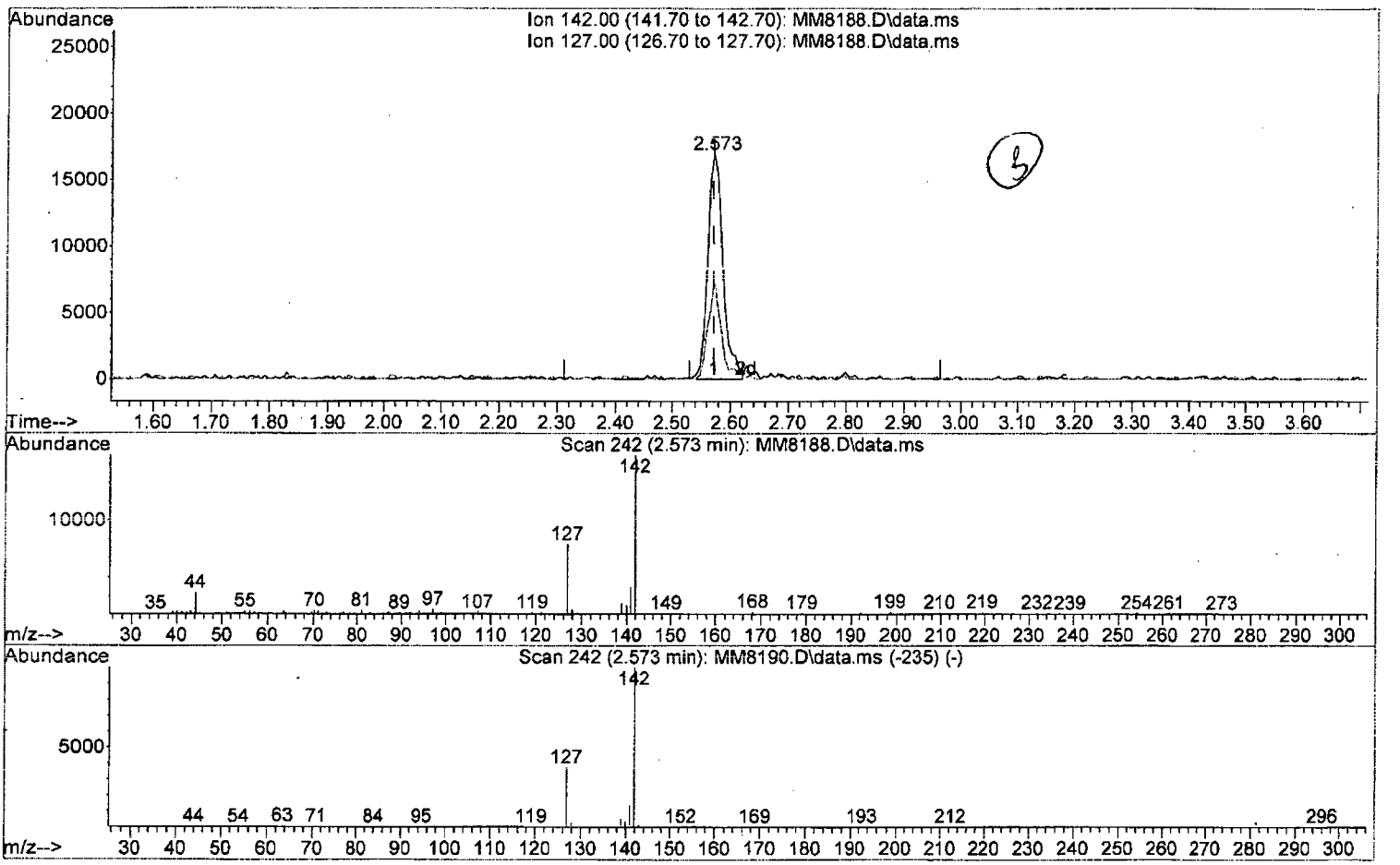
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
95)	n-Propylbenzene	11.278	91	175450	5.12	ppb		99
96)	2-Chlorotoluene	11.339	91	102448	5.10	ppb		99
97)	3-Chlorotoluene	11.394	91	110461	5.25	ppb		99
98)	4-Chlorotoluene	11.437	91	116003	5.12	ppb		96
99)	1,3,5-Trimethylbenzene	11.431	105	119820	5.33	ppb		92
100)	tert-Butylbenzene	11.699	119	103689	5.17	ppb		97
101)	1,2,4-Trimethylbenzene	11.736	105	123489	5.12	ppb		94
102)	3,4-DCBTF	11.797	214	27946	4.82	ppb	#	88
103)	sec-Butylbenzene	11.882	105	145596	5.19	ppb		98
104)	p-Isopropyltoluene	12.004	119	111489	5.14	ppb		99
105)	1,3-Dclbenz	11.961	146	64008	4.92	ppb		96
106)	1,4-Dclbenz	12.034	146	62260	5.10	ppb		99
107)	2,4-DCBTF	12.089	214	25156	4.97	ppb		96
108)	2,5-DCBTF	12.126	214	28728	5.01	ppb		96
109)	n-Butylbenzene	12.333	91	108028	5.26	ppb		94
110)	1,2-Dclbenz	12.339	146	59284	4.95	ppb		94
111)	1,2-Dibromo-3-chloropr...	12.961	157	5419	4.59	ppb		91
112)	Trielution Dichlorotol...	13.071	125	159023	15.73	ppb		98
113)	1,3,5 Trichlorobenzene	13.126	180	38744	4.81	ppb		87
114)	Coelution Dichlorotoluene	13.400	125	114845	10.75	ppb	#	91
115)	1,2,4-Tcbenzene	13.607	180	36182	4.90	ppb		95
116)	Hexachlorobt	13.747	225	14247	4.52	ppb		94
117)	Naphthalen	13.802	128	75597	4.93	ppb		96
118)	1,2,3-Tclbenzene	13.985	180	31980	5.20	ppb		94
119)	2,4,5-Trichlorotolene	14.570	159	23619	5.06	ppb		94
120)	2,3,6-Trichlorotoluene	14.656	159	20789m	5.04	ppb		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(17) Iodomethane

2.573min (+0.001) 4.27 ppb

response 30237

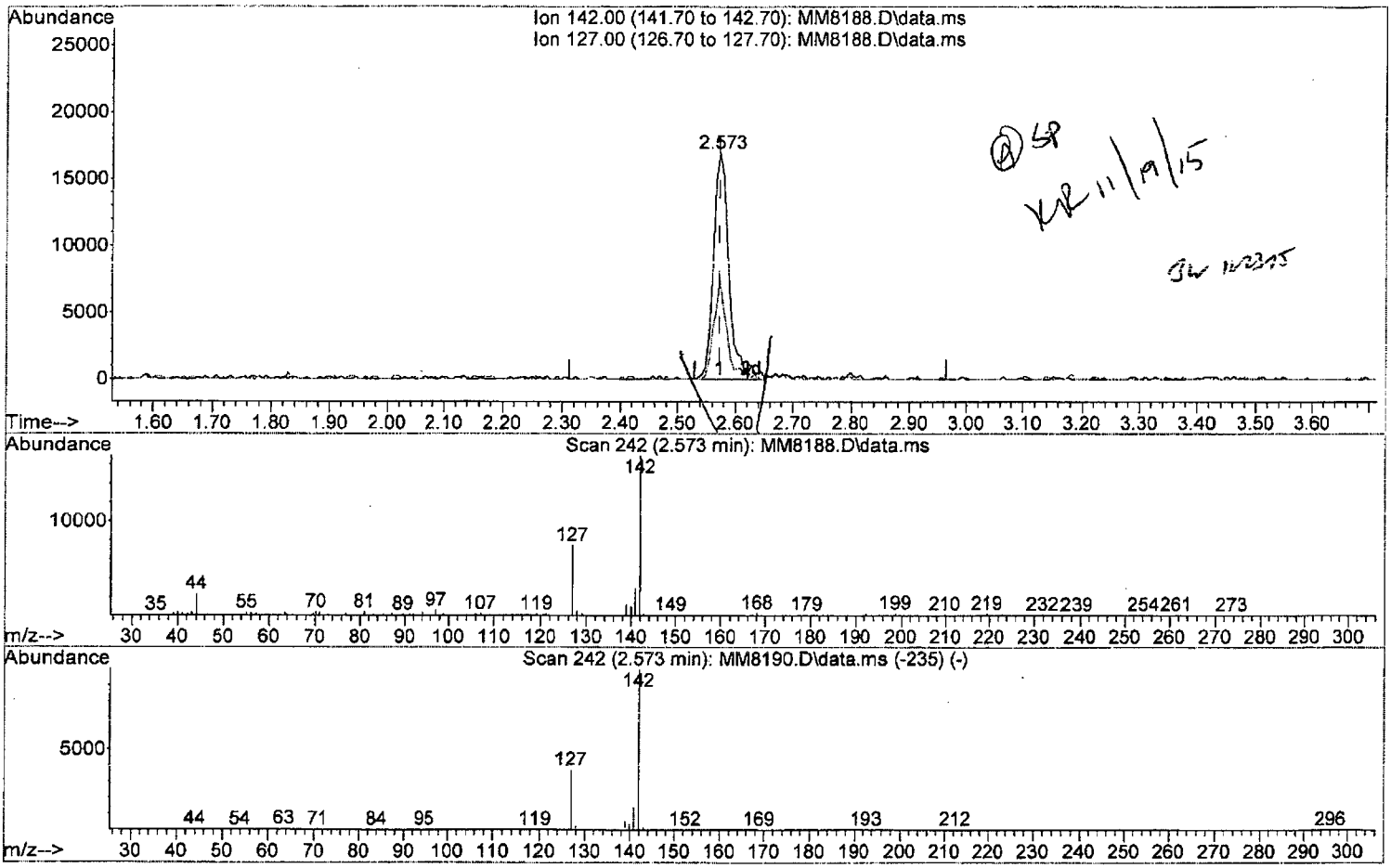
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	44.19
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:37:19 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(17) Iodomethane

2.573min (+0.001) 4.40 ppb m

response 31152

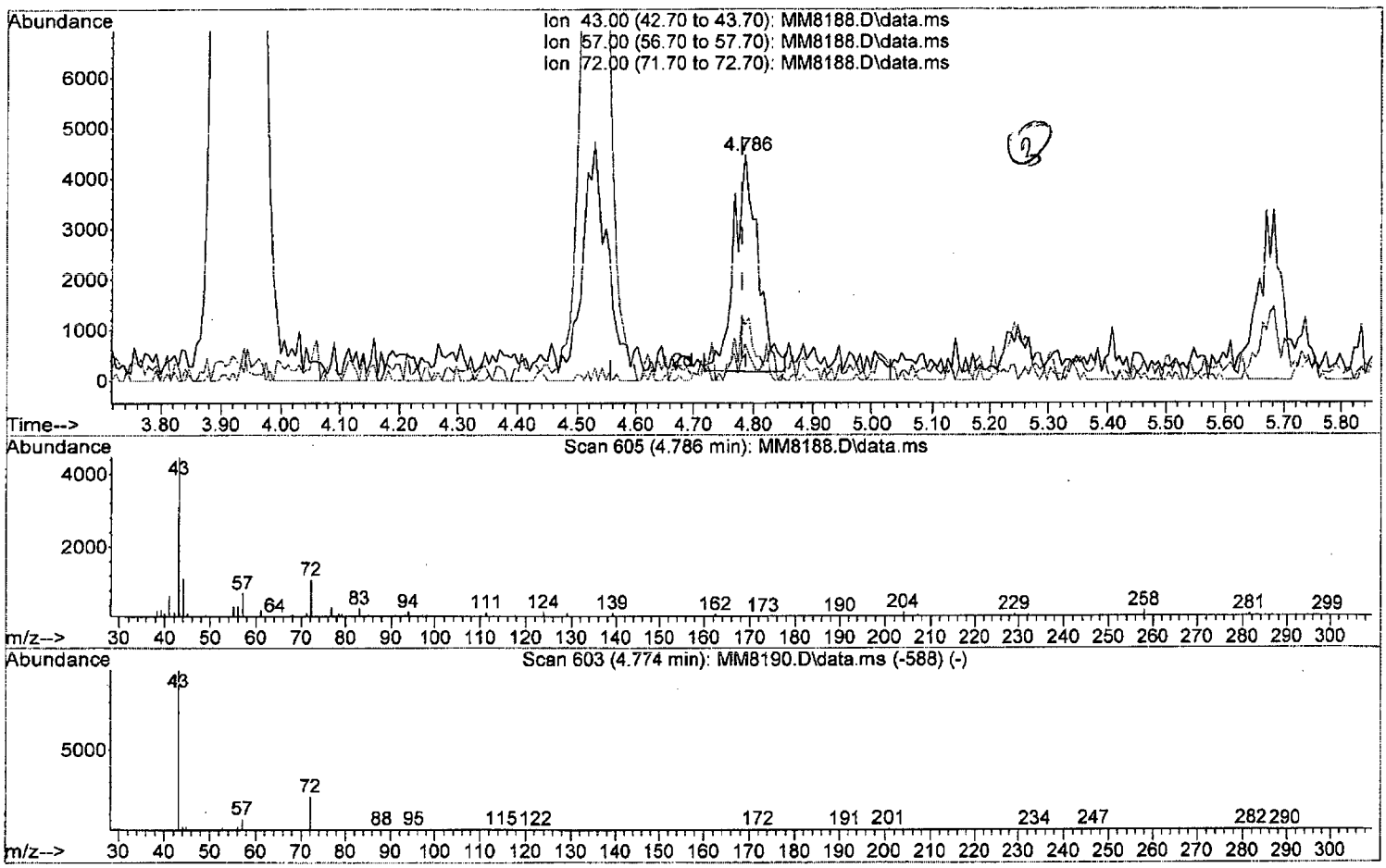
Ion	Exp%	Act%
142.00	100	100
127.00	37.20	44.19
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:37:28 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(35) 2-Butanone (P)

4.786min (+0.006) 5.40 ppb

response 12026

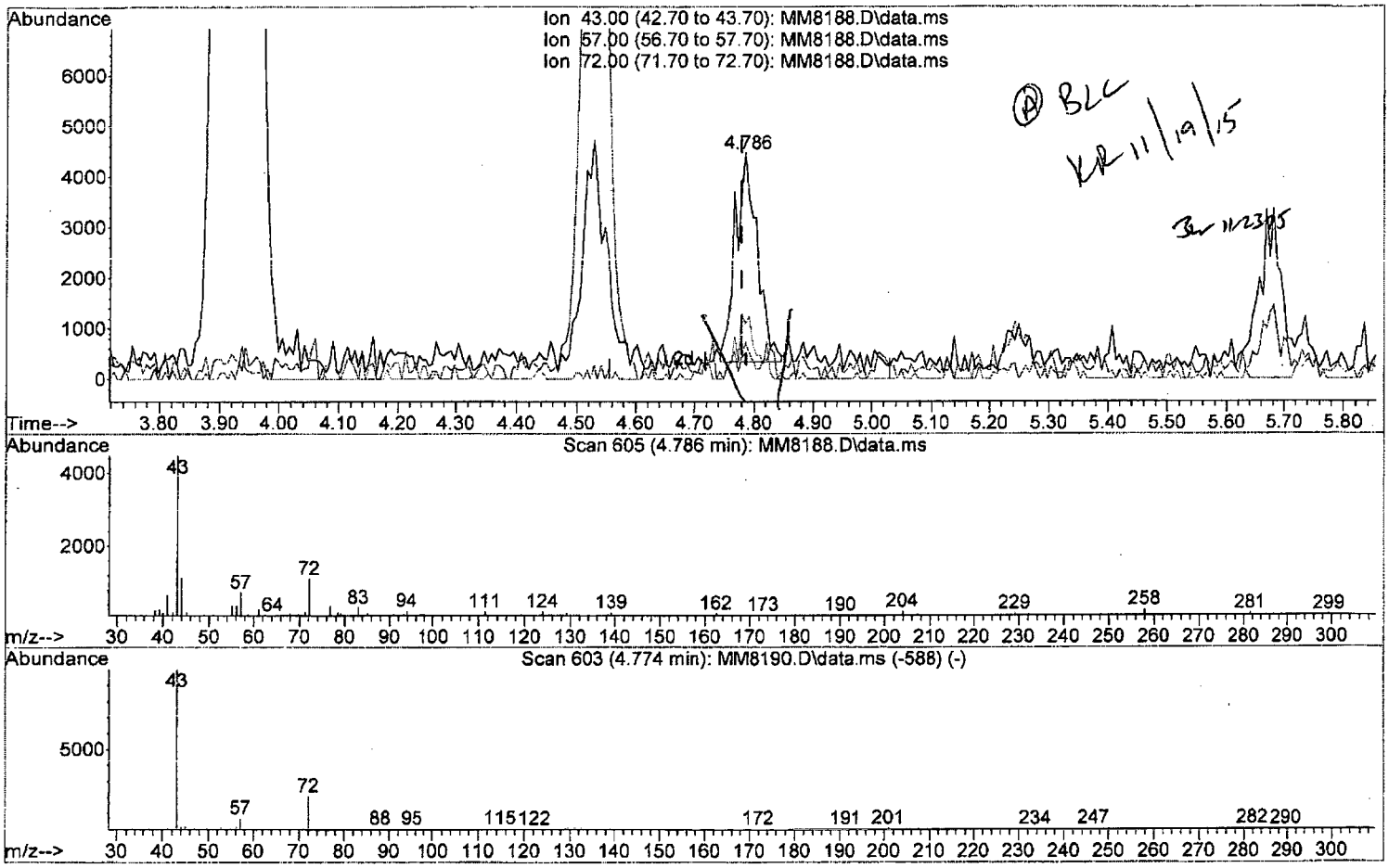
Ion	Exp%	Act%
43.00	100	100
57.00	7.50	16.19
72.00	21.20	24.53
0.00	0.00	0.00

W111815.M Thu Nov 19 10:38:15 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(35) 2-Butanone (P)

4.786min (+0.006) 4.73 ppb m

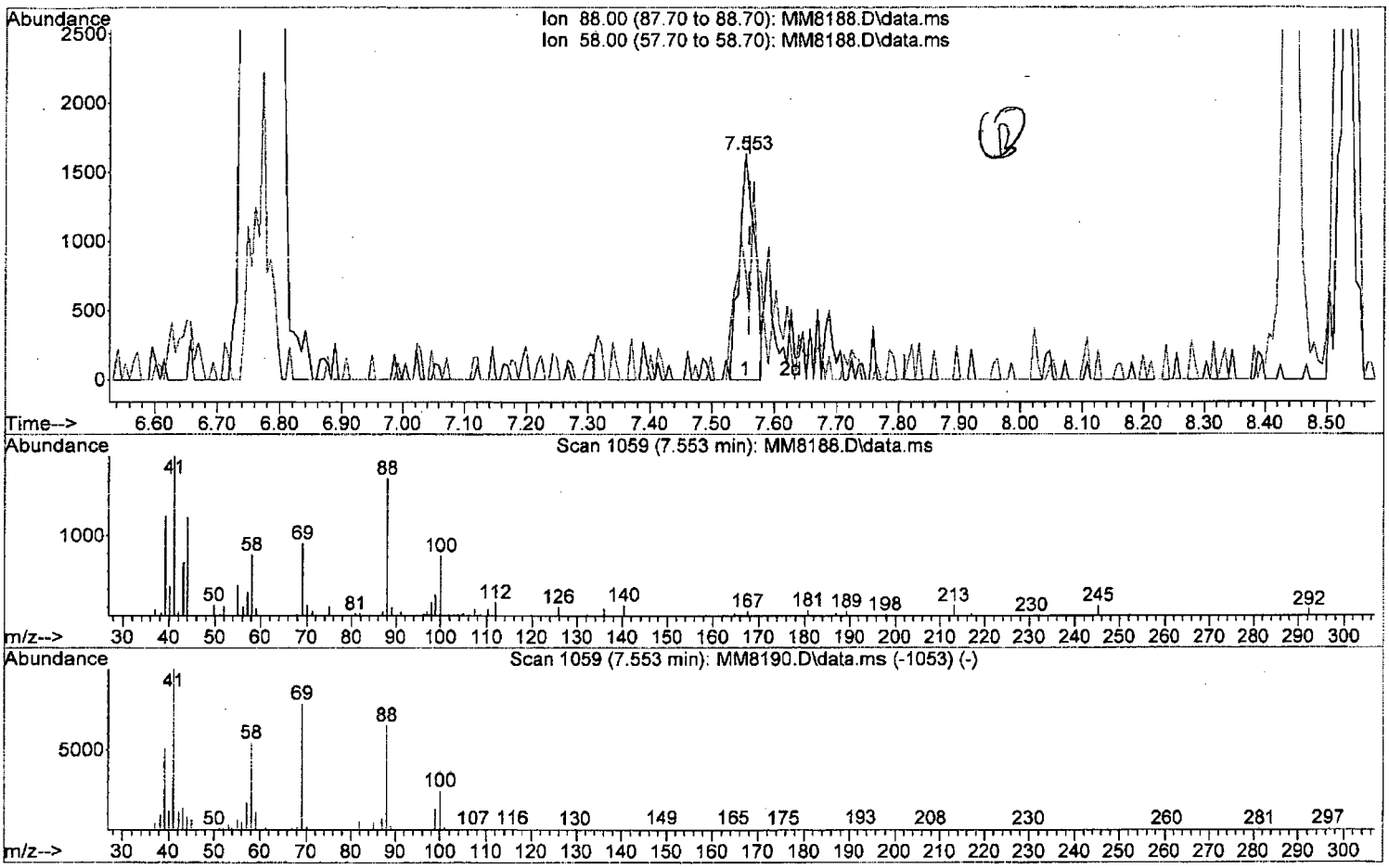
response 10539

Ion	Exp%	Act%
43.00	100	100
57.00	7.50	16.19
72.00	21.20	24.53
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 55.24 ppb

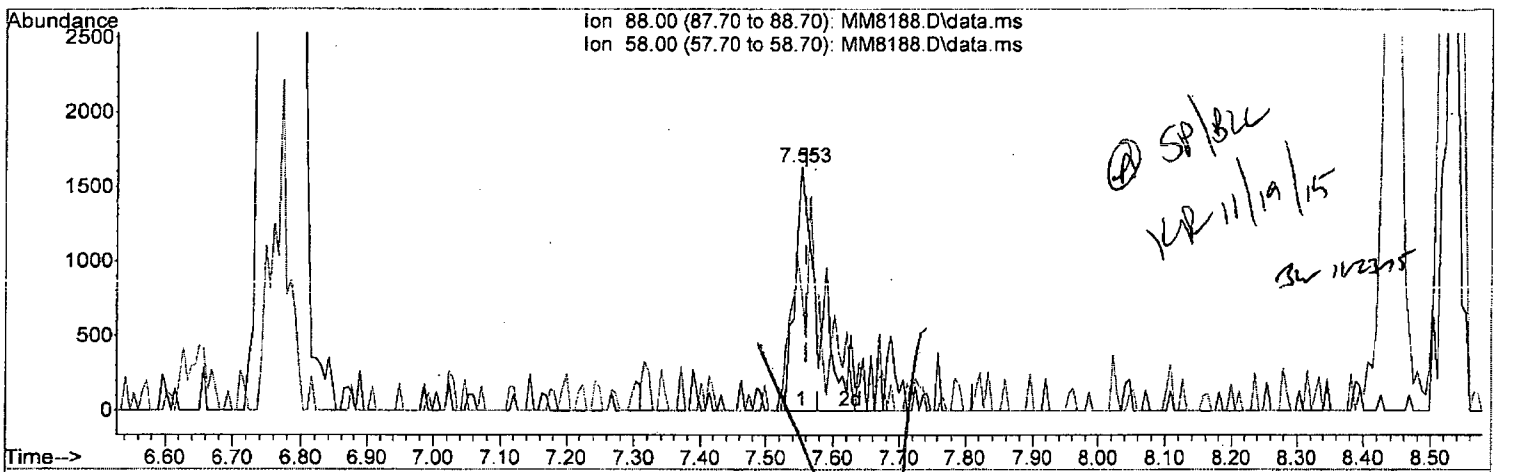
response 2772

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	47.98#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 101.90 ppb m

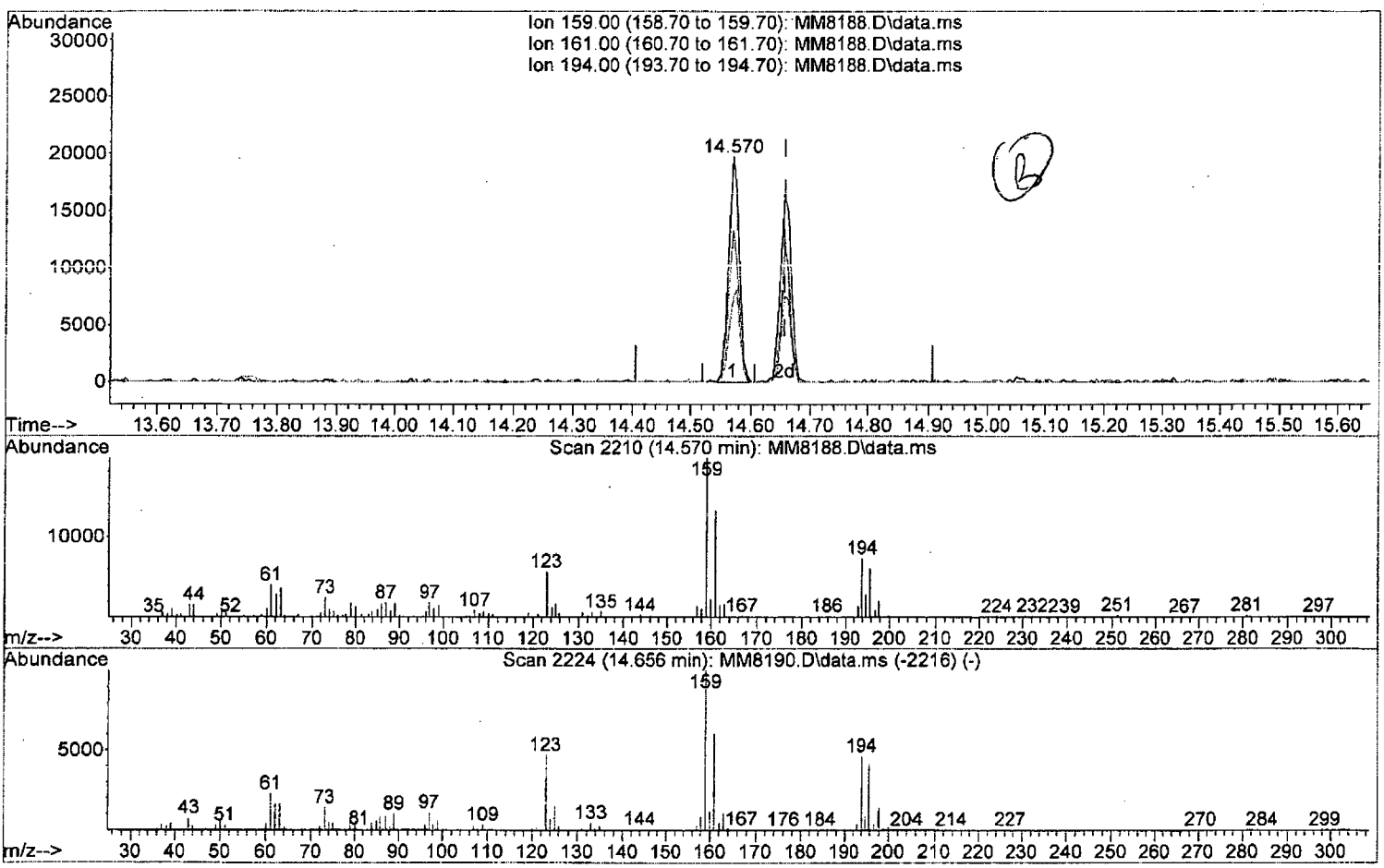
response 5113

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	47.98#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(120) 2,3,6-Trichlorotoluene

14.570min (-0.085) 5.73 ppb

response 23619

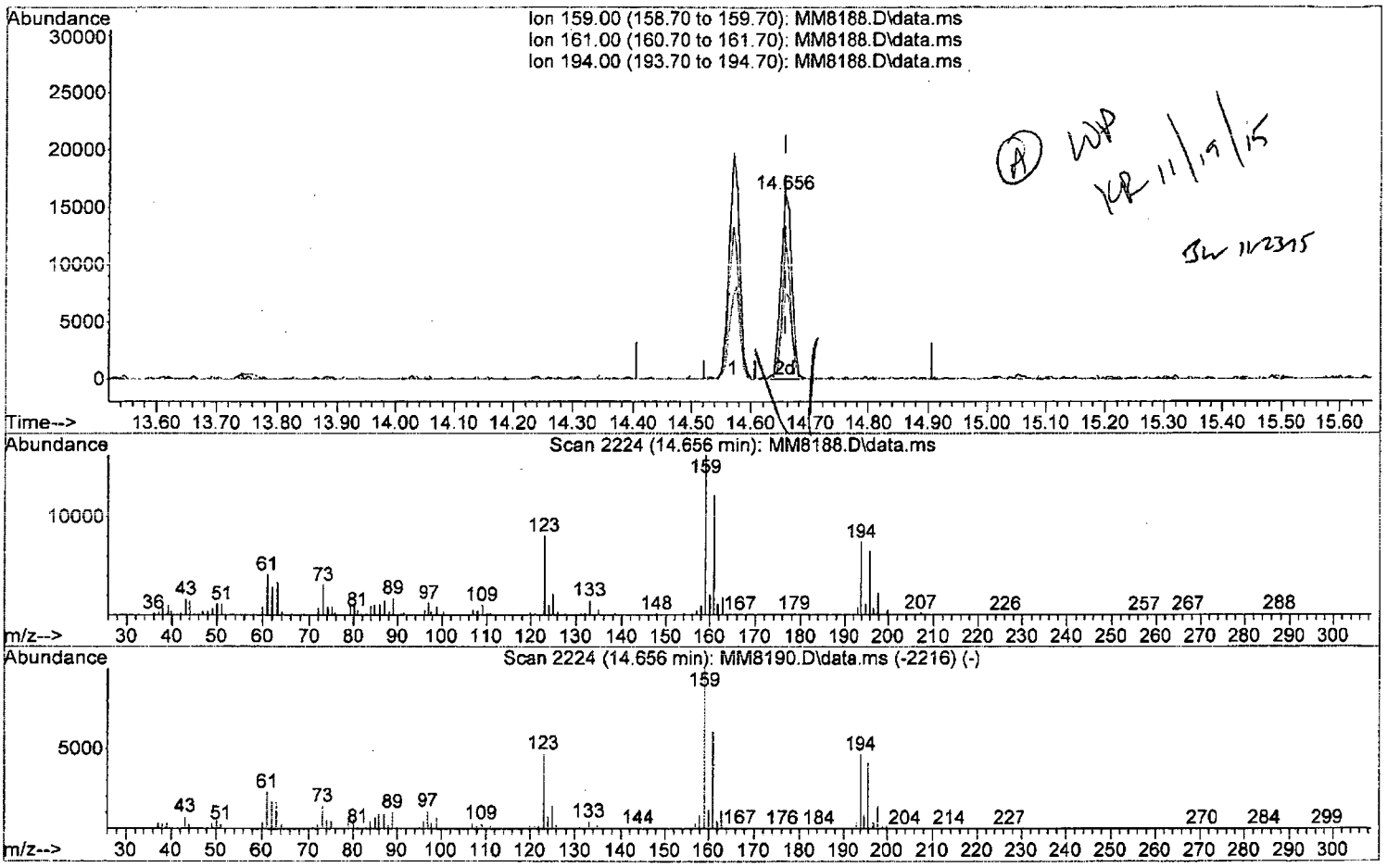
Ion	Exp%	Act%
159.00	100	100
161.00	60.80	67.25
194.00	46.40	37.24
0.00	0.00	0.00

W111815.M Thu Nov 19 10:39:52 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 09:35:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8188.D\data.ms

(120) 2,3,6-Trichlorotoluene

14.656min (-0.000) 5.04 ppb m

response 20789

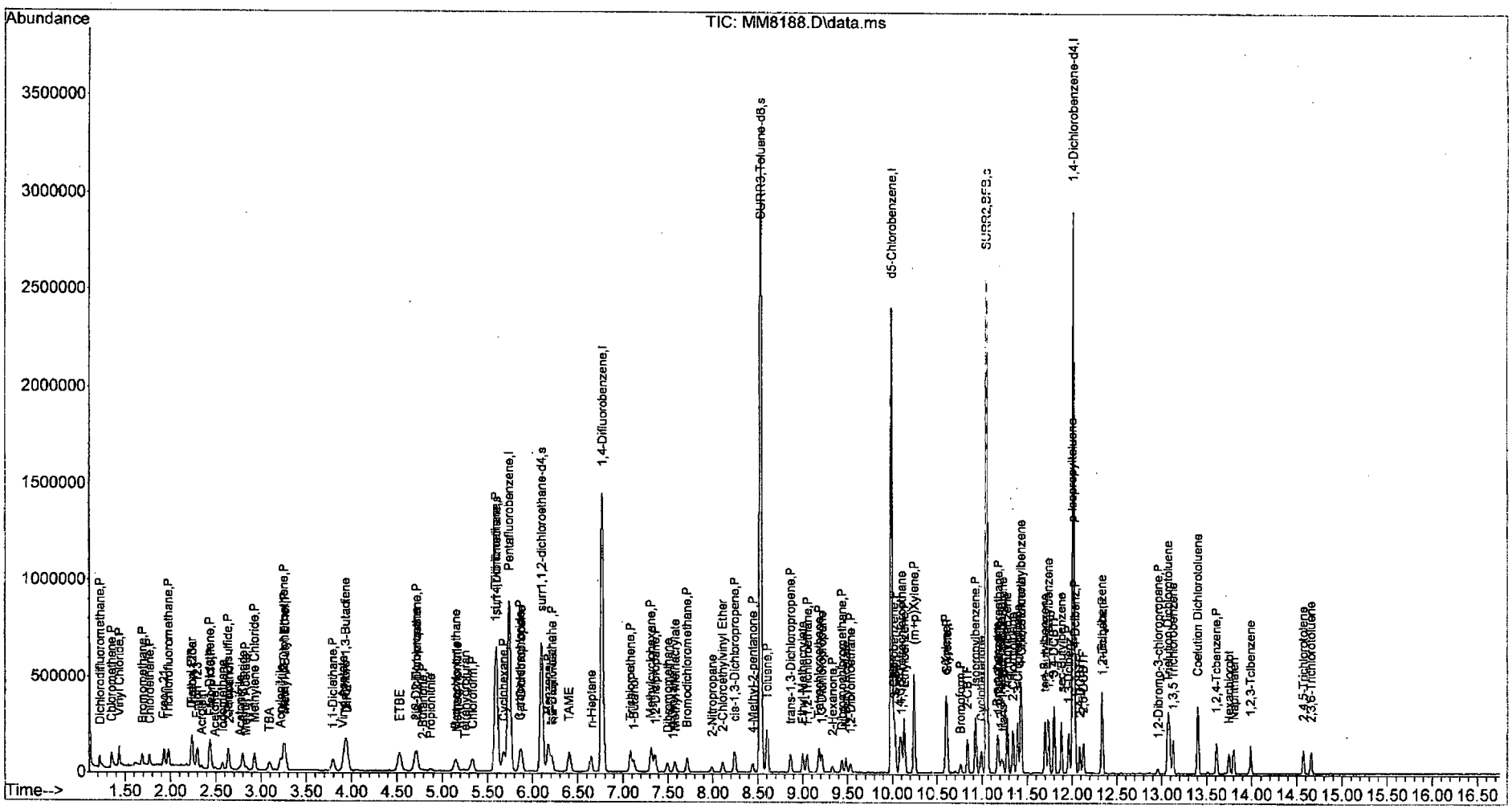
Ion	Exp%	Act%
159.00	100	100
161.00	60.80	74.81#
194.00	46.40	45.95
0.00	0.00	0.00

W111815.M Thu Nov 19 10:39:59 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8188.D
Acq On : 18 Nov 2015 6:11 pm
Operator : K.Ruest
Sample : 5.0ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 19 10:40:06 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 10:40:37 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 10:51:14 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	746894	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1235612	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1138984	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	553172	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	625642	102.90	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 205.80%#				
48) surr1,1,2-dichloroetha...	6.096	65	682863	100.35	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 200.70%#				
65) SURR3,Toluene-d8	8.529	98	2568861	101.89	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 203.78%#				
70) SURR2,BFB	11.047	95	952681	97.85	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 195.70%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	235839	22.29	ppb		97
3) Chloromethane	1.347	50	271342	21.60	ppb		97
4) Vinyl Chloride	1.433	62	257391	22.00	ppb		98
5) Bromomethane	1.689	94	108855	18.79	ppb		94
6) Chloroethane	1.768	64	133130	20.35	ppb		99
7) Freon 21	1.927	67	248468	19.71	ppb		97
8) Trichlorofluoromethane	1.975	101	200987	22.02	ppb		96
9) Diethyl Ether	2.231	59	119049	20.82	ppb		97
10) Freon 123a	2.237	67	156125	18.91	ppb		97
11) Freon 123	2.298	83	175618	18.37	ppb		93
12) Acrolein	2.341	56	23880	37.52	ppb		98
13) 1,1-Diclethene	2.433	96	128509	20.09	ppb		96
14) Freon 113	2.445	101	117743	20.71	ppb		91
15) Acetone	2.487	43	30654m	19.36	ppb		
16) 2-Propanol	2.646	45	110266	364.95	ppb		95
17) Iodomethane	2.573	142	145090	20.69	ppb		98
18) Carbon Disulfide	2.634	76	409570	19.63	ppb		99
19) Acetonitrile	2.756	40	21431	97.04	ppb		88
20) Allyl Chloride	2.798	76	73906	21.25	ppb		98
21) Methyl Acetate	2.829	43	65421	17.63	ppb		94
22) Methylene Chloride	2.926	84	141816	19.66	ppb		94
23) TBA	3.091	59	190356	388.20	ppb		100
24) Acrylonitrile	3.207	53	177703	97.88	ppb		98
25) Methyl-t-Butyl Ether	3.262	73	353828	20.36	ppb		99
26) trans-1,2-Dichloroethene	3.249	96	140413	20.99	ppb		89
28) 1,1-Diclethane	3.792	63	249997	20.89	ppb		93
29) Vinyl Acetate	3.902	86	23791	18.43	ppb	#	93
30) DIPE	3.944	45	456019	19.55	ppb		100
31) 2-Chloro-1,3-Butadiene	3.926	53	229273	19.10	ppb		97
32) ETBE	4.524	59	420713	19.19	ppb		97
33) 2,2-Dichloropropane	4.707	77	201674	21.07	ppb		96
34) cis-1,2-Dichloroethene	4.719	96	147787	19.84	ppb		93
35) 2-Butanone	4.780	43	38879	17.62	ppb		88
36) Propionitrile	4.865	54	63104	94.74	ppb		100

JCR 11/19/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 10:51:14 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.139	130	75893	19.61	ppb		98
38) Methacrylonitrile	5.158	67	41997	18.49	ppb		87
39) Tetrahydrofuran	5.243	42	26241	18.02	ppb		95
40) Chloroform	5.328	83	228784	19.67	ppb		99
41) 1,1,1-Trichloroethane	5.603	97	188877	20.68	ppb		96
42) TAME	6.407	73	354005	19.01	ppb		97
44) Cyclohexane	5.676	41	128800	19.16	ppb		92
46) Carbontetrachloride	5.859	121	48489	20.34	ppb		99
47) 1,1-Dichloropropene	5.871	75	180256	20.60	ppb		98
49) Benzene	6.176	78	569231	20.93	ppb		97
50) 1,2-Dichloroethane	6.212	62	147678	21.18	ppb		98
51) Iso-Butyl Alcohol	6.200	43	87699	384.74	ppb		86
52) n-Heptane	6.645	43	156368	20.90	ppb		95
53) 1-Butanol	7.115	56	130164	913.20	ppb		98
54) Trichloroethene	7.084	130	141316	20.45	ppb		95
55) Methylcyclohexane	7.310	55	157368	19.18	ppb		92
56) 1,2-Diclpropane	7.358	63	141654	21.02	ppb		97
57) Dibromomethane	7.486	93	64616	19.48	ppb		97
58) 1,4-Dioxane	7.560	88	19220m	383.50	ppb		
59) Methyl Methacrylate	7.578	69	76126	19.52	ppb		93
60) Bromodichloromethane	7.712	83	168733	20.42	ppb		98
61) 2-Nitropropane	7.986	41	47739	38.93	ppb		92
62) 2-Chloroethylvinyl Ether	8.108	63	68173	18.34	ppb		98
63) cis-1,3-Dichloropropene	8.242	75	233657	21.10	ppb		98
64) 4-Methyl-2-pentanone	8.444	43	97024	19.69	ppb		98
66) Toluene	8.602	91	607465	21.57	ppb		98
67) trans-1,3-Dichloropropene	8.864	75	184608	20.99	ppb		97
68) Ethyl Methacrylate	8.998	69	160688	20.63	ppb		99
69) 1,1,2-Trichloroethane	9.047	97	100108	21.02	ppb		99
72) Tetrachloroethene	9.181	164	99831	21.13	ppb		91
73) 2-Hexanone	9.328	43	63376	18.18	ppb		98
74) 1,3-Dichloropropane	9.212	76	179404	20.72	ppb		97
75) Dibromochloromethane	9.437	129	108632	20.16	ppb		97
76) N-Butyl Acetate	9.480	43	164957	19.91	ppb		98
77) 1,2-Dibromoethane	9.529	107	95116	20.61	ppb		98
78) Chlorobenzene	10.016	112	354056	21.02	ppb		98
79) 3-CBTF	10.029	180	166251	19.92	ppb		99
80) 4-CBTF	10.084	180	153182	19.70	ppb		98
81) 1,1,1,2-Tetrachloroethane	10.102	131	119487	20.52	ppb		94
82) Ethylbenzene	10.132	106	201581	21.12	ppb		96
83) (m+p)Xylene	10.242	106	498501	42.32	ppb		96
84) o-Xylene	10.596	106	254290	21.08	ppb		94
85) Styrene	10.608	104	413167	21.02	ppb		98
87) Bromoform	10.760	173	61267	19.50	ppb		94
88) 2-CBTF	10.839	180	168048	20.04	ppb		94
89) Isopropylbenzene	10.925	105	620263	21.56	ppb		98
90) Cyclohexanone	10.986	55	157226	376.99	ppb		99
91) trans-1,4-Dichloro-2-B...	11.230	53	33092	18.32	ppb		93
92) 1,1,2,2-Tetrachloroethane	11.181	83	116208	19.99	ppb		92
93) Bromobenzene	11.175	156	139093	21.37	ppb	#	85
94) 1,2,3-Trichloropropane	11.211	110	30318	17.71	ppb		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 10:51:14 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

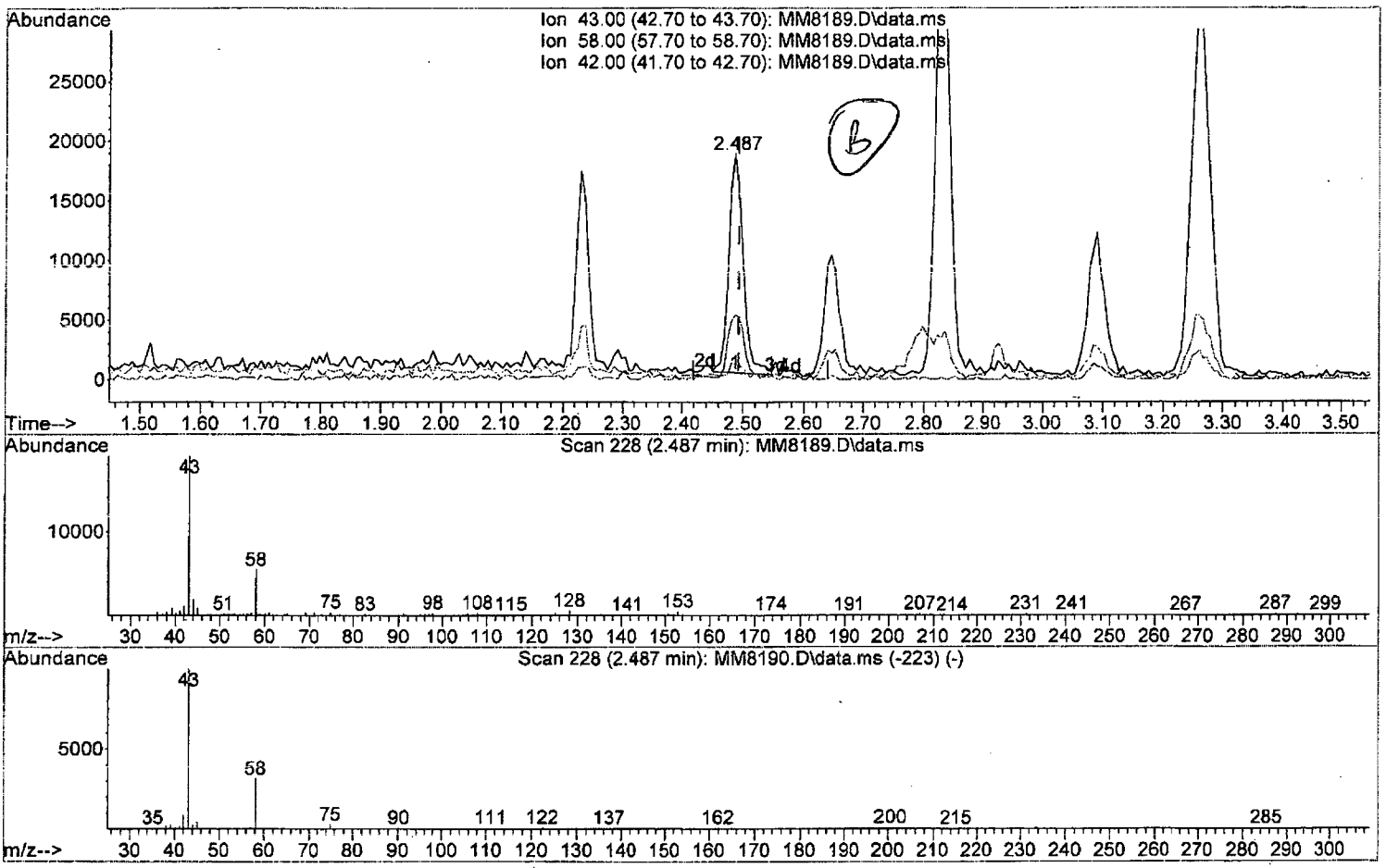
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	736008	22.20	ppb	96
96)	2-Chlorotoluene	11.339	91	425256	21.88	ppb	98
97)	3-Chlorotoluene	11.394	91	424784	20.84	ppb	98
98)	4-Chlorotoluene	11.431	91	471833	21.52	ppb	94
99)	1,3,5-Trimethylbenzene	11.431	105	469663	21.58	ppb	98
100)	tert-Butylbenzene	11.699	119	422608	21.76	ppb	99
101)	1,2,4-Trimethylbenzene	11.736	105	508453	21.77	ppb	96
102)	3,4-DCBTF	11.797	214	110506	19.67	ppb	99
103)	sec-Butylbenzene	11.882	105	592992	21.82	ppb	98
104)	p-Isopropyltoluene	12.004	119	462544	22.01	ppb	99
105)	1,3-Dclbenz	11.961	146	266226	21.13	ppb	98
106)	1,4-Dclbenz	12.034	146	254619	21.56	ppb	98
107)	2,4-DCBTF	12.089	214	100928	20.59	ppb	94
108)	2,5-DCBTF	12.126	214	110539	19.93	ppb	96
109)	n-Butylbenzene	12.333	91	438516	22.04	ppb	99
110)	1,2-Dclbenz	12.339	146	246674	21.27	ppb	96
111)	1,2-Dibromo-3-chloropr...	12.955	157	22127	19.35	ppb	87
112)	Trielution Dichlorotol...	13.077	125	622015	63.56	ppb	98
113)	1,3,5 Trichlorobenzene	13.126	180	160567	20.60	ppb	95
114)	Coelution Dichlorotoluene	13.400	125	440014	42.55	ppb	99
115)	1,2,4-Tcbenzene	13.607	180	147114	20.56	ppb	98
116)	Hexachlorobt	13.747	225	58439	19.16	ppb	91
117)	Naphthalen	13.796	128	308728	20.81	ppb	99
118)	1,2,3-Tclbenzene	13.985	180	124012	20.84	ppb	98
119)	2,4,5-Trichlorotolene	14.570	159	89484	19.81	ppb	98
120)	2,3,6-Trichlorotoluene	14.656	159	78074	19.55	ppb	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 09:36:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8189.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 18.88 ppb

response 29898

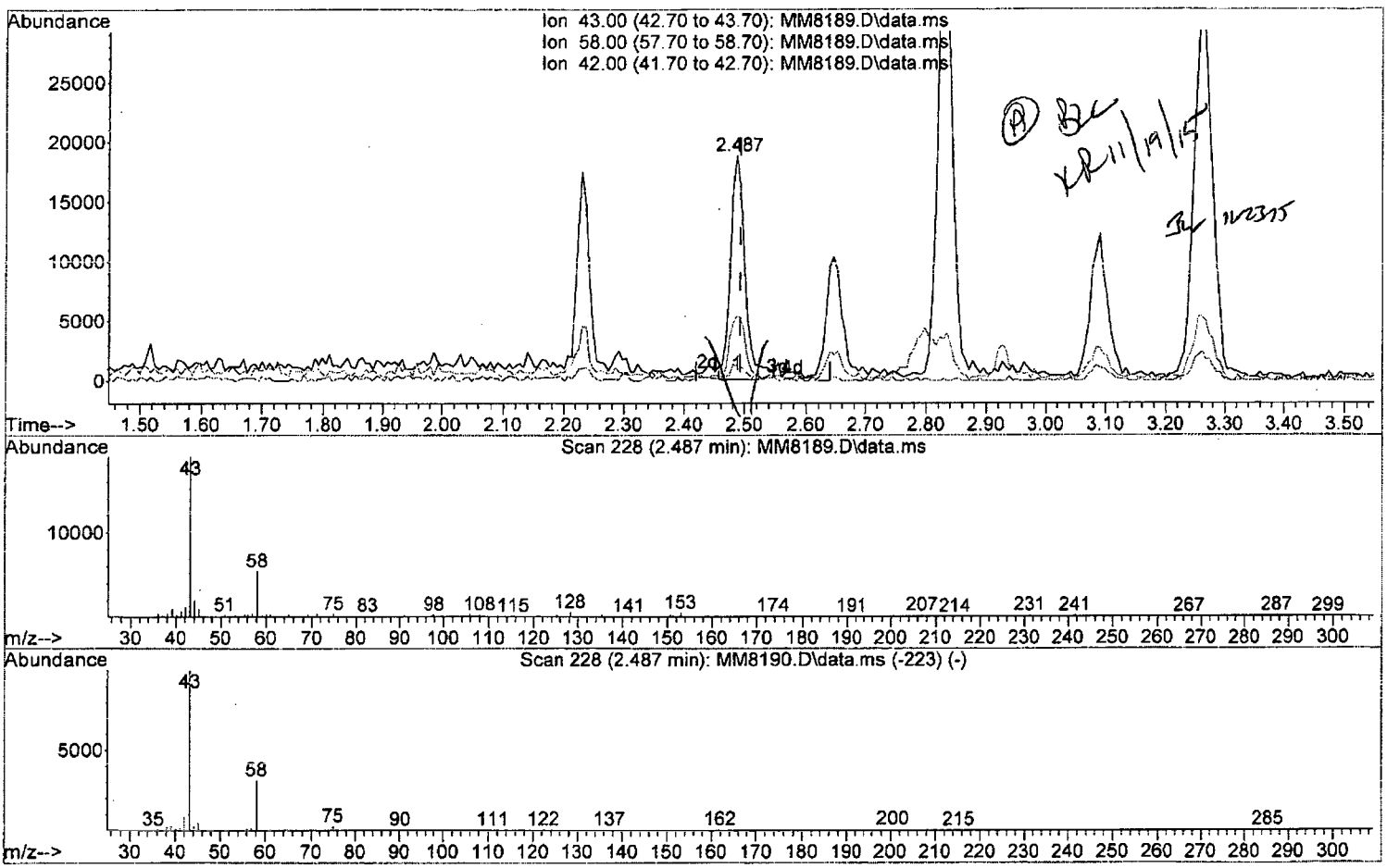
Ion	Exp%	Act%
43.00	100	100
58.00	30.90	28.87
42.00	8.50	6.21
0.00	0.00	0.00

W111815.M Thu Nov 19 10:50:00 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 09:36:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8189.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 19.36 ppb m

response 30654

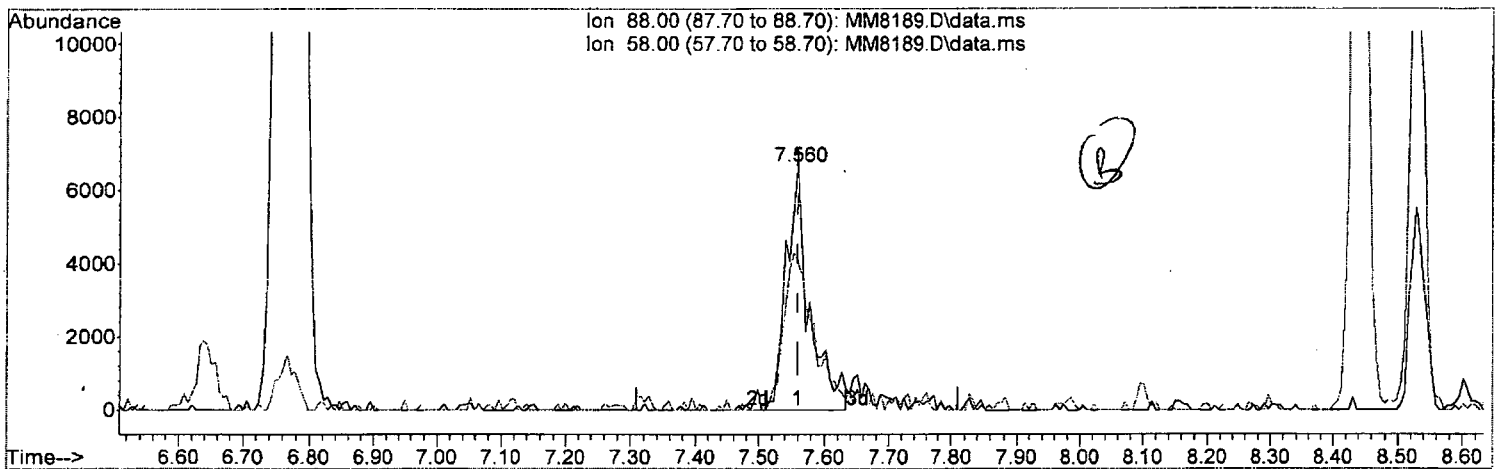
Ion	Exp%	Act%
43.00	100	100
58.00	30.90	28.87
42.00	8.50	6.21
0.00	0.00	0.00

W111815.M Thu Nov 19 10:50:10 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 09:36:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8189.D\data.ms

(58) 1,4-Dioxane

7.560min (-0.000) 324.02 ppb

response 16239

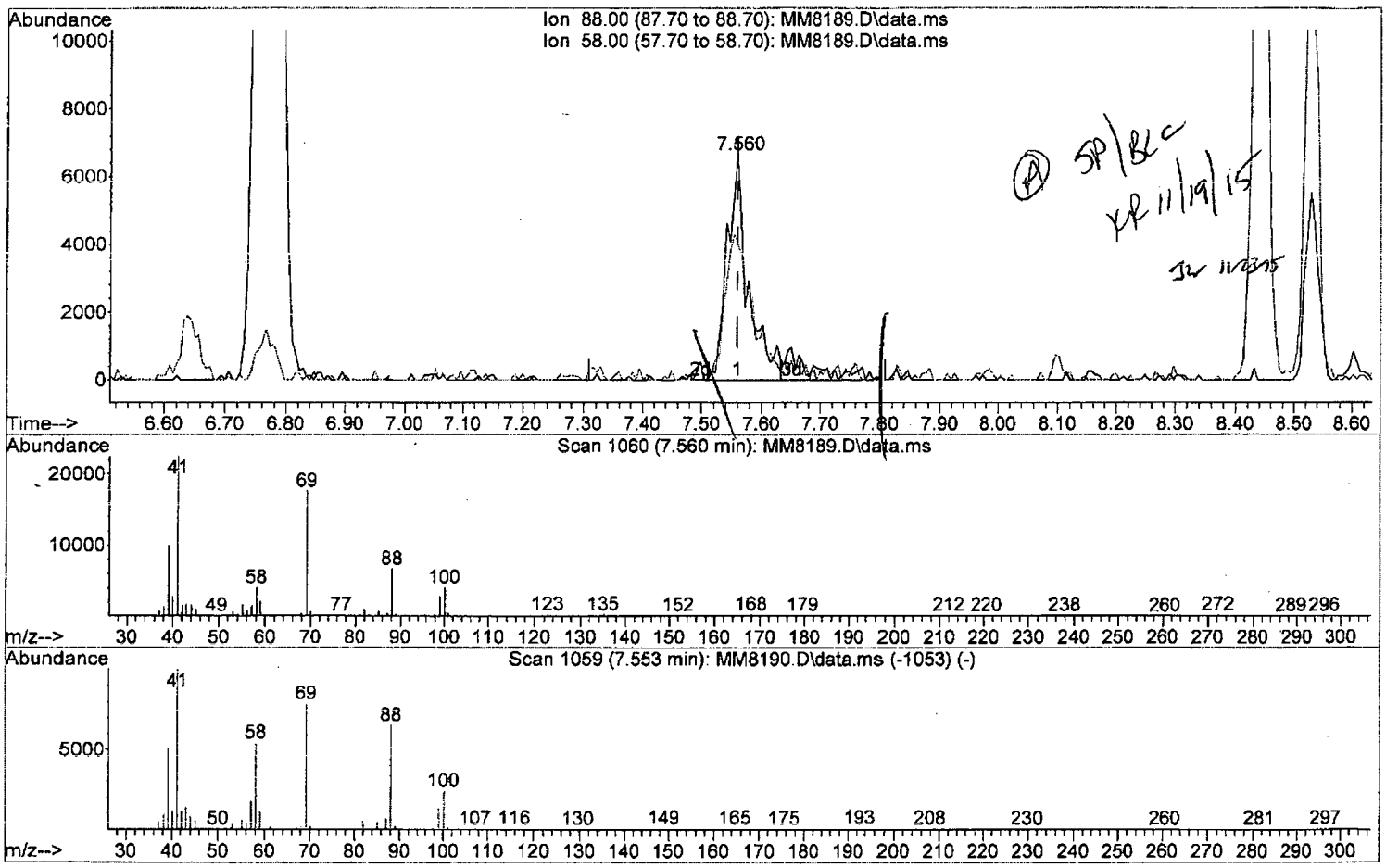
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	60.62#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:51:00 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 09:36:03 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8189.D\data.ms

(58) 1,4-Dioxane

7.560min (-0.000) 383.50 ppb m

response 19220

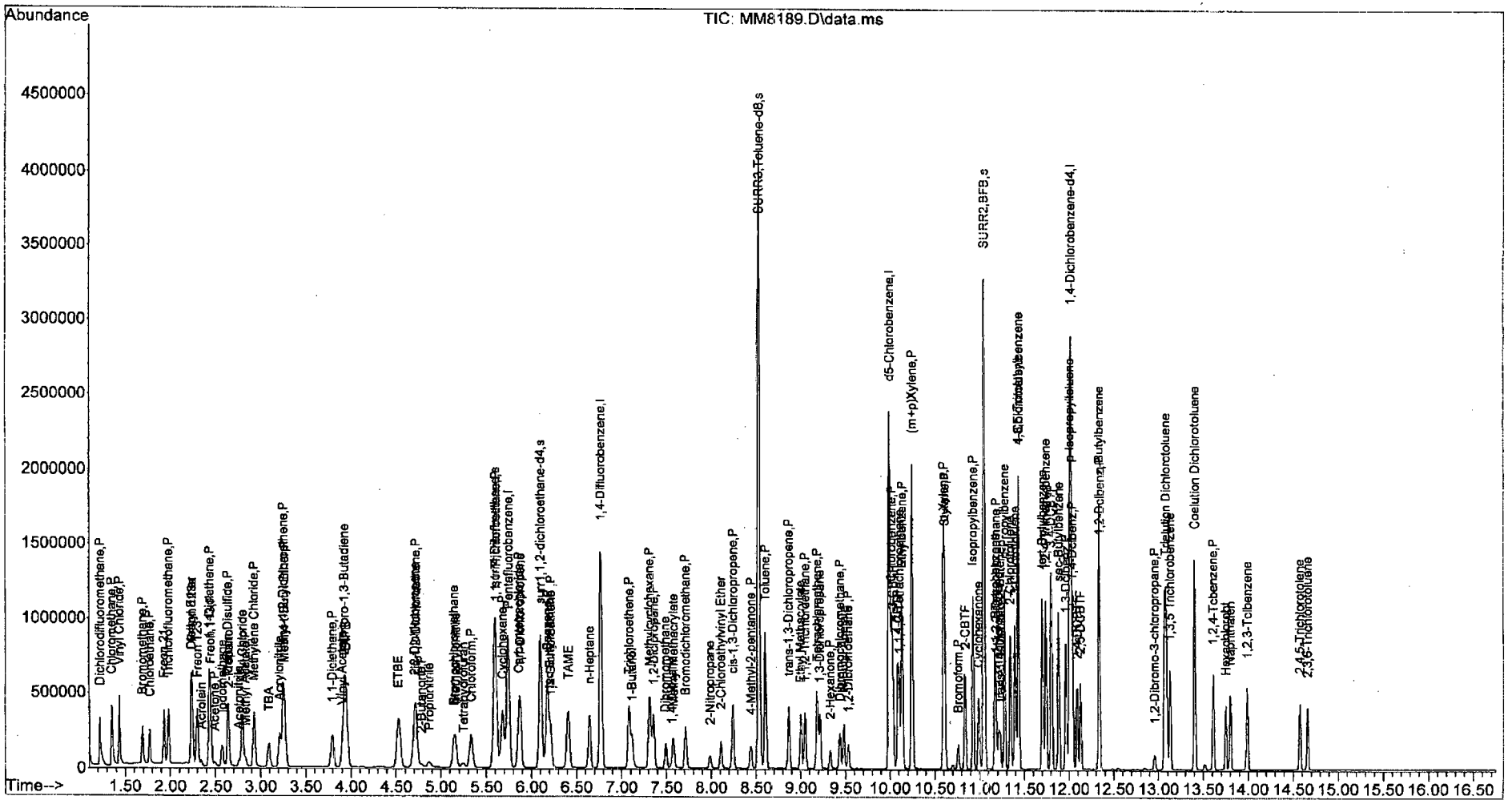
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	60.62#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 10:51:07 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8189.D
Acq On : 18 Nov 2015 6:42 pm
Operator : K.Ruest
Sample : 20ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 19 10:51:14 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 10:51:56 2015 Page: 4

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 10:54:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.743	168	733125	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1221940	50.00	ppb	0.00
71) d5-Chlorobenzene	9.992	117	1154458	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	553929	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.597	113	352544	47.76	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 95.52%			
48) surr1,1,2-dichloroetha...	6.096	65	385774	48.80	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 97.60%			
65) SURR3,Toluene-d8	8.529	98	1554415	48.42	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 96.84%			
70) SURR2,BFB	11.047	95	574554	49.69	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.38%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.219	85	574986	55.36	ppb	100
3) Chloromethane	1.347	50	620223	50.31	ppb	100
4) Vinyl Chloride	1.433	62	589983	51.36	ppb	100
5) Bromomethane	1.689	94	272364	47.91	ppb	100
6) Chloroethane	1.768	64	316235	49.25	ppb	100
7) Freon 21	1.927	67	622497	50.31	ppb	100
8) Trichlorofluoromethane	1.975	101	459849	51.34	ppb	100
9) Diethyl Ether	2.231	59	277168	49.37	ppb	100
10) Freon 123a	2.237	67	393722	48.59	ppb	100
11) Freon 123	2.298	83	447567	47.71	ppb	100
12) Acrolein	2.341	56	57688	92.34	ppb	100
13) 1,1-Diclethene	2.433	96	304457	48.49	ppb	100
14) Freon 113	2.439	101	273994	49.10	ppb	100
15) Acetone	2.487	43	72992m	46.95	ppb	
16) 2-Propanol	2.646	45	270149	910.90	ppb	100
17) Iodomethane	2.573	142	393581	57.19	ppb	100
18) Carbon Disulfide	2.634	76	1040806	50.82	ppb	100
19) Acetonitrile	2.762	40	46696	215.42	ppb	100
20) Allyl Chloride	2.798	76	171067	50.11	ppb	100
21) Methyl Acetate	2.829	43	165414	45.43	ppb	100
22) Methylene Chloride	2.926	84	335728	47.42	ppb	100
23) TBA	3.085	59	453364	941.93	ppb	100
24) Acrylonitrile	3.207	53	424290	238.10	ppb	100
25) Methyl-t-Butyl Ether	3.262	73	809434	47.45	ppb	100
26) trans-1,2-Dichloroethene	3.249	96	328228	49.99	ppb	100
28) 1,1-Diclethane	3.792	63	585724	49.87	ppb	100
29) Vinyl Acetate	3.902	86	58562	46.23	ppb	100
30) DIPE	3.944	45	1120425	48.94	ppb	100
31) 2-Chloro-1,3-Butadiene	3.926	53	588782	49.97	ppb	100
32) ETBE	4.524	59	1056072	49.08	ppb	100
33) 2,2-Dichloropropane	4.700	77	467328	49.75	ppb	100
34) cis-1,2-Dichloroethene	4.719	96	349816	47.84	ppb	100
35) 2-Butanone	4.774	43	102240	47.20	ppb	100
36) Propionitrile	4.865	54	151601	231.88	ppb	100

KB 11/19/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 10:54:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Bromochloromethane	5.145	130	185345	48.78	ppb	100
38) Methacrylonitrile	5.158	67	98211	44.05	ppb	100
39) Tetrahydrofuran	5.237	42	62344	43.61	ppb	100
40) Chloroform	5.328	83	539092	47.23	ppb	100
41) 1,1,1-Trichloroethane	5.597	97	448066	49.98	ppb	100
42) TAME	6.401	73	888035	48.58	ppb	100
44) Cyclohexane	5.676	41	328688	49.44	ppb	100
46) Carbontetrachloride	5.859	121	117711	49.94	ppb	100
47) 1,1-Dichloropropene	5.871	75	431513	49.85	ppb	100
49) Benzene	6.170	78	1368032	50.87	ppb	100
50) 1,2-Dichloroethane	6.212	62	337529	48.96	ppb	100
51) Iso-Butyl Alcohol	6.200	43	202950	900.31	ppb	100
52) n-Heptane	6.645	43	360771	48.75	ppb	100
53) 1-Butanol	7.115	56	324175	2299.79	ppb	100
54) Trichloroethene	7.084	130	337817	49.44	ppb	100
55) Methylcyclohexane	7.316	55	395842	48.79	ppb	100
56) 1,2-Diclpropane	7.352	63	335429	50.34	ppb	100
57) Dibromomethane	7.486	93	152034	46.34	ppb	100
58) 1,4-Dioxane	7.553	88	43143m	870.47	ppb	
59) Methyl Methacrylate	7.578	69	186578	48.39	ppb	100
60) Bromodichloromethane	7.712	83	407587	49.89	ppb	100
61) 2-Nitropropane	7.986	41	110019	90.71	ppb	100
62) 2-Chloroethylvinyl Ether	8.108	63	173496	47.19	ppb	100
63) cis-1,3-Dichloropropene	8.242	75	547036	49.95	ppb	100
64) 4-Methyl-2-pentanone	8.437	43	238996	49.04	ppb	100
66) Toluene	8.602	91	1418406	50.93	ppb	100
67) trans-1,3-Dichloropropene	8.864	75	448276	51.53	ppb	100
68) Ethyl Methacrylate	8.998	69	387625	50.32	ppb	100
69) 1,1,2-Trichloroethane	9.047	97	235977	50.10	ppb	100
72) Tetrachloroethene	9.181	164	239087	49.93	ppb	100
73) 2-Hexanone	9.328	43	166329	47.07	ppb	100
74) 1,3-Dichloropropane	9.212	76	416990	47.51	ppb	100
75) Dibromochloromethane	9.437	129	272559	49.91	ppb	100
76) N-Butyl Acetate	9.480	43	412079	49.08	ppb	100
77) 1,2-Dibromoethane	9.529	107	226815	48.49	ppb	100
78) Chlorobenzene	10.016	112	832436	48.75	ppb	100
79) 3-CBTF	10.029	180	407757	48.19	ppb	100
80) 4-CBTF	10.083	180	373055	47.34	ppb	100
81) 1,1,1,2-Tetrachloroethane	10.102	131	284530	48.21	ppb	100
82) Ethylbenzene	10.132	106	475699	49.18	ppb	100
83) (m+p)Xylene	10.242	106	1184332	99.19	ppb	100
84) o-Xylene	10.596	106	619072	50.63	ppb	100
85) Styrene	10.608	104	992156	49.81	ppb	100
87) Bromoform	10.760	173	151800	48.24	ppb	100
88) 2-CBTF	10.833	180	406831	48.44	ppb	100
89) Isopropylbenzene	10.925	105	1451555	50.39	ppb	100
90) Cyclohexanone	10.986	55	396507	949.43	ppb	100
91) trans-1,4-Dichloro-2-B...	11.230	53	84694	46.81	ppb	100
92) 1,1,2,2-Tetrachloroethane	11.181	83	273575	47.00	ppb	100
93) Bromobenzene	11.169	156	333923	51.23	ppb	100
94) 1,2,3-Trichloropropane	11.211	110	75214	43.88	ppb	100

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 10:54:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

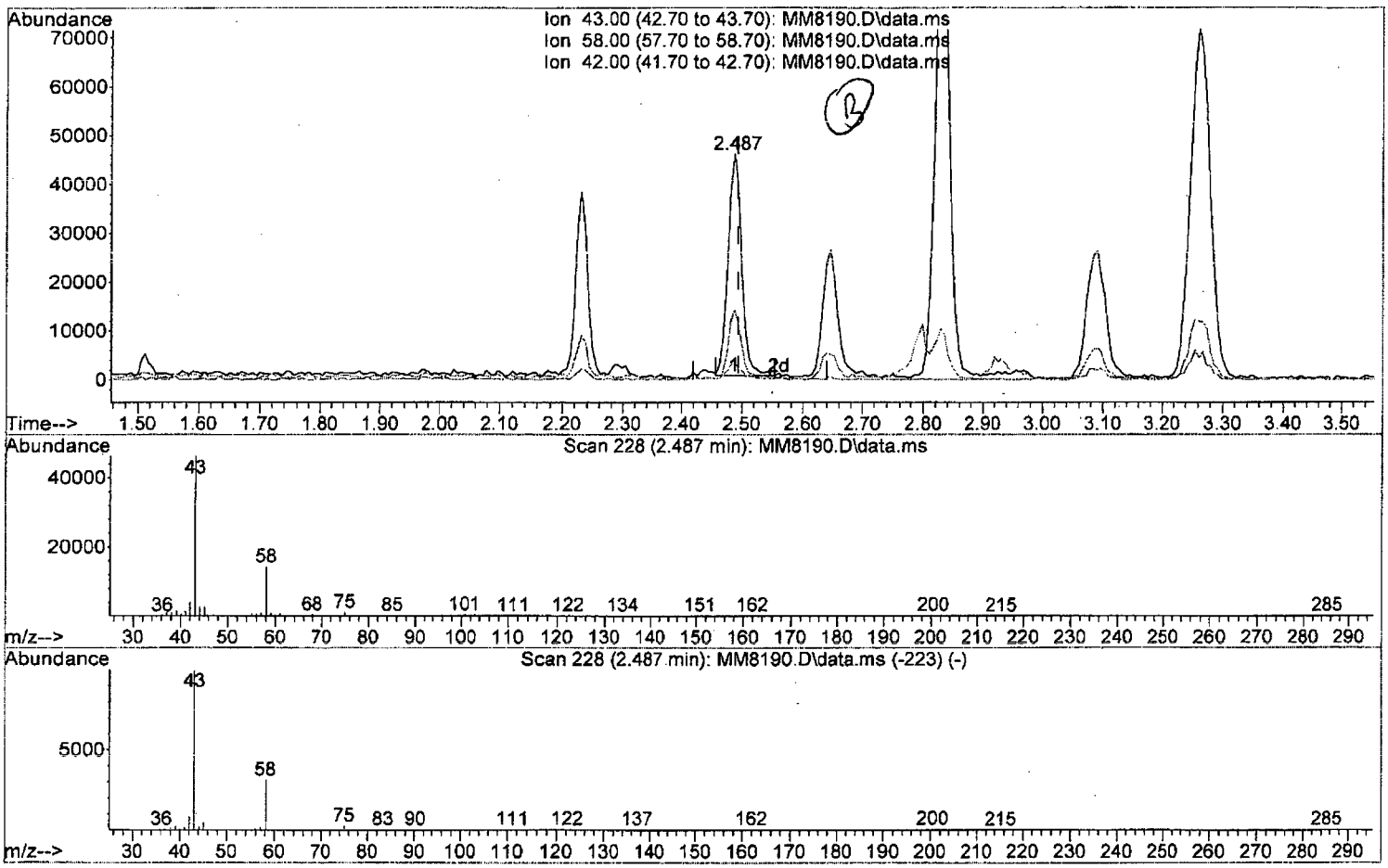
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) n-Propylbenzene	11.278	91	1715030	51.66	ppb	100
96) 2-Chlorotoluene	11.339	91	1004690	51.62	ppb	100
97) 3-Chlorotoluene	11.394	91	1024114	50.17	ppb	100
98) 4-Chlorotoluene	11.437	91	1110175	50.57	ppb	100
99) 1,3,5-Trimethylbenzene	11.431	105	1111728	51.00	ppb	100
100) tert-Butylbenzene	11.699	119	1007300	51.79	ppb	100
101) 1,2,4-Trimethylbenzene	11.742	105	1197157	51.18	ppb	100
102) 3,4-DCBTF	11.797	214	275696	49.01	ppb	100
103) sec-Butylbenzene	11.882	105	1398223	51.38	ppb	100
104) p-Isopropyltoluene	12.004	119	1087020	51.66	ppb	100
105) 1,3-Dclbenz	11.961	146	638059	50.57	ppb	100
106) 1,4-Dclbenz	12.034	146	613936	51.91	ppb	100
107) 2,4-DCBTF	12.089	214	244902	49.88	ppb	100
108) 2,5-DCBTF	12.126	214	272399	49.05	ppb	100
109) n-Butylbenzene	12.333	91	1027520	51.57	ppb	100
110) 1,2-Dclbenz	12.339	146	591846	50.97	ppb	100
111) 1,2-Dibromo-3-chloropr...	12.955	157	53472	46.71	ppb	100
112) Trielution Dichlorotol...	13.077	125	1477263	150.74	ppb	100
113) 1,3,5 Trichlorobenzene	13.132	180	380708	48.77	ppb	100
114) Coelution Dichlorotoluene	13.400	125	1062223	102.57	ppb	100
115) 1,2,4-Tcbenzene	13.607	180	360767	50.36	ppb	100
116) Hexachlorobt	13.747	225	146014	47.80	ppb	100
117) Naphthalen	13.796	128	766508	51.59	ppb	100
118) 1,2,3-Tclbenzene	13.985	180	306118	51.37	ppb	100
119) 2,4,5-Trichlorotolene	14.570	159	218733	48.36	ppb	100
120) 2,3,6-Trichlorotoluene	14.656	159	182713	45.69	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 09:36:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8190.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 45.46 ppb

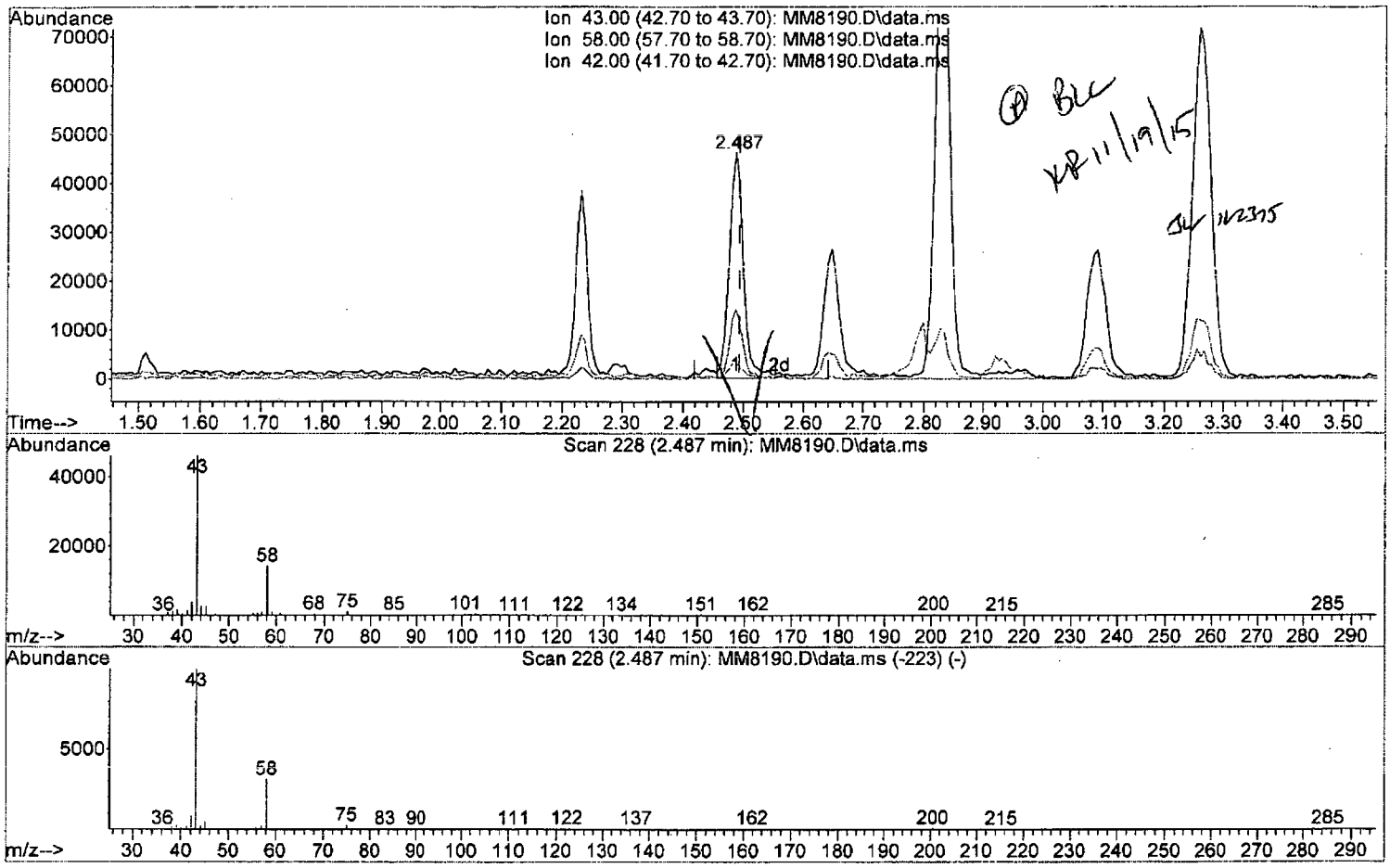
response 70668

Ion	Exp%	Act%
43.00	100	100
58.00	30.90	30.87
42.00	8.50	8.48
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 09:36:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8190.D\data.ms

(15) Acetone (P)

2.487min (-0.006) 46.95 ppb m

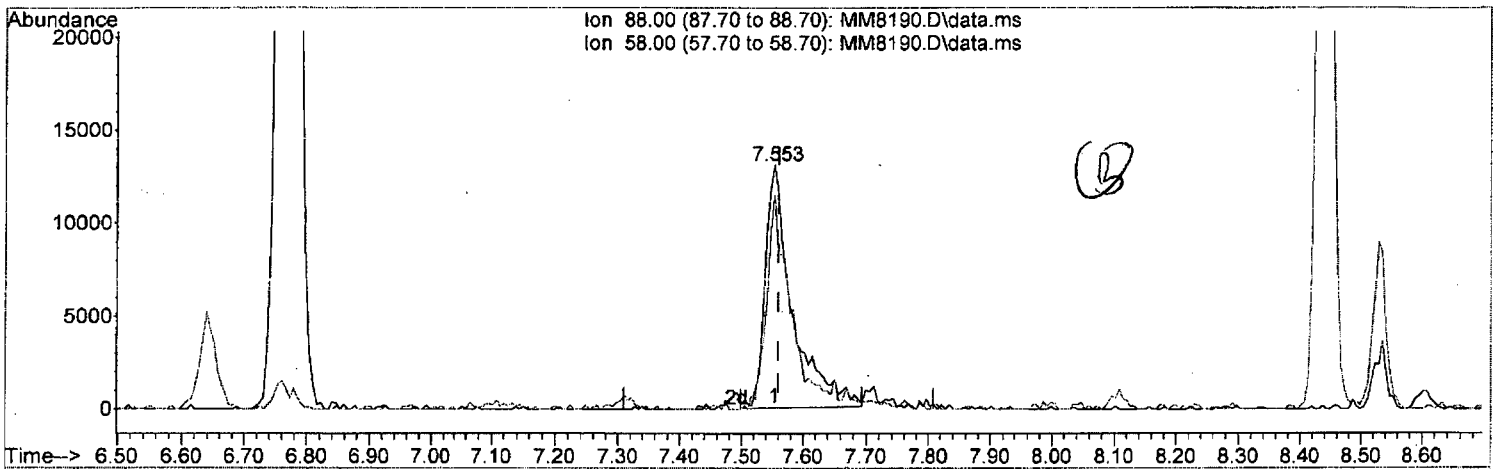
response 72992

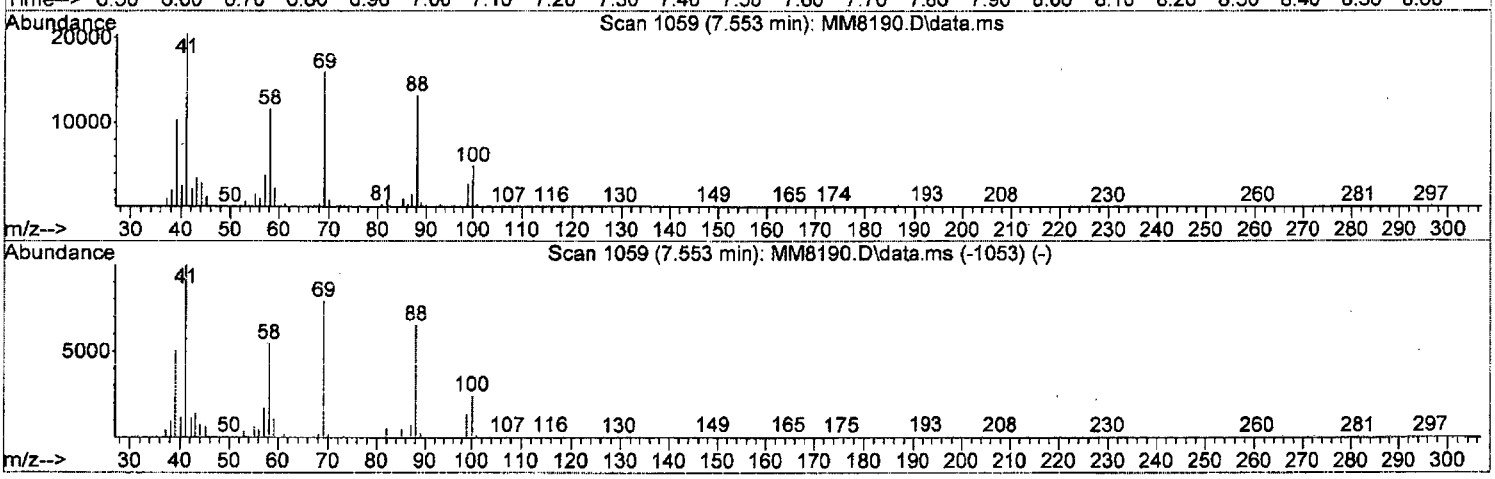
Ion	Exp%	Act%
43.00	100	100
58.00	30.90	30.87
42.00	8.50	8.48
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 09:36:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration





TIC: MM8190.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 809.02 ppb

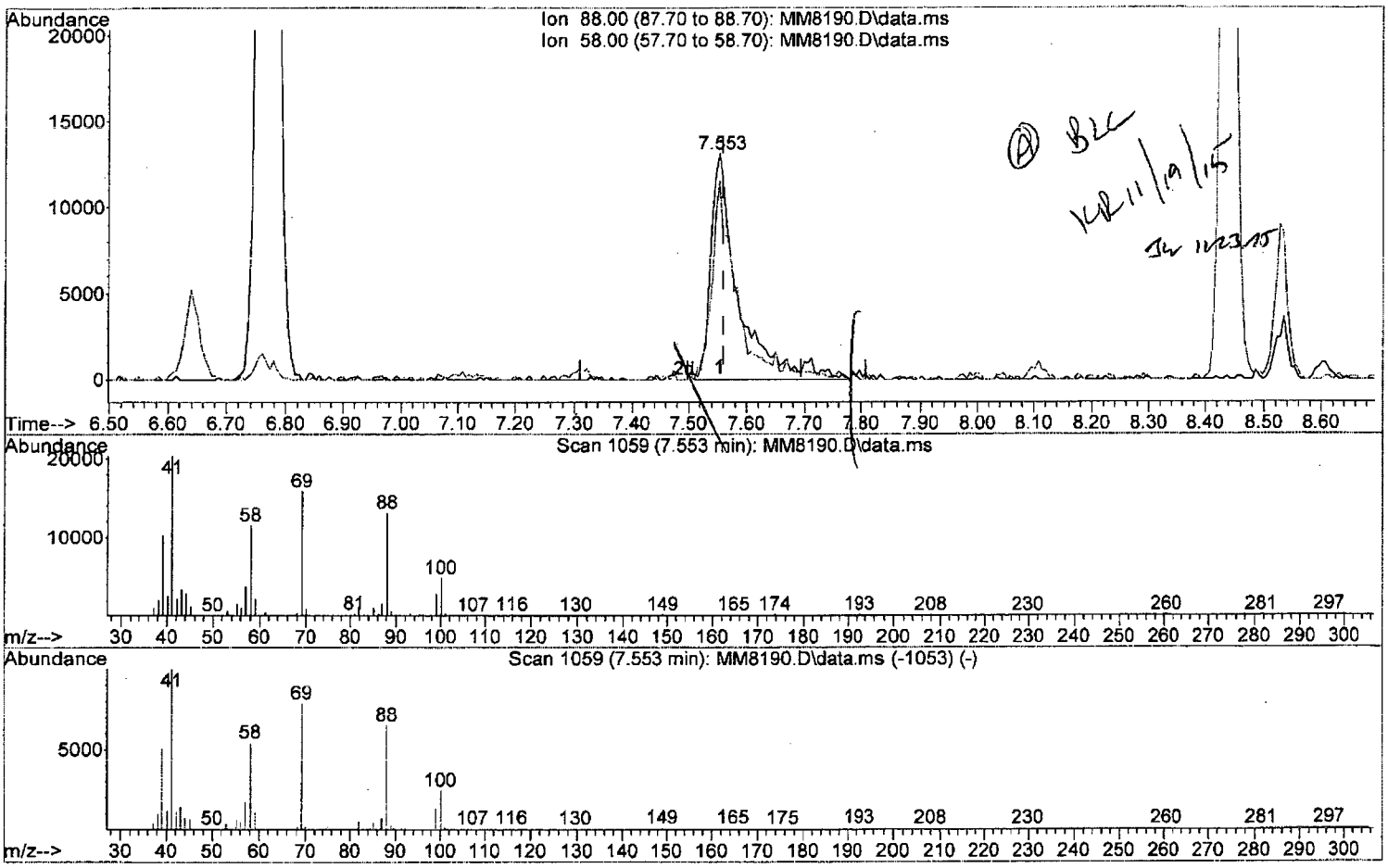
response 40097

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	87.86
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 09:36:07 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8190.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 870.47 ppb m

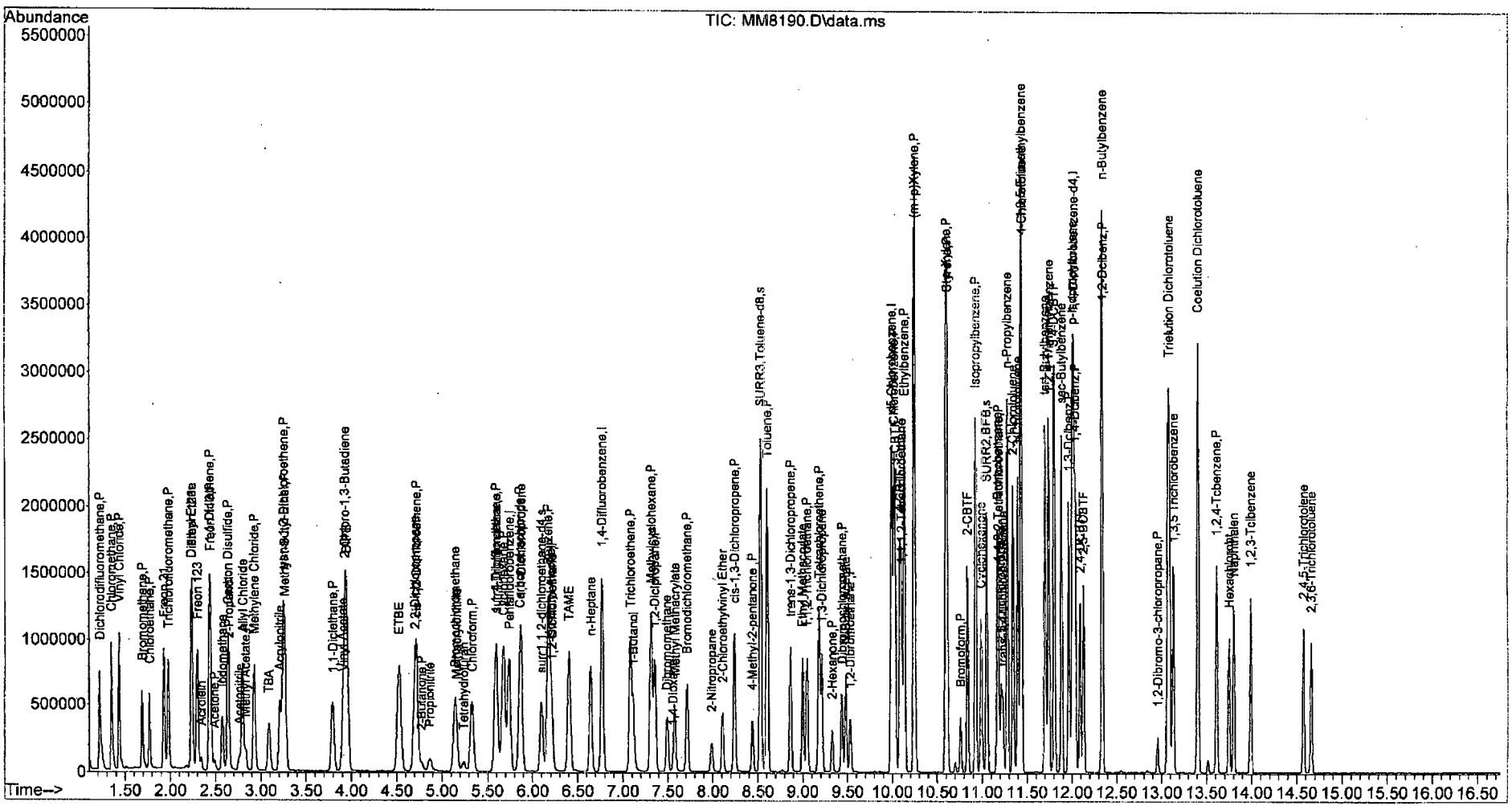
response 43143

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	87.86
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8190.D
Acq On : 18 Nov 2015 7:12 pm
Operator : K.Ruest
Sample : 50ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 19 10:54:05 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 10:58:00 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 11:00:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	713860	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1202753	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1137171	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	550506	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	724533	127.22	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 254.44%#				
48) surr1,1,2-dichloroetha...	6.096	65	810008	126.64	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 253.28%#				
65) SURR3,Toluene-d8	8.529	98	2990251	128.87	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 257.74%#				
70) SURR2,BFB	11.053	95	1160630	128.90	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 257.80%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	1052840	104.11	ppb		100
3) Chloromethane	1.347	50	1140391	94.99	ppb		99
4) Vinyl Chloride	1.433	62	1056349	94.45	ppb		99
5) Bromomethane	1.689	94	510510	92.22	ppb		99
6) Chloroethane	1.768	64	573008	91.66	ppb		98
7) Freon 21	1.926	67	1187769	98.58	ppb		100
8) Trichlorofluoromethane	1.975	101	840992	96.42	ppb		99
9) Diethyl Ether	2.231	59	523351	95.74	ppb		96
10) Freon 123a	2.237	67	719400	91.17	ppb		98
11) Freon 123	2.298	83	822956	90.09	ppb		97
12) Acrolein	2.341	56	116462	191.45	ppb		99
13) 1,1-Diclethene	2.432	96	536474	87.75	ppb		99
14) Freon 113	2.445	101	471815	86.84	ppb		89
15) Acetone	2.487	43	148224	97.92	ppb		99
16) 2-Propanol	2.646	45	552682	1913.86	ppb		98
17) Iodomethane	2.573	142	732076	109.24	ppb		100
18) Carbon Disulfide	2.634	76	1920148	96.29	ppb		98
19) Acetonitrile	2.762	40	87773	415.85	ppb		97
20) Allyl Chloride	2.798	76	300603	90.42	ppb		98
21) Methyl Acetate	2.835	43	329628	92.96	ppb		98
22) Methylene Chloride	2.926	84	620581	90.02	ppb		97
23) TBA	3.091	59	951681	2030.61	ppb		98
24) Acrylonitrile	3.213	53	848533	489.02	ppb		100
25) Methyl-t-Butyl Ether	3.262	73	1539975	92.72	ppb		98
26) trans-1,2-Dichloroethene	3.243	96	590566	92.37	ppb		92
28) 1,1-Diclethane	3.792	63	1086572	95.02	ppb		98
29) Vinyl Acetate	3.902	86	113675	92.16	ppb	#	84
30) DIPE	3.944	45	2091790	93.83	ppb		99
31) 2-Chloro-1,3-Butadiene	3.932	53	1094579	95.40	ppb		99
32) ETBE	4.530	59	2046007	97.66	ppb		99
33) 2,2-Dichloropropane	4.706	77	823814	90.06	ppb		97
34) cis-1,2-Dichloroethene	4.719	96	636168	89.36	ppb		97
35) 2-Butanone	4.780	43	212788	100.89	ppb		92
36) Propionitrile	4.865	54	317003	497.96	ppb		95

KR 11/19/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 11:00:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	343229	92.77	ppb		99
38) Methacrylonitrile	5.158	67	199214	91.76	ppb		97
39) Tetrahydrofuran	5.243	42	135076	97.04	ppb		95
40) Chloroform	5.334	83	982598	88.41	ppb		98
41) 1,1,1-Trichloroethane	5.596	97	804545	92.16	ppb		99
42) TAME	6.407	73	1728717	97.13	ppb		99
44) Cyclohexane	5.676	41	604347	92.36	ppb		95
46) Carbontetrachloride	5.865	121	212215	91.46	ppb		92
47) 1,1-Dichloropropene	5.871	75	759998	89.21	ppb		99
49) Benzene	6.176	78	2444912	92.36	ppb		99
50) 1,2-Dichloroethane	6.212	62	643542	94.83	ppb		97
51) Iso-Butyl Alcohol	6.206	43	428127	1929.52	ppb		95
52) n-Heptane	6.639	43	654510	89.85	ppb		97
53) 1-Butanol	7.121	56	701707	5057.53	ppb		99
54) Trichloroethene	7.084	130	614789	91.41	ppb		99
55) Methylcyclohexane	7.310	55	738463	92.47	ppb		97
56) 1,2-Diclpropane	7.358	63	615093	93.78	ppb		100
57) Dibromomethane	7.492	93	296199	91.72	ppb		92
58) 1,4-Dioxane	7.553	88	92040m	1886.67	ppb		
59) Methyl Methacrylate	7.578	69	362036	95.39	ppb		98
60) Bromodichloromethane	7.712	83	748127	93.03	ppb		98
61) 2-Nitropropane	7.986	41	224095	187.72	ppb		93
62) 2-Chloroethylvinyl Ether	8.108	63	344148	95.11	ppb		94
63) cis-1,3-Dichloropropene	8.242	75	1015287	94.19	ppb		98
64) 4-Methyl-2-pentanone	8.444	43	492121	102.59	ppb		97
66) Toluene	8.602	91	2491884	90.90	ppb		96
67) trans-1,3-Dichloropropene	8.864	75	849380	99.19	ppb		99
68) Ethyl Methacrylate	8.998	69	767246	101.20	ppb		100
69) 1,1,2-Trichloroethane	9.047	97	447446	96.52	ppb		96
72) Tetrachloroethene	9.181	164	436264	92.49	ppb		97
73) 2-Hexanone	9.327	43	339220	97.45	ppb		96
74) 1,3-Dichloropropane	9.212	76	793935	91.83	ppb		99
75) Dibromochloromethane	9.437	129	518817	96.44	ppb		96
76) N-Butyl Acetate	9.480	43	824438	99.69	ppb		96
77) 1,2-Dibromoethane	9.529	107	437198	94.90	ppb		98
78) Chlorobenzene	10.016	112	1538484	91.46	ppb		99
79) 3-CBTF	10.035	180	799901	95.98	ppb		97
80) 4-CBTF	10.083	180	743144	95.73	ppb		98
81) 1,1,1,2-Tetrachloroethane	10.102	131	527907	90.80	ppb		97
82) Ethylbenzene	10.132	106	877167	92.06	ppb	#	85
83) (m+p)Xylene	10.242	106	2135222	181.54	ppb		90
84) o-Xylene	10.596	106	1139130	94.58	ppb		91
85) Styrene	10.608	104	1801396	91.81	ppb		97
87) Bromoform	10.760	173	299241	95.69	ppb		100
88) 2-CBTF	10.839	180	816266	97.80	ppb		92
89) Isopropylbenzene	10.931	105	2543602	88.85	ppb		95
90) Cyclohexanone	10.992	55	861885	2076.61	ppb		98
91) trans-1,4-Dichloro-2-B...	11.230	53	167780	93.31	ppb		94
92) 1,1,2,2-Tetrachloroethane	11.181	83	534585	92.42	ppb		97
93) Bromobenzene	11.175	156	621913	96.01	ppb	#	89
94) 1,2,3-Trichloropropane	11.211	110	154613	90.77	ppb	#	89

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 11:00:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

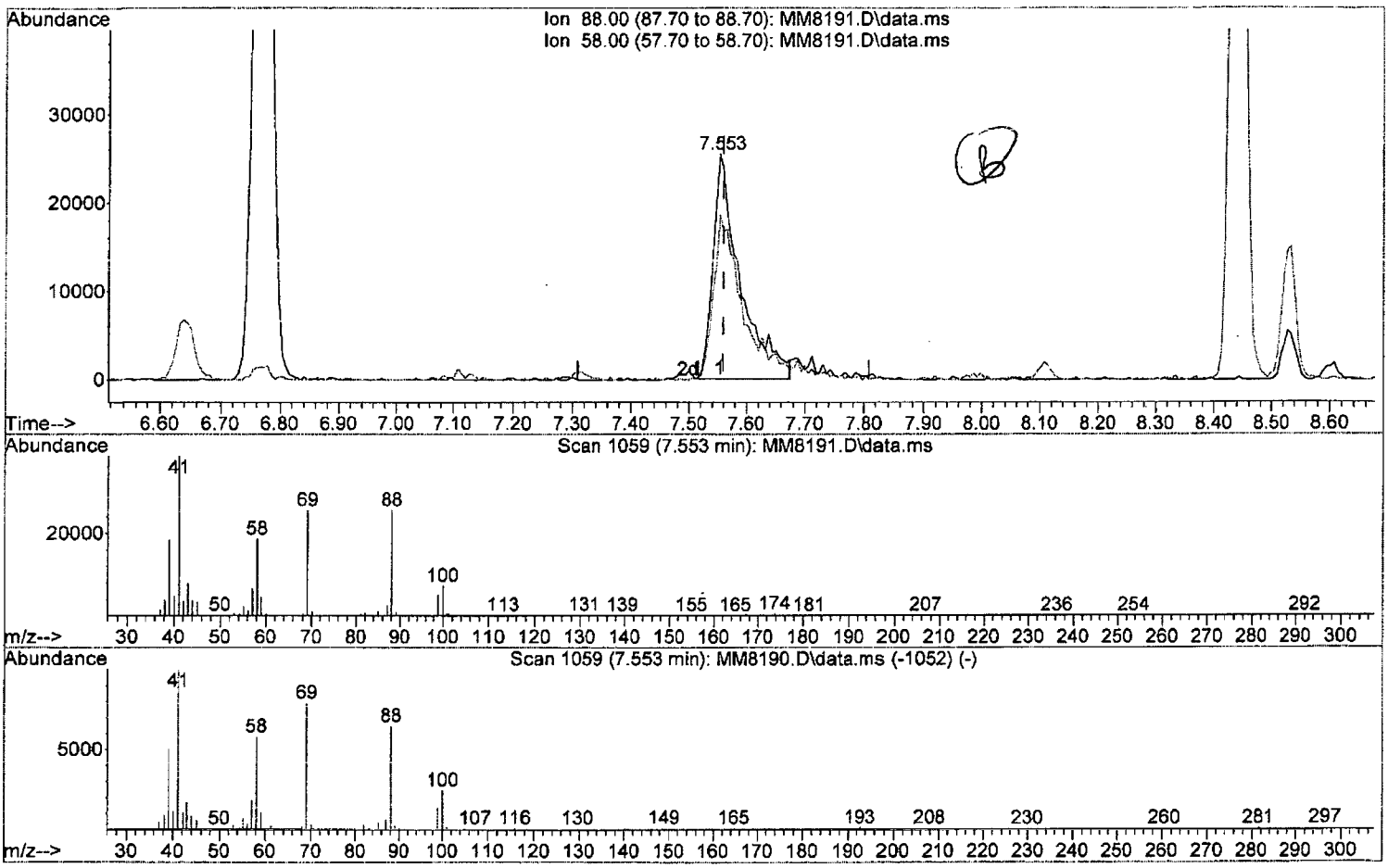
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95) n-Propylbenzene	11.278	91	2979403	90.30 ppb	99
96) 2-Chlorotoluene	11.345	91	1815210	93.85 ppb	96
97) 3-Chlorotoluene	11.394	91	1990978	98.14 ppb	99
98) 4-Chlorotoluene	11.437	91	1979448	90.72 ppb	97
99) 1,3,5-Trimethylbenzene	11.431	105	1980142	91.41 ppb	99
100) tert-Butylbenzene	11.699	119	1787654	92.49 ppb	97
101) 1,2,4-Trimethylbenzene	11.742	105	2123052	91.33 ppb	96
102) 3,4-DCBTF	11.803	214	539722	96.54 ppb	94
103) sec-Butylbenzene	11.882	105	2455158	90.78 ppb	98
104) p-Isopropyltoluene	12.004	119	1937749	92.67 ppb	99
105) 1,3-Dclbenz	11.961	146	1183579	94.39 ppb	99
106) 1,4-Dclbenz	12.034	146	1153999	98.19 ppb	98
107) 2,4-DCBTF	12.089	214	499620	102.40 ppb	96
108) 2,5-DCBTF	12.126	214	554776	100.51 ppb	98
109) n-Butylbenzene	12.333	91	1781804	89.98 ppb	97
110) 1,2-Dclbenz	12.339	146	1117710	96.85 ppb	97
111) 1,2-Dibromo-3-chloropr...	12.955	157	112189	98.61 ppb	88
112) Trielution Dichlorotol...	13.077	125	2827694	290.33 ppb	98
113) 1,3,5 Trichlorobenzene	13.132	180	740388	95.44 ppb	98
114) Coelution Dichlorotoluene	13.400	125	2012590	195.55 ppb	99
115) 1,2,4-Tcbenzene	13.613	180	675356	94.85 ppb	96
116) Hexachlorobt	13.747	225	258408	85.12 ppb	97
117) Naphthalen	13.802	128	1528038	103.48 ppb	100
118) 1,2,3-Tclbenzene	13.985	180	583888	98.59 ppb	97
119) 2,4,5-Trichlorotolene	14.570	159	441673	98.26 ppb	96
120) 2,3,6-Trichlorotoluene	14.656	159	364114	91.63 ppb	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 09:36:11 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8191.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 1703.82 ppb

response 83120

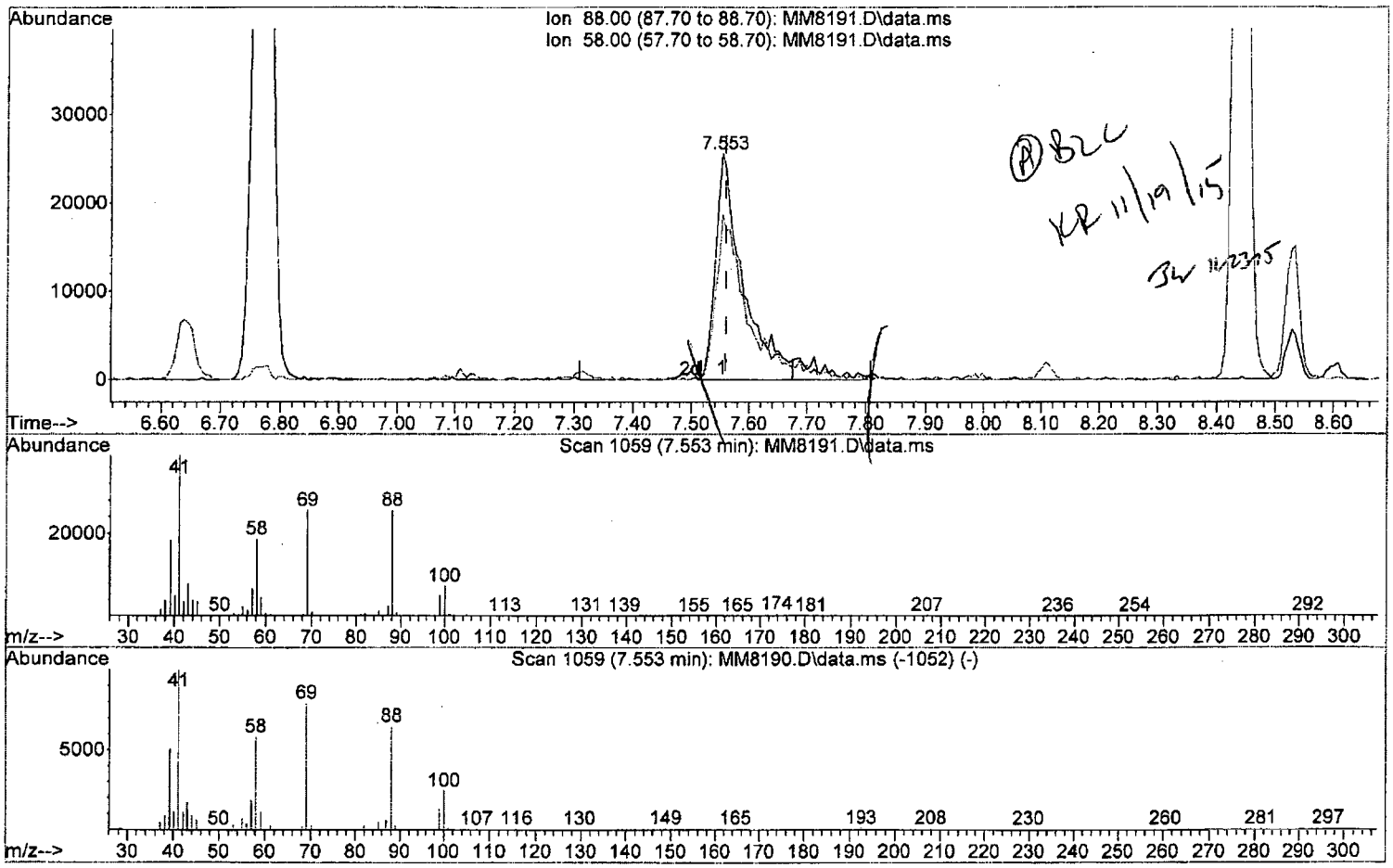
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	72.99
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 11:00:19 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 09:36:11 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8191.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 1886.67 ppb m

response 92040

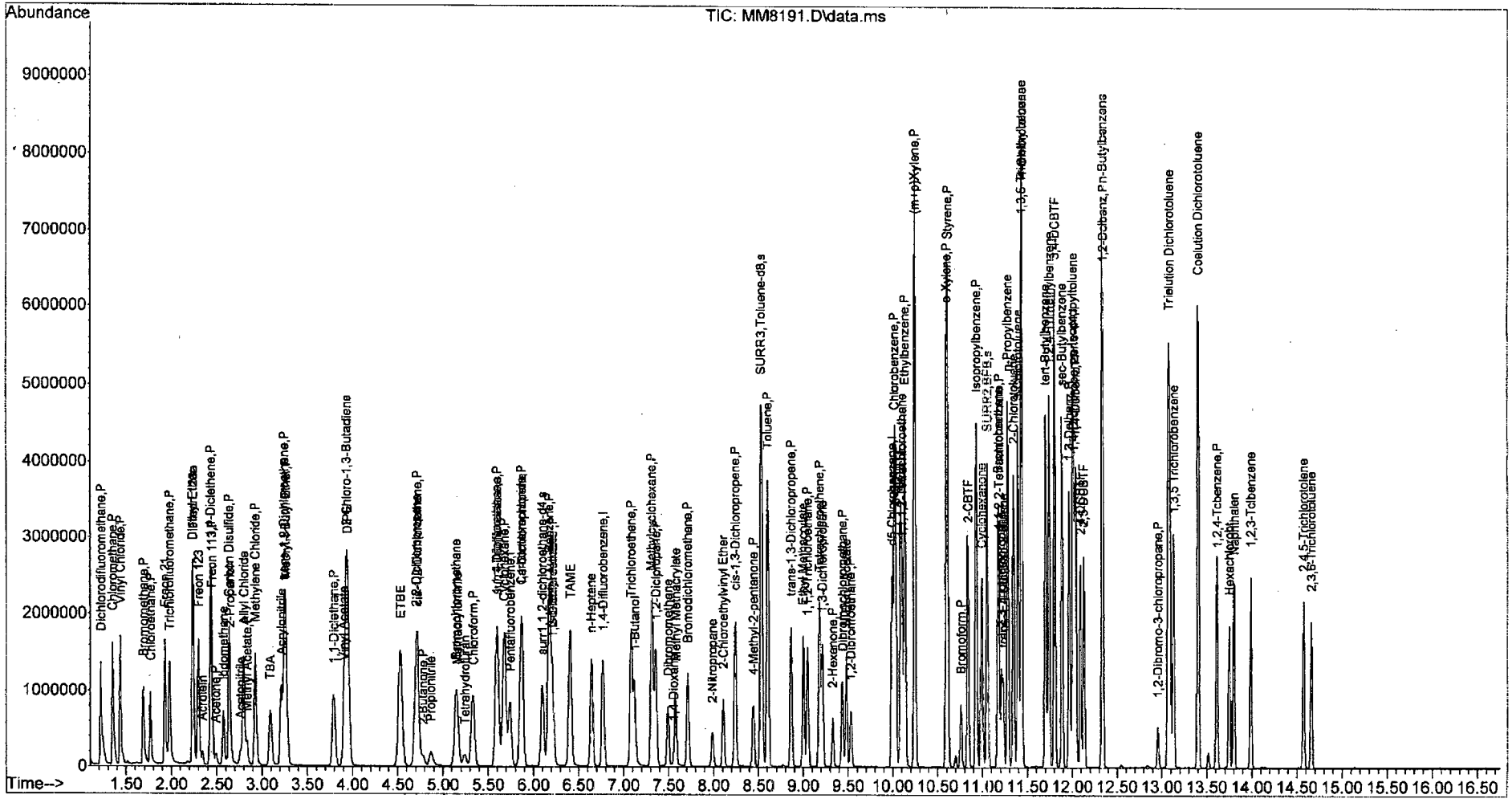
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	72.99
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 11:00:28 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8191.D
Acq On : 18 Nov 2015 7:43 pm
Operator : K.Ruest
Sample : 100ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 19 11:00:36 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 11:03:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	710676	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1214199	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1136182	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.022	152	548662	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	825636	146.86	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 293.72%#				
48) surr1,1,2-dichloroetha...	6.096	65	939275	148.42	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 296.84%#				
65) SURR3,Toluene-d8	8.535	98	3335998	146.19	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 292.38%#				
70) SURR2,BFB	11.053	95	1317781	148.16	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 296.32%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	1565617	155.51	ppb		99
3) Chloromethane	1.347	50	1693779	141.72	ppb		99
4) Vinyl Chloride	1.433	62	1555618	139.71	ppb		99
5) Bromomethane	1.683	94	762632	138.37	ppb		98
6) Chloroethane	1.768	64	848527	136.34	ppb		99
7) Freon 21	1.926	67	1689782	140.87	ppb		98
8) Trichlorofluoromethane	1.975	101	1220950	140.61	ppb		98
9) Diethyl Ether	2.231	59	764131	140.42	ppb		99
10) Freon 123a	2.237	67	1032224	131.40	ppb		98
11) Freon 123	2.298	83	1183276	130.11	ppb		95
12) Acrolein	2.341	56	182525	301.40	ppb		98
13) 1,1-Diclethene	2.432	96	787653	129.41	ppb		98
14) Freon 113	2.439	101	720367	133.18	ppb		94
15) Acetone	2.487	43	222785	147.84	ppb		98
16) 2-Propanol	2.652	45	864260	3006.21	ppb		98
17) Iodomethane	2.573	142	1037636	155.53	ppb		99
18) Carbon Disulfide	2.634	76	2726802	137.35	ppb		97
19) Acetonitrile	2.762	40	166122	790.58	ppb		97
20) Allyl Chloride	2.798	76	429392	129.74	ppb		97
21) Methyl Acetate	2.829	43	497897	141.05	ppb		100
22) Methylene Chloride	2.926	84	919352	133.95	ppb		99
23) TBA	3.097	59	1452559	3113.23	ppb		97
24) Acrylonitrile	3.213	53	1254588	726.27	ppb		100
25) Methyl-t-Butyl Ether	3.268	73	2262406	136.82	ppb		99
26) trans-1,2-Dichloroethene	3.243	96	874569	137.41	ppb		95
28) 1,1-Diclethane	3.792	63	1604654	140.95	ppb		99
29) Vinyl Acetate	3.908	86	170723	139.03	ppb	#	86
30) DIPE	3.950	45	2982611	134.38	ppb		97
31) 2-Chloro-1,3-Butadiene	3.926	53	1583512	138.63	ppb		97
32) ETBE	4.530	59	2946391	141.27	ppb		98
33) 2,2-Dichloropropane	4.706	77	1222286	134.22	ppb		96
34) cis-1,2-Dichloroethene	4.719	96	947943	133.75	ppb		98
35) 2-Butanone	4.780	43	309457	147.39	ppb		89
36) Propionitrile	4.871	54	472669	745.81	ppb		95

KP 11/19/15

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 11:03:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	492369	133.68	ppb		97
38) Methacrylonitrile	5.158	67	290395	134.36	ppb		98
39) Tetrahydrofuran	5.237	42	191788	138.40	ppb		96
40) Chloroform	5.334	83	1462167	132.15	ppb		98
41) 1,1,1-Trichloroethane	5.596	97	1214044	139.69	ppb		100
42) TAME	6.407	73	2526840	142.61	ppb		97
44) Cyclohexane	5.676	41	875301	132.50	ppb		99
46) Carbontetrachloride	5.859	121	326428	139.36	ppb		95
47) 1,1-Dichloropropene	5.871	75	1131779	131.59	ppb		99
49) Benzene	6.176	78	3558177	133.15	ppb		99
50) 1,2-Dichloroethane	6.212	62	948792	138.50	ppb		97
51) Iso-Butyl Alcohol	6.206	43	642497	2868.37	ppb		92
52) n-Heptane	6.645	43	957961	130.27	ppb		97
53) 1-Butanol	7.121	56	1073863	7666.87	ppb		99
54) Trichloroethene	7.084	130	925764	136.35	ppb		97
55) Methylcyclohexane	7.316	55	1073401	133.15	ppb		96
56) 1,2-Diclpropane	7.358	63	909656	137.38	ppb		98
57) Dibromomethane	7.492	93	432490	132.66	ppb		94
58) 1,4-Dioxane	7.559	88	144093m	2925.83	ppb		
59) Methyl Methacrylate	7.578	69	553711	144.51	ppb		98
60) Bromodichloromethane	7.712	83	1120065	137.96	ppb		99
61) 2-Nitropropane	7.986	41	347518	288.36	ppb		100
62) 2-Chloroethylvinyl Ether	8.108	63	496357	135.88	ppb		95
63) cis-1,3-Dichloropropene	8.242	75	1479683	135.98	ppb		97
64) 4-Methyl-2-pentanone	8.443	43	730089	150.76	ppb		99
66) Toluene	8.602	91	3577978	129.28	ppb		93
67) trans-1,3-Dichloropropene	8.864	75	1255814	145.28	ppb		98
68) Ethyl Methacrylate	9.004	69	1137541	148.63	ppb		97
69) 1,1,2-Trichloroethane	9.047	97	667805	142.70	ppb		95
72) Tetrachloroethene	9.181	164	647893	137.48	ppb		96
73) 2-Hexanone	9.327	43	519587	149.39	ppb		98
74) 1,3-Dichloropropane	9.212	76	1170845	135.54	ppb		98
75) Dibromochloromethane	9.437	129	773056	143.83	ppb		100
76) N-Butyl Acetate	9.480	43	1230914	148.97	ppb		96
77) 1,2-Dibromoethane	9.535	107	648465	140.87	ppb		97
78) Chlorobenzene	10.016	112	2225190	132.40	ppb		94
79) 3-CBTF	10.035	180	1176260	141.26	ppb		98
80) 4-CBTF	10.089	180	1077762	138.96	ppb		98
81) 1,1,1,2-Tetrachloroethane	10.102	131	792449	136.43	ppb		99
82) Ethylbenzene	10.138	106	1318233	138.47	ppb	#	75
83) (m+p)Xylene	10.248	106	3138503m	267.08	ppb		
84) o-Xylene	10.595	106	1693787	140.75	ppb		87
85) Styrene	10.614	104	2606319	132.95	ppb		99
87) Bromoform	10.760	173	461256	147.99	ppb		94
88) 2-CBTF	10.839	180	1195929	143.77	ppb		92
89) Isopropylbenzene	10.931	105	3660912	128.31	ppb		92
90) Cyclohexanone	10.992	55	1292803	3125.33	ppb		100
91) trans-1,4-Dichloro-2-B...	11.230	53	253282	141.34	ppb		96
92) 1,1,2,2-Tetrachloroethane	11.181	83	795258	137.95	ppb		98
93) Bromobenzene	11.175	156	929632	143.99	ppb	#	88
94) 1,2,3-Trichloropropane	11.211	110	228309	134.49	ppb		92

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 11:03:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

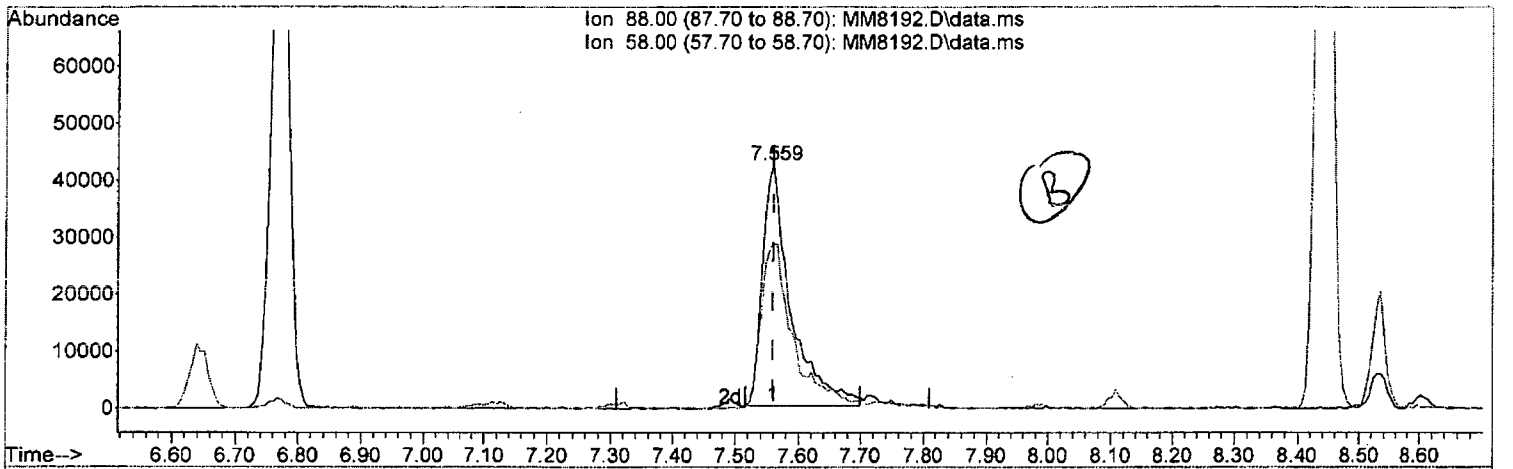
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	4185644	127.29	ppb	94
96)	2-Chlorotoluene	11.345	91	2615833	135.69	ppb	94
97)	3-Chlorotoluene	11.394	91	2888038	142.84	ppb	96
98)	4-Chlorotoluene	11.437	91	2741806	126.08	ppb	93
99)	1,3,5-Trimethylbenzene	11.431	105	2840305	131.55	ppb	95
100)	tert-Butylbenzene	11.705	119	2607257	135.35	ppb	94
101)	1,2,4-Trimethylbenzene	11.742	105	3012536	130.03	ppb	92
102)	3,4-DCBTF	11.803	214	789792	141.75	ppb	96
103)	sec-Butylbenzene	11.882	105	3509043	130.19	ppb	94
104)	p-Isopropyltoluene	12.004	119	2798351	134.28	ppb	96
105)	1,3-Dclbenz	11.967	146	1708389	136.71	ppb	95
106)	1,4-Dclbenz	12.040	146	1679324	143.36	ppb	96
107)	2,4-DCBTF	12.089	214	714139	146.86	ppb	95
108)	2,5-DCBTF	12.126	214	801663	145.73	ppb	97
109)	n-Butylbenzene	12.333	91	2537652	128.58	ppb	94
110)	1,2-Dclbenz	12.339	146	1636957	142.33	ppb	98
111)	1,2-Dibromo-3-chloropr...	12.955	157	172416	152.05	ppb	93
112)	Trielution Dichlorotol...	13.077	125	3935809	405.46	ppb	94
113)	1,3,5 Trichlorobenzene	13.132	180	1063709	137.58	ppb	97
114)	Coelution Dichlorotoluene	13.406	125	2819863	274.91	ppb	96
115)	1,2,4-Tcbenzene	13.613	180	971872	136.96	ppb	98
116)	Hexachlorobt	13.747	225	382092	126.29	ppb	94
117)	Naphthalen	13.802	128	2244720	152.52	ppb	99
118)	1,2,3-Tclbenzene	13.985	180	869917	147.38	ppb	98
119)	2,4,5-Trichlorotolene	14.570	159	659950	147.31	ppb	99
120)	2,3,6-Trichlorotoluene	14.656	159	543904	137.33	ppb	97

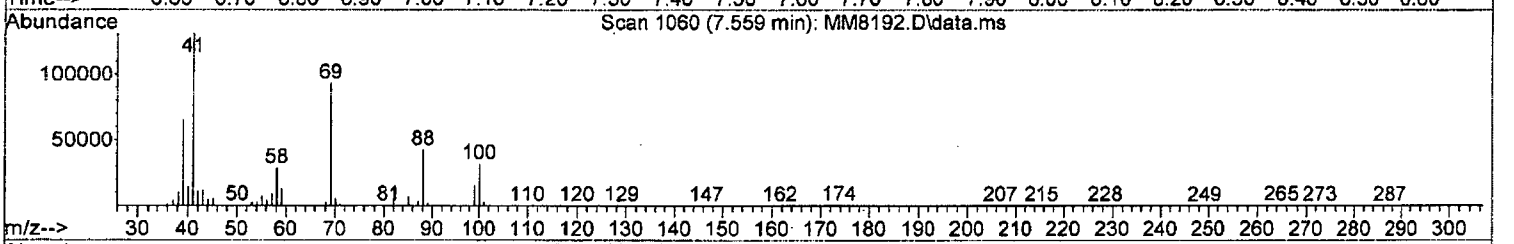
(#) = qualifier out of range (m) = manual integration (+) = signals summed

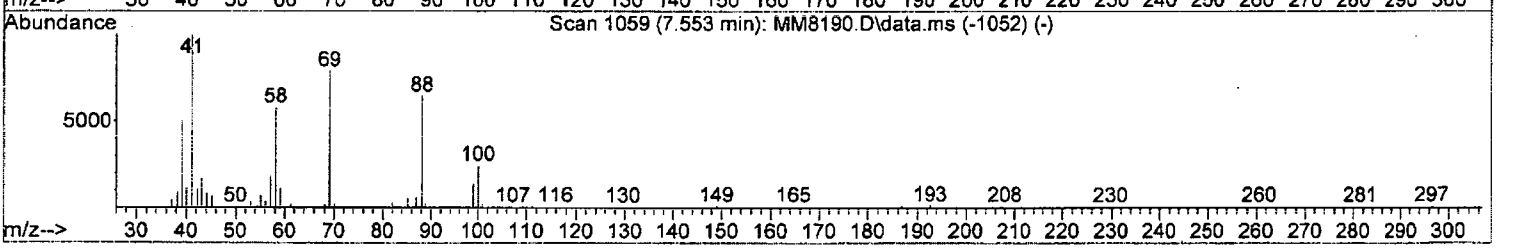
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 09:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration







TIC: MM8192.D\data.ms

(58) 1,4-Dioxane

7.559min (-0.000) 2679.06 ppb

response 131940

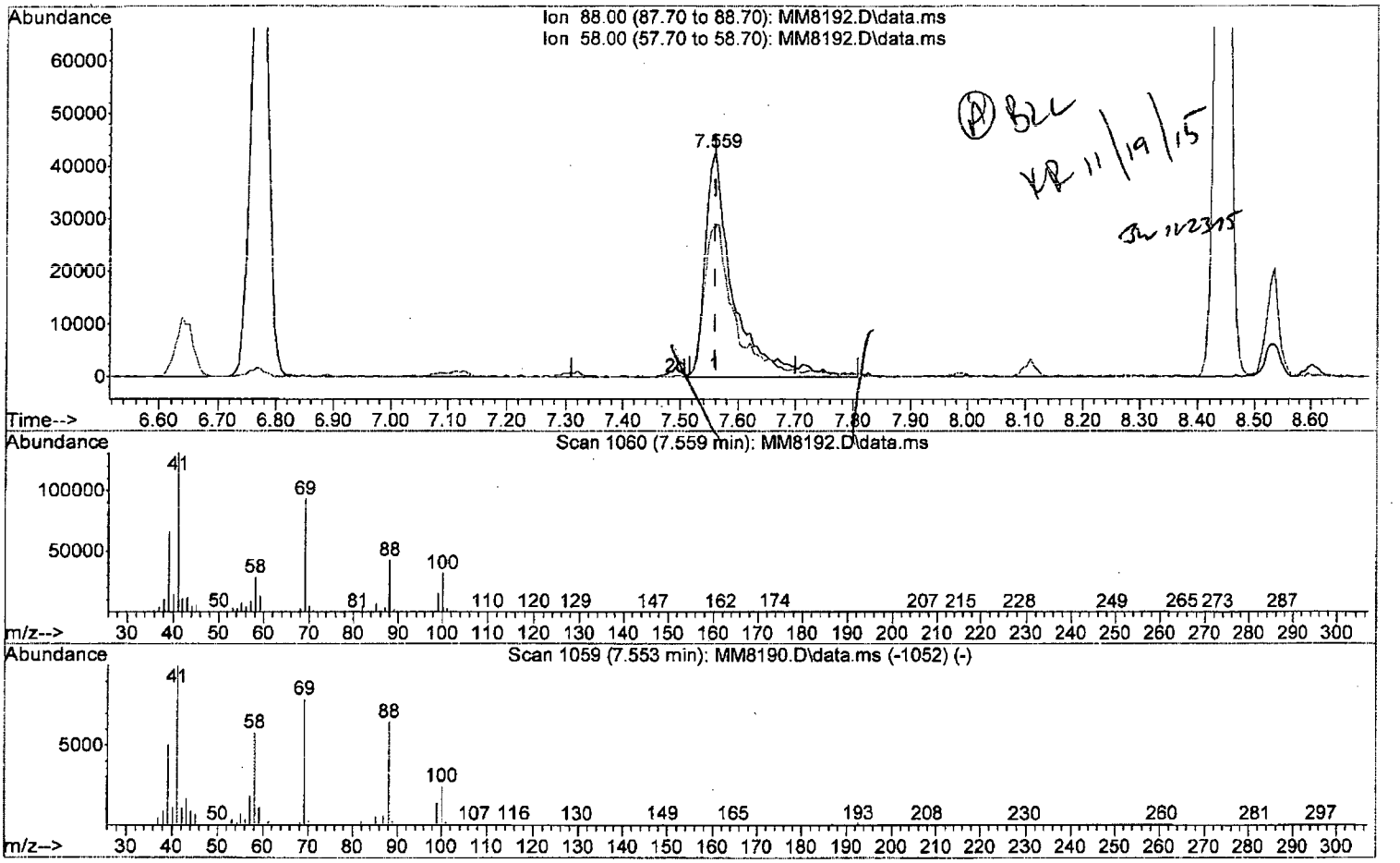
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	67.45#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 11:03:10 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 09:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8192.D\data.ms

(58) 1,4-Dioxane

7.559min (-0.000) 2925.83 ppb m

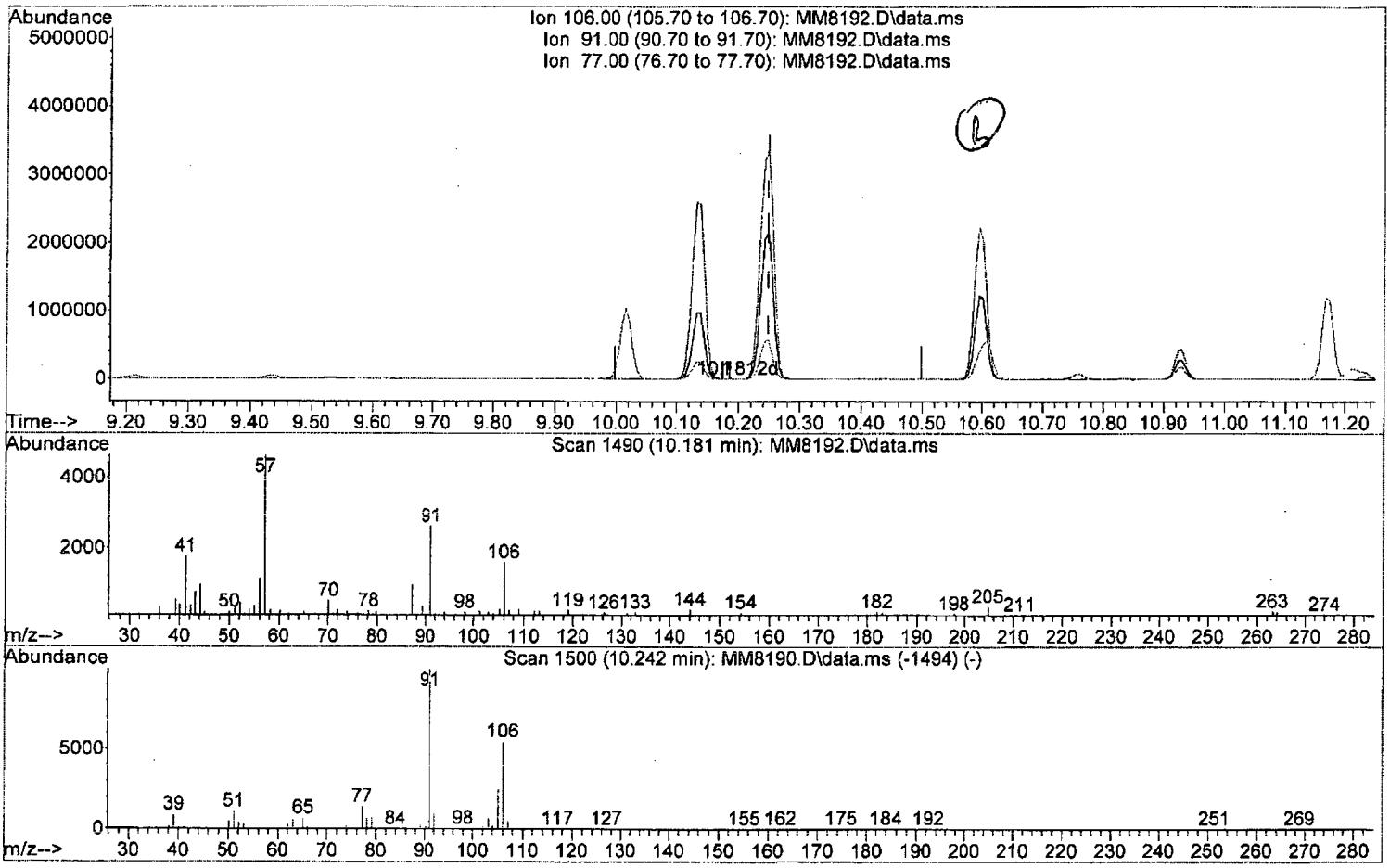
response 144093

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	67.45#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 09:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8192.D\data.ms

(83) (m+p)Xylene (P)

10.181min (-0.067) 0.06 ppb

response 673

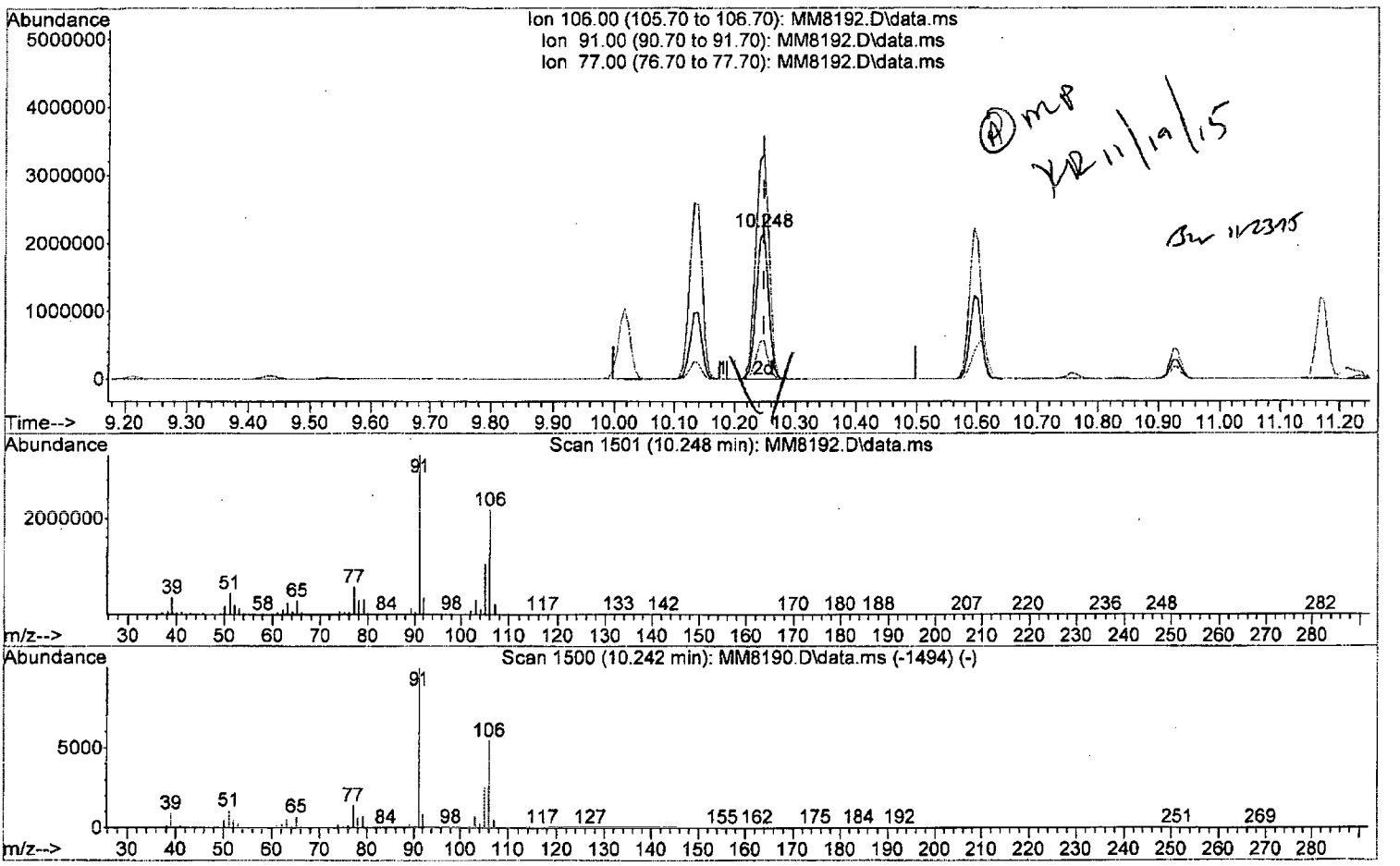
Ion	Exp%	Act%
106.00	100	100
91.00	183.60	164.93
77.00	25.50	8.05
0.00	0.00	0.00

W111815.M Thu Nov 19 11:03:44 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 09:36:15 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8192.D\data.ms

(83) (m+p)Xylene (P)

10.248min (-0.000) 267.08 ppb m

response 3138503

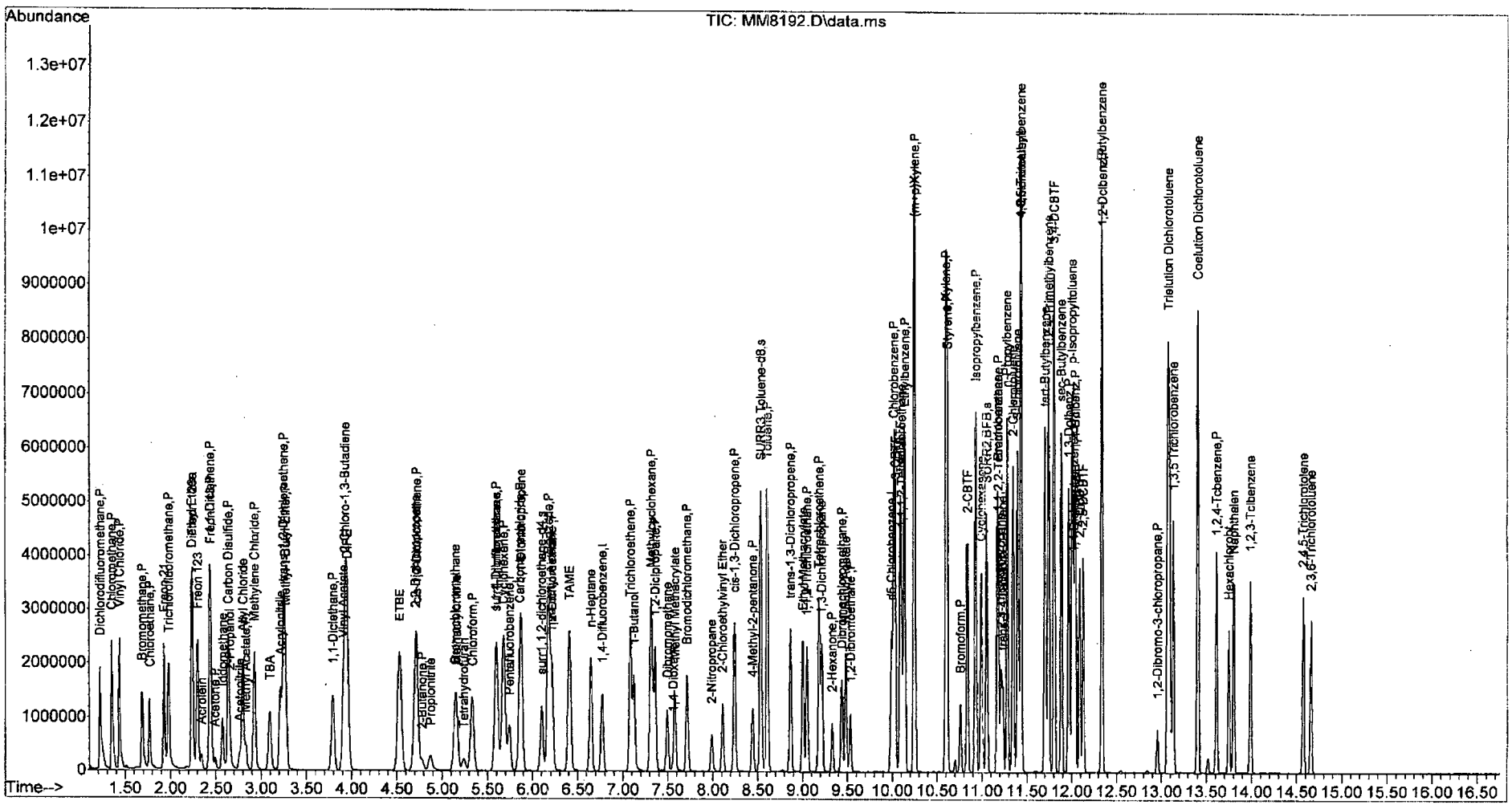
Ion	Exp%	Act%
106.00	100	100
91.00	183.60	152.68#
77.00	25.50	26.16
0.00	0.00	0.00

W111815.M Thu Nov 19 11:03:50 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8192.D
Acq On : 18 Nov 2015 8:14 pm
Operator : K.Ruest
Sample : 150ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 19 11:03:57 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 11:04:26 2015 Page: 4

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 11:05:54 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	703832	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1195128	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1140706	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.022	152	554977	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.597	113	330414	44.71	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 89.42%				
48) surr1,1,2-dichloroetha...	6.103	65	378347	48.99	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 97.98%				
65) SURR3,Toluene-d8	8.535	98	1519766	48.39	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 96.78%				
70) SURR2,BFB	11.053	95	567632	50.45	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	2092040	209.82	ppb		98
3) Chloromethane	1.347	50	2272496	191.99	ppb		95
4) Vinyl Chloride	1.433	62	2071430	187.85	ppb		96
5) Bromomethane	1.683	94	1027924	188.32	ppb		97
6) Chloroethane	1.768	64	1132219	183.69	ppb		100
7) Freon 21	1.927	67	2225652	187.35	ppb		97
8) Trichlorofluoromethane	1.975	101	1613867	187.67	ppb		97
9) Diethyl Ether	2.231	59	1008514	187.13	ppb		97
10) Freon 123a	2.238	67	1324744	170.28	ppb		98
11) Freon 123	2.299	83	1572089	174.54	ppb		94
12) Acrolein	2.341	56	241653	402.91	ppb		98
13) 1,1-Diclethene	2.433	96	1054287	174.90	ppb		97
14) Freon 113	2.439	101	951160	177.56	ppb		93
15) Acetone	2.494	43	305505	204.70	ppb		95
16) 2-Propanol	2.652	45	1164796	4090.98	ppb		96
17) Iodomethane	2.573	142	1340719	202.92	ppb		98
18) Carbon Disulfide	2.634	76	3465268	176.24	ppb		96
19) Acetonitrile	2.762	40	225645	1084.29	ppb		92
20) Allyl Chloride	2.798	76	546311	166.67	ppb		97
21) Methyl Acetate	2.835	43	674129	192.83	ppb		99
22) Methylene Chloride	2.926	84	1235575	181.78	ppb		98
23) TBA	3.097	59	1959556	4240.70	ppb		100
24) Acrylonitrile	3.213	53	1693296	989.77	ppb		98
25) Methyl-t-Butyl Ether	3.268	73	3011541	183.90	ppb		97
26) trans-1,2-Dichloroethene	3.250	96	1153276	182.96	ppb		97
28) 1,1-Diclethane	3.792	63	2133933	189.26	ppb		99
29) Vinyl Acetate	3.908	86	187234	153.96	ppb	#	93
30) DIPE	3.951	45	3862105	175.70	ppb		98
31) 2-Chloro-1,3-Butadiene	3.926	53	2019337	178.50	ppb		99
32) ETBE	4.530	59	3841038	185.96	ppb		99
33) 2,2-Dichloropropane	4.707	77	1604984	177.96	ppb		97
34) cis-1,2-Dichloroethene	4.719	96	1265451	180.28	ppb		100
35) 2-Butanone	4.780	43	418507	201.26	ppb		95
36) Propionitrile	4.871	54	653564	1041.26	ppb		96

11/19/15

Quantitation Report

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 11:05:54 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.152	130	673212	184.56	ppb		97
38) Methacrylonitrile	5.164	67	390941	182.64	ppb		95
39) Tetrahydrofuran	5.243	42	275080	200.43	ppb		96
40) Chloroform	5.334	83	1955568	178.46	ppb		99
41) 1,1,1-Trichloroethane	5.597	97	1640741	190.62	ppb		97
42) TAME	6.407	73	3321988	189.31	ppb		97
44) Cyclohexane	5.682	41	1157315	177.99	ppb		100
46) Carbontetrachloride	5.865	121	434900	188.63	ppb		98
47) 1,1-Dichloropropene	5.877	75	1493566	176.43	ppb		97
49) Benzene	6.176	78	4740991	180.25	ppb		99
50) 1,2-Dichloroethane	6.212	62	1285396	190.62	ppb		99
51) Iso-Butyl Alcohol	6.212	43	889100	4032.64	ppb		94
52) n-Heptane	6.645	43	1253689	173.21	ppb		97
53) 1-Butanol	7.127	56	1442946	10466.33	ppb		99
54) Trichloroethene	7.084	130	1265022	189.29	ppb		97
55) Methylcyclohexane	7.316	55	1421884	179.19	ppb		96
56) 1,2-Diclpropane	7.358	63	1219995	187.18	ppb		97
57) Dibromomethane	7.493	93	596647	185.93	ppb		94
58) 1,4-Dioxane	7.560	88	203185m	4191.53	ppb		
59) Methyl Methacrylate	7.578	69	726668	192.68	ppb		98
60) Bromodichloromethane	7.712	83	1501648	187.91	ppb		98
61) 2-Nitropropane	7.986	41	467925	394.47	ppb		99
62) 2-Chloroethylvinyl Ether	8.108	63	644683	179.30	ppb		94
63) cis-1,3-Dichloropropene	8.242	75	1959627	182.96	ppb		98
64) 4-Methyl-2-pentanone	8.444	43	967422	202.96	ppb		99
66) Toluene	8.602	91	4608955	169.19	ppb		88
67) trans-1,3-Dichloropropene	8.864	75	1664049	195.57	ppb		99
68) Ethyl Methacrylate	9.005	69	1527148	202.71	ppb		97
69) 1,1,2-Trichloroethane	9.047	97	901440	195.69	ppb		98
72) Tetrachloroethene	9.181	164	869257	183.72	ppb		96
73) 2-Hexanone	9.334	43	690884	197.86	ppb		98
74) 1,3-Dichloropropane	9.212	76	1580151	182.20	ppb		99
75) Dibromochloromethane	9.437	129	1052557	195.05	ppb		100
76) N-Butyl Acetate	9.480	43	1606266	193.63	ppb		95
77) 1,2-Dibromoethane	9.535	107	896451	193.97	ppb		97
78) Chlorobenzene	10.017	112	2928618	173.57	ppb		94
79) 3-CBTF	10.035	180	1514418	181.15	ppb		99
80) 4-CBTF	10.090	180	1415456	181.78	ppb		98
81) 1,1,1,2-Tetrachloroethane	10.102	131	1071284	183.70	ppb		98
82) Ethylbenzene	10.138	106	1798670	188.19	ppb	#	66
83) (m+p)Xylene	10.248	106	4116134	348.88	ppb	#	74
84) o-Xylene	10.602	106	2290838	189.61	ppb	#	74
85) Styrene	10.614	104	3409568	173.24	ppb		97
87) Bromoform	10.760	173	635021	201.42	ppb		97
88) 2-CBTF	10.840	180	1522656	180.96	ppb		94
89) Isopropylbenzene	10.931	105	4669450	161.80	ppb		87
90) Cyclohexanone	10.992	55	1766909	4222.87	ppb		98
91) trans-1,4-Dichloro-2-B...	11.230	53	345568	190.64	ppb		97
92) 1,1,2,2-Tetrachloroethane	11.187	83	1057661	181.38	ppb		98
93) Bromobenzene	11.175	156	1250476	191.49	ppb	#	87
94) 1,2,3-Trichloropropane	11.211	110	311222	181.24	ppb	#	88

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 11:05:54 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration

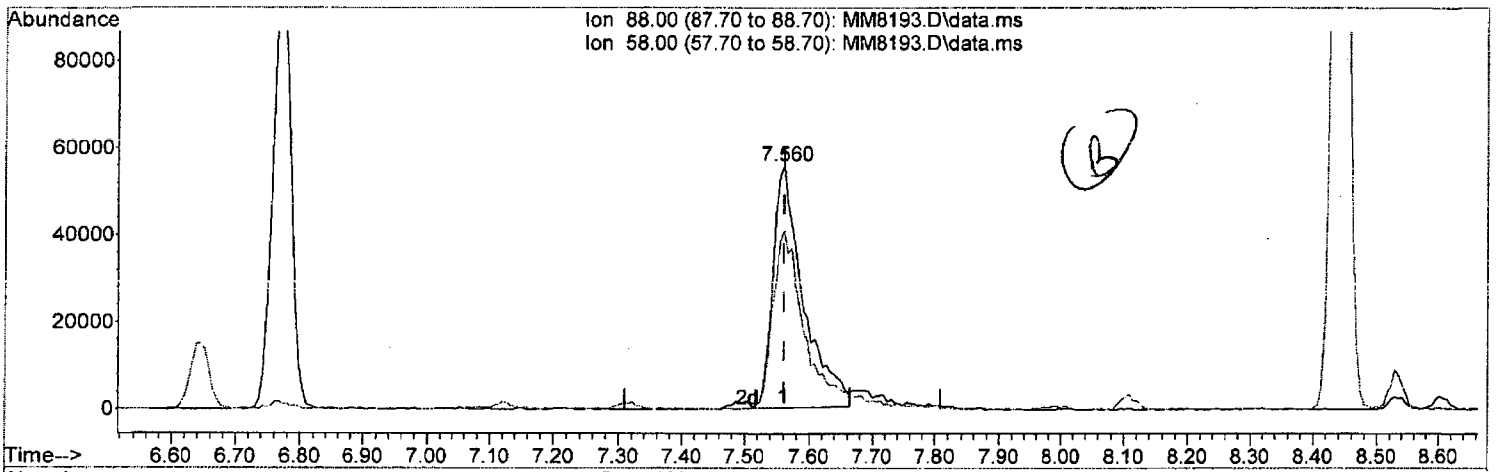
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) n-Propylbenzene	11.285	91	5221769	156.99	ppb	86
96) 2-Chlorotoluene	11.346	91	3463585	177.63	ppb	91
97) 3-Chlorotoluene	11.400	91	3624761	177.24	ppb	92
98) 4-Chlorotoluene	11.437	91	3624296	164.77	ppb	90
99) 1,3,5-Trimethylbenzene	11.431	105	3699680	169.41	ppb	91
100) tert-Butylbenzene	11.705	119	3465289	177.85	ppb	91
101) 1,2,4-Trimethylbenzene	11.742	105	3888852	165.94	ppb	86
102) 3,4-DCBTF	11.803	214	1024694	181.82	ppb	96
103) sec-Butylbenzene	11.882	105	4469687	163.94	ppb	91
104) p-Isopropyltoluene	12.004	119	3617754	171.62	ppb	91
105) 1,3-Dclbenz	11.967	146	2280239	180.39	ppb	94
106) 1,4-Dclbenz	12.041	146	2253249	190.17	ppb	93
107) 2,4-DCBTF	12.089	214	922510	187.55	ppb	98
108) 2,5-DCBTF	12.132	214	1047045	188.17	ppb	96
109) n-Butylbenzene	12.333	91	3277624	164.18	ppb	91
110) 1,2-Dclbenz	12.339	146	2171827	186.68	ppb	96
111) 1,2-Dibromo-3-chloropr...	12.955	157	232234	202.48	ppb	91
112) Trielution Dichlorotol...	13.077	125	4986913	507.89	ppb	93
113) 1,3,5 Trichlorobenzene	13.132	180	1375190	175.84	ppb	97
114) Coelution Dichlorotoluene	13.406	125	3557724	342.89	ppb	92
115) 1,2,4-Tcbenzene	13.613	180	1300053	181.12	ppb	97
116) Hexachlorobt	13.747	225	512980	167.62	ppb	95
117) Naphthalen	13.802	128	2970452	199.53	ppb	98
118) 1,2,3-Tclbenzene	13.991	180	1166852	195.43	ppb	98
119) 2,4,5-Trichlorotolene	14.570	159	882074	194.65	ppb	99
120) 2,3,6-Trichlorotoluene	14.656	159	732703	182.89	ppb	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 09:36:19 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8193.D\data.ms

(58) 1,4-Dioxane

7.560min (0.000) 3728.92 ppb

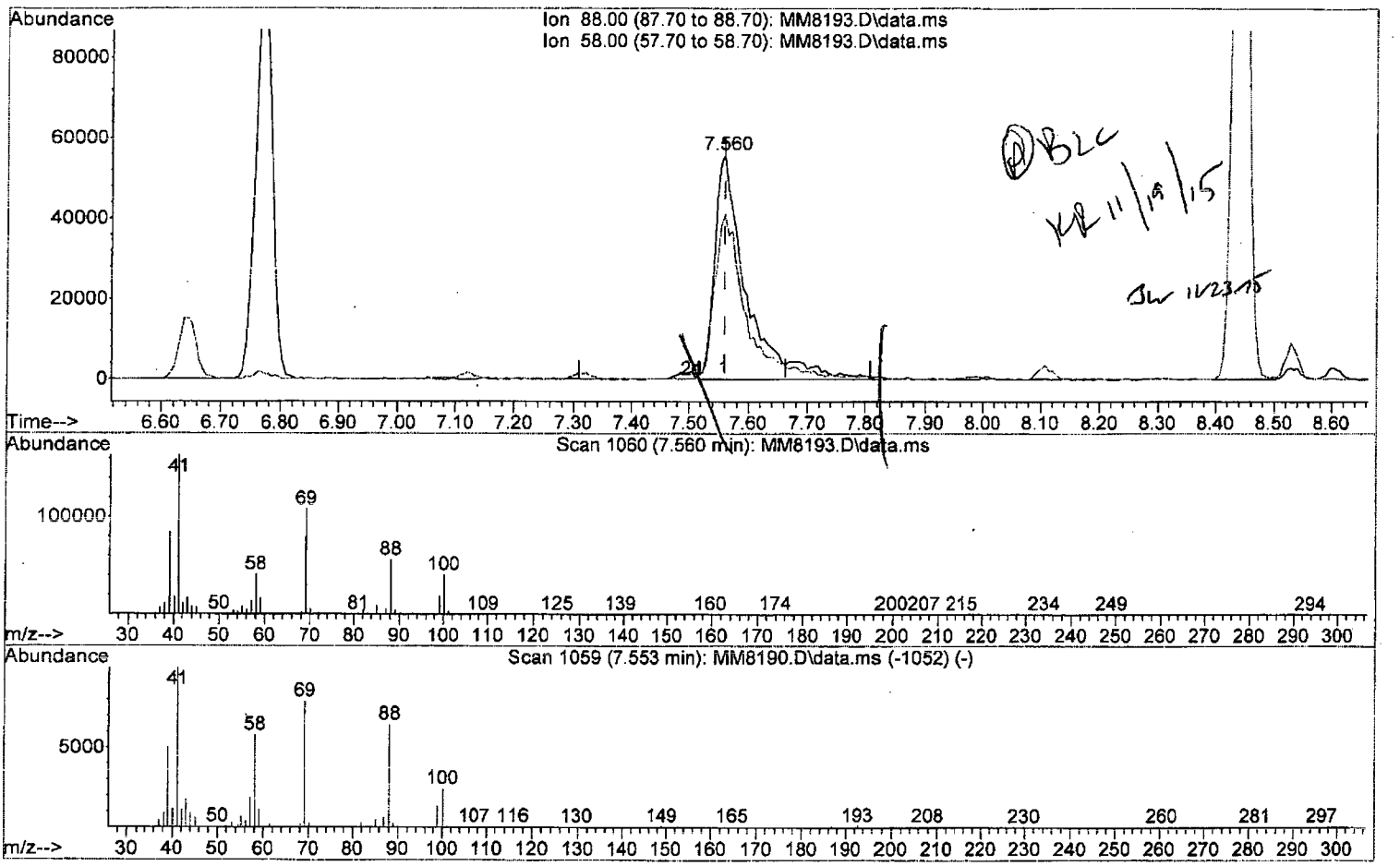
response 180760

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	73.08
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 09:36:19 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



TIC: MM8193.D\data.ms

(58) 1,4-Dioxane

7.560min (0.000) 4191.53 ppb m

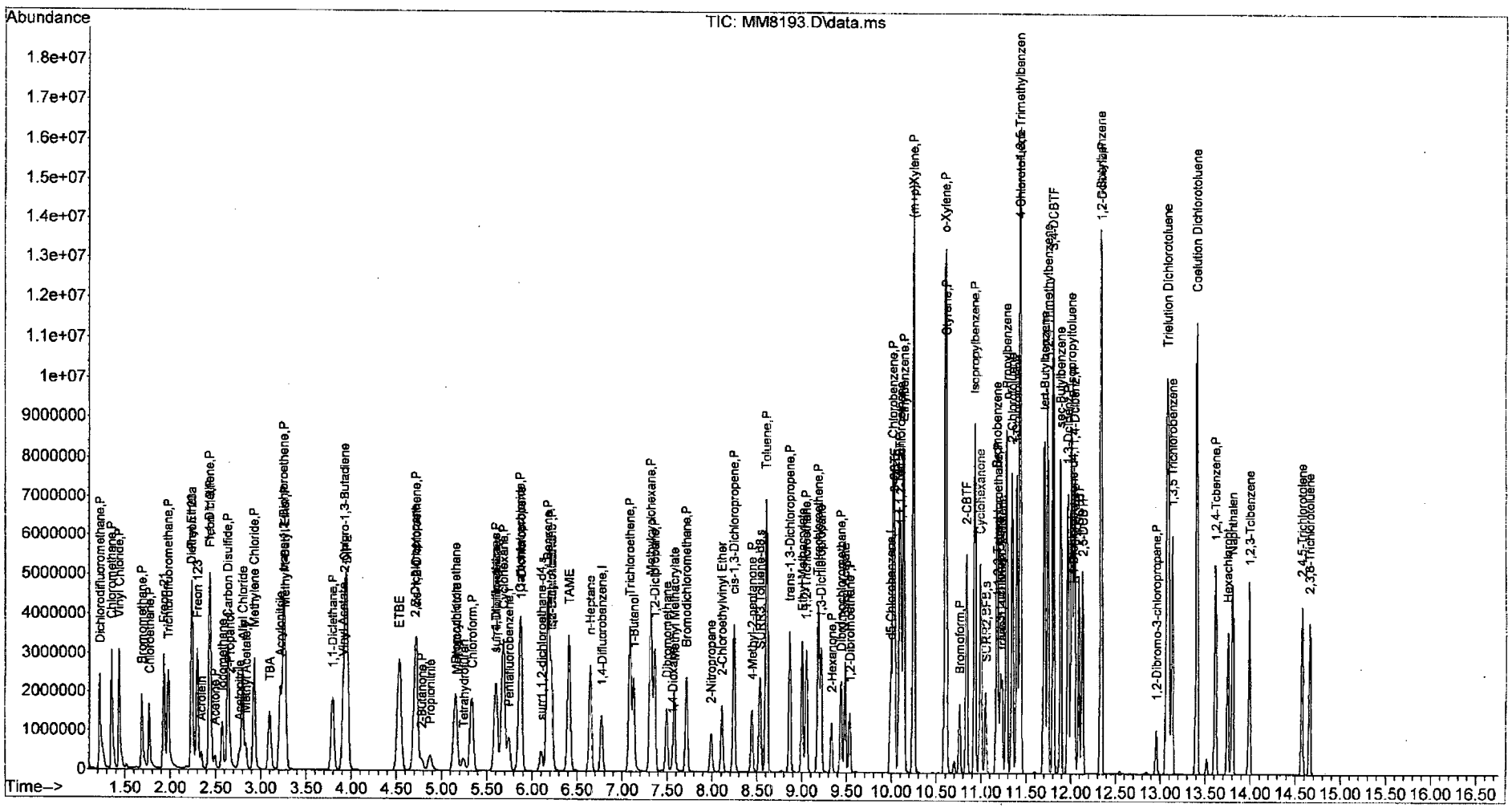
response 203185

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	73.08
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8193.D
Acq On : 18 Nov 2015 8:45 pm
Operator : K.Ruest
Sample : 200ppb Inst : MSVOA-12
Misc : 8260 WATER ICAL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 19 11:05:54 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 09:32:04 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 11:06:58 2015 Page: 4

Initial Calibration Verification Summary Report

KR 11/30/15

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
W1114815A - 8260 waters **Column Name:** 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1,1,1,2-Tetrachloroethane	RC1500127-10	T	Average RF	50	48.54	ppm	-2.9	<=20
1,1,1,2-Tetrachloroethane	RC1500127-10	T	Average RF	50	48.54	ppm	-2.9	<=30
1,1,1-Trichloroethane (TCA)	RC1500127-10	T	Average RF	50	52.64	ppm	5.3	<=20
1,1,1-Trichloroethane (TCA)	RC1500127-10	T	Average RF	50	52.64	ppm	5.3	<=30
1,1,2,2-Tetrachloroethane	RC1500127-10	T	Average RF	50	50.34	ppm	0.7	<=20
1,1,2,2-Tetrachloroethane	RC1500127-10	T	Average RF	50	50.34	ppm	0.7	<=30
1,1,2-Trichloroethane	RC1500127-10	T	Average RF	50	51.43	ppm	2.9	<=30
1,1,2-Trichloroethane	RC1500127-10	T	Average RF	50	51.43	ppm	2.9	<=20
1,1,2-Trichlorotrifluoroethane	RC1500127-10	T	Average RF	50	53.36	ppm	6.7	<=30
1,1,2-Trichlorotrifluoroethane	RC1500127-10	T	Average RF	50	53.36	ppm	6.7	<=20
1,1-Dichloroethane (1,1-DCA)	RC1500127-10	T	Average RF	50	53.31	ppm	6.6	<=20
1,1-Dichloroethane (1,1-DCA)	RC1500127-10	T	Average RF	50	53.31	ppm	6.6	<=30
1,1-Dichloroethene (1,1-DCE)	RC1500127-10	T	Average RF	50	50.36	ppm	0.7	<=30
1,1-Dichloroethene (1,1-DCE)	RC1500127-10	T	Average RF	50	50.36	ppm	0.7	<=20
1,1-Dichloropropene	RC1500127-10	T	Average RF	50	51.92	ppm	3.8	<=20
1,1-Dichloropropene	RC1500127-10	T	Average RF	50	51.92	ppm	3.8	<=30
1,2,3-Trichlorobenzene	RC1500127-10	T	Average RF	50	53.80	ppm	7.6	<=20
1,2,3-Trichlorobenzene	RC1500127-10	T	Average RF	50	53.80	ppm	7.6	<=30
1,2,3-Trichloropropane	RC1500127-10	T	Linear	50	51.15	ppm	2.3	<=20
1,2,3-Trichloropropane	RC1500127-10	T	Linear	50	51.15	ppm	2.3	<=30
1,2,4-Trichlorobenzene	RC1500127-10	T	Average RF	50	51.73	ppm	3.5	<=20
1,2,4-Trichlorobenzene	RC1500127-10	T	Average RF	50	51.73	ppm	3.5	<=30
1,2,4-Trimethylbenzene	RC1500127-10	T	Average RF	50	49.51	ppm	-1.0	<=30
1,2,4-Trimethylbenzene	RC1500127-10	T	Average RF	50	49.51	ppm	-1.0	<=20
1,2-Dibromo-3-chloropropane (DBCP)	RC1500127-10	T	Average RF	50	50.08	ppm	0.2	<=20
1,2-Dibromo-3-chloropropane (DBCP)	RC1500127-10	T	Average RF	50	50.08	ppm	0.2	<=30
1,2-Dibromoethane	RC1500127-10	T	Average RF	50	48.51	ppm	-3.0	<=20
1,2-Dibromoethane	RC1500127-10	T	Average RF	50	48.51	ppm	-3.0	<=30
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	RC1500127-10	T	Average RF	50	52.94	ppm	5.9	<=20
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	RC1500127-10	T	Average RF	50	52.94	ppm	5.9	<=30
1,2-Dichlorobenzene	RC1500127-10	T	Average RF	50	51.17	ppm	2.3	<=30
1,2-Dichlorobenzene	RC1500127-10	T	Average RF	50	51.17	ppm	2.3	<=20
1,2-Dichloroethane	RC1500127-10	T	Average RF	50	51.31	ppm	2.6	<=30
1,2-Dichloroethane	RC1500127-10	T	Average RF	50	51.31	ppm	2.6	<=20
1,2-Dichloropropane	RC1500127-10	T	Average RF	50	51.97	ppm	3.9	<=30
1,2-Dichloropropane	RC1500127-10	T	Average RF	50	51.97	ppm	3.9	<=20
1,3,5-Trichlorobenzene	RC1500127-10	T	Average RF	50	52.04	ppm	4.1	<=20
1,3,5-Trichlorobenzene	RC1500127-10	T	Average RF	50	52.04	ppm	4.1	<=30
1,3,5-Trimethylbenzene	RC1500127-10	T	Average RF	50	50.19	ppm	0.4	<=30
1,3,5-Trimethylbenzene	RC1500127-10	T	Average RF	50	50.19	ppm	0.4	<=20
1,3-Dichlorobenzene	RC1500127-10	T	Average RF	50	50.54	ppm	1.1	<=20
1,3-Dichlorobenzene	RC1500127-10	T	Average RF	50	50.54	ppm	1.1	<=30
1,3-Dichloropropane	RC1500127-10	T	Average RF	50	50.27	ppm	0.5	<=20
1,3-Dichloropropane	RC1500127-10	T	Average RF	50	50.27	ppm	0.5	<=30
1,4-Dichlorobenzene	RC1500127-10	T	Average RF	50	52.30	ppm	4.6	<=20
1,4-Dichlorobenzene	RC1500127-10	T	Average RF	50	52.30	ppm	4.6	<=30
1,4-Dioxane	RC1500127-10	T	Average RF	1000	1102	ppm	10.2	<=20
1,4-Dioxane	RC1500127-10	T	Average RF	1000	1102	ppm	10.2	<=30
1-Butanol	RC1500127-10	T	Average RF	2500	2715	ppm	8.6	<=30
1-Butanol	RC1500127-10	T	Average RF	2500	2715	ppm	8.6	<=20
1-Chloro-4-(trifluoromethyl)benzene	RC1500127-10	T	Average RF	50	49.39	ppm	-1.2	<=20

Initial Calibration Verification Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1-Chloro-4-(trifluoromethyl)benzene	RC1500127-10	T	Average RF	50	49.39	ppm	-1.2	<=30
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	RC1500127-10	T	Average RF	50	49.21	ppm	-1.6	<=30
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	RC1500127-10	T	Average RF	50	49.21	ppm	-1.6	<=20
2,2-Dichloropropane	RC1500127-10	T	Average RF	50	53.05	ppm	6.1	<=30
2,2-Dichloropropane	RC1500127-10	T	Average RF	50	53.05	ppm	6.1	<=20
2,3,6-Trichlorotoluene	RC1500127-10	T	Average RF	50	53.85	ppm	7.7	<=20
2,3,6-Trichlorotoluene	RC1500127-10	T	Average RF	50	53.85	ppm	7.7	<=30
2,4,5-Trichlorotoluene	RC1500127-10	T	Average RF	50	55.45	ppm	10.9	<=30
2,4,5-Trichlorotoluene	RC1500127-10	T	Average RF	50	55.45	ppm	10.9	<=20
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	RC1500127-10	T	Average RF	150	156.2	ppm	4.1	<=20
2,4-, 2,5-, and 2,6-Dichlorotoluene Coelution	RC1500127-10	T	Average RF	150	156.2	ppm	4.1	<=30
2,4-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	51.82	ppm	3.6	<=20
2,4-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	51.82	ppm	3.6	<=30
2,5-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.60	ppm	1.2	<=20
2,5-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.60	ppm	1.2	<=30
2-Butanone (MEK)	RC1500127-10	T	Average RF	50	51.81	ppm	3.6	<=30
2-Butanone (MEK)	RC1500127-10	T	Average RF	50	51.81	ppm	3.6	<=20
2-Chloro-1,3-butadiene	RC1500127-10	T	Average RF	50	47.73	ppm	-4.5	<=20
2-Chloro-1,3-butadiene	RC1500127-10	T	Average RF	50	47.73	ppm	-4.5	<=30
2-Chlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.78	ppm	1.6	<=30
2-Chlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.78	ppm	1.6	<=20
2-Chloroethyl Vinyl Ether	RC1500127-10	T	Average RF	50	48.85	ppm	-2.3	<=30
2-Chloroethyl Vinyl Ether	RC1500127-10	T	Average RF	50	48.85	ppm	-2.3	<=20
2-Chlorotoluene	RC1500127-10	T	Average RF	50	51.26	ppm	2.5	<=30
2-Chlorotoluene	RC1500127-10	T	Average RF	50	51.26	ppm	2.5	<=20
2-Hexanone	RC1500127-10	T	Average RF	50	49.30	ppm	-1.4	<=20
2-Hexanone	RC1500127-10	T	Average RF	50	49.30	ppm	-1.4	<=30
2-Methyl-1-propanol	RC1500127-10	T	Average RF	1000	1066	ppm	6.6	<=20
2-Methyl-1-propanol	RC1500127-10	T	Average RF	1000	1066	ppm	6.6	<=30
2-Methyl-2-propanol	RC1500127-10	T	Average RF	1000	1091	ppm	9.1	<=20
2-Methyl-2-propanol	RC1500127-10	T	Average RF	1000	1091	ppm	9.1	<=30
2-Nitropropane	RC1500127-10	T	Average RF	100	104.9	ppm	4.9	<=30
2-Nitropropane	RC1500127-10	T	Average RF	100	104.9	ppm	4.9	<=20
2-Propanol	RC1500127-10	T	Average RF	1000	964.3	ppm	-3.6	<=30
2-Propanol	RC1500127-10	T	Average RF	1000	964.3	ppm	-3.6	<=20
3,4- and 2,3-Dichlorotoluene Coelution	RC1500127-10	T	Average RF	100	107.4	ppm	7.4	<=30
3,4- and 2,3-Dichlorotoluene Coelution	RC1500127-10	T	Average RF	100	107.4	ppm	7.4	<=20
3,4-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.07	ppm	0.1	<=20
3,4-Dichlorobenzotrifluoride	RC1500127-10	T	Average RF	50	50.07	ppm	0.1	<=30
3-Chloro-1-propene	RC1500127-10	T	Average RF	50	58.61	ppm	17.2	<=30
3-Chloro-1-propene	RC1500127-10	T	Average RF	50	58.61	ppm	17.2	<=20
3-Chlorobenzotrifluoride	RC1500127-10	T	Average RF	50	49.06	ppm	-1.9	<=30
3-Chlorobenzotrifluoride	RC1500127-10	T	Average RF	50	49.06	ppm	-1.9	<=20
3-Chlorotoluene	RC1500127-10	T	Average RF	50	51.03	ppm	2.1	<=30
3-Chlorotoluene	RC1500127-10	T	Average RF	50	51.03	ppm	2.1	<=20
4-Chlorotoluene	RC1500127-10	T	Average RF	50	50.24	ppm	0.5	<=20
4-Chlorotoluene	RC1500127-10	T	Average RF	50	50.24	ppm	0.5	<=30
4-Isopropyltoluene	RC1500127-10	T	Average RF	50	52.15	ppm	4.3	<=20
4-Isopropyltoluene	RC1500127-10	T	Average RF	50	52.15	ppm	4.3	<=30
4-Methyl-2-pentanone	RC1500127-10	T	Average RF	50	52.44	ppm	4.9	<=30
4-Methyl-2-pentanone	RC1500127-10	T	Average RF	50	52.44	ppm	4.9	<=20

Initial Calibration Verification Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Acetone	RC1500127-10	T	Average RF	50	44.91	ppm	-10.2	<=30
Acetone	RC1500127-10	T	Average RF	50	44.91	ppm	-10.2	<=20
Acetonitrile	RC1500127-10	T	Average RF	250	230.4	ppm	-7.9	<=30
Acetonitrile	RC1500127-10	T	Average RF	250	230.4	ppm	-7.9	<=20
Acrolein	RC1500127-10	T	Average RF	100	124.8	ppm	24.8	<=20
Acrolein	RC1500127-10	T	Average RF	100	124.8	ppm	24.8	<=30
Acrylonitrile	RC1500127-10	T	Average RF	250	260.9	ppm	4.4	<=20
Acrylonitrile	RC1500127-10	T	Average RF	250	260.9	ppm	4.4	<=30
Benzene	RC1500127-10	T	Average RF	50	50.05	ppm	0.1	<=30
Benzene	RC1500127-10	T	Average RF	50	50.05	ppm	0.1	<=20
Bromobenzene	RC1500127-10	T	Average RF	50	51.06	ppm	2.1	<=20
Bromobenzene	RC1500127-10	T	Average RF	50	51.06	ppm	2.1	<=30
Bromochloromethane	RC1500127-10	T	Average RF	50	50.47	ppm	0.9	<=20
Bromochloromethane	RC1500127-10	T	Average RF	50	50.47	ppm	0.9	<=30
Bromodichloromethane	RC1500127-10	T	Average RF	50	50.54	ppm	1.1	<=20
Bromodichloromethane	RC1500127-10	T	Average RF	50	50.54	ppm	1.1	<=30
Bromoform	RC1500127-10	T	Average RF	50	50.56	ppm	1.1	<=20
Bromoform	RC1500127-10	T	Average RF	50	50.56	ppm	1.1	<=30
Bromomethane	RC1500127-10	T	Average RF	50	51.41	ppm	2.8	<=20
Bromomethane	RC1500127-10	T	Average RF	50	51.41	ppm	2.8	<=30
Carbon Disulfide	RC1500127-10	T	Average RF	50	49.80	ppm	-0.4	<=20
Carbon Disulfide	RC1500127-10	T	Average RF	50	49.80	ppm	-0.4	<=30
Carbon Tetrachloride	RC1500127-10	T	Average RF	50	49.41	ppm	-1.2	<=30
Carbon Tetrachloride	RC1500127-10	T	Average RF	50	49.41	ppm	-1.2	<=20
Chlorobenzene	RC1500127-10	T	Average RF	50	49.46	ppm	-1.1	<=20
Chlorobenzene	RC1500127-10	T	Average RF	50	49.46	ppm	-1.1	<=30
Chloroethane	RC1500127-10	T	Average RF	50	50.64	ppm	1.3	<=20
Chloroethane	RC1500127-10	T	Average RF	50	50.64	ppm	1.3	<=30
Chloroform	RC1500127-10	T	Average RF	50	48.45	ppm	-3.1	<=20
Chloroform	RC1500127-10	T	Average RF	50	48.45	ppm	-3.1	<=30
Chloromethane	RC1500127-10	T	Average RF	50	50.25	ppm	0.5	<=20
Chloromethane	RC1500127-10	T	Average RF	50	50.25	ppm	0.5	<=30
Cyclohexane	RC1500127-10	T	Average RF	50	45.87	ppm	-8.3	<=20
Cyclohexane	RC1500127-10	T	Average RF	50	45.87	ppm	-8.3	<=30
Cyclohexanone	RC1500127-10	T	Average RF	1000	1179	ppm	17.9	<=30
Cyclohexanone	RC1500127-10	T	Average RF	1000	1179	ppm	17.9	<=20
Dibromochloromethane	RC1500127-10	T	Average RF	50	50.62	ppm	1.2	<=20
Dibromochloromethane	RC1500127-10	T	Average RF	50	50.62	ppm	1.2	<=30
Dibromomethane	RC1500127-10	T	Average RF	50	48.11	ppm	-3.8	<=30
Dibromomethane	RC1500127-10	T	Average RF	50	48.11	ppm	-3.8	<=20
Dichlorodifluoromethane (CFC 12)	RC1500127-10	T	Average RF	50	56.51	ppm	13.0	<=30
Dichlorodifluoromethane (CFC 12)	RC1500127-10	T	Average RF	50	56.51	ppm	13.0	<=20
Dichlorofluoromethane (CFC 21)	RC1500127-10	T	Average RF	50	57.03	ppm	14.1	<=30
Dichlorofluoromethane (CFC 21)	RC1500127-10	T	Average RF	50	57.03	ppm	14.1	<=20
Dichloromethane	RC1500127-10	T	Average RF	50	47.77	ppm	-4.5	<=20
Dichloromethane	RC1500127-10	T	Average RF	50	47.77	ppm	-4.5	<=30
Diethyl Ether	RC1500127-10	T	Average RF	50	54.17	ppm	8.3	<=20
Diethyl Ether	RC1500127-10	T	Average RF	50	54.17	ppm	8.3	<=30
Diisopropyl Ether	RC1500127-10	T	Average RF	50	48.19	ppm	-3.6	<=20
Diisopropyl Ether	RC1500127-10	T	Average RF	50	48.19	ppm	-3.6	<=30
Ethyl Methacrylate	RC1500127-10	T	Average RF	50	53.51	ppm	7.0	<=20

Initial Calibration Verification Summary Report

Calibration ID: RC1500127 **Instrument ID:** R-MS-12
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Ethyl Methacrylate	RC1500127-10	T	Average RF	50	53.51	ppm	7.0	<=30
Ethyl tert-Butyl Ether	RC1500127-10	T	Average RF	50	48.25	ppm	-3.5	<=20
Ethyl tert-Butyl Ether	RC1500127-10	T	Average RF	50	48.25	ppm	-3.5	<=30
Ethylbenzene	RC1500127-10	T	Average RF	50	49.68	ppm	-0.6	<=20
Ethylbenzene	RC1500127-10	T	Average RF	50	49.68	ppm	-0.6	<=30
Hexachlorobutadiene	RC1500127-10	T	Average RF	50	52.67	ppm	5.3	<=30
Hexachlorobutadiene	RC1500127-10	T	Average RF	50	52.67	ppm	5.3	<=20
Iodomethane	RC1500127-10	T	Average RF	50	53.60	ppm	7.2	<=30
Iodomethane	RC1500127-10	T	Average RF	50	53.60	ppm	7.2	<=20
Isopropylbenzene (Cumene)	RC1500127-10	T	Average RF	50	48.42	ppm	-3.2	<=30
Isopropylbenzene (Cumene)	RC1500127-10	T	Average RF	50	48.42	ppm	-3.2	<=20
Methacrylonitrile	RC1500127-10	T	Average RF	50	52.29	ppm	4.6	<=30
Methacrylonitrile	RC1500127-10	T	Average RF	50	52.29	ppm	4.6	<=20
Methyl Acetate	RC1500127-10	T	Average RF	50	47.56	ppm	-4.9	<=30
Methyl Acetate	RC1500127-10	T	Average RF	50	47.56	ppm	-4.9	<=20
Methyl Methacrylate	RC1500127-10	T	Average RF	50	51.03	ppm	2.1	<=30
Methyl Methacrylate	RC1500127-10	T	Average RF	50	51.03	ppm	2.1	<=20
Methyl tert-Butyl Ether	RC1500127-10	T	Average RF	50	50.99	ppm	2.0	<=30
Methyl tert-Butyl Ether	RC1500127-10	T	Average RF	50	50.99	ppm	2.0	<=20
Methylcyclohexane	RC1500127-10	T	Average RF	50	46.97	ppm	-6.1	<=20
Methylcyclohexane	RC1500127-10	T	Average RF	50	46.97	ppm	-6.1	<=30
Naphthalene	RC1500127-10	T	Average RF	50	55.14	ppm	10.3	<=20
Naphthalene	RC1500127-10	T	Average RF	50	55.14	ppm	10.3	<=30
Propionitrile	RC1500127-10	T	Average RF	250	259.2	ppm	3.7	<=20
Propionitrile	RC1500127-10	T	Average RF	250	259.2	ppm	3.7	<=30
Styrene	RC1500127-10	T	Average RF	50	49.59	ppm	-0.8	<=30
Styrene	RC1500127-10	T	Average RF	50	49.59	ppm	-0.8	<=20
Tetrachloroethene (PCE)	RC1500127-10	T	Average RF	50	50.04	ppm	0.1	<=20
Tetrachloroethene (PCE)	RC1500127-10	T	Average RF	50	50.04	ppm	0.1	<=30
Tetrahydrofuran (THF)	RC1500127-10	T	Average RF	50	57.10	ppm	14.2	<=30
Tetrahydrofuran (THF)	RC1500127-10	T	Average RF	50	57.10	ppm	14.2	<=20
Toluene	RC1500127-10	T	Average RF	50	49.67	ppm	-0.7	<=30
Toluene	RC1500127-10	T	Average RF	50	49.67	ppm	-0.7	<=20
Trichloroethene (TCE)	RC1500127-10	T	Average RF	50	49.06	ppm	-1.9	<=30
Trichloroethene (TCE)	RC1500127-10	T	Average RF	50	49.06	ppm	-1.9	<=20
Trichlorofluoromethane (CFC 11)	RC1500127-10	T	Average RF	50	54.52	ppm	9.0	<=20
Trichlorofluoromethane (CFC 11)	RC1500127-10	T	Average RF	50	54.52	ppm	9.0	<=30
Vinyl Acetate	RC1500127-10	T	Average RF	50	53.96	ppm	7.9	<=30
Vinyl Acetate	RC1500127-10	T	Average RF	50	53.96	ppm	7.9	<=20
Vinyl Chloride	RC1500127-10	T	Average RF	50	52.01	ppm	4.0	<=20
Vinyl Chloride	RC1500127-10	T	Average RF	50	52.01	ppm	4.0	<=30
cis-1,2-Dichloroethene	RC1500127-10	T	Average RF	50	49.33	ppm	-1.3	<=20
cis-1,2-Dichloroethene	RC1500127-10	T	Average RF	50	49.33	ppm	-1.3	<=30
cis-1,3-Dichloropropene	RC1500127-10	T	Average RF	50	50.14	ppm	0.3	<=30
cis-1,3-Dichloropropene	RC1500127-10	T	Average RF	50	50.14	ppm	0.3	<=20
m,p-Xylenes	RC1500127-10	T	Average RF	100	98.54	ppm	-1.5	<=20
m,p-Xylenes	RC1500127-10	T	Average RF	100	98.54	ppm	-1.5	<=30
n-Butyl Acetate	RC1500127-10	T	Average RF	50	52.15	ppm	4.3	<=30
n-Butyl Acetate	RC1500127-10	T	Average RF	50	52.15	ppm	4.3	<=20
n-Butylbenzene	RC1500127-10	T	Average RF	50	51.38	ppm	2.8	<=30
n-Butylbenzene	RC1500127-10	T	Average RF	50	51.38	ppm	2.8	<=20

Initial Calibration Verification Summary Report

Calibration ID:	RC1500127	**Instrument ID:**	R-MS-12
		Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
n-Heptane	RC1500127-10	T	Average RF	50	51.14	ppm	2.3	<=20
n-Heptane	RC1500127-10	T	Average RF	50	51.14	ppm	2.3	<=30
n-Propylbenzene	RC1500127-10	T	Average RF	50	49.10	ppm	-1.8	<=20
n-Propylbenzene	RC1500127-10	T	Average RF	50	49.10	ppm	-1.8	<=30
o-Xylene	RC1500127-10	T	Average RF	50	49.20	ppm	-1.6	<=30
o-Xylene	RC1500127-10	T	Average RF	50	49.20	ppm	-1.6	<=20
sec-Butylbenzene	RC1500127-10	T	Average RF	50	49.37	ppm	-1.3	<=20
sec-Butylbenzene	RC1500127-10	T	Average RF	50	49.37	ppm	-1.3	<=30
tert-Amyl Methyl Ether	RC1500127-10	T	Average RF	50	50.27	ppm	0.5	<=30
tert-Amyl Methyl Ether	RC1500127-10	T	Average RF	50	50.27	ppm	0.5	<=20
tert-Butylbenzene	RC1500127-10	T	Average RF	50	49.68	ppm	-0.6	<=30
tert-Butylbenzene	RC1500127-10	T	Average RF	50	49.68	ppm	-0.6	<=20
trans-1,2-Dichloroethene	RC1500127-10	T	Average RF	50	51.91	ppm	3.8	<=30
trans-1,2-Dichloroethene	RC1500127-10	T	Average RF	50	51.91	ppm	3.8	<=20
trans-1,3-Dichloropropene	RC1500127-10	T	Average RF	50	53.61	ppm	7.2	<=20
trans-1,3-Dichloropropene	RC1500127-10	T	Average RF	50	53.61	ppm	7.2	<=30
trans-1,4-Dichloro-2-butene	RC1500127-10	T	Linear	50	51.73	ppm	3.5	<=30
trans-1,4-Dichloro-2-butene	RC1500127-10	T	Linear	50	51.73	ppm	3.5	<=20
1,2-Dichloroethane-d4	RC1500127-10	S	Average RF	50	55.42	ppm	10.8	<=20
1,2-Dichloroethane-d4	RC1500127-10	S	Average RF	50	55.42	ppm	10.8	<=30
4-Bromofluorobenzene	RC1500127-10	S	Average RF	50	55.98	ppm	12.0	<=20
4-Bromofluorobenzene	RC1500127-10	S	Average RF	50	55.98	ppm	12.0	<=30
Dibromofluoromethane	RC1500127-10	S	Average RF	50	54.09	ppm	8.2	<=20
Dibromofluoromethane	RC1500127-10	S	Average RF	50	54.09	ppm	8.2	<=30
Toluene-d8	RC1500127-10	S	Average RF	50	57.39	ppm	14.8	<=20
Toluene-d8	RC1500127-10	S	Average RF	50	57.39	ppm	14.8	<=30

Exceptions

QAP	Method
DOD QSM V4.2 Rochester	8260C

Compound	Type	Criteria	Result
Acrolein	Percent Difference	<= 20	24.79

Exceptions

QAP	Method
DOD QSM v5.0 Rochester	8260C

Compound	Type	Criteria	Result
Acrolein	Percent Difference	<= 20	24.79

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:41:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.743	168	726113	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.773	114	1257122	50.00	ppb		0.00
71) d5-Chlorobenzene	9.992	117	1174218	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	568495	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	353544	45.91	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 91.82%				
48) surr1,1,2-dichloroetha...	6.096	65	400078	49.36	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 98.72%				
65) SURR3,Toluene-d8	8.535	98	1578449	47.33	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 94.66%				
70) SURR2,BFB	11.047	95	581217	48.43	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.86%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	578049	56.51	ppb		100
3) Chloromethane	1.347	50	613656	50.25	ppb		96
4) Vinyl Chloride	1.433	62	591690	52.01	ppb		99
5) Bromomethane	1.689	94	285633	51.41	ppb		98
6) Chloroethane	1.768	64	316784	50.64	ppb		100
7) Freon 21	1.926	67	690841	57.03	ppb		100
8) Trichlorofluoromethane	1.981	101	483194	54.52	ppb		99
9) Diethyl Ether	2.231	59	301204	54.17	ppb		97
10) Freon 123a	2.237	67	419242	52.94	ppb		100
11) Freon 123	2.298	83	449302	49.21	ppb		96
12) Acrolein	2.341	56	77212	124.79	ppb		98
13) 1,1-Diclethene	2.432	96	305820	50.36	ppb		96
14) Freon 113	2.445	101	294916	53.36	ppb		96
15) Acetone	2.493	43	69526	44.91	ppb		90
16) 2-Propanol	2.646	45	283254	964.31	ppb		97
17) Iodomethane	2.573	142	369790	53.60	ppb		98
18) Carbon Disulfide	2.634	76	1010201	49.80	ppb		99
19) Acetonitrile	2.762	40	49458	230.37	ppb		94
20) Allyl Chloride	2.798	76	198188	58.61	ppb		98
21) Methyl Acetate	2.829	43	171541	47.56	ppb		97
22) Methylene Chloride	2.926	84	334994	47.77	ppb		95
23) TBA	3.091	59	520016	1090.84	ppb		98
24) Acrylonitrile	3.213	53	457105	260.89	ppb		99
25) Methyl-t-Butyl Ether	3.268	73	861417	50.99	ppb		99
26) trans-1,2-Dichloroethene	3.249	96	339517	51.91	ppb		97
28) 1,1-Diclethane	3.792	63	620067	53.31	ppb		97
29) Vinyl Acetate	3.902	86	65375	53.96	ppb	#	95
30) DIPE	3.944	45	1092805	48.19	ppb		98
31) 2-Chloro-1,3-Butadiene	3.932	53	558315	47.73	ppb		99
32) ETBE	4.530	59	1028142	48.25	ppb		98
33) 2,2-Dichloropropane	4.706	77	493585	53.05	ppb		97
34) cis-1,2-Dichloroethene	4.718	96	357118	49.33	ppb		95
35) 2-Butanone	4.779	43	109862	51.81	ppb		99
36) Propionitrile	4.871	54	167834	259.20	ppb		93

KP 11/19/15

W111815.M Thu Nov 19 11:43:02 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:41:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
37) Bromochloromethane	5.151	130	188732	50.47 ppb	92
38) Methacrylonitrile	5.157	67	107303	52.29 ppb	96
39) Tetrahydrofuran	5.243	42	77870	57.10 ppb	95
40) Chloroform	5.328	83	547722	48.45 ppb	99
41) 1,1,1-Trichloroethane	5.596	97	467481	52.64 ppb	97
42) TAME	6.407	73	910074	50.27 ppb	99
44) Cyclohexane	5.682	41	315164	45.87 ppb	98
46) Carbontetrachloride	5.859	121	118942	49.41 ppb	98
47) 1,1-Dichloropropene	5.877	75	460497	51.92 ppb	99
49) Benzene	6.176	78	1384782	50.05 ppb	100
50) 1,2-Dichloroethane	6.212	62	363912	51.31 ppb	100
51) Iso-Butyl Alcohol	6.200	43	247157	1065.73 ppb	90
52) n-Heptane	6.645	43	389344	51.14 ppb	99
53) 1-Butanol	7.114	56	394692	2715.11 ppb	99
54) Trichloroethene	7.084	130	344877	49.06 ppb	97
55) Methylcyclohexane	7.316	55	398059	46.97 ppb	95
56) 1,2-Diclpropane	7.352	63	356308	51.97 ppb	99
57) Dibromomethane	7.492	93	162395	48.11 ppb	97
58) 1,4-Dioxane	7.566	88	55398m	1101.95 ppb	
59) Methyl Methacrylate	7.578	69	202427	51.03 ppb	96
60) Bromodichloromethane	7.712	83	424820	50.54 ppb	99
61) 2-Nitropropane	7.986	41	129864	104.90 ppb	96
62) 2-Chloroethylvinyl Ether	8.108	63	184748	48.85 ppb	98
63) cis-1,3-Dichloropropene	8.242	75	564924	50.14 ppb	97
64) 4-Methyl-2-pentanone	8.443	43	262899	52.44 ppb	95
66) Toluene	8.602	91	1423229	49.67 ppb	99
67) trans-1,3-Dichloropropene	8.864	75	479777	53.61 ppb	97
68) Ethyl Methacrylate	8.998	69	424063	53.51 ppb	99
69) 1,1,2-Trichloroethane	9.047	97	249204	51.43 ppb	99
72) Tetrachloroethene	9.181	164	243689	50.04 ppb	95
73) 2-Hexanone	9.327	43	177208	49.30 ppb	98
74) 1,3-Dichloropropane	9.212	76	448747	50.27 ppb	98
75) Dibromochloromethane	9.437	129	281182	50.62 ppb	98
76) N-Butyl Acetate	9.480	43	447943	52.15 ppb	99
77) 1,2-Dibromoethane	9.529	107	230782	48.51 ppb	98
78) Chlorobenzene	10.016	112	859029	49.46 ppb	99
79) 3-CBTF	10.035	180	422230	49.06 ppb	99
80) 4-CBTF	10.083	180	395512	49.39 ppb	99
81) 1,1,1,2-Tetrachloroethane	10.102	131	291371	48.54 ppb	98
82) Ethylbenzene	10.132	106	488737	49.68 ppb	96
83) (m+p)Xylene	10.242	106	1196691	98.54 ppb	99
84) o-Xylene	10.595	106	611940	49.20 ppb	98
85) Styrene	10.608	104	1004572	49.59 ppb	99
87) Bromoform	10.760	173	163273	50.56 ppb	96
88) 2-CBTF	10.839	180	437719	50.78 ppb	91
89) Isopropylbenzene	10.925	105	1431318	48.42 ppb	100
90) Cyclohexanone	10.992	55	505453	1179.29 ppb	95
91) trans-1,4-Dichloro-2-B...	11.229	53	90609	51.73 ppb	96
92) 1,1,2,2-Tetrachloroethane	11.181	83	300721	50.34 ppb	99
93) Bromobenzene	11.175	156	341544	51.06 ppb	93
94) 1,2,3-Trichloropropane	11.211	110	81243	51.15 ppb	99

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:41:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration

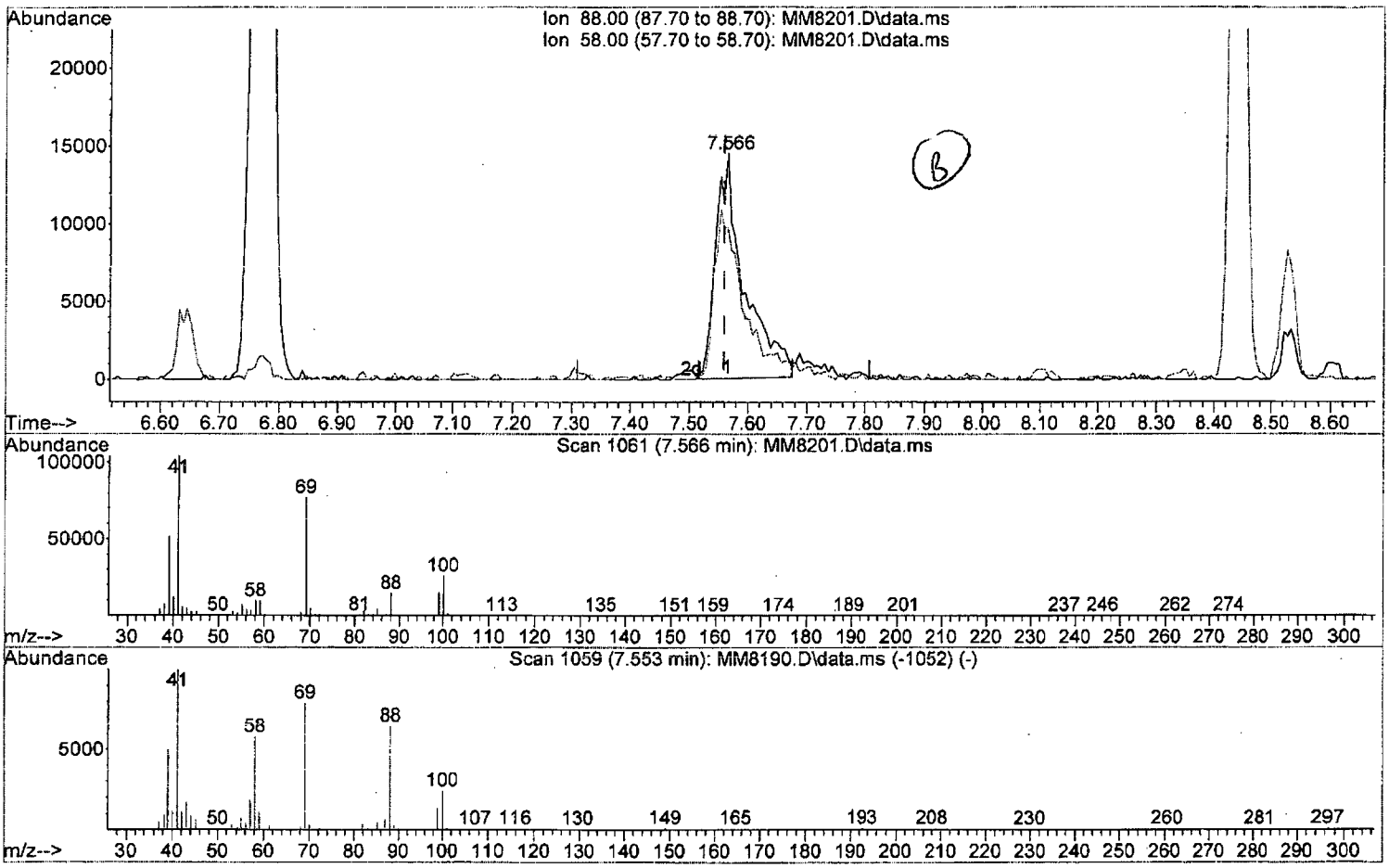
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	1673087	49.10	ppb	97
96)	2-Chlorotoluene	11.339	91	1023798	51.26	ppb	99
97)	3-Chlorotoluene	11.394	91	1069978	51.03	ppb	99
98)	4-Chlorotoluene	11.437	91	1131967	50.24	ppb	98
99)	1,3,5-Trimethylbenzene	11.431	105	1122828	50.19	ppb	99
100)	tert-Butylbenzene	11.699	119	991555	49.68	ppb	97
101)	1,2,4-Trimethylbenzene	11.742	105	1188534	49.51	ppb	97
102)	3,4-DCBTF	11.796	214	289050	50.07	ppb	99
103)	sec-Butylbenzene	11.882	105	1378727	49.37	ppb	99
104)	p-Isopropyltoluene	12.004	119	1126128	52.15	ppb	99
105)	1,3-Dclbenz	11.961	146	654399	50.54	ppb	99
106)	1,4-Dclbenz	12.034	146	634822	52.30	ppb	99
107)	2,4-DCBTF	12.089	214	261082	51.82	ppb	97
108)	2,5-DCBTF	12.126	214	288419	50.60	ppb	99
109)	n-Butylbenzene	12.333	91	1050775	51.38	ppb	99
110)	1,2-Dclbenz	12.339	146	609837	51.17	ppb	97
111)	1,2-Dibromo-3-chloropr...	12.955	157	57714	50.08	ppb	88
112)	Trielution Dichlorotol...	13.071	125	1570646	156.16	ppb	96
113)	1,3,5 Trichlorobenzene	13.132	180	416902	52.04	ppb	96
114)	Coelution Dichlorotoluene	13.400	125	1141239	107.38	ppb	99
115)	1,2,4-Tcbenzene	13.613	180	380370	51.73	ppb	97
116)	Hexachlorobt	13.747	225	154653	52.67	ppb	92
117)	Naphthalen	13.802	128	840880	55.14	ppb	99
118)	1,2,3-Tclbenzene	13.985	180	329024	53.80	ppb	97
119)	2,4,5-Trichlorotolene	14.570	159	251568	55.45	ppb	96
120)	2,3,6-Trichlorotoluene	14.656	159	215078	53.85	ppb	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:40:01 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration



TIC: MM8201.D\data.ms

(58) 1,4-Dioxane

7.566min (+0.006) 980.03 ppb

response 49269

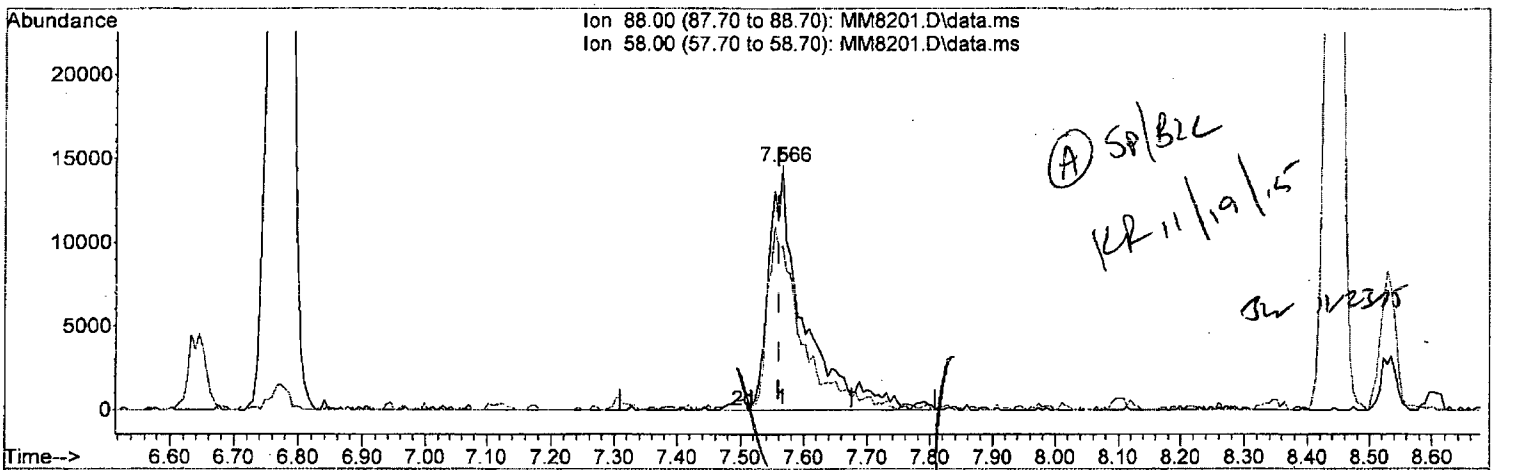
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	67.10#
0.00	0.00	0.00
0.00	0.00	0.00

W111815.M Thu Nov 19 11:41:44 2015 Page: 1

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:40:01 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration



TIC: MM8201.D\data.ms

(58) 1,4-Dioxane

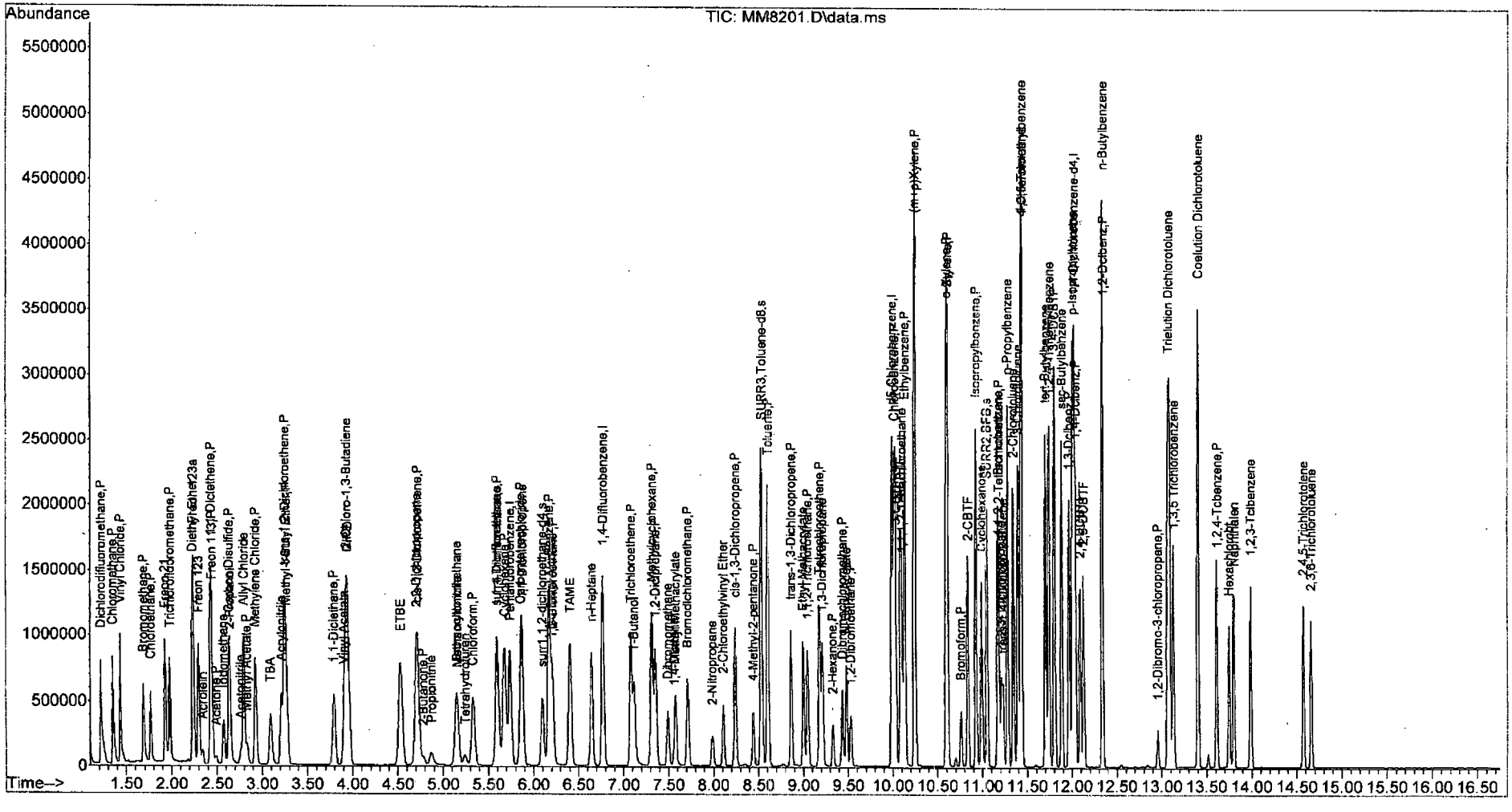
7.566min (+0.006) 1101.95 ppb m

response 55398

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	67.10#
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 19 11:41:59 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Thu Nov 19 11:34:31 2015
Response via : Initial Calibration



W111815.M Thu Nov 19 11:43:06 2015 Page: 4

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 09:22:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815AS.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.743	168	726113	50.00	ppb	0.00
2) 1,4-Difluorobenzene	6.773	114	1257122	50.00	ppb	0.00
7) d5-Chlorobenzene	9.992	117	1174218	50.00	ppb	0.00
8) 1,4-Dichlorobenzene-d4	12.016	152	568495	50.00	ppb	0.00
System Monitoring Compounds						
3) surr4,Dibrflmethane	5.596	113	353544	54.09	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.18%			
4) surr1,1,2-dichloroetha...	6.096	65	400078	55.42	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 110.84%			
5) SURR3,Toluene-d8	8.535	98	1578449	57.39	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 114.78%			
6) SURR2,BFB	11.047	95	581217	55.98	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.96%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

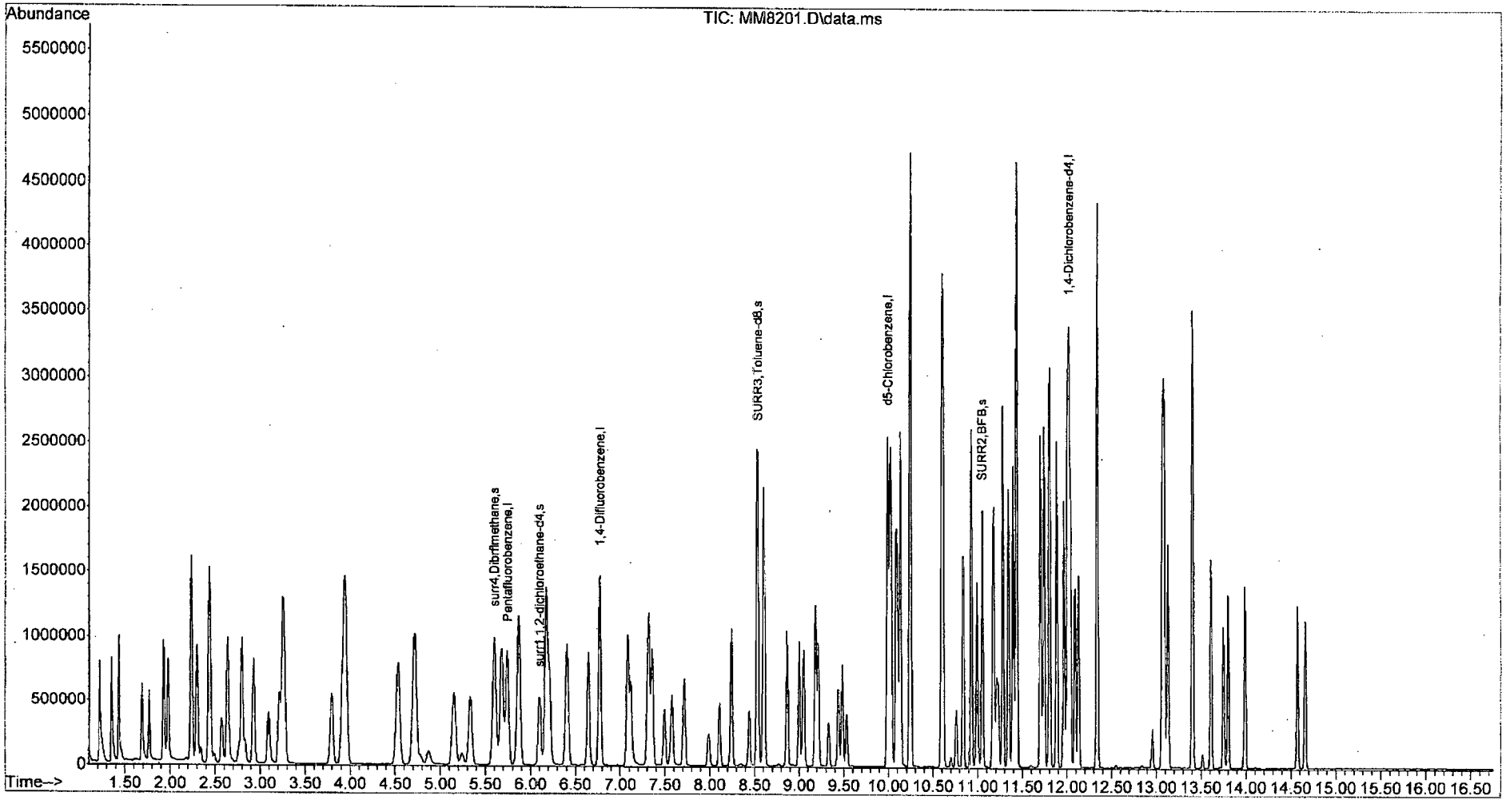
SM requant

KA 11/30/15

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\111915\
Data File : MM8201.D
Acq On : 19 Nov 2015 11:08 am
Operator : K.Ruest
Sample : ICV/LCS Inst : MSVOA-12
Misc : 50ppb
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 30 09:22:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815AS.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815AS.M Mon Nov 30 14:24:49 2015 Page: 2

Data Path : I:\ACQUDATA\MSVOA12\DATA\120315\
Data File : MM8487.D
Acq On : 3 Dec 2015 10:15 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 03 10:31:30 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

KR 12/3/15

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.0000	1.0000	0.0	100	0.00
2	P	Dichlorodifluoromethane	0.7043	0.6298	10.6	81	0.00
3	P	Chloromethane	0.8409	0.7444	11.5	88	0.00
4	P	Vinyl Chloride	0.7834	0.7592	3.1	95	0.00
5	P	Bromomethane	0.3826	0.2880	24.7#	78	0.00 ⊗
6	P	Chloroethane	0.4308	0.4229	1.8	98	0.00
7		Freon 21	0.8341	0.8686	-4.1	103	0.00
8	P	Trichlorofluoromethane	0.6103	0.5988	1.9	96	0.00
9		Diethyl Ether	0.3829	0.3946	-3.1	105	0.00
10		Freon 123a	0.5453	0.5347	1.9	100	0.00
11		Freon 123	0.6287	0.6095	3.1	100	0.00
12		Acrolein IV= 250	0.0426	0.1210	-13.6 ~~-184.0#~~	308#	0.00
13	P	1,1-Diclethene	0.4182	0.4057	3.0	98	0.00
14	P	Freon 113	0.3806	0.3662	3.8	98	0.00
15	P	Acetone	0.1066	0.0999	6.3	101	0.00
16		2-Propanol	0.0202	0.0220	-8.9	120	0.00
17		Iodomethane	0.4751	0.3503	26.3#	65	0.00
18	P	Carbon Disulfide	1.3968	1.3599	2.6	96	0.00
19		Acetonitrile	0.0148	0.0160	-8.1	126	0.00
20		Allyl Chloride	0.2328	0.2257	3.0	97	0.00
21	P	Methyl Acetate	0.2484	0.2536	-2.1	113	0.00
22	P	Methylene Chloride	0.4829	0.4539	6.0	99	0.00
23		TBA	0.0328	0.0345	-5.2	112	0.00
24		Acrylonitrile	0.1207	0.1227	-1.7	106	0.00
25	P	Methyl-t-Butyl Ether	1.1634	1.1131	4.3	101	0.00
26	P	trans-1,2-Dichloroethene	0.4503	0.4411	2.0	99	0.00
27		Halothane	0.0000	0.0000	0.0	0#	-4.13#
28	P	1,1-Diclethane	0.8010	0.7969	0.5	100	0.00
29		Vinyl Acetate	0.0834	0.0917	-10.0	115	0.00
30		DIPE	1.5615	1.6063	-2.9	105	0.00
31		2-Chloro-1,3-Butadiene	0.8055	0.8397	-4.2	105	0.00
32		ETBE	1.4674	1.4726	-0.4	103	0.00
33		2,2-Dichloropropane	0.6407	0.6359	0.7	100	0.00
34	P	cis-1,2-Dichloroethene	0.4985	0.4762	4.5	100	0.00
35	P	2-Butanone	0.1460	0.1458	0.1	105	0.00
36		Propionitrile	0.0446	0.0451	-1.1	109	0.00
37		Bromochloromethane	0.2575	0.2350	8.7	93	0.00
38		Methacrylonitrile	0.1413	0.1379	2.4	103	0.00
39		Tetrahydrofuran	0.0939	0.0926	1.4	109	0.00
40	P	Chloroform	0.7785	0.7261	6.7	99	0.00
41	P	1,1,1-Trichloroethane	0.6115	0.5815	4.9	95	0.00
42		TAME	1.2466	1.2374	0.7	102	0.00
43	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	102	0.00
44	P	Cyclohexane	0.2733	0.2657	2.8	100	0.00
45	s	surr4,Dibrflmethane	0.2600	0.2811	-8.1	99	0.00
46	P	Carbontetrachloride	0.0957	0.0915	4.4	97	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8487.D
Acq On : 3 Dec 2015 10:15 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 03 10:31:30 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
47		1,1-Dichloropropene	0.3528	0.3356	4.9	97	0.00
48	s	surr1,1,2-dichloroethane-d4	0.2871	0.3147	-9.6	101	0.00
49	P	Benzene	1.1004	1.0729	2.5	97	0.00
50	P	1,2-Dichloroethane	0.2821	0.2737	3.0	101	0.00
51		Iso-Butyl Alcohol	0.0092	0.0096	-4.3	118	-0.01
52		n-Heptane	0.3028	0.3068	-1.3	106	0.00
53		1-Butanol	0.0058	0.0062	-6.9	120	-0.01
54	P	Trichloroethene	0.2796	0.2526	9.7	93	0.00
55	P	Methylcyclohexane	0.3371	0.3269	3.0	103	0.00
56	P	1,2-Diclpropane	0.2727	0.2667	2.2	99	0.00
57		Dibromomethane	0.1343	0.1234	8.1	101	0.00
58		1,4-Dioxane	0.0020	0.0021	-5.0	120	0.00
59		Methyl Methacrylate	0.1578	0.1488	5.7	99	0.00
60	P	Bromodichloromethane	0.3343	0.3181	4.8	97	0.00
61		2-Nitropropane	0.0492	0.0438	11.0	99	0.00
62		2-Chloroethylvinyl Ether	0.1504	0.1381	8.2	99	0.00
63	P	cis-1,3-Dichloropropene	0.4481	0.4239	5.4	96	0.00
64	P	4-Methyl-2-pentanone	0.1994	0.2021	-1.4	105	0.00
65	s	SURR3,Toluene-d8	1.0940	1.2477	-14.0	100	0.00
66	P	Toluene	1.1396	1.1112	2.5	97	0.00
67	P	trans-1,3-Dichloropropene	0.3560	0.3530	0.8	98	0.00
68		Ethyl Methacrylate	0.3152	0.3111	1.3	100	0.00
69	P	1,1,2-Trichloroethane	0.1927	0.1901	1.3	100	0.00
70	s	SURR2,BFB	0.4130	0.4755	-15.1	103	0.00
71	I	d5-Chlorobenzene	1.0000	1.0000	0.0	102	0.00
72	P	Tetrachloroethene	0.2074	0.1901#	8.3	93	0.00
73	P	2-Hexanone	0.1531	0.1457	4.8	103	0.00
74		1,3-Dichloropropane	0.3801	0.3619	4.8	102	0.00
75	P	Dibromochloromethane	0.2365	0.2179	7.9	94	0.00
76		N-Butyl Acetate	0.3657	0.3750	-2.5	107	0.00
77	P	1,2-Dibromoethane	0.2026	0.1888	6.8	98	0.00
78	P	Chlorobenzene	0.7396	0.6919	6.4	98	0.00
79		3-CBTF	0.3664	0.3553	3.0	102	0.00
80		4-CBTF	0.3410	0.3373	1.1	106	0.00
81		1,1,1,2-Tetrachloroethane	0.2556	0.2333	8.7	96	0.00
82	P	Ethylbenzene	0.4189	0.3991	4.7	99	0.00
83	P	(m+p)Xylene	0.5171	0.4852	6.2	96	0.00
84	P	o-Xylene	0.5296	0.5070	4.3	96	0.00
85	P	Styrene	0.8627	0.8187	5.1	97	0.00
86	I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	105	0.00
87	P	Bromoform	0.2840	0.2453	13.6	94	0.00
88		2-CBTF	0.7581	0.7320	3.4	104	0.00
89	P	Isopropylbenzene	2.6001	2.4446	6.0	98	0.00
90		Cyclohexanone	0.0377	0.0585	-55.2#	171	0.00
91		trans-1,4-Dichloro-2-Butene	0.1645	0.1412	~~14.2~~ 8.4	97	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\Lp0315\
Data File : MM8487.D
Acq On : 3 Dec 2015 10:15 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 03 10:31:30 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev Area	% Dev(min)	
92	P	1,1,2,2-Tetrachloroethane	0.5254	0.4885	7.0	104	0.00
93		Bromobenzene	0.5883	0.5557	5.5	97	0.00
94		1,2,3-Trichloropropane	0.1547	0.1338	4.3 ~~13.5~~	103	0.00
95		n-Propylbenzene	2.9967	2.9026	3.1	98	0.00
96		2-Chlorotoluene	1.7568	1.7338	1.3	100	0.00
97		3-Chlorotoluene	1.8442	1.8675	-1.3	106	0.00
98		4-Chlorotoluene	1.9817	1.9059	3.8	100	0.00
99		1,3,5-Trimethylbenzene	1.9676	1.8703	4.9	98	0.00
100		tert-Butylbenzene	1.7555	1.6671	5.0	96	0.00
101		1,2,4-Trimethylbenzene	2.1113	2.0295	3.9	98	0.00
102		3,4-DCBTF	0.5078	0.5063	0.3	107	0.00
103		sec-Butylbenzene	2.4563	2.3636	3.8	98	0.00
104		p-Isopropyltoluene	1.8992	1.8467	2.8	99	0.00
105	P	1,3-Dclbenz	1.1388	1.0636	6.6	97	0.00
106	P	1,4-Dclbenz	1.0675	1.0277	3.7	97	0.00
107		2,4-DCBTF	0.4432	0.4484	-1.2	106	0.00
108		2,5-DCBTF	0.5013	0.5074	-1.2	108	0.00
109		n-Butylbenzene	1.7986	1.7430	3.1	98	0.00
110	P	1,2-Dclbenz	1.0481	1.0044	4.2	98	0.00
111	P	1,2-Dibromo-3-chloropropane	0.1014	0.0888	12.4	96	0.00
112		Trielution Dichlorotoluene	0.8846	0.8889	-0.5	105	0.00
113		1,3,5 Trichlorobenzene	0.7046	0.6991	0.8	107	0.00
114		Coelution Dichlorotoluene	0.9348	0.9639	-3.1	105	0.00
115	P	1,2,4-Tcbenzene	0.6467	0.6042	6.6	97	0.00
116		Hexachlorobt	0.2582	0.2444	5.3	97	0.00
117		Naphthalen	1.3412	1.3008	3.0	98	0.00
118		1,2,3-Tclbenzene	0.5379	0.5034	6.4	95	0.00
119		2,4,5-Trichlorotolene	0.3990	0.3926	1.6	104	0.00
120		2,3,6-Trichlorotoluene	0.3513	0.3214	8.5	102	0.00

(#) = Out of Range SPCC's out = 1 CCC's out = 0

W111815A.M Thu Dec 03 11:29:20 2015 Page: 3

Data Path : I:\ACQUDATA\MSVOA12\DATA\R20315\
Data File : MM8487.D
Acq On : 3 Dec 2015 10:15 am
Operator : K.Ruest
Sample : CCV RQ1574947.02 Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 03 10:31:30 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.737	168	735427	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1242702	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1175397	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	580189	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.597	113	349283	54.06	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.12%			
48) surr1,1,2-dichloroetha...	6.103	65	391045	54.80	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 109.60%			
65) SURR3,Toluene-d8	8.529	98	1550462	57.02	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 114.04%			
70) SURR2,BFB	11.047	95	590859	57.56	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 115.12%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.219	85	463175	44.71	ppb	98
3) Chloromethane	1.347	50	547428	44.26	ppb	100
4) Vinyl Chloride	1.433	62	558318	48.46	ppb	99
5) Bromomethane	1.689	94	211822	37.64	ppb	90
6) Chloroethane	1.768	64	311044	49.09	ppb	99
7) Freon 21	1.927	67	638756	52.06	ppb	99
8) Trichlorofluoromethane	1.975	101	440379	49.06	ppb	98
9) Diethyl Ether	2.231	59	290189	51.53	ppb	96
10) Freon 123a	2.237	67	393227	49.03	ppb	93
11) Freon 123	2.298	83	448225	48.47	ppb	96
12) Acrolein	2.341	56	177916	283.91	ppb	98
13) 1,1-Diclethene	2.433	96	298364	48.51	ppb	99
14) Freon 113	2.445	101	269331	48.12	ppb	88
15) Acetone	2.487	43	73463	46.86	ppb	92
16) 2-Propanol	2.646	45	323571	1087.62	ppb	100
17) Iodomethane	2.573	142	257653	36.87	ppb	100
18) Carbon Disulfide	2.634	76	1000143	48.68	ppb	99
19) Acetonitrile	2.762	40	58873	270.75	ppb	97
20) Allyl Chloride	2.798	76	165993	48.47	ppb	97
21) Methyl Acetate	2.835	43	186475	51.05	ppb	95
22) Methylene Chloride	2.926	84	333779	47.00	ppb	93
23) TBA	3.091	59	507672	1051.46	ppb	98
24) Acrylonitrile	3.213	53	451053	254.17	ppb	100
25) Methyl-t-Butyl Ether	3.268	73	818609	47.84	ppb	99
26) trans-1,2-Dichloroethene	3.249	96	324415	48.98	ppb	94
28) 1,1-Diclethane	3.792	63	586060	49.75	ppb	97
29) Vinyl Acetate	3.902	86	67406	54.93	ppb	99
30) DIPE	3.944	45	1181323	51.43	ppb	99
31) 2-Chloro-1,3-Butadiene	3.926	53	617531	52.12	ppb	97
32) ETBE	4.530	59	1082967	50.18	ppb	99
33) 2,2-Dichloropropane	4.700	77	467687	49.63	ppb	96
34) cis-1,2-Dichloroethene	4.719	96	350210	47.76	ppb	96
35) 2-Butanone	4.780	43	107249	49.94	ppb	96
36) Propionitrile	4.865	54	165902	252.97	ppb	99

KR 12/3/15

Data Path : I:\ACQUDATA\MSVOA12\DATA\120315\
Data File : MM8487.D
Acq On : 3 Dec 2015 10:15 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 03 10:31:30 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	172844	45.63	ppb	#	84
38) Methacrylonitrile	5.158	67	101449	48.81	ppb		92
39) Tetrahydrofuran	5.237	42	68129	49.33	ppb		94
40) Chloroform	5.328	83	533958	46.63	ppb		100
41) 1,1,1-Trichloroethane	5.597	97	427673	47.55	ppb		95
42) TAME	6.407	73	909983	49.63	ppb		97
44) Cyclohexane	5.676	41	330153	48.61	ppb		94
46) Carbontetrachloride	5.859	121	113757	47.81	ppb		97
47) 1,1-Dichloropropene	5.871	75	417030	47.56	ppb		98
49) Benzene	6.170	78	1333330	48.75	ppb		99
50) 1,2-Dichloroethane	6.212	62	340129	48.51	ppb		99
51) Iso-Butyl Alcohol	6.200	43	239214	1043.45	ppb		94
52) n-Heptane	6.645	43	381202	50.65	ppb		96
53) 1-Butanol	7.115	56	387769	2698.44	ppb		99
54) Trichloroethene	7.084	130	313957	45.18	ppb		96
55) Methylcyclohexane	7.310	55	406279	48.49	ppb		96
56) 1,2-Diclpropane	7.352	63	331460	48.91	ppb		99
57) Dibromomethane	7.492	93	153405	45.97	ppb		91
58) 1,4-Dioxane	7.553	88	51723	1040.79	ppb	#	74
59) Methyl Methacrylate	7.572	69	184858	47.14	ppb		93
60) Bromodichloromethane	7.712	83	395259	47.57	ppb		98
61) 2-Nitropropane	7.986	41	108763	88.88	ppb		98
62) 2-Chloroethylvinyl Ether	8.108	63	171665	45.92	ppb		87
63) cis-1,3-Dichloropropene	8.236	75	526745	47.30	ppb		96
64) 4-Methyl-2-pentanone	8.437	43	251169	50.68	ppb		95
66) Toluene	8.602	91	1380913	48.75	ppb		99
67) trans-1,3-Dichloropropene	8.864	75	438704	49.59	ppb		97
68) Ethyl Methacrylate	8.998	69	386547	49.35	ppb		93
69) 1,1,2-Trichloroethane	9.047	97	236280	49.33	ppb		99
72) Tetrachloroethene	9.181	164	223423	45.83	ppb		97
73) 2-Hexanone	9.328	43	171281	47.60	ppb		98
74) 1,3-Dichloropropane	9.212	76	425371	47.60	ppb		98
75) Dibromochloromethane	9.437	129	256165	46.07	ppb		94
76) N-Butyl Acetate	9.480	43	440784	51.27	ppb		98
77) 1,2-Dibromoethane	9.529	107	221873	46.59	ppb		100
78) Chlorobenzene	10.016	112	813241	46.77	ppb		98
79) 3-CBTF	10.029	180	417636	48.48	ppb		99
80) 4-CBTF	10.083	180	396445	49.46	ppb		99
81) 1,1,1,2-Tetrachloroethane	10.102	131	274169	45.63	ppb		95
82) Ethylbenzene	10.132	106	469064	47.63	ppb		97
83) (m+p)Xylene	10.242	106	1140627	93.83	ppb		99
84) o-Xylene	10.596	106	595953	47.87	ppb		99
85) Styrene	10.608	104	962338	47.45	ppb		98
87) Bromoform	10.760	173	142348	43.19	ppb		95
88) 2-CBTF	10.833	180	424705	48.28	ppb		97
89) Isopropylbenzene	10.925	105	1418323	47.01	ppb		99
90) Cyclohexanone	10.986	55	679315	1552.99	ppb		98
91) trans-1,4-Dichloro-2-B...	11.230	53	81899	45.79	ppb		92
92) 1,1,2,2-Tetrachloroethane	11.181	83	283451	46.50	ppb		95
93) Bromobenzene	11.175	156	322440	47.23	ppb	#	90
94) 1,2,3-Trichloropropane	11.211	110	77621	47.87	ppb	#	90

Data Path : I:\ACQUDATA\MSVOA12\DATA\120315\
Data File : MM8487.D
Acq On : 3 Dec 2015 10:15 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 03 10:31:30 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

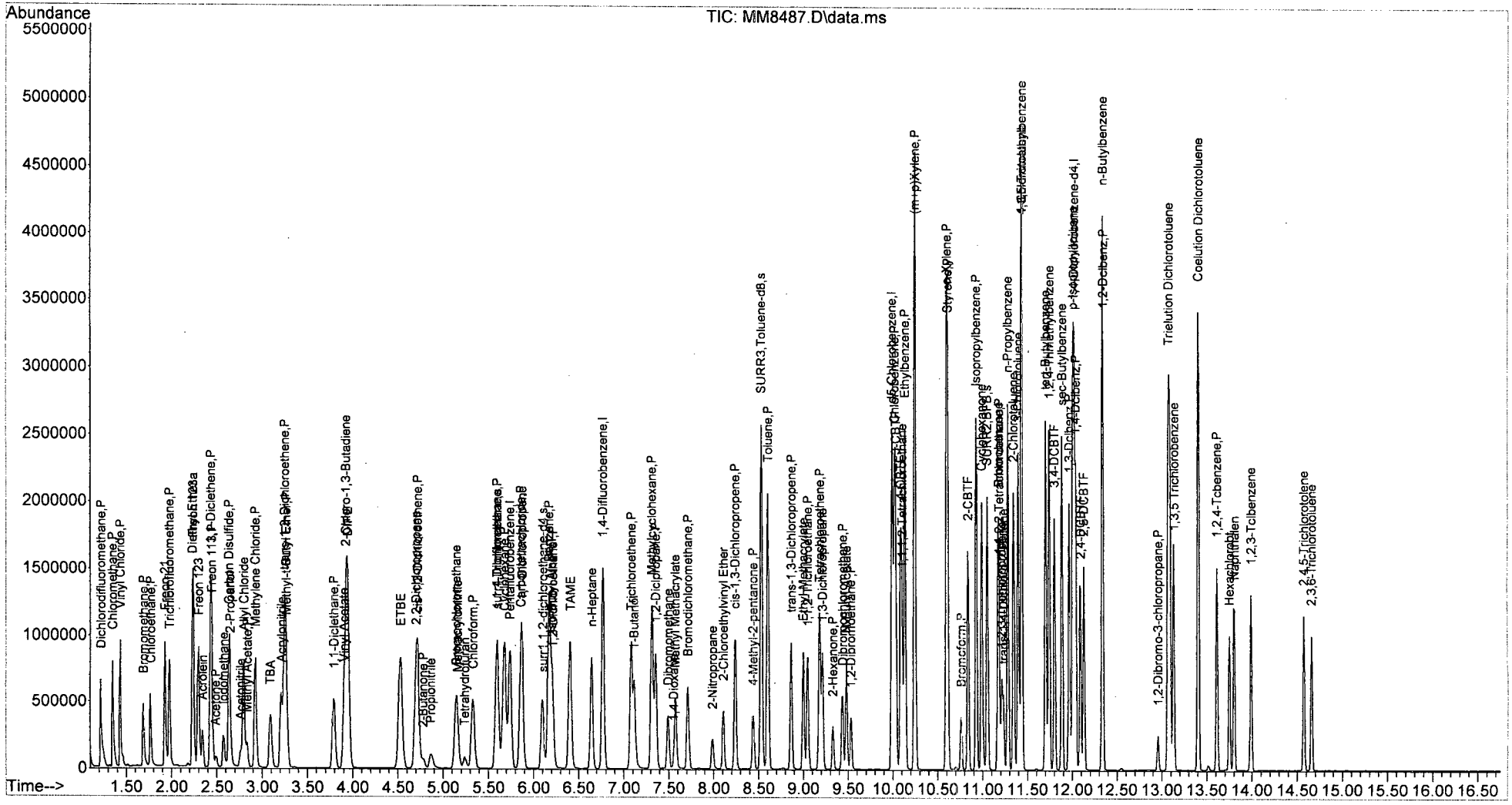
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	1684052	48.43	ppb	98
96)	2-Chlorotoluene	11.339	91	1005930	49.35	ppb	99
97)	3-Chlorotoluene	11.394	91	1083518	50.63	ppb	97
98)	4-Chlorotoluene	11.431	91	1105766	48.09	ppb	93
99)	1,3,5-Trimethylbenzene	11.431	105	1085124	47.53	ppb	97
100)	tert-Butylbenzene	11.699	119	967248	47.48	ppb	98
101)	1,2,4-Trimethylbenzene	11.742	105	1177489	48.06	ppb	100
102)	3,4-DCBTF	11.797	214	293750	49.86	ppb	97
103)	sec-Butylbenzene	11.882	105	1371332	48.11	ppb	99
104)	p-Isopropyltoluene	12.004	119	1071439	48.62	ppb	100
105)	1,3-Dclbenz	11.961	146	617110	46.70	ppb	97
106)	1,4-Dclbenz	12.034	146	596288	48.14	ppb	97
107)	2,4-DCBTF	12.089	214	260169	50.59	ppb	96
108)	2,5-DCBTF	12.126	214	294402	50.61	ppb	96
109)	n-Butylbenzene	12.333	91	1011255	48.45	ppb	99
110)	1,2-Dclbenz	12.339	146	582716	47.91	ppb	99
111)	1,2-Dibromo-3-chloropr...	12.955	157	51531	43.81	ppb	84
112)	Trielution Dichlorotol...	13.071	125	1547258	150.73	ppb	96
113)	1,3,5 Trichlorobenzene	13.132	180	405602	49.61	ppb	97
114)	Coelution Dichlorotoluene	13.400	125	1118499	103.12	ppb	99
115)	1,2,4-Tcbenzene	13.607	180	350543	46.72	ppb	99
116)	Hexachlorobt	13.747	225	141772	47.31	ppb	94
117)	Naphthalen	13.802	128	754736	48.49	ppb	99
118)	1,2,3-Tclbenzene	13.985	180	292055	46.79	ppb	99
119)	2,4,5-Trichlorotolene	14.570	159	227760	49.19	ppb	99
120)	2,3,6-Trichlorotoluene	14.656	159	186467	45.74	ppb	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120315\
Data File : MM8487.D
Acq On : 3 Dec 2015 10:15 am
Operator : K.Ruest
Sample : CCV Inst : MSVOA-12
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 03 10:31:30 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Thu Dec 03 10:31:40 2015

ALS Environmental

VOLATILE ORGANICS
RAW QC DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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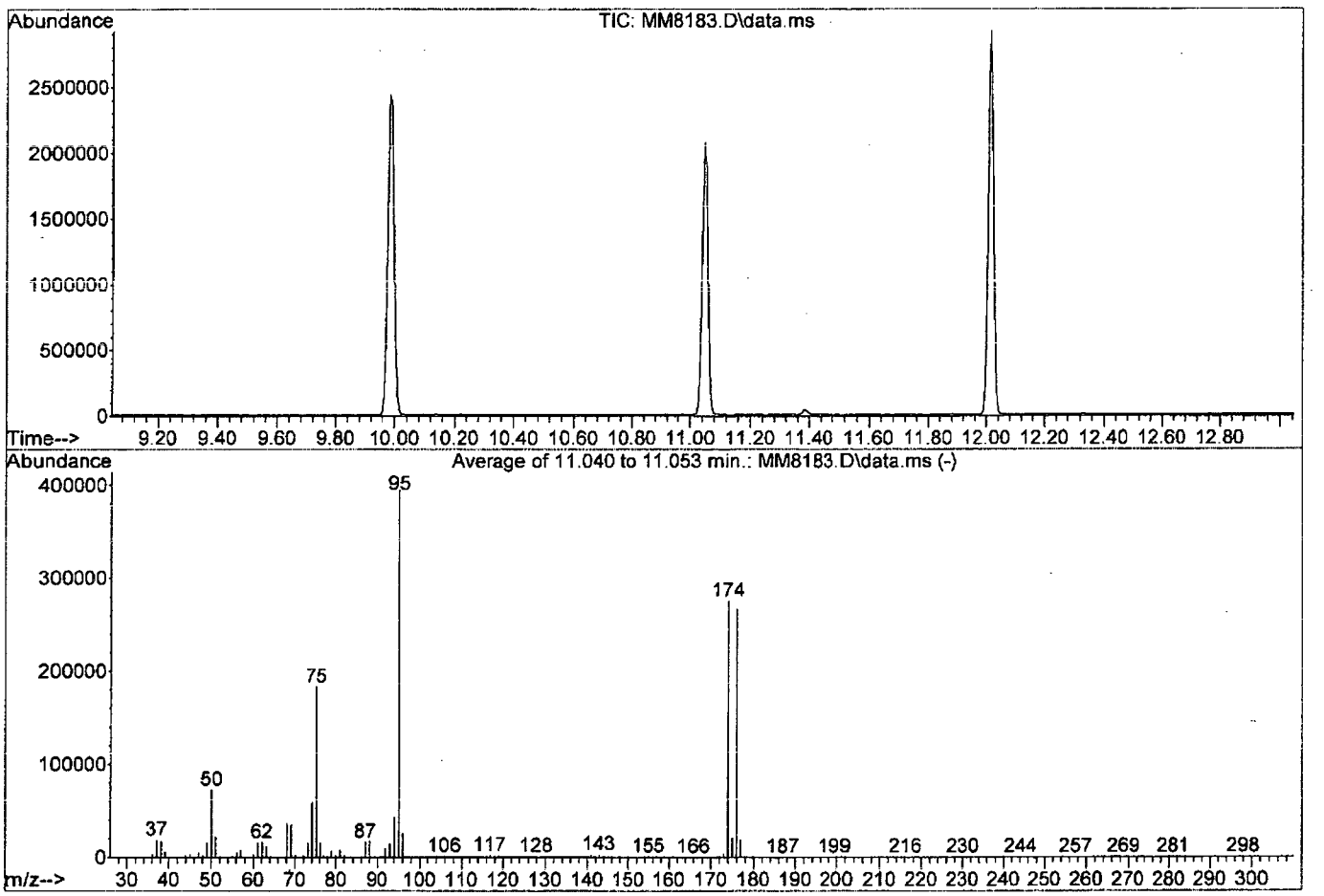
Data Path : I:\ACQUDATA\msvoa12\Data\111815\
Data File : MM8183.D
Acq On : 18 Nov 2015 3:38 pm
Operator : K.Ruest
Sample : TUNE Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: INTP60.P

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Thu Aug 27 10:55:02 2015

KB 11/18/15



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	72096	PASS
75	95	30	60	46.3	182827	PASS
95	95	100	100	100.0	394581	PASS
96	95	5	9	6.6	26025	PASS
173	174	0.00	2	1.3	3492	PASS
174	95	50	120	69.7	275072	PASS
175	174	5	9	7.4	20478	PASS
176	174	95	101	96.8	266389	PASS
177	176	5	9	6.9	18350	PASS

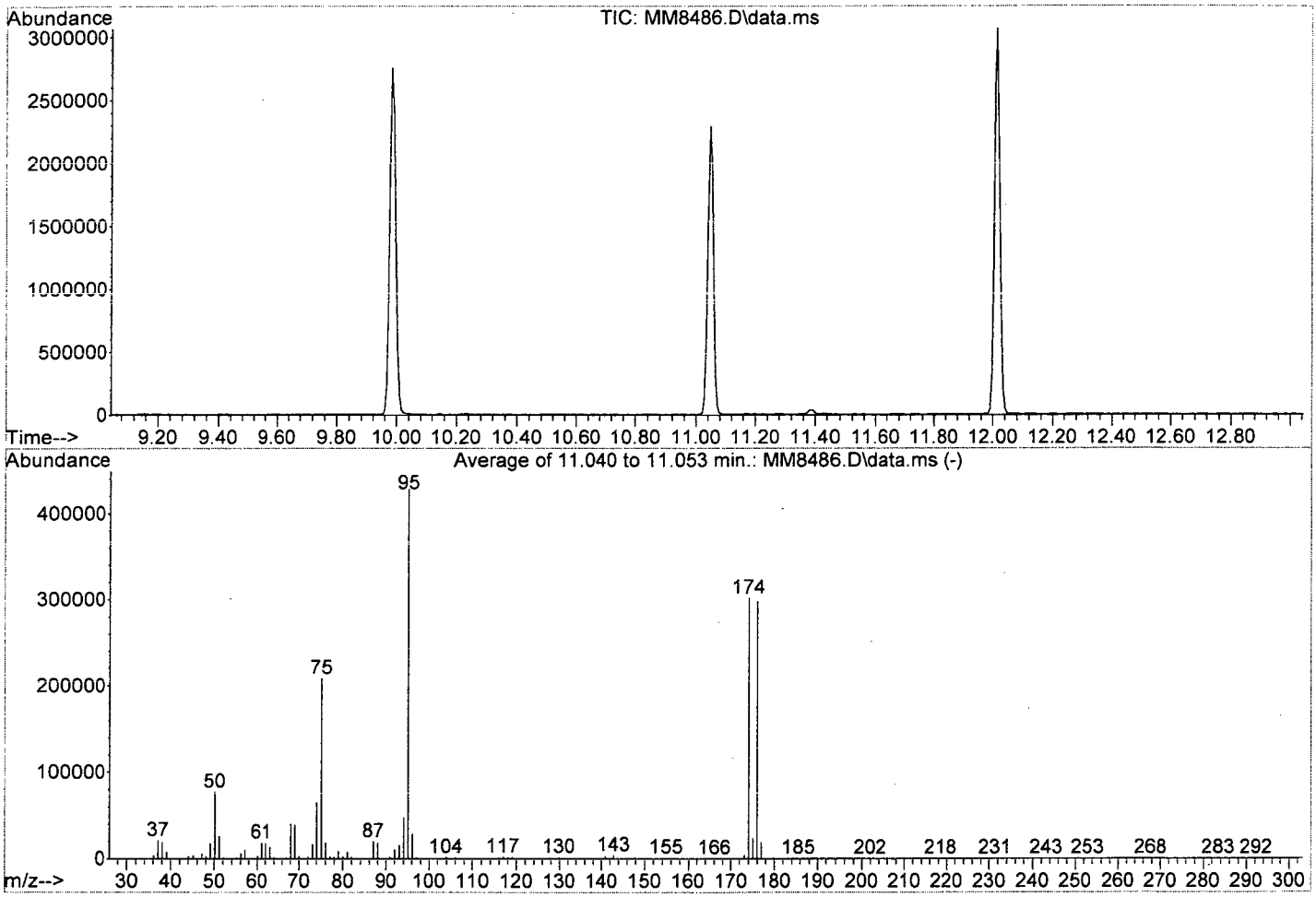
W111815.M Wed Nov 18 16:27:30 2015 Page: 1

Data Path : I:\ACQUDATA\MSVOA12\DATA\2015\1203315\
Data File : MM8486.D
Acq On : 3 Dec 2015 9:44 am
Operator : K.Ruest
Sample : TUNE RQ1574947-01 Inst : MSVOA-12
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: INTP60.P

KR 12/3/15

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Wed Nov 25 09:49:52 2015



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	76885	PASS
75	95	30	60	48.8	208512	PASS
95	95	100	100	100.0	427669	PASS
96	95	5	9	6.6	28083	PASS
173	174	0.00	2	1.2	3704	PASS
174	95	50	120	70.5	301547	PASS
175	174	5	9	7.6	22992	PASS
176	174	95	101	98.6	297451	PASS
177	176	5	9	6.2	18550	PASS

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514947-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/3/15 11:48		474713	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/3/15 11:48		474713	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/3/15 11:48		474713	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/3/15 11:48		474713	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/3/15 11:48		474713	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 11:48		474713	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/3/15 11:48		474713	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/3/15 11:48		474713	
1,2,4-Trichlorobenzene	**0.37**	J	5.0	1.0	0.23	1	NA	12/3/15 11:48		474713	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/3/15 11:48		474713	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 11:48		474713	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 11:48		474713	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/3/15 11:48		474713	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 11:48		474713	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/3/15 11:48		474713	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/3/15 11:48		474713	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/3/15 11:48		474713	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/3/15 11:48		474713	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 11:48		474713	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/3/15 11:48		474713	
Acetone	ND	U	10	5.0	1.3	1	NA	12/3/15 11:48		474713	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/3/15 11:48		474713	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 11:48		474713	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/3/15 11:48		474713	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/3/15 11:48		474713	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/3/15 11:48		474713	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/3/15 11:48		474713	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/3/15 11:48		474713	

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1514947-04

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/3/15 11:48		474713	
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/3/15 11:48		474713	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/3/15 11:48		474713	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/3/15 11:48		474713	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/3/15 11:48		474713	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/3/15 11:48		474713	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
Hexachlorobutadiene	**0.75**	J	5.0	1.0	0.62	1	NA	12/3/15 11:48		474713	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/3/15 11:48		474713	
Naphthalene	**0.38**	J	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/3/15 11:48		474713	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/3/15 11:48		474713	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/3/15 11:48		474713	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/3/15 11:48		474713	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/3/15 11:48		474713	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/3/15 11:48		474713	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/3/15 11:48		474713	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/3/15 11:48		474713	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/3/15 11:48		474713	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/3/15 11:48		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	75-120	12/3/15 11:48	
Dibromofluoromethane	111	85-115	12/3/15 11:48	
Toluene-d8	113	85-120	12/3/15 11:48	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/3/15 1148

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1514947-04	**Basis:**	NA

Prep Method: EPA 5030C
Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8490.D
Acq On : 3 Dec 2015 11:48 am
Operator : K.Ruest
Sample : VBLK LQ 1574947-04 Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 16:59:25 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

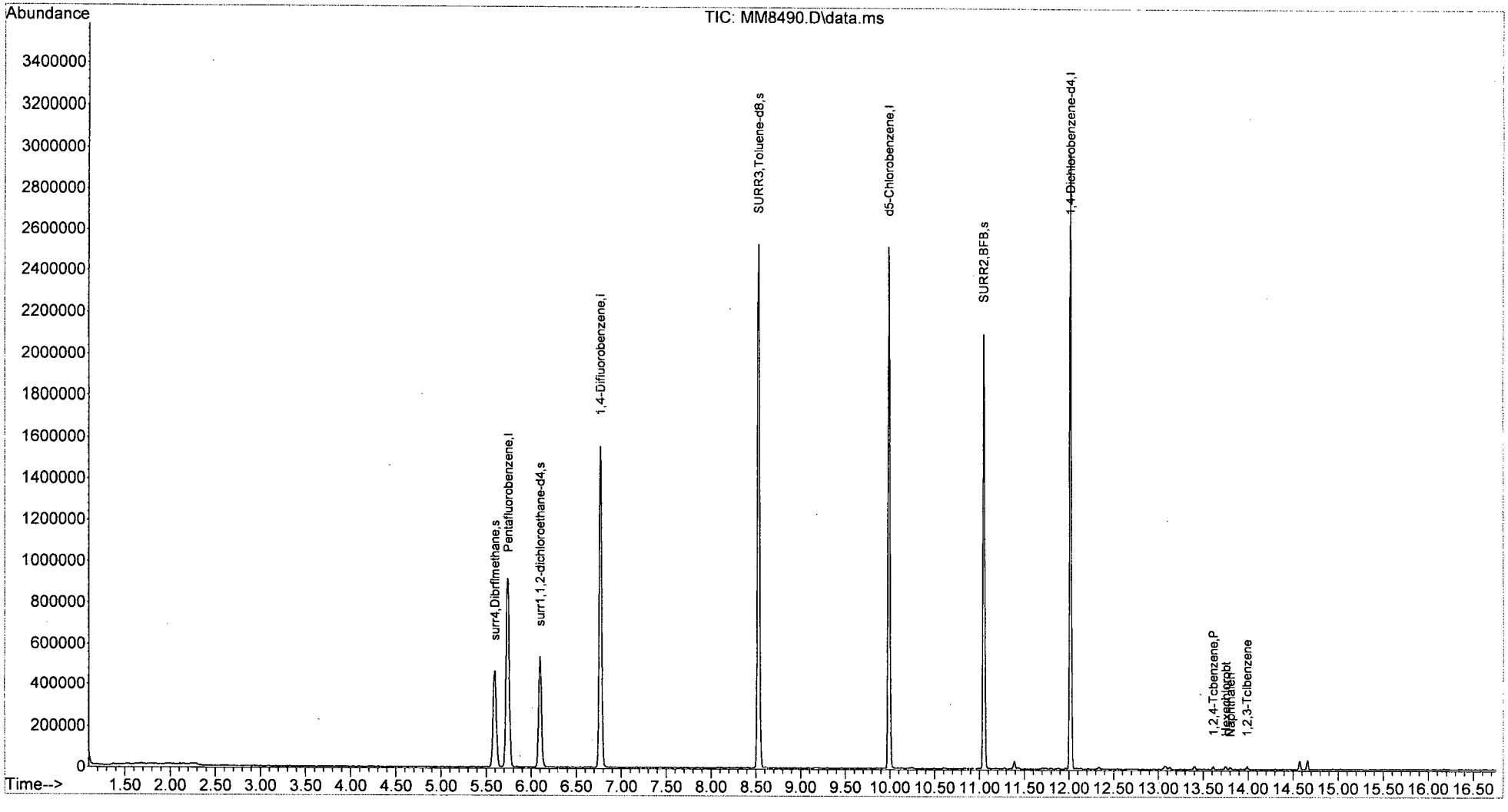
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.743	168	772007	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.767	114	1286437	50.00	ppb	0.00
71) d5-Chlorobenzene	9.986	117	1182297	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	578816	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.596	113	371586	55.56	ppb	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 111.12%			
48) surr1,1,2-dichloroetha...	6.096	65	401513	54.35	ppb	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.70%			
65) SURR3,Toluene-d8	8.529	98	1595075	56.67	ppb	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 113.34%			
70) SURR2,BFB	11.047	95	594496	55.95	ppb	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.90%			
Target Compounds						Qvalue
115) 1,2,4-Tcbenzene	13.613	180	2741	0.37	ppb	82
116) Hexachlorobt	13.753	225	2237	0.75	ppb	95
117) Naphthalen	13.802	128	5973	0.38	ppb	95
118) 1,2,3-Tclbenzene	13.985	180	2757	0.44	ppb	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

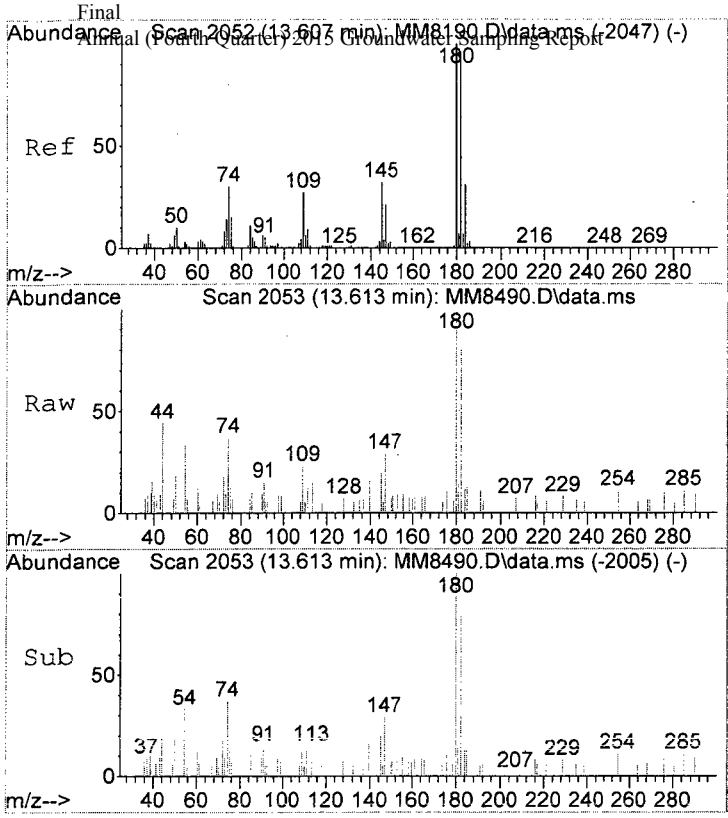
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8490.D
Acq On : 3 Dec 2015 11:48 am
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 16:59:25 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



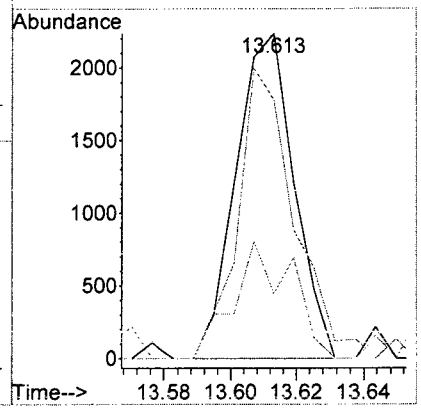
W111815A.M Tue Dec 08 17:00:49 2015 Page: 2

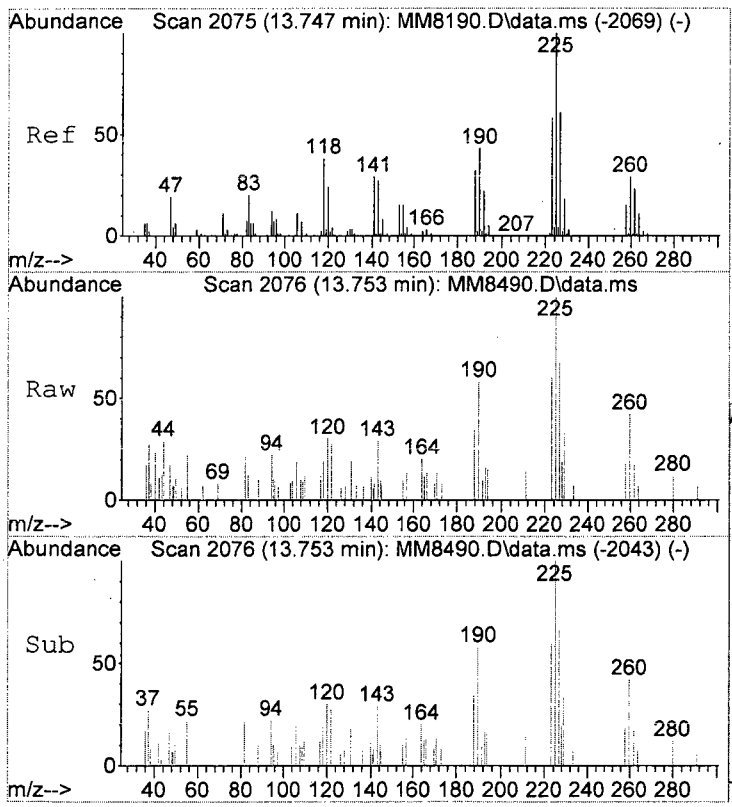


#115
1,2,4-Tcbenzene
Concen: 0.37 ppb
RT: 13.613 min Scan# 2053
Delta R.T. -0.000 min
Lab File: MM8490.D
Acq: 3 Dec 2015 11:48 am

Tgt Ion:180 Resp: 2741

Ion	Ratio	Lower	Upper
180	100		
182	79.7	75.7	115.7
145	19.9	12.1	52.1

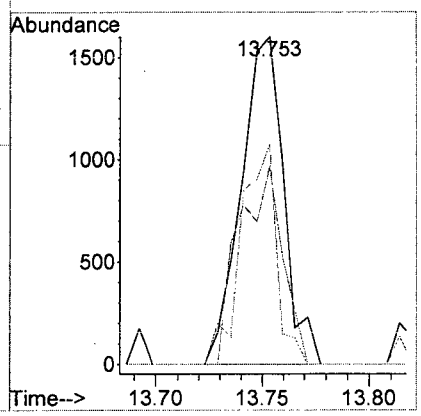


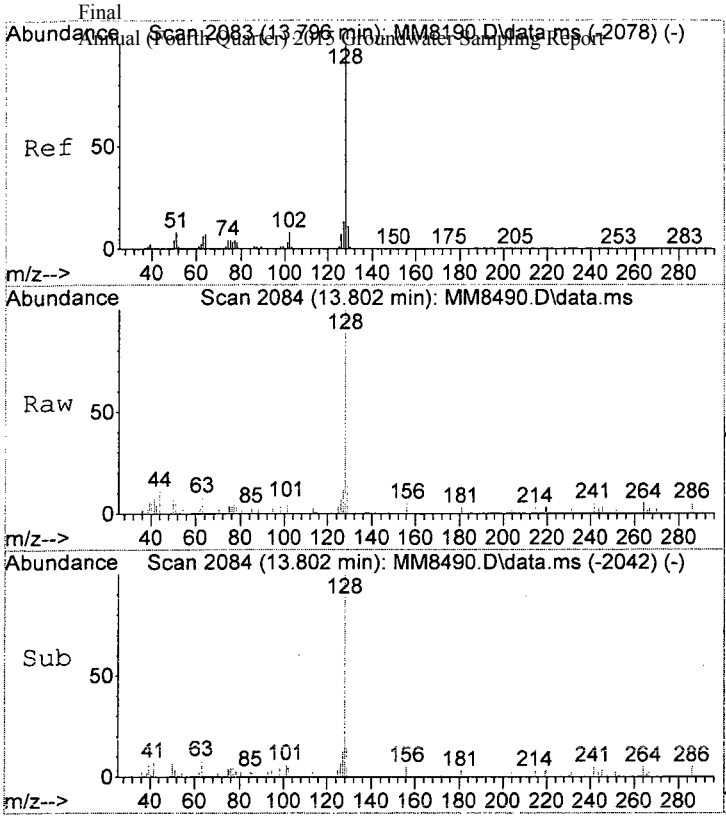


#116
Hexachlorobt
Concen: 0.75 ppb
RT: 13.753 min Scan# 2076
Delta R.T. 0.006 min
Lab File: MM8490.D
Acq: 3 Dec 2015 11:48 am

Tgt Ion:225 Resp: 2237

Ion	Ratio	Lower	Upper
225	100		
223	60.3	38.1	78.1
227	67.1	41.1	81.1

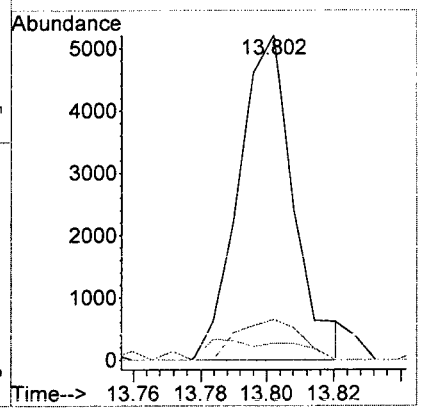


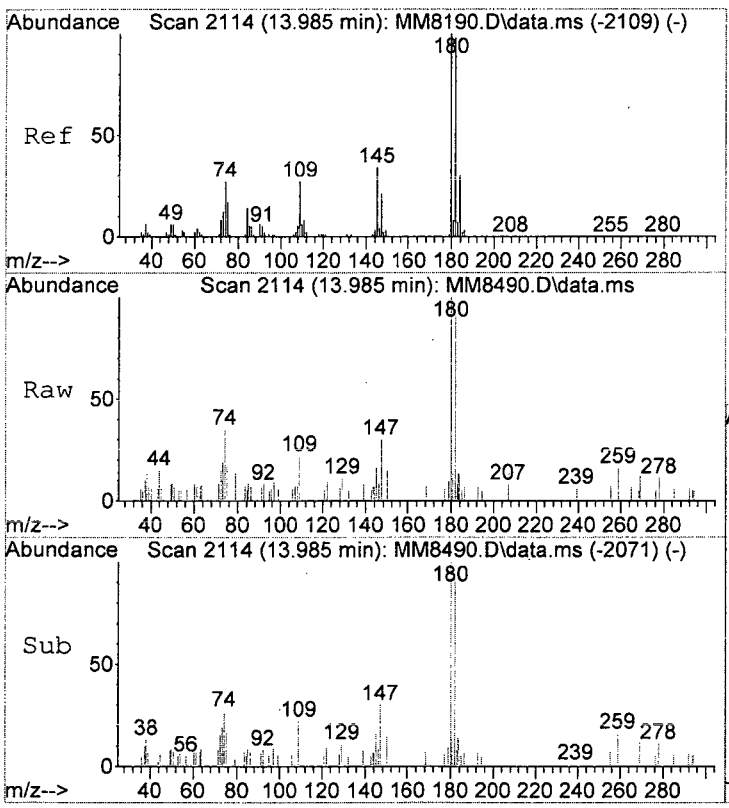


#117
Naphthalen
Concen: 0.38 ppb
RT: 13.802 min Scan# 2084
Delta R.T. -0.000 min
Lab File: MM8490.D
Acq: 3 Dec 2015 11:48 am

Tgt Ion:128 Resp: 5973

Ion	Ratio	Lower	Upper
128	100		
127	12.4	0.0	33.1
102	5.1	0.0	28.3

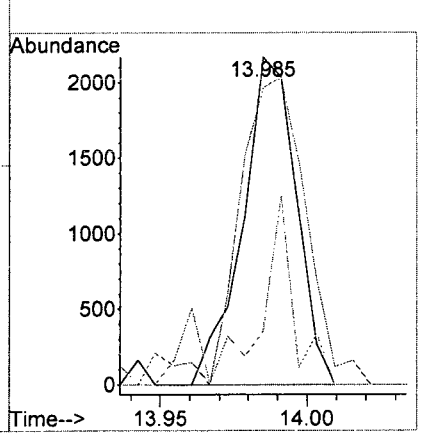




#118
1,2,3-Tclbenzene
Concen: 0.44 ppb
RT: 13.985 min Scan# 2114
Delta R.T. -0.006 min
Lab File: MM8490.D
Acq: 3 Dec 2015 11:48 am

Tgt Ion:180 Resp: 2757

Ion	Ratio	Lower	Upper
180	100		
182	90.6	78.5	118.5
145	16.2	14.2	54.2



LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8490.D
Acq On : 3 Dec 2015 11:48 am
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: INTP60.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Title : MS#12 - 8260B WATERS 10mL Purge

Signal : TIC: MM8490.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.596	727	738	749	rBV2	465432	1181487	28.51%	5.415%
2	5.737	751	761	774	rVB	914690	2225729	53.70%	10.201%
3	6.096	810	820	831	rBV	536995	1193559	28.80%	5.470%
4	6.767	923	930	941	rBV	1558306	2959335	71.40%	13.563%
5	8.529	1211	1219	1228	rBV	2533318	4144817	100.00%	18.997%
6	9.986	1452	1458	1468	rBV	2524472	3604289	86.96%	16.519%
7	11.047	1627	1632	1642	rVB	2108528	2713546	65.47%	12.437%
8	11.388	1683	1688	1692	rBV2	40493	59403	1.43%	0.272%
9	12.016	1785	1791	1797	rBV	2984376	3626419	87.49%	16.621%
10	14.570	2206	2210	2215	rBV2	42273	54554	1.32%	0.250%
11	14.656	2219	2224	2228	rVV	45886	55358	1.34%	0.254%

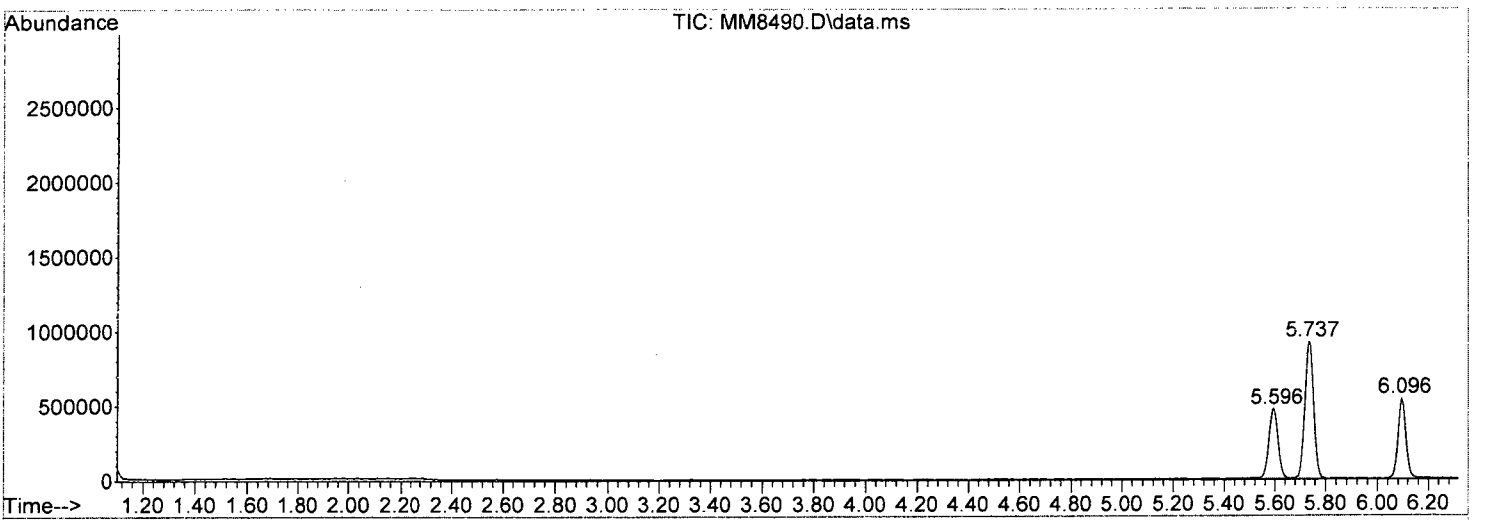
Sum of corrected areas: 21818496

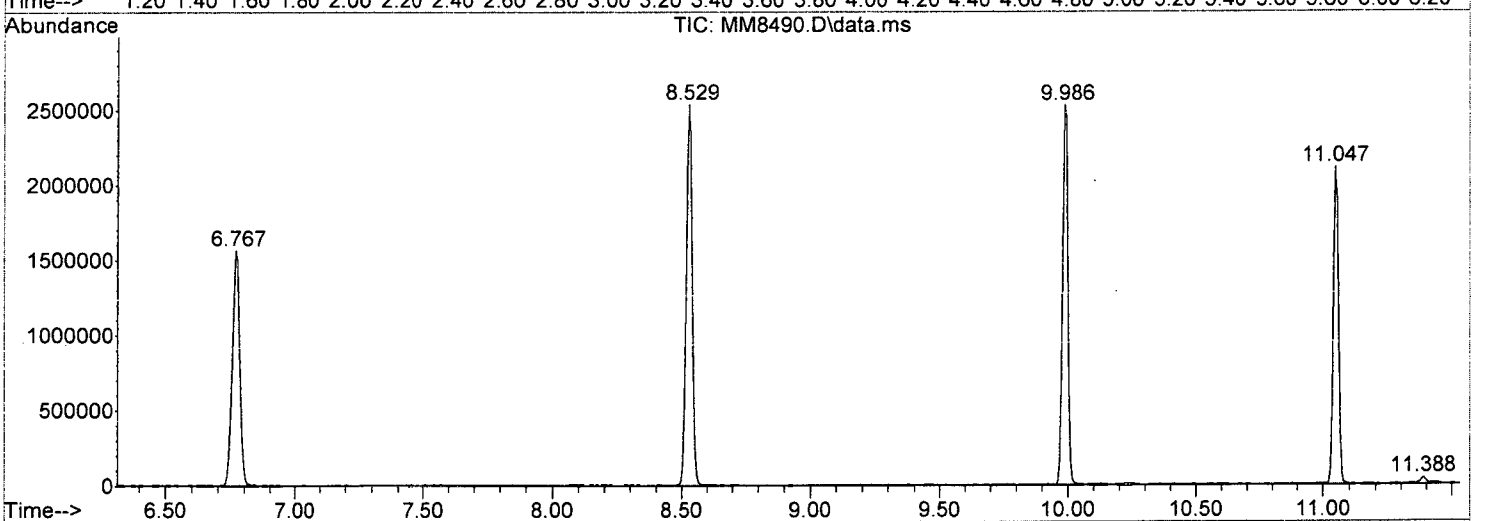
LSC Report - Integrated Chromatogram

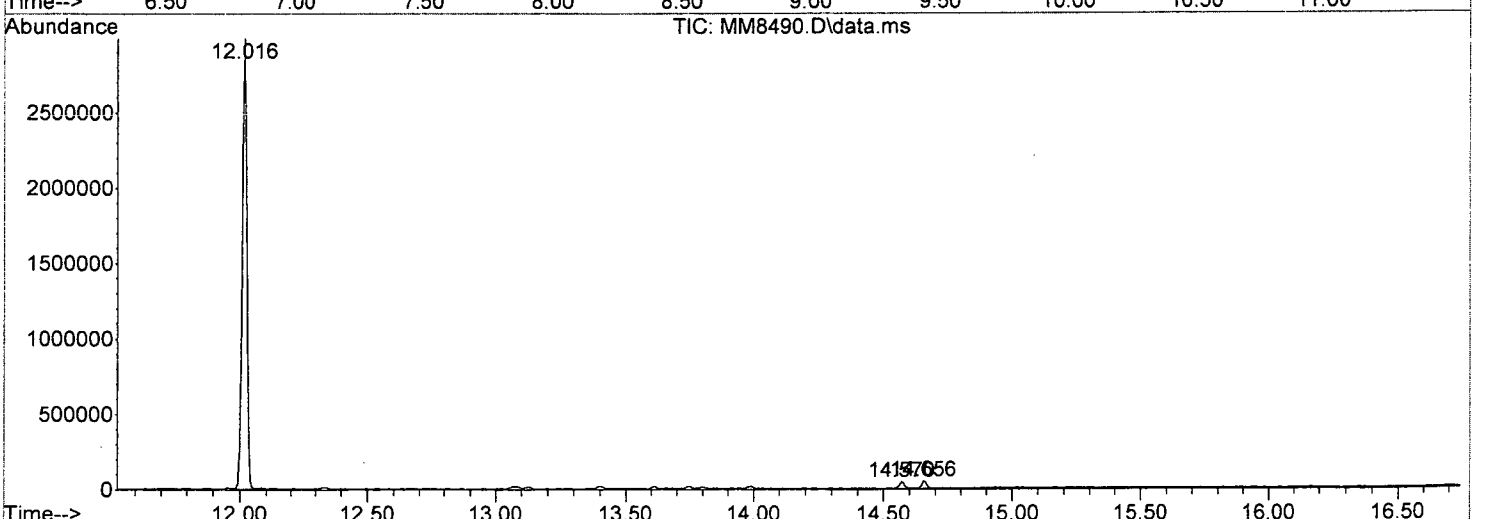
Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8490.D
Acq On : 3 Dec 2015 11:48 am
Operator : K.Ruest
Sample : VBLK Inst : MSVOA-12
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P







W111815A.M Tue Dec 08 17:17:42 2015 Page: 2

Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa12\Data\120315\\
Data File : MM8490.D
Acq On : 3 Dec 2015 11:48 amm
Operator : K.Ruestt
Sample : VBLK Inst : MSVOA-122
Misc :
ALS Vial : 6 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.MM
Quant Title : MS#12 - 8260B WATERS 10mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514947-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**19.2**		5.0	1.0	0.22	1	NA	12/3/15 10:46		474713	
1,1,1-Trichloroethane (TCA)	**20.7**		5.0	1.0	0.36	1	NA	12/3/15 10:46		474713	
1,1,2,2-Tetrachloroethane	**19.7**		5.0	1.0	0.25	1	NA	12/3/15 10:46		474713	
1,1,2-Trichloroethane	**20.7**		5.0	1.0	0.34	1	NA	12/3/15 10:46		474713	
1,1-Dichloroethane (1,1-DCA)	**21.7**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
1,1-Dichloroethene (1,1-DCE)	**20.9**		5.0	1.0	0.57	1	NA	12/3/15 10:46		474713	
1,1-Dichloropropene	**21.8**		5.0	1.0	0.29	1	NA	12/3/15 10:46		474713	
1,2,3-Trichlorobenzene	**22.4**		5.0	1.0	0.82	1	NA	12/3/15 10:46		474713	
1,2,3-Trichloropropane	**19.4**		5.0	1.0	0.70	1	NA	12/3/15 10:46		474713	
1,2,4-Trichlorobenzene	**21.9**		5.0	1.0	0.23	1	NA	12/3/15 10:46		474713	
1,2,4-Trimethylbenzene	**21.2**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
1,2-Dibromo-3-chloropropane (DBCP)	**17.0**		5.0	1.0	0.74	1	NA	12/3/15 10:46		474713	
1,2-Dibromoethane	**19.1**		5.0	1.0	0.24	1	NA	12/3/15 10:46		474713	
1,2-Dichlorobenzene	**20.6**		5.0	1.0	0.21	1	NA	12/3/15 10:46		474713	
1,2-Dichloroethane	**21.4**		5.0	1.0	0.36	1	NA	12/3/15 10:46		474713	
1,2-Dichloropropane	**22.4**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
1,3,5-Trimethylbenzene	**21.3**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
1,3-Dichlorobenzene	**20.4**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
1,3-Dichloropropane	**20.7**		5.0	1.0	0.27	1	NA	12/3/15 10:46		474713	
1,4-Dichlorobenzene	**21.4**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
2,2-Dichloropropane	**20.6**		5.0	1.0	0.27	1	NA	12/3/15 10:46		474713	
2-Butanone (MEK)	**18.4**		10	1.0	0.81	1	NA	12/3/15 10:46		474713	
2-Chlorotoluene	**21.6**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
2-Hexanone	**17.9**		10	5.0	1.7	1	NA	12/3/15 10:46		474713	
tert-Butyl Alcohol	**400**		100	20	11	1	NA	12/3/15 10:46		474713	
4-Chlorotoluene	**21.2**		5.0	1.0	0.24	1	NA	12/3/15 10:46		474713	
p-Isopropyltoluene	**21.9**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
4-Methyl-2-pentanone	**19.6**		10	1.0	0.67	1	NA	12/3/15 10:46		474713	
Acetone	**16.9**		10	5.0	1.3	1	NA	12/3/15 10:46		474713	
Benzene	**21.3**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
Bromobenzene	**21.2**		5.0	1.0	0.28	1	NA	12/3/15 10:46		474713	
Bromochloromethane	**19.9**		5.0	1.0	0.32	1	NA	12/3/15 10:46		474713	
Bromodichloromethane	**19.9**		5.0	1.0	0.32	1	NA	12/3/15 10:46		474713	
Bromoform	**17.4**		5.0	1.0	0.42	1	NA	12/3/15 10:46		474713	
Bromomethane	**16.6**		5.0	1.0	0.29	1	NA	12/3/15 10:46		474713	
Carbon Tetrachloride	**19.9**		5.0	1.0	0.45	1	NA	12/3/15 10:46		474713	
Chlorobenzene	**20.7**		5.0	1.0	0.29	1	NA	12/3/15 10:46		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1514947-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**21.0**		5.0	1.0	0.24	1	NA	12/3/15 10:46		474713	
Chloroform	**19.9**		5.0	1.0	0.25	1	NA	12/3/15 10:46		474713	
Chloromethane	**19.8**		5.0	1.0	0.21	1	NA	12/3/15 10:46		474713	
Dibromochloromethane	**18.9**		5.0	1.0	0.31	1	NA	12/3/15 10:46		474713	
Dichlorodifluoromethane (CFC 12)	**21.9**		5.0	1.0	0.46	1	NA	12/3/15 10:46		474713	
Methylene Chloride	**19.9**		5.0	1.0	0.60	1	NA	12/3/15 10:46		474713	
Ethylbenzene	**20.0**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
Hexachlorobutadiene	**22.9**		5.0	1.0	0.62	1	NA	12/3/15 10:46		474713	
Isopropylbenzene (Cumene)	**20.4**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
Methyl tert-Butyl Ether	**20.2**		5.0	1.0	0.29	1	NA	12/3/15 10:46		474713	
Naphthalene	**21.6**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
Styrene	**20.6**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
Tetrachloroethene (PCE)	**20.4**		5.0	1.0	0.30	1	NA	12/3/15 10:46		474713	
Toluene	**21.3**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
Trichloroethene (TCE)	**20.0**		5.0	1.0	0.22	1	NA	12/3/15 10:46		474713	
Trichlorofluoromethane (CFC 11)	**21.7**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
Vinyl Chloride	**20.8**		5.0	1.0	0.32	1	NA	12/3/15 10:46		474713	
cis-1,2-Dichloroethene	**20.5**		5.0	1.0	0.30	1	NA	12/3/15 10:46		474713	
cis-1,3-Dichloropropene	**20.1**		5.0	1.0	0.24	1	NA	12/3/15 10:46		474713	
m,p-Xylenes	**40.3**		5.0	2.0	0.33	1	NA	12/3/15 10:46		474713	
n-Butylbenzene	**22.2**		5.0	1.0	0.21	1	NA	12/3/15 10:46		474713	
n-Propylbenzene	**20.8**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
o-Xylene	**20.3**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
sec-Butylbenzene	**20.3**		5.0	1.0	0.27	1	NA	12/3/15 10:46		474713	
tert-Butylbenzene	**20.2**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	
trans-1,2-Dichloroethene	**21.1**		5.0	1.0	0.33	1	NA	12/3/15 10:46		474713	
trans-1,3-Dichloropropene	**21.1**		5.0	1.0	0.20	1	NA	12/3/15 10:46		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	75-120	12/3/15 10:46	
Dibromofluoromethane	109	85-115	12/3/15 10:46	
Toluene-d8	115	85-120	12/3/15 10:46	

Data Path : I:\ACQUDATA\MSVOA12\Data\120315\
Data File : MM8488.D
Acq On : 3 Dec 2015 10:46 am
Operator : K.Ruest
Sample : LCS PQ1574947-03 Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 03 11:30:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	754268	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1257070	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1183291	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	567477	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.590	113	355340	54.37	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.74%				
48) surr1,1,2-dichloroetha...	6.096	65	386101	53.48	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.96%				
65) SURR3,Toluene-d8	8.529	98	1574879	57.26	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 114.52%				
70) SURR2,BFB	11.047	95	587956	56.63	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 113.26%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	233041	21.93	ppb		98
3) Chloromethane	1.347	50	251669	19.84	ppb		97
4) Vinyl Chloride	1.433	62	245294	20.76	ppb		98
5) Bromomethane	1.689	94	95590	16.56	ppb		95
6) Chloroethane	1.768	64	136356	20.98	ppb		94
7) Freon 21	1.927	67	305160	24.25	ppb		99
8) Trichlorofluoromethane	1.975	101	199419	21.66	ppb		94
9) Diethyl Ether	2.231	59	126580	21.92	ppb		95
10) Freon 123a	2.237	67	186152	22.63	ppb		100
11) Freon 123	2.292	83	199473	21.03	ppb		96
12) Acrolein	2.341	56	21445	33.37	ppb		91
13) 1,1-Diclethene	2.433	96	131703	20.88	ppb		95
14) Freon 113	2.439	101	128475	22.38	ppb		96
15) Acetone	2.487	43	27149	16.88	ppb		93
16) 2-Propanol	2.646	45	120589	395.21	ppb		98
17) Iodomethane	2.573	142	109888	15.33	ppb		98
18) Carbon Disulfide	2.634	76	425782	20.21	ppb		99
19) Acetonitrile	2.762	40	22344	100.19	ppb		93
20) Allyl Chloride	2.798	76	83460	23.76	ppb	#	90
21) Methyl Acetate	2.829	43	70813	18.90	ppb		93
22) Methylene Chloride	2.926	84	145242	19.94	ppb		92
23) TBA	3.085	59	197975	399.79	ppb		100
24) Acrylonitrile	3.207	53	178291	97.96	ppb		98
25) Methyl-t-Butyl Ether	3.262	73	353721	20.16	ppb		98
26) trans-1,2-Dichloroethene	3.249	96	143524	21.13	ppb		93
28) 1,1-Diclethane	3.792	63	262341	21.71	ppb		99
29) Vinyl Acetate	3.908	86	27703	22.01	ppb		96
30) DIPE	3.944	45	500545	21.25	ppb		99
31) 2-Chloro-1,3-Butadiene	3.926	53	248210	20.43	ppb		100
32) ETBE	4.530	59	439918	19.87	ppb		98
33) 2,2-Dichloropropane	4.700	77	199148	20.60	ppb		92
34) cis-1,2-Dichloroethene	4.719	96	154298	20.52	ppb		91
35) 2-Butanone	4.780	43	40508	18.39	ppb		93
36) Propionitrile	4.865	54	66577	98.98	ppb		92

12/3/15

Data Path : I:\ACQUDATA\MSVOA12\DATA\R20315\
Data File : MM8488.D
Acq On : 3 Dec 2015 10:46 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 03 11:30:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	Bromochloromethane	5.145	130	77337	19.91	ppb		95
38)	Methacrylonitrile	5.145	67	41607	19.52	ppb		94
39)	Tetrahydrofuran	5.231	42	29225	20.63	ppb		86
40)	Chloroform	5.328	83	233468	19.88	ppb		98
41)	1,1,1-Trichloroethane	5.597	97	190831	20.69	ppb		97
42)	TAME	6.401	73	375661	19.98	ppb		97
44)	Cyclohexane	5.670	41	142579	20.75	ppb		98
46)	Carbontetrachloride	5.859	121	47783	19.85	ppb		94
47)	1,1-Dichloropropene	5.871	75	193466	21.81	ppb		96
49)	Benzene	6.170	78	588088	21.26	ppb		99
50)	1,2-Dichloroethane	6.212	62	151840	21.41	ppb		97
51)	Iso-Butyl Alcohol	6.206	43	89964	387.94	ppb		95
52)	n-Heptane	6.639	43	169875	22.31	ppb		95
53)	1-Butanol	7.115	56	149695	1029.80	ppb		97
54)	Trichloroethene	7.084	130	140277	19.96	ppb		96
55)	Methylcyclohexane	7.310	55	179477	21.18	ppb		94
56)	1,2-Diclpropane	7.352	63	153863	22.44	ppb		95
57)	Dibromomethane	7.486	93	65982	19.55	ppb		99
58)	1,4-Dioxane	7.554	88	21825m	434.15	ppb		
59)	Methyl Methacrylate	7.572	69	78660	19.83	ppb		96
60)	Bromodichloromethane	7.712	83	166882	19.85	ppb		99
61)	2-Nitropropane	7.986	41	44313	35.80	ppb		100
62)	2-Chloroethylvinyl Ether	8.108	63	71478	18.90	ppb		91
63)	cis-1,3-Dichloropropene	8.242	75	226680	20.12	ppb		99
64)	4-Methyl-2-pentanone	8.437	43	98288	19.60	ppb		92
66)	Toluene	8.602	91	610263	21.30	ppb		98
67)	trans-1,3-Dichloropropene	8.864	75	189206	21.14	ppb		98
68)	Ethyl Methacrylate	8.998	69	161996	20.44	ppb		95
69)	1,1,2-Trichloroethane	9.047	97	100272	20.70	ppb		94
72)	Tetrachloroethene	9.181	164	100207	20.42	ppb		90
73)	2-Hexanone	9.328	43	64650	17.85	ppb		99
74)	1,3-Dichloropropane	9.212	76	186627	20.74	ppb		97
75)	Dibromochloromethane	9.431	129	105526	18.85	ppb		97
76)	N-Butyl Acetate	9.480	43	167125	19.31	ppb		95
77)	1,2-Dibromoethane	9.529	107	91685	19.12	ppb		99
78)	Chlorobenzene	10.016	112	362791	20.73	ppb		99
79)	3-CBTF	10.029	180	183466	21.16	ppb		97
80)	4-CBTF	10.084	180	164575	20.39	ppb		97
81)	1,1,1,2-Tetrachloroethane	10.102	131	115890	19.16	ppb		99
82)	Ethylbenzene	10.132	106	198480	20.02	ppb		97
83)	(m+p)Xylene	10.242	106	492917	40.28	ppb		94
84)	o-Xylene	10.596	106	254528	20.31	ppb		95
85)	Styrene	10.608	104	419800	20.56	ppb		99
87)	Bromoform	10.760	173	56000	17.37	ppb		96
88)	2-CBTF	10.833	180	183734	21.35	ppb		91
89)	Isopropylbenzene	10.925	105	601089	20.37	ppb		99
90)	Cyclohexanone	10.986	55	264410	618.01	ppb		97
91)	trans-1,4-Dichloro-2-B...	11.230	53	32471	18.46	ppb		98
92)	1,1,2,2-Tetrachloroethane	11.181	83	117177	19.65	ppb		99
93)	Bromobenzene	11.169	156	141616	21.21	ppb		97
94)	1,2,3-Trichloropropane	11.211	110	31085	19.44	ppb	#	90

Data Path : I:\ACQUDATA\MSVOA12\Data\120315\
Data File : MM8488.D
Acq On : 3 Dec 2015 10:46 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

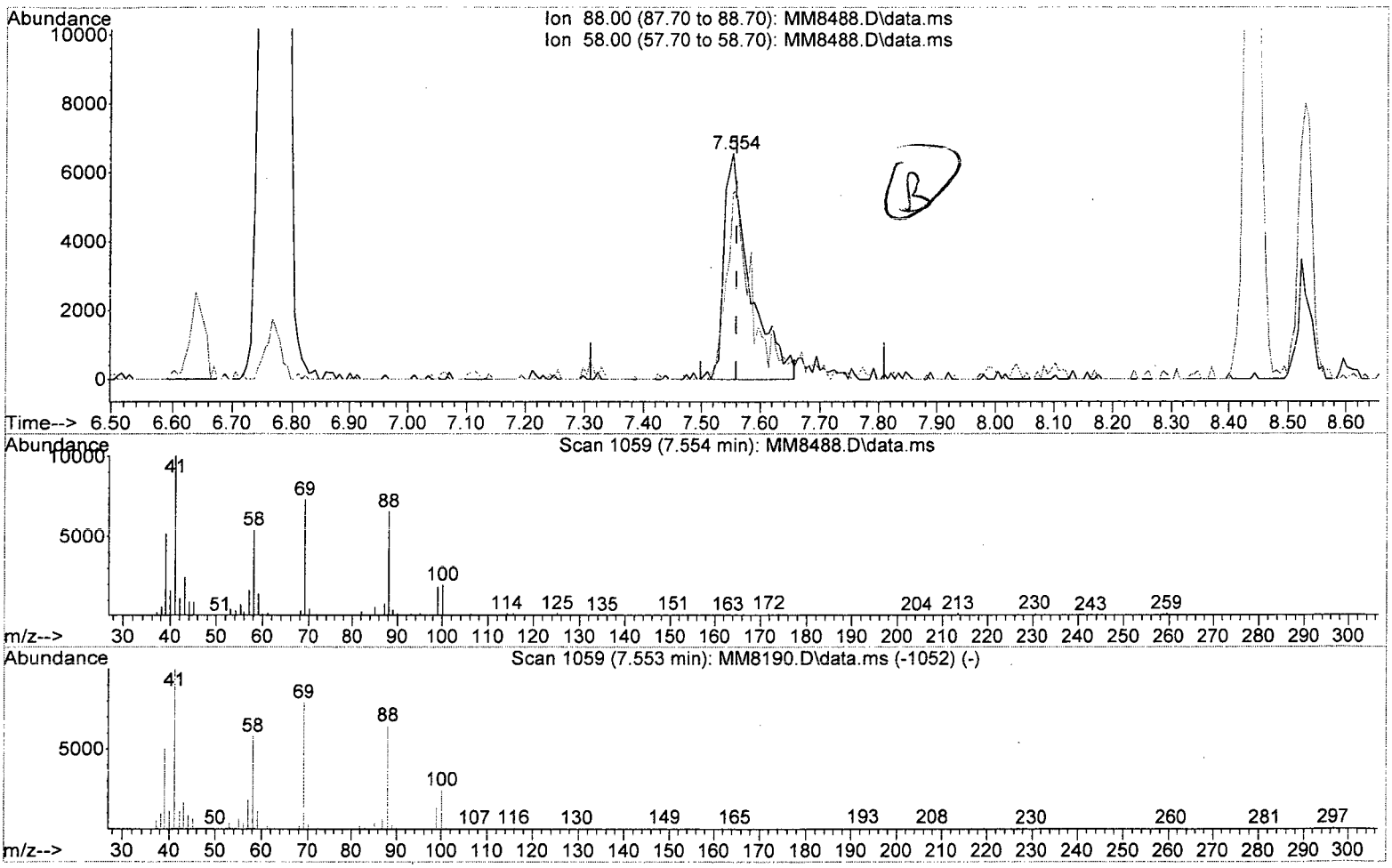
Quant Time: Dec 03 11:30:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	n-Propylbenzene	11.278	91	708020	20.82	ppb	96
96)	2-Chlorotoluene	11.339	91	429627	21.55	ppb	99
97)	3-Chlorotoluene	11.394	91	466447	22.28	ppb	96
98)	4-Chlorotoluene	11.431	91	476829	21.20	ppb	95
99)	1,3,5-Trimethylbenzene	11.431	105	475159	21.28	ppb	95
100)	tert-Butylbenzene	11.699	119	401856	20.17	ppb	99
101)	1,2,4-Trimethylbenzene	11.736	105	507591	21.18	ppb	94
102)	3,4-DCBTF	11.797	214	125662	21.81	ppb	100
103)	sec-Butylbenzene	11.882	105	566682	20.33	ppb	99
104)	p-Isopropyltoluene	12.004	119	471933	21.89	ppb	99
105)	1,3-Dclbenz	11.961	146	263989	20.42	ppb	99
106)	1,4-Dclbenz	12.034	146	258915	21.37	ppb	98
107)	2,4-DCBTF	12.089	214	109993	21.87	ppb	96
108)	2,5-DCBTF	12.126	214	126407	22.22	ppb	94
109)	n-Butylbenzene	12.333	91	452732	22.18	ppb	99
110)	1,2-Dclbenz	12.333	146	244559	20.56	ppb	95
111)	1,2-Dibromo-3-chloropr...	12.955	157	19517	16.96	ppb	86
112)	Trielution Dichlorotol...	13.077	125	685016	68.23	ppb	98
113)	1,3,5 Trichlorobenzene	13.126	180	176738	22.10	ppb	97
114)	Coelution Dichlorotoluene	13.400	125	496530	46.80	ppb	95
115)	1,2,4-Tcbenzene	13.607	180	160402	21.85	ppb	95
116)	Hexachlorobt	13.747	225	67024	22.87	ppb	94
117)	Naphthalen	13.796	128	328965	21.61	ppb	98
118)	1,2,3-Tclbenzene	13.985	180	136739	22.40	ppb	95
119)	2,4,5-Trichlorotolene	14.570	159	124280	27.44	ppb	96
120)	2,3,6-Trichlorotoluene	14.656	159	106746	26.77	ppb	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSVOA12\DATA\120315\
Data File : MM8488.D
Acq On : 3 Dec 2015 10:46 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 03 11:02:10 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8488.D\data.ms

(58) 1,4-Dioxane

7.554min (-0.006) 399.74 ppb

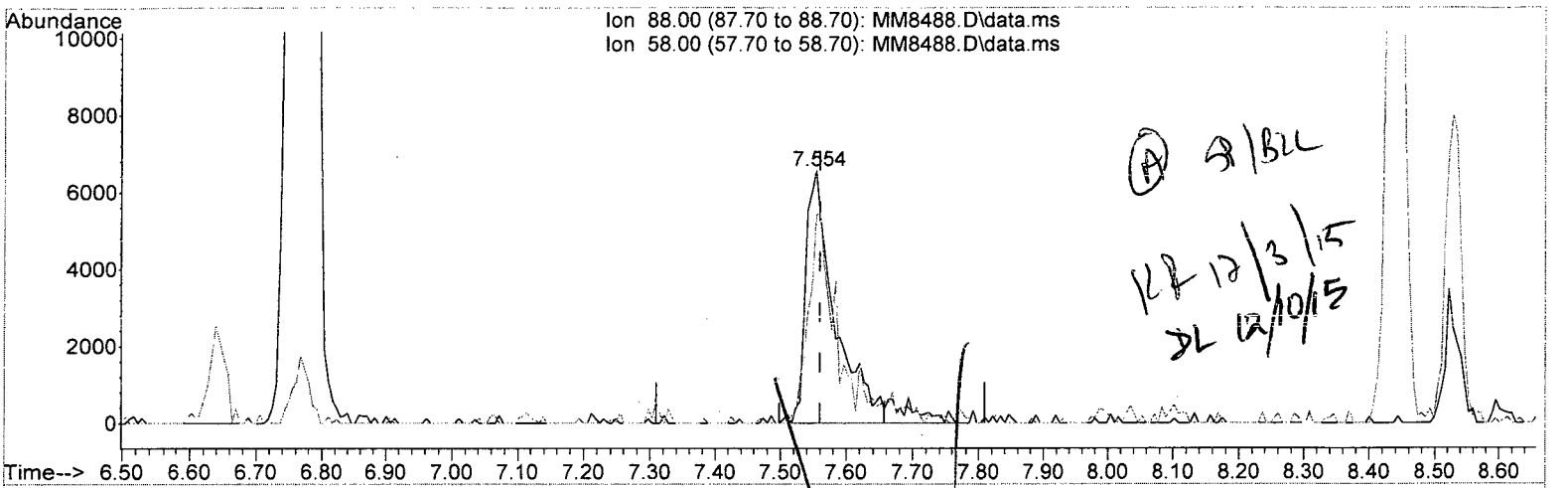
response 20095

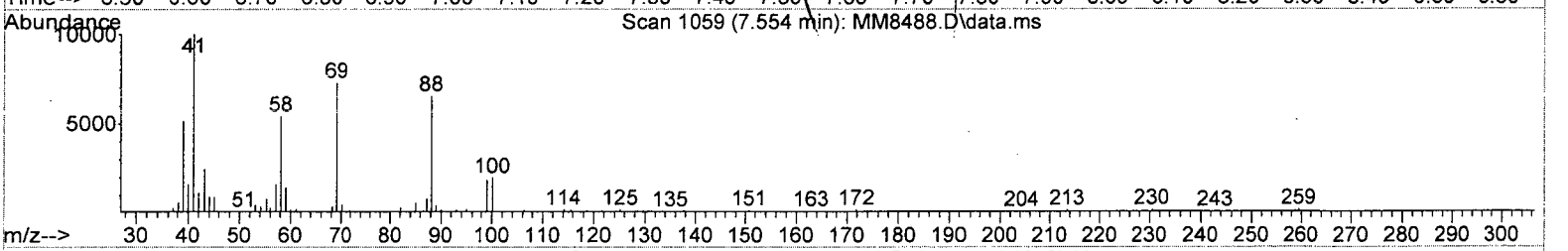
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	82.58
0.00	0.00	0.00
0.00	0.00	0.00

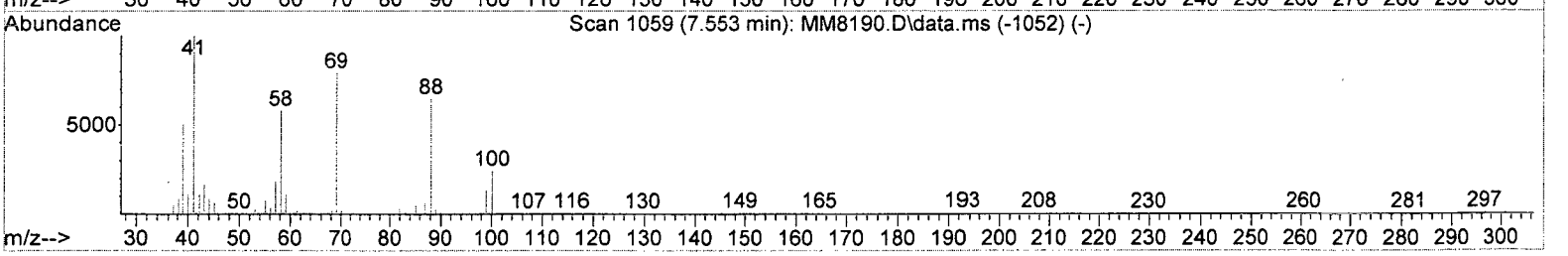
W111815A.M Thu Dec 03 11:30:09 2015 Page: 1

Data Path : I:\ACQUDATA\MSVOA12\Data\120315\
Data File : MM8488.D
Acq On : 3 Dec 2015 10:46 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 03 11:02:10 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration







TIC: MM8488.D\data.ms

(58) 1,4-Dioxane

7.554min (-0.006) 434.15 ppb m

response 21825

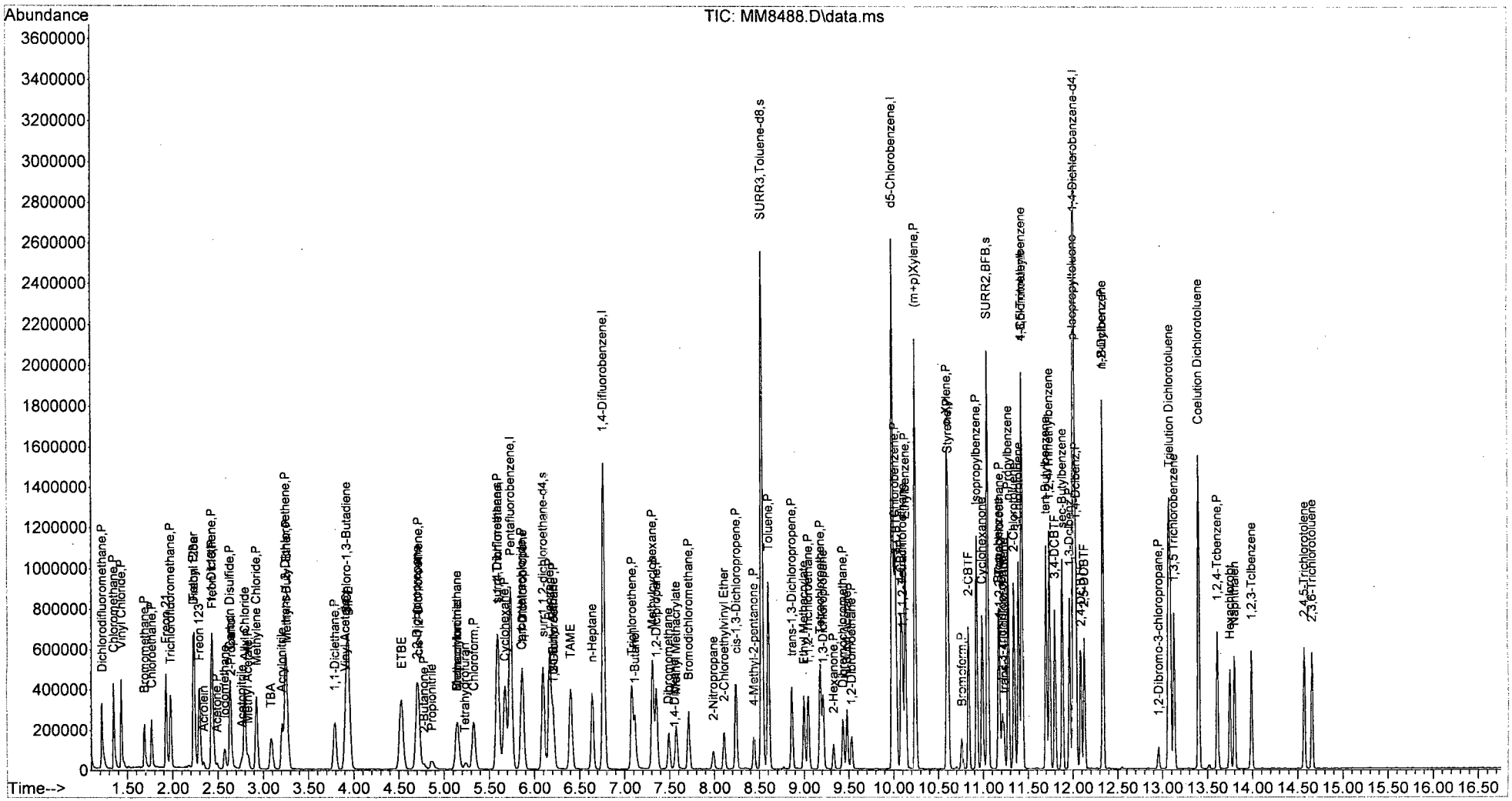
Ion	Exp%	Act%
88.00	100	100
58.00	87.90	82.58
0.00	0.00	0.00
0.00	0.00	0.00

W111815A.M Thu Dec 03 11:30:16 2015 Page: 1

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8488.D
Acq On : 3 Dec 2015 10:46 am
Operator : K.Ruest
Sample : LCS Inst : MSVOA-12
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 03 11:30:13 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1425
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-53-GW-699MW09-9.0	**Units:**	µg/L
Lab Code:	RQ1514947-05	**Basis:**	NA
Run Type:	Matrix Spike		

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**45.7**		5.0	1.0	0.22	1	NA	12/3/15 20:29		474713	
1,1,1-Trichloroethane (TCA)	**51.8**		5.0	1.0	0.36	1	NA	12/3/15 20:29		474713	
1,1,2,2-Tetrachloroethane	**50.3**		5.0	1.0	0.25	1	NA	12/3/15 20:29		474713	
1,1,2-Trichloroethane	**51.2**		5.0	1.0	0.34	1	NA	12/3/15 20:29		474713	
1,1-Dichloroethane (1,1-DCA)	**53.8**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
1,1-Dichloroethene (1,1-DCE)	**50.2**		5.0	1.0	0.57	1	NA	12/3/15 20:29		474713	
1,1-Dichloropropene	**53.1**		5.0	1.0	0.29	1	NA	12/3/15 20:29		474713	
1,2,3-Trichlorobenzene	**45.8**		5.0	1.0	0.82	1	NA	12/3/15 20:29		474713	
1,2,3-Trichloropropane	**50.5**		5.0	1.0	0.70	1	NA	12/3/15 20:29		474713	
1,2,4-Trichlorobenzene	**44.8**		5.0	1.0	0.23	1	NA	12/3/15 20:29		474713	
1,2,4-Trimethylbenzene	**43.1**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
1,2-Dibromo-3-chloropropane (DBCP)	**44.9**		5.0	1.0	0.74	1	NA	12/3/15 20:29		474713	
1,2-Dibromoethane	**47.8**		5.0	1.0	0.24	1	NA	12/3/15 20:29		474713	
1,2-Dichlorobenzene	**48.1**		5.0	1.0	0.21	1	NA	12/3/15 20:29		474713	
1,2-Dichloroethane	**50.9**		5.0	1.0	0.36	1	NA	12/3/15 20:29		474713	
1,2-Dichloropropane	**53.3**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
1,3,5-Trimethylbenzene	**45.5**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
1,3-Dichlorobenzene	**47.8**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
1,3-Dichloropropane	**51.3**		5.0	1.0	0.27	1	NA	12/3/15 20:29		474713	
1,4-Dichlorobenzene	**49.7**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
2,2-Dichloropropane	**49.1**		5.0	1.0	0.27	1	NA	12/3/15 20:29		474713	
2-Butanone (MEK)	**48.4**		10	1.0	0.81	1	NA	12/3/15 20:29		474713	
2-Chlorotoluene	**50.0**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
2-Hexanone	**46.7**		10	5.0	1.7	1	NA	12/3/15 20:29		474713	
tert-Butyl Alcohol	**1080**		100	20	11	1	NA	12/3/15 20:29		474713	
4-Chlorotoluene	**47.8**		5.0	1.0	0.24	1	NA	12/3/15 20:29		474713	
p-Isopropyltoluene	**48.3**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
4-Methyl-2-pentanone	**51.3**		10	1.0	0.67	1	NA	12/3/15 20:29		474713	
Acetone	**38.7**		10	5.0	1.3	1	NA	12/3/15 20:29		474713	
Benzene	**51.1**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
Bromobenzene	**48.2**		5.0	1.0	0.28	1	NA	12/3/15 20:29		474713	
Bromochloromethane	**49.4**		5.0	1.0	0.32	1	NA	12/3/15 20:29		474713	
Bromodichloromethane	**46.9**		5.0	1.0	0.32	1	NA	12/3/15 20:29		474713	
Bromoform	**37.7**		5.0	1.0	0.42	1	NA	12/3/15 20:29		474713	
Bromomethane	**21.1**		5.0	1.0	0.29	1	NA	12/3/15 20:29		474713	
Carbon Tetrachloride	**44.5**		5.0	1.0	0.45	1	NA	12/3/15 20:29		474713	
Chlorobenzene	**48.3**		5.0	1.0	0.29	1	NA	12/3/15 20:29		474713	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1425
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-53-GW-699MW09-9.0	**Units:**	µg/L
Lab Code:	RQ1514947-05	**Basis:**	NA
Run Type:	Matrix Spike		

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**52.4**		5.0	1.0	0.24	1	NA	12/3/15 20:29		474713	
Chloroform	**48.5**		5.0	1.0	0.25	1	NA	12/3/15 20:29		474713	
Chloromethane	**47.0**		5.0	1.0	0.21	1	NA	12/3/15 20:29		474713	
Dibromochloromethane	**42.6**		5.0	1.0	0.31	1	NA	12/3/15 20:29		474713	
Dichlorodifluoromethane (CFC 12)	**52.5**		5.0	1.0	0.46	1	NA	12/3/15 20:29		474713	
Methylene Chloride	**48.8**		5.0	1.0	0.60	1	NA	12/3/15 20:29		474713	
Ethylbenzene	**47.9**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
Hexachlorobutadiene	**45.7**		5.0	1.0	0.62	1	NA	12/3/15 20:29		474713	
Isopropylbenzene (Cumene)	**46.5**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
Methyl tert-Butyl Ether	**50.9**		5.0	1.0	0.29	1	NA	12/3/15 20:29		474713	
Naphthalene	**46.8**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
Styrene	**29.9**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
Tetrachloroethene (PCE)	**49.3**		5.0	1.0	0.30	1	NA	12/3/15 20:29		474713	
Toluene	**50.9**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
Trichloroethene (TCE)	**47.2**		5.0	1.0	0.22	1	NA	12/3/15 20:29		474713	
Trichlorofluoromethane (CFC 11)	**52.8**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
Vinyl Chloride	**50.3**		5.0	1.0	0.32	1	NA	12/3/15 20:29		474713	
cis-1,2-Dichloroethene	**50.4**		5.0	1.0	0.30	1	NA	12/3/15 20:29		474713	
cis-1,3-Dichloropropene	**37.3**		5.0	1.0	0.24	1	NA	12/3/15 20:29		474713	
m,p-Xylenes	**94.5**		5.0	2.0	0.33	1	NA	12/3/15 20:29		474713	
n-Butylbenzene	**47.6**		5.0	1.0	0.21	1	NA	12/3/15 20:29		474713	
n-Propylbenzene	**47.1**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
o-Xylene	**46.7**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
sec-Butylbenzene	**46.2**		5.0	1.0	0.27	1	NA	12/3/15 20:29		474713	
tert-Butylbenzene	**46.4**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	
trans-1,2-Dichloroethene	**50.1**		5.0	1.0	0.33	1	NA	12/3/15 20:29		474713	
trans-1,3-Dichloropropene	**38.0**		5.0	1.0	0.20	1	NA	12/3/15 20:29		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	117	75-120	12/3/15 20:29	
Dibromofluoromethane	108	85-115	12/3/15 20:29	
Toluene-d8	114	85-120	12/3/15 20:29	

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120315\
Data File : MM8507.D
Acq On : 3 Dec 2015 8:29 pm
Operator : K.Ruest
Sample : R1510346-007MS|1.0 RQ1574947-05 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 03 20:45:10 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	715416	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1221136	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1155022	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	559601	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	342301	53.91	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 107.82%				
48) surr1,1,2-dichloroetha...	6.096	65	388665	55.42	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 110.84%				
65) SURR3,Toluene-d8	8.529	98	1525236	57.08	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 114.16%				
70) SURR2,BFB	11.047	95	590180	58.51	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 117.02%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	528622	52.45	ppb		98
3) Chloromethane	1.347	50	565408	46.99	ppb		100
4) Vinyl Chloride	1.433	62	563735	50.29	ppb		99
5) Bromomethane	1.689	94	115600	21.12	ppb		99
6) Chloroethane	1.768	64	323134	52.42	ppb		98
7) Freon 21	1.926	67	714691	59.88	ppb		98
8) Trichlorofluoromethane	1.975	101	461300	52.83	ppb		96
9) Diethyl Ether	2.231	59	291685	53.25	ppb		92
10) Freon 123a	2.237	67	432309	55.41	ppb		98
11) Freon 123	2.298	83	445648	49.54	ppb		97
12) Acrolein	2.341	56	40963	67.20	ppb		94
13) 1,1-Diclethene	2.432	96	300462	50.22	ppb		93
14) Freon 113	2.445	101	282262	51.84	ppb		97
15) Acetone	2.487	43	58966	38.66	ppb		99
16) 2-Propanol	2.646	45	303712	1049.42	ppb		95
17) Iodomethane	2.573	142	250027	36.78	ppb		99
18) Carbon Disulfide	2.634	76	698416	34.95	ppb		100
19) Acetonitrile	2.762	40	63192	298.74	ppb		96
20) Allyl Chloride	2.798	76	107954	32.40	ppb	#	87
21) Methyl Acetate	2.829	43	170751	48.05	ppb		93
22) Methylene Chloride	2.926	84	337050	48.78	ppb		93
23) TBA	3.091	59	508546	1082.73	ppb		98
24) Acrylonitrile	3.207	53	428363	248.14	ppb		97
25) Methyl-t-Butyl Ether	3.262	73	846788	50.87	ppb		100
26) trans-1,2-Dichloroethene	3.243	96	322582	50.06	ppb		89
28) 1,1-Diclethane	3.792	63	616579	53.80	ppb		99
29) Vinyl Acetate	3.908	86	57799	48.42	ppb	#	95
30) DIPE	3.944	45	1087584	48.68	ppb		99
31) 2-Chloro-1,3-Butadiene	3.926	53	462454	40.13	ppb		95
32) ETBE	4.523	59	972054	46.30	ppb		96
33) 2,2-Dichloropropane	4.706	77	450313	49.12	ppb		99
34) cis-1,2-Dichloroethene	4.719	96	359270	50.37	ppb		97
35) 2-Butanone	4.773	43	101174	48.43	ppb		95
36) Propionitrile	4.865	54	164957	258.56	ppb		88

KB 12/9/15

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120315\
Data File : MM8507.D
Acq On : 3 Dec 2015 8:29 pm
Operator : K.Ruest
Sample : R1510346-007MS|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 03 20:45:10 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	182113	49.43	ppb		95
38) Methacrylonitrile	5.157	67	94653	46.81	ppb		96
39) Tetrahydrofuran	5.243	42	74198	55.23	ppb		83
40) Chloroform	5.328	83	540443	48.52	ppb		98
41) 1,1,1-Trichloroethane	5.596	97	452944	51.77	ppb		94
42) TAME	6.407	73	856255	48.01	ppb		99
44) Cyclohexane	5.670	41	322261	48.29	ppb		100
46) Carbontetrachloride	5.859	121	104072	44.51	ppb		98
47) 1,1-Dichloropropene	5.871	75	457060	53.05	ppb		99
49) Benzene	6.169	78	1374185	51.13	ppb		100
50) 1,2-Dichloroethane	6.212	62	350492	50.87	ppb		98
51) Iso-Butyl Alcohol	6.200	43	230696	1024.07	ppb		92
52) n-Heptane	6.639	43	368978	49.89	ppb		97
53) 1-Butanol	7.114	56	371921	2633.86	ppb		98
54) Trichloroethene	7.084	130	322044	47.16	ppb		98
55) Methylcyclohexane	7.309	55	392356	47.66	ppb		93
56) 1,2-Diclpropane	7.352	63	355062	53.32	ppb		100
57) Dibromomethane	7.492	93	157077	47.91	ppb		97
58) 1,4-Dioxane	7.553	88	53280 47646	~~975.68~~ 1091.05	ppb		97
59) Methyl Methacrylate	7.578	69	169877	44.08	ppb		96
60) Bromodichloromethane	7.712	83	383271	46.94	ppb		98
61) 2-Nitropropane	7.986	41	106472	88.54	ppb		97
63) cis-1,3-Dichloropropene	8.242	75	408062	37.29	ppb		99
64) 4-Methyl-2-pentanone	8.437	43	250049	51.34	ppb		99
66) Toluene	8.602	91	1415758	50.87	ppb		100
67) trans-1,3-Dichloropropene	8.864	75	330537	38.02	ppb		99
68) Ethyl Methacrylate	8.998	69	357447	46.44	ppb		95
69) 1,1,2-Trichloroethane	9.047	97	241192	51.24	ppb		98
72) Tetrachloroethene	9.181	164	236291	49.32	ppb		97
73) 2-Hexanone	9.327	43	165161	46.71	ppb		97
74) 1,3-Dichloropropane	9.212	76	450255	51.27	ppb		99
75) Dibromochloromethane	9.437	129	232495	42.55	ppb		98
76) N-Butyl Acetate	9.480	43	413358	48.93	ppb		96
77) 1,2-Dibromoethane	9.529	107	223653	47.79	ppb		98
78) Chlorobenzene	10.016	112	825928	48.34	ppb		98
79) 3-CBTF	10.028	180	400403	47.30	ppb		96
80) 4-CBTF	10.083	180	369172	46.87	ppb		99
81) 1,1,1,2-Tetrachloroethane	10.102	131	269672	45.67	ppb		98
82) Ethylbenzene	10.132	106	463307	47.87	ppb		99
83) (m+p)Xylene	10.242	106	1128622	94.48	ppb		100
84) o-Xylene	10.595	106	570904	46.67	ppb		99
85) Styrene	10.608	104	596709	29.94	ppb		95
87) Bromoform	10.760	173	119824	37.69	ppb		99
88) 2-CBTF	10.839	180	409592	48.28	ppb		90
89) Isopropylbenzene	10.925	105	1351679	46.45	ppb		100
90) Cyclohexanone	10.986	55	170039	403.03	ppb		98
91) trans-1,4-Dichloro-2-B...	11.229	53	29795	17.17	ppb		90
92) 1,1,2,2-Tetrachloroethane	11.181	83	295443	50.25	ppb		100
93) Bromobenzene	11.175	156	317388	48.20	ppb	#	88
94) 1,2,3-Trichloropropane	11.211	110	79018	50.54	ppb	#	89
95) n-Propylbenzene	11.278	91	1579456	47.09	ppb		98

Data Path : I:\ACQUDATA\MSVOA12\DATA\120315\
Data File : MM8507.D
Acq On : 3 Dec 2015 8:29 pm
Operator : K.Ruest
Sample : R1510346-007MS|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 03 20:45:10 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

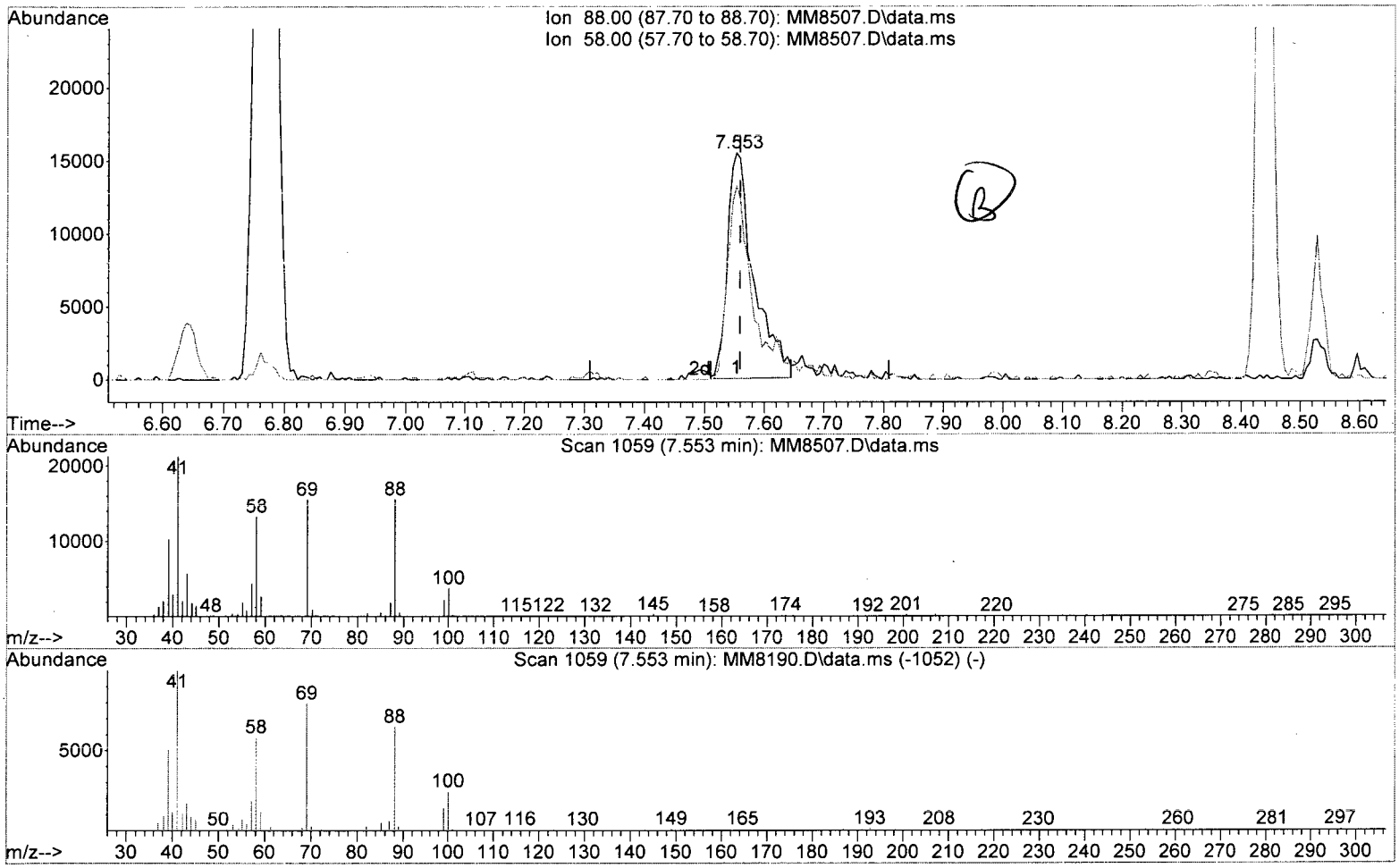
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
96)	2-Chlorotoluene	11.339	91	983250	50.01	ppb	99
97)	3-Chlorotoluene	11.394	91	1027615	49.79	ppb	99
98)	4-Chlorotoluene	11.437	91	1059125	47.75	ppb	98
99)	1,3,5-Trimethylbenzene	11.431	105	1001845	45.49	ppb	98
100)	tert-Butylbenzene	11.699	119	910779	46.36	ppb	99
101)	1,2,4-Trimethylbenzene	11.735	105	1017172	43.05	ppb	99
102)	3,4-DCBTF	11.796	214	272902	48.02	ppb	97
103)	sec-Butylbenzene	11.882	105	1269334	46.17	ppb	99
104)	p-Isopropyltoluene	12.004	119	1026900	48.31	ppb	100
105)	1,3-Dclbenz	11.961	146	609771	47.84	ppb	99
106)	1,4-Dclbenz	12.034	146	593253	49.66	ppb	98
107)	2,4-DCBTF	12.089	214	240707	48.53	ppb	98
108)	2,5-DCBTF	12.126	214	265797	47.37	ppb	95
109)	n-Butylbenzene	12.333	91	958339	47.61	ppb	100
110)	1,2-Dclbenz	12.339	146	563875	48.07	ppb	96
111)	1,2-Dibromo-3-chloropr...	12.955	157	50968	44.93	ppb	91
112)	Trielution Dichlorotol...	13.077	125	1420001	143.43	ppb	98
113)	1,3,5 Trichlorobenzene	13.125	180	370020	46.92	ppb	97
114)	Coelution Dichlorotoluene	13.400	125	1012371	96.77	ppb	98
115)	1,2,4-Tcbenzene	13.607	180	324282	44.81	ppb	96
116)	Hexachlorobt	13.747	225	132150	45.72	ppb	97
117)	Naphthalen	13.802	128	702955	46.83	ppb	98
118)	1,2,3-Tclbenzene	13.991	180	275655	45.79	ppb	94
119)	2,4,5-Trichlorotolene	14.570	159	194080	43.46	ppb	98
120)	2,3,6-Trichlorotoluene	14.656	159	175235	44.57	ppb	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8507.D
Acq On : 3 Dec 2015 8:29 pm
Operator : K.Ruest
Sample : R1510346-007MS|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 03 20:45:10 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8507.D\data.ms

(58) 1,4-Dioxane

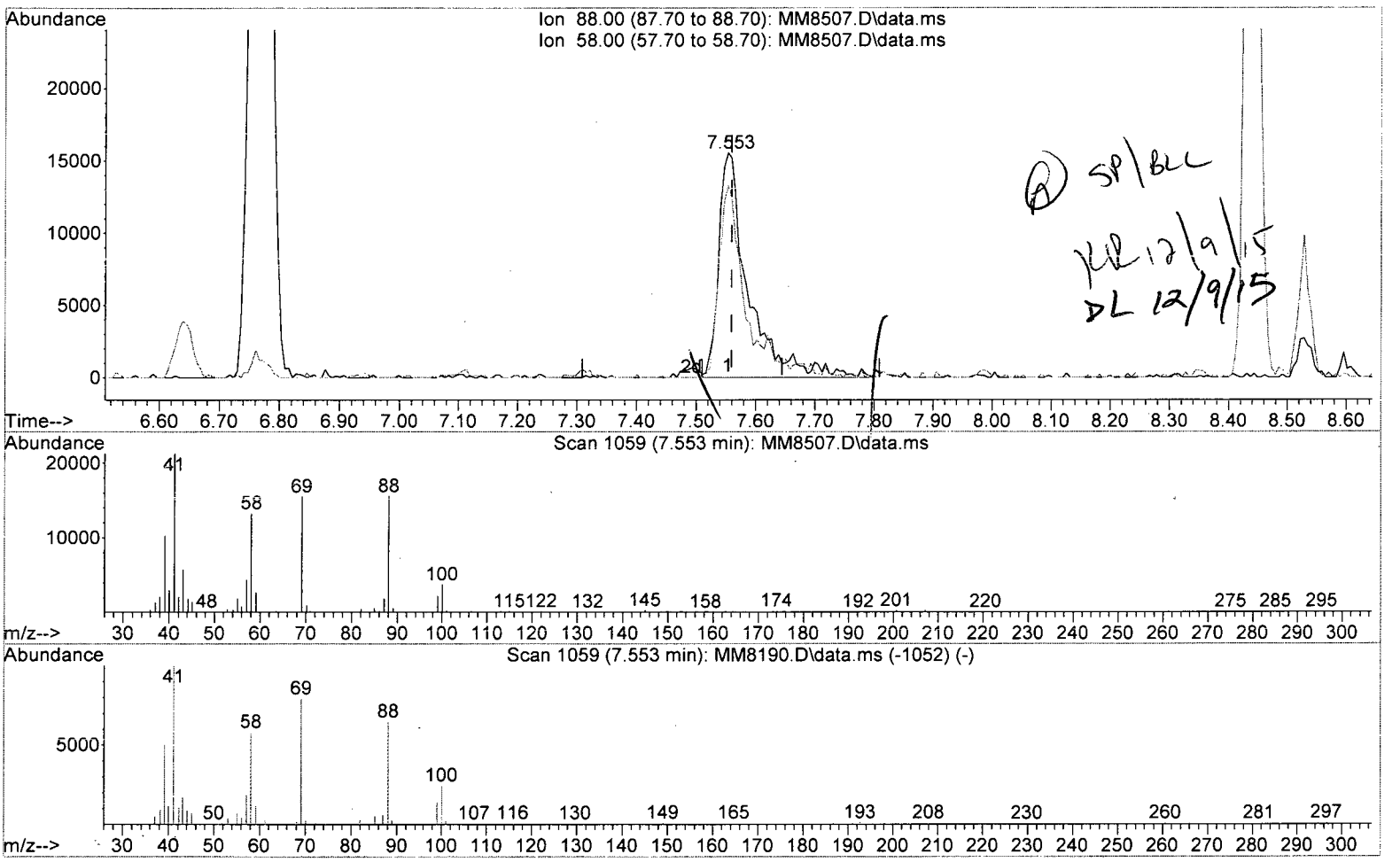
7.553min (-0.006) 975.68 ppb

response 47646

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	85.26
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8507.D
Acq On : 3 Dec 2015 8:29 pm
Operator : K.Ruest
Sample : R1510346-007MS|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 03 20:45:10 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



SP/BLL 12/9/15 DL 12/9/15

TIC: MM8507.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 1091.05 ppb m

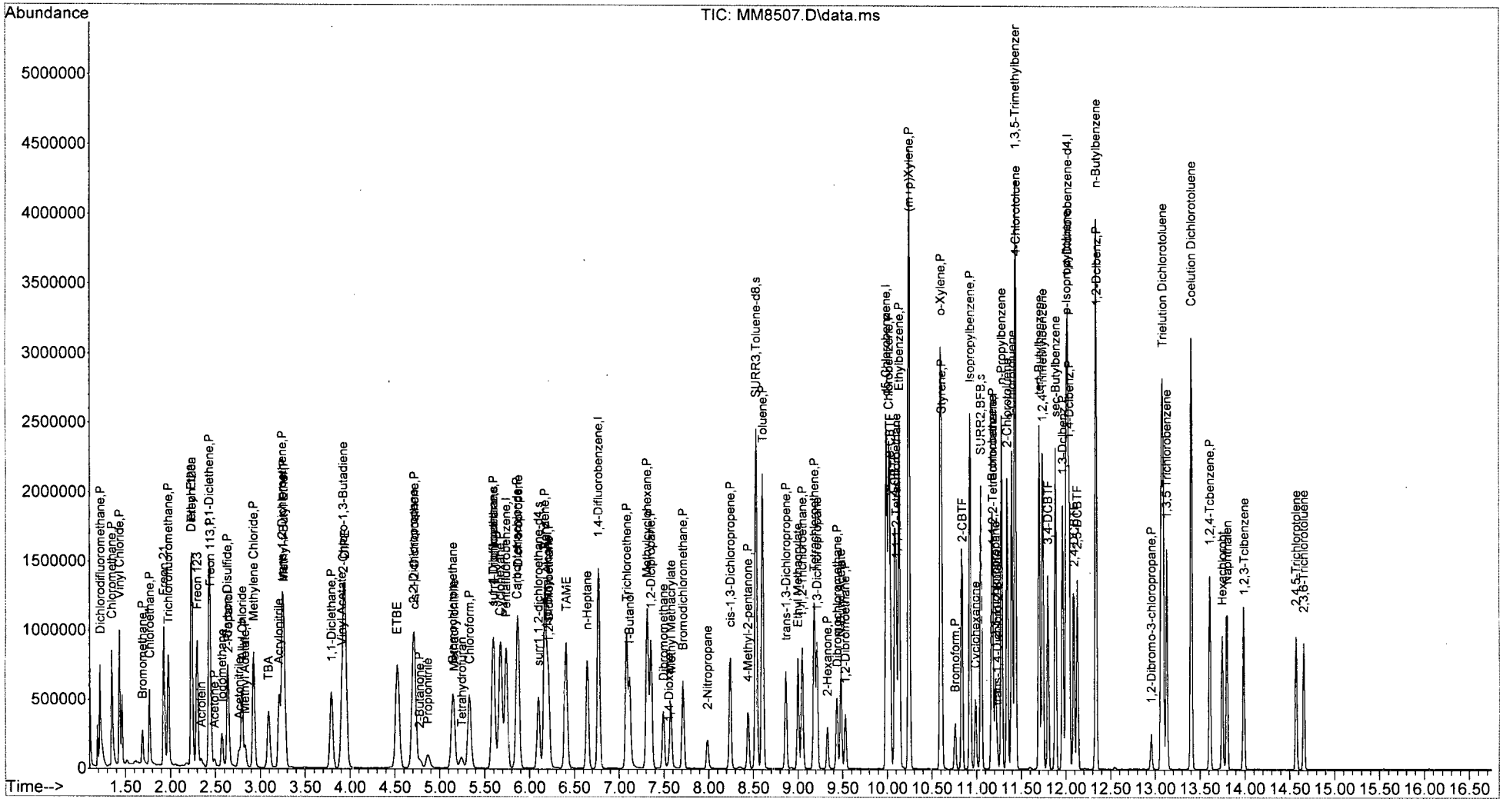
response 53280

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	85.26
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120315\
Data File : MM8507.D
Acq On : 3 Dec 2015 8:29 pm
Operator : K.Ruest
Sample : R1510346-007MS|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 03 20:45:10 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Thu Dec 03 20:45:24 2015 Page: 4

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1510346
Date Collected: 11/25/15 1425
Date Received: 11/30/15

Sample Name: FTMM-53-GW-699MW09-9.0
Lab Code: RQ1514947-06
Run Type: Duplicate Matrix Spike

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**47.0**		5.0	1.0	0.22	1	NA	12/3/15 21:00		474713	
1,1,1-Trichloroethane (TCA)	**51.8**		5.0	1.0	0.36	1	NA	12/3/15 21:00		474713	
1,1,2,2-Tetrachloroethane	**51.9**		5.0	1.0	0.25	1	NA	12/3/15 21:00		474713	
1,1,2-Trichloroethane	**52.1**		5.0	1.0	0.34	1	NA	12/3/15 21:00		474713	
1,1-Dichloroethane (1,1-DCA)	**54.3**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
1,1-Dichloroethene (1,1-DCE)	**52.4**		5.0	1.0	0.57	1	NA	12/3/15 21:00		474713	
1,1-Dichloropropene	**55.2**		5.0	1.0	0.29	1	NA	12/3/15 21:00		474713	
1,2,3-Trichlorobenzene	**51.4**		5.0	1.0	0.82	1	NA	12/3/15 21:00		474713	
1,2,3-Trichloropropane	**53.1**		5.0	1.0	0.70	1	NA	12/3/15 21:00		474713	
1,2,4-Trichlorobenzene	**50.1**		5.0	1.0	0.23	1	NA	12/3/15 21:00		474713	
1,2,4-Trimethylbenzene	**42.9**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
1,2-Dibromo-3-chloropropane (DBCP)	**47.2**		5.0	1.0	0.74	1	NA	12/3/15 21:00		474713	
1,2-Dibromoethane	**49.1**		5.0	1.0	0.24	1	NA	12/3/15 21:00		474713	
1,2-Dichlorobenzene	**49.9**		5.0	1.0	0.21	1	NA	12/3/15 21:00		474713	
1,2-Dichloroethane	**52.2**		5.0	1.0	0.36	1	NA	12/3/15 21:00		474713	
1,2-Dichloropropane	**54.4**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
1,3,5-Trimethylbenzene	**46.3**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
1,3-Dichlorobenzene	**48.8**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
1,3-Dichloropropane	**51.4**		5.0	1.0	0.27	1	NA	12/3/15 21:00		474713	
1,4-Dichlorobenzene	**51.2**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
2,2-Dichloropropane	**48.4**		5.0	1.0	0.27	1	NA	12/3/15 21:00		474713	
2-Butanone (MEK)	**51.0**		10	1.0	0.81	1	NA	12/3/15 21:00		474713	
2-Chlorotoluene	**51.4**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
2-Hexanone	**50.4**		10	5.0	1.7	1	NA	12/3/15 21:00		474713	
tert-Butyl Alcohol	**1160**		100	20	11	1	NA	12/3/15 21:00		474713	
4-Chlorotoluene	**49.9**		5.0	1.0	0.24	1	NA	12/3/15 21:00		474713	
p-Isopropyltoluene	**49.7**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
4-Methyl-2-pentanone	**54.6**		10	1.0	0.67	1	NA	12/3/15 21:00		474713	
Acetone	**40.0**		10	5.0	1.3	1	NA	12/3/15 21:00		474713	
Benzene	**52.1**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
Bromobenzene	**50.1**		5.0	1.0	0.28	1	NA	12/3/15 21:00		474713	
Bromochloromethane	**46.6**		5.0	1.0	0.32	1	NA	12/3/15 21:00		474713	
Bromodichloromethane	**47.5**		5.0	1.0	0.32	1	NA	12/3/15 21:00		474713	
Bromoform	**37.8**		5.0	1.0	0.42	1	NA	12/3/15 21:00		474713	
Bromomethane	**30.4**		5.0	1.0	0.29	1	NA	12/3/15 21:00		474713	
Carbon Tetrachloride	**44.4**		5.0	1.0	0.45	1	NA	12/3/15 21:00		474713	
Chlorobenzene	**48.7**		5.0	1.0	0.29	1	NA	12/3/15 21:00		474713	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1510346
Project:	FTMM Baseline/748810-03000	**Date Collected:**	11/25/15 1425
Sample Matrix:	Water	**Date Received:**	11/30/15
Sample Name:	FTMM-53-GW-699MW09-9.0	**Units:**	µg/L
Lab Code:	RQ1514947-06	**Basis:**	NA
Run Type:	Duplicate Matrix Spike		

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroethane	**51.9**		5.0	1.0	0.24	1	NA	12/3/15 21:00		474713	
Chloroform	**48.5**		5.0	1.0	0.25	1	NA	12/3/15 21:00		474713	
Chloromethane	**47.4**		5.0	1.0	0.21	1	NA	12/3/15 21:00		474713	
Dibromochloromethane	**42.6**		5.0	1.0	0.31	1	NA	12/3/15 21:00		474713	
Dichlorodifluoromethane (CFC 12)	**53.1**		5.0	1.0	0.46	1	NA	12/3/15 21:00		474713	
Methylene Chloride	**50.2**		5.0	1.0	0.60	1	NA	12/3/15 21:00		474713	
Ethylbenzene	**48.5**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
Hexachlorobutadiene	**48.5**		5.0	1.0	0.62	1	NA	12/3/15 21:00		474713	
Isopropylbenzene (Cumene)	**48.3**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
Methyl tert-Butyl Ether	**51.8**		5.0	1.0	0.29	1	NA	12/3/15 21:00		474713	
Naphthalene	**53.3**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
Styrene	**39.0**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
Tetrachloroethene (PCE)	**49.0**		5.0	1.0	0.30	1	NA	12/3/15 21:00		474713	
Toluene	**51.5**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
Trichloroethene (TCE)	**49.5**		5.0	1.0	0.22	1	NA	12/3/15 21:00		474713	
Trichlorofluoromethane (CFC 11)	**54.1**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
Vinyl Chloride	**51.9**		5.0	1.0	0.32	1	NA	12/3/15 21:00		474713	
cis-1,2-Dichloroethene	**51.0**		5.0	1.0	0.30	1	NA	12/3/15 21:00		474713	
cis-1,3-Dichloropropene	**43.2**		5.0	1.0	0.24	1	NA	12/3/15 21:00		474713	
m,p-Xylenes	**93.7**		5.0	2.0	0.33	1	NA	12/3/15 21:00		474713	
n-Butylbenzene	**49.8**		5.0	1.0	0.21	1	NA	12/3/15 21:00		474713	
n-Propylbenzene	**49.2**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
o-Xylene	**47.2**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
sec-Butylbenzene	**48.0**		5.0	1.0	0.27	1	NA	12/3/15 21:00		474713	
tert-Butylbenzene	**48.9**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	
trans-1,2-Dichloroethene	**51.8**		5.0	1.0	0.33	1	NA	12/3/15 21:00		474713	
trans-1,3-Dichloropropene	**44.9**		5.0	1.0	0.20	1	NA	12/3/15 21:00		474713	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	116	75-120	12/3/15 21:00	
Dibromofluoromethane	108	85-115	12/3/15 21:00	
Toluene-d8	115	85-120	12/3/15 21:00	

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120315\
Data File : MM8508.D
Acq On : 3 Dec 2015 9:00 pm
Operator : K.Ruest
Sample : R1510346-007DMS|1.0 R0157494-06 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 03 21:15:58 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.737	168	710478	50.00	ppb		0.00
43) 1,4-Difluorobenzene	6.767	114	1211113	50.00	ppb		0.00
71) d5-Chlorobenzene	9.986	117	1159473	50.00	ppb		0.00
86) 1,4-Dichlorobenzene-d4	12.016	152	552806	50.00	ppb		0.00
System Monitoring Compounds							
45) surr4,Dibrflmethane	5.596	113	339643	53.94	ppb		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 107.88%				
48) surr1,1,2-dichloroetha...	6.096	65	380210	54.67	ppb		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 109.34%				
65) SURR3,Toluene-d8	8.529	98	1520172	57.37	ppb		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 114.74%				
70) SURR2,BFB	11.047	95	580235	58.00	ppb		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 116.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.219	85	531159	53.07	ppb		100
3) Chloromethane	1.347	50	566140	47.38	ppb		99
4) Vinyl Chloride	1.433	62	577301	51.86	ppb		100
5) Bromomethane	1.689	94	165074	30.36	ppb		99
6) Chloroethane	1.768	64	317867	51.93	ppb		99
7) Freon 21	1.926	67	722826	60.98	ppb		100
8) Trichlorofluoromethane	1.975	101	469483	54.14	ppb		99
9) Diethyl Ether	2.231	59	297342	54.66	ppb		96
10) Freon 123a	2.237	67	437516	56.47	ppb		94
11) Freon 123	2.298	83	458707	51.34	ppb		94
12) Acrolein	2.341	56	44373	73.30	ppb		96
13) 1,1-Diclethene	2.432	96	311120	52.36	ppb		95
14) Freon 113	2.438	101	286866	53.05	ppb		98
15) Acetone	2.487	43	60513	39.95	ppb		96
16) 2-Propanol	2.652	45	321909	1120.03	ppb		98
17) Iodomethane	2.573	142	303129	44.90	ppb		92
18) Carbon Disulfide	2.634	76	647344	32.62	ppb		97
19) Acetonitrile	2.762	40	64845	308.68	ppb		98
20) Allyl Chloride	2.798	76	126139	38.12	ppb	#	85
21) Methyl Acetate	2.829	43	175324	49.68	ppb		95
22) Methylene Chloride	2.926	84	344684	50.23	ppb		99
23) TBA	3.091	59	542354	1162.73	ppb		99
24) Acrylonitrile	3.207	53	446233	260.29	ppb		100
25) Methyl-t-Butyl Ether	3.268	73	856308	51.80	ppb		99
26) trans-1,2-Dichloroethene	3.243	96	331610	51.82	ppb		90
28) 1,1-Diclethane	3.792	63	617493	54.25	ppb		98
29) Vinyl Acetate	3.908	86	59114	49.86	ppb		100
30) DIPE	3.950	45	1129772	50.92	ppb		99
31) 2-Chloro-1,3-Butadiene	3.926	53	501202	43.79	ppb		99
32) ETBE	4.530	59	1017561	48.80	ppb		98
33) 2,2-Dichloropropane	4.712	77	440528	48.39	ppb		96
34) cis-1,2-Dichloroethene	4.719	96	361388	51.02	ppb		99
35) 2-Butanone	4.779	43	105714	50.95	ppb		99
36) Propionitrile	4.865	54	169901	268.17	ppb		96

KR 12/9/15

Data Path : I:\ACQUDATA\MSVOA12\DATA\120315\
Data File : MM8508.D
Acq On : 3 Dec 2015 9:00 pm
Operator : K.Ruest
Sample : R1510346-007DMS|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 03 21:15:58 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Bromochloromethane	5.145	130	170549	46.61	ppb	#	85
38) Methacrylonitrile	5.164	67	106207	52.89	ppb		98
39) Tetrahydrofuran	5.237	42	76134	57.06	ppb		95
40) Chloroform	5.328	83	536963	48.54	ppb		98
41) 1,1,1-Trichloroethane	5.596	97	450136	51.81	ppb		97
42) TAME	6.407	73	892288	50.37	ppb		99
44) Cyclohexane	5.676	41	336737	50.87	ppb		99
46) Carbontetrachloride	5.859	121	103027	44.43	ppb		91
47) 1,1-Dichloropropene	5.871	75	471222	55.15	ppb		98
49) Benzene	6.169	78	1387686	52.06	ppb		99
50) 1,2-Dichloroethane	6.212	62	356576	52.18	ppb		98
51) Iso-Butyl Alcohol	6.206	43	245044	1096.76	ppb		94
52) n-Heptane	6.645	43	372188	50.74	ppb		98
53) 1-Butanol	7.114	56	408780	2918.85	ppb		99
54) Trichloroethene	7.084	130	335437	49.53	ppb		96
55) Methylcyclohexane	7.316	55	404080	49.49	ppb		97
56) 1,2-Diclpropane	7.358	63	359129	54.37	ppb		98
57) Dibromomethane	7.492	93	159582	49.07	ppb		88
58) 1,4-Dioxane	7.553	88	56536 51419	1061.66	ppb	1167.31	92
59) Methyl Methacrylate	7.578	69	192112	50.27	ppb		93
60) Bromodichloromethane	7.712	83	384443	47.47	ppb		99
61) 2-Nitropropane	7.986	41	113657	95.30	ppb		92
63) cis-1,3-Dichloropropene	8.236	75	469184	43.23	ppb		98
64) 4-Methyl-2-pentanone	8.437	43	263522	54.56	ppb		97
66) Toluene	8.602	91	1422260	51.52	ppb		100
67) trans-1,3-Dichloropropene	8.864	75	386925	44.87	ppb		98
68) Ethyl Methacrylate	8.998	69	400995	52.53	ppb		99
69) 1,1,2-Trichloroethane	9.047	97	243227	52.10	ppb		95
72) Tetrachloroethene	9.181	164	235391	48.95	ppb		96
73) 2-Hexanone	9.327	43	178891	50.40	ppb		99
74) 1,3-Dichloropropane	9.212	76	452752	51.36	ppb		96
75) Dibromochloromethane	9.437	129	233667	42.60	ppb		96
76) N-Butyl Acetate	9.480	43	429952	50.70	ppb		99
77) 1,2-Dibromoethane	9.529	107	230807	49.13	ppb		98
78) Chlorobenzene	10.016	112	835765	48.73	ppb		97
79) 3-CBTF	10.028	180	414175	48.74	ppb		99
80) 4-CBTF	10.083	180	380769	48.15	ppb		98
81) 1,1,1,2-Tetrachloroethane	10.102	131	278597	47.00	ppb		97
82) Ethylbenzene	10.132	106	470763	48.46	ppb		97
83) (m+p)Xylene	10.242	106	1123507	93.69	ppb		97
84) o-Xylene	10.595	106	580189	47.24	ppb		97
85) Styrene	10.608	104	779663	38.97	ppb		98
87) Bromoform	10.760	173	118642	37.78	ppb		94
88) 2-CBTF	10.833	180	421418	50.28	ppb		97
89) Isopropylbenzene	10.925	105	1389549	48.34	ppb		100
90) Cyclohexanone	10.992	55	184149	441.84	ppb		97
91) trans-1,4-Dichloro-2-B...	11.229	53	43134	25.24	ppb		94
92) 1,1,2,2-Tetrachloroethane	11.181	83	301163	51.85	ppb		100
93) Bromobenzene	11.175	156	325639	50.06	ppb		93
94) 1,2,3-Trichloropropane	11.211	110	81994	53.10	ppb	#	88
95) n-Propylbenzene	11.278	91	1628597	49.15	ppb		98

Data Path : I:\ACQUDATA\MSVOA12\DATA\120315\
Data File : MM8508.D
Acq On : 3 Dec 2015 9:00 pm
Operator : K.Ruest
Sample : R1510346-007DMS|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 24 Sample Multiplier: 1

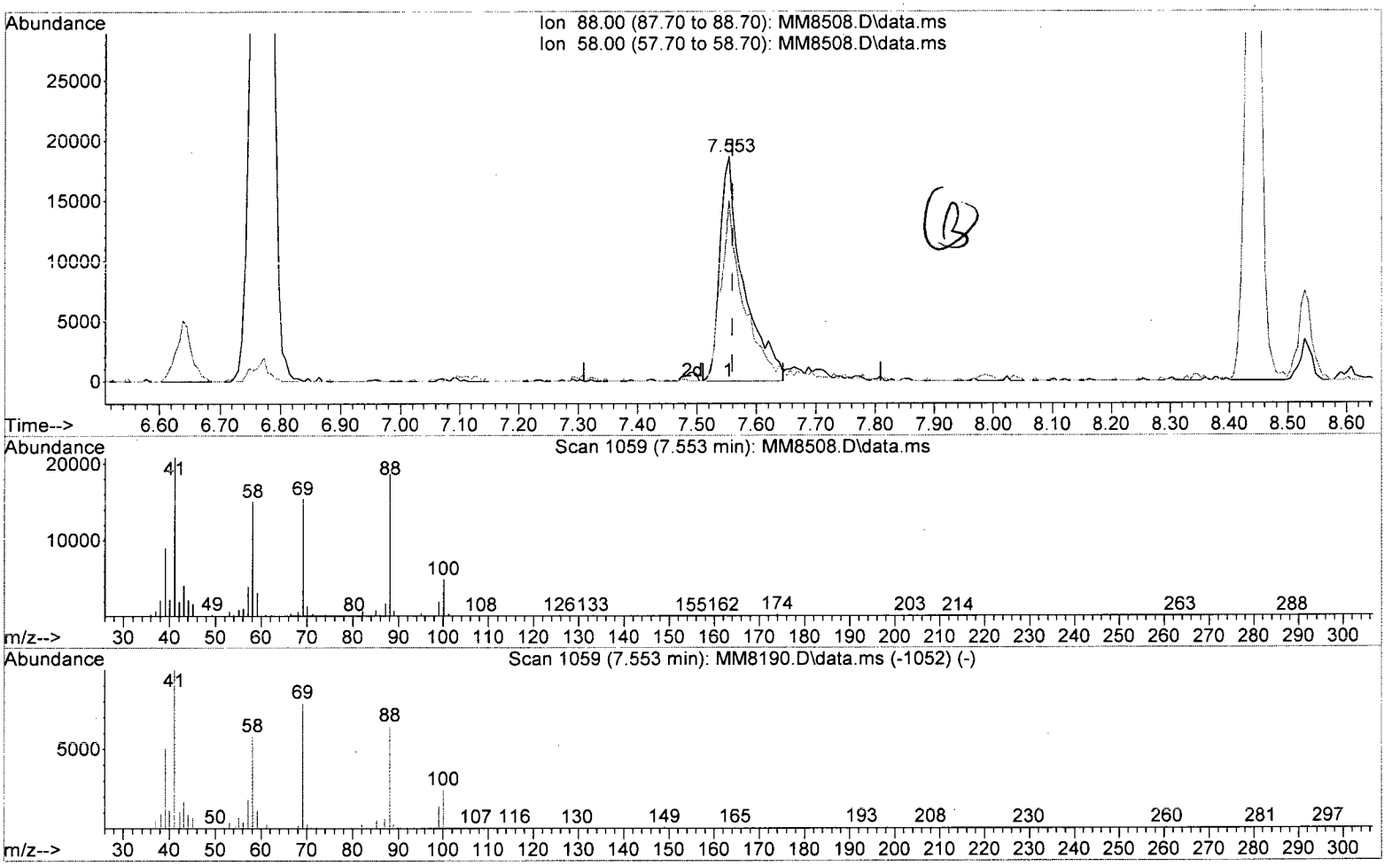
Quant Time: Dec 03 21:15:58 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
96)	2-Chlorotoluene	11.339	91	997600	51.36	ppb		99
97)	3-Chlorotoluene	11.394	91	1048945	51.44	ppb		99
98)	4-Chlorotoluene	11.437	91	1093427	49.91	ppb		100
99)	1,3,5-Trimethylbenzene	11.431	105	1007967	46.33	ppb		98
100)	tert-Butylbenzene	11.699	119	948282	48.86	ppb		98
101)	1,2,4-Trimethylbenzene	11.735	105	1001097	42.89	ppb		96
102)	3,4-DCBTF	11.796	214	274313	48.86	ppb		98
103)	sec-Butylbenzene	11.882	105	1302855	47.97	ppb		99
104)	p-Isopropyltoluene	12.004	119	1043110	49.68	ppb		99
105)	1,3-Dclbenz	11.961	146	614167	48.78	ppb		98
106)	1,4-Dclbenz	12.034	146	604172	51.19	ppb		100
107)	2,4-DCBTF	12.089	214	250104	51.05	ppb		94
108)	2,5-DCBTF	12.126	214	280675	50.64	ppb		98
109)	n-Butylbenzene	12.333	91	990551	49.81	ppb		99
110)	1,2-Dclbenz	12.339	146	578347	49.91	ppb		99
111)	1,2-Dibromo-3-chloropr...	12.955	157	52946	47.24	ppb	#	81
112)	Trielution Dichlorotol...	13.077	125	1487617	152.10	ppb		97
113)	1,3,5 Trichlorobenzene	13.125	180	384096	49.30	ppb		97
114)	Coelution Dichlorotoluene	13.400	125	1086238	105.10	ppb		98
115)	1,2,4-Tcbenzene	13.607	180	357840	50.05	ppb		98
116)	Hexachlorobt	13.747	225	138476	48.50	ppb		91
117)	Naphthalen	13.802	128	789879	53.27	ppb		98
118)	1,2,3-Tclbenzene	13.985	180	305917	51.44	ppb		99
119)	2,4,5-Trichlorotolene	14.570	159	236262	53.56	ppb		94
120)	2,3,6-Trichlorotoluene	14.656	159	199003	51.24	ppb		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8508.D
Acq On : 3 Dec 2015 9:00 pm
Operator : K.Ruest
Sample : R1510346-007DMS|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 03 21:15:58 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8508.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 1061.66 ppb

response 51419

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	80.48
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\120315\
Data File : MM8508.D
Acq On : 3 Dec 2015 9:00 pm
Operator : K.Ruest
Sample : R1510346-007DMS|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
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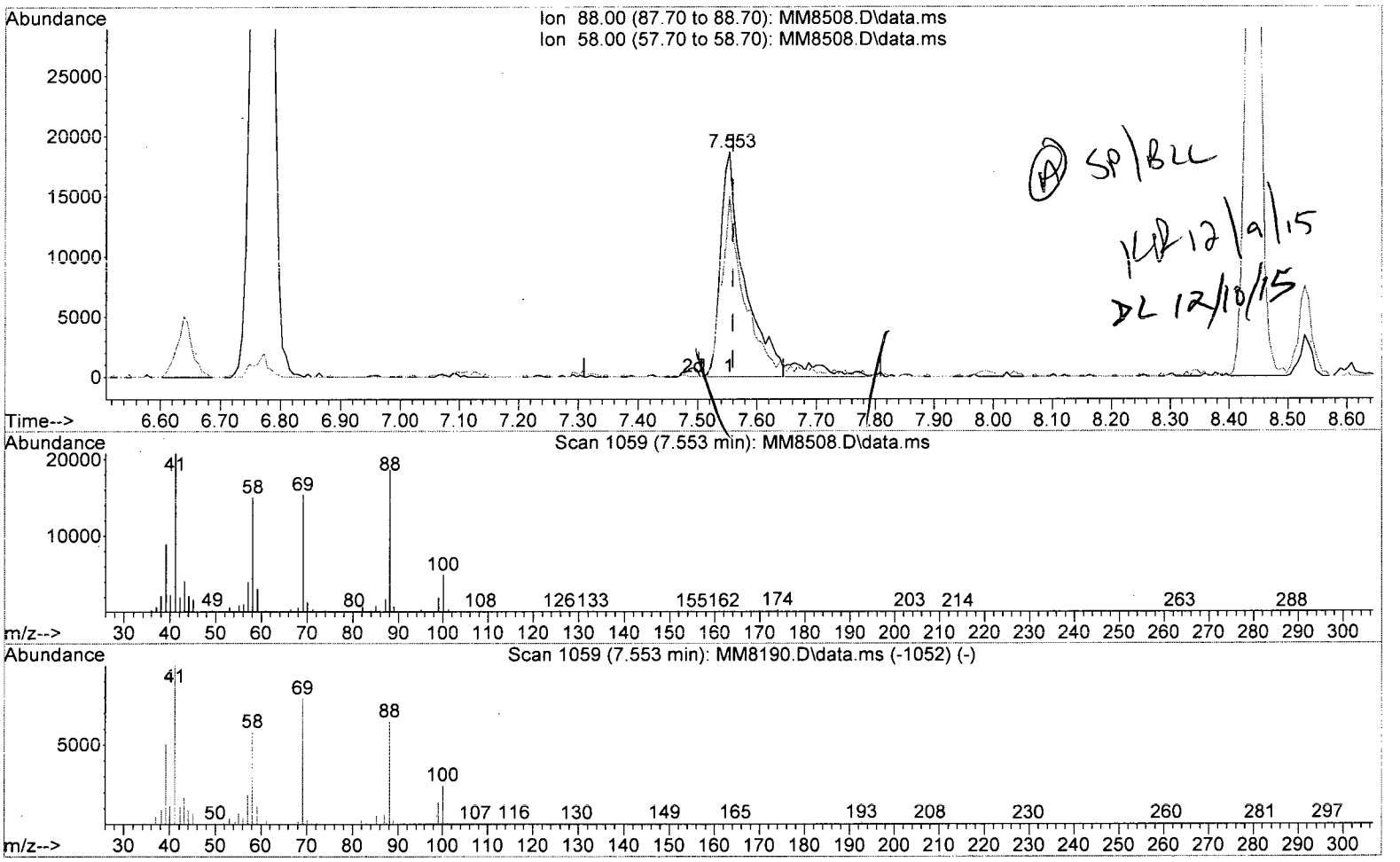
Quant Time: Dec 03 21:15:58 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



TIC: MM8508.D\data.ms

(58) 1,4-Dioxane

7.553min (-0.006) 1167.31 ppb m

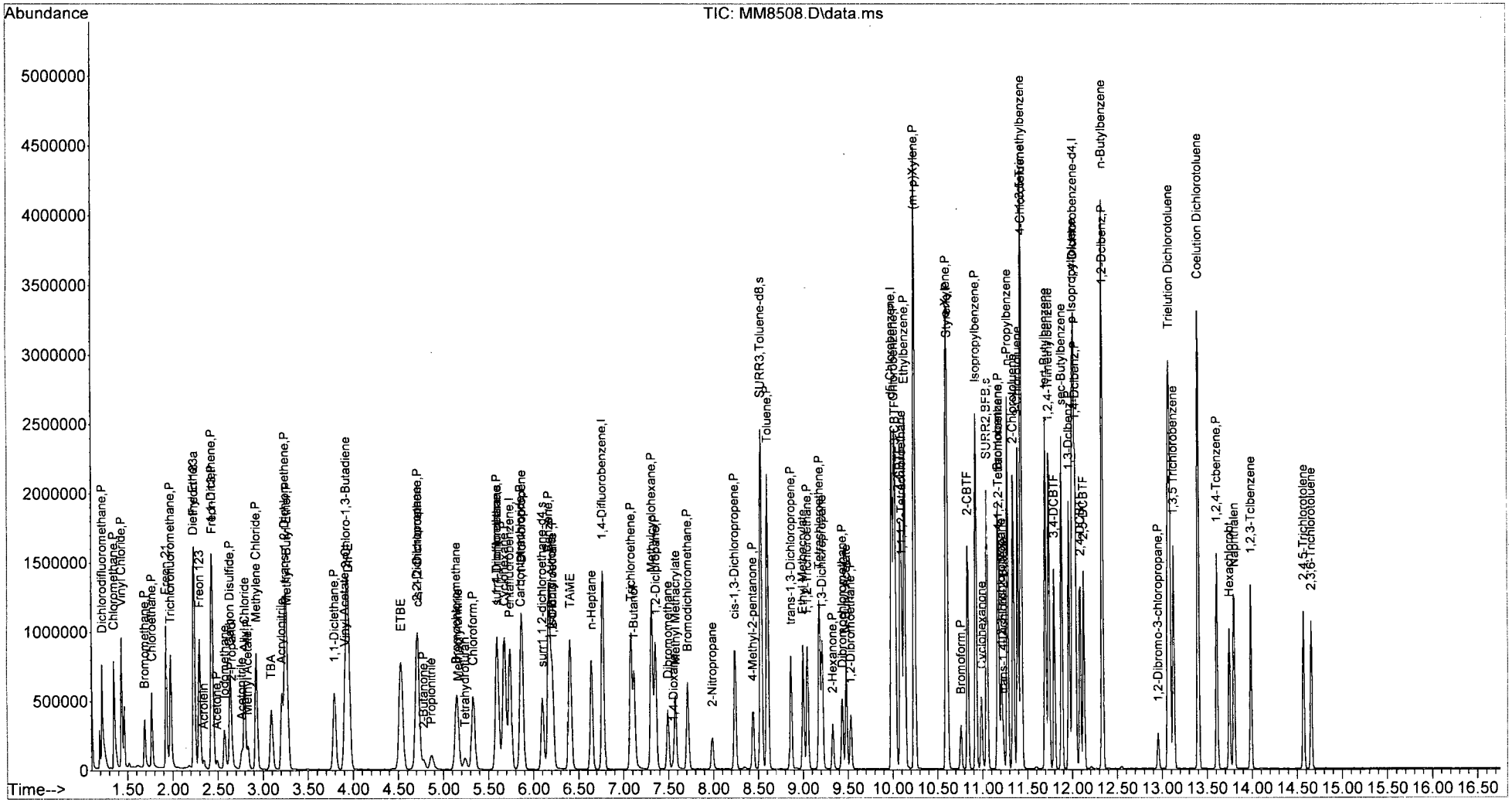
response 56536

Ion	Exp%	Act%
88.00	100	100
58.00	87.90	80.48
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : I:\ACQUDATA\MSVOA12\DATA\120315\
Data File : MM8508.D
Acq On : 3 Dec 2015 9:00 pm
Operator : K.Ruest
Sample : R1510346-007DMS|1.0 Inst : MSVOA-12
Misc : PARSONS 14517 T4*DOD4
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 03 21:15:58 2015
Quant Method : I:\ACQUDATA\MSVOA12\METHODS\W111815A.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Wed Nov 25 09:49:52 2015
Response via : Initial Calibration



W111815A.M Thu Dec 03 21:16:11 2015 Page: 4

Analysis: 8260 waterB | Analyst: K. Ruest | Tune Method: W111815
Date: 11/18/15 | Data Path: j:\acqudata\msvoa12\111815 | Run Method: ↓
Instr. 12 | LIMS Run#: -8260 Water ICAL-

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								MMS182		
2	MVE								MMS183	YT	(auto) 15:38
3	1 BLK	5ppm	500ppm 5uL(500)	FV					MMS184	YB	
4	0.5 ppb	5uL	— —	50mls					MMS185	Y	
5	1.0 ppb	10uL	— —						MMS186	Y	
6	2.0	20uL	— 1uL						MMS187	Y	
7	5.0	50uL	— 2uL						MMS188	Y	
8	20	—	2uL 5uL						MMS189	Y	
9	50	—	5uL —						MMS190	Y	
10 (KR)	~~5~~ 100	—	10uL 7.5uL						MMS191	Y	
11	150	—	15uL 10uL						MMS192	Y	
12	200	—	20uL —	↓					MMS193	Y	
13	BLK						—	—	MMS194	—	
14	↓						—	—	MMS195	—	
15	↓						—	—	MMS196	—	

EOD
KR 11/18/15

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500 Primary Occ : 85996
Primary HBO : 85871 | 10uL → 1.0mL MeOH
Primary Ket : 85806 | 5uL → 50mls = 5ppm
Primary TB : 85998 | = (KR)
Primary HSL : 85740

Secondary :
Secondary :
Secondary :
Secondary :
Secondary :

Combined IS/Surr 500 : 85986
Surrogate 500 : 85821
Internal Std —

Runlog-MSVOAr2 9/20/13
Page 35

Analysis: 8260 Waters
Analyst: K. Ruest
Tune Method: W111815
Date: 11/19/15
Data Path: j:\acqudata\msvoa12\111915
Run Method: ↓
Instr. 12
LIMS Run#: 472937

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								MM8197		
2	↓								MM8198		
3	TUNE		RQ1514404-01						MM8199	YT	(auto) 10:06
4	CCV		02						MM8200	YQ	YC
5	ICV/LCS@50ppb		03						MM8201	YQ	
6	VBLK		—						MM8202	(H)	up to 10
7	↓		04						MM8203	YB	
8	R1509899-002	1.0		Oswego	6673	2	1		MM8204	Y	
9	R1509859-012	1.0		Tetra	6765	2	1		MM8205	Y	
10	002	1.0					1		MM8206	Y	
11	003	1.0					1		MM8207		
12	004	1.0					1		MM8208		
13	010	5.0	10/50mls				1		MM8209		
14	011	2.0	25/50mls				1		MM8210		

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500 Primary OCC : 85996
Primary HBO : 85871
Primary Frt : 85806 5uL → 50mls = CCV
Primary T6 : 85998
Primary HSL : 85740

200 Secondary 85637 Frt - 12.5uL
500 Secondary 85997 : OCC
Secondary 85875 : HBO 5.0uL
Secondary 86000 : T6
Secondary 85909 : HSL
50mls = ICV/LCS

Combined IS/Surr 500 : 85986
Surrogate :
Internal Std :

Runlog-MSVOAr2 9/20/13
Page 36

Analysis: 8260 Waters
Date: 12/3/15
Instr. 12

Analyst: K. Ruest
Data Path: j:\acqudata\msvoa12\120315

Tune Method: W111815A
Run Method: ↓
LIMS Run#: 474713

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								MM8485		
2	TUNE		RQ1514947-01						MM8486	YT	(auto) 9:44
3	CCV		02						MM8487	YC	
4	LCS		03						MM8488	YQ	
5	VBLK		–						MM8489	(N)	Not c/o
6	↓		04						MM8490	YB	
7	R1510346-021	1.0		Parsons	14517	4	1	<2	MM8491	Y	
8	017	1.0		(DODY)			1	<2	MM8492	Y	
9	019	1.0					1	<2	MM8493	Y	
10	007	1.0					1	<2	MM8494	Y	
11	001	1.0					1	<2	MM8495	Y	
12	002	1.0					1	<2	MM8496	Y	
13	003	1.0					1	<2	MM8497	Y	
14	004	1.0					1	<2	MM8498	Y	
15	005	1.0					1	<2	MM8499	Y	
16	006	1.0					1	<2	MM8500	Y	
17	008	1.0					1	<2	MM8501	Y	
18	010	1.0					1	<2	MM8502	Y	
19	012	1.0					1	<2	MM8503	Y	
20	013	1.0					1	<2	MM8504	Y	
21	016	1.0					1	<2	MM8505	Y	
22	014	10	5/50mls				1	<2	MM8506	Y	Foamy
23	MS 007	1.0	RQ1514947-05				2	<2	MM8507	YQ	
24	MSD 007	1.0	06				3	<2	MM8508	YQ	21:00✓
25	BLK						–	–	MM8509	–	

KR 12/3/15

All samples = 10 mL + 1 uL combined IS/Surr. 10 mL purged

500 Primary OCC : 85996
Primary HBO : 85871
Primary Fr+ : 85806 5uL → 50mls = CCV
Primary HSL : 86114
Primary T6 : 85998

200 Secondary Fr+ : 86324 - 5uL
500 Secondary OCC : 85997
Secondary HBO : 85875 2uL
Secondary T6 : 86000
Secondary HSL : 85909

50mls = LCS
- 10.6uL
4.2uL
42ml vial = MS/D

Combined IS/Surr 500 : 86137
Surrogate :
Internal Std :

Runlog-MSVOAr2 9/20/13
Page 48

ALS Environmental

METALS DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

METALS

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: R1510346 SDG No.: FTMM-53-GW-

Lab Code: Case No.: SAS No.:

SOW No.: SW846 CLP-M

Sample ID.	Lab Sample No.
FTMM-53-GW-699RW11-12.8	R1510346-008
FTMM-53-GW-699RW11-12.8D	R1510346-008D
FTMM-53-GW-699RW11-12.8S	R1510346-008S
FTMM-53-GW-699RW11-12.8 Dissol	R1510346-009
FTMM-53-GW-699MW06-8.5	R1510346-010
FTMM-53-GW-699MW06-8.5 Dissolv	R1510346-011
FTMM-8-GW-M2MW11-21.5	R1510346-014
FTMM-8-GW-M2MW11-21.5 Dissolve	R1510346-015
EB-2015-11-24	R1510346-017
EB-2015-11-24 Dissolved	R1510346-018
EB-2015-11-25	R1510346-019
EB-2015-11-25 Dissolved	R1510346-020

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments: See Attatched Case Narrative

Signature: Vanessa N. Badman Name: Vanessa N. Badman

Date: 1/8/16 Title: Project Manager

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510346
Project Name:
Matrix: WATER

Service Request: FTMM-53-GW-699RW11-12.8
Date Collected: 11/25/2015
Date Received: 11/30/2015
Units: ug/L
Basis:

Sample Name: FTMM-53-GW-699RW11-12.8 **Lab Code:** R1510346-008

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.5	U	

% Solids: 0.0

Comments:

ALS Environmental

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client:	Parsons Engineering Science	**Service Request:**	FTMM-53-GW-699RW11-12.8
Project No.:	R1510346	**Date Collected:**	11/25/2015
Project Name:		**Date Received:**	11/30/2015
Matrix:	WATER	**Units:**	ug/L
		Basis:	

Sample Name: FTMM-53-GW-699RW11-12.8 Dissolv **Lab Code:** R1510346-009

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.5	U	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510346
Project Name:
Matrix: WATER

Service Request: FTMM-53-GW-699RW11-12.8
Date Collected: 11/25/2015
Date Received: 11/30/2015
Units: ug/L
Basis:

Sample Name: FTMM-53-GW-699MW06-8.5 **Lab Code:** R1510346-010

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.5	U	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510346
Project Name:
Matrix: WATER

Service Request: FTMM-53-GW-699RW11-12.8
Date Collected: 11/25/2015
Date Received: 11/30/2015
Units: ug/L
Basis:

Sample Name: FTMM-53-GW-699MW06-8.5 Dissolve **Lab Code:** R1510346-011

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.5	U	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510346
Project Name:
Matrix: WATER

Service Request: FTMM-53-GW-699RW11-12.8
Date Collected: 11/25/2015
Date Received: 11/30/2015
Units: ug/L
Basis:

Sample Name: FTMM-8-GW-M2MW11-21.5 **Lab Code:** R1510346-014

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	211		

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510346
Project Name:
Matrix: WATER

Service Request: FTMM-53-GW-699RW11-12.8
Date Collected: 11/25/2015
Date Received: 11/30/2015
Units: ug/L
Basis:

Sample Name: FTMM-8-GW-M2MW11-21.5 Dissolved **Lab Code:** R1510346-015

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.5	U	

% Solids: 0.0

Comments:

ALS Environmental

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510346
Project Name:
Matrix: WATER

Service Request: FTMM-53-GW-699RW11-12.8
Date Collected: 11/24/2015
Date Received: 11/30/2015
Units: ug/L
Basis:

Sample Name: EB-2015-11-24 **Lab Code:** R1510346-017

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Silver	6010C	10.0	5.0	0.540	1.0	12/07/15	12/17/15	5.0	U	
Aluminum	6010C	100	50.0	3.8	1.0	12/07/15	12/17/15	30.6	J	
Arsenic	6010C	10.0	5.0	1.1	1.0	12/07/15	12/18/15	5.0	U	
Barium	6010C	20.0	10.0	0.671	1.0	12/07/15	12/17/15	1.1	J	
Beryllium	6010C	3.0	2.5	0.120	1.0	12/07/15	12/17/15	2.5	U	
Calcium	6010C	1000	500	26.6	1.0	12/07/15	12/17/15	33.6	J	
Cobalt	6010C	50.0	25.0	0.366	1.0	12/07/15	12/17/15	25.0	U	
Chromium	6010C	10.0	5.0	0.240	1.0	12/07/15	12/17/15	0.601	J	
Copper	6010C	20.0	10.0	1.9	1.0	12/07/15	12/17/15	10.0	U	
Iron	6010C	100	50.0	8.7	1.0	12/07/15	12/18/15	14.2	J	
Potassium	6010C	2000	1000	44.4	1.0	12/07/15	12/17/15	1000	U	
Magnesium	6010C	1000	500	9.0	1.0	12/07/15	12/17/15	58.5	J	
Cadmium	6010C	5.0	2.5	0.196	1.0	12/07/15	12/18/15	2.5	U	
Manganese	6010C	10.0	5.0	0.499	1.0	12/07/15	12/17/15	1.0	J	
Mercury	7470A	0.200	0.100	0.040	1.0	12/16/15	12/16/15	0.100	U	
Sodium	6010C	1000	500	37.5	1.0	12/07/15	12/17/15	104	J	
Nickel	6010C	40.0	20.0	0.755	1.0	12/07/15	12/17/15	20.0	U	
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.5	U	
Antimony	6010C	60.0	30.0	1.3	1.0	12/07/15	12/18/15	30.0	U	
Selenium	6010C	10.0	5.0	4.0	1.0	12/07/15	12/17/15	5.0	U	
Thallium	6010C	10.0	10.0	1.6	1.0	12/07/15	12/17/15	10.0	U	
Vanadium	6010C	50.0	25.0	0.479	1.0	12/07/15	12/17/15	25.0	U	
Zinc	6010C	20.0	10.0	6.2	1.0	12/07/15	12/17/15	10.0	U	

% Solids: 0.0

Comments:

ALS Environmental

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Service Request: FTMM-53-GW-699RW11-12.8
Project No.: R1510346
Date Collected: 11/24/2015
Project Name:
Date Received: 11/30/2015
Matrix: WATER
Units: ug/L
Basis:

Sample Name: EB-2015-11-24 Dissolved **Lab Code:** R1510346-018

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Silver	6010C	10.0	5.0	0.540	1.0	12/07/15	12/17/15	5.0	U	
Aluminum	6010C	100	50.0	3.8	1.0	12/07/15	12/17/15	50.0	U	
Arsenic	6010C	10.0	5.0	1.1	1.0	12/07/15	12/18/15	5.0	U	
Barium	6010C	20.0	10.0	0.671	1.0	12/07/15	12/17/15	10.0	U	
Beryllium	6010C	3.0	2.5	0.120	1.0	12/07/15	12/17/15	2.5	U	
Calcium	6010C	1000	500	26.6	1.0	12/07/15	12/17/15	500	U	
Cobalt	6010C	50.0	25.0	0.366	1.0	12/07/15	12/17/15	25.0	U	
Chromium	6010C	10.0	5.0	0.240	1.0	12/07/15	12/17/15	5.0	U	
Copper	6010C	20.0	10.0	1.9	1.0	12/07/15	12/17/15	10.0	U	
Iron	6010C	100	50.0	8.7	1.0	12/07/15	12/18/15	12.6	J	
Potassium	6010C	2000	1000	44.4	1.0	12/07/15	12/17/15	60.4	J	
Magnesium	6010C	1000	500	9.0	1.0	12/07/15	12/17/15	500	U	
Cadmium	6010C	5.0	2.5	0.196	1.0	12/07/15	12/18/15	2.5	U	
Manganese	6010C	10.0	5.0	0.499	1.0	12/07/15	12/17/15	5.0	U	
Mercury	7470A	0.200	0.100	0.040	1.0	12/16/15	12/16/15	0.100	U	
Sodium	6010C	1000	500	37.5	1.0	12/07/15	12/17/15	49.0	J	
Nickel	6010C	40.0	20.0	0.755	1.0	12/07/15	12/17/15	20.0	U	
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.3	J	
Antimony	6010C	60.0	30.0	1.3	1.0	12/07/15	12/18/15	30.0	U	
Selenium	6010C	10.0	5.0	4.0	1.0	12/07/15	12/17/15	5.0	U	
Thallium	6010C	10.0	10.0	1.6	1.0	12/07/15	12/17/15	10.0	U	
Vanadium	6010C	50.0	25.0	0.479	1.0	12/07/15	12/17/15	25.0	U	
Zinc	6010C	20.0	10.0	6.2	1.0	12/07/15	12/17/15	10.0	U	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510346
Project Name:
Matrix: WATER

Service Request: FTMM-53-GW-699RW11-12.8
Date Collected: 11/25/2015
Date Received: 11/30/2015
Units: ug/L
Basis:

Sample Name: EB-2015-11-25 **Lab Code:** R1510346-019

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.5	U	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons Engineering Science
Project No.: R1510346
Project Name:
Matrix: WATER

Service Request: FTMM-53-GW-699RW11-12.8
Date Collected: 11/25/2015
Date Received: 11/30/2015
Units: ug/L
Basis:

Sample Name: EB-2015-11-25 Dissolved **Lab Code:** R1510346-020

Analyte	Analysis Method	PQL	LOD	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Lead	6010C	5.0	2.5	1.3	1.0	12/07/15	12/17/15	2.5	U	

% Solids: 0.0

Comments:

METALS
-2A-
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-6

Initial Calibration Source: PERKIN ELMER

Continuing Calibration Source: PERKIN ELMER

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Silver	500	501	100	500	510	102	512	102	P
Aluminum	10000	9740	97	10000	10300	103	10400	104	P
Arsenic	1000	991	99	1000	976	98	1000	100	P
Barium	10000	10200	102	10000	10600	106	10800	108	P
Beryllium	250	249	100	250	254	102	256	102	P
Calcium	25000	25100	100	25000	26200	105	26200	105	P
Cobalt	2500	2480	99	2500	2520	101	2560	102	P
Chromium	500	520	104	500	530	106	538	108	P
Copper	1250	1250	100	1250	1290	103	1290	103	P
Iron	5000	5070	101	5000	5070	101	5060	101	P
Potassium	25000	23200	93	25000	24800	99	24400	98	P
Magnesium	25000	24500	98	25000	24700	99	25200	101	P
Cadmium	500	504	101	500	505	101	503	101	P
Manganese	750	767	102	750	778	104	788	105	P
Mercury	3.00	3.07	102	3.00	3.07	102	3.02	101	CV
Sodium	25000	23900	96	25000	25200	101	24700	99	P
Nickel	2000	2060	103	2000	2090	104	2130	106	P
Lead	500	513	103	500	522	104	525	105	P
Antimony	5000	5050	101	5000	4940	99	4950	99	P
Selenium	500	481	96	500	490	98	492	98	P
Thallium	1000	1070	107	1000	1120	112	1130	113	P
Vanadium	2500	2440	98	2500	2540	102	2570	103	P
Zinc	1000	1010	101	1000	1010	101	1040	104	P

Comments:

METALS
-2A-
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-6

Initial Calibration Source: PERKIN ELMER

Continuing Calibration Source: PERKIN ELMER

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Silver				500	508	102	506	101	P
Aluminum				10000	10200	102	10200	102	P
Arsenic				1000	1010	101	1030	103	P
Barium				10000	10600	106	10600	106	P
Beryllium				250	253	101	254	102	P
Calcium				25000	26100	104	25800	103	P
Cobalt				2500	2520	101	2520	101	P
Chromium				500	531	106	530	106	P
Copper				1250	1270	102	1270	102	P
Iron				5000	5090	102	5160	103	P
Potassium				25000	25500	102	24300	97	P
Magnesium				25000	24800	99	24700	99	P
Cadmium				500	492	98	491	98	P
Manganese				750	779	104	777	104	P
Mercury				3.00	3.00	100	2.66	89	CV
Sodium				25000	25300	101	24700	99	P
Nickel				2000	2090	104	2100	105	P
Lead				500	524	105	514	103	P
Antimony				5000	4980	100	4980	100	P
Selenium				500	488	98	480	96	P
Thallium				1000	1120	112	1110	111	P
Vanadium				2500	2530	101	2540	102	P
Zinc				1000	1020	102	1020	102	P

Comments:

METALS
-2A-
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-6

Initial Calibration Source: PERKIN ELMER

Continuing Calibration Source: PERKIN ELMER

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Silver				500	510	102			P
Aluminum				10000	10400	104			P
Barium				10000	10800	108			P
Beryllium				250	256	102			P
Calcium				25000	26200	105			P
Cobalt				2500	2550	102			P
Chromium				500	537	107			P
Copper				1250	1280	102			P
Potassium				25000	24700	99			P
Magnesium				25000	25000	100			P
Cadmium				500	489	98			P
Manganese				750	787	105			P
Sodium				25000	24900	100			P
Nickel				2000	2120	106			P
Lead				500	525	105			P
Selenium				500	491	98			P
Thallium				1000	1130	113			P
Vanadium				2500	2570	103			P
Zinc				1000	1040	104			P

Comments:

METALS
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FTMM-53-GW-6

AA CRDL Standard Source: ACCUSTANDARD

ICP CRDL Standard Source:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Silver				10.0	8.99	90	9.28	93
Aluminum				200.0	218.53	109	219.25	110
Arsenic				20.0	20.31	102	20.57	103
Barium				200.0	228.13	114	232.21	116
Beryllium				5.0	5.03	101	5.10	102
Calcium				1000.0	995.19	100	993.07	99
Cobalt				50.0	54.24	108	54.14	108
Chromium				10.0	10.86	109	11.45	114
Copper				25.0	26.56	106	26.87	107
Iron				100.0	95.48	95	106.71	107
Potassium				1000.0	932.16	93	927.94	93
Magnesium				1000.0	1091.19	109	1093.38	109
Cadmium				10.0	10.00	100	9.90	99
Manganese				15.0	16.60	111	16.94	113
Mercury	0.200	0.198	99					
Sodium				1000.0	1048.37	105	1033.94	103
Nickel				40.0	42.53	106	42.47	106
Lead				10.0	11.22	112	10.78	108
Antimony				60.0	60.03	100	55.91	93
Selenium				10.0	9.04	90	8.38	84
Thallium				20.0	22.42	112	21.90	110
Vanadium				50.0	52.76	106	53.75	108
Zinc				20.0	21.19	106	21.19	106

Comments:

METALS
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FTMM-53-GW-6

AA CRDL Standard Source: ACCUSTANDARD

ICP CRDL Standard Source:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.200	0.254	127					

Comments:

METALS

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BLANKS

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-6

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	C	Continuing Calibration Blank ug/L 1	C	2	C	3	C	Preparation Blank	C	M
Silver	0.54	U	-1.14	J	-1.31	J	-0.93	J	-1.466	J	P
Aluminum	-16.32	J	21.04	J	32.02	J	12.20	J	26.887	J	P
Arsenic	1.23	J	1.25	J	1.12	U	2.79	J	1.120	U	P
Barium	0.67	U	1.58	J	1.81	J	1.25	J	0.671	U	P
Beryllium	0.12	U	0.12	U	0.12	U	0.12	U	0.120	U	P
Calcium	26.60	U	26.60	U	26.60	U	26.60	U	26.600	U	P
Cobalt	0.37	U	0.37	U	0.37	U	0.37	U	0.366	U	P
Chromium	-0.35	J	0.44	J	0.53	J	0.24	U	0.517	J	P
Copper	2.24	J	1.89	U	1.89	U	1.89	U	1.890	U	P
Iron	8.65	U	8.65	U	8.65	U	8.65	U	8.650	U	P
Potassium	44.40	U	44.40	U	44.40	U	44.40	U	44.400	U	P
Magnesium	-26.10	J	38.96	J	53.38	J	30.56	J	71.602	J	P
Cadmium	0.80	J	0.20	U	0.20	U	0.20	U	0.196	U	P
Manganese	0.50	U	0.71	J	0.78	J	0.59	J	0.691	J	P
Mercury	0.040	U	0.040	U	0.040	U	0.040	U	0.040	U	CV
Sodium	37.50	U	37.50	U	37.50	U	37.50	U	37.500	U	P
Nickel	0.76	U	0.76	U	0.76	U	0.76	U	0.755	U	P
Lead	1.34	J	1.32	U	-2.05	J	1.32	U	-1.693	J	P
Antimony	2.85	J	2.79	J	1.89	J	2.98	J	1.250	U	P
Selenium	4.02	U	4.02	U	4.02	U	4.02	U	4.020	U	P
Thallium	1.55	U	1.55	U	1.55	U	1.55	U	1.550	U	P
Vanadium	0.58	J	0.61	J	0.48	U	0.48	U	0.479	U	P
Zinc	6.23	U	6.23	U	6.23	U	6.23	U	6.230	U	P

Comments:

ALS Environmental

METALS

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BLANKS

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-6

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	C	Continuing Calibration Blank ug/L 1	C	2	C	3	C	Preparation Blank	C	M
Silver			-1.14	J	-1.42	J					P
Aluminum			15.53	J	20.89	J					P
Arsenic			2.16	J							P
Barium			2.23	J	1.91	J					P
Beryllium			0.12	U	0.12	U					P
Calcium			26.60	U	26.60	U					P
Cobalt			0.37	U	0.37	U					P
Chromium			0.29	J	0.41	J					P
Copper			1.89	U	1.89	U					P
Iron			8.65	U							P
Potassium			57.39	J	49.87	J					P
Magnesium			38.30	J	36.39	J					P
Cadmium			0.20	U	0.20	U					P
Manganese			0.70	J	0.65	J					P
Mercury			0.040	U							CV
Sodium			39.30	J	37.50	U					P
Nickel			0.76	U	0.76	U					P
Lead			1.32	U	1.32	U					P
Antimony			5.34	J							P
Selenium			4.02	U	4.02	U					P
Thallium			1.55	U	1.55	U					P
Vanadium			0.48	U	0.48	U					P
Zinc			6.23	U	6.23	U					P

Comments:

METALS

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ICP INTERFERENCE CHECK SAMPLE

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-6

ICP ID Number: Agilent ICP ICS Source: PERKIN ELMER

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Cadmium		1000	-0.8	967	97	-0.6	933	93

METALS

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ICP INTERFERENCE CHECK SAMPLE

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-6

ICP ID Number: Optima ICP 3 ICS Source: PERKIN ELMER

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Silver		200	-1.9	212	106			
Aluminum	250000	250000	269000.0	266000	106			
Arsenic		100	-1.5	96	96	-1.3	101	101
Barium		500	-3.6	529	106			
Beryllium		500	-0.4	513	103			
Calcium	250000	250000	279000.0	274000	110			
Cobalt		500	-1.3	469	94			
Chromium		500	-2.0	512	102			
Copper		500	-3.9	526	105			
Iron	100000	100000	93000.0	92900	93	92700.0	94700	95
Potassium			59.4	52				
Magnesium	250000	250000	243000.0	242000	97			
Manganese		500	0.0	508	102			
Sodium			72.4	67				
Nickel		1000	-0.3	963	96			
Lead		50	0.2	53	106			
Antimony		600	2.6	636	106	0.0	639	106
Selenium		50	-1.4	52	104			
Thallium		100	-0.5	102	102			
Vanadium		500	-0.8	506	101			
Zinc		1000	6.3	953	95			

METALS
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ICP INTERFERENCE CHECK SAMPLE

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-6

ICP ID Number: Optima ICP 3 ICS Source: PERKIN ELMER

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Silver		200				-2.7	210	105
Aluminum	250000	250000				265000.0	262000	105
Barium		500				-3.3	528	106
Beryllium		500				-0.3	505	101
Calcium	250000	250000				276000.0	272000	109
Cobalt		500				-1.1	465	93
Chromium		500				-2.3	509	102
Copper		500				-4.4	518	104
Potassium						61.7	77	
Magnesium	250000	250000				239000.0	238000	95
Manganese		500				0.1	504	101
Sodium						77.4	79	
Nickel		1000				-0.5	950	95
Lead		50				0.5	53	106
Selenium		50				-0.6	50	100
Thallium		100				-0.1	99	99
Vanadium		500				-0.8	505	101
Zinc		1000				6.0	944	94

METALS

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SPIKE SAMPLE RECOVERY

Client:	Parsons Engineering Science	**Service Request:**	FTMM-53-GW-699RW11-12.8
Project No.:	R1510346	**Units:**	UG/L
Project Name:	NA	**Basis:**	
Matrix:	WATER	**% Solids:**	0.0

Sample Name: FTMM-53-GW-699RW11-12.8S **Lab Code:** R1510346-008S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Lead	75 - 125	512.00		2.50	U	500.00	102		6010C

An empty field in the Control Limit column indicates the control limit is not applicable

ALS Environmental

METALS

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POST SPIKE SAMPLE RECOVERY

Client: Parsons Engineering Science **Service Request:** FTMM-53-GW-699RW11-12.8

Project No.: R1510346 **Units:** UG/L

Project Name: NA **Basis:**

Matrix: WATER

Sample Name: FTMM-53-GW-699RW11-12.8A **Lab Code:** R1510346-008A

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Lead	75 - 125	482.00		2.50	U	500.0	96		6010C

ALS Environmental

METALS

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DUPLICATES

Client: Parsons Engineering Science **Service Request:** FTMM-53-GW-699RW11-12.8

Project No.: R1510346 **Units:** UG/L

Project Name: NA **Basis:**

Matrix: WATER **% Solids:** 0.0

Sample Name: FTMM-53-GW-699RW11-12.8D **Lab Code:** R1510346-008D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Lead		2.50	U	2.50	U			6010C

An empty field in the Control Limit column indicates the control limit is not applicable.

METALS

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LABORATORY CONTROL SAMPLE

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-6

Solid LCS Source: _____

Aqueous LCS Source: CPI

Analyte	Aqueous (ug/L			Solid (mg/K				
	True	Found	%R	True	Found	C	Limits	%R
Silver	50	51	102					
Aluminum	2000	2070	104					
Arsenic	40	42	105					
Barium	2000	2260	113					
Beryllium	50	51	102					
Calcium	2000	2170	108					
Cobalt	500	531	106					
Chromium	200	220	110					
Copper	250	283	113					
Iron	1000	1030	103					
Potassium	20000	19300	96					
Magnesium	2000	2030	102					
Cadmium	50	52	104					
Manganese	500	537	107					
Mercury	1.000	0.940	94					
Sodium	20000	21200	106					
Nickel	500	547	109					
Lead	500	550	110					
Antimony	500	488	98					
Selenium	1010	1030	102					
Thallium	2000	2250	112					
Vanadium	500	530	106					
Zinc	500	534	107					

Comments: _____

METALS

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ICP SERIAL DILUTIONS

Client: Parsons Engineering Science **Service Request:** FTMM-53-GW-699RW11-12.8

Project No.: R1510346 **Units:** UG/L

Project Name:

Sample Name: FTMM-53-GW-699RW11-12.8L **Lab Code:** R1510346-008L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Lead	1.32	U	6.60	U			P

METALS

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ICP SERIAL DILUTIONS

Client: Parsons Engineering Science **Service Request:** FTMM-53-GW-699RW11-12.8

Project No.: R1510346 **Units:** UG/L

Project Name:

Sample Name: EB-2015-11-24 DissolvedL **Lab Code:** R1510346-018L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	1.12	U	5.60	U			P
Iron	12.60	J	49.10	J	290		P
Cadmium	0.20	U	0.98	U			P
Antimony	1.25	U	6.25	U			P

METALS

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DETECTION LIMITS

Client: Parsons Engineering Science **Service Request:** FTMM-53-GW-699RW11-12.8

Project No.: R1510346

Project Name:

ICP/ICP-MS ID #: Optima ICP 3

GFAA ID #: **AA ID #:**

Analyte	Wave-length (nm)	Back-ground	PQL ug/L	LOD ug/L	MDL ug/L	M
Silver	328.068		10.0	5.0	0.5	P
Aluminum	237.313		100.0	50.0	3.8	P
Arsenic	188.979		10.0	5.0	1.1	P
Barium	233.527		20.0	10.0	0.7	P
Beryllium	313.107		3.0	2.5	0.1	P
Calcium	227.546		1000.0	500.0	26.6	P
Cobalt	228.616		50.0	25.0	0.4	P
Chromium	267.716		10.0	5.0	0.2	P
Copper	324.752		20.0	10.0	1.9	P
Iron	259.939		100.0	50.0	8.7	P
Potassium	766.490		2000.0	1000.0	44.4	P
Magnesium	279.077		1000.0	500.0	9.0	P
Manganese	257.610		10.0	5.0	0.5	P
Sodium	589.592		1000.0	500.0	37.5	P
Nickel	231.604		40.0	20.0	0.8	P
Lead	220.353		5.0	2.5	1.3	P
Antimony	206.836		60.0	30.0	1.3	P
Selenium	196.026		10.0	5.0	4.0	P
Thallium	190.801		10.0	10.0	1.6	P
Vanadium	292.402		50.0	25.0	0.5	P
Zinc	206.200		20.0	10.0	6.2	P

Comments:

METALS

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DETECTION LIMITS

Client: Parsons Engineering Science **Service Request:** FTMM-53-GW-699RW11-12.8

Project No.: R1510346

Project Name:

ICP/ICP-MS ID #: Agilent ICP CR 1/7/16

GFAA ID #: **AA ID #:**

Analyte	Wave-length (nm)	Back-ground	PQL ug/L	LOD ug/L	MDL ug/L	M
Cadmium	214.439		5.0	2.50	0.20	P

Comments:

METALS

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DETECTION LIMITS

Client: Parsons Engineering Science **Service Request:** FTMM-53-GW-699RW11-12.8

Project No.: R1510346

Project Name:

ICP/ICP-MS ID #:

GFAA ID #: **AA ID #:** PE FAA/CVAA

Analyte	Wave-length (nm)	Back-ground	PQL ug/L	LOD ug/L	MDL ug/L	M
Mercury	253.70		0.200	0.100	0.040	CV

Comments:

METALS

-11A-

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-6

ICP ID Number: Optima ICP 3 Date: 10/12/2015

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg
Aluminum	237.313	0.0000000	0.3763620	-11.7269001	0.0000000
Antimony	206.836	0.0908129	0.0000000	0.0000000	0.0000000
Arsenic	188.979	0.0290860	0.0112351	0.0000000	0.0147428
Barium	233.527	0.0230453	0.0000000	0.0000000	0.0000000
Beryllium	313.107	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.772	0.1552180	0.0000000	4.3798399	0.0000000
Cadmium	226.502	-0.0114008	0.0000000	0.1287160	0.0000000
Calcium	227.546	0.0000000	0.0000000	-5.2801399	0.0000000
Chromium	267.716	0.0028049	0.0051954	-0.0421685	-0.0939764
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.752	0.0000000	0.0000000	0.0000000	0.0000000
Iron	259.939	0.2503920	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0634259	-0.0071985	0.1146410	0.0000000
Magnesium	279.077	0.0000000	0.0000000	3.8534400	0.0000000
Manganese	257.610	-0.0120620	0.0000000	-0.1610040	0.0000000
Molybdenum	202.031	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.026	-0.0126263	-0.0167028	0.0000000	0.0166300
Silver	328.068	0.0000000	0.0113289	-0.1994170	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000
Strontium	421.552	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.801	0.0000000	0.0000000	-0.1145820	-0.0154526
Tin	189.927	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	337.279	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	-0.0777586	0.0000000
Zinc	206.200	0.0000000	0.0000000	0.0000000	0.0000000

Comments: _____

METALS

-11A-

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-6

ICP ID Number: Agilent ICP Date: 12/10/2015

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg
Aluminum	394.401	0.0000000	0.0013230	-0.0003310	-0.0000860
Antimony	217.582	0.0000330	-0.0000040	0.0000060	0.0000050
Arsenic	188.979	0.0000100	0.0000100	-0.0000020	0.0000140
Barium	230.424	0.0000670	0.0000040	-0.0001700	-0.0000070
Beryllium	313.107	0.0000010	0.0000000	-0.0000010	0.0000000
Boron	249.772	0.0000060	0.0000200	-0.0000590	0.0000030
Cadmium	214.439	-0.0000070	0.0000010	-0.0000010	-0.0000010
Calcium	227.547	-0.0002510	0.0000000	0.0030300	0.0011240
Chromium	267.716	0.0000090	-0.0000080	-0.0000170	0.0000100
Cobalt	230.786	0.0000180	0.0000030	-0.0000900	-0.0000020
Copper	327.395	0.0000100	-0.0000040	0.0000020	0.0000020
Iron	234.350	0.0003130	0.0001570	0.0000000	0.0004260
Lead	220.353	-0.0000650	-0.0000170	0.0000060	-0.0000040
Magnesium	279.078	-0.0001010	0.0000120	-0.0005030	0.0000000
Manganese	257.610	0.0000040	0.0000040	0.0000130	0.0000010
Molybdenum	202.031	0.0000100	0.0000150	-0.0000010	-0.0000010
Nickel	230.299	0.0000110	0.0000010	0.0000170	0.0000080
Potassium	766.491	0.0000990	0.0001080	-0.0000240	0.0001490
Selenium	196.026	0.0000020	0.0000050	-0.0000520	0.0000150
Silver	328.068	0.0000010	0.0000000	-0.0000020	0.0000000
Sodium	588.995	0.0001800	-0.0000120	0.0004490	0.0000190
Strontium	460.733	-0.0000340	0.0000140	-0.0002670	-0.0000080
Thallium	351.923	0.0000100	0.0000120	0.0000100	0.0000070
Tin	189.925	-0.0000050	-0.0000170	0.0000620	-0.0000190
Titanium	336.122	0.0000030	0.0000030	-0.0000040	0.0000270
Vanadium	292.401	0.0000180	0.0000050	-0.0000600	0.0000000
Zinc	213.857	0.0000430	0.0000140	0.0000230	0.0000200

Comments: _____

METALS
-12-
ICP LINEAR RANGES (QUARTERLY)

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-6

ICP ID Number: Optima ICP 3 Date: 10/7/2015

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Silver	0.200	2000	P
Aluminum	0.200	500000	P
Arsenic	0.200	4000	P
Barium	0.200	20000	P
Beryllium	0.200	2000	P
Calcium	0.200	250000	P
Cobalt	0.200	10000	P
Chromium	0.200	10000	P
Copper	0.200	10000	P
Iron	0.200	100000	P
Potassium	0.200	200000	P
Magnesium	0.200	500000	P
Manganese	0.200	10000	P
Sodium	0.200	200000	P
Nickel	0.200	8000	P
Lead	0.200	10000	P
Antimony	0.200	10000	P
Selenium	0.200	2000	P
Thallium	0.200	4000	P
Vanadium	0.200	10000	P
Zinc	0.200	2000	P

Comments: _____

METALS
-12-
ICP LINEAR RANGES (QUARTERLY)

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-6

ICP ID Number: Agilent ICP Date: 11/19/2015

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Cadmium	1.000	2000	P

Comments: _____

Form XII - IN

METALS

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PREPARATION LOG

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-699RW1

Method: P

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
LCSW	12/7/2015	50.0	50.0
PBW	12/7/2015	50.0	50.0
FTMM-53-GW-699RW11-1	12/7/2015	50.0	50.0
FTMM-53-GW-699RW11-1	12/7/2015	50.0	50.0
FTMM-53-GW-699RW11-1	12/7/2015	50.0	50.0
FTMM-53-GW-699RW11-1	12/7/2015	50.0	50.0
FTMM-53-GW-699MW06-8	12/7/2015	50.0	50.0
FTMM-53-GW-699MW06-8	12/7/2015	50.0	50.0
FTMM-8-GW-M2MW11-21.	12/7/2015	50.0	50.0
FTMM-8-GW-M2MW11-21.	12/7/2015	50.0	50.0
EB-2015-11-24	12/7/2015	50.0	50.0
EB-2015-11-24 Dissol	12/7/2015	50.0	50.0
EB-2015-11-25	12/7/2015	50.0	50.0
EB-2015-11-25 Dissol	12/7/2015	50.0	50.0

Comments:

METALS

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PREPARATION LOG

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: FTMM-53-GW-699RW1

Method: CV

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
LCSW	12/16/2015	25.0	25.0
PBW	12/16/2015	25.0	25.0
EB-2015-11-24	12/16/2015	25.0	25.0
EB-2015-11-24 Dissol	12/16/2015	25.0	25.0

Comments:

METALS
-14-

ANALYSIS RUN LOG

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FTMM-53-GW-6

Instrument ID Number: Optima ICP 3 Method: P

Start Date: 12/16/2015 End Date: 12/17/2015

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN				
Calib Blank 1	1.00	15:33		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
Calib Std 1	1.00	15:38					X				X	X	X		X		X		X		X			X	X	X				
Calib Std 2	1.00	15:44		X				X		X			X		X	X				X	X		X							
Calib Std 3	1.00	15:50						X		X	X	X				X			X	X		X	X		X	X				
Calib Std 4	1.00	15:55		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
Calib Std 5	1.00	16:01		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
ICV1	1.00	16:07		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
ICB1	1.00	16:13		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
ZZZZZZ	1.00	16:19																												
ZZZZZZ	1.00	16:24																												
ZZZZZZ	1.00	16:30																												
ZZZZZZ	1.00	16:36																												
ZZZZZZ	1.00	16:42																												
ZZZZZZ	1.00	16:47																												
ZZZZZZ	1.00	16:53																												
ZZZZZZ	1.00	16:59																												
ZZZZZZ	1.00	17:04																												
ZZZZZZ	1.00	17:10																												
ZZZZZZ	1.00	17:16																												
ZZZZZZ	1.00	17:22																												
ZZZZZZ	1.00	17:27																												
ZZZZZZ	1.00	17:33																												
ZZZZZZ	1.00	17:39																												
ZZZZZZ	1.00	17:45																												
ZZZZZZ	1.00	17:51																												
ZZZZZZ	1.00	17:56																												
ZZZZZZ	1.00	18:02																												
ZZZZZZ	1.00	18:08																												
ZZZZZZ	1.00	18:14																												
ZZZZZZ	1.00	18:20																												
ZZZZZZ	1.00	18:25																												
ZZZZZZ	1.00	18:31																												
ZZZZZZ	1.00	18:37																												

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS
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ANALYSIS RUN LOG

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FTMM-53-GW-6

Instrument ID Number: Optima ICP 3 Method: P

Start Date: 12/16/2015 End Date: 12/17/2015

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	5.00	18:43																												
ZZZZZZ	1.00	18:48																												
ZZZZZZ	1.00	18:54																												
ZZZZZZ	1.00	19:00																												
ZZZZZZ	1.00	19:05																												
ZZZZZZ	1.00	19:12																												
ZZZZZZ	1.00	19:17																												
ZZZZZZ	1.00	19:23																												
ZZZZZZ	5.00	19:29																												
ZZZZZZ	1.00	19:35																												
ZZZZZZ	1.00	19:40																												
ZZZZZZ	1.00	19:46																												
ZZZZZZ	1.00	19:52																												
ZZZZZZ	1.00	19:58																												
ZZZZZZ	1.00	20:03																												
ZZZZZZ	1.00	20:08																												
ZZZZZZ	1.00	20:12																												
ZZZZZZ	1.00	20:18																												
ZZZZZZ	1.00	20:23																												
ZZZZZZ	1.00	20:29																												
ZZZZZZ	1.00	20:35																												
ZZZZZZ	5.00	20:40																												
ZZZZZZ	1.00	20:46																												
ZZZZZZ	1.00	20:52																												
ZZZZZZ	1.00	20:58																												
ZZZZZZ	1.00	21:03																												
ZZZZZZ	1.00	21:09																												
ZZZZZZ	1.00	21:15																												
ZZZZZZ	1.00	21:21																												
ZZZZZZ	1.00	21:26																												
ZZZZZZ	5.00	21:32																												
ZZZZZZ	1.00	21:38																												
ZZZZZZ	1.00	21:44																												

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METALS
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ANALYSIS RUN LOG

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FTMM-53-GW-6

Instrument ID Number: Optima ICP 3 Method: P

Start Date: 12/16/2015 End Date: 12/17/2015

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN			
ZZZZZZ	1.00	21:49																												
ZZZZZZ	1.00	21:55																												
ZZZZZZ	1.00	22:01																												
ZZZZZZ	1.00	22:07																												
ZZZZZZ	1.00	22:12																												
ZZZZZZ	1.00	22:18																												
ZZZZZZ	1.00	22:24																												
ZZZZZZ	1.00	22:30																												
ZZZZZZ	1.00	22:35																												
ZZZZZZ	1.00	22:41																												
ZZZZZZ	1.00	22:47																												
ZZZZZZ	1.00	22:53																												
ZZZZZZ	5.00	22:58																												
ZZZZZZ	1.00	23:04																												
ZZZZZZ	1.00	23:10																												
ZZZZZZ	1.00	23:15																												
ZZZZZZ	1.00	23:21																												
ZZZZZZ	1.00	23:27																												
CCV1	1.00	23:33		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
CCB1	1.00	23:38		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
CRDL1	1.00	23:44		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
ICS-A1	1.00	23:50		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
ICS-AB1	1.00	23:55		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
CCV2	1.00	00:01		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
CCB2	1.00	00:08		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
PBW	1.00	00:15		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
LCSW	1.00	00:21		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
FTMM-53-GW-699RW11	1.00	00:27													X															
FTMM-53-GW-699RW11	1.00	00:33													X															
FTMM-53-GW-699RW11	1.00	00:40													X															
FTMM-53-GW-699RW11	1.00	00:47													X															
FTMM-53-GW-699RW11	5.00	00:53													X															
FTMM-53-GW-699RW11	1.00	00:58													X															

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METALS
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ANALYSIS RUN LOG

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FTMM-53-GW-6

Instrument ID Number: Optima ICP 3 Method: P

Start Date: 12/16/2015 End Date: 12/17/2015

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN			
FTMM-53-GW-699MW06	1.00	01:04													X															
FTMM-53-GW-699MW06	1.00	01:10													X															
CCV3	1.00	01:16		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
CCB3	1.00	01:22		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
FTMM-8-GW-M2MW11-2	1.00	01:28													X															
FTMM-8-GW-M2MW11-2	1.00	01:34													X															
EB-2015-11-24	1.00	01:40		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
EB-2015-11-24 Diss	1.00	01:46		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
EB-2015-11-25	1.00	01:52													X															
EB-2015-11-25 Diss	1.00	01:57													X															
CCV4	1.00	02:03		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
CCB4	1.00	02:09		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
CRDL2	1.00	02:15		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
ICS-A2	1.00	02:20		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
ICS-AB2	1.00	02:26		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
CCV5	1.00	02:32		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				
CCB5	1.00	02:38		X			X	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X	X				

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METALS
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ANALYSIS RUN LOG

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FTMM-53-GW-6

Instrument ID Number: Optima ICP 3 Method: P

Start Date: 12/18/2015 End Date: 12/18/2015

Sample ID.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
Calib Blank 1	1.00	07:54			X	X								X													
Calib Std 1	1.00	08:00			X	X																					
Calib Std 2	1.00	08:05			X	X																					
Calib Std 3	1.00	08:11												X													
Calib Std 4	1.00	08:16			X	X								X													
Calib Std 5	1.00	08:22			X	X								X													
ICV1	1.00	08:27			X	X								X													
ICB1	1.00	08:31			X	X								X													
CRDL1	1.00	08:37			X	X								X													
ICS-A1	1.00	08:42			X	X								X													
ICS-AB1	1.00	08:48			X	X								X													
CCV1	1.00	08:54			X	X								X													
CCB1	1.00	08:58			X	X								X													
PBW	1.00	09:04			X	X								X													
LCSW	1.00	09:09			X	X								X													
EB-2015-11-24	1.00	09:15			X	X								X													
EB-2015-11-24 Diss	1.00	09:21			X	X								X													
EB-2015-11-24 Diss	5.00	09:26			X	X								X													
ZZZZZZ	1.00	09:37																									
ZZZZZZ	1.00	09:42																									
ZZZZZZ	1.00	09:48																									
ZZZZZZ	1.00	09:54																									
ZZZZZZ	1.00	09:59																									
CCV2	1.00	10:05			X	X								X													
CCB2	1.00	10:09			X	X								X													
ZZZZZZ	5.00	10:15																									
ZZZZZZ	1.00	10:21																									
ZZZZZZ	1.00	10:27																									
ZZZZZZ	1.00	10:32																									
ZZZZZZ	1.00	10:38																									
ZZZZZZ	1.00	10:44																									
CCV3	1.00	10:49			X	X								X													
CCB3	1.00	10:54			X	X								X													

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METALS
-14-

ANALYSIS RUN LOG

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FTMM-53-GW-6

Instrument ID Number: Optima ICP 3 Method: P

Start Date: 12/18/2015 End Date: 12/18/2015

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CRDL2	1.00	10:59			X	X								X													
ICS-A2	1.00	11:05			X	X								X													
ICS-AB2	1.00	11:11			X	X								X													
ZZZZZZ	1.00	11:17																									
ZZZZZZ	1.00	11:21																									
CCV4	1.00	11:26			X	X								X													
CCB4	1.00	11:30			X	X								X													

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS
-14-

ANALYSIS RUN LOG

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FTMM-53-GW-6

Instrument ID Number: Agilent ICP Method: P

Start Date: 12/18/2015 End Date: 12/18/2015

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
BLANK	1.00	15:39							X																		
STANDARD 1	1.00	15:42							X																		
STANDARD 2	1.00	15:46							X																		
STANDARD 3	1.00	15:50							X																		
STANDARD 4	1.00	15:53							X																		
STANDARD 5	1.00	15:57							X																		
ICV1	1.00	16:00							X																		
ICB1	1.00	16:03							X																		
CRDL1	1.00	16:07							X																		
ICS-A1	1.00	16:10							X																		
ICS-AB1	1.00	16:14							X																		
CCV1	1.00	16:17							X																		
CCB1	1.00	16:21							X																		
PBW	1.00	16:24							X																		
LCSW	1.00	16:28							X																		
EB-2015-11-24	1.00	16:31							X																		
EB-2015-11-24 Diss	1.00	16:35							X																		
EB-2015-11-24 Diss	5.00	16:38							X																		
ZZZZZZ	1.00	16:42																									
ZZZZZZ	1.00	16:45																									
ZZZZZZ	1.00	16:49																									
ZZZZZZ	1.00	16:52																									
ZZZZZZ	1.00	16:56																									
CCV2	1.00	16:59							X																		
CCB2	1.00	17:03							X																		
ZZZZZZ	1.00	17:06																									
ZZZZZZ	1.00	17:10																									
ZZZZZZ	1.00	17:13																									
ZZZZZZ	1.00	17:17																									
ZZZZZZ	1.00	17:20																									
ZZZZZZ	5.00	17:24																									
ZZZZZZ	1.00	17:27																									
ZZZZZZ	1.00	17:31																									

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METALS
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ANALYSIS RUN LOG

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FTMM-53-GW-6

Instrument ID Number: Agilent ICP Method: P

Start Date: 12/18/2015 End Date: 12/18/2015

Sample ID.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	5.00	17:34																										
ZZZZZZ	5.00	17:38																										
CCV3	1.00	17:41							X																			
CCB3	1.00	17:45							X																			
ZZZZZZ	1.00	17:48																										
ZZZZZZ	5.00	17:51																										
CCV4	1.00	17:55							X																			
CCB4	1.00	17:58							X																			
CRDL2	1.00	18:02							X																			
ICS-A2	1.00	18:05							X																			
ICS-AB2	1.00	18:09							X																			
ZZZZZZ	1.00	18:12																										
ZZZZZZ	1.00	18:16																										
CCV5	1.00	18:19							X																			
CCB5	1.00	18:23							X																			

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS
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ANALYSIS RUN LOG

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FTMM-53-GW-6

Instrument ID Number: PE FAA/CVAA Method: CV

Start Date: 12/16/2015 End Date: 12/16/2015

Sample ID.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN	
Calib Blank	1.00	01:35																X										
0.2ppb std	1.00	01:36																X										
0.5ppb std	1.00	01:38																X										
1.0ppb std	1.00	01:40																X										
2.0ppb std	1.00	01:41																X										
5.0ppb std	1.00	01:43																X										
10.0ppb std	1.00	01:44																X										
ICV1	1.00	01:46																X										
ICB1	1.00	01:48																X										
CRDL1	1.00	01:49																X										
CCV1	1.00	01:51																X										
CCB1	1.00	01:53																X										
PBW	1.00	01:54																X										
LCSW	1.00	01:56																X										
EB-2015-11-24	1.00	01:57																X										
EB-2015-11-24 Diss	1.00	01:59																X										
ZZZZZZ	1.00	02:01																										
ZZZZZZ	1.00	02:02																										
ZZZZZZ	1.00	02:04																										
ZZZZZZ	1.00	02:06																										
ZZZZZZ	1.00	02:07																										
CCV2	1.00	02:09																X										
CCB2	1.00	02:11																X										
ZZZZZZ	1.00	02:12																										
ZZZZZZ	1.00	02:14																										
ZZZZZZ	1.00	02:15																										
ZZZZZZ	1.00	02:17																										
ZZZZZZ	1.00	02:19																										
ZZZZZZ	1.00	02:20																										
ZZZZZZ	1.00	02:22																										
ZZZZZZ	1.00	02:24																										
ZZZZZZ	1.00	02:25																										
CCV3	1.00	02:27																X										

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS
-14-

ANALYSIS RUN LOG

Contract: R1510346

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: FTMM-53-GW-6

Instrument ID Number: PE FAA/CVAA Method: CV

Start Date: 12/16/2015 End Date: 12/16/2015

Sample ID.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB3	1.00	02:29																X									
ZZZZZZ	1.00	02:30																									
ZZZZZZ	1.00	02:32																									
ZZZZZZ	1.00	02:34																									
ZZZZZZ	1.00	02:35																									
ZZZZZZ	1.00	02:37																									
ZZZZZZ	1.00	02:38																									
ZZZZZZ	1.00	02:40																									
ZZZZZZ	1.00	02:42																									
ZZZZZZ	1.00	02:43																									
CRDL2	1.00	02:46																X									
CCV4	1.00	02:47																X									
CCB4	1.00	02:49																X									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Metals Cover Page

Analyst: AM **Date:** 12/16/15 **Instrument:** OP1.3

Data File: 3Dec16a **Reviewed By:** AM **Entered By:** AM

Approval: DCS 12/17/15

Starlims Run #	Analytes Used	Batch ID	Method	Failed Analytes	Repeats
476737	Pb	251746	6010		
476739	As, Se, Pb, Ni	251478 251754 251764	6010		
476740	Pb (DOD)	251122	6010		
476741	Ag, Al, Ba, Be, Ca, Co, Cr, Cu, K, Mg, Mn, Na, Ni, Pb, ~~Sb~~, Se, Tl, V, Zn	251481	6010	Fe, Cd, Tl, As, Sb	
476742	Cd, Cr, Ba, Ag, Pb, Se	252005	6010 TCLP	As, ~~Sb~~, Tl	

Package Data:

Client Sub#	TIER	Analytes Used	Batch ID	Raw Data Copied?
0398	III / IV / ILM	Pb	251746	Yes / No
0354	III / IV / ILM	As, Se, Ni	251478	Yes / No
0427	III / IV / ILM	Se	251764	Yes / No
0288	III / IV / ILM	Pb	251122	Yes / No
0346	III / IV / ILM	Al, Ba, Be, Ca, Cr, Co, Cu, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn	251481	Yes / No
	III / IV / ILM			Yes / No
	III / IV / ILM			Yes / No
	III / IV / ILM			Yes / No

OPTIMA 5300DV (#3) Run Log

Serial number: 077N6051602

Analyst: AM Date: 12/16/15 Data File: 3Dec16a

Prep Dates:
MRL 12/4/15 ICSA 12/9/15 ICSAB 11/24/15 Int.Std 12/16/15
Cal Std 1 12/16/15 Cal Std 2 12/11/15 Cal Std 5 / HLCCV1 12/16/15 ICV / CCV 12/16/15
HLCCV2 12/11/15

Lot #:
MRL M7180101E ICSA M7180116C ICSAB M7180130C Int.Std M7180154J
Cal Std 1 M7180007B Cal Std 2 M7180021F Cal Std 5 / HLCCV1 M7180033A ICV / CCV M7180048N
(Cal Std 4 is a 1/5 and Cal Std 3 is a 1/100 dilution of Cal Std 5)
HLCCV2 M7180072C

Blank Prepared Daily Lot: HNO3 M7080004V HCL M7080005N

1	1	Calib Blank 1	44	1	CCB	87	6	MRL
2	9	Calib Std 1	45	6	MRL	88	7	ICSA
3	10	Calib Std 2	46	7	ICSA	89	8	ICSAB
4	11	Calib Std 3	47	8	ICSAB	90	4	CCV
5	12	Calib Std 4	48	13	HLCCV2	91	5	CCB
6	2	Calib Std 5	49	2	HLCCV1	92	92	PBW-251481
7	3	ICV	50	3	CCV	93	93	LCSW-251481
8	1	ICB	51	1	CCB	94	94	R1510346-008
9	6	MRL	52	63	PBS-251354	95	95	R1510346-008D
10	7	ICSA	53	64	LCSS-251354	96	96	R1510346-008S
11	8	ICSAB	54	65	R1510362-001	97	97	R1510346-008A
12	3	CCV	55	66	R1510662-001L	98	98	R1510346-008L
13	1	CCB	56	67	PBW-251764	99	99	R1510346-009
14	38	PBS-251746	57	68	LCSW-251764	100	100	R1510346-010
15	39	LCSS-251746	58	69	R1510427-001	101	101	R1510346-011
16	40	R1510398-001	59	70	R1510427-001D	102	4	CCV
17	41	R1510398-002	60	71	R1510427-001S	103	5	CCB
18	42	R1510398-003	61	72	R1510427-001A	104	102	R1510346-014
19	43	R1510398-004	62	3	CCV	105	103	R1510346-015
20	44	R1510398-005	63	1	CCB	106	104	R1510346-017
21	45	R1510398-006	64	73	R1510427-001L	107	105	R1510346-018
22	46	R1510398-007	65	74	R1510427-002	108	106	R1510346-019
23	47	R1510398-008	66	75	R1510633-003	109	107	R1510346-020
24	3	CCV	67	76	PBW-251122	110	4	CCV
25	1	CCB	68	77	LCSW-251122	111	5	CCB
26	48	R1510398-009	69	78	R1510288-001	112	6	MRL
27	49	R1510398-010	70	79	R1510288-002	113	7	ICSA
28	50	R1510398-011	71	80	R1510288-003	114	8	ICSAB
29	51	R1510568-001	72	81	R1510288-004	115	4	CCV
30	52	R1510591-001	73	82	R1510288-005	116	5	CCB
31	53	R1510591-001D	74	3	CCV	117	108	PBT-252005
32	54	R1510591-001S	75	1	CCB	118	109	LCST-252005 6X
33	55	R1510591-001A	76	83	R1510288-005D	119	110	LCST-252005
34	56	R1510591-001L	77	84	R1510288-005S	120	111	FBLK-523901
35	57	R1510591-002	78	85	R1510288-005A	121	112	FBLK-528401
36	3	CCV	79	86	R1510288-005L	122	113	FBLK-528402
37	1	CCB	80	87	R1510288-006	123	114	R1510410-001
38	58	R1510591-003	81	88	R1510288-007	124	115	R1510553-001
39	59	PBW-251478	82	89	R1510288-008	125	116	R1510553-001D
40	60	LCSW-251478	83	90	R1510288-009	126	117	R1510553-001S 6X
41	61	R1510354-001	84	91	R1510288-010	127	4	CCV
42	62	R1510354-001L	85	4	CCV	128	5	CCB
43	3	CCV	86	5	CCB	129	118	R1510553-001S

OPTIMA 5300DV (#3) Run Log

Serial number: 077N6051602

Analyst: _____ Date: _____ Data File: _____

Prep Dates: MRL _____ ICSA _____ ICSAB _____ Int.Std _____

Cal Std 1 _____ Cal Std 2 _____ Cal Std 5 / HLCCV1 _____ ICV / CCV _____

HLCCV2 _____

SEE PREVIOUS PAGE

Lot #: MRL _____ ICSA _____ ICSAB _____ Int.Std _____

Cal Std 1 _____ Cal Std 2 _____ Cal Std 5 / HLCCV1 _____ ICV / CCV _____

(Cal Std 4 is a 1/5 and Cal Std 3 is a 1/100 dilution of Cal Std 5)

ARD 12/16/15

HLCCV2 _____

Blank Prepared Daily Lot: HNO3 _____ HCL _____

130	119		R1510553-001L
131	120		R1510691-001
132	4	QC	CCV
133	5	QC	CCB
134	6	QC	MRL
135	7	QC	ICSA
136	8	QC	ICSAB
137	4	QC	CCV
138	5	QC	CCB
139	121		Sample121

ARD
12/16/15

Analysis Begun

Start Time: 12/16/2015 3:33:14 PM
Logged In Analyst: alrce.metals03
Spectrometer Model: Optima 5300 DV, S/N 077N6051602
Plasma On Time: 12/16/2015 12:48:45 PM
Technique: ICP Continuous
Autosampler Model: AS-93plus

AM 12/17/15

Sample Information File: C:\pe\Optima5300\Sample Information\ROUTINE2.sif
Batch ID:
Results Data Set: 3Dec16a
Results Library: C:\pe\Optima5300\Results\Dec15.mdb

Method Loaded
Method Name: DV200-6010C Opt3
IEC File: DV101215.iec
Method Last Saved: 11/5/2015 2:53:35 PM
MSF File:
Method Description: 5300DV TAL Metals Method 200.7/6010C-Optima 3

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
B 249.772	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Cd 226.502	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Fe 259.939	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
K 766.490	Lin Thru 0	Peak Area	Radial	Y 371.029	Yes
Mg 279.077	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Na 589.592	Lin Thru 0	Peak Area	Radial	Y 371.029	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Se 196.026	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Ti 337.279	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 206.200	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Ca 227.546	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Y 371.029	Yes
Al 237.313	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes

Sequence No.: 1
Sample ID: Calib Blank 1
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 1
Date Collected: 12/16/2015 3:33:15 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	6752551.1	1867.97	0.03%	1.000	mg/L
Ag 328.068†	3036.4	140.00	4.61%	[0.00]	mg/L
As 188.979†	-0.5	0.61	114.39%	[0.00]	mg/L
B 249.772†	-1062.6	158.48	14.91%	[0.00]	mg/L
Ba 233.527†	-1208.7	42.02	3.48%	[0.00]	mg/L
Be 313.107†	-8144.9	50.22	0.62%	[0.00]	mg/L
Cd 226.502†	-775.5	2.91	0.38%	[0.00]	mg/L
Co 228.616†	-156.2	1.53	0.98%	[0.00]	mg/L
Cr 267.716†	-824.9	69.29	8.40%	[0.00]	mg/L
Cu 324.752†	2542.3	75.25	2.96%	[0.00]	mg/L
Fe 259.939†	-4242.4	33.55	0.79%	[0.00]	mg/L
K 766.490†	1504.0	21.12	1.40%	[0.00]	mg/L

Mg 279.077†	-7391.0	74.10	1.00%	[0.00]	mg/L
Mn 257.610†	-2287.6	14.00	0.61%	[0.00]	mg/L
Mo 202.031†	46.4	2.32	5.00%	[0.00]	mg/L
Ni 231.604†	-253.1	7.35	2.90%	[0.00]	mg/L
Na 589.592†	795.5	102.66	12.90%	[0.00]	mg/L
Pb 220.353†	308.0	4.95	1.61%	[0.00]	mg/L
Sb 206.836†	32.6	2.01	6.17%	[0.00]	mg/L
Se 196.026†	8.0	1.77	22.03%	[0.00]	mg/L
Sn 189.927†	9.7	7.57	78.06%	[0.00]	mg/L
Ti 337.279†	276.3	102.36	37.05%	[0.00]	mg/L
Tl 190.801†	-11.5	0.47	4.05%	[0.00]	mg/L
V 292.402†	143.4	20.37	14.21%	[0.00]	mg/L
Zn 206.200†	-6.5	2.72	41.85%	[0.00]	mg/L
Ca 227.546†	7.7	6.10	79.09%	[0.00]	mg/L
Sr 421.552†	342.4	56.20	16.41%	[0.00]	mg/L
Al 237.313†	-1827.2	14.44	0.79%	[0.00]	mg/L

Sequence No.: 2 **Autosampler Location: 9**
Sample ID: Calib Std 1 **Date Collected: 12/16/2015 3:38:54 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Calib Std 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Y 371.029	6750295.7	3229.72	0.05%	0.9997	mg/L
As 188.979†	6.7	0.83	12.52%	[0.0050]	mg/L
Ba 233.527†	1750.8	1.66	0.10%	[0.0200]	mg/L
Cd 226.502†	129.6	0.81	0.62%	[0.0010]	mg/L
Co 228.616†	114.8	2.04	1.77%	[0.0030]	mg/L
Cr 267.716†	207.6	75.63	36.43%	[0.0010]	mg/L
Cu 324.752†	3826.2	22.78	0.60%	[0.0100]	mg/L
Mn 257.610†	5509.1	85.09	1.54%	[0.0100]	mg/L
Mo 202.031†	516.8	2.93	0.57%	[0.0250]	mg/L
Ni 231.604†	374.5	6.76	1.81%	[0.0050]	mg/L
Pb 220.353†	44.5	0.25	0.57%	[0.0050]	mg/L
Sb 206.836†	21.3	0.26	1.20%	[0.0100]	mg/L
Se 196.026†	8.3	2.41	28.99%	[0.0050]	mg/L
Tl 190.801†	27.0	1.45	5.35%	[0.0100]	mg/L
V 292.402†	421.8	36.39	8.63%	[0.0030]	mg/L
Zn 206.200†	865.3	30.73	3.55%	[0.0100]	mg/L

Sequence No.: 3 **Autosampler Location: 10**
Sample ID: Calib Std 2 **Date Collected: 12/16/2015 3:44:26 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Calib Std 2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Y 371.029	6415721.5	26274.87	0.41%	0.9501	mg/L
As 188.979†	17.4	0.55	3.13%	[0.0100]	mg/L
B 249.772†	23540.9	287.78	1.22%	[0.200]	mg/L
Be 313.107†	12157.8	36.29	0.30%	[0.0030]	mg/L
Cd 226.502†	603.1	4.55	0.75%	[0.005]	mg/L
Cu 324.752†	7049.1	75.57	1.07%	[0.0200]	mg/L
K 766.490†	7942.2	119.14	1.50%	[2.000]	mg/L
Mg 279.077†	10199.4	117.29	1.15%	[1.000]	mg/L
Na 589.592†	18403.8	93.35	0.51%	[1.000]	mg/L
Pb 220.353†	553.6	0.96	0.17%	[0.0500]	mg/L
Sb 206.836†	136.4	2.02	1.48%	[0.060]	mg/L
Se 196.026†	24.1	7.12	29.50%	[0.0100]	mg/L
Sn 189.927†	3705.1	7.82	0.21%	[0.500]	mg/L
Ca 227.546†	442.6	2.23	0.50%	[1.000]	mg/L
Al 237.313†	288.7	5.84	2.02%	[0.1000]	mg/L

Sequence No.: 4
Sample ID: Calib Std 3
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 11
Date Collected: 12/16/2015 3:50:05 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: Calib Std 3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	6581135.3	44401.49	0.67%	0.9746	mg/L
Ag 328.068†	3690.9	18.84	0.51%	[0.0100]	mg/L
B 249.772†	7927.4	173.58	2.19%	[0.0500]	mg/L
Be 313.107†	20972.9	32.52	0.16%	[0.0050]	mg/L
Co 228.616†	2000.6	12.41	0.62%	[0.050]	mg/L
Cr 267.716†	1585.5	10.71	0.68%	[0.010]	mg/L
Fe 259.939†	4080.6	17.25	0.42%	[0.1000]	mg/L
K 766.490†	1936.9	96.20	4.97%	[0.5000]	mg/L
Mg 279.077†	5111.1	52.83	1.03%	[0.5000]	mg/L
Ni 231.604†	3015.8	32.79	1.09%	[0.0400]	mg/L
Na 589.592†	9025.5	117.30	1.30%	[0.5000]	mg/L
Sn 189.927†	739.2	9.31	1.26%	[0.1000]	mg/L
Ti 337.279†	36332.2	440.39	1.21%	[0.0500]	mg/L
V 292.402†	7118.0	78.64	1.10%	[0.050]	mg/L
Zn 206.200†	1160.2	11.67	1.01%	[0.020]	mg/L
Ca 227.546†	204.6	12.61	6.16%	[0.5000]	mg/L
Sr 421.552†	42844.3	860.67	2.01%	[0.0500]	mg/L

Sequence No.: 5
Sample ID: Calib Std 4
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 12
Date Collected: 12/16/2015 3:55:48 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: Calib Std 4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	6375018.9	24813.30	0.39%	0.9441	mg/L
Ag 328.068†	70391.3	512.80	0.73%	[0.2000]	mg/L
As 188.979†	664.9	2.80	0.42%	[0.4000]	mg/L
B 249.772†	127257.3	1137.42	0.89%	[1.0000]	mg/L
Ba 233.527†	342645.5	2193.23	0.64%	[4.0000]	mg/L
Be 313.107†	440003.0	97.35	0.02%	[0.1000]	mg/L
Cd 226.502†	25938.9	68.25	0.26%	[0.2000]	mg/L
Co 228.616†	39788.3	84.01	0.21%	[1.0000]	mg/L
Cr 267.716†	33023.9	95.37	0.29%	[0.2000]	mg/L
Cu 324.752†	172210.0	939.96	0.55%	[0.5000]	mg/L
Fe 259.939†	89402.8	696.63	0.78%	[2.0000]	mg/L
K 766.490†	36264.1	125.34	0.35%	[10.000]	mg/L
Mg 279.077†	110702.0	322.88	0.29%	[10.000]	mg/L
Mn 257.610†	148134.4	763.27	0.52%	[0.3000]	mg/L
Mo 202.031†	21768.2	172.40	0.79%	[1.0000]	mg/L
Ni 231.604†	61343.8	323.13	0.53%	[0.8000]	mg/L
Na 589.592†	172774.6	593.68	0.34%	[10.000]	mg/L
Pb 220.353†	2159.3	15.48	0.72%	[0.2000]	mg/L
Sb 206.836†	4670.3	25.14	0.54%	[2.0000]	mg/L
Se 196.026†	511.3	2.92	0.57%	[0.2000]	mg/L
Sn 189.927†	14905.2	39.01	0.26%	[2.0000]	mg/L
Ti 337.279†	720479.4	5640.73	0.78%	[1.0000]	mg/L
Tl 190.801†	1223.4	7.60	0.62%	[0.4000]	mg/L
V 292.402†	142887.8	976.04	0.68%	[1.0000]	mg/L
Zn 206.200†	23487.4	3.68	0.02%	[0.4000]	mg/L
Ca 227.546†	4144.7	17.83	0.43%	[10.000]	mg/L
Sr 421.552†	866379.0	7141.58	0.82%	[1.0000]	mg/L
Al 237.313†	18422.8	113.13	0.61%	[4.0000]	mg/L

Sequence No.: 6
Sample ID: Calib Std 5
Autosampler Location: 2
Date Collected: 12/16/2015 4:01:34 PM

Analyst:
Initial Sample Wt:
Dilution:

Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: Calib Std 5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	6343343.3	55843.46	0.88%	0.9394	mg/L
Ag 328.068†	345933.9	916.54	0.26%	[1.0000]	mg/L
As 188.979†	3243.1	30.36	0.94%	[2.0000]	mg/L
B 249.772†	617718.7	2512.51	0.41%	[5.0000]	mg/L
Ba 233.527†	1609408.8	12002.34	0.75%	[20.000]	mg/L
Be 313.107†	2165233.9	7202.21	0.33%	[0.5000]	mg/L
Cd 226.502†	126419.3	589.73	0.47%	[1.0000]	mg/L
Co 228.616†	189991.1	765.23	0.40%	[5.0000]	mg/L
Cr 267.716†	162338.5	429.74	0.26%	[1.0000]	mg/L
Cu 324.752†	834490.9	707.85	0.08%	[2.5000]	mg/L
Fe 259.939†	425462.1	938.76	0.22%	[10.000]	mg/L
K 766.490†	198185.7	781.72	0.39%	[50.000]	mg/L
Mg 279.077†	523863.2	1858.65	0.35%	[50.000]	mg/L
Mn 257.610†	707206.1	1931.69	0.27%	[1.5000]	mg/L
Mo 202.031†	107671.5	682.56	0.63%	[5.0000]	mg/L
Ni 231.604†	290300.0	858.89	0.30%	[4.0000]	mg/L
Na 589.592†	875704.4	2411.38	0.28%	[50.000]	mg/L
Pb 220.353†	10144.9	99.78	0.98%	[1.0000]	mg/L
Sb 206.836†	22770.9	219.65	0.96%	[10.000]	mg/L
Se 196.026†	2497.5	20.35	0.81%	[1.0000]	mg/L
Sn 189.927†	72698.1	449.25	0.62%	[10.000]	mg/L
Ti 337.279†	3581548.9	10738.11	0.30%	[5.0000]	mg/L
Tl 190.801†	5734.6	66.63	1.16%	[2.0000]	mg/L
V 292.402†	707814.0	2254.68	0.32%	[5.0000]	mg/L
Zn 206.200†	113570.9	611.53	0.54%	[2.0000]	mg/L
Ca 227.546†	20777.9	205.17	0.99%	[50.000]	mg/L
Sr 421.552†	4325557.0	43313.51	1.00%	[5.0000]	mg/L
Al 237.313†	94065.7	115.30	0.12%	[20.000]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	346200	0.00000	0.999994	
As 188.979	4	Lin Thru 0	0.0	1623	0.00000	0.999988	
B 249.772	4	Lin Thru 0	0.0	123700	0.00000	0.999978	
Ba 233.527	3	Lin Thru 0	0.0	80670	0.00000	0.999923	
Be 313.107	4	Lin Thru 0	0.0	4333000	0.00000	0.999995	
Cd 226.502	4	Lin Thru 0	0.0	126500	0.00000	0.999988	
Co 228.616	4	Lin Thru 0	0.0	38070	0.00000	0.999959	
Cr 267.716	4	Lin Thru 0	0.0	162400	0.00000	0.999995	
Cu 324.752	4	Lin Thru 0	0.0	334200	0.00000	0.999981	
Fe 259.939	3	Lin Thru 0	0.0	42630	0.00000	0.999953	
K 766.490	4	Lin Thru 0	0.0	3951	0.00000	0.999865	
Mg 279.077	4	Lin Thru 0	0.0	10500	0.00000	0.999941	
Mn 257.610	3	Lin Thru 0	0.0	472300	0.00000	0.999958	
Mo 202.031	3	Lin Thru 0	0.0	21540	0.00000	0.999998	
Ni 231.604	4	Lin Thru 0	0.0	72730	0.00000	0.999941	
Na 589.592	4	Lin Thru 0	0.0	17510	0.00000	0.999996	
Pb 220.353	4	Lin Thru 0	0.0	10170	0.00000	0.999915	
Sb 206.836	4	Lin Thru 0	0.0	2279	0.00000	0.999988	
Se 196.026	4	Lin Thru 0	0.0	2500	0.00000	0.999988	
Sn 189.927	4	Lin Thru 0	0.0	7277	0.00000	0.999988	
Ti 337.279	3	Lin Thru 0	0.0	716500	0.00000	0.999999	
Tl 190.801	3	Lin Thru 0	0.0	2875	0.00000	0.999918	
V 292.402	4	Lin Thru 0	0.0	141600	0.00000	0.999998	
Zn 206.200	4	Lin Thru 0	0.0	56860	0.00000	0.999975	
Ca 227.546	4	Lin Thru 0	0.0	415.5	0.00000	0.999999	
Sr 421.552	3	Lin Thru 0	0.0	865200	0.00000	1.000000	
Al 237.313	3	Lin Thru 0	0.0	4699	0.00000	0.999990	

Sequence No.: 7
Sample ID: ICV

Autosampler Location: 3
Date Collected: 12/16/2015 4:07:34 PM

Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6517513.4	0.9652	mg/L	0.00348				0.36%
Ag 328.068†	173241.0	0.5010	mg/L	0.00036	0.5010	mg/L	0.00036	0.07%
QC value within limits for Ag 328.068 Recovery = 100.19%								
As 188.979†	1564.9	0.9634	mg/L	0.00353	0.9634	mg/L	0.00353	0.37%
QC value within limits for As 188.979 Recovery = 96.34%								
B 249.772†	307646.9	2.464	mg/L	0.0158	2.464	mg/L	0.0158	0.64%
QC value within limits for B 249.772 Recovery = 98.56%								
Ba 233.527†	821529.8	10.18	mg/L	0.023	10.18	mg/L	0.023	0.23%
QC value within limits for Ba 233.527 Recovery = 101.84%								
Be 313.107†	1080094.6	0.2493	mg/L	0.00045	0.2493	mg/L	0.00045	0.18%
QC value within limits for Be 313.107 Recovery = 99.71%								
Cd 226.502†	63417.4	0.5005	mg/L	0.00172	0.5005	mg/L	0.00172	0.34%
QC value within limits for Cd 226.502 Recovery = 100.09%								
Co 228.616†	94284.5	2.477	mg/L	0.0082	2.477	mg/L	0.0082	0.33%
QC value within limits for Co 228.616 Recovery = 99.07%								
Cr 267.716†	84119.6	0.5202	mg/L	0.00054	0.5202	mg/L	0.00054	0.10%
QC value within limits for Cr 267.716 Recovery = 104.04%								
Cu 324.752†	416743.1	1.247	mg/L	0.0032	1.247	mg/L	0.0032	0.25%
QC value within limits for Cu 324.752 Recovery = 99.76%								
Fe 259.939†	213621.2	5.009	mg/L	0.0008	5.009	mg/L	0.0008	0.02%
QC value within limits for Fe 259.939 Recovery = 100.18%								
K 766.490†	91721.4	23.22	mg/L	0.173	23.22	mg/L	0.173	0.74%
QC value less than the lower limit for K 766.490 Recovery = 92.86%								
Mg 279.077†	257791.1	24.53	mg/L	0.102	24.53	mg/L	0.102	0.42%
QC value within limits for Mg 279.077 Recovery = 98.13%								
Mn 257.610†	361715.5	0.7667	mg/L	0.00018	0.7667	mg/L	0.00018	0.02%
QC value within limits for Mn 257.610 Recovery = 102.23%								
Mo 202.031†	53208.1	2.470	mg/L	0.0172	2.470	mg/L	0.0172	0.70%
QC value within limits for Mo 202.031 Recovery = 98.79%								
Ni 231.604†	149701.7	2.058	mg/L	0.0041	2.058	mg/L	0.0041	0.20%
QC value within limits for Ni 231.604 Recovery = 102.91%								
Na 589.592†	419075.4	23.94	mg/L	0.268	23.94	mg/L	0.268	1.12%
QC value within limits for Na 589.592 Recovery = 95.76%								
Pb 220.353†	5223.7	0.5125	mg/L	0.00015	0.5125	mg/L	0.00015	0.03%
QC value within limits for Pb 220.353 Recovery = 102.51%								
Sb 206.836†	11332.8	4.971	mg/L	0.0022	4.971	mg/L	0.0022	0.04%
QC value within limits for Sb 206.836 Recovery = 99.42%								
Se 196.026†	1203.2	0.4810	mg/L	0.00318	0.4810	mg/L	0.00318	0.66%
QC value within limits for Se 196.026 Recovery = 96.19%								
Sn 189.927†	35584.5	4.890	mg/L	0.0196	4.890	mg/L	0.0196	0.40%
QC value within limits for Sn 189.927 Recovery = 97.80%								
Ti 337.279†	1771064.6	2.472	mg/L	0.0043	2.472	mg/L	0.0043	0.17%
QC value within limits for Ti 337.279 Recovery = 98.88%								
Tl 190.801†	3060.8	1.066	mg/L	0.0023	1.066	mg/L	0.0023	0.21%
QC value greater than the upper limit for Tl 190.801 Recovery = 106.57%								
V 292.402†	346246.8	2.445	mg/L	0.0019	2.445	mg/L	0.0019	0.08%
QC value within limits for V 292.402 Recovery = 97.82%								
Zn 206.200†	57520.0	1.012	mg/L	0.0063	1.012	mg/L	0.0063	0.63%
QC value within limits for Zn 206.200 Recovery = 101.16%								
Ca 227.546†	10426.0	25.12	mg/L	0.007	25.12	mg/L	0.007	0.03%
QC value within limits for Ca 227.546 Recovery = 100.47%								
Sr 421.552†	2063663.0	2.385	mg/L	0.0047	2.385	mg/L	0.0047	0.20%
QC value within limits for Sr 421.552 Recovery = 95.41%								
Al 237.313†	45527.4	9.737	mg/L	0.0321	9.737	mg/L	0.0321	0.33%
QC value within limits for Al 237.313 Recovery = 97.37%								

QC Failed. Continue with analysis.

Sequence No.: 8 **Autosampler Location: 1**
Sample ID: ICB **Date Collected: 12/16/2015 4:13:21 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6662896.5	0.9867	mg/L	0.02325				2.36%
Ag 328.068†	22.4	0.0001	mg/L	0.00020	0.0001	mg/L	0.00020	311.99%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	1.4	0.0009	mg/L	0.00079	0.0009	mg/L	0.00079	88.48%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	7158.5	0.0579	mg/L	0.00539	0.0579	mg/L	0.00539	9.31%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	40.0	0.0005	mg/L	0.00029	0.0005	mg/L	0.00029	58.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	279.6	0.0001	mg/L	0.00005	0.0001	mg/L	0.00005	71.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	-11.9	-0.0001	mg/L	0.00006	-0.0001	mg/L	0.00006	66.72%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.2	0.0002	mg/L	0.00002	0.0002	mg/L	0.00002	6.58%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-57.0	-0.0004	mg/L	0.00014	-0.0004	mg/L	0.00014	39.18%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	748.1	0.0022	mg/L	0.00081	0.0022	mg/L	0.00081	36.16%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	-133.3	-0.0031	mg/L	0.00271	-0.0031	mg/L	0.00271	86.89%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	120.2	0.0304	mg/L	0.02542	0.0304	mg/L	0.02542	83.54%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	-274.2	-0.0261	mg/L	0.00795	-0.0261	mg/L	0.00795	30.48%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	45.8	0.0001	mg/L	0.00007	0.0001	mg/L	0.00007	71.83%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	87.2	0.0040	mg/L	0.00131	0.0040	mg/L	0.00131	32.44%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	10.5	0.0001	mg/L	0.00005	0.0001	mg/L	0.00005	37.76%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	354.4	0.0202	mg/L	0.00067	0.0202	mg/L	0.00067	3.32%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	13.6	0.0013	mg/L	0.00208	0.0013	mg/L	0.00208	155.13%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	12.2	0.0054	mg/L	0.00235	0.0054	mg/L	0.00235	43.87%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	2.4	0.0010	mg/L	0.00037	0.0010	mg/L	0.00037	39.06%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	67.2	0.0092	mg/L	0.00225	0.0092	mg/L	0.00225	24.31%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 337.279†	725.4	0.0010	mg/L	0.00049	0.0010	mg/L	0.00049	48.08%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	0.7	0.0002	mg/L	0.00010	0.0002	mg/L	0.00010	41.82%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	82.6	0.0006	mg/L	0.00004	0.0006	mg/L	0.00004	6.19%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	25.0	0.0004	mg/L	0.00016	0.0004	mg/L	0.00016	37.06%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Ca 227.546†	3.4	0.0082	mg/L	0.00966	0.0082	mg/L	0.00966	117.90%
QC value within limits for Ca 227.546 Recovery = Not calculated								
Sr 421.552†	312.2	0.0004	mg/L	0.00005	0.0004	mg/L	0.00005	15.16%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Al 237.313†	-76.5	-0.0163	mg/L	0.01203	-0.0163	mg/L	0.01203	73.67%
QC value within limits for Al 237.313 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 6**
Sample ID: MRL **Date Collected: 12/16/2015 4:19:03 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: MRL

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD

Method: DV200-6010C Opt3 **Page 7** **Date: 12/16/2015 4:28:06 PM**

Y 371.029	6638990.4	0.9832 mg/L	0.00463			0.47%
Ag 328.068†	3396.5	0.0098 mg/L	0.00040	0.0098 mg/L	0.00040	4.10%
QC value within limits for Ag 328.068 Recovery = 98.17%						
As 188.979†	33.8	0.0208 mg/L	0.00072	0.0208 mg/L	0.00072	3.45%
QC value within limits for As 188.979 Recovery = 103.92%						
B 249.772†	27837.6	0.2246 mg/L	0.00194	0.2246 mg/L	0.00194	0.87%
QC value within limits for B 249.772 Recovery = 112.30%						
Ba 233.527†	17570.4	0.2178 mg/L	0.00299	0.2178 mg/L	0.00299	1.37%
QC value within limits for Ba 233.527 Recovery = 108.90%						
Be 313.107†	21651.4	0.0050 mg/L	0.00005	0.0050 mg/L	0.00005	1.00%
QC value within limits for Be 313.107 Recovery = 99.93%						
Cd 226.502†	1254.5	0.0099 mg/L	0.00005	0.0099 mg/L	0.00005	0.48%
QC value within limits for Cd 226.502 Recovery = 98.99%						
Co 228.616†	2040.3	0.0536 mg/L	0.00045	0.0536 mg/L	0.00045	0.85%
QC value within limits for Co 228.616 Recovery = 107.20%						
Cr 267.716†	1748.5	0.0109 mg/L	0.00032	0.0109 mg/L	0.00032	2.99%
QC value within limits for Cr 267.716 Recovery = 108.60%						
Cu 324.752†	9105.9	0.0272 mg/L	0.00007	0.0272 mg/L	0.00007	0.27%
QC value within limits for Cu 324.752 Recovery = 108.99%						
Fe 259.939†	4421.1	0.1037 mg/L	0.00030	0.1037 mg/L	0.00030	0.29%
QC value within limits for Fe 259.939 Recovery = 103.67%						
K 766.490†	3581.0	0.9064 mg/L	0.00470	0.9064 mg/L	0.00470	0.52%
QC value within limits for K 766.490 Recovery = 90.64%						
Mg 279.077†	10948.3	1.042 mg/L	0.0017	1.042 mg/L	0.0017	0.16%
QC value within limits for Mg 279.077 Recovery = 104.23%						
Mn 257.610†	7601.7	0.0161 mg/L	0.00021	0.0161 mg/L	0.00021	1.30%
QC value within limits for Mn 257.610 Recovery = 107.42%						
Mo 202.031†	557.5	0.0259 mg/L	0.00033	0.0259 mg/L	0.00033	1.27%
QC value within limits for Mo 202.031 Recovery = 103.51%						
Ni 231.604†	3096.1	0.0426 mg/L	0.00021	0.0426 mg/L	0.00021	0.50%
QC value within limits for Ni 231.604 Recovery = 106.42%						
Na 589.592†	18202.6	1.040 mg/L	0.0084	1.040 mg/L	0.0084	0.80%
QC value within limits for Na 589.592 Recovery = 103.98%						
Pb 220.353†	113.5	0.0111 mg/L	0.00023	0.0111 mg/L	0.00023	2.07%
QC value within limits for Pb 220.353 Recovery = 111.43%						
Sb 206.836†	138.2	0.0606 mg/L	0.00005	0.0606 mg/L	0.00005	0.08%
QC value within limits for Sb 206.836 Recovery = 101.01%						
Se 196.026†	23.9	0.0095 mg/L	0.00002	0.0095 mg/L	0.00002	0.22%
QC value within limits for Se 196.026 Recovery = 95.48%						
Sn 189.927†	3780.1	0.5194 mg/L	0.00458	0.5194 mg/L	0.00458	0.88%
QC value within limits for Sn 189.927 Recovery = 103.89%						
Ti 337.279†	36436.1	0.0509 mg/L	0.00065	0.0509 mg/L	0.00065	1.27%
QC value within limits for Ti 337.279 Recovery = 101.71%						
Tl 190.801†	59.4	0.0207 mg/L	0.00062	0.0207 mg/L	0.00062	2.99%
QC value within limits for Tl 190.801 Recovery = 103.42%						
V 292.402†	7235.8	0.0511 mg/L	0.00130	0.0511 mg/L	0.00130	2.55%
QC value within limits for V 292.402 Recovery = 102.21%						
Zn 206.200†	1201.1	0.0211 mg/L	0.00009	0.0211 mg/L	0.00009	0.41%
QC value within limits for Zn 206.200 Recovery = 105.62%						
Ca 227.546†	410.0	0.9873 mg/L	0.02249	0.9873 mg/L	0.02249	2.28%
QC value within limits for Ca 227.546 Recovery = 98.73%						
Sr 421.552†	88776.5	0.1026 mg/L	0.00036	0.1026 mg/L	0.00036	0.35%
QC value within limits for Sr 421.552 Recovery = 102.61%						
Al 237.313†	862.8	0.1844 mg/L	0.00040	0.1844 mg/L	0.00040	0.22%
QC value within limits for Al 237.313 Recovery = 92.22%						

All analyte(s) passed QC.

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Sequence No.: 10 **Autosampler Location: 7**
Sample ID: ICSA **Date Collected: 12/16/2015 4:24:45 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6084327.5	0.9010	mg/L	0.00345				0.38%
Ag 328.068†	-3575.1	0.0005	mg/L	0.00032	0.0005	mg/L	0.00032	60.96%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	13.2	-0.0014	mg/L	0.00052	-0.0014	mg/L	0.00052	37.37%

QC value within limits for As 188.979 Recovery = Not calculated

B 249.772†	44777.1	-0.0578 mg/L	0.00519	-0.0578 mg/L	0.00519	8.98%
Ba 233.527†	-229.8	-0.0041 mg/L	0.00039	-0.0041 mg/L	0.00039	9.56%
Be 313.107†	-832.9	-0.0002 mg/L	0.00005	-0.0002 mg/L	0.00005	27.11%

QC value within limits for Be 313.107 Recovery = Not calculated

Cd 226.502†	1055.4	-0.0026 mg/L	0.00007	-0.0026 mg/L	0.00007	2.63%

QC value less than the lower limit for Cd 226.502 Recovery = Not calculated

Co 228.616†	-51.8	-0.0014 mg/L	0.00006	-0.0014 mg/L	0.00006	4.15%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	-4189.2	-0.0019 mg/L	0.00006	-0.0019 mg/L	0.00006	3.26%

QC value within limits for Cr 267.716 Recovery = Not calculated

Cu 324.752†	-761.7	-0.0023 mg/L	0.00005	-0.0023 mg/L	0.00005	2.14%

QC value within limits for Cu 324.752 Recovery = Not calculated

Fe 259.939†	3708290.5	86.93 mg/L	0.055	86.93 mg/L	0.055	0.06%

QC value within limits for Fe 259.939 Recovery = 86.93%

K 766.490†	313.3	0.0793 mg/L	0.06564	0.0793 mg/L	0.06564	82.77%
Mg 279.077†	2487425.3	236.6 mg/L	0.62	236.6 mg/L	0.62	0.26%

QC value within limits for Mg 279.077 Recovery = 94.63%

Mn 257.610†	-7602.2	0.0009 mg/L	0.00039	0.0009 mg/L	0.00039	42.40%

QC value within limits for Mn 257.610 Recovery = Not calculated

Mo 202.031†	-137.4	-0.0064 mg/L	0.00029	-0.0064 mg/L	0.00029	4.53%
Ni 231.604†	11.0	0.0002 mg/L	0.00003	0.0002 mg/L	0.00003	21.53%

QC value within limits for Ni 231.604 Recovery = Not calculated

Na 589.592†	1093.7	0.0625 mg/L	0.00210	0.0625 mg/L	0.00210	3.35%
Pb 220.353†	244.9	0.0001 mg/L	0.00009	0.0001 mg/L	0.00009	60.37%

QC value within limits for Pb 220.353 Recovery = Not calculated

Sb 206.836†	50.1	-0.0007 mg/L	0.00031	-0.0007 mg/L	0.00031	41.92%

QC value within limits for Sb 206.836 Recovery = Not calculated

Se 196.026†	10.6	0.0018 mg/L	0.00428	0.0018 mg/L	0.00428	236.70%

QC value within limits for Se 196.026 Recovery = Not calculated

Sn 189.927†	-454.2	-0.0624 mg/L	0.00080	-0.0624 mg/L	0.00080	1.28%
Ti 337.279†	231.2	0.0003 mg/L	0.00004	0.0003 mg/L	0.00004	13.59%
Tl 190.801†	-36.2	0.0010 mg/L	0.00286	0.0010 mg/L	0.00286	274.40%

QC value within limits for Tl 190.801 Recovery = Not calculated

V 292.402†	-1186.3	-0.0016 mg/L	0.00014	-0.0016 mg/L	0.00014	8.50%

QC value within limits for V 292.402 Recovery = Not calculated

Zn 206.200†	368.0	0.0065 mg/L	0.00012	0.0065 mg/L	0.00012	1.84%

QC value within limits for Zn 206.200 Recovery = Not calculated

Ca 227.546†	110376.3	266.1 mg/L	5.20	266.1 mg/L	5.20	1.95%

QC value within limits for Ca 227.546 Recovery = 106.44%

Sr 421.552†	3057.6	0.0035 mg/L	0.00003	0.0035 mg/L	0.00003	0.73%
Al 237.313†	1175711.3	251.1 mg/L	0.21	251.1 mg/L	0.21	0.09%

QC value within limits for Al 237.313 Recovery = 100.44%

QC Failed. Continue with analysis.

==========

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: ICSAB **Date Collected: 12/16/2015 4:30:28 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6045441.1	0.8953	mg/L	0.00068				0.08%
Ag 328.068†	68180.4	0.2078	mg/L	0.00190	0.2078	mg/L	0.00190	0.91%

QC value within limits for Ag 328.068 Recovery = 103.88%

As 188.979†	162.8	0.0909	mg/L	0.00068	0.0909	mg/L	0.00068	0.75%

QC value within limits for As 188.979 Recovery = 90.90%

B 249.772†	43678.1	-0.0631	mg/L	0.00172	-0.0631	mg/L	0.00172	2.72%
Ba 233.527†	40347.6	0.4989	mg/L	0.00070	0.4989	mg/L	0.00070	0.14%

QC value within limits for Ba 233.527 Recovery = 99.78%

Be 313.107†	2127487.3	0.4910	mg/L	0.00278	0.4910	mg/L	0.00278	0.57%

QC value within limits for Be 313.107 Recovery = 98.20%

Cd 226.502†	119957.9	0.9371	mg/L	0.01211	0.9371	mg/L	0.01211	1.29%

QC value within limits for Cd 226.502 Recovery = 93.71%

Co 228.616†	17296.6	0.4544	mg/L	0.00051	0.4544	mg/L	0.00051	0.11%

QC value within limits for Co 228.616 Recovery = 90.87%

Cr 267.716†	76689.4	0.4958	mg/L	0.00547	0.4958	mg/L	0.00547	1.10%

QC value within limits for Cr 267.716 Recovery = 99.15%

Method: DV200-6010C Opt3 **Page 9** **Date: 12/16/2015 4:39:39 PM**

Cu 324.752†	167189.0	0.5003 mg/L	0.00182	0.5003 mg/L	0.00182	0.36%
QC value within limits for Cu 324.752 Recovery = 100.05%						
Fe 259.939†	3676396.7	86.18 mg/L	0.722	86.18 mg/L	0.722	0.84%
QC value within limits for Fe 259.939 Recovery = 86.18%						
K 766.490†	235.5	0.0596 mg/L	0.04285	0.0596 mg/L	0.04285	71.89%
Mg 279.077†	2468086.5	234.7 mg/L	2.17	234.7 mg/L	2.17	0.92%
QC value within limits for Mg 279.077 Recovery = 93.89%						
Mn 257.610†	224850.6	0.4929 mg/L	0.00453	0.4929 mg/L	0.00453	0.92%
QC value within limits for Mn 257.610 Recovery = 98.58%						
Mo 202.031†	-144.0	-0.0067 mg/L	0.00044	-0.0067 mg/L	0.00044	6.55%
Ni 231.604†	67330.4	0.9257 mg/L	0.01141	0.9257 mg/L	0.01141	1.23%
QC value within limits for Ni 231.604 Recovery = 92.57%						
Na 589.592†	1053.8	0.0602 mg/L	0.00192	0.0602 mg/L	0.00192	3.18%
Pb 220.353†	761.6	0.0511 mg/L	0.00177	0.0511 mg/L	0.00177	3.46%
QC value within limits for Pb 220.353 Recovery = 102.27%						
Sb 206.836†	1407.6	0.5950 mg/L	0.00161	0.5950 mg/L	0.00161	0.27%
QC value within limits for Sb 206.836 Recovery = 99.17%						
Se 196.026†	131.0	0.0500 mg/L	0.00225	0.0500 mg/L	0.00225	4.51%
QC value within limits for Se 196.026 Recovery = 99.93%						
Sn 189.927†	-479.0	-0.0658 mg/L	0.00166	-0.0658 mg/L	0.00166	2.52%
Ti 337.279†	51.3	0.0001 mg/L	0.00000	0.0001 mg/L	0.00000	6.27%
Tl 190.801†	233.3	0.0947 mg/L	0.00185	0.0947 mg/L	0.00185	1.95%
QC value within limits for Tl 190.801 Recovery = 94.66%						
V 292.402†	66991.1	0.4798 mg/L	0.00472	0.4798 mg/L	0.00472	0.98%
QC value within limits for V 292.402 Recovery = 95.95%						
Zn 206.200†	51782.6	0.9107 mg/L	0.01318	0.9107 mg/L	0.01318	1.45%
QC value within limits for Zn 206.200 Recovery = 91.07%						
Ca 227.546†	108317.8	261.1 mg/L	1.31	261.1 mg/L	1.31	0.50%
QC value within limits for Ca 227.546 Recovery = 104.45%						
Sr 421.552†	2998.0	0.0035 mg/L	0.00006	0.0035 mg/L	0.00006	1.82%
Al 237.313†	1165085.3	248.8 mg/L	1.11	248.8 mg/L	1.11	0.45%
QC value within limits for Al 237.313 Recovery = 99.53%						

All analyte(s) passed QC.

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Sequence No.: 12 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 12/16/2015 4:36:13 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	6366277.0	0.9428 mg/L	0.00965			1.02%
Ag 328.068†	174498.0	0.5046 mg/L	0.00379	0.5046 mg/L	0.00379	0.75%
QC value within limits for Ag 328.068 Recovery = 100.92%						
As 188.979†	1604.4	0.9877 mg/L	0.00575	0.9877 mg/L	0.00575	0.58%
QC value within limits for As 188.979 Recovery = 98.77%						
B 249.772†	302110.5	2.419 mg/L	0.0414	2.419 mg/L	0.0414	1.71%
QC value within limits for B 249.772 Recovery = 96.76%						
Ba 233.527†	819749.0	10.16 mg/L	0.021	10.16 mg/L	0.021	0.21%
QC value within limits for Ba 233.527 Recovery = 101.62%						
Be 313.107†	1081202.7	0.2495 mg/L	0.00066	0.2495 mg/L	0.00066	0.26%
QC value within limits for Be 313.107 Recovery = 99.81%						
Cd 226.502†	63912.7	0.5044 mg/L	0.00278	0.5044 mg/L	0.00278	0.55%
QC value within limits for Cd 226.502 Recovery = 100.87%						
Co 228.616†	94954.7	2.494 mg/L	0.0031	2.494 mg/L	0.0031	0.12%
QC value within limits for Co 228.616 Recovery = 99.78%						
Cr 267.716†	84289.0	0.5213 mg/L	0.00062	0.5213 mg/L	0.00062	0.12%
QC value within limits for Cr 267.716 Recovery = 104.26%						
Cu 324.752†	419362.8	1.255 mg/L	0.0174	1.255 mg/L	0.0174	1.38%
QC value within limits for Cu 324.752 Recovery = 100.38%						
Fe 259.939†	216518.7	5.077 mg/L	0.0076	5.077 mg/L	0.0076	0.15%
QC value within limits for Fe 259.939 Recovery = 101.53%						
K 766.490†	100526.1	25.44 mg/L	0.391	25.44 mg/L	0.391	1.54%
QC value within limits for K 766.490 Recovery = 101.78%						
Mg 279.077†	261795.6	24.91 mg/L	0.002	24.91 mg/L	0.002	0.01%
QC value within limits for Mg 279.077 Recovery = 99.65%						
Mn 257.610†	363847.1	0.7713 mg/L	0.00045	0.7713 mg/L	0.00045	0.06%
QC value within limits for Mn 257.610 Recovery = 102.83%						

Mo 202.031†	52535.8	2.439 mg/L	0.0123	2.439 mg/L	0.0123	0.50%
QC value within limits for Mo 202.031 Recovery = 97.54%						
Ni 231.604†	150672.5	2.072 mg/L	0.0028	2.072 mg/L	0.0028	0.13%
QC value within limits for Ni 231.604 Recovery = 103.58%						
Na 589.592†	438781.9	25.07 mg/L	0.525	25.07 mg/L	0.525	2.10%
QC value within limits for Na 589.592 Recovery = 100.26%						
Pb 220.353†	5286.5	0.5187 mg/L	0.00560	0.5187 mg/L	0.00560	1.08%
QC value within limits for Pb 220.353 Recovery = 103.74%						
Sb 206.836†	11304.1	4.959 mg/L	0.0386	4.959 mg/L	0.0386	0.78%
QC value within limits for Sb 206.836 Recovery = 99.17%						
Se 196.026†	1227.7	0.4908 mg/L	0.00342	0.4908 mg/L	0.00342	0.70%
QC value within limits for Se 196.026 Recovery = 98.15%						
Sn 189.927†	35964.7	4.942 mg/L	0.0464	4.942 mg/L	0.0464	0.94%
QC value within limits for Sn 189.927 Recovery = 98.84%						
Ti 337.279†	1759747.5	2.456 mg/L	0.0025	2.456 mg/L	0.0025	0.10%
QC value within limits for Ti 337.279 Recovery = 98.25%						
Tl 190.801†	3068.4	1.068 mg/L	0.0085	1.068 mg/L	0.0085	0.80%
QC value within limits for Tl 190.801 Recovery = 106.84%						
V 292.402†	345022.3	2.437 mg/L	0.0018	2.437 mg/L	0.0018	0.08%
QC value within limits for V 292.402 Recovery = 97.47%						
Zn 206.200†	58082.5	1.021 mg/L	0.0086	1.021 mg/L	0.0086	0.85%
QC value within limits for Zn 206.200 Recovery = 102.15%						
Ca 227.546†	10539.2	25.39 mg/L	0.152	25.39 mg/L	0.152	0.60%
QC value within limits for Ca 227.546 Recovery = 101.56%						
Sr 421.552†	2165885.1	2.503 mg/L	0.0299	2.503 mg/L	0.0299	1.20%
QC value within limits for Sr 421.552 Recovery = 100.14%						
Al 237.313†	45542.5	9.741 mg/L	0.1184	9.741 mg/L	0.1184	1.22%
QC value within limits for Al 237.313 Recovery = 97.41%						

All analyte(s) passed QC.

Sequence No.: 13 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 12/16/2015 4:42:06 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	6652699.2	0.9852 mg/L	0.00423			0.43%
Ag 328.068†	84.5	0.0002 mg/L	0.00003	0.0002 mg/L	0.00003	13.78%
QC value within limits for Ag 328.068 Recovery = Not calculated						
As 188.979†	2.1	0.0013 mg/L	0.00062	0.0013 mg/L	0.00062	48.15%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.772†	3961.3	0.0320 mg/L	0.00193	0.0320 mg/L	0.00193	6.02%
QC value within limits for B 249.772 Recovery = Not calculated						
Ba 233.527†	84.1	0.0010 mg/L	0.00099	0.0010 mg/L	0.00099	94.74%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	290.6	0.0001 mg/L	0.00001	0.0001 mg/L	0.00001	15.83%
QC value within limits for Be 313.107 Recovery = Not calculated						
Cd 226.502†	1.2	0.0000 mg/L	0.00000	0.0000 mg/L	0.00000	15.67%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-8.0	-0.0002 mg/L	0.00002	-0.0002 mg/L	0.00002	9.74%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-64.5	-0.0004 mg/L	0.00038	-0.0004 mg/L	0.00038	96.40%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	612.6	0.0018 mg/L	0.00036	0.0018 mg/L	0.00036	19.37%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 259.939†	378.0	0.0089 mg/L	0.00007	0.0089 mg/L	0.00007	0.82%
QC value within limits for Fe 259.939 Recovery = Not calculated						
K 766.490†	68.7	0.0174 mg/L	0.00635	0.0174 mg/L	0.00635	36.54%
QC value within limits for K 766.490 Recovery = Not calculated						
Mg 279.077†	-143.8	-0.0137 mg/L	0.00376	-0.0137 mg/L	0.00376	27.39%
QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610†	-13.0	0.0000 mg/L	0.00001	0.0000 mg/L	0.00001	37.02%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	57.8	0.0027 mg/L	0.00079	0.0027 mg/L	0.00079	29.34%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604†	3.6	0.0000 mg/L	0.00004	0.0000 mg/L	0.00004	87.19%
QC value within limits for Ni 231.604 Recovery = Not calculated						

Na 589.592†	339.3	0.0194 mg/L	0.00179	0.0194 mg/L	0.00179	9.25%
QC value within limits for Na 589.592 Recovery = Not calculated						
Pb 220.353†	15.2	0.0015 mg/L	0.00005	0.0015 mg/L	0.00005	3.43%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	5.3	0.0023 mg/L	0.00164	0.0023 mg/L	0.00164	70.76%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-6.4	-0.0025 mg/L	0.00220	-0.0025 mg/L	0.00220	86.44%
QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	30.4	0.0042 mg/L	0.00141	0.0042 mg/L	0.00141	33.67%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 337.279†	394.7	0.0006 mg/L	0.00028	0.0006 mg/L	0.00028	51.67%
QC value within limits for Ti 337.279 Recovery = Not calculated						
Tl 190.801†	0.6	0.0002 mg/L	0.00040	0.0002 mg/L	0.00040	202.69%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	45.0	0.0003 mg/L	0.00006	0.0003 mg/L	0.00006	18.55%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	49.5	0.0009 mg/L	0.00019	0.0009 mg/L	0.00019	22.00%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	12.0	0.0290 mg/L	0.01541	0.0290 mg/L	0.01541	53.16%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Sr 421.552†	171.3	0.0002 mg/L	0.00006	0.0002 mg/L	0.00006	29.06%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Al 237.313†	-37.5	-0.0079 mg/L	0.00245	-0.0079 mg/L	0.00245	31.08%
QC value within limits for Al 237.313 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 14
Sample ID: PBS-251746
Analyst:
Initial Sample Wt: 1 g
Dilution:

Autosampler Location: 38
Date Collected: 12/16/2015 4:47:48 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: PBS-251746

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6675721.9	0.9886	mg/L	0.00228				0.23%
Ag 328.068†	34.5	0.0001	mg/L	0.00027				271.86%
As 188.979†	1.1	0.0007	mg/L	0.00021				31.70%
B 249.772†	4916.7	0.0396	mg/L	0.00028				0.72%
Ba 233.527†	-70.1	-0.0009	mg/L	0.00017				19.79%
Be 313.107†	6.7	0.0000	mg/L	0.00001				782.72%
Cd 226.502†	-59.9	-0.0005	mg/L	0.00000				0.97%
Co 228.616†	-25.9	-0.0007	mg/L	0.00025				37.12%
Cr 267.716†	173.3	0.0011	mg/L	0.00024				22.10%
Cu 324.752†	554.1	0.0017	mg/L	0.00009				5.49%
Fe 259.939†	1270.9	0.0298	mg/L	0.00174				5.85%
K 766.490†	127.7	0.0323	mg/L	0.00368				11.38%
Mg 279.077†	238.0	0.0226	mg/L	0.00141				6.24%
Mn 257.610†	10114.5	0.0214	mg/L	0.00023				1.09%
Mo 202.031†	34.9	0.0016	mg/L	0.00057				35.08%
Ni 231.604†	-5.0	-0.0001	mg/L	0.00003				36.58%
Na 589.592†	5593.4	0.3195	mg/L	0.00483				1.51%
Pb 220.353†	14.3	0.0014	mg/L	0.00003				1.82%
Sb 206.836†	0.8	0.0003	mg/L	0.00149				438.83%
Se 196.026†	4.7	0.0019	mg/L	0.00176				93.12%
Sn 189.927†	129.4	0.0178	mg/L	0.00099				5.59%
Ti 337.279†	835.0	0.0012	mg/L	0.00013				11.26%
Tl 190.801†	-6.3	-0.0022	mg/L	0.00129				59.17%
V 292.402†	13.7	0.0001	mg/L	0.00007				72.18%
Zn 206.200†	241.0	0.0042	mg/L	0.00006				1.46%
Ca 227.546†	212.7	0.5120	mg/L	0.00176				0.34%
Sr 421.552†	1608.5	0.0019	mg/L	0.00003				1.66%
Al 237.313†	628.6	0.1339	mg/L	0.00500				3.74%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 15
Sample ID: LCSS-251746
Analyst:
Initial Sample Wt: 1 g

Autosampler Location: 39
Date Collected: 12/16/2015 4:53:24 PM
Data Type: Original
Initial Sample Vol:

Dilution: Sample Prep Vol: 100 mL

Mean Data: LCSS-251746

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6481311.7	0.9598	mg/L	0.00730				0.76%
Ag 328.068†	16238.7	0.0471	mg/L	0.00085				1.80%
As 188.979†	62.3	0.0383	mg/L	0.00084				2.18%
B 249.772†	108887.1	0.8756	mg/L	0.01911				2.18%
Ba 233.527†	164928.4	2.044	mg/L	0.0306				1.50%
Be 313.107†	199775.9	0.0461	mg/L	0.00007				0.14%
Cd 226.502†	6019.8	0.0474	mg/L	0.00066				1.39%
Co 228.616†	18645.5	0.4898	mg/L	0.00526				1.07%
Cr 267.716†	33505.7	0.2065	mg/L	0.00284				1.37%
Cu 324.752†	86795.8	0.2597	mg/L	0.00462				1.78%
Fe 259.939†	43977.3	1.031	mg/L	0.0153				1.48%
K 766.490†	67974.7	17.21	mg/L	0.006				0.04%
Mg 279.077†	19322.8	1.836	mg/L	0.0303				1.65%
Mn 257.610†	239251.9	0.5067	mg/L	0.00731				1.44%
Mo 202.031†	10558.0	0.4901	mg/L	0.00940				1.92%
Ni 231.604†	36325.8	0.4994	mg/L	0.00892				1.79%
Na 589.592†	342538.5	19.57	mg/L	0.032				0.16%
Pb 220.353†	4993.8	0.4907	mg/L	0.00560				1.14%
Sb 206.836†	1040.4	0.4563	mg/L	0.00320				0.70%
Se 196.026†	2217.3	0.8870	mg/L	0.00614				0.69%
Sn 189.927†	36569.4	5.025	mg/L	0.0802				1.60%
Ti 337.279†	346642.3	0.4838	mg/L	0.00799				1.65%
Tl 190.801†	5525.1	1.922	mg/L	0.0451				2.34%
V 292.402†	68943.9	0.4869	mg/L	0.00882				1.81%
Zn 206.200†	27735.5	0.4878	mg/L	0.00509				1.04%
Ca 227.546†	888.7	2.144	mg/L	0.0033				0.16%
Sr 421.552†	1685908.2	1.949	mg/L	0.0033				0.17%
Al 237.313†	8459.2	1.811	mg/L	0.0140				0.77%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 16 Autosampler Location: 40
Sample ID: R1510398-001 Date Collected: 12/16/2015 4:59:11 PM
Analyst: Data Type: Original
Initial Sample Wt: 1 g Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Mean Data: R1510398-001

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5986661.3	0.8866	mg/L	0.00568				0.64%
Ag 328.068†	-4224.4	-0.0036	mg/L	0.00025				6.97%
As 188.979†	535.1	0.3194	mg/L	0.00356				1.12%
B 249.772†	64798.1	0.0434	mg/L	0.00490				11.29%
Ba 233.527†	53707.0	0.6655	mg/L	0.00502				0.76%
Be 313.107†	32112.7	0.0074	mg/L	0.00006				0.77%
Cd 226.502†	2110.5	0.0001	mg/L	0.00001				9.44%
Co 228.616†	1110.6	0.0292	mg/L	0.00051				1.73%
Cr 267.716†	12183.4	0.0833	mg/L	0.00003				0.03%
Cu 324.752†	41177.4	0.1232	mg/L	0.00156				1.26%
Fe 259.939†	4604549.6	108.0	mg/L	0.22				0.20%
K 766.490†	70652.2	17.88	mg/L	0.153				0.85%
Mg 279.077†	875415.8	82.96	mg/L	0.703				0.85%
Mn 257.610†	1140350.6	2.432	mg/L	0.0035				0.14%
Mo 202.031†	452.4	0.0210	mg/L	0.00025				1.20%
Ni 231.604†	10492.0	0.1443	mg/L	0.00049				0.34%
Na 589.592†	70229.6	4.012	mg/L	0.0443				1.10%
Pb 220.353†	1250.5	0.1129	mg/L	0.00126				1.12%
Sb 206.836†	48.0	0.0167	mg/L	0.00029				1.71%
Se 196.026†	2.3	0.0036	mg/L	0.00083				23.05%
Sn 189.927†	-275.2	-0.0378	mg/L	0.00027				0.72%
Ti 337.279†	966601.9	1.349	mg/L	0.0013				0.09%
Tl 190.801†	-45.4	-0.0021	mg/L	0.00126				59.33%
V 292.402†	27804.4	0.2047	mg/L	0.00140				0.68%
Zn 206.200†	79250.0	1.394	mg/L	0.0159				1.14%

Ca 227.546†	314356.7	757.1	mg/L	5.76		0.76%
Sr 421.552†	665707.0	0.7695	mg/L	0.00938		1.22%
Al 237.313†	225964.4	49.06	mg/L	0.435		0.89%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 17 **Autosampler Location: 41**
Sample ID: R1510398-002 **Date Collected: 12/16/2015 5:04:59 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: 1 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Mean Data: R1510398-002

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6146218.4	0.9102	mg/L	0.01223				1.34%
Ag 328.068†	-3367.9	0.0000	mg/L	0.00041				>999.9%
As 188.979†	82.8	0.0453	mg/L	0.00047				1.04%
B 249.772†	50907.3	0.0127	mg/L	0.00033				2.58%
Ba 233.527†	52583.1	0.6516	mg/L	0.00399				0.61%
Be 313.107†	18274.4	0.0042	mg/L	0.00001				0.31%
Cd 226.502†	1550.3	-0.0013	mg/L	0.00001				1.15%
Co 228.616†	1562.4	0.0410	mg/L	0.00051				1.23%
Cr 267.716†	10752.6	0.0717	mg/L	0.00100				1.40%
Cu 324.752†	38644.0	0.1156	mg/L	0.00041				0.36%
Fe 259.939†	3801616.5	89.17	mg/L	0.509				0.57%
K 766.490†	79222.8	20.05	mg/L	0.437				2.18%
Mg 279.077†	440579.8	41.62	mg/L	0.211				0.51%
Mn 257.610†	791657.2	1.691	mg/L	0.0056				0.33%
Mo 202.031†	102.0	0.0047	mg/L	0.00002				0.39%
Ni 231.604†	5265.3	0.0724	mg/L	0.00097				1.35%
Na 589.592†	183505.8	10.48	mg/L	0.226				2.15%
Pb 220.353†	1282.0	0.1153	mg/L	0.00169				1.47%
Sb 206.836†	13.1	0.0009	mg/L	0.00026				29.39%
Se 196.026†	6.1	0.0041	mg/L	0.00312				76.57%
Sn 189.927†	-229.4	-0.0315	mg/L	0.00060				1.91%
Ti 337.279†	1066840.7	1.489	mg/L	0.0014				0.09%
Tl 190.801†	-47.4	-0.0056	mg/L	0.00223				39.66%
V 292.402†	22482.9	0.1657	mg/L	0.00043				0.26%
Zn 206.200†	35516.7	0.6246	mg/L	0.00349				0.56%
Ca 227.546†	165616.7	399.0	mg/L	0.23				0.06%
Sr 421.552†	929092.7	1.074	mg/L	0.0038				0.35%
Al 237.313†	250846.2	54.27	mg/L	0.034				0.06%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 18 **Autosampler Location: 42**
Sample ID: R1510398-003 **Date Collected: 12/16/2015 5:10:44 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: 1 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Mean Data: R1510398-003

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6177873.4	0.9149	mg/L	0.00045				0.05%
Ag 328.068†	-3818.1	-0.0010	mg/L	0.00009				9.09%
As 188.979†	99.4	0.0550	mg/L	0.00119				2.17%
B 249.772†	54534.3	0.0203	mg/L	0.00286				14.08%
Ba 233.527†	52572.3	0.6515	mg/L	0.00567				0.87%
Be 313.107†	18835.7	0.0043	mg/L	0.00003				0.60%
Cd 226.502†	1627.8	-0.0016	mg/L	0.00008				4.84%
Co 228.616†	1156.6	0.0304	mg/L	0.00015				0.49%
Cr 267.716†	9465.0	0.0644	mg/L	0.00004				0.07%
Cu 324.752†	25671.8	0.0768	mg/L	0.00072				0.94%
Fe 259.939†	4021093.4	94.32	mg/L	0.118				0.12%
K 766.490†	58526.8	14.81	mg/L	0.019				0.13%
Mg 279.077†	513047.3	48.50	mg/L	0.273				0.56%
Mn 257.610†	847939.1	1.811	mg/L	0.0018				0.10%
Mo 202.031†	183.1	0.0085	mg/L	0.00013				1.52%

Ni 231.604†	4897.8	0.0673	mg/L	0.00026	0.38%
Na 589.592†	64873.3	3.706	mg/L	0.0014	0.04%
Pb 220.353†	1346.6	0.1217	mg/L	0.00144	1.18%
Sb 206.836†	8.2	-0.0008	mg/L	0.00011	14.65%
Se 196.026†	-3.9	0.0001	mg/L	0.00022	188.68%
Sn 189.927†	-293.5	-0.0403	mg/L	0.00061	1.52%
Ti 337.279†	916958.6	1.280	mg/L	0.0072	0.56%
Tl 190.801†	-47.9	-0.0051	mg/L	0.00050	9.84%
V 292.402†	22817.7	0.1685	mg/L	0.00086	0.51%
Zn 206.200†	28721.0	0.5051	mg/L	0.00271	0.54%
Ca 227.546†	183304.6	441.6	mg/L	2.91	0.66%
Sr 421.552†	857216.1	0.9908	mg/L	0.01562	1.58%
Al 237.313†	226597.7	49.16	mg/L	0.309	0.63%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 19
Sample ID: R1510398-004
Analyst:
Initial Sample Wt: 1 g
Dilution:

Autosampler Location: 43
Date Collected: 12/16/2015 5:16:31 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: R1510398-004

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6307502.7	0.9341	mg/L	0.00052				0.06%
Ag 328.068†	-4633.2	-0.0007	mg/L	0.00039				56.32%
As 188.979†	61.5	0.0330	mg/L	0.00241				7.30%
B 249.772†	56625.7	0.0036	mg/L	0.00222				61.55%
Ba 233.527†	58367.3	0.7232	mg/L	0.00431				0.60%
Be 313.107†	24452.7	0.0056	mg/L	0.00006				1.13%
Cd 226.502†	1843.2	-0.0007	mg/L	0.00011				15.20%
Co 228.616†	1506.1	0.0396	mg/L	0.00011				0.29%
Cr 267.716†	13256.2	0.0877	mg/L	0.00002				0.02%
Cu 324.752†	39675.2	0.1187	mg/L	0.00084				0.70%
Fe 259.939†	4314802.7	101.2	mg/L	0.01				0.01%
K 766.490†	87401.8	22.12	mg/L	0.211				0.96%
Mg 279.077†	406711.3	38.34	mg/L	0.184				0.48%
Mn 257.610†	1017259.3	2.171	mg/L	0.0008				0.04%
Mo 202.031†	95.8	0.0044	mg/L	0.00002				0.38%
Ni 231.604†	6032.0	0.0829	mg/L	0.00041				0.50%
Na 589.592†	51587.2	2.947	mg/L	0.0179				0.61%
Pb 220.353†	1215.4	0.1056	mg/L	0.00203				1.92%
Sb 206.836†	13.0	-0.0007	mg/L	0.00001				1.61%
Se 196.026†	2.0	0.0020	mg/L	0.00190				93.34%
Sn 189.927†	-182.0	-0.0250	mg/L	0.00034				1.36%
Ti 337.279†	1348328.2	1.882	mg/L	0.0004				0.02%
Tl 190.801†	-47.4	-0.0043	mg/L	0.00067				15.63%
V 292.402†	24405.3	0.1802	mg/L	0.00112				0.62%
Zn 206.200†	32175.2	0.5659	mg/L	0.00347				0.61%
Ca 227.546†	126185.0	304.2	mg/L	1.58				0.52%
Sr 421.552†	594489.3	0.6871	mg/L	0.00607				0.88%
Al 237.313†	330192.4	71.33	mg/L	0.434				0.61%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 20
Sample ID: R1510398-005
Analyst:
Initial Sample Wt: 1 g
Dilution:

Autosampler Location: 44
Date Collected: 12/16/2015 5:22:13 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: R1510398-005

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6419390.3	0.9507	mg/L	0.00586				0.62%
Ag 328.068†	-5964.2	-0.0015	mg/L	0.00030				19.27%
As 188.979†	69.6	0.0376	mg/L	0.00047				1.24%
B 249.772†	70226.0	0.0260	mg/L	0.00215				8.25%
Ba 233.527†	70884.4	0.8783	mg/L	0.00718				0.82%

Be 313.107†	28313.4	0.0065	mg/L	0.00004	0.68%
Cd 226.502†	2235.4	-0.0005	mg/L	0.00002	3.38%
Co 228.616†	1900.3	0.0499	mg/L	0.00001	0.02%
Cr 267.716†	16942.9	0.1121	mg/L	0.00060	0.54%
Cu 324.752†	46599.5	0.1394	mg/L	0.00109	0.78%
Fe 259.939†	5140425.3	120.6	mg/L	0.18	0.15%
K 766.490†	132299.6	33.49	mg/L	1.041	3.11%
Mg 279.077†	507928.0	47.91	mg/L	0.269	0.56%
Mn 257.610†	1312006.7	2.798	mg/L	0.0068	0.24%
Mo 202.031†	63.3	0.0029	mg/L	0.00000	0.17%
Ni 231.604†	7735.3	0.1064	mg/L	0.00071	0.67%
Na 589.592†	141015.8	8.056	mg/L	0.2571	3.19%
Pb 220.353†	1417.3	0.1222	mg/L	0.00282	2.31%
Sb 206.836†	18.4	0.0001	mg/L	0.00086	920.19%
Se 196.026†	4.5	0.0030	mg/L	0.00294	99.18%
Sn 189.927†	-218.7	-0.0300	mg/L	0.00065	2.18%
Ti 337.279†	1582214.6	2.208	mg/L	0.0058	0.26%
Tl 190.801†	-65.0	-0.0080	mg/L	0.00004	0.56%
V 292.402†	27901.8	0.2064	mg/L	0.00134	0.65%
Zn 206.200†	35484.6	0.6241	mg/L	0.00294	0.47%
Ca 227.546†	129353.8	311.9	mg/L	1.89	0.61%
Sr 421.552†	677075.3	0.7826	mg/L	0.02587	3.31%
Al 237.313†	413070.1	89.19	mg/L	0.769	0.86%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 21
Sample ID: R1510398-006
Analyst:
Initial Sample Wt: 1.03 g
Dilution:

Autosampler Location: 45
Date Collected: 12/16/2015 5:27:56 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: R1510398-006

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6176272.3	0.9147	mg/L	0.00003				0.00%
Ag 328.068†	-4182.2	-0.0013	mg/L	0.00008				5.75%
As 188.979†	84.9	0.0471	mg/L	0.00047				1.00%
B 249.772†	50481.7	-0.0071	mg/L	0.00175				24.78%
Ba 233.527†	52885.1	0.6553	mg/L	0.00194				0.30%
Be 313.107†	18577.8	0.0043	mg/L	0.00002				0.42%
Cd 226.502†	1564.7	-0.0018	mg/L	0.00006				3.54%
Co 228.616†	1273.3	0.0334	mg/L	0.00002				0.07%
Cr 267.716†	13397.3	0.0878	mg/L	0.00005				0.06%
Cu 324.752†	27541.0	0.0824	mg/L	0.00001				0.02%
Fe 259.939†	3960038.5	92.88	mg/L	0.132				0.14%
K 766.490†	67609.4	17.11	mg/L	0.047				0.28%
Mg 279.077†	387688.0	36.56	mg/L	0.167				0.46%
Mn 257.610†	920287.1	1.964	mg/L	0.0046				0.23%
Mo 202.031†	158.3	0.0073	mg/L	0.00007				0.94%
Ni 231.604†	5885.9	0.0809	mg/L	0.00013				0.16%
Na 589.592†	65310.5	3.731	mg/L	0.0049				0.13%
Pb 220.353†	1099.5	0.0966	mg/L	0.00068				0.71%
Sb 206.836†	12.3	0.0005	mg/L	0.00116				232.17%
Se 196.026†	6.8	0.0042	mg/L	0.00385				91.04%
Sn 189.927†	-270.5	-0.0372	mg/L	0.00047				1.27%
Ti 337.279†	1016319.8	1.419	mg/L	0.0061				0.43%
Tl 190.801†	-51.9	-0.0068	mg/L	0.00089				12.98%
V 292.402†	21992.1	0.1625	mg/L	0.00070				0.43%
Zn 206.200†	23263.4	0.4091	mg/L	0.00105				0.26%
Ca 227.546†	148706.4	358.4	mg/L	1.52				0.43%
Sr 421.552†	752447.0	0.8697	mg/L	0.00897				1.03%
Al 237.313†	252887.3	54.77	mg/L	0.170				0.31%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 22
Sample ID: R1510398-007
Analyst:
Initial Sample Wt: 1.01 g
Dilution:

Autosampler Location: 46
Date Collected: 12/16/2015 5:33:50 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Method: DV200-6010C Opt3 Page 16 Date: 12/16/2015 5:43:01 PM

Mean Data: R1510398-007

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6292845.1	0.9319	mg/L	0.01020				1.10%
Ag 328.068†	-4936.0	-0.0022	mg/L	0.00019				8.73%
As 188.979†	86.2	0.0473	mg/L	0.00180				3.80%
B 249.772†	57433.3	0.0019	mg/L	0.00020				10.36%
Ba 233.527†	61251.5	0.7590	mg/L	0.00473				0.62%
Be 313.107†	22383.1	0.0052	mg/L	0.00000				0.05%
Cd 226.502†	1839.1	-0.0011	mg/L	0.00005				4.40%
Co 228.616†	1454.4	0.0382	mg/L	0.00042				1.10%
Cr 267.716†	15794.5	0.1033	mg/L	0.00104				1.01%
Cu 324.752†	31447.3	0.0941	mg/L	0.00031				0.33%
Fe 259.939†	4404147.3	103.3	mg/L	0.18				0.17%
K 766.490†	80780.4	20.45	mg/L	0.099				0.48%
Mg 279.077†	437529.5	41.27	mg/L	0.212				0.51%
Mn 257.610†	1143144.6	2.438	mg/L	0.0036				0.15%
Mo 202.031†	135.0	0.0063	mg/L	0.00006				0.95%
Ni 231.604†	6531.9	0.0898	mg/L	0.00120				1.34%
Na 589.592†	164035.7	9.371	mg/L	0.0297				0.32%
Pb 220.353†	1313.6	0.1160	mg/L	0.00227				1.96%
Sb 206.836†	-9.2	-0.0018	mg/L	0.00174				98.22%
Se 196.026†	0.2	0.0017	mg/L	0.00180				104.77%
Sn 189.927†	-305.7	-0.0420	mg/L	0.00121				2.88%
Ti 337.279†	1193654.9	1.666	mg/L	0.0001				0.01%
Tl 190.801†	-59.4	-0.0082	mg/L	0.00055				6.79%
V 292.402†	24836.1	0.1834	mg/L	0.00038				0.21%
Zn 206.200†	27193.6	0.4783	mg/L	0.00517				1.08%
Ca 227.546†	162080.4	390.6	mg/L	2.32				0.59%
Sr 421.552†	794330.7	0.9181	mg/L	0.00253				0.28%
Al 237.313†	300725.4	65.06	mg/L	0.250				0.38%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 23
Sample ID: R1510398-008
Analyst:
Initial Sample Wt: 1.01 g
Dilution:

Autosampler Location: 47
Date Collected: 12/16/2015 5:39:36 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: R1510398-008

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6198363.2	0.9179	mg/L	0.01273				1.39%
Ag 328.068†	-1186.4	-0.0001	mg/L	0.00039				289.02%
As 188.979†	39.6	0.0197	mg/L	0.00034				1.72%
B 249.772†	25137.7	-0.0048	mg/L	0.00108				22.33%
Ba 233.527†	30689.8	0.3803	mg/L	0.00165				0.43%
Be 313.107†	8693.1	0.0020	mg/L	0.00002				0.99%
Cd 226.502†	697.3	-0.0016	mg/L	0.00003				1.84%
Co 228.616†	521.7	0.0137	mg/L	0.00006				0.47%
Cr 267.716†	7595.3	0.0486	mg/L	0.00005				0.11%
Cu 324.752†	13894.4	0.0416	mg/L	0.00031				0.74%
Fe 259.939†	1988004.5	46.63	mg/L	0.252				0.54%
K 766.490†	29073.3	7.359	mg/L	0.0979				1.33%
Mg 279.077†	206433.2	19.48	mg/L	0.040				0.21%
Mn 257.610†	402983.7	0.8610	mg/L	0.00321				0.37%
Mo 202.031†	48.8	0.0023	mg/L	0.00014				6.02%
Ni 231.604†	3156.1	0.0434	mg/L	0.00028				0.64%
Na 589.592†	66299.6	3.787	mg/L	0.0026				0.07%
Pb 220.353†	536.6	0.0485	mg/L	0.00188				3.88%
Sb 206.836†	1.2	-0.0017	mg/L	0.00148				86.54%
Se 196.026†	-6.2	-0.0007	mg/L	0.00305				424.58%
Sn 189.927†	-307.9	-0.0423	mg/L	0.00021				0.50%
Ti 337.279†	481517.3	0.6721	mg/L	0.00002				0.00%
Tl 190.801†	-27.0	-0.0037	mg/L	0.00133				35.34%
V 292.402†	10903.7	0.0806	mg/L	0.00032				0.39%
Zn 206.200†	13887.6	0.2442	mg/L	0.00155				0.63%
Ca 227.546†	151975.1	366.0	mg/L	1.52				0.42%

Sr 421.552†	704787.2	0.8146 mg/L	0.00780		0.96%
Al 237.313†	115652.5	25.02 mg/L	0.181		0.72%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 24 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 12/16/2015 5:45:24 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 371.029	6531167.2	0.9672	mg/L	0.00805				0.83%
Ag 328.068†	174363.3	0.5042	mg/L	0.00720	0.5042	mg/L	0.00720	1.43%
QC value within limits for Ag 328.068 Recovery = 100.84%								
As 188.979†	1560.1	0.9604	mg/L	0.00496	0.9604	mg/L	0.00496	0.52%
QC value within limits for As 188.979 Recovery = 96.04%								
B 249.772†	295127.5	2.362	mg/L	0.0197	2.362	mg/L	0.0197	0.83%
QC value within limits for B 249.772 Recovery = 94.49%								
Ba 233.527†	834182.2	10.34	mg/L	0.164	10.34	mg/L	0.164	1.59%
QC value within limits for Ba 233.527 Recovery = 103.41%								
Be 313.107†	1070062.5	0.2469	mg/L	0.00042	0.2469	mg/L	0.00042	0.17%
QC value within limits for Be 313.107 Recovery = 98.78%								
Cd 226.502†	64171.2	0.5064	mg/L	0.00884	0.5064	mg/L	0.00884	1.75%
QC value within limits for Cd 226.502 Recovery = 101.28%								
Co 228.616†	95650.4	2.513	mg/L	0.0376	2.513	mg/L	0.0376	1.50%
QC value within limits for Co 228.616 Recovery = 100.51%								
Cr 267.716†	85395.3	0.5281	mg/L	0.00723	0.5281	mg/L	0.00723	1.37%
QC value within limits for Cr 267.716 Recovery = 105.62%								
Cu 324.752†	415071.9	1.242	mg/L	0.0165	1.242	mg/L	0.0165	1.33%
QC value within limits for Cu 324.752 Recovery = 99.36%								
Fe 259.939†	217557.8	5.101	mg/L	0.0763	5.101	mg/L	0.0763	1.50%
QC value within limits for Fe 259.939 Recovery = 102.02%								
K 766.490†	95074.4	24.06	mg/L	0.616	24.06	mg/L	0.616	2.56%
QC value within limits for K 766.490 Recovery = 96.26%								
Mg 279.077†	261450.6	24.88	mg/L	0.332	24.88	mg/L	0.332	1.33%
QC value within limits for Mg 279.077 Recovery = 99.52%								
Mn 257.610†	367105.1	0.7782	mg/L	0.01174	0.7782	mg/L	0.01174	1.51%
QC value within limits for Mn 257.610 Recovery = 103.75%								
Mo 202.031†	53319.4	2.475	mg/L	0.0308	2.475	mg/L	0.0308	1.24%
QC value within limits for Mo 202.031 Recovery = 99.00%								
Ni 231.604†	151840.2	2.088	mg/L	0.0327	2.088	mg/L	0.0327	1.57%
QC value within limits for Ni 231.604 Recovery = 104.38%								
Na 589.592†	423975.2	24.22	mg/L	0.797	24.22	mg/L	0.797	3.29%
QC value within limits for Na 589.592 Recovery = 96.88%								
Pb 220.353†	5266.0	0.5167	mg/L	0.00372	0.5167	mg/L	0.00372	0.72%
QC value within limits for Pb 220.353 Recovery = 103.33%								
Sb 206.836†	11223.3	4.923	mg/L	0.0373	4.923	mg/L	0.0373	0.76%
QC value within limits for Sb 206.836 Recovery = 98.46%								
Se 196.026†	1193.6	0.4771	mg/L	0.00193	0.4771	mg/L	0.00193	0.40%
QC value within limits for Se 196.026 Recovery = 95.42%								
Sn 189.927†	35976.4	4.944	mg/L	0.0325	4.944	mg/L	0.0325	0.66%
QC value within limits for Sn 189.927 Recovery = 98.87%								
Ti 337.279†	1760279.7	2.457	mg/L	0.0009	2.457	mg/L	0.0009	0.04%
QC value within limits for Ti 337.279 Recovery = 98.27%								
Tl 190.801†	3071.7	1.070	mg/L	0.0062	1.070	mg/L	0.0062	0.58%
QC value within limits for Tl 190.801 Recovery = 106.95%								
V 292.402†	349260.6	2.467	mg/L	0.0425	2.467	mg/L	0.0425	1.72%
QC value within limits for V 292.402 Recovery = 98.67%								
Zn 206.200†	58483.8	1.029	mg/L	0.0157	1.029	mg/L	0.0157	1.53%
QC value within limits for Zn 206.200 Recovery = 102.85%								
Ca 227.546†	10510.3	25.32	mg/L	0.177	25.32	mg/L	0.177	0.70%
QC value within limits for Ca 227.546 Recovery = 101.28%								
Sr 421.552†	2078740.7	2.403	mg/L	0.0077	2.403	mg/L	0.0077	0.32%
QC value within limits for Sr 421.552 Recovery = 96.11%								
Al 237.313†	45716.4	9.778	mg/L	0.1806	9.778	mg/L	0.1806	1.85%
QC value within limits for Al 237.313 Recovery = 97.78%								

All analyte(s) passed QC.

Sequence No.: 25
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/16/2015 5:51:09 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6732929.2	0.9971	mg/L	0.00914				0.92%
Ag 328.068†	-19.1	-0.0001	mg/L	0.00018	-0.0001	mg/L	0.00018	350.38%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	1.2	0.0007	mg/L	0.00013	0.0007	mg/L	0.00013	17.18%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	2543.3	0.0205	mg/L	0.00188	0.0205	mg/L	0.00188	9.19%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	195.5	0.0024	mg/L	0.00019	0.0024	mg/L	0.00019	7.82%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	631.2	0.0001	mg/L	0.00000	0.0001	mg/L	0.00000	1.30%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	8.0	0.0001	mg/L	0.00001	0.0001	mg/L	0.00001	8.34%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.5	0.0001	mg/L	0.00004	0.0001	mg/L	0.00004	39.93%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-26.2	-0.0002	mg/L	0.00019	-0.0002	mg/L	0.00019	117.23%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	663.9	0.0020	mg/L	0.00049	0.0020	mg/L	0.00049	24.86%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	851.0	0.0200	mg/L	0.00034	0.0200	mg/L	0.00034	1.71%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	141.5	0.0358	mg/L	0.01109	0.0358	mg/L	0.01109	30.95%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	-20.0	-0.0020	mg/L	0.00171	-0.0020	mg/L	0.00171	86.61%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	561.1	0.0012	mg/L	0.00003	0.0012	mg/L	0.00003	2.43%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	64.7	0.0030	mg/L	0.00091	0.0030	mg/L	0.00091	30.28%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	5.6	0.0001	mg/L	0.00014	0.0001	mg/L	0.00014	182.88%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	276.1	0.0158	mg/L	0.00418	0.0158	mg/L	0.00418	26.52%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	-3.0	-0.0003	mg/L	0.00014	-0.0003	mg/L	0.00014	47.82%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	4.4	0.0019	mg/L	0.00113	0.0019	mg/L	0.00113	58.69%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	6.0	0.0024	mg/L	0.00055	0.0024	mg/L	0.00055	22.91%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	17.8	0.0025	mg/L	0.00114	0.0025	mg/L	0.00114	46.37%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 337.279†	674.3	0.0009	mg/L	0.00025	0.0009	mg/L	0.00025	26.44%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-2.0	-0.0007	mg/L	0.00072	-0.0007	mg/L	0.00072	103.73%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	63.6	0.0005	mg/L	0.00008	0.0005	mg/L	0.00008	16.98%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	93.2	0.0016	mg/L	0.00021	0.0016	mg/L	0.00021	12.58%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Ca 227.546†	7.6	0.0183	mg/L	0.00603	0.0183	mg/L	0.00603	32.99%
QC value within limits for Ca 227.546 Recovery = Not calculated								
Sr 421.552†	455.0	0.0005	mg/L	0.00005	0.0005	mg/L	0.00005	8.95%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Al 237.313†	-0.5	0.0001	mg/L	0.00030	0.0001	mg/L	0.00030	268.85%
QC value within limits for Al 237.313 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 26
Sample ID: R1510398-009
Analyst:

Autosampler Location: 48
Date Collected: 12/16/2015 5:56:51 PM
Data Type: Original

Initial Sample Wt: 1.01 g
Dilution:
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: R1510398-009

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	5871937.3	0.8696	mg/L	0.00315				0.36%
Ag 328.068†	-962.8	-0.0085	mg/L	0.00043				5.05%
As 188.979†	83.3	0.0342	mg/L	0.00140				4.09%
B 249.772†	37573.0	0.0118	mg/L	0.00000				0.04%
Ba 233.527†	59582.8	0.7384	mg/L	0.00156				0.21%
Be 313.107†	13856.8	0.0032	mg/L	0.00003				0.87%
Cd 226.502†	1066.9	-0.0015	mg/L	0.00004				2.52%
Co 228.616†	978.8	0.0257	mg/L	0.00016				0.63%
Cr 267.716†	7023.4	0.0425	mg/L	0.00005				0.11%
Cu 324.752†	23940.5	0.0716	mg/L	0.00019				0.27%
Fe 259.939†	2786396.0	65.35	mg/L	0.235				0.36%
K 766.490†	61879.8	15.66	mg/L	0.295				1.88%
Mg 279.077†	449392.0	42.55	mg/L	0.139				0.33%
Mn 257.610†	832496.1	1.773	mg/L	0.0044				0.25%
Mo 202.031†	240.5	0.0112	mg/L	0.00058				5.22%
Ni 231.604†	3829.5	0.0527	mg/L	0.00042				0.79%
Na 589.592†	196872.7	11.25	mg/L	0.234				2.08%
Pb 220.353†	695.9	0.0688	mg/L	0.00106				1.54%
Sb 206.836†	9.7	0.0009	mg/L	0.00009				9.43%
Se 196.026†	-10.5	0.0032	mg/L	0.00387				121.90%
Sn 189.927†	-443.7	-0.0610	mg/L	0.00081				1.33%
Ti 337.279†	646898.9	0.9029	mg/L	0.00100				0.11%
Tl 190.801†	-37.9	-0.0050	mg/L	0.00230				45.65%
V 292.402†	18182.4	0.1335	mg/L	0.00091				0.68%
Zn 206.200†	21697.2	0.3816	mg/L	0.00072				0.19%
Ca 227.546†	592023.3	1425	mg/L	0.3				0.02%
Sr 421.552†	1976344.8	2.284	mg/L	0.0118				0.52%
Al 237.313†	172772.5	36.99	mg/L	0.023				0.06%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 27
Sample ID: R1510398-010
Analyst:
Initial Sample Wt: 1 g
Dilution:
Autosampler Location: 49
Date Collected: 12/16/2015 6:02:42 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: R1510398-010

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6235450.2	0.9234	mg/L	0.00618				0.67%
Ag 328.068†	-3650.1	-0.0017	mg/L	0.00019				11.27%
As 188.979†	91.1	0.0501	mg/L	0.00124				2.47%
B 249.772†	48025.2	0.0018	mg/L	0.00084				45.62%
Ba 233.527†	51216.1	0.6346	mg/L	0.00248				0.39%
Be 313.107†	18108.6	0.0042	mg/L	0.00001				0.18%
Cd 226.502†	1497.8	-0.0013	mg/L	0.00003				2.14%
Co 228.616†	1097.0	0.0288	mg/L	0.00015				0.53%
Cr 267.716†	10098.2	0.0671	mg/L	0.00034				0.51%
Cu 324.752†	31577.5	0.0945	mg/L	0.00013				0.14%
Fe 259.939†	3684466.3	86.42	mg/L	0.130				0.15%
K 766.490†	75070.7	19.00	mg/L	0.154				0.81%
Mg 279.077†	411713.6	38.88	mg/L	0.103				0.26%
Mn 257.610†	793543.3	1.695	mg/L	0.0023				0.14%
Mo 202.031†	89.9	0.0042	mg/L	0.00004				0.91%
Ni 231.604†	5375.3	0.0739	mg/L	0.00024				0.32%
Na 589.592†	66029.5	3.772	mg/L	0.0172				0.45%
Pb 220.353†	1126.3	0.1007	mg/L	0.00083				0.83%
Sb 206.836†	10.1	-0.0002	mg/L	0.00014				70.12%
Se 196.026†	-6.9	-0.0009	mg/L	0.00330				379.94%
Sn 189.927†	-299.5	-0.0412	mg/L	0.00076				1.84%
Ti 337.279†	922679.5	1.288	mg/L	0.0005				0.04%
Tl 190.801†	-42.2	-0.0042	mg/L	0.00027				6.54%
V 292.402†	21984.5	0.1620	mg/L	0.00083				0.52%

Zn 206.200†	31226.4	0.5492 mg/L	0.00339		0.62%
Ca 227.546†	181337.1	436.9 mg/L	0.54		0.12%
Sr 421.552†	875505.1	1.012 mg/L	0.0009		0.09%
Al 237.313†	239098.7	51.73 mg/L	0.070		0.13%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 28
Sample ID: R1510398-011
Analyst:
Initial Sample Wt: 1.04 g
Dilution:

Autosampler Location: 50
Date Collected: 12/16/2015 6:08:33 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: R1510398-011

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5985096.1	0.8863	mg/L	0.00949				1.07%
Ag 328.068†	-3250.8	-0.0033	mg/L	0.00039				11.70%
As 188.979†	85.9	0.0430	mg/L	0.00078				1.82%
B 249.772†	49699.6	-0.0022	mg/L	0.00006				2.60%
Ba 233.527†	54496.6	0.6753	mg/L	0.00430				0.64%
Be 313.107†	16974.1	0.0039	mg/L	0.00001				0.15%
Cd 226.502†	1585.6	-0.0012	mg/L	0.00001				0.75%
Co 228.616†	1090.6	0.0286	mg/L	0.00022				0.76%
Cr 267.716†	11208.2	0.0754	mg/L	0.00058				0.77%
Cu 324.752†	30864.8	0.0924	mg/L	0.00184				1.99%
Fe 259.939†	3853087.8	90.37	mg/L	0.288				0.32%
K 766.490†	64743.0	16.39	mg/L	0.361				2.20%
Mg 279.077†	727261.6	68.92	mg/L	0.225				0.33%
Mn 257.610†	825283.6	1.762	mg/L	0.0040				0.23%
Mo 202.031†	115.2	0.0053	mg/L	0.00018				3.39%
Ni 231.604†	5037.7	0.0693	mg/L	0.00070				1.00%
Na 589.592†	85748.0	4.898	mg/L	0.1009				2.06%
Pb 220.353†	1082.1	0.0980	mg/L	0.00186				1.89%
Sb 206.836†	14.3	0.0015	mg/L	0.00062				42.14%
Se 196.026†	-1.1	0.0025	mg/L	0.00214				86.63%
Sn 189.927†	-379.3	-0.0521	mg/L	0.00048				0.93%
Ti 337.279†	965572.3	1.348	mg/L	0.0012				0.09%
Tl 190.801†	-55.4	-0.0078	mg/L	0.00213				27.16%
V 292.402†	22871.4	0.1685	mg/L	0.00098				0.58%
Zn 206.200†	30763.5	0.5410	mg/L	0.00715				1.32%
Ca 227.546†	304848.1	734.1	mg/L	9.29				1.26%
Sr 421.552†	1301856.3	1.505	mg/L	0.0299				1.99%
Al 237.313†	248093.8	53.58	mg/L	0.707				1.32%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 29
Sample ID: R1510568-001
Analyst:
Initial Sample Wt: 1.03 g
Dilution:

Autosampler Location: 51
Date Collected: 12/16/2015 6:14:21 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: R1510568-001

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6516307.2	0.9650	mg/L	0.01324				1.37%
Ag 328.068†	1213328.8	3.510	mg/L	0.0039				0.11%
As 188.979†	41.8	0.0238	mg/L	0.00210				8.81%
B 249.772†	25891.8	0.0282	mg/L	0.00085				3.02%
Ba 233.527†	152859.6	1.895	mg/L	0.0060				0.32%
Be 313.107†	6590.0	0.0015	mg/L	0.00002				1.60%
Cd 226.502†	1782.5	0.0078	mg/L	0.00018				2.33%
Co 228.616†	406.2	0.0107	mg/L	0.00009				0.81%
Cr 267.716†	63685.3	0.3947	mg/L	0.00172				0.44%
Cu 324.752†	356780.8	1.068	mg/L	0.0027				0.25%
Fe 259.939†	1737344.8	40.75	mg/L	0.012				0.03%
K 766.490†	10677.7	2.703	mg/L	0.0791				2.93%
Mg 279.077†	187055.9	17.66	mg/L	0.063				0.35%
Mn 257.610†	168446.9	0.3634	mg/L	0.00219				0.60%

Mo 202.031†	278.2	0.0129	mg/L	0.00012	0.97%
Ni 231.604†	16747.1	0.2303	mg/L	0.00005	0.02%
Na 589.592†	58356.7	3.334	mg/L	0.0666	2.00%
Pb 220.353†	2832.0	0.2736	mg/L	0.00341	1.25%
Sb 206.836†	95.0	0.0401	mg/L	0.00185	4.62%
Se 196.026†	31.4	0.0130	mg/L	0.00368	28.31%
Sn 189.927†	61.5	0.0085	mg/L	0.00053	6.23%
Ti 337.279†	345857.5	0.4827	mg/L	0.00258	0.54%
Tl 190.801†	-21.3	-0.0025	mg/L	0.00042	17.15%
V 292.402†	6058.6	0.0460	mg/L	0.00000	0.01%
Zn 206.200†	41265.0	0.7257	mg/L	0.00127	0.18%
Ca 227.546†	53621.1	129.3	mg/L	0.71	0.55%
Sr 421.552†	536716.9	0.6204	mg/L	0.00646	1.04%
Al 237.313†	81397.8	17.75	mg/L	0.069	0.39%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 30 **Autosampler Location: 52**
Sample ID: R1510591-001 **Date Collected: 12/16/2015 6:20:11 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: 1.01 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Mean Data: R1510591-001

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6710765.6	0.9938	mg/L	0.00808				0.81%
Ag 328.068†	524.6	0.0018	mg/L	0.00036				19.67%
As 188.979†	90.1	0.0553	mg/L	0.00063				1.14%
B 249.772†	12210.0	0.0863	mg/L	0.00152				1.76%
Ba 233.527†	50989.3	0.6321	mg/L	0.01202				1.90%
Be 313.107†	-107.9	0.0000	mg/L	0.00004				166.65%
Cd 226.502†	150.1	0.0007	mg/L	0.00007				8.98%
Co 228.616†	26.1	0.0007	mg/L	0.00008				12.34%
Cr 267.716†	12909.6	0.0797	mg/L	0.00194				2.43%
Cu 324.752†	37291.5	0.1116	mg/L	0.00137				1.23%
Fe 259.939†	120071.2	2.817	mg/L	0.0513				1.82%
K 766.490†	13435.0	3.401	mg/L	0.0149				0.44%
Mg 279.077†	14257.5	1.347	mg/L	0.0187				1.39%
Mn 257.610†	287871.5	0.6099	mg/L	0.01297				2.13%
Mo 202.031†	6.7	0.0003	mg/L	0.00017				54.84%
Ni 231.604†	421.3	0.0058	mg/L	0.00012				2.10%
Na 589.592†	53286.8	3.044	mg/L	0.0082				0.27%
Pb 220.353†	1335.9	0.1311	mg/L	0.00112				0.86%
Sb 206.836†	4.1	0.0018	mg/L	0.00218				123.16%
Se 196.026†	20.4	0.0082	mg/L	0.00072				8.82%
Sn 189.927†	41.6	0.0057	mg/L	0.00014				2.41%
Ti 337.279†	32889.5	0.0459	mg/L	0.00065				1.42%
Tl 190.801†	-5.1	-0.0014	mg/L	0.00149				103.34%
V 292.402†	277.4	0.0022	mg/L	0.00000				0.01%
Zn 206.200†	11387.4	0.2003	mg/L	0.00527				2.63%
Ca 227.546†	4642.9	11.19	mg/L	0.088				0.78%
Sr 421.552†	50512.3	0.0584	mg/L	0.00005				0.09%
Al 237.313†	2365.9	0.5323	mg/L	0.00053				0.10%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 31 **Autosampler Location: 53**
Sample ID: R1510591-001D **Date Collected: 12/16/2015 6:25:53 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: 1.03 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Mean Data: R1510591-001D

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6585886.1	0.9753	mg/L	0.01159				1.19%
Ag 328.068†	41.9	0.0005	mg/L	0.00024				51.31%
As 188.979†	128.7	0.0791	mg/L	0.00206				2.60%
B 249.772†	13239.4	0.0935	mg/L	0.00178				1.90%

Ba 233.527†	61189.7	0.7585	mg/L	0.01697	2.24%
Be 313.107†	-473.6	-0.0001	mg/L	0.00004	33.71%
Cd 226.502†	152.8	0.0007	mg/L	0.00002	2.24%
Co 228.616†	15.8	0.0004	mg/L	0.00009	21.47%
Cr 267.716†	17054.3	0.1052	mg/L	0.00211	2.01%
Cu 324.752†	41721.2	0.1248	mg/L	0.00303	2.43%
Fe 259.939†	131097.7	3.075	mg/L	0.0717	2.33%
K 766.490†	15514.6	3.927	mg/L	0.0731	1.86%
Mg 279.077†	16025.2	1.514	mg/L	0.0273	1.80%
Mn 257.610†	324681.0	0.6879	mg/L	0.01615	2.35%
Mo 202.031†	6.3	0.0003	mg/L	0.00010	34.87%
Ni 231.604†	559.2	0.0077	mg/L	0.00010	1.32%
Na 589.592†	51259.3	2.928	mg/L	0.0705	2.41%
Pb 220.353†	1611.5	0.1581	mg/L	0.00175	1.11%
Sb 206.836†	7.7	0.0033	mg/L	0.00017	5.13%
Se 196.026†	19.6	0.0079	mg/L	0.00018	2.22%
Sn 189.927†	2.2	0.0003	mg/L	0.00017	56.81%
Ti 337.279†	42049.2	0.0587	mg/L	0.00028	0.47%
Tl 190.801†	-9.5	-0.0029	mg/L	0.00027	9.12%
V 292.402†	262.3	0.0021	mg/L	0.00005	2.57%
Zn 206.200†	12738.1	0.2240	mg/L	0.00613	2.74%
Ca 227.546†	5434.4	13.09	mg/L	0.160	1.22%
Sr 421.552†	59166.2	0.0684	mg/L	0.00139	2.03%
Al 237.313†	2698.2	0.6053	mg/L	0.00324	0.54%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 32 **Autosampler Location: 54**
Sample ID: R1510591-001S **Date Collected: 12/16/2015 6:31:35 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: 1.02 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Mean Data: R1510591-001S

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 371.029	6626641.1	0.9814	mg/L	0.00497				0.51%
Ag 328.068†	11847.2	0.0347	mg/L	0.00033				0.94%
As 188.979†	151.8	0.0933	mg/L	0.00053				0.57%
B 249.772†	96301.7	0.7608	mg/L	0.00149				0.20%
Ba 233.527†	187270.1	2.321	mg/L	0.0127				0.55%
Be 313.107†	150784.2	0.0348	mg/L	0.00020				0.58%
Cd 226.502†	4663.7	0.0362	mg/L	0.00010				0.29%
Co 228.616†	13772.8	0.3618	mg/L	0.00070				0.19%
Cr 267.716†	39125.3	0.2412	mg/L	0.00194				0.80%
Cu 324.752†	107287.3	0.3210	mg/L	0.00171				0.53%
Fe 259.939†	170668.7	4.003	mg/L	0.0207				0.52%
K 766.490†	66850.9	16.92	mg/L	0.015				0.09%
Mg 279.077†	30691.3	2.908	mg/L	0.0030				0.10%
Mn 257.610†	511620.0	1.084	mg/L	0.0023				0.21%
Mo 202.031†	7928.4	0.3680	mg/L	0.00040				0.11%
Ni 231.604†	27612.4	0.3796	mg/L	0.00247				0.65%
Na 589.592†	308965.2	17.65	mg/L	0.067				0.38%
Pb 220.353†	5322.1	0.5227	mg/L	0.00115				0.22%
Sb 206.836†	794.0	0.3482	mg/L	0.00110				0.32%
Se 196.026†	1752.5	0.7011	mg/L	0.00256				0.37%
Sn 189.927†	27690.5	3.805	mg/L	0.0389				1.02%
Ti 337.279†	298122.9	0.4161	mg/L	0.00017				0.04%
Tl 190.801†	4148.6	1.444	mg/L	0.0037				0.26%
V 292.402†	52091.6	0.3682	mg/L	0.00116				0.32%
Zn 206.200†	34017.6	0.5983	mg/L	0.01038				1.73%
Ca 227.546†	5905.8	14.23	mg/L	0.042				0.30%
Sr 421.552†	1376551.5	1.591	mg/L	0.0183				1.15%
Al 237.313†	9966.9	2.162	mg/L	0.0036				0.17%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 33 **Autosampler Location: 55**
Sample ID: R1510591-001A **Date Collected: 12/16/2015 6:37:19 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**

Dilution: Sample Prep Vol: 100 mL

Mean Data: R1510591-001A

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6648233.6	0.9846	mg/L	0.00300				0.30%
Ag 328.068†	13541.9	0.0396	mg/L	0.00016				0.40%
As 188.979†	143.8	0.0884	mg/L	0.00053				0.60%
B 249.772†	125399.8	0.9974	mg/L	0.00005				0.01%
Ba 233.527†	210317.1	2.607	mg/L	0.0163				0.62%
Be 313.107†	201564.7	0.0465	mg/L	0.00015				0.31%
Cd 226.502†	6039.3	0.0472	mg/L	0.00036				0.75%
Co 228.616†	18363.6	0.4824	mg/L	0.00297				0.61%
Cr 267.716†	45096.7	0.2780	mg/L	0.00123				0.44%
Cu 324.752†	120438.6	0.3604	mg/L	0.00012				0.03%
Fe 259.939†	157194.2	3.687	mg/L	0.0181				0.49%
K 766.490†	80474.7	20.37	mg/L	0.305				1.50%
Mg 279.077†	32829.5	3.112	mg/L	0.0033				0.11%
Mn 257.610†	512192.6	1.085	mg/L	0.0047				0.43%
Mo 202.031†	-1.8	-0.0001	mg/L	0.00010				117.10%
Ni 231.604†	36237.9	0.4982	mg/L	0.00214				0.43%
Na 589.592†	376281.2	21.50	mg/L	0.326				1.52%
Pb 220.353†	6216.8	0.6107	mg/L	0.00706				1.16%
Sb 206.836†	12.0	0.0050	mg/L	0.00008				1.62%
Se 196.026†	43.7	0.0175	mg/L	0.00127				7.27%
Sn 189.927†	33.2	0.0046	mg/L	0.00001				0.28%
Ti 337.279†	36821.8	0.0514	mg/L	0.00342				6.65%
Tl 190.801†	5582.1	1.942	mg/L	0.0154				0.80%
V 292.402†	68193.8	0.4818	mg/L	0.00052				0.11%
Zn 206.200†	38137.8	0.6707	mg/L	0.00704				1.05%
Ca 227.546†	5455.2	13.15	mg/L	0.028				0.21%
Sr 421.552†	49669.6	0.0574	mg/L	0.00083				1.45%
Al 237.313†	10899.8	2.358	mg/L	0.0027				0.11%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 34 Autosampler Location: 56
Sample ID: R1510591-001L Date Collected: 12/16/2015 6:43:03 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol: 100 mL

Mean Data: R1510591-001L

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6959009.2	1.031	mg/L	0.0025				0.24%
Ag 328.068†	-255.1	-0.0007	mg/L	0.00010				14.65%
As 188.979†	16.8	0.0103	mg/L	0.00007				0.63%
B 249.772†	3190.6	0.0232	mg/L	0.00003				0.13%
Ba 233.527†	10631.2	0.1318	mg/L	0.00034				0.26%
Be 313.107†	460.3	0.0001	mg/L	0.00002				20.02%
Cd 226.502†	78.5	0.0005	mg/L	0.00004				7.61%
Co 228.616†	1.9	0.0000	mg/L	0.00000				6.05%
Cr 267.716†	2688.8	0.0166	mg/L	0.00050				3.04%
Cu 324.752†	7373.4	0.0221	mg/L	0.00031				1.42%
Fe 259.939†	24978.8	0.5859	mg/L	0.00042				0.07%
K 766.490†	2626.4	0.6648	mg/L	0.01225				1.84%
Mg 279.077†	3563.8	0.3372	mg/L	0.01183				3.51%
Mn 257.610†	59005.9	0.1250	mg/L	0.00035				0.28%
Mo 202.031†	-22.4	-0.0010	mg/L	0.00020				19.25%
Ni 231.604†	65.3	0.0009	mg/L	0.00014				15.76%
Na 589.592†	10741.7	0.6136	mg/L	0.00697				1.14%
Pb 220.353†	254.6	0.0250	mg/L	0.00155				6.21%
Sb 206.836†	-5.6	-0.0025	mg/L	0.00048				19.59%
Se 196.026†	9.0	0.0036	mg/L	0.00199				55.31%
Sn 189.927†	-28.5	-0.0039	mg/L	0.00006				1.60%
Ti 337.279†	8100.6	0.0113	mg/L	0.00104				9.20%
Tl 190.801†	-2.5	-0.0008	mg/L	0.00026				33.24%
V 292.402†	44.4	0.0004	mg/L	0.00005				13.22%
Zn 206.200†	2318.4	0.0408	mg/L	0.00004				0.11%

Ca 227.546†	985.4	2.375 mg/L	0.0014		0.06%
Sr 421.552†	9895.0	0.0114 mg/L	0.00010		0.92%
Al 237.313†	646.0	0.1434 mg/L	0.00171		1.19%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 35
Sample ID: R1510591-002
Analyst:
Initial Sample Wt: 1.02 g
Dilution:

Autosampler Location: 57
Date Collected: 12/16/2015 6:48:45 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: R1510591-002

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6678244.9	0.9890	mg/L	0.00275				0.28%
Ag 328.068†	-372.7	-0.0003	mg/L	0.00003				10.60%
As 188.979†	12.9	0.0079	mg/L	0.00023				2.86%
B 249.772†	9392.1	0.0514	mg/L	0.00061				1.19%
Ba 233.527†	36861.9	0.4569	mg/L	0.00180				0.39%
Be 313.107†	-428.3	-0.0001	mg/L	0.00002				24.57%
Cd 226.502†	157.6	0.0004	mg/L	0.00004				11.28%
Co 228.616†	-9.7	-0.0003	mg/L	0.00011				42.83%
Cr 267.716†	1840.2	0.0116	mg/L	0.00035				3.02%
Cu 324.752†	6559.2	0.0196	mg/L	0.00000				0.00%
Fe 259.939†	238420.8	5.593	mg/L	0.0083				0.15%
K 766.490†	11860.4	3.002	mg/L	0.0042				0.14%
Mg 279.077†	10065.5	0.9371	mg/L	0.00808				0.86%
Mn 257.610†	215434.6	0.4570	mg/L	0.00118				0.26%
Mo 202.031†	0.3	0.0000	mg/L	0.00003				282.21%
Ni 231.604†	211.9	0.0029	mg/L	0.00012				4.03%
Na 589.592†	21404.4	1.223	mg/L	0.0082				0.67%
Pb 220.353†	196.5	0.0187	mg/L	0.00040				2.13%
Sb 206.836†	-3.3	-0.0014	mg/L	0.00052				35.94%
Se 196.026†	31.4	0.0126	mg/L	0.00107				8.53%
Sn 189.927†	-42.6	-0.0058	mg/L	0.00024				4.18%
Ti 337.279†	10999.5	0.0154	mg/L	0.00006				0.37%
Tl 190.801†	-7.5	-0.0020	mg/L	0.00042				21.50%
V 292.402†	75.2	0.0010	mg/L	0.00028				29.27%
Zn 206.200†	7068.5	0.1243	mg/L	0.00008				0.06%
Ca 227.546†	2641.7	6.387	mg/L	0.0520				0.81%
Sr 421.552†	35765.6	0.0413	mg/L	0.00016				0.39%
Al 237.313†	809.2	0.2354	mg/L	0.00313				1.33%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 36
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/16/2015 6:54:22 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6481416.3	0.9598	mg/L	0.01133				1.18%
Ag 328.068†	175410.0	0.5072	mg/L	0.00491	0.5072	mg/L	0.00491	0.97%
QC value within limits for Ag 328.068 Recovery = 101.45%								
As 188.979†	1529.1	0.9413	mg/L	0.01124	0.9413	mg/L	0.01124	1.19%
QC value within limits for As 188.979 Recovery = 94.13%								
B 249.772†	300110.9	2.403	mg/L	0.0153	2.403	mg/L	0.0153	0.64%
QC value within limits for B 249.772 Recovery = 96.12%								
Ba 233.527†	841946.8	10.44	mg/L	0.098	10.44	mg/L	0.098	0.94%
QC value within limits for Ba 233.527 Recovery = 104.37%								
Be 313.107†	1090758.8	0.2517	mg/L	0.00028	0.2517	mg/L	0.00028	0.11%
QC value within limits for Be 313.107 Recovery = 100.69%								
Cd 226.502†	64338.4	0.5077	mg/L	0.00390	0.5077	mg/L	0.00390	0.77%
QC value within limits for Cd 226.502 Recovery = 101.55%								
Co 228.616†	96114.1	2.525	mg/L	0.0225	2.525	mg/L	0.0225	0.89%
QC value within limits for Co 228.616 Recovery = 100.99%								

Cr 267.716†	85159.4	0.5266 mg/L	0.00416	0.5266 mg/L	0.00416	0.79%
QC value within limits for Cr 267.716 Recovery = 105.33%						
Cu 324.752†	421854.7	1.262 mg/L	0.0144	1.262 mg/L	0.0144	1.14%
QC value within limits for Cu 324.752 Recovery = 100.98%						
Fe 259.939†	214296.1	5.025 mg/L	0.0367	5.025 mg/L	0.0367	0.73%
QC value within limits for Fe 259.939 Recovery = 100.49%						
K 766.490†	98304.3	24.88 mg/L	0.339	24.88 mg/L	0.339	1.36%
QC value within limits for K 766.490 Recovery = 99.53%						
Mg 279.077†	261988.3	24.93 mg/L	0.226	24.93 mg/L	0.226	0.91%
QC value within limits for Mg 279.077 Recovery = 99.73%						
Mn 257.610†	366788.4	0.7775 mg/L	0.00731	0.7775 mg/L	0.00731	0.94%
QC value within limits for Mn 257.610 Recovery = 103.66%						
Mo 202.031†	54779.4	2.543 mg/L	0.0083	2.543 mg/L	0.0083	0.33%
QC value within limits for Mo 202.031 Recovery = 101.71%						
Ni 231.604†	152035.5	2.090 mg/L	0.0150	2.090 mg/L	0.0150	0.72%
QC value within limits for Ni 231.604 Recovery = 104.52%						
Na 589.592†	443160.6	25.32 mg/L	0.258	25.32 mg/L	0.258	1.02%
QC value within limits for Na 589.592 Recovery = 101.26%						
Pb 220.353†	5288.3	0.5189 mg/L	0.00596	0.5189 mg/L	0.00596	1.15%
QC value within limits for Pb 220.353 Recovery = 103.77%						
Sb 206.836†	12061.9	5.291 mg/L	0.0523	5.291 mg/L	0.0523	0.99%
QC value within limits for Sb 206.836 Recovery = 105.82%						
Se 196.026†	1234.8	0.4936 mg/L	0.00677	0.4936 mg/L	0.00677	1.37%
QC value within limits for Se 196.026 Recovery = 98.72%						
Sn 189.927†	36629.7	5.034 mg/L	0.0551	5.034 mg/L	0.0551	1.09%
QC value within limits for Sn 189.927 Recovery = 100.67%						
Ti 337.279†	1770692.2	2.471 mg/L	0.0029	2.471 mg/L	0.0029	0.12%
QC value within limits for Ti 337.279 Recovery = 98.86%						
Tl 190.801†	3155.3	1.099 mg/L	0.0100	1.099 mg/L	0.0100	0.91%
QC value within limits for Tl 190.801 Recovery = 109.86%						
V 292.402†	353835.9	2.499 mg/L	0.0245	2.499 mg/L	0.0245	0.98%
QC value within limits for V 292.402 Recovery = 99.96%						
Zn 206.200†	58261.9	1.025 mg/L	0.0097	1.025 mg/L	0.0097	0.94%
QC value within limits for Zn 206.200 Recovery = 102.46%						
Ca 227.546†	10730.9	25.85 mg/L	0.268	25.85 mg/L	0.268	1.04%
QC value within limits for Ca 227.546 Recovery = 103.41%						
Sr 421.552†	2218955.8	2.565 mg/L	0.0083	2.565 mg/L	0.0083	0.32%
QC value within limits for Sr 421.552 Recovery = 102.59%						
Al 237.313†	47056.3	10.06 mg/L	0.143	10.06 mg/L	0.143	1.42%
QC value within limits for Al 237.313 Recovery = 100.62%						

All analyte(s) passed QC.

Sequence No.: 37 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 12/16/2015 7:00:18 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6853737.4	1.015	mg/L	0.0024				0.23%
Ag 328.068†	-370.1	-0.0011	mg/L	0.00033	-0.0011	mg/L	0.00033	31.27%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	0.9	0.0006	mg/L	0.00121	0.0006	mg/L	0.00121	209.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	1604.6	0.0129	mg/L	0.00082	0.0129	mg/L	0.00082	6.32%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	148.8	0.0018	mg/L	0.00023	0.0018	mg/L	0.00023	12.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	104.4	0.0000	mg/L	0.00000	0.0000	mg/L	0.00000	12.15%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	30.4	0.0002	mg/L	0.00001	0.0002	mg/L	0.00001	3.19%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.6	-0.0001	mg/L	0.00000	-0.0001	mg/L	0.00000	2.51%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	61.8	0.0004	mg/L	0.00010	0.0004	mg/L	0.00010	26.83%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	534.9	0.0016	mg/L	0.00057	0.0016	mg/L	0.00057	35.44%
QC value within limits for Cu 324.752 Recovery = Not calculated								

Fe 259.939†	784.2	0.0184 mg/L	0.00046	0.0184 mg/L	0.00046	2.50%
QC value within limits for Fe 259.939 Recovery = Not calculated						
K 766.490†	8.4	0.0021 mg/L	0.02768	0.0021 mg/L	0.02768	>999.9%
QC value within limits for K 766.490 Recovery = Not calculated						
Mg 279.077†	427.1	0.0406 mg/L	0.00638	0.0406 mg/L	0.00638	15.72%
QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610†	557.8	0.0012 mg/L	0.00003	0.0012 mg/L	0.00003	2.16%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	81.3	0.0038 mg/L	0.00110	0.0038 mg/L	0.00110	29.06%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604†	-31.0	-0.0004 mg/L	0.00022	-0.0004 mg/L	0.00022	52.63%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Na 589.592†	265.7	0.0152 mg/L	0.00449	0.0152 mg/L	0.00449	29.57%
QC value within limits for Na 589.592 Recovery = Not calculated						
Pb 220.353†	-12.4	-0.0012 mg/L	0.00060	-0.0012 mg/L	0.00060	48.97%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	1.8	0.0008 mg/L	0.00008	0.0008 mg/L	0.00008	10.75%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-2.9	-0.0011 mg/L	0.00015	-0.0011 mg/L	0.00015	13.41%
QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	-6.3	-0.0009 mg/L	0.00097	-0.0009 mg/L	0.00097	111.11%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 337.279†	639.1	0.0009 mg/L	0.00022	0.0009 mg/L	0.00022	25.10%
QC value within limits for Ti 337.279 Recovery = Not calculated						
Tl 190.801†	-1.9	-0.0007 mg/L	0.00002	-0.0007 mg/L	0.00002	3.51%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	60.0	0.0004 mg/L	0.00024	0.0004 mg/L	0.00024	55.45%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	34.4	0.0006 mg/L	0.00003	0.0006 mg/L	0.00003	4.19%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	5.3	0.0129 mg/L	0.00259	0.0129 mg/L	0.00259	20.04%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Sr 421.552†	359.2	0.0004 mg/L	0.00007	0.0004 mg/L	0.00007	15.75%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Al 237.313†	79.2	0.0171 mg/L	0.00023	0.0171 mg/L	0.00023	1.36%
QC value within limits for Al 237.313 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 38
Sample ID: R1510591-003
Analyst:
Initial Sample Wt: 1.03 g
Dilution:

Autosampler Location: 58
Date Collected: 12/16/2015 7:05:57 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: R1510591-003

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6615155.4	0.9797	mg/L	0.01051				1.07%
Ag 328.068†	-140.4	0.0000	mg/L	0.00061				>999.9%
As 188.979†	100.6	0.0618	mg/L	0.00090				1.46%
B 249.772†	15372.0	0.1093	mg/L	0.00204				1.86%
Ba 233.527†	61507.3	0.7625	mg/L	0.00859				1.13%
Be 313.107†	-388.0	-0.0001	mg/L	0.00005				52.71%
Cd 226.502†	171.7	0.0008	mg/L	0.00002				2.26%
Co 228.616†	18.3	0.0005	mg/L	0.00007				15.20%
Cr 267.716†	14212.8	0.0877	mg/L	0.00083				0.94%
Cu 324.752†	44920.8	0.1344	mg/L	0.00090				0.67%
Fe 259.939†	144927.7	3.400	mg/L	0.0248				0.73%
K 766.490†	16312.1	4.129	mg/L	0.0797				1.93%
Mg 279.077†	16540.3	1.562	mg/L	0.0010				0.06%
Mn 257.610†	347696.9	0.7367	mg/L	0.00482				0.65%
Mo 202.031†	49.9	0.0023	mg/L	0.00064				27.79%
Ni 231.604†	603.0	0.0083	mg/L	0.00024				2.85%
Na 589.592†	53925.6	3.081	mg/L	0.0796				2.58%
Pb 220.353†	1656.9	0.1625	mg/L	0.00180				1.10%
Sb 206.836†	9.5	0.0041	mg/L	0.00023				5.63%
Se 196.026†	23.5	0.0095	mg/L	0.00008				0.88%
Sn 189.927†	-0.9	-0.0001	mg/L	0.00063				513.07%
Ti 337.279†	41086.4	0.0573	mg/L	0.00154				2.68%
Tl 190.801†	-7.2	-0.0021	mg/L	0.00119				57.17%

V 292.402†	321.2	0.0025	mg/L	0.00008	3.13%
Zn 206.200†	13641.6	0.2399	mg/L	0.00203	0.85%
Ca 227.546†	5541.5	13.35	mg/L	0.098	0.74%
Sr 421.552†	62575.0	0.0723	mg/L	0.00179	2.48%
Al 237.313†	2909.6	0.6540	mg/L	0.00102	0.16%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 39 **Autosampler Location: 59**
Sample ID: PBW-251478 **Date Collected: 12/16/2015 7:12:01 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: PBW-251478

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6754108.0	1.000	mg/L	0.0028				0.28%
Ag 328.068†	-246.3	-0.0007	mg/L	0.00023				32.14%
As 188.979†	0.6	0.0004	mg/L	0.00073				196.14%
B 249.772†	897.0	0.0072	mg/L	0.00001				0.08%
Ba 233.527†	31.0	0.0004	mg/L	0.00023				59.79%
Be 313.107†	-417.9	-0.0001	mg/L	0.00002				19.04%
Cd 226.502†	-5.9	0.0000	mg/L	0.00005				99.22%
Co 228.616†	-18.6	-0.0005	mg/L	0.00016				31.97%
Cr 267.716†	51.7	0.0003	mg/L	0.00016				48.76%
Cu 324.752†	60.0	0.0002	mg/L	0.00013				74.17%
Fe 259.939†	601.1	0.0141	mg/L	0.00089				6.34%
K 766.490†	32.2	0.0082	mg/L	0.01058				129.66%
Mg 279.077†	365.1	0.0347	mg/L	0.00246				7.09%
Mn 257.610†	574.6	0.0012	mg/L	0.00002				1.39%
Mo 202.031†	-20.5	-0.0010	mg/L	0.00018				19.37%
Ni 231.604†	-52.0	-0.0007	mg/L	0.00020				28.63%
Na 589.592†	236.6	0.0135	mg/L	0.01164				86.14%
Pb 220.353†	-8.1	-0.0008	mg/L	0.00014				17.73%
Sb 206.836†	-4.4	-0.0019	mg/L	0.00031				16.08%
Se 196.026†	5.2	0.0021	mg/L	0.00393				187.05%
Sn 189.927†	-35.7	-0.0049	mg/L	0.00009				1.89%
Ti 337.279†	109.8	0.0002	mg/L	0.00008				54.30%
Tl 190.801†	-5.3	-0.0018	mg/L	0.00012				6.39%
V 292.402†	-7.7	-0.0001	mg/L	0.00015				286.05%
Zn 206.200†	64.4	0.0011	mg/L	0.00003				2.41%
Ca 227.546†	11.8	0.0284	mg/L	0.00376				13.20%
Sr 421.552†	3.9	0.0000	mg/L	0.00004				856.80%
Al 237.313†	63.7	0.0137	mg/L	0.00459				33.48%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 40 **Autosampler Location: 60**
Sample ID: LCSW-251478 **Date Collected: 12/16/2015 7:17:39 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: LCSW-251478

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6673077.1	0.9882	mg/L	0.00063				0.06%
Ag 328.068†	17048.6	0.0494	mg/L	0.00009				0.18%
As 188.979†	62.8	0.0386	mg/L	0.00007				0.17%
B 249.772†	115074.7	0.9255	mg/L	0.01317				1.42%
Ba 233.527†	176899.8	2.193	mg/L	0.0071				0.32%
Be 313.107†	217304.3	0.0501	mg/L	0.00015				0.29%
Cd 226.502†	6553.4	0.0516	mg/L	0.00052				1.01%
Co 228.616†	19705.8	0.5177	mg/L	0.00064				0.12%
Cr 267.716†	35102.1	0.2163	mg/L	0.00126				0.58%
Cu 324.752†	92071.6	0.2755	mg/L	0.00239				0.87%
Fe 259.939†	44983.2	1.055	mg/L	0.0086				0.82%
K 766.490†	78062.4	19.76	mg/L	0.116				0.59%
Mg 279.077†	21124.0	2.008	mg/L	0.0115				0.57%

Mn 257.610†	249503.9	0.5284	mg/L	0.00214	0.40%
Mo 202.031†	11432.5	0.5307	mg/L	0.00475	0.90%
Ni 231.604†	38731.0	0.5325	mg/L	0.00202	0.38%
Na 589.592†	372096.5	21.26	mg/L	0.019	0.09%
Pb 220.353†	5404.4	0.5311	mg/L	0.00102	0.19%
Sb 206.836†	1194.0	0.5237	mg/L	0.00082	0.16%
Se 196.026†	2456.2	0.9826	mg/L	0.00087	0.09%
Sn 189.927†	38479.0	5.288	mg/L	0.0230	0.43%
Ti 337.279†	363186.8	0.5069	mg/L	0.00347	0.69%
Tl 190.801†	6230.5	2.168	mg/L	0.0153	0.71%
V 292.402†	73297.2	0.5177	mg/L	0.00275	0.53%
Zn 206.200†	29606.1	0.5207	mg/L	0.00099	0.19%
Ca 227.546†	907.2	2.189	mg/L	0.0093	0.42%
Sr 421.552†	1871854.2	2.164	mg/L	0.0502	2.32%
Al 237.313†	9375.0	2.006	mg/L	0.0090	0.45%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 41
Sample ID: R1510354-001
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 61
Date Collected: 12/16/2015 7:23:37 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510354-001

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5684683.8	0.8419	mg/L	0.00285				0.34%
Ag 328.068†	1071.0	-0.0013	mg/L	0.00018				14.26%
As 188.979†	14.3	0.0030	mg/L	0.00178				59.84%
B 249.772†	653713.1	5.282	mg/L	0.0293				0.56%
Ba 233.527†	27478.5	0.3406	mg/L	0.00088				0.26%
Be 313.107†	-2049.7	-0.0005	mg/L	0.00001				2.30%
Cd 226.502†	69.0	0.0004	mg/L	0.00008				19.91%
Co 228.616†	1598.6	0.0420	mg/L	0.00039				0.94%
Cr 267.716†	3651.5	0.0292	mg/L	0.00013				0.46%
Cu 324.752†	90706.2	0.2714	mg/L	0.00049				0.18%
Fe 259.939†	34293.0	0.8044	mg/L	0.00270				0.34%
K 766.490†	711354.4	180.1	mg/L	0.50				0.28%
Mg 279.077†	977195.9	93.06	mg/L	0.126				0.14%
Mn 257.610†	1016857.1	2.153	mg/L	0.0055				0.25%
Mo 202.031†	395.6	0.0184	mg/L	0.00002				0.13%
Ni 231.604†	14656.1	0.2015	mg/L	0.00013				0.06%
Na 589.592†	Saturated2							
Pb 220.353†	105.7	0.0132	mg/L	0.00005				0.37%
Sb 206.836†	8.3	0.0036	mg/L	0.00100				27.56%
Se 196.026†	-4.6	-0.0017	mg/L	0.00390				232.35%
Sn 189.927†	-390.4	-0.0536	mg/L	0.00040				0.74%
Ti 337.279†	3373.7	0.0047	mg/L	0.00059				12.54%
Tl 190.801†	-33.4	-0.0101	mg/L	0.00096				9.47%
V 292.402†	123.4	0.0009	mg/L	0.00010				11.15%
Zn 206.200†	6264.9	0.1102	mg/L	0.00039				0.35%
Ca 227.546†	165733.9	398.9	mg/L	0.06				0.02%
Sr 421.552†	1069712.5	1.236	mg/L	0.0058				0.47%
Al 237.313†	745.3	0.0179	mg/L	0.00139				7.75%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 42
Sample ID: R1510354-001L
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 62
Date Collected: 12/16/2015 7:29:20 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510354-001L

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6395782.8	0.9472	mg/L	0.00044				0.05%
Ag 328.068†	171.7	-0.0003	mg/L	0.00029				84.77%
As 188.979†	7.2	0.0033	mg/L	0.00018				5.53%

B 249.772†	130977.4	1.058 mg/L	0.0057	0.54%
Ba 233.527†	5565.5	0.0690 mg/L	0.00004	0.06%
Be 313.107†	-523.4	-0.0001 mg/L	0.00001	6.87%
Cd 226.502†	26.9	0.0002 mg/L	0.00002	9.91%
Co 228.616†	316.2	0.0083 mg/L	0.00021	2.51%
Cr 267.716†	674.6	0.0056 mg/L	0.00000	0.00%
Cu 324.752†	17308.6	0.0518 mg/L	0.00010	0.19%
Fe 259.939†	6996.4	0.1641 mg/L	0.00022	0.13%
K 766.490†	157719.0	39.92 mg/L	0.235	0.59%
Mg 279.077†	205635.5	19.58 mg/L	0.051	0.26%
Mn 257.610†	208708.7	0.4419 mg/L	0.00081	0.18%
Mo 202.031†	74.8	0.0035 mg/L	0.00005	1.58%
Ni 231.604†	2970.2	0.0408 mg/L	0.00013	0.32%
Na 589.592†	3691658.0	210.9 mg/L	2.79	1.32%
Pb 220.353†	16.3	0.0021 mg/L	0.00007	3.05%
Sb 206.836†	-1.7	-0.0008 mg/L	0.00020	26.80%
Se 196.026†	-4.7	-0.0019 mg/L	0.00202	107.05%
Sn 189.927†	-269.7	-0.0371 mg/L	0.00031	0.84%
Ti 337.279†	1071.3	0.0015 mg/L	0.00048	32.09%
Tl 190.801†	-12.5	-0.0040 mg/L	0.00025	6.22%
V 292.402†	17.3	0.0001 mg/L	0.00000	1.86%
Zn 206.200†	1394.0	0.0245 mg/L	0.00011	0.44%
Ca 227.546†	31737.1	76.38 mg/L	0.019	0.02%
Sr 421.552†	211216.7	0.2441 mg/L	0.00147	0.60%
Al 237.313†	231.3	0.0224 mg/L	0.00062	2.75%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 43 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 12/16/2015 7:35:10 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 371.029	6492068.2	0.9614	mg/L	0.00592				0.62%
Ag 328.068†	176155.1	0.5094	mg/L	0.00605	0.5094	mg/L	0.00605	1.19%
QC value within limits for Ag 328.068 Recovery = 101.88%								
As 188.979†	1521.2	0.9364	mg/L	0.00069	0.9364	mg/L	0.00069	0.07%
QC value within limits for As 188.979 Recovery = 93.64%								
B 249.772†	302659.1	2.423	mg/L	0.0434	2.423	mg/L	0.0434	1.79%
QC value within limits for B 249.772 Recovery = 96.93%								
Ba 233.527†	846705.9	10.50	mg/L	0.097	10.50	mg/L	0.097	0.92%
QC value within limits for Ba 233.527 Recovery = 104.96%								
Be 313.107†	1083802.5	0.2501	mg/L	0.00013	0.2501	mg/L	0.00013	0.05%
QC value within limits for Be 313.107 Recovery = 100.05%								
Cd 226.502†	64670.6	0.5104	mg/L	0.00508	0.5104	mg/L	0.00508	1.00%
QC value within limits for Cd 226.502 Recovery = 102.07%								
Co 228.616†	96478.1	2.534	mg/L	0.0249	2.534	mg/L	0.0249	0.98%
QC value within limits for Co 228.616 Recovery = 101.38%								
Cr 267.716†	85717.4	0.5301	mg/L	0.00609	0.5301	mg/L	0.00609	1.15%
QC value within limits for Cr 267.716 Recovery = 106.01%								
Cu 324.752†	423844.6	1.268	mg/L	0.0210	1.268	mg/L	0.0210	1.66%
QC value within limits for Cu 324.752 Recovery = 101.46%								
Fe 259.939†	216262.4	5.071	mg/L	0.0648	5.071	mg/L	0.0648	1.28%
QC value within limits for Fe 259.939 Recovery = 101.41%								
K 766.490†	113735.8	28.79	mg/L	0.265	28.79	mg/L	0.265	0.92%
QC value greater than the upper limit for K 766.490 Recovery = 115.15%								
Mg 279.077†	262783.9	25.01	mg/L	0.260	25.01	mg/L	0.260	1.04%
QC value within limits for Mg 279.077 Recovery = 100.03%								
Mn 257.610†	368559.4	0.7812	mg/L	0.00831	0.7812	mg/L	0.00831	1.06%
QC value within limits for Mn 257.610 Recovery = 104.16%								
Mo 202.031†	54910.7	2.549	mg/L	0.0353	2.549	mg/L	0.0353	1.38%
QC value within limits for Mo 202.031 Recovery = 101.95%								
Ni 231.604†	152648.0	2.099	mg/L	0.0216	2.099	mg/L	0.0216	1.03%
QC value within limits for Ni 231.604 Recovery = 104.94%								
Na 589.592†	464623.5	26.54	mg/L	0.140	26.54	mg/L	0.140	0.53%
QC value within limits for Na 589.592 Recovery = 106.17%								
Pb 220.353†	5288.5	0.5189	mg/L	0.00138	0.5189	mg/L	0.00138	0.27%

QC value within limits for Pb 220.353 Recovery = 103.77%

Sb 206.836†	11859.7	5.202 mg/L	0.0117	5.202 mg/L	0.0117	0.23%
QC value within limits for Sb 206.836 Recovery = 104.04%						
Se 196.026†	1214.4	0.4854 mg/L	0.00053	0.4854 mg/L	0.00053	0.11%
QC value within limits for Se 196.026 Recovery = 97.08%						
Sn 189.927†	36430.8	5.006 mg/L	0.0140	5.006 mg/L	0.0140	0.28%
QC value within limits for Sn 189.927 Recovery = 100.12%						
Ti 337.279†	1765617.6	2.464 mg/L	0.0055	2.464 mg/L	0.0055	0.22%
QC value within limits for Ti 337.279 Recovery = 98.57%						
Tl 190.801†	3136.1	1.092 mg/L	0.0040	1.092 mg/L	0.0040	0.36%
QC value within limits for Tl 190.801 Recovery = 109.19%						
V 292.402†	354859.8	2.506 mg/L	0.0271	2.506 mg/L	0.0271	1.08%
QC value within limits for V 292.402 Recovery = 100.25%						
Zn 206.200†	58567.2	1.030 mg/L	0.0074	1.030 mg/L	0.0074	0.72%
QC value within limits for Zn 206.200 Recovery = 103.00%						
Ca 227.546†	10635.3	25.62 mg/L	0.004	25.62 mg/L	0.004	0.02%
QC value within limits for Ca 227.546 Recovery = 102.49%						
Sr 421.552†	2267487.8	2.621 mg/L	0.0024	2.621 mg/L	0.0024	0.09%
QC value within limits for Sr 421.552 Recovery = 104.84%						
Al 237.313†	46914.6	10.03 mg/L	0.159	10.03 mg/L	0.159	1.58%
QC value within limits for Al 237.313 Recovery = 100.33%						

QC Failed. Continue with analysis.

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Sequence No.: 44 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 12/16/2015 7:40:59 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6900542.5	1.022	mg/L	0.0627				6.14%
Ag 328.068†	-158.8	-0.0005	mg/L	0.00018	-0.0005	mg/L	0.00018	38.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	0.6	0.0004	mg/L	0.00093	0.0004	mg/L	0.00093	240.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	3689.1	0.0298	mg/L	0.00002	0.0298	mg/L	0.00002	0.08%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	146.9	0.0018	mg/L	0.00118	0.0018	mg/L	0.00118	64.85%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	247.1	0.0001	mg/L	0.00011	0.0001	mg/L	0.00011	193.38%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	38.8	0.0003	mg/L	0.00044	0.0003	mg/L	0.00044	143.44%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.3	0.0001	mg/L	0.00036	0.0001	mg/L	0.00036	322.76%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	50.5	0.0003	mg/L	0.00023	0.0003	mg/L	0.00023	74.08%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	358.4	0.0011	mg/L	0.00046	0.0011	mg/L	0.00046	43.11%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	611.1	0.0143	mg/L	0.00591	0.0143	mg/L	0.00591	41.22%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	133.5	0.0338	mg/L	0.02883	0.0338	mg/L	0.02883	85.33%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	418.4	0.0398	mg/L	0.05136	0.0398	mg/L	0.05136	129.08%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	509.4	0.0011	mg/L	0.00025	0.0011	mg/L	0.00025	23.15%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	85.5	0.0040	mg/L	0.00062	0.0040	mg/L	0.00062	15.65%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	-11.7	-0.0002	mg/L	0.00032	-0.0002	mg/L	0.00032	198.82%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	1421.5	0.0812	mg/L	0.01235	0.0812	mg/L	0.01235	15.21%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	-12.6	-0.0012	mg/L	0.00184	-0.0012	mg/L	0.00184	147.62%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	2.3	0.0010	mg/L	0.00020	0.0010	mg/L	0.00020	20.04%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-1.9	-0.0008	mg/L	0.00227	-0.0008	mg/L	0.00227	297.12%

QC value within limits for Se 196.026 Recovery = Not calculated

Sn 189.927†	18.6	0.0026 mg/L	0.00074	0.0026 mg/L	0.00074	29.06%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Ti 337.279†	647.4	0.0009 mg/L	0.00008	0.0009 mg/L	0.00008	8.99%
QC value within limits for Ti 337.279 Recovery = Not calculated							
Tl 190.801†	-1.1	-0.0004 mg/L	0.00098	-0.0004 mg/L	0.00098	265.41%
QC value within limits for Tl 190.801 Recovery = Not calculated							
V 292.402†	29.0	0.0002 mg/L	0.00005	0.0002 mg/L	0.00005	25.72%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 206.200†	29.2	0.0005 mg/L	0.00008	0.0005 mg/L	0.00008	16.13%
QC value within limits for Zn 206.200 Recovery = Not calculated							
Ca 227.546†	10.6	0.0255 mg/L	0.00522	0.0255 mg/L	0.00522	20.46%
QC value within limits for Ca 227.546 Recovery = Not calculated							
Sr 421.552†	545.2	0.0006 mg/L	0.00027	0.0006 mg/L	0.00027	42.54%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Al 237.313†	60.9	0.0131 mg/L	0.02339	0.0131 mg/L	0.02339	178.32%
QC value within limits for Al 237.313 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 45
Sample ID: MRL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/16/2015 7:46:40 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: MRL

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6526132.4	0.9665	mg/L	0.01055				1.09%
Ag 328.068†	3415.3	0.0099	mg/L	0.00035	0.0099	mg/L	0.00035	3.51%
QC value within limits for Ag 328.068 Recovery = 98.73%								
As 188.979†	31.9	0.0196	mg/L	0.00005	0.0196	mg/L	0.00005	0.24%
QC value within limits for As 188.979 Recovery = 98.03%								
B 249.772†	27184.9	0.2193	mg/L	0.00683	0.2193	mg/L	0.00683	3.11%
QC value within limits for B 249.772 Recovery = 109.63%								
Ba 233.527†	18184.6	0.2254	mg/L	0.00286	0.2254	mg/L	0.00286	1.27%
QC value within limits for Ba 233.527 Recovery = 112.71%								
Be 313.107†	21798.0	0.0050	mg/L	0.00003	0.0050	mg/L	0.00003	0.69%
QC value within limits for Be 313.107 Recovery = 100.61%								
Cd 226.502†	1296.1	0.0102	mg/L	0.00006	0.0102	mg/L	0.00006	0.59%
QC value within limits for Cd 226.502 Recovery = 102.26%								
Co 228.616†	2090.4	0.0549	mg/L	0.00072	0.0549	mg/L	0.00072	1.32%
QC value within limits for Co 228.616 Recovery = 109.82%								
Cr 267.716†	1737.4	0.0108	mg/L	0.00016	0.0108	mg/L	0.00016	1.51%
QC value within limits for Cr 267.716 Recovery = 107.96%								
Cu 324.752†	9276.3	0.0278	mg/L	0.00092	0.0278	mg/L	0.00092	3.31%
QC value within limits for Cu 324.752 Recovery = 111.02%								
Fe 259.939†	4951.4	0.1161	mg/L	0.00024	0.1161	mg/L	0.00024	0.21%
QC value within limits for Fe 259.939 Recovery = 116.10%								
K 766.490†	3742.4	0.9473	mg/L	0.00341	0.9473	mg/L	0.00341	0.36%
QC value within limits for K 766.490 Recovery = 94.73%								
Mg 279.077†	11368.5	1.082	mg/L	0.0259	1.082	mg/L	0.0259	2.40%
QC value within limits for Mg 279.077 Recovery = 108.23%								
Mn 257.610†	8123.2	0.0172	mg/L	0.00024	0.0172	mg/L	0.00024	1.37%
QC value within limits for Mn 257.610 Recovery = 114.79%								
Mo 202.031†	573.0	0.0266	mg/L	0.00016	0.0266	mg/L	0.00016	0.60%
QC value within limits for Mo 202.031 Recovery = 106.39%								
Ni 231.604†	3127.7	0.0430	mg/L	0.00054	0.0430	mg/L	0.00054	1.25%
QC value within limits for Ni 231.604 Recovery = 107.51%								
Na 589.592†	19110.9	1.092	mg/L	0.0234	1.092	mg/L	0.0234	2.14%
QC value within limits for Na 589.592 Recovery = 109.17%								
Pb 220.353†	116.8	0.0115	mg/L	0.00007	0.0115	mg/L	0.00007	0.64%
QC value within limits for Pb 220.353 Recovery = 114.63%								
Sb 206.836†	145.0	0.0636	mg/L	0.00066	0.0636	mg/L	0.00066	1.03%
QC value within limits for Sb 206.836 Recovery = 105.98%								
Se 196.026†	23.2	0.0093	mg/L	0.00155	0.0093	mg/L	0.00155	16.78%
QC value within limits for Se 196.026 Recovery = 92.67%								
Sn 189.927†	3920.8	0.5388	mg/L	0.00655	0.5388	mg/L	0.00655	1.22%
QC value within limits for Sn 189.927 Recovery = 107.76%								
Ti 337.279†	36912.0	0.0515	mg/L	0.00113	0.0515	mg/L	0.00113	2.20%

QC value within limits for Ti 337.279 Recovery = 103.04%

Tl 190.801†	60.6	0.0211 mg/L	0.00016	0.0211 mg/L	0.00016	0.76%

QC value within limits for Tl 190.801 Recovery = 105.61%

V 292.402†	7461.0	0.0527 mg/L	0.00089	0.0527 mg/L	0.00089	1.69%

QC value within limits for V 292.402 Recovery = 105.39%

Zn 206.200†	1255.1	0.0221 mg/L	0.00042	0.0221 mg/L	0.00042	1.89%

QC value within limits for Zn 206.200 Recovery = 110.37%

Ca 227.546†	417.6	1.006 mg/L	0.0004	1.006 mg/L	0.0004	0.04%

QC value within limits for Ca 227.546 Recovery = 100.55%

Sr 421.552†	90162.3	0.1042 mg/L	0.00208	0.1042 mg/L	0.00208	1.99%

QC value within limits for Sr 421.552 Recovery = 104.21%

Al 237.313†	918.7	0.1965 mg/L	0.00533	0.1965 mg/L	0.00533	2.71%

QC value within limits for Al 237.313 Recovery = 98.24%

All analyte(s) passed QC.

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: ICSA **Date Collected: 12/16/2015 7:52:20 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6001084.0	0.8887	mg/L	0.00677				0.76%
Ag 328.068†	-3922.0	-0.0003	mg/L	0.00076	-0.0003	mg/L	0.00076	227.71%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	15.2	-0.0004	mg/L	0.00201	-0.0004	mg/L	0.00201	494.27%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	45843.7	-0.0562	mg/L	0.00341	-0.0562	mg/L	0.00341	6.07%
Ba 233.527†	-246.6	-0.0044	mg/L	0.00024	-0.0044	mg/L	0.00024	5.44%
Be 313.107†	-1313.0	-0.0003	mg/L	0.00003	-0.0003	mg/L	0.00003	8.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	1042.6	-0.0028	mg/L	0.00005	-0.0028	mg/L	0.00005	1.94%
QC value less than the lower limit for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-52.8	-0.0014	mg/L	0.00013	-0.0014	mg/L	0.00013	9.47%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-4269.2	-0.0019	mg/L	0.00035	-0.0019	mg/L	0.00035	18.42%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	-944.4	-0.0028	mg/L	0.00004	-0.0028	mg/L	0.00004	1.43%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	3761958.4	88.18	mg/L	0.041	88.18	mg/L	0.041	0.05%
QC value within limits for Fe 259.939 Recovery = 88.18%								
K 766.490†	431.7	0.1093	mg/L	0.02431	0.1093	mg/L	0.02431	22.25%
Mg 279.077†	2547361.8	242.3	mg/L	0.12	242.3	mg/L	0.12	0.05%
QC value within limits for Mg 279.077 Recovery = 96.91%								
Mn 257.610†	-7749.6	0.0009	mg/L	0.00006	0.0009	mg/L	0.00006	6.23%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-136.6	-0.0063	mg/L	0.00032	-0.0063	mg/L	0.00032	5.09%
Ni 231.604†	-30.2	-0.0004	mg/L	0.00007	-0.0004	mg/L	0.00007	16.91%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	1810.0	0.1034	mg/L	0.00204	0.1034	mg/L	0.00204	1.97%
Pb 220.353†	262.9	0.0012	mg/L	0.00013	0.0012	mg/L	0.00013	10.69%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	52.4	-0.0006	mg/L	0.00114	-0.0006	mg/L	0.00114	194.60%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	14.5	0.0033	mg/L	0.00116	0.0033	mg/L	0.00116	34.98%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-474.8	-0.0652	mg/L	0.00074	-0.0652	mg/L	0.00074	1.13%
Ti 337.279†	241.5	0.0003	mg/L	0.00005	0.0003	mg/L	0.00005	16.13%
Tl 190.801†	-35.3	0.0016	mg/L	0.00053	0.0016	mg/L	0.00053	34.11%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-1151.8	-0.0013	mg/L	0.00001	-0.0013	mg/L	0.00001	0.82%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	381.7	0.0067	mg/L	0.00050	0.0067	mg/L	0.00050	7.41%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Ca 227.546†	112726.8	271.8	mg/L	3.43	271.8	mg/L	3.43	1.26%
QC value within limits for Ca 227.546 Recovery = 108.70%								
Sr 421.552†	3124.0	0.0036	mg/L	0.00005	0.0036	mg/L	0.00005	1.37%
Al 237.313†	1220128.0	260.6	mg/L	1.19	260.6	mg/L	1.19	0.46%

QC value within limits for Al 237.313 Recovery = 104.23%
QC Failed. Continue with analysis.

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: ICSAB **Date Collected: 12/16/2015 7:58:03 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6071289.4	0.8991	mg/L	0.00091				0.10%
Ag 328.068†	68022.0	0.2073	mg/L	0.00150	0.2073	mg/L	0.00150	0.72%
QC value within limits for Ag 328.068 Recovery = 103.67%								
As 188.979†	160.2	0.0891	mg/L	0.00095	0.0891	mg/L	0.00095	1.07%
QC value within limits for As 188.979 Recovery = 89.11%								
B 249.772†	43908.6	-0.0647	mg/L	0.00691	-0.0647	mg/L	0.00691	10.69%
Ba 233.527†	41170.4	0.5091	mg/L	0.00043	0.5091	mg/L	0.00043	0.08%
QC value within limits for Ba 233.527 Recovery = 101.81%								
Be 313.107†	2165713.2	0.4998	mg/L	0.00089	0.4998	mg/L	0.00089	0.18%
QC value within limits for Be 313.107 Recovery = 99.96%								
Cd 226.502†	120409.2	0.9407	mg/L	0.01451	0.9407	mg/L	0.01451	1.54%
QC value within limits for Cd 226.502 Recovery = 94.07%								
Co 228.616†	17449.9	0.4584	mg/L	0.00056	0.4584	mg/L	0.00056	0.12%
QC value within limits for Co 228.616 Recovery = 91.68%								
Cr 267.716†	77029.6	0.4982	mg/L	0.00595	0.4982	mg/L	0.00595	1.19%
QC value within limits for Cr 267.716 Recovery = 99.64%								
Cu 324.752†	169276.9	0.5065	mg/L	0.00338	0.5065	mg/L	0.00338	0.67%
QC value within limits for Cu 324.752 Recovery = 101.30%								
Fe 259.939†	3698905.3	86.71	mg/L	0.208	86.71	mg/L	0.208	0.24%
QC value within limits for Fe 259.939 Recovery = 86.71%								
K 766.490†	469.7	0.1189	mg/L	0.00353	0.1189	mg/L	0.00353	2.97%
Mg 279.077†	2505877.9	238.3	mg/L	0.42	238.3	mg/L	0.42	0.18%
QC value within limits for Mg 279.077 Recovery = 95.33%								
Mn 257.610†	225127.2	0.4937	mg/L	0.00499	0.4937	mg/L	0.00499	1.01%
QC value within limits for Mn 257.610 Recovery = 98.74%								
Mo 202.031†	-148.5	-0.0069	mg/L	0.00011	-0.0069	mg/L	0.00011	1.66%
Ni 231.604†	67541.7	0.9286	mg/L	0.01323	0.9286	mg/L	0.01323	1.42%
QC value within limits for Ni 231.604 Recovery = 92.86%								
Na 589.592†	1758.8	0.1005	mg/L	0.00240	0.1005	mg/L	0.00240	2.39%
Pb 220.353†	760.4	0.0505	mg/L	0.00099	0.0505	mg/L	0.00099	1.96%
QC value within limits for Pb 220.353 Recovery = 101.01%								
Sb 206.836†	1490.3	0.6306	mg/L	0.00171	0.6306	mg/L	0.00171	0.27%
QC value within limits for Sb 206.836 Recovery = 105.10%								
Se 196.026†	129.8	0.0495	mg/L	0.00169	0.0495	mg/L	0.00169	3.42%
QC value within limits for Se 196.026 Recovery = 98.92%								
Sn 189.927†	-489.9	-0.0673	mg/L	0.00049	-0.0673	mg/L	0.00049	0.73%
Ti 337.279†	69.8	0.0001	mg/L	0.00004	0.0001	mg/L	0.00004	38.25%
Tl 190.801†	233.7	0.0949	mg/L	0.00150	0.0949	mg/L	0.00150	1.58%
QC value within limits for Tl 190.801 Recovery = 94.92%								
V 292.402†	67676.5	0.4846	mg/L	0.00459	0.4846	mg/L	0.00459	0.95%
QC value within limits for V 292.402 Recovery = 96.93%								
Zn 206.200†	52194.4	0.9179	mg/L	0.02025	0.9179	mg/L	0.02025	2.21%
QC value within limits for Zn 206.200 Recovery = 91.79%								
Ca 227.546†	109885.3	264.9	mg/L	2.34	264.9	mg/L	2.34	0.88%
QC value within limits for Ca 227.546 Recovery = 105.96%								
Sr 421.552†	3130.3	0.0036	mg/L	0.00008	0.0036	mg/L	0.00008	2.12%
Al 237.313†	1200590.5	256.4	mg/L	0.75	256.4	mg/L	0.75	0.29%
QC value within limits for Al 237.313 Recovery = 102.56%								

All analyte(s) passed QC.

Sequence No.: 48 **Autosampler Location: 13**
Sample ID: HLCCV2 **Date Collected: 12/16/2015 8:03:44 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: HLCCV2

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5688773.0	0.8425	mg/L	0.01070				1.27%
Ag 328.068†	712629.2	2.063	mg/L	0.0033	2.063	mg/L	0.0033	0.16%
QC value within limits for Ag 328.068 Recovery = 103.13%								
As 188.979†	6050.1	3.711	mg/L	0.0420	3.711	mg/L	0.0420	1.13%
QC value within limits for As 188.979 Recovery = 92.79%								
B 249.772†	1235341.3	9.713	mg/L	0.0152	9.713	mg/L	0.0152	0.16%
QC value within limits for B 249.772 Recovery = 97.13%								
Ba 233.527†	2983881.3	36.99	mg/L	0.011	36.99	mg/L	0.011	0.03%
QC value within limits for Ba 233.527 Recovery = 92.47%								
Be 313.107†	4148395.1	0.9574	mg/L	0.00176	0.9574	mg/L	0.00176	0.18%
QC value within limits for Be 313.107 Recovery = 95.74%								
Cd 226.502†	230010.9	1.816	mg/L	0.0083	1.816	mg/L	0.0083	0.46%
QC value within limits for Cd 226.502 Recovery = 90.81%								
Co 228.616†	337181.9	8.858	mg/L	0.0189	8.858	mg/L	0.0189	0.21%
QC value less than the lower limit for Co 228.616 Recovery = 88.58%								
Cr 267.716†	1559651.6	9.643	mg/L	0.0116	9.643	mg/L	0.0116	0.12%
QC value within limits for Cr 267.716 Recovery = 96.43%								
Cu 324.752†	1722244.9	5.153	mg/L	0.0184	5.153	mg/L	0.0184	0.36%
QC value within limits for Cu 324.752 Recovery = 103.06%								
Fe 259.939†	1914968.4	44.80	mg/L	0.018	44.80	mg/L	0.018	0.04%
QC value less than the lower limit for Fe 259.939 Recovery = 89.59%								
K 766.490†	654948.7	165.8	mg/L	1.84	165.8	mg/L	1.84	1.11%
QC value greater than the upper limit for K 766.490 Recovery = 110.52%								
Mg 279.077†	4796509.8	456.6	mg/L	0.87	456.6	mg/L	0.87	0.19%
QC value within limits for Mg 279.077 Recovery = 91.33%								
Mn 257.610†	4402655.9	9.334	mg/L	0.0070	9.334	mg/L	0.0070	0.07%
QC value within limits for Mn 257.610 Recovery = 93.34%								
Mo 202.031†	209865.7	9.742	mg/L	0.0186	9.742	mg/L	0.0186	0.19%
QC value within limits for Mo 202.031 Recovery = 97.42%								
Ni 231.604†	520004.9	7.149	mg/L	0.0181	7.149	mg/L	0.0181	0.25%
QC value less than the lower limit for Ni 231.604 Recovery = 89.37%								
Na 589.592†	2724202.0	155.6	mg/L	2.02	155.6	mg/L	2.02	1.30%
QC value within limits for Na 589.592 Recovery = 103.75%								
Pb 220.353†	92680.0	9.076	mg/L	0.0351	9.076	mg/L	0.0351	0.39%
QC value within limits for Pb 220.353 Recovery = 90.76%								
Sb 206.836†	568.2	0.2034	mg/L	0.00402	0.2034	mg/L	0.00402	1.98%
Se 196.026†	4873.0	1.943	mg/L	0.0330	1.943	mg/L	0.0330	1.70%
QC value within limits for Se 196.026 Recovery = 97.17%								
Sn 189.927†	-807.0	-0.1109	mg/L	0.00263	-0.1109	mg/L	0.00263	2.37%
Ti 337.279†	6980752.7	9.743	mg/L	0.0186	9.743	mg/L	0.0186	0.19%
QC value within limits for Ti 337.279 Recovery = 97.43%								
Tl 190.801†	10066.4	3.514	mg/L	0.0306	3.514	mg/L	0.0306	0.87%
QC value less than the lower limit for Tl 190.801 Recovery = 87.85%								
V 292.402†	1364754.2	9.641	mg/L	0.0036	9.641	mg/L	0.0036	0.04%
QC value within limits for V 292.402 Recovery = 96.41%								
Zn 206.200†	201798.7	3.549	mg/L	0.0245	3.549	mg/L	0.0245	0.69%
QC value less than the lower limit for Zn 206.200 Recovery = 88.73%								
Ca 227.546†	115897.2	279.2	mg/L	0.88	279.2	mg/L	0.88	0.31%
QC value greater than the upper limit for Ca 227.546 Recovery = 111.66%								
Sr 421.552†	Saturated2							
Unable to evaluate QC.								
Al 237.313†	2375844.2	506.0	mg/L	0.82	506.0	mg/L	0.82	0.16%
QC value within limits for Al 237.313 Recovery = 101.20%								

QC Failed. Continue with analysis.

Sequence No.: 49 **Autosampler Location: 2**
Sample ID: HLCCV1 **Date Collected: 12/16/2015 8:08:02 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: HLCCV1

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6445135.4	0.9545	mg/L	0.00224				0.23%
Ag 328.068†	347412.3	1.005	mg/L	0.0015	1.005	mg/L	0.0015	0.15%
QC value within limits for Ag 328.068 Recovery = 100.46%								

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As 188.979†	3056.7	1.882 mg/L	0.0040	1.882 mg/L	0.0040	0.21%
QC value within limits for As 188.979 Recovery = 94.08%						
B 249.772†	609817.0	4.883 mg/L	0.0026	4.883 mg/L	0.0026	0.05%
QC value within limits for B 249.772 Recovery = 97.67%						
Ba 233.527†	1652300.2	20.48 mg/L	0.076	20.48 mg/L	0.076	0.37%
QC value within limits for Ba 233.527 Recovery = 102.41%						
Be 313.107†	2167365.8	0.5002 mg/L	0.00085	0.5002 mg/L	0.00085	0.17%
QC value within limits for Be 313.107 Recovery = 100.04%						
Cd 226.502†	127448.0	1.006 mg/L	0.0018	1.006 mg/L	0.0018	0.18%
QC value within limits for Cd 226.502 Recovery = 100.58%						
Co 228.616†	191834.5	5.039 mg/L	0.0177	5.039 mg/L	0.0177	0.35%
QC value within limits for Co 228.616 Recovery = 100.79%						
Cr 267.716†	164442.3	1.017 mg/L	0.0033	1.017 mg/L	0.0033	0.32%
QC value within limits for Cr 267.716 Recovery = 101.71%						
Cu 324.752†	852390.8	2.550 mg/L	0.0119	2.550 mg/L	0.0119	0.47%
QC value within limits for Cu 324.752 Recovery = 102.02%						
Fe 259.939†	428850.0	10.05 mg/L	0.016	10.05 mg/L	0.016	0.16%
QC value within limits for Fe 259.939 Recovery = 100.55%						
K 766.490†	199511.5	50.50 mg/L	0.086	50.50 mg/L	0.086	0.17%
QC value within limits for K 766.490 Recovery = 101.00%						
Mg 279.077†	526641.3	50.12 mg/L	0.115	50.12 mg/L	0.115	0.23%
QC value within limits for Mg 279.077 Recovery = 100.24%						
Mn 257.610†	713636.1	1.513 mg/L	0.0041	1.513 mg/L	0.0041	0.27%
QC value within limits for Mn 257.610 Recovery = 100.85%						
Mo 202.031†	111954.0	5.197 mg/L	0.0074	5.197 mg/L	0.0074	0.14%
QC value within limits for Mo 202.031 Recovery = 103.93%						
Ni 231.604†	292714.3	4.024 mg/L	0.0151	4.024 mg/L	0.0151	0.37%
QC value within limits for Ni 231.604 Recovery = 100.61%						
Na 589.592†	887174.5	50.68 mg/L	0.263	50.68 mg/L	0.263	0.52%
QC value within limits for Na 589.592 Recovery = 101.36%						
Pb 220.353†	10248.1	1.005 mg/L	0.0070	1.005 mg/L	0.0070	0.69%
QC value within limits for Pb 220.353 Recovery = 100.54%						
Sb 206.836†	24039.0	10.54 mg/L	0.015	10.54 mg/L	0.015	0.15%
QC value within limits for Sb 206.836 Recovery = 105.45%						
Se 196.026†	2465.9	0.9857 mg/L	0.02046	0.9857 mg/L	0.02046	2.08%
QC value within limits for Se 196.026 Recovery = 98.57%						
Sn 189.927†	72570.8	9.972 mg/L	0.0566	9.972 mg/L	0.0566	0.57%
QC value within limits for Sn 189.927 Recovery = 99.72%						
Ti 337.279†	3601171.1	5.026 mg/L	0.0060	5.026 mg/L	0.0060	0.12%
QC value within limits for Ti 337.279 Recovery = 100.53%						
Tl 190.801†	5893.7	2.052 mg/L	0.0105	2.052 mg/L	0.0105	0.51%
QC value within limits for Tl 190.801 Recovery = 102.61%						
V 292.402†	722251.7	5.101 mg/L	0.0048	5.101 mg/L	0.0048	0.09%
QC value within limits for V 292.402 Recovery = 102.02%						
Zn 206.200†	113790.8	2.001 mg/L	0.0197	2.001 mg/L	0.0197	0.99%
QC value within limits for Zn 206.200 Recovery = 100.06%						
Ca 227.546†	21183.5	51.03 mg/L	0.380	51.03 mg/L	0.380	0.75%
QC value within limits for Ca 227.546 Recovery = 102.07%						
Sr 421.552†	4364247.5	5.044 mg/L	0.1363	5.044 mg/L	0.1363	2.70%
QC value within limits for Sr 421.552 Recovery = 100.89%						
Al 237.313†	96492.7	20.63 mg/L	0.054	20.63 mg/L	0.054	0.26%
QC value within limits for Al 237.313 Recovery = 103.16%						

All analyte(s) passed QC.

Sequence No.: 50 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 12/16/2015 8:12:16 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6429014.2	0.9521	mg/L	0.00774				0.81%
Ag 328.068†	177112.1	0.5122	mg/L	0.01035	0.5122	mg/L	0.01035	2.02%
QC value within limits for Ag 328.068 Recovery = 102.43%								
As 188.979†	1516.2	0.9334	mg/L	0.00819	0.9334	mg/L	0.00819	0.88%
QC value within limits for As 188.979 Recovery = 93.34%								
B 249.772†	310424.1	2.486	mg/L	0.0643	2.486	mg/L	0.0643	2.59%
QC value within limits for B 249.772 Recovery = 99.43%								

Ba 233.527†	860593.3	10.67 mg/L	0.171	10.67 mg/L	0.171	1.60%
QC value within limits for Ba 233.527 Recovery = 106.68%						
Be 313.107†	1102886.6	0.2545 mg/L	0.00010	0.2545 mg/L	0.00010	0.04%
QC value within limits for Be 313.107 Recovery = 101.81%						
Cd 226.502†	65543.8	0.5173 mg/L	0.00825	0.5173 mg/L	0.00825	1.60%
QC value within limits for Cd 226.502 Recovery = 103.45%						
Co 228.616†	97330.2	2.557 mg/L	0.0417	2.557 mg/L	0.0417	1.63%
QC value within limits for Co 228.616 Recovery = 102.27%						
Cr 267.716†	87017.8	0.5381 mg/L	0.00986	0.5381 mg/L	0.00986	1.83%
QC value within limits for Cr 267.716 Recovery = 107.62%						
Cu 324.752†	430045.5	1.287 mg/L	0.0306	1.287 mg/L	0.0306	2.38%
QC value within limits for Cu 324.752 Recovery = 102.94%						
Fe 259.939†	218759.9	5.129 mg/L	0.0997	5.129 mg/L	0.0997	1.94%
QC value within limits for Fe 259.939 Recovery = 102.58%						
K 766.490†	97065.3	24.57 mg/L	0.324	24.57 mg/L	0.324	1.32%
QC value within limits for K 766.490 Recovery = 98.28%						
Mg 279.077†	265527.2	25.27 mg/L	0.431	25.27 mg/L	0.431	1.71%
QC value within limits for Mg 279.077 Recovery = 101.07%						
Mn 257.610†	372540.4	0.7897 mg/L	0.01377	0.7897 mg/L	0.01377	1.74%
QC value within limits for Mn 257.610 Recovery = 105.29%						
Mo 202.031†	56521.4	2.624 mg/L	0.0541	2.624 mg/L	0.0541	2.06%
QC value within limits for Mo 202.031 Recovery = 104.94%						
Ni 231.604†	154846.6	2.129 mg/L	0.0374	2.129 mg/L	0.0374	1.76%
QC value within limits for Ni 231.604 Recovery = 106.45%						
Na 589.592†	435100.5	24.86 mg/L	0.241	24.86 mg/L	0.241	0.97%
QC value within limits for Na 589.592 Recovery = 99.42%						
Pb 220.353†	5376.3	0.5275 mg/L	0.00200	0.5275 mg/L	0.00200	0.38%
QC value within limits for Pb 220.353 Recovery = 105.50%						
Sb 206.836†	12312.7	5.401 mg/L	0.0452	5.401 mg/L	0.0452	0.84%
QC value within limits for Sb 206.836 Recovery = 108.02%						
Se 196.026†	1236.4	0.4942 mg/L	0.00140	0.4942 mg/L	0.00140	0.28%
QC value within limits for Se 196.026 Recovery = 98.84%						
Sn 189.927†	36879.9	5.068 mg/L	0.0205	5.068 mg/L	0.0205	0.40%
QC value within limits for Sn 189.927 Recovery = 101.36%						
Ti 337.279†	1783422.4	2.489 mg/L	0.0035	2.489 mg/L	0.0035	0.14%
QC value within limits for Ti 337.279 Recovery = 99.57%						
Tl 190.801†	3209.1	1.117 mg/L	0.0033	1.117 mg/L	0.0033	0.29%
QC value greater than the upper limit for Tl 190.801 Recovery = 111.73%						
V 292.402†	360367.8	2.545 mg/L	0.0480	2.545 mg/L	0.0480	1.89%
QC value within limits for V 292.402 Recovery = 101.80%						
Zn 206.200†	59430.2	1.045 mg/L	0.0126	1.045 mg/L	0.0126	1.21%
QC value within limits for Zn 206.200 Recovery = 104.52%						
Ca 227.546†	10852.9	26.15 mg/L	0.240	26.15 mg/L	0.240	0.92%
QC value within limits for Ca 227.546 Recovery = 104.58%						
Sr 421.552†	2166118.7	2.504 mg/L	0.0491	2.504 mg/L	0.0491	1.96%
QC value within limits for Sr 421.552 Recovery = 100.15%						
Al 237.313†	48009.0	10.27 mg/L	0.256	10.27 mg/L	0.256	2.49%
QC value within limits for Al 237.313 Recovery = 102.66%						

QC Failed. Continue with analysis.

Sequence No.: 51 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 12/16/2015 8:18:03 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6684386.6	0.9899	mg/L	0.00315				0.32%
Ag 328.068†	-284.3	-0.0008	mg/L	0.00014	-0.0008	mg/L	0.00014	16.68%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	1.1	0.0007	mg/L	0.00045	0.0007	mg/L	0.00045	69.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	7387.6	0.0596	mg/L	0.00178	0.0596	mg/L	0.00178	2.99%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	153.5	0.0019	mg/L	0.00004	0.0019	mg/L	0.00004	2.22%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-199.2	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	27.04%
QC value within limits for Be 313.107 Recovery = Not calculated								

Method: DV200-6010C Opt3 **Page 37** **Date: 12/16/2015 8:27:04 PM**

Cd 226.502†	19.9	0.0002 mg/L	0.00008	0.0002 mg/L	0.00008	50.58%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	8.1	0.0002 mg/L	0.00013	0.0002 mg/L	0.00013	62.93%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	80.7	0.0005 mg/L	0.00006	0.0005 mg/L	0.00006	11.93%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	1784.0	0.0053 mg/L	0.00052	0.0053 mg/L	0.00052	9.79%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 259.939†	790.0	0.0185 mg/L	0.00074	0.0185 mg/L	0.00074	4.00%
QC value within limits for Fe 259.939 Recovery = Not calculated						
K 766.490†	228.6	0.0579 mg/L	0.01043	0.0579 mg/L	0.01043	18.03%
QC value within limits for K 766.490 Recovery = Not calculated						
Mg 279.077†	181.6	0.0172 mg/L	0.00872	0.0172 mg/L	0.00872	50.62%
QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610†	545.0	0.0012 mg/L	0.00004	0.0012 mg/L	0.00004	3.71%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	122.2	0.0057 mg/L	0.00112	0.0057 mg/L	0.00112	19.76%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604†	-7.3	-0.0001 mg/L	0.00003	-0.0001 mg/L	0.00003	32.78%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Na 589.592†	608.3	0.0347 mg/L	0.00054	0.0347 mg/L	0.00054	1.55%
QC value within limits for Na 589.592 Recovery = Not calculated						
Pb 220.353†	7.9	0.0008 mg/L	0.00137	0.0008 mg/L	0.00137	176.34%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	12.5	0.0055 mg/L	0.00024	0.0055 mg/L	0.00024	4.44%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	2.0	0.0008 mg/L	0.00086	0.0008 mg/L	0.00086	108.40%
QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	56.8	0.0078 mg/L	0.00178	0.0078 mg/L	0.00178	22.74%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 337.279†	923.8	0.0013 mg/L	0.00013	0.0013 mg/L	0.00013	9.90%
QC value within limits for Ti 337.279 Recovery = Not calculated						
Tl 190.801†	3.4	0.0012 mg/L	0.00010	0.0012 mg/L	0.00010	8.16%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	65.7	0.0005 mg/L	0.00005	0.0005 mg/L	0.00005	10.98%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	48.7	0.0009 mg/L	0.00000	0.0009 mg/L	0.00000	0.28%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	10.6	0.0256 mg/L	0.01305	0.0256 mg/L	0.01305	51.02%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Sr 421.552†	289.5	0.0003 mg/L	0.00015	0.0003 mg/L	0.00015	45.51%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Al 237.313†	22.7	0.0050 mg/L	0.00405	0.0050 mg/L	0.00405	80.52%
QC value within limits for Al 237.313 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 52
Sample ID: PBS-251354
Analyst:
Initial Sample Wt: 1 g
Dilution:

Autosampler Location: 63
Date Collected: 12/16/2015 8:23:43 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: PBS-251354

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6760813.6	1.001	mg/L	0.0114				1.14%
Ag 328.068†	-365.2	-0.0011	mg/L	0.00048				45.94%
As 188.979†	0.5	0.0003	mg/L	0.00011				36.54%
B 249.772†	6960.3	0.0562	mg/L	0.00017				0.31%
Ba 233.527†	-17.1	-0.0002	mg/L	0.00039				182.44%
Be 313.107†	-77.9	0.0000	mg/L	0.00005				254.86%
Cd 226.502†	-27.3	-0.0002	mg/L	0.00013				58.76%
Co 228.616†	-16.3	-0.0004	mg/L	0.00009				20.89%
Cr 267.716†	317.3	0.0020	mg/L	0.00002				1.03%
Cu 324.752†	1683.9	0.0050	mg/L	0.00090				17.84%
Fe 259.939†	1087.5	0.0255	mg/L	0.00182				7.15%
K 766.490†	176.2	0.0446	mg/L	0.02193				49.17%
Mg 279.077†	241.6	0.0229	mg/L	0.00623				27.20%
Mn 257.610†	639.0	0.0014	mg/L	0.00009				6.58%
Mo 202.031†	70.1	0.0033	mg/L	0.00113				34.76%

Ni 231.604†	-57.8	-0.0008	mg/L	0.00013	16.30%
Na 589.592†	811.4	0.0464	mg/L	0.00552	11.91%
Pb 220.353†	39.1	0.0038	mg/L	0.00066	17.14%
Sb 206.836†	2.3	0.0010	mg/L	0.00054	52.34%
Se 196.026†	4.0	0.0016	mg/L	0.00204	127.22%
Sn 189.927†	105.1	0.0144	mg/L	0.00137	9.48%
Ti 337.279†	906.1	0.0013	mg/L	0.00013	10.04%
Tl 190.801†	-6.8	-0.0023	mg/L	0.00026	11.16%
V 292.402†	20.8	0.0001	mg/L	0.00010	68.52%
Zn 206.200†	362.7	0.0064	mg/L	0.00008	1.18%
Ca 227.546†	34.9	0.0841	mg/L	0.00211	2.51%
Sr 421.552†	-24.3	0.0000	mg/L	0.00005	178.84%
Al 237.313†	49.9	0.0109	mg/L	0.01114	102.39%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 53 **Autosampler Location: 64**
Sample ID: LCSS-251354 **Date Collected: 12/16/2015 8:29:27 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: 1 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Mean Data: LCSS-251354

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6647516.3	0.9844	mg/L	0.00522				0.53%
Ag 328.068†	16003.0	0.0464	mg/L	0.00038				0.82%
As 188.979†	55.5	0.0341	mg/L	0.00079				2.31%
B 249.772†	112954.1	0.9085	mg/L	0.01119				1.23%
Ba 233.527†	170851.3	2.118	mg/L	0.0301				1.42%
Be 313.107†	204518.3	0.0472	mg/L	0.00022				0.47%
Cd 226.502†	6158.5	0.0485	mg/L	0.00045				0.93%
Co 228.616†	18848.0	0.4951	mg/L	0.00759				1.53%
Cr 267.716†	33977.9	0.2094	mg/L	0.00283				1.35%
Cu 324.752†	88816.3	0.2658	mg/L	0.00479				1.80%
Fe 259.939†	44092.6	1.034	mg/L	0.0147				1.42%
K 766.490†	71443.0	18.08	mg/L	0.127				0.70%
Mg 279.077†	19420.5	1.846	mg/L	0.0291				1.58%
Mn 257.610†	238907.5	0.5060	mg/L	0.00678				1.34%
Mo 202.031†	11284.9	0.5238	mg/L	0.00524				1.00%
Ni 231.604†	36910.9	0.5075	mg/L	0.00712				1.40%
Na 589.592†	339911.8	19.42	mg/L	0.076				0.39%
Pb 220.353†	5048.5	0.4961	mg/L	0.00239				0.48%
Sb 206.836†	1153.2	0.5058	mg/L	0.00277				0.55%
Se 196.026†	2265.8	0.9064	mg/L	0.00201				0.22%
Sn 189.927†	37057.0	5.092	mg/L	0.0818				1.61%
Ti 337.279†	350403.8	0.4891	mg/L	0.00755				1.54%
Tl 190.801†	5841.3	2.032	mg/L	0.0112				0.55%
V 292.402†	70760.5	0.4998	mg/L	0.00852				1.70%
Zn 206.200†	27984.6	0.4922	mg/L	0.00581				1.18%
Ca 227.546†	808.0	1.950	mg/L	0.0127				0.65%
Sr 421.552†	-27.8	0.0000	mg/L	0.00004				122.70%
Al 237.313†	8707.2	1.864	mg/L	0.0358				1.92%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 54 **Autosampler Location: 65**
Sample ID: R1510362-001 **Date Collected: 12/16/2015 8:35:10 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: 1 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Mean Data: R1510362-001

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6456633.7	0.9562	mg/L	0.00161				0.17%
Ag 328.068†	-525.1	0.0095	mg/L	0.00006				0.67%
As 188.979†	21.5	0.0121	mg/L	0.00235				19.46%
B 249.772†	48466.8	0.0644	mg/L	0.00198				3.08%
Ba 233.527†	261561.3	3.242	mg/L	0.0229				0.71%

Be 313.107†	753.3	0.0002 mg/L	0.00001	2.99%
Cd 226.502†	1324.9	-0.0009 mg/L	0.00037	39.70%
Co 228.616†	242.6	0.0064 mg/L	0.00000	0.05%
Cr 267.716†	17904.0	0.1137 mg/L	0.00003	0.02%
Cu 324.752†	415794.1	1.244 mg/L	0.0089	0.72%
Fe 259.939†	3145606.2	73.78 mg/L	0.179	0.24%
K 766.490†	8177.9	2.070 mg/L	0.0121	0.59%
Mg 279.077†	88781.5	8.171 mg/L	0.0706	0.86%
Mn 257.610†	307953.9	0.6642 mg/L	0.00483	0.73%
Mo 202.031†	375.1	0.0174 mg/L	0.00038	2.18%
Ni 231.604†	2747.3	0.0378 mg/L	0.00006	0.15%
Na 589.592†	39356.8	2.248 mg/L	0.0157	0.70%
Pb 220.353†	814.9	0.0704 mg/L	0.00060	0.86%
Sb 206.836†	19.7	0.0061 mg/L	0.00076	12.37%
Se 196.026†	40.3	0.0164 mg/L	0.00178	10.84%
Sn 189.927†	405.2	0.0557 mg/L	0.00013	0.23%
Ti 337.279†	103515.0	0.1445 mg/L	0.00319	2.21%
Tl 190.801†	-24.3	0.0001 mg/L	0.00024	168.40%
V 292.402†	2192.3	0.0212 mg/L	0.00041	1.92%
Zn 206.200†	114198.3	2.008 mg/L	0.0132	0.66%
Ca 227.546†	26439.5	64.02 mg/L	0.595	0.93%
Sr 421.552†	470043.4	0.5433 mg/L	0.00470	0.87%
Al 237.313†	130125.5	28.53 mg/L	0.138	0.48%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 55 **Autosampler Location: 66**
Sample ID: R1510662-001L **Date Collected: 12/16/2015 8:40:59 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: 1 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 100 mL**

Mean Data: R1510662-001L

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6656760.6	0.9858	mg/L	0.00332				0.34%
Ag 328.068†	-312.3	0.0016	mg/L	0.00019				11.86%
As 188.979†	6.0	0.0035	mg/L	0.00072				20.75%
B 249.772†	14017.3	0.0404	mg/L	0.00176				4.35%
Ba 233.527†	54750.5	0.6787	mg/L	0.00189				0.28%
Be 313.107†	-263.9	-0.0001	mg/L	0.00002				28.87%
Cd 226.502†	301.1	-0.0002	mg/L	0.00004				23.31%
Co 228.616†	42.4	0.0011	mg/L	0.00009				8.20%
Cr 267.716†	3675.2	0.0234	mg/L	0.00003				0.15%
Cu 324.752†	86257.5	0.2581	mg/L	0.00058				0.22%
Fe 259.939†	700987.0	16.44	mg/L	0.005				0.03%
K 766.490†	1963.8	0.4971	mg/L	0.01998				4.02%
Mg 279.077†	19590.3	1.802	mg/L	0.0059				0.32%
Mn 257.610†	64552.3	0.1394	mg/L	0.00011				0.08%
Mo 202.031†	58.9	0.0027	mg/L	0.00001				0.38%
Ni 231.604†	551.3	0.0076	mg/L	0.00009				1.15%
Na 589.592†	9001.8	0.5142	mg/L	0.01287				2.50%
Pb 220.353†	166.6	0.0142	mg/L	0.00019				1.34%
Sb 206.836†	3.3	0.0009	mg/L	0.00207				224.77%
Se 196.026†	1.4	0.0006	mg/L	0.00337				549.27%
Sn 189.927†	15.4	0.0021	mg/L	0.00030				13.93%
Ti 337.279†	49934.0	0.0697	mg/L	0.00411				5.90%
Tl 190.801†	-11.2	-0.0020	mg/L	0.00011				5.37%
V 292.402†	428.6	0.0043	mg/L	0.00018				4.27%
Zn 206.200†	23932.3	0.4209	mg/L	0.00023				0.06%
Ca 227.546†	5603.0	13.57	mg/L	0.038				0.28%
Sr 421.552†	97411.2	0.1126	mg/L	0.00236				2.09%
Al 237.313†	27555.6	6.051	mg/L	0.0190				0.31%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 56 **Autosampler Location: 67**
Sample ID: PBW-251764 **Date Collected: 12/16/2015 8:46:37 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: PBW-251764

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6760629.4	1.001	mg/L	0.0073				0.73%
Ag 328.068†	-349.7	-0.0010	mg/L	0.00025				24.65%
As 188.979†	0.5	0.0003	mg/L	0.00030				109.14%
B 249.772†	5231.8	0.0421	mg/L	0.00011				0.25%
Ba 233.527†	33.6	0.0004	mg/L	0.00001				3.27%
Be 313.107†	-247.1	-0.0001	mg/L	0.00003				58.18%
Cd 226.502†	22.7	0.0002	mg/L	0.00001				3.64%
Co 228.616†	-5.0	-0.0001	mg/L	0.00012				87.74%
Cr 267.716†	119.3	0.0007	mg/L	0.00013				17.49%
Cu 324.752†	593.1	0.0018	mg/L	0.00004				2.34%
Fe 259.939†	1511.8	0.0354	mg/L	0.00086				2.42%
K 766.490†	24.2	0.0061	mg/L	0.01832				299.47%
Mg 279.077†	413.6	0.0392	mg/L	0.00213				5.42%
Mn 257.610†	805.4	0.0017	mg/L	0.00003				1.94%
Mo 202.031†	-13.7	-0.0006	mg/L	0.00006				8.97%
Ni 231.604†	-33.2	-0.0005	mg/L	0.00004				9.40%
Na 589.592†	-571.0	-0.0326	mg/L	0.00167				5.11%
Pb 220.353†	1.9	0.0002	mg/L	0.00143				804.86%
Sb 206.836†	-5.9	-0.0026	mg/L	0.00110				41.93%
Se 196.026†	-0.5	-0.0002	mg/L	0.00212				>999.9%
Sn 189.927†	1.5	0.0002	mg/L	0.00028				134.99%
Ti 337.279†	80.5	0.0001	mg/L	0.00008				72.42%
Tl 190.801†	-4.2	-0.0015	mg/L	0.00026				17.41%
V 292.402†	-3.7	0.0000	mg/L	0.00006				263.96%
Zn 206.200†	133.0	0.0023	mg/L	0.00005				1.94%
Ca 227.546†	81.7	0.1968	mg/L	0.00118				0.60%
Sr 421.552†	779.9	0.0009	mg/L	0.00001				1.45%
Al 237.313†	486.8	0.1039	mg/L	0.00420				4.04%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 57
Sample ID: LCSW-251764
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 68
Date Collected: 12/16/2015 8:52:19 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: LCSW-251764

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6558040.0	0.9712	mg/L	0.00496				0.51%
Ag 328.068†	17259.3	0.0500	mg/L	0.00001				0.02%
As 188.979†	62.7	0.0386	mg/L	0.00108				2.79%
B 249.772†	120723.3	0.9711	mg/L	0.00234				0.24%
Ba 233.527†	177537.1	2.201	mg/L	0.0002				0.01%
Be 313.107†	221068.1	0.0510	mg/L	0.00015				0.29%
Cd 226.502†	6553.1	0.0516	mg/L	0.00029				0.56%
Co 228.616†	19689.3	0.5172	mg/L	0.00118				0.23%
Cr 267.716†	34867.5	0.2149	mg/L	0.00025				0.12%
Cu 324.752†	92345.3	0.2763	mg/L	0.00015				0.06%
Fe 259.939†	45455.1	1.066	mg/L	0.0006				0.06%
K 766.490†	73471.3	18.60	mg/L	0.045				0.24%
Mg 279.077†	20846.3	1.981	mg/L	0.0065				0.33%
Mn 257.610†	247962.6	0.5252	mg/L	0.00029				0.05%
Mo 202.031†	11471.4	0.5325	mg/L	0.00366				0.69%
Ni 231.604†	38745.8	0.5327	mg/L	0.00093				0.17%
Na 589.592†	365446.9	20.88	mg/L	0.022				0.10%
Pb 220.353†	5438.0	0.5344	mg/L	0.00728				1.36%
Sb 206.836†	1207.0	0.5293	mg/L	0.00324				0.61%
Se 196.026†	2358.0	0.9432	mg/L	0.00945				1.00%
Sn 189.927†	38975.7	5.356	mg/L	0.0003				0.01%
Ti 337.279†	356314.5	0.4973	mg/L	0.00026				0.05%
Tl 190.801†	6248.3	2.174	mg/L	0.0013				0.06%
V 292.402†	73143.5	0.5166	mg/L	0.00037				0.07%
Zn 206.200†	29513.9	0.5191	mg/L	0.00012				0.02%
Ca 227.546†	969.5	2.339	mg/L	0.0168				0.72%

Sr 421.552†	1157.8	0.0013	mg/L	0.00004	3.13%
Al 237.313†	9878.4	2.114	mg/L	0.0108	0.51%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 58 **Autosampler Location: 69**
Sample ID: R1510427-001 **Date Collected: 12/16/2015 8:58:07 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510427-001

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 371.029	6444423.8	0.9544	mg/L	0.00775				0.81%
Ag 328.068†	44.2	-0.0006	mg/L	0.00019				31.20%
As 188.979†	6.4	0.0028	mg/L	0.00107				37.92%
B 249.772†	13090.7	0.1049	mg/L	0.00187				1.78%
Ba 233.527†	10876.6	0.1348	mg/L	0.00045				0.33%
Be 313.107†	-1029.2	-0.0002	mg/L	0.00002				9.70%
Cd 226.502†	-28.5	-0.0003	mg/L	0.00008				31.47%
Co 228.616†	-17.7	-0.0005	mg/L	0.00005				10.90%
Cr 267.716†	-392.4	-0.0006	mg/L	0.00003				4.72%
Cu 324.752†	631.9	0.0019	mg/L	0.00041				21.89%
Fe 259.939†	8447.2	0.1981	mg/L	0.00157				0.79%
K 766.490†	8060.2	2.040	mg/L	0.0292				1.43%
Mg 279.077†	239280.2	22.79	mg/L	0.179				0.79%
Mn 257.610†	678606.2	1.437	mg/L	0.0042				0.29%
Mo 202.031†	21.7	0.0010	mg/L	0.00012				11.49%
Ni 231.604†	-26.4	-0.0004	mg/L	0.00017				47.95%
Na 589.592†	377655.5	21.57	mg/L	0.045				0.21%
Pb 220.353†	18.4	0.0023	mg/L	0.00008				3.74%
Sb 206.836†	-2.7	-0.0012	mg/L	0.00045				37.17%
Se 196.026†	-2.9	-0.0013	mg/L	0.00093				72.84%
Sn 189.927†	-209.7	-0.0288	mg/L	0.00089				3.09%
Ti 337.279†	709.1	0.0010	mg/L	0.00033				33.41%
Tl 190.801†	-22.0	-0.0073	mg/L	0.00059				8.13%
V 292.402†	-12.1	-0.0001	mg/L	0.00001				16.36%
Zn 206.200†	252.2	0.0044	mg/L	0.00010				2.20%
Ca 227.546†	28453.9	68.48	mg/L	1.109				1.62%
Sr 421.552†	176307.8	0.2038	mg/L	0.00357				1.75%
Al 237.313†	824.0	0.1519	mg/L	0.00056				0.37%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 59 **Autosampler Location: 70**
Sample ID: R1510427-001D **Date Collected: 12/16/2015 9:03:49 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510427-001D

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 371.029	6541686.9	0.9688	mg/L	0.00922				0.95%
Ag 328.068†	-3.4	-0.0007	mg/L	0.00001				1.15%
As 188.979†	5.8	0.0025	mg/L	0.00097				39.25%
B 249.772†	11773.2	0.0943	mg/L	0.00045				0.48%
Ba 233.527†	10730.4	0.1330	mg/L	0.00028				0.21%
Be 313.107†	-578.1	-0.0001	mg/L	0.00000				1.83%
Cd 226.502†	-2.7	0.0000	mg/L	0.00013				267.76%
Co 228.616†	-14.7	-0.0004	mg/L	0.00007				17.57%
Cr 267.716†	-388.2	-0.0006	mg/L	0.00002				2.77%
Cu 324.752†	468.7	0.0014	mg/L	0.00011				7.50%
Fe 259.939†	8207.3	0.1925	mg/L	0.00059				0.30%
K 766.490†	7388.2	1.870	mg/L	0.0400				2.14%
Mg 279.077†	235220.7	22.40	mg/L	0.177				0.79%
Mn 257.610†	672557.5	1.424	mg/L	0.0049				0.34%
Mo 202.031†	1.7	0.0001	mg/L	0.00026				338.67%
Ni 231.604†	-14.2	-0.0002	mg/L	0.00009				44.01%

Na 589.592†	348871.9	19.93	mg/L	0.185		0.93%
Pb 220.353†	1.9	0.0006	mg/L	0.00108		166.84%
Sb 206.836†	-5.3	-0.0023	mg/L	0.00076		32.48%
Se 196.026†	-6.4	-0.0027	mg/L	0.00082		30.60%
Sn 189.927†	-228.0	-0.0313	mg/L	0.00022		0.72%
Ti 337.279†	476.5	0.0007	mg/L	0.00000		0.48%
Tl 190.801†	-27.5	-0.0092	mg/L	0.00009		1.02%
V 292.402†	-17.0	-0.0001	mg/L	0.00001		7.19%
Zn 206.200†	377.3	0.0066	mg/L	0.00000		0.07%
Ca 227.546†	28149.0	67.74	mg/L	0.034		0.05%
Sr 421.552†	168116.1	0.1943	mg/L	0.00143		0.74%
Al 237.313†	711.3	0.1281	mg/L	0.00146		1.14%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 60
Sample ID: R1510427-001S
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 71
Date Collected: 12/16/2015 9:09:38 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510427-001S

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6458986.8	0.9565	mg/L	0.00319				0.33%
Ag 328.068†	17629.6	0.0503	mg/L	0.00016				0.31%
As 188.979†	70.8	0.0424	mg/L	0.00085				2.00%
B 249.772†	130989.4	1.053	mg/L	0.0102				0.97%
Ba 233.527†	185203.6	2.296	mg/L	0.0113				0.49%
Be 313.107†	223234.8	0.0515	mg/L	0.00020				0.39%
Cd 226.502†	6271.8	0.0494	mg/L	0.00015				0.31%
Co 228.616†	18641.1	0.4897	mg/L	0.00238				0.49%
Cr 267.716†	34247.7	0.2128	mg/L	0.00065				0.31%
Cu 324.752†	88108.5	0.2636	mg/L	0.00204				0.77%
Fe 259.939†	52039.1	1.220	mg/L	0.0035				0.29%
K 766.490†	85540.3	21.65	mg/L	0.019				0.09%
Mg 279.077†	257813.4	24.55	mg/L	0.090				0.37%
Mn 257.610†	927464.7	1.964	mg/L	0.0109				0.56%
Mo 202.031†	11631.3	0.5399	mg/L	0.00319				0.59%
Ni 231.604†	36512.4	0.5020	mg/L	0.00270				0.54%
Na 589.592†	737658.5	42.14	mg/L	0.303				0.72%
Pb 220.353†	5219.5	0.5133	mg/L	0.00026				0.05%
Sb 206.836†	1254.4	0.5502	mg/L	0.00139				0.25%
Se 196.026†	2534.6	1.014	mg/L	0.0033				0.33%
Sn 189.927†	38691.9	5.317	mg/L	0.0201				0.38%
Ti 337.279†	365225.3	0.5098	mg/L	0.00193				0.38%
Tl 190.801†	5853.9	2.037	mg/L	0.0133				0.65%
V 292.402†	73798.7	0.5212	mg/L	0.00204				0.39%
Zn 206.200†	28283.0	0.4974	mg/L	0.00344				0.69%
Ca 227.546†	29473.5	70.94	mg/L	0.684				0.96%
Sr 421.552†	175770.8	0.2032	mg/L	0.00197				0.97%
Al 237.313†	10082.1	2.133	mg/L	0.0040				0.19%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 61
Sample ID: R1510427-001A
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 72
Date Collected: 12/16/2015 9:15:19 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510427-001A

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6516289.8	0.9650	mg/L	0.00317				0.33%
Ag 328.068†	140.6	-0.0004	mg/L	0.00011				30.45%
As 188.979†	4.3	0.0015	mg/L	0.00084				55.52%
B 249.772†	12231.5	0.0980	mg/L	0.00031				0.32%
Ba 233.527†	10986.8	0.1362	mg/L	0.00096				0.70%
Be 313.107†	-378.1	-0.0001	mg/L	0.00001				16.62%

Cd 226.502†	-11.0	-0.0001 mg/L	0.00004	31.98%
Co 228.616†	-9.7	-0.0003 mg/L	0.00009	34.94%
Cr 267.716†	-364.8	-0.0005 mg/L	0.00003	5.94%
Cu 324.752†	688.8	0.0021 mg/L	0.00000	0.09%
Fe 259.939†	8468.7	0.1986 mg/L	0.00064	0.32%
K 766.490†	8686.3	2.199 mg/L	0.0013	0.06%
Mg 279.077†	239201.0	22.78 mg/L	0.074	0.32%
Mn 257.610†	679329.1	1.438 mg/L	0.0006	0.04%
Mo 202.031†	23.8	0.0011 mg/L	0.00014	12.40%
Ni 231.604†	-7.6	-0.0001 mg/L	0.00002	21.29%
Na 589.592†	385685.7	22.03 mg/L	0.110	0.50%
Pb 220.353†	4.2	0.0009 mg/L	0.00043	48.45%
Sb 206.836†	-4.5	-0.0020 mg/L	0.00119	59.79%
Se 196.026†	2566.2	1.026 mg/L	0.0099	0.97%
Sn 189.927†	-180.5	-0.0248 mg/L	0.00187	7.52%
Ti 337.279†	775.8	0.0011 mg/L	0.00026	23.93%
Tl 190.801†	-15.6	-0.0050 mg/L	0.00185	36.83%
V 292.402†	-1.4	0.0000 mg/L	0.00005	907.21%
Zn 206.200†	9335.1	0.1642 mg/L	0.00181	1.10%
Ca 227.546†	29037.0	69.88 mg/L	0.227	0.32%
Sr 421.552†	179202.8	0.2071 mg/L	0.00276	1.33%
Al 237.313†	878.2	0.1629 mg/L	0.00210	1.29%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 62 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 12/16/2015 9:21:07 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 371.029	6499528.3	0.9625	mg/L	0.00420				0.44%
Ag 328.068†	177126.6	0.5122	mg/L	0.00569	0.5122	mg/L	0.00569	1.11%
QC value within limits for Ag 328.068 Recovery = 102.44%								
As 188.979†	1506.0	0.9270	mg/L	0.00783	0.9270	mg/L	0.00783	0.84%
QC value within limits for As 188.979 Recovery = 92.70%								
B 249.772†	305976.4	2.450	mg/L	0.0404	2.450	mg/L	0.0404	1.65%
QC value within limits for B 249.772 Recovery = 98.00%								
Ba 233.527†	857940.7	10.64	mg/L	0.101	10.64	mg/L	0.101	0.95%
QC value within limits for Ba 233.527 Recovery = 106.35%								
Be 313.107†	1100598.4	0.2540	mg/L	0.00002	0.2540	mg/L	0.00002	0.01%
QC value within limits for Be 313.107 Recovery = 101.60%								
Cd 226.502†	65245.1	0.5149	mg/L	0.00566	0.5149	mg/L	0.00566	1.10%
QC value within limits for Cd 226.502 Recovery = 102.98%								
Co 228.616†	96933.2	2.546	mg/L	0.0234	2.546	mg/L	0.0234	0.92%
QC value within limits for Co 228.616 Recovery = 101.85%								
Cr 267.716†	86575.0	0.5354	mg/L	0.00501	0.5354	mg/L	0.00501	0.94%
QC value within limits for Cr 267.716 Recovery = 107.07%								
Cu 324.752†	429785.2	1.286	mg/L	0.0172	1.286	mg/L	0.0172	1.34%
QC value within limits for Cu 324.752 Recovery = 102.88%								
Fe 259.939†	217324.5	5.095	mg/L	0.0571	5.095	mg/L	0.0571	1.12%
QC value within limits for Fe 259.939 Recovery = 101.91%								
K 766.490†	98105.4	24.83	mg/L	0.117	24.83	mg/L	0.117	0.47%
QC value within limits for K 766.490 Recovery = 99.33%								
Mg 279.077†	263794.0	25.10	mg/L	0.238	25.10	mg/L	0.238	0.95%
QC value within limits for Mg 279.077 Recovery = 100.42%								
Mn 257.610†	371532.2	0.7875	mg/L	0.00724	0.7875	mg/L	0.00724	0.92%
QC value within limits for Mn 257.610 Recovery = 105.00%								
Mo 202.031†	56244.9	2.611	mg/L	0.0406	2.611	mg/L	0.0406	1.56%
QC value within limits for Mo 202.031 Recovery = 104.43%								
Ni 231.604†	154074.8	2.118	mg/L	0.0186	2.118	mg/L	0.0186	0.88%
QC value within limits for Ni 231.604 Recovery = 105.92%								
Na 589.592†	439209.6	25.09	mg/L	0.158	25.09	mg/L	0.158	0.63%
QC value within limits for Na 589.592 Recovery = 100.36%								
Pb 220.353†	5319.7	0.5219	mg/L	0.00454	0.5219	mg/L	0.00454	0.87%
QC value within limits for Pb 220.353 Recovery = 104.39%								
Sb 206.836†	12321.9	5.405	mg/L	0.0478	5.405	mg/L	0.0478	0.89%
QC value within limits for Sb 206.836 Recovery = 108.10%								

Se 196.026†	1237.3	0.4946 mg/L	0.00414	0.4946 mg/L	0.00414	0.84%
QC value within limits for Se 196.026 Recovery = 98.92%						
Sn 189.927†	36808.2	5.058 mg/L	0.0480	5.058 mg/L	0.0480	0.95%
QC value within limits for Sn 189.927 Recovery = 101.16%						
Ti 337.279†	1786311.5	2.493 mg/L	0.0068	2.493 mg/L	0.0068	0.27%
QC value within limits for Ti 337.279 Recovery = 99.73%						
Tl 190.801†	3198.6	1.114 mg/L	0.0121	1.114 mg/L	0.0121	1.09%
QC value greater than the upper limit for Tl 190.801 Recovery = 111.37%						
V 292.402†	360447.7	2.546 mg/L	0.0253	2.546 mg/L	0.0253	0.99%
QC value within limits for V 292.402 Recovery = 101.83%						
Zn 206.200†	58808.6	1.034 mg/L	0.0065	1.034 mg/L	0.0065	0.63%
QC value within limits for Zn 206.200 Recovery = 103.43%						
Ca 227.546†	10872.7	26.19 mg/L	0.145	26.19 mg/L	0.145	0.55%
QC value within limits for Ca 227.546 Recovery = 104.77%						
Sr 421.552†	2218061.4	2.564 mg/L	0.0549	2.564 mg/L	0.0549	2.14%
QC value within limits for Sr 421.552 Recovery = 102.55%						
Al 237.313†	48122.6	10.29 mg/L	0.143	10.29 mg/L	0.143	1.39%
QC value within limits for Al 237.313 Recovery = 102.90%						

QC Failed. Continue with analysis.

Sequence No.: 63 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 12/16/2015 9:26:56 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6713951.0	0.9943	mg/L	0.00088				0.09%
Ag 328.068†	-339.2	-0.0010	mg/L	0.00019	-0.0010	mg/L	0.00019	19.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	3.1	0.0019	mg/L	0.00096	0.0019	mg/L	0.00096	50.19%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	4237.9	0.0342	mg/L	0.00106	0.0342	mg/L	0.00106	3.10%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	154.9	0.0019	mg/L	0.00015	0.0019	mg/L	0.00015	8.01%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-318.0	-0.0001	mg/L	0.00002	-0.0001	mg/L	0.00002	24.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	18.1	0.0001	mg/L	0.00001	0.0001	mg/L	0.00001	8.77%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-0.1	0.0000	mg/L	0.00019	0.0000	mg/L	0.00019	>999.9%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	45.6	0.0003	mg/L	0.00001	0.0003	mg/L	0.00001	4.62%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	494.9	0.0015	mg/L	0.00021	0.0015	mg/L	0.00021	14.32%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	670.2	0.0157	mg/L	0.00028	0.0157	mg/L	0.00028	1.76%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	59.6	0.0151	mg/L	0.00628	0.0151	mg/L	0.00628	41.60%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	284.3	0.0270	mg/L	0.01272	0.0270	mg/L	0.01272	47.07%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	462.7	0.0010	mg/L	0.00001	0.0010	mg/L	0.00001	1.08%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	86.6	0.0040	mg/L	0.00091	0.0040	mg/L	0.00091	22.54%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	-11.0	-0.0002	mg/L	0.00008	-0.0002	mg/L	0.00008	52.33%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	495.4	0.0283	mg/L	0.00648	0.0283	mg/L	0.00648	22.88%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	-4.1	-0.0004	mg/L	0.00066	-0.0004	mg/L	0.00066	163.84%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	4.3	0.0019	mg/L	0.00099	0.0019	mg/L	0.00099	52.11%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	5.6	0.0022	mg/L	0.00122	0.0022	mg/L	0.00122	54.21%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	25.3	0.0035	mg/L	0.00129	0.0035	mg/L	0.00129	36.98%
QC value within limits for Sn 189.927 Recovery = Not calculated								

Ti 337.279†	824.0	0.0012	mg/L	0.00026	0.0012	mg/L	0.00026 22.73%
QC value within limits for Ti 337.279 Recovery = Not calculated							
Tl 190.801†	1.8	0.0006	mg/L	0.00093	0.0006	mg/L	0.00093 149.48%
QC value within limits for Tl 190.801 Recovery = Not calculated							
V 292.402†	57.0	0.0004	mg/L	0.00013	0.0004	mg/L	0.00013 31.25%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 206.200†	14.2	0.0002	mg/L	0.00015	0.0002	mg/L	0.00015 58.89%
QC value within limits for Zn 206.200 Recovery = Not calculated							
Ca 227.546†	7.8	0.0188	mg/L	0.00954	0.0188	mg/L	0.00954 50.81%
QC value within limits for Ca 227.546 Recovery = Not calculated							
Sr 421.552†	389.0	0.0004	mg/L	0.00001	0.0004	mg/L	0.00001 1.52%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Al 237.313†	47.2	0.0102	mg/L	0.00176	0.0102	mg/L	0.00176 17.26%
QC value within limits for Al 237.313 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 64 **Autosampler Location: 73**
Sample ID: R1510427-001L **Date Collected: 12/16/2015 9:32:34 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510427-001L

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6521091.1	0.9657	mg/L	0.02629				2.72%
Ag 328.068†	-231.0	-0.0008	mg/L	0.00046				56.72%
As 188.979†	2.2	0.0011	mg/L	0.00112				100.16%
B 249.772†	6012.7	0.0484	mg/L	0.00158				3.27%
Ba 233.527†	2344.0	0.0291	mg/L	0.00048				1.65%
Be 313.107†	-734.0	-0.0002	mg/L	0.00006				38.36%
Cd 226.502†	4.2	0.0000	mg/L	0.00021				802.27%
Co 228.616†	-12.4	-0.0003	mg/L	0.00006				18.79%
Cr 267.716†	-83.5	-0.0001	mg/L	0.00035				297.91%
Cu 324.752†	378.6	0.0011	mg/L	0.00026				22.99%
Fe 259.939†	2178.4	0.0511	mg/L	0.00205				4.02%
K 766.490†	1607.8	0.4070	mg/L	0.04392				10.79%
Mg 279.077†	52244.3	4.975	mg/L	0.1514				3.04%
Mn 257.610†	145805.1	0.3087	mg/L	0.01067				3.46%
Mo 202.031†	10.0	0.0005	mg/L	0.00024				52.39%
Ni 231.604†	-34.8	-0.0005	mg/L	0.00019				40.61%
Na 589.592†	78993.8	4.513	mg/L	0.1444				3.20%
Pb 220.353†	-1.9	-0.0001	mg/L	0.00064				692.74%
Sb 206.836†	-2.0	-0.0009	mg/L	0.00127				147.38%
Se 196.026†	-0.8	-0.0003	mg/L	0.00017				51.99%
Sn 189.927†	-99.8	-0.0137	mg/L	0.00020				1.43%
Ti 337.279†	317.6	0.0004	mg/L	0.00015				33.81%
Tl 190.801†	-5.1	-0.0017	mg/L	0.00103				60.82%
V 292.402†	-26.8	-0.0002	mg/L	0.00022				119.82%
Zn 206.200†	647.9	0.0114	mg/L	0.00043				3.73%
Ca 227.546†	5836.0	14.05	mg/L	0.386				2.75%
Sr 421.552†	37443.2	0.0433	mg/L	0.00142				3.27%
Al 237.313†	187.7	0.0352	mg/L	0.01408				39.95%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 65 **Autosampler Location: 74**
Sample ID: R1510427-002 **Date Collected: 12/16/2015 9:38:17 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510427-002

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6453849.6	0.9558	mg/L	0.01470				1.54%
Ag 328.068†	-173.1	-0.0008	mg/L	0.00019				22.95%
As 188.979†	4.0	0.0019	mg/L	0.00021				10.70%
B 249.772†	14996.3	0.1198	mg/L	0.00106				0.89%

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Ba 233.527†	9070.3	0.1124 mg/L	0.00023	0.21%
Be 313.107†	-1250.0	-0.0003 mg/L	0.00006	22.06%
Cd 226.502†	-30.3	-0.0003 mg/L	0.00005	18.07%
Co 228.616†	-24.0	-0.0006 mg/L	0.00010	16.32%
Cr 267.716†	-130.4	-0.0001 mg/L	0.00026	317.01%
Cu 324.752†	521.8	0.0016 mg/L	0.00047	29.87%
Fe 259.939†	13575.9	0.3184 mg/L	0.00453	1.42%
K 766.490†	3124.0	0.7907 mg/L	0.00967	1.22%
Mg 279.077†	98053.8	9.337 mg/L	0.0183	0.20%
Mn 257.610†	37905.3	0.0803 mg/L	0.00000	0.00%
Mo 202.031†	21.0	0.0010 mg/L	0.00030	31.20%
Ni 231.604†	-53.0	-0.0007 mg/L	0.00018	24.98%
Na 589.592†	259672.9	14.83 mg/L	0.317	2.14%
Pb 220.353†	14.7	0.0016 mg/L	0.00119	72.88%
Sb 206.836†	1.7	0.0007 mg/L	0.00033	46.16%
Se 196.026†	0.1	0.0000 mg/L	0.00068	>999.9%
Sn 189.927†	-149.1	-0.0205 mg/L	0.00002	0.10%
Ti 337.279†	1225.6	0.0017 mg/L	0.00006	3.73%
Tl 190.801†	-8.9	-0.0029 mg/L	0.00124	42.78%
V 292.402†	35.3	0.0003 mg/L	0.00012	42.90%
Zn 206.200†	252.9	0.0044 mg/L	0.00018	4.14%
Ca 227.546†	13639.0	32.82 mg/L	0.188	0.57%
Sr 421.552†	328758.0	0.3800 mg/L	0.00554	1.46%
Al 237.313†	903.9	0.1837 mg/L	0.00244	1.33%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 66
Sample ID: R1510633-003
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 75
Date Collected: 12/16/2015 9:44:08 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510633-003

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6546161.2	0.9694	mg/L	0.00172				0.18%
Ag 328.068†	-2079.8	-0.0006	mg/L	0.00003				4.55%
As 188.979†	6.2	0.0025	mg/L	0.00013				5.27%
B 249.772†	27314.1	0.0392	mg/L	0.00052				1.32%
Ba 233.527†	9958.1	0.1234	mg/L	0.00059				0.48%
Be 313.107†	-402.9	-0.0001	mg/L	0.00006				60.77%
Cd 226.502†	587.2	-0.0019	mg/L	0.00005				2.38%
Co 228.616†	3.8	0.0001	mg/L	0.00001				10.02%
Cr 267.716†	90.3	0.0026	mg/L	0.00017				6.49%
Cu 324.752†	402.2	0.0012	mg/L	0.00039				32.36%
Fe 259.939†	1764095.9	41.38	mg/L	0.061				0.15%
K 766.490†	8428.1	2.133	mg/L	0.0005				0.02%
Mg 279.077†	91731.6	8.577	mg/L	0.0268				0.31%
Mn 257.610†	304008.2	0.6503	mg/L	0.00242				0.37%
Mo 202.031†	-50.5	-0.0023	mg/L	0.00024				10.29%
Ni 231.604†	47.3	0.0007	mg/L	0.00006				9.39%
Na 589.592†	1031392.3	58.92	mg/L	0.111				0.19%
Pb 220.353†	141.3	0.0097	mg/L	0.00126				12.90%
Sb 206.836†	-5.6	-0.0027	mg/L	0.00071				26.03%
Se 196.026†	-16.2	-0.0061	mg/L	0.00001				0.23%
Sn 189.927†	-251.5	-0.0346	mg/L	0.00028				0.81%
Ti 337.279†	16084.3	0.0224	mg/L	0.00009				0.39%
Tl 190.801†	-23.5	-0.0033	mg/L	0.00076				23.03%
V 292.402†	-152.0	0.0021	mg/L	0.00006				2.85%
Zn 206.200†	597.7	0.0105	mg/L	0.00017				1.58%
Ca 227.546†	44605.0	107.6	mg/L	1.40				1.30%
Sr 421.552†	491853.8	0.5685	mg/L	0.00135				0.24%
Al 237.313†	12781.7	3.165	mg/L	0.0409				1.29%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 67
Sample ID: PBW-251122
Analyst:
Initial Sample Wt:

Autosampler Location: 76
Date Collected: 12/16/2015 9:49:51 PM
Data Type: Original
Initial Sample Vol:

Dilution: Sample Prep Vol: 50 mL

Mean Data: PBW-251122

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6777255.0	1.004	mg/L	0.0011				0.11%
Ag 328.068†	-360.9	-0.0010	mg/L	0.00022				21.25%
As 188.979†	0.3	0.0002	mg/L	0.00097				534.39%
B 249.772†	2869.2	0.0231	mg/L	0.00032				1.38%
Ba 233.527†	28.2	0.0004	mg/L	0.00001				1.72%
Be 313.107†	-493.5	-0.0001	mg/L	0.00002				13.50%
Cd 226.502†	7.2	0.0001	mg/L	0.00006				118.69%
Co 228.616†	-16.7	-0.0004	mg/L	0.00017				39.57%
Cr 267.716†	113.1	0.0007	mg/L	0.00011				15.91%
Cu 324.752†	-174.7	-0.0005	mg/L	0.00000				0.69%
Fe 259.939†	794.9	0.0186	mg/L	0.00154				8.24%
K 766.490†	49.4	0.0125	mg/L	0.01875				149.87%
Mg 279.077†	406.3	0.0386	mg/L	0.00267				6.92%
Mn 257.610†	703.2	0.0015	mg/L	0.00006				3.79%
Mo 202.031†	-24.5	-0.0011	mg/L	0.00005				4.26%
Ni 231.604†	-53.2	-0.0007	mg/L	0.00003				4.42%
Na 589.592†	601.9	0.0344	mg/L	0.00556				16.18%
Pb 220.353†	-3.1	-0.0003	mg/L	0.00071				233.14%
Sb 206.836†	-3.3	-0.0015	mg/L	0.00126				86.47%
Se 196.026†	-1.1	-0.0004	mg/L	0.00026				61.50%
Sn 189.927†	-25.7	-0.0035	mg/L	0.00041				11.61%
Ti 337.279†	45.1	0.0001	mg/L	0.00010				152.90%
Tl 190.801†	-4.1	-0.0014	mg/L	0.00007				5.29%
V 292.402†	-10.2	-0.0001	mg/L	0.00009				132.06%
Zn 206.200†	77.7	0.0014	mg/L	0.00011				8.36%
Ca 227.546†	8.1	0.0196	mg/L	0.02703				137.85%
Sr 421.552†	-78.7	-0.0001	mg/L	0.00004				38.58%
Al 237.313†	84.2	0.0181	mg/L	0.00026				1.44%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 68 Autosampler Location: 77
Sample ID: LCSW-251122 Date Collected: 12/16/2015 9:55:34 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol: 50 mL

Mean Data: LCSW-251122

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6660918.8	0.9864	mg/L	0.01778				1.80%
Ag 328.068†	17636.3	0.0511	mg/L	0.00042				0.82%
As 188.979†	64.9	0.0399	mg/L	0.00050				1.25%
B 249.772†	120546.9	0.9696	mg/L	0.00313				0.32%
Ba 233.527†	179513.5	2.225	mg/L	0.0043				0.19%
Be 313.107†	224686.1	0.0519	mg/L	0.00001				0.03%
Cd 226.502†	6679.1	0.0526	mg/L	0.00005				0.09%
Co 228.616†	20053.6	0.5268	mg/L	0.00084				0.16%
Cr 267.716†	35623.6	0.2195	mg/L	0.00033				0.15%
Cu 324.752†	93768.2	0.2806	mg/L	0.00203				0.72%
Fe 259.939†	45778.6	1.073	mg/L	0.0021				0.19%
K 766.490†	75129.8	19.02	mg/L	0.404				2.13%
Mg 279.077†	21420.1	2.036	mg/L	0.0051				0.25%
Mn 257.610†	251441.5	0.5325	mg/L	0.00040				0.08%
Mo 202.031†	11473.4	0.5326	mg/L	0.00435				0.82%
Ni 231.604†	39432.7	0.5422	mg/L	0.00004				0.01%
Na 589.592†	366919.9	20.96	mg/L	0.404				1.93%
Pb 220.353†	5529.8	0.5434	mg/L	0.00158				0.29%
Sb 206.836†	1240.3	0.5440	mg/L	0.01065				1.96%
Se 196.026†	2538.7	1.016	mg/L	0.0162				1.60%
Sn 189.927†	39327.1	5.404	mg/L	0.0534				0.99%
Ti 337.279†	362194.0	0.5055	mg/L	0.00291				0.58%
Tl 190.801†	6336.8	2.205	mg/L	0.0140				0.63%
V 292.402†	74525.8	0.5263	mg/L	0.00241				0.46%
Zn 206.200†	29891.6	0.5257	mg/L	0.00561				1.07%

Ca 227.546†	904.7	2.183	mg/L	0.0449	2.06%
Sr 421.552†	1937454.6	2.239	mg/L	0.0298	1.33%
Al 237.313†	9599.7	2.054	mg/L	0.0109	0.53%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 69 **Autosampler Location: 78**
Sample ID: R1510288-001 **Date Collected: 12/16/2015 10:01:24 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510288-001

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6446158.9	0.9546	mg/L	0.01008				1.06%
Ag 328.068†	-1487.7	-0.0005	mg/L	0.00035				65.81%
As 188.979†	10.3	0.0062	mg/L	0.00153				24.67%
B 249.772†	79048.5	0.5334	mg/L	0.00150				0.28%
Ba 233.527†	1581.3	0.0196	mg/L	0.00004				0.23%
Be 313.107†	-1299.9	-0.0003	mg/L	0.00001				1.81%
Cd 226.502†	308.4	-0.0014	mg/L	0.00003				2.35%
Co 228.616†	-3.5	-0.0001	mg/L	0.00014				149.70%
Cr 267.716†	-54.0	0.0009	mg/L	0.00039				44.65%
Cu 324.752†	312.4	0.0009	mg/L	0.00018				18.76%
Fe 259.939†	1028835.6	24.13	mg/L	0.023				0.09%
K 766.490†	10125.0	2.563	mg/L	0.0430				1.68%
Mg 279.077†	25001.9	2.288	mg/L	0.0034				0.15%
Mn 257.610†	39599.4	0.0877	mg/L	0.00007				0.08%
Mo 202.031†	-18.8	-0.0009	mg/L	0.00026				30.03%
Ni 231.604†	-11.5	-0.0002	mg/L	0.00006				37.10%
Na 589.592†	1306483.4	74.63	mg/L	0.703				0.94%
Pb 220.353†	33.0	0.0005	mg/L	0.00105				201.86%
Sb 206.836†	-4.2	-0.0018	mg/L	0.00017				9.33%
Se 196.026†	0.3	0.0001	mg/L	0.00300				>999.9%
Sn 189.927†	-84.0	-0.0115	mg/L	0.00002				0.13%
Ti 337.279†	1105.8	0.0015	mg/L	0.00022				14.55%
Tl 190.801†	-7.0	0.0004	mg/L	0.00123				336.03%
V 292.402†	-137.5	0.0009	mg/L	0.00007				7.79%
Zn 206.200†	2822.4	0.0496	mg/L	0.00048				0.97%
Ca 227.546†	2859.2	7.008	mg/L	0.0645				0.92%
Sr 421.552†	62567.8	0.0723	mg/L	0.00033				0.46%
Al 237.313†	614.9	0.4113	mg/L	0.00339				0.82%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 70 **Autosampler Location: 79**
Sample ID: R1510288-002 **Date Collected: 12/16/2015 10:07:07 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510288-002

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6585350.7	0.9752	mg/L	0.00945				0.97%
Ag 328.068†	-1426.0	-0.0005	mg/L	0.00013				23.47%
As 188.979†	7.3	0.0044	mg/L	0.00074				16.89%
B 249.772†	78066.3	0.5310	mg/L	0.00018				0.03%
Ba 233.527†	1632.8	0.0202	mg/L	0.00007				0.32%
Be 313.107†	-751.3	-0.0002	mg/L	0.00001				3.56%
Cd 226.502†	309.3	-0.0012	mg/L	0.00006				4.65%
Co 228.616†	-5.9	-0.0002	mg/L	0.00004				28.59%
Cr 267.716†	-38.1	0.0009	mg/L	0.00015				15.95%
Cu 324.752†	-609.6	-0.0018	mg/L	0.00003				1.50%
Fe 259.939†	975850.0	22.89	mg/L	0.227				0.99%
K 766.490†	11566.2	2.928	mg/L	0.0519				1.77%
Mg 279.077†	25039.2	2.296	mg/L	0.0026				0.11%
Mn 257.610†	38683.2	0.0856	mg/L	0.00042				0.49%
Mo 202.031†	-39.3	-0.0018	mg/L	0.00017				9.28%

Ni 231.604†	-18.1	-0.0002	mg/L	0.00007	28.46%
Na 589.592†	1407737.2	80.42	mg/L	2.265	2.82%
Pb 220.353†	19.6	-0.0006	mg/L	0.00046	72.84%
Sb 206.836†	-4.2	-0.0018	mg/L	0.00009	4.85%
Se 196.026†	1.1	0.0004	mg/L	0.00215	506.26%
Sn 189.927†	-98.1	-0.0135	mg/L	0.00008	0.61%
Ti 337.279†	266.0	0.0004	mg/L	0.00010	26.87%
Tl 190.801†	-11.0	-0.0012	mg/L	0.00046	40.18%
V 292.402†	-274.1	-0.0002	mg/L	0.00004	26.51%
Zn 206.200†	1430.9	0.0252	mg/L	0.00041	1.62%
Ca 227.546†	2887.7	7.070	mg/L	0.0618	0.87%
Sr 421.552†	65202.3	0.0754	mg/L	0.00191	2.54%
Al 237.313†	-944.7	0.0648	mg/L	0.02450	37.80%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 71 **Autosampler Location: 80**
Sample ID: R1510288-003 **Date Collected: 12/16/2015 10:12:53 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510288-003

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	6531721.4	0.9673	mg/L	0.00151			0.16%
Ag 328.068†	-512.8	-0.0005	mg/L	0.00003			5.31%
As 188.979†	5.0	0.0028	mg/L	0.00007			2.56%
B 249.772†	17643.1	0.1103	mg/L	0.00044			0.40%
Ba 233.527†	623.9	0.0077	mg/L	0.00014			1.86%
Be 313.107†	-1251.2	-0.0003	mg/L	0.00000			0.20%
Cd 226.502†	89.0	-0.0005	mg/L	0.00007			14.66%
Co 228.616†	-11.6	-0.0003	mg/L	0.00014			44.99%
Cr 267.716†	528.7	0.0036	mg/L	0.00001			0.35%
Cu 324.752†	679.4	0.0020	mg/L	0.00008			3.79%
Fe 259.939†	314854.9	7.386	mg/L	0.0056			0.08%
K 766.490†	5944.3	1.505	mg/L	0.0049			0.33%
Mg 279.077†	19540.4	1.833	mg/L	0.0086			0.47%
Mn 257.610†	24376.9	0.0528	mg/L	0.00005			0.09%
Mo 202.031†	-8.4	-0.0004	mg/L	0.00002			4.46%
Ni 231.604†	58.0	0.0008	mg/L	0.00006			7.02%
Na 589.592†	569944.4	32.56	mg/L	0.045			0.14%
Pb 220.353†	12.4	0.0005	mg/L	0.00079			154.96%
Sb 206.836†	-4.5	-0.0020	mg/L	0.00139			70.47%
Se 196.026†	-3.2	-0.0012	mg/L	0.00145			121.84%
Sn 189.927†	-162.2	-0.0223	mg/L	0.00039			1.76%
Ti 337.279†	3826.7	0.0053	mg/L	0.00015			2.88%
Tl 190.801†	-7.8	-0.0018	mg/L	0.00026			14.18%
V 292.402†	266.0	0.0025	mg/L	0.00006			2.57%
Zn 206.200†	634.3	0.0112	mg/L	0.00006			0.55%
Ca 227.546†	8525.9	20.56	mg/L	0.049			0.24%
Sr 421.552†	122436.6	0.1415	mg/L	0.00090			0.64%
Al 237.313†	764.6	0.2416	mg/L	0.00223			0.92%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 72 **Autosampler Location: 81**
Sample ID: R1510288-004 **Date Collected: 12/16/2015 10:18:37 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510288-004

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	6549024.6	0.9699	mg/L	0.00139			0.14%
Ag 328.068†	-521.7	-0.0006	mg/L	0.00002			2.78%
As 188.979†	4.6	0.0026	mg/L	0.00148			57.75%
B 249.772†	17294.5	0.1094	mg/L	0.00032			0.29%
Ba 233.527†	624.4	0.0077	mg/L	0.00009			1.19%

Be 313.107†	-1371.2	-0.0003	mg/L	0.00001	2.27%
Cd 226.502†	85.5	-0.0004	mg/L	0.00005	12.33%
Co 228.616†	-18.4	-0.0005	mg/L	0.00007	15.52%
Cr 267.716†	162.9	0.0014	mg/L	0.00017	12.50%
Cu 324.752†	-222.3	-0.0007	mg/L	0.00011	15.89%
Fe 259.939†	296448.9	6.954	mg/L	0.0344	0.49%
K 766.490†	5758.9	1.458	mg/L	0.0084	0.58%
Mg 279.077†	19143.4	1.796	mg/L	0.0035	0.20%
Mn 257.610†	25398.3	0.0549	mg/L	0.00027	0.48%
Mo 202.031†	-18.3	-0.0009	mg/L	0.00008	9.98%
Ni 231.604†	1.1	0.0000	mg/L	0.00002	156.22%
Na 589.592†	587835.3	33.58	mg/L	0.348	1.04%
Pb 220.353†	6.5	0.0000	mg/L	0.00061	>999.9%
Sb 206.836†	-5.6	-0.0024	mg/L	0.00103	42.34%
Se 196.026†	-0.5	-0.0001	mg/L	0.00069	620.75%
Sn 189.927†	-171.0	-0.0235	mg/L	0.00009	0.37%
Ti 337.279†	93.5	0.0001	mg/L	0.00014	107.45%
Tl 190.801†	-8.1	-0.0020	mg/L	0.00019	9.64%
V 292.402†	53.0	0.0009	mg/L	0.00006	6.28%
Zn 206.200†	332.4	0.0058	mg/L	0.00009	1.51%
Ca 227.546†	8540.2	20.59	mg/L	0.012	0.06%
Sr 421.552†	121728.1	0.1407	mg/L	0.00190	1.35%
Al 237.313†	-304.7	0.0090	mg/L	0.00847	94.42%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 73 **Autosampler Location: 82**
Sample ID: R1510288-005 **Date Collected: 12/16/2015 10:24:26 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510288-005

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6583405.8	0.9750	mg/L	0.00617				0.63%
Ag 328.068†	-439.3	-0.0012	mg/L	0.00001				1.20%
As 188.979†	2.4	0.0013	mg/L	0.00072				56.66%
B 249.772†	14658.8	0.1132	mg/L	0.00119				1.05%
Ba 233.527†	4595.4	0.0570	mg/L	0.00043				0.76%
Be 313.107†	1158.4	0.0003	mg/L	0.00003				10.34%
Cd 226.502†	183.7	0.0013	mg/L	0.00002				1.68%
Co 228.616†	235.5	0.0062	mg/L	0.00012				1.91%
Cr 267.716†	21.7	0.0008	mg/L	0.00002				2.60%
Cu 324.752†	265.5	0.0008	mg/L	0.00009				11.13%
Fe 259.939†	50925.8	1.195	mg/L	0.0108				0.91%
K 766.490†	22881.0	5.792	mg/L	0.0334				0.58%
Mg 279.077†	75049.7	7.143	mg/L	0.0821				1.15%
Mn 257.610†	37050.7	0.0786	mg/L	0.00078				0.99%
Mo 202.031†	-24.3	-0.0011	mg/L	0.00005				4.31%
Ni 231.604†	2271.8	0.0312	mg/L	0.00042				1.36%
Na 589.592†	192288.0	10.98	mg/L	0.042				0.38%
Pb 220.353†	-8.1	-0.0007	mg/L	0.00099				142.41%
Sb 206.836†	-4.8	-0.0021	mg/L	0.00001				0.28%
Se 196.026†	-2.5	-0.0011	mg/L	0.00081				73.58%
Sn 189.927†	-103.9	-0.0143	mg/L	0.00005				0.37%
Ti 337.279†	368.7	0.0005	mg/L	0.00005				9.46%
Tl 190.801†	-6.5	-0.0020	mg/L	0.00075				37.04%
V 292.402†	30.3	0.0003	mg/L	0.00010				31.14%
Zn 206.200†	4511.1	0.0793	mg/L	0.00059				0.74%
Ca 227.546†	3306.8	7.964	mg/L	0.0642				0.81%
Sr 421.552†	110308.9	0.1275	mg/L	0.00075				0.58%
Al 237.313†	1525.1	0.3355	mg/L	0.00079				0.24%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 74 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 12/16/2015 10:30:04 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6555080.0	0.9708	mg/L	0.00338				0.35%
Ag 328.068†	174574.3	0.5048	mg/L	0.00072	0.5048	mg/L	0.00072	0.14%
QC value within limits for Ag 328.068 Recovery = 100.96%								
As 188.979†	1467.3	0.9032	mg/L	0.00221	0.9032	mg/L	0.00221	0.24%
QC value within limits for As 188.979 Recovery = 90.32%								
B 249.772†	297881.0	2.385	mg/L	0.0042	2.385	mg/L	0.0042	0.18%
QC value within limits for B 249.772 Recovery = 95.40%								
Ba 233.527†	850670.4	10.55	mg/L	0.018	10.55	mg/L	0.018	0.17%
QC value within limits for Ba 233.527 Recovery = 105.45%								
Be 313.107†	1088302.1	0.2512	mg/L	0.00100	0.2512	mg/L	0.00100	0.40%
QC value within limits for Be 313.107 Recovery = 100.46%								
Cd 226.502†	64137.6	0.5062	mg/L	0.00020	0.5062	mg/L	0.00020	0.04%
QC value within limits for Cd 226.502 Recovery = 101.23%								
Co 228.616†	95347.3	2.505	mg/L	0.0076	2.505	mg/L	0.0076	0.30%
QC value within limits for Co 228.616 Recovery = 100.19%								
Cr 267.716†	85451.5	0.5284	mg/L	0.00017	0.5284	mg/L	0.00017	0.03%
QC value within limits for Cr 267.716 Recovery = 105.68%								
Cu 324.752†	423072.1	1.266	mg/L	0.0022	1.266	mg/L	0.0022	0.18%
QC value within limits for Cu 324.752 Recovery = 101.27%								
Fe 259.939†	213924.3	5.016	mg/L	0.0102	5.016	mg/L	0.0102	0.20%
QC value within limits for Fe 259.939 Recovery = 100.32%								
K 766.490†	95446.9	24.16	mg/L	0.100	24.16	mg/L	0.100	0.41%
QC value within limits for K 766.490 Recovery = 96.64%								
Mg 279.077†	259158.8	24.66	mg/L	0.026	24.66	mg/L	0.026	0.11%
QC value within limits for Mg 279.077 Recovery = 98.65%								
Mn 257.610†	365364.6	0.7745	mg/L	0.00013	0.7745	mg/L	0.00013	0.02%
QC value within limits for Mn 257.610 Recovery = 103.26%								
Mo 202.031†	55831.0	2.592	mg/L	0.0206	2.592	mg/L	0.0206	0.79%
QC value within limits for Mo 202.031 Recovery = 103.66%								
Ni 231.604†	151402.4	2.082	mg/L	0.0017	2.082	mg/L	0.0017	0.08%
QC value within limits for Ni 231.604 Recovery = 104.08%								
Na 589.592†	429071.1	24.51	mg/L	0.142	24.51	mg/L	0.142	0.58%
QC value within limits for Na 589.592 Recovery = 98.04%								
Pb 220.353†	5288.4	0.5189	mg/L	0.00102	0.5189	mg/L	0.00102	0.20%
QC value within limits for Pb 220.353 Recovery = 103.77%								
Sb 206.836†	12299.5	5.395	mg/L	0.0141	5.395	mg/L	0.0141	0.26%
QC value within limits for Sb 206.836 Recovery = 107.90%								
Se 196.026†	1205.9	0.4820	mg/L	0.00169	0.4820	mg/L	0.00169	0.35%
QC value within limits for Se 196.026 Recovery = 96.41%								
Sn 189.927†	36584.8	5.027	mg/L	0.0004	5.027	mg/L	0.0004	0.01%
QC value within limits for Sn 189.927 Recovery = 100.55%								
Ti 337.279†	1777115.7	2.480	mg/L	0.0121	2.480	mg/L	0.0121	0.49%
QC value within limits for Ti 337.279 Recovery = 99.21%								
Tl 190.801†	3193.7	1.112	mg/L	0.0002	1.112	mg/L	0.0002	0.02%
QC value greater than the upper limit for Tl 190.801 Recovery = 111.19%								
V 292.402†	356454.8	2.517	mg/L	0.0007	2.517	mg/L	0.0007	0.03%
QC value within limits for V 292.402 Recovery = 100.70%								
Zn 206.200†	57647.8	1.014	mg/L	0.0053	1.014	mg/L	0.0053	0.52%
QC value within limits for Zn 206.200 Recovery = 101.38%								
Ca 227.546†	10793.5	26.00	mg/L	0.076	26.00	mg/L	0.076	0.29%
QC value within limits for Ca 227.546 Recovery = 104.01%								
Sr 421.552†	2156632.7	2.493	mg/L	0.0211	2.493	mg/L	0.0211	0.85%
QC value within limits for Sr 421.552 Recovery = 99.71%								
Al 237.313†	47448.6	10.15	mg/L	0.029	10.15	mg/L	0.029	0.29%
QC value within limits for Al 237.313 Recovery = 101.46%								

QC Failed. Continue with analysis.

Sequence No.: 75 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 12/16/2015 10:35:53 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD

Analyte	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	Std.Dev.	RSD
Y 371.029	6648534.3	0.9846	mg/L	0.00747				0.76%
Ag 328.068†	-305.4	-0.0009	mg/L	0.00001	-0.0009	mg/L	0.00001	1.16%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	0.3	0.0002	mg/L	0.00027	0.0002	mg/L	0.00027	154.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	3597.3	0.0290	mg/L	0.00218	0.0290	mg/L	0.00218	7.49%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	93.2	0.0012	mg/L	0.00024	0.0012	mg/L	0.00024	20.65%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-297.5	-0.0001	mg/L	0.00002	-0.0001	mg/L	0.00002	27.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	10.4	0.0001	mg/L	0.00005	0.0001	mg/L	0.00005	68.19%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.4	0.0001	mg/L	0.00013	0.0001	mg/L	0.00013	116.98%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	6.9	0.0000	mg/L	0.00004	0.0000	mg/L	0.00004	86.46%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	252.3	0.0008	mg/L	0.00043	0.0008	mg/L	0.00043	57.36%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	496.3	0.0116	mg/L	0.00002	0.0116	mg/L	0.00002	0.14%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	88.4	0.0224	mg/L	0.02247	0.0224	mg/L	0.02247	100.47%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	327.0	0.0311	mg/L	0.01767	0.0311	mg/L	0.01767	56.83%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	223.2	0.0005	mg/L	0.00001	0.0005	mg/L	0.00001	2.53%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	88.4	0.0041	mg/L	0.00126	0.0041	mg/L	0.00126	30.82%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	-28.5	-0.0004	mg/L	0.00013	-0.0004	mg/L	0.00013	34.10%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	481.9	0.0275	mg/L	0.00215	0.0275	mg/L	0.00215	7.81%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	3.3	0.0003	mg/L	0.00121	0.0003	mg/L	0.00121	378.70%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	6.1	0.0027	mg/L	0.00107	0.0027	mg/L	0.00107	40.08%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	0.5	0.0002	mg/L	0.00048	0.0002	mg/L	0.00048	255.94%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	21.9	0.0030	mg/L	0.00190	0.0030	mg/L	0.00190	63.13%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 337.279†	704.7	0.0010	mg/L	0.00025	0.0010	mg/L	0.00025	25.06%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-0.8	-0.0003	mg/L	0.00014	-0.0003	mg/L	0.00014	49.34%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	65.9	0.0005	mg/L	0.00032	0.0005	mg/L	0.00032	68.51%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	9.1	0.0002	mg/L	0.00004	0.0002	mg/L	0.00004	25.92%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Ca 227.546†	4.4	0.0107	mg/L	0.00033	0.0107	mg/L	0.00033	3.06%
QC value within limits for Ca 227.546 Recovery = Not calculated								
Sr 421.552†	323.0	0.0004	mg/L	0.00002	0.0004	mg/L	0.00002	4.85%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Al 237.313†	10.4	0.0023	mg/L	0.00137	0.0023	mg/L	0.00137	58.48%
QC value within limits for Al 237.313 Recovery = Not calculated								

All analyte(s) passed QC.

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Sequence No.: 76
Sample ID: R1510288-005D
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 83
Date Collected: 12/16/2015 10:41:34 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510288-005D

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6747341.8	0.9992	mg/L	0.00073				0.07%
Ag 328.068†	-412.9	-0.0011	mg/L	0.00005				4.24%
As 188.979†	2.5	0.0013	mg/L	0.00232				175.43%

B 249.772†	14784.7	0.1143	mg/L	0.00039	0.34%
Ba 233.527†	4633.9	0.0574	mg/L	0.00000	0.01%
Be 313.107†	2350.8	0.0005	mg/L	0.00003	5.32%
Cd 226.502†	194.2	0.0014	mg/L	0.00004	2.98%
Co 228.616†	247.6	0.0065	mg/L	0.00001	0.19%
Cr 267.716†	-11.2	0.0006	mg/L	0.00001	1.69%
Cu 324.752†	332.0	0.0010	mg/L	0.00017	17.09%
Fe 259.939†	50252.5	1.179	mg/L	0.0128	1.08%
K 766.490†	23368.2	5.915	mg/L	0.0404	0.68%
Mg 279.077†	74512.5	7.092	mg/L	0.0538	0.76%
Mn 257.610†	36640.2	0.0778	mg/L	0.00095	1.22%
Mo 202.031†	14.0	0.0006	mg/L	0.00031	48.42%
Ni 231.604†	2267.0	0.0312	mg/L	0.00014	0.44%
Na 589.592†	190500.9	10.88	mg/L	0.074	0.68%
Pb 220.353†	2.3	0.0001	mg/L	0.00066	502.08%
Sb 206.836†	-3.0	-0.0014	mg/L	0.00087	64.05%
Se 196.026†	-0.6	-0.0003	mg/L	0.00042	122.38%
Sn 189.927†	-82.4	-0.0113	mg/L	0.00032	2.82%
Ti 337.279†	432.1	0.0006	mg/L	0.00008	12.87%
Tl 190.801†	-6.7	-0.0021	mg/L	0.00015	7.23%
V 292.402†	-0.9	0.0001	mg/L	0.00001	17.41%
Zn 206.200†	4445.5	0.0782	mg/L	0.00036	0.45%
Ca 227.546†	3303.6	7.957	mg/L	0.0019	0.02%
Sr 421.552†	109406.8	0.1265	mg/L	0.00120	0.95%
Al 237.313†	1513.8	0.3329	mg/L	0.00280	0.84%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 77
Sample ID: R1510288-005S
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 84
Date Collected: 12/16/2015 10:47:16 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510288-005S

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6731599.9	0.9969	mg/L	0.00661				0.66%
Ag 328.068†	17421.5	0.0506	mg/L	0.00006				0.12%
As 188.979†	65.7	0.0402	mg/L	0.00020				0.51%
B 249.772†	133951.6	1.073	mg/L	0.0077				0.72%
Ba 233.527†	183224.6	2.271	mg/L	0.0018				0.08%
Be 313.107†	220604.9	0.0509	mg/L	0.00039				0.78%
Cd 226.502†	6632.4	0.0521	mg/L	0.00022				0.42%
Co 228.616†	20120.2	0.5285	mg/L	0.00089				0.17%
Cr 267.716†	34882.6	0.2156	mg/L	0.00005				0.03%
Cu 324.752†	91571.6	0.2740	mg/L	0.00295				1.08%
Fe 259.939†	97067.6	2.276	mg/L	0.0089				0.39%
K 766.490†	101500.8	25.69	mg/L	0.169				0.66%
Mg 279.077†	96531.3	9.185	mg/L	0.0135				0.15%
Mn 257.610†	289692.3	0.6137	mg/L	0.00133				0.22%
Mo 202.031†	11412.1	0.5297	mg/L	0.00313				0.59%
Ni 231.604†	41354.8	0.5686	mg/L	0.00092				0.16%
Na 589.592†	558091.6	31.88	mg/L	0.224				0.70%
Pb 220.353†	5337.5	0.5244	mg/L	0.00392				0.75%
Sb 206.836†	1218.6	0.5344	mg/L	0.00295				0.55%
Se 196.026†	2358.5	0.9434	mg/L	0.00996				1.06%
Sn 189.927†	39666.0	5.451	mg/L	0.0156				0.29%
Ti 337.279†	363986.8	0.5080	mg/L	0.00277				0.55%
Tl 190.801†	6089.1	2.119	mg/L	0.0185				0.87%
V 292.402†	74003.9	0.5228	mg/L	0.00232				0.44%
Zn 206.200†	33770.9	0.5939	mg/L	0.00105				0.18%
Ca 227.546†	4284.2	10.32	mg/L	0.064				0.62%
Sr 421.552†	1977890.6	2.286	mg/L	0.0523				2.29%
Al 237.313†	10992.6	2.362	mg/L	0.0059				0.25%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 78
Sample ID: R1510288-005A
Analyst:

Autosampler Location: 85
Date Collected: 12/16/2015 10:53:02 PM
Data Type: Original

Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510288-005A

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6716625.9	0.9947	mg/L	0.00442				0.44%
Ag 328.068†	17051.0	0.0495	mg/L	0.00073				1.47%
As 188.979†	62.0	0.0380	mg/L	0.00204				5.38%
B 249.772†	128942.7	1.033	mg/L	0.0161				1.56%
Ba 233.527†	169107.2	2.096	mg/L	0.0259				1.23%
Be 313.107†	204424.4	0.0472	mg/L	0.00056				1.20%
Cd 226.502†	6136.9	0.0482	mg/L	0.00015				0.31%
Co 228.616†	18515.1	0.4864	mg/L	0.00502				1.03%
Cr 267.716†	31880.9	0.1971	mg/L	0.00188				0.95%
Cu 324.752†	84222.2	0.2520	mg/L	0.00411				1.63%
Fe 259.939†	91204.2	2.139	mg/L	0.0224				1.05%
K 766.490†	90975.5	23.03	mg/L	0.213				0.92%
Mg 279.077†	92153.5	8.768	mg/L	0.0735				0.84%
Mn 257.610†	267469.6	0.5666	mg/L	0.00563				0.99%
Mo 202.031†	1.5	0.0001	mg/L	0.00031				435.67%
Ni 231.604†	38267.4	0.5261	mg/L	0.00574				1.09%
Na 589.592†	517888.6	29.58	mg/L	0.372				1.26%
Pb 220.353†	4973.4	0.4886	mg/L	0.00191				0.39%
Sb 206.836†	4.6	0.0018	mg/L	0.00022				12.41%
Se 196.026†	27.6	0.0109	mg/L	0.00031				2.85%
Sn 189.927†	-71.7	-0.0098	mg/L	0.00097				9.84%
Ti 337.279†	717.4	0.0010	mg/L	0.00011				10.53%
Tl 190.801†	5693.1	1.981	mg/L	0.0080				0.40%
V 292.402†	67849.5	0.4793	mg/L	0.00585				1.22%
Zn 206.200†	31331.0	0.5510	mg/L	0.00490				0.89%
Ca 227.546†	4113.8	9.911	mg/L	0.0431				0.43%
Sr 421.552†	106645.6	0.1233	mg/L	0.00156				1.26%
Al 237.313†	10260.7	2.205	mg/L	0.0082				0.37%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 79 **Autosampler Location: 86**
Sample ID: R1510288-005L **Date Collected: 12/16/2015 10:58:47 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510288-005L

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6677670.3	0.9889	mg/L	0.01247				1.26%
Ag 328.068†	-224.3	-0.0006	mg/L	0.00005				8.20%
As 188.979†	-0.0	-0.0001	mg/L	0.00168				>999.9%
B 249.772†	5483.1	0.0432	mg/L	0.00032				0.74%
Ba 233.527†	958.7	0.0119	mg/L	0.00023				1.94%
Be 313.107†	-92.6	0.0000	mg/L	0.00002				97.72%
Cd 226.502†	47.5	0.0003	mg/L	0.00013				40.02%
Co 228.616†	43.5	0.0011	mg/L	0.00003				2.90%
Cr 267.716†	65.9	0.0005	mg/L	0.00010				17.86%
Cu 324.752†	-106.6	-0.0003	mg/L	0.00017				52.95%
Fe 259.939†	10884.2	0.2553	mg/L	0.00132				0.52%
K 766.490†	4608.6	1.166	mg/L	0.0449				3.85%
Mg 279.077†	15845.3	1.508	mg/L	0.0112				0.75%
Mn 257.610†	7796.3	0.0165	mg/L	0.00008				0.47%
Mo 202.031†	-24.9	-0.0012	mg/L	0.00007				6.05%
Ni 231.604†	423.9	0.0058	mg/L	0.00010				1.76%
Na 589.592†	39023.0	2.229	mg/L	0.0362				1.62%
Pb 220.353†	-14.1	-0.0014	mg/L	0.00069				49.34%
Sb 206.836†	-4.3	-0.0019	mg/L	0.00023				12.36%
Se 196.026†	1.0	0.0004	mg/L	0.00346				935.62%
Sn 189.927†	-43.9	-0.0060	mg/L	0.00058				9.67%
Ti 337.279†	89.6	0.0001	mg/L	0.00002				18.17%
Tl 190.801†	4.5	0.0016	mg/L	0.00003				1.80%
V 292.402†	-10.7	-0.0001	mg/L	0.00026				463.87%

Zn 206.200†	1076.8	0.0189	mg/L	0.00018	0.97%
Ca 227.546†	681.5	1.641	mg/L	0.0247	1.50%
Sr 421.552†	21965.5	0.0254	mg/L	0.00045	1.76%
Al 237.313†	361.4	0.0793	mg/L	0.00744	9.38%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 80 **Autosampler Location: 87**
Sample ID: R1510288-006 **Date Collected: 12/16/2015 11:04:29 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510288-006

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6677663.1	0.9889	mg/L	0.00215				0.22%
Ag 328.068†	-323.2	-0.0008	mg/L	0.00070				84.15%
As 188.979†	2.8	0.0015	mg/L	0.00027				17.66%
B 249.772†	15270.0	0.1181	mg/L	0.00089				0.75%
Ba 233.527†	4777.5	0.0592	mg/L	0.00005				0.08%
Be 313.107†	1856.3	0.0004	mg/L	0.00004				9.85%
Cd 226.502†	211.3	0.0015	mg/L	0.00008				5.17%
Co 228.616†	257.5	0.0068	mg/L	0.00012				1.75%
Cr 267.716†	37.8	0.0009	mg/L	0.00003				2.92%
Cu 324.752†	751.8	0.0022	mg/L	0.00009				4.20%
Fe 259.939†	51596.7	1.210	mg/L	0.0027				0.22%
K 766.490†	24292.6	6.149	mg/L	0.1410				2.29%
Mg 279.077†	77710.0	7.396	mg/L	0.0119				0.16%
Mn 257.610†	39569.1	0.0840	mg/L	0.00004				0.05%
Mo 202.031†	-11.3	-0.0005	mg/L	0.00003				4.90%
Ni 231.604†	2444.0	0.0336	mg/L	0.00016				0.49%
Na 589.592†	197983.4	11.31	mg/L	0.300				2.65%
Pb 220.353†	-5.4	-0.0006	mg/L	0.00029				46.08%
Sb 206.836†	-5.8	-0.0026	mg/L	0.00084				32.66%
Se 196.026†	-1.9	-0.0009	mg/L	0.00175				199.72%
Sn 189.927†	-99.9	-0.0137	mg/L	0.00034				2.47%
Ti 337.279†	114.3	0.0002	mg/L	0.00007				43.80%
Tl 190.801†	-6.6	-0.0020	mg/L	0.00007				3.50%
V 292.402†	-1.7	0.0001	mg/L	0.00014				174.43%
Zn 206.200†	4747.1	0.0835	mg/L	0.00043				0.52%
Ca 227.546†	3502.5	8.436	mg/L	0.0340				0.40%
Sr 421.552†	115211.2	0.1332	mg/L	0.00360				2.70%
Al 237.313†	1589.4	0.3492	mg/L	0.00054				0.15%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 81 **Autosampler Location: 88**
Sample ID: R1510288-007 **Date Collected: 12/16/2015 11:10:12 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510288-007

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6770380.8	1.003	mg/L	0.0060				0.60%
Ag 328.068†	-323.5	-0.0008	mg/L	0.00020				24.50%
As 188.979†	4.1	0.0023	mg/L	0.00052				22.31%
B 249.772†	15065.4	0.1152	mg/L	0.00061				0.53%
Ba 233.527†	5082.7	0.0630	mg/L	0.00041				0.65%
Be 313.107†	1860.2	0.0004	mg/L	0.00003				5.92%
Cd 226.502†	218.0	0.0015	mg/L	0.00006				3.81%
Co 228.616†	271.4	0.0071	mg/L	0.00006				0.89%
Cr 267.716†	48.1	0.0010	mg/L	0.00024				24.17%
Cu 324.752†	219.7	0.0007	mg/L	0.00007				10.35%
Fe 259.939†	63341.5	1.486	mg/L	0.0035				0.24%
K 766.490†	24024.9	6.081	mg/L	0.0526				0.87%
Mg 279.077†	78236.4	7.445	mg/L	0.0283				0.38%
Mn 257.610†	40424.2	0.0858	mg/L	0.00038				0.45%

Method: DV200-6010C Opt3 **Page 56** **Date: 12/16/2015 11:24:58 PM**

Mo 202.031†	-20.6	-0.0010	mg/L	0.00009	9.10%
Ni 231.604†	2530.5	0.0348	mg/L	0.00028	0.79%
Na 589.592†	197094.2	11.26	mg/L	0.164	1.46%
Pb 220.353†	1.8	0.0001	mg/L	0.00048	952.43%
Sb 206.836†	-6.8	-0.0030	mg/L	0.00137	45.12%
Se 196.026†	-7.2	-0.0030	mg/L	0.00040	13.45%
Sn 189.927†	-105.4	-0.0145	mg/L	0.00018	1.26%
Ti 337.279†	274.8	0.0004	mg/L	0.00001	3.78%
Tl 190.801†	-7.4	-0.0023	mg/L	0.00043	18.82%
V 292.402†	25.0	0.0003	mg/L	0.00020	67.13%
Zn 206.200†	4864.0	0.0855	mg/L	0.00083	0.97%
Ca 227.546†	3648.9	8.789	mg/L	0.0845	0.96%
Sr 421.552†	119679.8	0.1383	mg/L	0.00198	1.43%
Al 237.313†	1593.2	0.3531	mg/L	0.00132	0.37%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 82
Sample ID: R1510288-008
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 89
Date Collected: 12/16/2015 11:15:57 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510288-008

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6727035.4	0.9962	mg/L	0.01578				1.58%
Ag 328.068†	-279.4	-0.0007	mg/L	0.00005				7.79%
As 188.979†	1.6	0.0008	mg/L	0.00094				123.86%
B 249.772†	14771.4	0.1133	mg/L	0.00161				1.42%
Ba 233.527†	4976.7	0.0617	mg/L	0.00071				1.15%
Be 313.107†	2062.9	0.0005	mg/L	0.00005				10.84%
Cd 226.502†	215.9	0.0015	mg/L	0.00013				8.74%
Co 228.616†	266.9	0.0070	mg/L	0.00002				0.24%
Cr 267.716†	48.8	0.0010	mg/L	0.00038				37.99%
Cu 324.752†	529.2	0.0016	mg/L	0.00005				3.01%
Fe 259.939†	59426.4	1.394	mg/L	0.0256				1.84%
K 766.490†	23431.8	5.931	mg/L	0.1272				2.14%
Mg 279.077†	77189.9	7.346	mg/L	0.1250				1.70%
Mn 257.610†	41580.7	0.0883	mg/L	0.00150				1.70%
Mo 202.031†	-19.5	-0.0009	mg/L	0.00010				11.36%
Ni 231.604†	2487.3	0.0342	mg/L	0.00061				1.79%
Na 589.592†	191911.7	10.96	mg/L	0.243				2.22%
Pb 220.353†	27.0	0.0025	mg/L	0.00060				23.68%
Sb 206.836†	-4.8	-0.0021	mg/L	0.00065				30.39%
Se 196.026†	-0.7	-0.0004	mg/L	0.00236				581.00%
Sn 189.927†	-104.8	-0.0144	mg/L	0.00064				4.44%
Ti 337.279†	87.9	0.0001	mg/L	0.00006				45.58%
Tl 190.801†	-8.3	-0.0026	mg/L	0.00016				6.17%
V 292.402†	22.1	0.0003	mg/L	0.00006				24.23%
Zn 206.200†	5222.9	0.0919	mg/L	0.00194				2.11%
Ca 227.546†	3570.2	8.599	mg/L	0.1069				1.24%
Sr 421.552†	115116.6	0.1331	mg/L	0.00292				2.20%
Al 237.313†	1521.9	0.3370	mg/L	0.00367				1.09%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 83
Sample ID: R1510288-009
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 90
Date Collected: 12/16/2015 11:21:37 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510288-009

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6799590.8	1.007	mg/L	0.0021				0.21%
Ag 328.068†	-541.0	-0.0016	mg/L	0.00027				17.22%
As 188.979†	-1.3	-0.0008	mg/L	0.00014				17.60%
B 249.772†	2273.7	0.0183	mg/L	0.00006				0.31%

Ba 233.527†	-2.9	0.0000 mg/L	0.00016	435.05%
Be 313.107†	-304.7	-0.0001 mg/L	0.00002	25.37%
Cd 226.502†	11.6	0.0001 mg/L	0.00004	47.70%
Co 228.616†	-13.4	-0.0004 mg/L	0.00003	7.99%
Cr 267.716†	138.2	0.0009 mg/L	0.00003	3.33%
Cu 324.752†	-340.3	-0.0010 mg/L	0.00008	7.75%
Fe 259.939†	532.1	0.0125 mg/L	0.00032	2.56%
K 766.490†	6.9	0.0017 mg/L	0.00249	143.11%
Mg 279.077†	612.5	0.0583 mg/L	0.02220	38.09%
Mn 257.610†	386.5	0.0008 mg/L	0.00004	4.84%
Mo 202.031†	-30.1	-0.0014 mg/L	0.00015	10.81%
Ni 231.604†	-62.2	-0.0009 mg/L	0.00009	10.25%
Na 589.592†	202.9	0.0116 mg/L	0.00572	49.34%
Pb 220.353†	-6.3	-0.0006 mg/L	0.00022	34.38%
Sb 206.836†	-7.4	-0.0032 mg/L	0.00075	23.25%
Se 196.026†	-0.1	-0.0001 mg/L	0.00138	>999.9%
Sn 189.927†	-38.9	-0.0053 mg/L	0.00009	1.68%
Ti 337.279†	-24.3	0.0000 mg/L	0.00002	72.32%
Tl 190.801†	-2.3	-0.0008 mg/L	0.00022	27.33%
V 292.402†	24.0	0.0002 mg/L	0.00008	47.87%
Zn 206.200†	106.5	0.0019 mg/L	0.00009	4.70%
Ca 227.546†	9.9	0.0238 mg/L	0.00631	26.53%
Sr 421.552†	-100.3	-0.0001 mg/L	0.00003	29.39%
Al 237.313†	93.2	0.0200 mg/L	0.00254	12.71%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 84
Sample ID: R1510288-010
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 91
Date Collected: 12/16/2015 11:27:22 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510288-010

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6672914.0	0.9882	mg/L	0.01054				1.07%
Ag 328.068†	-516.8	-0.0015	mg/L	0.00052				34.72%
As 188.979†	0.5	0.0003	mg/L	0.00053				180.71%
B 249.772†	2079.4	0.0168	mg/L	0.00022				1.32%
Ba 233.527†	-26.5	-0.0003	mg/L	0.00017				53.18%
Be 313.107†	-691.1	-0.0002	mg/L	0.00005				31.01%
Cd 226.502†	-2.3	0.0000	mg/L	0.00010				528.15%
Co 228.616†	-16.8	-0.0004	mg/L	0.00013				29.50%
Cr 267.716†	109.3	0.0007	mg/L	0.00021				31.29%
Cu 324.752†	-236.7	-0.0007	mg/L	0.00014				19.73%
Fe 259.939†	434.3	0.0102	mg/L	0.00109				10.69%
K 766.490†	217.5	0.0550	mg/L	0.02864				52.03%
Mg 279.077†	341.0	0.0324	mg/L	0.00370				11.40%
Mn 257.610†	254.8	0.0005	mg/L	0.00005				9.93%
Mo 202.031†	-25.2	-0.0012	mg/L	0.00001				1.03%
Ni 231.604†	-66.4	-0.0009	mg/L	0.00003				3.49%
Na 589.592†	209.3	0.0120	mg/L	0.00232				19.39%
Pb 220.353†	-8.1	-0.0008	mg/L	0.00065				82.03%
Sb 206.836†	-5.6	-0.0024	mg/L	0.00036				14.66%
Se 196.026†	5.0	0.0020	mg/L	0.00505				251.78%
Sn 189.927†	-40.6	-0.0056	mg/L	0.00049				8.74%
Ti 337.279†	-31.6	0.0000	mg/L	0.00005				110.06%
Tl 190.801†	-4.4	-0.0015	mg/L	0.00005				3.12%
V 292.402†	-15.9	-0.0001	mg/L	0.00024				212.15%
Zn 206.200†	73.3	0.0013	mg/L	0.00002				1.74%
Ca 227.546†	1.0	0.0025	mg/L	0.00852				345.48%
Sr 421.552†	-119.4	-0.0001	mg/L	0.00006				42.56%
Al 237.313†	59.6	0.0128	mg/L	0.00696				54.33%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 85
Sample ID: CCV
Analyst:
Initial Sample Wt:

Autosampler Location: 4
Date Collected: 12/16/2015 11:33:01 PM
Data Type: Original
Initial Sample Vol:

Dilution: Sample Prep Vol:

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6565209.1	0.9723	mg/L	0.00938				0.97%
Ag 328.068†	176465.2	0.5103	mg/L	0.00517	0.5103	mg/L	0.00517	1.01%
QC value within limits for Ag 328.068 Recovery = 102.05%								
As 188.979†	1473.7	0.9072	mg/L	0.01058	0.9072	mg/L	0.01058	1.17%
QC value within limits for As 188.979 Recovery = 90.72%								
B 249.772†	302007.9	2.418	mg/L	0.0394	2.418	mg/L	0.0394	1.63%
QC value within limits for B 249.772 Recovery = 96.73%								
Ba 233.527†	855506.0	10.60	mg/L	0.219	10.60	mg/L	0.219	2.06%
QC value within limits for Ba 233.527 Recovery = 106.05%								
Be 313.107†	1099721.5	0.2538	mg/L	0.00043	0.2538	mg/L	0.00043	0.17%
QC value within limits for Be 313.107 Recovery = 101.52%								
Cd 226.502†	64454.6	0.5087	mg/L	0.01204	0.5087	mg/L	0.01204	2.37%
QC value within limits for Cd 226.502 Recovery = 101.73%								
Co 228.616†	95775.1	2.516	mg/L	0.0481	2.516	mg/L	0.0481	1.91%
QC value within limits for Co 228.616 Recovery = 100.64%								
Cr 267.716†	85743.1	0.5302	mg/L	0.00998	0.5302	mg/L	0.00998	1.88%
QC value within limits for Cr 267.716 Recovery = 106.04%								
Cu 324.752†	431076.4	1.290	mg/L	0.0087	1.290	mg/L	0.0087	0.68%
QC value within limits for Cu 324.752 Recovery = 103.19%								
Fe 259.939†	214383.6	5.026	mg/L	0.0944	5.026	mg/L	0.0944	1.88%
QC value within limits for Fe 259.939 Recovery = 100.53%								
K 766.490†	98015.2	24.81	mg/L	0.325	24.81	mg/L	0.325	1.31%
QC value within limits for K 766.490 Recovery = 99.24%								
Mg 279.077†	259811.6	24.72	mg/L	0.458	24.72	mg/L	0.458	1.85%
QC value within limits for Mg 279.077 Recovery = 98.90%								
Mn 257.610†	366991.1	0.7779	mg/L	0.01345	0.7779	mg/L	0.01345	1.73%
QC value within limits for Mn 257.610 Recovery = 103.72%								
Mo 202.031†	56340.8	2.615	mg/L	0.0635	2.615	mg/L	0.0635	2.43%
QC value within limits for Mo 202.031 Recovery = 104.61%								
Ni 231.604†	152180.4	2.092	mg/L	0.0408	2.092	mg/L	0.0408	1.95%
QC value within limits for Ni 231.604 Recovery = 104.62%								
Na 589.592†	441484.4	25.22	mg/L	0.343	25.22	mg/L	0.343	1.36%
QC value within limits for Na 589.592 Recovery = 100.88%								
Pb 220.353†	5316.4	0.5216	mg/L	0.00592	0.5216	mg/L	0.00592	1.14%
QC value within limits for Pb 220.353 Recovery = 104.32%								
Sb 206.836†	12544.1	5.502	mg/L	0.0814	5.502	mg/L	0.0814	1.48%
QC value greater than the upper limit for Sb 206.836 Recovery = 110.05%								
Se 196.026†	1226.3	0.4902	mg/L	0.00770	0.4902	mg/L	0.00770	1.57%
QC value within limits for Se 196.026 Recovery = 98.05%								
Sn 189.927†	36810.9	5.058	mg/L	0.0765	5.058	mg/L	0.0765	1.51%
QC value within limits for Sn 189.927 Recovery = 101.17%								
Ti 337.279†	1795101.8	2.505	mg/L	0.0014	2.505	mg/L	0.0014	0.06%
QC value within limits for Ti 337.279 Recovery = 100.22%								
Tl 190.801†	3221.9	1.122	mg/L	0.0195	1.122	mg/L	0.0195	1.73%
QC value greater than the upper limit for Tl 190.801 Recovery = 112.18%								
V 292.402†	360371.4	2.545	mg/L	0.0413	2.545	mg/L	0.0413	1.62%
QC value within limits for V 292.402 Recovery = 101.81%								
Zn 206.200†	57426.4	1.010	mg/L	0.0309	1.010	mg/L	0.0309	3.06%
QC value within limits for Zn 206.200 Recovery = 100.99%								
Ca 227.546†	10880.6	26.21	mg/L	0.317	26.21	mg/L	0.317	1.21%
QC value within limits for Ca 227.546 Recovery = 104.85%								
Sr 421.552†	2186633.5	2.527	mg/L	0.0031	2.527	mg/L	0.0031	0.12%
QC value within limits for Sr 421.552 Recovery = 101.10%								
Al 237.313†	48326.8	10.33	mg/L	0.090	10.33	mg/L	0.090	0.87%
QC value within limits for Al 237.313 Recovery = 103.33%								

QC Failed. Continue with analysis.

Sequence No.: 86 Autosampler Location: 5
Sample ID: CCB Date Collected: 12/16/2015 11:38:50 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6749205.9	0.9995	mg/L	0.01099				1.10%
Ag 328.068†	-395.4	-0.0011	mg/L	0.00011	-0.0011	mg/L	0.00011	9.47%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	1.7	0.0011	mg/L	0.00037	0.0011	mg/L	0.00037	35.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	3290.8	0.0265	mg/L	0.00104	0.0265	mg/L	0.00104	3.91%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	127.1	0.0016	mg/L	0.00029	0.0016	mg/L	0.00029	18.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-192.7	0.0000	mg/L	0.00002	0.0000	mg/L	0.00002	45.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	23.1	0.0002	mg/L	0.00007	0.0002	mg/L	0.00007	40.62%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.5	0.0002	mg/L	0.00015	0.0002	mg/L	0.00015	78.03%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	70.1	0.0004	mg/L	0.00008	0.0004	mg/L	0.00008	17.56%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	305.2	0.0009	mg/L	0.00031	0.0009	mg/L	0.00031	33.58%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	654.9	0.0154	mg/L	0.00034	0.0154	mg/L	0.00034	2.24%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	107.7	0.0273	mg/L	0.00276	0.0273	mg/L	0.00276	10.11%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	409.6	0.0390	mg/L	0.01787	0.0390	mg/L	0.01787	45.87%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	335.9	0.0007	mg/L	0.00003	0.0007	mg/L	0.00003	3.59%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	68.8	0.0032	mg/L	0.00098	0.0032	mg/L	0.00098	30.83%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	-11.3	-0.0002	mg/L	0.00028	-0.0002	mg/L	0.00028	183.38%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	633.0	0.0362	mg/L	0.00142	0.0362	mg/L	0.00142	3.92%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	-12.2	-0.0012	mg/L	0.00040	-0.0012	mg/L	0.00040	33.65%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	1.9	0.0008	mg/L	0.00066	0.0008	mg/L	0.00066	79.03%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	1.1	0.0004	mg/L	0.00045	0.0004	mg/L	0.00045	105.57%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	21.4	0.0029	mg/L	0.00118	0.0029	mg/L	0.00118	40.06%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 337.279†	675.7	0.0009	mg/L	0.00027	0.0009	mg/L	0.00027	28.69%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	1.2	0.0004	mg/L	0.00068	0.0004	mg/L	0.00068	163.01%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	86.8	0.0006	mg/L	0.00002	0.0006	mg/L	0.00002	2.68%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	48.0	0.0008	mg/L	0.00000	0.0008	mg/L	0.00000	0.56%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Ca 227.546†	9.3	0.0225	mg/L	0.00143	0.0225	mg/L	0.00143	6.36%
QC value within limits for Ca 227.546 Recovery = Not calculated								
Sr 421.552†	198.7	0.0002	mg/L	0.00005	0.0002	mg/L	0.00005	19.69%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Al 237.313†	98.0	0.0210	mg/L	0.00237	0.0210	mg/L	0.00237	11.26%
QC value within limits for Al 237.313 Recovery = Not calculated								
All analyte(s) passed QC.								

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Sequence No.: 87
Sample ID: MRL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/16/2015 11:44:27 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: MRL

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6655780.9	0.9857	mg/L	0.00111				0.11%
Ag 328.068†	3110.2	0.0090	mg/L	0.00027	0.0090	mg/L	0.00027	2.96%

QC value within limits for Ag 328.068 Recovery = 89.92%						
As 188.979†	29.4	0.0181 mg/L	0.00038	0.0181 mg/L	0.00038	2.12%
QC value within limits for As 188.979 Recovery = 90.34%						
B 249.772†	26275.9	0.2119 mg/L	0.00338	0.2119 mg/L	0.00338	1.60%
QC value within limits for B 249.772 Recovery = 105.95%						
Ba 233.527†	18403.2	0.2281 mg/L	0.00214	0.2281 mg/L	0.00214	0.94%
QC value within limits for Ba 233.527 Recovery = 114.06%						
Be 313.107†	21803.1	0.0050 mg/L	0.00003	0.0050 mg/L	0.00003	0.55%
QC value within limits for Be 313.107 Recovery = 100.63%						
Cd 226.502†	1321.5	0.0104 mg/L	0.00009	0.0104 mg/L	0.00009	0.87%
QC value within limits for Cd 226.502 Recovery = 104.27%						
Co 228.616†	2064.8	0.0542 mg/L	0.00012	0.0542 mg/L	0.00012	0.23%
QC value within limits for Co 228.616 Recovery = 108.48%						
Cr 267.716†	1747.0	0.0109 mg/L	0.00007	0.0109 mg/L	0.00007	0.67%
QC value within limits for Cr 267.716 Recovery = 108.56%						
Cu 324.752†	8876.5	0.0266 mg/L	0.00024	0.0266 mg/L	0.00024	0.89%
QC value within limits for Cu 324.752 Recovery = 106.24%						
Fe 259.939†	5026.9	0.1179 mg/L	0.00014	0.1179 mg/L	0.00014	0.12%
QC value within limits for Fe 259.939 Recovery = 117.87%						
K 766.490†	3682.7	0.9322 mg/L	0.00199	0.9322 mg/L	0.00199	0.21%
QC value within limits for K 766.490 Recovery = 93.22%						
Mg 279.077†	11462.1	1.091 mg/L	0.0096	1.091 mg/L	0.0096	0.88%
QC value within limits for Mg 279.077 Recovery = 109.12%						
Mn 257.610†	7830.5	0.0166 mg/L	0.00029	0.0166 mg/L	0.00029	1.76%
QC value within limits for Mn 257.610 Recovery = 110.67%						
Mo 202.031†	578.6	0.0269 mg/L	0.00005	0.0269 mg/L	0.00005	0.18%
QC value within limits for Mo 202.031 Recovery = 107.43%						
Ni 231.604†	3093.0	0.0425 mg/L	0.00018	0.0425 mg/L	0.00018	0.42%
QC value within limits for Ni 231.604 Recovery = 106.31%						
Na 589.592†	18352.1	1.048 mg/L	0.0076	1.048 mg/L	0.0076	0.72%
QC value within limits for Na 589.592 Recovery = 104.84%						
Pb 220.353†	114.3	0.0112 mg/L	0.00048	0.0112 mg/L	0.00048	4.28%
QC value within limits for Pb 220.353 Recovery = 112.21%						
Sb 206.836†	149.3	0.0655 mg/L	0.00021	0.0655 mg/L	0.00021	0.32%
QC value within limits for Sb 206.836 Recovery = 109.15%						
Se 196.026†	22.6	0.0090 mg/L	0.00167	0.0090 mg/L	0.00167	18.50%
QC value within limits for Se 196.026 Recovery = 90.43%						
Sn 189.927†	3881.4	0.5334 mg/L	0.00041	0.5334 mg/L	0.00041	0.08%
QC value within limits for Sn 189.927 Recovery = 106.67%						
Ti 337.279†	36742.3	0.0513 mg/L	0.00060	0.0513 mg/L	0.00060	1.17%
QC value within limits for Ti 337.279 Recovery = 102.56%						
Tl 190.801†	64.4	0.0224 mg/L	0.00017	0.0224 mg/L	0.00017	0.75%
QC value within limits for Tl 190.801 Recovery = 112.09%						
V 292.402†	7470.0	0.0528 mg/L	0.00083	0.0528 mg/L	0.00083	1.57%
QC value within limits for V 292.402 Recovery = 105.52%						
Zn 206.200†	1204.8	0.0212 mg/L	0.00018	0.0212 mg/L	0.00018	0.86%
QC value within limits for Zn 206.200 Recovery = 105.95%						
Ca 227.546†	413.3	0.9952 mg/L	0.00315	0.9952 mg/L	0.00315	0.32%
QC value within limits for Ca 227.546 Recovery = 99.52%						
Sr 421.552†	88530.5	0.1023 mg/L	0.00115	0.1023 mg/L	0.00115	1.12%
QC value within limits for Sr 421.552 Recovery = 102.33%						
Al 237.313†	1022.2	0.2185 mg/L	0.00242	0.2185 mg/L	0.00242	1.11%
QC value within limits for Al 237.313 Recovery = 109.27%						

All analyte(s) passed QC.

Sequence No.: 88 **Autosampler Location: 7**
Sample ID: ICSA **Date Collected: 12/16/2015 11:50:03 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5979106.6	0.8855	mg/L	0.00041				0.05%
Ag 328.068†	-4422.4	-0.0019	mg/L	0.00035	-0.0019	mg/L	0.00035	18.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	17.2	0.0006	mg/L	0.00074	0.0006	mg/L	0.00074	120.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	44422.3	-0.0683	mg/L	0.00103	-0.0683	mg/L	0.00103	1.51%

Ba 233.527†	-182.3	-0.0036 mg/L	0.00015	-0.0036 mg/L	0.00015	4.20%
Be 313.107†	-1645.3	-0.0004 mg/L	0.00002	-0.0004 mg/L	0.00002	4.76%
QC value within limits for Be 313.107 Recovery = Not calculated						
Cd 226.502†	1052.8	-0.0026 mg/L	0.00015	-0.0026 mg/L	0.00015	5.90%
QC value less than the lower limit for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-50.4	-0.0013 mg/L	0.00012	-0.0013 mg/L	0.00012	9.13%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-4290.5	-0.0020 mg/L	0.00021	-0.0020 mg/L	0.00021	10.46%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-1318.3	-0.0039 mg/L	0.00003	-0.0039 mg/L	0.00003	0.72%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 259.939†	3755271.0	88.02 mg/L	0.325	88.02 mg/L	0.325	0.37%
QC value within limits for Fe 259.939 Recovery = 88.02%						
K 766.490†	234.5	0.0594 mg/L	0.00531	0.0594 mg/L	0.00531	8.95%
Mg 279.077†	2559222.4	243.4 mg/L	0.88	243.4 mg/L	0.88	0.36%
QC value within limits for Mg 279.077 Recovery = 97.36%						
Mn 257.610†	-8204.8	0.0000 mg/L	0.00014	0.0000 mg/L	0.00014	283.03%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-145.9	-0.0068 mg/L	0.00063	-0.0068 mg/L	0.00063	9.31%
Ni 231.604†	-21.7	-0.0003 mg/L	0.00022	-0.0003 mg/L	0.00022	73.69%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Na 589.592†	1267.4	0.0724 mg/L	0.00682	0.0724 mg/L	0.00682	9.42%
Pb 220.353†	257.1	0.0002 mg/L	0.00087	0.0002 mg/L	0.00087	505.66%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	53.3	-0.0010 mg/L	0.00206	-0.0010 mg/L	0.00206	211.70%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	2.4	-0.0014 mg/L	0.00025	-0.0014 mg/L	0.00025	17.43%
QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	-485.4	-0.0667 mg/L	0.00016	-0.0667 mg/L	0.00016	0.24%
Ti 337.279†	251.4	0.0004 mg/L	0.00002	0.0004 mg/L	0.00002	4.67%
Tl 190.801†	-41.2	-0.0005 mg/L	0.00115	-0.0005 mg/L	0.00115	238.67%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	-1081.2	-0.0008 mg/L	0.00002	-0.0008 mg/L	0.00002	2.25%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	356.7	0.0063 mg/L	0.00023	0.0063 mg/L	0.00023	3.60%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	115721.3	279.0 mg/L	0.78	279.0 mg/L	0.78	0.28%
QC value within limits for Ca 227.546 Recovery = 111.58%						
Sr 421.552†	3168.0	0.0037 mg/L	0.00006	0.0037 mg/L	0.00006	1.77%
Al 237.313†	1260526.0	269.2 mg/L	0.34	269.2 mg/L	0.34	0.13%
QC value within limits for Al 237.313 Recovery = 107.66%						

QC Failed. Continue with analysis.

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Sequence No.: 89 **Autosampler Location: 8**
Sample ID: ICSAB **Date Collected: 12/16/2015 11:55:45 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 371.029	5944949.7	0.8804	mg/L	0.00538				0.61%
Ag 328.068†	69711.9	0.2122	mg/L	0.00195	0.2122	mg/L	0.00195	0.92%
QC value within limits for Ag 328.068 Recovery = 106.09%								
As 188.979†	158.4	0.0877	mg/L	0.00221	0.0877	mg/L	0.00221	2.52%
QC value within limits for As 188.979 Recovery = 87.71%								
B 249.772†	43876.0	-0.0686	mg/L	0.00272	-0.0686	mg/L	0.00272	3.96%
Ba 233.527†	42758.1	0.5287	mg/L	0.00286	0.5287	mg/L	0.00286	0.54%
QC value within limits for Ba 233.527 Recovery = 105.74%								
Be 313.107†	2224284.7	0.5133	mg/L	0.00032	0.5133	mg/L	0.00032	0.06%
QC value within limits for Be 313.107 Recovery = 102.66%								
Cd 226.502†	124807.8	0.9754	mg/L	0.00702	0.9754	mg/L	0.00702	0.72%
QC value within limits for Cd 226.502 Recovery = 97.54%								
Co 228.616†	17852.8	0.4690	mg/L	0.00192	0.4690	mg/L	0.00192	0.41%
QC value within limits for Co 228.616 Recovery = 93.80%								
Cr 267.716†	79213.4	0.5119	mg/L	0.00340	0.5119	mg/L	0.00340	0.66%
QC value within limits for Cr 267.716 Recovery = 102.39%								
Cu 324.752†	175629.3	0.5255	mg/L	0.00358	0.5255	mg/L	0.00358	0.68%
QC value within limits for Cu 324.752 Recovery = 105.10%								

Fe 259.939†	3719548.4	87.19 mg/L	0.015	87.19 mg/L	0.015	0.02%
QC value within limits for Fe 259.939 Recovery = 87.19%						
K 766.490†	204.0	0.0516 mg/L	0.01071	0.0516 mg/L	0.01071	20.74%
Mg 279.077†	2546494.1	242.2 mg/L	0.28	242.2 mg/L	0.28	0.12%
QC value within limits for Mg 279.077 Recovery = 96.88%						
Mn 257.610†	231575.6	0.5075 mg/L	0.00339	0.5075 mg/L	0.00339	0.67%
QC value within limits for Mn 257.610 Recovery = 101.51%						
Mo 202.031†	-155.0	-0.0072 mg/L	0.00021	-0.0072 mg/L	0.00021	2.90%
Ni 231.604†	70008.7	0.9625 mg/L	0.00785	0.9625 mg/L	0.00785	0.82%
QC value within limits for Ni 231.604 Recovery = 96.25%						
Na 589.592†	1178.5	0.0673 mg/L	0.00230	0.0673 mg/L	0.00230	3.42%
Pb 220.353†	790.4	0.0529 mg/L	0.00060	0.0529 mg/L	0.00060	1.13%
QC value within limits for Pb 220.353 Recovery = 105.72%						
Sb 206.836†	1609.4	0.6820 mg/L	0.00505	0.6820 mg/L	0.00505	0.74%
QC value within limits for Sb 206.836 Recovery = 113.67%						
Se 196.026†	136.2	0.0520 mg/L	0.00454	0.0520 mg/L	0.00454	8.72%
QC value within limits for Se 196.026 Recovery = 104.07%						
Sn 189.927†	-506.4	-0.0696 mg/L	0.00056	-0.0696 mg/L	0.00056	0.81%
Ti 337.279†	89.0	0.0001 mg/L	0.00000	0.0001 mg/L	0.00000	0.18%
Tl 190.801†	253.7	0.1020 mg/L	0.00027	0.1020 mg/L	0.00027	0.27%
QC value within limits for Tl 190.801 Recovery = 102.00%						
V 292.402†	70644.0	0.5056 mg/L	0.00481	0.5056 mg/L	0.00481	0.95%
QC value within limits for V 292.402 Recovery = 101.13%						
Zn 206.200†	54197.8	0.9532 mg/L	0.00540	0.9532 mg/L	0.00540	0.57%
QC value within limits for Zn 206.200 Recovery = 95.32%						
Ca 227.546†	113867.1	274.5 mg/L	2.14	274.5 mg/L	2.14	0.78%
QC value within limits for Ca 227.546 Recovery = 109.80%						
Sr 421.552†	3019.0	0.0035 mg/L	0.00005	0.0035 mg/L	0.00005	1.31%
Al 237.313†	1245762.7	266.0 mg/L	0.59	266.0 mg/L	0.59	0.22%
QC value within limits for Al 237.313 Recovery = 106.40%						

All analyte(s) passed QC.

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Sequence No.: 90 **Autosampler Location: 4**
Sample ID: CCV **Date Collected: 12/17/2015 12:01:33 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6531078.0	0.9672	mg/L	0.00024				0.02%
Ag 328.068†	177060.8	0.5120	mg/L	0.00578	0.5120	mg/L	0.00578	1.13%
QC value within limits for Ag 328.068 Recovery = 102.40%								
As 188.979†	1474.7	0.9077	mg/L	0.00577	0.9077	mg/L	0.00577	0.64%
QC value within limits for As 188.979 Recovery = 90.77%								
B 249.772†	304029.9	2.434	mg/L	0.0395	2.434	mg/L	0.0395	1.62%
QC value within limits for B 249.772 Recovery = 97.37%								
Ba 233.527†	869761.5	10.78	mg/L	0.102	10.78	mg/L	0.102	0.95%
QC value within limits for Ba 233.527 Recovery = 107.82%								
Be 313.107†	1108976.1	0.2559	mg/L	0.00087	0.2559	mg/L	0.00087	0.34%
QC value within limits for Be 313.107 Recovery = 102.37%								
Cd 226.502†	65697.0	0.5185	mg/L	0.00562	0.5185	mg/L	0.00562	1.08%
QC value within limits for Cd 226.502 Recovery = 103.69%								
Co 228.616†	97363.3	2.558	mg/L	0.0252	2.558	mg/L	0.0252	0.99%
QC value within limits for Co 228.616 Recovery = 102.31%								
Cr 267.716†	87041.0	0.5382	mg/L	0.00501	0.5382	mg/L	0.00501	0.93%
QC value within limits for Cr 267.716 Recovery = 107.65%								
Cu 324.752†	430654.4	1.289	mg/L	0.0148	1.289	mg/L	0.0148	1.15%
QC value within limits for Cu 324.752 Recovery = 103.09%								
Fe 259.939†	218145.9	5.115	mg/L	0.0460	5.115	mg/L	0.0460	0.90%
QC value within limits for Fe 259.939 Recovery = 102.29%								
K 766.490†	96485.7	24.42	mg/L	0.164	24.42	mg/L	0.164	0.67%
QC value within limits for K 766.490 Recovery = 97.69%								
Mg 279.077†	264406.2	25.16	mg/L	0.250	25.16	mg/L	0.250	0.99%
QC value within limits for Mg 279.077 Recovery = 100.65%								
Mn 257.610†	371788.0	0.7881	mg/L	0.00761	0.7881	mg/L	0.00761	0.97%
QC value within limits for Mn 257.610 Recovery = 105.08%								
Mo 202.031†	57334.4	2.661	mg/L	0.0426	2.661	mg/L	0.0426	1.60%
QC value within limits for Mo 202.031 Recovery = 106.45%								

Ni 231.604†	154882.0	2.129 mg/L	0.0181	2.129 mg/L	0.0181	0.85%
QC value within limits for Ni 231.604 Recovery = 106.47%						
Na 589.592†	432216.8	24.69 mg/L	0.281	24.69 mg/L	0.281	1.14%
QC value within limits for Na 589.592 Recovery = 98.76%						
Pb 220.353†	5355.6	0.5254 mg/L	0.00217	0.5254 mg/L	0.00217	0.41%
QC value within limits for Pb 220.353 Recovery = 105.09%						
Sb 206.836†	12642.9	5.546 mg/L	0.0325	5.546 mg/L	0.0325	0.59%
QC value greater than the upper limit for Sb 206.836 Recovery = 110.92%						
Se 196.026†	1231.3	0.4922 mg/L	0.00303	0.4922 mg/L	0.00303	0.62%
QC value within limits for Se 196.026 Recovery = 98.44%						
Sn 189.927†	36901.8	5.071 mg/L	0.0271	5.071 mg/L	0.0271	0.53%
QC value within limits for Sn 189.927 Recovery = 101.42%						
Ti 337.279†	1797920.8	2.509 mg/L	0.0135	2.509 mg/L	0.0135	0.54%
QC value within limits for Ti 337.279 Recovery = 100.38%						
Tl 190.801†	3240.5	1.128 mg/L	0.0074	1.128 mg/L	0.0074	0.65%
QC value greater than the upper limit for Tl 190.801 Recovery = 112.83%						
V 292.402†	363961.4	2.570 mg/L	0.0287	2.570 mg/L	0.0287	1.11%
QC value within limits for V 292.402 Recovery = 102.82%						
Zn 206.200†	59097.2	1.039 mg/L	0.0106	1.039 mg/L	0.0106	1.02%
QC value within limits for Zn 206.200 Recovery = 103.93%						
Ca 227.546†	10891.6	26.24 mg/L	0.124	26.24 mg/L	0.124	0.47%
QC value within limits for Ca 227.546 Recovery = 104.95%						
Sr 421.552†	2153720.5	2.489 mg/L	0.0440	2.489 mg/L	0.0440	1.77%
QC value within limits for Sr 421.552 Recovery = 99.58%						
Al 237.313†	48698.8	10.41 mg/L	0.132	10.41 mg/L	0.132	1.27%
QC value within limits for Al 237.313 Recovery = 104.13%						
QC Failed. Continue with analysis.						

Sequence No.: 91 **Autosampler Location: 5**
Sample ID: CCB **Date Collected: 12/17/2015 12:08:06 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6873002.9	1.018	mg/L	0.0014				0.14%
Ag 328.068†	-454.6	-0.0013	mg/L	0.00018	-0.0013	mg/L	0.00018	13.63%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	1.4	0.0009	mg/L	0.00037	0.0009	mg/L	0.00037	42.82%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	3233.9	0.0260	mg/L	0.00028	0.0260	mg/L	0.00028	1.09%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	146.1	0.0018	mg/L	0.00006	0.0018	mg/L	0.00006	3.50%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	492.3	0.0001	mg/L	0.00001	0.0001	mg/L	0.00001	9.43%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	49.5	0.0004	mg/L	0.00002	0.0004	mg/L	0.00002	6.02%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.7	0.0000	mg/L	0.00021	0.0000	mg/L	0.00021	452.83%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	85.5	0.0005	mg/L	0.00017	0.0005	mg/L	0.00017	32.61%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	294.8	0.0009	mg/L	0.00016	0.0009	mg/L	0.00016	18.27%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	1031.4	0.0242	mg/L	0.00052	0.0242	mg/L	0.00052	2.13%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	112.8	0.0285	mg/L	0.03298	0.0285	mg/L	0.03298	115.56%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	561.5	0.0534	mg/L	0.00418	0.0534	mg/L	0.00418	7.84%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	365.8	0.0008	mg/L	0.00003	0.0008	mg/L	0.00003	3.71%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	37.0	0.0017	mg/L	0.00062	0.0017	mg/L	0.00062	35.86%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	-20.1	-0.0003	mg/L	0.00015	-0.0003	mg/L	0.00015	54.02%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	492.2	0.0281	mg/L	0.00289	0.0281	mg/L	0.00289	10.29%
QC value within limits for Na 589.592 Recovery = Not calculated								

Pb 220.353†	-20.8	-0.0020 mg/L	0.00017	-0.0020 mg/L	0.00017	8.16%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	1.8	0.0008 mg/L	0.00137	0.0008 mg/L	0.00137	177.04%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	1.4	0.0005 mg/L	0.00026	0.0005 mg/L	0.00026	47.00%
QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	21.3	0.0029 mg/L	0.00084	0.0029 mg/L	0.00084	28.67%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 337.279†	336.5	0.0005 mg/L	0.00002	0.0005 mg/L	0.00002	4.07%
QC value within limits for Ti 337.279 Recovery = Not calculated						
Tl 190.801†	0.6	0.0002 mg/L	0.00090	0.0002 mg/L	0.00090	458.26%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	-0.7	0.0000 mg/L	0.00010	0.0000 mg/L	0.00010	>999.9%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	57.4	0.0010 mg/L	0.00005	0.0010 mg/L	0.00005	5.16%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	9.1	0.0220 mg/L	0.00181	0.0220 mg/L	0.00181	8.22%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Sr 421.552†	174.1	0.0002 mg/L	0.00001	0.0002 mg/L	0.00001	2.66%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Al 237.313†	149.2	0.0320 mg/L	0.00394	0.0320 mg/L	0.00394	12.31%
QC value within limits for Al 237.313 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 92 **Autosampler Location: 92**
Sample ID: PBW-251481 **Date Collected: 12/17/2015 12:15:08 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: PBW-251481

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6891759.1	1.021	mg/L	0.0005				0.05%
Ag 328.068†	-508.5	-0.0015	mg/L	0.00042				28.91%
As 188.979†	0.1	0.0001	mg/L	0.00055				693.56%
B 249.772†	2691.0	0.0217	mg/L	0.00020				0.91%
Ba 233.527†	52.0	0.0006	mg/L	0.00002				2.86%
Be 313.107†	-244.3	-0.0001	mg/L	0.00003				55.21%
Cd 226.502†	27.3	0.0002	mg/L	0.00006				25.86%
Co 228.616†	-11.7	-0.0003	mg/L	0.00008				27.34%
Cr 267.716†	82.8	0.0005	mg/L	0.00001				2.49%
Cu 324.752†	-18.4	-0.0001	mg/L	0.00018				332.39%
Fe 259.939†	829.5	0.0195	mg/L	0.00031				1.60%
K 766.490†	9.9	0.0025	mg/L	0.01041				414.81%
Mg 279.077†	752.6	0.0716	mg/L	0.03449				48.17%
Mn 257.610†	324.9	0.0007	mg/L	0.00000				0.20%
Mo 202.031†	-10.6	-0.0005	mg/L	0.00013				25.38%
Ni 231.604†	-38.8	-0.0005	mg/L	0.00007				13.18%
Na 589.592†	173.8	0.0099	mg/L	0.00295				29.75%
Pb 220.353†	-17.2	-0.0017	mg/L	0.00026				15.34%
Sb 206.836†	-1.4	-0.0006	mg/L	0.00027				43.87%
Se 196.026†	-5.6	-0.0022	mg/L	0.00130				58.34%
Sn 189.927†	-7.7	-0.0011	mg/L	0.00028				26.53%
Ti 337.279†	150.3	0.0002	mg/L	0.00010				48.26%
Tl 190.801†	-1.0	-0.0003	mg/L	0.00014				40.47%
V 292.402†	-8.1	-0.0001	mg/L	0.00014				257.33%
Zn 206.200†	52.0	0.0009	mg/L	0.00001				1.19%
Ca 227.546†	-2.4	-0.0056	mg/L	0.00571				101.04%
Sr 421.552†	-85.8	-0.0001	mg/L	0.00006				64.86%
Al 237.313†	125.3	0.0269	mg/L	0.00061				2.25%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 93 **Autosampler Location: 93**
Sample ID: LCSW-251481 **Date Collected: 12/17/2015 12:21:31 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: LCSW-251481

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6473972.8	0.9587	mg/L	0.00091				0.09%
Ag 328.068†	17653.6	0.0511	mg/L	0.00018				0.35%
As 188.979†	61.5	0.0378	mg/L	0.00061				1.60%
B 249.772†	121644.5	0.9785	mg/L	0.00365				0.37%
Ba 233.527†	182343.9	2.260	mg/L	0.0084				0.37%
Be 313.107†	222148.1	0.0513	mg/L	0.00017				0.34%
Cd 226.502†	6718.2	0.0529	mg/L	0.00042				0.79%
Co 228.616†	20226.8	0.5313	mg/L	0.00432				0.81%
Cr 267.716†	35729.9	0.2202	mg/L	0.00104				0.47%
Cu 324.752†	94635.2	0.2832	mg/L	0.00094				0.33%
Fe 259.939†	45526.3	1.067	mg/L	0.0061				0.57%
K 766.490†	76115.9	19.27	mg/L	0.092				0.48%
Mg 279.077†	21392.0	2.033	mg/L	0.0226				1.11%
Mn 257.610†	253452.8	0.5368	mg/L	0.00270				0.50%
Mo 202.031†	11839.9	0.5496	mg/L	0.00146				0.27%
Ni 231.604†	39796.5	0.5472	mg/L	0.00531				0.97%
Na 589.592†	371796.2	21.24	mg/L	0.050				0.23%
Pb 220.353†	5598.2	0.5501	mg/L	0.00592				1.08%
Sb 206.836†	1285.0	0.5636	mg/L	0.00136				0.24%
Se 196.026†	2580.0	1.032	mg/L	0.0007				0.07%
Sn 189.927†	39993.8	5.496	mg/L	0.0229				0.42%
Ti 337.279†	368986.6	0.5150	mg/L	0.00200				0.39%
Tl 190.801†	6458.8	2.247	mg/L	0.0035				0.16%
V 292.402†	75028.3	0.5299	mg/L	0.00249				0.47%
Zn 206.200†	30343.0	0.5336	mg/L	0.00573				1.07%
Ca 227.546†	900.7	2.173	mg/L	0.0060				0.28%
Sr 421.552†	1923107.9	2.223	mg/L	0.0041				0.19%
Al 237.313†	9663.8	2.068	mg/L	0.0021				0.10%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 94
Sample ID: R1510346-008
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 94
Date Collected: 12/17/2015 12:27:19 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510346-008

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6580452.9	0.9745	mg/L	0.00019				0.02%
Ag 328.068†	-2388.9	-0.0007	mg/L	0.00005				6.58%
As 188.979†	17.0	0.0101	mg/L	0.00053				5.27%
B 249.772†	51030.6	0.2363	mg/L	0.00300				1.27%
Ba 233.527†	956.9	0.0119	mg/L	0.00001				0.10%
Be 313.107†	-663.5	-0.0002	mg/L	0.00003				19.22%
Cd 226.502†	583.3	-0.0018	mg/L	0.00006				3.34%
Co 228.616†	3.4	0.0001	mg/L	0.00002				18.18%
Cr 267.716†	-28.7	0.0019	mg/L	0.00005				2.76%
Cu 324.752†	-825.0	-0.0025	mg/L	0.00004				1.72%
Fe 259.939†	1715668.2	40.25	mg/L	0.168				0.42%
K 766.490†	5295.1	1.340	mg/L	0.0058				0.44%
Mg 279.077†	56234.3	5.201	mg/L	0.0207				0.40%
Mn 257.610†	111774.9	0.2431	mg/L	0.00062				0.25%
Mo 202.031†	-28.3	-0.0013	mg/L	0.00046				35.14%
Ni 231.604†	-5.2	-0.0001	mg/L	0.00019				258.90%
Na 589.592†	724694.2	41.40	mg/L	0.057				0.14%
Pb 220.353†	23.8	-0.0021	mg/L	0.00100				47.48%
Sb 206.836†	-3.4	-0.0015	mg/L	0.00100				66.70%
Se 196.026†	-6.3	-0.0025	mg/L	0.00221				88.47%
Sn 189.927†	-149.3	-0.0205	mg/L	0.00037				1.82%
Ti 337.279†	1850.8	0.0026	mg/L	0.00003				1.10%
Tl 190.801†	-16.1	-0.0009	mg/L	0.00053				57.92%
V 292.402†	-288.7	0.0011	mg/L	0.00005				4.72%
Zn 206.200†	1054.7	0.0185	mg/L	0.00007				0.39%
Ca 227.546†	9659.8	23.46	mg/L	0.016				0.07%
Sr 421.552†	126350.4	0.1460	mg/L	0.00024				0.16%

Al 237.313†	-113.5	0.4391 mg/L	0.00525		1.20%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 95 **Autosampler Location: 95**
Sample ID: R1510346-008D **Date Collected: 12/17/2015 12:33:25 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510346-008D

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6584492.6	0.9751	mg/L	0.01047				1.07%
Ag 328.068†	-2328.9	-0.0003	mg/L	0.00002				9.77%
As 188.979†	18.5	0.0110	mg/L	0.00080				7.23%
B 249.772†	52604.8	0.2400	mg/L	0.00589				2.45%
Ba 233.527†	992.9	0.0123	mg/L	0.00014				1.14%
Be 313.107†	-624.1	-0.0001	mg/L	0.00004				30.34%
Cd 226.502†	604.2	-0.0019	mg/L	0.00006				3.33%
Co 228.616†	3.6	0.0001	mg/L	0.00014				147.30%
Cr 267.716†	-31.2	0.0020	mg/L	0.00001				0.30%
Cu 324.752†	-812.7	-0.0024	mg/L	0.00011				4.37%
Fe 259.939†	1803557.8	42.31	mg/L	0.249				0.59%
K 766.490†	6410.0	1.622	mg/L	0.0332				2.04%
Mg 279.077†	58401.6	5.399	mg/L	0.0902				1.67%
Mn 257.610†	115923.1	0.2522	mg/L	0.00340				1.35%
Mo 202.031†	-45.3	-0.0021	mg/L	0.00005				2.49%
Ni 231.604†	1.3	0.0000	mg/L	0.00014				811.06%
Na 589.592†	812356.5	46.41	mg/L	0.722				1.56%
Pb 220.353†	40.8	-0.0007	mg/L	0.00156				236.46%
Sb 206.836†	-3.6	-0.0016	mg/L	0.00089				57.25%
Se 196.026†	3.8	0.0015	mg/L	0.00013				8.69%
Sn 189.927†	-169.9	-0.0233	mg/L	0.00021				0.89%
Ti 337.279†	1798.4	0.0025	mg/L	0.00007				2.65%
Tl 190.801†	-18.0	-0.0013	mg/L	0.00068				51.29%
V 292.402†	-296.3	0.0012	mg/L	0.00001				1.11%
Zn 206.200†	1085.7	0.0191	mg/L	0.00015				0.80%
Ca 227.546†	10006.3	24.30	mg/L	0.206				0.85%
Sr 421.552†	138339.5	0.1599	mg/L	0.00351				2.19%
Al 237.313†	-77.6	0.4706	mg/L	0.00455				0.97%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 96 **Autosampler Location: 96**
Sample ID: R1510346-008S **Date Collected: 12/17/2015 12:40:36 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510346-008S

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6767316.9	1.002	mg/L	0.0059				0.58%
Ag 328.068†	15018.9	0.0498	mg/L	0.00047				0.94%
As 188.979†	78.2	0.0478	mg/L	0.00023				0.48%
B 249.772†	164979.8	1.150	mg/L	0.0086				0.75%
Ba 233.527†	177013.6	2.194	mg/L	0.0053				0.24%
Be 313.107†	215462.8	0.0497	mg/L	0.00004				0.08%
Cd 226.502†	6937.7	0.0482	mg/L	0.00017				0.34%
Co 228.616†	19100.8	0.5018	mg/L	0.00204				0.41%
Cr 267.716†	34549.0	0.2150	mg/L	0.00008				0.04%
Cu 324.752†	89599.3	0.2681	mg/L	0.00121				0.45%
Fe 259.939†	1789267.0	41.97	mg/L	0.072				0.17%
K 766.490†	87272.8	22.09	mg/L	0.385				1.74%
Mg 279.077†	75844.1	7.062	mg/L	0.0121				0.17%
Mn 257.610†	356330.9	0.7612	mg/L	0.00198				0.26%
Mo 202.031†	11698.7	0.5430	mg/L	0.00722				1.33%
Ni 231.604†	37714.1	0.5185	mg/L	0.00292				0.56%
Na 589.592†	1128521.3	64.47	mg/L	0.996				1.54%

Pb 220.353†	5261.1	0.5125	mg/L	0.00202	0.39%
Sb 206.836†	1253.0	0.5495	mg/L	0.00279	0.51%
Se 196.026†	2480.7	0.9924	mg/L	0.00125	0.13%
Sn 189.927†	38808.9	5.333	mg/L	0.0162	0.30%
Ti 337.279†	366410.7	0.5114	mg/L	0.00165	0.32%
Tl 190.801†	5975.7	2.084	mg/L	0.0045	0.22%
V 292.402†	73721.6	0.5238	mg/L	0.00222	0.42%
Zn 206.200†	29498.1	0.5188	mg/L	0.00098	0.19%
Ca 227.546†	10799.2	26.21	mg/L	0.044	0.17%
Sr 421.552†	1958829.2	2.264	mg/L	0.0029	0.13%
Al 237.313†	9736.0	2.554	mg/L	0.0191	0.75%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 97 **Autosampler Location: 97**
Sample ID: R1510346-008A **Date Collected: 12/17/2015 12:47:15 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510346-008A

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6579410.4	0.9744	mg/L	0.01456				1.49%
Ag 328.068†	13267.3	0.0445	mg/L	0.00096				2.15%
As 188.979†	74.0	0.0452	mg/L	0.00070				1.54%
B 249.772†	164893.3	1.157	mg/L	0.0123				1.06%
Ba 233.527†	165885.9	2.056	mg/L	0.0226				1.10%
Be 313.107†	204900.7	0.0473	mg/L	0.00016				0.35%
Cd 226.502†	6501.8	0.0450	mg/L	0.00025				0.56%
Co 228.616†	18160.9	0.4771	mg/L	0.00623				1.31%
Cr 267.716†	32110.0	0.1999	mg/L	0.00218				1.09%
Cu 324.752†	85013.8	0.2544	mg/L	0.00285				1.12%
Fe 259.939†	1716130.7	40.26	mg/L	0.184				0.46%
K 766.490†	77283.5	19.56	mg/L	0.193				0.99%
Mg 279.077†	73578.7	6.852	mg/L	0.0637				0.93%
Mn 257.610†	336414.4	0.7187	mg/L	0.00787				1.09%
Mo 202.031†	-42.4	-0.0020	mg/L	0.00006				3.13%
Ni 231.604†	35716.5	0.4911	mg/L	0.00457				0.93%
Na 589.592†	1048382.2	59.89	mg/L	0.069				0.12%
Pb 220.353†	4954.0	0.4825	mg/L	0.00369				0.77%
Sb 206.836†	3.9	0.0015	mg/L	0.00165				106.56%
Se 196.026†	32.8	0.0131	mg/L	0.00200				15.22%
Sn 189.927†	-154.6	-0.0212	mg/L	0.00029				1.35%
Ti 337.279†	1824.3	0.0025	mg/L	0.00005				1.91%
Tl 190.801†	5597.5	1.952	mg/L	0.0162				0.83%
V 292.402†	68586.8	0.4875	mg/L	0.00585				1.20%
Zn 206.200†	28501.0	0.5012	mg/L	0.00718				1.43%
Ca 227.546†	10196.1	24.75	mg/L	0.293				1.18%
Sr 421.552†	125039.5	0.1445	mg/L	0.00141				0.98%
Al 237.313†	8850.6	2.346	mg/L	0.0274				1.17%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 98 **Autosampler Location: 98**
Sample ID: R1510346-008L **Date Collected: 12/17/2015 12:53:04 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510346-008L

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6662179.4	0.9866	mg/L	0.00617				0.62%
Ag 328.068†	-889.5	-0.0012	mg/L	0.00014				11.05%
As 188.979†	2.2	0.0013	mg/L	0.00008				6.34%
B 249.772†	13183.0	0.0683	mg/L	0.00178				2.61%
Ba 233.527†	205.0	0.0025	mg/L	0.00004				1.57%
Be 313.107†	-140.9	0.0000	mg/L	0.00000				2.20%
Cd 226.502†	125.6	-0.0004	mg/L	0.00006				16.27%

Co 228.616†	-7.4	-0.0002	mg/L	0.00004	21.59%
Cr 267.716†	17.7	0.0006	mg/L	0.00001	1.57%
Cu 324.752†	-507.6	-0.0015	mg/L	0.00004	2.72%
Fe 259.939†	373017.4	8.750	mg/L	0.0020	0.02%
K 766.490†	1143.5	0.2894	mg/L	0.01332	4.60%
Mg 279.077†	11962.2	1.106	mg/L	0.0102	0.92%
Mn 257.610†	23291.4	0.0507	mg/L	0.00026	0.51%
Mo 202.031†	-33.4	-0.0016	mg/L	0.00017	10.88%
Ni 231.604†	-38.0	-0.0005	mg/L	0.00015	29.18%
Na 589.592†	150505.2	8.598	mg/L	0.0710	0.83%
Pb 220.353†	3.6	-0.0006	mg/L	0.00086	139.90%
Sb 206.836†	-4.1	-0.0018	mg/L	0.00032	17.56%
Se 196.026†	0.1	0.0000	mg/L	0.00277	>999.9%
Sn 189.927†	-69.5	-0.0096	mg/L	0.00000	0.04%
Ti 337.279†	287.9	0.0004	mg/L	0.00016	38.72%
Tl 190.801†	3.7	0.0023	mg/L	0.00255	110.03%
V 292.402†	-50.3	0.0003	mg/L	0.00019	58.62%
Zn 206.200†	367.8	0.0065	mg/L	0.00012	1.87%
Ca 227.546†	1953.7	4.748	mg/L	0.0206	0.43%
Sr 421.552†	25946.2	0.0300	mg/L	0.00018	0.59%
Al 237.313†	-30.1	0.0944	mg/L	0.00604	6.40%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 99
Sample ID: R1510346-009
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 99
Date Collected: 12/17/2015 12:58:52 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510346-009

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6476877.3	0.9592	mg/L	0.00552				0.58%
Ag 328.068†	-2291.5	-0.0001	mg/L	0.00015				118.95%
As 188.979†	17.5	0.0104	mg/L	0.00064				6.19%
B 249.772†	53134.5	0.2438	mg/L	0.00649				2.66%
Ba 233.527†	998.3	0.0124	mg/L	0.00015				1.17%
Be 313.107†	-768.2	-0.0002	mg/L	0.00003				14.33%
Cd 226.502†	581.8	-0.0021	mg/L	0.00004				1.98%
Co 228.616†	7.7	0.0002	mg/L	0.00003				15.45%
Cr 267.716†	-107.4	0.0015	mg/L	0.00007				4.37%
Cu 324.752†	-1053.6	-0.0032	mg/L	0.00008				2.54%
Fe 259.939†	1809034.8	42.44	mg/L	0.131				0.31%
K 766.490†	7362.0	1.863	mg/L	0.0367				1.97%
Mg 279.077†	58771.6	5.434	mg/L	0.0825				1.52%
Mn 257.610†	117261.2	0.2551	mg/L	0.00304				1.19%
Mo 202.031†	-58.4	-0.0027	mg/L	0.00017				6.38%
Ni 231.604†	-0.3	0.0000	mg/L	0.00021				>999.9%
Na 589.592†	783928.6	44.78	mg/L	0.292				0.65%
Pb 220.353†	38.5	-0.0009	mg/L	0.00002				2.37%
Sb 206.836†	-5.8	-0.0025	mg/L	0.00017				6.58%
Se 196.026†	-6.2	-0.0025	mg/L	0.00281				113.46%
Sn 189.927†	-185.0	-0.0254	mg/L	0.00081				3.19%
Ti 337.279†	1653.8	0.0023	mg/L	0.00004				1.76%
Tl 190.801†	-20.5	-0.0022	mg/L	0.00059				26.90%
V 292.402†	-315.9	0.0011	mg/L	0.00003				2.74%
Zn 206.200†	1044.6	0.0184	mg/L	0.00036				1.96%
Ca 227.546†	10070.0	24.46	mg/L	0.160				0.65%
Sr 421.552†	134835.9	0.1559	mg/L	0.00131				0.84%
Al 237.313†	-397.4	0.4040	mg/L	0.01071				2.65%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 100
Sample ID: R1510346-010
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 100
Date Collected: 12/17/2015 1:04:39 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510346-010

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6830032.0	1.011	mg/L	0.0079				0.78%
Ag 328.068†	-457.0	-0.0012	mg/L	0.00033				28.16%
As 188.979†	3.7	0.0021	mg/L	0.00024				11.49%
B 249.772†	12452.3	0.0917	mg/L	0.00084				0.92%
Ba 233.527†	1039.3	0.0129	mg/L	0.00000				0.01%
Be 313.107†	521.5	0.0001	mg/L	0.00000				1.69%
Cd 226.502†	70.1	0.0002	mg/L	0.00013				52.52%
Co 228.616†	-7.0	-0.0002	mg/L	0.00010				54.66%
Cr 267.716†	1546.5	0.0098	mg/L	0.00045				4.65%
Cu 324.752†	2006.0	0.0060	mg/L	0.00022				3.66%
Fe 259.939†	85954.5	2.016	mg/L	0.0034				0.17%
K 766.490†	6713.1	1.699	mg/L	0.0355				2.09%
Mg 279.077†	27626.0	2.623	mg/L	0.0169				0.65%
Mn 257.610†	3314.0	0.0074	mg/L	0.00005				0.63%
Mo 202.031†	-10.7	-0.0005	mg/L	0.00014				27.17%
Ni 231.604†	132.4	0.0018	mg/L	0.00006				3.48%
Na 589.592†	204851.0	11.70	mg/L	0.077				0.66%
Pb 220.353†	2.4	0.0001	mg/L	0.00002				30.23%
Sb 206.836†	-5.2	-0.0024	mg/L	0.00095				39.91%
Se 196.026†	-0.4	-0.0001	mg/L	0.00036				355.29%
Sn 189.927†	-140.4	-0.0193	mg/L	0.00075				3.88%
Ti 337.279†	10161.3	0.0142	mg/L	0.00007				0.52%
Tl 190.801†	-8.7	-0.0028	mg/L	0.00168				60.74%
V 292.402†	633.1	0.0046	mg/L	0.00003				0.67%
Zn 206.200†	706.4	0.0124	mg/L	0.00018				1.49%
Ca 227.546†	6779.5	16.33	mg/L	0.170				1.04%
Sr 421.552†	55696.4	0.0644	mg/L	0.00045				0.70%
Al 237.313†	4753.9	1.029	mg/L	0.0021				0.20%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 101
Sample ID: R1510346-011
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 12/17/2015 1:10:46 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510346-011

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6694222.2	0.9914	mg/L	0.00301				0.30%
Ag 328.068†	-207.6	-0.0008	mg/L	0.00017				23.06%
As 188.979†	1.3	0.0006	mg/L	0.00113				192.20%
B 249.772†	10942.5	0.0878	mg/L	0.00099				1.13%
Ba 233.527†	829.1	0.0103	mg/L	0.00017				1.63%
Be 313.107†	-196.6	0.0000	mg/L	0.00003				74.07%
Cd 226.502†	21.2	0.0001	mg/L	0.00002				15.06%
Co 228.616†	-15.2	-0.0004	mg/L	0.00002				5.14%
Cr 267.716†	275.0	0.0018	mg/L	0.00005				2.56%
Cu 324.752†	1738.4	0.0052	mg/L	0.00015				2.84%
Fe 259.939†	6402.6	0.1502	mg/L	0.00112				0.74%
K 766.490†	6090.6	1.542	mg/L	0.0162				1.05%
Mg 279.077†	25475.5	2.426	mg/L	0.0005				0.02%
Mn 257.610†	2263.9	0.0048	mg/L	0.00003				0.64%
Mo 202.031†	-4.9	-0.0002	mg/L	0.00018				79.84%
Ni 231.604†	81.8	0.0011	mg/L	0.00000				0.28%
Na 589.592†	221038.1	12.63	mg/L	0.079				0.63%
Pb 220.353†	3.9	0.0005	mg/L	0.00018				38.25%
Sb 206.836†	-5.7	-0.0025	mg/L	0.00085				34.06%
Se 196.026†	-1.9	-0.0007	mg/L	0.00246				334.51%
Sn 189.927†	-140.6	-0.0193	mg/L	0.00026				1.37%
Ti 337.279†	273.3	0.0004	mg/L	0.00000				0.49%
Tl 190.801†	-6.2	-0.0021	mg/L	0.00067				32.05%
V 292.402†	70.6	0.0005	mg/L	0.00011				21.86%
Zn 206.200†	493.8	0.0087	mg/L	0.00001				0.11%
Ca 227.546†	6724.3	16.18	mg/L	0.247				1.53%
Sr 421.552†	57340.3	0.0663	mg/L	0.00044				0.66%
Al 237.313†	104.6	0.0179	mg/L	0.00586				32.66%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 102 **Autosampler Location: 4**
Sample ID: CCV **Date Collected: 12/17/2015 1:16:51 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6520227.8	0.9656	mg/L	0.00976				1.01%
Ag 328.068†	175619.2	0.5078	mg/L	0.00510	0.5078	mg/L	0.00510	1.00%
QC value within limits for Ag 328.068 Recovery = 101.57%								
As 188.979†	1479.0	0.9104	mg/L	0.01160	0.9104	mg/L	0.01160	1.27%
QC value within limits for As 188.979 Recovery = 91.04%								
B 249.772†	298792.4	2.392	mg/L	0.0125	2.392	mg/L	0.0125	0.52%
QC value within limits for B 249.772 Recovery = 95.68%								
Ba 233.527†	853857.7	10.58	mg/L	0.144	10.58	mg/L	0.144	1.36%
QC value within limits for Ba 233.527 Recovery = 105.85%								
Be 313.107†	1094475.3	0.2526	mg/L	0.00131	0.2526	mg/L	0.00131	0.52%
QC value within limits for Be 313.107 Recovery = 101.03%								
Cd 226.502†	64457.4	0.5087	mg/L	0.00774	0.5087	mg/L	0.00774	1.52%
QC value within limits for Cd 226.502 Recovery = 101.74%								
Co 228.616†	95860.4	2.518	mg/L	0.0311	2.518	mg/L	0.0311	1.24%
QC value within limits for Co 228.616 Recovery = 100.73%								
Cr 267.716†	85858.1	0.5309	mg/L	0.00678	0.5309	mg/L	0.00678	1.28%
QC value within limits for Cr 267.716 Recovery = 106.18%								
Cu 324.752†	425647.3	1.274	mg/L	0.0086	1.274	mg/L	0.0086	0.67%
QC value within limits for Cu 324.752 Recovery = 101.89%								
Fe 259.939†	215518.7	5.053	mg/L	0.0485	5.053	mg/L	0.0485	0.96%
QC value within limits for Fe 259.939 Recovery = 101.06%								
K 766.490†	100698.2	25.49	mg/L	0.381	25.49	mg/L	0.381	1.49%
QC value within limits for K 766.490 Recovery = 101.95%								
Mg 279.077†	260678.2	24.81	mg/L	0.296	24.81	mg/L	0.296	1.20%
QC value within limits for Mg 279.077 Recovery = 99.23%								
Mn 257.610†	367278.5	0.7785	mg/L	0.00902	0.7785	mg/L	0.00902	1.16%
QC value within limits for Mn 257.610 Recovery = 103.80%								
Mo 202.031†	56082.3	2.603	mg/L	0.0316	2.603	mg/L	0.0316	1.21%
QC value within limits for Mo 202.031 Recovery = 104.13%								
Ni 231.604†	152226.5	2.093	mg/L	0.0278	2.093	mg/L	0.0278	1.33%
QC value within limits for Ni 231.604 Recovery = 104.65%								
Na 589.592†	442544.6	25.28	mg/L	0.507	25.28	mg/L	0.507	2.00%
QC value within limits for Na 589.592 Recovery = 101.12%								
Pb 220.353†	5336.6	0.5236	mg/L	0.00614	0.5236	mg/L	0.00614	1.17%
QC value within limits for Pb 220.353 Recovery = 104.72%								
Sb 206.836†	12309.8	5.400	mg/L	0.0351	5.400	mg/L	0.0351	0.65%
QC value within limits for Sb 206.836 Recovery = 107.99%								
Se 196.026†	1221.7	0.4884	mg/L	0.00556	0.4884	mg/L	0.00556	1.14%
QC value within limits for Se 196.026 Recovery = 97.67%								
Sn 189.927†	36777.5	5.054	mg/L	0.0398	5.054	mg/L	0.0398	0.79%
QC value within limits for Sn 189.927 Recovery = 101.08%								
Ti 337.279†	1787902.0	2.495	mg/L	0.0008	2.495	mg/L	0.0008	0.03%
QC value within limits for Ti 337.279 Recovery = 99.82%								
Tl 190.801†	3201.0	1.115	mg/L	0.0102	1.115	mg/L	0.0102	0.92%
QC value greater than the upper limit for Tl 190.801 Recovery = 111.45%								
V 292.402†	357667.9	2.526	mg/L	0.0330	2.526	mg/L	0.0330	1.31%
QC value within limits for V 292.402 Recovery = 101.04%								
Zn 206.200†	57954.3	1.019	mg/L	0.0191	1.019	mg/L	0.0191	1.87%
QC value within limits for Zn 206.200 Recovery = 101.92%								
Ca 227.546†	10831.0	26.09	mg/L	0.230	26.09	mg/L	0.230	0.88%
QC value within limits for Ca 227.546 Recovery = 104.37%								
Sr 421.552†	2182887.3	2.523	mg/L	0.0154	2.523	mg/L	0.0154	0.61%
QC value within limits for Sr 421.552 Recovery = 100.92%								
Al 237.313†	47634.6	10.19	mg/L	0.108	10.19	mg/L	0.108	1.06%
QC value within limits for Al 237.313 Recovery = 101.86%								

QC Failed. Continue with analysis.

Sequence No.: 103 **Autosampler Location: 5**

Sample ID: CCB **Date Collected: 12/17/2015 1:22:56 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6766437.7	1.002	mg/L	0.0126				1.25%
Ag 328.068†	-324.0	-0.0009	mg/L	0.00001	-0.0009	mg/L	0.00001	0.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	2.7	0.0017	mg/L	0.00158	0.0017	mg/L	0.00158	94.81%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	3092.5	0.0249	mg/L	0.00102	0.0249	mg/L	0.00102	4.10%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	100.7	0.0012	mg/L	0.00063	0.0012	mg/L	0.00063	50.49%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	123.2	0.0000	mg/L	0.00002	0.0000	mg/L	0.00002	65.49%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	31.3	0.0002	mg/L	0.00019	0.0002	mg/L	0.00019	77.35%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.4	0.0001	mg/L	0.00009	0.0001	mg/L	0.00009	77.87%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	1.7	0.0000	mg/L	0.00037	0.0000	mg/L	0.00037	>999.9%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	264.3	0.0008	mg/L	0.00012	0.0008	mg/L	0.00012	15.69%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	699.2	0.0164	mg/L	0.00282	0.0164	mg/L	0.00282	17.17%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	160.7	0.0407	mg/L	0.01866	0.0407	mg/L	0.01866	45.89%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	321.6	0.0306	mg/L	0.00848	0.0306	mg/L	0.00848	27.74%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	275.0	0.0006	mg/L	0.00014	0.0006	mg/L	0.00014	24.47%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	70.4	0.0033	mg/L	0.00087	0.0033	mg/L	0.00087	26.68%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	-6.3	-0.0001	mg/L	0.00001	-0.0001	mg/L	0.00001	13.37%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	519.4	0.0297	mg/L	0.00445	0.0297	mg/L	0.00445	14.99%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	-0.9	-0.0001	mg/L	0.00085	-0.0001	mg/L	0.00085	926.38%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	4.2	0.0019	mg/L	0.00016	0.0019	mg/L	0.00016	8.69%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-2.5	-0.0010	mg/L	0.00083	-0.0010	mg/L	0.00083	81.58%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	23.6	0.0032	mg/L	0.00089	0.0032	mg/L	0.00089	27.46%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 337.279†	537.7	0.0008	mg/L	0.00021	0.0008	mg/L	0.00021	28.55%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	0.5	0.0002	mg/L	0.00037	0.0002	mg/L	0.00037	228.13%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	62.6	0.0004	mg/L	0.00003	0.0004	mg/L	0.00003	6.30%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	53.6	0.0009	mg/L	0.00006	0.0009	mg/L	0.00006	6.14%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Ca 227.546†	8.1	0.0197	mg/L	0.00067	0.0197	mg/L	0.00067	3.41%
QC value within limits for Ca 227.546 Recovery = Not calculated								
Sr 421.552†	168.0	0.0002	mg/L	0.00005	0.0002	mg/L	0.00005	25.38%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Al 237.313†	56.5	0.0122	mg/L	0.00967	0.0122	mg/L	0.00967	79.27%
QC value within limits for Al 237.313 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 104 **Autosampler Location: 102**
Sample ID: R1510346-014 **Date Collected: 12/17/2015 1:28:42 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510346-014

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5965063.0	0.8834	mg/L	0.00261				0.30%
Ag 328.068†	-5041.3	-0.0025	mg/L	0.00009				3.50%
As 188.979†	26.2	0.0109	mg/L	0.00237				21.75%
B 249.772†	160848.4	0.8424	mg/L	0.00929				1.10%
Ba 233.527†	59302.7	0.7351	mg/L	0.00447				0.61%
Be 313.107†	986.1	0.0002	mg/L	0.00002				9.52%
Cd 226.502†	1733.8	-0.0028	mg/L	0.00004				1.48%
Co 228.616†	193.7	0.0051	mg/L	0.00004				0.87%
Cr 267.716†	9151.2	0.0626	mg/L	0.00041				0.65%
Cu 324.752†	6329.3	0.0189	mg/L	0.00033				1.72%
Fe 259.939†	4448298.4	104.3	mg/L	0.03				0.02%
K 766.490†	295025.7	74.68	mg/L	0.630				0.84%
Mg 279.077†	445371.4	42.01	mg/L	0.270				0.64%
Mn 257.610†	506275.4	1.089	mg/L	0.0028				0.26%
Mo 202.031†	-38.2	-0.0018	mg/L	0.00000				0.02%
Ni 231.604†	983.7	0.0135	mg/L	0.00006				0.47%
Na 589.592†	4144439.2	236.8	mg/L	1.32				0.56%
Pb 220.353†	2240.7	0.2108	mg/L	0.00085				0.41%
Sb 206.836†	9.3	0.0035	mg/L	0.00135				38.68%
Se 196.026†	-4.5	-0.0004	mg/L	0.00378				857.75%
Sn 189.927†	-346.5	-0.0476	mg/L	0.00008				0.17%
Ti 337.279†	119925.2	0.1674	mg/L	0.00105				0.63%
Tl 190.801†	-50.9	-0.0051	mg/L	0.00109				21.28%
V 292.402†	3024.8	0.0295	mg/L	0.00022				0.74%
Zn 206.200†	9617.2	0.1691	mg/L	0.00018				0.10%
Ca 227.546†	166954.0	402.3	mg/L	3.84				0.95%
Sr 421.552†	2616825.0	3.025	mg/L	0.0239				0.79%
Al 237.313†	31547.0	7.785	mg/L	0.0721				0.93%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 105
Sample ID: R1510346-015
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 12/17/2015 1:34:49 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510346-015

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6080803.7	0.9005	mg/L	0.00382				0.42%
Ag 328.068†	-2418.1	-0.0020	mg/L	0.00033				16.05%
As 188.979†	10.4	0.0015	mg/L	0.00158				103.93%
B 249.772†	129491.2	0.7912	mg/L	0.00148				0.19%
Ba 233.527†	50857.3	0.6304	mg/L	0.00116				0.18%
Be 313.107†	-1834.5	-0.0004	mg/L	0.00003				6.22%
Cd 226.502†	853.6	-0.0025	mg/L	0.00007				2.66%
Co 228.616†	6.1	0.0002	mg/L	0.00004				23.10%
Cr 267.716†	-1076.0	-0.0024	mg/L	0.00010				4.21%
Cu 324.752†	-691.2	-0.0021	mg/L	0.00010				5.00%
Fe 259.939†	2490533.8	58.42	mg/L	0.148				0.25%
K 766.490†	258884.0	65.53	mg/L	0.661				1.01%
Mg 279.077†	416462.0	39.44	mg/L	0.104				0.26%
Mn 257.610†	464817.1	0.9935	mg/L	0.00075				0.08%
Mo 202.031†	-79.6	-0.0037	mg/L	0.00020				5.32%
Ni 231.604†	-33.1	-0.0005	mg/L	0.00035				76.44%
Na 589.592†	4014765.7	229.3	mg/L	3.58				1.56%
Pb 220.353†	46.9	0.0007	mg/L	0.00038				52.49%
Sb 206.836†	2.6	0.0012	mg/L	0.00040				33.14%
Se 196.026†	-8.0	-0.0019	mg/L	0.00069				36.39%
Sn 189.927†	-387.1	-0.0532	mg/L	0.00024				0.46%
Ti 337.279†	1431.4	0.0020	mg/L	0.00002				1.23%
Tl 190.801†	-34.5	-0.0047	mg/L	0.00132				28.10%
V 292.402†	-528.5	0.0008	mg/L	0.00002				3.08%
Zn 206.200†	274.6	0.0048	mg/L	0.00007				1.47%
Ca 227.546†	160097.3	385.6	mg/L	1.37				0.36%

Sr 421.552†	2480060.5	2.867	mg/L	0.0422	1.47%
Al 237.313†	-2785.1	-0.0525	mg/L	0.00368	7.00%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 106
Sample ID: R1510346-017
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 12/17/2015 1:40:43 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510346-017

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6963917.8	1.031	mg/L	0.0111				1.08%
Ag 328.068†	-546.7	-0.0016	mg/L	0.00009				5.52%
As 188.979†	0.2	0.0001	mg/L	0.00061				462.06%
B 249.772†	2921.0	0.0235	mg/L	0.00076				3.22%
Ba 233.527†	91.4	0.0011	mg/L	0.00036				32.05%
Be 313.107†	85.9	0.0000	mg/L	0.00004				206.70%
Cd 226.502†	25.5	0.0002	mg/L	0.00017				88.57%
Co 228.616†	-9.3	-0.0002	mg/L	0.00005				18.97%
Cr 267.716†	96.6	0.0006	mg/L	0.00007				12.11%
Cu 324.752†	-56.7	-0.0002	mg/L	0.00024				139.67%
Fe 259.939†	1159.2	0.0272	mg/L	0.00133				4.90%
K 766.490†	155.4	0.0393	mg/L	0.00429				10.90%
Mg 279.077†	615.7	0.0585	mg/L	0.00375				6.40%
Mn 257.610†	479.9	0.0010	mg/L	0.00004				3.73%
Mo 202.031†	-23.9	-0.0011	mg/L	0.00003				2.36%
Ni 231.604†	-44.3	-0.0006	mg/L	0.00021				34.65%
Na 589.592†	1827.0	0.1044	mg/L	0.00361				3.46%
Pb 220.353†	-15.2	-0.0015	mg/L	0.00140				92.96%
Sb 206.836†	-5.4	-0.0024	mg/L	0.00038				16.05%
Se 196.026†	-0.1	0.0000	mg/L	0.00174				>999.9%
Sn 189.927†	-26.8	-0.0037	mg/L	0.00008				2.06%
Ti 337.279†	37.8	0.0001	mg/L	0.00006				109.73%
Tl 190.801†	-1.7	-0.0006	mg/L	0.00039				65.38%
V 292.402†	-14.7	-0.0001	mg/L	0.00018				172.44%
Zn 206.200†	37.8	0.0007	mg/L	0.00002				2.78%
Ca 227.546†	13.9	0.0336	mg/L	0.01289				38.37%
Sr 421.552†	272.5	0.0003	mg/L	0.00000				0.75%
Al 237.313†	142.3	0.0306	mg/L	0.00829				27.09%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 107
Sample ID: R1510346-018
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 12/17/2015 1:46:28 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510346-018

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6184769.6	0.9159	mg/L	0.11310				12.35%
Ag 328.068†	-128.7	-0.0004	mg/L	0.00069				186.57%
As 188.979†	-0.3	-0.0002	mg/L	0.00103				577.61%
B 249.772†	2715.5	0.0219	mg/L	0.00135				6.16%
Ba 233.527†	-56.3	-0.0007	mg/L	0.00216				309.85%
Be 313.107†	-1069.3	-0.0002	mg/L	0.00024				96.29%
Cd 226.502†	-77.6	-0.0006	mg/L	0.00091				148.69%
Co 228.616†	-38.2	-0.0010	mg/L	0.00070				70.00%
Cr 267.716†	-16.6	-0.0001	mg/L	0.00071				681.17%
Cu 324.752†	235.1	0.0007	mg/L	0.00117				166.99%
Fe 259.939†	473.6	0.0111	mg/L	0.01184				106.52%
K 766.490†	238.5	0.0604	mg/L	0.08514				141.05%
Mg 279.077†	-336.8	-0.0321	mg/L	0.09562				297.72%
Mn 257.610†	148.3	0.0003	mg/L	0.00061				194.64%
Mo 202.031†	-25.0	-0.0012	mg/L	0.00008				6.63%
Ni 231.604†	-86.7	-0.0012	mg/L	0.00064				53.71%

Na 589.592†	858.0	0.0490	mg/L	0.01461	29.81%
Pb 220.353†	23.8	0.0023	mg/L	0.00378	161.58%
Sb 206.836†	-4.9	-0.0022	mg/L	0.00060	27.66%
Se 196.026†	0.4	0.0002	mg/L	0.00369	>999.9%
Sn 189.927†	-34.6	-0.0048	mg/L	0.00102	21.46%
Ti 337.279†	67.3	0.0001	mg/L	0.00016	172.32%
Tl 190.801†	-7.8	-0.0027	mg/L	0.00005	1.87%
V 292.402†	19.6	0.0001	mg/L	0.00004	30.25%
Zn 206.200†	51.0	0.0009	mg/L	0.00001	1.02%
Ca 227.546†	4.7	0.0114	mg/L	0.01516	133.33%
Sr 421.552†	88.4	0.0001	mg/L	0.00002	20.63%
Al 237.313†	-84.4	-0.0178	mg/L	0.05418	303.75%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 108 **Autosampler Location: 106**
Sample ID: R1510346-019 **Date Collected: 12/17/2015 1:52:13 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510346-019

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 371.029	6729234.5	0.9965	mg/L	0.00654				0.66%
Ag 328.068†	-535.5	-0.0015	mg/L	0.00031				20.28%
As 188.979†	-1.7	-0.0011	mg/L	0.00043				41.34%
B 249.772†	2275.8	0.0183	mg/L	0.00007				0.39%
Ba 233.527†	49.3	0.0006	mg/L	0.00005				7.51%
Be 313.107†	-425.9	-0.0001	mg/L	0.00003				33.46%
Cd 226.502†	12.4	0.0001	mg/L	0.00004				41.97%
Co 228.616†	-15.7	-0.0004	mg/L	0.00004				9.91%
Cr 267.716†	60.6	0.0004	mg/L	0.00003				8.73%
Cu 324.752†	-80.3	-0.0002	mg/L	0.00001				5.46%
Fe 259.939†	794.0	0.0186	mg/L	0.00041				2.19%
K 766.490†	189.3	0.0479	mg/L	0.00694				14.48%
Mg 279.077†	336.7	0.0320	mg/L	0.00301				9.40%
Mn 257.610†	320.9	0.0007	mg/L	0.00002				3.07%
Mo 202.031†	-25.7	-0.0012	mg/L	0.00007				6.08%
Ni 231.604†	-57.5	-0.0008	mg/L	0.00017				21.82%
Na 589.592†	700.6	0.0400	mg/L	0.00306				7.65%
Pb 220.353†	-5.1	-0.0005	mg/L	0.00053				106.06%
Sb 206.836†	-4.7	-0.0021	mg/L	0.00102				49.04%
Se 196.026†	-4.1	-0.0017	mg/L	0.00074				44.90%
Sn 189.927†	-17.2	-0.0024	mg/L	0.00019				8.03%
Ti 337.279†	47.1	0.0001	mg/L	0.00000				2.56%
Tl 190.801†	-5.2	-0.0018	mg/L	0.00047				26.07%
V 292.402†	3.5	0.0000	mg/L	0.00013				500.57%
Zn 206.200†	46.6	0.0008	mg/L	0.00009				10.78%
Ca 227.546†	7.2	0.0175	mg/L	0.02058				117.48%
Sr 421.552†	33.9	0.0000	mg/L	0.00009				239.90%
Al 237.313†	75.1	0.0162	mg/L	0.00155				9.59%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 109 **Autosampler Location: 107**
Sample ID: R1510346-020 **Date Collected: 12/17/2015 1:57:51 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510346-020

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 371.029	6800022.2	1.007	mg/L	0.0040				0.40%
Ag 328.068†	-478.0	-0.0014	mg/L	0.00026				18.80%
As 188.979†	-0.7	-0.0004	mg/L	0.00050				118.75%
B 249.772†	2003.0	0.0161	mg/L	0.00031				1.92%
Ba 233.527†	56.3	0.0007	mg/L	0.00001				1.56%
Be 313.107†	-388.8	-0.0001	mg/L	0.00001				6.62%

Cd 226.502†	4.5	0.0000 mg/L	0.00007	207.41%
Co 228.616†	-16.6	-0.0004 mg/L	0.00001	3.13%
Cr 267.716†	65.1	0.0004 mg/L	0.00001	3.17%
Cu 324.752†	-126.7	-0.0004 mg/L	0.00012	32.97%
Fe 259.939†	804.4	0.0189 mg/L	0.00062	3.30%
K 766.490†	64.5	0.0163 mg/L	0.00785	48.10%
Mg 279.077†	457.2	0.0435 mg/L	0.00481	11.07%
Mn 257.610†	600.0	0.0013 mg/L	0.00003	2.10%
Mo 202.031†	-29.2	-0.0014 mg/L	0.00008	5.77%
Ni 231.604†	-56.4	-0.0008 mg/L	0.00004	5.25%
Na 589.592†	692.6	0.0396 mg/L	0.01046	26.43%
Pb 220.353†	-12.9	-0.0013 mg/L	0.00076	59.64%
Sb 206.836†	-4.1	-0.0018 mg/L	0.00085	47.16%
Se 196.026†	-0.4	-0.0001 mg/L	0.00016	112.40%
Sn 189.927†	-14.4	-0.0020 mg/L	0.00028	13.99%
Ti 337.279†	-76.3	-0.0001 mg/L	0.00001	11.97%
Tl 190.801†	-5.9	-0.0021 mg/L	0.00072	35.01%
V 292.402†	24.6	0.0002 mg/L	0.00018	102.47%
Zn 206.200†	73.3	0.0013 mg/L	0.00004	3.00%
Ca 227.546†	14.6	0.0353 mg/L	0.01237	35.00%
Sr 421.552†	-4.4	0.0000 mg/L	0.00001	160.72%
Al 237.313†	92.6	0.0199 mg/L	0.00117	5.89%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 110 **Autosampler Location: 4**
Sample ID: CCV **Date Collected: 12/17/2015 2:03:36 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6660957.9	0.9864	mg/L	0.00316				0.32%
Ag 328.068†	175131.6	0.5064	mg/L	0.00125	0.5064	mg/L	0.00125	0.25%
QC value within limits for Ag 328.068 Recovery = 101.28%								
As 188.979†	1436.9	0.8845	mg/L	0.00278	0.8845	mg/L	0.00278	0.31%
QC value less than the lower limit for As 188.979 Recovery = 88.45%								
B 249.772†	298493.5	2.390	mg/L	0.0026	2.390	mg/L	0.0026	0.11%
QC value within limits for B 249.772 Recovery = 95.59%								
Ba 233.527†	857938.6	10.64	mg/L	0.011	10.64	mg/L	0.011	0.11%
QC value within limits for Ba 233.527 Recovery = 106.35%								
Be 313.107†	1100077.4	0.2539	mg/L	0.00001	0.2539	mg/L	0.00001	0.00%
QC value within limits for Be 313.107 Recovery = 101.55%								
Cd 226.502†	64690.9	0.5105	mg/L	0.00136	0.5105	mg/L	0.00136	0.27%
QC value within limits for Cd 226.502 Recovery = 102.11%								
Co 228.616†	95783.2	2.516	mg/L	0.0033	2.516	mg/L	0.0033	0.13%
QC value within limits for Co 228.616 Recovery = 100.65%								
Cr 267.716†	85776.3	0.5304	mg/L	0.00212	0.5304	mg/L	0.00212	0.40%
QC value within limits for Cr 267.716 Recovery = 106.08%								
Cu 324.752†	425405.1	1.273	mg/L	0.0040	1.273	mg/L	0.0040	0.31%
QC value within limits for Cu 324.752 Recovery = 101.83%								
Fe 259.939†	214317.4	5.025	mg/L	0.0078	5.025	mg/L	0.0078	0.16%
QC value within limits for Fe 259.939 Recovery = 100.50%								
K 766.490†	95994.7	24.30	mg/L	0.070	24.30	mg/L	0.070	0.29%
QC value within limits for K 766.490 Recovery = 97.19%								
Mg 279.077†	259730.1	24.72	mg/L	0.014	24.72	mg/L	0.014	0.06%
QC value within limits for Mg 279.077 Recovery = 98.87%								
Mn 257.610†	366709.9	0.7773	mg/L	0.00142	0.7773	mg/L	0.00142	0.18%
QC value within limits for Mn 257.610 Recovery = 103.64%								
Mo 202.031†	56467.0	2.621	mg/L	0.0116	2.621	mg/L	0.0116	0.44%
QC value within limits for Mo 202.031 Recovery = 104.84%								
Ni 231.604†	152371.9	2.095	mg/L	0.0034	2.095	mg/L	0.0034	0.16%
QC value within limits for Ni 231.604 Recovery = 104.75%								
Na 589.592†	432547.6	24.71	mg/L	0.219	24.71	mg/L	0.219	0.89%
QC value within limits for Na 589.592 Recovery = 98.84%								
Pb 220.353†	5242.7	0.5144	mg/L	0.00195	0.5144	mg/L	0.00195	0.38%
QC value within limits for Pb 220.353 Recovery = 102.87%								
Sb 206.836†	12399.0	5.439	mg/L	0.0233	5.439	mg/L	0.0233	0.43%
QC value within limits for Sb 206.836 Recovery = 108.78%								

Se 196.026†	1201.3	0.4802 mg/L	0.00307	0.4802 mg/L	0.00307	0.64%
QC value within limits for Se 196.026 Recovery = 96.04%						
Sn 189.927†	36382.0	4.999 mg/L	0.0123	4.999 mg/L	0.0123	0.25%
QC value within limits for Sn 189.927 Recovery = 99.99%						
Ti 337.279†	1797124.4	2.508 mg/L	0.0037	2.508 mg/L	0.0037	0.15%
QC value within limits for Ti 337.279 Recovery = 100.33%						
Tl 190.801†	3183.2	1.108 mg/L	0.0072	1.108 mg/L	0.0072	0.65%
QC value greater than the upper limit for Tl 190.801 Recovery = 110.83%						
V 292.402†	359641.3	2.540 mg/L	0.0088	2.540 mg/L	0.0088	0.35%
QC value within limits for V 292.402 Recovery = 101.60%						
Zn 206.200†	57875.8	1.018 mg/L	0.0002	1.018 mg/L	0.0002	0.02%
QC value within limits for Zn 206.200 Recovery = 101.79%						
Ca 227.546†	10714.8	25.81 mg/L	0.075	25.81 mg/L	0.075	0.29%
QC value within limits for Ca 227.546 Recovery = 103.25%						
Sr 421.552†	2104908.3	2.433 mg/L	0.0027	2.433 mg/L	0.0027	0.11%
QC value within limits for Sr 421.552 Recovery = 97.32%						
Al 237.313†	47872.2	10.24 mg/L	0.064	10.24 mg/L	0.064	0.63%
QC value within limits for Al 237.313 Recovery = 102.36%						

QC Failed. Continue with analysis.

Sequence No.: 111 **Autosampler Location: 5**
Sample ID: CCB **Date Collected: 12/17/2015 2:09:25 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6728058.1	0.9964	mg/L	0.00121				0.12%
Ag 328.068†	-394.5	-0.0011	mg/L	0.00049	-0.0011	mg/L	0.00049	43.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	1.0	0.0006	mg/L	0.00045	0.0006	mg/L	0.00045	70.40%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	3272.2	0.0264	mg/L	0.00148	0.0264	mg/L	0.00148	5.62%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	180.2	0.0022	mg/L	0.00032	0.0022	mg/L	0.00032	14.50%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	171.0	0.0000	mg/L	0.00003	0.0000	mg/L	0.00003	76.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	27.5	0.0002	mg/L	0.00005	0.0002	mg/L	0.00005	23.27%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.8	0.0002	mg/L	0.00017	0.0002	mg/L	0.00017	112.99%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	46.4	0.0003	mg/L	0.00011	0.0003	mg/L	0.00011	36.24%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	295.0	0.0009	mg/L	0.00046	0.0009	mg/L	0.00046	52.32%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	841.1	0.0197	mg/L	0.00172	0.0197	mg/L	0.00172	8.73%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	226.7	0.0574	mg/L	0.00333	0.0574	mg/L	0.00333	5.81%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	402.9	0.0383	mg/L	0.00686	0.0383	mg/L	0.00686	17.91%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	329.2	0.0007	mg/L	0.00008	0.0007	mg/L	0.00008	10.87%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	75.1	0.0035	mg/L	0.00092	0.0035	mg/L	0.00092	26.46%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	-13.9	-0.0002	mg/L	0.00002	-0.0002	mg/L	0.00002	9.90%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	687.9	0.0393	mg/L	0.00413	0.0393	mg/L	0.00413	10.51%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	-10.8	-0.0011	mg/L	0.00050	-0.0011	mg/L	0.00050	47.05%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	6.3	0.0028	mg/L	0.00091	0.0028	mg/L	0.00091	32.71%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-1.0	-0.0004	mg/L	0.00104	-0.0004	mg/L	0.00104	273.67%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	24.3	0.0033	mg/L	0.00123	0.0033	mg/L	0.00123	36.89%
QC value within limits for Sn 189.927 Recovery = Not calculated								

Ti 337.279†	633.4	0.0009 mg/L	0.00014	0.0009 mg/L	0.00014	15.97%
QC value within limits for Ti 337.279 Recovery = Not calculated						
Tl 190.801†	-0.4	-0.0001 mg/L	0.00062	-0.0001 mg/L	0.00062	438.40%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	40.6	0.0003 mg/L	0.00022	0.0003 mg/L	0.00022	75.14%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	47.2	0.0008 mg/L	0.00005	0.0008 mg/L	0.00005	5.99%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	7.6	0.0184 mg/L	0.01385	0.0184 mg/L	0.01385	75.13%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Sr 421.552†	285.2	0.0003 mg/L	0.00006	0.0003 mg/L	0.00006	19.40%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Al 237.313†	71.9	0.0155 mg/L	0.00424	0.0155 mg/L	0.00424	27.33%
QC value within limits for Al 237.313 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 112 **Autosampler Location: 6**
Sample ID: MRL **Date Collected: 12/17/2015 2:15:09 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: MRL

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	6664720.2	0.9870	mg/L	0.01119				1.13%
Ag 328.068†	3210.4	0.0093	mg/L	0.00010	0.0093	mg/L	0.00010	1.12%
QC value within limits for Ag 328.068 Recovery = 92.83%								
As 188.979†	29.9	0.0184	mg/L	0.00158	0.0184	mg/L	0.00158	8.56%
QC value within limits for As 188.979 Recovery = 91.99%								
B 249.772†	26403.2	0.2129	mg/L	0.00115	0.2129	mg/L	0.00115	0.54%
QC value within limits for B 249.772 Recovery = 106.45%								
Ba 233.527†	18732.4	0.2322	mg/L	0.00241	0.2322	mg/L	0.00241	1.04%
QC value within limits for Ba 233.527 Recovery = 116.10%								
Be 313.107†	22099.3	0.0051	mg/L	0.00006	0.0051	mg/L	0.00006	1.23%
QC value within limits for Be 313.107 Recovery = 102.00%								
Cd 226.502†	1321.5	0.0104	mg/L	0.00001	0.0104	mg/L	0.00001	0.13%
QC value within limits for Cd 226.502 Recovery = 104.26%								
Co 228.616†	2061.1	0.0541	mg/L	0.00035	0.0541	mg/L	0.00035	0.64%
QC value within limits for Co 228.616 Recovery = 108.29%								
Cr 267.716†	1842.7	0.0114	mg/L	0.00010	0.0114	mg/L	0.00010	0.89%
QC value within limits for Cr 267.716 Recovery = 114.46%								
Cu 324.752†	8978.8	0.0269	mg/L	0.00015	0.0269	mg/L	0.00015	0.55%
QC value within limits for Cu 324.752 Recovery = 107.46%								
Fe 259.939†	5257.7	0.1233	mg/L	0.00157	0.1233	mg/L	0.00157	1.28%
QC value greater than the upper limit for Fe 259.939 Recovery = 123.28%								
K 766.490†	3666.1	0.9279	mg/L	0.01725	0.9279	mg/L	0.01725	1.86%
QC value within limits for K 766.490 Recovery = 92.79%								
Mg 279.077†	11485.4	1.093	mg/L	0.0042	1.093	mg/L	0.0042	0.38%
QC value within limits for Mg 279.077 Recovery = 109.34%								
Mn 257.610†	7992.1	0.0169	mg/L	0.00002	0.0169	mg/L	0.00002	0.12%
QC value within limits for Mn 257.610 Recovery = 112.95%								
Mo 202.031†	583.1	0.0271	mg/L	0.00027	0.0271	mg/L	0.00027	1.00%
QC value within limits for Mo 202.031 Recovery = 108.26%								
Ni 231.604†	3088.8	0.0425	mg/L	0.00034	0.0425	mg/L	0.00034	0.80%
QC value within limits for Ni 231.604 Recovery = 106.17%								
Na 589.592†	18099.5	1.034	mg/L	0.0117	1.034	mg/L	0.0117	1.13%
QC value within limits for Na 589.592 Recovery = 103.39%								
Pb 220.353†	109.9	0.0108	mg/L	0.00043	0.0108	mg/L	0.00043	3.99%
QC value within limits for Pb 220.353 Recovery = 107.84%								
Sb 206.836†	150.7	0.0661	mg/L	0.00006	0.0661	mg/L	0.00006	0.09%
QC value within limits for Sb 206.836 Recovery = 110.14%								
Se 196.026†	21.0	0.0084	mg/L	0.00096	0.0084	mg/L	0.00096	11.43%
QC value within limits for Se 196.026 Recovery = 83.76%								
Sn 189.927†	3886.8	0.5341	mg/L	0.00438	0.5341	mg/L	0.00438	0.82%
QC value within limits for Sn 189.927 Recovery = 106.82%								
Ti 337.279†	37187.5	0.0519	mg/L	0.00051	0.0519	mg/L	0.00051	0.98%
QC value within limits for Ti 337.279 Recovery = 103.81%								
Tl 190.801†	62.9	0.0219	mg/L	0.00057	0.0219	mg/L	0.00057	2.58%
QC value within limits for Tl 190.801 Recovery = 109.51%								

V 292.402†	7610.2	0.0537 mg/L	0.00053	0.0537 mg/L	0.00053	0.98%
QC value within limits for V 292.402 Recovery = 107.50%						
Zn 206.200†	1204.8	0.0212 mg/L	0.00006	0.0212 mg/L	0.00006	0.30%
QC value within limits for Zn 206.200 Recovery = 105.94%						
Ca 227.546†	412.4	0.9931 mg/L	0.01404	0.9931 mg/L	0.01404	1.41%
QC value within limits for Ca 227.546 Recovery = 99.31%						
Sr 421.552†	86831.0	0.1004 mg/L	0.00180	0.1004 mg/L	0.00180	1.79%
QC value within limits for Sr 421.552 Recovery = 100.36%						
Al 237.313†	1025.3	0.2192 mg/L	0.00264	0.2192 mg/L	0.00264	1.20%
QC value within limits for Al 237.313 Recovery = 109.62%						

QC Failed. Continue with analysis.

Sequence No.: 113 **Autosampler Location: 7**
Sample ID: ICSA **Date Collected: 12/17/2015 2:20:47 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	6098859.7	0.9032 mg/L	0.00255			0.28%
Ag 328.068†	-4624.9	-0.0027 mg/L	0.00012	-0.0027 mg/L	0.00012	4.51%
QC value within limits for Ag 328.068 Recovery = Not calculated						
As 188.979†	15.3	-0.0004 mg/L	0.00266	-0.0004 mg/L	0.00266	726.70%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.772†	43416.9	-0.0692 mg/L	0.00890	-0.0692 mg/L	0.00890	12.86%
Ba 233.527†	-162.8	-0.0033 mg/L	0.00004	-0.0033 mg/L	0.00004	1.28%
Be 313.107†	-1210.9	-0.0003 mg/L	0.00002	-0.0003 mg/L	0.00002	8.06%
QC value within limits for Be 313.107 Recovery = Not calculated						
Cd 226.502†	1042.7	-0.0025 mg/L	0.00006	-0.0025 mg/L	0.00006	2.23%
QC value less than the lower limit for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-43.4	-0.0011 mg/L	0.00009	-0.0011 mg/L	0.00009	7.72%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-4257.2	-0.0023 mg/L	0.00020	-0.0023 mg/L	0.00020	8.73%
QC value less than the lower limit for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-1459.6	-0.0044 mg/L	0.00004	-0.0044 mg/L	0.00004	0.82%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 259.939†	3691826.6	86.54 mg/L	0.121	86.54 mg/L	0.121	0.14%
QC value within limits for Fe 259.939 Recovery = 86.54%						
K 766.490†	243.9	0.0617 mg/L	0.02171	0.0617 mg/L	0.02171	35.17%
Mg 279.077†	2509808.8	238.7 mg/L	0.48	238.7 mg/L	0.48	0.20%
QC value within limits for Mg 279.077 Recovery = 95.48%						
Mn 257.610†	-8041.4	0.0001 mg/L	0.00069	0.0001 mg/L	0.00069	685.88%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-143.1	-0.0066 mg/L	0.00013	-0.0066 mg/L	0.00013	1.89%
Ni 231.604†	-37.1	-0.0005 mg/L	0.00002	-0.0005 mg/L	0.00002	3.07%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Na 589.592†	1354.3	0.0774 mg/L	0.00574	0.0774 mg/L	0.00574	7.42%
Pb 220.353†	256.3	0.0005 mg/L	0.00017	0.0005 mg/L	0.00017	32.12%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	52.6	-0.0009 mg/L	0.00089	-0.0009 mg/L	0.00089	99.85%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	4.4	-0.0006 mg/L	0.00088	-0.0006 mg/L	0.00088	149.47%
QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	-485.4	-0.0667 mg/L	0.00102	-0.0667 mg/L	0.00102	1.52%
Ti 337.279†	222.9	0.0003 mg/L	0.00000	0.0003 mg/L	0.00000	0.74%
Tl 190.801†	-39.4	-0.0001 mg/L	0.00168	-0.0001 mg/L	0.00168	>999.9%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	-1062.3	-0.0008 mg/L	0.00003	-0.0008 mg/L	0.00003	3.53%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	342.3	0.0060 mg/L	0.00021	0.0060 mg/L	0.00021	3.47%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	114606.4	276.3 mg/L	3.62	276.3 mg/L	3.62	1.31%
QC value within limits for Ca 227.546 Recovery = 110.51%						
Sr 421.552†	3092.0	0.0036 mg/L	0.00003	0.0036 mg/L	0.00003	0.95%
Al 237.313†	1239997.6	264.8 mg/L	1.05	264.8 mg/L	1.05	0.40%
QC value within limits for Al 237.313 Recovery = 105.91%						

QC Failed. Continue with analysis.

Method: DV200-6010C Opt3 Page 79 Date: 12/17/2015 2:36:03 AM

Sequence No.: 114
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 8
Date Collected: 12/17/2015 2:26:30 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5995527.0	0.8879	mg/L	0.00341				0.38%
Ag 328.068†	68883.1	0.2096	mg/L	0.00323	0.2096	mg/L	0.00323	1.54%
QC value within limits for Ag 328.068 Recovery = 104.82%								
As 188.979†	149.4	0.0824	mg/L	0.00070	0.0824	mg/L	0.00070	0.85%
QC value within limits for As 188.979 Recovery = 82.35%								
B 249.772†	43458.3	-0.0663	mg/L	0.00107	-0.0663	mg/L	0.00107	1.61%
Ba 233.527†	42725.0	0.5283	mg/L	0.00440	0.5283	mg/L	0.00440	0.83%
QC value within limits for Ba 233.527 Recovery = 105.66%								
Be 313.107†	2186475.8	0.5046	mg/L	0.00217	0.5046	mg/L	0.00217	0.43%
QC value within limits for Be 313.107 Recovery = 100.92%								
Cd 226.502†	123816.7	0.9678	mg/L	0.01250	0.9678	mg/L	0.01250	1.29%
QC value within limits for Cd 226.502 Recovery = 96.78%								
Co 228.616†	17709.7	0.4652	mg/L	0.00447	0.4652	mg/L	0.00447	0.96%
QC value within limits for Co 228.616 Recovery = 93.04%								
Cr 267.716†	78838.8	0.5092	mg/L	0.00616	0.5092	mg/L	0.00616	1.21%
QC value within limits for Cr 267.716 Recovery = 101.83%								
Cu 324.752†	173210.5	0.5183	mg/L	0.01025	0.5183	mg/L	0.01025	1.98%
QC value within limits for Cu 324.752 Recovery = 103.65%								
Fe 259.939†	3670567.4	86.04	mg/L	0.430	86.04	mg/L	0.430	0.50%
QC value within limits for Fe 259.939 Recovery = 86.04%								
K 766.490†	303.9	0.0769	mg/L	0.01331	0.0769	mg/L	0.01331	17.30%
Mg 279.077†	2498358.1	237.6	mg/L	1.26	237.6	mg/L	1.26	0.53%
QC value within limits for Mg 279.077 Recovery = 95.04%								
Mn 257.610†	229818.9	0.5036	mg/L	0.00611	0.5036	mg/L	0.00611	1.21%
QC value within limits for Mn 257.610 Recovery = 100.72%								
Mo 202.031†	-146.9	-0.0068	mg/L	0.00003	-0.0068	mg/L	0.00003	0.44%
Ni 231.604†	69072.2	0.9497	mg/L	0.01256	0.9497	mg/L	0.01256	1.32%
QC value within limits for Ni 231.604 Recovery = 94.97%								
Na 589.592†	1378.5	0.0787	mg/L	0.00198	0.0787	mg/L	0.00198	2.51%
Pb 220.353†	788.4	0.0530	mg/L	0.00092	0.0530	mg/L	0.00092	1.74%
QC value within limits for Pb 220.353 Recovery = 106.02%								
Sb 206.836†	1589.4	0.6736	mg/L	0.00426	0.6736	mg/L	0.00426	0.63%
QC value within limits for Sb 206.836 Recovery = 112.26%								
Se 196.026†	131.9	0.0504	mg/L	0.00203	0.0504	mg/L	0.00203	4.03%
QC value within limits for Se 196.026 Recovery = 100.77%								
Sn 189.927†	-500.5	-0.0688	mg/L	0.00093	-0.0688	mg/L	0.00093	1.36%
Ti 337.279†	45.0	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	39.57%
Tl 190.801†	245.8	0.0991	mg/L	0.00145	0.0991	mg/L	0.00145	1.46%
QC value within limits for Tl 190.801 Recovery = 99.05%								
V 292.402†	70498.2	0.5045	mg/L	0.00567	0.5045	mg/L	0.00567	1.12%
QC value within limits for V 292.402 Recovery = 100.90%								
Zn 206.200†	53659.6	0.9437	mg/L	0.01147	0.9437	mg/L	0.01147	1.22%
QC value within limits for Zn 206.200 Recovery = 94.37%								
Ca 227.546†	112930.2	272.2	mg/L	4.15	272.2	mg/L	4.15	1.52%
QC value within limits for Ca 227.546 Recovery = 108.89%								
Sr 421.552†	3066.4	0.0035	mg/L	0.00010	0.0035	mg/L	0.00010	2.80%
Al 237.313†	1228485.9	262.3	mg/L	0.82	262.3	mg/L	0.82	0.31%
QC value within limits for Al 237.313 Recovery = 104.93%								

All analyte(s) passed QC.

Sequence No.: 115
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 4
Date Collected: 12/17/2015 2:32:37 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD

Method: DV200-6010C Opt3 **Page 80** **Date: 12/17/2015 2:41:46 AM**

Y 371.029	6556078.4	0.9709 mg/L	0.00052			0.05%
Ag 328.068†	176445.5	0.5102 mg/L	0.00356	0.5102 mg/L	0.00356	0.70%
QC value within limits for Ag 328.068 Recovery = 102.05%						
As 188.979†	1445.7	0.8899 mg/L	0.00259	0.8899 mg/L	0.00259	0.29%
QC value less than the lower limit for As 188.979 Recovery = 88.99%						
B 249.772†	301706.5	2.415 mg/L	0.0316	2.415 mg/L	0.0316	1.31%
QC value within limits for B 249.772 Recovery = 96.62%						
Ba 233.527†	872191.0	10.81 mg/L	0.086	10.81 mg/L	0.086	0.79%
QC value within limits for Ba 233.527 Recovery = 108.12%						
Be 313.107†	1108003.1	0.2557 mg/L	0.00095	0.2557 mg/L	0.00095	0.37%
QC value within limits for Be 313.107 Recovery = 102.28%						
Cd 226.502†	65621.7	0.5179 mg/L	0.00444	0.5179 mg/L	0.00444	0.86%
QC value within limits for Cd 226.502 Recovery = 103.57%						
Co 228.616†	97066.9	2.550 mg/L	0.0247	2.550 mg/L	0.0247	0.97%
QC value within limits for Co 228.616 Recovery = 102.00%						
Cr 267.716†	86916.5	0.5375 mg/L	0.00406	0.5375 mg/L	0.00406	0.75%
QC value within limits for Cr 267.716 Recovery = 107.49%						
Cu 324.752†	428514.9	1.282 mg/L	0.0120	1.282 mg/L	0.0120	0.94%
QC value within limits for Cu 324.752 Recovery = 102.57%						
Fe 259.939†	217340.7	5.096 mg/L	0.0518	5.096 mg/L	0.0518	1.02%
QC value within limits for Fe 259.939 Recovery = 101.92%						
K 766.490†	97638.5	24.71 mg/L	0.076	24.71 mg/L	0.076	0.31%
QC value within limits for K 766.490 Recovery = 98.86%						
Mg 279.077†	263150.9	25.04 mg/L	0.231	25.04 mg/L	0.231	0.92%
QC value within limits for Mg 279.077 Recovery = 100.17%						
Mn 257.610†	371160.5	0.7867 mg/L	0.00668	0.7867 mg/L	0.00668	0.85%
QC value within limits for Mn 257.610 Recovery = 104.90%						
Mo 202.031†	57492.0	2.669 mg/L	0.0313	2.669 mg/L	0.0313	1.17%
QC value within limits for Mo 202.031 Recovery = 106.75%						
Ni 231.604†	154357.7	2.122 mg/L	0.0185	2.122 mg/L	0.0185	0.87%
QC value within limits for Ni 231.604 Recovery = 106.11%						
Na 589.592†	435122.0	24.86 mg/L	0.048	24.86 mg/L	0.048	0.19%
QC value within limits for Na 589.592 Recovery = 99.43%						
Pb 220.353†	5351.9	0.5251 mg/L	0.00071	0.5251 mg/L	0.00071	0.13%
QC value within limits for Pb 220.353 Recovery = 105.02%						
Sb 206.836†	12684.9	5.564 mg/L	0.0165	5.564 mg/L	0.0165	0.30%
QC value greater than the upper limit for Sb 206.836 Recovery = 111.29%						
Se 196.026†	1227.8	0.4908 mg/L	0.00026	0.4908 mg/L	0.00026	0.05%
QC value within limits for Se 196.026 Recovery = 98.16%						
Sn 189.927†	36742.1	5.049 mg/L	0.0184	5.049 mg/L	0.0184	0.36%
QC value within limits for Sn 189.927 Recovery = 100.98%						
Ti 337.279†	1795853.2	2.507 mg/L	0.0069	2.507 mg/L	0.0069	0.27%
QC value within limits for Ti 337.279 Recovery = 100.26%						
Tl 190.801†	3235.9	1.127 mg/L	0.0054	1.127 mg/L	0.0054	0.48%
QC value greater than the upper limit for Tl 190.801 Recovery = 112.67%						
V 292.402†	364050.9	2.571 mg/L	0.0198	2.571 mg/L	0.0198	0.77%
QC value within limits for V 292.402 Recovery = 102.85%						
Zn 206.200†	59016.8	1.038 mg/L	0.0133	1.038 mg/L	0.0133	1.28%
QC value within limits for Zn 206.200 Recovery = 103.79%						
Ca 227.546†	10862.0	26.17 mg/L	0.061	26.17 mg/L	0.061	0.23%
QC value within limits for Ca 227.546 Recovery = 104.67%						
Sr 421.552†	2099817.4	2.427 mg/L	0.0169	2.427 mg/L	0.0169	0.70%
QC value within limits for Sr 421.552 Recovery = 97.08%						
Al 237.313†	48527.5	10.38 mg/L	0.066	10.38 mg/L	0.066	0.64%
QC value within limits for Al 237.313 Recovery = 103.76%						

QC Failed. Continue with analysis.

Sequence No.: 116 **Autosampler Location: 5**
Sample ID: CCB **Date Collected: 12/17/2015 2:38:27 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6799153.4	1.007	mg/L	0.0019				0.19%
Ag 328.068†	-491.4	-0.0014	mg/L	0.00009	-0.0014	mg/L	0.00009	6.24%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	2.2	0.0013	mg/L	0.00098	0.0013	mg/L	0.00098	73.91%

QC value within limits for As 188.979 Recovery = Not calculated

B 249.772†	3482.9	0.0280 mg/L	0.00115	0.0280 mg/L	0.00115	4.11%

QC value within limits for B 249.772 Recovery = Not calculated

Ba 233.527†	154.4	0.0019 mg/L	0.00020	0.0019 mg/L	0.00020	10.57%

QC value within limits for Ba 233.527 Recovery = Not calculated

Be 313.107†	414.7	0.0001 mg/L	0.00002	0.0001 mg/L	0.00002	18.69%

QC value within limits for Be 313.107 Recovery = Not calculated

Cd 226.502†	45.5	0.0004 mg/L	0.00004	0.0004 mg/L	0.00004	12.32%

QC value within limits for Cd 226.502 Recovery = Not calculated

Co 228.616†	-1.1	0.0000 mg/L	0.00004	0.0000 mg/L	0.00004	146.96%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	65.2	0.0004 mg/L	0.00001	0.0004 mg/L	0.00001	2.92%

QC value within limits for Cr 267.716 Recovery = Not calculated

Cu 324.752†	576.5	0.0017 mg/L	0.00043	0.0017 mg/L	0.00043	24.92%

QC value within limits for Cu 324.752 Recovery = Not calculated

Fe 259.939†	1081.1	0.0254 mg/L	0.00064	0.0254 mg/L	0.00064	2.52%

QC value within limits for Fe 259.939 Recovery = Not calculated

K 766.490†	197.0	0.0499 mg/L	0.00421	0.0499 mg/L	0.00421	8.44%

QC value within limits for K 766.490 Recovery = Not calculated

Mg 279.077†	383.1	0.0364 mg/L	0.01040	0.0364 mg/L	0.01040	28.59%

QC value within limits for Mg 279.077 Recovery = Not calculated

Mn 257.610†	303.2	0.0006 mg/L	0.00003	0.0006 mg/L	0.00003	3.91%

QC value within limits for Mn 257.610 Recovery = Not calculated

Mo 202.031†	69.3	0.0032 mg/L	0.00128	0.0032 mg/L	0.00128	39.64%

QC value within limits for Mo 202.031 Recovery = Not calculated

Ni 231.604†	-16.2	-0.0002 mg/L	0.00004	-0.0002 mg/L	0.00004	19.99%

QC value within limits for Ni 231.604 Recovery = Not calculated

Na 589.592†	636.7	0.0364 mg/L	0.00219	0.0364 mg/L	0.00219	6.02%

QC value within limits for Na 589.592 Recovery = Not calculated

Pb 220.353†	-11.3	-0.0011 mg/L	0.00019	-0.0011 mg/L	0.00019	17.24%

QC value within limits for Pb 220.353 Recovery = Not calculated

Sb 206.836†	7.0	0.0031 mg/L	0.00056	0.0031 mg/L	0.00056	18.00%

QC value within limits for Sb 206.836 Recovery = Not calculated

Se 196.026†	-1.8	-0.0007 mg/L	0.00428	-0.0007 mg/L	0.00428	598.31%

QC value within limits for Se 196.026 Recovery = Not calculated

Sn 189.927†	35.3	0.0049 mg/L	0.00185	0.0049 mg/L	0.00185	38.09%

QC value within limits for Sn 189.927 Recovery = Not calculated

Ti 337.279†	567.8	0.0008 mg/L	0.00014	0.0008 mg/L	0.00014	17.59%

QC value within limits for Ti 337.279 Recovery = Not calculated

Tl 190.801†	0.3	0.0001 mg/L	0.00040	0.0001 mg/L	0.00040	431.49%

QC value within limits for Tl 190.801 Recovery = Not calculated

V 292.402†	51.0	0.0004 mg/L	0.00024	0.0004 mg/L	0.00024	64.95%

QC value within limits for V 292.402 Recovery = Not calculated

Zn 206.200†	65.4	0.0012 mg/L	0.00008	0.0012 mg/L	0.00008	6.77%

QC value within limits for Zn 206.200 Recovery = Not calculated

Ca 227.546†	8.9	0.0215 mg/L	0.00698	0.0215 mg/L	0.00698	32.45%

QC value within limits for Ca 227.546 Recovery = Not calculated

Sr 421.552†	141.4	0.0002 mg/L	0.00003	0.0002 mg/L	0.00003	16.06%

QC value within limits for Sr 421.552 Recovery = Not calculated

Al 237.313†	96.8	0.0209 mg/L	0.00183	0.0209 mg/L	0.00183	8.77%

QC value within limits for Al 237.313 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 117 **Autosampler Location: 108**
Sample ID: PBT-252005 **Date Collected: 12/17/2015 2:44:11 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: PBT-252005

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6813651.6	1.009	mg/L	0.0087				0.86%
Ag 328.068†	-448.9	-0.0013	mg/L	0.00009				7.30%
As 188.979†	-1.0	-0.0006	mg/L	0.00006				8.61%
B 249.772†	3833.5	0.0308	mg/L	0.00002				0.05%
Ba 233.527†	57.8	0.0007	mg/L	0.00014				19.09%
Be 313.107†	-20.6	0.0000	mg/L	0.00002				446.84%
Cd 226.502†	20.1	0.0002	mg/L	0.00007				45.74%
Co 228.616†	-1.8	0.0000	mg/L	0.00005				98.45%

Cr 267.716†	124.0	0.0008 mg/L	0.00012	16.04%
Cu 324.752†	580.0	0.0017 mg/L	0.00013	7.32%
Fe 259.939†	1719.7	0.0403 mg/L	0.00001	0.03%
K 766.490†	78.1	0.0198 mg/L	0.00256	12.95%
Mg 279.077†	412.6	0.0391 mg/L	0.00040	1.01%
Mn 257.610†	589.5	0.0013 mg/L	0.00001	0.94%
Mo 202.031†	11.9	0.0006 mg/L	0.00014	25.89%
Ni 231.604†	-20.4	-0.0003 mg/L	0.00001	2.98%
Na 589.592†	615.3	0.0351 mg/L	0.00047	1.33%
Pb 220.353†	-8.1	-0.0008 mg/L	0.00104	129.84%
Sb 206.836†	0.9	0.0004 mg/L	0.00005	11.76%
Se 196.026†	-5.2	-0.0021 mg/L	0.00017	8.22%
Sn 189.927†	62.5	0.0086 mg/L	0.00165	19.21%
Ti 337.279†	324.2	0.0005 mg/L	0.00013	27.68%
Tl 190.801†	-3.2	-0.0011 mg/L	0.00068	61.73%
V 292.402†	-9.8	-0.0001 mg/L	0.00021	317.86%
Zn 206.200†	86.2	0.0015 mg/L	0.00003	1.71%
Ca 227.546†	67.2	0.1619 mg/L	0.01665	10.29%
Sr 421.552†	692.3	0.0008 mg/L	0.00008	9.50%
Al 237.313†	376.9	0.0806 mg/L	0.00337	4.18%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 118
Sample ID: LCST-252005 6X
Analyst:
Initial Sample Wt:
Dilution: 6X

Autosampler Location: 109
Date Collected: 12/17/2015 2:49:57 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: LCST-252005 6X

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6821543.2	1.010	mg/L	0.0030				0.30%
Ag 328.068†	292102.7	0.8438	mg/L	0.00655				0.78%
As 188.979†	1142.3	0.7038	mg/L	0.00521				0.74%
B 249.772†	2636.2	0.0212	mg/L	0.00037				1.75%
Ba 233.527†	73944.0	0.9166	mg/L	0.00358				0.39%
Be 313.107†	-481.7	-0.0001	mg/L	0.00004				36.80%
Cd 226.502†	21907.0	0.1731	mg/L	0.00130				0.75%
Co 228.616†	-4.2	-0.0001	mg/L	0.00000				3.45%
Cr 267.716†	141892.3	0.8735	mg/L	0.00350				0.40%
Cu 324.752†	-217.6	-0.0007	mg/L	0.00005				8.19%
Fe 259.939†	920.4	0.0216	mg/L	0.00042				1.95%
K 766.490†	56.0	0.0142	mg/L	0.01684				118.86%
Mg 279.077†	411.3	0.0391	mg/L	0.00336				8.59%
Mn 257.610†	221.7	0.0005	mg/L	0.00002				5.26%
Mo 202.031†	-19.9	-0.0009	mg/L	0.00010				11.12%
Ni 231.604†	-36.2	-0.0005	mg/L	0.00007				14.44%
Na 589.592†	322.4	0.0184	mg/L	0.00680				36.90%
Pb 220.353†	9189.5	0.9034	mg/L	0.00438				0.49%
Sb 206.836†	46.3	0.0203	mg/L	0.00107				5.27%
Se 196.026†	386.2	0.1545	mg/L	0.00123				0.79%
Sn 189.927†	-26.5	-0.0036	mg/L	0.00029				7.99%
Ti 337.279†	-145.2	-0.0002	mg/L	0.00001				3.12%
Tl 190.801†	-2.0	-0.0007	mg/L	0.00034				50.15%
V 292.402†	-320.6	-0.0023	mg/L	0.00001				0.43%
Zn 206.200†	-31.6	-0.0006	mg/L	0.00007				12.07%
Ca 227.546†	11.0	0.0265	mg/L	0.01362				51.34%
Sr 421.552†	15.8	0.0000	mg/L	0.00005				255.62%
Al 237.313†	91.7	0.0198	mg/L	0.00073				3.67%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 119
Sample ID: LCST-252005
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 110
Date Collected: 12/17/2015 2:55:38 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: LCST-252005

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6837143.8	1.013	mg/L	0.0066				0.65%
Ag 328.068†	1654753.2	4.780	mg/L	0.0095				0.20%
As 188.979†	6337.8	3.905	mg/L	0.0390				1.00%
B 249.772†	2473.5	0.0199	mg/L	0.00040				2.01%
Ba 233.527†	407347.2	5.050	mg/L	0.0424				0.84%
Be 313.107†	-2299.5	-0.0005	mg/L	0.00004				6.70%
Cd 226.502†	120865.1	0.9551	mg/L	0.00666				0.70%
Co 228.616†	-18.3	-0.0005	mg/L	0.00002				4.53%
Cr 267.716†	792864.5	4.881	mg/L	0.0087				0.18%
Cu 324.752†	-285.5	-0.0009	mg/L	0.00016				19.26%
Fe 259.939†	1158.8	0.0272	mg/L	0.00085				3.12%
K 766.490†	21.8	0.0055	mg/L	0.01683				304.80%
Mg 279.077†	314.7	0.0299	mg/L	0.00453				15.18%
Mn 257.610†	313.1	0.0007	mg/L	0.00005				8.16%
Mo 202.031†	11.5	0.0005	mg/L	0.00001				2.10%
Ni 231.604†	-7.2	-0.0001	mg/L	0.00008				78.12%
Na 589.592†	673.6	0.0385	mg/L	0.00308				8.01%
Pb 220.353†	51612.5	5.074	mg/L	0.0274				0.54%
Sb 206.836†	280.0	0.1228	mg/L	0.00099				0.80%
Se 196.026†	2131.6	0.8527	mg/L	0.00852				1.00%
Sn 189.927†	6.8	0.0009	mg/L	0.00038				40.96%
Ti 337.279†	-4.5	0.0000	mg/L	0.00006				930.94%
Tl 190.801†	0.8	0.0003	mg/L	0.00034				124.44%
V 292.402†	-1896.2	-0.0134	mg/L	0.00023				1.72%
Zn 206.200†	-459.6	-0.0081	mg/L	0.00026				3.25%
Ca 227.546†	19.0	0.0458	mg/L	0.00312				6.80%
Sr 421.552†	206.2	0.0002	mg/L	0.00009				37.77%
Al 237.313†	93.7	0.0202	mg/L	0.00457				22.58%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 120
Sample ID: FBLK-523901
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 111
Date Collected: 12/17/2015 3:01:23 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: FBLK-523901

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6612364.9	0.9792	mg/L	0.00409				0.42%
Ag 328.068†	-270.8	-0.0008	mg/L	0.00057				73.33%
As 188.979†	5.5	0.0034	mg/L	0.00021				6.09%
B 249.772†	4616.1	0.0372	mg/L	0.00040				1.08%
Ba 233.527†	19.9	0.0002	mg/L	0.00006				23.47%
Be 313.107†	-814.1	-0.0002	mg/L	0.00002				9.80%
Cd 226.502†	-11.6	-0.0001	mg/L	0.00005				49.12%
Co 228.616†	-13.6	-0.0004	mg/L	0.00002				5.95%
Cr 267.716†	113.5	0.0007	mg/L	0.00014				19.59%
Cu 324.752†	52.2	0.0002	mg/L	0.00036				232.15%
Fe 259.939†	1259.8	0.0295	mg/L	0.00036				1.22%
K 766.490†	71.3	0.0180	mg/L	0.00110				6.08%
Mg 279.077†	621.7	0.0591	mg/L	0.02149				36.37%
Mn 257.610†	344.2	0.0007	mg/L	0.00001				1.83%
Mo 202.031†	-21.3	-0.0010	mg/L	0.00009				8.83%
Ni 231.604†	-47.1	-0.0006	mg/L	0.00015				22.70%
Na 589.592†	13635.6	0.7789	mg/L	0.01621				2.08%
Pb 220.353†	5.2	0.0005	mg/L	0.00034				67.16%
Sb 206.836†	-1.3	-0.0006	mg/L	0.00001				1.47%
Se 196.026†	3.7	0.0015	mg/L	0.00074				50.15%
Sn 189.927†	-2.9	-0.0004	mg/L	0.00001				3.54%
Ti 337.279†	91.9	0.0001	mg/L	0.00009				68.90%
Tl 190.801†	-6.2	-0.0022	mg/L	0.00009				3.97%
V 292.402†	-11.5	-0.0001	mg/L	0.00010				124.66%
Zn 206.200†	54.7	0.0010	mg/L	0.00003				3.48%
Ca 227.546†	70.1	0.1689	mg/L	0.00335				1.98%
Sr 421.552†	585.2	0.0007	mg/L	0.00001				0.79%
Al 237.313†	257.0	0.0550	mg/L	0.00177				3.23%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 121
Sample ID: FBLK-528401
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 112
Date Collected: 12/17/2015 3:07:07 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: FBLK-528401

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6770129.6	1.003	mg/L	0.0009				0.09%
Ag 328.068†	-387.0	-0.0011	mg/L	0.00009				8.06%
As 188.979†	5.2	0.0032	mg/L	0.00016				5.04%
B 249.772†	52138.5	0.4214	mg/L	0.00785				1.86%
Ba 233.527†	3241.8	0.0402	mg/L	0.00002				0.06%
Be 313.107†	51.7	0.0000	mg/L	0.00003				246.63%
Cd 226.502†	4.0	0.0000	mg/L	0.00003				129.14%
Co 228.616†	-5.0	-0.0001	mg/L	0.00005				37.04%
Cr 267.716†	702.1	0.0043	mg/L	0.00046				10.53%
Cu 324.752†	11677.8	0.0349	mg/L	0.00073				2.08%
Fe 259.939†	1452.4	0.0341	mg/L	0.00027				0.80%
K 766.490†	1092.4	0.2765	mg/L	0.03443				12.45%
Mg 279.077†	3025.8	0.2880	mg/L	0.02082				7.23%
Mn 257.610†	4063.8	0.0086	mg/L	0.00001				0.16%
Mo 202.031†	-17.6	-0.0008	mg/L	0.00000				0.40%
Ni 231.604†	6.7	0.0001	mg/L	0.00006				67.67%
Na 589.592†	476348.2	27.21	mg/L	0.061				0.22%
Pb 220.353†	4.3	0.0004	mg/L	0.00057				133.50%
Sb 206.836†	-4.1	-0.0018	mg/L	0.00123				67.56%
Se 196.026†	11.1	0.0044	mg/L	0.00100				22.52%
Sn 189.927†	-27.6	-0.0038	mg/L	0.00028				7.31%
Ti 337.279†	82.3	0.0001	mg/L	0.00011				94.57%
Tl 190.801†	-1.4	-0.0005	mg/L	0.00078				161.50%
V 292.402†	13.3	0.0001	mg/L	0.00012				122.70%
Zn 206.200†	2574.2	0.0453	mg/L	0.00014				0.31%
Ca 227.546†	854.5	2.057	mg/L	0.0055				0.27%
Sr 421.552†	1685.4	0.0019	mg/L	0.00010				5.10%
Al 237.313†	319.3	0.0676	mg/L	0.00036				0.54%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 122
Sample ID: FBLK-528402
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 113
Date Collected: 12/17/2015 3:12:51 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: FBLK-528402

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5906835.5	0.8748	mg/L	0.01670				1.91%
Ag 328.068†	-247.8	-0.0007	mg/L	0.00047				65.02%
As 188.979†	2.3	0.0014	mg/L	0.00054				38.75%
B 249.772†	42378.9	0.3425	mg/L	0.00255				0.75%
Ba 233.527†	3464.8	0.0429	mg/L	0.00062				1.45%
Be 313.107†	-1505.5	-0.0003	mg/L	0.00001				3.91%
Cd 226.502†	-82.7	-0.0007	mg/L	0.00010				14.85%
Co 228.616†	-37.6	-0.0010	mg/L	0.00005				4.59%
Cr 267.716†	647.8	0.0040	mg/L	0.00007				1.83%
Cu 324.752†	3735.6	0.0112	mg/L	0.00004				0.34%
Fe 259.939†	1073.2	0.0252	mg/L	0.00238				9.44%
K 766.490†	9386.8	2.376	mg/L	0.1088				4.58%
Mg 279.077†	1143.4	0.1088	mg/L	0.02964				27.24%
Mn 257.610†	501.9	0.0011	mg/L	0.00007				6.67%
Mo 202.031†	-17.4	-0.0008	mg/L	0.00030				37.13%
Ni 231.604†	-39.1	-0.0005	mg/L	0.00007				13.50%
Na 589.592†	Saturated2							
Pb 220.353†	37.7	0.0037	mg/L	0.00052				13.96%
Sb 206.836†	-1.4	-0.0006	mg/L	0.00086				137.56%

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Se 196.026†	11.7	0.0047	mg/L	0.00150	32.10%
Sn 189.927†	-28.7	-0.0039	mg/L	0.00046	11.68%
Ti 337.279†	86.2	0.0001	mg/L	0.00002	14.58%
Tl 190.801†	2.5	0.0009	mg/L	0.00044	50.54%
V 292.402†	10.1	0.0001	mg/L	0.00002	33.55%
Zn 206.200†	1256.9	0.0221	mg/L	0.00051	2.30%
Ca 227.546†	479.5	1.154	mg/L	0.0052	0.45%
Sr 421.552†	1772.0	0.0020	mg/L	0.00007	3.36%
Al 237.313†	-12.8	-0.0029	mg/L	0.00702	245.74%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 123
Sample ID: R1510410-001
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 114
Date Collected: 12/17/2015 3:18:35 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510410-001

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6769596.0	1.003	mg/L	0.0028				0.28%
Ag 328.068†	-445.5	-0.0013	mg/L	0.00010				8.05%
As 188.979†	3.0	0.0019	mg/L	0.00020				10.82%
B 249.772†	3856.8	0.0310	mg/L	0.00064				2.07%
Ba 233.527†	54.5	0.0007	mg/L	0.00002				3.68%
Be 313.107†	-542.3	-0.0001	mg/L	0.00002				14.92%
Cd 226.502†	0.8	0.0000	mg/L	0.00005				>999.9%
Co 228.616†	-4.6	-0.0001	mg/L	0.00002				19.31%
Cr 267.716†	82.1	0.0005	mg/L	0.00004				7.53%
Cu 324.752†	-31.5	-0.0001	mg/L	0.00016				175.07%
Fe 259.939†	1703.6	0.0400	mg/L	0.00098				2.45%
K 766.490†	245.5	0.0621	mg/L	0.00461				7.42%
Mg 279.077†	392.4	0.0372	mg/L	0.00668				17.96%
Mn 257.610†	422.8	0.0009	mg/L	0.00002				2.25%
Mo 202.031†	-27.0	-0.0013	mg/L	0.00002				1.26%
Ni 231.604†	-40.4	-0.0006	mg/L	0.00003				6.19%
Na 589.592†	14286.1	0.8161	mg/L	0.01274				1.56%
Pb 220.353†	-1.8	-0.0002	mg/L	0.00045				247.20%
Sb 206.836†	-3.6	-0.0016	mg/L	0.00041				26.26%
Se 196.026†	-0.9	-0.0004	mg/L	0.00069				184.80%
Sn 189.927†	-25.9	-0.0036	mg/L	0.00008				2.18%
Ti 337.279†	1329.6	0.0019	mg/L	0.00001				0.44%
Tl 190.801†	-5.7	-0.0020	mg/L	0.00051				25.75%
V 292.402†	8.1	0.0001	mg/L	0.00004				60.64%
Zn 206.200†	138.6	0.0024	mg/L	0.00015				6.35%
Ca 227.546†	62.1	0.1497	mg/L	0.00397				2.65%
Sr 421.552†	446.7	0.0005	mg/L	0.00002				3.21%
Al 237.313†	206.0	0.0442	mg/L	0.00002				0.04%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 124
Sample ID: R1510553-001
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 115
Date Collected: 12/17/2015 3:24:14 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510553-001

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5572523.9	0.8252	mg/L	0.00476				0.58%
Ag 328.068†	3545.1	-0.0175	mg/L	0.00058				3.32%
As 188.979†	-3.8	-0.0298	mg/L	0.00150				5.02%
B 249.772†	16956.9	0.1373	mg/L	0.00077				0.56%
Ba 233.527†	33524.0	0.4156	mg/L	0.00221				0.53%
Be 313.107†	-2296.5	-0.0005	mg/L	0.00001				1.33%
Cd 226.502†	-318.1	-0.0025	mg/L	0.00005				2.06%
Co 228.616†	-62.1	-0.0016	mg/L	0.00002				0.98%
Cr 267.716†	-87.7	-0.0133	mg/L	0.00004				0.32%

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Cu 324.752†	1273.0	0.0038	mg/L	0.00001		0.32%
Fe 259.939†	-1665.5	-0.0390	mg/L	0.00047		1.21%
K 766.490†	9642.6	2.441	mg/L	0.0002		0.01%
Mg 279.077†	-1575.5	-0.1499	mg/L	0.00248		1.66%
Mn 257.610†	-212.3	-0.0005	mg/L	0.00001		1.39%
Mo 202.031†	-54.9	-0.0025	mg/L	0.00014		5.53%
Ni 231.604†	619.9	0.0085	mg/L	0.00035		4.08%
Na 589.592†	4169986.2	238.2	mg/L	0.80		0.34%
Pb 220.353†	-88.5	0.0089	mg/L	0.00151		16.94%
Sb 206.836†	2.0	0.0009	mg/L	0.00006		6.59%
Se 196.026†	-18.8	0.0064	mg/L	0.00115		17.86%
Sn 189.927†	-652.0	-0.0896	mg/L	0.00002		0.03%
Ti 337.279†	-597.8	-0.0008	mg/L	0.00001		1.66%
Tl 190.801†	11.6	0.0040	mg/L	0.00093		23.25%
V 292.402†	-163.2	-0.0012	mg/L	0.00003		2.22%
Zn 206.200†	413.9	0.0073	mg/L	0.00009		1.19%
Ca 227.546†	1015875.9	2445	mg/L	7.7		0.32%
Sr 421.552†	Saturated2					
Al 237.313†	-757.5	-1.082	mg/L	0.0008		0.08%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 125 **Autosampler Location: 116**
Sample ID: R1510553-001D **Date Collected: 12/17/2015 3:30:07 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510553-001D

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5421897.6	0.8029	mg/L	0.00385				0.48%
Ag 328.068†	3816.8	-0.0166	mg/L	0.00071				4.28%
As 188.979†	-5.1	-0.0306	mg/L	0.00068				2.23%
B 249.772†	17097.7	0.1385	mg/L	0.00064				0.46%
Ba 233.527†	33363.4	0.4136	mg/L	0.00250				0.60%
Be 313.107†	-2874.3	-0.0007	mg/L	0.00002				2.87%
Cd 226.502†	-344.1	-0.0027	mg/L	0.00015				5.66%
Co 228.616†	-64.3	-0.0017	mg/L	0.00004				2.62%
Cr 267.716†	-131.8	-0.0135	mg/L	0.00013				0.93%
Cu 324.752†	1445.8	0.0043	mg/L	0.00001				0.16%
Fe 259.939†	-1816.7	-0.0426	mg/L	0.00109				2.55%
K 766.490†	9052.6	2.291	mg/L	0.0309				1.35%
Mg 279.077†	-1836.3	-0.1747	mg/L	0.00755				4.32%
Mn 257.610†	-369.8	-0.0008	mg/L	0.00002				3.15%
Mo 202.031†	-53.8	-0.0025	mg/L	0.00022				8.92%
Ni 231.604†	-155.7	-0.0021	mg/L	0.00011				5.30%
Na 589.592†	4211369.2	240.6	mg/L	1.81				0.75%
Pb 220.353†	-70.5	0.0107	mg/L	0.00086				8.06%
Sb 206.836†	3.5	0.0016	mg/L	0.00186				119.05%
Se 196.026†	-14.2	0.0083	mg/L	0.00311				37.72%
Sn 189.927†	-667.1	-0.0917	mg/L	0.00030				0.32%
Ti 337.279†	-609.3	-0.0009	mg/L	0.00000				0.35%
Tl 190.801†	12.5	0.0043	mg/L	0.00076				17.53%
V 292.402†	-159.5	-0.0011	mg/L	0.00001				0.81%
Zn 206.200†	406.1	0.0071	mg/L	0.00005				0.67%
Ca 227.546†	1014181.4	2441	mg/L	14.3				0.58%
Sr 421.552†	Saturated2							
Al 237.313†	-785.2	-1.086	mg/L	0.0025				0.23%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 126 **Autosampler Location: 117**
Sample ID: R1510553-001S 6X **Date Collected: 12/17/2015 3:35:53 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: 6X **Sample Prep Vol: 50 mL**

Mean Data: R1510553-001S 6X

	Mean Corrected	Calib		Sample

Method: DV200-6010C Opt3 Page 87 Date: 12/17/2015 3:45:11 AM

Analyte	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	Std.Dev.	RSD
Y 371.029	6235321.7	0.9234	mg/L	0.00909				0.98%
Ag 328.068†	284484.1	0.8169	mg/L	0.00573				0.70%
As 188.979†	1155.2	0.7068	mg/L	0.00819				1.16%
B 249.772†	3833.7	0.0310	mg/L	0.00047				1.52%
Ba 233.527†	73681.2	0.9134	mg/L	0.00271				0.30%
Be 313.107†	-1411.2	-0.0003	mg/L	0.00004				12.01%
Cd 226.502†	20069.0	0.1586	mg/L	0.00062				0.39%
Co 228.616†	-28.8	-0.0008	mg/L	0.00007				9.54%
Cr 267.716†	130279.1	0.7997	mg/L	0.00047				0.06%
Cu 324.752†	118.3	0.0004	mg/L	0.00025				71.34%
Fe 259.939†	-257.2	-0.0060	mg/L	0.00082				13.65%
K 766.490†	1650.5	0.4178	mg/L	0.02356				5.64%
Mg 279.077†	-62.3	-0.0059	mg/L	0.00553				93.47%
Mn 257.610†	-25.2	-0.0001	mg/L	0.00001				12.42%
Mo 202.031†	-27.2	-0.0013	mg/L	0.00002				1.22%
Ni 231.604†	-77.6	-0.0011	mg/L	0.00000				0.27%
Na 589.592†	708657.3	40.48	mg/L	0.930				2.30%
Pb 220.353†	8095.9	0.7990	mg/L	0.00793				0.99%
Sb 206.836†	43.2	0.0189	mg/L	0.00089				4.71%
Se 196.026†	366.4	0.1491	mg/L	0.00328				2.20%
Sn 189.927†	-395.1	-0.0543	mg/L	0.00002				0.04%
Ti 337.279†	-249.7	-0.0003	mg/L	0.00003				9.56%
Tl 190.801†	0.9	0.0003	mg/L	0.00105				328.93%
V 292.402†	-373.0	-0.0026	mg/L	0.00006				2.18%
Zn 206.200†	119.6	0.0021	mg/L	0.00015				7.25%
Ca 227.546†	181518.8	436.8	mg/L	4.05				0.93%
Sr 421.552†	1889382.0	2.184	mg/L	0.0507				2.32%
Al 237.313†	-160.3	-0.1986	mg/L	0.00522				2.63%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 127 **Autosampler Location: 4**
Sample ID: CCV **Date Collected: 12/17/2015 3:41:45 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6479921.3	0.9596	mg/L	0.00136				0.14%
Ag 328.068†	177088.5	0.5121	mg/L	0.00048	0.5121	mg/L	0.00048	0.09%
QC value within limits for Ag 328.068 Recovery = 102.42%								
As 188.979†	1458.2	0.8976	mg/L	0.00172	0.8976	mg/L	0.00172	0.19%
QC value less than the lower limit for As 188.979 Recovery = 89.76%								
B 249.772†	298165.5	2.387	mg/L	0.0130	2.387	mg/L	0.0130	0.55%
QC value within limits for B 249.772 Recovery = 95.48%								
Ba 233.527†	872075.3	10.81	mg/L	0.000	10.81	mg/L	0.000	0.00%
QC value within limits for Ba 233.527 Recovery = 108.10%								
Be 313.107†	1101750.6	0.2543	mg/L	0.00024	0.2543	mg/L	0.00024	0.09%
QC value within limits for Be 313.107 Recovery = 101.71%								
Cd 226.502†	65482.1	0.5168	mg/L	0.00116	0.5168	mg/L	0.00116	0.22%
QC value within limits for Cd 226.502 Recovery = 103.35%								
Co 228.616†	97115.6	2.551	mg/L	0.0022	2.551	mg/L	0.0022	0.09%
QC value within limits for Co 228.616 Recovery = 102.05%								
Cr 267.716†	87131.6	0.5388	mg/L	0.00018	0.5388	mg/L	0.00018	0.03%
QC value within limits for Cr 267.716 Recovery = 107.76%								
Cu 324.752†	427906.6	1.280	mg/L	0.0001	1.280	mg/L	0.0001	0.01%
QC value within limits for Cu 324.752 Recovery = 102.43%								
Fe 259.939†	216886.2	5.085	mg/L	0.0069	5.085	mg/L	0.0069	0.13%
QC value within limits for Fe 259.939 Recovery = 101.70%								
K 766.490†	99241.5	25.12	mg/L	0.268	25.12	mg/L	0.268	1.07%
QC value within limits for K 766.490 Recovery = 100.48%								
Mg 279.077†	263298.4	25.06	mg/L	0.013	25.06	mg/L	0.013	0.05%
QC value within limits for Mg 279.077 Recovery = 100.23%								
Mn 257.610†	371783.7	0.7881	mg/L	0.00108	0.7881	mg/L	0.00108	0.14%
QC value within limits for Mn 257.610 Recovery = 105.08%								
Mo 202.031†	57261.5	2.658	mg/L	0.0139	2.658	mg/L	0.0139	0.52%
QC value within limits for Mo 202.031 Recovery = 106.32%								
Ni 231.604†	154291.8	2.121	mg/L	0.0014	2.121	mg/L	0.0014	0.07%

QC value within limits for Ni 231.604 Recovery = 106.07%
Na 589.592† 435665.2 24.89 mg/L 0.218 24.89 mg/L 0.218 0.87%
QC value within limits for Na 589.592 Recovery = 99.55%
Pb 220.353† 5402.7 0.5301 mg/L 0.00072 0.5301 mg/L 0.00072 0.13%
QC value within limits for Pb 220.353 Recovery = 106.02%
Sb 206.836† 12665.1 5.556 mg/L 0.0024 5.556 mg/L 0.0024 0.04%
QC value greater than the upper limit for Sb 206.836 Recovery = 111.11%
Se 196.026† 1231.2 0.4922 mg/L 0.00324 0.4922 mg/L 0.00324 0.66%
QC value within limits for Se 196.026 Recovery = 98.43%
Sn 189.927† 36926.0 5.074 mg/L 0.0045 5.074 mg/L 0.0045 0.09%
QC value within limits for Sn 189.927 Recovery = 101.48%
Ti 337.279† 1794571.5 2.505 mg/L 0.0046 2.505 mg/L 0.0046 0.18%
QC value within limits for Ti 337.279 Recovery = 100.19%
Tl 190.801† 3256.8 1.134 mg/L 0.0017 1.134 mg/L 0.0017 0.15%
QC value greater than the upper limit for Tl 190.801 Recovery = 113.39%
V 292.402† 363889.4 2.570 mg/L 0.0006 2.570 mg/L 0.0006 0.02%
QC value within limits for V 292.402 Recovery = 102.80%
Zn 206.200† 58934.6 1.036 mg/L 0.0009 1.036 mg/L 0.0009 0.08%
QC value within limits for Zn 206.200 Recovery = 103.65%
Ca 227.546† 10919.3 26.31 mg/L 0.075 26.31 mg/L 0.075 0.29%
QC value within limits for Ca 227.546 Recovery = 105.22%
Sr 421.552† 2106812.0 2.435 mg/L 0.0400 2.435 mg/L 0.0400 1.64%
QC value within limits for Sr 421.552 Recovery = 97.41%
Al 237.313† 48255.8 10.32 mg/L 0.007 10.32 mg/L 0.007 0.06%
QC value within limits for Al 237.313 Recovery = 103.18%
QC Failed. Continue with analysis.

==========

Sequence No.: 128 **Autosampler Location: 5**
Sample ID: CCB **Date Collected: 12/17/2015 3:47:34 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6594135.6	0.9765	mg/L	0.00359				0.37%
Ag 328.068†	-350.9	-0.0010	mg/L	0.00003	-0.0010	mg/L	0.00003	2.73%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	3.0	0.0018	mg/L	0.00050	0.0018	mg/L	0.00050	27.74%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	2164.9	0.0175	mg/L	0.00093	0.0175	mg/L	0.00093	5.32%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	57.6	0.0007	mg/L	0.00018	0.0007	mg/L	0.00018	24.89%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-341.5	-0.0001	mg/L	0.00004	-0.0001	mg/L	0.00004	47.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	-1.8	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	52.98%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-8.8	-0.0002	mg/L	0.00007	-0.0002	mg/L	0.00007	30.65%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	34.1	0.0002	mg/L	0.00008	0.0002	mg/L	0.00008	39.72%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	306.7	0.0009	mg/L	0.00004	0.0009	mg/L	0.00004	4.49%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	326.0	0.0076	mg/L	0.00039	0.0076	mg/L	0.00039	5.06%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	277.8	0.0703	mg/L	0.00368	0.0703	mg/L	0.00368	5.24%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	105.2	0.0100	mg/L	0.01258	0.0100	mg/L	0.01258	125.96%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	233.5	0.0005	mg/L	0.00001	0.0005	mg/L	0.00001	1.80%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	72.9	0.0034	mg/L	0.00091	0.0034	mg/L	0.00091	26.82%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	-38.4	-0.0005	mg/L	0.00008	-0.0005	mg/L	0.00008	14.60%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	1881.8	0.1075	mg/L	0.00104	0.1075	mg/L	0.00104	0.97%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	10.0	0.0010	mg/L	0.00057	0.0010	mg/L	0.00057	58.31%

QC value within limits for Pb 220.353 Recovery = Not calculated

Sb 206.836†	8.9	0.0039	mg/L	0.00192	0.0039	mg/L	0.00192 49.01%

QC value within limits for Sb 206.836 Recovery = Not calculated

Se 196.026†	3.3	0.0013	mg/L	0.00493	0.0013	mg/L	0.00493 372.16%

QC value within limits for Se 196.026 Recovery = Not calculated

Sn 189.927†	51.6	0.0071	mg/L	0.00152	0.0071	mg/L	0.00152 21.47%

QC value within limits for Sn 189.927 Recovery = Not calculated

Ti 337.279†	652.9	0.0009	mg/L	0.00002	0.0009	mg/L	0.00002 2.46%

QC value within limits for Ti 337.279 Recovery = Not calculated

Tl 190.801†	-3.3	-0.0011	mg/L	0.00058	-0.0011	mg/L	0.00058 51.23%

QC value within limits for Tl 190.801 Recovery = Not calculated

V 292.402†	50.5	0.0004	mg/L	0.00012	0.0004	mg/L	0.00012 34.36%

QC value within limits for V 292.402 Recovery = Not calculated

Zn 206.200†	46.4	0.0008	mg/L	0.00006	0.0008	mg/L	0.00006 7.49%

QC value within limits for Zn 206.200 Recovery = Not calculated

Ca 227.546†	17.5	0.0421	mg/L	0.01778	0.0421	mg/L	0.01778 42.22%

QC value within limits for Ca 227.546 Recovery = Not calculated

Sr 421.552†	390.2	0.0005	mg/L	0.00001	0.0005	mg/L	0.00001 2.84%

QC value within limits for Sr 421.552 Recovery = Not calculated

Al 237.313†	-14.6	-0.0030	mg/L	0.00029	-0.0030	mg/L	0.00029 9.69%

QC value within limits for Al 237.313 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 129 **Autosampler Location: 118**
Sample ID: R1510553-001S **Date Collected: 12/17/2015 3:53:17 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510553-001S

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5417840.1	0.8023	mg/L	0.01174				1.46%
Ag 328.068†	1770693.7	5.087	mg/L	0.0000				0.00%
As 188.979†	7032.2	4.304	mg/L	0.0500				1.16%
B 249.772†	18398.8	0.1490	mg/L	0.00163				1.09%
Ba 233.527†	403601.5	5.003	mg/L	0.1078				2.15%
Be 313.107†	-5174.3	-0.0012	mg/L	0.00006				5.14%
Cd 226.502†	109700.1	0.8669	mg/L	0.01969				2.27%
Co 228.616†	-79.3	-0.0021	mg/L	0.00005				2.22%
Cr 267.716†	725228.7	4.451	mg/L	0.0941				2.11%
Cu 324.752†	1771.2	0.0053	mg/L	0.00025				4.65%
Fe 259.939†	-1989.1	-0.0466	mg/L	0.00244				5.23%
K 766.490†	9103.3	2.304	mg/L	0.0673				2.92%
Mg 279.077†	-2070.9	-0.1971	mg/L	0.01697				8.61%
Mn 257.610†	-452.6	-0.0010	mg/L	0.00006				6.23%
Mo 202.031†	10.0	0.0005	mg/L	0.00005				10.43%
Ni 231.604†	-125.3	-0.0017	mg/L	0.00010				6.06%
Na 589.592†	4224145.3	241.3	mg/L	2.75				1.14%
Pb 220.353†	43808.1	4.325	mg/L	0.1044				2.41%
Sb 206.836†	249.8	0.1096	mg/L	0.00025				0.23%
Se 196.026†	2398.1	0.9737	mg/L	0.00385				0.39%
Sn 189.927†	-625.5	-0.0860	mg/L	0.00017				0.19%
Ti 337.279†	-383.8	-0.0005	mg/L	0.00002				3.32%
Tl 190.801†	17.0	0.0059	mg/L	0.00048				8.04%
V 292.402†	-1799.7	-0.0127	mg/L	0.00010				0.77%
Zn 206.200†	37.1	0.0007	mg/L	0.00034				52.51%
Ca 227.546†	1048841.8	2524	mg/L	45.0				1.78%
Sr 421.552†	Saturated2							
Al 237.313†	-994.6	-1.162	mg/L	0.0278				2.39%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 130 **Autosampler Location: 119**
Sample ID: R1510553-001L **Date Collected: 12/17/2015 3:59:04 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Method: DV200-6010C_Opt3 Page 90 Date: 12/17/2015 4:08:22 AM

Mean Data: R1510553-001L

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6179765.9	0.9152	mg/L	0.00861				0.94%
Ag 328.068†	2145.6	0.0005	mg/L	0.00092				192.24%
As 188.979†	6.5	-0.0017	mg/L	0.00084				51.05%
B 249.772†	4969.0	0.0402	mg/L	0.00008				0.21%
Ba 233.527†	7241.4	0.0898	mg/L	0.00070				0.78%
Be 313.107†	-1271.6	-0.0003	mg/L	0.00003				9.84%
Cd 226.502†	-32.5	-0.0003	mg/L	0.00020				80.11%
Co 228.616†	-32.2	-0.0008	mg/L	0.00025				29.86%
Cr 267.716†	196.7	-0.0014	mg/L	0.00031				21.67%
Cu 324.752†	272.0	0.0008	mg/L	0.00017				21.46%
Fe 259.939†	-368.3	-0.0086	mg/L	0.00143				16.61%
K 766.490†	1673.9	0.4237	mg/L	0.00568				1.34%
Mg 279.077†	-161.8	-0.0154	mg/L	0.01049				68.26%
Mn 257.610†	-50.3	-0.0001	mg/L	0.00007				67.31%
Mo 202.031†	-26.4	-0.0012	mg/L	0.00012				9.69%
Ni 231.604†	78.6	0.0011	mg/L	0.00010				8.96%
Na 589.592†	797682.4	45.57	mg/L	0.986				2.16%
Pb 220.353†	-6.0	0.0030	mg/L	0.00040				13.10%
Sb 206.836†	0.6	0.0003	mg/L	0.00039				143.85%
Se 196.026†	-15.1	-0.0032	mg/L	0.00275				86.37%
Sn 189.927†	-397.0	-0.0545	mg/L	0.00133				2.43%
Ti 337.279†	-90.7	-0.0001	mg/L	0.00000				0.79%
Tl 190.801†	1.9	0.0007	mg/L	0.00006				9.45%
V 292.402†	-70.8	-0.0005	mg/L	0.00002				3.36%
Zn 206.200†	178.9	0.0031	mg/L	0.00012				3.91%
Ca 227.546†	209739.4	504.8	mg/L	9.93				1.97%
Sr 421.552†	2123158.2	2.454	mg/L	0.0530				2.16%
Al 237.313†	-173.6	-0.2270	mg/L	0.01037				4.57%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 131
Sample ID: R1510691-001
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 120
Date Collected: 12/17/2015 4:04:53 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510691-001

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5615387.3	0.8316	mg/L	0.01304				1.57%
Ag 328.068†	3131.5	-0.0072	mg/L	0.00066				9.18%
As 188.979†	8.2	-0.0115	mg/L	0.00315				27.40%
B 249.772†	50091.4	-0.4036	mg/L	0.00448				1.11%
Ba 233.527†	5711.2	0.0708	mg/L	0.00004				0.06%
Be 313.107†	-2255.5	-0.0005	mg/L	0.00003				5.13%
Cd 226.502†	66.9	0.0005	mg/L	0.00017				35.48%
Co 228.616†	21.5	0.0006	mg/L	0.00025				44.22%
Cr 267.716†	485.1	-0.0024	mg/L	0.00003				1.06%
Cu 324.752†	5285.5	0.0158	mg/L	0.00009				0.59%
Fe 259.939†	13825.8	0.3243	mg/L	0.00279				0.86%
K 766.490†	21441.6	5.427	mg/L	0.0429				0.79%
Mg 279.077†	235510.5	22.43	mg/L	0.170				0.76%
Mn 257.610†	1425801.9	3.019	mg/L	0.0140				0.46%
Mo 202.031†	171.4	0.0080	mg/L	0.00037				4.70%
Ni 231.604†	1441.7	0.0198	mg/L	0.00014				0.73%
Na 589.592†	Saturated2							
Pb 220.353†	122.7	0.0224	mg/L	0.00106				4.73%
Sb 206.836†	11.3	0.0050	mg/L	0.00203				40.90%
Se 196.026†	6.6	0.0104	mg/L	0.00572				55.26%
Sn 189.927†	-576.1	-0.0792	mg/L	0.00138				1.74%
Ti 337.279†	3794.1	0.0053	mg/L	0.00000				0.01%
Tl 190.801†	-23.4	-0.0077	mg/L	0.00029				3.75%
V 292.402†	1188.9	0.0084	mg/L	0.00002				0.19%
Zn 206.200†	5503.2	0.0968	mg/L	0.00154				1.59%
Ca 227.546†	598491.9	1440	mg/L	15.3				1.06%
Sr 421.552†	927422.0	1.072	mg/L	0.0268				2.50%
Al 237.313†	-36.3	-0.5460	mg/L	0.00574				1.05%

Method: DV200-6010C Opt3 **Page 91** **Date: 12/17/2015 4:16:36 AM**

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 132
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/17/2015 4:10:45 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6816445.0	1.009	mg/L	0.0021				0.21%
Ag 328.068†	173253.5	0.5010	mg/L	0.00418	0.5010	mg/L	0.00418	0.83%
QC value within limits for Ag 328.068 Recovery = 100.20%								
As 188.979†	1434.3	0.8829	mg/L	0.00260	0.8829	mg/L	0.00260	0.29%
QC value less than the lower limit for As 188.979 Recovery = 88.29%								
B 249.772†	294066.4	2.354	mg/L	0.0179	2.354	mg/L	0.0179	0.76%
QC value within limits for B 249.772 Recovery = 94.17%								
Ba 233.527†	860380.1	10.67	mg/L	0.075	10.67	mg/L	0.075	0.70%
QC value within limits for Ba 233.527 Recovery = 106.65%								
Be 313.107†	1108896.5	0.2559	mg/L	0.00017	0.2559	mg/L	0.00017	0.07%
QC value within limits for Be 313.107 Recovery = 102.36%								
Cd 226.502†	64720.3	0.5108	mg/L	0.00446	0.5108	mg/L	0.00446	0.87%
QC value within limits for Cd 226.502 Recovery = 102.15%								
Co 228.616†	95543.7	2.510	mg/L	0.0213	2.510	mg/L	0.0213	0.85%
QC value within limits for Co 228.616 Recovery = 100.39%								
Cr 267.716†	86037.1	0.5320	mg/L	0.00415	0.5320	mg/L	0.00415	0.78%
QC value within limits for Cr 267.716 Recovery = 106.40%								
Cu 324.752†	419707.9	1.256	mg/L	0.0112	1.256	mg/L	0.0112	0.89%
QC value within limits for Cu 324.752 Recovery = 100.47%								
Fe 259.939†	213281.4	5.001	mg/L	0.0314	5.001	mg/L	0.0314	0.63%
QC value within limits for Fe 259.939 Recovery = 100.01%								
K 766.490†	97258.4	24.62	mg/L	0.122	24.62	mg/L	0.122	0.49%
QC value within limits for K 766.490 Recovery = 98.47%								
Mg 279.077†	259316.1	24.68	mg/L	0.210	24.68	mg/L	0.210	0.85%
QC value within limits for Mg 279.077 Recovery = 98.71%								
Mn 257.610†	365905.0	0.7756	mg/L	0.00651	0.7756	mg/L	0.00651	0.84%
QC value within limits for Mn 257.610 Recovery = 103.41%								
Mo 202.031†	56631.9	2.629	mg/L	0.0095	2.629	mg/L	0.0095	0.36%
QC value within limits for Mo 202.031 Recovery = 105.15%								
Ni 231.604†	152237.7	2.093	mg/L	0.0173	2.093	mg/L	0.0173	0.83%
QC value within limits for Ni 231.604 Recovery = 104.65%								
Na 589.592†	437586.1	25.00	mg/L	0.135	25.00	mg/L	0.135	0.54%
QC value within limits for Na 589.592 Recovery = 99.99%								
Pb 220.353†	5299.6	0.5200	mg/L	0.00159	0.5200	mg/L	0.00159	0.31%
QC value within limits for Pb 220.353 Recovery = 103.99%								
Sb 206.836†	12542.8	5.502	mg/L	0.0087	5.502	mg/L	0.0087	0.16%
QC value greater than the upper limit for Sb 206.836 Recovery = 110.04%								
Se 196.026†	1219.6	0.4875	mg/L	0.00193	0.4875	mg/L	0.00193	0.40%
QC value within limits for Se 196.026 Recovery = 97.51%								
Sn 189.927†	36614.1	5.031	mg/L	0.0094	5.031	mg/L	0.0094	0.19%
QC value within limits for Sn 189.927 Recovery = 100.63%								
Ti 337.279†	1799425.4	2.512	mg/L	0.0051	2.512	mg/L	0.0051	0.20%
QC value within limits for Ti 337.279 Recovery = 100.46%								
Tl 190.801†	3202.0	1.115	mg/L	0.0002	1.115	mg/L	0.0002	0.02%
QC value greater than the upper limit for Tl 190.801 Recovery = 111.48%								
V 292.402†	359170.7	2.537	mg/L	0.0243	2.537	mg/L	0.0243	0.96%
QC value within limits for V 292.402 Recovery = 101.47%								
Zn 206.200†	58212.7	1.024	mg/L	0.0083	1.024	mg/L	0.0083	0.81%
QC value within limits for Zn 206.200 Recovery = 102.38%								
Ca 227.546†	10761.3	25.92	mg/L	0.105	25.92	mg/L	0.105	0.41%
QC value within limits for Ca 227.546 Recovery = 103.70%								
Sr 421.552†	2083060.0	2.408	mg/L	0.0052	2.408	mg/L	0.0052	0.22%
QC value within limits for Sr 421.552 Recovery = 96.31%								
Al 237.313†	47808.0	10.22	mg/L	0.132	10.22	mg/L	0.132	1.29%
QC value within limits for Al 237.313 Recovery = 102.22%								

QC Failed. Continue with analysis.

Sequence No.: 133 **Autosampler Location: 5**

Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Date Collected: 12/17/2015 4:16:33 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6975248.7	1.033	mg/L	0.0164				1.58%
Ag 328.068†	-416.4	-0.0012	mg/L	0.00020	-0.0012	mg/L	0.00020	16.87%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	2.4	0.0015	mg/L	0.00003	0.0015	mg/L	0.00003	1.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	2354.8	0.0190	mg/L	0.00137	0.0190	mg/L	0.00137	7.24%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	138.9	0.0017	mg/L	0.00016	0.0017	mg/L	0.00016	9.06%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	187.0	0.0000	mg/L	0.00003	0.0000	mg/L	0.00003	77.90%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	41.0	0.0003	mg/L	0.00012	0.0003	mg/L	0.00012	36.42%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.8	0.0001	mg/L	0.00006	0.0001	mg/L	0.00006	78.80%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	111.4	0.0007	mg/L	0.00012	0.0007	mg/L	0.00012	17.84%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	218.0	0.0007	mg/L	0.00024	0.0007	mg/L	0.00024	36.92%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	546.7	0.0128	mg/L	0.00138	0.0128	mg/L	0.00138	10.80%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	297.1	0.0752	mg/L	0.02862	0.0752	mg/L	0.02862	38.06%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	452.8	0.0431	mg/L	0.02303	0.0431	mg/L	0.02303	53.47%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	497.6	0.0011	mg/L	0.00006	0.0011	mg/L	0.00006	5.76%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	78.5	0.0036	mg/L	0.00105	0.0036	mg/L	0.00105	28.81%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	-14.4	-0.0002	mg/L	0.00008	-0.0002	mg/L	0.00008	38.43%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	5848.0	0.3341	mg/L	0.00270	0.3341	mg/L	0.00270	0.81%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	-8.6	-0.0009	mg/L	0.00201	-0.0009	mg/L	0.00201	236.05%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	8.3	0.0036	mg/L	0.00141	0.0036	mg/L	0.00141	38.57%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-1.9	-0.0008	mg/L	0.00372	-0.0008	mg/L	0.00372	489.65%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	38.5	0.0053	mg/L	0.00101	0.0053	mg/L	0.00101	19.02%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 337.279†	704.5	0.0010	mg/L	0.00017	0.0010	mg/L	0.00017	16.96%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-0.3	-0.0001	mg/L	0.00034	-0.0001	mg/L	0.00034	324.70%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	22.8	0.0002	mg/L	0.00002	0.0002	mg/L	0.00002	15.09%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	47.6	0.0008	mg/L	0.00001	0.0008	mg/L	0.00001	1.24%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Ca 227.546†	21.0	0.0506	mg/L	0.00893	0.0506	mg/L	0.00893	17.67%
QC value within limits for Ca 227.546 Recovery = Not calculated								
Sr 421.552†	573.0	0.0007	mg/L	0.00008	0.0007	mg/L	0.00008	11.38%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Al 237.313†	90.2	0.0193	mg/L	0.00627	0.0193	mg/L	0.00627	32.46%
QC value within limits for Al 237.313 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 134
Sample ID: MRL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/17/2015 4:22:20 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: MRL

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6867540.2	1.017	mg/L	0.0093				0.92%
Ag 328.068†	3044.4	0.0088	mg/L	0.00001	0.0088	mg/L	0.00001	0.16%
QC value within limits for Ag 328.068 Recovery = 88.02%								
As 188.979†	30.1	0.0185	mg/L	0.00047	0.0185	mg/L	0.00047	2.56%
QC value within limits for As 188.979 Recovery = 92.50%								
B 249.772†	25365.3	0.2045	mg/L	0.00137	0.2045	mg/L	0.00137	0.67%
QC value within limits for B 249.772 Recovery = 102.27%								
Ba 233.527†	18787.9	0.2329	mg/L	0.00174	0.2329	mg/L	0.00174	0.75%
QC value within limits for Ba 233.527 Recovery = 116.45%								
Be 313.107†	22290.5	0.0051	mg/L	0.00002	0.0051	mg/L	0.00002	0.39%
QC value within limits for Be 313.107 Recovery = 102.88%								
Cd 226.502†	1354.5	0.0107	mg/L	0.00000	0.0107	mg/L	0.00000	0.03%
QC value within limits for Cd 226.502 Recovery = 106.88%								
Co 228.616†	2070.4	0.0544	mg/L	0.00033	0.0544	mg/L	0.00033	0.61%
QC value within limits for Co 228.616 Recovery = 108.78%								
Cr 267.716†	1784.2	0.0111	mg/L	0.00015	0.0111	mg/L	0.00015	1.33%
QC value within limits for Cr 267.716 Recovery = 110.86%								
Cu 324.752†	8796.8	0.0263	mg/L	0.00040	0.0263	mg/L	0.00040	1.52%
QC value within limits for Cu 324.752 Recovery = 105.29%								
Fe 259.939†	5023.8	0.1178	mg/L	0.00032	0.1178	mg/L	0.00032	0.28%
QC value within limits for Fe 259.939 Recovery = 117.79%								
K 766.490†	3818.3	0.9665	mg/L	0.01280	0.9665	mg/L	0.01280	1.32%
QC value within limits for K 766.490 Recovery = 96.65%								
Mg 279.077†	11593.9	1.104	mg/L	0.0046	1.104	mg/L	0.0046	0.41%
QC value within limits for Mg 279.077 Recovery = 110.37%								
Mn 257.610†	8169.2	0.0173	mg/L	0.00016	0.0173	mg/L	0.00016	0.92%
QC value within limits for Mn 257.610 Recovery = 115.45%								
Mo 202.031†	586.2	0.0272	mg/L	0.00009	0.0272	mg/L	0.00009	0.33%
QC value within limits for Mo 202.031 Recovery = 108.84%								
Ni 231.604†	3125.1	0.0430	mg/L	0.00026	0.0430	mg/L	0.00026	0.61%
QC value within limits for Ni 231.604 Recovery = 107.42%								
Na 589.592†	21251.1	1.214	mg/L	0.0035	1.214	mg/L	0.0035	0.29%
QC value greater than the upper limit for Na 589.592 Recovery = 121.40%								
Pb 220.353†	105.1	0.0103	mg/L	0.00024	0.0103	mg/L	0.00024	2.35%
QC value within limits for Pb 220.353 Recovery = 103.17%								
Sb 206.836†	152.0	0.0667	mg/L	0.00033	0.0667	mg/L	0.00033	0.50%
QC value within limits for Sb 206.836 Recovery = 111.08%								
Se 196.026†	19.8	0.0079	mg/L	0.00038	0.0079	mg/L	0.00038	4.86%
QC value less than the lower limit for Se 196.026 Recovery = 78.96%								
Sn 189.927†	3903.9	0.5365	mg/L	0.00395	0.5365	mg/L	0.00395	0.74%
QC value within limits for Sn 189.927 Recovery = 107.29%								
Ti 337.279†	36916.7	0.0515	mg/L	0.00040	0.0515	mg/L	0.00040	0.78%
QC value within limits for Ti 337.279 Recovery = 103.05%								
Tl 190.801†	63.4	0.0221	mg/L	0.00014	0.0221	mg/L	0.00014	0.62%
QC value within limits for Tl 190.801 Recovery = 110.49%								
V 292.402†	7563.1	0.0534	mg/L	0.00003	0.0534	mg/L	0.00003	0.06%
QC value within limits for V 292.402 Recovery = 106.83%								
Zn 206.200†	1212.4	0.0213	mg/L	0.00017	0.0213	mg/L	0.00017	0.78%
QC value within limits for Zn 206.200 Recovery = 106.62%								
Ca 227.546†	426.8	1.028	mg/L	0.0319	1.028	mg/L	0.0319	3.10%
QC value within limits for Ca 227.546 Recovery = 102.77%								
Sr 421.552†	86437.9	0.0999	mg/L	0.00032	0.0999	mg/L	0.00032	0.32%
QC value within limits for Sr 421.552 Recovery = 99.91%								
Al 237.313†	1054.0	0.2253	mg/L	0.00059	0.2253	mg/L	0.00059	0.26%
QC value within limits for Al 237.313 Recovery = 112.64%								

QC Failed. Continue with analysis.

Sequence No.: 135
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/17/2015 4:28:00 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD

Method: DV200-6010C Opt3 Page 94 Date: 12/17/2015 4:37:06 AM

Analyte	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	Std.Dev.	RSD
Y 371.029	6203590.8	0.9187	mg/L	0.00977				1.06%
Ag 328.068†	-4593.1	-0.0025	mg/L	0.00034	-0.0025	mg/L	0.00034	13.73%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	14.4	-0.0010	mg/L	0.00022	-0.0010	mg/L	0.00022	22.20%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	42902.6	-0.0764	mg/L	0.00351	-0.0764	mg/L	0.00351	4.60%
Ba 233.527†	-216.4	-0.0040	mg/L	0.00010	-0.0040	mg/L	0.00010	2.38%
Be 313.107†	-1223.9	-0.0003	mg/L	0.00006	-0.0003	mg/L	0.00006	20.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	1025.2	-0.0027	mg/L	0.00004	-0.0027	mg/L	0.00004	1.64%
QC value less than the lower limit for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-41.6	-0.0011	mg/L	0.00008	-0.0011	mg/L	0.00008	6.97%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-4260.5	-0.0019	mg/L	0.00005	-0.0019	mg/L	0.00005	2.73%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	-1452.0	-0.0043	mg/L	0.00011	-0.0043	mg/L	0.00011	2.54%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	3717852.3	87.15	mg/L	0.381	87.15	mg/L	0.381	0.44%
QC value within limits for Fe 259.939 Recovery = 87.15%								
K 766.490†	417.1	0.1056	mg/L	0.00419	0.1056	mg/L	0.00419	3.97%
Mg 279.077†	2544998.4	242.0	mg/L	1.27	242.0	mg/L	1.27	0.52%
QC value within limits for Mg 279.077 Recovery = 96.82%								
Mn 257.610†	-8079.9	0.0001	mg/L	0.00004	0.0001	mg/L	0.00004	29.26%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-145.1	-0.0067	mg/L	0.00059	-0.0067	mg/L	0.00059	8.82%
Ni 231.604†	-22.5	-0.0003	mg/L	0.00003	-0.0003	mg/L	0.00003	10.36%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	4429.7	0.2530	mg/L	0.00583	0.2530	mg/L	0.00583	2.30%
Pb 220.353†	253.7	0.0000	mg/L	0.00098	0.0000	mg/L	0.00098	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	52.9	-0.0009	mg/L	0.00220	-0.0009	mg/L	0.00220	241.81%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	9.8	0.0015	mg/L	0.00347	0.0015	mg/L	0.00347	232.81%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-475.0	-0.0653	mg/L	0.00007	-0.0653	mg/L	0.00007	0.10%
Ti 337.279†	203.1	0.0003	mg/L	0.00004	0.0003	mg/L	0.00004	12.60%
Tl 190.801†	-43.9	-0.0015	mg/L	0.00036	-0.0015	mg/L	0.00036	23.71%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-1056.9	-0.0007	mg/L	0.00001	-0.0007	mg/L	0.00001	1.47%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	340.1	0.0060	mg/L	0.00012	0.0060	mg/L	0.00012	2.09%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Ca 227.546†	113348.5	273.2	mg/L	5.06	273.2	mg/L	5.06	1.85%
QC value within limits for Ca 227.546 Recovery = 109.30%								
Sr 421.552†	3168.4	0.0037	mg/L	0.00001	0.0037	mg/L	0.00001	0.30%
Al 237.313†	1249223.3	266.7	mg/L	0.91	266.7	mg/L	0.91	0.34%
QC value within limits for Al 237.313 Recovery = 106.70%								

QC Failed. Continue with analysis.

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Sequence No.: 136 **Autosampler Location: 8**
Sample ID: ICSAB **Date Collected: 12/17/2015 4:33:42 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6267759.4	0.9282	mg/L	0.00018				0.02%
Ag 328.068†	67688.1	0.2062	mg/L	0.00285	0.2062	mg/L	0.00285	1.38%
QC value within limits for Ag 328.068 Recovery = 103.10%								
As 188.979†	149.8	0.0826	mg/L	0.00257	0.0826	mg/L	0.00257	3.11%
QC value within limits for As 188.979 Recovery = 82.64%								
B 249.772†	42359.0	-0.0744	mg/L	0.00030	-0.0744	mg/L	0.00030	0.40%
Ba 233.527†	42699.0	0.5280	mg/L	0.00231	0.5280	mg/L	0.00231	0.44%
QC value within limits for Ba 233.527 Recovery = 105.60%								
Be 313.107†	2189488.5	0.5053	mg/L	0.00087	0.5053	mg/L	0.00087	0.17%
QC value within limits for Be 313.107 Recovery = 101.06%								
Cd 226.502†	122998.5	0.9613	mg/L	0.00034	0.9613	mg/L	0.00034	0.03%

QC value within limits for Cd 226.502 Recovery = 96.13%						
Co 228.616†	17563.6	0.4614 mg/L	0.00209	0.4614 mg/L	0.00209	0.45%
QC value within limits for Co 228.616 Recovery = 92.28%						
Cr 267.716†	78435.6	0.5068 mg/L	0.00360	0.5068 mg/L	0.00360	0.71%
QC value within limits for Cr 267.716 Recovery = 101.35%						
Cu 324.752†	170588.8	0.5104 mg/L	0.00951	0.5104 mg/L	0.00951	1.86%
QC value within limits for Cu 324.752 Recovery = 102.09%						
Fe 259.939†	3663576.4	85.88 mg/L	0.243	85.88 mg/L	0.243	0.28%
QC value within limits for Fe 259.939 Recovery = 85.88%						
K 766.490†	440.3	0.1114 mg/L	0.00438	0.1114 mg/L	0.00438	3.93%
Mg 279.077†	2504529.6	238.2 mg/L	0.65	238.2 mg/L	0.65	0.27%
QC value within limits for Mg 279.077 Recovery = 95.28%						
Mn 257.610†	227591.6	0.4988 mg/L	0.00239	0.4988 mg/L	0.00239	0.48%
QC value within limits for Mn 257.610 Recovery = 99.77%						
Mo 202.031†	-150.5	-0.0070 mg/L	0.00050	-0.0070 mg/L	0.00050	7.20%
Ni 231.604†	68640.4	0.9437 mg/L	0.00361	0.9437 mg/L	0.00361	0.38%
QC value within limits for Ni 231.604 Recovery = 94.37%						
Na 589.592†	3861.5	0.2206 mg/L	0.00258	0.2206 mg/L	0.00258	1.17%
Pb 220.353†	779.3	0.0521 mg/L	0.00085	0.0521 mg/L	0.00085	1.63%
QC value within limits for Pb 220.353 Recovery = 104.26%						
Sb 206.836†	1589.1	0.6735 mg/L	0.00257	0.6735 mg/L	0.00257	0.38%
QC value within limits for Sb 206.836 Recovery = 112.24%						
Se 196.026†	122.5	0.0466 mg/L	0.00130	0.0466 mg/L	0.00130	2.79%
QC value within limits for Se 196.026 Recovery = 93.24%						
Sn 189.927†	-482.8	-0.0663 mg/L	0.00013	-0.0663 mg/L	0.00013	0.20%
Ti 337.279†	43.3	0.0001 mg/L	0.00001	0.0001 mg/L	0.00001	9.91%
Tl 190.801†	243.0	0.0981 mg/L	0.00020	0.0981 mg/L	0.00020	0.21%
QC value within limits for Tl 190.801 Recovery = 98.07%						
V 292.402†	70041.3	0.5013 mg/L	0.00494	0.5013 mg/L	0.00494	0.99%
QC value within limits for V 292.402 Recovery = 100.26%						
Zn 206.200†	53253.0	0.9366 mg/L	0.01028	0.9366 mg/L	0.01028	1.10%
QC value within limits for Zn 206.200 Recovery = 93.66%						
Ca 227.546†	111346.2	268.4 mg/L	5.06	268.4 mg/L	5.06	1.88%
QC value within limits for Ca 227.546 Recovery = 107.37%						
Sr 421.552†	3075.5	0.0036 mg/L	0.00006	0.0036 mg/L	0.00006	1.56%
Al 237.313†	1226682.0	261.9 mg/L	0.08	261.9 mg/L	0.08	0.03%
QC value within limits for Al 237.313 Recovery = 104.77%						

All analyte(s) passed QC.

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Sequence No.: 137 **Autosampler Location: 4**
Sample ID: CCV **Date Collected: 12/17/2015 4:39:28 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	6771348.6	1.003 mg/L	0.0077			0.77%
Ag 328.068†	173654.7	0.5022 mg/L	0.00594	0.5022 mg/L	0.00594	1.18%
QC value within limits for Ag 328.068 Recovery = 100.43%						
As 188.979†	1422.8	0.8758 mg/L	0.00900	0.8758 mg/L	0.00900	1.03%
QC value less than the lower limit for As 188.979 Recovery = 87.58%						
B 249.772†	294884.4	2.361 mg/L	0.0355	2.361 mg/L	0.0355	1.50%
QC value within limits for B 249.772 Recovery = 94.43%						
Ba 233.527†	858981.4	10.65 mg/L	0.210	10.65 mg/L	0.210	1.98%
QC value within limits for Ba 233.527 Recovery = 106.48%						
Be 313.107†	1100687.6	0.2540 mg/L	0.00146	0.2540 mg/L	0.00146	0.57%
QC value within limits for Be 313.107 Recovery = 101.61%						
Cd 226.502†	64576.9	0.5096 mg/L	0.00997	0.5096 mg/L	0.00997	1.96%
QC value within limits for Cd 226.502 Recovery = 101.93%						
Co 228.616†	95479.2	2.508 mg/L	0.0456	2.508 mg/L	0.0456	1.82%
QC value within limits for Co 228.616 Recovery = 100.33%						
Cr 267.716†	85857.4	0.5309 mg/L	0.00957	0.5309 mg/L	0.00957	1.80%
QC value within limits for Cr 267.716 Recovery = 106.18%						
Cu 324.752†	421673.5	1.262 mg/L	0.0094	1.262 mg/L	0.0094	0.74%
QC value within limits for Cu 324.752 Recovery = 100.94%						
Fe 259.939†	214081.9	5.019 mg/L	0.0904	5.019 mg/L	0.0904	1.80%
QC value within limits for Fe 259.939 Recovery = 100.39%						
K 766.490†	95415.9	24.15 mg/L	0.175	24.15 mg/L	0.175	0.72%

QC value within limits for K 766.490 Recovery = 96.61%

Mg 279.077†	259407.7	24.69 mg/L	0.462	24.69 mg/L	0.462	1.87%
QC value within limits for Mg 279.077 Recovery = 98.75%						
Mn 257.610†	365838.1	0.7755 mg/L	0.01356	0.7755 mg/L	0.01356	1.75%
QC value within limits for Mn 257.610 Recovery = 103.40%						
Mo 202.031†	56521.3	2.624 mg/L	0.0631	2.624 mg/L	0.0631	2.41%
QC value within limits for Mo 202.031 Recovery = 104.94%						
Ni 231.604†	152153.3	2.092 mg/L	0.0393	2.092 mg/L	0.0393	1.88%
QC value within limits for Ni 231.604 Recovery = 104.60%						
Na 589.592†	429278.6	24.52 mg/L	0.208	24.52 mg/L	0.208	0.85%
QC value within limits for Na 589.592 Recovery = 98.09%						
Pb 220.353†	5288.0	0.5188 mg/L	0.00714	0.5188 mg/L	0.00714	1.38%
QC value within limits for Pb 220.353 Recovery = 103.76%						
Sb 206.836†	12521.7	5.493 mg/L	0.0486	5.493 mg/L	0.0486	0.88%
QC value within limits for Sb 206.836 Recovery = 109.85%						
Se 196.026†	1208.2	0.4830 mg/L	0.00799	0.4830 mg/L	0.00799	1.66%
QC value within limits for Se 196.026 Recovery = 96.59%						
Sn 189.927†	36327.5	4.992 mg/L	0.0528	4.992 mg/L	0.0528	1.06%
QC value within limits for Sn 189.927 Recovery = 99.84%						
Ti 337.279†	1788782.3	2.497 mg/L	0.0052	2.497 mg/L	0.0052	0.21%
QC value within limits for Ti 337.279 Recovery = 99.87%						
Tl 190.801†	3193.7	1.112 mg/L	0.0107	1.112 mg/L	0.0107	0.96%
QC value greater than the upper limit for Tl 190.801 Recovery = 111.20%						
V 292.402†	359991.8	2.542 mg/L	0.0411	2.542 mg/L	0.0411	1.61%
QC value within limits for V 292.402 Recovery = 101.70%						
Zn 206.200†	57996.9	1.020 mg/L	0.0279	1.020 mg/L	0.0279	2.73%
QC value within limits for Zn 206.200 Recovery = 102.00%						
Ca 227.546†	10721.7	25.83 mg/L	0.209	25.83 mg/L	0.209	0.81%
QC value within limits for Ca 227.546 Recovery = 103.32%						
Sr 421.552†	2057736.6	2.378 mg/L	0.0059	2.378 mg/L	0.0059	0.25%
QC value within limits for Sr 421.552 Recovery = 95.14%						
Al 237.313†	48061.9	10.28 mg/L	0.109	10.28 mg/L	0.109	1.06%
QC value within limits for Al 237.313 Recovery = 102.76%						

QC Failed. Continue with analysis.

Sequence No.: 138 **Autosampler Location: 5**
Sample ID: CCB **Date Collected: 12/17/2015 4:45:21 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6809507.2	1.008	mg/L	0.0063				0.62%
Ag 328.068†	-393.8	-0.0011	mg/L	0.00035	-0.0011	mg/L	0.00035	31.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	1.6	0.0010	mg/L	0.00013	0.0010	mg/L	0.00013	12.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	3130.1	0.0252	mg/L	0.00067	0.0252	mg/L	0.00067	2.67%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	79.2	0.0010	mg/L	0.00040	0.0010	mg/L	0.00040	40.88%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-200.3	0.0000	mg/L	0.00004	0.0000	mg/L	0.00004	86.84%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	18.3	0.0001	mg/L	0.00009	0.0001	mg/L	0.00009	62.62%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-5.5	-0.0001	mg/L	0.00007	-0.0001	mg/L	0.00007	49.65%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	49.2	0.0003	mg/L	0.00014	0.0003	mg/L	0.00014	44.28%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	465.8	0.0014	mg/L	0.00022	0.0014	mg/L	0.00022	15.49%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	720.3	0.0169	mg/L	0.00156	0.0169	mg/L	0.00156	9.25%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	271.6	0.0687	mg/L	0.01022	0.0687	mg/L	0.01022	14.86%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	453.9	0.0432	mg/L	0.01479	0.0432	mg/L	0.01479	34.27%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	387.5	0.0008	mg/L	0.00007	0.0008	mg/L	0.00007	8.90%

QC value within limits for Mn 257.610 Recovery = Not calculated

Mo 202.031†	69.8	0.0032	mg/L	0.00117	0.0032	mg/L	0.00117 36.21%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Ni 231.604†	-28.7	-0.0004	mg/L	0.00002	-0.0004	mg/L	0.00002 4.35%
QC value within limits for Ni 231.604 Recovery = Not calculated							
Na 589.592†	1799.8	0.1028	mg/L	0.00259	0.1028	mg/L	0.00259 2.51%
QC value within limits for Na 589.592 Recovery = Not calculated							
Pb 220.353†	-2.1	-0.0002	mg/L	0.00079	-0.0002	mg/L	0.00079 376.83%
QC value within limits for Pb 220.353 Recovery = Not calculated							
Sb 206.836†	8.5	0.0037	mg/L	0.00166	0.0037	mg/L	0.00166 44.30%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-4.6	-0.0018	mg/L	0.00051	-0.0018	mg/L	0.00051 27.54%
QC value within limits for Se 196.026 Recovery = Not calculated							
Sn 189.927†	59.5	0.0082	mg/L	0.00197	0.0082	mg/L	0.00197 24.15%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Ti 337.279†	547.6	0.0008	mg/L	0.00019	0.0008	mg/L	0.00019 25.46%
QC value within limits for Ti 337.279 Recovery = Not calculated							
Tl 190.801†	1.2	0.0004	mg/L	0.00038	0.0004	mg/L	0.00038 91.40%
QC value within limits for Tl 190.801 Recovery = Not calculated							
V 292.402†	65.2	0.0005	mg/L	0.00001	0.0005	mg/L	0.00001 2.73%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 206.200†	56.0	0.0010	mg/L	0.00003	0.0010	mg/L	0.00003 3.29%
QC value within limits for Zn 206.200 Recovery = Not calculated							
Ca 227.546†	12.1	0.0292	mg/L	0.01586	0.0292	mg/L	0.01586 54.24%
QC value within limits for Ca 227.546 Recovery = Not calculated							
Sr 421.552†	450.5	0.0005	mg/L	0.00016	0.0005	mg/L	0.00016 30.31%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Al 237.313†	47.7	0.0103	mg/L	0.00475	0.0103	mg/L	0.00475 45.94%
QC value within limits for Al 237.313 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 139 **Autosampler Location: 121**
Sample ID: Sample121 **Date Collected: 12/17/2015 4:51:07 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Sample121

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6814279.0	1.009	mg/L	0.0008				0.08%
Ag 328.068†	-383.7	-0.0011	mg/L	0.00001	-0.0011	mg/L	0.00001	0.51%
As 188.979†	0.9	0.0006	mg/L	0.00011	0.0006	mg/L	0.00011	19.15%
B 249.772†	2371.2	0.0191	mg/L	0.00006	0.0191	mg/L	0.00006	0.31%
Ba 233.527†	28.7	0.0004	mg/L	0.00019	0.0004	mg/L	0.00019	52.24%
Be 313.107†	-47.6	0.0000	mg/L	0.00002	0.0000	mg/L	0.00002	190.04%
Cd 226.502†	16.0	0.0001	mg/L	0.00010	0.0001	mg/L	0.00010	83.49%
Co 228.616†	-9.0	-0.0002	mg/L	0.00010	-0.0002	mg/L	0.00010	43.88%
Cr 267.716†	70.3	0.0004	mg/L	0.00011	0.0004	mg/L	0.00011	25.94%
Cu 324.752†	-81.3	-0.0002	mg/L	0.00013	-0.0002	mg/L	0.00013	54.67%
Fe 259.939†	653.0	0.0153	mg/L	0.00125	0.0153	mg/L	0.00125	8.17%
K 766.490†	164.8	0.0417	mg/L	0.01008	0.0417	mg/L	0.01008	24.17%
Mg 279.077†	342.7	0.0326	mg/L	0.00351	0.0326	mg/L	0.00351	10.78%
Mn 257.610†	266.0	0.0006	mg/L	0.00007	0.0006	mg/L	0.00007	12.68%
Mo 202.031†	-6.7	-0.0003	mg/L	0.00007	-0.0003	mg/L	0.00007	23.39%
Ni 231.604†	-44.9	-0.0006	mg/L	0.00001	-0.0006	mg/L	0.00001	0.82%
Na 589.592†	1466.7	0.0838	mg/L	0.00142	0.0838	mg/L	0.00142	1.69%
Pb 220.353†	-4.6	-0.0005	mg/L	0.00054	-0.0005	mg/L	0.00054	119.19%
Sb 206.836†	-1.0	-0.0004	mg/L	0.00048	-0.0004	mg/L	0.00048	107.12%
Se 196.026†	-2.8	-0.0011	mg/L	0.00097	-0.0011	mg/L	0.00097	85.19%
Sn 189.927†	7.1	0.0010	mg/L	0.00085	0.0010	mg/L	0.00085	86.75%
Ti 337.279†	54.6	0.0001	mg/L	0.00021	0.0001	mg/L	0.00021	272.51%
Tl 190.801†	0.5	0.0002	mg/L	0.00014	0.0002	mg/L	0.00014	75.55%
V 292.402†	2.5	0.0000	mg/L	0.00010	0.0000	mg/L	0.00010	531.32%
Zn 206.200†	37.2	0.0007	mg/L	0.00003	0.0007	mg/L	0.00003	4.78%
Ca 227.546†	15.4	0.0371	mg/L	0.02006	0.0371	mg/L	0.02006	54.05%
Sr 421.552†	179.6	0.0002	mg/L	0.00012	0.0002	mg/L	0.00012	58.25%
Al 237.313†	45.8	0.0099	mg/L	0.00588	0.0099	mg/L	0.00588	59.30%

Preparation Information Benchsheet

Prep Run#: 251481
Team: Metals/CGILDAY

Prep WorkFlow: MetDigAqICP
Prep Method: EPA 3005A/3010A

Status: Prepped
Prep Date/Time: 12/7/15 12:39 PM

#	Lab Code	Client ID	B#	Amt. Ext.	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ1515068-03	MB		50mL	200.7/Ag T, Al T, As T, Ca T, Co T, Cr T, Cu T, Fe T, Mg T, Mo T, Na T, Ni T, Pb T, Pd T, Sn T, Ti T, W T, Zn T, 6010C/Ag D DOD, Ag T DOD, Al D DOD, Al T DOD, As D DOD, As T DOD, Ba D DOD, Ba T DOD, Be D DOD, Be T DOD, Ca D DOD, Ca T DOD, Cd D DOD, Cd T DOD, Co D DOD, Co T DOD, Cr D DOD, Cr T DOD, Cu D DOD, Cu T DOD, Fe D DOD, Fe T DOD, K D DOD, K T DOD, Mg D DOD, Mg T DOD, Mn D DOD, Mn T DOD, Na D DOD, Na T DOD, Ni D DOD, Ni T DOD, Pb D DOD, Pb T DOD, Sb D DOD, Sb T DOD, Se D DOD, Se T DOD, Tl D DOD, Tl T DOD, V D DOD, V T DOD, Zn D DOD, Zn T DOD				50.00mL	colorless-clear		Hot Block #7 Well E3 Temp: 93 C Correction Factor: 0.0 Corrected temp: 93 C
2	RQ1515068-04	LCS		50mL	200.7/Ag T, Al T, As T, Ca T, Co T, Cr T, Cu T, Fe T, Mg T, Mo T, Na T, Ni T, Pb T, Pd T, Sn T, Ti T, W T, Zn T, 6010C/Ag D DOD, Ag T DOD, Al D DOD, Al T DOD, As D DOD, As T DOD, Ba D DOD, Ba T DOD, Be D DOD, Be T DOD, Ca D DOD, Ca T DOD, Cd D DOD, Cd T DOD, Co D DOD, Co T DOD, Cr D DOD, Cr T DOD, Cu D DOD, Cu T DOD, Fe D DOD, Fe T DOD, K D DOD, K T DOD, Mg D DOD, Mg T DOD, Mn D DOD, Mn T DOD, Na D DOD, Na T DOD, Ni D DOD, Ni T DOD, Pb D DOD, Pb T DOD, Sb D DOD, Sb T DOD, Se D DOD, Se T DOD, Tl D DOD, Tl T DOD, V D DOD, V T DOD, Zn D DOD, Zn T DOD				50.00mL	colorless-clear	0.0500 mL/74566; 0.5000 mL/82347; 0.2500 mL/86036; 0.5000 mL/82346	
3	R1510346-008	FTMM-53-GW-699RW11-12.8	.04	50mL	6010C/Pb T DOD				50.00mL	colorless-clear		Tier IV DoD
4	RQ1515068-01	R1510346-008 MS	.04	50mL	6010C/Pb T DOD				50.00mL	colorless-clear	0.2500 mL/86036; 0.5000 mL/82346; 0.0500 mL/74566; 0.5000 mL/82347	
5	RQ1515068-02	R1510346-008 DUP	.04	50mL	6010C/Pb T DOD				50.00mL	colorless-clear		

Preparation Information Benchsheet

Prep Run#: 251481 **Prep WorkFlow:** MetDigAqICP **Status:** Prepped
Team: Metals/CGILDAY **Prep Method:** EPA 3005A/3010A **Prep Date/Time:** 12/7/15 12:39 PM

6	R1510346-009	FTMM-53-GW-699RW11-12.8 Dissolved	.01	50mL	6010C/Pb D DOD				50.00mL	colorless-clear		
7	R1510346-010	FTMM-53-GW-699MW06-8.5	.04	50mL	6010C/Pb T DOD				50.00mL	colorless-clear		
8	R1510346-011	FTMM-53-GW-699MW06-8.5 Dissolved	.01	50mL	6010C/Pb D DOD				50.00mL	colorless-clear		
9	R1510346-014	FTMM-8-GW-M2MW11-21.5	.04	50mL	6010C/Pb T DOD				50.00mL	gray-cloudy		
10	R1510346-015	FTMM-8-GW-M2MW11-21.5 Dissolved	.01	50mL	6010C/Pb D DOD				50.00mL	colorless-clear		
11	R1510346-017	EB-2015-11-24	.04	50mL	6010C/Ag T DOD, Al T DOD, As T DOD, Ba T DOD, Be T DOD, Ca T DOD, Cd T DOD, Co T DOD, Cr T DOD, Cu T DOD, Fe T DOD, K T DOD, Mg T DOD, Mn T DOD, Na T DOD, Ni T DOD, Pb T DOD, Sb T DOD, Se T DOD, Tl T DOD, V T DOD, Zn T DOD				50.00mL	colorless-clear		
12	R1510346-018	EB-2015-11-24 Dissolved	.01	50mL	6010C/Ag D DOD, Al D DOD, As D DOD, Ba D DOD, Be D DOD, Ca D DOD, Cd D DOD, Co D DOD, Cr D DOD, Cu D DOD, Fe D DOD, K D DOD, Mg D DOD, Mn D DOD, Na D DOD, Ni D DOD, Pb D DOD, Sb D DOD, Se D DOD, Tl D DOD, V D DOD, Zn D DOD				50.00mL	colorless-clear		
13	R1510346-019	EB-2015-11-25	.04	50mL	6010C/Pb T DOD				50.00mL	colorless-clear		
14	R1510346-020	EB-2015-11-25 Dissolved	.01	50mL	6010C/Pb D DOD				50.00mL	colorless-clear		

Spiking Solutions

Name:	Selenium 1000 ug/mL Se	Inventory ID	74566	Logbook Ref:	M5280040P	Expires On:	03/03/2016	Lot #:	1408440
Name:	Custom LCS STD A Metals	Inventory ID	82346	Logbook Ref:	M7080002F	Expires On:	06/12/2016	Lot #:	15F089
Name:	Custom LCS STD B Metals	Inventory ID	82347	Logbook Ref:	M7080002G	Expires On:	06/12/2016	Lot #:	15F092
Name:	Tin 1000 ug/mL Sn	Inventory ID	86036	Logbook Ref:	M7080005D	Expires On:	05/05/2017	Lot #:	15J011

Preparation Materials

1:1 HCl Metals Grade	M7080005N (86048)	Hot Block Cups	50 mL Lot 1501179 (84721)	Nitric Acid Metals Grade HNO3 M7080004V (85537)
Thermometer	293 (12952)			

Preparation Information Benchsheet

Prep Run#: 251481
Team: Metals/CGILDAY

Prep WorkFlow: MetDigAqICP
Prep Method: EPA 3005A/3010A

Status: Prepped
Prep Date/Time: 12/7/15 12:39 PM

Preparation Steps

Step: Digestion
Started: 12/7/15 12:39
Finished: 12/8/15 15:28
By: CGILDAY
Comments

Comments: _____

Reviewed By: DBrad Date: 12/9/15 Spike Witness: ADOCKHAM Date: _____

Chain of Custody

Relinquished By: Caitlyn Gilday Date: 12/8/15
Received By: RIA01 Date: ↓

Extracts Examined
Yes No

OPTIMA 3,4,5 CALIBRATION STANDARD #1 (Standard is prepared weekly or as necessary)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Cal Std.1	AL	~~M5800065L~~	20.0	1.00	1000	0.020	2%HNO3	ARD 12/8/15	A	M7800074V	M7080065N	12/8/15	M 26 M25
Int.	AS	M7180001B	5.00			0.0050	5%HCl	AM 12/16/15	B	M7080004V	M7080065U	12/23/15	M36 M33
	CD		1.00			0.0010			C				
	CO		3.00			0.0030			D				
	CR		1.00			0.0010			E				
	NI		5.00			0.0050			F				
	PB		5.00			0.0050			G				
	SE		5.00			0.0050			H				
	V		3.00			0.0030			I				
Cal Std. 1	CA	M7080001AA	5000	0.100		0.500			J				
	K		5000			BELOW			K				
	MG		5000			0.500			L				
	NA		5000			0.500			M				
Single Element	BA	M5280042V	1000	0.020		0.020			N				
	CU	M5280040O	1000	0.010		0.010			O				
	K	M5280041M	10000	0.150		2.00			P				
	MN	M7080001W	1000	0.010		0.010			Q				
	MO	M7080004M	1000	0.025		0.025			R				
	SB	M7080003K	1000	0.010		0.010			S				
	TL	M5280041O	1000	0.010		0.010			T				
	ZN	M5280043Q	1000	0.010		0.010			U				
	P	———	1000	0.100		0.100			V				
									W				
									X				
									Y				
									Z				

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OPTIMA 3,4,5 CALIBRATION STANDARD #2
(Standard is prepared weekly or as necessary)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Single Element	AL	M5280043XE	1000	0.100	1000	0.100	2%HNO3	AM 11/2/15	A	M7080003Z	M7080004K	11/9/15	M25 M30
	AS	M5280037FF	1000	0.010		0.010	5%HCl	ARD 11/10/15	B	M7080004V	M7080004K	11/17/15	M11 M9
	B	M5280044D	1000	0.200		0.200		AM 11/18/15	C	M7080004V	M7080004K	11/25/15	M25 M30
	BE (1/10)	M7080003M	100	0.030		0.003		DCB 11/25/15	D	M7080004V	M7080004K	12/2/15	M11 M26
	CA	M5280041L	10000	0.100		1.00		DCB 12/3/15	E	M7080004V	M7080005N	12/10/15	M11 M26
	CD (1/10)	M7080002A	100	0.050		0.005		ARD 12/11/15	F	M7080004V	M7080005N	12/18/15	M11 M26
	CU	M5280040O	1000	0.020		0.020			G				
	K	M5280041M	10000	0.200		2.00			H				
	MG	M7080003C	10000	0.100		1.00			I				
	NA	M5280040M	10000	0.100		1.00			J				
	SB	M7080003N	1000	0.060		0.060			K				
	SE	M5280040P	1000	0.010		0.010			L				
	SN	M7080001X	1000	0.500		0.500			M				
	PB	M7080001M	1000	0.050		0.005			N				
									O				
									P				
									Q				
									R				
									S				
									T				
									U				
									V				
									W				
									X				
									Y				
									Z				

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OPTIMA 3/4/5 CALIBRATION STANDARD #5 / HLCCV1 (Standard is prepared weekly or as necessary)

(CALIBRATION STANDARD #3 IS A 1/100 DILUTION OF THIS STANDARD)
(CALIBRATION STANDARD #4 IS A 1/5 DILUTION OF THIS STANDARD)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Cal Std 1	CA	M7080007S	5000	5.00	500	50.0	2%HNO3 5%HCl	AM12/16/15	A	M7080001W	M7080005W	12/23/15	—
	MG		5000			50.0			B				
	K		5000			50.0			C				
	NA		5000			50.0			D				
Cal Std 2	AG	M7080005G	100	5.00		1.00			E				
	CR		100			1.00			F				
	MN		150			1.50			G				
	NI		400			4.00			H				
	ZN		200			2.00			I				
Cal Std 3	AL	M7080004C	2000	5.00		20.0			J				
	BA		2000			20.0			K				
	BE		50			0.500			L				
	CO		500			5.00			M				
	CU		250			2.50			N				
	FE		1000			10.0			O				
	V		500			5.00			P				
Cal Std 4	AS	M7080005J	100	10.00		2.00			Q				
	CD		50			1.00			R				
	PB		50			1.00			S				
	SE		50			1.00			T				
	TL		100			2.00			U				
Single Metals	SB	M7080003K	1000	5.00		10.0			V				
	SN	M7080001X	1000	5.00		10.0			W				
	B	~~M7~~M5288004B	1000	2.50		5.00			X				
	MO	M7080004M	1000	2.50		5.00			Y				
	TI	M5288004P	1000	2.50		5.00			Z				
	SR	M7060004A	1000	2.50		5.00			AA				
	P		1000	5.00		10.0			BB				

OPTIMA 3/4/5 ICV/CCV (Standard is prepared daily)
(ICV FOR ILM5.3 IS A ½ DILUTION OF THIS STANDARD)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Pipet ID
Cal Std 1	CA	M7080003W	5000	1.00	200	25.0	2%HNO3	ARD 12/2/15	A	M7080004V	M7080005N	M26
	MG		5000			25.0	5%HCl	ARD 12/3/15	B	M7080004V	M7080005N	M26
	K		5000			25.0		ARD 12/4/15	C	M7080004V	M7080005N	M26
	NA		5000			25.0		DCD 12/5/15	D	M7080004V	M7080005N	M26
Cal Std 2	AG	M7080004T	100	1.00		0.500		DCD 12/6/15	E	M7080004V	M7080005N	M26
	CR		100			0.500		ARD 12/7/15	F	M7080004V	M7080005N	M26
	MN		150			0.750		ARD 12/8/15	G	M7080004V	M7080005N	M26
	NI		400			2.00		ARD 12/9/15	H	M7080004V	M7080005N	M26
	ZN		200			1.00		ARD 12/10/15	I	M7080004V	M7080005N	M26
Cal Std 3	AL	M7080008V	2000	1.00		10.0		AM 12/11/15	J	M7080004V	M7080005N	M26
	BA		2000			10.0		ARD 12/12/15	K	M7080004V	M7080005N	M26
	BE		50			0.250		ARD 12/14/15	L	M7080004V	M7080005N	M26
	CO		500			2.50		ARD 12/15/15	M	M7080004V	M7080005N	M26
	CU		250			1.25		AM 12/16/15	N	M7080004V	M7080005N	M30
	FE		1000			5.00			O			
	V		500			2.50			P			
Cal Std 4	AS	M7080004F	100	2.00		1.00			Q			
	CD		50			0.500			R			
	PB		50			0.500			S			
	SE		50			0.500			T			
	TL		100			1.00			U			
Single Metals	SB	M70800030	1000	1.00		5.00			V			
	SN	M7080005D	1000	1.00		5.00			W			
	B	M5280042P	1000	0.500		2.50			X			
	MO	M5280042Q	1000	0.500		2.50			Y			
	TI	M5280042R	1000	0.500		2.50			Z			
	SR	M5280044E	1000	0.500		2.50			AA			
	P	—	1000	1.00		5.00			BB			

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OPTIMA 3/4 HLCCV2 (Standard is prepared every 2 weeks or as necessary)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Cal Std 2	AG	M708000 2T	100	2.00	100	2.00	2%HNO3	ARD 11/24/15	A	M708000 4V	M708000 4M	12/8/15	M26
	CR		100			Below	5%HCl	ARD 12/3/15	B	M708000 4V	M708000 5N	12/8/15 (ARD 12/8/15)	M26
	MN		150			Below		AM 12/11/15	C	M708000 4V	M708000 5N	12/25/15	M26
	NI		400			8.00			D				
	ZN		200			4.00			E				
Cal Std 3	AL	M708000 2U	2000	2.00		Below			F				
	BA		2000			40.0			G				
	BE		50			1.00			H				
	CO, V		500			10.0			I				
	CU		250			5.00			J				
	FE		1000			Below			K				
Cal Std 4	AS, TL	M708000 4D	100	4.00		4.00			L				
	CD, SE		50			2.00			M				
	PB		50			Below			N				
Single Metals	B	M528 0044B	1000	1.00		10.0			O				
	MO	M708004M	1000	1.00		10.0			P				
	TI	M528004 4D	1000	1.00		10.0			Q				
	SR	M708004A	1000	1.00		10.0			R				
	CA	M528004 1L	10000	2.50		250			S				
	MG	M708000 3L	10000	5.00		500			T				
	NA	M528004 0M	10000	1.50		150			U				
	CR	M708000 3J	1000	0.800		10.0			V				
	FE	M528004 0Q	10000	0.300		50			W				
	AL	M528004 3K	10000	4.60		500			X				
	MN	M708 0001W	1000	0.700		10.00			Y				
	PB	M708000 1M	1000	0.800		10.0			Z				
	K	M528004 1M	10000	1.50		150			AA				

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OPTIMA 3/4/5 MRL (Standard is prepared every 6 months or as needed)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Cal Std 1	CA	M708000 1AA	5000	0.200	1000	1.00	2%HNO3	AM 10/26/15	A	M708000 3Z	M708000 4K	4/26/16	M25 M30
	MG		5000			1.00	5%HCl	AM 10/30/15	B	M708000 3Z	M708000 4K	4/30/16	M25 M70
	K		5000			1.00		AM 11/13/15	C	M708000 3Z4V	M708000 4K	5/13/16	M25 M50
	NA		5000			1.00		DCB 11/29/15	D	M708000 4V	M708000 4R	5/29/16	M25 M26
Cal Std 2	AG	M708000 2T	100	0.100		0.0100		ARD 12/4/15	E	M708000 4V	M708000 5N	6/4/16	M26 M25
	CR		100			0.0100			F				
	MN		150			0.0150			G				
	NI		400			0.0400			H				
	ZN		200			0.0200			I				
Cal Std 3	AL	M708000 2Y	2000	0.100		0.200			J				
	BA		2000			0.200			K				
	BE		50			0.0050			L				
	CO		500			0.0500			M				
	CU		250			0.0250			N				
	FE		1000			0.100			O				
	V		500			0.0500			P				
Cal Std 4	AS	M708000 4D	100	0.200		0.0200			Q				
	CD		50			0.0100			R				
	PB		50			0.0100			S				
	SE		50			0.0100			T				
	TL		100			0.0200			U				
Single Metals	B	M528004 4B	1000	0.200		0.200			V				
	MO	M708000 4M	1000	0.025		0.0250			W				
	SN	M708000 1X	1000	0.500		0.500			X				
	TI	M528004 4D	1000	0.050		0.0500			Y				
	SB	M708000 3K	1000	0.060		0.0600			Z				
	SR	M708000 1N	1000	0.100		0.100			AA				
	P	—	1000	0.100		0.100			BB				

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OPTIMA 3 & 5 ICSA STANDARD (Standard is prepared every 6 months or as necessary)

Element	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot #	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Int. A Sol'n	M7080004L	Multi	50	1000	Multi	5% HCL	MM 11/10/15	A	M7080004V	M7080004K	5/10/16	—
AL		5000			250	2%HNO3	DCB 11/24/15	B	M7080004V	M7080004K	5/24/16	—
CA		5000			250		ARD 12/9/15	C	M7080004V	M7080004N	6/9/16	—
FE		2000			100			D				
MG		5000			250			E				
								F				
								G				
								H				
								I				
								J				
								K				
								L				
								M				
								N				
								O				
								P				
								Q				
								R				
								S				
								T				
								U				
								V				

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OPTIMA 3 & 5 ICSAB STANDARD (Standard is prepared every 6 months or as necessary)

Element	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot #	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Int. A Sol'n	M7080004L	Multi	25	500	Multi	5 % HCl	AM 11/3/15	A	M7080007Z	M7080004M	5/3/16	—
AL		5000			250	2%HNO3	AM 11/10/15	B	M7080007Z	M7080004L	5/10/16	—
CA		5000			250		DCJ 11/24/15	C	M7080004V	M7080004K	5/24/16	—
FE		2000			100			D				
MG		5000			250			E				
Int. B Sol'n	M7080003N	Multi	5		Multi			F				
AG		20			0.200			G				
BA		50			0.500			H				
BE		50			0.500			I				
CD		100			1.00			J				
CO		50			0.500			K				
CR		50			0.500			L				
CU		50			0.500			M				
MN		50			0.500			N				
NI		100			1.00			O				
PB		5			0.0500			P				
V		50			0.500			Q				
ZN		100			1.00			R				
AS		10			0.100			S				
SB		60			0.600			T				
SE		5			0.0500			U				
TL		10			0.100			V				

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OPTIMA 3/4 INTERNAL STANDARD (ADDED ON-LINE) (6mo.)

Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix
Y	M7080002L	10000	2.0	2000	10.0	5 % HCl 2%HNO3
CS	M7080003K	10000	2.0		10.0	

Analyst/ Date	Letter ID	Nitric Acid Lot #	Hydro-chloric Acid Lot #	Expiration Date	Pipet ID
AM 11/3/15	A	M7080002L	M7080004K	5/2/16	M30
AM 11/9/15	B	M7080002L	M7080004K	5/9/16	M36
AM 11/17/15	C	M7080004V	M7080004K	5/17/16	M30
ARD 11/23/15	D	M7080004V	M7080004K	5/23/16	M26
DCA 11/28/15	E	M7080004V	M7080004K	5/28/16	M26
DCA 11/29/15	F	M7080004V	M7080004K	5/29/16	M26
ARD 12/02/15	G	M7080004V	M7080005N	6/01/16	M26
DCA 12/5/15	H	M7080004V	M7080005N	6/5/16	M26
ARD 12/7/15	I	M7080004V	M7080005N	6/7/16	M26
ARD 12/15/15	J	M7080004V	M7080005N	6/15/16	M26
	K				
	L				
	M				
	N				
	O				
	P				
	Q				
	R				
	S				
	T				
	V				

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Metals Cover Page

Analyst: DCB/ARD **Date:** 12/18/15 **Instrument:** OP.3

Data File: 3Dec18 **Reviewed By:** AM **Entered By:** AM

Approval: DCS 12/18/15

Starlims Run #	Analytes Used	Batch ID	Method	Failed Analytes	Repeats
476980	Fe, As, Sb	251481	6010	Cd	
476982	Zn	251660	6010		

Package Data:

Client Sub#	TIER	Analytes Used	Batch ID	Raw Data Copied?
R0346	III / (IV) / ILM	As, Fe, Sb	251481	Yes / No
	III / IV / ILM			Yes / No
	III / IV / ILM			Yes / No
	III / IV / ILM			Yes / No
	III / IV / ILM			Yes / No
	III / IV / ILM			Yes / No
	III / IV / ILM			Yes / No
	III / IV / ILM			Yes / No

OPTIMA 5300DV (#3) Run Log

Serial number: 077N6051602

Analyst: ARD Date: 12/18/15 Data File: 3Dec18

Prep Dates: MRL 12/14/15 ICSA 12/9/15 ICSAB 11/24/15 Int.Std 12/15/15

Cal Std 1 12/16/15 Cal Std 2 12/11/15 Cal Std 5 / HLCCV1 12/14/15 ICV / CCV 12/18/15

HLCCV2 12/11/15

Lot #: MRL M7180101E ICSA M7180116C ICSAB M7180130C Int.Std M7180154J

Cal Std 1 M7180007B Cal Std 2 M7180021F Cal Std 5 / HLCCV1 M7180032C ICV / CCV M7180048P

(Cal Std 4 is a 1/5 and Cal Std 3 is a 1/100 dilution of Cal Std 5)

HLCCV2 M7180072C

Blank Prepared Daily Lot: HNO3 M7080004V HCL M7080005P

1	1		Calib Blank 1
2	9		Calib Std 1
3	10		Calib Std 2
4	11		Calib Std 3
5	12		Calib Std 4
6	2		Calib Std 5
7	3	QC	ICV
8	1	QC	ICB
9	6	QC	MRL
10	7	QC	ICSA
11	8	QC	ICSAB
12	3	QC	CCV
13	1	QC	CCB
14	38		PBW-251481
15	39		LCSW-251481
16	40		R1510346-017
17	41		R1510346-018
18	42		R1510346-018L
19	43		PBW-251660
20	44		LCSW-251660
21	45		R1510592-001
22	46		R1510592-002
23	47		R1510592-003
24	3	QC	CCV
25	1	QC	CCB
26	48		R1510592-003L
27	49		R1510586-002
28	50		R1510586-003
29	51		R1510586-004
30	52		R1510586-005
31	53		R1510586-006
32	3	QC	CCV
33	1	QC	CCB
34	6	QC	MRL
35	7	QC	ICSA
36	8	QC	ICSAB
37	13	QC	HLCCV2
38	2	QC	HLCCV1
39	3	QC	CCV
40	1	QC	CCB
41	54		Sample054

AM 12/18/15

Method: DV200-6010C Opt3 Page 1 Date: 12/18/2015 7:57:40 AM

Analyst: ARD/DCS
AM 12/18/15

Analysis Begun

Start Time: 12/18/2015 7:54:18 AM
Logged In Analyst: alrce.metals03
Spectrometer Model: Optima 5300 DV, S/N 077N6051602
Plasma On Time: 12/18/2015 6:46:19 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\Optima5300\Sample Information\ROUTINE2.sif
Batch ID:
Results Data Set: 3Dec18
Results Library: C:\pe\Optima5300\Results\Dec15.mdb

Method Loaded
Method Name: DV200-6010C Opt3
IEC File: DV101215.iec
Method Last Saved: 12/17/2015 7:51:31 AM
MSF File:
Method Description: 5300DV TAL Metals Method 200.7/6010C-Optima 3

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
B 249.772	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Cd 226.502	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Fe 259.939	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
K 766.490	Lin Thru 0	Peak Area	Radial	Y 371.029	Yes
Mg 279.077	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Na 589.592	Lin Thru 0	Peak Area	Radial	Y 371.029	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Se 196.026	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Ti 337.279	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 206.200	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Ca 227.546	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Y 371.029	Yes
Al 237.313	Lin Thru 0	Peak Area	Axial	Y 371.029	Yes

Sequence No.: 1
Sample ID: Calib Blank 1
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 1
Date Collected: 12/18/2015 7:54:19 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Y 371.029	5982549.0	28679.74	0.48%	1.000	mg/L
Ag 328.068†	5499.8	13.32	0.24%	[0.00]	mg/L
As 188.979†	1.6	2.74	172.47%	[0.00]	mg/L
B 249.772†	-6434.7	15.19	0.24%	[0.00]	mg/L
Ba 233.527†	-3647.1	23.81	0.65%	[0.00]	mg/L
Be 313.107†	-12418.9	137.02	1.10%	[0.00]	mg/L
Cd 226.502†	-1910.2	20.84	1.09%	[0.00]	mg/L
Co 228.616†	-428.6	5.05	1.18%	[0.00]	mg/L
Cr 267.716†	-2932.2	66.71	2.28%	[0.00]	mg/L
Cu 324.752†	2516.4	73.91	2.94%	[0.00]	mg/L
Fe 259.939†	-13112.4	83.23	0.63%	[0.00]	mg/L
K 766.490†	2392.1	16.00	0.67%	[0.00]	mg/L

Mg 279.077†	-21509.5	89.65	0.42%	[0.00]	mg/L
Mn 257.610†	-6902.2	38.15	0.55%	[0.00]	mg/L
Mo 202.031†	-18.9	1.57	8.27%	[0.00]	mg/L
Ni 231.604†	-637.9	10.66	1.67%	[0.00]	mg/L
Na 589.592†	-188.3	0.37	0.20%	[0.00]	mg/L
Pb 220.353†	822.1	21.41	2.60%	[0.00]	mg/L
Sb 206.836†	81.8	1.12	1.37%	[0.00]	mg/L
Se 196.026†	10.8	0.83	7.74%	[0.00]	mg/L
Sn 189.927†	-116.7	2.13	1.83%	[0.00]	mg/L
Ti 337.279†	-585.1	24.79	4.24%	[0.00]	mg/L
Tl 190.801†	-13.9	1.46	10.48%	[0.00]	mg/L
V 292.402†	320.1	27.09	8.46%	[0.00]	mg/L
Zn 206.200†	-55.8	5.06	9.07%	[0.00]	mg/L
Ca 227.546†	6.3	2.02	32.27%	[0.00]	mg/L
Sr 421.552†	446.2	127.65	28.61%	[0.00]	mg/L
Al 237.313†	-5390.3	23.82	0.44%	[0.00]	mg/L

Sequence No.: 2 **Autosampler Location: 9**
Sample ID: Calib Std 1 **Date Collected: 12/18/2015 8:00:02 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Calib Std 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	5798135.6	191852.45	3.31%	0.9692	mg/L
As 188.979†	14.1	0.55	3.92%	[0.0050]	mg/L
Ba 233.527†	2078.3	55.20	2.66%	[0.0200]	mg/L
Cd 226.502†	143.6	56.04	39.04%	[0.0010]	mg/L
Co 228.616†	147.5	16.78	11.38%	[0.0030]	mg/L
Cr 267.716†	47.1	199.00	422.43%	[0.0010]	mg/L
Cu 324.752†	3984.4	316.31	7.94%	[0.0100]	mg/L
Mn 257.610†	6736.4	14.74	0.22%	[0.0100]	mg/L
Mo 202.031†	674.5	29.84	4.42%	[0.0250]	mg/L
Ni 231.604†	533.7	18.67	3.50%	[0.0050]	mg/L
Pb 220.353†	99.8	37.01	37.08%	[0.0050]	mg/L
Sb 206.836†	36.2	7.51	20.72%	[0.0100]	mg/L
Se 196.026†	17.4	0.30	1.74%	[0.0050]	mg/L
Tl 190.801†	37.4	0.22	0.59%	[0.0100]	mg/L
V 292.402†	451.9	60.05	13.29%	[0.0030]	mg/L
Zn 206.200†	1502.3	44.95	2.99%	[0.0100]	mg/L

Sequence No.: 3 **Autosampler Location: 10**
Sample ID: Calib Std 2 **Date Collected: 12/18/2015 8:05:35 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Calib Std 2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	5804668.0	63460.18	1.09%	0.9703	mg/L
As 188.979†	25.6	0.68	2.65%	[0.0100]	mg/L
B 249.772†	30117.9	189.88	0.63%	[0.200]	mg/L
Be 313.107†	17548.1	44.59	0.25%	[0.0030]	mg/L
Cd 226.502†	910.6	5.45	0.60%	[0.005]	mg/L
Cu 324.752†	6933.6	179.05	2.58%	[0.0200]	mg/L
K 766.490†	6852.3	159.64	2.33%	[2.000]	mg/L
Mg 279.077†	15918.4	215.57	1.35%	[1.000]	mg/L
Na 589.592†	18142.4	243.39	1.34%	[1.000]	mg/L
Pb 220.353†	756.8	35.48	4.69%	[0.0500]	mg/L
Sb 206.836†	174.3	5.26	3.02%	[0.060]	mg/L
Se 196.026†	36.9	4.24	11.48%	[0.0100]	mg/L
Sn 189.927†	5542.7	55.79	1.01%	[0.500]	mg/L
Ca 227.546†	413.8	4.05	0.98%	[1.000]	mg/L
Al 237.313†	349.7	60.94	17.43%	[0.1000]	mg/L

Sequence No.: 4 Autosampler Location: 11
Sample ID: Calib Std 3 Date Collected: 12/18/2015 8:11:12 AM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: Calib Std 3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	5713436.8	27511.11	0.48%	0.9550	mg/L
Ag 328.068†	3754.4	29.06	0.77%	[0.0100]	mg/L
B 249.772†	7536.5	31.16	0.41%	[0.0500]	mg/L
Be 313.107†	28319.8	390.65	1.38%	[0.0050]	mg/L
Co 228.616†	2728.7	5.11	0.19%	[0.050]	mg/L
Cr 267.716†	1806.6	34.70	1.92%	[0.010]	mg/L
Fe 259.939†	4546.5	19.48	0.43%	[0.1000]	mg/L
K 766.490†	1979.8	186.14	9.40%	[0.5000]	mg/L
Mg 279.077†	7699.6	95.94	1.25%	[0.5000]	mg/L
Ni 231.604†	4055.3	7.86	0.19%	[0.0400]	mg/L
Na 589.592†	9740.4	168.69	1.73%	[0.5000]	mg/L
Sn 189.927†	1130.9	1.94	0.17%	[0.1000]	mg/L
Ti 337.279†	34251.9	356.21	1.04%	[0.0500]	mg/L
V 292.402†	7723.7	92.51	1.20%	[0.050]	mg/L
Zn 206.200†	2203.9	4.21	0.19%	[0.020]	mg/L
Ca 227.546†	196.4	7.35	3.74%	[0.5000]	mg/L
Sr 421.552†	41646.3	374.13	0.90%	[0.0500]	mg/L

Sequence No.: 5 Autosampler Location: 12
Sample ID: Calib Std 4 Date Collected: 12/18/2015 8:16:54 AM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: Calib Std 4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	5734058.4	80678.08	1.41%	0.9585	mg/L
Ag 328.068†	69677.4	1746.61	2.51%	[0.2000]	mg/L
As 188.979†	919.6	15.92	1.73%	[0.4000]	mg/L
B 249.772†	158630.9	5511.67	3.47%	[1.0000]	mg/L
Ba 233.527†	411000.2	7292.72	1.77%	[4.0000]	mg/L
Be 313.107†	587858.1	6175.77	1.05%	[0.1000]	mg/L
Cd 226.502†	37957.6	807.73	2.13%	[0.2000]	mg/L
Co 228.616†	55356.9	1337.12	2.42%	[1.0000]	mg/L
Cr 267.716†	39944.2	1029.83	2.58%	[0.2000]	mg/L
Cu 324.752†	166100.5	4431.40	2.67%	[0.5000]	mg/L
Fe 259.939†	106984.7	2249.12	2.10%	[2.0000]	mg/L
K 766.490†	34683.9	809.48	2.33%	[10.000]	mg/L
Mg 279.077†	169236.0	3859.76	2.28%	[10.000]	mg/L
Mn 257.610†	182794.5	3984.68	2.18%	[0.3000]	mg/L
Mo 202.031†	26744.6	480.92	1.80%	[1.0000]	mg/L
Ni 231.604†	82986.9	1737.09	2.09%	[0.8000]	mg/L
Na 589.592†	175877.6	3942.29	2.24%	[10.000]	mg/L
Pb 220.353†	3010.0	36.30	1.21%	[0.2000]	mg/L
Sb 206.836†	6089.2	77.17	1.27%	[2.0000]	mg/L
Se 196.026†	770.7	10.32	1.34%	[0.2000]	mg/L
Sn 189.927†	22099.3	280.57	1.27%	[2.0000]	mg/L
Ti 337.279†	687387.6	13219.26	1.92%	[1.0000]	mg/L
Tl 190.801†	1604.2	21.50	1.34%	[0.4000]	mg/L
V 292.402†	156023.7	3169.32	2.03%	[1.0000]	mg/L
Zn 206.200†	44566.8	938.28	2.11%	[0.4000]	mg/L
Ca 227.546†	4045.7	57.78	1.43%	[10.000]	mg/L
Sr 421.552†	824671.7	26861.52	3.26%	[1.0000]	mg/L
Al 237.313†	19625.3	192.37	0.98%	[4.0000]	mg/L

Sequence No.: 6 Autosampler Location: 2
Sample ID: Calib Std 5 Date Collected: 12/18/2015 8:22:44 AM

Method: DV200-6010C Opt3 Page 4 Date: 12/18/2015 8:27:06 AM

Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: Calib Std 5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Y 371.029	5435042.8	7768.50	0.14%	0.9085	mg/L
Ag 328.068†	354226.1	1045.54	0.30%	[1.0000]	mg/L
As 188.979†	4685.1	49.63	1.06%	[2.0000]	mg/L
B 249.772†	822103.8	4983.30	0.61%	[5.0000]	mg/L
Ba 233.527†	1977205.2	4883.57	0.25%	[20.000]	mg/L
Be 313.107†	2959242.1	11283.36	0.38%	[0.5000]	mg/L
Cd 226.502†	188362.5	735.06	0.39%	[1.0000]	mg/L
Co 228.616†	270393.9	712.56	0.26%	[5.0000]	mg/L
Cr 267.716†	198183.3	497.69	0.25%	[1.0000]	mg/L
Cu 324.752†	841307.0	3924.16	0.47%	[2.5000]	mg/L
Fe 259.939†	527642.4	2098.33	0.40%	[10.000]	mg/L
K 766.490†	177547.6	793.47	0.45%	[50.000]	mg/L
Mg 279.077†	832685.2	3648.28	0.44%	[50.000]	mg/L
Mn 257.610†	897537.0	3442.63	0.38%	[1.5000]	mg/L
Mo 202.031†	134347.7	302.13	0.22%	[5.0000]	mg/L
Ni 231.604†	407312.4	1565.64	0.38%	[4.0000]	mg/L
Na 589.592†	877958.0	4392.18	0.50%	[50.000]	mg/L
Pb 220.353†	14622.6	19.08	0.13%	[1.0000]	mg/L
Sb 206.836†	30604.0	240.87	0.79%	[10.000]	mg/L
Se 196.026†	3999.5	31.47	0.79%	[1.0000]	mg/L
Sn 189.927†	111180.2	575.50	0.52%	[10.000]	mg/L
Ti 337.279†	3467907.9	11634.64	0.34%	[5.0000]	mg/L
Tl 190.801†	7722.6	102.83	1.33%	[2.0000]	mg/L
V 292.402†	783161.2	2221.76	0.28%	[5.0000]	mg/L
Zn 206.200†	219935.4	807.48	0.37%	[2.0000]	mg/L
Ca 227.546†	20374.9	30.81	0.15%	[50.000]	mg/L
Sr 421.552†	4136883.2	26059.71	0.63%	[5.0000]	mg/L
Al 237.313†	99998.8	215.04	0.22%	[20.000]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	354000	0.00000	0.999995	
As 188.979	4	Lin Thru 0	0.0	2341	0.00000	0.999993	
B 249.772	4	Lin Thru 0	0.0	164200	0.00000	0.999971	
Ba 233.527	3	Lin Thru 0	0.0	99010	0.00000	0.999971	
Be 313.107	4	Lin Thru 0	0.0	5917000	0.00000	0.999999	
Cd 226.502	4	Lin Thru 0	0.0	188400	0.00000	0.999999	
Co 228.616	4	Lin Thru 0	0.0	54130	0.00000	0.999990	
Cr 267.716	4	Lin Thru 0	0.0	198200	0.00000	0.999998	
Cu 324.752	4	Lin Thru 0	0.0	336400	0.00000	0.999997	
Fe 259.939	3	Lin Thru 0	0.0	52790	0.00000	0.999996	
K 766.490	4	Lin Thru 0	0.0	3548	0.00000	0.999988	
Mg 279.077	4	Lin Thru 0	0.0	16660	0.00000	0.999994	
Mn 257.610	3	Lin Thru 0	0.0	598800	0.00000	0.999993	
Mo 202.031	3	Lin Thru 0	0.0	26860	0.00000	1.000000	
Ni 231.604	4	Lin Thru 0	0.0	101900	0.00000	0.999994	
Na 589.592	4	Lin Thru 0	0.0	17560	0.00000	0.999999	
Pb 220.353	4	Lin Thru 0	0.0	14640	0.00000	0.999981	
Sb 206.836	4	Lin Thru 0	0.0	3060	0.00000	0.999999	
Se 196.026	4	Lin Thru 0	0.0	3994	0.00000	0.999975	
Sn 189.927	4	Lin Thru 0	0.0	11120	0.00000	0.999999	
Ti 337.279	3	Lin Thru 0	0.0	693300	0.00000	0.999999	
Tl 190.801	3	Lin Thru 0	0.0	3867	0.00000	0.999972	
V 292.402	4	Lin Thru 0	0.0	156600	0.00000	1.000000	
Zn 206.200	4	Lin Thru 0	0.0	110000	0.00000	0.999995	
Ca 227.546	4	Lin Thru 0	0.0	407.4	0.00000	0.999999	
Sr 421.552	3	Lin Thru 0	0.0	827300	0.00000	1.000000	
Al 237.313	3	Lin Thru 0	0.0	4996	0.00000	0.999992	

Sequence No.: 7 Autosampler Location: 3
Sample ID: ICV Date Collected: 12/18/2015 8:27:03 AM

Analyst:
Initial Sample Wt:
Dilution:

Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5567946.8	0.9307	mg/L	0.00602				0.65%
Ag 328.068†	173992.6	0.4920	mg/L	0.00111	0.4920	mg/L	0.00111	0.23%
QC value within limits for Ag 328.068 Recovery = 98.40%								
As 188.979†	2321.6	0.9910	mg/L	0.02761	0.9910	mg/L	0.02761	2.79%
QC value within limits for As 188.979 Recovery = 99.10%								
B 249.772†	415080.9	2.505	mg/L	0.0108	2.505	mg/L	0.0108	0.43%
QC value within limits for B 249.772 Recovery = 100.18%								
Ba 233.527†	1023836.4	10.34	mg/L	0.031	10.34	mg/L	0.031	0.29%
QC value within limits for Ba 233.527 Recovery = 103.41%								
Be 313.107†	1512302.4	0.2556	mg/L	0.00050	0.2556	mg/L	0.00050	0.20%
QC value within limits for Be 313.107 Recovery = 102.24%								
Cd 226.502†	95180.6	0.5045	mg/L	0.00018	0.5045	mg/L	0.00018	0.04%
QC value within limits for Cd 226.502 Recovery = 100.89%								
Co 228.616†	135604.9	2.505	mg/L	0.0104	2.505	mg/L	0.0104	0.42%
QC value within limits for Co 228.616 Recovery = 100.21%								
Cr 267.716†	104168.2	0.5279	mg/L	0.00217	0.5279	mg/L	0.00217	0.41%
QC value greater than the upper limit for Cr 267.716 Recovery = 105.57%								
Cu 324.752†	420549.9	1.250	mg/L	0.0048	1.250	mg/L	0.0048	0.38%
QC value within limits for Cu 324.752 Recovery = 100.02%								
Fe 259.939†	267632.5	5.067	mg/L	0.0157	5.067	mg/L	0.0157	0.31%
QC value within limits for Fe 259.939 Recovery = 101.34%								
K 766.490†	91688.8	25.85	mg/L	0.049	25.85	mg/L	0.049	0.19%
QC value within limits for K 766.490 Recovery = 103.38%								
Mg 279.077†	414491.5	24.85	mg/L	0.051	24.85	mg/L	0.051	0.21%
QC value within limits for Mg 279.077 Recovery = 99.42%								
Mn 257.610†	465169.8	0.7778	mg/L	0.00211	0.7778	mg/L	0.00211	0.27%
QC value within limits for Mn 257.610 Recovery = 103.71%								
Mo 202.031†	66948.0	2.492	mg/L	0.0106	2.492	mg/L	0.0106	0.43%
QC value within limits for Mo 202.031 Recovery = 99.68%								
Ni 231.604†	211886.7	2.079	mg/L	0.0035	2.079	mg/L	0.0035	0.17%
QC value within limits for Ni 231.604 Recovery = 103.97%								
Na 589.592†	452857.2	25.79	mg/L	0.005	25.79	mg/L	0.005	0.02%
QC value within limits for Na 589.592 Recovery = 103.15%								
Pb 220.353†	7481.7	0.5100	mg/L	0.00783	0.5100	mg/L	0.00783	1.53%
QC value within limits for Pb 220.353 Recovery = 102.00%								
Sb 206.836†	15444.5	5.047	mg/L	0.0990	5.047	mg/L	0.0990	1.96%
QC value within limits for Sb 206.836 Recovery = 100.93%								
Se 196.026†	1967.1	0.4922	mg/L	0.02883	0.4922	mg/L	0.02883	5.86%
QC value within limits for Se 196.026 Recovery = 98.43%								
Sn 189.927†	55112.7	4.958	mg/L	0.0803	4.958	mg/L	0.0803	1.62%
QC value within limits for Sn 189.927 Recovery = 99.17%								
Ti 337.279†	1734877.8	2.502	mg/L	0.0052	2.502	mg/L	0.0052	0.21%
QC value within limits for Ti 337.279 Recovery = 100.09%								
Tl 190.801†	4058.1	1.050	mg/L	0.0097	1.050	mg/L	0.0097	0.92%
QC value greater than the upper limit for Tl 190.801 Recovery = 105.04%								
V 292.402†	390805.2	2.496	mg/L	0.0032	2.496	mg/L	0.0032	0.13%
QC value within limits for V 292.402 Recovery = 99.83%								
Zn 206.200†	113223.6	1.029	mg/L	0.0019	1.029	mg/L	0.0019	0.19%
QC value within limits for Zn 206.200 Recovery = 102.91%								
Ca 227.546†	10447.4	25.67	mg/L	0.316	25.67	mg/L	0.316	1.23%
QC value within limits for Ca 227.546 Recovery = 102.69%								
Sr 421.552†	2102800.6	2.542	mg/L	0.0238	2.542	mg/L	0.0238	0.94%
QC value within limits for Sr 421.552 Recovery = 101.67%								
Al 237.313†	49125.8	9.882	mg/L	0.1570	9.882	mg/L	0.1570	1.59%
QC value within limits for Al 237.313 Recovery = 98.82%								

QC Failed. Continue with analysis.

Sequence No.: 8
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/18/2015 8:31:17 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6012255.6	1.005	mg/L	0.0030				0.30%
Ag 328.068†	336.5	0.0010	mg/L	0.00018	0.0010	mg/L	0.00018	18.95%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	2.9	0.0012	mg/L	0.00105	0.0012	mg/L	0.00105	85.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	6980.2	0.0425	mg/L	0.00387	0.0425	mg/L	0.00387	9.11%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	171.3	0.0017	mg/L	0.00018	0.0017	mg/L	0.00018	10.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	343.5	0.0001	mg/L	0.00001	0.0001	mg/L	0.00001	11.37%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	76.6	0.0004	mg/L	0.00004	0.0004	mg/L	0.00004	10.49%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	26.7	0.0005	mg/L	0.00020	0.0005	mg/L	0.00020	39.99%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-71.7	-0.0004	mg/L	0.00037	-0.0004	mg/L	0.00037	102.40%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	204.7	0.0006	mg/L	0.00015	0.0006	mg/L	0.00015	24.10%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	198.3	0.0038	mg/L	0.00053	0.0038	mg/L	0.00053	14.20%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	257.0	0.0724	mg/L	0.02950	0.0724	mg/L	0.02950	40.73%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	329.4	0.0198	mg/L	0.00330	0.0198	mg/L	0.00330	16.73%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	115.1	0.0002	mg/L	0.00002	0.0002	mg/L	0.00002	10.34%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	141.6	0.0053	mg/L	0.00098	0.0053	mg/L	0.00098	18.50%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	38.8	0.0004	mg/L	0.00001	0.0004	mg/L	0.00001	2.37%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	369.2	0.0210	mg/L	0.00344	0.0210	mg/L	0.00344	16.38%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	-16.9	-0.0012	mg/L	0.00005	-0.0012	mg/L	0.00005	4.02%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	8.7	0.0028	mg/L	0.00030	0.0028	mg/L	0.00030	10.58%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	14.7	0.0037	mg/L	0.00140	0.0037	mg/L	0.00140	38.29%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	162.2	0.0146	mg/L	0.00189	0.0146	mg/L	0.00189	12.98%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 337.279†	1152.6	0.0017	mg/L	0.00016	0.0017	mg/L	0.00016	9.70%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	6.8	0.0018	mg/L	0.00069	0.0018	mg/L	0.00069	39.03%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	40.2	0.0003	mg/L	0.00018	0.0003	mg/L	0.00018	70.34%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	47.4	0.0004	mg/L	0.00004	0.0004	mg/L	0.00004	9.09%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Ca 227.546†	-9.8	-0.0241	mg/L	0.01170	-0.0241	mg/L	0.01170	48.59%
QC value within limits for Ca 227.546 Recovery = Not calculated								
Sr 421.552†	349.9	0.0004	mg/L	0.00003	0.0004	mg/L	0.00003	7.95%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Al 237.313†	50.7	0.0102	mg/L	0.00418	0.0102	mg/L	0.00418	40.96%
QC value within limits for Al 237.313 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 6**
Sample ID: MRL **Date Collected: 12/18/2015 8:37:00 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: MRL

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD

Y 371.029	5784679.1	0.9669 mg/L	0.00669			0.69%
Ag 328.068†	3820.7	0.0108 mg/L	0.00028	0.0108 mg/L	0.00028	2.58%
QC value within limits for Ag 328.068 Recovery = 107.97%						
As 188.979†	47.6	0.0203 mg/L	0.00120	0.0203 mg/L	0.00120	5.92%
QC value within limits for As 188.979 Recovery = 101.56%						
B 249.772†	34934.7	0.2123 mg/L	0.00222	0.2123 mg/L	0.00222	1.05%
QC value within limits for B 249.772 Recovery = 106.17%						
Ba 233.527†	20651.1	0.2086 mg/L	0.00131	0.2086 mg/L	0.00131	0.63%
QC value within limits for Ba 233.527 Recovery = 104.29%						
Be 313.107†	28882.3	0.0049 mg/L	0.00004	0.0049 mg/L	0.00004	0.85%
QC value within limits for Be 313.107 Recovery = 97.63%						
Cd 226.502†	1797.5	0.0095 mg/L	0.00002	0.0095 mg/L	0.00002	0.23%
QC value within limits for Cd 226.502 Recovery = 95.27%						
Co 228.616†	2780.8	0.0514 mg/L	0.00056	0.0514 mg/L	0.00056	1.10%
QC value within limits for Co 228.616 Recovery = 102.75%						
Cr 267.716†	1924.6	0.0098 mg/L	0.00019	0.0098 mg/L	0.00019	1.98%
QC value within limits for Cr 267.716 Recovery = 97.99%						
Cu 324.752†	8505.4	0.0253 mg/L	0.00031	0.0253 mg/L	0.00031	1.23%
QC value within limits for Cu 324.752 Recovery = 101.15%						
Fe 259.939†	5042.7	0.0955 mg/L	0.00124	0.0955 mg/L	0.00124	1.30%
QC value within limits for Fe 259.939 Recovery = 95.48%						
K 766.490†	3529.8	0.9950 mg/L	0.03251	0.9950 mg/L	0.03251	3.27%
QC value within limits for K 766.490 Recovery = 99.50%						
Mg 279.077†	16310.2	0.9784 mg/L	0.00618	0.9784 mg/L	0.00618	0.63%
QC value within limits for Mg 279.077 Recovery = 97.84%						
Mn 257.610†	9087.6	0.0152 mg/L	0.00022	0.0152 mg/L	0.00022	1.42%
QC value within limits for Mn 257.610 Recovery = 101.29%						
Mo 202.031†	717.9	0.0267 mg/L	0.00003	0.0267 mg/L	0.00003	0.12%
QC value within limits for Mo 202.031 Recovery = 106.89%						
Ni 231.604†	4189.6	0.0411 mg/L	0.00027	0.0411 mg/L	0.00027	0.66%
QC value within limits for Ni 231.604 Recovery = 102.79%						
Na 589.592†	19153.2	1.091 mg/L	0.0144	1.091 mg/L	0.0144	1.32%
QC value within limits for Na 589.592 Recovery = 109.07%						
Pb 220.353†	181.2	0.0124 mg/L	0.00022	0.0124 mg/L	0.00022	1.75%
QC value greater than the upper limit for Pb 220.353 Recovery = 123.63%						
Sb 206.836†	183.7	0.0600 mg/L	0.00086	0.0600 mg/L	0.00086	1.44%
QC value within limits for Sb 206.836 Recovery = 100.05%						
Se 196.026†	53.0	0.0132 mg/L	0.00226	0.0132 mg/L	0.00226	17.09%
QC value greater than the upper limit for Se 196.026 Recovery = 132.44%						
Sn 189.927†	5615.6	0.5052 mg/L	0.00351	0.5052 mg/L	0.00351	0.69%
QC value within limits for Sn 189.927 Recovery = 101.04%						
Ti 337.279†	34553.1	0.0498 mg/L	0.00067	0.0498 mg/L	0.00067	1.34%
QC value within limits for Ti 337.279 Recovery = 99.67%						
Tl 190.801†	80.8	0.0209 mg/L	0.00088	0.0209 mg/L	0.00088	4.22%
QC value within limits for Tl 190.801 Recovery = 104.64%						
V 292.402†	7713.5	0.0493 mg/L	0.00099	0.0493 mg/L	0.00099	2.02%
QC value within limits for V 292.402 Recovery = 98.52%						
Zn 206.200†	2269.0	0.0206 mg/L	0.00017	0.0206 mg/L	0.00017	0.81%
QC value within limits for Zn 206.200 Recovery = 103.11%						
Ca 227.546†	386.8	0.9500 mg/L	0.00712	0.9500 mg/L	0.00712	0.75%
QC value within limits for Ca 227.546 Recovery = 95.00%						
Sr 421.552†	84969.4	0.1027 mg/L	0.00127	0.1027 mg/L	0.00127	1.24%
QC value within limits for Sr 421.552 Recovery = 102.71%						
Al 237.313†	807.2	0.1623 mg/L	0.00961	0.1623 mg/L	0.00961	5.92%
QC value within limits for Al 237.313 Recovery = 81.16%						

QC Failed. Continue with analysis.

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Sequence No.: 10 **Autosampler Location: 7**
Sample ID: ICSA **Date Collected: 12/18/2015 8:42:38 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5077920.1	0.8488	mg/L	0.00351				0.41%
Ag 328.068†	-3586.7	0.0016	mg/L	0.00072	0.0016	mg/L	0.00072	44.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	19.6	-0.0015	mg/L	0.00082	-0.0015	mg/L	0.00082	55.73%

QC value within limits for As 188.979 Recovery = Not calculated

B 249.772†	72431.5	-0.0067	mg/L	0.00858	-0.0067	mg/L	0.00858 128.60%
Ba 233.527†	-679.0	-0.0082	mg/L	0.00037	-0.0082	mg/L	0.00037 4.57%
Be 313.107†	-2227.1	-0.0004	mg/L	0.00000	-0.0004	mg/L	0.00000 0.45%

QC value within limits for Be 313.107 Recovery = Not calculated

Cd 226.502†	518.7	-0.0090	mg/L	0.00005	-0.0090	mg/L	0.00005 0.53%

QC value less than the lower limit for Cd 226.502 Recovery = Not calculated

Co 228.616†	-101.3	-0.0019	mg/L	0.00003	-0.0019	mg/L	0.00003 1.66%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716†	-6359.7	-0.0070	mg/L	0.00056	-0.0070	mg/L	0.00056 7.95%

QC value less than the lower limit for Cr 267.716 Recovery = Not calculated

Cu 324.752†	-985.9	-0.0029	mg/L	0.00023	-0.0029	mg/L	0.00023 7.88%

QC value within limits for Cu 324.752 Recovery = Not calculated

Fe 259.939†	4910669.3	92.95	mg/L	0.862	92.95	mg/L	0.862 0.93%

QC value within limits for Fe 259.939 Recovery = 92.95%

K 766.490†	742.5	0.2093	mg/L	0.01164	0.2093	mg/L	0.01164 5.56%
Mg 279.077†	4126829.3	247.3	mg/L	2.93	247.3	mg/L	2.93 1.18%

QC value within limits for Mg 279.077 Recovery = 98.92%

Mn 257.610†	-11367.7	-0.0009	mg/L	0.00064	-0.0009	mg/L	0.00064 74.11%

QC value within limits for Mn 257.610 Recovery = Not calculated

Mo 202.031†	-145.5	-0.0054	mg/L	0.00037	-0.0054	mg/L	0.00037 6.80%
Ni 231.604†	-13.8	-0.0001	mg/L	0.00024	-0.0001	mg/L	0.00024 179.08%

QC value within limits for Ni 231.604 Recovery = Not calculated

Na 589.592†	1692.8	0.0964	mg/L	0.00687	0.0964	mg/L	0.00687 7.13%
Pb 220.353†	569.9	0.0137	mg/L	0.00027	0.0137	mg/L	0.00027 2.00%

QC value greater than the upper limit for Pb 220.353 Recovery = Not calculated

Sb 206.836†	80.4	0.0026	mg/L	0.00023	0.0026	mg/L	0.00023 8.69%

QC value within limits for Sb 206.836 Recovery = Not calculated

Se 196.026†	18.4	0.0020	mg/L	0.00064	0.0020	mg/L	0.00064 31.85%

QC value within limits for Se 196.026 Recovery = Not calculated

Sn 189.927†	-617.9	-0.0556	mg/L	0.00110	-0.0556	mg/L	0.00110 1.98%
Ti 337.279†	680.5	0.0010	mg/L	0.00014	0.0010	mg/L	0.00014 13.82%
Tl 190.801†	-54.4	0.0004	mg/L	0.00124	0.0004	mg/L	0.00124 289.17%

QC value within limits for Tl 190.801 Recovery = Not calculated

V 292.402†	-1324.1	-0.0012	mg/L	0.00057	-0.0012	mg/L	0.00057 46.99%

QC value within limits for V 292.402 Recovery = Not calculated

Zn 206.200†	725.7	0.0066	mg/L	0.00002	0.0066	mg/L	0.00002 0.34%

QC value within limits for Zn 206.200 Recovery = Not calculated

Ca 227.546†	110563.0	271.9	mg/L	2.27	271.9	mg/L	2.27 0.84%

QC value within limits for Ca 227.546 Recovery = 108.76%

Sr 421.552†	3153.2	0.0038	mg/L	0.00013	0.0038	mg/L	0.00013 3.43%
Al 237.313†	1301738.4	261.5	mg/L	2.66	261.5	mg/L	2.66 1.02%

QC value within limits for Al 237.313 Recovery = 104.61%

QC Failed. Continue with analysis.

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Sequence No.: 11 **Autosampler Location: 8**
Sample ID: ICSAB **Date Collected: 12/18/2015 8:48:23 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5201766.7	0.8695	mg/L	0.00299				0.34%
Ag 328.068†	74166.5	0.2212	mg/L	0.00076	0.2212	mg/L	0.00076	0.35%

QC value within limits for Ag 328.068 Recovery = 110.62%

As 188.979†	246.9	0.0956	mg/L	0.00207	0.0956	mg/L	0.00207	2.16%

QC value within limits for As 188.979 Recovery = 95.64%

B 249.772†	71287.8	-0.0133	mg/L	0.00052	-0.0133	mg/L	0.00052	3.93%
Ba 233.527†	53320.7	0.5372	mg/L	0.00192	0.5372	mg/L	0.00192	0.36%

QC value within limits for Ba 233.527 Recovery = 107.44%

Be 313.107†	3072009.0	0.5192	mg/L	0.00296	0.5192	mg/L	0.00296	0.57%

QC value within limits for Be 313.107 Recovery = 103.84%

Cd 226.502†	192716.5	1.011	mg/L	0.0053	1.011	mg/L	0.0053	0.53%

QC value within limits for Cd 226.502 Recovery = 101.10%

Co 228.616†	26106.5	0.4823	mg/L	0.00364	0.4823	mg/L	0.00364	0.75%

QC value within limits for Co 228.616 Recovery = 96.46%

Cr 267.716†	100183.8	0.5303	mg/L	0.00186	0.5303	mg/L	0.00186	0.35%

QC value within limits for Cr 267.716 Recovery = 106.05%

Cu 324.752†	179944.9	0.5350 mg/L	0.00225	0.5350 mg/L	0.00225	0.42%
QC value within limits for Cu 324.752 Recovery = 107.00%						
Fe 259.939†	4905558.6	92.86 mg/L	0.544	92.86 mg/L	0.544	0.59%
QC value within limits for Fe 259.939 Recovery = 92.86%						
K 766.490†	543.9	0.1533 mg/L	0.01550	0.1533 mg/L	0.01550	10.11%
Mg 279.077†	4098831.2	245.6 mg/L	1.40	245.6 mg/L	1.40	0.57%
QC value within limits for Mg 279.077 Recovery = 98.25%						
Mn 257.610†	302252.9	0.5229 mg/L	0.00254	0.5229 mg/L	0.00254	0.48%
QC value within limits for Mn 257.610 Recovery = 104.58%						
Mo 202.031†	-156.9	-0.0058 mg/L	0.00029	-0.0058 mg/L	0.00029	5.04%
Ni 231.604†	101837.2	0.9994 mg/L	0.00423	0.9994 mg/L	0.00423	0.42%
QC value within limits for Ni 231.604 Recovery = 99.94%						
Na 589.592†	1783.7	0.1016 mg/L	0.00351	0.1016 mg/L	0.00351	3.46%
Pb 220.353†	1312.9	0.0644 mg/L	0.00118	0.0644 mg/L	0.00118	1.84%
QC value greater than the upper limit for Pb 220.353 Recovery = 128.83%						
Sb 206.836†	2019.5	0.6363 mg/L	0.00564	0.6363 mg/L	0.00564	0.89%
QC value within limits for Sb 206.836 Recovery = 106.05%						
Se 196.026†	208.5	0.0497 mg/L	0.00267	0.0497 mg/L	0.00267	5.38%
QC value within limits for Se 196.026 Recovery = 99.32%						
Sn 189.927†	-632.7	-0.0569 mg/L	0.00002	-0.0569 mg/L	0.00002	0.04%
Ti 337.279†	605.1	0.0009 mg/L	0.00020	0.0009 mg/L	0.00020	22.79%
Tl 190.801†	345.9	0.1039 mg/L	0.00192	0.1039 mg/L	0.00192	1.85%
QC value within limits for Tl 190.801 Recovery = 103.90%						
V 292.402†	79311.0	0.5137 mg/L	0.00282	0.5137 mg/L	0.00282	0.55%
QC value within limits for V 292.402 Recovery = 102.73%						
Zn 206.200†	109973.2	0.9995 mg/L	0.00368	0.9995 mg/L	0.00368	0.37%
QC value within limits for Zn 206.200 Recovery = 99.95%						
Ca 227.546†	110877.1	272.7 mg/L	0.98	272.7 mg/L	0.98	0.36%
QC value within limits for Ca 227.546 Recovery = 109.06%						
Sr 421.552†	3069.2	0.0037 mg/L	0.00025	0.0037 mg/L	0.00025	6.71%
Al 237.313†	1305409.8	262.3 mg/L	1.39	262.3 mg/L	1.39	0.53%
QC value within limits for Al 237.313 Recovery = 104.90%						

QC Failed. Continue with analysis.

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Sequence No.: 12 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 12/18/2015 8:54:06 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5684677.9	0.9502	mg/L	0.00618				0.65%
Ag 328.068†	172148.0	0.4868	mg/L	0.00092	0.4868	mg/L	0.00092	0.19%
QC value within limits for Ag 328.068 Recovery = 97.36%								
As 188.979†	2285.5	0.9756	mg/L	0.01582	0.9756	mg/L	0.01582	1.62%
QC value within limits for As 188.979 Recovery = 97.56%								
B 249.772†	399789.4	2.411	mg/L	0.0048	2.411	mg/L	0.0048	0.20%
QC value within limits for B 249.772 Recovery = 96.46%								
Ba 233.527†	1021984.8	10.32	mg/L	0.027	10.32	mg/L	0.027	0.26%
QC value within limits for Ba 233.527 Recovery = 103.22%								
Be 313.107†	1484732.6	0.2509	mg/L	0.00064	0.2509	mg/L	0.00064	0.25%
QC value within limits for Be 313.107 Recovery = 100.37%								
Cd 226.502†	94193.6	0.4992	mg/L	0.00136	0.4992	mg/L	0.00136	0.27%
QC value within limits for Cd 226.502 Recovery = 99.85%								
Co 228.616†	134341.9	2.482	mg/L	0.0034	2.482	mg/L	0.0034	0.14%
QC value within limits for Co 228.616 Recovery = 99.28%								
Cr 267.716†	103907.5	0.5265	mg/L	0.00275	0.5265	mg/L	0.00275	0.52%
QC value within limits for Cr 267.716 Recovery = 105.30%								
Cu 324.752†	416240.0	1.237	mg/L	0.0039	1.237	mg/L	0.0039	0.32%
QC value within limits for Cu 324.752 Recovery = 99.00%								
Fe 259.939†	267753.8	5.069	mg/L	0.0169	5.069	mg/L	0.0169	0.33%
QC value within limits for Fe 259.939 Recovery = 101.39%								
K 766.490†	85011.8	23.96	mg/L	0.139	23.96	mg/L	0.139	0.58%
QC value within limits for K 766.490 Recovery = 95.85%								
Mg 279.077†	409807.5	24.57	mg/L	0.055	24.57	mg/L	0.055	0.23%
QC value within limits for Mg 279.077 Recovery = 98.29%								
Mn 257.610†	462405.7	0.7732	mg/L	0.00180	0.7732	mg/L	0.00180	0.23%
QC value within limits for Mn 257.610 Recovery = 103.09%								

Method: DV200-6010C Opt3 **Page 10** **Date: 12/18/2015 9:01:39 AM**

Mo 202.031†	66365.5	2.470 mg/L	0.0109	2.470 mg/L	0.0109	0.44%
QC value within limits for Mo 202.031 Recovery = 98.81%						
Ni 231.604†	209915.2	2.060 mg/L	0.0062	2.060 mg/L	0.0062	0.30%
QC value within limits for Ni 231.604 Recovery = 103.00%						
Na 589.592†	442110.0	25.18 mg/L	0.138	25.18 mg/L	0.138	0.55%
QC value within limits for Na 589.592 Recovery = 100.70%						
Pb 220.353†	7458.5	0.5084 mg/L	0.00456	0.5084 mg/L	0.00456	0.90%
QC value within limits for Pb 220.353 Recovery = 101.68%						
Sb 206.836†	15109.4	4.937 mg/L	0.0259	4.937 mg/L	0.0259	0.52%
QC value within limits for Sb 206.836 Recovery = 98.74%						
Se 196.026†	1915.7	0.4793 mg/L	0.01587	0.4793 mg/L	0.01587	3.31%
QC value within limits for Se 196.026 Recovery = 95.86%						
Sn 189.927†	54565.9	4.909 mg/L	0.0087	4.909 mg/L	0.0087	0.18%
QC value within limits for Sn 189.927 Recovery = 98.18%						
Ti 337.279†	1728078.5	2.492 mg/L	0.0066	2.492 mg/L	0.0066	0.26%
QC value within limits for Ti 337.279 Recovery = 99.70%						
Tl 190.801†	3978.0	1.030 mg/L	0.0045	1.030 mg/L	0.0045	0.44%
QC value within limits for Tl 190.801 Recovery = 102.97%						
V 292.402†	388292.9	2.480 mg/L	0.0061	2.480 mg/L	0.0061	0.25%
QC value within limits for V 292.402 Recovery = 99.19%						
Zn 206.200†	111215.2	1.011 mg/L	0.0033	1.011 mg/L	0.0033	0.32%
QC value within limits for Zn 206.200 Recovery = 101.08%						
Ca 227.546†	10440.3	25.65 mg/L	0.269	25.65 mg/L	0.269	1.05%
QC value within limits for Ca 227.546 Recovery = 102.62%						
Sr 421.552†	2095574.4	2.533 mg/L	0.0321	2.533 mg/L	0.0321	1.27%
QC value within limits for Sr 421.552 Recovery = 101.32%						
Al 237.313†	49262.1	9.910 mg/L	0.0054	9.910 mg/L	0.0054	0.05%
QC value within limits for Al 237.313 Recovery = 99.10%						

All analyte(s) passed QC.

Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/18/2015 8:58:20 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5902741.3	0.9867	mg/L	0.01308				1.33%
Ag 328.068†	220.0	0.0006	mg/L	0.00060	0.0006	mg/L	0.00060	97.15%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	2.9	0.0012	mg/L	0.00015	0.0012	mg/L	0.00015	12.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	4747.9	0.0289	mg/L	0.00167	0.0289	mg/L	0.00167	5.77%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	89.4	0.0009	mg/L	0.00038	0.0009	mg/L	0.00038	41.59%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	646.1	0.0001	mg/L	0.00004	0.0001	mg/L	0.00004	40.77%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	57.3	0.0003	mg/L	0.00010	0.0003	mg/L	0.00010	32.33%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.4	0.0002	mg/L	0.00002	0.0002	mg/L	0.00002	10.75%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-50.8	-0.0003	mg/L	0.00006	-0.0003	mg/L	0.00006	24.20%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	172.0	0.0005	mg/L	0.00014	0.0005	mg/L	0.00014	28.24%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	247.6	0.0047	mg/L	0.00281	0.0047	mg/L	0.00281	59.81%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	143.9	0.0406	mg/L	0.00651	0.0406	mg/L	0.00651	16.04%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	216.7	0.0130	mg/L	0.01069	0.0130	mg/L	0.01069	82.28%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	1.9	0.0000	mg/L	0.00012	0.0000	mg/L	0.00012	>999.9%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	95.9	0.0036	mg/L	0.00094	0.0036	mg/L	0.00094	26.43%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	23.0	0.0002	mg/L	0.00012	0.0002	mg/L	0.00012	52.95%
QC value within limits for Ni 231.604 Recovery = Not calculated								

Na 589.592†	132.6	0.0075 mg/L	0.00137	0.0075 mg/L	0.00137	18.13%
QC value within limits for Na 589.592 Recovery = Not calculated						
Pb 220.353†	2.8	0.0002 mg/L	0.00186	0.0002 mg/L	0.00186	979.59%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	8.5	0.0028 mg/L	0.00071	0.0028 mg/L	0.00071	25.49%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	5.8	0.0015 mg/L	0.00064	0.0015 mg/L	0.00064	44.02%
QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	107.3	0.0097 mg/L	0.00133	0.0097 mg/L	0.00133	13.76%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 337.279†	763.4	0.0011 mg/L	0.00028	0.0011 mg/L	0.00028	25.37%
QC value within limits for Ti 337.279 Recovery = Not calculated						
Tl 190.801†	1.9	0.0005 mg/L	0.00017	0.0005 mg/L	0.00017	35.38%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	21.8	0.0001 mg/L	0.00013	0.0001 mg/L	0.00013	93.04%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	60.3	0.0005 mg/L	0.00008	0.0005 mg/L	0.00008	14.32%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	-5.4	-0.0133 mg/L	0.01038	-0.0133 mg/L	0.01038	77.90%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Sr 421.552†	165.9	0.0002 mg/L	0.00001	0.0002 mg/L	0.00001	4.45%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Al 237.313†	17.2	0.0035 mg/L	0.01441	0.0035 mg/L	0.01441	411.50%
QC value within limits for Al 237.313 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 14 **Autosampler Location: 38**
Sample ID: PBW-251481 **Date Collected: 12/18/2015 9:04:01 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: 50 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: PBW-251481

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	5871121.9	0.9814	mg/L	0.00261				0.27%
Ag 328.068†	248.6	0.0007	mg/L	0.00064				91.69%
As 188.979†	1.6	0.0007	mg/L	0.00071				107.88%
B 249.772†	3622.6	0.0220	mg/L	0.00140				6.34%
Ba 233.527†	36.4	0.0004	mg/L	0.00011				30.72%
Be 313.107†	128.8	0.0000	mg/L	0.00001				60.91%
Cd 226.502†	30.4	0.0002	mg/L	0.00005				32.87%
Co 228.616†	12.3	0.0002	mg/L	0.00026				116.16%
Cr 267.716†	123.5	0.0006	mg/L	0.00015				24.34%
Cu 324.752†	170.5	0.0005	mg/L	0.00015				29.11%
Fe 259.939†	414.1	0.0078	mg/L	0.00103				13.14%
K 766.490†	272.4	0.0768	mg/L	0.00259				3.37%
Mg 279.077†	426.9	0.0256	mg/L	0.00110				4.29%
Mn 257.610†	178.5	0.0003	mg/L	0.00003				8.49%
Mo 202.031†	43.8	0.0016	mg/L	0.00006				3.97%
Ni 231.604†	26.6	0.0003	mg/L	0.00016				59.67%
Na 589.592†	772.3	0.0440	mg/L	0.00860				19.56%
Pb 220.353†	-7.8	-0.0005	mg/L	0.00001				1.37%
Sb 206.836†	0.3	0.0001	mg/L	0.00073				741.89%
Se 196.026†	4.1	0.0010	mg/L	0.00040				38.49%
Sn 189.927†	37.6	0.0034	mg/L	0.00046				13.72%
Ti 337.279†	537.3	0.0008	mg/L	0.00009				12.23%
Tl 190.801†	-6.6	-0.0017	mg/L	0.00076				44.20%
V 292.402†	37.2	0.0002	mg/L	0.00025				105.70%
Zn 206.200†	447.1	0.0041	mg/L	0.00002				0.43%
Ca 227.546†	36.4	0.0894	mg/L	0.01561				17.46%
Sr 421.552†	18.3	0.0000	mg/L	0.00003				139.31%
Al 237.313†	66.6	0.0134	mg/L	0.00309				23.13%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 15 **Autosampler Location: 39**
Sample ID: LCSW-251481 **Date Collected: 12/18/2015 9:09:40 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: 50 g **Initial Sample Vol:**

Dilution: Sample Prep Vol: 50 mL

Mean Data: LCSW-251481

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	5807110.0	0.9707	mg/L	0.00637				0.66%
Ag 328.068†	17958.0	0.0509	mg/L	0.00045				0.89%
As 188.979†	98.4	0.0420	mg/L	0.00067				1.60%
B 249.772†	156368.3	0.9476	mg/L	0.01745				1.84%
Ba 233.527†	207575.2	2.097	mg/L	0.0153				0.73%
Be 313.107†	293073.7	0.0495	mg/L	0.00053				1.08%
Cd 226.502†	9537.5	0.0505	mg/L	0.00024				0.48%
Co 228.616†	27228.7	0.5030	mg/L	0.00431				0.86%
Cr 267.716†	42039.4	0.2123	mg/L	0.00234				1.10%
Cu 324.752†	88424.7	0.2629	mg/L	0.00346				1.31%
Fe 259.939†	54629.0	1.034	mg/L	0.0105				1.01%
K 766.490†	67615.9	19.06	mg/L	0.348				1.82%
Mg 279.077†	33025.9	1.978	mg/L	0.0146				0.74%
Mn 257.610†	308641.8	0.5156	mg/L	0.00513				0.99%
Mo 202.031†	13532.6	0.5037	mg/L	0.00652				1.29%
Ni 231.604†	52927.6	0.5194	mg/L	0.00542				1.04%
Na 589.592†	361043.1	20.56	mg/L	0.361				1.76%
Pb 220.353†	7649.3	0.5223	mg/L	0.00578				1.11%
Sb 206.836†	1492.5	0.4876	mg/L	0.00636				1.30%
Se 196.026†	3963.1	0.9923	mg/L	0.00806				0.81%
Sn 189.927†	57218.9	5.148	mg/L	0.0559				1.09%
Ti 337.279†	350393.7	0.5054	mg/L	0.00480				0.95%
Tl 190.801†	7980.0	2.064	mg/L	0.0209				1.01%
V 292.402†	78232.5	0.4996	mg/L	0.00467				0.93%
Zn 206.200†	56043.9	0.5094	mg/L	0.00451				0.88%
Ca 227.546†	863.1	2.124	mg/L	0.0102				0.48%
Sr 421.552†	1824690.4	2.206	mg/L	0.0055				0.25%
Al 237.313†	9817.1	1.976	mg/L	0.0173				0.88%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 16 Autosampler Location: 40
Sample ID: R1510346-017 Date Collected: 12/18/2015 9:15:25 AM
Analyst: Data Type: Original
Initial Sample Wt: 50 g Initial Sample Vol:
Dilution: Sample Prep Vol: 50 mL

Mean Data: R1510346-017

Analyte	Mean Corrected Intensity	Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	5936859.3	0.9924	mg/L	0.01704				1.72%
Ag 328.068†	100.3	0.0003	mg/L	0.00053				185.07%
As 188.979†	-0.3	-0.0001	mg/L	0.00064				522.30%
B 249.772†	4349.2	0.0264	mg/L	0.00145				5.48%
Ba 233.527†	123.5	0.0012	mg/L	0.00073				58.28%
Be 313.107†	192.0	0.0000	mg/L	0.00005				142.98%
Cd 226.502†	57.4	0.0003	mg/L	0.00020				65.04%
Co 228.616†	10.1	0.0002	mg/L	0.00020				107.15%
Cr 267.716†	149.3	0.0008	mg/L	0.00016				21.19%
Cu 324.752†	425.0	0.0013	mg/L	0.00001				0.85%
Fe 259.939†	751.8	0.0142	mg/L	0.00428				30.04%
K 766.490†	180.2	0.0508	mg/L	0.02236				44.02%
Mg 279.077†	808.8	0.0485	mg/L	0.02171				44.79%
Mn 257.610†	367.0	0.0006	mg/L	0.00019				31.21%
Mo 202.031†	49.2	0.0018	mg/L	0.00002				1.25%
Ni 231.604†	48.7	0.0005	mg/L	0.00019				40.06%
Na 589.592†	899.0	0.0512	mg/L	0.00692				13.52%
Pb 220.353†	-31.3	-0.0021	mg/L	0.00086				40.23%
Sb 206.836†	-0.8	-0.0003	mg/L	0.00089				351.62%
Se 196.026†	8.5	0.0021	mg/L	0.00243				113.75%
Sn 189.927†	29.2	0.0026	mg/L	0.00054				20.69%
Ti 337.279†	768.2	0.0011	mg/L	0.00017				14.94%
Tl 190.801†	0.5	0.0001	mg/L	0.00190				>999.9%
V 292.402†	17.0	0.0001	mg/L	0.00007				60.05%
Zn 206.200†	144.5	0.0013	mg/L	0.00005				3.93%

Ca 227.546†	2.9	0.0073	mg/L	0.01608	220.85%
Sr 421.552†	149.9	0.0002	mg/L	0.00017	93.64%
Al 237.313†	182.7	0.0367	mg/L	0.01996	54.35%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 17 **Autosampler Location: 41**
Sample ID: R1510346-018 **Date Collected: 12/18/2015 9:21:07 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: 50 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510346-018

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5985288.2	1.000	mg/L	0.0062				0.62%
Ag 328.068†	131.2	0.0004	mg/L	0.00037				98.15%
As 188.979†	-0.4	-0.0002	mg/L	0.00068				364.78%
B 249.772†	3119.3	0.0189	mg/L	0.00058				3.08%
Ba 233.527†	100.9	0.0010	mg/L	0.00023				23.05%
Be 313.107†	344.2	0.0001	mg/L	0.00001				23.13%
Cd 226.502†	52.3	0.0003	mg/L	0.00009				31.33%
Co 228.616†	13.4	0.0002	mg/L	0.00015				60.62%
Cr 267.716†	156.7	0.0008	mg/L	0.00029				36.14%
Cu 324.752†	330.9	0.0010	mg/L	0.00032				32.35%
Fe 259.939†	666.7	0.0126	mg/L	0.00145				11.51%
K 766.490†	54.6	0.0154	mg/L	0.00553				35.93%
Mg 279.077†	876.1	0.0525	mg/L	0.01435				27.31%
Mn 257.610†	288.0	0.0005	mg/L	0.00007				14.26%
Mo 202.031†	26.1	0.0010	mg/L	0.00013				13.79%
Ni 231.604†	40.4	0.0004	mg/L	0.00000				1.24%
Na 589.592†	721.2	0.0411	mg/L	0.00538				13.10%
Pb 220.353†	-30.9	-0.0021	mg/L	0.00061				29.02%
Sb 206.836†	-2.2	-0.0007	mg/L	0.00011				14.61%
Se 196.026†	8.0	0.0020	mg/L	0.00280				139.98%
Sn 189.927†	-7.0	-0.0006	mg/L	0.00035				56.20%
Ti 337.279†	503.9	0.0007	mg/L	0.00017				23.44%
Tl 190.801†	-2.1	-0.0005	mg/L	0.00046				84.88%
V 292.402†	20.3	0.0001	mg/L	0.00002				16.78%
Zn 206.200†	108.9	0.0010	mg/L	0.00002				2.48%
Ca 227.546†	3.6	0.0089	mg/L	0.00224				25.01%
Sr 421.552†	9.6	0.0000	mg/L	0.00005				416.59%
Al 237.313†	169.0	0.0340	mg/L	0.00682				20.09%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.

Sequence No.: 18 **Autosampler Location: 42**
Sample ID: R1510346-018L **Date Collected: 12/18/2015 9:26:44 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: 50 g **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510346-018L

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	6012462.4	1.005	mg/L	0.0021				0.21%
Ag 328.068†	367.6	0.0010	mg/L	0.00003				2.88%
As 188.979†	0.9	0.0004	mg/L	0.00155				387.50%
B 249.772†	2587.1	0.0157	mg/L	0.00035				2.23%
Ba 233.527†	109.4	0.0011	mg/L	0.00011				10.27%
Be 313.107†	316.3	0.0001	mg/L	0.00001				19.62%
Cd 226.502†	55.8	0.0003	mg/L	0.00001				2.07%
Co 228.616†	12.2	0.0002	mg/L	0.00002				8.50%
Cr 267.716†	59.0	0.0003	mg/L	0.00047				154.88%
Cu 324.752†	172.3	0.0005	mg/L	0.00055				106.57%
Fe 259.939†	518.6	0.0098	mg/L	0.00073				7.44%
K 766.490†	57.4	0.0162	mg/L	0.00425				26.26%
Mg 279.077†	764.7	0.0459	mg/L	0.00663				14.45%
Mn 257.610†	234.4	0.0004	mg/L	0.00004				10.06%
Mo 202.031†	13.7	0.0005	mg/L	0.00016				32.42%

Ni 231.604†	17.9	0.0002 mg/L	0.00014	81.08%
Na 589.592†	207.0	0.0118 mg/L	0.01272	107.91%
Pb 220.353†	-27.5	-0.0019 mg/L	0.00098	52.32%
Sb 206.836†	-4.1	-0.0013 mg/L	0.00053	39.59%
Se 196.026†	0.8	0.0002 mg/L	0.00083	422.99%
Sn 189.927†	18.0	0.0016 mg/L	0.00041	25.51%
Ti 337.279†	204.4	0.0003 mg/L	0.00003	8.82%
Tl 190.801†	5.8	0.0015 mg/L	0.00011	7.44%
V 292.402†	-42.9	-0.0003 mg/L	0.00013	47.18%
Zn 206.200†	235.5	0.0021 mg/L	0.00004	2.03%
Ca 227.546†	-0.2	-0.0005 mg/L	0.01210	>999.9%
Sr 421.552†	-22.7	0.0000 mg/L	0.00024	864.50%
Al 237.313†	176.7	0.0355 mg/L	0.00341	9.61%

Sample conc. not calculated. Nominal Wt. AND Initial Wt. required OR sample units incorrect.
User canceled analysis.

Run stopped to modify sample info file. AM 12/18/15

Analysis Begun

Start Time: 12/18/2015 9:36:31 AM Plasma On Time: 12/18/2015 6:46:19 AM
Logged In Analyst: alrce.metals03 Technique: ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077N6051602Autosampler Model: AS-93plus

Sample Information File: C:\pe\Optima5300\Sample Information\ROUTINE2.sif
Batch ID:
Results Data Set: 3Dec18
Results Library: C:\pe\Optima5300\Results\Dec15.mdb

Sequence No.: 1 Autosampler Location: 3
Sample ID: ICV Date Collected: 12/18/2015 9:36:31 AM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
User canceled analysis.

Analysis Begun

Start Time: 12/18/2015 9:37:06 AM Plasma On Time: 12/18/2015 6:46:19 AM
Logged In Analyst: alrce.metals03 Technique: ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077N6051602Autosampler Model: AS-93plus

Sample Information File: C:\pe\Optima5300\Sample Information\ROUTINE2.sif
Batch ID:
Results Data Set: 3Dec18
Results Library: C:\pe\Optima5300\Results\Dec15.mdb

Sequence No.: 13 Autosampler Location: 43
Sample ID: PBW-251660 Date Collected: 12/18/2015 9:37:06 AM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol: 50 mL

Mean Data: PBW-251660

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5808783.3	0.9710	mg/L	0.00315				0.32%
Ag 328.068†	259.8	0.0007	mg/L	0.00015				20.70%
As 188.979†	2.0	0.0009	mg/L	0.00156				177.92%
B 249.772†	1679.6	0.0103	mg/L	0.00009				0.87%
Ba 233.527†	-118.0	-0.0012	mg/L	0.00004				3.18%
Be 313.107†	-559.3	-0.0001	mg/L	0.00001				11.29%
Cd 226.502†	-58.5	-0.0003	mg/L	0.00011				35.31%
Co 228.616†	-19.3	-0.0004	mg/L	0.00001				3.41%
Cr 267.716†	-116.3	-0.0006	mg/L	0.00056				94.39%
Cu 324.752†	325.5	0.0010	mg/L	0.00013				13.50%
Fe 259.939†	-192.2	-0.0036	mg/L	0.00031				8.63%
K 766.490†	197.9	0.0558	mg/L	0.00582				10.44%
Mg 279.077†	-349.4	-0.0210	mg/L	0.00322				15.39%
Mn 257.610†	-38.7	-0.0001	mg/L	0.00001				10.62%
Mo 202.031†	10.2	0.0004	mg/L	0.00005				12.80%
Ni 231.604†	16.3	0.0002	mg/L	0.00002				13.24%
Na 589.592†	790.0	0.0450	mg/L	0.00095				2.11%
Pb 220.353†	14.3	0.0010	mg/L	0.00025				25.57%
Sb 206.836†	-1.5	-0.0005	mg/L	0.00082				172.27%
Se 196.026†	12.2	0.0030	mg/L	0.00060				19.80%
Sn 189.927†	-21.2	-0.0019	mg/L	0.00057				29.86%
Ti 337.279†	408.3	0.0006	mg/L	0.00038				63.87%
Tl 190.801†	-3.9	-0.0010	mg/L	0.00078				77.58%
V 292.402†	2.4	0.0000	mg/L	0.00017				>999.9%
Zn 206.200†	101.1	0.0009	mg/L	0.00017				18.87%
Ca 227.546†	0.5	0.0011	mg/L	0.00018				16.03%
Sr 421.552†	-50.8	-0.0001	mg/L	0.00012				188.09%
Al 237.313†	-153.2	-0.0307	mg/L	0.00229				7.47%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 14 **Autosampler Location: 44**
Sample ID: LCSW-251660 **Date Collected: 12/18/2015 9:42:47 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: LCSW-251660

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5672879.1	0.9482	mg/L	0.01117				1.18%
Ag 328.068†	17875.6	0.0506	mg/L	0.00005				0.09%
As 188.979†	102.1	0.0436	mg/L	0.00097				2.22%
B 249.772†	157489.3	0.9545	mg/L	0.01657				1.74%
Ba 233.527†	205820.7	2.079	mg/L	0.0047				0.22%
Be 313.107†	294403.5	0.0498	mg/L	0.00036				0.72%
Cd 226.502†	9405.2	0.0498	mg/L	0.00055				1.10%
Co 228.616†	27114.3	0.5009	mg/L	0.00628				1.25%
Cr 267.716†	41683.3	0.2105	mg/L	0.00120				0.57%
Cu 324.752†	88365.3	0.2627	mg/L	0.00122				0.46%
Fe 259.939†	53891.0	1.020	mg/L	0.0079				0.77%
K 766.490†	69753.5	19.66	mg/L	0.174				0.89%
Mg 279.077†	32184.2	1.927	mg/L	0.0311				1.62%
Mn 257.610†	314828.2	0.5260	mg/L	0.00228				0.43%
Mo 202.031†	13517.9	0.5032	mg/L	0.00408				0.81%
Ni 231.604†	53229.2	0.5224	mg/L	0.00203				0.39%
Na 589.592†	365728.4	20.83	mg/L	0.189				0.91%
Pb 220.353†	7642.4	0.5218	mg/L	0.00801				1.53%
Sb 206.836†	1508.2	0.4927	mg/L	0.00611				1.24%
Se 196.026†	4040.4	1.012	mg/L	0.0128				1.26%
Sn 189.927†	58975.3	5.306	mg/L	0.0195				0.37%
Ti 337.279†	350487.1	0.5055	mg/L	0.00198				0.39%
Tl 190.801†	7902.0	2.044	mg/L	0.0243				1.19%
V 292.402†	77928.3	0.4977	mg/L	0.00246				0.50%
Zn 206.200†	57039.6	0.5184	mg/L	0.00344				0.66%
Ca 227.546†	857.5	2.110	mg/L	0.0305				1.45%
Sr 421.552†	1805085.4	2.182	mg/L	0.0529				2.43%
Al 237.313†	9421.3	1.897	mg/L	0.0119				0.63%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 15 **Autosampler Location: 45**
Sample ID: R1510592-001 **Date Collected: 12/18/2015 9:48:30 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510592-001

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5847618.3	0.9774	mg/L	0.00186				0.19%
Ag 328.068†	225.4	0.0007	mg/L	0.00012				18.05%
As 188.979†	4.2	0.0016	mg/L	0.00102				63.91%
B 249.772†	6348.0	0.0335	mg/L	0.00089				2.67%
Ba 233.527†	2342.2	0.0237	mg/L	0.00010				0.41%
Be 313.107†	113.6	0.0000	mg/L	0.00001				43.02%
Cd 226.502†	-4.7	-0.0002	mg/L	0.00008				43.34%
Co 228.616†	15.7	0.0003	mg/L	0.00001				4.26%
Cr 267.716†	159.2	0.0011	mg/L	0.00001				1.01%
Cu 324.752†	1763.5	0.0052	mg/L	0.00030				5.66%
Fe 259.939†	60584.0	1.147	mg/L	0.0097				0.84%
K 766.490†	12208.3	3.441	mg/L	0.0042				0.12%
Mg 279.077†	61233.7	3.670	mg/L	0.0243				0.66%
Mn 257.610†	70739.6	0.1183	mg/L	0.00096				0.81%
Mo 202.031†	52.6	0.0020	mg/L	0.00033				17.09%
Ni 231.604†	113.3	0.0011	mg/L	0.00017				14.87%
Na 589.592†	26488.0	1.508	mg/L	0.0049				0.33%
Pb 220.353†	26.9	0.0017	mg/L	0.00059				33.97%

Sb 206.836†	-4.1	-0.0014	mg/L	0.00026	18.28%
Se 196.026†	4.2	0.0010	mg/L	0.00097	93.92%
Sn 189.927†	-90.2	-0.0081	mg/L	0.00074	9.11%
Ti 337.279†	5904.1	0.0085	mg/L	0.00035	4.12%
Tl 190.801†	-4.4	-0.0009	mg/L	0.00062	65.16%
V 292.402†	319.8	0.0021	mg/L	0.00031	14.71%
Zn 206.200†	2066.1	0.0188	mg/L	0.00004	0.23%
Ca 227.546†	5342.1	13.12	mg/L	0.004	0.03%
Sr 421.552†	19653.3	0.0238	mg/L	0.00019	0.78%
Al 237.313†	5730.1	1.155	mg/L	0.0017	0.15%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 16 **Autosampler Location: 46**
Sample ID: R1510592-002 **Date Collected: 12/18/2015 9:54:16 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510592-002

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5924617.1	0.9903	mg/L	0.01136				1.15%
Ag 328.068†	372.8	0.0010	mg/L	0.00082				84.21%
As 188.979†	2.6	0.0010	mg/L	0.00062				63.14%
B 249.772†	3404.5	0.0201	mg/L	0.00042				2.10%
Ba 233.527†	1207.3	0.0122	mg/L	0.00013				1.07%
Be 313.107†	-101.1	0.0000	mg/L	0.00005				307.87%
Cd 226.502†	16.6	0.0001	mg/L	0.00013				192.16%
Co 228.616†	-1.3	0.0000	mg/L	0.00003				131.88%
Cr 267.716†	95.0	0.0006	mg/L	0.00046				77.68%
Cu 324.752†	554.6	0.0016	mg/L	0.00014				8.64%
Fe 259.939†	7730.8	0.1464	mg/L	0.00069				0.47%
K 766.490†	2164.3	0.6101	mg/L	0.01244				2.04%
Mg 279.077†	27641.5	1.658	mg/L	0.0041				0.25%
Mn 257.610†	2457.0	0.0041	mg/L	0.00003				0.72%
Mo 202.031†	24.3	0.0009	mg/L	0.00006				6.81%
Ni 231.604†	40.6	0.0004	mg/L	0.00029				73.02%
Na 589.592†	24593.0	1.400	mg/L	0.0274				1.95%
Pb 220.353†	-13.4	-0.0009	mg/L	0.00014				15.44%
Sb 206.836†	-3.8	-0.0013	mg/L	0.00142				113.44%
Se 196.026†	8.7	0.0022	mg/L	0.00178				81.17%
Sn 189.927†	-86.1	-0.0078	mg/L	0.00000				0.04%
Ti 337.279†	1508.3	0.0022	mg/L	0.00001				0.40%
Tl 190.801†	-0.0	0.0000	mg/L	0.00071				>999.9%
V 292.402†	9.7	0.0001	mg/L	0.00045				615.39%
Zn 206.200†	249.1	0.0023	mg/L	0.00002				0.89%
Ca 227.546†	3612.1	8.867	mg/L	0.0928				1.05%
Sr 421.552†	11136.7	0.0135	mg/L	0.00020				1.51%
Al 237.313†	1056.5	0.2098	mg/L	0.00633				3.02%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 17 **Autosampler Location: 47**
Sample ID: R1510592-003 **Date Collected: 12/18/2015 9:59:54 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510592-003

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5771274.8	0.9647	mg/L	0.00024				0.02%
Ag 328.068†	583.7	0.0013	mg/L	0.00029				21.97%
As 188.979†	10.4	0.0036	mg/L	0.00066				18.63%
B 249.772†	10633.0	0.0563	mg/L	0.00023				0.41%
Ba 233.527†	4897.7	0.0495	mg/L	0.00008				0.17%
Be 313.107†	-201.4	0.0000	mg/L	0.00001				30.11%
Cd 226.502†	-7.8	-0.0003	mg/L	0.00003				9.80%
Co 228.616†	19.0	0.0004	mg/L	0.00008				23.12%

Cr 267.716†	-67.9	0.0010 mg/L	0.00012	12.56%
Cu 324.752†	1733.3	0.0052 mg/L	0.00002	0.47%
Fe 259.939†	98821.2	1.871 mg/L	0.0024	0.13%
K 766.490†	17053.3	4.807 mg/L	0.0068	0.14%
Mg 279.077†	271796.6	16.30 mg/L	0.003	0.02%
Mn 257.610†	41555.5	0.0697 mg/L	0.00016	0.22%
Mo 202.031†	54.7	0.0020 mg/L	0.00019	9.32%
Ni 231.604†	216.5	0.0021 mg/L	0.00005	2.37%
Na 589.592†	164462.7	9.365 mg/L	0.0236	0.25%
Pb 220.353†	30.7	0.0022 mg/L	0.00018	8.56%
Sb 206.836†	0.6	0.0000 mg/L	0.00038	>999.9%
Se 196.026†	2.7	0.0006 mg/L	0.00100	160.61%
Sn 189.927†	-270.0	-0.0243 mg/L	0.00049	2.00%
Ti 337.279†	8227.6	0.0119 mg/L	0.00117	9.90%
Tl 190.801†	-17.3	-0.0040 mg/L	0.00067	16.68%
V 292.402†	410.2	0.0028 mg/L	0.00004	1.39%
Zn 206.200†	980.8	0.0089 mg/L	0.00000	0.01%
Ca 227.546†	22265.1	54.66 mg/L	0.002	0.00%
Sr 421.552†	86964.8	0.1051 mg/L	0.00006	0.05%
Al 237.313†	9452.6	1.893 mg/L	0.0003	0.01%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

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Sequence No.: 18 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 12/18/2015 10:05:41 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5681588.3	0.9497	mg/L	0.00163				0.17%
Ag 328.068†	173192.1	0.4898	mg/L	0.00170	0.4898	mg/L	0.00170	0.35%
QC value within limits for Ag 328.068 Recovery = 97.95%								
As 188.979†	2342.2	0.9998	mg/L	0.00096	0.9998	mg/L	0.00096	0.10%
QC value within limits for As 188.979 Recovery = 99.98%								
B 249.772†	407024.4	2.456	mg/L	0.0089	2.456	mg/L	0.0089	0.36%
QC value within limits for B 249.772 Recovery = 98.22%								
Ba 233.527†	1015443.2	10.26	mg/L	0.014	10.26	mg/L	0.014	0.14%
QC value within limits for Ba 233.527 Recovery = 102.56%								
Be 313.107†	1501519.5	0.2538	mg/L	0.00073	0.2538	mg/L	0.00073	0.29%
QC value within limits for Be 313.107 Recovery = 101.51%								
Cd 226.502†	94330.9	0.5000	mg/L	0.00092	0.5000	mg/L	0.00092	0.18%
QC value within limits for Cd 226.502 Recovery = 99.99%								
Co 228.616†	135086.2	2.496	mg/L	0.0053	2.496	mg/L	0.0053	0.21%
QC value within limits for Co 228.616 Recovery = 99.83%								
Cr 267.716†	103658.4	0.5253	mg/L	0.00059	0.5253	mg/L	0.00059	0.11%
QC value within limits for Cr 267.716 Recovery = 105.05%								
Cu 324.752†	419823.8	1.248	mg/L	0.0052	1.248	mg/L	0.0052	0.42%
QC value within limits for Cu 324.752 Recovery = 99.85%								
Fe 259.939†	267227.8	5.059	mg/L	0.0142	5.059	mg/L	0.0142	0.28%
QC value within limits for Fe 259.939 Recovery = 101.19%								
K 766.490†	91041.5	25.66	mg/L	0.071	25.66	mg/L	0.071	0.28%
QC value within limits for K 766.490 Recovery = 102.65%								
Mg 279.077†	412980.8	24.76	mg/L	0.072	24.76	mg/L	0.072	0.29%
QC value within limits for Mg 279.077 Recovery = 99.06%								
Mn 257.610†	463856.4	0.7756	mg/L	0.00288	0.7756	mg/L	0.00288	0.37%
QC value within limits for Mn 257.610 Recovery = 103.41%								
Mo 202.031†	66027.2	2.458	mg/L	0.0006	2.458	mg/L	0.0006	0.02%
QC value within limits for Mo 202.031 Recovery = 98.31%								
Ni 231.604†	210653.5	2.067	mg/L	0.0049	2.067	mg/L	0.0049	0.24%
QC value within limits for Ni 231.604 Recovery = 103.36%								
Na 589.592†	454830.1	25.90	mg/L	0.133	25.90	mg/L	0.133	0.52%
QC value within limits for Na 589.592 Recovery = 103.60%								
Pb 220.353†	7447.3	0.5077	mg/L	0.00323	0.5077	mg/L	0.00323	0.64%
QC value within limits for Pb 220.353 Recovery = 101.53%								
Sb 206.836†	15159.3	4.953	mg/L	0.0215	4.953	mg/L	0.0215	0.43%
QC value within limits for Sb 206.836 Recovery = 99.07%								
Se 196.026†	1907.8	0.4773	mg/L	0.01384	0.4773	mg/L	0.01384	2.90%
QC value within limits for Se 196.026 Recovery = 95.46%								

Sn 189.927†	54894.2	4.939 mg/L	0.0101	4.939 mg/L	0.0101	0.20%
QC value within limits for Sn 189.927 Recovery = 98.77%						
Ti 337.279†	1730787.4	2.496 mg/L	0.0036	2.496 mg/L	0.0036	0.14%
QC value within limits for Ti 337.279 Recovery = 99.85%						
Tl 190.801†	3983.9	1.031 mg/L	0.0010	1.031 mg/L	0.0010	0.10%
QC value within limits for Tl 190.801 Recovery = 103.12%						
V 292.402†	388101.1	2.479 mg/L	0.0041	2.479 mg/L	0.0041	0.16%
QC value within limits for V 292.402 Recovery = 99.14%						
Zn 206.200†	112221.0	1.020 mg/L	0.0021	1.020 mg/L	0.0021	0.21%
QC value within limits for Zn 206.200 Recovery = 102.00%						
Ca 227.546†	10389.0	25.53 mg/L	0.147	25.53 mg/L	0.147	0.58%
QC value within limits for Ca 227.546 Recovery = 102.11%						
Sr 421.552†	2124300.9	2.568 mg/L	0.0103	2.568 mg/L	0.0103	0.40%
QC value within limits for Sr 421.552 Recovery = 102.71%						
Al 237.313†	48955.3	9.848 mg/L	0.0054	9.848 mg/L	0.0054	0.05%
QC value within limits for Al 237.313 Recovery = 98.48%						

All analyte(s) passed QC.

Sequence No.: 19 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 12/18/2015 10:09:57 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Calib Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 371.029	5876505.2	0.9823	mg/L	0.00172				0.18%
Ag 328.068†	40.2	0.0001	mg/L	0.00001	0.0001	mg/L	0.00001	10.82%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	2.2	0.0009	mg/L	0.00128	0.0009	mg/L	0.00128	138.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	3859.3	0.0235	mg/L	0.00203	0.0235	mg/L	0.00203	8.64%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	52.5	0.0005	mg/L	0.00011	0.0005	mg/L	0.00011	21.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	368.0	0.0001	mg/L	0.00003	0.0001	mg/L	0.00003	43.31%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	21.7	0.0001	mg/L	0.00013	0.0001	mg/L	0.00013	111.59%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.7	0.0002	mg/L	0.00004	0.0002	mg/L	0.00004	23.84%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-32.5	-0.0002	mg/L	0.00017	-0.0002	mg/L	0.00017	103.00%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	134.3	0.0004	mg/L	0.00009	0.0004	mg/L	0.00009	22.11%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	21.0	0.0004	mg/L	0.00021	0.0004	mg/L	0.00021	53.18%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	194.1	0.0547	mg/L	0.00055	0.0547	mg/L	0.00055	1.01%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	114.9	0.0069	mg/L	0.00720	0.0069	mg/L	0.00720	104.45%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	-41.5	-0.0001	mg/L	0.00000	-0.0001	mg/L	0.00000	4.43%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	115.2	0.0043	mg/L	0.00096	0.0043	mg/L	0.00096	22.42%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	41.9	0.0004	mg/L	0.00008	0.0004	mg/L	0.00008	19.61%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	144.3	0.0082	mg/L	0.00489	0.0082	mg/L	0.00489	59.47%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	1.0	0.0001	mg/L	0.00061	0.0001	mg/L	0.00061	854.59%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	5.8	0.0019	mg/L	0.00052	0.0019	mg/L	0.00052	27.73%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	8.2	0.0021	mg/L	0.00011	0.0021	mg/L	0.00011	5.36%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	80.4	0.0072	mg/L	0.00073	0.0072	mg/L	0.00073	10.14%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 337.279†	749.2	0.0011	mg/L	0.00022	0.0011	mg/L	0.00022	20.02%
QC value within limits for Ti 337.279 Recovery = Not calculated								

Tl 190.801†	-1.0	-0.0003 mg/L	0.00056	-0.0003 mg/L	0.00056	213.04%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	-8.8	-0.0001 mg/L	0.00016	-0.0001 mg/L	0.00016	279.41%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	30.7	0.0003 mg/L	0.00004	0.0003 mg/L	0.00004	12.66%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	-4.7	-0.0115 mg/L	0.01068	-0.0115 mg/L	0.01068	92.64%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Sr 421.552†	197.9	0.0002 mg/L	0.00004	0.0002 mg/L	0.00004	16.25%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Al 237.313†	-27.9	-0.0056 mg/L	0.00028	-0.0056 mg/L	0.00028	5.00%
QC value within limits for Al 237.313 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 20 **Autosampler Location: 48**
Sample ID: R1510592-003L **Date Collected: 12/18/2015 10:15:41 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510592-003L

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	16175952.4	2.704	mg/L	0.0835				3.09%
Ag 328.068†	-2358.5	-0.0066	mg/L	0.00046				6.94%
As 188.979†	-0.9	-0.0004	mg/L	0.00080				190.89%
B 249.772†	5149.5	0.0305	mg/L	0.00066				2.15%
Ba 233.527†	2461.0	0.0249	mg/L	0.00033				1.33%
Be 313.107†	9760.5	0.0016	mg/L	0.00002				1.48%
Cd 226.502†	1276.8	0.0068	mg/L	0.00012				1.78%
Co 228.616†	285.8	0.0053	mg/L	0.00005				0.95%
Cr 267.716†	1949.3	0.0099	mg/L	0.00033				3.28%
Cu 324.752†	-2412.6	-0.0072	mg/L	0.00009				1.29%
Fe 259.939†	8865.3	0.1677	mg/L	0.00242				1.44%
K 766.490†	-1462.3	-0.4122	mg/L	0.01672				4.06%
Mg 279.077†	14408.4	0.8640	mg/L	0.02008				2.32%
Mn 257.610†	4631.9	0.0078	mg/L	0.00012				1.57%
Mo 202.031†	15.7	0.0006	mg/L	0.00005				8.31%
Ni 231.604†	434.9	0.0043	mg/L	0.00006				1.52%
Na 589.592†	198.1	0.0113	mg/L	0.00109				9.67%
Pb 220.353†	-550.7	-0.0377	mg/L	0.00042				1.10%
Sb 206.836†	-56.2	-0.0184	mg/L	0.00005				0.27%
Se 196.026†	-8.0	-0.0020	mg/L	0.00045				22.20%
Sn 189.927†	76.1	0.0068	mg/L	0.00003				0.51%
Ti 337.279†	509.1	0.0007	mg/L	0.00007				9.51%
Tl 190.801†	5.7	0.0015	mg/L	0.00063				41.58%
V 292.402†	-225.1	-0.0014	mg/L	0.00008				5.54%
Zn 206.200†	46.5	0.0004	mg/L	0.00003				7.20%
Ca 227.546†	-2.6	-0.0056	mg/L	0.00123				21.97%
Sr 421.552†	-300.6	-0.0004	mg/L	0.00005				14.16%
Al 237.313†	3656.4	0.7338	mg/L	0.01048				1.43%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 21 **Autosampler Location: 49**
Sample ID: R1510586-002 **Date Collected: 12/18/2015 10:21:22 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol: 50 mL**

Mean Data: R1510586-002

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	16236706.4	2.714	mg/L	0.1618				5.96%
Ag 328.068†	-2216.1	-0.0062	mg/L	0.00004				0.66%
As 188.979†	-0.8	-0.0004	mg/L	0.00026				70.61%
B 249.772†	5081.5	0.0301	mg/L	0.00028				0.92%
Ba 233.527†	2490.0	0.0251	mg/L	0.00069				2.72%
Be 313.107†	9689.4	0.0016	mg/L	0.00002				1.31%

Cd 226.502†	1289.7	0.0068	mg/L	0.00020	2.92%
Co 228.616†	290.1	0.0054	mg/L	0.00011	2.02%
Cr 267.716†	1950.3	0.0099	mg/L	0.00018	1.80%
Cu 324.752†	-2464.0	-0.0073	mg/L	0.00011	1.52%
Fe 259.939†	8948.4	0.1693	mg/L	0.00475	2.80%
K 766.490†	-1512.9	-0.4264	mg/L	0.00797	1.87%
Mg 279.077†	14434.9	0.8656	mg/L	0.01623	1.88%
Mn 257.610†	4679.3	0.0079	mg/L	0.00022	2.85%
Mo 202.031†	17.5	0.0007	mg/L	0.00007	10.75%
Ni 231.604†	437.8	0.0043	mg/L	0.00010	2.22%
Na 589.592†	179.6	0.0102	mg/L	0.00492	48.06%
Pb 220.353†	-548.9	-0.0376	mg/L	0.00149	3.98%
Sb 206.836†	-56.7	-0.0186	mg/L	0.00001	0.07%
Se 196.026†	-6.2	-0.0016	mg/L	0.00053	33.95%
Sn 189.927†	73.3	0.0066	mg/L	0.00009	1.31%
Ti 337.279†	504.8	0.0007	mg/L	0.00003	4.27%
Tl 190.801†	4.7	0.0012	mg/L	0.00043	34.78%
V 292.402†	-216.1	-0.0014	mg/L	0.00005	3.44%
Zn 206.200†	46.3	0.0004	mg/L	0.00002	3.63%
Ca 227.546†	-0.7	-0.0008	mg/L	0.00170	224.35%
Sr 421.552†	-293.8	-0.0004	mg/L	0.00003	7.68%
Al 237.313†	3690.5	0.7406	mg/L	0.02079	2.81%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 22
Sample ID: R1510586-003
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 50
Date Collected: 12/18/2015 10:27:09 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510586-003

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5823049.8	0.9733	mg/L	0.00766				0.79%
Ag 328.068†	621.3	0.0011	mg/L	0.00011				9.92%
As 188.979†	7.4	0.0022	mg/L	0.00042				18.90%
B 249.772†	6431.6	0.0392	mg/L	0.00066				1.68%
Ba 233.527†	3883.4	0.0392	mg/L	0.00020				0.51%
Be 313.107†	51.8	0.0000	mg/L	0.00003				366.01%
Cd 226.502†	29.0	0.0002	mg/L	0.00012				78.85%
Co 228.616†	-3.4	-0.0001	mg/L	0.00012				188.04%
Cr 267.716†	-473.4	-0.0005	mg/L	0.00007				13.83%
Cu 324.752†	473.0	0.0014	mg/L	0.00031				22.31%
Fe 259.939†	-285.6	-0.0054	mg/L	0.00227				42.01%
K 766.490†	8177.4	2.305	mg/L	0.0476				2.07%
Mg 279.077†	386256.2	23.18	mg/L	0.358				1.54%
Mn 257.610†	333.1	0.0006	mg/L	0.00013				23.13%
Mo 202.031†	45.1	0.0017	mg/L	0.00013				7.55%
Ni 231.604†	54.3	0.0005	mg/L	0.00004				7.14%
Na 589.592†	636206.0	36.23	mg/L	0.985				2.72%
Pb 220.353†	-17.1	-0.0008	mg/L	0.00039				49.87%
Sb 206.836†	-4.3	-0.0014	mg/L	0.00182				128.38%
Se 196.026†	0.8	0.0000	mg/L	0.00314				>999.9%
Sn 189.927†	-247.7	-0.0223	mg/L	0.00043				1.92%
Ti 337.279†	502.4	0.0007	mg/L	0.00005				6.60%
Tl 190.801†	-11.0	-0.0025	mg/L	0.00007				2.97%
V 292.402†	-17.5	-0.0001	mg/L	0.00007				61.08%
Zn 206.200†	233.7	0.0021	mg/L	0.00005				2.36%
Ca 227.546†	22167.7	54.41	mg/L	0.523				0.96%
Sr 421.552†	168252.3	0.2034	mg/L	0.00437				2.15%
Al 237.313†	106.0	0.0007	mg/L	0.00968				>999.9%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 23
Sample ID: R1510586-004
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 51
Date Collected: 12/18/2015 10:32:51 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510586-004

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5725217.2	0.9570	mg/L	0.00268				0.28%
Ag 328.068†	683.2	0.0012	mg/L	0.00020				15.85%
As 188.979†	8.9	0.0031	mg/L	0.00159				51.90%
B 249.772†	4792.7	0.0285	mg/L	0.00020				0.70%
Ba 233.527†	2475.1	0.0250	mg/L	0.00012				0.49%
Be 313.107†	-540.4	-0.0001	mg/L	0.00002				22.50%
Cd 226.502†	-30.6	-0.0002	mg/L	0.00007				38.81%
Co 228.616†	-11.2	-0.0002	mg/L	0.00002				10.71%
Cr 267.716†	188.6	0.0008	mg/L	0.00010				12.76%
Cu 324.752†	649.4	0.0019	mg/L	0.00005				2.68%
Fe 259.939†	7711.1	0.1461	mg/L	0.00001				0.01%
K 766.490†	91056.4	25.67	mg/L	0.181				0.71%
Mg 279.077†	27053.9	1.623	mg/L	0.0024				0.15%
Mn 257.610†	4012.6	0.0067	mg/L	0.00002				0.35%
Mo 202.031†	32.4	0.0012	mg/L	0.00004				2.90%
Ni 231.604†	55.9	0.0005	mg/L	0.00012				22.22%
Na 589.592†	138532.0	7.889	mg/L	0.0294				0.37%
Pb 220.353†	-3.8	0.0002	mg/L	0.00113				629.43%
Sb 206.836†	0.6	0.0002	mg/L	0.00055				301.96%
Se 196.026†	-14.3	-0.0033	mg/L	0.00222				68.31%
Sn 189.927†	-274.8	-0.0247	mg/L	0.00014				0.57%
Ti 337.279†	1113.6	0.0016	mg/L	0.00024				15.04%
Tl 190.801†	-10.5	-0.0027	mg/L	0.00056				20.85%
V 292.402†	104.2	0.0007	mg/L	0.00003				3.79%
Zn 206.200†	343.4	0.0031	mg/L	0.00008				2.53%
Ca 227.546†	25911.1	63.60	mg/L	0.286				0.45%
Sr 421.552†	149091.8	0.1802	mg/L	0.00097				0.54%
Al 237.313†	315.9	0.0410	mg/L	0.00396				9.66%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 24
Sample ID: R1510586-005
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 52
Date Collected: 12/18/2015 10:38:37 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Mean Data: R1510586-005

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5564926.8	0.9302	mg/L	0.01652				1.78%
Ag 328.068†	775.7	0.0011	mg/L	0.00031				26.74%
As 188.979†	14.3	0.0042	mg/L	0.00007				1.67%
B 249.772†	30410.9	0.1849	mg/L	0.00632				3.42%
Ba 233.527†	3147.0	0.0318	mg/L	0.00014				0.43%
Be 313.107†	-617.0	-0.0001	mg/L	0.00006				59.47%
Cd 226.502†	-67.8	-0.0004	mg/L	0.00018				48.21%
Co 228.616†	-13.4	-0.0002	mg/L	0.00019				76.19%
Cr 267.716†	-1202.5	-0.0009	mg/L	0.00016				17.61%
Cu 324.752†	1091.5	0.0032	mg/L	0.00054				16.77%
Fe 259.939†	3477.7	0.0659	mg/L	0.00228				3.46%
K 766.490†	68303.6	19.25	mg/L	0.416				2.16%
Mg 279.077†	1001751.6	60.12	mg/L	1.029				1.71%
Mn 257.610†	4081.1	0.0068	mg/L	0.00003				0.48%
Mo 202.031†	49.1	0.0018	mg/L	0.00008				4.44%
Ni 231.604†	279.0	0.0027	mg/L	0.00010				3.69%
Na 589.592†	1198013.7	68.22	mg/L	1.233				1.81%
Pb 220.353†	11.9	0.0015	mg/L	0.00173				117.63%
Sb 206.836†	-1.7	-0.0006	mg/L	0.00081				143.79%
Se 196.026†	-3.9	-0.0018	mg/L	0.00116				63.61%
Sn 189.927†	-289.6	-0.0261	mg/L	0.00096				3.69%
Ti 337.279†	701.6	0.0010	mg/L	0.00008				8.18%
Tl 190.801†	-27.4	-0.0061	mg/L	0.00065				10.53%
V 292.402†	259.3	0.0017	mg/L	0.00007				4.43%
Zn 206.200†	408.6	0.0037	mg/L	0.00001				0.20%
Ca 227.546†	37875.9	92.97	mg/L	3.114				3.35%
Sr 421.552†	220857.7	0.2670	mg/L	0.00483				1.81%

Al 237.313†	53.3	-0.0236 mg/L	0.01659		70.45%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 25 | **Autosampler Location: 53**
Sample ID: R1510586-006 | **Date Collected: 12/18/2015 10:44:19 AM**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol: 50 mL**

Mean Data: R1510586-006

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 371.029	5568965.0	0.9309	mg/L	0.00370				0.40%
Ag 328.068†	1003.5	0.0018	mg/L	0.00104				58.88%
As 188.979†	10.1	0.0027	mg/L	0.00014				5.08%
B 249.772†	51303.6	0.3121	mg/L	0.00339				1.09%
Ba 233.527†	7062.5	0.0713	mg/L	0.00035				0.48%
Be 313.107†	-1378.1	-0.0002	mg/L	0.00000				1.10%
Cd 226.502†	-88.0	-0.0005	mg/L	0.00007				14.91%
Co 228.616†	-25.9	-0.0005	mg/L	0.00015				30.63%
Cr 267.716†	-1025.9	-0.0022	mg/L	0.00004				1.82%
Cu 324.752†	860.8	0.0026	mg/L	0.00019				7.24%
Fe 259.939†	4350.3	0.0824	mg/L	0.00109				1.33%
K 766.490†	84812.4	23.91	mg/L	0.284				1.19%
Mg 279.077†	617052.1	37.03	mg/L	0.390				1.05%
Mn 257.610†	25912.9	0.0433	mg/L	0.00021				0.48%
Mo 202.031†	43.8	0.0016	mg/L	0.00032				19.78%
Ni 231.604†	357.3	0.0035	mg/L	0.00000				0.03%
Na 589.592†	901967.9	51.36	mg/L	0.558				1.09%
Pb 220.353†	16.8	0.0018	mg/L	0.00039				21.29%
Sb 206.836†	-5.7	-0.0019	mg/L	0.00089				47.70%
Se 196.026†	-10.7	-0.0030	mg/L	0.00150				50.52%
Sn 189.927†	-362.7	-0.0326	mg/L	0.00039				1.19%
Ti 337.279†	338.7	0.0005	mg/L	0.00016				32.84%
Tl 190.801†	-23.1	-0.0054	mg/L	0.00139				25.82%
V 292.402†	4.1	0.0000	mg/L	0.00002				55.83%
Zn 206.200†	257.3	0.0023	mg/L	0.00017				7.38%
Ca 227.546†	39126.7	96.04	mg/L	1.077				1.12%
Sr 421.552†	223832.5	0.2706	mg/L	0.00270				1.00%
Al 237.313†	-240.1	-0.0832	mg/L	0.00508				6.10%

Sample conc. not calculated. Sample Prep. Vol. AND Initial Vol. required OR sample units incorrect.

Sequence No.: 26 | **Autosampler Location: 3**
Sample ID: CCV | **Date Collected: 12/18/2015 10:49:59 AM**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 371.029	5730041.4	0.9578	mg/L	0.00471				0.49%
Ag 328.068†	173782.7	0.4914	mg/L	0.00014	0.4914	mg/L	0.00014	0.03%
QC value within limits for Ag 328.068 Recovery = 98.29%								
As 188.979†	2370.1	1.012	mg/L	0.0006	1.012	mg/L	0.0006	0.06%
QC value within limits for As 188.979 Recovery = 101.17%								
B 249.772†	407272.1	2.457	mg/L	0.0066	2.457	mg/L	0.0066	0.27%
QC value within limits for B 249.772 Recovery = 98.27%								
Ba 233.527†	1022064.6	10.32	mg/L	0.009	10.32	mg/L	0.009	0.09%
QC value within limits for Ba 233.527 Recovery = 103.23%								
Be 313.107†	1502869.1	0.2540	mg/L	0.00038	0.2540	mg/L	0.00038	0.15%
QC value within limits for Be 313.107 Recovery = 101.60%								
Cd 226.502†	94809.1	0.5025	mg/L	0.00091	0.5025	mg/L	0.00091	0.18%
QC value within limits for Cd 226.502 Recovery = 100.50%								
Co 228.616†	135806.4	2.509	mg/L	0.0014	2.509	mg/L	0.0014	0.05%
QC value within limits for Co 228.616 Recovery = 100.36%								
Cr 267.716†	104538.5	0.5297	mg/L	0.00116	0.5297	mg/L	0.00116	0.22%
QC value within limits for Cr 267.716 Recovery = 105.94%								

Cu 324.752†	421172.3	1.252 mg/L	0.0020	1.252 mg/L	0.0020	0.16%
QC value within limits for Cu 324.752 Recovery = 100.17%						
Fe 259.939†	268771.5	5.089 mg/L	0.0029	5.089 mg/L	0.0029	0.06%
QC value within limits for Fe 259.939 Recovery = 101.77%						
K 766.490†	89994.8	25.37 mg/L	0.158	25.37 mg/L	0.158	0.62%
QC value within limits for K 766.490 Recovery = 101.47%						
Mg 279.077†	414354.8	24.85 mg/L	0.027	24.85 mg/L	0.027	0.11%
QC value within limits for Mg 279.077 Recovery = 99.38%						
Mn 257.610†	465955.7	0.7791 mg/L	0.00099	0.7791 mg/L	0.00099	0.13%
QC value within limits for Mn 257.610 Recovery = 103.88%						
Mo 202.031†	66336.9	2.469 mg/L	0.0083	2.469 mg/L	0.0083	0.34%
QC value within limits for Mo 202.031 Recovery = 98.77%						
Ni 231.604†	211720.3	2.078 mg/L	0.0020	2.078 mg/L	0.0020	0.09%
QC value within limits for Ni 231.604 Recovery = 103.88%						
Na 589.592†	451255.6	25.70 mg/L	0.135	25.70 mg/L	0.135	0.52%
QC value within limits for Na 589.592 Recovery = 102.79%						
Pb 220.353†	7502.3	0.5114 mg/L	0.00573	0.5114 mg/L	0.00573	1.12%
QC value within limits for Pb 220.353 Recovery = 102.28%						
Sb 206.836†	15234.5	4.978 mg/L	0.0256	4.978 mg/L	0.0256	0.51%
QC value within limits for Sb 206.836 Recovery = 99.56%						
Se 196.026†	1924.7	0.4816 mg/L	0.00902	0.4816 mg/L	0.00902	1.87%
QC value within limits for Se 196.026 Recovery = 96.31%						
Sn 189.927†	55607.2	5.003 mg/L	0.0310	5.003 mg/L	0.0310	0.62%
QC value within limits for Sn 189.927 Recovery = 100.05%						
Ti 337.279†	1742713.7	2.513 mg/L	0.0032	2.513 mg/L	0.0032	0.13%
QC value within limits for Ti 337.279 Recovery = 100.54%						
Tl 190.801†	4085.2	1.057 mg/L	0.0012	1.057 mg/L	0.0012	0.11%
QC value within limits for Tl 190.801 Recovery = 105.74%						
V 292.402†	390447.2	2.494 mg/L	0.0053	2.494 mg/L	0.0053	0.21%
QC value within limits for V 292.402 Recovery = 99.74%						
Zn 206.200†	112704.5	1.024 mg/L	0.0011	1.024 mg/L	0.0011	0.11%
QC value within limits for Zn 206.200 Recovery = 102.44%						
Ca 227.546†	10528.1	25.87 mg/L	0.174	25.87 mg/L	0.174	0.67%
QC value within limits for Ca 227.546 Recovery = 103.48%						
Sr 421.552†	2115769.3	2.558 mg/L	0.0047	2.558 mg/L	0.0047	0.19%
QC value within limits for Sr 421.552 Recovery = 102.30%						
Al 237.313†	49629.4	9.983 mg/L	0.0711	9.983 mg/L	0.0711	0.71%
QC value within limits for Al 237.313 Recovery = 99.83%						

All analyte(s) passed QC.

Sequence No.: 27 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 12/18/2015 10:54:11 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc. Units	Calib Std.Dev.	Sample Conc. Units	Sample Std.Dev.	RSD
Y 371.029	5790264.9	0.9679 mg/L	0.00138			0.14%
Ag 328.068†	187.1	0.0005 mg/L	0.00033	0.0005 mg/L	0.00033	62.01%
QC value within limits for Ag 328.068 Recovery = Not calculated						
As 188.979†	6.5	0.0028 mg/L	0.00054	0.0028 mg/L	0.00054	19.47%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.772†	3421.9	0.0209 mg/L	0.00196	0.0209 mg/L	0.00196	9.38%
QC value within limits for B 249.772 Recovery = Not calculated						
Ba 233.527†	-23.6	-0.0002 mg/L	0.00008	-0.0002 mg/L	0.00008	32.05%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-112.5	0.0000 mg/L	0.00001	0.0000 mg/L	0.00001	76.95%
QC value within limits for Be 313.107 Recovery = Not calculated						
Cd 226.502†	-34.8	-0.0002 mg/L	0.00001	-0.0002 mg/L	0.00001	6.08%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-0.1	0.0000 mg/L	0.00015	0.0000 mg/L	0.00015	>999.9%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-135.9	-0.0007 mg/L	0.00047	-0.0007 mg/L	0.00047	67.68%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	217.9	0.0006 mg/L	0.00003	0.0006 mg/L	0.00003	5.29%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 259.939†	-280.2	-0.0053 mg/L	0.00012	-0.0053 mg/L	0.00012	2.20%
QC value within limits for Fe 259.939 Recovery = Not calculated						

K 766.490†	406.3	0.1145 mg/L	0.02428	0.1145 mg/L	0.02428	21.20%
QC value within limits for K 766.490 Recovery = Not calculated						
Mg 279.077†	-425.4	-0.0255 mg/L	0.00394	-0.0255 mg/L	0.00394	15.44%
QC value within limits for Mg 279.077 Recovery = Not calculated						
Mn 257.610†	-202.8	-0.0003 mg/L	0.00001	-0.0003 mg/L	0.00001	3.58%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	111.6	0.0042 mg/L	0.00093	0.0042 mg/L	0.00093	22.35%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Ni 231.604†	23.4	0.0002 mg/L	0.00008	0.0002 mg/L	0.00008	32.63%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Na 589.592†	388.5	0.0221 mg/L	0.01136	0.0221 mg/L	0.01136	51.35%
QC value within limits for Na 589.592 Recovery = Not calculated						
Pb 220.353†	14.3	0.0010 mg/L	0.00051	0.0010 mg/L	0.00051	52.18%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	9.1	0.0030 mg/L	0.00062	0.0030 mg/L	0.00062	20.94%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	11.9	0.0030 mg/L	0.00077	0.0030 mg/L	0.00077	25.84%
QC value within limits for Se 196.026 Recovery = Not calculated						
Sn 189.927†	80.6	0.0073 mg/L	0.00096	0.0073 mg/L	0.00096	13.21%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Ti 337.279†	905.1	0.0013 mg/L	0.00014	0.0013 mg/L	0.00014	10.86%
QC value within limits for Ti 337.279 Recovery = Not calculated						
Tl 190.801†	-3.8	-0.0010 mg/L	0.00105	-0.0010 mg/L	0.00105	106.52%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	25.7	0.0002 mg/L	0.00005	0.0002 mg/L	0.00005	29.37%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	25.6	0.0002 mg/L	0.00006	0.0002 mg/L	0.00006	25.43%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Ca 227.546†	-16.1	-0.0396 mg/L	0.01203	-0.0396 mg/L	0.01203	30.39%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Sr 421.552†	157.7	0.0002 mg/L	0.00011	0.0002 mg/L	0.00011	56.10%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Al 237.313†	-139.5	-0.0280 mg/L	0.00180	-0.0280 mg/L	0.00180	6.45%
QC value within limits for Al 237.313 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 28
Sample ID: MRL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/18/2015 10:59:50 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: MRL

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5915100.3	0.9887	mg/L	0.01205				1.22%
Ag 328.068†	3557.4	0.0101	mg/L	0.00028	0.0101	mg/L	0.00028	2.78%
QC value within limits for Ag 328.068 Recovery = 100.55%								
As 188.979†	48.2	0.0206	mg/L	0.00104	0.0206	mg/L	0.00104	5.05%
QC value within limits for As 188.979 Recovery = 102.85%								
B 249.772†	33227.0	0.2019	mg/L	0.00569	0.2019	mg/L	0.00569	2.82%
QC value within limits for B 249.772 Recovery = 100.94%								
Ba 233.527†	20882.0	0.2109	mg/L	0.00200	0.2109	mg/L	0.00200	0.95%
QC value within limits for Ba 233.527 Recovery = 105.45%								
Be 313.107†	29543.7	0.0050	mg/L	0.00005	0.0050	mg/L	0.00005	1.06%
QC value within limits for Be 313.107 Recovery = 99.86%								
Cd 226.502†	1866.5	0.0099	mg/L	0.00002	0.0099	mg/L	0.00002	0.22%
QC value within limits for Cd 226.502 Recovery = 98.91%								
Co 228.616†	2803.3	0.0518	mg/L	0.00040	0.0518	mg/L	0.00040	0.77%
QC value within limits for Co 228.616 Recovery = 103.58%								
Cr 267.716†	2100.6	0.0107	mg/L	0.00011	0.0107	mg/L	0.00011	1.06%
QC value within limits for Cr 267.716 Recovery = 106.93%								
Cu 324.752†	8566.6	0.0255	mg/L	0.00094	0.0255	mg/L	0.00094	3.70%
QC value within limits for Cu 324.752 Recovery = 101.87%								
Fe 259.939†	5636.1	0.1067	mg/L	0.00139	0.1067	mg/L	0.00139	1.30%
QC value within limits for Fe 259.939 Recovery = 106.71%								
K 766.490†	3487.1	0.9829	mg/L	0.01194	0.9829	mg/L	0.01194	1.21%
QC value within limits for K 766.490 Recovery = 98.29%								
Mg 279.077†	17436.1	1.046	mg/L	0.0132	1.046	mg/L	0.0132	1.26%
QC value within limits for Mg 279.077 Recovery = 104.59%								

Mn 257.610†	9342.6	0.0156 mg/L	0.00023	0.0156 mg/L	0.00023	1.50%
QC value within limits for Mn 257.610 Recovery = 104.15%						
Mo 202.031†	695.1	0.0259 mg/L	0.00040	0.0259 mg/L	0.00040	1.55%
QC value within limits for Mo 202.031 Recovery = 103.49%						
Ni 231.604†	4246.3	0.0417 mg/L	0.00050	0.0417 mg/L	0.00050	1.19%
QC value within limits for Ni 231.604 Recovery = 104.18%						
Na 589.592†	19088.9	1.087 mg/L	0.0280	1.087 mg/L	0.0280	2.57%
QC value within limits for Na 589.592 Recovery = 108.70%						
Pb 220.353†	133.9	0.0091 mg/L	0.00136	0.0091 mg/L	0.00136	14.90%
QC value within limits for Pb 220.353 Recovery = 91.26%						
Sb 206.836†	171.1	0.0559 mg/L	0.00064	0.0559 mg/L	0.00064	1.14%
QC value within limits for Sb 206.836 Recovery = 93.18%						
Se 196.026†	40.2	0.0100 mg/L	0.00022	0.0100 mg/L	0.00022	2.20%
QC value within limits for Se 196.026 Recovery = 100.45%						
Sn 189.927†	5660.3	0.5092 mg/L	0.00839	0.5092 mg/L	0.00839	1.65%
QC value within limits for Sn 189.927 Recovery = 101.85%						
Ti 337.279†	34992.5	0.0505 mg/L	0.00085	0.0505 mg/L	0.00085	1.69%
QC value within limits for Ti 337.279 Recovery = 100.94%						
Tl 190.801†	78.8	0.0204 mg/L	0.00051	0.0204 mg/L	0.00051	2.48%
QC value within limits for Tl 190.801 Recovery = 101.98%						
V 292.402†	7751.9	0.0495 mg/L	0.00111	0.0495 mg/L	0.00111	2.24%
QC value within limits for V 292.402 Recovery = 99.01%						
Zn 206.200†	2279.1	0.0207 mg/L	0.00028	0.0207 mg/L	0.00028	1.34%
QC value within limits for Zn 206.200 Recovery = 103.57%						
Ca 227.546†	400.7	0.9843 mg/L	0.03412	0.9843 mg/L	0.03412	3.47%
QC value within limits for Ca 227.546 Recovery = 98.43%						
Sr 421.552†	84679.8	0.1024 mg/L	0.00228	0.1024 mg/L	0.00228	2.22%
QC value within limits for Sr 421.552 Recovery = 102.36%						
Al 237.313†	1026.0	0.2062 mg/L	0.00890	0.2062 mg/L	0.00890	4.32%
QC value within limits for Al 237.313 Recovery = 103.12%						

All analyte(s) passed QC.

Sequence No.: 29 **Autosampler Location: 7**
Sample ID: ICSA **Date Collected: 12/18/2015 11:05:32 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5228566.5	0.8740	mg/L	0.00678				0.78%
Ag 328.068†	-3596.1	0.0016	mg/L	0.00041	0.0016	mg/L	0.00041	25.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	19.8	-0.0013	mg/L	0.00100	-0.0013	mg/L	0.00100	78.26%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	69846.9	-0.0207	mg/L	0.00075	-0.0207	mg/L	0.00075	3.60%
Ba 233.527†	-525.5	-0.0066	mg/L	0.00033	-0.0066	mg/L	0.00033	4.96%
Be 313.107†	-1346.8	-0.0002	mg/L	0.00005	-0.0002	mg/L	0.00005	20.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	606.7	-0.0086	mg/L	0.00023	-0.0086	mg/L	0.00023	2.69%
QC value less than the lower limit for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-84.6	-0.0016	mg/L	0.00021	-0.0016	mg/L	0.00021	13.14%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-6086.3	-0.0057	mg/L	0.00034	-0.0057	mg/L	0.00034	5.97%
QC value less than the lower limit for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	-1046.3	-0.0031	mg/L	0.00009	-0.0031	mg/L	0.00009	2.74%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	4895070.1	92.66	mg/L	0.545	92.66	mg/L	0.545	0.59%
QC value within limits for Fe 259.939 Recovery = 92.66%								
K 766.490†	606.7	0.1710	mg/L	0.02578	0.1710	mg/L	0.02578	15.07%
Mg 279.077†	4110520.0	246.3	mg/L	1.31	246.3	mg/L	1.31	0.53%
QC value within limits for Mg 279.077 Recovery = 98.53%								
Mn 257.610†	-10710.6	0.0002	mg/L	0.00011	0.0002	mg/L	0.00011	69.91%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-157.4	-0.0059	mg/L	0.00010	-0.0059	mg/L	0.00010	1.66%
Ni 231.604†	6.1	0.0001	mg/L	0.00004	0.0001	mg/L	0.00004	71.68%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	1857.6	0.1058	mg/L	0.00039	0.1058	mg/L	0.00039	0.37%
Pb 220.353†	553.3	0.0127	mg/L	0.00102	0.0127	mg/L	0.00102	8.03%

QC value greater than the upper limit for Pb 220.353 Recovery = Not calculated

Sb 206.836†	71.6	0.0000 mg/L	0.00016	0.0000 mg/L	0.00016	348.81%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	26.2	0.0039 mg/L	0.00265	0.0039 mg/L	0.00265	67.10%
QC value within limits for Se 196.026 Recovery = Not calculated							
Sn 189.927†	-634.2	-0.0571 mg/L	0.00065	-0.0571 mg/L	0.00065	1.14%
Ti 337.279†	569.9	0.0008 mg/L	0.00017	0.0008 mg/L	0.00017	20.81%
Tl 190.801†	-49.6	0.0016 mg/L	0.00088	0.0016 mg/L	0.00088	54.59%
QC value within limits for Tl 190.801 Recovery = Not calculated							
V 292.402†	-1467.9	-0.0022 mg/L	0.00016	-0.0022 mg/L	0.00016	7.20%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 206.200†	715.3	0.0065 mg/L	0.00001	0.0065 mg/L	0.00001	0.10%
QC value within limits for Zn 206.200 Recovery = Not calculated							
Ca 227.546†	108025.1	265.7 mg/L	3.29	265.7 mg/L	3.29	1.24%
QC value within limits for Ca 227.546 Recovery = 106.26%							
Sr 421.552†	3181.5	0.0038 mg/L	0.00010	0.0038 mg/L	0.00010	2.58%
Al 237.313†	1289660.9	259.1 mg/L	1.78	259.1 mg/L	1.78	0.69%
QC value within limits for Al 237.313 Recovery = 103.64%							

QC Failed. Continue with analysis.

Sequence No.: 30 **Autosampler Location: 8**
Sample ID: ICSAB **Date Collected: 12/18/2015 11:11:18 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5118702.5	0.8556	mg/L	0.00761				0.89%
Ag 328.068†	74731.3	0.2231	mg/L	0.00272	0.2231	mg/L	0.00272	1.22%
QC value within limits for Ag 328.068 Recovery = 111.55%								
As 188.979†	261.0	0.1015	mg/L	0.00237	0.1015	mg/L	0.00237	2.33%
QC value within limits for As 188.979 Recovery = 101.49%								
B 249.772†	71300.7	-0.0218	mg/L	0.00091	-0.0218	mg/L	0.00091	4.20%
Ba 233.527†	53048.2	0.5345	mg/L	0.00609	0.5345	mg/L	0.00609	1.14%
QC value within limits for Ba 233.527 Recovery = 106.89%								
Be 313.107†	3139864.3	0.5307	mg/L	0.00380	0.5307	mg/L	0.00380	0.72%
QC value within limits for Be 313.107 Recovery = 106.13%								
Cd 226.502†	194313.1	1.019	mg/L	0.0107	1.019	mg/L	0.0107	1.05%
QC value within limits for Cd 226.502 Recovery = 101.93%								
Co 228.616†	26626.5	0.4919	mg/L	0.00599	0.4919	mg/L	0.00599	1.22%
QC value within limits for Co 228.616 Recovery = 98.38%								
Cr 267.716†	100926.3	0.5346	mg/L	0.00541	0.5346	mg/L	0.00541	1.01%
QC value within limits for Cr 267.716 Recovery = 106.93%								
Cu 324.752†	181639.4	0.5400	mg/L	0.00450	0.5400	mg/L	0.00450	0.83%
QC value within limits for Cu 324.752 Recovery = 108.00%								
Fe 259.939†	5002962.2	94.70	mg/L	0.758	94.70	mg/L	0.758	0.80%
QC value within limits for Fe 259.939 Recovery = 94.70%								
K 766.490†	503.0	0.1418	mg/L	0.00103	0.1418	mg/L	0.00103	0.72%
Mg 279.077†	4202402.0	251.8	mg/L	1.93	251.8	mg/L	1.93	0.77%
QC value within limits for Mg 279.077 Recovery = 100.73%								
Mn 257.610†	305323.8	0.5284	mg/L	0.00549	0.5284	mg/L	0.00549	1.04%
QC value within limits for Mn 257.610 Recovery = 105.67%								
Mo 202.031†	-170.8	-0.0064	mg/L	0.00055	-0.0064	mg/L	0.00055	8.69%
Ni 231.604†	102901.9	1.010	mg/L	0.0099	1.010	mg/L	0.0099	0.98%
QC value within limits for Ni 231.604 Recovery = 100.98%								
Na 589.592†	1851.2	0.1054	mg/L	0.00372	0.1054	mg/L	0.00372	3.53%
Pb 220.353†	1349.4	0.0665	mg/L	0.00012	0.0665	mg/L	0.00012	0.19%
QC value greater than the upper limit for Pb 220.353 Recovery = 133.07%								
Sb 206.836†	2027.1	0.6385	mg/L	0.00585	0.6385	mg/L	0.00585	0.92%
QC value within limits for Sb 206.836 Recovery = 106.42%								
Se 196.026†	237.8	0.0569	mg/L	0.00020	0.0569	mg/L	0.00020	0.36%
QC value within limits for Se 196.026 Recovery = 113.79%								
Sn 189.927†	-664.6	-0.0598	mg/L	0.00014	-0.0598	mg/L	0.00014	0.24%
Ti 337.279†	383.7	0.0006	mg/L	0.00006	0.0006	mg/L	0.00006	11.28%
Tl 190.801†	346.7	0.1044	mg/L	0.00025	0.1044	mg/L	0.00025	0.23%
QC value within limits for Tl 190.801 Recovery = 104.41%								
V 292.402†	79548.1	0.5153	mg/L	0.00649	0.5153	mg/L	0.00649	1.26%
QC value within limits for V 292.402 Recovery = 103.06%								

Zn 206.200†	111758.3	1.016 mg/L	0.0129	1.016 mg/L	0.0129	1.27%
QC value within limits for Zn 206.200 Recovery = 101.58%						
Ca 227.546†	111808.4	275.0 mg/L	2.50	275.0 mg/L	2.50	0.91%
QC value within limits for Ca 227.546 Recovery = 109.98%						
Sr 421.552†	3146.6	0.0038 mg/L	0.00001	0.0038 mg/L	0.00001	0.33%
Al 237.313†	1319400.3	265.1 mg/L	2.05	265.1 mg/L	2.05	0.77%
QC value within limits for Al 237.313 Recovery = 106.03%						

QC Failed. Continue with analysis.

Sequence No.: 31 **Autosampler Location: 13**
Sample ID: HLCCV2 **Date Collected: 12/18/2015 11:17:01 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: HLCCV2

Analyte	Mean Corrected Intensity	Calib Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	5020712.3	0.8392 mg/L	0.00292			0.35%
Ag 328.068†	769628.6	2.179 mg/L	0.0059	2.179 mg/L	0.0059	0.27%
QC value within limits for Ag 328.068 Recovery = 108.93%						
As 188.979†	9589.3	4.080 mg/L	0.1015	4.080 mg/L	0.1015	2.49%
QC value within limits for As 188.979 Recovery = 102.00%						
B 249.772†	1743638.4	10.33 mg/L	0.046	10.33 mg/L	0.046	0.45%
QC value within limits for B 249.772 Recovery = 103.30%						
Ba 233.527†	3856155.9	38.94 mg/L	0.071	38.94 mg/L	0.071	0.18%
QC value within limits for Ba 233.527 Recovery = 97.36%						
Be 313.107†	5882624.8	0.9942 mg/L	0.00359	0.9942 mg/L	0.00359	0.36%
QC value within limits for Be 313.107 Recovery = 99.42%						
Cd 226.502†	371382.1	1.969 mg/L	0.0025	1.969 mg/L	0.0025	0.13%
QC value within limits for Cd 226.502 Recovery = 98.46%						
Co 228.616†	514424.1	9.504 mg/L	0.0112	9.504 mg/L	0.0112	0.12%
QC value within limits for Co 228.616 Recovery = 95.04%						
Cr 267.716†	2039877.1	10.33 mg/L	0.018	10.33 mg/L	0.018	0.17%
QC value within limits for Cr 267.716 Recovery = 103.34%						
Cu 324.752†	1795970.8	5.339 mg/L	0.0235	5.339 mg/L	0.0235	0.44%
QC value within limits for Cu 324.752 Recovery = 106.79%						
Fe 259.939†	2544307.9	48.07 mg/L	0.049	48.07 mg/L	0.049	0.10%
QC value within limits for Fe 259.939 Recovery = 96.13%						
K 766.490†	597468.4	168.4 mg/L	0.20	168.4 mg/L	0.20	0.12%
QC value greater than the upper limit for K 766.490 Recovery = 112.28%						
Mg 279.077†	7993786.2	479.5 mg/L	1.43	479.5 mg/L	1.43	0.30%
QC value within limits for Mg 279.077 Recovery = 95.91%						
Mn 257.610†	5914615.6	9.892 mg/L	0.0401	9.892 mg/L	0.0401	0.41%
QC value within limits for Mn 257.610 Recovery = 98.92%						
Mo 202.031†	270415.5	10.07 mg/L	0.022	10.07 mg/L	0.022	0.22%
QC value within limits for Mo 202.031 Recovery = 100.66%						
Ni 231.604†	788414.4	7.737 mg/L	0.0083	7.737 mg/L	0.0083	0.11%
QC value within limits for Ni 231.604 Recovery = 96.71%						
Na 589.592†	2870011.7	163.4 mg/L	0.06	163.4 mg/L	0.06	0.03%
QC value within limits for Na 589.592 Recovery = 108.96%						
Pb 220.353†	142092.8	9.670 mg/L	0.1509	9.670 mg/L	0.1509	1.56%
QC value within limits for Pb 220.353 Recovery = 96.70%						
Sb 206.836†	888.7	0.2440 mg/L	0.00476	0.2440 mg/L	0.00476	1.95%
Se 196.026†	8074.0	2.015 mg/L	0.0546	2.015 mg/L	0.0546	2.71%
QC value within limits for Se 196.026 Recovery = 100.76%						
Sn 189.927†	-1048.0	-0.0943 mg/L	0.00121	-0.0943 mg/L	0.00121	1.28%
Ti 337.279†	7202499.5	10.39 mg/L	0.046	10.39 mg/L	0.046	0.44%
QC value within limits for Ti 337.279 Recovery = 103.88%						
Tl 190.801†	14315.2	3.715 mg/L	0.0716	3.715 mg/L	0.0716	1.93%
QC value within limits for Tl 190.801 Recovery = 92.87%						
V 292.402†	1582255.5	10.11 mg/L	0.021	10.11 mg/L	0.021	0.20%
QC value within limits for V 292.402 Recovery = 101.07%						
Zn 206.200†	425015.1	3.863 mg/L	0.0029	3.863 mg/L	0.0029	0.08%
QC value within limits for Zn 206.200 Recovery = 96.57%						
Ca 227.546†	110974.9	272.7 mg/L	4.52	272.7 mg/L	4.52	1.66%
QC value within limits for Ca 227.546 Recovery = 109.06%						
Sr 421.552†	9031665.0	10.92 mg/L	0.043	10.92 mg/L	0.043	0.40%
QC value within limits for Sr 421.552 Recovery = 109.17%						
Al 237.313†	2552261.6	511.3 mg/L	0.86	511.3 mg/L	0.86	0.17%

QC value within limits for Al 237.313 Recovery = 102.26%
QC Failed. Continue with analysis.

Sequence No.: 32
Sample ID: HLCCV1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/18/2015 11:21:26 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: HLCCV1

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5490696.0	0.9178	mg/L	0.00336				0.37%
Ag 328.068†	356279.5	1.007	mg/L	0.0043	1.007	mg/L	0.0043	0.43%
QC value within limits for Ag 328.068 Recovery = 100.75%								
As 188.979†	4792.8	2.046	mg/L	0.0202	2.046	mg/L	0.0202	0.99%
QC value within limits for As 188.979 Recovery = 102.29%								
B 249.772†	831391.8	5.017	mg/L	0.0306	5.017	mg/L	0.0306	0.61%
QC value within limits for B 249.772 Recovery = 100.33%								
Ba 233.527†	1978427.4	19.98	mg/L	0.057	19.98	mg/L	0.057	0.29%
QC value within limits for Ba 233.527 Recovery = 99.91%								
Be 313.107†	2947208.9	0.4981	mg/L	0.00231	0.4981	mg/L	0.00231	0.46%
QC value within limits for Be 313.107 Recovery = 99.62%								
Cd 226.502†	188941.4	1.001	mg/L	0.0038	1.001	mg/L	0.0038	0.38%
QC value within limits for Cd 226.502 Recovery = 100.14%								
Co 228.616†	271164.9	5.010	mg/L	0.0191	5.010	mg/L	0.0191	0.38%
QC value within limits for Co 228.616 Recovery = 100.19%								
Cr 267.716†	199753.2	1.012	mg/L	0.0026	1.012	mg/L	0.0026	0.26%
QC value within limits for Cr 267.716 Recovery = 101.25%								
Cu 324.752†	843823.5	2.509	mg/L	0.0133	2.509	mg/L	0.0133	0.53%
QC value within limits for Cu 324.752 Recovery = 100.35%								
Fe 259.939†	534898.7	10.13	mg/L	0.039	10.13	mg/L	0.039	0.38%
QC value within limits for Fe 259.939 Recovery = 101.27%								
K 766.490†	178705.7	50.37	mg/L	0.028	50.37	mg/L	0.028	0.06%
QC value within limits for K 766.490 Recovery = 100.75%								
Mg 279.077†	837837.8	50.24	mg/L	0.211	50.24	mg/L	0.211	0.42%
QC value within limits for Mg 279.077 Recovery = 100.48%								
Mn 257.610†	904746.3	1.513	mg/L	0.0062	1.513	mg/L	0.0062	0.41%
QC value within limits for Mn 257.610 Recovery = 100.86%								
Mo 202.031†	133818.3	4.981	mg/L	0.0179	4.981	mg/L	0.0179	0.36%
QC value within limits for Mo 202.031 Recovery = 99.62%								
Ni 231.604†	408367.2	4.007	mg/L	0.0142	4.007	mg/L	0.0142	0.35%
QC value within limits for Ni 231.604 Recovery = 100.19%								
Na 589.592†	925189.3	52.69	mg/L	0.062	52.69	mg/L	0.062	0.12%
QC value within limits for Na 589.592 Recovery = 105.37%								
Pb 220.353†	14584.8	0.9941	mg/L	0.00778	0.9941	mg/L	0.00778	0.78%
QC value within limits for Pb 220.353 Recovery = 99.41%								
Sb 206.836†	29784.6	9.732	mg/L	0.0097	9.732	mg/L	0.0097	0.10%
QC value within limits for Sb 206.836 Recovery = 97.32%								
Se 196.026†	3942.3	0.9864	mg/L	0.01808	0.9864	mg/L	0.01808	1.83%
QC value within limits for Se 196.026 Recovery = 98.64%								
Sn 189.927†	111978.4	10.07	mg/L	0.044	10.07	mg/L	0.044	0.44%
QC value within limits for Sn 189.927 Recovery = 100.74%								
Ti 337.279†	3507272.8	5.058	mg/L	0.0205	5.058	mg/L	0.0205	0.41%
QC value within limits for Ti 337.279 Recovery = 101.17%								
Tl 190.801†	7707.6	1.995	mg/L	0.0083	1.995	mg/L	0.0083	0.41%
QC value within limits for Tl 190.801 Recovery = 99.76%								
V 292.402†	783572.6	5.004	mg/L	0.0221	5.004	mg/L	0.0221	0.44%
QC value within limits for V 292.402 Recovery = 100.08%								
Zn 206.200†	219249.0	1.993	mg/L	0.0087	1.993	mg/L	0.0087	0.43%
QC value within limits for Zn 206.200 Recovery = 99.64%								
Ca 227.546†	20451.8	50.26	mg/L	0.145	50.26	mg/L	0.145	0.29%
QC value within limits for Ca 227.546 Recovery = 100.51%								
Sr 421.552†	4361137.1	5.272	mg/L	0.1604	5.272	mg/L	0.1604	3.04%
QC value within limits for Sr 421.552 Recovery = 105.43%								
Al 237.313†	100906.1	20.30	mg/L	0.041	20.30	mg/L	0.041	0.20%
QC value within limits for Al 237.313 Recovery = 101.48%								

All analyte(s) passed QC.

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/18/2015 11:26:20 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5679210.2	0.9493	mg/L	0.00481				0.51%
Ag 328.068†	175679.3	0.4968	mg/L	0.00188	0.4968	mg/L	0.00188	0.38%
QC value within limits for Ag 328.068 Recovery = 99.36%								
As 188.979†	2406.3	1.027	mg/L	0.0072	1.027	mg/L	0.0072	0.70%
QC value within limits for As 188.979 Recovery = 102.72%								
B 249.772†	420936.7	2.540	mg/L	0.0009	2.540	mg/L	0.0009	0.04%
QC value within limits for B 249.772 Recovery = 101.59%								
Ba 233.527†	1029943.7	10.40	mg/L	0.037	10.40	mg/L	0.037	0.36%
QC value within limits for Ba 233.527 Recovery = 104.02%								
Be 313.107†	1511410.2	0.2554	mg/L	0.00048	0.2554	mg/L	0.00048	0.19%
QC value within limits for Be 313.107 Recovery = 102.18%								
Cd 226.502†	95755.8	0.5075	mg/L	0.00132	0.5075	mg/L	0.00132	0.26%
QC value within limits for Cd 226.502 Recovery = 101.50%								
Co 228.616†	136682.9	2.525	mg/L	0.0067	2.525	mg/L	0.0067	0.26%
QC value within limits for Co 228.616 Recovery = 101.01%								
Cr 267.716†	105477.7	0.5345	mg/L	0.00227	0.5345	mg/L	0.00227	0.42%
QC value within limits for Cr 267.716 Recovery = 106.90%								
Cu 324.752†	423287.3	1.258	mg/L	0.0032	1.258	mg/L	0.0032	0.25%
QC value within limits for Cu 324.752 Recovery = 100.68%								
Fe 259.939†	272420.9	5.158	mg/L	0.0180	5.158	mg/L	0.0180	0.35%
QC value within limits for Fe 259.939 Recovery = 103.16%								
K 766.490†	88353.9	24.91	mg/L	0.155	24.91	mg/L	0.155	0.62%
QC value within limits for K 766.490 Recovery = 99.62%								
Mg 279.077†	418408.9	25.09	mg/L	0.064	25.09	mg/L	0.064	0.25%
QC value within limits for Mg 279.077 Recovery = 100.36%								
Mn 257.610†	470741.5	0.7871	mg/L	0.00270	0.7871	mg/L	0.00270	0.34%
QC value within limits for Mn 257.610 Recovery = 104.95%								
Mo 202.031†	66810.1	2.487	mg/L	0.0108	2.487	mg/L	0.0108	0.43%
QC value within limits for Mo 202.031 Recovery = 99.48%								
Ni 231.604†	213370.9	2.094	mg/L	0.0045	2.094	mg/L	0.0045	0.22%
QC value within limits for Ni 231.604 Recovery = 104.69%								
Na 589.592†	472082.8	26.88	mg/L	0.164	26.88	mg/L	0.164	0.61%
QC value within limits for Na 589.592 Recovery = 107.53%								
Pb 220.353†	7662.0	0.5223	mg/L	0.00398	0.5223	mg/L	0.00398	0.76%
QC value within limits for Pb 220.353 Recovery = 104.46%								
Sb 206.836†	15248.7	4.983	mg/L	0.0660	4.983	mg/L	0.0660	1.32%
QC value within limits for Sb 206.836 Recovery = 99.65%								
Se 196.026†	1993.7	0.4988	mg/L	0.01406	0.4988	mg/L	0.01406	2.82%
QC value within limits for Se 196.026 Recovery = 99.77%								
Sn 189.927†	56357.6	5.070	mg/L	0.0498	5.070	mg/L	0.0498	0.98%
QC value within limits for Sn 189.927 Recovery = 101.41%								
Ti 337.279†	1762561.2	2.542	mg/L	0.0120	2.542	mg/L	0.0120	0.47%
QC value within limits for Ti 337.279 Recovery = 101.68%								
Tl 190.801†	4054.4	1.049	mg/L	0.0148	1.049	mg/L	0.0148	1.41%
QC value within limits for Tl 190.801 Recovery = 104.94%								
V 292.402†	392674.0	2.508	mg/L	0.0068	2.508	mg/L	0.0068	0.27%
QC value within limits for V 292.402 Recovery = 100.31%								
Zn 206.200†	113446.2	1.031	mg/L	0.0030	1.031	mg/L	0.0030	0.29%
QC value within limits for Zn 206.200 Recovery = 103.11%								
Ca 227.546†	10637.5	26.14	mg/L	0.322	26.14	mg/L	0.322	1.23%
QC value within limits for Ca 227.546 Recovery = 104.56%								
Sr 421.552†	2183063.6	2.639	mg/L	0.0088	2.639	mg/L	0.0088	0.33%
QC value within limits for Sr 421.552 Recovery = 105.55%								
Al 237.313†	50139.5	10.09	mg/L	0.111	10.09	mg/L	0.111	1.10%
QC value within limits for Al 237.313 Recovery = 100.86%								

All analyte(s) passed QC.

Sequence No.: 34
Sample ID: CCB
Analyst:
Initial Sample Wt:

Autosampler Location: 1
Date Collected: 12/18/2015 11:30:42 AM
Data Type: Original
Initial Sample Vol:

Dilution: Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	5956536.6	0.9957	mg/L	0.00039				0.04%
Ag 328.068†	103.1	0.0003	mg/L	0.00020	0.0003	mg/L	0.00020	68.22%
QC value within limits for Ag 328.068 Recovery = Not calculated								
As 188.979†	5.1	0.0022	mg/L	0.00140	0.0022	mg/L	0.00140	64.95%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.772†	11168.9	0.0680	mg/L	0.00352	0.0680	mg/L	0.00352	5.17%
QC value within limits for B 249.772 Recovery = Not calculated								
Ba 233.527†	178.3	0.0018	mg/L	0.00013	0.0018	mg/L	0.00013	7.43%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	520.2	0.0001	mg/L	0.00001	0.0001	mg/L	0.00001	7.58%
QC value within limits for Be 313.107 Recovery = Not calculated								
Cd 226.502†	84.3	0.0004	mg/L	0.00014	0.0004	mg/L	0.00014	31.84%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.4	0.0003	mg/L	0.00001	0.0003	mg/L	0.00001	3.51%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	113.6	0.0006	mg/L	0.00006	0.0006	mg/L	0.00006	11.17%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	237.1	0.0007	mg/L	0.00035	0.0007	mg/L	0.00035	49.27%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 259.939†	376.0	0.0071	mg/L	0.00025	0.0071	mg/L	0.00025	3.55%
QC value within limits for Fe 259.939 Recovery = Not calculated								
K 766.490†	455.7	0.1284	mg/L	0.00140	0.1284	mg/L	0.00140	1.09%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 279.077†	667.0	0.0400	mg/L	0.00338	0.0400	mg/L	0.00338	8.45%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	152.8	0.0003	mg/L	0.00005	0.0003	mg/L	0.00005	18.40%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	143.5	0.0053	mg/L	0.00105	0.0053	mg/L	0.00105	19.56%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Ni 231.604†	53.4	0.0005	mg/L	0.00011	0.0005	mg/L	0.00011	21.57%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Na 589.592†	364.6	0.0208	mg/L	0.01224	0.0208	mg/L	0.01224	58.95%
QC value within limits for Na 589.592 Recovery = Not calculated								
Pb 220.353†	-2.3	-0.0002	mg/L	0.00058	-0.0002	mg/L	0.00058	361.79%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	16.4	0.0053	mg/L	0.00008	0.0053	mg/L	0.00008	1.41%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	4.2	0.0011	mg/L	0.00054	0.0011	mg/L	0.00054	51.18%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	173.7	0.0156	mg/L	0.00152	0.0156	mg/L	0.00152	9.75%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Ti 337.279†	1066.8	0.0015	mg/L	0.00008	0.0015	mg/L	0.00008	5.34%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	7.0	0.0018	mg/L	0.00088	0.0018	mg/L	0.00088	48.34%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	24.6	0.0002	mg/L	0.00021	0.0002	mg/L	0.00021	136.12%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	98.5	0.0009	mg/L	0.00004	0.0009	mg/L	0.00004	4.89%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Ca 227.546†	2.1	0.0053	mg/L	0.02125	0.0053	mg/L	0.02125	404.73%
QC value within limits for Ca 227.546 Recovery = Not calculated								
Sr 421.552†	300.3	0.0004	mg/L	0.00008	0.0004	mg/L	0.00008	21.45%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Al 237.313†	109.2	0.0219	mg/L	0.00155	0.0219	mg/L	0.00155	7.07%
QC value within limits for Al 237.313 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 54
Sample ID: Sample054 Date Collected: 12/18/2015 11:36:25 AM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: Sample054

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	5810247.3	0.9712	mg/L	0.02214				2.28%
Ag 328.068†	309.1	0.0009	mg/L	0.00043	0.0009	mg/L	0.00043	49.32%
As 188.979†	3.1	0.0013	mg/L	0.00053	0.0013	mg/L	0.00053	39.98%
B 249.772†	8492.0	0.0518	mg/L	0.00122	0.0518	mg/L	0.00122	2.35%
Ba 233.527†	-50.2	-0.0005	mg/L	0.00093	-0.0005	mg/L	0.00093	184.44%
Be 313.107†	-200.8	0.0000	mg/L	0.00008	0.0000	mg/L	0.00008	230.15%
Cd 226.502†	-21.9	-0.0001	mg/L	0.00032	-0.0001	mg/L	0.00032	273.51%
Co 228.616†	-10.6	-0.0002	mg/L	0.00024	-0.0002	mg/L	0.00024	122.64%
Cr 267.716†	-134.5	-0.0007	mg/L	0.00042	-0.0007	mg/L	0.00042	61.71%
Cu 324.752†	181.6	0.0005	mg/L	0.00034	0.0005	mg/L	0.00034	63.59%
Fe 259.939†	-261.0	-0.0049	mg/L	0.00541	-0.0049	mg/L	0.00541	109.51%
K 766.490†	470.4	0.1326	mg/L	0.04598	0.1326	mg/L	0.04598	34.67%
Mg 279.077†	-322.1	-0.0193	mg/L	0.02241	-0.0193	mg/L	0.02241	116.05%
Mn 257.610†	-201.9	-0.0003	mg/L	0.00026	-0.0003	mg/L	0.00026	78.15%
Mo 202.031†	60.0	0.0022	mg/L	0.00017	0.0022	mg/L	0.00017	7.44%
Ni 231.604†	0.9	0.0000	mg/L	0.00000	0.0000	mg/L	0.00000	21.95%
Na 589.592†	67.4	0.0038	mg/L	0.00195	0.0038	mg/L	0.00195	50.80%
Pb 220.353†	31.6	0.0022	mg/L	0.00074	0.0022	mg/L	0.00074	34.41%
Sb 206.836†	6.1	0.0020	mg/L	0.00089	0.0020	mg/L	0.00089	44.63%
Se 196.026†	-0.1	0.0000	mg/L	0.00249	0.0000	mg/L	0.00249	>999.9%
Sn 189.927†	90.6	0.0082	mg/L	0.00088	0.0082	mg/L	0.00088	10.76%
Ti 337.279†	624.2	0.0009	mg/L	0.00007	0.0009	mg/L	0.00007	7.53%
Tl 190.801†	-2.2	-0.0006	mg/L	0.00072	-0.0006	mg/L	0.00072	128.86%
V 292.402†	6.8	0.0000	mg/L	0.00000	0.0000	mg/L	0.00000	4.47%
Zn 206.200†	115.6	0.0011	mg/L	0.00006	0.0011	mg/L	0.00006	5.87%
Ca 227.546†	-6.2	-0.0153	mg/L	0.00808	-0.0153	mg/L	0.00808	52.96%
Sr 421.552†	121.3	0.0001	mg/L	0.00012	0.0001	mg/L	0.00012	81.80%
Al 237.313†	-140.0	-0.0281	mg/L	0.02508	-0.0281	mg/L	0.02508	89.34%

Preparation Information Benchsheet

Prep Run#: 251481 **Prep WorkFlow:** MetDigAqICP **Status:** Prepped
Team: Metals/CGILDAY **Prep Method:** EPA 3005A/3010A **Prep Date/Time:** 12/7/15 12:39 PM

#	Lab Code	Client ID	B#	Amt. Ext.	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ1515068-03	MB		50mL	200.7/Ag T, Al T, As T, Ca T, Co T, Cr T, Cu T, Fe T, Mg T, Mo T, Na T, Ni T, Pb T, Pd T, Sn T, Ti T, W T, Zn T, 6010C/Ag D DOD, Ag T DOD, Al D DOD, Al T DOD, As D DOD, As T DOD, Ba D DOD, Ba T DOD, Be D DOD, Be T DOD, Ca D DOD, Ca T DOD, Cd D DOD, Cd T DOD, Co D DOD, Co T DOD, Cr D DOD, Cr T DOD, Cu D DOD, Cu T DOD, Fe D DOD, Fe T DOD, K D DOD, K T DOD, Mg D DOD, Mg T DOD, Mn D DOD, Mn T DOD, Na D DOD, Na T DOD, Ni D DOD, Ni T DOD, Pb D DOD, Pb T DOD, Sb D DOD, Sb T DOD, Se D DOD, Se T DOD, Tl D DOD, Tl T DOD, V D DOD, V T DOD, Zn D DOD, Zn T DOD				50.00mL	colorless-clear		Hot Block #7 Well E3 Temp: 93 C Correction Factor: 0.0 Corrected temp: 93 C
2	RQ1515068-04	LCS		50mL	200.7/Ag T, Al T, As T, Ca T, Co T, Cr T, Cu T, Fe T, Mg T, Mo T, Na T, Ni T, Pb T, Pd T, Sn T, Ti T, W T, Zn T, 6010C/Ag D DOD, Ag T DOD, Al D DOD, Al T DOD, As D DOD, As T DOD, Ba D DOD, Ba T DOD, Be D DOD, Be T DOD, Ca D DOD, Ca T DOD, Cd D DOD, Cd T DOD, Co D DOD, Co T DOD, Cr D DOD, Cr T DOD, Cu D DOD, Cu T DOD, Fe D DOD, Fe T DOD, K D DOD, K T DOD, Mg D DOD, Mg T DOD, Mn D DOD, Mn T DOD, Na D DOD, Na T DOD, Ni D DOD, Ni T DOD, Pb D DOD, Pb T DOD, Sb D DOD, Sb T DOD, Se D DOD, Se T DOD, Tl D DOD, Tl T DOD, V D DOD, V T DOD, Zn D DOD, Zn T DOD				50.00mL	colorless-clear	0.0500 mL/74566; 0.5000 mL/82347; 0.2500 mL/86036; 0.5000 mL/82346	
3	R1510346-008	FTMM-53-GW-699RW11-12.8	.04	50mL	6010C/Pb T DOD				50.00mL	colorless-clear		Tier IV DoD
4	RQ1515068-01	R1510346-008 MS	.04	50mL	6010C/Pb T DOD				50.00mL	colorless-clear	0.2500 mL/86036; 0.5000 mL/82346; 0.0500 mL/74566; 0.5000 mL/82347	
5	RQ1515068-02	R1510346-008 DUP	.04	50mL	6010C/Pb T DOD				50.00mL	colorless-clear		

Preparation Information Benchsheet

Prep Run#: 251481 **Prep WorkFlow:** MetDigAqICP **Status:** Prepped
Team: Metals/CGILDAY **Prep Method:** EPA 3005A/3010A **Prep Date/Time:** 12/7/15 12:39 PM

6	R1510346-009	FTMM-53-GW-699RW11-12.8 Dissolved	.01	50mL	6010C/Pb D DOD				50.00mL	colorless-clear		
7	R1510346-010	FTMM-53-GW-699MW06-8.5	.04	50mL	6010C/Pb T DOD				50.00mL	colorless-clear		
8	R1510346-011	FTMM-53-GW-699MW06-8.5 Dissolved	.01	50mL	6010C/Pb D DOD				50.00mL	colorless-clear		
9	R1510346-014	FTMM-8-GW-M2MW11-21.5	.04	50mL	6010C/Pb T DOD				50.00mL	gray-cloudy		
10	R1510346-015	FTMM-8-GW-M2MW11-21.5 Dissolved	.01	50mL	6010C/Pb D DOD				50.00mL	colorless-clear		
11	R1510346-017	EB-2015-11-24	.04	50mL	6010C/Ag T DOD, Al T DOD, As T DOD, Ba T DOD, Be T DOD, Ca T DOD, Cd T DOD, Co T DOD, Cr T DOD, Cu T DOD, Fe T DOD, K T DOD, Mg T DOD, Mn T DOD, Na T DOD, Ni T DOD, Pb T DOD, Sb T DOD, Se T DOD, Tl T DOD, V T DOD, Zn T DOD				50.00mL	colorless-clear		
12	R1510346-018	EB-2015-11-24 Dissolved	.01	50mL	6010C/Ag D DOD, Al D DOD, As D DOD, Ba D DOD, Be D DOD, Ca D DOD, Cd D DOD, Co D DOD, Cr D DOD, Cu D DOD, Fe D DOD, K D DOD, Mg D DOD, Mn D DOD, Na D DOD, Ni D DOD, Pb D DOD, Sb D DOD, Se D DOD, Tl D DOD, V D DOD, Zn D DOD				50.00mL	colorless-clear		
13	R1510346-019	EB-2015-11-25	.04	50mL	6010C/Pb T DOD				50.00mL	colorless-clear		
14	R1510346-020	EB-2015-11-25 Dissolved	.01	50mL	6010C/Pb D DOD				50.00mL	colorless-clear		

Spiking Solutions

Name:	Selenium 1000 ug/mL Se	Inventory ID	74566	Logbook Ref:	M5280040P	Expires On:	03/03/2016	Lot #:	1408440
Name:	Custom LCS STD A Metals	Inventory ID	82346	Logbook Ref:	M7080002F	Expires On:	06/12/2016	Lot #:	15F089
Name:	Custom LCS STD B Metals	Inventory ID	82347	Logbook Ref:	M7080002G	Expires On:	06/12/2016	Lot #:	15F092
Name:	Tin 1000 ug/mL Sn	Inventory ID	86036	Logbook Ref:	M7080005D	Expires On:	05/05/2017	Lot #:	15J011

Preparation Materials

1:1 HCl Metals Grade	M7080005N (86048)	Hot Block Cups	50 mL Lot 1501179 (84721)	Nitric Acid Metals Grade HNO3	M7080004V (85537)
Thermometer	293 (12952)				

Preparation Information Benchsheet

Prep Run#: 251481
Team: Metals/CGILDAY

Prep WorkFlow: MetDigAqICP
Prep Method: EPA 3005A/3010A

Status: Prepped
Prep Date/Time: 12/7/15 12:39 PM

Preparation Steps

Step: Digestion
Started: 12/7/15 12:39
Finished: 12/8/15 15:28
By: CGILDAY
Comments

Comments: _____

Reviewed By: DBrad Date: 12/9/15 Spike Witness: ADOCKHAM Date: _____

Chain of Custody

Relinquished By: Caitlyn Gilday Date: 12/8/15
Received By: RADI Date: 4

Extracts Examined
Yes No

OPTIMA 3,4,5 CALIBRATION STANDARD #1 (Standard is prepared weekly or as necessary)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Cal Std. 1 Int.	AL	~~M7080005U~~	20.0	1.00	1000	0.020	2%HNO3	ARD 12/8/15	A	M7080004V	M7080005N	12/15/15	M 20 M25
	AS	M7180001B	5.00			0.0050	5%HCl	AM 12/16/15	B	M7080004V	M7080005N	12/23/15	M26 M35
	CD		1.00			0.0010			C				
	CO		3.00			0.0030			D				
	CR		1.00			0.0010			E				
	NI		5.00			0.0050			F				
	PB		5.00			0.0050			G				
	SE		5.00			0.0050			H				
	V		3.00			0.0030			I				
Cal Std. 1	CA	M7080001AA	5000	0.100		0.500			J				
	K		5000			BELOW			K				
	MG		5000			0.500			L				
	NA		5000			0.500			M				
Single Element	BA	M5280042V	1000	0.020		0.020			N				
	CU	M5280040O	1000	0.010		0.010			O				
	K	M5280041M	10000	0.150		2.00			P				
	MN	M7080001W	1000	0.010		0.010			Q				
	MO	M7080004M	1000	0.025		0.025			R				
	SB	M7080003K	1000	0.010		0.010			S				
	TL	M5280041O	1000	0.010		0.010			T				
	ZN	M5280043Q	1000	0.010		0.010			U				
	P	—	1000	0.100		0.100			V				
									W				
									X				
									Y				
									Z				

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OPTIMA 3,4,5 CALIBRATION STANDARD #2
(Standard is prepared weekly or as necessary)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix
Single Element	AL	M528 0643 AE	1000	0.100	1000	0.100	2%HNO3
	AS	M528003 1FE	1000	0.010		0.010	5%HCl
	B	M528004 4B	1000	0.200		0.200	
	BE (1/10)	M708000 3M	100	0.030		0.003	
	CA	M528004 1K	10000	0.100		1.00	
	CD (1/10)	M708000 3A	100	0.050		0.005	
	CU	M528004 0O	1000	0.020		0.020	
	K	M528004 4M	10000	0.200		2.00	
	MG	M708000 3E	10000	0.100		1.00	
	NA	M528004 4M	10000	0.100		1.00	
	SB	M708000 3K	1000	0.060		0.060	
	SE	M528004 0P	1000	0.010		0.010	
	SN	M708000 1X	1000	0.500		0.500	
	PB	M708000 1M	1000	0.050		0.005	

Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
AM 11/18/15	A	M708000 3E	M708000 4K	11/18/15	M336
ARD 11/10/15	B	M708000 4V	M708000 4K	11/17/15	AM MS
AM 11/18/15	C	M708000 4V	M708000 4K	11/25/15	MBS MSL
DCB 11/25/15	D	M708000 4V	M708000 4K	12/2/15	M11 M26
DCB 12/3/15	E	M708000 4V	M708000 5N	12/10/15	M11 M26
ARD 12/11/15	F	M708000 4V	M708000 5N	12/18/15	M11 M26
	G				
	H				
	I				
	J				
	K				
	L				
	M				
	N				
	O				
	P				
	Q				
	R				
	S				
	T				
	U				
	V				
	W				
	X				
	Y				
	Z				

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OPTIMA 3/4/5 CALIBRATION STANDARD #5 / HLCCV1 (Standard is prepared weekly or as necessary)

(CALIBRATION STANDARD #3 IS A 1/100 DILUTION OF THIS STANDARD)
(CALIBRATION STANDARD #4 IS A 1/5 DILUTION OF THIS STANDARD)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Cal Std 1	CA	m7080001AA	5000	5.00	500	50.0	2%HNO3	DCB 12/4/15	A	m7080004V	m7080005N	12/11/15	m26
	MG		5000			50.0	5%HCl	ARD 12/10/15	B	M7080004V	M7080005N	12/17/15	M26
	K		5000			50.0		AM 12/14/15	C	m7080004V	m7080005N	12/21/15	m26
	NA		5000			50.0			D				
Cal Std 2	AG	m7080002T	100	5.00		1.00			E				
	CR		100			1.00			F				
	MN		150			1.50			G				
	NI		400			4.00			H				
	ZN		200			2.00			I				
Cal Std 3	AL	m7080004C	2000	5.00		20.0			J				
	BA		2000			20.0			K				
	BE		50			0.500			L				
	CO		500			5.00			M				
	CU		250			2.50			N				
	FE		1000			10.0			O				
	V		500			5.00			P				
Cal Std 4	AS	m7080005J	100	10.00		2.00			Q				
	CD		50			1.00			R				
	PB		50			1.00			S				
	SE		50			1.00			T				
	TL		100			2.00			U				
Single Metals	SB	m7080003X	1000	5.00		10.0			V				
	SN	m7080001X	1000	5.00		10.0			W				
	B	m5280044B	1000	2.50		5.00			X				
	MO	m7080004m	1000	2.50		5.00			Y				
	TI	m5280044D	1000	2.50		5.00			Z				
	SR	m7080004A	1000	2.50		5.00			AA				
	P	—	1000	5.00		10.0			BB				

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OPTIMA 3/4/5 ICV/CCV (Standard is prepared daily)
(ICV FOR ILM5.3 IS A ½ DILUTION OF THIS STANDARD)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Pipet ID
Cal Std 1	CA	M7080003W	5000	1.00	200	25.0	2%HNO3	ARD 12/2/15	A	M7080004V	M7080005N	M26
	MG		5000			25.0	5%HCl	ARD 12/3/15	B	M7080004V	M7080005N	M26
	K		5000			25.0		ARD 12/4/15	C	M7080004V	M7080005N	M26
	NA		5000			25.0		DCB 12/5/15	D	M7080004V	M7080005N	M26
Cal Std 2	AG	M7080004T	100	1.00		0.500		DCB 12/6/15	E	M7080004V	M7080005N	M26
	CR		100			0.500		ARD 12/7/15	F	M7080004V	M7080005N	M26
	MN		150			0.750		ARD 12/8/15	G	M7080004V	M7080005N	M26
	NI		400			2.00		ARD 12/9/15	H	M7080004V	M7080005N	M26
	ZN		200			1.00		ARD 12/10/15	I	M7080004V	M7080005N	M26
Cal Std 3	AL	M7080003V	2000	1.00		10.0		AM 12/11/15	J	M7080004V	M7080005N	M26
	BA		2000			10.0		ARD 12/12/15	K	M7080004V	M7080005N	M26
	BE		50			0.250		ARD 12/14/15	L	M7080004V	M7080005N	M26
	CO		500			2.50		ARD 12/15/15	M	M7080004V	M7080005N	M26
	CU		250			1.25		AM 12/16/15	N	M7080004V	M7080005N	M30
	FE		1000			5.00		DCB 12/17/15	O	M7080004V	M7080005N	M30
	V		500			2.50		ARD 12/18/15	P	M7080004V	M7080005P	M26
Cal Std 4	AS	M7080004F	100	2.00		1.00			Q			
	CD		50			0.500			R			
	PB		50			0.500			S			
	SE		50			0.500			T			
	TL		100			1.00			U			
Single Metals	SB	M7080003O	1000	1.00		5.00			V			
	SN	M7080005D	1000	1.00		5.00			W			
	B	M5280042P	1000	0.500		2.50			X			
	MO	M5280042Q	1000	0.500		2.50			Y			
	TI	M5280042R	1000	0.500		2.50			Z			
	SR	M5280044E	1000	0.500		2.50			AA			
	P	—	1000	1.00		5.00			BB			

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OPTIMA 3/4 HLCCV2 (Standard is prepared every 2 weeks or as necessary)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Cal Std 2	AG	M7080002T	100	2.00	100	2.00	2%HNO3	ARD 11/24/15	A	M7080004V	M7080004M	12/8/15	M26
	CR		100			Below	5%HCl	ARD 12/8/15	B	M7080004V	M7080005N	12/14/15 ARD 12/8/15	M26
	MN		150			Below		AM 12/11/15	C	M7080004V	M7080005N	12/25/15	M26
	NI		400			8.00			D				
	ZN		200			4.00			E				
Cal Std 3	AL	M7080002U	2000	2.00		Below			F				
	BA		2000			40.0			G				
	BE		50			1.00			H				
	CO, V		500			10.0			I				
	CU		250			5.00			J				
	FE		1000			Below			K				
Cal Std 4	AS, TL	M7080004D	100	4.00		4.00			L				
	CD, SE		50			2.00			M				
	PB		50			Below			N				
Single Metals	B	M5280044B	1000	1.00		10.0			O				
	MO	M7080004M	1000	1.00		10.0			P				
	TI	M5280044D	1000	1.00		10.0			Q				
	SR	M7080004A	1000	1.00		10.0			R				
	CA	M5280041L	10000	2.50		250			S				
	MG	M7080003L	10000	5.00		500			T				
	NA	M5280040M	10000	1.50		150			U				
	CR	M7080003J	1000	0.800		10.0			V				
	FE	M5280040Q	10000	0.300		50			W				
	AL	M5280043K	10000	4.60		500			X				
	MN	M7080001W	1000	0.700		10.00			Y				
	PB	M7080001M	1000	0.800		10.0			Z				
	K	M5280041M	10000	1.50		150			AA				

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OPTIMA 3/4/5 MRL (Standard is prepared every 6 months or as needed)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Cal Std 1	CA	M7080001AA	5000	0.200	1000	1.00	2%HNO3 5%HCl	AM 10/26/15	A	M7080003Z	M7080004K	4/26/16	M25 M25
	MG		5000			1.00		AM 10/30/15	B	M7080003Z	M7080004K	6/30/16	M25 M25
	K		5000			1.00		AM 11/13/15	C	M7080003ZAV	M7080004K	5/13/16	M25 M25
	NA		5000			1.00		JCB 11/26/15	D	M7080003ZV	M7080004K	5/29/16	M25 M26
Cal Std 2	AG	M7080002T	100	0.100		0.0100		ARD 12/4/15	E	M7080003ZV	M7080005N	6/4/16	M26 M25
	CR		100			0.0100			F				
	MN		150			0.0150			G				
	NI		400			0.0400			H				
	ZN		200			0.0200			I				
Cal Std 3	AL	M7080003Y	2000	0.100		0.200			J				
	BA		2000			0.200			K				
	BE		50			0.0050			L				
	CO		500			0.0500			M				
	CU		250			0.0250			N				
	FE		1000			0.100			O				
	V		500			0.0500			P				
Cal Std 4	AS	M7080004D	100	0.200		0.0200			Q				
	CD		50			0.0100			R				
	PB		50			0.0100			S				
	SE		50			0.0100			T				
	TL		100			0.0200			U				
Single Metals	B	M5280044B	1000	0.200		0.200			V				
	MO	M7080004M	1000	0.025		0.0250			W				
	SN	M7080001X	1000	0.500		0.500			X				
	TI	M5280044D	1000	0.050		0.0500			Y				
	SB	M7080003K	1000	0.060		0.0600			Z				
	SR	M7086001N	1000	0.100		0.100			AA				
	P	—	1000	0.100		0.100			BB				

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OPTIMA 3 & 5 ICSA STANDARD (Standard is prepared every 6 months or as necessary)

Element	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot #	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Int. A Sol'n	M7053000AL	Multi	50	1000	Multi	5% HCL	AM 11/10/15	A	M7052006AV	M7052002AK	5/10/16	—
AL		5000			250	2%HNO3	DCB 11/24/15	B	M7060004V	M7060004K	5/24/16	—
CA		5000			250		AED 12/9/15	C	M7080004V	M7080005N	6/9/16	—
FE		2000			100			D				
MG		5000			250			E				
								F				
								G				
								H				
								I				
								J				
								K				
								L				
								M				
								N				
								O				
								P				
								Q				
								R				
								S				
								T				
								U				
								V				

OPTIMA 3 & 5 ICSAB STANDARD (Standard is prepared every 6 months or as necessary)

Element	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot #	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Int. A Sol'n	M7080006AL	Multi	25	500	Multi	5 % HCl	AM 11/3/15	A	M7080003Z	M7080001M	5/3/16	—
AL		5000			250	2%HNO3	AM 11/10/15	B	M7080003C	M7080001AL	5/10/16	—
CA		5000			250		DCO 11/24/15	C	M7080004V	M7080004R	5/24/16	—
FE		2000			100			D				
MG		5000			250			E				
Int. B Sol'n	M7080003N	Multi	5		Multi			F				
AG		20			0.200			G				
BA		50			0.500			H				
BE		50			0.500			I				
CD		100			1.00			J				
CO		50			0.500			K				
CR		50			0.500			L				
CU		50			0.500			M				
MN		50			0.500			N				
NI		100			1.00			O				
PB		5			0.0500			P				
V		50			0.500			Q				
ZN		100			1.00			R				
AS		10			0.100			S				
SB		60			0.600			T				
SE		5			0.0500			U				
TL		10			0.100			V				

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OPTIMA 3/4 INTERNAL STANDARD (ADDED ON-LINE) (6mo.)

Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot #	Hydro-chloric Acid Lot #	Expiration Date	Pipet ID
Y	M708000 2L	10000	2.0	2000	10.0	5 % HCl 2%HNO3	AM 11/17/15	A	M708000 2	M708000 4K	5/2/16	M30
CS	M708000 2K	10000	2.0		10.0		AM 11/19/15	B	M708000 2	M708000 4K	5/9/16	M26
							AM 11/18/15	C	M708000 4V	M708000 4K	5/17/16	M30
							ARD 11/23/15	D	M708000 4V	M708000 4K	5/23/16	M26
							DCA 11/28/15	E	M708000 4V	M708000 4K	5/28/16	M26
							DCA 11/29/15	F	M708000 4V	M708000 4K	5/29/16	M26
							ARD 12/02/15	G	M708000 4V	M708005N	6/01/16	M26
							DCA 12/5/15	H	M708000 4V	M708005N	6/5/16	M26
							ARD 12/7/15	I	M708000 4V	M708005N	6/7/16	M26
							ARD 12/15/15	J	M708000 4V	M708005N	6/15/16	M26
								K				
								L				
								M				
								N				
								O				
								P				
								Q				
								R				
								S				
								T				
								V				

Metals Cover Page

Analyst: ARD **Date:** 12/18/15 **Instrument:** ICP6

Data File: 6Dec18a **Reviewed By:** DCB **Entered By:** DCB

Approval: AM

Starlims Run #	Analytes Used	Batch ID	Method	Failed Analytes	Repeats
477148	Cd Al Ca Fe K Na Sn	251481 252241 252194	6010 200.7	Mg	R10864 Ni
	Ca Sr				
477149	Ca Sr	251660	6010		
477150	TAL B Mo Sn Sr - As	252267	6010	As	R10839-001,13,14 Sr Al R10839-007,8,11,13,14 Ca
477151	Fe Mn Sr	251936	200.7		

Package Data:

Client Sub#	TIER	Analytes Used	Batch ID	Raw Data Copied?
R10346	III / (IV) / ILM	Cd DOD	251481	Yes / No
R10601	(III) / IV / ILM	Ca Sr	251660	Yes / No
R10839	(III) / IV / ILM	TAL B Mo Sn Sr - As Sb Tl	252267	Yes / No
R10917	III / (IV) / ILM	TAL B - As	252267	Yes / No
R10409	(III) / IV / ILM	Ag Al B Be Ca Cd Co Cr Cu Fe K Mg Mn Mo Na Ni V Zn	252267	Yes / No
	III / IV / ILM			Yes / No
	III / IV / ILM			Yes / No
	III / IV / ILM			Yes / No

ICP-6 Run Log

Serial number: MY15340001

Analyst: ARD Date: 12/18/15 Data File: 6Dec18

Prep Dates: MRL 12/4/15 ICSA 12/9/15 ICSAB 11/24/15 Int.Std 12/15/15

Cal Std 1 12/16/15 Cal Std 2 12/11/15 Cal Std 5 / HLCCV1 12/14/15 ICV / CCV 12/18/15

HLCCV2 12/11/15

Lot #: MRL M7180101E ICSA M7180116C ICSAB M7180130C Int.Std M7180154J

Cal Std 1 M7180007B Cal Std 2 M7180021F Cal Std 5 / HLCCV1 M7180032C ICV / CCV M7180048P
(Cal Std 4 is a 1/5 and Cal Std 3 is a 1/100 dilution of Cal Std 5)

HLCCV2 M7180072C

Blank Prepared Daily Lot: HNO3 ~~M7080154J~~ M7080024V HCL M7080005N

1:8	PBW-251481	1:32	R1510586-002 5X	S1:9	Continuing Calibration Blank1
1:9	LCSW-251481	1:33	R1510586-003 5X	1:57	R1510839-014
1:10	R1510346-017	1:34	R1510586-004 5X	1:58	R1510917-001
1:11	R1510346-018	1:35	R1510586-005 5X	1:59	R1510917-001D
1:12	R1510346-018L	1:36	R1510586-006 5X	1:60	R1510917-001S
1:13	PBW-252194	1:37	R1510601-002 10X	2:1	R1510917-001A
1:14	LCSW-252194	1:38	R1510601-003 5X	2:2	R1510917-001L
1:15	R1510413-001	1:39	R1510601-003D 5X	2:3	R1510931-001
1:16	R1510413-002	S1:6	Continuing Calibration Verification	S1:8	Continuing Calibration Verification1
1:17	R1510413-003	S1:7	Continuing Calibration Blank	S1:9	Continuing Calibration Blank1
S1:6	Continuing Calibration Verification	1:40	R1510601-0013S 5X	S1:3	Contract Required Detection Limit
S1:7	Continuing Calibration Blank	1:41	R1510601-003A 5X	S1:4	Interference Check Solution A
1:18	R1510413-004	1:42	R1510601-003L 5X	S1:5	Interference Check Solution AB
1:19	R1510413-005	1:43	R1510601-004 10X	S1:8	Continuing Calibration Verification1
1:20	R1510692-001	1:44	R1510601-006 5X	S1:9	Continuing Calibration Blank1
1:21	R1510692-001D	1:45	R1510601-010 5X	2:4	R1510759-001
1:22	R1510692-001S	1:46	R1510601-011 5X	2:5	R1510759-002
1:23	R1510692-001L	S1:6	Continuing Calibration Verification	2:6	PBW-251936
1:24	PBW-252241	S1:7	Continuing Calibration Blank	2:7	LCSW-251936
1:25	LCSW-252241	S1:3	Contract Required Detection Limit	2:8	R1510782-001
1:26	R1510830-001 5X	S1:4	Interference Check Solution A	2:9	R1510792-001
1:27	R1510864-001 5X	S1:5	Interference Check Solution AB	2:10	R1510792-002
S1:6	Continuing Calibration Verification	S1:6	Continuing Calibration Verification	2:11	R1510793-001
S1:7	Continuing Calibration Blank	S1:7	Continuing Calibration Blank	2:12	R1510793-002
1:28	R1510914-002	1:47	PBW-252267	2:13	R1510793-003
1:29	R1510941-002L	1:48	LCSW-252267	S1:8	Continuing Calibration Verification1
S1:6	Continuing Calibration Verification	1:49	R1510409-003	S1:9	Continuing Calibration Blank1
S1:7	Continuing Calibration Blank	1:50	R1510759-001 100X	2:14	R1510793-004
S1:3	Contract Required Detection Limit	1:51	R1510759-002 200X	2:15	R1510793-005
S1:4	Interference Check Solution A	1:52	R1510839-007	2:16	R1510793-006
S1:5	Interference Check Solution AB	1:53	R1510839-008	2:17	R1510793-007
S1:21	HLCCV2	1:54	R1510839-011	2:18	R1510793-008
S1:22	HLCCV1	1:55	R1510839-012	2:19	R1501793-009
S1:6	Continuing Calibration Verification	1:56	R1510839-013	2:20	R1510793-010
S1:7	Continuing Calibration Blank	S1:8	Continuing Calibration Verification1	2:21	R150793-011
1:30	PBW-251660			2:22	R1510793-012
1:31	LCSW-251660				

ARD 12/18/15

ICP-6 Run Log

Serial number: MY15340001

Analyst: _____ Date: _____ Data File: _____

Prep Dates: MRL _____ ICSA _____ ICSAB _____ Int.Std _____

Cal Std 1 _____ Cal Std 2 _____ Cal Std 5 / HLCCV1 _____ ICV / CCV _____

HLCCV2 _____

SEE PREVIOUS PAGE

Lot #: MRL _____ ICSA _____ ICSAB _____ Int.Std _____

Cal Std 1 _____ Cal Std 2 _____ Cal Std 5 / HLCCV1 _____ ICV / CCV _____

(Cal Std 4 is a 1/5 and Cal Std 3 is a 1/100 dilution of Cal Std 5)

HLCCV2 _____

ARD 12/18/15

Blank Prepared Daily Lot: HNO3 _____ HCL _____

2:23	R1510793-012D
S1:8	Continuing Calibration Verification1
S1:9	Continuing Calibration Blank1
2:24	R1501793-012S
2:25	R1510793-012A
2:26	R150793-012L
S1:8	Continuing Calibration Verification1
S1:9	Continuing Calibration Blank1
S1:3	Contract Required Detection Limit
S1:4	Interference Check Solution A
S1:5	Interference Check Solution AB
S1:8	Continuing Calibration Verification1
S1:9	Continuing Calibration Blank1

Agilent Technologies

Path: C:\Agilent\ICP Expert\My Results\6Dec18a.esws
Date created: 11/23/2015 10:07:40 AM
Instrument used: MY15340001
Software Version : 7.100.6821.61355 Firmware Version : 2994
Notes:

Analyst ARD

12/14/15

DCN

Detailed Results

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 15:39:28	Blank	Ag (328.068 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	9.1755
12/18/2015 15:39:28	Blank	Al (394.401 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	151.4898
12/18/2015 15:39:28	Blank	Al (394.401 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	183.7426
12/18/2015 15:39:28	Blank	As (188.980 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	1.4937
12/18/2015 15:39:28	Blank	B (249.772 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	12.0958
12/18/2015 15:39:28	Blank	Ba (230.424 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	8.5014
12/18/2015 15:39:28	Blank	Be (313.107 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	-40.5396
12/18/2015 15:39:28	Blank	Ca (227.547 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	0.2162
12/18/2015 15:39:28	Blank	Ca (227.547 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	-2.4436
12/18/2015 15:39:28	Blank	Cd (214.439 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	2.9725
12/18/2015 15:39:28	Blank	Co (230.786 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	0.5912
12/18/2015 15:39:28	Blank	Cr (267.716 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	-2.2978
12/18/2015 15:39:28	Blank	Cu (327.395 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	23.4500
12/18/2015 15:39:28	Blank	Fe (234.350 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	49.1507
12/18/2015 15:39:28	Blank	Fe (234.350 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	48.7354
12/18/2015 15:39:28	Blank	K (766.491 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	-39.6060
12/18/2015 15:39:28	Blank	Mg (279.078 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	19.2343
12/18/2015 15:39:28	Blank	Mg (279.078 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	22.3916
12/18/2015 15:39:28	Blank	Mn (257.610 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	5.9507
12/18/2015 15:39:28	Blank	Mo (202.032 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	2.2344
12/18/2015 15:39:28	Blank	Na (588.995 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	-7226.5836
12/18/2015 15:39:28	Blank	Ni (230.299 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	-9.7526
12/18/2015 15:39:28	Blank	Pb (220.353 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	2.8818
12/18/2015 15:39:28	Blank	Sb (217.582 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	1.4287
12/18/2015 15:39:28	Blank	Se (196.026 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	0.4454
12/18/2015 15:39:28	Blank	Sn (189.925 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	0.2210
12/18/2015 15:39:28	Blank	Sr (460.733 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	67.0703
12/18/2015 15:39:28	Blank	Ti (336.122 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	-29.8272
12/18/2015 15:39:28	Blank	Tl (351.923 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	-10.5954
12/18/2015 15:39:28	Blank	V (292.401 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	36.0553
12/18/2015 15:39:28	Blank	Y (360.074 nm)	1.00 (Ratio)	0.00	1.00 (Ratio)	582610.37
12/18/2015 15:39:28	Blank	Y_R (360.074 nm)	1.00 (Ratio)	0.00	1.00 (Ratio)	245224.78
12/18/2015 15:39:28	Blank	Zn (213.857 nm)	0.0000 (ppm)	N/A	0.0000 (ppm)	0.8661
12/18/2015 15:42:59	Standard 1	Ag (328.068 nm)		N/A		12.9097
12/18/2015 15:42:59	Standard 1	Al (394.401 nm)	0.0073 (ppm)	24.15	0.0073 (ppm)	229.4134
12/18/2015 15:42:59	Standard 1	Al (394.401 nm)		N/A		261.2473
12/18/2015 15:42:59	Standard 1	As (188.980 nm)	0.0050 (ppm)	N/A	0.0050 (ppm)	4.1798
12/18/2015 15:42:59	Standard 1	B (249.772 nm)		N/A		9.8019
12/18/2015 15:42:59	Standard 1	Ba (230.424 nm)	0.0200 (ppm)	N/A	0.0200 (ppm)	330.5874
12/18/2015 15:42:59	Standard 1	Be (313.107 nm)		N/A		-59.5761

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 15:42:59	Standard 1	Ca (227.547 nm)	0.3233 (ppm)	1.75	0.3233 (ppm)	11.9315
12/18/2015 15:42:59	Standard 1	Ca (227.547 nm)		N/A		9.6300
12/18/2015 15:42:59	Standard 1	Cd (214.439 nm)	0.0010 (ppm)	N/A	0.0010 (ppm)	15.3549
12/18/2015 15:42:59	Standard 1	Co (230.786 nm)	0.0030 (ppm)	N/A	0.0030 (ppm)	17.1549
12/18/2015 15:42:59	Standard 1	Cr (267.716 nm)	0.0010 (ppm)	N/A	0.0010 (ppm)	28.4657
12/18/2015 15:42:59	Standard 1	Cu (327.395 nm)	0.0100 (ppm)	N/A	0.0100 (ppm)	356.7572
12/18/2015 15:42:59	Standard 1	Fe (234.350 nm)	-0.0021 (ppm)	40.71	-0.0021 (ppm)	33.4636
12/18/2015 15:42:59	Standard 1	Fe (234.350 nm)		N/A		31.0908
12/18/2015 15:42:59	Standard 1	K (766.491 nm)		N/A		5238.8230
12/18/2015 15:42:59	Standard 1	Mg (279.078 nm)	0.3451 (ppm)	1.78	0.3451 (ppm)	644.4964
12/18/2015 15:42:59	Standard 1	Mg (279.078 nm)		N/A		672.0707
12/18/2015 15:42:59	Standard 1	Mn (257.610 nm)	0.0100 (ppm)	N/A	0.0100 (ppm)	1396.0582
12/18/2015 15:42:59	Standard 1	Mo (202.032 nm)	0.0250 (ppm)	N/A	0.0250 (ppm)	110.1237
12/18/2015 15:42:59	Standard 1	Na (588.995 nm)		N/A		8760.6577
12/18/2015 15:42:59	Standard 1	Ni (230.299 nm)	0.0050 (ppm)	N/A	0.0050 (ppm)	5.7124
12/18/2015 15:42:59	Standard 1	Pb (220.353 nm)	0.0050 (ppm)	N/A	0.0050 (ppm)	7.3948
12/18/2015 15:42:59	Standard 1	Sb (217.582 nm)	0.0100 (ppm)	N/A	0.0100 (ppm)	8.5936
12/18/2015 15:42:59	Standard 1	Se (196.026 nm)	0.0050 (ppm)	N/A	0.0050 (ppm)	2.8349
12/18/2015 15:42:59	Standard 1	Sn (189.925 nm)		N/A		0.9743
12/18/2015 15:42:59	Standard 1	Sr (460.733 nm)		N/A		36.6177
12/18/2015 15:42:59	Standard 1	Ti (336.122 nm)		N/A		-53.8957
12/18/2015 15:42:59	Standard 1	Tl (351.923 nm)	0.0100 (ppm)	N/A	0.0100 (ppm)	10.9848
12/18/2015 15:42:59	Standard 1	V (292.401 nm)	0.0030 (ppm)	N/A	0.0030 (ppm)	97.4338
12/18/2015 15:42:59	Standard 1	Y (360.074 nm)	1.00 (Ratio)	1.04	1.00 (Ratio)	582869.20
12/18/2015 15:42:59	Standard 1	Y_R (360.074 nm)	0.99 (Ratio)	0.35	0.99 (Ratio)	241981.58
12/18/2015 15:42:59	Standard 1	Zn (213.857 nm)	0.0100 (ppm)	N/A	0.0100 (ppm)	143.6522
12/18/2015 15:46:30	Standard 2	Ag (328.068 nm)		N/A		12.7803
12/18/2015 15:46:30	Standard 2	Al (394.401 nm)	0.0656 (ppm)	2.37	0.0656 (ppm)	847.1102
12/18/2015 15:46:30	Standard 2	Al (394.401 nm)	0.1000 (ppm)	N/A	0.1000 (ppm)	888.8770
12/18/2015 15:46:30	Standard 2	As (188.980 nm)	0.0100 (ppm)	N/A	0.0100 (ppm)	5.2925
12/18/2015 15:46:30	Standard 2	B (249.772 nm)	0.2000 (ppm)	N/A	0.2000 (ppm)	2535.5994
12/18/2015 15:46:30	Standard 2	Ba (230.424 nm)		N/A		3.2771
12/18/2015 15:46:30	Standard 2	Be (313.107 nm)	0.0030 (ppm)	N/A	0.0030 (ppm)	2598.4461
12/18/2015 15:46:30	Standard 2	Ca (227.547 nm)	0.6580 (ppm)	10.66	0.6580 (ppm)	24.0576
12/18/2015 15:46:30	Standard 2	Ca (227.547 nm)	1.0000 (ppm)	N/A	1.0000 (ppm)	21.7199
12/18/2015 15:46:30	Standard 2	Cd (214.439 nm)	0.0050 (ppm)	N/A	0.0050 (ppm)	58.1902
12/18/2015 15:46:30	Standard 2	Co (230.786 nm)		N/A		1.1429
12/18/2015 15:46:30	Standard 2	Cr (267.716 nm)		N/A		124.0348
12/18/2015 15:46:30	Standard 2	Cu (327.395 nm)	0.0200 (ppm)	N/A	0.0200 (ppm)	598.9702
12/18/2015 15:46:30	Standard 2	Fe (234.350 nm)	-0.0036 (ppm)	14.88	-0.0036 (ppm)	21.8345
12/18/2015 15:46:30	Standard 2	Fe (234.350 nm)		N/A		17.1706
12/18/2015 15:46:30	Standard 2	K (766.491 nm)	2.0000 (ppm)	N/A	2.0000 (ppm)	4985.9992
12/18/2015 15:46:30	Standard 2	Mg (279.078 nm)	0.6636 (ppm)	1.42	0.6636 (ppm)	1221.3997
12/18/2015 15:46:30	Standard 2	Mg (279.078 nm)	1.0000 (ppm)	N/A	1.0000 (ppm)	1269.7448
12/18/2015 15:46:30	Standard 2	Mn (257.610 nm)		N/A		13.3335
12/18/2015 15:46:30	Standard 2	Mo (202.032 nm)		N/A		-0.4256
12/18/2015 15:46:30	Standard 2	Na (588.995 nm)	1.0000 (ppm)	N/A	1.0000 (ppm)	21176.0685
12/18/2015 15:46:30	Standard 2	Ni (230.299 nm)		N/A		-7.2567
12/18/2015 15:46:30	Standard 2	Pb (220.353 nm)	0.0500 (ppm)	N/A	0.0500 (ppm)	51.0993
12/18/2015 15:46:30	Standard 2	Sb (217.582 nm)	0.0600 (ppm)	N/A	0.0600 (ppm)	32.8900
12/18/2015 15:46:30	Standard 2	Se (196.026 nm)	0.0100 (ppm)	N/A	0.0100 (ppm)	5.0756

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 15:46:30	Standard 2	Sn (189.925 nm)	0.5000 (ppm)	N/A	0.5000 (ppm)	350.4207
12/18/2015 15:46:30	Standard 2	Sr (460.733 nm)		N/A		79.1229
12/18/2015 15:46:30	Standard 2	Ti (336.122 nm)		N/A		-54.0960
12/18/2015 15:46:30	Standard 2	Tl (351.923 nm)		N/A		-8.4868
12/18/2015 15:46:30	Standard 2	V (292.401 nm)		N/A		40.0865
12/18/2015 15:46:30	Standard 2	Y (360.074 nm)	1.00 (Ratio)	1.37	1.00 (Ratio)	580081.40
12/18/2015 15:46:30	Standard 2	Y_R (360.074 nm)	0.99 (Ratio)	0.39	0.99 (Ratio)	243575.04
12/18/2015 15:46:30	Standard 2	Zn (213.857 nm)		N/A		19.5902
12/18/2015 15:50:00	Standard 3	Ag (328.068 nm)	0.0100 (ppm)	N/A	0.0100 (ppm)	379.9355
12/18/2015 15:50:00	Standard 3	Al (394.401 nm)	0.1348 (ppm)	1.94	0.1348 (ppm)	1582.3394
12/18/2015 15:50:00	Standard 3	Al (394.401 nm)		N/A		1640.4245
12/18/2015 15:50:00	Standard 3	As (188.980 nm)		N/A		10.1046
12/18/2015 15:50:00	Standard 3	B (249.772 nm)	0.0500 (ppm)	N/A	0.0500 (ppm)	639.5685
12/18/2015 15:50:00	Standard 3	Ba (230.424 nm)		N/A		3159.9919
12/18/2015 15:50:00	Standard 3	Be (313.107 nm)	0.0050 (ppm)	N/A	0.0050 (ppm)	4213.9767
12/18/2015 15:50:00	Standard 3	Ca (227.547 nm)	0.2986 (ppm)	7.56	0.2986 (ppm)	11.0358
12/18/2015 15:50:00	Standard 3	Ca (227.547 nm)	0.5000 (ppm)	N/A	0.5000 (ppm)	9.7358
12/18/2015 15:50:00	Standard 3	Cd (214.439 nm)		N/A		111.3131
12/18/2015 15:50:00	Standard 3	Co (230.786 nm)	0.0500 (ppm)	N/A	0.0500 (ppm)	242.4742
12/18/2015 15:50:00	Standard 3	Cr (267.716 nm)	0.0100 (ppm)	N/A	0.0100 (ppm)	227.9311
12/18/2015 15:50:00	Standard 3	Cu (327.395 nm)		N/A		733.6776
12/18/2015 15:50:00	Standard 3	Fe (234.350 nm)	0.0763 (ppm)	1.98	0.0763 (ppm)	628.4847
12/18/2015 15:50:00	Standard 3	Fe (234.350 nm)	0.1000 (ppm)	N/A	0.1000 (ppm)	643.7601
12/18/2015 15:50:00	Standard 3	K (766.491 nm)	0.5000 (ppm)	N/A	0.5000 (ppm)	1315.7983
12/18/2015 15:50:00	Standard 3	Mg (279.078 nm)	0.3419 (ppm)	1.04	0.3419 (ppm)	638.6346
12/18/2015 15:50:00	Standard 3	Mg (279.078 nm)	0.5000 (ppm)	N/A	0.5000 (ppm)	664.2199
12/18/2015 15:50:00	Standard 3	Mn (257.610 nm)		N/A		1887.6628
12/18/2015 15:50:00	Standard 3	Mo (202.032 nm)		N/A		214.5434
12/18/2015 15:50:00	Standard 3	Na (588.995 nm)	0.5000 (ppm)	N/A	0.5000 (ppm)	7317.4715
12/18/2015 15:50:00	Standard 3	Ni (230.299 nm)	0.0400 (ppm)	N/A	0.0400 (ppm)	119.4666
12/18/2015 15:50:00	Standard 3	Pb (220.353 nm)		N/A		12.6829
12/18/2015 15:50:00	Standard 3	Sb (217.582 nm)		N/A		55.6982
12/18/2015 15:50:00	Standard 3	Se (196.026 nm)		N/A		3.0903
12/18/2015 15:50:00	Standard 3	Sn (189.925 nm)		N/A		73.6082
12/18/2015 15:50:00	Standard 3	Sr (460.733 nm)	0.0500 (ppm)	N/A	0.0500 (ppm)	722.9459
12/18/2015 15:50:00	Standard 3	Ti (336.122 nm)	0.1000 (ppm)	N/A	0.1000 (ppm)	6123.9460
12/18/2015 15:50:00	Standard 3	Tl (351.923 nm)	0.0500 (ppm)	N/A	0.0500 (ppm)	24.8109
12/18/2015 15:50:00	Standard 3	V (292.401 nm)	0.0500 (ppm)	N/A	0.0500 (ppm)	1001.4240
12/18/2015 15:50:00	Standard 3	Y (360.074 nm)	1.00 (Ratio)	1.10	1.00 (Ratio)	582346.33
12/18/2015 15:50:00	Standard 3	Y_R (360.074 nm)	0.99 (Ratio)	0.96	0.99 (Ratio)	241829.64
12/18/2015 15:50:00	Standard 3	Zn (213.857 nm)	0.0200 (ppm)	N/A	0.0200 (ppm)	245.5589
12/18/2015 15:53:30	Standard 4	Ag (328.068 nm)	0.2000 (ppm)	N/A	0.2000 (ppm)	7713.6624
12/18/2015 15:53:30	Standard 4	Al (394.401 nm)	3.0357 (ppm)	1.54	3.0357 (ppm)	32365.3746
12/18/2015 15:53:30	Standard 4	Al (394.401 nm)	4.0000 (ppm)	N/A	4.0000 (ppm)	32903.0475
12/18/2015 15:53:30	Standard 4	As (188.980 nm)	0.4000 (ppm)	N/A	0.4000 (ppm)	209.8717
12/18/2015 15:53:30	Standard 4	B (249.772 nm)	1.0000 (ppm)	N/A	1.0000 (ppm)	13046.0994
12/18/2015 15:53:30	Standard 4	Ba (230.424 nm)	4.0000 (ppm)	N/A	4.0000 (ppm)	63097.9967
12/18/2015 15:53:30	Standard 4	Be (313.107 nm)	0.1000 (ppm)	N/A	0.1000 (ppm)	88530.0692
12/18/2015 15:53:30	Standard 4	Ca (227.547 nm)	6.2839 (ppm)	2.31	6.2839 (ppm)	227.9061
12/18/2015 15:53:30	Standard 4	Ca (227.547 nm)	10.0000 (ppm)	N/A	10.0000 (ppm)	229.4899
12/18/2015 15:53:30	Standard 4	Cd (214.439 nm)	0.2000 (ppm)	N/A	0.2000 (ppm)	2200.6774

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 15:53:30	Standard 4	Co (230.786 nm)	1.0000 (ppm)	N/A	1.0000 (ppm)	4928.4566
12/18/2015 15:53:30	Standard 4	Cr (267.716 nm)	0.2000 (ppm)	N/A	0.2000 (ppm)	4705.3796
12/18/2015 15:53:30	Standard 4	Cu (327.395 nm)	0.5000 (ppm)	N/A	0.5000 (ppm)	14736.2659
12/18/2015 15:53:30	Standard 4	Fe (234.350 nm)	1.6257 (ppm)	1.59	1.6257 (ppm)	12397.5199
12/18/2015 15:53:30	Standard 4	Fe (234.350 nm)	2.0000 (ppm)	N/A	2.0000 (ppm)	12785.4465
12/18/2015 15:53:30	Standard 4	K (766.491 nm)	10.0000 (ppm)	N/A	10.0000 (ppm)	25572.2061
12/18/2015 15:53:30	Standard 4	Mg (279.078 nm)	7.0964 (ppm)	1.53	7.0964 (ppm)	12875.2876
12/18/2015 15:53:30	Standard 4	Mg (279.078 nm)	10.0000 (ppm)	N/A	10.0000 (ppm)	13405.2387
12/18/2015 15:53:30	Standard 4	Mn (257.610 nm)	0.3000 (ppm)	N/A	0.3000 (ppm)	37385.1816
12/18/2015 15:53:30	Standard 4	Mo (202.032 nm)	1.0000 (ppm)	N/A	1.0000 (ppm)	4408.0224
12/18/2015 15:53:30	Standard 4	Na (588.995 nm)	10.0000 (ppm)	N/A	10.0000 (ppm)	272217.8133
12/18/2015 15:53:30	Standard 4	Ni (230.299 nm)	0.8000 (ppm)	N/A	0.8000 (ppm)	2549.2728
12/18/2015 15:53:30	Standard 4	Pb (220.353 nm)	0.2000 (ppm)	N/A	0.2000 (ppm)	199.9977
12/18/2015 15:53:30	Standard 4	Sb (217.582 nm)	2.0000 (ppm)	N/A	2.0000 (ppm)	1107.7641
12/18/2015 15:53:30	Standard 4	Se (196.026 nm)	0.2000 (ppm)	N/A	0.2000 (ppm)	70.6003
12/18/2015 15:53:30	Standard 4	Sn (189.925 nm)	2.0000 (ppm)	N/A	2.0000 (ppm)	1405.0126
12/18/2015 15:53:30	Standard 4	Sr (460.733 nm)	1.0000 (ppm)	N/A	1.0000 (ppm)	13215.6189
12/18/2015 15:53:30	Standard 4	Ti (336.122 nm)	1.0000 (ppm)	N/A	1.0000 (ppm)	126501.1492
12/18/2015 15:53:30	Standard 4	Tl (351.923 nm)	0.4000 (ppm)	N/A	0.4000 (ppm)	611.7271
12/18/2015 15:53:30	Standard 4	V (292.401 nm)	1.0000 (ppm)	N/A	1.0000 (ppm)	19328.8262
12/18/2015 15:53:30	Standard 4	Y (360.074 nm)	0.98 (Ratio)	1.39	0.98 (Ratio)	569110.54
12/18/2015 15:53:30	Standard 4	Y_R (360.074 nm)	0.99 (Ratio)	0.42	0.99 (Ratio)	241884.06
12/18/2015 15:53:30	Standard 4	Zn (213.857 nm)	0.4000 (ppm)	N/A	0.4000 (ppm)	5053.3910
12/18/2015 15:57:00	Standard 5	Ag (328.068 nm)	1.0000 (ppm)	N/A	1.0000 (ppm)	38964.8427
12/18/2015 15:57:00	Standard 5	Al (394.401 nm)	16.0258 (ppm)	1.47	16.0258 (ppm)	170211.8760
12/18/2015 15:57:00	Standard 5	Al (394.401 nm)	20.0000 (ppm)	N/A	20.0000 (ppm)	171983.6437
12/18/2015 15:57:00	Standard 5	As (188.980 nm)	2.0000 (ppm)	N/A	2.0000 (ppm)	1056.1036
12/18/2015 15:57:00	Standard 5	B (249.772 nm)	5.0000 (ppm)	N/A	5.0000 (ppm)	66638.0628
12/18/2015 15:57:00	Standard 5	Ba (230.424 nm)	20.0000 (ppm)	N/A	20.0000 (ppm)	301812.2928
12/18/2015 15:57:00	Standard 5	Be (313.107 nm)	0.5000 (ppm)	N/A	0.5000 (ppm)	437239.4313
12/18/2015 15:57:00	Standard 5	Ca (227.547 nm)	32.3383 (ppm)	0.94	32.3383 (ppm)	1171.9510
12/18/2015 15:57:00	Standard 5	Ca (227.547 nm)	50.0000 (ppm)	N/A	50.0000 (ppm)	1191.6698
12/18/2015 15:57:00	Standard 5	Cd (214.439 nm)	1.0000 (ppm)	N/A	1.0000 (ppm)	10633.5502
12/18/2015 15:57:00	Standard 5	Co (230.786 nm)	5.0000 (ppm)	N/A	5.0000 (ppm)	23907.0364
12/18/2015 15:57:00	Standard 5	Cr (267.716 nm)	1.0000 (ppm)	N/A	1.0000 (ppm)	23101.8456
12/18/2015 15:57:00	Standard 5	Cu (327.395 nm)	2.5000 (ppm)	N/A	2.5000 (ppm)	75450.9360
12/18/2015 15:57:00	Standard 5	Fe (234.350 nm)	7.9622 (ppm)	1.35	7.9622 (ppm)	60526.4882
12/18/2015 15:57:00	Standard 5	Fe (234.350 nm)	10.0000 (ppm)	N/A	10.0000 (ppm)	62544.4808
12/18/2015 15:57:00	Standard 5	K (766.491 nm)	50.0000 (ppm)	N/A	50.0000 (ppm)	128047.2073
12/18/2015 15:57:00	Standard 5	Mg (279.078 nm)	35.5775 (ppm)	1.26	35.5775 (ppm)	64472.5005
12/18/2015 15:57:00	Standard 5	Mg (279.078 nm)	50.0000 (ppm)	N/A	50.0000 (ppm)	67336.8789
12/18/2015 15:57:00	Standard 5	Mn (257.610 nm)	1.5000 (ppm)	N/A	1.5000 (ppm)	181410.9098
12/18/2015 15:57:00	Standard 5	Mo (202.032 nm)	5.0000 (ppm)	N/A	5.0000 (ppm)	21858.2289
12/18/2015 15:57:00	Standard 5	Na (588.995 nm)	50.0000 (ppm)	N/A	50.0000 (ppm)	1367310.0226
12/18/2015 15:57:00	Standard 5	Ni (230.299 nm)	4.0000 (ppm)	N/A	4.0000 (ppm)	12302.0060
12/18/2015 15:57:00	Standard 5	Pb (220.353 nm)	1.0000 (ppm)	N/A	1.0000 (ppm)	964.3242
12/18/2015 15:57:00	Standard 5	Sb (217.582 nm)	10.0000 (ppm)	N/A	10.0000 (ppm)	5568.4101
12/18/2015 15:57:00	Standard 5	Se (196.026 nm)	1.0000 (ppm)	N/A	1.0000 (ppm)	349.8851
12/18/2015 15:57:00	Standard 5	Sn (189.925 nm)	10.0000 (ppm)	N/A	10.0000 (ppm)	6872.8143
12/18/2015 15:57:00	Standard 5	Sr (460.733 nm)	5.0000 (ppm)	N/A	5.0000 (ppm)	65757.6494
12/18/2015 15:57:00	Standard 5	Ti (336.122 nm)	5.0000 (ppm)	N/A	5.0000 (ppm)	628435.6417

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 15:57:00	Standard 5	Tl (351.923 nm)	2.0000 (ppm)	N/A	2.0000 (ppm)	3245.3908
12/18/2015 15:57:00	Standard 5	V (292.401 nm)	5.0000 (ppm)	N/A	5.0000 (ppm)	95492.6282
12/18/2015 15:57:00	Standard 5	Y (360.074 nm)	0.94 (Ratio)	1.36	0.94 (Ratio)	547985.92
12/18/2015 15:57:00	Standard 5	Y_R (360.074 nm)	0.95 (Ratio)	0.25	0.95 (Ratio)	234138.49
12/18/2015 15:57:00	Standard 5	Zn (213.857 nm)	2.0000 (ppm)	N/A	2.0000 (ppm)	24954.5692
12/18/2015 16:00:29	Initial Calibration Verification	Ag (328.068 nm)	0.4840 (ppm)	1.04	0.4840 (ppm)	18857.5468
12/18/2015 16:00:29	Initial Calibration Verification	Al (394.401 nm)	7.6367 (ppm)	1.09	7.6367 (ppm)	81189.2216
12/18/2015 16:00:29	Initial Calibration Verification	Al (394.401 nm)	9.5384 (ppm)	1.08	9.5384 (ppm)	82257.6803
12/18/2015 16:00:29	Initial Calibration Verification	As (188.980 nm)	0.9616 (ppm)	0.59	0.9616 (ppm)	508.4028
12/18/2015 16:00:29	Initial Calibration Verification	B (249.772 nm)	2.4241 (ppm)	0.83	2.4241 (ppm)	32290.8636
12/18/2015 16:00:29	Initial Calibration Verification	Ba (230.424 nm)	10.1800 (ppm)	1.47	10.1800 (ppm)	153910.6910
12/18/2015 16:00:29	Initial Calibration Verification	Be (313.107 nm)	0.2533 (ppm)	1.09	0.2533 (ppm)	221631.8348
12/18/2015 16:00:29	Initial Calibration Verification	Ca (227.547 nm)	16.1081 (ppm)	0.68	16.1081 (ppm)	583.8724
12/18/2015 16:00:29	Initial Calibration Verification	Ca (227.547 nm)	24.8198 (ppm)	0.54	24.8198 (ppm)	590.9534
12/18/2015 16:00:29	Initial Calibration Verification	Cd (214.439 nm)	0.5043 (ppm)	1.07	0.5043 (ppm)	5369.9009
12/18/2015 16:00:29	Initial Calibration Verification	Co (230.786 nm)	2.4618 (ppm)	1.40	2.4618 (ppm)	11784.4217
12/18/2015 16:00:29	Initial Calibration Verification	Cr (267.716 nm)	0.5175 (ppm)	1.06	0.5175 (ppm)	11965.6073
12/18/2015 16:00:29	Initial Calibration Verification	Cu (327.395 nm)	1.2169 (ppm)	1.15	1.2169 (ppm)	36705.5476
12/18/2015 16:00:29	Initial Calibration Verification	Fe (234.350 nm)	3.9776 (ppm)	1.11	3.9776 (ppm)	30261.2487
12/18/2015 16:00:29	Initial Calibration Verification	Fe (234.350 nm)	4.9703 (ppm)	1.10	4.9703 (ppm)	31275.6088
12/18/2015 16:00:29	Initial Calibration Verification	K (766.491 nm)	25.0813 (ppm)	0.07	25.0813 (ppm)	64204.1437
12/18/2015 16:00:29	Initial Calibration Verification	Mg (279.078 nm)	17.1798 (ppm)	1.20	17.1798 (ppm)	31142.6307
12/18/2015 16:00:29	Initial Calibration Verification	Mg (279.078 nm)	24.1189 (ppm)	1.14	24.1189 (ppm)	32493.2816
12/18/2015 16:00:29	Initial Calibration Verification	Mn (257.610 nm)	0.7646 (ppm)	1.08	0.7646 (ppm)	92616.4098
12/18/2015 16:00:29	Initial Calibration Verification	Mo (202.032 nm)	2.4600 (ppm)	1.12	2.4600 (ppm)	10760.5126
12/18/2015 16:00:29	Initial Calibration Verification	Na (588.995 nm)	24.9378 (ppm)	0.28	24.9378 (ppm)	678244.8020
12/18/2015 16:00:29	Initial Calibration Verification	Ni (230.299 nm)	2.0648 (ppm)	1.09	2.0648 (ppm)	6356.4238
12/18/2015 16:00:29	Initial Calibration Verification	Pb (220.353 nm)	0.5065 (ppm)	1.27	0.5065 (ppm)	489.5086
12/18/2015 16:00:29	Initial Calibration Verification	Sb (217.582 nm)	4.9425 (ppm)	0.98	4.9425 (ppm)	2753.2246
12/18/2015 16:00:29	Initial Calibration Verification	Se (196.026 nm)	0.4897 (ppm)	1.13	0.4897 (ppm)	171.6350
12/18/2015 16:00:29	Initial Calibration Verification	Sn (189.925 nm)	4.9636 (ppm)	1.60	4.9636 (ppm)	3415.1206
12/18/2015 16:00:29	Initial Calibration Verification	Sr (460.733 nm)	2.4923 (ppm)	0.19	2.4923 (ppm)	32796.8194
12/18/2015 16:00:29	Initial Calibration Verification	Ti (336.122 nm)	2.4695 (ppm)	1.07	2.4695 (ppm)	310486.1504
12/18/2015 16:00:29	Initial Calibration Verification	Tl (351.923 nm)	1.0088 (ppm)	1.28	1.0088 (ppm)	1628.4815
12/18/2015 16:00:29	Initial Calibration Verification	V (292.401 nm)	2.4943 (ppm)	0.06	2.4943 (ppm)	47679.5051
12/18/2015 16:00:29	Initial Calibration Verification	Y (360.074 nm)	0.96 (Ratio)	1.09	0.96 (Ratio)	560626.26
12/18/2015 16:00:29	Initial Calibration Verification	Y_R (360.074 nm)	0.96 (Ratio)	0.14	0.96 (Ratio)	236561.24
12/18/2015 16:00:29	Initial Calibration Verification	Zn (213.857 nm)	1.0078 (ppm)	1.05	1.0078 (ppm)	12599.3938
12/18/2015 16:03:57	Initial Calibration Blank	Ag (328.068 nm)	0.0006 (ppm)	51.41	0.0006 (ppm)	32.9887
12/18/2015 16:03:57	Initial Calibration Blank	Al (394.401 nm)	0.0016 u (ppm)	> 100.00	0.0016 (ppm)	168.3031
12/18/2015 16:03:57	Initial Calibration Blank	Al (394.401 nm)	0.0017 u (ppm)	> 100.00	0.0017 (ppm)	199.0100
12/18/2015 16:03:57	Initial Calibration Blank	As (188.980 nm)	-0.0009 u (ppm)	> 100.00	-0.0009 (ppm)	1.0296
12/18/2015 16:03:57	Initial Calibration Blank	B (249.772 nm)	0.0059 (ppm)	31.73	0.0059 (ppm)	90.1275
12/18/2015 16:03:57	Initial Calibration Blank	Ba (230.424 nm)	0.0185 (ppm)	35.98	0.0185 (ppm)	287.8624
12/18/2015 16:03:57	Initial Calibration Blank	Be (313.107 nm)	0.0004 (ppm)	36.88	0.0004 (ppm)	316.9224
12/18/2015 16:03:57	Initial Calibration Blank	Ca (227.547 nm)	0.0552 (ppm)	53.69	0.0552 (ppm)	2.2165
12/18/2015 16:03:57	Initial Calibration Blank	Ca (227.547 nm)	0.1319 (ppm)	63.16	0.1319 (ppm)	0.7039
12/18/2015 16:03:57	Initial Calibration Blank	Cd (214.439 nm)	0.0008 (ppm)	53.68	0.0008 (ppm)	11.9022
12/18/2015 16:03:57	Initial Calibration Blank	Co (230.786 nm)	0.0045 Z (ppm)	40.11	0.0045 (ppm)	22.0492 Z
12/18/2015 16:03:57	Initial Calibration Blank	Cr (267.716 nm)	0.0010 (ppm)	28.23	0.0010 (ppm)	20.5349
12/18/2015 16:03:57	Initial Calibration Blank	Cu (327.395 nm)	0.0019 (ppm)	27.76	0.0019 (ppm)	80.8957

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 16:03:57	Initial Calibration Blank	Fe (234.350 nm)	0.0029 (ppm)	70.29	0.0029 (ppm)	70.9625
12/18/2015 16:03:57	Initial Calibration Blank	Fe (234.350 nm)	0.0034 (ppm)	83.17	0.0034 (ppm)	70.4216
12/18/2015 16:03:57	Initial Calibration Blank	K (766.491 nm)	0.0605 (ppm)	46.57	0.0605 (ppm)	115.4460
12/18/2015 16:03:57	Initial Calibration Blank	Mg (279.078 nm)	0.0206 (ppm)	54.34	0.0206 (ppm)	56.5166
12/18/2015 16:03:57	Initial Calibration Blank	Mg (279.078 nm)	0.0303 (ppm)	52.62	0.0303 (ppm)	63.2266
12/18/2015 16:03:57	Initial Calibration Blank	Mn (257.610 nm)	0.0013 (ppm)	35.89	0.0013 (ppm)	169.1081
12/18/2015 16:03:57	Initial Calibration Blank	Mo (202.032 nm)	0.0059 (ppm)	31.22	0.0059 (ppm)	27.9458
12/18/2015 16:03:57	Initial Calibration Blank	Na (588.995 nm)	0.0416 (ppm)	10.49	0.0416 (ppm)	-6082.9713
12/18/2015 16:03:57	Initial Calibration Blank	Ni (230.299 nm)	0.0046 (ppm)	26.14	0.0046 (ppm)	4.4931
12/18/2015 16:03:57	Initial Calibration Blank	Pb (220.353 nm)	-0.0013 u (ppm)	49.38	-0.0013 (ppm)	1.6656
12/18/2015 16:03:57	Initial Calibration Blank	Sb (217.582 nm)	0.0115 Z (ppm)	22.38	0.0115 (ppm)	7.8579 Z
12/18/2015 16:03:57	Initial Calibration Blank	Se (196.026 nm)	0.0026 (ppm)	> 100.00	0.0026 (ppm)	1.3473
12/18/2015 16:03:57	Initial Calibration Blank	Sn (189.925 nm)	0.0200 (ppm)	18.86	0.0200 (ppm)	13.9947
12/18/2015 16:03:57	Initial Calibration Blank	Sr (460.733 nm)	0.0033 u (ppm)	99.73	0.0033 (ppm)	109.7870
12/18/2015 16:03:57	Initial Calibration Blank	Ti (336.122 nm)	0.0046 (ppm)	32.24	0.0046 (ppm)	552.1841
12/18/2015 16:03:57	Initial Calibration Blank	Tl (351.923 nm)	0.0085 (ppm)	50.50	0.0085 (ppm)	3.1531
12/18/2015 16:03:57	Initial Calibration Blank	V (292.401 nm)	0.0044 Z (ppm)	30.56	0.0044 (ppm)	120.5438 Z
12/18/2015 16:03:57	Initial Calibration Blank	Y (360.074 nm)	1.02 (Ratio)	1.01	1.02 (Ratio)	591523.41
12/18/2015 16:03:57	Initial Calibration Blank	Y_R (360.074 nm)	1.01 (Ratio)	0.26	1.01 (Ratio)	248593.87
12/18/2015 16:03:57	Initial Calibration Blank	Zn (213.857 nm)	0.0017 (ppm)	37.26	0.0017 (ppm)	22.3726
12/18/2015 16:07:26	Contract Required Detection Limit	Ag (328.068 nm)	0.0100 (ppm)	1.99	0.0100 (ppm)	398.7951
12/18/2015 16:07:26	Contract Required Detection Limit	Al (394.401 nm)	0.1381 (ppm)	2.41	0.1381 (ppm)	1617.4497
12/18/2015 16:07:26	Contract Required Detection Limit	Al (394.401 nm)	0.1726 (ppm)	2.69	0.1726 (ppm)	1674.5632
12/18/2015 16:07:26	Contract Required Detection Limit	As (188.980 nm)	0.0190 (ppm)	6.71	0.0190 (ppm)	11.5187
12/18/2015 16:07:26	Contract Required Detection Limit	B (249.772 nm)	0.1904 (ppm)	1.58	0.1904 (ppm)	2546.5440
12/18/2015 16:07:26	Contract Required Detection Limit	Ba (230.424 nm)	0.2116 (ppm)	1.61	0.2116 (ppm)	3207.8612
12/18/2015 16:07:26	Contract Required Detection Limit	Be (313.107 nm)	0.0050 (ppm)	1.74	0.0050 (ppm)	4301.3244
12/18/2015 16:07:26	Contract Required Detection Limit	Ca (227.547 nm)	0.6082 (ppm)	13.67	0.6082 (ppm)	22.2524
12/18/2015 16:07:26	Contract Required Detection Limit	Ca (227.547 nm)	0.9548 (ppm)	15.89	0.9548 (ppm)	20.3762
12/18/2015 16:07:26	Contract Required Detection Limit	Cd (214.439 nm)	0.0100 (ppm)	0.82	0.0100 (ppm)	109.6654
12/18/2015 16:07:26	Contract Required Detection Limit	Co (230.786 nm)	0.0518 (ppm)	1.53	0.0518 (ppm)	248.6192
12/18/2015 16:07:26	Contract Required Detection Limit	Cr (267.716 nm)	0.0107 (ppm)	2.78	0.0107 (ppm)	244.3286
12/18/2015 16:07:26	Contract Required Detection Limit	Cu (327.395 nm)	0.0244 (ppm)	1.51	0.0244 (ppm)	760.2274
12/18/2015 16:07:26	Contract Required Detection Limit	Fe (234.350 nm)	0.0794 (ppm)	1.98	0.0794 (ppm)	652.1957
12/18/2015 16:07:26	Contract Required Detection Limit	Fe (234.350 nm)	0.0983 (ppm)	1.93	0.0983 (ppm)	668.3427
12/18/2015 16:07:26	Contract Required Detection Limit	K (766.491 nm)	1.0347 (ppm)	0.27	1.0347 (ppm)	2610.7951
12/18/2015 16:07:26	Contract Required Detection Limit	Mg (279.078 nm)	0.6898 (ppm)	1.83	0.6898 (ppm)	1268.9230
12/18/2015 16:07:26	Contract Required Detection Limit	Mg (279.078 nm)	0.9608 (ppm)	1.48	0.9608 (ppm)	1315.8911
12/18/2015 16:07:26	Contract Required Detection Limit	Mn (257.610 nm)	0.0158 (ppm)	1.97	0.0158 (ppm)	1919.2624
12/18/2015 16:07:26	Contract Required Detection Limit	Mo (202.032 nm)	0.0251 (ppm)	1.65	0.0251 (ppm)	111.8675
12/18/2015 16:07:26	Contract Required Detection Limit	Na (588.995 nm)	1.0699 (ppm)	0.28	1.0699 (ppm)	22185.8468
12/18/2015 16:07:26	Contract Required Detection Limit	Ni (230.299 nm)	0.0422 (ppm)	2.69	0.0422 (ppm)	120.2670
12/18/2015 16:07:26	Contract Required Detection Limit	Pb (220.353 nm)	0.0081 (ppm)	17.58	0.0081 (ppm)	10.6560
12/18/2015 16:07:26	Contract Required Detection Limit	Sb (217.582 nm)	0.0631 (ppm)	6.44	0.0631 (ppm)	36.5544
12/18/2015 16:07:26	Contract Required Detection Limit	Se (196.026 nm)	0.0115 (ppm)	54.06	0.0115 (ppm)	4.4559
12/18/2015 16:07:26	Contract Required Detection Limit	Sn (189.925 nm)	0.4937 (ppm)	1.79	0.4937 (ppm)	339.8502
12/18/2015 16:07:26	Contract Required Detection Limit	Sr (460.733 nm)	0.0955 (ppm)	2.91	0.0955 (ppm)	1321.1166
12/18/2015 16:07:26	Contract Required Detection Limit	Ti (336.122 nm)	0.0494 (ppm)	1.66	0.0494 (ppm)	6183.8727
12/18/2015 16:07:26	Contract Required Detection Limit	Tl (351.923 nm)	0.0237 (ppm)	24.00	0.0237 (ppm)	27.9874
12/18/2015 16:07:26	Contract Required Detection Limit	V (292.401 nm)	0.0507 (ppm)	0.81	0.0507 (ppm)	1004.9007
12/18/2015 16:07:26	Contract Required Detection Limit	Y (360.074 nm)	1.00 (Ratio)	1.28	1.00 (Ratio)	581760.59

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 16:07:26	Contract Required Detection Limit	Y_R (360.074 nm)	1.00 (Ratio)	0.46	1.00 (Ratio)	245065.01
12/18/2015 16:07:26	Contract Required Detection Limit	Zn (213.857 nm)	0.0202 (ppm)	1.49	0.0202 (ppm)	253.8449
12/18/2015 16:10:55	Interference Check Solution A	Ag (328.068 nm)	0.0003 (ppm)	> 100.00	0.0003 (ppm)	25.7596
12/18/2015 16:10:55	Interference Check Solution A	Al (394.401 nm)	204.7763 (ppm)	0.19	204.7763 (ppm)	2173162.1137
12/18/2015 16:10:55	Interference Check Solution A	Al (394.401 nm)	255.8336 o (ppm)	0.18	255.8336 (ppm)	2196894.9605
12/18/2015 16:10:55	Interference Check Solution A	As (188.980 nm)	0.0031 u (ppm)	> 100.00	0.0031 (ppm)	3.5453
12/18/2015 16:10:55	Interference Check Solution A	B (249.772 nm)	-0.0424 u (ppm)	0.54	-0.0424 (ppm)	-481.4411
12/18/2015 16:10:55	Interference Check Solution A	Ba (230.424 nm)	-0.0242 u (ppm)	2.47	-0.0242 (ppm)	25.1176
12/18/2015 16:10:55	Interference Check Solution A	Be (313.107 nm)	-0.0006 u (ppm)	1.69	-0.0006 (ppm)	-57.9353
12/18/2015 16:10:55	Interference Check Solution A	Ca (227.547 nm)	172.8685 (ppm)	0.25	172.8685 (ppm)	6263.8736
12/18/2015 16:10:55	Interference Check Solution A	Ca (227.547 nm)	268.0861 o (ppm)	0.27	268.0861 (ppm)	6410.3948
12/18/2015 16:10:55	Interference Check Solution A	Cd (214.439 nm)	-0.0008 u (ppm)	20.11	-0.0008 (ppm)	-22.9538
12/18/2015 16:10:55	Interference Check Solution A	Co (230.786 nm)	-0.0053 Ku (ppm)	9.56	-0.0053 (ppm)	-31.9325 K
12/18/2015 16:10:55	Interference Check Solution A	Cr (267.716 nm)	-0.0017 Ku (ppm)	11.54	-0.0017 (ppm)	3.4390 K
12/18/2015 16:10:55	Interference Check Solution A	Cu (327.395 nm)	-0.0035 u (ppm)	10.05	-0.0035 (ppm)	16.3370
12/18/2015 16:10:55	Interference Check Solution A	Fe (234.350 nm)	73.0418 (ppm)	0.26	73.0418 (ppm)	554839.5412
12/18/2015 16:10:55	Interference Check Solution A	Fe (234.350 nm)	91.3129 o (ppm)	0.21	91.3129 (ppm)	573055.0035
12/18/2015 16:10:55	Interference Check Solution A	K (766.491 nm)	0.0855 (ppm)	23.49	0.0855 (ppm)	67.9913
12/18/2015 16:10:55	Interference Check Solution A	Mg (279.078 nm)	175.7826 (ppm)	0.24	175.7826 (ppm)	318472.5249
12/18/2015 16:10:55	Interference Check Solution A	Mg (279.078 nm)	247.1461 o (ppm)	0.22	247.1461 (ppm)	332780.5050
12/18/2015 16:10:55	Interference Check Solution A	Mn (257.610 nm)	-0.0032 u (ppm)	2.96	-0.0032 (ppm)	158.3553
12/18/2015 16:10:55	Interference Check Solution A	Mo (202.032 nm)	-0.0075 u (ppm)	15.16	-0.0075 (ppm)	-2.6724
12/18/2015 16:10:55	Interference Check Solution A	Na (588.995 nm)	0.3397 (ppm)	1.74	0.3397 (ppm)	-4752.3518
12/18/2015 16:10:55	Interference Check Solution A	Ni (230.299 nm)	-0.0078 Ku (ppm)	10.53	-0.0078 (ppm)	-9.9958 K
12/18/2015 16:10:55	Interference Check Solution A	Pb (220.353 nm)	-0.0005 u (ppm)	> 100.00	-0.0005 (ppm)	-17.3494
12/18/2015 16:10:55	Interference Check Solution A	Sb (217.582 nm)	-0.0089 u (ppm)	9.30	-0.0089 (ppm)	13.2267
12/18/2015 16:10:55	Interference Check Solution A	Se (196.026 nm)	-0.0034 u (ppm)	> 100.00	-0.0034 (ppm)	-1.1059
12/18/2015 16:10:55	Interference Check Solution A	Sn (189.925 nm)	-0.0196 u (ppm)	11.05	-0.0196 (ppm)	-2.2702
12/18/2015 16:10:55	Interference Check Solution A	Sr (460.733 nm)	0.0134 (ppm)	80.87	0.0134 (ppm)	-122.2293
12/18/2015 16:10:55	Interference Check Solution A	Ti (336.122 nm)	-0.0090 u (ppm)	0.30	-0.0090 (ppm)	-143.8335
12/18/2015 16:10:55	Interference Check Solution A	Tl (351.923 nm)	-0.0020 u (ppm)	> 100.00	-0.0020 (ppm)	-10.8783
12/18/2015 16:10:55	Interference Check Solution A	V (292.401 nm)	-0.0080 Ku (ppm)	3.15	-0.0080 (ppm)	-44.8814 K
12/18/2015 16:10:55	Interference Check Solution A	Y (360.074 nm)	0.89 (Ratio)	0.50	0.89 (Ratio)	517779.48
12/18/2015 16:10:55	Interference Check Solution A	Y_R (360.074 nm)	0.92 (Ratio)	0.45	0.92 (Ratio)	226126.17
12/18/2015 16:10:55	Interference Check Solution A	Zn (213.857 nm)	-0.0092 u (ppm)	2.22	-0.0092 (ppm)	151.5542
12/18/2015 16:14:24	Interference Check Solution AB	Ag (328.068 nm)	0.2117 (ppm)	0.12	0.2117 (ppm)	8254.4287
12/18/2015 16:14:24	Interference Check Solution AB	Al (394.401 nm)	205.5726 (ppm)	0.34	205.5726 (ppm)	2181612.4412
12/18/2015 16:14:24	Interference Check Solution AB	Al (394.401 nm)	256.9377 o (ppm)	0.33	256.9377 (ppm)	2206380.3087
12/18/2015 16:14:24	Interference Check Solution AB	As (188.980 nm)	0.0993 (ppm)	4.01	0.0993 (ppm)	54.2944
12/18/2015 16:14:24	Interference Check Solution AB	B (249.772 nm)	-0.0414 u (ppm)	1.96	-0.0414 (ppm)	-466.5926
12/18/2015 16:14:24	Interference Check Solution AB	Ba (230.424 nm)	0.4933 (ppm)	0.39	0.4933 (ppm)	7849.4053
12/18/2015 16:14:24	Interference Check Solution AB	Be (313.107 nm)	0.5022 (ppm)	0.24	0.5022 (ppm)	439835.8288
12/18/2015 16:14:24	Interference Check Solution AB	Ca (227.547 nm)	173.9365 (ppm)	0.17	173.9365 (ppm)	6302.5736
12/18/2015 16:14:24	Interference Check Solution AB	Ca (227.547 nm)	269.5397 o (ppm)	0.22	269.5397 (ppm)	6445.1261
12/18/2015 16:14:24	Interference Check Solution AB	Cd (214.439 nm)	0.9674 (ppm)	0.45	0.9674 (ppm)	10282.7350
12/18/2015 16:14:24	Interference Check Solution AB	Co (230.786 nm)	0.4718 (ppm)	0.38	0.4718 (ppm)	2251.8718
12/18/2015 16:14:24	Interference Check Solution AB	Cr (267.716 nm)	0.5028 (ppm)	0.09	0.5028 (ppm)	11666.1965
12/18/2015 16:14:24	Interference Check Solution AB	Cu (327.395 nm)	0.5232 (ppm)	0.29	0.5232 (ppm)	15893.2863
12/18/2015 16:14:24	Interference Check Solution AB	Fe (234.350 nm)	73.2895 (ppm)	0.35	73.2895 (ppm)	556721.3107
12/18/2015 16:14:24	Interference Check Solution AB	Fe (234.350 nm)	91.9165 o (ppm)	0.25	91.9165 (ppm)	576837.6615
12/18/2015 16:14:24	Interference Check Solution AB	K (766.491 nm)	0.0668 (ppm)	20.52	0.0668 (ppm)	19.5326

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 16:14:24	Interference Check Solution AB	Mg (279.078 nm)	176.2640 (ppm)	0.36	176.2640 (ppm)	319344.7648
12/18/2015 16:14:24	Interference Check Solution AB	Mg (279.078 nm)	248.5493 o (ppm)	0.27	248.5493 (ppm)	334669.7736
12/18/2015 16:14:24	Interference Check Solution AB	Mn (257.610 nm)	0.5007 (ppm)	0.24	0.5007 (ppm)	61176.5124
12/18/2015 16:14:24	Interference Check Solution AB	Mo (202.032 nm)	-0.0068 u (ppm)	5.30	-0.0068 (ppm)	0.6185
12/18/2015 16:14:24	Interference Check Solution AB	Na (588.995 nm)	0.3427 (ppm)	1.05	0.3427 (ppm)	-4699.4578
12/18/2015 16:14:24	Interference Check Solution AB	Ni (230.299 nm)	0.9607 (ppm)	0.32	0.9607 (ppm)	2975.5898
12/18/2015 16:14:24	Interference Check Solution AB	Pb (220.353 nm)	0.0411 (ppm)	3.96	0.0411 (ppm)	22.6438
12/18/2015 16:14:24	Interference Check Solution AB	Sb (217.582 nm)	0.5931 (ppm)	1.39	0.5931 (ppm)	348.3487
12/18/2015 16:14:24	Interference Check Solution AB	Se (196.026 nm)	0.0569 (ppm)	26.57	0.0569 (ppm)	19.9576
12/18/2015 16:14:24	Interference Check Solution AB	Sn (189.925 nm)	-0.0161 u (ppm)	12.48	-0.0161 (ppm)	0.2011
12/18/2015 16:14:24	Interference Check Solution AB	Sr (460.733 nm)	0.0179 (ppm)	23.89	0.0179 (ppm)	-64.7198
12/18/2015 16:14:24	Interference Check Solution AB	Ti (336.122 nm)	-0.0092 u (ppm)	0.33	-0.0092 (ppm)	-166.8713
12/18/2015 16:14:24	Interference Check Solution AB	Tl (351.923 nm)	0.1127 (ppm)	3.48	0.1127 (ppm)	175.4230
12/18/2015 16:14:24	Interference Check Solution AB	V (292.401 nm)	0.4771 (ppm)	0.32	0.4771 (ppm)	9221.3427
12/18/2015 16:14:24	Interference Check Solution AB	Y (360.074 nm)	0.89 (Ratio)	0.69	0.89 (Ratio)	518278.61
12/18/2015 16:14:24	Interference Check Solution AB	Y_R (360.074 nm)	0.92 (Ratio)	0.16	0.92 (Ratio)	225244.65
12/18/2015 16:14:24	Interference Check Solution AB	Zn (213.857 nm)	0.9819 (ppm)	0.32	0.9819 (ppm)	12524.9950
12/18/2015 16:17:54	Continuing Calibration Verification	Ag (328.068 nm)	0.4854 (ppm)	1.75	0.4854 (ppm)	18910.1201
12/18/2015 16:17:54	Continuing Calibration Verification	Al (394.401 nm)	7.7143 (ppm)	1.95	7.7143 (ppm)	82013.2028
12/18/2015 16:17:54	Continuing Calibration Verification	Al (394.401 nm)	9.6265 (ppm)	1.97	9.6265 (ppm)	83014.8234
12/18/2015 16:17:54	Continuing Calibration Verification	As (188.980 nm)	0.9731 (ppm)	1.54	0.9731 (ppm)	514.4497
12/18/2015 16:17:54	Continuing Calibration Verification	B (249.772 nm)	2.4297 (ppm)	1.54	2.4297 (ppm)	32365.6291
12/18/2015 16:17:54	Continuing Calibration Verification	Ba (230.424 nm)	10.1874 (ppm)	1.85	10.1874 (ppm)	154021.7772
12/18/2015 16:17:54	Continuing Calibration Verification	Be (313.107 nm)	0.2538 (ppm)	1.57	0.2538 (ppm)	222082.9405
12/18/2015 16:17:54	Continuing Calibration Verification	Ca (227.547 nm)	16.2309 (ppm)	2.21	16.2309 (ppm)	588.3220
12/18/2015 16:17:54	Continuing Calibration Verification	Ca (227.547 nm)	25.0515 (ppm)	2.25	25.0515 (ppm)	596.4886
12/18/2015 16:17:54	Continuing Calibration Verification	Cd (214.439 nm)	0.5051 (ppm)	1.75	0.5051 (ppm)	5379.2762
12/18/2015 16:17:54	Continuing Calibration Verification	Co (230.786 nm)	2.4628 (ppm)	1.66	2.4628 (ppm)	11789.2267
12/18/2015 16:17:54	Continuing Calibration Verification	Cr (267.716 nm)	0.5178 (ppm)	1.56	0.5178 (ppm)	11971.6602
12/18/2015 16:17:54	Continuing Calibration Verification	Cu (327.395 nm)	1.2224 (ppm)	1.58	1.2224 (ppm)	36873.6420
12/18/2015 16:17:54	Continuing Calibration Verification	Fe (234.350 nm)	4.0089 (ppm)	1.69	4.0089 (ppm)	30499.1864
12/18/2015 16:17:54	Continuing Calibration Verification	Fe (234.350 nm)	4.9949 (ppm)	1.75	4.9949 (ppm)	31430.1477
12/18/2015 16:17:54	Continuing Calibration Verification	K (766.491 nm)	24.9490 (ppm)	0.80	24.9490 (ppm)	63865.3859
12/18/2015 16:17:54	Continuing Calibration Verification	Mg (279.078 nm)	17.2837 (ppm)	1.58	17.2837 (ppm)	31331.0164
12/18/2015 16:17:54	Continuing Calibration Verification	Mg (279.078 nm)	24.1999 (ppm)	1.62	24.1999 (ppm)	32602.3420
12/18/2015 16:17:54	Continuing Calibration Verification	Mn (257.610 nm)	0.7650 (ppm)	1.56	0.7650 (ppm)	92666.3065
12/18/2015 16:17:54	Continuing Calibration Verification	Mo (202.032 nm)	2.4517 (ppm)	1.49	2.4517 (ppm)	10724.4367
12/18/2015 16:17:54	Continuing Calibration Verification	Na (588.995 nm)	24.7667 (ppm)	0.61	24.7667 (ppm)	673536.0654
12/18/2015 16:17:54	Continuing Calibration Verification	Ni (230.299 nm)	2.0674 (ppm)	1.41	2.0674 (ppm)	6364.4921
12/18/2015 16:17:54	Continuing Calibration Verification	Pb (220.353 nm)	0.5101 (ppm)	1.96	0.5101 (ppm)	492.8834
12/18/2015 16:17:54	Continuing Calibration Verification	Sb (217.582 nm)	4.9648 (ppm)	1.58	4.9648 (ppm)	2765.6449
12/18/2015 16:17:54	Continuing Calibration Verification	Se (196.026 nm)	0.4934 (ppm)	1.40	0.4934 (ppm)	172.9207
12/18/2015 16:17:54	Continuing Calibration Verification	Sn (189.925 nm)	4.9551 (ppm)	1.48	4.9551 (ppm)	3409.2789
12/18/2015 16:17:54	Continuing Calibration Verification	Sr (460.733 nm)	2.4654 (ppm)	0.68	2.4654 (ppm)	32442.4207
12/18/2015 16:17:54	Continuing Calibration Verification	Ti (336.122 nm)	2.4746 (ppm)	1.54	2.4746 (ppm)	311118.4944
12/18/2015 16:17:54	Continuing Calibration Verification	Tl (351.923 nm)	1.0090 (ppm)	1.57	1.0090 (ppm)	1628.8698
12/18/2015 16:17:54	Continuing Calibration Verification	V (292.401 nm)	2.4719 (ppm)	0.51	2.4719 (ppm)	47251.5360
12/18/2015 16:17:54	Continuing Calibration Verification	Y (360.074 nm)	0.96 (Ratio)	1.68	0.96 (Ratio)	556981.27
12/18/2015 16:17:54	Continuing Calibration Verification	Y_R (360.074 nm)	0.97 (Ratio)	0.41	0.97 (Ratio)	237492.16
12/18/2015 16:17:54	Continuing Calibration Verification	Zn (213.857 nm)	1.0040 (ppm)	1.59	1.0040 (ppm)	12551.8569
12/18/2015 16:21:23	Continuing Calibration Blank	Ag (328.068 nm)	0.0002 (ppm)	23.24	0.0002 (ppm)	18.5858

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 16:21:23	Continuing Calibration Blank	Al (394.401 nm)	-0.0028 u (ppm)	> 100.00	-0.0028 (ppm)	122.2054
12/18/2015 16:21:23	Continuing Calibration Blank	Al (394.401 nm)	-0.0039 u (ppm)	> 100.00	-0.0039 (ppm)	151.0637
12/18/2015 16:21:23	Continuing Calibration Blank	As (188.980 nm)	-0.0029 u (ppm)	67.42	-0.0029 (ppm)	-0.0240
12/18/2015 16:21:23	Continuing Calibration Blank	B (249.772 nm)	0.0015 (ppm)	44.61	0.0015 (ppm)	32.0190
12/18/2015 16:21:23	Continuing Calibration Blank	Ba (230.424 nm)	0.0023 (ppm)	76.01	0.0023 (ppm)	42.9349
12/18/2015 16:21:23	Continuing Calibration Blank	Be (313.107 nm)	0.0000 (ppm)	> 100.00	0.0000 (ppm)	-0.9275
12/18/2015 16:21:23	Continuing Calibration Blank	Ca (227.547 nm)	0.0287 u (ppm)	> 100.00	0.0287 (ppm)	1.2572
12/18/2015 16:21:23	Continuing Calibration Blank	Ca (227.547 nm)	0.0953 u (ppm)	> 100.00	0.0953 (ppm)	-0.1707
12/18/2015 16:21:23	Continuing Calibration Blank	Cd (214.439 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	1.8442
12/18/2015 16:21:23	Continuing Calibration Blank	Co (230.786 nm)	0.0004 (ppm)	> 100.00	0.0004 (ppm)	2.5320
12/18/2015 16:21:23	Continuing Calibration Blank	Cr (267.716 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	-2.4627
12/18/2015 16:21:23	Continuing Calibration Blank	Cu (327.395 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	28.8636
12/18/2015 16:21:23	Continuing Calibration Blank	Fe (234.350 nm)	-0.0005 u (ppm)	> 100.00	-0.0005 (ppm)	45.5041
12/18/2015 16:21:23	Continuing Calibration Blank	Fe (234.350 nm)	-0.0010 u (ppm)	> 100.00	-0.0010 (ppm)	42.2808
12/18/2015 16:21:23	Continuing Calibration Blank	K (766.491 nm)	0.0324 (ppm)	62.11	0.0324 (ppm)	43.4701
12/18/2015 16:21:23	Continuing Calibration Blank	Mg (279.078 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	19.4728
12/18/2015 16:21:23	Continuing Calibration Blank	Mg (279.078 nm)	-0.0006 u (ppm)	> 100.00	-0.0006 (ppm)	21.6139
12/18/2015 16:21:23	Continuing Calibration Blank	Mn (257.610 nm)	0.0002 (ppm)	89.87	0.0002 (ppm)	26.6637
12/18/2015 16:21:23	Continuing Calibration Blank	Mo (202.032 nm)	0.0009 (ppm)	63.54	0.0009 (ppm)	6.1573
12/18/2015 16:21:23	Continuing Calibration Blank	Na (588.995 nm)	0.0187 (ppm)	56.22	0.0187 (ppm)	-6712.4635
12/18/2015 16:21:23	Continuing Calibration Blank	Ni (230.299 nm)	0.0008 (ppm)	> 100.00	0.0008 (ppm)	-7.2428
12/18/2015 16:21:23	Continuing Calibration Blank	Pb (220.353 nm)	0.0007 u (ppm)	> 100.00	0.0007 (ppm)	3.5866
12/18/2015 16:21:23	Continuing Calibration Blank	Sb (217.582 nm)	0.0004 u (ppm)	> 100.00	0.0004 (ppm)	1.6351
12/18/2015 16:21:23	Continuing Calibration Blank	Se (196.026 nm)	0.0012 (ppm)	73.23	0.0012 (ppm)	0.8783
12/18/2015 16:21:23	Continuing Calibration Blank	Sn (189.925 nm)	0.0022 (ppm)	61.95	0.0022 (ppm)	1.7010
12/18/2015 16:21:23	Continuing Calibration Blank	Sr (460.733 nm)	-0.0071 u (ppm)	35.13	-0.0071 (ppm)	-26.4378
12/18/2015 16:21:23	Continuing Calibration Blank	Ti (336.122 nm)	0.0005 (ppm)	81.11	0.0005 (ppm)	35.5207
12/18/2015 16:21:23	Continuing Calibration Blank	Tl (351.923 nm)	0.0010 u (ppm)	> 100.00	0.0010 (ppm)	-9.0119
12/18/2015 16:21:23	Continuing Calibration Blank	V (292.401 nm)	0.0010 (ppm)	43.83	0.0010 (ppm)	55.2823
12/18/2015 16:21:23	Continuing Calibration Blank	Y (360.074 nm)	0.99 (Ratio)	1.48	0.99 (Ratio)	576788.15
12/18/2015 16:21:23	Continuing Calibration Blank	Y_R (360.074 nm)	0.99 (Ratio)	0.56	0.99 (Ratio)	242799.85
12/18/2015 16:21:23	Continuing Calibration Blank	Zn (213.857 nm)	0.0006 (ppm)	47.78	0.0006 (ppm)	8.2688
12/18/2015 16:24:51	PBW-251481	Ag (328.068 nm)	0.0004 (ppm)	67.81	0.0004 (ppm)	22.9058
12/18/2015 16:24:51	PBW-251481	Al (394.401 nm)	-0.0046 u (ppm)	59.23	-0.0046 (ppm)	102.7295
12/18/2015 16:24:51	PBW-251481	Al (394.401 nm)	-0.0066 u (ppm)	55.98	-0.0066 (ppm)	127.4159
12/18/2015 16:24:51	PBW-251481	As (188.980 nm)	-0.0029 u (ppm)	42.75	-0.0029 (ppm)	-0.0206
12/18/2015 16:24:51	PBW-251481	B (249.772 nm)	0.0005 (ppm)	23.98	0.0005 (ppm)	18.3188
12/18/2015 16:24:51	PBW-251481	Ba (230.424 nm)	0.0003 (ppm)	> 100.00	0.0003 (ppm)	12.7789
12/18/2015 16:24:51	PBW-251481	Be (313.107 nm)	0.0000 (ppm)	> 100.00	0.0000 (ppm)	-41.2073
12/18/2015 16:24:51	PBW-251481	Ca (227.547 nm)	0.0220 u (ppm)	> 100.00	0.0220 (ppm)	1.0130
12/18/2015 16:24:51	PBW-251481	Ca (227.547 nm)	0.1139 (ppm)	7.54	0.1139 (ppm)	0.2739
12/18/2015 16:24:51	PBW-251481	Cd (214.439 nm)	0.0001 (ppm)	86.37	0.0001 (ppm)	3.7691
12/18/2015 16:24:51	PBW-251481	Co (230.786 nm)	0.0003 (ppm)	82.59	0.0003 (ppm)	2.0427
12/18/2015 16:24:51	PBW-251481	Cr (267.716 nm)	0.0004 (ppm)	29.55	0.0004 (ppm)	5.9414
12/18/2015 16:24:51	PBW-251481	Cu (327.395 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	24.6898
12/18/2015 16:24:51	PBW-251481	Fe (234.350 nm)	-0.0007 u (ppm)	> 100.00	-0.0007 (ppm)	43.9145
12/18/2015 16:24:51	PBW-251481	Fe (234.350 nm)	-0.0011 u (ppm)	> 100.00	-0.0011 (ppm)	41.7850
12/18/2015 16:24:51	PBW-251481	K (766.491 nm)	-0.0129 u (ppm)	78.60	-0.0129 (ppm)	-72.5529
12/18/2015 16:24:51	PBW-251481	Mg (279.078 nm)	-0.0050 u (ppm)	41.21	-0.0050 (ppm)	10.2663
12/18/2015 16:24:51	PBW-251481	Mg (279.078 nm)	-0.0085 u (ppm)	55.91	-0.0085 (ppm)	11.0089
12/18/2015 16:24:51	PBW-251481	Mn (257.610 nm)	0.0002 (ppm)	34.50	0.0002 (ppm)	27.8951

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 16:24:51	PBW-251481	Mo (202.032 nm)	-0.0005 u (ppm)	15.51	-0.0005 (ppm)	0.0863
12/18/2015 16:24:51	PBW-251481	Na (588.995 nm)	0.0515 (ppm)	16.50	0.0515 (ppm)	-5811.3514
12/18/2015 16:24:51	PBW-251481	Ni (230.299 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	-10.1347
12/18/2015 16:24:51	PBW-251481	Pb (220.353 nm)	-0.0017 u (ppm)	74.44	-0.0017 (ppm)	1.2930
12/18/2015 16:24:51	PBW-251481	Sb (217.582 nm)	-0.0013 u (ppm)	85.30	-0.0013 (ppm)	0.6897
12/18/2015 16:24:51	PBW-251481	Se (196.026 nm)	0.0024 (ppm)	> 100.00	0.0024 (ppm)	1.2764
12/18/2015 16:24:51	PBW-251481	Sn (189.925 nm)	-0.0007 u (ppm)	84.81	-0.0007 (ppm)	-0.2808
12/18/2015 16:24:51	PBW-251481	Sr (460.733 nm)	-0.0036 u (ppm)	81.42	-0.0036 (ppm)	19.2532
12/18/2015 16:24:51	PBW-251481	Ti (336.122 nm)	-0.0003 u (ppm)	44.38	-0.0003 (ppm)	-65.4301
12/18/2015 16:24:51	PBW-251481	Tl (351.923 nm)	-0.0007 u (ppm)	> 100.00	-0.0007 (ppm)	-11.7738
12/18/2015 16:24:51	PBW-251481	V (292.401 nm)	0.0002 (ppm)	77.88	0.0002 (ppm)	40.4488
12/18/2015 16:24:51	PBW-251481	Y (360.074 nm)	1.01 (Ratio)	1.09	1.01 (Ratio)	588343.85
12/18/2015 16:24:51	PBW-251481	Y_R (360.074 nm)	1.00 (Ratio)	0.64	1.00 (Ratio)	246393.16
12/18/2015 16:24:51	PBW-251481	Zn (213.857 nm)	0.0006 (ppm)	13.66	0.0006 (ppm)	8.4605
12/18/2015 16:28:20	LCSW-251481	Ag (328.068 nm)	0.0497 (ppm)	0.59	0.0497 (ppm)	1945.9600
12/18/2015 16:28:20	LCSW-251481	Al (394.401 nm)	1.4940 (ppm)	0.56	1.4940 (ppm)	16005.6783
12/18/2015 16:28:20	LCSW-251481	Al (394.401 nm)	1.8697 (ppm)	0.54	1.8697 (ppm)	16238.1726
12/18/2015 16:28:20	LCSW-251481	As (188.980 nm)	0.0361 (ppm)	28.88	0.0361 (ppm)	20.5027
12/18/2015 16:28:20	LCSW-251481	B (249.772 nm)	0.9391 (ppm)	0.35	0.9391 (ppm)	12514.8485
12/18/2015 16:28:20	LCSW-251481	Ba (230.424 nm)	2.1073 (ppm)	0.61	2.1073 (ppm)	31866.2771
12/18/2015 16:28:20	LCSW-251481	Be (313.107 nm)	0.0502 (ppm)	0.37	0.0502 (ppm)	43921.0087
12/18/2015 16:28:20	LCSW-251481	Ca (227.547 nm)	1.2373 (ppm)	0.73	1.2373 (ppm)	45.0496
12/18/2015 16:28:20	LCSW-251481	Ca (227.547 nm)	1.9391 (ppm)	1.51	1.9391 (ppm)	43.9796
12/18/2015 16:28:20	LCSW-251481	Cd (214.439 nm)	0.0518 (ppm)	0.84	0.0518 (ppm)	553.8497
12/18/2015 16:28:20	LCSW-251481	Co (230.786 nm)	0.5019 (ppm)	0.14	0.5019 (ppm)	2402.8313
12/18/2015 16:28:20	LCSW-251481	Cr (267.716 nm)	0.2109 (ppm)	0.36	0.2109 (ppm)	4873.4271
12/18/2015 16:28:20	LCSW-251481	Cu (327.395 nm)	0.2526 (ppm)	0.75	0.2526 (ppm)	7639.1876
12/18/2015 16:28:20	LCSW-251481	Fe (234.350 nm)	0.8118 (ppm)	0.66	0.8118 (ppm)	6214.9614
12/18/2015 16:28:20	LCSW-251481	Fe (234.350 nm)	1.0148 (ppm)	0.52	1.0148 (ppm)	6409.9771
12/18/2015 16:28:20	LCSW-251481	K (766.491 nm)	19.4890 (ppm)	0.40	19.4890 (ppm)	49883.3568
12/18/2015 16:28:20	LCSW-251481	Mg (279.078 nm)	1.3428 (ppm)	0.42	1.3428 (ppm)	2451.9573
12/18/2015 16:28:20	LCSW-251481	Mg (279.078 nm)	1.8794 (ppm)	0.34	1.8794 (ppm)	2552.8305
12/18/2015 16:28:20	LCSW-251481	Mn (257.610 nm)	0.5156 (ppm)	0.39	0.5156 (ppm)	62442.1750
12/18/2015 16:28:20	LCSW-251481	Mo (202.032 nm)	0.5083 (ppm)	0.23	0.5083 (ppm)	2224.8648
12/18/2015 16:28:20	LCSW-251481	Na (588.995 nm)	20.4649 (ppm)	0.50	20.4649 (ppm)	555681.3422
12/18/2015 16:28:20	LCSW-251481	Ni (230.299 nm)	0.5173 (ppm)	0.06	0.5173 (ppm)	1584.9572
12/18/2015 16:28:20	LCSW-251481	Pb (220.353 nm)	0.5220 (ppm)	0.63	0.5220 (ppm)	505.1059
12/18/2015 16:28:20	LCSW-251481	Sb (217.582 nm)	0.4864 (ppm)	1.91	0.4864 (ppm)	272.2907
12/18/2015 16:28:20	LCSW-251481	Se (196.026 nm)	0.9685 (ppm)	0.18	0.9685 (ppm)	338.9408
12/18/2015 16:28:20	LCSW-251481	Sn (189.925 nm)	5.0131 (ppm)	0.62	5.0131 (ppm)	3448.7099
12/18/2015 16:28:20	LCSW-251481	Sr (460.733 nm)	2.1183 (ppm)	0.43	2.1183 (ppm)	27893.9003
12/18/2015 16:28:20	LCSW-251481	Ti (336.122 nm)	0.5083 (ppm)	0.44	0.5083 (ppm)	63874.8331
12/18/2015 16:28:20	LCSW-251481	Tl (351.923 nm)	1.8947 (ppm)	0.44	1.8947 (ppm)	3067.6598
12/18/2015 16:28:20	LCSW-251481	V (292.401 nm)	0.5061 (ppm)	0.61	0.5061 (ppm)	9702.7117
12/18/2015 16:28:20	LCSW-251481	Y (360.074 nm)	0.98 (Ratio)	0.69	0.98 (Ratio)	572591.27
12/18/2015 16:28:20	LCSW-251481	Y_R (360.074 nm)	0.99 (Ratio)	0.32	0.99 (Ratio)	242881.09
12/18/2015 16:28:20	LCSW-251481	Zn (213.857 nm)	0.4954 (ppm)	0.29	0.4954 (ppm)	6186.6583
12/18/2015 16:31:50	R1510346-017	Ag (328.068 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	8.6390
12/18/2015 16:31:50	R1510346-017	Al (394.401 nm)	-0.0086 u (ppm)	14.64	-0.0086 (ppm)	60.6987
12/18/2015 16:31:50	R1510346-017	Al (394.401 nm)	-0.0115 u (ppm)	10.82	-0.0115 (ppm)	85.7986
12/18/2015 16:31:50	R1510346-017	As (188.980 nm)	0.0011 u (ppm)	> 100.00	0.0011 (ppm)	2.0624

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 16:31:50	R1510346-017	B (249.772 nm)	0.0010 (ppm)	10.21	0.0010 (ppm)	25.2065
12/18/2015 16:31:50	R1510346-017	Ba (230.424 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	7.7785
12/18/2015 16:31:50	R1510346-017	Be (313.107 nm)	0.0000 (ppm)	59.87	0.0000 (ppm)	-58.3735
12/18/2015 16:31:50	R1510346-017	Ca (227.547 nm)	0.0485 (ppm)	> 100.00	0.0485 (ppm)	1.9718
12/18/2015 16:31:50	R1510346-017	Ca (227.547 nm)	0.1043 u (ppm)	> 100.00	0.1043 (ppm)	0.0438
12/18/2015 16:31:50	R1510346-017	Cd (214.439 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	1.5001
12/18/2015 16:31:50	R1510346-017	Co (230.786 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	0.1460
12/18/2015 16:31:50	R1510346-017	Cr (267.716 nm)	0.0003 (ppm)	10.82	0.0003 (ppm)	5.5895
12/18/2015 16:31:50	R1510346-017	Cu (327.395 nm)	0.0005 (ppm)	41.85	0.0005 (ppm)	39.5936
12/18/2015 16:31:50	R1510346-017	Fe (234.350 nm)	-0.0008 u (ppm)	43.15	-0.0008 (ppm)	43.3211
12/18/2015 16:31:50	R1510346-017	Fe (234.350 nm)	-0.0017 u (ppm)	20.86	-0.0017 (ppm)	37.8333
12/18/2015 16:31:50	R1510346-017	K (766.491 nm)	0.0215 (ppm)	84.81	0.0215 (ppm)	15.5374
12/18/2015 16:31:50	R1510346-017	Mg (279.078 nm)	-0.0091 u (ppm)	4.78	-0.0091 (ppm)	2.7203
12/18/2015 16:31:50	R1510346-017	Mg (279.078 nm)	-0.0136 u (ppm)	17.21	-0.0136 (ppm)	4.1026
12/18/2015 16:31:50	R1510346-017	Mn (257.610 nm)	0.0003 (ppm)	17.63	0.0003 (ppm)	44.2923
12/18/2015 16:31:50	R1510346-017	Mo (202.032 nm)	-0.0006 u (ppm)	38.47	-0.0006 (ppm)	-0.2806
12/18/2015 16:31:50	R1510346-017	Na (588.995 nm)	0.0573 (ppm)	23.56	0.0573 (ppm)	-5651.0185
12/18/2015 16:31:50	R1510346-017	Ni (230.299 nm)	-0.0006 u (ppm)	67.08	-0.0006 (ppm)	-11.4812
12/18/2015 16:31:50	R1510346-017	Pb (220.353 nm)	-0.0013 u (ppm)	73.52	-0.0013 (ppm)	1.6436
12/18/2015 16:31:50	R1510346-017	Sb (217.582 nm)	-0.0009 u (ppm)	> 100.00	-0.0009 (ppm)	0.9536
12/18/2015 16:31:50	R1510346-017	Se (196.026 nm)	-0.0023 u (ppm)	80.49	-0.0023 (ppm)	-0.3445
12/18/2015 16:31:50	R1510346-017	Sn (189.925 nm)	0.0016 (ppm)	75.17	0.0016 (ppm)	1.3052
12/18/2015 16:31:50	R1510346-017	Sr (460.733 nm)	-0.0037 u (ppm)	> 100.00	-0.0037 (ppm)	18.5148
12/18/2015 16:31:50	R1510346-017	Ti (336.122 nm)	-0.0004 u (ppm)	21.88	-0.0004 (ppm)	-75.3485
12/18/2015 16:31:50	R1510346-017	Tl (351.923 nm)	0.0029 u (ppm)	> 100.00	0.0029 (ppm)	-5.9632
12/18/2015 16:31:50	R1510346-017	V (292.401 nm)	0.0003 (ppm)	40.61	0.0003 (ppm)	41.5940
12/18/2015 16:31:50	R1510346-017	Y (360.074 nm)	1.01 (Ratio)	0.11	1.01 (Ratio)	588905.65
12/18/2015 16:31:50	R1510346-017	Y_R (360.074 nm)	1.00 (Ratio)	0.17	1.00 (Ratio)	244288.82
12/18/2015 16:31:50	R1510346-017	Zn (213.857 nm)	0.0008 (ppm)	18.89	0.0008 (ppm)	10.5145
12/18/2015 16:35:19	R1510346-018	Ag (328.068 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	6.9611
12/18/2015 16:35:19	R1510346-018	Al (394.401 nm)	-0.0092 u (ppm)	5.12	-0.0092 (ppm)	53.3645
12/18/2015 16:35:19	R1510346-018	Al (394.401 nm)	-0.0126 u (ppm)	4.21	-0.0126 (ppm)	76.6474
12/18/2015 16:35:19	R1510346-018	As (188.980 nm)	-0.0091 u (ppm)	28.60	-0.0091 (ppm)	-3.2846
12/18/2015 16:35:19	R1510346-018	B (249.772 nm)	0.0008 (ppm)	30.53	0.0008 (ppm)	22.2374
12/18/2015 16:35:19	R1510346-018	Ba (230.424 nm)	-0.0004 u (ppm)	48.10	-0.0004 (ppm)	2.0274
12/18/2015 16:35:19	R1510346-018	Be (313.107 nm)	0.0000 (ppm)	11.37	0.0000 (ppm)	-68.9660
12/18/2015 16:35:19	R1510346-018	Ca (227.547 nm)	0.0450 (ppm)	87.14	0.0450 (ppm)	1.8481
12/18/2015 16:35:19	R1510346-018	Ca (227.547 nm)	0.1232 (ppm)	26.07	0.1232 (ppm)	0.4945
12/18/2015 16:35:19	R1510346-018	Cd (214.439 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	1.9722
12/18/2015 16:35:19	R1510346-018	Co (230.786 nm)	-0.0002 u (ppm)	> 100.00	-0.0002 (ppm)	-0.3311
12/18/2015 16:35:19	R1510346-018	Cr (267.716 nm)	0.0003 (ppm)	41.36	0.0003 (ppm)	5.6490
12/18/2015 16:35:19	R1510346-018	Cu (327.395 nm)	0.0006 (ppm)	49.09	0.0006 (ppm)	42.7369
12/18/2015 16:35:19	R1510346-018	Fe (234.350 nm)	-0.0019 u (ppm)	20.24	-0.0019 (ppm)	34.3689
12/18/2015 16:35:19	R1510346-018	Fe (234.350 nm)	-0.0028 u (ppm)	27.69	-0.0028 (ppm)	31.0781
12/18/2015 16:35:19	R1510346-018	K (766.491 nm)	0.0126 (ppm)	81.69	0.0126 (ppm)	-7.2161
12/18/2015 16:35:19	R1510346-018	Mg (279.078 nm)	-0.0088 u (ppm)	8.06	-0.0088 (ppm)	3.2385
12/18/2015 16:35:19	R1510346-018	Mg (279.078 nm)	-0.0159 u (ppm)	3.55	-0.0159 (ppm)	1.0299
12/18/2015 16:35:19	R1510346-018	Mn (257.610 nm)	0.0002 (ppm)	3.43	0.0002 (ppm)	24.5665
12/18/2015 16:35:19	R1510346-018	Mo (202.032 nm)	-0.0006 u (ppm)	32.51	-0.0006 (ppm)	-0.5794
12/18/2015 16:35:19	R1510346-018	Na (588.995 nm)	0.0533 (ppm)	17.16	0.0533 (ppm)	-5761.9614
12/18/2015 16:35:19	R1510346-018	Ni (230.299 nm)	-0.0006 u (ppm)	93.88	-0.0006 (ppm)	-11.5865

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 16:35:19	R1510346-018	Pb (220.353 nm)	-0.0002 u (ppm)	> 100.00	-0.0002 (ppm)	2.6682
12/18/2015 16:35:19	R1510346-018	Sb (217.582 nm)	0.0008 u (ppm)	> 100.00	0.0008 (ppm)	1.8920
12/18/2015 16:35:19	R1510346-018	Se (196.026 nm)	0.0016 u (ppm)	> 100.00	0.0016 (ppm)	0.9901
12/18/2015 16:35:19	R1510346-018	Sn (189.925 nm)	-0.0004 u (ppm)	> 100.00	-0.0004 (ppm)	-0.0408
12/18/2015 16:35:19	R1510346-018	Sr (460.733 nm)	-0.0063 u (ppm)	50.62	-0.0063 (ppm)	-16.1400
12/18/2015 16:35:19	R1510346-018	Ti (336.122 nm)	-0.0005 u (ppm)	4.63	-0.0005 (ppm)	-90.5612
12/18/2015 16:35:19	R1510346-018	Tl (351.923 nm)	0.0056 (ppm)	61.24	0.0056 (ppm)	-1.4663
12/18/2015 16:35:19	R1510346-018	V (292.401 nm)	0.0004 (ppm)	36.66	0.0004 (ppm)	42.9157
12/18/2015 16:35:19	R1510346-018	Y (360.074 nm)	1.02 (Ratio)	0.61	1.02 (Ratio)	591976.07
12/18/2015 16:35:19	R1510346-018	Y_R (360.074 nm)	1.00 (Ratio)	0.46	1.00 (Ratio)	245717.59
12/18/2015 16:35:19	R1510346-018	Zn (213.857 nm)	0.0008 (ppm)	7.21	0.0008 (ppm)	10.5190
12/18/2015 16:38:48	R1510346-018L	Ag (328.068 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	12.4713
12/18/2015 16:38:48	R1510346-018L	Al (394.401 nm)	-0.0111 u (ppm)	7.80	-0.0111 (ppm)	33.7843
12/18/2015 16:38:48	R1510346-018L	Al (394.401 nm)	-0.0146 u (ppm)	10.36	-0.0146 (ppm)	59.7662
12/18/2015 16:38:48	R1510346-018L	As (188.980 nm)	-0.0028 u (ppm)	> 100.00	-0.0028 (ppm)	0.0065
12/18/2015 16:38:48	R1510346-018L	B (249.772 nm)	0.0001 (ppm)	23.96	0.0001 (ppm)	13.5710
12/18/2015 16:38:48	R1510346-018L	Ba (230.424 nm)	-0.0005 u (ppm)	10.39	-0.0005 (ppm)	1.3003
12/18/2015 16:38:48	R1510346-018L	Be (313.107 nm)	0.0000 (ppm)	10.70	0.0000 (ppm)	-64.3899
12/18/2015 16:38:48	R1510346-018L	Ca (227.547 nm)	0.0551 u (ppm)	> 100.00	0.0551 (ppm)	2.2119
12/18/2015 16:38:48	R1510346-018L	Ca (227.547 nm)	0.1374 (ppm)	77.90	0.1374 (ppm)	0.8320
12/18/2015 16:38:48	R1510346-018L	Cd (214.439 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	4.3551
12/18/2015 16:38:48	R1510346-018L	Co (230.786 nm)	0.0002 (ppm)	> 100.00	0.0002 (ppm)	1.6974
12/18/2015 16:38:48	R1510346-018L	Cr (267.716 nm)	0.0000 (ppm)	71.19	0.0000 (ppm)	-1.6112
12/18/2015 16:38:48	R1510346-018L	Cu (327.395 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	27.6300
12/18/2015 16:38:48	R1510346-018L	Fe (234.350 nm)	-0.0043 u (ppm)	9.85	-0.0043 (ppm)	16.3574
12/18/2015 16:38:48	R1510346-018L	Fe (234.350 nm)	-0.0057 u (ppm)	12.36	-0.0057 (ppm)	12.8518
12/18/2015 16:38:48	R1510346-018L	K (766.491 nm)	0.0160 (ppm)	32.85	0.0160 (ppm)	1.2644
12/18/2015 16:38:48	R1510346-018L	Mg (279.078 nm)	-0.0107 u (ppm)	2.25	-0.0107 (ppm)	-0.1195
12/18/2015 16:38:48	R1510346-018L	Mg (279.078 nm)	-0.0157 u (ppm)	8.44	-0.0157 (ppm)	1.3444
12/18/2015 16:38:48	R1510346-018L	Mn (257.610 nm)	0.0000 (ppm)	> 100.00	0.0000 (ppm)	7.1630
12/18/2015 16:38:48	R1510346-018L	Mo (202.032 nm)	-0.0005 u (ppm)	74.08	-0.0005 (ppm)	0.2269
12/18/2015 16:38:48	R1510346-018L	Na (588.995 nm)	0.0137 (ppm)	27.21	0.0137 (ppm)	-6850.0957
12/18/2015 16:38:48	R1510346-018L	Ni (230.299 nm)	-0.0002 u (ppm)	> 100.00	-0.0002 (ppm)	-10.2817
12/18/2015 16:38:48	R1510346-018L	Pb (220.353 nm)	0.0016 (ppm)	70.27	0.0016 (ppm)	4.4607
12/18/2015 16:38:48	R1510346-018L	Sb (217.582 nm)	-0.0005 u (ppm)	> 100.00	-0.0005 (ppm)	1.1522
12/18/2015 16:38:48	R1510346-018L	Se (196.026 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	0.4611
12/18/2015 16:38:48	R1510346-018L	Sn (189.925 nm)	-0.0002 u (ppm)	> 100.00	-0.0002 (ppm)	0.0752
12/18/2015 16:38:48	R1510346-018L	Sr (460.733 nm)	-0.0063 u (ppm)	43.86	-0.0063 (ppm)	-16.1393
12/18/2015 16:38:48	R1510346-018L	Ti (336.122 nm)	-0.0003 u (ppm)	8.00	-0.0003 (ppm)	-68.8658
12/18/2015 16:38:48	R1510346-018L	Tl (351.923 nm)	0.0029 (ppm)	> 100.00	0.0029 (ppm)	-5.9283
12/18/2015 16:38:48	R1510346-018L	V (292.401 nm)	0.0002 (ppm)	38.92	0.0002 (ppm)	39.9985
12/18/2015 16:38:48	R1510346-018L	Y (360.074 nm)	1.01 (Ratio)	0.64	1.01 (Ratio)	588446.02
12/18/2015 16:38:48	R1510346-018L	Y_R (360.074 nm)	1.00 (Ratio)	0.45	1.00 (Ratio)	245613.36
12/18/2015 16:38:48	R1510346-018L	Zn (213.857 nm)	0.0090 (ppm)	1.68	0.0090 (ppm)	113.1019
12/18/2015 16:42:17	PBW-252194	Ag (328.068 nm)	0.0001 (ppm)	31.23	0.0001 (ppm)	13.0579
12/18/2015 16:42:17	PBW-252194	Al (394.401 nm)	0.0016 (ppm)	62.64	0.0016 (ppm)	168.8865
12/18/2015 16:42:17	PBW-252194	Al (394.401 nm)	0.0011 u (ppm)	> 100.00	0.0011 (ppm)	194.8368
12/18/2015 16:42:17	PBW-252194	As (188.980 nm)	0.0008 u (ppm)	> 100.00	0.0008 (ppm)	1.9094
12/18/2015 16:42:17	PBW-252194	B (249.772 nm)	0.0045 (ppm)	2.40	0.0045 (ppm)	71.3884
12/18/2015 16:42:17	PBW-252194	Ba (230.424 nm)	-0.0005 u (ppm)	21.19	-0.0005 (ppm)	0.3534
12/18/2015 16:42:17	PBW-252194	Be (313.107 nm)	0.0000 (ppm)	60.38	0.0000 (ppm)	-47.1151

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 16:42:17	PBW-252194	Ca (227.547 nm)	0.0956 (ppm)	29.54	0.0956 (ppm)	3.6814
12/18/2015 16:42:17	PBW-252194	Ca (227.547 nm)	0.1890 (ppm)	15.04	0.1890 (ppm)	2.0670
12/18/2015 16:42:17	PBW-252194	Cd (214.439 nm)	0.0005 (ppm)	15.07	0.0005 (ppm)	7.8625
12/18/2015 16:42:17	PBW-252194	Co (230.786 nm)	-0.0004 u (ppm)	29.72	-0.0004 (ppm)	-1.5165
12/18/2015 16:42:17	PBW-252194	Cr (267.716 nm)	0.0026 (ppm)	1.44	0.0026 (ppm)	57.4767
12/18/2015 16:42:17	PBW-252194	Cu (327.395 nm)	0.0005 (ppm)	49.95	0.0005 (ppm)	37.1403
12/18/2015 16:42:17	PBW-252194	Fe (234.350 nm)	0.0158 (ppm)	7.43	0.0158 (ppm)	169.4669
12/18/2015 16:42:17	PBW-252194	Fe (234.350 nm)	0.0182 (ppm)	7.04	0.0182 (ppm)	162.9293
12/18/2015 16:42:17	PBW-252194	K (766.491 nm)	-0.0628 u (ppm)	52.27	-0.0628 (ppm)	-200.4327
12/18/2015 16:42:17	PBW-252194	Mg (279.078 nm)	-0.0051 u (ppm)	35.76	-0.0051 (ppm)	10.0255
12/18/2015 16:42:17	PBW-252194	Mg (279.078 nm)	-0.0074 u (ppm)	48.53	-0.0074 (ppm)	12.5171
12/18/2015 16:42:17	PBW-252194	Mn (257.610 nm)	0.0138 (ppm)	1.38	0.0138 (ppm)	1674.4001
12/18/2015 16:42:17	PBW-252194	Mo (202.032 nm)	0.0011 (ppm)	54.47	0.0011 (ppm)	7.1467
12/18/2015 16:42:17	PBW-252194	Na (588.995 nm)	0.3839 (ppm)	0.68	0.3839 (ppm)	3333.3132
12/18/2015 16:42:17	PBW-252194	Ni (230.299 nm)	-0.0046 u (ppm)	21.52	-0.0046 (ppm)	-24.0680
12/18/2015 16:42:17	PBW-252194	Pb (220.353 nm)	0.0053 (ppm)	46.85	0.0053 (ppm)	7.9917
12/18/2015 16:42:17	PBW-252194	Sb (217.582 nm)	-0.0077 u (ppm)	32.43	-0.0077 (ppm)	-2.8348
12/18/2015 16:42:17	PBW-252194	Se (196.026 nm)	0.0024 u (ppm)	> 100.00	0.0024 (ppm)	1.2676
12/18/2015 16:42:17	PBW-252194	Sn (189.925 nm)	0.0154 (ppm)	2.17	0.0154 (ppm)	10.8337
12/18/2015 16:42:17	PBW-252194	Sr (460.733 nm)	-0.0090 u (ppm)	94.57	-0.0090 (ppm)	-51.8572
12/18/2015 16:42:17	PBW-252194	Ti (336.122 nm)	-0.0009 u (ppm)	5.56	-0.0009 (ppm)	-144.8059
12/18/2015 16:42:17	PBW-252194	Tl (351.923 nm)	0.0061 (ppm)	63.63	0.0061 (ppm)	-0.6924
12/18/2015 16:42:17	PBW-252194	V (292.401 nm)	0.0002 (ppm)	20.30	0.0002 (ppm)	39.7959
12/18/2015 16:42:17	PBW-252194	Y (360.074 nm)	0.93 (Ratio)	0.45	0.93 (Ratio)	543573.21
12/18/2015 16:42:17	PBW-252194	Y_R (360.074 nm)	0.92 (Ratio)	0.56	0.92 (Ratio)	224462.25
12/18/2015 16:42:17	PBW-252194	Zn (213.857 nm)	0.0053 (ppm)	2.00	0.0053 (ppm)	67.5974
12/18/2015 16:45:46	LCSW-252194	Ag (328.068 nm)	0.0452 (ppm)	0.19	0.0452 (ppm)	1771.0307
12/18/2015 16:45:46	LCSW-252194	Al (394.401 nm)	1.3683 (ppm)	0.49	1.3683 (ppm)	14671.4442
12/18/2015 16:45:46	LCSW-252194	Al (394.401 nm)	1.7069 (ppm)	0.48	1.7069 (ppm)	14841.7645
12/18/2015 16:45:46	LCSW-252194	As (188.980 nm)	0.0331 (ppm)	6.03	0.0331 (ppm)	18.9467
12/18/2015 16:45:46	LCSW-252194	B (249.772 nm)	0.7821 (ppm)	0.52	0.7821 (ppm)	10423.9805
12/18/2015 16:45:46	LCSW-252194	Ba (230.424 nm)	2.0485 (ppm)	0.45	2.0485 (ppm)	30977.6518
12/18/2015 16:45:46	LCSW-252194	Be (313.107 nm)	0.0467 (ppm)	0.80	0.0467 (ppm)	40784.9728
12/18/2015 16:45:46	LCSW-252194	Ca (227.547 nm)	1.2338 (ppm)	6.02	1.2338 (ppm)	44.9231
12/18/2015 16:45:46	LCSW-252194	Ca (227.547 nm)	1.9173 (ppm)	5.30	1.9173 (ppm)	43.4483
12/18/2015 16:45:46	LCSW-252194	Cd (214.439 nm)	0.0469 (ppm)	1.98	0.0469 (ppm)	502.3449
12/18/2015 16:45:46	LCSW-252194	Co (230.786 nm)	0.4780 (ppm)	0.99	0.4780 (ppm)	2288.4604
12/18/2015 16:45:46	LCSW-252194	Cr (267.716 nm)	0.2110 (ppm)	0.73	0.2110 (ppm)	4875.3384
12/18/2015 16:45:46	LCSW-252194	Cu (327.395 nm)	0.2573 (ppm)	0.24	0.2573 (ppm)	7780.5010
12/18/2015 16:45:46	LCSW-252194	Fe (234.350 nm)	0.7955 (ppm)	0.92	0.7955 (ppm)	6091.2090
12/18/2015 16:45:46	LCSW-252194	Fe (234.350 nm)	0.9945 (ppm)	0.91	0.9945 (ppm)	6281.5267
12/18/2015 16:45:46	LCSW-252194	K (766.491 nm)	19.1534 (ppm)	0.73	19.1534 (ppm)	49023.7315
12/18/2015 16:45:46	LCSW-252194	Mg (279.078 nm)	1.1696 (ppm)	1.69	1.1696 (ppm)	2138.1602
12/18/2015 16:45:46	LCSW-252194	Mg (279.078 nm)	1.6537 (ppm)	1.62	1.6537 (ppm)	2248.9521
12/18/2015 16:45:46	LCSW-252194	Mn (257.610 nm)	0.5232 (ppm)	0.60	0.5232 (ppm)	63364.1543
12/18/2015 16:45:46	LCSW-252194	Mo (202.032 nm)	0.5015 (ppm)	0.86	0.5015 (ppm)	2195.2520
12/18/2015 16:45:46	LCSW-252194	Na (588.995 nm)	20.7799 (ppm)	0.76	20.7799 (ppm)	564349.4357
12/18/2015 16:45:46	LCSW-252194	Ni (230.299 nm)	0.4798 (ppm)	1.42	0.4798 (ppm)	1469.4283
12/18/2015 16:45:46	LCSW-252194	Pb (220.353 nm)	0.4779 (ppm)	1.28	0.4779 (ppm)	462.7003
12/18/2015 16:45:46	LCSW-252194	Sb (217.582 nm)	0.4258 (ppm)	0.88	0.4258 (ppm)	238.5396
12/18/2015 16:45:46	LCSW-252194	Se (196.026 nm)	0.0094 (ppm)	9.30	0.0094 (ppm)	3.7249

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 16:45:46	LCSW-252194	Sn (189.925 nm)	4.7188 (ppm)	1.44	4.7188 (ppm)	3246.2361
12/18/2015 16:45:46	LCSW-252194	Sr (460.733 nm)	-0.0064 u (ppm)	32.93	-0.0064 (ppm)	-20.5735
12/18/2015 16:45:46	LCSW-252194	Ti (336.122 nm)	0.5072 (ppm)	0.21	0.5072 (ppm)	63729.2727
12/18/2015 16:45:46	LCSW-252194	Tl (351.923 nm)	1.6757 (ppm)	0.16	1.6757 (ppm)	2711.8916
12/18/2015 16:45:46	LCSW-252194	V (292.401 nm)	0.5175 (ppm)	1.39	0.5175 (ppm)	9919.8938
12/18/2015 16:45:46	LCSW-252194	Y (360.074 nm)	0.94 (Ratio)	0.74	0.94 (Ratio)	547481.57
12/18/2015 16:45:46	LCSW-252194	Y_R (360.074 nm)	0.93 (Ratio)	0.30	0.93 (Ratio)	227384.69
12/18/2015 16:45:46	LCSW-252194	Zn (213.857 nm)	0.4451 (ppm)	0.86	0.4451 (ppm)	5559.4733
12/18/2015 16:49:16	R1510413-001	Ag (328.068 nm)	0.0001 (ppm)	> 100.00	0.0001 (ppm)	12.6468
12/18/2015 16:49:16	R1510413-001	Al (394.401 nm)	-0.0024 u (ppm)	33.61	-0.0024 (ppm)	126.4793
12/18/2015 16:49:16	R1510413-001	Al (394.401 nm)	-0.0037 u (ppm)	22.24	-0.0037 (ppm)	155.6896
12/18/2015 16:49:16	R1510413-001	As (188.980 nm)	-0.0050 u (ppm)	45.23	-0.0050 (ppm)	-1.1344
12/18/2015 16:49:16	R1510413-001	B (249.772 nm)	0.0047 (ppm)	2.48	0.0047 (ppm)	74.3043
12/18/2015 16:49:16	R1510413-001	Ba (230.424 nm)	-0.0002 u (ppm)	28.24	-0.0002 (ppm)	6.2069
12/18/2015 16:49:16	R1510413-001	Be (313.107 nm)	0.0000 (ppm)	35.29	0.0000 (ppm)	-58.3994
12/18/2015 16:49:16	R1510413-001	Ca (227.547 nm)	0.1932 (ppm)	14.98	0.1932 (ppm)	7.2147
12/18/2015 16:49:16	R1510413-001	Ca (227.547 nm)	0.3440 (ppm)	24.62	0.3440 (ppm)	5.7748
12/18/2015 16:49:16	R1510413-001	Cd (214.439 nm)	0.0003 (ppm)	10.43	0.0003 (ppm)	6.5081
12/18/2015 16:49:16	R1510413-001	Co (230.786 nm)	0.0009 (ppm)	72.86	0.0009 (ppm)	4.7353
12/18/2015 16:49:16	R1510413-001	Cr (267.716 nm)	0.0032 (ppm)	6.78	0.0032 (ppm)	72.6122
12/18/2015 16:49:16	R1510413-001	Cu (327.395 nm)	0.0003 (ppm)	21.16	0.0003 (ppm)	33.0937
12/18/2015 16:49:16	R1510413-001	Fe (234.350 nm)	0.0907 (ppm)	1.07	0.0907 (ppm)	737.9767
12/18/2015 16:49:16	R1510413-001	Fe (234.350 nm)	0.1118 (ppm)	0.68	0.1118 (ppm)	748.2840
12/18/2015 16:49:16	R1510413-001	K (766.491 nm)	0.0557 (ppm)	25.09	0.0557 (ppm)	102.8368
12/18/2015 16:49:16	R1510413-001	Mg (279.078 nm)	-0.0025 u (ppm)	18.10	-0.0025 (ppm)	14.7641
12/18/2015 16:49:16	R1510413-001	Mg (279.078 nm)	-0.0035 u (ppm)	38.89	-0.0035 (ppm)	17.7811
12/18/2015 16:49:16	R1510413-001	Mn (257.610 nm)	0.0204 (ppm)	0.46	0.0204 (ppm)	2479.5309
12/18/2015 16:49:16	R1510413-001	Mo (202.032 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	2.2193
12/18/2015 16:49:16	R1510413-001	Na (588.995 nm)	0.6802 (ppm)	0.35	0.6802 (ppm)	11479.9716
12/18/2015 16:49:16	R1510413-001	Ni (230.299 nm)	0.0023 (ppm)	33.17	0.0023 (ppm)	-2.5793
12/18/2015 16:49:16	R1510413-001	Pb (220.353 nm)	0.0042 (ppm)	38.34	0.0042 (ppm)	6.9580
12/18/2015 16:49:16	R1510413-001	Sb (217.582 nm)	-0.0047 u (ppm)	> 100.00	-0.0047 (ppm)	-1.1550
12/18/2015 16:49:16	R1510413-001	Se (196.026 nm)	0.0009 u (ppm)	> 100.00	0.0009 (ppm)	0.7575
12/18/2015 16:49:16	R1510413-001	Sn (189.925 nm)	0.0068 (ppm)	52.46	0.0068 (ppm)	4.8931
12/18/2015 16:49:16	R1510413-001	Sr (460.733 nm)	-0.0052 u (ppm)	90.54	-0.0052 (ppm)	-1.3092
12/18/2015 16:49:16	R1510413-001	Ti (336.122 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	-28.4872
12/18/2015 16:49:16	R1510413-001	Tl (351.923 nm)	0.0049 (ppm)	22.00	0.0049 (ppm)	-2.6292
12/18/2015 16:49:16	R1510413-001	V (292.401 nm)	0.0003 (ppm)	82.98	0.0003 (ppm)	41.7778
12/18/2015 16:49:16	R1510413-001	Y (360.074 nm)	0.99 (Ratio)	0.77	0.99 (Ratio)	576492.26
12/18/2015 16:49:16	R1510413-001	Y_R (360.074 nm)	0.96 (Ratio)	0.48	0.96 (Ratio)	236454.96
12/18/2015 16:49:16	R1510413-001	Zn (213.857 nm)	0.0033 (ppm)	2.53	0.0033 (ppm)	42.0840
12/18/2015 16:52:45	R1510413-002	Ag (328.068 nm)	0.0003 (ppm)	> 100.00	0.0003 (ppm)	19.6208
12/18/2015 16:52:45	R1510413-002	Al (394.401 nm)	-0.0031 u (ppm)	32.41	-0.0031 (ppm)	118.8259
12/18/2015 16:52:45	R1510413-002	Al (394.401 nm)	-0.0043 u (ppm)	26.02	-0.0043 (ppm)	147.5634
12/18/2015 16:52:45	R1510413-002	As (188.980 nm)	-0.0025 u (ppm)	94.38	-0.0025 (ppm)	0.1688
12/18/2015 16:52:45	R1510413-002	B (249.772 nm)	0.0046 (ppm)	7.48	0.0046 (ppm)	73.3599
12/18/2015 16:52:45	R1510413-002	Ba (230.424 nm)	-0.0002 u (ppm)	59.44	-0.0002 (ppm)	4.9378
12/18/2015 16:52:45	R1510413-002	Be (313.107 nm)	0.0000 (ppm)	44.57	0.0000 (ppm)	-47.6007
12/18/2015 16:52:45	R1510413-002	Ca (227.547 nm)	0.0548 (ppm)	52.65	0.0548 (ppm)	2.2020
12/18/2015 16:52:45	R1510413-002	Ca (227.547 nm)	0.1285 (ppm)	29.75	0.1285 (ppm)	0.6263
12/18/2015 16:52:45	R1510413-002	Cd (214.439 nm)	0.0003 (ppm)	76.15	0.0003 (ppm)	6.5701

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 16:52:45	R1510413-002	Co (230.786 nm)	0.0008 (ppm)	81.91	0.0008 (ppm)	4.3628
12/18/2015 16:52:45	R1510413-002	Cr (267.716 nm)	0.0036 (ppm)	3.77	0.0036 (ppm)	79.8197
12/18/2015 16:52:45	R1510413-002	Cu (327.395 nm)	0.0047 (ppm)	3.21	0.0047 (ppm)	164.0395
12/18/2015 16:52:45	R1510413-002	Fe (234.350 nm)	0.0446 (ppm)	0.36	0.0446 (ppm)	387.7620
12/18/2015 16:52:45	R1510413-002	Fe (234.350 nm)	0.0546 (ppm)	1.02	0.0546 (ppm)	390.4077
12/18/2015 16:52:45	R1510413-002	K (766.491 nm)	0.0004 u (ppm)	> 100.00	0.0004 (ppm)	-38.6972
12/18/2015 16:52:45	R1510413-002	Mg (279.078 nm)	-0.0063 u (ppm)	49.39	-0.0063 (ppm)	7.8591
12/18/2015 16:52:45	R1510413-002	Mg (279.078 nm)	-0.0085 u (ppm)	32.50	-0.0085 (ppm)	10.9680
12/18/2015 16:52:45	R1510413-002	Mn (257.610 nm)	0.0070 (ppm)	0.19	0.0070 (ppm)	857.7905
12/18/2015 16:52:45	R1510413-002	Mo (202.032 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	2.6155
12/18/2015 16:52:45	R1510413-002	Na (588.995 nm)	0.3796 (ppm)	1.44	0.3796 (ppm)	3213.6364
12/18/2015 16:52:45	R1510413-002	Ni (230.299 nm)	0.0180 (ppm)	5.99	0.0180 (ppm)	45.6577
12/18/2015 16:52:45	R1510413-002	Pb (220.353 nm)	0.0044 (ppm)	26.10	0.0044 (ppm)	7.1559
12/18/2015 16:52:45	R1510413-002	Sb (217.582 nm)	-0.0073 u (ppm)	35.99	-0.0073 (ppm)	-2.6130
12/18/2015 16:52:45	R1510413-002	Se (196.026 nm)	0.0035 (ppm)	58.92	0.0035 (ppm)	1.6571
12/18/2015 16:52:45	R1510413-002	Sn (189.925 nm)	0.0023 (ppm)	62.73	0.0023 (ppm)	1.7863
12/18/2015 16:52:45	R1510413-002	Sr (460.733 nm)	-0.0097 u (ppm)	31.89	-0.0097 (ppm)	-60.8342
12/18/2015 16:52:45	R1510413-002	Ti (336.122 nm)	-0.0002 u (ppm)	26.06	-0.0002 (ppm)	-52.4019
12/18/2015 16:52:45	R1510413-002	Tl (351.923 nm)	0.0050 (ppm)	31.43	0.0050 (ppm)	-2.4173
12/18/2015 16:52:45	R1510413-002	V (292.401 nm)	0.0020 (ppm)	4.52	0.0020 (ppm)	74.2281
12/18/2015 16:52:45	R1510413-002	Y (360.074 nm)	0.98 (Ratio)	0.52	0.98 (Ratio)	572581.30
12/18/2015 16:52:45	R1510413-002	Y_R (360.074 nm)	0.95 (Ratio)	1.17	0.95 (Ratio)	232661.96
12/18/2015 16:52:45	R1510413-002	Zn (213.857 nm)	0.0027 (ppm)	6.23	0.0027 (ppm)	34.7440
12/18/2015 16:56:14	R1510413-003	Ag (328.068 nm)	0.0003 (ppm)	44.00	0.0003 (ppm)	22.4805
12/18/2015 16:56:14	R1510413-003	Al (394.401 nm)	-0.0014 u (ppm)	50.32	-0.0014 (ppm)	136.9889
12/18/2015 16:56:14	R1510413-003	Al (394.401 nm)	-0.0026 u (ppm)	33.04	-0.0026 (ppm)	163.1375
12/18/2015 16:56:14	R1510413-003	As (188.980 nm)	-0.0004 u (ppm)	> 100.00	-0.0004 (ppm)	1.2698
12/18/2015 16:56:14	R1510413-003	B (249.772 nm)	0.0043 (ppm)	2.83	0.0043 (ppm)	69.9056
12/18/2015 16:56:14	R1510413-003	Ba (230.424 nm)	-0.0002 u (ppm)	59.50	-0.0002 (ppm)	4.8343
12/18/2015 16:56:14	R1510413-003	Be (313.107 nm)	0.0000 (ppm)	39.32	0.0000 (ppm)	-57.8910
12/18/2015 16:56:14	R1510413-003	Ca (227.547 nm)	0.0906 (ppm)	30.97	0.0906 (ppm)	3.4999
12/18/2015 16:56:14	R1510413-003	Ca (227.547 nm)	0.2346 (ppm)	30.78	0.2346 (ppm)	3.1745
12/18/2015 16:56:14	R1510413-003	Cd (214.439 nm)	0.0004 (ppm)	23.16	0.0004 (ppm)	7.5669
12/18/2015 16:56:14	R1510413-003	Co (230.786 nm)	0.0010 (ppm)	16.51	0.0010 (ppm)	5.4250
12/18/2015 16:56:14	R1510413-003	Cr (267.716 nm)	0.0038 (ppm)	1.98	0.0038 (ppm)	84.6327
12/18/2015 16:56:14	R1510413-003	Cu (327.395 nm)	0.0018 (ppm)	5.06	0.0018 (ppm)	78.2498
12/18/2015 16:56:14	R1510413-003	Fe (234.350 nm)	0.1686 (ppm)	0.39	0.1686 (ppm)	1330.0667
12/18/2015 16:56:14	R1510413-003	Fe (234.350 nm)	0.2100 (ppm)	0.20	0.2100 (ppm)	1362.4704
12/18/2015 16:56:14	R1510413-003	K (766.491 nm)	0.0167 (ppm)	35.27	0.0167 (ppm)	2.8978
12/18/2015 16:56:14	R1510413-003	Mg (279.078 nm)	-0.0059 u (ppm)	2.05	-0.0059 (ppm)	8.5609
12/18/2015 16:56:14	R1510413-003	Mg (279.078 nm)	-0.0080 u (ppm)	16.90	-0.0080 (ppm)	11.6453
12/18/2015 16:56:14	R1510413-003	Mn (257.610 nm)	0.0064 (ppm)	0.22	0.0064 (ppm)	785.9885
12/18/2015 16:56:14	R1510413-003	Mo (202.032 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	1.9124
12/18/2015 16:56:14	R1510413-003	Na (588.995 nm)	0.4406 (ppm)	1.77	0.4406 (ppm)	4890.5952
12/18/2015 16:56:14	R1510413-003	Ni (230.299 nm)	0.0093 (ppm)	8.81	0.0093 (ppm)	18.7909
12/18/2015 16:56:14	R1510413-003	Pb (220.353 nm)	0.0038 (ppm)	95.83	0.0038 (ppm)	6.5476
12/18/2015 16:56:14	R1510413-003	Sb (217.582 nm)	-0.0041 u (ppm)	62.27	-0.0041 (ppm)	-0.8553
12/18/2015 16:56:14	R1510413-003	Se (196.026 nm)	0.0036 u (ppm)	> 100.00	0.0036 (ppm)	1.7150
12/18/2015 16:56:14	R1510413-003	Sn (189.925 nm)	0.0087 (ppm)	42.76	0.0087 (ppm)	6.1998
12/18/2015 16:56:14	R1510413-003	Sr (460.733 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	64.8972
12/18/2015 16:56:14	R1510413-003	Ti (336.122 nm)	0.0001 (ppm)	93.57	0.0001 (ppm)	-20.6000

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 16:56:14	R1510413-003	Tl (351.923 nm)	0.0020 (ppm)	> 100.00	0.0020 (ppm)	-7.3305
12/18/2015 16:56:14	R1510413-003	V (292.401 nm)	0.0002 (ppm)	81.49	0.0002 (ppm)	40.3653
12/18/2015 16:56:14	R1510413-003	Y (360.074 nm)	0.99 (Ratio)	0.73	0.99 (Ratio)	574208.49
12/18/2015 16:56:14	R1510413-003	Y_R (360.074 nm)	0.95 (Ratio)	0.35	0.95 (Ratio)	233544.63
12/18/2015 16:56:14	R1510413-003	Zn (213.857 nm)	0.0035 (ppm)	2.93	0.0035 (ppm)	44.3718
12/18/2015 16:59:43	Continuing Calibration Verification	Ag (328.068 nm)	0.4773 (ppm)	1.32	0.4773 (ppm)	18593.4952
12/18/2015 16:59:43	Continuing Calibration Verification	Al (394.401 nm)	7.5032 (ppm)	1.31	7.5032 (ppm)	79772.4542
12/18/2015 16:59:43	Continuing Calibration Verification	Al (394.401 nm)	9.3770 (ppm)	1.32	9.3770 (ppm)	80867.4655
12/18/2015 16:59:43	Continuing Calibration Verification	As (188.980 nm)	0.9513 (ppm)	1.21	0.9513 (ppm)	502.9810
12/18/2015 16:59:43	Continuing Calibration Verification	B (249.772 nm)	2.3770 (ppm)	1.28	2.3770 (ppm)	31662.9481
12/18/2015 16:59:43	Continuing Calibration Verification	Ba (230.424 nm)	10.1024 (ppm)	1.58	10.1024 (ppm)	152737.0053
12/18/2015 16:59:43	Continuing Calibration Verification	Be (313.107 nm)	0.2510 (ppm)	1.31	0.2510 (ppm)	219613.3375
12/18/2015 16:59:43	Continuing Calibration Verification	Ca (227.547 nm)	15.7838 (ppm)	0.89	15.7838 (ppm)	572.1193
12/18/2015 16:59:43	Continuing Calibration Verification	Ca (227.547 nm)	24.3691 (ppm)	0.95	24.3691 (ppm)	580.1844
12/18/2015 16:59:43	Continuing Calibration Verification	Cd (214.439 nm)	0.5028 (ppm)	1.16	0.5028 (ppm)	5354.9053
12/18/2015 16:59:43	Continuing Calibration Verification	Co (230.786 nm)	2.4380 (ppm)	1.63	2.4380 (ppm)	11670.6454
12/18/2015 16:59:43	Continuing Calibration Verification	Cr (267.716 nm)	0.5143 (ppm)	1.36	0.5143 (ppm)	11889.4470
12/18/2015 16:59:43	Continuing Calibration Verification	Cu (327.395 nm)	1.1960 (ppm)	1.64	1.1960 (ppm)	36077.0800
12/18/2015 16:59:43	Continuing Calibration Verification	Fe (234.350 nm)	3.9200 (ppm)	1.48	3.9200 (ppm)	29823.8704
12/18/2015 16:59:43	Continuing Calibration Verification	Fe (234.350 nm)	4.9263 (ppm)	1.44	4.9263 (ppm)	30998.1421
12/18/2015 16:59:43	Continuing Calibration Verification	K (766.491 nm)	24.3818 (ppm)	0.48	24.3818 (ppm)	62412.4161
12/18/2015 16:59:43	Continuing Calibration Verification	Mg (279.078 nm)	16.9649 (ppm)	1.48	16.9649 (ppm)	30753.4608
12/18/2015 16:59:43	Continuing Calibration Verification	Mg (279.078 nm)	23.9436 (ppm)	1.43	23.9436 (ppm)	32257.1536
12/18/2015 16:59:43	Continuing Calibration Verification	Mn (257.610 nm)	0.7577 (ppm)	1.32	0.7577 (ppm)	91783.6992
12/18/2015 16:59:43	Continuing Calibration Verification	Mo (202.032 nm)	2.4388 (ppm)	1.42	2.4388 (ppm)	10667.8016
12/18/2015 16:59:43	Continuing Calibration Verification	Na (588.995 nm)	24.2459 (ppm)	0.72	24.2459 (ppm)	659220.1715
12/18/2015 16:59:43	Continuing Calibration Verification	Ni (230.299 nm)	2.0461 (ppm)	1.38	2.0461 (ppm)	6298.7319
12/18/2015 16:59:43	Continuing Calibration Verification	Pb (220.353 nm)	0.5012 (ppm)	0.88	0.5012 (ppm)	484.3982
12/18/2015 16:59:43	Continuing Calibration Verification	Sb (217.582 nm)	4.8722 (ppm)	1.65	4.8722 (ppm)	2714.0771
12/18/2015 16:59:43	Continuing Calibration Verification	Se (196.026 nm)	0.4746 (ppm)	1.95	0.4746 (ppm)	166.3574
12/18/2015 16:59:43	Continuing Calibration Verification	Sn (189.925 nm)	4.9108 (ppm)	2.05	4.9108 (ppm)	3378.7868
12/18/2015 16:59:43	Continuing Calibration Verification	Sr (460.733 nm)	2.4329 (ppm)	0.47	2.4329 (ppm)	32015.5458
12/18/2015 16:59:43	Continuing Calibration Verification	Ti (336.122 nm)	2.4449 (ppm)	1.31	2.4449 (ppm)	307387.1400
12/18/2015 16:59:43	Continuing Calibration Verification	Tl (351.923 nm)	0.9816 (ppm)	0.81	0.9816 (ppm)	1584.3672
12/18/2015 16:59:43	Continuing Calibration Verification	V (292.401 nm)	2.4836 (ppm)	0.47	2.4836 (ppm)	47474.0004
12/18/2015 16:59:43	Continuing Calibration Verification	Y (360.074 nm)	0.99 (Ratio)	1.16	0.99 (Ratio)	578769.72
12/18/2015 16:59:43	Continuing Calibration Verification	Y_R (360.074 nm)	0.99 (Ratio)	0.51	0.99 (Ratio)	242662.45
12/18/2015 16:59:43	Continuing Calibration Verification	Zn (213.857 nm)	0.9940 (ppm)	1.82	0.9940 (ppm)	12426.5946
12/18/2015 17:03:12	Continuing Calibration Blank	Ag (328.068 nm)	0.0000 (ppm)	> 100.00	0.0000 (ppm)	11.0234
12/18/2015 17:03:12	Continuing Calibration Blank	Al (394.401 nm)	-0.0080 u (ppm)	10.11	-0.0080 (ppm)	66.5975
12/18/2015 17:03:12	Continuing Calibration Blank	Al (394.401 nm)	-0.0107 u (ppm)	8.73	-0.0107 (ppm)	92.1092
12/18/2015 17:03:12	Continuing Calibration Blank	As (188.980 nm)	-0.0029 u (ppm)	> 100.00	-0.0029 (ppm)	-0.0516
12/18/2015 17:03:12	Continuing Calibration Blank	B (249.772 nm)	0.0013 (ppm)	21.01	0.0013 (ppm)	30.0091
12/18/2015 17:03:12	Continuing Calibration Blank	Ba (230.424 nm)	0.0036 (ppm)	27.72	0.0036 (ppm)	62.2414
12/18/2015 17:03:12	Continuing Calibration Blank	Be (313.107 nm)	0.0001 (ppm)	30.46	0.0001 (ppm)	16.1060
12/18/2015 17:03:12	Continuing Calibration Blank	Ca (227.547 nm)	-0.0141 u (ppm)	> 100.00	-0.0141 (ppm)	-0.2955
12/18/2015 17:03:12	Continuing Calibration Blank	Ca (227.547 nm)	0.0055 u (ppm)	> 100.00	0.0055 (ppm)	-2.3132
12/18/2015 17:03:12	Continuing Calibration Blank	Cd (214.439 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	3.4692
12/18/2015 17:03:12	Continuing Calibration Blank	Co (230.786 nm)	0.0009 (ppm)	51.90	0.0009 (ppm)	4.9496
12/18/2015 17:03:12	Continuing Calibration Blank	Cr (267.716 nm)	0.0002 (ppm)	16.65	0.0002 (ppm)	3.4720
12/18/2015 17:03:12	Continuing Calibration Blank	Cu (327.395 nm)	0.0005 (ppm)	57.76	0.0005 (ppm)	38.8289

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 17:03:12	Continuing Calibration Blank	Fe (234.350 nm)	-0.0034 u (ppm)	10.73	-0.0034 (ppm)	23.0567
12/18/2015 17:03:12	Continuing Calibration Blank	Fe (234.350 nm)	-0.0044 u (ppm)	12.23	-0.0044 (ppm)	21.1202
12/18/2015 17:03:12	Continuing Calibration Blank	K (766.491 nm)	-0.0055 u (ppm)	> 100.00	-0.0055 (ppm)	-53.7077
12/18/2015 17:03:12	Continuing Calibration Blank	Mg (279.078 nm)	-0.0045 u (ppm)	32.60	-0.0045 (ppm)	11.0803
12/18/2015 17:03:12	Continuing Calibration Blank	Mg (279.078 nm)	-0.0070 u (ppm)	42.60	-0.0070 (ppm)	13.0122
12/18/2015 17:03:12	Continuing Calibration Blank	Mn (257.610 nm)	0.0003 (ppm)	23.06	0.0003 (ppm)	36.3813
12/18/2015 17:03:12	Continuing Calibration Blank	Mo (202.032 nm)	0.0012 (ppm)	44.05	0.0012 (ppm)	7.3849
12/18/2015 17:03:12	Continuing Calibration Blank	Na (588.995 nm)	0.0097 u (ppm)	> 100.00	0.0097 (ppm)	-6960.0066
12/18/2015 17:03:12	Continuing Calibration Blank	Ni (230.299 nm)	0.0014 (ppm)	47.04	0.0014 (ppm)	-5.4325
12/18/2015 17:03:12	Continuing Calibration Blank	Pb (220.353 nm)	-0.0014 u (ppm)	67.05	-0.0014 (ppm)	1.5037
12/18/2015 17:03:12	Continuing Calibration Blank	Sb (217.582 nm)	0.0023 (ppm)	92.76	0.0023 (ppm)	2.6881
12/18/2015 17:03:12	Continuing Calibration Blank	Se (196.026 nm)	0.0029 u (ppm)	> 100.00	0.0029 (ppm)	1.4596
12/18/2015 17:03:12	Continuing Calibration Blank	Sn (189.925 nm)	0.0048 (ppm)	56.27	0.0048 (ppm)	3.5374
12/18/2015 17:03:12	Continuing Calibration Blank	Sr (460.733 nm)	-0.0065 u (ppm)	30.93	-0.0065 (ppm)	-18.0826
12/18/2015 17:03:12	Continuing Calibration Blank	Ti (336.122 nm)	0.0009 (ppm)	31.17	0.0009 (ppm)	78.2018
12/18/2015 17:03:12	Continuing Calibration Blank	Tl (351.923 nm)	0.0030 (ppm)	62.83	0.0030 (ppm)	-5.7380
12/18/2015 17:03:12	Continuing Calibration Blank	V (292.401 nm)	0.0011 (ppm)	31.92	0.0011 (ppm)	56.7161
12/18/2015 17:03:12	Continuing Calibration Blank	Y (360.074 nm)	1.03 (Ratio)	1.36	1.03 (Ratio)	598654.94
12/18/2015 17:03:12	Continuing Calibration Blank	Y_R (360.074 nm)	1.01 (Ratio)	0.24	1.01 (Ratio)	247415.47
12/18/2015 17:03:12	Continuing Calibration Blank	Zn (213.857 nm)	0.0007 (ppm)	20.99	0.0007 (ppm)	9.2070
12/18/2015 17:06:41	R1510413-004	Ag (328.068 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	4.6885
12/18/2015 17:06:41	R1510413-004	Al (394.401 nm)	-0.0031 u (ppm)	6.52	-0.0031 (ppm)	118.9865
12/18/2015 17:06:41	R1510413-004	Al (394.401 nm)	-0.0048 u (ppm)	5.77	-0.0048 (ppm)	143.5624
12/18/2015 17:06:41	R1510413-004	As (188.980 nm)	-0.0038 u (ppm)	92.06	-0.0038 (ppm)	-0.5004
12/18/2015 17:06:41	R1510413-004	B (249.772 nm)	0.0042 (ppm)	4.88	0.0042 (ppm)	67.9318
12/18/2015 17:06:41	R1510413-004	Ba (230.424 nm)	0.0005 (ppm)	41.28	0.0005 (ppm)	15.5864
12/18/2015 17:06:41	R1510413-004	Be (313.107 nm)	0.0000 (ppm)	> 100.00	0.0000 (ppm)	-34.2855
12/18/2015 17:06:41	R1510413-004	Ca (227.547 nm)	0.0695 (ppm)	56.33	0.0695 (ppm)	2.7339
12/18/2015 17:06:41	R1510413-004	Ca (227.547 nm)	0.1883 (ppm)	29.82	0.1883 (ppm)	2.0544
12/18/2015 17:06:41	R1510413-004	Cd (214.439 nm)	0.0004 (ppm)	21.97	0.0004 (ppm)	7.5698
12/18/2015 17:06:41	R1510413-004	Co (230.786 nm)	0.0009 (ppm)	26.99	0.0009 (ppm)	4.8347
12/18/2015 17:06:41	R1510413-004	Cr (267.716 nm)	0.0039 (ppm)	1.25	0.0039 (ppm)	86.7011
12/18/2015 17:06:41	R1510413-004	Cu (327.395 nm)	0.0017 (ppm)	16.92	0.0017 (ppm)	73.2591
12/18/2015 17:06:41	R1510413-004	Fe (234.350 nm)	0.0522 (ppm)	0.56	0.0522 (ppm)	445.5950
12/18/2015 17:06:41	R1510413-004	Fe (234.350 nm)	0.0645 (ppm)	0.74	0.0645 (ppm)	452.3523
12/18/2015 17:06:41	R1510413-004	K (766.491 nm)	0.0152 u (ppm)	> 100.00	0.0152 (ppm)	-0.6174
12/18/2015 17:06:41	R1510413-004	Mg (279.078 nm)	-0.0056 u (ppm)	8.76	-0.0056 (ppm)	9.1574
12/18/2015 17:06:41	R1510413-004	Mg (279.078 nm)	-0.0074 u (ppm)	9.44	-0.0074 (ppm)	12.4149
12/18/2015 17:06:41	R1510413-004	Mn (257.610 nm)	0.0025 (ppm)	2.50	0.0025 (ppm)	304.4787
12/18/2015 17:06:41	R1510413-004	Mo (202.032 nm)	-0.0004 u (ppm)	> 100.00	-0.0004 (ppm)	0.7028
12/18/2015 17:06:41	R1510413-004	Na (588.995 nm)	0.3783 (ppm)	1.29	0.3783 (ppm)	3178.0860
12/18/2015 17:06:41	R1510413-004	Ni (230.299 nm)	0.0021 (ppm)	5.85	0.0021 (ppm)	-3.2444
12/18/2015 17:06:41	R1510413-004	Pb (220.353 nm)	0.0013 u (ppm)	> 100.00	0.0013 (ppm)	4.1520
12/18/2015 17:06:41	R1510413-004	Sb (217.582 nm)	-0.0029 u (ppm)	> 100.00	-0.0029 (ppm)	-0.1768
12/18/2015 17:06:41	R1510413-004	Se (196.026 nm)	0.0015 u (ppm)	> 100.00	0.0015 (ppm)	0.9833
12/18/2015 17:06:41	R1510413-004	Sn (189.925 nm)	0.0063 (ppm)	25.47	0.0063 (ppm)	4.5715
12/18/2015 17:06:41	R1510413-004	Sr (460.733 nm)	0.0044 (ppm)	> 100.00	0.0044 (ppm)	124.3623
12/18/2015 17:06:41	R1510413-004	Ti (336.122 nm)	0.0002 (ppm)	55.11	0.0002 (ppm)	-5.3425
12/18/2015 17:06:41	R1510413-004	Tl (351.923 nm)	0.0014 u (ppm)	> 100.00	0.0014 (ppm)	-8.3577
12/18/2015 17:06:41	R1510413-004	V (292.401 nm)	0.0005 (ppm)	26.04	0.0005 (ppm)	46.2396
12/18/2015 17:06:41	R1510413-004	Y (360.074 nm)	1.00 (Ratio)	0.93	1.00 (Ratio)	581439.03

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 17:06:41	R1510413-004	Y_R (360.074 nm)	0.97 (Ratio)	0.53	0.97 (Ratio)	238098.00
12/18/2015 17:06:41	R1510413-004	Zn (213.857 nm)	0.0025 (ppm)	4.17	0.0025 (ppm)	32.3690
12/18/2015 17:10:10	R1510413-005	Ag (328.068 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	9.4232
12/18/2015 17:10:10	R1510413-005	Al (394.401 nm)	-0.0013 u (ppm)	77.08	-0.0013 (ppm)	137.9057
12/18/2015 17:10:10	R1510413-005	Al (394.401 nm)	-0.0025 u (ppm)	58.83	-0.0025 (ppm)	164.4524
12/18/2015 17:10:10	R1510413-005	As (188.980 nm)	-0.0004 u (ppm)	> 100.00	-0.0004 (ppm)	1.2655
12/18/2015 17:10:10	R1510413-005	B (249.772 nm)	0.0042 (ppm)	4.68	0.0042 (ppm)	67.4954
12/18/2015 17:10:10	R1510413-005	Ba (230.424 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	7.0277
12/18/2015 17:10:10	R1510413-005	Be (313.107 nm)	0.0000 (ppm)	42.29	0.0000 (ppm)	-50.0215
12/18/2015 17:10:10	R1510413-005	Ca (227.547 nm)	0.1267 (ppm)	39.27	0.1267 (ppm)	4.8079
12/18/2015 17:10:10	R1510413-005	Ca (227.547 nm)	0.2433 (ppm)	14.49	0.2433 (ppm)	3.3683
12/18/2015 17:10:10	R1510413-005	Cd (214.439 nm)	0.0003 (ppm)	68.55	0.0003 (ppm)	5.8441
12/18/2015 17:10:10	R1510413-005	Co (230.786 nm)	0.0007 (ppm)	81.98	0.0007 (ppm)	3.9604
12/18/2015 17:10:10	R1510413-005	Cr (267.716 nm)	0.0039 (ppm)	3.68	0.0039 (ppm)	87.3332
12/18/2015 17:10:10	R1510413-005	Cu (327.395 nm)	0.0009 (ppm)	15.58	0.0009 (ppm)	51.1688
12/18/2015 17:10:10	R1510413-005	Fe (234.350 nm)	0.0580 (ppm)	0.67	0.0580 (ppm)	489.7280
12/18/2015 17:10:10	R1510413-005	Fe (234.350 nm)	0.0723 (ppm)	1.07	0.0723 (ppm)	501.0787
12/18/2015 17:10:10	R1510413-005	K (766.491 nm)	0.0204 (ppm)	> 100.00	0.0204 (ppm)	12.5894
12/18/2015 17:10:10	R1510413-005	Mg (279.078 nm)	-0.0045 u (ppm)	26.15	-0.0045 (ppm)	11.0660
12/18/2015 17:10:10	R1510413-005	Mg (279.078 nm)	-0.0067 u (ppm)	22.30	-0.0067 (ppm)	13.3916
12/18/2015 17:10:10	R1510413-005	Mn (257.610 nm)	0.0089 (ppm)	0.40	0.0089 (ppm)	1084.6669
12/18/2015 17:10:10	R1510413-005	Mo (202.032 nm)	-0.0004 u (ppm)	76.64	-0.0004 (ppm)	0.4457
12/18/2015 17:10:10	R1510413-005	Na (588.995 nm)	0.4341 (ppm)	0.87	0.4341 (ppm)	4712.0555
12/18/2015 17:10:10	R1510413-005	Ni (230.299 nm)	0.0037 (ppm)	12.18	0.0037 (ppm)	1.5600
12/18/2015 17:10:10	R1510413-005	Pb (220.353 nm)	0.0032 u (ppm)	> 100.00	0.0032 (ppm)	5.9203
12/18/2015 17:10:10	R1510413-005	Sb (217.582 nm)	-0.0021 u (ppm)	89.76	-0.0021 (ppm)	0.2407
12/18/2015 17:10:10	R1510413-005	Se (196.026 nm)	0.0024 u (ppm)	> 100.00	0.0024 (ppm)	1.2954
12/18/2015 17:10:10	R1510413-005	Sn (189.925 nm)	0.0129 (ppm)	10.12	0.0129 (ppm)	9.0813
12/18/2015 17:10:10	R1510413-005	Sr (460.733 nm)	-0.0035 u (ppm)	97.53	-0.0035 (ppm)	20.2932
12/18/2015 17:10:10	R1510413-005	Ti (336.122 nm)	0.0001 (ppm)	29.26	0.0001 (ppm)	-19.2043
12/18/2015 17:10:10	R1510413-005	Tl (351.923 nm)	0.0050 (ppm)	69.01	0.0050 (ppm)	-2.4063
12/18/2015 17:10:10	R1510413-005	V (292.401 nm)	0.0004 (ppm)	72.59	0.0004 (ppm)	42.7746
12/18/2015 17:10:10	R1510413-005	Y (360.074 nm)	1.02 (Ratio)	0.29	1.02 (Ratio)	591566.94
12/18/2015 17:10:10	R1510413-005	Y_R (360.074 nm)	0.98 (Ratio)	0.66	0.98 (Ratio)	239996.18
12/18/2015 17:10:10	R1510413-005	Zn (213.857 nm)	0.0048 (ppm)	2.42	0.0048 (ppm)	60.7415
12/18/2015 17:13:39	R1510692-001	Ag (328.068 nm)	0.0001 (ppm)	94.85	0.0001 (ppm)	14.1390
12/18/2015 17:13:39	R1510692-001	Al (394.401 nm)	-0.0005 u (ppm)	> 100.00	-0.0005 (ppm)	145.8795
12/18/2015 17:13:39	R1510692-001	Al (394.401 nm)	-0.0016 u (ppm)	21.08	-0.0016 (ppm)	172.0546
12/18/2015 17:13:39	R1510692-001	As (188.980 nm)	0.0021 u (ppm)	> 100.00	0.0021 (ppm)	2.5947
12/18/2015 17:13:39	R1510692-001	B (249.772 nm)	0.0049 (ppm)	5.27	0.0049 (ppm)	77.4452
12/18/2015 17:13:39	R1510692-001	Ba (230.424 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	6.3949
12/18/2015 17:13:39	R1510692-001	Be (313.107 nm)	0.0000 (ppm)	21.23	0.0000 (ppm)	-49.0982
12/18/2015 17:13:39	R1510692-001	Ca (227.547 nm)	0.1116 (ppm)	42.46	0.1116 (ppm)	4.2613
12/18/2015 17:13:39	R1510692-001	Ca (227.547 nm)	0.2062 (ppm)	43.96	0.2062 (ppm)	2.4790
12/18/2015 17:13:39	R1510692-001	Cd (214.439 nm)	0.0005 (ppm)	44.31	0.0005 (ppm)	8.0522
12/18/2015 17:13:39	R1510692-001	Co (230.786 nm)	0.0010 (ppm)	34.38	0.0010 (ppm)	5.4694
12/18/2015 17:13:39	R1510692-001	Cr (267.716 nm)	0.0044 (ppm)	3.21	0.0044 (ppm)	98.8184
12/18/2015 17:13:39	R1510692-001	Cu (327.395 nm)	0.0039 (ppm)	4.13	0.0039 (ppm)	142.3905
12/18/2015 17:13:39	R1510692-001	Fe (234.350 nm)	0.0337 (ppm)	1.11	0.0337 (ppm)	304.9887
12/18/2015 17:13:39	R1510692-001	Fe (234.350 nm)	0.0414 (ppm)	1.17	0.0414 (ppm)	307.5813
12/18/2015 17:13:39	R1510692-001	K (766.491 nm)	-0.0473 u (ppm)	89.93	-0.0473 (ppm)	-160.7383

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 17:13:39	R1510692-001	Mg (279.078 nm)	-0.0054 u (ppm)	32.32	-0.0054 (ppm)	9.5201
12/18/2015 17:13:39	R1510692-001	Mg (279.078 nm)	-0.0081 u (ppm)	20.36	-0.0081 (ppm)	11.5108
12/18/2015 17:13:39	R1510692-001	Mn (257.610 nm)	0.0147 (ppm)	0.59	0.0147 (ppm)	1782.7139
12/18/2015 17:13:39	R1510692-001	Mo (202.032 nm)	0.0010 (ppm)	8.30	0.0010 (ppm)	6.6151
12/18/2015 17:13:39	R1510692-001	Na (588.995 nm)	0.4884 (ppm)	0.38	0.4884 (ppm)	6205.9548
12/18/2015 17:13:39	R1510692-001	Ni (230.299 nm)	0.0161 (ppm)	3.42	0.0161 (ppm)	39.7856
12/18/2015 17:13:39	R1510692-001	Pb (220.353 nm)	0.0045 (ppm)	10.94	0.0045 (ppm)	7.2181
12/18/2015 17:13:39	R1510692-001	Sb (217.582 nm)	-0.0074 u (ppm)	63.17	-0.0074 (ppm)	-2.6700
12/18/2015 17:13:39	R1510692-001	Se (196.026 nm)	0.0013 u (ppm)	> 100.00	0.0013 (ppm)	0.9080
12/18/2015 17:13:39	R1510692-001	Sn (189.925 nm)	0.0052 (ppm)	45.13	0.0052 (ppm)	3.8163
12/18/2015 17:13:39	R1510692-001	Sr (460.733 nm)	-0.0069 u (ppm)	20.41	-0.0069 (ppm)	-24.1518
12/18/2015 17:13:39	R1510692-001	Ti (336.122 nm)	0.0011 (ppm)	6.43	0.0011 (ppm)	107.6365
12/18/2015 17:13:39	R1510692-001	Tl (351.923 nm)	0.0017 u (ppm)	> 100.00	0.0017 (ppm)	-7.8551
12/18/2015 17:13:39	R1510692-001	V (292.401 nm)	0.0011 (ppm)	14.54	0.0011 (ppm)	57.3126
12/18/2015 17:13:39	R1510692-001	Y (360.074 nm)	0.96 (Ratio)	0.27	0.96 (Ratio)	560357.46
12/18/2015 17:13:39	R1510692-001	Y_R (360.074 nm)	0.93 (Ratio)	0.59	0.93 (Ratio)	229138.49
12/18/2015 17:13:39	R1510692-001	Zn (213.857 nm)	0.0077 (ppm)	1.36	0.0077 (ppm)	97.0423
12/18/2015 17:17:09	R1510692-001D	Ag (328.068 nm)	0.0001 (ppm)	> 100.00	0.0001 (ppm)	13.6618
12/18/2015 17:17:09	R1510692-001D	Al (394.401 nm)	-0.0033 u (ppm)	15.78	-0.0033 (ppm)	116.8758
12/18/2015 17:17:09	R1510692-001D	Al (394.401 nm)	-0.0048 u (ppm)	6.89	-0.0048 (ppm)	145.0438
12/18/2015 17:17:09	R1510692-001D	As (188.980 nm)	-0.0005 u (ppm)	> 100.00	-0.0005 (ppm)	1.2313
12/18/2015 17:17:09	R1510692-001D	B (249.772 nm)	0.0040 (ppm)	6.55	0.0040 (ppm)	65.3265
12/18/2015 17:17:09	R1510692-001D	Ba (230.424 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	8.0332
12/18/2015 17:17:09	R1510692-001D	Be (313.107 nm)	0.0000 (ppm)	95.24	0.0000 (ppm)	-47.0513
12/18/2015 17:17:09	R1510692-001D	Ca (227.547 nm)	0.1233 (ppm)	37.08	0.1233 (ppm)	4.6821
12/18/2015 17:17:09	R1510692-001D	Ca (227.547 nm)	0.2297 (ppm)	26.60	0.2297 (ppm)	3.0399
12/18/2015 17:17:09	R1510692-001D	Cd (214.439 nm)	0.0004 (ppm)	14.54	0.0004 (ppm)	7.1060
12/18/2015 17:17:09	R1510692-001D	Co (230.786 nm)	0.0015 (ppm)	10.90	0.0015 (ppm)	7.6576
12/18/2015 17:17:09	R1510692-001D	Cr (267.716 nm)	0.0036 (ppm)	4.33	0.0036 (ppm)	80.1714
12/18/2015 17:17:09	R1510692-001D	Cu (327.395 nm)	0.0029 (ppm)	3.55	0.0029 (ppm)	110.8574
12/18/2015 17:17:09	R1510692-001D	Fe (234.350 nm)	0.0276 (ppm)	1.14	0.0276 (ppm)	258.4852
12/18/2015 17:17:09	R1510692-001D	Fe (234.350 nm)	0.0333 (ppm)	1.55	0.0333 (ppm)	257.2589
12/18/2015 17:17:09	R1510692-001D	K (766.491 nm)	0.0310 (ppm)	28.74	0.0310 (ppm)	39.8479
12/18/2015 17:17:09	R1510692-001D	Mg (279.078 nm)	-0.0056 u (ppm)	35.03	-0.0056 (ppm)	9.1306
12/18/2015 17:17:09	R1510692-001D	Mg (279.078 nm)	-0.0075 u (ppm)	39.91	-0.0075 (ppm)	12.3480
12/18/2015 17:17:09	R1510692-001D	Mn (257.610 nm)	0.0295 (ppm)	0.26	0.0295 (ppm)	3581.3028
12/18/2015 17:17:09	R1510692-001D	Mo (202.032 nm)	-0.0003 u (ppm)	> 100.00	-0.0003 (ppm)	0.8542
12/18/2015 17:17:09	R1510692-001D	Na (588.995 nm)	0.3884 (ppm)	0.96	0.3884 (ppm)	3456.7293
12/18/2015 17:17:09	R1510692-001D	Ni (230.299 nm)	0.0135 (ppm)	7.47	0.0135 (ppm)	31.8765
12/18/2015 17:17:09	R1510692-001D	Pb (220.353 nm)	0.0029 (ppm)	98.43	0.0029 (ppm)	5.6532
12/18/2015 17:17:09	R1510692-001D	Sb (217.582 nm)	-0.0006 u (ppm)	> 100.00	-0.0006 (ppm)	1.1080
12/18/2015 17:17:09	R1510692-001D	Se (196.026 nm)	0.0056 (ppm)	50.69	0.0056 (ppm)	2.3985
12/18/2015 17:17:09	R1510692-001D	Sn (189.925 nm)	0.0070 (ppm)	15.45	0.0070 (ppm)	5.0411
12/18/2015 17:17:09	R1510692-001D	Sr (460.733 nm)	-0.0027 u (ppm)	> 100.00	-0.0027 (ppm)	31.7071
12/18/2015 17:17:09	R1510692-001D	Ti (336.122 nm)	0.0006 (ppm)	7.24	0.0006 (ppm)	39.9563
12/18/2015 17:17:09	R1510692-001D	Tl (351.923 nm)	0.0029 u (ppm)	> 100.00	0.0029 (ppm)	-5.8047
12/18/2015 17:17:09	R1510692-001D	V (292.401 nm)	0.0010 (ppm)	13.66	0.0010 (ppm)	55.3350
12/18/2015 17:17:09	R1510692-001D	Y (360.074 nm)	1.01 (Ratio)	0.60	1.01 (Ratio)	588443.58
12/18/2015 17:17:09	R1510692-001D	Y_R (360.074 nm)	0.97 (Ratio)	0.15	0.97 (Ratio)	237055.19
12/18/2015 17:17:09	R1510692-001D	Zn (213.857 nm)	0.0033 (ppm)	2.22	0.0033 (ppm)	42.6687
12/18/2015 17:20:38	R1510692-001S	Ag (328.068 nm)	0.0427 (ppm)	0.55	0.0427 (ppm)	1670.7993

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 17:20:38	R1510692-001S	Al (394.401 nm)	1.2771 (ppm)	0.59	1.2771 (ppm)	13703.9984
12/18/2015 17:20:38	R1510692-001S	Al (394.401 nm)	1.5982 (ppm)	0.54	1.5982 (ppm)	13908.9128
12/18/2015 17:20:38	R1510692-001S	As (188.980 nm)	0.0299 (ppm)	7.15	0.0299 (ppm)	17.2429
12/18/2015 17:20:38	R1510692-001S	B (249.772 nm)	0.7348 (ppm)	0.36	0.7348 (ppm)	9795.0199
12/18/2015 17:20:38	R1510692-001S	Ba (230.424 nm)	1.9265 (ppm)	0.90	1.9265 (ppm)	29132.2898
12/18/2015 17:20:38	R1510692-001S	Be (313.107 nm)	0.0436 (ppm)	0.72	0.0436 (ppm)	38121.7880
12/18/2015 17:20:38	R1510692-001S	Ca (227.547 nm)	1.1789 (ppm)	0.64	1.1789 (ppm)	42.9312
12/18/2015 17:20:38	R1510692-001S	Ca (227.547 nm)	1.8898 (ppm)	2.20	1.8898 (ppm)	42.7842
12/18/2015 17:20:38	R1510692-001S	Cd (214.439 nm)	0.0446 (ppm)	2.83	0.0446 (ppm)	477.4907
12/18/2015 17:20:38	R1510692-001S	Co (230.786 nm)	0.4497 (ppm)	1.34	0.4497 (ppm)	2152.9240
12/18/2015 17:20:38	R1510692-001S	Cr (267.716 nm)	0.2004 (ppm)	0.46	0.2004 (ppm)	4631.4860
12/18/2015 17:20:38	R1510692-001S	Cu (327.395 nm)	0.2434 (ppm)	0.58	0.2434 (ppm)	7362.1463
12/18/2015 17:20:38	R1510692-001S	Fe (234.350 nm)	0.7545 (ppm)	0.49	0.7545 (ppm)	5779.9918
12/18/2015 17:20:38	R1510692-001S	Fe (234.350 nm)	0.9570 (ppm)	0.66	0.9570 (ppm)	6046.2539
12/18/2015 17:20:38	R1510692-001S	K (766.491 nm)	18.1433 (ppm)	0.20	18.1433 (ppm)	46436.2302
12/18/2015 17:20:38	R1510692-001S	Mg (279.078 nm)	1.0867 (ppm)	0.98	1.0867 (ppm)	1987.9514
12/18/2015 17:20:38	R1510692-001S	Mg (279.078 nm)	1.5583 (ppm)	1.19	1.5583 (ppm)	2120.4754
12/18/2015 17:20:38	R1510692-001S	Mn (257.610 nm)	0.4776 (ppm)	0.37	0.4776 (ppm)	57831.4074
12/18/2015 17:20:38	R1510692-001S	Mo (202.032 nm)	0.4757 (ppm)	0.50	0.4757 (ppm)	2082.3205
12/18/2015 17:20:38	R1510692-001S	Na (588.995 nm)	19.8642 (ppm)	0.28	19.8642 (ppm)	539161.8201
12/18/2015 17:20:38	R1510692-001S	Ni (230.299 nm)	0.4680 (ppm)	0.95	0.4680 (ppm)	1433.0269
12/18/2015 17:20:38	R1510692-001S	Pb (220.353 nm)	0.4466 (ppm)	1.72	0.4466 (ppm)	432.5301
12/18/2015 17:20:38	R1510692-001S	Sb (217.582 nm)	0.4066 (ppm)	1.18	0.4066 (ppm)	227.8595
12/18/2015 17:20:38	R1510692-001S	Se (196.026 nm)	0.0067 (ppm)	76.18	0.0067 (ppm)	2.7701
12/18/2015 17:20:38	R1510692-001S	Sn (189.925 nm)	4.3297 (ppm)	2.28	4.3297 (ppm)	2978.6165
12/18/2015 17:20:38	R1510692-001S	Sr (460.733 nm)	-0.0065 u (ppm)	96.39	-0.0065 (ppm)	-21.3367
12/18/2015 17:20:38	R1510692-001S	Ti (336.122 nm)	0.4788 (ppm)	0.19	0.4788 (ppm)	60166.0219
12/18/2015 17:20:38	R1510692-001S	Tl (351.923 nm)	1.5730 (ppm)	0.17	1.5730 (ppm)	2545.0682
12/18/2015 17:20:38	R1510692-001S	V (292.401 nm)	0.4918 (ppm)	0.16	0.4918 (ppm)	9428.2657
12/18/2015 17:20:38	R1510692-001S	Y (360.074 nm)	0.96 (Ratio)	0.36	0.96 (Ratio)	559138.05
12/18/2015 17:20:38	R1510692-001S	Y_R (360.074 nm)	0.93 (Ratio)	0.58	0.93 (Ratio)	229253.33
12/18/2015 17:20:38	R1510692-001S	Zn (213.857 nm)	0.4125 (ppm)	1.18	0.4125 (ppm)	5152.3511
12/18/2015 17:24:07	R1510692-001L	Ag (328.068 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	8.1791
12/18/2015 17:24:07	R1510692-001L	Al (394.401 nm)	-0.0096 u (ppm)	1.68	-0.0096 (ppm)	49.3427
12/18/2015 17:24:07	R1510692-001L	Al (394.401 nm)	-0.0126 u (ppm)	1.77	-0.0126 (ppm)	76.1985
12/18/2015 17:24:07	R1510692-001L	As (188.980 nm)	-0.0024 u (ppm)	56.68	-0.0024 (ppm)	0.2364
12/18/2015 17:24:07	R1510692-001L	B (249.772 nm)	0.0012 (ppm)	12.85	0.0012 (ppm)	27.5598
12/18/2015 17:24:07	R1510692-001L	Ba (230.424 nm)	-0.0003 u (ppm)	35.85	-0.0003 (ppm)	4.3154
12/18/2015 17:24:07	R1510692-001L	Be (313.107 nm)	0.0000 (ppm)	22.18	0.0000 (ppm)	-56.9505
12/18/2015 17:24:07	R1510692-001L	Ca (227.547 nm)	0.0195 u (ppm)	> 100.00	0.0195 (ppm)	0.9236
12/18/2015 17:24:07	R1510692-001L	Ca (227.547 nm)	0.1099 u (ppm)	> 100.00	0.1099 (ppm)	0.1790
12/18/2015 17:24:07	R1510692-001L	Cd (214.439 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	3.8934
12/18/2015 17:24:07	R1510692-001L	Co (230.786 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	1.2520
12/18/2015 17:24:07	R1510692-001L	Cr (267.716 nm)	0.0010 (ppm)	8.71	0.0010 (ppm)	19.7070
12/18/2015 17:24:07	R1510692-001L	Cu (327.395 nm)	0.0006 (ppm)	36.89	0.0006 (ppm)	40.9538
12/18/2015 17:24:07	R1510692-001L	Fe (234.350 nm)	0.0027 (ppm)	5.89	0.0027 (ppm)	70.0286
12/18/2015 17:24:07	R1510692-001L	Fe (234.350 nm)	0.0031 (ppm)	19.38	0.0031 (ppm)	68.2433
12/18/2015 17:24:07	R1510692-001L	K (766.491 nm)	0.0127 u (ppm)	> 100.00	0.0127 (ppm)	-7.1543
12/18/2015 17:24:07	R1510692-001L	Mg (279.078 nm)	-0.0102 u (ppm)	4.67	-0.0102 (ppm)	0.7086
12/18/2015 17:24:07	R1510692-001L	Mg (279.078 nm)	-0.0151 u (ppm)	13.20	-0.0151 (ppm)	2.1128
12/18/2015 17:24:07	R1510692-001L	Mn (257.610 nm)	0.0029 (ppm)	1.19	0.0029 (ppm)	354.9469

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 17:24:07	R1510692-001L	Mo (202.032 nm)	-0.0005 u (ppm)	6.78	-0.0005 (ppm)	-0.0842
12/18/2015 17:24:07	R1510692-001L	Na (588.995 nm)	0.0995 (ppm)	1.46	0.0995 (ppm)	-4489.7845
12/18/2015 17:24:07	R1510692-001L	Ni (230.299 nm)	0.0038 (ppm)	26.79	0.0038 (ppm)	2.0213
12/18/2015 17:24:07	R1510692-001L	Pb (220.353 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	3.1225
12/18/2015 17:24:07	R1510692-001L	Sb (217.582 nm)	-0.0009 u (ppm)	83.82	-0.0009 (ppm)	0.9223
12/18/2015 17:24:07	R1510692-001L	Se (196.026 nm)	0.0031 (ppm)	50.89	0.0031 (ppm)	1.5427
12/18/2015 17:24:07	R1510692-001L	Sn (189.925 nm)	0.0011 (ppm)	37.44	0.0011 (ppm)	0.9872
12/18/2015 17:24:07	R1510692-001L	Sr (460.733 nm)	0.0043 (ppm)	60.10	0.0043 (ppm)	123.4917
12/18/2015 17:24:07	R1510692-001L	Ti (336.122 nm)	-0.0003 u (ppm)	24.35	-0.0003 (ppm)	-63.5027
12/18/2015 17:24:07	R1510692-001L	Tl (351.923 nm)	0.0030 u (ppm)	> 100.00	0.0030 (ppm)	-5.7813
12/18/2015 17:24:07	R1510692-001L	V (292.401 nm)	0.0005 (ppm)	7.98	0.0005 (ppm)	44.7572
12/18/2015 17:24:07	R1510692-001L	Y (360.074 nm)	1.06 (Ratio)	0.37	1.06 (Ratio)	616580.35
12/18/2015 17:24:07	R1510692-001L	Y_R (360.074 nm)	1.02 (Ratio)	0.18	1.02 (Ratio)	249214.81
12/18/2015 17:24:07	R1510692-001L	Zn (213.857 nm)	0.0030 (ppm)	3.67	0.0030 (ppm)	38.7905
12/18/2015 17:27:37	PBW-252241	Ag (328.068 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	11.9737
12/18/2015 17:27:37	PBW-252241	Al (394.401 nm)	-0.0095 u (ppm)	0.99	-0.0095 (ppm)	51.0631
12/18/2015 17:27:37	PBW-252241	Al (394.401 nm)	-0.0127 u (ppm)	3.65	-0.0127 (ppm)	75.3047
12/18/2015 17:27:37	PBW-252241	As (188.980 nm)	-0.0034 u (ppm)	73.58	-0.0034 (ppm)	-0.2968
12/18/2015 17:27:37	PBW-252241	B (249.772 nm)	0.0001 (ppm)	> 100.00	0.0001 (ppm)	12.9694
12/18/2015 17:27:37	PBW-252241	Ba (230.424 nm)	0.0007 (ppm)	47.81	0.0007 (ppm)	19.4732
12/18/2015 17:27:37	PBW-252241	Be (313.107 nm)	0.0000 (ppm)	> 100.00	0.0000 (ppm)	-40.2825
12/18/2015 17:27:37	PBW-252241	Ca (227.547 nm)	0.0195 u (ppm)	> 100.00	0.0195 (ppm)	0.9233
12/18/2015 17:27:37	PBW-252241	Ca (227.547 nm)	0.0510 u (ppm)	> 100.00	0.0510 (ppm)	-1.2269
12/18/2015 17:27:37	PBW-252241	Cd (214.439 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	3.1000
12/18/2015 17:27:37	PBW-252241	Co (230.786 nm)	0.0006 (ppm)	43.12	0.0006 (ppm)	3.6948
12/18/2015 17:27:37	PBW-252241	Cr (267.716 nm)	0.0001 (ppm)	> 100.00	0.0001 (ppm)	0.6569
12/18/2015 17:27:37	PBW-252241	Cu (327.395 nm)	0.0002 (ppm)	> 100.00	0.0002 (ppm)	29.4481
12/18/2015 17:27:37	PBW-252241	Fe (234.350 nm)	-0.0038 u (ppm)	7.17	-0.0038 (ppm)	20.3860
12/18/2015 17:27:37	PBW-252241	Fe (234.350 nm)	-0.0050 u (ppm)	2.11	-0.0050 (ppm)	17.3209
12/18/2015 17:27:37	PBW-252241	K (766.491 nm)	-0.0146 u (ppm)	> 100.00	-0.0146 (ppm)	-77.0072
12/18/2015 17:27:37	PBW-252241	Mg (279.078 nm)	-0.0083 u (ppm)	9.40	-0.0083 (ppm)	4.2021
12/18/2015 17:27:37	PBW-252241	Mg (279.078 nm)	-0.0137 u (ppm)	10.20	-0.0137 (ppm)	3.9558
12/18/2015 17:27:37	PBW-252241	Mn (257.610 nm)	0.0005 (ppm)	8.45	0.0005 (ppm)	70.1714
12/18/2015 17:27:37	PBW-252241	Mo (202.032 nm)	-0.0005 u (ppm)	48.65	-0.0005 (ppm)	0.0731
12/18/2015 17:27:37	PBW-252241	Na (588.995 nm)	0.1272 (ppm)	2.11	0.1272 (ppm)	-3726.6511
12/18/2015 17:27:37	PBW-252241	Ni (230.299 nm)	0.0018 (ppm)	7.13	0.0018 (ppm)	-4.1898
12/18/2015 17:27:37	PBW-252241	Pb (220.353 nm)	0.0009 u (ppm)	> 100.00	0.0009 (ppm)	3.7706
12/18/2015 17:27:37	PBW-252241	Sb (217.582 nm)	0.0014 u (ppm)	> 100.00	0.0014 (ppm)	2.2260
12/18/2015 17:27:37	PBW-252241	Se (196.026 nm)	-0.0006 u (ppm)	> 100.00	-0.0006 (ppm)	0.2398
12/18/2015 17:27:37	PBW-252241	Sn (189.925 nm)	0.0286 (ppm)	2.56	0.0286 (ppm)	19.8904
12/18/2015 17:27:37	PBW-252241	Sr (460.733 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	69.2518
12/18/2015 17:27:37	PBW-252241	Ti (336.122 nm)	0.0001 (ppm)	94.23	0.0001 (ppm)	-22.5092
12/18/2015 17:27:37	PBW-252241	Tl (351.923 nm)	0.0003 u (ppm)	> 100.00	0.0003 (ppm)	-10.1208
12/18/2015 17:27:37	PBW-252241	V (292.401 nm)	0.0005 (ppm)	27.75	0.0005 (ppm)	46.4282
12/18/2015 17:27:37	PBW-252241	Y (360.074 nm)	1.08 (Ratio)	1.38	1.08 (Ratio)	626979.29
12/18/2015 17:27:37	PBW-252241	Y_R (360.074 nm)	1.06 (Ratio)	0.09	1.06 (Ratio)	258867.61
12/18/2015 17:27:37	PBW-252241	Zn (213.857 nm)	0.0238 (ppm)	1.92	0.0238 (ppm)	298.2126
12/18/2015 17:31:07	LCSW-252241	Ag (328.068 nm)	0.0477 (ppm)	2.74	0.0477 (ppm)	1867.4509
12/18/2015 17:31:07	LCSW-252241	Al (394.401 nm)	1.4214 (ppm)	2.91	1.4214 (ppm)	15234.5064
12/18/2015 17:31:07	LCSW-252241	Al (394.401 nm)	1.7841 (ppm)	2.91	1.7841 (ppm)	15502.4726
12/18/2015 17:31:07	LCSW-252241	As (188.980 nm)	0.0379 (ppm)	9.74	0.0379 (ppm)	21.4789

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 17:31:07	LCSW-252241	B (249.772 nm)	0.9101 (ppm)	2.78	0.9101 (ppm)	12128.2326
12/18/2015 17:31:07	LCSW-252241	Ba (230.424 nm)	2.0177 (ppm)	3.24	2.0177 (ppm)	30511.6935
12/18/2015 17:31:07	LCSW-252241	Be (313.107 nm)	0.0479 (ppm)	2.83	0.0479 (ppm)	41838.5873
12/18/2015 17:31:07	LCSW-252241	Ca (227.547 nm)	1.1564 (ppm)	12.76	1.1564 (ppm)	42.1160
12/18/2015 17:31:07	LCSW-252241	Ca (227.547 nm)	1.8234 (ppm)	11.19	1.8234 (ppm)	41.2096
12/18/2015 17:31:07	LCSW-252241	Cd (214.439 nm)	0.0501 (ppm)	3.28	0.0501 (ppm)	535.8502
12/18/2015 17:31:07	LCSW-252241	Co (230.786 nm)	0.4796 (ppm)	2.77	0.4796 (ppm)	2296.2878
12/18/2015 17:31:07	LCSW-252241	Cr (267.716 nm)	0.2006 (ppm)	2.82	0.2006 (ppm)	4636.8698
12/18/2015 17:31:07	LCSW-252241	Cu (327.395 nm)	0.2350 (ppm)	3.46	0.2350 (ppm)	7107.4761
12/18/2015 17:31:07	LCSW-252241	Fe (234.350 nm)	0.7650 (ppm)	2.79	0.7650 (ppm)	5859.6746
12/18/2015 17:31:07	LCSW-252241	Fe (234.350 nm)	0.9680 (ppm)	2.86	0.9680 (ppm)	6116.5210
12/18/2015 17:31:07	LCSW-252241	K (766.491 nm)	18.1830 (ppm)	0.85	18.1830 (ppm)	46537.9002
12/18/2015 17:31:07	LCSW-252241	Mg (279.078 nm)	1.2767 (ppm)	2.83	1.2767 (ppm)	2332.1929
12/18/2015 17:31:07	LCSW-252241	Mg (279.078 nm)	1.8084 (ppm)	2.98	1.8084 (ppm)	2457.1220
12/18/2015 17:31:07	LCSW-252241	Mn (257.610 nm)	0.4904 (ppm)	2.74	0.4904 (ppm)	59387.4785
12/18/2015 17:31:07	LCSW-252241	Mo (202.032 nm)	0.4790 (ppm)	2.61	0.4790 (ppm)	2096.7420
12/18/2015 17:31:07	LCSW-252241	Na (588.995 nm)	19.9361 (ppm)	0.77	19.9361 (ppm)	541136.5281
12/18/2015 17:31:07	LCSW-252241	Ni (230.299 nm)	0.5090 (ppm)	2.79	0.5090 (ppm)	1559.4357
12/18/2015 17:31:07	LCSW-252241	Pb (220.353 nm)	0.5018 (ppm)	3.24	0.5018 (ppm)	485.6845
12/18/2015 17:31:07	LCSW-252241	Sb (217.582 nm)	0.4779 (ppm)	3.14	0.4779 (ppm)	267.5405
12/18/2015 17:31:07	LCSW-252241	Se (196.026 nm)	1.0206 (ppm)	3.20	1.0206 (ppm)	357.1466
12/18/2015 17:31:07	LCSW-252241	Sn (189.925 nm)	4.8545 (ppm)	3.03	4.8545 (ppm)	3339.6261
12/18/2015 17:31:07	LCSW-252241	Sr (460.733 nm)	0.0032 (ppm)	93.23	0.0032 (ppm)	105.6116
12/18/2015 17:31:07	LCSW-252241	Ti (336.122 nm)	0.4772 (ppm)	2.83	0.4772 (ppm)	59955.5609
12/18/2015 17:31:07	LCSW-252241	Tl (351.923 nm)	1.8044 (ppm)	3.03	1.8044 (ppm)	2920.9991
12/18/2015 17:31:07	LCSW-252241	V (292.401 nm)	0.4827 (ppm)	1.04	0.4827 (ppm)	9254.6346
12/18/2015 17:31:07	LCSW-252241	Y (360.074 nm)	1.03 (Ratio)	2.68	1.03 (Ratio)	600556.13
12/18/2015 17:31:07	LCSW-252241	Y_R (360.074 nm)	1.03 (Ratio)	0.86	1.03 (Ratio)	251779.74
12/18/2015 17:31:07	LCSW-252241	Zn (213.857 nm)	0.7117 (ppm)	4.12	0.7117 (ppm)	8886.5092
12/18/2015 17:34:36	R1510830-001 5X	Ag (328.068 nm)	0.0002 u (ppm)	> 100.00	0.0000 (ppm)	10.7316
12/18/2015 17:34:36	R1510830-001 5X	Al (394.401 nm)	-0.0154 u (ppm)	10.96	-0.0031 (ppm)	118.8959
12/18/2015 17:34:36	R1510830-001 5X	Al (394.401 nm)	-0.0847 u (ppm)	2.48	-0.0169 (ppm)	154.8629
12/18/2015 17:34:36	R1510830-001 5X	As (188.980 nm)	-0.0115 u (ppm)	24.26	-0.0023 (ppm)	0.3259
12/18/2015 17:34:36	R1510830-001 5X	B (249.772 nm)	0.0672 (ppm)	5.25	0.0134 (ppm)	194.2753
12/18/2015 17:34:36	R1510830-001 5X	Ba (230.424 nm)	0.0931 (ppm)	4.30	0.0186 (ppm)	291.7236
12/18/2015 17:34:36	R1510830-001 5X	Be (313.107 nm)	-0.0001 (ppm)	99.82	0.0000 (ppm)	-46.3192
12/18/2015 17:34:36	R1510830-001 5X	Ca (227.547 nm)	34.9086 (ppm)	2.15	6.9817 (ppm)	253.1896
12/18/2015 17:34:36	R1510830-001 5X	Ca (227.547 nm)	54.2566 (ppm)	2.20	10.8513 (ppm)	256.5174
12/18/2015 17:34:36	R1510830-001 5X	Cd (214.439 nm)	-0.0002 u (ppm)	> 100.00	0.0000 (ppm)	2.7876
12/18/2015 17:34:36	R1510830-001 5X	Co (230.786 nm)	0.0028 (ppm)	61.76	0.0006 (ppm)	3.5312
12/18/2015 17:34:36	R1510830-001 5X	Cr (267.716 nm)	0.0003 (ppm)	83.96	0.0001 (ppm)	-1.9530
12/18/2015 17:34:36	R1510830-001 5X	Cu (327.395 nm)	0.0598 (ppm)	5.02	0.0120 (ppm)	383.3631
12/18/2015 17:34:36	R1510830-001 5X	Fe (234.350 nm)	0.4520 (ppm)	3.09	0.0904 (ppm)	735.7147
12/18/2015 17:34:36	R1510830-001 5X	Fe (234.350 nm)	0.5554 (ppm)	3.08	0.1111 (ppm)	766.7700
12/18/2015 17:34:36	R1510830-001 5X	K (766.491 nm)	1.1560 (ppm)	3.18	0.2312 (ppm)	552.0802
12/18/2015 17:34:36	R1510830-001 5X	Mg (279.078 nm)	8.7596 (ppm)	2.66	1.7519 (ppm)	3193.0529
12/18/2015 17:34:36	R1510830-001 5X	Mg (279.078 nm)	12.3650 (ppm)	2.71	2.4730 (ppm)	3353.7525
12/18/2015 17:34:36	R1510830-001 5X	Mn (257.610 nm)	0.1203 (ppm)	2.71	0.0241 (ppm)	2926.4683
12/18/2015 17:34:36	R1510830-001 5X	Mo (202.032 nm)	0.0015 (ppm)	71.01	0.0003 (ppm)	4.1990
12/18/2015 17:34:36	R1510830-001 5X	Na (588.995 nm)	8.4521 (ppm)	0.56	1.6904 (ppm)	39159.0428
12/18/2015 17:34:36	R1510830-001 5X	Ni (230.299 nm)	0.1983 (ppm)	1.97	0.0397 (ppm)	112.5742

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 17:34:36	R1510830-001 5X	Pb (220.353 nm)	0.0016 u (ppm)	> 100.00	0.0003 (ppm)	3.0958
12/18/2015 17:34:36	R1510830-001 5X	Sb (217.582 nm)	0.0109 (ppm)	> 100.00	0.0022 (ppm)	2.7588
12/18/2015 17:34:36	R1510830-001 5X	Se (196.026 nm)	-0.0056 u (ppm)	> 100.00	-0.0011 (ppm)	0.0719
12/18/2015 17:34:36	R1510830-001 5X	Sn (189.925 nm)	0.0128 (ppm)	24.13	0.0026 (ppm)	2.0018
12/18/2015 17:34:36	R1510830-001 5X	Sr (460.733 nm)	0.3740 (ppm)	3.21	0.0748 (ppm)	1051.9473
12/18/2015 17:34:36	R1510830-001 5X	Ti (336.122 nm)	-0.0006 u (ppm)	87.22	-0.0001 (ppm)	-32.3584
12/18/2015 17:34:36	R1510830-001 5X	Tl (351.923 nm)	0.0294 (ppm)	69.43	0.0059 (ppm)	-0.9252
12/18/2015 17:34:36	R1510830-001 5X	V (292.401 nm)	0.0012 (ppm)	60.77	0.0002 (ppm)	42.2863
12/18/2015 17:34:36	R1510830-001 5X	Y (360.074 nm)	1.02 (Ratio)	2.61	0.20 (Ratio)	595623.62
12/18/2015 17:34:36	R1510830-001 5X	Y_R (360.074 nm)	1.02 (Ratio)	0.38	0.20 (Ratio)	249561.39
12/18/2015 17:34:36	R1510830-001 5X	Zn (213.857 nm)	0.5284 (ppm)	3.15	0.1057 (ppm)	1323.1248
12/18/2015 17:38:04	R1510864-001 5X	Ag (328.068 nm)	-0.0011 u (ppm)	44.86	-0.0002 (ppm)	0.6867
12/18/2015 17:38:04	R1510864-001 5X	Al (394.401 nm)	-0.0189 u (ppm)	23.54	-0.0038 (ppm)	111.4214
12/18/2015 17:38:04	R1510864-001 5X	Al (394.401 nm)	-0.0317 u (ppm)	14.96	-0.0063 (ppm)	127.7779
12/18/2015 17:38:04	R1510864-001 5X	As (188.980 nm)	0.0024 u (ppm)	> 100.00	0.0005 (ppm)	1.7379
12/18/2015 17:38:04	R1510864-001 5X	B (249.772 nm)	2.1525 (ppm)	1.40	0.4305 (ppm)	5743.2047
12/18/2015 17:38:04	R1510864-001 5X	Ba (230.424 nm)	0.0012 (ppm)	37.60	0.0002 (ppm)	12.1655
12/18/2015 17:38:04	R1510864-001 5X	Be (313.107 nm)	-0.0003 u (ppm)	5.94	-0.0001 (ppm)	-100.4793
12/18/2015 17:38:04	R1510864-001 5X	Ca (227.547 nm)	-0.5491 u (ppm)	20.53	-0.1098 (ppm)	-3.7632
12/18/2015 17:38:04	R1510864-001 5X	Ca (227.547 nm)	2.1558 (ppm)	12.83	0.4312 (ppm)	7.8609
12/18/2015 17:38:04	R1510864-001 5X	Cd (214.439 nm)	-0.0001 u (ppm)	> 100.00	0.0000 (ppm)	2.8424
12/18/2015 17:38:04	R1510864-001 5X	Co (230.786 nm)	0.1642 (ppm)	1.55	0.0328 (ppm)	157.7081
12/18/2015 17:38:04	R1510864-001 5X	Cr (267.716 nm)	0.0004 u (ppm)	> 100.00	0.0001 (ppm)	-0.3849
12/18/2015 17:38:04	R1510864-001 5X	Cu (327.395 nm)	-0.0049 u (ppm)	19.66	-0.0010 (ppm)	-5.9026
12/18/2015 17:38:04	R1510864-001 5X	Fe (234.350 nm)	0.7965 (ppm)	1.21	0.1593 (ppm)	1259.1807
12/18/2015 17:38:04	R1510864-001 5X	Fe (234.350 nm)	0.9875 (ppm)	1.47	0.1975 (ppm)	1283.5874
12/18/2015 17:38:04	R1510864-001 5X	K (766.491 nm)	42.3096 (ppm)	0.29	8.4619 (ppm)	21636.7033
12/18/2015 17:38:04	R1510864-001 5X	Mg (279.078 nm)	-0.0749 u (ppm)	6.51	-0.0150 (ppm)	-7.9157
12/18/2015 17:38:04	R1510864-001 5X	Mg (279.078 nm)	-0.1275 u (ppm)	4.24	-0.0255 (ppm)	-11.9614
12/18/2015 17:38:04	R1510864-001 5X	Mn (257.610 nm)	0.0014 (ppm)	11.99	0.0003 (ppm)	41.2658
12/18/2015 17:38:04	R1510864-001 5X	Mo (202.032 nm)	0.0008 u (ppm)	> 100.00	0.0002 (ppm)	2.9639
12/18/2015 17:38:04	R1510864-001 5X	Na (588.995 nm)	#### (ppm)	N/A	#### (ppm)	####
12/18/2015 17:38:04	R1510864-001 5X LR	Ni (230.299 nm)	89.1595 o (ppm)	2.08	17.8319 (ppm)	54958.9115
12/18/2015 17:38:04	R1510864-001 5X	Pb (220.353 nm)	0.0010 u (ppm)	> 100.00	0.0002 (ppm)	3.0701
12/18/2015 17:38:04	R1510864-001 5X	Sb (217.582 nm)	0.0345 (ppm)	24.81	0.0069 (ppm)	5.2791
12/18/2015 17:38:04	R1510864-001 5X	Se (196.026 nm)	0.0422 (ppm)	27.12	0.0084 (ppm)	3.3897
12/18/2015 17:38:04	R1510864-001 5X	Sn (189.925 nm)	0.0124 (ppm)	39.05	0.0025 (ppm)	1.9426
12/18/2015 17:38:04	R1510864-001 5X	Sr (460.733 nm)	-0.0055 u (ppm)	> 100.00	-0.0011 (ppm)	51.9776
12/18/2015 17:38:04	R1510864-001 5X	Ti (336.122 nm)	0.0587 (ppm)	1.53	0.0117 (ppm)	1446.2369
12/18/2015 17:38:04	R1510864-001 5X	Tl (351.923 nm)	-0.0060 u (ppm)	> 100.00	-0.0012 (ppm)	-12.5385
12/18/2015 17:38:04	R1510864-001 5X	V (292.401 nm)	0.0021 (ppm)	8.92	0.0004 (ppm)	43.7591
12/18/2015 17:38:04	R1510864-001 5X	Y (360.074 nm)	0.84 (Ratio)	1.38	0.17 (Ratio)	487785.81
12/18/2015 17:38:04	R1510864-001 5X	Y_R (360.074 nm)	0.93 (Ratio)	0.43	0.19 (Ratio)	227283.86
12/18/2015 17:38:04	R1510864-001 5X	Zn (213.857 nm)	86.8996 o (ppm)	1.61	17.3799 (ppm)	216951.1652
12/18/2015 17:41:32	Continuing Calibration Verification	Ag (328.068 nm)	0.4662 (ppm)	1.88	0.4662 (ppm)	18162.5167
12/18/2015 17:41:32	Continuing Calibration Verification	Al (394.401 nm)	7.3431 (ppm)	1.64	7.3431 (ppm)	78074.2140
12/18/2015 17:41:32	Continuing Calibration Verification	Al (394.401 nm)	9.1815 (ppm)	1.67	9.1815 (ppm)	79185.7161
12/18/2015 17:41:32	Continuing Calibration Verification	As (188.980 nm)	0.9314 (ppm)	2.23	0.9314 (ppm)	492.4742
12/18/2015 17:41:32	Continuing Calibration Verification	B (249.772 nm)	2.3316 (ppm)	1.83	2.3316 (ppm)	31059.3118
12/18/2015 17:41:32	Continuing Calibration Verification	Ba (230.424 nm)	9.8654 (ppm)	1.76	9.8654 (ppm)	149153.6851
12/18/2015 17:41:32	Continuing Calibration Verification	Be (313.107 nm)	0.2448 (ppm)	1.85	0.2448 (ppm)	214187.7066

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 17:41:32	Continuing Calibration Verification	Ca (227.547 nm)	15.4456 (ppm)	1.46	15.4456 (ppm)	559.8674
12/18/2015 17:41:32	Continuing Calibration Verification	Ca (227.547 nm)	23.7910 (ppm)	1.65	23.7910 (ppm)	566.3577
12/18/2015 17:41:32	Continuing Calibration Verification	Cd (214.439 nm)	0.4915 (ppm)	1.97	0.4915 (ppm)	5233.7467
12/18/2015 17:41:32	Continuing Calibration Verification	Co (230.786 nm)	2.3893 (ppm)	1.98	2.3893 (ppm)	11437.3608
12/18/2015 17:41:32	Continuing Calibration Verification	Cr (267.716 nm)	0.5011 (ppm)	1.73	0.5011 (ppm)	11584.7410
12/18/2015 17:41:32	Continuing Calibration Verification	Cu (327.395 nm)	1.1705 (ppm)	1.86	1.1705 (ppm)	35309.2893
12/18/2015 17:41:32	Continuing Calibration Verification	Fe (234.350 nm)	3.8162 (ppm)	1.80	3.8162 (ppm)	29035.3490
12/18/2015 17:41:32	Continuing Calibration Verification	Fe (234.350 nm)	4.8074 (ppm)	1.91	4.8074 (ppm)	30250.8034
12/18/2015 17:41:32	Continuing Calibration Verification	K (766.491 nm)	23.8750 (ppm)	0.49	23.8750 (ppm)	61114.4727
12/18/2015 17:41:32	Continuing Calibration Verification	Mg (279.078 nm)	16.5092 (ppm)	1.82	16.5092 (ppm)	29927.7982
12/18/2015 17:41:32	Continuing Calibration Verification	Mg (279.078 nm)	23.3447 (ppm)	1.83	23.3447 (ppm)	31450.8218
12/18/2015 17:41:32	Continuing Calibration Verification	Mn (257.610 nm)	0.7386 (ppm)	1.82	0.7386 (ppm)	89469.4925
12/18/2015 17:41:32	Continuing Calibration Verification	Mo (202.032 nm)	2.3806 (ppm)	1.88	2.3806 (ppm)	10413.1743
12/18/2015 17:41:32	Continuing Calibration Verification	Na (588.995 nm)	23.9520 (ppm)	0.55	23.9520 (ppm)	651150.2577
12/18/2015 17:41:32	Continuing Calibration Verification	Ni (230.299 nm)	2.0043 (ppm)	1.94	2.0043 (ppm)	6169.9479
12/18/2015 17:41:32	Continuing Calibration Verification	Pb (220.353 nm)	0.4905 (ppm)	1.77	0.4905 (ppm)	474.1458
12/18/2015 17:41:32	Continuing Calibration Verification	Sb (217.582 nm)	4.7782 (ppm)	1.93	4.7782 (ppm)	2661.7359
12/18/2015 17:41:32	Continuing Calibration Verification	Se (196.026 nm)	0.4760 (ppm)	2.75	0.4760 (ppm)	166.8589
12/18/2015 17:41:32	Continuing Calibration Verification	Sn (189.925 nm)	4.8228 (ppm)	2.21	4.8228 (ppm)	3318.2113
12/18/2015 17:41:32	Continuing Calibration Verification	Sr (460.733 nm)	2.3897 (ppm)	0.62	2.3897 (ppm)	31449.5130
12/18/2015 17:41:32	Continuing Calibration Verification	Ti (336.122 nm)	2.3810 (ppm)	1.77	2.3810 (ppm)	299349.4715
12/18/2015 17:41:32	Continuing Calibration Verification	Tl (351.923 nm)	0.9636 (ppm)	1.37	0.9636 (ppm)	1555.0763
12/18/2015 17:41:32	Continuing Calibration Verification	V (292.401 nm)	2.3947 (ppm)	0.45	2.3947 (ppm)	45776.4064
12/18/2015 17:41:32	Continuing Calibration Verification	Y (360.074 nm)	0.99 (Ratio)	1.96	0.99 (Ratio)	574376.32
12/18/2015 17:41:32	Continuing Calibration Verification	Y_R (360.074 nm)	0.99 (Ratio)	0.33	0.99 (Ratio)	242998.62
12/18/2015 17:41:32	Continuing Calibration Verification	Zn (213.857 nm)	0.9779 (ppm)	1.83	0.9779 (ppm)	12225.4961
12/18/2015 17:45:01	Continuing Calibration Blank	Ag (328.068 nm)	0.0004 (ppm)	22.84	0.0004 (ppm)	23.4743
12/18/2015 17:45:01	Continuing Calibration Blank	Al (394.401 nm)	-0.0107 u (ppm)	7.94	-0.0107 (ppm)	37.7827
12/18/2015 17:45:01	Continuing Calibration Blank	Al (394.401 nm)	-0.0139 u (ppm)	7.76	-0.0139 (ppm)	63.2280
12/18/2015 17:45:01	Continuing Calibration Blank	As (188.980 nm)	-0.0030 u (ppm)	30.32	-0.0030 (ppm)	-0.1075
12/18/2015 17:45:01	Continuing Calibration Blank	B (249.772 nm)	0.0010 (ppm)	32.48	0.0010 (ppm)	25.5756
12/18/2015 17:45:01	Continuing Calibration Blank	Ba (230.424 nm)	0.0016 (ppm)	54.78	0.0016 (ppm)	32.9724
12/18/2015 17:45:01	Continuing Calibration Blank	Be (313.107 nm)	0.0000 (ppm)	> 100.00	0.0000 (ppm)	-30.7662
12/18/2015 17:45:01	Continuing Calibration Blank	Ca (227.547 nm)	-0.0773 u (ppm)	72.29	-0.0773 (ppm)	-2.5860
12/18/2015 17:45:01	Continuing Calibration Blank	Ca (227.547 nm)	-0.1607 u (ppm)	67.24	-0.1607 (ppm)	-6.2775
12/18/2015 17:45:01	Continuing Calibration Blank	Cd (214.439 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	3.6404
12/18/2015 17:45:01	Continuing Calibration Blank	Co (230.786 nm)	0.0004 u (ppm)	> 100.00	0.0004 (ppm)	2.2955
12/18/2015 17:45:01	Continuing Calibration Blank	Cr (267.716 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	-1.2047
12/18/2015 17:45:01	Continuing Calibration Blank	Cu (327.395 nm)	0.0004 (ppm)	75.12	0.0004 (ppm)	34.0021
12/18/2015 17:45:01	Continuing Calibration Blank	Fe (234.350 nm)	-0.0047 u (ppm)	8.89	-0.0047 (ppm)	13.4390
12/18/2015 17:45:01	Continuing Calibration Blank	Fe (234.350 nm)	-0.0063 u (ppm)	17.78	-0.0063 (ppm)	9.3375
12/18/2015 17:45:01	Continuing Calibration Blank	K (766.491 nm)	0.0319 (ppm)	15.22	0.0319 (ppm)	42.0760
12/18/2015 17:45:01	Continuing Calibration Blank	Mg (279.078 nm)	-0.0087 u (ppm)	15.49	-0.0087 (ppm)	3.4541
12/18/2015 17:45:01	Continuing Calibration Blank	Mg (279.078 nm)	-0.0135 u (ppm)	14.59	-0.0135 (ppm)	4.2222
12/18/2015 17:45:01	Continuing Calibration Blank	Mn (257.610 nm)	0.0001 (ppm)	69.59	0.0001 (ppm)	19.9036
12/18/2015 17:45:01	Continuing Calibration Blank	Mo (202.032 nm)	0.0011 (ppm)	57.38	0.0011 (ppm)	7.0348
12/18/2015 17:45:01	Continuing Calibration Blank	Na (588.995 nm)	0.0897 (ppm)	1.72	0.0897 (ppm)	-4757.0433
12/18/2015 17:45:01	Continuing Calibration Blank	Ni (230.299 nm)	0.0008 (ppm)	58.84	0.0008 (ppm)	-7.3024
12/18/2015 17:45:01	Continuing Calibration Blank	Pb (220.353 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	2.8613
12/18/2015 17:45:01	Continuing Calibration Blank	Sb (217.582 nm)	-0.0033 u (ppm)	> 100.00	-0.0033 (ppm)	-0.3853
12/18/2015 17:45:01	Continuing Calibration Blank	Se (196.026 nm)	0.0043 u (ppm)	> 100.00	0.0043 (ppm)	1.9597

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 17:45:01	Continuing Calibration Blank	Sn (189.925 nm)	0.0045 (ppm)	67.86	0.0045 (ppm)	3.2873
12/18/2015 17:45:01	Continuing Calibration Blank	Sr (460.733 nm)	0.0050 (ppm)	79.58	0.0050 (ppm)	133.1024
12/18/2015 17:45:01	Continuing Calibration Blank	Ti (336.122 nm)	0.0004 (ppm)	53.83	0.0004 (ppm)	21.0489
12/18/2015 17:45:01	Continuing Calibration Blank	Tl (351.923 nm)	0.0003 u (ppm)	> 100.00	0.0003 (ppm)	-10.1447
12/18/2015 17:45:01	Continuing Calibration Blank	V (292.401 nm)	0.0007 (ppm)	23.98	0.0007 (ppm)	49.5506
12/18/2015 17:45:01	Continuing Calibration Blank	Y (360.074 nm)	1.02 (Ratio)	0.97	1.02 (Ratio)	593937.27
12/18/2015 17:45:01	Continuing Calibration Blank	Y_R (360.074 nm)	1.01 (Ratio)	0.30	1.01 (Ratio)	248196.62
12/18/2015 17:45:01	Continuing Calibration Blank	Zn (213.857 nm)	0.0010 (ppm)	22.14	0.0010 (ppm)	13.5785
12/18/2015 17:48:30	R1510914-002	Ag (328.068 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	10.4991
12/18/2015 17:48:30	R1510914-002	Al (394.401 nm)	0.0836 (ppm)	3.47	0.0836 (ppm)	1038.3023
12/18/2015 17:48:30	R1510914-002	Al (394.401 nm)	-0.0211 u (ppm)	16.20	-0.0211 (ppm)	1097.7476
12/18/2015 17:48:30	R1510914-002	As (188.980 nm)	0.0019 u (ppm)	> 100.00	0.0019 (ppm)	3.0413
12/18/2015 17:48:30	R1510914-002	B (249.772 nm)	0.2897 (ppm)	2.78	0.2897 (ppm)	3901.8791
12/18/2015 17:48:30	R1510914-002	Ba (230.424 nm)	0.0256 (ppm)	4.87	0.0256 (ppm)	412.0441
12/18/2015 17:48:30	R1510914-002	Be (313.107 nm)	0.0000 (ppm)	43.03	0.0000 (ppm)	-33.0041
12/18/2015 17:48:30	R1510914-002	Ca (227.547 nm)	63.3393 (ppm)	2.27	63.3393 (ppm)	2295.2309
12/18/2015 17:48:30	R1510914-002	Ca (227.547 nm)	97.9063 o (ppm)	2.34	97.9063 (ppm)	2335.5799
12/18/2015 17:48:30	R1510914-002	Cd (214.439 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	3.6125
12/18/2015 17:48:30	R1510914-002	Co (230.786 nm)	0.0010 (ppm)	14.95	0.0010 (ppm)	7.9414
12/18/2015 17:48:30	R1510914-002	Cr (267.716 nm)	0.0021 (ppm)	2.53	0.0021 (ppm)	46.1935
12/18/2015 17:48:30	R1510914-002	Cu (327.395 nm)	0.0284 (ppm)	3.48	0.0284 (ppm)	880.1827
12/18/2015 17:48:30	R1510914-002	Fe (234.350 nm)	0.1739 (ppm)	2.91	0.1739 (ppm)	1370.2789
12/18/2015 17:48:30	R1510914-002	Fe (234.350 nm)	0.1582 (ppm)	3.85	0.1582 (ppm)	1410.9341
12/18/2015 17:48:30	R1510914-002	K (766.491 nm)	16.8957 (ppm)	0.29	16.8957 (ppm)	43239.2224
12/18/2015 17:48:30	R1510914-002	Mg (279.078 nm)	50.7118 (ppm)	2.46	50.7118 (ppm)	91890.2813
12/18/2015 17:48:30	R1510914-002	Mg (279.078 nm)	71.1338 o (ppm)	2.48	71.1338 (ppm)	95790.0131
12/18/2015 17:48:30	R1510914-002	Mn (257.610 nm)	0.0177 (ppm)	2.74	0.0177 (ppm)	2208.2743
12/18/2015 17:48:30	R1510914-002	Mo (202.032 nm)	0.0113 (ppm)	2.21	0.0113 (ppm)	57.2945
12/18/2015 17:48:30	R1510914-002	Na (588.995 nm)	131.0232 o (ppm)	0.12	131.0232 (ppm)	3595588.2064
12/18/2015 17:48:30	R1510914-002	Ni (230.299 nm)	0.0162 (ppm)	8.43	0.0162 (ppm)	41.7282
12/18/2015 17:48:30	R1510914-002	Pb (220.353 nm)	-0.0024 u (ppm)	48.93	-0.0024 (ppm)	-0.3882
12/18/2015 17:48:30	R1510914-002	Sb (217.582 nm)	-0.0010 u (ppm)	> 100.00	-0.0010 (ppm)	2.5399
12/18/2015 17:48:30	R1510914-002	Se (196.026 nm)	-0.0012 u (ppm)	> 100.00	-0.0012 (ppm)	0.4044
12/18/2015 17:48:30	R1510914-002	Sn (189.925 nm)	0.0014 u (ppm)	> 100.00	0.0014 (ppm)	1.2290
12/18/2015 17:48:30	R1510914-002	Sr (460.733 nm)	3.9878 (ppm)	0.16	3.9878 (ppm)	52483.4559
12/18/2015 17:48:30	R1510914-002	Ti (336.122 nm)	-0.0006 u (ppm)	31.98	-0.0006 (ppm)	165.0922
12/18/2015 17:48:30	R1510914-002	Tl (351.923 nm)	0.0062 (ppm)	42.03	0.0062 (ppm)	0.3776
12/18/2015 17:48:30	R1510914-002	V (292.401 nm)	0.0116 (ppm)	2.60	0.0116 (ppm)	277.2006
12/18/2015 17:48:30	R1510914-002	Y (360.074 nm)	0.95 (Ratio)	2.59	0.95 (Ratio)	556005.33
12/18/2015 17:48:30	R1510914-002	Y_R (360.074 nm)	0.99 (Ratio)	0.09	0.99 (Ratio)	242556.01
12/18/2015 17:48:30	R1510914-002	Zn (213.857 nm)	0.0749 (ppm)	2.63	0.0749 (ppm)	979.0656
12/18/2015 17:51:59	R1510941-002L	Ag (328.068 nm)	-0.0002 u (ppm)	45.08	-0.0002 (ppm)	1.4922
12/18/2015 17:51:59	R1510941-002L	Al (394.401 nm)	0.0101 (ppm)	11.54	0.0101 (ppm)	258.9452
12/18/2015 17:51:59	R1510941-002L	Al (394.401 nm)	-0.0110 u (ppm)	12.88	-0.0110 (ppm)	301.4809
12/18/2015 17:51:59	R1510941-002L	As (188.980 nm)	0.0015 u (ppm)	> 100.00	0.0015 (ppm)	2.3833
12/18/2015 17:51:59	R1510941-002L	B (249.772 nm)	0.0571 (ppm)	3.05	0.0571 (ppm)	778.8003
12/18/2015 17:51:59	R1510941-002L	Ba (230.424 nm)	0.0048 (ppm)	5.04	0.0048 (ppm)	83.6917
12/18/2015 17:51:59	R1510941-002L	Be (313.107 nm)	0.0000 (ppm)	3.64	0.0000 (ppm)	-62.9381
12/18/2015 17:51:59	R1510941-002L	Ca (227.547 nm)	12.2190 (ppm)	2.50	12.2190 (ppm)	442.9542
12/18/2015 17:51:59	R1510941-002L	Ca (227.547 nm)	18.8834 (ppm)	2.79	18.8834 (ppm)	448.5129
12/18/2015 17:51:59	R1510941-002L	Cd (214.439 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	3.2697

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 17:51:59	R1510941-002L	Co (230.786 nm)	0.0011 (ppm)	54.98	0.0011 (ppm)	6.2482
12/18/2015 17:51:59	R1510941-002L	Cr (267.716 nm)	0.0003 (ppm)	37.16	0.0003 (ppm)	4.2799
12/18/2015 17:51:59	R1510941-002L	Cu (327.395 nm)	0.0051 (ppm)	1.25	0.0051 (ppm)	178.4672
12/18/2015 17:51:59	R1510941-002L	Fe (234.350 nm)	0.0316 (ppm)	3.72	0.0316 (ppm)	288.8982
12/18/2015 17:51:59	R1510941-002L	Fe (234.350 nm)	0.0271 (ppm)	5.33	0.0271 (ppm)	291.7932
12/18/2015 17:51:59	R1510941-002L	K (766.491 nm)	3.4285 (ppm)	0.49	3.4285 (ppm)	8742.6599
12/18/2015 17:51:59	R1510941-002L	Mg (279.078 nm)	10.1416 (ppm)	2.95	10.1416 (ppm)	18392.0739
12/18/2015 17:51:59	R1510941-002L	Mg (279.078 nm)	14.1525 (ppm)	2.87	14.1525 (ppm)	19075.8481
12/18/2015 17:51:59	R1510941-002L	Mn (257.610 nm)	0.0036 (ppm)	3.26	0.0036 (ppm)	451.6550
12/18/2015 17:51:59	R1510941-002L	Mo (202.032 nm)	0.0013 (ppm)	33.86	0.0013 (ppm)	9.1148
12/18/2015 17:51:59	R1510941-002L	Na (588.995 nm)	27.5165 (ppm)	0.57	27.5165 (ppm)	749429.8767
12/18/2015 17:51:59	R1510941-002L	Ni (230.299 nm)	0.0030 (ppm)	9.17	0.0030 (ppm)	-0.3660
12/18/2015 17:51:59	R1510941-002L	Pb (220.353 nm)	-0.0028 u (ppm)	73.82	-0.0028 (ppm)	-0.0159
12/18/2015 17:51:59	R1510941-002L	Sb (217.582 nm)	-0.0035 u (ppm)	24.38	-0.0035 (ppm)	-0.2039
12/18/2015 17:51:59	R1510941-002L	Se (196.026 nm)	-0.0043 u (ppm)	32.24	-0.0043 (ppm)	-0.9998
12/18/2015 17:51:59	R1510941-002L	Sn (189.925 nm)	0.0003 u (ppm)	> 100.00	0.0003 (ppm)	0.4425
12/18/2015 17:51:59	R1510941-002L	Sr (460.733 nm)	0.8077 (ppm)	0.27	0.8077 (ppm)	10683.9341
12/18/2015 17:51:59	R1510941-002L	Ti (336.122 nm)	-0.0002 u (ppm)	24.42	-0.0002 (ppm)	3.5659
12/18/2015 17:51:59	R1510941-002L	Tl (351.923 nm)	-0.0011 u (ppm)	17.46	-0.0011 (ppm)	-12.1424
12/18/2015 17:51:59	R1510941-002L	V (292.401 nm)	0.0027 (ppm)	13.23	0.0027 (ppm)	91.5987
12/18/2015 17:51:59	R1510941-002L	Y (360.074 nm)	0.99 (Ratio)	2.78	0.99 (Ratio)	577558.61
12/18/2015 17:51:59	R1510941-002L	Y_R (360.074 nm)	1.01 (Ratio)	0.70	1.01 (Ratio)	246683.88
12/18/2015 17:51:59	R1510941-002L	Zn (213.857 nm)	0.0160 (ppm)	2.97	0.0160 (ppm)	208.5631
12/18/2015 17:55:28	Continuing Calibration Verification	Ag (328.068 nm)	0.4682 (ppm)	1.07	0.4682 (ppm)	18239.7544
12/18/2015 17:55:28	Continuing Calibration Verification	Al (394.401 nm)	7.4157 (ppm)	1.13	7.4157 (ppm)	78844.5755
12/18/2015 17:55:28	Continuing Calibration Verification	Al (394.401 nm)	9.2634 (ppm)	1.10	9.2634 (ppm)	79889.5635
12/18/2015 17:55:28	Continuing Calibration Verification	As (188.980 nm)	0.9386 (ppm)	1.69	0.9386 (ppm)	496.2871
12/18/2015 17:55:28	Continuing Calibration Verification	B (249.772 nm)	2.3403 (ppm)	1.12	2.3403 (ppm)	31174.7704
12/18/2015 17:55:28	Continuing Calibration Verification	Ba (230.424 nm)	9.8752 (ppm)	1.43	9.8752 (ppm)	149302.4899
12/18/2015 17:55:28	Continuing Calibration Verification	Be (313.107 nm)	0.2455 (ppm)	1.17	0.2455 (ppm)	214762.0848
12/18/2015 17:55:28	Continuing Calibration Verification	Ca (227.547 nm)	15.5700 (ppm)	0.58	15.5700 (ppm)	564.3741
12/18/2015 17:55:28	Continuing Calibration Verification	Ca (227.547 nm)	24.0112 (ppm)	0.78	24.0112 (ppm)	571.6187
12/18/2015 17:55:28	Continuing Calibration Verification	Cd (214.439 nm)	0.4909 (ppm)	1.07	0.4909 (ppm)	5228.0689
12/18/2015 17:55:28	Continuing Calibration Verification	Co (230.786 nm)	2.3837 (ppm)	1.02	2.3837 (ppm)	11410.6264
12/18/2015 17:55:28	Continuing Calibration Verification	Cr (267.716 nm)	0.5024 (ppm)	1.15	0.5024 (ppm)	11615.9785
12/18/2015 17:55:28	Continuing Calibration Verification	Cu (327.395 nm)	1.1760 (ppm)	1.39	1.1760 (ppm)	35476.0285
12/18/2015 17:55:28	Continuing Calibration Verification	Fe (234.350 nm)	3.8399 (ppm)	1.36	3.8399 (ppm)	29215.4655
12/18/2015 17:55:28	Continuing Calibration Verification	Fe (234.350 nm)	4.8125 (ppm)	1.22	4.8125 (ppm)	30283.7342
12/18/2015 17:55:28	Continuing Calibration Verification	K (766.491 nm)	23.8282 (ppm)	0.64	23.8282 (ppm)	60994.3614
12/18/2015 17:55:28	Continuing Calibration Verification	Mg (279.078 nm)	16.6022 (ppm)	1.41	16.6022 (ppm)	30096.3471
12/18/2015 17:55:28	Continuing Calibration Verification	Mg (279.078 nm)	23.3648 (ppm)	1.21	23.3648 (ppm)	31477.9261
12/18/2015 17:55:28	Continuing Calibration Verification	Mn (257.610 nm)	0.7406 (ppm)	1.06	0.7406 (ppm)	89709.9005
12/18/2015 17:55:28	Continuing Calibration Verification	Mo (202.032 nm)	2.3828 (ppm)	1.05	2.3828 (ppm)	10422.7083
12/18/2015 17:55:28	Continuing Calibration Verification	Na (588.995 nm)	23.6876 (ppm)	0.10	23.6876 (ppm)	643871.0926
12/18/2015 17:55:28	Continuing Calibration Verification	Ni (230.299 nm)	2.0048 (ppm)	1.29	2.0048 (ppm)	6171.5841
12/18/2015 17:55:28	Continuing Calibration Verification	Pb (220.353 nm)	0.4944 (ppm)	0.54	0.4944 (ppm)	477.8046
12/18/2015 17:55:28	Continuing Calibration Verification	Sb (217.582 nm)	4.7857 (ppm)	1.28	4.7857 (ppm)	2665.9197
12/18/2015 17:55:28	Continuing Calibration Verification	Se (196.026 nm)	0.4754 (ppm)	2.66	0.4754 (ppm)	166.6233
12/18/2015 17:55:28	Continuing Calibration Verification	Sn (189.925 nm)	4.8101 (ppm)	1.23	4.8101 (ppm)	3309.4934
12/18/2015 17:55:28	Continuing Calibration Verification	Sr (460.733 nm)	2.3736 (ppm)	0.38	2.3736 (ppm)	31237.5883
12/18/2015 17:55:28	Continuing Calibration Verification	Ti (336.122 nm)	2.3906 (ppm)	1.18	2.3906 (ppm)	300565.4980

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 17:55:28	Continuing Calibration Verification	Tl (351.923 nm)	0.9654 (ppm)	1.14	0.9654 (ppm)	1558.0928
12/18/2015 17:55:28	Continuing Calibration Verification	V (292.401 nm)	2.3852 (ppm)	0.73	2.3852 (ppm)	45595.7931
12/18/2015 17:55:28	Continuing Calibration Verification	Y (360.074 nm)	0.98 (Ratio)	1.36	0.98 (Ratio)	569875.77
12/18/2015 17:55:28	Continuing Calibration Verification	Y_R (360.074 nm)	0.99 (Ratio)	0.82	0.99 (Ratio)	243172.11
12/18/2015 17:55:28	Continuing Calibration Verification	Zn (213.857 nm)	0.9740 (ppm)	1.42	0.9740 (ppm)	12176.7129
12/18/2015 17:58:57	Continuing Calibration Blank	Ag (328.068 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	15.0184
12/18/2015 17:58:57	Continuing Calibration Blank	Al (394.401 nm)	-0.0098 u (ppm)	6.51	-0.0098 (ppm)	47.4776
12/18/2015 17:58:57	Continuing Calibration Blank	Al (394.401 nm)	-0.0130 u (ppm)	7.03	-0.0130 (ppm)	72.5311
12/18/2015 17:58:57	Continuing Calibration Blank	As (188.980 nm)	-0.0006 u (ppm)	> 100.00	-0.0006 (ppm)	1.1592
12/18/2015 17:58:57	Continuing Calibration Blank	B (249.772 nm)	0.0010 (ppm)	49.60	0.0010 (ppm)	24.8092
12/18/2015 17:58:57	Continuing Calibration Blank	Ba (230.424 nm)	0.0019 (ppm)	62.97	0.0019 (ppm)	36.4793
12/18/2015 17:58:57	Continuing Calibration Blank	Be (313.107 nm)	0.0000 (ppm)	> 100.00	0.0000 (ppm)	-21.8782
12/18/2015 17:58:57	Continuing Calibration Blank	Ca (227.547 nm)	0.0178 u (ppm)	> 100.00	0.0178 (ppm)	0.8626
12/18/2015 17:58:57	Continuing Calibration Blank	Ca (227.547 nm)	0.1005 (ppm)	82.61	0.1005 (ppm)	-0.0478
12/18/2015 17:58:57	Continuing Calibration Blank	Cd (214.439 nm)	0.0000 (ppm)	> 100.00	0.0000 (ppm)	3.0166
12/18/2015 17:58:57	Continuing Calibration Blank	Co (230.786 nm)	0.0005 (ppm)	54.01	0.0005 (ppm)	2.8757
12/18/2015 17:58:57	Continuing Calibration Blank	Cr (267.716 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	-2.0465
12/18/2015 17:58:57	Continuing Calibration Blank	Cu (327.395 nm)	0.0006 u (ppm)	> 100.00	0.0006 (ppm)	40.8898
12/18/2015 17:58:57	Continuing Calibration Blank	Fe (234.350 nm)	-0.0043 u (ppm)	6.20	-0.0043 (ppm)	16.6661
12/18/2015 17:58:57	Continuing Calibration Blank	Fe (234.350 nm)	-0.0057 u (ppm)	7.33	-0.0057 (ppm)	12.7833
12/18/2015 17:58:57	Continuing Calibration Blank	K (766.491 nm)	0.0304 (ppm)	61.54	0.0304 (ppm)	38.2648
12/18/2015 17:58:57	Continuing Calibration Blank	Mg (279.078 nm)	-0.0067 u (ppm)	72.98	-0.0067 (ppm)	7.0428
12/18/2015 17:58:57	Continuing Calibration Blank	Mg (279.078 nm)	-0.0100 u (ppm)	59.83	-0.0100 (ppm)	8.9433
12/18/2015 17:58:57	Continuing Calibration Blank	Mn (257.610 nm)	0.0001 (ppm)	80.17	0.0001 (ppm)	24.0963
12/18/2015 17:58:57	Continuing Calibration Blank	Mo (202.032 nm)	0.0011 (ppm)	57.43	0.0011 (ppm)	6.9134
12/18/2015 17:58:57	Continuing Calibration Blank	Na (588.995 nm)	0.0238 (ppm)	13.78	0.0238 (ppm)	-6571.5013
12/18/2015 17:58:57	Continuing Calibration Blank	Ni (230.299 nm)	0.0004 u (ppm)	> 100.00	0.0004 (ppm)	-8.5024
12/18/2015 17:58:57	Continuing Calibration Blank	Pb (220.353 nm)	-0.0018 u (ppm)	83.75	-0.0018 (ppm)	1.1077
12/18/2015 17:58:57	Continuing Calibration Blank	Sb (217.582 nm)	-0.0017 u (ppm)	> 100.00	-0.0017 (ppm)	0.4891
12/18/2015 17:58:57	Continuing Calibration Blank	Se (196.026 nm)	-0.0007 u (ppm)	> 100.00	-0.0007 (ppm)	0.1958
12/18/2015 17:58:57	Continuing Calibration Blank	Sn (189.925 nm)	0.0040 (ppm)	36.10	0.0040 (ppm)	2.9566
12/18/2015 17:58:57	Continuing Calibration Blank	Sr (460.733 nm)	-0.0006 u (ppm)	> 100.00	-0.0006 (ppm)	59.1312
12/18/2015 17:58:57	Continuing Calibration Blank	Ti (336.122 nm)	0.0005 (ppm)	56.36	0.0005 (ppm)	27.3191
12/18/2015 17:58:57	Continuing Calibration Blank	Tl (351.923 nm)	0.0037 (ppm)	60.26	0.0037 (ppm)	4.5503
12/18/2015 17:58:57	Continuing Calibration Blank	V (292.401 nm)	0.0006 (ppm)	20.15	0.0006 (ppm)	47.1875
12/18/2015 17:58:57	Continuing Calibration Blank	Y (360.074 nm)	1.02 (Ratio)	1.73	1.02 (Ratio)	592912.30
12/18/2015 17:58:57	Continuing Calibration Blank	Y_R (360.074 nm)	1.00 (Ratio)	0.31	1.00 (Ratio)	245050.46
12/18/2015 17:58:57	Continuing Calibration Blank	Zn (213.857 nm)	0.0006 (ppm)	19.52	0.0006 (ppm)	8.3520
12/18/2015 18:02:26	Contract Required Detection Limit	Ag (328.068 nm)	0.0096 (ppm)	4.33	0.0096 (ppm)	382.8801
12/18/2015 18:02:26	Contract Required Detection Limit	Al (394.401 nm)	0.1305 (ppm)	3.62	0.1305 (ppm)	1535.9559
12/18/2015 18:02:26	Contract Required Detection Limit	Al (394.401 nm)	0.1637 (ppm)	3.45	0.1637 (ppm)	1598.0777
12/18/2015 18:02:26	Contract Required Detection Limit	As (188.980 nm)	0.0189 (ppm)	16.86	0.0189 (ppm)	11.4678
12/18/2015 18:02:26	Contract Required Detection Limit	B (249.772 nm)	0.1825 (ppm)	2.91	0.1825 (ppm)	2442.0807
12/18/2015 18:02:26	Contract Required Detection Limit	Ba (230.424 nm)	0.2046 (ppm)	2.85	0.2046 (ppm)	3101.3463
12/18/2015 18:02:26	Contract Required Detection Limit	Be (313.107 nm)	0.0048 (ppm)	2.87	0.0048 (ppm)	4159.9905
12/18/2015 18:02:26	Contract Required Detection Limit	Ca (227.547 nm)	0.5872 (ppm)	13.75	0.5872 (ppm)	21.4938
12/18/2015 18:02:26	Contract Required Detection Limit	Ca (227.547 nm)	0.9375 (ppm)	11.43	0.9375 (ppm)	19.9623
12/18/2015 18:02:26	Contract Required Detection Limit	Cd (214.439 nm)	0.0099 (ppm)	2.09	0.0099 (ppm)	108.1236
12/18/2015 18:02:26	Contract Required Detection Limit	Co (230.786 nm)	0.0498 (ppm)	2.74	0.0498 (ppm)	238.8927
12/18/2015 18:02:26	Contract Required Detection Limit	Cr (267.716 nm)	0.0105 (ppm)	2.50	0.0105 (ppm)	239.4553
12/18/2015 18:02:26	Contract Required Detection Limit	Cu (327.395 nm)	0.0237 (ppm)	4.74	0.0237 (ppm)	737.1036

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 18:02:26	Contract Required Detection Limit	Fe (234.350 nm)	0.0758 (ppm)	2.95	0.0758 (ppm)	625.1969
12/18/2015 18:02:26	Contract Required Detection Limit	Fe (234.350 nm)	0.0948 (ppm)	3.05	0.0948 (ppm)	646.4170
12/18/2015 18:02:26	Contract Required Detection Limit	K (766.491 nm)	0.9431 (ppm)	1.49	0.9431 (ppm)	2376.2021
12/18/2015 18:02:26	Contract Required Detection Limit	Mg (279.078 nm)	0.6630 (ppm)	3.14	0.6630 (ppm)	1220.3360
12/18/2015 18:02:26	Contract Required Detection Limit	Mg (279.078 nm)	0.9291 (ppm)	2.85	0.9291 (ppm)	1273.2198
12/18/2015 18:02:26	Contract Required Detection Limit	Mn (257.610 nm)	0.0153 (ppm)	3.19	0.0153 (ppm)	1857.9658
12/18/2015 18:02:26	Contract Required Detection Limit	Mo (202.032 nm)	0.0241 (ppm)	3.87	0.0241 (ppm)	107.4858
12/18/2015 18:02:26	Contract Required Detection Limit	Na (588.995 nm)	1.0345 (ppm)	0.58	1.0345 (ppm)	21213.5924
12/18/2015 18:02:26	Contract Required Detection Limit	Ni (230.299 nm)	0.0419 (ppm)	4.95	0.0419 (ppm)	119.5517
12/18/2015 18:02:26	Contract Required Detection Limit	Pb (220.353 nm)	0.0086 (ppm)	30.39	0.0086 (ppm)	11.1421
12/18/2015 18:02:26	Contract Required Detection Limit	Sb (217.582 nm)	0.0556 (ppm)	12.29	0.0556 (ppm)	32.3786
12/18/2015 18:02:26	Contract Required Detection Limit	Se (196.026 nm)	0.0112 (ppm)	44.38	0.0112 (ppm)	4.3721
12/18/2015 18:02:26	Contract Required Detection Limit	Sn (189.925 nm)	0.4777 (ppm)	1.54	0.4777 (ppm)	328.8071
12/18/2015 18:02:26	Contract Required Detection Limit	Sr (460.733 nm)	0.1001 (ppm)	8.54	0.1001 (ppm)	1382.4297
12/18/2015 18:02:26	Contract Required Detection Limit	Ti (336.122 nm)	0.0476 (ppm)	2.70	0.0476 (ppm)	5957.5297
12/18/2015 18:02:26	Contract Required Detection Limit	Tl (351.923 nm)	0.0190 (ppm)	12.82	0.0190 (ppm)	20.2039
12/18/2015 18:02:26	Contract Required Detection Limit	V (292.401 nm)	0.0491 (ppm)	0.14	0.0491 (ppm)	974.3142
12/18/2015 18:02:26	Contract Required Detection Limit	Y (360.074 nm)	1.02 (Ratio)	2.63	1.02 (Ratio)	593662.51
12/18/2015 18:02:26	Contract Required Detection Limit	Y_R (360.074 nm)	1.01 (Ratio)	0.42	1.01 (Ratio)	248672.33
12/18/2015 18:02:26	Contract Required Detection Limit	Zn (213.857 nm)	0.0196 (ppm)	3.04	0.0196 (ppm)	246.2469
12/18/2015 18:05:55	Interference Check Solution A	Ag (328.068 nm)	0.0001 (ppm)	35.28	0.0001 (ppm)	17.1359
12/18/2015 18:05:55	Interference Check Solution A	Al (394.401 nm)	194.1982 (ppm)	0.78	194.1982 (ppm)	2060910.8601
12/18/2015 18:05:55	Interference Check Solution A	Al (394.401 nm)	243.2872 o (ppm)	0.78	243.2872 (ppm)	2089152.4587
12/18/2015 18:05:55	Interference Check Solution A	As (188.980 nm)	0.0035 u (ppm)	> 100.00	0.0035 (ppm)	3.7441
12/18/2015 18:05:55	Interference Check Solution A	B (249.772 nm)	-0.0382 u (ppm)	0.68	-0.0382 (ppm)	-428.9265
12/18/2015 18:05:55	Interference Check Solution A	Ba (230.424 nm)	-0.0237 u (ppm)	1.64	-0.0237 (ppm)	13.0060
12/18/2015 18:05:55	Interference Check Solution A	Be (313.107 nm)	-0.0005 u (ppm)	1.13	-0.0005 (ppm)	-63.7903
12/18/2015 18:05:55	Interference Check Solution A	Ca (227.547 nm)	163.7021 (ppm)	0.84	163.7021 (ppm)	5931.7434
12/18/2015 18:05:55	Interference Check Solution A	Ca (227.547 nm)	253.4716 o (ppm)	0.75	253.4716 (ppm)	6060.8071
12/18/2015 18:05:55	Interference Check Solution A	Cd (214.439 nm)	-0.0006 u (ppm)	11.01	-0.0006 (ppm)	-20.2066
12/18/2015 18:05:55	Interference Check Solution A	Co (230.786 nm)	-0.0053 Ku (ppm)	22.95	-0.0053 (ppm)	-31.5097 K
12/18/2015 18:05:55	Interference Check Solution A	Cr (267.716 nm)	-0.0012 Ku (ppm)	16.59	-0.0012 (ppm)	12.1604 K
12/18/2015 18:05:55	Interference Check Solution A	Cu (327.395 nm)	-0.0033 u (ppm)	7.95	-0.0033 (ppm)	20.0983
12/18/2015 18:05:55	Interference Check Solution A	Fe (234.350 nm)	69.0574 (ppm)	0.74	69.0574 (ppm)	524576.3565
12/18/2015 18:05:55	Interference Check Solution A	Fe (234.350 nm)	87.7315 o (ppm)	0.69	87.7315 (ppm)	550554.8141
12/18/2015 18:05:55	Interference Check Solution A	K (766.491 nm)	0.0861 (ppm)	19.33	0.0861 (ppm)	75.4411
12/18/2015 18:05:55	Interference Check Solution A	Mg (279.078 nm)	166.2193 (ppm)	0.84	166.2193 (ppm)	301147.3350
12/18/2015 18:05:55	Interference Check Solution A	Mg (279.078 nm)	237.0276 o (ppm)	0.78	237.0276 (ppm)	319155.6702
12/18/2015 18:05:55	Interference Check Solution A	Mn (257.610 nm)	-0.0030 u (ppm)	1.06	-0.0030 (ppm)	152.0683
12/18/2015 18:05:55	Interference Check Solution A	Mo (202.032 nm)	-0.0068 u (ppm)	4.45	-0.0068 (ppm)	-1.1523
12/18/2015 18:05:55	Interference Check Solution A	Na (588.995 nm)	0.3300 (ppm)	2.57	0.3300 (ppm)	-4651.2745
12/18/2015 18:05:55	Interference Check Solution A	Ni (230.299 nm)	-0.0072 Ku (ppm)	18.12	-0.0072 (ppm)	-9.6827 K
12/18/2015 18:05:55	Interference Check Solution A	Pb (220.353 nm)	-0.0043 u (ppm)	37.13	-0.0043 (ppm)	-19.9706
12/18/2015 18:05:55	Interference Check Solution A	Sb (217.582 nm)	-0.0110 Ku (ppm)	21.80	-0.0110 (ppm)	11.1691 K
12/18/2015 18:05:55	Interference Check Solution A	Se (196.026 nm)	-0.0020 u (ppm)	> 100.00	-0.0020 (ppm)	-0.5873
12/18/2015 18:05:55	Interference Check Solution A	Sn (189.925 nm)	-0.0141 u (ppm)	16.33	-0.0141 (ppm)	0.9434
12/18/2015 18:05:55	Interference Check Solution A	Sr (460.733 nm)	0.0242 (ppm)	8.72	0.0242 (ppm)	38.6318
12/18/2015 18:05:55	Interference Check Solution A	Ti (336.122 nm)	-0.0086 u (ppm)	0.41	-0.0086 (ppm)	-151.2501
12/18/2015 18:05:55	Interference Check Solution A	Tl (351.923 nm)	0.0008 u (ppm)	> 100.00	0.0008 (ppm)	-6.4854
12/18/2015 18:05:55	Interference Check Solution A	V (292.401 nm)	-0.0078 Ku (ppm)	1.14	-0.0078 (ppm)	-44.9240 K
12/18/2015 18:05:55	Interference Check Solution A	Y (360.074 nm)	0.92 (Ratio)	0.85	0.92 (Ratio)	536345.53

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 18:05:55	Interference Check Solution A	Y_R (360.074 nm)	0.95 (Ratio)	0.59	0.95 (Ratio)	233619.73
12/18/2015 18:05:55	Interference Check Solution A	Zn (213.857 nm)	-0.0083 u (ppm)	2.11	-0.0083 (ppm)	148.5726
12/18/2015 18:09:24	Interference Check Solution AB	Ag (328.068 nm)	0.2024 (ppm)	0.39	0.2024 (ppm)	7892.6864
12/18/2015 18:09:24	Interference Check Solution AB	Al (394.401 nm)	194.6983 (ppm)	0.72	194.6983 (ppm)	2066218.6688
12/18/2015 18:09:24	Interference Check Solution AB	Al (394.401 nm)	244.3454 o (ppm)	0.68	244.3454 (ppm)	2098239.1656
12/18/2015 18:09:24	Interference Check Solution AB	As (188.980 nm)	0.0957 (ppm)	4.91	0.0957 (ppm)	52.3640
12/18/2015 18:09:24	Interference Check Solution AB	B (249.772 nm)	-0.0354 u (ppm)	1.49	-0.0354 (ppm)	-391.3317
12/18/2015 18:09:24	Interference Check Solution AB	Ba (230.424 nm)	0.4776 (ppm)	0.76	0.4776 (ppm)	7592.1612
12/18/2015 18:09:24	Interference Check Solution AB	Be (313.107 nm)	0.4851 (ppm)	0.53	0.4851 (ppm)	424901.3295
12/18/2015 18:09:24	Interference Check Solution AB	Ca (227.547 nm)	164.5705 (ppm)	0.83	164.5705 (ppm)	5963.2084
12/18/2015 18:09:24	Interference Check Solution AB	Ca (227.547 nm)	254.5825 o (ppm)	0.80	254.5825 (ppm)	6087.2790
12/18/2015 18:09:24	Interference Check Solution AB	Cd (214.439 nm)	0.9325 (ppm)	0.65	0.9325 (ppm)	9912.4965
12/18/2015 18:09:24	Interference Check Solution AB	Co (230.786 nm)	0.4544 (ppm)	0.77	0.4544 (ppm)	2169.3667
12/18/2015 18:09:24	Interference Check Solution AB	Cr (267.716 nm)	0.4881 (ppm)	0.77	0.4881 (ppm)	11324.7778
12/18/2015 18:09:24	Interference Check Solution AB	Cu (327.395 nm)	0.4995 (ppm)	0.73	0.4995 (ppm)	15173.3365
12/18/2015 18:09:24	Interference Check Solution AB	Fe (234.350 nm)	68.9073 (ppm)	0.83	68.9073 (ppm)	523435.8175
12/18/2015 18:09:24	Interference Check Solution AB	Fe (234.350 nm)	88.6083 o (ppm)	0.66	88.6083 (ppm)	556040.7977
12/18/2015 18:09:24	Interference Check Solution AB	K (766.491 nm)	0.0477 (ppm)	22.41	0.0477 (ppm)	-22.8039
12/18/2015 18:09:24	Interference Check Solution AB	Mg (279.078 nm)	165.9796 (ppm)	0.86	165.9796 (ppm)	300713.1482
12/18/2015 18:09:24	Interference Check Solution AB	Mg (279.078 nm)	239.2567 o (ppm)	0.68	239.2567 (ppm)	322156.3892
12/18/2015 18:09:24	Interference Check Solution AB	Mn (257.610 nm)	0.4827 (ppm)	0.70	0.4827 (ppm)	58966.3085
12/18/2015 18:09:24	Interference Check Solution AB	Mo (202.032 nm)	-0.0066 u (ppm)	4.89	-0.0066 (ppm)	-0.1646
12/18/2015 18:09:24	Interference Check Solution AB	Na (588.995 nm)	0.3297 (ppm)	2.57	0.3297 (ppm)	-4668.8338
12/18/2015 18:09:24	Interference Check Solution AB	Ni (230.299 nm)	0.9260 (ppm)	0.29	0.9260 (ppm)	2867.2057
12/18/2015 18:09:24	Interference Check Solution AB	Pb (220.353 nm)	0.0483 (ppm)	11.19	0.0483 (ppm)	30.6319
12/18/2015 18:09:24	Interference Check Solution AB	Sb (217.582 nm)	0.5652 (ppm)	1.50	0.5652 (ppm)	331.8759
12/18/2015 18:09:24	Interference Check Solution AB	Se (196.026 nm)	0.0438 (ppm)	23.80	0.0438 (ppm)	15.4157
12/18/2015 18:09:24	Interference Check Solution AB	Sn (189.925 nm)	-0.0148 u (ppm)	11.63	-0.0148 (ppm)	0.4138
12/18/2015 18:09:24	Interference Check Solution AB	Sr (460.733 nm)	0.0237 (ppm)	15.45	0.0237 (ppm)	33.4869
12/18/2015 18:09:24	Interference Check Solution AB	Ti (336.122 nm)	-0.0087 u (ppm)	0.75	-0.0087 (ppm)	-171.3582
12/18/2015 18:09:24	Interference Check Solution AB	Tl (351.923 nm)	0.1041 (ppm)	8.07	0.1041 (ppm)	161.3559
12/18/2015 18:09:24	Interference Check Solution AB	V (292.401 nm)	0.4629 (ppm)	0.53	0.4629 (ppm)	8947.2954
12/18/2015 18:09:24	Interference Check Solution AB	Y (360.074 nm)	0.92 (Ratio)	0.85	0.92 (Ratio)	537468.22
12/18/2015 18:09:24	Interference Check Solution AB	Y_R (360.074 nm)	0.94 (Ratio)	0.59	0.94 (Ratio)	231064.01
12/18/2015 18:09:24	Interference Check Solution AB	Zn (213.857 nm)	0.9496 (ppm)	0.69	0.9496 (ppm)	12106.7527
12/18/2015 18:12:54	HLCCV2	Ag (328.068 nm)	1.9977 bo (ppm)	0.34	1.9977 (ppm)	77811.2920
12/18/2015 18:12:54	HLCCV2	Al (394.401 nm)	388.6692 o (ppm)	0.29	388.6692 (ppm)	4124566.3197
12/18/2015 18:12:54	HLCCV2	Al (394.401 nm)	487.0604 bo (ppm)	0.30	487.0604 (ppm)	4179536.5673
12/18/2015 18:12:54	HLCCV2	As (188.980 nm)	3.7621 bo (ppm)	0.45	3.7621 (ppm)	1986.3046
12/18/2015 18:12:54	HLCCV2	B (249.772 nm)	9.7252 bo (ppm)	0.32	9.7252 (ppm)	129630.3590
12/18/2015 18:12:54	HLCCV2	Ba (230.424 nm)	36.2648 bo (ppm)	0.58	36.2648 (ppm)	548886.9008
12/18/2015 18:12:54	HLCCV2	Be (313.107 nm)	0.9228 bo (ppm)	0.31	0.9228 (ppm)	808198.5850
12/18/2015 18:12:54	HLCCV2	Ca (227.547 nm)	170.3424 (ppm)	0.31	170.3424 (ppm)	6172.3442
12/18/2015 18:12:54	HLCCV2	Ca (227.547 nm)	261.2792 bo (ppm)	0.32	261.2792 (ppm)	6250.1434
12/18/2015 18:12:54	HLCCV2	Cd (214.439 nm)	1.7745 Qbo (ppm)	0.31	1.7745 (ppm)	18853.2156 Q
12/18/2015 18:12:54	HLCCV2	Co (230.786 nm)	8.8236 Qbo (ppm)	0.38	8.8236 (ppm)	42279.5795 Q
12/18/2015 18:12:54	HLCCV2	Cr (267.716 nm)	9.3367 bo (ppm)	0.31	9.3367 (ppm)	216021.5521
12/18/2015 18:12:54	HLCCV2	Cu (327.395 nm)	5.0248 bo (ppm)	0.43	5.0248 (ppm)	151668.4503
12/18/2015 18:12:54	HLCCV2	Fe (234.350 nm)	34.1494 (ppm)	0.27	34.1494 (ppm)	259431.3072
12/18/2015 18:12:54	HLCCV2	Fe (234.350 nm)	43.9413 Qbo (ppm)	0.28	43.9413 (ppm)	278113.2423 Q
12/18/2015 18:12:54	HLCCV2	K (766.491 nm)	144.4296 bo (ppm)	0.46	144.4296 (ppm)	369862.0640

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 18:12:54	HLCCV2	Mg (279.078 nm)	320.6786 o (ppm)	0.46	320.6786 (ppm)	580970.7385
12/18/2015 18:12:54	HLCCV2	Mg (279.078 nm)	466.6365 bo (ppm)	0.51	466.6365 (ppm)	628235.6106
12/18/2015 18:12:54	HLCCV2	Mn (257.610 nm)	9.1400 bo (ppm)	0.24	9.1400 (ppm)	1107271.6149
12/18/2015 18:12:54	HLCCV2	Mo (202.032 nm)	9.3796 bo (ppm)	0.33	9.3796 (ppm)	41053.7044
12/18/2015 18:12:54	HLCCV2	Na (588.995 nm)	139.1816 bo (ppm)	0.32	139.1816 (ppm)	3812335.8827
12/18/2015 18:12:54	HLCCV2	Ni (230.299 nm)	7.0558 Qbo (ppm)	0.23	7.0558 (ppm)	21774.7570 Q
12/18/2015 18:12:54	HLCCV2	Pb (220.353 nm)	8.9082 Qbo (ppm)	0.38	8.9082 (ppm)	8538.1228 Q
12/18/2015 18:12:54	HLCCV2	Sb (217.582 nm)	0.0080 bu (ppm)	> 100.00	0.0080 (ppm)	31.4156
12/18/2015 18:12:54	HLCCV2	Se (196.026 nm)	1.8719 bo (ppm)	0.61	1.8719 (ppm)	655.5607
12/18/2015 18:12:54	HLCCV2	Sn (189.925 nm)	-0.0255 bu (ppm)	4.39	-0.0255 (ppm)	-8.1545
12/18/2015 18:12:54	HLCCV2	Sr (460.733 nm)	10.0199 bo (ppm)	0.32	10.0199 (ppm)	131430.9822
12/18/2015 18:12:54	HLCCV2	Ti (336.122 nm)	9.4194 bo (ppm)	0.23	9.4194 (ppm)	1185806.3850
12/18/2015 18:12:54	HLCCV2	Tl (351.923 nm)	4.0075 bo (ppm)	0.42	4.0075 (ppm)	6506.4809
12/18/2015 18:12:54	HLCCV2	V (292.401 nm)	8.9635 Qbo (ppm)	0.70	8.9635 (ppm)	171484.8392 Q
12/18/2015 18:12:54	HLCCV2	Y (360.074 nm)	0.89 (Ratio)	0.35	0.89 (Ratio)	518325.55
12/18/2015 18:12:54	HLCCV2	Y_R (360.074 nm)	0.93 (Ratio)	0.44	0.93 (Ratio)	227731.14
12/18/2015 18:12:54	HLCCV2	Zn (213.857 nm)	3.7694 bo (ppm)	0.37	3.7694 (ppm)	47470.5954
12/18/2015 18:16:24	HLCCV1	Ag (328.068 nm)	0.9641 (ppm)	1.19	0.9641 (ppm)	37549.0984
12/18/2015 18:16:24	HLCCV1	Al (394.401 nm)	15.3048 (ppm)	1.38	15.3048 (ppm)	162560.6900
12/18/2015 18:16:24	HLCCV1	Al (394.401 nm)	19.1596 (ppm)	1.39	19.1596 (ppm)	165019.4823
12/18/2015 18:16:24	HLCCV1	As (188.980 nm)	1.9379 (ppm)	1.59	1.9379 (ppm)	1023.0765
12/18/2015 18:16:24	HLCCV1	B (249.772 nm)	4.8356 (ppm)	1.25	4.8356 (ppm)	64400.8336
12/18/2015 18:16:24	HLCCV1	Ba (230.424 nm)	19.4474 (ppm)	1.27	19.4474 (ppm)	294016.6390
12/18/2015 18:16:24	HLCCV1	Be (313.107 nm)	0.4860 (ppm)	1.29	0.4860 (ppm)	425278.9496
12/18/2015 18:16:24	HLCCV1	Ca (227.547 nm)	31.0074 (ppm)	1.41	31.0074 (ppm)	1123.7274
12/18/2015 18:16:24	HLCCV1	Ca (227.547 nm)	47.6056 (ppm)	1.25	47.6056 (ppm)	1135.7397
12/18/2015 18:16:24	HLCCV1	Cd (214.439 nm)	0.9718 (ppm)	1.13	0.9718 (ppm)	10346.4143
12/18/2015 18:16:24	HLCCV1	Co (230.786 nm)	4.8330 (ppm)	1.22	4.8330 (ppm)	23134.7909
12/18/2015 18:16:24	HLCCV1	Cr (267.716 nm)	0.9774 (ppm)	1.37	0.9774 (ppm)	22600.5356
12/18/2015 18:16:24	HLCCV1	Cu (327.395 nm)	2.4090 (ppm)	1.32	2.4090 (ppm)	72644.2355
12/18/2015 18:16:24	HLCCV1	Fe (234.350 nm)	7.5093 (ppm)	1.22	7.5093 (ppm)	57086.5474
12/18/2015 18:16:24	HLCCV1	Fe (234.350 nm)	9.6827 (ppm)	1.25	9.6827 (ppm)	60883.7453
12/18/2015 18:16:24	HLCCV1	K (766.491 nm)	47.7523 (ppm)	0.36	47.7523 (ppm)	122274.3829
12/18/2015 18:16:24	HLCCV1	Mg (279.078 nm)	33.6720 (ppm)	1.26	33.6720 (ppm)	61020.4107
12/18/2015 18:16:24	HLCCV1	Mg (279.078 nm)	48.6309 (ppm)	1.32	48.6309 (ppm)	65492.5978
12/18/2015 18:16:24	HLCCV1	Mn (257.610 nm)	1.4557 (ppm)	1.31	1.4557 (ppm)	176328.2263
12/18/2015 18:16:24	HLCCV1	Mo (202.032 nm)	4.8884 (ppm)	1.22	4.8884 (ppm)	21380.6578
12/18/2015 18:16:24	HLCCV1	Na (588.995 nm)	48.2357 (ppm)	0.33	48.2357 (ppm)	1318638.7789
12/18/2015 18:16:24	HLCCV1	Ni (230.299 nm)	3.8633 (ppm)	1.27	3.8633 (ppm)	11901.7444
12/18/2015 18:16:24	HLCCV1	Pb (220.353 nm)	0.9640 (ppm)	1.18	0.9640 (ppm)	928.8576
12/18/2015 18:16:24	HLCCV1	Sb (217.582 nm)	9.6679 (ppm)	1.25	9.6679 (ppm)	5384.1187
12/18/2015 18:16:24	HLCCV1	Se (196.026 nm)	0.9829 (ppm)	2.50	0.9829 (ppm)	344.0526
12/18/2015 18:16:24	HLCCV1	Sn (189.925 nm)	9.6768 (ppm)	1.53	9.6768 (ppm)	6657.6485
12/18/2015 18:16:24	HLCCV1	Sr (460.733 nm)	4.8606 (ppm)	0.01	4.8606 (ppm)	63898.4780
12/18/2015 18:16:24	HLCCV1	Ti (336.122 nm)	4.8178 (ppm)	1.26	4.8178 (ppm)	605753.0757
12/18/2015 18:16:24	HLCCV1	Tl (351.923 nm)	1.9233 (ppm)	1.32	1.9233 (ppm)	3114.4443
12/18/2015 18:16:24	HLCCV1	V (292.401 nm)	4.8860 (ppm)	0.29	4.8860 (ppm)	93363.5119
12/18/2015 18:16:24	HLCCV1	Y (360.074 nm)	0.97 (Ratio)	1.46	0.97 (Ratio)	566939.66
12/18/2015 18:16:24	HLCCV1	Y_R (360.074 nm)	0.97 (Ratio)	0.17	0.97 (Ratio)	238734.00
12/18/2015 18:16:24	HLCCV1	Zn (213.857 nm)	1.9458 (ppm)	1.32	1.9458 (ppm)	24325.0583
12/18/2015 18:19:53	Continuing Calibration Verification	Ag (328.068 nm)	0.4635 (ppm)	2.13	0.4635 (ppm)	18058.8291

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 18:19:53	Continuing Calibration Verification	Al (394.401 nm)	7.2814 (ppm)	2.30	7.2814 (ppm)	77419.0857
12/18/2015 18:19:53	Continuing Calibration Verification	Al (394.401 nm)	9.1287 (ppm)	2.30	9.1287 (ppm)	78731.4897
12/18/2015 18:19:53	Continuing Calibration Verification	As (188.980 nm)	0.9383 (ppm)	2.09	0.9383 (ppm)	496.0892
12/18/2015 18:19:53	Continuing Calibration Verification	B (249.772 nm)	2.3285 (ppm)	2.20	2.3285 (ppm)	31017.2418
12/18/2015 18:19:53	Continuing Calibration Verification	Ba (230.424 nm)	9.8403 (ppm)	1.97	9.8403 (ppm)	148774.8337
12/18/2015 18:19:53	Continuing Calibration Verification	Be (313.107 nm)	0.2445 (ppm)	2.29	0.2445 (ppm)	213890.2691
12/18/2015 18:19:53	Continuing Calibration Verification	Ca (227.547 nm)	15.4094 (ppm)	2.07	15.4094 (ppm)	558.5564
12/18/2015 18:19:53	Continuing Calibration Verification	Ca (227.547 nm)	23.7510 (ppm)	2.15	23.7510 (ppm)	565.3850
12/18/2015 18:19:53	Continuing Calibration Verification	Cd (214.439 nm)	0.4887 (ppm)	2.43	0.4887 (ppm)	5204.3335
12/18/2015 18:19:53	Continuing Calibration Verification	Co (230.786 nm)	2.3692 (ppm)	2.33	2.3692 (ppm)	11341.2135
12/18/2015 18:19:53	Continuing Calibration Verification	Cr (267.716 nm)	0.5025 (ppm)	2.27	0.5025 (ppm)	11618.5154
12/18/2015 18:19:53	Continuing Calibration Verification	Cu (327.395 nm)	1.1636 (ppm)	2.32	1.1636 (ppm)	35100.9422
12/18/2015 18:19:53	Continuing Calibration Verification	Fe (234.350 nm)	3.7513 (ppm)	2.34	3.7513 (ppm)	28542.2876
12/18/2015 18:19:53	Continuing Calibration Verification	Fe (234.350 nm)	4.8003 (ppm)	2.33	4.8003 (ppm)	30205.3212
12/18/2015 18:19:53	Continuing Calibration Verification	K (766.491 nm)	23.6667 (ppm)	0.48	23.6667 (ppm)	60580.7247
12/18/2015 18:19:53	Continuing Calibration Verification	Mg (279.078 nm)	16.2561 (ppm)	2.36	16.2561 (ppm)	29469.3908
12/18/2015 18:19:53	Continuing Calibration Verification	Mg (279.078 nm)	23.2995 (ppm)	2.30	23.2995 (ppm)	31390.0436
12/18/2015 18:19:53	Continuing Calibration Verification	Mn (257.610 nm)	0.7380 (ppm)	2.33	0.7380 (ppm)	89391.2706
12/18/2015 18:19:53	Continuing Calibration Verification	Mo (202.032 nm)	2.3830 (ppm)	2.23	2.3830 (ppm)	10423.7726
12/18/2015 18:19:53	Continuing Calibration Verification	Na (588.995 nm)	23.7372 (ppm)	0.26	23.7372 (ppm)	645245.9166
12/18/2015 18:19:53	Continuing Calibration Verification	Ni (230.299 nm)	1.9898 (ppm)	2.48	1.9898 (ppm)	6125.0980
12/18/2015 18:19:53	Continuing Calibration Verification	Pb (220.353 nm)	0.4860 (ppm)	3.12	0.4860 (ppm)	469.7447
12/18/2015 18:19:53	Continuing Calibration Verification	Sb (217.582 nm)	4.7597 (ppm)	2.64	4.7597 (ppm)	2651.4068
12/18/2015 18:19:53	Continuing Calibration Verification	Se (196.026 nm)	0.4780 (ppm)	2.55	0.4780 (ppm)	167.5523
12/18/2015 18:19:53	Continuing Calibration Verification	Sn (189.925 nm)	4.7906 (ppm)	2.47	4.7906 (ppm)	3296.0630
12/18/2015 18:19:53	Continuing Calibration Verification	Sr (460.733 nm)	2.3925 (ppm)	0.29	2.3925 (ppm)	31486.5812
12/18/2015 18:19:53	Continuing Calibration Verification	Ti (336.122 nm)	2.3676 (ppm)	2.30	2.3676 (ppm)	297665.0488
12/18/2015 18:19:53	Continuing Calibration Verification	Tl (351.923 nm)	0.9536 (ppm)	1.95	0.9536 (ppm)	1538.9490
12/18/2015 18:19:53	Continuing Calibration Verification	V (292.401 nm)	2.4102 (ppm)	0.40	2.4102 (ppm)	46073.2094
12/18/2015 18:19:53	Continuing Calibration Verification	Y (360.074 nm)	0.99 (Ratio)	2.31	0.99 (Ratio)	577620.66
12/18/2015 18:19:53	Continuing Calibration Verification	Y_R (360.074 nm)	0.99 (Ratio)	0.36	0.99 (Ratio)	241800.63
12/18/2015 18:19:53	Continuing Calibration Verification	Zn (213.857 nm)	0.9740 (ppm)	2.41	0.9740 (ppm)	12176.8140
12/18/2015 18:23:22	Continuing Calibration Blank	Ag (328.068 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	16.2782
12/18/2015 18:23:22	Continuing Calibration Blank	Al (394.401 nm)	-0.0047 u (ppm)	61.28	-0.0047 (ppm)	101.3086
12/18/2015 18:23:22	Continuing Calibration Blank	Al (394.401 nm)	-0.0066 u (ppm)	59.75	-0.0066 (ppm)	127.8242
12/18/2015 18:23:22	Continuing Calibration Blank	As (188.980 nm)	-0.0002 u (ppm)	> 100.00	-0.0002 (ppm)	1.3683
12/18/2015 18:23:22	Continuing Calibration Blank	B (249.772 nm)	0.0026 (ppm)	26.15	0.0026 (ppm)	46.3986
12/18/2015 18:23:22	Continuing Calibration Blank	Ba (230.424 nm)	0.0037 (ppm)	54.45	0.0037 (ppm)	64.7331
12/18/2015 18:23:22	Continuing Calibration Blank	Be (313.107 nm)	0.0001 (ppm)	64.16	0.0001 (ppm)	22.7034
12/18/2015 18:23:22	Continuing Calibration Blank	Ca (227.547 nm)	0.0259 u (ppm)	> 100.00	0.0259 (ppm)	1.1533
12/18/2015 18:23:22	Continuing Calibration Blank	Ca (227.547 nm)	0.0859 (ppm)	90.58	0.0859 (ppm)	-0.3941
12/18/2015 18:23:22	Continuing Calibration Blank	Cd (214.439 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	3.7318
12/18/2015 18:23:22	Continuing Calibration Blank	Co (230.786 nm)	0.0008 (ppm)	37.03	0.0008 (ppm)	4.3946
12/18/2015 18:23:22	Continuing Calibration Blank	Cr (267.716 nm)	0.0003 (ppm)	60.51	0.0003 (ppm)	4.3168
12/18/2015 18:23:22	Continuing Calibration Blank	Cu (327.395 nm)	0.0003 (ppm)	6.72	0.0003 (ppm)	33.8971
12/18/2015 18:23:22	Continuing Calibration Blank	Fe (234.350 nm)	-0.0029 u (ppm)	44.68	-0.0029 (ppm)	27.0761
12/18/2015 18:23:22	Continuing Calibration Blank	Fe (234.350 nm)	-0.0039 u (ppm)	44.85	-0.0039 (ppm)	24.3147
12/18/2015 18:23:22	Continuing Calibration Blank	K (766.491 nm)	0.0500 (ppm)	14.47	0.0500 (ppm)	88.3998
12/18/2015 18:23:22	Continuing Calibration Blank	Mg (279.078 nm)	-0.0007 u (ppm)	> 100.00	-0.0007 (ppm)	17.9922
12/18/2015 18:23:22	Continuing Calibration Blank	Mg (279.078 nm)	-0.0027 u (ppm)	> 100.00	-0.0027 (ppm)	18.7507
12/18/2015 18:23:22	Continuing Calibration Blank	Mn (257.610 nm)	0.0003 (ppm)	59.55	0.0003 (ppm)	46.4069

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 18:23:22	Continuing Calibration Blank	Mo (202.032 nm)	0.0018 (ppm)	31.21	0.0018 (ppm)	9.8952
12/18/2015 18:23:22	Continuing Calibration Blank	Na (588.995 nm)	0.0204 (ppm)	26.50	0.0204 (ppm)	-6664.9487
12/18/2015 18:23:22	Continuing Calibration Blank	Ni (230.299 nm)	0.0013 (ppm)	34.96	0.0013 (ppm)	-5.6238
12/18/2015 18:23:22	Continuing Calibration Blank	Pb (220.353 nm)	-0.0004 u (ppm)	> 100.00	-0.0004 (ppm)	2.4773
12/18/2015 18:23:22	Continuing Calibration Blank	Sb (217.582 nm)	0.0058 (ppm)	75.18	0.0058 (ppm)	4.6468
12/18/2015 18:23:22	Continuing Calibration Blank	Se (196.026 nm)	0.0044 u (ppm)	> 100.00	0.0044 (ppm)	1.9924
12/18/2015 18:23:22	Continuing Calibration Blank	Sn (189.925 nm)	0.0020 (ppm)	51.48	0.0020 (ppm)	1.6100
12/18/2015 18:23:22	Continuing Calibration Blank	Sr (460.733 nm)	0.0015 u (ppm)	> 100.00	0.0015 (ppm)	87.0489
12/18/2015 18:23:22	Continuing Calibration Blank	Ti (336.122 nm)	0.0009 (ppm)	52.32	0.0009 (ppm)	88.5494
12/18/2015 18:23:22	Continuing Calibration Blank	Tl (351.923 nm)	0.0015 (ppm)	> 100.00	0.0015 (ppm)	-8.1340
12/18/2015 18:23:22	Continuing Calibration Blank	V (292.401 nm)	0.0011 (ppm)	47.51	0.0011 (ppm)	57.3017
12/18/2015 18:23:22	Continuing Calibration Blank	Y (360.074 nm)	1.03 (Ratio)	1.19	1.03 (Ratio)	598337.02
12/18/2015 18:23:22	Continuing Calibration Blank	Y_R (360.074 nm)	1.01 (Ratio)	0.46	1.01 (Ratio)	247385.86
12/18/2015 18:23:22	Continuing Calibration Blank	Zn (213.857 nm)	0.0007 (ppm)	35.79	0.0007 (ppm)	10.0436
12/18/2015 18:26:51	PBW-251660	Ag (328.068 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	12.0834
12/18/2015 18:26:51	PBW-251660	Al (394.401 nm)	-0.0062 u (ppm)	18.22	-0.0062 (ppm)	85.6127
12/18/2015 18:26:51	PBW-251660	Al (394.401 nm)	-0.0086 u (ppm)	13.32	-0.0086 (ppm)	110.5074
12/18/2015 18:26:51	PBW-251660	As (188.980 nm)	-0.0053 u (ppm)	30.59	-0.0053 (ppm)	-1.3010
12/18/2015 18:26:51	PBW-251660	B (249.772 nm)	0.0015 (ppm)	4.44	0.0015 (ppm)	31.4869
12/18/2015 18:26:51	PBW-251660	Ba (230.424 nm)	0.0011 (ppm)	41.36	0.0011 (ppm)	25.3681
12/18/2015 18:26:51	PBW-251660	Be (313.107 nm)	0.0000 (ppm)	88.87	0.0000 (ppm)	-28.5733
12/18/2015 18:26:51	PBW-251660	Ca (227.547 nm)	0.0321 u (ppm)	> 100.00	0.0321 (ppm)	1.3788
12/18/2015 18:26:51	PBW-251660	Ca (227.547 nm)	0.0960 u (ppm)	> 100.00	0.0960 (ppm)	-0.1552
12/18/2015 18:26:51	PBW-251660	Cd (214.439 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	2.4104
12/18/2015 18:26:51	PBW-251660	Co (230.786 nm)	0.0006 (ppm)	> 100.00	0.0006 (ppm)	3.4620
12/18/2015 18:26:51	PBW-251660	Cr (267.716 nm)	0.0005 (ppm)	23.30	0.0005 (ppm)	8.7832
12/18/2015 18:26:51	PBW-251660	Cu (327.395 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	24.3995
12/18/2015 18:26:51	PBW-251660	Fe (234.350 nm)	-0.0027 u (ppm)	8.72	-0.0027 (ppm)	28.4869
12/18/2015 18:26:51	PBW-251660	Fe (234.350 nm)	-0.0034 u (ppm)	20.33	-0.0034 (ppm)	27.4242
12/18/2015 18:26:51	PBW-251660	K (766.491 nm)	-0.0041 u (ppm)	> 100.00	-0.0041 (ppm)	-50.1529
12/18/2015 18:26:51	PBW-251660	Mg (279.078 nm)	-0.0048 u (ppm)	68.61	-0.0048 (ppm)	10.5980
12/18/2015 18:26:51	PBW-251660	Mg (279.078 nm)	-0.0064 u (ppm)	55.79	-0.0064 (ppm)	13.7674
12/18/2015 18:26:51	PBW-251660	Mn (257.610 nm)	0.0004 (ppm)	10.76	0.0004 (ppm)	54.1499
12/18/2015 18:26:51	PBW-251660	Mo (202.032 nm)	-0.0002 u (ppm)	96.71	-0.0002 (ppm)	1.4453
12/18/2015 18:26:51	PBW-251660	Na (588.995 nm)	0.0570 (ppm)	4.01	0.0570 (ppm)	-5658.0705
12/18/2015 18:26:51	PBW-251660	Ni (230.299 nm)	-0.0002 u (ppm)	> 100.00	-0.0002 (ppm)	-10.4042
12/18/2015 18:26:51	PBW-251660	Pb (220.353 nm)	0.0013 u (ppm)	> 100.00	0.0013 (ppm)	4.0969
12/18/2015 18:26:51	PBW-251660	Sb (217.582 nm)	-0.0005 u (ppm)	> 100.00	-0.0005 (ppm)	1.1598
12/18/2015 18:26:51	PBW-251660	Se (196.026 nm)	0.0006 u (ppm)	> 100.00	0.0006 (ppm)	0.6589
12/18/2015 18:26:51	PBW-251660	Sn (189.925 nm)	0.0014 u (ppm)	> 100.00	0.0014 (ppm)	1.1996
12/18/2015 18:26:51	PBW-251660	Sr (460.733 nm)	0.0072 (ppm)	56.52	0.0072 (ppm)	161.7534
12/18/2015 18:26:51	PBW-251660	Ti (336.122 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	-42.0280
12/18/2015 18:26:51	PBW-251660	Tl (351.923 nm)	0.0017 u (ppm)	> 100.00	0.0017 (ppm)	-7.8827
12/18/2015 18:26:51	PBW-251660	V (292.401 nm)	0.0006 (ppm)	47.76	0.0006 (ppm)	47.7703
12/18/2015 18:26:51	PBW-251660	Y (360.074 nm)	1.04 (Ratio)	0.26	1.04 (Ratio)	604690.06
12/18/2015 18:26:51	PBW-251660	Y_R (360.074 nm)	1.01 (Ratio)	0.16	1.01 (Ratio)	248501.58
12/18/2015 18:26:51	PBW-251660	Zn (213.857 nm)	0.0008 (ppm)	12.58	0.0008 (ppm)	10.5818
12/18/2015 18:30:20	LCSW-251660	Ag (328.068 nm)	0.0466 (ppm)	0.55	0.0466 (ppm)	1822.2005
12/18/2015 18:30:20	LCSW-251660	Al (394.401 nm)	1.3811 (ppm)	0.52	1.3811 (ppm)	14807.0854
12/18/2015 18:30:20	LCSW-251660	Al (394.401 nm)	1.7320 (ppm)	0.48	1.7320 (ppm)	15055.6835
12/18/2015 18:30:20	LCSW-251660	As (188.980 nm)	0.0340 (ppm)	11.15	0.0340 (ppm)	19.4072

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 18:30:20	LCSW-251660	B (249.772 nm)	0.8759 (ppm)	0.35	0.8759 (ppm)	11672.6392
12/18/2015 18:30:20	LCSW-251660	Ba (230.424 nm)	1.9817 (ppm)	0.54	1.9817 (ppm)	29967.9752
12/18/2015 18:30:20	LCSW-251660	Be (313.107 nm)	0.0471 (ppm)	0.36	0.0471 (ppm)	41145.0942
12/18/2015 18:30:20	LCSW-251660	Ca (227.547 nm)	1.1496 (ppm)	4.58	1.1496 (ppm)	41.8688
12/18/2015 18:30:20	LCSW-251660	Ca (227.547 nm)	1.8095 (ppm)	5.19	1.8095 (ppm)	40.8775
12/18/2015 18:30:20	LCSW-251660	Cd (214.439 nm)	0.0487 (ppm)	0.40	0.0487 (ppm)	520.8923
12/18/2015 18:30:20	LCSW-251660	Co (230.786 nm)	0.4712 (ppm)	0.31	0.4712 (ppm)	2255.8564
12/18/2015 18:30:20	LCSW-251660	Cr (267.716 nm)	0.1987 (ppm)	0.41	0.1987 (ppm)	4593.0808
12/18/2015 18:30:20	LCSW-251660	Cu (327.395 nm)	0.2355 (ppm)	0.45	0.2355 (ppm)	7123.2178
12/18/2015 18:30:20	LCSW-251660	Fe (234.350 nm)	0.7559 (ppm)	0.67	0.7559 (ppm)	5790.3934
12/18/2015 18:30:20	LCSW-251660	Fe (234.350 nm)	0.9550 (ppm)	0.36	0.9550 (ppm)	6034.8118
12/18/2015 18:30:20	LCSW-251660	K (766.491 nm)	18.2605 (ppm)	0.28	18.2605 (ppm)	46736.4545
12/18/2015 18:30:20	LCSW-251660	Mg (279.078 nm)	1.2494 (ppm)	0.51	1.2494 (ppm)	2282.6127
12/18/2015 18:30:20	LCSW-251660	Mg (279.078 nm)	1.7702 (ppm)	0.43	1.7702 (ppm)	2405.7602
12/18/2015 18:30:20	LCSW-251660	Mn (257.610 nm)	0.4942 (ppm)	0.41	0.4942 (ppm)	59848.6677
12/18/2015 18:30:20	LCSW-251660	Mo (202.032 nm)	0.4835 (ppm)	0.50	0.4835 (ppm)	2116.5283
12/18/2015 18:30:20	LCSW-251660	Na (588.995 nm)	19.3258 (ppm)	0.29	19.3258 (ppm)	524348.5814
12/18/2015 18:30:20	LCSW-251660	Ni (230.299 nm)	0.4875 (ppm)	0.34	0.4875 (ppm)	1493.1639
12/18/2015 18:30:20	LCSW-251660	Pb (220.353 nm)	0.4918 (ppm)	0.85	0.4918 (ppm)	476.0854
12/18/2015 18:30:20	LCSW-251660	Sb (217.582 nm)	0.4676 (ppm)	1.51	0.4676 (ppm)	261.8033
12/18/2015 18:30:20	LCSW-251660	Se (196.026 nm)	0.9162 (ppm)	0.16	0.9162 (ppm)	320.6404
12/18/2015 18:30:20	LCSW-251660	Sn (189.925 nm)	4.8505 (ppm)	0.85	4.8505 (ppm)	3336.8495
12/18/2015 18:30:20	LCSW-251660	Sr (460.733 nm)	2.0263 (ppm)	0.53	2.0263 (ppm)	26685.4949
12/18/2015 18:30:20	LCSW-251660	Ti (336.122 nm)	0.4791 (ppm)	0.40	0.4791 (ppm)	60198.5135
12/18/2015 18:30:20	LCSW-251660	Tl (351.923 nm)	1.7566 (ppm)	0.36	1.7566 (ppm)	2843.2880
12/18/2015 18:30:20	LCSW-251660	V (292.401 nm)	0.4807 (ppm)	0.45	0.4807 (ppm)	9217.2177
12/18/2015 18:30:20	LCSW-251660	Y (360.074 nm)	1.01 (Ratio)	0.08	1.01 (Ratio)	589679.54
12/18/2015 18:30:20	LCSW-251660	Y_R (360.074 nm)	1.00 (Ratio)	0.46	1.00 (Ratio)	246095.01
12/18/2015 18:30:20	LCSW-251660	Zn (213.857 nm)	0.4650 (ppm)	0.44	0.4650 (ppm)	5807.6034
12/18/2015 18:33:50	R1510586-002 5X	Ag (328.068 nm)	-0.0002 u (ppm)	> 100.00	0.0000 (ppm)	7.3193
12/18/2015 18:33:50	R1510586-002 5X	Al (394.401 nm)	-0.0111 u (ppm)	22.44	-0.0022 (ppm)	127.9316
12/18/2015 18:33:50	R1510586-002 5X	Al (394.401 nm)	-0.1337 u (ppm)	1.99	-0.0267 (ppm)	170.4548
12/18/2015 18:33:50	R1510586-002 5X	As (188.980 nm)	0.0079 u (ppm)	> 100.00	0.0016 (ppm)	2.4155
12/18/2015 18:33:50	R1510586-002 5X	B (249.772 nm)	2.6818 (ppm)	0.31	0.5364 (ppm)	7158.5690
12/18/2015 18:33:50	R1510586-002 5X	Ba (230.424 nm)	0.0264 (ppm)	5.79	0.0053 (ppm)	91.3905
12/18/2015 18:33:50	R1510586-002 5X	Be (313.107 nm)	-0.0001 (ppm)	32.78	0.0000 (ppm)	-55.8526
12/18/2015 18:33:50	R1510586-002 5X	Ca (227.547 nm)	64.1512 (ppm)	0.33	12.8302 (ppm)	465.1028
12/18/2015 18:33:50	R1510586-002 5X	Ca (227.547 nm)	99.6052 (ppm)	0.37	19.9210 (ppm)	473.0304
12/18/2015 18:33:50	R1510586-002 5X	Cd (214.439 nm)	-0.0003 u (ppm)	> 100.00	-0.0001 (ppm)	2.5479
12/18/2015 18:33:50	R1510586-002 5X	Co (230.786 nm)	0.0029 (ppm)	49.19	0.0006 (ppm)	3.8614
12/18/2015 18:33:50	R1510586-002 5X	Cr (267.716 nm)	0.0032 (ppm)	20.60	0.0006 (ppm)	11.0970
12/18/2015 18:33:50	R1510586-002 5X	Cu (327.395 nm)	0.0092 (ppm)	14.64	0.0018 (ppm)	78.2900
12/18/2015 18:33:50	R1510586-002 5X	Fe (234.350 nm)	-0.0088 u (ppm)	18.22	-0.0018 (ppm)	35.8549
12/18/2015 18:33:50	R1510586-002 5X	Fe (234.350 nm)	-0.0529 u (ppm)	3.48	-0.0106 (ppm)	34.3421
12/18/2015 18:33:50	R1510586-002 5X	K (766.491 nm)	13.5996 (ppm)	0.31	2.7199 (ppm)	6927.2096
12/18/2015 18:33:50	R1510586-002 5X	Mg (279.078 nm)	25.7735 (ppm)	0.31	5.1547 (ppm)	9357.6558
12/18/2015 18:33:50	R1510586-002 5X	Mg (279.078 nm)	35.9358 (ppm)	0.26	7.1872 (ppm)	9701.1248
12/18/2015 18:33:50	R1510586-002 5X	Mn (257.610 nm)	0.0161 (ppm)	2.91	0.0032 (ppm)	406.9185
12/18/2015 18:33:50	R1510586-002 5X	Mo (202.032 nm)	-0.0008 u (ppm)	> 100.00	-0.0002 (ppm)	2.7367
12/18/2015 18:33:50	R1510586-002 5X	Na (588.995 nm)	98.8783 (ppm)	0.44	19.7757 (ppm)	536542.7618
12/18/2015 18:33:50	R1510586-002 5X	Ni (230.299 nm)	0.0139 (ppm)	18.55	0.0028 (ppm)	-0.9868

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 18:33:50	R1510586-002 5X	Pb (220.353 nm)	-0.0052 u (ppm)	> 100.00	-0.0010 (ppm)	1.7108
12/18/2015 18:33:50	R1510586-002 5X	Sb (217.582 nm)	-0.0070 u (ppm)	50.11	-0.0014 (ppm)	0.8796
12/18/2015 18:33:50	R1510586-002 5X	Se (196.026 nm)	-0.0024 u (ppm)	> 100.00	-0.0005 (ppm)	0.3261
12/18/2015 18:33:50	R1510586-002 5X	Sn (189.925 nm)	-0.0048 u (ppm)	> 100.00	-0.0010 (ppm)	-0.4280
12/18/2015 18:33:50	R1510586-002 5X	Sr (460.733 nm)	0.3280 (ppm)	6.77	0.0656 (ppm)	933.7796
12/18/2015 18:33:50	R1510586-002 5X	Ti (336.122 nm)	-0.0021 u (ppm)	13.35	-0.0004 (ppm)	-50.9139
12/18/2015 18:33:50	R1510586-002 5X	Tl (351.923 nm)	0.0360 (ppm)	43.06	0.0072 (ppm)	1.3243
12/18/2015 18:33:50	R1510586-002 5X	V (292.401 nm)	0.0025 (ppm)	36.30	0.0005 (ppm)	49.2441
12/18/2015 18:33:50	R1510586-002 5X	Y (360.074 nm)	1.01 (Ratio)	0.45	0.20 (Ratio)	587395.63
12/18/2015 18:33:50	R1510586-002 5X	Y_R (360.074 nm)	1.00 (Ratio)	0.29	0.20 (Ratio)	246233.95
12/18/2015 18:33:50	R1510586-002 5X	Zn (213.857 nm)	0.0105 (ppm)	5.01	0.0021 (ppm)	33.6433
12/18/2015 18:37:18	R1510586-003 5X	Ag (328.068 nm)	-0.0005 u (ppm)	> 100.00	-0.0001 (ppm)	5.2241
12/18/2015 18:37:18	R1510586-003 5X	Al (394.401 nm)	-0.0224 u (ppm)	20.09	-0.0045 (ppm)	103.9053
12/18/2015 18:37:18	R1510586-003 5X	Al (394.401 nm)	-0.0934 u (ppm)	5.90	-0.0187 (ppm)	139.1436
12/18/2015 18:37:18	R1510586-003 5X	As (188.980 nm)	-0.0061 u (ppm)	> 100.00	-0.0012 (ppm)	0.9021
12/18/2015 18:37:18	R1510586-003 5X	B (249.772 nm)	0.0282 (ppm)	2.85	0.0056 (ppm)	90.3794
12/18/2015 18:37:18	R1510586-003 5X	Ba (230.424 nm)	0.0369 (ppm)	2.05	0.0074 (ppm)	121.8162
12/18/2015 18:37:18	R1510586-003 5X	Be (313.107 nm)	-0.0001 (ppm)	43.01	0.0000 (ppm)	-58.7978
12/18/2015 18:37:18	R1510586-003 5X	Ca (227.547 nm)	34.1625 (ppm)	1.13	6.8325 (ppm)	247.7826
12/18/2015 18:37:18	R1510586-003 5X	Ca (227.547 nm)	53.0225 (ppm)	1.06	10.6045 (ppm)	250.6864
12/18/2015 18:37:18	R1510586-003 5X	Cd (214.439 nm)	-0.0006 u (ppm)	39.82	-0.0001 (ppm)	1.7972
12/18/2015 18:37:18	R1510586-003 5X	Co (230.786 nm)	-0.0011 u (ppm)	> 100.00	-0.0002 (ppm)	-0.1931
12/18/2015 18:37:18	R1510586-003 5X	Cr (267.716 nm)	0.0012 (ppm)	43.47	0.0002 (ppm)	2.5435
12/18/2015 18:37:18	R1510586-003 5X	Cu (327.395 nm)	-0.0013 u (ppm)	> 100.00	-0.0003 (ppm)	15.3742
12/18/2015 18:37:18	R1510586-003 5X	Fe (234.350 nm)	-0.0152 u (ppm)	9.60	-0.0030 (ppm)	26.0555
12/18/2015 18:37:18	R1510586-003 5X	Fe (234.350 nm)	-0.0438 u (ppm)	1.97	-0.0088 (ppm)	23.7271
12/18/2015 18:37:18	R1510586-003 5X	K (766.491 nm)	2.3275 (ppm)	1.29	0.4655 (ppm)	1152.5149
12/18/2015 18:37:18	R1510586-003 5X	Mg (279.078 nm)	16.1702 (ppm)	0.71	3.2340 (ppm)	5878.1399
12/18/2015 18:37:18	R1510586-003 5X	Mg (279.078 nm)	22.4402 (ppm)	0.49	4.4880 (ppm)	6065.8228
12/18/2015 18:37:18	R1510586-003 5X	Mn (257.610 nm)	0.0004 (ppm)	50.66	0.0001 (ppm)	21.9506
12/18/2015 18:37:18	R1510586-003 5X	Mo (202.032 nm)	-0.0045 u (ppm)	21.08	-0.0009 (ppm)	-1.1011
12/18/2015 18:37:18	R1510586-003 5X	Na (588.995 nm)	35.3077 (ppm)	0.18	7.0615 (ppm)	186897.2282
12/18/2015 18:37:18	R1510586-003 5X	Ni (230.299 nm)	0.0072 (ppm)	28.96	0.0014 (ppm)	-5.2138
12/18/2015 18:37:18	R1510586-003 5X	Pb (220.353 nm)	-0.0045 u (ppm)	86.61	-0.0009 (ppm)	1.9248
12/18/2015 18:37:18	R1510586-003 5X	Sb (217.582 nm)	-0.0080 u (ppm)	> 100.00	-0.0016 (ppm)	0.6703
12/18/2015 18:37:18	R1510586-003 5X	Se (196.026 nm)	0.0085 u (ppm)	> 100.00	0.0017 (ppm)	1.0669
12/18/2015 18:37:18	R1510586-003 5X	Sn (189.925 nm)	0.0046 u (ppm)	> 100.00	0.0009 (ppm)	0.8661
12/18/2015 18:37:18	R1510586-003 5X	Sr (460.733 nm)	0.1855 (ppm)	23.04	0.0371 (ppm)	557.0073
12/18/2015 18:37:18	R1510586-003 5X	Ti (336.122 nm)	-0.0022 u (ppm)	25.16	-0.0004 (ppm)	-64.8453
12/18/2015 18:37:18	R1510586-003 5X	Tl (351.923 nm)	0.0219 (ppm)	53.65	0.0044 (ppm)	-3.3578
12/18/2015 18:37:18	R1510586-003 5X	V (292.401 nm)	0.0010 (ppm)	69.21	0.0002 (ppm)	41.9127
12/18/2015 18:37:18	R1510586-003 5X	Y (360.074 nm)	1.01 (Ratio)	0.84	0.20 (Ratio)	590100.39
12/18/2015 18:37:18	R1510586-003 5X	Y_R (360.074 nm)	1.02 (Ratio)	0.21	0.20 (Ratio)	249754.46
12/18/2015 18:37:18	R1510586-003 5X	Zn (213.857 nm)	0.0061 (ppm)	9.25	0.0012 (ppm)	19.8903
12/18/2015 18:40:48	R1510586-004 5X	Ag (328.068 nm)	-0.0006 u (ppm)	83.30	-0.0001 (ppm)	4.1859
12/18/2015 18:40:48	R1510586-004 5X	Al (394.401 nm)	0.0322 (ppm)	5.62	0.0064 (ppm)	219.8610
12/18/2015 18:40:48	R1510586-004 5X	Al (394.401 nm)	-0.0347 u (ppm)	11.52	-0.0069 (ppm)	255.8474
12/18/2015 18:40:48	R1510586-004 5X	As (188.980 nm)	0.0085 u (ppm)	> 100.00	0.0017 (ppm)	2.4301
12/18/2015 18:40:48	R1510586-004 5X	B (249.772 nm)	0.0202 (ppm)	2.46	0.0040 (ppm)	69.2752
12/18/2015 18:40:48	R1510586-004 5X	Ba (230.424 nm)	0.0235 (ppm)	1.84	0.0047 (ppm)	81.4277
12/18/2015 18:40:48	R1510586-004 5X	Be (313.107 nm)	-0.0001 (ppm)	54.71	0.0000 (ppm)	-54.7392

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 18:40:48	R1510586-004 5X	Ca (227.547 nm)	40.1117 (ppm)	0.64	8.0223 (ppm)	290.8952
12/18/2015 18:40:48	R1510586-004 5X	Ca (227.547 nm)	62.2464 (ppm)	0.45	12.4493 (ppm)	294.5576
12/18/2015 18:40:48	R1510586-004 5X	Cd (214.439 nm)	0.0001 u (ppm)	> 100.00	0.0000 (ppm)	3.3595
12/18/2015 18:40:48	R1510586-004 5X	Co (230.786 nm)	0.0012 u (ppm)	> 100.00	0.0002 (ppm)	2.0341
12/18/2015 18:40:48	R1510586-004 5X	Cr (267.716 nm)	0.0018 (ppm)	14.63	0.0004 (ppm)	4.5217
12/18/2015 18:40:48	R1510586-004 5X	Cu (327.395 nm)	0.0006 u (ppm)	> 100.00	0.0001 (ppm)	26.1102
12/18/2015 18:40:48	R1510586-004 5X	Fe (234.350 nm)	0.0931 (ppm)	2.55	0.0186 (ppm)	190.5052
12/18/2015 18:40:48	R1510586-004 5X	Fe (234.350 nm)	0.0993 (ppm)	3.99	0.0199 (ppm)	191.4202
12/18/2015 18:40:48	R1510586-004 5X	K (766.491 nm)	25.8022 (ppm)	0.11	5.1604 (ppm)	13179.0375
12/18/2015 18:40:48	R1510586-004 5X	Mg (279.078 nm)	1.0500 (ppm)	1.23	0.2100 (ppm)	399.6750
12/18/2015 18:40:48	R1510586-004 5X	Mg (279.078 nm)	1.4579 (ppm)	1.01	0.2916 (ppm)	418.1190
12/18/2015 18:40:48	R1510586-004 5X	Mn (257.610 nm)	0.0067 (ppm)	3.10	0.0013 (ppm)	174.7570
12/18/2015 18:40:48	R1510586-004 5X	Mo (202.032 nm)	-0.0020 u (ppm)	54.35	-0.0004 (ppm)	1.2628
12/18/2015 18:40:48	R1510586-004 5X	Na (588.995 nm)	7.8686 (ppm)	0.59	1.5737 (ppm)	35954.9295
12/18/2015 18:40:48	R1510586-004 5X	Ni (230.299 nm)	0.0020 u (ppm)	> 100.00	0.0004 (ppm)	-8.5049
12/18/2015 18:40:48	R1510586-004 5X	Pb (220.353 nm)	-0.0079 u (ppm)	> 100.00	-0.0016 (ppm)	1.2631
12/18/2015 18:40:48	R1510586-004 5X	Sb (217.582 nm)	0.0089 u (ppm)	> 100.00	0.0018 (ppm)	2.5060
12/18/2015 18:40:48	R1510586-004 5X	Se (196.026 nm)	-0.0013 u (ppm)	> 100.00	-0.0003 (ppm)	0.3707
12/18/2015 18:40:48	R1510586-004 5X	Sn (189.925 nm)	-0.0054 u (ppm)	> 100.00	-0.0011 (ppm)	-0.5060
12/18/2015 18:40:48	R1510586-004 5X	Sr (460.733 nm)	0.1845 (ppm)	15.29	0.0369 (ppm)	554.8557
12/18/2015 18:40:48	R1510586-004 5X	Ti (336.122 nm)	-0.0008 u (ppm)	65.38	-0.0002 (ppm)	-44.1582
12/18/2015 18:40:48	R1510586-004 5X	Tl (351.923 nm)	0.0004 u (ppm)	> 100.00	0.0001 (ppm)	-10.3205
12/18/2015 18:40:48	R1510586-004 5X	V (292.401 nm)	0.0032 (ppm)	48.28	0.0006 (ppm)	50.3462
12/18/2015 18:40:48	R1510586-004 5X	Y (360.074 nm)	1.02 (Ratio)	1.06	0.20 (Ratio)	592452.16
12/18/2015 18:40:48	R1510586-004 5X	Y_R (360.074 nm)	1.01 (Ratio)	0.40	0.20 (Ratio)	247754.82
12/18/2015 18:40:48	R1510586-004 5X	Zn (213.857 nm)	0.0072 (ppm)	13.42	0.0014 (ppm)	21.6649
12/18/2015 18:44:17	R1510586-005 5X	Ag (328.068 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	9.0407
12/18/2015 18:44:17	R1510586-005 5X	Al (394.401 nm)	0.0268 (ppm)	21.70	0.0054 (ppm)	208.3851
12/18/2015 18:44:17	R1510586-005 5X	Al (394.401 nm)	-0.0765 u (ppm)	10.48	-0.0153 (ppm)	248.7069
12/18/2015 18:44:17	R1510586-005 5X	As (188.980 nm)	-0.0019 u (ppm)	> 100.00	-0.0004 (ppm)	1.3851
12/18/2015 18:44:17	R1510586-005 5X	B (249.772 nm)	0.1697 (ppm)	1.93	0.0339 (ppm)	469.6589
12/18/2015 18:44:17	R1510586-005 5X	Ba (230.424 nm)	0.0306 (ppm)	5.48	0.0061 (ppm)	103.8367
12/18/2015 18:44:17	R1510586-005 5X	Be (313.107 nm)	-0.0002 (ppm)	19.22	0.0000 (ppm)	-67.4677
12/18/2015 18:44:17	R1510586-005 5X	Ca (227.547 nm)	57.0326 (ppm)	0.62	11.4065 (ppm)	413.5159
12/18/2015 18:44:17	R1510586-005 5X	Ca (227.547 nm)	88.4261 (ppm)	0.47	17.6852 (ppm)	419.8362
12/18/2015 18:44:17	R1510586-005 5X	Cd (214.439 nm)	-0.0005 u (ppm)	97.77	-0.0001 (ppm)	2.0490
12/18/2015 18:44:17	R1510586-005 5X	Co (230.786 nm)	0.0034 (ppm)	86.47	0.0007 (ppm)	4.3033
12/18/2015 18:44:17	R1510586-005 5X	Cr (267.716 nm)	0.0026 (ppm)	14.07	0.0005 (ppm)	9.4489
12/18/2015 18:44:17	R1510586-005 5X	Cu (327.395 nm)	0.0009 u (ppm)	> 100.00	0.0002 (ppm)	28.6621
12/18/2015 18:44:17	R1510586-005 5X	Fe (234.350 nm)	0.0593 (ppm)	6.63	0.0119 (ppm)	139.2519
12/18/2015 18:44:17	R1510586-005 5X	Fe (234.350 nm)	0.0243 (ppm)	25.65	0.0049 (ppm)	141.8547
12/18/2015 18:44:17	R1510586-005 5X	K (766.491 nm)	18.2293 (ppm)	0.82	3.6459 (ppm)	9299.4124
12/18/2015 18:44:17	R1510586-005 5X	Mg (279.078 nm)	41.0196 (ppm)	0.64	8.2039 (ppm)	14881.7011
12/18/2015 18:44:17	R1510586-005 5X	Mg (279.078 nm)	57.5623 (ppm)	0.57	11.5125 (ppm)	15522.1339
12/18/2015 18:44:17	R1510586-005 5X	Mn (257.610 nm)	0.0068 (ppm)	1.69	0.0014 (ppm)	182.4665
12/18/2015 18:44:17	R1510586-005 5X	Mo (202.032 nm)	-0.0024 u (ppm)	37.16	-0.0005 (ppm)	1.1535
12/18/2015 18:44:17	R1510586-005 5X	Na (588.995 nm)	61.8607 (ppm)	0.46	12.3721 (ppm)	332863.1159
12/18/2015 18:44:17	R1510586-005 5X	Ni (230.299 nm)	0.0048 (ppm)	18.32	0.0010 (ppm)	-6.5672
12/18/2015 18:44:17	R1510586-005 5X	Pb (220.353 nm)	-0.0106 u (ppm)	63.58	-0.0021 (ppm)	0.6872
12/18/2015 18:44:17	R1510586-005 5X	Sb (217.582 nm)	0.0036 u (ppm)	> 100.00	0.0007 (ppm)	2.1065
12/18/2015 18:44:17	R1510586-005 5X	Se (196.026 nm)	-0.0303 u (ppm)	89.63	-0.0061 (ppm)	-1.6095

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 18:44:17	R1510586-005 5X	Sn (189.925 nm)	-0.0090 u (ppm)	75.70	-0.0018 (ppm)	-1.0040
12/18/2015 18:44:17	R1510586-005 5X	Sr (460.733 nm)	0.2303 (ppm)	10.93	0.0461 (ppm)	676.2415
12/18/2015 18:44:17	R1510586-005 5X	Ti (336.122 nm)	-0.0034 u (ppm)	5.48	-0.0007 (ppm)	-71.4913
12/18/2015 18:44:17	R1510586-005 5X	Tl (351.923 nm)	0.0048 u (ppm)	> 100.00	0.0010 (ppm)	-8.8889
12/18/2015 18:44:17	R1510586-005 5X	V (292.401 nm)	0.0027 (ppm)	26.38	0.0005 (ppm)	49.7661
12/18/2015 18:44:17	R1510586-005 5X	Y (360.074 nm)	1.01 (Ratio)	0.73	0.20 (Ratio)	587610.61
12/18/2015 18:44:17	R1510586-005 5X	Y_R (360.074 nm)	1.01 (Ratio)	0.52	0.20 (Ratio)	246981.35
12/18/2015 18:44:17	R1510586-005 5X	Zn (213.857 nm)	0.0051 (ppm)	6.83	0.0010 (ppm)	21.0511
12/18/2015 18:47:47	R1510586-006 5X	Ag (328.068 nm)	-0.0008 u (ppm)	75.12	-0.0002 (ppm)	3.2752
12/18/2015 18:47:47	R1510586-006 5X	Al (394.401 nm)	-0.0133 u (ppm)	13.97	-0.0027 (ppm)	123.2590
12/18/2015 18:47:47	R1510586-006 5X	Al (394.401 nm)	-0.1258 u (ppm)	1.56	-0.0252 (ppm)	161.6630
12/18/2015 18:47:47	R1510586-006 5X	As (188.980 nm)	-0.0067 u (ppm)	> 100.00	-0.0013 (ppm)	0.8719
12/18/2015 18:47:47	R1510586-006 5X	B (249.772 nm)	0.2821 (ppm)	0.67	0.0564 (ppm)	768.5900
12/18/2015 18:47:47	R1510586-006 5X	Ba (230.424 nm)	0.0682 (ppm)	0.88	0.0136 (ppm)	217.3882
12/18/2015 18:47:47	R1510586-006 5X	Be (313.107 nm)	-0.0001 (ppm)	23.02	0.0000 (ppm)	-59.6297
12/18/2015 18:47:47	R1510586-006 5X	Ca (227.547 nm)	57.4311 (ppm)	1.31	11.4862 (ppm)	416.4039
12/18/2015 18:47:47	R1510586-006 5X	Ca (227.547 nm)	89.0361 (ppm)	1.26	17.8072 (ppm)	422.5940
12/18/2015 18:47:47	R1510586-006 5X	Cd (214.439 nm)	-0.0010 u (ppm)	27.24	-0.0002 (ppm)	1.0642
12/18/2015 18:47:47	R1510586-006 5X	Co (230.786 nm)	0.0003 u (ppm)	> 100.00	0.0001 (ppm)	1.3099
12/18/2015 18:47:47	R1510586-006 5X	Cr (267.716 nm)	0.0008 (ppm)	69.23	0.0002 (ppm)	0.5095
12/18/2015 18:47:47	R1510586-006 5X	Cu (327.395 nm)	0.0016 u (ppm)	> 100.00	0.0003 (ppm)	32.3359
12/18/2015 18:47:47	R1510586-006 5X	Fe (234.350 nm)	0.0659 (ppm)	1.71	0.0132 (ppm)	149.2074
12/18/2015 18:47:47	R1510586-006 5X	Fe (234.350 nm)	0.0434 (ppm)	0.92	0.0087 (ppm)	150.7046
12/18/2015 18:47:47	R1510586-006 5X	K (766.491 nm)	22.1329 (ppm)	0.89	4.4266 (ppm)	11299.1196
12/18/2015 18:47:47	R1510586-006 5X	Mg (279.078 nm)	24.5576 (ppm)	0.61	4.9115 (ppm)	8917.0832
12/18/2015 18:47:47	R1510586-006 5X	Mg (279.078 nm)	34.6259 (ppm)	0.51	6.9252 (ppm)	9347.9590
12/18/2015 18:47:47	R1510586-006 5X	Mn (257.610 nm)	0.0425 (ppm)	0.62	0.0085 (ppm)	1046.6002
12/18/2015 18:47:47	R1510586-006 5X	Mo (202.032 nm)	-0.0040 u (ppm)	59.16	-0.0008 (ppm)	-0.1631
12/18/2015 18:47:47	R1510586-006 5X	Na (588.995 nm)	48.1688 (ppm)	0.24	9.6338 (ppm)	257572.8863
12/18/2015 18:47:47	R1510586-006 5X	Ni (230.299 nm)	0.0088 (ppm)	57.47	0.0018 (ppm)	4.1805
12/18/2015 18:47:47	R1510586-006 5X	Pb (220.353 nm)	-0.0015 u (ppm)	> 100.00	-0.0003 (ppm)	2.4393
12/18/2015 18:47:47	R1510586-006 5X	Sb (217.582 nm)	-0.0066 u (ppm)	> 100.00	-0.0013 (ppm)	0.9136
12/18/2015 18:47:47	R1510586-006 5X	Se (196.026 nm)	0.0084 u (ppm)	> 100.00	0.0017 (ppm)	1.0814
12/18/2015 18:47:47	R1510586-006 5X	Sn (189.925 nm)	0.0039 u (ppm)	> 100.00	0.0008 (ppm)	0.7769
12/18/2015 18:47:47	R1510586-006 5X	Sr (460.733 nm)	0.2514 (ppm)	8.07	0.0503 (ppm)	731.7966
12/18/2015 18:47:47	R1510586-006 5X	Ti (336.122 nm)	-0.0030 u (ppm)	16.62	-0.0006 (ppm)	-76.6487
12/18/2015 18:47:47	R1510586-006 5X	Tl (351.923 nm)	0.0054 u (ppm)	> 100.00	0.0011 (ppm)	-8.6419
12/18/2015 18:47:47	R1510586-006 5X	V (292.401 nm)	0.0008 (ppm)	81.07	0.0002 (ppm)	42.2843
12/18/2015 18:47:47	R1510586-006 5X	Y (360.074 nm)	1.02 (Ratio)	0.72	0.20 (Ratio)	593253.37
12/18/2015 18:47:47	R1510586-006 5X	Y_R (360.074 nm)	1.01 (Ratio)	0.23	0.20 (Ratio)	248865.09
12/18/2015 18:47:47	R1510586-006 5X	Zn (213.857 nm)	0.0058 (ppm)	12.36	0.0012 (ppm)	21.2403
12/18/2015 18:51:16	R1510601-002 10X	Ag (328.068 nm)	-0.0022 u (ppm)	> 100.00	-0.0002 (ppm)	0.5103
12/18/2015 18:51:16	R1510601-002 10X	Al (394.401 nm)	-0.0007 u (ppm)	> 100.00	-0.0001 (ppm)	150.7998
12/18/2015 18:51:16	R1510601-002 10X	Al (394.401 nm)	-0.4854 u (ppm)	2.79	-0.0485 (ppm)	193.6794
12/18/2015 18:51:16	R1510601-002 10X	As (188.980 nm)	0.0128 u (ppm)	> 100.00	0.0013 (ppm)	2.3275
12/18/2015 18:51:16	R1510601-002 10X	B (249.772 nm)	0.1051 (ppm)	2.20	0.0105 (ppm)	163.6272
12/18/2015 18:51:16	R1510601-002 10X	Ba (230.424 nm)	0.0202 (ppm)	10.02	0.0020 (ppm)	45.3175
12/18/2015 18:51:16	R1510601-002 10X	Be (313.107 nm)	-0.0002 (ppm)	2.25	0.0000 (ppm)	-46.1452
12/18/2015 18:51:16	R1510601-002 10X	Ca (227.547 nm)	255.1313 (ppm)	1.02	25.5131 (ppm)	924.6503
12/18/2015 18:51:16	R1510601-002 10X	Ca (227.547 nm)	393.9038 (ppm)	1.02	39.3904 (ppm)	937.6021
12/18/2015 18:51:16	R1510601-002 10X	Cd (214.439 nm)	-0.0018 u (ppm)	88.29	-0.0002 (ppm)	1.6449

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 18:51:16	R1510601-002 10X	Co (230.786 nm)	0.0033 (ppm)	> 100.00	0.0003 (ppm)	3.0490
12/18/2015 18:51:16	R1510601-002 10X	Cr (267.716 nm)	-0.0004 u (ppm)	> 100.00	0.0000 (ppm)	-6.2546
12/18/2015 18:51:16	R1510601-002 10X	Cu (327.395 nm)	-0.0019 u (ppm)	> 100.00	-0.0002 (ppm)	16.0062
12/18/2015 18:51:16	R1510601-002 10X	Fe (234.350 nm)	1.5915 (ppm)	1.32	0.1591 (ppm)	1257.9619
12/18/2015 18:51:16	R1510601-002 10X	Fe (234.350 nm)	1.8602 (ppm)	1.61	0.1860 (ppm)	1300.7027
12/18/2015 18:51:16	R1510601-002 10X	K (766.491 nm)	3.5910 (ppm)	8.28	0.3591 (ppm)	878.5315
12/18/2015 18:51:16	R1510601-002 10X	Mg (279.078 nm)	71.4297 (ppm)	0.96	7.1430 (ppm)	12959.6739
12/18/2015 18:51:16	R1510601-002 10X	Mg (279.078 nm)	100.4288 (ppm)	1.01	10.0429 (ppm)	13549.9526
12/18/2015 18:51:16	R1510601-002 10X	Mn (257.610 nm)	0.0235 (ppm)	2.69	0.0023 (ppm)	314.3299
12/18/2015 18:51:16	R1510601-002 10X	Mo (202.032 nm)	-0.0105 u (ppm)	24.02	-0.0011 (ppm)	0.0169
12/18/2015 18:51:16	R1510601-002 10X	Na (588.995 nm)	29.1055 (ppm)	0.58	2.9106 (ppm)	72410.6146
12/18/2015 18:51:16	R1510601-002 10X	Ni (230.299 nm)	0.0076 u (ppm)	> 100.00	0.0008 (ppm)	-7.1384
12/18/2015 18:51:16	R1510601-002 10X	Pb (220.353 nm)	-0.0337 u (ppm)	38.69	-0.0034 (ppm)	-0.6927
12/18/2015 18:51:16	R1510601-002 10X	Sb (217.582 nm)	-0.0129 u (ppm)	> 100.00	-0.0013 (ppm)	1.1284
12/18/2015 18:51:16	R1510601-002 10X	Se (196.026 nm)	-0.0056 u (ppm)	> 100.00	-0.0006 (ppm)	0.3296
12/18/2015 18:51:16	R1510601-002 10X	Sn (189.925 nm)	-0.0153 u (ppm)	10.11	-0.0015 (ppm)	-0.7862
12/18/2015 18:51:16	R1510601-002 10X	Sr (460.733 nm)	18.9518 (ppm)	0.46	1.8952 (ppm)	24975.6758
12/18/2015 18:51:16	R1510601-002 10X	Ti (336.122 nm)	-0.0083 u (ppm)	3.96	-0.0008 (ppm)	-86.5486
12/18/2015 18:51:16	R1510601-002 10X	Tl (351.923 nm)	0.0047 u (ppm)	> 100.00	0.0005 (ppm)	-9.4002
12/18/2015 18:51:16	R1510601-002 10X	V (292.401 nm)	0.0001 u (ppm)	> 100.00	0.0000 (ppm)	42.9731
12/18/2015 18:51:16	R1510601-002 10X	Y (360.074 nm)	1.01 (Ratio)	1.10	0.10 (Ratio)	590691.80
12/18/2015 18:51:16	R1510601-002 10X	Y_R (360.074 nm)	1.01 (Ratio)	0.37	0.10 (Ratio)	247234.32
12/18/2015 18:51:16	R1510601-002 10X	Zn (213.857 nm)	0.1493 (ppm)	1.77	0.0149 (ppm)	198.9212
12/18/2015 18:54:45	R1510601-003 5X	Ag (328.068 nm)	0.0004 u (ppm)	> 100.00	0.0001 (ppm)	12.1865
12/18/2015 18:54:45	R1510601-003 5X	Al (394.401 nm)	-0.0139 u (ppm)	27.80	-0.0028 (ppm)	121.9150
12/18/2015 18:54:45	R1510601-003 5X	Al (394.401 nm)	-0.1465 u (ppm)	3.61	-0.0293 (ppm)	160.5083
12/18/2015 18:54:45	R1510601-003 5X	As (188.980 nm)	0.0083 u (ppm)	94.60	0.0017 (ppm)	2.4784
12/18/2015 18:54:45	R1510601-003 5X	B (249.772 nm)	0.2567 (ppm)	1.36	0.0513 (ppm)	702.4562
12/18/2015 18:54:45	R1510601-003 5X	Ba (230.424 nm)	0.0321 (ppm)	1.25	0.0064 (ppm)	108.8282
12/18/2015 18:54:45	R1510601-003 5X	Be (313.107 nm)	-0.0002 (ppm)	13.81	0.0000 (ppm)	-62.1355
12/18/2015 18:54:45	R1510601-003 5X	Ca (227.547 nm)	66.1521 (ppm)	1.13	13.2304 (ppm)	479.6029
12/18/2015 18:54:45	R1510601-003 5X	Ca (227.547 nm)	102.0667 (ppm)	1.37	20.4133 (ppm)	485.0015
12/18/2015 18:54:45	R1510601-003 5X	Cd (214.439 nm)	-0.0005 u (ppm)	> 100.00	-0.0001 (ppm)	2.1619
12/18/2015 18:54:45	R1510601-003 5X	Co (230.786 nm)	0.0031 (ppm)	69.86	0.0006 (ppm)	4.0432
12/18/2015 18:54:45	R1510601-003 5X	Cr (267.716 nm)	0.0007 (ppm)	50.85	0.0001 (ppm)	0.7939
12/18/2015 18:54:45	R1510601-003 5X	Cu (327.395 nm)	-0.0009 u (ppm)	> 100.00	-0.0002 (ppm)	18.0389
12/18/2015 18:54:45	R1510601-003 5X	Fe (234.350 nm)	-0.0204 u (ppm)	4.96	-0.0041 (ppm)	18.1730
12/18/2015 18:54:45	R1510601-003 5X	Fe (234.350 nm)	-0.0859 u (ppm)	1.78	-0.0172 (ppm)	16.5128
12/18/2015 18:54:45	R1510601-003 5X	K (766.491 nm)	2.8059 (ppm)	1.71	0.5612 (ppm)	1397.4803
12/18/2015 18:54:45	R1510601-003 5X	Mg (279.078 nm)	50.2154 (ppm)	1.14	10.0431 (ppm)	18213.5947
12/18/2015 18:54:45	R1510601-003 5X	Mg (279.078 nm)	70.7340 (ppm)	1.11	14.1468 (ppm)	19068.5379
12/18/2015 18:54:45	R1510601-003 5X	Mn (257.610 nm)	0.0020 (ppm)	8.39	0.0004 (ppm)	67.3547
12/18/2015 18:54:45	R1510601-003 5X	Mo (202.032 nm)	-0.0001 u (ppm)	> 100.00	0.0000 (ppm)	3.3948
12/18/2015 18:54:45	R1510601-003 5X	Na (588.995 nm)	89.0368 (ppm)	0.30	17.8074 (ppm)	482332.5444
12/18/2015 18:54:45	R1510601-003 5X	Ni (230.299 nm)	0.0131 (ppm)	15.62	0.0026 (ppm)	-1.3604
12/18/2015 18:54:45	R1510601-003 5X	Pb (220.353 nm)	-0.0138 u (ppm)	> 100.00	-0.0028 (ppm)	0.0290
12/18/2015 18:54:45	R1510601-003 5X	Sb (217.582 nm)	-0.0138 u (ppm)	84.79	-0.0028 (ppm)	0.2193
12/18/2015 18:54:45	R1510601-003 5X	Se (196.026 nm)	-0.0043 u (ppm)	> 100.00	-0.0009 (ppm)	0.2187
12/18/2015 18:54:45	R1510601-003 5X	Sn (189.925 nm)	-0.0016 u (ppm)	> 100.00	-0.0003 (ppm)	0.0089
12/18/2015 18:54:45	R1510601-003 5X	Sr (460.733 nm)	2.9364 (ppm)	0.58	0.5873 (ppm)	7787.9458
12/18/2015 18:54:45	R1510601-003 5X	Ti (336.122 nm)	-0.0043 u (ppm)	5.03	-0.0009 (ppm)	-82.0609

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 18:54:45	R1510601-003 5X	Tl (351.923 nm)	-0.0133 u (ppm)	45.98	-0.0027 (ppm)	-14.7283
12/18/2015 18:54:45	R1510601-003 5X	V (292.401 nm)	0.0016 (ppm)	57.82	0.0003 (ppm)	46.4901
12/18/2015 18:54:45	R1510601-003 5X	Y (360.074 nm)	1.01 (Ratio)	1.26	0.20 (Ratio)	586628.91
12/18/2015 18:54:45	R1510601-003 5X	Y_R (360.074 nm)	1.00 (Ratio)	0.19	0.20 (Ratio)	246012.94
12/18/2015 18:54:45	R1510601-003 5X	Zn (213.857 nm)	0.0168 (ppm)	8.57	0.0034 (ppm)	51.5071
12/18/2015 18:58:14	R1510601-003D 5X	Ag (328.068 nm)	-0.0010 u (ppm)	98.97	-0.0002 (ppm)	1.1729
12/18/2015 18:58:14	R1510601-003D 5X	Al (394.401 nm)	-0.0179 u (ppm)	12.87	-0.0036 (ppm)	113.4937
12/18/2015 18:58:14	R1510601-003D 5X	Al (394.401 nm)	-0.1476 u (ppm)	2.19	-0.0295 (ppm)	153.1559
12/18/2015 18:58:14	R1510601-003D 5X	As (188.980 nm)	-0.0044 u (ppm)	> 100.00	-0.0009 (ppm)	1.1443
12/18/2015 18:58:14	R1510601-003D 5X	B (249.772 nm)	0.2509 (ppm)	0.75	0.0502 (ppm)	686.8694
12/18/2015 18:58:14	R1510601-003D 5X	Ba (230.424 nm)	0.0323 (ppm)	1.15	0.0065 (ppm)	109.3337
12/18/2015 18:58:14	R1510601-003D 5X	Be (313.107 nm)	-0.0002 (ppm)	7.65	0.0000 (ppm)	-65.4543
12/18/2015 18:58:14	R1510601-003D 5X	Ca (227.547 nm)	64.5453 (ppm)	1.07	12.9091 (ppm)	467.9590
12/18/2015 18:58:14	R1510601-003D 5X	Ca (227.547 nm)	99.7935 (ppm)	0.96	19.9587 (ppm)	474.1437
12/18/2015 18:58:14	R1510601-003D 5X	Cd (214.439 nm)	-0.0001 u (ppm)	> 100.00	0.0000 (ppm)	3.0856
12/18/2015 18:58:14	R1510601-003D 5X	Co (230.786 nm)	0.0029 (ppm)	55.38	0.0006 (ppm)	3.8843
12/18/2015 18:58:14	R1510601-003D 5X	Cr (267.716 nm)	0.0008 (ppm)	> 100.00	0.0002 (ppm)	1.4446
12/18/2015 18:58:14	R1510601-003D 5X	Cu (327.395 nm)	-0.0024 u (ppm)	12.43	-0.0005 (ppm)	8.5046
12/18/2015 18:58:14	R1510601-003D 5X	Fe (234.350 nm)	-0.0206 u (ppm)	4.12	-0.0041 (ppm)	17.8876
12/18/2015 18:58:14	R1510601-003D 5X	Fe (234.350 nm)	-0.0862 u (ppm)	0.75	-0.0172 (ppm)	14.1613
12/18/2015 18:58:14	R1510601-003D 5X	K (766.491 nm)	2.9127 (ppm)	3.68	0.5825 (ppm)	1452.2431
12/18/2015 18:58:14	R1510601-003D 5X	Mg (279.078 nm)	48.9204 (ppm)	0.64	9.7841 (ppm)	17744.3996
12/18/2015 18:58:14	R1510601-003D 5X	Mg (279.078 nm)	69.1473 (ppm)	0.53	13.8295 (ppm)	18641.2900
12/18/2015 18:58:14	R1510601-003D 5X	Mn (257.610 nm)	0.0008 (ppm)	8.84	0.0002 (ppm)	37.7996
12/18/2015 18:58:14	R1510601-003D 5X	Mo (202.032 nm)	0.0002 u (ppm)	> 100.00	0.0000 (ppm)	3.5462
12/18/2015 18:58:14	R1510601-003D 5X	Na (588.995 nm)	87.8095 (ppm)	0.59	17.5619 (ppm)	475587.5439
12/18/2015 18:58:14	R1510601-003D 5X	Ni (230.299 nm)	0.0054 (ppm)	15.71	0.0011 (ppm)	-6.1506
12/18/2015 18:58:14	R1510601-003D 5X	Pb (220.353 nm)	-0.0069 u (ppm)	> 100.00	-0.0014 (ppm)	1.3765
12/18/2015 18:58:14	R1510601-003D 5X	Sb (217.582 nm)	-0.0158 u (ppm)	86.95	-0.0032 (ppm)	-0.0048
12/18/2015 18:58:14	R1510601-003D 5X	Se (196.026 nm)	-0.0042 u (ppm)	> 100.00	-0.0008 (ppm)	0.2269
12/18/2015 18:58:14	R1510601-003D 5X	Sn (189.925 nm)	-0.0111 u (ppm)	54.78	-0.0022 (ppm)	-1.2950
12/18/2015 18:58:14	R1510601-003D 5X	Sr (460.733 nm)	2.8924 (ppm)	0.50	0.5785 (ppm)	7672.2064
12/18/2015 18:58:14	R1510601-003D 5X	Ti (336.122 nm)	-0.0042 u (ppm)	4.60	-0.0008 (ppm)	-83.0475
12/18/2015 18:58:14	R1510601-003D 5X	Tl (351.923 nm)	0.0014 u (ppm)	> 100.00	0.0003 (ppm)	-9.9615
12/18/2015 18:58:14	R1510601-003D 5X	V (292.401 nm)	0.0018 (ppm)	43.56	0.0004 (ppm)	47.0601
12/18/2015 18:58:14	R1510601-003D 5X	Y (360.074 nm)	1.01 (Ratio)	0.70	0.20 (Ratio)	589508.44
12/18/2015 18:58:14	R1510601-003D 5X	Y_R (360.074 nm)	1.00 (Ratio)	0.75	0.20 (Ratio)	244256.87
12/18/2015 18:58:14	R1510601-003D 5X	Zn (213.857 nm)	0.0088 (ppm)	9.14	0.0018 (ppm)	31.5101
12/18/2015 19:01:43	Continuing Calibration Verification	Ag (328.068 nm)	0.4650 (ppm)	1.82	0.4650 (ppm)	18117.3243
12/18/2015 19:01:43	Continuing Calibration Verification	Al (394.401 nm)	7.3330 (ppm)	1.70	7.3330 (ppm)	77967.1131
12/18/2015 19:01:43	Continuing Calibration Verification	Al (394.401 nm)	9.1776 (ppm)	1.71	9.1776 (ppm)	79148.7930
12/18/2015 19:01:43	Continuing Calibration Verification	As (188.980 nm)	0.9279 (ppm)	1.81	0.9279 (ppm)	490.6339
12/18/2015 19:01:43	Continuing Calibration Verification	B (249.772 nm)	2.3310 (ppm)	1.74	2.3310 (ppm)	31050.9245
12/18/2015 19:01:43	Continuing Calibration Verification	Ba (230.424 nm)	9.7998 (ppm)	1.70	9.7998 (ppm)	148162.3400
12/18/2015 19:01:43	Continuing Calibration Verification	Be (313.107 nm)	0.2447 (ppm)	1.69	0.2447 (ppm)	214106.0945
12/18/2015 19:01:43	Continuing Calibration Verification	Ca (227.547 nm)	15.2765 (ppm)	1.50	15.2765 (ppm)	553.7387
12/18/2015 19:01:43	Continuing Calibration Verification	Ca (227.547 nm)	23.5888 (ppm)	1.71	23.5888 (ppm)	561.5240
12/18/2015 19:01:43	Continuing Calibration Verification	Cd (214.439 nm)	0.4880 (ppm)	1.70	0.4880 (ppm)	5196.4771
12/18/2015 19:01:43	Continuing Calibration Verification	Co (230.786 nm)	2.3700 (ppm)	1.82	2.3700 (ppm)	11345.1164
12/18/2015 19:01:43	Continuing Calibration Verification	Cr (267.716 nm)	0.5016 (ppm)	1.74	0.5016 (ppm)	11595.7805
12/18/2015 19:01:43	Continuing Calibration Verification	Cu (327.395 nm)	1.1655 (ppm)	1.75	1.1655 (ppm)	35157.3617

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 19:01:43	Continuing Calibration Verification	Fe (234.350 nm)	3.7841 (ppm)	1.71	3.7841 (ppm)	28791.7341
12/18/2015 19:01:43	Continuing Calibration Verification	Fe (234.350 nm)	4.7909 (ppm)	1.78	4.7909 (ppm)	30147.0646
12/18/2015 19:01:43	Continuing Calibration Verification	K (766.491 nm)	23.5897 (ppm)	0.32	23.5897 (ppm)	60383.6162
12/18/2015 19:01:43	Continuing Calibration Verification	Mg (279.078 nm)	16.3571 (ppm)	1.69	16.3571 (ppm)	29652.2075
12/18/2015 19:01:43	Continuing Calibration Verification	Mg (279.078 nm)	23.2282 (ppm)	1.63	23.2282 (ppm)	31293.9312
12/18/2015 19:01:43	Continuing Calibration Verification	Mn (257.610 nm)	0.7378 (ppm)	1.68	0.7378 (ppm)	89365.9958
12/18/2015 19:01:43	Continuing Calibration Verification	Mo (202.032 nm)	2.3781 (ppm)	1.71	2.3781 (ppm)	10402.4575
12/18/2015 19:01:43	Continuing Calibration Verification	Na (588.995 nm)	23.7333 (ppm)	0.22	23.7333 (ppm)	645138.5035
12/18/2015 19:01:43	Continuing Calibration Verification	Ni (230.299 nm)	1.9903 (ppm)	1.84	1.9903 (ppm)	6126.7640
12/18/2015 19:01:43	Continuing Calibration Verification	Pb (220.353 nm)	0.4871 (ppm)	1.45	0.4871 (ppm)	470.8309
12/18/2015 19:01:43	Continuing Calibration Verification	Sb (217.582 nm)	4.7510 (ppm)	1.96	4.7510 (ppm)	2646.5729
12/18/2015 19:01:43	Continuing Calibration Verification	Se (196.026 nm)	0.4759 (ppm)	1.34	0.4759 (ppm)	166.7971
12/18/2015 19:01:43	Continuing Calibration Verification	Sn (189.925 nm)	4.7735 (ppm)	1.91	4.7735 (ppm)	3284.2806
12/18/2015 19:01:43	Continuing Calibration Verification	Sr (460.733 nm)	2.3873 (ppm)	0.47	2.3873 (ppm)	31416.9197
12/18/2015 19:01:43	Continuing Calibration Verification	Ti (336.122 nm)	2.3731 (ppm)	1.70	2.3731 (ppm)	298352.8615
12/18/2015 19:01:43	Continuing Calibration Verification	Tl (351.923 nm)	0.9539 (ppm)	1.75	0.9539 (ppm)	1539.3853
12/18/2015 19:01:43	Continuing Calibration Verification	V (292.401 nm)	2.4033 (ppm)	0.40	2.4033 (ppm)	45941.2430
12/18/2015 19:01:43	Continuing Calibration Verification	Y (360.074 nm)	0.99 (Ratio)	1.67	0.99 (Ratio)	575268.40
12/18/2015 19:01:43	Continuing Calibration Verification	Y_R (360.074 nm)	0.99 (Ratio)	0.49	0.99 (Ratio)	242295.08
12/18/2015 19:01:43	Continuing Calibration Verification	Zn (213.857 nm)	0.9726 (ppm)	1.97	0.9726 (ppm)	12158.5203
12/18/2015 19:05:12	Continuing Calibration Blank	Ag (328.068 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	10.1132
12/18/2015 19:05:12	Continuing Calibration Blank	Al (394.401 nm)	-0.0093 u (ppm)	3.71	-0.0093 (ppm)	52.9640
12/18/2015 19:05:12	Continuing Calibration Blank	Al (394.401 nm)	-0.0123 u (ppm)	4.43	-0.0123 (ppm)	78.7972
12/18/2015 19:05:12	Continuing Calibration Blank	As (188.980 nm)	-0.0033 u (ppm)	43.55	-0.0033 (ppm)	-0.2441
12/18/2015 19:05:12	Continuing Calibration Blank	B (249.772 nm)	0.0011 (ppm)	22.94	0.0011 (ppm)	27.0162
12/18/2015 19:05:12	Continuing Calibration Blank	Ba (230.424 nm)	0.0023 (ppm)	40.24	0.0023 (ppm)	43.4000
12/18/2015 19:05:12	Continuing Calibration Blank	Be (313.107 nm)	0.0000 (ppm)	67.40	0.0000 (ppm)	-10.4485
12/18/2015 19:05:12	Continuing Calibration Blank	Ca (227.547 nm)	0.0491 (ppm)	29.40	0.0491 (ppm)	1.9958
12/18/2015 19:05:12	Continuing Calibration Blank	Ca (227.547 nm)	0.0843 (ppm)	59.21	0.0843 (ppm)	-0.4326
12/18/2015 19:05:12	Continuing Calibration Blank	Cd (214.439 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	2.6108
12/18/2015 19:05:12	Continuing Calibration Blank	Co (230.786 nm)	0.0007 (ppm)	60.22	0.0007 (ppm)	3.9378
12/18/2015 19:05:12	Continuing Calibration Blank	Cr (267.716 nm)	0.0002 (ppm)	5.87	0.0002 (ppm)	2.0678
12/18/2015 19:05:12	Continuing Calibration Blank	Cu (327.395 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	22.8378
12/18/2015 19:05:12	Continuing Calibration Blank	Fe (234.350 nm)	-0.0040 u (ppm)	19.62	-0.0040 (ppm)	18.6695
12/18/2015 19:05:12	Continuing Calibration Blank	Fe (234.350 nm)	-0.0055 u (ppm)	17.89	-0.0055 (ppm)	14.4459
12/18/2015 19:05:12	Continuing Calibration Blank	K (766.491 nm)	-0.0013 u (ppm)	> 100.00	-0.0013 (ppm)	-42.9744
12/18/2015 19:05:12	Continuing Calibration Blank	Mg (279.078 nm)	-0.0068 u (ppm)	24.48	-0.0068 (ppm)	6.9536
12/18/2015 19:05:12	Continuing Calibration Blank	Mg (279.078 nm)	-0.0110 u (ppm)	20.64	-0.0110 (ppm)	7.6379
12/18/2015 19:05:12	Continuing Calibration Blank	Mn (257.610 nm)	0.0002 (ppm)	52.77	0.0002 (ppm)	27.1561
12/18/2015 19:05:12	Continuing Calibration Blank	Mo (202.032 nm)	0.0012 (ppm)	17.18	0.0012 (ppm)	7.4908
12/18/2015 19:05:12	Continuing Calibration Blank	Na (588.995 nm)	0.0103 (ppm)	18.89	0.0103 (ppm)	-6944.7847
12/18/2015 19:05:12	Continuing Calibration Blank	Ni (230.299 nm)	0.0009 (ppm)	64.82	0.0009 (ppm)	-6.9416
12/18/2015 19:05:12	Continuing Calibration Blank	Pb (220.353 nm)	0.0014 u (ppm)	> 100.00	0.0014 (ppm)	4.2415
12/18/2015 19:05:12	Continuing Calibration Blank	Sb (217.582 nm)	0.0044 (ppm)	67.98	0.0044 (ppm)	3.8662
12/18/2015 19:05:12	Continuing Calibration Blank	Se (196.026 nm)	0.0058 Zu (ppm)	> 100.00	0.0058 (ppm)	2.4691 Z
12/18/2015 19:05:12	Continuing Calibration Blank	Sn (189.925 nm)	0.0006 u (ppm)	> 100.00	0.0006 (ppm)	0.6140
12/18/2015 19:05:12	Continuing Calibration Blank	Sr (460.733 nm)	-0.0003 u (ppm)	> 100.00	-0.0003 (ppm)	62.5387
12/18/2015 19:05:12	Continuing Calibration Blank	Ti (336.122 nm)	0.0005 (ppm)	52.14	0.0005 (ppm)	34.2922
12/18/2015 19:05:12	Continuing Calibration Blank	Tl (351.923 nm)	0.0054 (ppm)	36.11	0.0054 (ppm)	-1.8825
12/18/2015 19:05:12	Continuing Calibration Blank	V (292.401 nm)	0.0008 (ppm)	35.50	0.0008 (ppm)	50.4127
12/18/2015 19:05:12	Continuing Calibration Blank	Y (360.074 nm)	1.02 (Ratio)	1.28	1.02 (Ratio)	596303.84

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 19:05:12	Continuing Calibration Blank	Y_R (360.074 nm)	1.01 (Ratio)	0.39	1.01 (Ratio)	247033.88
12/18/2015 19:05:12	Continuing Calibration Blank	Zn (213.857 nm)	0.0005 (ppm)	32.21	0.0005 (ppm)	7.6114
12/18/2015 19:08:41	R1510601-0013S 5X	Ag (328.068 nm)	0.0476 (ppm)	1.48	0.0095 (ppm)	379.8648
12/18/2015 19:08:41	R1510601-0013S 5X	Al (394.401 nm)	1.4187 (ppm)	1.23	0.2837 (ppm)	3162.5159
12/18/2015 19:08:41	R1510601-0013S 5X	Al (394.401 nm)	1.6631 (ppm)	1.33	0.3326 (ppm)	3261.6250
12/18/2015 19:08:41	R1510601-0013S 5X	As (188.980 nm)	0.0178 (ppm)	99.67	0.0036 (ppm)	3.4753
12/18/2015 19:08:41	R1510601-0013S 5X	B (249.772 nm)	1.1826 (ppm)	0.80	0.2365 (ppm)	3167.4304
12/18/2015 19:08:41	R1510601-0013S 5X	Ba (230.424 nm)	2.0758 (ppm)	1.05	0.4152 (ppm)	6287.8462
12/18/2015 19:08:41	R1510601-0013S 5X	Be (313.107 nm)	0.0492 (ppm)	1.03	0.0098 (ppm)	8576.0083
12/18/2015 19:08:41	R1510601-0013S 5X	Ca (227.547 nm)	65.4769 (ppm)	1.38	13.0954 (ppm)	474.7097
12/18/2015 19:08:41	R1510601-0013S 5X	Ca (227.547 nm)	100.9498 (ppm)	1.81	20.1900 (ppm)	479.6883
12/18/2015 19:08:41	R1510601-0013S 5X	Cd (214.439 nm)	0.0499 (ppm)	3.51	0.0100 (ppm)	109.3252
12/18/2015 19:08:41	R1510601-0013S 5X	Co (230.786 nm)	0.4731 (ppm)	0.85	0.0946 (ppm)	453.9600
12/18/2015 19:08:41	R1510601-0013S 5X	Cr (267.716 nm)	0.2037 (ppm)	0.27	0.0407 (ppm)	939.4707
12/18/2015 19:08:41	R1510601-0013S 5X	Cu (327.395 nm)	0.2374 (ppm)	1.33	0.0475 (ppm)	1454.2315
12/18/2015 19:08:41	R1510601-0013S 5X	Fe (234.350 nm)	0.7573 (ppm)	1.45	0.1515 (ppm)	1199.5091
12/18/2015 19:08:41	R1510601-0013S 5X	Fe (234.350 nm)	0.9056 (ppm)	1.61	0.1811 (ppm)	1257.0541
12/18/2015 19:08:41	R1510601-0013S 5X	K (766.491 nm)	21.3736 (ppm)	0.74	4.2747 (ppm)	10910.1065
12/18/2015 19:08:41	R1510601-0013S 5X	Mg (279.078 nm)	49.8008 (ppm)	0.89	9.9602 (ppm)	18063.3680
12/18/2015 19:08:41	R1510601-0013S 5X	Mg (279.078 nm)	70.8744 (ppm)	0.92	14.1749 (ppm)	19106.3379
12/18/2015 19:08:41	R1510601-0013S 5X	Mn (257.610 nm)	0.5009 (ppm)	0.91	0.1002 (ppm)	12149.8867
12/18/2015 19:08:41	R1510601-0013S 5X	Mo (202.032 nm)	0.4896 (ppm)	0.97	0.0979 (ppm)	431.6410
12/18/2015 19:08:41	R1510601-0013S 5X	Na (588.995 nm)	106.6476 (ppm)	0.58	21.3295 (ppm)	579220.9341
12/18/2015 19:08:41	R1510601-0013S 5X	Ni (230.299 nm)	0.4943 (ppm)	0.66	0.0989 (ppm)	295.2959
12/18/2015 19:08:41	R1510601-0013S 5X	Pb (220.353 nm)	0.4908 (ppm)	1.89	0.0982 (ppm)	97.1298
12/18/2015 19:08:41	R1510601-0013S 5X	Sb (217.582 nm)	0.4947 (ppm)	5.28	0.0989 (ppm)	56.8452
12/18/2015 19:08:41	R1510601-0013S 5X	Se (196.026 nm)	1.0142 (ppm)	0.91	0.2028 (ppm)	71.4138
12/18/2015 19:08:41	R1510601-0013S 5X	Sn (189.925 nm)	4.9263 (ppm)	0.80	0.9853 (ppm)	677.9849
12/18/2015 19:08:41	R1510601-0013S 5X	Sr (460.733 nm)	4.9714 (ppm)	0.40	0.9943 (ppm)	13134.2749
12/18/2015 19:08:41	R1510601-0013S 5X	Ti (336.122 nm)	0.4741 (ppm)	1.00	0.0948 (ppm)	11943.1040
12/18/2015 19:08:41	R1510601-0013S 5X	Tl (351.923 nm)	1.8183 (ppm)	0.61	0.3637 (ppm)	580.4205
12/18/2015 19:08:41	R1510601-0013S 5X	V (292.401 nm)	0.5022 (ppm)	0.34	0.1004 (ppm)	1958.4680
12/18/2015 19:08:41	R1510601-0013S 5X	Y (360.074 nm)	1.01 (Ratio)	0.99	0.20 (Ratio)	586655.75
12/18/2015 19:08:41	R1510601-0013S 5X	Y_R (360.074 nm)	0.99 (Ratio)	0.41	0.20 (Ratio)	243884.24
12/18/2015 19:08:41	R1510601-0013S 5X	Zn (213.857 nm)	0.4830 (ppm)	0.90	0.0966 (ppm)	1215.5894
12/18/2015 19:12:09	R1510601-003A 5X	Ag (328.068 nm)	0.0009 (ppm)	> 100.00	0.0002 (ppm)	16.5132
12/18/2015 19:12:09	R1510601-003A 5X	Al (394.401 nm)	-0.0106 u (ppm)	63.01	-0.0021 (ppm)	129.0777
12/18/2015 19:12:09	R1510601-003A 5X	Al (394.401 nm)	-0.1395 u (ppm)	5.81	-0.0279 (ppm)	169.0681
12/18/2015 19:12:09	R1510601-003A 5X	As (188.980 nm)	0.0085 u (ppm)	> 100.00	0.0017 (ppm)	2.4963
12/18/2015 19:12:09	R1510601-003A 5X	B (249.772 nm)	0.2611 (ppm)	0.83	0.0522 (ppm)	714.0970
12/18/2015 19:12:09	R1510601-003A 5X	Ba (230.424 nm)	0.0429 (ppm)	0.49	0.0086 (ppm)	141.4107
12/18/2015 19:12:09	R1510601-003A 5X	Be (313.107 nm)	-0.0008 u (ppm)	1.48	-0.0002 (ppm)	-166.0340
12/18/2015 19:12:09	R1510601-003A 5X	Ca (227.547 nm)	65.1525 (ppm)	0.86	13.0305 (ppm)	472.3588
12/18/2015 19:12:09	R1510601-003A 5X	Ca (227.547 nm)	100.9063 (ppm)	0.73	20.1813 (ppm)	479.4576
12/18/2015 19:12:09	R1510601-003A 5X	Cd (214.439 nm)	-0.0006 u (ppm)	> 100.00	-0.0001 (ppm)	1.9069
12/18/2015 19:12:09	R1510601-003A 5X	Co (230.786 nm)	0.0013 u (ppm)	> 100.00	0.0003 (ppm)	2.3235
12/18/2015 19:12:09	R1510601-003A 5X	Cr (267.716 nm)	0.0048 (ppm)	13.05	0.0010 (ppm)	19.6726
12/18/2015 19:12:09	R1510601-003A 5X	Cu (327.395 nm)	-0.0007 u (ppm)	> 100.00	-0.0001 (ppm)	18.9557
12/18/2015 19:12:09	R1510601-003A 5X	Fe (234.350 nm)	0.0044 (ppm)	33.18	0.0009 (ppm)	55.8084
12/18/2015 19:12:09	R1510601-003A 5X	Fe (234.350 nm)	-0.0541 u (ppm)	0.75	-0.0108 (ppm)	55.0329
12/18/2015 19:12:09	R1510601-003A 5X	K (766.491 nm)	2.7732 (ppm)	2.70	0.5546 (ppm)	1380.7710

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 19:12:09	R1510601-003A 5X	Mg (279.078 nm)	49.3634 (ppm)	1.10	9.8727 (ppm)	17904.8824
12/18/2015 19:12:09	R1510601-003A 5X	Mg (279.078 nm)	70.2259 (ppm)	1.04	14.0452 (ppm)	18931.6648
12/18/2015 19:12:09	R1510601-003A 5X	Mn (257.610 nm)	0.0036 (ppm)	2.34	0.0007 (ppm)	105.5505
12/18/2015 19:12:09	R1510601-003A 5X	Mo (202.032 nm)	2.4620 (ppm)	0.80	0.4924 (ppm)	2156.4372
12/18/2015 19:12:09	R1510601-003A 5X	Na (588.995 nm)	88.1014 (ppm)	0.47	17.6203 (ppm)	477191.0581
12/18/2015 19:12:09	R1510601-003A 5X	Ni (230.299 nm)	0.0134 (ppm)	6.82	0.0027 (ppm)	-1.2052
12/18/2015 19:12:09	R1510601-003A 5X	Pb (220.353 nm)	-0.0040 u (ppm)	> 100.00	-0.0008 (ppm)	1.9188
12/18/2015 19:12:09	R1510601-003A 5X	Sb (217.582 nm)	2.4363 (ppm)	1.10	0.4873 (ppm)	272.9414
12/18/2015 19:12:09	R1510601-003A 5X	Se (196.026 nm)	4.9409 (ppm)	0.94	0.9882 (ppm)	345.8948
12/18/2015 19:12:09	R1510601-003A 5X	Sn (189.925 nm)	24.6965 (ppm)	0.86	4.9393 (ppm)	3397.8320
12/18/2015 19:12:09	R1510601-003A 5X	Sr (460.733 nm)	16.5990 (ppm)	0.42	3.3198 (ppm)	43689.1382
12/18/2015 19:12:09	R1510601-003A 5X	Ti (336.122 nm)	2.4082 (ppm)	1.10	0.4816 (ppm)	60565.2378
12/18/2015 19:12:09	R1510601-003A 5X	Tl (351.923 nm)	0.0076 u (ppm)	> 100.00	0.0015 (ppm)	-7.9474
12/18/2015 19:12:09	R1510601-003A 5X	V (292.401 nm)	-0.0001 u (ppm)	> 100.00	0.0000 (ppm)	39.8762
12/18/2015 19:12:09	R1510601-003A 5X	Y (360.074 nm)	1.01 (Ratio)	1.01	0.20 (Ratio)	588670.04
12/18/2015 19:12:09	R1510601-003A 5X	Y_R (360.074 nm)	1.01 (Ratio)	0.55	0.20 (Ratio)	247571.75
12/18/2015 19:12:09	R1510601-003A 5X	Zn (213.857 nm)	0.0216 (ppm)	5.21	0.0043 (ppm)	63.5085
12/18/2015 19:15:38	R1510601-003L 5X	Ag (328.068 nm)	0.1595 (ppm)	24.06	0.0319 (ppm)	1251.5315
12/18/2015 19:15:38	R1510601-003L 5X	Al (394.401 nm)	12.1833 (ppm)	10.77	2.4367 (ppm)	26008.3810
12/18/2015 19:15:38	R1510601-003L 5X	Al (394.401 nm)	15.2500 (ppm)	10.82	3.0500 (ppm)	26417.3349
12/18/2015 19:15:38	R1510601-003L 5X	As (188.980 nm)	0.3182 (ppm)	14.05	0.0636 (ppm)	35.0499
12/18/2015 19:15:38	R1510601-003L 5X	B (249.772 nm)	8.3096 (ppm)	10.27	1.6619 (ppm)	22138.7982
12/18/2015 19:15:38	R1510601-003L 5X	Ba (230.424 nm)	16.8324 (ppm)	9.83	3.3665 (ppm)	50902.7173
12/18/2015 19:15:38	R1510601-003L 5X	Be (313.107 nm)	0.4073 (ppm)	10.54	0.0815 (ppm)	71239.0090
12/18/2015 19:15:38	R1510601-003L 5X	Ca (227.547 nm)	23.1296 (ppm)	5.98	4.6259 (ppm)	167.8298
12/18/2015 19:15:38	R1510601-003L 5X	Ca (227.547 nm)	35.8467 (ppm)	6.00	7.1693 (ppm)	168.9351
12/18/2015 19:15:38	R1510601-003L 5X	Cd (214.439 nm)	0.4168 (ppm)	10.37	0.0834 (ppm)	890.0551
12/18/2015 19:15:38	R1510601-003L 5X	Co (230.786 nm)	3.9907 (ppm)	9.94	0.7981 (ppm)	3821.0386
12/18/2015 19:15:38	R1510601-003L 5X	Cr (267.716 nm)	1.6658 (ppm)	10.64	0.3332 (ppm)	7700.9189
12/18/2015 19:15:38	R1510601-003L 5X	Cu (327.395 nm)	1.9868 (ppm)	11.34	0.3974 (ppm)	12002.1683
12/18/2015 19:15:38	R1510601-003L 5X	Fe (234.350 nm)	6.3352 (ppm)	10.50	1.2670 (ppm)	9672.9149
12/18/2015 19:15:38	R1510601-003L 5X	Fe (234.350 nm)	8.0299 (ppm)	10.64	1.6060 (ppm)	10130.3024
12/18/2015 19:15:38	R1510601-003L 5X	K (766.491 nm)	126.9511 (ppm)	1.17	25.3902 (ppm)	64999.4650
12/18/2015 19:15:38	R1510601-003L 5X	Mg (279.078 nm)	20.3233 (ppm)	5.78	4.0647 (ppm)	7382.9084
12/18/2015 19:15:38	R1510601-003L 5X	Mg (279.078 nm)	28.8713 (ppm)	5.97	5.7743 (ppm)	7796.6335
12/18/2015 19:15:38	R1510601-003L 5X	Mn (257.610 nm)	4.0766 (ppm)	10.43	0.8153 (ppm)	98734.5871
12/18/2015 19:15:38	R1510601-003L 5X	Mo (202.032 nm)	0.0005 u (ppm)	> 100.00	0.0001 (ppm)	3.2174
12/18/2015 19:15:38	R1510601-003L 5X	Na (588.995 nm)	150.8879 (ppm)	1.45	30.1776 (ppm)	822772.6708
12/18/2015 19:15:38	R1510601-003L 5X	Ni (230.299 nm)	4.1652 (ppm)	9.32	0.8330 (ppm)	2558.5568
12/18/2015 19:15:38	R1510601-003L 5X	Pb (220.353 nm)	4.1017 (ppm)	9.86	0.8203 (ppm)	792.0952
12/18/2015 19:15:38	R1510601-003L 5X	Sb (217.582 nm)	-0.0024 u (ppm)	> 100.00	-0.0005 (ppm)	1.4386
12/18/2015 19:15:38	R1510601-003L 5X	Se (196.026 nm)	0.0892 (ppm)	36.90	0.0178 (ppm)	6.6871
12/18/2015 19:15:38	R1510601-003L 5X	Sn (189.925 nm)	0.0142 (ppm)	35.70	0.0028 (ppm)	2.3458
12/18/2015 19:15:38	R1510601-003L 5X	Sr (460.733 nm)	0.6014 (ppm)	2.26	0.1203 (ppm)	1642.1866
12/18/2015 19:15:38	R1510601-003L 5X	Ti (336.122 nm)	0.0012 (ppm)	95.19	0.0002 (ppm)	23.8067
12/18/2015 19:15:38	R1510601-003L 5X	Tl (351.923 nm)	14.7346 o (ppm)	9.48	2.9469 (ppm)	4777.2546
12/18/2015 19:15:38	R1510601-003L 5X	V (292.401 nm)	4.0354 (ppm)	8.69	0.8071 (ppm)	15451.7651
12/18/2015 19:15:38	R1510601-003L 5X	Y (360.074 nm)	1.00 (Ratio)	1.32	0.20 (Ratio)	581638.18
12/18/2015 19:15:38	R1510601-003L 5X	Y_R (360.074 nm)	0.99 (Ratio)	0.55	0.20 (Ratio)	243878.32
12/18/2015 19:15:38	R1510601-003L 5X	Zn (213.857 nm)	4.1075 (ppm)	10.69	0.8215 (ppm)	10260.3804
12/18/2015 19:19:07	R1510601-004 10X	Ag (328.068 nm)	-0.0023 u (ppm)	68.31	-0.0002 (ppm)	-0.0108

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 19:19:07	R1510601-004 10X	Al (394.401 nm)	-0.0143 u (ppm)	67.32	-0.0014 (ppm)	136.2634
12/18/2015 19:19:07	R1510601-004 10X	Al (394.401 nm)	-0.3112 u (ppm)	4.38	-0.0311 (ppm)	179.6234
12/18/2015 19:19:07	R1510601-004 10X	As (188.980 nm)	-0.0091 u (ppm)	> 100.00	-0.0009 (ppm)	1.1226
12/18/2015 19:19:07	R1510601-004 10X	B (249.772 nm)	0.0873 (ppm)	7.73	0.0087 (ppm)	135.6903
12/18/2015 19:19:07	R1510601-004 10X	Ba (230.424 nm)	0.0216 (ppm)	36.80	0.0022 (ppm)	45.0042
12/18/2015 19:19:07	R1510601-004 10X	Be (313.107 nm)	-0.0001 (ppm)	> 100.00	0.0000 (ppm)	-39.3648
12/18/2015 19:19:07	R1510601-004 10X	Ca (227.547 nm)	155.9425 (ppm)	1.60	15.5942 (ppm)	565.2528
12/18/2015 19:19:07	R1510601-004 10X	Ca (227.547 nm)	240.8248 (ppm)	1.50	24.0825 (ppm)	572.3718
12/18/2015 19:19:07	R1510601-004 10X	Cd (214.439 nm)	-0.0032 u (ppm)	18.07	-0.0003 (ppm)	-0.1448
12/18/2015 19:19:07	R1510601-004 10X	Co (230.786 nm)	0.0077 u (ppm)	> 100.00	0.0008 (ppm)	4.8438
12/18/2015 19:19:07	R1510601-004 10X	Cr (267.716 nm)	0.0019 (ppm)	37.95	0.0002 (ppm)	0.5968
12/18/2015 19:19:07	R1510601-004 10X	Cu (327.395 nm)	0.0014 u (ppm)	> 100.00	0.0001 (ppm)	26.6396
12/18/2015 19:19:07	R1510601-004 10X	Fe (234.350 nm)	0.5304 (ppm)	1.15	0.0530 (ppm)	451.9818
12/18/2015 19:19:07	R1510601-004 10X	Fe (234.350 nm)	0.5748 (ppm)	2.23	0.0575 (ppm)	471.8810
12/18/2015 19:19:07	R1510601-004 10X	K (766.491 nm)	3.7575 (ppm)	3.94	0.3758 (ppm)	922.0372
12/18/2015 19:19:07	R1510601-004 10X	Mg (279.078 nm)	64.3352 (ppm)	0.75	6.4335 (ppm)	11674.4058
12/18/2015 19:19:07	R1510601-004 10X	Mg (279.078 nm)	91.0890 (ppm)	0.98	9.1089 (ppm)	12288.8092
12/18/2015 19:19:07	R1510601-004 10X	Mn (257.610 nm)	0.0281 (ppm)	7.71	0.0028 (ppm)	361.3104
12/18/2015 19:19:07	R1510601-004 10X	Mo (202.032 nm)	-0.0077 u (ppm)	80.86	-0.0008 (ppm)	0.3309
12/18/2015 19:19:07	R1510601-004 10X	Na (588.995 nm)	25.8689 (ppm)	0.40	2.5869 (ppm)	63649.1952
12/18/2015 19:19:07	R1510601-004 10X	Ni (230.299 nm)	0.0148 (ppm)	51.16	0.0015 (ppm)	-4.9683
12/18/2015 19:19:07	R1510601-004 10X	Pb (220.353 nm)	-0.0430 u (ppm)	21.47	-0.0043 (ppm)	-1.4653
12/18/2015 19:19:07	R1510601-004 10X	Sb (217.582 nm)	0.0271 u (ppm)	> 100.00	0.0027 (ppm)	3.2296
12/18/2015 19:19:07	R1510601-004 10X	Se (196.026 nm)	-0.0131 u (ppm)	> 100.00	-0.0013 (ppm)	0.0467
12/18/2015 19:19:07	R1510601-004 10X	Sn (189.925 nm)	-0.0138 u (ppm)	32.94	-0.0014 (ppm)	-0.7074
12/18/2015 19:19:07	R1510601-004 10X	Sr (460.733 nm)	23.6970 (ppm)	0.38	2.3697 (ppm)	31206.8734
12/18/2015 19:19:07	R1510601-004 10X	Ti (336.122 nm)	-0.0068 u (ppm)	11.46	-0.0007 (ppm)	-76.2893
12/18/2015 19:19:07	R1510601-004 10X	Tl (351.923 nm)	-0.0085 u (ppm)	> 100.00	-0.0008 (ppm)	-11.7141
12/18/2015 19:19:07	R1510601-004 10X	V (292.401 nm)	0.0060 (ppm)	35.44	0.0006 (ppm)	51.9164
12/18/2015 19:19:07	R1510601-004 10X	Y (360.074 nm)	1.02 (Ratio)	1.03	0.10 (Ratio)	595077.14
12/18/2015 19:19:07	R1510601-004 10X	Y_R (360.074 nm)	1.01 (Ratio)	0.34	0.10 (Ratio)	246868.40
12/18/2015 19:19:07	R1510601-004 10X	Zn (213.857 nm)	0.0851 (ppm)	3.28	0.0085 (ppm)	115.0792
12/18/2015 19:22:36	R1510601-006 5X	Ag (328.068 nm)	0.0001 u (ppm)	> 100.00	0.0000 (ppm)	9.8426
12/18/2015 19:22:36	R1510601-006 5X	Al (394.401 nm)	-0.0120 u (ppm)	30.31	-0.0024 (ppm)	125.9420
12/18/2015 19:22:36	R1510601-006 5X	Al (394.401 nm)	-0.1479 u (ppm)	3.97	-0.0296 (ppm)	164.5050
12/18/2015 19:22:36	R1510601-006 5X	As (188.980 nm)	0.0114 (ppm)	93.97	0.0023 (ppm)	2.7988
12/18/2015 19:22:36	R1510601-006 5X	B (249.772 nm)	0.0622 (ppm)	1.49	0.0124 (ppm)	184.3390
12/18/2015 19:22:36	R1510601-006 5X	Ba (230.424 nm)	0.0284 (ppm)	3.73	0.0057 (ppm)	97.8670
12/18/2015 19:22:36	R1510601-006 5X	Be (313.107 nm)	-0.0001 (ppm)	30.72	0.0000 (ppm)	-58.0335
12/18/2015 19:22:36	R1510601-006 5X	Ca (227.547 nm)	68.8712 (ppm)	0.37	13.7742 (ppm)	499.3070
12/18/2015 19:22:36	R1510601-006 5X	Ca (227.547 nm)	106.1208 (ppm)	0.91	21.2242 (ppm)	504.2420
12/18/2015 19:22:36	R1510601-006 5X	Cd (214.439 nm)	-0.0006 u (ppm)	70.53	-0.0001 (ppm)	1.9890
12/18/2015 19:22:36	R1510601-006 5X	Co (230.786 nm)	-0.0003 u (ppm)	> 100.00	-0.0001 (ppm)	0.8346
12/18/2015 19:22:36	R1510601-006 5X	Cr (267.716 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	-3.1321
12/18/2015 19:22:36	R1510601-006 5X	Cu (327.395 nm)	-0.0019 u (ppm)	67.72	-0.0004 (ppm)	11.1400
12/18/2015 19:22:36	R1510601-006 5X	Fe (234.350 nm)	0.2604 (ppm)	0.70	0.0521 (ppm)	444.7859
12/18/2015 19:22:36	R1510601-006 5X	Fe (234.350 nm)	0.2755 (ppm)	1.20	0.0551 (ppm)	458.7794
12/18/2015 19:22:36	R1510601-006 5X	K (766.491 nm)	2.7138 (ppm)	7.08	0.5428 (ppm)	1350.0730
12/18/2015 19:22:36	R1510601-006 5X	Mg (279.078 nm)	38.4362 (ppm)	0.46	7.6872 (ppm)	13945.6782
12/18/2015 19:22:36	R1510601-006 5X	Mg (279.078 nm)	54.3935 (ppm)	0.39	10.8787 (ppm)	14670.0850
12/18/2015 19:22:36	R1510601-006 5X	Mn (257.610 nm)	0.0049 (ppm)	4.87	0.0010 (ppm)	138.6488

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 19:22:36	R1510601-006 5X	Mo (202.032 nm)	0.0260 (ppm)	5.40	0.0052 (ppm)	26.2820
12/18/2015 19:22:36	R1510601-006 5X	Na (588.995 nm)	21.0591 (ppm)	0.64	4.2118 (ppm)	108357.5669
12/18/2015 19:22:36	R1510601-006 5X	Ni (230.299 nm)	0.0035 u (ppm)	> 100.00	0.0007 (ppm)	-7.3420
12/18/2015 19:22:36	R1510601-006 5X	Pb (220.353 nm)	-0.0168 u (ppm)	26.73	-0.0034 (ppm)	-0.5327
12/18/2015 19:22:36	R1510601-006 5X	Sb (217.582 nm)	-0.0027 u (ppm)	> 100.00	-0.0005 (ppm)	1.4205
12/18/2015 19:22:36	R1510601-006 5X	Se (196.026 nm)	-0.0113 u (ppm)	> 100.00	-0.0023 (ppm)	-0.2790
12/18/2015 19:22:36	R1510601-006 5X	Sn (189.925 nm)	0.0013 u (ppm)	> 100.00	0.0003 (ppm)	0.4190
12/18/2015 19:22:36	R1510601-006 5X	Sr (460.733 nm)	27.1508 (ppm)	0.37	5.4302 (ppm)	71416.1748
12/18/2015 19:22:36	R1510601-006 5X	Ti (336.122 nm)	-0.0038 u (ppm)	6.99	-0.0008 (ppm)	-81.7689
12/18/2015 19:22:36	R1510601-006 5X	Tl (351.923 nm)	-0.0067 u (ppm)	> 100.00	-0.0013 (ppm)	-12.5547
12/18/2015 19:22:36	R1510601-006 5X	V (292.401 nm)	0.0004 u (ppm)	> 100.00	0.0001 (ppm)	41.5200
12/18/2015 19:22:36	R1510601-006 5X	Y (360.074 nm)	1.02 (Ratio)	0.67	0.20 (Ratio)	592717.27
12/18/2015 19:22:36	R1510601-006 5X	Y_R (360.074 nm)	1.00 (Ratio)	0.48	0.20 (Ratio)	245775.42
12/18/2015 19:22:36	R1510601-006 5X	Zn (213.857 nm)	0.0357 (ppm)	1.92	0.0071 (ppm)	97.9334
12/18/2015 19:26:05	R1510601-010 5X	Ag (328.068 nm)	-0.0019 u (ppm)	75.95	-0.0004 (ppm)	-5.5748
12/18/2015 19:26:05	R1510601-010 5X	Al (394.401 nm)	-0.0147 u (ppm)	22.47	-0.0029 (ppm)	120.3135
12/18/2015 19:26:05	R1510601-010 5X	Al (394.401 nm)	-0.1573 u (ppm)	3.09	-0.0315 (ppm)	161.7989
12/18/2015 19:26:05	R1510601-010 5X	As (188.980 nm)	-0.0080 u (ppm)	> 100.00	-0.0016 (ppm)	0.7607
12/18/2015 19:26:05	R1510601-010 5X	B (249.772 nm)	0.0766 (ppm)	0.99	0.0153 (ppm)	223.0859
12/18/2015 19:26:05	R1510601-010 5X	Ba (230.424 nm)	0.0259 (ppm)	0.43	0.0052 (ppm)	90.3903
12/18/2015 19:26:05	R1510601-010 5X	Be (313.107 nm)	-0.0002 (ppm)	3.54	0.0000 (ppm)	-62.4713
12/18/2015 19:26:05	R1510601-010 5X	Ca (227.547 nm)	72.8161 (ppm)	0.67	14.5632 (ppm)	527.8951
12/18/2015 19:26:05	R1510601-010 5X	Ca (227.547 nm)	112.5413 (ppm)	0.53	22.5083 (ppm)	534.9002
12/18/2015 19:26:05	R1510601-010 5X	Cd (214.439 nm)	-0.0009 u (ppm)	> 100.00	-0.0002 (ppm)	1.4196
12/18/2015 19:26:05	R1510601-010 5X	Co (230.786 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	1.1530
12/18/2015 19:26:05	R1510601-010 5X	Cr (267.716 nm)	0.0005 (ppm)	50.98	0.0001 (ppm)	-0.8523
12/18/2015 19:26:05	R1510601-010 5X	Cu (327.395 nm)	0.0003 u (ppm)	> 100.00	0.0001 (ppm)	24.4817
12/18/2015 19:26:05	R1510601-010 5X	Fe (234.350 nm)	0.2342 (ppm)	1.51	0.0468 (ppm)	404.8793
12/18/2015 19:26:05	R1510601-010 5X	Fe (234.350 nm)	0.2414 (ppm)	0.92	0.0483 (ppm)	420.4538
12/18/2015 19:26:05	R1510601-010 5X	K (766.491 nm)	3.0045 (ppm)	4.76	0.6009 (ppm)	1498.9617
12/18/2015 19:26:05	R1510601-010 5X	Mg (279.078 nm)	41.1634 (ppm)	0.58	8.2327 (ppm)	14933.8044
12/18/2015 19:26:05	R1510601-010 5X	Mg (279.078 nm)	58.1126 (ppm)	0.36	11.6225 (ppm)	15671.5681
12/18/2015 19:26:05	R1510601-010 5X	Mn (257.610 nm)	0.0070 (ppm)	2.18	0.0014 (ppm)	190.2124
12/18/2015 19:26:05	R1510601-010 5X	Mo (202.032 nm)	0.0157 (ppm)	28.96	0.0031 (ppm)	17.2712
12/18/2015 19:26:05	R1510601-010 5X	Na (588.995 nm)	22.8722 (ppm)	0.96	4.5744 (ppm)	118316.1348
12/18/2015 19:26:05	R1510601-010 5X	Ni (230.299 nm)	0.0045 (ppm)	25.77	0.0009 (ppm)	-6.7111
12/18/2015 19:26:05	R1510601-010 5X	Pb (220.353 nm)	-0.0007 u (ppm)	> 100.00	-0.0001 (ppm)	2.5530
12/18/2015 19:26:05	R1510601-010 5X	Sb (217.582 nm)	-0.0040 u (ppm)	> 100.00	-0.0008 (ppm)	1.2926
12/18/2015 19:26:05	R1510601-010 5X	Se (196.026 nm)	0.0194 u (ppm)	91.30	0.0039 (ppm)	1.8690
12/18/2015 19:26:05	R1510601-010 5X	Sn (189.925 nm)	-0.0035 u (ppm)	58.53	-0.0007 (ppm)	-0.2354
12/18/2015 19:26:05	R1510601-010 5X	Sr (460.733 nm)	14.8269 (ppm)	0.64	2.9654 (ppm)	39032.9669
12/18/2015 19:26:05	R1510601-010 5X	Ti (336.122 nm)	-0.0042 u (ppm)	2.17	-0.0008 (ppm)	-88.5335
12/18/2015 19:26:05	R1510601-010 5X	Tl (351.923 nm)	0.0024 u (ppm)	> 100.00	0.0005 (ppm)	-9.5837
12/18/2015 19:26:05	R1510601-010 5X	V (292.401 nm)	0.0010 (ppm)	21.05	0.0002 (ppm)	43.9714
12/18/2015 19:26:05	R1510601-010 5X	Y (360.074 nm)	1.01 (Ratio)	0.49	0.20 (Ratio)	589882.97
12/18/2015 19:26:05	R1510601-010 5X	Y_R (360.074 nm)	1.00 (Ratio)	0.77	0.20 (Ratio)	245395.18
12/18/2015 19:26:05	R1510601-010 5X	Zn (213.857 nm)	0.0356 (ppm)	1.37	0.0071 (ppm)	98.2433
12/18/2015 19:29:35	R1510601-011 5X	Ag (328.068 nm)	0.0008 (ppm)	43.72	0.0002 (ppm)	15.1800
12/18/2015 19:29:35	R1510601-011 5X	Al (394.401 nm)	-0.0217 u (ppm)	8.84	-0.0043 (ppm)	105.3902
12/18/2015 19:29:35	R1510601-011 5X	Al (394.401 nm)	-0.1282 u (ppm)	0.47	-0.0256 (ppm)	148.6840
12/18/2015 19:29:35	R1510601-011 5X	As (188.980 nm)	0.0015 u (ppm)	> 100.00	0.0003 (ppm)	1.7316

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 19:29:35	R1510601-011 5X	B (249.772 nm)	0.0874 (ppm)	0.50	0.0175 (ppm)	250.2209
12/18/2015 19:29:35	R1510601-011 5X	Ba (230.424 nm)	0.0309 (ppm)	1.72	0.0062 (ppm)	104.7007
12/18/2015 19:29:35	R1510601-011 5X	Be (313.107 nm)	-0.0001 (ppm)	61.11	0.0000 (ppm)	-50.9895
12/18/2015 19:29:35	R1510601-011 5X	Ca (227.547 nm)	54.0034 (ppm)	0.58	10.8007 (ppm)	391.5642
12/18/2015 19:29:35	R1510601-011 5X	Ca (227.547 nm)	83.4372 (ppm)	0.58	16.6874 (ppm)	395.9773
12/18/2015 19:29:35	R1510601-011 5X	Cd (214.439 nm)	-0.0012 u (ppm)	9.70	-0.0002 (ppm)	0.6976
12/18/2015 19:29:35	R1510601-011 5X	Co (230.786 nm)	0.0013 (ppm)	86.88	0.0003 (ppm)	2.2386
12/18/2015 19:29:35	R1510601-011 5X	Cr (267.716 nm)	0.0003 u (ppm)	> 100.00	0.0001 (ppm)	-1.3461
12/18/2015 19:29:35	R1510601-011 5X	Cu (327.395 nm)	-0.0011 u (ppm)	87.70	-0.0002 (ppm)	16.5140
12/18/2015 19:29:35	R1510601-011 5X	Fe (234.350 nm)	0.2776 (ppm)	0.70	0.0555 (ppm)	470.9263
12/18/2015 19:29:35	R1510601-011 5X	Fe (234.350 nm)	0.3049 (ppm)	0.42	0.0610 (ppm)	485.4217
12/18/2015 19:29:35	R1510601-011 5X	K (766.491 nm)	3.2430 (ppm)	2.27	0.6486 (ppm)	1621.4004
12/18/2015 19:29:35	R1510601-011 5X	Mg (279.078 nm)	34.4030 (ppm)	0.63	6.8806 (ppm)	12484.3432
12/18/2015 19:29:35	R1510601-011 5X	Mg (279.078 nm)	48.5701 (ppm)	0.68	9.7140 (ppm)	13101.2947
12/18/2015 19:29:35	R1510601-011 5X	Mn (257.610 nm)	0.0049 (ppm)	4.90	0.0010 (ppm)	135.8563
12/18/2015 19:29:35	R1510601-011 5X	Mo (202.032 nm)	0.0006 u (ppm)	> 100.00	0.0001 (ppm)	3.7329
12/18/2015 19:29:35	R1510601-011 5X	Na (588.995 nm)	19.7578 (ppm)	0.19	3.9516 (ppm)	101247.6443
12/18/2015 19:29:35	R1510601-011 5X	Ni (230.299 nm)	0.0042 (ppm)	39.28	0.0008 (ppm)	-6.9712
12/18/2015 19:29:35	R1510601-011 5X	Pb (220.353 nm)	-0.0075 u (ppm)	55.45	-0.0015 (ppm)	1.2864
12/18/2015 19:29:35	R1510601-011 5X	Sb (217.582 nm)	0.0055 u (ppm)	> 100.00	0.0011 (ppm)	2.2880
12/18/2015 19:29:35	R1510601-011 5X	Se (196.026 nm)	0.0172 u (ppm)	> 100.00	0.0034 (ppm)	1.7027
12/18/2015 19:29:35	R1510601-011 5X	Sn (189.925 nm)	0.0024 u (ppm)	> 100.00	0.0005 (ppm)	0.5714
12/18/2015 19:29:35	R1510601-011 5X	Sr (460.733 nm)	2.7665 (ppm)	1.10	0.5533 (ppm)	7340.3253
12/18/2015 19:29:35	R1510601-011 5X	Ti (336.122 nm)	-0.0037 u (ppm)	2.37	-0.0007 (ppm)	-83.2774
12/18/2015 19:29:35	R1510601-011 5X	Tl (351.923 nm)	0.0029 u (ppm)	> 100.00	0.0006 (ppm)	-9.4866
12/18/2015 19:29:35	R1510601-011 5X	V (292.401 nm)	0.0015 (ppm)	45.54	0.0003 (ppm)	45.0804
12/18/2015 19:29:35	R1510601-011 5X	Y (360.074 nm)	1.01 (Ratio)	0.63	0.20 (Ratio)	589071.82
12/18/2015 19:29:35	R1510601-011 5X	Y_R (360.074 nm)	1.00 (Ratio)	0.24	0.20 (Ratio)	245406.21
12/18/2015 19:29:35	R1510601-011 5X	Zn (213.857 nm)	0.0450 (ppm)	3.03	0.0090 (ppm)	119.8457
12/18/2015 19:33:05	Continuing Calibration Verification	Ag (328.068 nm)	0.4653 (ppm)	1.70	0.4653 (ppm)	18126.3082
12/18/2015 19:33:05	Continuing Calibration Verification	Al (394.401 nm)	7.3157 (ppm)	1.75	7.3157 (ppm)	77783.1799
12/18/2015 19:33:05	Continuing Calibration Verification	Al (394.401 nm)	9.1556 (ppm)	1.71	9.1556 (ppm)	78961.1290
12/18/2015 19:33:05	Continuing Calibration Verification	As (188.980 nm)	0.9405 (ppm)	1.97	0.9405 (ppm)	497.2539
12/18/2015 19:33:05	Continuing Calibration Verification	B (249.772 nm)	2.3297 (ppm)	1.78	2.3297 (ppm)	31034.2265
12/18/2015 19:33:05	Continuing Calibration Verification	Ba (230.424 nm)	9.8170 (ppm)	1.99	9.8170 (ppm)	148423.1359
12/18/2015 19:33:05	Continuing Calibration Verification	Be (313.107 nm)	0.2449 (ppm)	1.76	0.2449 (ppm)	214236.7288
12/18/2015 19:33:05	Continuing Calibration Verification	Ca (227.547 nm)	15.3256 (ppm)	1.95	15.3256 (ppm)	555.5177
12/18/2015 19:33:05	Continuing Calibration Verification	Ca (227.547 nm)	23.5754 (ppm)	2.13	23.5754 (ppm)	561.2049
12/18/2015 19:33:05	Continuing Calibration Verification	Cd (214.439 nm)	0.4888 (ppm)	1.82	0.4888 (ppm)	5205.7351
12/18/2015 19:33:05	Continuing Calibration Verification	Co (230.786 nm)	2.3754 (ppm)	1.85	2.3754 (ppm)	11370.6732
12/18/2015 19:33:05	Continuing Calibration Verification	Cr (267.716 nm)	0.5013 (ppm)	1.73	0.5013 (ppm)	11589.5498
12/18/2015 19:33:05	Continuing Calibration Verification	Cu (327.395 nm)	1.1676 (ppm)	2.11	1.1676 (ppm)	35220.4515
12/18/2015 19:33:05	Continuing Calibration Verification	Fe (234.350 nm)	3.7841 (ppm)	2.04	3.7841 (ppm)	28790.9871
12/18/2015 19:33:05	Continuing Calibration Verification	Fe (234.350 nm)	4.7908 (ppm)	1.84	4.7908 (ppm)	30146.5952
12/18/2015 19:33:05	Continuing Calibration Verification	K (766.491 nm)	23.5738 (ppm)	0.52	23.5738 (ppm)	60342.8656
12/18/2015 19:33:05	Continuing Calibration Verification	Mg (279.078 nm)	16.3805 (ppm)	1.94	16.3805 (ppm)	29694.6206
12/18/2015 19:33:05	Continuing Calibration Verification	Mg (279.078 nm)	23.2596 (ppm)	1.83	23.2596 (ppm)	31336.2632
12/18/2015 19:33:05	Continuing Calibration Verification	Mn (257.610 nm)	0.7378 (ppm)	1.77	0.7378 (ppm)	89368.2210
12/18/2015 19:33:05	Continuing Calibration Verification	Mo (202.032 nm)	2.3776 (ppm)	1.83	2.3776 (ppm)	10400.2601
12/18/2015 19:33:05	Continuing Calibration Verification	Na (588.995 nm)	23.7318 (ppm)	0.22	23.7318 (ppm)	645094.5357
12/18/2015 19:33:05	Continuing Calibration Verification	Ni (230.299 nm)	1.9925 (ppm)	2.12	1.9925 (ppm)	6133.4462

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 19:33:05	Continuing Calibration Verification	Pb (220.353 nm)	0.4893 (ppm)	2.37	0.4893 (ppm)	472.9229
12/18/2015 19:33:05	Continuing Calibration Verification	Sb (217.582 nm)	4.7615 (ppm)	1.80	4.7615 (ppm)	2652.4470
12/18/2015 19:33:05	Continuing Calibration Verification	Se (196.026 nm)	0.4735 (ppm)	3.48	0.4735 (ppm)	165.9853
12/18/2015 19:33:05	Continuing Calibration Verification	Sn (189.925 nm)	4.7850 (ppm)	1.79	4.7850 (ppm)	3292.1904
12/18/2015 19:33:05	Continuing Calibration Verification	Sr (460.733 nm)	2.3803 (ppm)	0.31	2.3803 (ppm)	31325.9072
12/18/2015 19:33:05	Continuing Calibration Verification	Ti (336.122 nm)	2.3710 (ppm)	1.80	2.3710 (ppm)	298091.7341
12/18/2015 19:33:05	Continuing Calibration Verification	Tl (351.923 nm)	0.9590 (ppm)	2.14	0.9590 (ppm)	1547.6752
12/18/2015 19:33:05	Continuing Calibration Verification	V (292.401 nm)	2.3856 (ppm)	0.20	2.3856 (ppm)	45602.1384
12/18/2015 19:33:05	Continuing Calibration Verification	Y (360.074 nm)	0.99 (Ratio)	1.87	0.99 (Ratio)	575786.28
12/18/2015 19:33:05	Continuing Calibration Verification	Y_R (360.074 nm)	1.00 (Ratio)	0.16	1.00 (Ratio)	244053.42
12/18/2015 19:33:05	Continuing Calibration Verification	Zn (213.857 nm)	0.9737 (ppm)	2.13	0.9737 (ppm)	12172.4970
12/18/2015 19:36:33	Continuing Calibration Blank	Ag (328.068 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	13.3418
12/18/2015 19:36:33	Continuing Calibration Blank	Al (394.401 nm)	-0.0092 u (ppm)	12.37	-0.0092 (ppm)	54.3454
12/18/2015 19:36:33	Continuing Calibration Blank	Al (394.401 nm)	-0.0122 u (ppm)	10.39	-0.0122 (ppm)	78.9736
12/18/2015 19:36:33	Continuing Calibration Blank	As (188.980 nm)	-0.0008 u (ppm)	> 100.00	-0.0008 (ppm)	1.0811
12/18/2015 19:36:33	Continuing Calibration Blank	B (249.772 nm)	0.0012 (ppm)	33.29	0.0012 (ppm)	28.4456
12/18/2015 19:36:33	Continuing Calibration Blank	Ba (230.424 nm)	0.0025 (ppm)	36.42	0.0025 (ppm)	46.3764
12/18/2015 19:36:33	Continuing Calibration Blank	Be (313.107 nm)	0.0000 (ppm)	53.85	0.0000 (ppm)	-6.3203
12/18/2015 19:36:33	Continuing Calibration Blank	Ca (227.547 nm)	-0.0217 u (ppm)	> 100.00	-0.0217 (ppm)	-0.5703
12/18/2015 19:36:33	Continuing Calibration Blank	Ca (227.547 nm)	-0.0404 u (ppm)	> 100.00	-0.0404 (ppm)	-3.4072
12/18/2015 19:36:33	Continuing Calibration Blank	Cd (214.439 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	3.0318
12/18/2015 19:36:33	Continuing Calibration Blank	Co (230.786 nm)	0.0012 (ppm)	20.46	0.0012 (ppm)	6.5224
12/18/2015 19:36:33	Continuing Calibration Blank	Cr (267.716 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	-1.5478
12/18/2015 19:36:33	Continuing Calibration Blank	Cu (327.395 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	27.2547
12/18/2015 19:36:33	Continuing Calibration Blank	Fe (234.350 nm)	-0.0039 u (ppm)	12.76	-0.0039 (ppm)	19.5664
12/18/2015 19:36:33	Continuing Calibration Blank	Fe (234.350 nm)	-0.0052 u (ppm)	10.97	-0.0052 (ppm)	16.3987
12/18/2015 19:36:33	Continuing Calibration Blank	K (766.491 nm)	0.0040 (ppm)	> 100.00	0.0040 (ppm)	-29.4164
12/18/2015 19:36:33	Continuing Calibration Blank	Mg (279.078 nm)	-0.0075 u (ppm)	12.43	-0.0075 (ppm)	5.7200
12/18/2015 19:36:33	Continuing Calibration Blank	Mg (279.078 nm)	-0.0113 u (ppm)	6.45	-0.0113 (ppm)	7.1948
12/18/2015 19:36:33	Continuing Calibration Blank	Mn (257.610 nm)	0.0002 (ppm)	27.69	0.0002 (ppm)	29.2228
12/18/2015 19:36:33	Continuing Calibration Blank	Mo (202.032 nm)	0.0012 (ppm)	41.21	0.0012 (ppm)	7.4056
12/18/2015 19:36:33	Continuing Calibration Blank	Na (588.995 nm)	0.0200 (ppm)	21.58	0.0200 (ppm)	-6677.0178
12/18/2015 19:36:33	Continuing Calibration Blank	Ni (230.299 nm)	0.0009 (ppm)	62.16	0.0009 (ppm)	-6.9255
12/18/2015 19:36:33	Continuing Calibration Blank	Pb (220.353 nm)	-0.0011 u (ppm)	> 100.00	-0.0011 (ppm)	1.8224
12/18/2015 19:36:33	Continuing Calibration Blank	Sb (217.582 nm)	0.0015 u (ppm)	> 100.00	0.0015 (ppm)	2.2649
12/18/2015 19:36:33	Continuing Calibration Blank	Se (196.026 nm)	0.0031 u (ppm)	> 100.00	0.0031 (ppm)	1.5161
12/18/2015 19:36:33	Continuing Calibration Blank	Sn (189.925 nm)	0.0037 (ppm)	26.83	0.0037 (ppm)	2.7450
12/18/2015 19:36:33	Continuing Calibration Blank	Sr (460.733 nm)	-0.0042 u (ppm)	81.69	-0.0042 (ppm)	11.9088
12/18/2015 19:36:33	Continuing Calibration Blank	Ti (336.122 nm)	0.0007 (ppm)	40.45	0.0007 (ppm)	53.4775
12/18/2015 19:36:33	Continuing Calibration Blank	Tl (351.923 nm)	-0.0026 u (ppm)	> 100.00	-0.0026 (ppm)	-14.8862
12/18/2015 19:36:33	Continuing Calibration Blank	V (292.401 nm)	0.0010 (ppm)	3.26	0.0010 (ppm)	54.5958
12/18/2015 19:36:33	Continuing Calibration Blank	Y (360.074 nm)	1.02 (Ratio)	1.59	1.02 (Ratio)	596382.52
12/18/2015 19:36:33	Continuing Calibration Blank	Y_R (360.074 nm)	1.01 (Ratio)	0.15	1.01 (Ratio)	246601.92
12/18/2015 19:36:33	Continuing Calibration Blank	Zn (213.857 nm)	0.0005 (ppm)	38.63	0.0005 (ppm)	6.9102
12/18/2015 19:40:01	Contract Required Detection Limit	Ag (328.068 nm)	0.0097 (ppm)	3.76	0.0097 (ppm)	385.8633
12/18/2015 19:40:01	Contract Required Detection Limit	Al (394.401 nm)	0.1322 (ppm)	3.57	0.1322 (ppm)	1554.2285
12/18/2015 19:40:01	Contract Required Detection Limit	Al (394.401 nm)	0.1657 (ppm)	3.22	0.1657 (ppm)	1614.6750
12/18/2015 19:40:01	Contract Required Detection Limit	As (188.980 nm)	0.0137 R (ppm)	21.85	0.0137 (ppm)	8.7315 R
12/18/2015 19:40:01	Contract Required Detection Limit	B (249.772 nm)	0.1839 (ppm)	2.76	0.1839 (ppm)	2460.9234
12/18/2015 19:40:01	Contract Required Detection Limit	Ba (230.424 nm)	0.2059 (ppm)	2.67	0.2059 (ppm)	3121.2136
12/18/2015 19:40:01	Contract Required Detection Limit	Be (313.107 nm)	0.0048 (ppm)	3.07	0.0048 (ppm)	4197.2785

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 19:40:01	Contract Required Detection Limit	Ca (227.547 nm)	0.5822 (ppm)	8.08	0.5822 (ppm)	21.3125
12/18/2015 19:40:01	Contract Required Detection Limit	Ca (227.547 nm)	0.9379 (ppm)	7.06	0.9379 (ppm)	19.9721
12/18/2015 19:40:01	Contract Required Detection Limit	Cd (214.439 nm)	0.0102 (ppm)	3.33	0.0102 (ppm)	111.2976
12/18/2015 19:40:01	Contract Required Detection Limit	Co (230.786 nm)	0.0509 (ppm)	2.14	0.0509 (ppm)	244.1326
12/18/2015 19:40:01	Contract Required Detection Limit	Cr (267.716 nm)	0.0103 (ppm)	2.65	0.0103 (ppm)	236.3672
12/18/2015 19:40:01	Contract Required Detection Limit	Cu (327.395 nm)	0.0235 (ppm)	3.10	0.0235 (ppm)	732.8742
12/18/2015 19:40:01	Contract Required Detection Limit	Fe (234.350 nm)	0.0758 (ppm)	4.02	0.0758 (ppm)	624.6827
12/18/2015 19:40:01	Contract Required Detection Limit	Fe (234.350 nm)	0.0950 (ppm)	3.93	0.0950 (ppm)	647.6069
12/18/2015 19:40:01	Contract Required Detection Limit	K (766.491 nm)	0.9127 (ppm)	0.60	0.9127 (ppm)	2298.3509
12/18/2015 19:40:01	Contract Required Detection Limit	Mg (279.078 nm)	0.6628 (ppm)	2.56	0.6628 (ppm)	1219.9832
12/18/2015 19:40:01	Contract Required Detection Limit	Mg (279.078 nm)	0.9369 (ppm)	2.76	0.9369 (ppm)	1283.6399
12/18/2015 19:40:01	Contract Required Detection Limit	Mn (257.610 nm)	0.0154 (ppm)	2.82	0.0154 (ppm)	1866.9760
12/18/2015 19:40:01	Contract Required Detection Limit	Mo (202.032 nm)	0.0242 (ppm)	3.87	0.0242 (ppm)	107.9076
12/18/2015 19:40:01	Contract Required Detection Limit	Na (588.995 nm)	1.0332 (ppm)	1.58	1.0332 (ppm)	21177.9464
12/18/2015 19:40:01	Contract Required Detection Limit	Ni (230.299 nm)	0.0413 (ppm)	3.43	0.0413 (ppm)	117.6139
12/18/2015 19:40:01	Contract Required Detection Limit	Pb (220.353 nm)	0.0095 (ppm)	24.65	0.0095 (ppm)	12.0523
12/18/2015 19:40:01	Contract Required Detection Limit	Sb (217.582 nm)	0.0572 (ppm)	5.68	0.0572 (ppm)	33.2790
12/18/2015 19:40:01	Contract Required Detection Limit	Se (196.026 nm)	0.0070 R (ppm)	39.05	0.0070 (ppm)	2.8867 R
12/18/2015 19:40:01	Contract Required Detection Limit	Sn (189.925 nm)	0.4870 (ppm)	2.58	0.4870 (ppm)	335.2130
12/18/2015 19:40:01	Contract Required Detection Limit	Sr (460.733 nm)	0.1014 (ppm)	1.58	0.1014 (ppm)	1399.2499
12/18/2015 19:40:01	Contract Required Detection Limit	Ti (336.122 nm)	0.0477 (ppm)	2.62	0.0477 (ppm)	5974.7242
12/18/2015 19:40:01	Contract Required Detection Limit	Tl (351.923 nm)	0.0155 R (ppm)	5.55	0.0155 (ppm)	14.6040 R
12/18/2015 19:40:01	Contract Required Detection Limit	V (292.401 nm)	0.0491 (ppm)	0.40	0.0491 (ppm)	973.6952
12/18/2015 19:40:01	Contract Required Detection Limit	Y (360.074 nm)	1.01 (Ratio)	2.66	1.01 (Ratio)	591172.69
12/18/2015 19:40:01	Contract Required Detection Limit	Y_R (360.074 nm)	1.01 (Ratio)	0.39	1.01 (Ratio)	247979.11
12/18/2015 19:40:01	Contract Required Detection Limit	Zn (213.857 nm)	0.0196 (ppm)	2.48	0.0196 (ppm)	246.3728
12/18/2015 19:43:30	Interference Check Solution A	Ag (328.068 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	13.0701
12/18/2015 19:43:30	Interference Check Solution A	Al (394.401 nm)	194.6500 (ppm)	0.85	194.6500 (ppm)	2065705.8539
12/18/2015 19:43:30	Interference Check Solution A	Al (394.401 nm)	243.8917 o (ppm)	0.83	243.8917 (ppm)	2094353.7761
12/18/2015 19:43:30	Interference Check Solution A	As (188.980 nm)	0.0036 u (ppm)	> 100.00	0.0036 (ppm)	3.7877
12/18/2015 19:43:30	Interference Check Solution A	B (249.772 nm)	-0.0376 u (ppm)	1.82	-0.0376 (ppm)	-419.7673
12/18/2015 19:43:30	Interference Check Solution A	Ba (230.424 nm)	-0.0233 u (ppm)	2.27	-0.0233 (ppm)	19.9557
12/18/2015 19:43:30	Interference Check Solution A	Be (313.107 nm)	-0.0005 u (ppm)	0.40	-0.0005 (ppm)	-68.0975
12/18/2015 19:43:30	Interference Check Solution A	Ca (227.547 nm)	164.7387 (ppm)	0.77	164.7387 (ppm)	5969.3008
12/18/2015 19:43:30	Interference Check Solution A	Ca (227.547 nm)	255.0480 o (ppm)	0.72	255.0480 (ppm)	6098.4568
12/18/2015 19:43:30	Interference Check Solution A	Cd (214.439 nm)	-0.0009 u (ppm)	29.49	-0.0009 (ppm)	-22.7901
12/18/2015 19:43:30	Interference Check Solution A	Co (230.786 nm)	-0.0050 Ku (ppm)	13.75	-0.0050 (ppm)	-30.1689 K
12/18/2015 19:43:30	Interference Check Solution A	Cr (267.716 nm)	-0.0014 Ku (ppm)	8.72	-0.0014 (ppm)	7.9380 K
12/18/2015 19:43:30	Interference Check Solution A	Cu (327.395 nm)	-0.0034 u (ppm)	6.56	-0.0034 (ppm)	16.8823
12/18/2015 19:43:30	Interference Check Solution A	Fe (234.350 nm)	69.2717 (ppm)	0.79	69.2717 (ppm)	526203.8907
12/18/2015 19:43:30	Interference Check Solution A	Fe (234.350 nm)	88.3054 o (ppm)	0.72	88.3054 (ppm)	554150.6770
12/18/2015 19:43:30	Interference Check Solution A	K (766.491 nm)	0.0373 (ppm)	47.38	0.0373 (ppm)	-49.9024
12/18/2015 19:43:30	Interference Check Solution A	Mg (279.078 nm)	166.8287 (ppm)	0.78	166.8287 (ppm)	302251.4901
12/18/2015 19:43:30	Interference Check Solution A	Mg (279.078 nm)	238.5620 o (ppm)	0.75	238.5620 (ppm)	321221.3821
12/18/2015 19:43:30	Interference Check Solution A	Mn (257.610 nm)	-0.0030 u (ppm)	1.11	-0.0030 (ppm)	155.4059
12/18/2015 19:43:30	Interference Check Solution A	Mo (202.032 nm)	-0.0063 u (ppm)	10.44	-0.0063 (ppm)	1.0108
12/18/2015 19:43:30	Interference Check Solution A	Na (588.995 nm)	0.3219 (ppm)	2.37	0.3219 (ppm)	-4900.7706
12/18/2015 19:43:30	Interference Check Solution A	Ni (230.299 nm)	-0.0092 Ku (ppm)	25.93	-0.0092 (ppm)	-15.7165 K
12/18/2015 19:43:30	Interference Check Solution A	Pb (220.353 nm)	-0.0061 Ku (ppm)	25.14	-0.0061 (ppm)	-21.7550 K
12/18/2015 19:43:30	Interference Check Solution A	Sb (217.582 nm)	-0.0103 Ku (ppm)	65.03	-0.0103 (ppm)	11.5993 K
12/18/2015 19:43:30	Interference Check Solution A	Se (196.026 nm)	0.0034 (ppm)	56.42	0.0034 (ppm)	1.3080

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 19:43:30	Interference Check Solution A	Sn (189.925 nm)	-0.0173 u (ppm)	16.66	-0.0173 (ppm)	-1.2650
12/18/2015 19:43:30	Interference Check Solution A	Sr (460.733 nm)	0.0204 (ppm)	13.60	0.0204 (ppm)	-11.4595
12/18/2015 19:43:30	Interference Check Solution A	Ti (336.122 nm)	-0.0086 u (ppm)	1.62	-0.0086 (ppm)	-151.5993
12/18/2015 19:43:30	Interference Check Solution A	Tl (351.923 nm)	-0.0002 u (ppm)	> 100.00	-0.0002 (ppm)	-8.0934
12/18/2015 19:43:30	Interference Check Solution A	V (292.401 nm)	-0.0078 Ku (ppm)	2.01	-0.0078 (ppm)	-44.4217 K
12/18/2015 19:43:30	Interference Check Solution A	Y (360.074 nm)	0.92 (Ratio)	0.79	0.92 (Ratio)	534633.96
12/18/2015 19:43:30	Interference Check Solution A	Y_R (360.074 nm)	0.95 (Ratio)	0.56	0.95 (Ratio)	231833.44
12/18/2015 19:43:30	Interference Check Solution A	Zn (213.857 nm)	-0.0086 u (ppm)	7.13	-0.0086 (ppm)	145.7916
12/18/2015 19:46:59	Interference Check Solution AB	Ag (328.068 nm)	0.2035 (ppm)	0.55	0.2035 (ppm)	7935.0510
12/18/2015 19:46:59	Interference Check Solution AB	Al (394.401 nm)	197.0408 (ppm)	0.42	197.0408 (ppm)	2091076.0727
12/18/2015 19:46:59	Interference Check Solution AB	Al (394.401 nm)	246.6808 o (ppm)	0.45	246.6808 (ppm)	2118295.5610
12/18/2015 19:46:59	Interference Check Solution AB	As (188.980 nm)	0.0952 (ppm)	3.66	0.0952 (ppm)	52.0655
12/18/2015 19:46:59	Interference Check Solution AB	B (249.772 nm)	-0.0385 u (ppm)	1.93	-0.0385 (ppm)	-431.4050
12/18/2015 19:46:59	Interference Check Solution AB	Ba (230.424 nm)	0.4789 (ppm)	0.69	0.4789 (ppm)	7616.4883
12/18/2015 19:46:59	Interference Check Solution AB	Be (313.107 nm)	0.4873 (ppm)	0.54	0.4873 (ppm)	426818.2369
12/18/2015 19:46:59	Interference Check Solution AB	Ca (227.547 nm)	166.1580 (ppm)	0.65	166.1580 (ppm)	6020.7303
12/18/2015 19:46:59	Interference Check Solution AB	Ca (227.547 nm)	257.5415 o (ppm)	0.55	257.5415 (ppm)	6158.1998
12/18/2015 19:46:59	Interference Check Solution AB	Cd (214.439 nm)	0.9397 (ppm)	0.67	0.9397 (ppm)	9989.2032
12/18/2015 19:46:59	Interference Check Solution AB	Co (230.786 nm)	0.4583 (ppm)	0.72	0.4583 (ppm)	2187.8416
12/18/2015 19:46:59	Interference Check Solution AB	Cr (267.716 nm)	0.4877 (ppm)	0.73	0.4877 (ppm)	11317.2787
12/18/2015 19:46:59	Interference Check Solution AB	Cu (327.395 nm)	0.5031 (ppm)	0.61	0.5031 (ppm)	15284.5998
12/18/2015 19:46:59	Interference Check Solution AB	Fe (234.350 nm)	70.3499 (ppm)	0.32	70.3499 (ppm)	534393.0516
12/18/2015 19:46:59	Interference Check Solution AB	Fe (234.350 nm)	89.0993 o (ppm)	0.61	89.0993 (ppm)	559138.4753
12/18/2015 19:46:59	Interference Check Solution AB	K (766.491 nm)	0.0251 u (ppm)	> 100.00	0.0251 (ppm)	-82.6087
12/18/2015 19:46:59	Interference Check Solution AB	Mg (279.078 nm)	169.2461 (ppm)	0.40	169.2461 (ppm)	306630.8381
12/18/2015 19:46:59	Interference Check Solution AB	Mg (279.078 nm)	240.7219 o (ppm)	0.61	240.7219 (ppm)	324129.6358
12/18/2015 19:46:59	Interference Check Solution AB	Mn (257.610 nm)	0.4846 (ppm)	0.53	0.4846 (ppm)	59194.5524
12/18/2015 19:46:59	Interference Check Solution AB	Mo (202.032 nm)	-0.0066 u (ppm)	4.05	-0.0066 (ppm)	0.0037
12/18/2015 19:46:59	Interference Check Solution AB	Na (588.995 nm)	0.3286 (ppm)	3.01	0.3286 (ppm)	-4798.6357
12/18/2015 19:46:59	Interference Check Solution AB	Ni (230.299 nm)	0.9300 (ppm)	0.55	0.9300 (ppm)	2879.9523
12/18/2015 19:46:59	Interference Check Solution AB	Pb (220.353 nm)	0.0438 (ppm)	7.71	0.0438 (ppm)	26.0690
12/18/2015 19:46:59	Interference Check Solution AB	Sb (217.582 nm)	0.5710 (ppm)	1.01	0.5710 (ppm)	335.3476
12/18/2015 19:46:59	Interference Check Solution AB	Se (196.026 nm)	0.0496 (ppm)	20.04	0.0496 (ppm)	17.4244
12/18/2015 19:46:59	Interference Check Solution AB	Sn (189.925 nm)	-0.0175 u (ppm)	10.05	-0.0175 (ppm)	-1.2076
12/18/2015 19:46:59	Interference Check Solution AB	Sr (460.733 nm)	0.0186 (ppm)	19.02	0.0186 (ppm)	-41.6536
12/18/2015 19:46:59	Interference Check Solution AB	Ti (336.122 nm)	-0.0088 u (ppm)	0.50	-0.0088 (ppm)	-161.2080
12/18/2015 19:46:59	Interference Check Solution AB	Tl (351.923 nm)	0.1032 (ppm)	4.29	0.1032 (ppm)	159.9910
12/18/2015 19:46:59	Interference Check Solution AB	V (292.401 nm)	0.4639 (ppm)	0.43	0.4639 (ppm)	8964.8822
12/18/2015 19:46:59	Interference Check Solution AB	Y (360.074 nm)	0.91 (Ratio)	0.74	0.91 (Ratio)	532622.27
12/18/2015 19:46:59	Interference Check Solution AB	Y_R (360.074 nm)	0.94 (Ratio)	0.34	0.94 (Ratio)	229956.79
12/18/2015 19:46:59	Interference Check Solution AB	Zn (213.857 nm)	0.9540 (ppm)	0.65	0.9540 (ppm)	12165.4207
12/18/2015 19:50:28	Continuing Calibration Verification	Ag (328.068 nm)	0.4694 (ppm)	1.55	0.4694 (ppm)	18287.8264
12/18/2015 19:50:28	Continuing Calibration Verification	Al (394.401 nm)	7.4398 (ppm)	1.71	7.4398 (ppm)	79099.8338
12/18/2015 19:50:28	Continuing Calibration Verification	Al (394.401 nm)	9.3007 (ppm)	1.69	9.3007 (ppm)	80212.2476
12/18/2015 19:50:28	Continuing Calibration Verification	As (188.980 nm)	0.9485 (ppm)	2.42	0.9485 (ppm)	501.5057
12/18/2015 19:50:28	Continuing Calibration Verification	B (249.772 nm)	2.3507 (ppm)	1.43	2.3507 (ppm)	31313.9096
12/18/2015 19:50:28	Continuing Calibration Verification	Ba (230.424 nm)	9.9030 (ppm)	1.53	9.9030 (ppm)	149723.0873
12/18/2015 19:50:28	Continuing Calibration Verification	Be (313.107 nm)	0.2464 (ppm)	1.54	0.2464 (ppm)	215614.4766
12/18/2015 19:50:28	Continuing Calibration Verification	Ca (227.547 nm)	15.7160 (ppm)	0.81	15.7160 (ppm)	569.6659
12/18/2015 19:50:28	Continuing Calibration Verification	Ca (227.547 nm)	24.1829 (ppm)	1.10	24.1829 (ppm)	575.7193
12/18/2015 19:50:28	Continuing Calibration Verification	Cd (214.439 nm)	0.4931 (ppm)	1.68	0.4931 (ppm)	5250.9298

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 19:50:28	Continuing Calibration Verification	Co (230.786 nm)	2.3909 (ppm)	1.83	2.3909 (ppm)	11444.9247
12/18/2015 19:50:28	Continuing Calibration Verification	Cr (267.716 nm)	0.5042 (ppm)	1.62	0.5042 (ppm)	11657.4464
12/18/2015 19:50:28	Continuing Calibration Verification	Cu (327.395 nm)	1.1763 (ppm)	1.74	1.1763 (ppm)	35482.6953
12/18/2015 19:50:28	Continuing Calibration Verification	Fe (234.350 nm)	3.8634 (ppm)	1.80	3.8634 (ppm)	29393.6040
12/18/2015 19:50:28	Continuing Calibration Verification	Fe (234.350 nm)	4.8552 (ppm)	1.74	4.8552 (ppm)	30551.6069
12/18/2015 19:50:28	Continuing Calibration Verification	K (766.491 nm)	23.9296 (ppm)	0.50	23.9296 (ppm)	61254.2468
12/18/2015 19:50:28	Continuing Calibration Verification	Mg (279.078 nm)	16.6608 (ppm)	1.65	16.6608 (ppm)	30202.4751
12/18/2015 19:50:28	Continuing Calibration Verification	Mg (279.078 nm)	23.5048 (ppm)	1.63	23.5048 (ppm)	31666.4640
12/18/2015 19:50:28	Continuing Calibration Verification	Mn (257.610 nm)	0.7430 (ppm)	1.52	0.7430 (ppm)	90003.2613
12/18/2015 19:50:28	Continuing Calibration Verification	Mo (202.032 nm)	2.3925 (ppm)	1.60	2.3925 (ppm)	10465.4355
12/18/2015 19:50:28	Continuing Calibration Verification	Na (588.995 nm)	23.8551 (ppm)	0.46	23.8551 (ppm)	648475.8829
12/18/2015 19:50:28	Continuing Calibration Verification	Ni (230.299 nm)	2.0092 (ppm)	1.72	2.0092 (ppm)	6185.0649
12/18/2015 19:50:28	Continuing Calibration Verification	Pb (220.353 nm)	0.4920 (ppm)	1.77	0.4920 (ppm)	475.5006
12/18/2015 19:50:28	Continuing Calibration Verification	Sb (217.582 nm)	4.8051 (ppm)	1.63	4.8051 (ppm)	2676.7383
12/18/2015 19:50:28	Continuing Calibration Verification	Se (196.026 nm)	0.4767 (ppm)	1.35	0.4767 (ppm)	167.0882
12/18/2015 19:50:28	Continuing Calibration Verification	Sn (189.925 nm)	4.8193 (ppm)	1.65	4.8193 (ppm)	3315.8348
12/18/2015 19:50:28	Continuing Calibration Verification	Sr (460.733 nm)	2.4033 (ppm)	0.52	2.4033 (ppm)	31627.6811
12/18/2015 19:50:28	Continuing Calibration Verification	Ti (336.122 nm)	2.3897 (ppm)	1.52	2.3897 (ppm)	300446.0456
12/18/2015 19:50:28	Continuing Calibration Verification	Tl (351.923 nm)	0.9688 (ppm)	1.90	0.9688 (ppm)	1563.4880
12/18/2015 19:50:28	Continuing Calibration Verification	V (292.401 nm)	2.4183 (ppm)	0.63	2.4183 (ppm)	46228.3216
12/18/2015 19:50:28	Continuing Calibration Verification	Y (360.074 nm)	0.98 (Ratio)	1.71	0.98 (Ratio)	569238.63
12/18/2015 19:50:28	Continuing Calibration Verification	Y_R (360.074 nm)	0.98 (Ratio)	0.46	0.98 (Ratio)	240130.09
12/18/2015 19:50:28	Continuing Calibration Verification	Zn (213.857 nm)	0.9798 (ppm)	1.52	0.9798 (ppm)	12249.1201
12/18/2015 19:53:57	Continuing Calibration Blank	Ag (328.068 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	12.7796
12/18/2015 19:53:57	Continuing Calibration Blank	Al (394.401 nm)	-0.0014 u (ppm)	> 100.00	-0.0014 (ppm)	136.8192
12/18/2015 19:53:57	Continuing Calibration Blank	Al (394.401 nm)	-0.0022 u (ppm)	> 100.00	-0.0022 (ppm)	165.1543
12/18/2015 19:53:57	Continuing Calibration Blank	As (188.980 nm)	-0.0023 u (ppm)	69.93	-0.0023 (ppm)	0.2599
12/18/2015 19:53:57	Continuing Calibration Blank	B (249.772 nm)	0.0015 (ppm)	36.31	0.0015 (ppm)	31.4839
12/18/2015 19:53:57	Continuing Calibration Blank	Ba (230.424 nm)	0.0030 (ppm)	39.01	0.0030 (ppm)	54.3720
12/18/2015 19:53:57	Continuing Calibration Blank	Be (313.107 nm)	0.0001 (ppm)	49.91	0.0001 (ppm)	17.1541
12/18/2015 19:53:57	Continuing Calibration Blank	Ca (227.547 nm)	0.0141 u (ppm)	> 100.00	0.0141 (ppm)	0.7267
12/18/2015 19:53:57	Continuing Calibration Blank	Ca (227.547 nm)	0.0215 u (ppm)	> 100.00	0.0215 (ppm)	-1.9309
12/18/2015 19:53:57	Continuing Calibration Blank	Cd (214.439 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	3.4365
12/18/2015 19:53:57	Continuing Calibration Blank	Co (230.786 nm)	0.0011 (ppm)	20.79	0.0011 (ppm)	6.0778
12/18/2015 19:53:57	Continuing Calibration Blank	Cr (267.716 nm)	0.0001 (ppm)	36.70	0.0001 (ppm)	1.1424
12/18/2015 19:53:57	Continuing Calibration Blank	Cu (327.395 nm)	0.0004 (ppm)	41.26	0.0004 (ppm)	35.1278
12/18/2015 19:53:57	Continuing Calibration Blank	Fe (234.350 nm)	-0.0003 u (ppm)	> 100.00	-0.0003 (ppm)	46.4934
12/18/2015 19:53:57	Continuing Calibration Blank	Fe (234.350 nm)	-0.0005 u (ppm)	> 100.00	-0.0005 (ppm)	45.3802
12/18/2015 19:53:57	Continuing Calibration Blank	K (766.491 nm)	-0.0081 u (ppm)	> 100.00	-0.0081 (ppm)	-60.2570
12/18/2015 19:53:57	Continuing Calibration Blank	Mg (279.078 nm)	0.0016 u (ppm)	> 100.00	0.0016 (ppm)	22.1323
12/18/2015 19:53:57	Continuing Calibration Blank	Mg (279.078 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	22.5901
12/18/2015 19:53:57	Continuing Calibration Blank	Mn (257.610 nm)	0.0002 (ppm)	31.79	0.0002 (ppm)	35.7213
12/18/2015 19:53:57	Continuing Calibration Blank	Mo (202.032 nm)	0.0011 (ppm)	66.62	0.0011 (ppm)	6.9377
12/18/2015 19:53:57	Continuing Calibration Blank	Na (588.995 nm)	0.0071 (ppm)	> 100.00	0.0071 (ppm)	-7032.1933
12/18/2015 19:53:57	Continuing Calibration Blank	Ni (230.299 nm)	0.0013 (ppm)	57.76	0.0013 (ppm)	-5.8839
12/18/2015 19:53:57	Continuing Calibration Blank	Pb (220.353 nm)	0.0003 u (ppm)	> 100.00	0.0003 (ppm)	3.1229
12/18/2015 19:53:57	Continuing Calibration Blank	Sb (217.582 nm)	0.0007 u (ppm)	> 100.00	0.0007 (ppm)	1.8048
12/18/2015 19:53:57	Continuing Calibration Blank	Se (196.026 nm)	0.0021 (ppm)	95.62	0.0021 (ppm)	1.1840
12/18/2015 19:53:57	Continuing Calibration Blank	Sn (189.925 nm)	0.0026 (ppm)	30.91	0.0026 (ppm)	2.0084
12/18/2015 19:53:57	Continuing Calibration Blank	Sr (460.733 nm)	0.0005 u (ppm)	> 100.00	0.0005 (ppm)	74.2384
12/18/2015 19:53:57	Continuing Calibration Blank	Ti (336.122 nm)	0.0006 (ppm)	48.00	0.0006 (ppm)	51.1856

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 19:53:57	Continuing Calibration Blank	Tl (351.923 nm)	-0.0009 u (ppm)	> 100.00	-0.0009 (ppm)	-11.9975
12/18/2015 19:53:57	Continuing Calibration Blank	V (292.401 nm)	0.0012 (ppm)	12.20	0.0012 (ppm)	58.7830
12/18/2015 19:53:57	Continuing Calibration Blank	Y (360.074 nm)	1.02 (Ratio)	1.61	1.02 (Ratio)	593768.33
12/18/2015 19:53:57	Continuing Calibration Blank	Y_R (360.074 nm)	1.00 (Ratio)	0.57	1.00 (Ratio)	246279.40
12/18/2015 19:53:57	Continuing Calibration Blank	Zn (213.857 nm)	0.0006 (ppm)	10.84	0.0006 (ppm)	8.2780
12/18/2015 19:57:26	PBW-252267	Ag (328.068 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	11.4863
12/18/2015 19:57:26	PBW-252267	Al (394.401 nm)	-0.0010 u (ppm)	51.34	-0.0010 (ppm)	140.6410
12/18/2015 19:57:26	PBW-252267	Al (394.401 nm)	-0.0017 u (ppm)	46.74	-0.0017 (ppm)	169.8042
12/18/2015 19:57:26	PBW-252267	As (188.980 nm)	-0.0028 u (ppm)	90.07	-0.0028 (ppm)	0.0108
12/18/2015 19:57:26	PBW-252267	B (249.772 nm)	0.0017 (ppm)	8.66	0.0017 (ppm)	34.7463
12/18/2015 19:57:26	PBW-252267	Ba (230.424 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	9.7803
12/18/2015 19:57:26	PBW-252267	Be (313.107 nm)	0.0000 (ppm)	> 100.00	0.0000 (ppm)	-38.6786
12/18/2015 19:57:26	PBW-252267	Ca (227.547 nm)	0.0401 (ppm)	84.91	0.0401 (ppm)	1.6695
12/18/2015 19:57:26	PBW-252267	Ca (227.547 nm)	0.1075 (ppm)	64.50	0.1075 (ppm)	0.1197
12/18/2015 19:57:26	PBW-252267	Cd (214.439 nm)	0.0001 (ppm)	85.11	0.0001 (ppm)	3.8384
12/18/2015 19:57:26	PBW-252267	Co (230.786 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	1.2213
12/18/2015 19:57:26	PBW-252267	Cr (267.716 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	0.1345
12/18/2015 19:57:26	PBW-252267	Cu (327.395 nm)	0.0009 (ppm)	6.83	0.0009 (ppm)	50.9877
12/18/2015 19:57:26	PBW-252267	Fe (234.350 nm)	-0.0003 u (ppm)	> 100.00	-0.0003 (ppm)	46.8226
12/18/2015 19:57:26	PBW-252267	Fe (234.350 nm)	-0.0005 u (ppm)	> 100.00	-0.0005 (ppm)	45.4058
12/18/2015 19:57:26	PBW-252267	K (766.491 nm)	0.1165 (ppm)	19.77	0.1165 (ppm)	258.9187
12/18/2015 19:57:26	PBW-252267	Mg (279.078 nm)	-0.0049 u (ppm)	45.37	-0.0049 (ppm)	10.4026
12/18/2015 19:57:26	PBW-252267	Mg (279.078 nm)	-0.0095 u (ppm)	25.52	-0.0095 (ppm)	9.6764
12/18/2015 19:57:26	PBW-252267	Mn (257.610 nm)	0.0008 (ppm)	4.48	0.0008 (ppm)	106.0550
12/18/2015 19:57:26	PBW-252267	Mo (202.032 nm)	-0.0007 u (ppm)	98.11	-0.0007 (ppm)	-0.7113
12/18/2015 19:57:26	PBW-252267	Na (588.995 nm)	0.0500 (ppm)	5.91	0.0500 (ppm)	-5850.5260
12/18/2015 19:57:26	PBW-252267	Ni (230.299 nm)	0.0010 (ppm)	50.81	0.0010 (ppm)	-6.8077
12/18/2015 19:57:26	PBW-252267	Pb (220.353 nm)	-0.0017 u (ppm)	43.03	-0.0017 (ppm)	1.2866
12/18/2015 19:57:26	PBW-252267	Sb (217.582 nm)	0.0031 (ppm)	54.42	0.0031 (ppm)	3.1518
12/18/2015 19:57:26	PBW-252267	Se (196.026 nm)	0.0024 (ppm)	74.26	0.0024 (ppm)	1.2893
12/18/2015 19:57:26	PBW-252267	Sn (189.925 nm)	0.0017 (ppm)	64.67	0.0017 (ppm)	1.3966
12/18/2015 19:57:26	PBW-252267	Sr (460.733 nm)	0.0015 u (ppm)	> 100.00	0.0015 (ppm)	86.3899
12/18/2015 19:57:26	PBW-252267	Ti (336.122 nm)	-0.0003 u (ppm)	24.24	-0.0003 (ppm)	-63.9124
12/18/2015 19:57:26	PBW-252267	Ti (351.923 nm)	0.0027 u (ppm)	> 100.00	0.0027 (ppm)	-6.1437
12/18/2015 19:57:26	PBW-252267	V (292.401 nm)	0.0002 (ppm)	97.12	0.0002 (ppm)	39.1138
12/18/2015 19:57:26	PBW-252267	Y (360.074 nm)	1.02 (Ratio)	0.33	1.02 (Ratio)	592224.23
12/18/2015 19:57:26	PBW-252267	Y_R (360.074 nm)	0.99 (Ratio)	0.84	0.99 (Ratio)	243303.53
12/18/2015 19:57:26	PBW-252267	Zn (213.857 nm)	0.0051 (ppm)	1.73	0.0051 (ppm)	64.3687
12/18/2015 20:00:55	LCSW-252267	Ag (328.068 nm)	0.0442 (ppm)	0.62	0.0442 (ppm)	1730.8469
12/18/2015 20:00:55	LCSW-252267	Al (394.401 nm)	1.3118 (ppm)	0.97	1.3118 (ppm)	14071.3543
12/18/2015 20:00:55	LCSW-252267	Al (394.401 nm)	1.6461 (ppm)	0.94	1.6461 (ppm)	14319.0827
12/18/2015 20:00:55	LCSW-252267	As (188.980 nm)	0.0339 (ppm)	1.04	0.0339 (ppm)	19.3563
12/18/2015 20:00:55	LCSW-252267	B (249.772 nm)	0.8401 (ppm)	0.71	0.8401 (ppm)	11196.7494
12/18/2015 20:00:55	LCSW-252267	Ba (230.424 nm)	1.8759 (ppm)	1.62	1.8759 (ppm)	28367.1858
12/18/2015 20:00:55	LCSW-252267	Be (313.107 nm)	0.0451 (ppm)	0.79	0.0451 (ppm)	39449.3223
12/18/2015 20:00:55	LCSW-252267	Ca (227.547 nm)	1.1694 (ppm)	6.71	1.1694 (ppm)	42.5879
12/18/2015 20:00:55	LCSW-252267	Ca (227.547 nm)	1.8766 (ppm)	9.32	1.8766 (ppm)	42.4692
12/18/2015 20:00:55	LCSW-252267	Cd (214.439 nm)	0.0461 (ppm)	0.44	0.0461 (ppm)	493.6153
12/18/2015 20:00:55	LCSW-252267	Co (230.786 nm)	0.4482 (ppm)	1.06	0.4482 (ppm)	2146.0091
12/18/2015 20:00:55	LCSW-252267	Cr (267.716 nm)	0.1882 (ppm)	0.77	0.1882 (ppm)	4349.6254
12/18/2015 20:00:55	LCSW-252267	Cu (327.395 nm)	0.2230 (ppm)	1.28	0.2230 (ppm)	6745.3678

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 20:00:55	LCSW-252267	Fe (234.350 nm)	0.7171 (ppm)	0.83	0.7171 (ppm)	5495.8494
12/18/2015 20:00:55	LCSW-252267	Fe (234.350 nm)	0.9052 (ppm)	0.88	0.9052 (ppm)	5722.4280
12/18/2015 20:00:55	LCSW-252267	K (766.491 nm)	17.3847 (ppm)	0.28	17.3847 (ppm)	44493.0692
12/18/2015 20:00:55	LCSW-252267	Mg (279.078 nm)	1.1913 (ppm)	0.79	1.1913 (ppm)	2177.4608
12/18/2015 20:00:55	LCSW-252267	Mg (279.078 nm)	1.6848 (ppm)	0.79	1.6848 (ppm)	2290.8501
12/18/2015 20:00:55	LCSW-252267	Mn (257.610 nm)	0.4614 (ppm)	0.78	0.4614 (ppm)	55879.3649
12/18/2015 20:00:55	LCSW-252267	Mo (202.032 nm)	0.4513 (ppm)	0.86	0.4513 (ppm)	1975.5531
12/18/2015 20:00:55	LCSW-252267	Na (588.995 nm)	18.3535 (ppm)	0.28	18.3535 (ppm)	497603.9422
12/18/2015 20:00:55	LCSW-252267	Ni (230.299 nm)	0.4632 (ppm)	0.41	0.4632 (ppm)	1418.3816
12/18/2015 20:00:55	LCSW-252267	Pb (220.353 nm)	0.4683 (ppm)	0.73	0.4683 (ppm)	453.4701
12/18/2015 20:00:55	LCSW-252267	Sb (217.582 nm)	0.4312 (ppm)	1.41	0.4312 (ppm)	241.5460
12/18/2015 20:00:55	LCSW-252267	Se (196.026 nm)	0.8401 (ppm)	1.04	0.8401 (ppm)	294.0574
12/18/2015 20:00:55	LCSW-252267	Sn (189.925 nm)	4.5291 (ppm)	0.75	4.5291 (ppm)	3115.7482
12/18/2015 20:00:55	LCSW-252267	Sr (460.733 nm)	1.9018 (ppm)	0.40	1.9018 (ppm)	25050.3452
12/18/2015 20:00:55	LCSW-252267	Tl (336.122 nm)	0.4461 (ppm)	0.82	0.4461 (ppm)	56056.5420
12/18/2015 20:00:55	LCSW-252267	Tl (351.923 nm)	1.6541 (ppm)	0.72	1.6541 (ppm)	2676.8151
12/18/2015 20:00:55	LCSW-252267	V (292.401 nm)	0.4591 (ppm)	0.74	0.4591 (ppm)	8804.0232
12/18/2015 20:00:55	LCSW-252267	Y (360.074 nm)	1.00 (Ratio)	1.08	1.00 (Ratio)	582512.83
12/18/2015 20:00:55	LCSW-252267	Y_R (360.074 nm)	0.98 (Ratio)	0.28	0.98 (Ratio)	241475.41
12/18/2015 20:00:55	LCSW-252267	Zn (213.857 nm)	0.4458 (ppm)	0.73	0.4458 (ppm)	5567.9846
12/18/2015 20:04:24	R1510409-003	Ag (328.068 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	7.9596
12/18/2015 20:04:24	R1510409-003	Al (394.401 nm)	-0.0027 u (ppm)	14.43	-0.0027 (ppm)	122.5514
12/18/2015 20:04:24	R1510409-003	Al (394.401 nm)	-0.0040 u (ppm)	15.34	-0.0040 (ppm)	149.4204
12/18/2015 20:04:24	R1510409-003	As (188.980 nm)	-0.0027 u (ppm)	> 100.00	-0.0027 (ppm)	0.0577
12/18/2015 20:04:24	R1510409-003	B (249.772 nm)	0.0145 (ppm)	1.91	0.0145 (ppm)	204.9479
12/18/2015 20:04:24	R1510409-003	Ba (230.424 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	11.0636
12/18/2015 20:04:24	R1510409-003	Be (313.107 nm)	0.0000 (ppm)	35.05	0.0000 (ppm)	-58.2671
12/18/2015 20:04:24	R1510409-003	Ca (227.547 nm)	0.0030 u (ppm)	> 100.00	0.0030 (ppm)	0.3251
12/18/2015 20:04:24	R1510409-003	Ca (227.547 nm)	0.0357 (ppm)	74.79	0.0357 (ppm)	-1.5908
12/18/2015 20:04:24	R1510409-003	Cd (214.439 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	4.6377
12/18/2015 20:04:24	R1510409-003	Co (230.786 nm)	0.0004 u (ppm)	> 100.00	0.0004 (ppm)	2.6547
12/18/2015 20:04:24	R1510409-003	Cr (267.716 nm)	0.0002 (ppm)	13.70	0.0002 (ppm)	3.2832
12/18/2015 20:04:24	R1510409-003	Cu (327.395 nm)	0.0006 (ppm)	8.59	0.0006 (ppm)	42.6600
12/18/2015 20:04:24	R1510409-003	Fe (234.350 nm)	0.0033 (ppm)	5.69	0.0033 (ppm)	74.5135
12/18/2015 20:04:24	R1510409-003	Fe (234.350 nm)	0.0036 (ppm)	14.38	0.0036 (ppm)	71.0597
12/18/2015 20:04:24	R1510409-003	K (766.491 nm)	0.0070 u (ppm)	> 100.00	0.0070 (ppm)	-21.6455
12/18/2015 20:04:24	R1510409-003	Mg (279.078 nm)	-0.0036 u (ppm)	15.27	-0.0036 (ppm)	12.6611
12/18/2015 20:04:24	R1510409-003	Mg (279.078 nm)	-0.0062 u (ppm)	30.22	-0.0062 (ppm)	14.0084
12/18/2015 20:04:24	R1510409-003	Mn (257.610 nm)	0.0005 (ppm)	3.09	0.0005 (ppm)	60.6722
12/18/2015 20:04:24	R1510409-003	Mo (202.032 nm)	-0.0004 u (ppm)	> 100.00	-0.0004 (ppm)	0.3500
12/18/2015 20:04:24	R1510409-003	Na (588.995 nm)	0.0580 (ppm)	8.53	0.0580 (ppm)	-5630.6628
12/18/2015 20:04:24	R1510409-003	Ni (230.299 nm)	-0.0007 u (ppm)	98.17	-0.0007 (ppm)	-11.7697
12/18/2015 20:04:24	R1510409-003	Pb (220.353 nm)	0.0012 u (ppm)	> 100.00	0.0012 (ppm)	4.0491
12/18/2015 20:04:24	R1510409-003	Sb (217.582 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	1.3891
12/18/2015 20:04:24	R1510409-003	Se (196.026 nm)	0.0018 u (ppm)	> 100.00	0.0018 (ppm)	1.0891
12/18/2015 20:04:24	R1510409-003	Sn (189.925 nm)	-0.0008 u (ppm)	> 100.00	-0.0008 (ppm)	-0.2948
12/18/2015 20:04:24	R1510409-003	Sr (460.733 nm)	0.0060 (ppm)	56.58	0.0060 (ppm)	145.2935
12/18/2015 20:04:24	R1510409-003	Tl (336.122 nm)	-0.0003 u (ppm)	7.06	-0.0003 (ppm)	-62.7008
12/18/2015 20:04:24	R1510409-003	Tl (351.923 nm)	0.0042 (ppm)	98.01	0.0042 (ppm)	-3.8031
12/18/2015 20:04:24	R1510409-003	V (292.401 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	39.0161
12/18/2015 20:04:24	R1510409-003	Y (360.074 nm)	1.03 (Ratio)	0.93	1.03 (Ratio)	598531.51

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 20:04:24	R1510409-003	Y_R (360.074 nm)	1.00 (Ratio)	0.24	1.00 (Ratio)	245718.00
12/18/2015 20:04:24	R1510409-003	Zn (213.857 nm)	0.0055 (ppm)	2.11	0.0055 (ppm)	69.6666
12/18/2015 20:07:53	R1510759-001 100X	Ag (328.068 nm)	-0.0140 u (ppm)	63.27	-0.0001 (ppm)	3.7282
12/18/2015 20:07:53	R1510759-001 100X	Al (394.401 nm)	-0.5286 u (ppm)	18.38	-0.0053 (ppm)	95.3926
12/18/2015 20:07:53	R1510759-001 100X	Al (394.401 nm)	-0.9978 u (ppm)	11.25	-0.0100 (ppm)	123.3850
12/18/2015 20:07:53	R1510759-001 100X	As (188.980 nm)	0.1180 u (ppm)	> 100.00	0.0012 (ppm)	2.1255
12/18/2015 20:07:53	R1510759-001 100X	B (249.772 nm)	22.2207 (ppm)	1.61	0.2222 (ppm)	2970.9287
12/18/2015 20:07:53	R1510759-001 100X	Ba (230.424 nm)	0.6090 (ppm)	2.60	0.0061 (ppm)	100.9157
12/18/2015 20:07:53	R1510759-001 100X	Be (313.107 nm)	-0.0024 (ppm)	47.93	0.0000 (ppm)	-61.2978
12/18/2015 20:07:53	R1510759-001 100X	Ca (227.547 nm)	142.3876 (ppm)	3.77	1.4239 (ppm)	51.8084
12/18/2015 20:07:53	R1510759-001 100X	Ca (227.547 nm)	224.3352 (ppm)	2.33	2.2434 (ppm)	51.1609
12/18/2015 20:07:53	R1510759-001 100X	Cd (214.439 nm)	-0.0156 u (ppm)	73.73	-0.0002 (ppm)	1.3322
12/18/2015 20:07:53	R1510759-001 100X	Co (230.786 nm)	0.0261 (ppm)	> 100.00	0.0003 (ppm)	1.7961
12/18/2015 20:07:53	R1510759-001 100X	Cr (267.716 nm)	0.4175 (ppm)	4.95	0.0042 (ppm)	94.2250
12/18/2015 20:07:53	R1510759-001 100X	Cu (327.395 nm)	0.0119 (ppm)	98.08	0.0001 (ppm)	27.0909
12/18/2015 20:07:53	R1510759-001 100X	Fe (234.350 nm)	17.7800 (ppm)	1.53	0.1778 (ppm)	1399.6355
12/18/2015 20:07:53	R1510759-001 100X	Fe (234.350 nm)	22.4429 (ppm)	1.72	0.2244 (ppm)	1461.9298
12/18/2015 20:07:53	R1510759-001 100X	K (766.491 nm)	1323.0286 (ppm)	0.32	13.2303 (ppm)	33851.5730
12/18/2015 20:07:53	R1510759-001 100X	Mg (279.078 nm)	140.8353 (ppm)	1.45	1.4084 (ppm)	2570.6513
12/18/2015 20:07:53	R1510759-001 100X	Mg (279.078 nm)	199.8752 (ppm)	1.45	1.9988 (ppm)	2713.1768
12/18/2015 20:07:53	R1510759-001 100X	Mn (257.610 nm)	0.4177 (ppm)	1.16	0.0042 (ppm)	513.5813
12/18/2015 20:07:53	R1510759-001 100X	Mo (202.032 nm)	-0.1088 u (ppm)	4.38	-0.0011 (ppm)	-2.3971
12/18/2015 20:07:53	R1510759-001 100X	Na (588.995 nm)	3485.2768 (ppm)	0.38	34.8528 (ppm)	951488.1891
12/18/2015 20:07:53	R1510759-001 100X	Ni (230.299 nm)	0.3610 (ppm)	33.52	0.0036 (ppm)	1.4319
12/18/2015 20:07:53	R1510759-001 100X	Pb (220.353 nm)	0.2617 (ppm)	73.68	0.0026 (ppm)	5.3834
12/18/2015 20:07:53	R1510759-001 100X	Sb (217.582 nm)	0.1524 u (ppm)	> 100.00	0.0015 (ppm)	2.3255
12/18/2015 20:07:53	R1510759-001 100X	Se (196.026 nm)	0.5559 u (ppm)	> 100.00	0.0056 (ppm)	2.3950
12/18/2015 20:07:53	R1510759-001 100X	Sn (189.925 nm)	-0.1370 u (ppm)	47.98	-0.0014 (ppm)	-0.7010
12/18/2015 20:07:53	R1510759-001 100X	Sr (460.733 nm)	3.0912 (ppm)	8.90	0.0309 (ppm)	472.9197
12/18/2015 20:07:53	R1510759-001 100X	Ti (336.122 nm)	0.2502 (ppm)	1.97	0.0025 (ppm)	292.0320
12/18/2015 20:07:53	R1510759-001 100X	Tl (351.923 nm)	-0.1041 u (ppm)	> 100.00	-0.0010 (ppm)	-12.2747
12/18/2015 20:07:53	R1510759-001 100X	V (292.401 nm)	0.0802 (ppm)	42.07	0.0008 (ppm)	51.5797
12/18/2015 20:07:53	R1510759-001 100X	Y (360.074 nm)	1.00 (Ratio)	1.57	0.01 (Ratio)	581740.68
12/18/2015 20:07:53	R1510759-001 100X	Y_R (360.074 nm)	1.00 (Ratio)	0.36	0.01 (Ratio)	244529.25
12/18/2015 20:07:53	R1510759-001 100X	Zn (213.857 nm)	0.4773 (ppm)	2.15	0.0048 (ppm)	61.5877
12/18/2015 20:11:22	R1510759-002 200X	Ag (328.068 nm)	0.0053 u (ppm)	> 100.00	0.0000 (ppm)	10.1907
12/18/2015 20:11:22	R1510759-002 200X	Al (394.401 nm)	-0.7178 u (ppm)	29.98	-0.0036 (ppm)	113.4032
12/18/2015 20:11:22	R1510759-002 200X	Al (394.401 nm)	-1.9436 u (ppm)	8.13	-0.0097 (ppm)	146.8052
12/18/2015 20:11:22	R1510759-002 200X	As (188.980 nm)	0.4169 (ppm)	33.49	0.0021 (ppm)	2.6099
12/18/2015 20:11:22	R1510759-002 200X	B (249.772 nm)	52.8101 (ppm)	1.71	0.2641 (ppm)	3528.5404
12/18/2015 20:11:22	R1510759-002 200X	Ba (230.424 nm)	2.2302 (ppm)	2.28	0.0112 (ppm)	177.7300
12/18/2015 20:11:22	R1510759-002 200X	Be (313.107 nm)	-0.0064 (ppm)	23.41	0.0000 (ppm)	-67.4765
12/18/2015 20:11:22	R1510759-002 200X	Ca (227.547 nm)	537.7960 (ppm)	3.07	2.6890 (ppm)	97.6477
12/18/2015 20:11:22	R1510759-002 200X	Ca (227.547 nm)	837.4359 (ppm)	3.26	4.1872 (ppm)	97.5547
12/18/2015 20:11:22	R1510759-002 200X	Cd (214.439 nm)	-0.0147 u (ppm)	> 100.00	-0.0001 (ppm)	2.2413
12/18/2015 20:11:22	R1510759-002 200X	Co (230.786 nm)	0.1776 (ppm)	22.72	0.0009 (ppm)	4.8188
12/18/2015 20:11:22	R1510759-002 200X	Cr (267.716 nm)	1.0112 (ppm)	4.64	0.0051 (ppm)	114.4202
12/18/2015 20:11:22	R1510759-002 200X	Cu (327.395 nm)	0.0032 u (ppm)	> 100.00	0.0000 (ppm)	23.8862
12/18/2015 20:11:22	R1510759-002 200X	Fe (234.350 nm)	44.0046 (ppm)	2.13	0.2200 (ppm)	1720.3393
12/18/2015 20:11:22	R1510759-002 200X	Fe (234.350 nm)	55.4372 (ppm)	1.94	0.2772 (ppm)	1796.2967
12/18/2015 20:11:22	R1510759-002 200X	K (766.491 nm)	3236.4577 (ppm)	0.05	16.1823 (ppm)	41413.4548

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 20:11:22	R1510759-002 200X	Mg (279.078 nm)	353.5299 (ppm)	1.92	1.7676 (ppm)	3221.5643
12/18/2015 20:11:22	R1510759-002 200X	Mg (279.078 nm)	503.0478 (ppm)	1.89	2.5152 (ppm)	3408.8577
12/18/2015 20:11:22	R1510759-002 200X	Mn (257.610 nm)	3.8369 (ppm)	2.14	0.0192 (ppm)	2331.9796
12/18/2015 20:11:22	R1510759-002 200X	Mo (202.032 nm)	-0.1645 u (ppm)	12.48	-0.0008 (ppm)	-1.1177
12/18/2015 20:11:22	R1510759-002 200X	Na (588.995 nm)	8568.3966 (ppm)	0.30	42.8420 (ppm)	1171239.0880
12/18/2015 20:11:22	R1510759-002 200X	Ni (230.299 nm)	0.8197 (ppm)	7.97	0.0041 (ppm)	2.9545
12/18/2015 20:11:22	R1510759-002 200X	Pb (220.353 nm)	-0.2800 u (ppm)	> 100.00	-0.0014 (ppm)	1.5019
12/18/2015 20:11:22	R1510759-002 200X	Sb (217.582 nm)	0.9906 (ppm)	31.06	0.0050 (ppm)	4.2562
12/18/2015 20:11:22	R1510759-002 200X	Se (196.026 nm)	0.1701 u (ppm)	> 100.00	0.0009 (ppm)	0.7529
12/18/2015 20:11:22	R1510759-002 200X	Sn (189.925 nm)	0.3223 u (ppm)	> 100.00	0.0016 (ppm)	1.3562
12/18/2015 20:11:22	R1510759-002 200X	Sr (460.733 nm)	7.1952 (ppm)	10.20	0.0360 (ppm)	539.7349
12/18/2015 20:11:22	R1510759-002 200X	Ti (336.122 nm)	0.5998 (ppm)	2.78	0.0030 (ppm)	356.8663
12/18/2015 20:11:22	R1510759-002 200X	Tl (351.923 nm)	0.7503 (ppm)	23.57	0.0038 (ppm)	-4.4685
12/18/2015 20:11:22	R1510759-002 200X	V (292.401 nm)	0.2230 (ppm)	4.82	0.0011 (ppm)	57.8346
12/18/2015 20:11:22	R1510759-002 200X	Y (360.074 nm)	0.99 (Ratio)	1.77	0.00 (Ratio)	578760.09
12/18/2015 20:11:22	R1510759-002 200X	Y_R (360.074 nm)	1.00 (Ratio)	0.34	0.00 (Ratio)	244581.66
12/18/2015 20:11:22	R1510759-002 200X	Zn (213.857 nm)	1.0478 (ppm)	3.16	0.0052 (ppm)	67.9925
12/18/2015 20:14:51	R1510839-007	Ag (328.068 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	7.1357
12/18/2015 20:14:51	R1510839-007	Al (394.401 nm)	0.0368 (ppm)	79.14	0.0368 (ppm)	542.2509
12/18/2015 20:14:51	R1510839-007	Al (394.401 nm)	-0.0482 u (ppm)	55.53	-0.0482 (ppm)	425.8787
12/18/2015 20:14:51	R1510839-007	As (188.980 nm)	0.0003 u (ppm)	> 100.00	0.0003 (ppm)	1.9910
12/18/2015 20:14:51	R1510839-007	B (249.772 nm)	0.1038 (ppm)	0.39	0.1038 (ppm)	1413.2415
12/18/2015 20:14:51	R1510839-007	Ba (230.424 nm)	0.0425 (ppm)	1.07	0.0425 (ppm)	660.2359
12/18/2015 20:14:51	R1510839-007	Be (313.107 nm)	0.0000 (ppm)	12.65	0.0000 (ppm)	-60.0364
12/18/2015 20:14:51	R1510839-007	Ca (227.547 nm)	38.0681 (ppm)	0.49	38.0681 (ppm)	1379.5628
12/18/2015 20:14:51	R1510839-007 LR	Ca (227.547 nm)	58.7716 o (ppm)	0.46	58.7716 (ppm)	1400.9089
12/18/2015 20:14:51	R1510839-007	Cd (214.439 nm)	-0.0003 u (ppm)	17.39	-0.0003 (ppm)	-0.0363
12/18/2015 20:14:51	R1510839-007	Co (230.786 nm)	0.0003 u (ppm)	> 100.00	0.0003 (ppm)	3.5100
12/18/2015 20:14:51	R1510839-007	Cr (267.716 nm)	0.0124 (ppm)	0.87	0.0124 (ppm)	284.7426
12/18/2015 20:14:51	R1510839-007	Cu (327.395 nm)	-0.0002 u (ppm)	> 100.00	-0.0002 (ppm)	15.1936
12/18/2015 20:14:51	R1510839-007	Fe (234.350 nm)	0.0345 (ppm)	1.71	0.0345 (ppm)	311.0176
12/18/2015 20:14:51	R1510839-007	Fe (234.350 nm)	0.0106 (ppm)	6.70	0.0106 (ppm)	327.1452
12/18/2015 20:14:51	R1510839-007	K (766.491 nm)	2.3363 (ppm)	0.97	2.3363 (ppm)	5943.9168
12/18/2015 20:14:51	R1510839-007	Mg (279.078 nm)	27.9174 (ppm)	0.37	27.9174 (ppm)	50595.3383
12/18/2015 20:14:51	R1510839-007	Mg (279.078 nm)	39.8449 (ppm)	0.31	39.8449 (ppm)	53666.8132
12/18/2015 20:14:51	R1510839-007	Mn (257.610 nm)	0.0010 (ppm)	3.61	0.0010 (ppm)	161.0761
12/18/2015 20:14:51	R1510839-007	Mo (202.032 nm)	0.0089 (ppm)	9.06	0.0089 (ppm)	44.4274
12/18/2015 20:14:51	R1510839-007	Na (588.995 nm)	48.5559 (ppm)	0.38	48.5559 (ppm)	1327636.1922
12/18/2015 20:14:51	R1510839-007	Ni (230.299 nm)	0.0742 (ppm)	1.67	0.0742 (ppm)	219.9272
12/18/2015 20:14:51	R1510839-007	Pb (220.353 nm)	-0.0012 u (ppm)	64.03	-0.0012 (ppm)	1.1615
12/18/2015 20:14:51	R1510839-007	Sb (217.582 nm)	-0.0018 u (ppm)	> 100.00	-0.0018 (ppm)	1.3890
12/18/2015 20:14:51	R1510839-007	Se (196.026 nm)	-0.0025 u (ppm)	75.86	-0.0025 (ppm)	-0.1989
12/18/2015 20:14:51	R1510839-007	Sn (189.925 nm)	-0.0023 u (ppm)	82.31	-0.0023 (ppm)	-1.3510
12/18/2015 20:14:51	R1510839-007	Sr (460.733 nm)	1.3855 (ppm)	0.93	1.3855 (ppm)	18284.0019
12/18/2015 20:14:51	R1510839-007	Ti (336.122 nm)	-0.0020 u (ppm)	5.01	-0.0020 (ppm)	-127.1894
12/18/2015 20:14:51	R1510839-007	Tl (351.923 nm)	0.0006 u (ppm)	> 100.00	0.0006 (ppm)	-9.1206
12/18/2015 20:14:51	R1510839-007	V (292.401 nm)	0.0023 (ppm)	6.14	0.0023 (ppm)	91.8096
12/18/2015 20:14:51	R1510839-007	Y (360.074 nm)	0.97 (Ratio)	0.52	0.97 (Ratio)	567836.10
12/18/2015 20:14:51	R1510839-007	Y_R (360.074 nm)	0.96 (Ratio)	0.15	0.96 (Ratio)	236370.87
12/18/2015 20:14:51	R1510839-007	Zn (213.857 nm)	0.0005 (ppm)	41.19	0.0005 (ppm)	32.2583
12/18/2015 20:18:20	R1510839-008	Ag (328.068 nm)	0.0002 (ppm)	82.11	0.0002 (ppm)	18.0384

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 20:18:20	R1510839-008	Al (394.401 nm)	0.0071 (ppm)	7.27	0.0071 (ppm)	226.6303
12/18/2015 20:18:20	R1510839-008	Al (394.401 nm)	-0.0685 u (ppm)	1.06	-0.0685 (ppm)	277.3467
12/18/2015 20:18:20	R1510839-008	As (188.980 nm)	-0.0026 u (ppm)	> 100.00	-0.0026 (ppm)	0.4276
12/18/2015 20:18:20	R1510839-008	B (249.772 nm)	0.1059 (ppm)	0.71	0.1059 (ppm)	1442.6607
12/18/2015 20:18:20	R1510839-008	Ba (230.424 nm)	0.0444 (ppm)	0.31	0.0444 (ppm)	689.5179
12/18/2015 20:18:20	R1510839-008	Be (313.107 nm)	0.0000 (ppm)	13.34	0.0000 (ppm)	-59.1330
12/18/2015 20:18:20	R1510839-008	Ca (227.547 nm)	39.5565 (ppm)	0.09	39.5565 (ppm)	1433.4947
12/18/2015 20:18:20	R1510839-008 LR	Ca (227.547 nm)	60.9283 o (ppm)	0.17	60.9283 (ppm)	1452.4044
12/18/2015 20:18:20	R1510839-008	Cd (214.439 nm)	-0.0001 u (ppm)	23.92	-0.0001 (ppm)	2.2566
12/18/2015 20:18:20	R1510839-008	Co (230.786 nm)	0.0003 u (ppm)	> 100.00	0.0003 (ppm)	3.6067
12/18/2015 20:18:20	R1510839-008	Cr (267.716 nm)	0.0120 (ppm)	0.33	0.0120 (ppm)	274.2583
12/18/2015 20:18:20	R1510839-008	Cu (327.395 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	21.9170
12/18/2015 20:18:20	R1510839-008	Fe (234.350 nm)	0.0308 (ppm)	1.83	0.0308 (ppm)	282.8645
12/18/2015 20:18:20	R1510839-008	Fe (234.350 nm)	0.0038 (ppm)	12.90	0.0038 (ppm)	292.6407
12/18/2015 20:18:20	R1510839-008	K (766.491 nm)	2.4232 (ppm)	0.51	2.4232 (ppm)	6166.3476
12/18/2015 20:18:20	R1510839-008	Mg (279.078 nm)	28.9373 (ppm)	0.30	28.9373 (ppm)	52442.9649
12/18/2015 20:18:20	R1510839-008	Mg (279.078 nm)	41.2526 (ppm)	0.31	41.2526 (ppm)	55562.1084
12/18/2015 20:18:20	R1510839-008	Mn (257.610 nm)	0.0007 (ppm)	2.80	0.0007 (ppm)	135.6037
12/18/2015 20:18:20	R1510839-008	Mo (202.032 nm)	0.0086 (ppm)	4.56	0.0086 (ppm)	43.4926
12/18/2015 20:18:20	R1510839-008	Na (588.995 nm)	49.8269 (ppm)	0.20	49.8269 (ppm)	1362567.9571
12/18/2015 20:18:20	R1510839-008	Ni (230.299 nm)	0.0700 (ppm)	1.18	0.0700 (ppm)	206.9026
12/18/2015 20:18:20	R1510839-008	Pb (220.353 nm)	-0.0006 u (ppm)	34.86	-0.0006 (ppm)	1.7497
12/18/2015 20:18:20	R1510839-008	Sb (217.582 nm)	-0.0013 u (ppm)	> 100.00	-0.0013 (ppm)	1.6913
12/18/2015 20:18:20	R1510839-008	Se (196.026 nm)	0.0026 u (ppm)	> 100.00	0.0026 (ppm)	1.5918
12/18/2015 20:18:20	R1510839-008	Sn (189.925 nm)	-0.0016 u (ppm)	91.93	-0.0016 (ppm)	-0.8573
12/18/2015 20:18:20	R1510839-008	Sr (460.733 nm)	1.4195 (ppm)	0.19	1.4195 (ppm)	18731.7708
12/18/2015 20:18:20	R1510839-008	Ti (336.122 nm)	-0.0020 u (ppm)	3.01	-0.0020 (ppm)	-127.7433
12/18/2015 20:18:20	R1510839-008	Tl (351.923 nm)	-0.0028 u (ppm)	10.93	-0.0028 (ppm)	-14.5998
12/18/2015 20:18:20	R1510839-008	V (292.401 nm)	0.0020 (ppm)	7.64	0.0020 (ppm)	87.2057
12/18/2015 20:18:20	R1510839-008	Y (360.074 nm)	0.98 (Ratio)	0.16	0.98 (Ratio)	573036.32
12/18/2015 20:18:20	R1510839-008	Y_R (360.074 nm)	0.99 (Ratio)	0.87	0.99 (Ratio)	241775.45
12/18/2015 20:18:20	R1510839-008	Zn (213.857 nm)	-0.0002 u (ppm)	> 100.00	-0.0002 (ppm)	24.0515
12/18/2015 20:21:48	R1510839-011	Ag (328.068 nm)	-0.0001 bu (ppm)	> 100.00	-0.0001 (ppm)	2.2285
12/18/2015 20:21:48	R1510839-011	Al (394.401 nm)	0.0209 (ppm)	1.98	0.0209 (ppm)	372.9986
12/18/2015 20:21:48	R1510839-011 neg	Al (394.401 nm)	-0.6316 bu (ppm)	0.18	-0.6316 (ppm)	425.7951
12/18/2015 20:21:48	R1510839-011	As (188.980 nm)	-0.0020 bu (ppm)	> 100.00	-0.0020 (ppm)	2.6507
12/18/2015 20:21:48	R1510839-011	B (249.772 nm)	0.0691 b (ppm)	0.05	0.0691 (ppm)	1087.7798
12/18/2015 20:21:48	R1510839-011	Ba (230.424 nm)	0.0040 b (ppm)	2.97	0.0040 (ppm)	150.9485
12/18/2015 20:21:48	R1510839-011	Be (313.107 nm)	-0.0002 bu (ppm)	6.36	-0.0002 (ppm)	-9.4218
12/18/2015 20:21:48	R1510839-011	Ca (227.547 nm)	338.9949 o (ppm)	0.50	338.9949 (ppm)	12283.2421
12/18/2015 20:21:48	R1510839-011 LR	Ca (227.547 nm)	521.7753 bo (ppm)	0.46	521.7753 (ppm)	12449.3951
12/18/2015 20:21:48	R1510839-011	Cd (214.439 nm)	-0.0010 bu (ppm)	15.77	-0.0010 (ppm)	0.2757
12/18/2015 20:21:48	R1510839-011	Co (230.786 nm)	-0.0022 bu (ppm)	16.28	-0.0022 (ppm)	2.9074
12/18/2015 20:21:48	R1510839-011	Cr (267.716 nm)	0.0019 b (ppm)	5.97	0.0019 (ppm)	0.6331
12/18/2015 20:21:48	R1510839-011	Cu (327.395 nm)	-0.0006 bu (ppm)	44.09	-0.0006 (ppm)	-18.3115
12/18/2015 20:21:48	R1510839-011	Fe (234.350 nm)	0.0101 (ppm)	1.86	0.0101 (ppm)	125.9570
12/18/2015 20:21:48	R1510839-011	Fe (234.350 nm)	-0.1753 bu (ppm)	0.31	-0.1753 (ppm)	127.9464
12/18/2015 20:21:48	R1510839-011	K (766.491 nm)	2.2260 b (ppm)	1.23	2.2260 (ppm)	5641.9625
12/18/2015 20:21:48	R1510839-011	Mg (279.078 nm)	94.7485 (ppm)	0.50	94.7485 (ppm)	171668.6298
12/18/2015 20:21:48	R1510839-011	Mg (279.078 nm)	135.7415 bo (ppm)	0.49	135.7415 (ppm)	182861.0747
12/18/2015 20:21:48	R1510839-011	Mn (257.610 nm)	0.0083 b (ppm)	0.53	0.0083 (ppm)	1332.5894

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 20:21:48	R1510839-011	Mo (202.032 nm)	-0.0082 bu (ppm)	4.65	-0.0082 (ppm)	-1.9272
12/18/2015 20:21:48	R1510839-011	Na (588.995 nm)	33.2446 b (ppm)	0.14	33.2446 (ppm)	901632.4524
12/18/2015 20:21:48	R1510839-011	Ni (230.299 nm)	0.0063 b (ppm)	26.32	0.0063 (ppm)	12.9190
12/18/2015 20:21:48	R1510839-011	Pb (220.353 nm)	0.0017 bu (ppm)	> 100.00	0.0017 (ppm)	0.1590
12/18/2015 20:21:48	R1510839-011	Sb (217.582 nm)	-0.0097 bu (ppm)	39.05	-0.0097 (ppm)	1.4380
12/18/2015 20:21:48	R1510839-011	Se (196.026 nm)	-0.0019 bu (ppm)	> 100.00	-0.0019 (ppm)	0.8733
12/18/2015 20:21:48	R1510839-011	Sn (189.925 nm)	-0.0048 bu (ppm)	22.95	-0.0048 (ppm)	-2.7342
12/18/2015 20:21:48	R1510839-011	Sr (460.733 nm)	14.5043 bo (ppm)	0.27	14.5043 (ppm)	190757.2950
12/18/2015 20:21:48	R1510839-011	Ti (336.122 nm)	-0.0075 bu (ppm)	2.38	-0.0075 (ppm)	-336.9919
12/18/2015 20:21:48	R1510839-011	Tl (351.923 nm)	0.0064 bu (ppm)	> 100.00	0.0064 (ppm)	5.7357
12/18/2015 20:21:48	R1510839-011	V (292.401 nm)	-0.0042 bu (ppm)	5.64	-0.0042 (ppm)	48.2679
12/18/2015 20:21:48	R1510839-011	Y (360.074 nm)	0.93 (Ratio)	0.73	0.93 (Ratio)	543590.75
12/18/2015 20:21:48	R1510839-011	Y_R (360.074 nm)	0.96 (Ratio)	0.48	0.96 (Ratio)	236269.96
12/18/2015 20:21:48	R1510839-011	Zn (213.857 nm)	-0.0026 bu (ppm)	3.09	-0.0026 (ppm)	122.5369
12/18/2015 20:25:17	R1510839-012	Ag (328.068 nm)	-0.0001 u (ppm)	94.14	-0.0001 (ppm)	4.4319
12/18/2015 20:25:17	R1510839-012	Al (394.401 nm)	-0.0077 u (ppm)	5.79	-0.0077 (ppm)	69.3288
12/18/2015 20:25:17	R1510839-012	Al (394.401 nm)	-0.0105 u (ppm)	7.91	-0.0105 (ppm)	97.5125
12/18/2015 20:25:17	R1510839-012	As (188.980 nm)	0.0010 u (ppm)	> 100.00	0.0010 (ppm)	2.0473
12/18/2015 20:25:17	R1510839-012	B (249.772 nm)	0.0145 (ppm)	1.30	0.0145 (ppm)	205.2907
12/18/2015 20:25:17	R1510839-012	Ba (230.424 nm)	-0.0005 u (ppm)	12.16	-0.0005 (ppm)	0.6361
12/18/2015 20:25:17	R1510839-012	Be (313.107 nm)	0.0000 (ppm)	10.20	0.0000 (ppm)	-58.7751
12/18/2015 20:25:17	R1510839-012	Ca (227.547 nm)	0.2302 (ppm)	16.71	0.2302 (ppm)	8.5581
12/18/2015 20:25:17	R1510839-012	Ca (227.547 nm)	0.4461 (ppm)	15.22	0.4461 (ppm)	8.2009
12/18/2015 20:25:17	R1510839-012	Cd (214.439 nm)	0.0001 (ppm)	93.17	0.0001 (ppm)	3.6812
12/18/2015 20:25:17	R1510839-012	Co (230.786 nm)	0.0004 (ppm)	50.22	0.0004 (ppm)	2.6630
12/18/2015 20:25:17	R1510839-012	Cr (267.716 nm)	0.0006 (ppm)	22.81	0.0006 (ppm)	10.8450
12/18/2015 20:25:17	R1510839-012	Cu (327.395 nm)	0.0003 (ppm)	62.92	0.0003 (ppm)	33.5049
12/18/2015 20:25:17	R1510839-012	Fe (234.350 nm)	-0.0002 u (ppm)	15.64	-0.0002 (ppm)	47.4497
12/18/2015 20:25:17	R1510839-012	Fe (234.350 nm)	-0.0006 u (ppm)	30.26	-0.0006 (ppm)	45.5932
12/18/2015 20:25:17	R1510839-012	K (766.491 nm)	0.0199 u (ppm)	95.44	0.0199 (ppm)	11.2807
12/18/2015 20:25:17	R1510839-012	Mg (279.078 nm)	0.0315 (ppm)	5.71	0.0315 (ppm)	76.3507
12/18/2015 20:25:17	R1510839-012	Mg (279.078 nm)	0.0437 (ppm)	7.67	0.0437 (ppm)	81.2909
12/18/2015 20:25:17	R1510839-012	Mn (257.610 nm)	0.0003 (ppm)	2.44	0.0003 (ppm)	38.5345
12/18/2015 20:25:17	R1510839-012	Mo (202.032 nm)	-0.0006 u (ppm)	> 100.00	-0.0006 (ppm)	-0.3552
12/18/2015 20:25:17	R1510839-012	Na (588.995 nm)	0.0461 (ppm)	13.21	0.0461 (ppm)	-5962.4970
12/18/2015 20:25:17	R1510839-012	Ni (230.299 nm)	-0.0003 u (ppm)	43.01	-0.0003 (ppm)	-10.8032
12/18/2015 20:25:17	R1510839-012	Pb (220.353 nm)	-0.0006 u (ppm)	> 100.00	-0.0006 (ppm)	2.2949
12/18/2015 20:25:17	R1510839-012	Sb (217.582 nm)	0.0011 u (ppm)	> 100.00	0.0011 (ppm)	2.0518
12/18/2015 20:25:17	R1510839-012	Se (196.026 nm)	-0.0040 u (ppm)	71.18	-0.0040 (ppm)	-0.9592
12/18/2015 20:25:17	R1510839-012	Sn (189.925 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	0.2007
12/18/2015 20:25:17	R1510839-012	Sr (460.733 nm)	0.0039 (ppm)	93.74	0.0039 (ppm)	118.7066
12/18/2015 20:25:17	R1510839-012	Ti (336.122 nm)	-0.0006 u (ppm)	6.59	-0.0006 (ppm)	-108.4759
12/18/2015 20:25:17	R1510839-012	Tl (351.923 nm)	0.0008 u (ppm)	> 100.00	0.0008 (ppm)	-9.2953
12/18/2015 20:25:17	R1510839-012	V (292.401 nm)	0.0001 (ppm)	> 100.00	0.0001 (ppm)	38.0108
12/18/2015 20:25:17	R1510839-012	Y (360.074 nm)	1.03 (Ratio)	0.32	1.03 (Ratio)	601636.89
12/18/2015 20:25:17	R1510839-012	Y_R (360.074 nm)	1.01 (Ratio)	0.23	1.01 (Ratio)	246838.14
12/18/2015 20:25:17	R1510839-012	Zn (213.857 nm)	0.0081 (ppm)	0.76	0.0081 (ppm)	101.5224
12/18/2015 20:28:46	R1510839-013	Ag (328.068 nm)	0.0000 bu (ppm)	> 100.00	0.0000 (ppm)	7.8073
12/18/2015 20:28:46	R1510839-013	Al (394.401 nm)	0.0178 (ppm)	9.70	0.0178 (ppm)	340.0521
12/18/2015 20:28:46	R1510839-013	Al (394.401 nm)	-0.5145 bu (ppm)	0.58	-0.5145 (ppm)	390.4862
12/18/2015 20:28:46	R1510839-013	As (188.980 nm)	0.0011 bu (ppm)	> 100.00	0.0011 (ppm)	3.9058

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 20:28:46	R1510839-013	B (249.772 nm)	0.0638 b (ppm)	0.44	0.0638 (ppm)	990.7820
12/18/2015 20:28:46	R1510839-013	Ba (230.424 nm)	0.0057 b (ppm)	2.08	0.0057 (ppm)	162.3954
12/18/2015 20:28:46	R1510839-013	Be (313.107 nm)	-0.0001 bu (ppm)	3.98	-0.0001 (ppm)	-23.0825
12/18/2015 20:28:46	R1510839-013	Ca (227.547 nm)	275.3999 o (ppm)	0.28	275.3999 (ppm)	9978.9633
12/18/2015 20:28:46	R1510839-013	Ca (227.547 nm)	424.2780 bo (ppm)	0.31	424.2780 (ppm)	10123.5650
12/18/2015 20:28:46	R1510839-013	Cd (214.439 nm)	-0.0008 bu (ppm)	10.36	-0.0008 (ppm)	0.9760
12/18/2015 20:28:46	R1510839-013	Co (230.786 nm)	-0.0016 bu (ppm)	65.12	-0.0016 (ppm)	3.4740
12/18/2015 20:28:46	R1510839-013	Cr (267.716 nm)	0.0010 b (ppm)	16.12	0.0010 (ppm)	-7.0403
12/18/2015 20:28:46	R1510839-013	Cu (327.395 nm)	-0.0005 bu (ppm)	16.20	-0.0005 (ppm)	-10.6625
12/18/2015 20:28:46	R1510839-013	Fe (234.350 nm)	0.1705 (ppm)	0.74	0.1705 (ppm)	1344.3063
12/18/2015 20:28:46	R1510839-013	Fe (234.350 nm)	0.0507 b (ppm)	1.53	0.0507 (ppm)	1407.2206
12/18/2015 20:28:46	R1510839-013	K (766.491 nm)	2.2995 b (ppm)	1.01	2.2995 (ppm)	5834.9965
12/18/2015 20:28:46	R1510839-013	Mg (279.078 nm)	95.5944 (ppm)	0.69	95.5944 (ppm)	173201.1387
12/18/2015 20:28:46	R1510839-013	Mg (279.078 nm)	136.1621 bo (ppm)	0.57	136.1621 (ppm)	183401.1133
12/18/2015 20:28:46	R1510839-013	Mn (257.610 nm)	0.0127 b (ppm)	0.31	0.0127 (ppm)	1805.6922
12/18/2015 20:28:46	R1510839-013	Mo (202.032 nm)	-0.0065 bu (ppm)	13.71	-0.0065 (ppm)	-0.2785
12/18/2015 20:28:46	R1510839-013	Na (588.995 nm)	33.6714 b (ppm)	0.15	33.6714 (ppm)	914206.8106
12/18/2015 20:28:46	R1510839-013	Ni (230.299 nm)	0.0046 b (ppm)	24.40	0.0046 (ppm)	7.7036
12/18/2015 20:28:46	R1510839-013	Pb (220.353 nm)	0.0002 bu (ppm)	> 100.00	0.0002 (ppm)	-0.5272
12/18/2015 20:28:46	R1510839-013	Sb (217.582 nm)	-0.0116 bu (ppm)	23.33	-0.0116 (ppm)	-0.2573
12/18/2015 20:28:46	R1510839-013	Se (196.026 nm)	0.0018 bu (ppm)	> 100.00	0.0018 (ppm)	2.0609
12/18/2015 20:28:46	R1510839-013	Sn (189.925 nm)	-0.0031 bu (ppm)	26.01	-0.0031 (ppm)	-1.6105
12/18/2015 20:28:46	R1510839-013	Sr (460.733 nm)	14.8409 bo (ppm)	0.06	14.8409 (ppm)	195154.8549
12/18/2015 20:28:46	R1510839-013	Ti (336.122 nm)	-0.0071 bu (ppm)	0.94	-0.0071 (ppm)	-309.6360
12/18/2015 20:28:46	R1510839-013	Tl (351.923 nm)	0.0008 bu (ppm)	> 100.00	0.0008 (ppm)	-4.6141
12/18/2015 20:28:46	R1510839-013	V (292.401 nm)	-0.0029 bu (ppm)	5.97	-0.0029 (ppm)	56.3594
12/18/2015 20:28:46	R1510839-013	Y (360.074 nm)	0.94 (Ratio)	0.09	0.94 (Ratio)	546915.30
12/18/2015 20:28:46	R1510839-013	Y_R (360.074 nm)	0.96 (Ratio)	0.27	0.96 (Ratio)	235471.46
12/18/2015 20:28:46	R1510839-013	Zn (213.857 nm)	0.0064 b (ppm)	2.11	0.0064 (ppm)	214.2290
12/18/2015 20:32:15	Continuing Calibration Verification1	Ag (328.068 nm)	0.4733 (ppm)	1.57	0.4733 (ppm)	18439.2253
12/18/2015 20:32:15	Continuing Calibration Verification1	Al (394.401 nm)	7.4708 (ppm)	1.75	7.4708 (ppm)	79429.1356
12/18/2015 20:32:15	Continuing Calibration Verification1	Al (394.401 nm)	9.3431 (ppm)	1.80	9.3431 (ppm)	80575.5217
12/18/2015 20:32:15	Continuing Calibration Verification1	As (188.980 nm)	0.9518 (ppm)	1.29	0.9518 (ppm)	503.2407
12/18/2015 20:32:15	Continuing Calibration Verification1	B (249.772 nm)	2.3756 (ppm)	1.61	2.3756 (ppm)	31644.7346
12/18/2015 20:32:15	Continuing Calibration Verification1	Ba (230.424 nm)	9.9870 (ppm)	1.93	9.9870 (ppm)	150992.8162
12/18/2015 20:32:15	Continuing Calibration Verification1	Be (313.107 nm)	0.2491 (ppm)	1.74	0.2491 (ppm)	217920.6682
12/18/2015 20:32:15	Continuing Calibration Verification1	Ca (227.547 nm)	15.7133 (ppm)	1.61	15.7133 (ppm)	569.5667
12/18/2015 20:32:15	Continuing Calibration Verification1	Ca (227.547 nm)	24.1633 (ppm)	1.71	24.1633 (ppm)	575.2570
12/18/2015 20:32:15	Continuing Calibration Verification1	Cd (214.439 nm)	0.4973 (ppm)	1.85	0.4973 (ppm)	5296.3923
12/18/2015 20:32:15	Continuing Calibration Verification1	Co (230.786 nm)	2.4200 (ppm)	1.74	2.4200 (ppm)	11584.5126
12/18/2015 20:32:15	Continuing Calibration Verification1	Cr (267.716 nm)	0.5086 (ppm)	1.76	0.5086 (ppm)	11759.2998
12/18/2015 20:32:15	Continuing Calibration Verification1	Cu (327.395 nm)	1.1916 (ppm)	1.75	1.1916 (ppm)	35944.5880
12/18/2015 20:32:15	Continuing Calibration Verification1	Fe (234.350 nm)	3.8705 (ppm)	1.61	3.8705 (ppm)	29447.5464
12/18/2015 20:32:15	Continuing Calibration Verification1	Fe (234.350 nm)	4.8816 (ppm)	1.72	4.8816 (ppm)	30717.3658
12/18/2015 20:32:15	Continuing Calibration Verification1	K (766.491 nm)	24.3547 (ppm)	0.13	24.3547 (ppm)	62343.0945
12/18/2015 20:32:15	Continuing Calibration Verification1	Mg (279.078 nm)	16.7256 (ppm)	1.46	16.7256 (ppm)	30319.9056
12/18/2015 20:32:15	Continuing Calibration Verification1	Mg (279.078 nm)	23.6733 (ppm)	1.65	23.6733 (ppm)	31893.3350
12/18/2015 20:32:15	Continuing Calibration Verification1	Mn (257.610 nm)	0.7499 (ppm)	1.73	0.7499 (ppm)	90841.1395
12/18/2015 20:32:15	Continuing Calibration Verification1	Mo (202.032 nm)	2.4224 (ppm)	1.75	2.4224 (ppm)	10595.9355
12/18/2015 20:32:15	Continuing Calibration Verification1	Na (588.995 nm)	24.3031 (ppm)	0.16	24.3031 (ppm)	660798.2373
12/18/2015 20:32:15	Continuing Calibration Verification1	Ni (230.299 nm)	2.0259 (ppm)	1.90	2.0259 (ppm)	6236.4010

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 20:32:15	Continuing Calibration Verification1	Pb (220.353 nm)	0.4974 (ppm)	0.97	0.4974 (ppm)	480.7391
12/18/2015 20:32:15	Continuing Calibration Verification1	Sb (217.582 nm)	4.8511 (ppm)	1.82	4.8511 (ppm)	2702.3370
12/18/2015 20:32:15	Continuing Calibration Verification1	Se (196.026 nm)	0.4855 (ppm)	2.20	0.4855 (ppm)	170.1549
12/18/2015 20:32:15	Continuing Calibration Verification1	Sn (189.925 nm)	4.8740 (ppm)	2.31	4.8740 (ppm)	3353.4239
12/18/2015 20:32:15	Continuing Calibration Verification1	Sr (460.733 nm)	2.4394 (ppm)	0.27	2.4394 (ppm)	32101.5328
12/18/2015 20:32:15	Continuing Calibration Verification1	Ti (336.122 nm)	2.4220 (ppm)	1.61	2.4220 (ppm)	304507.1021
12/18/2015 20:32:15	Continuing Calibration Verification1	Tl (351.923 nm)	0.9811 (ppm)	1.39	0.9811 (ppm)	1583.6231
12/18/2015 20:32:15	Continuing Calibration Verification1	V (292.401 nm)	2.4500 (ppm)	0.46	2.4500 (ppm)	46831.9820
12/18/2015 20:32:15	Continuing Calibration Verification1	Y (360.074 nm)	0.98 (Ratio)	1.75	0.98 (Ratio)	569012.00
12/18/2015 20:32:15	Continuing Calibration Verification1	Y_R (360.074 nm)	0.98 (Ratio)	0.54	0.98 (Ratio)	239438.74
12/18/2015 20:32:15	Continuing Calibration Verification1	Zn (213.857 nm)	0.9922 (ppm)	1.86	0.9922 (ppm)	12403.5009
12/18/2015 20:35:44	Continuing Calibration Blank1	Ag (328.068 nm)	0.0002 (ppm)	> 100.00	0.0002 (ppm)	16.3415
12/18/2015 20:35:44	Continuing Calibration Blank1	Al (394.401 nm)	-0.0082 u (ppm)	6.70	-0.0082 (ppm)	64.1602
12/18/2015 20:35:44	Continuing Calibration Blank1	Al (394.401 nm)	-0.0106 u (ppm)	12.00	-0.0106 (ppm)	92.5311
12/18/2015 20:35:44	Continuing Calibration Blank1	As (188.980 nm)	-0.0020 u (ppm)	> 100.00	-0.0020 (ppm)	0.4303
12/18/2015 20:35:44	Continuing Calibration Blank1	B (249.772 nm)	0.0015 (ppm)	26.74	0.0015 (ppm)	32.1578
12/18/2015 20:35:44	Continuing Calibration Blank1	Ba (230.424 nm)	0.0043 (ppm)	21.09	0.0043 (ppm)	73.7397
12/18/2015 20:35:44	Continuing Calibration Blank1	Be (313.107 nm)	0.0001 (ppm)	26.40	0.0001 (ppm)	30.6121
12/18/2015 20:35:44	Continuing Calibration Blank1	Ca (227.547 nm)	-0.0180 u (ppm)	> 100.00	-0.0180 (ppm)	-0.4345
12/18/2015 20:35:44	Continuing Calibration Blank1	Ca (227.547 nm)	-0.0082 u (ppm)	> 100.00	-0.0082 (ppm)	-2.6404
12/18/2015 20:35:44	Continuing Calibration Blank1	Cd (214.439 nm)	0.0002 (ppm)	30.62	0.0002 (ppm)	4.8655
12/18/2015 20:35:44	Continuing Calibration Blank1	Co (230.786 nm)	0.0010 (ppm)	33.80	0.0010 (ppm)	5.4699
12/18/2015 20:35:44	Continuing Calibration Blank1	Cr (267.716 nm)	0.0003 (ppm)	64.75	0.0003 (ppm)	5.1255
12/18/2015 20:35:44	Continuing Calibration Blank1	Cu (327.395 nm)	0.0004 (ppm)	95.08	0.0004 (ppm)	35.2459
12/18/2015 20:35:44	Continuing Calibration Blank1	Fe (234.350 nm)	-0.0037 u (ppm)	11.47	-0.0037 (ppm)	21.3620
12/18/2015 20:35:44	Continuing Calibration Blank1	Fe (234.350 nm)	-0.0045 u (ppm)	13.01	-0.0045 (ppm)	20.2533
12/18/2015 20:35:44	Continuing Calibration Blank1	K (766.491 nm)	0.0307 (ppm)	78.84	0.0307 (ppm)	39.0517
12/18/2015 20:35:44	Continuing Calibration Blank1	Mg (279.078 nm)	0.0014 u (ppm)	> 100.00	0.0014 (ppm)	21.6811
12/18/2015 20:35:44	Continuing Calibration Blank1	Mg (279.078 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	22.5686
12/18/2015 20:35:44	Continuing Calibration Blank1	Mn (257.610 nm)	0.0003 (ppm)	19.68	0.0003 (ppm)	45.5979
12/18/2015 20:35:44	Continuing Calibration Blank1	Mo (202.032 nm)	0.0015 (ppm)	17.09	0.0015 (ppm)	8.7197
12/18/2015 20:35:44	Continuing Calibration Blank1	Na (588.995 nm)	0.0270 (ppm)	9.65	0.0270 (ppm)	-6482.7951
12/18/2015 20:35:44	Continuing Calibration Blank1	Ni (230.299 nm)	0.0012 (ppm)	29.78	0.0012 (ppm)	-6.1540
12/18/2015 20:35:44	Continuing Calibration Blank1	Pb (220.353 nm)	-0.0017 u (ppm)	> 100.00	-0.0017 (ppm)	1.2308
12/18/2015 20:35:44	Continuing Calibration Blank1	Sb (217.582 nm)	0.0046 (ppm)	> 100.00	0.0046 (ppm)	4.0000
12/18/2015 20:35:44	Continuing Calibration Blank1	Se (196.026 nm)	0.0042 (ppm)	16.64	0.0042 (ppm)	1.9145
12/18/2015 20:35:44	Continuing Calibration Blank1	Sn (189.925 nm)	0.0016 u (ppm)	> 100.00	0.0016 (ppm)	1.3347
12/18/2015 20:35:44	Continuing Calibration Blank1	Sr (460.733 nm)	-0.0048 u (ppm)	> 100.00	-0.0048 (ppm)	4.2733
12/18/2015 20:35:44	Continuing Calibration Blank1	Ti (336.122 nm)	0.0010 (ppm)	16.16	0.0010 (ppm)	90.9773
12/18/2015 20:35:44	Continuing Calibration Blank1	Tl (351.923 nm)	0.0007 u (ppm)	> 100.00	0.0007 (ppm)	-9.5363
12/18/2015 20:35:44	Continuing Calibration Blank1	V (292.401 nm)	0.0012 (ppm)	38.28	0.0012 (ppm)	59.1953
12/18/2015 20:35:44	Continuing Calibration Blank1	Y (360.074 nm)	1.01 (Ratio)	1.81	1.01 (Ratio)	589798.27
12/18/2015 20:35:44	Continuing Calibration Blank1	Y_R (360.074 nm)	1.00 (Ratio)	0.84	1.00 (Ratio)	246170.33
12/18/2015 20:35:44	Continuing Calibration Blank1	Zn (213.857 nm)	0.0001 (ppm)	91.33	0.0001 (ppm)	2.3470
12/18/2015 20:39:13	R1510839-014	Ag (328.068 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	6.0661
12/18/2015 20:39:13	R1510839-014	Al (394.401 nm)	0.0242 (ppm)	3.18	0.0242 (ppm)	408.4858
12/18/2015 20:39:13	R1510839-014	Al (394.401 nm)	-0.3129 u (ppm)	0.22	-0.3129 (ppm)	463.8373
12/18/2015 20:39:13	R1510839-014	As (188.980 nm)	0.0009 u (ppm)	> 100.00	0.0009 (ppm)	3.2013
12/18/2015 20:39:13	R1510839-014	B (249.772 nm)	0.0544 (ppm)	0.44	0.0544 (ppm)	820.5185
12/18/2015 20:39:13	R1510839-014	Ba (230.424 nm)	0.0187 (ppm)	4.93	0.0187 (ppm)	333.5068
12/18/2015 20:39:13	R1510839-014	Be (313.107 nm)	-0.0001 u (ppm)	6.83	-0.0001 (ppm)	-30.7783

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 20:39:13	R1510839-014	Ca (227.547 nm)	175.5793 (ppm)	0.20	175.5793 (ppm)	6362.0982
12/18/2015 20:39:13	R1510839-014	Ca (227.547 nm)	270.2975 o (ppm)	0.14	270.2975 (ppm)	6449.3862
12/18/2015 20:39:13	R1510839-014	Cd (214.439 nm)	-0.0006 u (ppm)	6.00	-0.0006 (ppm)	-0.2033
12/18/2015 20:39:13	R1510839-014	Co (230.786 nm)	-0.0009 u (ppm)	52.74	-0.0009 (ppm)	3.0044
12/18/2015 20:39:13	R1510839-014	Cr (267.716 nm)	0.0008 (ppm)	15.02	0.0008 (ppm)	1.8808
12/18/2015 20:39:13	R1510839-014	Cu (327.395 nm)	-0.0007 u (ppm)	44.66	-0.0007 (ppm)	-8.1670
12/18/2015 20:39:13	R1510839-014	Fe (234.350 nm)	0.3081 (ppm)	0.22	0.3081 (ppm)	2388.9558
12/18/2015 20:39:13	R1510839-014	Fe (234.350 nm)	0.2758 (ppm)	0.32	0.2758 (ppm)	2513.3611
12/18/2015 20:39:13	R1510839-014	K (766.491 nm)	2.4008 (ppm)	0.44	2.4008 (ppm)	6100.8847
12/18/2015 20:39:13	R1510839-014	Mg (279.078 nm)	77.3764 (ppm)	0.27	77.3764 (ppm)	140196.6945
12/18/2015 20:39:13	R1510839-014	Mg (279.078 nm)	110.2843 o (ppm)	0.31	110.2843 (ppm)	148530.2758
12/18/2015 20:39:13	R1510839-014	Mn (257.610 nm)	0.0077 (ppm)	0.58	0.0077 (ppm)	1113.2359
12/18/2015 20:39:13	R1510839-014	Mo (202.032 nm)	0.0023 (ppm)	21.93	0.0023 (ppm)	28.7375
12/18/2015 20:39:13	R1510839-014	Na (588.995 nm)	34.3660 (ppm)	0.56	34.3660 (ppm)	934859.6599
12/18/2015 20:39:13	R1510839-014	Ni (230.299 nm)	0.0079 (ppm)	10.90	0.0079 (ppm)	16.9506
12/18/2015 20:39:13	R1510839-014	Pb (220.353 nm)	0.0005 u (ppm)	> 100.00	0.0005 (ppm)	1.0115
12/18/2015 20:39:13	R1510839-014	Sb (217.582 nm)	-0.0032 u (ppm)	80.72	-0.0032 (ppm)	2.9826
12/18/2015 20:39:13	R1510839-014	Se (196.026 nm)	0.0040 u (ppm)	> 100.00	0.0040 (ppm)	2.5577
12/18/2015 20:39:13	R1510839-014	Sn (189.925 nm)	-0.0011 u (ppm)	35.09	-0.0011 (ppm)	-0.3315
12/18/2015 20:39:13	R1510839-014	Sr (460.733 nm)	12.9268 o (ppm)	0.07	12.9268 (ppm)	169969.0971
12/18/2015 20:39:13	R1510839-014	Ti (336.122 nm)	-0.0050 u (ppm)	2.44	-0.0050 (ppm)	-189.5301
12/18/2015 20:39:13	R1510839-014	Tl (351.923 nm)	0.0015 u (ppm)	> 100.00	0.0015 (ppm)	-5.3228
12/18/2015 20:39:13	R1510839-014	V (292.401 nm)	-0.0017 u (ppm)	13.06	-0.0017 (ppm)	53.8282
12/18/2015 20:39:13	R1510839-014	Y (360.074 nm)	0.95 (Ratio)	0.66	0.95 (Ratio)	551413.82
12/18/2015 20:39:13	R1510839-014	Y_R (360.074 nm)	0.97 (Ratio)	0.65	0.97 (Ratio)	236732.21
12/18/2015 20:39:13	R1510839-014	Zn (213.857 nm)	0.0255 (ppm)	0.83	0.0255 (ppm)	410.9171
12/18/2015 20:42:41	R1510917-001	Ag (328.068 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	18.3163
12/18/2015 20:42:41	R1510917-001	Al (394.401 nm)	0.2380 (ppm)	0.36	0.2380 (ppm)	2677.5120
12/18/2015 20:42:41	R1510917-001	Al (394.401 nm)	0.2675 (ppm)	0.55	0.2675 (ppm)	2768.0142
12/18/2015 20:42:41	R1510917-001	As (188.980 nm)	-0.0004 u (ppm)	> 100.00	-0.0004 (ppm)	1.3951
12/18/2015 20:42:41	R1510917-001	B (249.772 nm)	0.0051 (ppm)	3.97	0.0051 (ppm)	88.1594
12/18/2015 20:42:41	R1510917-001	Ba (230.424 nm)	0.0111 (ppm)	2.82	0.0111 (ppm)	180.8057
12/18/2015 20:42:41	R1510917-001	Be (313.107 nm)	0.0000 (ppm)	52.70	0.0000 (ppm)	-50.8197
12/18/2015 20:42:41	R1510917-001	Ca (227.547 nm)	17.4167 (ppm)	0.71	17.4167 (ppm)	631.2870
12/18/2015 20:42:41	R1510917-001	Ca (227.547 nm)	26.8591 (ppm)	0.71	26.8591 (ppm)	638.5458
12/18/2015 20:42:41	R1510917-001	Cd (214.439 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	4.1816
12/18/2015 20:42:41	R1510917-001	Co (230.786 nm)	0.0004 (ppm)	76.18	0.0004 (ppm)	2.8910
12/18/2015 20:42:41	R1510917-001	Cr (267.716 nm)	0.0010 (ppm)	13.49	0.0010 (ppm)	18.1761
12/18/2015 20:42:41	R1510917-001	Cu (327.395 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	23.3946
12/18/2015 20:42:41	R1510917-001	Fe (234.350 nm)	0.2501 (ppm)	0.55	0.2501 (ppm)	1948.9095
12/18/2015 20:42:41	R1510917-001	Fe (234.350 nm)	0.3078 (ppm)	0.59	0.3078 (ppm)	2033.2418
12/18/2015 20:42:41	R1510917-001	K (766.491 nm)	1.1151 (ppm)	2.56	1.1151 (ppm)	2815.5175
12/18/2015 20:42:41	R1510917-001	Mg (279.078 nm)	4.5184 (ppm)	0.52	4.5184 (ppm)	8204.9488
12/18/2015 20:42:41	R1510917-001	Mg (279.078 nm)	6.3964 (ppm)	0.47	6.3964 (ppm)	8638.8061
12/18/2015 20:42:41	R1510917-001	Mn (257.610 nm)	0.0150 (ppm)	0.71	0.0150 (ppm)	1843.2941
12/18/2015 20:42:41	R1510917-001	Mo (202.032 nm)	0.0002 (ppm)	59.81	0.0002 (ppm)	4.6153
12/18/2015 20:42:41	R1510917-001	Na (588.995 nm)	2.6084 (ppm)	0.64	2.6084 (ppm)	64235.9411
12/18/2015 20:42:41	R1510917-001	Ni (230.299 nm)	0.0024 (ppm)	21.55	0.0024 (ppm)	-2.2904
12/18/2015 20:42:41	R1510917-001	Pb (220.353 nm)	-0.0021 u (ppm)	> 100.00	-0.0021 (ppm)	0.6496
12/18/2015 20:42:41	R1510917-001	Sb (217.582 nm)	-0.0015 u (ppm)	> 100.00	-0.0015 (ppm)	0.8712
12/18/2015 20:42:41	R1510917-001	Se (196.026 nm)	0.0060 (ppm)	42.88	0.0060 (ppm)	2.6008

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 20:42:41	R1510917-001	Sn (189.925 nm)	-0.0025 u (ppm)	> 100.00	-0.0025 (ppm)	-1.4785
12/18/2015 20:42:41	R1510917-001	Sr (460.733 nm)	0.0970 (ppm)	6.25	0.0970 (ppm)	1346.6080
12/18/2015 20:42:41	R1510917-001	Ti (336.122 nm)	0.0112 (ppm)	1.18	0.0112 (ppm)	1415.4798
12/18/2015 20:42:41	R1510917-001	Tl (351.923 nm)	0.0020 (ppm)	83.50	0.0020 (ppm)	-7.0635
12/18/2015 20:42:41	R1510917-001	V (292.401 nm)	0.0020 (ppm)	7.80	0.0020 (ppm)	78.4630
12/18/2015 20:42:41	R1510917-001	Y (360.074 nm)	1.01 (Ratio)	0.59	1.01 (Ratio)	588048.89
12/18/2015 20:42:41	R1510917-001	Y_R (360.074 nm)	0.99 (Ratio)	0.29	0.99 (Ratio)	242989.27
12/18/2015 20:42:41	R1510917-001	Zn (213.857 nm)	0.0024 (ppm)	7.84	0.0024 (ppm)	38.6207
12/18/2015 20:46:11	R1510917-001D	Ag (328.068 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	9.1249
12/18/2015 20:46:11	R1510917-001D	Al (394.401 nm)	0.4521 (ppm)	0.06	0.4521 (ppm)	4948.7171
12/18/2015 20:46:11	R1510917-001D	Al (394.401 nm)	0.5384 (ppm)	0.23	0.5384 (ppm)	5087.6330
12/18/2015 20:46:11	R1510917-001D	As (188.980 nm)	-0.0007 u (ppm)	> 100.00	-0.0007 (ppm)	1.2368
12/18/2015 20:46:11	R1510917-001D	B (249.772 nm)	0.0048 (ppm)	2.60	0.0048 (ppm)	83.3208
12/18/2015 20:46:11	R1510917-001D	Ba (230.424 nm)	0.0128 (ppm)	1.04	0.0128 (ppm)	206.3642
12/18/2015 20:46:11	R1510917-001D	Be (313.107 nm)	0.0000 (ppm)	48.33	0.0000 (ppm)	-46.9990
12/18/2015 20:46:11	R1510917-001D	Ca (227.547 nm)	17.2116 (ppm)	1.05	17.2116 (ppm)	623.8546
12/18/2015 20:46:11	R1510917-001D	Ca (227.547 nm)	26.5883 (ppm)	1.15	26.5883 (ppm)	632.1040
12/18/2015 20:46:11	R1510917-001D	Cd (214.439 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	4.0745
12/18/2015 20:46:11	R1510917-001D	Co (230.786 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	2.0349
12/18/2015 20:46:11	R1510917-001D	Cr (267.716 nm)	0.0013 (ppm)	8.85	0.0013 (ppm)	25.3700
12/18/2015 20:46:11	R1510917-001D	Cu (327.395 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	22.7615
12/18/2015 20:46:11	R1510917-001D	Fe (234.350 nm)	0.4082 (ppm)	0.24	0.4082 (ppm)	3149.6255
12/18/2015 20:46:11	R1510917-001D	Fe (234.350 nm)	0.5096 (ppm)	0.15	0.5096 (ppm)	3295.4186
12/18/2015 20:46:11	R1510917-001D	K (766.491 nm)	1.1848 (ppm)	1.40	1.1848 (ppm)	2993.9394
12/18/2015 20:46:11	R1510917-001D	Mg (279.078 nm)	4.4800 (ppm)	0.49	4.4800 (ppm)	8135.2794
12/18/2015 20:46:11	R1510917-001D	Mg (279.078 nm)	6.3510 (ppm)	0.19	6.3510 (ppm)	8577.6035
12/18/2015 20:46:11	R1510917-001D	Mn (257.610 nm)	0.0165 (ppm)	0.14	0.0165 (ppm)	2019.1375
12/18/2015 20:46:11	R1510917-001D	Mo (202.032 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	4.4945
12/18/2015 20:46:11	R1510917-001D	Na (588.995 nm)	2.5715 (ppm)	0.61	2.5715 (ppm)	63218.9385
12/18/2015 20:46:11	R1510917-001D	Ni (230.299 nm)	0.0030 (ppm)	20.35	0.0030 (ppm)	-0.4098
12/18/2015 20:46:11	R1510917-001D	Pb (220.353 nm)	-0.0005 u (ppm)	> 100.00	-0.0005 (ppm)	2.1075
12/18/2015 20:46:11	R1510917-001D	Sb (217.582 nm)	-0.0022 u (ppm)	85.10	-0.0022 (ppm)	0.4961
12/18/2015 20:46:11	R1510917-001D	Se (196.026 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	0.4508
12/18/2015 20:46:11	R1510917-001D	Sn (189.925 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	0.3354
12/18/2015 20:46:11	R1510917-001D	Sr (460.733 nm)	0.0915 (ppm)	5.54	0.0915 (ppm)	1274.0725
12/18/2015 20:46:11	R1510917-001D	Ti (336.122 nm)	0.0224 (ppm)	4.29	0.0224 (ppm)	2822.5079
12/18/2015 20:46:11	R1510917-001D	Tl (351.923 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	-10.4618
12/18/2015 20:46:11	R1510917-001D	V (292.401 nm)	0.0022 (ppm)	11.36	0.0022 (ppm)	82.3237
12/18/2015 20:46:11	R1510917-001D	Y (360.074 nm)	1.01 (Ratio)	0.63	1.01 (Ratio)	586725.01
12/18/2015 20:46:11	R1510917-001D	Y_R (360.074 nm)	0.99 (Ratio)	0.22	0.99 (Ratio)	243473.13
12/18/2015 20:46:11	R1510917-001D	Zn (213.857 nm)	0.0031 (ppm)	2.24	0.0031 (ppm)	47.0804
12/18/2015 20:49:41	R1510917-001S	Ag (328.068 nm)	0.0483 (ppm)	0.66	0.0483 (ppm)	1888.0321
12/18/2015 20:49:41	R1510917-001S	Al (394.401 nm)	1.9559 (ppm)	0.58	1.9559 (ppm)	20907.1249
12/18/2015 20:49:41	R1510917-001S	Al (394.401 nm)	2.4222 (ppm)	0.57	2.4222 (ppm)	21266.4510
12/18/2015 20:49:41	R1510917-001S	As (188.980 nm)	0.0392 (ppm)	2.64	0.0392 (ppm)	22.2450
12/18/2015 20:49:41	R1510917-001S	B (249.772 nm)	0.9301 (ppm)	0.62	0.9301 (ppm)	12401.8920
12/18/2015 20:49:41	R1510917-001S	Ba (230.424 nm)	2.0549 (ppm)	0.83	2.0549 (ppm)	31078.9264
12/18/2015 20:49:41	R1510917-001S	Be (313.107 nm)	0.0498 (ppm)	0.53	0.0498 (ppm)	43506.2117
12/18/2015 20:49:41	R1510917-001S	Ca (227.547 nm)	18.6982 (ppm)	0.54	18.6982 (ppm)	677.7211
12/18/2015 20:49:41	R1510917-001S	Ca (227.547 nm)	28.8461 (ppm)	0.69	28.8461 (ppm)	686.1231
12/18/2015 20:49:41	R1510917-001S	Cd (214.439 nm)	0.0500 (ppm)	1.42	0.0500 (ppm)	534.9252

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 20:49:41	R1510917-001S	Co (230.786 nm)	0.4834 (ppm)	0.78	0.4834 (ppm)	2314.7833
12/18/2015 20:49:41	R1510917-001S	Cr (267.716 nm)	0.2070 (ppm)	0.51	0.2070 (ppm)	4782.7132
12/18/2015 20:49:41	R1510917-001S	Cu (327.395 nm)	0.2443 (ppm)	0.63	0.2443 (ppm)	7387.3183
12/18/2015 20:49:41	R1510917-001S	Fe (234.350 nm)	1.2075 (ppm)	0.73	1.2075 (ppm)	9220.5972
12/18/2015 20:49:41	R1510917-001S	Fe (234.350 nm)	1.5215 (ppm)	0.63	1.5215 (ppm)	9638.6847
12/18/2015 20:49:41	R1510917-001S	K (766.491 nm)	20.2628 (ppm)	0.15	20.2628 (ppm)	51863.8815
12/18/2015 20:49:41	R1510917-001S	Mg (279.078 nm)	5.7248 (ppm)	0.74	5.7248 (ppm)	10390.4411
12/18/2015 20:49:41	R1510917-001S	Mg (279.078 nm)	8.1181 (ppm)	0.60	8.1181 (ppm)	10956.9088
12/18/2015 20:49:41	R1510917-001S	Mn (257.610 nm)	0.5207 (ppm)	0.57	0.5207 (ppm)	63073.6500
12/18/2015 20:49:41	R1510917-001S	Mo (202.032 nm)	0.4946 (ppm)	0.92	0.4946 (ppm)	2166.9210
12/18/2015 20:49:41	R1510917-001S	Na (588.995 nm)	22.5416 (ppm)	0.20	22.5416 (ppm)	612512.9076
12/18/2015 20:49:41	R1510917-001S	Ni (230.299 nm)	0.5024 (ppm)	0.82	0.5024 (ppm)	1539.4540
12/18/2015 20:49:41	R1510917-001S	Pb (220.353 nm)	0.5024 (ppm)	1.06	0.5024 (ppm)	485.9437
12/18/2015 20:49:41	R1510917-001S	Sb (217.582 nm)	0.4778 (ppm)	0.43	0.4778 (ppm)	267.7965
12/18/2015 20:49:41	R1510917-001S	Se (196.026 nm)	0.9242 (ppm)	1.44	0.9242 (ppm)	323.4954
12/18/2015 20:49:41	R1510917-001S	Sn (189.925 nm)	4.9222 (ppm)	0.78	4.9222 (ppm)	3386.2542
12/18/2015 20:49:41	R1510917-001S	Sr (460.733 nm)	2.2060 (ppm)	0.12	2.2060 (ppm)	29051.3428
12/18/2015 20:49:41	R1510917-001S	Ti (336.122 nm)	0.5113 (ppm)	0.57	0.5113 (ppm)	64279.7037
12/18/2015 20:49:41	R1510917-001S	Tl (351.923 nm)	1.8389 (ppm)	0.69	1.8389 (ppm)	2977.4054
12/18/2015 20:49:41	R1510917-001S	V (292.401 nm)	0.5000 (ppm)	0.99	0.5000 (ppm)	9590.8214
12/18/2015 20:49:41	R1510917-001S	Y (360.074 nm)	0.99 (Ratio)	0.35	0.99 (Ratio)	577506.96
12/18/2015 20:49:41	R1510917-001S	Y_R (360.074 nm)	0.99 (Ratio)	0.43	0.99 (Ratio)	242215.53
12/18/2015 20:49:41	R1510917-001S	Zn (213.857 nm)	0.4788 (ppm)	0.80	0.4788 (ppm)	5987.3944
12/18/2015 20:53:10	R1510917-001A	Ag (328.068 nm)	0.0804 (ppm)	0.38	0.0804 (ppm)	3138.4706
12/18/2015 20:53:10	R1510917-001A	Al (394.401 nm)	1.5671 (ppm)	0.74	1.5671 (ppm)	16781.0269
12/18/2015 20:53:10	R1510917-001A	Al (394.401 nm)	1.9343 (ppm)	0.73	1.9343 (ppm)	17081.2669
12/18/2015 20:53:10	R1510917-001A	As (188.980 nm)	0.0371 (ppm)	11.16	0.0371 (ppm)	21.1642
12/18/2015 20:53:10	R1510917-001A	B (249.772 nm)	0.9089 (ppm)	0.64	0.9089 (ppm)	12120.5475
12/18/2015 20:53:10	R1510917-001A	Ba (230.424 nm)	1.8437 (ppm)	0.62	1.8437 (ppm)	27885.1072
12/18/2015 20:53:10	R1510917-001A	Be (313.107 nm)	0.0446 (ppm)	0.63	0.0446 (ppm)	38952.5617
12/18/2015 20:53:10	R1510917-001A	Ca (227.547 nm)	18.6119 (ppm)	0.49	18.6119 (ppm)	674.5945
12/18/2015 20:53:10	R1510917-001A	Ca (227.547 nm)	28.8052 (ppm)	0.49	28.8052 (ppm)	685.1085
12/18/2015 20:53:10	R1510917-001A	Cd (214.439 nm)	0.0446 (ppm)	0.70	0.0446 (ppm)	477.7543
12/18/2015 20:53:10	R1510917-001A	Co (230.786 nm)	0.4328 (ppm)	0.56	0.4328 (ppm)	2072.9781
12/18/2015 20:53:10	R1510917-001A	Cr (267.716 nm)	0.1861 (ppm)	0.63	0.1861 (ppm)	4298.7414
12/18/2015 20:53:10	R1510917-001A	Cu (327.395 nm)	0.2190 (ppm)	0.83	0.2190 (ppm)	6624.5144
12/18/2015 20:53:10	R1510917-001A	Fe (234.350 nm)	0.9564 (ppm)	0.68	0.9564 (ppm)	7313.5062
12/18/2015 20:53:10	R1510917-001A	Fe (234.350 nm)	1.2043 (ppm)	0.76	1.2043 (ppm)	7652.4167
12/18/2015 20:53:10	R1510917-001A	K (766.491 nm)	18.3372 (ppm)	0.46	18.3372 (ppm)	46931.5632
12/18/2015 20:53:10	R1510917-001A	Mg (279.078 nm)	5.5462 (ppm)	0.54	5.5462 (ppm)	10066.9786
12/18/2015 20:53:10	R1510917-001A	Mg (279.078 nm)	7.8753 (ppm)	0.55	7.8753 (ppm)	10630.0994
12/18/2015 20:53:10	R1510917-001A	Mn (257.610 nm)	0.4677 (ppm)	0.58	0.4677 (ppm)	56660.4936
12/18/2015 20:53:10	R1510917-001A	Mo (202.032 nm)	0.4805 (ppm)	0.74	0.4805 (ppm)	2104.9255
12/18/2015 20:53:10	R1510917-001A	Na (588.995 nm)	20.6969 (ppm)	0.32	20.6969 (ppm)	561778.3361
12/18/2015 20:53:10	R1510917-001A	Ni (230.299 nm)	0.4511 (ppm)	0.33	0.4511 (ppm)	1381.3041
12/18/2015 20:53:10	R1510917-001A	Pb (220.353 nm)	0.4517 (ppm)	1.55	0.4517 (ppm)	437.1944
12/18/2015 20:53:10	R1510917-001A	Sb (217.582 nm)	0.4612 (ppm)	1.03	0.4612 (ppm)	258.5497
12/18/2015 20:53:10	R1510917-001A	Se (196.026 nm)	0.9874 (ppm)	0.96	0.9874 (ppm)	345.5930
12/18/2015 20:53:10	R1510917-001A	Sn (189.925 nm)	5.0855 (ppm)	0.48	5.0855 (ppm)	3498.5209
12/18/2015 20:53:10	R1510917-001A	Sr (460.733 nm)	2.2590 (ppm)	0.23	2.2590 (ppm)	29748.2213
12/18/2015 20:53:10	R1510917-001A	Ti (336.122 nm)	0.4856 (ppm)	0.93	0.4856 (ppm)	61042.7159

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 20:53:10	R1510917-001A	Tl (351.923 nm)	1.6465 (ppm)	0.62	1.6465 (ppm)	2664.7563
12/18/2015 20:53:10	R1510917-001A	V (292.401 nm)	0.4514 (ppm)	0.70	0.4514 (ppm)	8662.0112
12/18/2015 20:53:10	R1510917-001A	Y (360.074 nm)	0.99 (Ratio)	0.90	0.99 (Ratio)	578423.56
12/18/2015 20:53:10	R1510917-001A	Y_R (360.074 nm)	0.98 (Ratio)	0.39	0.98 (Ratio)	240658.52
12/18/2015 20:53:10	R1510917-001A	Zn (213.857 nm)	0.4421 (ppm)	0.76	0.4421 (ppm)	5529.5991
12/18/2015 20:56:39	R1510917-001L	Ag (328.068 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	5.8122
12/18/2015 20:56:39	R1510917-001L	Al (394.401 nm)	0.0400 (ppm)	2.98	0.0400 (ppm)	575.9492
12/18/2015 20:56:39	R1510917-001L	Al (394.401 nm)	0.0439 (ppm)	4.23	0.0439 (ppm)	618.9146
12/18/2015 20:56:39	R1510917-001L	As (188.980 nm)	-0.0012 u (ppm)	> 100.00	-0.0012 (ppm)	0.8852
12/18/2015 20:56:39	R1510917-001L	B (249.772 nm)	0.0014 (ppm)	11.06	0.0014 (ppm)	32.0717
12/18/2015 20:56:39	R1510917-001L	Ba (230.424 nm)	0.0021 (ppm)	5.24	0.0021 (ppm)	41.5714
12/18/2015 20:56:39	R1510917-001L	Be (313.107 nm)	0.0000 (ppm)	13.13	0.0000 (ppm)	-62.8800
12/18/2015 20:56:39	R1510917-001L	Ca (227.547 nm)	3.5353 (ppm)	0.35	3.5353 (ppm)	128.3144
12/18/2015 20:56:39	R1510917-001L	Ca (227.547 nm)	5.4977 (ppm)	1.21	5.4977 (ppm)	128.7565
12/18/2015 20:56:39	R1510917-001L	Cd (214.439 nm)	0.0001 (ppm)	> 100.00	0.0001 (ppm)	4.2091
12/18/2015 20:56:39	R1510917-001L	Co (230.786 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	1.4695
12/18/2015 20:56:39	R1510917-001L	Cr (267.716 nm)	0.0004 (ppm)	51.59	0.0004 (ppm)	5.9130
12/18/2015 20:56:39	R1510917-001L	Cu (327.395 nm)	-0.0001 u (ppm)	10.05	-0.0001 (ppm)	19.6420
12/18/2015 20:56:39	R1510917-001L	Fe (234.350 nm)	0.0466 (ppm)	1.36	0.0466 (ppm)	403.2439
12/18/2015 20:56:39	R1510917-001L	Fe (234.350 nm)	0.0576 (ppm)	1.66	0.0576 (ppm)	420.8306
12/18/2015 20:56:39	R1510917-001L	K (766.491 nm)	0.2456 (ppm)	3.71	0.2456 (ppm)	589.2487
12/18/2015 20:56:39	R1510917-001L	Mg (279.078 nm)	0.9173 (ppm)	1.00	0.9173 (ppm)	1681.0675
12/18/2015 20:56:39	R1510917-001L	Mg (279.078 nm)	1.2993 (ppm)	0.86	1.2993 (ppm)	1772.6220
12/18/2015 20:56:39	R1510917-001L	Mn (257.610 nm)	0.0031 (ppm)	0.35	0.0031 (ppm)	387.3896
12/18/2015 20:56:39	R1510917-001L	Mo (202.032 nm)	-0.0003 u (ppm)	> 100.00	-0.0003 (ppm)	1.3137
12/18/2015 20:56:39	R1510917-001L	Na (588.995 nm)	0.5293 (ppm)	0.69	0.5293 (ppm)	7274.6403
12/18/2015 20:56:39	R1510917-001L	Ni (230.299 nm)	0.0008 u (ppm)	> 100.00	0.0008 (ppm)	-7.1149
12/18/2015 20:56:39	R1510917-001L	Pb (220.353 nm)	-0.0012 u (ppm)	59.17	-0.0012 (ppm)	1.6624
12/18/2015 20:56:39	R1510917-001L	Sb (217.582 nm)	-0.0008 u (ppm)	> 100.00	-0.0008 (ppm)	1.0326
12/18/2015 20:56:39	R1510917-001L	Se (196.026 nm)	0.0007 u (ppm)	> 100.00	0.0007 (ppm)	0.7167
12/18/2015 20:56:39	R1510917-001L	Sn (189.925 nm)	-0.0010 u (ppm)	> 100.00	-0.0010 (ppm)	-0.4537
12/18/2015 20:56:39	R1510917-001L	Sr (460.733 nm)	0.0179 (ppm)	11.38	0.0179 (ppm)	303.8121
12/18/2015 20:56:39	R1510917-001L	Ti (336.122 nm)	0.0022 (ppm)	8.53	0.0022 (ppm)	258.8729
12/18/2015 20:56:39	R1510917-001L	Tl (351.923 nm)	0.0040 u (ppm)	> 100.00	0.0040 (ppm)	-4.0859
12/18/2015 20:56:39	R1510917-001L	V (292.401 nm)	0.0002 (ppm)	52.77	0.0002 (ppm)	40.5286
12/18/2015 20:56:39	R1510917-001L	Y (360.074 nm)	1.02 (Ratio)	1.13	1.02 (Ratio)	594932.29
12/18/2015 20:56:39	R1510917-001L	Y_R (360.074 nm)	1.02 (Ratio)	0.44	1.02 (Ratio)	249111.53
12/18/2015 20:56:39	R1510917-001L	Zn (213.857 nm)	0.0022 (ppm)	3.73	0.0022 (ppm)	29.5736
12/18/2015 21:00:07	R1510931-001	Ag (328.068 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	13.8546
12/18/2015 21:00:07	R1510931-001	Al (394.401 nm)	0.0660 (ppm)	0.42	0.0660 (ppm)	851.8816
12/18/2015 21:00:07	R1510931-001	Al (394.401 nm)	0.0341 (ppm)	0.92	0.0341 (ppm)	910.4774
12/18/2015 21:00:07	R1510931-001	As (188.980 nm)	-0.0012 u (ppm)	95.19	-0.0012 (ppm)	0.9776
12/18/2015 21:00:07	R1510931-001	B (249.772 nm)	0.0801 (ppm)	0.55	0.0801 (ppm)	1089.0895
12/18/2015 21:00:07	R1510931-001	Ba (230.424 nm)	0.0316 (ppm)	1.04	0.0316 (ppm)	492.5706
12/18/2015 21:00:07	R1510931-001	Be (313.107 nm)	0.0000 (ppm)	8.10	0.0000 (ppm)	-61.4463
12/18/2015 21:00:07	R1510931-001	Ca (227.547 nm)	25.8989 (ppm)	0.39	25.8989 (ppm)	938.6268
12/18/2015 21:00:07	R1510931-001	Ca (227.547 nm)	40.1271 (ppm)	0.33	40.1271 (ppm)	955.3541
12/18/2015 21:00:07	R1510931-001	Cd (214.439 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	2.9838
12/18/2015 21:00:07	R1510931-001	Co (230.786 nm)	0.0009 (ppm)	54.78	0.0009 (ppm)	5.0714
12/18/2015 21:00:07	R1510931-001	Cr (267.716 nm)	0.0010 (ppm)	5.44	0.0010 (ppm)	17.3392
12/18/2015 21:00:07	R1510931-001	Cu (327.395 nm)	0.0691 (ppm)	0.14	0.0691 (ppm)	2106.0555

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 21:00:07	R1510931-001	Fe (234.350 nm)	1.6660 (ppm)	0.27	1.6660 (ppm)	12702.9294
12/18/2015 21:00:07	R1510931-001	Fe (234.350 nm)	2.1084 (ppm)	0.34	2.1084 (ppm)	13323.5882
12/18/2015 21:00:07	R1510931-001	K (766.491 nm)	9.3119 (ppm)	0.37	9.3119 (ppm)	23810.8142
12/18/2015 21:00:07	R1510931-001	Mg (279.078 nm)	6.9265 (ppm)	0.38	6.9265 (ppm)	12567.4568
12/18/2015 21:00:07	R1510931-001	Mg (279.078 nm)	9.8524 (ppm)	0.54	9.8524 (ppm)	13293.8719
12/18/2015 21:00:07	R1510931-001	Mn (257.610 nm)	0.0348 (ppm)	0.39	0.0348 (ppm)	4253.4414
12/18/2015 21:00:07	R1510931-001	Mo (202.032 nm)	-0.0007 u (ppm)	23.92	-0.0007 (ppm)	1.6324
12/18/2015 21:00:07	R1510931-001	Na (588.995 nm)	43.3023 (ppm)	0.31	43.3023 (ppm)	1183508.8634
12/18/2015 21:00:07	R1510931-001	Ni (230.299 nm)	0.0023 (ppm)	32.90	0.0023 (ppm)	-2.2024
12/18/2015 21:00:07	R1510931-001	Pb (220.353 nm)	-0.0013 u (ppm)	> 100.00	-0.0013 (ppm)	1.3346
12/18/2015 21:00:07	R1510931-001	Sb (217.582 nm)	-0.0003 u (ppm)	> 100.00	-0.0003 (ppm)	1.7640
12/18/2015 21:00:07	R1510931-001	Se (196.026 nm)	0.0015 u (ppm)	> 100.00	0.0015 (ppm)	1.0321
12/18/2015 21:00:07	R1510931-001	Sn (189.925 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	0.3712
12/18/2015 21:00:07	R1510931-001	Sr (460.733 nm)	0.0913 (ppm)	4.49	0.0913 (ppm)	1268.6450
12/18/2015 21:00:07	R1510931-001	Ti (336.122 nm)	0.0002 (ppm)	28.39	0.0002 (ppm)	41.3442
12/18/2015 21:00:07	R1510931-001	Tl (351.923 nm)	0.0035 (ppm)	58.72	0.0035 (ppm)	-4.5580
12/18/2015 21:00:07	R1510931-001	V (292.401 nm)	0.0005 (ppm)	22.44	0.0005 (ppm)	50.9840
12/18/2015 21:00:07	R1510931-001	Y (360.074 nm)	0.99 (Ratio)	0.79	0.99 (Ratio)	576031.87
12/18/2015 21:00:07	R1510931-001	Y_R (360.074 nm)	0.99 (Ratio)	0.19	0.99 (Ratio)	241904.87
12/18/2015 21:00:07	R1510931-001	Zn (213.857 nm)	0.0371 (ppm)	0.57	0.0371 (ppm)	476.0660
12/18/2015 21:03:36	Continuing Calibration Verification1	Ag (328.068 nm)	0.4715 (ppm)	1.40	0.4715 (ppm)	18367.6121
12/18/2015 21:03:36	Continuing Calibration Verification1	Al (394.401 nm)	7.4252 (ppm)	1.35	7.4252 (ppm)	78944.8103
12/18/2015 21:03:36	Continuing Calibration Verification1	Al (394.401 nm)	9.2947 (ppm)	1.37	9.2947 (ppm)	80160.6957
12/18/2015 21:03:36	Continuing Calibration Verification1	As (188.980 nm)	0.9493 (ppm)	0.43	0.9493 (ppm)	501.9136
12/18/2015 21:03:36	Continuing Calibration Verification1	B (249.772 nm)	2.3677 (ppm)	1.35	2.3677 (ppm)	31540.2648
12/18/2015 21:03:36	Continuing Calibration Verification1	Ba (230.424 nm)	9.9813 (ppm)	1.47	9.9813 (ppm)	150906.5118
12/18/2015 21:03:36	Continuing Calibration Verification1	Be (313.107 nm)	0.2482 (ppm)	1.38	0.2482 (ppm)	217173.2251
12/18/2015 21:03:36	Continuing Calibration Verification1	Ca (227.547 nm)	15.7171 (ppm)	1.85	15.7171 (ppm)	569.7038
12/18/2015 21:03:36	Continuing Calibration Verification1	Ca (227.547 nm)	24.2109 (ppm)	2.05	24.2109 (ppm)	576.3785
12/18/2015 21:03:36	Continuing Calibration Verification1	Cd (214.439 nm)	0.4959 (ppm)	1.31	0.4959 (ppm)	5280.6783
12/18/2015 21:03:36	Continuing Calibration Verification1	Co (230.786 nm)	2.4102 (ppm)	1.41	2.4102 (ppm)	11537.7314
12/18/2015 21:03:36	Continuing Calibration Verification1	Cr (267.716 nm)	0.5077 (ppm)	1.37	0.5077 (ppm)	11738.6865
12/18/2015 21:03:36	Continuing Calibration Verification1	Cu (327.395 nm)	1.1870 (ppm)	1.32	1.1870 (ppm)	35805.8445
12/18/2015 21:03:36	Continuing Calibration Verification1	Fe (234.350 nm)	3.8297 (ppm)	1.37	3.8297 (ppm)	29137.6637
12/18/2015 21:03:36	Continuing Calibration Verification1	Fe (234.350 nm)	4.8619 (ppm)	1.42	4.8619 (ppm)	30592.7393
12/18/2015 21:03:36	Continuing Calibration Verification1	K (766.491 nm)	24.1451 (ppm)	0.38	24.1451 (ppm)	61806.2509
12/18/2015 21:03:36	Continuing Calibration Verification1	Mg (279.078 nm)	16.5499 (ppm)	1.32	16.5499 (ppm)	30001.5546
12/18/2015 21:03:36	Continuing Calibration Verification1	Mg (279.078 nm)	23.5539 (ppm)	1.42	23.5539 (ppm)	31732.5696
12/18/2015 21:03:36	Continuing Calibration Verification1	Mn (257.610 nm)	0.7472 (ppm)	1.40	0.7472 (ppm)	90511.6947
12/18/2015 21:03:36	Continuing Calibration Verification1	Mo (202.032 nm)	2.4161 (ppm)	1.35	2.4161 (ppm)	10568.3527
12/18/2015 21:03:36	Continuing Calibration Verification1	Na (588.995 nm)	24.1874 (ppm)	0.60	24.1874 (ppm)	657618.9838
12/18/2015 21:03:36	Continuing Calibration Verification1	Ni (230.299 nm)	2.0194 (ppm)	1.36	2.0194 (ppm)	6216.5303
12/18/2015 21:03:36	Continuing Calibration Verification1	Pb (220.353 nm)	0.4948 (ppm)	1.29	0.4948 (ppm)	478.2664
12/18/2015 21:03:36	Continuing Calibration Verification1	Sb (217.582 nm)	4.8474 (ppm)	1.42	4.8474 (ppm)	2700.2636
12/18/2015 21:03:36	Continuing Calibration Verification1	Se (196.026 nm)	0.4896 (ppm)	3.10	0.4896 (ppm)	171.6121
12/18/2015 21:03:36	Continuing Calibration Verification1	Sn (189.925 nm)	4.8801 (ppm)	1.90	4.8801 (ppm)	3357.6415
12/18/2015 21:03:36	Continuing Calibration Verification1	Sr (460.733 nm)	2.4419 (ppm)	0.21	2.4419 (ppm)	32135.3687
12/18/2015 21:03:36	Continuing Calibration Verification1	Ti (336.122 nm)	2.4121 (ppm)	1.43	2.4121 (ppm)	303268.2605
12/18/2015 21:03:36	Continuing Calibration Verification1	Tl (351.923 nm)	0.9777 (ppm)	1.11	0.9777 (ppm)	1578.0019
12/18/2015 21:03:36	Continuing Calibration Verification1	V (292.401 nm)	2.4314 (ppm)	0.34	2.4314 (ppm)	46476.8027
12/18/2015 21:03:36	Continuing Calibration Verification1	Y (360.074 nm)	0.98 (Ratio)	1.43	0.98 (Ratio)	572545.96

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 21:03:36	Continuing Calibration Verification1	Y_R (360.074 nm)	0.98 (Ratio)	0.28	0.98 (Ratio)	241393.92
12/18/2015 21:03:36	Continuing Calibration Verification1	Zn (213.857 nm)	0.9911 (ppm)	1.59	0.9911 (ppm)	12390.4990
12/18/2015 21:07:04	Continuing Calibration Blank1	Ag (328.068 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	17.8356
12/18/2015 21:07:04	Continuing Calibration Blank1	Al (394.401 nm)	-0.0083 u (ppm)	11.98	-0.0083 (ppm)	63.4333
12/18/2015 21:07:04	Continuing Calibration Blank1	Al (394.401 nm)	-0.0109 u (ppm)	10.62	-0.0109 (ppm)	90.2360
12/18/2015 21:07:04	Continuing Calibration Blank1	As (188.980 nm)	-0.0037 u (ppm)	92.83	-0.0037 (ppm)	-0.4725
12/18/2015 21:07:04	Continuing Calibration Blank1	B (249.772 nm)	0.0019 (ppm)	25.26	0.0019 (ppm)	36.9755
12/18/2015 21:07:04	Continuing Calibration Blank1	Ba (230.424 nm)	0.0042 (ppm)	38.67	0.0042 (ppm)	71.7649
12/18/2015 21:07:04	Continuing Calibration Blank1	Be (313.107 nm)	0.0001 (ppm)	35.06	0.0001 (ppm)	32.8255
12/18/2015 21:07:04	Continuing Calibration Blank1	Ca (227.547 nm)	0.0108 u (ppm)	> 100.00	0.0108 (ppm)	0.6073
12/18/2015 21:07:04	Continuing Calibration Blank1	Ca (227.547 nm)	0.0747 (ppm)	56.18	0.0747 (ppm)	-0.6632
12/18/2015 21:07:04	Continuing Calibration Blank1	Cd (214.439 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	3.1522
12/18/2015 21:07:04	Continuing Calibration Blank1	Co (230.786 nm)	0.0010 (ppm)	42.60	0.0010 (ppm)	5.6058
12/18/2015 21:07:04	Continuing Calibration Blank1	Cr (267.716 nm)	0.0002 (ppm)	87.99	0.0002 (ppm)	1.9802
12/18/2015 21:07:04	Continuing Calibration Blank1	Cu (327.395 nm)	0.0007 (ppm)	45.83	0.0007 (ppm)	45.5667
12/18/2015 21:07:04	Continuing Calibration Blank1	Fe (234.350 nm)	-0.0036 u (ppm)	17.59	-0.0036 (ppm)	22.0301
12/18/2015 21:07:04	Continuing Calibration Blank1	Fe (234.350 nm)	-0.0049 u (ppm)	9.09	-0.0049 (ppm)	17.9866
12/18/2015 21:07:04	Continuing Calibration Blank1	K (766.491 nm)	0.0079 u (ppm)	> 100.00	0.0079 (ppm)	-19.4591
12/18/2015 21:07:04	Continuing Calibration Blank1	Mg (279.078 nm)	-0.0034 u (ppm)	85.30	-0.0034 (ppm)	13.0283
12/18/2015 21:07:04	Continuing Calibration Blank1	Mg (279.078 nm)	-0.0061 u (ppm)	54.56	-0.0061 (ppm)	14.1656
12/18/2015 21:07:04	Continuing Calibration Blank1	Mn (257.610 nm)	0.0003 (ppm)	41.93	0.0003 (ppm)	41.0463
12/18/2015 21:07:04	Continuing Calibration Blank1	Mo (202.032 nm)	0.0015 (ppm)	34.85	0.0015 (ppm)	8.9818
12/18/2015 21:07:04	Continuing Calibration Blank1	Na (588.995 nm)	0.0150 (ppm)	40.69	0.0150 (ppm)	-6815.2105
12/18/2015 21:07:04	Continuing Calibration Blank1	Ni (230.299 nm)	0.0008 (ppm)	70.68	0.0008 (ppm)	-7.2404
12/18/2015 21:07:04	Continuing Calibration Blank1	Pb (220.353 nm)	-0.0013 u (ppm)	> 100.00	-0.0013 (ppm)	1.6619
12/18/2015 21:07:04	Continuing Calibration Blank1	Sb (217.582 nm)	0.0030 (ppm)	> 100.00	0.0030 (ppm)	3.0945
12/18/2015 21:07:04	Continuing Calibration Blank1	Se (196.026 nm)	0.0060 Zu (ppm)	> 100.00	0.0060 (ppm)	2.5520 Z
12/18/2015 21:07:04	Continuing Calibration Blank1	Sn (189.925 nm)	0.0026 (ppm)	54.70	0.0026 (ppm)	2.0009
12/18/2015 21:07:04	Continuing Calibration Blank1	Sr (460.733 nm)	0.0017 u (ppm)	> 100.00	0.0017 (ppm)	89.6964
12/18/2015 21:07:04	Continuing Calibration Blank1	Ti (336.122 nm)	0.0010 (ppm)	34.75	0.0010 (ppm)	100.0329
12/18/2015 21:07:04	Continuing Calibration Blank1	Tl (351.923 nm)	-0.0022 u (ppm)	> 100.00	-0.0022 (ppm)	-14.1669
12/18/2015 21:07:04	Continuing Calibration Blank1	V (292.401 nm)	0.0013 (ppm)	2.20	0.0013 (ppm)	60.7575
12/18/2015 21:07:04	Continuing Calibration Blank1	Y (360.074 nm)	1.01 (Ratio)	1.84	1.01 (Ratio)	591244.36
12/18/2015 21:07:04	Continuing Calibration Blank1	Y_R (360.074 nm)	1.01 (Ratio)	0.24	1.01 (Ratio)	247621.53
12/18/2015 21:07:04	Continuing Calibration Blank1	Zn (213.857 nm)	0.0002 (ppm)	24.98	0.0002 (ppm)	3.8436
12/18/2015 21:10:34	Contract Required Detection Limit	Ag (328.068 nm)	0.0095 (ppm)	3.28	0.0095 (ppm)	379.8639
12/18/2015 21:10:34	Contract Required Detection Limit	Al (394.401 nm)	0.1318 (ppm)	2.43	0.1318 (ppm)	1549.8814
12/18/2015 21:10:34	Contract Required Detection Limit	Al (394.401 nm)	0.1654 (ppm)	2.54	0.1654 (ppm)	1612.6843
12/18/2015 21:10:34	Contract Required Detection Limit	As (188.980 nm)	0.0144 R (ppm)	11.99	0.0144 (ppm)	9.0736 R
12/18/2015 21:10:34	Contract Required Detection Limit	B (249.772 nm)	0.1842 (ppm)	1.95	0.1842 (ppm)	2464.2570
12/18/2015 21:10:34	Contract Required Detection Limit	Ba (230.424 nm)	0.2064 (ppm)	2.70	0.2064 (ppm)	3128.1559
12/18/2015 21:10:34	Contract Required Detection Limit	Be (313.107 nm)	0.0048 (ppm)	1.86	0.0048 (ppm)	4200.8498
12/18/2015 21:10:34	Contract Required Detection Limit	Ca (227.547 nm)	0.6028 (ppm)	9.34	0.6028 (ppm)	22.0596
12/18/2015 21:10:34	Contract Required Detection Limit	Ca (227.547 nm)	1.0173 (ppm)	11.26	1.0173 (ppm)	21.8650
12/18/2015 21:10:34	Contract Required Detection Limit	Cd (214.439 nm)	0.0097 (ppm)	3.33	0.0097 (ppm)	106.5547
12/18/2015 21:10:34	Contract Required Detection Limit	Co (230.786 nm)	0.0504 (ppm)	1.40	0.0504 (ppm)	241.8902
12/18/2015 21:10:34	Contract Required Detection Limit	Cr (267.716 nm)	0.0104 (ppm)	1.56	0.0104 (ppm)	238.6672
12/18/2015 21:10:34	Contract Required Detection Limit	Cu (327.395 nm)	0.0237 (ppm)	3.14	0.0237 (ppm)	737.6921
12/18/2015 21:10:34	Contract Required Detection Limit	Fe (234.350 nm)	0.0757 (ppm)	2.09	0.0757 (ppm)	623.9312
12/18/2015 21:10:34	Contract Required Detection Limit	Fe (234.350 nm)	0.0953 (ppm)	2.40	0.0953 (ppm)	649.4949
12/18/2015 21:10:34	Contract Required Detection Limit	K (766.491 nm)	0.9545 (ppm)	2.24	0.9545 (ppm)	2405.2772

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 21:10:34	Contract Required Detection Limit	Mg (279.078 nm)	0.6612 (ppm)	2.11	0.6612 (ppm)	1217.1296
12/18/2015 21:10:34	Contract Required Detection Limit	Mg (279.078 nm)	0.9370 (ppm)	2.13	0.9370 (ppm)	1283.8628
12/18/2015 21:10:34	Contract Required Detection Limit	Mn (257.610 nm)	0.0154 (ppm)	1.77	0.0154 (ppm)	1868.6433
12/18/2015 21:10:34	Contract Required Detection Limit	Mo (202.032 nm)	0.0244 (ppm)	0.92	0.0244 (ppm)	108.8792
12/18/2015 21:10:34	Contract Required Detection Limit	Na (588.995 nm)	1.0441 (ppm)	1.29	1.0441 (ppm)	21477.6263
12/18/2015 21:10:34	Contract Required Detection Limit	Ni (230.299 nm)	0.0417 (ppm)	1.94	0.0417 (ppm)	118.7957
12/18/2015 21:10:34	Contract Required Detection Limit	Pb (220.353 nm)	0.0119 (ppm)	12.52	0.0119 (ppm)	14.3505
12/18/2015 21:10:34	Contract Required Detection Limit	Sb (217.582 nm)	0.0556 (ppm)	6.72	0.0556 (ppm)	32.3791
12/18/2015 21:10:34	Contract Required Detection Limit	Se (196.026 nm)	0.0097 (ppm)	43.72	0.0097 (ppm)	3.8471
12/18/2015 21:10:34	Contract Required Detection Limit	Sn (189.925 nm)	0.4898 (ppm)	1.28	0.4898 (ppm)	337.1715
12/18/2015 21:10:34	Contract Required Detection Limit	Sr (460.733 nm)	0.0994 (ppm)	7.89	0.0994 (ppm)	1372.2137
12/18/2015 21:10:34	Contract Required Detection Limit	Ti (336.122 nm)	0.0479 (ppm)	1.95	0.0479 (ppm)	5988.9933
12/18/2015 21:10:34	Contract Required Detection Limit	Tl (351.923 nm)	0.0195 (ppm)	26.87	0.0195 (ppm)	21.0592
12/18/2015 21:10:34	Contract Required Detection Limit	V (292.401 nm)	0.0497 (ppm)	0.66	0.0497 (ppm)	985.5927
12/18/2015 21:10:34	Contract Required Detection Limit	Y (360.074 nm)	1.02 (Ratio)	2.00	1.02 (Ratio)	593067.65
12/18/2015 21:10:34	Contract Required Detection Limit	Y_R (360.074 nm)	1.01 (Ratio)	0.83	1.01 (Ratio)	247657.20
12/18/2015 21:10:34	Contract Required Detection Limit	Zn (213.857 nm)	0.0197 (ppm)	2.59	0.0197 (ppm)	247.6495
12/18/2015 21:14:02	Interference Check Solution A	Ag (328.068 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	9.7572
12/18/2015 21:14:02	Interference Check Solution A	Al (394.401 nm)	196.1962 (ppm)	0.64	196.1962 (ppm)	2082113.4182
12/18/2015 21:14:02	Interference Check Solution A	Al (394.401 nm)	245.6803 o (ppm)	0.64	245.6803 (ppm)	2109707.1349
12/18/2015 21:14:02	Interference Check Solution A	As (188.980 nm)	0.0003 u (ppm)	> 100.00	0.0003 (ppm)	2.0784
12/18/2015 21:14:02	Interference Check Solution A	B (249.772 nm)	-0.0387 u (ppm)	0.83	-0.0387 (ppm)	-434.1904
12/18/2015 21:14:02	Interference Check Solution A	Ba (230.424 nm)	-0.0236 u (ppm)	1.42	-0.0236 (ppm)	18.7150
12/18/2015 21:14:02	Interference Check Solution A	Be (313.107 nm)	-0.0005 u (ppm)	1.07	-0.0005 (ppm)	-60.1422
12/18/2015 21:14:02	Interference Check Solution A	Ca (227.547 nm)	165.6902 (ppm)	0.68	165.6902 (ppm)	6003.7782
12/18/2015 21:14:02	Interference Check Solution A	Ca (227.547 nm)	256.5409 o (ppm)	0.68	256.5409 (ppm)	6134.2138
12/18/2015 21:14:02	Interference Check Solution A	Cd (214.439 nm)	-0.0007 u (ppm)	14.52	-0.0007 (ppm)	-21.4820
12/18/2015 21:14:02	Interference Check Solution A	Co (230.786 nm)	-0.0053 Ku (ppm)	9.34	-0.0053 (ppm)	-31.6416 K
12/18/2015 21:14:02	Interference Check Solution A	Cr (267.716 nm)	-0.0015 Ku (ppm)	5.80	-0.0015 (ppm)	5.2025 K
12/18/2015 21:14:02	Interference Check Solution A	Cu (327.395 nm)	-0.0033 u (ppm)	10.06	-0.0033 (ppm)	18.8256
12/18/2015 21:14:02	Interference Check Solution A	Fe (234.350 nm)	69.8281 (ppm)	0.57	69.8281 (ppm)	530430.1523
12/18/2015 21:14:02	Interference Check Solution A	Fe (234.350 nm)	88.6597 o (ppm)	0.59	88.6597 (ppm)	556379.8725
12/18/2015 21:14:02	Interference Check Solution A	K (766.491 nm)	0.0276 (ppm)	62.59	0.0276 (ppm)	-75.6898
12/18/2015 21:14:02	Interference Check Solution A	Mg (279.078 nm)	168.1358 (ppm)	0.62	168.1358 (ppm)	304619.4649
12/18/2015 21:14:02	Interference Check Solution A	Mg (279.078 nm)	239.5638 o (ppm)	0.64	239.5638 (ppm)	322570.4099
12/18/2015 21:14:02	Interference Check Solution A	Mn (257.610 nm)	-0.0030 u (ppm)	1.21	-0.0030 (ppm)	157.7179
12/18/2015 21:14:02	Interference Check Solution A	Mo (202.032 nm)	-0.0068 u (ppm)	4.51	-0.0068 (ppm)	-0.8291
12/18/2015 21:14:02	Interference Check Solution A	Na (588.995 nm)	0.3253 (ppm)	1.67	0.3253 (ppm)	-4854.2900
12/18/2015 21:14:02	Interference Check Solution A	Ni (230.299 nm)	-0.0057 Ku (ppm)	16.15	-0.0057 (ppm)	-4.5307 K
12/18/2015 21:14:02	Interference Check Solution A	Pb (220.353 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	-15.9598
12/18/2015 21:14:02	Interference Check Solution A	Sb (217.582 nm)	-0.0135 Ku (ppm)	53.02	-0.0135 (ppm)	9.9559 K
12/18/2015 21:14:02	Interference Check Solution A	Se (196.026 nm)	0.0025 u (ppm)	> 100.00	0.0025 (ppm)	0.9687
12/18/2015 21:14:02	Interference Check Solution A	Sn (189.925 nm)	-0.0158 u (ppm)	8.78	-0.0158 (ppm)	-0.1178
12/18/2015 21:14:02	Interference Check Solution A	Sr (460.733 nm)	0.0218 (ppm)	34.00	0.0218 (ppm)	3.1223
12/18/2015 21:14:02	Interference Check Solution A	Ti (336.122 nm)	-0.0086 u (ppm)	0.39	-0.0086 (ppm)	-144.7411
12/18/2015 21:14:02	Interference Check Solution A	Tl (351.923 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	-7.9236
12/18/2015 21:14:02	Interference Check Solution A	V (292.401 nm)	-0.0080 Ku (ppm)	3.10	-0.0080 (ppm)	-46.5312 K
12/18/2015 21:14:02	Interference Check Solution A	Y (360.074 nm)	0.91 (Ratio)	0.86	0.91 (Ratio)	531841.56
12/18/2015 21:14:02	Interference Check Solution A	Y_R (360.074 nm)	0.94 (Ratio)	0.56	0.94 (Ratio)	231266.36
12/18/2015 21:14:02	Interference Check Solution A	Zn (213.857 nm)	-0.0084 u (ppm)	3.30	-0.0084 (ppm)	150.1869
12/18/2015 21:17:31	Interference Check Solution AB	Ag (328.068 nm)	0.2046 (ppm)	0.74	0.2046 (ppm)	7980.4328

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 21:17:31	Interference Check Solution AB	Al (394.401 nm)	198.2450 (ppm)	0.82	198.2450 (ppm)	2103854.8209
12/18/2015 21:17:31	Interference Check Solution AB	Al (394.401 nm)	248.3031 o (ppm)	0.83	248.3031 (ppm)	2132220.1540
12/18/2015 21:17:31	Interference Check Solution AB	As (188.980 nm)	0.0976 (ppm)	6.58	0.0976 (ppm)	53.3538
12/18/2015 21:17:31	Interference Check Solution AB	B (249.772 nm)	-0.0384 u (ppm)	0.78	-0.0384 (ppm)	-429.2765
12/18/2015 21:17:31	Interference Check Solution AB	Ba (230.424 nm)	0.4828 (ppm)	0.73	0.4828 (ppm)	7677.6113
12/18/2015 21:17:31	Interference Check Solution AB	Be (313.107 nm)	0.4906 (ppm)	0.67	0.4906 (ppm)	429696.4162
12/18/2015 21:17:31	Interference Check Solution AB	Ca (227.547 nm)	167.0446 (ppm)	0.82	167.0446 (ppm)	6052.8540
12/18/2015 21:17:31	Interference Check Solution AB	Ca (227.547 nm)	258.5890 o (ppm)	0.79	258.5890 (ppm)	6183.2299
12/18/2015 21:17:31	Interference Check Solution AB	Cd (214.439 nm)	0.9445 (ppm)	0.74	0.9445 (ppm)	10039.9005
12/18/2015 21:17:31	Interference Check Solution AB	Co (230.786 nm)	0.4586 (ppm)	0.81	0.4586 (ppm)	2189.3224
12/18/2015 21:17:31	Interference Check Solution AB	Cr (267.716 nm)	0.4914 (ppm)	0.76	0.4914 (ppm)	11402.9134
12/18/2015 21:17:31	Interference Check Solution AB	Cu (327.395 nm)	0.5062 (ppm)	0.89	0.5062 (ppm)	15377.4889
12/18/2015 21:17:31	Interference Check Solution AB	Fe (234.350 nm)	70.4957 (ppm)	0.72	70.4957 (ppm)	535500.7727
12/18/2015 21:17:31	Interference Check Solution AB	Fe (234.350 nm)	89.6039 o (ppm)	0.75	89.6039 (ppm)	562302.8283
12/18/2015 21:17:31	Interference Check Solution AB	K (766.491 nm)	0.0243 (ppm)	> 100.00	0.0243 (ppm)	-85.0397
12/18/2015 21:17:31	Interference Check Solution AB	Mg (279.078 nm)	169.6827 (ppm)	0.76	169.6827 (ppm)	307421.8901
12/18/2015 21:17:31	Interference Check Solution AB	Mg (279.078 nm)	241.9696 o (ppm)	0.78	241.9696 (ppm)	325809.5595
12/18/2015 21:17:31	Interference Check Solution AB	Mn (257.610 nm)	0.4877 (ppm)	0.78	0.4877 (ppm)	59576.6752
12/18/2015 21:17:31	Interference Check Solution AB	Mo (202.032 nm)	-0.0070 u (ppm)	8.25	-0.0070 (ppm)	-1.3377
12/18/2015 21:17:31	Interference Check Solution AB	Na (588.995 nm)	0.3261 (ppm)	0.53	0.3261 (ppm)	-4893.1873
12/18/2015 21:17:31	Interference Check Solution AB	Ni (230.299 nm)	0.9358 (ppm)	1.15	0.9358 (ppm)	2897.9422
12/18/2015 21:17:31	Interference Check Solution AB	Pb (220.353 nm)	0.0468 (ppm)	9.08	0.0468 (ppm)	28.8234
12/18/2015 21:17:31	Interference Check Solution AB	Sb (217.582 nm)	0.5745 (ppm)	2.26	0.5745 (ppm)	337.3457
12/18/2015 21:17:31	Interference Check Solution AB	Se (196.026 nm)	0.0510 (ppm)	15.75	0.0510 (ppm)	17.9255
12/18/2015 21:17:31	Interference Check Solution AB	Sn (189.925 nm)	-0.0173 u (ppm)	8.52	-0.0173 (ppm)	-1.0487
12/18/2015 21:17:31	Interference Check Solution AB	Sr (460.733 nm)	0.0157 (ppm)	16.10	0.0157 (ppm)	-79.8653
12/18/2015 21:17:31	Interference Check Solution AB	Ti (336.122 nm)	-0.0089 u (ppm)	1.01	-0.0089 (ppm)	-174.4320
12/18/2015 21:17:31	Interference Check Solution AB	Tl (351.923 nm)	0.1043 (ppm)	2.94	0.1043 (ppm)	161.7572
12/18/2015 21:17:31	Interference Check Solution AB	V (292.401 nm)	0.4677 (ppm)	0.32	0.4677 (ppm)	9038.5605
12/18/2015 21:17:31	Interference Check Solution AB	Y (360.074 nm)	0.91 (Ratio)	0.93	0.91 (Ratio)	532001.42
12/18/2015 21:17:31	Interference Check Solution AB	Y_R (360.074 nm)	0.93 (Ratio)	0.25	0.93 (Ratio)	229122.82
12/18/2015 21:17:31	Interference Check Solution AB	Zn (213.857 nm)	0.9605 (ppm)	0.86	0.9605 (ppm)	12247.6750
12/18/2015 21:21:00	Continuing Calibration Verification1	Ag (328.068 nm)	0.4693 (ppm)	1.67	0.4693 (ppm)	18284.2159
12/18/2015 21:21:00	Continuing Calibration Verification1	Al (394.401 nm)	7.4524 (ppm)	2.06	7.4524 (ppm)	79233.5117
12/18/2015 21:21:00	Continuing Calibration Verification1	Al (394.401 nm)	9.3242 (ppm)	2.08	9.3242 (ppm)	80411.3475
12/18/2015 21:21:00	Continuing Calibration Verification1	As (188.980 nm)	0.9536 (ppm)	1.27	0.9536 (ppm)	504.1569
12/18/2015 21:21:00	Continuing Calibration Verification1	B (249.772 nm)	2.3608 (ppm)	1.59	2.3608 (ppm)	31448.3198
12/18/2015 21:21:00	Continuing Calibration Verification1	Ba (230.424 nm)	9.9429 (ppm)	1.98	9.9429 (ppm)	150325.9327
12/18/2015 21:21:00	Continuing Calibration Verification1	Be (313.107 nm)	0.2476 (ppm)	1.66	0.2476 (ppm)	216655.7580
12/18/2015 21:21:00	Continuing Calibration Verification1	Ca (227.547 nm)	15.5880 (ppm)	2.23	15.5880 (ppm)	565.0249
12/18/2015 21:21:00	Continuing Calibration Verification1	Ca (227.547 nm)	23.9577 (ppm)	2.42	23.9577 (ppm)	570.3448
12/18/2015 21:21:00	Continuing Calibration Verification1	Cd (214.439 nm)	0.4940 (ppm)	1.77	0.4940 (ppm)	5260.2920
12/18/2015 21:21:00	Continuing Calibration Verification1	Co (230.786 nm)	2.3990 (ppm)	1.26	2.3990 (ppm)	11483.7668
12/18/2015 21:21:00	Continuing Calibration Verification1	Cr (267.716 nm)	0.5059 (ppm)	1.71	0.5059 (ppm)	11697.1969
12/18/2015 21:21:00	Continuing Calibration Verification1	Cu (327.395 nm)	1.1846 (ppm)	1.70	1.1846 (ppm)	35733.8722
12/18/2015 21:21:00	Continuing Calibration Verification1	Fe (234.350 nm)	3.8598 (ppm)	1.77	3.8598 (ppm)	29366.1010
12/18/2015 21:21:00	Continuing Calibration Verification1	Fe (234.350 nm)	4.8773 (ppm)	1.87	4.8773 (ppm)	30689.4793
12/18/2015 21:21:00	Continuing Calibration Verification1	K (766.491 nm)	24.0856 (ppm)	0.38	24.0856 (ppm)	61653.6509
12/18/2015 21:21:00	Continuing Calibration Verification1	Mg (279.078 nm)	16.6005 (ppm)	1.73	16.6005 (ppm)	30093.1498
12/18/2015 21:21:00	Continuing Calibration Verification1	Mg (279.078 nm)	23.5429 (ppm)	1.80	23.5429 (ppm)	31717.6802
12/18/2015 21:21:00	Continuing Calibration Verification1	Mn (257.610 nm)	0.7450 (ppm)	1.60	0.7450 (ppm)	90246.8619

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 21:21:00	Continuing Calibration Verification1	Mo (202.032 nm)	2.4061 (ppm)	1.66	2.4061 (ppm)	10524.8417
12/18/2015 21:21:00	Continuing Calibration Verification1	Na (588.995 nm)	24.1725 (ppm)	0.22	24.1725 (ppm)	657211.0973
12/18/2015 21:21:00	Continuing Calibration Verification1	Ni (230.299 nm)	2.0127 (ppm)	1.69	2.0127 (ppm)	6195.8306
12/18/2015 21:21:00	Continuing Calibration Verification1	Pb (220.353 nm)	0.4979 (ppm)	2.52	0.4979 (ppm)	481.1649
12/18/2015 21:21:00	Continuing Calibration Verification1	Sb (217.582 nm)	4.8184 (ppm)	1.98	4.8184 (ppm)	2684.1036
12/18/2015 21:21:00	Continuing Calibration Verification1	Se (196.026 nm)	0.4816 (ppm)	3.72	0.4816 (ppm)	168.8049
12/18/2015 21:21:00	Continuing Calibration Verification1	Sn (189.925 nm)	4.8467 (ppm)	1.74	4.8467 (ppm)	3334.7023
12/18/2015 21:21:00	Continuing Calibration Verification1	Sr (460.733 nm)	2.4409 (ppm)	0.46	2.4409 (ppm)	32121.3195
12/18/2015 21:21:00	Continuing Calibration Verification1	Ti (336.122 nm)	2.4016 (ppm)	1.64	2.4016 (ppm)	301943.8876
12/18/2015 21:21:00	Continuing Calibration Verification1	Tl (351.923 nm)	0.9712 (ppm)	1.39	0.9712 (ppm)	1567.4739
12/18/2015 21:21:00	Continuing Calibration Verification1	V (292.401 nm)	2.4212 (ppm)	0.55	2.4212 (ppm)	46283.0101
12/18/2015 21:21:00	Continuing Calibration Verification1	Y (360.074 nm)	0.98 (Ratio)	1.72	0.98 (Ratio)	571678.19
12/18/2015 21:21:00	Continuing Calibration Verification1	Y_R (360.074 nm)	0.99 (Ratio)	0.63	0.99 (Ratio)	241571.40
12/18/2015 21:21:00	Continuing Calibration Verification1	Zn (213.857 nm)	0.9852 (ppm)	1.61	0.9852 (ppm)	12316.4076
12/18/2015 21:24:28	Continuing Calibration Blank1	Ag (328.068 nm)	0.0000 (ppm)	86.88	0.0000 (ppm)	11.0223
12/18/2015 21:24:28	Continuing Calibration Blank1	Al (394.401 nm)	0.0023 (ppm)	52.14	0.0023 (ppm)	175.7055
12/18/2015 21:24:28	Continuing Calibration Blank1	Al (394.401 nm)	0.0023 (ppm)	76.76	0.0023 (ppm)	203.8190
12/18/2015 21:24:28	Continuing Calibration Blank1	As (188.980 nm)	-0.0024 u (ppm)	> 100.00	-0.0024 (ppm)	0.2204
12/18/2015 21:24:28	Continuing Calibration Blank1	B (249.772 nm)	0.0017 (ppm)	11.24	0.0017 (ppm)	34.3463
12/18/2015 21:24:28	Continuing Calibration Blank1	Ba (230.424 nm)	0.0028 (ppm)	13.15	0.0028 (ppm)	50.6954
12/18/2015 21:24:28	Continuing Calibration Blank1	Be (313.107 nm)	0.0001 (ppm)	16.09	0.0001 (ppm)	31.3560
12/18/2015 21:24:28	Continuing Calibration Blank1	Ca (227.547 nm)	0.0272 u (ppm)	> 100.00	0.0272 (ppm)	1.2009
12/18/2015 21:24:28	Continuing Calibration Blank1	Ca (227.547 nm)	0.0176 u (ppm)	> 100.00	0.0176 (ppm)	-2.0234
12/18/2015 21:24:28	Continuing Calibration Blank1	Cd (214.439 nm)	0.0002 (ppm)	85.87	0.0002 (ppm)	4.6049
12/18/2015 21:24:28	Continuing Calibration Blank1	Co (230.786 nm)	0.0007 (ppm)	48.50	0.0007 (ppm)	4.1518
12/18/2015 21:24:28	Continuing Calibration Blank1	Cr (267.716 nm)	0.0003 (ppm)	24.99	0.0003 (ppm)	3.8352
12/18/2015 21:24:28	Continuing Calibration Blank1	Cu (327.395 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	30.0238
12/18/2015 21:24:28	Continuing Calibration Blank1	Fe (234.350 nm)	0.0011 (ppm)	30.81	0.0011 (ppm)	57.7573
12/18/2015 21:24:28	Continuing Calibration Blank1	Fe (234.350 nm)	0.0014 (ppm)	45.23	0.0014 (ppm)	57.4143
12/18/2015 21:24:28	Continuing Calibration Blank1	K (766.491 nm)	-0.0102 u (ppm)	> 100.00	-0.0102 (ppm)	-65.8118
12/18/2015 21:24:28	Continuing Calibration Blank1	Mg (279.078 nm)	0.0060 (ppm)	22.91	0.0060 (ppm)	30.1084
12/18/2015 21:24:28	Continuing Calibration Blank1	Mg (279.078 nm)	0.0066 (ppm)	14.27	0.0066 (ppm)	31.2885
12/18/2015 21:24:28	Continuing Calibration Blank1	Mn (257.610 nm)	0.0002 (ppm)	18.74	0.0002 (ppm)	31.9663
12/18/2015 21:24:28	Continuing Calibration Blank1	Mo (202.032 nm)	0.0013 (ppm)	25.29	0.0013 (ppm)	7.7995
12/18/2015 21:24:28	Continuing Calibration Blank1	Na (588.995 nm)	0.0143 (ppm)	53.37	0.0143 (ppm)	-6834.7685
12/18/2015 21:24:28	Continuing Calibration Blank1	Ni (230.299 nm)	0.0008 u (ppm)	> 100.00	0.0008 (ppm)	-7.3927
12/18/2015 21:24:28	Continuing Calibration Blank1	Pb (220.353 nm)	-0.0021 u (ppm)	38.00	-0.0021 (ppm)	0.8837
12/18/2015 21:24:28	Continuing Calibration Blank1	Sb (217.582 nm)	0.0026 u (ppm)	90.49	0.0026 (ppm)	2.8834
12/18/2015 21:24:28	Continuing Calibration Blank1	Se (196.026 nm)	0.0009 u (ppm)	> 100.00	0.0009 (ppm)	0.7530
12/18/2015 21:24:28	Continuing Calibration Blank1	Sn (189.925 nm)	0.0003 (ppm)	43.09	0.0003 (ppm)	0.4091
12/18/2015 21:24:28	Continuing Calibration Blank1	Sr (460.733 nm)	-0.0003 u (ppm)	> 100.00	-0.0003 (ppm)	62.5263
12/18/2015 21:24:28	Continuing Calibration Blank1	Ti (336.122 nm)	0.0007 (ppm)	15.84	0.0007 (ppm)	53.7865
12/18/2015 21:24:28	Continuing Calibration Blank1	Tl (351.923 nm)	0.0013 u (ppm)	> 100.00	0.0013 (ppm)	-8.5551
12/18/2015 21:24:28	Continuing Calibration Blank1	V (292.401 nm)	0.0009 (ppm)	15.82	0.0009 (ppm)	53.1819
12/18/2015 21:24:28	Continuing Calibration Blank1	Y (360.074 nm)	1.01 (Ratio)	2.50	1.01 (Ratio)	587001.56
12/18/2015 21:24:28	Continuing Calibration Blank1	Y_R (360.074 nm)	1.00 (Ratio)	0.13	1.00 (Ratio)	246111.45
12/18/2015 21:24:28	Continuing Calibration Blank1	Zn (213.857 nm)	0.0001 (ppm)	> 100.00	0.0001 (ppm)	1.6069
12/18/2015 21:27:58	R1510759-001	Ag (328.068 nm)	-0.0001 u (ppm)	47.94	-0.0001 (ppm)	4.4108
12/18/2015 21:27:58	R1510759-001	Al (394.401 nm)	0.4887 (ppm)	0.58	0.4887 (ppm)	5337.7539
12/18/2015 21:27:58	R1510759-001	Al (394.401 nm)	0.2467 (ppm)	1.59	0.2467 (ppm)	5418.9119
12/18/2015 21:27:58	R1510759-001	As (188.980 nm)	0.1843 (ppm)	2.91	0.1843 (ppm)	99.8354

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 21:27:58	R1510759-001	B (249.772 nm)	24.8276 o (ppm)	0.28	24.8276 (ppm)	330617.0986
12/18/2015 21:27:58	R1510759-001	Ba (230.424 nm)	0.6100 (ppm)	0.14	0.6100 (ppm)	9275.3505
12/18/2015 21:27:58	R1510759-001	Be (313.107 nm)	-0.0002 u (ppm)	9.12	-0.0002 (ppm)	-130.4328
12/18/2015 21:27:58	R1510759-001	Ca (227.547 nm)	179.7093 (ppm)	0.45	179.7093 (ppm)	6511.7423
12/18/2015 21:27:58	R1510759-001	Ca (227.547 nm)	275.6785 o (ppm)	0.40	275.6785 (ppm)	6582.3421
12/18/2015 21:27:58	R1510759-001	Cd (214.439 nm)	-0.0003 u (ppm)	45.83	-0.0003 (ppm)	2.5296
12/18/2015 21:27:58	R1510759-001	Co (230.786 nm)	0.0380 (ppm)	2.13	0.0380 (ppm)	180.0937
12/18/2015 21:27:58	R1510759-001	Cr (267.716 nm)	0.3994 (ppm)	0.36	0.3994 (ppm)	9224.1486
12/18/2015 21:27:58	R1510759-001	Cu (327.395 nm)	0.0081 (ppm)	2.12	0.0081 (ppm)	267.5945
12/18/2015 21:27:58	R1510759-001	Fe (234.350 nm)	16.6387 (ppm)	0.36	16.6387 (ppm)	126428.5671
12/18/2015 21:27:58	R1510759-001	Fe (234.350 nm)	21.2339 o (ppm)	0.31	21.2339 (ppm)	133854.2685
12/18/2015 21:27:58	R1510759-001	K (766.491 nm)	1336.8629 o (ppm)	0.64	1336.8629 (ppm)	3424514.8223
12/18/2015 21:27:58	R1510759-001	Mg (279.078 nm)	132.7846 (ppm)	0.33	132.7846 (ppm)	240576.0238
12/18/2015 21:27:58	R1510759-001	Mg (279.078 nm)	191.4825 o (ppm)	0.28	191.4825 (ppm)	257820.4098
12/18/2015 21:27:58	R1510759-001	Mn (257.610 nm)	0.3977 (ppm)	0.23	0.3977 (ppm)	48386.5344
12/18/2015 21:27:58	R1510759-001	Mo (202.032 nm)	0.0103 (ppm)	7.50	0.0103 (ppm)	63.6601
12/18/2015 21:27:58	R1510759-001	Na (588.995 nm)	##### (ppm)	N/A	##### (ppm)	#####
12/18/2015 21:27:58	R1510759-001	Ni (230.299 nm)	0.2906 (ppm)	0.60	0.2906 (ppm)	891.5420
12/18/2015 21:27:58	R1510759-001	Pb (220.353 nm)	-0.0010 u (ppm)	> 100.00	-0.0010 (ppm)	-0.3614
12/18/2015 21:27:58	R1510759-001	Sb (217.582 nm)	0.0024 u (ppm)	> 100.00	0.0024 (ppm)	7.9102
12/18/2015 21:27:58	R1510759-001	Se (196.026 nm)	0.0003 u (ppm)	> 100.00	0.0003 (ppm)	1.2819
12/18/2015 21:27:58	R1510759-001	Sn (189.925 nm)	0.0446 (ppm)	2.73	0.0446 (ppm)	32.9357
12/18/2015 21:27:58	R1510759-001	Sr (460.733 nm)	3.3785 (ppm)	0.49	3.3785 (ppm)	44445.3848
12/18/2015 21:27:58	R1510759-001	Ti (336.122 nm)	0.2812 (ppm)	0.23	0.2812 (ppm)	36039.0951
12/18/2015 21:27:58	R1510759-001	Tl (351.923 nm)	-0.0061 u (ppm)	22.22	-0.0061 (ppm)	-18.5508
12/18/2015 21:27:58	R1510759-001	V (292.401 nm)	0.0545 (ppm)	0.30	0.0545 (ppm)	1108.7896
12/18/2015 21:27:58	R1510759-001	Y (360.074 nm)	0.73 (Ratio)	0.47	0.73 (Ratio)	423512.09
12/18/2015 21:27:58	R1510759-001	Y_R (360.074 nm)	0.85 (Ratio)	0.49	0.85 (Ratio)	209268.54
12/18/2015 21:27:58	R1510759-001	Zn (213.857 nm)	0.2089 (ppm)	0.54	0.2089 (ppm)	2731.3675
12/18/2015 21:31:28	R1510759-002	Ag (328.068 nm)	0.0000 bu (ppm)	> 100.00	0.0000 (ppm)	5.7920
12/18/2015 21:31:28	R1510759-002	Al (394.401 nm)	1.4670 (ppm)	0.32	1.4670 (ppm)	15719.1676
12/18/2015 21:31:28	R1510759-002	Al (394.401 nm)	0.3415 b (ppm)	2.09	0.3415 (ppm)	15842.6890
12/18/2015 21:31:28	R1510759-002	As (188.980 nm)	0.4587 b (ppm)	2.10	0.4587 (ppm)	247.7155
12/18/2015 21:31:28	R1510759-002	B (249.772 nm)	56.7522 bo (ppm)	0.26	56.7522 (ppm)	755873.5016
12/18/2015 21:31:28	R1510759-002	Ba (230.424 nm)	1.9698 b (ppm)	0.39	1.9698 (ppm)	29973.1316
12/18/2015 21:31:28	R1510759-002	Be (313.107 nm)	-0.0006 bu (ppm)	0.90	-0.0006 (ppm)	-209.9128
12/18/2015 21:31:28	R1510759-002	Ca (227.547 nm)	754.5498 o (ppm)	0.55	754.5498 (ppm)	27340.3187
12/18/2015 21:31:28	R1510759-002	Ca (227.547 nm)	1152.6428 bo (ppm)	0.53	1152.6428 (ppm)	27512.3877
12/18/2015 21:31:28	R1510759-002	Cd (214.439 nm)	-0.0017 bu (ppm)	11.96	-0.0017 (ppm)	2.1260
12/18/2015 21:31:28	R1510759-002	Co (230.786 nm)	0.0735 b (ppm)	0.77	0.0735 (ppm)	361.0951
12/18/2015 21:31:28	R1510759-002	Cr (267.716 nm)	0.8864 b (ppm)	0.31	0.8864 (ppm)	20404.4043
12/18/2015 21:31:28	R1510759-002	Cu (327.395 nm)	0.0323 b (ppm)	2.76	0.0323 (ppm)	955.9785
12/18/2015 21:31:28	R1510759-002	Fe (234.350 nm)	35.4703 (ppm)	0.39	35.4703 (ppm)	269464.8364
12/18/2015 21:31:28	R1510759-002	Fe (234.350 nm)	45.2694 bo (ppm)	0.30	45.2694 (ppm)	286118.0665
12/18/2015 21:31:28	R1510759-002	K (766.491 nm)	2930.8386 bo (ppm)	0.29	2930.8386 (ppm)	7507670.9971
12/18/2015 21:31:28	R1510759-002	Mg (279.078 nm)	281.7162 o (ppm)	0.36	281.7162 (ppm)	510385.2424
12/18/2015 21:31:28	R1510759-002	Mg (279.078 nm)	406.0971 bo (ppm)	0.25	406.0971 (ppm)	546914.9369
12/18/2015 21:31:28	R1510759-002	Mn (257.610 nm)	3.2932 bo (ppm)	0.25	3.2932 (ppm)	399548.6501
12/18/2015 21:31:28	R1510759-002	Mo (202.032 nm)	0.0211 b (ppm)	2.69	0.0211 (ppm)	164.7068
12/18/2015 21:31:28	R1510759-002	Na (588.995 nm)	##### (ppm)	N/A	##### (ppm)	#####
12/18/2015 21:31:28	R1510759-002	Ni (230.299 nm)	0.6192 b (ppm)	0.40	0.6192 (ppm)	1911.6776

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 21:31:28	R1510759-002	Pb (220.353 nm)	0.0214 b (ppm)	24.37	0.0214 (ppm)	14.1390
12/18/2015 21:31:28	R1510759-002	Sb (217.582 nm)	-0.0001 bu (ppm)	> 100.00	-0.0001 (ppm)	16.2989
12/18/2015 21:31:28	R1510759-002	Se (196.026 nm)	-0.0020 bu (ppm)	> 100.00	-0.0020 (ppm)	1.9219
12/18/2015 21:31:28	R1510759-002	Sn (189.925 nm)	0.0860 b (ppm)	1.98	0.0860 (ppm)	64.0816
12/18/2015 21:31:28	R1510759-002	Sr (460.733 nm)	10.9790 bo (ppm)	0.16	10.9790 (ppm)	144431.7642
12/18/2015 21:31:28	R1510759-002	Ti (336.122 nm)	0.6493 b (ppm)	0.30	0.6493 (ppm)	83331.3052
12/18/2015 21:31:28	R1510759-002	Tl (351.923 nm)	-0.0022 bu (ppm)	> 100.00	-0.0022 (ppm)	-2.6260
12/18/2015 21:31:28	R1510759-002	V (292.401 nm)	0.1035 b (ppm)	0.45	0.1035 (ppm)	2170.5307
12/18/2015 21:31:28	R1510759-002	Y (360.074 nm)	0.59 (Ratio)	0.68	0.59 (Ratio)	342319.15
12/18/2015 21:31:28	R1510759-002	Y_R (360.074 nm)	0.78 (Ratio)	0.27	0.78 (Ratio)	190087.54
12/18/2015 21:31:28	R1510759-002	Zn (213.857 nm)	0.4943 b (ppm)	0.47	0.4943 (ppm)	6555.6758
12/18/2015 21:34:57	PBW-251936	Ag (328.068 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	12.4623
12/18/2015 21:34:57	PBW-251936	Al (394.401 nm)	-0.0059 u (ppm)	14.23	-0.0059 (ppm)	89.1868
12/18/2015 21:34:57	PBW-251936	Al (394.401 nm)	-0.0080 u (ppm)	13.30	-0.0080 (ppm)	115.9925
12/18/2015 21:34:57	PBW-251936	As (188.980 nm)	-0.0057 u (ppm)	67.35	-0.0057 (ppm)	-1.5137
12/18/2015 21:34:57	PBW-251936	B (249.772 nm)	0.0293 (ppm)	27.02	0.0293 (ppm)	401.5733
12/18/2015 21:34:57	PBW-251936	Ba (230.424 nm)	0.0008 (ppm)	29.00	0.0008 (ppm)	19.9289
12/18/2015 21:34:57	PBW-251936	Be (313.107 nm)	0.0000 (ppm)	> 100.00	0.0000 (ppm)	-42.4183
12/18/2015 21:34:57	PBW-251936	Ca (227.547 nm)	0.0659 (ppm)	29.14	0.0659 (ppm)	2.6025
12/18/2015 21:34:57	PBW-251936	Ca (227.547 nm)	0.0659 (ppm)	> 100.00	0.0659 (ppm)	-0.8699
12/18/2015 21:34:57	PBW-251936	Cd (214.439 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	2.5014
12/18/2015 21:34:57	PBW-251936	Co (230.786 nm)	0.0005 (ppm)	28.29	0.0005 (ppm)	3.0804
12/18/2015 21:34:57	PBW-251936	Cr (267.716 nm)	0.0002 (ppm)	> 100.00	0.0002 (ppm)	2.1210
12/18/2015 21:34:57	PBW-251936	Cu (327.395 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	24.0198
12/18/2015 21:34:57	PBW-251936	Fe (234.350 nm)	0.0050 (ppm)	56.58	0.0050 (ppm)	86.7831
12/18/2015 21:34:57	PBW-251936	Fe (234.350 nm)	0.0061 (ppm)	60.19	0.0061 (ppm)	86.9998
12/18/2015 21:34:57	PBW-251936	K (766.491 nm)	0.7303 (ppm)	1.22	0.7303 (ppm)	1831.2398
12/18/2015 21:34:57	PBW-251936	Mg (279.078 nm)	0.0473 (ppm)	51.12	0.0473 (ppm)	104.9435
12/18/2015 21:34:57	PBW-251936	Mg (279.078 nm)	0.0638 (ppm)	54.47	0.0638 (ppm)	108.3155
12/18/2015 21:34:57	PBW-251936	Mn (257.610 nm)	0.0008 (ppm)	27.93	0.0008 (ppm)	108.5302
12/18/2015 21:34:57	PBW-251936	Mo (202.032 nm)	-0.0008 u (ppm)	45.46	-0.0008 (ppm)	-1.0801
12/18/2015 21:34:57	PBW-251936	Na (588.995 nm)	0.7519 (ppm)	2.56	0.7519 (ppm)	13456.2324
12/18/2015 21:34:57	PBW-251936	Ni (230.299 nm)	0.0008 (ppm)	29.10	0.0008 (ppm)	-7.2419
12/18/2015 21:34:57	PBW-251936	Pb (220.353 nm)	-0.0021 u (ppm)	> 100.00	-0.0021 (ppm)	0.8601
12/18/2015 21:34:57	PBW-251936	Sb (217.582 nm)	0.0019 u (ppm)	> 100.00	0.0019 (ppm)	2.5115
12/18/2015 21:34:57	PBW-251936	Se (196.026 nm)	0.0024 u (ppm)	> 100.00	0.0024 (ppm)	1.2837
12/18/2015 21:34:57	PBW-251936	Sn (189.925 nm)	0.0005 u (ppm)	> 100.00	0.0005 (ppm)	0.5411
12/18/2015 21:34:57	PBW-251936	Sr (460.733 nm)	-0.0057 u (ppm)	95.29	-0.0057 (ppm)	-8.3799
12/18/2015 21:34:57	PBW-251936	Ti (336.122 nm)	0.0000 (ppm)	82.63	0.0000 (ppm)	-23.4327
12/18/2015 21:34:57	PBW-251936	Tl (351.923 nm)	0.0025 (ppm)	97.35	0.0025 (ppm)	-6.5031
12/18/2015 21:34:57	PBW-251936	V (292.401 nm)	0.0003 (ppm)	> 100.00	0.0003 (ppm)	41.5001
12/18/2015 21:34:57	PBW-251936	Y (360.074 nm)	1.04 (Ratio)	1.58	1.04 (Ratio)	605806.29
12/18/2015 21:34:57	PBW-251936	Y_R (360.074 nm)	1.02 (Ratio)	0.30	1.02 (Ratio)	250137.78
12/18/2015 21:34:57	PBW-251936	Zn (213.857 nm)	0.0010 (ppm)	15.98	0.0010 (ppm)	13.4743
12/18/2015 21:38:26	LCSW-251936	Ag (328.068 nm)	0.0481 (ppm)	2.42	0.0481 (ppm)	1883.0831
12/18/2015 21:38:26	LCSW-251936	Al (394.401 nm)	1.4278 (ppm)	2.91	1.4278 (ppm)	15302.4099
12/18/2015 21:38:26	LCSW-251936	Al (394.401 nm)	1.7910 (ppm)	2.90	1.7910 (ppm)	15563.2047
12/18/2015 21:38:26	LCSW-251936	As (188.980 nm)	0.0329 (ppm)	5.21	0.0329 (ppm)	18.8060
12/18/2015 21:38:26	LCSW-251936	B (249.772 nm)	0.9224 (ppm)	2.74	0.9224 (ppm)	12292.5662
12/18/2015 21:38:26	LCSW-251936	Ba (230.424 nm)	2.0172 (ppm)	3.13	2.0172 (ppm)	30503.9145
12/18/2015 21:38:26	LCSW-251936	Be (313.107 nm)	0.0479 (ppm)	2.89	0.0479 (ppm)	41866.6020

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 21:38:26	LCSW-251936	Ca (227.547 nm)	1.2215 (ppm)	1.54	1.2215 (ppm)	44.4769
12/18/2015 21:38:26	LCSW-251936	Ca (227.547 nm)	1.8702 (ppm)	5.12	1.8702 (ppm)	42.3275
12/18/2015 21:38:26	LCSW-251936	Cd (214.439 nm)	0.0497 (ppm)	3.01	0.0497 (ppm)	531.4055
12/18/2015 21:38:26	LCSW-251936	Co (230.786 nm)	0.4814 (ppm)	2.54	0.4814 (ppm)	2305.0286
12/18/2015 21:38:26	LCSW-251936	Cr (267.716 nm)	0.2011 (ppm)	2.96	0.2011 (ppm)	4646.7490
12/18/2015 21:38:26	LCSW-251936	Cu (327.395 nm)	0.2376 (ppm)	2.72	0.2376 (ppm)	7185.8519
12/18/2015 21:38:26	LCSW-251936	Fe (234.350 nm)	0.7698 (ppm)	2.95	0.7698 (ppm)	5896.3263
12/18/2015 21:38:26	LCSW-251936	Fe (234.350 nm)	0.9711 (ppm)	2.87	0.9711 (ppm)	6135.8688
12/18/2015 21:38:26	LCSW-251936	K (766.491 nm)	18.3326 (ppm)	0.66	18.3326 (ppm)	46921.1929
12/18/2015 21:38:26	LCSW-251936	Mg (279.078 nm)	1.2861 (ppm)	3.05	1.2861 (ppm)	2349.1414
12/18/2015 21:38:26	LCSW-251936	Mg (279.078 nm)	1.8131 (ppm)	3.05	1.8131 (ppm)	2463.5366
12/18/2015 21:38:26	LCSW-251936	Mn (257.610 nm)	0.4922 (ppm)	2.83	0.4922 (ppm)	59605.9434
12/18/2015 21:38:26	LCSW-251936	Mo (202.032 nm)	0.4820 (ppm)	3.03	0.4820 (ppm)	2110.1539
12/18/2015 21:38:26	LCSW-251936	Na (588.995 nm)	19.3373 (ppm)	0.26	19.3373 (ppm)	524663.3379
12/18/2015 21:38:26	LCSW-251936	Ni (230.299 nm)	0.5026 (ppm)	2.54	0.5026 (ppm)	1539.8779
12/18/2015 21:38:26	LCSW-251936	Pb (220.353 nm)	0.5040 (ppm)	2.50	0.5040 (ppm)	487.7706
12/18/2015 21:38:26	LCSW-251936	Sb (217.582 nm)	0.4772 (ppm)	2.85	0.4772 (ppm)	267.1620
12/18/2015 21:38:26	LCSW-251936	Se (196.026 nm)	0.9808 (ppm)	2.91	0.9808 (ppm)	343.2226
12/18/2015 21:38:26	LCSW-251936	Sn (189.925 nm)	4.8839 (ppm)	2.93	4.8839 (ppm)	3359.8536
12/18/2015 21:38:26	LCSW-251936	Sr (460.733 nm)	0.0031 (ppm)	52.46	0.0031 (ppm)	103.4376
12/18/2015 21:38:26	LCSW-251936	Ti (336.122 nm)	0.4784 (ppm)	2.77	0.4784 (ppm)	60115.1562
12/18/2015 21:38:26	LCSW-251936	Tl (351.923 nm)	1.8240 (ppm)	2.85	1.8240 (ppm)	2952.8155
12/18/2015 21:38:26	LCSW-251936	V (292.401 nm)	0.4794 (ppm)	0.45	0.4794 (ppm)	9192.5710
12/18/2015 21:38:26	LCSW-251936	Y (360.074 nm)	1.01 (Ratio)	2.86	1.01 (Ratio)	586734.35
12/18/2015 21:38:26	LCSW-251936	Y_R (360.074 nm)	1.01 (Ratio)	0.68	1.01 (Ratio)	248837.75
12/18/2015 21:38:26	LCSW-251936	Zn (213.857 nm)	0.4924 (ppm)	3.01	0.4924 (ppm)	6148.9554
12/18/2015 21:41:55	R1510782-001	Ag (328.068 nm)	0.0026 (ppm)	2.48	0.0026 (ppm)	108.2801
12/18/2015 21:41:55	R1510782-001	Al (394.401 nm)	0.2482 (ppm)	3.56	0.2482 (ppm)	2785.7962
12/18/2015 21:41:55	R1510782-001	Al (394.401 nm)	0.2468 (ppm)	4.12	0.2468 (ppm)	2850.4296
12/18/2015 21:41:55	R1510782-001	As (188.980 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	1.5995
12/18/2015 21:41:55	R1510782-001	B (249.772 nm)	0.1660 (ppm)	2.70	0.1660 (ppm)	2236.0843
12/18/2015 21:41:55	R1510782-001	Ba (230.424 nm)	0.3797 (ppm)	2.99	0.3797 (ppm)	5756.6225
12/18/2015 21:41:55	R1510782-001	Be (313.107 nm)	-0.0001 u (ppm)	15.39	-0.0001 (ppm)	-75.7003
12/18/2015 21:41:55	R1510782-001	Ca (227.547 nm)	32.9317 (ppm)	2.78	32.9317 (ppm)	1193.4535
12/18/2015 21:41:55	R1510782-001	Ca (227.547 nm)	50.9889 (ppm)	2.79	50.9889 (ppm)	1214.4994
12/18/2015 21:41:55	R1510782-001	Cd (214.439 nm)	0.0004 (ppm)	60.02	0.0004 (ppm)	8.0672
12/18/2015 21:41:55	R1510782-001	Co (230.786 nm)	0.0026 (ppm)	56.63	0.0026 (ppm)	13.2844
12/18/2015 21:41:55	R1510782-001	Cr (267.716 nm)	0.0174 (ppm)	3.24	0.0174 (ppm)	394.4411
12/18/2015 21:41:55	R1510782-001	Cu (327.395 nm)	0.0779 (ppm)	3.01	0.0779 (ppm)	2370.6264
12/18/2015 21:41:55	R1510782-001	Fe (234.350 nm)	1.4509 (ppm)	2.72	1.4509 (ppm)	11069.6791
12/18/2015 21:41:55	R1510782-001	Fe (234.350 nm)	1.8288 (ppm)	2.76	1.8288 (ppm)	11596.4474
12/18/2015 21:41:55	R1510782-001	K (766.491 nm)	69.4856 o (ppm)	0.36	69.4856 (ppm)	177954.5825
12/18/2015 21:41:55	R1510782-001	Mg (279.078 nm)	8.0747 (ppm)	2.63	8.0747 (ppm)	14647.6854
12/18/2015 21:41:55	R1510782-001	Mg (279.078 nm)	11.5334 (ppm)	2.71	11.5334 (ppm)	15559.1912
12/18/2015 21:41:55	R1510782-001	Mn (257.610 nm)	0.0910 (ppm)	2.84	0.0910 (ppm)	11053.0968
12/18/2015 21:41:55	R1510782-001	Mo (202.032 nm)	0.0067 (ppm)	5.40	0.0067 (ppm)	34.5061
12/18/2015 21:41:55	R1510782-001	Na (588.995 nm)	351.7709 o (ppm)	0.44	351.7709 (ppm)	9668966.2500
12/18/2015 21:41:55	R1510782-001	Ni (230.299 nm)	0.0204 (ppm)	4.49	0.0204 (ppm)	53.6769
12/18/2015 21:41:55	R1510782-001	Pb (220.353 nm)	-0.0009 u (ppm)	35.31	-0.0009 (ppm)	1.6169
12/18/2015 21:41:55	R1510782-001	Sb (217.582 nm)	0.0055 (ppm)	95.16	0.0055 (ppm)	5.0504
12/18/2015 21:41:55	R1510782-001	Se (196.026 nm)	0.0041 u (ppm)	> 100.00	0.0041 (ppm)	1.9673

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 21:41:55	R1510782-001	Sn (189.925 nm)	0.0064 (ppm)	39.01	0.0064 (ppm)	4.8412
12/18/2015 21:41:55	R1510782-001	Sr (460.733 nm)	0.2405 (ppm)	0.85	0.2405 (ppm)	3233.0476
12/18/2015 21:41:55	R1510782-001	Ti (336.122 nm)	0.0003 (ppm)	23.62	0.0003 (ppm)	69.5632
12/18/2015 21:41:55	R1510782-001	Tl (351.923 nm)	0.0063 (ppm)	> 100.00	0.0063 (ppm)	0.1988
12/18/2015 21:41:55	R1510782-001	V (292.401 nm)	0.0009 (ppm)	37.56	0.0009 (ppm)	60.4971
12/18/2015 21:41:55	R1510782-001	Y (360.074 nm)	0.93 (Ratio)	2.62	0.93 (Ratio)	543136.39
12/18/2015 21:41:55	R1510782-001	Y_R (360.074 nm)	0.96 (Ratio)	0.48	0.96 (Ratio)	236230.12
12/18/2015 21:41:55	R1510782-001	Zn (213.857 nm)	0.1914 (ppm)	3.14	0.1914 (ppm)	2404.8790
12/18/2015 21:45:24	R1510792-001	Ag (328.068 nm)	0.0002 (ppm)	78.42	0.0002 (ppm)	17.5442
12/18/2015 21:45:24	R1510792-001	Al (394.401 nm)	-0.0086 u (ppm)	4.85	-0.0086 (ppm)	60.6335
12/18/2015 21:45:24	R1510792-001	Al (394.401 nm)	-0.0118 u (ppm)	6.01	-0.0118 (ppm)	83.5829
12/18/2015 21:45:24	R1510792-001	As (188.980 nm)	-0.0005 u (ppm)	> 100.00	-0.0005 (ppm)	1.2526
12/18/2015 21:45:24	R1510792-001	B (249.772 nm)	0.0195 (ppm)	3.87	0.0195 (ppm)	271.8206
12/18/2015 21:45:24	R1510792-001	Ba (230.424 nm)	0.0006 (ppm)	75.94	0.0006 (ppm)	18.0119
12/18/2015 21:45:24	R1510792-001	Be (313.107 nm)	0.0000 (ppm)	> 100.00	0.0000 (ppm)	-48.3628
12/18/2015 21:45:24	R1510792-001	Ca (227.547 nm)	0.0696 (ppm)	61.31	0.0696 (ppm)	2.7379
12/18/2015 21:45:24	R1510792-001	Ca (227.547 nm)	0.1504 (ppm)	17.67	0.1504 (ppm)	1.1443
12/18/2015 21:45:24	R1510792-001	Cd (214.439 nm)	-0.0001 u (ppm)	98.11	-0.0001 (ppm)	1.4420
12/18/2015 21:45:24	R1510792-001	Co (230.786 nm)	0.0002 (ppm)	64.05	0.0002 (ppm)	1.5920
12/18/2015 21:45:24	R1510792-001	Cr (267.716 nm)	0.0001 (ppm)	32.71	0.0001 (ppm)	0.6085
12/18/2015 21:45:24	R1510792-001	Cu (327.395 nm)	0.0198 (ppm)	4.04	0.0198 (ppm)	619.7295
12/18/2015 21:45:24	R1510792-001	Fe (234.350 nm)	-0.0023 u (ppm)	37.49	-0.0023 (ppm)	31.3114
12/18/2015 21:45:24	R1510792-001	Fe (234.350 nm)	-0.0032 u (ppm)	38.36	-0.0032 (ppm)	28.6804
12/18/2015 21:45:24	R1510792-001	K (766.491 nm)	0.1543 (ppm)	16.29	0.1543 (ppm)	355.7002
12/18/2015 21:45:24	R1510792-001	Mg (279.078 nm)	-0.0010 u (ppm)	> 100.00	-0.0010 (ppm)	17.3583
12/18/2015 21:45:24	R1510792-001	Mg (279.078 nm)	-0.0036 u (ppm)	> 100.00	-0.0036 (ppm)	17.5615
12/18/2015 21:45:24	R1510792-001	Mn (257.610 nm)	0.0004 (ppm)	17.78	0.0004 (ppm)	55.3292
12/18/2015 21:45:24	R1510792-001	Mo (202.032 nm)	-0.0004 u (ppm)	64.10	-0.0004 (ppm)	0.3521
12/18/2015 21:45:24	R1510792-001	Na (588.995 nm)	0.8808 (ppm)	0.44	0.8808 (ppm)	17003.1690
12/18/2015 21:45:24	R1510792-001	Ni (230.299 nm)	0.0013 u (ppm)	94.63	0.0013 (ppm)	-5.6310
12/18/2015 21:45:24	R1510792-001	Pb (220.353 nm)	0.0016 (ppm)	31.69	0.0016 (ppm)	4.3878
12/18/2015 21:45:24	R1510792-001	Sb (217.582 nm)	0.0008 u (ppm)	> 100.00	0.0008 (ppm)	1.8877
12/18/2015 21:45:24	R1510792-001	Se (196.026 nm)	-0.0019 u (ppm)	80.74	-0.0019 (ppm)	-0.2317
12/18/2015 21:45:24	R1510792-001	Sn (189.925 nm)	0.0021 (ppm)	25.91	0.0021 (ppm)	1.6507
12/18/2015 21:45:24	R1510792-001	Sr (460.733 nm)	-0.0015 u (ppm)	> 100.00	-0.0015 (ppm)	46.8902
12/18/2015 21:45:24	R1510792-001	Ti (336.122 nm)	0.0001 (ppm)	94.97	0.0001 (ppm)	-22.4458
12/18/2015 21:45:24	R1510792-001	Tl (351.923 nm)	0.0026 u (ppm)	> 100.00	0.0026 (ppm)	-6.3776
12/18/2015 21:45:24	R1510792-001	V (292.401 nm)	0.0003 (ppm)	58.26	0.0003 (ppm)	41.0564
12/18/2015 21:45:24	R1510792-001	Y (360.074 nm)	1.03 (Ratio)	2.47	1.03 (Ratio)	600458.48
12/18/2015 21:45:24	R1510792-001	Y_R (360.074 nm)	1.03 (Ratio)	0.48	1.03 (Ratio)	251985.05
12/18/2015 21:45:24	R1510792-001	Zn (213.857 nm)	0.0054 (ppm)	6.87	0.0054 (ppm)	68.0574
12/18/2015 21:48:53	R1510792-002	Ag (328.068 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	8.8987
12/18/2015 21:48:53	R1510792-002	Al (394.401 nm)	0.0129 (ppm)	3.58	0.0129 (ppm)	288.8700
12/18/2015 21:48:53	R1510792-002	Al (394.401 nm)	-0.0141 u (ppm)	6.02	-0.0141 (ppm)	335.3319
12/18/2015 21:48:53	R1510792-002	As (188.980 nm)	-0.0009 u (ppm)	> 100.00	-0.0009 (ppm)	1.1266
12/18/2015 21:48:53	R1510792-002	B (249.772 nm)	0.0375 (ppm)	3.38	0.0375 (ppm)	519.4632
12/18/2015 21:48:53	R1510792-002	Ba (230.424 nm)	0.0161 (ppm)	3.36	0.0161 (ppm)	256.1245
12/18/2015 21:48:53	R1510792-002	Be (313.107 nm)	0.0000 (ppm)	19.11	0.0000 (ppm)	-58.6185
12/18/2015 21:48:53	R1510792-002	Ca (227.547 nm)	16.3900 (ppm)	3.10	16.3900 (ppm)	594.0859
12/18/2015 21:48:53	R1510792-002	Ca (227.547 nm)	25.3459 (ppm)	3.07	25.3459 (ppm)	602.3914
12/18/2015 21:48:53	R1510792-002	Cd (214.439 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	2.1541

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 21:48:53	R1510792-002	Co (230.786 nm)	-0.0002 u (ppm)	> 100.00	-0.0002 (ppm)	0.2208
12/18/2015 21:48:53	R1510792-002	Cr (267.716 nm)	0.0004 (ppm)	50.60	0.0004 (ppm)	3.7018
12/18/2015 21:48:53	R1510792-002	Cu (327.395 nm)	0.1151 (ppm)	3.33	0.1151 (ppm)	3491.0520
12/18/2015 21:48:53	R1510792-002	Fe (234.350 nm)	0.0010 (ppm)	51.90	0.0010 (ppm)	56.8871
12/18/2015 21:48:53	R1510792-002	Fe (234.350 nm)	-0.0075 u (ppm)	8.03	-0.0075 (ppm)	55.8080
12/18/2015 21:48:53	R1510792-002	K (766.491 nm)	1.3916 (ppm)	1.11	1.3916 (ppm)	3524.2208
12/18/2015 21:48:53	R1510792-002	Mg (279.078 nm)	4.0007 (ppm)	2.85	4.0007 (ppm)	7267.1055
12/18/2015 21:48:53	R1510792-002	Mg (279.078 nm)	5.6381 (ppm)	2.78	5.6381 (ppm)	7617.5940
12/18/2015 21:48:53	R1510792-002	Mn (257.610 nm)	0.0004 (ppm)	7.95	0.0004 (ppm)	66.4814
12/18/2015 21:48:53	R1510792-002	Mo (202.032 nm)	-0.0002 u (ppm)	> 100.00	-0.0002 (ppm)	3.0191
12/18/2015 21:48:53	R1510792-002	Na (588.995 nm)	18.5706 (ppm)	0.43	18.5706 (ppm)	503360.7372
12/18/2015 21:48:53	R1510792-002	Ni (230.299 nm)	0.0016 (ppm)	50.92	0.0016 (ppm)	-4.6067
12/18/2015 21:48:53	R1510792-002	Pb (220.353 nm)	-0.0012 u (ppm)	> 100.00	-0.0012 (ppm)	1.5302
12/18/2015 21:48:53	R1510792-002	Sb (217.582 nm)	0.0006 u (ppm)	> 100.00	0.0006 (ppm)	2.0290
12/18/2015 21:48:53	R1510792-002	Se (196.026 nm)	0.0069 (ppm)	44.45	0.0069 (ppm)	2.9136
12/18/2015 21:48:53	R1510792-002	Sn (189.925 nm)	-0.0023 u (ppm)	79.40	-0.0023 (ppm)	-1.3169
12/18/2015 21:48:53	R1510792-002	Sr (460.733 nm)	0.0571 (ppm)	6.11	0.0571 (ppm)	822.8090
12/18/2015 21:48:53	R1510792-002	Ti (336.122 nm)	-0.0004 u (ppm)	5.53	-0.0004 (ppm)	-47.9893
12/18/2015 21:48:53	R1510792-002	Tl (351.923 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	-10.4372
12/18/2015 21:48:53	R1510792-002	V (292.401 nm)	0.0004 (ppm)	93.54	0.0004 (ppm)	47.2504
12/18/2015 21:48:53	R1510792-002	Y (360.074 nm)	1.01 (Ratio)	2.75	1.01 (Ratio)	590185.29
12/18/2015 21:48:53	R1510792-002	Y_R (360.074 nm)	1.02 (Ratio)	0.47	1.02 (Ratio)	249446.77
12/18/2015 21:48:53	R1510792-002	Zn (213.857 nm)	0.0036 (ppm)	4.91	0.0036 (ppm)	52.6366
12/18/2015 21:52:22	R1510793-001	Ag (328.068 nm)	0.0001 (ppm)	44.15	0.0001 (ppm)	12.7213
12/18/2015 21:52:22	R1510793-001	Al (394.401 nm)	0.0049 (ppm)	22.27	0.0049 (ppm)	203.5446
12/18/2015 21:52:22	R1510793-001	Al (394.401 nm)	-0.0953 u (ppm)	1.29	-0.0953 (ppm)	256.5514
12/18/2015 21:52:22	R1510793-001	As (188.980 nm)	0.0003 u (ppm)	> 100.00	0.0003 (ppm)	1.9611
12/18/2015 21:52:22	R1510793-001	B (249.772 nm)	0.0351 (ppm)	4.05	0.0351 (ppm)	503.9421
12/18/2015 21:52:22	R1510793-001	Ba (230.424 nm)	0.0505 (ppm)	4.12	0.0505 (ppm)	784.8751
12/18/2015 21:52:22	R1510793-001	Be (313.107 nm)	-0.0001 u (ppm)	12.45	-0.0001 (ppm)	-61.1857
12/18/2015 21:52:22	R1510793-001	Ca (227.547 nm)	53.4883 (ppm)	3.27	53.4883 (ppm)	1938.2940
12/18/2015 21:52:22	R1510793-001	Ca (227.547 nm)	82.5617 o (ppm)	3.36	82.5617 (ppm)	1967.7124
12/18/2015 21:52:22	R1510793-001	Cd (214.439 nm)	-0.0002 u (ppm)	> 100.00	-0.0002 (ppm)	2.0287
12/18/2015 21:52:22	R1510793-001	Co (230.786 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	3.0522
12/18/2015 21:52:22	R1510793-001	Cr (267.716 nm)	0.0002 (ppm)	21.47	0.0002 (ppm)	-4.0909
12/18/2015 21:52:22	R1510793-001	Cu (327.395 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	16.0433
12/18/2015 21:52:22	R1510793-001	Fe (234.350 nm)	0.0011 (ppm)	65.43	0.0011 (ppm)	57.4791
12/18/2015 21:52:22	R1510793-001	Fe (234.350 nm)	-0.0266 u (ppm)	1.78	-0.0266 (ppm)	55.7162
12/18/2015 21:52:22	R1510793-001	K (766.491 nm)	1.2160 (ppm)	1.40	1.2160 (ppm)	3071.8347
12/18/2015 21:52:22	R1510793-001	Mg (279.078 nm)	12.2661 (ppm)	3.21	12.2661 (ppm)	22240.9621
12/18/2015 21:52:22	R1510793-001	Mg (279.078 nm)	17.3038 (ppm)	3.28	17.3038 (ppm)	23334.1540
12/18/2015 21:52:22	R1510793-001	Mn (257.610 nm)	0.0702 (ppm)	3.14	0.0702 (ppm)	8551.9528
12/18/2015 21:52:22	R1510793-001	Mo (202.032 nm)	-0.0012 u (ppm)	32.47	-0.0012 (ppm)	2.1216
12/18/2015 21:52:22	R1510793-001	Na (588.995 nm)	10.7386 (ppm)	0.09	10.7386 (ppm)	287317.6898
12/18/2015 21:52:22	R1510793-001	Ni (230.299 nm)	0.0054 (ppm)	8.45	0.0054 (ppm)	7.3900
12/18/2015 21:52:22	R1510793-001	Pb (220.353 nm)	-0.0023 u (ppm)	72.10	-0.0023 (ppm)	-0.0592
12/18/2015 21:52:22	R1510793-001	Sb (217.582 nm)	-0.0037 u (ppm)	78.12	-0.0037 (ppm)	0.1809
12/18/2015 21:52:22	R1510793-001	Se (196.026 nm)	0.0025 u (ppm)	> 100.00	0.0025 (ppm)	1.4700
12/18/2015 21:52:22	R1510793-001	Sn (189.925 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	0.1994
12/18/2015 21:52:22	R1510793-001	Sr (460.733 nm)	0.1789 (ppm)	2.79	0.1789 (ppm)	2437.2639
12/18/2015 21:52:22	R1510793-001	Ti (336.122 nm)	-0.0013 u (ppm)	2.33	-0.0013 (ppm)	-99.9975

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 21:52:22	R1510793-001	Tl (351.923 nm)	0.0004 u (ppm)	> 100.00	0.0004 (ppm)	-9.0672
12/18/2015 21:52:22	R1510793-001	V (292.401 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	54.1609
12/18/2015 21:52:22	R1510793-001	Y (360.074 nm)	0.99 (Ratio)	3.12	0.99 (Ratio)	577251.28
12/18/2015 21:52:22	R1510793-001	Y_R (360.074 nm)	1.00 (Ratio)	0.41	1.00 (Ratio)	245285.20
12/18/2015 21:52:22	R1510793-001	Zn (213.857 nm)	0.0165 (ppm)	4.38	0.0165 (ppm)	229.4729
12/18/2015 21:55:52	R1510793-002	Ag (328.068 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	9.2447
12/18/2015 21:55:52	R1510793-002	Al (394.401 nm)	0.0057 (ppm)	17.68	0.0057 (ppm)	211.5635
12/18/2015 21:55:52	R1510793-002	Al (394.401 nm)	-0.1027 u (ppm)	1.43	-0.1027 (ppm)	264.7270
12/18/2015 21:55:52	R1510793-002	As (188.980 nm)	-0.0024 u (ppm)	> 100.00	-0.0024 (ppm)	0.5367
12/18/2015 21:55:52	R1510793-002	B (249.772 nm)	0.0862 (ppm)	3.61	0.0862 (ppm)	1184.4191
12/18/2015 21:55:52	R1510793-002	Ba (230.424 nm)	0.2322 (ppm)	3.37	0.2322 (ppm)	3533.3746
12/18/2015 21:55:52	R1510793-002	Be (313.107 nm)	-0.0001 u (ppm)	9.66	-0.0001 (ppm)	-57.0966
12/18/2015 21:55:52	R1510793-002	Ca (227.547 nm)	58.0357 (ppm)	3.37	58.0357 (ppm)	2103.0618
12/18/2015 21:55:52	R1510793-002	Ca (227.547 nm)	89.5890 o (ppm)	3.24	89.5890 (ppm)	2135.3190
12/18/2015 21:55:52	R1510793-002	Cd (214.439 nm)	-0.0002 u (ppm)	92.35	-0.0002 (ppm)	2.4652
12/18/2015 21:55:52	R1510793-002	Co (230.786 nm)	0.0013 (ppm)	76.78	0.0013 (ppm)	8.3352
12/18/2015 21:55:52	R1510793-002	Cr (267.716 nm)	0.0001 (ppm)	66.52	0.0001 (ppm)	-7.9748
12/18/2015 21:55:52	R1510793-002	Cu (327.395 nm)	0.0017 (ppm)	7.73	0.0017 (ppm)	68.4445
12/18/2015 21:55:52	R1510793-002	Fe (234.350 nm)	0.9518 (ppm)	3.08	0.9518 (ppm)	7278.6017
12/18/2015 21:55:52	R1510793-002	Fe (234.350 nm)	1.1794 (ppm)	3.51	1.1794 (ppm)	7592.4467
12/18/2015 21:55:52	R1510793-002	K (766.491 nm)	3.0475 (ppm)	1.11	3.0475 (ppm)	7762.0041
12/18/2015 21:55:52	R1510793-002	Mg (279.078 nm)	8.9645 (ppm)	3.25	8.9645 (ppm)	16259.5613
12/18/2015 21:55:52	R1510793-002	Mg (279.078 nm)	12.6926 (ppm)	3.56	12.6926 (ppm)	17129.6155
12/18/2015 21:55:52	R1510793-002	Mn (257.610 nm)	1.8459 o (ppm)	3.33	1.8459 (ppm)	223558.4757
12/18/2015 21:55:52	R1510793-002	Mo (202.032 nm)	-0.0015 u (ppm)	16.03	-0.0015 (ppm)	1.1635
12/18/2015 21:55:52	R1510793-002	Na (588.995 nm)	37.9374 (ppm)	0.34	37.9374 (ppm)	1035486.8763
12/18/2015 21:55:52	R1510793-002	Ni (230.299 nm)	0.0112 (ppm)	8.71	0.0112 (ppm)	25.1302
12/18/2015 21:55:52	R1510793-002	Pb (220.353 nm)	-0.0026 u (ppm)	21.47	-0.0026 (ppm)	-0.3230
12/18/2015 21:55:52	R1510793-002	Sb (217.582 nm)	0.0027 u (ppm)	> 100.00	0.0027 (ppm)	3.7550
12/18/2015 21:55:52	R1510793-002	Se (196.026 nm)	0.0014 u (ppm)	> 100.00	0.0014 (ppm)	1.0535
12/18/2015 21:55:52	R1510793-002	Sn (189.925 nm)	-0.0033 u (ppm)	> 100.00	-0.0033 (ppm)	-1.8941
12/18/2015 21:55:52	R1510793-002	Sr (460.733 nm)	0.2113 (ppm)	1.77	0.2113 (ppm)	2859.8747
12/18/2015 21:55:52	R1510793-002	Ti (336.122 nm)	-0.0012 u (ppm)	4.38	-0.0012 (ppm)	-104.5696
12/18/2015 21:55:52	R1510793-002	Tl (351.923 nm)	0.0024 (ppm)	88.71	0.0024 (ppm)	-5.6257
12/18/2015 21:55:52	R1510793-002	V (292.401 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	50.8331
12/18/2015 21:55:52	R1510793-002	Y (360.074 nm)	0.98 (Ratio)	3.19	0.98 (Ratio)	573651.91
12/18/2015 21:55:52	R1510793-002	Y_R (360.074 nm)	1.00 (Ratio)	0.12	1.00 (Ratio)	246413.69
12/18/2015 21:55:52	R1510793-002	Zn (213.857 nm)	0.0072 (ppm)	5.91	0.0072 (ppm)	113.9401
12/18/2015 21:59:20	R1510793-003	Ag (328.068 nm)	-0.0001 u (ppm)	58.60	-0.0001 (ppm)	5.5634
12/18/2015 21:59:20	R1510793-003	Al (394.401 nm)	0.0134 (ppm)	14.26	0.0134 (ppm)	293.2300
12/18/2015 21:59:20	R1510793-003	Al (394.401 nm)	-0.1428 u (ppm)	1.50	-0.1428 (ppm)	349.9494
12/18/2015 21:59:20	R1510793-003	As (188.980 nm)	0.0005 u (ppm)	> 100.00	0.0005 (ppm)	2.3061
12/18/2015 21:59:20	R1510793-003	B (249.772 nm)	0.0515 (ppm)	3.73	0.0515 (ppm)	736.2641
12/18/2015 21:59:20	R1510793-003	Ba (230.424 nm)	0.0754 (ppm)	3.52	0.0754 (ppm)	1168.4338
12/18/2015 21:59:20	R1510793-003	Be (313.107 nm)	-0.0001 u (ppm)	3.31	-0.0001 (ppm)	-65.6746
12/18/2015 21:59:20	R1510793-003	Ca (227.547 nm)	82.7681 (ppm)	3.52	82.7681 (ppm)	2999.2087
12/18/2015 21:59:20	R1510793-003	Ca (227.547 nm)	127.6786 o (ppm)	3.55	127.6786 (ppm)	3044.8912
12/18/2015 21:59:20	R1510793-003	Cd (214.439 nm)	-0.0003 u (ppm)	67.02	-0.0003 (ppm)	1.2034
12/18/2015 21:59:20	R1510793-003	Co (230.786 nm)	0.0006 u (ppm)	> 100.00	0.0006 (ppm)	6.6560
12/18/2015 21:59:20	R1510793-003	Cr (267.716 nm)	0.0004 (ppm)	41.13	0.0004 (ppm)	-1.0224
12/18/2015 21:59:20	R1510793-003	Cu (327.395 nm)	0.0028 (ppm)	11.03	0.0028 (ppm)	101.8569

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 21:59:20	R1510793-003	Fe (234.350 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	50.9806
12/18/2015 21:59:20	R1510793-003	Fe (234.350 nm)	-0.0518 u (ppm)	1.16	-0.0518 (ppm)	48.5419
12/18/2015 21:59:20	R1510793-003	K (766.491 nm)	2.2407 (ppm)	0.28	2.2407 (ppm)	5695.6470
12/18/2015 21:59:20	R1510793-003	Mg (279.078 nm)	31.0568 (ppm)	3.15	31.0568 (ppm)	56282.7755
12/18/2015 21:59:20	R1510793-003	Mg (279.078 nm)	44.4043 (ppm)	3.00	44.4043 (ppm)	59821.7676
12/18/2015 21:59:20	R1510793-003	Mn (257.610 nm)	0.0018 (ppm)	35.11	0.0018 (ppm)	300.9526
12/18/2015 21:59:20	R1510793-003	Mo (202.032 nm)	-0.0019 u (ppm)	21.54	-0.0019 (ppm)	1.6965
12/18/2015 21:59:20	R1510793-003	Na (588.995 nm)	30.1554 (ppm)	0.30	30.1554 (ppm)	820832.6681
12/18/2015 21:59:20	R1510793-003	Ni (230.299 nm)	0.0052 (ppm)	12.93	0.0052 (ppm)	7.3259
12/18/2015 21:59:20	R1510793-003	Pb (220.353 nm)	-0.0017 u (ppm)	> 100.00	-0.0017 (ppm)	0.1141
12/18/2015 21:59:20	R1510793-003	Sb (217.582 nm)	0.0019 u (ppm)	> 100.00	0.0019 (ppm)	3.9344
12/18/2015 21:59:20	R1510793-003	Se (196.026 nm)	0.0007 u (ppm)	> 100.00	0.0007 (ppm)	1.0159
12/18/2015 21:59:20	R1510793-003	Sn (189.925 nm)	-0.0021 u (ppm)	> 100.00	-0.0021 (ppm)	-1.1341
12/18/2015 21:59:20	R1510793-003	Sr (460.733 nm)	0.7711 (ppm)	0.24	0.7711 (ppm)	10229.1445
12/18/2015 21:59:20	R1510793-003	Ti (336.122 nm)	-0.0022 u (ppm)	3.19	-0.0022 (ppm)	-118.3243
12/18/2015 21:59:20	R1510793-003	Tl (351.923 nm)	0.0029 (ppm)	91.34	0.0029 (ppm)	-4.4896
12/18/2015 21:59:20	R1510793-003	V (292.401 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	59.8847
12/18/2015 21:59:20	R1510793-003	Y (360.074 nm)	0.98 (Ratio)	3.07	0.98 (Ratio)	571284.08
12/18/2015 21:59:20	R1510793-003	Y_R (360.074 nm)	1.00 (Ratio)	0.30	1.00 (Ratio)	244178.87
12/18/2015 21:59:20	R1510793-003	Zn (213.857 nm)	0.0040 (ppm)	7.32	0.0040 (ppm)	91.7255
12/18/2015 22:02:49	Continuing Calibration Verification1	Ag (328.068 nm)	0.4686 (ppm)	1.38	0.4686 (ppm)	18255.7885
12/18/2015 22:02:49	Continuing Calibration Verification1	Al (394.401 nm)	7.3919 (ppm)	1.34	7.3919 (ppm)	78591.1794
12/18/2015 22:02:49	Continuing Calibration Verification1	Al (394.401 nm)	9.2553 (ppm)	1.37	9.2553 (ppm)	79820.8174
12/18/2015 22:02:49	Continuing Calibration Verification1	As (188.980 nm)	0.9459 (ppm)	1.07	0.9459 (ppm)	500.1349
12/18/2015 22:02:49	Continuing Calibration Verification1	B (249.772 nm)	2.3530 (ppm)	1.28	2.3530 (ppm)	31343.7066
12/18/2015 22:02:49	Continuing Calibration Verification1	Ba (230.424 nm)	9.9378 (ppm)	1.63	9.9378 (ppm)	150249.2318
12/18/2015 22:02:49	Continuing Calibration Verification1	Be (313.107 nm)	0.2463 (ppm)	1.35	0.2463 (ppm)	215489.7489
12/18/2015 22:02:49	Continuing Calibration Verification1	Ca (227.547 nm)	15.5976 (ppm)	1.66	15.5976 (ppm)	565.3737
12/18/2015 22:02:49	Continuing Calibration Verification1	Ca (227.547 nm)	24.0238 (ppm)	1.69	24.0238 (ppm)	571.9062
12/18/2015 22:02:49	Continuing Calibration Verification1	Cd (214.439 nm)	0.4915 (ppm)	1.17	0.4915 (ppm)	5234.0318
12/18/2015 22:02:49	Continuing Calibration Verification1	Co (230.786 nm)	2.3854 (ppm)	1.30	2.3854 (ppm)	11418.9271
12/18/2015 22:02:49	Continuing Calibration Verification1	Cr (267.716 nm)	0.5038 (ppm)	1.34	0.5038 (ppm)	11647.5874
12/18/2015 22:02:49	Continuing Calibration Verification1	Cu (327.395 nm)	1.1778 (ppm)	1.43	1.1778 (ppm)	35529.4185
12/18/2015 22:02:49	Continuing Calibration Verification1	Fe (234.350 nm)	3.7992 (ppm)	1.28	3.7992 (ppm)	28906.4265
12/18/2015 22:02:49	Continuing Calibration Verification1	Fe (234.350 nm)	4.8297 (ppm)	1.38	4.8297 (ppm)	30390.4978
12/18/2015 22:02:49	Continuing Calibration Verification1	K (766.491 nm)	23.9736 (ppm)	1.02	23.9736 (ppm)	61366.9134
12/18/2015 22:02:49	Continuing Calibration Verification1	Mg (279.078 nm)	16.4167 (ppm)	1.33	16.4167 (ppm)	29760.2663
12/18/2015 22:02:49	Continuing Calibration Verification1	Mg (279.078 nm)	23.3818 (ppm)	1.40	23.3818 (ppm)	31500.8353
12/18/2015 22:02:49	Continuing Calibration Verification1	Mn (257.610 nm)	0.7419 (ppm)	1.35	0.7419 (ppm)	89860.8801
12/18/2015 22:02:49	Continuing Calibration Verification1	Mo (202.032 nm)	2.3993 (ppm)	1.42	2.3993 (ppm)	10495.0636
12/18/2015 22:02:49	Continuing Calibration Verification1	Na (588.995 nm)	24.1704 (ppm)	1.10	24.1704 (ppm)	657156.4818
12/18/2015 22:02:49	Continuing Calibration Verification1	Ni (230.299 nm)	2.0036 (ppm)	1.54	2.0036 (ppm)	6167.7698
12/18/2015 22:02:49	Continuing Calibration Verification1	Pb (220.353 nm)	0.4949 (ppm)	0.77	0.4949 (ppm)	478.3715
12/18/2015 22:02:49	Continuing Calibration Verification1	Sb (217.582 nm)	4.8055 (ppm)	1.42	4.8055 (ppm)	2676.9147
12/18/2015 22:02:49	Continuing Calibration Verification1	Se (196.026 nm)	0.4795 (ppm)	2.18	0.4795 (ppm)	168.0681
12/18/2015 22:02:49	Continuing Calibration Verification1	Sn (189.925 nm)	4.8210 (ppm)	1.21	4.8210 (ppm)	3316.9932
12/18/2015 22:02:49	Continuing Calibration Verification1	Sr (460.733 nm)	2.4381 (ppm)	0.99	2.4381 (ppm)	32085.2825
12/18/2015 22:02:49	Continuing Calibration Verification1	Ti (336.122 nm)	2.3945 (ppm)	1.36	2.3945 (ppm)	301051.0207
12/18/2015 22:02:49	Continuing Calibration Verification1	Tl (351.923 nm)	0.9669 (ppm)	1.61	0.9669 (ppm)	1560.5024
12/18/2015 22:02:49	Continuing Calibration Verification1	V (292.401 nm)	2.3944 (ppm)	0.71	2.3944 (ppm)	45770.8558
12/18/2015 22:02:49	Continuing Calibration Verification1	Y (360.074 nm)	0.98 (Ratio)	1.62	0.98 (Ratio)	571220.91

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 22:02:49	Continuing Calibration Verification1	Y_R (360.074 nm)	0.99 (Ratio)	0.54	0.99 (Ratio)	242772.55
12/18/2015 22:02:49	Continuing Calibration Verification1	Zn (213.857 nm)	0.9825 (ppm)	1.37	0.9825 (ppm)	12282.7585
12/18/2015 22:06:17	Continuing Calibration Blank1	Ag (328.068 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	12.2064
12/18/2015 22:06:17	Continuing Calibration Blank1	Al (394.401 nm)	-0.0094 u (ppm)	18.84	-0.0094 (ppm)	51.6563
12/18/2015 22:06:17	Continuing Calibration Blank1	Al (394.401 nm)	-0.0124 u (ppm)	16.55	-0.0124 (ppm)	77.4929
12/18/2015 22:06:17	Continuing Calibration Blank1	As (188.980 nm)	-0.0003 u (ppm)	> 100.00	-0.0003 (ppm)	1.3334
12/18/2015 22:06:17	Continuing Calibration Blank1	B (249.772 nm)	0.0041 (ppm)	24.64	0.0041 (ppm)	67.0063
12/18/2015 22:06:17	Continuing Calibration Blank1	Ba (230.424 nm)	0.0026 (ppm)	53.87	0.0026 (ppm)	48.2818
12/18/2015 22:06:17	Continuing Calibration Blank1	Be (313.107 nm)	0.0000 (ppm)	91.17	0.0000 (ppm)	-5.5489
12/18/2015 22:06:17	Continuing Calibration Blank1	Ca (227.547 nm)	-0.0018 u (ppm)	> 100.00	-0.0018 (ppm)	0.1499
12/18/2015 22:06:17	Continuing Calibration Blank1	Ca (227.547 nm)	0.0102 u (ppm)	> 100.00	0.0102 (ppm)	-2.2019
12/18/2015 22:06:17	Continuing Calibration Blank1	Cd (214.439 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	4.6711
12/18/2015 22:06:17	Continuing Calibration Blank1	Co (230.786 nm)	0.0009 (ppm)	21.71	0.0009 (ppm)	4.6733
12/18/2015 22:06:17	Continuing Calibration Blank1	Cr (267.716 nm)	0.0001 (ppm)	> 100.00	0.0001 (ppm)	0.6983
12/18/2015 22:06:17	Continuing Calibration Blank1	Cu (327.395 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	30.3106
12/18/2015 22:06:17	Continuing Calibration Blank1	Fe (234.350 nm)	-0.0043 u (ppm)	21.95	-0.0043 (ppm)	16.7482
12/18/2015 22:06:17	Continuing Calibration Blank1	Fe (234.350 nm)	-0.0054 u (ppm)	18.23	-0.0054 (ppm)	14.8232
12/18/2015 22:06:17	Continuing Calibration Blank1	K (766.491 nm)	-0.0114 u (ppm)	99.12	-0.0114 (ppm)	-68.7976
12/18/2015 22:06:17	Continuing Calibration Blank1	Mg (279.078 nm)	-0.0037 u (ppm)	45.07	-0.0037 (ppm)	12.4923
12/18/2015 22:06:17	Continuing Calibration Blank1	Mg (279.078 nm)	-0.0063 u (ppm)	54.60	-0.0063 (ppm)	13.8505
12/18/2015 22:06:17	Continuing Calibration Blank1	Mn (257.610 nm)	0.0002 (ppm)	69.38	0.0002 (ppm)	29.6525
12/18/2015 22:06:17	Continuing Calibration Blank1	Mo (202.032 nm)	0.0013 (ppm)	35.92	0.0013 (ppm)	7.7153
12/18/2015 22:06:17	Continuing Calibration Blank1	Na (588.995 nm)	0.0435 (ppm)	10.59	0.0435 (ppm)	-6030.8605
12/18/2015 22:06:17	Continuing Calibration Blank1	Ni (230.299 nm)	0.0013 (ppm)	71.74	0.0013 (ppm)	-5.6559
12/18/2015 22:06:17	Continuing Calibration Blank1	Pb (220.353 nm)	-0.0028 u (ppm)	70.42	-0.0028 (ppm)	0.1424
12/18/2015 22:06:17	Continuing Calibration Blank1	Sb (217.582 nm)	0.0075 (ppm)	22.65	0.0075 (ppm)	5.6162
12/18/2015 22:06:17	Continuing Calibration Blank1	Se (196.026 nm)	0.0015 u (ppm)	> 100.00	0.0015 (ppm)	0.9754
12/18/2015 22:06:17	Continuing Calibration Blank1	Sn (189.925 nm)	0.0010 u (ppm)	> 100.00	0.0010 (ppm)	0.8794
12/18/2015 22:06:17	Continuing Calibration Blank1	Sr (460.733 nm)	-0.0032 u (ppm)	> 100.00	-0.0032 (ppm)	25.1654
12/18/2015 22:06:17	Continuing Calibration Blank1	Ti (336.122 nm)	0.0006 (ppm)	51.78	0.0006 (ppm)	46.5858
12/18/2015 22:06:17	Continuing Calibration Blank1	Tl (351.923 nm)	0.0032 (ppm)	93.77	0.0032 (ppm)	-5.4208
12/18/2015 22:06:17	Continuing Calibration Blank1	V (292.401 nm)	0.0010 (ppm)	43.33	0.0010 (ppm)	55.3975
12/18/2015 22:06:17	Continuing Calibration Blank1	Y (360.074 nm)	1.02 (Ratio)	1.85	1.02 (Ratio)	594404.45
12/18/2015 22:06:17	Continuing Calibration Blank1	Y_R (360.074 nm)	1.01 (Ratio)	0.57	1.01 (Ratio)	247409.04
12/18/2015 22:06:17	Continuing Calibration Blank1	Zn (213.857 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	1.2756
12/18/2015 22:09:46	R1510793-004	Ag (328.068 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	10.5455
12/18/2015 22:09:46	R1510793-004	Al (394.401 nm)	0.0066 (ppm)	21.79	0.0066 (ppm)	221.7419
12/18/2015 22:09:46	R1510793-004	Al (394.401 nm)	-0.1061 u (ppm)	1.68	-0.1061 (ppm)	279.5058
12/18/2015 22:09:46	R1510793-004	As (188.980 nm)	0.0018 (ppm)	68.90	0.0018 (ppm)	2.8822
12/18/2015 22:09:46	R1510793-004	B (249.772 nm)	0.0617 (ppm)	2.66	0.0617 (ppm)	862.2641
12/18/2015 22:09:46	R1510793-004	Ba (230.424 nm)	0.1294 (ppm)	3.77	0.1294 (ppm)	1978.9463
12/18/2015 22:09:46	R1510793-004	Be (313.107 nm)	0.0000 (ppm)	80.69	0.0000 (ppm)	-22.3502
12/18/2015 22:09:46	R1510793-004	Ca (227.547 nm)	59.7716 (ppm)	2.44	59.7716 (ppm)	2165.9583
12/18/2015 22:09:46	R1510793-004	Ca (227.547 nm)	92.1611 o (ppm)	2.38	92.1611 (ppm)	2197.2608
12/18/2015 22:09:46	R1510793-004	Cd (214.439 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	4.5517
12/18/2015 22:09:46	R1510793-004	Co (230.786 nm)	-0.0003 u (ppm)	> 100.00	-0.0003 (ppm)	1.4305
12/18/2015 22:09:46	R1510793-004	Cr (267.716 nm)	0.0003 (ppm)	44.78	0.0003 (ppm)	-1.5927
12/18/2015 22:09:46	R1510793-004	Cu (327.395 nm)	0.0020 (ppm)	4.69	0.0020 (ppm)	80.2047
12/18/2015 22:09:46	R1510793-004	Fe (234.350 nm)	-0.0021 u (ppm)	3.38	-0.0021 (ppm)	33.4623
12/18/2015 22:09:46	R1510793-004	Fe (234.350 nm)	-0.0414 u (ppm)	0.36	-0.0414 (ppm)	30.8760
12/18/2015 22:09:46	R1510793-004	K (766.491 nm)	5.0180 (ppm)	0.39	5.0180 (ppm)	12811.5707

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 22:09:46	R1510793-004	Mg (279.078 nm)	23.9976 (ppm)	2.58	23.9976 (ppm)	43494.0235
12/18/2015 22:09:46	R1510793-004	Mg (279.078 nm)	34.2299 (ppm)	2.62	34.2299 (ppm)	46118.2338
12/18/2015 22:09:46	R1510793-004	Mn (257.610 nm)	0.0296 (ppm)	2.50	0.0296 (ppm)	3649.2464
12/18/2015 22:09:46	R1510793-004	Mo (202.032 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	7.1682
12/18/2015 22:09:46	R1510793-004	Na (588.995 nm)	10.6154 (ppm)	0.41	10.6154 (ppm)	283703.7823
12/18/2015 22:09:46	R1510793-004	Ni (230.299 nm)	0.0050 (ppm)	7.43	0.0050 (ppm)	6.5267
12/18/2015 22:09:46	R1510793-004	Pb (220.353 nm)	-0.0023 u (ppm)	27.22	-0.0023 (ppm)	-0.1657
12/18/2015 22:09:46	R1510793-004	Sb (217.582 nm)	0.0014 u (ppm)	> 100.00	0.0014 (ppm)	3.3101
12/18/2015 22:09:46	R1510793-004	Se (196.026 nm)	0.0014 (ppm)	> 100.00	0.0014 (ppm)	1.1747
12/18/2015 22:09:46	R1510793-004	Sn (189.925 nm)	-0.0008 u (ppm)	> 100.00	-0.0008 (ppm)	-0.2934
12/18/2015 22:09:46	R1510793-004	Sr (460.733 nm)	0.5840 (ppm)	0.99	0.5840 (ppm)	7762.5177
12/18/2015 22:09:46	R1510793-004	Ti (336.122 nm)	-0.0012 u (ppm)	10.98	-0.0012 (ppm)	-38.5600
12/18/2015 22:09:46	R1510793-004	Tl (351.923 nm)	0.0027 (ppm)	59.22	0.0027 (ppm)	-5.2323
12/18/2015 22:09:46	R1510793-004	V (292.401 nm)	0.0005 (ppm)	54.43	0.0005 (ppm)	62.4422
12/18/2015 22:09:46	R1510793-004	Y (360.074 nm)	0.99 (Ratio)	2.56	0.99 (Ratio)	577695.16
12/18/2015 22:09:46	R1510793-004	Y_R (360.074 nm)	1.00 (Ratio)	0.40	1.00 (Ratio)	245870.93
12/18/2015 22:09:46	R1510793-004	Zn (213.857 nm)	0.0043 (ppm)	5.79	0.0043 (ppm)	85.1568
12/18/2015 22:13:15	R1510793-005	Ag (328.068 nm)	-0.0003 u (ppm)	37.72	-0.0003 (ppm)	-2.0426
12/18/2015 22:13:15	R1510793-005	Al (394.401 nm)	0.0013 u (ppm)	> 100.00	0.0013 (ppm)	164.8561
12/18/2015 22:13:15	R1510793-005	Al (394.401 nm)	-0.0943 u (ppm)	7.70	-0.0943 (ppm)	222.7987
12/18/2015 22:13:15	R1510793-005	As (188.980 nm)	0.0014 u (ppm)	> 100.00	0.0014 (ppm)	2.5223
12/18/2015 22:13:15	R1510793-005	B (249.772 nm)	3.9712 (ppm)	1.78	3.9712 (ppm)	52903.1905
12/18/2015 22:13:15	R1510793-005	Ba (230.424 nm)	0.0112 (ppm)	4.27	0.0112 (ppm)	190.0606
12/18/2015 22:13:15	R1510793-005	Be (313.107 nm)	-0.0001 u (ppm)	0.79	-0.0001 (ppm)	-63.2594
12/18/2015 22:13:15	R1510793-005	Ca (227.547 nm)	51.2144 (ppm)	1.78	51.2144 (ppm)	1855.9028
12/18/2015 22:13:15	R1510793-005	Ca (227.547 nm)	79.0277 o (ppm)	1.76	79.0277 (ppm)	1883.2069
12/18/2015 22:13:15	R1510793-005	Cd (214.439 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	2.9630
12/18/2015 22:13:15	R1510793-005	Co (230.786 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	2.6176
12/18/2015 22:13:15	R1510793-005	Cr (267.716 nm)	0.0003 (ppm)	29.24	0.0003 (ppm)	-2.1008
12/18/2015 22:13:15	R1510793-005	Cu (327.395 nm)	-0.0005 u (ppm)	19.80	-0.0005 (ppm)	5.2513
12/18/2015 22:13:15	R1510793-005	Fe (234.350 nm)	0.0009 (ppm)	23.18	0.0009 (ppm)	55.6270
12/18/2015 22:13:15	R1510793-005	Fe (234.350 nm)	-0.0225 u (ppm)	0.71	-0.0225 (ppm)	56.3883
12/18/2015 22:13:15	R1510793-005	K (766.491 nm)	17.3825 (ppm)	0.38	17.3825 (ppm)	44484.7813
12/18/2015 22:13:15	R1510793-005	Mg (279.078 nm)	7.9979 (ppm)	1.93	7.9979 (ppm)	14508.4197
12/18/2015 22:13:15	R1510793-005	Mg (279.078 nm)	11.4800 (ppm)	1.92	11.4800 (ppm)	15494.7470
12/18/2015 22:13:15	R1510793-005	Mn (257.610 nm)	0.0679 (ppm)	1.81	0.0679 (ppm)	8274.7022
12/18/2015 22:13:15	R1510793-005	Mo (202.032 nm)	0.0884 (ppm)	1.15	0.0884 (ppm)	393.5553
12/18/2015 22:13:15	R1510793-005	Na (588.995 nm)	475.2110 o (ppm)	0.70	475.2110 (ppm)	13064422.3414
12/18/2015 22:13:15	R1510793-005	Ni (230.299 nm)	0.0032 (ppm)	68.72	0.0032 (ppm)	0.3639
12/18/2015 22:13:15	R1510793-005	Pb (220.353 nm)	-0.0034 u (ppm)	28.86	-0.0034 (ppm)	-1.0099
12/18/2015 22:13:15	R1510793-005	Sb (217.582 nm)	0.0025 (ppm)	46.49	0.0025 (ppm)	3.5099
12/18/2015 22:13:15	R1510793-005	Se (196.026 nm)	0.0017 u (ppm)	> 100.00	0.0017 (ppm)	1.1759
12/18/2015 22:13:15	R1510793-005	Sn (189.925 nm)	-0.0012 u (ppm)	> 100.00	-0.0012 (ppm)	-0.5443
12/18/2015 22:13:15	R1510793-005	Sr (460.733 nm)	3.0204 (ppm)	0.66	3.0204 (ppm)	39769.3564
12/18/2015 22:13:15	R1510793-005	Ti (336.122 nm)	-0.0011 u (ppm)	7.12	-0.0011 (ppm)	-101.4457
12/18/2015 22:13:15	R1510793-005	Tl (351.923 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	-9.7160
12/18/2015 22:13:15	R1510793-005	V (292.401 nm)	-0.0002 u (ppm)	> 100.00	-0.0002 (ppm)	45.5917
12/18/2015 22:13:15	R1510793-005	Y (360.074 nm)	0.92 (Ratio)	1.85	0.92 (Ratio)	536913.93
12/18/2015 22:13:15	R1510793-005	Y_R (360.074 nm)	0.97 (Ratio)	0.65	0.97 (Ratio)	237124.93
12/18/2015 22:13:15	R1510793-005	Zn (213.857 nm)	0.0245 (ppm)	1.48	0.0245 (ppm)	326.7075
12/18/2015 22:16:44	R1510793-006	Ag (328.068 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	6.5097

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 22:16:44	R1510793-006	Al (394.401 nm)	0.0073 (ppm)	23.68	0.0073 (ppm)	229.2528
12/18/2015 22:16:44	R1510793-006	Al (394.401 nm)	-0.1372 u (ppm)	1.46	-0.1372 (ppm)	282.6423
12/18/2015 22:16:44	R1510793-006	As (188.980 nm)	0.0010 u (ppm)	> 100.00	0.0010 (ppm)	2.4619
12/18/2015 22:16:44	R1510793-006	B (249.772 nm)	0.0433 (ppm)	5.47	0.0433 (ppm)	623.3098
12/18/2015 22:16:44	R1510793-006	Ba (230.424 nm)	0.1435 (ppm)	2.75	0.1435 (ppm)	2196.8930
12/18/2015 22:16:44	R1510793-006	Be (313.107 nm)	-0.0001 u (ppm)	13.43	-0.0001 (ppm)	-57.7173
12/18/2015 22:16:44	R1510793-006	Ca (227.547 nm)	76.9125 (ppm)	2.55	76.9125 (ppm)	2787.0370
12/18/2015 22:16:44	R1510793-006	Ca (227.547 nm)	118.5476 o (ppm)	2.56	118.5476 (ppm)	2826.2900
12/18/2015 22:16:44	R1510793-006	Cd (214.439 nm)	-0.0002 u (ppm)	40.42	-0.0002 (ppm)	2.3221
12/18/2015 22:16:44	R1510793-006	Co (230.786 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	4.6391
12/18/2015 22:16:44	R1510793-006	Cr (267.716 nm)	0.0005 (ppm)	34.28	0.0005 (ppm)	-2.1968
12/18/2015 22:16:44	R1510793-006	Cu (327.395 nm)	0.0014 (ppm)	29.22	0.0014 (ppm)	58.2359
12/18/2015 22:16:44	R1510793-006	Fe (234.350 nm)	0.0230 (ppm)	2.46	0.0230 (ppm)	223.9999
12/18/2015 22:16:44	R1510793-006	Fe (234.350 nm)	-0.0083 u (ppm)	10.28	-0.0083 (ppm)	230.7510
12/18/2015 22:16:44	R1510793-006	K (766.491 nm)	1.8719 (ppm)	0.98	1.8719 (ppm)	4750.3158
12/18/2015 22:16:44	R1510793-006	Mg (279.078 nm)	14.3571 (ppm)	2.38	14.3571 (ppm)	26028.9582
12/18/2015 22:16:44	R1510793-006	Mg (279.078 nm)	20.3962 (ppm)	2.37	20.3962 (ppm)	27505.9761
12/18/2015 22:16:44	R1510793-006	Mn (257.610 nm)	0.0748 (ppm)	2.52	0.0748 (ppm)	9134.0683
12/18/2015 22:16:44	R1510793-006	Mo (202.032 nm)	-0.0016 u (ppm)	20.48	-0.0016 (ppm)	2.3265
12/18/2015 22:16:44	R1510793-006	Na (588.995 nm)	73.0140 o (ppm)	0.87	73.0140 (ppm)	2000094.7381
12/18/2015 22:16:44	R1510793-006	Ni (230.299 nm)	0.0048 (ppm)	12.98	0.0048 (ppm)	5.6787
12/18/2015 22:16:44	R1510793-006	Pb (220.353 nm)	-0.0011 u (ppm)	> 100.00	-0.0011 (ppm)	0.8281
12/18/2015 22:16:44	R1510793-006	Sb (217.582 nm)	-0.0034 u (ppm)	51.69	-0.0034 (ppm)	0.6392
12/18/2015 22:16:44	R1510793-006	Se (196.026 nm)	0.0056 u (ppm)	> 100.00	0.0056 (ppm)	2.6165
12/18/2015 22:16:44	R1510793-006	Sn (189.925 nm)	-0.0024 u (ppm)	45.45	-0.0024 (ppm)	-1.3258
12/18/2015 22:16:44	R1510793-006	Sr (460.733 nm)	0.2898 (ppm)	2.65	0.2898 (ppm)	3902.6591
12/18/2015 22:16:44	R1510793-006	Ti (336.122 nm)	-0.0016 u (ppm)	1.02	-0.0016 (ppm)	-113.3546
12/18/2015 22:16:44	R1510793-006	Tl (351.923 nm)	0.0008 u (ppm)	> 100.00	0.0008 (ppm)	-7.8526
12/18/2015 22:16:44	R1510793-006	V (292.401 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	57.4992
12/18/2015 22:16:44	R1510793-006	Y (360.074 nm)	0.97 (Ratio)	2.45	0.97 (Ratio)	566150.34
12/18/2015 22:16:44	R1510793-006	Y_R (360.074 nm)	0.99 (Ratio)	1.18	0.99 (Ratio)	243348.77
12/18/2015 22:16:44	R1510793-006	Zn (213.857 nm)	0.0063 (ppm)	5.11	0.0063 (ppm)	111.8016
12/18/2015 22:20:13	R1510793-007	Ag (328.068 nm)	-0.0002 u (ppm)	> 100.00	-0.0002 (ppm)	1.9690
12/18/2015 22:20:13	R1510793-007	Al (394.401 nm)	0.0061 (ppm)	15.97	0.0061 (ppm)	216.7385
12/18/2015 22:20:13	R1510793-007	Al (394.401 nm)	-0.1247 u (ppm)	1.07	-0.1247 (ppm)	265.7958
12/18/2015 22:20:13	R1510793-007	As (188.980 nm)	0.0023 (ppm)	74.23	0.0023 (ppm)	3.1113
12/18/2015 22:20:13	R1510793-007	B (249.772 nm)	0.0607 (ppm)	4.50	0.0607 (ppm)	851.3900
12/18/2015 22:20:13	R1510793-007	Ba (230.424 nm)	0.0707 (ppm)	3.06	0.0707 (ppm)	1093.6431
12/18/2015 22:20:13	R1510793-007	Be (313.107 nm)	-0.0001 u (ppm)	4.63	-0.0001 (ppm)	-54.4951
12/18/2015 22:20:13	R1510793-007	Ca (227.547 nm)	69.4173 (ppm)	3.49	69.4173 (ppm)	2515.4594
12/18/2015 22:20:13	R1510793-007	Ca (227.547 nm)	107.1419 o (ppm)	3.57	107.1419 (ppm)	2554.1284
12/18/2015 22:20:13	R1510793-007	Cd (214.439 nm)	-0.0002 u (ppm)	82.85	-0.0002 (ppm)	2.9113
12/18/2015 22:20:13	R1510793-007	Co (230.786 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	3.3908
12/18/2015 22:20:13	R1510793-007	Cr (267.716 nm)	0.0003 (ppm)	14.44	0.0003 (ppm)	-4.4085
12/18/2015 22:20:13	R1510793-007	Cu (327.395 nm)	0.0009 (ppm)	37.22	0.0009 (ppm)	45.9133
12/18/2015 22:20:13	R1510793-007	Fe (234.350 nm)	-0.0041 u (ppm)	9.17	-0.0041 (ppm)	18.1353
12/18/2015 22:20:13	R1510793-007	Fe (234.350 nm)	-0.0394 u (ppm)	1.40	-0.0394 (ppm)	13.4303
12/18/2015 22:20:13	R1510793-007	K (766.491 nm)	1.8715 (ppm)	0.85	1.8715 (ppm)	4750.0143
12/18/2015 22:20:13	R1510793-007	Mg (279.078 nm)	12.9885 (ppm)	3.13	12.9885 (ppm)	23549.6339
12/18/2015 22:20:13	R1510793-007	Mg (279.078 nm)	18.4133 (ppm)	3.23	18.4133 (ppm)	24833.9810
12/18/2015 22:20:13	R1510793-007	Mn (257.610 nm)	0.0154 (ppm)	3.34	0.0154 (ppm)	1938.7749

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 22:20:13	R1510793-007	Mo (202.032 nm)	-0.0022 u (ppm)	22.50	-0.0022 (ppm)	-0.7137
12/18/2015 22:20:13	R1510793-007	Na (588.995 nm)	48.8285 (ppm)	0.27	48.8285 (ppm)	1334900.2570
12/18/2015 22:20:13	R1510793-007	Ni (230.299 nm)	0.0055 (ppm)	7.27	0.0055 (ppm)	7.7966
12/18/2015 22:20:13	R1510793-007	Pb (220.353 nm)	-0.0024 u (ppm)	> 100.00	-0.0024 (ppm)	-0.2617
12/18/2015 22:20:13	R1510793-007	Sb (217.582 nm)	-0.0027 u (ppm)	> 100.00	-0.0027 (ppm)	0.8966
12/18/2015 22:20:13	R1510793-007	Se (196.026 nm)	-0.0009 u (ppm)	> 100.00	-0.0009 (ppm)	0.3216
12/18/2015 22:20:13	R1510793-007	Sn (189.925 nm)	-0.0023 u (ppm)	84.45	-0.0023 (ppm)	-1.2934
12/18/2015 22:20:13	R1510793-007	Sr (460.733 nm)	0.2422 (ppm)	2.01	0.2422 (ppm)	3275.0092
12/18/2015 22:20:13	R1510793-007	Ti (336.122 nm)	-0.0015 u (ppm)	2.42	-0.0015 (ppm)	-117.9288
12/18/2015 22:20:13	R1510793-007	Tl (351.923 nm)	0.0018 u (ppm)	> 100.00	0.0018 (ppm)	-6.3767
12/18/2015 22:20:13	R1510793-007	V (292.401 nm)	-0.0004 u (ppm)	52.74	-0.0004 (ppm)	46.3362
12/18/2015 22:20:13	R1510793-007	Y (360.074 nm)	0.98 (Ratio)	3.09	0.98 (Ratio)	570005.52
12/18/2015 22:20:13	R1510793-007	Y_R (360.074 nm)	0.99 (Ratio)	0.29	0.99 (Ratio)	243315.46
12/18/2015 22:20:13	R1510793-007	Zn (213.857 nm)	0.0016 (ppm)	14.86	0.0016 (ppm)	49.0345
12/18/2015 22:23:42	R1510793-008	Ag (328.068 nm)	0.0002 (ppm)	84.63	0.0002 (ppm)	15.1173
12/18/2015 22:23:42	R1510793-008	Al (394.401 nm)	0.0024 (ppm)	20.92	0.0024 (ppm)	177.0636
12/18/2015 22:23:42	R1510793-008	Al (394.401 nm)	-0.0445 u (ppm)	1.02	-0.0445 (ppm)	222.9082
12/18/2015 22:23:42	R1510793-008	As (188.980 nm)	0.0073 (ppm)	44.12	0.0073 (ppm)	5.5192
12/18/2015 22:23:42	R1510793-008	B (249.772 nm)	4.1202 (ppm)	2.61	4.1202 (ppm)	54874.8037
12/18/2015 22:23:42	R1510793-008	Ba (230.424 nm)	0.0130 (ppm)	3.54	0.0130 (ppm)	211.4581
12/18/2015 22:23:42	R1510793-008	Be (313.107 nm)	0.0000 u (ppm)	6.30	0.0000 (ppm)	-69.8352
12/18/2015 22:23:42	R1510793-008	Ca (227.547 nm)	25.3896 (ppm)	3.07	25.3896 (ppm)	920.1758
12/18/2015 22:23:42	R1510793-008	Ca (227.547 nm)	39.2097 (ppm)	3.16	39.2097 (ppm)	933.1475
12/18/2015 22:23:42	R1510793-008	Cd (214.439 nm)	-0.0003 u (ppm)	25.66	-0.0003 (ppm)	0.2318
12/18/2015 22:23:42	R1510793-008	Co (230.786 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	1.4309
12/18/2015 22:23:42	R1510793-008	Cr (267.716 nm)	0.0002 (ppm)	45.16	0.0002 (ppm)	-1.9840
12/18/2015 22:23:42	R1510793-008	Cu (327.395 nm)	-0.0003 u (ppm)	79.80	-0.0003 (ppm)	12.2751
12/18/2015 22:23:42	R1510793-008	Fe (234.350 nm)	0.0015 (ppm)	12.83	0.0015 (ppm)	60.3656
12/18/2015 22:23:42	R1510793-008	Fe (234.350 nm)	-0.0102 u (ppm)	3.48	-0.0102 (ppm)	60.8711
12/18/2015 22:23:42	R1510793-008	K (766.491 nm)	12.8820 (ppm)	0.26	12.8820 (ppm)	32957.8410
12/18/2015 22:23:42	R1510793-008	Mg (279.078 nm)	4.4450 (ppm)	2.80	4.4450 (ppm)	8071.9576
12/18/2015 22:23:42	R1510793-008	Mg (279.078 nm)	6.3435 (ppm)	2.72	6.3435 (ppm)	8570.7216
12/18/2015 22:23:42	R1510793-008	Mn (257.610 nm)	0.0257 (ppm)	2.90	0.0257 (ppm)	3140.5591
12/18/2015 22:23:42	R1510793-008	Mo (202.032 nm)	0.0842 (ppm)	2.50	0.0842 (ppm)	372.6014
12/18/2015 22:23:42	R1510793-008	Na (588.995 nm)	297.7789 o (ppm)	0.44	297.7789 (ppm)	8183886.1041
12/18/2015 22:23:42	R1510793-008	Ni (230.299 nm)	0.0049 (ppm)	18.09	0.0049 (ppm)	5.4317
12/18/2015 22:23:42	R1510793-008	Pb (220.353 nm)	-0.0032 u (ppm)	38.22	-0.0032 (ppm)	-0.5661
12/18/2015 22:23:42	R1510793-008	Sb (217.582 nm)	-0.0034 u (ppm)	97.99	-0.0034 (ppm)	-0.0864
12/18/2015 22:23:42	R1510793-008	Se (196.026 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	0.5907
12/18/2015 22:23:42	R1510793-008	Sn (189.925 nm)	-0.0025 u (ppm)	> 100.00	-0.0025 (ppm)	-1.4711
12/18/2015 22:23:42	R1510793-008	Sr (460.733 nm)	2.6262 (ppm)	0.42	2.6262 (ppm)	34581.1848
12/18/2015 22:23:42	R1510793-008	Ti (336.122 nm)	-0.0006 u (ppm)	12.20	-0.0006 (ppm)	-72.6357
12/18/2015 22:23:42	R1510793-008	Tl (351.923 nm)	0.0005 u (ppm)	> 100.00	0.0005 (ppm)	-9.3994
12/18/2015 22:23:42	R1510793-008	V (292.401 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	42.2660
12/18/2015 22:23:42	R1510793-008	Y (360.074 nm)	0.95 (Ratio)	2.73	0.95 (Ratio)	553930.43
12/18/2015 22:23:42	R1510793-008	Y_R (360.074 nm)	1.00 (Ratio)	0.21	1.00 (Ratio)	244307.27
12/18/2015 22:23:42	R1510793-008	Zn (213.857 nm)	0.0061 (ppm)	3.60	0.0061 (ppm)	87.1626
12/18/2015 22:27:11	R1501793-009	Ag (328.068 nm)	0.0001 (ppm)	> 100.00	0.0001 (ppm)	11.4443
12/18/2015 22:27:11	R1501793-009	Al (394.401 nm)	0.0063 (ppm)	6.11	0.0063 (ppm)	218.7777
12/18/2015 22:27:11	R1501793-009	Al (394.401 nm)	-0.1356 u (ppm)	0.74	-0.1356 (ppm)	274.5225
12/18/2015 22:27:11	R1501793-009	As (188.980 nm)	0.0010 u (ppm)	> 100.00	0.0010 (ppm)	2.4762

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Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 22:27:11	R1501793-009	B (249.772 nm)	0.0630 (ppm)	5.90	0.0630 (ppm)	884.1163
12/18/2015 22:27:11	R1501793-009	Ba (230.424 nm)	0.0612 (ppm)	2.98	0.0612 (ppm)	951.8051
12/18/2015 22:27:11	R1501793-009	Be (313.107 nm)	-0.0001 u (ppm)	3.42	-0.0001 (ppm)	-58.9376
12/18/2015 22:27:11	R1501793-009	Ca (227.547 nm)	75.7417 (ppm)	2.87	75.7417 (ppm)	2744.6149
12/18/2015 22:27:11	R1501793-009	Ca (227.547 nm)	116.9429 o (ppm)	2.83	116.9429 (ppm)	2787.8927
12/18/2015 22:27:11	R1501793-009	Cd (214.439 nm)	-0.0003 u (ppm)	33.97	-0.0003 (ppm)	1.3836
12/18/2015 22:27:11	R1501793-009	Co (230.786 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	4.1994
12/18/2015 22:27:11	R1501793-009	Cr (267.716 nm)	0.0004 (ppm)	28.95	0.0004 (ppm)	-4.4715
12/18/2015 22:27:11	R1501793-009	Cu (327.395 nm)	0.0011 (ppm)	10.92	0.0011 (ppm)	48.7293
12/18/2015 22:27:11	R1501793-009	Fe (234.350 nm)	0.0005 (ppm)	97.59	0.0005 (ppm)	52.7458
12/18/2015 22:27:11	R1501793-009	Fe (234.350 nm)	-0.0349 u (ppm)	2.02	-0.0349 (ppm)	50.6234
12/18/2015 22:27:11	R1501793-009	K (766.491 nm)	7.1939 (ppm)	0.52	7.1939 (ppm)	18383.4108
12/18/2015 22:27:11	R1501793-009	Mg (279.078 nm)	11.9225 (ppm)	3.04	11.9225 (ppm)	21618.4355
12/18/2015 22:27:11	R1501793-009	Mg (279.078 nm)	16.9094 (ppm)	2.92	16.9094 (ppm)	22812.5139
12/18/2015 22:27:11	R1501793-009	Mn (257.610 nm)	0.3554 (ppm)	2.86	0.3554 (ppm)	43104.8221
12/18/2015 22:27:11	R1501793-009	Mo (202.032 nm)	-0.0020 u (ppm)	12.89	-0.0020 (ppm)	0.8587
12/18/2015 22:27:11	R1501793-009	Na (588.995 nm)	39.0043 (ppm)	0.26	39.0043 (ppm)	1064577.8213
12/18/2015 22:27:11	R1501793-009	Ni (230.299 nm)	0.0063 (ppm)	3.31	0.0063 (ppm)	10.0558
12/18/2015 22:27:11	R1501793-009	Pb (220.353 nm)	-0.0030 u (ppm)	68.95	-0.0030 (ppm)	-0.9495
12/18/2015 22:27:11	R1501793-009	Sb (217.582 nm)	-0.0015 u (ppm)	> 100.00	-0.0015 (ppm)	1.6207
12/18/2015 22:27:11	R1501793-009	Se (196.026 nm)	0.0025 (ppm)	96.47	0.0025 (ppm)	1.5131
12/18/2015 22:27:11	R1501793-009	Sn (189.925 nm)	-0.0027 u (ppm)	70.51	-0.0027 (ppm)	-1.5607
12/18/2015 22:27:11	R1501793-009	Sr (460.733 nm)	0.2459 (ppm)	0.96	0.2459 (ppm)	3326.1047
12/18/2015 22:27:11	R1501793-009	Ti (336.122 nm)	-0.0014 u (ppm)	2.03	-0.0014 (ppm)	-103.2349
12/18/2015 22:27:11	R1501793-009	Tl (351.923 nm)	0.0065 (ppm)	44.36	0.0065 (ppm)	1.3377
12/18/2015 22:27:11	R1501793-009	V (292.401 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	56.9232
12/18/2015 22:27:11	R1501793-009	Y (360.074 nm)	0.98 (Ratio)	2.85	0.98 (Ratio)	570216.19
12/18/2015 22:27:11	R1501793-009	Y_R (360.074 nm)	1.00 (Ratio)	0.36	1.00 (Ratio)	245850.73
12/18/2015 22:27:11	R1501793-009	Zn (213.857 nm)	0.0064 (ppm)	2.98	0.0064 (ppm)	111.3373
12/18/2015 22:30:40	R1510793-010	Ag (328.068 nm)	0.0001 (ppm)	> 100.00	0.0001 (ppm)	11.7695
12/18/2015 22:30:40	R1510793-010	Al (394.401 nm)	0.0094 (ppm)	22.61	0.0094 (ppm)	251.3737
12/18/2015 22:30:40	R1510793-010	Al (394.401 nm)	-0.1330 u (ppm)	2.09	-0.1330 (ppm)	297.8062
12/18/2015 22:30:40	R1510793-010	As (188.980 nm)	0.0099 (ppm)	3.54	0.0099 (ppm)	7.2248
12/18/2015 22:30:40	R1510793-010	B (249.772 nm)	0.0612 (ppm)	2.84	0.0612 (ppm)	861.1855
12/18/2015 22:30:40	R1510793-010	Ba (230.424 nm)	0.0503 (ppm)	2.61	0.0503 (ppm)	787.1147
12/18/2015 22:30:40	R1510793-010	Be (313.107 nm)	-0.0001 u (ppm)	11.57	-0.0001 (ppm)	-64.8016
12/18/2015 22:30:40	R1510793-010	Ca (227.547 nm)	74.9186 (ppm)	2.57	74.9186 (ppm)	2714.7913
12/18/2015 22:30:40	R1510793-010	Ca (227.547 nm)	115.4796 o (ppm)	2.57	115.4796 (ppm)	2753.5666
12/18/2015 22:30:40	R1510793-010	Cd (214.439 nm)	-0.0003 u (ppm)	38.34	-0.0003 (ppm)	1.6355
12/18/2015 22:30:40	R1510793-010	Co (230.786 nm)	0.0007 (ppm)	55.25	0.0007 (ppm)	6.4432
12/18/2015 22:30:40	R1510793-010	Cr (267.716 nm)	0.0002 (ppm)	54.58	0.0002 (ppm)	-6.9142
12/18/2015 22:30:40	R1510793-010	Cu (327.395 nm)	0.0002 (ppm)	91.31	0.0002 (ppm)	23.1874
12/18/2015 22:30:40	R1510793-010	Fe (234.350 nm)	0.1968 (ppm)	3.09	0.1968 (ppm)	1544.1243
12/18/2015 22:30:40	R1510793-010	Fe (234.350 nm)	0.2068 (ppm)	3.80	0.2068 (ppm)	1615.7092
12/18/2015 22:30:40	R1510793-010	K (766.491 nm)	5.4174 (ppm)	0.69	5.4174 (ppm)	13833.1723
12/18/2015 22:30:40	R1510793-010	Mg (279.078 nm)	23.9232 (ppm)	2.58	23.9232 (ppm)	43359.3025
12/18/2015 22:30:40	R1510793-010	Mg (279.078 nm)	34.0493 (ppm)	2.56	34.0493 (ppm)	45881.4242
12/18/2015 22:30:40	R1510793-010	Mn (257.610 nm)	0.1610 (ppm)	2.44	0.1610 (ppm)	19570.3547
12/18/2015 22:30:40	R1510793-010	Mo (202.032 nm)	-0.0007 u (ppm)	82.92	-0.0007 (ppm)	6.0721
12/18/2015 22:30:40	R1510793-010	Na (588.995 nm)	127.9143 o (ppm)	0.19	127.9143 (ppm)	3510238.4977
12/18/2015 22:30:40	R1510793-010	Ni (230.299 nm)	0.0056 (ppm)	5.33	0.0056 (ppm)	8.3421

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 22:30:40	R1510793-010	Pb (220.353 nm)	-0.0026 u (ppm)	> 100.00	-0.0026 (ppm)	-0.5754
12/18/2015 22:30:40	R1510793-010	Sb (217.582 nm)	-0.0050 u (ppm)	48.77	-0.0050 (ppm)	-0.1022
12/18/2015 22:30:40	R1510793-010	Se (196.026 nm)	-0.0033 u (ppm)	8.89	-0.0033 (ppm)	-0.4590
12/18/2015 22:30:40	R1510793-010	Sn (189.925 nm)	-0.0002 u (ppm)	> 100.00	-0.0002 (ppm)	0.2099
12/18/2015 22:30:40	R1510793-010	Sr (460.733 nm)	0.8157 (ppm)	0.57	0.8157 (ppm)	10811.4659
12/18/2015 22:30:40	R1510793-010	Ti (336.122 nm)	-0.0019 u (ppm)	0.98	-0.0019 (ppm)	-116.3395
12/18/2015 22:30:40	R1510793-010	Tl (351.923 nm)	0.0022 u (ppm)	> 100.00	0.0022 (ppm)	-5.7121
12/18/2015 22:30:40	R1510793-010	V (292.401 nm)	-0.0004 u (ppm)	56.07	-0.0004 (ppm)	48.2509
12/18/2015 22:30:40	R1510793-010	Y (360.074 nm)	0.96 (Ratio)	2.62	0.96 (Ratio)	560542.87
12/18/2015 22:30:40	R1510793-010	Y_R (360.074 nm)	0.99 (Ratio)	0.29	0.99 (Ratio)	242582.49
12/18/2015 22:30:40	R1510793-010	Zn (213.857 nm)	0.0051 (ppm)	6.39	0.0051 (ppm)	100.4205
12/18/2015 22:34:09	R150793-011	Ag (328.068 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	10.9799
12/18/2015 22:34:09	R150793-011	Al (394.401 nm)	0.0023 (ppm)	24.11	0.0023 (ppm)	176.3797
12/18/2015 22:34:09	R150793-011	Al (394.401 nm)	-0.0373 u (ppm)	2.61	-0.0373 (ppm)	222.0776
12/18/2015 22:34:09	R150793-011	As (188.980 nm)	0.0042 u (ppm)	> 100.00	0.0042 (ppm)	3.8407
12/18/2015 22:34:09	R150793-011	B (249.772 nm)	3.2925 (ppm)	2.50	3.2925 (ppm)	43854.3764
12/18/2015 22:34:09	R150793-011	Ba (230.424 nm)	0.0218 (ppm)	1.89	0.0218 (ppm)	343.7654
12/18/2015 22:34:09	R150793-011	Be (313.107 nm)	0.0000 u (ppm)	14.99	0.0000 (ppm)	-71.6880
12/18/2015 22:34:09	R150793-011	Ca (227.547 nm)	21.5497 (ppm)	2.59	21.5497 (ppm)	781.0425
12/18/2015 22:34:09	R150793-011	Ca (227.547 nm)	33.2305 (ppm)	2.57	33.2305 (ppm)	790.5282
12/18/2015 22:34:09	R150793-011	Cd (214.439 nm)	-0.0002 u (ppm)	63.37	-0.0002 (ppm)	1.4699
12/18/2015 22:34:09	R150793-011	Co (230.786 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	1.8122
12/18/2015 22:34:09	R150793-011	Cr (267.716 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	-3.9762
12/18/2015 22:34:09	R150793-011	Cu (327.395 nm)	-0.0002 u (ppm)	89.45	-0.0002 (ppm)	15.0879
12/18/2015 22:34:09	R150793-011	Fe (234.350 nm)	0.0069 (ppm)	11.08	0.0069 (ppm)	101.7468
12/18/2015 22:34:09	R150793-011	Fe (234.350 nm)	-0.0021 u (ppm)	47.94	-0.0021 (ppm)	104.8062
12/18/2015 22:34:09	R150793-011	K (766.491 nm)	10.7311 (ppm)	0.76	10.7311 (ppm)	27448.4108
12/18/2015 22:34:09	R150793-011	Mg (279.078 nm)	4.8625 (ppm)	2.74	4.8625 (ppm)	8828.3768
12/18/2015 22:34:09	R150793-011	Mg (279.078 nm)	6.9523 (ppm)	2.75	6.9523 (ppm)	9388.6474
12/18/2015 22:34:09	R150793-011	Mn (257.610 nm)	0.0320 (ppm)	2.50	0.0320 (ppm)	3903.8090
12/18/2015 22:34:09	R150793-011	Mo (202.032 nm)	0.0573 (ppm)	3.47	0.0573 (ppm)	254.7887
12/18/2015 22:34:09	R150793-011	Na (588.995 nm)	233.4474 o (ppm)	0.22	233.4474 (ppm)	6414257.8245
12/18/2015 22:34:09	R150793-011	Ni (230.299 nm)	0.0039 (ppm)	14.74	0.0039 (ppm)	2.3142
12/18/2015 22:34:09	R150793-011	Pb (220.353 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	2.7171
12/18/2015 22:34:09	R150793-011	Sb (217.582 nm)	0.0024 u (ppm)	> 100.00	0.0024 (ppm)	3.0781
12/18/2015 22:34:09	R150793-011	Se (196.026 nm)	0.0064 (ppm)	51.06	0.0064 (ppm)	2.7303
12/18/2015 22:34:09	R150793-011	Sn (189.925 nm)	-0.0027 u (ppm)	58.76	-0.0027 (ppm)	-1.6177
12/18/2015 22:34:09	R150793-011	Sr (460.733 nm)	1.4354 (ppm)	0.39	1.4354 (ppm)	18933.4477
12/18/2015 22:34:09	R150793-011	Ti (336.122 nm)	-0.0007 u (ppm)	8.29	-0.0007 (ppm)	-83.2587
12/18/2015 22:34:09	R150793-011	Tl (351.923 nm)	0.0010 u (ppm)	> 100.00	0.0010 (ppm)	-8.5787
12/18/2015 22:34:09	R150793-011	V (292.401 nm)	-0.0002 u (ppm)	83.64	-0.0002 (ppm)	38.1896
12/18/2015 22:34:09	R150793-011	Y (360.074 nm)	0.96 (Ratio)	2.53	0.96 (Ratio)	560107.65
12/18/2015 22:34:09	R150793-011	Y_R (360.074 nm)	0.99 (Ratio)	0.39	0.99 (Ratio)	242289.52
12/18/2015 22:34:09	R150793-011	Zn (213.857 nm)	0.0032 (ppm)	3.71	0.0032 (ppm)	50.0431
12/18/2015 22:37:39	R1510793-012	Ag (328.068 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	8.1155
12/18/2015 22:37:39	R1510793-012	Al (394.401 nm)	0.0032 (ppm)	20.07	0.0032 (ppm)	185.9369
12/18/2015 22:37:39	R1510793-012	Al (394.401 nm)	-0.0948 u (ppm)	0.85	-0.0948 (ppm)	238.8284
12/18/2015 22:37:39	R1510793-012	As (188.980 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	1.8791
12/18/2015 22:37:39	R1510793-012	B (249.772 nm)	0.0349 (ppm)	5.61	0.0349 (ppm)	500.5959
12/18/2015 22:37:39	R1510793-012	Ba (230.424 nm)	0.0489 (ppm)	2.94	0.0489 (ppm)	761.0390
12/18/2015 22:37:39	R1510793-012	Be (313.107 nm)	0.0000 u (ppm)	15.88	0.0000 (ppm)	-55.7658

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 22:37:39	R1510793-012	Ca (227.547 nm)	52.1785 (ppm)	2.33	52.1785 (ppm)	1890.8336
12/18/2015 22:37:39	R1510793-012	Ca (227.547 nm)	80.5332 o (ppm)	2.28	80.5332 (ppm)	1919.3008
12/18/2015 22:37:39	R1510793-012	Cd (214.439 nm)	-0.0002 u (ppm)	51.55	-0.0002 (ppm)	1.8193
12/18/2015 22:37:39	R1510793-012	Co (230.786 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	3.7066
12/18/2015 22:37:39	R1510793-012	Cr (267.716 nm)	0.0001 (ppm)	> 100.00	0.0001 (ppm)	-6.7771
12/18/2015 22:37:39	R1510793-012	Cu (327.395 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	15.6988
12/18/2015 22:37:39	R1510793-012	Fe (234.350 nm)	0.0003 u (ppm)	> 100.00	0.0003 (ppm)	51.3657
12/18/2015 22:37:39	R1510793-012	Fe (234.350 nm)	-0.0266 u (ppm)	1.89	-0.0266 (ppm)	50.5926
12/18/2015 22:37:39	R1510793-012	K (766.491 nm)	1.1266 (ppm)	1.37	1.1266 (ppm)	2843.0399
12/18/2015 22:37:39	R1510793-012	Mg (279.078 nm)	11.8453 (ppm)	2.51	11.8453 (ppm)	21478.4675
12/18/2015 22:37:39	R1510793-012	Mg (279.078 nm)	16.8288 (ppm)	2.45	16.8288 (ppm)	22694.2950
12/18/2015 22:37:39	R1510793-012	Mn (257.610 nm)	0.0721 (ppm)	2.37	0.0721 (ppm)	8780.4917
12/18/2015 22:37:39	R1510793-012	Mo (202.032 nm)	-0.0009 u (ppm)	46.66	-0.0009 (ppm)	3.1077
12/18/2015 22:37:39	R1510793-012	Na (588.995 nm)	10.5851 (ppm)	0.61	10.5851 (ppm)	283118.9701
12/18/2015 22:37:39	R1510793-012	Ni (230.299 nm)	0.0065 (ppm)	7.60	0.0065 (ppm)	10.5892
12/18/2015 22:37:39	R1510793-012	Pb (220.353 nm)	-0.0014 u (ppm)	62.00	-0.0014 (ppm)	0.8373
12/18/2015 22:37:39	R1510793-012	Sb (217.582 nm)	-0.0028 u (ppm)	62.92	-0.0028 (ppm)	0.6560
12/18/2015 22:37:39	R1510793-012	Se (196.026 nm)	-0.0004 u (ppm)	> 100.00	-0.0004 (ppm)	0.4507
12/18/2015 22:37:39	R1510793-012	Sn (189.925 nm)	-0.0006 u (ppm)	> 100.00	-0.0006 (ppm)	-0.1288
12/18/2015 22:37:39	R1510793-012	Sr (460.733 nm)	0.1756 (ppm)	1.32	0.1756 (ppm)	2393.3225
12/18/2015 22:37:39	R1510793-012	Ti (336.122 nm)	-0.0013 u (ppm)	5.74	-0.0013 (ppm)	-107.3559
12/18/2015 22:37:39	R1510793-012	Tl (351.923 nm)	0.0039 (ppm)	> 100.00	0.0039 (ppm)	-3.2852
12/18/2015 22:37:39	R1510793-012	V (292.401 nm)	0.0002 (ppm)	> 100.00	0.0002 (ppm)	53.3066
12/18/2015 22:37:39	R1510793-012	Y (360.074 nm)	1.00 (Ratio)	2.48	1.00 (Ratio)	583007.04
12/18/2015 22:37:39	R1510793-012	Y_R (360.074 nm)	1.01 (Ratio)	0.54	1.01 (Ratio)	248776.28
12/18/2015 22:37:39	R1510793-012	Zn (213.857 nm)	0.0185 (ppm)	2.85	0.0185 (ppm)	253.9552
12/18/2015 22:41:08	R1510793-012D	Ag (328.068 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	7.0182
12/18/2015 22:41:08	R1510793-012D	Al (394.401 nm)	0.0043 (ppm)	14.75	0.0043 (ppm)	197.0364
12/18/2015 22:41:08	R1510793-012D	Al (394.401 nm)	-0.0939 u (ppm)	0.67	-0.0939 (ppm)	244.4415
12/18/2015 22:41:08	R1510793-012D	As (188.980 nm)	0.0017 u (ppm)	> 100.00	0.0017 (ppm)	2.7336
12/18/2015 22:41:08	R1510793-012D	B (249.772 nm)	0.0327 (ppm)	3.33	0.0327 (ppm)	471.0765
12/18/2015 22:41:08	R1510793-012D	Ba (230.424 nm)	0.0496 (ppm)	2.79	0.0496 (ppm)	771.4028
12/18/2015 22:41:08	R1510793-012D	Be (313.107 nm)	0.0000 (ppm)	18.63	0.0000 (ppm)	-38.5814
12/18/2015 22:41:08	R1510793-012D	Ca (227.547 nm)	52.0812 (ppm)	2.19	52.0812 (ppm)	1887.3090
12/18/2015 22:41:08	R1510793-012D	Ca (227.547 nm)	80.2968 o (ppm)	2.27	80.2968 (ppm)	1913.6616
12/18/2015 22:41:08	R1510793-012D	Cd (214.439 nm)	-0.0003 u (ppm)	76.01	-0.0003 (ppm)	1.1723
12/18/2015 22:41:08	R1510793-012D	Co (230.786 nm)	0.0008 (ppm)	19.63	0.0008 (ppm)	6.2338
12/18/2015 22:41:08	R1510793-012D	Cr (267.716 nm)	0.0003 (ppm)	5.35	0.0003 (ppm)	-2.3424
12/18/2015 22:41:08	R1510793-012D	Cu (327.395 nm)	-0.0001 u (ppm)	88.10	-0.0001 (ppm)	15.9003
12/18/2015 22:41:08	R1510793-012D	Fe (234.350 nm)	0.0008 (ppm)	17.64	0.0008 (ppm)	55.1704
12/18/2015 22:41:08	R1510793-012D	Fe (234.350 nm)	-0.0257 u (ppm)	0.52	-0.0257 (ppm)	55.9400
12/18/2015 22:41:08	R1510793-012D	K (766.491 nm)	1.1419 (ppm)	1.02	1.1419 (ppm)	2882.3098
12/18/2015 22:41:08	R1510793-012D	Mg (279.078 nm)	11.8331 (ppm)	2.44	11.8331 (ppm)	21456.5402
12/18/2015 22:41:08	R1510793-012D	Mg (279.078 nm)	16.8492 (ppm)	2.32	16.8492 (ppm)	22721.7479
12/18/2015 22:41:08	R1510793-012D	Mn (257.610 nm)	0.0687 (ppm)	2.46	0.0687 (ppm)	8368.8645
12/18/2015 22:41:08	R1510793-012D	Mo (202.032 nm)	-0.0012 u (ppm)	26.22	-0.0012 (ppm)	1.9210
12/18/2015 22:41:08	R1510793-012D	Na (588.995 nm)	10.4530 (ppm)	0.35	10.4530 (ppm)	279484.5513
12/18/2015 22:41:08	R1510793-012D	Ni (230.299 nm)	0.0049 (ppm)	5.09	0.0049 (ppm)	5.6687
12/18/2015 22:41:08	R1510793-012D	Pb (220.353 nm)	-0.0028 u (ppm)	> 100.00	-0.0028 (ppm)	-0.4310
12/18/2015 22:41:08	R1510793-012D	Sb (217.582 nm)	-0.0020 u (ppm)	97.73	-0.0020 (ppm)	1.0944
12/18/2015 22:41:08	R1510793-012D	Se (196.026 nm)	-0.0017 u (ppm)	> 100.00	-0.0017 (ppm)	0.0003

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 22:41:08	R1510793-012D	Sn (189.925 nm)	0.0026 (ppm)	59.19	0.0026 (ppm)	2.0387
12/18/2015 22:41:08	R1510793-012D	Sr (460.733 nm)	0.1837 (ppm)	0.67	0.1837 (ppm)	2500.4813
12/18/2015 22:41:08	R1510793-012D	Ti (336.122 nm)	-0.0011 u (ppm)	3.77	-0.0011 (ppm)	-78.3830
12/18/2015 22:41:08	R1510793-012D	Tl (351.923 nm)	0.0023 u (ppm)	> 100.00	0.0023 (ppm)	-5.8639
12/18/2015 22:41:08	R1510793-012D	V (292.401 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	50.0711
12/18/2015 22:41:08	R1510793-012D	Y (360.074 nm)	1.00 (Ratio)	2.41	1.00 (Ratio)	581256.54
12/18/2015 22:41:08	R1510793-012D	Y_R (360.074 nm)	1.02 (Ratio)	0.77	1.02 (Ratio)	249204.54
12/18/2015 22:41:08	R1510793-012D	Zn (213.857 nm)	0.0189 (ppm)	3.24	0.0189 (ppm)	259.8031
12/18/2015 22:44:38	Continuing Calibration Verification1	Ag (328.068 nm)	0.4653 (ppm)	0.88	0.4653 (ppm)	18127.8477
12/18/2015 22:44:38	Continuing Calibration Verification1	Al (394.401 nm)	7.3047 (ppm)	0.86	7.3047 (ppm)	77665.9773
12/18/2015 22:44:38	Continuing Calibration Verification1	Al (394.401 nm)	9.1571 (ppm)	0.88	9.1571 (ppm)	78975.1803
12/18/2015 22:44:38	Continuing Calibration Verification1	As (188.980 nm)	0.9373 (ppm)	1.10	0.9373 (ppm)	495.6111
12/18/2015 22:44:38	Continuing Calibration Verification1	B (249.772 nm)	2.3377 (ppm)	0.81	2.3377 (ppm)	31140.0765
12/18/2015 22:44:38	Continuing Calibration Verification1	Ba (230.424 nm)	9.8450 (ppm)	0.85	9.8450 (ppm)	148845.2721
12/18/2015 22:44:38	Continuing Calibration Verification1	Be (313.107 nm)	0.2450 (ppm)	0.88	0.2450 (ppm)	214366.6247
12/18/2015 22:44:38	Continuing Calibration Verification1	Ca (227.547 nm)	15.4284 (ppm)	0.81	15.4284 (ppm)	559.2424
12/18/2015 22:44:38	Continuing Calibration Verification1	Ca (227.547 nm)	23.6053 (ppm)	0.47	23.6053 (ppm)	561.9058
12/18/2015 22:44:38	Continuing Calibration Verification1	Cd (214.439 nm)	0.4885 (ppm)	0.75	0.4885 (ppm)	5202.4295
12/18/2015 22:44:38	Continuing Calibration Verification1	Co (230.786 nm)	2.3628 (ppm)	1.07	2.3628 (ppm)	11310.8387
12/18/2015 22:44:38	Continuing Calibration Verification1	Cr (267.716 nm)	0.5013 (ppm)	0.93	0.5013 (ppm)	11589.2964
12/18/2015 22:44:38	Continuing Calibration Verification1	Cu (327.395 nm)	1.1731 (ppm)	1.07	1.1731 (ppm)	35386.7884
12/18/2015 22:44:38	Continuing Calibration Verification1	Fe (234.350 nm)	3.7477 (ppm)	0.93	3.7477 (ppm)	28514.7222
12/18/2015 22:44:38	Continuing Calibration Verification1	Fe (234.350 nm)	4.7956 (ppm)	0.91	4.7956 (ppm)	30175.9444
12/18/2015 22:44:38	Continuing Calibration Verification1	K (766.491 nm)	24.1720 (ppm)	0.47	24.1720 (ppm)	61875.3335
12/18/2015 22:44:38	Continuing Calibration Verification1	Mg (279.078 nm)	16.2002 (ppm)	0.85	16.2002 (ppm)	29368.1002
12/18/2015 22:44:38	Continuing Calibration Verification1	Mg (279.078 nm)	23.2081 (ppm)	0.86	23.2081 (ppm)	31267.0125
12/18/2015 22:44:38	Continuing Calibration Verification1	Mn (257.610 nm)	0.7370 (ppm)	0.84	0.7370 (ppm)	89271.1221
12/18/2015 22:44:38	Continuing Calibration Verification1	Mo (202.032 nm)	2.3881 (ppm)	0.95	2.3881 (ppm)	10446.1430
12/18/2015 22:44:38	Continuing Calibration Verification1	Na (588.995 nm)	24.3912 (ppm)	0.18	24.3912 (ppm)	663235.3285
12/18/2015 22:44:38	Continuing Calibration Verification1	Ni (230.299 nm)	1.9898 (ppm)	1.00	1.9898 (ppm)	6125.0858
12/18/2015 22:44:38	Continuing Calibration Verification1	Pb (220.353 nm)	0.4891 (ppm)	1.37	0.4891 (ppm)	472.7725
12/18/2015 22:44:38	Continuing Calibration Verification1	Sb (217.582 nm)	4.7643 (ppm)	0.87	4.7643 (ppm)	2653.9862
12/18/2015 22:44:38	Continuing Calibration Verification1	Se (196.026 nm)	0.4875 (ppm)	0.65	0.4875 (ppm)	170.8759
12/18/2015 22:44:38	Continuing Calibration Verification1	Sn (189.925 nm)	4.7937 (ppm)	0.78	4.7937 (ppm)	3298.2161
12/18/2015 22:44:38	Continuing Calibration Verification1	Sr (460.733 nm)	2.4421 (ppm)	0.42	2.4421 (ppm)	32138.0115
12/18/2015 22:44:38	Continuing Calibration Verification1	Ti (336.122 nm)	2.3747 (ppm)	0.87	2.3747 (ppm)	298560.9559
12/18/2015 22:44:38	Continuing Calibration Verification1	Tl (351.923 nm)	0.9606 (ppm)	1.18	0.9606 (ppm)	1550.1850
12/18/2015 22:44:38	Continuing Calibration Verification1	V (292.401 nm)	2.4103 (ppm)	0.47	2.4103 (ppm)	46074.5290
12/18/2015 22:44:38	Continuing Calibration Verification1	Y (360.074 nm)	0.99 (Ratio)	1.20	0.99 (Ratio)	576630.55
12/18/2015 22:44:38	Continuing Calibration Verification1	Y_R (360.074 nm)	0.98 (Ratio)	0.06	0.98 (Ratio)	241521.89
12/18/2015 22:44:38	Continuing Calibration Verification1	Zn (213.857 nm)	0.9782 (ppm)	1.06	0.9782 (ppm)	12228.6015
12/18/2015 22:48:07	Continuing Calibration Blank1	Ag (328.068 nm)	0.0001 (ppm)	> 100.00	0.0001 (ppm)	13.4814
12/18/2015 22:48:07	Continuing Calibration Blank1	Al (394.401 nm)	-0.0094 u (ppm)	8.46	-0.0094 (ppm)	51.5966
12/18/2015 22:48:07	Continuing Calibration Blank1	Al (394.401 nm)	-0.0123 u (ppm)	12.43	-0.0123 (ppm)	78.2447
12/18/2015 22:48:07	Continuing Calibration Blank1	As (188.980 nm)	-0.0041 u (ppm)	62.36	-0.0041 (ppm)	-0.6739
12/18/2015 22:48:07	Continuing Calibration Blank1	B (249.772 nm)	0.0029 (ppm)	18.10	0.0029 (ppm)	50.7892
12/18/2015 22:48:07	Continuing Calibration Blank1	Ba (230.424 nm)	0.0031 (ppm)	42.55	0.0031 (ppm)	54.9738
12/18/2015 22:48:07	Continuing Calibration Blank1	Be (313.107 nm)	0.0001 (ppm)	54.29	0.0001 (ppm)	9.4114
12/18/2015 22:48:07	Continuing Calibration Blank1	Ca (227.547 nm)	0.0068 u (ppm)	> 100.00	0.0068 (ppm)	0.4639
12/18/2015 22:48:07	Continuing Calibration Blank1	Ca (227.547 nm)	0.0511 u (ppm)	> 100.00	0.0511 (ppm)	-1.2247
12/18/2015 22:48:07	Continuing Calibration Blank1	Cd (214.439 nm)	0.0000 (ppm)	> 100.00	0.0000 (ppm)	3.4517

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 22:48:07	Continuing Calibration Blank1	Co (230.786 nm)	0.0007 (ppm)	13.52	0.0007 (ppm)	3.7882
12/18/2015 22:48:07	Continuing Calibration Blank1	Cr (267.716 nm)	0.0002 (ppm)	50.50	0.0002 (ppm)	2.3870
12/18/2015 22:48:07	Continuing Calibration Blank1	Cu (327.395 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	30.8510
12/18/2015 22:48:07	Continuing Calibration Blank1	Fe (234.350 nm)	-0.0040 u (ppm)	19.02	-0.0040 (ppm)	18.9245
12/18/2015 22:48:07	Continuing Calibration Blank1	Fe (234.350 nm)	-0.0048 u (ppm)	21.73	-0.0048 (ppm)	18.6632
12/18/2015 22:48:07	Continuing Calibration Blank1	K (766.491 nm)	-0.0030 u (ppm)	> 100.00	-0.0030 (ppm)	-47.1770
12/18/2015 22:48:07	Continuing Calibration Blank1	Mg (279.078 nm)	-0.0036 u (ppm)	96.56	-0.0036 (ppm)	12.7293
12/18/2015 22:48:07	Continuing Calibration Blank1	Mg (279.078 nm)	-0.0062 u (ppm)	69.41	-0.0062 (ppm)	14.0063
12/18/2015 22:48:07	Continuing Calibration Blank1	Mn (257.610 nm)	0.0003 (ppm)	42.95	0.0003 (ppm)	36.6254
12/18/2015 22:48:07	Continuing Calibration Blank1	Mo (202.032 nm)	0.0011 (ppm)	30.69	0.0011 (ppm)	6.9451
12/18/2015 22:48:07	Continuing Calibration Blank1	Na (588.995 nm)	0.0411 (ppm)	5.83	0.0411 (ppm)	-6097.0764
12/18/2015 22:48:07	Continuing Calibration Blank1	Ni (230.299 nm)	0.0015 (ppm)	28.51	0.0015 (ppm)	-5.2750
12/18/2015 22:48:07	Continuing Calibration Blank1	Pb (220.353 nm)	-0.0012 u (ppm)	> 100.00	-0.0012 (ppm)	1.7455
12/18/2015 22:48:07	Continuing Calibration Blank1	Sb (217.582 nm)	0.0030 (ppm)	17.09	0.0030 (ppm)	3.0821
12/18/2015 22:48:07	Continuing Calibration Blank1	Se (196.026 nm)	0.0035 (ppm)	> 100.00	0.0035 (ppm)	1.6526
12/18/2015 22:48:07	Continuing Calibration Blank1	Sn (189.925 nm)	0.0014 (ppm)	78.19	0.0014 (ppm)	1.1599
12/18/2015 22:48:07	Continuing Calibration Blank1	Sr (460.733 nm)	-0.0002 u (ppm)	> 100.00	-0.0002 (ppm)	64.5591
12/18/2015 22:48:07	Continuing Calibration Blank1	Ti (336.122 nm)	0.0007 (ppm)	53.14	0.0007 (ppm)	64.3798
12/18/2015 22:48:07	Continuing Calibration Blank1	Tl (351.923 nm)	0.0020 u (ppm)	> 100.00	0.0020 (ppm)	-7.2973
12/18/2015 22:48:07	Continuing Calibration Blank1	V (292.401 nm)	0.0009 (ppm)	31.10	0.0009 (ppm)	53.2736
12/18/2015 22:48:07	Continuing Calibration Blank1	Y (360.074 nm)	1.02 (Ratio)	2.70	1.02 (Ratio)	592086.15
12/18/2015 22:48:07	Continuing Calibration Blank1	Y_R (360.074 nm)	1.01 (Ratio)	0.16	1.01 (Ratio)	248290.30
12/18/2015 22:48:07	Continuing Calibration Blank1	Zn (213.857 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	1.1727
12/18/2015 22:51:36	R1501793-012S	Ag (328.068 nm)	0.0489 (ppm)	3.45	0.0489 (ppm)	1913.8379
12/18/2015 22:51:36	R1501793-012S	Al (394.401 nm)	1.4710 (ppm)	3.04	1.4710 (ppm)	15760.7043
12/18/2015 22:51:36	R1501793-012S	Al (394.401 nm)	1.7455 (ppm)	3.22	1.7455 (ppm)	16031.7113
12/18/2015 22:51:36	R1501793-012S	As (188.980 nm)	0.0379 (ppm)	4.72	0.0379 (ppm)	21.8019
12/18/2015 22:51:36	R1501793-012S	B (249.772 nm)	0.9677 (ppm)	3.07	0.9677 (ppm)	12919.2516
12/18/2015 22:51:36	R1501793-012S	Ba (230.424 nm)	2.0268 (ppm)	3.15	2.0268 (ppm)	30662.0412
12/18/2015 22:51:36	R1501793-012S	Be (313.107 nm)	0.0477 (ppm)	3.05	0.0477 (ppm)	41752.4094
12/18/2015 22:51:36	R1501793-012S	Ca (227.547 nm)	52.8801 (ppm)	3.43	52.8801 (ppm)	1916.2551
12/18/2015 22:51:36	R1501793-012S	Ca (227.547 nm)	81.6173 o (ppm)	3.41	81.6173 (ppm)	1945.3095
12/18/2015 22:51:36	R1501793-012S	Cd (214.439 nm)	0.0485 (ppm)	2.83	0.0485 (ppm)	520.5116
12/18/2015 22:51:36	R1501793-012S	Co (230.786 nm)	0.4623 (ppm)	2.97	0.4623 (ppm)	2215.3467
12/18/2015 22:51:36	R1501793-012S	Cr (267.716 nm)	0.1984 (ppm)	3.18	0.1984 (ppm)	4577.6251
12/18/2015 22:51:36	R1501793-012S	Cu (327.395 nm)	0.2359 (ppm)	2.92	0.2359 (ppm)	7129.8904
12/18/2015 22:51:36	R1501793-012S	Fe (234.350 nm)	0.7584 (ppm)	3.04	0.7584 (ppm)	5809.3481
12/18/2015 22:51:36	R1501793-012S	Fe (234.350 nm)	0.9377 (ppm)	3.12	0.9377 (ppm)	6093.3516
12/18/2015 22:51:36	R1501793-012S	K (766.491 nm)	19.6777 (ppm)	0.44	19.6777 (ppm)	50363.4265
12/18/2015 22:51:36	R1501793-012S	Mg (279.078 nm)	12.9476 (ppm)	3.03	12.9476 (ppm)	23475.4522
12/18/2015 22:51:36	R1501793-012S	Mg (279.078 nm)	18.4371 (ppm)	3.09	18.4371 (ppm)	24859.5366
12/18/2015 22:51:36	R1501793-012S	Mn (257.610 nm)	0.5546 (ppm)	3.00	0.5546 (ppm)	67214.4796
12/18/2015 22:51:36	R1501793-012S	Mo (202.032 nm)	0.4869 (ppm)	3.18	0.4869 (ppm)	2136.1436
12/18/2015 22:51:36	R1501793-012S	Na (588.995 nm)	29.7200 (ppm)	0.49	29.7200 (ppm)	809449.7330
12/18/2015 22:51:36	R1501793-012S	Ni (230.299 nm)	0.4843 (ppm)	3.08	0.4843 (ppm)	1483.7938
12/18/2015 22:51:36	R1501793-012S	Pb (220.353 nm)	0.4865 (ppm)	2.60	0.4865 (ppm)	470.3261
12/18/2015 22:51:36	R1501793-012S	Sb (217.582 nm)	0.4908 (ppm)	3.44	0.4908 (ppm)	275.5042
12/18/2015 22:51:36	R1501793-012S	Se (196.026 nm)	0.9988 (ppm)	2.55	0.9988 (ppm)	349.6876
12/18/2015 22:51:36	R1501793-012S	Sn (189.925 nm)	4.8873 (ppm)	3.31	4.8873 (ppm)	3362.2344
12/18/2015 22:51:36	R1501793-012S	Sr (460.733 nm)	0.1818 (ppm)	2.52	0.1818 (ppm)	2470.7035
12/18/2015 22:51:36	R1501793-012S	Ti (336.122 nm)	0.4790 (ppm)	3.05	0.4790 (ppm)	60273.8053

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 22:51:36	R1501793-012S	Tl (351.923 nm)	1.8551 (ppm)	3.09	1.8551 (ppm)	3004.3491
12/18/2015 22:51:36	R1501793-012S	V (292.401 nm)	0.4721 (ppm)	0.37	0.4721 (ppm)	9067.1759
12/18/2015 22:51:36	R1501793-012S	Y (360.074 nm)	0.98 (Ratio)	2.95	0.98 (Ratio)	571379.39
12/18/2015 22:51:36	R1501793-012S	Y_R (360.074 nm)	1.00 (Ratio)	0.53	1.00 (Ratio)	245946.31
12/18/2015 22:51:36	R1501793-012S	Zn (213.857 nm)	0.4983 (ppm)	3.28	0.4983 (ppm)	6245.0129
12/18/2015 22:55:05	R1510793-012A	Ag (328.068 nm)	0.0154 (ppm)	3.86	0.0154 (ppm)	607.3484
12/18/2015 22:55:05	R1510793-012A	Al (394.401 nm)	1.4370 (ppm)	2.88	1.4370 (ppm)	15400.2750
12/18/2015 22:55:05	R1510793-012A	Al (394.401 nm)	1.7037 (ppm)	3.09	1.7037 (ppm)	15671.3606
12/18/2015 22:55:05	R1510793-012A	As (188.980 nm)	0.0364 (ppm)	2.85	0.0364 (ppm)	21.0029
12/18/2015 22:55:05	R1510793-012A	B (249.772 nm)	1.0095 (ppm)	2.83	1.0095 (ppm)	13474.7237
12/18/2015 22:55:05	R1510793-012A	Ba (230.424 nm)	1.9465 (ppm)	3.49	1.9465 (ppm)	29447.3298
12/18/2015 22:55:05	R1510793-012A	Be (313.107 nm)	0.0460 (ppm)	2.88	0.0460 (ppm)	40276.6573
12/18/2015 22:55:05	R1510793-012A	Ca (227.547 nm)	52.7915 (ppm)	3.29	52.7915 (ppm)	1913.0457
12/18/2015 22:55:05	R1510793-012A	Ca (227.547 nm)	81.4206 o (ppm)	3.32	81.4206 (ppm)	1940.6101
12/18/2015 22:55:05	R1510793-012A	Cd (214.439 nm)	0.0464 (ppm)	2.82	0.0464 (ppm)	498.2447
12/18/2015 22:55:05	R1510793-012A	Co (230.786 nm)	0.4458 (ppm)	3.33	0.4458 (ppm)	2136.5117
12/18/2015 22:55:05	R1510793-012A	Cr (267.716 nm)	0.1924 (ppm)	2.78	0.1924 (ppm)	4438.5908
12/18/2015 22:55:05	R1510793-012A	Cu (327.395 nm)	0.2273 (ppm)	3.38	0.2273 (ppm)	6870.1641
12/18/2015 22:55:05	R1510793-012A	Fe (234.350 nm)	0.7359 (ppm)	3.00	0.7359 (ppm)	5638.3236
12/18/2015 22:55:05	R1510793-012A	Fe (234.350 nm)	0.9103 (ppm)	3.23	0.9103 (ppm)	5921.5186
12/18/2015 22:55:05	R1510793-012A	K (766.491 nm)	18.9804 (ppm)	0.11	18.9804 (ppm)	48577.1889
12/18/2015 22:55:05	R1510793-012A	Mg (279.078 nm)	12.8459 (ppm)	2.84	12.8459 (ppm)	23291.2665
12/18/2015 22:55:05	R1510793-012A	Mg (279.078 nm)	18.3026 (ppm)	2.89	18.3026 (ppm)	24678.4620
12/18/2015 22:55:05	R1510793-012A	Mn (257.610 nm)	0.5409 (ppm)	2.92	0.5409 (ppm)	65549.7130
12/18/2015 22:55:05	R1510793-012A	Mo (202.032 nm)	0.4848 (ppm)	3.14	0.4848 (ppm)	2126.9466
12/18/2015 22:55:05	R1510793-012A	Na (588.995 nm)	28.9230 (ppm)	0.33	28.9230 (ppm)	787528.7108
12/18/2015 22:55:05	R1510793-012A	Ni (230.299 nm)	0.4693 (ppm)	2.86	0.4693 (ppm)	1437.5294
12/18/2015 22:55:05	R1510793-012A	Pb (220.353 nm)	0.4713 (ppm)	3.12	0.4713 (ppm)	455.6495
12/18/2015 22:55:05	R1510793-012A	Sb (217.582 nm)	0.4888 (ppm)	2.40	0.4888 (ppm)	274.3974
12/18/2015 22:55:05	R1510793-012A	Se (196.026 nm)	1.0971 o (ppm)	3.30	1.0971 (ppm)	384.0303
12/18/2015 22:55:05	R1510793-012A	Sn (189.925 nm)	4.9324 (ppm)	3.47	4.9324 (ppm)	3393.2592
12/18/2015 22:55:05	R1510793-012A	Sr (460.733 nm)	2.7691 (ppm)	0.32	2.7691 (ppm)	36464.1572
12/18/2015 22:55:05	R1510793-012A	Ti (336.122 nm)	0.4774 (ppm)	2.93	0.4774 (ppm)	60072.4899
12/18/2015 22:55:05	R1510793-012A	Tl (351.923 nm)	1.7979 (ppm)	3.14	1.7979 (ppm)	2911.3836
12/18/2015 22:55:05	R1510793-012A	V (292.401 nm)	0.4562 (ppm)	0.24	0.4562 (ppm)	8763.9112
12/18/2015 22:55:05	R1510793-012A	Y (360.074 nm)	0.98 (Ratio)	2.86	0.98 (Ratio)	571610.99
12/18/2015 22:55:05	R1510793-012A	Y_R (360.074 nm)	1.00 (Ratio)	0.38	1.00 (Ratio)	244779.25
12/18/2015 22:55:05	R1510793-012A	Zn (213.857 nm)	0.4908 (ppm)	3.49	0.4908 (ppm)	6151.8086
12/18/2015 22:58:34	R150793-012L	Ag (328.068 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	4.7035
12/18/2015 22:58:34	R150793-012L	Al (394.401 nm)	-0.0036 u (ppm)	15.02	-0.0036 (ppm)	113.7507
12/18/2015 22:58:34	R150793-012L	Al (394.401 nm)	-0.0239 u (ppm)	4.72	-0.0239 (ppm)	153.1280
12/18/2015 22:58:34	R150793-012L	As (188.980 nm)	0.0004 u (ppm)	> 100.00	0.0004 (ppm)	1.7481
12/18/2015 22:58:34	R150793-012L	B (249.772 nm)	0.0082 (ppm)	5.74	0.0082 (ppm)	125.7670
12/18/2015 22:58:34	R150793-012L	Ba (230.424 nm)	0.0106 (ppm)	7.32	0.0106 (ppm)	171.5003
12/18/2015 22:58:34	R150793-012L	Be (313.107 nm)	0.0000 (ppm)	> 100.00	0.0000 (ppm)	-39.6863
12/18/2015 22:58:34	R150793-012L	Ca (227.547 nm)	10.5017 (ppm)	2.82	10.5017 (ppm)	380.7317
12/18/2015 22:58:34	R150793-012L	Ca (227.547 nm)	16.2941 (ppm)	2.87	16.2941 (ppm)	386.3796
12/18/2015 22:58:34	R150793-012L	Cd (214.439 nm)	0.0001 (ppm)	> 100.00	0.0001 (ppm)	3.8694
12/18/2015 22:58:34	R150793-012L	Co (230.786 nm)	0.0003 (ppm)	> 100.00	0.0003 (ppm)	2.5173
12/18/2015 22:58:34	R150793-012L	Cr (267.716 nm)	0.0001 (ppm)	> 100.00	0.0001 (ppm)	-1.7733
12/18/2015 22:58:34	R150793-012L	Cu (327.395 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	25.8961

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 22:58:34	R150793-012L	Fe (234.350 nm)	-0.0035 u (ppm)	11.01	-0.0035 (ppm)	22.4074
12/18/2015 22:58:34	R150793-012L	Fe (234.350 nm)	-0.0101 u (ppm)	6.41	-0.0101 (ppm)	19.9693
12/18/2015 22:58:34	R150793-012L	K (766.491 nm)	0.2360 (ppm)	1.07	0.2360 (ppm)	564.2915
12/18/2015 22:58:34	R150793-012L	Mg (279.078 nm)	2.4416 (ppm)	2.92	2.4416 (ppm)	4442.5278
12/18/2015 22:58:34	R150793-012L	Mg (279.078 nm)	3.4662 (ppm)	3.04	3.4662 (ppm)	4691.9244
12/18/2015 22:58:34	R150793-012L	Mn (257.610 nm)	0.0154 (ppm)	3.35	0.0154 (ppm)	1880.8377
12/18/2015 22:58:34	R150793-012L	Mo (202.032 nm)	-0.0001 u (ppm)	> 100.00	-0.0001 (ppm)	2.5771
12/18/2015 22:58:34	R150793-012L	Na (588.995 nm)	2.1851 (ppm)	0.18	2.1851 (ppm)	52712.3462
12/18/2015 22:58:34	R150793-012L	Ni (230.299 nm)	0.0016 (ppm)	3.10	0.0016 (ppm)	-4.7335
12/18/2015 22:58:34	R150793-012L	Pb (220.353 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	2.8924
12/18/2015 22:58:34	R150793-012L	Sb (217.582 nm)	0.0047 (ppm)	60.00	0.0047 (ppm)	4.2004
12/18/2015 22:58:34	R150793-012L	Se (196.026 nm)	-0.0015 u (ppm)	> 100.00	-0.0015 (ppm)	-0.0386
12/18/2015 22:58:34	R150793-012L	Sn (189.925 nm)	0.0040 u (ppm)	95.09	0.0040 (ppm)	2.9828
12/18/2015 22:58:34	R150793-012L	Sr (460.733 nm)	0.0348 (ppm)	12.05	0.0348 (ppm)	528.0039
12/18/2015 22:58:34	R150793-012L	Ti (336.122 nm)	-0.0002 u (ppm)	70.72	-0.0002 (ppm)	-31.6694
12/18/2015 22:58:34	R150793-012L	Tl (351.923 nm)	0.0026 (ppm)	45.67	0.0026 (ppm)	-6.2010
12/18/2015 22:58:34	R150793-012L	V (292.401 nm)	0.0002 (ppm)	> 100.00	0.0002 (ppm)	42.7106
12/18/2015 22:58:34	R150793-012L	Y (360.074 nm)	1.00 (Ratio)	2.77	1.00 (Ratio)	584229.56
12/18/2015 22:58:34	R150793-012L	Y_R (360.074 nm)	1.01 (Ratio)	0.59	1.01 (Ratio)	247956.88
12/18/2015 22:58:34	R150793-012L	Zn (213.857 nm)	0.0065 (ppm)	5.74	0.0065 (ppm)	86.4192
12/18/2015 23:02:02	Continuing Calibration Verification1	Ag (328.068 nm)	0.4679 (ppm)	0.70	0.4679 (ppm)	18227.6784
12/18/2015 23:02:02	Continuing Calibration Verification1	Al (394.401 nm)	7.3665 (ppm)	0.92	7.3665 (ppm)	78321.7436
12/18/2015 23:02:02	Continuing Calibration Verification1	Al (394.401 nm)	9.2304 (ppm)	0.89	9.2304 (ppm)	79605.9237
12/18/2015 23:02:02	Continuing Calibration Verification1	As (188.980 nm)	0.9425 (ppm)	1.27	0.9425 (ppm)	498.3131
12/18/2015 23:02:02	Continuing Calibration Verification1	B (249.772 nm)	2.3525 (ppm)	0.76	2.3525 (ppm)	31337.4141
12/18/2015 23:02:02	Continuing Calibration Verification1	Ba (230.424 nm)	9.8935 (ppm)	0.33	9.8935 (ppm)	149579.1632
12/18/2015 23:02:02	Continuing Calibration Verification1	Be (313.107 nm)	0.2465 (ppm)	0.74	0.2465 (ppm)	215674.0971
12/18/2015 23:02:02	Continuing Calibration Verification1	Ca (227.547 nm)	15.5271 (ppm)	1.38	15.5271 (ppm)	562.8213
12/18/2015 23:02:02	Continuing Calibration Verification1	Ca (227.547 nm)	23.8685 (ppm)	1.43	23.8685 (ppm)	568.1977
12/18/2015 23:02:02	Continuing Calibration Verification1	Cd (214.439 nm)	0.4921 (ppm)	0.91	0.4921 (ppm)	5240.8886
12/18/2015 23:02:02	Continuing Calibration Verification1	Co (230.786 nm)	2.3869 (ppm)	1.01	2.3869 (ppm)	11425.7979
12/18/2015 23:02:02	Continuing Calibration Verification1	Cr (267.716 nm)	0.5040 (ppm)	0.80	0.5040 (ppm)	11653.2499
12/18/2015 23:02:02	Continuing Calibration Verification1	Cu (327.395 nm)	1.1801 (ppm)	1.01	1.1801 (ppm)	35598.7545
12/18/2015 23:02:02	Continuing Calibration Verification1	Fe (234.350 nm)	3.7885 (ppm)	0.82	3.7885 (ppm)	28825.0117
12/18/2015 23:02:02	Continuing Calibration Verification1	Fe (234.350 nm)	4.8276 (ppm)	0.73	4.8276 (ppm)	30377.1520
12/18/2015 23:02:02	Continuing Calibration Verification1	K (766.491 nm)	24.3658 (ppm)	0.45	24.3658 (ppm)	62371.7479
12/18/2015 23:02:02	Continuing Calibration Verification1	Mg (279.078 nm)	16.3811 (ppm)	0.79	16.3811 (ppm)	29695.7178
12/18/2015 23:02:02	Continuing Calibration Verification1	Mg (279.078 nm)	23.3866 (ppm)	0.74	23.3866 (ppm)	31507.3432
12/18/2015 23:02:02	Continuing Calibration Verification1	Mn (257.610 nm)	0.7420 (ppm)	0.73	0.7420 (ppm)	89874.1078
12/18/2015 23:02:02	Continuing Calibration Verification1	Mo (202.032 nm)	2.4030 (ppm)	0.75	2.4030 (ppm)	10511.2739
12/18/2015 23:02:02	Continuing Calibration Verification1	Na (588.995 nm)	24.5545 (ppm)	0.43	24.5545 (ppm)	667723.8629
12/18/2015 23:02:02	Continuing Calibration Verification1	Ni (230.299 nm)	2.0044 (ppm)	0.85	2.0044 (ppm)	6170.4049
12/18/2015 23:02:02	Continuing Calibration Verification1	Pb (220.353 nm)	0.4902 (ppm)	0.84	0.4902 (ppm)	473.7775
12/18/2015 23:02:02	Continuing Calibration Verification1	Sb (217.582 nm)	4.7954 (ppm)	0.76	4.7954 (ppm)	2671.3228
12/18/2015 23:02:02	Continuing Calibration Verification1	Se (196.026 nm)	0.4889 (ppm)	1.11	0.4889 (ppm)	171.3420
12/18/2015 23:02:02	Continuing Calibration Verification1	Sn (189.925 nm)	4.8363 (ppm)	1.15	4.8363 (ppm)	3327.5009
12/18/2015 23:02:02	Continuing Calibration Verification1	Sr (460.733 nm)	2.4681 (ppm)	0.33	2.4681 (ppm)	32478.6996
12/18/2015 23:02:02	Continuing Calibration Verification1	Ti (336.122 nm)	2.3908 (ppm)	0.72	2.3908 (ppm)	300585.5779
12/18/2015 23:02:02	Continuing Calibration Verification1	Tl (351.923 nm)	0.9728 (ppm)	0.70	0.9728 (ppm)	1570.0803
12/18/2015 23:02:02	Continuing Calibration Verification1	V (292.401 nm)	2.4261 (ppm)	0.50	2.4261 (ppm)	46375.4684
12/18/2015 23:02:02	Continuing Calibration Verification1	Y (360.074 nm)	0.98 (Ratio)	1.07	0.98 (Ratio)	571765.91

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 23:02:02	Continuing Calibration Verification1	Y_R (360.074 nm)	0.98 (Ratio)	0.36	0.98 (Ratio)	239726.17
12/18/2015 23:02:02	Continuing Calibration Verification1	Zn (213.857 nm)	0.9860 (ppm)	0.57	0.9860 (ppm)	12326.6005
12/18/2015 23:05:31	Continuing Calibration Blank1	Ag (328.068 nm)	0.0002 (ppm)	> 100.00	0.0002 (ppm)	16.1505
12/18/2015 23:05:31	Continuing Calibration Blank1	Al (394.401 nm)	-0.0083 u (ppm)	14.95	-0.0083 (ppm)	63.0131
12/18/2015 23:05:31	Continuing Calibration Blank1	Al (394.401 nm)	-0.0111 u (ppm)	15.48	-0.0111 (ppm)	87.8556
12/18/2015 23:05:31	Continuing Calibration Blank1	As (188.980 nm)	0.0003 u (ppm)	> 100.00	0.0003 (ppm)	1.6364
12/18/2015 23:05:31	Continuing Calibration Blank1	B (249.772 nm)	0.0027 (ppm)	28.13	0.0027 (ppm)	47.7415
12/18/2015 23:05:31	Continuing Calibration Blank1	Ba (230.424 nm)	0.0029 (ppm)	44.51	0.0029 (ppm)	51.7445
12/18/2015 23:05:31	Continuing Calibration Blank1	Be (313.107 nm)	0.0000 (ppm)	67.03	0.0000 (ppm)	2.5810
12/18/2015 23:05:31	Continuing Calibration Blank1	Ca (227.547 nm)	-0.0179 u (ppm)	> 100.00	-0.0179 (ppm)	-0.4307
12/18/2015 23:05:31	Continuing Calibration Blank1	Ca (227.547 nm)	0.0475 u (ppm)	98.55	0.0475 (ppm)	-1.3103
12/18/2015 23:05:31	Continuing Calibration Blank1	Cd (214.439 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	3.2478
12/18/2015 23:05:31	Continuing Calibration Blank1	Co (230.786 nm)	0.0009 (ppm)	32.27	0.0009 (ppm)	4.8568
12/18/2015 23:05:31	Continuing Calibration Blank1	Cr (267.716 nm)	0.0002 (ppm)	60.92	0.0002 (ppm)	1.3531
12/18/2015 23:05:31	Continuing Calibration Blank1	Cu (327.395 nm)	0.0003 (ppm)	49.99	0.0003 (ppm)	33.6753
12/18/2015 23:05:31	Continuing Calibration Blank1	Fe (234.350 nm)	-0.0039 u (ppm)	23.63	-0.0039 (ppm)	19.1959
12/18/2015 23:05:31	Continuing Calibration Blank1	Fe (234.350 nm)	-0.0051 u (ppm)	24.99	-0.0051 (ppm)	16.6234
12/18/2015 23:05:31	Continuing Calibration Blank1	K (766.491 nm)	0.0080 u (ppm)	> 100.00	0.0080 (ppm)	-19.0830
12/18/2015 23:05:31	Continuing Calibration Blank1	Mg (279.078 nm)	-0.0059 u (ppm)	69.07	-0.0059 (ppm)	8.5567
12/18/2015 23:05:31	Continuing Calibration Blank1	Mg (279.078 nm)	-0.0103 u (ppm)	43.25	-0.0103 (ppm)	8.5075
12/18/2015 23:05:31	Continuing Calibration Blank1	Mn (257.610 nm)	0.0002 (ppm)	45.71	0.0002 (ppm)	33.7267
12/18/2015 23:05:31	Continuing Calibration Blank1	Mo (202.032 nm)	0.0012 (ppm)	40.95	0.0012 (ppm)	7.3199
12/18/2015 23:05:31	Continuing Calibration Blank1	Na (588.995 nm)	0.0211 (ppm)	45.55	0.0211 (ppm)	-6644.5835
12/18/2015 23:05:31	Continuing Calibration Blank1	Ni (230.299 nm)	0.0009 (ppm)	58.30	0.0009 (ppm)	-7.1077
12/18/2015 23:05:31	Continuing Calibration Blank1	Pb (220.353 nm)	-0.0006 u (ppm)	> 100.00	-0.0006 (ppm)	2.3253
12/18/2015 23:05:31	Continuing Calibration Blank1	Sb (217.582 nm)	0.0037 (ppm)	71.95	0.0037 (ppm)	3.4928
12/18/2015 23:05:31	Continuing Calibration Blank1	Se (196.026 nm)	0.0007 u (ppm)	> 100.00	0.0007 (ppm)	0.6745
12/18/2015 23:05:31	Continuing Calibration Blank1	Sn (189.925 nm)	0.0033 (ppm)	27.93	0.0033 (ppm)	2.4953
12/18/2015 23:05:31	Continuing Calibration Blank1	Sr (460.733 nm)	-0.0011 u (ppm)	> 100.00	-0.0011 (ppm)	52.0196
12/18/2015 23:05:31	Continuing Calibration Blank1	Ti (336.122 nm)	0.0007 (ppm)	42.97	0.0007 (ppm)	56.5489
12/18/2015 23:05:31	Continuing Calibration Blank1	Tl (351.923 nm)	0.0065 (ppm)	70.74	0.0065 (ppm)	-0.0119
12/18/2015 23:05:31	Continuing Calibration Blank1	V (292.401 nm)	0.0008 (ppm)	15.67	0.0008 (ppm)	50.8632
12/18/2015 23:05:31	Continuing Calibration Blank1	Y (360.074 nm)	1.02 (Ratio)	2.63	1.02 (Ratio)	591473.90
12/18/2015 23:05:31	Continuing Calibration Blank1	Y_R (360.074 nm)	1.00 (Ratio)	0.24	1.00 (Ratio)	245725.55
12/18/2015 23:05:31	Continuing Calibration Blank1	Zn (213.857 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	3.3139
12/18/2015 23:09:00	Contract Required Detection Limit	Ag (328.068 nm)	0.0096 (ppm)	3.17	0.0096 (ppm)	381.6413
12/18/2015 23:09:00	Contract Required Detection Limit	Al (394.401 nm)	0.1319 (ppm)	1.65	0.1319 (ppm)	1550.9522
12/18/2015 23:09:00	Contract Required Detection Limit	Al (394.401 nm)	0.1652 (ppm)	1.62	0.1652 (ppm)	1611.6287
12/18/2015 23:09:00	Contract Required Detection Limit	As (188.980 nm)	0.0157 R (ppm)	14.40	0.0157 (ppm)	9.7588 R
12/18/2015 23:09:00	Contract Required Detection Limit	B (249.772 nm)	0.1855 (ppm)	1.97	0.1855 (ppm)	2481.6682
12/18/2015 23:09:00	Contract Required Detection Limit	Ba (230.424 nm)	0.2075 (ppm)	2.38	0.2075 (ppm)	3146.0451
12/18/2015 23:09:00	Contract Required Detection Limit	Be (313.107 nm)	0.0049 (ppm)	2.12	0.0049 (ppm)	4216.5174
12/18/2015 23:09:00	Contract Required Detection Limit	Ca (227.547 nm)	0.6355 (ppm)	5.67	0.6355 (ppm)	23.2416
12/18/2015 23:09:00	Contract Required Detection Limit	Ca (227.547 nm)	1.0438 (ppm)	5.42	1.0438 (ppm)	22.4976
12/18/2015 23:09:00	Contract Required Detection Limit	Cd (214.439 nm)	0.0101 (ppm)	3.59	0.0101 (ppm)	110.2120
12/18/2015 23:09:00	Contract Required Detection Limit	Co (230.786 nm)	0.0505 (ppm)	2.61	0.0505 (ppm)	242.2627
12/18/2015 23:09:00	Contract Required Detection Limit	Cr (267.716 nm)	0.0102 (ppm)	1.02	0.0102 (ppm)	234.5047
12/18/2015 23:09:00	Contract Required Detection Limit	Cu (327.395 nm)	0.0239 (ppm)	2.37	0.0239 (ppm)	742.9469
12/18/2015 23:09:00	Contract Required Detection Limit	Fe (234.350 nm)	0.0760 (ppm)	2.29	0.0760 (ppm)	626.7849
12/18/2015 23:09:00	Contract Required Detection Limit	Fe (234.350 nm)	0.0961 (ppm)	2.09	0.0961 (ppm)	654.4934
12/18/2015 23:09:00	Contract Required Detection Limit	K (766.491 nm)	0.9540 (ppm)	1.90	0.9540 (ppm)	2404.2095

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 23:09:00	Contract Required Detection Limit	Mg (279.078 nm)	0.6638 (ppm)	2.04	0.6638 (ppm)	1221.7570
12/18/2015 23:09:00	Contract Required Detection Limit	Mg (279.078 nm)	0.9398 (ppm)	2.08	0.9398 (ppm)	1287.6051
12/18/2015 23:09:00	Contract Required Detection Limit	Mn (257.610 nm)	0.0155 (ppm)	2.24	0.0155 (ppm)	1880.8603
12/18/2015 23:09:00	Contract Required Detection Limit	Mo (202.032 nm)	0.0243 (ppm)	3.21	0.0243 (ppm)	108.5446
12/18/2015 23:09:00	Contract Required Detection Limit	Na (588.995 nm)	1.0677 (ppm)	1.04	1.0677 (ppm)	22125.1671
12/18/2015 23:09:00	Contract Required Detection Limit	Ni (230.299 nm)	0.0410 (ppm)	1.18	0.0410 (ppm)	116.5514
12/18/2015 23:09:00	Contract Required Detection Limit	Pb (220.353 nm)	0.0091 (ppm)	21.26	0.0091 (ppm)	11.6379
12/18/2015 23:09:00	Contract Required Detection Limit	Sb (217.582 nm)	0.0588 (ppm)	7.55	0.0588 (ppm)	34.1967
12/18/2015 23:09:00	Contract Required Detection Limit	Se (196.026 nm)	0.0084 (ppm)	27.00	0.0084 (ppm)	3.3844
12/18/2015 23:09:00	Contract Required Detection Limit	Sn (189.925 nm)	0.4850 (ppm)	1.84	0.4850 (ppm)	333.8383
12/18/2015 23:09:00	Contract Required Detection Limit	Sr (460.733 nm)	0.0970 (ppm)	1.68	0.0970 (ppm)	1341.8673
12/18/2015 23:09:00	Contract Required Detection Limit	Ti (336.122 nm)	0.0480 (ppm)	1.97	0.0480 (ppm)	6004.1412
12/18/2015 23:09:00	Contract Required Detection Limit	Tl (351.923 nm)	0.0179 (ppm)	24.46	0.0179 (ppm)	18.4701
12/18/2015 23:09:00	Contract Required Detection Limit	V (292.401 nm)	0.0497 (ppm)	0.30	0.0497 (ppm)	985.1843
12/18/2015 23:09:00	Contract Required Detection Limit	Y (360.074 nm)	1.01 (Ratio)	1.89	1.01 (Ratio)	590630.81
12/18/2015 23:09:00	Contract Required Detection Limit	Y_R (360.074 nm)	1.01 (Ratio)	0.18	1.01 (Ratio)	246465.77
12/18/2015 23:09:00	Contract Required Detection Limit	Zn (213.857 nm)	0.0198 (ppm)	1.73	0.0198 (ppm)	248.1466
12/18/2015 23:12:30	Interference Check Solution A	Ag (328.068 nm)	0.0001 u (ppm)	> 100.00	0.0001 (ppm)	14.8589
12/18/2015 23:12:30	Interference Check Solution A	Al (394.401 nm)	195.5904 (ppm)	0.86	195.5904 (ppm)	2075685.0226
12/18/2015 23:12:30	Interference Check Solution A	Al (394.401 nm)	245.2237 o (ppm)	0.88	245.2237 (ppm)	2105789.0772
12/18/2015 23:12:30	Interference Check Solution A	As (188.980 nm)	0.0039 u (ppm)	> 100.00	0.0039 (ppm)	3.9940
12/18/2015 23:12:30	Interference Check Solution A	B (249.772 nm)	-0.0367 u (ppm)	0.91	-0.0367 (ppm)	-408.4064
12/18/2015 23:12:30	Interference Check Solution A	Ba (230.424 nm)	-0.0232 u (ppm)	0.26	-0.0232 (ppm)	23.3110
12/18/2015 23:12:30	Interference Check Solution A	Be (313.107 nm)	-0.0005 u (ppm)	2.33	-0.0005 (ppm)	-68.7002
12/18/2015 23:12:30	Interference Check Solution A	Ca (227.547 nm)	165.5733 (ppm)	0.88	165.5733 (ppm)	5999.5446
12/18/2015 23:12:30	Interference Check Solution A	Ca (227.547 nm)	256.1350 o (ppm)	0.93	256.1350 (ppm)	6124.4477
12/18/2015 23:12:30	Interference Check Solution A	Cd (214.439 nm)	-0.0011 Ku (ppm)	3.72	-0.0011 (ppm)	-25.4089 K
12/18/2015 23:12:30	Interference Check Solution A	Co (230.786 nm)	-0.0059 Ku (ppm)	12.60	-0.0059 (ppm)	-34.1195 K
12/18/2015 23:12:30	Interference Check Solution A	Cr (267.716 nm)	-0.0016 Ku (ppm)	12.54	-0.0016 (ppm)	2.7569 K
12/18/2015 23:12:30	Interference Check Solution A	Cu (327.395 nm)	-0.0035 u (ppm)	4.81	-0.0035 (ppm)	13.6129
12/18/2015 23:12:30	Interference Check Solution A	Fe (234.350 nm)	69.4489 (ppm)	0.79	69.4489 (ppm)	527549.4717
12/18/2015 23:12:30	Interference Check Solution A	Fe (234.350 nm)	88.6976 o (ppm)	0.81	88.6976 (ppm)	556610.9978
12/18/2015 23:12:30	Interference Check Solution A	K (766.491 nm)	0.0471 (ppm)	62.25	0.0471 (ppm)	-25.0452
12/18/2015 23:12:30	Interference Check Solution A	Mg (279.078 nm)	167.3601 (ppm)	0.79	167.3601 (ppm)	303214.1478
12/18/2015 23:12:30	Interference Check Solution A	Mg (279.078 nm)	239.6308 o (ppm)	0.82	239.6308 (ppm)	322660.4821
12/18/2015 23:12:30	Interference Check Solution A	Mn (257.610 nm)	-0.0030 u (ppm)	1.29	-0.0030 (ppm)	158.5258
12/18/2015 23:12:30	Interference Check Solution A	Mo (202.032 nm)	-0.0070 u (ppm)	4.54	-0.0070 (ppm)	-1.8948
12/18/2015 23:12:30	Interference Check Solution A	Na (588.995 nm)	0.3329 (ppm)	4.06	0.3329 (ppm)	-4624.9970
12/18/2015 23:12:30	Interference Check Solution A	Ni (230.299 nm)	-0.0085 Ku (ppm)	23.57	-0.0085 (ppm)	-13.4183 K
12/18/2015 23:12:30	Interference Check Solution A	Pb (220.353 nm)	-0.0039 u (ppm)	> 100.00	-0.0039 (ppm)	-19.7668
12/18/2015 23:12:30	Interference Check Solution A	Sb (217.582 nm)	-0.0178 Ku (ppm)	45.84	-0.0178 (ppm)	7.4988 K
12/18/2015 23:12:30	Interference Check Solution A	Se (196.026 nm)	-0.0047 u (ppm)	41.09	-0.0047 (ppm)	-1.5406
12/18/2015 23:12:30	Interference Check Solution A	Sn (189.925 nm)	-0.0139 u (ppm)	11.20	-0.0139 (ppm)	1.1437
12/18/2015 23:12:30	Interference Check Solution A	Sr (460.733 nm)	0.0205 (ppm)	19.69	0.0205 (ppm)	-11.2307
12/18/2015 23:12:30	Interference Check Solution A	Ti (336.122 nm)	-0.0086 u (ppm)	0.73	-0.0086 (ppm)	-146.5563
12/18/2015 23:12:30	Interference Check Solution A	Tl (351.923 nm)	0.0015 u (ppm)	> 100.00	0.0015 (ppm)	-5.2618
12/18/2015 23:12:30	Interference Check Solution A	V (292.401 nm)	-0.0079 Ku (ppm)	1.93	-0.0079 (ppm)	-45.9652 K
12/18/2015 23:12:30	Interference Check Solution A	Y (360.074 nm)	0.91 (Ratio)	0.74	0.91 (Ratio)	532075.26
12/18/2015 23:12:30	Interference Check Solution A	Y_R (360.074 nm)	0.93 (Ratio)	0.07	0.93 (Ratio)	228435.17
12/18/2015 23:12:30	Interference Check Solution A	Zn (213.857 nm)	-0.0082 u (ppm)	0.87	-0.0082 (ppm)	151.9298
12/18/2015 23:15:59	Interference Check Solution AB	Ag (328.068 nm)	0.2048 (ppm)	0.69	0.2048 (ppm)	7986.7375

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 23:15:59	Interference Check Solution AB	Al (394.401 nm)	197.3675 (ppm)	0.85	197.3675 (ppm)	2094543.2693
12/18/2015 23:15:59	Interference Check Solution AB	Al (394.401 nm)	247.6241 o (ppm)	0.83	247.6241 (ppm)	2126395.9154
12/18/2015 23:15:59	Interference Check Solution AB	As (188.980 nm)	0.0979 (ppm)	4.58	0.0979 (ppm)	53.5346
12/18/2015 23:15:59	Interference Check Solution AB	B (249.772 nm)	-0.0356 u (ppm)	1.34	-0.0356 (ppm)	-392.2659
12/18/2015 23:15:59	Interference Check Solution AB	Ba (230.424 nm)	0.4836 (ppm)	1.07	0.4836 (ppm)	7687.9187
12/18/2015 23:15:59	Interference Check Solution AB	Be (313.107 nm)	0.4905 (ppm)	0.77	0.4905 (ppm)	429621.3613
12/18/2015 23:15:59	Interference Check Solution AB	Ca (227.547 nm)	167.0357 (ppm)	0.73	167.0357 (ppm)	6052.5322
12/18/2015 23:15:59	Interference Check Solution AB	Ca (227.547 nm)	258.3085 o (ppm)	0.84	258.3085 (ppm)	6176.4064
12/18/2015 23:15:59	Interference Check Solution AB	Cd (214.439 nm)	0.9440 (ppm)	0.71	0.9440 (ppm)	10035.0273
12/18/2015 23:15:59	Interference Check Solution AB	Co (230.786 nm)	0.4618 (ppm)	0.78	0.4618 (ppm)	2204.5302
12/18/2015 23:15:59	Interference Check Solution AB	Cr (267.716 nm)	0.4924 (ppm)	0.65	0.4924 (ppm)	11425.5633
12/18/2015 23:15:59	Interference Check Solution AB	Cu (327.395 nm)	0.5066 (ppm)	0.83	0.5066 (ppm)	15389.5269
12/18/2015 23:15:59	Interference Check Solution AB	Fe (234.350 nm)	69.9168 (ppm)	0.76	69.9168 (ppm)	531103.8435
12/18/2015 23:15:59	Interference Check Solution AB	Fe (234.350 nm)	89.6804 o (ppm)	0.71	89.6804 (ppm)	562772.1221
12/18/2015 23:15:59	Interference Check Solution AB	K (766.491 nm)	0.0289 (ppm)	66.78	0.0289 (ppm)	-72.5382
12/18/2015 23:15:59	Interference Check Solution AB	Mg (279.078 nm)	168.4061 (ppm)	0.79	168.4061 (ppm)	305109.1618
12/18/2015 23:15:59	Interference Check Solution AB	Mg (279.078 nm)	242.1156 o (ppm)	0.78	242.1156 (ppm)	326005.8288
12/18/2015 23:15:59	Interference Check Solution AB	Mn (257.610 nm)	0.4880 (ppm)	0.75	0.4880 (ppm)	59605.4749
12/18/2015 23:15:59	Interference Check Solution AB	Mo (202.032 nm)	-0.0071 u (ppm)	1.27	-0.0071 (ppm)	-2.1369
12/18/2015 23:15:59	Interference Check Solution AB	Na (588.995 nm)	0.3374 (ppm)	4.19	0.3374 (ppm)	-4551.6868
12/18/2015 23:15:59	Interference Check Solution AB	Ni (230.299 nm)	0.9362 (ppm)	0.88	0.9362 (ppm)	2898.7736
12/18/2015 23:15:59	Interference Check Solution AB	Pb (220.353 nm)	0.0497 (ppm)	2.93	0.0497 (ppm)	31.6403
12/18/2015 23:15:59	Interference Check Solution AB	Sb (217.582 nm)	0.5727 (ppm)	2.85	0.5727 (ppm)	336.2708
12/18/2015 23:15:59	Interference Check Solution AB	Se (196.026 nm)	0.0446 (ppm)	5.82	0.0446 (ppm)	15.6732
12/18/2015 23:15:59	Interference Check Solution AB	Sn (189.925 nm)	-0.0194 u (ppm)	3.39	-0.0194 (ppm)	-2.5733
12/18/2015 23:15:59	Interference Check Solution AB	Sr (460.733 nm)	0.0196 (ppm)	21.27	0.0196 (ppm)	-25.2675
12/18/2015 23:15:59	Interference Check Solution AB	Ti (336.122 nm)	-0.0088 u (ppm)	0.42	-0.0088 (ppm)	-167.9620
12/18/2015 23:15:59	Interference Check Solution AB	Tl (351.923 nm)	0.1046 (ppm)	3.33	0.1046 (ppm)	162.1715
12/18/2015 23:15:59	Interference Check Solution AB	V (292.401 nm)	0.4681 (ppm)	0.41	0.4681 (ppm)	9046.9049
12/18/2015 23:15:59	Interference Check Solution AB	Y (360.074 nm)	0.91 (Ratio)	0.93	0.91 (Ratio)	532306.28
12/18/2015 23:15:59	Interference Check Solution AB	Y_R (360.074 nm)	0.93 (Ratio)	0.11	0.93 (Ratio)	228739.02
12/18/2015 23:15:59	Interference Check Solution AB	Zn (213.857 nm)	0.9641 (ppm)	0.77	0.9641 (ppm)	12291.2015
12/18/2015 23:19:28	Continuing Calibration Verification1	Ag (328.068 nm)	0.4700 (ppm)	1.19	0.4700 (ppm)	18310.7066
12/18/2015 23:19:28	Continuing Calibration Verification1	Al (394.401 nm)	7.4184 (ppm)	1.30	7.4184 (ppm)	78872.6329
12/18/2015 23:19:28	Continuing Calibration Verification1	Al (394.401 nm)	9.2957 (ppm)	1.30	9.2957 (ppm)	80165.4461
12/18/2015 23:19:28	Continuing Calibration Verification1	As (188.980 nm)	0.9560 (ppm)	1.78	0.9560 (ppm)	505.4553
12/18/2015 23:19:28	Continuing Calibration Verification1	B (249.772 nm)	2.3614 (ppm)	1.10	2.3614 (ppm)	31456.2144
12/18/2015 23:19:28	Continuing Calibration Verification1	Ba (230.424 nm)	9.9533 (ppm)	1.96	9.9533 (ppm)	150482.8843
12/18/2015 23:19:28	Continuing Calibration Verification1	Be (313.107 nm)	0.2476 (ppm)	1.11	0.2476 (ppm)	216655.3548
12/18/2015 23:19:28	Continuing Calibration Verification1	Ca (227.547 nm)	15.5262 (ppm)	1.25	15.5262 (ppm)	562.7886
12/18/2015 23:19:28	Continuing Calibration Verification1	Ca (227.547 nm)	23.8440 (ppm)	1.45	23.8440 (ppm)	567.6197
12/18/2015 23:19:28	Continuing Calibration Verification1	Cd (214.439 nm)	0.4943 (ppm)	0.97	0.4943 (ppm)	5264.4997
12/18/2015 23:19:28	Continuing Calibration Verification1	Co (230.786 nm)	2.3980 (ppm)	0.77	2.3980 (ppm)	11479.0279
12/18/2015 23:19:28	Continuing Calibration Verification1	Cr (267.716 nm)	0.5066 (ppm)	1.09	0.5066 (ppm)	11711.9786
12/18/2015 23:19:28	Continuing Calibration Verification1	Cu (327.395 nm)	1.1828 (ppm)	1.17	1.1828 (ppm)	35679.8462
12/18/2015 23:19:28	Continuing Calibration Verification1	Fe (234.350 nm)	3.8185 (ppm)	1.33	3.8185 (ppm)	29052.9090
12/18/2015 23:19:28	Continuing Calibration Verification1	Fe (234.350 nm)	4.8742 (ppm)	1.37	4.8742 (ppm)	30668.8841
12/18/2015 23:19:28	Continuing Calibration Verification1	K (766.491 nm)	24.1766 (ppm)	0.53	24.1766 (ppm)	61886.9211
12/18/2015 23:19:28	Continuing Calibration Verification1	Mg (279.078 nm)	16.4600 (ppm)	1.21	16.4600 (ppm)	29838.7469
12/18/2015 23:19:28	Continuing Calibration Verification1	Mg (279.078 nm)	23.5286 (ppm)	1.23	23.5286 (ppm)	31698.4089
12/18/2015 23:19:28	Continuing Calibration Verification1	Mn (257.610 nm)	0.7450 (ppm)	1.14	0.7450 (ppm)	90245.4795

Date Time	Label	Element Label (nm)	Conc	%RSD	Unadjusted Conc	Intensity
12/18/2015 23:19:28	Continuing Calibration Verification1	Mo (202.032 nm)	2.4131 (ppm)	1.24	2.4131 (ppm)	10555.4704
12/18/2015 23:19:28	Continuing Calibration Verification1	Na (588.995 nm)	24.4030 (ppm)	0.37	24.4030 (ppm)	663554.4831
12/18/2015 23:19:28	Continuing Calibration Verification1	Ni (230.299 nm)	2.0103 (ppm)	1.06	2.0103 (ppm)	6188.4185
12/18/2015 23:19:28	Continuing Calibration Verification1	Pb (220.353 nm)	0.4912 (ppm)	1.07	0.4912 (ppm)	474.7322
12/18/2015 23:19:28	Continuing Calibration Verification1	Sb (217.582 nm)	4.8217 (ppm)	0.89	4.8217 (ppm)	2685.9198
12/18/2015 23:19:28	Continuing Calibration Verification1	Se (196.026 nm)	0.4765 (ppm)	1.66	0.4765 (ppm)	167.0202
12/18/2015 23:19:28	Continuing Calibration Verification1	Sn (189.925 nm)	4.8429 (ppm)	0.99	4.8429 (ppm)	3332.0309
12/18/2015 23:19:28	Continuing Calibration Verification1	Sr (460.733 nm)	2.4470 (ppm)	0.53	2.4470 (ppm)	32201.4425
12/18/2015 23:19:28	Continuing Calibration Verification1	Ti (336.122 nm)	2.3988 (ppm)	1.23	2.3988 (ppm)	301595.5305
12/18/2015 23:19:28	Continuing Calibration Verification1	Tl (351.923 nm)	0.9689 (ppm)	0.91	0.9689 (ppm)	1563.7398
12/18/2015 23:19:28	Continuing Calibration Verification1	V (292.401 nm)	2.4309 (ppm)	0.85	2.4309 (ppm)	46468.9808
12/18/2015 23:19:28	Continuing Calibration Verification1	Y (360.074 nm)	0.98 (Ratio)	1.30	0.98 (Ratio)	572611.92
12/18/2015 23:19:28	Continuing Calibration Verification1	Y_R (360.074 nm)	0.98 (Ratio)	0.52	0.98 (Ratio)	240482.35
12/18/2015 23:19:28	Continuing Calibration Verification1	Zn (213.857 nm)	0.9885 (ppm)	1.10	0.9885 (ppm)	12358.0067
12/18/2015 23:22:56	Continuing Calibration Blank1	Ag (328.068 nm)	0.0002 u (ppm)	> 100.00	0.0002 (ppm)	16.1928
12/18/2015 23:22:56	Continuing Calibration Blank1	Al (394.401 nm)	-0.0054 u (ppm)	25.74	-0.0054 (ppm)	94.2875
12/18/2015 23:22:56	Continuing Calibration Blank1	Al (394.401 nm)	-0.0069 u (ppm)	29.37	-0.0069 (ppm)	125.4683
12/18/2015 23:22:56	Continuing Calibration Blank1	As (188.980 nm)	-0.0024 u (ppm)	> 100.00	-0.0024 (ppm)	0.2277
12/18/2015 23:22:56	Continuing Calibration Blank1	B (249.772 nm)	0.0021 (ppm)	21.51	0.0021 (ppm)	40.0595
12/18/2015 23:22:56	Continuing Calibration Blank1	Ba (230.424 nm)	0.0018 (ppm)	21.48	0.0018 (ppm)	36.2707
12/18/2015 23:22:56	Continuing Calibration Blank1	Be (313.107 nm)	0.0000 (ppm)	33.76	0.0000 (ppm)	-13.4131
12/18/2015 23:22:56	Continuing Calibration Blank1	Ca (227.547 nm)	0.0403 u (ppm)	> 100.00	0.0403 (ppm)	1.6753
12/18/2015 23:22:56	Continuing Calibration Blank1	Ca (227.547 nm)	0.1312 u (ppm)	> 100.00	0.1312 (ppm)	0.6861
12/18/2015 23:22:56	Continuing Calibration Blank1	Cd (214.439 nm)	0.0000 u (ppm)	> 100.00	0.0000 (ppm)	2.4957
12/18/2015 23:22:56	Continuing Calibration Blank1	Co (230.786 nm)	0.0005 u (ppm)	> 100.00	0.0005 (ppm)	3.0574
12/18/2015 23:22:56	Continuing Calibration Blank1	Cr (267.716 nm)	0.0001 (ppm)	95.27	0.0001 (ppm)	-0.4624
12/18/2015 23:22:56	Continuing Calibration Blank1	Cu (327.395 nm)	0.0002 (ppm)	46.36	0.0002 (ppm)	29.7991
12/18/2015 23:22:56	Continuing Calibration Blank1	Fe (234.350 nm)	-0.0021 u (ppm)	27.70	-0.0021 (ppm)	33.2528
12/18/2015 23:22:56	Continuing Calibration Blank1	Fe (234.350 nm)	-0.0028 u (ppm)	23.64	-0.0028 (ppm)	31.2415
12/18/2015 23:22:56	Continuing Calibration Blank1	K (766.491 nm)	-0.0180 u (ppm)	86.05	-0.0180 (ppm)	-85.6465
12/18/2015 23:22:56	Continuing Calibration Blank1	Mg (279.078 nm)	-0.0034 u (ppm)	58.91	-0.0034 (ppm)	13.1391
12/18/2015 23:22:56	Continuing Calibration Blank1	Mg (279.078 nm)	-0.0067 u (ppm)	17.94	-0.0067 (ppm)	13.4419
12/18/2015 23:22:56	Continuing Calibration Blank1	Mn (257.610 nm)	0.0002 (ppm)	25.69	0.0002 (ppm)	25.8318
12/18/2015 23:22:56	Continuing Calibration Blank1	Mo (202.032 nm)	0.0010 (ppm)	37.93	0.0010 (ppm)	6.7216
12/18/2015 23:22:56	Continuing Calibration Blank1	Na (588.995 nm)	0.0177 (ppm)	4.09	0.0177 (ppm)	-6738.9924
12/18/2015 23:22:56	Continuing Calibration Blank1	Ni (230.299 nm)	0.0011 (ppm)	38.77	0.0011 (ppm)	-6.3949
12/18/2015 23:22:56	Continuing Calibration Blank1	Pb (220.353 nm)	0.0006 u (ppm)	> 100.00	0.0006 (ppm)	3.4838
12/18/2015 23:22:56	Continuing Calibration Blank1	Sb (217.582 nm)	-0.0023 u (ppm)	> 100.00	-0.0023 (ppm)	0.1510
12/18/2015 23:22:56	Continuing Calibration Blank1	Se (196.026 nm)	0.0011 u (ppm)	> 100.00	0.0011 (ppm)	0.8428
12/18/2015 23:22:56	Continuing Calibration Blank1	Sn (189.925 nm)	0.0007 u (ppm)	> 100.00	0.0007 (ppm)	0.7313
12/18/2015 23:22:56	Continuing Calibration Blank1	Sr (460.733 nm)	0.0017 u (ppm)	> 100.00	0.0017 (ppm)	88.9381
12/18/2015 23:22:56	Continuing Calibration Blank1	Ti (336.122 nm)	0.0004 (ppm)	33.71	0.0004 (ppm)	24.5028
12/18/2015 23:22:56	Continuing Calibration Blank1	Tl (351.923 nm)	0.0008 u (ppm)	> 100.00	0.0008 (ppm)	-9.2393
12/18/2015 23:22:56	Continuing Calibration Blank1	V (292.401 nm)	0.0005 (ppm)	63.02	0.0005 (ppm)	44.9788
12/18/2015 23:22:56	Continuing Calibration Blank1	Y (360.074 nm)	1.01 (Ratio)	2.69	1.01 (Ratio)	589181.07
12/18/2015 23:22:56	Continuing Calibration Blank1	Y_R (360.074 nm)	1.00 (Ratio)	0.60	1.00 (Ratio)	245974.65
12/18/2015 23:22:56	Continuing Calibration Blank1	Zn (213.857 nm)	0.0001 (ppm)	> 100.00	0.0001 (ppm)	1.6033

Report Date: Saturday, December 19, 2015 6:50 AM
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Ag (328.068 nm)
Intensity = 38938.8253 * Concentration + 9.1755
Correlation coefficient: 1.00000

Al (394.401 nm)
Intensity = 10611.6321 * Concentration + 151.4898
Correlation coefficient: 1.00000

Al (394.401 nm)
Intensity = 8574.1827 * Concentration + 183.7426
Correlation coefficient: 0.99995

As (188.980 nm)
Intensity = 527.0568 * Concentration + 1.4937
Correlation coefficient: 1.00000

B (249.772 nm)
Intensity = 13312.8506 * Concentration + 12.0958
Correlation coefficient: 0.99999

Ba (230.424 nm)
Intensity = 15116.4284 * Concentration + 8.5014
Correlation coefficient: 0.99996

Be (313.107 nm)
Intensity = 874986.4859 * Concentration - 40.5396
Correlation coefficient: 1.00000

Ca (227.547 nm)
Intensity = 36.2337 * Concentration + 0.2162
Correlation coefficient: 1.00000

Cd (214.439 nm)
Intensity = 10644.3562 * Concentration + 2.9725
Correlation coefficient: 0.99998

Co (230.786 nm)
Intensity = 4786.9317 * Concentration + 0.5912
Correlation coefficient: 0.99998

Cr (267.716 nm)
Intensity = 23120.8431 * Concentration - 2.2978
Correlation coefficient: 0.99999

Cu (327.395 nm)
Intensity = 30142.2916 * Concentration + 23.4500
Correlation coefficient: 0.99999

Fe (234.350 nm)
Intensity = 7595.5197 * Concentration + 49.1507
Correlation coefficient: 1.00000

Fe (234.350 nm)
Intensity = 6254.1138 * Concentration + 48.7354
Correlation coefficient: 0.99999

K (766.491 nm)
Intensity = 2561.6541 * Concentration - 39.6060
Correlation coefficient: 1.00000

Mg (279.078 nm)
Intensity = 1811.6318 * Concentration + 19.2343
Correlation coefficient: 1.00000

Mg (279.078 nm)
Intensity = 1345.9380 * Concentration + 22.3916
Correlation coefficient: 1.00000

Mn (257.610 nm)
Intensity = 121078.2056 * Concentration + 5.9507
Correlation coefficient: 0.99998

Mo (202.032 nm)
Intensity = 4372.5279 * Concentration + 2.2344
Correlation coefficient: 1.00000

Na (588.995 nm)
Intensity = 27508.6781 * Concentration - 7226.5836
Correlation coefficient: 1.00000

Ni (230.299 nm)
Intensity = 3082.6016 * Concentration - 9.7526
Correlation coefficient: 0.99997

Pb (220.353 nm)
Intensity = 962.3741 * Concentration + 2.8818
Correlation coefficient: 0.99999

Sb (217.582 nm)
Intensity = 556.5614 * Concentration + 1.4287
Correlation coefficient: 1.00000

Se (196.026 nm)
Intensity = 349.5050 * Concentration + 0.4454
Correlation coefficient: 1.00000

Sn (189.925 nm)
Intensity = 687.8716 * Concentration + 0.2210
Correlation coefficient: 0.99999

Sr (460.733 nm)
Intensity = 13138.5150 * Concentration + 67.0703
Correlation coefficient: 1.00000

Ti (336.122 nm)
Intensity = 125700.6420 * Concentration - 29.8272
Correlation coefficient: 0.99994

Tl (351.923 nm)
Intensity = 1624.6787 * Concentration - 10.5954
Correlation coefficient: 0.99988

V (292.401 nm)
Intensity = 19099.0834 * Concentration + 36.0553
Correlation coefficient: 1.00000

Zn (213.857 nm)
Intensity = 12482.8117 * Concentration + 0.8661
Correlation coefficient: 1.00000

Ca (227.547 nm)
Intensity = 23.8559 * Concentration - 2.4436
Correlation coefficient: 0.99998

Ag (328.068 nm)

Al (394.401 nm)
Intensity = 10611.6321 * Concentration + 151.4898
Correlation coefficient: 1.00000

Al (394.401 nm)

As (188.980 nm)

B (249.772 nm)

Ba (230.424 nm)

Be (313.107 nm)

Ca (227.547 nm)
Intensity = 36.2337 * Concentration + 0.2162
Correlation coefficient: 1.00000

Cd (214.439 nm)

Co (230.786 nm)

Cr (267.716 nm)

Cu (327.395 nm)

Fe (234.350 nm)
Intensity = 7595.5197 * Concentration + 49.1507
Correlation coefficient: 1.00000

Fe (234.350 nm)

K (766.491 nm)

Mg (279.078 nm)
Intensity = 1811.6318 * Concentration + 19.2343
Correlation coefficient: 1.00000

Mg (279.078 nm)

Mn (257.610 nm)

Mo (202.032 nm)

Na (588.995 nm)

Ni (230.299 nm)

Pb (220.353 nm)

Sb (217.582 nm)

Se (196.026 nm)

Sn (189.925 nm)

Sr (460.733 nm)

Ti (336.122 nm)

Tl (351.923 nm)

V (292.401 nm)

Zn (213.857 nm)

Ca (227.547 nm)

Preparation Information Benchsheet

Prep Run#: 251481 **Prep WorkFlow:** MetDigAqICP **Status:** Prepped
Team: Metals/CGILDAY **Prep Method:** EPA 3005A/3010A **Prep Date/Time:** 12/7/15 12:39 PM

#	Lab Code	Client ID	B#	Amt. Ext.	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ1515068-03	MB		50mL	200.7/Ag T, Al T, As T, Ca T, Co T, Cr T, Cu T, Fe T, Mg T, Mo T, Na T, Ni T, Pb T, Pd T, Sn T, Ti T, W T, Zn T, 6010C/Ag D DOD, Ag T DOD, Al D DOD, Al T DOD, As D DOD, As T DOD, Ba D DOD, Ba T DOD, Be D DOD, Be T DOD, Ca D DOD, Ca T DOD, Cd D DOD, Cd T DOD, Co D DOD, Co T DOD, Cr D DOD, Cr T DOD, Cu D DOD, Cu T DOD, Fe D DOD, Fe T DOD, K D DOD, K T DOD, Mg D DOD, Mg T DOD, Mn D DOD, Mn T DOD, Na D DOD, Na T DOD, Ni D DOD, Ni T DOD, Pb D DOD, Pb T DOD, Sb D DOD, Sb T DOD, Se D DOD, Se T DOD, Tl D DOD, Tl T DOD, V D DOD, V T DOD, Zn D DOD, Zn T DOD				50.00mL	colorless-clear		Hot Block #7 Well E3 Temp: 93 C Correction Factor: 0.0 Corrected temp: 93 C
2	RQ1515068-04	LCS		50mL	200.7/Ag T, Al T, As T, Ca T, Co T, Cr T, Cu T, Fe T, Mg T, Mo T, Na T, Ni T, Pb T, Pd T, Sn T, Ti T, W T, Zn T, 6010C/Ag D DOD, Ag T DOD, Al D DOD, Al T DOD, As D DOD, As T DOD, Ba D DOD, Ba T DOD, Be D DOD, Be T DOD, Ca D DOD, Ca T DOD, Cd D DOD, Cd T DOD, Co D DOD, Co T DOD, Cr D DOD, Cr T DOD, Cu D DOD, Cu T DOD, Fe D DOD, Fe T DOD, K D DOD, K T DOD, Mg D DOD, Mg T DOD, Mn D DOD, Mn T DOD, Na D DOD, Na T DOD, Ni D DOD, Ni T DOD, Pb D DOD, Pb T DOD, Sb D DOD, Sb T DOD, Se D DOD, Se T DOD, Tl D DOD, Tl T DOD, V D DOD, V T DOD, Zn D DOD, Zn T DOD				50.00mL	colorless-clear	0.0500 mL/74566; 0.5000 mL/82347; 0.2500 mL/86036; 0.5000 mL/82346	
3	R1510346-008	FTMM-53-GW-699RW11-12.8	.04	50mL	6010C/Pb T DOD				50.00mL	colorless-clear		Tier IV DoD
4	RQ1515068-01	R1510346-008 MS	.04	50mL	6010C/Pb T DOD				50.00mL	colorless-clear	0.2500 mL/86036; 0.5000 mL/82346; 0.0500 mL/74566; 0.5000 mL/82347	
5	RQ1515068-02	R1510346-008 DUP	.04	50mL	6010C/Pb T DOD				50.00mL	colorless-clear		

Preparation Information Benchsheet

Prep Run#: 251481 **Prep WorkFlow:** MetDigAqICP **Status:** Prepped
Team: Metals/CGILDAY **Prep Method:** EPA 3005A/3010A **Prep Date/Time:** 12/7/15 12:39 PM

6	R1510346-009	FTMM-53-GW-699RW11-12.8 Dissolved	.01	50mL	6010C/Pb D DOD				50.00mL	colorless-clear		
7	R1510346-010	FTMM-53-GW-699MW06-8.5	.04	50mL	6010C/Pb T DOD				50.00mL	colorless-clear		
8	R1510346-011	FTMM-53-GW-699MW06-8.5 Dissolved	.01	50mL	6010C/Pb D DOD				50.00mL	colorless-clear		
9	R1510346-014	FTMM-8-GW-M2MW11-21.5	.04	50mL	6010C/Pb T DOD				50.00mL	gray-cloudy		
10	R1510346-015	FTMM-8-GW-M2MW11-21.5 Dissolved	.01	50mL	6010C/Pb D DOD				50.00mL	colorless-clear		
11	R1510346-017	EB-2015-11-24	.04	50mL	6010C/Ag T DOD, Al T DOD, As T DOD, Ba T DOD, Be T DOD, Ca T DOD, Cd T DOD, Co T DOD, Cr T DOD, Cu T DOD, Fe T DOD, K T DOD, Mg T DOD, Mn T DOD, Na T DOD, Ni T DOD, Pb T DOD, Sb T DOD, Se T DOD, Tl T DOD, V T DOD, Zn T DOD				50.00mL	colorless-clear		
12	R1510346-018	EB-2015-11-24 Dissolved	.01	50mL	6010C/Ag D DOD, Al D DOD, As D DOD, Ba D DOD, Be D DOD, Ca D DOD, Cd D DOD, Co D DOD, Cr D DOD, Cu D DOD, Fe D DOD, K D DOD, Mg D DOD, Mn D DOD, Na D DOD, Ni D DOD, Pb D DOD, Sb D DOD, Se D DOD, Tl D DOD, V D DOD, Zn D DOD				50.00mL	colorless-clear		
13	R1510346-019	EB-2015-11-25	.04	50mL	6010C/Pb T DOD				50.00mL	colorless-clear		
14	R1510346-020	EB-2015-11-25 Dissolved	.01	50mL	6010C/Pb D DOD				50.00mL	colorless-clear		

Spiking Solutions

Name:	Selenium 1000 ug/mL Se	Inventory ID	74566	Logbook Ref:	M5280040P	Expires On:	03/03/2016	Lot #:	1408440
Name:	Custom LCS STD A Metals	Inventory ID	82346	Logbook Ref:	M7080002F	Expires On:	06/12/2016	Lot #:	15F089
Name:	Custom LCS STD B Metals	Inventory ID	82347	Logbook Ref:	M7080002G	Expires On:	06/12/2016	Lot #:	15F092
Name:	Tin 1000 ug/mL Sn	Inventory ID	86036	Logbook Ref:	M7080005D	Expires On:	05/05/2017	Lot #:	15J011

Preparation Materials

1:1 HCl Metals Grade	M7080005N (86048)	Hot Block Cups	50 mL Lot 1501179 (84721)	Nitric Acid Metals Grade HNO3	M7080004V (85537)
Thermometer	293 (12952)				

Preparation Information Benchsheet

Prep Run#: 251481
Team: Metals/CGILDAY

Prep WorkFlow: MetDigAqICP
Prep Method: EPA 3005A/3010A

Status: Prepped
Prep Date/Time: 12/7/15 12:39 PM

Preparation Steps

Step: Digestion
Started: 12/7/15 12:39
Finished: 12/8/15 15:28
By: CGILDAY
Comments

Comments: _____

Reviewed By: DBrad Date: 12/9/15 Spike Witness: ADOCKHAM Date: _____

Chain of Custody

Relinquished By: Caitlyn Gilday Date: 12/8/15
Received By: RAO1 Date: ↓

Extracts Examined
Yes No

OPTIMA 3,4,5 CALIBRATION STANDARD #1 (Standard is prepared weekly or as necessary)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Cal Std.1 Int.	AL	~~M7580005L~~	20.0	1.00	1000	0.020	2%HNO3 5%HCl	ARD 12/8/15	A	M7080041	M7080065N	12/5/15	M 26 M25
	AS	M7180001B	5.00			0.0050		AM 12/16/15	B	M7080041V	M7080065U	12/23/15	M 26 M25
	CD		1.00			0.0010			C				
	CO		3.00			0.0030			D				
	CR		1.00			0.0010			E				
	NI		5.00			0.0050			F				
	PB		5.00			0.0050			G				
	SE		5.00			0.0050			H				
	V		3.00			0.0030			I				
Cal Std. 1	CA	M7080001AA	5000	0.100		0.500			J				
	K		5000			BELOW			K				
	MG		5000			0.500			L				
	NA		5000			0.500			M				
Single Element	BA	M5280042V	1000	0.020		0.020			N				
	CU	M5280040O	1000	0.010		0.010			O				
	K	M5280041M	10000	0.150		2.00			P				
	MN	M7080001W	1000	0.010		0.010			Q				
	MO	M7080004M	1000	0.025		0.025			R				
	SB	M7080003K	1000	0.010		0.010			S				
	TL	M5280041O	1000	0.010		0.010			T				
	ZN	M5280043Q	1000	0.010		0.010			U				
	P	———	1000	0.100		0.100			V				
									W				
									X				
									Y				
									Z				

P:\INTRANET\QAQC\Forms Controlled\MetalsRunLog\Opt345 Standards Log\OPT345-CAL1 standard r0.doc 4/23/13

OPTIMA 3,4,5 CALIBRATION STANDARD #2
(Standard is prepared weekly or as necessary)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Single Element	AL	M5280043KE	1000	0.100	1000	0.100	2%HNO3	AM 11/2/15	A	M7080003C	M7080004K	11/9/15	M25 M30
	AS	M5280031FF	1000	0.010		0.010	5%HCl	ARD 11/10/15	B	M7080004V	M7080004K	11/17/15	M11 M28
	B	M5280044B	1000	0.200		0.200		AM 11/18/15	C	M7080004V	M7080004K	11/25/15	M25 M30
	BE (1/10)	M7080003M	100	0.030		0.003		DCB 11/25/15	D	M7080004V	M7080004K	12/2/15	M11 M26
	CA	M5280041C	10000	0.100		1.00		DCB 12/3/15	E	M7080004V	M7080005N	12/10/15	M11 M26
	CD (1/10)	M7080002A	100	0.050		0.005		ARD 12/11/15	F	M7080004V	M7080005N	12/18/15	M11 M26
	CU	M5280040O	1000	0.020		0.020			G				
	K	M5280041M	10000	0.200		2.00			H				
	MG	M7080003C	10000	0.100		1.00			I				
	NA	M5280040M	10000	0.100		1.00			J				
	SB	M7080003K	1000	0.060		0.060			K				
	SE	M5280040P	1000	0.010		0.010			L				
	SN	M7080001X	1000	0.500		0.500			M				
	PB	M7080001M	1000	0.050		0.005			N				
									O				
									P				
									Q				
									R				
									S				
									T				
									U				
									V				
									W				
									X				
									Y				
									Z				

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OPTIMA 3/4/5 CALIBRATION STANDARD #5 / HLCCV1 (Standard is prepared weekly or as necessary)

(CALIBRATION STANDARD #3 IS A 1/100 DILUTION OF THIS STANDARD)
(CALIBRATION STANDARD #4 IS A 1/5 DILUTION OF THIS STANDARD)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Cal Std 1	CA	m7080001AA	5000	5.00	500	50.0	2%HNO3	DAB 12/4/15	A	m7080004V	m7080005N	12/11/15	m26
	MG		5000			50.0	5%HCl	AZD 12/10/15	B	M7080004V	M7080005N	12/17/15	M26
	K		5000			50.0		AM 12/14/15	C	m7080004V	m7080005N	12/21/15	m26
	NA		5000			50.0			D				
Cal Std 2	AG	m7080002T	100	5.00		1.00			E				
	CR		100			1.00			F				
	MN		150			1.50			G				
	NI		400			4.00			H				
	ZN		200			2.00			I				
Cal Std 3	AL	m7080004C	2000	5.00		20.0			J				
	BA		2000			20.0			K				
	BE		50			0.500			L				
	CO		500			5.00			M				
	CU		250			2.50			N				
	FE		1000			10.0			O				
	V		500			5.00			P				
Cal Std 4	AS	m7080005J	100	10.00		2.00			Q				
	CD		50			1.00			R				
	PB		50			1.00			S				
	SE		50			1.00			T				
	TL		100			2.00			U				
Single Metals	SB	m7080007K	1000	5.00		10.0			V				
	SN	m7080001X	1000	5.00		10.0			W				
	B	m5280044B	1000	2.50		5.00			X				
	MO	m7080004M	1000	2.50		5.00			Y				
	TI	m5280044D	1000	2.50		5.00			Z				
	SR	m7080004M	1000	2.50		5.00			AA				
	P	—	1000	5.00		10.0			BB				

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OPTIMA 3/4/5 ICV/CCV (Standard is prepared daily)
(ICV FOR ILM5.3 IS A ½ DILUTION OF THIS STANDARD)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Pipet ID
Cal Std 1	CA	M7080003W	5000	1.00	200	25.0	2%HNO3	ARD 12/2/15	A	M7080004V	M7080005N	M26
	MG		5000			25.0	5%HCl	ARD 12/3/15	B	M7080004V	M7080005N	M26
	K		5000			25.0		ARD 12/4/15	C	M7080004V	M7080005N	M26
	NA		5000			25.0		DCB 12/5/15	D	M7080004V	M7080005N	M26
Cal Std 2	AG	M7080004T	100	1.00		0.500		DCB 12/6/15	E	M7080004V	M7080005N	M26
	CR		100			0.500		ARD 12/7/15	F	M7080004V	M7080005N	M26
	MN		150			0.750		ARD 12/8/15	G	M7080004V	M7080005N	M26
	NI		400			2.00		ARD 12/9/15	H	M7080004V	M7080005N	M26
	ZN		200			1.00		ARD 12/10/15	I	M7080004V	M7080005N	M26
Cal Std 3	AL	M7080003V	2000	1.00		10.0		AM 12/11/15	J	M7080004V	M7080005N	M26
	BA		2000			10.0		ARD 12/12/15	K	M7080004V	M7080005N	M26
	BE		50			0.250		ARD 12/14/15	L	M7080004V	M7080005N	M26
	CO		500			2.50		ARD 12/15/15	M	M7080004V	M7080005N	M26
	CU		250			1.25		AM 12/16/15	N	M7080004V	M7080005N	M30
	FE		1000			5.00		DCB 12/17/15	O	M7080004V	M7080005N	M30
	V		500			2.50		ARD 12/18/15	P	M7080004V	M7080005P	M26
Cal Std 4	AS	M7080004F	100	2.00		1.00			Q			
	CD		50			0.500			R			
	PB		50			0.500			S			
	SE		50			0.500			T			
	TL		100			1.00			U			
Single	SB	M7080003O	1000	1.00		5.00			V			
Metals	SN	M7080005D	1000	1.00		5.00			W			
	B	M5280042P	1000	0.500		2.50			X			
	MO	M5280042Q	1000	0.500		2.50			Y			
	TI	M5280042R	1000	0.500		2.50			Z			
	SR	M5280044E	1000	0.500		2.50			AA			
	P	———	1000	1.00		5.00			BB			

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OPTIMA 3/4 HLCCV2 (Standard is prepared every 2 weeks or as necessary)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Cal Std 2	AG	M708000 2T	100	2.00	100	2.00	2%HNO3	ARD 12/14/15	A	M708000 4V	M708000 4M	12/8/15	M26
	CR		100			Below	5%HCl	ARD 12/8/15	B	M708000 4V	M708000 5N	12/18/15 (Mod 12/16/15)	M26
	MN		150			Below		AM 12/11/15	C	M708000 4V	M708000 5N	12/25/15	M26
	NI		400			8.00			D				
	ZN		200			4.00			E				
Cal Std 3	AL	M708000 2U	2000	2.00		Below			F				
	BA		2000			40.0			G				
	BE		50			1.00			H				
	CO, V		500			10.0			I				
	CU		250			5.00			J				
	FE		1000			Below			K				
Cal Std 4	AS, TL	M708000 4D	100	4.00		4.00			L				
	CD, SE		50			2.00			M				
	PB		50			Below			N				
Single Metals	B	MS28 00443	1000	1.00		10.0			O				
	MO	M708000 4M	1000	1.00		10.0			P				
	TI	MS28000 44D	1000	1.00		10.0			Q				
	SR	M708000 4A	1000	1.00		10.0			R				
	CA	MS28004 1L	10000	2.50		250			S				
	MG	M708000 3L	10000	5.00		500			T				
	NA	MS28004 0M	10000	1.50		150			U				
	CR	M708000 3J	1000	0.800		10.0			V				
	FE	MS28004 0Q	10000	0.300		50			W				
	AL	MS28004 3K	10000	4.60		500			X				
	MN	M708 0001W	1000	0.700		10.00			Y				
	PB	M708000 1M	1000	0.800		10.0			Z				
	K	MS28004 1M	10000	1.50		150			AA				

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OPTIMA 3/4/5 MRL (Standard is prepared every 6 months or as needed)

	Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Cal Std 1	CA	M7080001AA	5000	0.200	1000	1.00	2%HNO3	AM 10/26/15	A	M7080003Z	M7080004K	4/28/16	M25 M30
	MG		5000			1.00	5%HCl	AM 10/30/15	B	M7080003Z	M7080004K	4/30/16	M25 M26
	K		5000			1.00		AM 11/13/15	C	M7080003Z/M7080004K	M7080004K	5/13/16	M25 M30
	NA		5000			1.00		ECB 11/26/15	D	M7080004V	M7080007R	5/29/16	M25 M26
Cal Std 2	AG	M7080003T	100	0.100		0.0100		AED 12/14/15	E	M7080004V	M7080005N	6/4/16	M26 M25
	CR		100			0.0100			F				
	MN		150			0.0150			G				
	NI		400			0.0400			H				
	ZN		200			0.0200			I				
Cal Std 3	AL	M7080003Y	2000	0.100		0.200			J				
	BA		2000			0.200			K				
	BE		50			0.0050			L				
	CO		500			0.0500			M				
	CU		250			0.0250			N				
	FE		1000			0.100			O				
	V		500			0.0500			P				
Cal Std 4	AS	M7080004D	100	0.200		0.0200			Q				
	CD		50			0.0100			R				
	PB		50			0.0100			S				
	SE		50			0.0100			T				
	TL		100			0.0200			U				
Single Metals	B	M5280044B	1000	0.200		0.200			V				
	MO	M7080004M	1000	0.025		0.0250			W				
	SN	M7080001X	1000	0.500		0.500			X				
	TI	M5280044D	1000	0.050		0.0500			Y				
	SB	M7080003K	1000	0.060		0.0600			Z				
	SR	M7086001N	1000	0.100		0.100			AA				
	P	—	1000	0.100		0.100			BB				

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OPTIMA 3 & 5 ICSA STANDARD (Standard is prepared every 6 months or as necessary)

Element	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot #	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Int. A Sol'n	M7080004L	Multi	50	1000	Multi	5% HCL	AM 11/19/15	A	M7080004W	M7080004K	5/10/16	—
AL		5000			250	2%HNO3	DCB 11/24/15	B	M7080004V	M7080004K	5/24/16	—
CA		5000			250		ARD 12/9/15	C	M7080004V	M7R0006N	6/9/16	—
FE		2000			100			D				
MG		5000			250			E				
								F				
								G				
								H				
								I				
								J				
								K				
								L				
								M				
								N				
								O				
								P				
								Q				
								R				
								S				
								T				
								U				
								V				

OPTIMA 3 & 5 ICSAB STANDARD (Standard is prepared every 6 months or as necessary)

Element	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot #	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Int. A Sol'n	M7080006AL	Multi	25	500	Multi	5 % HCl	AM 11/13/15	A	M7080003Z	M7080004M	5/3/16	—
AL		5000			250	2%HNO3	AM 11/10/15	B	M7080003Z	M7080004M	5/10/16	—
CA		5000			250		DCO 11/24/15	C	M7080004V	M7080004K	5/24/16	—
FE		2000			100			D				
MG		5000			250			E				
Int. B Sol'n	M7080003N	Multi	5		Multi			F				
AG		20			0.200			G				
BA		50			0.500			H				
BE		50			0.500			I				
CD		100			1.00			J				
CO		50			0.500			K				
CR		50			0.500			L				
CU		50			0.500			M				
MN		50			0.500			N				
NI		100			1.00			O				
PB		5			0.0500			P				
V		50			0.500			Q				
ZN		100			1.00			R				
AS		10			0.100			S				
SB		60			0.600			T				
SE		5			0.0500			U				
TL		10			0.100			V				

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OPTIMA 3/4 INTERNAL STANDARD (ADDED ON-LINE) (6mo.)

Metal	ALS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot #	Hydro-chloric Acid Lot #	Expiration Date	Pipet ID
Y	M708000 2L	10000	2.0	2000	10.0	5 % HCl 2%HNO3	AM 11/3/15	A	M708000 2L	M708000 4K	5/2/16	M30
CS	M708000 3K	10000	2.0		10.0		AM 11/3/15	B	M708000 3L	M708000 4K	5/4/16	M36
							AM 11/18/15	C	M708000 4V	M708000 4K	5/13/16	M32
							ARD 11/23/15	D	M708000 4V	M708000 4K	5/23/16	M26
							DCA 11/28/15	E	M708000 4V	M708000 4K	5/28/16	M26
							DCA 11/29/15	F	M708000 4V	M708000 4K	5/29/16	M26
							ARD 12/2/15	G	M708000 4V	M708005N	6/1/16	M26
							DCA 12/5/15	H	M708000 4V	M708005N	6/5/16	M26
							ARD 12/7/15	I	M708000 4V	M708005N	6/7/16	M26
							ARD 12/15/15	J	M708000 4V	M708005N	6/15/16	M26
								K				
								L				
								M				
								N				
								O				
								P				
								Q				
								R				
								S				
								T				
								V				

Metals Cover Page

Analyst: CL **Date:** 12/16/15 **Instrument:** FIMS02

Data File: DEC16W **Reviewed By:** CL **Entered By:** CL

Approval: _____

Starlims Run #	Analytes Used	Batch ID	Method	Failed Analytes	Repeats
476596	Hg	251958	7470/245		
476602	Hg	251971	7470		

Package Data:

Client Sub#	TIER	Analytes Used	Batch ID	Raw Data Copied?
R1510346	III / (IV) / ILM	Hg	251958	Yes / No
R1510427	III / (IV) / ILM	Hg	251958	Yes / No
R1510446	III / (IV) / ILM	Hg	251958	Yes / No
R1510410	(III) / IV / ILM	Hg	251971	Yes / No
	III / IV / ILM			Yes / No
	III / IV / ILM			Yes / No
	III / IV / ILM			Yes / No
	III / IV / ILM			Yes / No

Perkin Elmer FIMS Run Log

Serial number: 101S12110203

Analyst: CG Data File: DEC16W

Date Prepped: 12/16/15 Date Analyzed: 12/16/15

Lot #: Calibration/CRDL Source Standard: 5280042D ICV/CCV/LCS/MS Source Standard: N5280042C

Cal/ CRDL 10ppm stock: M7100082A ICV/CCV/LCS/MS 10ppm stock: M7100082A

Cal/ CRDL 0.1ppm stock: M7100082B ICV/CCV/LCS/MS 0.1 ppm stock: M7100032B

1	1	Calib Blank	37	58	R1510586-005S
2	2	0.2ppb std	38	59	R1510586-006
3	3	0.5ppb std	39	60	R1510594-001
4	4	1.0ppb std	40	61	R1510638-001
5	5	2.0ppb std	41	2	MRL
6	6	5.0ppb std	42	8	CCV
7	7	10.0ppb std	43	1	CCB
8	8	ICV	44	62	PBT-251971
9	1	ICB	45	63	LCST-251971
10	2	MRL	46	64	RQ1515239-01
11	8	CCV	47	65	RQ1515284-01
12	1	CCB	48	66	RQ1515284-02
13	38	PBW-251958	49	67	R1510410-001
14	39	LCSW-251958	50	68	R1510410-001D
15	40	R1510346-017	51	69	R1510410-001S
16	41	R1510346-018	52	70	R1510553-001
17	42	R1510419-001	53	8	CCV
18	43	R1510419-002	54	1	CCB
19	44	R1510419-003	55	71	R1510691-001
20	45	R1510419-004	56	72	RQ1515480-01
21	46	R1510419-005	57	73	R1510616-001
22	8	CCV	58	74	R1510701-001
23	1	CCB	59	75	R1510712-001
24	47	R1510426-003	60	2	MRL
25	48	R1510427-001	61	8	CCV
26	49	R1510427-002	62	1	CCB
27	50	R1510427-002D	63	76	Sample076
28	51	R1510427-002S			
29	52	R1510446-001			
30	53	R1510586-002			
31	54	R1510586-003			
32	55	R1510586-004			
33	8	CCV			
34	1	CCB			
35	56	R1510586-005			
36	57	R1510586-005D			

CG 12/16/15

Sequence No.: 1 Autosampler Location: 8
Sample ID: Sample008 Date Collected: 12/16/2015 1:29:53 PM
Analyst: Data Type: Original

Replicate Data: Sample008 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.803	2.803	0.0331	0.1248	0.0335	1:30:43 PM	Yes
2	2.749	2.749	0.0324	0.1227	0.0329	1:31:12 PM	Yes
Mean:	2.776	2.776	0.0328				
SD:	0.0384	0.0384	0.0005				
%RSD:	1.38%	1.38%	1.38				

Analysis Begun

Logged In Analyst: ALRCE Metals01 Technique: AA FIMS-MHS
Spectrometer: FIMS-100, S/N B050-9550 Autosampler: S10

Sample Information File: C:\Users\Public\PerkinElmer\AA\Data\Sample Information\Routine.sif
Batch ID: 249462
Results Data Set: Dec-16W
Results Library: C:\Users\Public\PerkinElmer\AA\Data\Results\NOV15.mdb

Sequence No.: 1 Autosampler Location: 8
Sample ID: Sample008 Date Collected: 12/16/2015 1:32:03 PM
Analyst: Data Type: Original

Replicate Data: Sample008 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.153	3.153	0.0372	0.1336	0.0376	1:32:52 PM	Yes
2	3.100	3.100	0.0366	0.1325	0.0370	1:33:21 PM	Yes
Mean:	3.127	3.127	0.0369				
SD:	0.0377	0.0377	0.0004				
%RSD:	1.20%	1.20%	1.20				

Analysis Begun

Logged In Analyst: ALRCE Metals01 Technique: AA FIMS-MHS
Spectrometer: FIMS-100, S/N B050-9550 Autosampler: S10

Sample Information File: C:\Users\Public\PerkinElmer\AA\Data\Sample Information\Routine.sif
Batch ID: 249462
Results Data Set: Dec-16W
Results Library: C:\Users\Public\PerkinElmer\AA\Data\Results\NOV15.mdb

Sequence No.: 1 Autosampler Location: 1
Sample ID: Calib Blank Date Collected: 12/16/2015 1:33:48 PM
Analyst: Data Type: Original

Replicate Data: Calib Blank Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0003	-0.0002	0.0003	1:34:38 PM	Yes
2		[0.00]	0.0004	0.0003	0.0004	1:35:06 PM	Yes
Mean:		[0.00]	0.0003				
SD:		0.0000	0.0001				
%RSD:		0.00%	22.07				

Method: Hg 7470-7471 **Page 7** **Date: 12/16/2015 3:54:29 PM**

Auto-zero performed.

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: 0.2ppb std **Date Collected: 12/16/2015 1:35:25 PM**
Analyst: **Data Type: Original**

Replicate Data: 0.2ppb std **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0023	0.0085	0.0026	1:36:14 PM	Yes
2		[0.2]	0.0022	0.0083	0.0025	1:36:43 PM	Yes
Mean:		[0.2]	0.0023				
SD:		0.000	0.0001				
%RSD:		0.00%	3.46				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01145 Intercept: 0.00000

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: 0.5ppb std **Date Collected: 12/16/2015 1:37:02 PM**
Analyst: **Data Type: Original**

Replicate Data: 0.5ppb std **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0058	0.0218	0.0061	1:37:52 PM	Yes
2		[0.5]	0.0057	0.0213	0.0060	1:38:21 PM	Yes
Mean:		[0.5]	0.0057				
SD:		0.000	0.0001				
%RSD:		0.00%	1.51				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999998 Slope: 0.01143 Intercept: 0.00000

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: 1.0ppb std **Date Collected: 12/16/2015 1:38:40 PM**
Analyst: **Data Type: Original**

Replicate Data: 1.0ppb std **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[1.0]	0.0115	0.0410	0.0118	1:39:30 PM	Yes
2		[1.0]	0.0115	0.0422	0.0118	1:40:00 PM	Yes
Mean:		[1.0]	0.0115				
SD:		0.000	0.0000				
%RSD:		0.00%	0.16				

Standard number 3 applied. [1.0]
Correlation Coef.: 0.999988 Slope: 0.01148 Intercept: 0.00000

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: 2.0ppb std **Date Collected: 12/16/2015 1:40:20 PM**
Analyst: **Data Type: Original**

Replicate Data: 2.0ppb std **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0245	0.0899	0.0248	1:41:10 PM	Yes
2		[2.0]	0.0241	0.0886	0.0244	1:41:39 PM	Yes
Mean:		[2.0]	0.0243				
SD:		0.000	0.0003				
%RSD:		0.00%	1.03				

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Standard number 4 applied. [2.0]
Correlation Coef.: 0.999181 Slope: 0.01199 Intercept: 0.00000

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: 5.0ppb std **Date Collected: 12/16/2015 1:41:59 PM**
Analyst: **Data Type: Original**

Replicate Data: 5.0ppb std **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0619	0.2285	0.0622	1:42:48 PM	Yes
2		[5.0]	0.0609	0.2260	0.0612	1:43:17 PM	Yes
Mean:		[5.0]	0.0614				
SD:		0.000	0.0007				
%RSD:		0.00%	1.18				

Standard number 5 applied. [5.0]
Correlation Coef.: 0.999822 Slope: 0.01223 Intercept: 0.00000

Sequence No.: 7 **Autosampler Location: 7**
Sample ID: 10.0ppb std **Date Collected: 12/16/2015 1:43:35 PM**
Analyst: **Data Type: Original**

Replicate Data: 10.0ppb std **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1186	0.4268	0.1189	1:44:24 PM	Yes
2		[10.0]	0.1167	0.4243	0.1170	1:44:53 PM	Yes
Mean:		[10.0]	0.1176				
SD:		0.000	0.0013				
%RSD:		0.00%	1.13				

Standard number 6 applied. [10.0]
Correlation Coef.: 0.999719 Slope: 0.01188 Intercept: 0.00000

Calibration data for Hg 253.7 **Equation: Linear Through Zero**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	0.000	0.00	22.07
0.2ppb std	0.0023	0.2	0.193	0.00	3.46
0.5ppb std	0.0057	0.5	0.481	0.00	1.51
1.0ppb std	0.0115	1.0	0.968	0.00	0.16
2.0ppb std	0.0243	2.0	2.046	0.00	1.03
5.0ppb std	0.0614	5.0	5.168	0.00	1.18
10.0ppb std	0.1176	10.0	9.907	0.00	1.13

Correlation Coef.: 0.999719 Slope: 0.01188 Intercept: 0.00000

Sequence No.: 8 **Autosampler Location: 8**
Sample ID: ICV **Date Collected: 12/16/2015 1:45:12 PM**
Analyst: **Data Type: Original**

Replicate Data: ICV **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.106	3.106	0.0369	0.1323	0.0372	1:46:04 PM	Yes
2	3.043	3.043	0.0361	0.1306	0.0364	1:46:32 PM	Yes
Mean:	3.075	3.075	0.0365				
SD:	0.0449	0.0449	0.0005				
%RSD:	1.46%	1.46%	1.46				

QC value within limits for Hg 253.7 Recovery = 102.49%
All analyte(s) passed QC.

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Sequence No.: 9 Autosampler Location: 1
Sample ID: ICB Date Collected: 12/16/2015 1:46:51 PM
Analyst: Data Type: Original

Replicate Data: ICB Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0000	0.0001	0.0003	1:47:40 PM	Yes
2	0.008	0.008	0.0001	0.0012	0.0004	1:48:09 PM	Yes
Mean:	0.004	0.004	0.0001				
SD:	0.0049	0.0049	0.0001				
%RSD:	114.77%	114.77%	114.77				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 10 Autosampler Location: 2
Sample ID: MRL Date Collected: 12/16/2015 1:48:27 PM
Analyst: Data Type: Original

Replicate Data: MRL Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.201	0.201	0.0024	0.0098	0.0027	1:49:17 PM	Yes
2	0.196	0.196	0.0023	0.0089	0.0026	1:49:46 PM	Yes
Mean:	0.198	0.198	0.0024				
SD:	0.0029	0.0029	0.0000				
%RSD:	1.45%	1.45%	1.45				

QC value within limits for Hg 253.7 Recovery = 99.24%
All analyte(s) passed QC.

Sequence No.: 11 Autosampler Location: 8
Sample ID: CCV Date Collected: 12/16/2015 1:50:05 PM
Analyst: Data Type: Original

Replicate Data: CCV Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.100	3.100	0.0368	0.1317	0.0371	1:50:54 PM	Yes
2	3.049	3.049	0.0362	0.1309	0.0365	1:51:23 PM	Yes
Mean:	3.074	3.074	0.0365				
SD:	0.0360	0.0360	0.0004				
%RSD:	1.17%	1.17%	1.17				

QC value within limits for Hg 253.7 Recovery = 102.47%
All analyte(s) passed QC.

Sequence No.: 12 Autosampler Location: 1
Sample ID: CCB Date Collected: 12/16/2015 1:51:42 PM
Analyst: Data Type: Original

Replicate Data: CCB Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0001	0.0010	0.0004	1:52:33 PM	Yes
2	0.007	0.007	0.0001	0.0007	0.0004	1:53:02 PM	Yes
Mean:	0.006	0.006	0.0001				
SD:	0.0017	0.0017	0.0000				
%RSD:	28.10%	28.10%	28.10				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 13 Autosampler Location: 38
Sample ID: PBW-251958 Date Collected: 12/16/2015 1:53:21 PM
Analyst: Data Type: Original

Replicate Data: PBW-251958 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	-0.0002	0.0006	0.0001	1:54:11 PM	Yes
2	-0.024	-0.024	-0.0003	-0.0009	0.0000	1:54:40 PM	Yes
Mean:	-0.020	-0.020	-0.0002				
SD:	0.0058	0.0058	0.0001				
%RSD:	28.77%	28.77%	28.77				

Sequence No.: 14 Autosampler Location: 39
Sample ID: LCSW-251958 Date Collected: 12/16/2015 1:54:59 PM
Analyst: Data Type: Original

Replicate Data: LCSW-251958 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.948	0.948	0.0113	0.0430	0.0116	1:55:48 PM	Yes
2	0.933	0.933	0.0111	0.0403	0.0114	1:56:17 PM	Yes
Mean:	0.940	0.940	0.0112				
SD:	0.0110	0.0110	0.0001				
%RSD:	1.17%	1.17%	1.17				

Sequence No.: 15 Autosampler Location: 40
Sample ID: R1510346-017 Date Collected: 12/16/2015 1:56:36 PM
Analyst: Data Type: Original

Replicate Data: R1510346-017 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.022	0.022	0.0003	0.0018	0.0006	1:57:26 PM	Yes
2	0.017	0.017	0.0002	0.0014	0.0005	1:57:55 PM	Yes
Mean:	0.019	0.019	0.0002				
SD:	0.0034	0.0034	0.0000				
%RSD:	17.65%	17.65%	17.65				

Sequence No.: 16 Autosampler Location: 41
Sample ID: R1510346-018 Date Collected: 12/16/2015 1:58:14 PM
Analyst: Data Type: Original

Replicate Data: R1510346-018 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.022	-0.022	-0.0003	-0.0008	0.0000	1:59:04 PM	Yes
2	-0.021	-0.021	-0.0002	-0.0006	0.0001	1:59:33 PM	Yes
Mean:	-0.021	-0.021	-0.0003				
SD:	0.0010	0.0010	0.0000				
%RSD:	4.64%	4.64%	4.64				

Sequence No.: 17 Autosampler Location: 42
Sample ID: R1510419-001 Date Collected: 12/16/2015 1:59:54 PM
Analyst: Data Type: Original

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Replicate Data: R1510419-001 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.021	-0.021	-0.0003	-0.0007	0.0000	2:00:43 PM	Yes
2	-0.018	-0.018	-0.0002	0.0002	0.0001	2:01:12 PM	Yes
Mean:	-0.019	-0.019	-0.0002				
SD:	0.0027	0.0027	0.0000				
%RSD:	13.88%	13.88%	13.88				

Sequence No.: 18 Autosampler Location: 43
Sample ID: R1510419-002 Date Collected: 12/16/2015 2:01:31 PM
Analyst: Data Type: Original

Replicate Data: R1510419-002 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.026	0.026	0.0003	0.0023	0.0006	2:02:21 PM	Yes
2	0.022	0.022	0.0003	0.0021	0.0006	2:02:50 PM	Yes
Mean:	0.024	0.024	0.0003				
SD:	0.0029	0.0029	0.0000				
%RSD:	11.78%	11.78%	11.78				

Sequence No.: 19 Autosampler Location: 44
Sample ID: R1510419-003 Date Collected: 12/16/2015 2:03:09 PM
Analyst: Data Type: Original

Replicate Data: R1510419-003 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.023	-0.023	-0.0003	-0.0007	0.0000	2:03:58 PM	Yes
2	-0.023	-0.023	-0.0003	-0.0007	0.0000	2:04:27 PM	Yes
Mean:	-0.023	-0.023	-0.0003				
SD:	0.0000	0.0000	0.0000				
%RSD:	0.11%	0.11%	0.11				

Sequence No.: 20 Autosampler Location: 45
Sample ID: R1510419-004 Date Collected: 12/16/2015 2:04:47 PM
Analyst: Data Type: Original

Replicate Data: R1510419-004 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	-0.0002	-0.0002	0.0001	2:05:37 PM	Yes
2	-0.016	-0.016	-0.0002	0.0002	0.0001	2:06:06 PM	Yes
Mean:	-0.018	-0.018	-0.0002				
SD:	0.0028	0.0028	0.0000				
%RSD:	16.24%	16.24%	16.24				

Sequence No.: 21 Autosampler Location: 46
Sample ID: R1510419-005 Date Collected: 12/16/2015 2:06:25 PM
Analyst: Data Type: Original

Replicate Data: R1510419-005 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0001	0.0012	0.0002	2:07:15 PM	Yes
2	-0.013	-0.013	-0.0002	0.0008	0.0001	2:07:44 PM	Yes
Mean:	-0.011	-0.011	-0.0001				

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SD:	0.0038	0.0038	0.0000
%RSD:	36.14%	36.14%	36.14

Sequence No.: 22 **Autosampler Location: 8**
Sample ID: CCV **Date Collected: 12/16/2015 2:08:06 PM**
Analyst: **Data Type: Original**

Replicate Data: CCV **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.056	3.056	0.0363	0.1334	0.0366	2:08:55 PM	Yes
2	2.976	2.976	0.0353	0.1293	0.0356	2:09:24 PM	Yes
Mean:	3.016	3.016	0.0358				
SD:	0.0566	0.0566	0.0007				
%RSD:	1.88%	1.88%	1.88				

QC value within limits for Hg 253.7 Recovery = 100.53%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 12/16/2015 2:09:43 PM**
Analyst: **Data Type: Original**

Replicate Data: CCB **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0001	0.0010	0.0004	2:10:33 PM	Yes
2	0.000	0.000	0.0000	0.0004	0.0003	2:11:02 PM	Yes
Mean:	0.003	0.003	0.0000				
SD:	0.0047	0.0047	0.0001				
%RSD:	139.59%	139.59%	139.59				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 47**
Sample ID: R1510426-003 **Date Collected: 12/16/2015 2:11:20 PM**
Analyst: **Data Type: Original**

Replicate Data: R1510426-003 **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.023	-0.023	-0.0003	-0.0009	0.0000	2:12:10 PM	Yes
2	-0.016	-0.016	-0.0002	0.0006	0.0001	2:12:39 PM	Yes
Mean:	-0.019	-0.019	-0.0002				
SD:	0.0053	0.0053	0.0001				
%RSD:	26.98%	26.98%	26.98				

Sequence No.: 25 **Autosampler Location: 48**
Sample ID: R1510427-001 **Date Collected: 12/16/2015 2:12:59 PM**
Analyst: **Data Type: Original**

Replicate Data: R1510427-001 **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	-0.0001	0.0016	0.0002	2:13:49 PM	Yes
2	-0.019	-0.019	-0.0002	0.0002	0.0001	2:14:17 PM	Yes
Mean:	-0.015	-0.015	-0.0002				
SD:	0.0063	0.0063	0.0001				
%RSD:	42.42%	42.42%	42.42				

Sequence No.: 26 Autosampler Location: 49
Sample ID: R1510427-002 Date Collected: 12/16/2015 2:14:37 PM
Analyst: Data Type: Original

Replicate Data: R1510427-002 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.025	-0.025	-0.0003	-0.0004	0.0000	2:15:29 PM	Yes
2	-0.013	-0.013	-0.0002	0.0009	0.0001	2:15:58 PM	Yes
Mean:	-0.019	-0.019	-0.0002				
SD:	0.0080	0.0080	0.0001				
%RSD:	41.99%	41.99%	41.99				

Sequence No.: 27 Autosampler Location: 50
Sample ID: R1510427-002D Date Collected: 12/16/2015 2:16:18 PM
Analyst: Data Type: Original

Replicate Data: R1510427-002D Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	-0.0002	-0.0006	0.0001	2:17:08 PM	Yes
2	-0.012	-0.012	-0.0001	0.0004	0.0002	2:17:37 PM	Yes
Mean:	-0.016	-0.016	-0.0002				
SD:	0.0058	0.0058	0.0001				
%RSD:	36.76%	36.76%	36.76				

Sequence No.: 28 Autosampler Location: 51
Sample ID: R1510427-002S Date Collected: 12/16/2015 2:17:56 PM
Analyst: Data Type: Original

Replicate Data: R1510427-002S Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.904	0.904	0.0107	0.0404	0.0110	2:18:46 PM	Yes
2	0.874	0.874	0.0104	0.0385	0.0107	2:19:15 PM	Yes
Mean:	0.889	0.889	0.0106				
SD:	0.0214	0.0214	0.0003				
%RSD:	2.41%	2.41%	2.41				

Sequence No.: 29 Autosampler Location: 52
Sample ID: R1510446-001 Date Collected: 12/16/2015 2:19:34 PM
Analyst: Data Type: Original

Replicate Data: R1510446-001 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	-0.0002	0.0004	0.0001	2:20:24 PM	Yes
2	-0.015	-0.015	-0.0002	0.0009	0.0001	2:20:53 PM	Yes
Mean:	-0.017	-0.017	-0.0002				
SD:	0.0022	0.0022	0.0000				
%RSD:	13.05%	13.05%	13.05				

Sequence No.: 30 Autosampler Location: 53
Sample ID: R1510586-002 Date Collected: 12/16/2015 2:21:12 PM
Analyst: Data Type: Original

Replicate Data: R1510586-002 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0000	0.0026	0.0003	2:22:02 PM	Yes
2	-0.010	-0.010	-0.0001	0.0015	0.0002	2:22:31 PM	Yes
Mean:	-0.004	-0.004	-0.0000				
SD:	0.0088	0.0088	0.0001				
%RSD:	225.80%	225.80%	225.80				

Sequence No.: 31 **Autosampler Location: 54**
Sample ID: R1510586-003 **Date Collected: 12/16/2015 2:22:50 PM**
Analyst: **Data Type: Original**

Replicate Data: R1510586-003 **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.023	-0.023	-0.0003	-0.0006	0.0000	2:23:42 PM	Yes
2	-0.015	-0.015	-0.0002	0.0009	0.0001	2:24:11 PM	Yes
Mean:	-0.019	-0.019	-0.0002				
SD:	0.0055	0.0055	0.0001				
%RSD:	28.25%	28.25%	28.25				

Sequence No.: 32 **Autosampler Location: 55**
Sample ID: R1510586-004 **Date Collected: 12/16/2015 2:24:30 PM**
Analyst: **Data Type: Original**

Replicate Data: R1510586-004 **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	-0.0002	-0.0008	0.0001	2:25:20 PM	Yes
2	-0.019	-0.019	-0.0002	-0.0001	0.0001	2:25:49 PM	Yes
Mean:	-0.019	-0.019	-0.0002				
SD:	0.0004	0.0004	0.0000				
%RSD:	1.96%	1.96%	1.96				

Sequence No.: 33 **Autosampler Location: 8**
Sample ID: CCV **Date Collected: 12/16/2015 2:26:09 PM**
Analyst: **Data Type: Original**

Replicate Data: CCV **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.011	3.011	0.0358	0.1325	0.0361	2:26:58 PM	Yes
2	2.986	2.986	0.0355	0.1318	0.0358	2:27:28 PM	Yes
Mean:	2.999	2.999	0.0356				
SD:	0.0176	0.0176	0.0002				
%RSD:	0.59%	0.59%	0.59				

QC value within limits for Hg 253.7 Recovery = 99.96%
All analyte(s) passed QC.

Sequence No.: 34 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 12/16/2015 2:27:47 PM**
Analyst: **Data Type: Original**

Replicate Data: CCB **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.000	-0.000	-0.0000	0.0004	0.0003	2:28:36 PM	Yes
2	0.001	0.001	0.0000	0.0011	0.0003	2:29:05 PM	Yes
Mean:	0.001	0.001	0.0000				

Method: Hg 7470-7471 **Page 15** **Date: 12/16/2015 3:54:29 PM**

SD:	0.0009	0.0009	0.0000
%RSD:	142.34%	142.34%	142.34

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 35 **Autosampler Location: 56**
Sample ID: R1510586-005 **Date Collected: 12/16/2015 2:29:23 PM**
Analyst: **Data Type: Original**

Replicate Data: R1510586-005 **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.034	0.034	0.0004	0.0027	0.0007	2:30:13 PM	Yes
2	0.032	0.032	0.0004	0.0027	0.0007	2:30:43 PM	Yes
Mean:	0.033	0.033	0.0004				
SD:	0.0013	0.0013	0.0000				
%RSD:	3.87%	3.87%	3.87				

Sequence No.: 36 **Autosampler Location: 57**
Sample ID: R1510586-005D **Date Collected: 12/16/2015 2:31:03 PM**
Analyst: **Data Type: Original**

Replicate Data: R1510586-005D **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.054	0.054	0.0006	0.0035	0.0009	2:31:52 PM	Yes
2	0.050	0.050	0.0006	0.0026	0.0009	2:32:21 PM	Yes
Mean:	0.052	0.052	0.0006				
SD:	0.0032	0.0032	0.0000				
%RSD:	6.23%	6.23%	6.23				

Sequence No.: 37 **Autosampler Location: 58**
Sample ID: R1510586-005S **Date Collected: 12/16/2015 2:32:40 PM**
Analyst: **Data Type: Original**

Replicate Data: R1510586-005S **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.945	0.945	0.0112	0.0431	0.0115	2:33:30 PM	Yes
2	0.951	0.951	0.0113	0.0435	0.0116	2:34:00 PM	Yes
Mean:	0.948	0.948	0.0113				
SD:	0.0046	0.0046	0.0001				
%RSD:	0.49%	0.49%	0.49				

Sequence No.: 38 **Autosampler Location: 59**
Sample ID: R1510586-006 **Date Collected: 12/16/2015 2:34:19 PM**
Analyst: **Data Type: Original**

Replicate Data: R1510586-006 **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.048	0.048	0.0006	0.0031	0.0009	2:35:09 PM	Yes
2	0.045	0.045	0.0005	0.0028	0.0008	2:35:38 PM	Yes
Mean:	0.047	0.047	0.0006				
SD:	0.0019	0.0019	0.0000				
%RSD:	4.04%	4.04%	4.04				

Sequence No.: 39 **Autosampler Location: 60**

Method: Hg 7470-7471 Page 16 Date: 12/16/2015 3:54:29 PM

Sample ID: R1510594-001 Date Collected: 12/16/2015 2:35:58 PM
Analyst: Data Type: Original

Replicate Data: R1510594-001 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.170	0.170	0.0020	0.0081	0.0023	2:36:48 PM	Yes
2	0.164	0.164	0.0020	0.0076	0.0023	2:37:17 PM	Yes
Mean:	0.167	0.167	0.0020				
SD:	0.0037	0.0037	0.0000				
%RSD:	2.21%	2.21%	2.21				

DO NOT REPORT - 245.1 not w/in conforming QC
ARD 12/17/15

Sequence No.: 40 Autosampler Location: 61
Sample ID: R1510638-001 Date Collected: 12/16/2015 2:37:37 PM
Analyst: Data Type: Original

Replicate Data: R1510638-001 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.053	0.053	0.0006	0.0035	0.0009	2:38:27 PM	Yes
2	0.051	0.051	0.0006	0.0034	0.0009	2:38:58 PM	Yes
Mean:	0.052	0.052	0.0006				
SD:	0.0019	0.0019	0.0000				
%RSD:	3.66%	3.66%	3.66				

DO NOT REPORT - 245.1 not w/in conforming QC
ARD 12/17/15

Sequence No.: 41 Autosampler Location: 2
Sample ID: MRL Date Collected: 12/16/2015 2:39:18 PM
Analyst: Data Type: Original

Replicate Data: MRL Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0000	0.0007	0.0003	2:40:07 PM	Yes
2	-0.025	-0.025	-0.0003	-0.0009	0.0000	2:40:36 PM	Yes
Mean:	-0.011	-0.011	-0.0001				
SD:	0.0195	0.0195	0.0002				
%RSD:	171.49%	171.49%	171.49				

QC value less than the lower limit for Hg 253.7 Recovery = -5.69%
QC Failed. Continue with analysis.

QC Went dry - Retest ARD 12/17/15

Sequence No.: 42 Autosampler Location: 8
Sample ID: CCV Date Collected: 12/16/2015 2:40:55 PM
Analyst: Data Type: Original

Replicate Data: CCV Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.640	2.640	0.0314	0.1195	0.0317	2:41:44 PM	Yes
2	2.636	2.636	0.0313	0.1189	0.0316	2:42:13 PM	Yes
Mean:	2.638	2.638	0.0313				
SD:	0.0029	0.0029	0.0000				
%RSD:	0.11%	0.11%	0.11				

QC value less than the lower limit for Hg 253.7 Recovery = 87.94%
QC Failed. Continue with analysis.

Sequence No.: 43 Autosampler Location: 1
Sample ID: CCB Date Collected: 12/16/2015 2:42:32 PM
Analyst: Data Type: Original

Method: Hg 7470-7471 Page 17 Date: 12/16/2015 3:54:29 PM

Replicate Data: CCB Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0001	0.0048	0.0004	2:43:20 PM	Yes

User canceled analysis.

Analysis Begun

Logged In Analyst: ALRCE Metals01 Technique: AA FIMS-MHS
Spectrometer: FIMS-100, S/N B050-9550 Autosampler: S10

Sample Information File: C:\Users\Public\PerkinElmer\AA\Data\Sample Information\Routine.sif
Batch ID: 249462
Results Data Set: Dec-16W
Results Library: C:\Users\Public\PerkinElmer\AA\Data\Results\NOV15.mdb

Sequence No.: 41 Autosampler Location: 2
Sample ID: MRL Date Collected: 12/16/2015 2:44:45 PM
Analyst: Data Type: Original

Retest MRL ARD 12/17/15

Replicate Data: MRL Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.253	0.253	0.0030	0.0116	0.0033	2:45:34 PM	Yes
2	0.254	0.254	0.0030	0.0117	0.0033	2:46:04 PM	Yes
Mean:	0.254	0.254	0.0030				
SD:	0.0009	0.0009	0.0000				
%RSD:	0.37%	0.37%	0.37				

QC value within limits for Hg 253.7 Recovery = 126.89%
All analyte(s) passed QC.

Sequence No.: 42 Autosampler Location: 8
Sample ID: CCV Date Collected: 12/16/2015 2:46:23 PM
Analyst: Data Type: Original

Replicate Data: CCV Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.668	2.668	0.0317	0.1197	0.0320	2:47:12 PM	Yes
2	2.653	2.653	0.0315	0.1175	0.0318	2:47:42 PM	Yes
Mean:	2.660	2.660	0.0316				
SD:	0.0110	0.0110	0.0001				
%RSD:	0.41%	0.41%	0.41				

QC value less than the lower limit for Hg 253.7 Recovery = 88.68%
QC Failed. Continue with analysis.

CCV Win limits for 7470 ARD 12/17/15

Sequence No.: 43 Autosampler Location: 1
Sample ID: CCB Date Collected: 12/16/2015 2:48:01 PM
Analyst: Data Type: Original

Replicate Data: CCB Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	-0.0002	-0.0007	0.0001	2:48:50 PM	Yes
2	-0.012	-0.012	-0.0001	0.0005	0.0002	2:49:19 PM	Yes
Mean:	-0.014	-0.014	-0.0002				
SD:	0.0032	0.0032	0.0000				
%RSD:	23.11%	23.11%	23.11				

QC value within limits for Hg 253.7 Recovery = Not calculated

Retested later in Run

DO not report any following data. ARD 12/17/15

Method: Hg 7470-7471 Page 18 Date: 12/16/2015 3:54:29 PM

All analyte(s) passed QC.

Sequence No.: 44 Autosampler Location: 62
Sample ID: PBT-251971 Date Collected: 12/16/2015 2:49:37 PM
Analyst: Data Type: Original

Replicate Data: PBT-251971 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.044	0.044	0.0005	0.0030	0.0008	2:50:28 PM	Yes
2	0.041	0.041	0.0005	0.0023	0.0008	2:50:56 PM	Yes
Mean:	0.042	0.042	0.0005				
SD:	0.0026	0.0026	0.0000				
%RSD:	6.24%	6.24%	6.24				

Sequence No.: 45 Autosampler Location: 63
Sample ID: LCST-251971 Date Collected: 12/16/2015 2:51:16 PM
Analyst: Data Type: Original

Replicate Data: LCST-251971 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.952	0.952	0.0113	0.0412	0.0116	2:52:06 PM	Yes
2	0.952	0.952	0.0113	0.0417	0.0116	2:52:35 PM	Yes
Mean:	0.952	0.952	0.0113				
SD:	0.0001	0.0001	0.0000				
%RSD:	0.01%	0.01%	0.01				

ARD 12/19/15

Sequence No.: 46 Autosampler Location: 64
Sample ID: RQ1515239-01 Date Collected: 12/16/2015 2:52:56 PM
Analyst: Data Type: Original

Replicate Data: RQ1515239-01 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.043	0.043	0.0005	0.0034	0.0008	2:53:46 PM	Yes
2	0.032	0.032	0.0004	0.0017	0.0007	2:54:15 PM	Yes
Mean:	0.038	0.038	0.0004				
SD:	0.0079	0.0079	0.0001				
%RSD:	21.09%	21.09%	21.09				

Sequence No.: 47 Autosampler Location: 65
Sample ID: RQ1515284-01 Date Collected: 12/16/2015 2:54:35 PM
Analyst: Data Type: Original

Replicate Data: RQ1515284-01 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.034	0.034	0.0004	0.0023	0.0007	2:55:25 PM	Yes
2	0.026	0.026	0.0003	0.0016	0.0006	2:55:54 PM	Yes
Mean:	0.030	0.030	0.0004				
SD:	0.0057	0.0057	0.0001				
%RSD:	19.05%	19.05%	19.05				

Sequence No.: 48 Autosampler Location: 66
Sample ID: RQ1515284-02 Date Collected: 12/16/2015 2:56:13 PM
Analyst: Data Type: Original

Method: Hg 7470-7471 Page 19 Date: 12/16/2015 3:54:29 PM

Replicate Data: RQ1515284-02 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.011	0.011	0.0001	0.0012	0.0004	2:57:03 PM	Yes
2	0.015	0.015	0.0002	0.0016	0.0005	2:57:32 PM	Yes
Mean:	0.013	0.013	0.0002				
SD:	0.0024	0.0024	0.0000				
%RSD:	18.53%	18.53%	18.53				

Sequence No.: 49 Autosampler Location: 67
Sample ID: R1510410-001 Date Collected: 12/16/2015 2:57:51 PM
Analyst: Data Type: Original

Replicate Data: R1510410-001 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.062	0.062	0.0007	0.0052	0.0010	2:58:41 PM	Yes
2	0.058	0.058	0.0007	0.0053	0.0010	2:59:10 PM	Yes
Mean:	0.060	0.060	0.0007				
SD:	0.0022	0.0022	0.0000				
%RSD:	3.72%	3.72%	3.72				

Sequence No.: 50 Autosampler Location: 68
Sample ID: R1510410-001D Date Collected: 12/16/2015 2:59:30 PM
Analyst: Data Type: Original

Replicate Data: R1510410-001D Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.049	0.049	0.0006	0.0036	0.0009	3:00:20 PM	Yes
2	0.050	0.050	0.0006	0.0029	0.0009	3:00:50 PM	Yes
Mean:	0.049	0.049	0.0006				
SD:	0.0007	0.0007	0.0000				
%RSD:	1.35%	1.35%	1.35				

APD 12/17/15

Sequence No.: 51 Autosampler Location: 69
Sample ID: R1510410-001S Date Collected: 12/16/2015 3:01:10 PM
Analyst: Data Type: Original

Replicate Data: R1510410-001S Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.900	0.900	0.0107	0.0410	0.0110	3:01:59 PM	Yes
2	0.906	0.906	0.0108	0.0420	0.0111	3:02:28 PM	Yes
Mean:	0.903	0.903	0.0107				
SD:	0.0039	0.0039	0.0000				
%RSD:	0.43%	0.43%	0.43				

Sequence No.: 52 Autosampler Location: 70
Sample ID: R1510553-001 Date Collected: 12/16/2015 3:02:48 PM
Analyst: Data Type: Original

Replicate Data: R1510553-001 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.034	0.034	0.0004	0.0023	0.0007	3:03:38 PM	Yes
2	0.039	0.039	0.0005	0.0033	0.0008	3:04:07 PM	Yes
Mean:	0.037	0.037	0.0004				

Method: Hg 7470-7471 **Page 20** **Date: 12/16/2015 3:54:29 PM**

SD:	0.0037	0.0037	0.0000
%RSD:	10.25%	10.25%	10.25

Sequence No.: 53 **Autosampler Location: 8**
Sample ID: CCV **Date Collected: 12/16/2015 3:04:26 PM**
Analyst: **Data Type: Original**

Replicate Data: CCV **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.581	2.581	0.0307	0.1179	0.0310	3:05:16 PM	Yes
2	2.549	2.549	0.0303	0.1160	0.0306	3:05:44 PM	Yes
Mean:	2.565	2.565	0.0305				
SD:	0.0231	0.0231	0.0003				
%RSD:	0.90%	0.90%	0.90				

QC value less than the lower limit for Hg 253.7 Recovery = 85.50%
QC Failed. Continue with analysis.

CCV win limits for 7470 AKO 12/17/15

Sequence No.: 54 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 12/16/2015 3:06:03 PM**
Analyst: **Data Type: Original**

Replicate Data: CCB **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	-0.0001	0.0001	0.0002	3:06:52 PM	Yes
2	-0.010	-0.010	-0.0001	0.0013	0.0002	3:07:21 PM	Yes
Mean:	-0.010	-0.010	-0.0001				
SD:	0.0002	0.0002	0.0000				
%RSD:	1.90%	1.90%	1.90				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

AKO 12/17/15

Sequence No.: 55 **Autosampler Location: 71**
Sample ID: R1510691-001 **Date Collected: 12/16/2015 3:07:40 PM**
Analyst: **Data Type: Original**

Replicate Data: R1510691-001 **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.052	0.052	0.0006	0.0046	0.0009	3:08:32 PM	Yes
2	0.053	0.053	0.0006	0.0050	0.0009	3:09:01 PM	Yes
Mean:	0.053	0.053	0.0006				
SD:	0.0009	0.0009	0.0000				
%RSD:	1.70%	1.70%	1.70				

Sequence No.: 56 **Autosampler Location: 72**
Sample ID: RQ1515480-01 **Date Collected: 12/16/2015 3:09:21 PM**
Analyst: **Data Type: Original**

Replicate Data: RQ1515480-01 **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.062	0.062	0.0007	0.0044	0.0010	3:10:11 PM	Yes
2	0.051	0.051	0.0006	0.0042	0.0009	3:10:40 PM	Yes
Mean:	0.056	0.056	0.0007				
SD:	0.0077	0.0077	0.0001				
%RSD:	13.59%	13.59%	13.59				

Method: Hg 7470-7471 Page 21 Date: 12/16/2015 3:54:29 PM

Sequence No.: 57 Autosampler Location: 73
Sample ID: R1510616-001 Date Collected: 12/16/2015 3:11:00 PM
Analyst: Data Type: Original

Replicate Data: R1510616-001 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0000	0.0013	0.0003	3:11:51 PM	Yes
2	0.011	0.011	0.0001	0.0023	0.0004	3:12:20 PM	Yes
Mean:	0.006	0.006	0.0001				
SD:	0.0066	0.0066	0.0001				
%RSD:	106.56%	106.56%	106.56				

Sequence No.: 58 Autosampler Location: 74
Sample ID: R1510701-001 Date Collected: 12/16/2015 3:12:40 PM
Analyst: Data Type: Original

Replicate Data: R1510701-001 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.056	0.056	0.0007	0.0039	0.0010	3:13:30 PM	Yes

User canceled analysis.

Analysis Begun

Logged In Analyst: ALRCE Metals01 Technique: AA FIMS-MHS
Spectrometer: FIMS-100, S/N B050-9550 Autosampler: S10

Sample Information File: C:\Users\Public\PerkinElmer\AA\Data\Sample Information\Routine.sif
Batch ID: 249462
Results Data Set: Dec-16W
Results Library: C:\Users\Public\PerkinElmer\AA\Data\Results\NOV15.mdb

ARD 12/17/15

Sequence No.: 42 Autosampler Location: 8
Sample ID: CCV Date Collected: 12/16/2015 3:14:21 PM
Analyst: Data Type: Original

Replicate Data: CCV Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.662	2.662	0.0316	0.1201	0.0319	3:15:10 PM	Yes
2	2.721	2.721	0.0323	0.1210	0.0326	3:15:40 PM	Yes
Mean:	2.691	2.691	0.0320				
SD:	0.0419	0.0419	0.0005				
%RSD:	1.56%	1.56%	1.56				

QC value less than the lower limit for Hg 253.7 Recovery = 89.71%
QC Failed. Continue with analysis.
User canceled analysis.

Analysis Begun

Logged In Analyst: ALRCE Metals01 Technique: AA FIMS-MHS
Spectrometer: FIMS-100, S/N B050-9550 Autosampler: S10

Sample Information File: C:\Users\Public\PerkinElmer\AA\Data\Sample Information\Routine.sif
Batch ID: 249462
Results Data Set: Dec-16W
Results Library: C:\Users\Public\PerkinElmer\AA\Data\Results\NOV15.mdb

Restart Analysis from CCV #42

ARD 12/17/15

Sequence No.: 42 Autosampler Location: 8
Sample ID: CCV Date Collected: 12/16/2015 3:16:17 PM
Analyst: Data Type: Original

Replicate Data: CCV Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.545	2.545	0.0302	0.1178	0.0305	3:17:07 PM	Yes
2	2.534	2.534	0.0301	0.1177	0.0304	3:17:36 PM	Yes
Mean:	2.539	2.539	0.0302				
SD:	0.0079	0.0079	0.0001				
%RSD:	0.31%	0.31%	0.31				

QC value less than the lower limit for Hg 253.7 Recovery = 84.65%
QC Failed. Continue with analysis.
User canceled analysis.

CCV w/in limits for 245.7 ARO 12/17/15

Analysis Begun

Logged In Analyst: ALRCE Metals01 Technique: AA FIMS-MHS
Spectrometer: FIMS-100, S/N B050-9550 Autosampler: S10

Sample Information File: C:\Users\Public\PerkinElmer\AA\Data\Sample Information\Routine.sif
Batch ID: 249462
Results Data Set: Dec-16W
Results Library: C:\Users\Public\PerkinElmer\AA\Data\Results\NOV15.mdb

Sequence No.: 42 Autosampler Location: 8
Sample ID: CCV Date Collected: 12/16/2015 3:18:01 PM
Analyst: Data Type: Original

BEGIN ANALYSIS ARO 12/17/15

Replicate Data: CCV Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.698	2.698	0.0320	0.1212	0.0323	3:18:50 PM	Yes
2	2.694	2.694	0.0320	0.1216	0.0323	3:19:19 PM	Yes
Mean:	2.696	2.696	0.0320				
SD:	0.0029	0.0029	0.0000				
%RSD:	0.11%	0.11%	0.11				

QC value less than the lower limit for Hg 253.7 Recovery = 89.86%
QC Failed. Continue with analysis.

CCV w/in limits for 7470 ARO 12/17/15

Sequence No.: 43 Autosampler Location: 1
Sample ID: CCB Date Collected: 12/16/2015 3:19:38 PM
Analyst: Data Type: Original

Replicate Data: CCB Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	-0.0002	0.0002	0.0002	3:20:28 PM	Yes
2	-0.012	-0.012	-0.0001	0.0007	0.0002	3:20:57 PM	Yes
Mean:	-0.012	-0.012	-0.0001				
SD:	0.0004	0.0004	0.0000				
%RSD:	3.41%	3.41%	3.41				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 44 Autosampler Location: 62
Sample ID: PBT-251971 Date Collected: 12/16/2015 3:21:16 PM
Analyst: Data Type: Original

Replicate Data: PBT-251971 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0004	0.0020	0.0007	3:22:05 PM	Yes
2	0.038	0.038	0.0004	0.0022	0.0008	3:22:35 PM	Yes
Mean:	0.035	0.035	0.0004				
SD:	0.0034	0.0034	0.0000				
%RSD:	9.60%	9.60%	9.60				

Sequence No.: 45 Autosampler Location: 63
Sample ID: LCST-251971 Date Collected: 12/16/2015 3:22:54 PM
Analyst: Data Type: Original

Replicate Data: LCST-251971 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.929	0.929	0.0110	0.0419	0.0113	3:23:44 PM	Yes
2	0.912	0.912	0.0108	0.0405	0.0111	3:24:13 PM	Yes
Mean:	0.920	0.920	0.0109				
SD:	0.0115	0.0115	0.0001				
%RSD:	1.25%	1.25%	1.25				

Sequence No.: 46 Autosampler Location: 64
Sample ID: RQ1515239-01 Date Collected: 12/16/2015 3:24:33 PM
Analyst: Data Type: Original

Replicate Data: RQ1515239-01 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.030	0.030	0.0004	0.0021	0.0007	3:25:22 PM	Yes
2	0.031	0.031	0.0004	0.0020	0.0007	3:25:52 PM	Yes
Mean:	0.030	0.030	0.0004				
SD:	0.0009	0.0009	0.0000				
%RSD:	2.88%	2.88%	2.88				

Sequence No.: 47 Autosampler Location: 65
Sample ID: RQ1515284-01 Date Collected: 12/16/2015 3:26:11 PM
Analyst: Data Type: Original

Replicate Data: RQ1515284-01 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0004	0.0023	0.0007	3:27:01 PM	Yes
2	0.033	0.033	0.0004	0.0023	0.0007	3:27:30 PM	Yes
Mean:	0.032	0.032	0.0004				
SD:	0.0013	0.0013	0.0000				
%RSD:	4.14%	4.14%	4.14				

Sequence No.: 48 Autosampler Location: 66
Sample ID: RQ1515284-02 Date Collected: 12/16/2015 3:27:52 PM
Analyst: Data Type: Original

Replicate Data: RQ1515284-02 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.013	0.013	0.0002	0.0015	0.0005	3:28:41 PM	Yes
2	0.011	0.011	0.0001	0.0014	0.0004	3:29:10 PM	Yes

Method: Hg 7470-7471 **Page 24** **Date: 12/16/2015 3:54:29 PM**

Mean:	0.012	0.012	0.0001
SD:	0.0014	0.0014	0.0000
%RSD:	11.41%	11.41%	11.41

Sequence No.: 49 **Autosampler Location: 67**
Sample ID: R1510410-001 **Date Collected: 12/16/2015 3:29:30 PM**
Analyst: **Data Type: Original**

Replicate Data: R1510410-001 **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.050	0.050	0.0006	0.0031	0.0009	3:30:20 PM	Yes
2	0.048	0.048	0.0006	0.0026	0.0009	3:30:49 PM	Yes
Mean:	0.049	0.049	0.0006				
SD:	0.0018	0.0018	0.0000				
%RSD:	3.57%	3.57%	3.57				

Sequence No.: 50 **Autosampler Location: 68**
Sample ID: R1510410-001D **Date Collected: 12/16/2015 3:31:08 PM**
Analyst: **Data Type: Original**

Replicate Data: R1510410-001D **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.040	0.040	0.0005	0.0024	0.0008	3:31:58 PM	Yes
2	0.045	0.045	0.0005	0.0033	0.0008	3:32:28 PM	Yes
Mean:	0.042	0.042	0.0005				
SD:	0.0033	0.0033	0.0000				
%RSD:	7.74%	7.74%	7.74				

Sequence No.: 51 **Autosampler Location: 69**
Sample ID: R1510410-001S **Date Collected: 12/16/2015 3:32:47 PM**
Analyst: **Data Type: Original**

Replicate Data: R1510410-001S **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.908	0.908	0.0108	0.0411	0.0111	3:33:37 PM	Yes
2	0.905	0.905	0.0108	0.0414	0.0111	3:34:06 PM	Yes
Mean:	0.907	0.907	0.0108				
SD:	0.0020	0.0020	0.0000				
%RSD:	0.22%	0.22%	0.22				

Sequence No.: 52 **Autosampler Location: 70**
Sample ID: R1510553-001 **Date Collected: 12/16/2015 3:34:25 PM**
Analyst: **Data Type: Original**

Replicate Data: R1510553-001 **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.043	0.043	0.0005	0.0039	0.0008	3:35:15 PM	Yes
2	0.037	0.037	0.0004	0.0028	0.0007	3:35:46 PM	Yes
Mean:	0.040	0.040	0.0005				
SD:	0.0048	0.0048	0.0001				
%RSD:	11.95%	11.95%	11.95				

Sequence No.: 53 **Autosampler Location: 8**
Sample ID: CCV **Date Collected: 12/16/2015 3:36:05 PM**

Method: Hg 7470-7471 Page 25 Date: 12/16/2015 3:54:29 PM

Analyst: Data Type: Original

Replicate Data: CCV Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.572	2.572	0.0305	0.1191	0.0308	3:36:55 PM	Yes
2	2.591	2.591	0.0308	0.1195	0.0311	3:37:24 PM	Yes
Mean:	2.581	2.581	0.0307				
SD:	0.0132	0.0132	0.0002				
%RSD:	0.51%	0.51%	0.51				

QC value less than the lower limit for Hg 253.7 Recovery = 86.04%
QC Failed. Continue with analysis.

CCV w/in limits for 7470 AMD 12/17/15

Sequence No.: 54 Autosampler Location: 1
Sample ID: CCB Date Collected: 12/16/2015 3:37:43 PM
Analyst: Data Type: Original

Replicate Data: CCB Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0004	0.0020	0.0007	3:38:32 PM	Yes
2	0.025	0.025	0.0003	0.0019	0.0006	3:39:00 PM	Yes
Mean:	0.029	0.029	0.0003				
SD:	0.0054	0.0054	0.0001				
%RSD:	18.59%	18.59%	18.59				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 55 Autosampler Location: 71
Sample ID: R1510691-001 Date Collected: 12/16/2015 3:39:19 PM
Analyst: Data Type: Original

Replicate Data: R1510691-001 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.045	0.045	0.0005	0.0034	0.0008	3:40:09 PM	Yes
2	0.046	0.046	0.0005	0.0028	0.0008	3:40:38 PM	Yes
Mean:	0.045	0.045	0.0005				
SD:	0.0004	0.0004	0.0000				
%RSD:	0.90%	0.90%	0.90				

Sequence No.: 56 Autosampler Location: 72
Sample ID: RQ1515480-01 Date Collected: 12/16/2015 3:40:57 PM
Analyst: Data Type: Original

Replicate Data: RQ1515480-01 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.049	0.049	0.0006	0.0029	0.0009	3:41:48 PM	Yes
2	0.053	0.053	0.0006	0.0034	0.0009	3:42:17 PM	Yes
Mean:	0.051	0.051	0.0006				
SD:	0.0029	0.0029	0.0000				
%RSD:	5.73%	5.73%	5.73				

Sequence No.: 57 Autosampler Location: 73
Sample ID: R1510616-001 Date Collected: 12/16/2015 3:42:37 PM
Analyst: Data Type: Original

Replicate Data: R1510616-001 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0001	0.0019	0.0004	3:43:29 PM	Yes
2	0.008	0.008	0.0001	0.0016	0.0004	3:43:58 PM	Yes
Mean:	0.009	0.009	0.0001				
SD:	0.0011	0.0011	0.0000				
%RSD:	11.98%	11.98%	11.98				

Sequence No.: 58 Autosampler Location: 74
Sample ID: R1510701-001 Date Collected: 12/16/2015 3:44:18 PM
Analyst: Data Type: Original

Replicate Data: R1510701-001 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.059	0.059	0.0007	0.0037	0.0010	3:45:08 PM	Yes
2	0.059	0.059	0.0007	0.0035	0.0010	3:45:37 PM	Yes
Mean:	0.059	0.059	0.0007				
SD:	0.0001	0.0001	0.0000				
%RSD:	0.16%	0.16%	0.16				

Sequence No.: 59 Autosampler Location: 75
Sample ID: R1510712-001 Date Collected: 12/16/2015 3:45:57 PM
Analyst: Data Type: Original

Replicate Data: R1510712-001 Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.040	0.040	0.0005	0.0017	0.0008	3:46:47 PM	Yes
2	0.048	0.048	0.0006	0.0036	0.0009	3:47:16 PM	Yes
Mean:	0.044	0.044	0.0005				
SD:	0.0053	0.0053	0.0001				
%RSD:	11.90%	11.90%	11.90				

Sequence No.: 60 Autosampler Location: 2
Sample ID: MRL Date Collected: 12/16/2015 3:47:36 PM
Analyst: Data Type: Original

Replicate Data: MRL Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.240	0.240	0.0028	0.0110	0.0032	3:48:26 PM	Yes
2	0.251	0.251	0.0030	0.0128	0.0033	3:48:55 PM	Yes
Mean:	0.245	0.245	0.0029				
SD:	0.0079	0.0079	0.0001				
%RSD:	3.23%	3.23%	3.23				

QC value within limits for Hg 253.7 Recovery = 122.72%
All analyte(s) passed QC.

Sequence No.: 61 Autosampler Location: 8
Sample ID: CCV Date Collected: 12/16/2015 3:49:13 PM
Analyst: Data Type: Original

Replicate Data: CCV Analyte: Hg 253.7

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.602	2.602	0.0309	0.1203	0.0312	3:50:03 PM	Yes
2	2.575	2.575	0.0306	0.1189	0.0309	3:50:31 PM	Yes

Mean:	2.588	2.588	0.0307
SD:	0.0195	0.0195	0.0002
%RSD:	0.75%	0.75%	0.75

QC value less than the lower limit for Hg 253.7 Recovery = 86.28%
QC Failed. Continue with analysis.
CCV w/in limits for 7470 ARD 12/17/15

Sequence No.: 62 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 12/16/2015 3:50:52 PM**
Analyst: **Data Type: Original**

Replicate Data: CCB **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0004	0.0036	0.0007	3:51:41 PM	Yes
2	0.033	0.033	0.0004	0.0034	0.0007	3:52:10 PM	Yes
Mean:	0.033	0.033	0.0004				
SD:	0.0001	0.0001	0.0000				
%RSD:	0.23%	0.23%	0.23				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 63 **Autosampler Location: 76**
Sample ID: Sample076 **Date Collected: 12/16/2015 3:52:29 PM**
Analyst: **Data Type: Original**

Replicate Data: Sample076 **Analyte: Hg 253.7**

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.025	-0.025	-0.0003	-0.0017	0.0000	3:53:19 PM	Yes
2	-0.025	-0.025	-0.0003	-0.0006	0.0000	3:53:47 PM	Yes
Mean:	-0.025	-0.025	-0.0003				
SD:	0.0000	0.0000	0.0000				
%RSD:	0.14%	0.14%	0.14				

Preparation Information Benchsheet

Prep Run#: 251958 **Prep WorkFlow:** HgDigAq **Status:** Prepped
Team: Metals/CGILDAY **Prep Method:** Method **Prep Date/Time:** 12/16/15 10:23 AM

#	Lab Code	Client ID	B#	Amt. Ext.	Method /Test	pH	AE	BN	Final Vol	Sample Desc. (Initial/Final)	SpikeAmt./Inv. ID	Comments
1	RQ1515348-01	MB		25mL	245.1/Hg T, 7470A/Hg D DOD, Hg T, Hg T DOD	<2			25.00mL	colorless-clear		HB # 7 well = G2 temperature = 95C/95C correction factor = 0C corrected temp = 95C/95C
2	RQ1515348-02	LCS		25mL	245.1/Hg T, 7470A/Hg D DOD, Hg T, Hg T DOD	<2			25.00mL	colorless-clear	0.2500 mL/86720	
3	R1510346-017	EB-2015-11-24	.05	25mL	7470A/Hg T DOD	<2			25.00mL	colorless-clear		
4	R1510346-018	EB-2015-11-24 Dissolved	.02	25mL	7470A/Hg D DOD	<2			25.00mL	colorless-clear		
5	R1510419-001	MW-1	.06	25mL	245.1/Hg T	<2			25.00mL	colorless-clear		
6	R1510419-002	MW-2	.06	25mL	245.1/Hg T	<2			25.00mL	colorless-clear		
7	R1510419-003	MW-3	.06	25mL	245.1/Hg T	<2			25.00mL	colorless-clear		
8	R1510419-004	MW-4	.06	25mL	245.1/Hg T	<2			25.00mL	colorless-clear		
9	R1510419-005	MW-5	.06	25mL	245.1/Hg T	<2			25.00mL	colorless-clear		
10	R1510426-003	MW-15D	.23	25mL	7470A/Hg T	<2			25.00mL	colorless-clear		
11	R1510427-001	MW-15B	.12	25mL	7470A/Hg T	<2			25.00mL	colorless-clear		
12	R1510427-002	MW-9B	.12	25mL	7470A/Hg T	<2			25.00mL	colorless-clear		
13	RQ1515348-07	R1510427-002 MS	.12	25mL	7470A/Hg T	<2			25.00mL	colorless-clear	0.2500 mL/86720	
14	RQ1515348-08	R1510427-002 DUP	.12	25mL	7470A/Hg T	<2			25.00mL	colorless-clear		
15	R1510446-001	MW34-1215	.17	25mL	7470A/Hg T	<2			25.00mL	colorless-clear		
16	R1510586-002	L-1S	.23	25mL	7470A/Hg T	<2			25.00mL	colorless-clear		
17	R1510586-003	L-2S	.23	25mL	7470A/Hg T	<2			25.00mL	colorless-clear		
18	R1510586-004	SMH-6	.23	25mL	7470A/Hg T	<2			25.00mL	colorless-clear		
19	R1510586-005	SMH-4	.23	25mL	7470A/Hg T	<2			25.00mL	colorless-clear		
20	RQ1515348-05	R1510586-005 MS	.23	25mL	7470A/Hg T	<2			25.00mL	colorless-clear	0.2500 mL/86720	
21	RQ1515348-06	R1510586-005 DUP	.23	25mL	7470A/Hg T	<2			25.00mL	colorless-clear		
22	R1510586-006	SMH-2	.23	25mL	7470A/Hg T	<2			25.00mL	colorless-clear		

Spiking Solutions

Name: Mercury LCSW Metals Hg Inventory ID 86720 Logbook Ref: Expires On: 12/17/2015

Preparation Materials

1:1 HCl Metals Grade	M7080005N (86048)	Hot Block Cups	50 mL Lot 1501179 (84721)	Sulfuric Acid, ACS H2SO4	85496 (85496)
Nitric Acid Metals Grade HNO3	M7080004V (85537)	Hydroxylamine Hydrochloride Reagent Grade	M5280043Y (84758)	Potassium Permanganate RG KMnO4	M7080001Z (85385)
Potassium Persulfate RG K2S2O8	M5280037BB (70162)	Stannous Chloride SnCl2	M7080004H (84757)	Thermometer	129 (80236)

Preparation Information Benchsheet

Prep Run#: 251958 **Prep WorkFlow:** HgDigAq **Status:** Prepped
Team: Metals/CGILDAY **Prep Method:** Method **Prep Date/Time:** 12/16/15 10:23 AM

Preparation Steps

Step: Digestion
Started: 12/14/15 10:23
Finished: 12/16/15 14:58
By: CGILDAY
Comments

Comments: Prepped with curve M#1000821.

Reviewed By: [signature] Date: 12/17/15

Chain of Custody

Relinquished By: Caitlyn Gilday Date: 12/16/15
Received By: R. Abi Date: ↓

Extracts Examined
Yes No

MERCURY CALIBRATION / CRDL STANDARDS

Standard	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot #	Expiration Date	Pipet ID
Hg Cal Stk A	M5280042D	1000	1.00	100	10	0.5%HNO3	CG 12/16/15	A	M7080004V	12/23/15	M28

(PREPARED DAILY)

Standard	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot #	Pipet ID
Hg Cal StkB	Hg Cal Stk A	10.0	1.00	100	0.100	0.5%HNO3	CG 12/16/15	B	M7080004V	M28
								C		
								D		
								E		
								F		
								G		
								H		

(PREPARED WITH EACH RUN)

CCV Standard (ppb)	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppb)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot #	Pipet ID
0.200	Hg Cal Stk B	0.100	0.200	100	0.200	0.5%HNO3	CG 12/16/15	I	M7080004V	—
0.500			0.500		0.500			J		
1.00			1.00		1.00			K		
2.00			2.00		2.00			L		
5.00			5.00		5.00			M		
10.0			10.0		10.0			N		
CRA			0.200		0.200			O		

MERCURY CCV / LCSW / MS STANDARDS

Standard	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot #	Expiration Date	Pipet ID
Hg CCV Stk A	M5280042C	1000	1.00	100	10	0.5%HNO3	12/16/15 CL	A	M7080004V	12/23/15	M28

(PREPARED DAILY)

Standard	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot #	Pipet ID
Hg CCV StkB	Hg CCV Stk A	10.0	1.00	100	0.100	0.5%HNO3	CL 12/16/15	B	M7080004V	M28
								C		
								D		
								E		
								F		
								G		
								H		

(PREPARED WITH EACH RUN)

CCV Standard (ppb)	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppb)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot #	Pipet ID
3.00	Hg CCV Stk B	0.100	3.00	100	3.00	0.5%HNO3	CL 12/16/15	I	M7080004V	—
LCSW / MS			1.00		1.00			J		
								K		
								L		
								M		
								N		
								O		

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January 09, 2016

Analytical Report for Service Request No: R1511019

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: FTMM Q4 2015 GW Sampling/748810.03000

Dear Sandra:

Enclosed are the results of the sample(s) submitted to our laboratory on December 16, 2015. For your reference, these analyses have been assigned our service request number **R1511019**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7478. You may also contact me via email at Vanessa.Badman@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Vanessa Badman
Customer Service Manager

ALS Environmental

Client:	Parsons Engineering Science
Service Request No.:	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000
Date Received:	December 16, 2015
Sample Matrix:	Water

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Samples were received for analysis at ALS Environmental on 12/16/15. The samples were received in good condition and consistent with the accompanying chain of custody form. All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

Volatile Organics

Samples were analyzed for a site list of Volatile Organics by Methods 5035A/8260C from SW-846.

All Tuning criteria for BFB were within QC limits.

All the initial calibration criteria were met for all analytes.

All Continuing Calibration Verification (CCV) standards were within 20% Difference (D) except Dichlorodifluoromethane, Acetone, and Chloromethane which recovered high. All samples were non-detect for Dichlorodifluoromethane and Chloromethane. Acetone results were reported as J values and should be considered estimated.

All Internal Standard Areas (IS) were within QC limits.

All surrogate standard recoveries were acceptable.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries were within limits.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination except for 1,2,4-Trichlorobenzene and Naphthalene on RQ1516146.

Acetone and cis-1,2-Dichloroethene recovered high in the Matrix Spike Dupe. The RPD was within range.

Due to sample matrix or non-target analyte concentrations, dilutions were performed and the MRLs adjusted accordingly.

No other analytical or QC problems were encountered.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #:	Batch Complete: Yes	Date Revised:
Submission: R1511019	Diskette Requested: No	Date Due: 1/11/16
Client: Parsons Engineering Science	Date: 1/11/16	Protocol: SW846
Client Rep: VBADMAN	Custody Seal: Present/Absent:	Shipping No.:
Project: FTMM Q4 2015 GW Sampling/74	Chain of Custody: Present/Absent:	SDG #:

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1511019-001	FTMM-5-GW-M5MW16-14.57	Water	8260C	12/14/15	12/16/15			
R1511019-002	FTMM-5-GW-M5MW20-13.65	Water	8260C	12/14/15	12/16/15			
R1511019-003	FTMM-5-GW-M5MW23-10.82	Water	8260C	12/14/15	12/16/15			
R1511019-004QC	FTMM-5-GW-M5MW11-9.46	Water	8260C	12/14/15	12/16/15			
1511019-004.R01Q	FTMM-5-GW-M5MW11-9.46	Water	8260C	12/14/15	12/16/15			
R1511019-005	FTMM-5-GW-M5MW111-9.46	Water	8260C	12/14/15	12/16/15			
R1511019-006	FTMM-18-GW-M18MW22-18.91	Water	8260C	12/14/15	12/16/15			
R1511019-007	FTMM-18-GW-M18MW23-9.28	Water	8260C	12/14/15	12/16/15			
R1511019-008	FTMM-54-GW-296MW04-6.35	Water	8260C	12/14/15	12/16/15			
R1511019-009	FTMM-54-GW-296MW06-10.1	Water	8260C	12/14/15	12/16/15			
R1511019-010	FTMM-22-GW-CW1MW281-33.74	Water	8260C	12/14/15	12/16/15			
R1511019-010.R01	FTMM-22-GW-CW1MW281-33.74	Water	8260C	12/14/15	12/16/15			
R1511019-011	FTMM-22-GW-CW1MW28-11.21	Water	8260C	12/14/15	12/16/15			
R1511019-012	FTMM-22-GW-CW1MW27-12.63	Water	8260C	12/14/15	12/16/15			
R1511019-013	FTMM-22-GW-CW1MW31-16.40	Water	8260C	12/14/15	12/16/15			
R1511019-014	FTMM-22-GW-CW1MW29-10.85	Water	8260C	12/14/15	12/16/15			
R1511019-015	FTMM-22-GW-CW1MW37-11.78	Water	8260C	12/14/15	12/16/15			

Folder Comments: DoD reporting ERPTOOLS LOD

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

30787

Appendix D

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name: FTMM 4Q GW	Project Number: 748810-03000
Project Manager: Cris Grill	Report CC:
Company/Address: 100 High Street, 4th Floor, Boston, MA 02110	
Phone #: 617-449-1583	Email: cris.grill@parsons.com
Sampler's Signature: C Watson	Sampler's Printed Name: C. Watson / A. Feshbach-Meriney

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP & TICs	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	REMARKS/ ALTERNATE DESCRIPTION
FTMM-5-GW-M5MW16-14.57		12/14/15	1425	GW	3	X							
FTMM-5-GW-M5MW20-13.65			1415		3	X							
FTMM-5-GW-M5MW23-10.82			1400		3	X							
FTMM-5-GW-M5MW11-9.46			1410		3	X							
FTMM-5-GW-M5MW111-9.46			1200		3	X							
FTMM-5-GW-M5MW11-MS-9.46			1410		3	X							
FTMM-5-GW-M5MW11-MSD-9.46			1410		3	X							
FTMM-18-GW-M18MW22-18.91			1310		3	X							
FTMM-18-GW-M18MW23-9.28			1305		3	X							
FTMM-54-GW-296MW04-6.35			1335		3	X							
FTMM-54-GW-296MW06-10.1			1330		3	X							

SPECIAL INSTRUCTIONS/COMMENTS
~~Metals~~

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data

Edata ____ Yes ____ No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
C Watson					
Signature	Signature [signature]	Signature	Signature	Signature	Signature
Printed Name	Printed Name [signature]	Printed Name	Printed Name	Printed Name	
Firm PARSONS	Firm ALS	Firm	Firm	Firm	
Date/Time 12/15/15 16:45	Date/Time 12/16/15 0910	Date/Time	Date/Time	Date/Time	

R1511019 5
Parsons, Inc.
FTMM Baseline

Distribution: White - Lab Copy; Yellow - Return to Originator

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ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

30788

Appendix N

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 2

Project Name: FTMM 4Q GW	Project Number: 748810-03006
Project Manager: Cris Grill	Report CC:
Company/Address: 100 High Street, 4th Floor, Boston, MA 02110	
Phone #: 617-449-1583	Email: cris.grill@parsons.com
Sampler's Signature: Ce WA	Sampler's Printed Name: C. WATSON

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP + TICS	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	REMARKS/ ALTERNATE DESCRIPTION
FTMM-22-GW-CW1MW28	1-33.74	12/14/15	1215	GW	3	X							
FTMM-22-GW-CW1MW28	-11.21		1220		3	X							
FTMM-22-GW-CW1MW27	-12.63		1225		3	X							
FTMM-22-GW-CW1MW31	-16.40		1230		3	X							
FTMM-22-GW-CW1MW29	-10.85		1120		3	X							
FTMM-22-GW-CW1MW37	-11.78		1235		3	X							

SPECIAL INSTRUCTIONS/COMMENTS
~~Metals~~

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data

Edata _____ Yes _____ No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Ce WA					
Signature	Signature [signature]	Signature	Signature	Signature	Signature
Printed Name	Printed Name Greg Lake	Printed Name	Printed Name	Printed Name	
Firm PARSONS	Firm AWS	Firm	Firm	Firm	
Date/Time 12/15/15 1645	Date/Time 12/16/15 0910	Date/Time	Date/Time	Date/Time	

R1511019 5
Parsons, Inc.
FTMM Baseline

Distribution: White - Lab Copy; Yellow - Return to Originator

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R1511019 5
Parsons, Inc.
FTMM Baseline

Cooler Receipt and Preservation Check Form

Project/Client Parsons Folder Number _____.

Cooler received on 12/16/15 by: @

COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	(Y) N NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	ALS/ROC (CLIENT)
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set (NA)	

8. Temperature Readings Date: 12/16/15 Time: 0917 ID: (IR#3) IR#5 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	1.8	0.7	2.0	3.7			
Correction Factor (°C)	-0.6	+0.5	+0.5	+0.5			
Corrected Temp (°C)	1.2°	1.2°	2.5°	4.2°			
Within 0-6°C?	(Y) N	(Y) N	(Y) N	(Y) N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by @ on 12/16/15 at 0925
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: _____

Cooler Breakdown: Date: 12/16/15 Time: 1606 by: @

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	411670	11/16				

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 5-211-002

Other Comments:

Headspace: EB-2015-12-14 (1 vial)

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1425
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW16-14.57	**Units:**	µg/L
Lab Code:	R1511019-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/22/15 18:19		477453	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/22/15 18:19		477453	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/22/15 18:19		477453	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/22/15 18:19		477453	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/22/15 18:19		477453	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 18:19		477453	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/22/15 18:19		477453	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/22/15 18:19		477453	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/22/15 18:19		477453	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/22/15 18:19		477453	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 18:19		477453	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 18:19		477453	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/22/15 18:19		477453	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 18:19		477453	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 18:19		477453	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/22/15 18:19		477453	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/22/15 18:19		477453	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/22/15 18:19		477453	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 18:19		477453	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/22/15 18:19		477453	
Acetone	**4.6**	J	10	5.0	1.3	1	NA	12/22/15 18:19		477453	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/22/15 18:19		477453	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 18:19		477453	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 18:19		477453	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/22/15 18:19		477453	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/22/15 18:19		477453	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/22/15 18:19		477453	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 18:19		477453	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 18:19		477453	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1425
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW16-14.57	**Units:**	µg/L
Lab Code:	R1511019-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/22/15 18:19		477453	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/22/15 18:19		477453	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/22/15 18:19		477453	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/22/15 18:19		477453	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/22/15 18:19		477453	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/22/15 18:19		477453	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/22/15 18:19		477453	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
Tetrachloroethene (PCE)	**2.3**	J	5.0	1.0	0.30	1	NA	12/22/15 18:19		477453	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
Trichloroethene (TCE)	**0.25**	J	5.0	1.0	0.22	1	NA	12/22/15 18:19		477453	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/22/15 18:19		477453	
cis-1,2-Dichloroethene	**1.1**	J	5.0	1.0	0.30	1	NA	12/22/15 18:19		477453	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 18:19		477453	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/22/15 18:19		477453	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 18:19		477453	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/22/15 18:19		477453	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/22/15 18:19		477453	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	108	75-120	12/22/15 18:19	
Dibromofluoromethane	107	85-115	12/22/15 18:19	
Toluene-d8	105	85-120	12/22/15 18:19	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/22/15 1819

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-5-GW-M5MW16-14.57	**Units:**	µg/L
Lab Code:	R1511019-001	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1415
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW20-13.65	**Units:**	µg/L
Lab Code:	R1511019-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/22/15 19:17		477453	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/22/15 19:17		477453	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/22/15 19:17		477453	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/22/15 19:17		477453	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/22/15 19:17		477453	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 19:17		477453	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/22/15 19:17		477453	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/22/15 19:17		477453	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/22/15 19:17		477453	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/22/15 19:17		477453	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 19:17		477453	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 19:17		477453	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/22/15 19:17		477453	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 19:17		477453	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 19:17		477453	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/22/15 19:17		477453	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/22/15 19:17		477453	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/22/15 19:17		477453	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 19:17		477453	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/22/15 19:17		477453	
Acetone	**2.7**	J	10	5.0	1.3	1	NA	12/22/15 19:17		477453	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/22/15 19:17		477453	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 19:17		477453	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 19:17		477453	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/22/15 19:17		477453	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/22/15 19:17		477453	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/22/15 19:17		477453	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 19:17		477453	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 19:17		477453	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1415
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW20-13.65	**Units:**	µg/L
Lab Code:	R1511019-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/22/15 19:17		477453	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/22/15 19:17		477453	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/22/15 19:17		477453	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/22/15 19:17		477453	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/22/15 19:17		477453	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/22/15 19:17		477453	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/22/15 19:17		477453	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
Tetrachloroethene (PCE)	**1.4**	J	5.0	1.0	0.30	1	NA	12/22/15 19:17		477453	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
Trichloroethene (TCE)	**0.88**	J	5.0	1.0	0.22	1	NA	12/22/15 19:17		477453	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/22/15 19:17		477453	
cis-1,2-Dichloroethene	**3.5**	J	5.0	1.0	0.30	1	NA	12/22/15 19:17		477453	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 19:17		477453	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/22/15 19:17		477453	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 19:17		477453	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/22/15 19:17		477453	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/22/15 19:17		477453	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	75-120	12/22/15 19:17	
Dibromofluoromethane	108	85-115	12/22/15 19:17	
Toluene-d8	104	85-120	12/22/15 19:17	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/22/15 1917

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-5-GW-M5MW20-13.65	**Units:**	µg/L
Lab Code:	R1511019-002	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1400
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW23-10.82	**Units:**	µg/L
Lab Code:	R1511019-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/22/15 19:46		477453	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/22/15 19:46		477453	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/22/15 19:46		477453	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/22/15 19:46		477453	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/22/15 19:46		477453	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 19:46		477453	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/22/15 19:46		477453	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/22/15 19:46		477453	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/22/15 19:46		477453	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/22/15 19:46		477453	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 19:46		477453	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 19:46		477453	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/22/15 19:46		477453	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 19:46		477453	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 19:46		477453	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/22/15 19:46		477453	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/22/15 19:46		477453	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/22/15 19:46		477453	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 19:46		477453	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/22/15 19:46		477453	
Acetone	**3.1**	J	10	5.0	1.3	1	NA	12/22/15 19:46		477453	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/22/15 19:46		477453	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 19:46		477453	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 19:46		477453	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/22/15 19:46		477453	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/22/15 19:46		477453	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/22/15 19:46		477453	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 19:46		477453	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 19:46		477453	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15 1400
Date Received: 12/16/15

Sample Name: FTMM-5-GW-M5MW23-10.82
Lab Code: R1511019-003

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/22/15 19:46		477453	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/22/15 19:46		477453	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/22/15 19:46		477453	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/22/15 19:46		477453	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/22/15 19:46		477453	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/22/15 19:46		477453	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/22/15 19:46		477453	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
Tetrachloroethene (PCE)	**4.8**	J	5.0	1.0	0.30	1	NA	12/22/15 19:46		477453	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/22/15 19:46		477453	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/22/15 19:46		477453	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/22/15 19:46		477453	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 19:46		477453	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/22/15 19:46		477453	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 19:46		477453	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/22/15 19:46		477453	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/22/15 19:46		477453	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	75-120	12/22/15 19:46	
Dibromofluoromethane	108	85-115	12/22/15 19:46	
Toluene-d8	106	85-120	12/22/15 19:46	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/22/15 1946

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-5-GW-M5MW23-10.82	**Units:**	µg/L
Lab Code:	R1511019-003	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15 1410
Date Received: 12/16/15

Sample Name: FTMM-5-GW-M5MW11-9.46
Lab Code: R1511019-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/22/15 18:49		477453	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/22/15 18:49		477453	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/22/15 18:49		477453	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/22/15 18:49		477453	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/22/15 18:49		477453	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 18:49		477453	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/22/15 18:49		477453	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/22/15 18:49		477453	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/22/15 18:49		477453	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/22/15 18:49		477453	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 18:49		477453	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 18:49		477453	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/22/15 18:49		477453	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 18:49		477453	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 18:49		477453	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/22/15 18:49		477453	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/22/15 18:49		477453	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/22/15 18:49		477453	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 18:49		477453	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/22/15 18:49		477453	
Acetone	**3.2**	J	10	5.0	1.3	1	NA	12/22/15 18:49		477453	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/22/15 18:49		477453	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 18:49		477453	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 18:49		477453	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/22/15 18:49		477453	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/22/15 18:49		477453	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/22/15 18:49		477453	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 18:49		477453	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 18:49		477453	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1410
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW11-9.46	**Units:**	µg/L
Lab Code:	R1511019-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/22/15 18:49		477453	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/22/15 18:49		477453	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/22/15 18:49		477453	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/22/15 18:49		477453	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/22/15 18:49		477453	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/22/15 18:49		477453	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/22/15 18:49		477453	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
Tetrachloroethene (PCE)	**2.5**	J	5.0	1.0	0.30	1	NA	12/22/15 18:49		477453	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/22/15 18:49		477453	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/22/15 18:49		477453	
cis-1,2-Dichloroethene	**0.53**	J	5.0	1.0	0.30	1	NA	12/22/15 18:49		477453	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 18:49		477453	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/22/15 18:49		477453	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 18:49		477453	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/22/15 18:49		477453	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/22/15 18:49		477453	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	75-120	12/22/15 18:49	
Dibromofluoromethane	108	85-115	12/22/15 18:49	
Toluene-d8	105	85-120	12/22/15 18:49	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15
Date Received: 12/16/15
Date Analyzed: 12/22/15 1849

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-5-GW-M5MW11-9.46
Lab Code: R1511019-004

Units: µg/L
Basis: NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1200
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW111-9.46	**Units:**	µg/L
Lab Code:	R1511019-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 13:07		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 13:07		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 13:07		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 13:07		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 13:07		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 13:07		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 13:07		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 13:07		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 13:07		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 13:07		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 13:07		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 13:07		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 13:07		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 13:07		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 13:07		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 13:07		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 13:07		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 13:07		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 13:07		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 13:07		477737	
Acetone	**3.0**	J	10	5.0	1.3	1	NA	12/26/15 13:07		477737	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 13:07		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 13:07		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 13:07		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 13:07		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 13:07		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 13:07		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 13:07		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 13:07		477737	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1200
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW111-9.46	**Units:**	µg/L
Lab Code:	R1511019-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 13:07		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 13:07		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 13:07		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 13:07		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 13:07		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 13:07		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 13:07		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
Tetrachloroethene (PCE)	**2.4**	J	5.0	1.0	0.30	1	NA	12/26/15 13:07		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/26/15 13:07		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 13:07		477737	
cis-1,2-Dichloroethene	**0.47**	J	5.0	1.0	0.30	1	NA	12/26/15 13:07		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 13:07		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 13:07		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 13:07		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 13:07		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 13:07		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	75-120	12/26/15 13:07	
Dibromofluoromethane	105	85-115	12/26/15 13:07	
Toluene-d8	105	85-120	12/26/15 13:07	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/26/15 1307

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-5-GW-M5MW111-9.46	**Units:**	µg/L
Lab Code:	R1511019-005	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1310
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-18-GW-M18MW22-18.91	**Units:**	µg/L
Lab Code:	R1511019-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 13:39		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 13:39		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 13:39		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 13:39		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 13:39		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 13:39		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 13:39		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 13:39		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 13:39		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 13:39		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 13:39		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 13:39		477737	
1,2-Dichloroethane	**0.89**	J	5.0	1.0	0.36	1	NA	12/26/15 13:39		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 13:39		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 13:39		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 13:39		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 13:39		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 13:39		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 13:39		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 13:39		477737	
Acetone	**3.9**	J	10	5.0	1.3	1	NA	12/26/15 13:39		477737	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 13:39		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 13:39		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 13:39		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 13:39		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 13:39		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 13:39		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 13:39		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 13:39		477737	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1310
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-18-GW-M18MW22-18.91	**Units:**	µg/L
Lab Code:	R1511019-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 13:39		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 13:39		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 13:39		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 13:39		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 13:39		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 13:39		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 13:39		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 13:39		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/26/15 13:39		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 13:39		477737	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/26/15 13:39		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 13:39		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 13:39		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 13:39		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 13:39		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 13:39		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	75-120	12/26/15 13:39	
Dibromofluoromethane	108	85-115	12/26/15 13:39	
Toluene-d8	105	85-120	12/26/15 13:39	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/26/15 1339

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-18-GW-M18MW22-18.91	**Units:**	µg/L
Lab Code:	R1511019-006	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15 1305
Date Received: 12/16/15

Sample Name: FTMM-18-GW-M18MW23-9.28
Lab Code: R1511019-007

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 14:11		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 14:11		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 14:11		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 14:11		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 14:11		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 14:11		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 14:11		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 14:11		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 14:11		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 14:11		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 14:11		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 14:11		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 14:11		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 14:11		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 14:11		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 14:11		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 14:11		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 14:11		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 14:11		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 14:11		477737	
Acetone	**1.9**	J	10	5.0	1.3	1	NA	12/26/15 14:11		477737	
Benzene	**0.26**	J	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 14:11		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 14:11		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 14:11		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 14:11		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 14:11		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 14:11		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 14:11		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 14:11		477737	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1305
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-18-GW-M18MW23-9.28	**Units:**	µg/L
Lab Code:	R1511019-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 14:11		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 14:11		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 14:11		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 14:11		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 14:11		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 14:11		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 14:11		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 14:11		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/26/15 14:11		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 14:11		477737	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/26/15 14:11		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 14:11		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 14:11		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 14:11		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 14:11		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 14:11		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	75-120	12/26/15 14:11	
Dibromofluoromethane	109	85-115	12/26/15 14:11	
Toluene-d8	108	85-120	12/26/15 14:11	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/26/15 1411

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-18-GW-M18MW23-9.28	**Units:**	µg/L
Lab Code:	R1511019-007	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1335
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-54-GW-296MW04-6.35	**Units:**	µg/L
Lab Code:	R1511019-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 14:43		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 14:43		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 14:43		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 14:43		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 14:43		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 14:43		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 14:43		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 14:43		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 14:43		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 14:43		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 14:43		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 14:43		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 14:43		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 14:43		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 14:43		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 14:43		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 14:43		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 14:43		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 14:43		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 14:43		477737	
Acetone	**3.1**	J	10	5.0	1.3	1	NA	12/26/15 14:43		477737	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 14:43		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 14:43		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 14:43		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 14:43		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 14:43		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 14:43		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 14:43		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 14:43		477737	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1335
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-54-GW-296MW04-6.35	**Units:**	µg/L
Lab Code:	R1511019-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 14:43		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 14:43		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 14:43		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 14:43		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 14:43		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 14:43		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 14:43		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 14:43		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/26/15 14:43		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 14:43		477737	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/26/15 14:43		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 14:43		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 14:43		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 14:43		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 14:43		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 14:43		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	108	75-120	12/26/15 14:43	
Dibromofluoromethane	106	85-115	12/26/15 14:43	
Toluene-d8	104	85-120	12/26/15 14:43	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/26/15 1443

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-54-GW-296MW04-6.35	**Units:**	µg/L
Lab Code:	R1511019-008	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1330
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-54-GW-296MW06-10.1	**Units:**	µg/L
Lab Code:	R1511019-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 15:15		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 15:15		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 15:15		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 15:15		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 15:15		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 15:15		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 15:15		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 15:15		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 15:15		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 15:15		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 15:15		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 15:15		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 15:15		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 15:15		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 15:15		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 15:15		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 15:15		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 15:15		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 15:15		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 15:15		477737	
Acetone	**1.9**	J	10	5.0	1.3	1	NA	12/26/15 15:15		477737	
Benzene	**6.0**		5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 15:15		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 15:15		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 15:15		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 15:15		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 15:15		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 15:15		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 15:15		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 15:15		477737	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1330
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-54-GW-296MW06-10.1	**Units:**	µg/L
Lab Code:	R1511019-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 15:15		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 15:15		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 15:15		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 15:15		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 15:15		477737	
Ethylbenzene	**0.22**	J	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 15:15		477737	
Isopropylbenzene (Cumene)	**0.51**	J	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 15:15		477737	
Naphthalene	**0.76**	J	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 15:15		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/26/15 15:15		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 15:15		477737	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/26/15 15:15		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 15:15		477737	
m,p-Xylenes	**0.36**	J	5.0	2.0	0.33	1	NA	12/26/15 15:15		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 15:15		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 15:15		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 15:15		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/26/15 15:15	
Dibromofluoromethane	107	85-115	12/26/15 15:15	
Toluene-d8	108	85-120	12/26/15 15:15	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/26/15 1515

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-54-GW-296MW06-10.1	**Units:**	µg/L
Lab Code:	R1511019-009	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1215
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-22-GW-CW1MW281-33.74	**Units:**	µg/L
Lab Code:	R1511019-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 15:47		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 15:47		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 15:47		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 15:47		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
1,1-Dichloroethene (1,1-DCE)	**0.90**	J	5.0	1.0	0.57	1	NA	12/26/15 15:47		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 15:47		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 15:47		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 15:47		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 15:47		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 15:47		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 15:47		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 15:47		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 15:47		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 15:47		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 15:47		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 15:47		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 15:47		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 15:47		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 15:47		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 15:47		477737	
Acetone	**4.0**	J	10	5.0	1.3	1	NA	12/26/15 15:47		477737	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 15:47		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 15:47		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 15:47		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 15:47		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 15:47		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 15:47		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 15:47		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 15:47		477737	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1215
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-22-GW-CW1MW281-33.74	**Units:**	µg/L
Lab Code:	R1511019-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 15:47		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 15:47		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 15:47		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 15:47		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 15:47		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 15:47		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 15:47		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 15:47		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
Trichloroethene (TCE)	**300**	D	13	2.5	0.55	2.5	NA	12/28/15 12:42		477784	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
Vinyl Chloride	**1.4**	J	5.0	1.0	0.32	1	NA	12/26/15 15:47		477737	
cis-1,2-Dichloroethene	**27**		5.0	1.0	0.30	1	NA	12/26/15 15:47		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 15:47		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 15:47		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 15:47		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 15:47		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 15:47		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	12/26/15 15:47	
Dibromofluoromethane	107	85-115	12/26/15 15:47	
Toluene-d8	108	85-120	12/26/15 15:47	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/26/15 - 12/28/15

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-22-GW-CW1MW281-33.74	**Units:**	µg/L
Lab Code:	R1511019-010	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1220
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-22-GW-CW1MW28-11.21	**Units:**	µg/L
Lab Code:	R1511019-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/28/15 11:42		477784	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/28/15 11:42		477784	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/28/15 11:42		477784	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/28/15 11:42		477784	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/28/15 11:42		477784	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/28/15 11:42		477784	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/28/15 11:42		477784	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/28/15 11:42		477784	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/28/15 11:42		477784	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/28/15 11:42		477784	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/28/15 11:42		477784	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/28/15 11:42		477784	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/28/15 11:42		477784	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/28/15 11:42		477784	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/28/15 11:42		477784	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/28/15 11:42		477784	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/28/15 11:42		477784	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/28/15 11:42		477784	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/28/15 11:42		477784	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/28/15 11:42		477784	
Acetone	**2.2**	J	10	5.0	1.3	1	NA	12/28/15 11:42		477784	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/28/15 11:42		477784	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/28/15 11:42		477784	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/28/15 11:42		477784	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/28/15 11:42		477784	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/28/15 11:42		477784	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/28/15 11:42		477784	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/28/15 11:42		477784	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/28/15 11:42		477784	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1220
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-22-GW-CW1MW28-11.21	**Units:**	µg/L
Lab Code:	R1511019-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/28/15 11:42		477784	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/28/15 11:42		477784	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/28/15 11:42		477784	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/28/15 11:42		477784	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/28/15 11:42		477784	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/28/15 11:42		477784	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/28/15 11:42		477784	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/28/15 11:42		477784	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
Trichloroethene (TCE)	**0.32**	J	5.0	1.0	0.22	1	NA	12/28/15 11:42		477784	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/28/15 11:42		477784	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/28/15 11:42		477784	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/28/15 11:42		477784	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/28/15 11:42		477784	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/28/15 11:42		477784	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/28/15 11:42		477784	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/28/15 11:42		477784	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	75-120	12/28/15 11:42	
Dibromofluoromethane	106	85-115	12/28/15 11:42	
Toluene-d8	104	85-120	12/28/15 11:42	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/28/15 1142

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-22-GW-CW1MW28-11.21	**Units:**	µg/L
Lab Code:	R1511019-011	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1225
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-22-GW-CW1MW27-12.63	**Units:**	µg/L
Lab Code:	R1511019-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/28/15 12:12		477784	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/28/15 12:12		477784	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/28/15 12:12		477784	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/28/15 12:12		477784	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/28/15 12:12		477784	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/28/15 12:12		477784	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/28/15 12:12		477784	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/28/15 12:12		477784	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/28/15 12:12		477784	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/28/15 12:12		477784	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/28/15 12:12		477784	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/28/15 12:12		477784	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/28/15 12:12		477784	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/28/15 12:12		477784	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/28/15 12:12		477784	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/28/15 12:12		477784	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/28/15 12:12		477784	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/28/15 12:12		477784	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/28/15 12:12		477784	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/28/15 12:12		477784	
Acetone	**2.8**	J	10	5.0	1.3	1	NA	12/28/15 12:12		477784	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/28/15 12:12		477784	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/28/15 12:12		477784	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/28/15 12:12		477784	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/28/15 12:12		477784	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/28/15 12:12		477784	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/28/15 12:12		477784	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/28/15 12:12		477784	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/28/15 12:12		477784	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1225
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-22-GW-CW1MW27-12.63	**Units:**	µg/L
Lab Code:	R1511019-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/28/15 12:12		477784	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/28/15 12:12		477784	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/28/15 12:12		477784	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/28/15 12:12		477784	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/28/15 12:12		477784	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/28/15 12:12		477784	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/28/15 12:12		477784	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/28/15 12:12		477784	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
Trichloroethene (TCE)	**0.34**	J	5.0	1.0	0.22	1	NA	12/28/15 12:12		477784	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/28/15 12:12		477784	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/28/15 12:12		477784	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/28/15 12:12		477784	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/28/15 12:12		477784	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/28/15 12:12		477784	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/28/15 12:12		477784	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/28/15 12:12		477784	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	75-120	12/28/15 12:12	
Dibromofluoromethane	109	85-115	12/28/15 12:12	
Toluene-d8	106	85-120	12/28/15 12:12	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/28/15 1212

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-22-GW-CW1MW27-12.63	**Units:**	µg/L
Lab Code:	R1511019-012	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1230
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-22-GW-CW1MW31-16.40	**Units:**	µg/L
Lab Code:	R1511019-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 17:23		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 17:23		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 17:23		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 17:23		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 17:23		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 17:23		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 17:23		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 17:23		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 17:23		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 17:23		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 17:23		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 17:23		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 17:23		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 17:23		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 17:23		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 17:23		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 17:23		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 17:23		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 17:23		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 17:23		477737	
Acetone	**3.9**	J	10	5.0	1.3	1	NA	12/26/15 17:23		477737	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 17:23		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 17:23		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 17:23		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 17:23		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 17:23		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 17:23		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 17:23		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 17:23		477737	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1230
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-22-GW-CW1MW31-16.40	**Units:**	µg/L
Lab Code:	R1511019-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 17:23		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 17:23		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 17:23		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 17:23		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 17:23		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 17:23		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 17:23		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 17:23		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
Trichloroethene (TCE)	**1.1**	J	5.0	1.0	0.22	1	NA	12/26/15 17:23		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 17:23		477737	
cis-1,2-Dichloroethene	**0.31**	J	5.0	1.0	0.30	1	NA	12/26/15 17:23		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 17:23		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 17:23		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 17:23		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 17:23		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 17:23		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	75-120	12/26/15 17:23	
Dibromofluoromethane	107	85-115	12/26/15 17:23	
Toluene-d8	106	85-120	12/26/15 17:23	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/26/15 1723

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-22-GW-CW1MW31-16.40	**Units:**	µg/L
Lab Code:	R1511019-013	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15 1120
Date Received: 12/16/15

Sample Name: FTMM-22-GW-CW1MW29-10.85
Lab Code: R1511019-014

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 17:55		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 17:55		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 17:55		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 17:55		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 17:55		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 17:55		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 17:55		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 17:55		477737	
1,2,4-Trichlorobenzene	**0.24**	J	5.0	1.0	0.23	1	NA	12/26/15 17:55		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 17:55		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 17:55		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 17:55		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 17:55		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 17:55		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 17:55		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 17:55		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 17:55		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 17:55		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 17:55		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 17:55		477737	
Acetone	**6.0**	J	10	5.0	1.3	1	NA	12/26/15 17:55		477737	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 17:55		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 17:55		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 17:55		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 17:55		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 17:55		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 17:55		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 17:55		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 17:55		477737	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1120
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-22-GW-CW1MW29-10.85	**Units:**	µg/L
Lab Code:	R1511019-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 17:55		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 17:55		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 17:55		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 17:55		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 17:55		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 17:55		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 17:55		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 17:55		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
Trichloroethene (TCE)	**0.71**	J	5.0	1.0	0.22	1	NA	12/26/15 17:55		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 17:55		477737	
cis-1,2-Dichloroethene	**0.66**	J	5.0	1.0	0.30	1	NA	12/26/15 17:55		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 17:55		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 17:55		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 17:55		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 17:55		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 17:55		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	12/26/15 17:55	
Dibromofluoromethane	108	85-115	12/26/15 17:55	
Toluene-d8	107	85-120	12/26/15 17:55	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/26/15 1755

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-22-GW-CW1MW29-10.85	**Units:**	µg/L
Lab Code:	R1511019-014	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15 1235
Date Received: 12/16/15

Sample Name: FTMM-22-GW-CW1MW37-11.78
Lab Code: R1511019-015

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 18:27		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 18:27		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 18:27		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 18:27		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 18:27		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 18:27		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 18:27		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 18:27		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 18:27		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 18:27		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 18:27		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 18:27		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 18:27		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 18:27		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 18:27		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 18:27		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 18:27		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 18:27		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 18:27		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 18:27		477737	
Acetone	**4.8**	J	10	5.0	1.3	1	NA	12/26/15 18:27		477737	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 18:27		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 18:27		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 18:27		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 18:27		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 18:27		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 18:27		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 18:27		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 18:27		477737	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1235
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-22-GW-CW1MW37-11.78	**Units:**	µg/L
Lab Code:	R1511019-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 18:27		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 18:27		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 18:27		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 18:27		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 18:27		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 18:27		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 18:27		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 18:27		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/26/15 18:27		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 18:27		477737	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/26/15 18:27		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 18:27		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 18:27		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 18:27		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 18:27		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 18:27		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	108	75-120	12/26/15 18:27	
Dibromofluoromethane	109	85-115	12/26/15 18:27	
Toluene-d8	109	85-120	12/26/15 18:27	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/26/15 1827

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-22-GW-CW1MW37-11.78	**Units:**	µg/L
Lab Code:	R1511019-015	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1516003-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/22/15 14:42		477453	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/22/15 14:42		477453	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/22/15 14:42		477453	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/22/15 14:42		477453	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/22/15 14:42		477453	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 14:42		477453	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/22/15 14:42		477453	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/22/15 14:42		477453	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/22/15 14:42		477453	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/22/15 14:42		477453	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 14:42		477453	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 14:42		477453	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/22/15 14:42		477453	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 14:42		477453	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 14:42		477453	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/22/15 14:42		477453	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/22/15 14:42		477453	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/22/15 14:42		477453	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 14:42		477453	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/22/15 14:42		477453	
Acetone	ND	U	10	5.0	1.3	1	NA	12/22/15 14:42		477453	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/22/15 14:42		477453	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 14:42		477453	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 14:42		477453	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/22/15 14:42		477453	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/22/15 14:42		477453	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/22/15 14:42		477453	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 14:42		477453	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 14:42		477453	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1516003-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/22/15 14:42		477453	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/22/15 14:42		477453	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/22/15 14:42		477453	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/22/15 14:42		477453	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/22/15 14:42		477453	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/22/15 14:42		477453	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/22/15 14:42		477453	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/22/15 14:42		477453	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/22/15 14:42		477453	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/22/15 14:42		477453	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/22/15 14:42		477453	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 14:42		477453	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/22/15 14:42		477453	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 14:42		477453	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/22/15 14:42		477453	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/22/15 14:42		477453	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	75-120	12/22/15 14:42	
Dibromofluoromethane	105	85-115	12/22/15 14:42	
Toluene-d8	105	85-120	12/22/15 14:42	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/22/15 1442

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1516003-04	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1516108-04

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 12:35		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 12:35		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 12:35		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 12:35		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 12:35		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 12:35		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 12:35		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 12:35		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 12:35		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 12:35		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 12:35		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 12:35		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 12:35		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 12:35		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 12:35		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 12:35		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 12:35		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 12:35		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 12:35		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 12:35		477737	
Acetone	ND	U	10	5.0	1.3	1	NA	12/26/15 12:35		477737	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 12:35		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 12:35		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 12:35		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 12:35		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 12:35		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 12:35		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 12:35		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 12:35		477737	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1516108-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 12:35		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 12:35		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 12:35		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 12:35		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 12:35		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 12:35		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 12:35		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 12:35		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/26/15 12:35		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 12:35		477737	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/26/15 12:35		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 12:35		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 12:35		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 12:35		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 12:35		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 12:35		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	12/26/15 12:35	
Dibromofluoromethane	108	85-115	12/26/15 12:35	
Toluene-d8	111	85-120	12/26/15 12:35	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/26/15 1235

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1516108-04	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1516146-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/28/15 11:09		477784	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/28/15 11:09		477784	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/28/15 11:09		477784	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/28/15 11:09		477784	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/28/15 11:09		477784	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/28/15 11:09		477784	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/28/15 11:09		477784	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/28/15 11:09		477784	
1,2,4-Trichlorobenzene	0.23	J	5.0	1.0	0.23	1	NA	12/28/15 11:09		477784	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/28/15 11:09		477784	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/28/15 11:09		477784	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/28/15 11:09		477784	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/28/15 11:09		477784	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/28/15 11:09		477784	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/28/15 11:09		477784	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/28/15 11:09		477784	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/28/15 11:09		477784	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/28/15 11:09		477784	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/28/15 11:09		477784	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/28/15 11:09		477784	
Acetone	ND	U	10	5.0	1.3	1	NA	12/28/15 11:09		477784	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/28/15 11:09		477784	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/28/15 11:09		477784	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/28/15 11:09		477784	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/28/15 11:09		477784	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/28/15 11:09		477784	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/28/15 11:09		477784	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/28/15 11:09		477784	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/28/15 11:09		477784	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1516146-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/28/15 11:09		477784	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/28/15 11:09		477784	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/28/15 11:09		477784	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/28/15 11:09		477784	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/28/15 11:09		477784	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/28/15 11:09		477784	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/28/15 11:09		477784	
Naphthalene	**0.23**	J	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/28/15 11:09		477784	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/28/15 11:09		477784	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/28/15 11:09		477784	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/28/15 11:09		477784	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/28/15 11:09		477784	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/28/15 11:09		477784	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/28/15 11:09		477784	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/28/15 11:09		477784	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/28/15 11:09		477784	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	12/28/15 11:09	
Dibromofluoromethane	105	85-115	12/28/15 11:09	
Toluene-d8	110	85-120	12/28/15 11:09	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/28/15 1109

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1516146-04	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15
Date Received: 12/16/15
Date Analyzed: 12/26/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-5-GW-M5MW11-9.46
Lab Code: R1511019-004

Units: µg/L
Basis: NA

Analytical Method: 8260C

		FTMM-5-GW-M5MW11-9.46 MS Matrix Spike RQ1516108-05			FTMM-5-GW-M5MW11-9.46D MS Duplicate Matrix Spike RQ1516108-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1,2-Tetrachloroethane	ND	50.7	50.0	101	53.5	50.0	107	80 - 130	5	30
1,1,1-Trichloroethane (TCA)	ND	60.9	50.0	122	61.7	50.0	123	65 - 130	1	30
1,1,2,2-Tetrachloroethane	ND	51.9	50.0	104	50.8	50.0	102	65 - 130	2	30
1,1,2-Trichloroethane	ND	54.3	50.0	109	55.3	50.0	111	75 - 125	2	30
1,1-Dichloroethane (1,1-DCA)	ND	59.1	50.0	118	60.6	50.0	121	70 - 135	3	30
1,1-Dichloroethene (1,1-DCE)	ND	60.2	50.0	120	60.2	50.0	120	70 - 130	<1	30
1,1-Dichloropropene	ND	58.0	50.0	116	58.6	50.0	117	75 - 130	1	30
1,2,3-Trichlorobenzene	ND	48.1	50.0	96	48.7	50.0	97	55 - 140	1	30
1,2,3-Trichloropropane	ND	51.8	50.0	104	50.5	50.0	101	75 - 125	3	30
1,2,4-Trichlorobenzene	ND	49.0	50.0	98	50.1	50.0	100	65 - 135	2	30
1,2,4-Trimethylbenzene	ND	49.1	50.0	98	47.2	50.0	94	75 - 130	4	30
1,2-Dibromo-3-chloropropane (DBC	ND	49.7	50.0	99	48.8	50.0	98	50 - 130	2	30
1,2-Dibromoethane	ND	51.9	50.0	104	53.8	50.0	108	80 - 120	4	30
1,2-Dichlorobenzene	ND	50.6	50.0	101	49.3	50.0	99	70 - 120	3	30
1,2-Dichloroethane	ND	50.7	50.0	101	52.9	50.0	106	70 - 130	4	30
1,2-Dichloropropane	ND	54.8	50.0	110	57.4	50.0	115	75 - 125	5	30
1,3,5-Trimethylbenzene	ND	48.4	50.0	97	47.9	50.0	96	75 - 130	<1	30
1,3-Dichlorobenzene	ND	50.8	50.0	102	48.5	50.0	97	75 - 125	5	30
1,3-Dichloropropane	ND	52.4	50.0	105	55.9	50.0	112	75 - 125	6	30
1,4-Dichlorobenzene	ND	49.7	50.0	99	49.0	50.0	98	75 - 125	1	30
2,2-Dichloropropane	ND	52.3	50.0	104	49.7	50.0	99	70 - 135	5	30
2-Butanone (MEK)	ND	63.6	50.0	127	64.7	50.0	129	30 - 150	2	30
2-Chlorotoluene	ND	51.3	50.0	102	49.0	50.0	98	75 - 125	5	30
2-Hexanone	ND	51.5	50.0	103	53.4	50.0	107	55 - 130	4	30
tert-Butyl Alcohol	ND	1120	1000	112	1210	1000	121	50 - 150	8	30
4-Chlorotoluene	ND	49.1	50.0	98	49.2	50.0	98	75 - 130	<1	30
p-Isopropyltoluene	ND	49.3	50.0	99	48.4	50.0	97	75 - 130	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15
Date Received: 12/16/15
Date Analyzed: 12/26/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-5-GW-M5MW11-9.46
Lab Code: R1511019-004

Units: µg/L
Basis: NA

Analytical Method: 8260C

		FTMM-5-GW-M5MW11-9.46 MS Matrix Spike RQ1516108-05			FTMM-5-GW-M5MW11-9.46D MS Duplicate Matrix Spike RQ1516108-06					
Analyte Name	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
4-Methyl-2-pentanone	ND	56.8	50.0	114	57.5	50.0	115	60 - 135	1	30
Acetone	3.2	73.0	50.0	140	75.5	50.0	145 *	40 - 140	3	30
Benzene	ND	55.3	50.0	111	56.0	50.0	112	80 - 120	1	30
Bromobenzene	ND	51.3	50.0	103	50.1	50.0	100	75 - 125	2	30
Bromochloromethane	ND	59.0	50.0	118	58.9	50.0	118	65 - 130	<1	30
Bromodichloromethane	ND	54.8	50.0	110	55.2	50.0	110	75 - 120	<1	30
Bromoform	ND	46.5	50.0	93	48.8	50.0	98	70 - 130	5	30
Bromomethane	ND	53.4	50.0	107	62.7	50.0	125	30 - 145	16	30
Carbon Tetrachloride	ND	53.6	50.0	107	54.3	50.0	109	65 - 140	1	30
Chlorobenzene	ND	50.3	50.0	101	51.9	50.0	104	80 - 120	3	30
Chloroethane	ND	57.2	50.0	114	58.8	50.0	118	60 - 135	3	30
Chloroform	ND	58.2	50.0	116	59.0	50.0	118	65 - 135	1	30
Chloromethane	ND	56.3	50.0	113	58.5	50.0	117	40 - 125	4	30
Dibromochloromethane	ND	49.8	50.0	100	52.5	50.0	105	60 - 135	5	30
Dichlorodifluoromethane (CFC 12)	ND	64.5	50.0	129	64.9	50.0	130	30 - 155	<1	30
Methylene Chloride	ND	55.6	50.0	111	56.1	50.0	112	55 - 140	<1	30
Ethylbenzene	ND	51.2	50.0	102	53.3	50.0	107	75 - 125	4	30
Hexachlorobutadiene	ND	44.3	50.0	89	45.6	50.0	91	50 - 140	3	30
Isopropylbenzene (Cumene)	ND	48.6	50.0	97	52.0	50.0	104	75 - 125	7	30
Methyl tert-Butyl Ether	ND	57.9	50.0	116	58.9	50.0	118	65 - 125	2	30
Naphthalene	ND	49.6	50.0	99	51.1	50.0	102	55 - 140	3	30
Styrene	ND	48.6	50.0	97	50.3	50.0	101	65 - 135	4	30
Tetrachloroethene (PCE)	2.5	52.5	50.0	100	55.2	50.0	105	45 - 150	5	30
Toluene	ND	51.3	50.0	103	50.9	50.0	102	75 - 120	<1	30
Trichloroethene (TCE)	ND	53.1	50.0	106	54.0	50.0	108	70 - 125	2	30
Trichlorofluoromethane (CFC 11)	ND	60.1	50.0	120	61.3	50.0	123	60 - 145	2	30
Vinyl Chloride	ND	57.4	50.0	115	57.6	50.0	115	50 - 145	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15
Date Received: 12/16/15
Date Analyzed: 12/26/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-5-GW-M5MW11-9.46
Lab Code: R1511019-004

Units: µg/L
Basis: NA

Analytical Method: 8260C

		FTMM-5-GW-M5MW11-9.46 MS Matrix Spike RQ1516108-05			FTMM-5-GW-M5MW11-9.46D MS Duplicate Matrix Spike RQ1516108-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
cis-1,2-Dichloroethene	0.53	59.9	50.0	119	59.8	50.0	118	70 - 125	<1	30
cis-1,3-Dichloropropene	ND	51.1	50.0	102	53.3	50.0	107	70 - 130	4	30
m,p-Xylenes	ND	103	100	103	107	100	107	75 - 130	4	30
n-Butylbenzene	ND	48.9	50.0	98	48.3	50.0	97	70 - 135	1	30
n-Propylbenzene	ND	48.6	50.0	97	46.8	50.0	94	70 - 130	4	30
o-Xylene	ND	47.9	50.0	96	50.9	50.0	102	80 - 120	6	30
sec-Butylbenzene	ND	48.1	50.0	96	45.5	50.0	91	70 - 125	6	30
tert-Butylbenzene	ND	48.1	50.0	96	47.2	50.0	94	70 - 130	2	30
trans-1,2-Dichloroethene	ND	60.1	50.0	120	58.6	50.0	117	60 - 140	3	30
trans-1,3-Dichloropropene	ND	50.1	50.0	100	52.0	50.0	104	55 - 140	4	30

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Analyzed: 12/22/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 477453

Lab Control Sample
RQ1516003-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	20.5	20.0	102	80 - 130
1,1,1-Trichloroethane (TCA)	21.3	20.0	107	65 - 130
1,1,2,2-Tetrachloroethane	20.0	20.0	100	65 - 130
1,1,2-Trichloroethane	20.5	20.0	103	75 - 125
1,1-Dichloroethane (1,1-DCA)	21.5	20.0	108	70 - 135
1,1-Dichloroethene (1,1-DCE)	21.5	20.0	107	70 - 130
1,1-Dichloropropene	22.3	20.0	112	75 - 130
1,2,3-Trichlorobenzene	21.3	20.0	107	55 - 140
1,2,3-Trichloropropane	20.0	20.0	100	75 - 125
1,2,4-Trichlorobenzene	22.0	20.0	110	65 - 135
1,2,4-Trimethylbenzene	21.5	20.0	108	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	19.0	20.0	95	50 - 130
1,2-Dibromoethane	20.3	20.0	101	80 - 120
1,2-Dichlorobenzene	20.9	20.0	104	70 - 120
1,2-Dichloroethane	19.6	20.0	98	70 - 130
1,2-Dichloropropane	21.3	20.0	107	75 - 125
1,3,5-Trimethylbenzene	21.6	20.0	108	75 - 130
1,3-Dichlorobenzene	21.5	20.0	108	75 - 125
1,3-Dichloropropane	21.0	20.0	105	75 - 125
1,4-Dichlorobenzene	21.1	20.0	106	75 - 125
2,2-Dichloropropane	20.7	20.0	103	70 - 135
2-Butanone (MEK)	21.2	20.0	106	30 - 150
2-Chlorotoluene	21.6	20.0	108	75 - 125
2-Hexanone	18.3	20.0	92	55 - 130
tert-Butyl Alcohol	394	400	99	50 - 150
4-Chlorotoluene	21.5	20.0	108	75 - 130
p-Isopropyltoluene	20.8	20.0	104	75 - 130
4-Methyl-2-pentanone	18.2	20.0	91	60 - 135
Acetone	22.2	20.0	111	40 - 140
Benzene	21.5	20.0	107	80 - 120
Bromobenzene	20.9	20.0	104	75 - 125
Bromochloromethane	20.2	20.0	101	65 - 130
Bromodichloromethane	21.2	20.0	106	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Analyzed: 12/22/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 477453

Lab Control Sample
RQ1516003-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	19.5	20.0	98	70 - 130
Bromomethane	21.5	20.0	108	30 - 145
Carbon Tetrachloride	20.6	20.0	103	65 - 140
Chlorobenzene	20.6	20.0	103	80 - 120
Chloroethane	22.0	20.0	110	60 - 135
Chloroform	20.8	20.0	104	65 - 135
Chloromethane	21.6	20.0	108	40 - 125
Dibromochloromethane	20.8	20.0	104	60 - 135
Dichlorodifluoromethane (CFC 12)	23.6	20.0	118	30 - 155
Methylene Chloride	20.0	20.0	100	55 - 140
Ethylbenzene	21.6	20.0	108	75 - 125
Hexachlorobutadiene	24.6	20.0	123	50 - 140
Isopropylbenzene (Cumene)	21.5	20.0	108	75 - 125
Methyl tert-Butyl Ether	19.6	20.0	98	65 - 125
Naphthalene	21.0	20.0	105	55 - 140
Styrene	21.5	20.0	107	65 - 135
Tetrachloroethene (PCE)	21.2	20.0	106	45 - 150
Toluene	20.3	20.0	101	75 - 120
Trichloroethene (TCE)	20.7	20.0	104	70 - 125
Trichlorofluoromethane (CFC 11)	21.5	20.0	108	60 - 145
Vinyl Chloride	21.4	20.0	107	50 - 145
cis-1,2-Dichloroethene	21.4	20.0	107	70 - 125
cis-1,3-Dichloropropene	21.6	20.0	108	70 - 130
m,p-Xylenes	43.1	40.0	108	75 - 130
n-Butylbenzene	22.1	20.0	110	70 - 135
n-Propylbenzene	20.5	20.0	103	70 - 130
o-Xylene	20.5	20.0	103	80 - 120
sec-Butylbenzene	20.5	20.0	103	70 - 125
tert-Butylbenzene	20.0	20.0	100	70 - 130
trans-1,2-Dichloroethene	20.8	20.0	104	60 - 140
trans-1,3-Dichloropropene	20.5	20.0	103	55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Analyzed: 12/26/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 477737

Lab Control Sample
RQ1516108-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	19.8	20.0	99	80 - 130
1,1,1-Trichloroethane (TCA)	23.6	20.0	118	65 - 130
1,1,2,2-Tetrachloroethane	20.6	20.0	103	65 - 130
1,1,2-Trichloroethane	22.1	20.0	110	75 - 125
1,1-Dichloroethane (1,1-DCA)	24.0	20.0	120	70 - 135
1,1-Dichloroethene (1,1-DCE)	23.6	20.0	118	70 - 130
1,1-Dichloropropene	22.9	20.0	114	75 - 130
1,2,3-Trichlorobenzene	20.9	20.0	104	55 - 140
1,2,3-Trichloropropane	20.4	20.0	102	75 - 125
1,2,4-Trichlorobenzene	21.0	20.0	105	65 - 135
1,2,4-Trimethylbenzene	20.4	20.0	102	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	19.4	20.0	97	50 - 130
1,2-Dibromoethane	21.0	20.0	105	80 - 120
1,2-Dichlorobenzene	20.9	20.0	104	70 - 120
1,2-Dichloroethane	21.1	20.0	105	70 - 130
1,2-Dichloropropane	21.7	20.0	109	75 - 125
1,3,5-Trimethylbenzene	20.5	20.0	103	75 - 130
1,3-Dichlorobenzene	20.9	20.0	104	75 - 125
1,3-Dichloropropane	21.4	20.0	107	75 - 125
1,4-Dichlorobenzene	20.3	20.0	101	75 - 125
2,2-Dichloropropane	22.5	20.0	113	70 - 135
2-Butanone (MEK)	24.4	20.0	122	30 - 150
2-Chlorotoluene	21.0	20.0	105	75 - 125
2-Hexanone	20.2	20.0	101	55 - 130
tert-Butyl Alcohol	520	400	130	50 - 150
4-Chlorotoluene	20.9	20.0	105	75 - 130
p-Isopropyltoluene	20.3	20.0	101	75 - 130
4-Methyl-2-pentanone	21.2	20.0	106	60 - 135
Acetone	27.2	20.0	136	40 - 140
Benzene	21.8	20.0	109	80 - 120
Bromobenzene	20.3	20.0	101	75 - 125
Bromochloromethane	23.0	20.0	115	65 - 130
Bromodichloromethane	22.7	20.0	113	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Analyzed: 12/26/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 477737

Lab Control Sample
RQ1516108-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	20.9	20.0	104	70 - 130
Bromomethane	24.1	20.0	121	30 - 145
Carbon Tetrachloride	21.4	20.0	107	65 - 140
Chlorobenzene	19.7	20.0	99	80 - 120
Chloroethane	23.6	20.0	118	60 - 135
Chloroform	23.4	20.0	117	65 - 135
Chloromethane	24.2	20.0	121	40 - 125
Dibromochloromethane	21.6	20.0	108	60 - 135
Dichlorodifluoromethane (CFC 12)	26.1	20.0	131	30 - 155
Methylene Chloride	23.1	20.0	115	55 - 140
Ethylbenzene	20.2	20.0	101	75 - 125
Hexachlorobutadiene	21.5	20.0	108	50 - 140
Isopropylbenzene (Cumene)	19.5	20.0	97	75 - 125
Methyl tert-Butyl Ether	23.2	20.0	116	65 - 125
Naphthalene	21.2	20.0	106	55 - 140
Styrene	20.8	20.0	104	65 - 135
Tetrachloroethene (PCE)	20.1	20.0	100	45 - 150
Toluene	21.3	20.0	107	75 - 120
Trichloroethene (TCE)	21.0	20.0	105	70 - 125
Trichlorofluoromethane (CFC 11)	24.2	20.0	121	60 - 145
Vinyl Chloride	22.5	20.0	113	50 - 145
cis-1,2-Dichloroethene	23.8	20.0	119	70 - 125
cis-1,3-Dichloropropene	22.6	20.0	113	70 - 130
m,p-Xylenes	41.1	40.0	103	75 - 130
n-Butylbenzene	20.8	20.0	104	70 - 135
n-Propylbenzene	19.7	20.0	99	70 - 130
o-Xylene	19.9	20.0	100	80 - 120
sec-Butylbenzene	19.6	20.0	98	70 - 125
tert-Butylbenzene	19.6	20.0	98	70 - 130
trans-1,2-Dichloroethene	22.3	20.0	112	60 - 140
trans-1,3-Dichloropropene	22.6	20.0	113	55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Analyzed: 12/28/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 477784

Lab Control Sample
RQ1516146-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	20.1	20.0	100	80 - 130
1,1,1-Trichloroethane (TCA)	24.5	20.0	122	65 - 130
1,1,2,2-Tetrachloroethane	18.6	20.0	93	65 - 130
1,1,2-Trichloroethane	21.9	20.0	110	75 - 125
1,1-Dichloroethane (1,1-DCA)	25.2	20.0	126	70 - 135
1,1-Dichloroethene (1,1-DCE)	24.8	20.0	124	70 - 130
1,1-Dichloropropene	23.4	20.0	117	75 - 130
1,2,3-Trichlorobenzene	19.6	20.0	98	55 - 140
1,2,3-Trichloropropane	18.2	20.0	91	75 - 125
1,2,4-Trichlorobenzene	20.9	20.0	104	65 - 135
1,2,4-Trimethylbenzene	20.6	20.0	103	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	16.9	20.0	85	50 - 130
1,2-Dibromoethane	19.1	20.0	96	80 - 120
1,2-Dichlorobenzene	20.6	20.0	103	70 - 120
1,2-Dichloroethane	20.3	20.0	102	70 - 130
1,2-Dichloropropane	22.7	20.0	114	75 - 125
1,3,5-Trimethylbenzene	21.2	20.0	106	75 - 130
1,3-Dichlorobenzene	20.8	20.0	104	75 - 125
1,3-Dichloropropane	19.8	20.0	99	75 - 125
1,4-Dichlorobenzene	20.3	20.0	101	75 - 125
2,2-Dichloropropane	24.3	20.0	121	70 - 135
2-Butanone (MEK)	22.2	20.0	111	30 - 150
2-Chlorotoluene	20.1	20.0	100	75 - 125
2-Hexanone	16.8	20.0	84	55 - 130
tert-Butyl Alcohol	414	400	103	50 - 150
4-Chlorotoluene	21.0	20.0	105	75 - 130
p-Isopropyltoluene	20.8	20.0	104	75 - 130
4-Methyl-2-pentanone	18.6	20.0	93	60 - 135
Acetone	27.4	20.0	137	40 - 140
Benzene	22.3	20.0	112	80 - 120
Bromobenzene	21.0	20.0	105	75 - 125
Bromochloromethane	23.5	20.0	117	65 - 130
Bromodichloromethane	23.1	20.0	115	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Analyzed: 12/28/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 477784

Lab Control Sample
RQ1516146-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	18.6	20.0	93	70 - 130
Bromomethane	24.2	20.0	121	30 - 145
Carbon Tetrachloride	22.2	20.0	111	65 - 140
Chlorobenzene	20.0	20.0	100	80 - 120
Chloroethane	24.6	20.0	123	60 - 135
Chloroform	24.0	20.0	120	65 - 135
Chloromethane	24.5	20.0	123	40 - 125
Dibromochloromethane	19.1	20.0	96	60 - 135
Dichlorodifluoromethane (CFC 12)	26.4	20.0	132	30 - 155
Methylene Chloride	22.7	20.0	113	55 - 140
Ethylbenzene	20.4	20.0	102	75 - 125
Hexachlorobutadiene	23.9	20.0	119	50 - 140
Isopropylbenzene (Cumene)	20.4	20.0	102	75 - 125
Methyl tert-Butyl Ether	22.7	20.0	114	65 - 125
Naphthalene	18.8	20.0	94	55 - 140
Styrene	20.1	20.0	100	65 - 135
Tetrachloroethene (PCE)	20.2	20.0	101	45 - 150
Toluene	21.8	20.0	109	75 - 120
Trichloroethene (TCE)	21.9	20.0	110	70 - 125
Trichlorofluoromethane (CFC 11)	25.0	20.0	125	60 - 145
Vinyl Chloride	23.6	20.0	118	50 - 145
cis-1,2-Dichloroethene	24.7	20.0	123	70 - 125
cis-1,3-Dichloropropene	22.0	20.0	110	70 - 130
m,p-Xylenes	40.8	40.0	102	75 - 130
n-Butylbenzene	21.4	20.0	107	70 - 135
n-Propylbenzene	20.7	20.0	104	70 - 130
o-Xylene	20.3	20.0	101	80 - 120
sec-Butylbenzene	20.3	20.0	101	70 - 125
tert-Butylbenzene	20.3	20.0	101	70 - 130
trans-1,2-Dichloroethene	24.1	20.0	121	60 - 140
trans-1,3-Dichloropropene	21.6	20.0	108	55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
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January 09, 2016

Analytical Report for Service Request No: R1511019

Sandra de las Fuentes
Parsons, Inc.
8000 Centre Park Drive, Suite 200
Austin, TX 78754

Laboratory Results for: FTMM Q4 2015 GW Sampling/748810.03000

Dear Sandra:

Enclosed are the results of the sample(s) submitted to our laboratory on December 16, 2015. For your reference, these analyses have been assigned our service request number **R1511019**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7478. You may also contact me via email at Vanessa.Badman@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Vanessa M. Badman

Vanessa Badman
Customer Service Manager

Parsons, Inc.
R1511019

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SDG NARRATIVE

ALS Environmental - Rochester, NY
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Phone (585) 288-5380 Fax (585) 288-8475
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ALS Environmental

Client:	Parsons Engineering Science
Service Request No.:	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000
Date Received:	December 16, 2015
Sample Matrix:	Water

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Samples were received for analysis at ALS Environmental on 12/16/15. The samples were received in good condition and consistent with the accompanying chain of custody form. All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

Volatile Organics

Samples were analyzed for a site list of Volatile Organics by Methods 5035A/8260C from SW-846.

All Tuning criteria for BFB were within QC limits.

All the initial calibration criteria were met for all analytes.

All Continuing Calibration Verification (CCV) standards were within 20% Difference (D) except Dichlorodifluoromethane, Acetone, and Chloromethane which recovered high. All samples were non-detect for Dichlorodifluoromethane and Chloromethane. Acetone results were reported as J values and should be considered estimated.

All Internal Standard Areas (IS) were within QC limits.

All surrogate standard recoveries were acceptable.

All Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) recoveries were within limits.

Site specific QC was not requested on these samples.

The Method Blanks associated with these samples were free of contamination except for 1,2,4-Trichlorobenzene and Naphthalene on RQ1516146.

Acetone and cis-1,2-Dichloroethene recovered high in the Matrix Spike Dupe. The RPD was within range.

Due to sample matrix or non-target analyte concentrations, dilutions were performed and the MRLs adjusted accordingly.

No other analytical or QC problems were encountered.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #:	Batch Complete: Yes	Date Revised:
Submission: R1511019	Diskette Requested: No	Date Due: 1/11/16
Client: Parsons Engineering Science	Date: 1/11/16	Protocol: SW846
Client Rep: VBADMAN	Custody Seal: Present/Absent:	Shipping No.:
Project: FTMM Q4 2015 GW Sampling/74	Chain of Custody: Present/Absent:	SDG #:

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1511019-001	FTMM-5-GW-M5MW16-14.57	Water	8260C	12/14/15	12/16/15			
R1511019-002	FTMM-5-GW-M5MW20-13.65	Water	8260C	12/14/15	12/16/15			
R1511019-003	FTMM-5-GW-M5MW23-10.82	Water	8260C	12/14/15	12/16/15			
R1511019-004QC	FTMM-5-GW-M5MW11-9.46	Water	8260C	12/14/15	12/16/15			
1511019-004.R01Q	FTMM-5-GW-M5MW11-9.46	Water	8260C	12/14/15	12/16/15			
R1511019-005	FTMM-5-GW-M5MW111-9.46	Water	8260C	12/14/15	12/16/15			
R1511019-006	FTMM-18-GW-M18MW22-18.91	Water	8260C	12/14/15	12/16/15			
R1511019-007	FTMM-18-GW-M18MW23-9.28	Water	8260C	12/14/15	12/16/15			
R1511019-008	FTMM-54-GW-296MW04-6.35	Water	8260C	12/14/15	12/16/15			
R1511019-009	FTMM-54-GW-296MW06-10.1	Water	8260C	12/14/15	12/16/15			
R1511019-010	FTMM-22-GW-CW1MW281-33.74	Water	8260C	12/14/15	12/16/15			
R1511019-010.R01	FTMM-22-GW-CW1MW281-33.74	Water	8260C	12/14/15	12/16/15			
R1511019-011	FTMM-22-GW-CW1MW28-11.21	Water	8260C	12/14/15	12/16/15			
R1511019-012	FTMM-22-GW-CW1MW27-12.63	Water	8260C	12/14/15	12/16/15			
R1511019-013	FTMM-22-GW-CW1MW31-16.40	Water	8260C	12/14/15	12/16/15			
R1511019-014	FTMM-22-GW-CW1MW29-10.85	Water	8260C	12/14/15	12/16/15			
R1511019-015	FTMM-22-GW-CW1MW37-11.78	Water	8260C	12/14/15	12/16/15			

Folder Comments: DoD reporting ERPTOOLS LOD

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Environmental

CHAINS OF CUSTODY

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

30787

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name: FTMM 4Q GW	Project Number: 748810-03000
Project Manager: Cris Grill	Report CC:
Company/Address: 100 High Street, 4th Floor, Boston, MA 02110	
Phone #: 617-449-1583	Email: cris.grill@parsons.com
Sampler's Signature:	Sampler's Printed Name: C. Watson / A. Feshbach Merino

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP + TICs	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	REMARKS/ ALTERNATE DESCRIPTION
FTMM-5-GW-MSMW16-14.57		12/14/15	1425	GW	3	X							
FTMM-5-GW-MSMW20-13.65			1415		3	X							
FTMM-5-GW-MSMW23-10.82			1400		3	X							
FTMM-5-GW-MSMW11-9.46			1410		3	X							
FTMM-5-GW-MSMW11-9.46			1200		3	X							
FTMM-5-GW-MSMW11-MS-9.46			1410		3	X							
FTMM-5-GW-MSMW11-MSD-9.46			1410		3	X							
FTMM-18-GW-M18MW22-18.91			1310		3	X							
FTMM-18-GW-M18MW23-9.28			1305		3	X							
FTMM-54-GW-296MW04-6.35			1335		3	X							
FTMM-54-GW-296MW06-10.1			1330		3	X							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
~~Metals~~

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
REQUESTED REPORT DATE

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data
Edata _____ Yes _____ No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	
Firm PARSONS	Firm ALS	Firm	Firm	Firm	
Date/Time 12/15/15 1645	Date/Time 12/16/15 0910	Date/Time	Date/Time	Date/Time	

Distribution: White - Lab Copy; Yellow - Return to Originator

R1511019 5
Parsons, Inc.
FTMM Baseline

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

30788

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 2

Project Name: FTMM 4Q GW	Project Number: 418810-03006
Project Manager: Cris Grill	Report CC:
Company/Address: 100 High Street, 4th Floor, Boston, MA 02110	
Phone #: 617-449-1583	Email: cris.grill@parsons.com
Sampler's Signature: Ce Wat	Sampler's Printed Name: C. WATSON

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP + TICs	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	REMARKS/ ALTERNATE DESCRIPTION
FTMM-22-GW-CW1MW28	31-33.74	12/14/15	1215	GW	3	X							
FTMM-22-GW-CW1MW	28-11.21		1220		3	X							
FTMM-22-GW-CW1MW	27-12.63		1225		3	X							
FTMM-22-GW-CW1MW	31-16.40		1230		3	X							
FTMM-22-GW-CW1MW	9-10.85		1120		3	X							
FTMM-22-GW-CW1MW	37-11.78		1235		3	X							

Preservative Key
0. NONE
1. HCl
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
~~Metals~~

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day ____2 day ____3 day
_____ 4 day ____5 day
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ____Yes ____No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Ce Wat	Signature: Greg Lake	Signature:	Signature:	Signature:	Signature:
Printed Name:	Printed Name: Greg Lake	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: PARSONS	Firm: ARI	Firm:	Firm:	Firm:	Firm:
Date/Time: 12/15/15 1645	Date/Time: 12/16/15 0910	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Distribution: White - Lab Copy; Yellow - Return to Originator

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R1511019 5
Parsons, Inc.
FTMM Baseline

Cooler Receipt and Preservation Check Form

Project/Client Parsons Folder Number _____.

Cooler received on 12/16/15 by: @

COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	(Y) N NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	ALS/ROC (CLIENT)
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set (NA)	

8. Temperature Readings Date: 12/16/15 Time: 0917 ID: (IR#3) IR#5 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	1.8	0.7	2.0	3.7			
Correction Factor (°C)	-0.6	+0.5	+0.5	+0.5			
Corrected Temp (°C)	1.2°	1.2°	2.5°	4.2°			
Within 0-6°C?	(Y) N	(Y) N	(Y) N	(Y) N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by @ on 12/16/15 at 0925
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: _____

Cooler Breakdown: Date: 12/16/15 Time: 1606 by: @

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	4114670	11/16				

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 5-211-002
Other Comments:

Headspace: EB-2015-12-14 (1 vial)

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r9.doc 9/24/15

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Q4 2015 GW Sampling/748810.03000

Service Request: R1511019

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1511019-001.01					
	8260C				
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/22/15	1354	In Lab / DLIPANI	
		12/22/15	1910	R-001-S11 / DLIPANI	
R1511019-001.02					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-001.03					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-002.01					
	8260C				
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/22/15	1354	In Lab / DLIPANI	
		12/22/15	1910	R-001-S11 / DLIPANI	
R1511019-002.02					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-002.03					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-003.01					
	8260C				
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/22/15	1354	In Lab / DLIPANI	
		12/22/15	1910	R-001-S11 / DLIPANI	
R1511019-003.02					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-003.03					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-004.01					
	8260C				
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/22/15	1354	In Lab / DLIPANI	

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Q4 2015 GW Sampling/748810.03000

Service Request: R1511019

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		12/22/15	1909	R-001-S11 / DLIPANI	
R1511019-004.02					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/26/15	1126	In Lab / DLIPANI	
		12/26/15	1516	R-001-S11 / DLIPANI	
R1511019-004.03					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-004.04					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-004.05					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-004.06					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-004.07					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-004.08					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-004.09					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-005.01					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/22/15	1354	In Lab / DLIPANI	
		12/22/15	1910	R-001-S11 / DLIPANI	
R1511019-005.02					
	8260C				
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/26/15	1127	In Lab / DLIPANI	
		12/26/15	1517	R-001-S11 / DLIPANI	
R1511019-005.03					
		12/17/15	1521	SMO / GLAFORCE	

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Q4 2015 GW Sampling/748810.03000
Service Request: R1511019

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-006.01					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/22/15	1354	In Lab / DLIPANI	
		12/22/15	1910	R-001-S11 / DLIPANI	
R1511019-006.02					
	8260C				
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/26/15	1127	In Lab / DLIPANI	
		12/26/15	1517	R-001-S11 / DLIPANI	
R1511019-006.03					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-007.01					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/22/15	1354	In Lab / DLIPANI	
		12/22/15	1910	R-001-S11 / DLIPANI	
		12/26/15	1127	In Lab / DLIPANI	
		12/26/15	1517	R-001-S11 / DLIPANI	
R1511019-007.02					
	8260C				
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/26/15	1127	In Lab / DLIPANI	
		12/26/15	1517	R-001-S11 / DLIPANI	
R1511019-007.03					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-008.01					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/22/15	1354	In Lab / DLIPANI	
		12/22/15	1910	R-001-S11 / DLIPANI	
R1511019-008.02					
	8260C				
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/26/15	1127	In Lab / DLIPANI	
		12/26/15	1517	R-001-S11 / DLIPANI	

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Q4 2015 GW Sampling/748810.03000
Service Request: R1511019

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1511019-008.03					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-009.01					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/22/15	1354	In Lab / DLIPANI	
		12/22/15	1909	R-001-S11 / DLIPANI	
R1511019-009.02					
	8260C				
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/26/15	1127	In Lab / DLIPANI	
		12/26/15	1517	R-001-S11 / DLIPANI	
R1511019-009.03					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-010.01					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/22/15	1354	In Lab / DLIPANI	
		12/22/15	1909	R-001-S11 / DLIPANI	
R1511019-010.02					
	8260C				
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/26/15	1127	In Lab / DLIPANI	
		12/26/15	1517	R-001-S11 / DLIPANI	
R1511019-010.03					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/28/15	1040	In Lab / DLIPANI	
		12/28/15	1750	R-001-S11 / DLIPANI	
R1511019-011.01					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/26/15	1127	In Lab / DLIPANI	
		12/26/15	1517	R-001-S11 / DLIPANI	
R1511019-011.02					
	8260C				
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	

ALS ENVIRONMENTAL
Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Q4 2015 GW Sampling/748810.03000
Service Request: R1511019

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		12/28/15	1040	In Lab / DLIPANI	
		12/28/15	1751	R-001-S11 / DLIPANI	
R1511019-011.03					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-012.01					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/26/15	1127	In Lab / DLIPANI	
		12/26/15	1517	R-001-S11 / DLIPANI	
R1511019-012.02					
	8260C				
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/28/15	1040	In Lab / DLIPANI	
		12/28/15	1750	R-001-S11 / DLIPANI	
R1511019-012.03					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-013.01					
	8260C				
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/26/15	1127	In Lab / DLIPANI	
		12/26/15	1517	R-001-S11 / DLIPANI	
R1511019-013.02					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-013.03					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-014.01					
	8260C				
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/26/15	1127	In Lab / DLIPANI	
		12/26/15	1517	R-001-S11 / DLIPANI	
R1511019-014.02					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-014.03					

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Parsons, Inc.
Project: FTMM Q4 2015 GW Sampling/748810.03000

Service Request: R1511019

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-015.01					
	8260C				
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
		12/26/15	1127	In Lab / DLIPANI	
		12/26/15	1517	R-001-S11 / DLIPANI	
R1511019-015.02					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	
R1511019-015.03					
		12/17/15	1521	SMO / GLAFORCE	
		12/17/15	1521	R-001 / GLAFORCE	

ALS Environmental

VOLATILE ORGANICS QC SUMMARY

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

RIGHT SOLUTIONS | RIGHT PARTNER

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15
Date Received: 12/16/15
Date Analyzed: 12/26/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-5-GW-M5MW11-9.46
Lab Code: R1511019-004

Units: µg/L
Basis: NA

Analytical Method: 8260C

		FTMM-5-GW-M5MW11-9.46 MS Matrix Spike RQ1516108-05			FTMM-5-GW-M5MW11-9.46D MS Duplicate Matrix Spike RQ1516108-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1,2-Tetrachloroethane	ND	50.7	50.0	101	53.5	50.0	107	80 - 130	5	30
1,1,1-Trichloroethane (TCA)	ND	60.9	50.0	122	61.7	50.0	123	65 - 130	1	30
1,1,2,2-Tetrachloroethane	ND	51.9	50.0	104	50.8	50.0	102	65 - 130	2	30
1,1,2-Trichloroethane	ND	54.3	50.0	109	55.3	50.0	111	75 - 125	2	30
1,1-Dichloroethane (1,1-DCA)	ND	59.1	50.0	118	60.6	50.0	121	70 - 135	3	30
1,1-Dichloroethene (1,1-DCE)	ND	60.2	50.0	120	60.2	50.0	120	70 - 130	<1	30
1,1-Dichloropropene	ND	58.0	50.0	116	58.6	50.0	117	75 - 130	1	30
1,2,3-Trichlorobenzene	ND	48.1	50.0	96	48.7	50.0	97	55 - 140	1	30
1,2,3-Trichloropropane	ND	51.8	50.0	104	50.5	50.0	101	75 - 125	3	30
1,2,4-Trichlorobenzene	ND	49.0	50.0	98	50.1	50.0	100	65 - 135	2	30
1,2,4-Trimethylbenzene	ND	49.1	50.0	98	47.2	50.0	94	75 - 130	4	30
1,2-Dibromo-3-chloropropane (DBC	ND	49.7	50.0	99	48.8	50.0	98	50 - 130	2	30
1,2-Dibromoethane	ND	51.9	50.0	104	53.8	50.0	108	80 - 120	4	30
1,2-Dichlorobenzene	ND	50.6	50.0	101	49.3	50.0	99	70 - 120	3	30
1,2-Dichloroethane	ND	50.7	50.0	101	52.9	50.0	106	70 - 130	4	30
1,2-Dichloropropane	ND	54.8	50.0	110	57.4	50.0	115	75 - 125	5	30
1,3,5-Trimethylbenzene	ND	48.4	50.0	97	47.9	50.0	96	75 - 130	<1	30
1,3-Dichlorobenzene	ND	50.8	50.0	102	48.5	50.0	97	75 - 125	5	30
1,3-Dichloropropane	ND	52.4	50.0	105	55.9	50.0	112	75 - 125	6	30
1,4-Dichlorobenzene	ND	49.7	50.0	99	49.0	50.0	98	75 - 125	1	30
2,2-Dichloropropane	ND	52.3	50.0	104	49.7	50.0	99	70 - 135	5	30
2-Butanone (MEK)	ND	63.6	50.0	127	64.7	50.0	129	30 - 150	2	30
2-Chlorotoluene	ND	51.3	50.0	102	49.0	50.0	98	75 - 125	5	30
2-Hexanone	ND	51.5	50.0	103	53.4	50.0	107	55 - 130	4	30
tert-Butyl Alcohol	ND	1120	1000	112	1210	1000	121	50 - 150	8	30
4-Chlorotoluene	ND	49.1	50.0	98	49.2	50.0	98	75 - 130	<1	30
p-Isopropyltoluene	ND	49.3	50.0	99	48.4	50.0	97	75 - 130	2	30

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Results flagged with a pound (#) indicate the control criteria is not applicable.

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15
Date Received: 12/16/15
Date Analyzed: 12/26/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-5-GW-M5MW11-9.46
Lab Code: R1511019-004

Units: µg/L
Basis: NA

Analytical Method: 8260C

		FTMM-5-GW-M5MW11-9.46 MS Matrix Spike RQ1516108-05			FTMM-5-GW-M5MW11-9.46D MS Duplicate Matrix Spike RQ1516108-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
4-Methyl-2-pentanone	ND	56.8	50.0	114	57.5	50.0	115	60 - 135	1	30
Acetone	3.2	73.0	50.0	140	75.5	50.0	145 *	40 - 140	3	30
Benzene	ND	55.3	50.0	111	56.0	50.0	112	80 - 120	1	30
Bromobenzene	ND	51.3	50.0	103	50.1	50.0	100	75 - 125	2	30
Bromochloromethane	ND	59.0	50.0	118	58.9	50.0	118	65 - 130	<1	30
Bromodichloromethane	ND	54.8	50.0	110	55.2	50.0	110	75 - 120	<1	30
Bromoform	ND	46.5	50.0	93	48.8	50.0	98	70 - 130	5	30
Bromomethane	ND	53.4	50.0	107	62.7	50.0	125	30 - 145	16	30
Carbon Tetrachloride	ND	53.6	50.0	107	54.3	50.0	109	65 - 140	1	30
Chlorobenzene	ND	50.3	50.0	101	51.9	50.0	104	80 - 120	3	30
Chloroethane	ND	57.2	50.0	114	58.8	50.0	118	60 - 135	3	30
Chloroform	ND	58.2	50.0	116	59.0	50.0	118	65 - 135	1	30
Chloromethane	ND	56.3	50.0	113	58.5	50.0	117	40 - 125	4	30
Dibromochloromethane	ND	49.8	50.0	100	52.5	50.0	105	60 - 135	5	30
Dichlorodifluoromethane (CFC 12)	ND	64.5	50.0	129	64.9	50.0	130	30 - 155	<1	30
Methylene Chloride	ND	55.6	50.0	111	56.1	50.0	112	55 - 140	<1	30
Ethylbenzene	ND	51.2	50.0	102	53.3	50.0	107	75 - 125	4	30
Hexachlorobutadiene	ND	44.3	50.0	89	45.6	50.0	91	50 - 140	3	30
Isopropylbenzene (Cumene)	ND	48.6	50.0	97	52.0	50.0	104	75 - 125	7	30
Methyl tert-Butyl Ether	ND	57.9	50.0	116	58.9	50.0	118	65 - 125	2	30
Naphthalene	ND	49.6	50.0	99	51.1	50.0	102	55 - 140	3	30
Styrene	ND	48.6	50.0	97	50.3	50.0	101	65 - 135	4	30
Tetrachloroethene (PCE)	2.5	52.5	50.0	100	55.2	50.0	105	45 - 150	5	30
Toluene	ND	51.3	50.0	103	50.9	50.0	102	75 - 120	<1	30
Trichloroethene (TCE)	ND	53.1	50.0	106	54.0	50.0	108	70 - 125	2	30
Trichlorofluoromethane (CFC 11)	ND	60.1	50.0	120	61.3	50.0	123	60 - 145	2	30
Vinyl Chloride	ND	57.4	50.0	115	57.6	50.0	115	50 - 145	<1	30

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Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15
Date Received: 12/16/15
Date Analyzed: 12/26/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-5-GW-M5MW11-9.46
Lab Code: R1511019-004

Units: µg/L
Basis: NA

Analytical Method: 8260C

Analyte Name	Sample Result	FTMM-5-GW-M5MW11-9.46 MS Matrix Spike RQ1516108-05 Result	Spike Amount	% Rec	FTMM-5-GW-M5MW11-9.46D MS Duplicate Matrix Spike RQ1516108-06 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	0.53	59.9	50.0	119	59.8	50.0	118	70 - 125	<1	30
cis-1,3-Dichloropropene	ND	51.1	50.0	102	53.3	50.0	107	70 - 130	4	30
m,p-Xylenes	ND	103	100	103	107	100	107	75 - 130	4	30
n-Butylbenzene	ND	48.9	50.0	98	48.3	50.0	97	70 - 135	1	30
n-Propylbenzene	ND	48.6	50.0	97	46.8	50.0	94	70 - 130	4	30
o-Xylene	ND	47.9	50.0	96	50.9	50.0	102	80 - 120	6	30
sec-Butylbenzene	ND	48.1	50.0	96	45.5	50.0	91	70 - 125	6	30
tert-Butylbenzene	ND	48.1	50.0	96	47.2	50.0	94	70 - 130	2	30
trans-1,2-Dichloroethene	ND	60.1	50.0	120	58.6	50.0	117	60 - 140	3	30
trans-1,3-Dichloropropene	ND	50.1	50.0	100	52.0	50.0	104	55 - 140	4	30

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Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Analyzed: 12/22/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 477453

Lab Control Sample
RQ1516003-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	20.5	20.0	102	80 - 130
1,1,1-Trichloroethane (TCA)	21.3	20.0	107	65 - 130
1,1,2,2-Tetrachloroethane	20.0	20.0	100	65 - 130
1,1,2-Trichloroethane	20.5	20.0	103	75 - 125
1,1-Dichloroethane (1,1-DCA)	21.5	20.0	108	70 - 135
1,1-Dichloroethene (1,1-DCE)	21.5	20.0	107	70 - 130
1,1-Dichloropropene	22.3	20.0	112	75 - 130
1,2,3-Trichlorobenzene	21.3	20.0	107	55 - 140
1,2,3-Trichloropropane	20.0	20.0	100	75 - 125
1,2,4-Trichlorobenzene	22.0	20.0	110	65 - 135
1,2,4-Trimethylbenzene	21.5	20.0	108	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	19.0	20.0	95	50 - 130
1,2-Dibromoethane	20.3	20.0	101	80 - 120
1,2-Dichlorobenzene	20.9	20.0	104	70 - 120
1,2-Dichloroethane	19.6	20.0	98	70 - 130
1,2-Dichloropropane	21.3	20.0	107	75 - 125
1,3,5-Trimethylbenzene	21.6	20.0	108	75 - 130
1,3-Dichlorobenzene	21.5	20.0	108	75 - 125
1,3-Dichloropropane	21.0	20.0	105	75 - 125
1,4-Dichlorobenzene	21.1	20.0	106	75 - 125
2,2-Dichloropropane	20.7	20.0	103	70 - 135
2-Butanone (MEK)	21.2	20.0	106	30 - 150
2-Chlorotoluene	21.6	20.0	108	75 - 125
2-Hexanone	18.3	20.0	92	55 - 130
tert-Butyl Alcohol	394	400	99	50 - 150
4-Chlorotoluene	21.5	20.0	108	75 - 130
p-Isopropyltoluene	20.8	20.0	104	75 - 130
4-Methyl-2-pentanone	18.2	20.0	91	60 - 135
Acetone	22.2	20.0	111	40 - 140
Benzene	21.5	20.0	107	80 - 120
Bromobenzene	20.9	20.0	104	75 - 125
Bromochloromethane	20.2	20.0	101	65 - 130
Bromodichloromethane	21.2	20.0	106	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Analyzed: 12/22/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 477453

Lab Control Sample
RQ1516003-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	19.5	20.0	98	70 - 130
Bromomethane	21.5	20.0	108	30 - 145
Carbon Tetrachloride	20.6	20.0	103	65 - 140
Chlorobenzene	20.6	20.0	103	80 - 120
Chloroethane	22.0	20.0	110	60 - 135
Chloroform	20.8	20.0	104	65 - 135
Chloromethane	21.6	20.0	108	40 - 125
Dibromochloromethane	20.8	20.0	104	60 - 135
Dichlorodifluoromethane (CFC 12)	23.6	20.0	118	30 - 155
Methylene Chloride	20.0	20.0	100	55 - 140
Ethylbenzene	21.6	20.0	108	75 - 125
Hexachlorobutadiene	24.6	20.0	123	50 - 140
Isopropylbenzene (Cumene)	21.5	20.0	108	75 - 125
Methyl tert-Butyl Ether	19.6	20.0	98	65 - 125
Naphthalene	21.0	20.0	105	55 - 140
Styrene	21.5	20.0	107	65 - 135
Tetrachloroethene (PCE)	21.2	20.0	106	45 - 150
Toluene	20.3	20.0	101	75 - 120
Trichloroethene (TCE)	20.7	20.0	104	70 - 125
Trichlorofluoromethane (CFC 11)	21.5	20.0	108	60 - 145
Vinyl Chloride	21.4	20.0	107	50 - 145
cis-1,2-Dichloroethene	21.4	20.0	107	70 - 125
cis-1,3-Dichloropropene	21.6	20.0	108	70 - 130
m,p-Xylenes	43.1	40.0	108	75 - 130
n-Butylbenzene	22.1	20.0	110	70 - 135
n-Propylbenzene	20.5	20.0	103	70 - 130
o-Xylene	20.5	20.0	103	80 - 120
sec-Butylbenzene	20.5	20.0	103	70 - 125
tert-Butylbenzene	20.0	20.0	100	70 - 130
trans-1,2-Dichloroethene	20.8	20.0	104	60 - 140
trans-1,3-Dichloropropene	20.5	20.0	103	55 - 140

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Analyzed: 12/26/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 477737

Lab Control Sample
RQ1516108-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	19.8	20.0	99	80 - 130
1,1,1-Trichloroethane (TCA)	23.6	20.0	118	65 - 130
1,1,2,2-Tetrachloroethane	20.6	20.0	103	65 - 130
1,1,2-Trichloroethane	22.1	20.0	110	75 - 125
1,1-Dichloroethane (1,1-DCA)	24.0	20.0	120	70 - 135
1,1-Dichloroethene (1,1-DCE)	23.6	20.0	118	70 - 130
1,1-Dichloropropene	22.9	20.0	114	75 - 130
1,2,3-Trichlorobenzene	20.9	20.0	104	55 - 140
1,2,3-Trichloropropane	20.4	20.0	102	75 - 125
1,2,4-Trichlorobenzene	21.0	20.0	105	65 - 135
1,2,4-Trimethylbenzene	20.4	20.0	102	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	19.4	20.0	97	50 - 130
1,2-Dibromoethane	21.0	20.0	105	80 - 120
1,2-Dichlorobenzene	20.9	20.0	104	70 - 120
1,2-Dichloroethane	21.1	20.0	105	70 - 130
1,2-Dichloropropane	21.7	20.0	109	75 - 125
1,3,5-Trimethylbenzene	20.5	20.0	103	75 - 130
1,3-Dichlorobenzene	20.9	20.0	104	75 - 125
1,3-Dichloropropane	21.4	20.0	107	75 - 125
1,4-Dichlorobenzene	20.3	20.0	101	75 - 125
2,2-Dichloropropane	22.5	20.0	113	70 - 135
2-Butanone (MEK)	24.4	20.0	122	30 - 150
2-Chlorotoluene	21.0	20.0	105	75 - 125
2-Hexanone	20.2	20.0	101	55 - 130
tert-Butyl Alcohol	520	400	130	50 - 150
4-Chlorotoluene	20.9	20.0	105	75 - 130
p-Isopropyltoluene	20.3	20.0	101	75 - 130
4-Methyl-2-pentanone	21.2	20.0	106	60 - 135
Acetone	27.2	20.0	136	40 - 140
Benzene	21.8	20.0	109	80 - 120
Bromobenzene	20.3	20.0	101	75 - 125
Bromochloromethane	23.0	20.0	115	65 - 130
Bromodichloromethane	22.7	20.0	113	75 - 120

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Analyzed: 12/26/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 477737

Lab Control Sample
RQ1516108-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	20.9	20.0	104	70 - 130
Bromomethane	24.1	20.0	121	30 - 145
Carbon Tetrachloride	21.4	20.0	107	65 - 140
Chlorobenzene	19.7	20.0	99	80 - 120
Chloroethane	23.6	20.0	118	60 - 135
Chloroform	23.4	20.0	117	65 - 135
Chloromethane	24.2	20.0	121	40 - 125
Dibromochloromethane	21.6	20.0	108	60 - 135
Dichlorodifluoromethane (CFC 12)	26.1	20.0	131	30 - 155
Methylene Chloride	23.1	20.0	115	55 - 140
Ethylbenzene	20.2	20.0	101	75 - 125
Hexachlorobutadiene	21.5	20.0	108	50 - 140
Isopropylbenzene (Cumene)	19.5	20.0	97	75 - 125
Methyl tert-Butyl Ether	23.2	20.0	116	65 - 125
Naphthalene	21.2	20.0	106	55 - 140
Styrene	20.8	20.0	104	65 - 135
Tetrachloroethene (PCE)	20.1	20.0	100	45 - 150
Toluene	21.3	20.0	107	75 - 120
Trichloroethene (TCE)	21.0	20.0	105	70 - 125
Trichlorofluoromethane (CFC 11)	24.2	20.0	121	60 - 145
Vinyl Chloride	22.5	20.0	113	50 - 145
cis-1,2-Dichloroethene	23.8	20.0	119	70 - 125
cis-1,3-Dichloropropene	22.6	20.0	113	70 - 130
m,p-Xylenes	41.1	40.0	103	75 - 130
n-Butylbenzene	20.8	20.0	104	70 - 135
n-Propylbenzene	19.7	20.0	99	70 - 130
o-Xylene	19.9	20.0	100	80 - 120
sec-Butylbenzene	19.6	20.0	98	70 - 125
tert-Butylbenzene	19.6	20.0	98	70 - 130
trans-1,2-Dichloroethene	22.3	20.0	112	60 - 140
trans-1,3-Dichloropropene	22.6	20.0	113	55 - 140

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Analyzed: 12/28/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 477784

Lab Control Sample
RQ1516146-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	20.1	20.0	100	80 - 130
1,1,1-Trichloroethane (TCA)	24.5	20.0	122	65 - 130
1,1,2,2-Tetrachloroethane	18.6	20.0	93	65 - 130
1,1,2-Trichloroethane	21.9	20.0	110	75 - 125
1,1-Dichloroethane (1,1-DCA)	25.2	20.0	126	70 - 135
1,1-Dichloroethene (1,1-DCE)	24.8	20.0	124	70 - 130
1,1-Dichloropropene	23.4	20.0	117	75 - 130
1,2,3-Trichlorobenzene	19.6	20.0	98	55 - 140
1,2,3-Trichloropropane	18.2	20.0	91	75 - 125
1,2,4-Trichlorobenzene	20.9	20.0	104	65 - 135
1,2,4-Trimethylbenzene	20.6	20.0	103	75 - 130
1,2-Dibromo-3-chloropropane (DBCP)	16.9	20.0	85	50 - 130
1,2-Dibromoethane	19.1	20.0	96	80 - 120
1,2-Dichlorobenzene	20.6	20.0	103	70 - 120
1,2-Dichloroethane	20.3	20.0	102	70 - 130
1,2-Dichloropropane	22.7	20.0	114	75 - 125
1,3,5-Trimethylbenzene	21.2	20.0	106	75 - 130
1,3-Dichlorobenzene	20.8	20.0	104	75 - 125
1,3-Dichloropropane	19.8	20.0	99	75 - 125
1,4-Dichlorobenzene	20.3	20.0	101	75 - 125
2,2-Dichloropropane	24.3	20.0	121	70 - 135
2-Butanone (MEK)	22.2	20.0	111	30 - 150
2-Chlorotoluene	20.1	20.0	100	75 - 125
2-Hexanone	16.8	20.0	84	55 - 130
tert-Butyl Alcohol	414	400	103	50 - 150
4-Chlorotoluene	21.0	20.0	105	75 - 130
p-Isopropyltoluene	20.8	20.0	104	75 - 130
4-Methyl-2-pentanone	18.6	20.0	93	60 - 135
Acetone	27.4	20.0	137	40 - 140
Benzene	22.3	20.0	112	80 - 120
Bromobenzene	21.0	20.0	105	75 - 125
Bromochloromethane	23.5	20.0	117	65 - 130
Bromodichloromethane	23.1	20.0	115	75 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Analyzed: 12/28/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 477784

Lab Control Sample
RQ1516146-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	18.6	20.0	93	70 - 130
Bromomethane	24.2	20.0	121	30 - 145
Carbon Tetrachloride	22.2	20.0	111	65 - 140
Chlorobenzene	20.0	20.0	100	80 - 120
Chloroethane	24.6	20.0	123	60 - 135
Chloroform	24.0	20.0	120	65 - 135
Chloromethane	24.5	20.0	123	40 - 125
Dibromochloromethane	19.1	20.0	96	60 - 135
Dichlorodifluoromethane (CFC 12)	26.4	20.0	132	30 - 155
Methylene Chloride	22.7	20.0	113	55 - 140
Ethylbenzene	20.4	20.0	102	75 - 125
Hexachlorobutadiene	23.9	20.0	119	50 - 140
Isopropylbenzene (Cumene)	20.4	20.0	102	75 - 125
Methyl tert-Butyl Ether	22.7	20.0	114	65 - 125
Naphthalene	18.8	20.0	94	55 - 140
Styrene	20.1	20.0	100	65 - 135
Tetrachloroethene (PCE)	20.2	20.0	101	45 - 150
Toluene	21.8	20.0	109	75 - 120
Trichloroethene (TCE)	21.9	20.0	110	70 - 125
Trichlorofluoromethane (CFC 11)	25.0	20.0	125	60 - 145
Vinyl Chloride	23.6	20.0	118	50 - 145
cis-1,2-Dichloroethene	24.7	20.0	123	70 - 125
cis-1,3-Dichloropropene	22.0	20.0	110	70 - 130
m,p-Xylenes	40.8	40.0	102	75 - 130
n-Butylbenzene	21.4	20.0	107	70 - 135
n-Propylbenzene	20.7	20.0	104	70 - 130
o-Xylene	20.3	20.0	101	80 - 120
sec-Butylbenzene	20.3	20.0	101	70 - 125
tert-Butylbenzene	20.3	20.0	101	70 - 130
trans-1,2-Dichloroethene	24.1	20.0	121	60 - 140
trans-1,3-Dichloropropene	21.6	20.0	108	55 - 140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Analyzed: 12/22/15 14:42

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1516003-04
Instrument ID: R-MS-06
File ID: I:\ACQUDATA\MSVOA6\DATA\122215\M6630.D\

Analytical Method: 8260C

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1516003-03	I:\ACQUDATA\MSVOA6\DATA\122215\M6627.D\	12/22/15 13:03
FTMM-5-GW-M5MW16-14.57	R1511019-001	I:\ACQUDATA\MSVOA6\DATA\122215\M6637.D\	12/22/15 18:19
FTMM-5-GW-M5MW11-9.46	R1511019-004	I:\ACQUDATA\MSVOA6\DATA\122215\M6638.D\	12/22/15 18:49
FTMM-5-GW-M5MW20-13.65	R1511019-002	I:\ACQUDATA\MSVOA6\DATA\122215\M6639.D\	12/22/15 19:17
FTMM-5-GW-M5MW23-10.82	R1511019-003	I:\ACQUDATA\MSVOA6\DATA\122215\M6640.D\	12/22/15 19:46

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Analyzed: 12/26/15 12:35

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1516108-04
Instrument ID: R-MS-06
File ID: I:\ACQUDATA\MSVOA6\DATA\122615\M6671.D\

Analytical Method: 8260C

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1516108-03	I:\ACQUDATA\MSVOA6\DATA\122615\M6668.D\	12/26/15 10:59
FTMM-5-GW-M5MW111-9.46	R1511019-005	I:\ACQUDATA\MSVOA6\DATA\122615\M6672.D\	12/26/15 13:07
FTMM-18-GW-M18MW22-18.91	R1511019-006	I:\ACQUDATA\MSVOA6\DATA\122615\M6673.D\	12/26/15 13:39
FTMM-18-GW-M18MW23-9.28	R1511019-007	I:\ACQUDATA\MSVOA6\DATA\122615\M6674.D\	12/26/15 14:11
FTMM-54-GW-296MW04-6.35	R1511019-008	I:\ACQUDATA\MSVOA6\DATA\122615\M6675.D\	12/26/15 14:43
FTMM-54-GW-296MW06-10.1	R1511019-009	I:\ACQUDATA\MSVOA6\DATA\122615\M6676.D\	12/26/15 15:15
FTMM-22-GW-CW1MW281-33.74	R1511019-010	I:\ACQUDATA\MSVOA6\DATA\122615\M6677.D\	12/26/15 15:47
FTMM-22-GW-CW1MW31-16.40	R1511019-013	I:\ACQUDATA\MSVOA6\DATA\122615\M6680.D\	12/26/15 17:23
FTMM-22-GW-CW1MW29-10.85	R1511019-014	I:\ACQUDATA\MSVOA6\DATA\122615\M6681.D\	12/26/15 17:55
FTMM-22-GW-CW1MW37-11.78	R1511019-015	I:\ACQUDATA\MSVOA6\DATA\122615\M6682.D\	12/26/15 18:27
FTMM-5-GW-M5MW11-9.46MS	RQ1516108-05	I:\ACQUDATA\MSVOA6\DATA\122615\M6685.D\	12/26/15 20:03
FTMM-5-GW-M5MW11-9.46DMS	RQ1516108-06	I:\ACQUDATA\MSVOA6\DATA\122615\M6686.D\	12/26/15 20:35

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Analyzed:**	12/28/15 11:09
Sample Matrix:	Water		

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Instrument ID:**	R-MS-06
Lab Code:	RQ1516146-04	**File ID:**	I:\ACQUDATA\MSVOA6\DATA\122815\M6692.D\
Analytical Method:	8260C		

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1516146-03	I:\ACQUDATA\MSVOA6\DATA\122815\M6690.D\	12/28/15 10:04
FTMM-22-GW-CW1MW28-11.21	R1511019-011	I:\ACQUDATA\MSVOA6\DATA\122815\M6693.D\	12/28/15 11:42
FTMM-22-GW-CW1MW27-12.63	R1511019-012	I:\ACQUDATA\MSVOA6\DATA\122815\M6694.D\	12/28/15 12:12
FTMM-22-GW-CW1MW281-33.74	R1511019-010	I:\ACQUDATA\MSVOA6\DATA\122815\M6695.D\	12/28/15 12:42

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000

Service Request: R1511019
Date Analyzed: 11/30/15 11:53

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA6\DATA\113015\M6185.D\
Instrument ID: R-MS-06

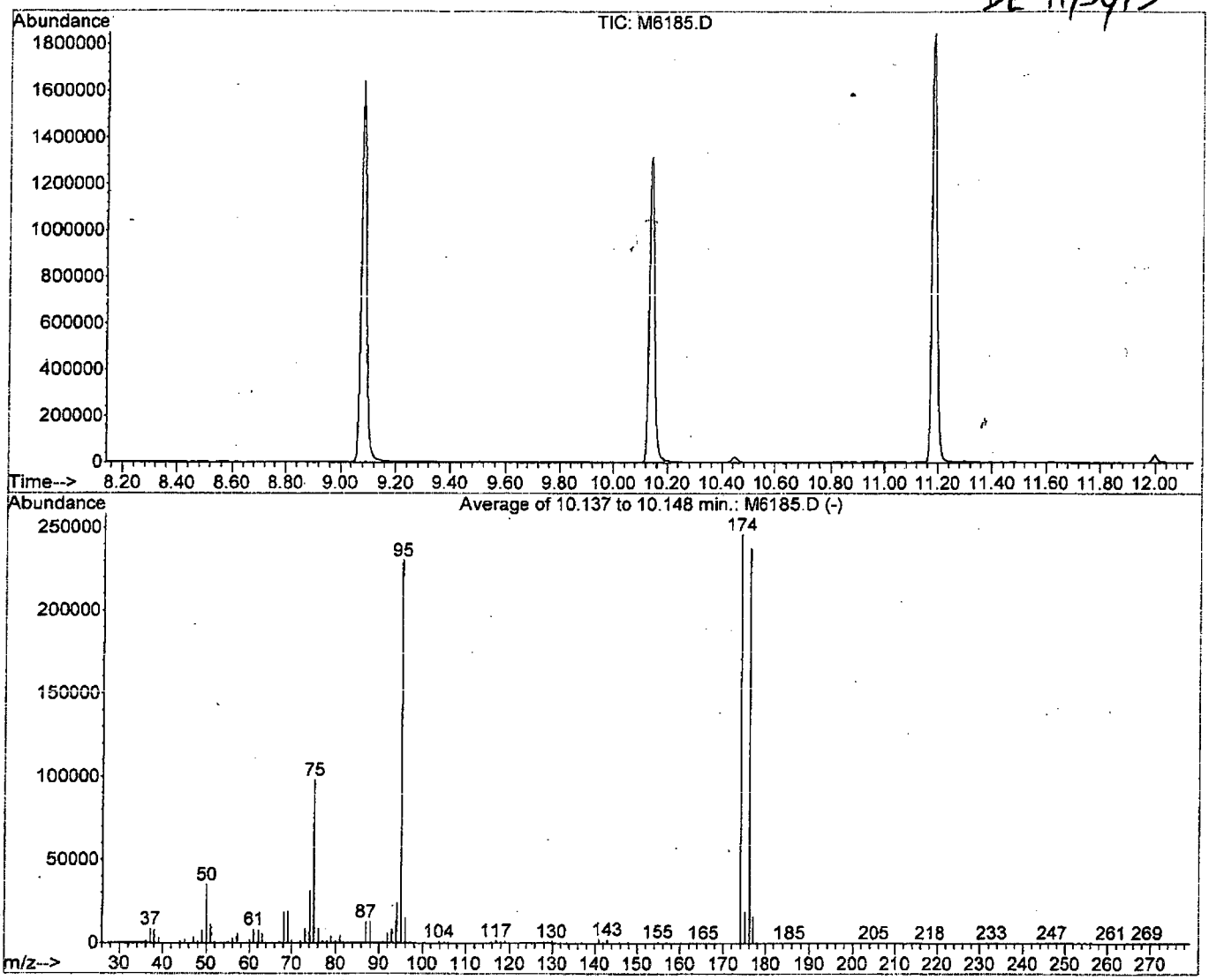
Analytical Method: 8260C
Analysis Lot:

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	15.1	34789	Pass
75	95	30	60	42.5	97693	Pass
95	95	100	100	100.0	230037	Pass
96	95	5	9	6.6	15085	Pass
173	174	0	2	0.0	0	Pass
174	95	50	120	106.8	245739	Pass
175	174	5	9	7.7	18923	Pass
176	174	95	101	96.7	237717	Pass
177	176	5	9	6.7	15828	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Initial CalibrationICAL	0.5 ppb	I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D\	11/30/15 13:40	
Initial CalibrationICAL	1.0 ppb	I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D\	11/30/15 14:20	
Initial CalibrationICAL	2.0 ppb	I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D\	11/30/15 14:52	
Initial CalibrationICAL	5.0 ppb	I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D\	11/30/15 15:26	
Initial CalibrationICAL	20 ppb	I:\ACQUDATA\MSVOA6\DATA\113015\M6192.D\	11/30/15 16:02	
Initial CalibrationICAL	50 ppb	I:\ACQUDATA\MSVOA6\DATA\113015\M6193.D\	11/30/15 16:39	
Initial CalibrationICAL	100 ppb	I:\ACQUDATA\MSVOA6\DATA\113015\M6194.D\	11/30/15 17:14	
Initial CalibrationICAL	150 ppb	I:\ACQUDATA\MSVOA6\DATA\113015\M6195.D\	11/30/15 17:49	
Initial CalibrationICAL	200 ppb	I:\ACQUDATA\MSVOA6\DATA\113015\M6196.D\	11/30/15 18:20	

```
Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6185.D       Vial: 8
Acq On    : 30 Nov 2015  11:53 am                     Operator: D.Lipani
Sample    : TUNE CHECK                                Inst    : MS#6
Misc      : 8260C                                     Multiplr: 1.00
MS Integration Params: CPD4.P
Method    : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title     : 8260C WATERS
```

DL 11/30/15



AutoFind: Scans 1693, 1694, 1695; Background Corrected with Scan 1687

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.1	34789	PASS
75	95	30	60	42.5	97693	PASS
95	95	100	100	100.0	230037	PASS
96	95	5	9	6.6	15085	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	106.8	245739	PASS
175	174	5	9	7.7	18923	PASS
176	174	95	101	96.7	237717	PASS
177	176	5	9	6.7	15828	PASS

M6185.D W113015.M Mon Nov 30 12:12:58 2015

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000

Service Request: R1511019
Date Analyzed: 12/22/15 11:48

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA6\DATA\122215\M6625.D\
Instrument ID: R-MS-06

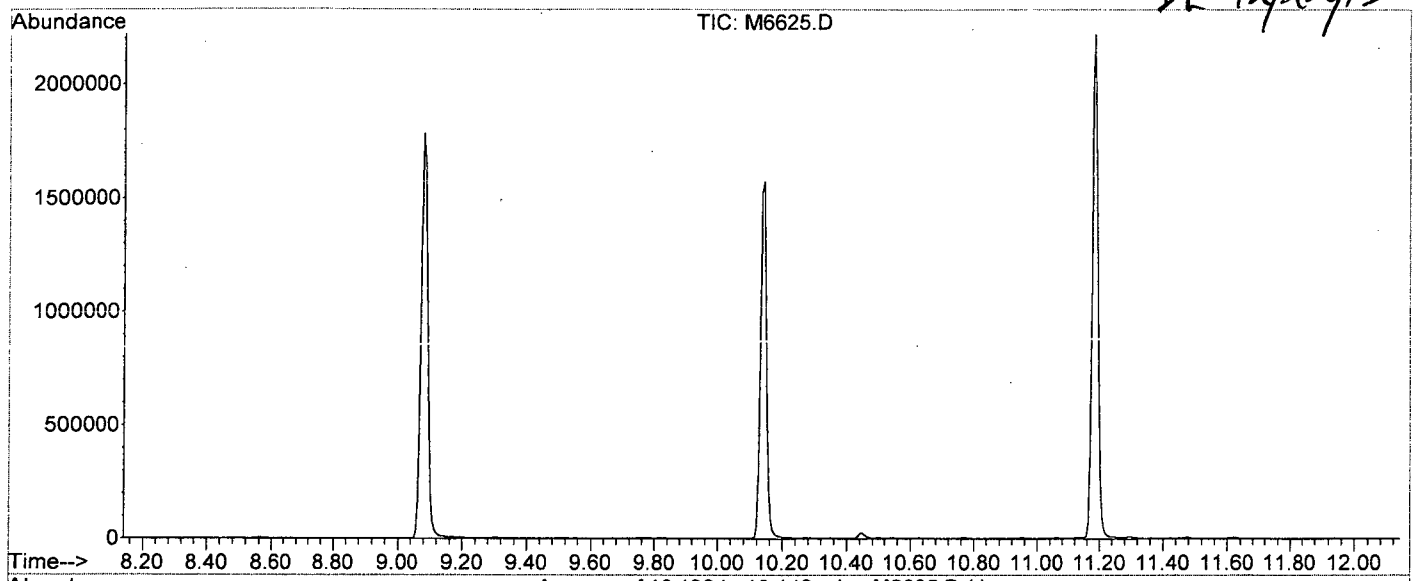
Analytical Method: 8260C
Analysis Lot: 477453

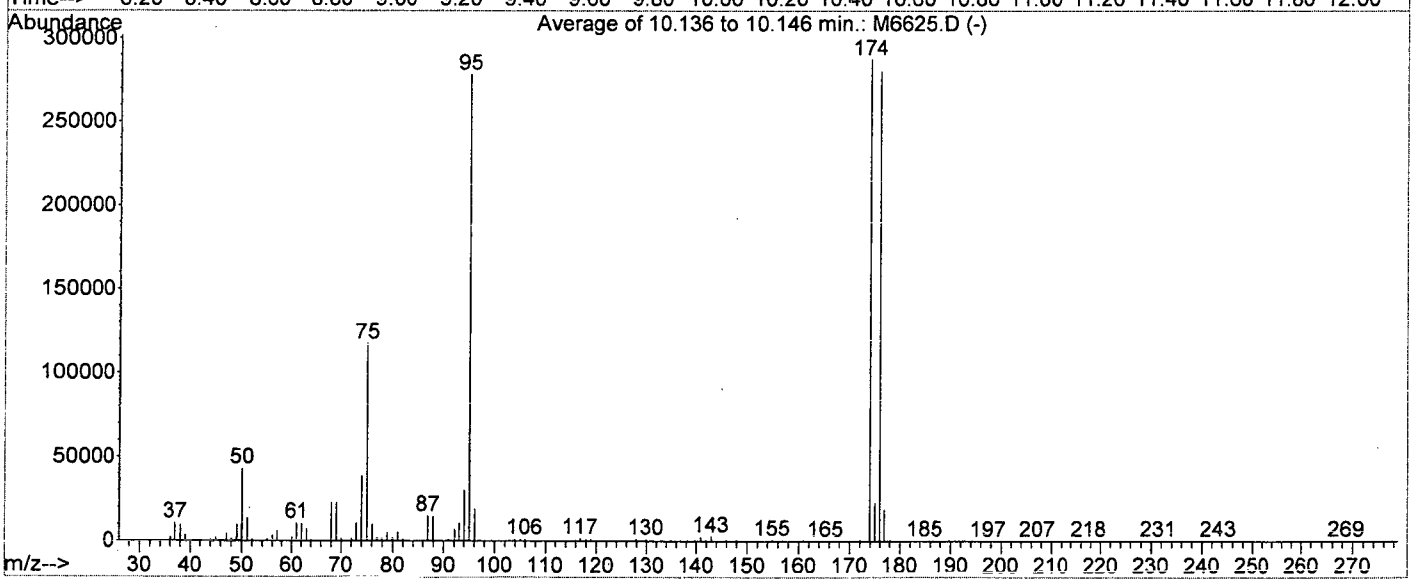
Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	15.34	42642	Pass
75	95	30	60	42.18	117284	Pass
95	95	100	100	100.00	278044	Pass
96	95	5	9	6.80	18907	Pass
173	174	0	2	0.00	0	Pass
174	95	50	120	103.29	287196	Pass
175	174	5	9	7.88	22624	Pass
176	174	95	101	97.43	279808	Pass
177	176	5	9	6.68	18684	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1516003-02	I:\ACQUDATA\MSVOA6\DATA\122215\M6626.D\	12/22/15 12:25	
Lab Control Sample	RQ1516003-03	I:\ACQUDATA\MSVOA6\DATA\122215\M6627.D\	12/22/15 13:03	
Method Blank	RQ1516003-04	I:\ACQUDATA\MSVOA6\DATA\122215\M6630.D\	12/22/15 14:42	
FTMM-5-GW-M5MW16-14.57	R1511019-001	I:\ACQUDATA\MSVOA6\DATA\122215\M6637.D\	12/22/15 18:19	
FTMM-5-GW-M5MW11-9.46	R1511019-004	I:\ACQUDATA\MSVOA6\DATA\122215\M6638.D\	12/22/15 18:49	
FTMM-5-GW-M5MW20-13.65	R1511019-002	I:\ACQUDATA\MSVOA6\DATA\122215\M6639.D\	12/22/15 19:17	
FTMM-5-GW-M5MW23-10.82	R1511019-003	I:\ACQUDATA\MSVOA6\DATA\122215\M6640.D\	12/22/15 19:46	

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6625.D Vial: 8
Acq On : 22 Dec 2015 11:48 am Operator: D.Lipani
Sample : TUNE CHECK RQ1516003-01 Inst : MS#6
Misc : 8260 Multiplr: 1.00
MS Integration Params: CPD4.P
Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS

DL 12/22/15





sub. scan = 1688

Spectrum Information: Average of 10.136 to 10.146 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.3	42642	PASS
75	95	30	60	42.2	117284	PASS
95	95	100	100	100.0	278044	PASS
96	95	5	9	6.8	18907	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	103.3	287196	PASS
175	174	5	9	7.9	22624	PASS
176	174	95	101	97.4	279808	PASS
177	176	5	9	6.7	18684	PASS

M6625.D W113015.M Tue Dec 22 13:00:49 2015

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Service Request: R1511019
Date Analyzed: 12/26/15 09:40

Tune Summary
Volatile Organic Compounds by GC/MS

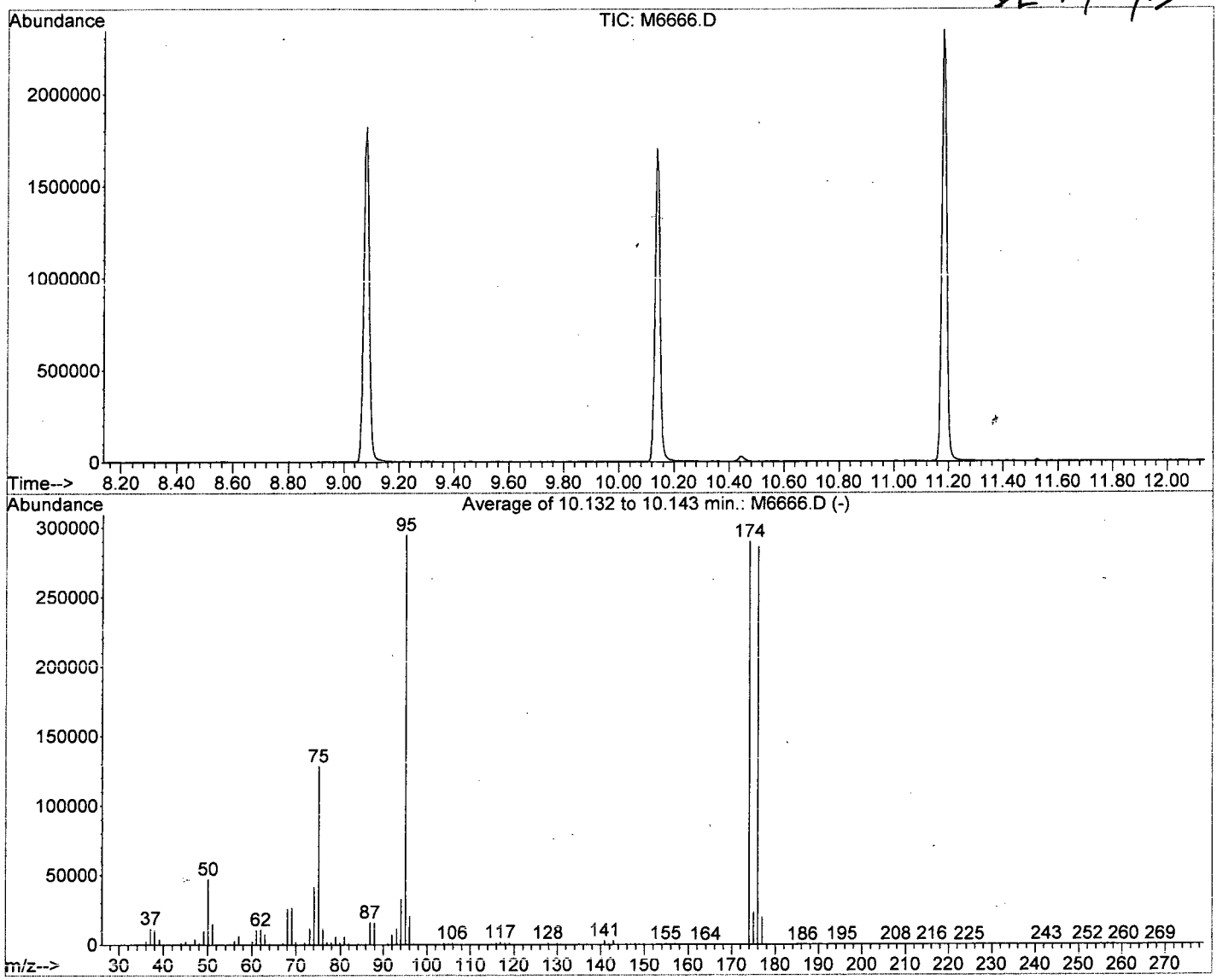
File ID: I:\ACQUDATA\MSVOA6\DATA\122615\M6666.D\
Instrument ID: R-MS-06
Analytical Method: 8260C
Analysis Lot: 477737

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	15.94	47003	Pass
75	95	30	60	43.52	128283	Pass
95	95	100	100	100.00	294784	Pass
96	95	5	9	6.92	20408	Pass
173	174	0	2	0.00	0	Pass
174	95	50	120	98.31	289792	Pass
175	174	5	9	7.93	22988	Pass
176	174	95	101	98.62	285791	Pass
177	176	5	9	6.84	19555	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1516108-02	I:\ACQUDATA\MSVOA6\DATA\122615\M6667.D\	12/26/15 10:15	
Lab Control Sample	RQ1516108-03	I:\ACQUDATA\MSVOA6\DATA\122615\M6668.D\	12/26/15 10:59	
Method Blank	RQ1516108-04	I:\ACQUDATA\MSVOA6\DATA\122615\M6671.D\	12/26/15 12:35	
FTMM-5-GW-M5MW111-9.46	R1511019-005	I:\ACQUDATA\MSVOA6\DATA\122615\M6672.D\	12/26/15 13:07	
FTMM-18-GW-M18MW22-18.91	R1511019-006	I:\ACQUDATA\MSVOA6\DATA\122615\M6673.D\	12/26/15 13:39	
FTMM-18-GW-M18MW23-9.28	R1511019-007	I:\ACQUDATA\MSVOA6\DATA\122615\M6674.D\	12/26/15 14:11	
FTMM-54-GW-296MW04-6.35	R1511019-008	I:\ACQUDATA\MSVOA6\DATA\122615\M6675.D\	12/26/15 14:43	
FTMM-54-GW-296MW06-10.1	R1511019-009	I:\ACQUDATA\MSVOA6\DATA\122615\M6676.D\	12/26/15 15:15	
FTMM-22-GW-CW1MW281-33.74	R1511019-010	I:\ACQUDATA\MSVOA6\DATA\122615\M6677.D\	12/26/15 15:47	
FTMM-22-GW-CW1MW31-16.40	R1511019-013	I:\ACQUDATA\MSVOA6\DATA\122615\M6680.D\	12/26/15 17:23	
FTMM-22-GW-CW1MW29-10.85	R1511019-014	I:\ACQUDATA\MSVOA6\DATA\122615\M6681.D\	12/26/15 17:55	
FTMM-22-GW-CW1MW37-11.78	R1511019-015	I:\ACQUDATA\MSVOA6\DATA\122615\M6682.D\	12/26/15 18:27	
FTMM-5-GW-M5MW11-9.46MS	RQ1516108-05	I:\ACQUDATA\MSVOA6\DATA\122615\M6685.D\	12/26/15 20:03	
FTMM-5-GW-M5MW11-9.46DMS	RQ1516108-06	I:\ACQUDATA\MSVOA6\DATA\122615\M6686.D\	12/26/15 20:35	

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6666.D Vial: 4
Acq On : 26 Dec 2015 9:40 am Operator: D.Lipani
Sample : TUNE CHECK RQ1516108-01 Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS

DL 12/26/15



AutoFind: Scans 1692, 1693, 1694; Background Corrected with Scan 1686

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.9	47003	PASS
75	95	30	60	43.5	128283	PASS
95	95	100	100	100.0	294784	PASS
96	95	5	9	6.9	20408	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	98.3	289792	PASS
175	174	5	9	7.9	22988	PASS
176	174	95	101	98.6	285791	PASS
177	176	5	9	6.8	19555	PASS

M6666.D W113015.M Sat Dec 26 09:57:02 2015

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000

Service Request: R1511019
Date Analyzed: 12/28/15 08:47

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA6\DATA\122815\M6688.D\
Instrument ID: R-MS-06

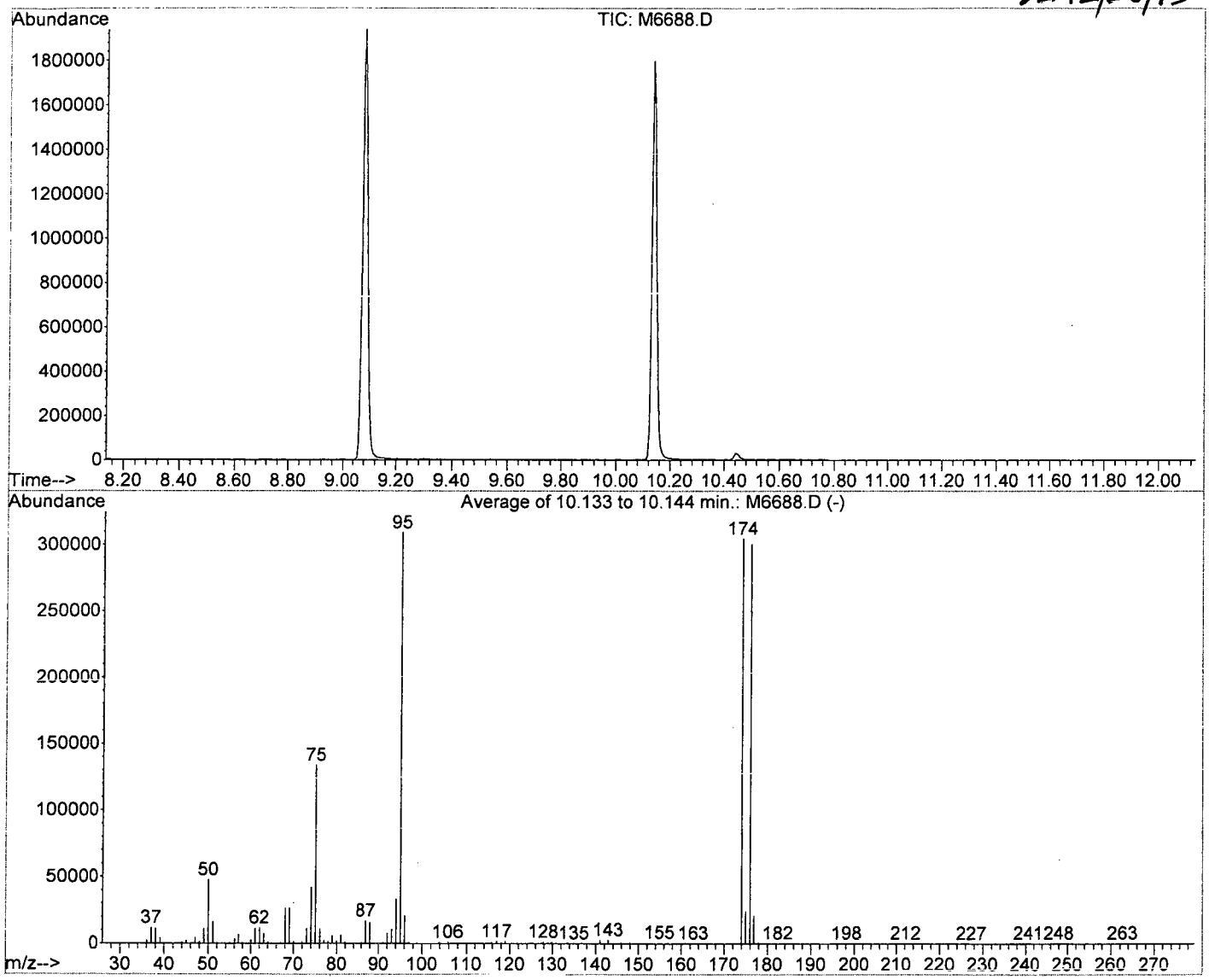
Analytical Method: 8260C
Analysis Lot: 477784

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	15.38	47560	Pass
75	95	30	60	43.24	133691	Pass
95	95	100	100	100.00	309163	Pass
96	95	5	9	6.67	20619	Pass
173	174	0	2	0.00	0	Pass
174	95	50	120	98.50	304533	Pass
175	174	5	9	7.87	23968	Pass
176	174	95	101	98.64	300395	Pass
177	176	5	9	6.89	20688	Pass

Sample Name	Lab Code	File ID	Date Analyzed	Q
Continuing Calibration Verification	RQ1516146-02	I:\ACQUDATA\MSVOA6\DATA\122815\M6689.D\	12/28/15 09:24	
Lab Control Sample	RQ1516146-03	I:\ACQUDATA\MSVOA6\DATA\122815\M6690.D\	12/28/15 10:04	
Method Blank	RQ1516146-04	I:\ACQUDATA\MSVOA6\DATA\122815\M6692.D\	12/28/15 11:09	
FTMM-22-GW-CW1MW28-11.21	R1511019-011	I:\ACQUDATA\MSVOA6\DATA\122815\M6693.D\	12/28/15 11:42	
FTMM-22-GW-CW1MW27-12.63	R1511019-012	I:\ACQUDATA\MSVOA6\DATA\122815\M6694.D\	12/28/15 12:12	
FTMM-22-GW-CW1MW281-33.74	R1511019-010	I:\ACQUDATA\MSVOA6\DATA\122815\M6695.D\	12/28/15 12:42	

```
Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6688.D        Vial: 4
Acq On    : 28 Dec 2015   8:47 am                     Operator: D.Lipani
Sample    : TUNE CHECK RQ1516146-01                   Inst    : MS#6
Misc      : 8260C                                     Multiplr: 1.00
MS Integration Params: CPD4.P
Method    : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title     : 8260C WATERS
```

DL 12/28/15



AutoFind: Scans 1693, 1694, 1695; Background Corrected with Scan 1686

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	47560	PASS
75	95	30	60	43.2	133691	PASS
95	95	100	100	100.0	309163	PASS
96	95	5	9	6.7	20619	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	98.5	304533	PASS
175	174	5	9	7.9	23968	PASS
176	174	95	101	98.6	300395	PASS
177	176	5	9	6.9	20688	PASS

M6688.D W113015.M Mon Dec 28 08:59:18 2015

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000

Service Request: R1511019
Date Analyzed: 12/22/15 12:25

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA6\DATA\122215\M6626.D\
Instrument ID: R-MS-06
Analytical Method: 8260C

Lab Code: RQ1516003-02
Analysis Lot: 477453
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	RT	Area	RT	Area	RT
	Results ==>	524,580	11.19	1,001,759	5.67	880,764	9.08
	Upper Limit ==>	1,049,160	11.69	2,003,518	6.17	1,761,528	9.58
	Lower Limit ==>	262,290	10.69	500,880	5.17	440,382	8.58
	ICAL Result ==>	466,485	11.19	903,879	5.68	787,122	9.08
Associated Analyses							
Lab Control Sample	RQ1516003-03	515,742	11.19	981,551	5.67	851,543	9.08
Method Blank	RQ1516003-04	511,038	11.18	981,474	5.68	871,852	9.08
FTMM-5-GW-M5MW16-14.57	R1511019-001	494,944	11.19	961,495	5.67	868,763	9.08
FTMM-5-GW-M5MW11-9.46	R1511019-004	505,333	11.19	954,746	5.67	888,315	9.09
FTMM-5-GW-M5MW20-13.65	R1511019-002	513,451	11.18	957,654	5.68	853,599	9.08
FTMM-5-GW-M5MW23-10.82	R1511019-003	494,272	11.18	942,698	5.67	878,354	9.08

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000

Service Request: R1511019
Date Analyzed: 12/22/15 12:25

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA6\DATA\122215\M6626.D\
Instrument ID: R-MS-06
Analytical Method: 8260C

Lab Code: RQ1516003-02
Analysis Lot: 477453
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	706,484	4.35
	Upper Limit ==>	1,412,968	4.85
	Lower Limit ==>	353,242	3.85
	ICAL Result ==>	657,179	4.35
Associated Analyses			
Lab Control Sample	RQ1516003-03	712,017	4.35
Method Blank	RQ1516003-04	700,784	4.36
FTMM-5-GW-M5MW16-14.57	R1511019-001	692,073	4.35
FTMM-5-GW-M5MW11-9.46	R1511019-004	687,768	4.35
FTMM-5-GW-M5MW20-13.65	R1511019-002	704,285	4.35
FTMM-5-GW-M5MW23-10.82	R1511019-003	681,063	4.35

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000

Service Request: R1511019
Date Analyzed: 12/26/15 10:15

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA6\DATA\122615\M6667.D\
Instrument ID: R-MS-06
Analytical Method: 8260C

Lab Code: RQ1516108-02
Analysis Lot: 477737
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	RT	Area	RT	Area	RT
	Results ==>	534,217	11.19	970,013	5.67	916,562	9.08
	Upper Limit ==>	1,068,434	11.69	1,940,026	6.17	1,833,124	9.58
	Lower Limit ==>	267,109	10.69	485,007	5.17	458,281	8.58
	ICAL Result ==>	466,485	11.19	903,879	5.68	787,122	9.08
Associated Analyses							
Lab Control Sample	RQ1516108-03	543,897	11.18	963,532	5.67	907,194	9.08
Method Blank	RQ1516108-04	531,427	11.19	939,733	5.67	887,276	9.08
FTMM-5-GW-M5MW111-9.46	R1511019-005	515,261	11.19	958,642	5.67	893,458	9.08
FTMM-18-GW-M18MW22-18.91	R1511019-006	528,071	11.18	951,136	5.68	883,607	9.08
FTMM-18-GW-M18MW23-9.28	R1511019-007	526,949	11.19	940,662	5.67	888,448	9.09
FTMM-54-GW-296MW04-6.35	R1511019-008	536,081	11.18	956,717	5.68	901,975	9.08
FTMM-54-GW-296MW06-10.1	R1511019-009	540,623	11.19	922,157	5.67	868,989	9.08
FTMM-22-GW-CW1MW281-33.74	R1511019-010	536,196	11.18	950,870	5.68	880,199	9.08
FTMM-22-GW-CW1MW31-16.40	R1511019-013	533,425	11.18	945,001	5.68	891,199	9.08
FTMM-22-GW-CW1MW29-10.85	R1511019-014	525,257	11.18	932,731	5.68	900,386	9.08
FTMM-22-GW-CW1MW37-11.78	R1511019-015	530,547	11.19	927,201	5.67	889,428	9.08
FTMM-5-GW-M5MW11-9.46MS	RQ1516108-05	542,491	11.18	972,162	5.68	904,085	9.08
FTMM-5-GW-M5MW11-9.46DMS	RQ1516108-06	571,343	11.19	974,308	5.67	877,754	9.08

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000

Service Request: R1511019
Date Analyzed: 12/26/15 10:15

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA6\DATA\122615\M6667.D\
Instrument ID: R-MS-06
Analytical Method: 8260C

Lab Code: RQ1516108-02
Analysis Lot: 477737
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	659,754	4.35
	Upper Limit ==>	1,319,508	4.85
	Lower Limit ==>	329,877	3.85
	ICAL Result ==>	657,179	4.35
Associated Analyses			
Lab Control Sample	RQ1516108-03	655,415	4.35
Method Blank	RQ1516108-04	657,111	4.35
FTMM-5-GW-M5MW111-9.46	R1511019-005	651,632	4.35
FTMM-18-GW-M18MW22-18.91	R1511019-006	640,579	4.36
FTMM-18-GW-M18MW23-9.28	R1511019-007	656,462	4.36
FTMM-54-GW-296MW04-6.35	R1511019-008	647,712	4.35
FTMM-54-GW-296MW06-10.1	R1511019-009	648,771	4.35
FTMM-22-GW-CW1MW281-33.74	R1511019-010	661,019	4.35
FTMM-22-GW-CW1MW31-16.40	R1511019-013	641,327	4.36
FTMM-22-GW-CW1MW29-10.85	R1511019-014	642,758	4.35
FTMM-22-GW-CW1MW37-11.78	R1511019-015	634,611	4.35
FTMM-5-GW-M5MW11-9.46MS	RQ1516108-05	650,586	4.35
FTMM-5-GW-M5MW11-9.46DMS	RQ1516108-06	657,611	4.36

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000

Service Request: R1511019
Date Analyzed: 12/28/15 09:24

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA6\DATA\122815\M6689.D\
Instrument ID: R-MS-06
Analytical Method: 8260C

Lab Code: RQ1516146-02
Analysis Lot: 477784
Signal ID:

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	577,049	11.18	993,562	5.68	930,650	9.08
	Upper Limit ==>	1,154,098	11.68	1,987,124	6.18	1,861,300	9.58
	Lower Limit ==>	288,525	10.68	496,781	5.18	465,325	8.58
	ICAL Result ==>	466,485	11.19	903,879	5.68	787,122	9.08
Associated Analyses							
Lab Control Sample	RQ1516146-03	569,120	11.18	970,542	5.67	948,963	9.08
Method Blank	RQ1516146-04	559,678	11.19	961,104	5.67	917,783	9.08
FTMM-22-GW-CW1MW28-11.21	R1511019-011	532,896	11.18	946,437	5.67	920,851	9.08
FTMM-22-GW-CW1MW27-12.63	R1511019-012	543,343	11.18	941,505	5.68	920,567	9.08
FTMM-22-GW-CW1MW281-33.74	R1511019-010	539,174	11.18	944,240	5.68	924,322	9.08

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000

Service Request: R1511019
Date Analyzed: 12/28/15 09:24

Internal Standard Area and RT Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA6\DATA\122815\M6689.D\
Instrument ID: R-MS-06
Analytical Method: 8260C

Lab Code: RQ1516146-02
Analysis Lot: 477784
Signal ID:

		Pentafluorobenzene	
		Area	**RT**
	Results ==>	664,781	4.35
	Upper Limit ==>	1,329,562	4.85
	Lower Limit ==>	332,391	3.85
	ICAL Result ==>	657,179	4.35
Associated Analyses			
Lab Control Sample	RQ1516146-03	651,251	4.35
Method Blank	RQ1516146-04	648,448	4.35
FTMM-22-GW-CW1MW28-11.21	R1511019-011	647,203	4.35
FTMM-22-GW-CW1MW27-12.63	R1511019-012	652,695	4.35
FTMM-22-GW-CW1MW281-33.74	R1511019-010	639,068	4.36

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Environmental

VOLATILE ORGANICS SAMPLE DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1425
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW16-14.57	**Units:**	µg/L
Lab Code:	R1511019-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/22/15 18:19		477453	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/22/15 18:19		477453	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/22/15 18:19		477453	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/22/15 18:19		477453	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/22/15 18:19		477453	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 18:19		477453	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/22/15 18:19		477453	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/22/15 18:19		477453	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/22/15 18:19		477453	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/22/15 18:19		477453	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 18:19		477453	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 18:19		477453	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/22/15 18:19		477453	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 18:19		477453	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 18:19		477453	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/22/15 18:19		477453	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/22/15 18:19		477453	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/22/15 18:19		477453	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 18:19		477453	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/22/15 18:19		477453	
Acetone	**4.6**	J	10	5.0	1.3	1	NA	12/22/15 18:19		477453	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/22/15 18:19		477453	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 18:19		477453	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 18:19		477453	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/22/15 18:19		477453	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/22/15 18:19		477453	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/22/15 18:19		477453	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 18:19		477453	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 18:19		477453	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1425
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW16-14.57	**Units:**	µg/L
Lab Code:	R1511019-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/22/15 18:19		477453	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/22/15 18:19		477453	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/22/15 18:19		477453	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/22/15 18:19		477453	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/22/15 18:19		477453	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/22/15 18:19		477453	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/22/15 18:19		477453	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
Tetrachloroethene (PCE)	**2.3**	J	5.0	1.0	0.30	1	NA	12/22/15 18:19		477453	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
Trichloroethene (TCE)	**0.25**	J	5.0	1.0	0.22	1	NA	12/22/15 18:19		477453	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/22/15 18:19		477453	
cis-1,2-Dichloroethene	**1.1**	J	5.0	1.0	0.30	1	NA	12/22/15 18:19		477453	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 18:19		477453	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/22/15 18:19		477453	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 18:19		477453	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/22/15 18:19		477453	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/22/15 18:19		477453	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:19		477453	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	108	75-120	12/22/15 18:19	
Dibromofluoromethane	107	85-115	12/22/15 18:19	
Toluene-d8	105	85-120	12/22/15 18:19	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/22/15 1819

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-5-GW-M5MW16-14.57	**Units:**	µg/L
Lab Code:	R1511019-001	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6637.D Vial: 20
Acq On : 22 Dec 2015 6:19 pm Operator: D.Lipani
Sample : R1511019-001|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 T4*DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 29 12:48 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

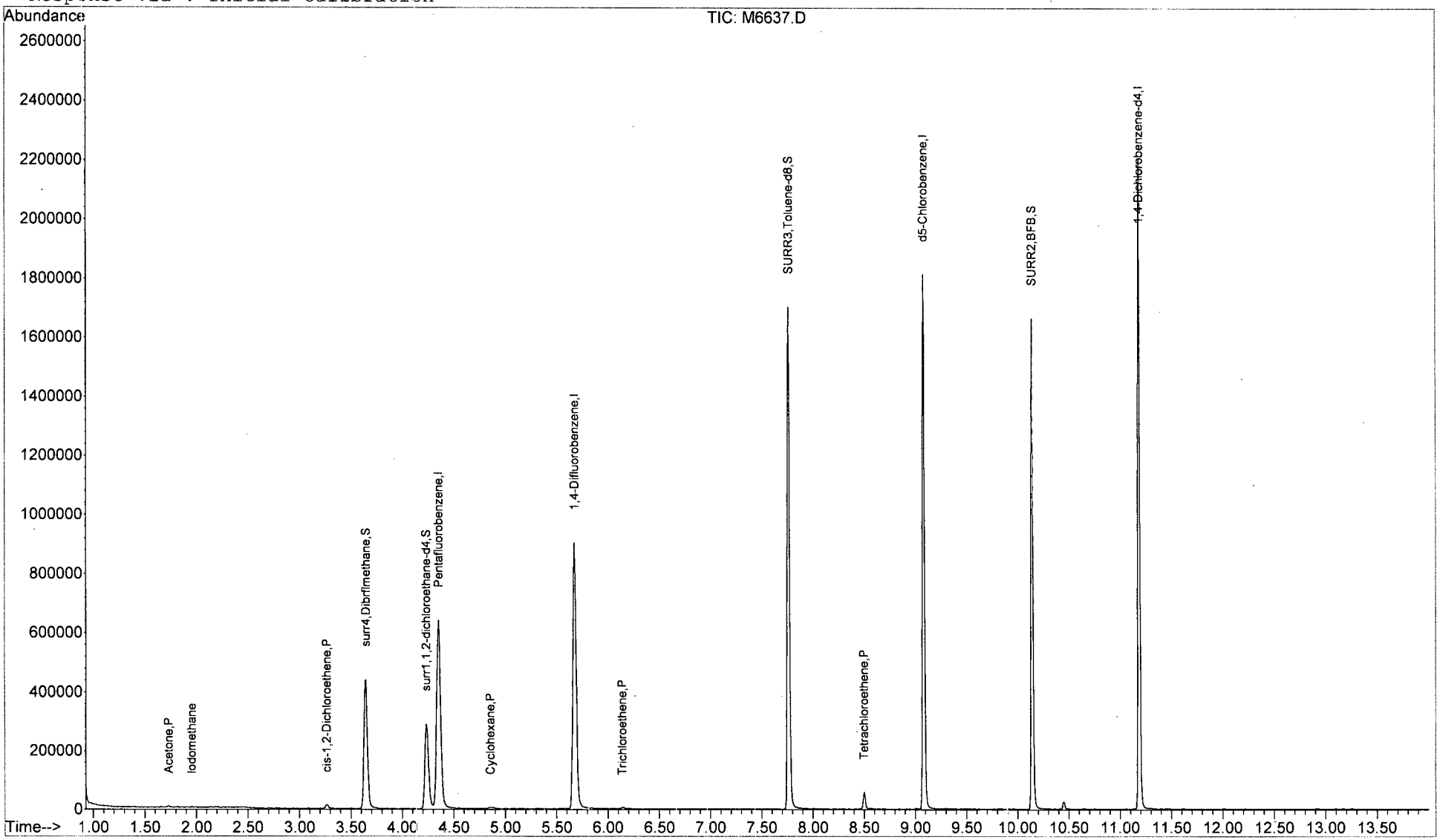
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	692073	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.67	114	961495	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	868763	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	494944	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	322334	53.45	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 106.90%			
42) surr1,1,2-dichloroethane-d	4.23	65	257352	52.32	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 104.64%			
62) SURR3,Toluene-d8	7.76	98	1053606	52.61	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.22%			
82) SURR2,BFB	10.14	95	421252	54.17	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 108.34%			
Target Compounds						Qvalue
14) Acetone	1.72	43	3822	4.61	ug/L	88
17) Iodomethane	1.96	142	480	1.18	ug/L	88 -NT
33) cis-1,2-Dichloroethene	3.26	96	6738	1.11	ug/L	88
45) Cyclohexane	4.85	56	3584	0.42	ug/L	84
51) Trichloroethene	6.14	130	1622	0.25	ug/L	96
71) Tetrachloroethene	8.50	164	11819	2.25	ug/L	96

DL
12/29/15

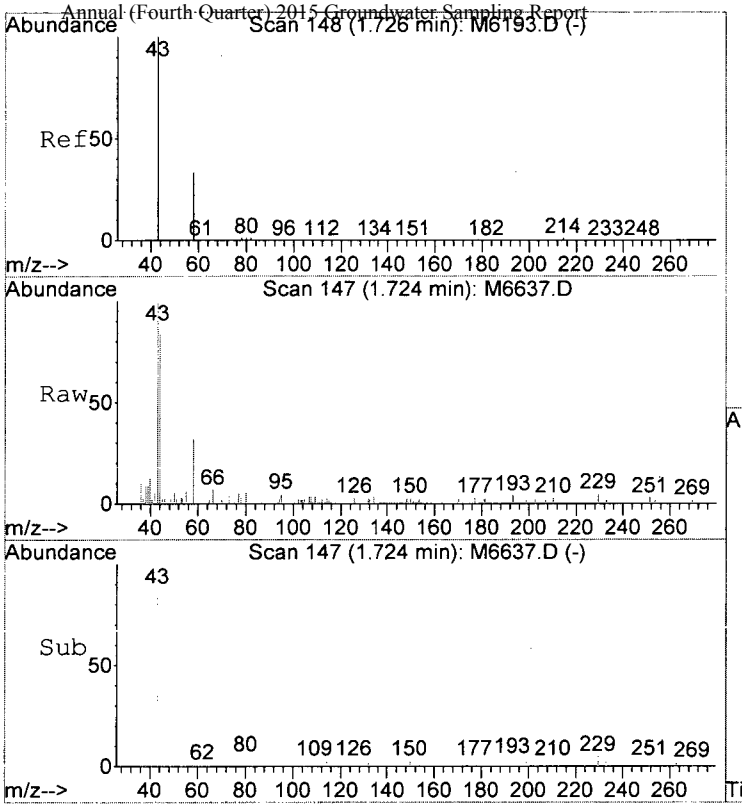
(#) = qualifier out of range (m) = manual integration
M6637.D W113015.M Tue Dec 29 12:49:19 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6637.D Vial: 20
Acq On : 22 Dec 2015 6:19 pm Operator: D.Lipani
Sample : R1511019-001|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 T4*DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 29 12:48 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



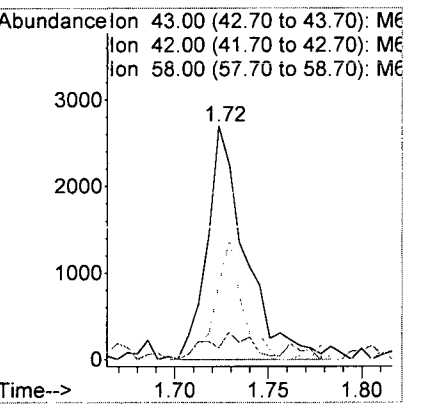
M6637.D W113015.M Tue Dec 29 12:49:21 2015 Page 2

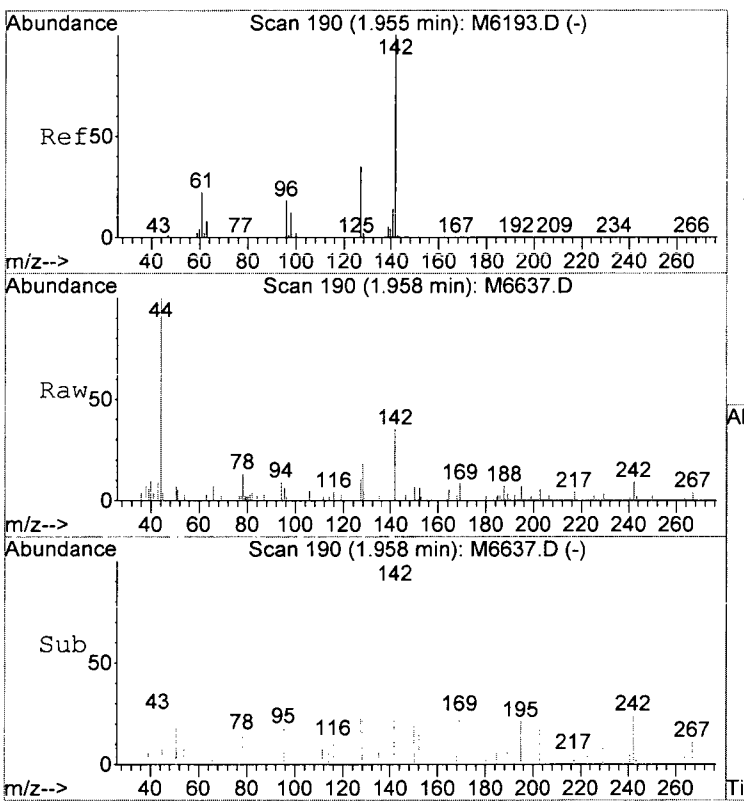


#14
Acetone
Concen: 4.61 ug/L
RT: 1.72 min Scan# 147
Delta R.T. -0.00 min
Lab File: M6637.D
Acq: 22 Dec 2015 6:19 pm

Tgt Ion: 43 Resp: 3822

Ion	Ratio	Lower	Upper
43	100		
42	5.0	0.0	29.0
58	32.4	6.3	46.3

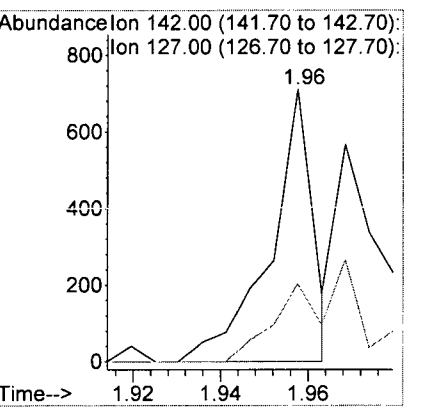


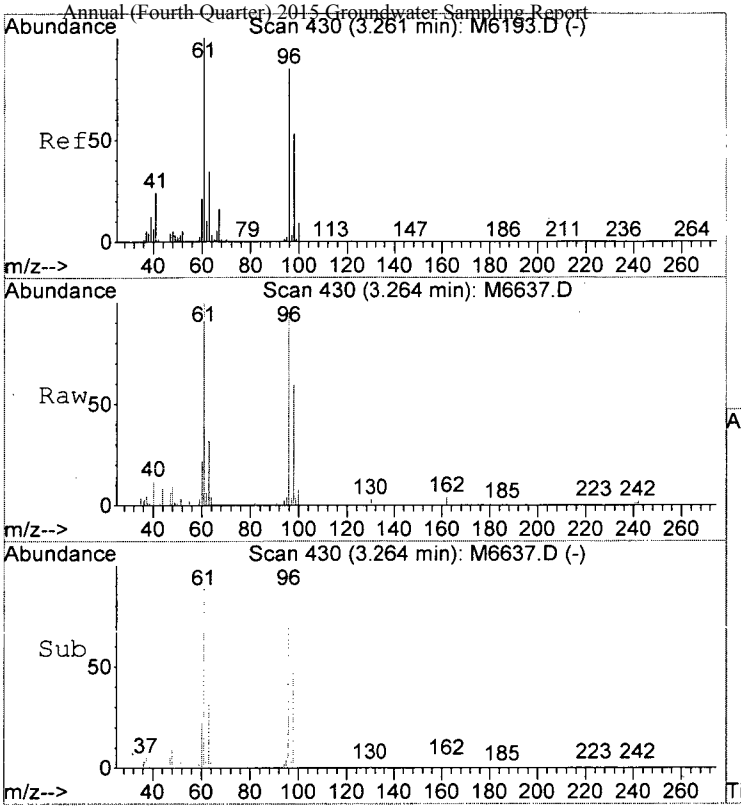


#17
Iodomethane
Concen: 1.18 ug/L
RT: 1.96 min Scan# 190
Delta R.T. 0.00 min
Lab File: M6637.D
Acq: 22 Dec 2015 6:19 pm

Tgt Ion:142 Resp: 480

Ion	Ratio	Lower	Upper
142	100		
127	28.6	15.3	55.3

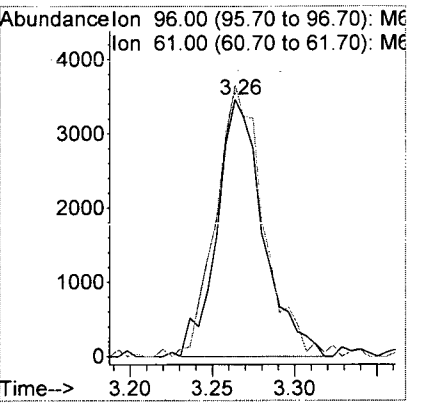


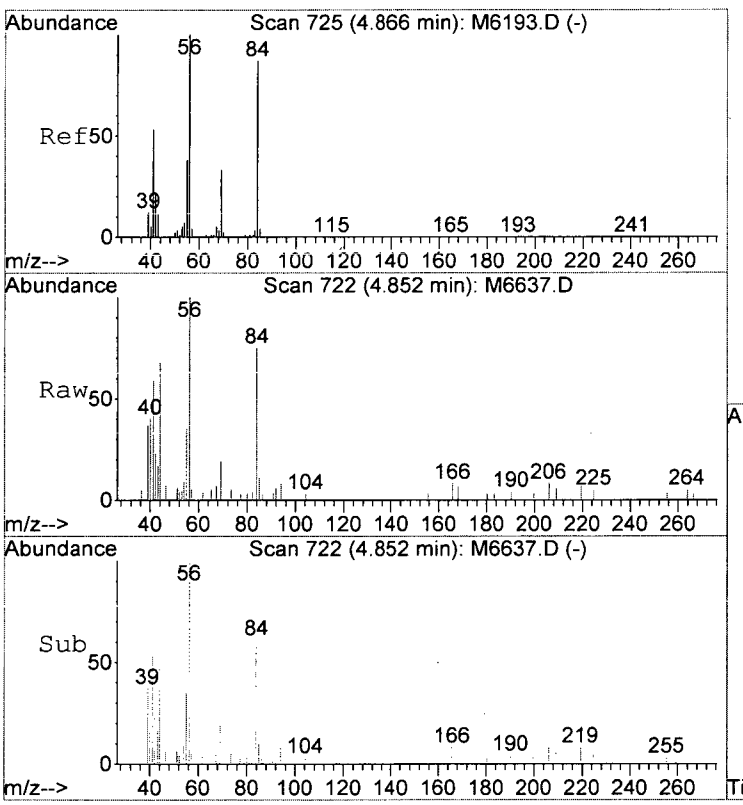


#33
cis-1,2-Dichloroethene
Concen: 1.11 ug/L
RT: 3.26 min Scan# 430
Delta R.T. 0.00 min
Lab File: M6637.D
Acq: 22 Dec 2015 6:19 pm

Tgt Ion: 96 Resp: 6738

Ion	Ratio	Lower	Upper
96	100		
61	105.5	98.2	138.2

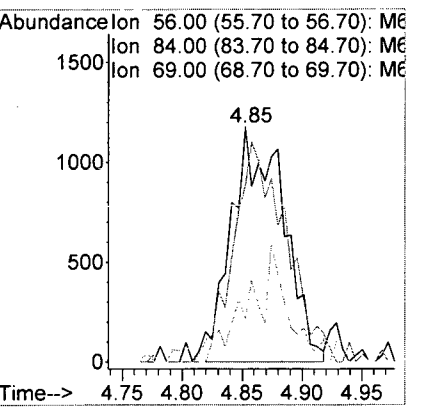


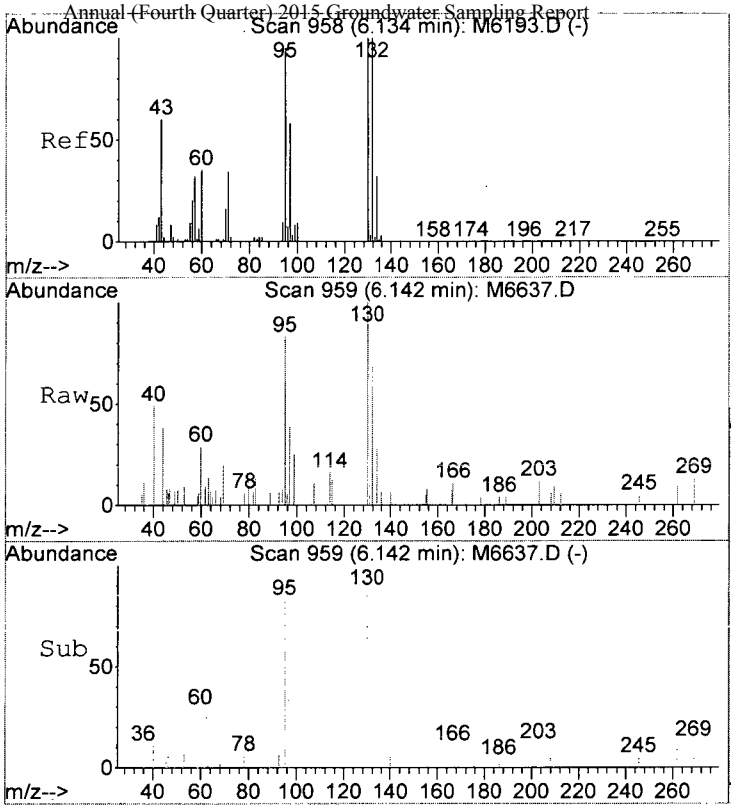


#45
Cyclohexane
Concen: 0.42 ug/L
RT: 4.85 min Scan# 722
Delta R.T. -0.01 min
Lab File: M6637.D
Acq: 22 Dec 2015 6:19 pm

Tgt Ion: 56 Resp: 3584

Ion	Ratio	Lower	Upper
56	100		
84	75.3	67.3	107.3
69	18.6	12.8	52.8

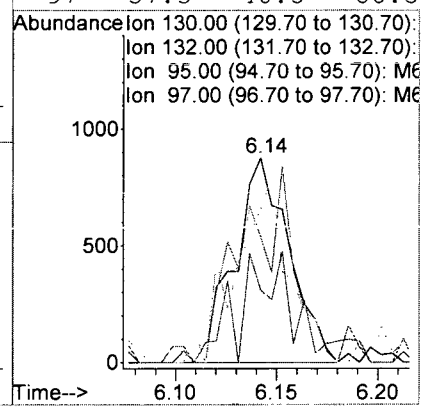


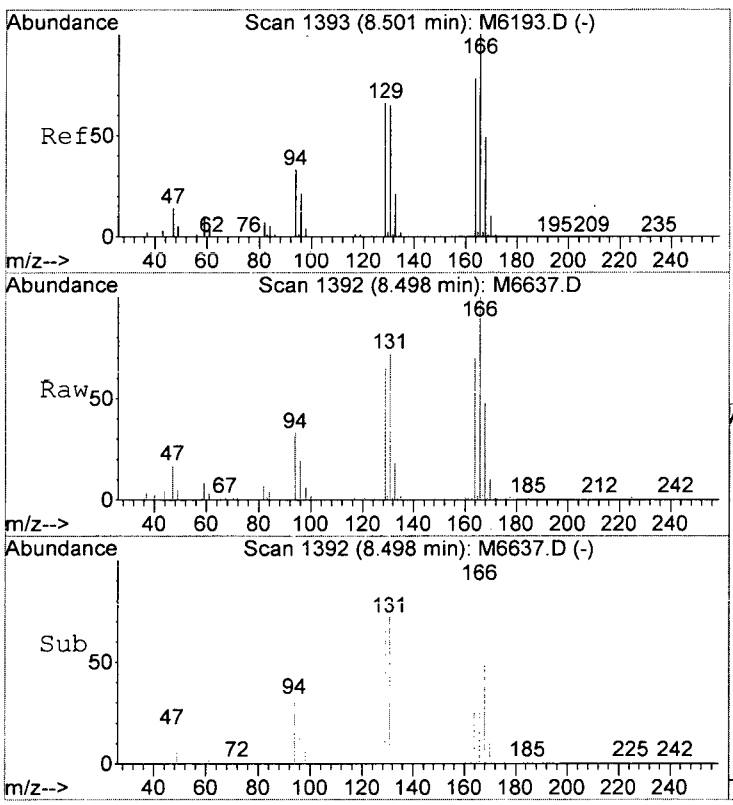


#51
Trichloroethene
Concen: 0.25 ug/L
RT: 6.14 min Scan# 959
Delta R.T. 0.01 min
Lab File: M6637.D
Acq: 22 Dec 2015 6:19 pm

Tgt Ion:130 Resp: 1622

Ion	Ratio	Lower	Upper
130	100		
132	90.6	76.5	116.5
95	89.8	72.7	112.7
97	57.3	40.5	80.5

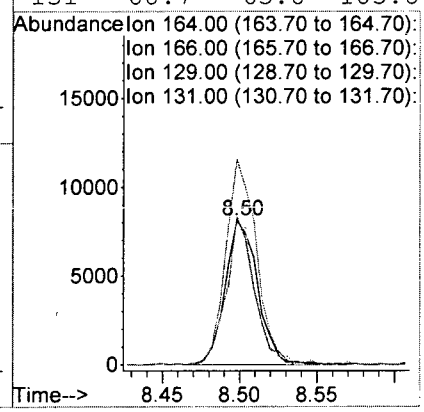




#71
Tetrachloroethene
Concen: 2.25 ug/L
RT: 8.50 min Scan# 1392
Delta R.T. -0.00 min
Lab File: M6637.D
Acq: 22 Dec 2015 6:19 pm

Tgt Ion:164 Resp: 11819

Ion	Ratio	Lower	Upper
164	100		
166	133.9	108.3	148.3
129	87.7	65.8	105.8
131	88.7	63.8	103.8



Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15 1415
Date Received: 12/16/15

Sample Name: FTMM-5-GW-M5MW20-13.65
Lab Code: R1511019-002

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/22/15 19:17		477453	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/22/15 19:17		477453	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/22/15 19:17		477453	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/22/15 19:17		477453	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/22/15 19:17		477453	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 19:17		477453	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/22/15 19:17		477453	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/22/15 19:17		477453	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/22/15 19:17		477453	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/22/15 19:17		477453	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 19:17		477453	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 19:17		477453	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/22/15 19:17		477453	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 19:17		477453	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 19:17		477453	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/22/15 19:17		477453	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/22/15 19:17		477453	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/22/15 19:17		477453	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 19:17		477453	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/22/15 19:17		477453	
Acetone	2.7	J	10	5.0	1.3	1	NA	12/22/15 19:17		477453	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/22/15 19:17		477453	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 19:17		477453	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 19:17		477453	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/22/15 19:17		477453	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/22/15 19:17		477453	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/22/15 19:17		477453	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 19:17		477453	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 19:17		477453	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1415
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW20-13.65	**Units:**	µg/L
Lab Code:	R1511019-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/22/15 19:17		477453	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/22/15 19:17		477453	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/22/15 19:17		477453	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/22/15 19:17		477453	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/22/15 19:17		477453	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/22/15 19:17		477453	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/22/15 19:17		477453	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
Tetrachloroethene (PCE)	**1.4**	J	5.0	1.0	0.30	1	NA	12/22/15 19:17		477453	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
Trichloroethene (TCE)	**0.88**	J	5.0	1.0	0.22	1	NA	12/22/15 19:17		477453	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/22/15 19:17		477453	
cis-1,2-Dichloroethene	**3.5**	J	5.0	1.0	0.30	1	NA	12/22/15 19:17		477453	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 19:17		477453	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/22/15 19:17		477453	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 19:17		477453	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/22/15 19:17		477453	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/22/15 19:17		477453	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:17		477453	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	75-120	12/22/15 19:17	
Dibromofluoromethane	108	85-115	12/22/15 19:17	
Toluene-d8	104	85-120	12/22/15 19:17	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/22/15 1917

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-5-GW-M5MW20-13.65	**Units:**	µg/L
Lab Code:	R1511019-002	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6639.D Vial: 22
Acq On : 22 Dec 2015 7:17 pm Operator: D.Lipani
Sample : R1511019-002|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 T4*DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 29 13:03 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

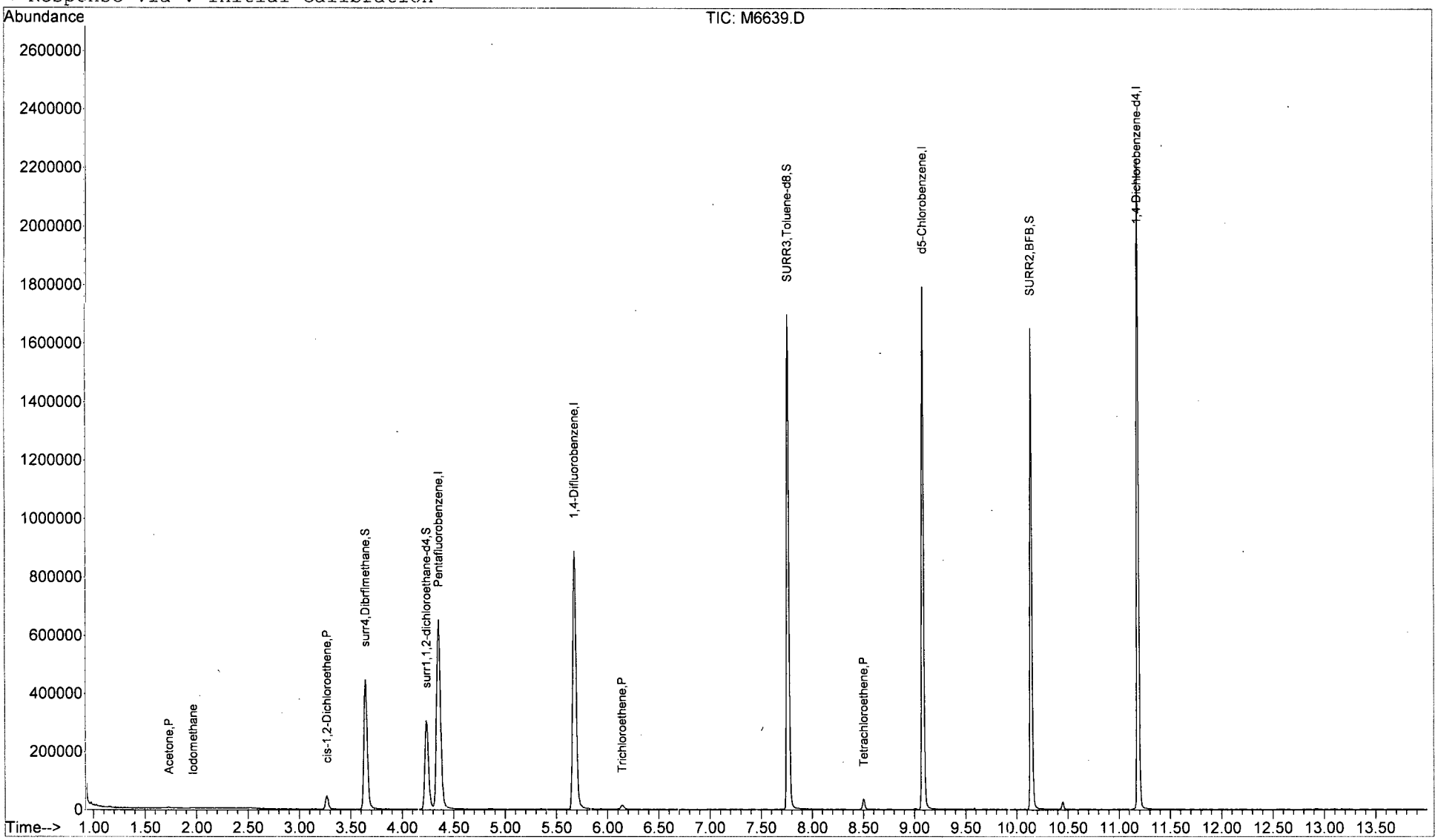
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	704285	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.68	114	957654	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	853599	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.18	152	513451	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	322975	53.77	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 107.54%			
42) surr1,1,2-dichloroethane-d	4.24	65	262981	53.68	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 107.36%			
62) SURR3,Toluene-d8	7.76	98	1034041	51.84	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.68%			
82) SURR2,BFB	10.14	95	415211	54.34	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 108.68%			
Target Compounds						Qvalue
14) Acetone	1.73	43	2263	2.68	ug/L	88
17) Iodomethane	1.96	142	526	1.18	ug/L	92
33) cis-1,2-Dichloroethene	3.27	96	21943	3.54	ug/L	87
51) Trichloroethene	6.14	130	5598	0.88	ug/L	95
71) Tetrachloroethene	8.50	164	7393	1.43	ug/L	89

DL
12/29/15

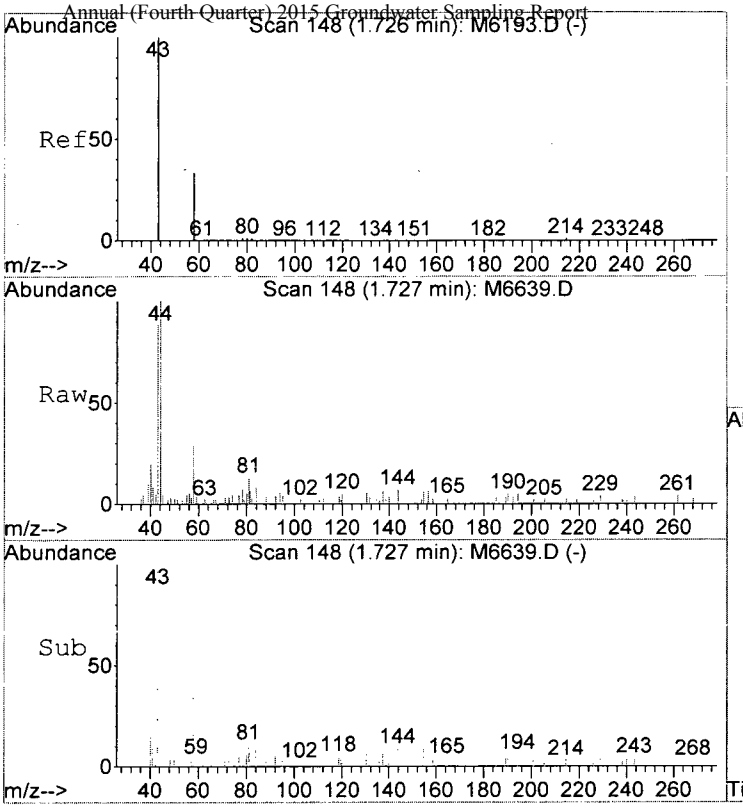
(#) = qualifier out of range (m) = manual integration
M6639.D W113015.M Tue Dec 29 13:04:41 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6639.D Vial: 22
Acq On : 22 Dec 2015 7:17 pm Operator: D.Lipani
Sample : R1511019-002|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 T4*DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 29 13:03 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



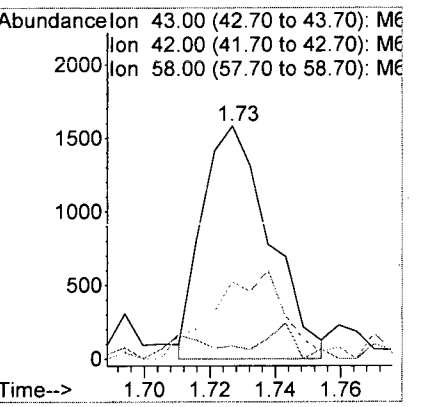
M6639.D W113015.M Tue Dec 29 13:04:43 2015 Page 2

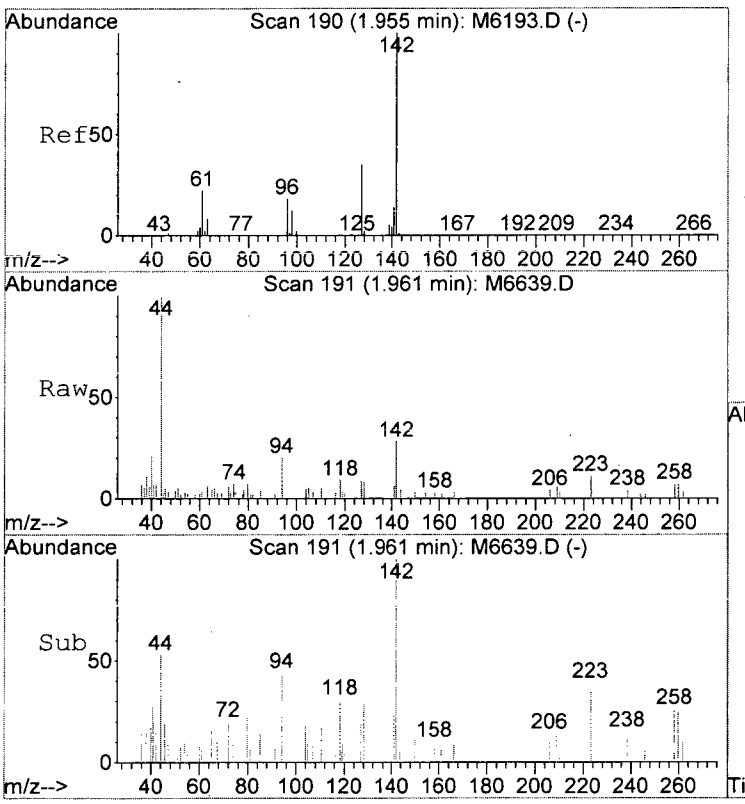


#14
Acetone
Concen: 2.68 ug/L
RT: 1.73 min Scan# 148
Delta R.T. 0.00 min
Lab File: M6639.D
Acq: 22 Dec 2015 7:17 pm

Tgt Ion: 43 Resp: 2263

Ion	Ratio	Lower	Upper
43	100		
42	5.5	0.0	29.0
58	33.0	6.3	46.3

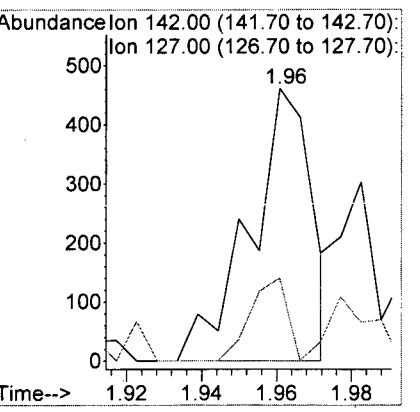


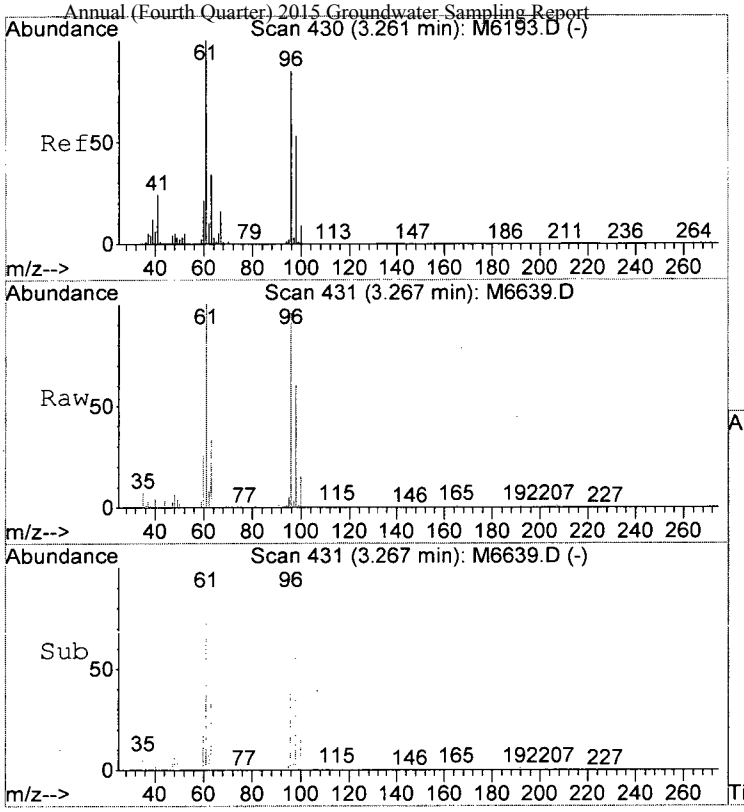


#17
Iodomethane
Concen: 1.18 ug/L
RT: 1.96 min Scan# 191
Delta R.T. 0.01 min
Lab File: M6639.D
Acq: 22 Dec 2015 7:17 pm

Tgt Ion:142 Resp: 526

Ion	Ratio	Lower	Upper
142	100		
127	30.4	15.3	55.3

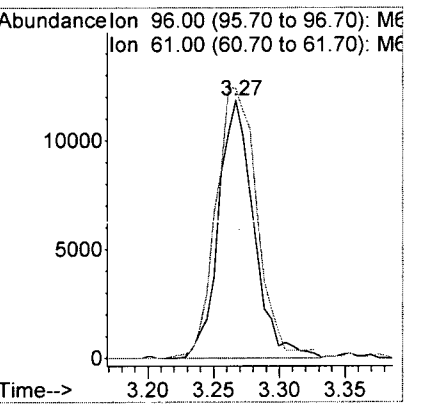


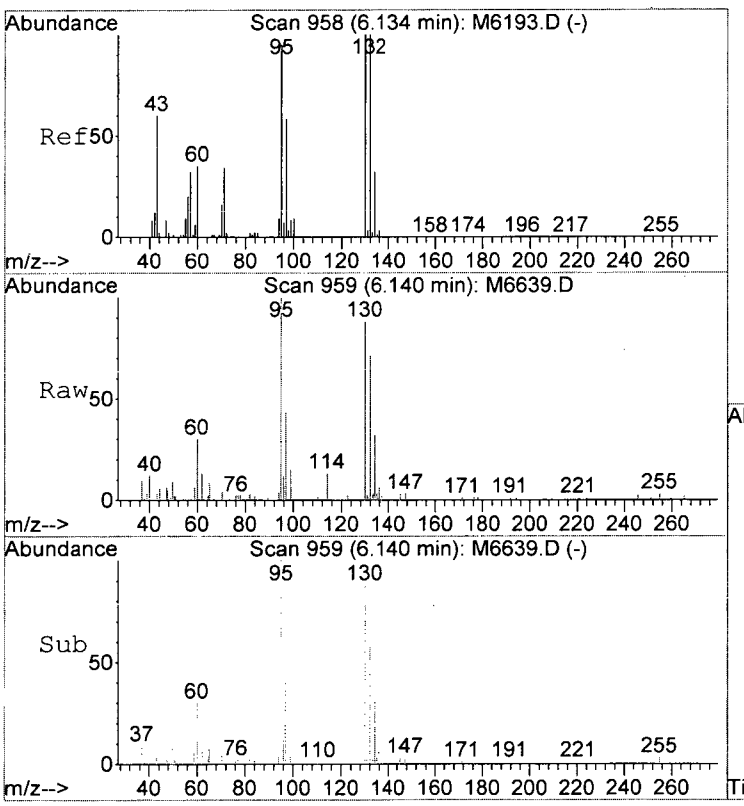


#33
cis-1,2-Dichloroethene
Concen: 3.54 ug/L
RT: 3.27 min Scan# 431
Delta R.T. 0.01 min
Lab File: M6639.D
Acq: 22 Dec 2015 7:17 pm

Tgt Ion: 96 Resp: 21943

Ion	Ratio	Lower	Upper
96	100		
61	104.4	98.2	138.2

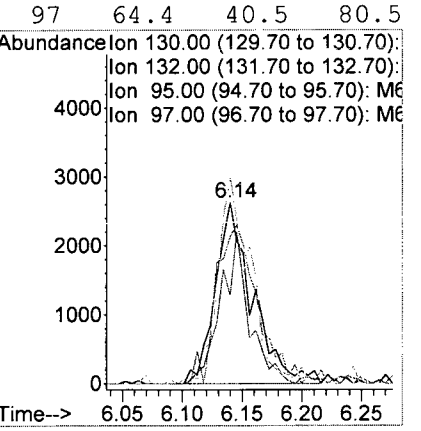


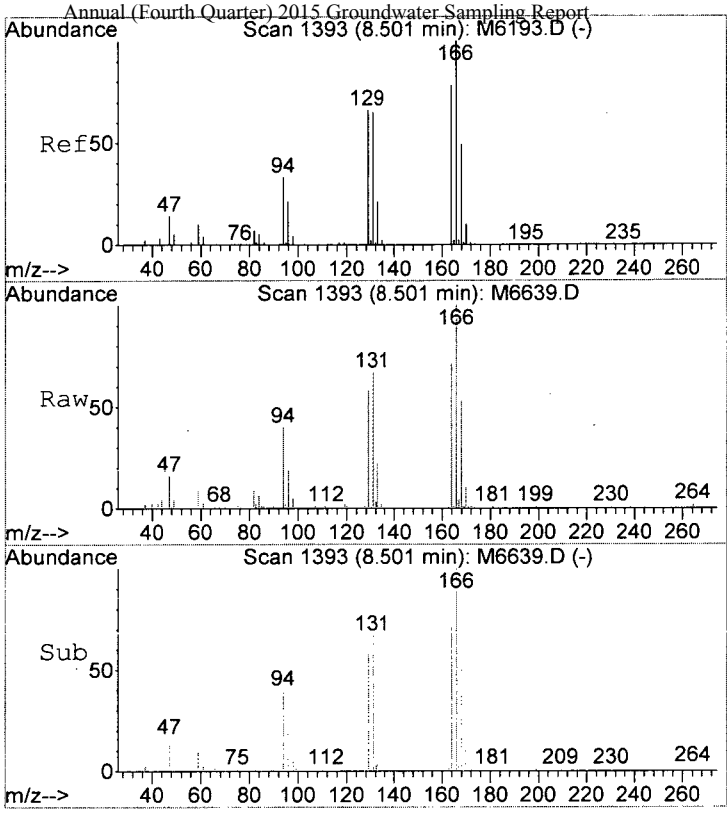


#51
Trichloroethene
Concen: 0.88 ug/L
RT: 6.14 min Scan# 959
Delta R.T. 0.01 min
Lab File: M6639.D
Acq: 22 Dec 2015 7:17 pm

Tgt Ion:130 Resp: 5598

Ion	Ratio	Lower	Upper
130	100		
132	98.7	76.5	116.5
95	99.1	72.7	112.7
97	64.4	40.5	80.5

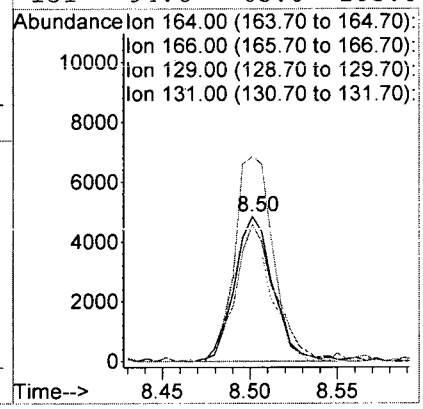




#71
Tetrachloroethene
Concen: 1.43 ug/L
RT: 8.50 min Scan# 1393
Delta R.T. 0.00 min
Lab File: M6639.D
Acq: 22 Dec 2015 7:17 pm

Tgt Ion:164 Resp: 7393

Ion	Ratio	Lower	Upper
164	100		
166	144.1	108.3	148.3
129	90.2	65.8	105.8
131	94.6	63.8	103.8



Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15 1400
Date Received: 12/16/15

Sample Name: FTMM-5-GW-M5MW23-10.82
Lab Code: R1511019-003

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/22/15 19:46		477453	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/22/15 19:46		477453	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/22/15 19:46		477453	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/22/15 19:46		477453	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/22/15 19:46		477453	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 19:46		477453	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/22/15 19:46		477453	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/22/15 19:46		477453	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/22/15 19:46		477453	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/22/15 19:46		477453	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 19:46		477453	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 19:46		477453	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/22/15 19:46		477453	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 19:46		477453	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 19:46		477453	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/22/15 19:46		477453	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/22/15 19:46		477453	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/22/15 19:46		477453	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 19:46		477453	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/22/15 19:46		477453	
Acetone	3.1	J	10	5.0	1.3	1	NA	12/22/15 19:46		477453	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/22/15 19:46		477453	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 19:46		477453	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 19:46		477453	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/22/15 19:46		477453	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/22/15 19:46		477453	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/22/15 19:46		477453	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 19:46		477453	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 19:46		477453	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1400
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW23-10.82	**Units:**	µg/L
Lab Code:	R1511019-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/22/15 19:46		477453	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/22/15 19:46		477453	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/22/15 19:46		477453	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/22/15 19:46		477453	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/22/15 19:46		477453	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/22/15 19:46		477453	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/22/15 19:46		477453	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
Tetrachloroethene (PCE)	**4.8**	J	5.0	1.0	0.30	1	NA	12/22/15 19:46		477453	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/22/15 19:46		477453	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/22/15 19:46		477453	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/22/15 19:46		477453	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 19:46		477453	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/22/15 19:46		477453	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 19:46		477453	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/22/15 19:46		477453	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/22/15 19:46		477453	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 19:46		477453	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	75-120	12/22/15 19:46	
Dibromofluoromethane	108	85-115	12/22/15 19:46	
Toluene-d8	106	85-120	12/22/15 19:46	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/22/15 1946

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-5-GW-M5MW23-10.82	**Units:**	µg/L
Lab Code:	R1511019-003	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6640.D Vial: 23
Acq On : 22 Dec 2015 7:46 pm Operator: D.Lipani
Sample : R1511019-003|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 T4*DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 29 13:06 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

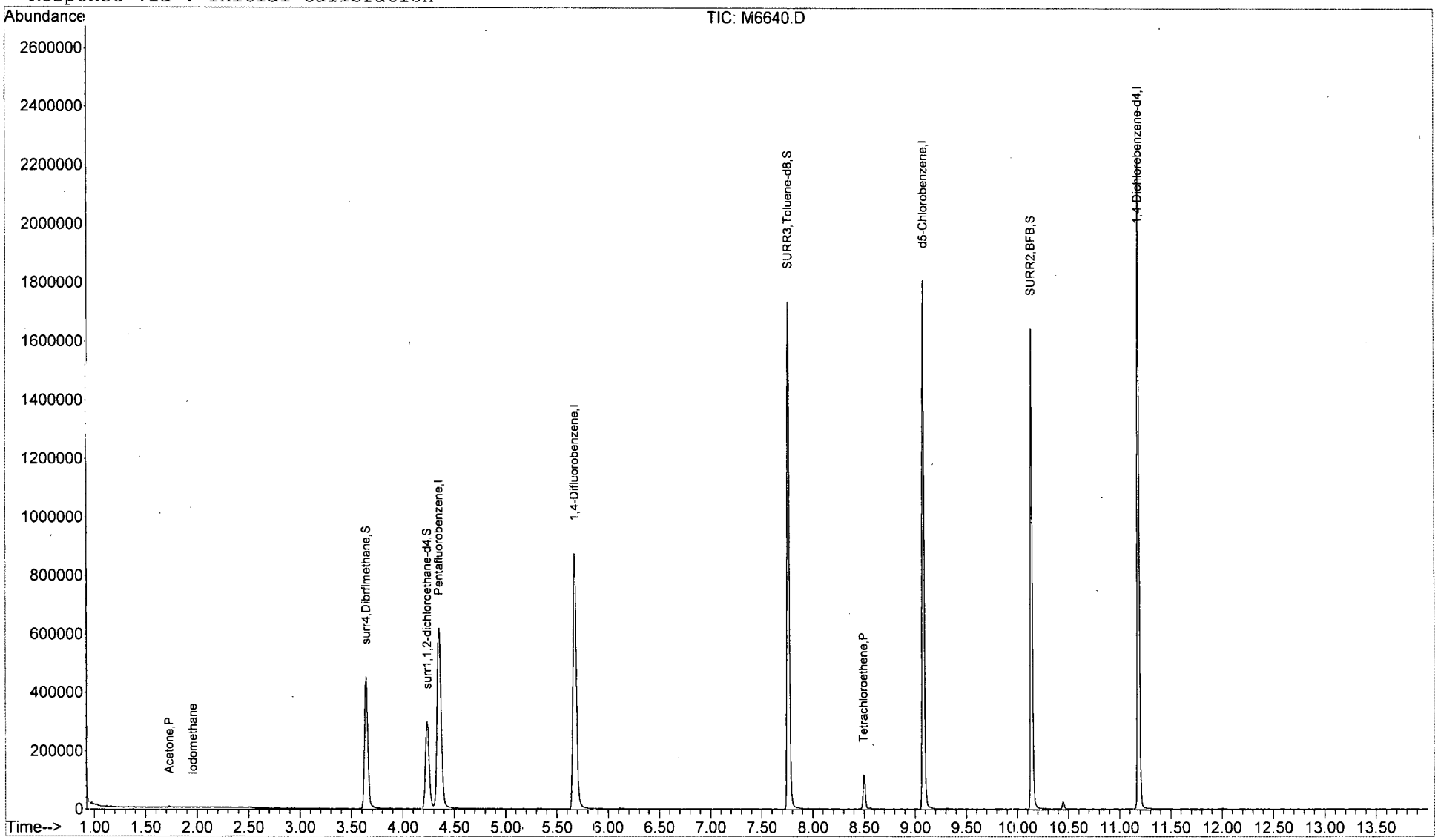
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	681063	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.67	114	942698	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	878354	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.18	152	494272	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	318605	53.88	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 107.76%			
42) surr1,1,2-dichloroethane-d	4.24	65	262007	54.33	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 108.66%			
62) SURR3,Toluene-d8	7.76	98	1041525	53.04	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 106.08%			
82) SURR2,BFB	10.14	95	404870	51.49	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 102.98%			
Target Compounds						Qvalue
14) Acetone	1.73	43	2553	3.13	ug/L	95
17) Iodomethane	1.96	142	744	1.21	ug/L	91
71) Tetrachloroethene	8.50	164	25633	4.82	ug/L	98

DL
12/29/15

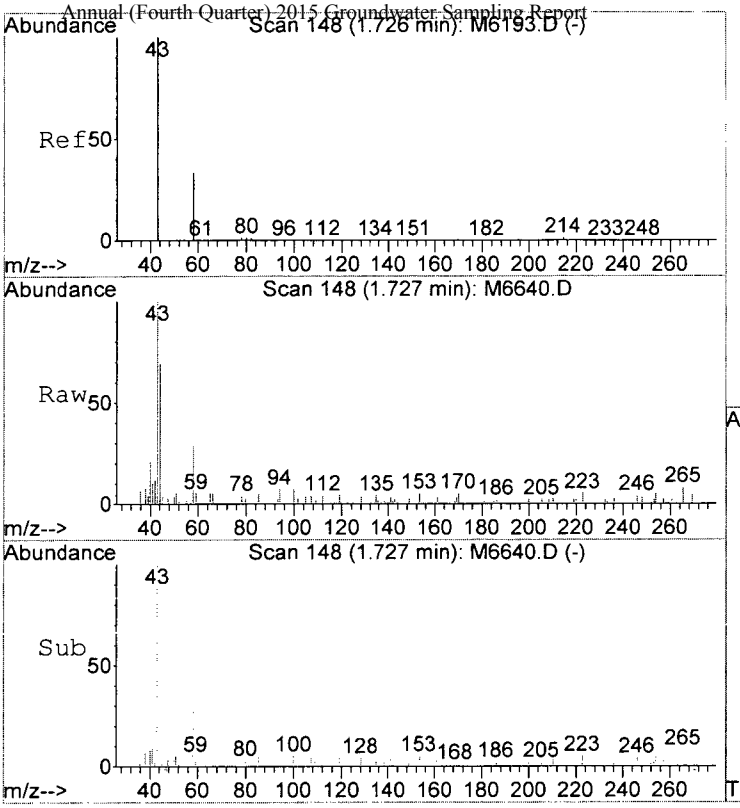
(#) = qualifier out of range (m) = manual integration
M6640.D W113015.M Tue Dec 29 13:07:39 2015 Page 1

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6640.D Vial: 23
Acq On : 22 Dec 2015 7:46 pm Operator: D.Lipani
Sample : R1511019-003|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 T4*DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 29 13:06 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



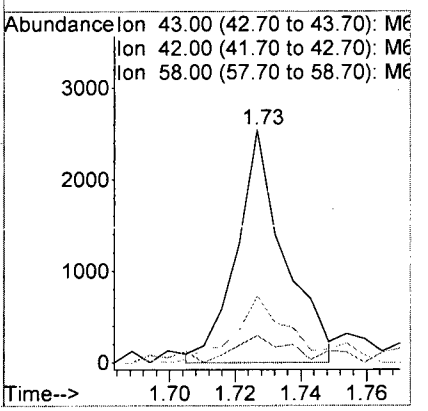
M6640.D W113015.M Tue Dec 29 13:07:41 2015 Page 2

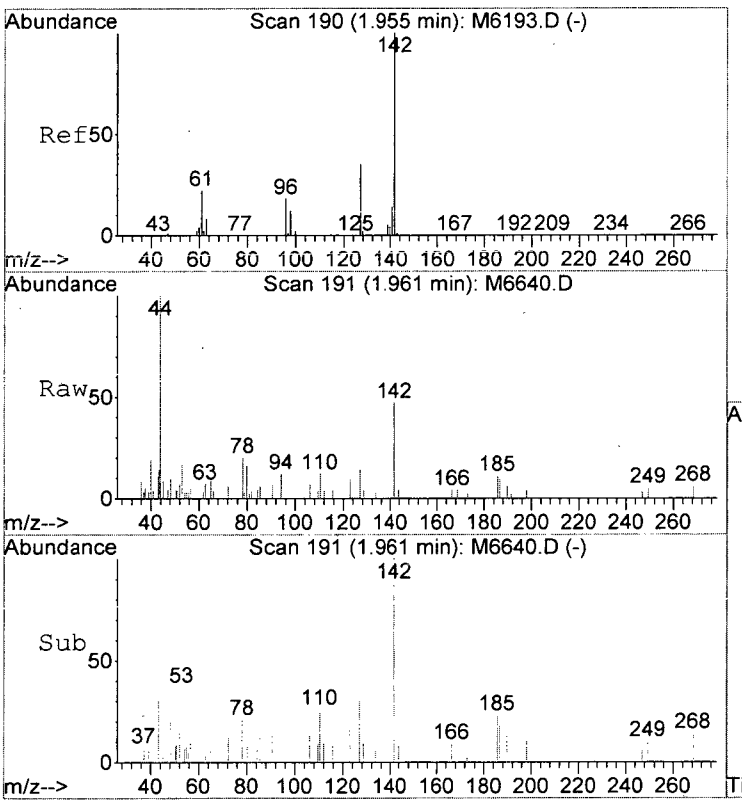


#14
Acetone
Concen: 3.13 ug/L
RT: 1.73 min Scan# 148
Delta R.T. 0.00 min
Lab File: M6640.D
Acq: 22 Dec 2015 7:46 pm

Tgt Ion: 43 Resp: 2553

Ion	Ratio	Lower	Upper
43	100		
42	11.6	0.0	29.0
58	28.5	6.3	46.3

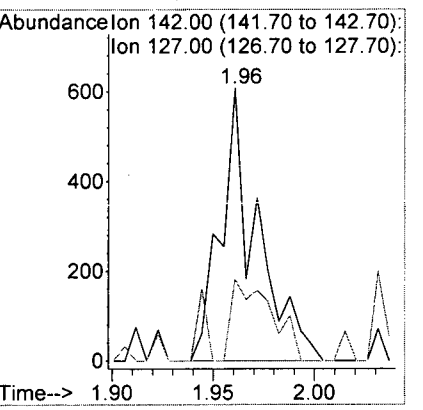


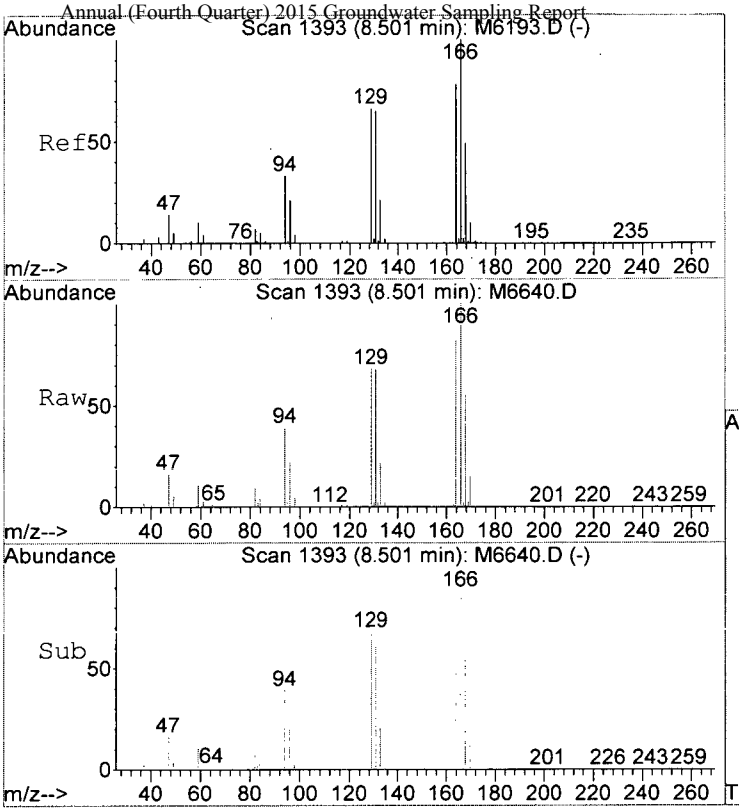


#17
Iodomethane
Concen: 1.21 ug/L
RT: 1.96 min Scan# 191
Delta R.T. 0.01 min
Lab File: M6640.D
Acq: 22 Dec 2015 7:46 pm

Tgt Ion:142 Resp: 744

Ion	Ratio	Lower	Upper
142	100		
127	30.0	15.3	55.3

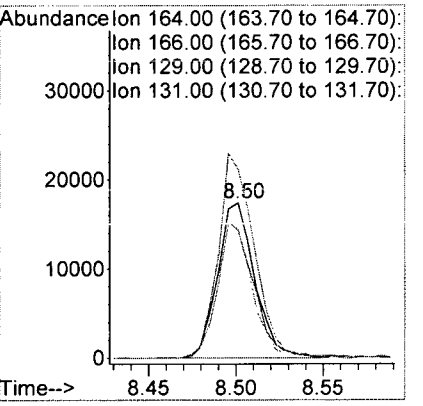




#71
Tetrachloroethene
Concen: 4.82 ug/L
RT: 8.50 min Scan# 1393
Delta R.T. 0.00 min
Lab File: M6640.D
Acq: 22 Dec 2015 7:46 pm

Tgt Ion:164 Resp: 25633

Ion	Ratio	Lower	Upper
164	100		
166	128.6	108.3	148.3
129	82.5	65.8	105.8
131	85.4	63.8	103.8



M6640.D W113015.M Tue Dec 29 13:07:45 2015 Page 4

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1410
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW11-9.46	**Units:**	µg/L
Lab Code:	R1511019-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/22/15 18:49		477453	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/22/15 18:49		477453	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/22/15 18:49		477453	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/22/15 18:49		477453	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/22/15 18:49		477453	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 18:49		477453	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/22/15 18:49		477453	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/22/15 18:49		477453	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/22/15 18:49		477453	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/22/15 18:49		477453	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 18:49		477453	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 18:49		477453	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/22/15 18:49		477453	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 18:49		477453	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 18:49		477453	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/22/15 18:49		477453	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/22/15 18:49		477453	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/22/15 18:49		477453	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 18:49		477453	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/22/15 18:49		477453	
Acetone	**3.2**	J	10	5.0	1.3	1	NA	12/22/15 18:49		477453	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/22/15 18:49		477453	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 18:49		477453	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 18:49		477453	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/22/15 18:49		477453	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/22/15 18:49		477453	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/22/15 18:49		477453	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 18:49		477453	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 18:49		477453	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1410
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW11-9.46	**Units:**	µg/L
Lab Code:	R1511019-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/22/15 18:49		477453	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/22/15 18:49		477453	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/22/15 18:49		477453	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/22/15 18:49		477453	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/22/15 18:49		477453	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/22/15 18:49		477453	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/22/15 18:49		477453	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
Tetrachloroethene (PCE)	**2.5**	J	5.0	1.0	0.30	1	NA	12/22/15 18:49		477453	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/22/15 18:49		477453	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/22/15 18:49		477453	
cis-1,2-Dichloroethene	**0.53**	J	5.0	1.0	0.30	1	NA	12/22/15 18:49		477453	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 18:49		477453	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/22/15 18:49		477453	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 18:49		477453	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/22/15 18:49		477453	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/22/15 18:49		477453	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 18:49		477453	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	75-120	12/22/15 18:49	
Dibromofluoromethane	108	85-115	12/22/15 18:49	
Toluene-d8	105	85-120	12/22/15 18:49	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/22/15 1849

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-5-GW-M5MW11-9.46	**Units:**	µg/L
Lab Code:	R1511019-004	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6638.D Vial: 21
Acq On : 22 Dec 2015 6:49 pm Operator: D.Lipani
Sample : R1511019-004|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 T4*DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 29 12:52 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.35	168	687768	50.00	ug/L		0.00
39) 1,4-Difluorobenzene	5.67	114	954746	50.00	ug/L		0.00
64) d5-Chlorobenzene	9.09	117	888315	50.00	ug/L		0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	505333	50.00	ug/L		0.00
System Monitoring Compounds							
40) surr4,Dibrflmethane	3.64	113	323567	54.03	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.06%				
42) surr1,1,2-dichloroethane-d	4.24	65	261134	53.46	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 106.92%				
62) SURR3,Toluene-d8	7.76	98	1044319	52.51	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.02%				
82) SURR2,BFB	10.14	95	415632	52.27	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 104.54%				
Target Compounds							Qvalue
13) 2-Propanol	1.70	45	668	3.97	ug/L		92
14) Acetone	1.73	43	2608	3.17	ug/L		91
17) Iodomethane	1.96	142	501	1.18	ug/L	#	48
33) cis-1,2-Dichloroethene	3.26	96	3209	0.53	ug/L	#	80
71) Tetrachloroethene	8.50	164	13245	2.46	ug/L		96

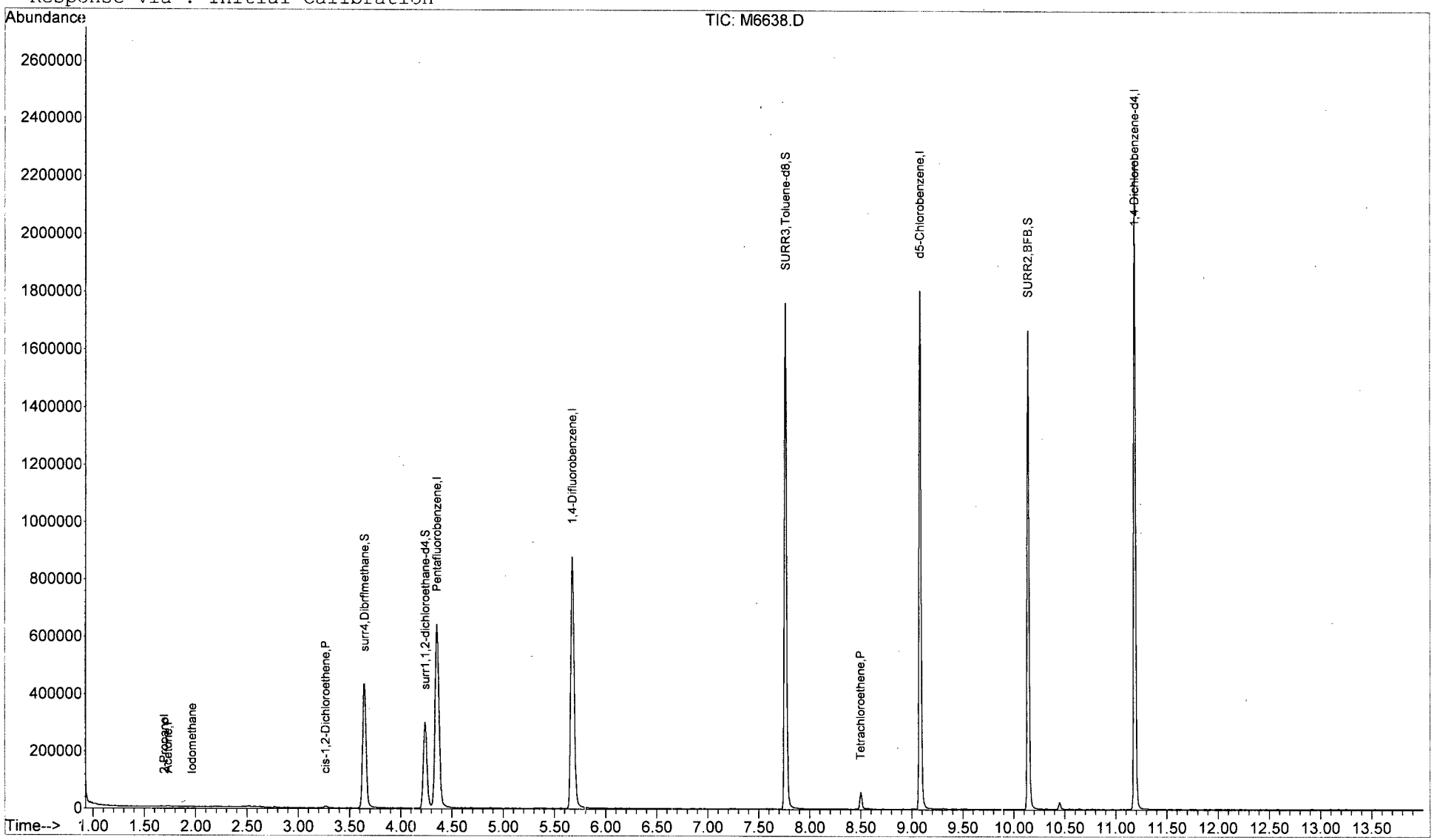
DL 12/29/15

JW 12/30/15

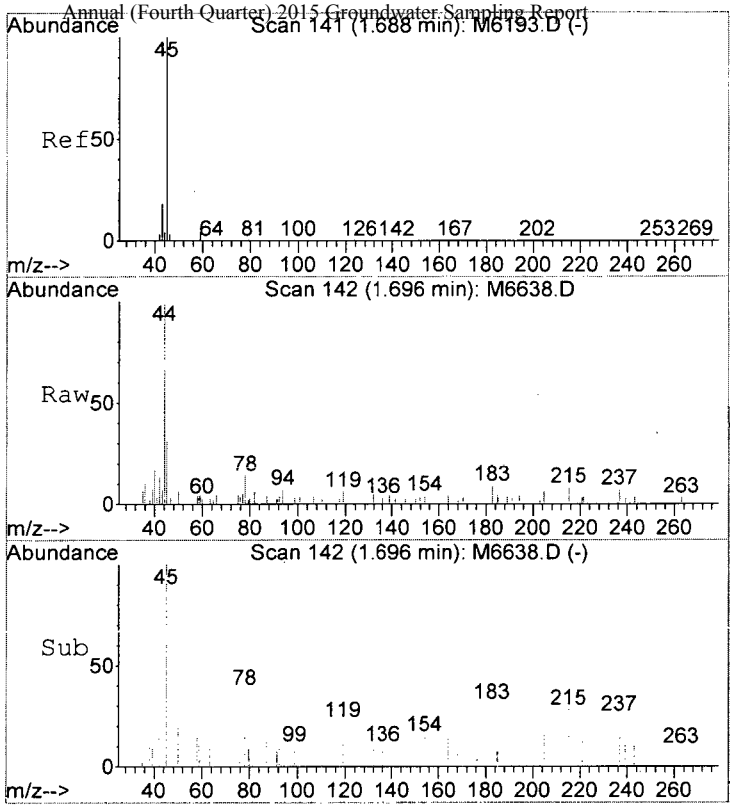
(#) = qualifier out of range (m) = manual integration
M6638.D W113015.M Tue Dec 29 13:01:36 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6638.D Vial: 21
Acq On : 22 Dec 2015 6:49 pm Operator: D.Lipani
Sample : R1511019-004|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 T4*DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 29 12:52 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



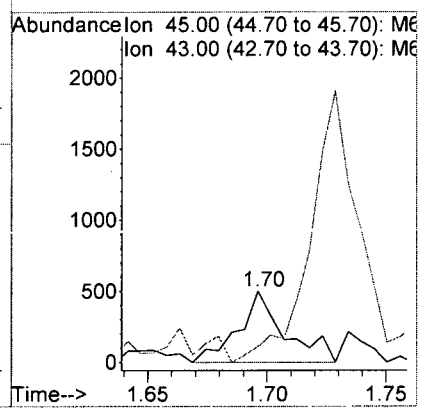
M6638.D W113015.M Tue Dec 29 13:01:39 2015 Page 2

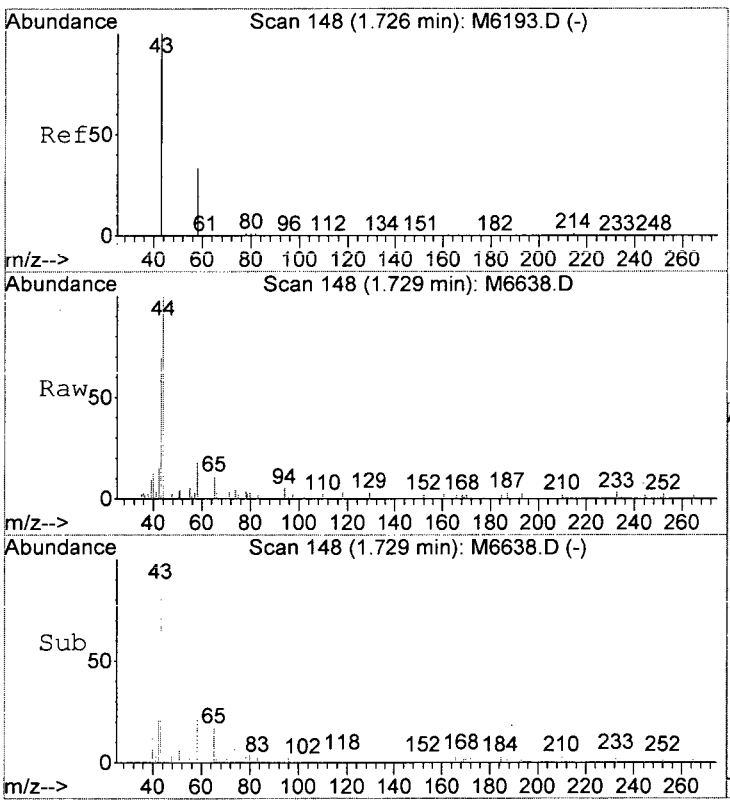


#13
2-Propanol
Concen: 3.97 ug/L
RT: 1.70 min Scan# 142
Delta R.T. 0.01 min
Lab File: M6638.D
Acq: 22 Dec 2015 6:49 pm

Tgt Ion: 45 Resp: 668

Ion	Ratio	Lower	Upper
45	100		
43	21.9	0.0	38.2

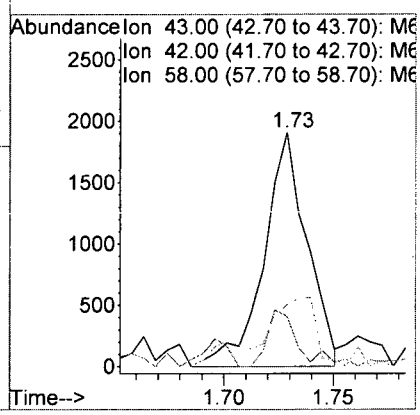


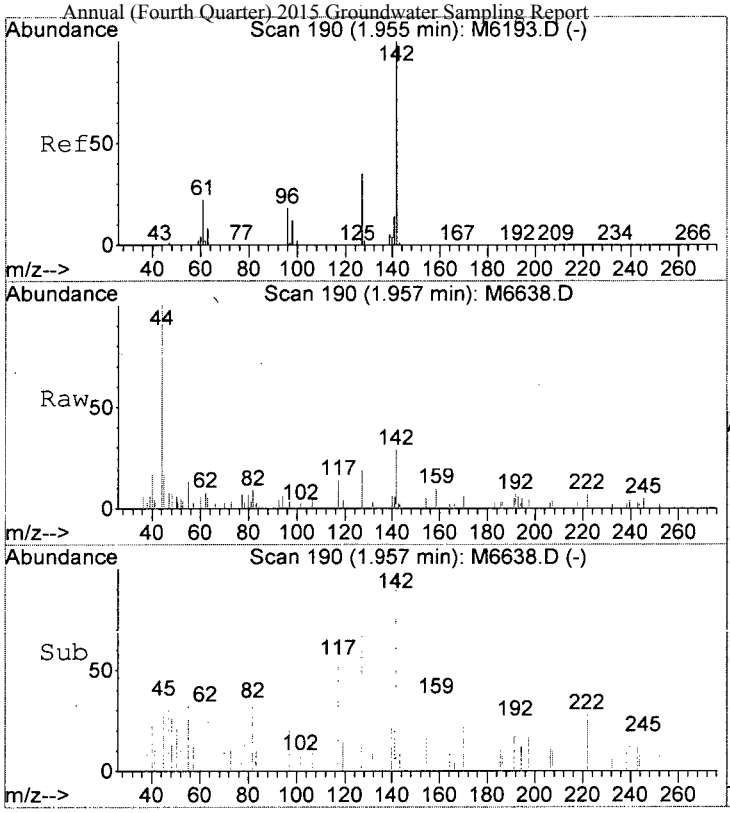


#14
Acetone
Concen: 3.17 ug/L
RT: 1.73 min Scan# 148
Delta R.T. 0.00 min
Lab File: M6638.D
Acq: 22 Dec 2015 6:49 pm

Tgt Ion: 43 Resp: 2608

Ion	Ratio	Lower	Upper
43	100		
42	21.5	0.0	29.0
58	26.4	6.3	46.3

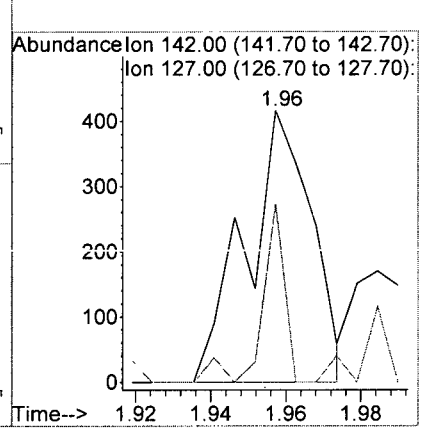


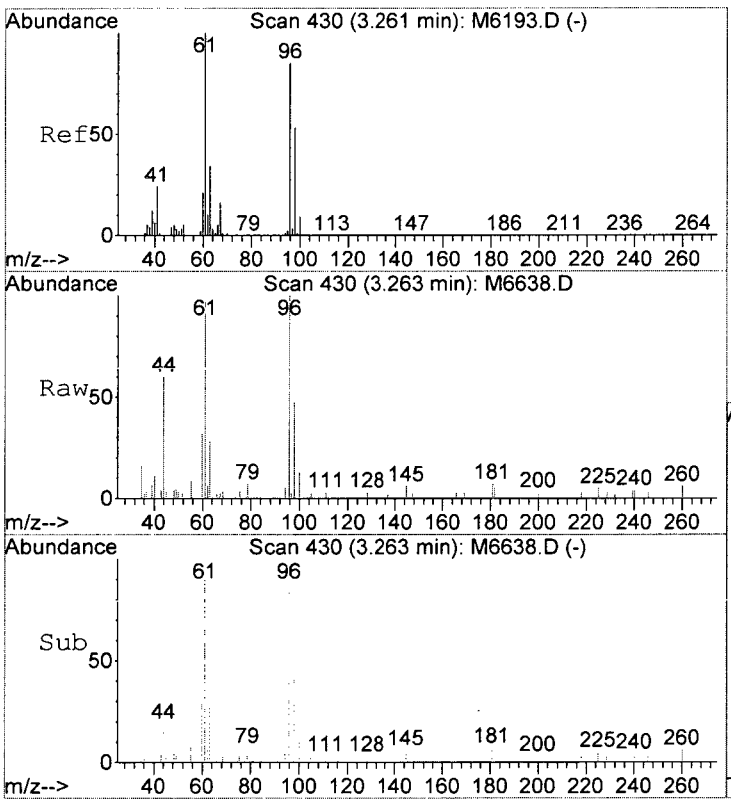


#17
Iodomethane
Concen: 1.18 ug/L
RT: 1.96 min Scan# 190
Delta R.T. 0.00 min
Lab File: M6638.D
Acq: 22 Dec 2015 6:49 pm

Tgt Ion:142 Resp: 501

Ion	Ratio	Lower	Upper
142	100		
127	65.6	15.3	55.3#

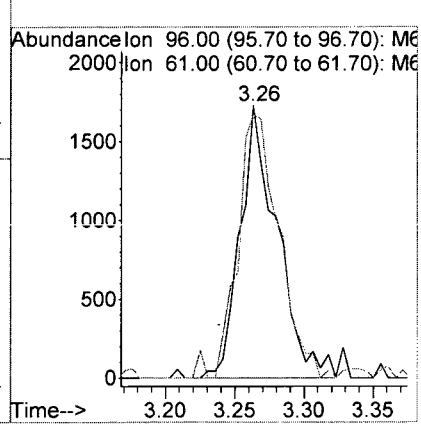


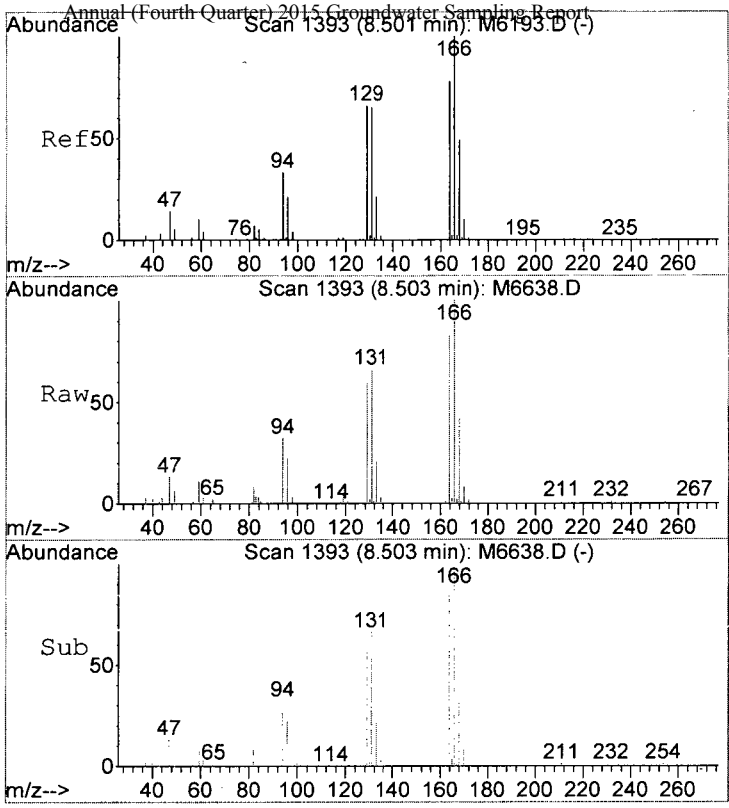


#33
cis-1,2-Dichloroethene
Concen: 0.53 ug/L
RT: 3.26 min Scan# 430
Delta R.T. 0.00 min
Lab File: M6638.D
Acq: 22 Dec 2015 6:49 pm

Tgt Ion: 96 Resp: 3209

Ion	Ratio	Lower	Upper
96	100		
61	96.6	98.2	138.2#

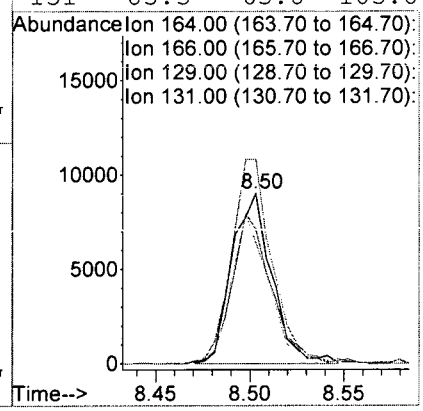




#71
Tetrachloroethene
Concen: 2.46 ug/L
RT: 8.50 min Scan# 1393
Delta R.T. 0.00 min
Lab File: M6638.D
Acq: 22 Dec 2015 6:49 pm

Tgt Ion:164 Resp: 13245

Ion	Ratio	Lower	Upper
164	100		
166	122.3	108.3	148.3
129	82.9	65.8	105.8
131	85.3	63.8	103.8



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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1200
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW111-9.46	**Units:**	µg/L
Lab Code:	R1511019-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 13:07		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 13:07		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 13:07		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 13:07		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 13:07		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 13:07		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 13:07		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 13:07		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 13:07		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 13:07		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 13:07		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 13:07		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 13:07		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 13:07		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 13:07		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 13:07		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 13:07		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 13:07		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 13:07		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 13:07		477737	
Acetone	**3.0**	J	10	5.0	1.3	1	NA	12/26/15 13:07		477737	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 13:07		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 13:07		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 13:07		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 13:07		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 13:07		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 13:07		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 13:07		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 13:07		477737	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15 1200
Date Received: 12/16/15

Sample Name: FTMM-5-GW-M5MW111-9.46
Lab Code: R1511019-005

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 13:07		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 13:07		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 13:07		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 13:07		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 13:07		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 13:07		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 13:07		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
Tetrachloroethene (PCE)	**2.4**	J	5.0	1.0	0.30	1	NA	12/26/15 13:07		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/26/15 13:07		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 13:07		477737	
cis-1,2-Dichloroethene	**0.47**	J	5.0	1.0	0.30	1	NA	12/26/15 13:07		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 13:07		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 13:07		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 13:07		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 13:07		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 13:07		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:07		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	75-120	12/26/15 13:07	
Dibromofluoromethane	105	85-115	12/26/15 13:07	
Toluene-d8	105	85-120	12/26/15 13:07	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15
Date Received: 12/16/15
Date Analyzed: 12/26/15 1307

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name: FTMM-5-GW-M5MW111-9.46
Lab Code: R1511019-005

Units: µg/L
Basis: NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6672.D Vial: 10
Acq On : 26 Dec 2015 1:07 pm Operator: D.Lipani
Sample : R1511019-005|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 30 17:05 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

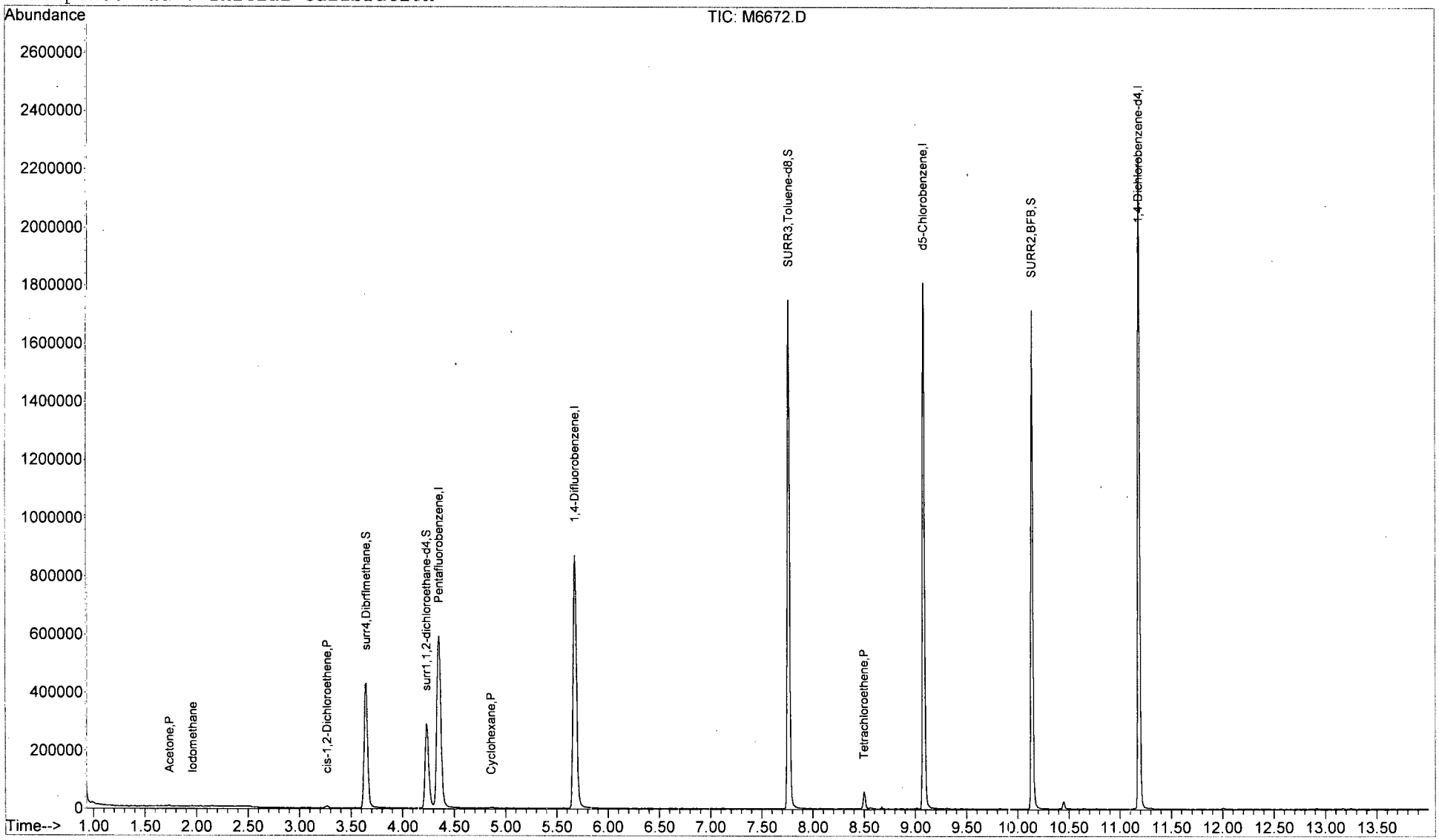
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	651632	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.67	114	958642	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	893458	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	515261	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	316129	52.57	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 105.14%			
42) surr1,1,2-dichloroethane-d	4.24	65	252056	51.40	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 102.80%			
62) SURR3,Toluene-d8	7.76	98	1047563	52.46	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 104.92%			
82) SURR2,BFB	10.14	95	435070	54.40	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 108.80%			
Target Compounds						Qvalue
14) Acetone	1.73	43	2366	3.03	ug/L	74
17) Iodomethane	1.96	142	1365	1.29	ug/L	71
33) cis-1,2-Dichloroethene	3.26	96	2678	0.47	ug/L	97
45) Cyclohexane	4.86	56	1743	0.20	ug/L #	77
71) Tetrachloroethene	8.50	164	12871	2.38	ug/L	97

DL
12/30/15

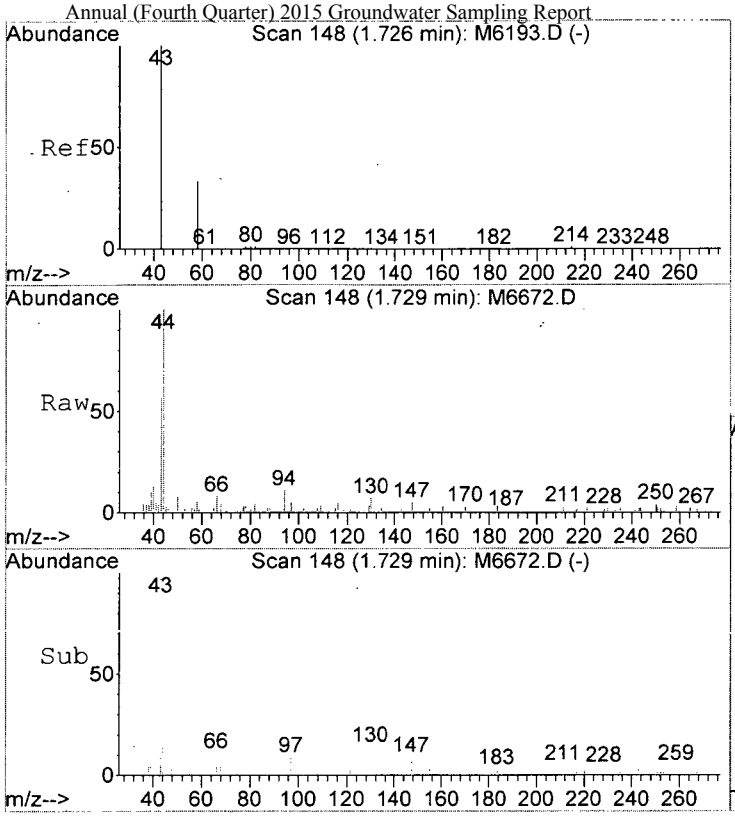
(#) = qualifier out of range (m) = manual integration
M6672.D W113015.M Wed Dec 30 17:06:28 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6672.D Vial: 10
Acq On : 26 Dec 2015 1:07 pm Operator: D.Lipani
Sample : R1511019-005|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 30 17:05 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



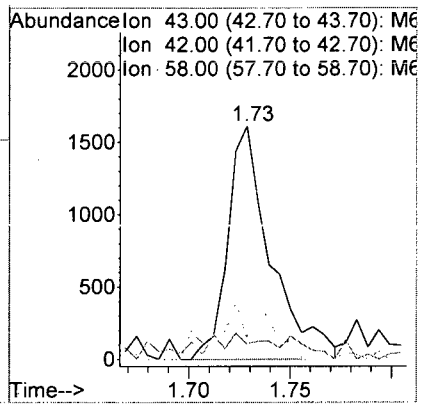
M6672.D W113015.M Wed Dec 30 17:06:30 2015

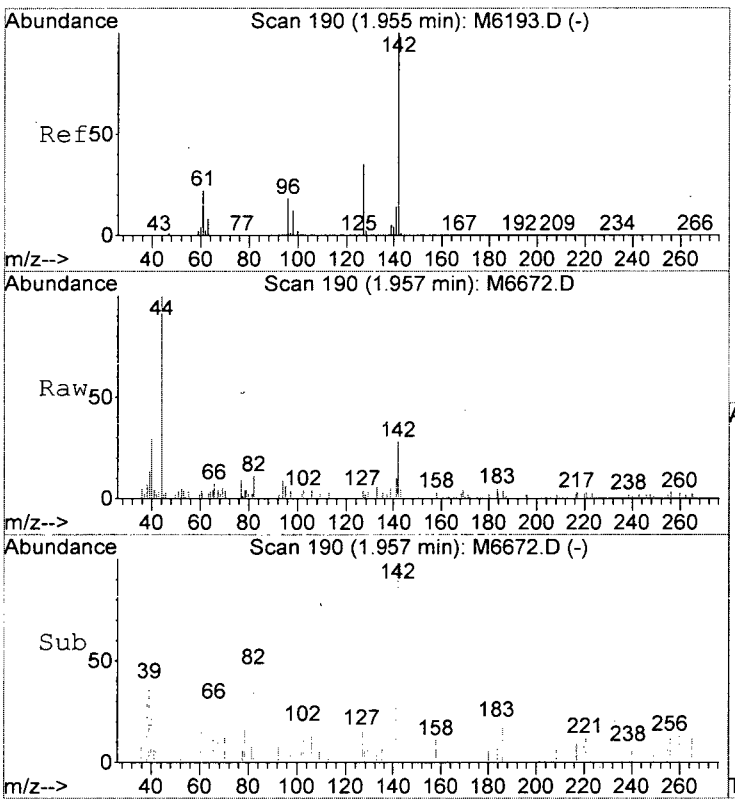


#14
Acetone
Concen: 3.03 ug/L
RT: 1.73 min Scan# 148
Delta R.T. 0.00 min
Lab File: M6672.D
Acq: 26 Dec 2015 1:07 pm

Tgt Ion: 43 Resp: 2366

Ion	Ratio	Lower	Upper
43	100		
42	6.7	0.0	29.0
58	9.3	6.3	46.3

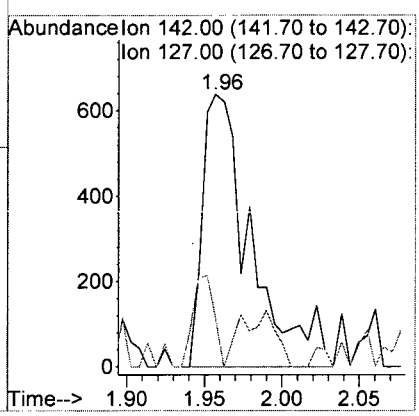


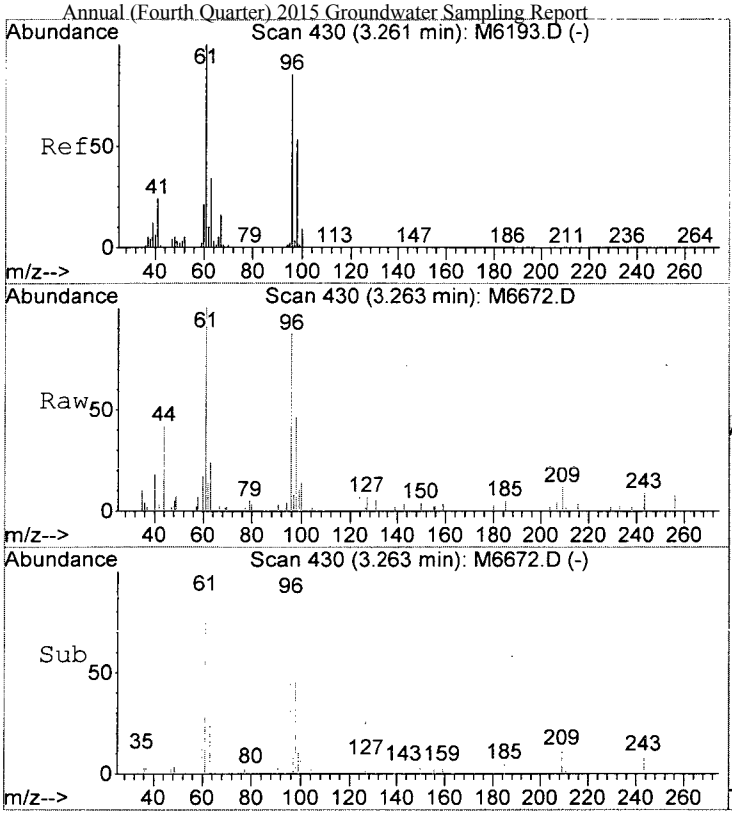


#17
Iodomethane
Concen: 1.29 ug/L
RT: 1.96 min Scan# 190
Delta R.T. 0.00 min
Lab File: M6672.D
Acq: 26 Dec 2015 1:07 pm

Tgt Ion:142 Resp: 1365

Ion	Ratio	Lower	Upper
142	100		
127	18.5	15.3	55.3

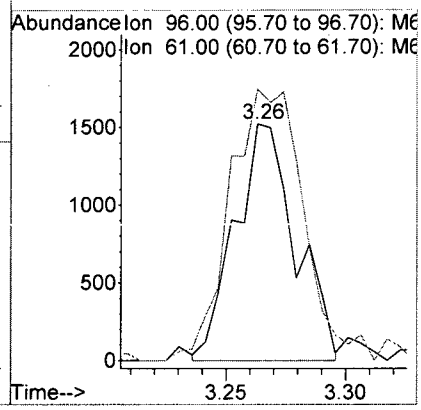


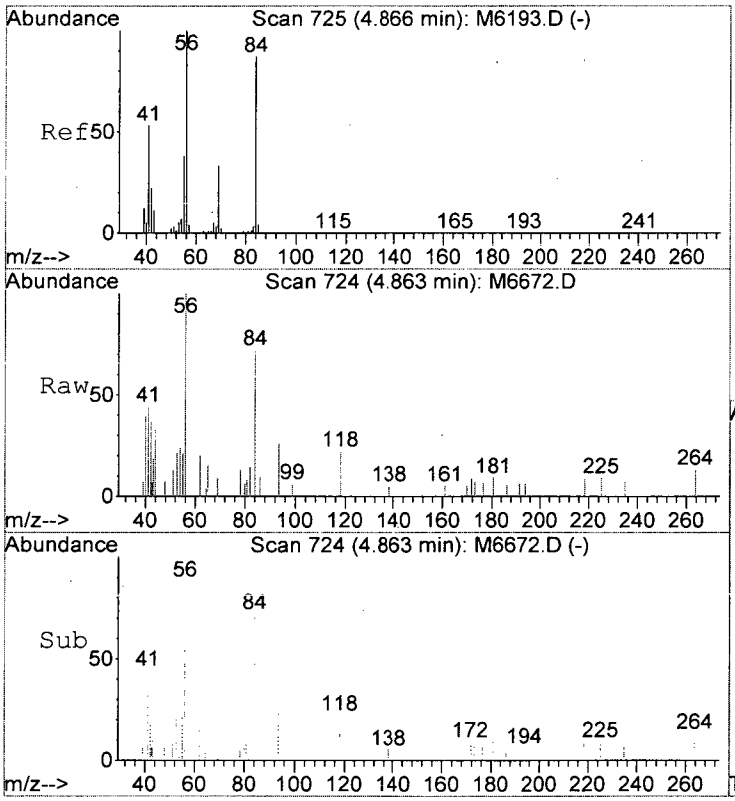


#33
cis-1,2-Dichloroethene
Concen: 0.47 ug/L
RT: 3.26 min Scan# 430
Delta R.T. 0.00 min
Lab File: M6672.D
Acq: 26 Dec 2015 1:07 pm

Tgt Ion: 96 Resp: 2678

Ion	Ratio	Lower	Upper
96	100		
61	114.7	98.2	138.2

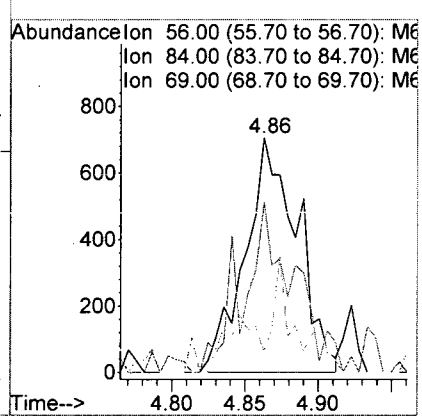


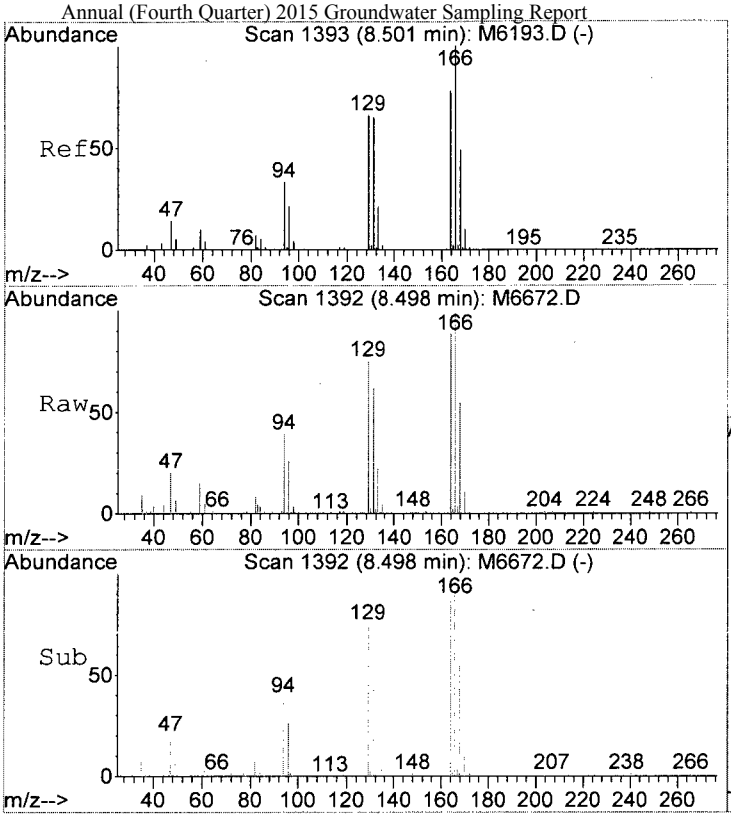


#45
Cyclohexane
Concen: 0.20 ug/L
RT: 4.86 min Scan# 724
Delta R.T. -0.00 min
Lab File: M6672.D
Acq: 26 Dec 2015 1:07 pm

Tgt Ion: 56 Resp: 1743

Ion	Ratio	Lower	Upper
56	100		
84	72.5	67.3	107.3
69	9.1	12.8	52.8#

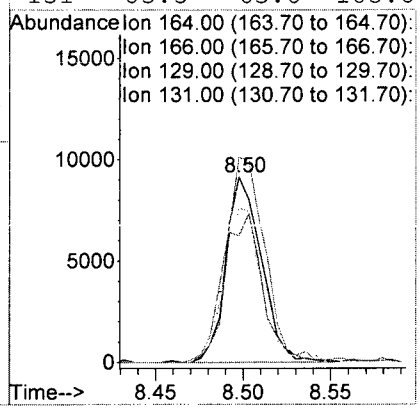




#71
Tetrachloroethene
Concen: 2.38 ug/L
RT: 8.50 min Scan# 1392
Delta R.T. -0.00 min
Lab File: M6672.D
Acq: 26 Dec 2015 1:07 pm

Tgt Ion:164 Resp: 12871

Ion	Ratio	Lower	Upper
164	100		
166	123.3	108.3	148.3
129	90.4	65.8	105.8
131	83.5	63.8	103.8



Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15 1310
Date Received: 12/16/15

Sample Name: FTMM-18-GW-M18MW22-18.91
Lab Code: R1511019-006

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 13:39		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 13:39		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 13:39		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 13:39		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 13:39		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 13:39		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 13:39		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 13:39		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 13:39		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 13:39		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 13:39		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 13:39		477737	
1,2-Dichloroethane	**0.89**	J	5.0	1.0	0.36	1	NA	12/26/15 13:39		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 13:39		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 13:39		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 13:39		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 13:39		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 13:39		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 13:39		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 13:39		477737	
Acetone	**3.9**	J	10	5.0	1.3	1	NA	12/26/15 13:39		477737	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 13:39		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 13:39		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 13:39		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 13:39		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 13:39		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 13:39		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 13:39		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 13:39		477737	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1310
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-18-GW-M18MW22-18.91	**Units:**	µg/L
Lab Code:	R1511019-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 13:39		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 13:39		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 13:39		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 13:39		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 13:39		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 13:39		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 13:39		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 13:39		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/26/15 13:39		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 13:39		477737	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/26/15 13:39		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 13:39		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 13:39		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 13:39		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 13:39		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 13:39		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 13:39		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	75-120	12/26/15 13:39	
Dibromofluoromethane	108	85-115	12/26/15 13:39	
Toluene-d8	105	85-120	12/26/15 13:39	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/26/15 1339

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-18-GW-M18MW22-18.91	**Units:**	µg/L
Lab Code:	R1511019-006	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6673.D Vial: 11
Acq On : 26 Dec 2015 1:39 pm Operator: D.Lipani
Sample : R1511019-006|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 30 17:09 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.36	168	640579	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.68	114	951136	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	883607	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.18	152	528071	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	321462	53.88	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 107.76%			
42) surr1,1,2-dichloroethane-d	4.24	65	248987	51.17	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 102.34%			
62) SURR3,Toluene-d8	7.76	98	1042695	52.63	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.26%			
82) SURR2,BFB	10.14	95	430016	54.37	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 108.74%			
Target Compounds						Qvalue
14) Acetone	1.73	43	2987	3.89	ug/L	89
17) Iodomethane	1.97	142	858	1.23	ug/L	75
43) 1,2-Dichloroethane	4.35	62	4992	0.89	ug/L #	37
45) Cyclohexane	4.87	56	8570	1.01	ug/L	96

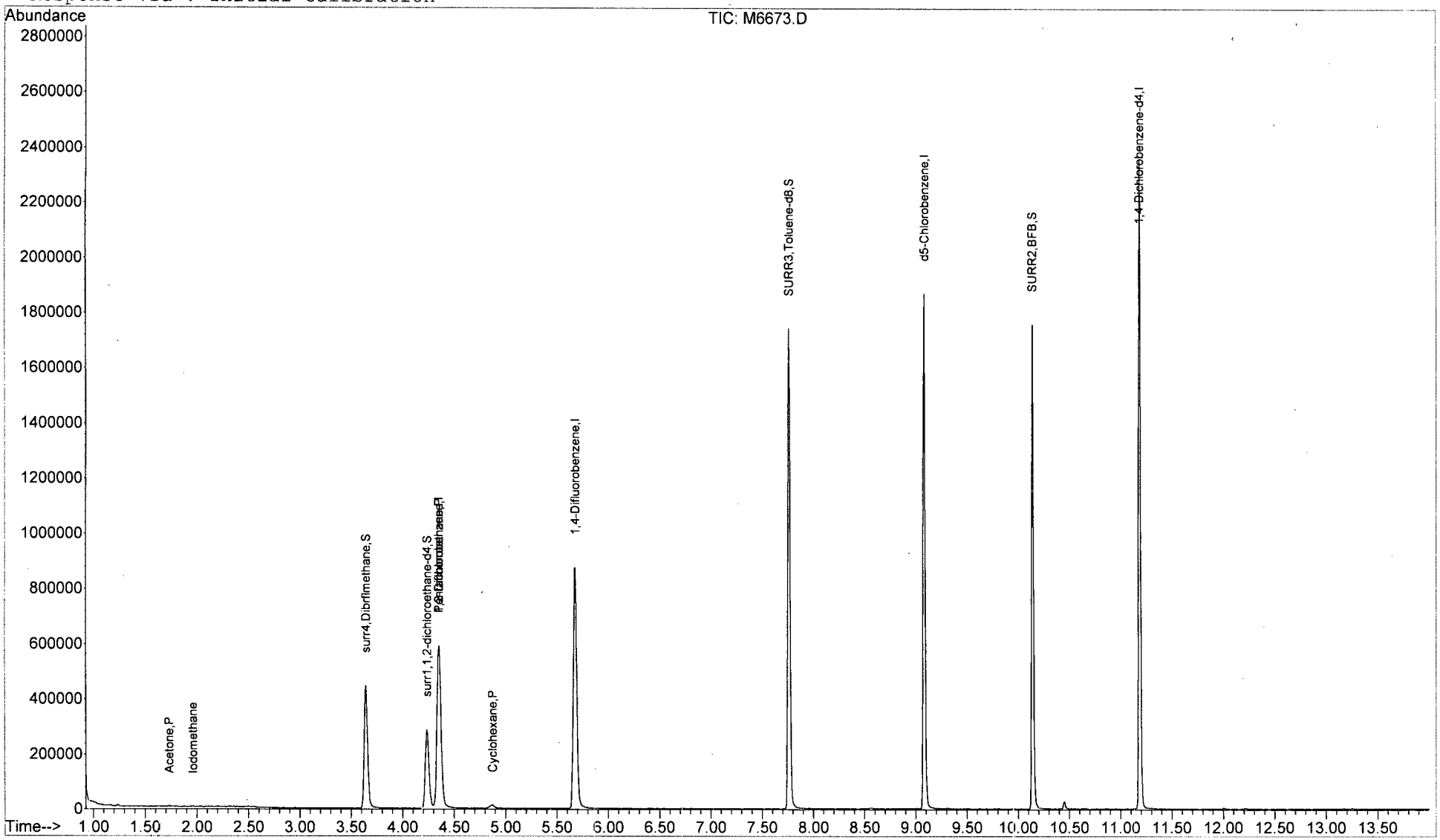
-hit good

DL
12/30/15

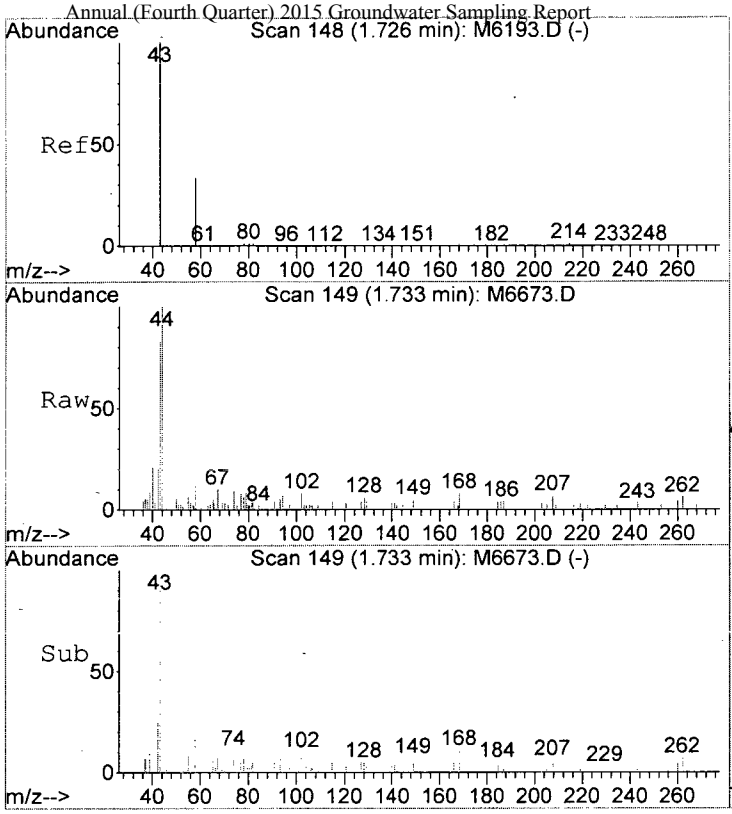
(#) = qualifier out of range (m) = manual integration
M6673.D W113015.M Wed Dec 30 17:09:23 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6673.D Vial: 11
Acq On : 26 Dec 2015 1:39 pm Operator: D.Lipani
Sample : R1511019-006|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 30 17:09 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



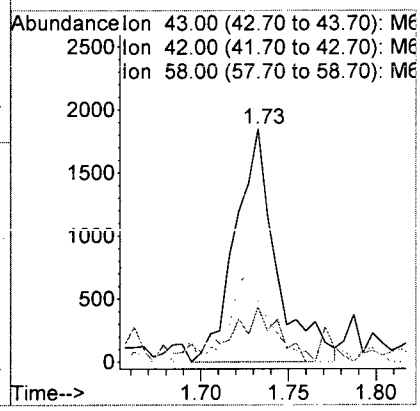
M6673.D W113015.M Wed Dec 30 17:09:26 2015 Page 2

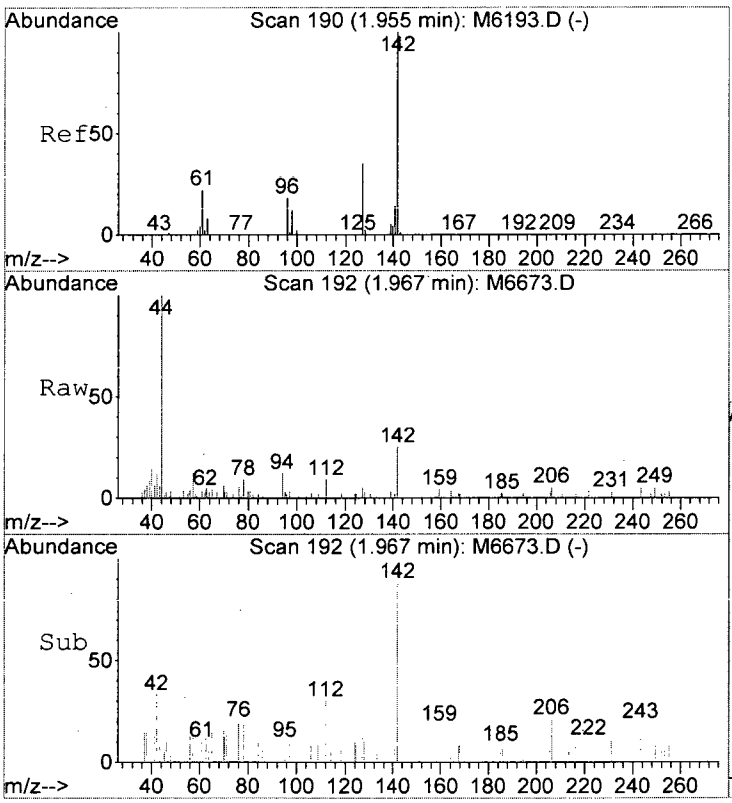


#14
Acetone
Concen: 3.89 ug/L
RT: 1.73 min Scan# 149
Delta R.T. 0.01 min
Lab File: M6673.D
Acq: 26 Dec 2015 1:39 pm

Tgt Ion: 43 Resp: 2987

Ion	Ratio	Lower	Upper
43	100		
42	23.6	0.0	29.0
58	26.1	6.3	46.3

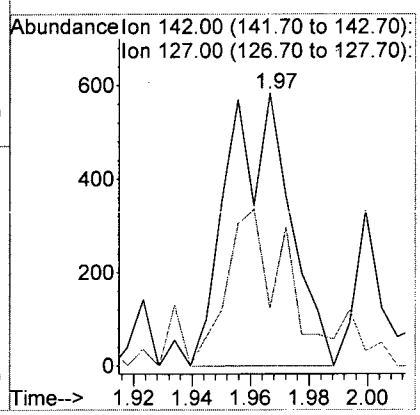


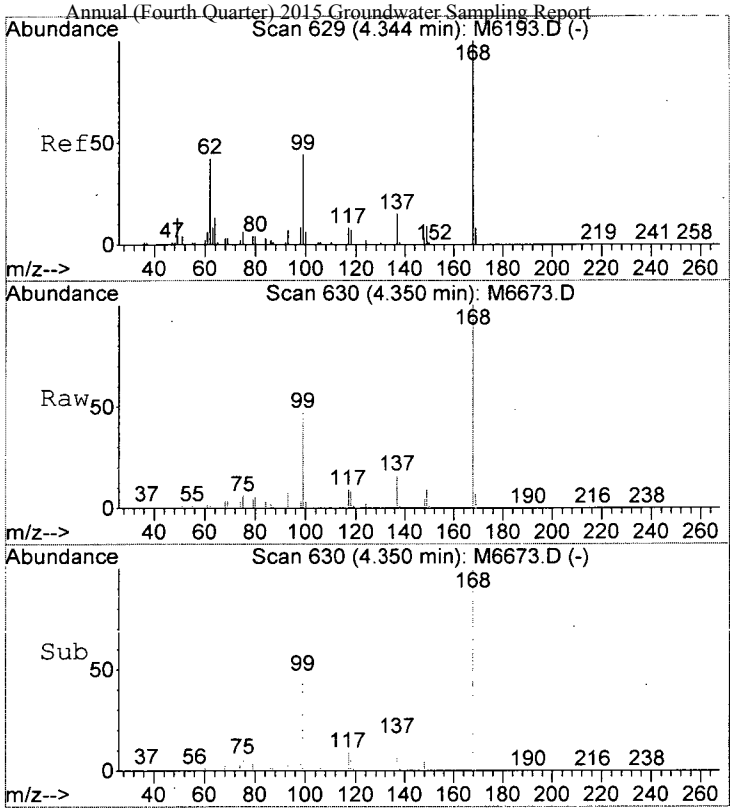


#17
Iodomethane
Concen: 1.23 ug/L
RT: 1.97 min Scan# 192
Delta R.T. 0.01 min
Lab File: M6673.D
Acq: 26 Dec 2015 1:39 pm

Tgt Ion:142 Resp: 858

Ion	Ratio	Lower	Upper
142	100		
127	20.9	15.3	55.3

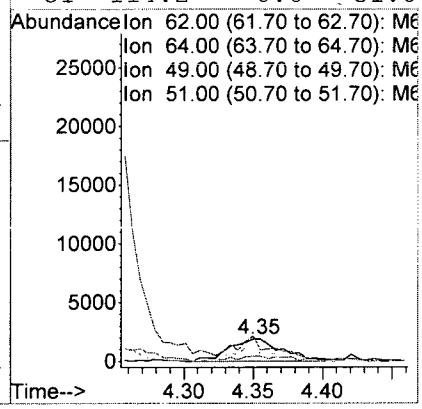


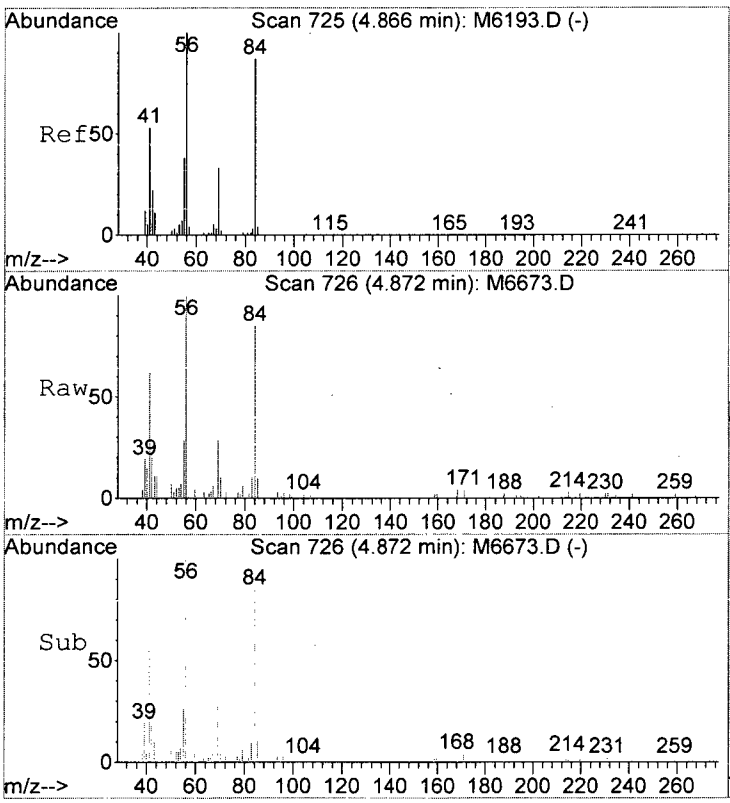


#43
1,2-Dichloroethane
Concen: 0.89 ug/L
RT: 4.35 min Scan# 630
Delta R.T. 0.01 min
Lab File: M6673.D
Acq: 26 Dec 2015 1:39 pm

Tgt Ion: 62 Resp: 4992

Ion	Ratio	Lower	Upper
62	100		
64	23.1	12.1	52.1
49	50.9	11.3	51.3
51	114.2	0.0	31.8#

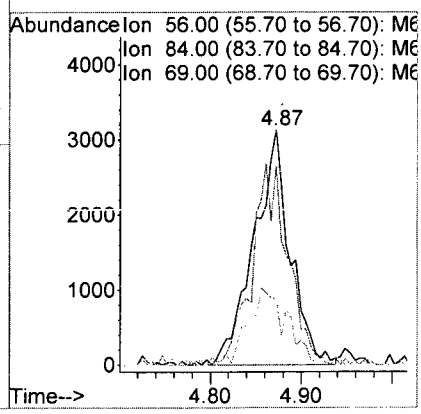




#45
Cyclohexane
Concen: 1.01 ug/L
RT: 4.87 min Scan# 726
Delta R.T. 0.01 min
Lab File: M6673.D
Acq: 26 Dec 2015 1:39 pm

Tgt Ion: 56 Resp: 8570

Ion	Ratio	Lower	Upper
56	100		
84	84.8	67.3	107.3
69	27.9	12.8	52.8



Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15 1305
Date Received: 12/16/15

Sample Name: FTMM-18-GW-M18MW23-9.28
Lab Code: R1511019-007

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 14:11		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 14:11		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 14:11		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 14:11		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 14:11		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 14:11		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 14:11		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 14:11		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 14:11		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 14:11		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 14:11		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 14:11		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 14:11		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 14:11		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 14:11		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 14:11		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 14:11		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 14:11		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 14:11		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 14:11		477737	
Acetone	**1.9**	J	10	5.0	1.3	1	NA	12/26/15 14:11		477737	
Benzene	**0.26**	J	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 14:11		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 14:11		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 14:11		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 14:11		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 14:11		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 14:11		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 14:11		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 14:11		477737	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1305
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-18-GW-M18MW23-9.28	**Units:**	µg/L
Lab Code:	R1511019-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 14:11		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 14:11		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 14:11		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 14:11		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 14:11		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 14:11		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 14:11		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 14:11		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/26/15 14:11		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 14:11		477737	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/26/15 14:11		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 14:11		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 14:11		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 14:11		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 14:11		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 14:11		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:11		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	75-120	12/26/15 14:11	
Dibromofluoromethane	109	85-115	12/26/15 14:11	
Toluene-d8	108	85-120	12/26/15 14:11	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/26/15 1411

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-18-GW-M18MW23-9.28	**Units:**	µg/L
Lab Code:	R1511019-007	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6674.D Vial: 12
Acq On : 26 Dec 2015 2:11 pm Operator: D.Lipani
Sample : R1511019-007|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 30 17:13 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.36	168	656462	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.67	114	940662	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.09	117	888448	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	526949	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	320488	54.32	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.64%			
42) surr1,1,2-dichloroethane-d	4.24	65	255739	53.14	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 106.28%			
62) SURR3,Toluene-d8	7.76	98	1054538	53.82	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 107.64%			
82) SURR2,BFB	10.14	95	426753	53.66	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 107.32%			
Target Compounds						Qvalue
13) 2-Propanol	1.69	45	1191	7.42	ug/L	80
14) Acetone	1.72	43	1489	1.89	ug/L	85
17) Iodomethane	1.96	142	564	1.19	ug/L	86
45) Cyclohexane	4.87	56	6771	0.81	ug/L #	76
47) Benzene	5.17	78	5417	0.26	ug/L	80

DL
12/30/15

(#) = qualifier out of range (m) = manual integration
M6674.D W113015.M Wed Dec 30 17:13:43 2015

```
Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6674.D       Vial: 12
Acq On    : 26 Dec 2015   2:11 pm                    Operator: D.Lipani
Sample    : R1511019-007|1.0                         Inst    : MS#6
Misc      : Parsons 8260C 14517 *DOD*                Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 30 17:13 2015              Quant Results File: W113015.RES

Method       : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title        : 8260C WATERS
Last Update  : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
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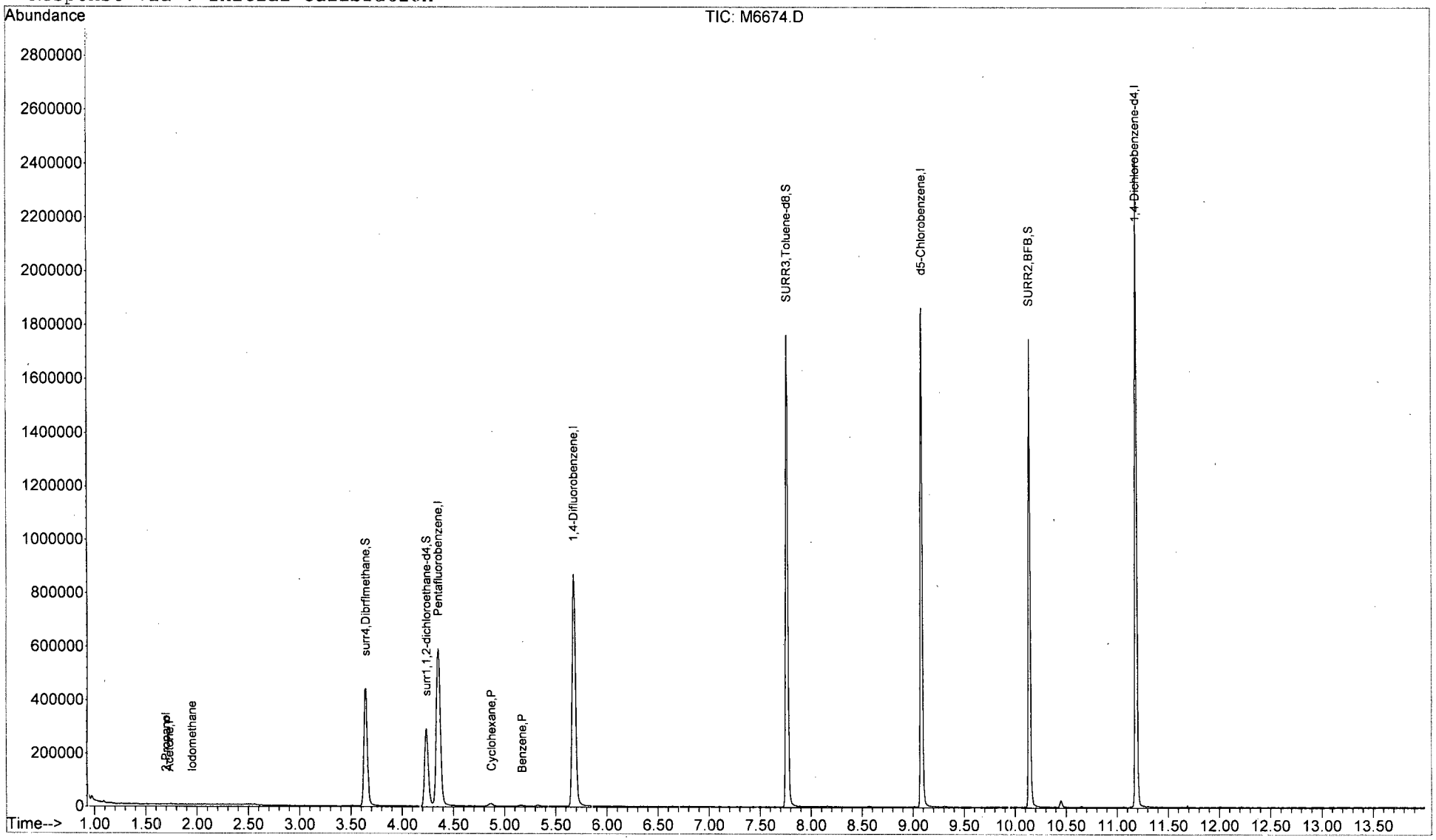
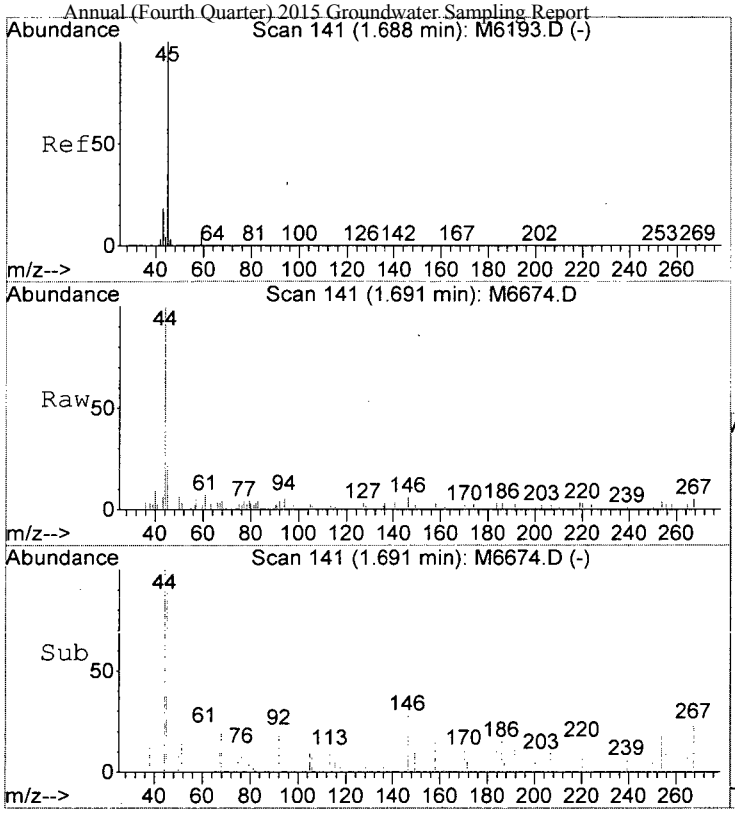


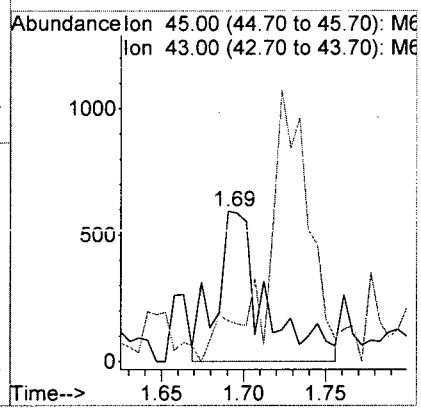
M6674.D W113015.M Wed Dec 30 17:13:45 2015

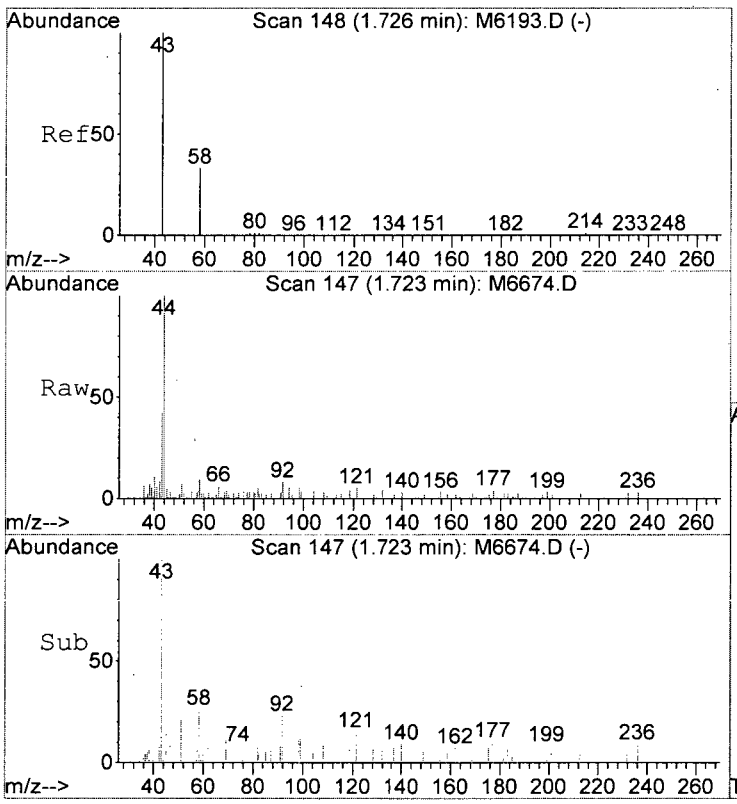


#13
2-Propanol
Concen: 7.42 ug/L
RT: 1.69 min Scan# 141
Delta R.T. 0.00 min
Lab File: M6674.D
Acq: 26 Dec 2015 2:11 pm

Tgt Ion: 45 Resp: 1191

Ion	Ratio	Lower	Upper
45	100		
43	27.1	0.0	38.2

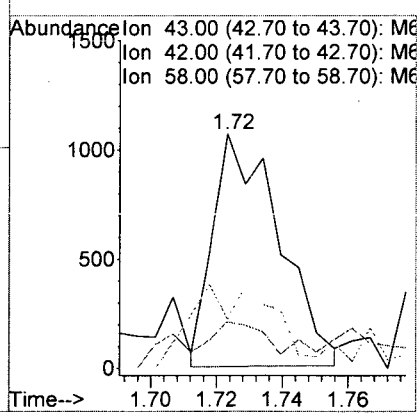


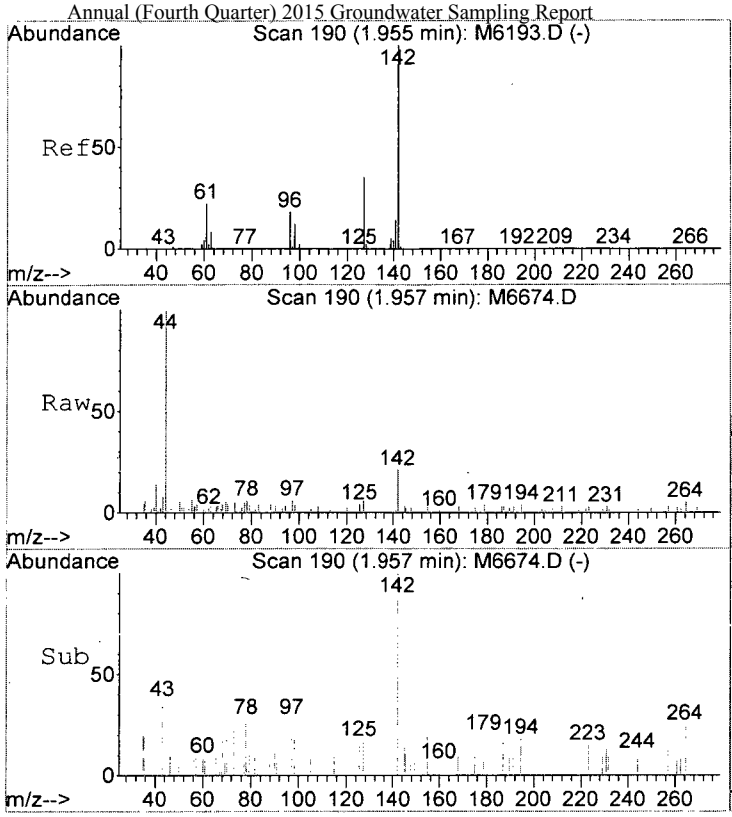


#14
Acetone
Concen: 1.89 ug/L
RT: 1.72 min Scan# 147
Delta R.T. -0.00 min
Lab File: M6674.D
Acq: 26 Dec 2015 2:11 pm

Tgt Ion: 43 Resp: 1489

Ion	Ratio	Lower	Upper
43	100		
42	19.9	0.0	29.0
58	21.2	6.3	46.3

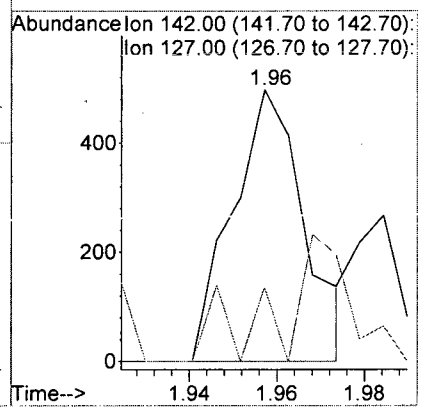


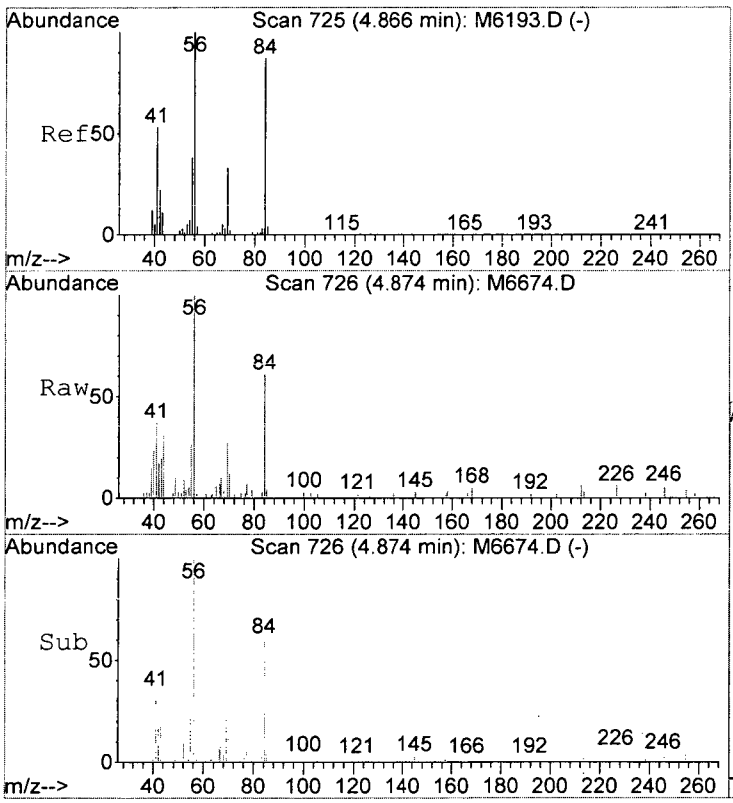


#17
Iodomethane
Concen: 1.19 ug/L
RT: 1.96 min Scan# 190
Delta R.T. 0.00 min
Lab File: M6674.D
Acq: 26 Dec 2015 2:11 pm

Tgt Ion:142 Resp: 564

Ion	Ratio	Lower	Upper
142	100		
127	27.2	15.3	55.3

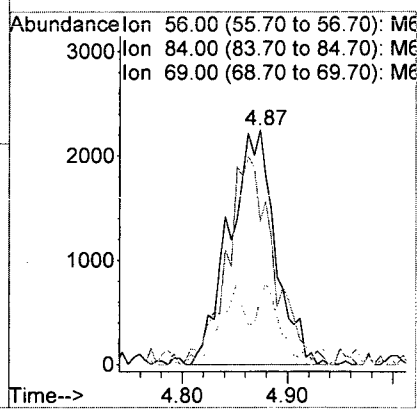


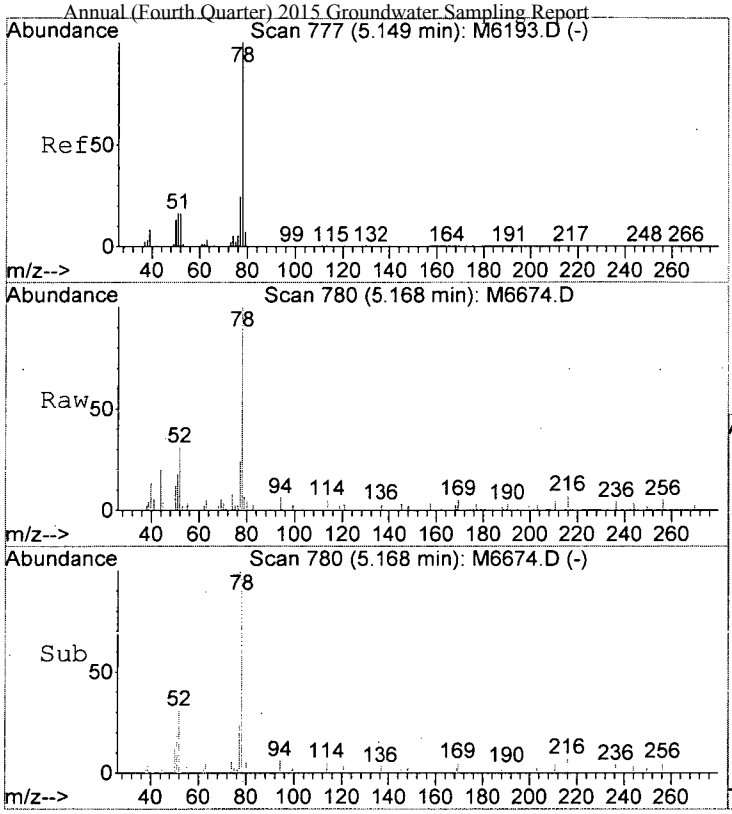


#45
Cyclohexane
Concen: 0.81 ug/L
RT: 4.87 min Scan# 726
Delta R.T. 0.01 min
Lab File: M6674.D
Acq: 26 Dec 2015 2:11 pm

Tgt Ion: 56 Resp: 6771

Ion	Ratio	Lower	Upper
56	100		
84	61.0	67.3	107.3#
69	26.8	12.8	52.8

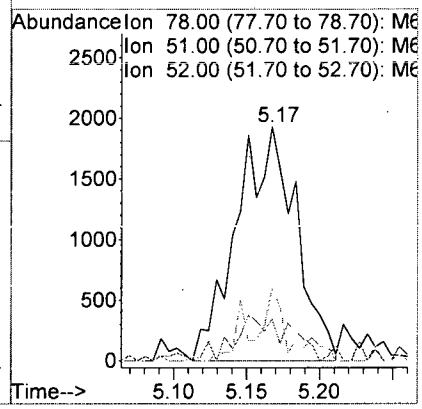




#47
Benzene
Concen: 0.26 ug/L
RT: 5.17 min Scan# 780
Delta R.T. 0.02 min
Lab File: M6674.D
Acq: 26 Dec 2015 2:11 pm

Tgt Ion: 78 Resp: 5417

Ion	Ratio	Lower	Upper
78	100		
51	17.7	0.0	36.0
52	31.3	0.0	35.6



M6674.D W113015.M Wed Dec 30 17:13:51 2015 Page 5

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15 1335
Date Received: 12/16/15

Sample Name: FTMM-54-GW-296MW04-6.35
Lab Code: R1511019-008

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 14:43		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 14:43		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 14:43		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 14:43		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 14:43		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 14:43		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 14:43		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 14:43		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 14:43		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 14:43		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 14:43		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 14:43		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 14:43		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 14:43		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 14:43		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 14:43		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 14:43		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 14:43		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 14:43		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 14:43		477737	
Acetone	**3.1**	J	10	5.0	1.3	1	NA	12/26/15 14:43		477737	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 14:43		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 14:43		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 14:43		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 14:43		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 14:43		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 14:43		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 14:43		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 14:43		477737	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1335
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-54-GW-296MW04-6.35	**Units:**	µg/L
Lab Code:	R1511019-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 14:43		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 14:43		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 14:43		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 14:43		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 14:43		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 14:43		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 14:43		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 14:43		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/26/15 14:43		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 14:43		477737	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/26/15 14:43		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 14:43		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 14:43		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 14:43		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 14:43		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 14:43		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 14:43		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	108	75-120	12/26/15 14:43	
Dibromofluoromethane	106	85-115	12/26/15 14:43	
Toluene-d8	104	85-120	12/26/15 14:43	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/26/15 1443

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-54-GW-296MW04-6.35	**Units:**	µg/L
Lab Code:	R1511019-008	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6675.D Vial: 13
Acq On : 26 Dec 2015 2:43 pm Operator: D.Lipani
Sample : R1511019-008|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 8:14 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

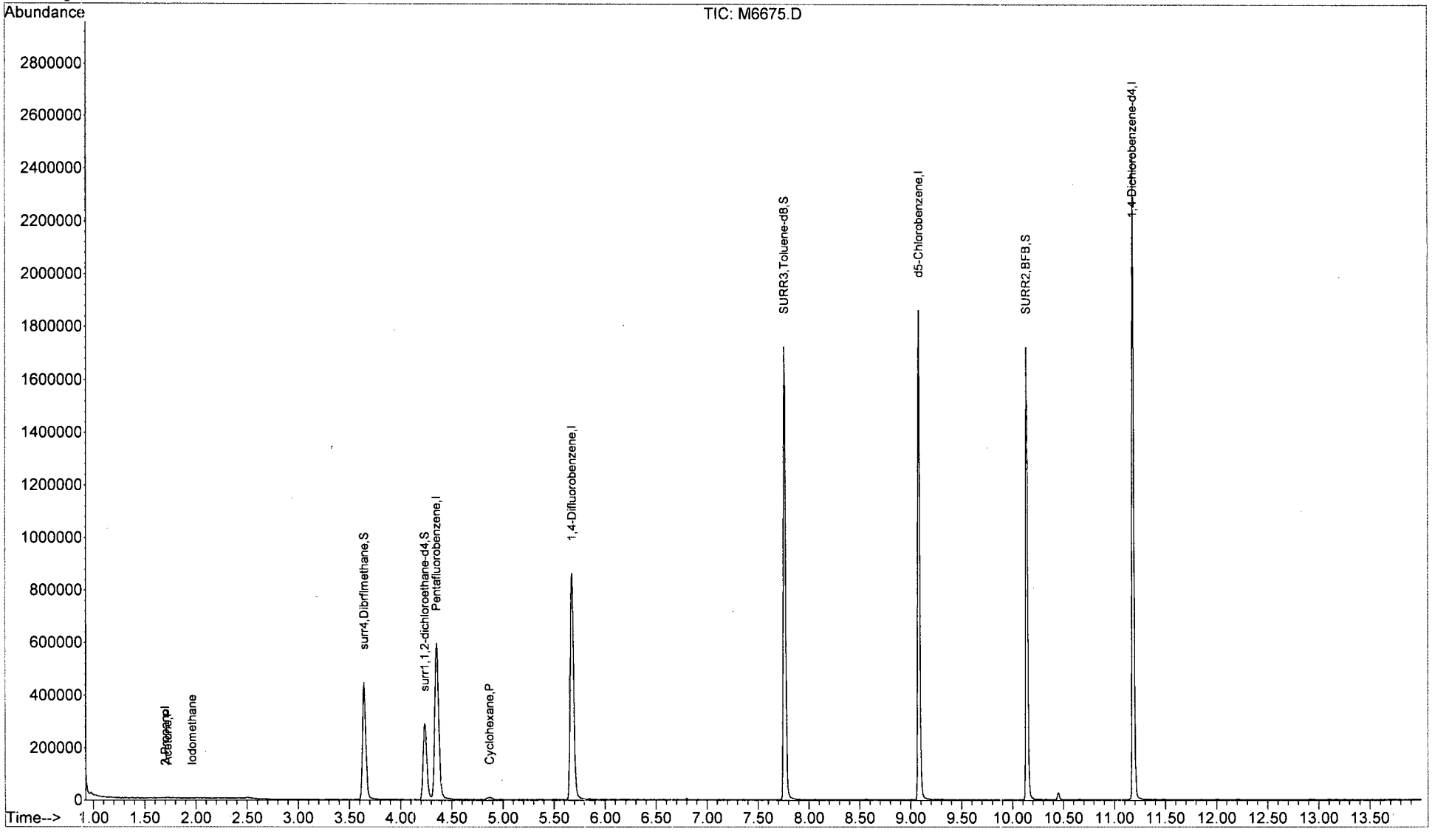
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	647712	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.68	114	956717	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	901975	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.18	152	536081	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	317136	52.85	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 105.70%			
42) surr1,1,2-dichloroethane-d	4.24	65	259612	53.04	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 106.08%			
62) SURR3,Toluene-d8	7.76	98	1032276	51.80	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.60%			
82) SURR2,BFB	10.14	95	435246	53.91	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 107.82%			
Target Compounds						Qvalue
13) 2-Propanol	1.70	45	1025	6.48	ug/L	90
14) Acetone	1.73	43	2378	3.06	ug/L	93
17) Iodomethane	1.96	142	473	1.18	ug/L	87
45) Cyclohexane	4.87	56	6612	0.78	ug/L	88

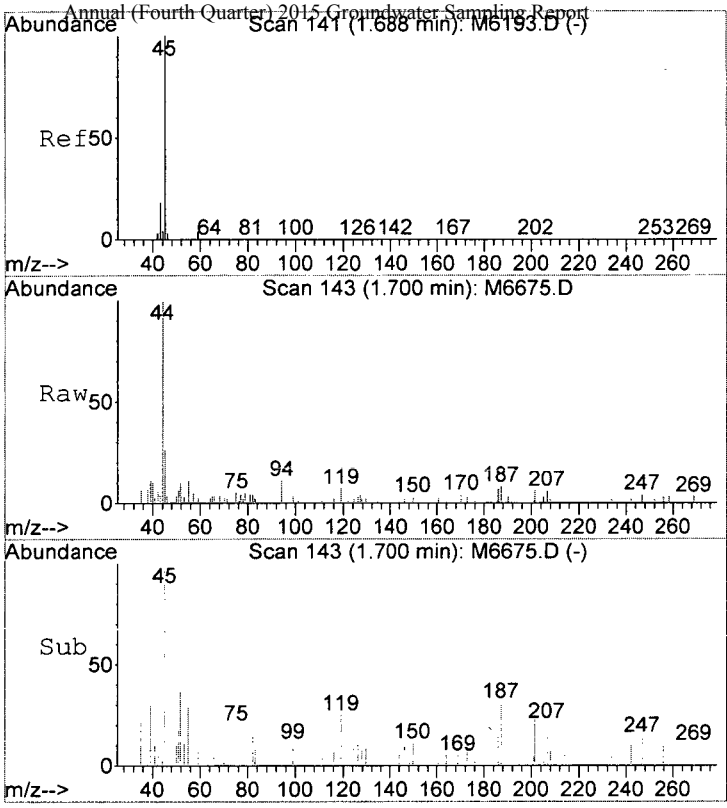
DL
12/31/15

(#) = qualifier out of range (m) = manual integration
M6675.D W113015.M Thu Dec 31 08:34:03 2015

```
Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6675.D       Vial: 13
Acq On    : 26 Dec 2015   2:43 pm                    Operator: D.Lipani
Sample    : R1511019-008|1.0                         Inst    : MS#6
Misc      : Parsons 8260C 14517 *DOD*                Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31  8:14 2015              Quant Results File: W113015.RES

Method       : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title        : 8260C WATERS
Last Update  : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
```

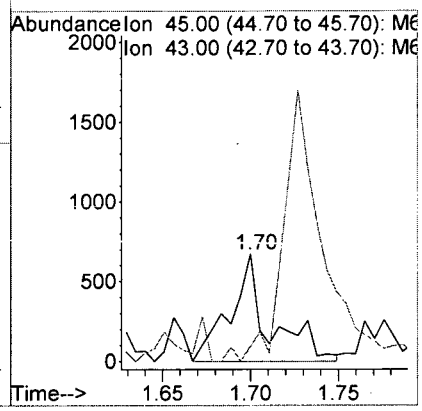


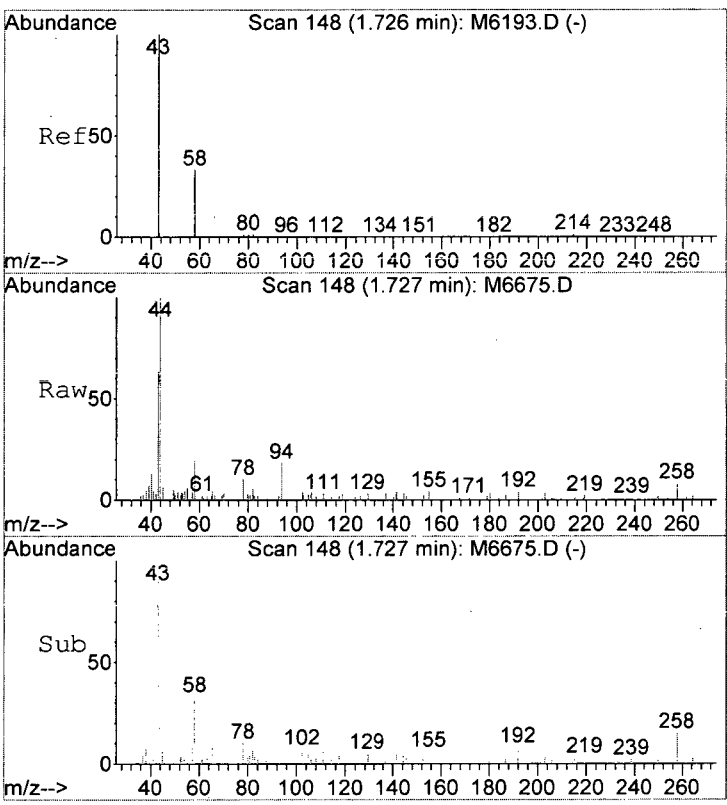


#13
2-Propanol
Concen: 6.48 ug/L
RT: 1.70 min Scan# 143
Delta R.T. 0.01 min
Lab File: M6675.D
Acq: 26 Dec 2015 2:43 pm

Tgt Ion: 45 Resp: 1025

Ion	Ratio	Lower	Upper
45	100		
43	13.6	0.0	38.2

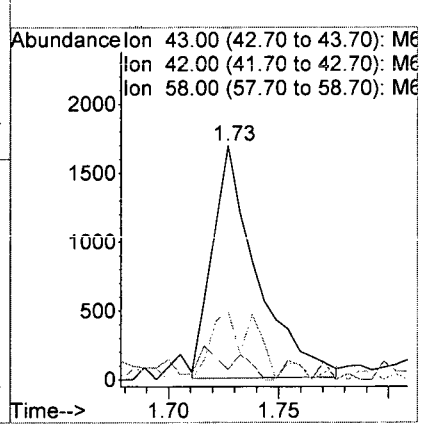


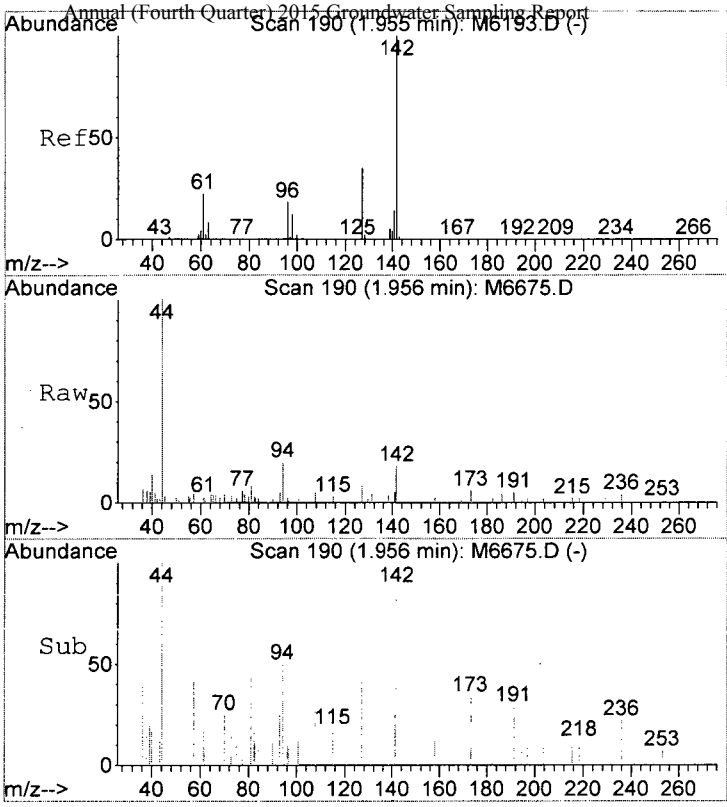


#14
Acetone
Concen: 3.06 ug/L
RT: 1.73 min Scan# 148
Delta R.T. 0.00 min
Lab File: M6675.D
Acq: 26 Dec 2015 2:43 pm

Tgt Ion: 43 Resp: 2378

Ion	Ratio	Lower	Upper
43	100		
42	4.4	0.0	29.0
58	29.2	6.3	46.3

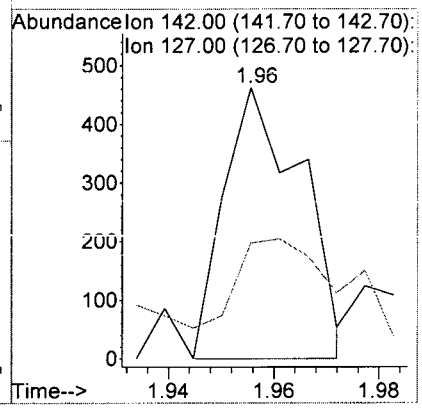


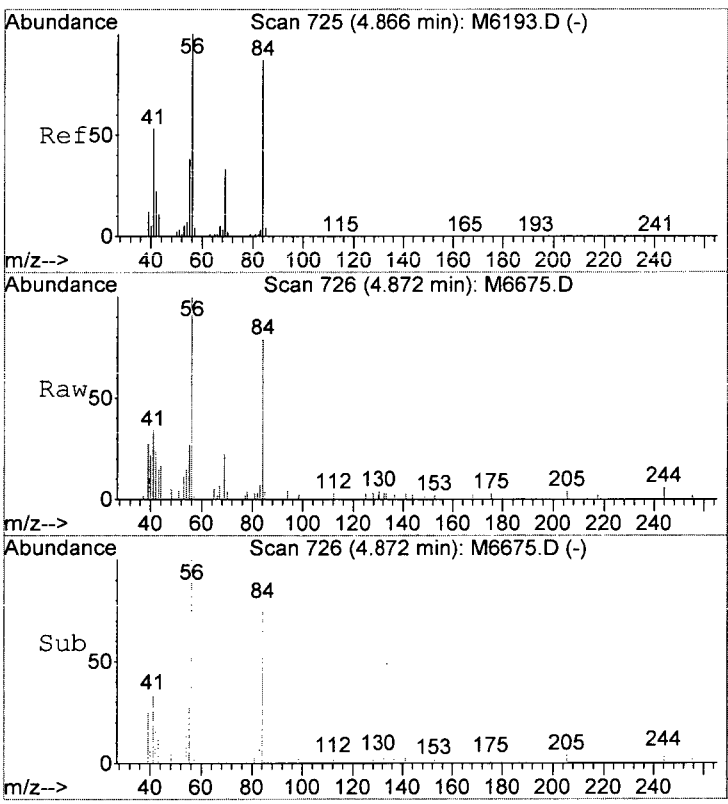


#17
Iodomethane
Concen: 1.18 ug/L
RT: 1.96 min Scan# 190
Delta R.T. 0.00 min
Lab File: M6675.D
Acq: 26 Dec 2015 2:43 pm

Tgt Ion:142 Resp: 473

Ion	Ratio	Lower	Upper
142	100		
127	42.6	15.3	55.3

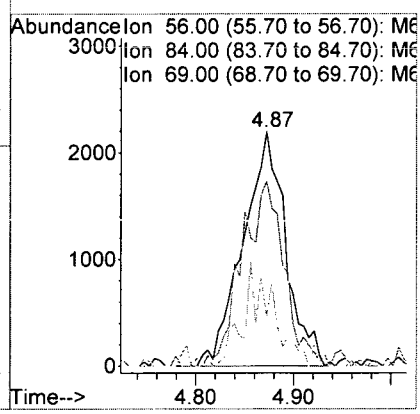




#45
Cyclohexane
Concen: 0.78 ug/L
RT: 4.87 min Scan# 726
Delta R.T. 0.01 min
Lab File: M6675.D
Acq: 26 Dec 2015 2:43 pm

Tgt Ion: 56 Resp: 6612

Ion	Ratio	Lower	Upper
56	100		
84	79.0	67.3	107.3
69	21.6	12.8	52.8



Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1330
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-54-GW-296MW06-10.1	**Units:**	µg/L
Lab Code:	R1511019-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 15:15		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 15:15		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 15:15		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 15:15		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 15:15		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 15:15		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 15:15		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 15:15		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 15:15		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 15:15		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 15:15		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 15:15		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 15:15		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 15:15		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 15:15		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 15:15		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 15:15		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 15:15		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 15:15		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 15:15		477737	
Acetone	**1.9**	J	10	5.0	1.3	1	NA	12/26/15 15:15		477737	
Benzene	**6.0**		5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 15:15		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 15:15		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 15:15		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 15:15		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 15:15		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 15:15		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 15:15		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 15:15		477737	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1330
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-54-GW-296MW06-10.1	**Units:**	µg/L
Lab Code:	R1511019-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 15:15		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 15:15		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 15:15		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 15:15		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 15:15		477737	
Ethylbenzene	**0.22**	J	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 15:15		477737	
Isopropylbenzene (Cumene)	**0.51**	J	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 15:15		477737	
Naphthalene	**0.76**	J	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 15:15		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/26/15 15:15		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 15:15		477737	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/26/15 15:15		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 15:15		477737	
m,p-Xylenes	**0.36**	J	5.0	2.0	0.33	1	NA	12/26/15 15:15		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 15:15		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 15:15		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 15:15		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:15		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/26/15 15:15	
Dibromofluoromethane	107	85-115	12/26/15 15:15	
Toluene-d8	108	85-120	12/26/15 15:15	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/26/15 1515

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-54-GW-296MW06-10.1	**Units:**	µg/L
Lab Code:	R1511019-009	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6676.D Vial: 14
Acq On : 26 Dec 2015 3:15 pm Operator: D.Lipani
Sample : R1511019-009|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 8:41 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.35	168	648771	50.00	ug/L		0.00
39) 1,4-Difluorobenzene	5.67	114	922157	50.00	ug/L		0.00
64) d5-Chlorobenzene	9.08	117	868989	50.00	ug/L		0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	540623	50.00	ug/L		0.00
System Monitoring Compounds							
40) surr4,Dibrflmethane	3.64	113	308225	53.29	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 106.58%				
42) surr1,1,2-dichloroethane-d	4.23	65	248499	52.68	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 105.36%				
62) SURR3,Toluene-d8	7.76	98	1037583	54.02	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 108.04%				
82) SURR2,BFB	10.14	95	441763	56.79	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 113.58%				
Target Compounds							Qvalue
13) 2-Propanol	1.70	45	740	4.67	ug/L		93
14) Acetone	1.72	43	1501	1.93	ug/L		70
17) Iodomethane	1.96	142	480	1.18	ug/L		71
45) Cyclohexane	4.86	56	13113	1.60	ug/L	#	78
47) Benzene	5.15	78	124522	6.01	ug/L		99
74) Ethylbenzene	9.33	106	1720	0.22	ug/L	#	87
76) (m+p)Xylene	9.50	106	3447	0.36	ug/L	#	83
81) Isopropylbenzene	10.14	105	12225	0.51	ug/L		88
102) Naphthalen	13.09	128	9963	0.76	ug/L		99

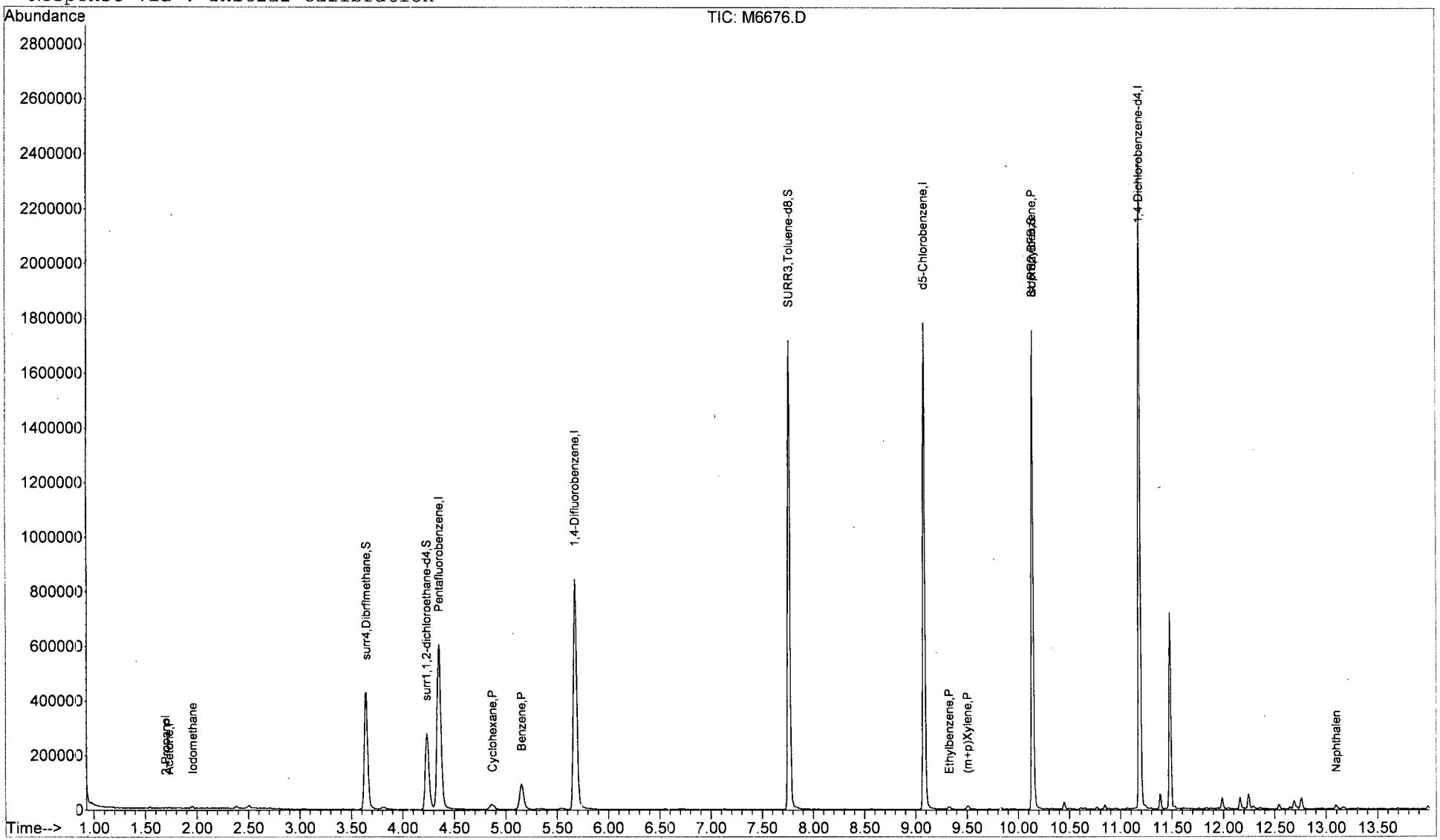
DL
12/31/15

BW 01/04/16

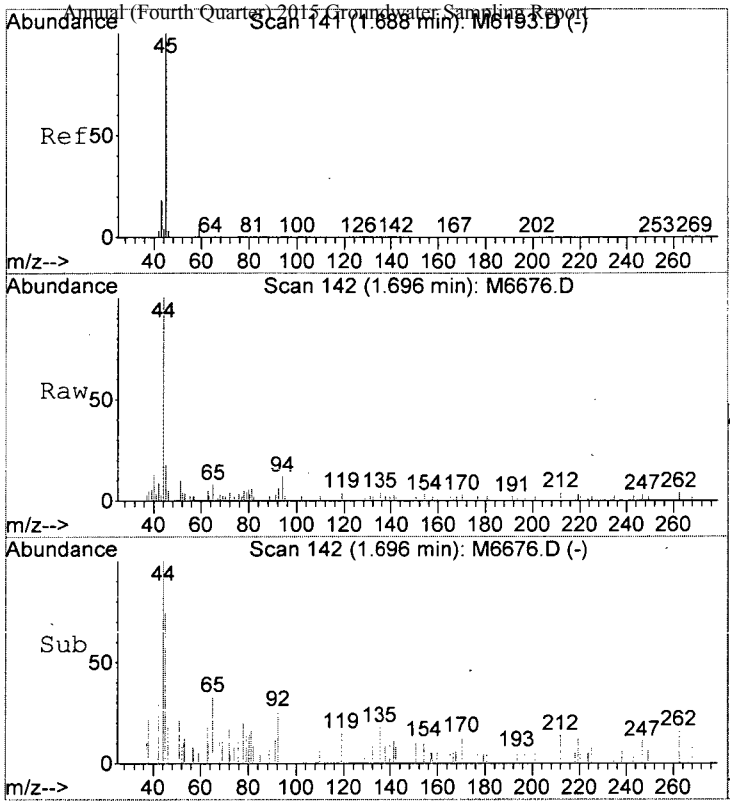
(#) = qualifier out of range (m) = manual integration
M6676.D W113015.M Thu Dec 31 08:59:45 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6676.D Vial: 14
Acq On : 26 Dec 2015 3:15 pm Operator: D.Lipani
Sample : R1511019-009|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 8:41 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



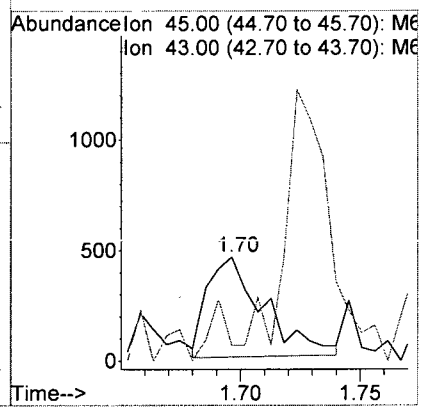
M6676.D W113015.M Thu Dec 31 08:59:47 2015

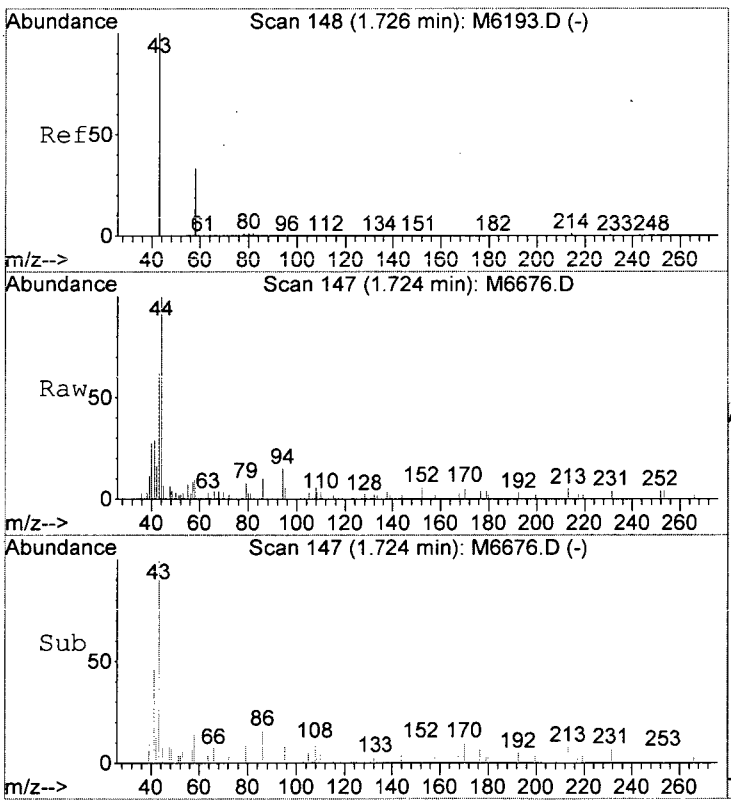


#13
2-Propanol
Concen: 4.67 ug/L
RT: 1.70 min Scan# 142
Delta R.T. 0.01 min
Lab File: M6676.D
Acq: 26 Dec 2015 3:15 pm

Tgt Ion: 45 Resp: 740

Ion	Ratio	Lower	Upper
45	100		
43	15.1	0.0	38.2

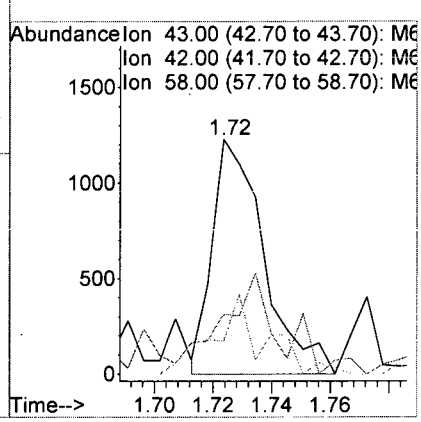


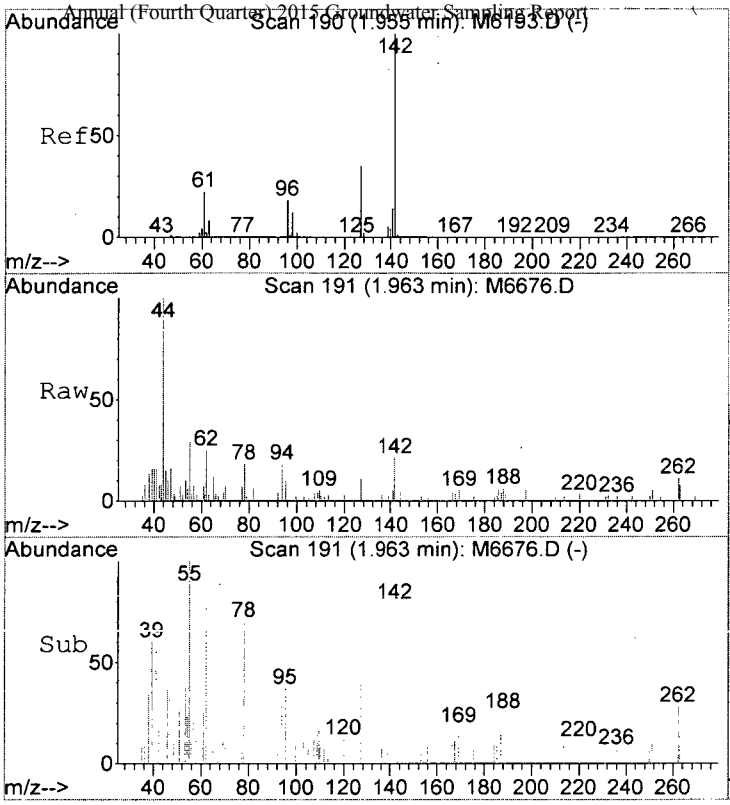


#14
Acetone
Concen: 1.93 ug/L
RT: 1.72 min Scan# 147
Delta R.T. -0.00 min
Lab File: M6676.D
Acq: 26 Dec 2015 3:15 pm

Tgt Ion: 43 Resp: 1501

Ion	Ratio	Lower	Upper
43	100		
42	25.4	0.0	29.0
58	13.9	6.3	46.3

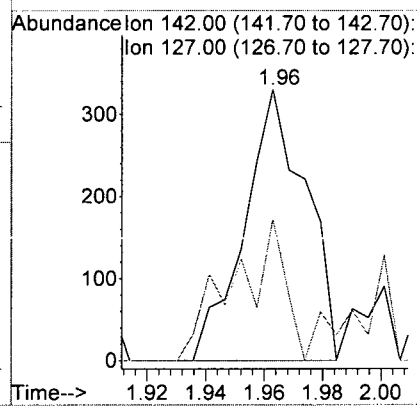


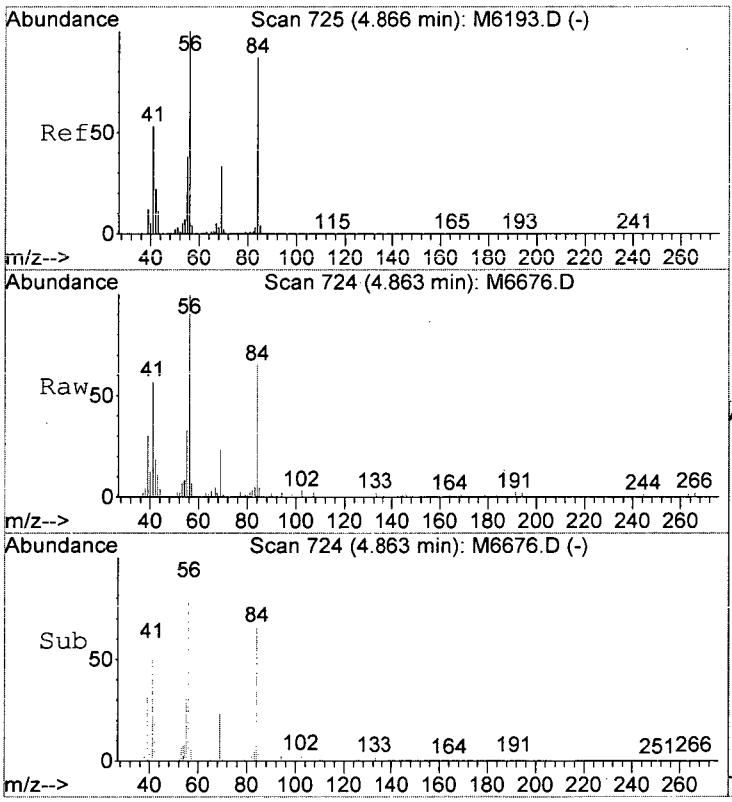


#17
Iodomethane
Concen: 1.18 ug/L
RT: 1.96 min Scan# 191
Delta R.T. 0.01 min
Lab File: M6676.D
Acq: 26 Dec 2015 3:15 pm

Tgt Ion:142 Resp: 480

Ion	Ratio	Lower	Upper
142	100		
127	52.1	15.3	55.3

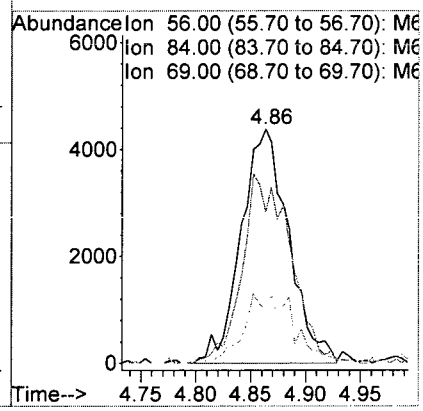


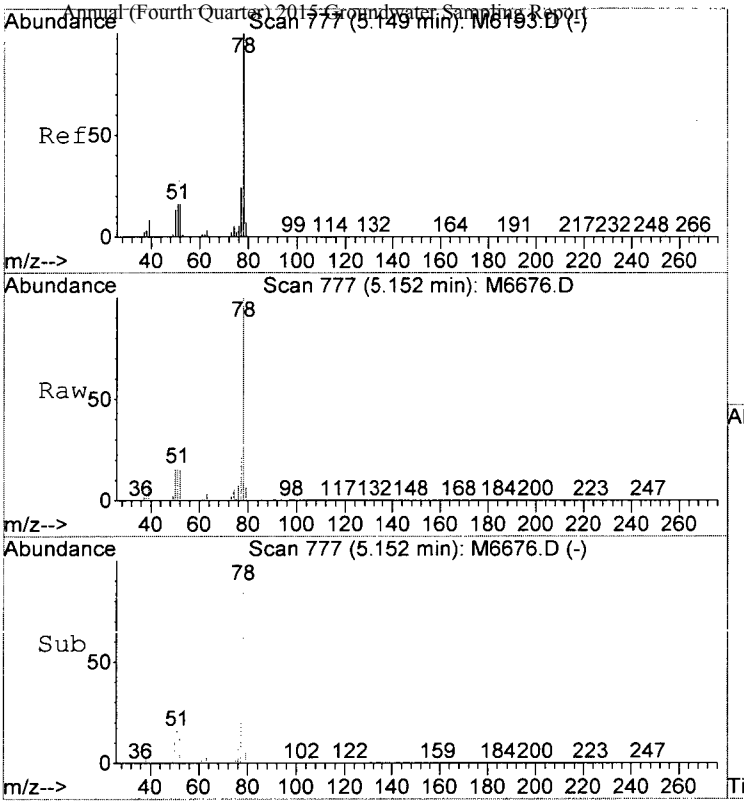


#45
Cyclohexane
Concen: 1.60 ug/L
RT: 4.86 min Scan# 724
Delta R.T. -0.00 min
Lab File: M6676.D
Acq: 26 Dec 2015 3:15 pm

Tgt Ion: 56 Resp: 13113

Ion	Ratio	Lower	Upper
56	100		
84	64.7	67.3	107.3#
69	23.2	12.8	52.8

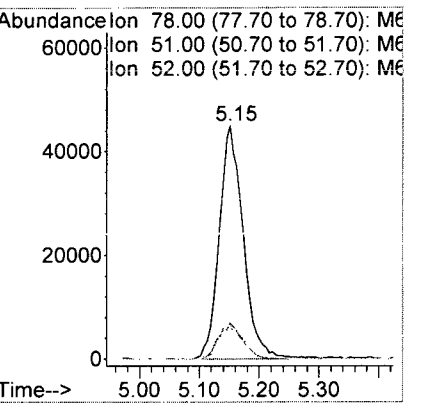


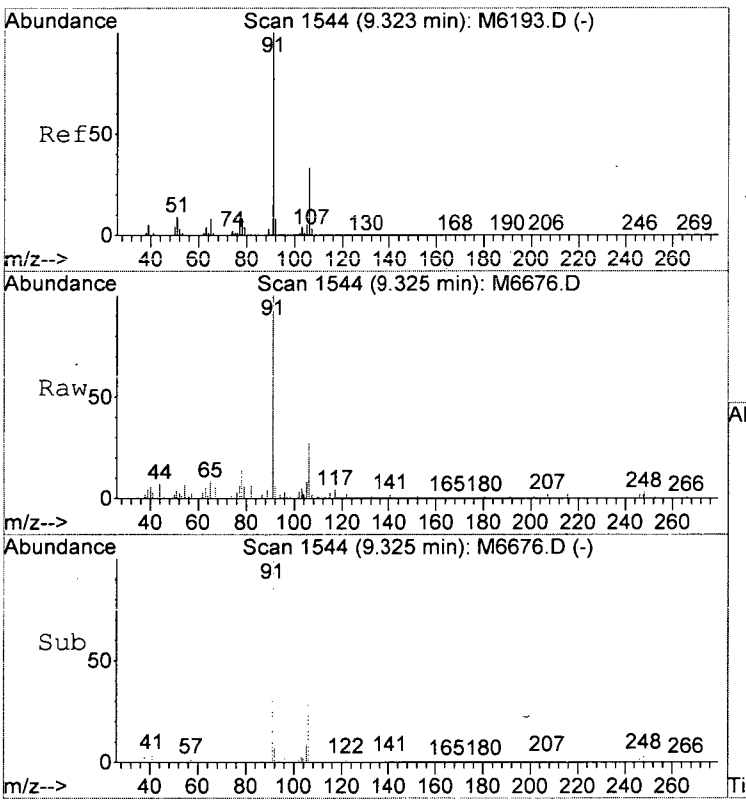


#47
Benzene
Concen: 6.01 ug/L
RT: 5.15 min Scan# 777
Delta R.T. 0.00 min
Lab File: M6676.D
Acq: 26 Dec 2015 3:15 pm

Tgt Ion: 78 Resp: 124522

Ion	Ratio	Lower	Upper
78	100		
51	15.5	0.0	36.0
52	14.9	0.0	35.6

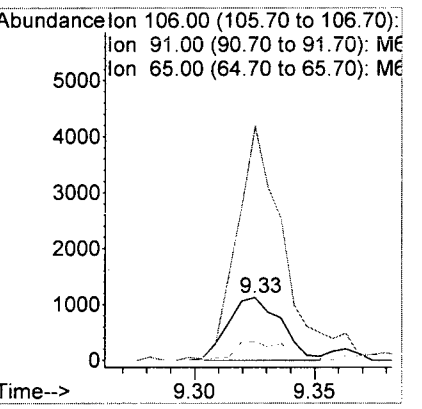


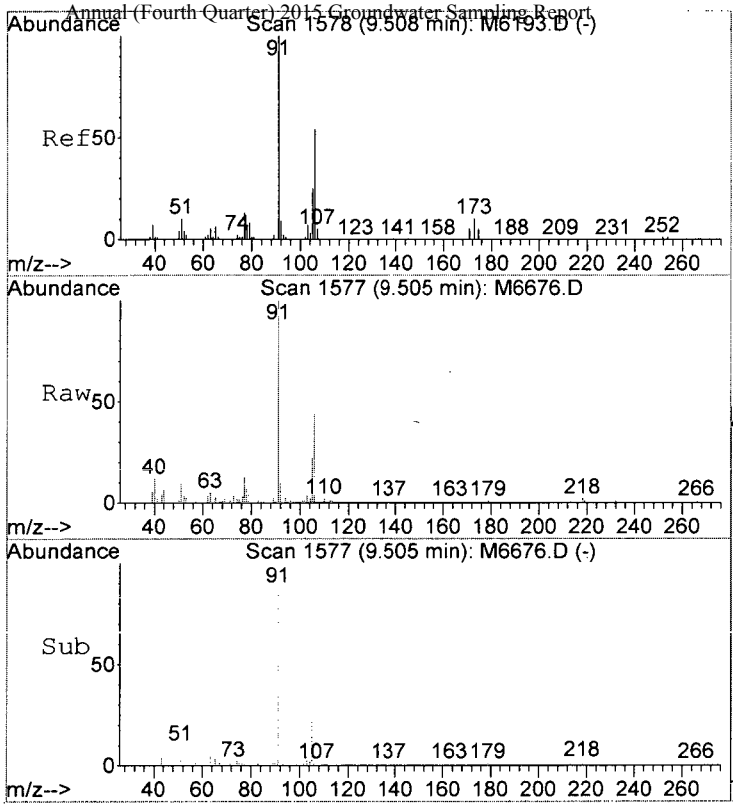


#74
Ethylbenzene
Concen: 0.22 ug/L
RT: 9.33 min Scan# 1544
Delta R.T. 0.00 min
Lab File: M6676.D
Acq: 26 Dec 2015 3:15 pm

Tgt Ion:106 Resp: 1720

Ion	Ratio	Lower	Upper
106	100		
91	333.4	286.3	326.3#
65	27.2	4.5	44.5

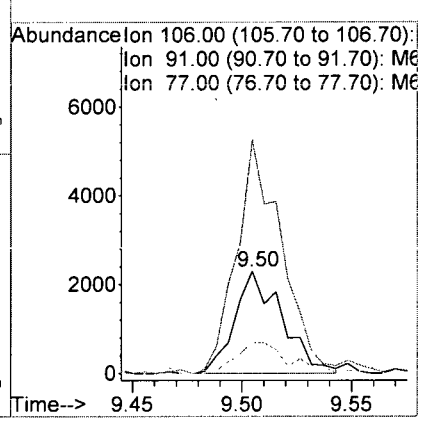


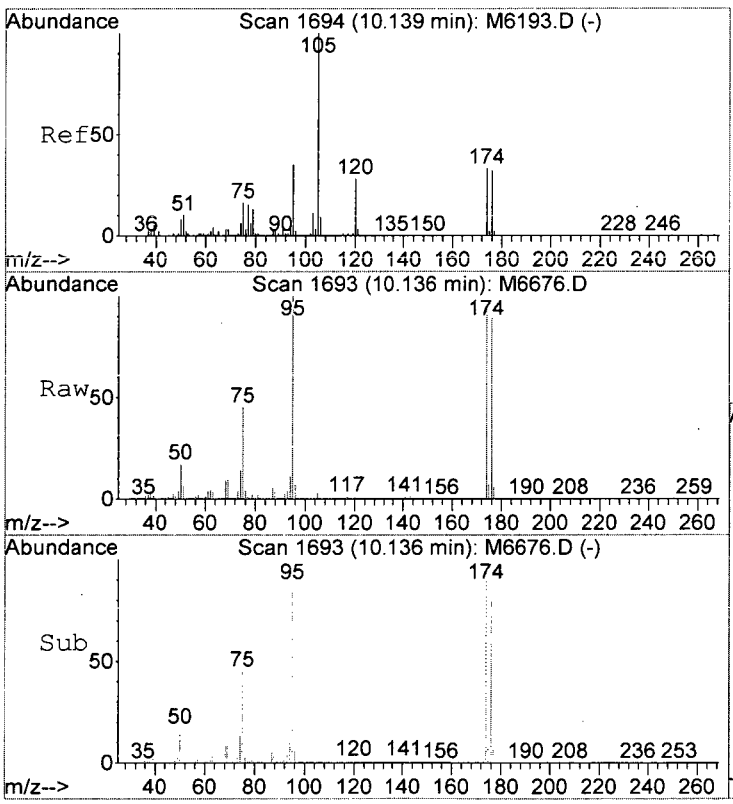


#76
(m+p)Xylene
Concen: 0.36 ug/L
RT: 9.50 min Scan# 1577
Delta R.T. -0.00 min
Lab File: M6676.D
Acq: 26 Dec 2015 3:15 pm

Tgt Ion:106 Resp: 3447

Ion	Ratio	Lower	Upper
106	100		
91	217.3	170.9	210.9#
77	27.4	4.8	44.8

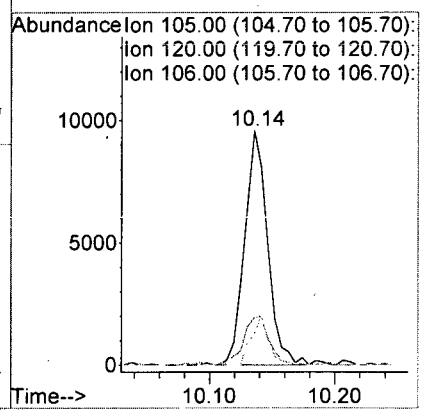


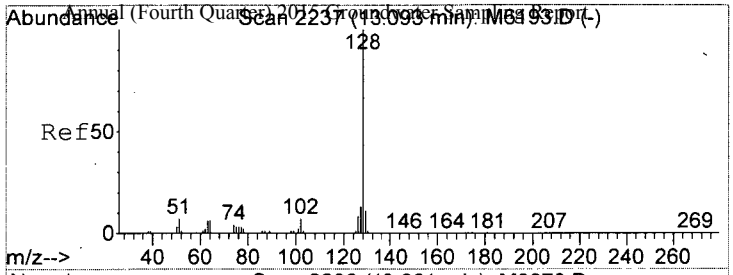


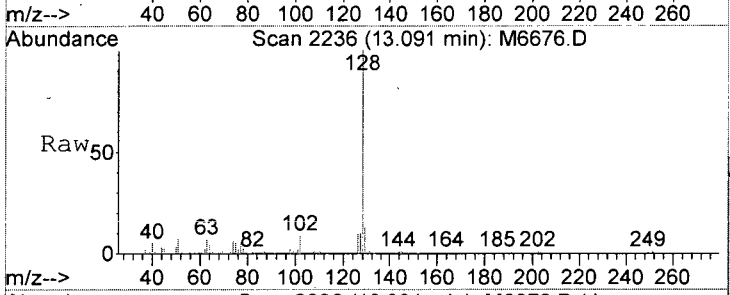
#81
Isopropylbenzene
Concen: 0.51 ug/L
RT: 10.14 min Scan# 1693
Delta R.T. -0.00 min
Lab File: M6676.D
Acq: 26 Dec 2015 3:15 pm

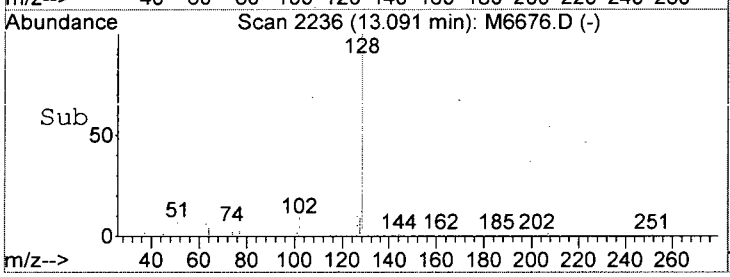
Tgt Ion:105 Resp: 12225

Ion	Ratio	Lower	Upper
105	100		
120	22.8	7.6	47.6
106	16.1	0.0	29.4





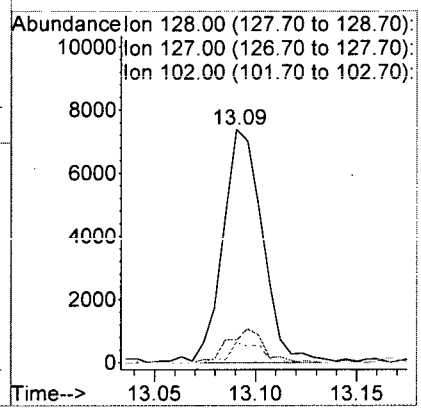




#102
Naphthalen
Concen: 0.76 ug/L
RT: 13.09 min Scan# 2236
Delta R.T. -0.00 min
Lab File: M6676.D
Acq: 26 Dec 2015 3:15 pm

Tgt Ion:128 Resp: 9963

Ion	Ratio	Lower	Upper
128	100		
127	12.2	0.0	32.8
102	6.9	0.0	27.4



Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1215
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-22-GW-CW1MW281-33.74	**Units:**	µg/L
Lab Code:	R1511019-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 15:47		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 15:47		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 15:47		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 15:47		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
1,1-Dichloroethene (1,1-DCE)	**0.90**	J	5.0	1.0	0.57	1	NA	12/26/15 15:47		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 15:47		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 15:47		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 15:47		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 15:47		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 15:47		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 15:47		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 15:47		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 15:47		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 15:47		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 15:47		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 15:47		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 15:47		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 15:47		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 15:47		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 15:47		477737	
Acetone	**4.0**	J	10	5.0	1.3	1	NA	12/26/15 15:47		477737	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 15:47		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 15:47		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 15:47		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 15:47		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 15:47		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 15:47		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 15:47		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 15:47		477737	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1215
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-22-GW-CW1MW281-33.74	**Units:**	µg/L
Lab Code:	R1511019-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 15:47		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 15:47		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 15:47		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 15:47		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 15:47		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 15:47		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 15:47		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 15:47		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
Trichloroethene (TCE)	**300**	D	13	2.5	0.55	2.5	NA	12/28/15 12:42		477784	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
Vinyl Chloride	**1.4**	J	5.0	1.0	0.32	1	NA	12/26/15 15:47		477737	
cis-1,2-Dichloroethene	**27**		5.0	1.0	0.30	1	NA	12/26/15 15:47		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 15:47		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 15:47		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 15:47		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 15:47		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 15:47		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 15:47		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	12/26/15 15:47	
Dibromofluoromethane	107	85-115	12/26/15 15:47	
Toluene-d8	108	85-120	12/26/15 15:47	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/26/15 - 12/28/15

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-22-GW-CW1MW281-33.74	**Units:**	µg/L
Lab Code:	R1511019-010	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6695.D Vial: 11
Acq On : 28 Dec 2015 12:42 pm Operator: D.Lipani
Sample : R1511019-010|2.5 Inst : MS#6
Misc : Parsons 8260C 14517 T4 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 14:31 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.36	168	639068	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.68	114	944240	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	924322	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.18	152	539174	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	310016	52.34	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 104.68%			
42) surr1,1,2-dichloroethane-d	4.24	65	244427	50.60	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 101.20%			
62) SURR3,Toluene-d8	7.76	98	1042020	52.98	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.96%			
82) SURR2,BFB	10.14	95	443567	53.61	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 107.22%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.14	62	3567	0.46	ug/L	86
14) Acetone	1.72	43	1885	2.46	ug/L	85
16) 1,1-Diclethene	1.94	96	1341	0.26	ug/L	92
17) Iodomethane	1.95	142	257	1.15	ug/L	76
33) cis-1,2-Dichloroethene	3.26	96	54098	9.63	ug/L	94
45) Cyclohexane	4.87	56	11422	1.36	ug/L	87
51) Trichloroethene	6.13	130	746229	118.80	ug/L	99

as "DL"

DL 1/4/16

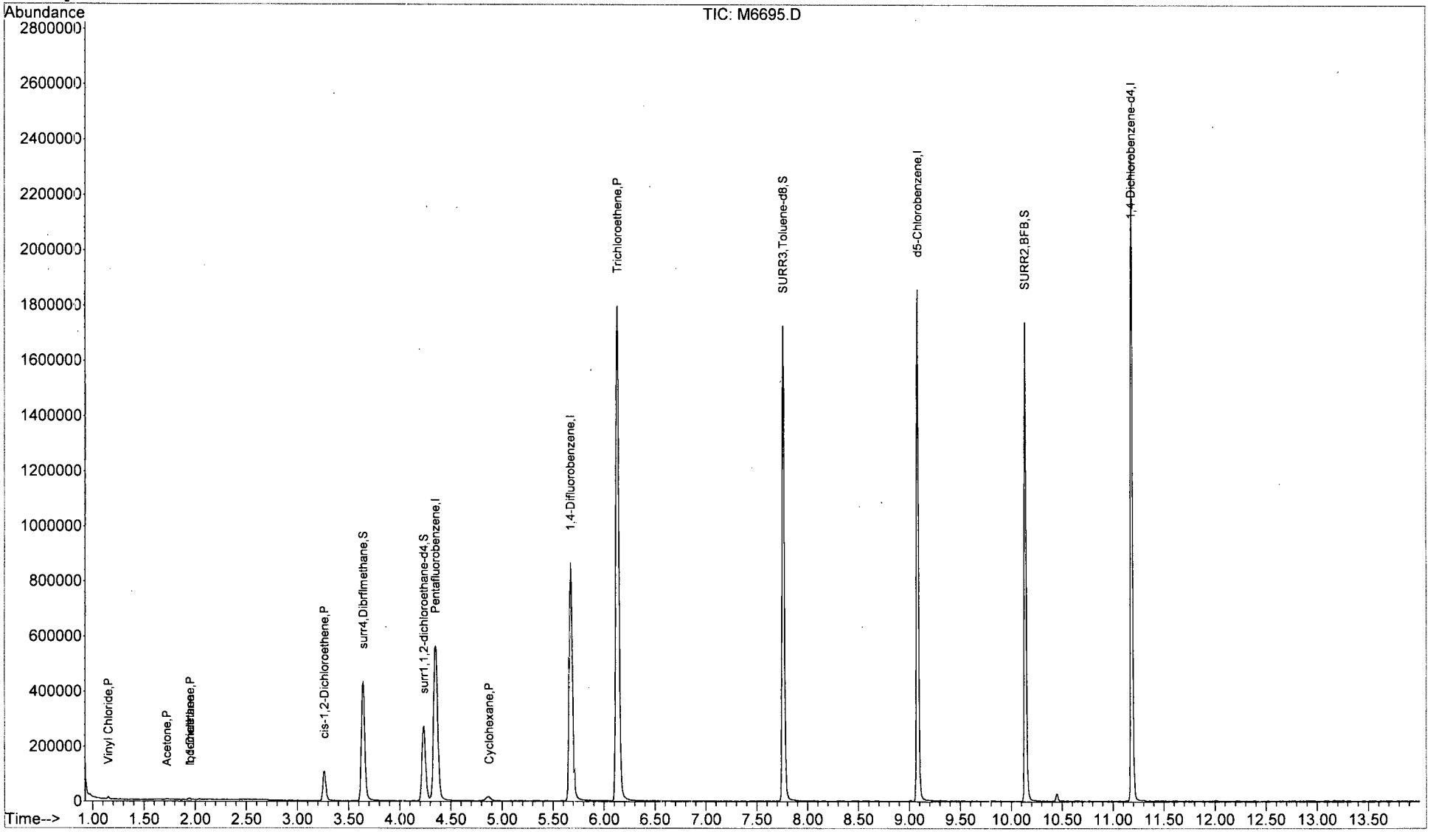
✓ 010516

(#) = qualifier out of range (m) = manual integration
M6695.D W113015.M Thu Dec 31 14:43:36 2015

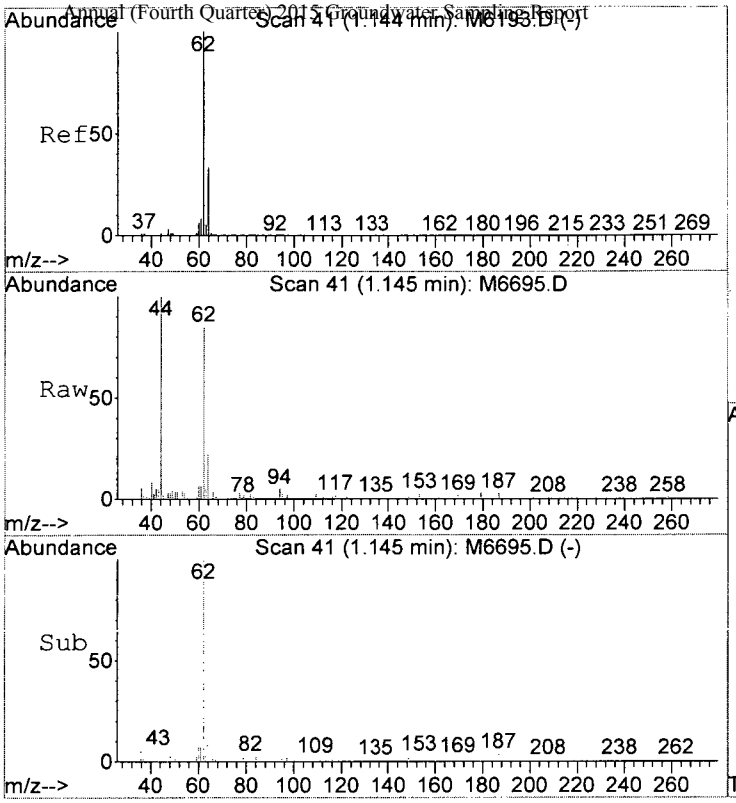
Quantitation Report

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6695.D Vial: 11
Acq On : 28 Dec 2015 12:42 pm Operator: D.Lipani
Sample : R1511019-010|2.5 Inst : MS#6
Misc : Parsons 8260C 14517 T4 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 14:31 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



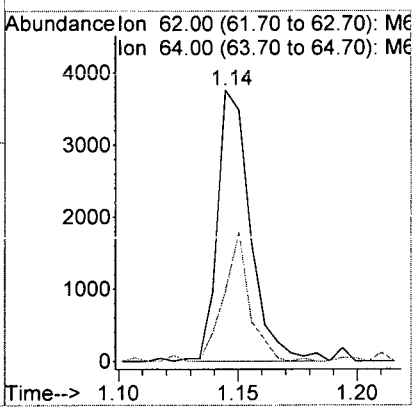
M6695.D W113015.M Thu Dec 31 14:43:39 2015

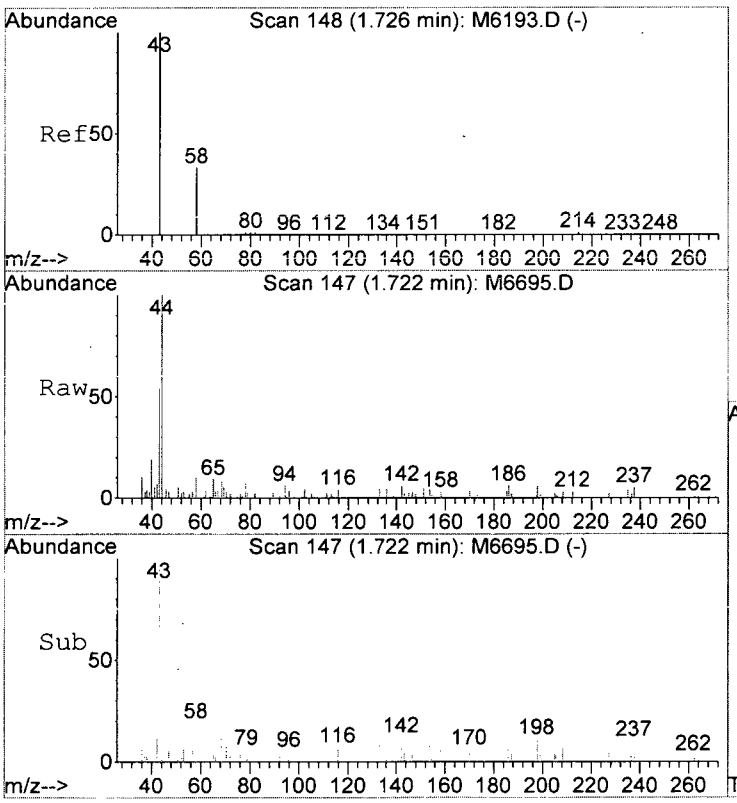


#4
Vinyl Chloride
Concen: 0.46 ug/L
RT: 1.14 min Scan# 41
Delta R.T. 0.00 min
Lab File: M6695.D
Acq: 28 Dec 2015 12:42 pm

Tgt Ion: 62 Resp: 3567

Ion	Ratio	Lower	Upper
62	100		
64	25.6	13.4	53.4

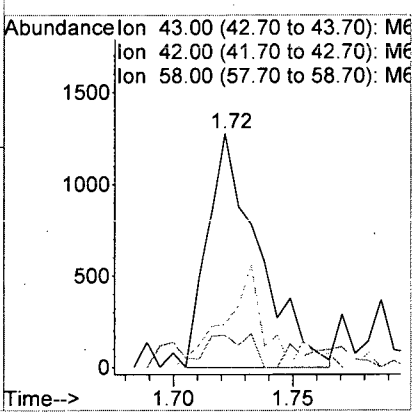


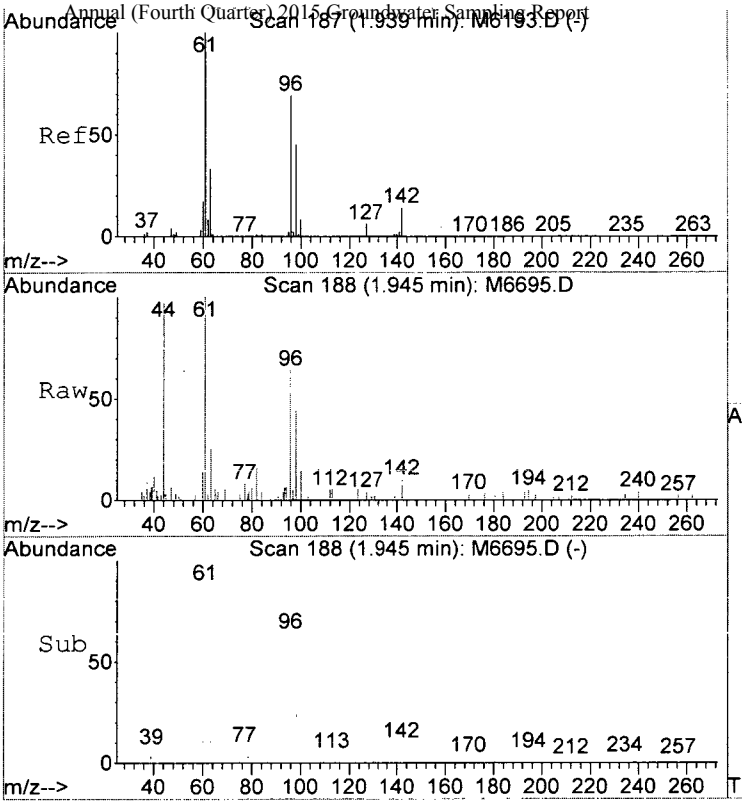


#14
Acetone
Concen: 2.46 ug/L
RT: 1.72 min Scan# 147
Delta R.T. -0.00 min
Lab File: M6695.D
Acq: 28 Dec 2015 12:42 pm

Tgt Ion: 43 Resp: 1885

Ion	Ratio	Lower	Upper
43	100		
42	13.8	0.0	29.0
58	18.2	6.3	46.3

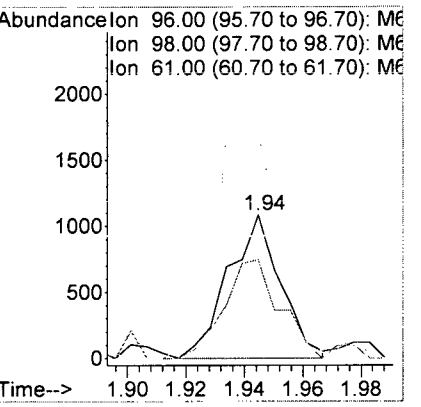


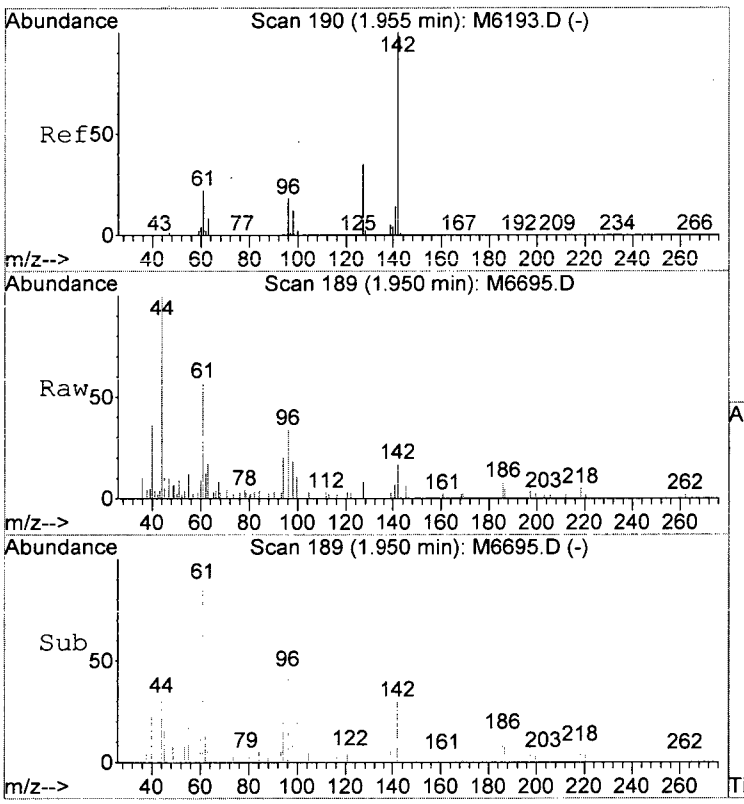


#16
1,1-Diclethene
Concen: 0.26 ug/L
RT: 1.94 min Scan# 188
Delta R.T. 0.01 min
Lab File: M6695.D
Acq: 28 Dec 2015 12:42 pm

Tgt Ion: 96 Resp: 1341

Ion	Ratio	Lower	Upper
96	100		
98	68.8	44.9	84.9
61	156.5	124.3	164.3

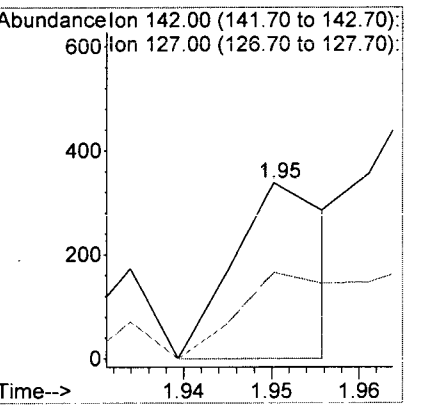


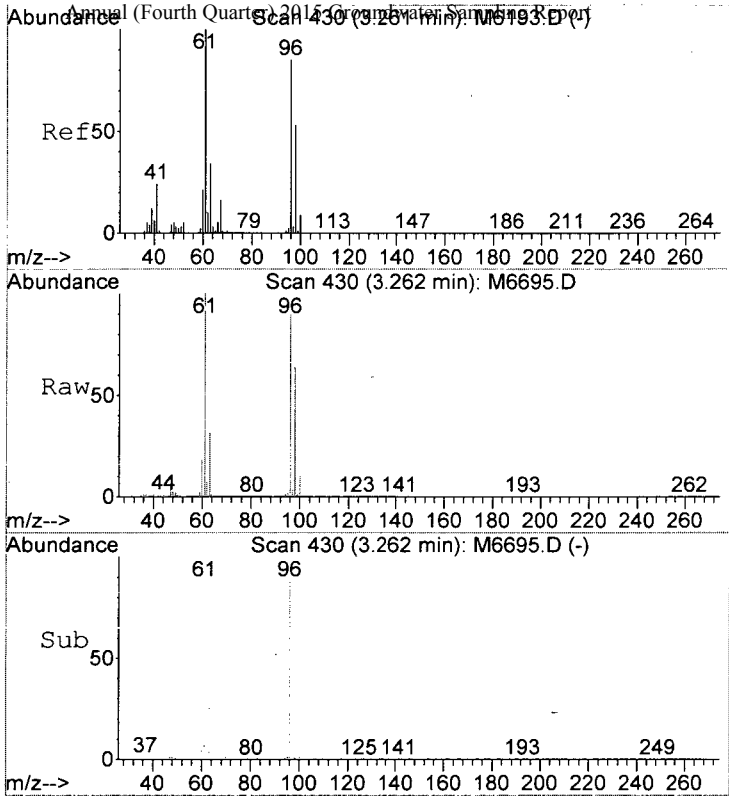


#17
Iodomethane
Concen: 1.15 ug/L
RT: 1.95 min Scan# 189
Delta R.T. -0.00 min
Lab File: M6695.D
Acq: 28 Dec 2015 12:42 pm

Tgt Ion:142 Resp: 257

Ion	Ratio	Lower	Upper
142	100		
127	49.1	15.3	55.3

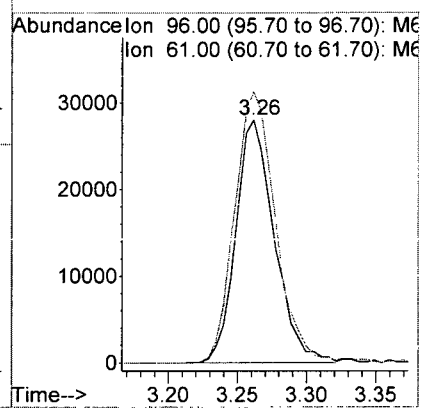


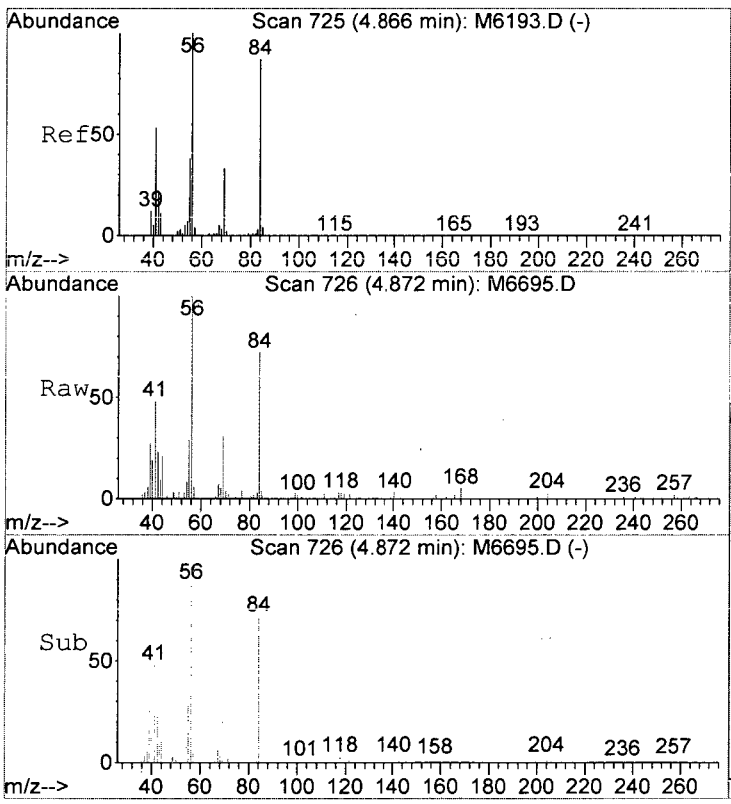


#33
cis-1,2-Dichloroethene
Concen: 9.63 ug/L
RT: 3.26 min Scan# 430
Delta R.T. 0.00 min
Lab File: M6695.D
Acq: 28 Dec 2015 12:42 pm

Tgt Ion: 96 Resp: 54098

Ion	Ratio	Lower	Upper
96	100		
61	111.5	98.2	138.2

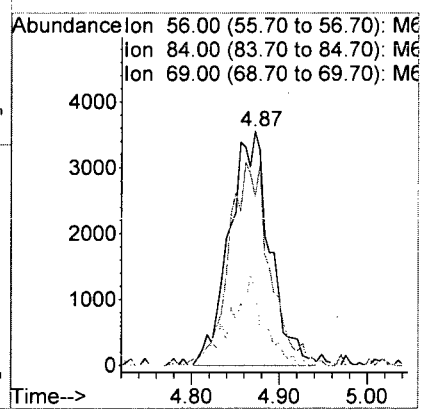


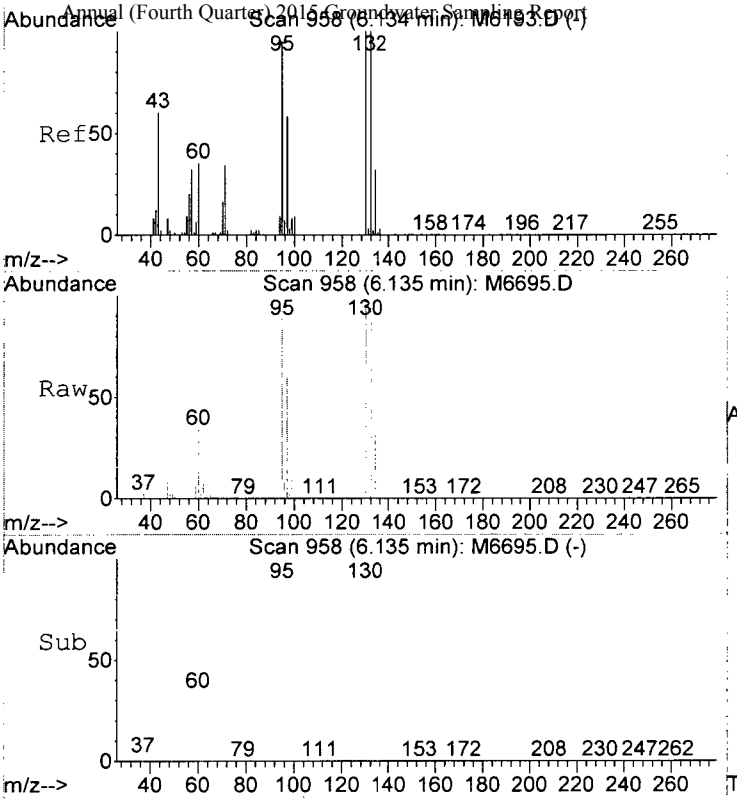


#45
Cyclohexane
Concen: 1.36 ug/L
RT: 4.87 min Scan# 726
Delta R.T. 0.01 min
Lab File: M6695.D
Acq: 28 Dec 2015 12:42 pm

Tgt Ion: 56 Resp: 11422

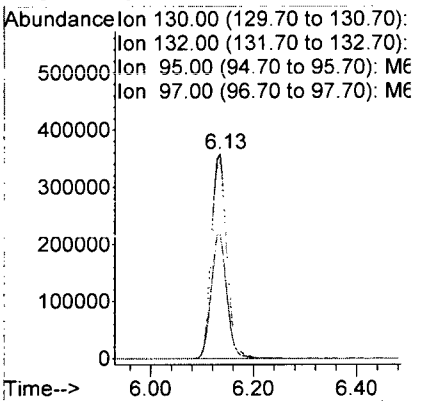
Ion	Ratio	Lower	Upper
56	100		
84	72.2	67.3	107.3
69	31.1	12.8	52.8





#51
Trichloroethene
Concen: 118.80 ug/L
RT: 6.13 min Scan# 958
Delta R.T. 0.00 min
Lab File: M6695.D
Acq: 28 Dec 2015 12:42 pm

Tgt Ion:130	Resp:	746229	
Ion	Ratio	Lower	Upper
130	100		
132	96.8	76.5	116.5
95	93.2	72.7	112.7
97	61.1	40.5	80.5



M6695.D W113015.M Thu Dec 31 14:43:46 2015 Page 6

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6677.D Vial: 15
Acq On : 26 Dec 2015 3:47 pm Operator: D.Lipani
Sample : R1511019-010|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 9:17 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	661019	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.68	114	950870	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	880199	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.18	152	536196	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	317935	53.31	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 106.62%			
42) surr1,1,2-dichloroethane-d	4.23	65	262788	54.02	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 108.04%			
62) SURR3,Toluene-d8	7.76	98	1066738	53.86	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 107.72%			
82) SURR2,BFB	10.14	95	435090	55.22	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.44%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.15	62	11337	1.42	ug/L	66
13) 2-Propanol	1.70	45	661	4.09	ug/L	87
14) Acetone	1.73	43	3154	3.98	ug/L	96
16) 1,1-Diclethene	1.94	96	4877	0.90	ug/L	90
17) Iodomethane	1.95	142	558	1.19	ug/L	82
24) Carbon Disulfide	2.15	76	5686	0.32	ug/L	90
33) cis-1,2-Dichloroethene	3.27	96	159341	27.41	ug/L	97
45) Cyclohexane	4.86	56	18377	2.17	ug/L	97
51) Trichloroethene	6.13	130	2285684	361.35	ug/L	98 E

DL 12/31/15

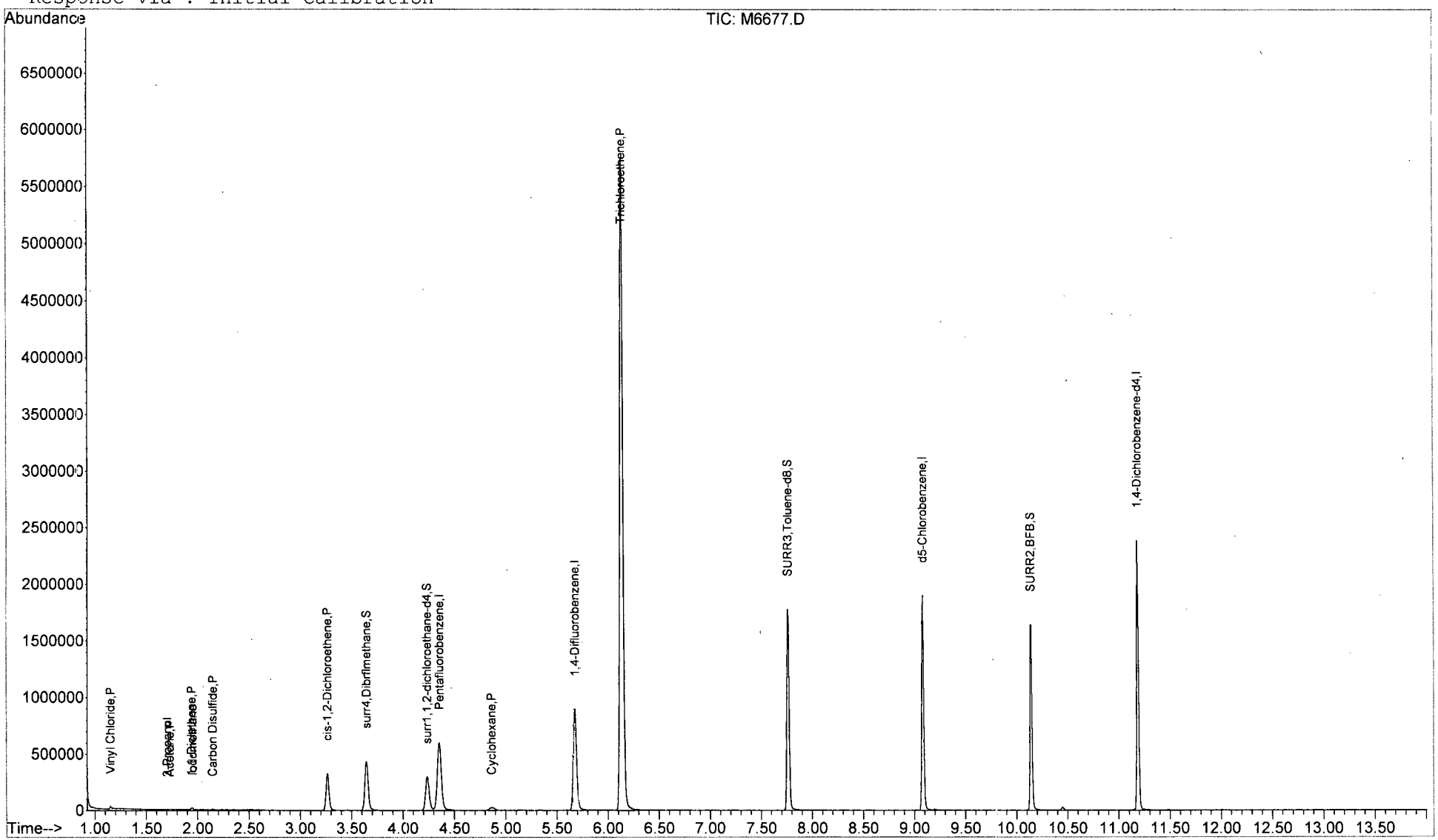
AW 01/04/16

rpt 1/2.5

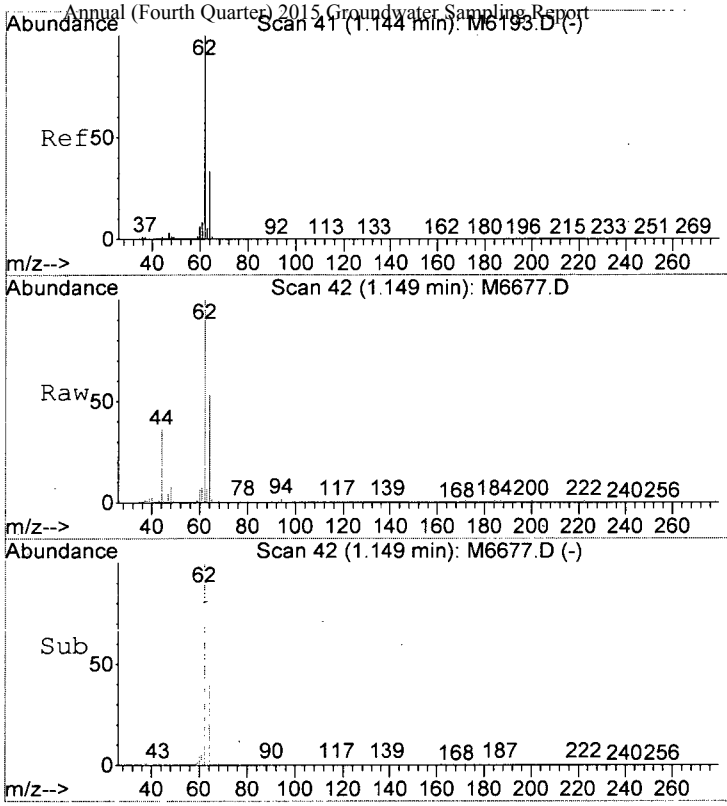
(#) = qualifier out of range (m) = manual integration
M6677.D W113015.M Thu Dec 31 09:17:46 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6677.D Vial: 15
Acq On : 26 Dec 2015 3:47 pm Operator: D.Lipani
Sample : R1511019-010|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 9:17 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



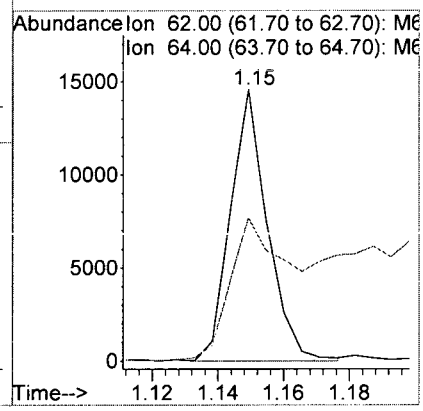
M6677.D W113015.M Thu Dec 31 09:17:49 2015 Page 2

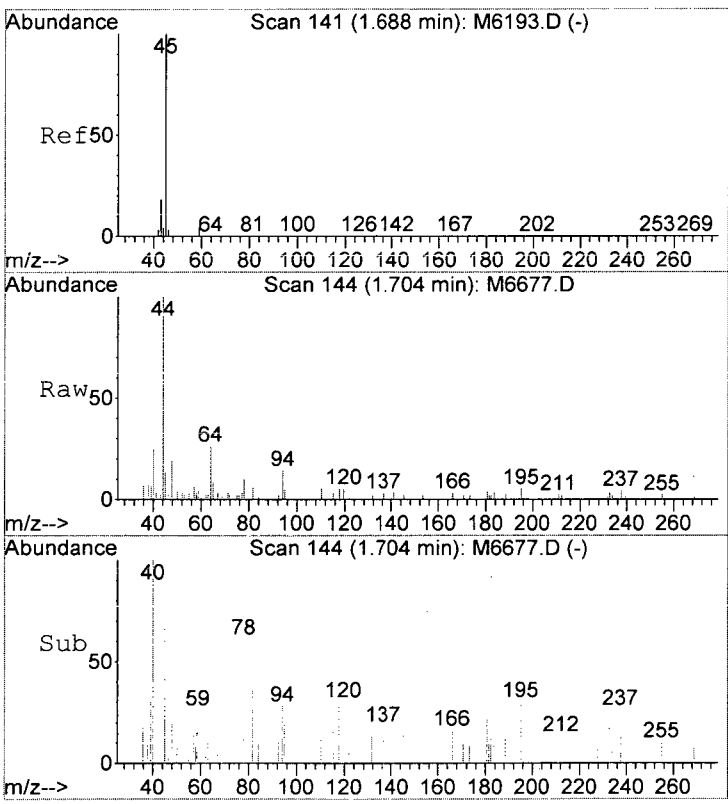


#4
Vinyl Chloride
Concen: 1.42 ug/L
RT: 1.15 min Scan# 42
Delta R.T. 0.01 min
Lab File: M6677.D
Acq: 26 Dec 2015 3:47 pm

Tgt Ion: 62 Resp: 11337

Ion	Ratio	Lower	Upper
62	100		
64	52.7	13.4	53.4

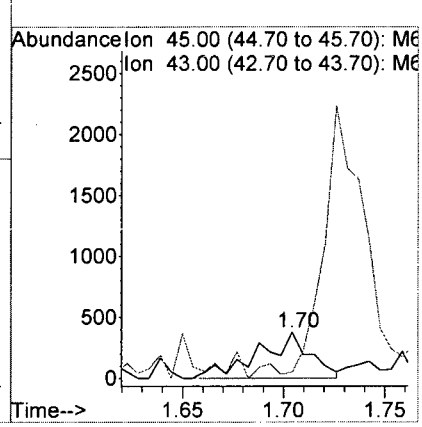


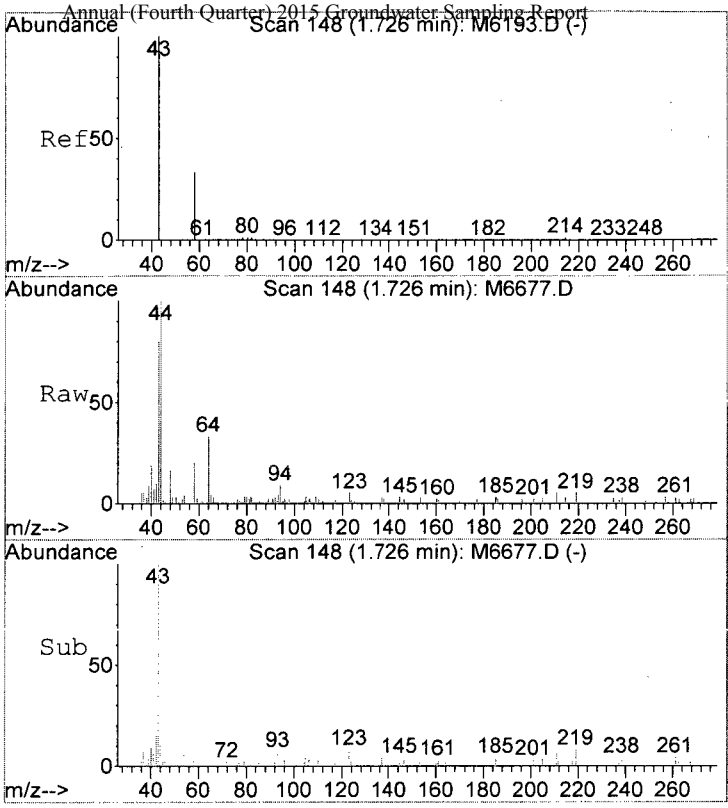


#13
2-Propanol
Concen: 4.09 ug/L
RT: 1.70 min Scan# 144
Delta R.T. 0.02 min
Lab File: M6677.D
Acq: 26 Dec 2015 3:47 pm

Tgt Ion: 45 Resp: 661

Ion	Ratio	Lower	Upper
45	100		
43	12.5	0.0	38.2

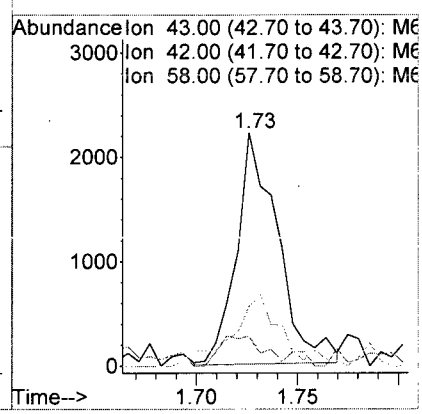


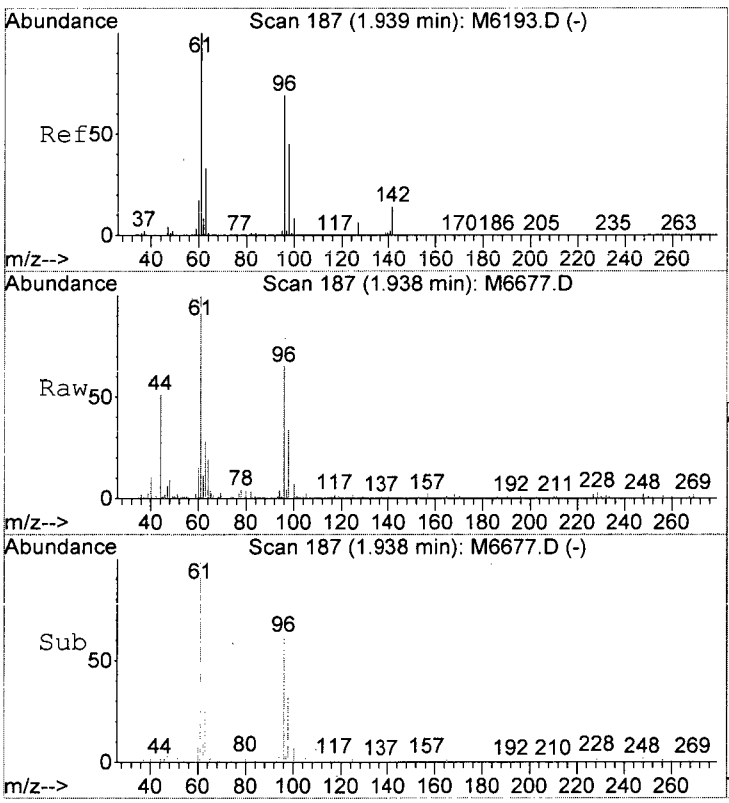


#14
Acetone
Concen: 3.98 ug/L
RT: 1.73 min Scan# 148
Delta R.T. -0.00 min
Lab File: M6677.D
Acq: 26 Dec 2015 3:47 pm

Tgt Ion: 43 Resp: 3154

Ion	Ratio	Lower	Upper
43	100		
42	12.7	0.0	29.0
58	25.4	6.3	46.3

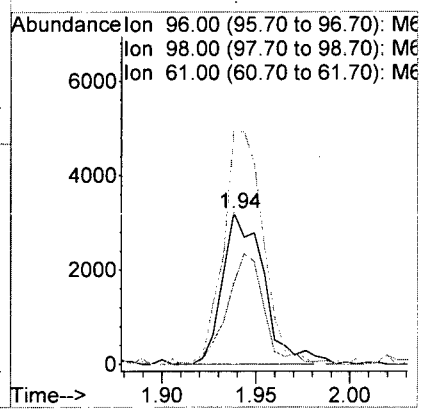


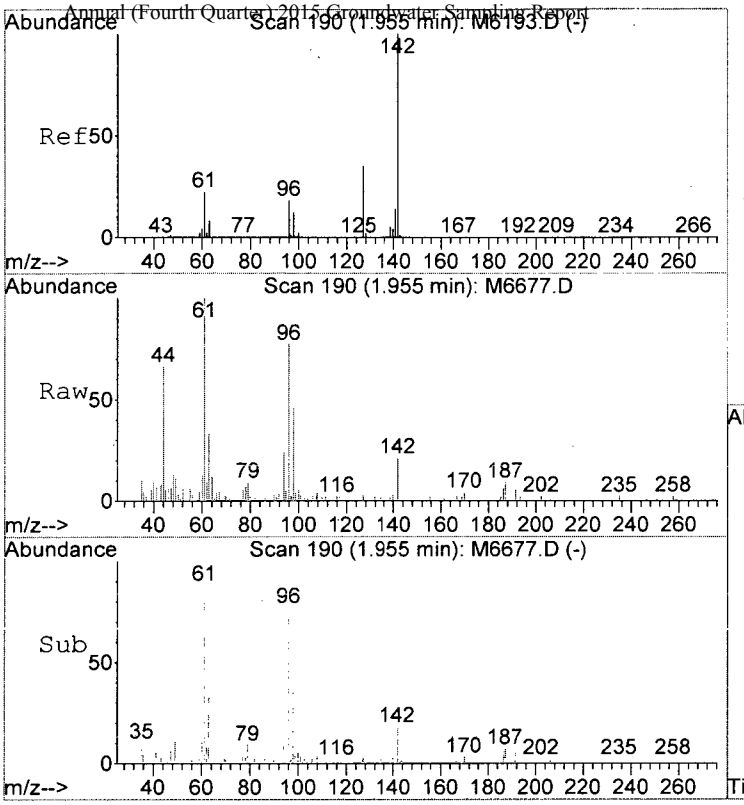


#16
1,1-Diclethene
Concen: 0.90 ug/L
RT: 1.94 min Scan# 187
Delta R.T. -0.00 min
Lab File: M6677.D
Acq: 26 Dec 2015 3:47 pm

Tgt Ion: 96 Resp: 4877

Ion	Ratio	Lower	Upper
96	100		
98	53.4	44.9	84.9
61	154.7	124.3	164.3

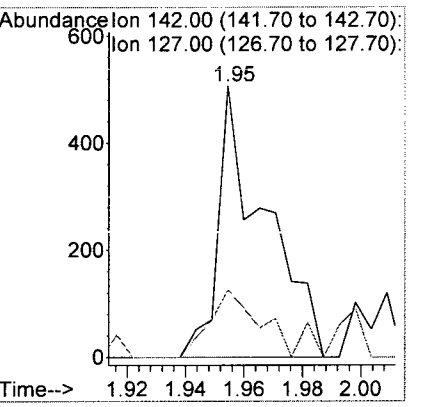


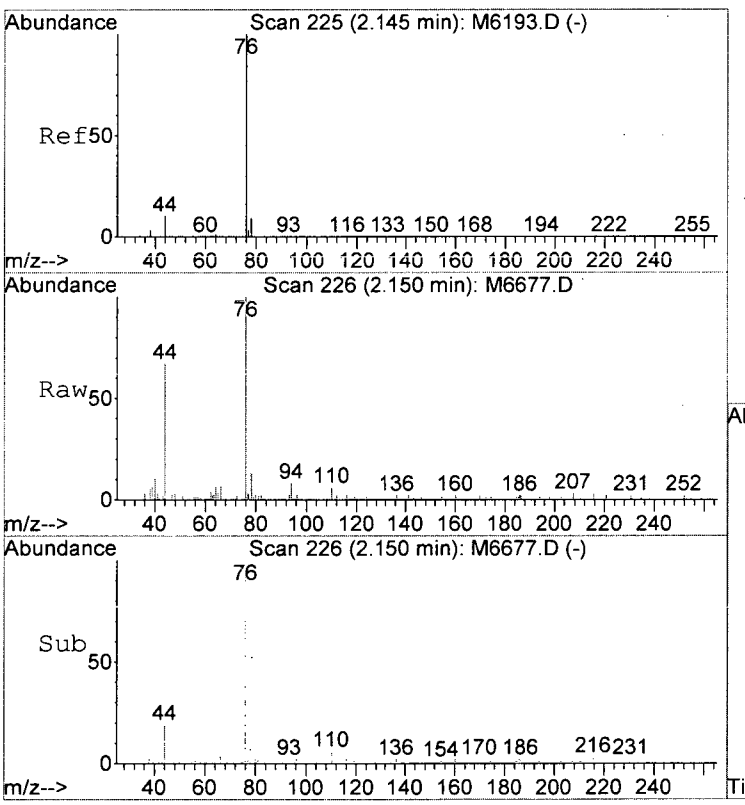


#17
Iodomethane
Concen: 1.19 ug/L
RT: 1.95 min Scan# 190
Delta R.T. -0.00 min
Lab File: M6677.D
Acq: 26 Dec 2015 3:47 pm

Tgt Ion:142 Resp: 558

Ion	Ratio	Lower	Upper
142	100		
127	24.7	15.3	55.3

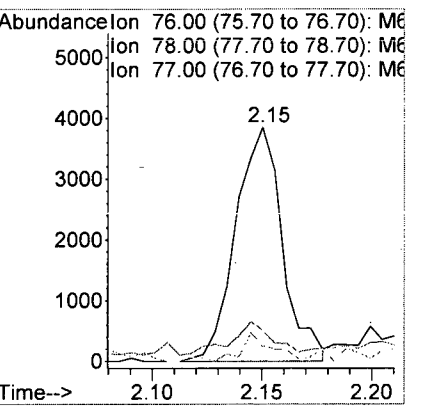


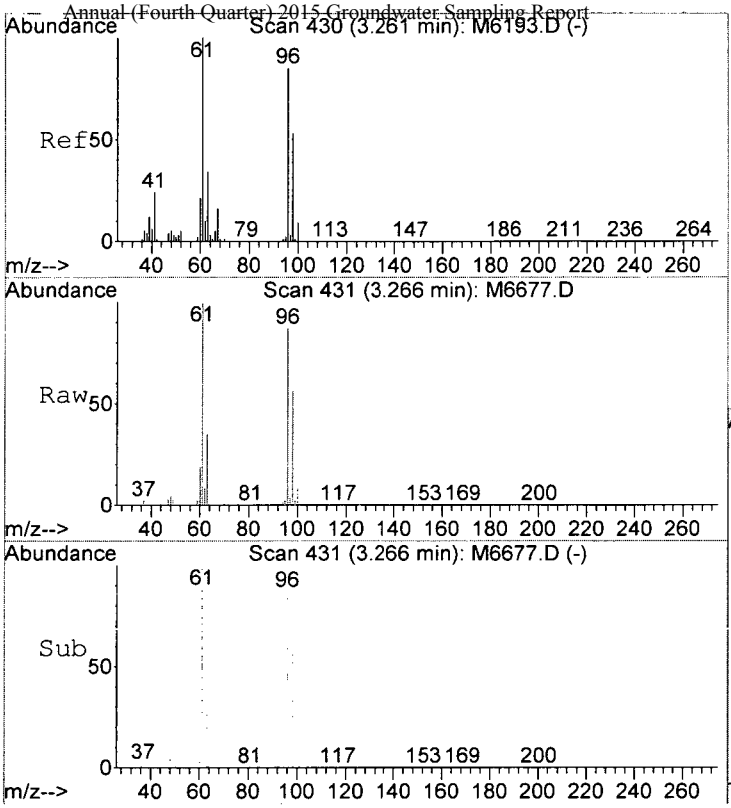


#24
Carbon Disulfide
Concen: 0.32 ug/L
RT: 2.15 min Scan# 226
Delta R.T. 0.00 min
Lab File: M6677.D
Acq: 26 Dec 2015 3:47 pm

Tgt Ion: 76 Resp: 5686

Ion	Ratio	Lower	Upper
76	100		
78	13.4	0.0	29.8
77	6.5	0.0	22.9

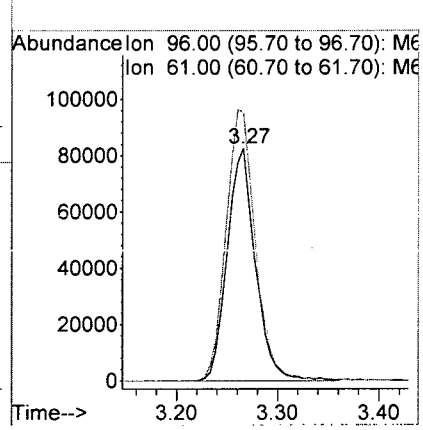


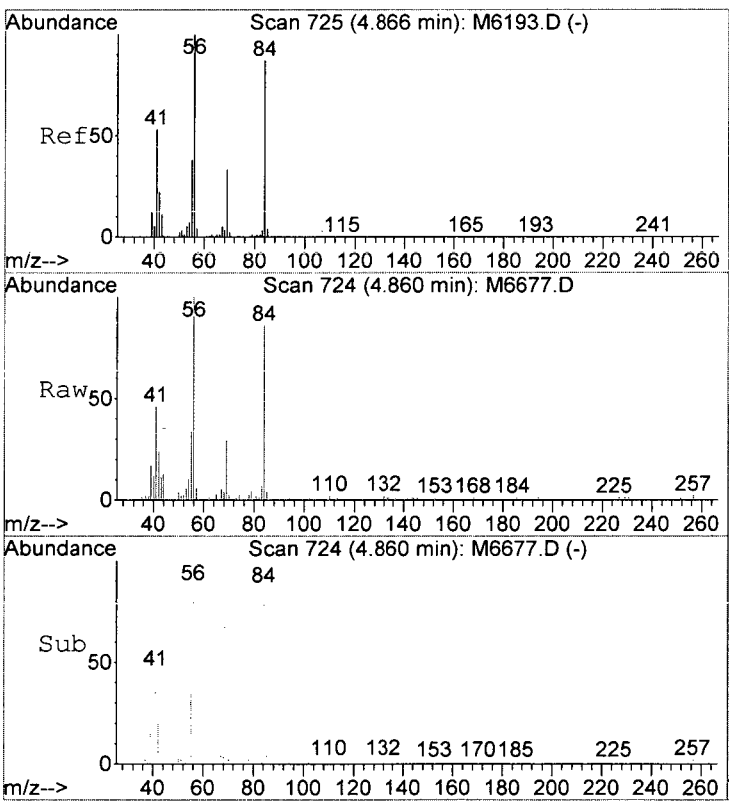


#33
cis-1,2-Dichloroethene
Concen: 27.41 ug/L
RT: 3.27 min Scan# 431
Delta R.T. 0.00 min
Lab File: M6677.D
Acq: 26 Dec 2015 3:47 pm

Tgt Ion: 96 Resp: 159341

Ion	Ratio	Lower	Upper
96	100		
61	115.4	98.2	138.2

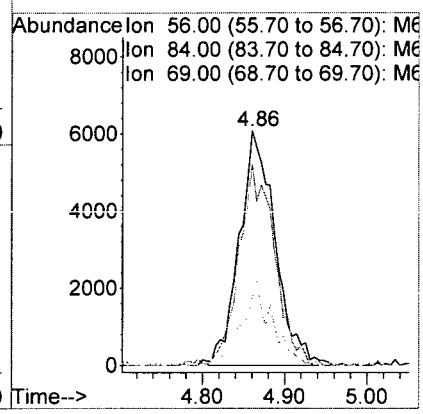


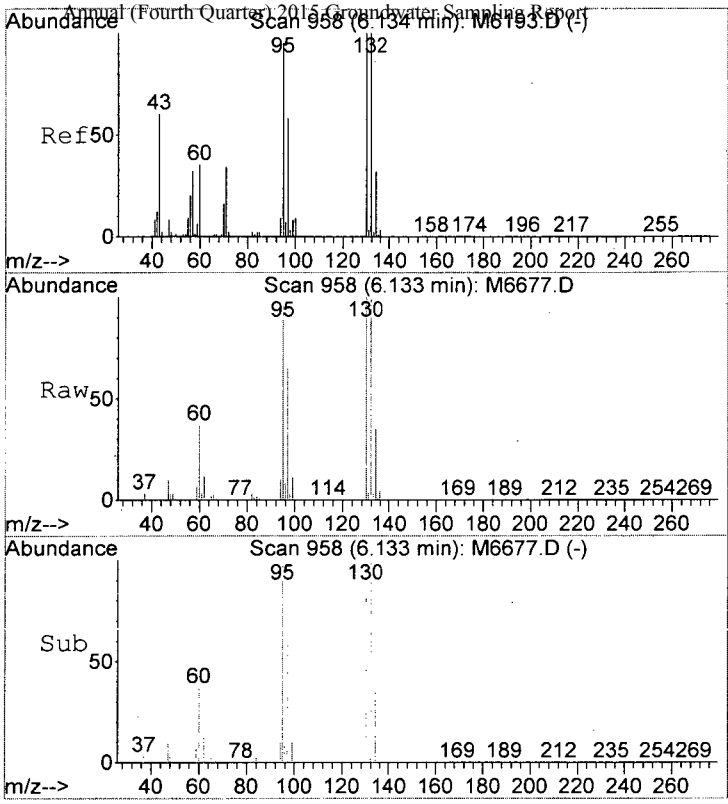


#45
Cyclohexane
Concen: 2.17 ug/L
RT: 4.86 min Scan# 724
Delta R.T. -0.01 min
Lab File: M6677.D
Acq: 26 Dec 2015 3:47 pm

Tgt Ion: 56 Resp: 18377

Ion	Ratio	Lower	Upper
56	100		
84	86.1	67.3	107.3
69	28.9	12.8	52.8

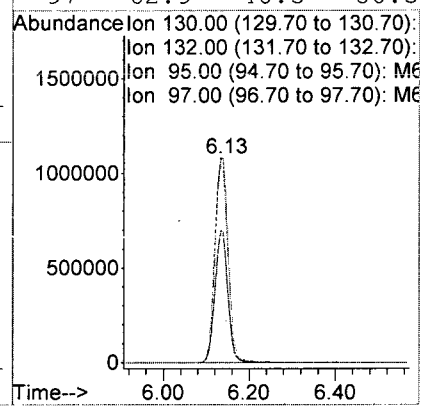




#51
Trichloroethene
Concen: 361.35 ug/L
RT: 6.13 min Scan# 958
Delta R.T. -0.00 min
Lab File: M6677.D
Acq: 26 Dec 2015 3:47 pm

Tgt Ion:130 Resp: 2285684

Ion	Ratio	Lower	Upper
130	100		
132	99.0	76.5	116.5
95	94.4	72.7	112.7
97	62.9	40.5	80.5



Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15 1220
Date Received: 12/16/15

Sample Name: FTMM-22-GW-CW1MW28-11.21
Lab Code: R1511019-011

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/28/15 11:42		477784	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/28/15 11:42		477784	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/28/15 11:42		477784	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/28/15 11:42		477784	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/28/15 11:42		477784	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/28/15 11:42		477784	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/28/15 11:42		477784	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/28/15 11:42		477784	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/28/15 11:42		477784	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/28/15 11:42		477784	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/28/15 11:42		477784	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/28/15 11:42		477784	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/28/15 11:42		477784	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/28/15 11:42		477784	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/28/15 11:42		477784	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/28/15 11:42		477784	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/28/15 11:42		477784	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/28/15 11:42		477784	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/28/15 11:42		477784	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/28/15 11:42		477784	
Acetone	2.2	J	10	5.0	1.3	1	NA	12/28/15 11:42		477784	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/28/15 11:42		477784	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/28/15 11:42		477784	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/28/15 11:42		477784	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/28/15 11:42		477784	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/28/15 11:42		477784	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/28/15 11:42		477784	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/28/15 11:42		477784	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/28/15 11:42		477784	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1220
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-22-GW-CW1MW28-11.21	**Units:**	µg/L
Lab Code:	R1511019-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/28/15 11:42		477784	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/28/15 11:42		477784	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/28/15 11:42		477784	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/28/15 11:42		477784	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/28/15 11:42		477784	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/28/15 11:42		477784	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/28/15 11:42		477784	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/28/15 11:42		477784	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
Trichloroethene (TCE)	**0.32**	J	5.0	1.0	0.22	1	NA	12/28/15 11:42		477784	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/28/15 11:42		477784	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/28/15 11:42		477784	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/28/15 11:42		477784	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/28/15 11:42		477784	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/28/15 11:42		477784	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/28/15 11:42		477784	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/28/15 11:42		477784	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:42		477784	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	75-120	12/28/15 11:42	
Dibromofluoromethane	106	85-115	12/28/15 11:42	
Toluene-d8	104	85-120	12/28/15 11:42	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/28/15 1142

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-22-GW-CW1MW28-11.21	**Units:**	µg/L
Lab Code:	R1511019-011	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6693.D Vial: 9
Acq On : 28 Dec 2015 11:42 am Operator: D.Lipani
Sample : R1511019-011|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 T4 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 14:25 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.35	168	647203	50.00	ug/L		0.00
39) 1,4-Difluorobenzene	5.67	114	946437	50.00	ug/L		0.00
64) d5-Chlorobenzene	9.08	117	920851	50.00	ug/L		0.00
83) 1,4-Dichlorobenzene-d4	11.18	152	532896	50.00	ug/L		0.00
System Monitoring Compounds							
40) surr4,Dibrflmethane	3.64	113	314686	53.01	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 106.02%				
42) surr1,1,2-dichloroethane-d	4.23	65	239546	49.47	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 98.94%				
62) SURR3,Toluene-d8	7.76	98	1022471	51.86	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.72%				
82) SURR2,BFB	10.14	95	437005	53.02	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 106.04%				
Target Compounds							Qvalue
14) Acetone	1.73	43	1721	2.22	ug/L		84
17) Iodomethane	1.96	142	1235	1.27	ug/L		72
45) Cyclohexane	4.85	56	4375	0.52	ug/L	#	65
51) Trichloroethene	6.15	130	2016	0.32	ug/L		90
103) Hexachlorobt	13.17	225	947	0.27	ug/L	#	78
104) 1,2,3-Tclbenzene	13.25	180	1248m	0.20	ug/L		

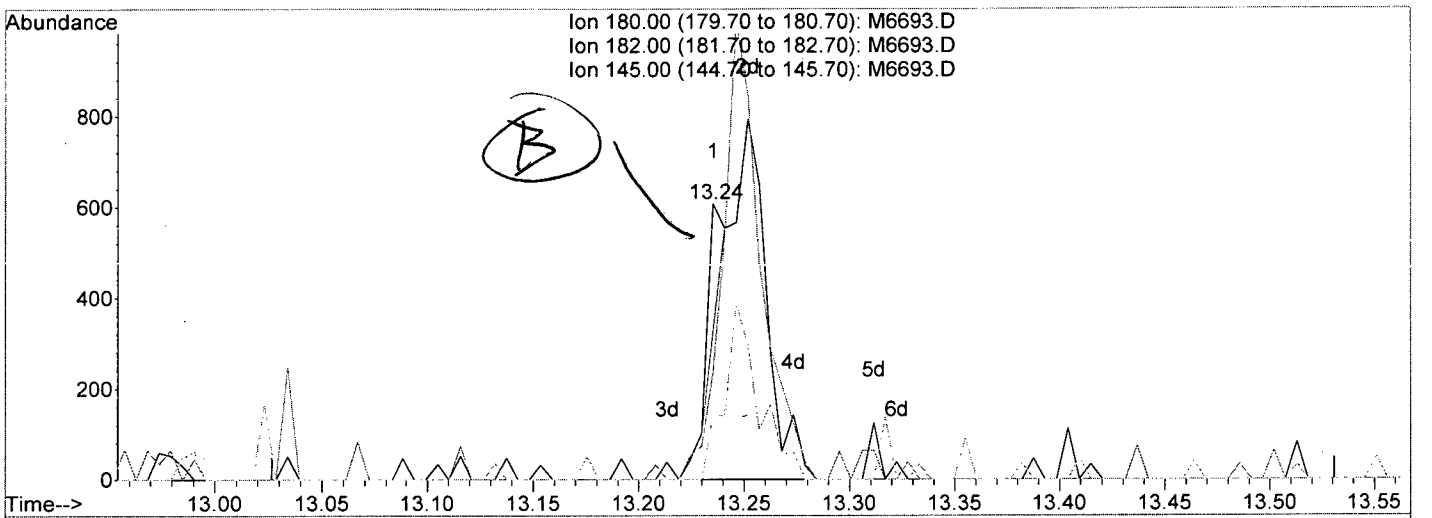
DL
1/4/16

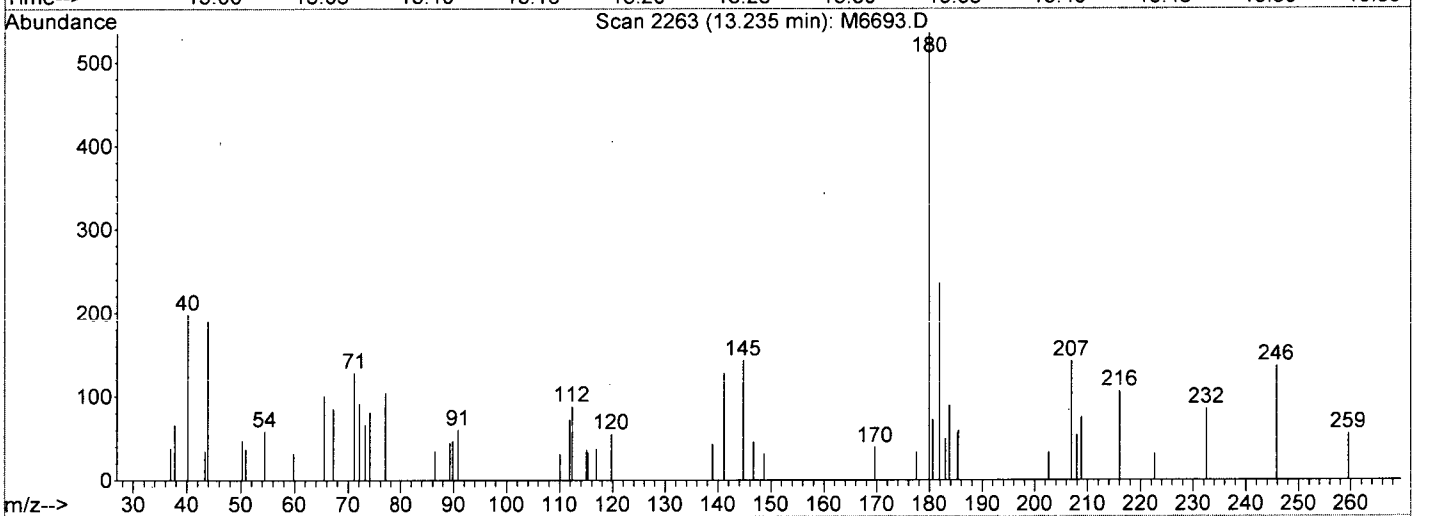
(#) = qualifier out of range (m) = manual integration
M6693.D W113015.M Thu Dec 31 14:41:29 2015 Page 1

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6693.D Vial: 9
Acq On : 28 Dec 2015 11:42 am Operator: D.Lipani
Sample : R1511019-011|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 T4 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 14:24 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Multiple Level Calibration





TIC: M6693.D

(104) 1,2,3-Tclbenzene

13.24min 0.03ug/L

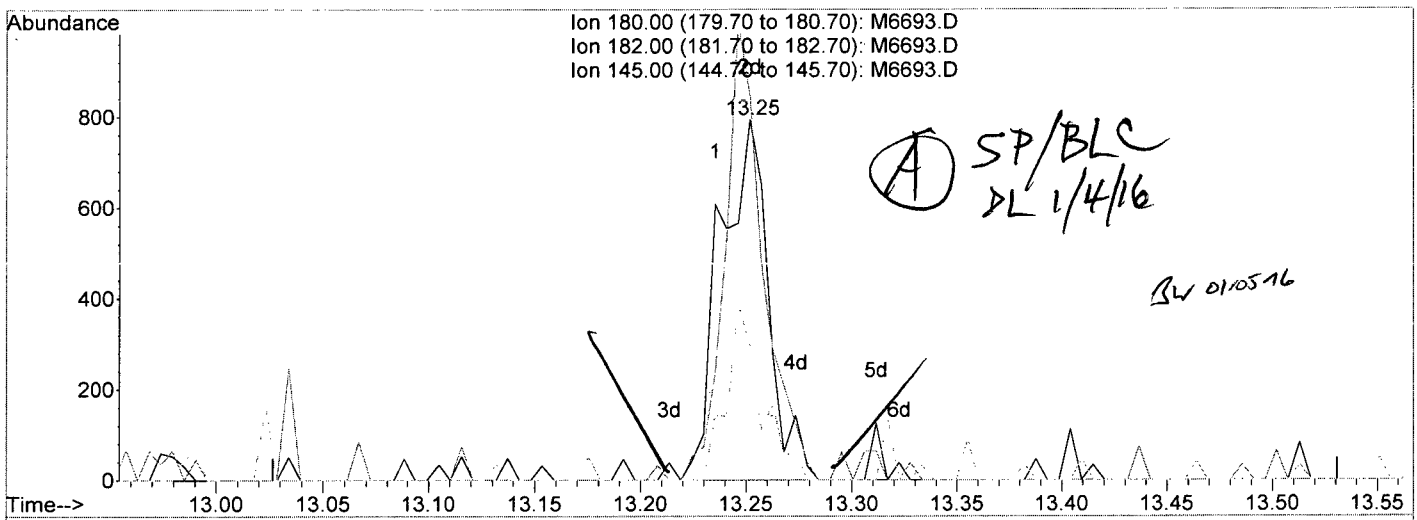
response 198

Ion	Exp%	Act%
180.00	100	100
182.00	95.00	0.00#
145.00	28.80	0.00#
0.00	0.00	0.00

M6693.D W113015.M Thu Dec 31 14:25:19 2015

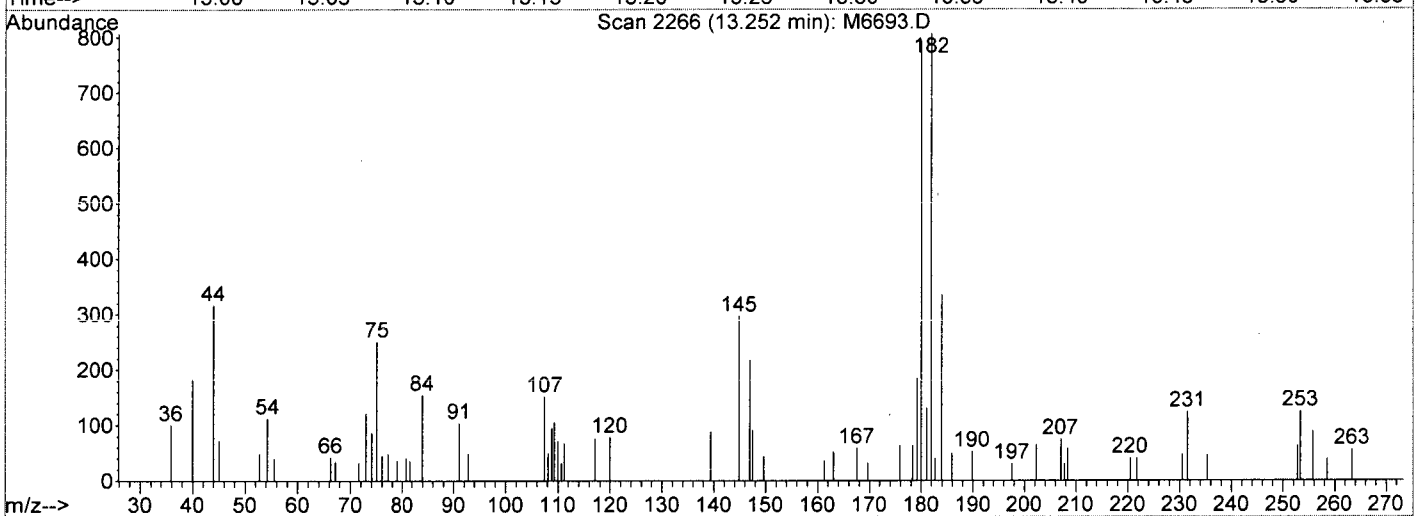
Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6693.D Vial: 9
Acq On : 28 Dec 2015 11:42 am Operator: D.Lipani
Sample : R1511019-011|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 T4 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 14:25 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Multiple Level Calibration



SP/BLC DL 1/4/16

BLW 01/05/16



TIC: M6693.D

(104) 1,2,3-Tclbenzene

13.25min 0.20ug/L m

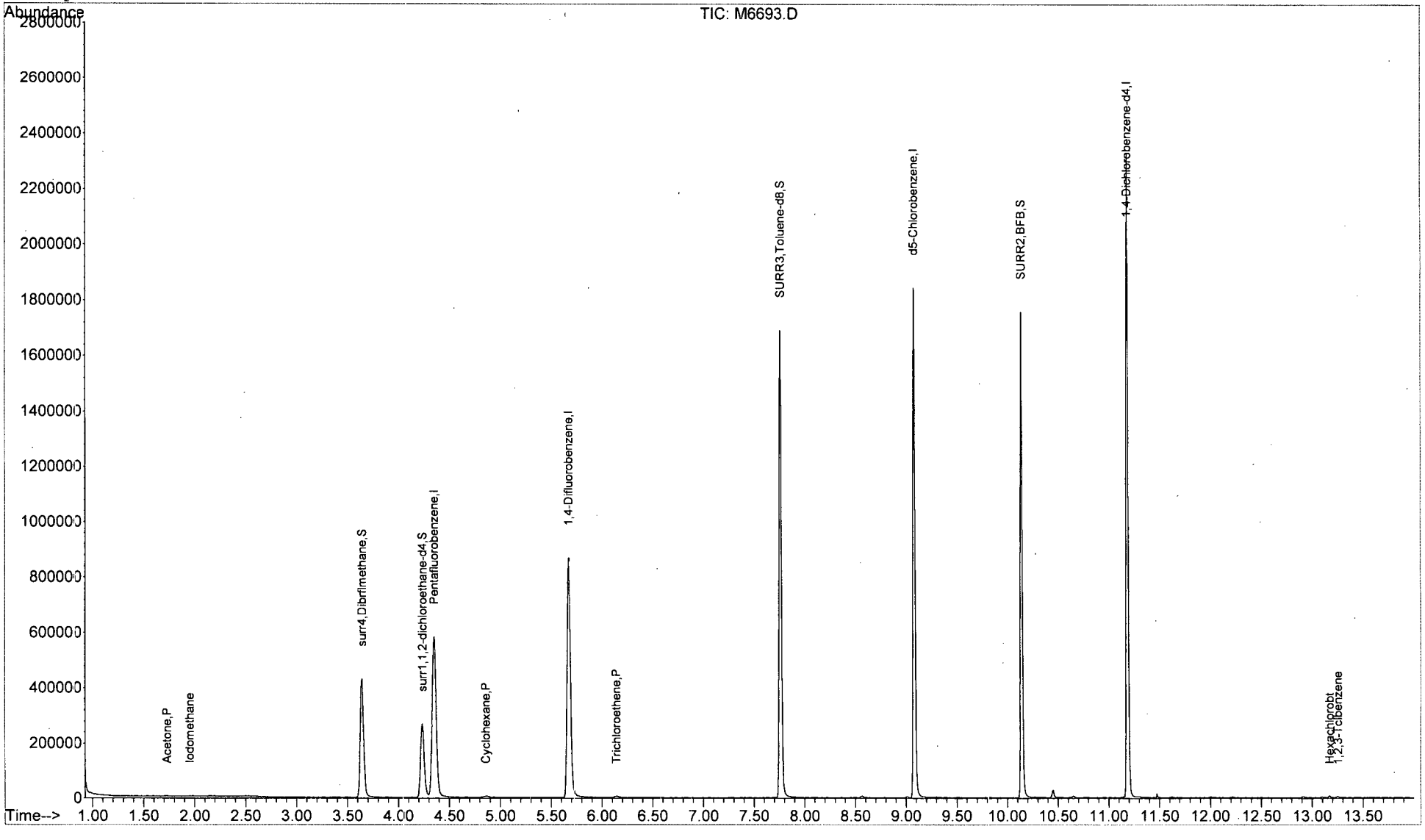
response 1248

Ion	Exp%	Act%
180.00	100	100
182.00	95.00	0.00#
145.00	28.80	0.00#
0.00	0.00	0.00

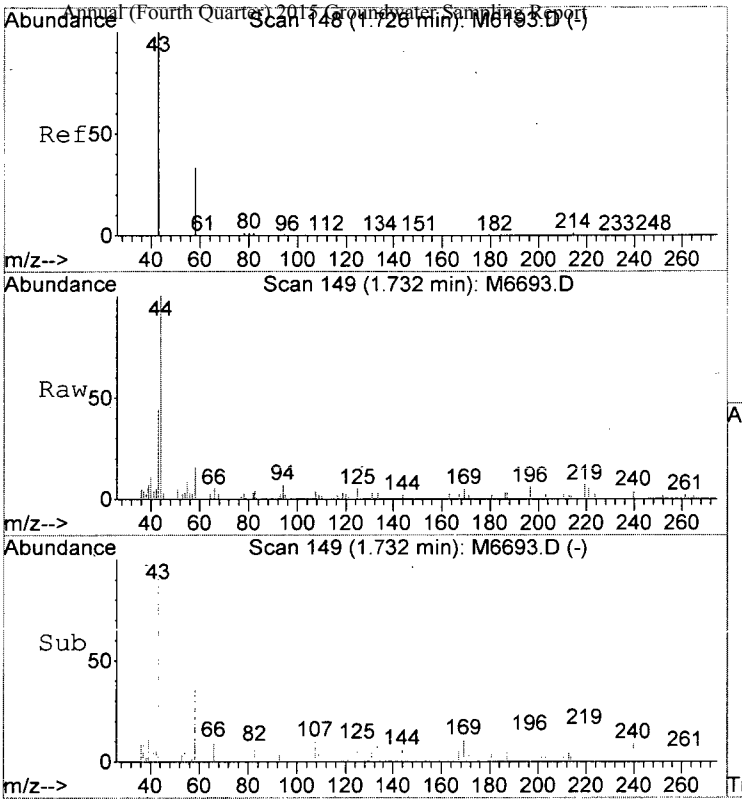
M6693.D W113015.M Thu Dec 31 14:25:27 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6693.D Vial: 9
Acq On : 28 Dec 2015 11:42 am Operator: D.Lipani
Sample : R1511019-011|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 T4 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 14:25 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



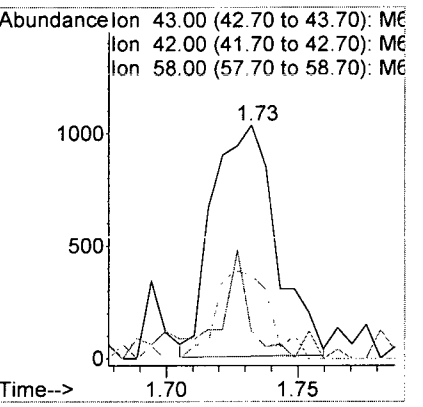
M6693.D W113015.M Thu Dec 31 14:41:32 2015 Page 2

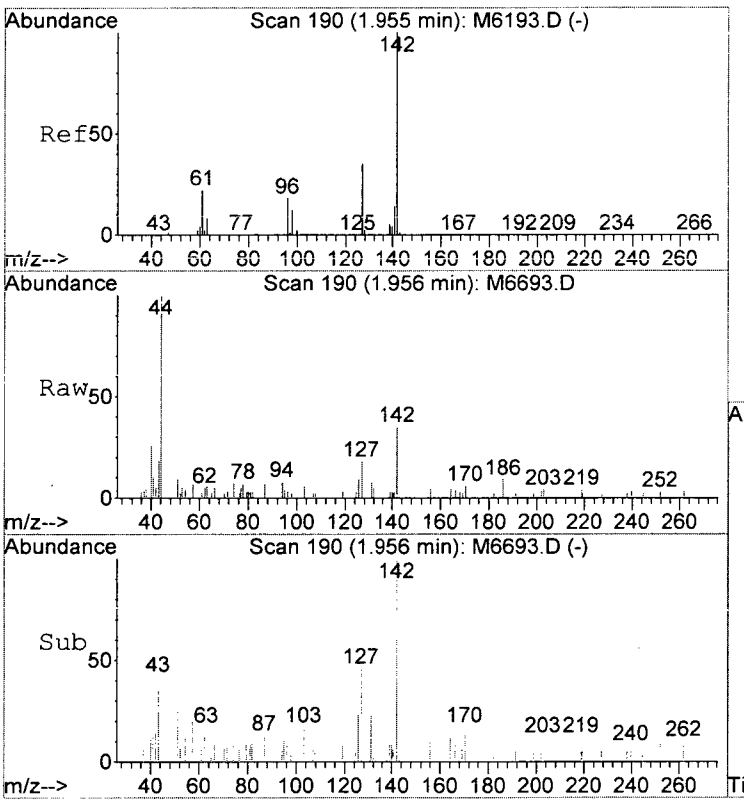


#14
Acetone
Concen: 2.22 ug/L
RT: 1.73 min Scan# 149
Delta R.T. 0.01 min
Lab File: M6693.D
Acq: 28 Dec 2015 11:42 am

Tgt Ion: 43 Resp: 1721

Ion	Ratio	Lower	Upper
43	100		
42	11.6	0.0	29.0
58	36.0	6.3	46.3

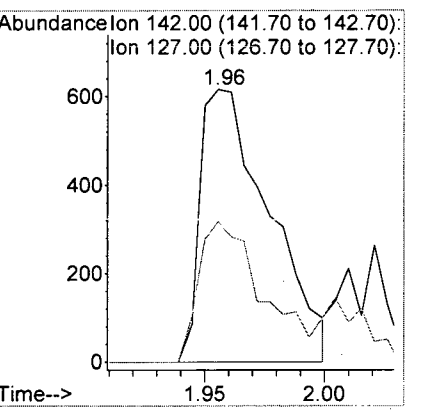


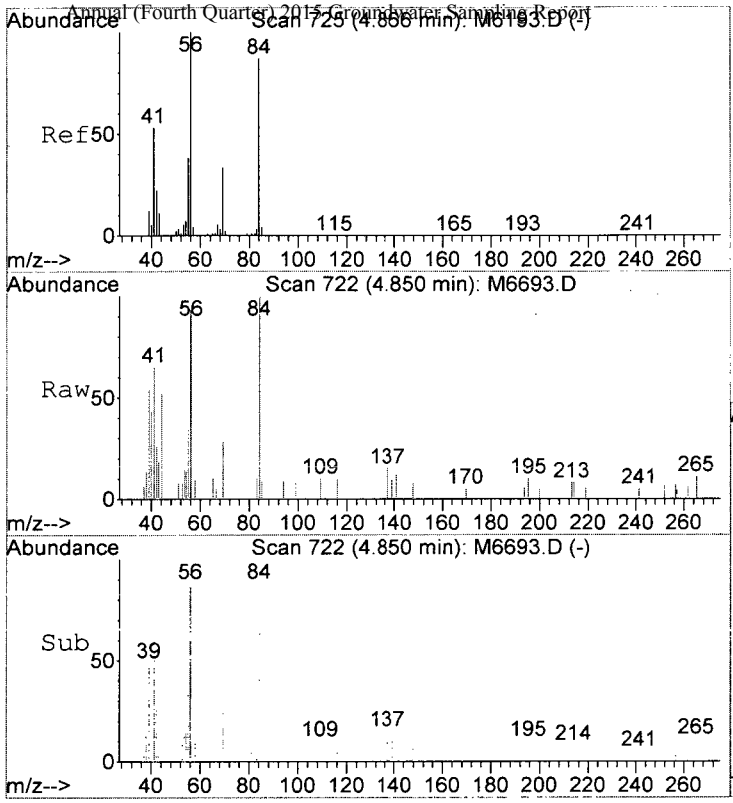


#17
Iodomethane
Concen: 1.27 ug/L
RT: 1.96 min Scan# 190
Delta R.T. 0.00 min
Lab File: M6693.D
Acq: 28 Dec 2015 11:42 am

Tgt Ion:142 Resp: 1235

Ion	Ratio	Lower	Upper
142	100		
127	51.5	15.3	55.3

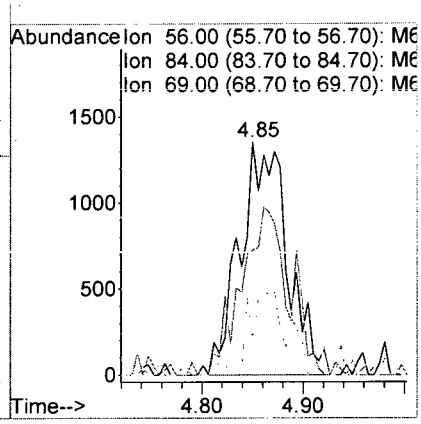


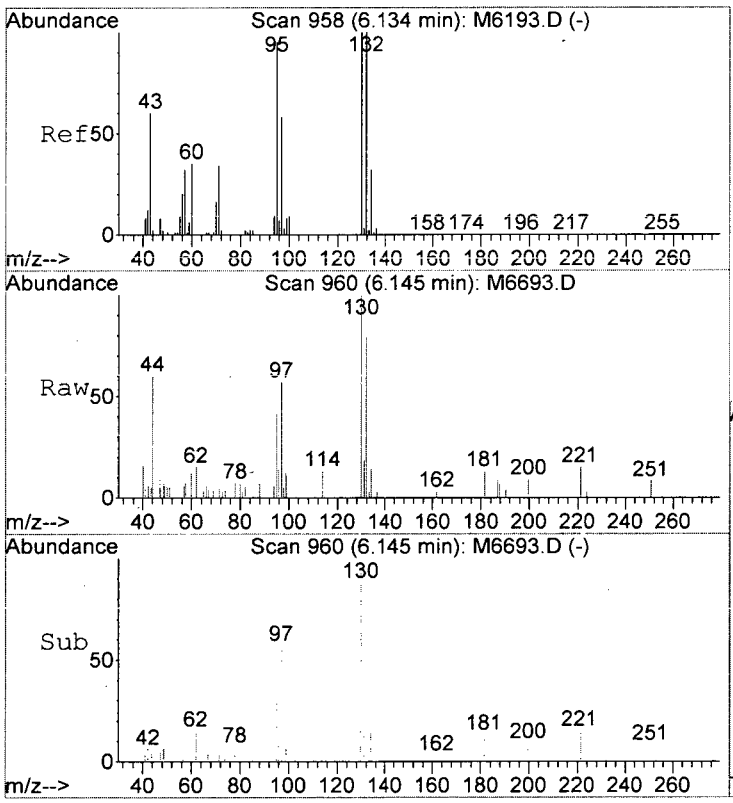


#45
Cyclohexane
Concen: 0.52 ug/L
RT: 4.85 min Scan# 722
Delta R.T. -0.02 min
Lab File: M6693.D
Acq: 28 Dec 2015 11:42 am

Tgt Ion: 56 Resp: 4375

Ion	Ratio	Lower	Upper
56	100		
84	53.5	67.3	107.3#
69	15.1	12.8	52.8

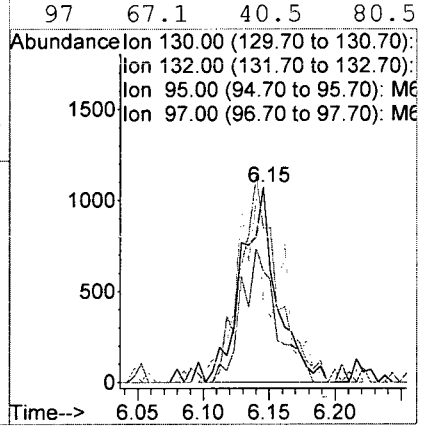


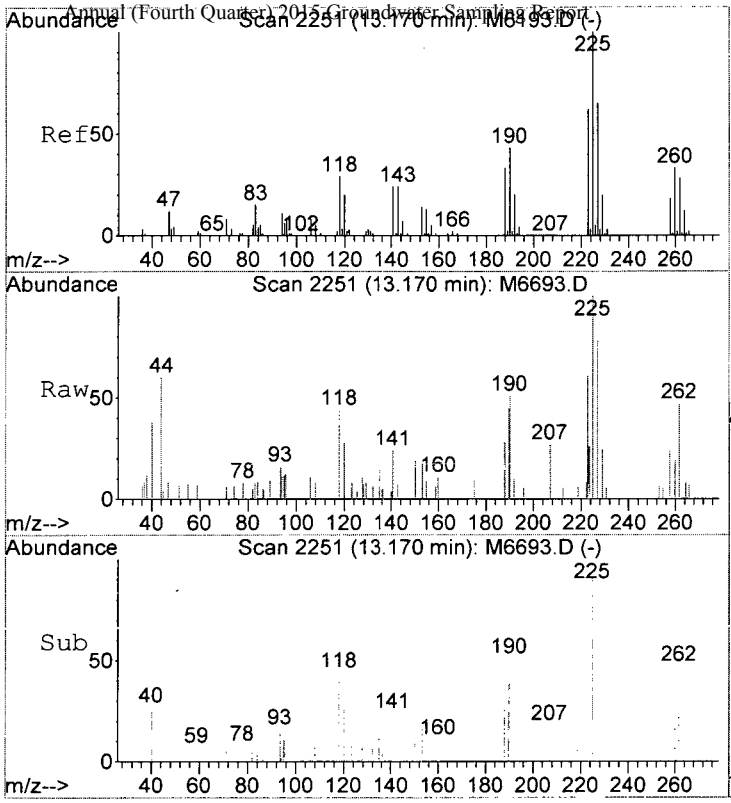


#51
Trichloroethene
Concen: 0.32 ug/L
RT: 6.15 min Scan# 960
Delta R.T. 0.01 min
Lab File: M6693.D
Acq: 28 Dec 2015 11:42 am

Tgt Ion:130 Resp: 2016

Ion	Ratio	Lower	Upper
130	100		
132	108.0	76.5	116.5
95	100.0	72.7	112.7
97	67.1	40.5	80.5

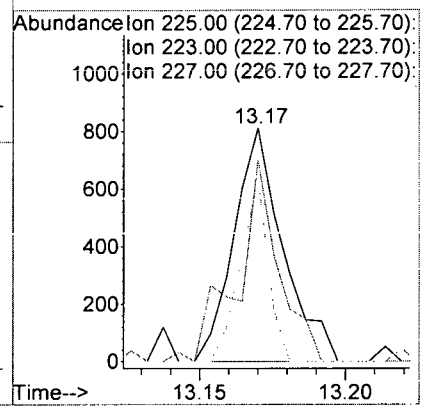


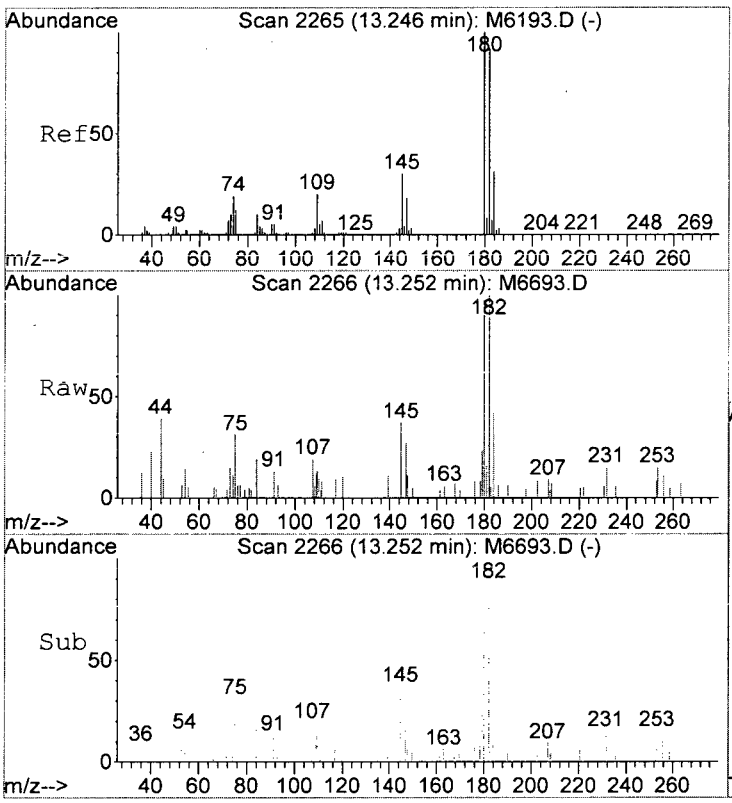


#103
Hexachlorobt
Concen: 0.27 ug/L
RT: 13.17 min Scan# 2251
Delta R.T. 0.00 min
Lab File: M6693.D
Acq: 28 Dec 2015 11:42 am

Tgt Ion:225 Resp: 947

Ion	Ratio	Lower	Upper
225	100		
223	48.3	42.5	82.5
227	44.9	45.1	85.1#

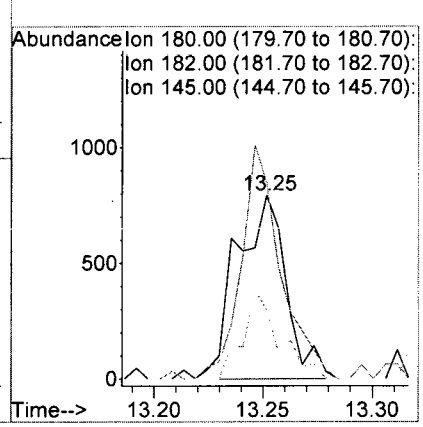




#104
1,2,3-Tclbenzene
Concen: 0.20 ug/L m
RT: 13.25 min Scan# 2266
Delta R.T. 0.01 min
Lab File: M6693.D
Acq: 28 Dec 2015 11:42 am

Tgt Ion:180 Resp: 1248

Ion	Ratio	Lower	Upper
180	100		
182	0.0	75.0	115.0#
145	0.0	8.8	48.8#



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1225
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-22-GW-CW1MW27-12.63	**Units:**	µg/L
Lab Code:	R1511019-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/28/15 12:12		477784	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/28/15 12:12		477784	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/28/15 12:12		477784	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/28/15 12:12		477784	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/28/15 12:12		477784	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/28/15 12:12		477784	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/28/15 12:12		477784	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/28/15 12:12		477784	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/28/15 12:12		477784	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/28/15 12:12		477784	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/28/15 12:12		477784	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/28/15 12:12		477784	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/28/15 12:12		477784	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/28/15 12:12		477784	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/28/15 12:12		477784	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/28/15 12:12		477784	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/28/15 12:12		477784	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/28/15 12:12		477784	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/28/15 12:12		477784	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/28/15 12:12		477784	
Acetone	**2.8**	J	10	5.0	1.3	1	NA	12/28/15 12:12		477784	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/28/15 12:12		477784	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/28/15 12:12		477784	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/28/15 12:12		477784	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/28/15 12:12		477784	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/28/15 12:12		477784	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/28/15 12:12		477784	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/28/15 12:12		477784	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/28/15 12:12		477784	

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1225
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-22-GW-CW1MW27-12.63	**Units:**	µg/L
Lab Code:	R1511019-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/28/15 12:12		477784	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/28/15 12:12		477784	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/28/15 12:12		477784	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/28/15 12:12		477784	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/28/15 12:12		477784	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/28/15 12:12		477784	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/28/15 12:12		477784	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/28/15 12:12		477784	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
Trichloroethene (TCE)	**0.34**	J	5.0	1.0	0.22	1	NA	12/28/15 12:12		477784	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/28/15 12:12		477784	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/28/15 12:12		477784	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/28/15 12:12		477784	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/28/15 12:12		477784	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/28/15 12:12		477784	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/28/15 12:12		477784	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/28/15 12:12		477784	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 12:12		477784	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	75-120	12/28/15 12:12	
Dibromofluoromethane	109	85-115	12/28/15 12:12	
Toluene-d8	106	85-120	12/28/15 12:12	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/28/15 1212

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-22-GW-CW1MW27-12.63	**Units:**	µg/L
Lab Code:	R1511019-012	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6694.D Vial: 10
Acq On : 28 Dec 2015 12:12 pm Operator: D.Lipani
Sample : R1511019-012|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 T4 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 14:28 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	652695	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.68	114	941505	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	920567	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.18	152	543343	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	322654	54.64	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 109.28%			
42) surr1,1,2-dichloroethane-d	4.24	65	245054	50.88	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 101.76%			
62) SURR3,Toluene-d8	7.76	98	1041476	53.10	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 106.20%			
82) SURR2,BFB	10.14	95	450233	54.64	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 109.28%			
Target Compounds						Qvalue
14) Acetone	1.73	43	2162	2.77	ug/L #	46
17) Iodomethane	1.96	142	971	1.24	ug/L	83
45) Cyclohexane	4.85	56	3625m	0.43	ug/L	
51) Trichloroethene	6.15	130	2101	0.34	ug/L	93

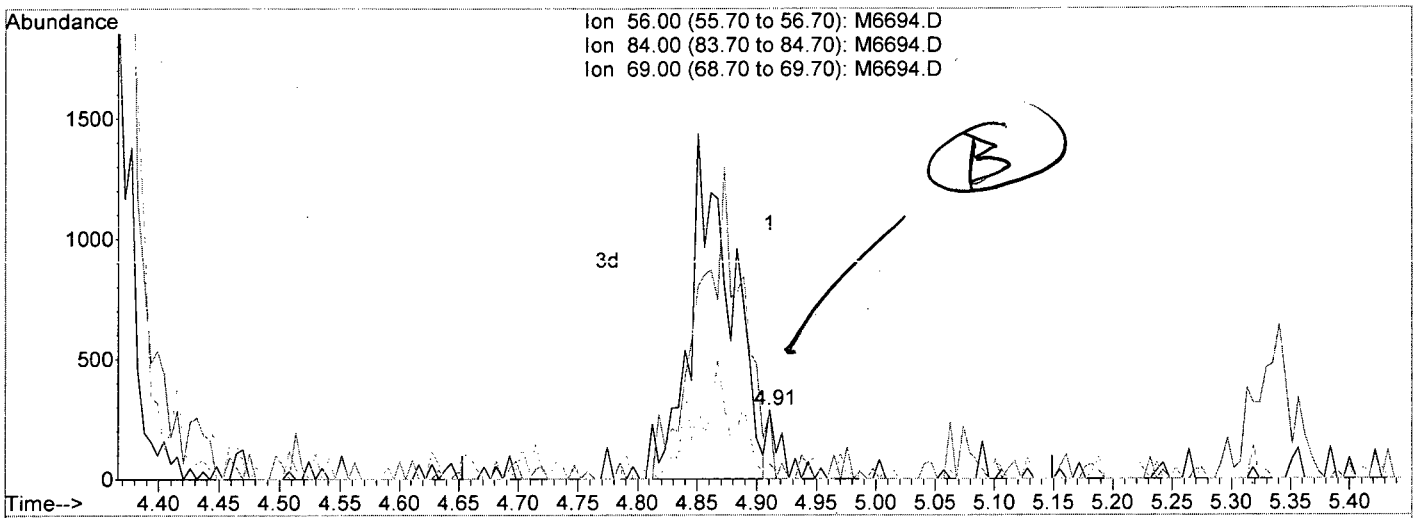
DL 1/4/16

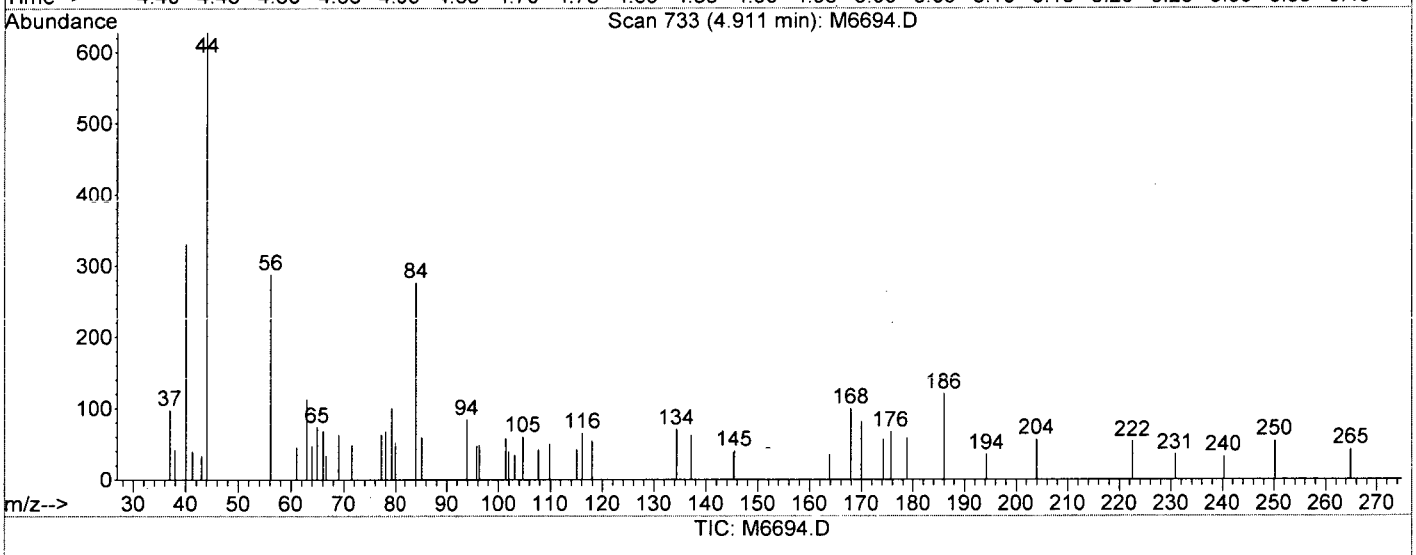
(#) = qualifier out of range (m) = manual integration
M6694.D W113015.M Thu Dec 31 14:43:04 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6694.D Vial: 10
Acq On : 28 Dec 2015 12:12 pm Operator: D.Lipani
Sample : R1511019-012|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 T4 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 14:26 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Multiple Level Calibration





TIC: M6694.D

(45) Cyclohexane (P)

4.91min 0.03ug/L

response 218

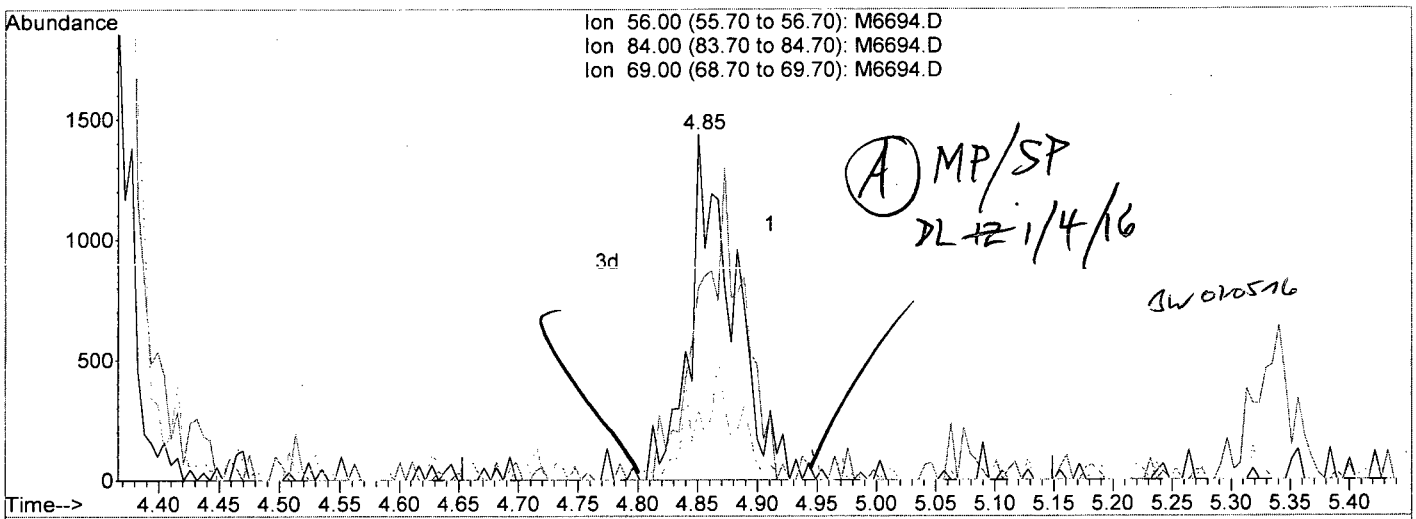
Ion	Exp%	Act%
56.00	100	100
84.00	87.30	96.17
69.00	32.80	21.60
0.00	0.00	0.00

M6694.D W113015.M Thu Dec 31 14:27:12 2015

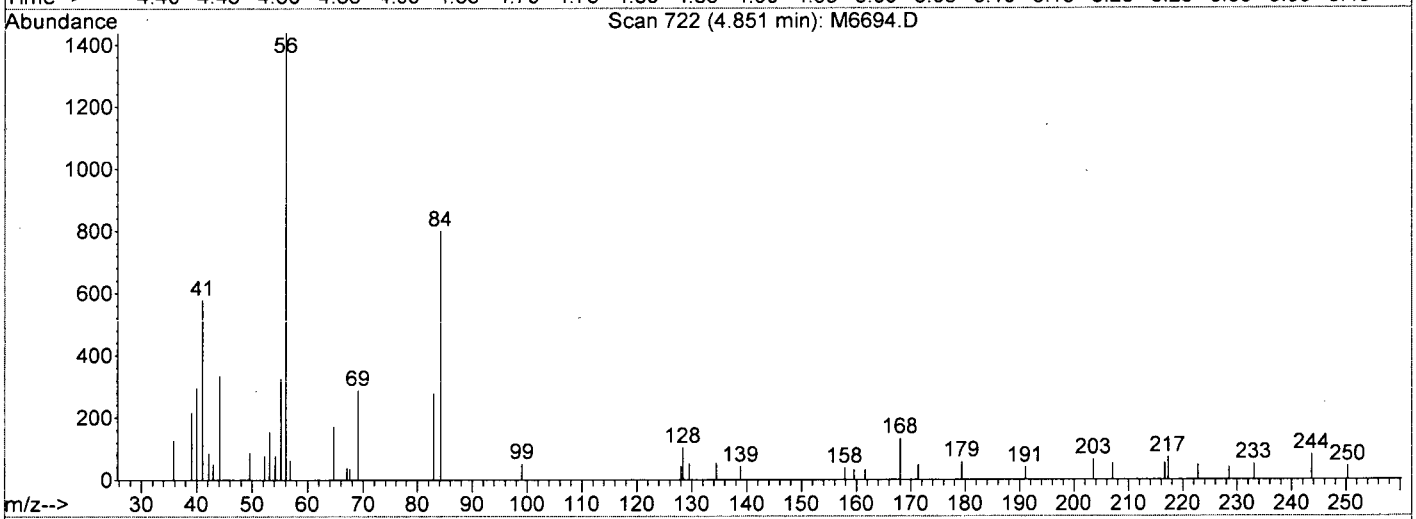
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6694.D Vial: 10
Acq On : 28 Dec 2015 12:12 pm Operator: D.Lipani
Sample : R1511019-012|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 T4 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 14:27 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Multiple Level Calibration



A MP/SP
DL 1/4/16
JW 010516



TIC: M6694.D

(45) Cyclohexane (P)

4.85min 0.43ug/L m

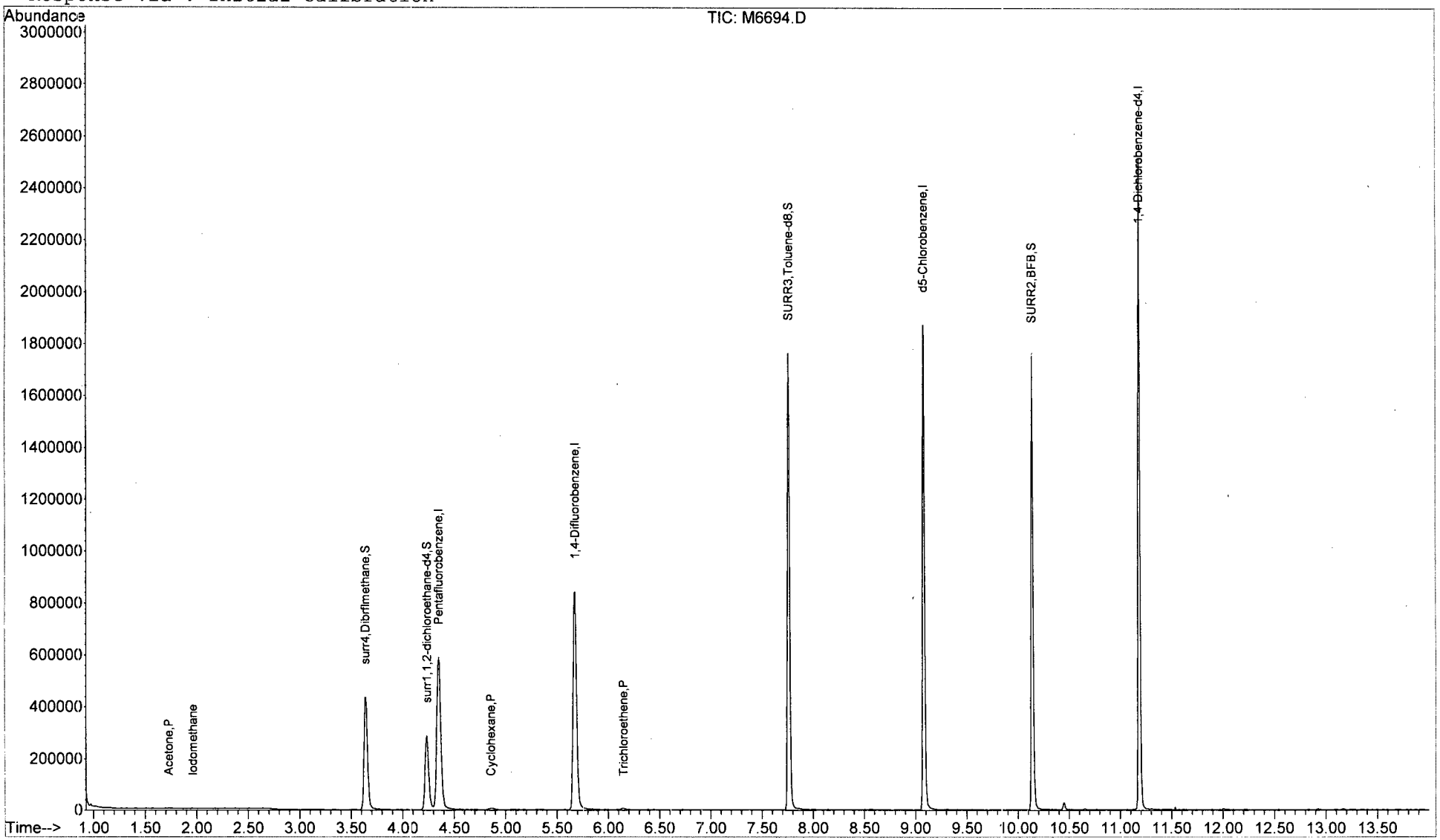
response 3625

Ion	Exp%	Act%
56.00	100	100
84.00	87.30	55.60#
69.00	32.80	19.97
0.00	0.00	0.00

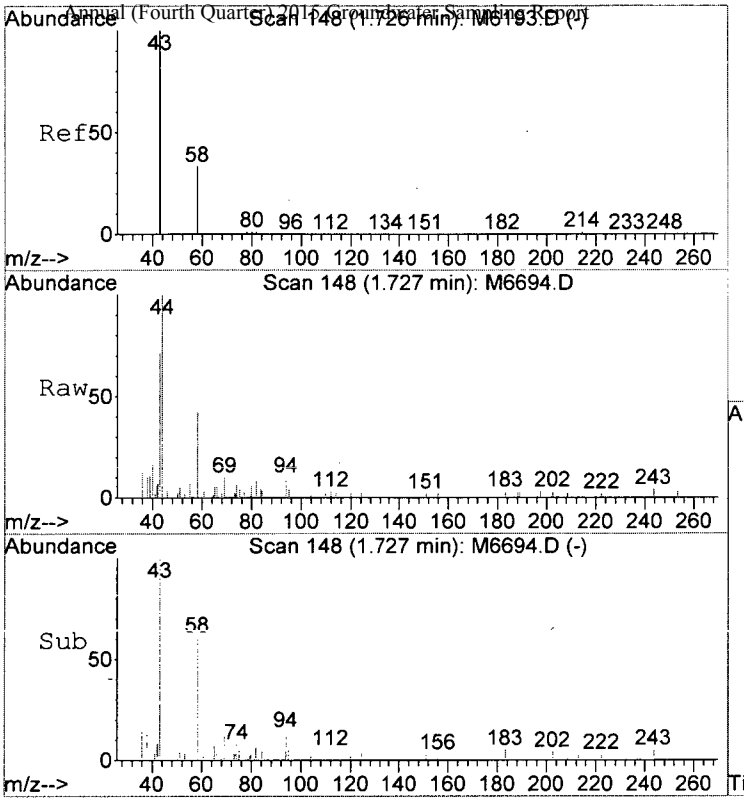
M6694.D W113015.M Thu Dec 31 14:27:21 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6694.D Vial: 10
Acq On : 28 Dec 2015 12:12 pm Operator: D.Lipani
Sample : R1511019-012|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 T4 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 14:28 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



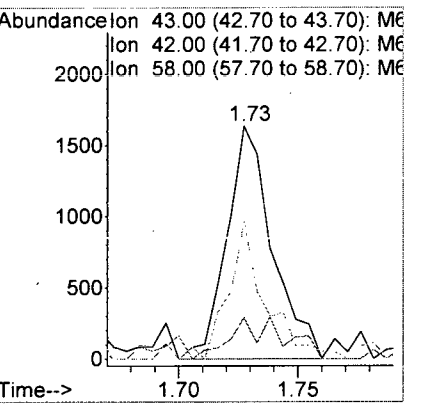
M6694.D W113015.M Thu Dec 31 14:43:06 2015 Page 2

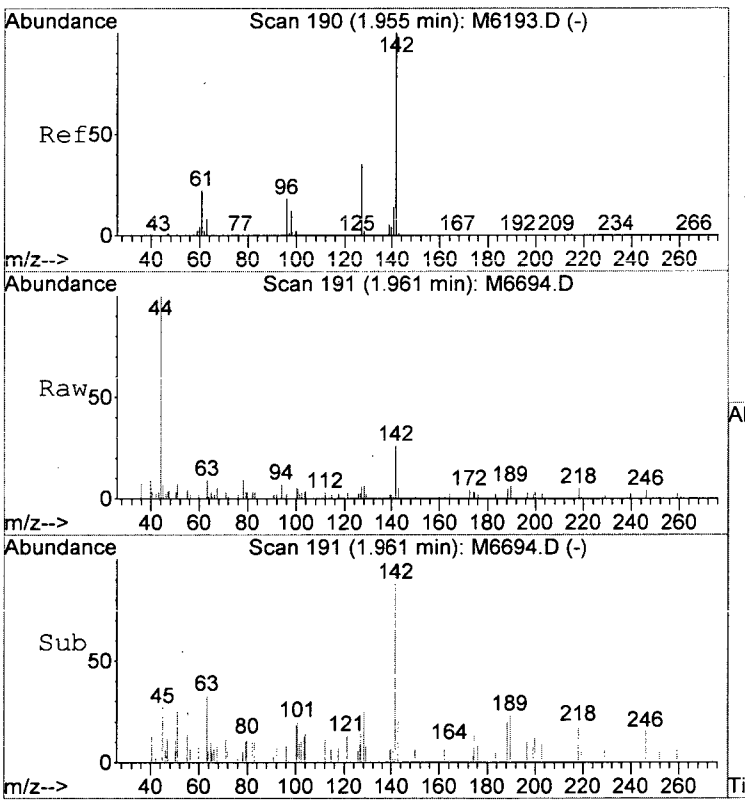


#14
Acetone
Concen: 2.77 ug/L
RT: 1.73 min Scan# 148
Delta R.T. 0.00 min
Lab File: M6694.D
Acq: 28 Dec 2015 12:12 pm

Tgt Ion: 43 Resp: 2162

Ion	Ratio	Lower	Upper
43	100		
42	17.7	0.0	29.0
58	59.1	6.3	46.3#

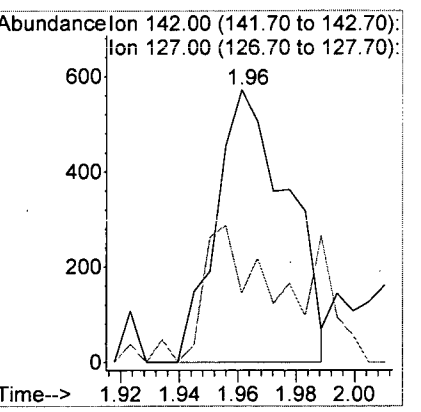


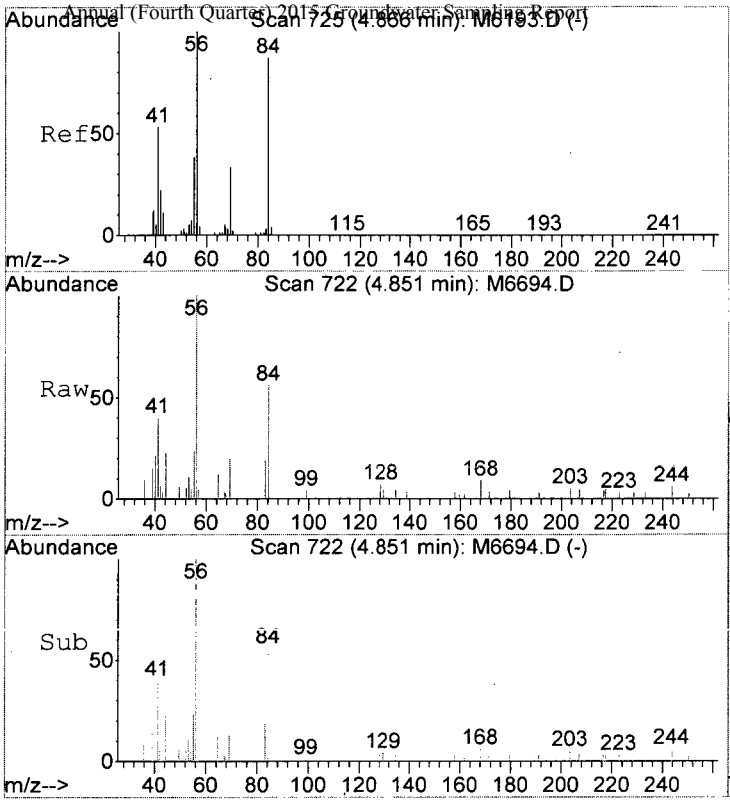


#17
Iodomethane
Concen: 1.24 ug/L
RT: 1.96 min Scan# 191
Delta R.T. 0.01 min
Lab File: M6694.D
Acq: 28 Dec 2015 12:12 pm

Tgt Ion:142 Resp: 971

Ion	Ratio	Lower	Upper
142	100		
127	25.2	15.3	55.3

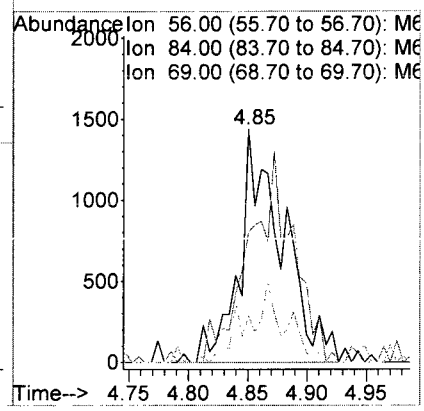


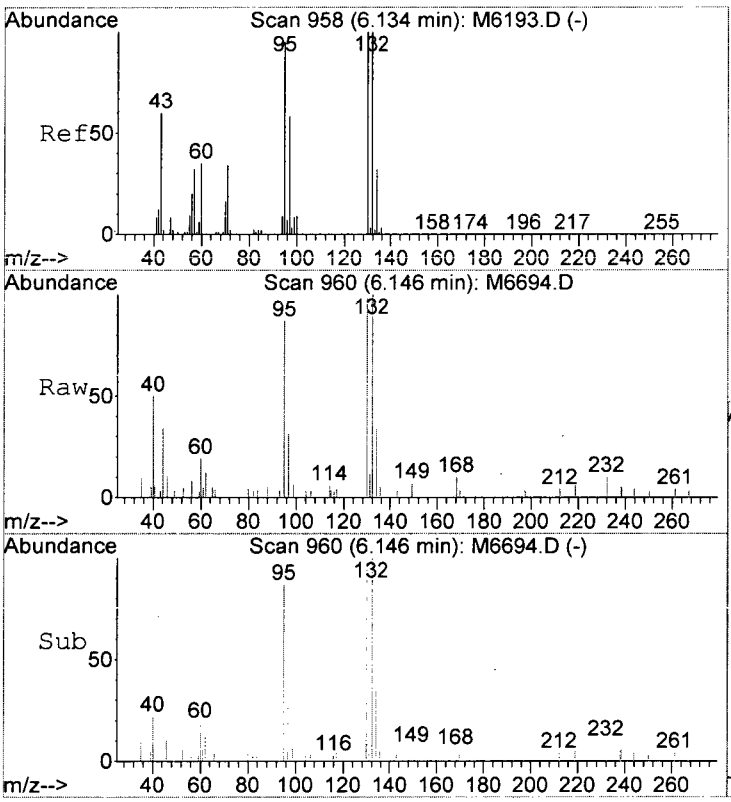


#45
Cyclohexane
Concen: 0.43 ug/L m
RT: 4.85 min Scan# 722
Delta R.T. -0.02 min
Lab File: M6694.D
Acq: 28 Dec 2015 12:12 pm

Tgt Ion: 56 Resp: 3625

Ion	Ratio	Lower	Upper
56	100		
84	55.6	67.3	107.3#
69	20.0	12.8	52.8

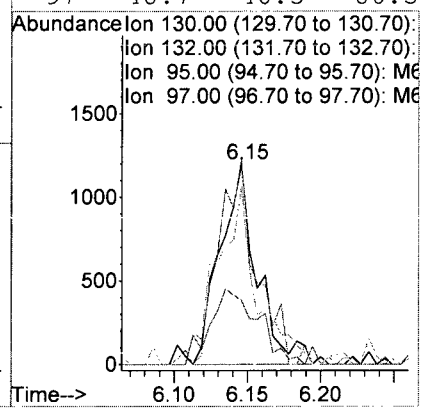




#51
Trichloroethene
Concen: 0.34 ug/L
RT: 6.15 min Scan# 960
Delta R.T. 0.01 min
Lab File: M6694.D
Acq: 28 Dec 2015 12:12 pm

Tgt Ion:130 Resp: 2101

Ion	Ratio	Lower	Upper
130	100		
132	104.2	76.5	116.5
95	94.1	72.7	112.7
97	48.7	40.5	80.5



Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15 1230
Date Received: 12/16/15

Sample Name: FTMM-22-GW-CW1MW31-16.40
Lab Code: R1511019-013

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 17:23		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 17:23		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 17:23		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 17:23		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 17:23		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 17:23		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 17:23		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 17:23		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 17:23		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 17:23		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 17:23		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 17:23		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 17:23		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 17:23		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 17:23		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 17:23		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 17:23		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 17:23		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 17:23		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 17:23		477737	
Acetone	**3.9**	J	10	5.0	1.3	1	NA	12/26/15 17:23		477737	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 17:23		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 17:23		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 17:23		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 17:23		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 17:23		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 17:23		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 17:23		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 17:23		477737	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15 1230
Date Received: 12/16/15

Sample Name: FTMM-22-GW-CW1MW31-16.40
Lab Code: R1511019-013

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 17:23		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 17:23		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 17:23		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 17:23		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 17:23		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 17:23		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 17:23		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 17:23		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
Trichloroethene (TCE)	**1.1**	J	5.0	1.0	0.22	1	NA	12/26/15 17:23		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 17:23		477737	
cis-1,2-Dichloroethene	**0.31**	J	5.0	1.0	0.30	1	NA	12/26/15 17:23		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 17:23		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 17:23		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 17:23		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 17:23		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 17:23		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:23		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	75-120	12/26/15 17:23	
Dibromofluoromethane	107	85-115	12/26/15 17:23	
Toluene-d8	106	85-120	12/26/15 17:23	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/26/15 1723

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-22-GW-CW1MW31-16.40	**Units:**	µg/L
Lab Code:	R1511019-013	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q
	No Tentatively Identified Compounds Detected.			

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6680.D Vial: 18
Acq On : 26 Dec 2015 5:23 pm Operator: D.Lipani
Sample : R1511019-013|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 9:20 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

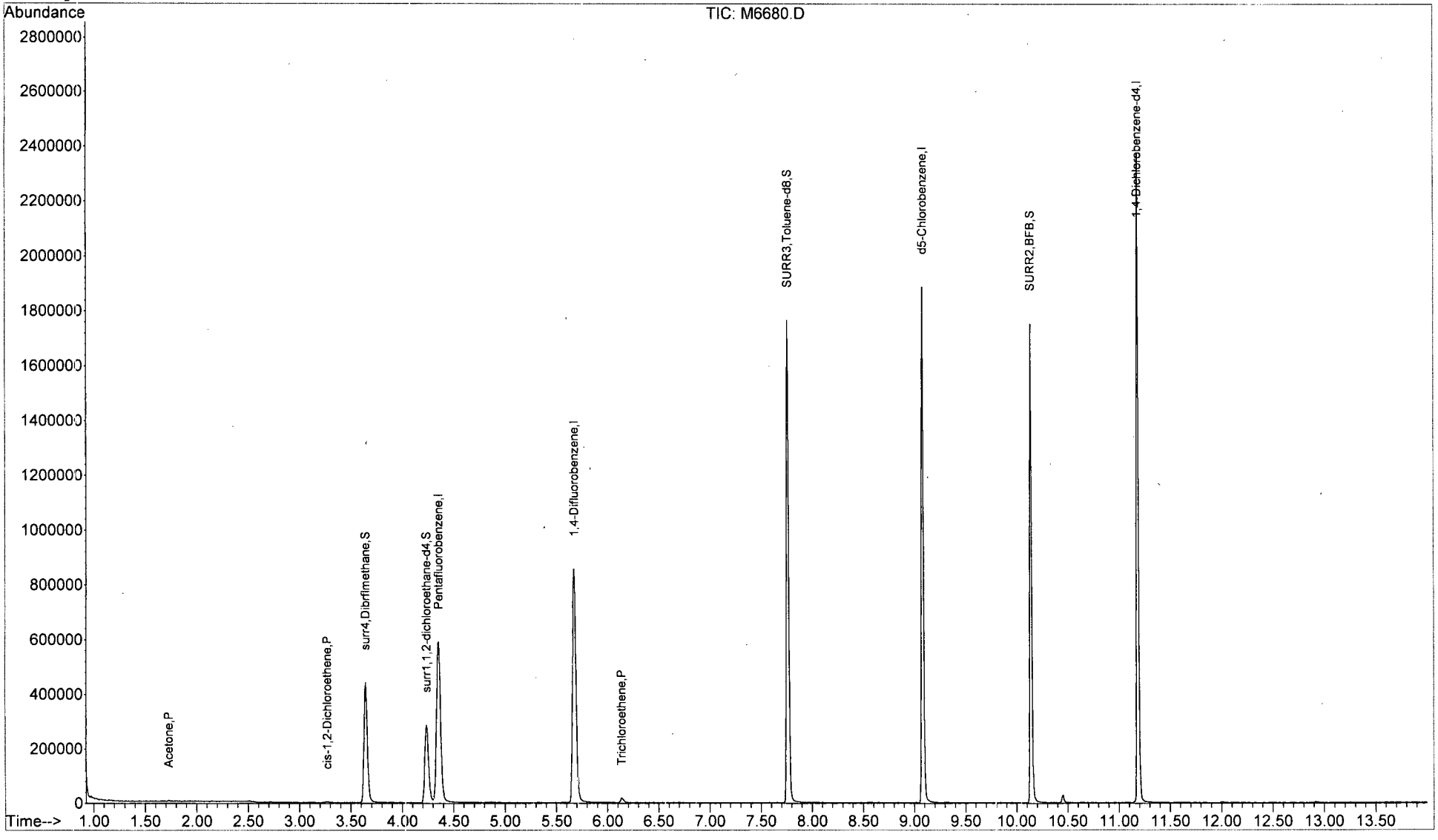
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.36	168	641327	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.68	114	945001	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	891199	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.18	152	533425	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	315973	53.31	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 106.62%			
42) surr1,1,2-dichloroethane-d	4.24	65	256539	53.06	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 106.12%			
62) SURR3,Toluene-d8	7.76	98	1046298	53.15	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 106.30%			
82) SURR2,BFB	10.14	95	428608	53.73	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 107.46%			
Target Compounds						Qvalue
14) Acetone	1.73	43	2987	3.89	ug/L	86
33) cis-1,2-Dichloroethene	3.27	96	1754	0.31	ug/L	89
51) Trichloroethene	6.13	130	6686	1.06	ug/L	97

DL
12/31/15

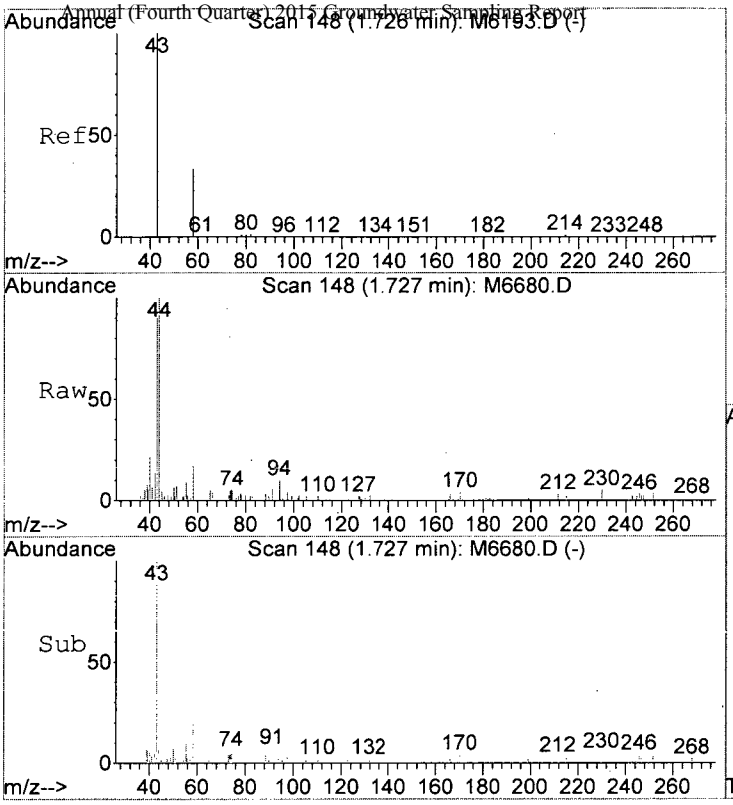
(#) = qualifier out of range (m) = manual integration
M6680.D W113015.M Thu Dec 31 09:20:55 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6680.D Vial: 18
Acq On : 26 Dec 2015 5:23 pm Operator: D.Lipani
Sample : R1511019-013|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 9:20 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



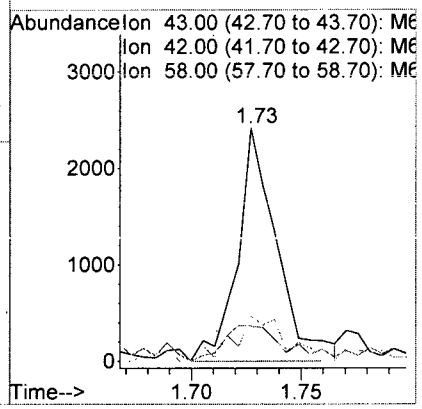
M6680.D W113015.M Thu Dec 31 09:20:58 2015

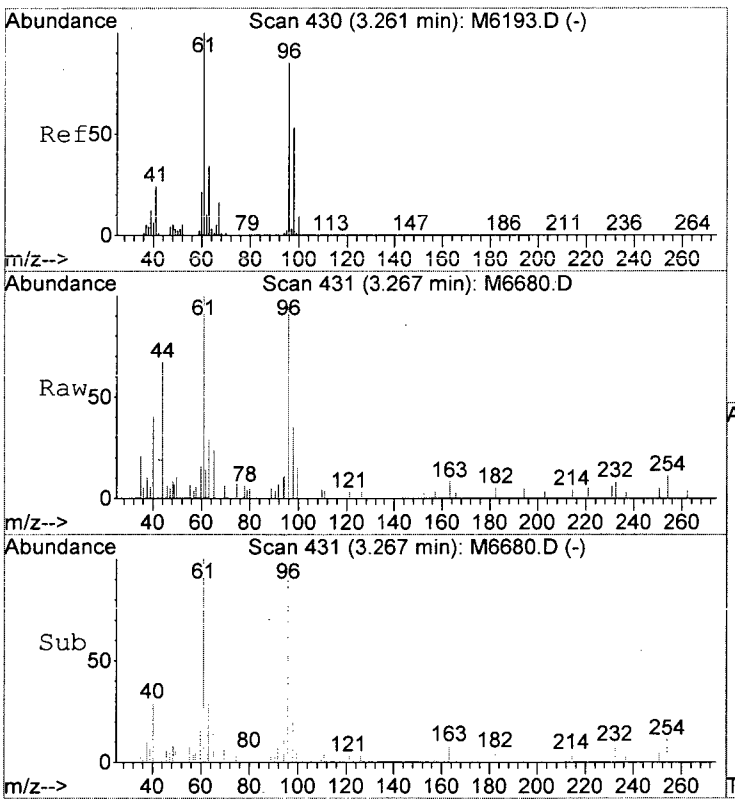


#14
Acetone
Concen: 3.89 ug/L
RT: 1.73 min Scan# 148
Delta R.T. 0.00 min
Lab File: M6680.D
Acq: 26 Dec 2015 5:23 pm

Tgt Ion: 43 Resp: 2987

Ion	Ratio	Lower	Upper
43	100		
42	15.0	0.0	29.0
58	19.3	6.3	46.3

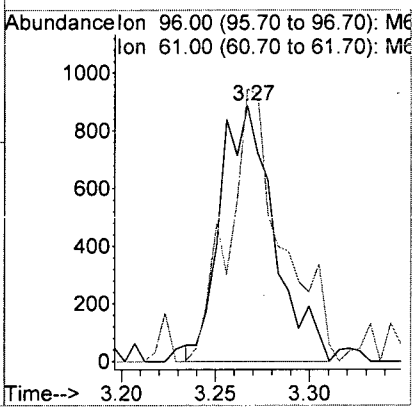


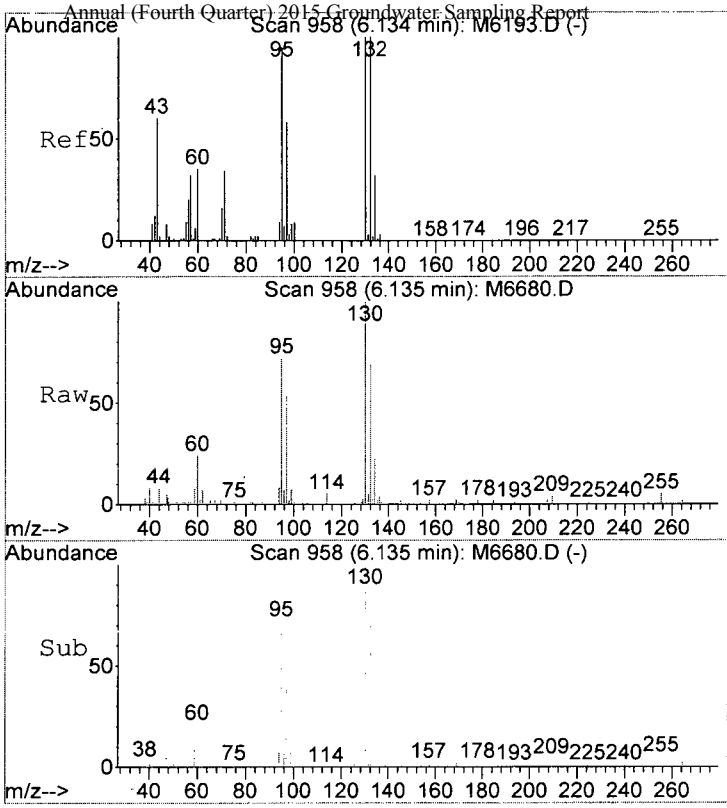


#33
cis-1,2-Dichloroethene
Concen: 0.31 ug/L
RT: 3.27 min Scan# 431
Delta R.T. 0.01 min
Lab File: M6680.D
Acq: 26 Dec 2015 5:23 pm

Tgt Ion: 96 Resp: 1754

Ion	Ratio	Lower	Upper
96	100		
61	106.4	98.2	138.2

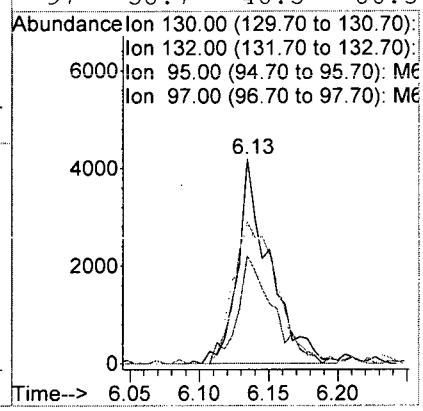




#51
Trichloroethene
Concen: 1.06 ug/L
RT: 6.13 min Scan# 958
Delta R.T. 0.00 min
Lab File: M6680.D
Acq: 26 Dec 2015 5:23 pm

Tgt Ion:130 Resp: 6686

Ion	Ratio	Lower	Upper
130	100		
132	91.1	76.5	116.5
95	93.9	72.7	112.7
97	58.7	40.5	80.5



M6680.D W113015.M Thu Dec 31 09:21:02 2015 Page 4

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15 1120
Date Received: 12/16/15

Sample Name: FTMM-22-GW-CW1MW29-10.85
Lab Code: R1511019-014

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 17:55		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 17:55		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 17:55		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 17:55		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 17:55		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 17:55		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 17:55		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 17:55		477737	
1,2,4-Trichlorobenzene	**0.24**	J	5.0	1.0	0.23	1	NA	12/26/15 17:55		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 17:55		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 17:55		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 17:55		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 17:55		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 17:55		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 17:55		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 17:55		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 17:55		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 17:55		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 17:55		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 17:55		477737	
Acetone	**6.0**	J	10	5.0	1.3	1	NA	12/26/15 17:55		477737	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 17:55		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 17:55		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 17:55		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 17:55		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 17:55		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 17:55		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 17:55		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 17:55		477737	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1120
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-22-GW-CW1MW29-10.85	**Units:**	µg/L
Lab Code:	R1511019-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 17:55		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 17:55		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 17:55		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 17:55		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 17:55		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 17:55		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 17:55		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 17:55		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
Trichloroethene (TCE)	**0.71**	J	5.0	1.0	0.22	1	NA	12/26/15 17:55		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 17:55		477737	
cis-1,2-Dichloroethene	**0.66**	J	5.0	1.0	0.30	1	NA	12/26/15 17:55		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 17:55		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 17:55		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 17:55		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 17:55		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 17:55		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 17:55		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	12/26/15 17:55	
Dibromofluoromethane	108	85-115	12/26/15 17:55	
Toluene-d8	107	85-120	12/26/15 17:55	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/26/15 1755

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-22-GW-CW1MW29-10.85	**Units:**	µg/L
Lab Code:	R1511019-014	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6681.D Vial: 19
Acq On : 26 Dec 2015 5:55 pm Operator: D.Lipani
Sample : R1511019-014|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 9:24 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	642758	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.68	114	932731	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	900386	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.18	152	525257	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	315597	53.94	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 107.88%			
42) surr1,1,2-dichloroethane-d	4.24	65	255057	53.45	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 106.90%			
62) SURR3,Toluene-d8	7.76	98	1037321	53.39	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 106.78%			
82) SURR2,BFB	10.14	95	443057	54.97	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 109.94%			
Target Compounds						Qvalue
14) Acetone	1.73	43	4604m	5.98	ug/L	
33) cis-1,2-Dichloroethene	3.26	96	3713	0.66	ug/L	82
45) Cyclohexane	4.87	56	3824	0.46	ug/L	95
51) Trichloroethene	6.15	130	4434	0.71	ug/L	89
101) 1,2,4-Tcbenzene	12.91	180	1764	0.24	ug/L	92

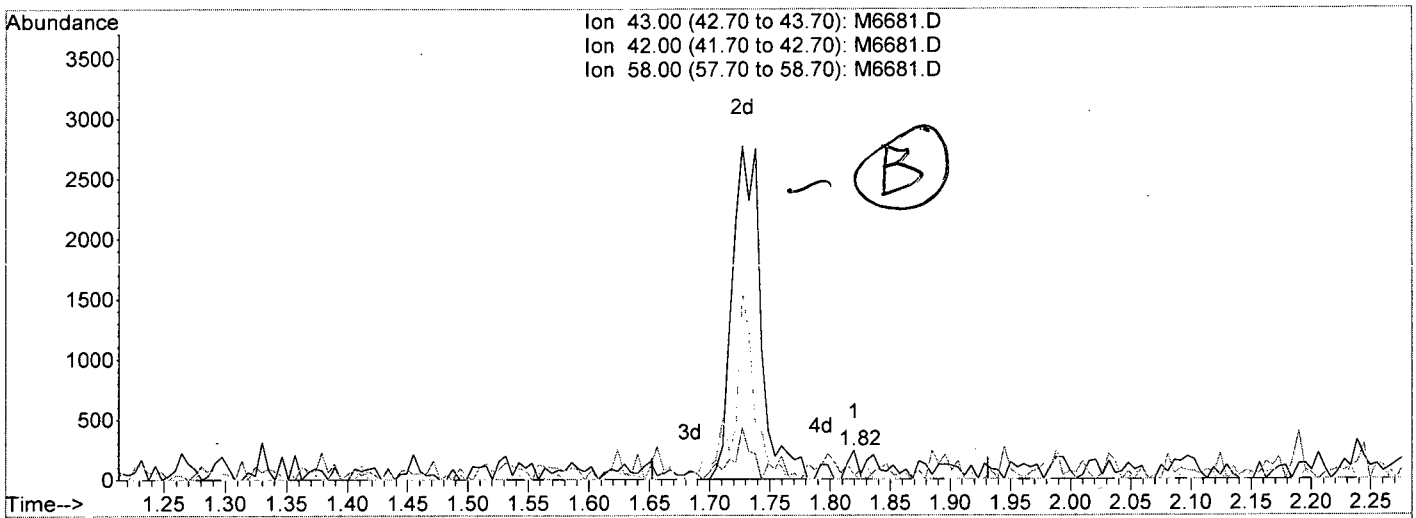
DL 12/31/15

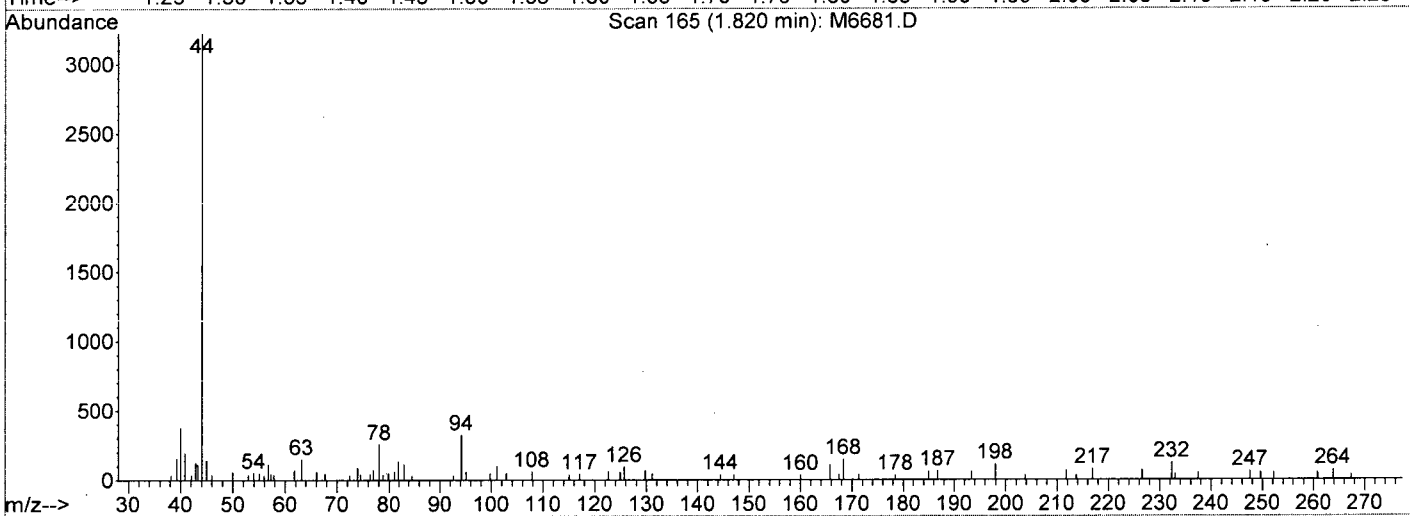
(#) = qualifier out of range (m) = manual integration
M6681.D W113015.M Thu Dec 31 09:25:04 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6681.D Vial: 19
Acq On : 26 Dec 2015 5:55 pm Operator: D.Lipani
Sample : R1511019-014|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 9:21 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Single Level Calibration





TIC: M6681.D

(14) Acetone (P)

1.82min 0.17ug/L

response 133

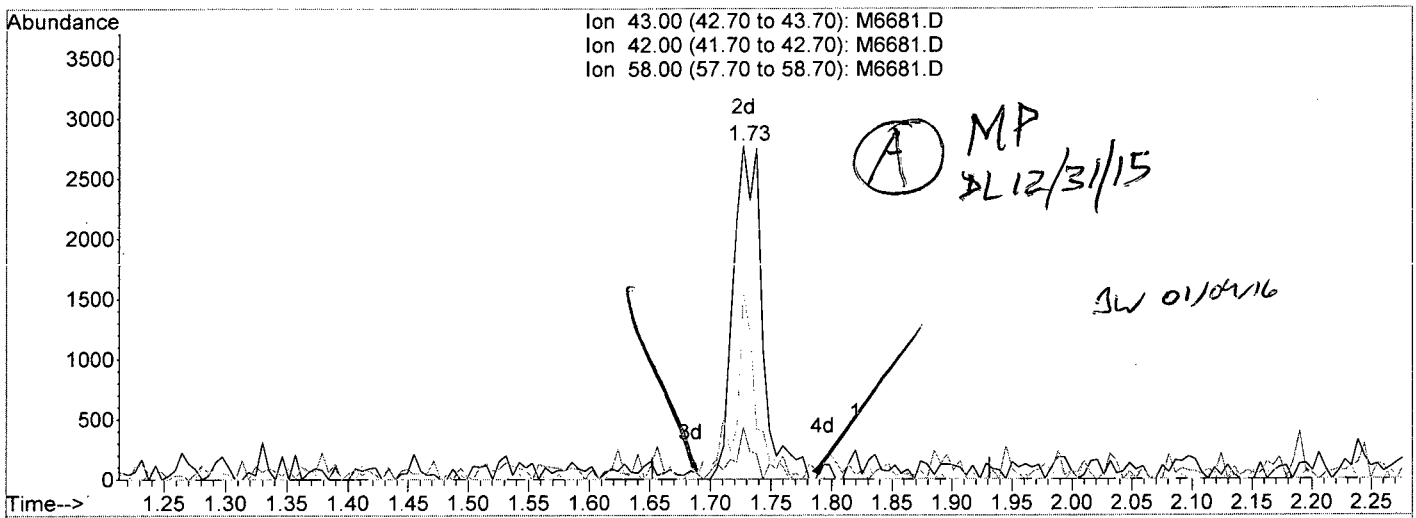
Ion	Exp%	Act%
43.00	100	100
42.00	9.00	13.87
58.00	26.30	15.55
0.00	0.00	0.00

M6681.D W113015.M Thu Dec 31 09:21:56 2015

Quantitation Report (Qedit)

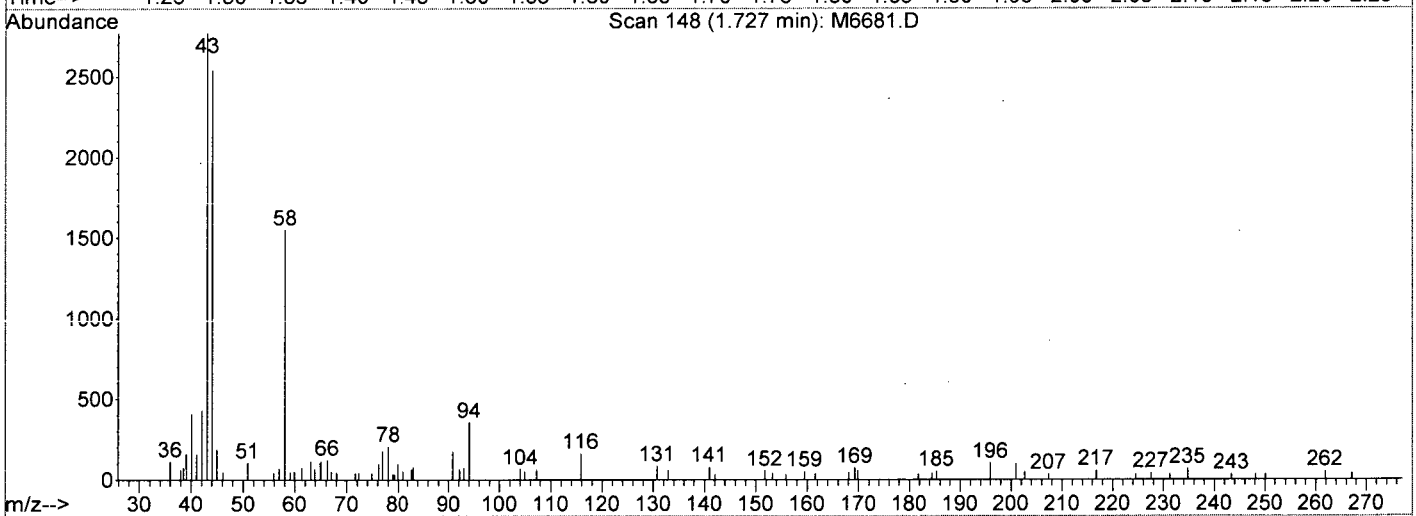
Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6681.D Vial: 19
Acq On : 26 Dec 2015 5:55 pm Operator: D.Lipani
Sample : R1511019-014|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 9:21 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Single Level Calibration



A MP DL 12/31/15

JW 01/04/16



TIC: M6681.D

(14) Acetone (P)

1.73min 5.98ug/L m

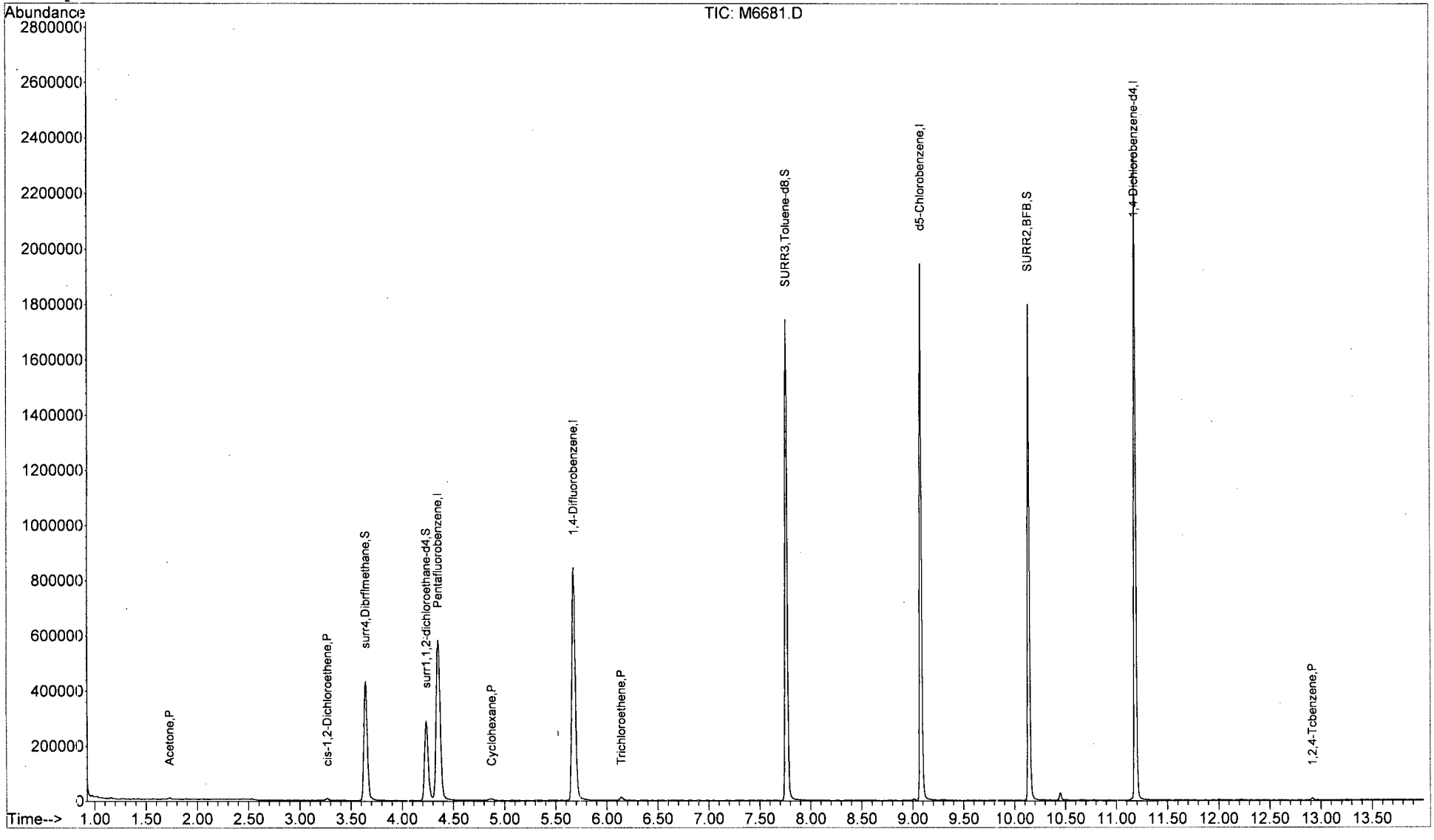
response 4604

Ion	Exp%	Act%
43.00	100	100
42.00	9.00	15.45
58.00	26.30	55.88#
0.00	0.00	0.00

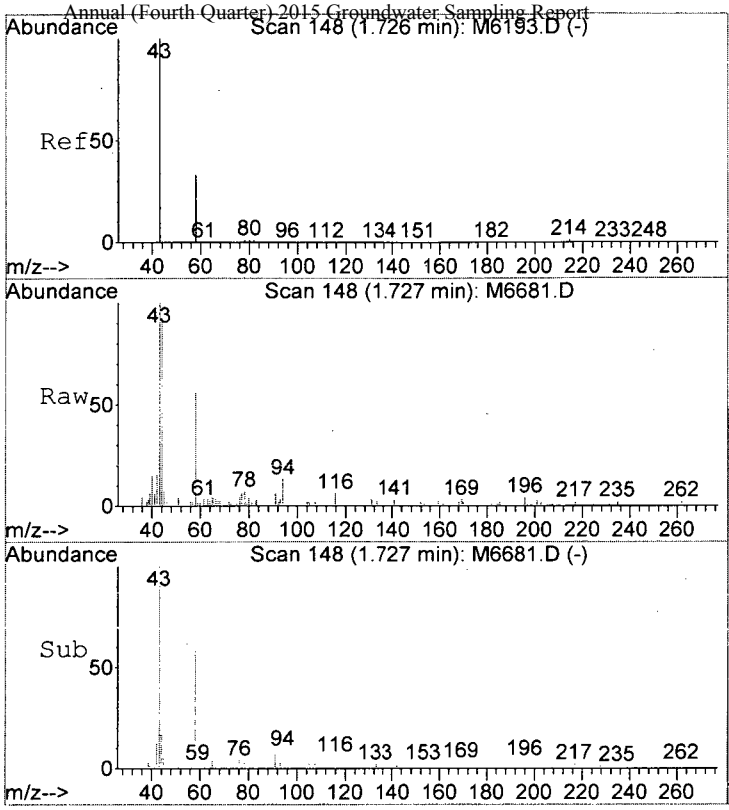
M6681.D W113015.M Thu Dec 31 09:22:44 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6681.D Vial: 19
Acq On : 26 Dec 2015 5:55 pm Operator: D.Lipani
Sample : R1511019-014|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 9:24 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



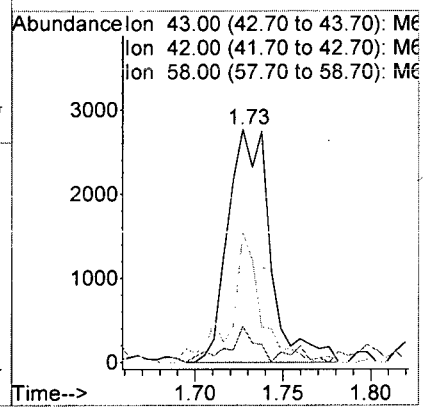
M6681.D W113015.M Thu Dec 31 09:25:07 2015

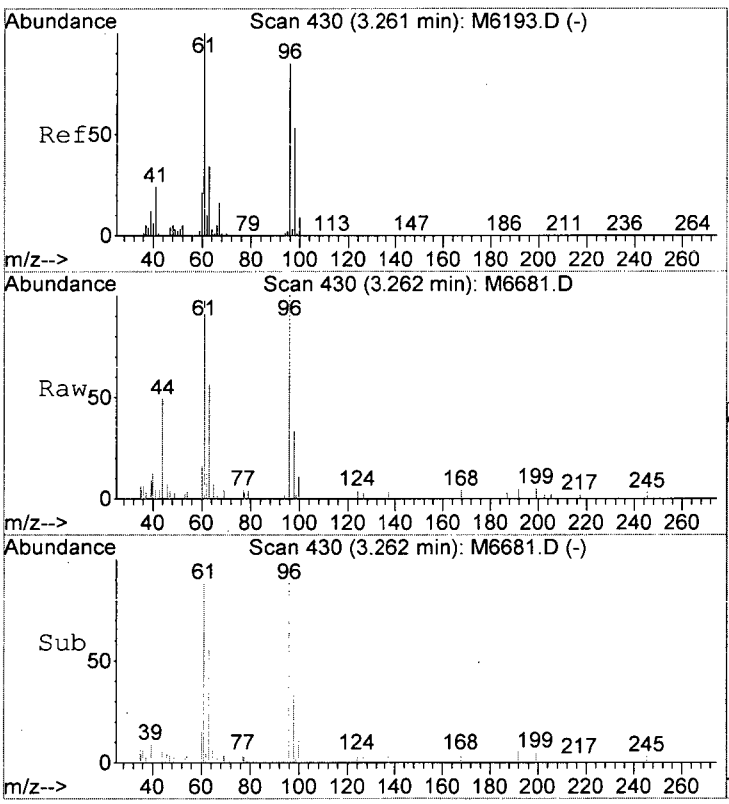


#14
Acetone
Concen: 5.98 ug/L m
RT: 1.73 min Scan# 148
Delta R.T. 0.00 min
Lab File: M6681.D
Acq: 26 Dec 2015 5:55 pm

Tgt Ion: 43 Resp: 4604

Ion	Ratio	Lower	Upper
43	100		
42	15.5	0.0	29.0
58	55.9	6.3	46.3#

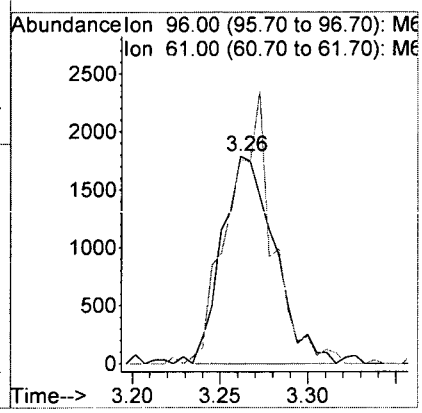


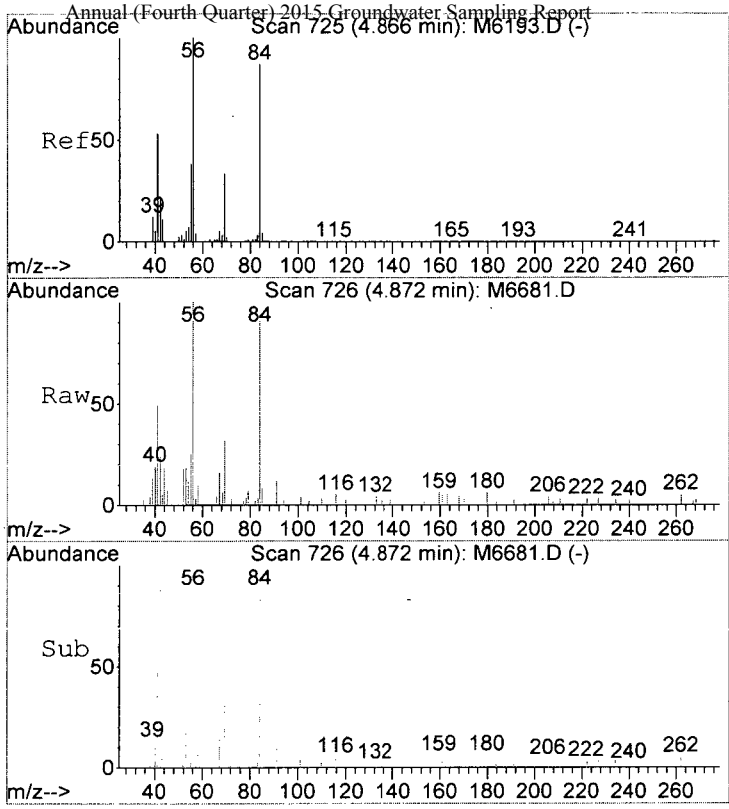


#33
cis-1,2-Dichloroethene
Concen: 0.66 ug/L
RT: 3.26 min Scan# 430
Delta R.T. 0.00 min
Lab File: M6681.D
Acq: 26 Dec 2015 5:55 pm

Tgt Ion: 96 Resp: 3713

Ion	Ratio	Lower	Upper
96	100		
61	98.3	98.2	138.2

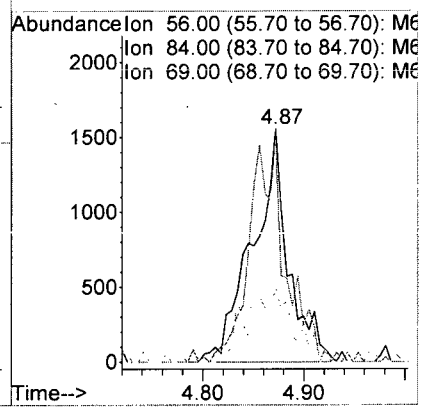


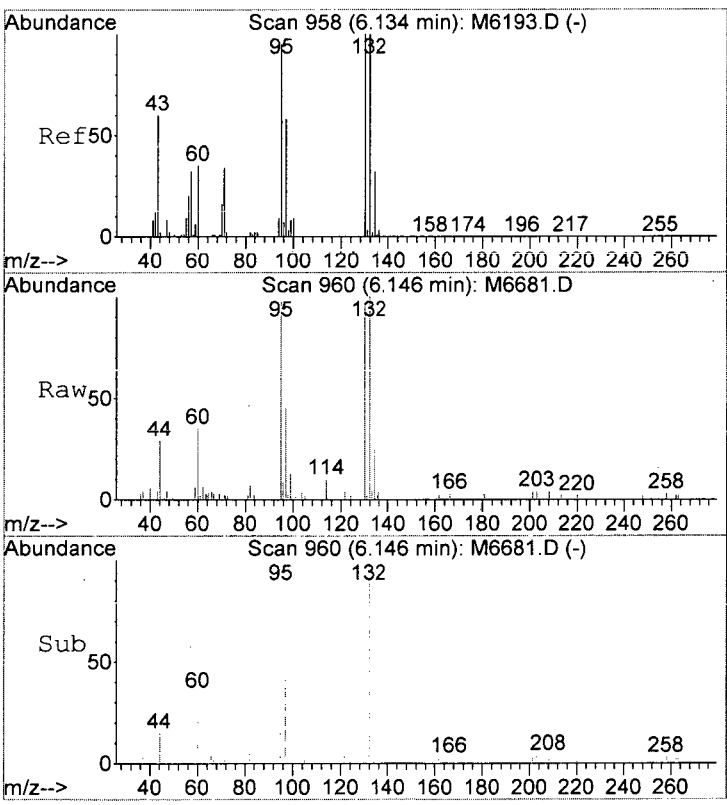


#45
Cyclohexane
Concen: 0.46 ug/L
RT: 4.87 min Scan# 726
Delta R.T. 0.01 min
Lab File: M6681.D
Acq: 26 Dec 2015 5:55 pm

Tgt Ion: 56 Resp: 3824

Ion	Ratio	Lower	Upper
56	100		
84	93.5	67.3	107.3
69	31.8	12.8	52.8

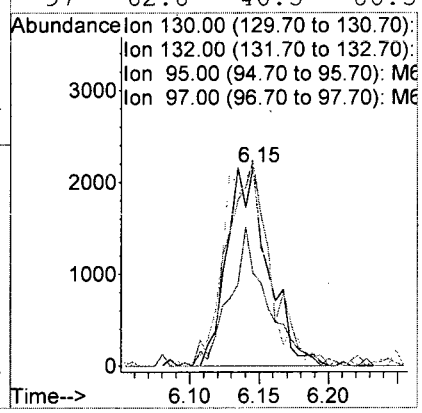


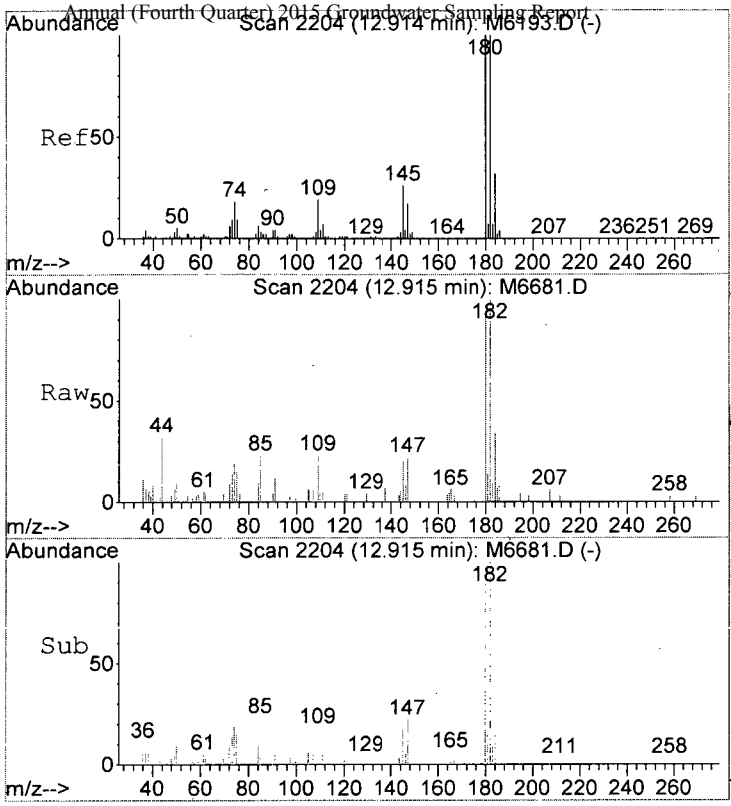


#51
Trichloroethene
Concen: 0.71 ug/L
RT: 6.15 min Scan# 960
Delta R.T. 0.01 min
Lab File: M6681.D
Acq: 26 Dec 2015 5:55 pm

Tgt Ion:130 Resp: 4434

Ion	Ratio	Lower	Upper
130	100		
132	107.6	76.5	116.5
95	108.1	72.7	112.7
97	62.8	40.5	80.5

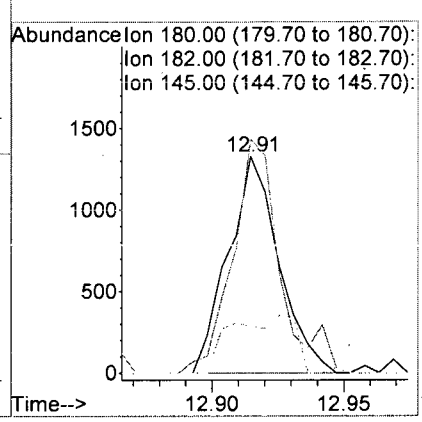




#101
1,2,4-Tcbenzene
Concen: 0.24 ug/L
RT: 12.91 min Scan# 2204
Delta R.T. 0.00 min
Lab File: M6681.D
Acq: 26 Dec 2015 5:55 pm

Tgt Ion:180 Resp: 1764

Ion	Ratio	Lower	Upper
180	100		
182	95.2	77.0	117.0
145	10.9	7.1	47.1



Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15 1235
Date Received: 12/16/15

Sample Name: FTMM-22-GW-CW1MW37-11.78
Lab Code: R1511019-015

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 18:27		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 18:27		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 18:27		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 18:27		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 18:27		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 18:27		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 18:27		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 18:27		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 18:27		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 18:27		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 18:27		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 18:27		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 18:27		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 18:27		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 18:27		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 18:27		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 18:27		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 18:27		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 18:27		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 18:27		477737	
Acetone	**4.8**	J	10	5.0	1.3	1	NA	12/26/15 18:27		477737	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 18:27		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 18:27		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 18:27		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 18:27		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 18:27		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 18:27		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 18:27		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 18:27		477737	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1235
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-22-GW-CW1MW37-11.78	**Units:**	µg/L
Lab Code:	R1511019-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 18:27		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 18:27		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 18:27		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 18:27		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 18:27		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 18:27		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 18:27		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 18:27		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/26/15 18:27		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 18:27		477737	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/26/15 18:27		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 18:27		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 18:27		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 18:27		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 18:27		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 18:27		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 18:27		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	108	75-120	12/26/15 18:27	
Dibromofluoromethane	109	85-115	12/26/15 18:27	
Toluene-d8	109	85-120	12/26/15 18:27	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15
Sample Matrix:	Water	**Date Received:**	12/16/15
		Date Analyzed:	12/26/15 1827

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	FTMM-22-GW-CW1MW37-11.78	**Units:**	µg/L
Lab Code:	R1511019-015	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6682.D Vial: 20
Acq On : 26 Dec 2015 6:27 pm Operator: D.Lipani
Sample : R1511019-015|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 9:29 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

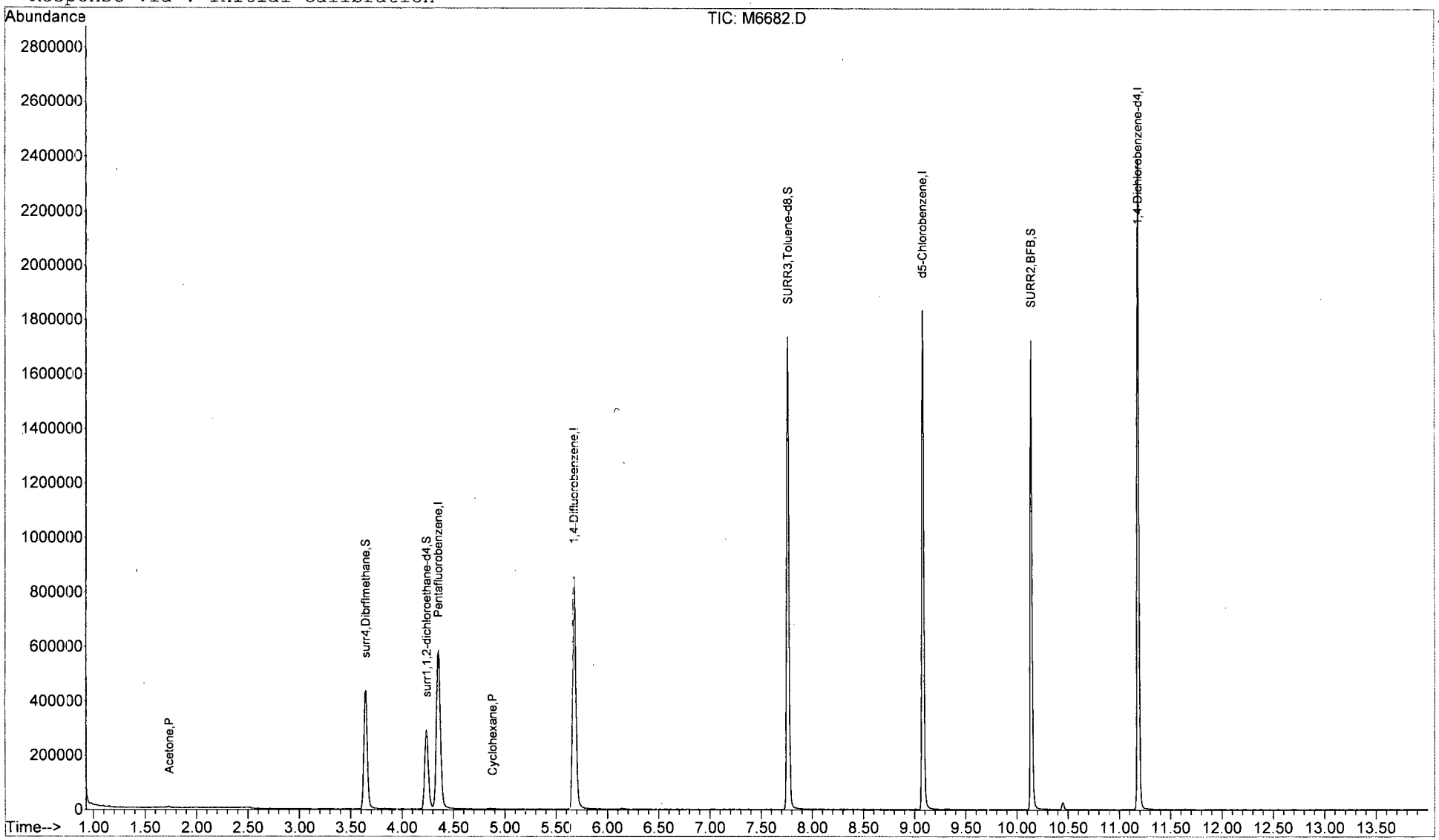
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	634611	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.67	114	927201	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	889428	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	530547	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	316232	54.37	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.74%			
42) surr1,1,2-dichloroethane-d	4.24	65	255226	53.81	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 107.62%			
62) SURR3,Toluene-d8	7.76	98	1053020	54.52	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 109.04%			
82) SURR2,BFB	10.14	95	429723	53.97	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 107.94%			
Target Compounds						Qvalue
14) Acetone	1.73	43	3615	4.76	ug/L	97
45) Cyclohexane	4.87	56	1979	0.24	ug/L #	63

DL
12/31/15

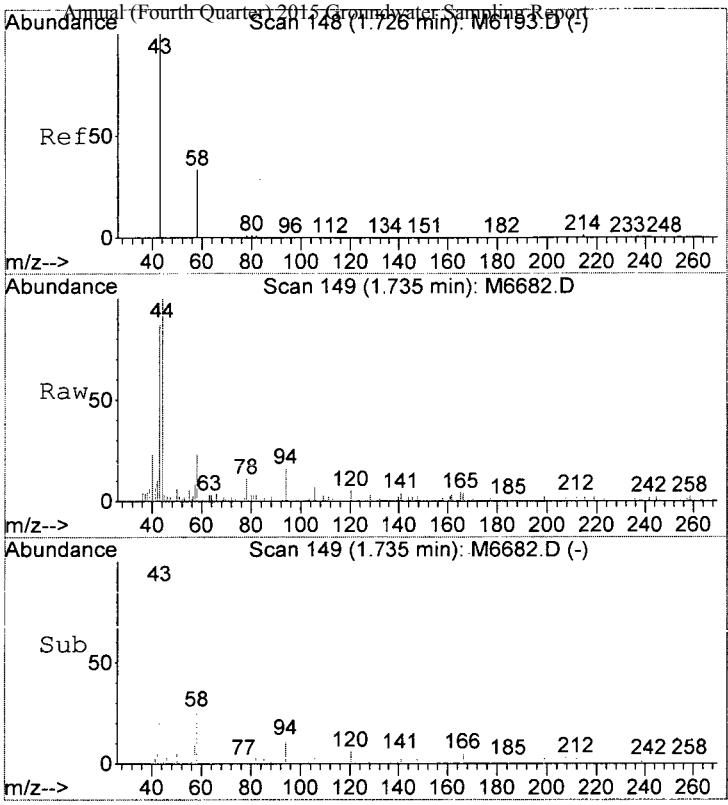
(#) = qualifier out of range (m) = manual integration
M6682.D W113015.M Thu Dec 31 09:29:17 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6682.D Vial: 20
Acq On : 26 Dec 2015 6:27 pm Operator: D.Lipani
Sample : R1511019-015|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 9:29 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



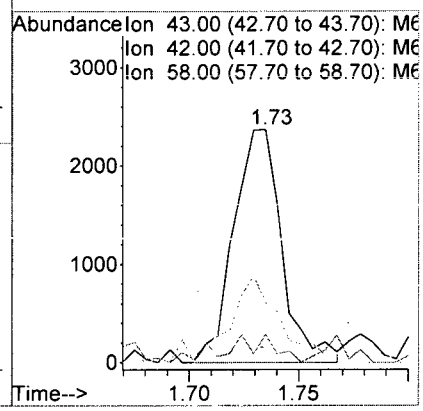
M6682.D W113015.M Thu Dec 31 09:29:19 2015

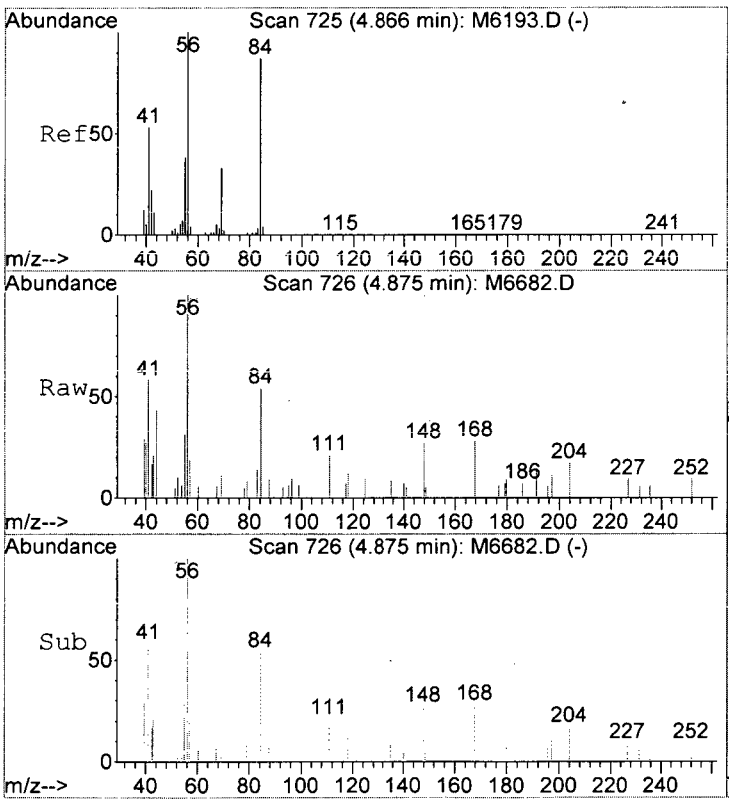


#14
Acetone
Concen: 4.76 ug/L
RT: 1.73 min Scan# 149
Delta R.T. 0.01 min
Lab File: M6682.D
Acq: 26 Dec 2015 6:27 pm

Tgt Ion: 43 Resp: 3615

Ion	Ratio	Lower	Upper
43	100		
42	12.0	0.0	29.0
58	26.0	6.3	46.3

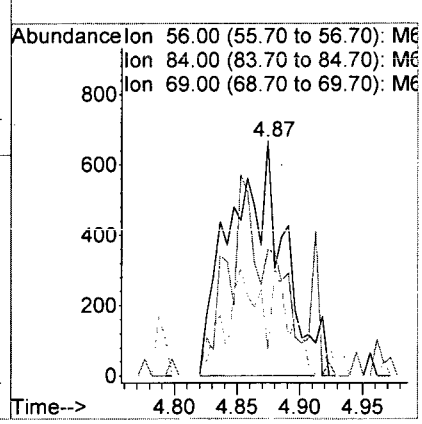




#45
Cyclohexane
Concen: 0.24 ug/L
RT: 4.87 min Scan# 726
Delta R.T. 0.01 min
Lab File: M6682.D
Acq: 26 Dec 2015 6:27 pm

Tgt Ion: 56 Resp: 1979

Ion	Ratio	Lower	Upper
56	100		
84	53.6	67.3	107.3#
69	11.4	12.8	52.8#



ALS Environmental

VOLATILE ORGANICS STANDARDS DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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Initial Calibration - Summary Report

DL 12/2/15

Calibration ID: RC1500131 **Instrument ID:** R-MS-06
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
1,1,1,2-Tetrachloroethane	T	Average RF			0.3197	<=15	2.8
1,1,1,2-Tetrachloroethane	T	Average RF			0.3197	<=20	2.8
1,1,1-Trichloroethane (TCA)	T	Average RF		0.100	0.5588	<=15	3.3
1,1,1-Trichloroethane (TCA)	T	Average RF		0.100	0.5588	<=20	3.3
1,1,2,2-Tetrachloroethane	T	Average RF		0.300	0.4574	<=15	4.3
1,1,2,2-Tetrachloroethane	T	Average RF		0.300	0.4574	<=20	4.3
1,1,2-Trichloroethane	T	Average RF		0.100	0.2120	<=15	3.0
1,1,2-Trichloroethane	T	Average RF		0.100	0.2120	<=20	3.0
1,1,2-Trichlorotrifluoroethane	T	Average RF		0.100	0.4080	<=15	5.8
1,1,2-Trichlorotrifluoroethane	T	Average RF		0.100	0.4080	<=20	5.8
1,1-Dichloroethane (1,1-DCA)	T	Average RF		0.200	0.6851	<=15	5.4
1,1-Dichloroethane (1,1-DCA)	T	Average RF		0.200	0.6851	<=20	5.4
1,1-Dichloroethene (1,1-DCE)	T	Average RF		0.100	0.4094	<=15	5.7
1,1-Dichloroethene (1,1-DCE)	T	Average RF		0.100	0.4094	<=20	5.7
1,1-Dichloropropene	T	Average RF			0.3659	<=15	5.9
1,1-Dichloropropene	T	Average RF			0.3659	<=20	5.9
1,2,3-Trichlorobenzene	T	Average RF			0.5714	<=15	3.9
1,2,3-Trichlorobenzene	T	Average RF			0.5714	<=20	3.9
1,2,3-Trichloropropane	T	Average RF			0.3117	<=15	7.3
1,2,3-Trichloropropane	T	Average RF			0.3117	<=20	7.3
1,2,4-Trichlorobenzene	T	Average RF		0.200	0.6919	<=15	3.4
1,2,4-Trichlorobenzene	T	Average RF		0.200	0.6919	<=20	3.4
1,2,4-Trimethylbenzene	T	Average RF			1.914	<=15	5.0
1,2,4-Trimethylbenzene	T	Average RF			1.914	<=20	5.0
1,2-Dibromo-3-chloropropane (DBCP)	T	Average RF		0.050	0.06678	<=15	11.7
1,2-Dibromo-3-chloropropane (DBCP)	T	Average RF		0.050	0.06678	<=20	11.7
1,2-Dibromoethane	T	Average RF		0.100	0.2384	<=15	3.0
1,2-Dibromoethane	T	Average RF		0.100	0.2384	<=20	3.0
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	T	Average RF			0.5160	<=15	4.5
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	T	Average RF			0.5160	<=20	4.5
1,2-Dichlorobenzene	T	Average RF		0.400	1.196	<=15	4.9
1,2-Dichlorobenzene	T	Average RF		0.400	1.196	<=20	4.9
1,2-Dichloroethane	T	Average RF		0.100	0.2953	<=15	14.2
1,2-Dichloroethane	T	Average RF		0.100	0.2953	<=20	14.2
1,2-Dichloropropane	T	Average RF		0.100	0.2849	<=15	7.5
1,2-Dichloropropane	T	Average RF		0.100	0.2849	<=20	7.5
1,3,5-Trimethylbenzene	T	Average RF			1.797	<=15	4.1
1,3,5-Trimethylbenzene	T	Average RF			1.797	<=20	4.1
1,3-Dichlorobenzene	T	Average RF		0.600	1.262	<=15	4.5
1,3-Dichlorobenzene	T	Average RF		0.600	1.262	<=20	4.5
1,3-Dichloropropane	T	Average RF			0.3578	<=15	3.7
1,3-Dichloropropane	T	Average RF			0.3578	<=20	3.7
1,4-Dichlorobenzene	T	Average RF		0.500	1.297	<=15	7.2
1,4-Dichlorobenzene	T	Average RF		0.500	1.297	<=20	7.2
1,4-Dioxane	T	Average RF			0.001664	<=15	9.3
1,4-Dioxane	T	Average RF			0.001664	<=20	9.3
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	T	Average RF			0.6707	<=15	5.1
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	T	Average RF			0.6707	<=20	5.1
2,2-Dichloropropane	T	Average RF			0.5341	<=15	5.4
2,2-Dichloropropane	T	Average RF			0.5341	<=20	5.4
2-Butanone (MEK)	T	Average RF		0.05	0.09002	<=15	5.4
2-Butanone (MEK)	T	Average RF		0.05	0.09002	<=20	5.4

Initial Calibration - Summary Report

Calibration ID: RC1500131 **Instrument ID:** R-MS-06
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
2-Chloro-1,3-butadiene	T	Average RF			0.6243	<=15	4.2
2-Chloro-1,3-butadiene	T	Average RF			0.6243	<=20	4.2
2-Chloroethyl Vinyl Ether	T	Average RF			0.1234	<=15	9.1
2-Chloroethyl Vinyl Ether	T	Average RF			0.1234	<=20	9.1
2-Chlorotoluene	T	Average RF			1.619	<=15	4.2
2-Chlorotoluene	T	Average RF			1.619	<=20	4.2
2-Hexanone	T	Average RF		0.05	0.1127	<=15	5.5
2-Hexanone	T	Average RF		0.05	0.1127	<=20	5.5
2-Methyl-1-propanol	T	Average RF			0.005819	<=15	5.7
2-Methyl-1-propanol	T	Average RF			0.005819	<=20	5.7
2-Methyl-2-propanol	T	Average RF			0.01974	<=15	5.2
2-Methyl-2-propanol	T	Average RF			0.01974	<=20	5.2
2-Nitropropane	T	Average RF			0.03087	<=15	5.2
2-Nitropropane	T	Average RF			0.03087	<=20	5.2
2-Propanol	T	Average RF			0.01222	<=15	5.9
2-Propanol	T	Average RF			0.01222	<=20	5.9
3-Chloro-1-propene	T	Average RF			0.1945	<=15	6.4
3-Chloro-1-propene	T	Average RF			0.1945	<=20	6.4
4-Chlorotoluene	T	Average RF			1.707	<=15	5.0
4-Chlorotoluene	T	Average RF			1.707	<=20	5.0
4-Isopropyltoluene	T	Average RF			1.814	<=15	4.8
4-Isopropyltoluene	T	Average RF			1.814	<=20	4.8
4-Methyl-2-pentanone	T	Average RF		0.05	0.1487	<=15	4.7
4-Methyl-2-pentanone	T	Average RF		0.05	0.1487	<=20	4.7
Acetone	T	Average RF		0.05	0.05989	<=15	4.1
Acetone	T	Average RF		0.05	0.05989	<=20	4.1
Acetonitrile	T	Average RF			0.03261	<=15	9.9
Acetonitrile	T	Average RF			0.03261	<=20	9.9
Acrolein	T	Average RF			0.04421	<=15	9.6
Acrolein	T	Average RF			0.04421	<=20	9.6
Acrylonitrile	T	Average RF			0.08981	<=15	8.2
Acrylonitrile	T	Average RF			0.08981	<=20	8.2
Benzene	T	Average RF		0.500	1.123	<=15	4.2
Benzene	T	Average RF		0.500	1.123	<=20	4.2
Bromobenzene	T	Average RF			0.6925	<=15	4.0
Bromobenzene	T	Average RF			0.6925	<=20	4.0
Bromochloromethane	T	Average RF			0.2114	<=15	7.6
Bromochloromethane	T	Average RF			0.2114	<=20	7.6
Bromodichloromethane	T	Average RF		0.200	0.3466	<=15	3.8
Bromodichloromethane	T	Average RF		0.200	0.3466	<=20	3.8
Bromoform	T	Average RF		0.100	0.1883	<=15	9.2
Bromoform	T	Average RF		0.100	0.1883	<=20	9.2
Bromomethane	T	Average RF		0.100	0.3600	<=15	13.8
Bromomethane	T	Average RF		0.100	0.3600	<=20	13.8
Carbon Disulfide	T	Average RF		0.100	1.326	<=15	6.5
Carbon Disulfide	T	Average RF		0.100	1.326	<=20	6.5
Carbon Tetrachloride	T	Average RF		0.05	0.3587	<=15	5.7
Carbon Tetrachloride	T	Average RF		0.05	0.3587	<=20	5.7
Chlorobenzene	T	Average RF		0.500	0.8851	<=15	4.3
Chlorobenzene	T	Average RF		0.500	0.8851	<=20	4.3
Chloroethane	T	Average RF		0.100	0.3039	<=15	6.2
Chloroethane	T	Average RF		0.100	0.3039	<=20	6.2

Initial Calibration - Summary Report

Calibration ID: RC1500131 **Instrument ID:** R-MS-06
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
Chloroform	T	Average RF		0.200	0.6934	<=15	6.7
Chloroform	T	Average RF		0.200	0.6934	<=20	6.7
Chloromethane	T	Average RF		0.100	0.5751	<=15	6.5
Chloromethane	T	Average RF		0.100	0.5751	<=20	6.5
Cyclohexane	T	Average RF		0.100	0.4454	<=15	3.9
Cyclohexane	T	Average RF		0.100	0.4454	<=20	3.9
Cyclohexanone	T	Average RF			0.006466	<=15	3.1
Cyclohexanone	T	Average RF			0.006466	<=20	3.1
Dibromochloromethane	T	Average RF		0.100	0.2976	<=15	4.8
Dibromochloromethane	T	Average RF		0.100	0.2976	<=20	4.8
Dibromomethane	T	Average RF			0.1528	<=15	5.9
Dibromomethane	T	Average RF			0.1528	<=20	5.9
Dichlorodifluoromethane (CFC 12)	T	Average RF		0.100	0.5414	<=15	6.5
Dichlorodifluoromethane (CFC 12)	T	Average RF		0.100	0.5414	<=20	6.5
Dichlorofluoromethane (CFC 21)	T	Average RF			0.7549	<=15	6.2
Dichlorofluoromethane (CFC 21)	T	Average RF			0.7549	<=20	6.2
Dichloromethane	T	Average RF		0.100	0.4583	<=15	8.8
Dichloromethane	T	Average RF		0.100	0.4583	<=20	8.8
Diethyl Ether	T	Average RF			0.2684	<=15	3.6
Diethyl Ether	T	Average RF			0.2684	<=20	3.6
Ethyl Methacrylate	T	Average RF			0.2684	<=15	6.3
Ethyl Methacrylate	T	Average RF			0.2684	<=20	6.3
Ethylbenzene	T	Average RF		0.100	0.4555	<=15	4.9
Ethylbenzene	T	Average RF		0.100	0.4555	<=20	4.9
Hexachlorobutadiene	T	Average RF			0.3309	<=15	9.8
Hexachlorobutadiene	T	Average RF			0.3309	<=20	9.8
Iodomethane	T	Linear	1/X		0.5562	>=0.99	0.9987
Isopropylbenzene (Cumene)	T	Average RF		0.100	1.379	<=15	4.9
Isopropylbenzene (Cumene)	T	Average RF		0.100	1.379	<=20	4.9
Methacrylonitrile	T	Average RF			0.09607	<=15	8.3
Methacrylonitrile	T	Average RF			0.09607	<=20	8.3
Methyl Acetate	T	Average RF		0.100	0.1830	<=15	5.4
Methyl Acetate	T	Average RF		0.100	0.1830	<=20	5.4
Methyl Methacrylate	T	Average RF			0.1109	<=15	14.7
Methyl Methacrylate	T	Average RF			0.1109	<=20	14.7
Methyl tert-Butyl Ether	T	Average RF		0.100	0.8499	<=15	3.1
Methyl tert-Butyl Ether	T	Average RF		0.100	0.8499	<=20	3.1
Methylcyclohexane	T	Average RF		0.100	0.2895	<=15	5.9
Methylcyclohexane	T	Average RF		0.100	0.2895	<=20	5.9
Naphthalene	T	Average RF			1.216	<=15	5.4
Naphthalene	T	Average RF			1.216	<=20	5.4
Nitrobenzene	T	Average RF			0.01625	<=15	10.7
Nitrobenzene	T	Average RF			0.01625	<=20	10.7
Propionitrile	T	Average RF			0.02972	<=15	5.1
Propionitrile	T	Average RF			0.02972	<=20	5.1
Styrene	T	Average RF		0.300	0.9094	<=15	4.1
Styrene	T	Average RF		0.300	0.9094	<=20	4.1
Tetrachloroethene (PCE)	T	Average RF		0.200	0.3030	<=15	3.3
Tetrachloroethene (PCE)	T	Average RF		0.200	0.3030	<=20	3.3
Tetrahydrofuran (THF)	T	Average RF			0.05873	<=15	6.2
Tetrahydrofuran (THF)	T	Average RF			0.05873	<=20	6.2
Toluene	T	Average RF		0.400	1.175	<=15	6.2

Initial Calibration - Summary Report

Calibration ID: RC1500131 **Instrument ID:** R-MS-06
Column Name: 1

Analyte	Type	Curve Fit	Weighting	Min RF	Mean RF	Criteria	Result
Toluene	T	Average RF		0.400	1.175	<=20	6.2
Trichloroethene (TCE)	T	Average RF		0.200	0.3326	<=15	5.3
Trichloroethene (TCE)	T	Average RF		0.200	0.3326	<=20	5.3
Trichlorofluoromethane (CFC 11)	T	Average RF		0.100	0.6269	<=15	6.5
Trichlorofluoromethane (CFC 11)	T	Average RF		0.100	0.6269	<=20	6.5
Vinyl Acetate	T	Average RF			0.5794	<=15	4.7
Vinyl Acetate	T	Average RF			0.5794	<=20	4.7
Vinyl Chloride	T	Average RF		0.100	0.6039	<=15	6.4
Vinyl Chloride	T	Average RF		0.100	0.6039	<=20	6.4
cis-1,2-Dichloroethene	T	Average RF		0.100	0.4397	<=15	3.1
cis-1,2-Dichloroethene	T	Average RF		0.100	0.4397	<=20	3.1
cis-1,3-Dichloropropene	T	Average RF		0.200	0.4066	<=15	3.7
cis-1,3-Dichloropropene	T	Average RF		0.200	0.4066	<=20	3.7
m,p-Xylenes	T	Average RF		0.100	0.5526	<=15	3.6
m,p-Xylenes	T	Average RF		0.100	0.5526	<=20	3.6
n-Butyl Acetate	T	Average RF			0.2909	<=15	5.3
n-Butyl Acetate	T	Average RF			0.2909	<=20	5.3
n-Butylbenzene	T	Average RF			1.600	<=15	6.5
n-Butylbenzene	T	Average RF			1.600	<=20	6.5
n-Heptane	T	Average RF			0.2443	<=15	3.9
n-Heptane	T	Average RF			0.2443	<=20	3.9
n-Propylbenzene	T	Average RF			2.664	<=15	5.2
n-Propylbenzene	T	Average RF			2.664	<=20	5.2
o-Xylene	T	Average RF		0.300	0.5735	<=15	3.8
o-Xylene	T	Average RF		0.300	0.5735	<=20	3.8
sec-Butylbenzene	T	Average RF			2.195	<=15	5.0
sec-Butylbenzene	T	Average RF			2.195	<=20	5.0
tert-Butylbenzene	T	Average RF			1.563	<=15	5.3
tert-Butylbenzene	T	Average RF			1.563	<=20	5.3
trans-1,2-Dichloroethene	T	Average RF		0.100	0.4511	<=15	3.5
trans-1,2-Dichloroethene	T	Average RF		0.100	0.4511	<=20	3.5
trans-1,3-Dichloropropene	T	Average RF		0.100	0.3336	<=15	3.9
trans-1,3-Dichloropropene	T	Average RF		0.100	0.3336	<=20	3.9
trans-1,4-Dichloro-2-butene	T	Average RF			0.09214	<=15	12.8
trans-1,4-Dichloro-2-butene	T	Average RF			0.09214	<=20	12.8
1,2-Dichloroethane-d4	S	Average RF			0.2558	<=15	4.5
1,2-Dichloroethane-d4	S	Average RF			0.2558	<=20	4.5
4-Bromofluorobenzene	S	Average RF			0.4476	<=15	4.5
4-Bromofluorobenzene	S	Average RF			0.4476	<=20	4.5
Dibromofluoromethane	S	Average RF			0.3136	<=15	4.1
Dibromofluoromethane	S	Average RF			0.3136	<=20	4.1
Toluene-d8	S	Average RF			1.042	<=15	6.8
Toluene-d8	S	Average RF			1.042	<=20	6.8

Initial Calibration - Detailed Report

DL 12/2/15

Calibration ID: RC1500131 **Instrument ID:** R-MS-06
Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
12	RC1500131-12	STD #2 - 1.0 PPB	I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D	11/30/15 14:20
02	RC1500131-02	STD #9 - 200 PPB	I:\ACQUDATA\MSVOA6\DATA\113015\M6196.D	11/30/15 18:20
03	RC1500131-03	STD #8 - 150 PPB	I:\ACQUDATA\MSVOA6\DATA\113015\M6195.D	11/30/15 17:49
04	RC1500131-04	STD #7 - 100 PPB	I:\ACQUDATA\MSVOA6\DATA\113015\M6194.D	11/30/15 17:14
05	RC1500131-05	STD #6 - 50 PPB	I:\ACQUDATA\MSVOA6\DATA\113015\M6193.D	11/30/15 16:39
06	RC1500131-06	STD #5 - 20 PPB	I:\ACQUDATA\MSVOA6\DATA\113015\M6192.D	11/30/15 16:02
07	RC1500131-07	STD #4 - 5.0 PPB	I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D	11/30/15 15:26
08	RC1500131-08	STD #3 - 2.0 PPB	I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D	11/30/15 14:52
10	RC1500131-10	STD #1 - 0.5 PPB	I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D	11/30/15 13:40

Analyte **Curve Fit** **Weighting**

1,1,1,2-Tetrachloroethane Average RF RSD = 2.8 Average RF = 0.3197

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.3235	12	1.000	0.3316	08	2.000	0.2989	07	5.000	0.3262
06	20.000	0.3208	05	50.000	0.3186	04	100.000	0.3215	03	150.000	0.3196
02	200.000	0.3166									

1,1,1-Trichloroethane (TCA) Average RF RSD = 3.3 Average RF = 0.5588

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.5534	12	1.000	0.5955	08	2.000	0.5364	07	5.000	0.5691
06	20.000	0.5763	05	50.000	0.5462	04	100.000	0.5456	03	150.000	0.5571
02	200.000	0.5492									

1,1,2,2-Tetrachloroethane Average RF RSD = 4.3 Average RF = 0.4574

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.4757	12	1.000	0.4307	08	2.000	0.4603	07	5.000	0.4883
06	20.000	0.4723	05	50.000	0.4622	04	100.000	0.4481	03	150.000	0.4329
02	200.000	0.4460									

1,1,2-Trichloroethane Average RF RSD = 3.0 Average RF = 0.2120

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.2132	12	1.000	0.2125	08	2.000	0.2071	07	5.000	0.2206
06	20.000	0.2229	05	50.000	0.2055	04	100.000	0.2086	03	150.000	0.2054
02	200.000	0.2124									

1,1,2-Trichlorotrifluoroethane Average RF RSD = 5.8 Average RF = 0.4080

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.4281	12	1.000	0.4379	08	2.000	0.3703	07	5.000	0.4340
06	20.000	0.4238	05	50.000	0.3891	04	100.000	0.3924	03	150.000	0.4014
02	200.000	0.3948									

1,1-Dichloroethane (1,1-DCA) Average RF RSD = 5.4 Average RF = 0.6851

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.7522	12	1.000	0.7068	08	2.000	0.6643	07	5.000	0.7055
06	20.000	0.7073	05	50.000	0.6797	04	100.000	0.6527	03	150.000	0.6669
02	200.000	0.6300									

1,1-Dichloroethene (1,1-DCE) Average RF RSD = 5.7 Average RF = 0.4094

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.4535	12	1.000	0.3755	08	2.000	0.4162	07	5.000	0.4214
06	20.000	0.4280	05	50.000	0.4067	04	100.000	0.3934	03	150.000	0.4018
02	200.000	0.3882									

Initial Calibration - Detailed Report

Calibration ID: RC1500131 **Instrument ID:** R-MS-06
Signal ID: 1

Analyte **Curve Fit** **Weighting**

1,1-Dichloropropene Average RF RSD = 5.9 Average RF = 0.3659

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.4147	12	1.000	0.3521	08	2.000	0.3402	07	5.000	0.3789
06	20.000	0.3765	05	50.000	0.3551	04	100.000	0.3583	03	150.000	0.3594
02	200.000	0.3582									

1,2,3-Trichlorobenzene Average RF RSD = 3.9 Average RF = 0.5714

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.5750	12	1.000	0.5427	08	2.000	0.5557	07	5.000	0.6098
06	20.000	0.5948	05	50.000	0.5823	04	100.000	0.5764	03	150.000	0.5504
02	200.000	0.5550									

1,2,3-Trichloropropane Average RF RSD = 7.3 Average RF = 0.3117

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.3559	12	1.000	0.2873	08	2.000	0.3370	07	5.000	0.3028
06	20.000	0.3244	05	50.000	0.3007	04	100.000	0.3034	03	150.000	0.2918
02	200.000	0.3020									

1,2,4-Trichlorobenzene Average RF RSD = 3.4 Average RF = 0.6919

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.6931	12	1.000	0.6881	08	2.000	0.6530	07	5.000	0.7220
06	20.000	0.7041	05	50.000	0.7212	04	100.000	0.7020	03	150.000	0.6779
02	200.000	0.6662									

1,2,4-Trimethylbenzene Average RF RSD = 5.0 Average RF = 1.914

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	1.897	12	1.000	1.875	08	2.000	1.872	07	5.000	2.048
06	20.000	2.046	05	50.000	1.944	04	100.000	1.873	03	150.000	1.762

1,2-Dibromo-3-chloropropane (DBCP) Average RF RSD = 11.7 Average RF = 0.06678

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
12	1.000	0.08572	08	2.000	0.06234	07	5.000	0.06691	06	20.000	0.06508
05	50.000	0.06338	04	100.000	0.06467	03	150.000	0.06170	02	200.000	0.06440

1,2-Dibromoethane Average RF RSD = 3.0 Average RF = 0.2384

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.2317	12	1.000	0.2268	08	2.000	0.2294	07	5.000	0.2451
06	20.000	0.2451	05	50.000	0.2431	04	100.000	0.2437	03	150.000	0.2400
02	200.000	0.2408									

1,2-Dichloro-1,1,2-trifluoroethane (CFC Average RF RSD = 4.5 Average RF = 0.5160

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.5328	12	1.000	0.5482	08	2.000	0.5117	07	5.000	0.5306
06	20.000	0.5352	05	50.000	0.4956	04	100.000	0.5044	03	150.000	0.5111
02	200.000	0.4740									

1,2-Dichlorobenzene Average RF RSD = 4.9 Average RF = 1.196

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	1.188	12	1.000	1.200	08	2.000	1.191	07	5.000	1.266
06	20.000	1.280	05	50.000	1.192	04	100.000	1.159	03	150.000	1.094

1,2-Dichloroethane Average RF RSD = 14.2 Average RF = 0.2953

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
12	1.000	0.3875	08	2.000	0.3128	07	5.000	0.3060	06	20.000	0.2908
05	50.000	0.2669	04	100.000	0.2694	03	150.000	0.2632	02	200.000	0.2658

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Calibration ID: RC1500131 **Instrument ID:** R-MS-06
Signal ID: 1

Analyte **Curve Fit** **Weighting**

1,2-Dichloroethane-d4 Average RF RSD = 4.5 Average RF = 0.2558

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	50.000	0.2615	08	60.000	0.2705	07	70.000	0.2608	06	100.000	0.2575
04	125.000	0.2405	03	150.000	0.2440						

1,2-Dichloropropane Average RF RSD = 7.5 Average RF = 0.2849

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.3294	12	1.000	0.3105	08	2.000	0.2661	07	5.000	0.2859
06	20.000	0.2845	05	50.000	0.2698	04	100.000	0.2705	03	150.000	0.2712
02	200.000	0.2760									

1,3,5-Trimethylbenzene Average RF RSD = 4.1 Average RF = 1.797

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	1.762	12	1.000	1.758	08	2.000	1.812	07	5.000	1.910
06	20.000	1.882	05	50.000	1.811	04	100.000	1.764	03	150.000	1.679

1,3-Dichlorobenzene Average RF RSD = 4.5 Average RF = 1.262

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	1.272	12	1.000	1.329	08	2.000	1.252	07	5.000	1.328
06	20.000	1.307	05	50.000	1.277	04	100.000	1.228	03	150.000	1.217
02	200.000	1.153									

1,3-Dichloropropane Average RF RSD = 3.7 Average RF = 0.3578

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.3835	12	1.000	0.3582	08	2.000	0.3649	07	5.000	0.3656
06	20.000	0.3613	05	50.000	0.3416	04	100.000	0.3548	03	150.000	0.3428
02	200.000	0.3471									

1,4-Dichlorobenzene Average RF RSD = 7.2 Average RF = 1.297

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	1.450	12	1.000	1.374	08	2.000	1.251	07	5.000	1.364
06	20.000	1.338	05	50.000	1.283	04	100.000	1.251	03	150.000	1.209
02	200.000	1.150									

1,4-Dioxane Average RF RSD = 9.3 Average RF = 0.001664

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
08	40.000	0.001920	07	100.000	0.001751	06	400.000	0.001754	05	1000.000	0.001603
04	2000.000	0.001530	03	3000.000	0.001622	02	4000.000	0.001470			

2,2-Dichloro-1,1,1-trifluoroethane (CFC Average RF RSD = 5.1 Average RF = 0.6707

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.7295	12	1.000	0.6766	08	2.000	0.6824	07	5.000	0.6611
06	20.000	0.7044	05	50.000	0.6346	04	100.000	0.6398	03	150.000	0.6373

2,2-Dichloropropane Average RF RSD = 5.4 Average RF = 0.5341

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.6017	12	1.000	0.5433	08	2.000	0.4990	07	5.000	0.5285
06	20.000	0.5409	05	50.000	0.5128	04	100.000	0.5184	03	150.000	0.5326
02	200.000	0.5296									

2-Butanone (MEK) Average RF RSD = 5.4 Average RF = 0.09002

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	5.000	0.08320	06	20.000	0.08869	05	50.000	0.09016	04	100.000	0.08833
03	150.000	0.09152	02	200.000	0.09820						

Initial Calibration - Detailed Report

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Signal ID: 1

Analyte **Curve Fit** **Weighting**

2-Chloro-1,3-butadiene Average RF RSD = 4.2 Average RF = 0.6243

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.5777	12	1.000	0.6413	08	2.000	0.5813	07	5.000	0.6467
06	20.000	0.6398	05	50.000	0.6325	04	100.000	0.6292	03	150.000	0.6350
02	200.000	0.6356									

2-Chloroethyl Vinyl Ether Average RF RSD = 9.1 Average RF = 0.1234

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
12	1.000	0.1050	08	2.000	0.1062	07	5.000	0.1248	06	20.000	0.1325
05	50.000	0.1310	04	100.000	0.1282	03	150.000	0.1286	02	200.000	0.1307

2-Chlorotoluene Average RF RSD = 4.2 Average RF = 1.619

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	1.679	12	1.000	1.666	08	2.000	1.651	07	5.000	1.694
06	20.000	1.612	05	50.000	1.604	04	100.000	1.551	03	150.000	1.495

2-Hexanone Average RF RSD = 5.5 Average RF = 0.1127

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	5.000	0.1020	06	20.000	0.1106	05	50.000	0.1125	04	100.000	0.1185
03	150.000	0.1134	02	200.000	0.1189						

2-Methyl-1-propanol Average RF RSD = 5.7 Average RF = 0.005819

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
08	40.000	0.005310	07	100.000	0.005537	06	400.000	0.006047	05	1000.000	0.005627
04	2000.000	0.005934	03	3000.000	0.006021	02	4000.000	0.006252			

2-Methyl-2-propanol Average RF RSD = 5.2 Average RF = 0.01974

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	10.000	0.02142	12	20.000	0.02114	08	40.000	0.01951	07	100.000	0.01928
06	400.000	0.02043	05	1000.000	0.01907	04	2000.000	0.01846	03	3000.000	0.01900
02	4000.000	0.01934									

2-Nitropropane Average RF RSD = 5.2 Average RF = 0.03087

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
08	4.000	0.03083	07	10.000	0.02984	06	40.000	0.02940	05	100.000	0.02934
04	200.000	0.03086	03	300.000	0.03206	02	400.000	0.03379			

2-Propanol Average RF RSD = 5.9 Average RF = 0.01222

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
12	20.000	0.01249	08	40.000	0.01207	07	100.000	0.01205	06	400.000	0.01384
05	1000.000	0.01223	04	2000.000	0.01168	03	3000.000	0.01190	02	4000.000	0.01149

3-Chloro-1-propene Average RF RSD = 6.4 Average RF = 0.1945

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.2211	12	1.000	0.1974	08	2.000	0.1996	07	5.000	0.1976
06	20.000	0.1976	05	50.000	0.1853	04	100.000	0.1867	03	150.000	0.1871
02	200.000	0.1781									

4-Bromofluorobenzene Average RF RSD = 4.5 Average RF = 0.4476

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	50.000	0.4829	08	60.000	0.4581	07	70.000	0.4461	06	100.000	0.4306
04	125.000	0.4368	03	150.000	0.4308						

Initial Calibration - Detailed Report

Calibration ID: RC1500131 **Instrument ID:** R-MS-06
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Analyte **Curve Fit** **Weighting**

4-Chlorotoluene Average RF RSD = 5.0 Average RF = 1.707

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	1.841	12	1.000	1.677	08	2.000	1.728	07	5.000	1.725
06	20.000	1.768	05	50.000	1.726	04	100.000	1.627	03	150.000	1.564

4-Isopropyltoluene Average RF RSD = 4.8 Average RF = 1.814

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	1.804	12	1.000	1.841	08	2.000	1.790	07	5.000	1.949
06	20.000	1.878	05	50.000	1.848	04	100.000	1.749	03	150.000	1.656

4-Methyl-2-pentanone Average RF RSD = 4.7 Average RF = 0.1487

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	5.000	0.1368	06	20.000	0.1469	05	50.000	0.1495	04	100.000	0.1500
03	150.000	0.1505	02	200.000	0.1585						

Acetone Average RF RSD = 4.1 Average RF = 0.05989

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	5.000	0.05707	06	20.000	0.05924	05	50.000	0.05950	04	100.000	0.05798
03	150.000	0.06194	02	200.000	0.06364						

Acetonitrile Average RF RSD = 9.9 Average RF = 0.03261

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
12	5.000	0.03818	08	10.000	0.03439	07	25.000	0.03560	06	100.000	0.03314
05	250.000	0.03068	04	500.000	0.02951	03	750.000	0.02992	02	1000.000	0.02951

Acrolein Average RF RSD = 9.6 Average RF = 0.04421

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	2.500	0.05488	12	5.000	0.04093	08	10.000	0.04164	07	25.000	0.04253
06	100.000	0.04569	05	250.000	0.04415	04	500.000	0.04233	03	750.000	0.04303
02	1000.000	0.04273									

Acrylonitrile Average RF RSD = 8.2 Average RF = 0.08981

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	2.500	0.1063	12	5.000	0.08797	08	10.000	0.09244	07	25.000	0.09379
06	100.000	0.09043	05	250.000	0.08591	04	500.000	0.08203	03	750.000	0.08390
02	1000.000	0.08551									

Benzene Average RF RSD = 4.2 Average RF = 1.123

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	1.182	12	1.000	1.160	08	2.000	1.136	07	5.000	1.140
06	20.000	1.176	05	50.000	1.100	04	100.000	1.092	03	150.000	1.071
02	200.000	1.050									

Bromobenzene Average RF RSD = 4.0 Average RF = 0.6925

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.7343	12	1.000	0.6972	08	2.000	0.6850	07	5.000	0.7192
06	20.000	0.7178	05	50.000	0.6922	04	100.000	0.6750	03	150.000	0.6645
02	200.000	0.6476									

Bromochloromethane Average RF RSD = 7.6 Average RF = 0.2114

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.2420	12	1.000	0.2076	08	2.000	0.2189	07	5.000	0.2227
06	20.000	0.2199	05	50.000	0.2060	04	100.000	0.1971	03	150.000	0.1976
02	200.000	0.1907									

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Analyte **Curve Fit** **Weighting**

Bromodichloromethane Average RF RSD = 3.8 Average RF = 0.3466

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.3465	12	1.000	0.3445	08	2.000	0.3167	07	5.000	0.3613
06	20.000	0.3576	05	50.000	0.3414	04	100.000	0.3538	03	150.000	0.3529
02	200.000	0.3446									

Bromoform Average RF RSD = 9.2 Average RF = 0.1883

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.1926	12	1.000	0.1790	08	2.000	0.1543	07	5.000	0.1824
06	20.000	0.1904	05	50.000	0.1908	04	100.000	0.2067	03	150.000	0.2100

Bromomethane Average RF RSD = 13.8 Average RF = 0.3600

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.4708	12	1.000	0.3950	08	2.000	0.3391	07	5.000	0.3077
06	20.000	0.3173	05	50.000	0.3251	04	100.000	0.3542	03	150.000	0.3708
02	200.000	0.3603									

Carbon Disulfide Average RF RSD = 6.5 Average RF = 1.326

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	1.452	12	1.000	1.407	08	2.000	1.256	07	5.000	1.389
06	20.000	1.359	05	50.000	1.275	04	100.000	1.246	03	150.000	1.226

Carbon Tetrachloride Average RF RSD = 5.7 Average RF = 0.3587

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.3363	12	1.000	0.3882	08	2.000	0.3212	07	5.000	0.3613
06	20.000	0.3746	05	50.000	0.3500	04	100.000	0.3657	03	150.000	0.3605
02	200.000	0.3700									

Chlorobenzene Average RF RSD = 4.3 Average RF = 0.8851

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.9312	12	1.000	0.9303	08	2.000	0.8381	07	5.000	0.8964
06	20.000	0.9098	05	50.000	0.8773	04	100.000	0.8590	03	150.000	0.8389

Chloroethane Average RF RSD = 6.2 Average RF = 0.3039

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.3243	12	1.000	0.2969	08	2.000	0.2878	07	5.000	0.3396
06	20.000	0.3172	05	50.000	0.3024	04	100.000	0.2868	03	150.000	0.2938
02	200.000	0.2866									

Chloroform Average RF RSD = 6.7 Average RF = 0.6934

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.7918	12	1.000	0.7144	08	2.000	0.6501	07	5.000	0.7236
06	20.000	0.7069	05	50.000	0.6720	04	100.000	0.6489	03	150.000	0.6786
02	200.000	0.6542									

Chloromethane Average RF RSD = 6.5 Average RF = 0.5751

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.6244	12	1.000	0.5960	08	2.000	0.5985	07	5.000	0.6219
06	20.000	0.5806	05	50.000	0.5396	04	100.000	0.5281	03	150.000	0.5506
02	200.000	0.5363									

Cyclohexane Average RF RSD = 3.9 Average RF = 0.4454

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.4686	12	1.000	0.4630	08	2.000	0.4222	07	5.000	0.4274
06	20.000	0.4553	05	50.000	0.4284	04	100.000	0.4504	03	150.000	0.4577
02	200.000	0.4357									

Initial Calibration - Detailed Report

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Analyte **Curve Fit** **Weighting**

Cyclohexanone Average RF RSD = 3.1 Average RF = 0.006466

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
12	20.000	0.006080	08	40.000	0.006504	07	100.000	0.006537	06	400.000	0.006651
05	1000.000	0.006675	04	2000.000	0.006532	03	3000.000	0.006263	02	4000.000	0.006485

Dibromochloromethane Average RF RSD = 4.8 Average RF = 0.2976

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.2924	12	1.000	0.2755	08	2.000	0.2733	07	5.000	0.3014
06	20.000	0.3048	05	50.000	0.3013	04	100.000	0.3134	03	150.000	0.3086
02	200.000	0.3073									

Dibromofluoromethane Average RF RSD = 4.1 Average RF = 0.3136

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	50.000	0.3200	08	60.000	0.3318	07	70.000	0.3191	06	100.000	0.3129
04	125.000	0.2976	03	150.000	0.3003						

Dibromomethane Average RF RSD = 5.9 Average RF = 0.1528

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.1663	12	1.000	0.1646	08	2.000	0.1402	07	5.000	0.1606
06	20.000	0.1522	05	50.000	0.1461	04	100.000	0.1477	03	150.000	0.1488
02	200.000	0.1489									

Dichlorodifluoromethane (CFC 12) Average RF RSD = 6.5 Average RF = 0.5414

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.5187	12	1.000	0.5959	08	2.000	0.4951	07	5.000	0.5761
06	20.000	0.5647	05	50.000	0.5452	04	100.000	0.5216	03	150.000	0.5139

Dichlorofluoromethane (CFC 21) Average RF RSD = 6.2 Average RF = 0.7549

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.8069	12	1.000	0.8031	08	2.000	0.7344	07	5.000	0.7835
06	20.000	0.7939	05	50.000	0.7115	04	100.000	0.7073	03	150.000	0.6984

Dichloromethane Average RF RSD = 8.8 Average RF = 0.4583

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.5468	12	1.000	0.4755	08	2.000	0.4512	07	5.000	0.4808
06	20.000	0.4664	05	50.000	0.4335	04	100.000	0.4222	03	150.000	0.4280
02	200.000	0.4207									

Diethyl Ether Average RF RSD = 3.6 Average RF = 0.2684

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.2614	12	1.000	0.2730	08	2.000	0.2735	07	5.000	0.2898
06	20.000	0.2698	05	50.000	0.2623	04	100.000	0.2587	03	150.000	0.2596
02	200.000	0.2677									

Ethyl Methacrylate Average RF RSD = 6.3 Average RF = 0.2684

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.2530	12	1.000	0.2557	08	2.000	0.2368	07	5.000	0.2678
06	20.000	0.2783	05	50.000	0.2733	04	100.000	0.2911	03	150.000	0.2792
02	200.000	0.2803									

Ethylbenzene Average RF RSD = 4.9 Average RF = 0.4555

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.4143	12	1.000	0.4848	08	2.000	0.4279	07	5.000	0.4676
06	20.000	0.4720	05	50.000	0.4464	04	100.000	0.4660	03	150.000	0.4632
02	200.000	0.4574									

Initial Calibration - Detailed Report

Calibration ID: RC1500131 **Instrument ID:** R-MS-06
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Hexachlorobutadiene Average RF RSD = 9.8 Average RF = 0.3309

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.3975	12	1.000	0.3026	08	2.000	0.3395	07	5.000	0.3423
06	20.000	0.3364	05	50.000	0.3528	04	100.000	0.3097	03	150.000	0.3026
02	200.000	0.2951									

Iodomethane Linear 1/X R2 = 0.9987 Y = 0.6371 X + -0.01431

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
08	2.000	0.3126	07	5.000	0.4278	06	20.000	0.5888	05	50.000	0.6653
04	100.000	0.6503	03	150.000	0.6352	02	200.000	0.6132			

Isopropylbenzene (Cumene) Average RF RSD = 4.9 Average RF = 1.379

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	1.487	12	1.000	1.358	08	2.000	1.344	07	5.000	1.424
06	20.000	1.421	05	50.000	1.382	04	100.000	1.355	03	150.000	1.260

Methacrylonitrile Average RF RSD = 8.3 Average RF = 0.09607

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
12	1.000	0.07863	08	2.000	0.09764	07	5.000	0.09396	06	20.000	0.1038
05	50.000	0.09672	04	100.000	0.09493	03	150.000	0.09866	02	200.000	0.1043

Methyl Acetate Average RF RSD = 5.4 Average RF = 0.1830

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.1981	12	1.000	0.1780	08	2.000	0.1792	07	5.000	0.2009
06	20.000	0.1837	05	50.000	0.1766	04	100.000	0.1726	03	150.000	0.1778
02	200.000	0.1800									

Methyl Methacrylate Average RF RSD = 14.7 Average RF = 0.1109

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
08	2.000	0.07668	07	5.000	0.1044	06	20.000	0.1183	05	50.000	0.1136
04	100.000	0.1228	03	150.000	0.1182	02	200.000	0.1221			

Methyl tert-Butyl Ether Average RF RSD = 3.1 Average RF = 0.8499

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.8653	12	1.000	0.8142	08	2.000	0.8342	07	5.000	0.8623
06	20.000	0.8992	05	50.000	0.8615	04	100.000	0.8306	03	150.000	0.8271
02	200.000	0.8549									

Methylcyclohexane Average RF RSD = 5.9 Average RF = 0.2895

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.3092	12	1.000	0.3102	08	2.000	0.2619	07	5.000	0.2767
06	20.000	0.3048	05	50.000	0.2775	04	100.000	0.2939	03	150.000	0.2957
02	200.000	0.2760									

Naphthalene Average RF RSD = 5.4 Average RF = 1.216

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	1.271	12	1.000	1.129	08	2.000	1.147	07	5.000	1.246
06	20.000	1.307	05	50.000	1.272	04	100.000	1.243	03	150.000	1.177
02	200.000	1.151									

Nitrobenzene Average RF RSD = 10.7 Average RF = 0.01625

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	10.000	0.01706	06	40.000	0.01421	05	100.000	0.01402	04	200.000	0.01655
03	300.000	0.01747	02	400.000	0.01818						

Initial Calibration - Detailed Report

Calibration ID: RC1500131 **Instrument ID:** R-MS-06
Signal ID: 1

Analyte **Curve Fit** **Weighting**

Propionitrile Average RF RSD = 5.1 Average RF = 0.02972

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	2.500	0.02666	12	5.000	0.03091	08	10.000	0.02783	07	25.000	0.03134
06	100.000	0.03069	05	250.000	0.03033	04	500.000	0.02968	03	750.000	0.03013
02	1000.000	0.02992									

Styrene Average RF RSD = 4.1 Average RF = 0.9094

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.9193	12	1.000	0.9487	08	2.000	0.8359	07	5.000	0.9366
06	20.000	0.9529	05	50.000	0.9154	04	100.000	0.9000	03	150.000	0.9040
02	200.000	0.8715									

Tetrachloroethene (PCE) Average RF RSD = 3.3 Average RF = 0.3030

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.3257	12	1.000	0.3102	08	2.000	0.2964	07	5.000	0.3007
06	20.000	0.2970	05	50.000	0.2986	04	100.000	0.3069	03	150.000	0.2961
02	200.000	0.2949									

Tetrahydrofuran (THF) Average RF RSD = 6.2 Average RF = 0.05873

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
08	2.000	0.05178	07	5.000	0.05890	06	20.000	0.06063	05	50.000	0.05908
04	100.000	0.05708	03	150.000	0.06022	02	200.000	0.06344			

Toluene Average RF RSD = 6.2 Average RF = 1.175

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	1.173	12	1.000	1.270	08	2.000	1.209	07	5.000	1.218
06	20.000	1.231	05	50.000	1.123	04	100.000	1.129	03	150.000	1.046

Toluene-d8 Average RF RSD = 6.8 Average RF = 1.042

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	50.000	1.115	08	60.000	1.094	07	70.000	1.090	06	100.000	1.033
04	125.000	0.9782	03	150.000	0.9386						

Trichloroethene (TCE) Average RF RSD = 5.3 Average RF = 0.3326

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.3307	12	1.000	0.3615	08	2.000	0.2989	07	5.000	0.3436
06	20.000	0.3479	05	50.000	0.3295	04	100.000	0.3313	03	150.000	0.3238
02	200.000	0.3263									

Trichlorofluoromethane (CFC 11) Average RF RSD = 6.5 Average RF = 0.6269

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.6911	12	1.000	0.6477	08	2.000	0.5952	07	5.000	0.6701
06	20.000	0.6507	05	50.000	0.6251	04	100.000	0.6007	03	150.000	0.5951
02	200.000	0.5667									

Vinyl Acetate Average RF RSD = 4.7 Average RF = 0.5794

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.6079	12	1.000	0.5421	08	2.000	0.5317	07	5.000	0.5771
06	20.000	0.6050	05	50.000	0.5790	04	100.000	0.5757	03	150.000	0.5910
02	200.000	0.6051									

Vinyl Chloride Average RF RSD = 6.4 Average RF = 0.6039

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.6372	12	1.000	0.6385	08	2.000	0.5646	07	5.000	0.6474
06	20.000	0.6324	05	50.000	0.5910	04	100.000	0.5584	03	150.000	0.5615

Initial Calibration - Detailed Report

Calibration ID: RC1500131 **Instrument ID:** R-MS-06
Signal ID: 1

Analyte **Curve Fit** Average RF **Weighting** Weighting

cis-1,2-Dichloroethene Average RF RSD = 3.1 Average RF = 0.4397

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.4466	12	1.000	0.4496	08	2.000	0.4277	07	5.000	0.4605
06	20.000	0.4535	05	50.000	0.4320	04	100.000	0.4186	03	150.000	0.4328
02	200.000	0.4360									

cis-1,3-Dichloropropene Average RF RSD = 3.7 Average RF = 0.4066

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.4030	12	1.000	0.3772	08	2.000	0.3918	07	5.000	0.4059
06	20.000	0.4290	05	50.000	0.4110	04	100.000	0.4130	03	150.000	0.4118
02	200.000	0.4168									

m,p-Xylenes Average RF RSD = 3.6 Average RF = 0.5526

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	1.000	0.5440	12	2.000	0.5436	08	4.000	0.5248	07	10.000	0.5894
06	40.000	0.5719	05	100.000	0.5548	04	200.000	0.5646	03	300.000	0.5489
02	400.000	0.5318									

n-Butyl Acetate Average RF RSD = 5.3 Average RF = 0.2909

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
12	1.000	0.2732	08	2.000	0.2704	07	5.000	0.2779	06	20.000	0.2909
05	50.000	0.2950	04	100.000	0.3089	03	150.000	0.3041	02	200.000	0.3072

n-Butylbenzene Average RF RSD = 6.5 Average RF = 1.600

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	1.474	12	1.000	1.654	08	2.000	1.514	07	5.000	1.719
06	20.000	1.692	05	50.000	1.691	04	100.000	1.586	03	150.000	1.469

n-Heptane Average RF RSD = 3.9 Average RF = 0.2443

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.2613	12	1.000	0.2465	08	2.000	0.2317	07	5.000	0.2427
06	20.000	0.2521	05	50.000	0.2508	04	100.000	0.2418	03	150.000	0.2385
02	200.000	0.2334									

n-Propylbenzene Average RF RSD = 5.2 Average RF = 2.664

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	2.585	12	1.000	2.504	08	2.000	2.660	07	5.000	2.819
06	20.000	2.850	05	50.000	2.715	04	100.000	2.513			

o-Xylene Average RF RSD = 3.8 Average RF = 0.5735

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.5536	12	1.000	0.5394	08	2.000	0.5542	07	5.000	0.5930
06	20.000	0.5991	05	50.000	0.5680	04	100.000	0.6017	03	150.000	0.5719
02	200.000	0.5810									

sec-Butylbenzene Average RF RSD = 5.0 Average RF = 2.195

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	2.193	12	1.000	2.218	08	2.000	2.163	07	5.000	2.304
06	20.000	2.352	05	50.000	2.231	04	100.000	2.090	03	150.000	2.011

tert-Butylbenzene Average RF RSD = 5.3 Average RF = 1.563

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	1.633	12	1.000	1.526	08	2.000	1.453	07	5.000	1.685
06	20.000	1.642	05	50.000	1.558	04	100.000	1.527	03	150.000	1.482

Initial Calibration - Detailed Report

Calibration ID: RC1500131 **Instrument ID:** R-MS-06
Signal ID: 1

Analyte	Curve Fit	Weighting									
trans-1,2-Dichloroethene	Average RF			RSD = 3.5		Average RF = 0.4511					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.4617	12	1.000	0.4536	08	2.000	0.4466	07	5.000	0.4818
06	20.000	0.4649	05	50.000	0.4437	04	100.000	0.4352	03	150.000	0.4384
02	200.000	0.4337									
trans-1,3-Dichloropropene	Average RF			RSD = 3.9		Average RF = 0.3336					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.3571	12	1.000	0.3238	08	2.000	0.3150	07	5.000	0.3425
06	20.000	0.3463	05	50.000	0.3269	04	100.000	0.3334	03	150.000	0.3255
02	200.000	0.3315									
trans-1,4-Dichloro-2-butene	Average RF			RSD = 12.8		Average RF = 0.09214					
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
10	0.500	0.1010	12	1.000	0.07980	08	2.000	0.06978	07	5.000	0.09471
06	20.000	0.09099	05	50.000	0.09529	04	100.000	0.1010	03	150.000	0.1045

Initial Calibration - Detailed Report

Calibration ID:	RC1500131	**Instrument ID:**	R-MS-06
		Signal ID:	1

Analyte

1,1,1,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.51	1.2	12	1.000	1.04	3.7	08	2.000	1.87	-6.5
07	5.000	5.10	2.0	06	20.000	20.07	0.4	05	50.000	49.83	-0.3
04	100.000	100.56	0.6	03	150.000	149.94	0.0	02	200.000	198.07	-1.0

1,1,1-Trichloroethane (TCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.50	-1.0	12	1.000	1.07	6.6	08	2.000	1.92	-4.0
07	5.000	5.09	1.9	06	20.000	20.63	3.1	05	50.000	48.88	-2.2
04	100.000	97.64	-2.4	03	150.000	149.54	-0.3	02	200.000	196.58	-1.7

1,1,2,2-Tetrachloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.52	4.0	12	1.000	0.94	-5.8	08	2.000	2.01	0.6
07	5.000	5.34	6.8	06	20.000	20.65	3.3	05	50.000	50.52	1.0
04	100.000	97.96	-2.0	03	150.000	141.97	-5.4	02	200.000	195.02	-2.5

1,1,2-Trichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.50	0.5	12	1.000	1.00	0.2	08	2.000	1.95	-2.3
07	5.000	5.20	4.0	06	20.000	21.02	5.1	05	50.000	48.45	-3.1
04	100.000	98.39	-1.6	03	150.000	145.34	-3.1	02	200.000	200.38	0.2

1,1,2-Trichlorotrifluoroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.52	4.9	12	1.000	1.07	7.3	08	2.000	1.82	-9.2
07	5.000	5.32	6.4	06	20.000	20.77	3.9	05	50.000	47.68	-4.6
04	100.000	96.19	-3.8	03	150.000	147.60	-1.6	02	200.000	193.55	-3.2

1,1-Dichloroethane (1,1-DCA)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.55	9.8	12	1.000	1.03	3.2	08	2.000	1.94	-3.0
07	5.000	5.15	3.0	06	20.000	20.65	3.3	05	50.000	49.61	-0.8
04	100.000	95.28	-4.7	03	150.000	146.03	-2.6	02	200.000	183.94	-8.0

1,1-Dichloroethene (1,1-DCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.55	10.8	12	1.000	0.92	-8.3	08	2.000	2.03	1.7
07	5.000	5.15	2.9	06	20.000	20.91	4.6	05	50.000	49.66	-0.7
04	100.000	96.08	-3.9	03	150.000	147.21	-1.9	02	200.000	189.64	-5.2

1,1-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.57	13.3	12	1.000	0.96	-3.8	08	2.000	1.86	-7.0
07	5.000	5.18	3.6	06	20.000	20.57	2.9	05	50.000	48.52	-3.0
04	100.000	97.92	-2.1	03	150.000	147.31	-1.8	02	200.000	195.79	-2.1

Initial Calibration - Detailed Report

Calibration ID: RC1500131 **Instrument ID:** R-MS-06
Signal ID: 1

Analyte

1,2,3-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.50	0.6	12	1.000	0.95	-5.0	08	2.000	1.95	-2.7
07	5.000	5.34	6.7	06	20.000	20.82	4.1	05	50.000	50.96	1.9
04	100.000	100.89	0.9	03	150.000	144.49	-3.7	02	200.000	194.29	-2.9

1,2,3-Trichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.57	14.2	12	1.000	0.92	-7.8	08	2.000	2.16	8.1
07	5.000	4.86	-2.9	06	20.000	20.82	4.1	05	50.000	48.23	-3.5
04	100.000	97.35	-2.7	03	150.000	140.40	-6.4	02	200.000	193.80	-3.1

1,2,4-Trichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.50	0.2	12	1.000	0.99	-0.6	08	2.000	1.89	-5.6
07	5.000	5.22	4.3	06	20.000	20.35	1.8	05	50.000	52.11	4.2
04	100.000	101.45	1.5	03	150.000	146.96	-2.0	02	200.000	192.55	-3.7

1,2,4-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.50	-0.9	12	1.000	0.98	-2.1	08	2.000	1.96	-2.2
07	5.000	5.35	7.0	06	20.000	21.38	6.9	05	50.000	50.78	1.6
04	100.000	97.82	-2.2	03	150.000	138.03	-8.0				

1,2-Dibromo-3-chloropropane (DBCP)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
12	1.000	1.28	28.4	08	2.000	1.87	-6.6	07	5.000	5.01	0.2
06	20.000	19.49	-2.5	05	50.000	47.45	-5.1	04	100.000	96.85	-3.2
03	150.000	138.60	-7.6	02	200.000	192.88	-3.6				

1,2-Dibromoethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.49	-2.8	12	1.000	0.95	-4.9	08	2.000	1.92	-3.8
07	5.000	5.14	2.8	06	20.000	20.56	2.8	05	50.000	50.99	2.0
04	100.000	102.21	2.2	03	150.000	151.00	0.7	02	200.000	201.98	1.0

1,2-Dichloro-1,1,2-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.52	3.3	12	1.000	1.06	6.3	08	2.000	1.98	-0.8
07	5.000	5.14	2.8	06	20.000	20.75	3.7	05	50.000	48.02	-4.0
04	100.000	97.77	-2.2	03	150.000	148.59	-0.9	02	200.000	183.72	-8.1

1,2-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.50	-0.7	12	1.000	1.00	0.3	08	2.000	1.99	-0.4
07	5.000	5.29	5.8	06	20.000	21.40	7.0	05	50.000	49.82	-0.4
04	100.000	96.91	-3.1	03	150.000	137.15	-8.6				

Initial Calibration - Detailed Report

Calibration ID:	RC1500131	**Instrument ID:**	R-MS-06
		Signal ID:	1

Analyte

1,2-Dichloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
12	1.000	1.31	**31.2**	08	2.000	2.12	5.9	07	5.000	5.18	3.6
06	20.000	19.69	-1.5	05	50.000	45.19	-9.6	04	100.000	91.23	-8.8
03	150.000	133.70	-10.9	02	200.000	180.00	-10.0				

1,2-Dichloroethane-d4

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
05	50.000	51.12	2.2	08	60.000	63.44	5.7	07	70.000	71.38	2.0
06	100.000	100.65	0.7	04	125.000	117.52	-6.0	03	150.000	143.07	-4.6

1,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.58	15.6	12	1.000	1.09	9.0	08	2.000	1.87	-6.6
07	5.000	5.02	0.3	06	20.000	19.97	-0.1	05	50.000	47.35	-5.3
04	100.000	94.97	-5.0	03	150.000	142.78	-4.8	02	200.000	193.78	-3.1

1,3,5-Trimethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.49	-1.9	12	1.000	0.98	-2.2	08	2.000	2.02	0.8
07	5.000	5.31	6.3	06	20.000	20.94	4.7	05	50.000	50.38	0.8
04	100.000	98.15	-1.9	03	150.000	140.15	-6.6				

1,3-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.50	0.7	12	1.000	1.05	5.2	08	2.000	1.98	-0.8
07	5.000	5.26	5.2	06	20.000	20.70	3.5	05	50.000	50.56	1.1
04	100.000	97.24	-2.8	03	150.000	144.63	-3.6	02	200.000	182.69	-8.7

1,3-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.54	7.2	12	1.000	1.00	0.1	08	2.000	2.04	2.0
07	5.000	5.11	2.2	06	20.000	20.20	1.0	05	50.000	47.74	-4.5
04	100.000	99.19	-0.8	03	150.000	143.72	-4.2	02	200.000	194.02	-3.0

1,4-Dichlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.56	11.8	12	1.000	1.06	6.0	08	2.000	1.93	-3.5
07	5.000	5.26	5.2	06	20.000	20.63	3.2	05	50.000	49.46	-1.1
04	100.000	96.47	-3.5	03	150.000	139.86	-6.8	02	200.000	177.36	-11.3

1,4-Dioxane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
08	40.000	46.14	15.4	07	100.000	105.23	5.2	06	400.000	421.49	5.4
05	1000.000	963.37	-3.7	04	2000.000	1,839.02	-8.0	03	3000.000	2,923.62	-2.5
02	4000.000	3,531.95	-11.7								

Initial Calibration - Detailed Report

Calibration ID:	RC1500131	**Instrument ID:**	R-MS-06
		Signal ID:	1

Analyte

2,2-Dichloro-1,1,1-trifluoroethane (CFC

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.54	8.8	12	1.000	1.01	0.9	08	2.000	2.04	1.8
07	5.000	4.93	-1.4	06	20.000	21.00	5.0	05	50.000	47.31	-5.4
04	100.000	95.39	-4.6	03	150.000	142.52	-5.0				

2,2-Dichloropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.56	12.7	12	1.000	1.02	1.7	08	2.000	1.87	-6.6
07	5.000	4.95	-1.0	06	20.000	20.25	1.3	05	50.000	48.00	-4.0
04	100.000	97.06	-2.9	03	150.000	149.59	-0.3	02	200.000	198.33	-0.8

2-Butanone (MEK)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
07	5.000	4.62	-7.6	06	20.000	19.71	-1.5	05	50.000	50.08	0.2
04	100.000	98.12	-1.9	03	150.000	152.50	1.7	02	200.000	218.19	9.1

2-Chloro-1,3-butadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.46	-7.5	12	1.000	1.03	2.7	08	2.000	1.86	-6.9
07	5.000	5.18	3.6	06	20.000	20.49	2.5	05	50.000	50.66	1.3
04	100.000	100.77	0.8	03	150.000	152.56	1.7	02	200.000	203.62	1.8

2-Chloroethyl Vinyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
12	1.000	0.85	-14.9	08	2.000	1.72	-13.9	07	5.000	5.06	1.1
06	20.000	21.48	7.4	05	50.000	53.11	6.2	04	100.000	103.93	3.9
03	150.000	156.32	4.2	02	200.000	211.85	5.9				

2-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.52	3.7	12	1.000	1.03	2.9	08	2.000	2.04	2.0
07	5.000	5.23	4.6	06	20.000	19.92	-0.4	05	50.000	49.53	-0.9
04	100.000	95.79	-4.2	03	150.000	138.52	-7.7				

2-Hexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
07	5.000	4.53	-9.5	06	20.000	19.64	-1.8	05	50.000	49.93	-0.1
04	100.000	105.20	5.2	03	150.000	150.94	0.6	02	200.000	211.10	5.5

2-Methyl-1-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
08	40.000	36.51	-8.7	07	100.000	95.16	-4.8	06	400.000	415.73	3.9
05	1000.000	967.13	-3.3	04	2000.000	2,039.72	2.0	03	3000.000	3,104.60	3.5
02	4000.000	4,298.31	7.5								

Initial Calibration - Detailed Report

Calibration ID:	RC1500131	**Instrument ID:**	R-MS-06
		Signal ID:	1

Analyte

2-Methyl-2-propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	10.000	10.85	8.5	12	20.000	21.42	7.1	08	40.000	39.54	-1.1
07	100.000	97.69	-2.3	06	400.000	413.96	3.5	05	1000.000	965.88	-3.4
04	2000.000	1,870.64	-6.5	03	3000.000	2,887.58	-3.7	02	4000.000	3,918.99	-2.0

2-Nitropropane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
08	4.000	3.99	-0.1	07	10.000	9.66	-3.4	06	40.000	38.10	-4.8
05	100.000	95.04	-5.0	04	200.000	199.89	-0.1	03	300.000	311.49	3.8
02	400.000	437.81	9.5								

2-Propanol

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
12	20.000	20.44	2.2	08	40.000	39.51	-1.2	07	100.000	98.65	-1.3
06	400.000	453.17	13.3	05	1000.000	1,000.63	0.1	04	2000.000	1,911.30	-4.4
03	3000.000	2,921.28	-2.6	02	4000.000	3,761.62	-6.0				

3-Chloro-1-propene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.57	13.7	12	1.000	1.01	1.5	08	2.000	2.05	2.6
07	5.000	5.08	1.6	06	20.000	20.32	1.6	05	50.000	47.64	-4.7
04	100.000	96.01	-4.0	03	150.000	144.31	-3.8	02	200.000	183.12	-8.4

4-Bromofluorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
05	50.000	53.95	7.9	08	60.000	61.42	2.4	07	70.000	69.77	-0.3
06	100.000	96.21	-3.8	04	125.000	121.99	-2.4	03	150.000	144.37	-3.8

4-Chlorotoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.54	7.8	12	1.000	0.98	-1.7	08	2.000	2.02	1.2
07	5.000	5.05	1.1	06	20.000	20.71	3.6	05	50.000	50.55	1.1
04	100.000	95.32	-4.7	03	150.000	137.43	-8.4				

4-Isopropyltoluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.50	-0.6	12	1.000	1.01	1.5	08	2.000	1.97	-1.3
07	5.000	5.37	7.4	06	20.000	20.70	3.5	05	50.000	50.92	1.8
04	100.000	96.38	-3.6	03	150.000	136.93	-8.7				

4-Methyl-2-pentanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
07	5.000	4.60	-8.0	06	20.000	19.76	-1.2	05	50.000	50.26	0.5
04	100.000	100.86	0.9	03	150.000	151.81	1.2	02	200.000	213.20	6.6

Initial Calibration - Detailed Report

Calibration ID: RC1500131 **Instrument ID:** R-MS-06
Signal ID: 1

Analyte

Acetone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
07	5.000	4.76	-4.7	06	20.000	19.78	-1.1	05	50.000	49.67	-0.7
04	100.000	96.80	-3.2	03	150.000	155.14	3.4	02	200.000	212.49	6.2

Acetonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
12	5.000	5.85	17.1	08	10.000	10.54	5.4	07	25.000	27.29	9.1
06	100.000	101.61	1.6	05	250.000	235.15	-5.9	04	500.000	452.46	-9.5
03	750.000	688.03	-8.3	02	1000.000	904.78	-9.5				

Acrolein

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	2.500	3.10	24.1	12	5.000	4.63	-7.4	08	10.000	9.42	-5.8
07	25.000	24.05	-3.8	06	100.000	103.34	3.3	05	250.000	249.62	-0.2
04	500.000	478.74	-4.3	03	750.000	729.91	-2.7	02	1000.000	966.54	-3.3

Acrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	2.500	2.96	18.4	12	5.000	4.90	-2.1	08	10.000	10.29	2.9
07	25.000	26.11	4.4	06	100.000	100.68	0.7	05	250.000	239.14	-4.3
04	500.000	456.69	-8.7	03	750.000	700.59	-6.6	02	1000.000	952.12	-4.8

Benzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.53	5.3	12	1.000	1.03	3.3	08	2.000	2.02	1.1
07	5.000	5.08	1.5	06	20.000	20.95	4.8	05	50.000	48.96	-2.1
04	100.000	97.24	-2.8	03	150.000	143.00	-4.7	02	200.000	187.01	-6.5

Bromobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.53	6.0	12	1.000	1.01	0.7	08	2.000	1.98	-1.1
07	5.000	5.19	3.8	06	20.000	20.73	3.6	05	50.000	49.97	-0.1
04	100.000	97.46	-2.5	03	150.000	143.94	-4.0	02	200.000	187.03	-6.5

Bromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.57	14.5	12	1.000	0.98	-1.8	08	2.000	2.07	3.6
07	5.000	5.27	5.3	06	20.000	20.80	4.0	05	50.000	48.72	-2.6
04	100.000	93.25	-6.7	03	150.000	140.22	-6.5	02	200.000	180.43	-9.8

Bromodichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.50	0.0	12	1.000	0.99	-0.6	08	2.000	1.83	-8.6
07	5.000	5.21	4.2	06	20.000	20.63	3.2	05	50.000	49.25	-1.5
04	100.000	102.08	2.1	03	150.000	152.72	1.8	02	200.000	198.86	-0.6

Initial Calibration - Detailed Report

Calibration ID:	RC1500131	**Instrument ID:**	R-MS-06
		Signal ID:	1

Analyte

Bromoform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.51	2.3	12	1.000	0.95	-4.9	08	2.000	1.64	-18.0
07	5.000	4.84	-3.1	06	20.000	20.23	1.1	05	50.000	50.68	1.4
04	100.000	109.77	9.8	03	150.000	167.32	11.5				

Bromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.65	**30.8**	12	1.000	1.10	9.7	08	2.000	1.88	-5.8
07	5.000	4.27	-14.5	06	20.000	17.62	-11.9	05	50.000	45.15	-9.7
04	100.000	98.38	-1.6	03	150.000	154.50	3.0	02	200.000	200.17	0.1

Carbon Disulfide

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.55	9.5	12	1.000	1.06	6.1	08	2.000	1.89	-5.3
07	5.000	5.24	4.7	06	20.000	20.50	2.5	05	50.000	48.07	-3.9
04	100.000	93.97	-6.0	03	150.000	138.62	-7.6				

Carbon Tetrachloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.47	-6.2	12	1.000	1.08	8.2	08	2.000	1.79	-10.4
07	5.000	5.04	0.7	06	20.000	20.89	4.5	05	50.000	48.79	-2.4
04	100.000	101.97	2.0	03	150.000	150.79	0.5	02	200.000	206.32	3.2

Chlorobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.53	5.2	12	1.000	1.05	5.1	08	2.000	1.89	-5.3
07	5.000	5.06	1.3	06	20.000	20.56	2.8	05	50.000	49.56	-0.9
04	100.000	97.05	-2.9	03	150.000	142.16	-5.2				

Chloroethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.53	6.7	12	1.000	0.98	-2.3	08	2.000	1.89	-5.3
07	5.000	5.59	11.7	06	20.000	20.87	4.4	05	50.000	49.75	-0.5
04	100.000	94.36	-5.6	03	150.000	144.99	-3.3	02	200.000	188.62	-5.7

Chloroform

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.57	14.2	12	1.000	1.03	3.0	08	2.000	1.88	-6.2
07	5.000	5.22	4.4	06	20.000	20.39	1.9	05	50.000	48.46	-3.1
04	100.000	93.58	-6.4	03	150.000	146.79	-2.1	02	200.000	188.71	-5.6

Chloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.54	8.6	12	1.000	1.04	3.6	08	2.000	2.08	4.1
07	5.000	5.41	8.1	06	20.000	20.19	0.9	05	50.000	46.91	-6.2
04	100.000	91.82	-8.2	03	150.000	143.61	-4.3	02	200.000	186.50	-6.7

Initial Calibration - Detailed Report

Calibration ID:	RC1500131	**Instrument ID:**	R-MS-06
		Signal ID:	1

Analyte

Cyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.53	5.2	12	1.000	1.04	4.0	08	2.000	1.90	-5.2
07	5.000	4.80	-4.0	06	20.000	20.45	2.2	05	50.000	48.09	-3.8
04	100.000	101.12	1.1	03	150.000	154.12	2.7	02	200.000	195.64	-2.2

Cyclohexanone

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
12	20.000	18.81	-6.0	08	40.000	40.24	0.6	07	100.000	101.10	1.1
06	400.000	411.45	2.9	05	1000.000	1,032.27	3.2	04	2000.000	2,020.39	1.0
03	3000.000	2,905.92	-3.1	02	4000.000	4,011.92	0.3				

Dibromochloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.49	-1.7	12	1.000	0.93	-7.4	08	2.000	1.84	-8.2
07	5.000	5.07	1.3	06	20.000	20.49	2.4	05	50.000	50.62	1.2
04	100.000	105.31	5.3	03	150.000	155.58	3.7	02	200.000	206.52	3.3

Dibromofluoromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
05	50.000	51.02	2.0	08	60.000	63.48	5.8	07	70.000	71.23	1.8
06	100.000	99.76	-0.2	04	125.000	118.62	-5.1	03	150.000	143.61	-4.3

Dibromomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.54	8.8	12	1.000	1.08	7.7	08	2.000	1.83	-8.3
07	5.000	5.26	5.1	06	20.000	19.92	-0.4	05	50.000	47.79	-4.4
04	100.000	96.62	-3.4	03	150.000	146.06	-2.6	02	200.000	194.89	-2.6

Dichlorodifluoromethane (CFC 12)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.48	-4.2	12	1.000	1.10	10.1	08	2.000	1.83	-8.6
07	5.000	5.32	6.4	06	20.000	20.86	4.3	05	50.000	50.35	0.7
04	100.000	96.34	-3.7	03	150.000	142.39	-5.1				

Dichlorofluoromethane (CFC 21)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.53	6.9	12	1.000	1.06	6.4	08	2.000	1.95	-2.7
07	5.000	5.19	3.8	06	20.000	21.03	5.2	05	50.000	47.13	-5.7
04	100.000	93.69	-6.3	03	150.000	138.78	-7.5				

Dichloromethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.60	19.3	12	1.000	1.04	3.7	08	2.000	1.97	-1.6
07	5.000	5.24	4.9	06	20.000	20.35	1.8	05	50.000	47.30	-5.4
04	100.000	92.11	-7.9	03	150.000	140.07	-6.6	02	200.000	183.58	-8.2

Initial Calibration - Detailed Report

Calibration ID: RC1500131 **Instrument ID:** R-MS-06
Signal ID: 1

Analyte

Diethyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.49	-2.6	12	1.000	1.02	1.7	08	2.000	2.04	1.9
07	5.000	5.40	8.0	06	20.000	20.10	0.5	05	50.000	48.86	-2.3
04	100.000	96.38	-3.6	03	150.000	145.06	-3.3	02	200.000	199.48	-0.3

Ethyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.47	-5.7	12	1.000	0.95	-4.7	08	2.000	1.76	-11.8
07	5.000	4.99	-0.2	06	20.000	20.74	3.7	05	50.000	50.92	1.8
04	100.000	108.45	8.5	03	150.000	156.03	4.0	02	200.000	208.89	4.4

Ethylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.45	-9.0	12	1.000	1.06	6.4	08	2.000	1.88	-6.1
07	5.000	5.13	2.7	06	20.000	20.72	3.6	05	50.000	49.00	-2.0
04	100.000	102.30	2.3	03	150.000	152.52	1.7	02	200.000	200.83	0.4

Hexachlorobutadiene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.60	20.1	12	1.000	0.91	-8.6	08	2.000	2.05	2.6
07	5.000	5.17	3.4	06	20.000	20.33	1.7	05	50.000	53.30	6.6
04	100.000	93.58	-6.4	03	150.000	137.16	-8.6	02	200.000	178.32	-10.8

Iodomethane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
08	2.000	2.10	5.2	07	5.000	4.48	-10.4	06	20.000	19.61	-2.0
05	50.000	53.33	6.7	04	100.000	103.19	3.2	03	150.000	150.66	0.4
02	200.000	193.62	-3.2								

Isopropylbenzene (Cumene)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.54	7.9	12	1.000	0.99	-1.5	08	2.000	1.95	-2.6
07	5.000	5.16	3.3	06	20.000	20.61	3.1	05	50.000	50.12	0.2
04	100.000	98.25	-1.7	03	150.000	137.04	-8.6				

Methacrylonitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
12	1.000	0.82	-18.2	08	2.000	2.03	1.6	07	5.000	4.89	-2.2
06	20.000	21.60	8.0	05	50.000	50.34	0.7	04	100.000	98.81	-1.2
03	150.000	154.05	2.7	02	200.000	217.04	8.5				

Methyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.54	8.3	12	1.000	0.97	-2.7	08	2.000	1.96	-2.0
07	5.000	5.49	9.8	06	20.000	20.08	0.4	05	50.000	48.27	-3.5
04	100.000	94.31	-5.7	03	150.000	145.76	-2.8	02	200.000	196.70	-1.7

Initial Calibration - Detailed Report

Calibration ID:	RC1500131	**Instrument ID:**	R-MS-06
		Signal ID:	1

Analyte

Methyl Methacrylate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
08	2.000	1.38	-30.8	07	5.000	4.71	-5.9	06	20.000	21.33	6.7
05	50.000	51.22	2.4	04	100.000	110.80	10.8	03	150.000	159.94	6.6
02	200.000	220.33	10.2								

Methyl tert-Butyl Ether

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.51	1.8	12	1.000	0.96	-4.2	08	2.000	1.96	-1.8
07	5.000	5.07	1.5	06	20.000	21.16	5.8	05	50.000	50.68	1.4
04	100.000	97.72	-2.3	03	150.000	145.97	-2.7	02	200.000	201.16	0.6

Methylcyclohexane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.53	6.8	12	1.000	1.07	7.1	08	2.000	1.81	-9.5
07	5.000	4.78	-4.4	06	20.000	21.06	5.3	05	50.000	47.92	-4.2
04	100.000	101.49	1.5	03	150.000	153.19	2.1	02	200.000	190.64	-4.7

Naphthalene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.52	4.5	12	1.000	0.93	-7.2	08	2.000	1.89	-5.7
07	5.000	5.12	2.4	06	20.000	21.50	7.5	05	50.000	52.32	4.6
04	100.000	102.27	2.3	03	150.000	145.17	-3.2	02	200.000	189.34	-5.3

Nitrobenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
07	10.000	10.50	5.0	06	40.000	34.99	-12.5	05	100.000	86.30	-13.7
04	200.000	203.68	1.8	03	300.000	322.52	7.5	02	400.000	447.55	11.9

Propionitrile

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	2.500	2.24	-10.3	12	5.000	5.20	4.0	08	10.000	9.36	-6.4
07	25.000	26.36	5.4	06	100.000	103.27	3.3	05	250.000	255.14	2.1
04	500.000	499.26	-0.1	03	750.000	760.22	1.4	02	1000.000	1,006.87	0.7

Styrene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.51	1.1	12	1.000	1.04	4.3	08	2.000	1.84	-8.1
07	5.000	5.15	3.0	06	20.000	20.96	4.8	05	50.000	50.33	0.7
04	100.000	98.97	-1.0	03	150.000	149.12	-0.6	02	200.000	191.67	-4.2

Tetrachloroethene (PCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.54	7.5	12	1.000	1.02	2.4	08	2.000	1.96	-2.2
07	5.000	4.96	-0.7	06	20.000	19.61	-2.0	05	50.000	49.29	-1.4
04	100.000	101.30	1.3	03	150.000	146.60	-2.3	02	200.000	194.71	-2.6

Initial Calibration - Detailed Report

Calibration ID:	RC1500131	**Instrument ID:**	R-MS-06
		Signal ID:	I

Analyte

Tetrahydrofuran (THF)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
08	2.000	1.76	-11.8	07	5.000	5.01	0.3	06	20.000	20.65	3.2
05	50.000	50.29	0.6	04	100.000	97.18	-2.8	03	150.000	153.80	2.5
02	200.000	216.02	8.0								

Toluene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.50	-0.1	12	1.000	1.08	8.1	08	2.000	2.06	2.9
07	5.000	5.18	3.6	06	20.000	20.95	4.8	05	50.000	47.80	-4.4
04	100.000	96.06	-3.9	03	150.000	133.53	-11.0				

Toluene-d8

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
05	50.000	53.52	7.0	08	60.000	63.05	5.1	07	70.000	73.29	4.7
06	100.000	99.14	-0.9	04	125.000	117.40	-6.1	03	150.000	135.18	-9.9

Trichloroethene (TCE)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.50	-0.6	12	1.000	1.09	8.7	08	2.000	1.80	-10.1
07	5.000	5.17	3.3	06	20.000	20.92	4.6	05	50.000	49.53	-0.9
04	100.000	99.61	-0.4	03	150.000	146.00	-2.7	02	200.000	196.21	-1.9

Trichlorofluoromethane (CFC 11)

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.55	10.2	12	1.000	1.03	3.3	08	2.000	1.90	-5.1
07	5.000	5.34	6.9	06	20.000	20.76	3.8	05	50.000	49.85	-0.3
04	100.000	95.82	-4.2	03	150.000	142.39	-5.1	02	200.000	180.79	-9.6

Vinyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.52	4.9	12	1.000	0.94	-6.4	08	2.000	1.84	-8.2
07	5.000	4.98	-0.4	06	20.000	20.88	4.4	05	50.000	49.97	-0.1
04	100.000	99.36	-0.6	03	150.000	153.00	2.0	02	200.000	208.88	4.4

Vinyl Chloride

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.53	5.5	12	1.000	1.06	5.7	08	2.000	1.87	-6.5
07	5.000	5.36	7.2	06	20.000	20.95	4.7	05	50.000	48.93	-2.1
04	100.000	92.47	-7.5	03	150.000	139.48	-7.0				

cis-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.51	1.6	12	1.000	1.02	2.3	08	2.000	1.95	-2.7
07	5.000	5.24	4.7	06	20.000	20.63	3.1	05	50.000	49.12	-1.8
04	100.000	95.21	-4.8	03	150.000	147.63	-1.6	02	200.000	198.32	-0.8

Initial Calibration - Detailed Report

Calibration ID:	RC1500131	**Instrument ID:**	R-MS-06
		Signal ID:	1

Analyte

cis-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.50	-0.9	12	1.000	0.93	-7.2	08	2.000	1.93	-3.7
07	5.000	4.99	-0.2	06	20.000	21.10	5.5	05	50.000	50.54	1.1
04	100.000	101.56	1.6	03	150.000	151.93	1.3	02	200.000	205.01	2.5

m,p-Xylenes

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	1.000	0.98	-1.6	12	2.000	1.97	-1.6	08	4.000	3.80	-5.0
07	10.000	10.66	6.6	06	40.000	41.40	3.5	05	100.000	100.39	0.4
04	200.000	204.34	2.2	03	300.000	297.96	-0.7	02	400.000	384.91	-3.8

n-Butyl Acetate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
12	1.000	0.94	-6.1	08	2.000	1.86	-7.1	07	5.000	4.78	-4.5
06	20.000	19.99	0.0	05	50.000	50.69	1.4	04	100.000	106.18	6.2
03	150.000	156.76	4.5	02	200.000	211.18	5.6				

n-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.46	-7.9	12	1.000	1.03	3.4	08	2.000	1.89	-5.4
07	5.000	5.37	7.4	06	20.000	21.15	5.8	05	50.000	52.85	5.7
04	100.000	99.15	-0.9	03	150.000	137.69	-8.2				

n-Heptane

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.53	7.0	12	1.000	1.01	0.9	08	2.000	1.90	-5.2
07	5.000	4.97	-0.7	06	20.000	20.64	3.2	05	50.000	51.33	2.7
04	100.000	98.96	-1.0	03	150.000	146.45	-2.4	02	200.000	191.10	-4.5

n-Propylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.49	-3.0	12	1.000	0.94	-6.0	08	2.000	2.00	-0.1
07	5.000	5.29	5.8	06	20.000	21.40	7.0	05	50.000	50.96	1.9
04	100.000	94.35	-5.6								

o-Xylene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.48	-3.5	12	1.000	0.94	-6.0	08	2.000	1.93	-3.4
07	5.000	5.17	3.4	06	20.000	20.89	4.4	05	50.000	49.51	-1.0
04	100.000	104.91	4.9	03	150.000	149.58	-0.3	02	200.000	202.61	1.3

sec-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.50	-0.1	12	1.000	1.01	1.0	08	2.000	1.97	-1.5
07	5.000	5.25	5.0	06	20.000	21.43	7.1	05	50.000	50.81	1.6
04	100.000	95.20	-4.8	03	150.000	137.42	-8.4				

Initial Calibration - Detailed Report

Calibration ID:	RC1500131	**Instrument ID:**	R-MS-06
		Signal ID:	1

Analyte

tert-Butylbenzene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.52	4.5	12	1.000	0.98	-2.4	08	2.000	1.86	-7.1
07	5.000	5.39	7.8	06	20.000	21.00	5.0	05	50.000	49.83	-0.3
04	100.000	97.70	-2.3	03	150.000	142.19	-5.2				

trans-1,2-Dichloroethene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.51	2.4	12	1.000	1.01	0.6	08	2.000	1.98	-1.0
07	5.000	5.34	6.8	06	20.000	20.61	3.1	05	50.000	49.18	-1.6
04	100.000	96.49	-3.5	03	150.000	145.79	-2.8	02	200.000	192.29	-3.9

trans-1,3-Dichloropropene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.54	7.1	12	1.000	0.97	-2.9	08	2.000	1.89	-5.6
07	5.000	5.13	2.7	06	20.000	20.76	3.8	05	50.000	49.00	-2.0
04	100.000	99.96	0.0	03	150.000	146.38	-2.4	02	200.000	198.78	-0.6

trans-1,4-Dichloro-2-butene

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
10	0.500	0.55	9.7	12	1.000	0.87	-13.4	08	2.000	1.51	-24.3
07	5.000	5.14	2.8	06	20.000	19.75	-1.2	05	50.000	51.71	3.4
04	100.000	109.59	9.6	03	150.000	170.20	13.5				

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:36 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.35	168	630052	50.00	ug/L		0.00
39) 1,4-Difluorobenzene	5.67	114	851860	50.00	ug/L		0.00
64) d5-Chlorobenzene	9.08	117	756151	50.00	ug/L		0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	465887	50.00	ug/L		0.00
System Monitoring Compounds							
40) surr4,Dibrflmethane	3.64	113	289464	54.17	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.34%				
42) surr1,1,2-dichloroethane-d	4.23	65	236575	54.29	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 108.58%				
62) SURR3,Toluene-d8	7.76	98	968865	54.60	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 109.20%				
82) SURR2,BFB	10.14	95	365213	53.96	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 107.92%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.00	85	3268	0.48	ug/L		96
3) Chloromethane	1.07	50	3934	0.54	ug/L		86
4) Vinyl Chloride	1.15	62	4015	0.53	ug/L		99
5) Bromomethane	1.31	94	2966m	0.67	ug/L		
6) Chloroethane	1.38	64	2043	0.53	ug/L		95
7) Freon 21	1.40	67	5084	0.53	ug/L		86
8) Freon 123	1.57	83	4596	0.54	ug/L	#	79
9) Freon 123a	1.60	67	3357	0.52	ug/L		78
10) Acrolein	1.66	56	1729m	3.15	ug/L		
11) Trichlorofluoromethane	1.64	101	4354	0.55	ug/L		88
12) Acetonitrile	1.67	41	1164	2.83	ug/L		74
15) Diethyl Ether	1.79	59	1647	0.49	ug/L		91
16) 1,1-Diclethene	1.94	96	2857	0.55	ug/L		95
17) Iodomethane	1.96	142	1813	0.85	ug/L		71
18) TBA	1.98	59	2699	10.85	ug/L		64
19) Acrylonitrile	2.00	53	3350	2.96	ug/L		97
20) Methylene Chloride	2.04	84	3445	0.60	ug/L	#	71
21) Freon 113	2.07	101	2697	0.52	ug/L		96
22) Methyl Acetate	2.10	43	1248	0.55	ug/L		86
23) Allyl Chloride	2.10	76	1393	0.57	ug/L		99
24) Carbon Disulfide	2.14	76	9148	0.55	ug/L		99
25) trans-1,2-Dichloroethene	2.51	96	2909	0.51	ug/L		90
26) Methyl-t-Butyl Ether	2.63	73	5452	0.51	ug/L		98
27) 1,1-Diclethane	2.71	63	4739	0.55	ug/L		91
28) Propionitrile	2.77	54	840	2.26	ug/L		88
29) Vinyl Acetate	2.91	43	3830m	0.54	ug/L		
30) 2-Chloro-1,3-Butadiene	3.05	53	3640	0.46	ug/L		86
33) cis-1,2-Dichloroethene	3.27	96	2814	0.51	ug/L		92
34) Bromochloromethane	3.43	128	1525	0.57	ug/L	#	81
35) Chloroform	3.50	83	4989	0.57	ug/L		84
36) 2,2-Dichloropropane	3.57	77	3791	0.56	ug/L		79
38) 1,1,1-Trichloroethane	4.47	97	3487	0.50	ug/L		77
43) 1,2-Dichloroethane	4.35	62	4063	0.81	ug/L	#	58
44) 1,1-Dichloropropene	4.80	75	3533	0.57	ug/L	#	75
45) Cyclohexane	4.87	56	3992	0.53	ug/L		85

DL 12/1/15

(#) = qualifier out of range (m) = manual integration
M6188.D W113015.M Tue Dec 01 09:36:19 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:36 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Initial Calibration
DataAcq Meth : W113015

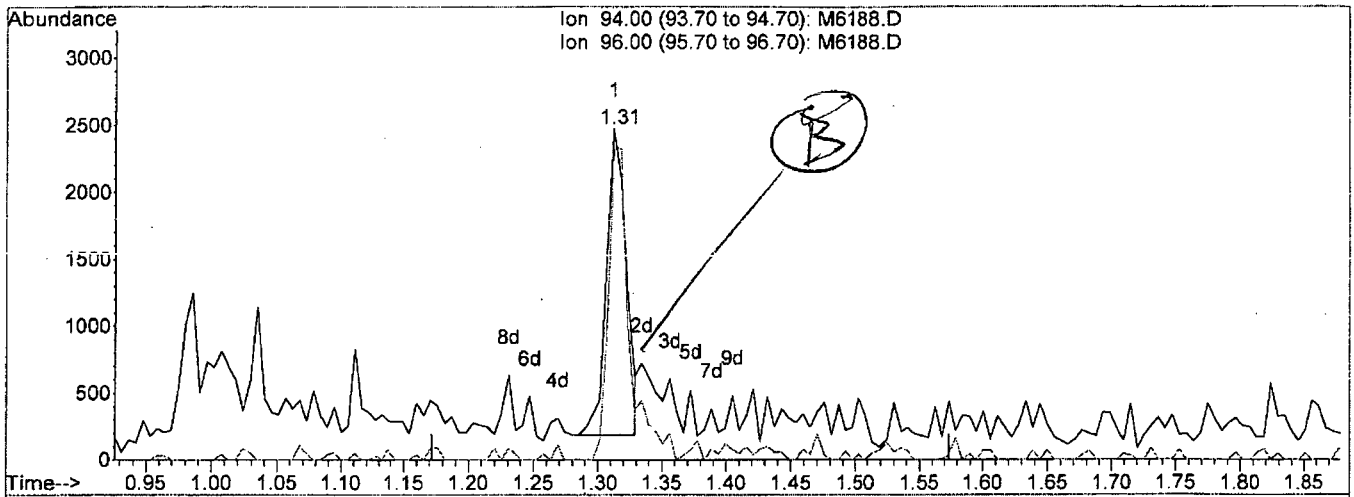
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
46)	Carbontetrachloride	5.03	119	2865	0.47	ug/L		89
47)	Benzene	5.15	78	10071	0.53	ug/L		88
48)	Dibromomethane	6.00	93	1417m	0.55	ug/L		
49)	1,2-Diclpropane	6.06	63	2806	0.58	ug/L		89
50)	n-Heptane	6.16	43	2226	0.54	ug/L	#	82
51)	Trichloroethene	6.14	130	2817	0.50	ug/L		95
52)	Bromodichloromethane	6.20	83	2952	0.50	ug/L		90
56)	Methylcyclohexane	6.73	55	2634	0.53	ug/L		92
57)	2-Chloroethylvinyl Ether	6.90	63	1137m	0.54	ug/L		
58)	cis-1,3-Dichloropropene	7.05	75	3433m	0.50	ug/L		
60)	trans-1,3-Dichloropropene	7.55	75	3042	0.52	ug/L	#	44
61)	1,1,2-Trichloroethane	7.66	97	1816	0.50	ug/L		98
63)	Toluene	7.83	91	9996	0.50	ug/L		97
65)	1,3-Dichloropropane	7.91	76	2900	0.54	ug/L		94
66)	Ethyl Methacrylate	8.10	69	1913m	0.47	ug/L		
67)	Dibromochloromethane	8.09	129	2211	0.49	ug/L		96
69)	1,2-Dibromoethane	8.31	107	1752	0.49	ug/L		97
71)	Tetrachloroethene	8.50	164	2463	0.54	ug/L		98
72)	1,1,1,2-Tetrachloroethane	9.05	131	2446	0.51	ug/L		89
73)	Chlorobenzene	9.11	112	7041	0.53	ug/L		93
74)	Ethylbenzene	9.33	106	3133	0.45	ug/L	#	79
75)	Bromoform	9.51	173	1456	0.51	ug/L	#	36
76)	(m+p)Xylene	9.51	106	8227	0.98	ug/L		90
77)	o-Xylene	9.83	106	4186	0.48	ug/L		99
78)	Cyclohexanone	9.75	55	1142	11.54	ug/L		78
79)	Styrene	9.77	104	6951	0.51	ug/L		98
80)	trans-1,4-Dichloro-2-Buten	10.01	75	764m	0.56	ug/L		
81)	Isopropylbenzene	10.14	105	11247	0.53	ug/L		89
84)	1,1,2,2-Tetrachloroethane	9.82	83	2216	0.52	ug/L		98
85)	1,2,3-Trichloropropane	9.94	75	1658	0.57	ug/L		92
86)	Bromobenzene	10.28	156	3421	0.53	ug/L		94
87)	n-Propylbenzene	10.50	91	12042	0.49	ug/L		97
88)	2-Chlorotoluene	10.54	91	7824	0.51	ug/L		98
89)	4-Chlorotoluene	10.61	91	8576	0.53	ug/L		90
90)	1,3,5-Trimethylbenzene	10.77	105	8211	0.49	ug/L		94
91)	tert-Butylbenzene	10.95	119	7610	0.52	ug/L		99
92)	1,2,4-Trimethylbenzene	11.06	105	8838	0.49	ug/L		99
93)	sec-Butylbenzene	11.13	105	10219	0.49	ug/L		97
94)	1,3-Dclbenz	11.15	146	5925	0.50	ug/L		94
95)	1,4-Dclbenz	11.21	146	6756	0.56	ug/L	#	41
96)	p-Isopropyltoluene	11.30	119	8405	0.50	ug/L		99
97)	1,2-Dclbenz	11.47	146	5535	0.50	ug/L		98
98)	n-Butylbenzene	11.62	91	6868	0.46	ug/L		95
101)	1,2,4-Tcbenzene	12.91	180	3229	0.50	ug/L		94
102)	Naphthalen	13.09	128	5921	0.52	ug/L		80
103)	Hexachlorobt	13.17	225	1852	0.60	ug/L	#	78
104)	1,2,3-Tclbenzene	13.25	180	2679	0.50	ug/L		83

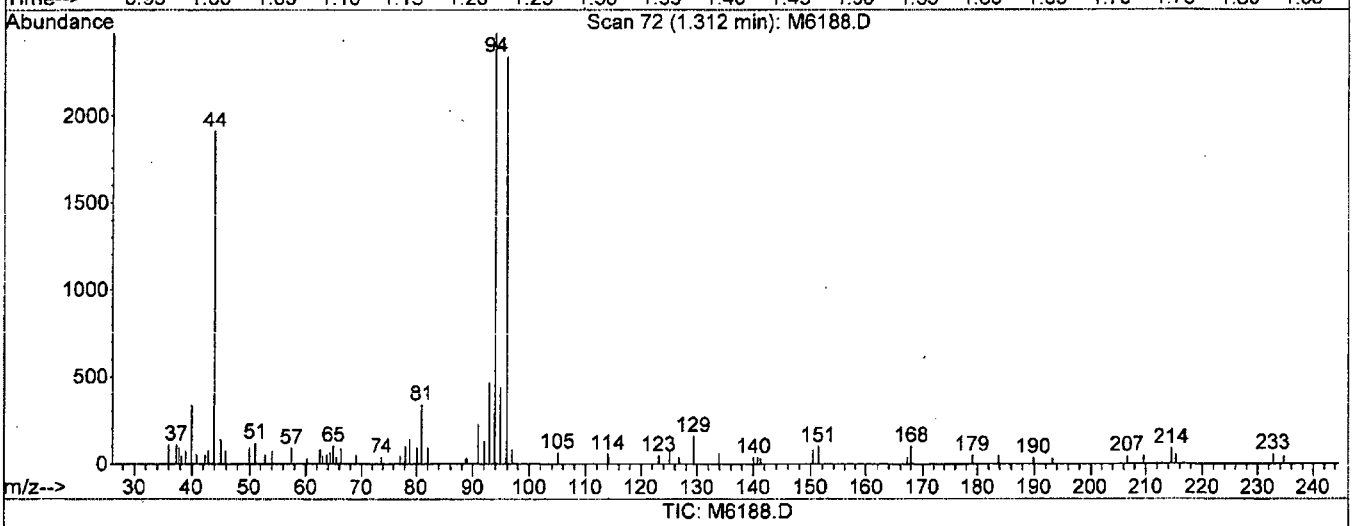
(#) = qualifier out of range (m) = manual integration
M6188.D W113015.M Tue Dec 01 09:36:20 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:28 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Multiple Level Calibration





TIC: M6188.D

(5) Bromomethane (P)

1.31min 0.55ug/L

response 2435

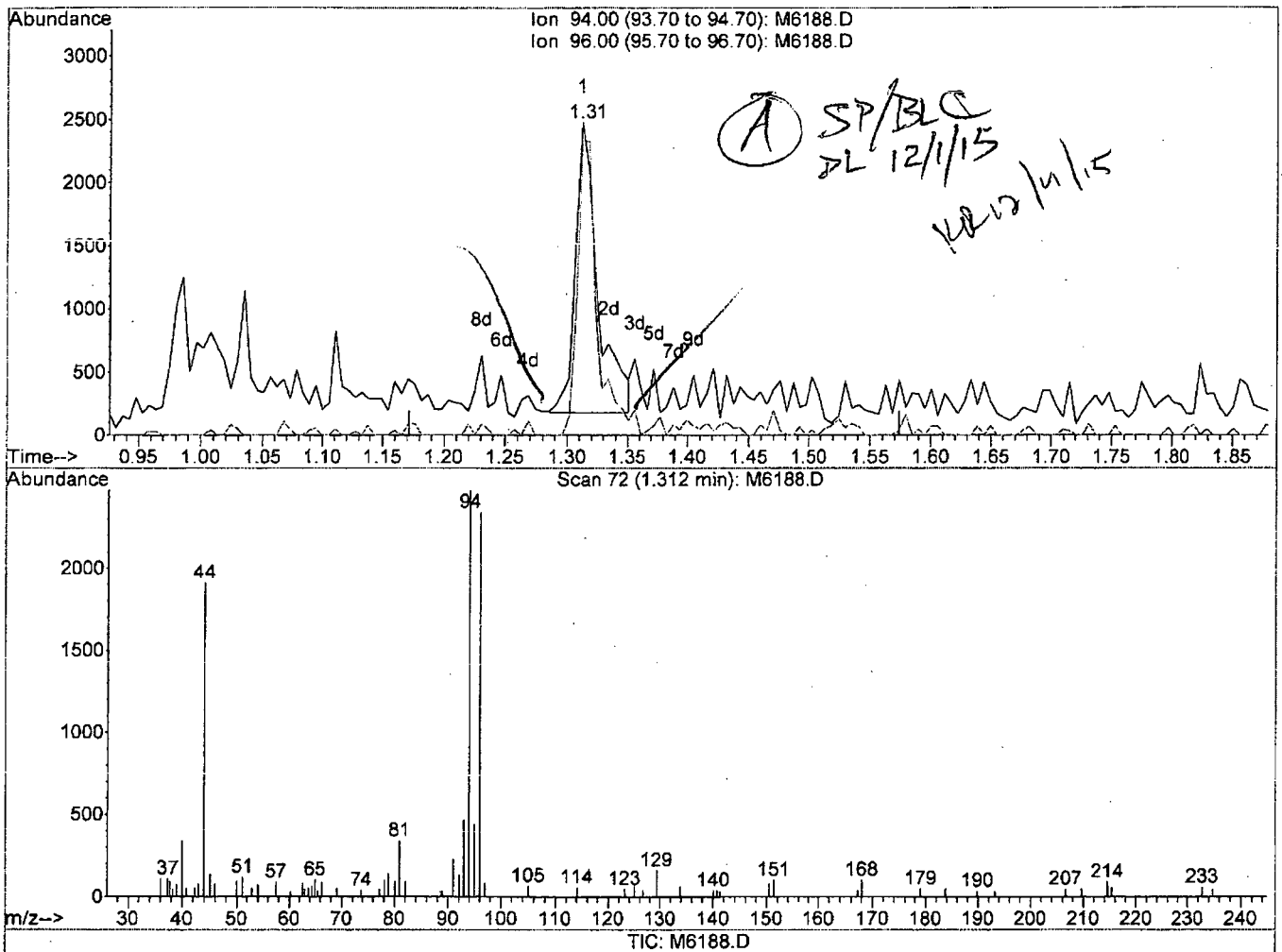
Ion	Exp%	Act%
94.00	100	100
96.00	95.90	94.47
0.00	0.00	0.00
0.00	0.00	0.00

M6188.D W113015.M Tue Dec 01 09:28:10 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:28 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Multiple Level Calibration



(5) Bromomethane (P)

1.31min 0.67ug/L m

response 2966

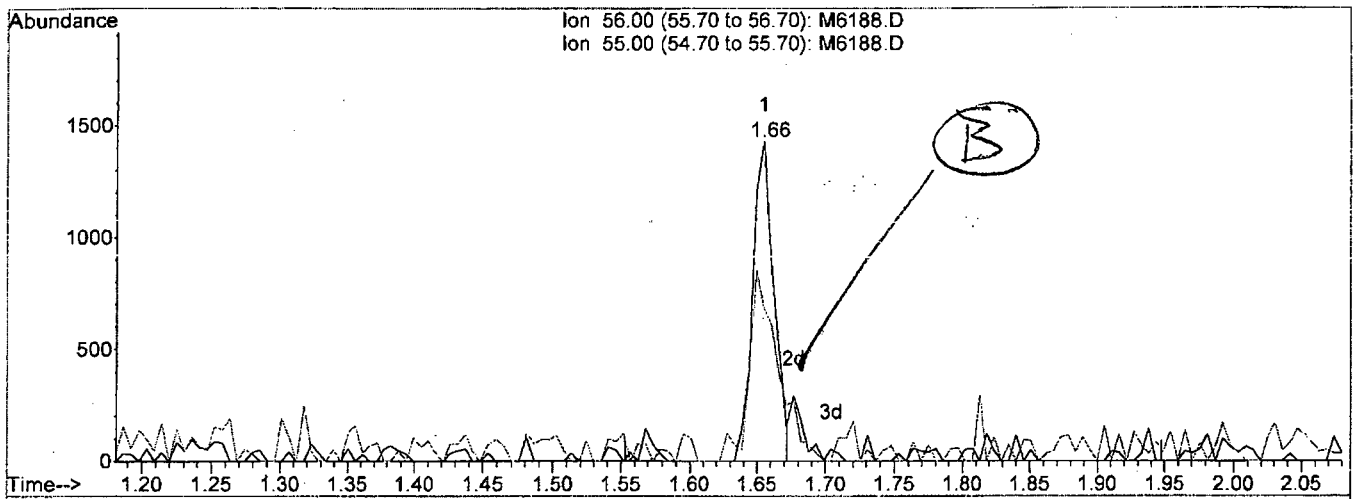
Ion	Exp%	Act%
94.00	100	100
96.00	95.90	94.47
0.00	0.00	0.00
0.00	0.00	0.00

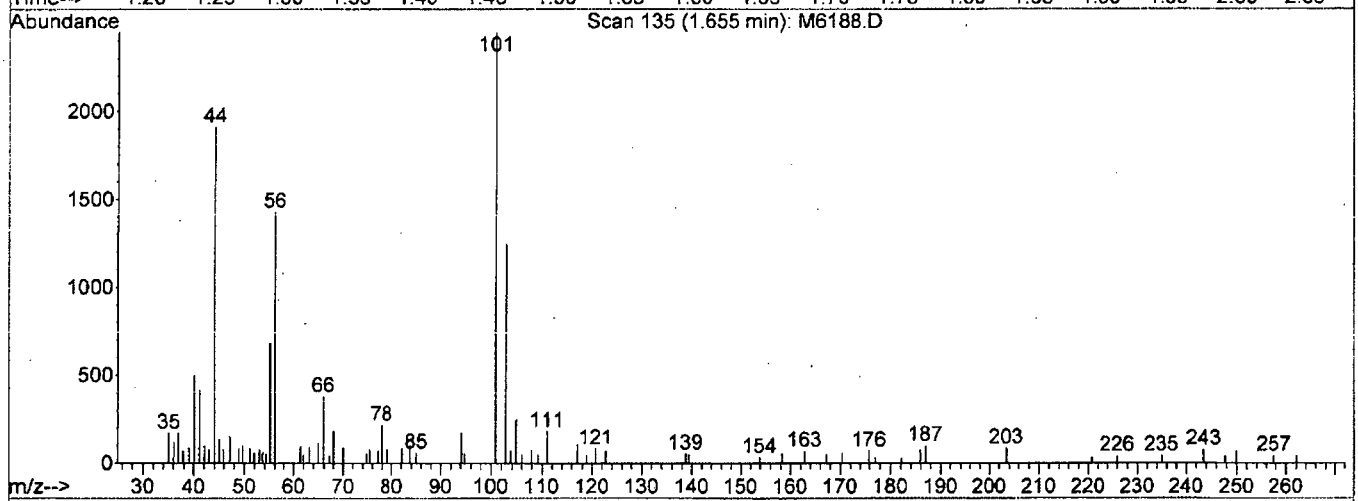
M6188.D W113015.M Tue Dec 01 09:28:26 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:28 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Multiple Level Calibration





TIC: M6188.D

(10) Acrolein

1.66min 2.80ug/L

response 1537

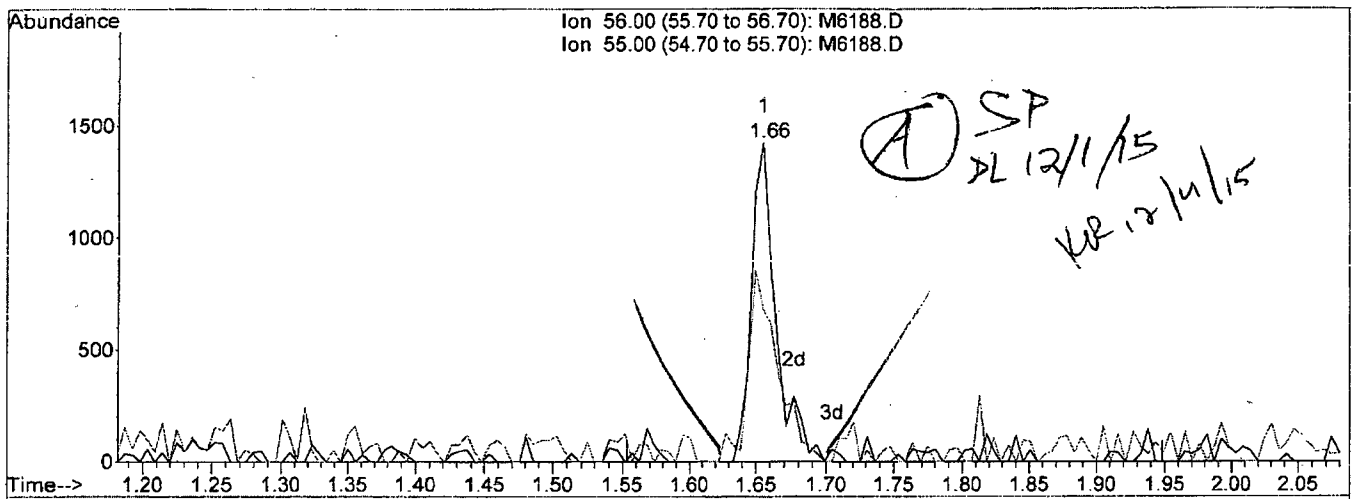
Ion	Exp%	Act%
56.00	100	100
55.00	69.70	47.69#
0.00	0.00	0.00
0.00	0.00	0.00

M6188.D W113015.M Tue Dec 01 09:28:44 2015

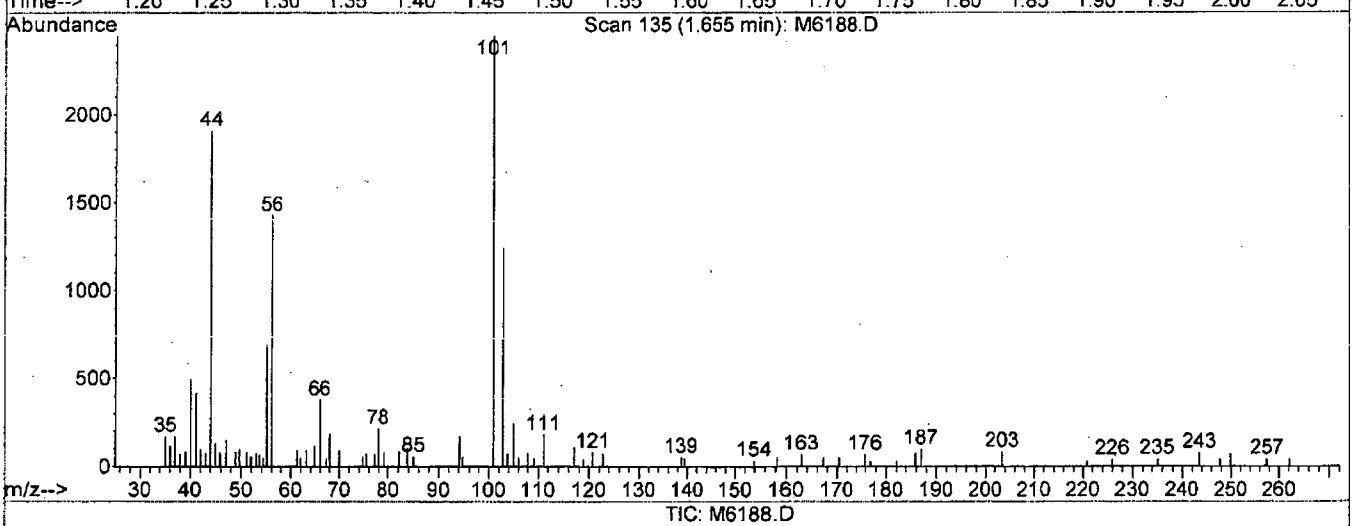
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:28 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Multiple Level Calibration



A SP 12/1/15 KP 12/4/15



TIC: M6188.D

(10) Acrolein

1.66min 3.15ug/L m

response 1729

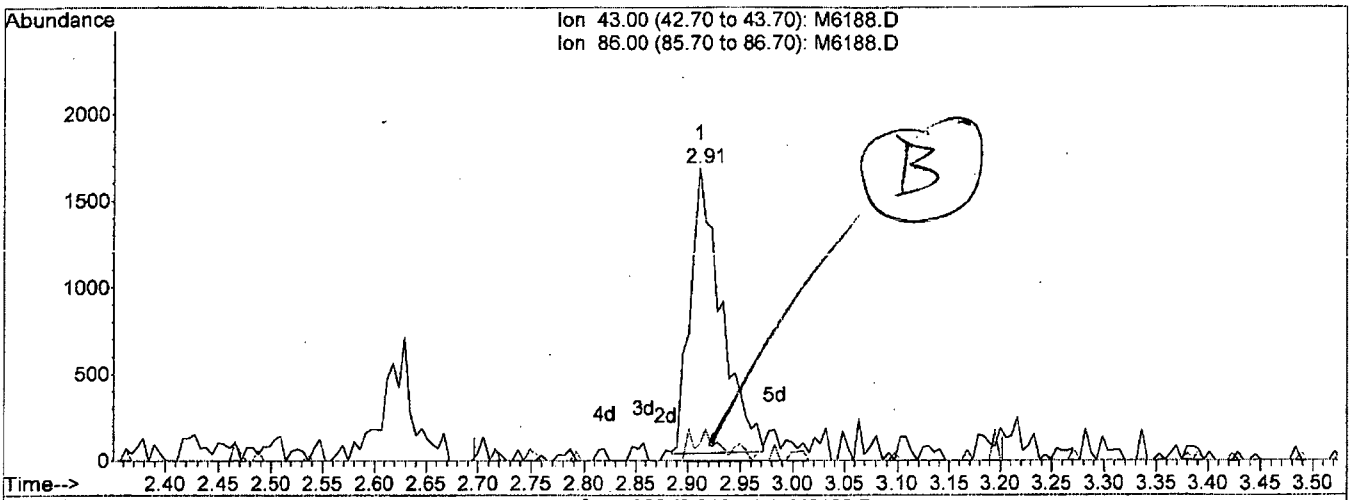
Ion	Exp%	Act%
56.00	100	100
55.00	69.70	47.69#
0.00	0.00	0.00
0.00	0.00	0.00

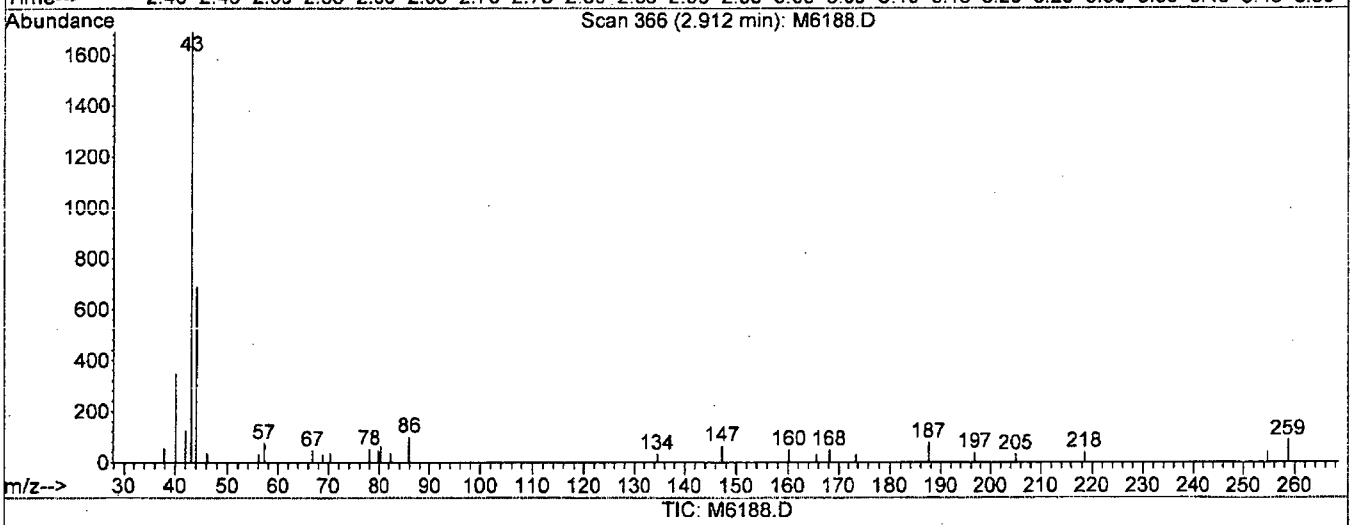
M6188.D W113015.M Tue Dec 01 09:28:53 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:29 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Multiple Level Calibration





TIC: M6188.D

(29) Vinyl Acetate

2.91min 0.47ug/L

response 3340

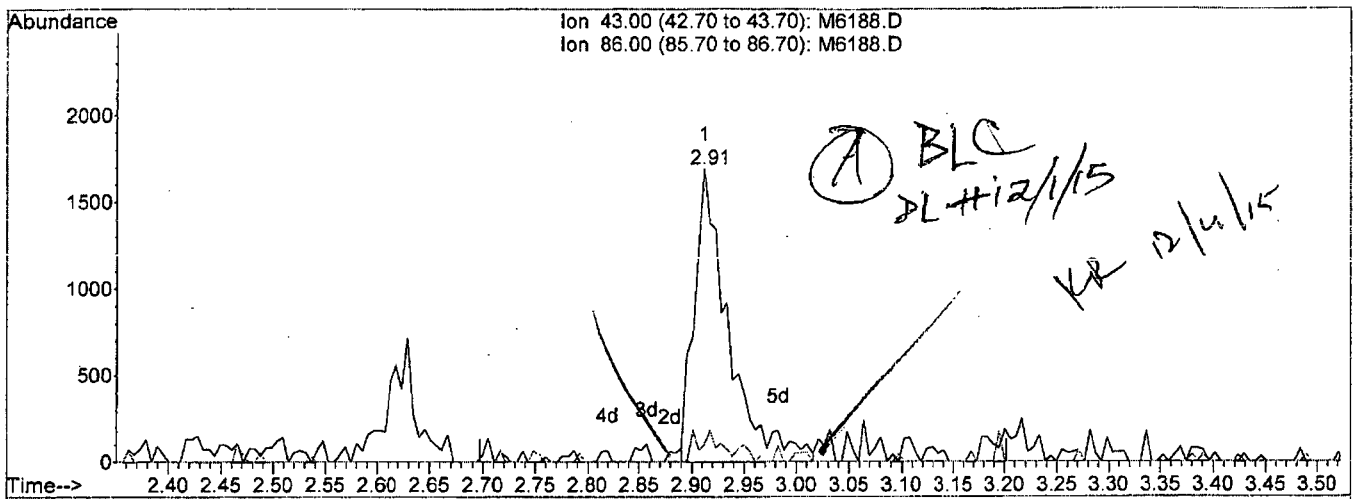
Ion	Exp%	Act%
43.00	100	100
86.00	9.30	5.92
0.00	0.00	0.00
0.00	0.00	0.00

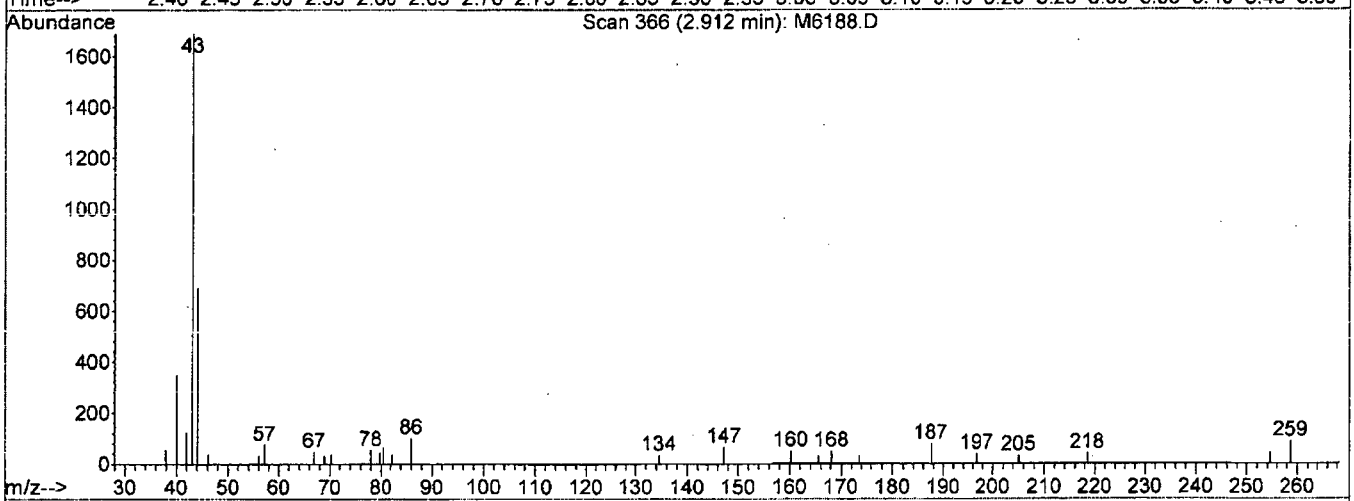
M6188.D W113015.M Tue Dec 01 09:30:17 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:30 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Multiple Level Calibration





TIC: M6188.D

(29) Vinyl Acetate

2.91min 0.54ug/L m

response 3830

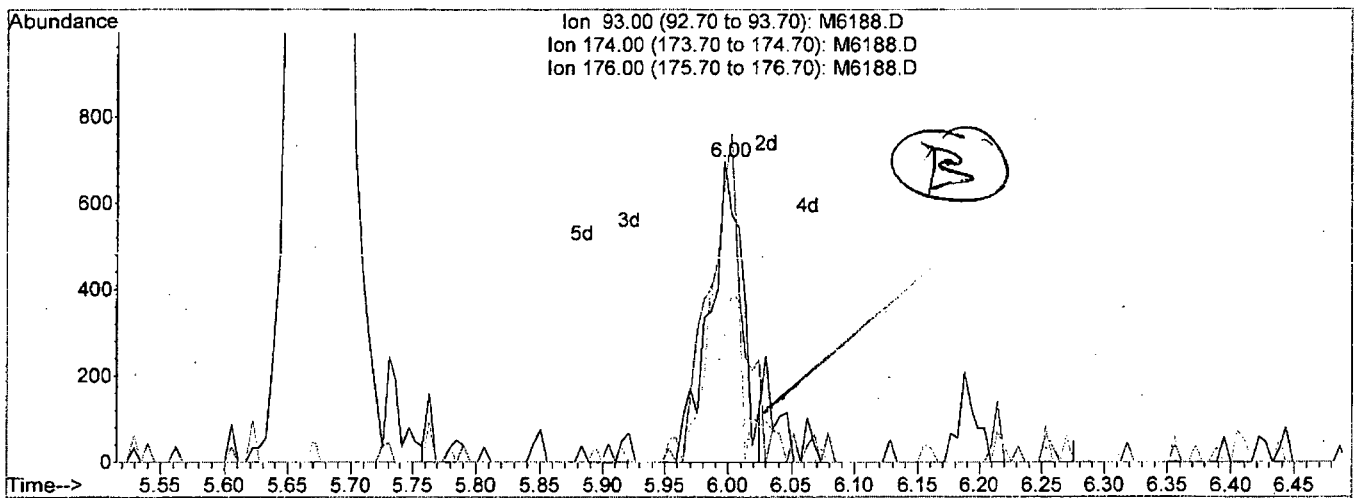
Ion	Exp%	Act%
43.00	100	100
86.00	9.30	5.92
0.00	0.00	0.00
0.00	0.00	0.00

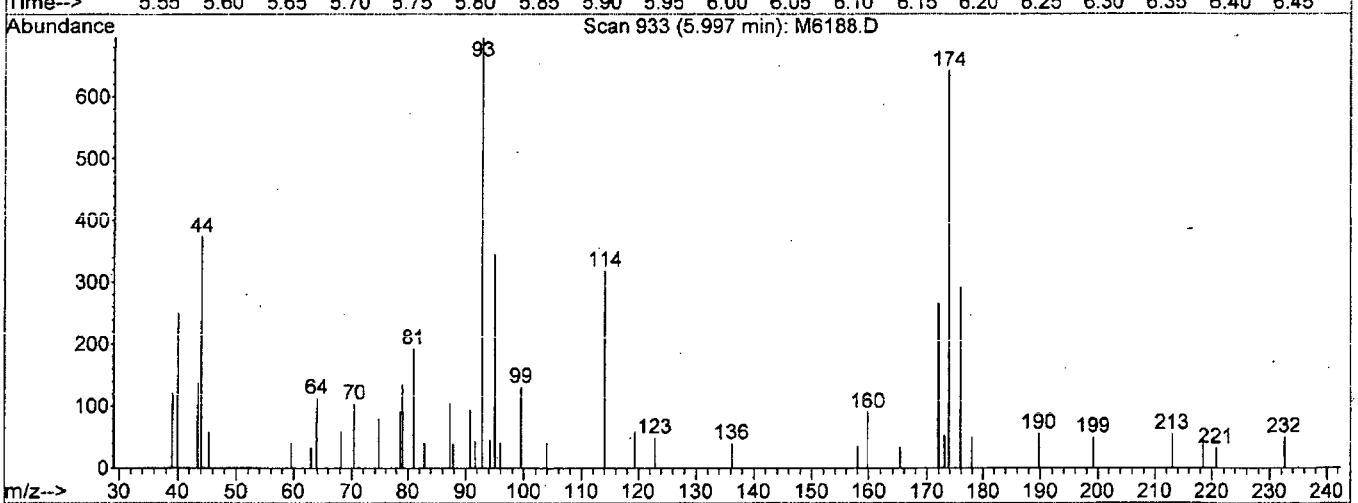
M6188.D W113015.M Tue Dec 01 09:30:26 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:30 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Multiple Level Calibration





TIC: M6188.D

(48) Dibromomethane

6.00min 0.48ug/L

response 1240

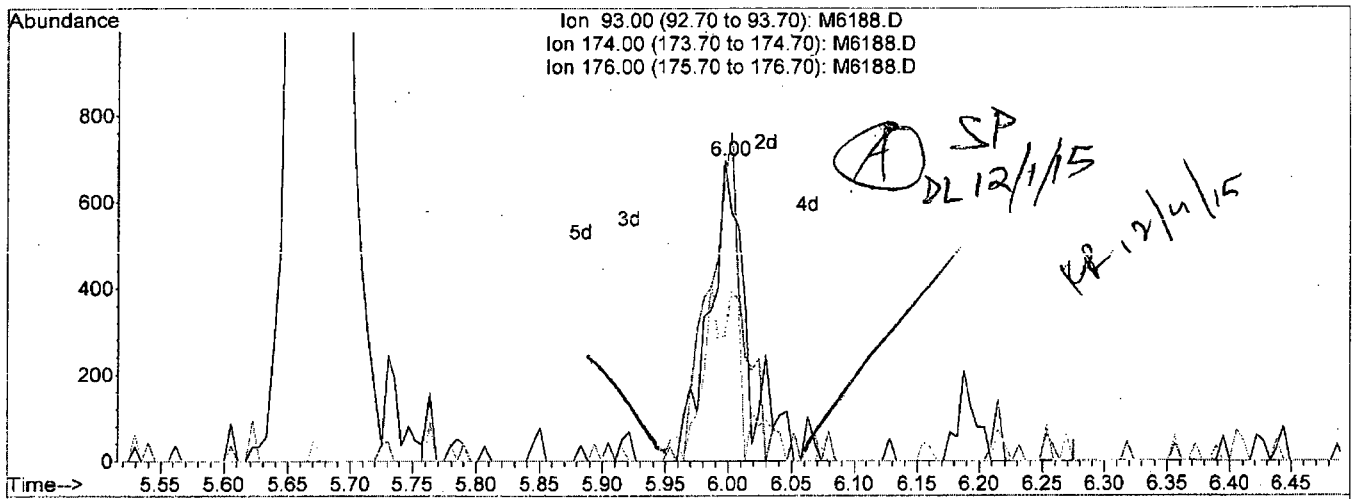
Ion	Exp%	Act%
93.00	100	100
174.00	118.50	115.16
176.00	59.10	32.98#
0.00	0.00	0.00

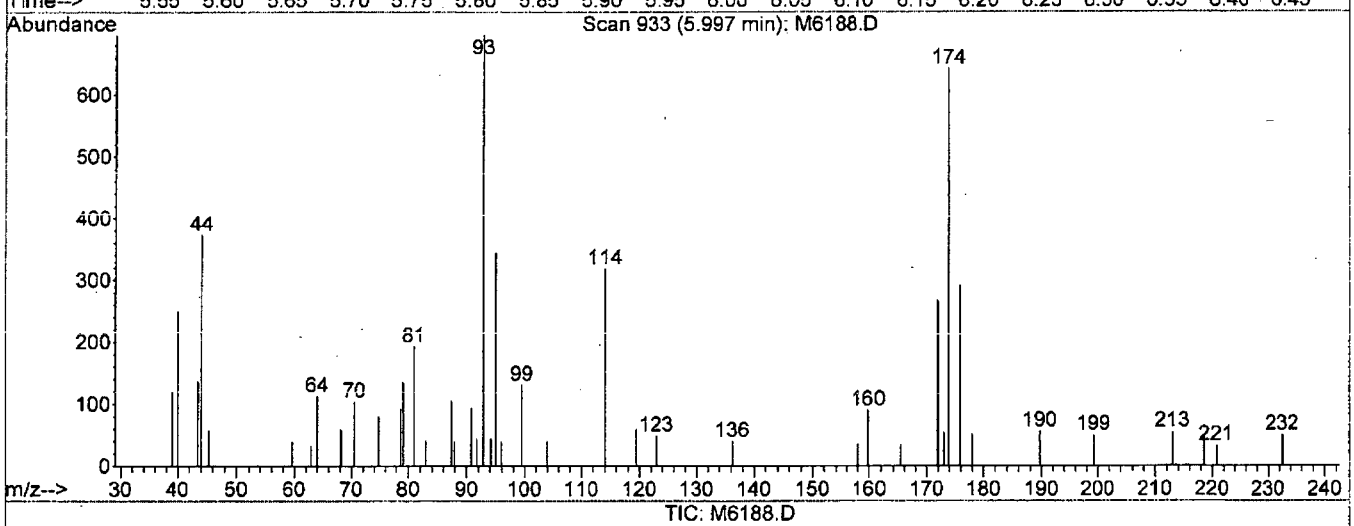
M6188.D W113015.M Tue Dec 01 09:31:50 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:31 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Multiple Level Calibration





TIC: M6188.D

(48) Dibromomethane

6.00min 0.55ug/L m

response 1417

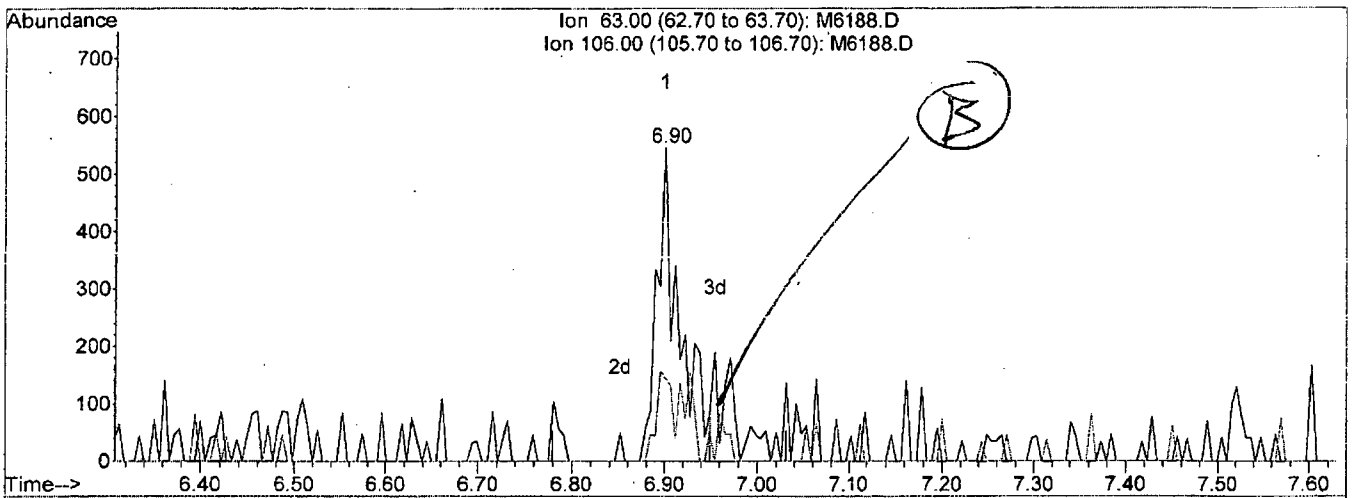
Ion	Exp%	Act%
93.00	100	100
174.00	118.50	100.78
176.00	59.10	28.86#
0.00	0.00	0.00

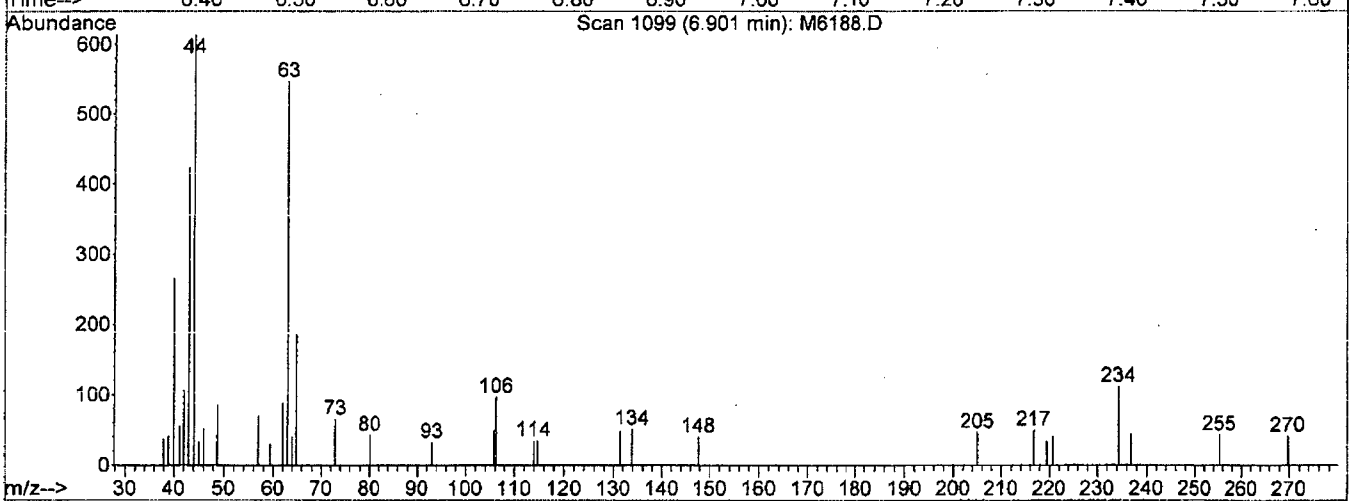
M6188.D W113015.M Tue Dec 01 09:32:01 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:31 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Multiple Level Calibration





TIC: M6188.D

(57) 2-Chloroethylvinyl Ether

6.90min 0.45ug/L

response 938

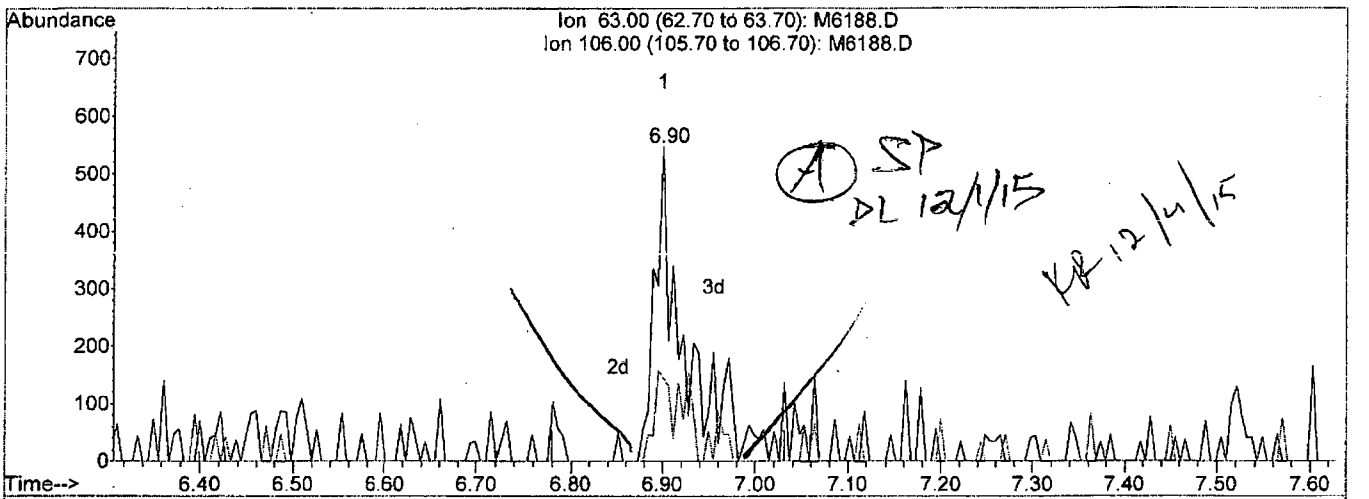
Ion	Exp%	Act%
63.00	100	100
106.00	25.70	26.56
0.00	0.00	0.00
0.00	0.00	0.00

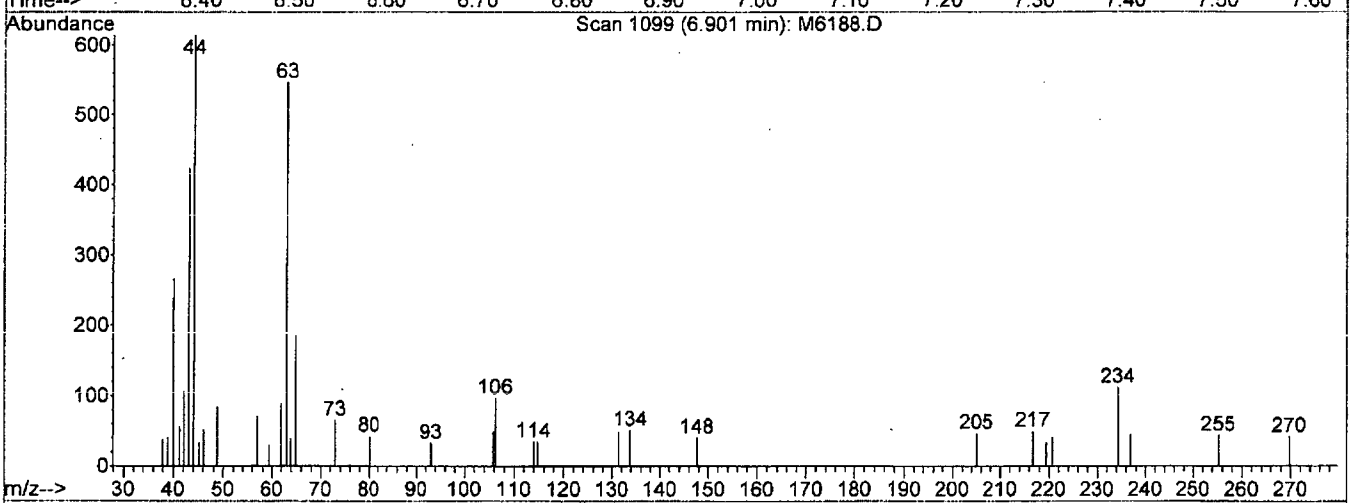
M6188.D W113015.M Tue Dec 01 09:32:41 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:32 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Multiple Level Calibration





TIC: M6188.D

(57) 2-Chloroethylvinyl Ether

6.90min 0.54ug/L m

response 1137

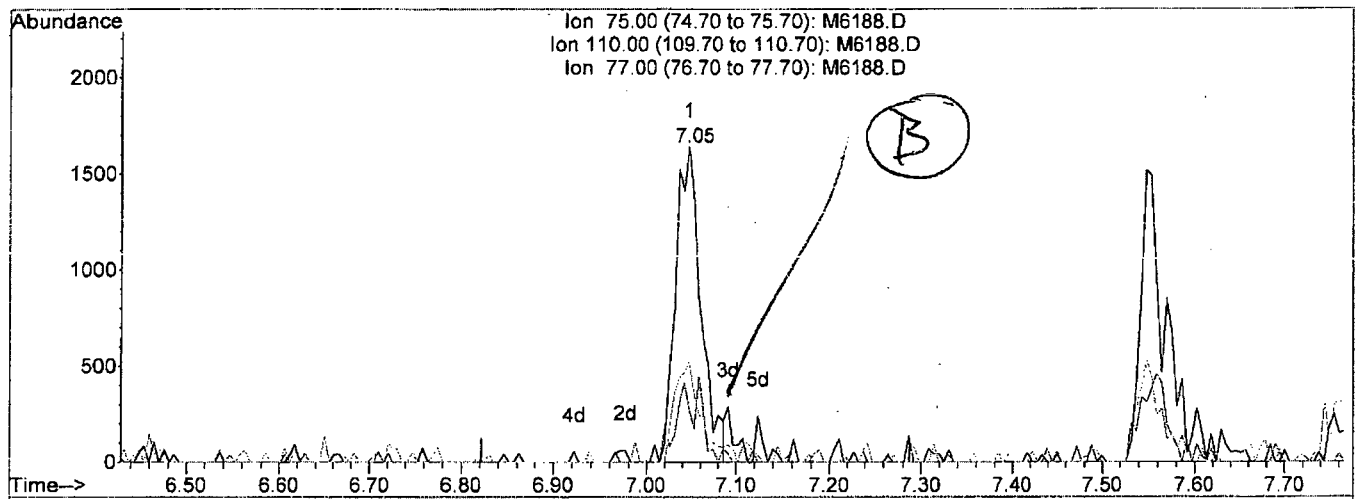
Ion	Exp%	Act%
63.00	100	100
106.00	25.70	17.58
0.00	0.00	0.00
0.00	0.00	0.00

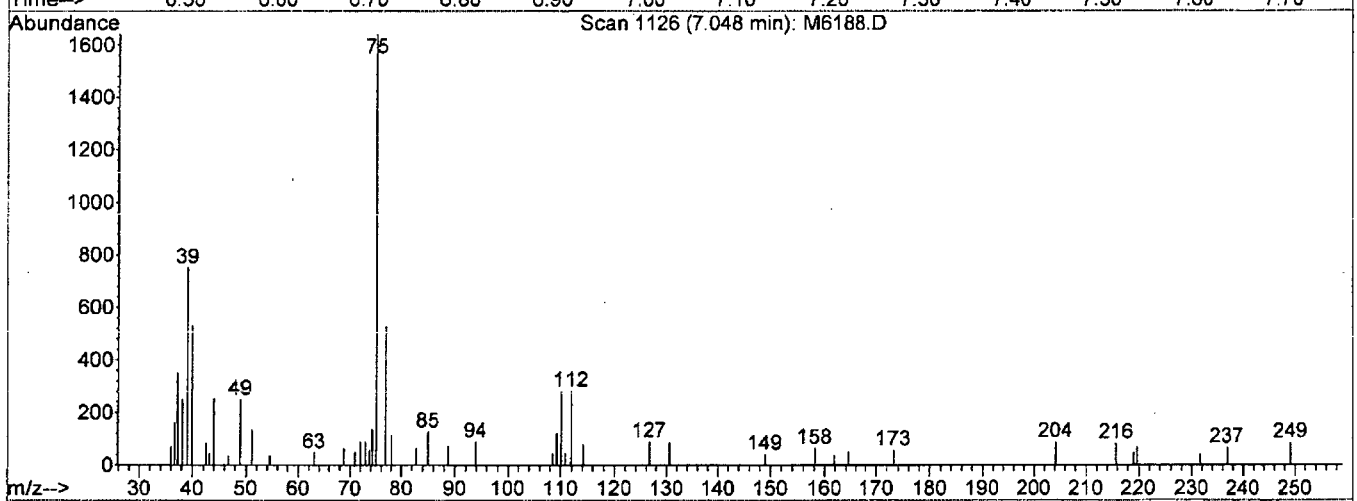
M6188.D W113015.M Tue Dec 01 09:32:49 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:32 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Multiple Level Calibration





TIC: M6188.D

(58) cis-1,3-Dichloropropene (P)

7.05min 0.47ug/L

response 3272

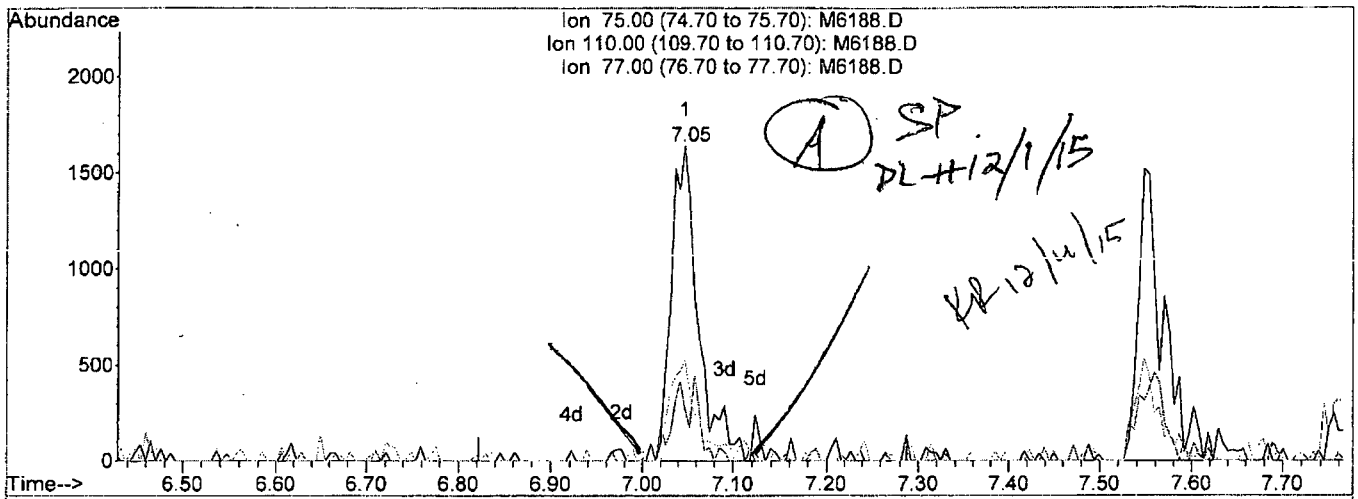
Ion	Exp%	Act%
75.00	100	100
110.00	25.10	15.77
77.00	32.70	33.50
0.00	0.00	0.00

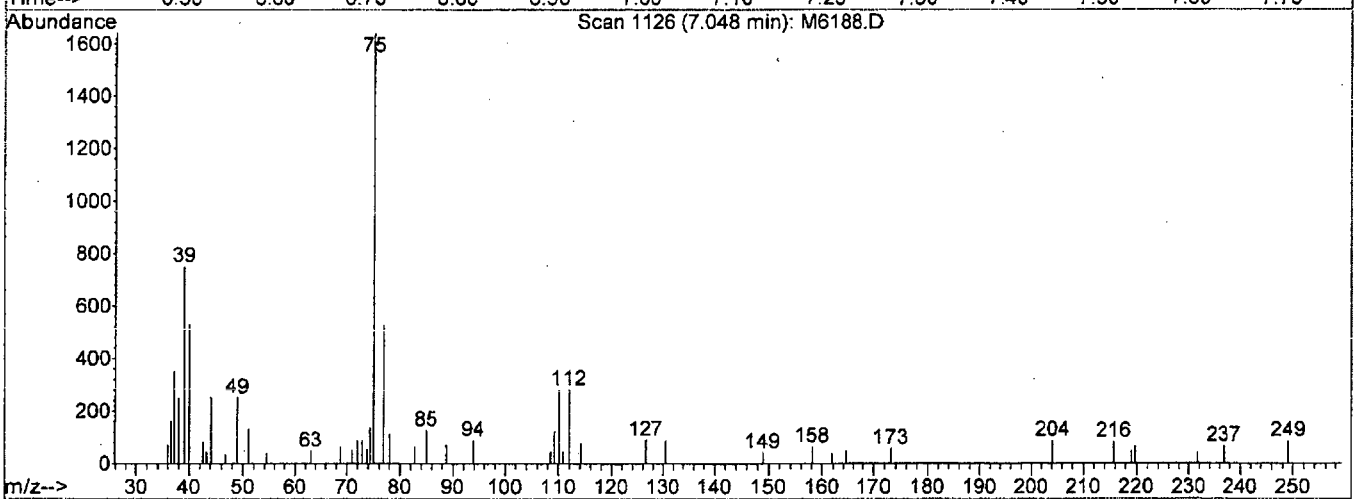
M6188.D W113015.M Tue Dec 01 09:33:01 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:33 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Multiple Level Calibration





TIC: M6188.D

(58) cis-1,3-Dichloropropene (P)

7.05min 0.50ug/L m

response 3433

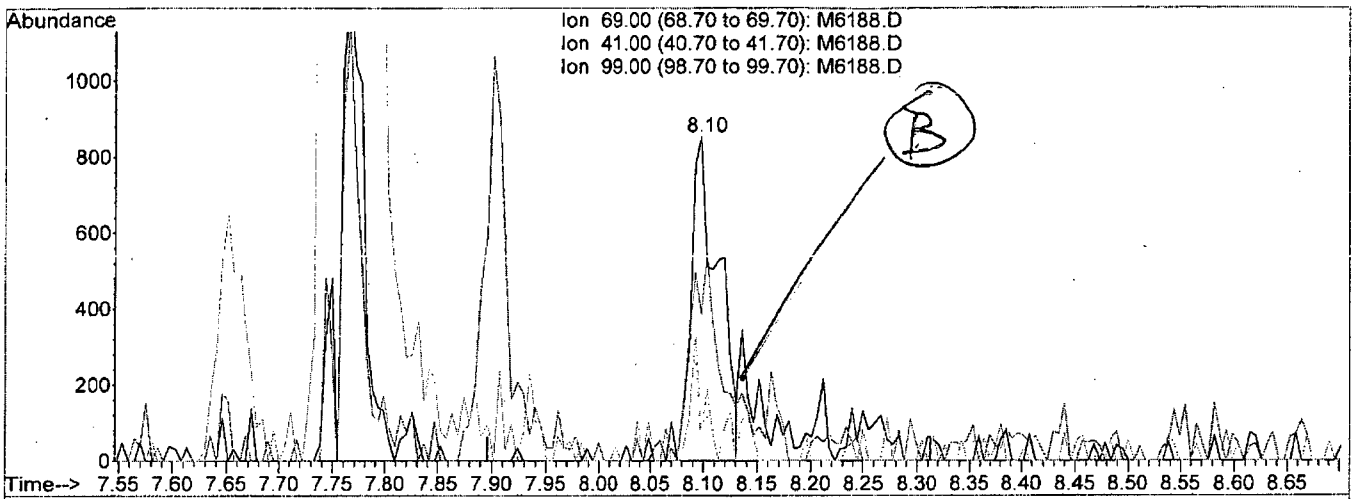
Ion	Exp%	Act%
75.00	100	100
110.00	25.10	15.03
77.00	32.70	31.93
0.00	0.00	0.00

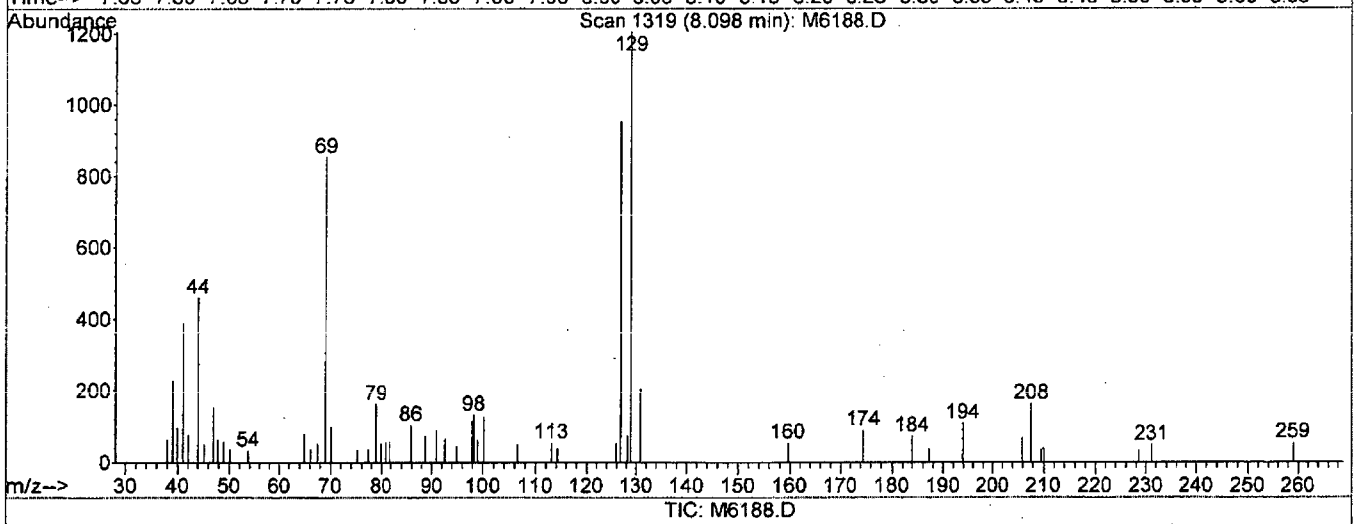
M6188.D W113015.M Tue Dec 01 09:33:09 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:33 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Multiple Level Calibration





TIC: M6188.D

(66) Ethyl Methacrylate

8.10min 0.38ug/L

response 1528

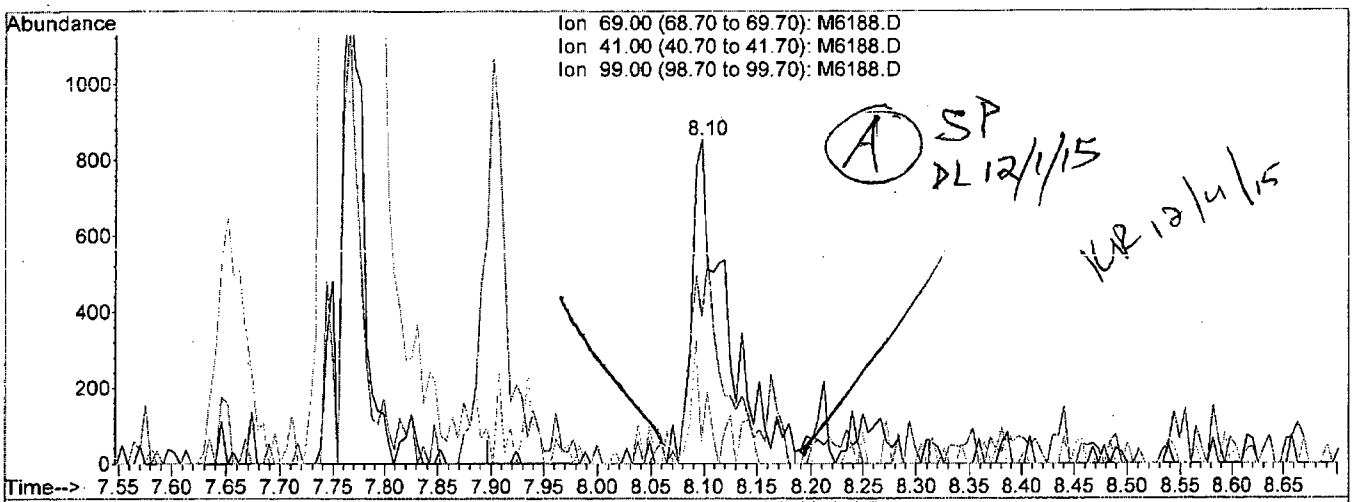
Ion	Exp%	Act%
69.00	100	100
41.00	65.10	45.37
99.00	19.80	7.15
0.00	0.00	0.00

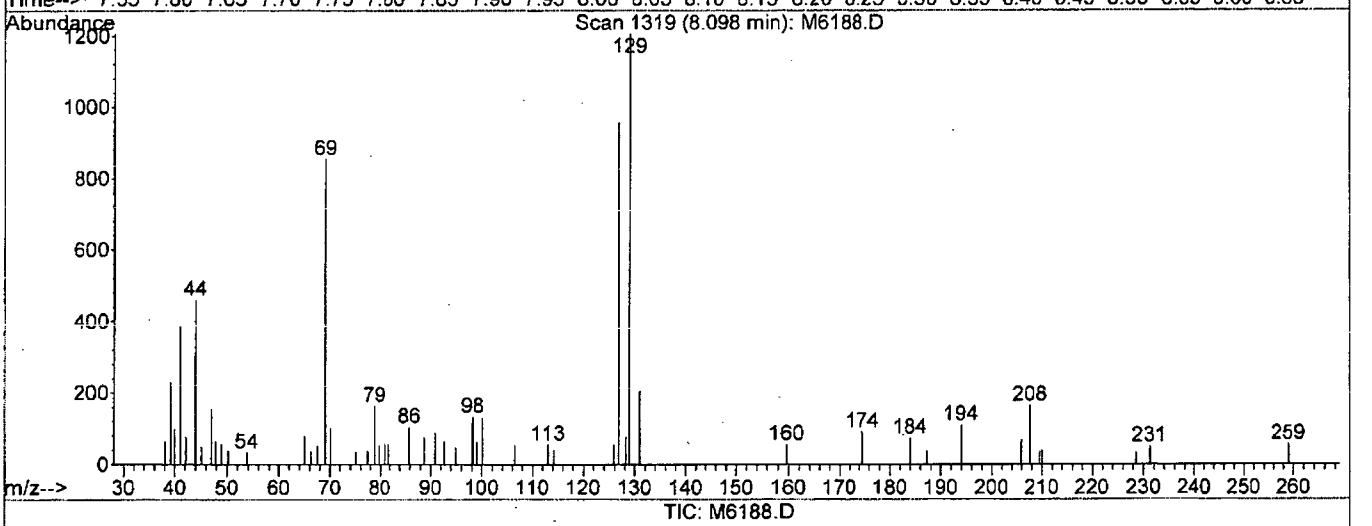
M6188.D W113015.M Tue Dec 01 09:33:36 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:33 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Multiple Level Calibration





TIC: M6188.D

(66) Ethyl Methacrylate

8.10min 0.47ug/L m

response 1913

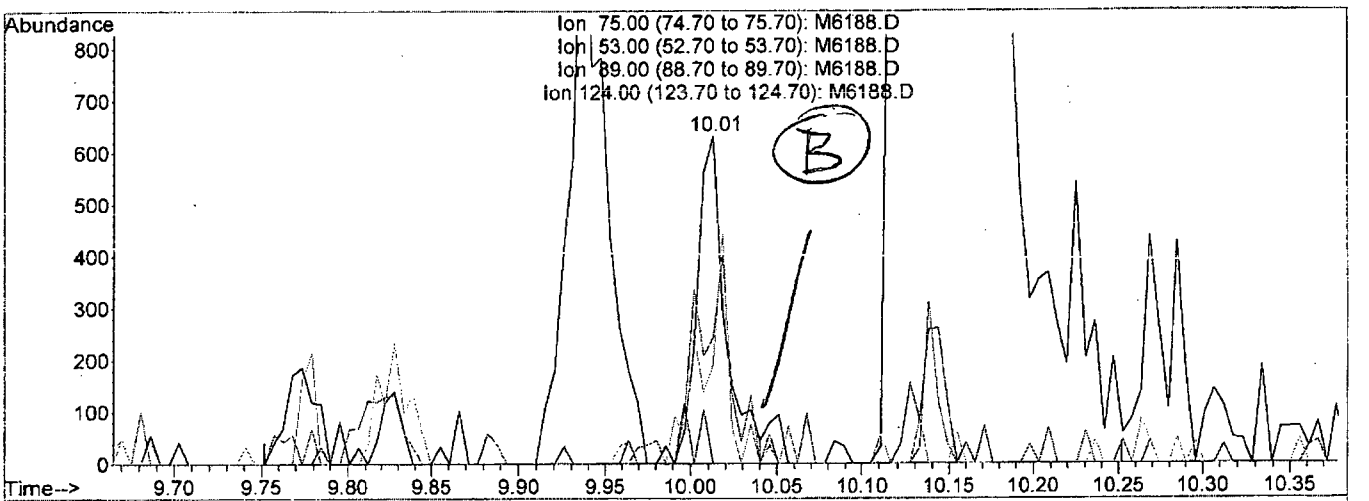
Ion	Exp%	Act%
69.00	100	100
41.00	65.10	45.37
99.00	19.80	7.15
0.00	0.00	0.00

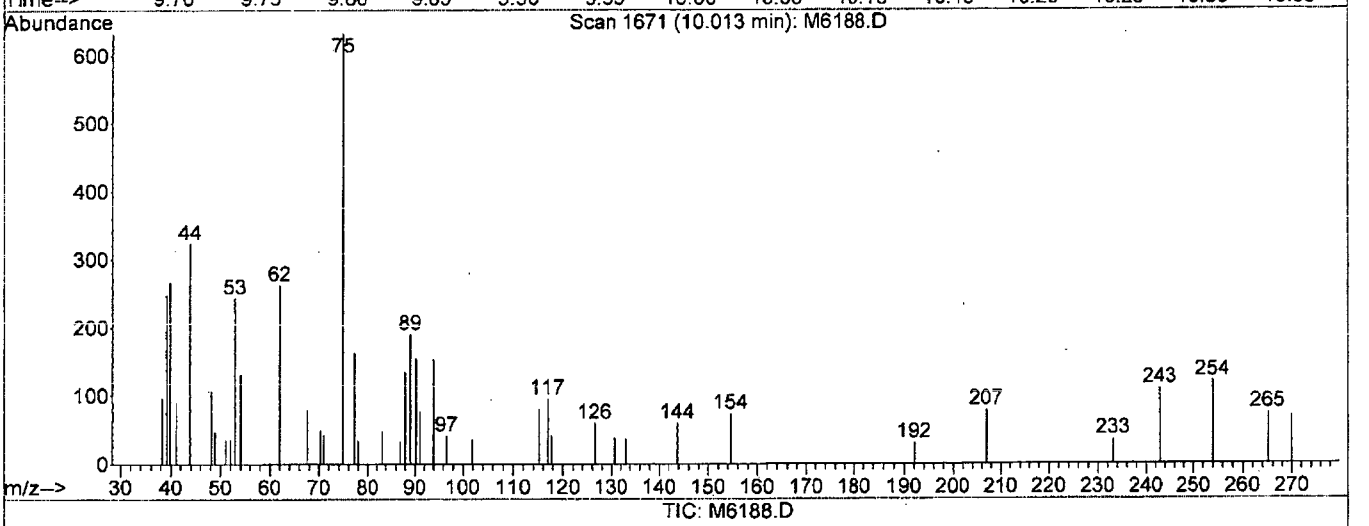
M6188.D W113015.M Tue Dec 01 09:33:55 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:34 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Multiple Level Calibration





TIC: M6188.D

(80) trans-1,4-Dichloro-2-Butene

10.01min 0.52ug/L

response 708

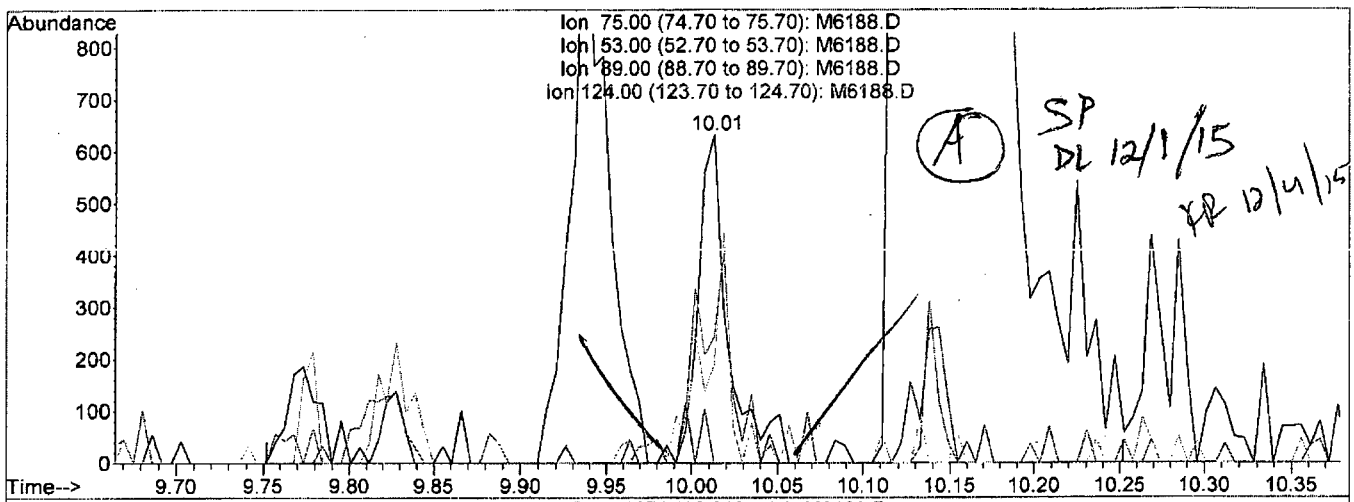
Ion	Exp%	Act%
75.00	100	100
53.00	65.30	38.45#
89.00	50.50	30.06#
124.00	19.60	0.00

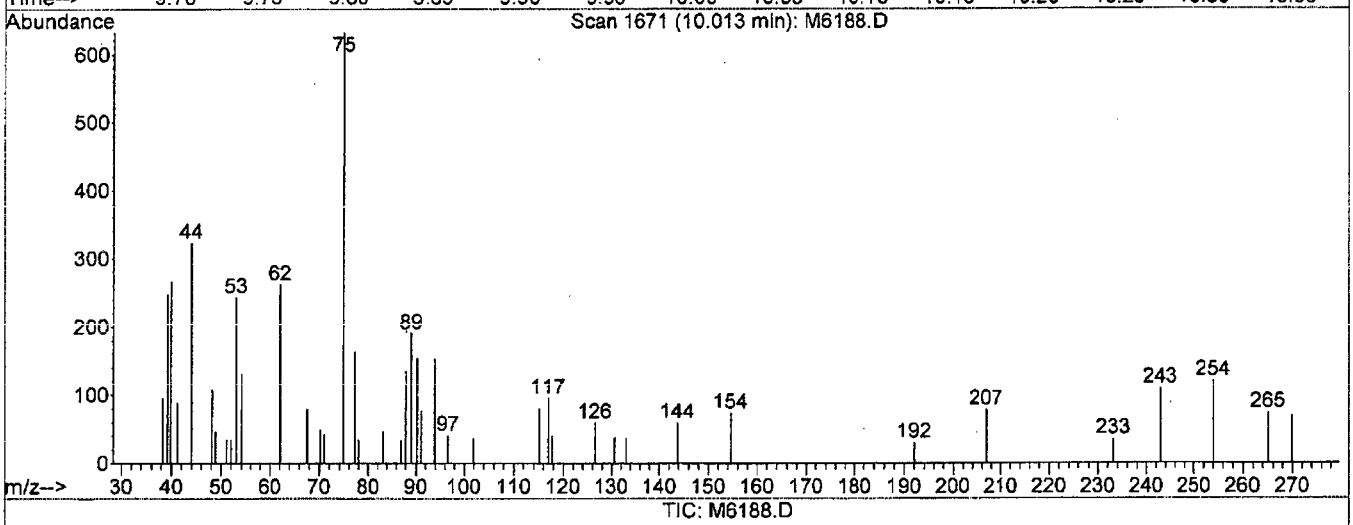
M6188.D W113015.M Tue Dec 01 09:35:05 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:35 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Multiple Level Calibration





TIC: M6188.D

(80) trans-1,4-Dichloro-2-Butene

10.01min 0.56ug/L m

response 764

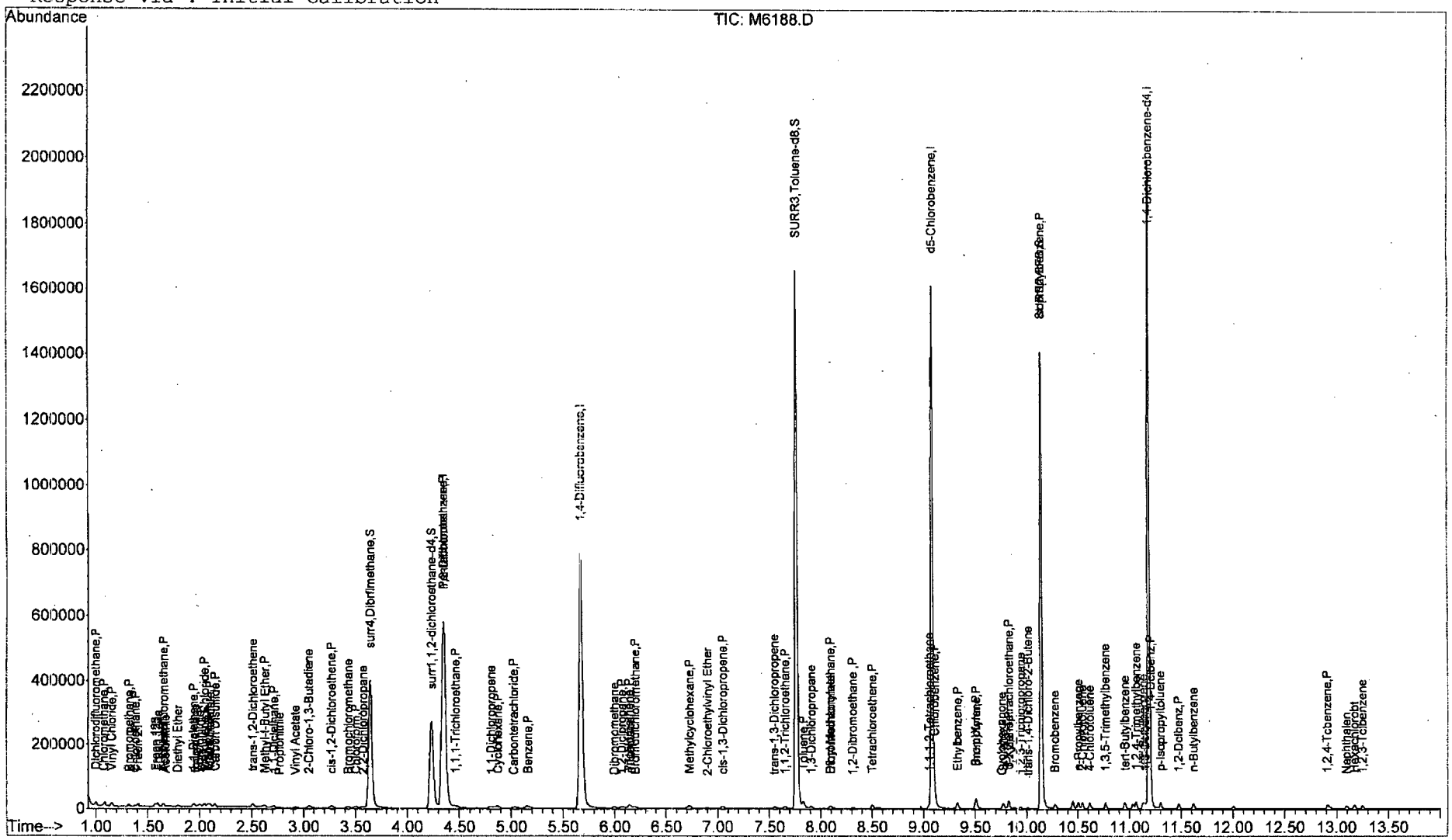
Ion	Exp%	Act%
75.00	100	100
53.00	65.30	38.45#
89.00	50.50	30.06#
124.00	19.60	0.00

M6188.D W113015.M Tue Dec 01 09:35:15 2015

Quantitation Report

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6188.D Vial: 11
Acq On : 30 Nov 2015 1:40 pm Operator: D.Lipani
Sample : STD #1 - 0.5 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:36 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:18:37 2015
Response via : Initial Calibration



M6188.D W113015.M Tue Dec 01 09:36:24 2015 Page 3

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:47 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	639672	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.67	114	855957	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	775044	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	466644	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	291674	54.33	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.66%			
42) surr1,1,2-dichloroethane-d	4.23	65	236429	53.99	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 107.98%			
62) SURR3,Toluene-d8	7.76	98	978263	54.87	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 109.74%			
82) SURR2,BFB	10.14	95	367941	53.04	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 106.08%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	7623	1.10	ug/L	86
3) Chloromethane	1.07	50	7625	1.04	ug/L	95
4) Vinyl Chloride	1.15	62	8168	1.06	ug/L	97
5) Bromomethane	1.32	94	5054	1.10	ug/L	91
6) Chloroethane	1.38	64	3798	0.98	ug/L	77
7) Freon 21	1.40	67	10275	1.06	ug/L	94
8) Freon 123	1.57	83	8656	1.01	ug/L	91
9) Freon 123a	1.59	67	7014	1.07	ug/L #	61
10) Acrolein	1.65	56	2618	4.63	ug/L	91
11) Trichlorofluoromethane	1.65	101	8286	1.03	ug/L	89
12) Acetonitrile	1.66	41	2442	5.85	ug/L	94
13) 2-Propanol	1.70	45	3196	20.44	ug/L	98
15) Diethyl Ether	1.79	59	3492	1.02	ug/L	89
16) 1,1-Diclethene	1.94	96	4804	0.92	ug/L #	81
17) Iodomethane	1.96	142	4425m	1.20	ug/L	
18) TBA	1.98	59	5410	21.42	ug/L	94
19) Acrylonitrile	2.00	53	5627	4.90	ug/L	94
20) Methylene Chloride	2.04	84	6083	1.04	ug/L	91
21) Freon 113	2.08	101	5602	1.07	ug/L	92
22) Methyl Acetate	2.09	43	2277	0.98	ug/L	95
23) Allyl Chloride	2.10	76	2525	1.01	ug/L	98
24) Carbon Disulfide	2.14	76	18006	1.06	ug/L	99
25) trans-1,2-Dichloroethene	2.51	96	5803	1.01	ug/L	97
26) Methyl-t-Butyl Ether	2.63	73	10417	0.96	ug/L	96
27) 1,1-Diclethane	2.71	63	9042	1.03	ug/L	97
28) Propionitrile	2.77	54	1977m	5.23	ug/L	
29) Vinyl Acetate	2.90	43	6935m	0.94	ug/L	
30) 2-Chloro-1,3-Butadiene	3.05	53	8204	1.03	ug/L	86
32) Methacrylonitrile	3.28	67	1006	0.82	ug/L #	84
33) cis-1,2-Dichloroethene	3.27	96	5752	1.02	ug/L	91
34) Bromochloromethane	3.43	128	2656	0.98	ug/L #	76
35) Chloroform	3.50	83	9139	1.03	ug/L	88
36) 2,2-Dichloropropane	3.57	77	6951	1.02	ug/L	93
38) 1,1,1-Trichloroethane	4.45	97	7619	1.07	ug/L	86
43) 1,2-Dichloroethane	4.34	62	6633	1.31	ug/L #	69

DL 12/1/15

(#) = qualifier out of range (m) = manual integration
M6189.D W113015.M Tue Dec 01 09:47:59 2015

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:47 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	1,1-Dichloropropene	4.80	75	6027	0.96	ug/L		99
45)	Cyclohexane	4.86	56	7927	1.04	ug/L	#	74
46)	Carbontetrachloride	5.04	119	6646	1.08	ug/L		93
47)	Benzene	5.15	78	19863	1.03	ug/L		87
48)	Dibromomethane	5.99	93	2817	1.08	ug/L	#	83
49)	1,2-Diclpropane	6.07	63	5316	1.09	ug/L		88
50)	n-Heptane	6.15	43	4220	1.02	ug/L		88
51)	Trichloroethene	6.13	130	6189	1.09	ug/L		94
52)	Bromodichloromethane	6.20	83	5898	0.99	ug/L		97
56)	Methylcyclohexane	6.72	55	5310	1.07	ug/L		97
57)	2-Chloroethylvinyl Ether	6.89	63	1797m	0.85	ug/L		
58)	cis-1,3-Dichloropropene	7.03	75	6458	0.93	ug/L		96
60)	trans-1,3-Dichloropropene	7.55	75	5544	0.94	ug/L		94
61)	1,1,2-Trichloroethane	7.65	97	3638	1.00	ug/L		99
63)	Toluene	7.83	91	21745	1.08	ug/L		92
65)	1,3-Dichloropropane	7.90	76	5552	1.00	ug/L		98
66)	Ethyl Methacrylate	8.09	69	3963m	0.95	ug/L		
67)	Dibromochloromethane	8.09	129	4271	0.93	ug/L		94
69)	1,2-Dibromoethane	8.31	107	3515	0.95	ug/L		93
70)	n-Butyl Acetate	8.55	43	4235m	0.94	ug/L		
71)	Tetrachloroethene	8.50	164	4809	1.02	ug/L		91
72)	1,1,1,2-Tetrachloroethane	9.05	131	5140	1.04	ug/L	#	84
73)	Chlorobenzene	9.11	112	14420	1.05	ug/L		94
74)	Ethylbenzene	9.32	106	7515	1.06	ug/L		96
75)	Bromoform	9.50	173	2775	0.95	ug/L		94
76)	(m+p)Xylene	9.50	106	16853	1.96	ug/L		94
77)	o-Xylene	9.83	106	8361	0.94	ug/L		96
78)	Cyclohexanone	9.75	55	1885	18.58	ug/L		79
79)	Styrene	9.77	104	14705	1.04	ug/L		94
80)	trans-1,4-Dichloro-2-Buten	10.01	75	1237m	0.87	ug/L		
81)	Isopropylbenzene	10.14	105	21055	0.97	ug/L		95
84)	1,1,2,2-Tetrachloroethane	9.82	83	4020	0.94	ug/L		96
85)	1,2,3-Trichloropropane	9.94	75	2681m	0.92	ug/L		
86)	Bromobenzene	10.28	156	6507	1.01	ug/L		96
87)	n-Propylbenzene	10.50	91	23368	0.94	ug/L		97
88)	2-Chlorotoluene	10.54	91	15548	1.02	ug/L		96
89)	4-Chlorotoluene	10.61	91	15653	0.97	ug/L		98
90)	1,3,5-Trimethylbenzene	10.77	105	16407	0.97	ug/L		98
91)	tert-Butylbenzene	10.95	119	14238	0.97	ug/L		98
92)	1,2,4-Trimethylbenzene	11.06	105	17496	0.97	ug/L		98
93)	sec-Butylbenzene	11.13	105	20701	1.00	ug/L		99
94)	1,3-Dclbenz	11.15	146	12401	1.03	ug/L		95
95)	1,4-Dclbenz	11.20	146	12824m	1.06	ug/L		
96)	p-Isopropyltoluene	11.30	119	17186	1.01	ug/L		99
97)	1,2-Dclbenz	11.47	146	11197	1.00	ug/L		95
98)	n-Butylbenzene	11.62	91	15440	1.03	ug/L		96
99)	1,2-Dibromo-3-chloropropan	11.84	75	800	1.28	ug/L	#	67
101)	1,2,4-Tcbenzene	12.92	180	6422	0.99	ug/L		97
102)	Naphthalen	13.10	128	10535	0.93	ug/L		96
103)	Hexachlorobt	13.17	225	2824	0.91	ug/L		88

(#) = qualifier out of range (m) = manual integration
M6189.D W113015.M Tue Dec 01 09:48:00 2015 Page 2

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:47 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Initial Calibration
DataAcq Meth : W113015

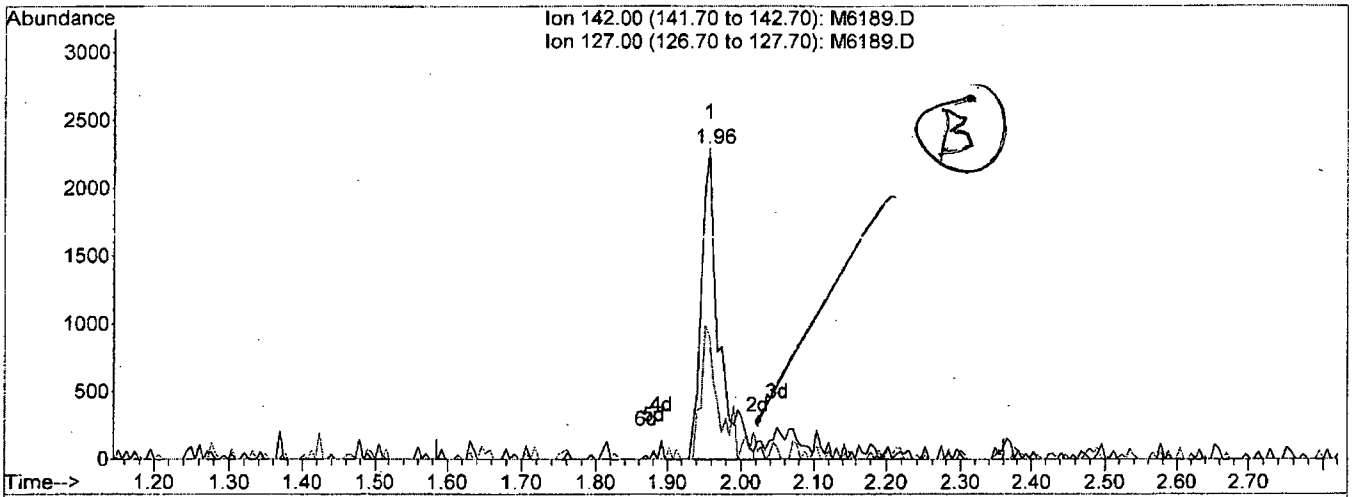
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
104) 1,2,3-Tclbenzene	13.25	180	5065	0.95 ug/L	93

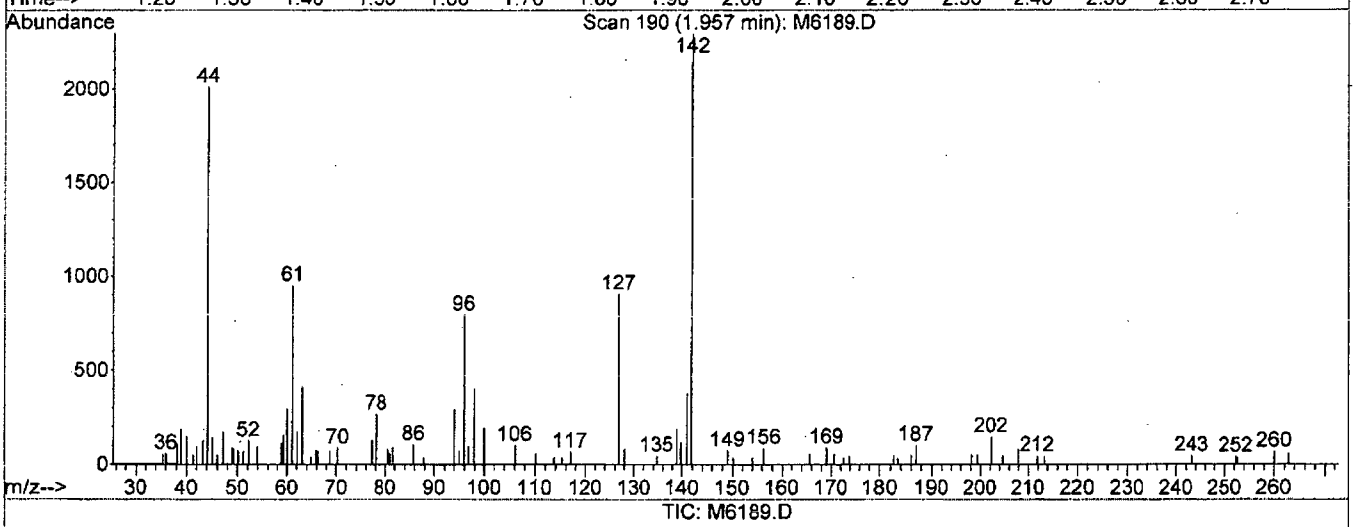
(#) = qualifier out of range (m) = manual integration
M6189.D W113015.M Tue Dec 01 09:48:00 2015 Page 3

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:39 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Multiple Level Calibration





TIC: M6189.D

(17) Iodomethane

1.96min 1.11ug/L

response 3744

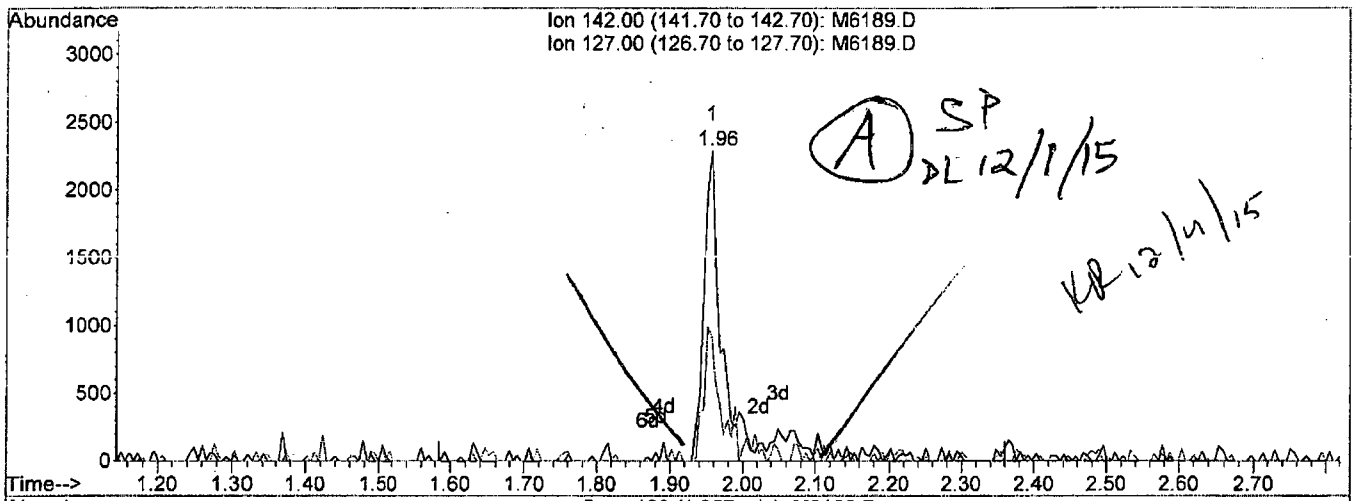
Ion	Exp%	Act%
142.00	100	100
127.00	35.30	39.45
0.00	0.00	0.00
0.00	0.00	0.00

M6189.D W113015.M Tue Dec 01 09:40:04 2015

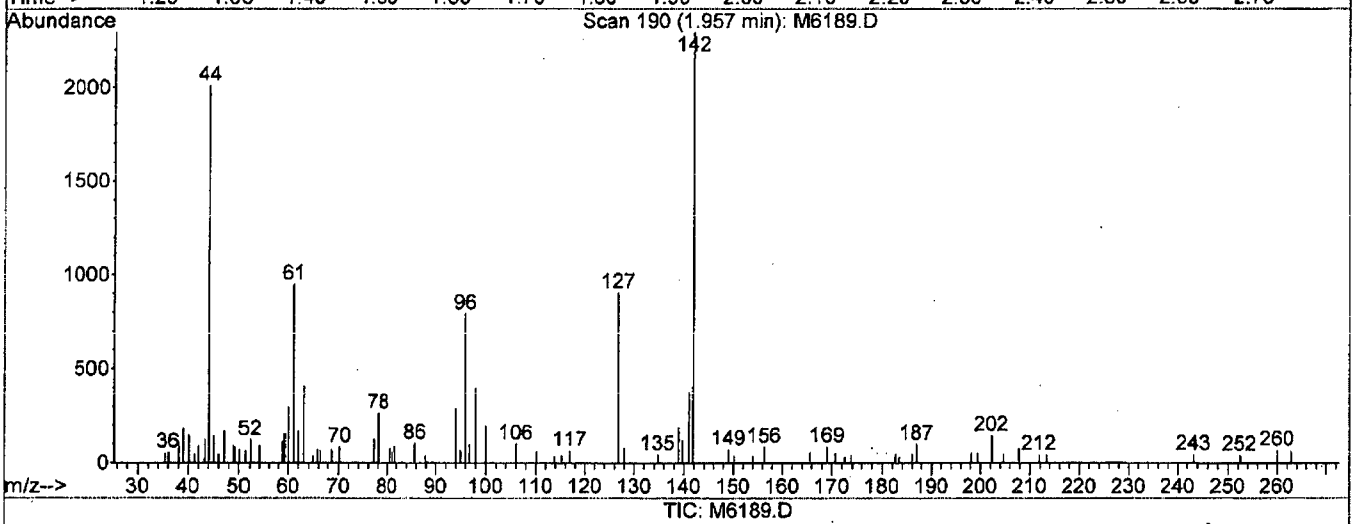
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:40 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Multiple Level Calibration



A SP 12/1/15
KL 12/4/15



TIC: M6189.D

(17) Iodomethane

1.96min 1.20ug/L m

response 4425

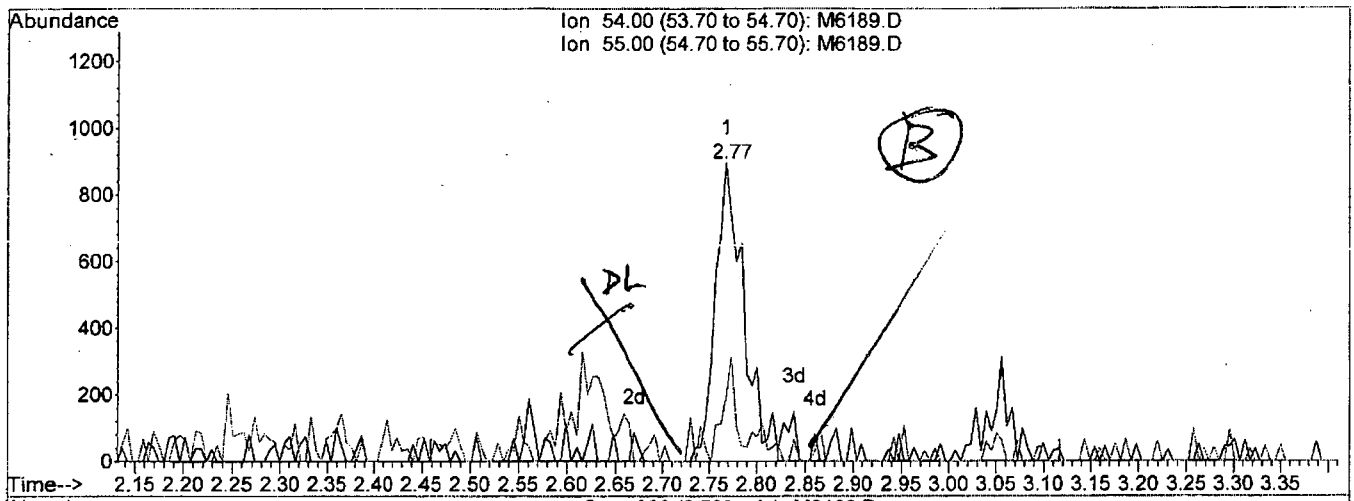
Ion	Exp%	Act%
142.00	100	100
127.00	35.30	39.45
0.00	0.00	0.00
0.00	0.00	0.00

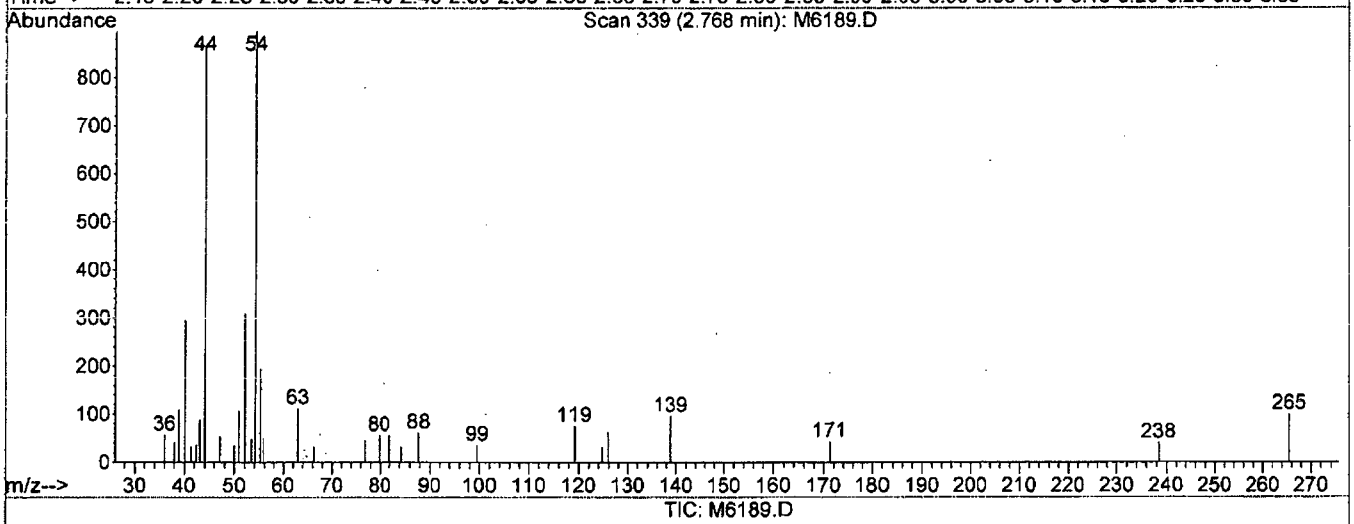
M6189.D W113015.M Tue Dec 01 09:40:14 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:40 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Multiple Level Calibration





TIC: M6189.D

(28) Propionitrile

2.77min 4.93ug/L

response 1862

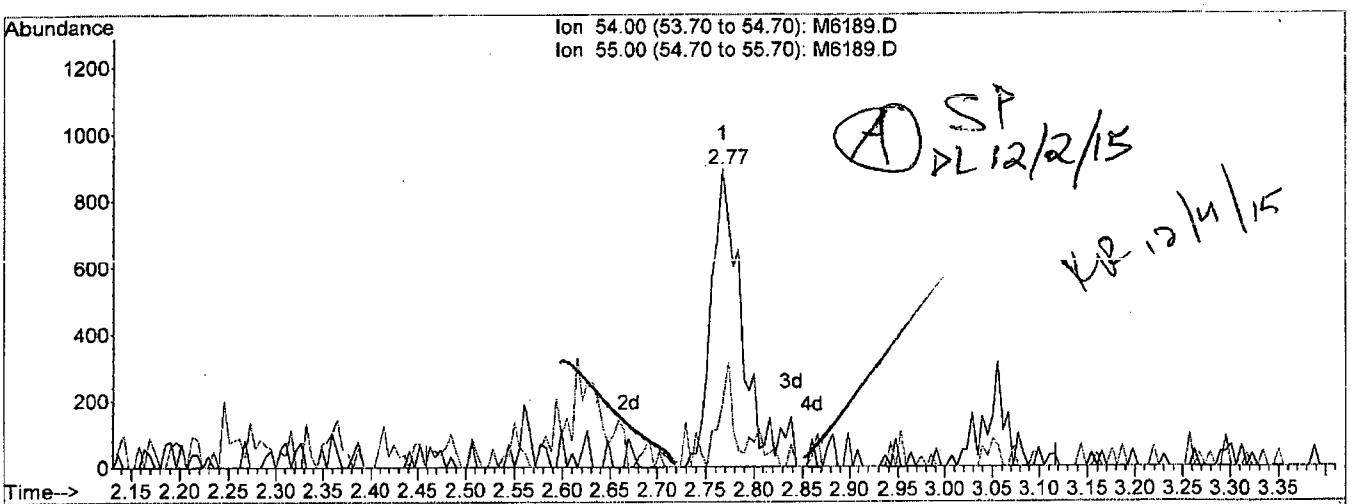
Ion	Exp%	Act%
54.00	100	100
55.00	13.80	21.45
0.00	0.00	0.00
0.00	0.00	0.00

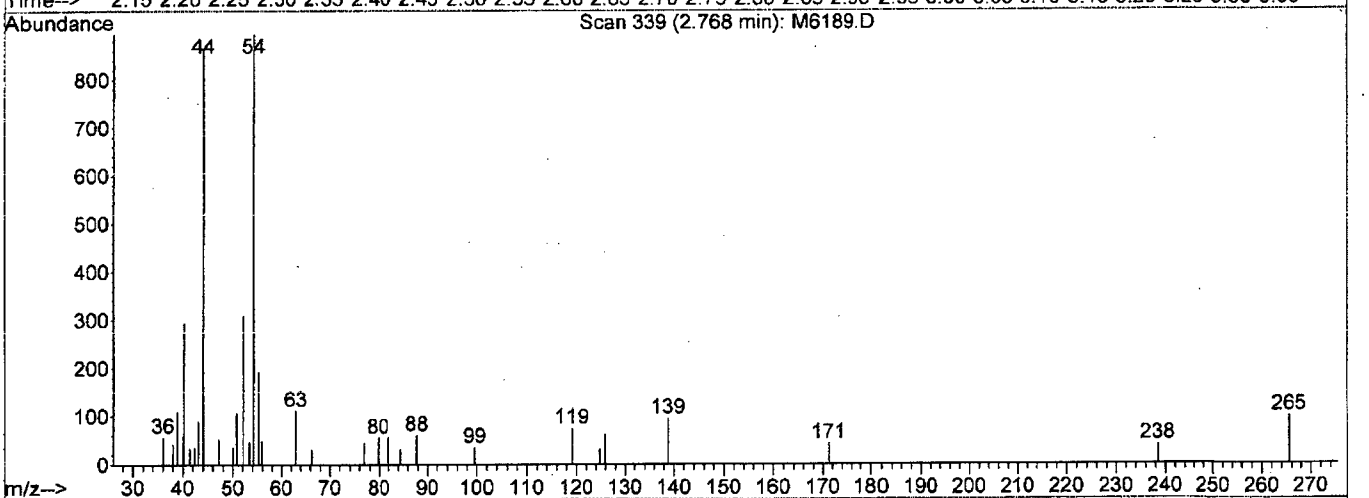
M6189.D W113015.M Tue Dec 01 09:40:46 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:40 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Multiple Level Calibration





TIC: M6189.D

(28) Propionitrile

2.77min 5.23ug/L m

response 1977

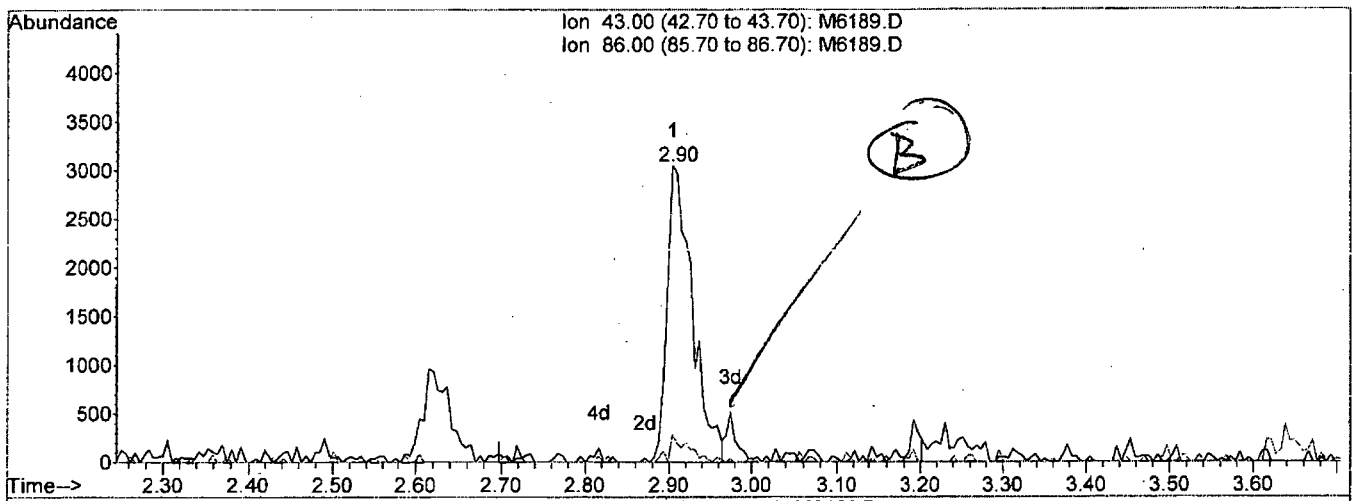
Ion	Exp%	Act%
54.00	100	100
55.00	13.80	21.45
0.00	0.00	0.00
0.00	0.00	0.00

M6189.D W113015.M Tue Dec 01 09:40:54 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:40 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Multiple Level Calibration



TIC: M6189.D

(29) Vinyl Acetate

2.90min 0.88ug/L

response 6483

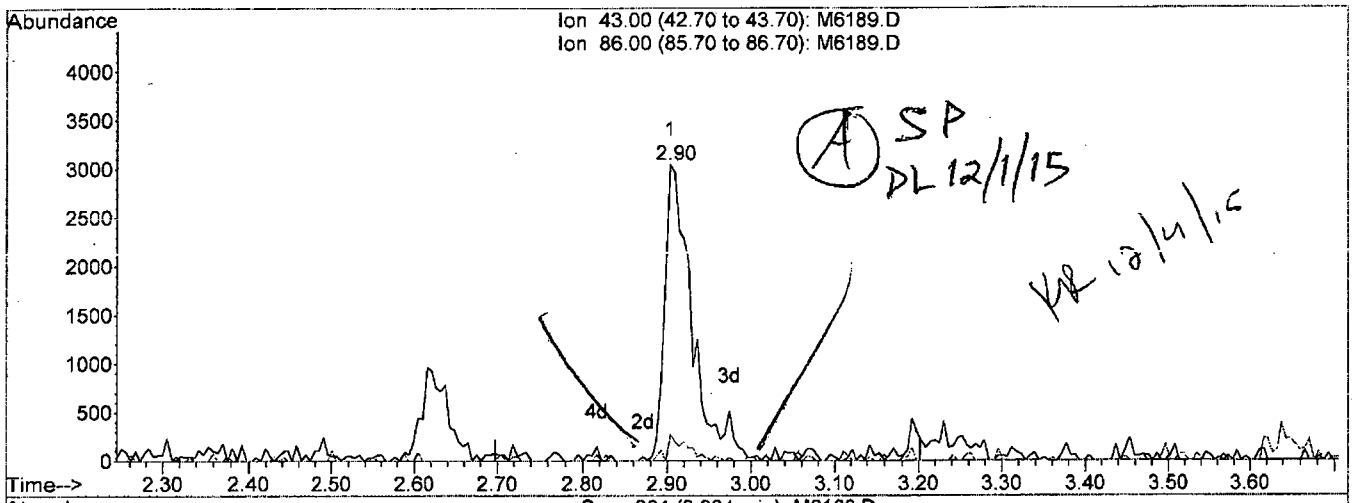
Ion	Exp%	Act%
43.00	100	100
86.00	9.30	9.00
0.00	0.00	0.00
0.00	0.00	0.00

M6189.D W113015.M Tue Dec 01 09:41:02 2015

Quantitation Report (Qedit)

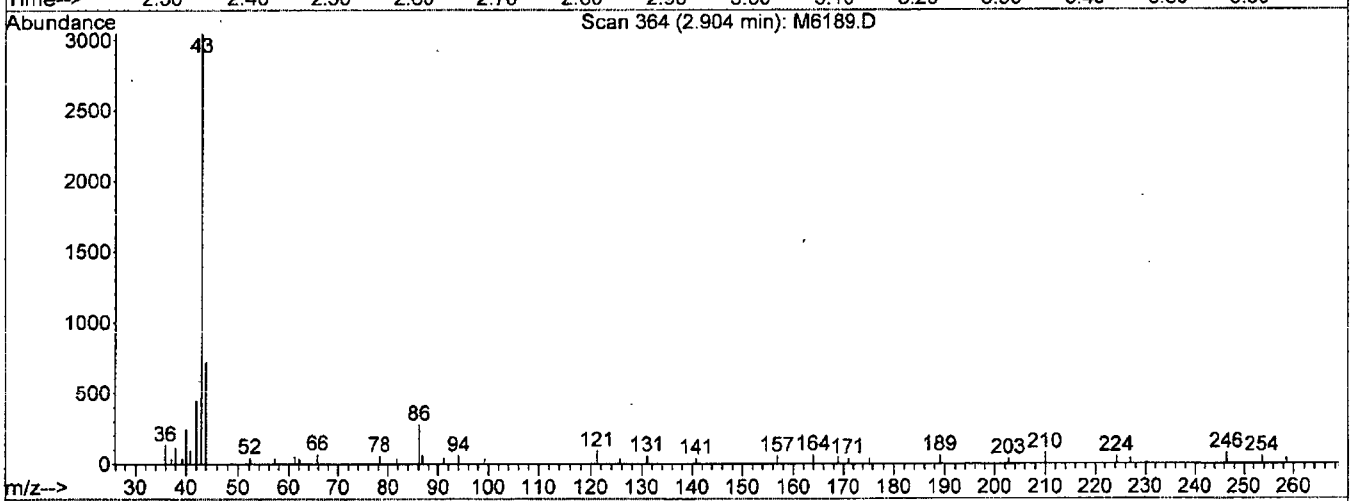
Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:41 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Multiple Level Calibration



SP DL 12/1/15

KR 12/4/15



TIC: M6189.D

(29) Vinyl Acetate

2.90min 0.94ug/L m

response 6935

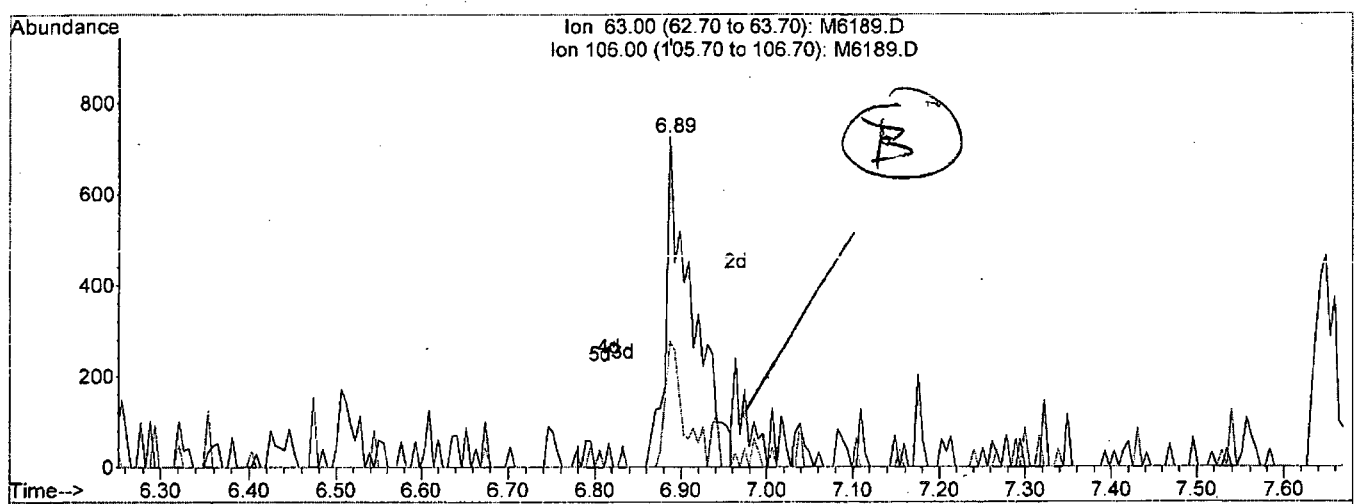
Ion	Exp%	Act%
43.00	100	100
86.00	9.30	9.00
0.00	0.00	0.00
0.00	0.00	0.00

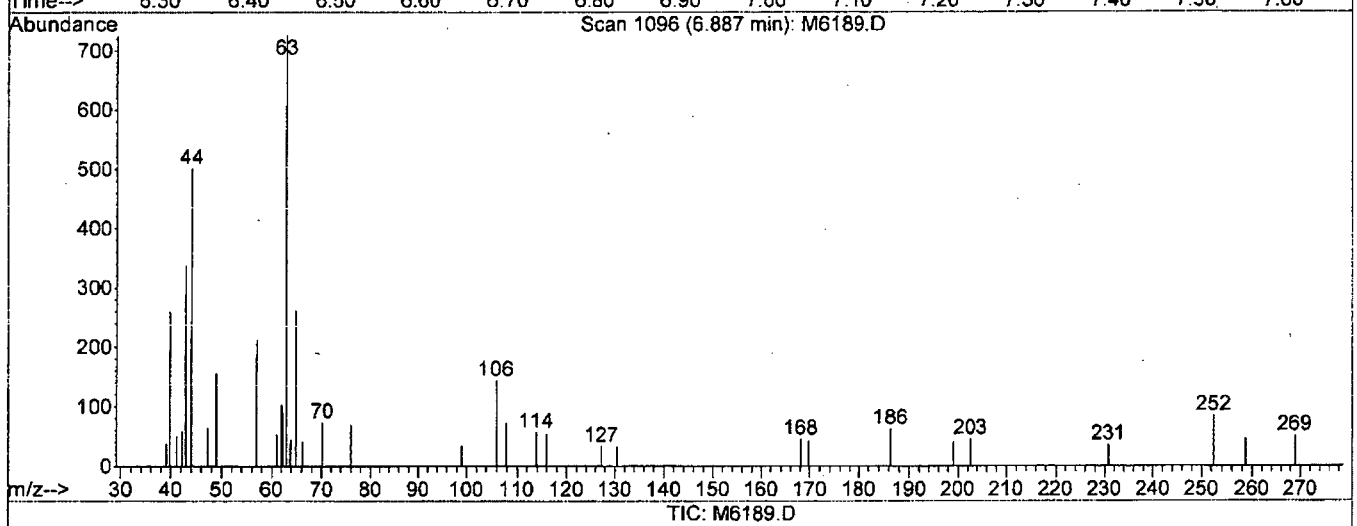
M6189.D W113015.M Tue Dec 01 09:41:20 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:42 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Multiple Level Calibration





TIC: M6189.D

(57) 2-Chloroethylvinyl Ether

6.89min 0.73ug/L

response 1549

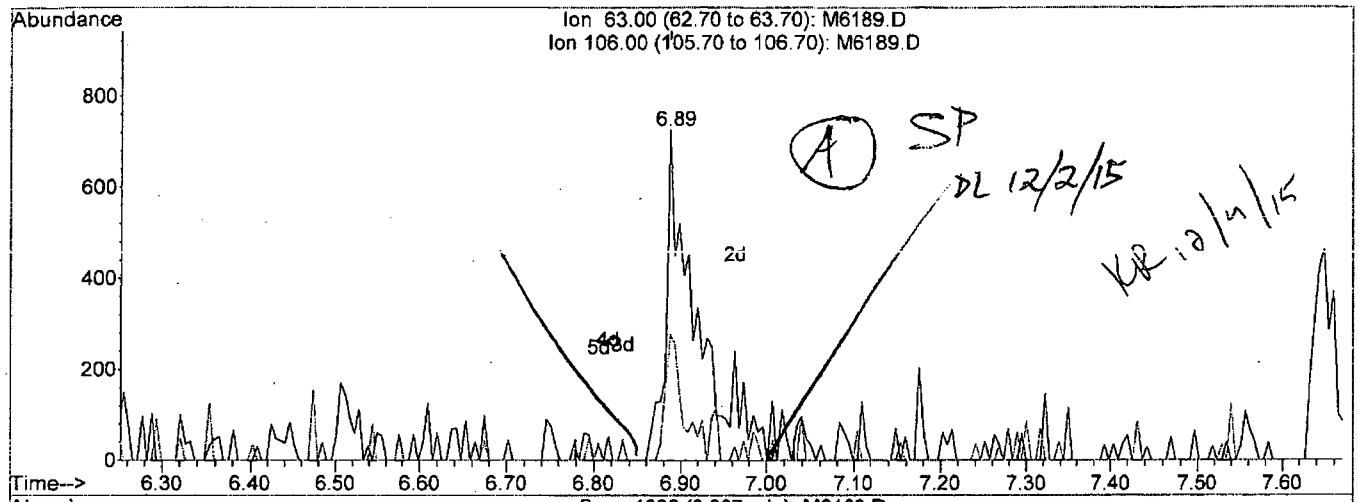
Ion	Exp%	Act%
63.00	100	100
106.00	25.70	38.07
0.00	0.00	0.00
0.00	0.00	0.00

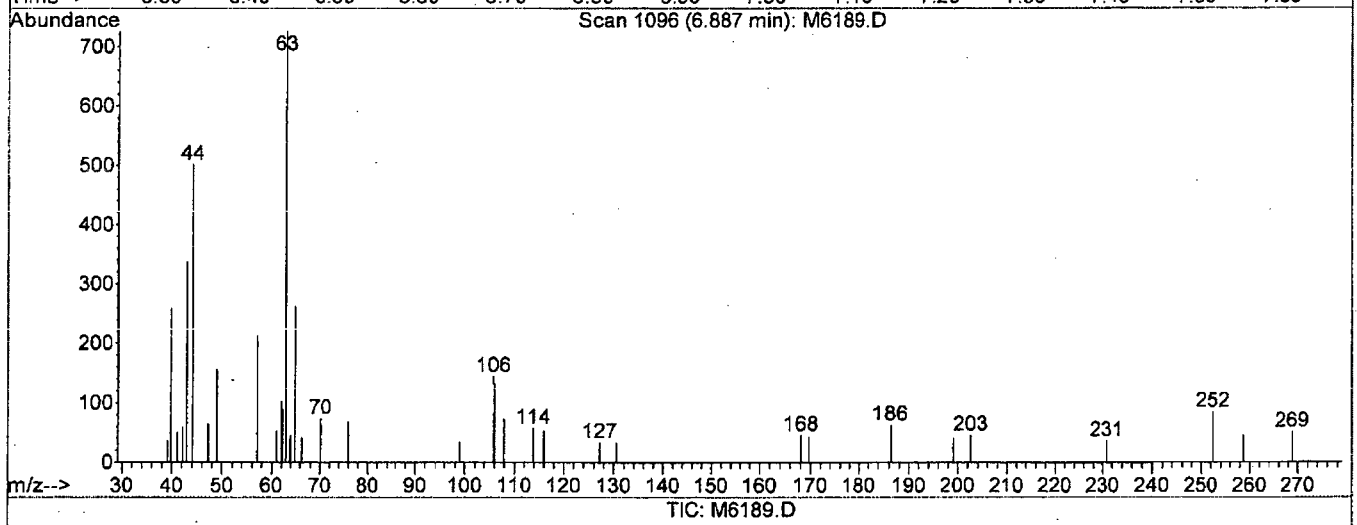
M6189.D W113015.M Tue Dec 01 09:43:17 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:43 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Multiple Level Calibration





TIC: M6189.D

(57) 2-Chloroethylvinyl Ether

6.89min 0.85ug/L m

response 1797

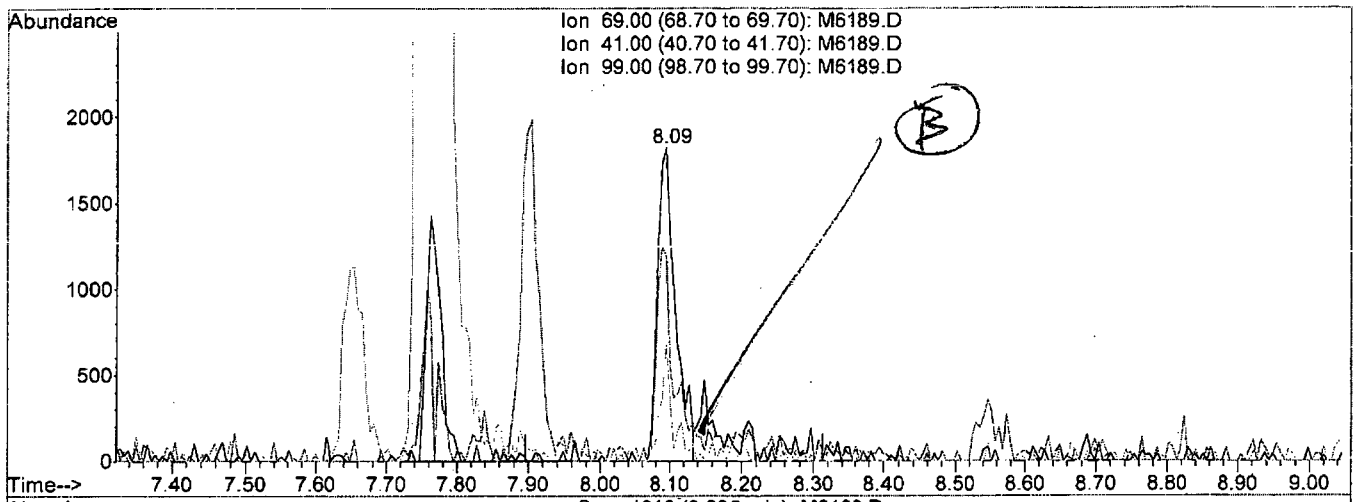
Ion	Exp%	Act%
63.00	100	100
106.00	25.70	19.86
0.00	0.00	0.00
0.00	0.00	0.00

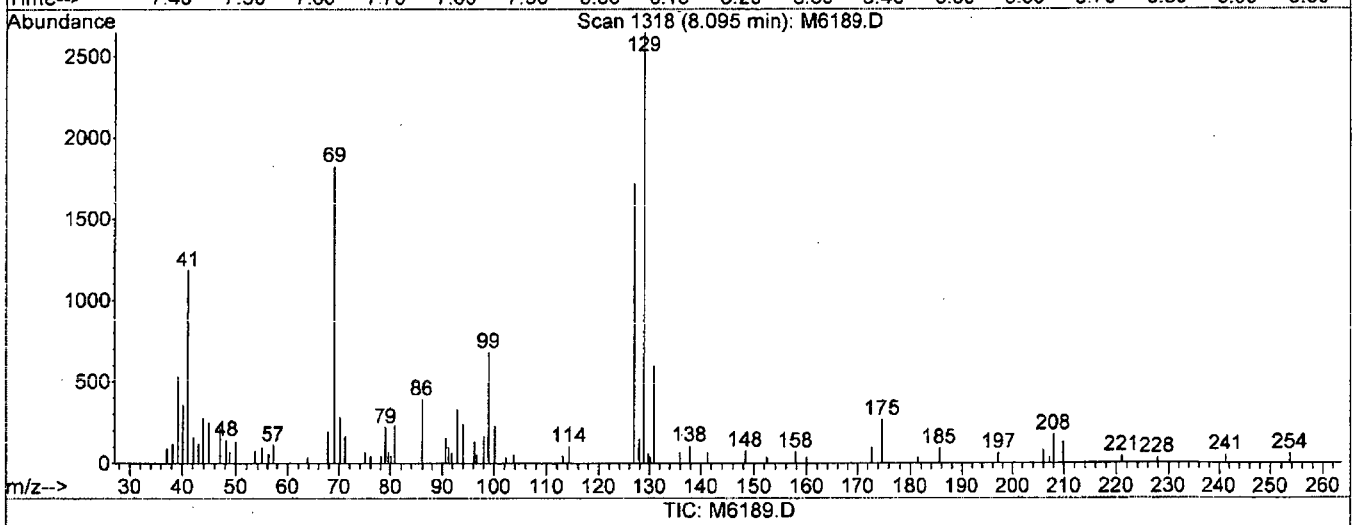
M6189.D W113015.M Tue Dec 01 09:43:25 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:43 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Multiple Level Calibration





TIC: M6189.D

(66) Ethyl Methacrylate

8.09min 0.79ug/L

response 3278

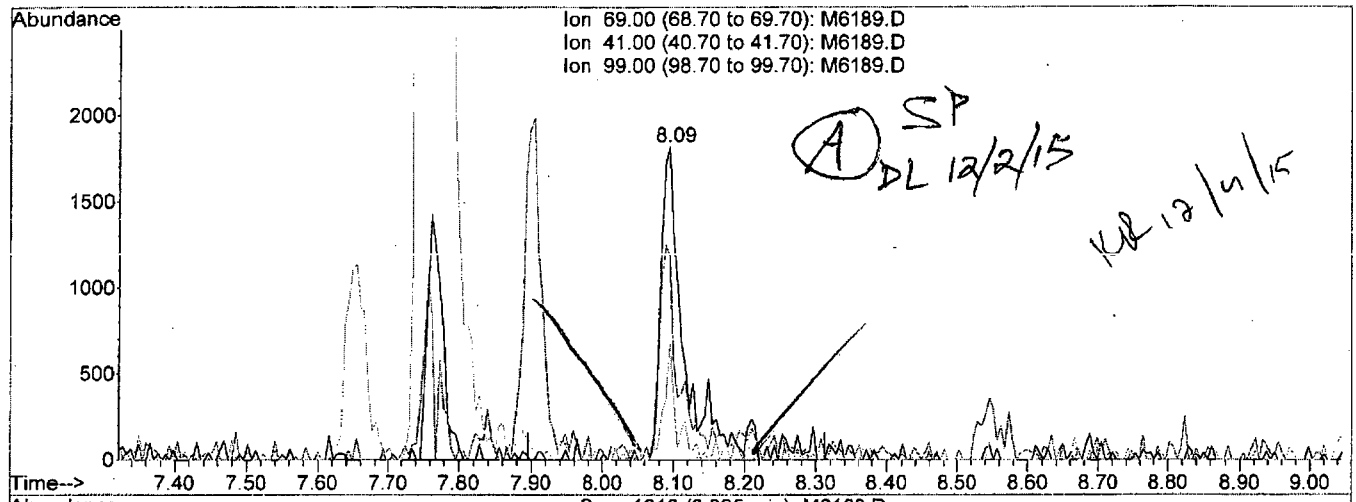
Ion	Exp%	Act%
69.00	100	100
41.00	65.10	64.85
99.00	19.80	37.23
0.00	0.00	0.00

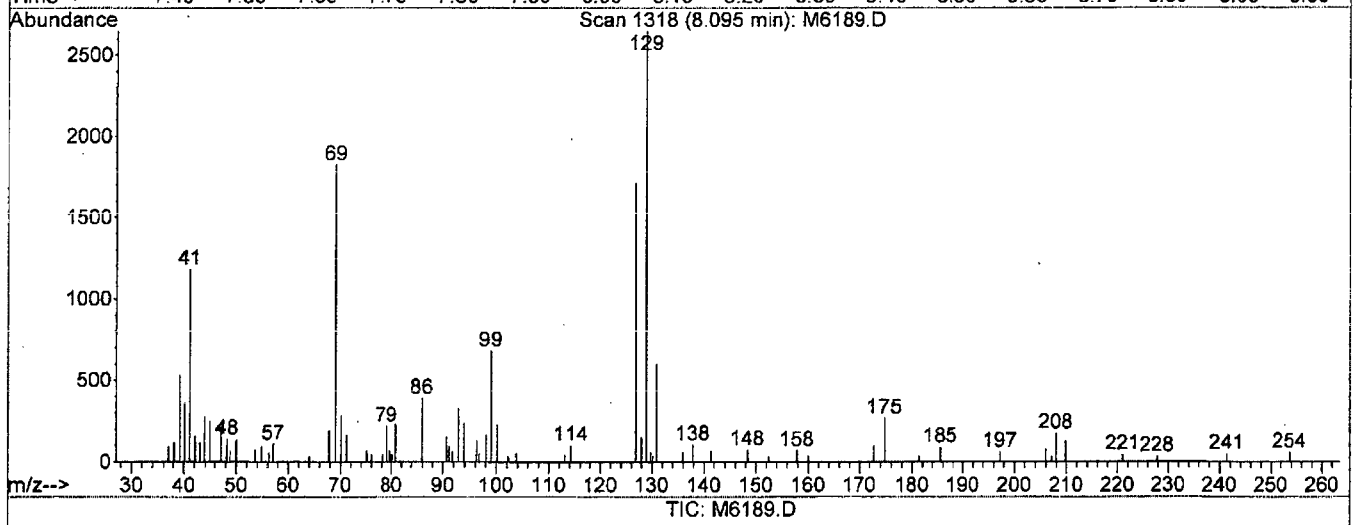
M6189.D W113015.M Tue Dec 01 09:43:51 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:43 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Multiple Level Calibration





TIC: M6189.D

(66) Ethyl Methacrylate

8.09min 0.95ug/L m

response 3963

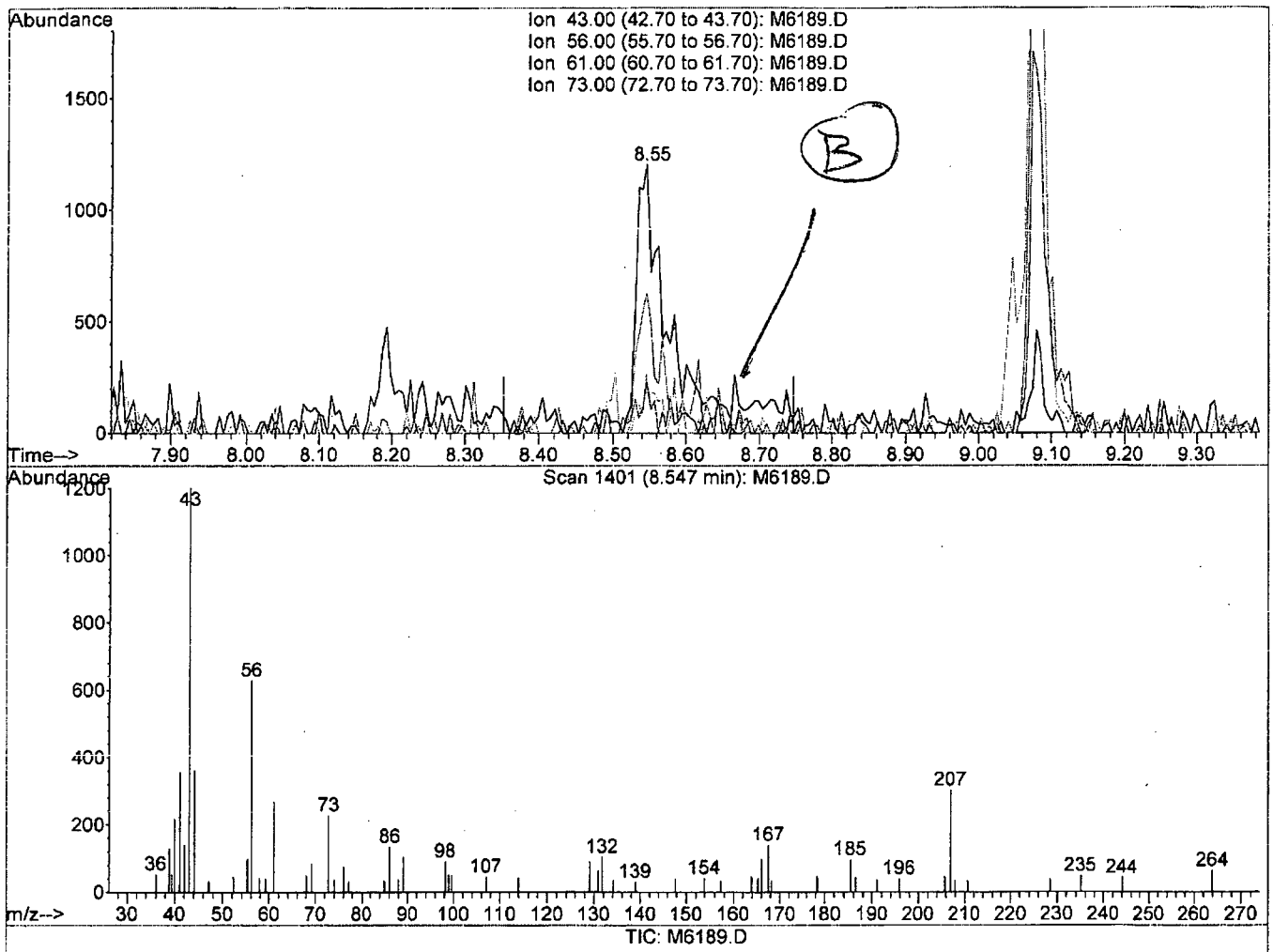
Ion	Exp%	Act%
69.00	100	100
41.00	65.10	64.85
99.00	19.80	37.23
0.00	0.00	0.00

M6189.D W113015.M Tue Dec 01 09:44:01 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:43 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Single Level Calibration



(70) n-Butyl Acetate

8.55min 0.78ug/L

response 3523

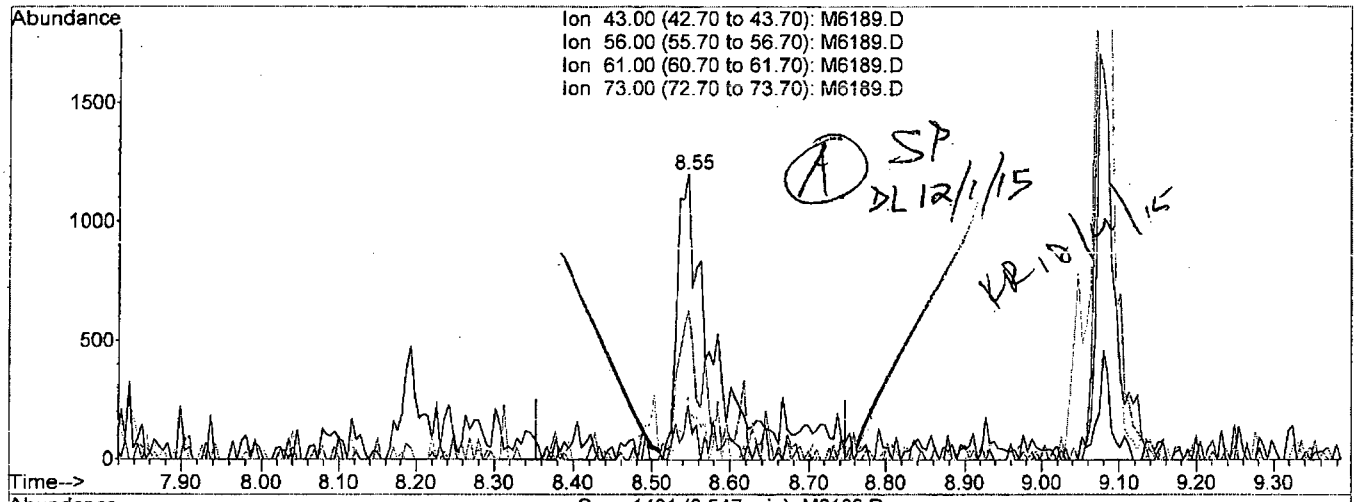
Ion	Exp%	Act%
43.00	100	100
56.00	41.50	0.00#
61.00	16.70	0.00
73.00	15.40	0.00

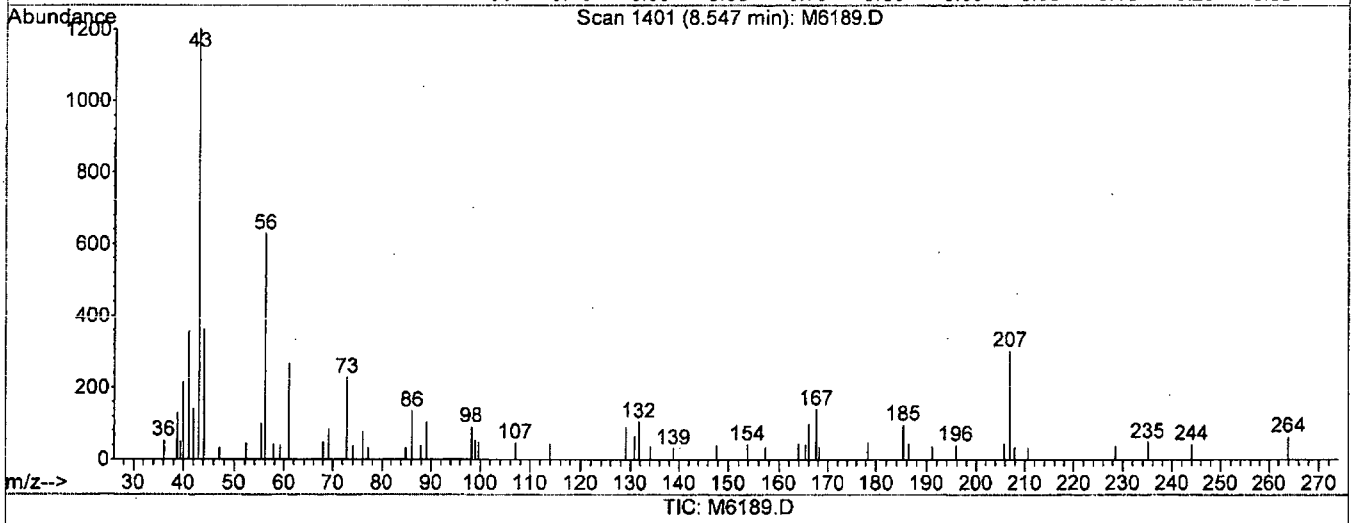
M6189.D W113015.M Tue Dec 01 09:44:34 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:44 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Single Level Calibration





TIC: M6189.D

(70) n-Butyl Acetate

8.55min 0.94ug/L m

response 4235

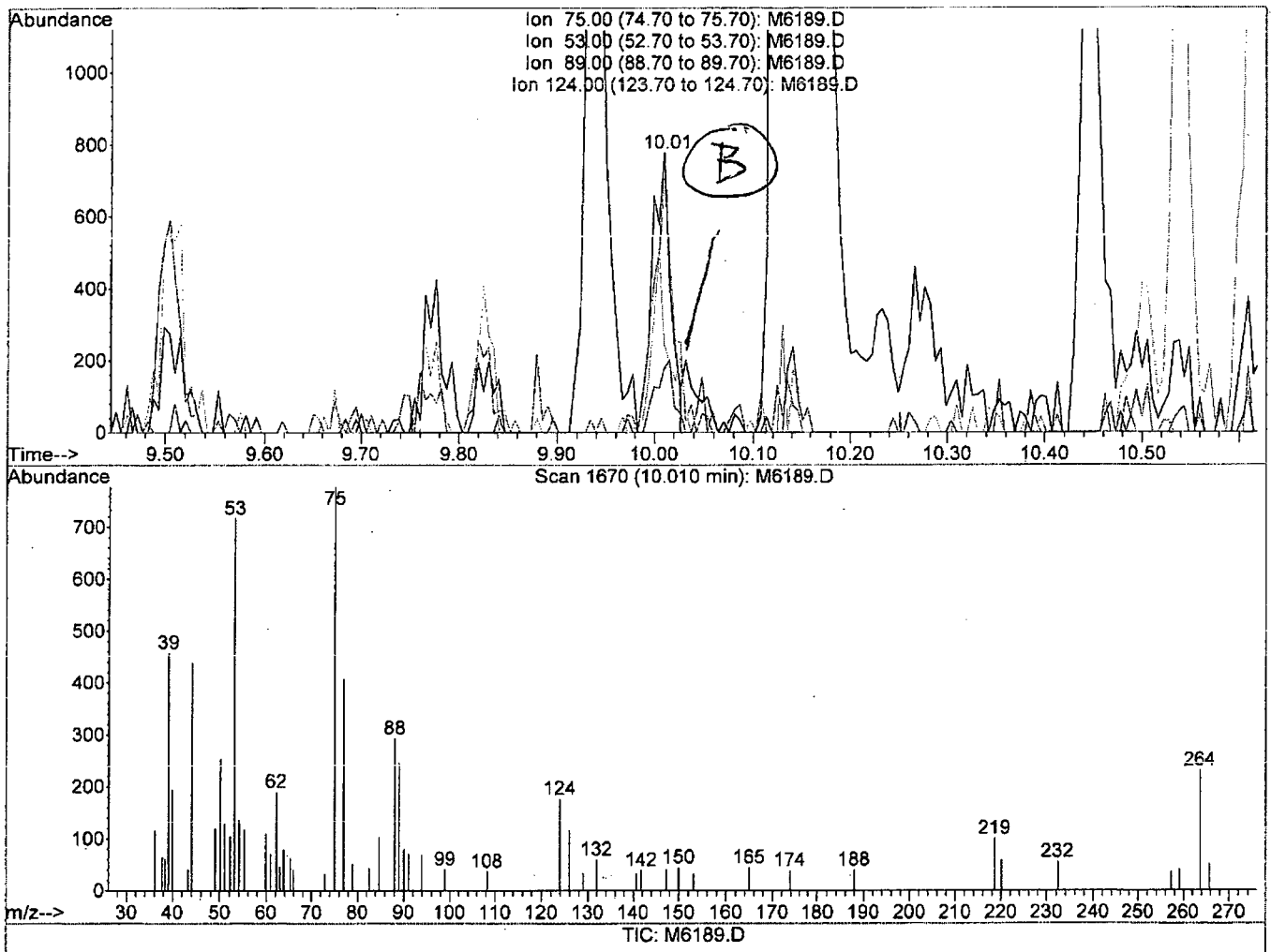
Ion	Exp%	Act%
43.00	100	100
56.00	41.50	0.00#
61.00	16.70	0.00
73.00	15.40	0.00

M6189.D W113015.M Tue Dec 01 09:44:46 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:44 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Multiple Level Calibration



(80) trans-1,4-Dichloro-2-Butene

10.01min 0.72ug/L

response 1024

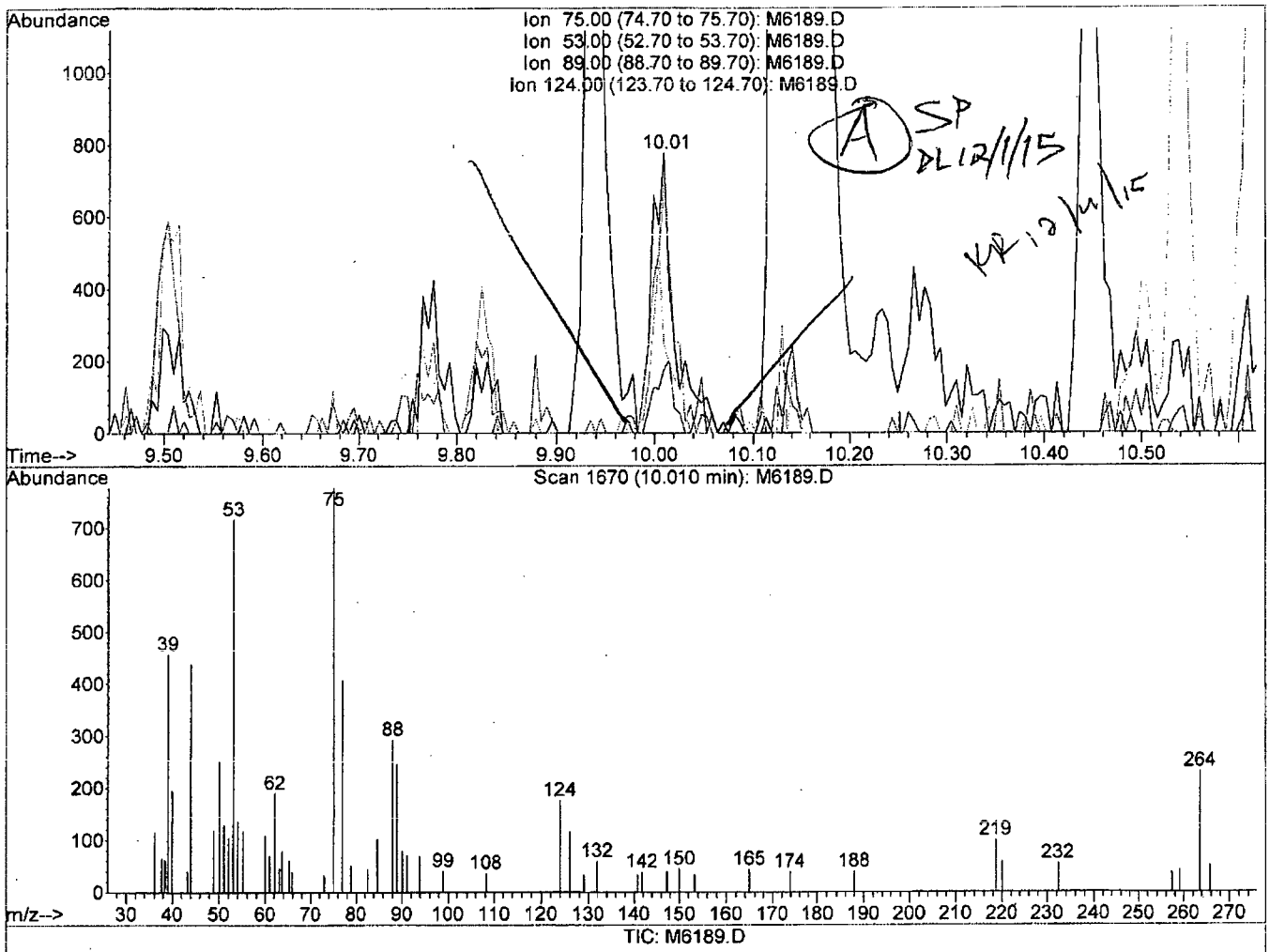
Ion	Exp%	Act%
75.00	100	100
53.00	65.30	92.15#
89.00	50.50	31.53
124.00	19.60	22.65

M6189.D W113015.M Tue Dec 01 09:45:49 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:45 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Multiple Level Calibration



(80) trans-1,4-Dichloro-2-Butene

10.01min 0.87ug/L m

response 1237

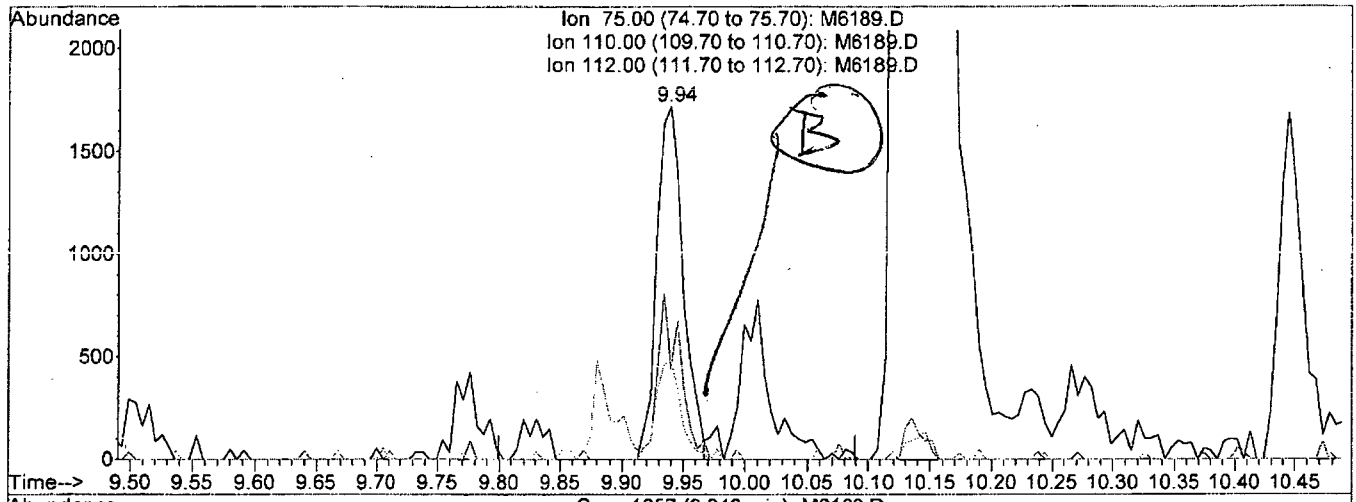
Ion	Exp%	Act%
75.00	100	100
53.00	65.30	92.15#
89.00	50.50	31.53
124.00	19.60	22.65

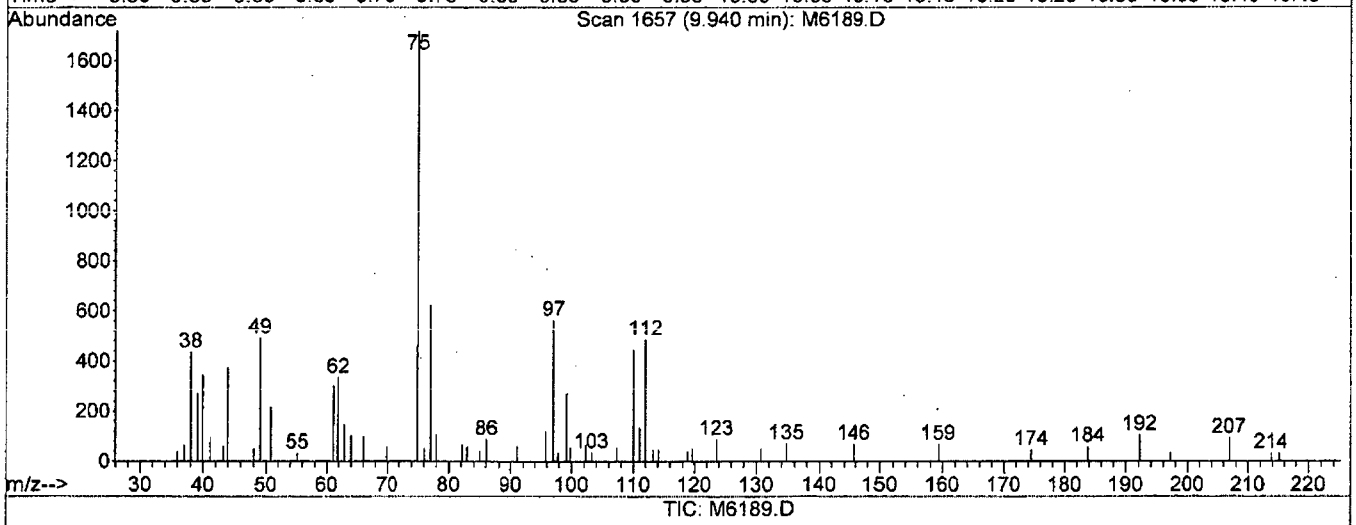
M6189.D W113015.M Tue Dec 01 09:45:58 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:45 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Multiple Level Calibration





TIC: M6189.D

(85) 1,2,3-Trichloropropane

9.94min 0.89ug/L

response 2591

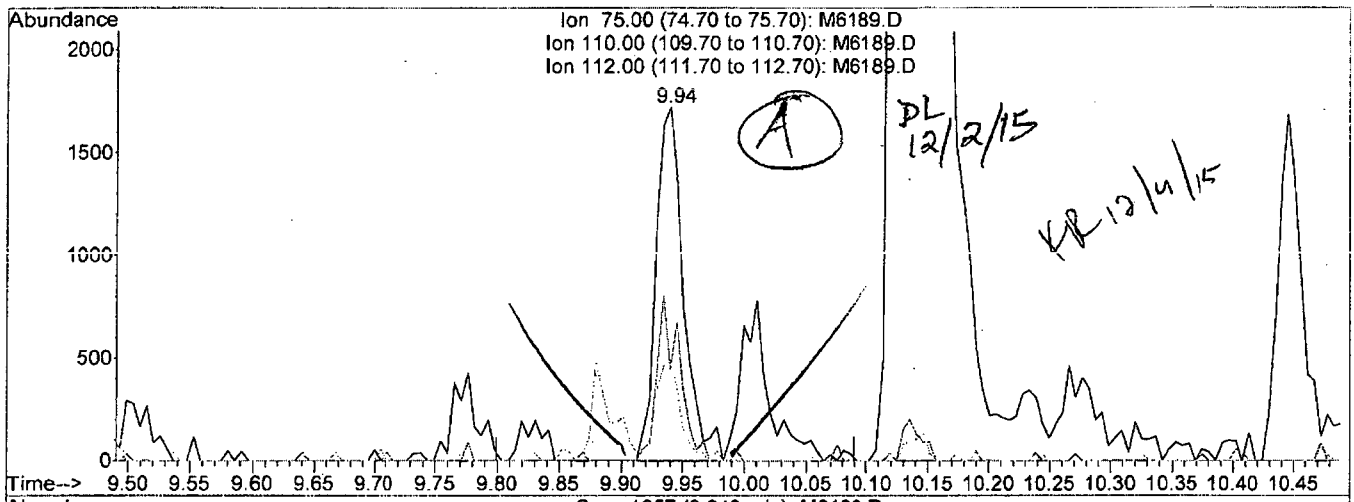
Ion	Exp%	Act%
75.00	100	100
110.00	36.90	39.64
112.00	24.20	26.67
0.00	0.00	0.00

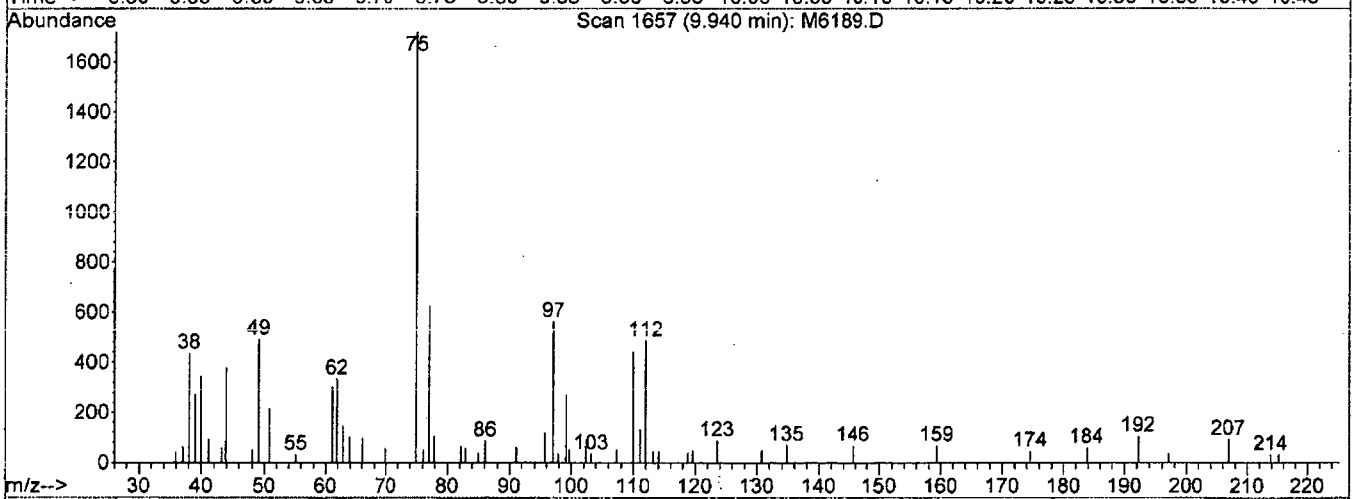
M6189.D W113015.M Tue Dec 01 09:46:18 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:46 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Multiple Level Calibration





TIC: M6189.D

(85) 1,2,3-Trichloropropane

9.94min 0.92ug/L m

response 2681

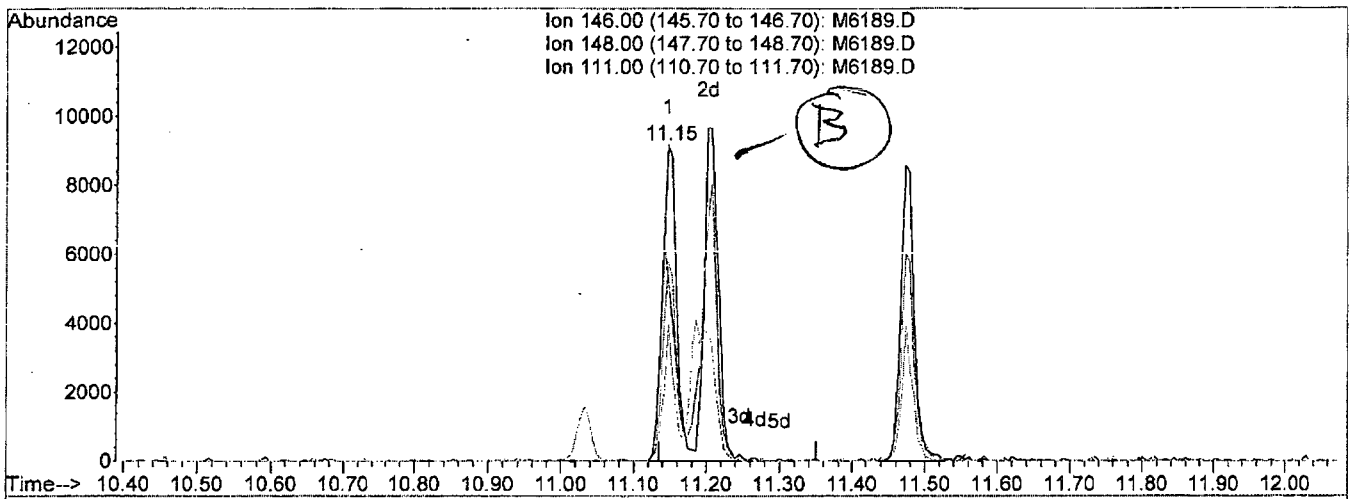
Ion	Exp%	Act%
75.00	100	100
110.00	36.90	38.31
112.00	24.20	25.77
0.00	0.00	0.00

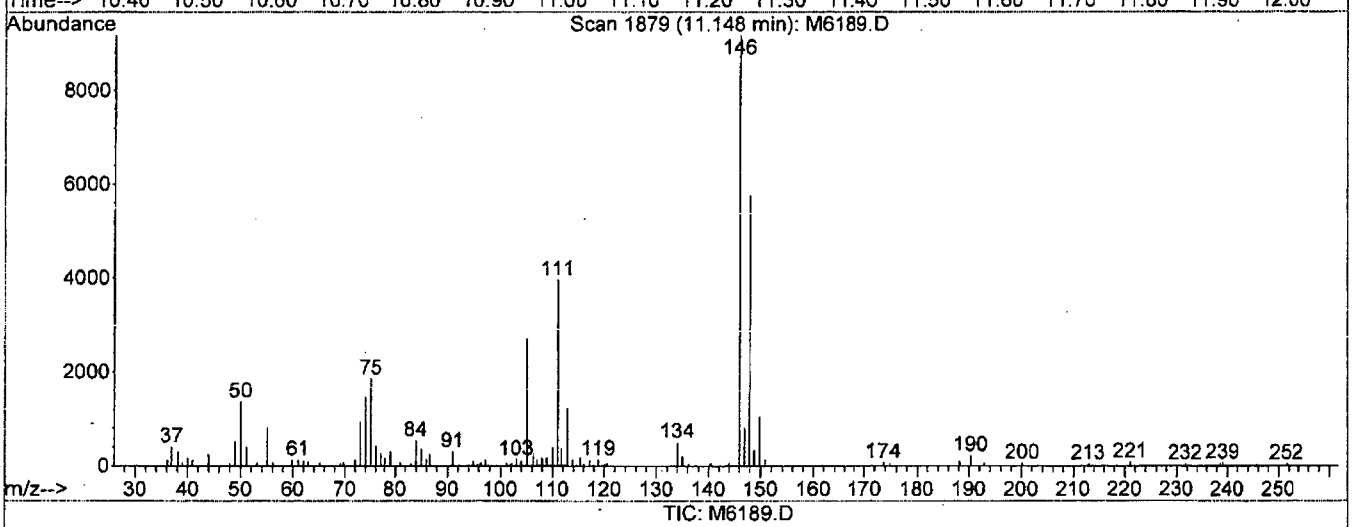
M6189.D W113015.M Tue Dec 01 09:46:24 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 ~ 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:46 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Multiple Level Calibration





TIC: M6189.D

(95) 1,4-Dclbenz (P)

11.15min 0.23ug/L

response 2750

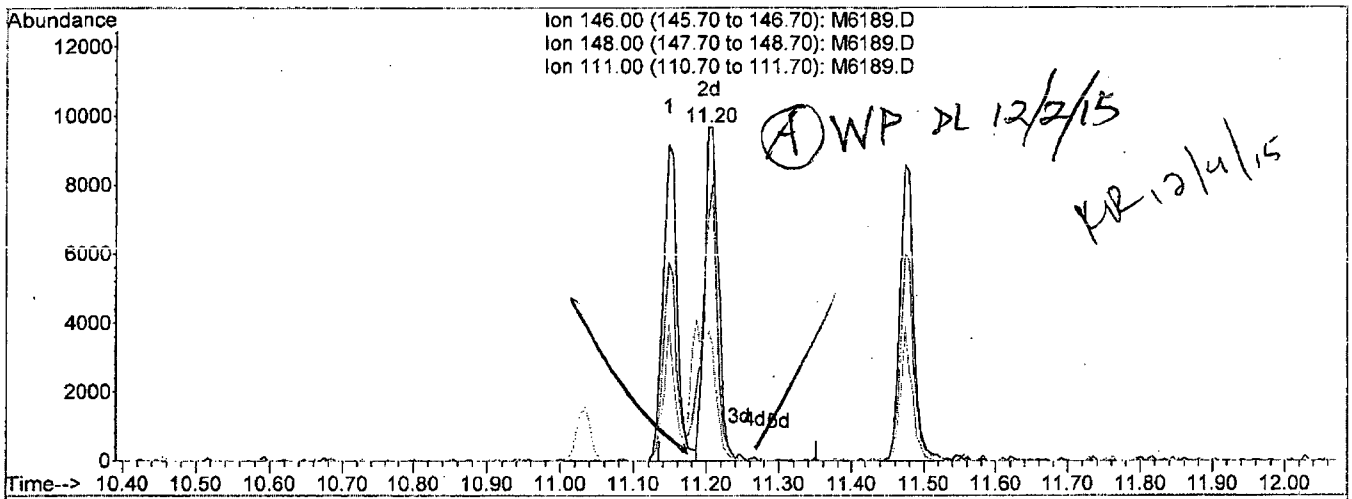
Ion	Exp%	Act%
146.00	100	100
148.00	65.00	47.71
111.00	35.90	37.93
0.00	0.00	0.00

M6189.D W113015.M Tue Dec 01 09:47:16 2015

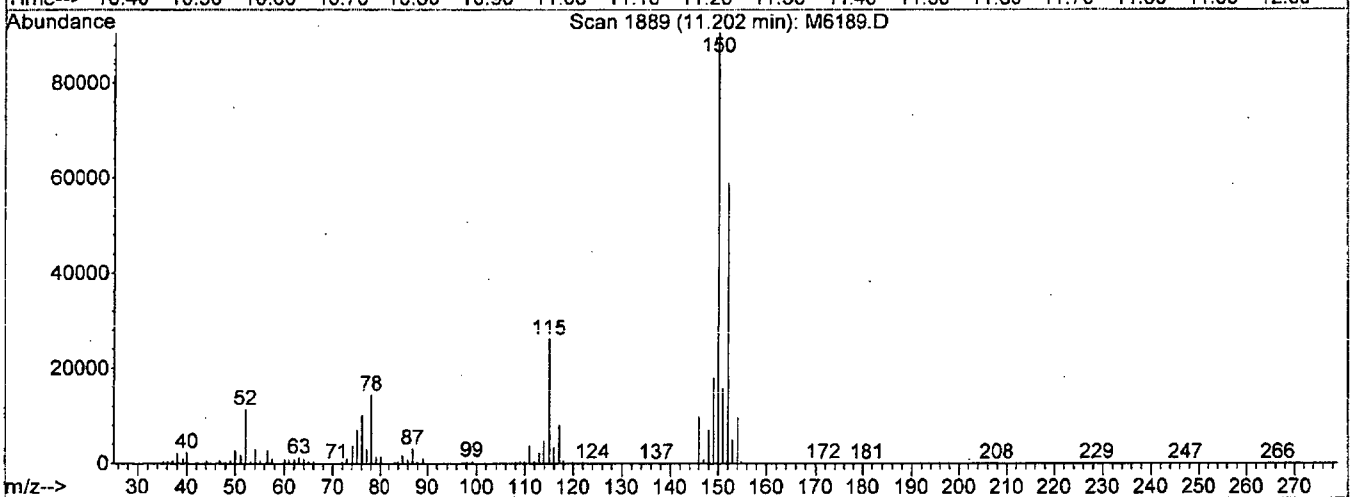
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:47 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Multiple Level Calibration



A WP DL 12/2/15
KR 12/4/15



TIC: M6189.D

(95) 1,4-Dclbenz (P)

11.20min 1.06ug/L m

response 12824

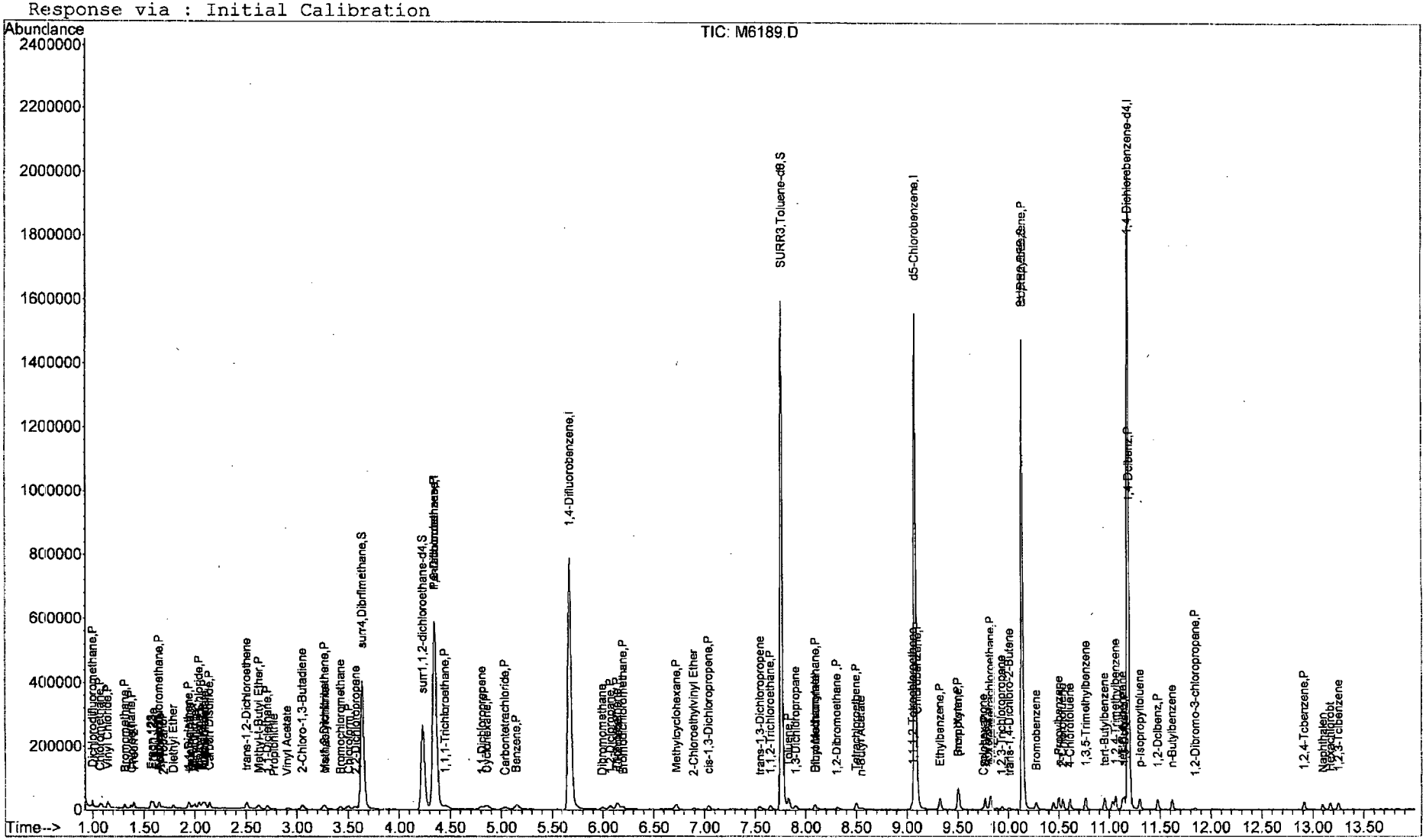
Ion	Exp%	Act%
146.00	100	100
148.00	65.00	10.23#
111.00	35.90	8.13#
0.00	0.00	0.00

M6189.D W113015.M Tue Dec 01 09:47:28 2015

Quantitation Report

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6189.D Vial: 12
Acq On : 30 Nov 2015 2:20 pm Operator: D.Lipani
Sample : STD #2 - 1.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:47 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:36:37 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:59 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	629623	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.68	114	865274	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	770294	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.18	152	456799	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	344510	63.48	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 126.96%#			
42) surr1,1,2-dichloroethane-d	4.24	65	280827	63.44	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 126.88%			
62) SURR3,Toluene-d8	7.76	98	1136448	63.05	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 126.10%#			
82) SURR2,BFB	10.14	95	423483	61.42	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 122.84%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	12468	1.83	ug/L	99
3) Chloromethane	1.07	50	15073	2.08	ug/L	100
4) Vinyl Chloride	1.14	62	14219	1.87	ug/L	93
5) Bromomethane	1.31	94	8541m	1.89	ug/L	
6) Chloroethane	1.38	64	7249	1.89	ug/L	94
7) Freon 21	1.41	67	18495	1.95	ug/L	97
8) Freon 123	1.57	83	17187	2.04	ug/L	97
9) Freon 123a	1.59	67	12888	1.99	ug/L	90
10) Acrolein	1.66	56	5244	9.42	ug/L	88
11) Trichlorofluoromethane	1.65	101	14990	1.90	ug/L	94
12) Acetonitrile	1.67	41	4330	10.54	ug/L #	77
13) 2-Propanol	1.69	45	6080	39.51	ug/L	97
14) Acetone	1.73	43	1853	2.46	ug/L #	68
15) Diethyl Ether	1.79	59	6887	2.04	ug/L	88
16) 1,1-Diclethene	1.94	96	10482	2.03	ug/L	88
17) Iodomethane	1.96	142	7874m	1.63	ug/L	
18) TBA	1.98	59	9829	39.54	ug/L	92
19) Acrylonitrile	2.00	53	11641	10.29	ug/L	83
20) Methylene Chloride	2.04	84	11364	1.97	ug/L	92
21) Freon 113	2.08	101	9327	1.82	ug/L	92
22) Methyl Acetate	2.10	43	4514	1.98	ug/L	75
23) Allyl Chloride	2.10	76	5027m	2.05	ug/L	
24) Carbon Disulfide	2.15	76	31621	1.89	ug/L	98
25) trans-1,2-Dichloroethene	2.51	96	11248	1.98	ug/L	93
26) Methyl-t-Butyl Ether	2.62	73	21010	1.96	ug/L	98
27) 1,1-Diclethane	2.71	63	16730	1.94	ug/L	96
28) Propionitrile	2.77	54	3504	9.36	ug/L	74
29) Vinyl Acetate	2.91	43	13390m	1.84	ug/L	
30) 2-Chloro-1,3-Butadiene	3.05	53	14640	1.86	ug/L	95
32) Methacrylonitrile	3.27	67	2459	2.03	ug/L #	69
33) cis-1,2-Dichloroethene	3.26	96	10771	1.95	ug/L	98
34) Bromochloromethane	3.42	128	5513	2.07	ug/L #	89
35) Chloroform	3.50	83	16373	1.88	ug/L	92
36) 2,2-Dichloropropane	3.57	77	12567	1.87	ug/L	88
37) Tetrahydrofuran	3.93	42	1304m	1.76	ug/L	

DL 12/2/15

(#) = qualifier out of range (m) = manual integration
M6190.D W113015.M Tue Dec 01 09:59:23 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:59 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,1,1-Trichloroethane	4.46	97	13510	1.92	ug/L		84
41)	Iso-Butyl Alcohol	3.75	43	3676m	36.51	ug/L		
43)	1,2-Dichloroethane	4.35	62	10828m	2.12	ug/L		
44)	1,1-Dichloropropene	4.80	75	11776	1.86	ug/L		86
45)	Cyclohexane	4.86	56	14613	1.90	ug/L		90
46)	Carbontetrachloride	5.05	119	11117	1.79	ug/L		85
47)	Benzene	5.14	78	39303	2.02	ug/L		93
48)	Dibromomethane	5.99	93	4852	1.83	ug/L		94
49)	1,2-Diclpropane	6.07	63	9211	1.87	ug/L		98
50)	n-Heptane	6.14	43	8018m	1.91	ug/L		
51)	Trichloroethene	6.13	130	10345	1.80	ug/L		94
52)	Bromodichloromethane	6.19	83	10961	1.83	ug/L		83
53)	2-Nitropropane	6.25	41	2134m	4.07	ug/L		
54)	1,4-Dioxane	6.46	88	1329m	46.14	ug/L		
55)	Methyl Methacrylate	6.62	69	2654	1.38	ug/L		97
56)	Methylcyclohexane	6.72	55	9064	1.81	ug/L		95
57)	2-Chloroethylvinyl Ether	6.89	63	3676	1.72	ug/L		96
58)	cis-1,3-Dichloropropene	7.04	75	13559	1.93	ug/L		94
59)	4-Methyl-2-pentanone	7.26	43	4022	1.57	ug/L	#	81
60)	trans-1,3-Dichloropropene	7.54	75	10903	1.83	ug/L		96
61)	1,1,2-Trichloroethane	7.65	97	7169	1.95	ug/L		98
63)	Toluene	7.83	91	41850	2.06	ug/L		97
65)	1,3-Dichloropropane	7.90	76	11242	2.04	ug/L		98
66)	Ethyl Methacrylate	8.09	69	7295	1.76	ug/L		89
67)	Dibromochloromethane	8.09	129	8421	1.84	ug/L		96
69)	1,2-Dibromoethane	8.31	107	7067	1.92	ug/L		97
70)	n-Butyl Acetate	8.53	43	8332m	1.86	ug/L		
71)	Tetrachloroethene	8.50	164	9133	1.96	ug/L		96
72)	1,1,1,2-Tetrachloroethane	9.05	131	9210	1.87	ug/L		94
73)	Chlorobenzene	9.11	112	25822	1.89	ug/L		98
74)	Ethylbenzene	9.32	106	13184	1.88	ug/L	#	89
75)	Bromoform	9.51	173	4754	1.64	ug/L		92
76)	(m+p)Xylene	9.51	106	32339	3.78	ug/L		94
77)	o-Xylene	9.82	106	17075	1.93	ug/L		98
78)	Cyclohexanone	9.75	55	4008m	39.74	ug/L		
79)	Styrene	9.77	104	25756	1.84	ug/L		96
80)	trans-1,4-Dichloro-2-Buten	10.01	75	2150m	1.52	ug/L		
81)	Isopropylbenzene	10.13	105	41397	1.92	ug/L		98
84)	1,1,2,2-Tetrachloroethane	9.82	83	8410	2.01	ug/L		96
85)	1,2,3-Trichloropropane	9.94	75	6158	2.16	ug/L		93
86)	Bromobenzene	10.28	156	12516	1.98	ug/L		99
87)	n-Propylbenzene	10.50	91	48603	2.00	ug/L		98
88)	2-Chlorotoluene	10.54	91	30165	2.02	ug/L		98
89)	4-Chlorotoluene	10.61	91	31566	2.00	ug/L		98
90)	1,3,5-Trimethylbenzene	10.77	105	33104	2.00	ug/L		98
91)	tert-Butylbenzene	10.95	119	26549	1.85	ug/L		99
92)	1,2,4-Trimethylbenzene	11.06	105	34197	1.93	ug/L		99
93)	sec-Butylbenzene	11.13	105	39514	1.95	ug/L		100
94)	1,3-Dclbenz	11.15	146	22873	1.95	ug/L		98
95)	1,4-Dclbenz	11.21	146	22855m	1.93	ug/L		

(#) = qualifier out of range (m) = manual integration
M6190.D W113015.M Tue Dec 01 09:59:24 2015

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:59 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Initial Calibration
DataAcq Meth : W113015

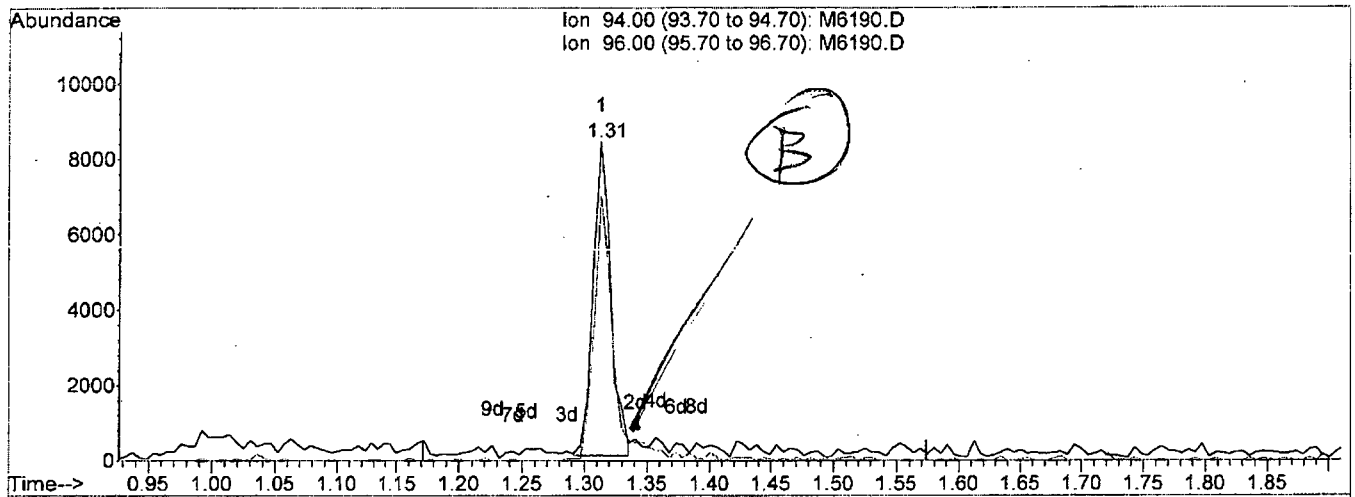
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96)	p-Isopropyltoluene	11.30	119	32709	1.97	ug/L	98
97)	1,2-Dclbenz	11.48	146	21764	1.99	ug/L	96
98)	n-Butylbenzene	11.61	91	27657	1.89	ug/L	96
99)	1,2-Dibromo-3-chloropropan	11.84	75	1139	1.87	ug/L	88
101)	1,2,4-Tcbenzene	12.91	180	11932	1.89	ug/L	95
102)	Naphthalen	13.09	128	20951	1.89	ug/L	98
103)	Hexachlorobt	13.17	225	6203	2.05	ug/L	96
104)	1,2,3-Tclbenzene	13.25	180	10154	1.95	ug/L	96

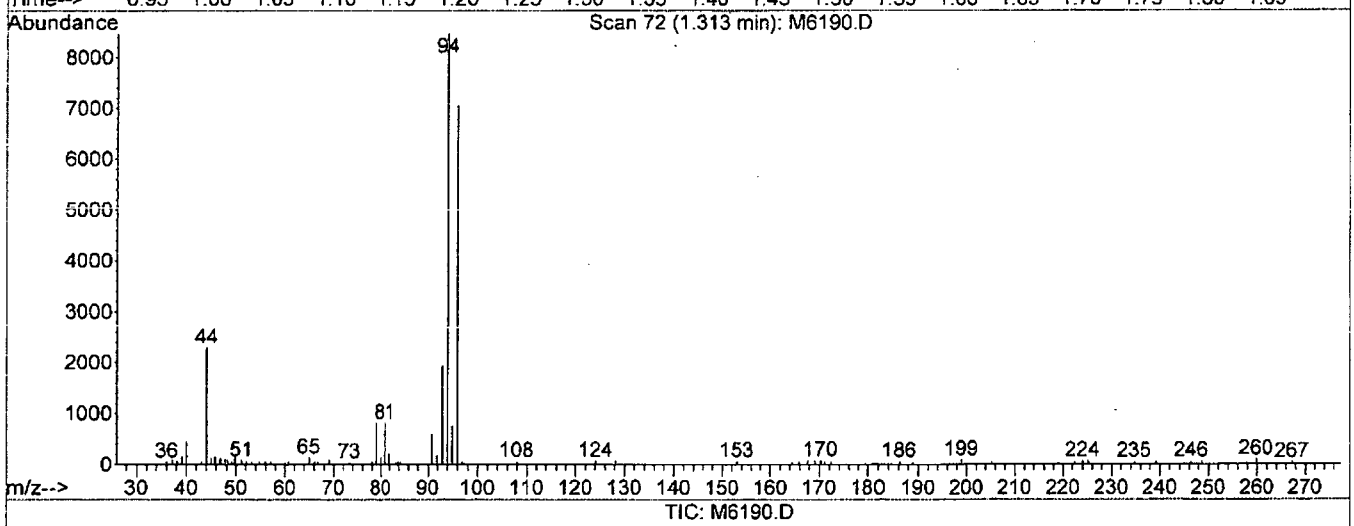
(#) = qualifier out of range (m) = manual integration
M6190.D W113015.M Tue Dec 01 09:59:25 2015 Page 3

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:48 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration





TIC: M6190.D

(5) Bromomethane (P)

1.31min 1.82ug/L

response 8229

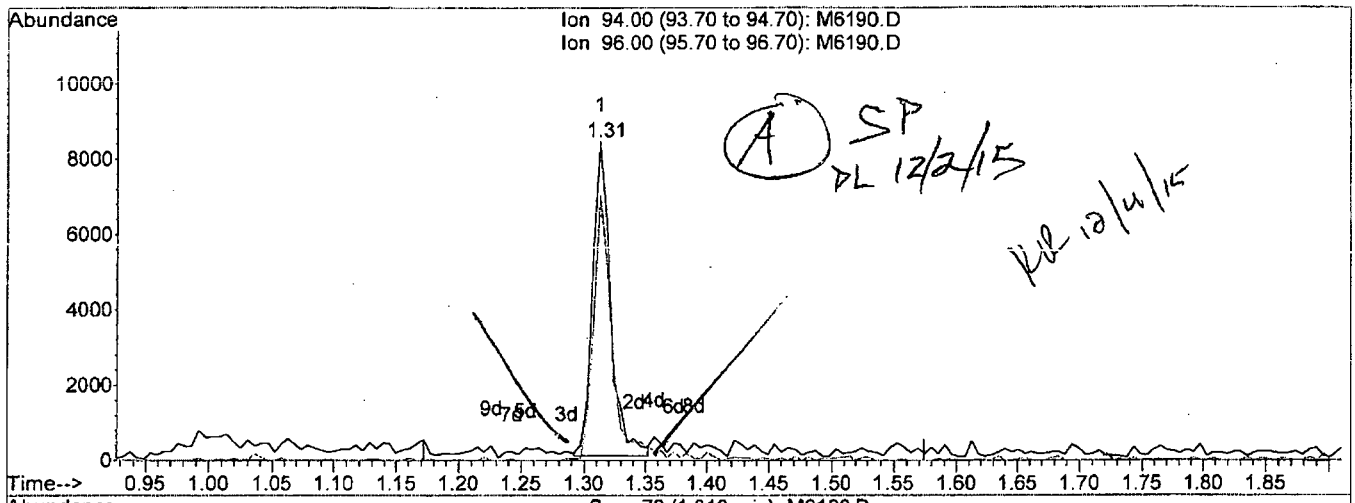
Ion	Exp%	Act%
94.00	100	100
96.00	95.90	83.23
0.00	0.00	0.00
0.00	0.00	0.00

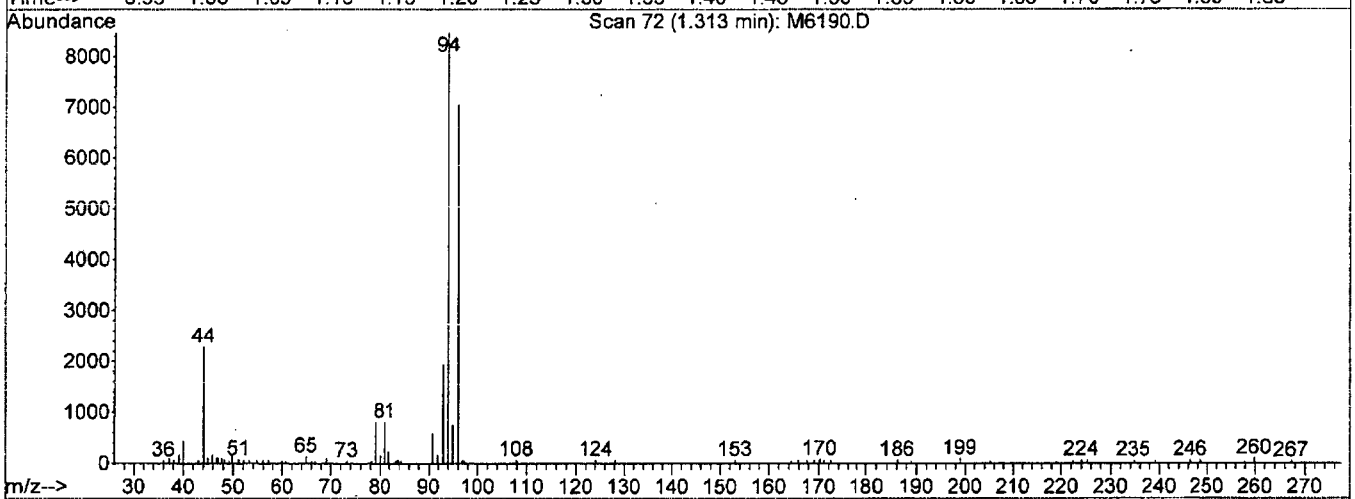
M6190.D W113015.M Tue Dec 01 09:48:55 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:49 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration





TIC: M6190.D

(5) Bromomethane (P)

1.31min 1.89ug/L m

response 8541

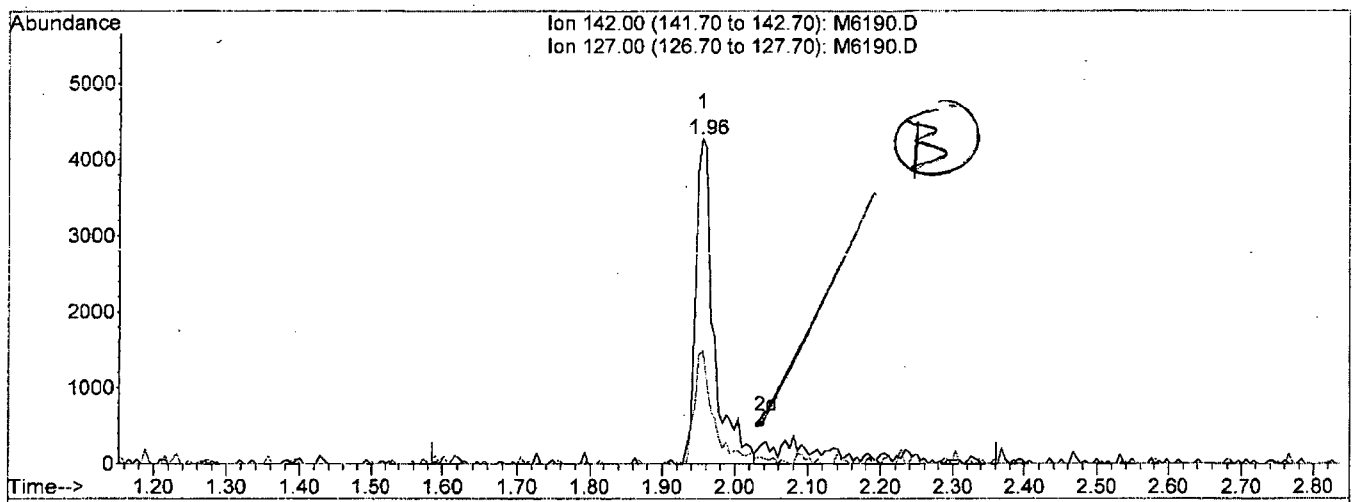
Ion	Exp%	Act%
94.00	100	100
96.00	95.90	83.23
0.00	0.00	0.00
0.00	0.00	0.00

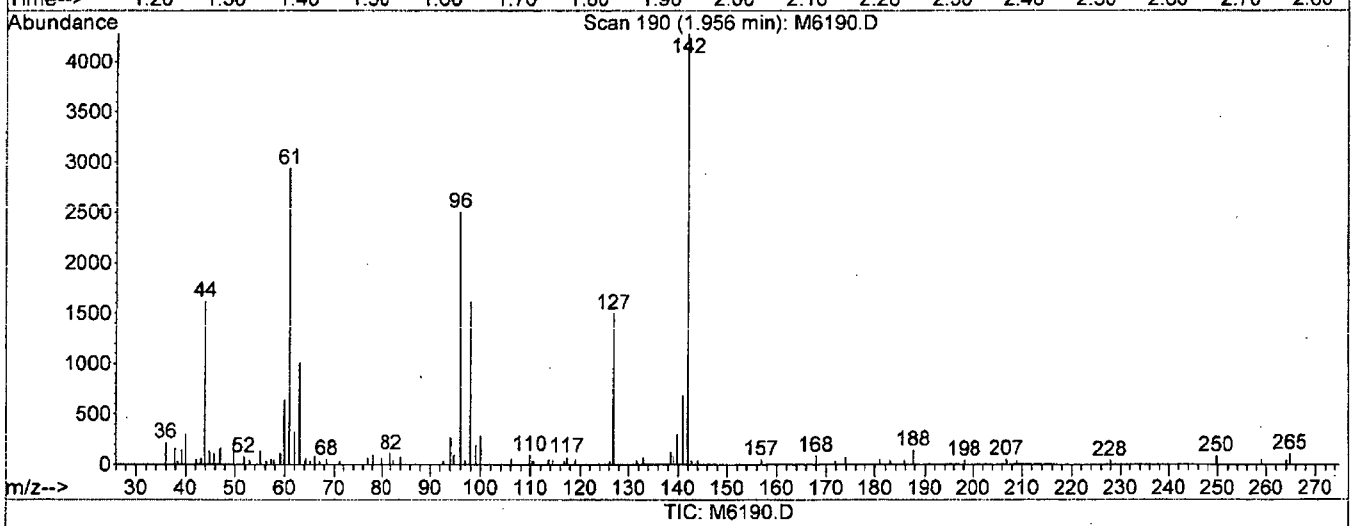
M6190.D W113015.M Tue Dec 01 09:49:12 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:49 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration





TIC: M6190.D

(17) Iodomethane

1.96min 1.57ug/L

response 7480

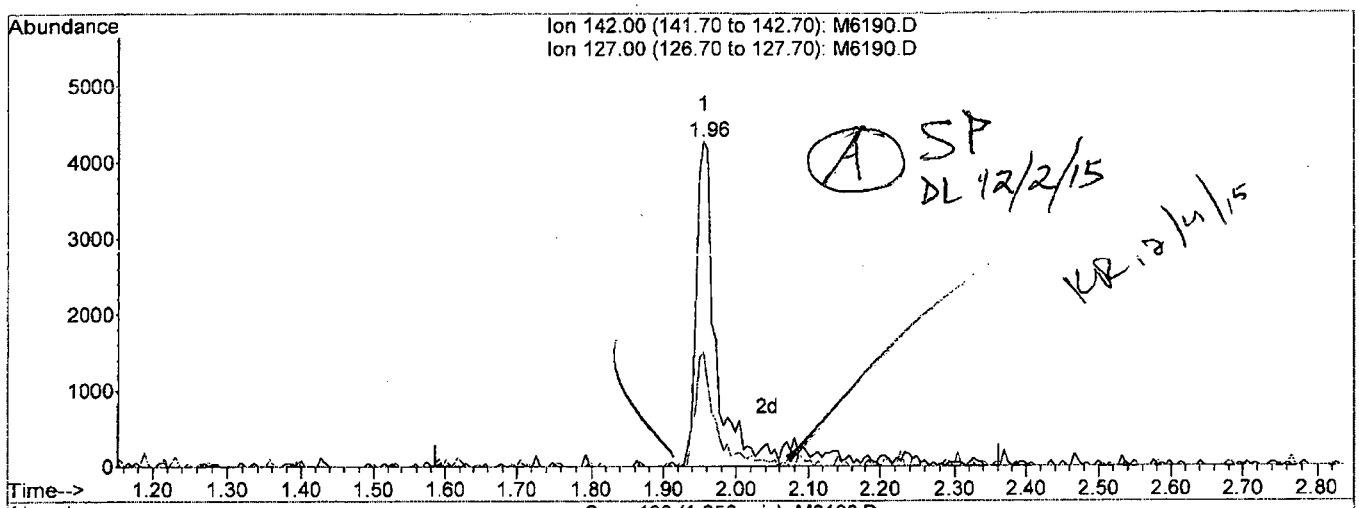
Ion	Exp%	Act%
142.00	100	100
127.00	35.30	34.96
0.00	0.00	0.00
0.00	0.00	0.00

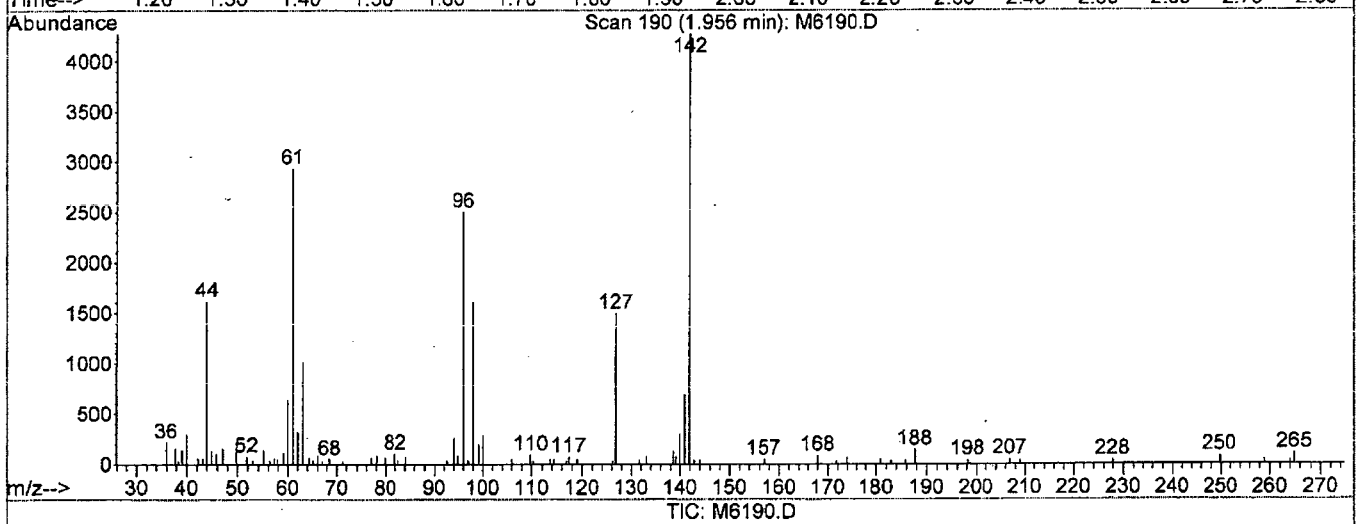
M6190.D W113015.M Tue Dec 01 09:50:05 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:50 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration





TIC: M6190.D

(17) Iodomethane

1.96min 1.63ug/L m

response 7874

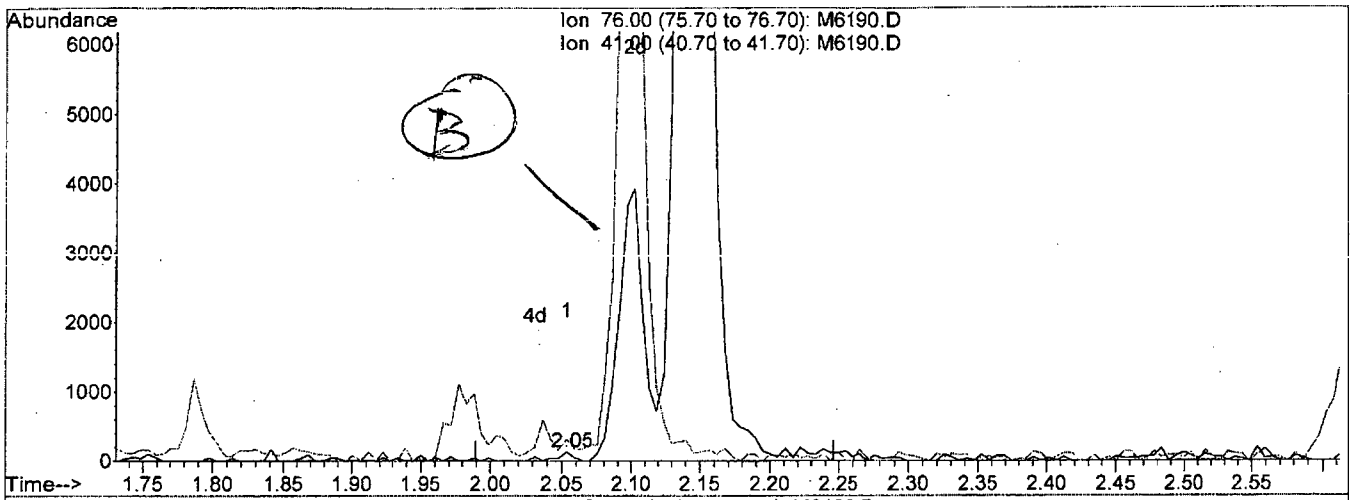
Ion	Exp%	Act%
142.00	100	100
127.00	35.30	34.96
0.00	0.00	0.00
0.00	0.00	0.00

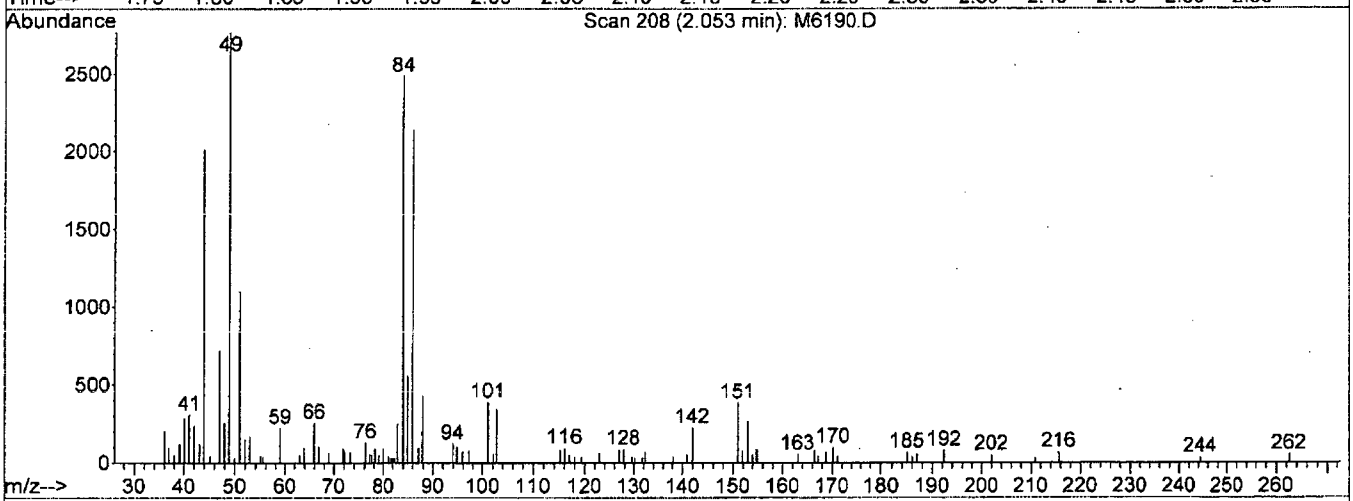
M6190.D W113015.M Tue Dec 01 09:50:30 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:50 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration





TIC: M6190.D

(23) Allyl Chloride

2.05min 0.03ug/L

response 82

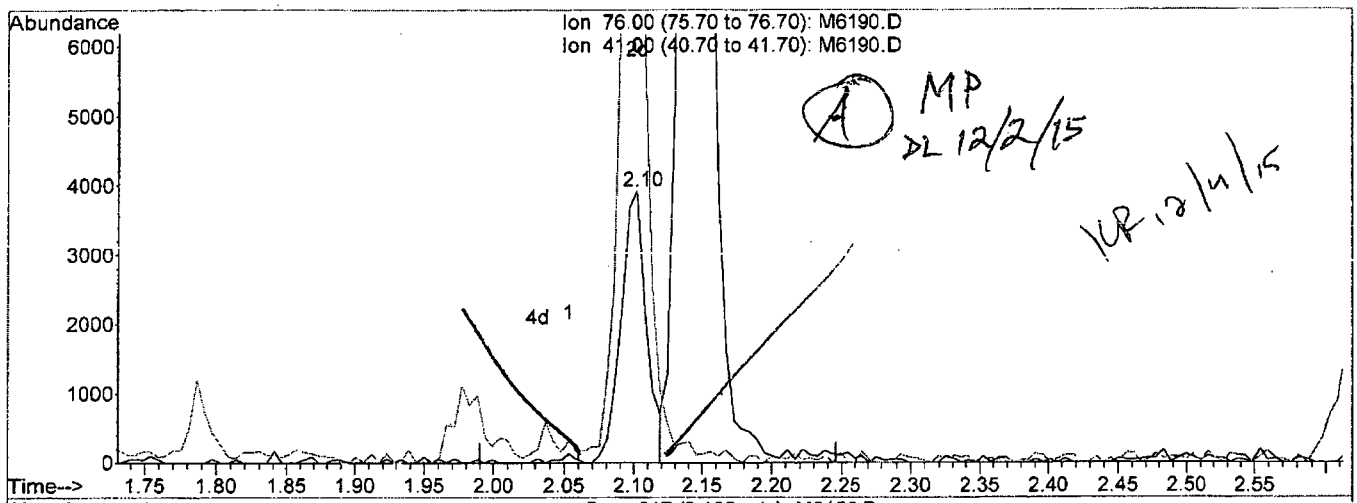
Ion	Exp%	Act%
76.00	100	100
41.00	250.90	237.21
0.00	0.00	0.00
0.00	0.00	0.00

M6190.D W113015.M Tue Dec 01 09:50:53 2015

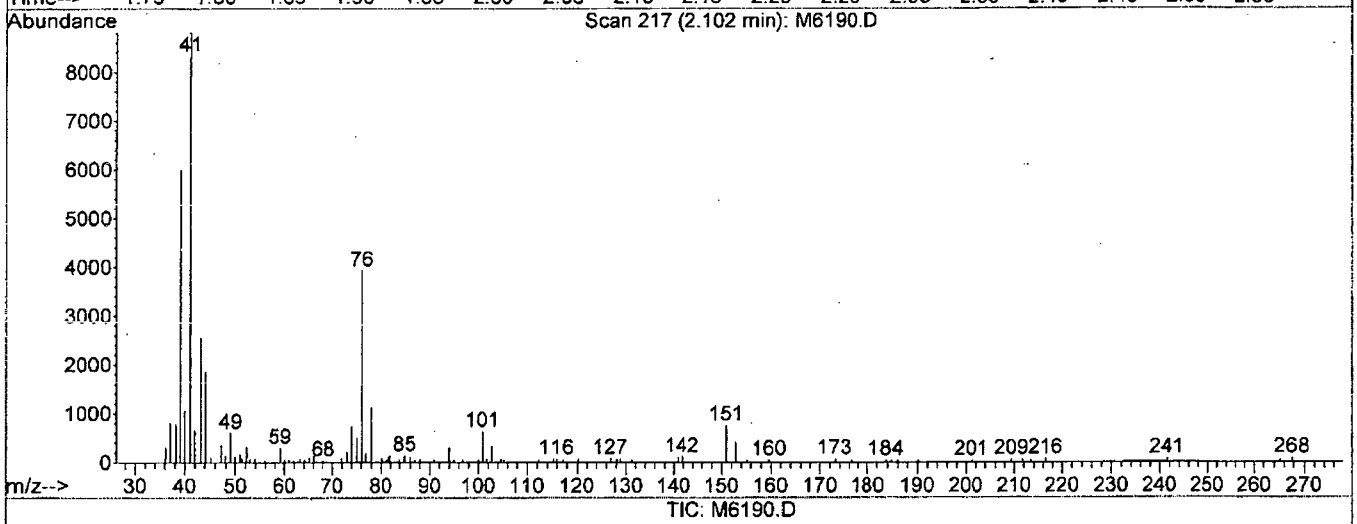
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:50 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration



MP 12/2/15
KR 12/4/15



TIC: M6190.D

(23) Allyl Chloride

2.10min 2.05ug/L m

response 5027

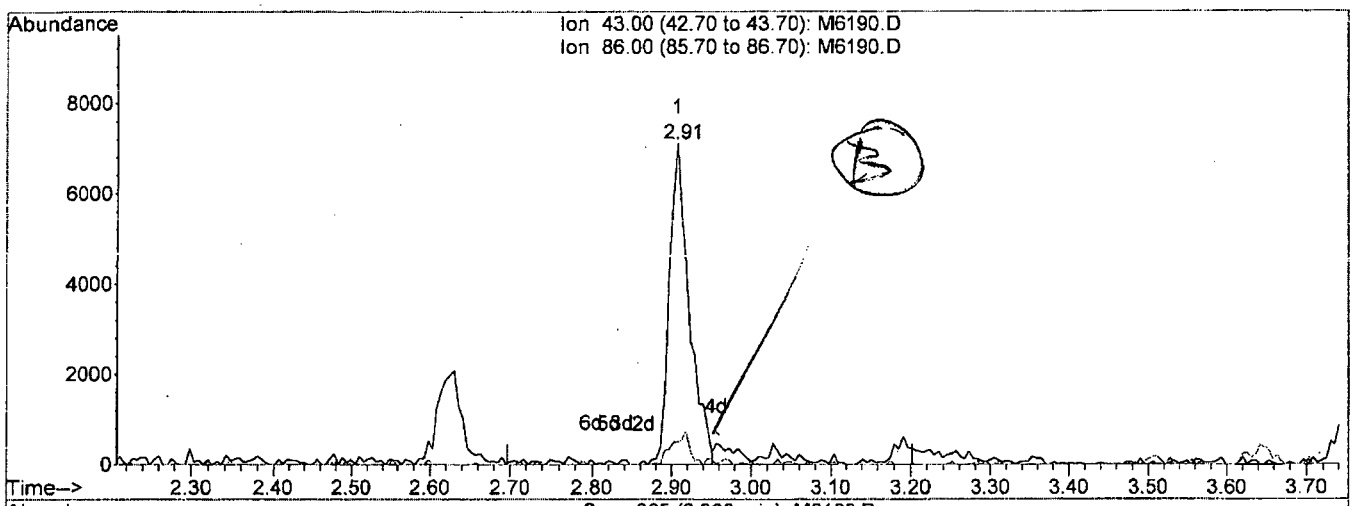
Ion	Exp%	Act%
76.00	100	100
41.00	250.90	224.83#
0.00	0.00	0.00
0.00	0.00	0.00

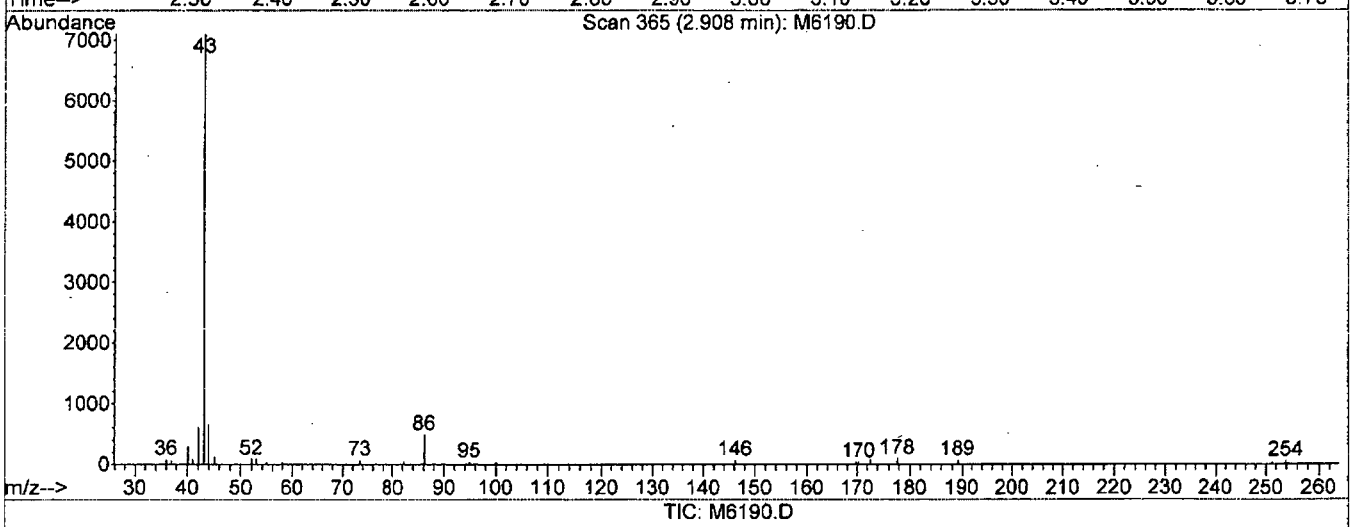
M6190.D W113015.M Tue Dec 01 09:50:59 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:50 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration





TIC: M6190.D

(29) Vinyl Acetate

2.91min 1.72ug/L

response 12545

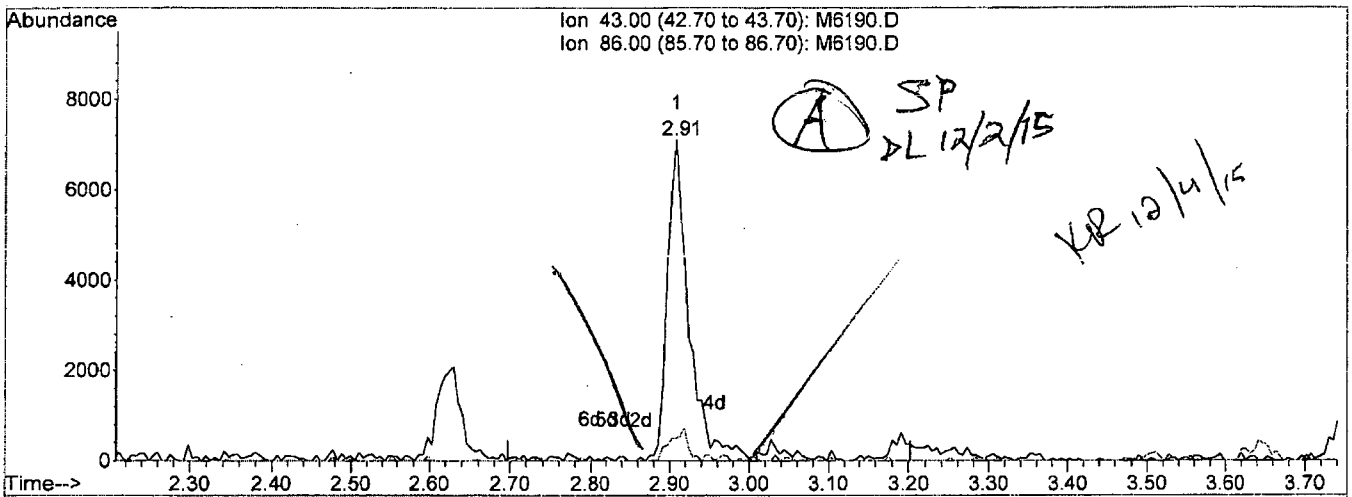
Ion	Exp%	Act%
43.00	100	100
86.00	9.30	6.87
0.00	0.00	0.00
0.00	0.00	0.00

M6190.D W113015.M Tue Dec 01 09:51:16 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:51 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration



TIC: M6190.D

(29) Vinyl Acetate

2.91min 1.84ug/L m

response 13390

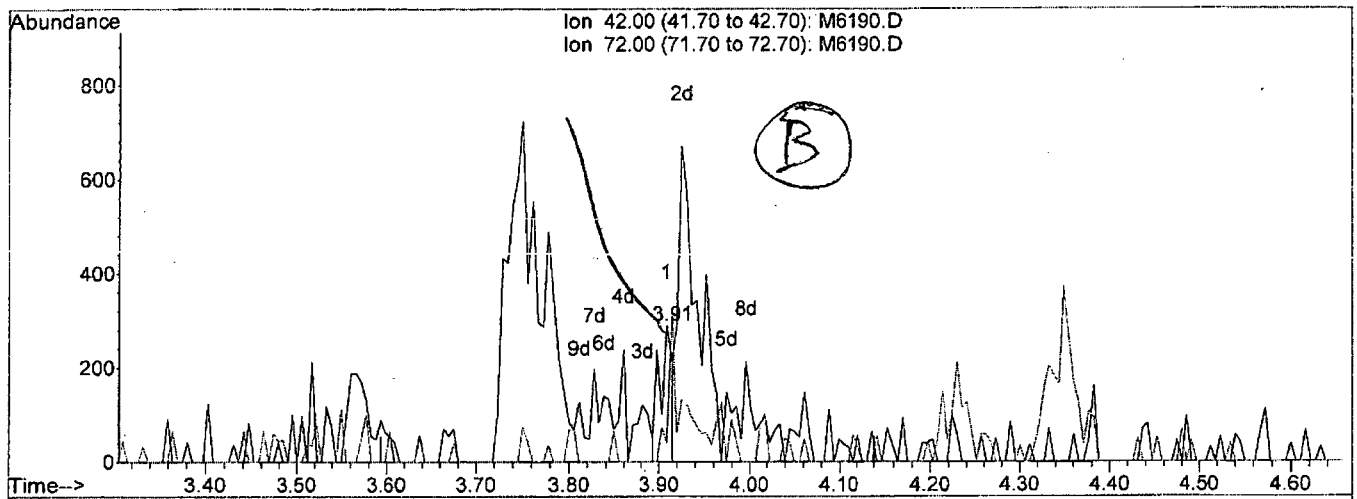
Ion	Exp%	Act%
43.00	100	100
86.00	9.30	6.87
0.00	0.00	0.00
0.00	0.00	0.00

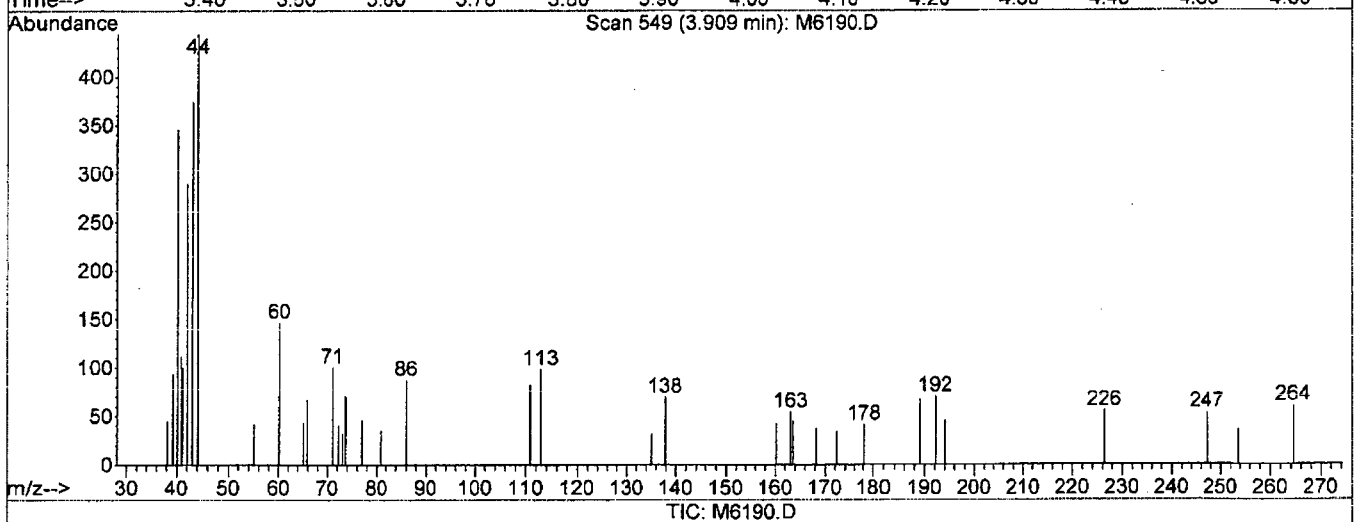
M6190.D W113015.M Tue Dec 01 09:51:24 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:51 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Single Level Calibration





TIC: M6190.D

(37) Tetrahydrofuran

3.91min 0.37ug/L

response 275

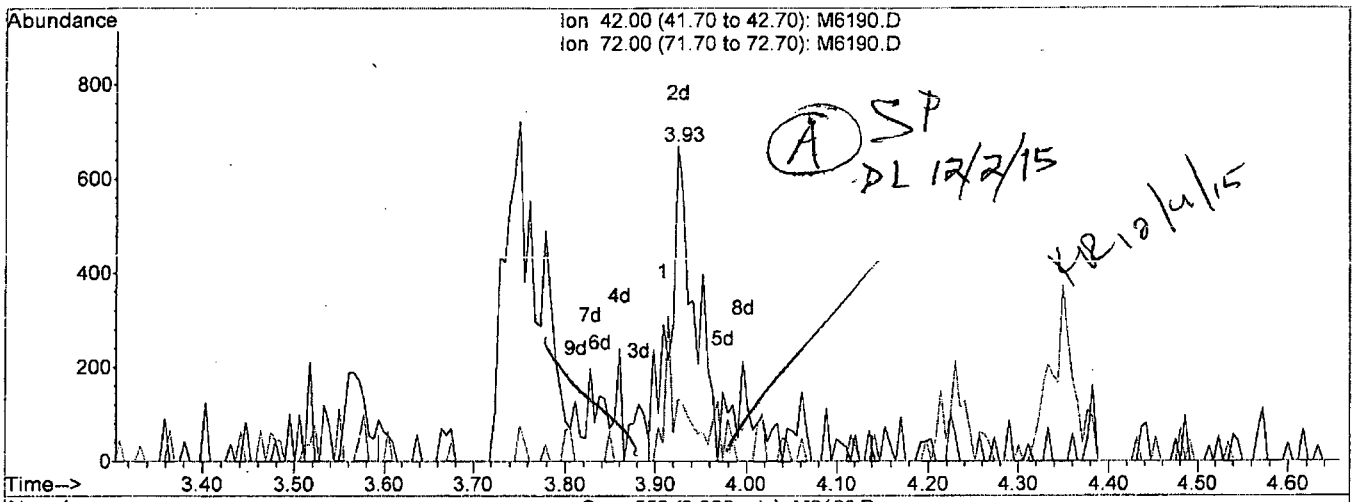
Ion	Exp%	Act%
42.00	100	100
72.00	45.40	13.84#
0.00	0.00	0.00
0.00	0.00	0.00

M6190.D W113015.M Tue Dec 01 09:51:49 2015

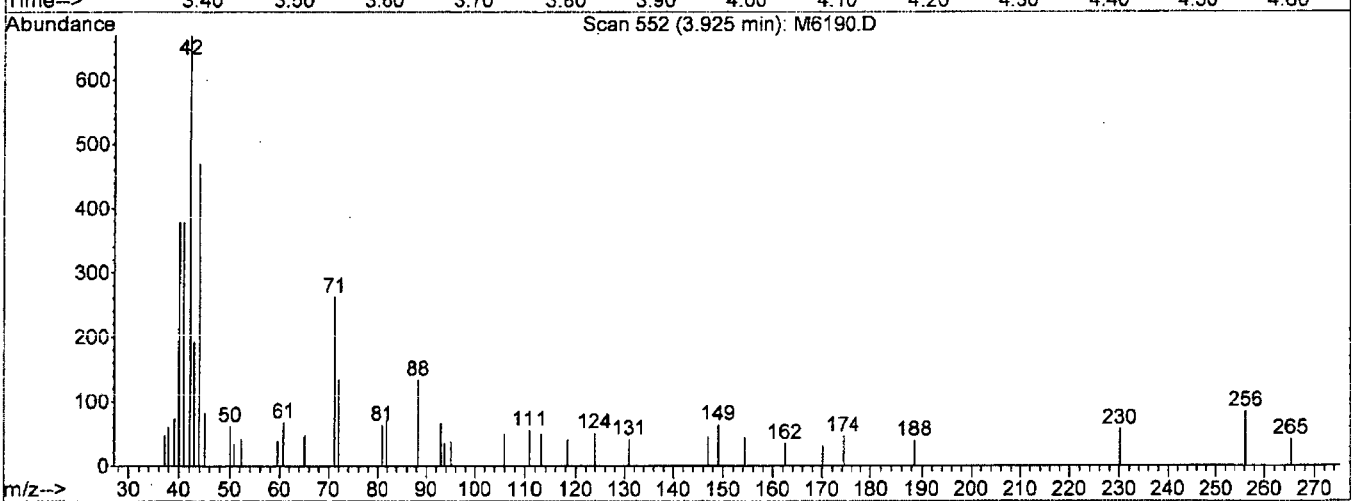
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:51 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Single Level Calibration



A SP DL 12/2/15 KR 12/4/15



TIC: M6190.D

(37) Tetrahydrofuran

3.93min 1.76ug/L m

response 1304

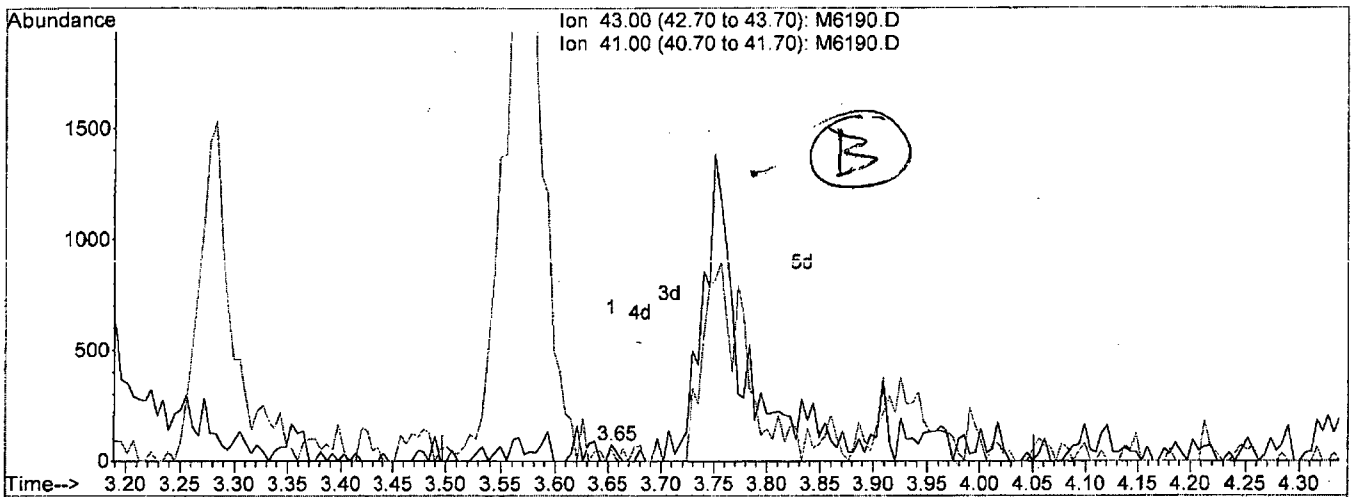
Ion	Exp%	Act%
42.00	100	100
72.00	45.40	19.88#
0.00	0.00	0.00
0.00	0.00	0.00

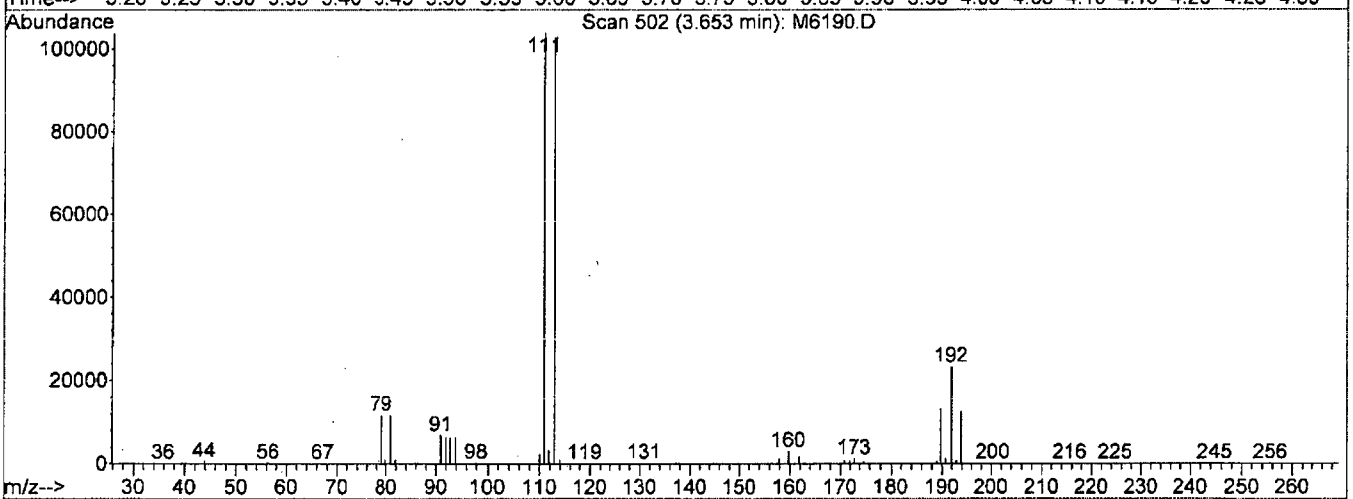
M6190.D W113015.M Tue Dec 01 09:52:16 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:51 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Single Level Calibration





TIC: M6190.D

(41) iso-Butyl Alcohol

3.65min 0.34ug/L

response 34

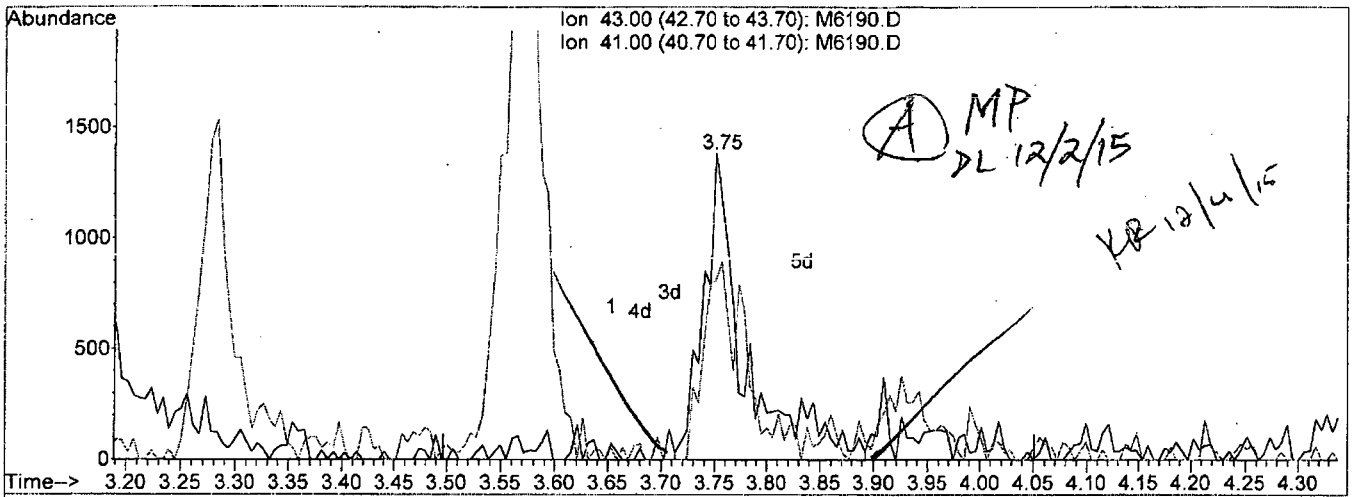
Ion	Exp%	Act%
43.00	100	100
41.00	79.60	69.44
0.00	0.00	0.00
0.00	0.00	0.00

M6190.D W113015.M Tue Dec 01 09:52:32 2015

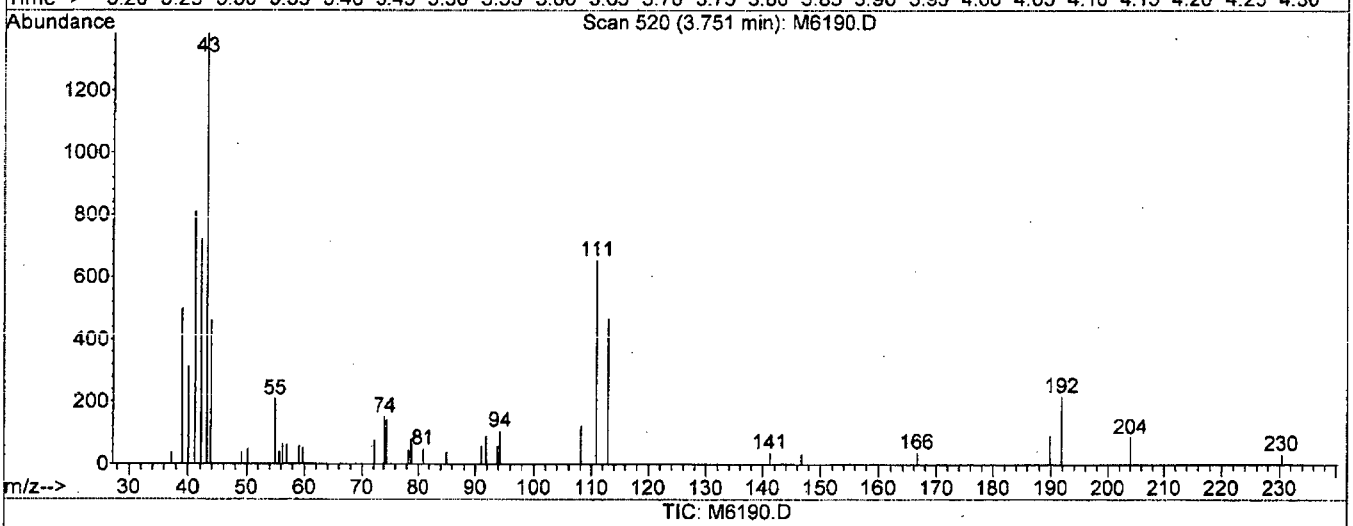
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:52 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Single Level Calibration



MP DL 12/2/15 KB 12/4/15



TIC: M6190.D

(41) Iso-Butyl Alcohol

3.75min 36.51ug/L m

response 3676

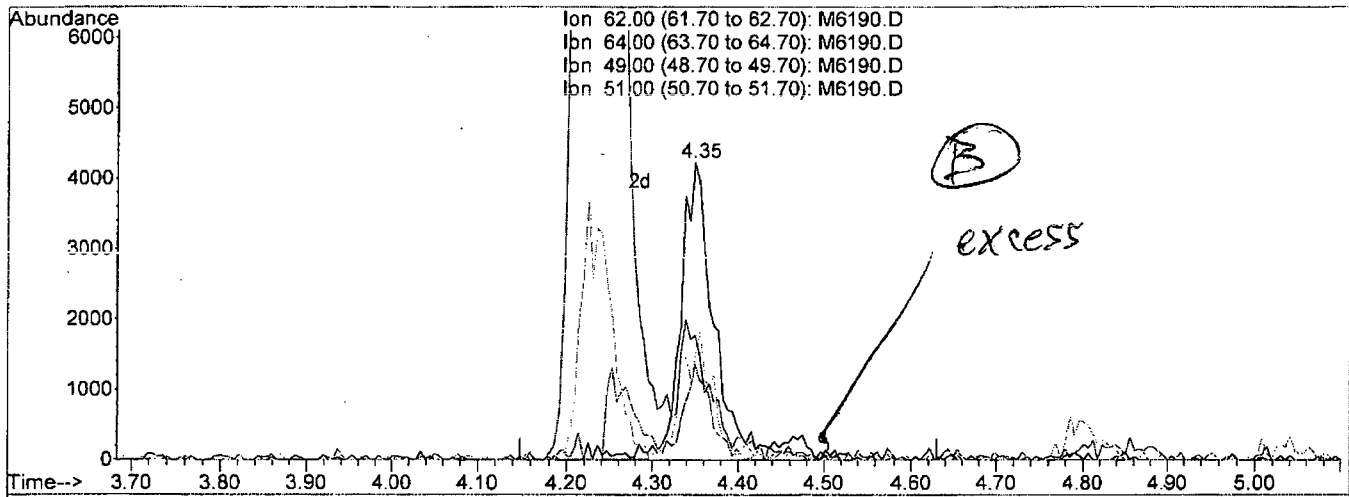
Ion	Exp%	Act%
43.00	100	100
41.00	79.60	58.76#
0.00	0.00	0.00
0.00	0.00	0.00

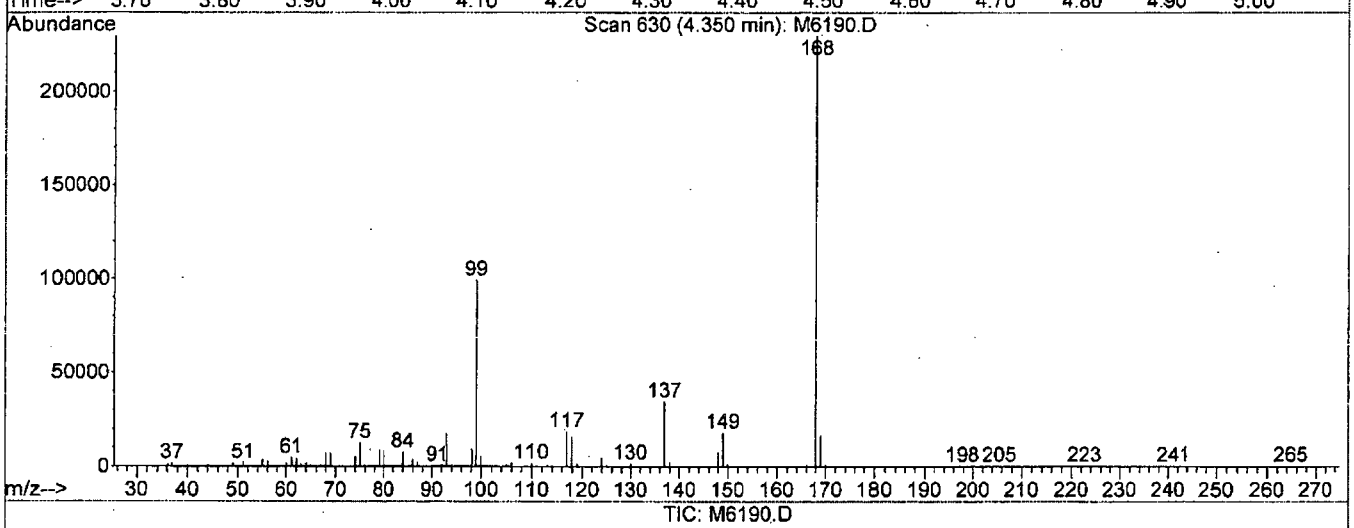
M6190.D W113015.M Tue Dec 01 09:52:44 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:52 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration





TIC: M6190.D

(43) 1,2-Dichloroethane (P)

4.35min 2.28ug/L

response 11650

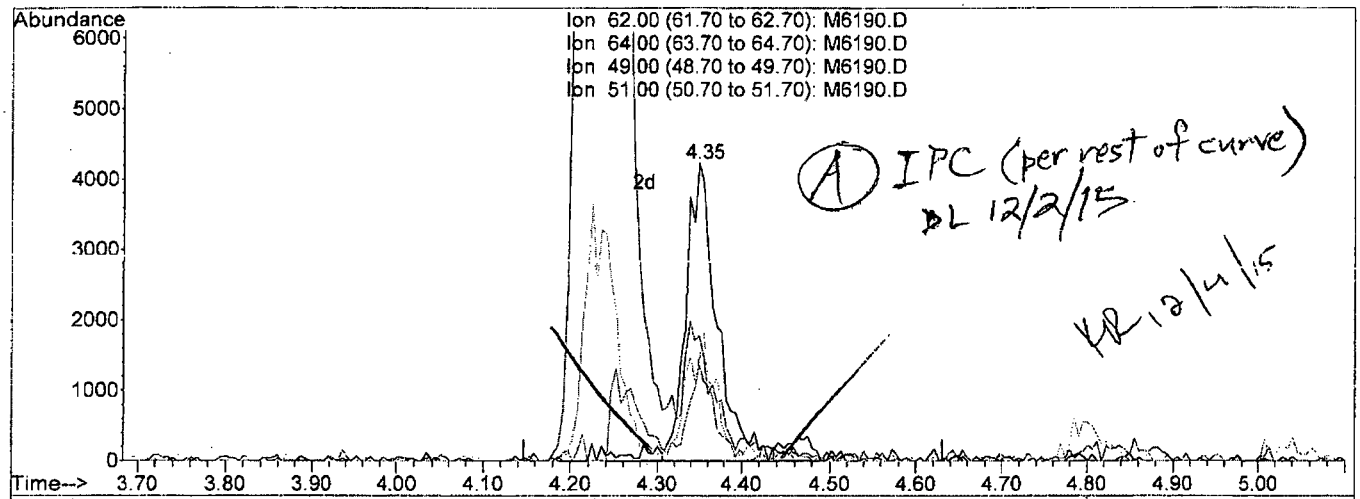
Ion	Exp%	Act%
62.00	100	100
64.00	32.10	32.22
49.00	31.30	34.68
51.00	11.80	41.93#

M6190.D W113015.M Tue Dec 01 09:53:28 2015

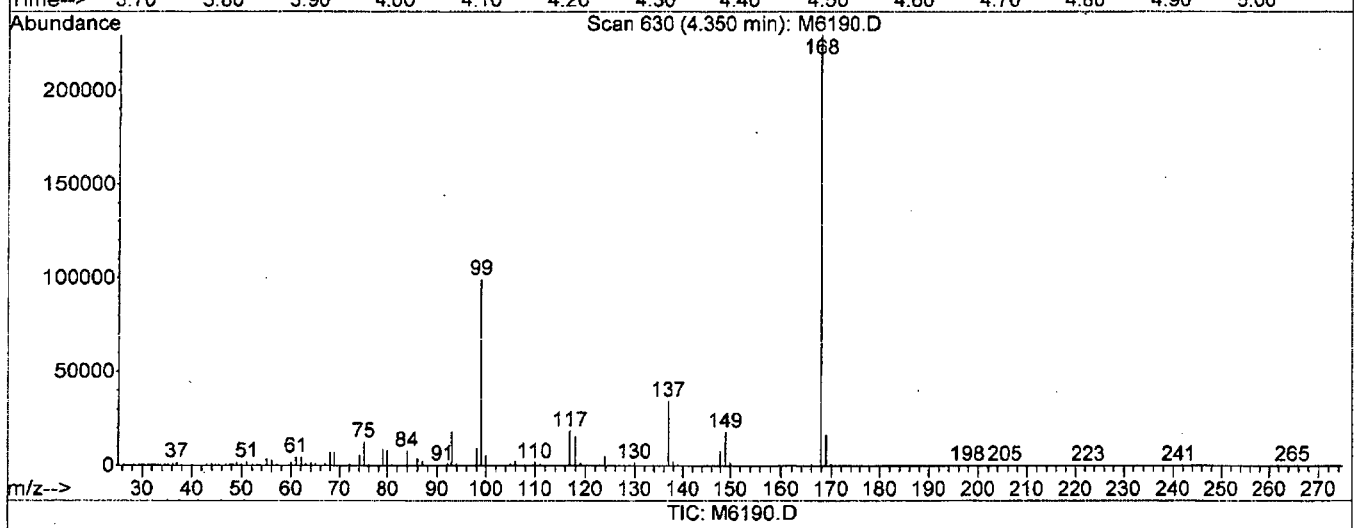
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:53 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration



A IPC (per rest of curve)
DL 12/2/15
KR 12/4/15



TIC: M6190.D

(43) 1,2-Dichloroethane (P)

4.35min 2.12ug/L m

response 10828

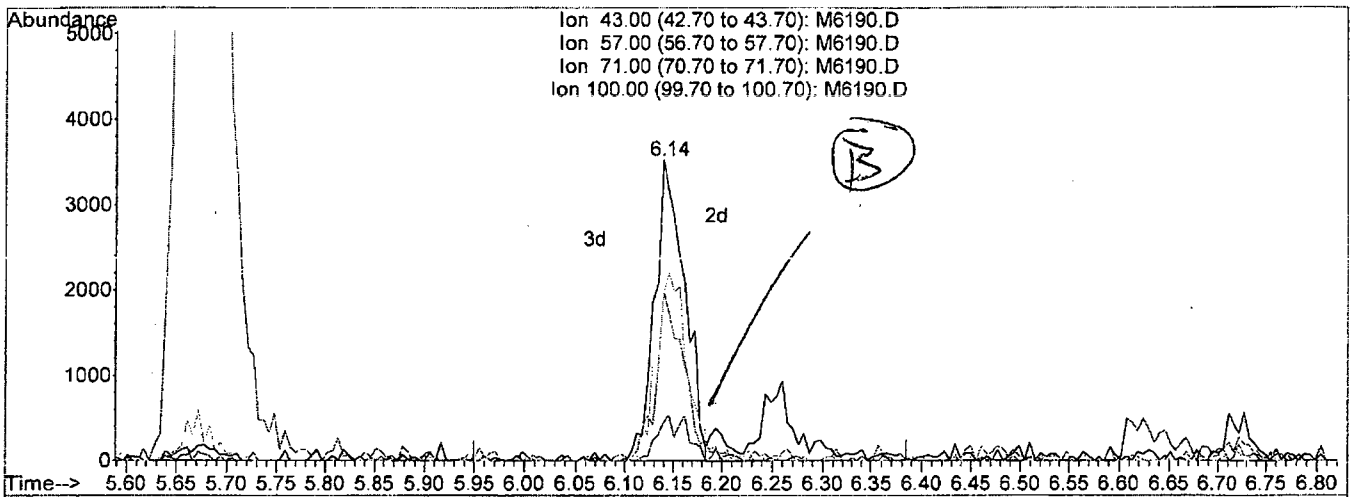
Ion	Exp%	Act%
62.00	100	100
64.00	32.10	32.22
49.00	31.30	34.68
51.00	11.80	41.93#

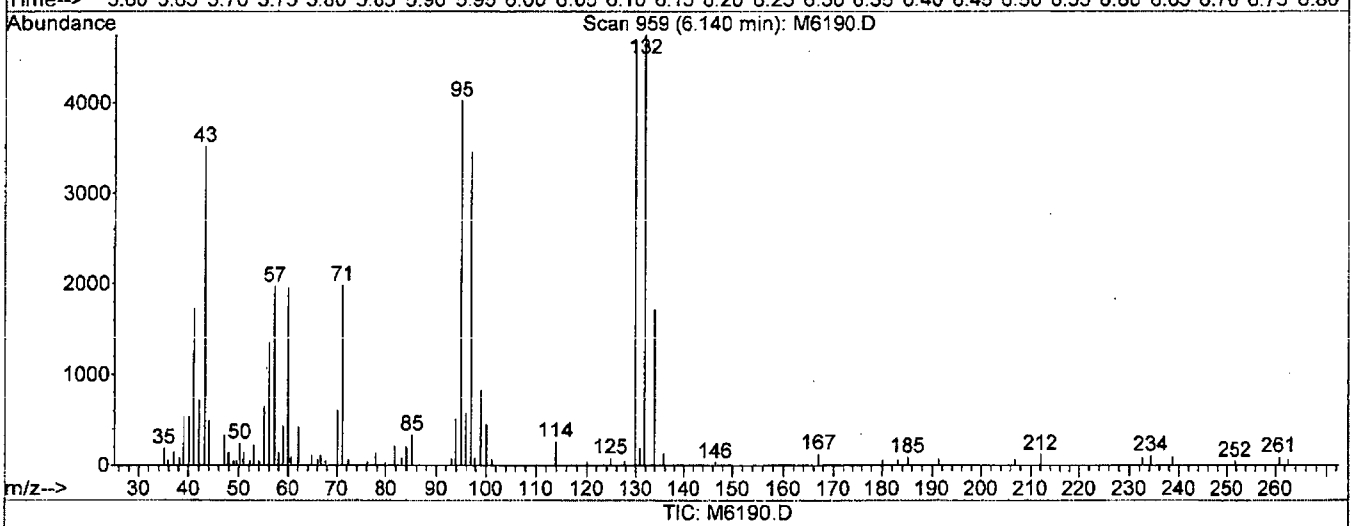
M6190.D W113015.M Tue Dec 01 09:53:48 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:53 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration





TIC: M6190.D

(50) n-Heptane

6.14min 1.79ug/L

response 7537

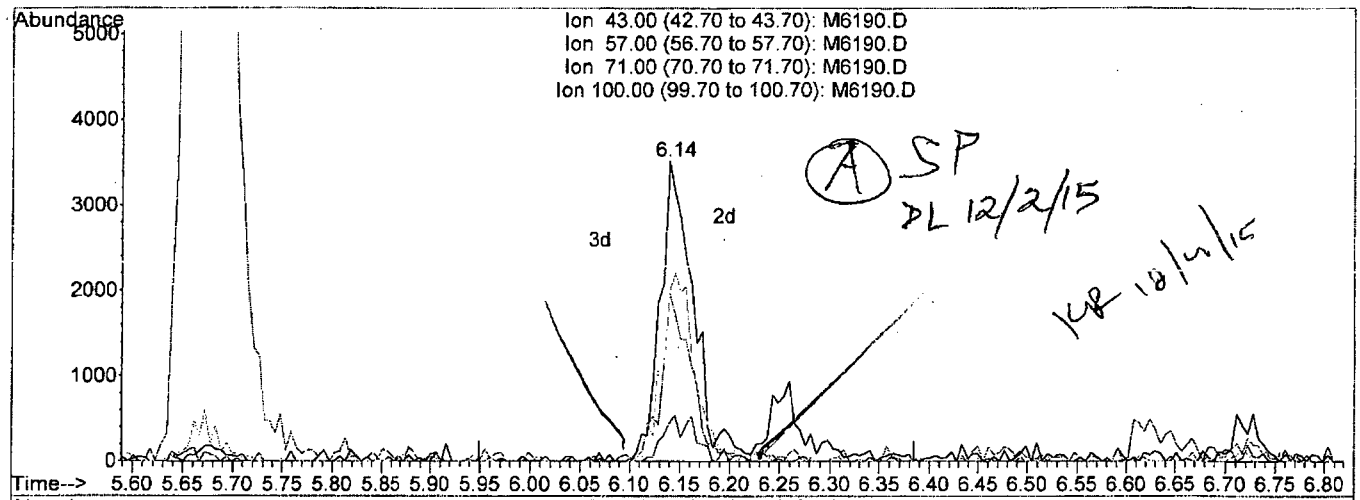
Ion	Exp%	Act%
43.00	100	100
57.00	55.30	56.14
71.00	60.70	56.43
100.00	17.40	12.80

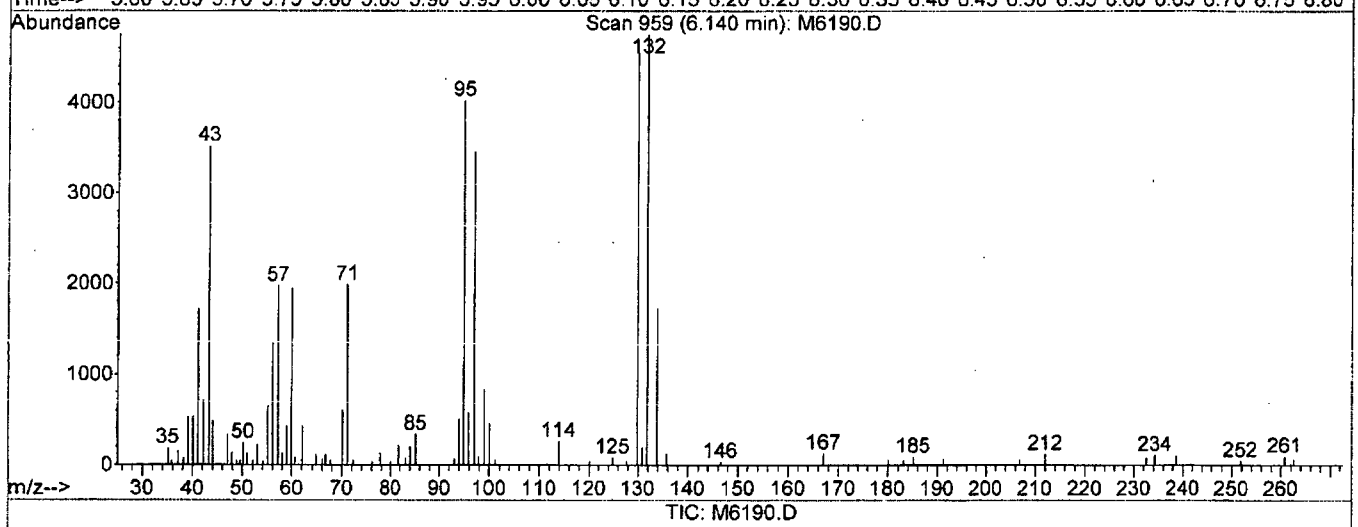
M6190.D W113015.M Tue Dec 01 09:54:16 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:54 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration





TIC: M6190.D

(50) n-Heptane

6.14min 1.91ug/L m

response 8018

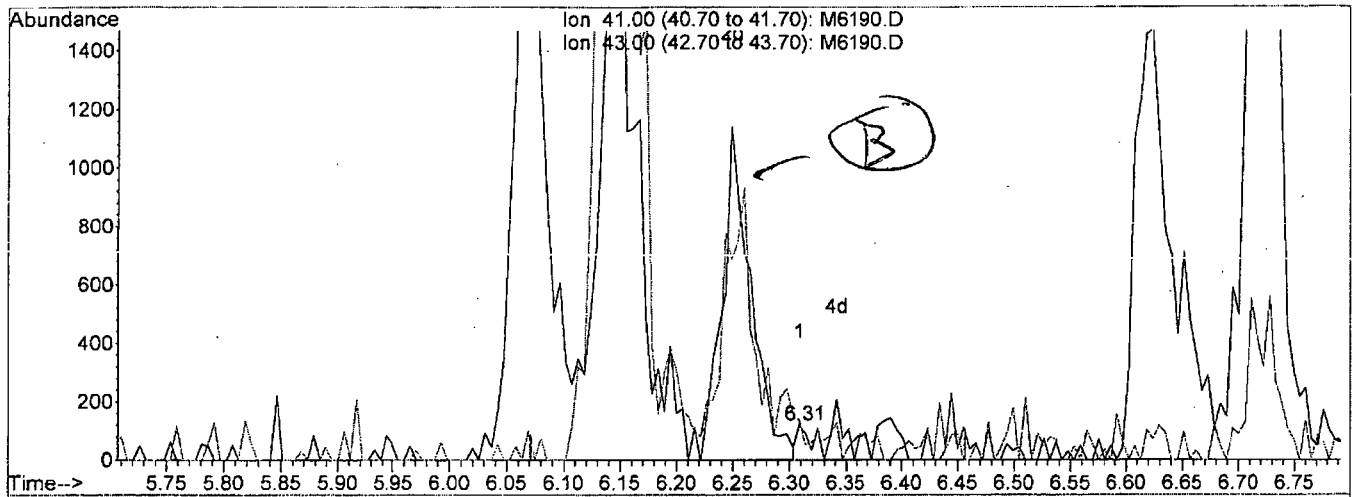
Ion	Exp%	Act%
43.00	100	100
57.00	55.30	56.14
71.00	60.70	56.43
100.00	17.40	12.80

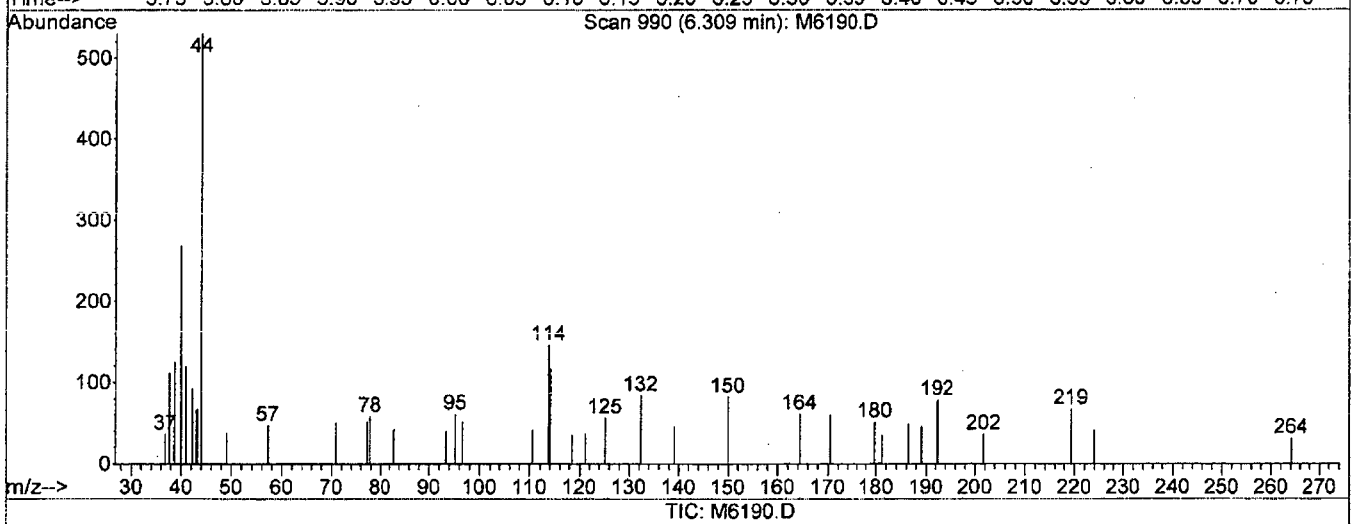
M6190.D W113015.M Tue Dec 01 09:54:25 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:54 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Single Level Calibration





TIC: M6190.D

(53) 2-Nitropropane

6.31min 0.22ug/L

response 115

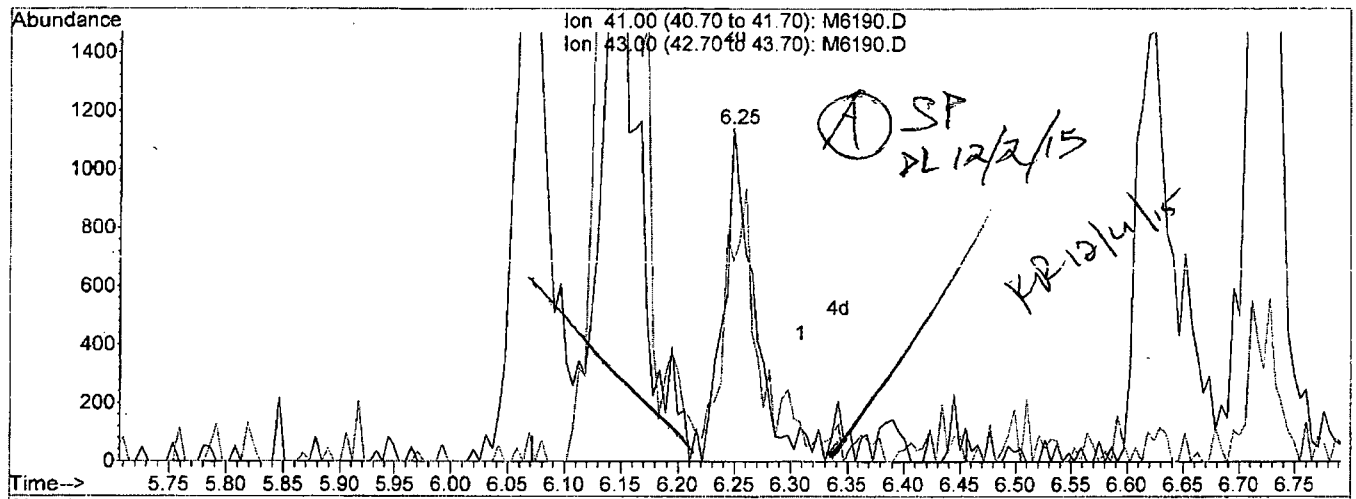
Ion	Exp%	Act%
41.00	100	100
43.00	121.90	111.76
0.00	0.00	0.00
0.00	0.00	0.00

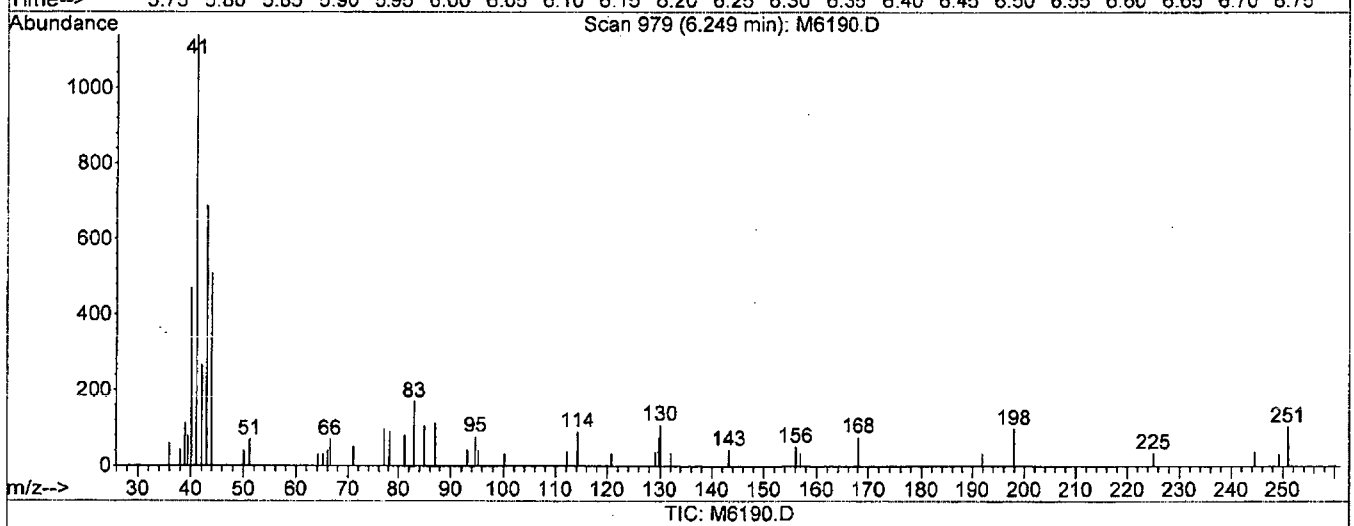
M6190.D W113015.M Tue Dec 01 09:54:37 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:54 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Single Level Calibration





(53) 2-Nitropropane

6.25min 4.07ug/L m

response 2134

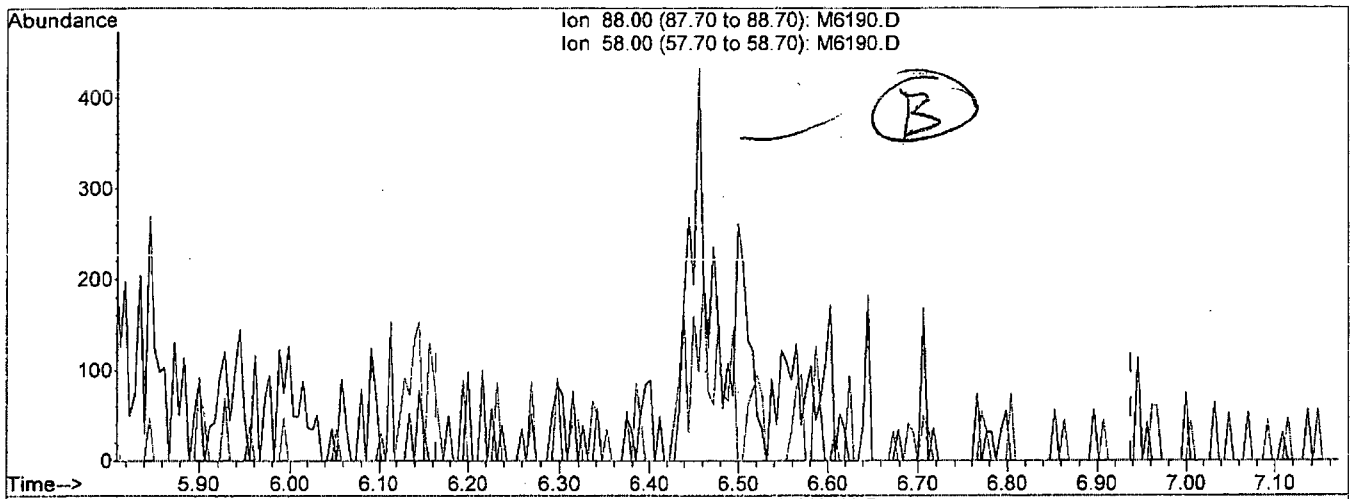
Ion	Exp%	Act%
41.00	100	100
43.00	121.90	60.23#
0.00	0.00	0.00
0.00	0.00	0.00

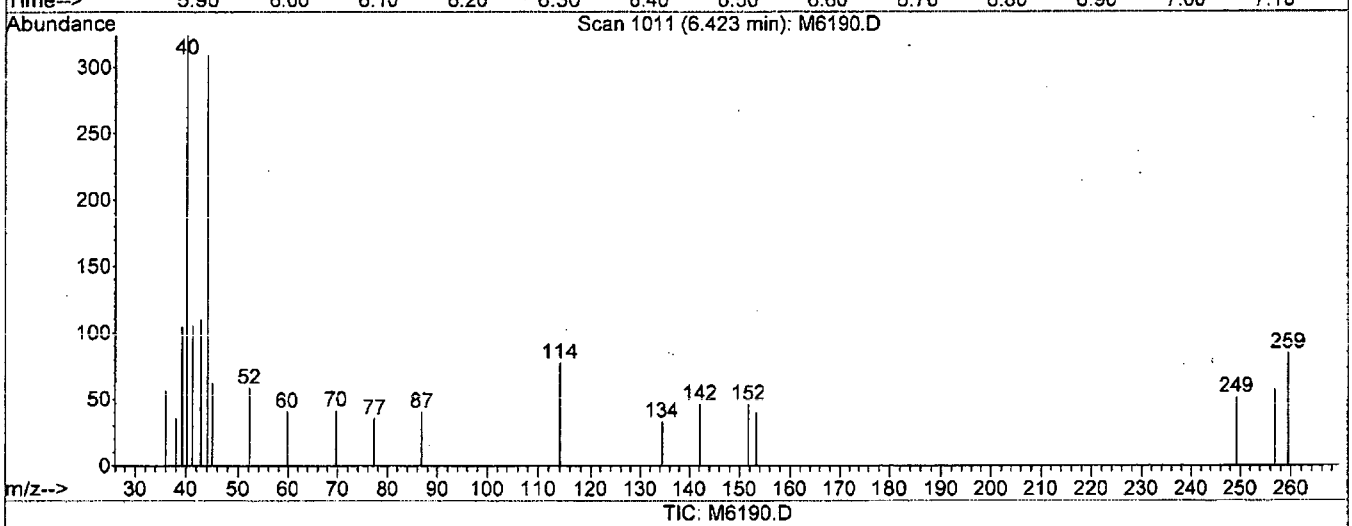
M6190.D W113015.M Tue Dec 01 09:54:44 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:54 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Single Level Calibration





TIC: M6190.D

(54) 1,4-Dioxane

6.42min 0.00ug/L

response 0

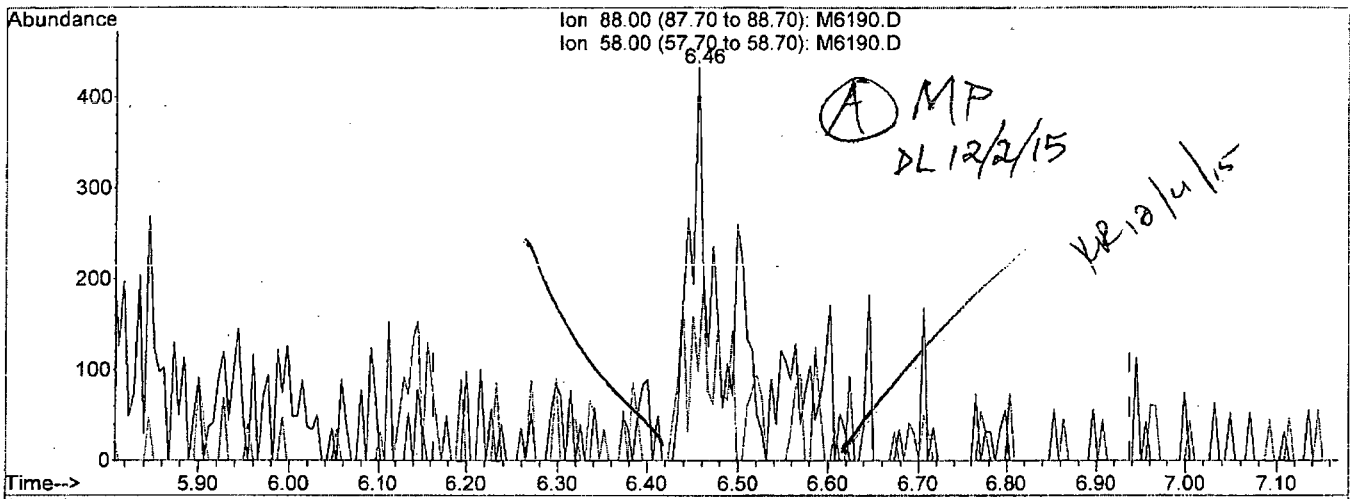
Ion	Exp%	Act%
88.00	100	0.00
58.00	60.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

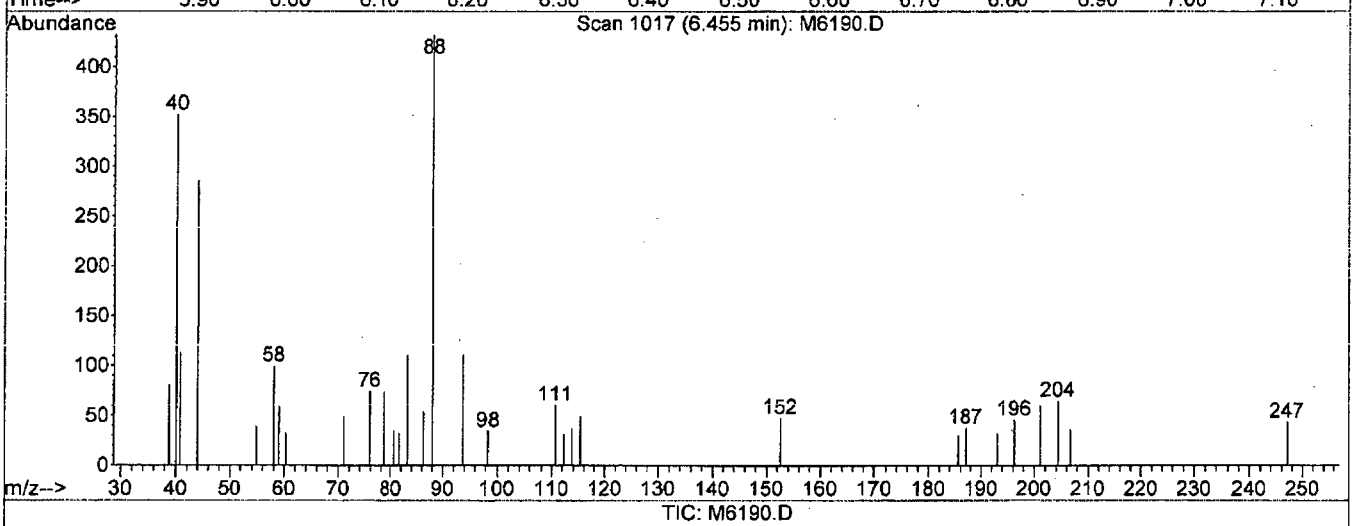
M6190.D W113015.M Tue Dec 01 09:54:58 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:55 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Single Level Calibration





TIC: M6190.D

(54) 1,4-Dioxane

6.46min 46.14ug/L m

response 1329

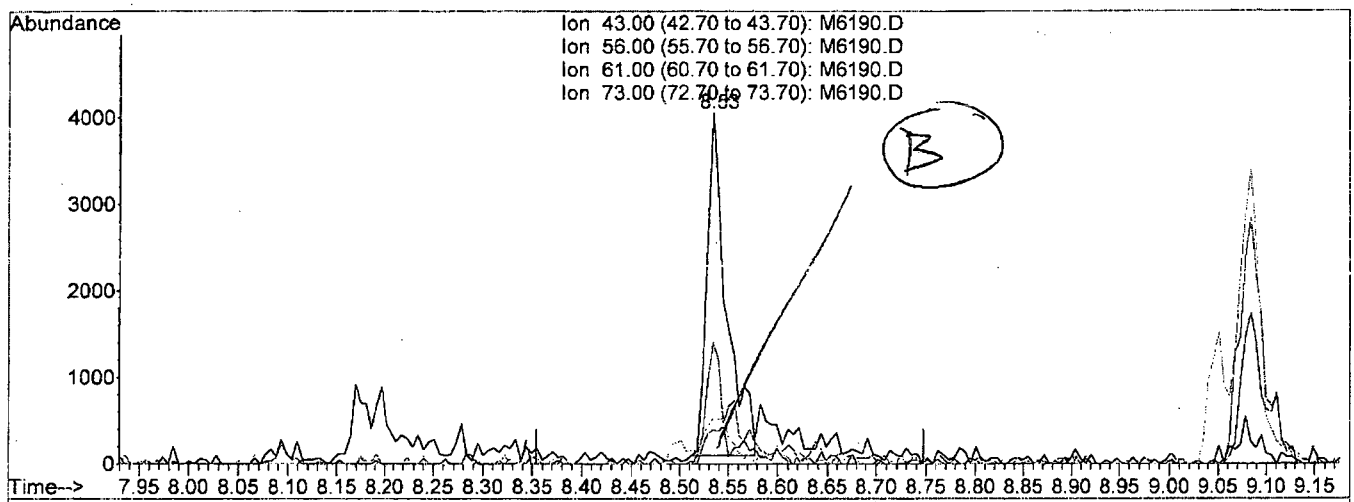
Ion	Exp%	Act%
88.00	100	100
58.00	60.40	22.92#
0.00	0.00	0.00
0.00	0.00	0.00

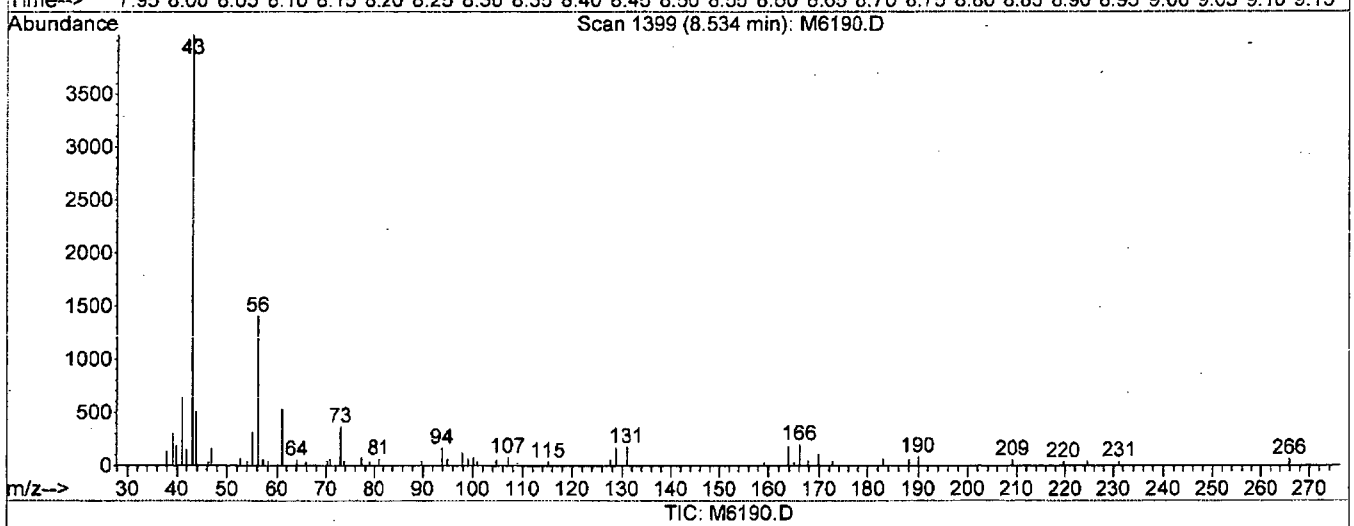
M6190.D W113015.M Tue Dec 01 09:55:09 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:56 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Single Level Calibration





TIC: M6190.D

(70) n-Butyl Acetate

8.53min 1.24ug/L

response 5576

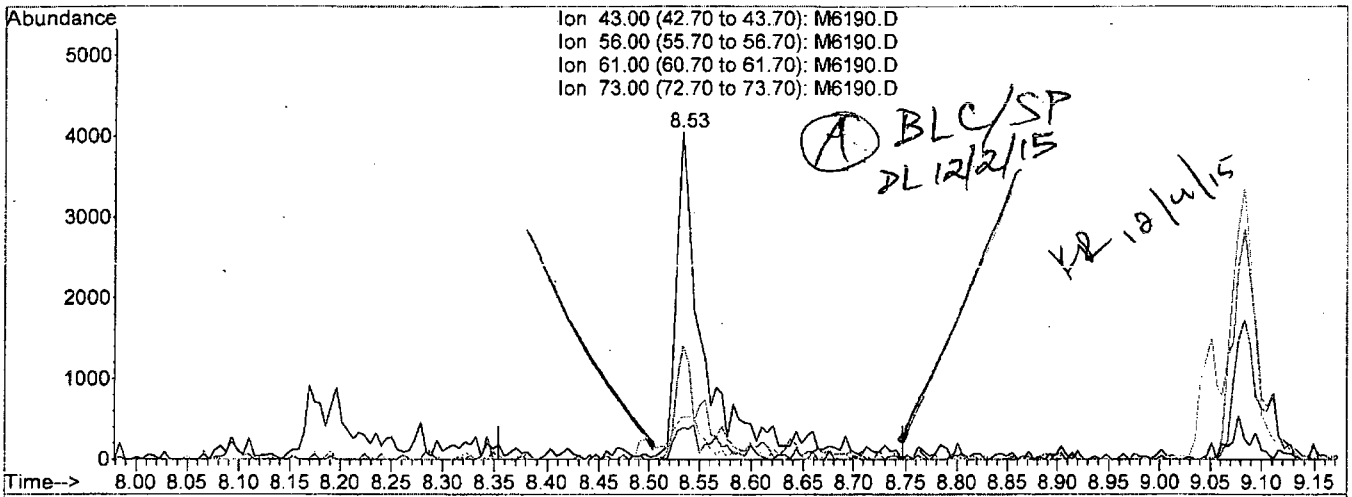
Ion	Exp%	Act%
43.00	100	100
56.00	41.50	26.26
61.00	16.70	0.00
73.00	15.40	0.00

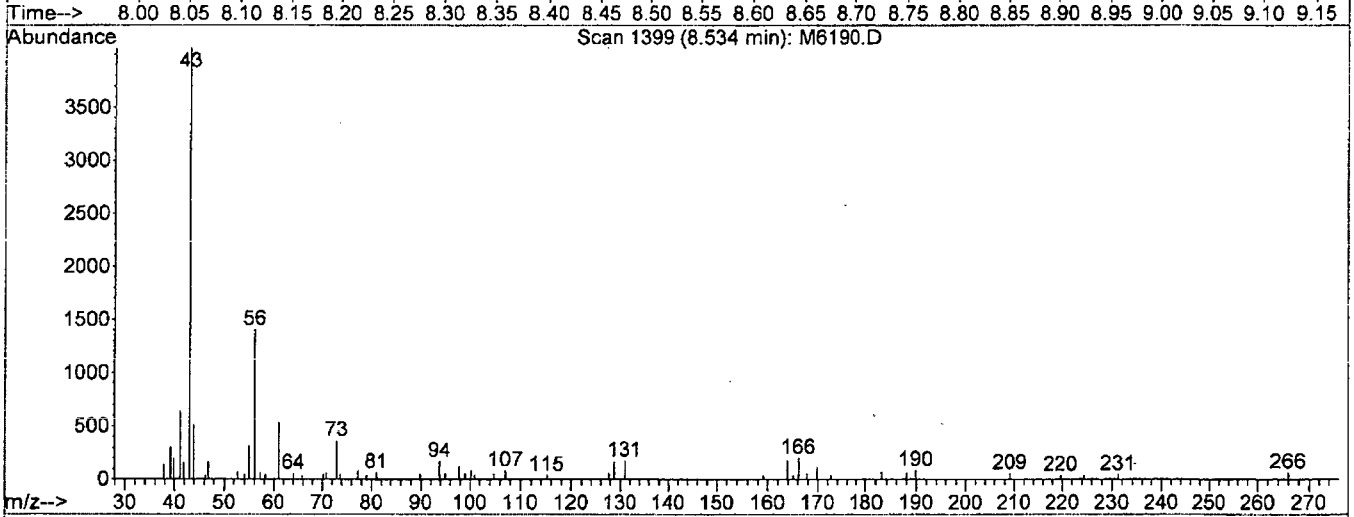
M6190.D W113015.M Tue Dec 01 09:56:18 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:56 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Single Level Calibration





TIC: M6190.D

(70) n-Butyl Acetate

8.53min 1.86ug/L m

response 8332

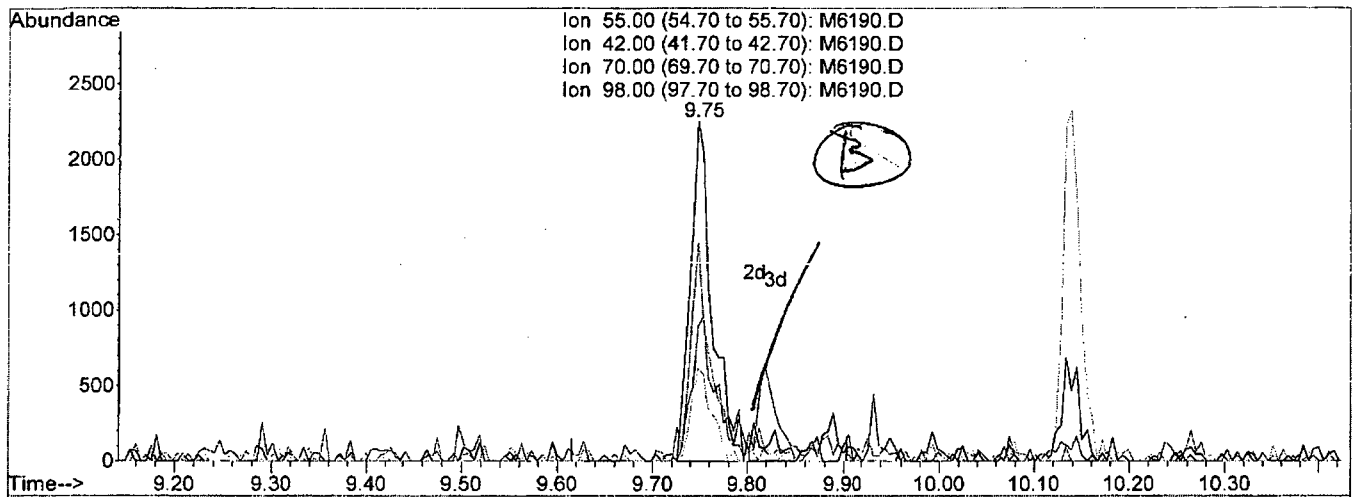
Ion	Exp%	Act%
43.00	100	100
56.00	41.50	17.57#
61.00	16.70	0.00
73.00	15.40	0.00

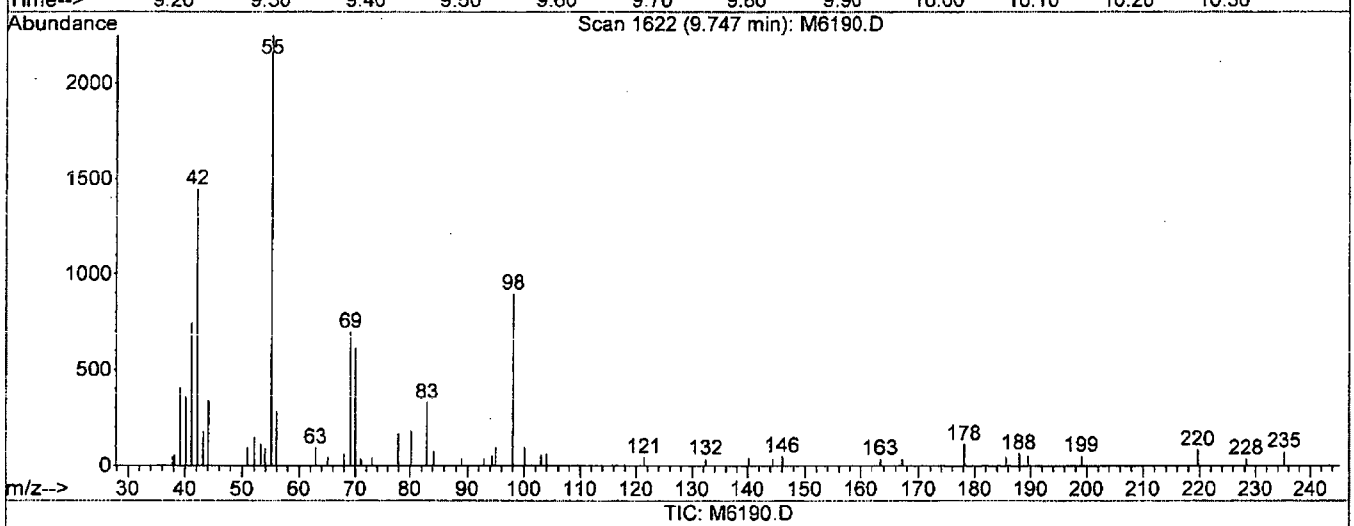
M6190.D W113015.M Tue Dec 01 09:57:13 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:56 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration





TIC: M6190.D

(78) Cyclohexanone

9.75min 36.61ug/L

response 3692

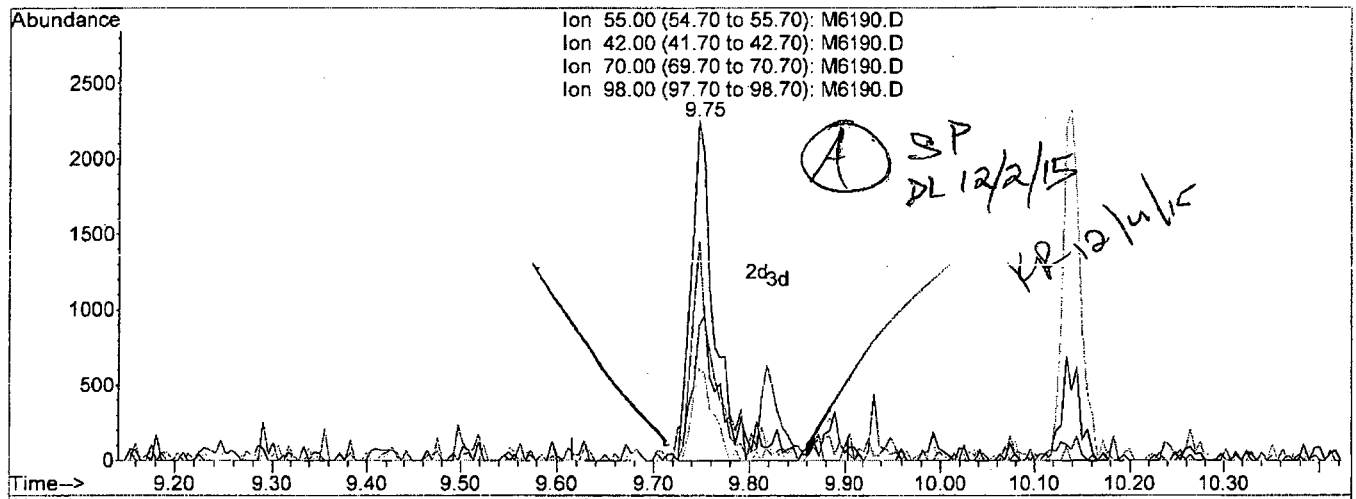
Ion	Exp%	Act%
55.00	100	100
42.00	63.70	64.13
70.00	23.60	27.16
98.00	45.50	39.78

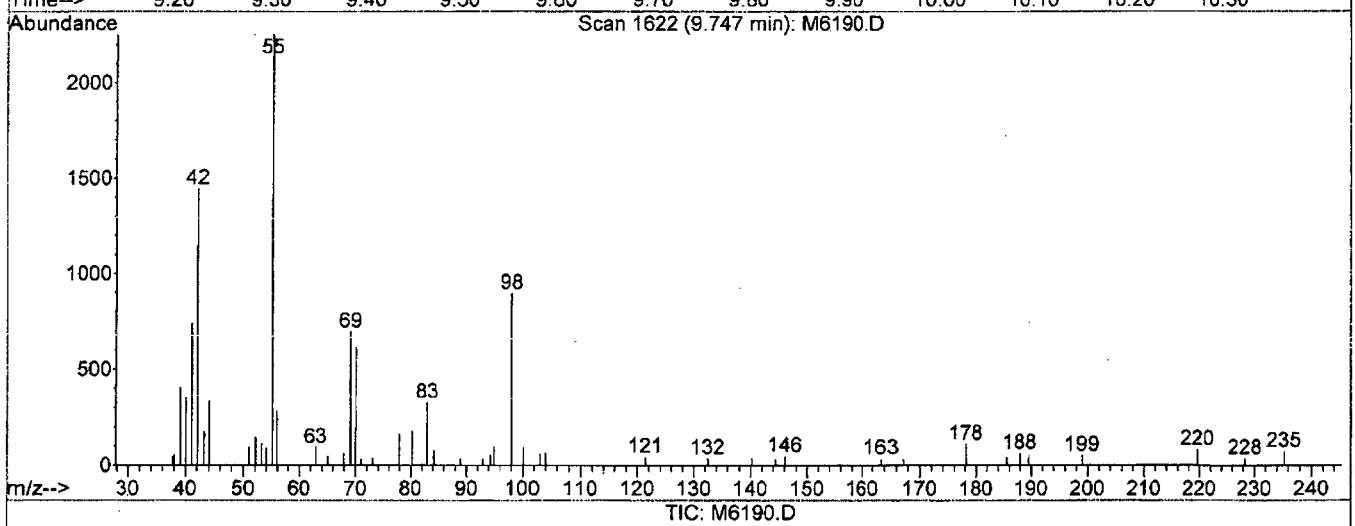
M6190.D W113015.M Tue Dec 01 09:57:39 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:57 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration





TIC: M6190.D

(78) Cyclohexanone

9.75min 39.74ug/L m

response 4008

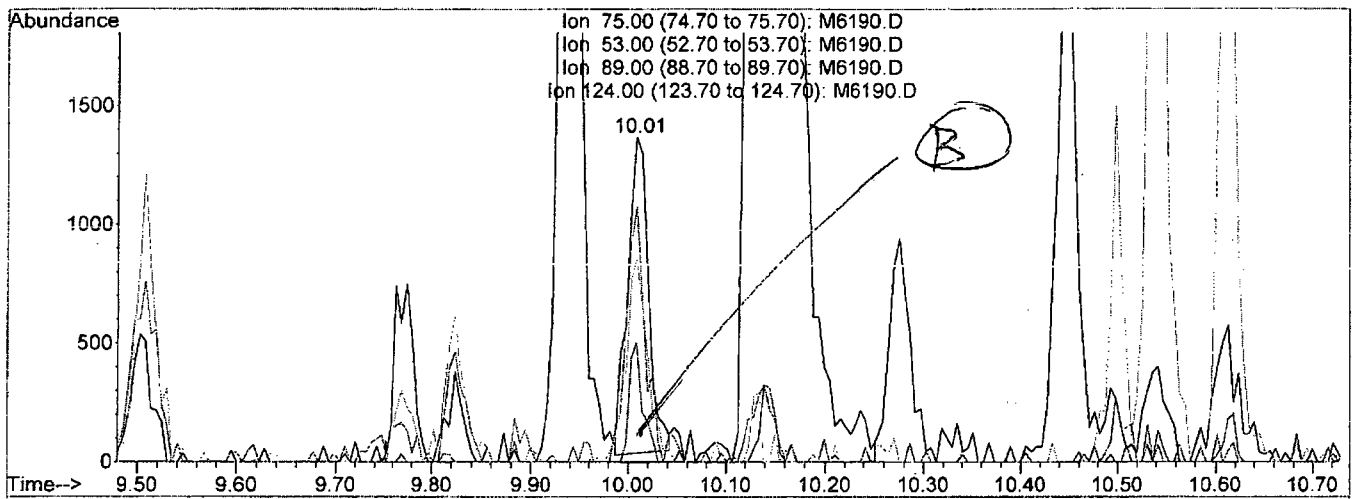
Ion	Exp%	Act%
55.00	100	100
42.00	63.70	64.13
70.00	23.60	27.16
98.00	45.50	39.78

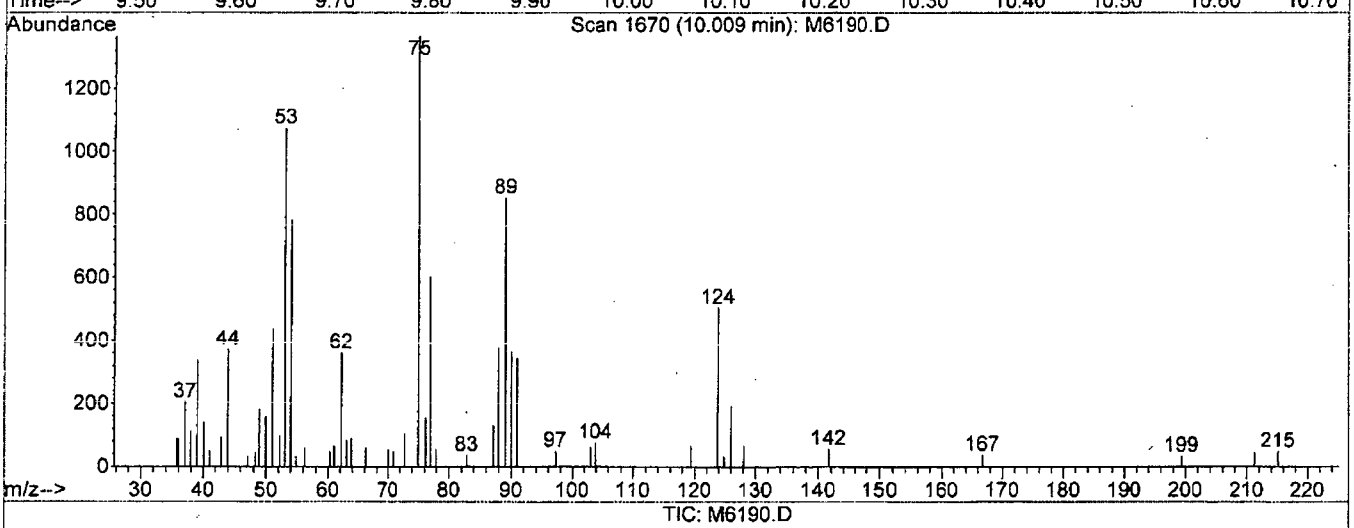
M6190.D W113015.M Tue Dec 01 09:57:49 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:57 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration





TIC: M6190.D

(80) trans-1,4-Dichloro-2-Butene

10.01min 1.37ug/L

response 1936

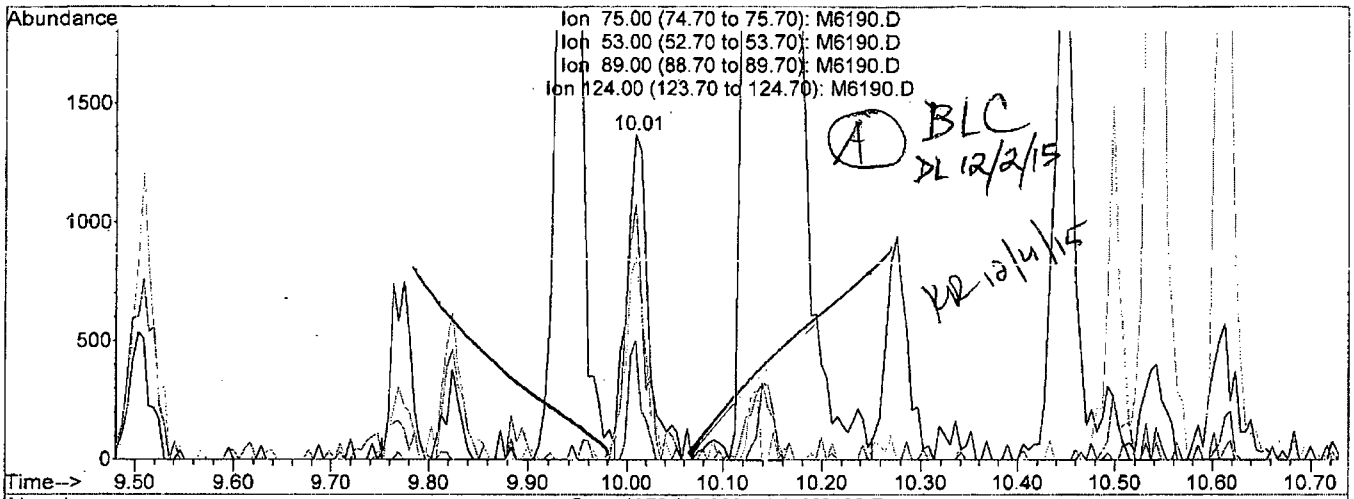
Ion	Exp%	Act%
75.00	100	100
53.00	65.30	78.57
89.00	50.50	62.40
124.00	19.60	36.80

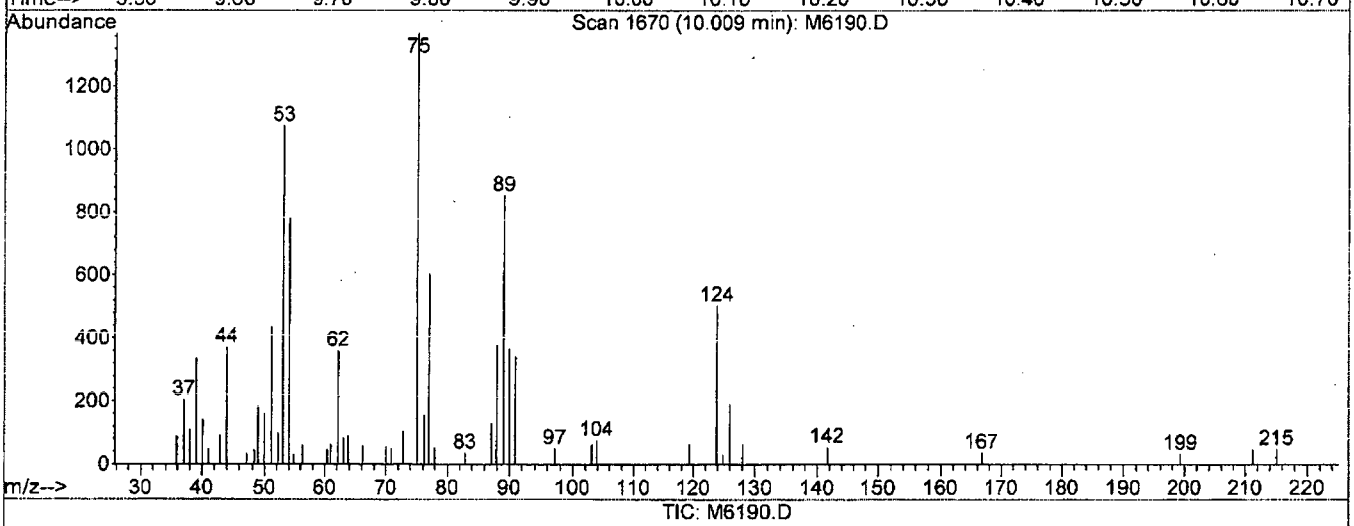
M6190.D W113015.M Tue Dec 01 09:58:03 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:58 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration





TIC: M6190.D

(80) trans-1,4-Dichloro-2-Butene

10.01min 1.52ug/L m

response 2150

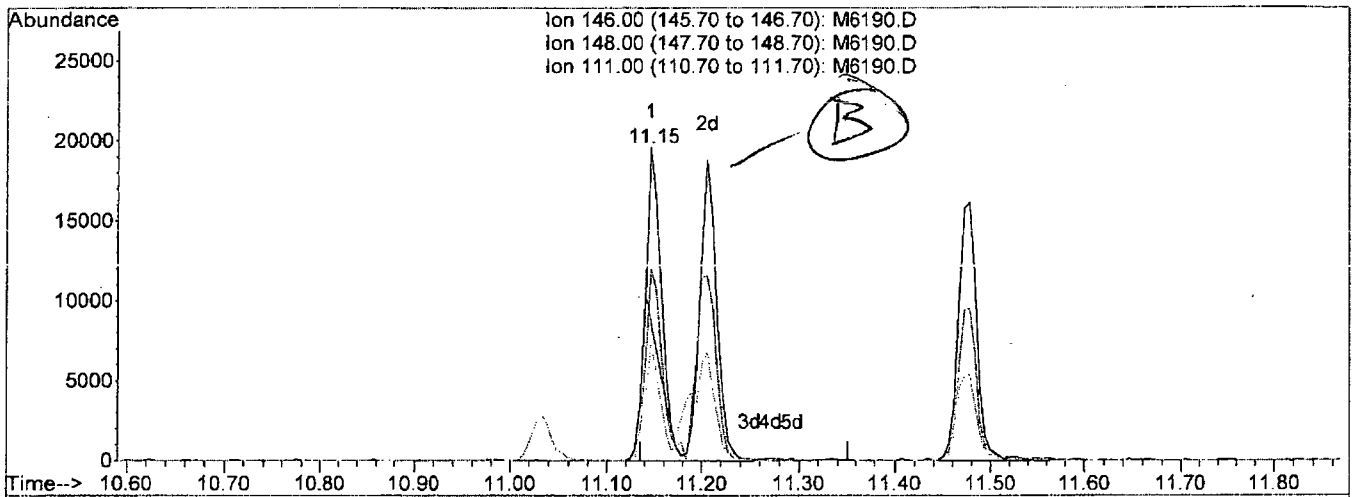
Ion	Exp%	Act%
75.00	100	100
53.00	65.30	78.57
89.00	50.50	62.40
124.00	19.60	36.80

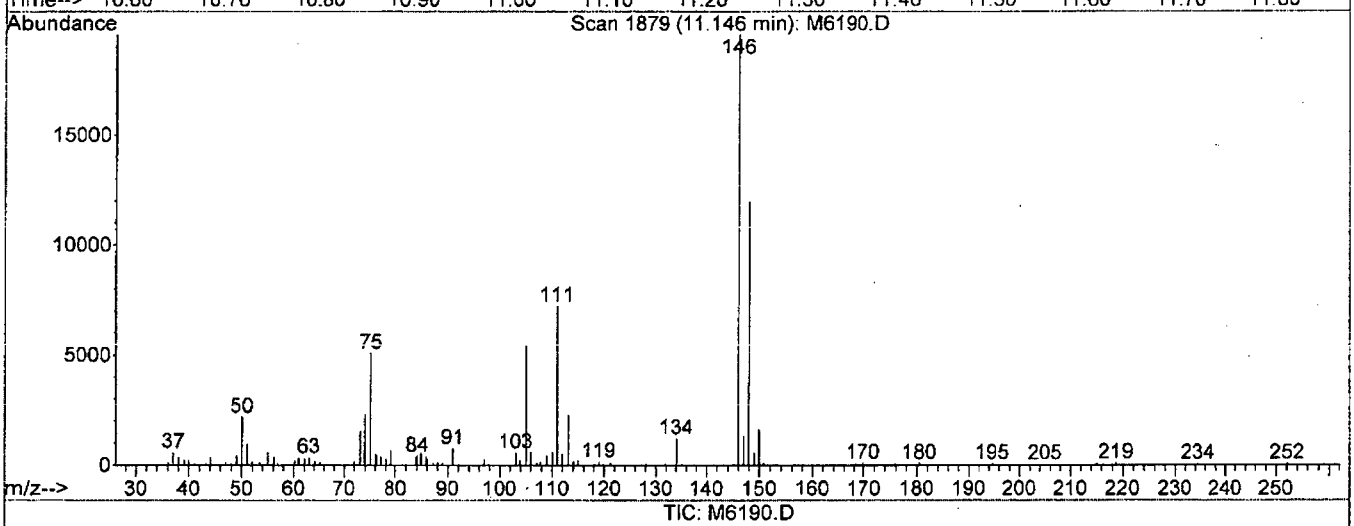
M6190.D W113015.M Tue Dec 01 09:58:12 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:58 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration





TIC: M6190.D

(95) 1,4-Dclbenz (P)

11.15min 0.64ug/L

response 7615

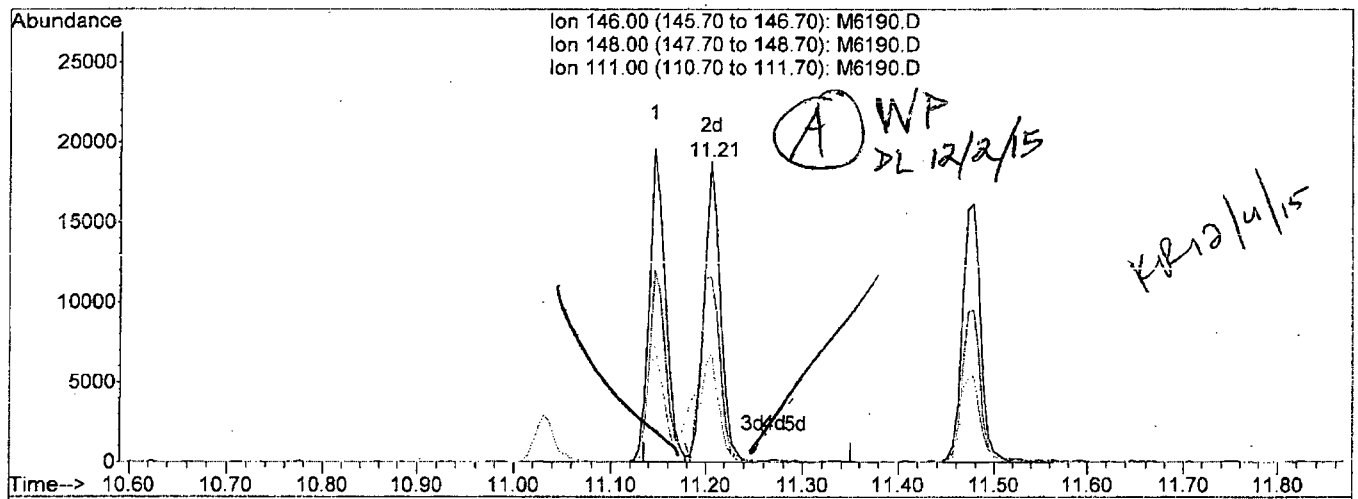
Ion	Exp%	Act%
146.00	100	100
148.00	65.00	61.30
111.00	35.90	26.70
0.00	0.00	0.00

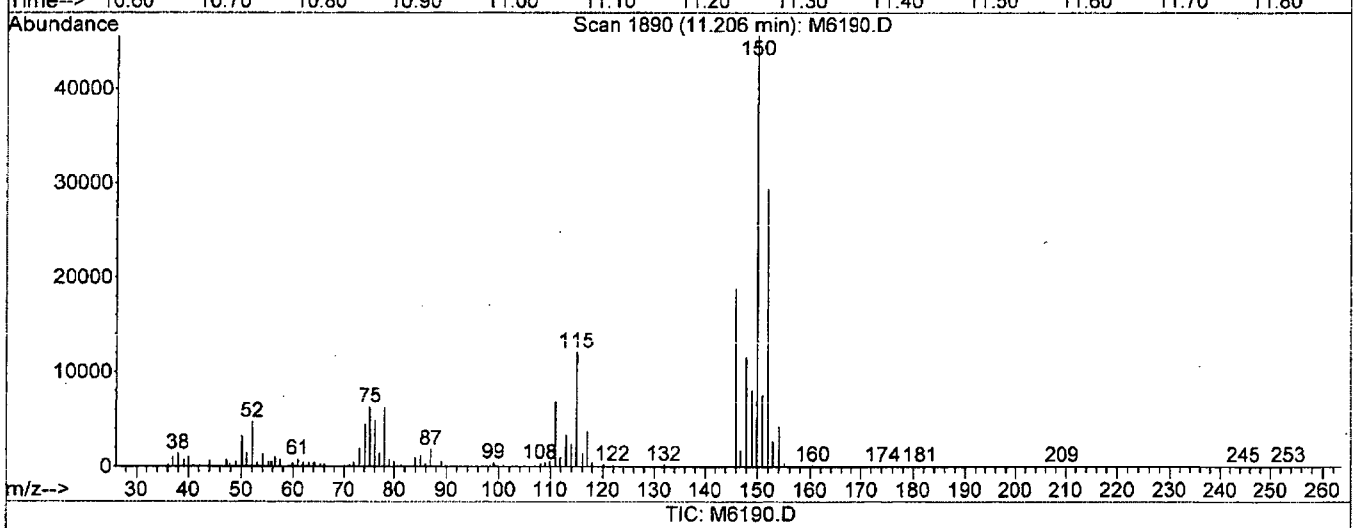
M6190.D W113015.M Tue Dec 01 09:58:44 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D Vial: 13
Acq On : 30 Nov 2015 2:52 pm Operator: D.Lipani
Sample : STD #3 - 2.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:58 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:48:10 2015
Response via : Multiple Level Calibration





TIC: M6190.D

(95) 1,4-Dclbenz (P)

11.21min 1.93ug/L m

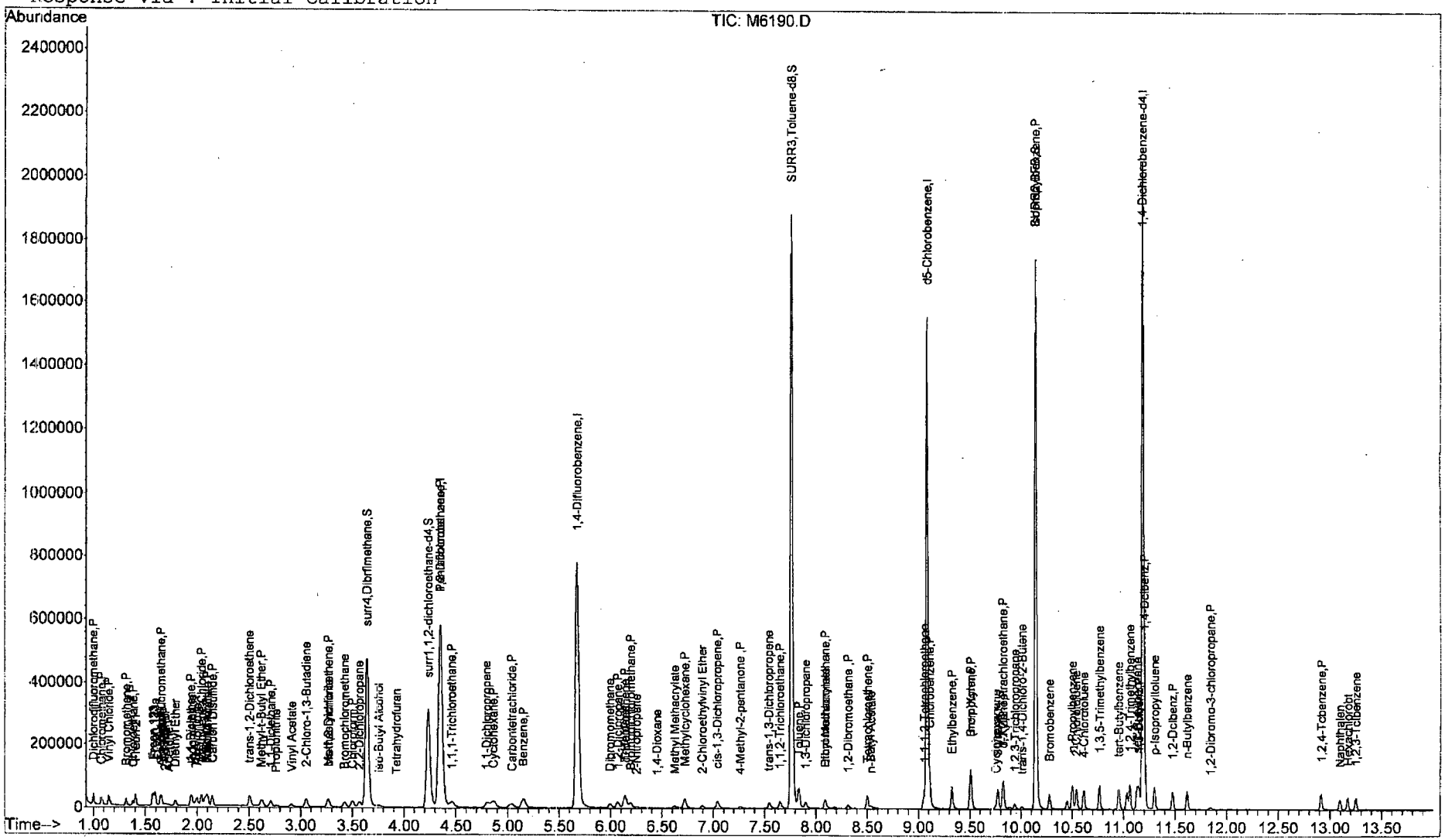
response 22855

Ion	Exp%	Act%
146.00	100	100
148.00	65.00	20.42#
111.00	35.90	8.90#
0.00	0.00	0.00

M6190.D W113015.M Tue Dec 01 09:58:53 2015

```
Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6190.D       Vial: 13
Acq On    : 30 Nov 2015   2:52 pm                     Operator: D.Lipani
Sample    : STD #3 - 2.0 PPB                          Inst    : MS#6
Misc      : 8260C ICAL GCMS#6                         Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec  1  9:59 2015              Quant Results File: W113015.RES

Method       : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title        : 8260C WATERS
Last Update  : Tue Dec 01 09:48:10 2015
Response via : Initial Calibration
```



M6190.D W113015.M Tue Dec 01 09:59:29 2015 Page 4

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:14 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	643258	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.67	114	874441	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	782415	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.18	152	464923	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	390705	71.23	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 142.46%#			
42) surr1,1,2-dichloroethane-d	4.23	65	319325	71.38	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 142.76%#			
62) SURR3,Toluene-d8	7.76	98	1334916	73.29	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 146.58%#			
82) SURR2,BFB	10.14	95	488668	69.77	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 139.54%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	37061	5.32	ug/L	98
3) Chloromethane	1.07	50	40006	5.41	ug/L	99
4) Vinyl Chloride	1.15	62	41643	5.36	ug/L	93
5) Bromomethane	1.31	94	19791	4.27	ug/L	98
6) Chloroethane	1.38	64	21848	5.59	ug/L	98
7) Freon 21	1.41	67	50400	5.19	ug/L	100
8) Freon 123	1.57	83	42523	4.93	ug/L	98
9) Freon 123a	1.59	67	34130m	5.17	ug/L	
10) Acrolein	1.65	56	13680	24.05	ug/L	96
11) Trichlorofluoromethane	1.65	101	43107	5.34	ug/L	98
12) Acetonitrile	1.66	41	11449	27.29	ug/L	88
13) 2-Propanol	1.69	45	15508	98.65	ug/L	94
14) Acetone	1.72	43	3671	4.76	ug/L	88
15) Diethyl Ether	1.79	59	18640	5.40	ug/L	95
16) 1,1-Diclethene	1.94	96	27107	5.15	ug/L	93
17) Iodomethane	1.96	142	27516	4.31	ug/L	98
18) TBA	1.98	59	24810	97.69	ug/L	97
19) Acrylonitrile	2.00	53	30166	26.11	ug/L	99
20) Methylene Chloride	2.04	84	30925	5.24	ug/L	98
21) Freon 113	2.08	101	27917	5.32	ug/L	95
22) Methyl Acetate	2.10	43	12922	5.55	ug/L	96
23) Allyl Chloride	2.10	76	12709m	5.08	ug/L	
24) Carbon Disulfide	2.15	76	89325	5.24	ug/L	100
25) trans-1,2-Dichloroethene	2.51	96	30994	5.34	ug/L	91
26) Methyl-t-Butyl Ether	2.62	73	55468	5.07	ug/L	96
27) 1,1-Diclethane	2.71	63	45385	5.15	ug/L	96
28) Propionitrile	2.76	54	10079	26.36	ug/L	98
29) Vinyl Acetate	2.91	43	37125	4.98	ug/L	95
30) 2-Chloro-1,3-Butadiene	3.05	53	41598	5.18	ug/L	84
31) 2-Butanone	3.19	43	5352	4.62	ug/L	96
32) Methacrylonitrile	3.27	67	6044	4.89	ug/L	97
33) cis-1,2-Dichloroethene	3.26	96	29622	5.24	ug/L	98
34) Bromochloromethane	3.43	128	14323	5.27	ug/L	90
35) Chloroform	3.50	83	46546	5.22	ug/L	97
36) 2,2-Dichloropropane	3.57	77	33997	4.95	ug/L	97

DL 12/2/15

(#) = qualifier out of range (m) = manual integration
M6191.D W113015.M Tue Dec 01 10:15:08 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:14 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	Tetrahydrofuran	3.91	42	3789m	5.01	ug/L	
38)	1,1,1-Trichloroethane	4.46	97	36611	5.09	ug/L	98
41)	Iso-Butyl Alcohol	3.75	43	9683m	95.16	ug/L	
43)	1,2-Dichloroethane	4.34	62	26758	5.18	ug/L	94
44)	1,1-Dichloropropene	4.80	75	33136	5.18	ug/L	98
45)	Cyclohexane	4.87	56	37375	4.80	ug/L	88
46)	Carbontetrachloride	5.04	119	31593	5.04	ug/L	95
47)	Benzene	5.15	78	99669	5.08	ug/L	97
48)	Dibromomethane	5.99	93	14047	5.26	ug/L	92
49)	1,2-Diclpropane	6.06	63	24997	5.02	ug/L	94
50)	n-Heptane	6.15	43	21220	4.97	ug/L	95
51)	Trichloroethene	6.13	130	30047	5.17	ug/L	98
52)	Bromodichloromethane	6.19	83	31594	5.21	ug/L	99
53)	2-Nitropropane	6.24	41	5218m	9.85	ug/L	
54)	1,4-Dioxane	6.44	88	3063m	105.23	ug/L	
55)	Methyl Methacrylate	6.61	69	9127	4.71	ug/L	92
56)	Methylcyclohexane	6.72	55	24196	4.78	ug/L	98
57)	2-Chloroethylvinyl Ether	6.88	63	10910	5.06	ug/L	94
58)	cis-1,3-Dichloropropene	7.03	75	35492	4.99	ug/L	97
59)	4-Methyl-2-pentanone	7.26	43	11966m	4.62	ug/L	
60)	trans-1,3-Dichloropropene	7.54	75	29946	4.98	ug/L	99
61)	1,1,2-Trichloroethane	7.65	97	19287	5.20	ug/L	98
63)	Toluene	7.83	91	106470	5.18	ug/L	98
65)	1,3-Dichloropropane	7.90	76	28607	5.11	ug/L	97
66)	Ethyl Methacrylate	8.08	69	20956	4.99	ug/L	92
67)	Dibromochloromethane	8.09	129	23584	5.07	ug/L	99
68)	2-Hexanone	8.16	43	7981	4.77	ug/L	100
69)	1,2-Dibromoethane	8.31	107	19176	5.14	ug/L	97
70)	n-Butyl Acetate	8.53	43	21747	4.74	ug/L	92
71)	Tetrachloroethene	8.50	164	23527	4.96	ug/L	97
72)	1,1,1,2-Tetrachloroethane	9.05	131	25523	5.10	ug/L	91
73)	Chlorobenzene	9.11	112	70135	5.06	ug/L	93
74)	Ethylbenzene	9.32	106	36585	5.13	ug/L	96
75)	Bromoform	9.51	173	14273	4.84	ug/L	99
76)	(m+p)Xylene	9.50	106	92227	10.61	ug/L	97
77)	o-Xylene	9.82	106	46400	5.17	ug/L	97
78)	Cyclohexanone	9.75	55	10230	99.87	ug/L	93
79)	Styrene	9.77	104	73284	5.15	ug/L	98
80)	trans-1,4-Dichloro-2-Buten	10.00	75	7410m	5.17	ug/L	
81)	Isopropylbenzene	10.14	105	111442	5.10	ug/L	98
84)	1,1,2,2-Tetrachloroethane	9.82	83	22701	5.34	ug/L	98
85)	1,2,3-Trichloropropane	9.94	75	14078	4.86	ug/L	99
86)	Bromobenzene	10.28	156	33436	5.19	ug/L	98
87)	n-Propylbenzene	10.50	91	131049	5.29	ug/L	98
88)	2-Chlorotoluene	10.54	91	78741	5.17	ug/L	96
89)	4-Chlorotoluene	10.61	91	80214	4.99	ug/L	99
90)	1,3,5-Trimethylbenzene	10.77	105	88815	5.27	ug/L	99
91)	tert-Butylbenzene	10.96	119	78362	5.35	ug/L	99
92)	1,2,4-Trimethylbenzene	11.06	105	95198	5.29	ug/L	99
93)	sec-Butylbenzene	11.13	105	107132	5.19	ug/L	99

(#) = qualifier out of range (m) = manual integration
M6191.D W113015.M Tue Dec 01 10:15:09 2015 Page 2

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:14 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Initial Calibration
DataAcq Meth : W113015

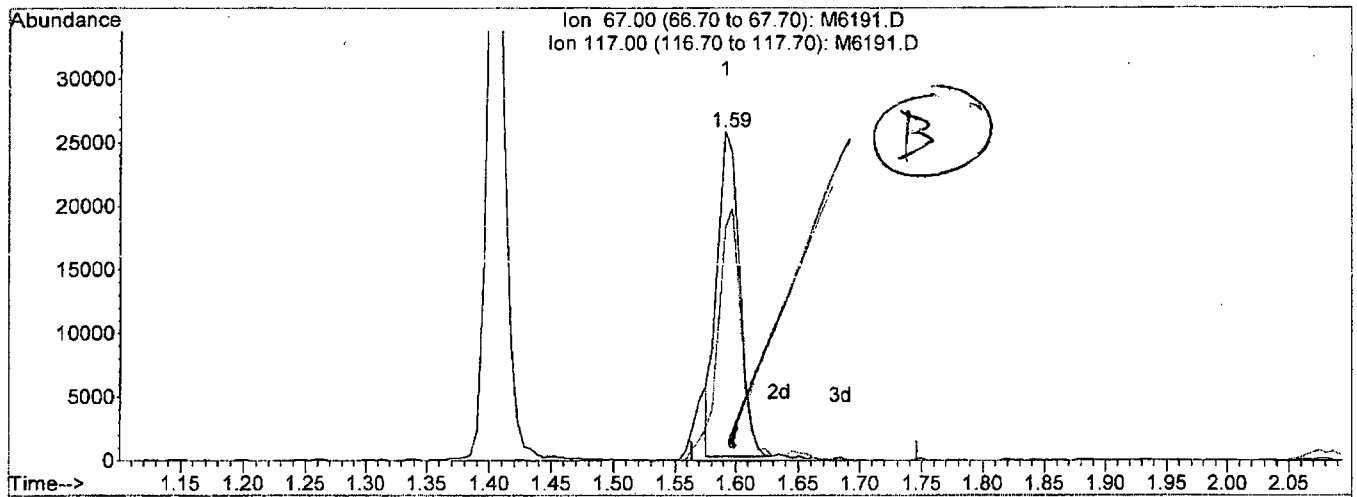
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
94)	1,3-Dclbenz	11.15	146	61756	5.17	ug/L		99
95)	1,4-Dclbenz	11.21	146	63429	5.26	ug/L		94
96)	p-Isopropyltoluene	11.30	119	90625	5.37	ug/L		99
97)	1,2-Dclbenz	11.47	146	58852	5.29	ug/L		96
98)	n-Butylbenzene	11.61	91	79926	5.37	ug/L		96
99)	1,2-Dibromo-3-chloropropan	11.84	75	3111	5.01	ug/L		96
100)	Nitrobenzene	12.03	77	1586	10.50	ug/L	#	63
101)	1,2,4-Tcbenzene	12.91	180	33566	5.22	ug/L		97
102)	Naphthalen	13.09	128	57908	5.12	ug/L		100
103)	Hexachlorobt	13.17	225	15915	5.17	ug/L		98
104)	1,2,3-Tclbenzene	13.25	180	28351	5.34	ug/L		99

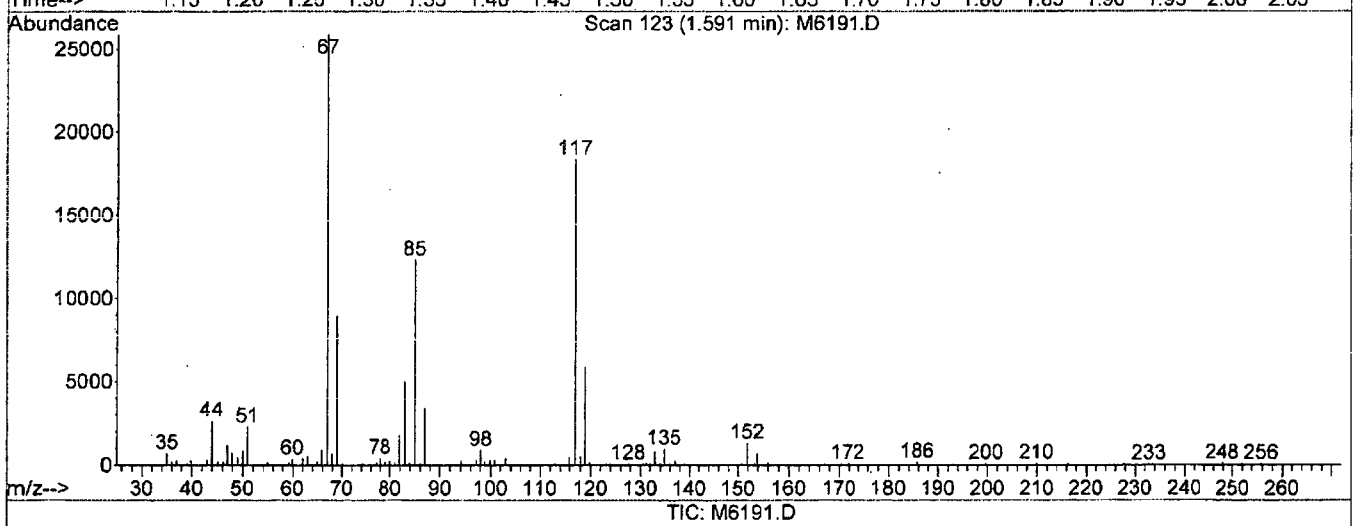
(#) = qualifier out of range (m) = manual integration
M6191.D W113015.M Tue Dec 01 10:15:09 2015 Page 3

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:08 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Multiple Level Calibration





TIC: M6191.D

(9) Freon 123a

1.59min 4.95ug/L

response 32673

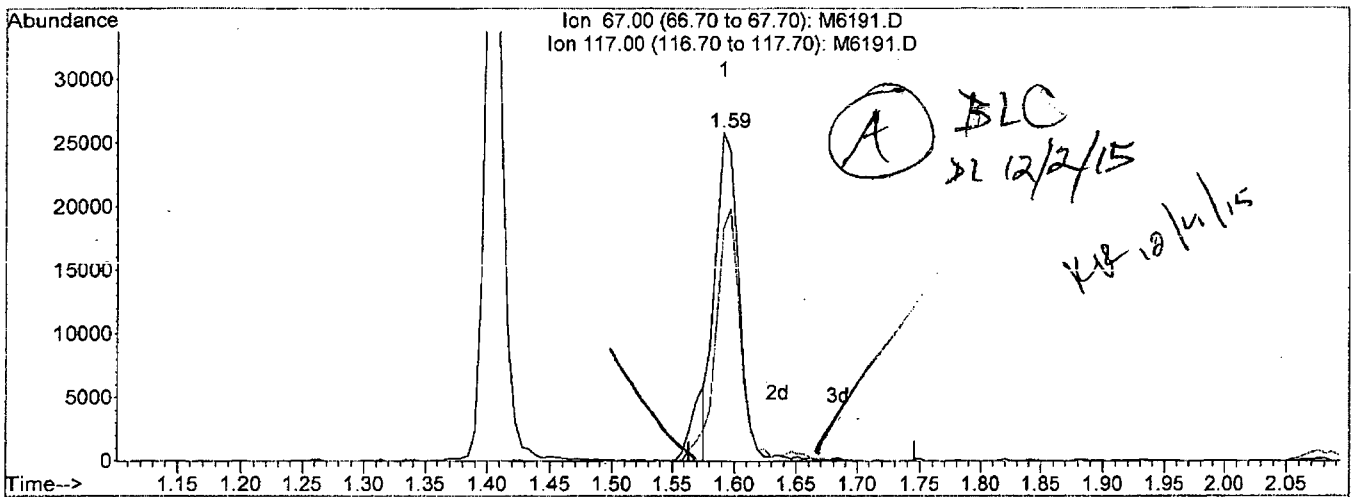
Ion	Exp%	Act%
67.00	100	100
117.00	82.00	71.00
0.00	0.00	0.00
0.00	0.00	0.00

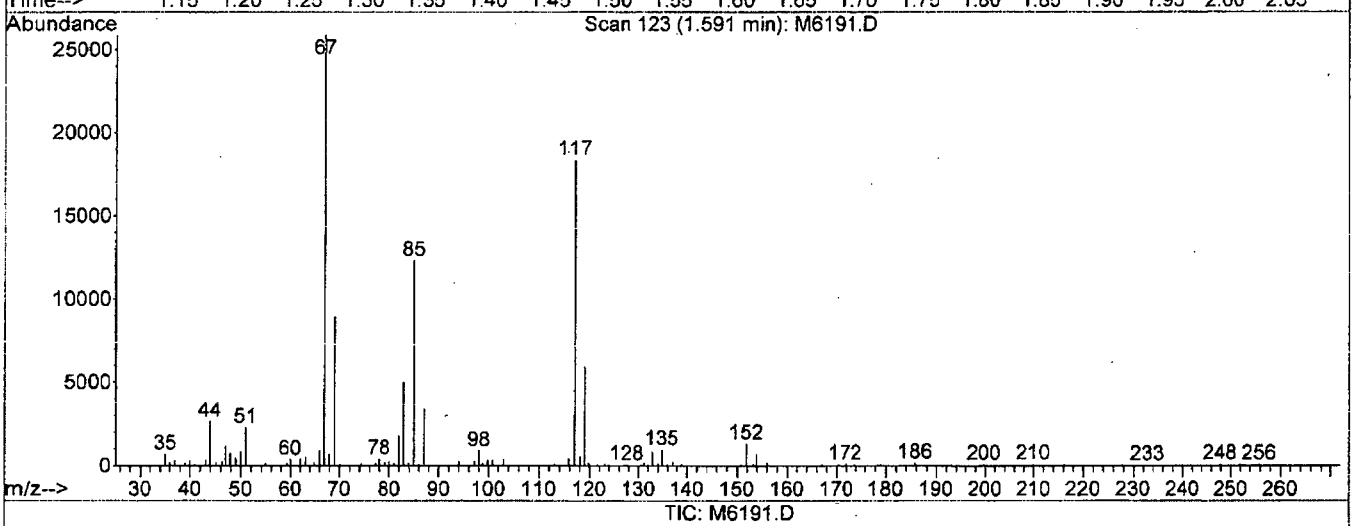
M6191.D W113015.M Tue Dec 01 10:08:38 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:08 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Multiple Level Calibration





TIC: M6191.D

(9) Freon 123a

1.59min 5.17ug/L m

response 34130

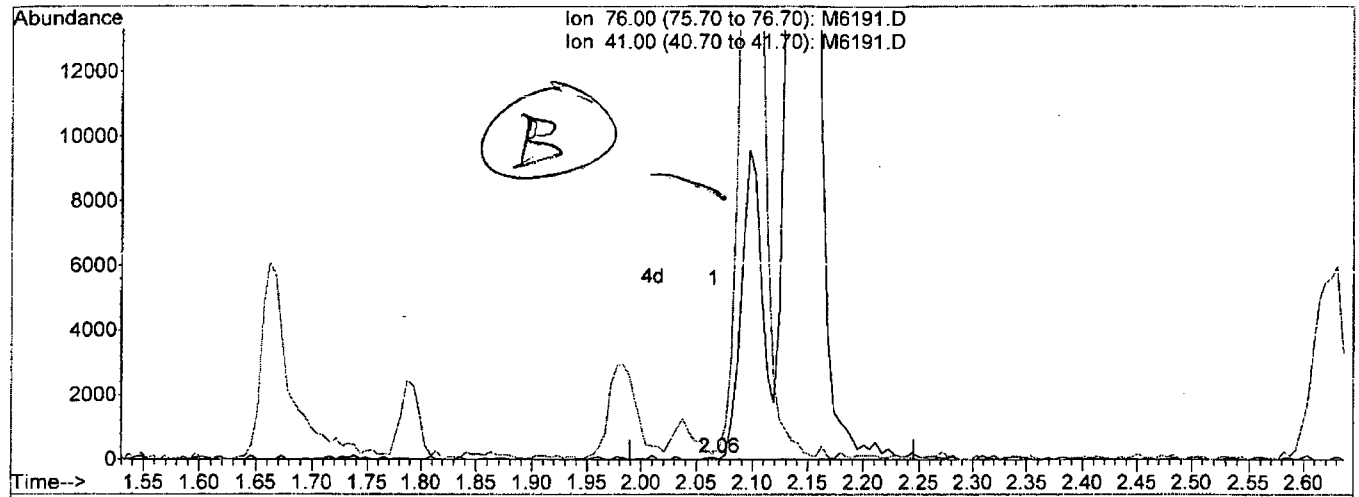
Ion	Exp%	Act%
67.00	100	100
117.00	82.00	71.00
0.00	0.00	0.00
0.00	0.00	0.00

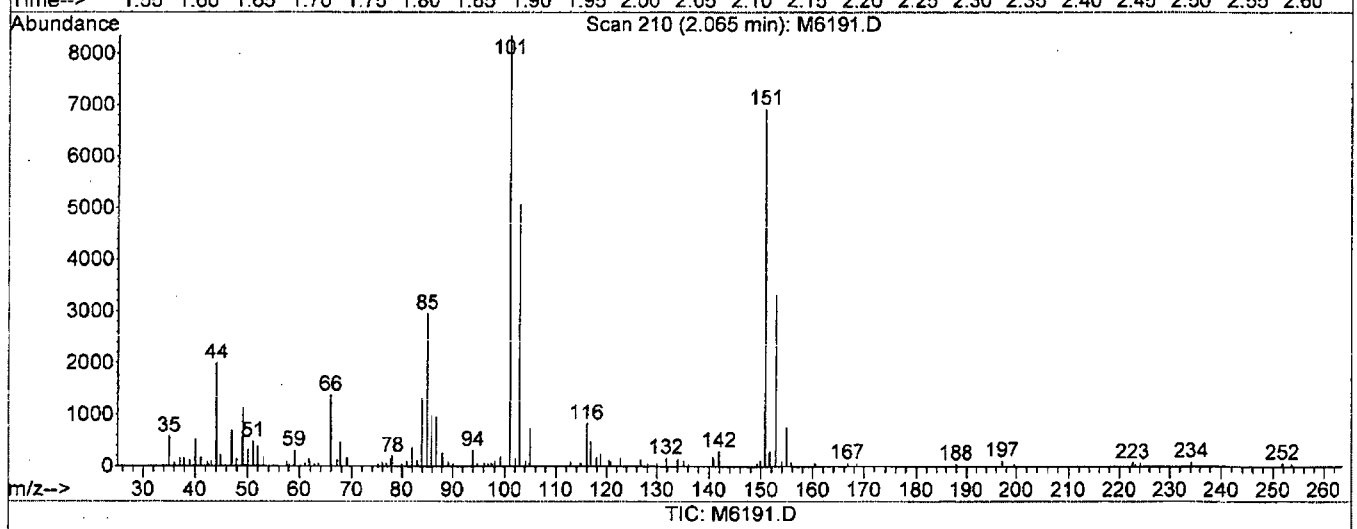
M6191.D W113015.M Tue Dec 01 10:08:47 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:08 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Multiple Level Calibration





TIC: M6191.D

(23) Allyl Chloride

2.06min 0.01ug/L

response 35

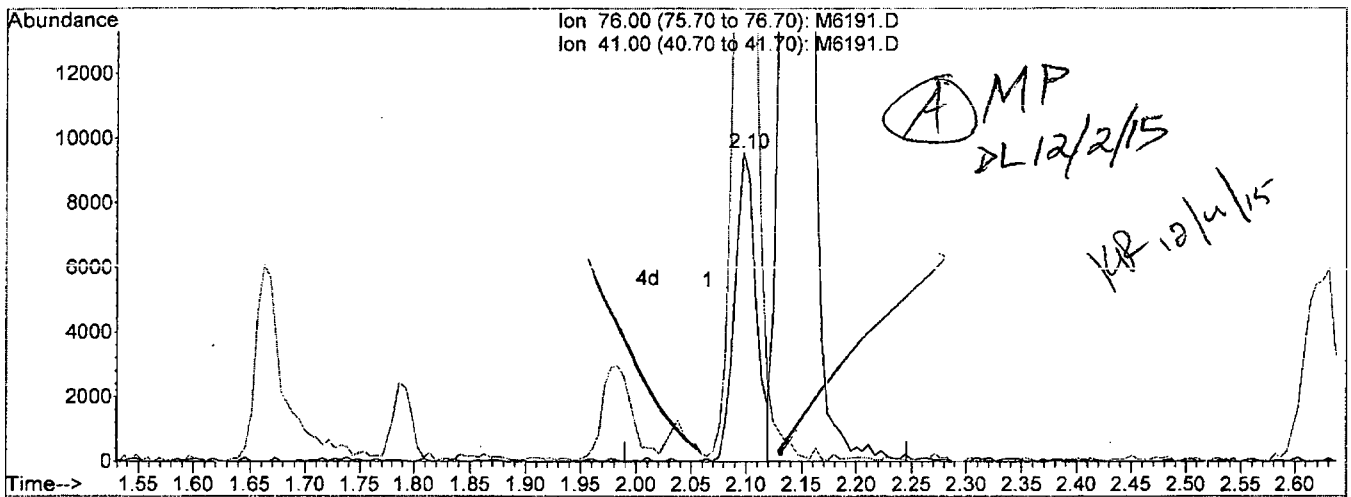
Ion	Exp%	Act%
76.00	100	100
41.00	250.90	238.24
0.00	0.00	0.00
0.00	0.00	0.00

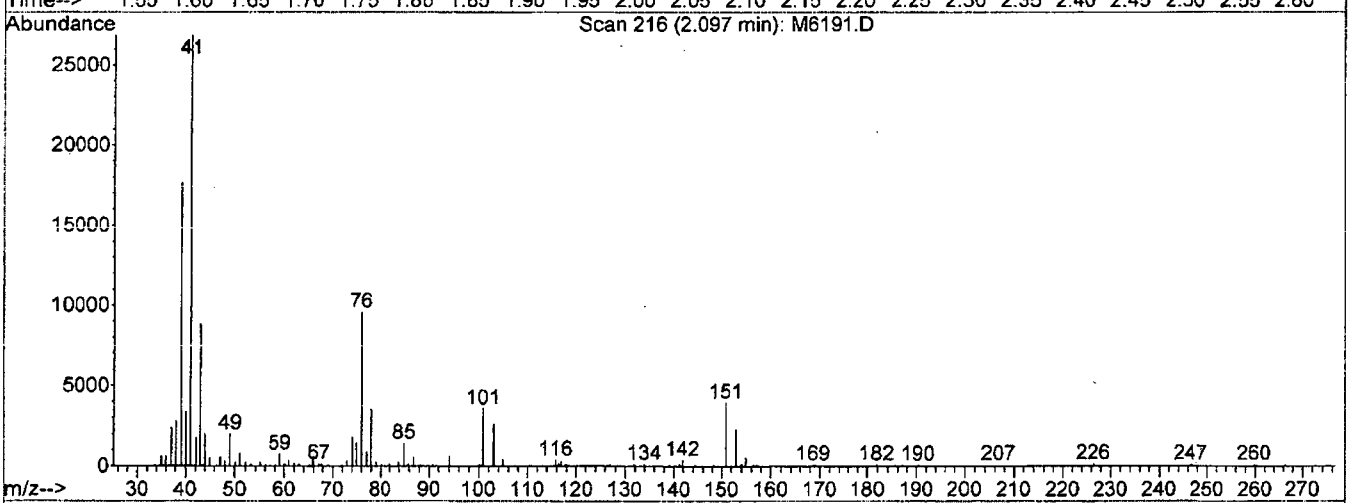
M6191.D W113015.M Tue Dec 01 10:09:28 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:09 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Multiple Level Calibration





TIC: M6191.D

(23) Allyl Chloride

2.10min 5.08ug/L m

response 12709

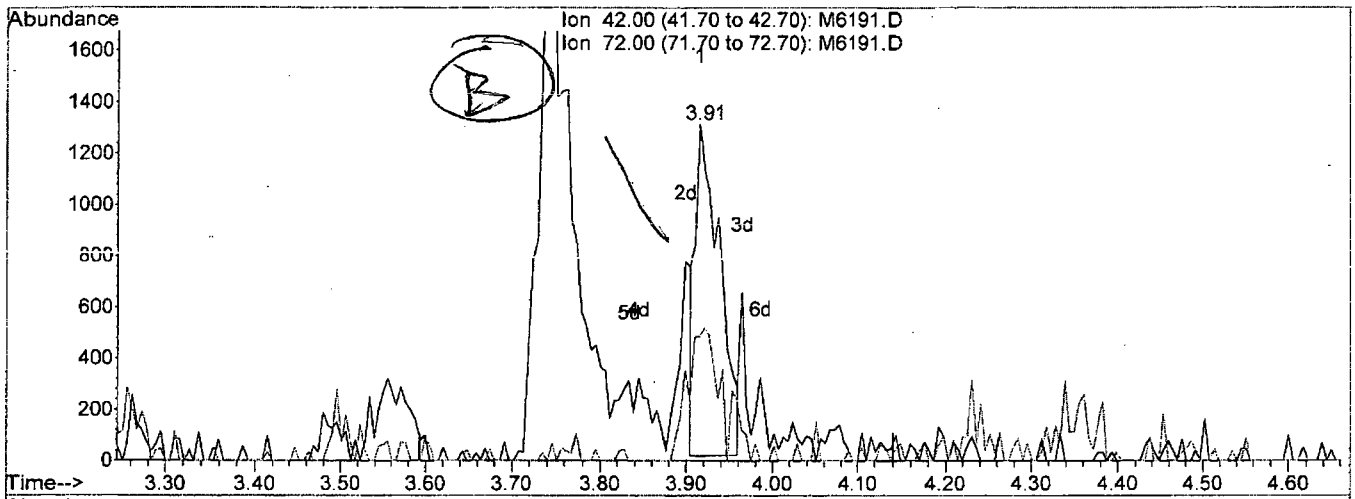
Ion	Exp%	Act%
76.00	100	100
41.00	250.90	280.73#
0.00	0.00	0.00
0.00	0.00	0.00

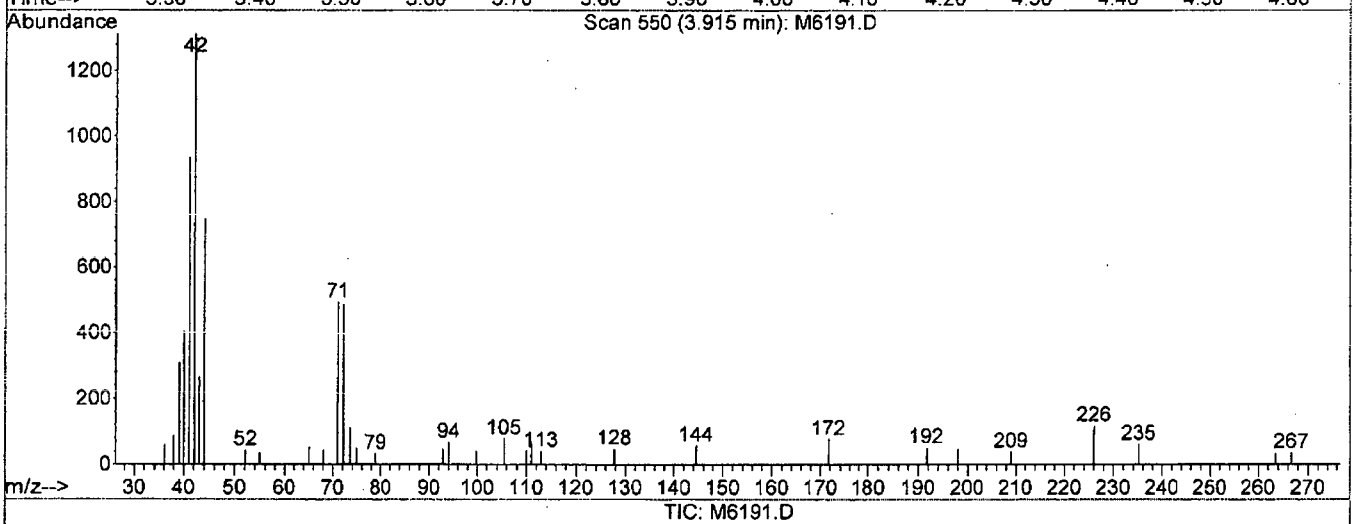
M6191.D W113015.M Tue Dec 01 10:09:36 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:09 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Single Level Calibration





TIC: M6191.D

(37) Tetrahydrofuran

3.91min 3.33ug/L

response 2517

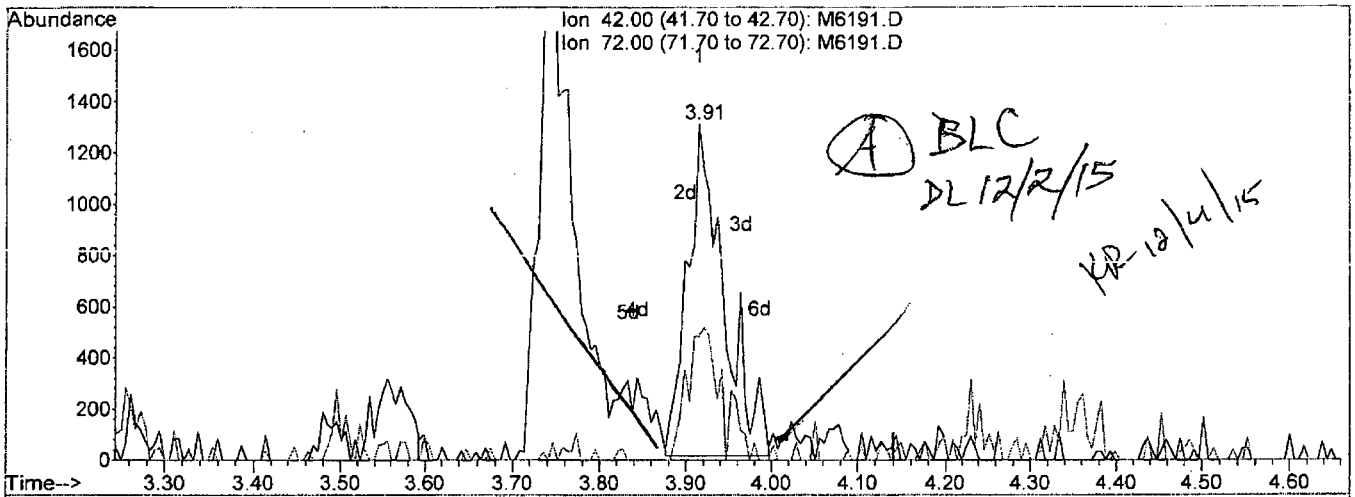
Ion	Exp%	Act%
42.00	100	100
72.00	45.40	36.86
0.00	0.00	0.00
0.00	0.00	0.00

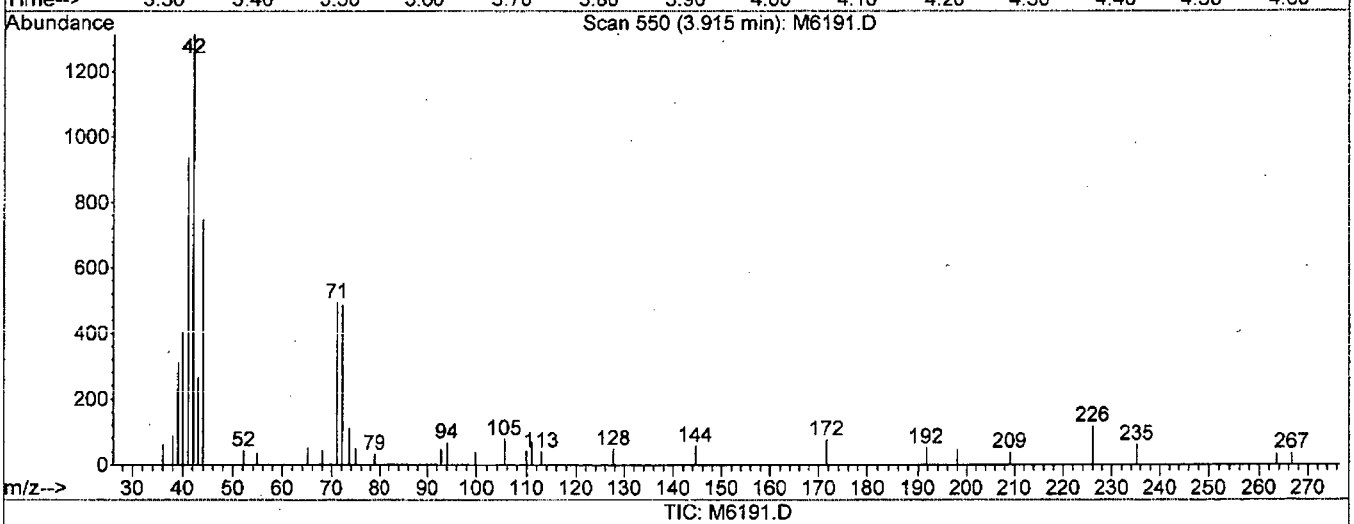
M6191.D W113015.M Tue Dec 01 10:10:40 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:10 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Single Level Calibration





TIC: M6191.D

(37) Tetrahydrofuran

3.91min 5.01ug/L m

response 3789

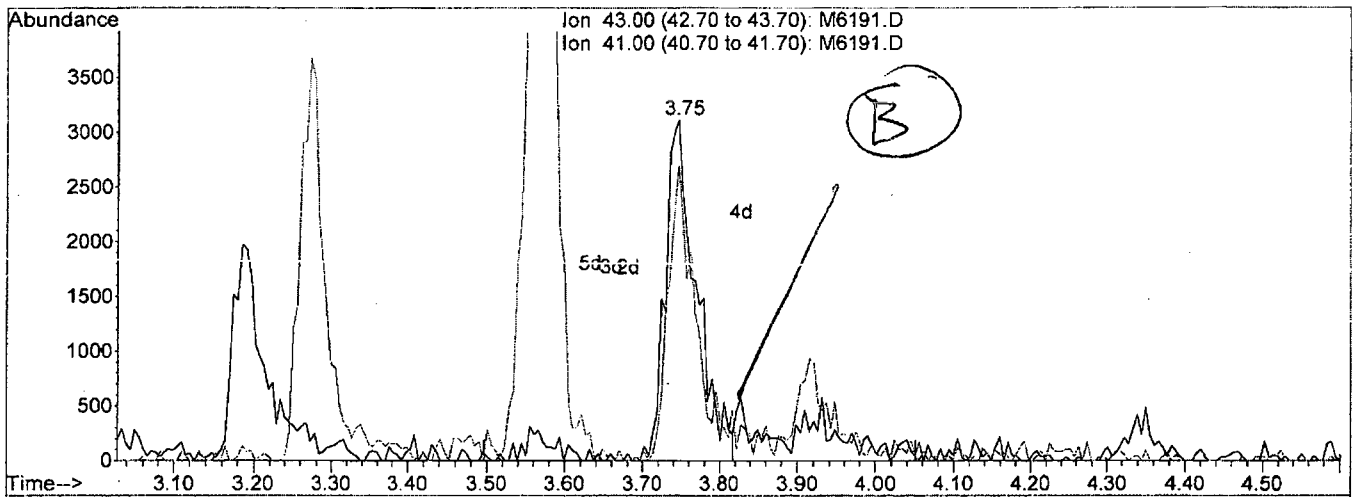
Ion	Exp%	Act%
42.00	100	100
72.00	45.40	36.86
0.00	0.00	0.00
0.00	0.00	0.00

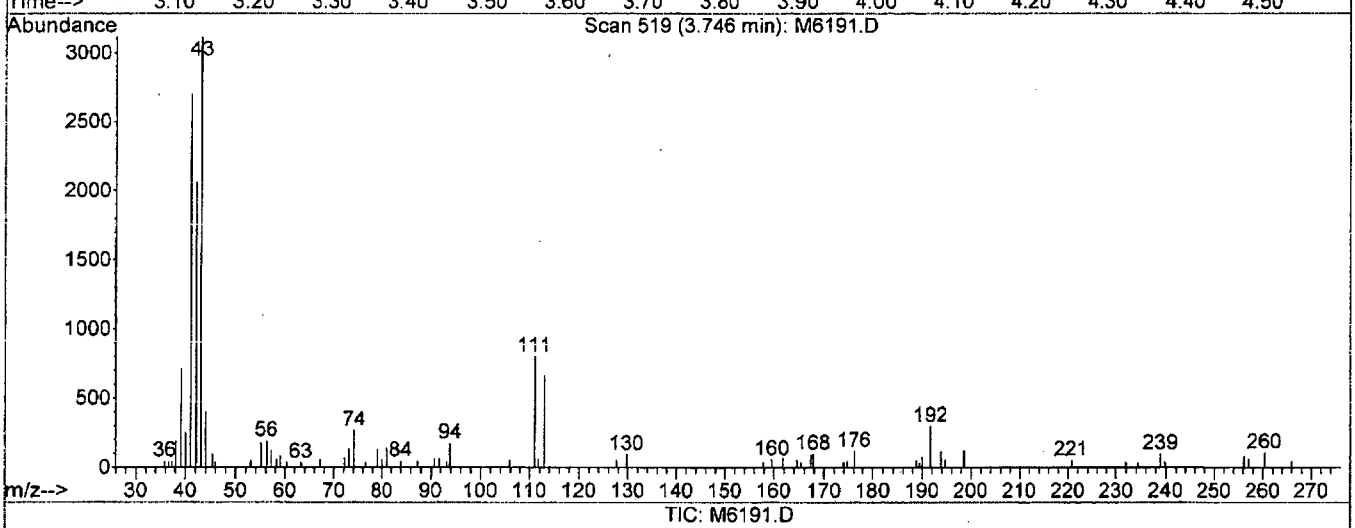
M6191.D W113015.M Tue Dec 01 10:10:50 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:10 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Single Level Calibration





TIC: M6191.D

(41) iso-Butyl Alcohol

3.75min 84.72ug/L

response 8621

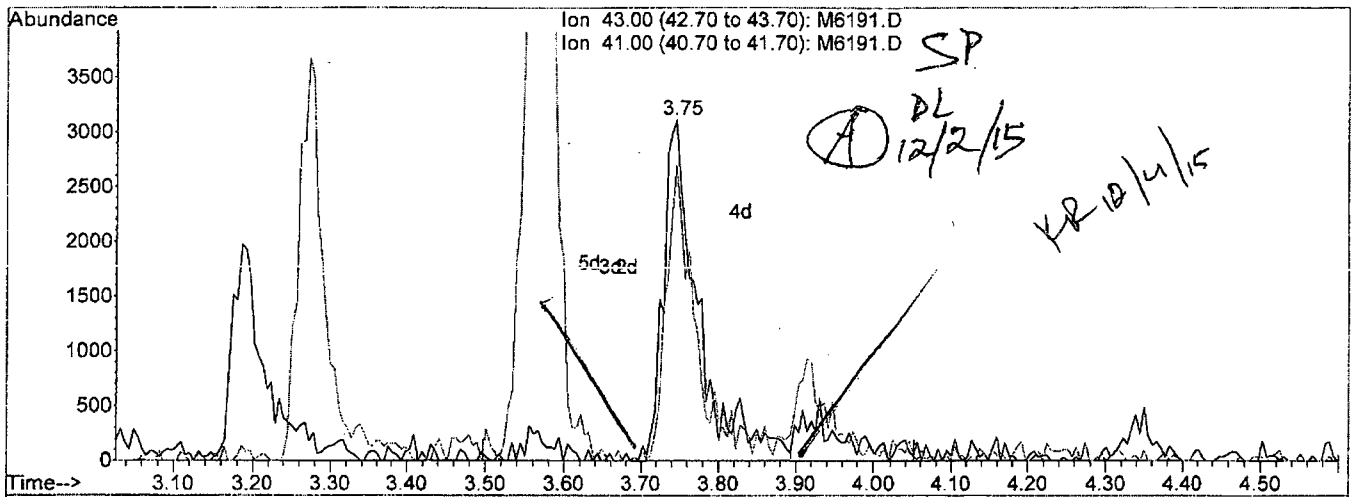
Ion	Exp%	Act%
43.00	100	100
41.00	79.60	86.57
0.00	0.00	0.00
0.00	0.00	0.00

M6191.D W113015.M Tue Dec 01 10:11:12 2015

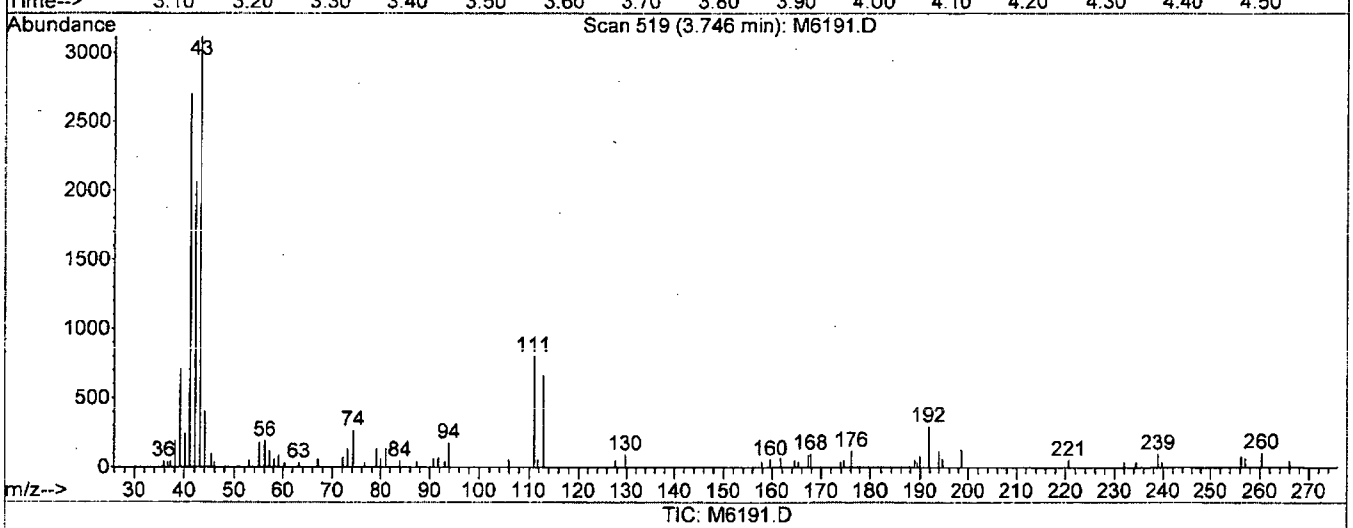
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:11 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Single Level Calibration



SP
DL 12/2/15
KR 12/4/15



TIC: M6191.D

(41) Iso-Butyl Alcohol

3.75min 95.16ug/L m

response 9683

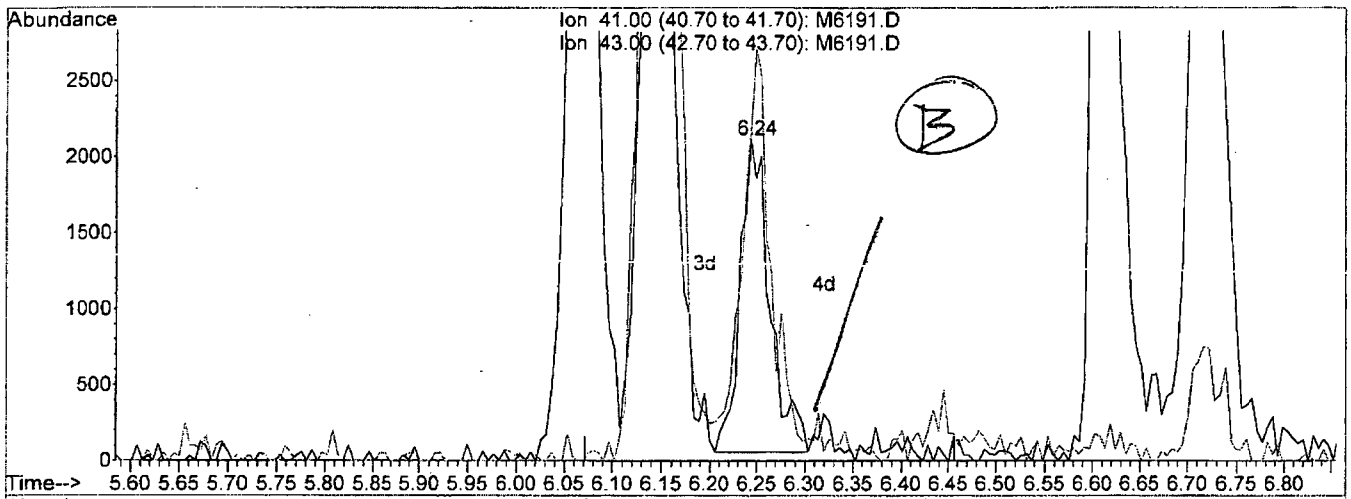
Ion	Exp%	Act%
43.00	100	100
41.00	79.60	86.57
0.00	0.00	0.00
0.00	0.00	0.00

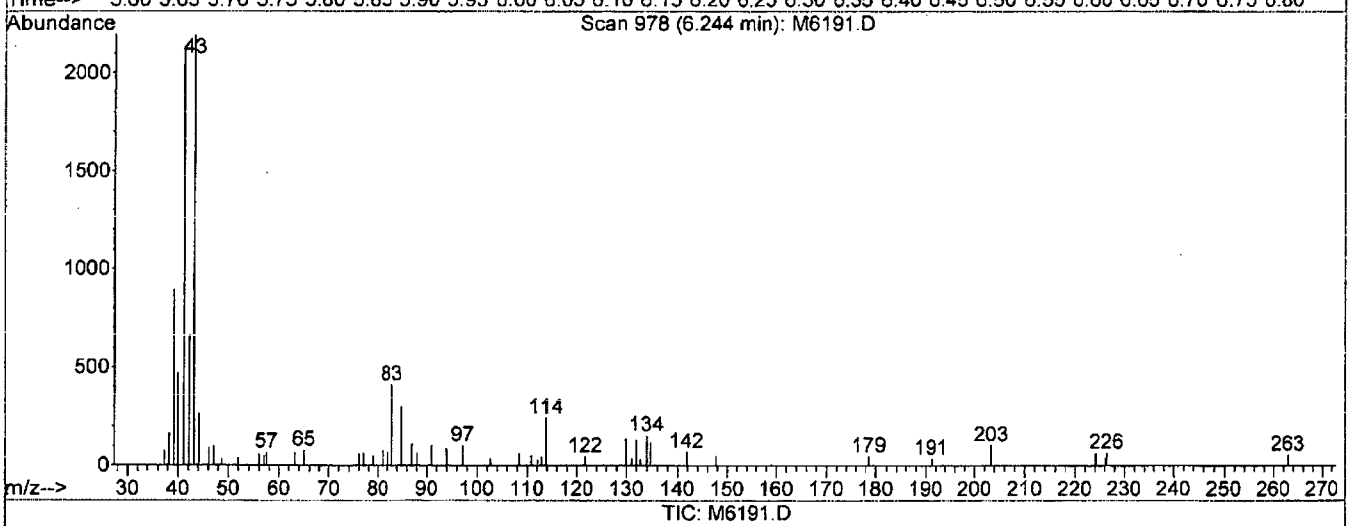
M6191.D W113015.M Tue Dec 01 10:11:22 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:11 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Single Level Calibration





TIC: M6191.D

(53) 2-Nitropropane

6.24min 8.51ug/L

response 4508

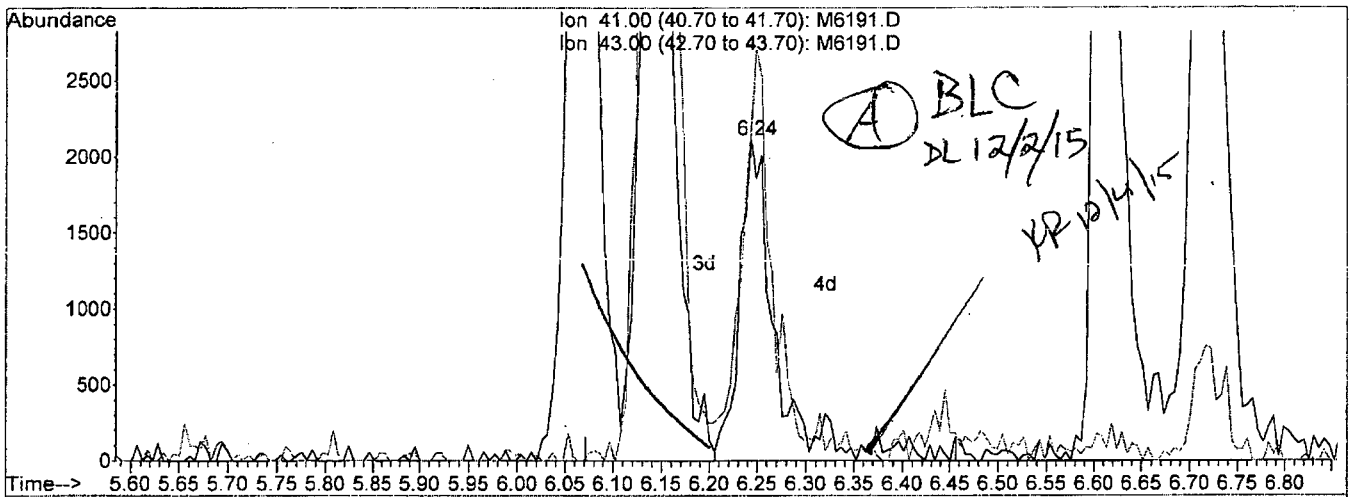
Ion	Exp%	Act%
41.00	100	100
43.00	121.90	103.79
0.00	0.00	0.00
0.00	0.00	0.00

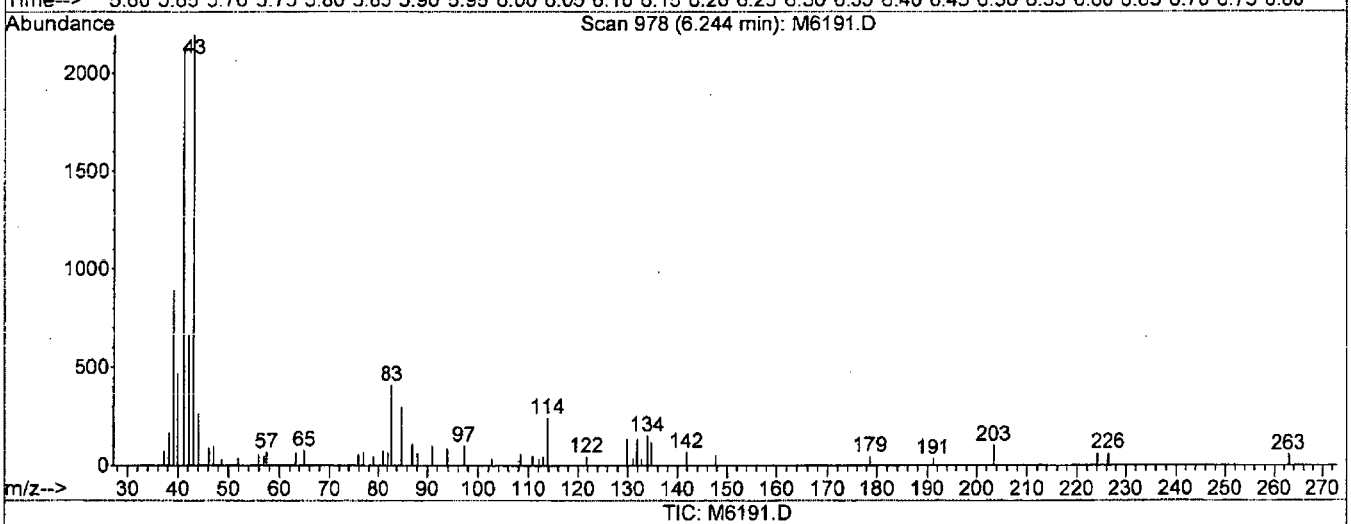
M6191.D W113015.M Tue Dec 01 10:11:59 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:12 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Single Level Calibration





TIC: M6191.D

(53) 2-Nitropropane

6.24min 9.85ug/L m

response 5218

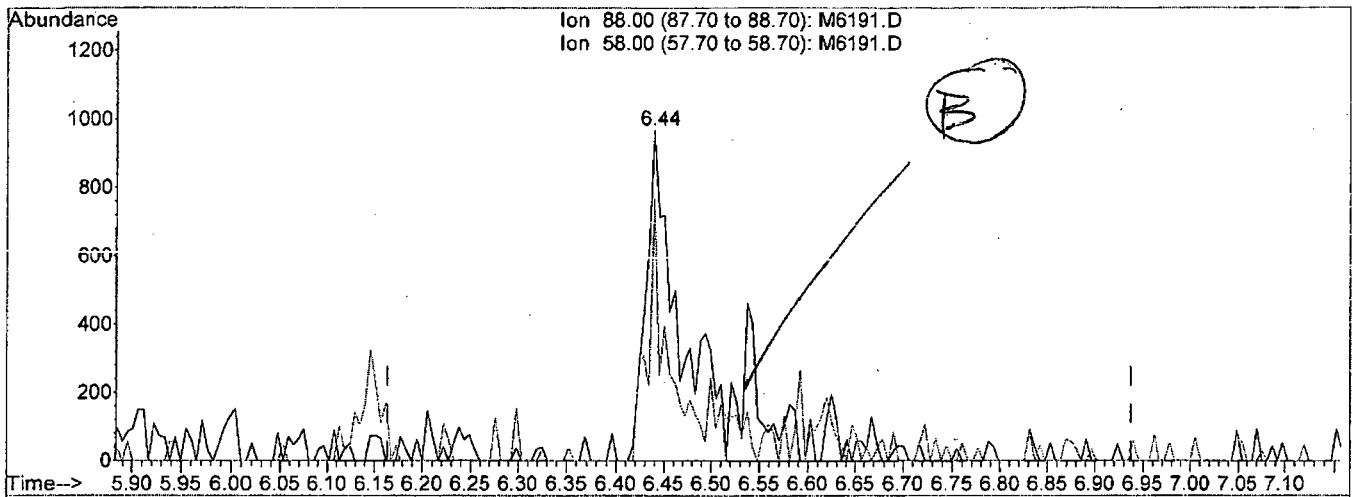
Ion	Exp%	Act%
41.00	100	100
43.00	121.90	103.79
0.00	0.00	0.00
0.00	0.00	0.00

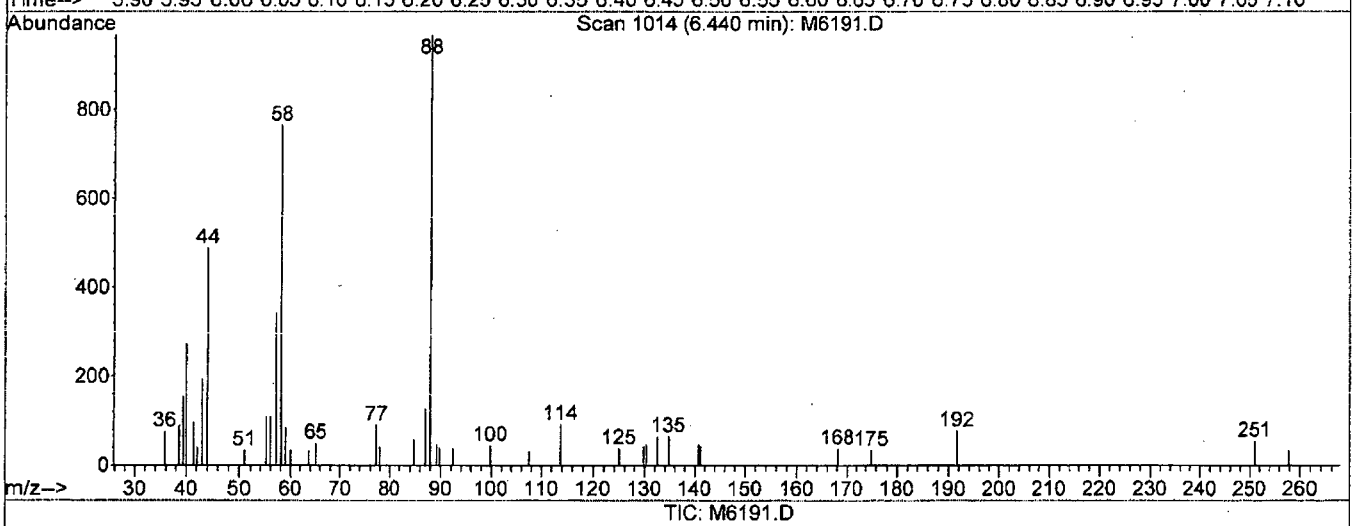
M6191.D W113015.M Tue Dec 01 10:12:07 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:12 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Single Level Calibration





TIC: M6191.D

(54) 1,4-Dioxane

6.44min 80.22ug/L

response 2335

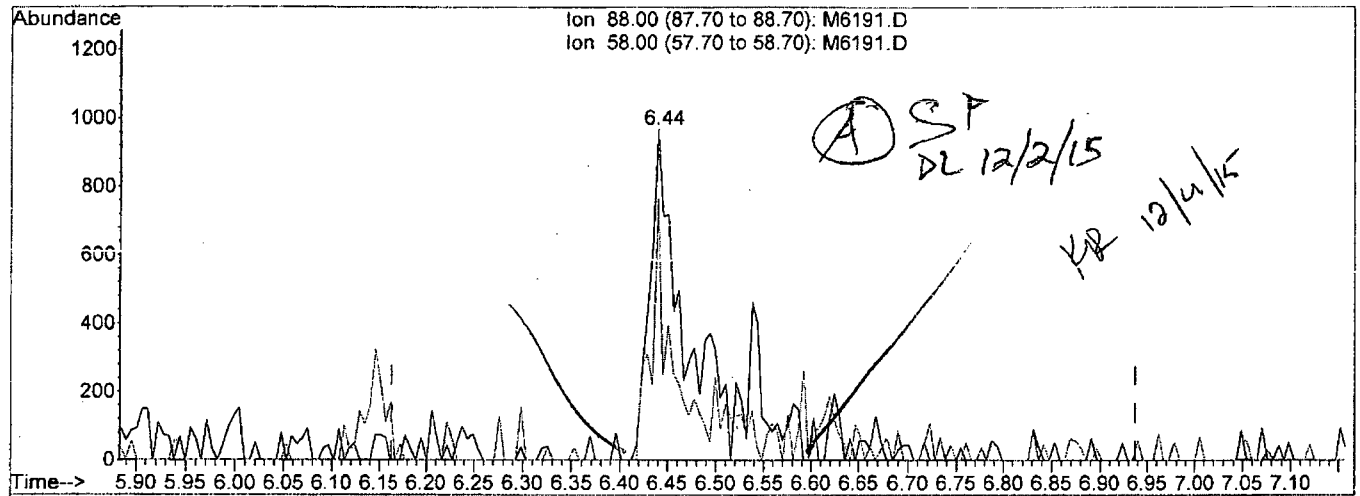
Ion	Exp%	Act%
88.00	100	100
58.00	60.40	78.93
0.00	0.00	0.00
0.00	0.00	0.00

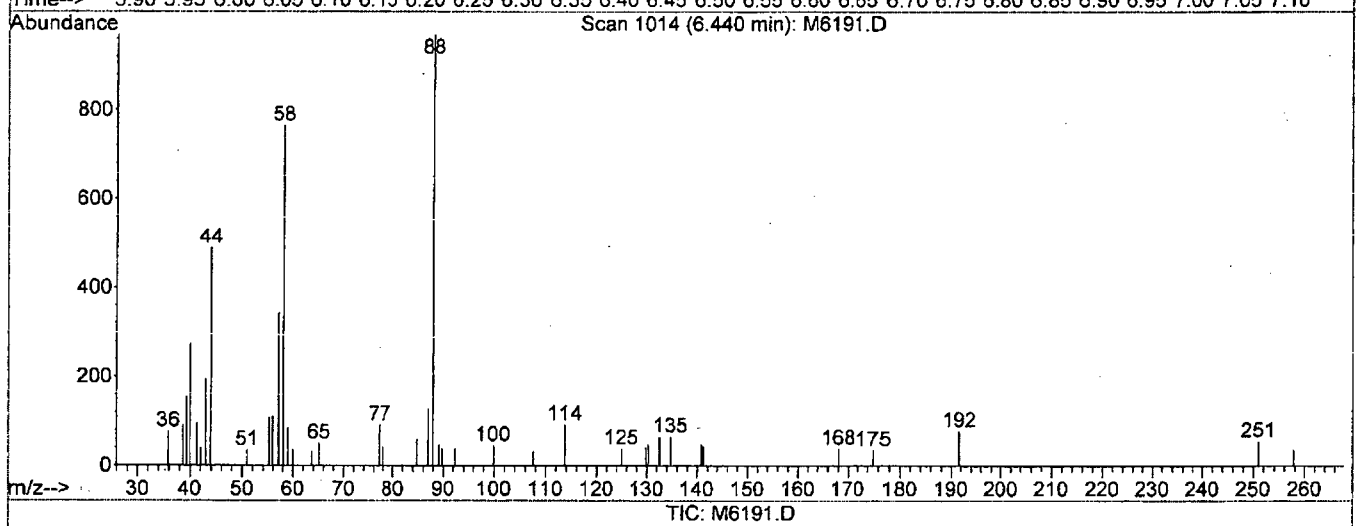
M6191.D W113015.M Tue Dec 01 10:12:29 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:12 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Single Level Calibration





TIC: M6191.D

(54) 1,4-Dioxane

6.44min 105.23ug/L m

response 3063

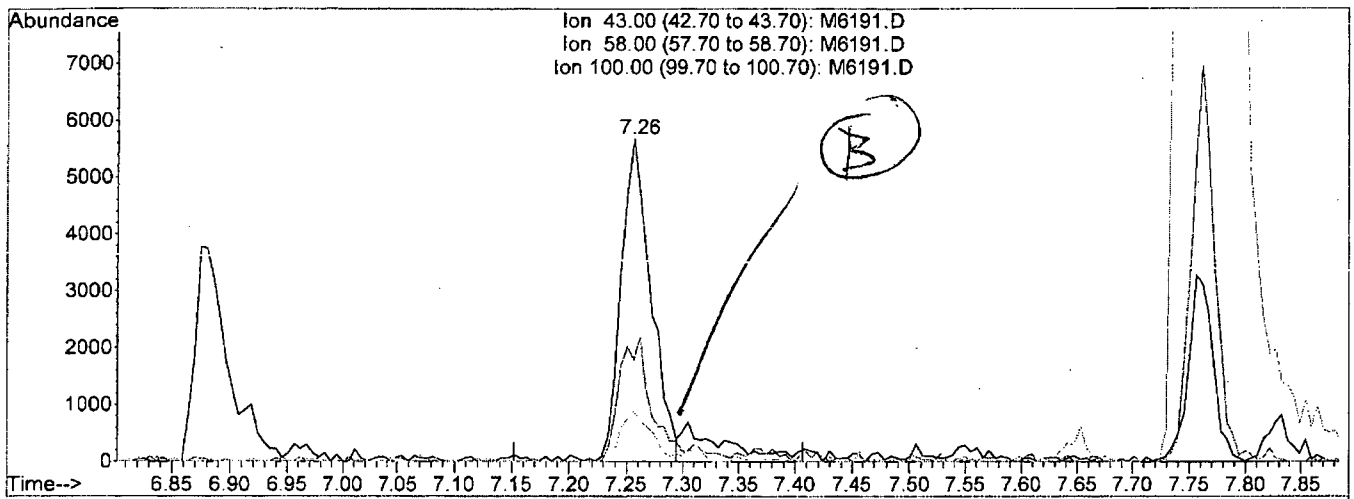
Ion	Exp%	Act%
88.00	100	100
58.00	60.40	78.93
0.00	0.00	0.00
0.00	0.00	0.00

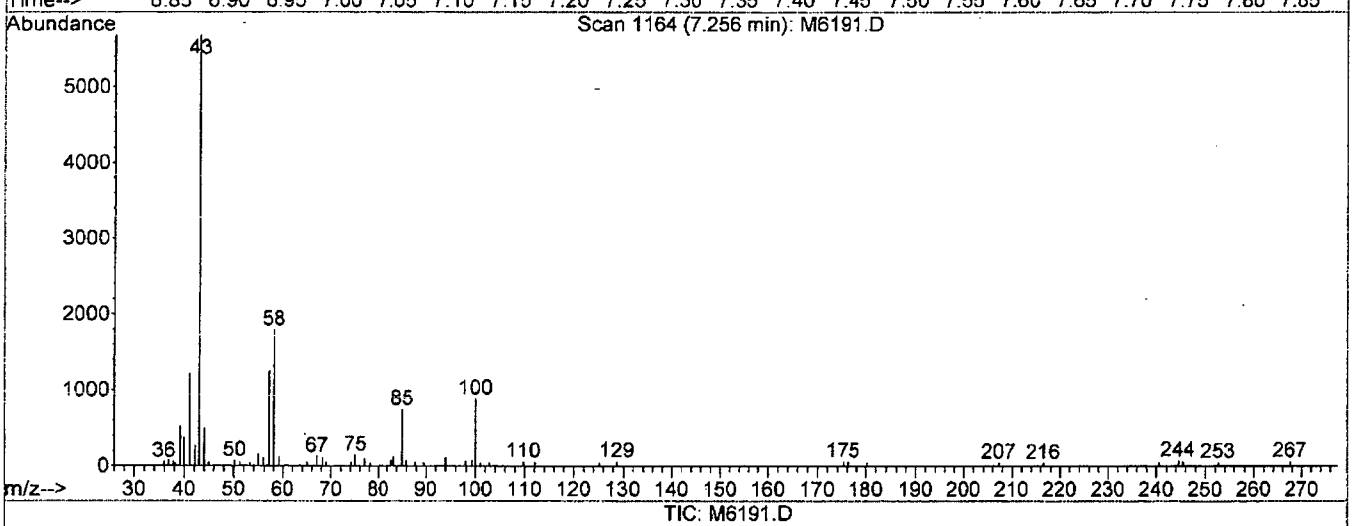
M6191.D W113015.M Tue Dec 01 10:12:41 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:12 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Single Level Calibration





TIC: M6191.D

(59) 4-Methyl-2-pentanone (P)

7.26min 3.95ug/L

response 10217

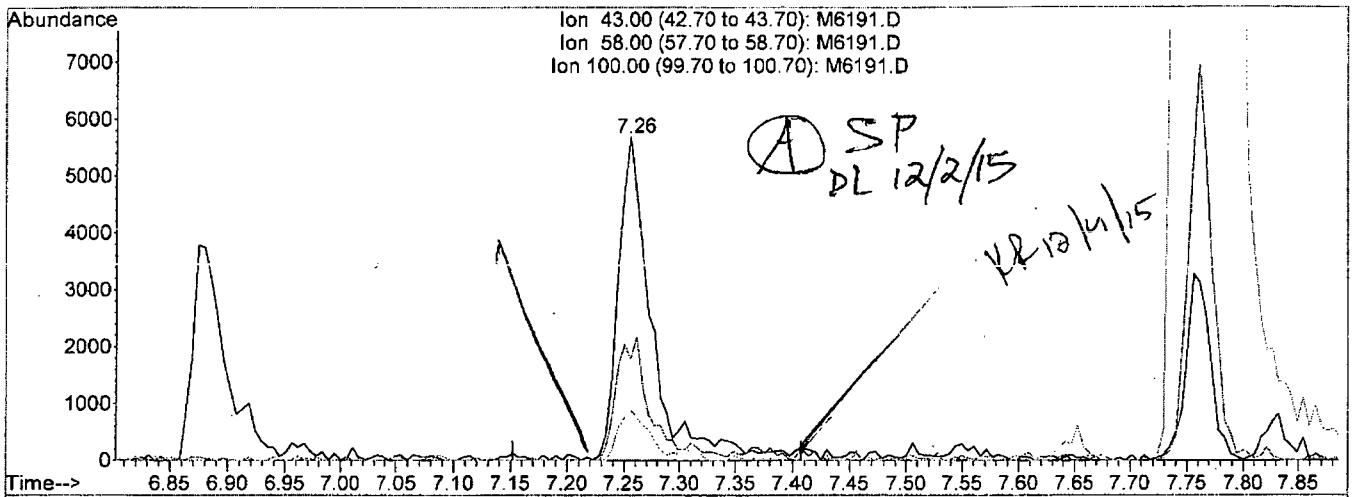
Ion	Exp%	Act%
43.00	100	100
58.00	38.80	41.17
100.00	13.20	16.39
0.00	0.00	0.00

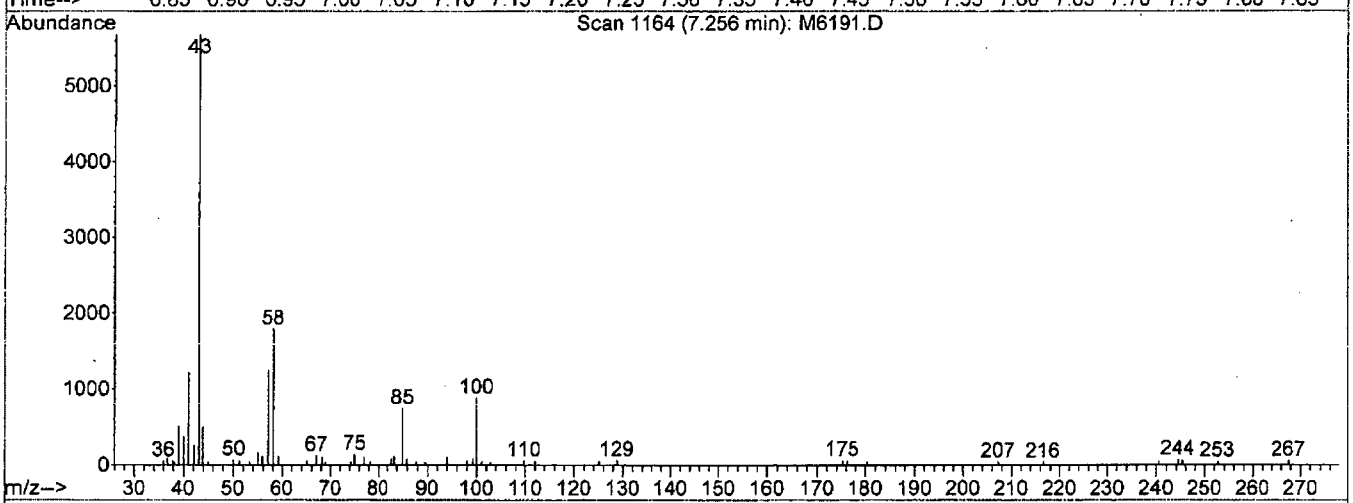
M6191.D W113015.M Tue Dec 01 10:13:13 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:13 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Single Level Calibration





TIC: M6191.D

(59) 4-Methyl-2-pentanone (P)

7.26min 4.62ug/L m

response 11966

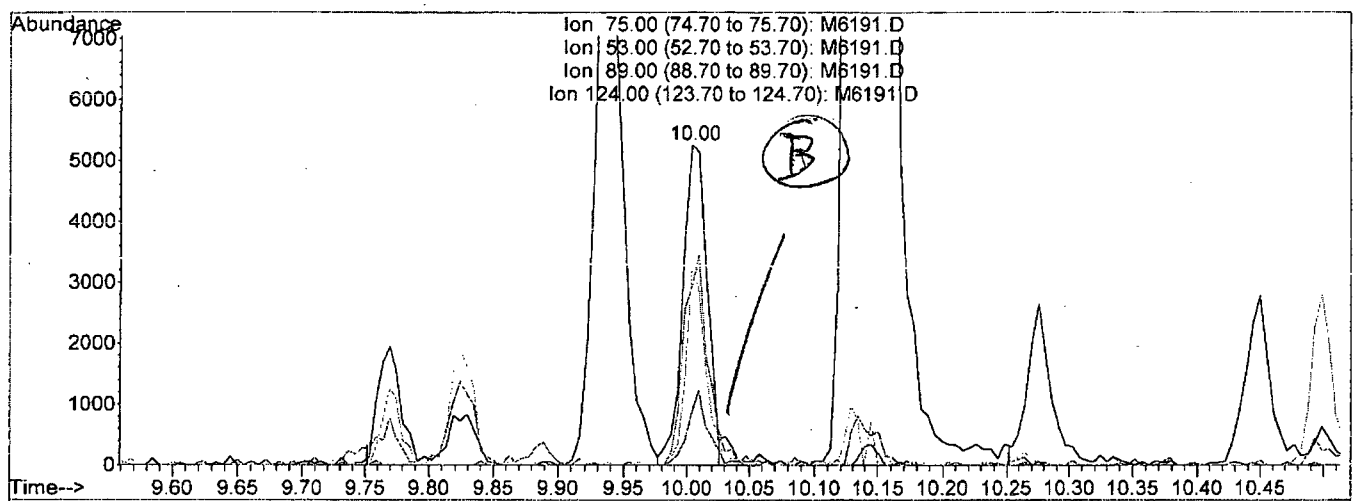
Ion	Exp%	Act%
43.00	100	100
58.00	38.80	35.15
100.00	13.20	14.00
0.00	0.00	0.00

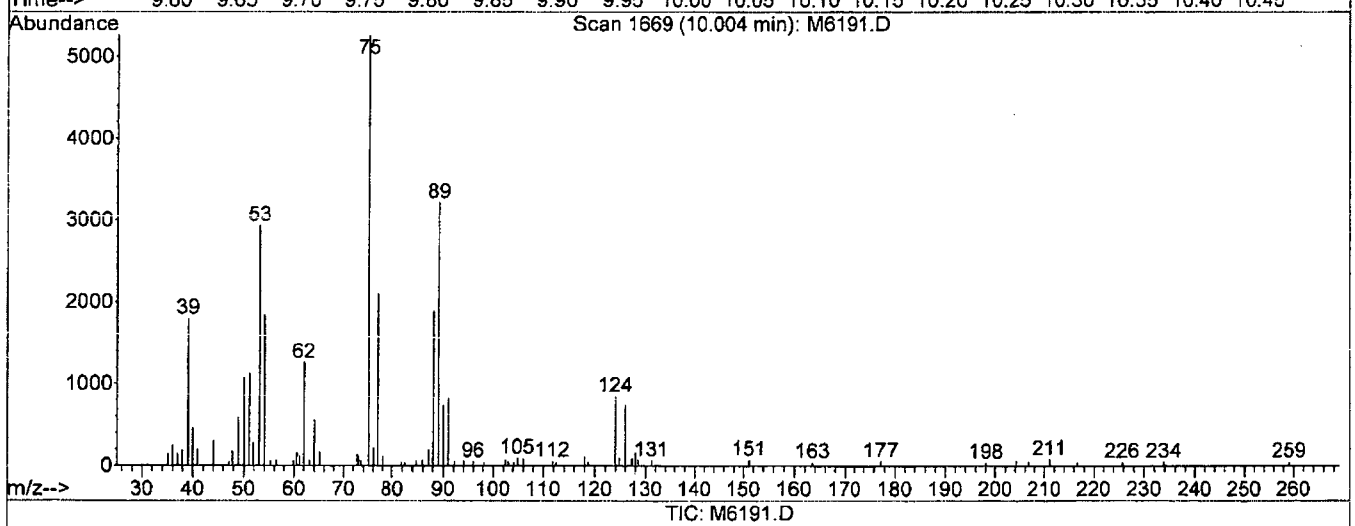
M6191.D W113015.M Tue Dec 01 10:13:24 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:13 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Multiple Level Calibration





TIC: M6191.D

(80) trans-1,4-Dichloro-2-Butene

10.00min 4.95ug/L

response 7095

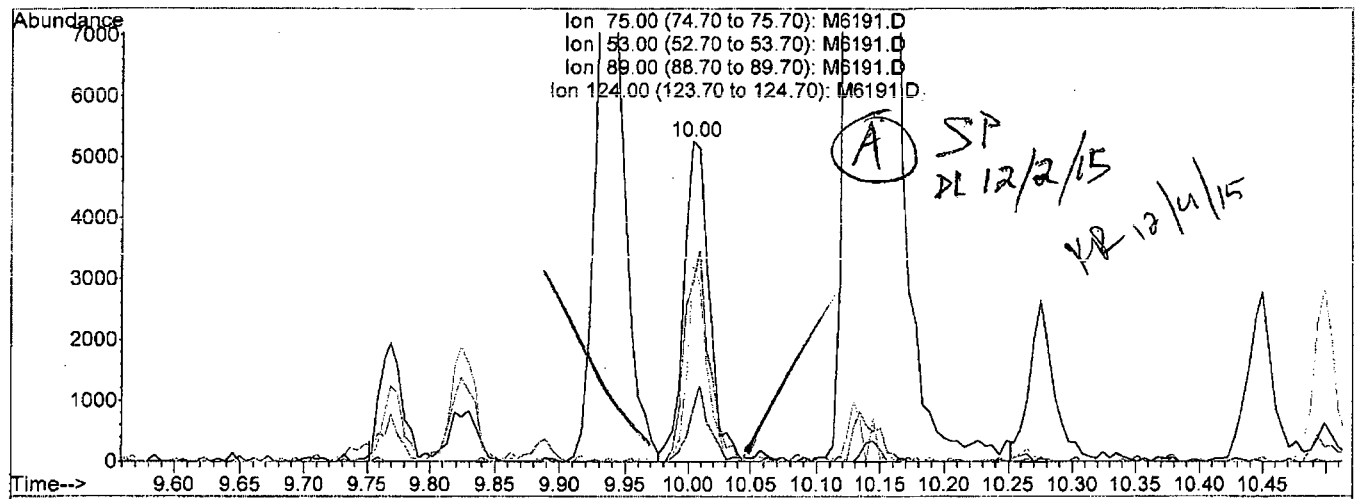
Ion	Exp%	Act%
75.00	100	100
53.00	65.30	55.61
89.00	50.50	61.03
124.00	19.60	16.01

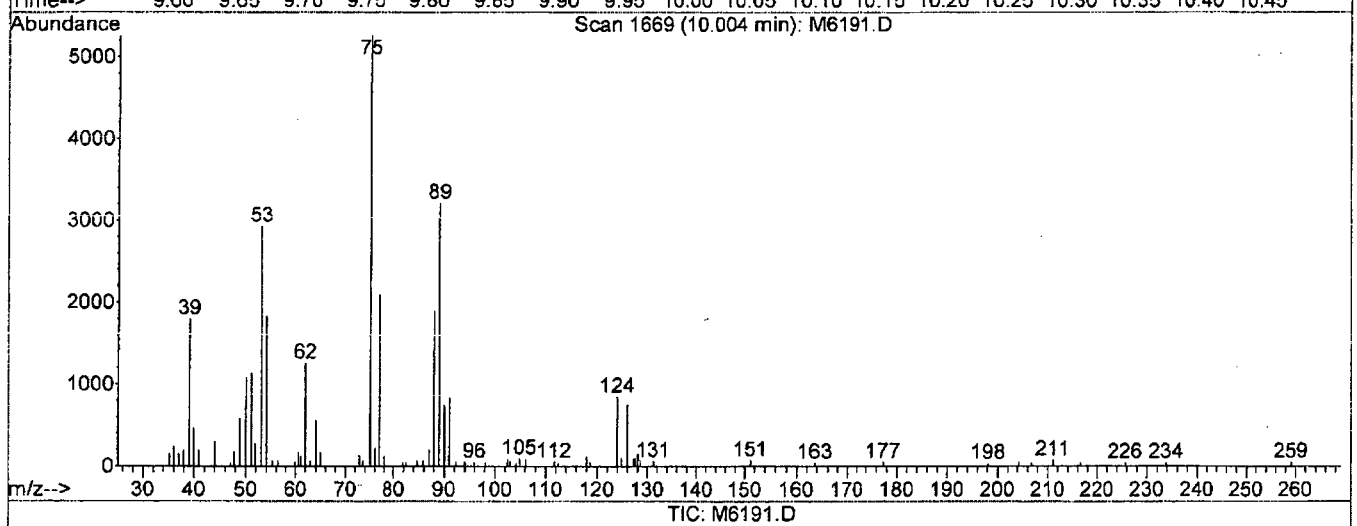
M6191.D W113015.M Tue Dec 01 10:14:26 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:14 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Multiple Level Calibration





TIC: M6191.D

(80) trans-1,4-Dichloro-2-Butene

10.00min 5.17ug/L m

response 7410

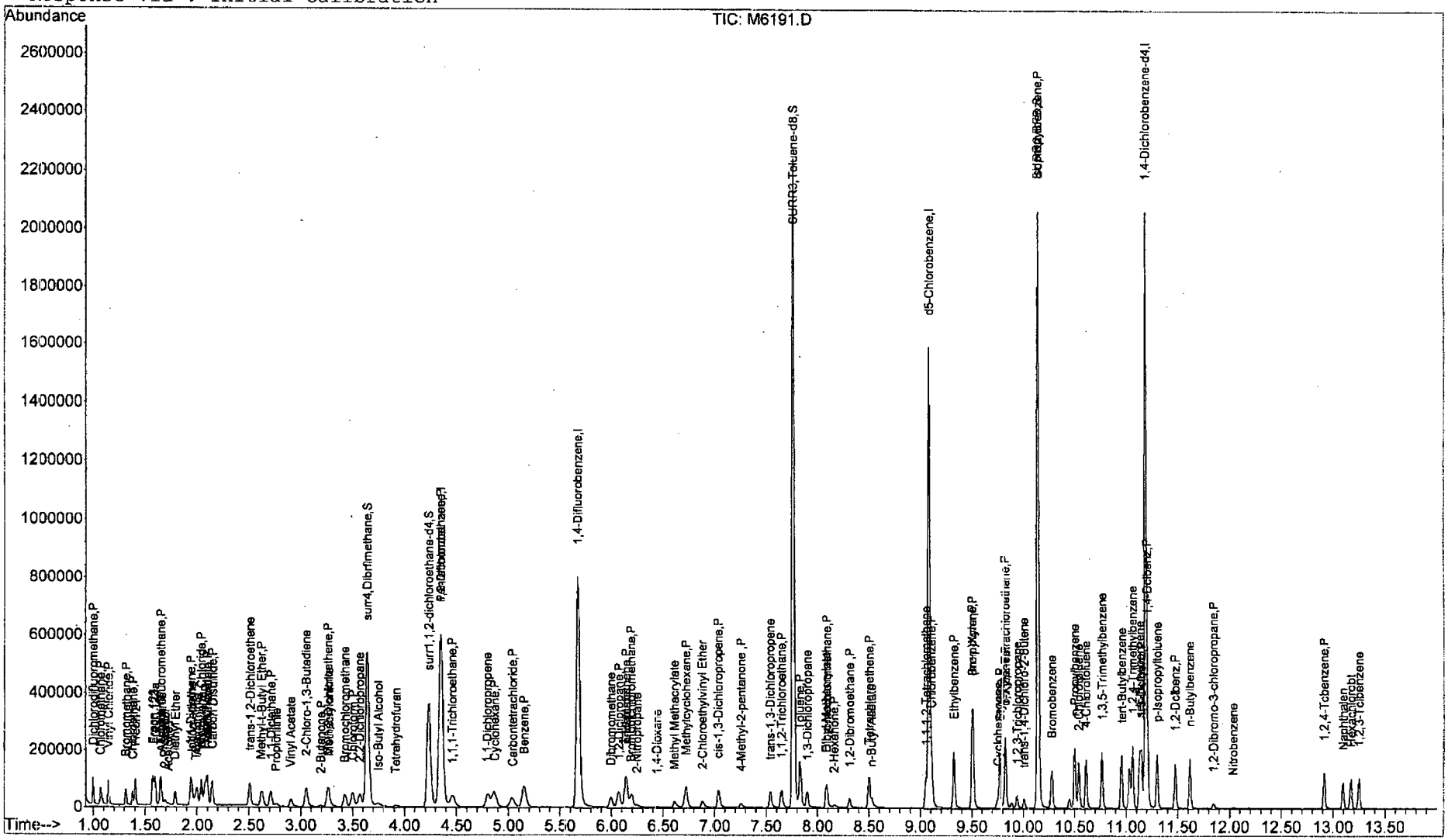
Ion	Exp%	Act%
75.00	100	100
53.00	65.30	55.61
89.00	50.50	61.03
124.00	19.60	16.01

M6191.D W113015.M Tue Dec 01 10:14:36 2015

Quantitation Report

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6191.D Vial: 14
Acq On : 30 Nov 2015 3:26 pm Operator: D.Lipani
Sample : STD #4 - 5.0 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:14 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:59:34 2015
Response via : Initial Calibration



M6191.D W113015.M Tue Dec 01 10:15:14 2015 Page 4

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6192.D Vial: 15
Acq On : 30 Nov 2015 4:02 pm Operator: D.Lipani
Sample : STD #5 - 20 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:15 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:15:20 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	644685	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.67	114	878481	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	793638	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	469272	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibromofluoromethane	3.64	113	549718	99.76	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 199.52%#			
42) surr1,1,2-dichloroethane-d	4.23	65	452338	100.65	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 201.30%#			
62) SURR3,Toluene-d8	7.76	98	1814236	99.14	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 198.28%#			
82) SURR2,BFB	10.14	95	683509	96.21	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 192.42%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	145633	20.86	ug/L	98
3) Chloromethane	1.07	50	149712	20.19	ug/L	99
4) Vinyl Chloride	1.15	62	163084	20.95	ug/L	98
5) Bromomethane	1.32	94	81812	17.62	ug/L	96
6) Chloroethane	1.38	64	81807	20.87	ug/L	99
7) Freon 21	1.40	67	204717	21.03	ug/L	93
8) Freon 123	1.57	83	181639	21.00	ug/L	98
9) Freon 123a	1.59	67	138013	20.75	ug/L	94
10) Acrolein	1.65	56	58911	103.34	ug/L	97
11) Trichlorofluoromethane	1.65	101	167792	20.76	ug/L	99
12) Acetonitrile	1.66	41	42728	101.61	ug/L	96
13) 2-Propanol	1.69	45	71395	453.17	ug/L	99
14) Acetone	1.72	43	15277	19.78	ug/L	95
15) Diethyl Ether	1.79	59	69576	20.10	ug/L	95
16) 1,1-Diclethene	1.94	96	110380	20.91	ug/L	97
17) Iodomethane	1.95	142	151847	21.16	ug/L	98
18) TBA	1.98	59	105362	413.96	ug/L	99
19) Acrylonitrile	2.00	53	116596	100.68	ug/L	96
20) Methylene Chloride	2.04	84	120261	20.35	ug/L	97
21) Freon 113	2.08	101	109285	20.77	ug/L	97
22) Methyl Acetate	2.09	43	47364	20.28	ug/L	94
23) Allyl Chloride	2.10	76	50947	20.32	ug/L #	85
24) Carbon Disulfide	2.14	76	350557	20.50	ug/L	99
25) trans-1,2-Dichloroethene	2.51	96	119896	20.61	ug/L	95
26) Methyl-t-Butyl Ether	2.62	73	231882	21.16	ug/L	97
27) 1,1-Diclethane	2.71	63	182402	20.65	ug/L	98
28) Propionitrile	2.76	54	39572	103.27	ug/L	97
29) Vinyl Acetate	2.90	43	156013	20.88	ug/L	96
30) 2-Chloro-1,3-Butadiene	3.05	53	164980	20.49	ug/L	99
31) 2-Butanone	3.17	43	22871	19.71	ug/L	95
32) Methacrylonitrile	3.27	67	26761	21.60	ug/L	96
33) cis-1,2-Dichloroethene	3.26	96	116935	20.63	ug/L	100
34) Bromochloromethane	3.42	128	56703	20.80	ug/L	99
35) Chloroform	3.50	83	182285	20.39	ug/L	98
36) 2,2-Dichloropropane	3.57	77	139480	20.25	ug/L	97

DL 12/2/15

(#) = qualifier out of range (m) = manual integration
M6192.D W113015.M Tue Dec 01 10:18:24 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6192.D Vial: 15
Acq On : 30 Nov 2015 4:02 pm Operator: D.Lipani
Sample : STD #5 - 20 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:15 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:15:20 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
37) Tetrahydrofuran	3.91	42	15635	20.65 ug/L	97
38) 1,1,1-Trichloroethane	4.47	97	148614	20.63 ug/L	94
41) Iso-Butyl Alcohol	3.74	43	42500	415.73 ug/L	90
43) 1,2-Dichloroethane	4.35	62	102173	19.69 ug/L	98
44) 1,1-Dichloropropene	4.80	75	132288	20.57 ug/L	93
45) Cyclohexane	4.86	56	160004	20.45 ug/L	94
46) Carbontetrachloride	5.03	119	131643	20.89 ug/L	98
47) Benzene	5.15	78	413397	20.95 ug/L	97
48) Dibromomethane	5.99	93	53492	19.92 ug/L	99
49) 1,2-Diclpropane	6.06	63	99954	19.97 ug/L	98
50) n-Heptane	6.15	43	88603	20.64 ug/L	98
51) Trichloroethene	6.13	130	122252	20.92 ug/L	99
52) Bromodichloromethane	6.19	83	125653	20.63 ug/L	100
53) 2-Nitropropane	6.25	41	20665	38.10 ug/L #	78
54) 1,4-Dioxane	6.43	88	12325	421.49 ug/L	94
55) Methyl Methacrylate	6.60	69	41556	21.33 ug/L	97
56) Methylcyclohexane	6.72	55	107109	21.06 ug/L	98
57) 2-Chloroethylvinyl Ether	6.88	63	46548	21.48 ug/L	96
58) cis-1,3-Dichloropropene	7.03	75	150762	21.10 ug/L	99
59) 4-Methyl-2-pentanone	7.25	43	51616	19.76 ug/L	97
60) trans-1,3-Dichloropropene	7.54	75	121693	20.13 ug/L	99
61) 1,1,2-Trichloroethane	7.65	97	78312	21.02 ug/L	99
63) Toluene	7.83	91	432450	20.95 ug/L	100
65) 1,3-Dichloropropane	7.89	76	114696	20.20 ug/L	97
66) Ethyl Methacrylate	8.08	69	88349	20.74 ug/L	96
67) Dibromochloromethane	8.09	129	96769	20.49 ug/L	99
68) 2-Hexanone	8.16	43	35122	19.77 ug/L	100
69) 1,2-Dibromoethane	8.31	107	77813	20.56 ug/L	98
70) n-Butyl Acetate	8.52	43	92337	19.82 ug/L	96
71) Tetrachloroethene	8.50	164	94287	19.61 ug/L	99
72) 1,1,1,2-Tetrachloroethane	9.05	131	101855	20.07 ug/L	99
73) Chlorobenzene	9.11	112	288810	20.56 ug/L	99
74) Ethylbenzene	9.33	106	149828	20.72 ug/L	96
75) Bromoform	9.50	173	60442	20.23 ug/L	98
76) (m+p)Xylene	9.50	106	363119	41.20 ug/L	97
77) o-Xylene	9.83	106	190172	20.90 ug/L	99
78) Cyclohexanone	9.74	55	42229	405.28 ug/L	96
79) Styrene	9.77	104	302502	20.96 ug/L	100
80) trans-1,4-Dichloro-2-Buten	10.01	75	28886	19.75 ug/L	96
81) Isopropylbenzene	10.14	105	451205	20.36 ug/L	100
84) 1,1,2,2-Tetrachloroethane	9.82	83	88651	20.65 ug/L	98
85) 1,2,3-Trichloropropane	9.93	75	60896	20.82 ug/L	97
86) Bromobenzene	10.28	156	134737	20.73 ug/L	98
87) n-Propylbenzene	10.50	91	534945	21.40 ug/L	98
88) 2-Chlorotoluene	10.54	91	302661	19.70 ug/L	99
89) 4-Chlorotoluene	10.61	91	331813	20.47 ug/L	100
90) 1,3,5-Trimethylbenzene	10.76	105	353197	20.74 ug/L	98
91) tert-Butylbenzene	10.95	119	308163	20.85 ug/L	99
92) 1,2,4-Trimethylbenzene	11.06	105	384106	21.14 ug/L	99
93) sec-Butylbenzene	11.13	105	441458	21.17 ug/L	99

(#) = qualifier out of range (m) = manual integration
M6192.D W113015.M Tue Dec 01 10:18:25 2015

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6192.D Vial: 15
Acq On : 30 Nov 2015 4:02 pm Operator: D.Lipani
Sample : STD #5 - 20 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:15 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:15:20 2015
Response via : Initial Calibration
DataAcq Meth : W113015

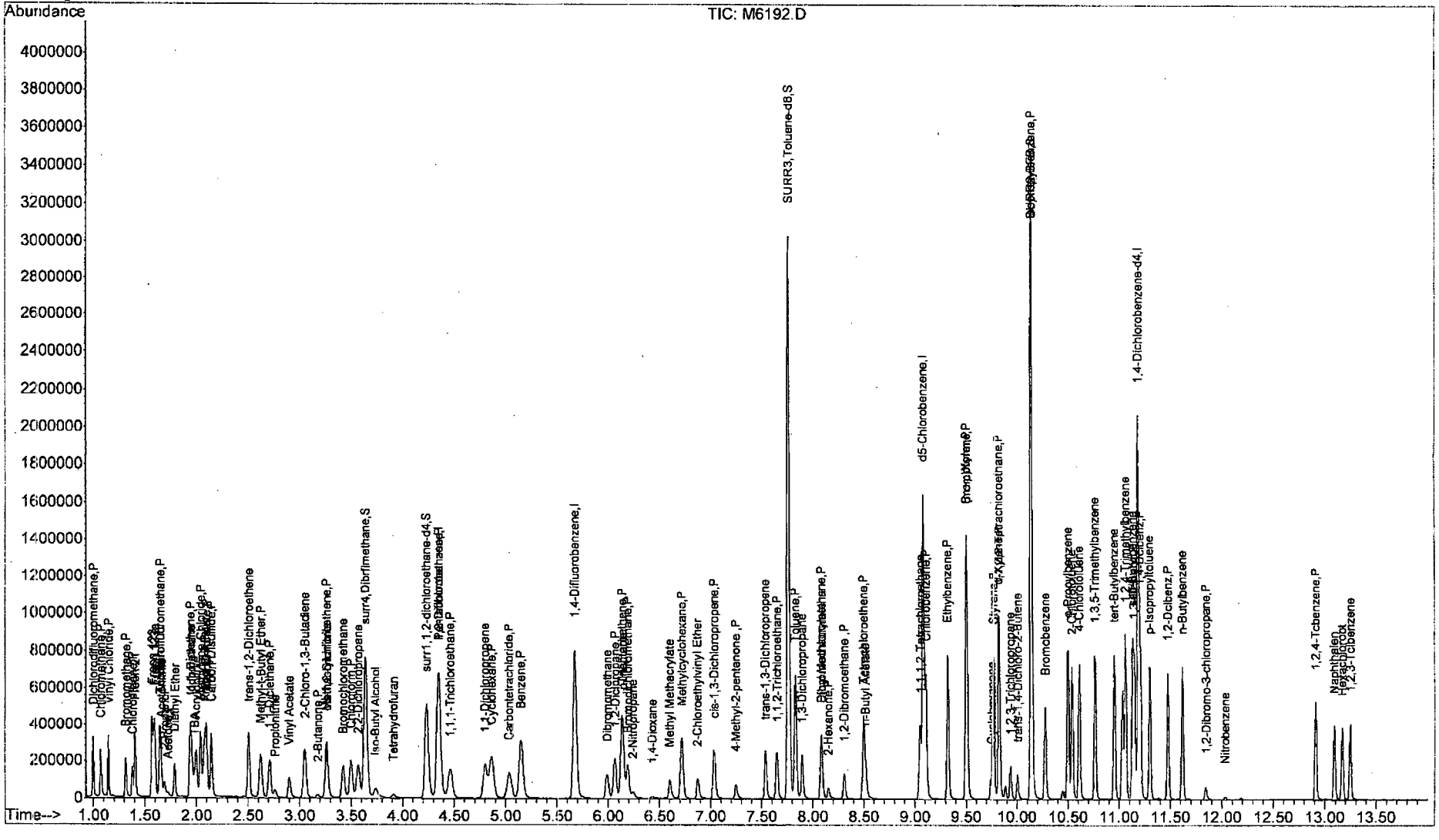
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
94)	1,3-Dclbenz	11.15	146	245327	20.35	ug/L	99
95)	1,4-Dclbenz	11.21	146	251099	20.63	ug/L	99
96)	p-Isopropyltoluene	11.30	119	352492	20.70	ug/L	99
97)	1,2-Dclbenz	11.47	146	240317	21.40	ug/L	98
98)	n-Butylbenzene	11.62	91	317615	21.15	ug/L	98
99)	1,2-Dibromo-3-chloropropan	11.84	75	12217	19.49	ug/L	95
100)	Nitrobenzene	12.03	77	5336	34.99	ug/L	92
101)	1,2,4-Tcbenzene	12.91	180	132167	20.35	ug/L	100
102)	Naphthalen	13.09	128	245308	21.50	ug/L	100
103)	Hexachlorobt	13.17	225	63150	20.33	ug/L	99
104)	1,2,3-Tclbenzene	13.25	180	111655	20.82	ug/L	99

(#) = qualifier out of range (m) = manual integration
M6192.D W113015.M Tue Dec 01 10:18:26 2015 Page 3

Quantitation Report

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6192.D Vial: 15
Acq On : 30 Nov 2015 4:02 pm Operator: D.Lipani
Sample : STD #5 - 20 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:15 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:15:20 2015
Response via : Initial Calibration



M6192.D W113015.M Tue Dec 01 10:18:30 2015 Page 4

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6193.D Vial: 16
Acq On : 30 Nov 2015 4:39 pm Operator: D.Lipani
Sample : STD #6 - 50 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:13 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:10:37 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	657179	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.68	114	903879	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	787122	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	466485	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	289267	51.02	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery =	102.04%		
42) surr1,1,2-dichloroethane-d	4.23	65	236390	51.12	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery =	102.24%		
62) SURR3,Toluene-d8	7.76	98	1007650	53.52	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery =	107.04%		
82) SURR2,BFB	10.14	95	380131	53.95	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery =	107.90%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	358272	50.35	ug/L	100
3) Chloromethane	1.07	50	354626	46.91	ug/L	100
4) Vinyl Chloride	1.14	62	388385	48.93	ug/L	100
5) Bromomethane	1.31	94	213654	46.54	ug/L	100
6) Chloroethane	1.38	64	198728	49.75	ug/L	100
7) Freon 21	1.41	67	467590	47.13	ug/L	100
8) Freon 123	1.57	83	417029	47.31	ug/L	100
9) Freon 123a	1.60	67	325683	48.26	ug/L	100
10) Acrolein	1.65	56	145060	253.50	ug/L	100
11) Trichlorofluoromethane	1.65	101	410805	49.85	ug/L	100
12) Acetonitrile	1.66	41	100804	235.15	ug/L	100
13) 2-Propanol	1.69	45	160702	1000.63	ug/L	100
14) Acetone	1.73	43	39100	49.67	ug/L	100
15) Diethyl Ether	1.79	59	172382	48.86	ug/L	100
16) 1,1-Diclethene	1.94	96	267245	49.66	ug/L	100
17) Iodomethane	1.96	142	437202	56.73	ug/L	100
18) TBA	1.98	59	250601	965.88	ug/L	100
19) Acrylonitrile	2.00	53	282300	239.14	ug/L	100
20) Methylene Chloride	2.04	84	284916	47.30	ug/L	100
21) Freon 113	2.07	101	255702	47.68	ug/L	100
22) Methyl Acetate	2.09	43	116084	48.77	ug/L	100
23) Allyl Chloride	2.10	76	121776	47.64	ug/L	100
24) Carbon Disulfide	2.15	76	837911	48.07	ug/L	100
25) trans-1,2-Dichloroethene	2.50	96	291565	49.18	ug/L	100
26) Methyl-t-Butyl Ether	2.62	73	566128	50.68	ug/L	100
27) 1,1-Diclethane	2.71	63	446709	49.61	ug/L	100
28) Propionitrile	2.76	54	99666	256.87	ug/L	100
29) Vinyl Acetate	2.90	43	380535	51.08	ug/L	100
30) 2-Chloro-1,3-Butadiene	3.05	53	415697	50.66	ug/L	100
31) 2-Butanone	3.17	43	59252	50.08	ug/L	100
32) Methacrylonitrile	3.27	67	63564	50.34	ug/L	100
33) cis-1,2-Dichloroethene	3.26	96	283873	49.12	ug/L	100
34) Bromochloromethane	3.42	128	135377	48.72	ug/L	100
35) Chloroform	3.50	83	441647	48.46	ug/L	100
36) 2,2-Dichloropropane	3.57	77	336977	48.00	ug/L	100

(#) = qualifier out of range (m) = manual integration
M6193.D W113015.M Tue Dec 01 09:17:50 2015 Page 1

DL 12/2/15

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6193.D Vial: 16
Acq On : 30 Nov 2015 4:39 pm Operator: D.Lipani
Sample : STD #6 - 50 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:13 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:10:37 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	Tetrahydrofuran	3.91	42	38824	50.28	ug/L	100
38)	1,1,1-Trichloroethane	4.46	97	358973	48.88	ug/L	100
41)	Iso-Butyl Alcohol	3.73	43	101728	967.13	ug/L	100
43)	1,2-Dichloroethane	4.34	62	241229	45.14	ug/L	100
44)	1,1-Dichloropropene	4.80	75	320966	48.52	ug/L	100
45)	Cyclohexane	4.87	56	387223	48.09	ug/L	100
46)	Carbontetrachloride	5.04	119	316333	48.79	ug/L	100
47)	Benzene	5.15	78	993882	48.96	ug/L	100
48)	Dibromomethane	5.99	93	132036	48.53	ug/L	100
49)	1,2-Diclpropane	6.06	63	243830	47.35	ug/L	100
50)	n-Heptane	6.14	43	226706	51.66	ug/L	100
51)	Trichloroethene	6.13	130	297839	49.53	ug/L	100
52)	Bromodichloromethane	6.19	83	308559	49.25	ug/L	100
53)	2-Nitropropane	6.24	41	53044	96.86	ug/L	100
54)	1,4-Dioxane	6.42	88	28985	963.37	ug/L	100
55)	Methyl Methacrylate	6.60	69	102651	51.22	ug/L	100
56)	Methylcyclohexane	6.72	55	250794	47.92	ug/L	100
57)	2-Chloroethylvinyl Ether	6.87	63	118443	53.11	ug/L	100
58)	cis-1,3-Dichloropropene	7.03	75	371521	50.81	ug/L	100
59)	4-Methyl-2-pentanone	7.24	43	135101	50.57	ug/L	100
60)	trans-1,3-Dichloropropene	7.54	75	295465	47.51	ug/L	100
61)	1,1,2-Trichloroethane	7.65	97	185716	48.45	ug/L	100
63)	Toluene	7.83	91	1015279	47.80	ug/L	100
65)	1,3-Dichloropropane	7.90	76	268894	47.74	ug/L	100
66)	Ethyl Methacrylate	8.08	69	215147	50.92	ug/L	100
67)	Dibromochloromethane	8.09	129	237133	50.62	ug/L	100
68)	2-Hexanone	8.15	43	88551	52.68	ug/L	99
69)	1,2-Dibromoethane	8.31	107	191378	50.99	ug/L	100
70)	n-Butyl Acetate	8.52	43	232171	50.67	ug/L	100
71)	Tetrachloroethene	8.50	164	235060	49.30	ug/L	100
72)	1,1,1,2-Tetrachloroethane	9.05	131	250808	49.83	ug/L	100
73)	Chlorobenzene	9.11	112	690539	49.56	ug/L	100
74)	Ethylbenzene	9.32	106	351395	49.00	ug/L	100
75)	Bromoform	9.50	173	150204	50.68	ug/L	100
76)	(m+p)Xylene	9.51	106	873359	99.92	ug/L	100
77)	o-Xylene	9.82	106	447061	49.52	ug/L	100
78)	Cyclohexanone	9.74	55	105076	1021.01	ug/L	100
79)	Styrene	9.77	104	720516	50.33	ug/L	100
80)	trans-1,4-Dichloro-2-Buten	10.00	75	75003	52.76	ug/L	100
81)	Isopropylbenzene	10.14	105	1087980	49.51	ug/L	100
84)	1,1,2,2-Tetrachloroethane	9.82	83	215590	50.52	ug/L	100
85)	1,2,3-Trichloropropane	9.94	75	140256	48.40	ug/L	100
86)	Bromobenzene	10.27	156	322887	49.97	ug/L	100
87)	n-Propylbenzene	10.50	91	1266348	50.96	ug/L	100
88)	2-Chlorotoluene	10.54	91	748161	49.00	ug/L	100
89)	4-Chlorotoluene	10.61	91	805045	49.95	ug/L	100
90)	1,3,5-Trimethylbenzene	10.76	105	844763	49.91	ug/L	100
91)	tert-Butylbenzene	10.95	119	726753	49.46	ug/L	100
92)	1,2,4-Trimethylbenzene	11.06	105	906959	50.21	ug/L	100
93)	sec-Butylbenzene	11.13	105	1040586	50.21	ug/L	100

(#) = qualifier out of range (m) = manual integration
M6193.D W113015.M Tue Dec 01 09:17:51 2015 Page 2

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6193.D Vial: 16
Acq On : 30 Nov 2015 4:39 pm Operator: D.Lipani
Sample : STD #6 - 50 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:13 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:10:37 2015
Response via : Initial Calibration
DataAcq Meth : W113015

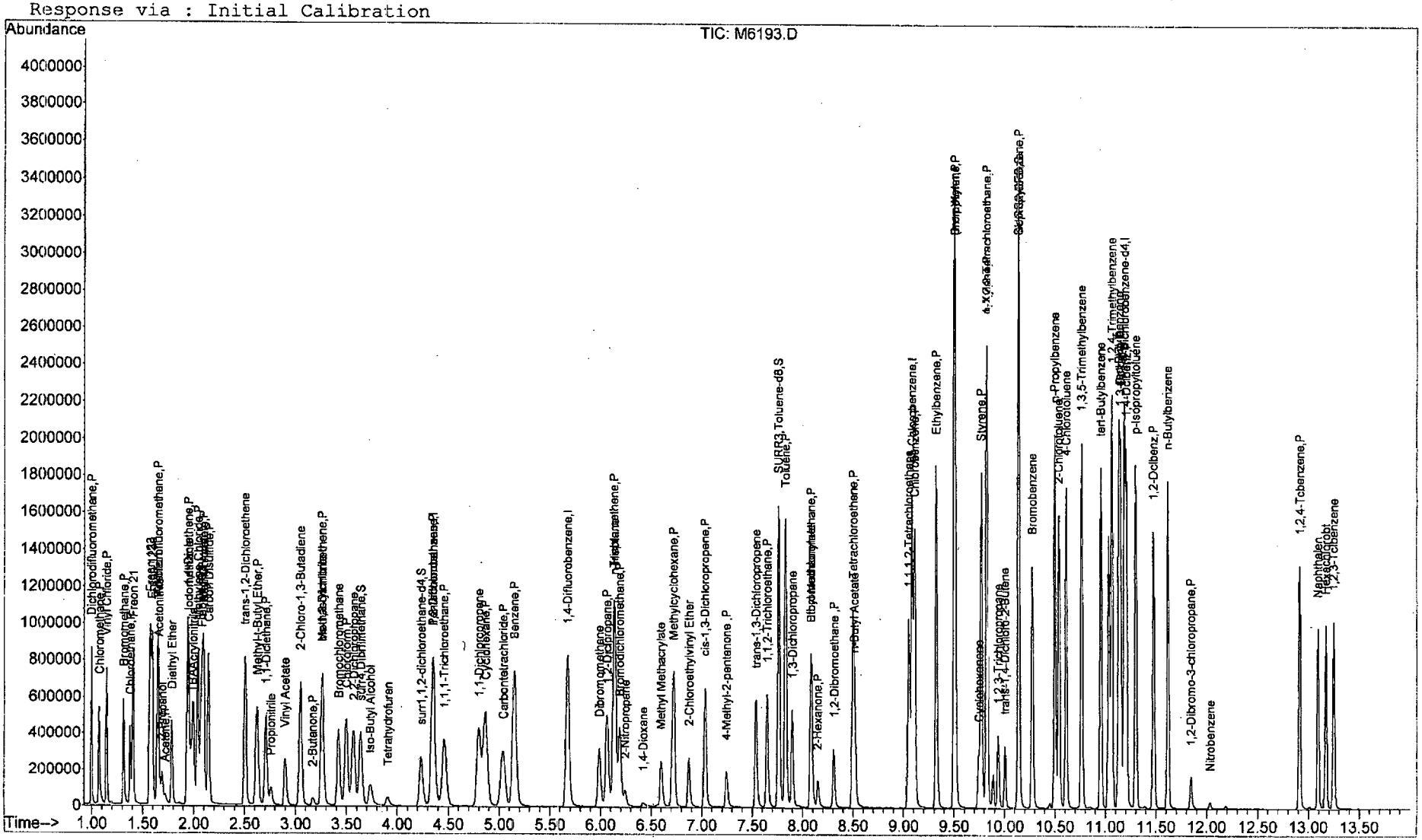
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
94)	1,3-Dclbenz	11.15	146	595539	49.69	ug/L	100
95)	1,4-Dclbenz	11.21	146	598294	49.50	ug/L	100
96)	p-Isopropyltoluene	11.30	119	862023	50.92	ug/L	100
97)	1,2-Dclbenz	11.47	146	556050	49.82	ug/L	100
98)	n-Butylbenzene	11.61	91	788966	52.85	ug/L	100
99)	1,2-Dibromo-3-chloropropan	11.84	75	29564	47.45	ug/L	100
100)	Nitrobenzene	12.03	77	13081	86.30	ug/L	100
101)	1,2,4-Tcbenzene	12.91	180	336419	52.11	ug/L	100
102)	Naphthalen	13.09	128	593480	52.32	ug/L	100
103)	Hexachlorobt	13.17	225	164583	53.30	ug/L	100
104)	1,2,3-Tclbenzene	13.25	180	271626	50.96	ug/L	100

(#) = qualifier out of range (m) = manual integration
M6193.D W113015.M Tue Dec 01 09:17:52 2015 Page 3

Quantitation Report

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6193.D Vial: 16
Acq On : 30 Nov 2015 4:39 pm Operator: D.Lipani
Sample : STD #6 - 50 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 9:13 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 09:14:56 2015
Response via : Initial Calibration



M6193.D W113015.M Tue Dec 01 09:17:56 2015 Page 4

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6194.D Vial: 17
Acq On : 30 Nov 2015 5:14 pm Operator: D.Lipani
Sample : STD #7 - 100 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:20 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:18:35 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	670703	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.67	114	904958	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	789810	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	491522	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	673305	118.62	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery =	237.24%#		
42) surr1,1,2-dichloroethane-d	4.23	65	544069	117.52	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery =	235.04%#		
62) SURR3,Toluene-d8	7.76	98	2212970	117.40	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery =	234.80%#		
82) SURR2,BFB	10.14	95	862474	121.99	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery =	243.98%#		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	699657	96.34	ug/L	98
3) Chloromethane	1.07	50	708373	91.82	ug/L	99
4) Vinyl Chloride	1.14	62	749068	92.47	ug/L	98
5) Bromomethane	1.31	94	475132	98.38	ug/L	100
6) Chloroethane	1.38	64	384715	94.36	ug/L	100
7) Freon 21	1.40	67	948717	93.69	ug/L	99
8) Freon 123	1.57	83	858203	95.39	ug/L	98
9) Freon 123a	1.60	67	676649	97.77	ug/L	99
10) Acrolein	1.65	56	283933	478.74	ug/L	98
11) Trichlorofluoromethane	1.65	101	805831	95.82	ug/L	98
12) Acetonitrile	1.66	41	197947	452.46	ug/L	94
13) 2-Propanol	1.69	45	313272	1911.30	ug/L	99
14) Acetone	1.72	43	77769	96.80	ug/L	95
15) Diethyl Ether	1.79	59	347014	96.38	ug/L	99
16) 1,1-Diclethene	1.94	96	527648	96.08	ug/L	99
17) Iodomethane	1.95	142	872306	106.54	ug/L	98
18) TBA	1.98	59	495332	1870.64	ug/L	99
19) Acrylonitrile	2.00	53	550211	456.69	ug/L	98
20) Methylene Chloride	2.04	84	566300	92.11	ug/L	97
21) Freon 113	2.07	101	526398	96.19	ug/L	99
22) Methyl Acetate	2.09	43	231473	95.29	ug/L	98
23) Allyl Chloride	2.10	76	250496	96.01	ug/L	94
24) Carbon Disulfide	2.14	76	1671668	93.97	ug/L	99
25) trans-1,2-Dichloroethene	2.50	96	583832	96.49	ug/L	97
26) Methyl-t-Butyl Ether	2.62	73	1114124	97.72	ug/L	99
27) 1,1-Diclethane	2.71	63	875549	95.28	ug/L	97
28) Propionitrile	2.76	54	199039	499.26	ug/L	95
29) Vinyl Acetate	2.90	43	772228	99.36	ug/L	99
30) 2-Chloro-1,3-Butadiene	3.05	53	843954	100.77	ug/L	99
31) 2-Butanone	3.17	43	118484	98.12	ug/L	97
32) Methacrylonitrile	3.27	67	127336	98.81	ug/L	89
33) cis-1,2-Dichloroethene	3.26	96	561578	95.21	ug/L	98
34) Bromochloromethane	3.42	128	264436	93.25	ug/L	97
35) Chloroform	3.50	83	870379	93.58	ug/L	100
36) 2,2-Dichloropropane	3.57	77	695359	97.06	ug/L	96

DL 12/2/15

(#) = qualifier out of range (m) = manual integration
M6194.D W113015.M Tue Dec 01 10:21:43 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6194.D Vial: 17
Acq On : 30 Nov 2015 5:14 pm Operator: D.Lipani
Sample : STD #7 - 100 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:20 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:18:35 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	Tetrahydrofuran	3.90	42	76562	97.18	ug/L	97
38)	1,1,1-Trichloroethane	4.46	97	731816	97.64	ug/L	99
41)	Iso-Butyl Alcohol	3.74	43	214805	2039.72	ug/L	86
43)	1,2-Dichloroethane	4.35	62	487599	91.23	ug/L	98
44)	1,1-Dichloropropene	4.80	75	648575	97.92	ug/L	99
45)	Cyclohexane	4.86	56	815177	101.12	ug/L	95
46)	Carbontetrachloride	5.04	119	661925	101.97	ug/L	95
47)	Benzene	5.15	78	1976237	97.24	ug/L	99
48)	Dibromomethane	5.99	93	267247	96.62	ug/L	99
49)	1,2-Diclpropane	6.07	63	489633	94.97	ug/L	99
50)	n-Heptane	6.14	43	437587	98.96	ug/L	97
51)	Trichloroethene	6.13	130	599641	99.61	ug/L	100
52)	Bromodichloromethane	6.19	83	640379	102.08	ug/L	100
53)	2-Nitropropane	6.24	41	111699	199.89	ug/L	98
54)	1,4-Dioxane	6.42	88	55397	1839.02	ug/L	100
55)	Methyl Methacrylate	6.60	69	222341	110.80	ug/L	98
56)	Methylcyclohexane	6.72	55	531845	101.49	ug/L	99
57)	2-Chloroethylvinyl Ether	6.87	63	232055	103.93	ug/L	96
58)	cis-1,3-Dichloropropene	7.03	75	747424	101.56	ug/L	99
59)	4-Methyl-2-pentanone	7.24	43	271443	100.86	ug/L	96
60)	trans-1,3-Dichloropropene	7.54	75	603474m	96.93	ug/L	
61)	1,1,2-Trichloroethane	7.65	97	377572	98.39	ug/L	98
63)	Toluene	7.83	91	2042638	96.06	ug/L	98
65)	1,3-Dichloropropane	7.90	76	560525	99.19	ug/L	99
66)	Ethyl Methacrylate	8.08	69	459775	108.45	ug/L	98
67)	Dibromochloromethane	8.09	129	495002	105.31	ug/L	99
68)	2-Hexanone	8.15	43	187215	105.51	ug/L	99
69)	1,2-Dibromoethane	8.31	107	384919	102.21	ug/L	99
70)	n-Butyl Acetate	8.52	43	487978	105.26	ug/L	98
71)	Tetrachloroethene	8.50	164	484762	101.31	ug/L	99
72)	1,1,1,2-Tetrachloroethane	9.05	131	507847	100.56	ug/L	99
73)	Chlorobenzene	9.11	112	1356955	97.05	ug/L	99
74)	Ethylbenzene	9.32	106	736090	102.30	ug/L	92
75)	Bromoform	9.51	173	326456	109.77	ug/L	98
76)	(m+p)Xylene	9.51	106	1783800	203.38	ug/L	93
77)	o-Xylene	9.83	106	950499	104.97	ug/L	94
78)	Cyclohexanone	9.75	55	206359	1988.93	ug/L	98
79)	Styrene	9.77	104	1421645	98.97	ug/L	98
80)	trans-1,4-Dichloro-2-Buten	10.00	75	159507	109.59	ug/L	99
81)	Isopropylbenzene	10.14	105	2140201	97.05	ug/L	97
84)	1,1,2,2-Tetrachloroethane	9.82	83	440453	97.96	ug/L	99
85)	1,2,3-Trichloropropane	9.94	75	298284	97.35	ug/L	99
86)	Bromobenzene	10.27	156	663524	97.46	ug/L	99
87)	n-Propylbenzene	10.50	91	2470467	94.35	ug/L	98
88)	2-Chlorotoluene	10.54	91	1524626	94.76	ug/L	99
89)	4-Chlorotoluene	10.61	91	1599356	94.19	ug/L	99
90)	1,3,5-Trimethylbenzene	10.76	105	1734043	97.23	ug/L	98
91)	tert-Butylbenzene	10.95	119	1501487	96.98	ug/L	99
92)	1,2,4-Trimethylbenzene	11.06	105	1840945	96.72	ug/L	98
93)	sec-Butylbenzene	11.13	105	2054358	94.07	ug/L	98

(#) = qualifier out of range (m) = manual integration
M6194.D W113015.M Tue Dec 01 10:21:44 2015 Page 2

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6194.D Vial: 17
Acq On : 30 Nov 2015 5:14 pm Operator: D.Lipani
Sample : STD #7 - 100 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:20 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:18:35 2015
Response via : Initial Calibration
DataAcq Meth : W113015

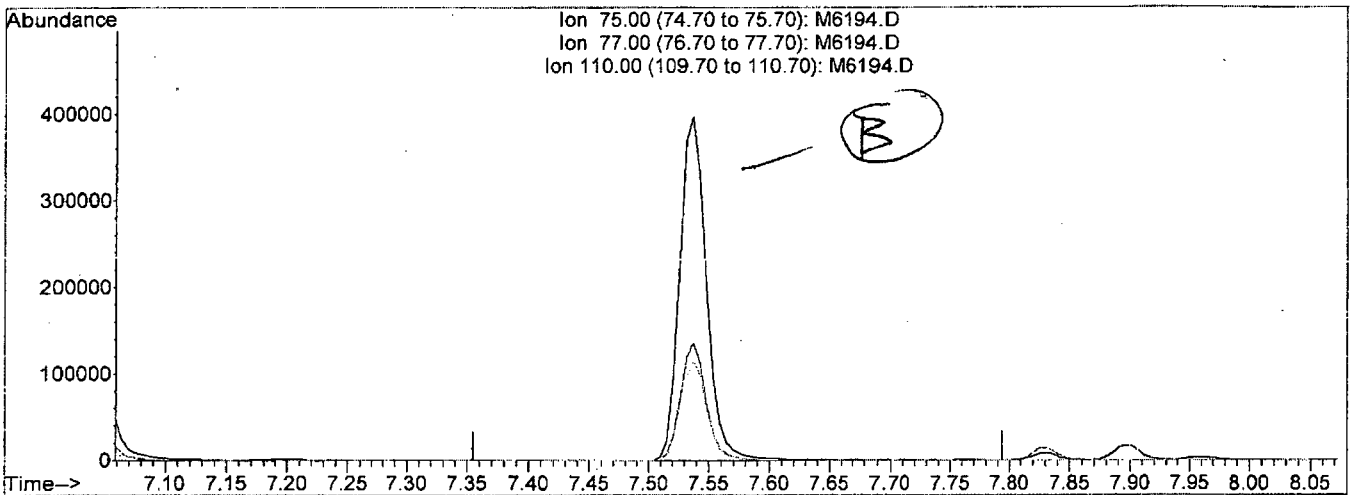
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
94)	1,3-Dclbenz	11.15	146	1206816	95.57	ug/L	100
95)	1,4-Dclbenz	11.21	146	1229636	96.47	ug/L	99
96)	p-Isopropyltoluene	11.30	119	1719157	96.38	ug/L	98
97)	1,2-Dclbenz	11.48	146	1139693	96.91	ug/L	99
98)	n-Butylbenzene	11.62	91	1559408	99.15	ug/L	98
99)	1,2-Dibromo-3-chloropropan	11.84	75	63575	96.85	ug/L	97
100)	Nitrobenzene	12.03	77	32530	203.68	ug/L	95
101)	1,2,4-Tcbenzene	12.91	180	690089	101.45	ug/L	99
102)	Naphthalen	13.09	128	1222324	102.27	ug/L	99
103)	Hexachlorobt	13.17	225	304436	93.58	ug/L	99
104)	1,2,3-Tclbenzene	13.25	180	566657	100.89	ug/L	98

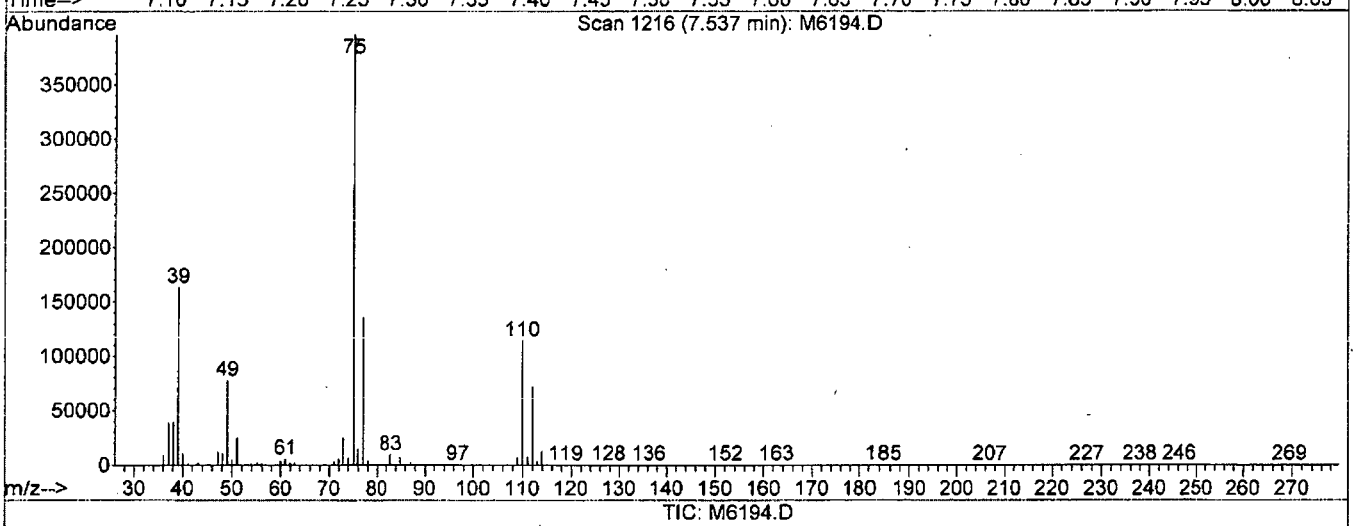
(#) = qualifier out of range (m) = manual integration
M6194.D W113015.M Tue Dec 01 10:21:45 2015 Page 3

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6194.D Vial: 17
Acq On : 30 Nov 2015 5:14 pm Operator: D.Lipani
Sample : STD #7 - 100 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:19 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:18:35 2015
Response via : Multiple Level Calibration





TIC: M6194.D

(60) trans-1,3-Dichloropropene

7.54min 0.00ug/L

response 0

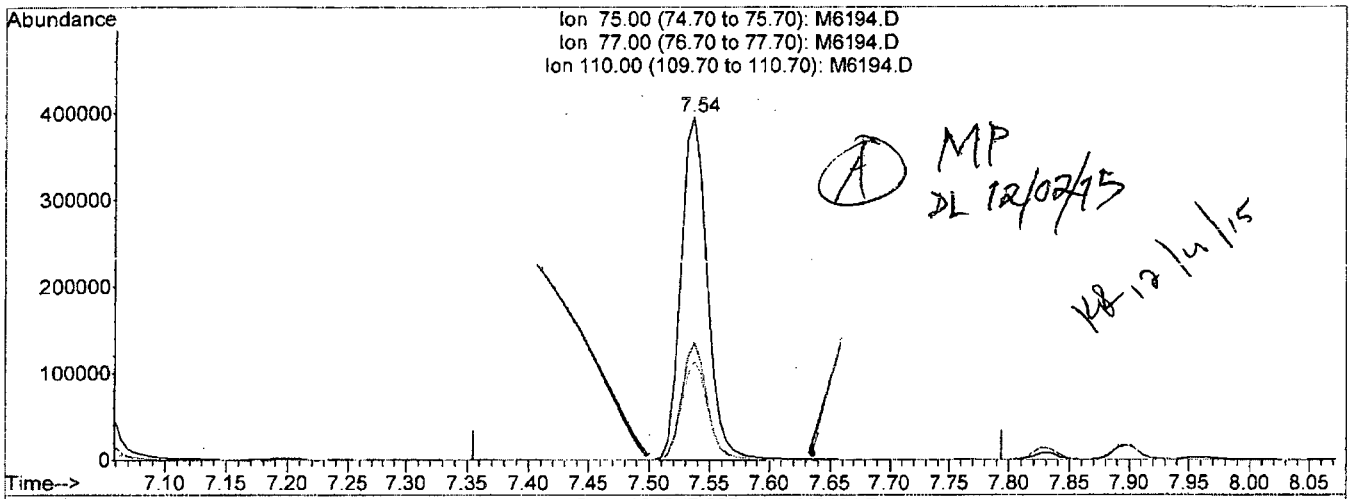
Ion	Exp%	Act%
75.00	100	0.00
77.00	32.50	0.00#
110.00	27.90	0.00#
0.00	0.00	0.00

M6194.D W113015.M Tue Dec 01 10:20:38 2015

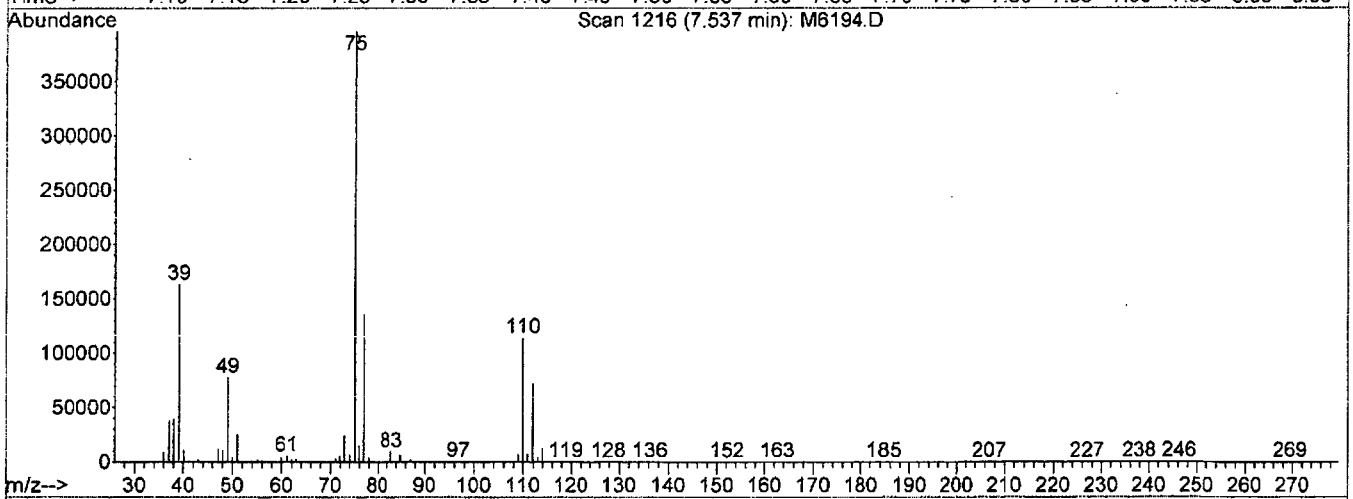
Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6194.D Vial: 17
Acq On : 30 Nov 2015 5:14 pm Operator: D.Lipani
Sample : STD #7 - 100 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:20 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:18:35 2015
Response via : Multiple Level Calibration



MP
DL 12/02/15
KB 12/4/15



TIC: M6194.D

(60) trans-1,3-Dichloropropene

7.54min 96.93ug/L m

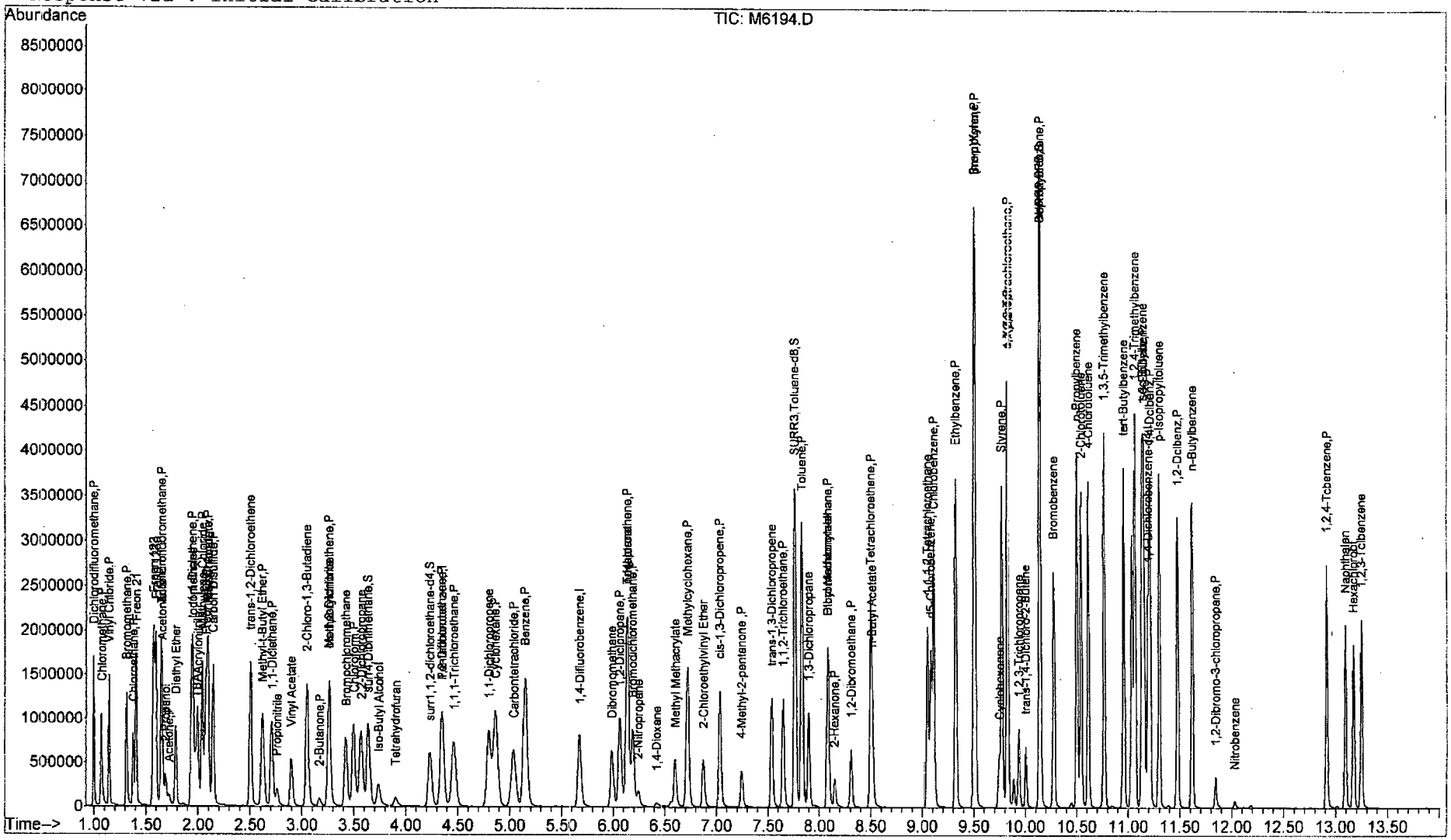
response 603474

Ion	Exp%	Act%
75.00	100	100
77.00	32.50	0.00#
110.00	27.90	0.00#
0.00	0.00	0.00

M6194.D W113015.M Tue Dec 01 10:20:49 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6194.D Vial: 17
Acq On : 30 Nov 2015 5:14 pm Operator: D.Lipani
Sample : STD #7 - 100 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:20 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:18:35 2015
Response via : Initial Calibration



M6194.D W113015.M Tue Dec 01 10:21:50 2015 Page 4

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6195.D Vial: 18
Acq On : 30 Nov 2015 5:49 pm Operator: D.Lipani
Sample : STD #8 - 150 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:23 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:22:03 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	666051	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.68	114	918467	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	808207	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	513575	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrfimethane	3.64	113	827358	143.61	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 287.22%#			
42) surr1,1,2-dichloroethane-d	4.23	65	672248	143.07	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 286.14%#			
62) SURR3,Toluene-d8	7.77	98	2586196	135.18	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 270.36%#			
82) SURR2,BFB	10.14	95	1044463	144.37	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 288.74%#			

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	1026889	142.39	ug/L	95
3) Chloromethane	1.07	50	1100164	143.61	ug/L	99
4) Vinyl Chloride	1.14	62	1122006	139.48	ug/L	96
5) Bromomethane	1.31	94	740980	154.50	ug/L	99
6) Chloroethane	1.38	64	587039	144.99	ug/L	98
7) Freon 21	1.41	67	1395495	138.78	ug/L	97
8) Freon 123	1.57	83	1273342	142.52	ug/L	97
9) Freon 123a	1.59	67	1021278	148.59	ug/L	91
10) Acrolein	1.65	56	429898	729.91	ug/L	100
11) Trichlorofluoromethane	1.65	101	1189110	142.39	ug/L	97
12) Acetonitrile	1.66	41	298922	688.03	ug/L	96
13) 2-Propanol	1.69	45	475493	2921.28	ug/L	100
14) Acetone	1.72	43	123775	155.14	ug/L	88
15) Diethyl Ether	1.79	59	518657	145.06	ug/L	98
16) 1,1-Diclethene	1.94	96	802815	147.21	ug/L	98
17) Iodomethane	1.95	142	1269150	150.45	ug/L	96
18) TBA	1.98	59	759310	2887.58	ug/L	100
19) Acrylonitrile	2.00	53	838201	700.59	ug/L	100
20) Methylene Chloride	2.04	84	855165	140.07	ug/L	99
21) Freon 113	2.07	101	802158	147.60	ug/L	99
22) Methyl Acetate	2.09	43	355279	147.28	ug/L	98
23) Allyl Chloride	2.10	76	373873	144.31	ug/L	93
24) Carbon Disulfide	2.15	76	2448942	138.62	ug/L	97
25) trans-1,2-Dichloroethene	2.50	96	876014	145.79	ug/L	98
26) Methyl-t-Butyl Ether	2.62	73	1652660	145.97	ug/L	100
27) 1,1-Diclethane	2.71	63	1332663	146.03	ug/L	96
28) Propionitrile	2.76	54	300975	760.22	ug/L	97
29) Vinyl Acetate	2.90	43	1180922	153.00	ug/L	99
30) 2-Chloro-1,3-Butadiene	3.05	53	1268790	152.56	ug/L	99
31) 2-Butanone	3.17	43	182861	152.50	ug/L	97
32) Methacrylonitrile	3.27	67	197143	154.05	ug/L	96
33) cis-1,2-Dichloroethene	3.26	96	864718	147.63	ug/L	97
34) Bromochloromethane	3.42	128	394862	140.22	ug/L	95
35) Chloroform	3.50	83	1355879	146.79	ug/L	99
36) 2,2-Dichloropropane	3.57	77	1064266	149.59	ug/L	98

DL 12/2/15

(#) = qualifier out of range (m) = manual integration
M6195.D W113015.M Tue Dec 01 10:24:15 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6195.D Vial: 18
Acq On : 30 Nov 2015 5:49 pm Operator: D.Lipani
Sample : STD #8 - 150 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:23 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:22:03 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37)	Tetrahydrofuran	3.90	42	120328	153.80	ug/L		90
38)	1,1,1-Trichloroethane	4.46	97	1113080	149.54	ug/L		99
41)	Iso-Butyl Alcohol	3.73	43	331829	3104.60	ug/L		85
43)	1,2-Dichloroethane	4.35	62	725237	133.70	ug/L		99
44)	1,1-Dichloropropene	4.80	75	990254	147.31	ug/L		98
45)	Cyclohexane	4.87	56	1261016	154.12	ug/L		100
46)	Carbontetrachloride	5.04	119	993449	150.79	ug/L		97
47)	Benzene	5.15	78	2949743	143.00	ug/L		99
48)	Dibromomethane	5.99	93	410027	146.06	ug/L		99
49)	1,2-Diclpropane	6.07	63	747132	142.78	ug/L		99
50)	n-Heptane	6.14	43	657265	146.45	ug/L		99
51)	Trichloroethene	6.13	130	892065	146.00	ug/L		99
52)	Bromodichloromethane	6.19	83	972299	152.72	ug/L		100
53)	2-Nitropropane	6.25	41	176656	311.49	ug/L		97
54)	1,4-Dioxane	6.42	88	89383	2923.62	ug/L		95
55)	Methyl Methacrylate	6.60	69	325744	159.94	ug/L		100
56)	Methylcyclohexane	6.72	55	814741	153.19	ug/L		99
57)	2-Chloroethylvinyl Ether	6.87	63	354242	156.32	ug/L		93
58)	cis-1,3-Dichloropropene	7.04	75	1134778	151.93	ug/L		99
59)	4-Methyl-2-pentanone	7.24	43	414678	151.81	ug/L		98
60)	trans-1,3-Dichloropropene	7.54	75	896961m	146.36	ug/L		
61)	1,1,2-Trichloroethane	7.65	97	566042	145.34	ug/L		100
63)	Toluene	7.83	91	2881730	133.53	ug/L		96
65)	1,3-Dichloropropane	7.90	76	831098	143.72	ug/L		98
66)	Ethyl Methacrylate	8.08	69	676880	156.03	ug/L		99
67)	Dibromochloromethane	8.09	129	748278	155.58	ug/L		99
68)	2-Hexanone	8.15	43	274867	151.13	ug/L		99
69)	1,2-Dibromoethane	8.31	107	581876	151.00	ug/L		100
70)	n-Butyl Acetate	8.52	43	737228	155.40	ug/L		97
71)	Tetrachloroethene	8.50	164	717925	146.62	ug/L		99
72)	1,1,1,2-Tetrachloroethane	9.05	131	774834	149.94	ug/L		98
73)	Chlorobenzene	9.11	112	2033948	142.16	ug/L		98
74)	Ethylbenzene	9.32	106	1122974	152.52	ug/L	#	86
75)	Bromoform	9.51	173	509208	167.32	ug/L		98
76)	(m+p)Xylene	9.51	106	2661724	296.57	ug/L	#	87
77)	o-Xylene	9.83	106	1386691	149.60	ug/L		91
78)	Cyclohexanone	9.75	55	303719	2857.69	ug/L		98
79)	Styrene	9.77	104	2191951	149.12	ug/L		97
80)	trans-1,4-Dichloro-2-Buten	10.01	75	253487	170.20	ug/L		96
81)	Isopropylbenzene	10.14	105	3054575	135.37	ug/L		95
84)	1,1,2,2-Tetrachloroethane	9.82	83	666946	141.97	ug/L		100
85)	1,2,3-Trichloropropane	9.94	75	449509	140.40	ug/L		99
86)	Bromobenzene	10.27	156	1023877	143.94	ug/L		99
87)	n-Propylbenzene	10.50	91	3549895	129.75	ug/L		94
88)	2-Chlorotoluene	10.54	91	2303494	137.02	ug/L		97
89)	4-Chlorotoluene	10.61	91	2409534	135.81	ug/L		97
90)	1,3,5-Trimethylbenzene	10.76	105	2587318	138.85	ug/L		95
91)	tert-Butylbenzene	10.95	119	2283291	141.15	ug/L		97
92)	1,2,4-Trimethylbenzene	11.06	105	2714244	136.47	ug/L		95
93)	sec-Butylbenzene	11.13	105	3098463	135.79	ug/L		94

(#) = qualifier out of range (m) = manual integration
M6195.D W113015.M Tue Dec 01 10:24:16 2015

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6195.D Vial: 18
Acq On : 30 Nov 2015 5:49 pm Operator: D.Lipani
Sample : STD #8 - 150 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:23 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:22:03 2015
Response via : Initial Calibration
DataAcq Meth : W113015

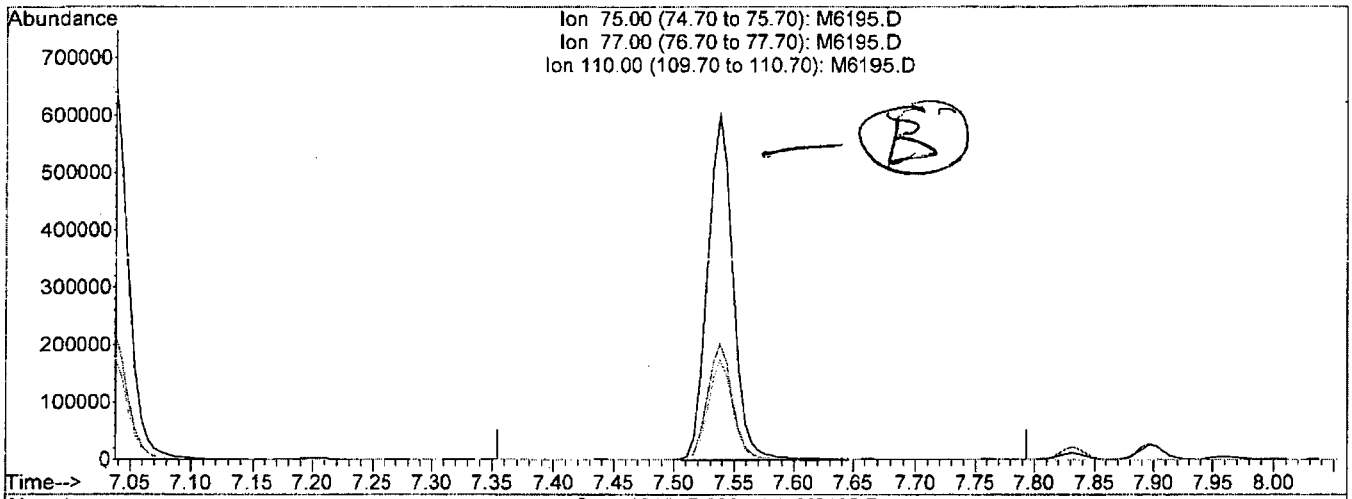
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
94)	1,3-Dclbenz	11.15	146	1875475	142.14	ug/L	98
95)	1,4-Dclbenz	11.21	146	1862589	139.86	ug/L	98
96)	p-Isopropyltoluene	11.30	119	2552061	136.93	ug/L	96
97)	1,2-Dclbenz	11.48	146	1685164	137.15	ug/L	98
98)	n-Butylbenzene	11.62	91	2262821	137.69	ug/L	97
99)	1,2-Dibromo-3-chloropropan	11.84	75	95065	138.60	ug/L	98
100)	Nitrobenzene	12.03	77	53823	322.52	ug/L	81
101)	1,2,4-Tcbenzene	12.91	180	1044472	146.96	ug/L	99
102)	Naphthalen	13.09	128	1812925	145.17	ug/L	98
103)	Hexachlorobt	13.17	225	466249	137.16	ug/L	99
104)	1,2,3-Tclbenzene	13.25	180	847964	144.49	ug/L	97

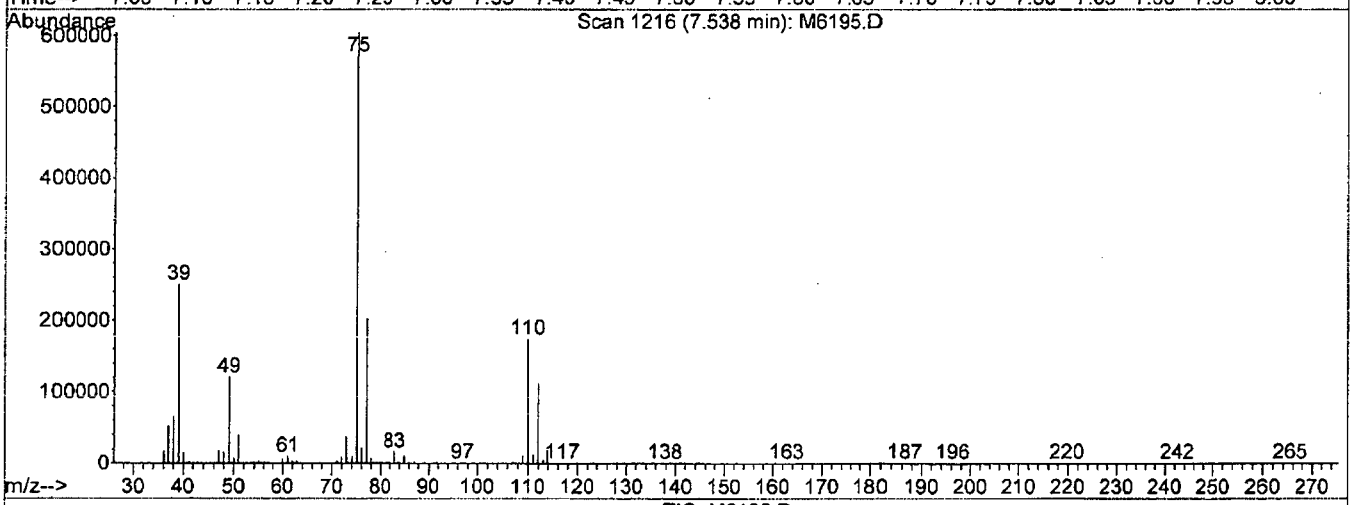
(#) = qualifier out of range (m) = manual integration
M6195.D W113015.M Tue Dec 01 10:24:16 2015 Page 3

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6195.D Vial: 18
Acq On : 30 Nov 2015 5:49 pm Operator: D.Lipani
Sample : STD #8 - 150 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:22 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:22:03 2015
Response via : Multiple Level Calibration





TIC: M6195.D

(60) trans-1,3-Dichloropropene

7.54min 0.00ug/L

response 0

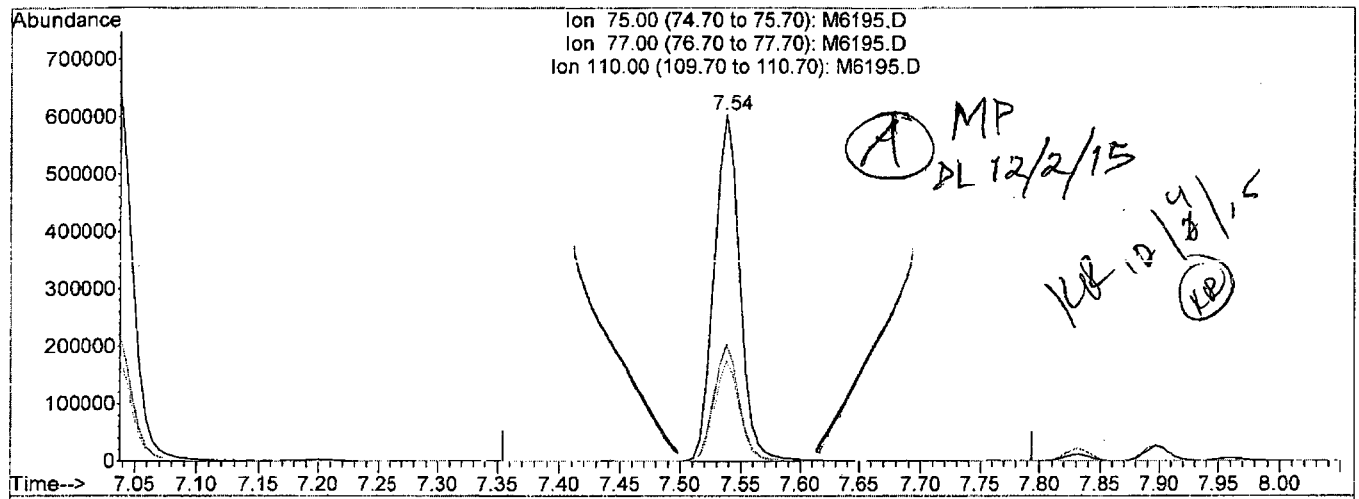
Ion	Exp%	Act%
75.00	100	0.00
77.00	32.50	0.00#
110.00	27.90	0.00#
0.00	0.00	0.00

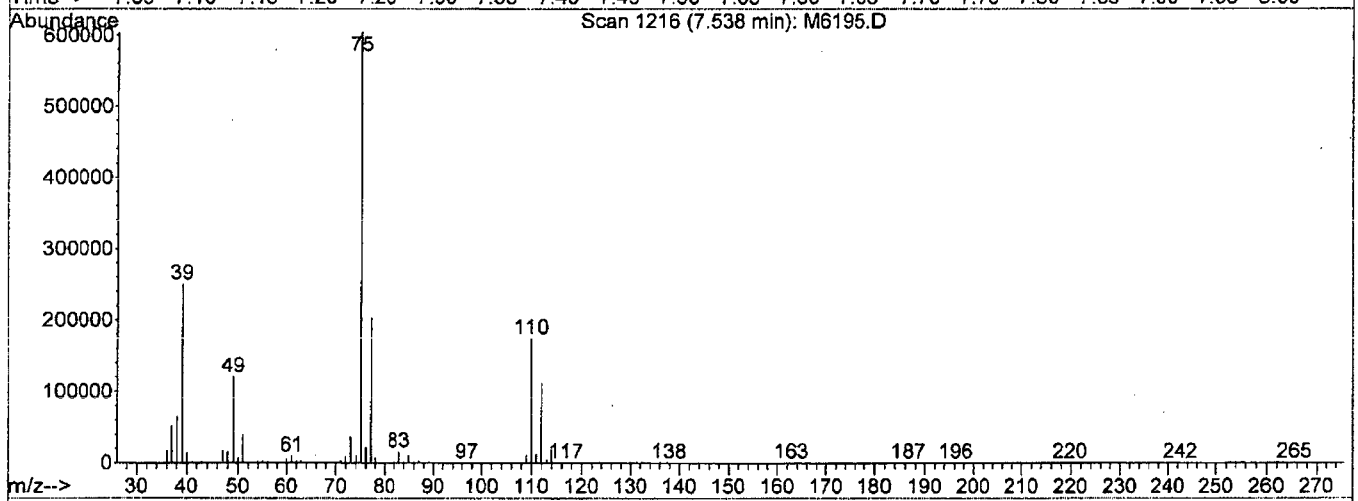
M6195.D W113015.M Tue Dec 01 10:23:27 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6195.D Vial: 18
Acq On : 30 Nov 2015 5:49 pm Operator: D.Lipani
Sample : STD #8 ~ 150 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:23 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:22:03 2015
Response via : Multiple Level Calibration





TIC: M6195.D

(60) trans-1,3-Dichloropropene

7.54min 146.36ug/L m

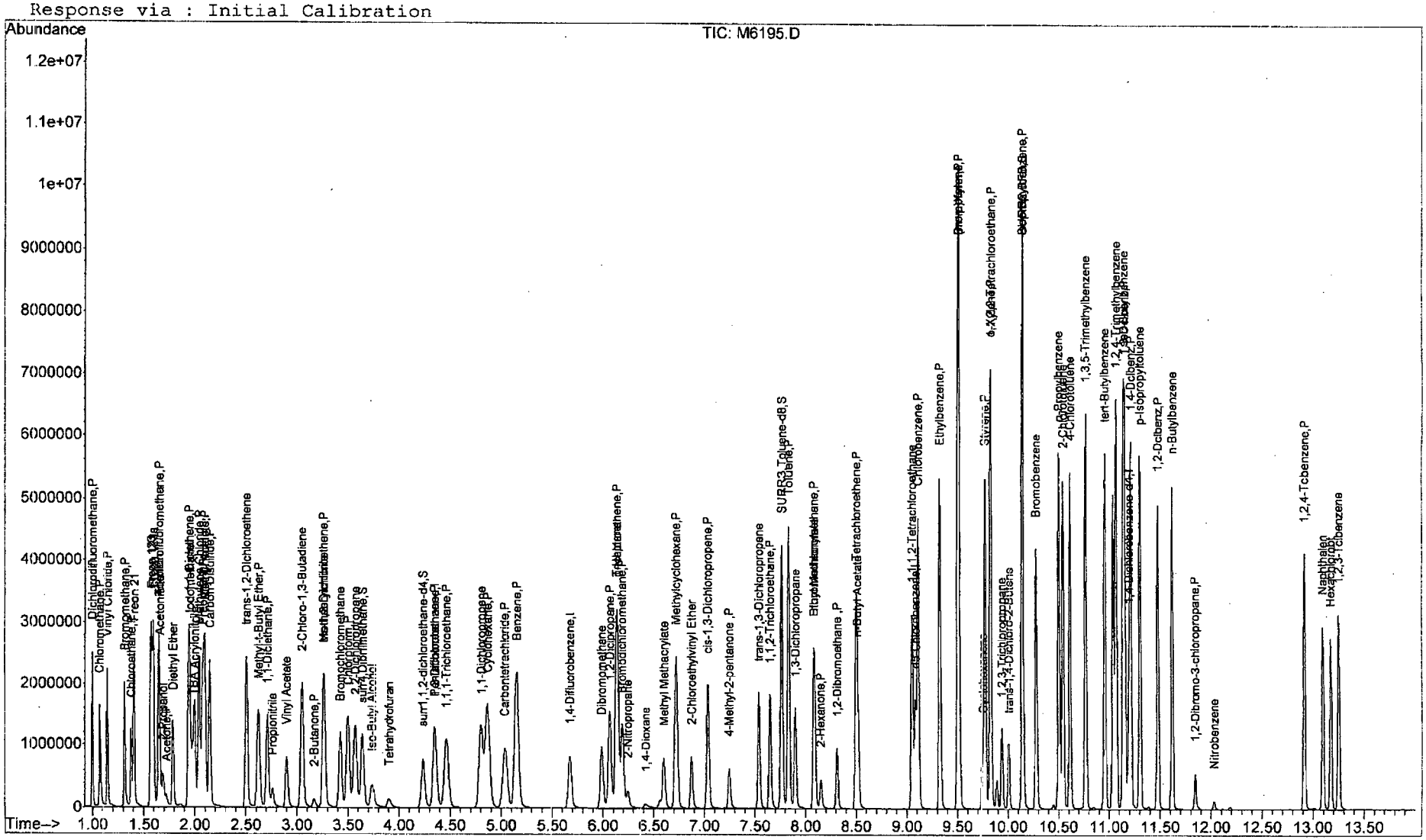
response 896961

Ion	Exp%	Act%
75.00	100	100
77.00	32.50	0.00#
110.00	27.90	0.00#
0.00	0.00	0.00

M6195.D W113015.M Tue Dec 01 10:23:34 2015

```
Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6195.D       Vial: 18
Acq On    : 30 Nov 2015   5:49 pm                    Operator: D.Lipani
Sample    : STD #8 - 150 PPB                         Inst    : MS#6
Misc      : 8260C ICAL GCMS#6                        Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec  1 10:23 2015              Quant Results File: W113015.RES

Method       : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title        : 8260C WATERS
Last Update  : Tue Dec 01 10:22:03 2015
Response via : Initial Calibration
```



M6195.D W113015.M Tue Dec 01 10:24:21 2015 Page 4

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6196.D Vial: 19
Acq On : 30 Nov 2015 6:20 pm Operator: D.Lipani
Sample : STD #9 - 200 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:24 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:24:26 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	671428	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.68	114	913036	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	823686	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	524034	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	301243	52.60	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 105.20%			
42) surr1,1,2-dichloroethane-d	4.24	65	246661	52.81	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 105.62%			
62) SURR3,Toluene-d8	7.77	98	1041341	54.75	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 109.50%			
82) SURR2,BFB	10.14	95	420587	57.04	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 114.08%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	1277889	175.77	ug/L	94
3) Chloromethane	1.07	50	1440348	186.50	ug/L	98
4) Vinyl Chloride	1.14	62	1430500	176.40	ug/L	94
5) Bromomethane	1.31	94	967789	200.17	ug/L	97
6) Chloroethane	1.38	64	769840	188.62	ug/L	97
7) Freon 21	1.41	67	1760358	173.66	ug/L	95
8) Freon 123	1.57	83	1603103	178.00	ug/L	96
9) Freon 123a	1.60	67	1272938	183.72	ug/L	99
10) Acrolein	1.65	56	573857	966.54	ug/L	99
11) Trichlorofluoromethane	1.65	101	1522004	180.79	ug/L	95
12) Acetonitrile	1.66	41	396263	904.78	ug/L	94
13) 2-Propanol	1.69	45	617217	3761.62	ug/L	98
14) Acetone	1.72	43	170907	212.49	ug/L	94
15) Diethyl Ether	1.79	59	718997	199.48	ug/L	97
16) 1,1-Diclethene	1.94	96	1042582	189.64	ug/L	92
17) Iodomethane	1.96	142	1646873	187.93	ug/L	95
18) TBA	1.98	59	1038845	3918.99	ug/L	99
19) Acrylonitrile	2.00	53	1148332	952.12	ug/L	99
20) Methylene Chloride	2.04	84	1129907	183.58	ug/L	97
21) Freon 113	2.07	101	1060400	193.55	ug/L	99
22) Methyl Acetate	2.10	43	483319	198.75	ug/L	97
23) Allyl Chloride	2.10	76	478270	183.12	ug/L	93
24) Carbon Disulfide	2.15	76	3116020	174.97	ug/L	96
25) trans-1,2-Dichloroethene	2.50	96	1164769	192.29	ug/L	96
26) Methyl-t-Butyl Ether	2.62	73	2295890	201.16	ug/L	99
27) 1,1-Diclethane	2.71	63	1692088	183.94	ug/L	98
28) Propionitrile	2.76	54	401843	1006.87	ug/L	96
29) Vinyl Acetate	2.90	43	1625179	208.88	ug/L	99
30) 2-Chloro-1,3-Butadiene	3.05	53	1707134	203.62	ug/L	100
31) 2-Butanone	3.17	43	263742	218.19	ug/L	98
32) Methacrylonitrile	3.27	67	279998	217.04	ug/L	97
33) cis-1,2-Dichloroethene	3.26	96	1170942	198.32	ug/L	100
34) Bromochloromethane	3.42	128	512181	180.43	ug/L	96
35) Chloroform	3.50	83	1757106	188.71	ug/L	99
36) 2,2-Dichloropropane	3.57	77	1422465	198.33	ug/L	97

(#) = qualifier out of range (m) = manual integration
M6196.D W113015.M Tue Dec 01 10:27:11 2015

DL 12/2/15

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6196.D Vial: 19
Acq On : 30 Nov 2015 6:20 pm Operator: D.Lipani
Sample : STD #9 - 200 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:24 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:24:26 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
37)	Tetrahydrofuran	3.90	42	170372	216.02	ug/L		99
38)	1,1,1-Trichloroethane	4.46	97	1474995	196.58	ug/L		100
41)	Iso-Butyl Alcohol	3.74	43	456699	4298.31	ug/L		88
43)	1,2-Dichloroethane	4.35	62	970626	180.00	ug/L		98
44)	1,1-Dichloropropene	4.81	75	1308363	195.79	ug/L		97
45)	Cyclohexane	4.87	56	1591287	195.64	ug/L		98
46)	Carbontetrachloride	5.04	119	1351282	206.32	ug/L		96
47)	Benzene	5.15	78	3834708	187.01	ug/L		99
48)	Dibromomethane	5.99	93	543879	194.89	ug/L		99
49)	1,2-Diclpropane	6.07	63	1008028	193.78	ug/L		99
50)	n-Heptane	6.14	43	852571	191.10	ug/L		99
51)	Trichloroethene	6.13	130	1191708	196.21	ug/L		100
52)	Bromodichloromethane	6.19	83	1258616	198.86	ug/L		100
53)	2-Nitropropane	6.25	41	246832	437.81	ug/L		98
54)	1,4-Dioxane	6.42	88	107343	3531.95	ug/L		93
55)	Methyl Methacrylate	6.60	69	446076	220.33	ug/L		99
56)	Methylcyclohexane	6.72	55	1007939	190.64	ug/L		98
57)	2-Chloroethylvinyl Ether	6.87	63	477234	211.85	ug/L		98
58)	cis-1,3-Dichloropropene	7.04	75	1522205	205.01	ug/L		98
59)	4-Methyl-2-pentanone	7.24	43	578920	213.20	ug/L		97
60)	trans-1,3-Dichloropropene	7.54	75	1210817	198.78	ug/L		99
61)	1,1,2-Trichloroethane	7.65	97	775811	200.38	ug/L		99
63)	Toluene	7.83	91	3736422	174.16	ug/L		94
65)	1,3-Dichloropropane	7.90	76	1143488	194.02	ug/L		98
66)	Ethyl Methacrylate	8.08	69	923559	208.89	ug/L		98
67)	Dibromochloromethane	8.09	129	1012354	206.52	ug/L		99
68)	2-Hexanone	8.15	43	391770	211.23	ug/L		98
69)	1,2-Dibromoethane	8.31	107	793243	201.98	ug/L		99
70)	n-Butyl Acetate	8.52	43	1012197	209.36	ug/L		98
71)	Tetrachloroethene	8.50	164	971771	194.73	ug/L		99
72)	1,1,1,2-Tetrachloroethane	9.06	131	1043174	198.07	ug/L		98
73)	Chlorobenzene	9.11	112	2608130	178.87	ug/L		96
74)	Ethylbenzene	9.33	106	1507046	200.83	ug/L	#	79
75)	Bromoform	9.51	173	724427	233.57	ug/L		98
76)	(m+p)Xylene	9.51	106	3504234	383.10	ug/L	#	80
77)	o-Xylene	9.83	106	1914371	202.62	ug/L	#	87
78)	Cyclohexanone	9.75	55	427346	3941.99	ug/L		98
79)	Styrene	9.77	104	2871278	191.67	ug/L		95
80)	trans-1,4-Dichloro-2-Buten	10.01	75	369247	243.26	ug/L		96
81)	Isopropylbenzene	10.14	105	3962423	172.30	ug/L		91
84)	1,1,2,2-Tetrachloroethane	9.82	83	934806	195.02	ug/L		100
85)	1,2,3-Trichloropropane	9.94	75	633115	193.80	ug/L		99
86)	Bromobenzene	10.28	156	1357528	187.03	ug/L		98
87)	n-Propylbenzene	10.50	91	4502437	161.29	ug/L		90
88)	2-Chlorotoluene	10.54	91	2801511	163.32	ug/L		92
89)	4-Chlorotoluene	10.61	91	3044674	168.18	ug/L		94
90)	1,3,5-Trimethylbenzene	10.77	105	3300220	173.57	ug/L		93
91)	tert-Butylbenzene	10.96	119	2878607	174.39	ug/L		95
92)	1,2,4-Trimethylbenzene	11.07	105	3435378	169.28	ug/L		92
93)	sec-Butylbenzene	11.13	105	3864512	165.98	ug/L		92

(#) = qualifier out of range (m) = manual integration
M6196.D W113015.M Tue Dec 01 10:27:12 2015 Page 2

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6196.D Vial: 19
Acq On : 30 Nov 2015 6:20 pm Operator: D.Lipani
Sample : STD #9 - 200 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:24 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:24:26 2015
Response via : Initial Calibration
DataAcq Meth : W113015

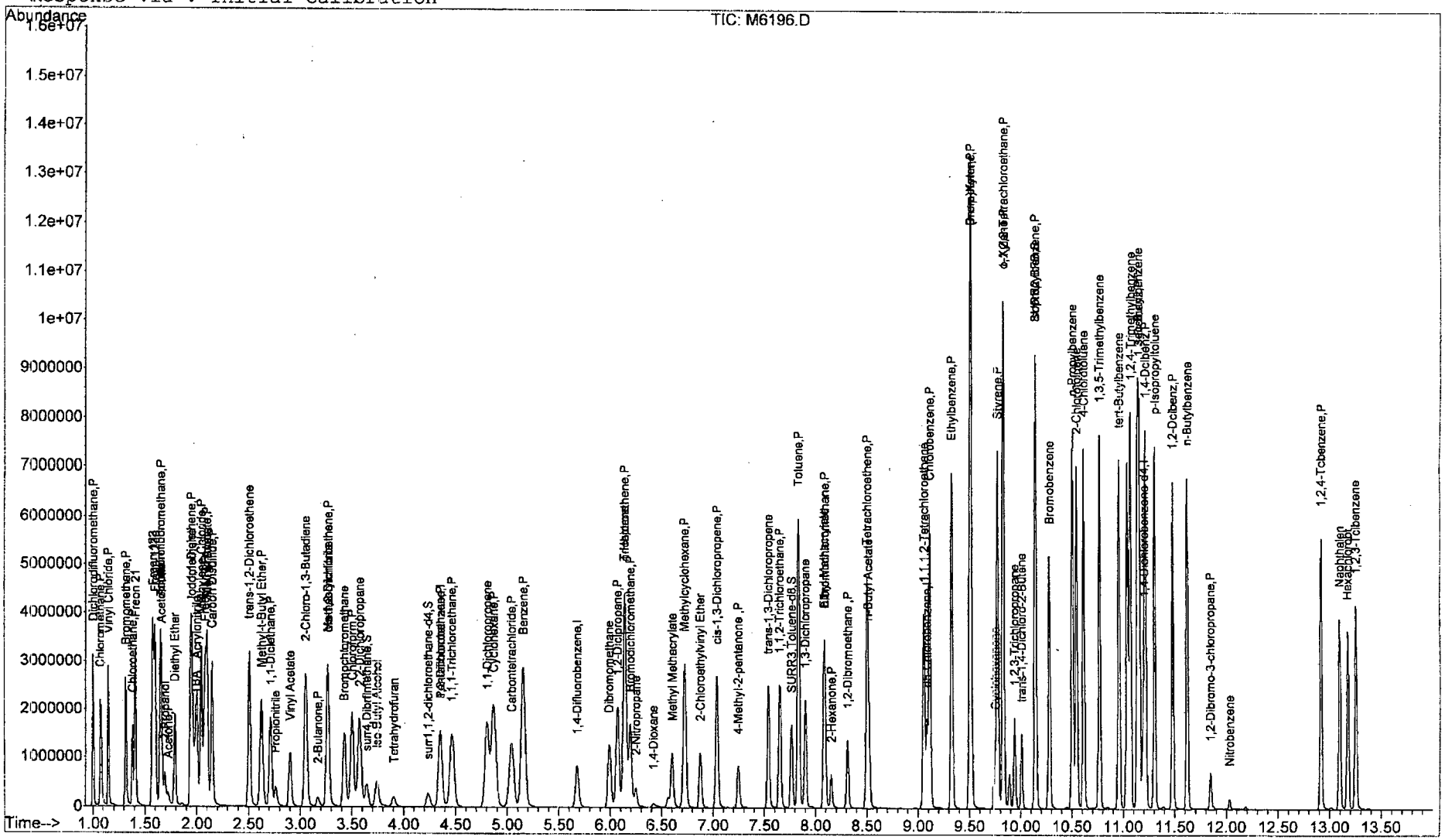
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
94)	1,3-Dclbenz	11.15	146	2417305	179.55	ug/L	96
95)	1,4-Dclbenz	11.21	146	2410154	177.36	ug/L	95
96)	p-Isopropyltoluene	11.30	119	3254458	171.13	ug/L	93
97)	1,2-Dclbenz	11.48	146	2257597	180.07	ug/L	96
98)	n-Butylbenzene	11.62	91	2886591	172.14	ug/L	94
99)	1,2-Dibromo-3-chloropropan	11.84	75	134989	192.88	ug/L	98
100)	Nitrobenzene	12.03	77	76208	447.55	ug/L	84
101)	1,2,4-Tcbenzene	12.91	180	1396394	192.55	ug/L	99
102)	Naphthalen	13.09	128	2412561	189.34	ug/L	98
103)	Hexachlorobt	13.18	225	618499	178.32	ug/L	99
104)	1,2,3-Tclbenzene	13.25	180	1163424	194.29	ug/L	97

(#) = qualifier out of range (m) = manual integration
M6196.D W113015.M Tue Dec 01 10:27:13 2015 Page 3

Quantitation Report

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6196.D Vial: 19
Acq On : 30 Nov 2015 6:20 pm Operator: D.Lipani
Sample : STD #9 - 200 PPB Inst : MS#6
Misc : 8260C ICAL GCMS#6 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 10:24 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:24:26 2015
Response via : Initial Calibration



M6196.D W113015.M Tue Dec 01 10:27:17 2015 Page 4

Initial Calibration Verification Summary Report

DL 12/2/15

Calibration ID: RC1500131 **Instrument ID:** R-MS-06
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
1,1,1,2-Tetrachloroethane	RC1500131-13	T	Average RF	50	49.94	ppm	-0.1	<=20
1,1,1,2-Tetrachloroethane	RC1500131-13	T	Average RF	50	49.94	ppm	-0.1	<=30
1,1,1-Trichloroethane (TCA)	RC1500131-13	T	Average RF	50	49.18	ppm	-1.6	<=30
1,1,1-Trichloroethane (TCA)	RC1500131-13	T	Average RF	50	49.18	ppm	-1.6	<=20
1,1,2,2-Tetrachloroethane	RC1500131-13	T	Average RF	50	48.93	ppm	-2.1	<=20
1,1,2,2-Tetrachloroethane	RC1500131-13	T	Average RF	50	48.93	ppm	-2.1	<=30
1,1,2-Trichloroethane	RC1500131-13	T	Average RF	50	49.91	ppm	-0.2	<=20
1,1,2-Trichloroethane	RC1500131-13	T	Average RF	50	49.91	ppm	-0.2	<=30
1,1,2-Trichlorotrifluoroethane	RC1500131-13	T	Average RF	50	49.46	ppm	-1.1	<=20
1,1,2-Trichlorotrifluoroethane	RC1500131-13	T	Average RF	50	49.46	ppm	-1.1	<=30
1,1-Dichloroethane (1,1-DCA)	RC1500131-13	T	Average RF	50	51.17	ppm	2.3	<=30
1,1-Dichloroethane (1,1-DCA)	RC1500131-13	T	Average RF	50	51.17	ppm	2.3	<=20
1,1-Dichloroethene (1,1-DCE)	RC1500131-13	T	Average RF	50	49.41	ppm	-1.2	<=20
1,1-Dichloroethene (1,1-DCE)	RC1500131-13	T	Average RF	50	49.41	ppm	-1.2	<=30
1,1-Dichloropropene	RC1500131-13	T	Average RF	50	51.94	ppm	3.9	<=20
1,1-Dichloropropene	RC1500131-13	T	Average RF	50	51.94	ppm	3.9	<=30
1,2,3-Trichlorobenzene	RC1500131-13	T	Average RF	50	47.04	ppm	-5.9	<=30
1,2,3-Trichlorobenzene	RC1500131-13	T	Average RF	50	47.04	ppm	-5.9	<=20
1,2,3-Trichloropropane	RC1500131-13	T	Average RF	50	49.17	ppm	-1.7	<=30
1,2,3-Trichloropropane	RC1500131-13	T	Average RF	50	49.17	ppm	-1.7	<=20
1,2,4-Trichlorobenzene	RC1500131-13	T	Average RF	50	49.94	ppm	-0.1	<=20
1,2,4-Trichlorobenzene	RC1500131-13	T	Average RF	50	49.94	ppm	-0.1	<=30
1,2,4-Trimethylbenzene	RC1500131-13	T	Average RF	50	49.29	ppm	-1.4	<=30
1,2,4-Trimethylbenzene	RC1500131-13	T	Average RF	50	49.29	ppm	-1.4	<=20
1,2-Dibromo-3-chloropropane (DBCP)	RC1500131-13	T	Average RF	50	46.48	ppm	-7.0	<=30
1,2-Dibromo-3-chloropropane (DBCP)	RC1500131-13	T	Average RF	50	46.48	ppm	-7.0	<=20
1,2-Dibromoethane	RC1500131-13	T	Average RF	50	50.36	ppm	0.7	<=20
1,2-Dibromoethane	RC1500131-13	T	Average RF	50	50.36	ppm	0.7	<=30
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	RC1500131-13	T	Average RF	50	50.37	ppm	0.7	<=20
1,2-Dichloro-1,1,2-trifluoroethane (CFC 123	RC1500131-13	T	Average RF	50	50.37	ppm	0.7	<=30
1,2-Dichlorobenzene	RC1500131-13	T	Average RF	50	47.63	ppm	-4.7	<=20
1,2-Dichlorobenzene	RC1500131-13	T	Average RF	50	47.63	ppm	-4.7	<=30
1,2-Dichloroethane	RC1500131-13	T	Average RF	50	46.78	ppm	-6.4	<=20
1,2-Dichloroethane	RC1500131-13	T	Average RF	50	46.78	ppm	-6.4	<=30
1,2-Dichloropropane	RC1500131-13	T	Average RF	50	49.96	ppm	-0.1	<=30
1,2-Dichloropropane	RC1500131-13	T	Average RF	50	49.96	ppm	-0.1	<=20
1,3,5-Trimethylbenzene	RC1500131-13	T	Average RF	50	50.82	ppm	1.6	<=30
1,3,5-Trimethylbenzene	RC1500131-13	T	Average RF	50	50.82	ppm	1.6	<=20
1,3-Dichlorobenzene	RC1500131-13	T	Average RF	50	49.44	ppm	-1.1	<=20
1,3-Dichlorobenzene	RC1500131-13	T	Average RF	50	49.44	ppm	-1.1	<=30
1,3-Dichloropropane	RC1500131-13	T	Average RF	50	51.39	ppm	2.8	<=20
1,3-Dichloropropane	RC1500131-13	T	Average RF	50	51.39	ppm	2.8	<=30
1,4-Dichlorobenzene	RC1500131-13	T	Average RF	50	49.38	ppm	-1.2	<=30
1,4-Dichlorobenzene	RC1500131-13	T	Average RF	50	49.38	ppm	-1.2	<=20
1,4-Dioxane	RC1500131-11	T	Average RF	1000	820.7	ppm	-17.9	<=20
1,4-Dioxane	RC1500131-11	T	Average RF	1000	820.7	ppm	-17.9	<=30
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	RC1500131-13	T	Average RF	50	47.69	ppm	-4.6	<=20
2,2-Dichloro-1,1,1-trifluoroethane (CFC 123	RC1500131-13	T	Average RF	50	47.69	ppm	-4.6	<=30
2,2-Dichloropropane	RC1500131-13	T	Average RF	50	46.74	ppm	-6.5	<=20
2,2-Dichloropropane	RC1500131-13	T	Average RF	50	46.74	ppm	-6.5	<=30
2-Butanone (MEK)	RC1500131-13	T	Average RF	50	47.84	ppm	-4.3	<=30

Initial Calibration Verification Summary Report

Calibration ID:	RC1500131	**Instrument ID:**	R-MS-06
		Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
2-Butanone (MEK)	RC1500131-13	T	Average RF	50	47.84	ppm	-4.3	<=20
2-Chloro-1,3-butadiene	RC1500131-13	T	Average RF	50	43.59	ppm	-12.8	<=30
2-Chloro-1,3-butadiene	RC1500131-13	T	Average RF	50	43.59	ppm	-12.8	<=20
2-Chloroethyl Vinyl Ether	RC1500131-13	T	Average RF	50	52.13	ppm	4.3	<=20
2-Chloroethyl Vinyl Ether	RC1500131-13	T	Average RF	50	52.13	ppm	4.3	<=30
2-Chlorotoluene	RC1500131-13	T	Average RF	50	48.50	ppm	-3.0	<=30
2-Chlorotoluene	RC1500131-13	T	Average RF	50	48.50	ppm	-3.0	<=20
2-Hexanone	RC1500131-13	T	Average RF	50	49.38	ppm	-1.2	<=20
2-Hexanone	RC1500131-13	T	Average RF	50	49.38	ppm	-1.2	<=30
2-Methyl-1-propanol	RC1500131-13	T	Average RF	1000	874.5	ppm	-12.5	<=30
2-Methyl-1-propanol	RC1500131-13	T	Average RF	1000	874.5	ppm	-12.5	<=20
2-Methyl-2-propanol	RC1500131-13	T	Average RF	1000	813.7	ppm	-18.6	<=20
2-Methyl-2-propanol	RC1500131-13	T	Average RF	1000	813.7	ppm	-18.6	<=30
2-Nitropropane	RC1500131-13	T	Average RF	100	93.56	ppm	-6.4	<=20
2-Nitropropane	RC1500131-13	T	Average RF	100	93.56	ppm	-6.4	<=30
2-Propanol	RC1500131-13	T	Average RF	1000	762.6	ppm	-23.7	<=30
2-Propanol	RC1500131-13	T	Average RF	1000	762.6	ppm	-23.7	<=20
3-Chloro-1-propene	RC1500131-13	T	Average RF	50	55.46	ppm	10.9	<=30
3-Chloro-1-propene	RC1500131-13	T	Average RF	50	55.46	ppm	10.9	<=20
4-Chlorotoluene	RC1500131-13	T	Average RF	50	48.60	ppm	-2.8	<=30
4-Chlorotoluene	RC1500131-13	T	Average RF	50	48.60	ppm	-2.8	<=20
4-Isopropyltoluene	RC1500131-13	T	Average RF	50	48.73	ppm	-2.5	<=30
4-Isopropyltoluene	RC1500131-13	T	Average RF	50	48.73	ppm	-2.5	<=20
4-Methyl-2-pentanone	RC1500131-13	T	Average RF	50	49.46	ppm	-1.1	<=30
4-Methyl-2-pentanone	RC1500131-13	T	Average RF	50	49.46	ppm	-1.1	<=20
Acetone	RC1500131-13	T	Average RF	50	47.19	ppm	-5.6	<=20
Acetone	RC1500131-13	T	Average RF	50	47.19	ppm	-5.6	<=30
Acetonitrile	RC1500131-13	T	Average RF	250	214.9	ppm	-14.0	<=20
Acetonitrile	RC1500131-13	T	Average RF	250	214.9	ppm	-14.0	<=30
Acrolein	RC1500131-13	T	Average RF	100	73.77	ppm	-26.2	<=20
Acrolein	RC1500131-13	T	Average RF	100	73.77	ppm	-26.2	<=30
Acrylonitrile	RC1500131-13	T	Average RF	250	226.4	ppm	-9.4	<=20
Acrylonitrile	RC1500131-13	T	Average RF	250	226.4	ppm	-9.4	<=30
Benzene	RC1500131-13	T	Average RF	50	49.51	ppm	-1.0	<=30
Benzene	RC1500131-13	T	Average RF	50	49.51	ppm	-1.0	<=20
Bromobenzene	RC1500131-13	T	Average RF	50	49.22	ppm	-1.6	<=30
Bromobenzene	RC1500131-13	T	Average RF	50	49.22	ppm	-1.6	<=20
Bromochloromethane	RC1500131-13	T	Average RF	50	49.37	ppm	-1.3	<=30
Bromochloromethane	RC1500131-13	T	Average RF	50	49.37	ppm	-1.3	<=20
Bromodichloromethane	RC1500131-13	T	Average RF	50	51.39	ppm	2.8	<=20
Bromodichloromethane	RC1500131-13	T	Average RF	50	51.39	ppm	2.8	<=30
Bromoform	RC1500131-13	T	Average RF	50	53.23	ppm	6.5	<=30
Bromoform	RC1500131-13	T	Average RF	50	53.23	ppm	6.5	<=20
Bromomethane	RC1500131-13	T	Average RF	50	45.59	ppm	-8.8	<=30
Bromomethane	RC1500131-13	T	Average RF	50	45.59	ppm	-8.8	<=20
Carbon Disulfide	RC1500131-13	T	Average RF	50	44.20	ppm	-11.6	<=20
Carbon Disulfide	RC1500131-13	T	Average RF	50	44.20	ppm	-11.6	<=30
Carbon Tetrachloride	RC1500131-13	T	Average RF	50	49.27	ppm	-1.5	<=20
Carbon Tetrachloride	RC1500131-13	T	Average RF	50	49.27	ppm	-1.5	<=30
Chlorobenzene	RC1500131-13	T	Average RF	50	49.76	ppm	-0.5	<=30
Chlorobenzene	RC1500131-13	T	Average RF	50	49.76	ppm	-0.5	<=20

Initial Calibration Verification Summary Report

Calibration ID:	RC1500131	**Instrument ID:**	R-MS-06
		Column Name:	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Chloroethane	RC1500131-13	T	Average RF	50	48.82	ppm	-2.4	<=20
Chloroethane	RC1500131-13	T	Average RF	50	48.82	ppm	-2.4	<=30
Chloroform	RC1500131-13	T	Average RF	50	47.20	ppm	-5.6	<=20
Chloroform	RC1500131-13	T	Average RF	50	47.20	ppm	-5.6	<=30
Chloromethane	RC1500131-13	T	Average RF	50	47.21	ppm	-5.6	<=20
Chloromethane	RC1500131-13	T	Average RF	50	47.21	ppm	-5.6	<=30
Cyclohexane	RC1500131-13	T	Average RF	50	48.41	ppm	-3.2	<=30
Cyclohexane	RC1500131-13	T	Average RF	50	48.41	ppm	-3.2	<=20
Cyclohexanone	RC1500131-13	T	Average RF	1000	934.8	ppm	-6.5	<=20
Cyclohexanone	RC1500131-13	T	Average RF	1000	934.8	ppm	-6.5	<=30
Dibromochloromethane	RC1500131-13	T	Average RF	50	52.79	ppm	5.6	<=20
Dibromochloromethane	RC1500131-13	T	Average RF	50	52.79	ppm	5.6	<=30
Dibromomethane	RC1500131-13	T	Average RF	50	48.57	ppm	-2.9	<=20
Dibromomethane	RC1500131-13	T	Average RF	50	48.57	ppm	-2.9	<=30
Dichlorodifluoromethane (CFC 12)	RC1500131-13	T	Average RF	50	53.63	ppm	7.3	<=20
Dichlorodifluoromethane (CFC 12)	RC1500131-13	T	Average RF	50	53.63	ppm	7.3	<=30
Dichlorofluoromethane (CFC 21)	RC1500131-13	T	Average RF	50	52.19	ppm	4.4	<=20
Dichlorofluoromethane (CFC 21)	RC1500131-13	T	Average RF	50	52.19	ppm	4.4	<=30
Dichloromethane	RC1500131-13	T	Average RF	50	45.66	ppm	-8.7	<=30
Dichloromethane	RC1500131-13	T	Average RF	50	45.66	ppm	-8.7	<=20
Diethyl Ether	RC1500131-13	T	Average RF	50	47.95	ppm	-4.1	<=30
Diethyl Ether	RC1500131-13	T	Average RF	50	47.95	ppm	-4.1	<=20
Ethyl Methacrylate	RC1500131-13	T	Average RF	50	52.56	ppm	5.1	<=20
Ethyl Methacrylate	RC1500131-13	T	Average RF	50	52.56	ppm	5.1	<=30
Ethylbenzene	RC1500131-13	T	Average RF	50	50.41	ppm	0.8	<=30
Ethylbenzene	RC1500131-13	T	Average RF	50	50.41	ppm	0.8	<=20
Hexachlorobutadiene	RC1500131-13	T	Average RF	50	44.67	ppm	-10.7	<=30
Hexachlorobutadiene	RC1500131-13	T	Average RF	50	44.67	ppm	-10.7	<=20
Iodomethane	RC1500131-13	T	Linear	50	47.88	ppm	-4.2	<=30
Iodomethane	RC1500131-13	T	Linear	50	47.88	ppm	-4.2	<=20
Isopropylbenzene (Cumene)	RC1500131-13	T	Average RF	50	49.71	ppm	-0.6	<=30
Isopropylbenzene (Cumene)	RC1500131-13	T	Average RF	50	49.71	ppm	-0.6	<=20
Methacrylonitrile	RC1500131-13	T	Average RF	50	49.57	ppm	-0.9	<=30
Methacrylonitrile	RC1500131-13	T	Average RF	50	49.57	ppm	-0.9	<=20
Methyl Acetate	RC1500131-13	T	Average RF	50	46.55	ppm	-6.9	<=20
Methyl Acetate	RC1500131-13	T	Average RF	50	46.55	ppm	-6.9	<=30
Methyl Methacrylate	RC1500131-13	T	Average RF	50	53.39	ppm	6.8	<=20
Methyl Methacrylate	RC1500131-13	T	Average RF	50	53.39	ppm	6.8	<=30
Methyl tert-Butyl Ether	RC1500131-13	T	Average RF	50	51.11	ppm	2.2	<=20
Methyl tert-Butyl Ether	RC1500131-13	T	Average RF	50	51.11	ppm	2.2	<=30
Methylcyclohexane	RC1500131-13	T	Average RF	50	48.27	ppm	-3.5	<=20
Methylcyclohexane	RC1500131-13	T	Average RF	50	48.27	ppm	-3.5	<=30
Naphthalene	RC1500131-13	T	Average RF	50	48.55	ppm	-2.9	<=20
Naphthalene	RC1500131-13	T	Average RF	50	48.55	ppm	-2.9	<=30
Nitrobenzene	RC1500131-13	T	Average RF	100	78.34	ppm	-21.7	<=30
Nitrobenzene	RC1500131-13	T	Average RF	100	78.34	ppm	-21.7	<=20
Propionitrile	RC1500131-13	T	Average RF	250	243.9	ppm	-2.5	<=30
Propionitrile	RC1500131-13	T	Average RF	250	243.9	ppm	-2.5	<=20
Styrene	RC1500131-13	T	Average RF	50	52.10	ppm	4.2	<=20
Styrene	RC1500131-13	T	Average RF	50	52.10	ppm	4.2	<=30
Tetrachloroethene (PCE)	RC1500131-13	T	Average RF	50	49.28	ppm	-1.4	<=30

Initial Calibration Verification Summary Report

Calibration ID: RC1500131 **Instrument ID:** R-MS-06
Column Name: 1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Tetrachloroethene (PCE)	RC1500131-13	T	Average RF	50	49.28	ppm	-1.4	<=20
Tetrahydrofuran (THF)	RC1500131-13	T	Average RF	50	49.85	ppm	-0.3	<=20
Tetrahydrofuran (THF)	RC1500131-13	T	Average RF	50	49.85	ppm	-0.3	<=30
Toluene	RC1500131-13	T	Average RF	50	48.56	ppm	-2.9	<=20
Toluene	RC1500131-13	T	Average RF	50	48.56	ppm	-2.9	<=30
Trichloroethene (TCE)	RC1500131-13	T	Average RF	50	49.39	ppm	-1.2	<=30
Trichloroethene (TCE)	RC1500131-13	T	Average RF	50	49.39	ppm	-1.2	<=20
Trichlorofluoromethane (CFC 11)	RC1500131-13	T	Average RF	50	48.82	ppm	-2.4	<=20
Trichlorofluoromethane (CFC 11)	RC1500131-13	T	Average RF	50	48.82	ppm	-2.4	<=30
Vinyl Acetate	RC1500131-13	T	Average RF	50	46.08	ppm	-7.8	<=20
Vinyl Acetate	RC1500131-13	T	Average RF	50	46.08	ppm	-7.8	<=30
Vinyl Chloride	RC1500131-13	T	Average RF	50	47.88	ppm	-4.2	<=20
Vinyl Chloride	RC1500131-13	T	Average RF	50	47.88	ppm	-4.2	<=30
cis-1,2-Dichloroethene	RC1500131-13	T	Average RF	50	49.56	ppm	-0.9	<=30
cis-1,2-Dichloroethene	RC1500131-13	T	Average RF	50	49.56	ppm	-0.9	<=20
cis-1,3-Dichloropropene	RC1500131-13	T	Average RF	50	50.88	ppm	1.8	<=30
cis-1,3-Dichloropropene	RC1500131-13	T	Average RF	50	50.88	ppm	1.8	<=20
m,p-Xylenes	RC1500131-13	T	Average RF	100	103.4	ppm	3.4	<=20
m,p-Xylenes	RC1500131-13	T	Average RF	100	103.4	ppm	3.4	<=30
n-Butyl Acetate	RC1500131-13	T	Average RF	50	49.72	ppm	-0.6	<=20
n-Butyl Acetate	RC1500131-13	T	Average RF	50	49.72	ppm	-0.6	<=30
n-Butylbenzene	RC1500131-13	T	Average RF	50	48.81	ppm	-2.4	<=30
n-Butylbenzene	RC1500131-13	T	Average RF	50	48.81	ppm	-2.4	<=20
n-Heptane	RC1500131-13	T	Average RF	50	47.58	ppm	-4.8	<=20
n-Heptane	RC1500131-13	T	Average RF	50	47.58	ppm	-4.8	<=30
n-Propylbenzene	RC1500131-13	T	Average RF	50	47.92	ppm	-4.2	<=20
n-Propylbenzene	RC1500131-13	T	Average RF	50	47.92	ppm	-4.2	<=30
o-Xylene	RC1500131-13	T	Average RF	50	48.78	ppm	-2.4	<=30
o-Xylene	RC1500131-13	T	Average RF	50	48.78	ppm	-2.4	<=20
sec-Butylbenzene	RC1500131-13	T	Average RF	50	47.86	ppm	-4.3	<=20
sec-Butylbenzene	RC1500131-13	T	Average RF	50	47.86	ppm	-4.3	<=30
tert-Butylbenzene	RC1500131-13	T	Average RF	50	47.21	ppm	-5.6	<=30
tert-Butylbenzene	RC1500131-13	T	Average RF	50	47.21	ppm	-5.6	<=20
trans-1,2-Dichloroethene	RC1500131-13	T	Average RF	50	48.64	ppm	-2.7	<=20
trans-1,2-Dichloroethene	RC1500131-13	T	Average RF	50	48.64	ppm	-2.7	<=30
trans-1,3-Dichloropropene	RC1500131-13	T	Average RF	50	49.85	ppm	-0.3	<=30
trans-1,3-Dichloropropene	RC1500131-13	T	Average RF	50	49.85	ppm	-0.3	<=20
trans-1,4-Dichloro-2-butene	RC1500131-13	T	Average RF	50	51.09	ppm	2.2	<=30
trans-1,4-Dichloro-2-butene	RC1500131-13	T	Average RF	50	51.09	ppm	2.2	<=20
1,2-Dichloroethane-d4	RC1500131-13	S	Average RF	50	52.19	ppm	4.4	<=30
1,2-Dichloroethane-d4	RC1500131-13	S	Average RF	50	52.19	ppm	4.4	<=20
4-Bromofluorobenzene	RC1500131-13	S	Average RF	50	54.79	ppm	9.6	<=20
4-Bromofluorobenzene	RC1500131-13	S	Average RF	50	54.79	ppm	9.6	<=30
Dibromofluoromethane	RC1500131-13	S	Average RF	50	52.25	ppm	4.5	<=30
Dibromofluoromethane	RC1500131-13	S	Average RF	50	52.25	ppm	4.5	<=20
Toluene-d8	RC1500131-13	S	Average RF	50	53.45	ppm	6.9	<=30
Toluene-d8	RC1500131-13	S	Average RF	50	53.45	ppm	6.9	<=20

Initial Calibration Verification Summary Report

Exceptions

QAP	Method
DOD QSM v5.0 Rochester	8260C

Compound	Type	Criteria	Result
Nitrobenzene	Percent Difference	<= 20	-21.66
2-Propanol	Percent Difference	<= 20	-23.74
Acrolein	Percent Difference	<= 20	-26.23

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6199.D Vial: 22
Acq On : 30 Nov 2015 7:56 pm Operator: D.Lipani
Sample : ICV 50 Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 2 12:05 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	681006	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.67	114	917744	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	806155	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	501158	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	300773	52.25	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 104.50%			
42) surr1,1,2-dichloroethane-d	4.23	65	245045	52.19	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 104.38%			
62) SURR3,Toluene-d8	7.76	98	1021776	53.45	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 106.90%			
82) SURR2,BFB	10.14	95	395384	54.79	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 109.58%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	395430	53.63	ug/L	98
3) Chloromethane	1.07	50	369779	47.21	ug/L	99
4) Vinyl Chloride	1.15	62	393783	47.88	ug/L	99
5) Bromomethane	1.31	94	223562	45.59	ug/L	98
6) Chloroethane	1.38	64	202112	48.82	ug/L	100
7) Freon 21	1.41	67	536554	52.19	ug/L	98
8) Freon 123	1.57	83	435619	47.69	ug/L	100
9) Freon 123a	1.59	67	353955	50.37	ug/L	88
10) Acrolein	1.65	56	44425	73.77	ug/L	98
11) Trichlorofluoromethane	1.65	101	416841	48.82	ug/L	98
12) Acetonitrile	1.66	41	95462	214.90	ug/L	90
13) 2-Propanol	1.69	45	126920	762.63	ug/L	99
14) Acetone	1.72	43	38496	47.19	ug/L	92
15) Diethyl Ether	1.79	59	175292	47.95	ug/L	97
16) 1,1-Diclethene	1.94	96	275519	49.41	ug/L	96
17) Iodomethane	1.96	142	405724	47.88	ug/L	99
18) TBA	1.98	59	218773	813.70	ug/L	98
19) Acrylonitrile	1.99	53	276957	226.40	ug/L	100
20) Methylene Chloride	2.04	84	285053	45.66	ug/L	94
21) Freon 113	2.08	101	274859	49.46	ug/L	100
22) Methyl Acetate	2.09	43	116023	46.55	ug/L	98
23) Allyl Chloride	2.10	76	146926	55.46	ug/L	97
24) Carbon Disulfide	2.15	76	798325	44.20	ug/L	99
25) trans-1,2-Dichloroethene	2.51	96	298847	48.64	ug/L	97
26) Methyl-t-Butyl Ether	2.62	73	591636	51.11	ug/L	98
27) 1,1-Diclethane	2.71	63	477415	51.17	ug/L	98
28) Propionitrile	2.76	54	98715	243.86	ug/L	98
29) Vinyl Acetate	2.90	43	363632	46.08	ug/L	97
30) 2-Chloro-1,3-Butadiene	3.05	53	370714	43.59	ug/L	98
31) 2-Butanone	3.16	43	58653	47.84	ug/L	92
32) Methacrylonitrile	3.27	67	64866	49.57	ug/L	97
33) cis-1,2-Dichloroethene	3.26	96	296807	49.56	ug/L	97
34) Bromochloromethane	3.42	128	142143	49.37	ug/L	97
35) Chloroform	3.50	83	445713	47.20	ug/L	99
36) 2,2-Dichloropropane	3.57	77	340035	46.74	ug/L	96

DL 12/2/15

(#) = qualifier out of range (m) = manual integration
M6199.D W113015.M Wed Dec 02 12:07:21 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6199.D Vial: 22
Acq On : 30 Nov 2015 7:56 pm Operator: D.Lipani
Sample : ICV 50 Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 2 12:05 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	Tetrahydrofuran	3.90	42	39873	49.85	ug/L	92
38)	1,1,1-Trichloroethane	4.46	97	374305	49.18	ug/L	95
41)	Iso-Butyl Alcohol	3.74	43	93398	874.52	ug/L	94
43)	1,2-Dichloroethane	4.35	62	253557	46.78	ug/L	98
44)	1,1-Dichloropropene	4.80	75	348872	51.94	ug/L	98
45)	Cyclohexane	4.87	56	395792	48.41	ug/L	98
46)	Carbontetrachloride	5.04	119	324318	49.27	ug/L	98
47)	Benzene	5.15	78	1020377	49.51	ug/L	98
48)	Dibromomethane	5.99	93	136252	48.57	ug/L	99
49)	1,2-Diclpropane	6.06	63	261231	49.96	ug/L	99
50)	n-Heptane	6.14	43	213383	47.58	ug/L	95
51)	Trichloroethene	6.13	130	301518	49.39	ug/L	99
52)	Bromodichloromethane	6.19	83	326925	51.39	ug/L	99
53)	2-Nitropropane	6.24	41	53022	93.56	ug/L	99
54)	1,4-Dioxane	6.43	88	20139	659.24	ug/L	89
55)	Methyl Methacrylate	6.60	69	108643	53.39	ug/L	93
56)	Methylcyclohexane	6.72	55	256496	48.27	ug/L	100
57)	2-Chloroethylvinyl Ether	6.88	63	118040	52.13	ug/L	100
58)	cis-1,3-Dichloropropene	7.03	75	379720	50.88	ug/L	99
59)	4-Methyl-2-pentanone	7.25	43	134986	49.46	ug/L	99
60)	trans-1,3-Dichloropropene	7.53	75	305232m	49.85	ug/L	
61)	1,1,2-Trichloroethane	7.65	97	194234	49.91	ug/L	100
63)	Toluene	7.83	91	1047200	48.56	ug/L	100
65)	1,3-Dichloropropane	7.89	76	296416	51.39	ug/L	100
66)	Ethyl Methacrylate	8.08	69	227429	52.56	ug/L	97
67)	Dibromochloromethane	8.09	129	253261	52.79	ug/L	98
68)	2-Hexanone	8.15	43	89698	49.38	ug/L	99
69)	1,2-Dibromoethane	8.31	107	193584	50.36	ug/L	99
70)	n-Butyl Acetate	8.52	43	233247	49.72	ug/L	99
71)	Tetrachloroethene	8.50	164	240704	49.28	ug/L	99
72)	1,1,1,2-Tetrachloroethane	9.05	131	257401	49.94	ug/L	97
73)	Chlorobenzene	9.11	112	710173	49.76	ug/L	100
74)	Ethylbenzene	9.32	106	370235	50.41	ug/L	99
75)	Bromoform	9.50	173	161587	53.23	ug/L	98
76)	(m+p)Xylene	9.50	106	921565	103.43	ug/L	98
77)	o-Xylene	9.82	106	451046	48.78	ug/L	99
78)	Cyclohexanone	9.74	55	97452	934.77	ug/L	98
79)	Styrene	9.77	104	763804	52.10	ug/L	99
80)	trans-1,4-Dichloro-2-Buten	10.00	75	75895	51.09	ug/L	98
81)	Isopropylbenzene	10.13	105	1105205	49.71	ug/L	100
84)	1,1,2,2-Tetrachloroethane	9.82	83	224320	48.93	ug/L	98
85)	1,2,3-Trichloropropane	9.93	75	153611	49.17	ug/L	99
86)	Bromobenzene	10.28	156	341637	49.22	ug/L	99
87)	n-Propylbenzene	10.50	91	1279247	47.92	ug/L	99
88)	2-Chlorotoluene	10.54	91	787025	48.50	ug/L	99
89)	4-Chlorotoluene	10.61	91	831469	48.60	ug/L	99
90)	1,3,5-Trimethylbenzene	10.77	105	915457	50.82	ug/L	99
91)	tert-Butylbenzene	10.95	119	739763	47.21	ug/L	99
92)	1,2,4-Trimethylbenzene	11.06	105	945880	49.29	ug/L	100
93)	sec-Butylbenzene	11.13	105	1053095	47.86	ug/L	100

(#) = qualifier out of range (m) = manual integration
M6199.D W113015.M Wed Dec 02 12:07:22 2015 Page 2

Quantification Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6199.D Vial: 22
Acq On : 30 Nov 2015 7:56 pm Operator: D.Lipani
Sample : ICV 50 Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 2 12:05 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

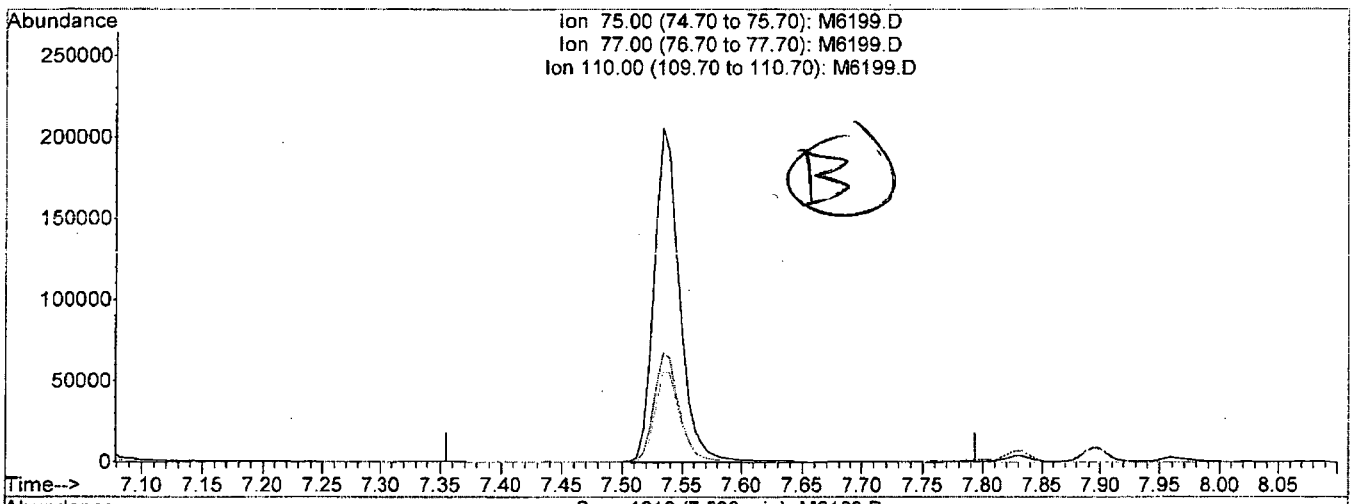
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
94)	1,3-Dclbenz	11.15	146	625638	49.44	ug/L	100
95)	1,4-Dclbenz	11.21	146	641744	49.38	ug/L	100
96)	p-Isopropyltoluene	11.30	119	886211	48.73	ug/L	100
97)	1,2-Dclbenz	11.47	146	571150	47.63	ug/L	100
98)	n-Butylbenzene	11.62	91	782799	48.81	ug/L	100
99)	1,2-Dibromo-3-chloropropan	11.84	75	31111	46.48	ug/L	97
100)	Nitrobenzene	12.03	77	12757	78.34	ug/L	88
101)	1,2,4-Tcbenzene	12.91	180	346368	49.94	ug/L	100
102)	Naphthalen	13.09	128	591670	48.55	ug/L	99
103)	Hexachlorobt	13.17	225	148190	44.67	ug/L	99
104)	1,2,3-Tclbenzene	13.25	180	269360	47.04	ug/L	99

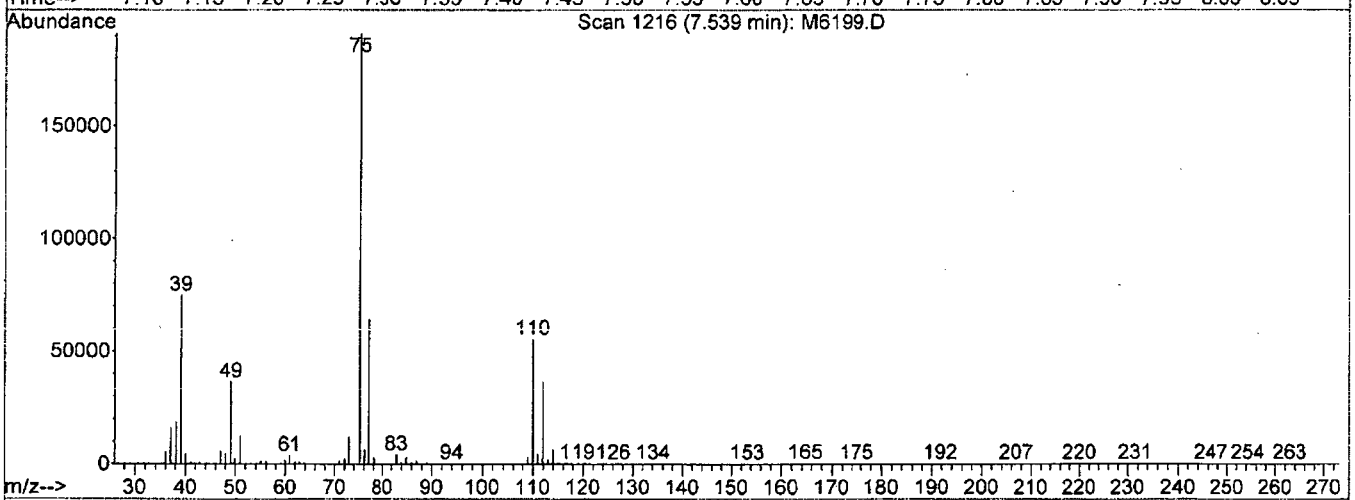
(#) = qualifier out of range (m) = manual integration
M6199.D W113015.M Wed Dec 02 12:07:22 2015 Page 3

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6199.D Vial: 22
Acq On : 30 Nov 2015 7:56 pm Operator: D.Lipani
Sample : ICV 50 Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 2 12:05 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Multiple Level Calibration





TIC: M6199.D

(60) trans-1,3-Dichloropropene

7.54min 0.00ug/L

response 0

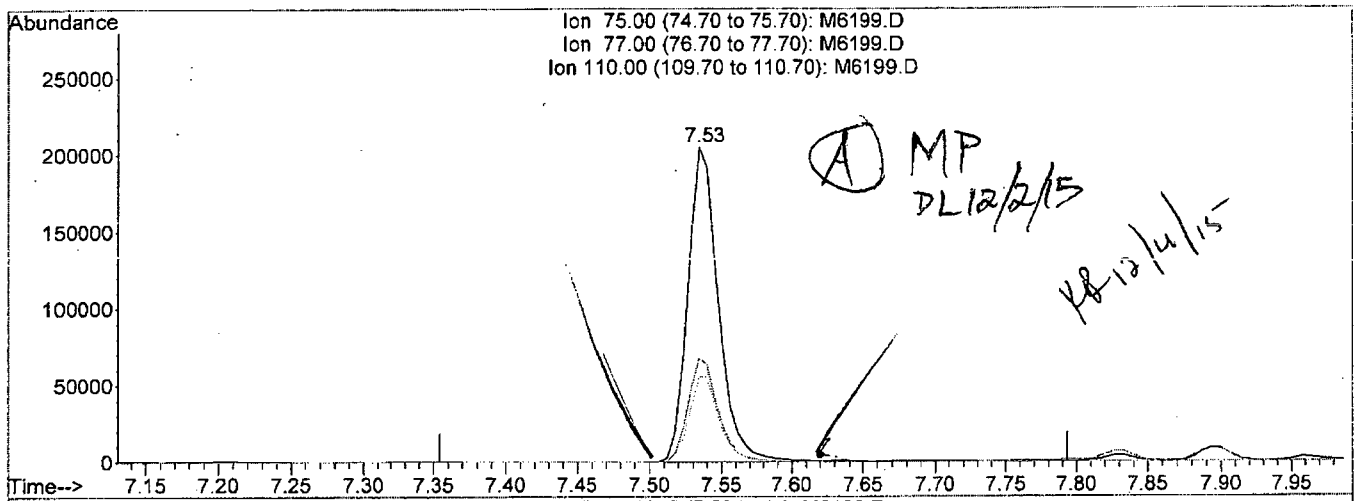
Ion	Exp%	Act%
75.00	100	0.00
77.00	32.50	0.00#
110.00	27.90	0.00#
0.00	0.00	0.00

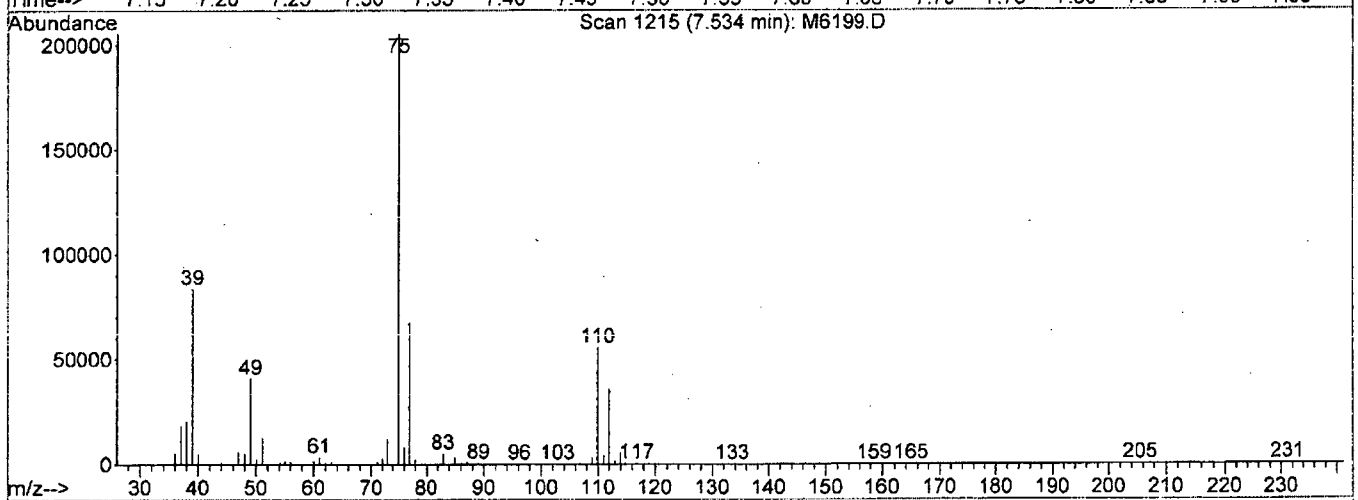
M6199.D W113015.M Wed Dec 02 12:05:19 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6199.D Vial: 22
Acq On : 30 Nov 2015 7:56 pm Operator: D.Lipani
Sample : ICV 50 Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 2 12:05 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Multiple Level Calibration





TIC: M6199.D

(60) trans-1,3-Dichloropropene

7.53min 49.85ug/L m

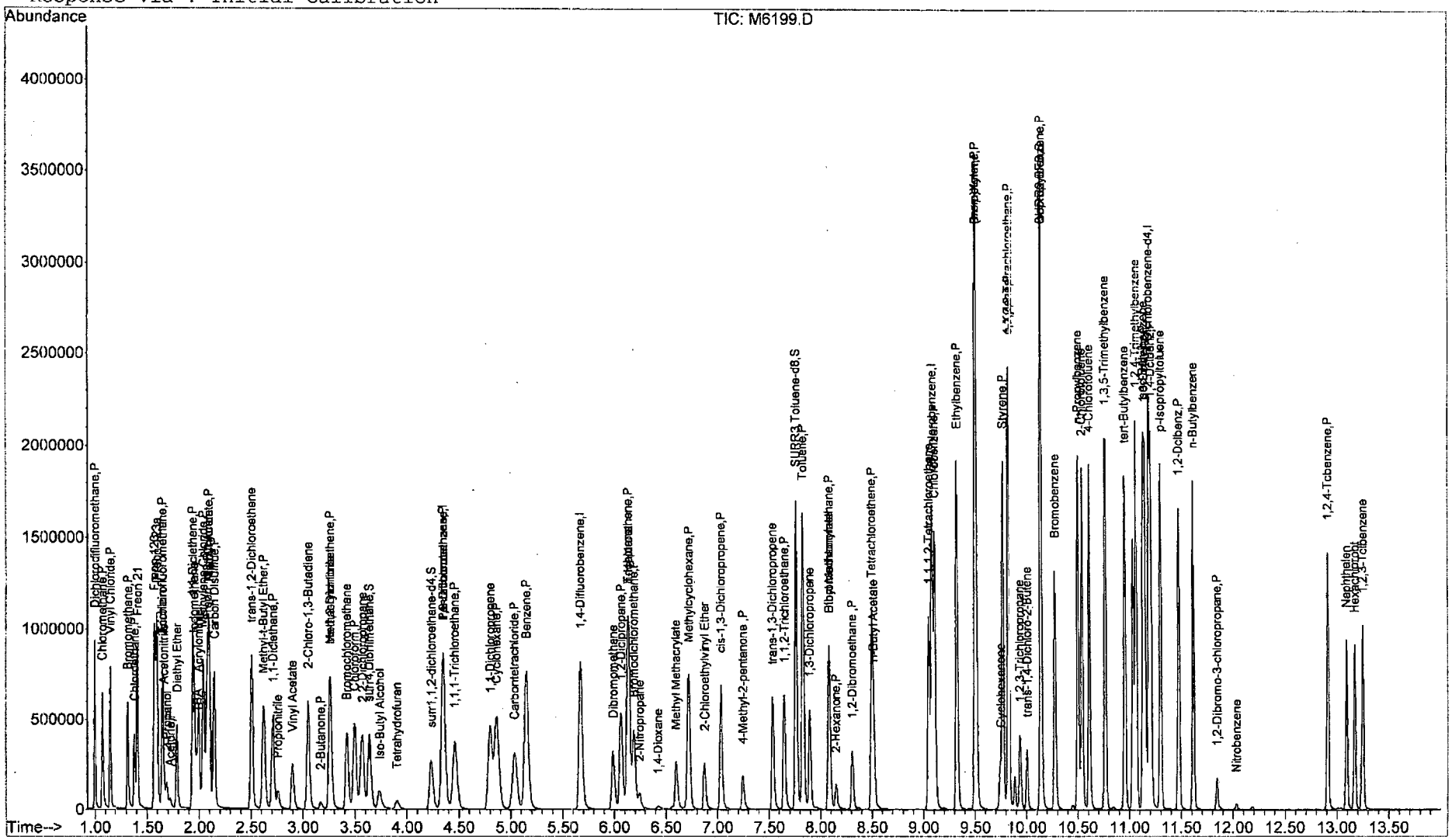
response 305232

Ion	Exp%	Act%
75.00	100	100
77.00	32.50	0.00#
110.00	27.90	0.00#
0.00	0.00	0.00

M6199.D W113015.M Wed Dec 02 12:06:15 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6199.D Vial: 22
Acq On : 30 Nov 2015 7:56 pm Operator: D.Lipani
Sample : ICV 50 Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 2 12:05 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



M6199.D W113015.M Wed Dec 02 12:07:27 2015 Page 4

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\120115\M6209.D Vial: 7
Acq On : 1 Dec 2015 11:00 am Operator: D.Lipani
Sample : ICV #2-1,4-Dioxane Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 11:17 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:35:45 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.35	168	692607	50.00	ug/L		0.00
39) 1,4-Difluorobenzene	5.67	114	957821	50.00	ug/L		0.00
64) d5-Chlorobenzene	9.08	117	839639	50.00	ug/L		0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	507357	50.00	ug/L		0.00
System Monitoring Compounds							
40) surr4,Dibrflmethane	3.64	113	305351	50.83	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.66%				
42) surr1,1,2-dichloroethane-d	4.23	65	253778	51.79	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 103.58%				
62) SURR3,Toluene-d8	7.76	98	1076818	53.97	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 107.94%				
82) SURR2,BFB	10.14	95	397811	52.93	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 105.86%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.00	85	429474	57.27	ug/L		98
3) Chloromethane	1.07	50	387745	48.67	ug/L		97
4) Vinyl Chloride	1.14	62	418905	50.08	ug/L		99
5) Bromomethane	1.31	94	221101	44.33	ug/L		99
6) Chloroethane	1.38	64	214041	50.84	ug/L		99
10) Acrolein	1.65	56	1473	2.41	ug/L		84
11) Trichlorofluoromethane	1.65	101	450225	51.84	ug/L		98
12) Acetonitrile	1.66	41	94902	210.06	ug/L		92
13) 2-Propanol	1.69	45	10704	63.24	ug/L		97
14) Acetone	1.72	43	3106	3.74	ug/L		88
15) Diethyl Ether	1.79	59	183542	49.37	ug/L		97
16) 1,1-Diclethene	1.94	96	288960	50.95	ug/L		99
17) Iodomethane	1.96	142	45772	6.37	ug/L		93
18) TBA	1.98	59	251573	920.03	ug/L		99
19) Acrylonitrile	2.00	53	286838	230.55	ug/L		100
20) Methylene Chloride	2.04	84	302533	47.65	ug/L		99
21) Freon 113	2.08	101	290757	51.45	ug/L		97
22) Methyl Acetate	2.09	43	7022	2.77	ug/L	#	27
23) Allyl Chloride	2.10	76	158560	58.85	ug/L		90
24) Carbon Disulfide	2.10	76	158463	8.63	ug/L	#	48
25) trans-1,2-Dichloroethene	2.51	96	311820	49.90	ug/L		97
26) Methyl-t-Butyl Ether	2.62	73	577665	49.07	ug/L		97
27) 1,1-Diclethane	2.71	63	456660	48.12	ug/L		97
28) Propionitrile	2.76	54	96894	235.36	ug/L		93
31) 2-Butanone	3.18	43	261	0.21	ug/L		71
32) Methacrylonitrile	3.27	67	66865	50.24	ug/L		97
33) cis-1,2-Dichloroethene	3.26	96	302134	49.61	ug/L		98
34) Bromochloromethane	3.42	128	144262	49.27	ug/L		97
35) Chloroform	3.50	83	465137	48.43	ug/L		99
36) 2,2-Dichloropropane	3.57	77	356068	48.13	ug/L		98
37) Tetrahydrofuran	3.90	42	39686	48.78	ug/L		87
38) 1,1,1-Trichloroethane	4.46	97	396436	51.22	ug/L		96
41) Iso-Butyl Alcohol	3.73	43	100812	904.45	ug/L		93
43) 1,2-Dichloroethane	4.35	62	258149	45.64	ug/L		98
44) 1,1-Dichloropropene	4.80	75	363109	51.80	ug/L		96

(#) = qualifier out of range (m) = manual integration
M6209.D W113015.M Tue Dec 01 11:17:33 2015

DL 12/1/15

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\120115\M6209.D Vial: 7
Acq On : 1 Dec 2015 11:00 am Operator: D.Lipani
Sample : ICV #2-1,4-Dioxane Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 11:17 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:35:45 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46)	Carbontetrachloride	5.04	119	337681	49.15	ug/L	95
47)	Benzene	5.15	78	1048254	48.73	ug/L	98
48)	Dibromomethane	5.99	93	140451	47.98	ug/L	99
49)	1,2-Diclpropane	6.06	63	268819	49.26	ug/L	98
50)	n-Heptane	6.15	43	241175	51.53	ug/L	98
51)	Trichloroethene	6.13	130	309478	48.57	ug/L	99
52)	Bromodichloromethane	6.19	83	336087	50.62	ug/L	99
53)	2-Nitropropane	6.24	41	58425	98.79	ug/L	94
54)	1,4-Dioxane	6.42	88	26167	820.73	ug/L	95
55)	Methyl Methacrylate	6.60	69	114726	54.02	ug/L	98
56)	Methylcyclohexane	6.72	55	1119	0.20	ug/L	95
58)	cis-1,3-Dichloropropene	7.03	75	395202	50.74	ug/L	100
61)	1,1,2-Trichloroethane	7.65	97	200141	49.28	ug/L	99
63)	Toluene	7.83	91	1074804	47.76	ug/L	99
65)	1,3-Dichloropropane	7.90	76	303053	50.44	ug/L	99
66)	Ethyl Methacrylate	8.08	69	226806	50.32	ug/L	98
67)	Dibromochloromethane	8.09	129	250551	50.14	ug/L	99
68)	2-Hexanone	8.20	43	1115	0.59	ug/L	79
69)	1,2-Dibromoethane	8.31	107	194902	48.68	ug/L	99
71)	Tetrachloroethene	8.50	164	252749	49.68	ug/L	100
72)	1,1,1,2-Tetrachloroethane	9.05	131	269392	50.18	ug/L	98
73)	Chlorobenzene	9.11	112	731967	49.25	ug/L	99
74)	Ethylbenzene	9.32	106	380989	49.81	ug/L	98
75)	Bromoform	9.50	173	162775	51.48	ug/L	97
76)	(m+p)Xylene	9.51	106	934807	100.73	ug/L	99
77)	o-Xylene	9.82	106	465988	48.38	ug/L	99
78)	Cyclohexanone	9.74	55	108185	996.34	ug/L	97
79)	Styrene	9.77	104	776499	50.85	ug/L	100
80)	trans-1,4-Dichloro-2-Buten	10.00	75	79902	51.64	ug/L	98
81)	Isopropylbenzene	10.14	105	1116418	48.21	ug/L	100
84)	1,1,2,2-Tetrachloroethane	9.82	83	223222	48.10	ug/L	99
85)	1,2,3-Trichloropropane	9.94	75	153678	48.59	ug/L	99
86)	Bromobenzene	10.28	156	345236	49.13	ug/L	98
87)	n-Propylbenzene	10.50	91	1300581	48.12	ug/L	99
88)	2-Chlorotoluene	10.54	91	804989	49.00	ug/L	100
89)	4-Chlorotoluene	10.61	91	849540	49.05	ug/L	99
90)	1,3,5-Trimethylbenzene	10.77	105	905852	49.67	ug/L	99
91)	tert-Butylbenzene	10.96	119	749818	47.27	ug/L	99
92)	1,2,4-Trimethylbenzene	11.06	105	943454	48.57	ug/L	99
93)	sec-Butylbenzene	11.13	105	1057445	47.47	ug/L	99
94)	1,3-Dclbenz	11.15	146	634221	49.51	ug/L	99
95)	1,4-Dclbenz	11.21	146	628412	47.76	ug/L	100
96)	p-Isopropyltoluene	11.30	119	942019	51.16	ug/L	100
97)	1,2-Dclbenz	11.47	146	594109	48.94	ug/L	99
98)	n-Butylbenzene	11.61	91	831786	51.23	ug/L	99
99)	1,2-Dibromo-3-chloropropan	11.84	75	29860	44.07	ug/L	96
100)	Nitrobenzene	12.03	77	14542	88.21	ug/L	81
101)	1,2,4-Tcbenzene	12.91	180	358411	51.05	ug/L	99
102)	Naphthalen	13.09	128	624987	50.66	ug/L	99
103)	Hexachlorobt	13.17	225	168618	50.21	ug/L	99

(#) = qualifier out of range (m) = manual integration
M6209.D W113015.M Tue Dec 01 11:17:35 2015

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\120115\M6209.D Vial: 7
Acq On : 1 Dec 2015 11:00 am Operator: D.Lipani
Sample : ICV #2-1,4-Dioxane Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 11:17 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:35:45 2015
Response via : Initial Calibration
DataAcq Meth : W113015

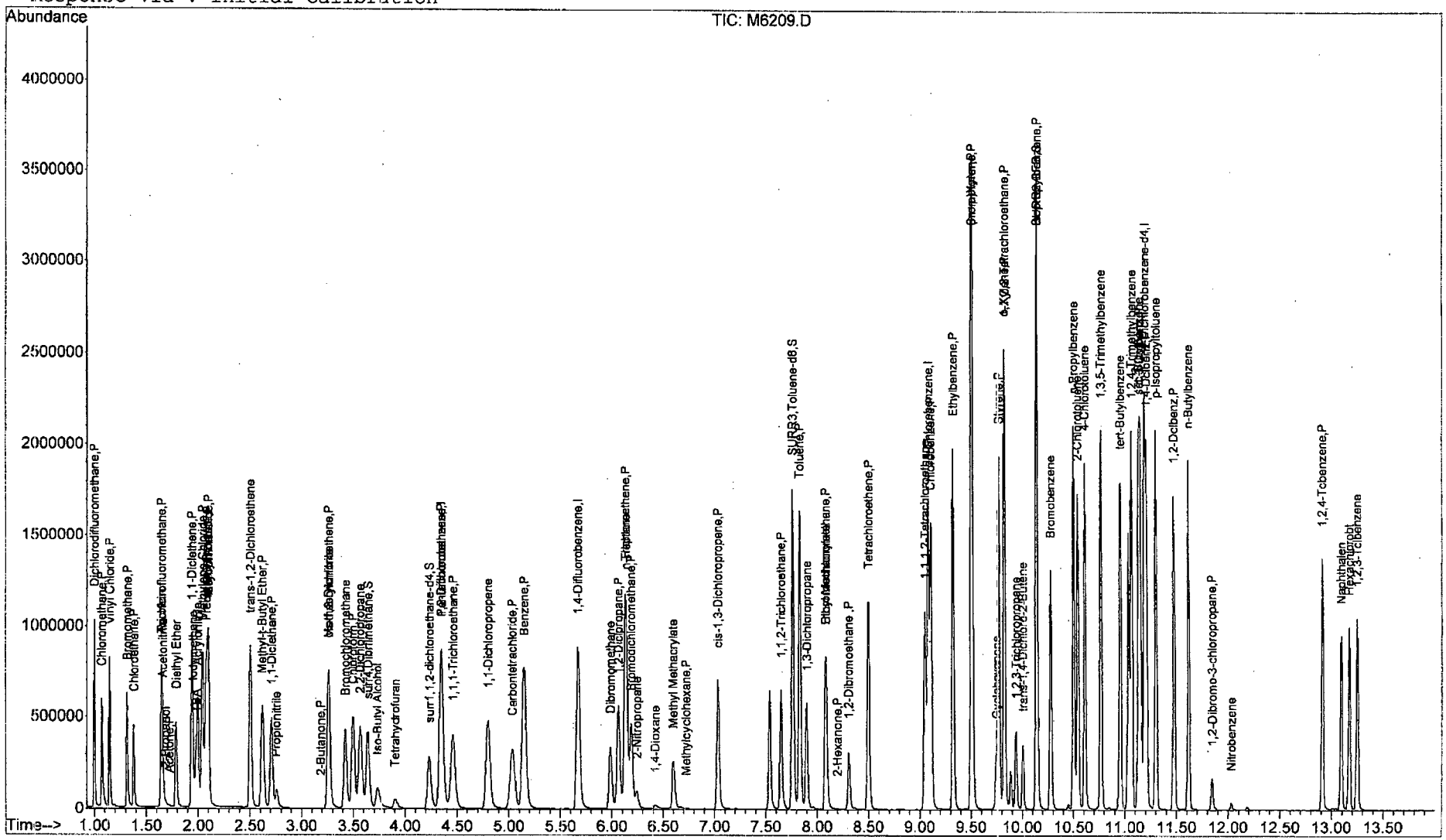
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
104) 1,2,3-Tclbenzene	13.25	180	278458	48.03	ug/L	97

(#) = qualifier out of range (m) = manual integration
M6209.D W113015.M Tue Dec 01 11:17:35 2015 Page 3

Quantitation Report

Data File : I:\ACQUDATA\MSVOA6\DATA\120115\M6209.D Vial: 7
Acq On : 1 Dec 2015 11:00 am Operator: D.Lipani
Sample : ICV #2-1,4-Dioxane Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 1 11:17 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Tue Dec 01 10:35:45 2015
Response via : Initial Calibration



M6209.D W113015.M Tue Dec 01 11:17:39 2015 Page 4

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6626.D Vial: 9
Acq On : 22 Dec 2015 12:25 pm Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260 Multiplr: 1.00
MS Integration Params: CPD4.P

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

DL 12/22/15

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	Pentafluorobenzene	1.0000	1.0000	0.0	108	0.00	
2	P	Dichlorodifluoromethane	0.5414	0.6651	-22.8#	131	0.00	~⊗ 11051, 11019
3	P	Chloromethane	0.5751	0.6468	-12.5	129	0.00	
4	P	Vinyl Chloride	0.6039	0.6493	-7.5	118	0.00	
5	P	Bromomethane	0.3600	0.3884	-7.9	128	0.00	
6	P	Chloroethane	0.3039	0.3273	-7.7	116	0.00	
7		Freon 21	0.7549	0.7570	-0.3	114	0.00	
8		Freon 123	0.6707	0.6745	-0.6	114	0.00	
9		Freon 123a	0.5160	0.5149	0.2	112	0.00	
10		Acrolein	0.0442	0.0440	0.5	107	0.00	
11	P	Trichlorofluoromethane	0.6269	0.6783	-8.2	117	0.00	DL
12		Acetonitrile	0.0326	0.0260	20.2#	91	0.00	~~NT~~ ⊗ 11051
13		2-Propanol	0.0122	0.0083	32.0#	73	0.00	-NT
14	P	Acetone	0.0599	0.0591	1.3	107	0.00	
15		Diethyl Ether	0.2684	0.2788	-3.9	114	0.00	
16	P	1,1-Diclethene	0.4094	0.4297	-5.0	114	0.00	
17		Iodomethane	0.5562	0.7311	~~-31.4#~~	118	0.00	DL +17.0% ✓Drift
18		TBA	0.0197	0.0140	28.9#	79	0.00	-⊗ 11019
19		Acrylonitrile	0.0898	0.0839	6.6	105	0.00	
20	P	Methylene Chloride	0.4583	0.4679	-2.1	116	0.00	
21	P	Freon 113	0.4080	0.4355	-6.7	120	0.00	
22	P	Methyl Acetate	0.1830	0.1663	9.1	101	0.00	
23		Allyl Chloride	0.1945	0.1999	-2.8	116	0.00	
24	P	Carbon Disulfide	1.3262	1.3334	-0.5	112	0.00	
25		trans-1,2-Dichloroethene	0.4511	0.4813	-6.7	117	0.00	
26	P	Methyl-t-Butyl Ether	0.8499	0.8921	-5.0	111	0.00	
27	P	1,1-Diclethane	0.6851	0.7206	-5.2	114	0.00	
28		Propionitrile	0.0297	0.0276	7.1	98	0.00	
29		Vinyl Acetate	0.5794	0.5888	-1.6	109	0.00	
30		2-Chloro-1,3-Butadiene	0.6243	0.6611	-5.9	112	0.00	
31	P	2-Butanone	0.0900	0.0875#	2.8	104	0.00	
32		Methacrylonitrile	0.0961	0.1004	-4.5	112	0.00	
33	P	cis-1,2-Dichloroethene	0.4397	0.4704	-7.0	117	0.00	
34		Bromochloromethane	0.2114	0.2223	-5.2	116	0.00	
35	P	Chloroform	0.6934	0.7302	-5.3	117	0.00	
36		2,2-Dichloropropane	0.5341	0.5657	-5.9	119	0.00	
37		Tetrahydrofuran	0.0587	0.0563	4.1	103	0.00	
38	P	1,1,1-Trichloroethane	0.5588	0.5951	-6.5	117	0.00	
39	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	111	0.00	
40	S	surr4,Dibrflmethane	0.3136	0.3217	-2.6	111	0.00	DL
41		Iso-Butyl Alcohol	0.0058	0.0042	27.6#	83	0.00	~~NT~~ ⊗ 11051
42	S	surr1,1,2-dichloroethane-d4	0.2558	0.2616	-2.3	111	0.00	
43	P	1,2-Dichloroethane	0.2953	0.2716	8.0	113	0.00	
44		1,1-Dichloropropene	0.3659	0.3680	-0.6	115	0.00	
45	P	Cyclohexane	0.4454	0.4332	2.7	112	0.00	
46	P	Carbontetrachloride	0.3587	0.3679	-2.6	117	0.00	
47	P	Benzene	1.1229	1.1621	-3.5	117	0.00	
48		Dibromomethane	0.1528	0.1507	1.4	114	0.00	
49	P	1,2-Diclpropane	0.2849	0.2821	1.0	116	0.00	

(#) = Out of Range
M6626.D W113015.M Tue Dec 22 13:04:47 2015 Page 1

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6626.D Vial: 9
Acq On : 22 Dec 2015 12:25 pm Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260 Multiplr: 1.00
MS Integration Params: CPD4.P

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
50		n-Heptane	0.2443	0.2501	-2.4	111	0.00	
51	P	Trichloroethene	0.3326	0.3402	-2.3	114	0.00	
52	P	Bromodichloromethane	0.3466	0.3548	-2.4	115	0.00	
53		2-Nitropropane	0.0309	0.0258	16.5	97	0.00	
54		1,4-Dioxane	0.0017	0.0009	47.1#	64	0.00	-NT
55		Methyl Methacrylate	0.1109	0.1111	-0.2	108	0.00	
56	P	Methylcyclohexane	0.2895	0.2795	3.5	112	0.00	
57		2-Chloroethylvinyl Ether	0.1234	0.1254	-1.6	106	0.00	
58	P	cis-1,3-Dichloropropene	0.4066	0.4100	-0.8	111	0.00	
59	P	4-Methyl-2-pentanone	0.1487	0.1370	7.9	102	0.00	
60		trans-1,3-Dichloropropene	0.3336	0.3243	2.8	110	0.00	
61	P	1,1,2-Trichloroethane	0.2120	0.2100	0.9	113	0.00	
62	S	SURR3,Toluene-d8	1.0415	1.0988	-5.5	109	0.00	
63	P	Toluene	1.1748	1.1827	-0.7	117	0.00	
64	I	d5-Chlorobenzene	1.0000	1.0000	0.0	112	0.00	
65		1,3-Dichloropropane	0.3578	0.3677	-2.8	120	0.00	
66		Ethyl Methacrylate	0.2684	0.2672	0.4	109	0.00	
67	P	Dibromochloromethane	0.2976	0.3050	-2.5	113	0.00	
68	P	2-Hexanone	0.1127	0.1048	7.0	104	0.00	
69	P	1,2-Dibromoethane	0.2384	0.2428	-1.8	112	0.00	
70		n-Butyl Acetate	0.2909	0.2841	2.3	108	0.00	
71	P	Tetrachloroethene	0.3030	0.3012	0.6	113	0.00	
72		1,1,1,2-Tetrachloroethane	0.3197	0.3246	-1.5	114	0.00	
73	P	Chlorobenzene	0.8851	0.9031	-2.0	115	0.00	
74	P	Ethylbenzene	0.4555	0.4790	-5.2	120	0.00	
75	P	Bromoform	0.1883	0.1881	0.1	110	0.00	
76	P	(m+p)Xylene	0.5526	0.5833	-5.6	118	0.00	
77	P	o-Xylene	0.5735	0.5885	-2.6	116	0.00	
78		Cyclohexanone	0.0065	0.0087	-33.8#	146	0.00	-NT
79	P	Styrene	0.9094	0.9447	-3.9	115	0.00	
80		trans-1,4-Dichloro-2-Butene	0.0921	0.0712	22.7#	84	0.00	-8 (11051)
81	P	Isopropylbenzene	1.3790	1.4209	-3.0	115	0.00	
82	S	SURR2,BFB	0.4476	0.4709	-5.2	109	0.00	
83	I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	112	0.00	
84	P	1,1,2,2-Tetrachloroethane	0.4574	0.4608	-0.7	112	0.00	
85		1,2,3-Trichloropropane	0.3117	0.3088	0.9	116	0.00	
86		Bromobenzene	0.6925	0.7048	-1.8	115	0.00	
87		n-Propylbenzene	2.6636	2.8268	-6.1	117	0.00	
88		2-Chlorotoluene	1.6190	1.6896	-4.4	118	0.00	
89		4-Chlorotoluene	1.7069	1.8045	-5.7	118	0.00	
90		1,3,5-Trimethylbenzene	1.7973	1.9303	-7.4	120	0.00	
91		tert-Butylbenzene	1.5633	1.6353	-4.6	118	0.00	
92		1,2,4-Trimethylbenzene	1.9145	2.0184	-5.4	117	0.00	
93		sec-Butylbenzene	2.1952	2.2992	-4.7	116	0.00	
94	P	1,3-Dclbenz	1.2625	1.3325	-5.5	117	0.00	
95	P	1,4-Dclbenz	1.2966	1.3237	-2.1	116	0.00	
96		p-Isopropyltoluene	1.8145	1.9158	-5.6	117	0.00	
97	P	1,2-Dclbenz	1.1963	1.2075	-0.9	114	0.00	

(#) = Out of Range
M6626.D W113015.M Tue Dec 22 13:04:52 2015 Page 2

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6626.D Vial: 9
Acq On : 22 Dec 2015 12:25 pm Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260 Multiplr: 1.00
MS Integration Params: CPD4.P

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
98		n-Butylbenzene	1.6000	1.7143	-7.1	114	0.00	
99	P	1,2-Dibromo-3-chloropropane	0.0668	0.0616	7.8	109	0.00	
100		Nitrobenzene	0.0162	0.0104	35.8#	83	0.00	NT
101	P	1,2,4-Tcbenzene	0.6919	0.6948	-0.4	108	0.00	
102		Naphthalen	1.2158	1.1827	2.7	105	0.00	
103		Hexachlorobt	0.3309	0.3313	-0.1	106	0.00	
104		1,2,3-Tclbenzene	0.5714	0.5513	3.5	106	0.00	

(#) = Out of Range SPCC's out = 1 CCC's out = 0
M6626.D W113015.M Tue Dec 22 13:04:53 2015 Page 3

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6626.D Vial: 9
Acq On : 22 Dec 2015 12:25 pm Operator: D.Lipani
Sample : CCV RQ1516003-02 Inst : MS#6
Misc : 8260 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 22 12:42 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	706484	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.67	114	1001759	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	880764	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	524580	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.65	113	322307	51.29	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.58%			
42) surr1,1,2-dichloroethane-d	4.23	65	262098	51.14	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 102.28%			
62) SURR3,Toluene-d8	7.76	98	1100721	52.75	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.50%			
82) SURR2,BFB	10.14	95	414781	52.61	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 105.22%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	469887	61.43	ug/L	97
3) Chloromethane	1.07	50	456970	56.23	ug/L	100
4) Vinyl Chloride	1.15	62	458716	53.76	ug/L	100
5) Bromomethane	1.32	94	274428	53.94	ug/L	99
6) Chloroethane	1.38	64	231229	53.84	ug/L	99
7) Freon 21	1.41	67	534800	50.14	ug/L	99
8) Freon 123	1.57	83	476492	50.28	ug/L	97
9) Freon 123a	1.59	67	363775	49.90	ug/L	88
10) Acrolein	1.65	56	155332	248.64	ug/L	100
11) Trichlorofluoromethane	1.65	101	479236	54.10	ug/L	98
12) Acetonitrile	1.66	41	91685	198.95	ug/L	98
13) 2-Propanol	1.69	45	117361	679.76	ug/L	98
14) Acetone	1.72	43	41743	49.33	ug/L	87
15) Diethyl Ether	1.79	59	196951	51.93	ug/L	98
16) 1,1-Diclethene	1.94	96	303607	52.48	ug/L	98
17) Iodomethane	1.96	142	516529	58.50	ug/L	99
18) TBA	1.98	59	198307	710.98	ug/L	96
19) Acrylonitrile	2.00	53	296296	233.48	ug/L	100
20) Methylene Chloride	2.05	84	330592	51.05	ug/L	99
21) Freon 113	2.08	101	307643	53.37	ug/L	99
22) Methyl Acetate	2.09	43	117486	45.44	ug/L	99
23) Allyl Chloride	2.10	76	141221	51.39	ug/L #	88
24) Carbon Disulfide	2.15	76	942015	50.27	ug/L	99
25) trans-1,2-Dichloroethene	2.51	96	340000	53.35	ug/L	98
26) Methyl-t-Butyl Ether	2.62	73	630237	52.48	ug/L	99
27) 1,1-Diclethane	2.71	63	509076	52.59	ug/L	99
28) Propionitrile	2.76	54	97641	232.51	ug/L	97
29) Vinyl Acetate	2.90	43	415948	50.81	ug/L	95
30) 2-Chloro-1,3-Butadiene	3.05	53	467085	52.95	ug/L	98
31) 2-Butanone	3.17	43	61826	48.61	ug/L	95
32) Methacrylonitrile	3.26	67	70906	52.23	ug/L	92
33) cis-1,2-Dichloroethene	3.26	96	332331	53.49	ug/L	96
34) Bromochloromethane	3.42	128	157079	52.59	ug/L	94
35) Chloroform	3.50	83	515871	52.65	ug/L	100
36) 2,2-Dichloropropane	3.57	77	399671	52.96	ug/L	99

DL 12/22/15

(#) = qualifier out of range (m) = manual integration
M6626.D W113015.M Tue Dec 22 12:42:14 2015

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6626.D Vial: 9
Acq On : 22 Dec 2015 12:25 pm Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 22 12:42 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
37)	Tetrahydrofuran	3.91	42	39804	47.97 ug/L	93
38)	1,1,1-Trichloroethane	4.47	97	420396	53.25 ug/L	95
41)	Iso-Butyl Alcohol	3.74	43	84201	722.29 ug/L	86
43)	1,2-Dichloroethane	4.35	62	272115	45.99 ug/L	99
44)	1,1-Dichloropropene	4.80	75	368628	50.28 ug/L	97
45)	Cyclohexane	4.86	56	434000	48.63 ug/L	96
46)	Carbontetrachloride	5.04	119	368547	51.29 ug/L	99
47)	Benzene	5.15	78	1164189	51.75 ug/L	99
48)	Dibromomethane	5.99	93	151009	49.32 ug/L	99
49)	1,2-Diclpropane	6.07	63	282645	49.52 ug/L	97
50)	n-Heptane	6.14	43	250586	51.19 ug/L	95
51)	Trichloroethene	6.13	130	340787	51.14 ug/L	99
52)	Bromodichloromethane	6.19	83	355435	51.19 ug/L	99
53)	2-Nitropropane	6.25	41	51710	83.60 ug/L	95
54)	1,4-Dioxane	6.43	88	~~17588~~	~~527.45 ug/L~~ →	96
55)	Methyl Methacrylate	6.60	69	111338	50.12 ug/L	95
56)	Methylcyclohexane	6.72	55	279994	48.27 ug/L	99
57)	2-Chloroethylvinyl Ether	6.87	63	125646	50.84 ug/L	99
58)	cis-1,3-Dichloropropene	7.04	75	410722	50.42 ug/L	99
59)	4-Methyl-2-pentanone	7.24	43	137228	46.06 ug/L	99
60)	trans-1,3-Dichloropropene	7.54	75	324892	48.61 ug/L	99
61)	1,1,2-Trichloroethane	7.64	97	210378	49.53 ug/L	98
63)	Toluene	7.83	91	1184755	50.33 ug/L	99
65)	1,3-Dichloropropane	7.89	76	323815	51.38 ug/L	100
66)	Ethyl Methacrylate	8.08	69	235373	49.79 ug/L	99
67)	Dibromochloromethane	8.09	129	268621	51.25 ug/L	99
68)	2-Hexanone	8.15	43	92340	46.53 ug/L	99
69)	1,2-Dibromoethane	8.31	107	213817	50.92 ug/L	100
70)	n-Butyl Acetate	8.52	43	250252	48.83 ug/L	97
71)	Tetrachloroethene	8.50	164	265257	49.70 ug/L	99
72)	1,1,1,2-Tetrachloroethane	9.05	131	285871	50.76 ug/L	99
73)	Chlorobenzene	9.11	112	795428	51.02 ug/L	100
74)	Ethylbenzene	9.32	106	421880	52.58 ug/L	98
75)	Bromoform	9.50	173	165694	49.96 ug/L	99
76)	(m+p)Xylene	9.51	106	1027559	105.55 ug/L	98
77)	o-Xylene	9.83	106	518367	51.31 ug/L	99
78)	Cyclohexanone	9.75	55	152950	1342.84 ug/L	98
79)	Styrene	9.77	104	832094	51.95 ug/L	100
80)	trans-1,4-Dichloro-2-Buten	10.00	75	62740	38.65 ug/L	97
81)	Isopropylbenzene	10.14	105	1251485	51.52 ug/L	100
84)	1,1,2,2-Tetrachloroethane	9.82	83	241745	50.38 ug/L	98
85)	1,2,3-Trichloropropane	9.94	75	162007	49.54 ug/L	98
86)	Bromobenzene	10.27	156	369741	50.89 ug/L	100
87)	n-Propylbenzene	10.50	91	1482867	53.06 ug/L	99
88)	2-Chlorotoluene	10.54	91	886335	52.18 ug/L	100
89)	4-Chlorotoluene	10.61	91	946592	52.86 ug/L	100
90)	1,3,5-Trimethylbenzene	10.76	105	1012577	53.70 ug/L	99
91)	tert-Butylbenzene	10.95	119	857868	52.30 ug/L	100
92)	1,2,4-Trimethylbenzene	11.06	105	1058801	52.71 ug/L	100
93)	sec-Butylbenzene	11.13	105	1206104	52.37 ug/L	100

18414 = 552.22m

(#) = qualifier out of range (m) = manual integration
M6626.D W113015.M Tue Dec 22 12:42:16 2015

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6626.D Vial: 9
Acq On : 22 Dec 2015 12:25 pm Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 22 12:42 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

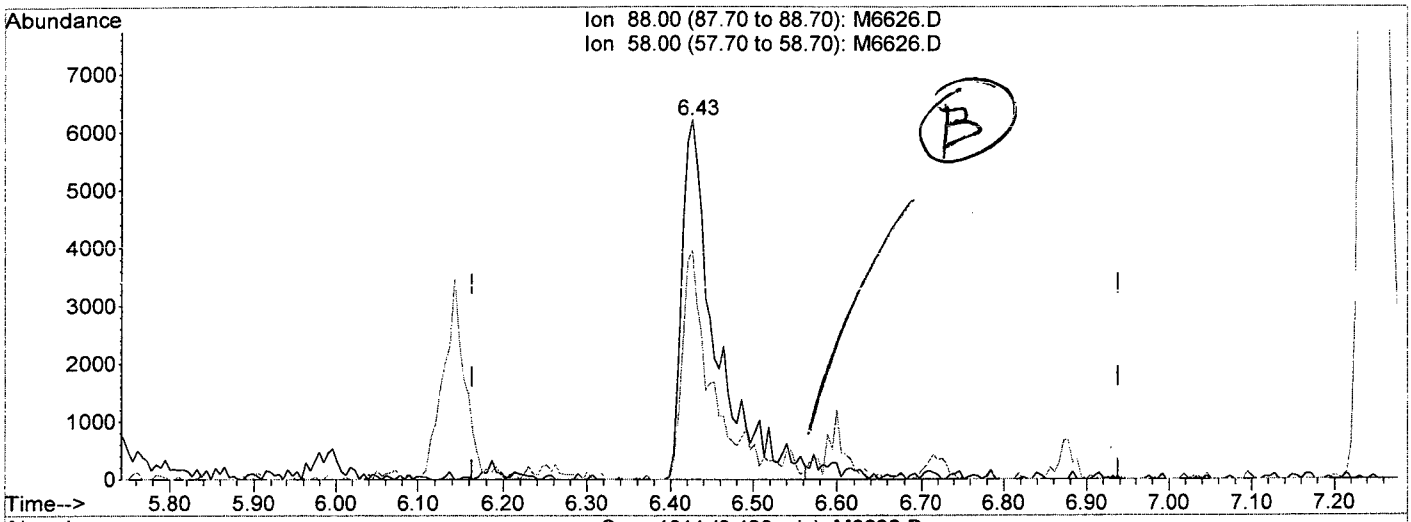
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
94)	1,3-Dclbenz	11.15	146	698994	52.77	ug/L	99
95)	1,4-Dclbenz	11.20	146	694411	51.05	ug/L	99
96)	p-Isopropyltoluene	11.30	119	1005002	52.79	ug/L	100
97)	1,2-Dclbenz	11.47	146	633443	50.47	ug/L	99
98)	n-Butylbenzene	11.61	91	899281	53.57	ug/L	99
99)	1,2-Dibromo-3-chloropropan	11.84	75	32314	46.12	ug/L	94
100)	Nitrobenzene	12.03	77	10890	63.89	ug/L	71
101)	1,2,4-Tcbenzene	12.91	180	364493	50.21	ug/L	99
102)	Naphthalen	13.09	128	620396	48.64	ug/L	99
103)	Hexachlorobt	13.17	225	173783	50.05	ug/L	99
104)	1,2,3-Tclbenzene	13.24	180	289175	48.24	ug/L	99

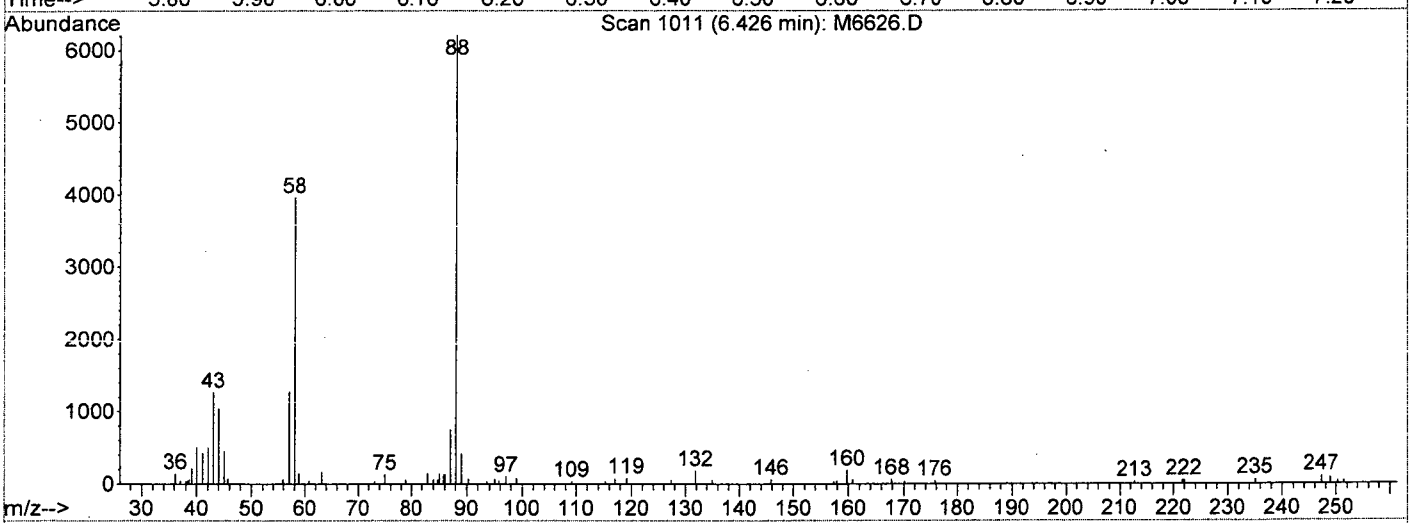
(#) = qualifier out of range (m) = manual integration
M6626.D W113015.M Tue Dec 22 12:42:16 2015 Page 3

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6626.D Vial: 9
Acq On : 22 Dec 2015 12:25 pm Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 22 12:42 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Single Level Calibration





TIC: M6626.D

(54) 1,4-Dioxane

6.43min 527.45ug/L

response 17588

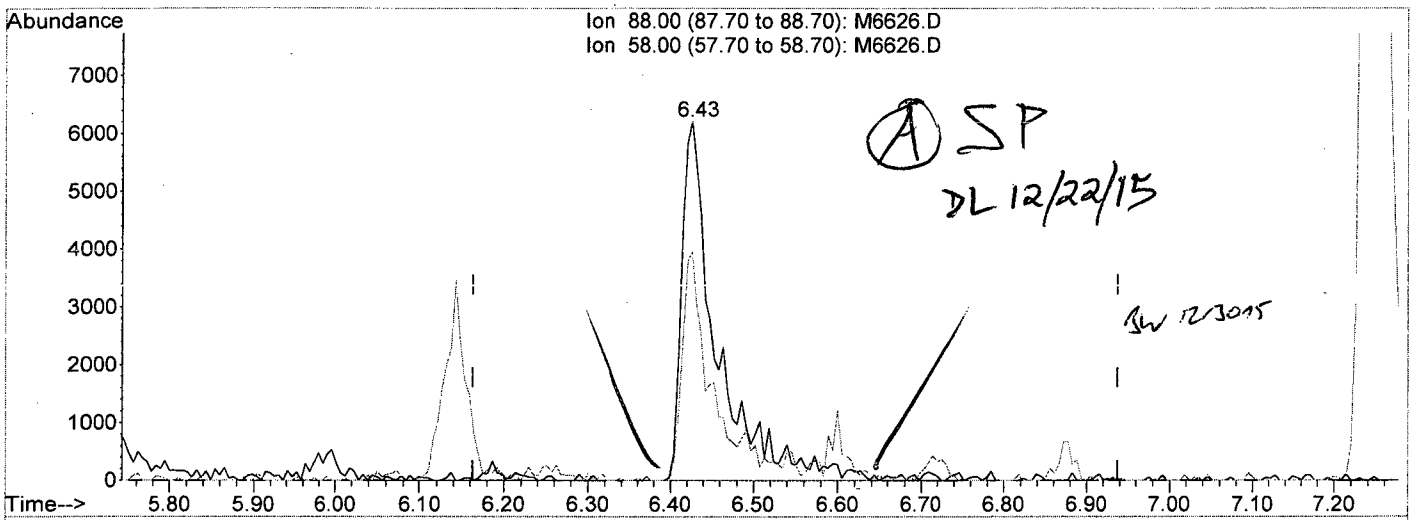
Ion	Exp%	Act%
88.00	100	100
58.00	60.40	63.77
0.00	0.00	0.00
0.00	0.00	0.00

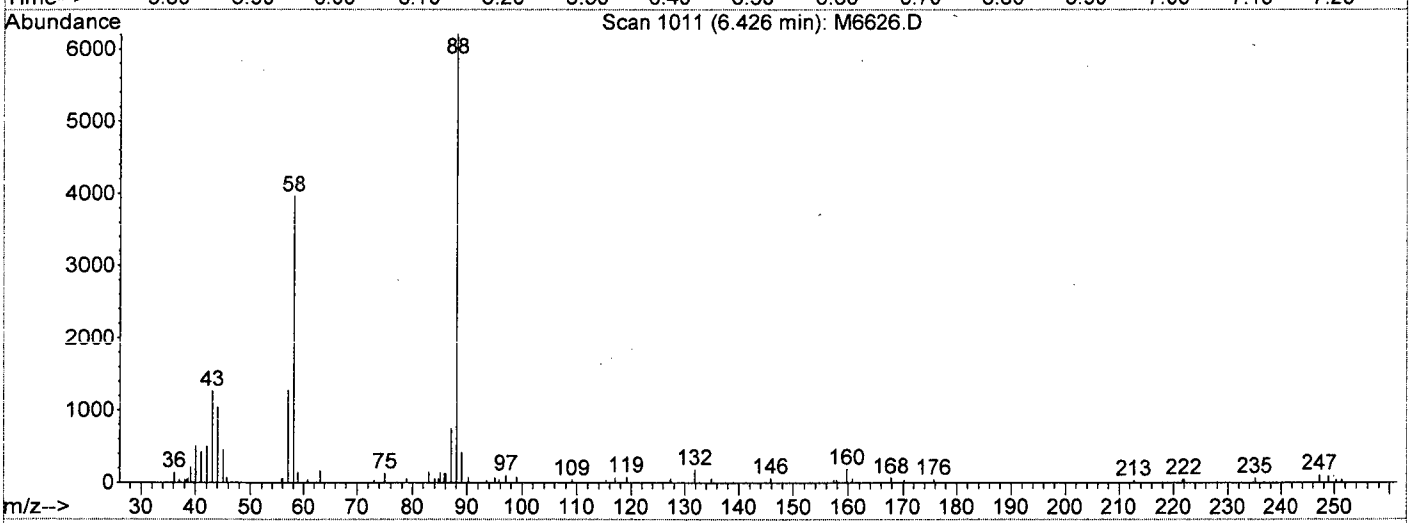
M6626.D W113015.M Tue Dec 22 13:03:57 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6626.D Vial: 9
Acq On : 22 Dec 2015 12:25 pm Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 22 13:04 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Single Level Calibration





TIC: M6626.D

(54) 1,4-Dioxane

6.43min 552.22ug/L m

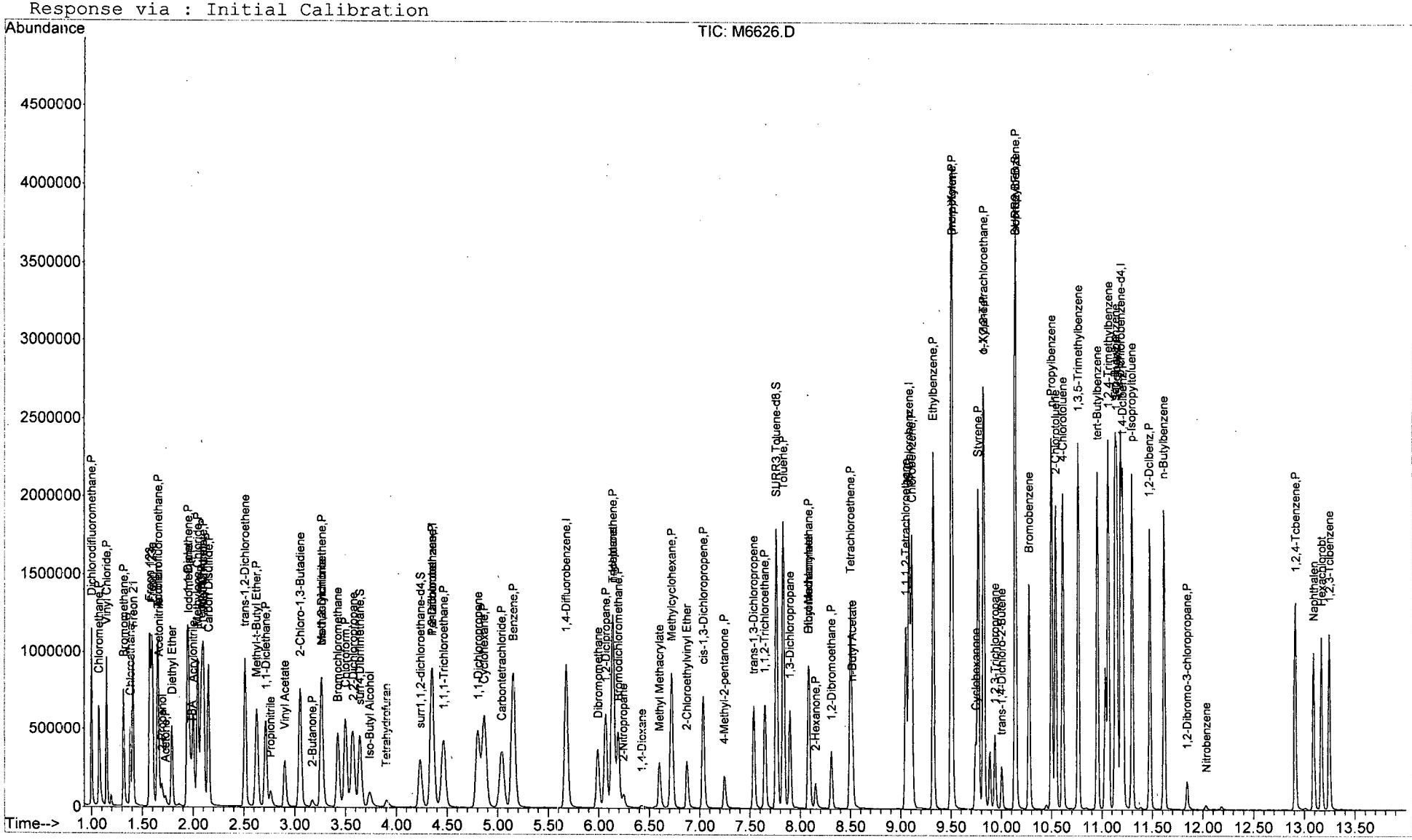
response 18414

Ion	Exp%	Act%
88.00	100	100
58.00	60.40	63.77
0.00	0.00	0.00
0.00	0.00	0.00

M6626.D W113015.M Tue Dec 22 13:04:08 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6626.D Vial: 9
Acq On : 22 Dec 2015 12:25 pm Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 22 12:42 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



M6626.D W113015.M Tue Dec 22 12:42:21 2015 Page 4

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6667.D Vial: 5
Acq On : 26 Dec 2015 10:15 am Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

DL 12/26/15

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	Pentafluorobenzene	1.0000	1.0000	0.0	100	0.00	
2	P	Dichlorodifluoromethane	0.5414	0.6986	-29.0#	129	0.00	~~-8~~ ↑ (20-40)
3	P	Chloromethane	0.5751	0.6960	-21.0#	129	0.00	~~-8~~ ↑ (20-40)
4	P	Vinyl Chloride	0.6039	0.6920	-14.6	118	0.00	
5	P	Bromomethane	0.3600	0.4125	-14.6	127	0.00	
6	P	Chloroethane	0.3039	0.3494	-15.0	116	0.00	
7		Freon 21	0.7549	0.8555	-13.3	121	0.00	
8		Freon 123	0.6707	0.7612	-13.5	120	0.00	
9		Freon 123a	0.5160	0.5771	-11.8	117	0.00	
10		Acrolein	0.0442	0.0463	-4.8	105	0.00	
11	P	Trichlorofluoromethane	0.6269	0.7380	-17.7	119	0.00	
12		Acetonitrile	0.0326	0.0316	3.1	104	0.00	
13		2-Propanol	0.0122	0.0111	9.0	91	0.00	
14	P	Acetone	0.0599	0.0681	-13.7	115	0.00	
15		Diethyl Ether	0.2684	0.3024	-12.7	116	0.00	
16	P	1,1-Diclethene	0.4094	0.4715	-15.2	116	0.00	
17		Iodomethane	0.5562	0.8208	~~-47.6~~#	124	0.00	+ 31.1% Drift (NT)
18		TBA	0.0197	0.0178	9.6	94	0.00	
19		Acrylonitrile	0.0898	0.0935	-4.1	109	0.00	
20	P	Methylene Chloride	0.4583	0.4826	-5.3	112	0.00	
21	P	Freon 113	0.4080	0.4753	-16.5	123	0.00	
22	P	Methyl Acetate	0.1830	0.1810	1.1	103	0.00	
23		Allyl Chloride	0.1945	0.2197	-13.0	119	0.00	
24	P	Carbon Disulfide	1.3262	1.5090	-13.8	119	0.00	
25		trans-1,2-Dichloroethene	0.4511	0.5091	-12.9	115	0.00	
26	P	Methyl-t-Butyl Ether	0.8499	0.9310	-9.5	108	0.00	
27	P	1,1-Diclethane	0.6851	0.7656	-11.8	113	0.00	
28		Propionitrile	0.0297	0.0305	-2.7	101	0.00	
29		Vinyl Acetate	0.5794	0.6245	-7.8	108	0.00	
30		2-Chloro-1,3-Butadiene	0.6243	0.7525	-20.5#	119	0.00	- NT
31	P	2-Butanone	0.0900	0.0934#	-3.8	104	0.00	
32		Methacrylonitrile	0.0961	0.1048	-9.1	109	0.00	
33	P	cis-1,2-Dichloroethene	0.4397	0.5078	-15.5	118	0.00	
34		Bromochloromethane	0.2114	0.2325	-10.0	113	0.00	
35	P	Chloroform	0.6934	0.7920	-14.2	118	0.00	
36		2,2-Dichloropropane	0.5341	0.6140	-15.0	120	0.00	
37		Tetrahydrofuran	0.0587	0.0613	-4.4	104	0.00	
38	P	1,1,1-Trichloroethane	0.5588	0.6273	-12.3	115	0.00	
39	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	107	0.00	
40	S	surr4,Dibrflmethane	0.3136	0.3263	-4.0	109	0.00	
41		Iso-Butyl Alcohol	0.0058	0.0050	13.8	96	0.00	
42	S	surr1,1,2-dichloroethane-d4	0.2558	0.2522	1.4	103	0.00	
43	P	1,2-Dichloroethane	0.2953	0.2881	2.4	116	0.00	
44		1,1-Dichloropropene	0.3659	0.3896	-6.5	118	0.00	
45	P	Cyclohexane	0.4454	0.4763	-6.9	119	0.00	
46	P	Carbontetrachloride	0.3587	0.3842	-7.1	118	0.00	
47	P	Benzene	1.1229	1.1919	-6.1	116	0.00	
48		Dibromomethane	0.1528	0.1524	0.3	112	0.00	
49	P	1,2-Diclpropane	0.2849	0.2940	-3.2	117	0.00	

(#) = Out of Range
M6667.D W113015.M Sat Dec 26 10:44:41 2015 Page 1

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6667.D Vial: 5
Acq On : 26 Dec 2015 10:15 am Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
50		n-Heptane	0.2443	0.2597	-6.3	111	0.00	
51	P	Trichloroethene	0.3326	0.3490	-4.9	114	0.00	
52	P	Bromodichloromethane	0.3466	0.3762	-8.5	118	0.00	
53		2-Nitropropane	0.0309	0.0277	10.4	101	0.00	
54		1,4-Dioxane	0.0017	0.0012	29.4#	82	0.00	-NT
55		Methyl Methacrylate	0.1109	0.1160	-4.6	110	0.00	
56	P	Methylcyclohexane	0.2895	0.3168	-9.4	123	0.00	
57		2-Chloroethylvinyl Ether	0.1234	0.1319	-6.9	108	0.00	
58	P	cis-1,3-Dichloropropene	0.4066	0.4416	-8.6	115	0.00	
59	P	4-Methyl-2-pentanone	0.1487	0.1414	4.9	102	0.00	
60		trans-1,3-Dichloropropene	0.3336	0.3330	0.2	109	0.00	
61	P	1,1,2-Trichloroethane	0.2120	0.2145	-1.2	112	0.00	
62	S	SURR3,Toluene-d8	1.0415	1.1168	-7.2	108	0.00	
63	P	Toluene	1.1748	1.2195	-3.8	117	0.00	
64	I	d5-Chlorobenzene	1.0000	1.0000	0.0	116	0.00	
65		1,3-Dichloropropane	0.3578	0.3403	4.9	116	0.00	
66		Ethyl Methacrylate	0.2684	0.2498	6.9	106	0.00	
67	P	Dibromochloromethane	0.2976	0.2935	1.4	113	0.00	
68	P	2-Hexanone	0.1127	0.0999#	11.4	103	0.00	
69	P	1,2-Dibromoethane	0.2384	0.2364	0.8	113	0.00	
70		n-Butyl Acetate	0.2909	0.2671	8.2	105	0.00	
71	P	Tetrachloroethene	0.3030	0.2945	2.8	115	0.00	
72		1,1,1,2-Tetrachloroethane	0.3197	0.3145	1.6	115	0.00	
73	P	Chlorobenzene	0.8851	0.8330	5.9	111	0.00	
74	P	Ethylbenzene	0.4555	0.4503	1.1	117	0.00	
75	P	Bromoform	0.1883	0.1843	2.1	112	0.00	
76	P	(m+p)Xylene	0.5526	0.5539	-0.2	116	0.00	
77	P	o-Xylene	0.5735	0.5808	-1.3	119	0.00	
78		Cyclohexanone	0.0065	0.0088	-35.4#	154	0.00	-NT
79	P	Styrene	0.9094	0.9219	-1.4	117	0.00	
80		trans-1,4-Dichloro-2-Butene	0.0921	0.0711	22.8#	87	0.00	-NT
81	P	Isopropylbenzene	1.3790	1.3621	1.2	115	0.00	
82	S	SURR2,BFB	0.4476	0.4723	-5.5	114	0.00	
83	I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	115	0.00	
84	P	1,1,2,2-Tetrachloroethane	0.4574	0.4470	2.3	111	0.00	
85		1,2,3-Trichloropropane	0.3117	0.2986	4.2	114	0.00	
86		Bromobenzene	0.6925	0.7148	-3.2	118	0.00	
87		n-Propylbenzene	2.6636	2.8116	-5.6	119	0.00	
88		2-Chlorotoluene	1.6190	1.7049	-5.3	122	0.00	
89		4-Chlorotoluene	1.7069	1.7564	-2.9	117	0.00	
90		1,3,5-Trimethylbenzene	1.7973	1.9423	-8.1	123	0.00	
91		tert-Butylbenzene	1.5633	1.6254	-4.0	119	0.00	
92		1,2,4-Trimethylbenzene	1.9145	2.0220	-5.6	119	0.00	
93		sec-Butylbenzene	2.1952	2.3403	-6.6	120	0.00	
94	P	1,3-Dclbenz	1.2625	1.3127	-4.0	118	0.00	
95	P	1,4-Dclbenz	1.2966	1.3269	-2.3	118	0.00	
96		p-Isopropyltoluene	1.8145	1.9391	-6.9	120	0.00	
97	P	1,2-Dclbenz	1.1963	1.2199	-2.0	117	0.00	

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6667.D Vial: 5
Acq On : 26 Dec 2015 10:15 am Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
98		n-Butylbenzene	1.6000	1.6985	-6.2	115	0.00
99	P	1,2-Dibromo-3-chloropropane	0.0668	0.0595	10.9	107	0.00
100		Nitrobenzene	0.0162	0.0135	16.7	110	0.00
101	P	1,2,4-Tcbenzene	0.6919	0.7048	-1.9	112	0.00
102		Naphthalen	1.2158	1.1786	3.1	106	0.00
103		Hexachlorobt	0.3309	0.3353	-1.3	109	0.00
104		1,2,3-Tclbenzene	0.5714	0.5400	5.5	106	0.00

(#) = Out of Range SPCC's out = 2 CCC's out = 0
M6667.D W113015.M Sat Dec 26 10:44:46 2015 Page 3

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6667.D Vial: 5
Acq On : 26 Dec 2015 10:15 am Operator: D.Lipani
Sample : CCV RQ1516108-02 Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 26 10:32 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	659754	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.67	114	970013	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	916562	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	534217	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	316474	52.01	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 104.02%			
42) surr1,1,2-dichloroethane-d	4.23	65	244592	49.29	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 98.58%			
62) SURR3,Toluene-d8	7.76	98	1083297	53.61	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 107.22%			
82) SURR2,BFB	10.14	95	432909	52.77	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 105.54%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	460900	64.52	ug/L	98
3) Chloromethane	1.07	50	459204	60.51	ug/L	99
4) Vinyl Chloride	1.15	62	456567	57.30	ug/L	99
5) Bromomethane	1.32	94	272160	57.29	ug/L	98
6) Chloroethane	1.38	64	230492	57.47	ug/L	99
7) Freon 21	1.41	67	564434	56.67	ug/L	98
8) Freon 123	1.57	83	502232	56.75	ug/L	97
9) Freon 123a	1.59	67	380738	55.92	ug/L	92
10) Acrolein	1.65	56	152735	261.80	ug/L	99
11) Trichlorofluoromethane	1.65	101	486870	58.85	ug/L	99
12) Acetonitrile	1.66	41	104357	242.49	ug/L	97
13) 2-Propanol	1.69	45	146899	911.12	ug/L	98
14) Acetone	1.72	43	44958	56.89	ug/L	90
15) Diethyl Ether	1.79	59	199517	56.33	ug/L	98
16) 1,1-Diclethene	1.94	96	311064	57.58	ug/L	97
17) Iodomethane	1.96	142	541504	65.54	ug/L	99
18) TBA	1.98	59	235082	902.53	ug/L	100
19) Acrylonitrile	2.00	53	308507	260.32	ug/L	98
20) Methylene Chloride	2.04	84	318383	52.64	ug/L	99
21) Freon 113	2.08	101	313564	58.25	ug/L	98
22) Methyl Acetate	2.09	43	119383	49.45	ug/L	98
23) Allyl Chloride	2.10	76	144960	56.49	ug/L	95
24) Carbon Disulfide	2.15	76	995539	56.89	ug/L	100
25) trans-1,2-Dichloroethene	2.51	96	335874	56.43	ug/L	97
26) Methyl-t-Butyl Ether	2.62	73	614247	54.77	ug/L	97
27) 1,1-Diclethane	2.71	63	505080	55.88	ug/L	97
28) Propionitrile	2.76	54	100619	256.58	ug/L	95
29) Vinyl Acetate	2.90	43	412021	53.89	ug/L	96
30) 2-Chloro-1,3-Butadiene	3.05	53	496452	60.26	ug/L	97
31) 2-Butanone	3.17	43	61613	51.87	ug/L	97
32) Methacrylonitrile	3.26	67	69152	54.55	ug/L	95
33) cis-1,2-Dichloroethene	3.26	96	335054	57.75	ug/L	98
34) Bromochloromethane	3.42	128	153398	54.99	ug/L	98
35) Chloroform	3.50	83	522518	57.11	ug/L	99
36) 2,2-Dichloropropane	3.57	77	405058	57.48	ug/L	98

(#) = qualifier out of range (m) = manual integration
M6667.D W113015.M Sat Dec 26 10:32:11 2015

DL 12/26/15

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6667.D Vial: 5
Acq On : 26 Dec 2015 10:15 am Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 26 10:32 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	Tetrahydrofuran	3.90	42	40457	52.20	ug/L	96
38)	1,1,1-Trichloroethane	4.47	97	413860	56.13	ug/L	98
41)	Iso-Butyl Alcohol	3.73	43	97205	861.13	ug/L	96
43)	1,2-Dichloroethane	4.35	62	279456	48.78	ug/L	99
44)	1,1-Dichloropropene	4.80	75	377958	53.24	ug/L	99
45)	Cyclohexane	4.86	56	462065	53.47	ug/L	95
46)	Carbontetrachloride	5.04	119	372721	53.57	ug/L	98
47)	Benzene	5.15	78	1156156	53.07	ug/L	98
48)	Dibromomethane	5.98	93	147806	49.85	ug/L	98
49)	1,2-Diclpropane	6.07	63	285159	51.60	ug/L	98
50)	n-Heptane	6.14	43	251884	53.14	ug/L	93
51)	Trichloroethene	6.13	130	338541	52.46	ug/L	99
52)	Bromodichloromethane	6.19	83	364932	54.27	ug/L	99
53)	2-Nitropropane	6.24	41	53680	89.62	ug/L	92
54)	1,4-Dioxane	6.42	88	23893	739.98	ug/L	88
55)	Methyl Methacrylate	6.60	69	112514	52.31	ug/L	98
56)	Methylcyclohexane	6.72	55	307305	54.71	ug/L	99
57)	2-Chloroethylvinyl Ether	6.87	63	127920	53.45	ug/L	97
58)	cis-1,3-Dichloropropene	7.03	75	428326	54.30	ug/L	99
59)	4-Methyl-2-pentanone	7.24	43	137202	47.56	ug/L	98
60)	trans-1,3-Dichloropropene	7.53	75	322974	49.91	ug/L	100
61)	1,1,2-Trichloroethane	7.65	97	208116	50.60	ug/L	99
63)	Toluene	7.83	91	1182967	51.90	ug/L	100
65)	1,3-Dichloropropane	7.89	76	311929	47.56	ug/L	99
66)	Ethyl Methacrylate	8.07	69	228946	46.54	ug/L	96
67)	Dibromochloromethane	8.09	129	269019	49.32	ug/L	99
68)	2-Hexanone	8.15	43	91601	44.36	ug/L	97
69)	1,2-Dibromoethane	8.31	107	216664	49.58	ug/L	100
70)	n-Butyl Acetate	8.52	43	244851	45.91	ug/L	97
71)	Tetrachloroethene	8.50	164	269950	48.61	ug/L	99
72)	1,1,1,2-Tetrachloroethane	9.05	131	288251	49.18	ug/L	97
73)	Chlorobenzene	9.11	112	763495	47.06	ug/L	99
74)	Ethylbenzene	9.32	106	412732	49.43	ug/L	100
75)	Bromoform	9.50	173	168878	48.93	ug/L	98
76)	(m+p)Xylene	9.50	106	1015434	100.23	ug/L	98
77)	o-Xylene	9.83	106	532300	50.63	ug/L	98
78)	Cyclohexanone	9.74	55	161655	1363.83	ug/L	95
79)	Styrene	9.77	104	844941	50.69	ug/L	100
80)	trans-1,4-Dichloro-2-Buten	10.01	75	65170	38.58	ug/L	94
81)	Isopropylbenzene	10.14	105	1248474	49.39	ug/L	100
84)	1,1,2,2-Tetrachloroethane	9.82	83	238793	48.87	ug/L	99
85)	1,2,3-Trichloropropane	9.93	75	159525	47.90	ug/L	100
86)	Bromobenzene	10.28	156	381837	51.60	ug/L	99
87)	n-Propylbenzene	10.49	91	1501995	52.78	ug/L	100
88)	2-Chlorotoluene	10.54	91	910760	52.65	ug/L	100
89)	4-Chlorotoluene	10.61	91	938288	51.45	ug/L	100
90)	1,3,5-Trimethylbenzene	10.76	105	1037615	54.03	ug/L	100
91)	tert-Butylbenzene	10.95	119	868321	51.99	ug/L	100
92)	1,2,4-Trimethylbenzene	11.06	105	1080183	52.81	ug/L	99
93)	sec-Butylbenzene	11.13	105	1250242	53.31	ug/L	99

(#) = qualifier out of range (m) = manual integration
M6667.D W113015.M Sat Dec 26 10:32:14 2015

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6667.D Vial: 5
Acq On : 26 Dec 2015 10:15 am Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 26 10:32 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

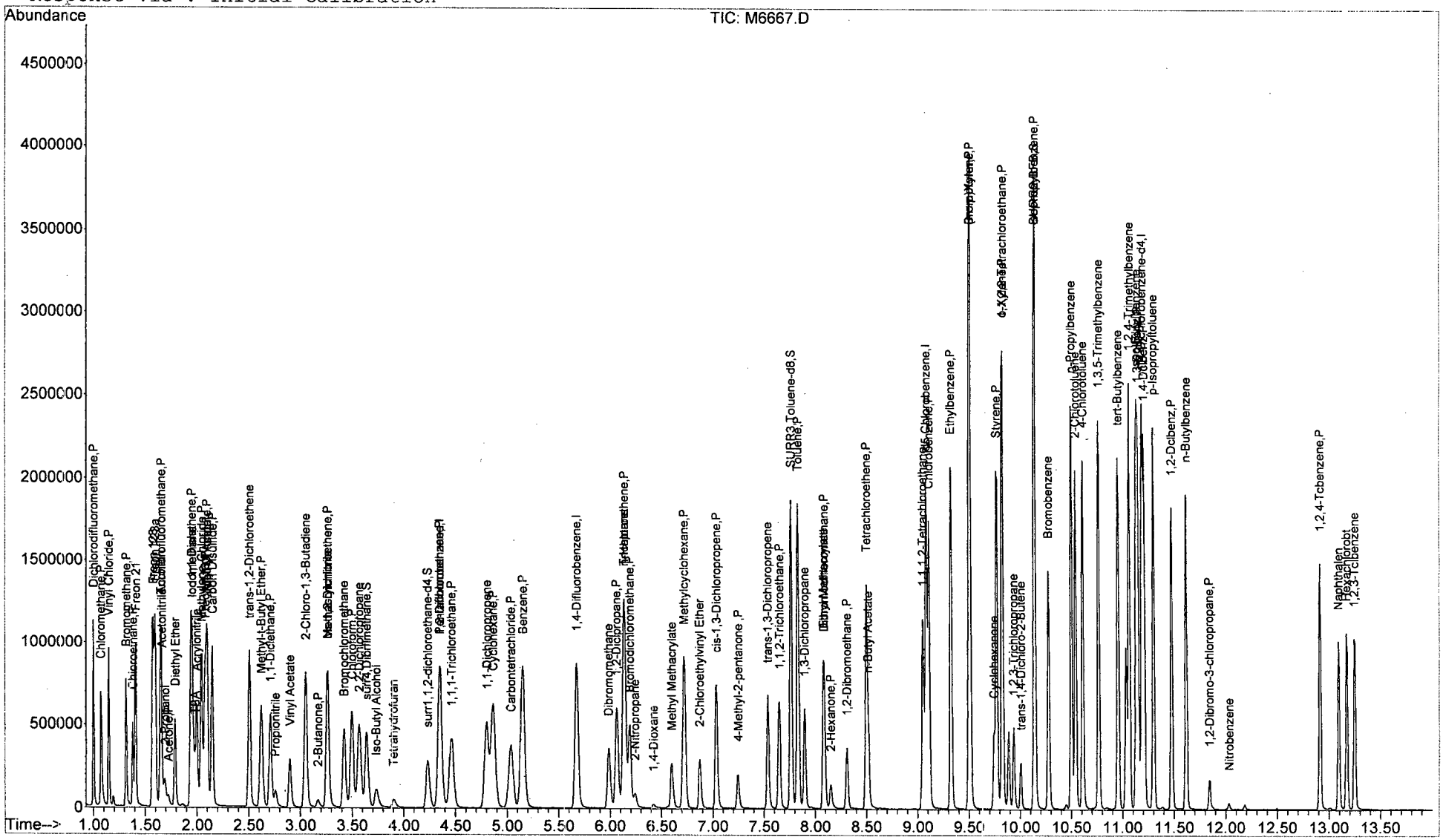
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
94)	1,3-Dclbenz	11.15	146	701240	51.99	ug/L	99
95)	1,4-Dclbenz	11.21	146	708878	51.17	ug/L	98
96)	p-Isopropyltoluene	11.29	119	1035913	53.43	ug/L	100
97)	1,2-Dclbenz	11.47	146	651681	50.99	ug/L	99
98)	n-Butylbenzene	11.62	91	907382	53.08	ug/L	99
99)	1,2-Dibromo-3-chloropropan	11.84	75	31771	44.53	ug/L	97
100)	Nitrobenzene	12.03	77	14399	82.95	ug/L	85
101)	1,2,4-Tcbenzene	12.91	180	376502	50.93	ug/L	100
102)	Naphthalen	13.09	128	629622	48.47	ug/L	100
103)	Hexachlorobt	13.17	225	179114	50.66	ug/L	98
104)	1,2,3-Tclbenzene	13.25	180	288465	47.25	ug/L	98

(#) = qualifier out of range (m) = manual integration
M6667.D W113015.M Sat Dec 26 10:32:15 2015 Page 3

Quantitation Report

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6667.D Vial: 5
Acq On : 26 Dec 2015 10:15 am Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 26 10:32 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



M6667.D W113015.M Sat Dec 26 10:32:20 2015

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6689.D Vial: 5
Acq On : 28 Dec 2015 9:24 am Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Multiple Level Calibration

DL 12/28/15

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	Pentafluorobenzene	1.0000	1.0000	0.0	101	0.00	
2	P	Dichlorodifluoromethane	0.5414	0.6991	-29.1#	130	0.00	-⊗ ↑(20-40)
3	P	Chloromethane	0.5751	0.6758	-17.5	127	0.00	
4	P	Vinyl Chloride	0.6039	0.6753	-11.8	116	0.00	
5	P	Bromomethane	0.3600	0.4209	-16.9	131	0.00	
6	P	Chloroethane	0.3039	0.3450	-13.5	115	0.00	
7		Freon 21	0.7549	0.8158	-8.1	116	0.00	
8		Freon 123	0.6707	0.7538	-12.4	120	0.00	
9		Freon 123a	0.5160	0.5762	-11.7	118	0.00	
10		Acrolein	0.0442	0.0404	8.6	92	0.00	
11	P	Trichlorofluoromethane	0.6269	0.7419	-18.3	120	0.00	
12		Acetonitrile	0.0326	0.0280	14.1	92	0.00	
13		2-Propanol	0.0122	0.0094	23.0#	78	0.00	-NT
14	P	Acetone	0.0599	0.0731	-22.0#	124	0.00	-⊗ ↑(20-40)
15		Diethyl Ether	0.2684	0.2875	-7.1	111	0.00	
16	P	1,1-Diclethene	0.4094	0.4715	-15.2	117	0.00	
17		Iodomethane	0.5562	0.7649	~~-37.5#~~	116	0.00	+
18		TBA	0.0197	0.0152	22.8#	81	0.00	-⊗ ↓(20-40) 11019 only
19		Acrylonitrile	0.0898	0.0881	1.9	104	0.00	
20	P	Methylene Chloride	0.4583	0.4976	-8.6	116	0.00	
21	P	Freon 113	0.4080	0.4606	-12.9	120	0.00	
22	P	Methyl Acetate	0.1830	0.1698	7.2	97	0.00	
23		Allyl Chloride	0.1945	0.2083	-7.1	114	0.00	
24	P	Carbon Disulfide	1.3262	1.4693	-10.8	117	0.00	
25		trans-1,2-Dichloroethene	0.4511	0.5089	-12.8	116	0.00	
26	P	Methyl-t-Butyl Ether	0.8499	0.9202	-8.3	108	0.00	
27	P	1,1-Diclethane	0.6851	0.8067	-17.7	120	0.00	
28		Propionitrile	0.0297	0.0293	1.3	98	0.00	
29		Vinyl Acetate	0.5794	0.5895	-1.7	103	0.00	
30		2-Chloro-1,3-Butadiene	0.6243	0.7274	-16.5	116	0.00	
31	P	2-Butanone	0.0900	0.0875#	2.8	98	0.00	
32		Methacrylonitrile	0.0961	0.0997	-3.7	104	0.00	
33	P	cis-1,2-Dichloroethene	0.4397	0.5057	-15.0	118	0.00	
34		Bromochloromethane	0.2114	0.2389	-13.0	117	0.00	
35	P	Chloroform	0.6934	0.7882	-13.7	119	0.00	
36		2,2-Dichloropropane	0.5341	0.6040	-13.1	119	0.00	
37		Tetrahydrofuran	0.0587	0.0553	5.8	95	0.00	
38	P	1,1,1-Trichloroethane	0.5588	0.6532	-16.9	121	0.00	
39	I	1,4-Difluorobenzene	1.0000	1.0000	0.0	110	0.00	
40	S	surr4,Dibrflmethane	0.3136	0.3158	-0.7	108	0.00	
41		Iso-Butyl Alcohol	0.0058	0.0042	27.6#	82	0.00	-NT
42	S	surr1,1,2-dichloroethane-d4	0.2558	0.2432	4.9	102	0.00	
43	P	1,2-Dichloroethane	0.2953	0.2849	3.5	117	0.00	
44		1,1-Dichloropropene	0.3659	0.3893	-6.4	120	0.00	
45	P	Cyclohexane	0.4454	0.4687	-5.2	120	0.00	
46	P	Carbontetrachloride	0.3587	0.3838	-7.0	121	0.00	
47	P	Benzene	1.1229	1.1820	-5.3	118	0.00	
48		Dibromomethane	0.1528	0.1504	1.6	113	0.00	
49	P	1,2-Diclpropane	0.2849	0.2923	-2.6	119	0.00	

(#) = Out of Range
M6689.D W113015.M Mon Dec 28 09:51:43 2015 Page 1

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6689.D Vial: 5
Acq On : 28 Dec 2015 9:24 am Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
50		n-Heptane	0.2443	0.2615	-7.0	115	0.00	
51	P	Trichloroethene	0.3326	0.3511	-5.6	117	0.00	
52	P	Bromodichloromethane	0.3466	0.3746	-8.1	121	0.00	
53		2-Nitropropane	0.0309	0.0268	13.3	100	0.00	
54		1,4-Dioxane	0.0017	0.0010	41.2#	69	0.00	-NT
55		Methyl Methacrylate	0.1109	0.1095	1.3	106	0.00	
56	P	Methylcyclohexane	0.2895	0.3000	-3.6	119	0.00	
57		2-Chloroethylvinyl Ether	0.1234	0.1219	1.2	102	0.00	
58	P	cis-1,3-Dichloropropene	0.4066	0.4232	-4.1	113	0.00	
59	P	4-Methyl-2-pentanone	0.1487	0.1266	14.9	93	0.00	
60		trans-1,3-Dichloropropene	0.3336	0.3342	-0.2	112	0.00	
61	P	1,1,2-Trichloroethane	0.2120	0.2072	2.3	111	0.00	
62	S	SURR3,Toluene-d8	1.0415	1.1053	-6.1	109	0.00	
63	P	Toluene	1.1748	1.1903	-1.3	116	0.00	
64	I	d5-Chlorobenzene	1.0000	1.0000	0.0	118	0.00	
65		1,3-Dichloropropane	0.3578	0.3383	5.4	117	0.00	
66		Ethyl Methacrylate	0.2684	0.2479	7.6	107	0.00	
67	P	Dibromochloromethane	0.2976	0.2907	2.3	114	0.00	
68	P	2-Hexanone	0.1127	0.0960#	14.8	101	0.00	
69	P	1,2-Dibromoethane	0.2384	0.2287	4.1	111	0.00	
70		n-Butyl Acetate	0.2909	0.2494	14.3	100	0.00	
71	P	Tetrachloroethene	0.3030	0.3056	-0.9	121	0.00	
72		1,1,1,2-Tetrachloroethane	0.3197	0.3174	0.7	118	0.00	
73	P	Chlorobenzene	0.8851	0.8658	2.2	117	0.00	
74	P	Ethylbenzene	0.4555	0.4579	-0.5	121	0.00	
75	P	Bromoform	0.1883	0.1796	4.6	111	0.00	
76	P	(m+p)Xylene	0.5526	0.5793	-4.8	123	0.00	
77	P	o-Xylene	0.5735	0.5729	0.1	119	0.00	
78		Cyclohexanone	0.0065	0.0117	-80.0#	207#	0.00	-NT
79	P	Styrene	0.9094	0.9197	-1.1	119	0.00	
80		trans-1,4-Dichloro-2-Butene	0.0921	0.0594	35.5#	74	0.00	-NT
81	P	Isopropylbenzene	1.3790	1.3605	1.3	116	0.00	
82	S	SURR2,BFB	0.4476	0.4731	-5.7	116	0.00	
83	I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	124	0.00	
84	P	1,1,2,2-Tetrachloroethane	0.4574	0.3992	12.7	107	0.00	
85		1,2,3-Trichloropropane	0.3117	0.2689	13.7	111	0.00	
86		Bromobenzene	0.6925	0.6754	2.5	121	0.00	
87		n-Propylbenzene	2.6636	2.6192	1.7	119	0.00	
88		2-Chlorotoluene	1.6190	1.5495	4.3	120	0.00	
89		4-Chlorotoluene	1.7069	1.6745	1.9	120	0.00	
90		1,3,5-Trimethylbenzene	1.7973	1.8023	-0.3	123	0.00	
91		tert-Butylbenzene	1.5633	1.5697	-0.4	125	0.00	
92		1,2,4-Trimethylbenzene	1.9145	1.9109	0.2	122	0.00	
93		sec-Butylbenzene	2.1952	2.2425	-2.2	124	0.00	
94	P	1,3-Dclbenz	1.2625	1.2581	0.3	122	0.00	
95	P	1,4-Dclbenz	1.2966	1.2638	2.5	122	0.00	
96		p-Isopropyltoluene	1.8145	1.8171	-0.1	122	0.00	
97	P	1,2-Dclbenz	1.1963	1.1368	5.0	118	0.00	

(#) = Out of Range
M6689.D W113015.M Mon Dec 28 09:51:48 2015

Evaluate Continuing Calibration Report

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6689.D Vial: 5
Acq On : 28 Dec 2015 9:24 am Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
98		n-Butylbenzene	1.6000	1.6350	-2.2	120	0.00	
99	P	1,2-Dibromo-3-chloropropane	0.0668	0.0540	19.2	105	0.00	
100		Nitrobenzene	0.0162	0.0121	25.3#	107	0.00	-NT
101	P	1,2,4-Tcbenzene	0.6919	0.6564	5.1	113	0.00	
102		Naphthalen	1.2158	1.0098	16.9	98	0.00	
103		Hexachlorobt	0.3309	0.3164	4.4	111	0.00	
104		1,2,3-Tclbenzene	0.5714	0.5006	12.4	106	0.00	

(#) = Out of Range SPCC's out = 2 CCC's out = 0
M6689.D W113015.M Mon Dec 28 09:51:49 2015 Page 3

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6689.D Vial: 5
Acq On : 28 Dec 2015 9:24 am Operator: D.Lipani
Sample : CCV RQ1516146-02 Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 28 9:41 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	664781	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.68	114	993562	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	930650	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.18	152	577049	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	313741	50.34	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.68%			
42) surr1,1,2-dichloroethane-d	4.24	65	241646	47.54	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 95.08%			
62) SURR3,Toluene-d8	7.76	98	1098135	53.06	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 106.12%			
82) SURR2,BFB	10.14	95	440264	52.85	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 105.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	464744	64.56	ug/L	100
3) Chloromethane	1.07	50	449239	58.75	ug/L	99
4) Vinyl Chloride	1.15	62	448911	55.91	ug/L	97
5) Bromomethane	1.31	94	279822	58.46	ug/L	99
6) Chloroethane	1.38	64	229351	56.75	ug/L	100
7) Freon 21	1.41	67	542349	54.04	ug/L	99
8) Freon 123	1.57	83	501121	56.20	ug/L	98
9) Freon 123a	1.60	67	383069	55.84	ug/L	96
10) Acrolein	1.66	56	134146	228.20	ug/L	96
11) Trichlorofluoromethane	1.65	101	493168	59.17	ug/L	99
12) Acetonitrile	1.67	41	92912	214.26	ug/L	98
13) 2-Propanol	1.69	45	125059	769.79	ug/L	99
14) Acetone	1.73	43	48609	61.04	ug/L	100
15) Diethyl Ether	1.79	59	191113	53.55	ug/L	99
16) 1,1-Diclethene	1.94	96	313417	57.58	ug/L	97
17) Iodomethane	1.96	142	508467	61.15	ug/L	99
18) TBA	1.98	59	202448	771.36	ug/L	98
19) Acrylonitrile	2.00	53	292927	245.30	ug/L	100
20) Methylene Chloride	2.04	84	330780	54.28	ug/L	98
21) Freon 113	2.08	101	306187	56.45	ug/L	98
22) Methyl Acetate	2.09	43	112859	46.39	ug/L	100
23) Allyl Chloride	2.10	76	138474	53.55	ug/L	90
24) Carbon Disulfide	2.15	76	976744	55.39	ug/L	100
25) trans-1,2-Dichloroethene	2.50	96	338336	56.41	ug/L	97
26) Methyl-t-Butyl Ether	2.62	73	611753	54.14	ug/L	100
27) 1,1-Diclethane	2.71	63	536304	58.88	ug/L	99
28) Propionitrile	2.76	54	97307	246.25	ug/L	98
29) Vinyl Acetate	2.90	43	391894	50.87	ug/L	98
30) 2-Chloro-1,3-Butadiene	3.05	53	483560	58.25	ug/L	99
31) 2-Butanone	3.17	43	58196	48.63	ug/L	93
32) Methacrylonitrile	3.27	67	66247	51.86	ug/L	96
33) cis-1,2-Dichloroethene	3.26	96	336189	57.51	ug/L	99
34) Bromochloromethane	3.42	128	158849	56.52	ug/L	99
35) Chloroform	3.50	83	524011	56.84	ug/L	97
36) 2,2-Dichloropropane	3.57	77	401528	56.54	ug/L	96

DL 12/28/15

(#) = qualifier out of range (m) = manual integration
M6689.D W113015.M Mon Dec 28 09:41:25 2015

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6689.D Vial: 5
Acq On : 28 Dec 2015 9:24 am Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 28 9:41 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
37)	Tetrahydrofuran	3.91	42	36786	47.11 ug/L	96
38)	1,1,1-Trichloroethane	4.46	97	434261	58.45 ug/L	97
41)	Iso-Butyl Alcohol	3.73	43	83692	723.84 ug/L	95
43)	1,2-Dichloroethane	4.34	62	283019	48.23 ug/L	98
44)	1,1-Dichloropropene	4.80	75	386748	53.18 ug/L	99
45)	Cyclohexane	4.86	56	465636	52.61 ug/L	96
46)	Carbontetrachloride	5.04	119	381298	53.50 ug/L	100
47)	Benzene	5.15	78	1174398	52.63 ug/L	99
48)	Dibromomethane	5.99	93	149432	49.21 ug/L	98
49)	1,2-Diclpropane	6.06	63	290466	51.31 ug/L	97
50)	n-Heptane	6.14	43	259840	53.52 ug/L	98
51)	Trichloroethene	6.13	130	348827	52.78 ug/L	99
52)	Bromodichloromethane	6.19	83	372222	54.05 ug/L	99
53)	2-Nitropropane	6.24	41	53158	86.65 ug/L	94
54)	1,4-Dioxane	6.42	88	20037	605.85 ug/L	87
55)	Methyl Methacrylate	6.60	69	108836	49.40 ug/L	97
56)	Methylcyclohexane	6.72	55	298058	51.81 ug/L	98
57)	2-Chloroethylvinyl Ether	6.87	63	121123	49.41 ug/L	97
58)	cis-1,3-Dichloropropene	7.03	75	420473	52.04 ug/L	100
59)	4-Methyl-2-pentanone	7.24	43	125816	42.58 ug/L	96
60)	trans-1,3-Dichloropropene	7.53	75	332096	50.10 ug/L	99
61)	1,1,2-Trichloroethane	7.65	97	205827	48.85 ug/L	99
63)	Toluene	7.83	91	1182651	50.66 ug/L	100
65)	1,3-Dichloropropane	7.90	76	314880	47.29 ug/L	99
66)	Ethyl Methacrylate	8.08	69	230753	46.19 ug/L	98
67)	Dibromochloromethane	8.09	129	270545	48.85 ug/L	100
68)	2-Hexanone	8.15	43	89351	42.61 ug/L	99
69)	1,2-Dibromoethane	8.31	107	212866	47.97 ug/L	99
70)	n-Butyl Acetate	8.52	43	232130	42.86 ug/L	96
71)	Tetrachloroethene	8.50	164	284407	50.44 ug/L	99
72)	1,1,1,2-Tetrachloroethane	9.05	131	295433	49.65 ug/L	98
73)	Chlorobenzene	9.11	112	805744	48.91 ug/L	100
74)	Ethylbenzene	9.32	106	426146	50.26 ug/L	98
75)	Bromoform	9.50	173	167110	47.69 ug/L	98
76)	(m+p)Xylene	9.51	106	1078232	104.82 ug/L	97
77)	o-Xylene	9.82	106	533131	49.94 ug/L	99
78)	Cyclohexanone	9.74	55	217889	1810.43 ug/L	99
79)	Styrene	9.77	104	855879	50.57 ug/L	99
80)	trans-1,4-Dichloro-2-Buten	10.00	75	55243	32.21 ug/L	99
81)	Isopropylbenzene	10.13	105	1266124	49.33 ug/L	99
84)	1,1,2,2-Tetrachloroethane	9.82	83	230338	43.64 ug/L	100
85)	1,2,3-Trichloropropane	9.93	75	155178	43.14 ug/L	100
86)	Bromobenzene	10.28	156	389729	48.76 ug/L	97
87)	n-Propylbenzene	10.50	91	1511412	49.17 ug/L	100
88)	2-Chlorotoluene	10.54	91	894154	47.85 ug/L	98
89)	4-Chlorotoluene	10.61	91	966280	49.05 ug/L	100
90)	1,3,5-Trimethylbenzene	10.76	105	1040030	50.14 ug/L	100
91)	tert-Butylbenzene	10.95	119	905793	50.20 ug/L	99
92)	1,2,4-Trimethylbenzene	11.06	105	1102660	49.91 ug/L	100
93)	sec-Butylbenzene	11.13	105	1294018	51.08 ug/L	99

(#) = qualifier out of range (m) = manual integration
M6689.D W113015.M Mon Dec 28 09:41:26 2015

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6689.D Vial: 5
Acq On : 28 Dec 2015 9:24 am Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 28 9:41 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

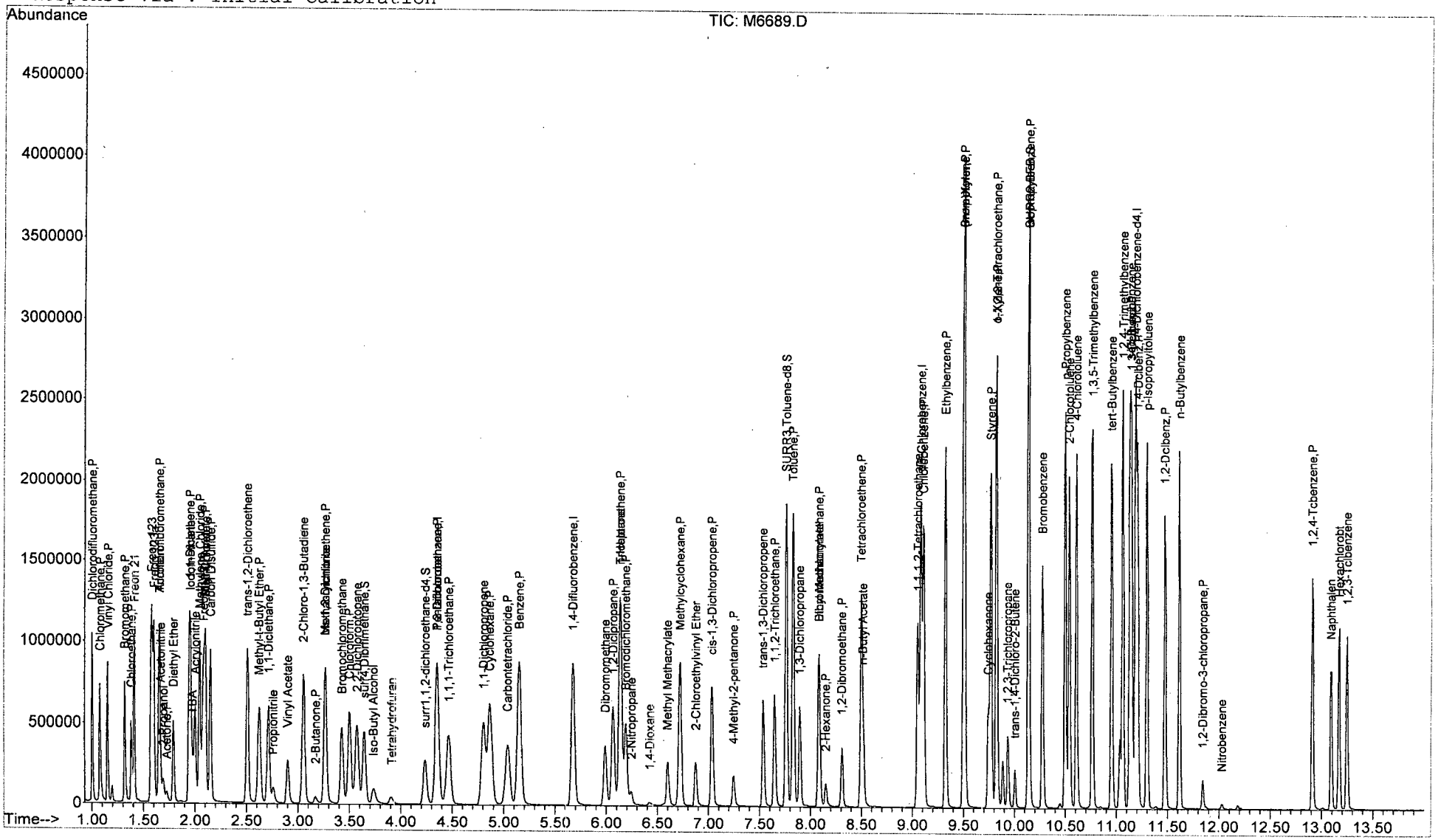
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
94)	1,3-Dclbenz	11.15	146	725974	49.83	ug/L	99
95)	1,4-Dclbenz	11.21	146	729262	48.74	ug/L	99
96)	p-Isopropyltoluene	11.30	119	1048566	50.07	ug/L	100
97)	1,2-Dclbenz	11.47	146	655992	47.51	ug/L	100
98)	n-Butylbenzene	11.61	91	943480	51.10	ug/L	100
99)	1,2-Dibromo-3-chloropropan	11.84	75	31172	40.45	ug/L	96
100)	Nitrobenzene	12.03	77	13959	74.45	ug/L	92
101)	1,2,4-Tcbenzene	12.91	180	378769	47.43	ug/L	99
102)	Naphthalen	13.09	128	582730	41.53	ug/L	99
103)	Hexachlorobt	13.17	225	182564	47.80	ug/L	97
104)	1,2,3-Tclbenzene	13.25	180	288842	43.80	ug/L	99

(#) = qualifier out of range (m) = manual integration
M6689.D W113015.M Mon Dec 28 09:41:27 2015

Quantitation Report

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6689.D Vial: 5
Acq On : 28 Dec 2015 9:24 am Operator: D.Lipani
Sample : CCV Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 28 9:41 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



M6689.D W113015.M Mon Dec 28 09:41:31 2015

ALS Environmental

VOLATILE ORGANICS
RAW QC DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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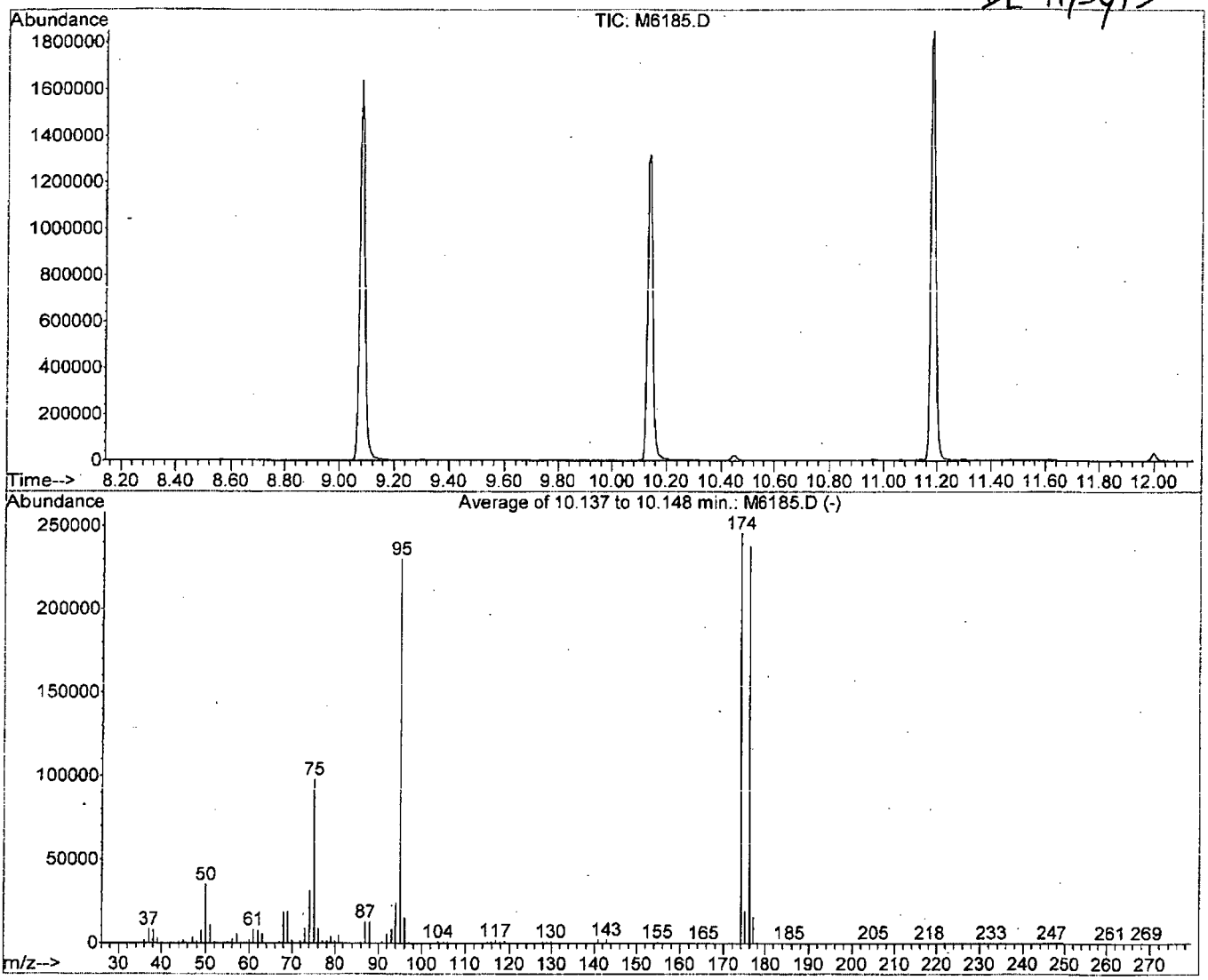
BFB

Data File : I:\ACQUDATA\MSVOA6\DATA\113015\M6185.D Vial: 8
Acq On : 30 Nov 2015 11:53 am Operator: D.Lipani
Sample : TUNE CHECK Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS

DL 11/30/15



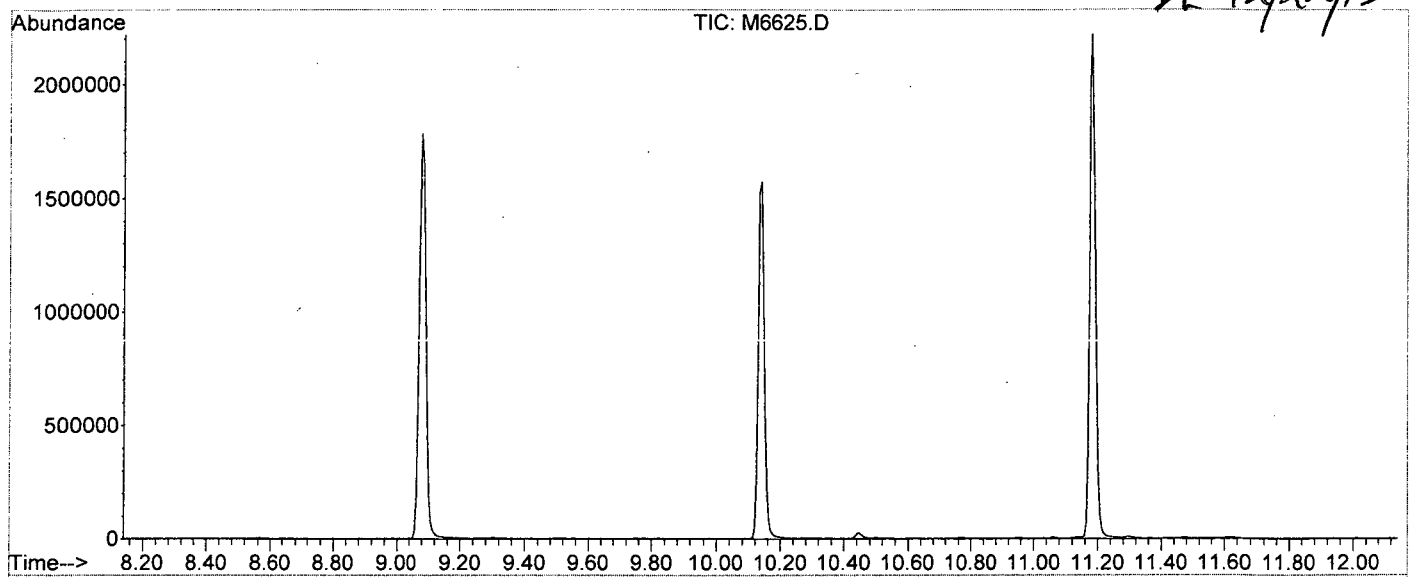
AutoFind: Scans 1693, 1694, 1695; Background Corrected with Scan 1687

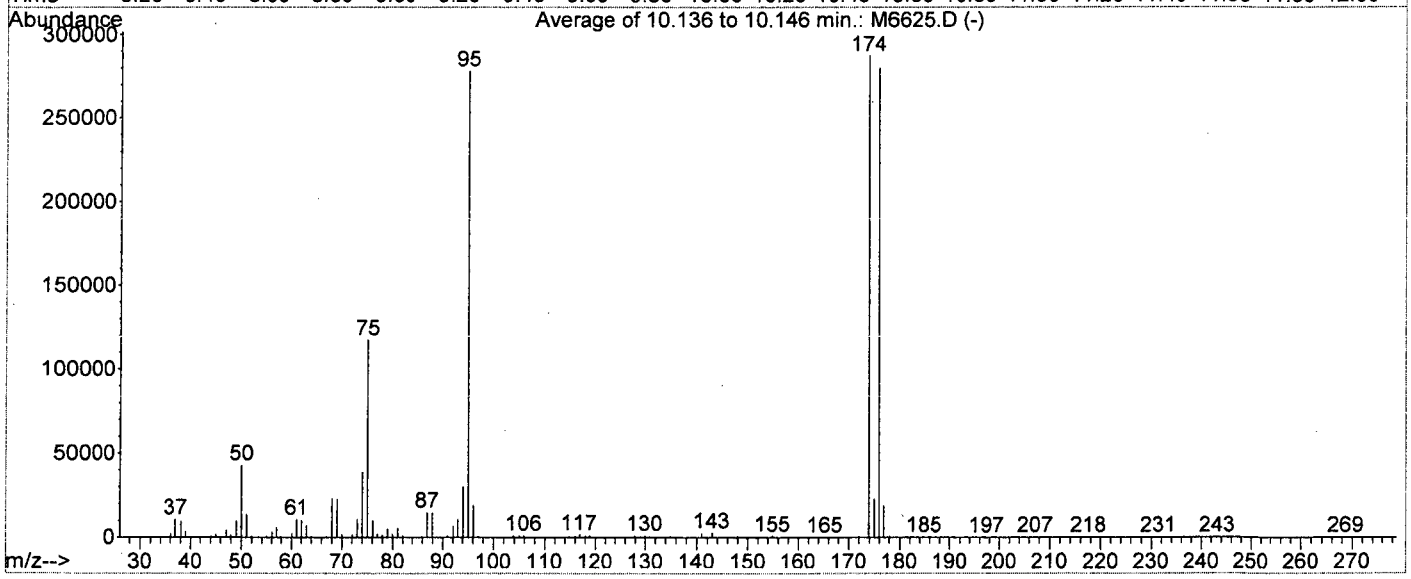
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.1	34789	PASS
75	95	30	60	42.5	97693	PASS
95	95	100	100	100.0	230037	PASS
96	95	5	9	6.6	15085	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	106.8	245739	PASS
175	174	5	9	7.7	18923	PASS
176	174	95	101	96.7	237717	PASS
177	176	5	9	6.7	15828	PASS

M6185.D W113015.M Mon Nov 30 12:12:58 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6625.D Vial: 8
Acq On : 22 Dec 2015 11:48 am Operator: D.Lipani
Sample : TUNE CHECK RQ1516003-01 Inst : MS#6
Misc : 8260 Multiplr: 1.00
MS Integration Params: CPD4.P
Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS

DL 12/22/15





sub. scan = 1688

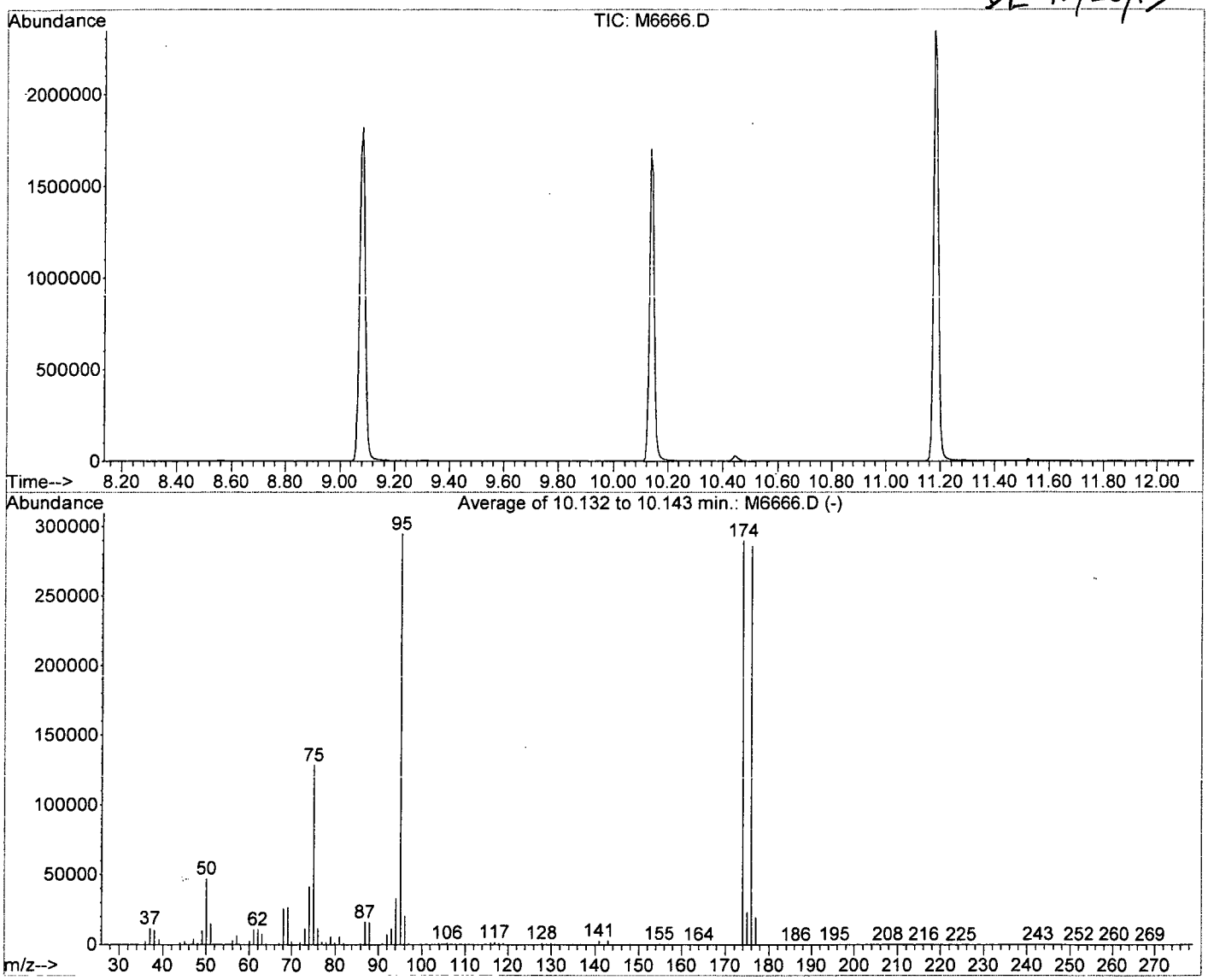
Spectrum Information: Average of 10.136 to 10.146 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.3	42642	PASS
75	95	30	60	42.2	117284	PASS
95	95	100	100	100.0	278044	PASS
96	95	5	9	6.8	18907	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	103.3	287196	PASS
175	174	5	9	7.9	22624	PASS
176	174	95	101	97.4	279808	PASS
177	176	5	9	6.7	18684	PASS

M6625.D W113015.M Tue Dec 22 13:00:49 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6666.D Vial: 4
Acq On : 26 Dec 2015 9:40 am Operator: D.Lipani
Sample : TUNE CHECK RQ1516108-01 Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS

DL 12/26/15



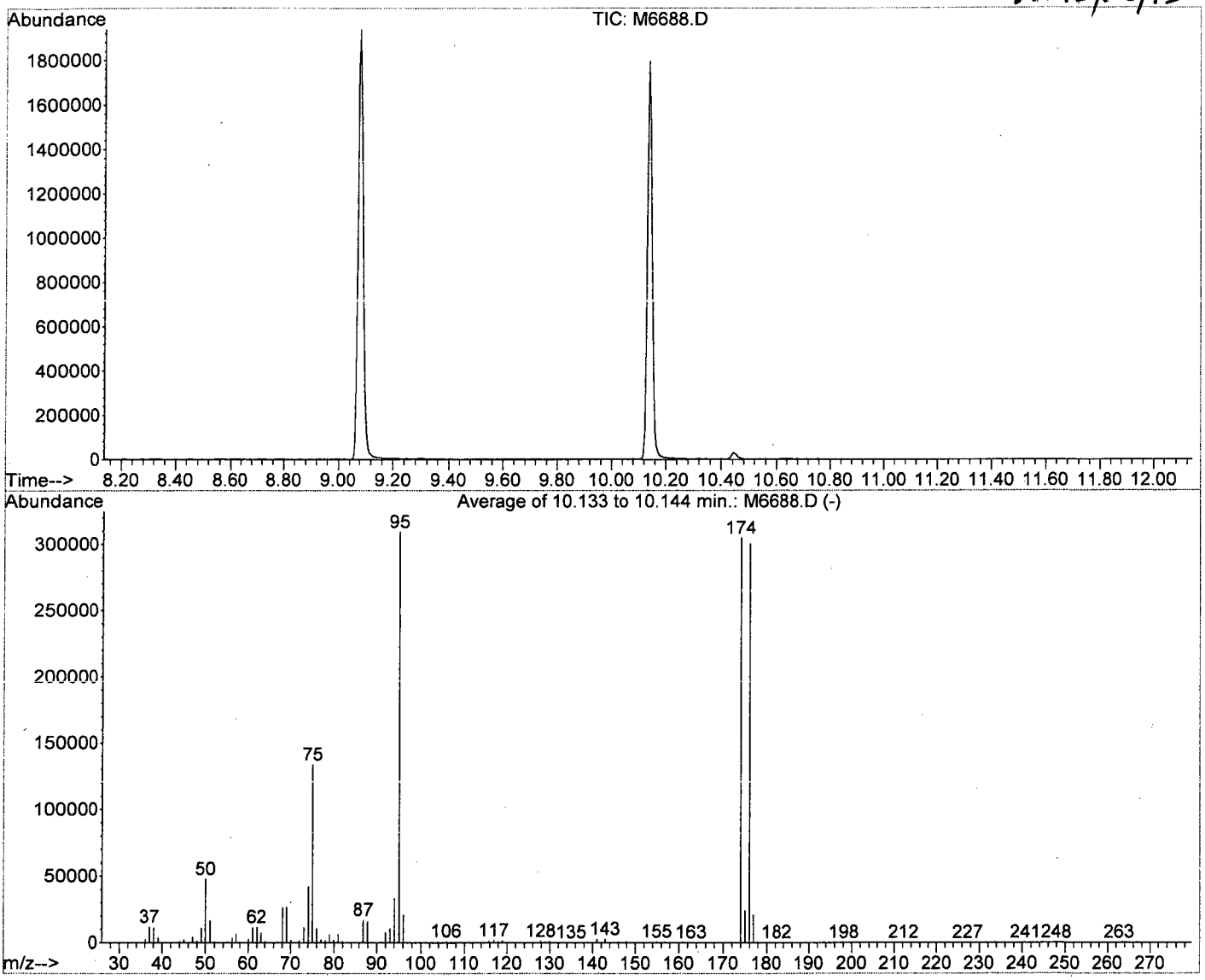
AutoFind: Scans 1692, 1693, 1694; Background Corrected with Scan 1686

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.9	47003	PASS
75	95	30	60	43.5	128283	PASS
95	95	100	100	100.0	294784	PASS
96	95	5	9	6.9	20408	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	98.3	289792	PASS
175	174	5	9	7.9	22988	PASS
176	174	95	101	98.6	285791	PASS
177	176	5	9	6.8	19555	PASS

M6666.D W113015.M Sat Dec 26 09:57:02 2015

```
Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6688.D        Vial: 4
Acq On    : 28 Dec 2015    8:47 am                     Operator: D.Lipani
Sample    : TUNE CHECK RQ1516146-01                    Inst    : MS#6
Misc      : 8260C                                      Multiplr: 1.00
MS Integration Params: CPD4.P
Method    : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title     : 8260C WATERS
```

DL 12/28/15



AutoFind: Scans 1693, 1694, 1695; Background Corrected with Scan 1686

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	47560	PASS
75	95	30	60	43.2	133691	PASS
95	95	100	100	100.0	309163	PASS
96	95	5	9	6.7	20619	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	98.5	304533	PASS
175	174	5	9	7.9	23968	PASS
176	174	95	101	98.6	300395	PASS
177	176	5	9	6.9	20688	PASS

M6688.D W113015.M Mon Dec 28 08:59:18 2015

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1516003-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/22/15 14:42		477453	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/22/15 14:42		477453	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/22/15 14:42		477453	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/22/15 14:42		477453	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/22/15 14:42		477453	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 14:42		477453	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/22/15 14:42		477453	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/22/15 14:42		477453	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/22/15 14:42		477453	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/22/15 14:42		477453	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 14:42		477453	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 14:42		477453	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/22/15 14:42		477453	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 14:42		477453	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/22/15 14:42		477453	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/22/15 14:42		477453	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/22/15 14:42		477453	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/22/15 14:42		477453	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 14:42		477453	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/22/15 14:42		477453	
Acetone	ND	U	10	5.0	1.3	1	NA	12/22/15 14:42		477453	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/22/15 14:42		477453	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 14:42		477453	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/22/15 14:42		477453	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/22/15 14:42		477453	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/22/15 14:42		477453	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/22/15 14:42		477453	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/22/15 14:42		477453	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/22/15 14:42		477453	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1516003-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/22/15 14:42		477453	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/22/15 14:42		477453	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/22/15 14:42		477453	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/22/15 14:42		477453	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/22/15 14:42		477453	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/22/15 14:42		477453	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/22/15 14:42		477453	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/22/15 14:42		477453	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/22/15 14:42		477453	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/22/15 14:42		477453	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/22/15 14:42		477453	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/22/15 14:42		477453	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/22/15 14:42		477453	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/22/15 14:42		477453	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/22/15 14:42		477453	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/22/15 14:42		477453	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/22/15 14:42		477453	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	75-120	12/22/15 14:42	
Dibromofluoromethane	105	85-115	12/22/15 14:42	
Toluene-d8	105	85-120	12/22/15 14:42	

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: NA
Date Received: NA
Date Analyzed: 12/22/15 1442

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1516003-04

Units: µg/L
Basis: NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6630.D Vial: 13
Acq On : 22 Dec 2015 2:42 pm Operator: D.Lipani
Sample : MET BLK RQ1516003-04 Inst : MS#6
Misc : 8260 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 29 11:23 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.36	168	700784	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.68	114	981474	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	871852	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.18	152	511038	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	324654	52.74	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 105.48%			
42) surr1,1,2-dichloroethane-d	4.24	65	267943	53.36	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 106.72%			
62) SURR3,Toluene-d8	7.76	98	1075793	52.62	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.24%			
82) SURR2,BFB	10.14	95	419410	53.74	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 107.48%			
Target Compounds						Qvalue
17) Iodomethane	1.96	142	1045	1.24	ug/L	89

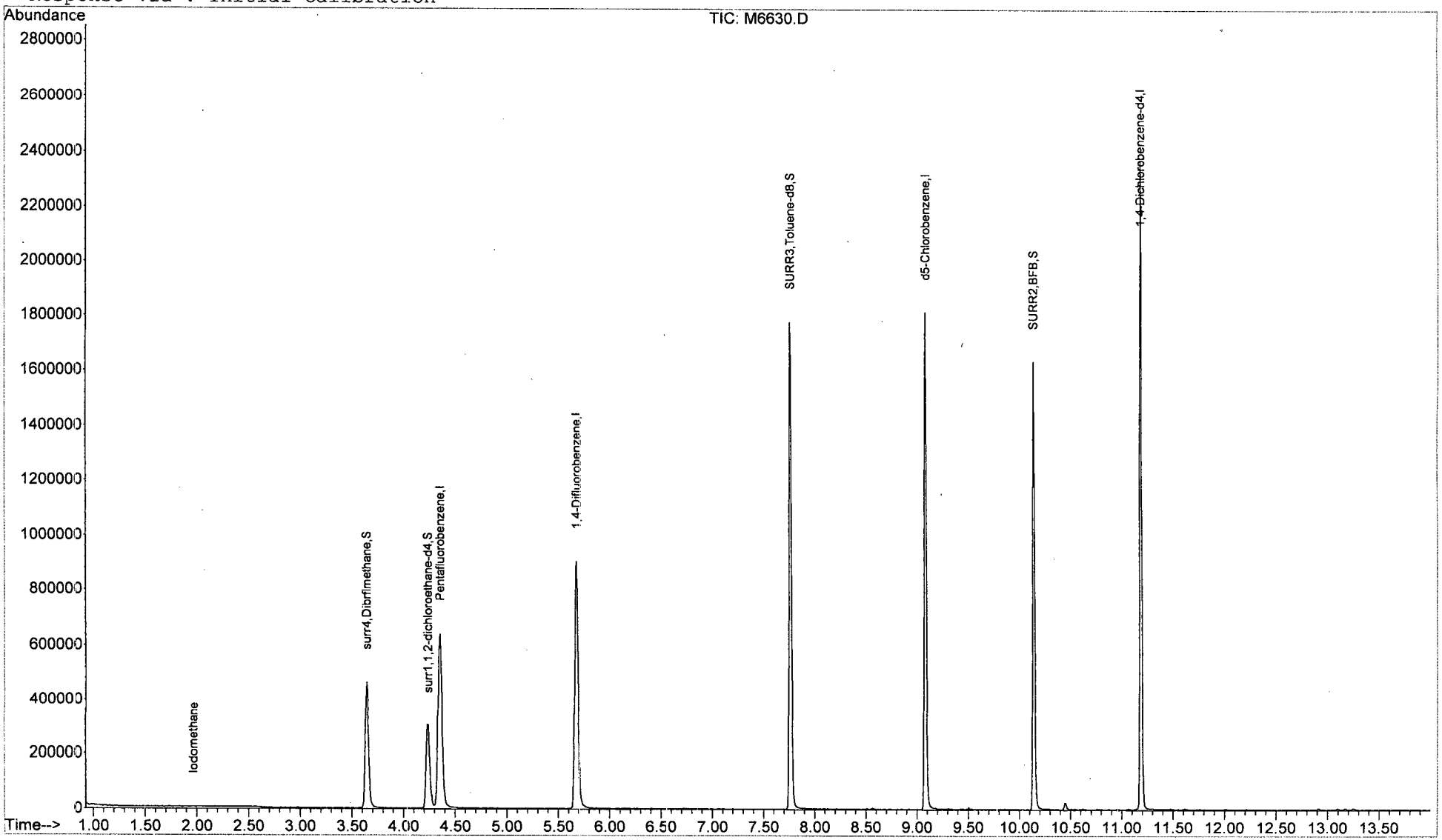
- Below Cal - not reported
DL
12/29/15

(#) = qualifier out of range (m) = manual integration
M6630.D W113015.M Tue Dec 29 11:23:44 2015

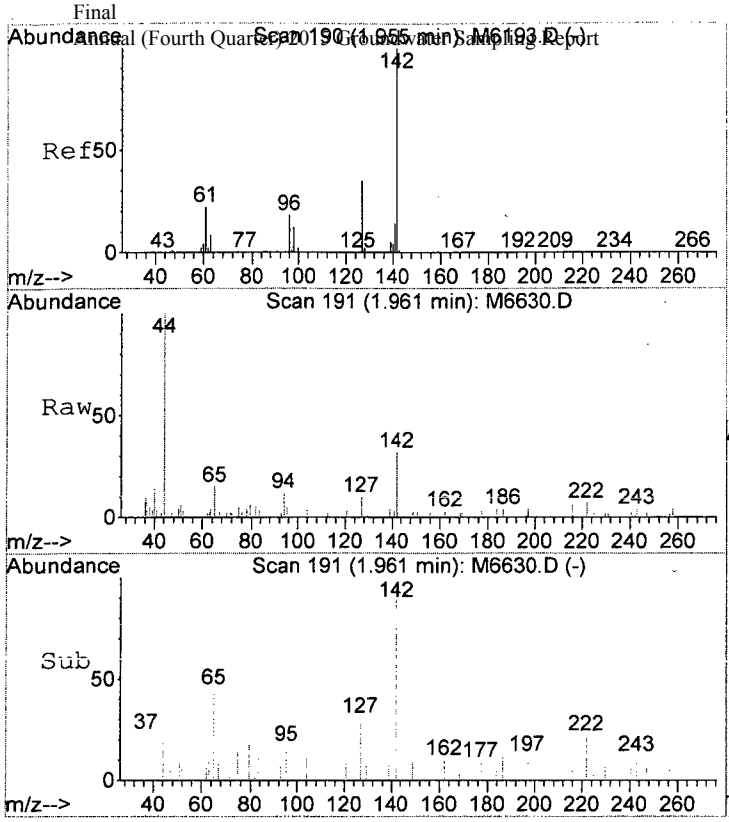
Quantitation Report

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6630.D Vial: 13
Acq On : 22 Dec 2015 2:42 pm Operator: D.Lipani
Sample : MET BLK Inst : MS#6
Misc : 8260 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 29 11:23 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



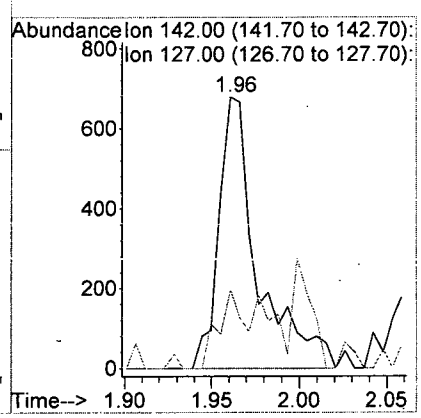
M6630.D W113015.M Tue Dec 29 11:23:46 2015



#17
Iodomethane
Concen: 1.24 ug/L
RT: 1.96 min Scan# 191
Delta R.T. 0.01 min
Lab File: M6630.D
Acq: 22 Dec 2015 2:42 pm

Tgt Ion:142 Resp: 1045

Ion	Ratio	Lower	Upper
142	100		
127	28.9	15.3	55.3



Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1516108-04

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/26/15 12:35		477737	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/26/15 12:35		477737	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/26/15 12:35		477737	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/26/15 12:35		477737	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/26/15 12:35		477737	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 12:35		477737	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/26/15 12:35		477737	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/26/15 12:35		477737	
1,2,4-Trichlorobenzene	ND	U	5.0	1.0	0.23	1	NA	12/26/15 12:35		477737	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/26/15 12:35		477737	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 12:35		477737	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 12:35		477737	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/26/15 12:35		477737	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 12:35		477737	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/26/15 12:35		477737	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/26/15 12:35		477737	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/26/15 12:35		477737	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/26/15 12:35		477737	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 12:35		477737	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/26/15 12:35		477737	
Acetone	ND	U	10	5.0	1.3	1	NA	12/26/15 12:35		477737	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/26/15 12:35		477737	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 12:35		477737	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/26/15 12:35		477737	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/26/15 12:35		477737	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/26/15 12:35		477737	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/26/15 12:35		477737	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/26/15 12:35		477737	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/26/15 12:35		477737	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1516108-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/26/15 12:35		477737	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/26/15 12:35		477737	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/26/15 12:35		477737	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/26/15 12:35		477737	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/26/15 12:35		477737	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/26/15 12:35		477737	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/26/15 12:35		477737	
Naphthalene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/26/15 12:35		477737	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/26/15 12:35		477737	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/26/15 12:35		477737	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/26/15 12:35		477737	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/26/15 12:35		477737	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/26/15 12:35		477737	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/26/15 12:35		477737	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/26/15 12:35		477737	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/26/15 12:35		477737	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/26/15 12:35		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	12/26/15 12:35	
Dibromofluoromethane	108	85-115	12/26/15 12:35	
Toluene-d8	111	85-120	12/26/15 12:35	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/26/15 1235

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1516108-04	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6671.D Vial: 9
Acq On : 26 Dec 2015 12:35 pm Operator: D.Lipani
Sample : MET BLK RQ1516108-04 Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 30 16:59 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	657111	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.67	114	939733	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	887276	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	531427	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	317227	53.82	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 107.64%			
42) surr1,1,2-dichloroethane-d	4.24	65	256919	53.44	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 106.88%			
62) SURR3,Toluene-d8	7.76	98	1082836	55.32	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 110.64%			
82) SURR2,BFB	10.14	95	439004	55.27	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 110.54%			
Target Compounds						Qvalue
14) Acetone	1.73	43	669	0.85	ug/L #	67
17) Iodomethane	1.96	142	846	1.22	ug/L	92

NT/Below Cal

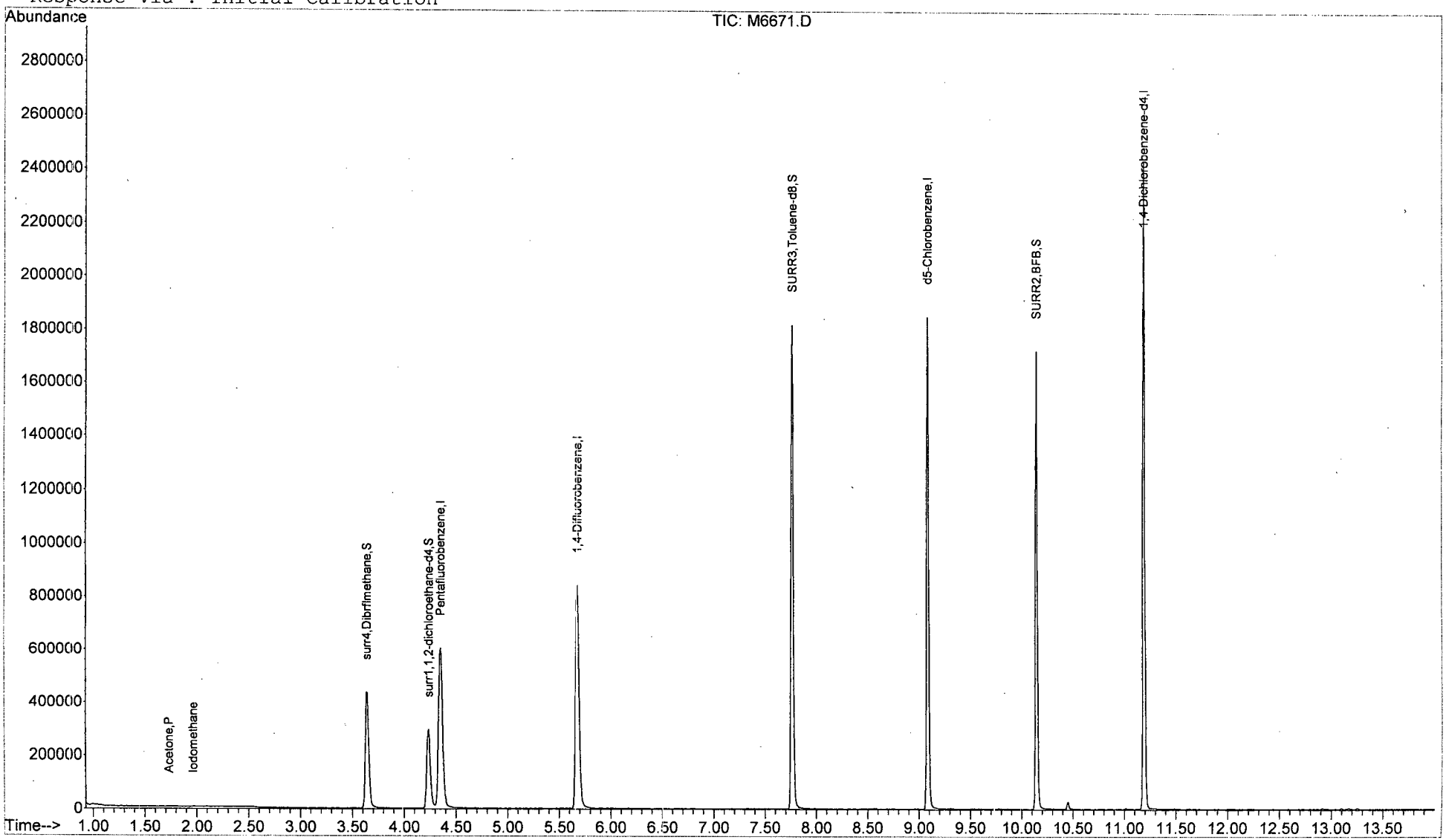
DL
12/30/15

(#) = qualifier out of range (m) = manual integration
M6671.D W113015.M Wed Dec 30 17:02:20 2015 Page 1

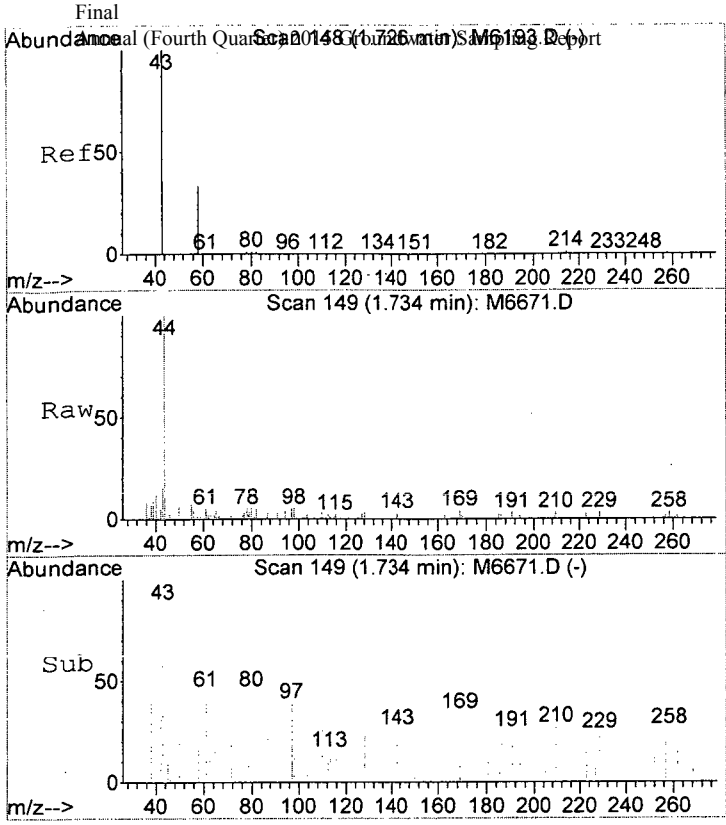
Quantitation Report

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6671.D Vial: 9
Acq On : 26 Dec 2015 12:35 pm Operator: D.Lipani
Sample : MET BLK Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 30 16:59 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



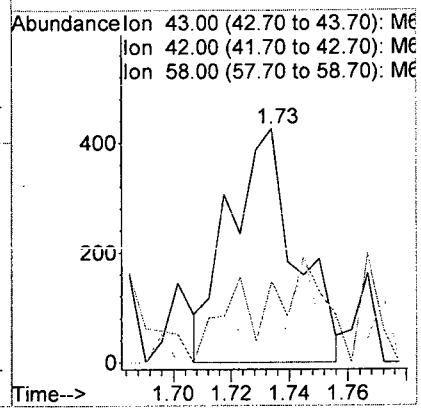
M6671.D W113015.M Wed Dec 30 17:02:23 2015

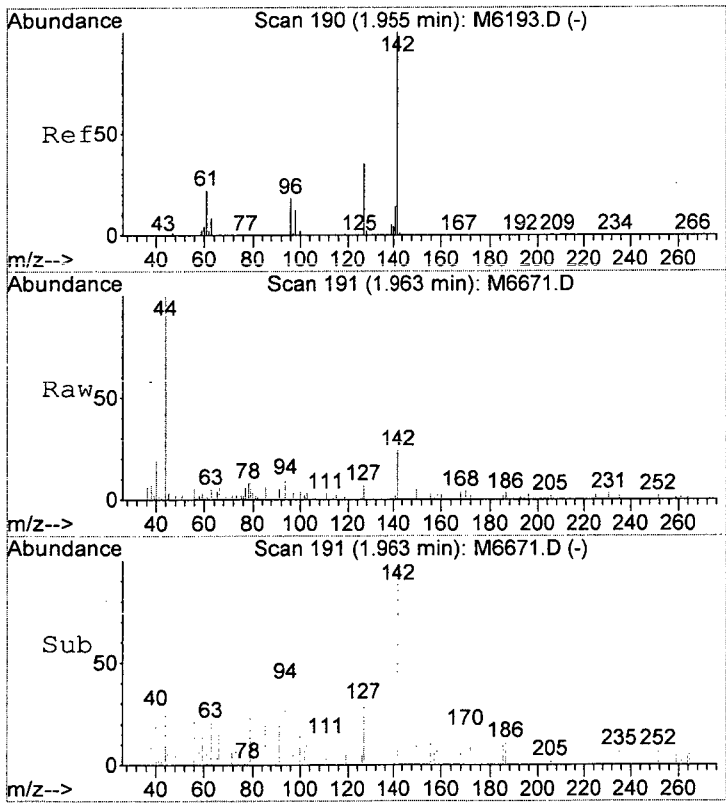


#14
Acetone
Concen: 0.85 ug/L
RT: 1.73 min Scan# 149
Delta R.T. 0.01 min
Lab File: M6671.D
Acq: 26 Dec 2015 12:35 pm

Tgt Ion: 43 Resp: 669

Ion	Ratio	Lower	Upper
43	100		
42	34.7	0.0	29.0#
58	16.0	6.3	46.3

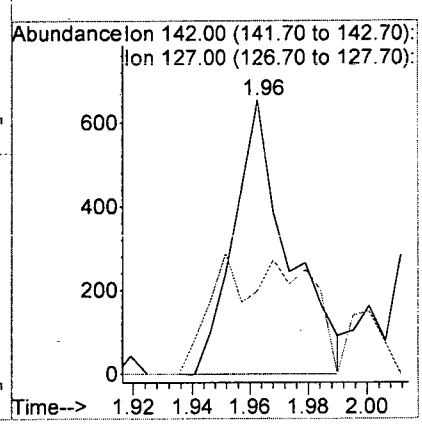




#17
Iodomethane
Concen: 1.22 ug/L
RT: 1.96 min Scan# 191
Delta R.T. 0.01 min
Lab File: M6671.D
Acq: 26 Dec 2015 12:35 pm

Tgt Ion:142 Resp: 846

Ion	Ratio	Lower	Upper
142	100		
127	30.4	15.3	55.3



Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1516146-04

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	5.0	1.0	0.22	1	NA	12/28/15 11:09		477784	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1.0	0.36	1	NA	12/28/15 11:09		477784	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1.0	0.25	1	NA	12/28/15 11:09		477784	
1,1,2-Trichloroethane	ND	U	5.0	1.0	0.34	1	NA	12/28/15 11:09		477784	
1,1-Dichloroethane (1,1-DCA)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
1,1-Dichloroethene (1,1-DCE)	ND	U	5.0	1.0	0.57	1	NA	12/28/15 11:09		477784	
1,1-Dichloropropene	ND	U	5.0	1.0	0.29	1	NA	12/28/15 11:09		477784	
1,2,3-Trichlorobenzene	ND	U	5.0	1.0	0.82	1	NA	12/28/15 11:09		477784	
1,2,3-Trichloropropane	ND	U	5.0	1.0	0.70	1	NA	12/28/15 11:09		477784	
1,2,4-Trichlorobenzene	**0.23**	J	5.0	1.0	0.23	1	NA	12/28/15 11:09		477784	
1,2,4-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.0	1.0	0.74	1	NA	12/28/15 11:09		477784	
1,2-Dibromoethane	ND	U	5.0	1.0	0.24	1	NA	12/28/15 11:09		477784	
1,2-Dichlorobenzene	ND	U	5.0	1.0	0.21	1	NA	12/28/15 11:09		477784	
1,2-Dichloroethane	ND	U	5.0	1.0	0.36	1	NA	12/28/15 11:09		477784	
1,2-Dichloropropane	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
1,3,5-Trimethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
1,3-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
1,3-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/28/15 11:09		477784	
1,4-Dichlorobenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
2,2-Dichloropropane	ND	U	5.0	1.0	0.27	1	NA	12/28/15 11:09		477784	
2-Butanone (MEK)	ND	U	10	1.0	0.81	1	NA	12/28/15 11:09		477784	
2-Chlorotoluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
2-Hexanone	ND	U	10	5.0	1.7	1	NA	12/28/15 11:09		477784	
tert-Butyl Alcohol	ND	U	100	20	11	1	NA	12/28/15 11:09		477784	
4-Chlorotoluene	ND	U	5.0	1.0	0.24	1	NA	12/28/15 11:09		477784	
p-Isopropyltoluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
4-Methyl-2-pentanone	ND	U	10	1.0	0.67	1	NA	12/28/15 11:09		477784	
Acetone	ND	U	10	5.0	1.3	1	NA	12/28/15 11:09		477784	
Benzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
Bromobenzene	ND	U	5.0	1.0	0.28	1	NA	12/28/15 11:09		477784	
Bromochloromethane	ND	U	5.0	1.0	0.32	1	NA	12/28/15 11:09		477784	
Bromodichloromethane	ND	U	5.0	1.0	0.32	1	NA	12/28/15 11:09		477784	
Bromoform	ND	U	5.0	1.0	0.42	1	NA	12/28/15 11:09		477784	
Bromomethane	ND	U	5.0	1.0	0.29	1	NA	12/28/15 11:09		477784	
Carbon Tetrachloride	ND	U	5.0	1.0	0.45	1	NA	12/28/15 11:09		477784	
Chlorobenzene	ND	U	5.0	1.0	0.29	1	NA	12/28/15 11:09		477784	
Chloroethane	ND	U	5.0	1.0	0.24	1	NA	12/28/15 11:09		477784	

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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1516146-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	ND	U	5.0	1.0	0.25	1	NA	12/28/15 11:09		477784	
Chloromethane	ND	U	5.0	1.0	0.21	1	NA	12/28/15 11:09		477784	
Dibromochloromethane	ND	U	5.0	1.0	0.31	1	NA	12/28/15 11:09		477784	
Dichlorodifluoromethane (CFC 12)	ND	U	5.0	1.0	0.46	1	NA	12/28/15 11:09		477784	
Methylene Chloride	ND	U	5.0	1.0	0.60	1	NA	12/28/15 11:09		477784	
Ethylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
Hexachlorobutadiene	ND	U	5.0	1.0	0.62	1	NA	12/28/15 11:09		477784	
Isopropylbenzene (Cumene)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
Methyl tert-Butyl Ether	ND	U	5.0	1.0	0.29	1	NA	12/28/15 11:09		477784	
Naphthalene	**0.23**	J	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
Styrene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
Tetrachloroethene (PCE)	ND	U	5.0	1.0	0.30	1	NA	12/28/15 11:09		477784	
Toluene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
Trichloroethene (TCE)	ND	U	5.0	1.0	0.22	1	NA	12/28/15 11:09		477784	
Trichlorofluoromethane (CFC 11)	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
Vinyl Chloride	ND	U	5.0	1.0	0.32	1	NA	12/28/15 11:09		477784	
cis-1,2-Dichloroethene	ND	U	5.0	1.0	0.30	1	NA	12/28/15 11:09		477784	
cis-1,3-Dichloropropene	ND	U	5.0	1.0	0.24	1	NA	12/28/15 11:09		477784	
m,p-Xylenes	ND	U	5.0	2.0	0.33	1	NA	12/28/15 11:09		477784	
n-Butylbenzene	ND	U	5.0	1.0	0.21	1	NA	12/28/15 11:09		477784	
n-Propylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
o-Xylene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
sec-Butylbenzene	ND	U	5.0	1.0	0.27	1	NA	12/28/15 11:09		477784	
tert-Butylbenzene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	
trans-1,2-Dichloroethene	ND	U	5.0	1.0	0.33	1	NA	12/28/15 11:09		477784	
trans-1,3-Dichloropropene	ND	U	5.0	1.0	0.20	1	NA	12/28/15 11:09		477784	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	75-120	12/28/15 11:09	
Dibromofluoromethane	105	85-115	12/28/15 11:09	
Toluene-d8	110	85-120	12/28/15 11:09	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/28/15 1109

Tentatively Identified Compounds (TIC)
Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1516146-04	**Basis:**	NA

Analytical Method: 8260C

CAS #	Analyte Name	RT	Result	Q

No Tentatively Identified Compounds Detected.

Comments:

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\I22815\M6692.D Vial: 8
Acq On : 28 Dec 2015 11:09 am Operator: D.Lipani
Sample : MET BLK RQ1516146-01 Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 14:17 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	648448	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.67	114	961104	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	917783	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	559678	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	316023	52.42	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 104.84%			
42) surr1,1,2-dichloroethane-d	4.23	65	247870	50.41	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 100.82%			
62) SURR3,Toluene-d8	7.76	98	1097092	54.80	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 109.60%			
82) SURR2,BFB	10.14	95	450774	54.87	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 109.74%			
Target Compounds						Qvalue
5) Bromomethane	1.32	94	937	0.20	ug/L #	75
14) Acetone	1.73	43	532	0.68	ug/L #	62
17) Iodomethane	1.95	142	1376	1.29	ug/L	97
101) 1,2,4-Tcbenzene	12.91	180	1806	0.23	ug/L	90
102) Naphthalen	13.10	128	3167	0.23	ug/L	98
103) Hexachlorobt	13.17	225	1834	0.50	ug/L	95-LT
104) 1,2,3-Tclbenzene	13.25	180	1656	0.26	ug/L #	67

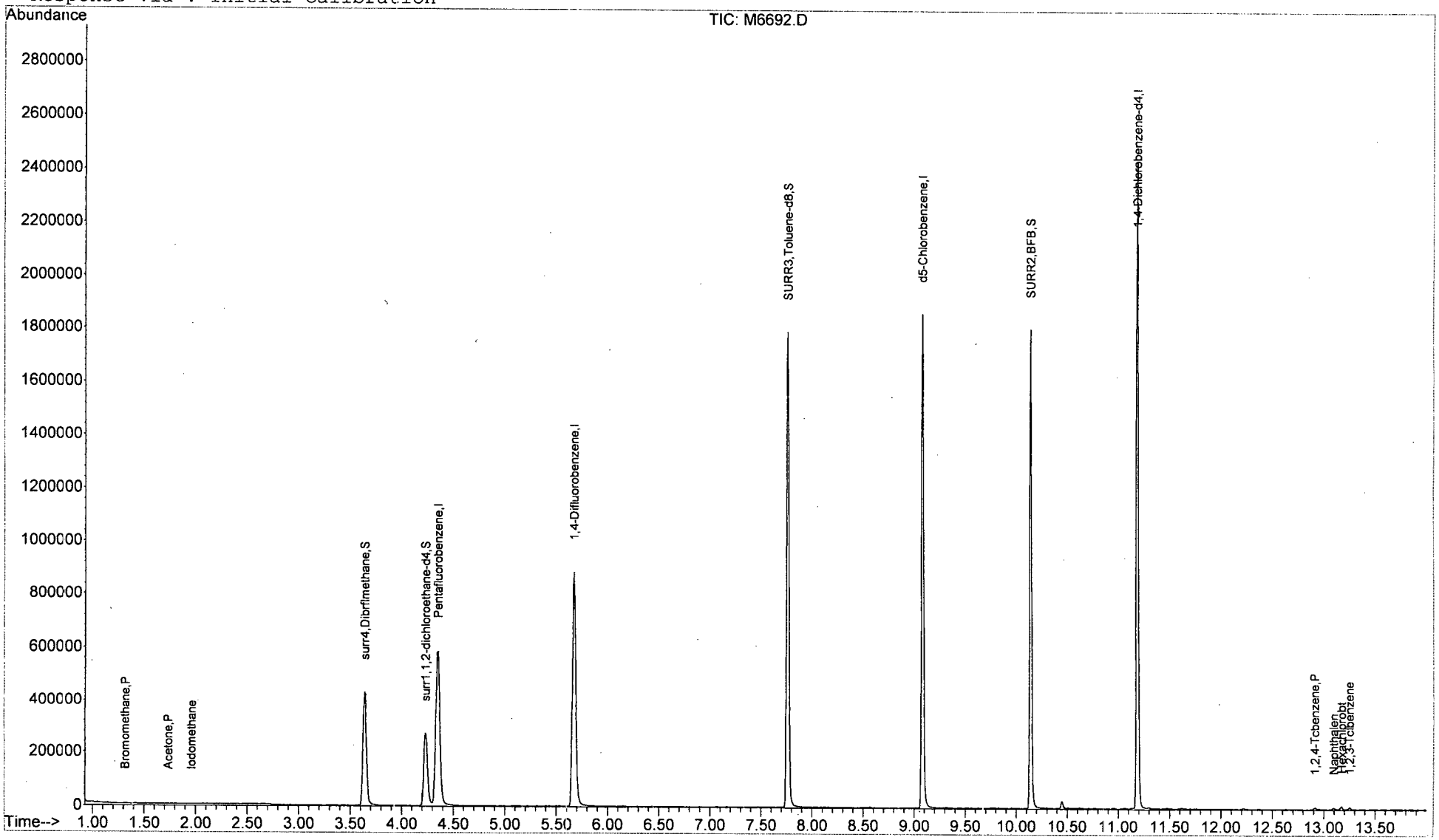
DL
1/14/16

(#) = qualifier out of range (m) = manual integration
M6692.D W113015.M Thu Dec 31 14:18:15 2015

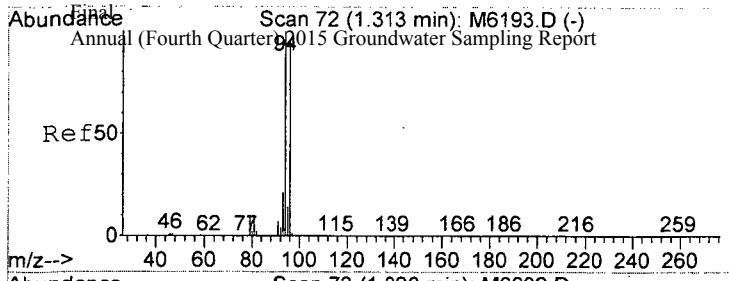
Quantitation Report

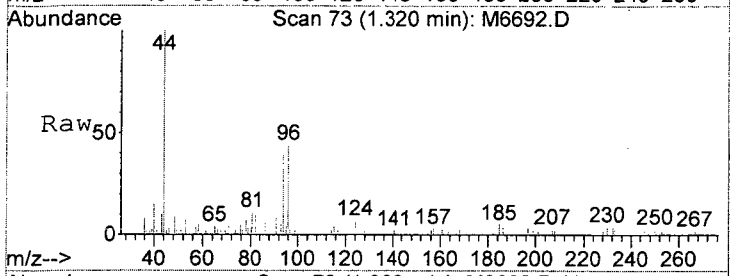
Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6692.D Vial: 8
Acq On : 28 Dec 2015 11:09 am Operator: D.Lipani
Sample : MET BLK Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 14:17 2015 Quant Results File: W113015.RES

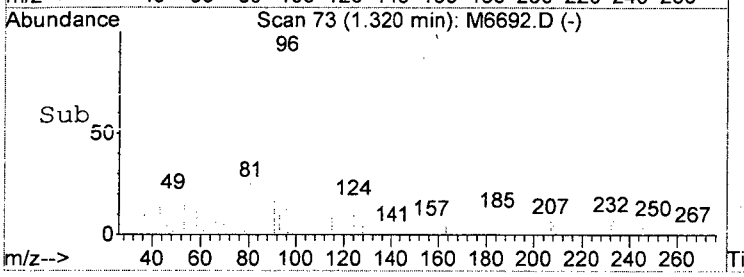
Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



M6692.D W113015.M Thu Dec 31 14:18:18 2015



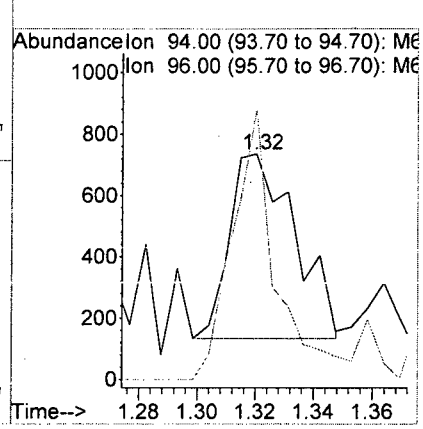


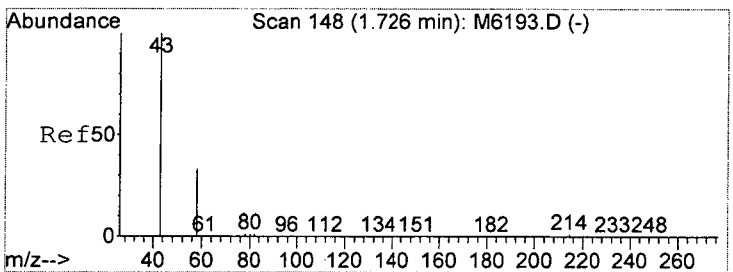


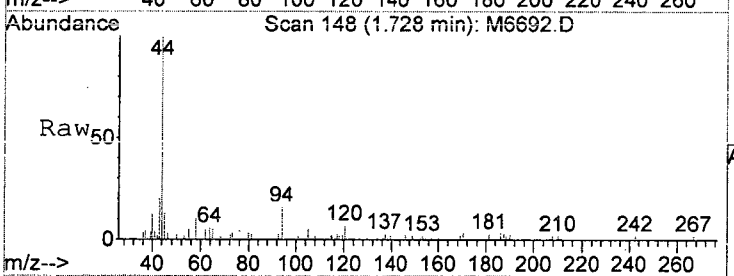
#5
Bromomethane
Concen: 0.20 ug/L
RT: 1.32 min Scan# 73
Delta R.T. 0.01 min
Lab File: M6692.D
Acq: 28 Dec 2015 11:09 am

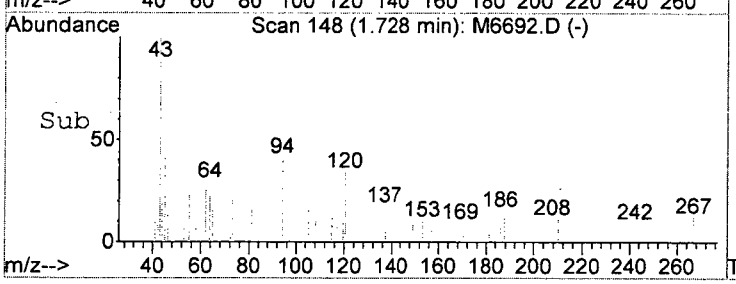
Tgt Ion: 94 Resp: 937

Ion	Ratio	Lower	Upper
94	100		
96	120.3	75.9	115.9#





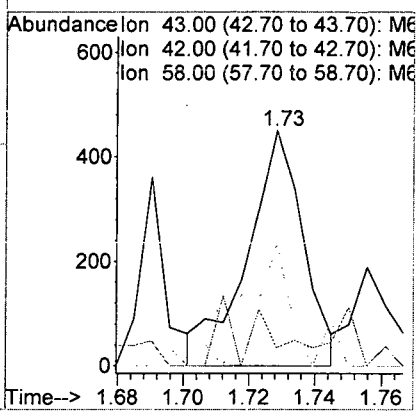


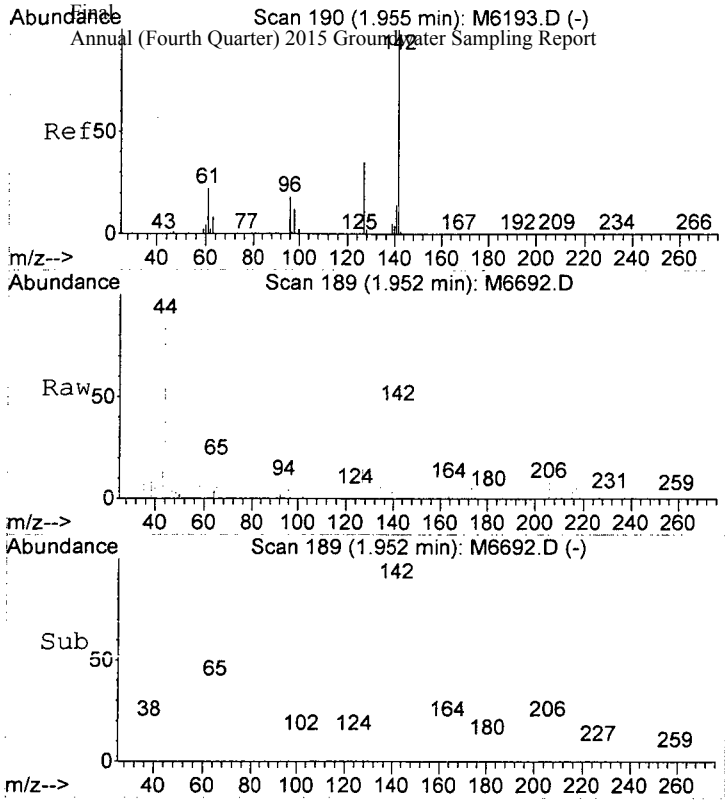


#14
Acetone
Concen: 0.68 ug/L
RT: 1.73 min Scan# 148
Delta R.T. 0.00 min
Lab File: M6692.D
Acq: 28 Dec 2015 11:09 am

Tgt Ion: 43 Resp: 532

Ion	Ratio	Lower	Upper
43	100		
42	7.8	0.0	29.0
58	51.8	6.3	46.3#

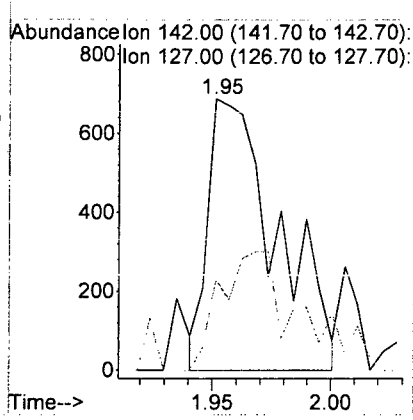


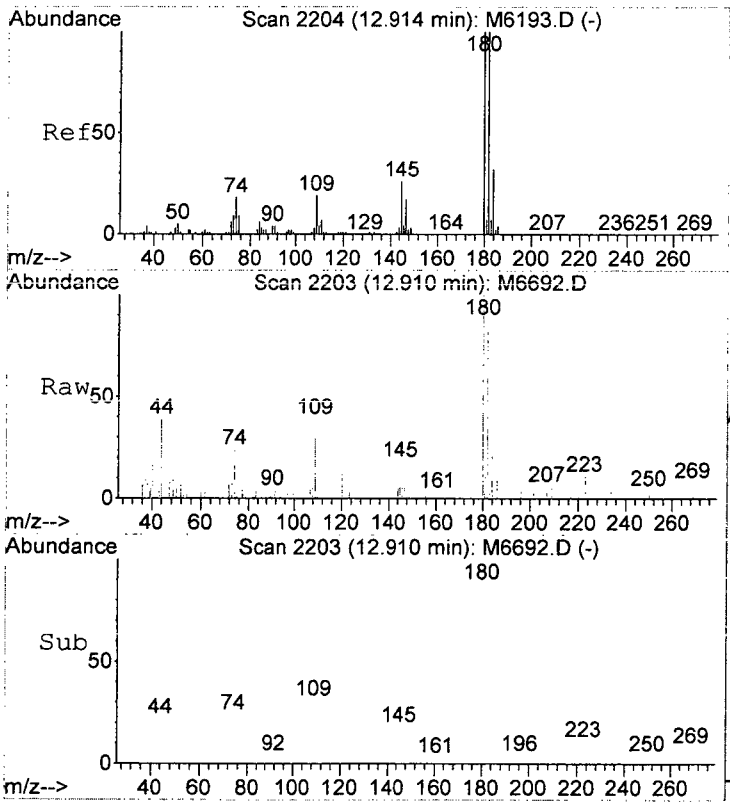


#17
Iodomethane
Concen: 1.29 ug/L
RT: 1.95 min Scan# 189
Delta R.T. -0.00 min
Lab File: M6692.D
Acq: 28 Dec 2015 11:09 am

Tgt Ion:142 Resp: 1376

Ion	Ratio	Lower	Upper
142	100		
127	33.3	15.3	55.3

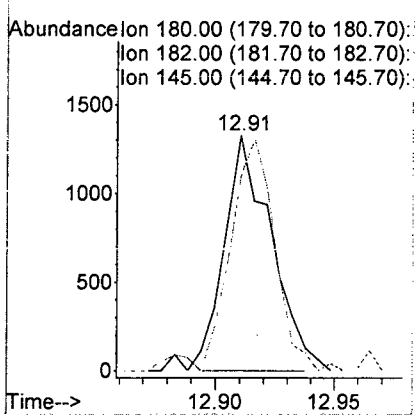




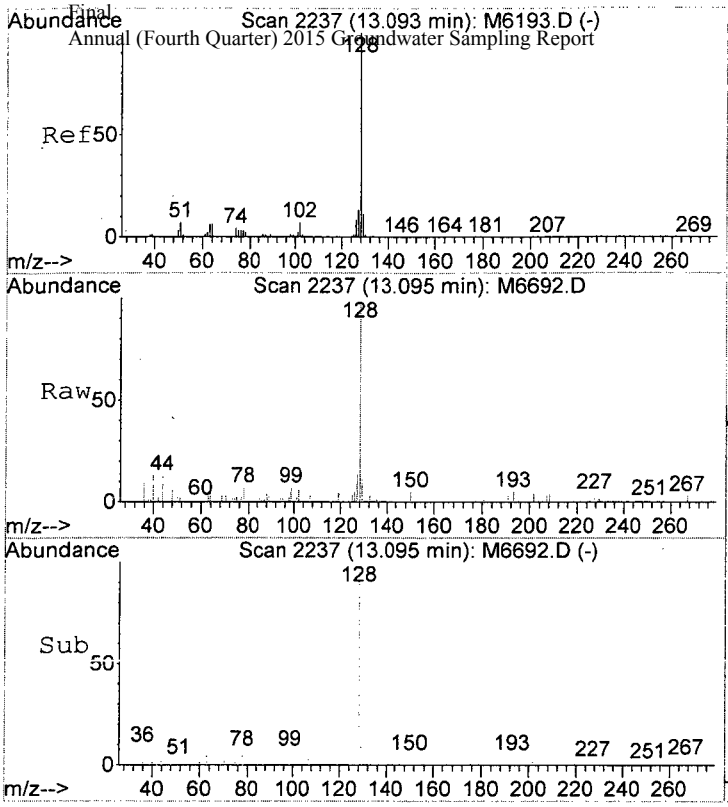
#101
1,2,4-Tcbenzene
Concen: 0.23 ug/L
RT: 12.91 min Scan# 2203
Delta R.T. -0.00 min
Lab File: M6692.D
Acq: 28 Dec 2015 11:09 am

Tgt Ion:180 Resp: 1806

Ion	Ratio	Lower	Upper
180	100		
182	91.1	77.0	117.0
145	15.0	7.1	47.1



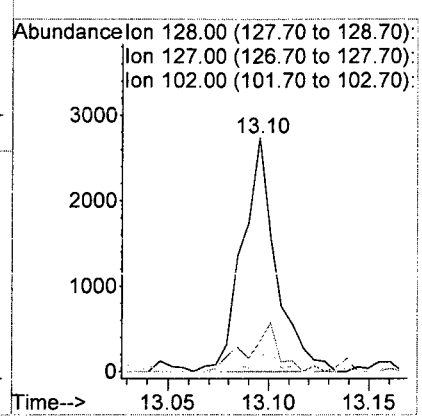
M6692.D W113015.M Thu Dec 31 14:18:23 2015 Page 4

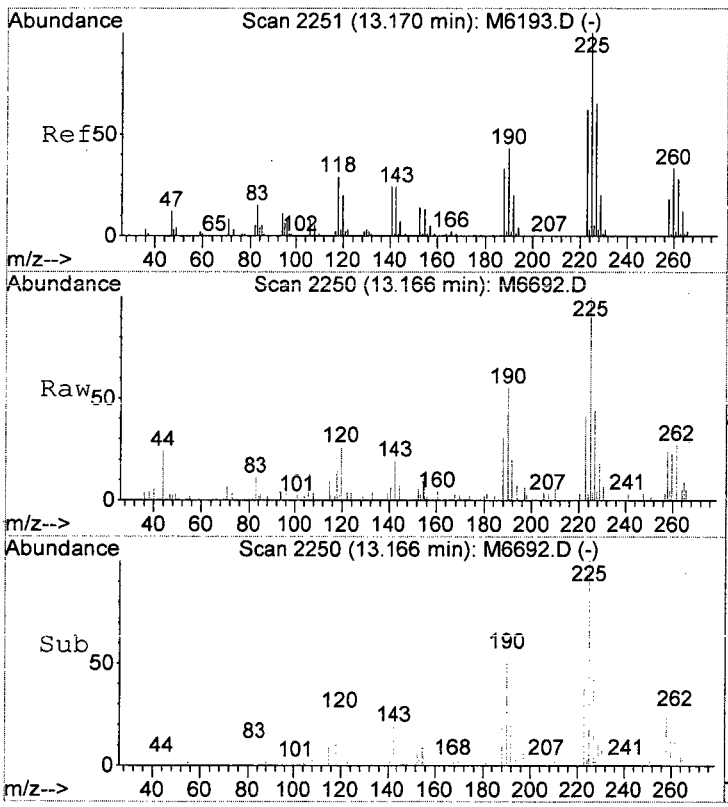


#102
Naphthalen
Concen: 0.23 ug/L
RT: 13.10 min Scan# 2237
Delta R.T. 0.00 min
Lab File: M6692.D
Acq: 28 Dec 2015 11:09 am

Tgt Ion:128 Resp: 3167

Ion	Ratio	Lower	Upper
128	100		
127	11.9	0.0	32.8
102	6.5	0.0	27.4

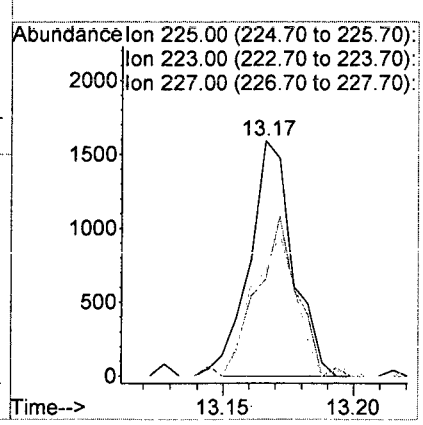


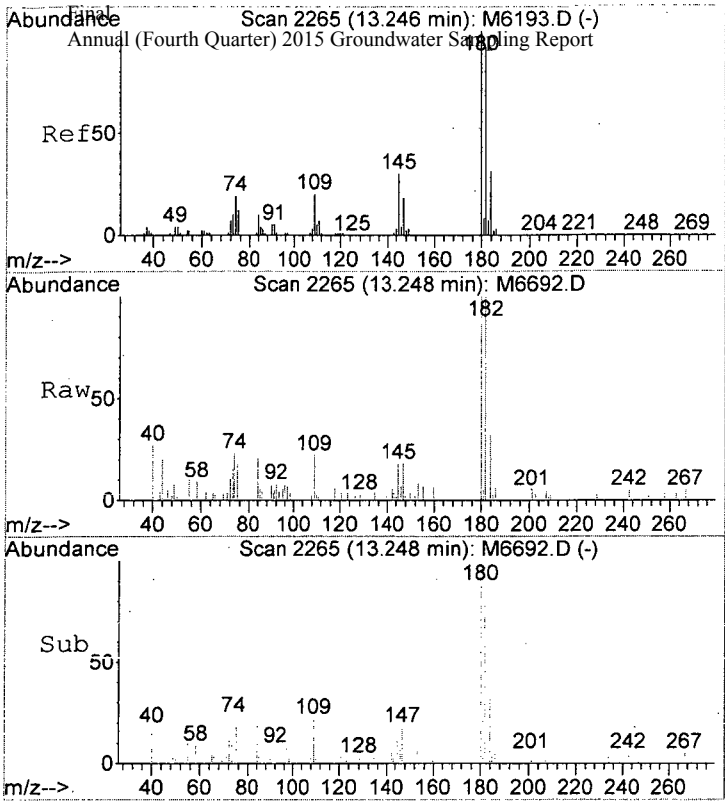


#103
Hexachlorobt
Concen: 0.50 ug/L
RT: 13.17 min Scan# 2250
Delta R.T. -0.00 min
Lab File: M6692.D
Acq: 28 Dec 2015 11:09 am

Tgt Ion:225 Resp: 1834

Ion	Ratio	Lower	Upper
225	100		
223	61.5	42.5	82.5
227	58.9	45.1	85.1

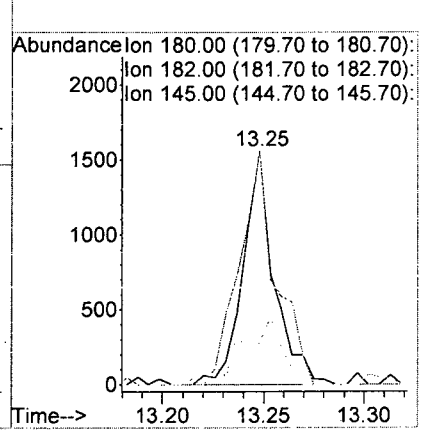




#104
1,2,3-Tclbenzene
Concen: 0.26 ug/L
RT: 13.25 min Scan# 2265
Delta R.T. 0.00 min
Lab File: M6692.D
Acq: 28 Dec 2015 11:09 am

Tgt Ion:180 Resp: 1656

Ion	Ratio	Lower	Upper
180	100		
182	62.6	75.0	115.0#
145	11.2	8.8	48.8



M6692.D W113015.M Thu Dec 31 14:18:25 2015 Page 6

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: NA
Date Received: NA

Sample Name: Lab Control Sample
Lab Code: RQ1516003-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**20.5**		5.0	1.0	0.22	1	NA	12/22/15 13:03		477453	
1,1,1-Trichloroethane (TCA)	**21.3**		5.0	1.0	0.36	1	NA	12/22/15 13:03		477453	
1,1,2,2-Tetrachloroethane	**20.0**		5.0	1.0	0.25	1	NA	12/22/15 13:03		477453	
1,1,2-Trichloroethane	**20.5**		5.0	1.0	0.34	1	NA	12/22/15 13:03		477453	
1,1-Dichloroethane (1,1-DCA)	**21.5**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
1,1-Dichloroethene (1,1-DCE)	**21.5**		5.0	1.0	0.57	1	NA	12/22/15 13:03		477453	
1,1-Dichloropropene	**22.3**		5.0	1.0	0.29	1	NA	12/22/15 13:03		477453	
1,2,3-Trichlorobenzene	**21.3**		5.0	1.0	0.82	1	NA	12/22/15 13:03		477453	
1,2,3-Trichloropropane	**20.0**		5.0	1.0	0.70	1	NA	12/22/15 13:03		477453	
1,2,4-Trichlorobenzene	**22.0**		5.0	1.0	0.23	1	NA	12/22/15 13:03		477453	
1,2,4-Trimethylbenzene	**21.5**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
1,2-Dibromo-3-chloropropane (DBCP)	**19.0**		5.0	1.0	0.74	1	NA	12/22/15 13:03		477453	
1,2-Dibromoethane	**20.3**		5.0	1.0	0.24	1	NA	12/22/15 13:03		477453	
1,2-Dichlorobenzene	**20.9**		5.0	1.0	0.21	1	NA	12/22/15 13:03		477453	
1,2-Dichloroethane	**19.6**		5.0	1.0	0.36	1	NA	12/22/15 13:03		477453	
1,2-Dichloropropane	**21.3**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
1,3,5-Trimethylbenzene	**21.6**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
1,3-Dichlorobenzene	**21.5**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
1,3-Dichloropropane	**21.0**		5.0	1.0	0.27	1	NA	12/22/15 13:03		477453	
1,4-Dichlorobenzene	**21.1**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
2,2-Dichloropropane	**20.7**		5.0	1.0	0.27	1	NA	12/22/15 13:03		477453	
2-Butanone (MEK)	**21.2**		10	1.0	0.81	1	NA	12/22/15 13:03		477453	
2-Chlorotoluene	**21.6**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
2-Hexanone	**18.3**		10	5.0	1.7	1	NA	12/22/15 13:03		477453	
tert-Butyl Alcohol	**394**		100	20	11	1	NA	12/22/15 13:03		477453	
4-Chlorotoluene	**21.5**		5.0	1.0	0.24	1	NA	12/22/15 13:03		477453	
p-Isopropyltoluene	**20.8**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
4-Methyl-2-pentanone	**18.2**		10	1.0	0.67	1	NA	12/22/15 13:03		477453	
Acetone	**22.2**		10	5.0	1.3	1	NA	12/22/15 13:03		477453	
Benzene	**21.5**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
Bromobenzene	**20.9**		5.0	1.0	0.28	1	NA	12/22/15 13:03		477453	
Bromochloromethane	**20.2**		5.0	1.0	0.32	1	NA	12/22/15 13:03		477453	
Bromodichloromethane	**21.2**		5.0	1.0	0.32	1	NA	12/22/15 13:03		477453	
Bromoform	**19.5**		5.0	1.0	0.42	1	NA	12/22/15 13:03		477453	
Bromomethane	**21.5**		5.0	1.0	0.29	1	NA	12/22/15 13:03		477453	
Carbon Tetrachloride	**20.6**		5.0	1.0	0.45	1	NA	12/22/15 13:03		477453	
Chlorobenzene	**20.6**		5.0	1.0	0.29	1	NA	12/22/15 13:03		477453	
Chloroethane	**22.0**		5.0	1.0	0.24	1	NA	12/22/15 13:03		477453	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: NA
Date Received: NA

Sample Name: Lab Control Sample
Lab Code: RQ1516003-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	**20.8**		5.0	1.0	0.25	1	NA	12/22/15 13:03		477453	
Chloromethane	**21.6**		5.0	1.0	0.21	1	NA	12/22/15 13:03		477453	
Dibromochloromethane	**20.8**		5.0	1.0	0.31	1	NA	12/22/15 13:03		477453	
Dichlorodifluoromethane (CFC 12)	**23.6**		5.0	1.0	0.46	1	NA	12/22/15 13:03		477453	
Methylene Chloride	**20.0**		5.0	1.0	0.60	1	NA	12/22/15 13:03		477453	
Ethylbenzene	**21.6**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
Hexachlorobutadiene	**24.6**		5.0	1.0	0.62	1	NA	12/22/15 13:03		477453	
Isopropylbenzene (Cumene)	**21.5**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
Methyl tert-Butyl Ether	**19.6**		5.0	1.0	0.29	1	NA	12/22/15 13:03		477453	
Naphthalene	**21.0**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
Styrene	**21.5**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
Tetrachloroethene (PCE)	**21.2**		5.0	1.0	0.30	1	NA	12/22/15 13:03		477453	
Toluene	**20.3**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
Trichloroethene (TCE)	**20.7**		5.0	1.0	0.22	1	NA	12/22/15 13:03		477453	
Trichlorofluoromethane (CFC 11)	**21.5**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
Vinyl Chloride	**21.4**		5.0	1.0	0.32	1	NA	12/22/15 13:03		477453	
cis-1,2-Dichloroethene	**21.4**		5.0	1.0	0.30	1	NA	12/22/15 13:03		477453	
cis-1,3-Dichloropropene	**21.6**		5.0	1.0	0.24	1	NA	12/22/15 13:03		477453	
m,p-Xylenes	**43.1**		5.0	2.0	0.33	1	NA	12/22/15 13:03		477453	
n-Butylbenzene	**22.1**		5.0	1.0	0.21	1	NA	12/22/15 13:03		477453	
n-Propylbenzene	**20.5**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
o-Xylene	**20.5**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
sec-Butylbenzene	**20.5**		5.0	1.0	0.27	1	NA	12/22/15 13:03		477453	
tert-Butylbenzene	**20.0**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	
trans-1,2-Dichloroethene	**20.8**		5.0	1.0	0.33	1	NA	12/22/15 13:03		477453	
trans-1,3-Dichloropropene	**20.5**		5.0	1.0	0.20	1	NA	12/22/15 13:03		477453	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	75-120	12/22/15 13:03	
Dibromofluoromethane	104	85-115	12/22/15 13:03	
Toluene-d8	105	85-120	12/22/15 13:03	

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6627.D Vial: 10
Acq On : 22 Dec 2015 1:03 pm Operator: D.Lipani
Sample : LCS RQ1516003-03 Inst : MS#6
Misc : 8260 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 22 13:19 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.35	168	712017	50.00	ug/L		0.00
39) 1,4-Difluorobenzene	5.67	114	981551	50.00	ug/L		0.00
64) d5-Chlorobenzene	9.08	117	851543	50.00	ug/L		0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	515742	50.00	ug/L		0.00
System Monitoring Compounds							
40) surr4,Dibrflmethane	3.64	113	320346	52.03	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 104.06%				
42) surr1,1,2-dichloroethane-d	4.23	65	261393	52.06	ug/L		0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 104.12%				
62) SURR3,Toluene-d8	7.76	98	1074864	52.57	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.14%				
82) SURR2,BFB	10.14	95	424183	55.65	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 111.30%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.00	85	182125	23.62	ug/L		99
3) Chloromethane	1.08	50	177163	21.63	ug/L		97
4) Vinyl Chloride	1.15	62	184263	21.43	ug/L		98
5) Bromomethane	1.31	94	110353	21.52	ug/L		98
6) Chloroethane	1.38	64	95244	22.01	ug/L		99
7) Freon 21	1.41	67	240237	22.35	ug/L		98
8) Freon 123	1.58	83	194539	20.37	ug/L		99
9) Freon 123a	1.60	67	162609	22.13	ug/L		98
10) Acrolein	1.65	56	21752	34.55	ug/L		89
11) Trichlorofluoromethane	1.65	101	192227	21.53	ug/L		99
12) Acetonitrile	1.67	41	48310	104.02	ug/L		93
13) 2-Propanol	1.70	45	71371	410.17	ug/L		97
14) Acetone	1.73	43	18930	22.19	ug/L		87
15) Diethyl Ether	1.79	59	78975	20.66	ug/L		98
16) 1,1-Diclethene	1.94	96	125273	21.49	ug/L		95
17) Iodomethane	1.96	142	199111	23.07	ug/L		99
18) TBA	1.98	59	110833	394.28	ug/L		98
19) Acrylonitrile	2.00	53	123515	96.57	ug/L		99
20) Methylene Chloride	2.04	84	130558	20.00	ug/L		95
21) Freon 113	2.08	101	121933	20.99	ug/L		98
22) Methyl Acetate	2.10	43	45565	17.49	ug/L		94
23) Allyl Chloride	2.10	76	60784	21.95	ug/L	#	88
24) Carbon Disulfide	2.15	76	400834	21.22	ug/L		100
25) trans-1,2-Dichloroethene	2.51	96	133429	20.77	ug/L		96
26) Methyl-t-Butyl Ether	2.62	73	236990	19.58	ug/L		96
27) 1,1-Diclethane	2.71	63	209785	21.50	ug/L		96
28) Propionitrile	2.76	54	43840	103.58	ug/L		99
29) Vinyl Acetate	2.90	43	162766	19.73	ug/L		95
30) 2-Chloro-1,3-Butadiene	3.05	53	171400	19.28	ug/L		100
31) 2-Butanone	3.17	43	27161	21.19	ug/L		95
32) Methacrylonitrile	3.26	67	27894	20.39	ug/L		95
33) cis-1,2-Dichloroethene	3.26	96	133682	21.35	ug/L		99
34) Bromochloromethane	3.43	128	60831	20.21	ug/L		98
35) Chloroform	3.50	83	205146	20.78	ug/L		100
36) 2,2-Dichloropropane	3.57	77	157167	20.66	ug/L		99

DL 12/22/15

(#) = qualifier out of range (m) = manual integration
M6627.D W113015.M Tue Dec 22 13:19:50 2015 Page 1

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6627.D Vial: 10
Acq On : 22 Dec 2015 1:03 pm Operator: D.Lipani
Sample : LCS Inst : MS#6
Misc : 8260 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 22 13:19 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	Tetrahydrofuran	3.92	42	16977	20.30	ug/L	98
38)	1,1,1-Trichloroethane	4.47	97	169608	21.32	ug/L	97
41)	Iso-Butyl Alcohol	3.74	43	47707	417.66	ug/L	97
43)	1,2-Dichloroethane	4.35	62	113809	19.63	ug/L	96
44)	1,1-Dichloropropene	4.80	75	160369	22.32	ug/L	99
45)	Cyclohexane	4.86	56	167193	19.12	ug/L	97
46)	Carbontetrachloride	5.04	119	144934	20.58	ug/L	95
47)	Benzene	5.15	78	473601	21.48	ug/L	98
48)	Dibromomethane	5.99	93	59235	19.74	ug/L	98
49)	1,2-Diclpropane	6.07	63	119144	21.31	ug/L	100
50)	n-Heptane	6.14	43	101553	21.17	ug/L	94
51)	Trichloroethene	6.13	130	135329	20.73	ug/L	98
52)	Bromodichloromethane	6.19	83	144294	21.21	ug/L	99
53)	2-Nitropropane	6.25	41	21190	34.96	ug/L	92
54)	1,4-Dioxane	6.42	88	12624	386.38	ug/L	91
55)	Methyl Methacrylate	6.60	69	42625	19.58	ug/L	90
56)	Methylcyclohexane	6.72	55	111790	19.67	ug/L	98
57)	2-Chloroethylvinyl Ether	6.87	63	51775	21.38	ug/L	96
58)	cis-1,3-Dichloropropene	7.03	75	172521	21.61	ug/L	99
59)	4-Methyl-2-pentanone	7.25	43	53006	18.16	ug/L	99
60)	trans-1,3-Dichloropropene	7.53	75	134511	20.54	ug/L	98
61)	1,1,2-Trichloroethane	7.65	97	85491	20.54	ug/L	98
63)	Toluene	7.83	91	467290	20.26	ug/L	99
65)	1,3-Dichloropropane	7.90	76	128155	21.03	ug/L	98
66)	Ethyl Methacrylate	8.08	69	90998	19.91	ug/L	95
67)	Dibromochloromethane	8.09	129	105599	20.84	ug/L	100
68)	2-Hexanone	8.15	43	35186	18.34	ug/L	98
69)	1,2-Dibromoethane	8.31	107	82252	20.26	ug/L	99
70)	n-Butyl Acetate	8.52	43	95601	19.29	ug/L	98
71)	Tetrachloroethene	8.50	164	109515	21.23	ug/L	99
72)	1,1,1,2-Tetrachloroethane	9.05	131	111446	20.47	ug/L	98
73)	Chlorobenzene	9.11	112	310211	20.58	ug/L	98
74)	Ethylbenzene	9.32	106	167309	21.57	ug/L	98
75)	Bromoform	9.50	173	62578	19.52	ug/L	98
76)	(m+p)Xylene	9.50	106	405834	43.12	ug/L	99
77)	o-Xylene	9.83	106	200515	20.53	ug/L	97
78)	Cyclohexanone	9.74	55	77588	704.57	ug/L	92
79)	Styrene	9.77	104	332777	21.49	ug/L	100
80)	trans-1,4-Dichloro-2-Buten	10.00	75	21320	13.59	ug/L	96
81)	Isopropylbenzene	10.14	105	505020	21.50	ug/L	99
84)	1,1,2,2-Tetrachloroethane	9.82	83	94395	20.01	ug/L	100
85)	1,2,3-Trichloropropane	9.93	75	64361	20.02	ug/L	96
86)	Bromobenzene	10.28	156	148977	20.86	ug/L	99
87)	n-Propylbenzene	10.49	91	564445	20.54	ug/L	98
88)	2-Chlorotoluene	10.54	91	360560	21.59	ug/L	98
89)	4-Chlorotoluene	10.61	91	378869	21.52	ug/L	98
90)	1,3,5-Trimethylbenzene	10.76	105	399707	21.56	ug/L	98
91)	tert-Butylbenzene	10.95	119	323064	20.03	ug/L	100
92)	1,2,4-Trimethylbenzene	11.06	105	425240	21.53	ug/L	99
93)	sec-Butylbenzene	11.13	105	464444	20.51	ug/L	99

(#) = qualifier out of range (m) = manual integration
M6627.D W113015.M Tue Dec 22 13:19:52 2015

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6627.D Vial: 10
Acq On : 22 Dec 2015 1:03 pm Operator: D.Lipani
Sample : LCS Inst : MS#6
Misc : 8260 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 22 13:19 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

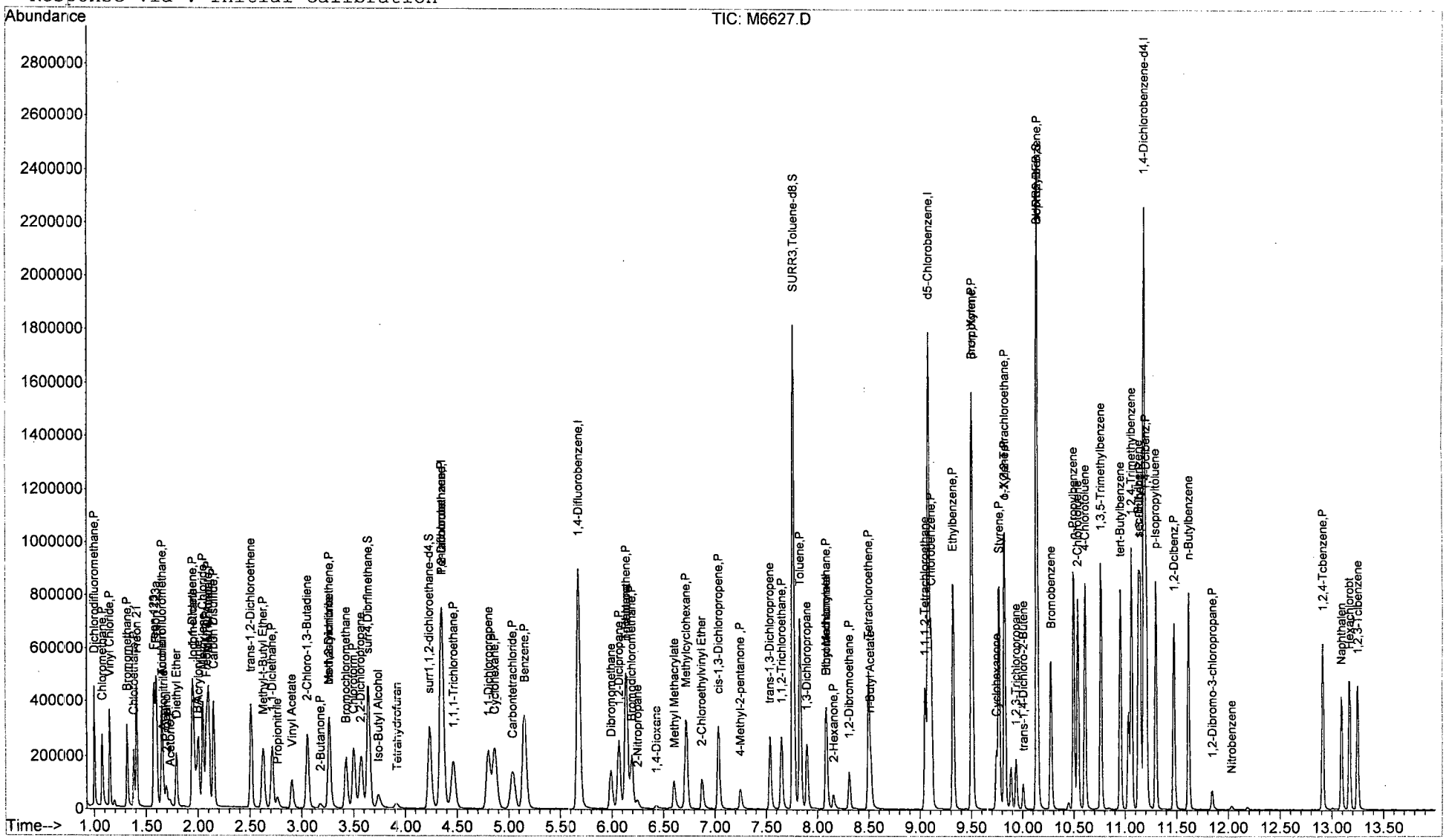
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
94)	1,3-Dclbenz	11.15	146	280263	21.52 ug/L	99
95)	1,4-Dclbenz	11.21	146	282447	21.12 ug/L	99
96)	p-Isopropyltoluene	11.30	119	389134	20.79 ug/L	100
97)	1,2-Dclbenz	11.47	146	257735	20.89 ug/L	99
98)	n-Butylbenzene	11.62	91	364383	22.08 ug/L	97
99)	1,2-Dibromo-3-chloropropan	11.84	75	13051	18.95 ug/L	94
100)	Nitrobenzene	12.03	77	5283	31.52 ug/L	75
101)	1,2,4-Tcbenzene	12.91	180	157305	22.04 ug/L	98
102)	Naphthalen	13.09	128	263745	21.03 ug/L	100
103)	Hexachlorobt	13.17	225	83796	24.55 ug/L	99
104)	1,2,3-Tclbenzene	13.25	180	125651	21.32 ug/L	99

(#) = qualifier out of range (m) = manual integration
M6627.D W113015.M Tue Dec 22 13:19:52 2015 Page 3

Quantitation Report

Data File : I:\ACQUDATA\MSVOA6\DATA\122215\M6627.D Vial: 10
Acq On : 22 Dec 2015 1:03 pm Operator: D.Lipani
Sample : LCS Inst : MS#6
Misc : 8260 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 22 13:19 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



M6627.D W113015.M Tue Dec 22 13:19:57 2015

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1516108-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**19.8**		5.0	1.0	0.22	1	NA	12/26/15 10:59		477737	
1,1,1-Trichloroethane (TCA)	**23.6**		5.0	1.0	0.36	1	NA	12/26/15 10:59		477737	
1,1,2,2-Tetrachloroethane	**20.6**		5.0	1.0	0.25	1	NA	12/26/15 10:59		477737	
1,1,2-Trichloroethane	**22.1**		5.0	1.0	0.34	1	NA	12/26/15 10:59		477737	
1,1-Dichloroethane (1,1-DCA)	**24.0**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
1,1-Dichloroethene (1,1-DCE)	**23.6**		5.0	1.0	0.57	1	NA	12/26/15 10:59		477737	
1,1-Dichloropropene	**22.9**		5.0	1.0	0.29	1	NA	12/26/15 10:59		477737	
1,2,3-Trichlorobenzene	**20.9**		5.0	1.0	0.82	1	NA	12/26/15 10:59		477737	
1,2,3-Trichloropropane	**20.4**		5.0	1.0	0.70	1	NA	12/26/15 10:59		477737	
1,2,4-Trichlorobenzene	**21.0**		5.0	1.0	0.23	1	NA	12/26/15 10:59		477737	
1,2,4-Trimethylbenzene	**20.4**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
1,2-Dibromo-3-chloropropane (DBCP)	**19.4**		5.0	1.0	0.74	1	NA	12/26/15 10:59		477737	
1,2-Dibromoethane	**21.0**		5.0	1.0	0.24	1	NA	12/26/15 10:59		477737	
1,2-Dichlorobenzene	**20.9**		5.0	1.0	0.21	1	NA	12/26/15 10:59		477737	
1,2-Dichloroethane	**21.1**		5.0	1.0	0.36	1	NA	12/26/15 10:59		477737	
1,2-Dichloropropane	**21.7**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
1,3,5-Trimethylbenzene	**20.5**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
1,3-Dichlorobenzene	**20.9**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
1,3-Dichloropropane	**21.4**		5.0	1.0	0.27	1	NA	12/26/15 10:59		477737	
1,4-Dichlorobenzene	**20.3**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
2,2-Dichloropropane	**22.5**		5.0	1.0	0.27	1	NA	12/26/15 10:59		477737	
2-Butanone (MEK)	**24.4**		10	1.0	0.81	1	NA	12/26/15 10:59		477737	
2-Chlorotoluene	**21.0**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
2-Hexanone	**20.2**		10	5.0	1.7	1	NA	12/26/15 10:59		477737	
tert-Butyl Alcohol	**520**		100	20	11	1	NA	12/26/15 10:59		477737	
4-Chlorotoluene	**20.9**		5.0	1.0	0.24	1	NA	12/26/15 10:59		477737	
p-Isopropyltoluene	**20.3**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
4-Methyl-2-pentanone	**21.2**		10	1.0	0.67	1	NA	12/26/15 10:59		477737	
Acetone	**27.2**		10	5.0	1.3	1	NA	12/26/15 10:59		477737	
Benzene	**21.8**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
Bromobenzene	**20.3**		5.0	1.0	0.28	1	NA	12/26/15 10:59		477737	
Bromochloromethane	**23.0**		5.0	1.0	0.32	1	NA	12/26/15 10:59		477737	
Bromodichloromethane	**22.7**		5.0	1.0	0.32	1	NA	12/26/15 10:59		477737	
Bromoform	**20.9**		5.0	1.0	0.42	1	NA	12/26/15 10:59		477737	
Bromomethane	**24.1**		5.0	1.0	0.29	1	NA	12/26/15 10:59		477737	
Carbon Tetrachloride	**21.4**		5.0	1.0	0.45	1	NA	12/26/15 10:59		477737	
Chlorobenzene	**19.7**		5.0	1.0	0.29	1	NA	12/26/15 10:59		477737	
Chloroethane	**23.6**		5.0	1.0	0.24	1	NA	12/26/15 10:59		477737	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1516108-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	**23.4**		5.0	1.0	0.25	1	NA	12/26/15 10:59		477737	
Chloromethane	**24.2**		5.0	1.0	0.21	1	NA	12/26/15 10:59		477737	
Dibromochloromethane	**21.6**		5.0	1.0	0.31	1	NA	12/26/15 10:59		477737	
Dichlorodifluoromethane (CFC 12)	**26.1**		5.0	1.0	0.46	1	NA	12/26/15 10:59		477737	
Methylene Chloride	**23.1**		5.0	1.0	0.60	1	NA	12/26/15 10:59		477737	
Ethylbenzene	**20.2**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
Hexachlorobutadiene	**21.5**		5.0	1.0	0.62	1	NA	12/26/15 10:59		477737	
Isopropylbenzene (Cumene)	**19.5**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
Methyl tert-Butyl Ether	**23.2**		5.0	1.0	0.29	1	NA	12/26/15 10:59		477737	
Naphthalene	**21.2**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
Styrene	**20.8**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
Tetrachloroethene (PCE)	**20.1**		5.0	1.0	0.30	1	NA	12/26/15 10:59		477737	
Toluene	**21.3**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
Trichloroethene (TCE)	**21.0**		5.0	1.0	0.22	1	NA	12/26/15 10:59		477737	
Trichlorofluoromethane (CFC 11)	**24.2**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
Vinyl Chloride	**22.5**		5.0	1.0	0.32	1	NA	12/26/15 10:59		477737	
cis-1,2-Dichloroethene	**23.8**		5.0	1.0	0.30	1	NA	12/26/15 10:59		477737	
cis-1,3-Dichloropropene	**22.6**		5.0	1.0	0.24	1	NA	12/26/15 10:59		477737	
m,p-Xylenes	**41.1**		5.0	2.0	0.33	1	NA	12/26/15 10:59		477737	
n-Butylbenzene	**20.8**		5.0	1.0	0.21	1	NA	12/26/15 10:59		477737	
n-Propylbenzene	**19.7**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
o-Xylene	**19.9**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
sec-Butylbenzene	**19.6**		5.0	1.0	0.27	1	NA	12/26/15 10:59		477737	
tert-Butylbenzene	**19.6**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	
trans-1,2-Dichloroethene	**22.3**		5.0	1.0	0.33	1	NA	12/26/15 10:59		477737	
trans-1,3-Dichloropropene	**22.6**		5.0	1.0	0.20	1	NA	12/26/15 10:59		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	75-120	12/26/15 10:59	
Dibromofluoromethane	105	85-115	12/26/15 10:59	
Toluene-d8	105	85-120	12/26/15 10:59	

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6668.D Vial: 6
Acq On : 26 Dec 2015 10:59 am Operator: D.Lipani
Sample : LCS RQ1516108-03 Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 26 11:16 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	655415	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.67	114	963532	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	907194	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.18	152	543897	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	318723	52.74	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 105.48%			
42) surr1,1,2-dichloroethane-d	4.23	65	252640	51.25	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 102.50%			
62) SURR3,Toluene-d8	7.76	98	1055615	52.60	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.20%			
82) SURR2,BFB	10.14	95	431136	53.09	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 106.18%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	185403	26.13	ug/L	99
3) Chloromethane	1.07	50	182238	24.17	ug/L	96
4) Vinyl Chloride	1.15	62	178378	22.53	ug/L	97
5) Bromomethane	1.31	94	113901	24.13	ug/L	99
6) Chloroethane	1.38	64	93978	23.59	ug/L	99
7) Freon 21	1.41	67	234468	23.70	ug/L	99
8) Freon 123	1.58	83	187498	21.33	ug/L	100
9) Freon 123a	1.60	67	153499	22.70	ug/L	97
10) Acrolein	1.65	56	23146	39.94	ug/L	87
11) Trichlorofluoromethane	1.65	101	198632	24.17	ug/L	100
12) Acetonitrile	1.67	41	53588	125.35	ug/L	93
13) 2-Propanol	1.69	45	77450	483.55	ug/L	94
14) Acetone	1.73	43	21367	27.22	ug/L	94
15) Diethyl Ether	1.79	59	80992	23.02	ug/L	98
16) 1,1-Diclethene	1.94	96	126775	23.62	ug/L	95
17) Iodomethane	1.96	142	207222	25.94	ug/L	99
18) TBA	1.98	59	134491	519.76	ug/L	99
19) Acrylonitrile	2.00	53	133928	113.76	ug/L	94
20) Methylene Chloride	2.04	84	138517	23.06	ug/L	97
21) Freon 113	2.08	101	120026	22.44	ug/L	96
22) Methyl Acetate	2.09	43	50450	21.03	ug/L	93
23) Allyl Chloride	2.10	76	61941	24.30	ug/L #	85
24) Carbon Disulfide	2.15	76	402091	23.13	ug/L	100
25) trans-1,2-Dichloroethene	2.51	96	131888	22.31	ug/L	96
26) Methyl-t-Butyl Ether	2.62	73	257924	23.15	ug/L	97
27) 1,1-Diclethane	2.71	63	215216	23.97	ug/L	97
28) Propionitrile	2.76	54	49117	126.08	ug/L	96
29) Vinyl Acetate	2.90	43	170212	22.41	ug/L	96
30) 2-Chloro-1,3-Butadiene	3.05	53	171899	21.00	ug/L	96
31) 2-Butanone	3.18	43	28795	24.40	ug/L	96
32) Methacrylonitrile	3.27	67	30972	24.59	ug/L	90
33) cis-1,2-Dichloroethene	3.26	96	137127	23.79	ug/L	96
34) Bromochloromethane	3.43	128	63727	23.00	ug/L	96
35) Chloroform	3.50	83	212754	23.41	ug/L	98
36) 2,2-Dichloropropane	3.57	77	157600	22.51	ug/L	97

DL 12/26/15

(#) = qualifier out of range (m) = manual integration
M6668.D W113015.M Sat Dec 26 11:16:07 2015

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6668.D Vial: 6
Acq On : 26 Dec 2015 10:59 am Operator: D.Lipani
Sample : LCS Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 26 11:16 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	Tetrahydrofuran	3.90	42	19456	25.27	ug/L	91
38)	1,1,1-Trichloroethane	4.46	97	172996	23.62	ug/L	97
41)	Iso-Butyl Alcohol	3.74	43	53107	473.63	ug/L	91
43)	1,2-Dichloroethane	4.34	62	120024	21.09	ug/L	98
44)	1,1-Dichloropropene	4.80	75	161298	22.87	ug/L	97
45)	Cyclohexane	4.86	56	165517	19.28	ug/L	93
46)	Carbontetrachloride	5.03	119	147955	21.41	ug/L	91
47)	Benzene	5.14	78	471730	21.80	ug/L	98
48)	Dibromomethane	5.99	93	63526	21.57	ug/L	97
49)	1,2-Diclpropane	6.06	63	119223	21.72	ug/L	98
50)	n-Heptane	6.14	43	94334	20.04	ug/L	94
51)	Trichloroethene	6.13	130	134378	20.96	ug/L	99
52)	Bromodichloromethane	6.19	83	151249	22.65	ug/L	99
53)	2-Nitropropane	6.24	41	24749	41.60	ug/L	94
54)	1,4-Dioxane	6.42	88	14209	443.02	ug/L	99
55)	Methyl Methacrylate	6.60	69	49509	23.17	ug/L	96
56)	Methylcyclohexane	6.72	55	108463	19.44	ug/L	97
57)	2-Chloroethylvinyl Ether	6.88	63	55285	23.26	ug/L	97
58)	cis-1,3-Dichloropropene	7.03	75	176935	22.58	ug/L	99
59)	4-Methyl-2-pentanone	7.25	43	60769	21.21	ug/L	100
60)	trans-1,3-Dichloropropene	7.53	75	145146	22.58	ug/L	97
61)	1,1,2-Trichloroethane	7.65	97	90175	22.07	ug/L	100
63)	Toluene	7.83	91	482399	21.31	ug/L	99
65)	1,3-Dichloropropane	7.90	76	138787	21.38	ug/L	99
66)	Ethyl Methacrylate	8.08	69	99403	20.41	ug/L	95
67)	Dibromochloromethane	8.09	129	116445	21.57	ug/L	98
68)	2-Hexanone	8.15	43	41222	20.17	ug/L	99
69)	1,2-Dibromoethane	8.31	107	90675	20.96	ug/L	99
70)	n-Butyl Acetate	8.52	43	101374	19.20	ug/L	98
71)	Tetrachloroethene	8.50	164	110347	20.07	ug/L	97
72)	1,1,1,2-Tetrachloroethane	9.05	131	114735	19.78	ug/L	99
73)	Chlorobenzene	9.11	112	316652	19.72	ug/L	98
74)	Ethylbenzene	9.32	106	166690	20.17	ug/L	97
75)	Bromoform	9.50	173	71215	20.85	ug/L	99
76)	(m+p)Xylene	9.50	106	412369	41.13	ug/L	100
77)	o-Xylene	9.82	106	207120	19.90	ug/L	99
78)	Cyclohexanone	9.74	55	73462	626.18	ug/L	95
79)	Styrene	9.77	104	342584	20.76	ug/L	99
80)	trans-1,4-Dichloro-2-Buten	10.00	75	24761	14.81	ug/L	94
81)	Isopropylbenzene	10.13	105	487390	19.48	ug/L	98
84)	1,1,2,2-Tetrachloroethane	9.82	83	102568	20.62	ug/L	97
85)	1,2,3-Trichloropropane	9.93	75	69102	20.38	ug/L	98
86)	Bromobenzene	10.28	156	152560	20.25	ug/L	99
87)	n-Propylbenzene	10.49	91	571486	19.72	ug/L	99
88)	2-Chlorotoluene	10.54	91	369869	21.00	ug/L	99
89)	4-Chlorotoluene	10.61	91	388579	20.93	ug/L	98
90)	1,3,5-Trimethylbenzene	10.77	105	400978	20.51	ug/L	99
91)	tert-Butylbenzene	10.95	119	333964	19.64	ug/L	99
92)	1,2,4-Trimethylbenzene	11.06	105	425723	20.44	ug/L	99
93)	sec-Butylbenzene	11.13	105	468624	19.62	ug/L	99

(#) = qualifier out of range (m) = manual integration
M6668.D W113015.M Sat Dec 26 11:16:09 2015

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6668.D Vial: 6
Acq On : 26 Dec 2015 10:59 am Operator: D.Lipani
Sample : LCS Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 26 11:16 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

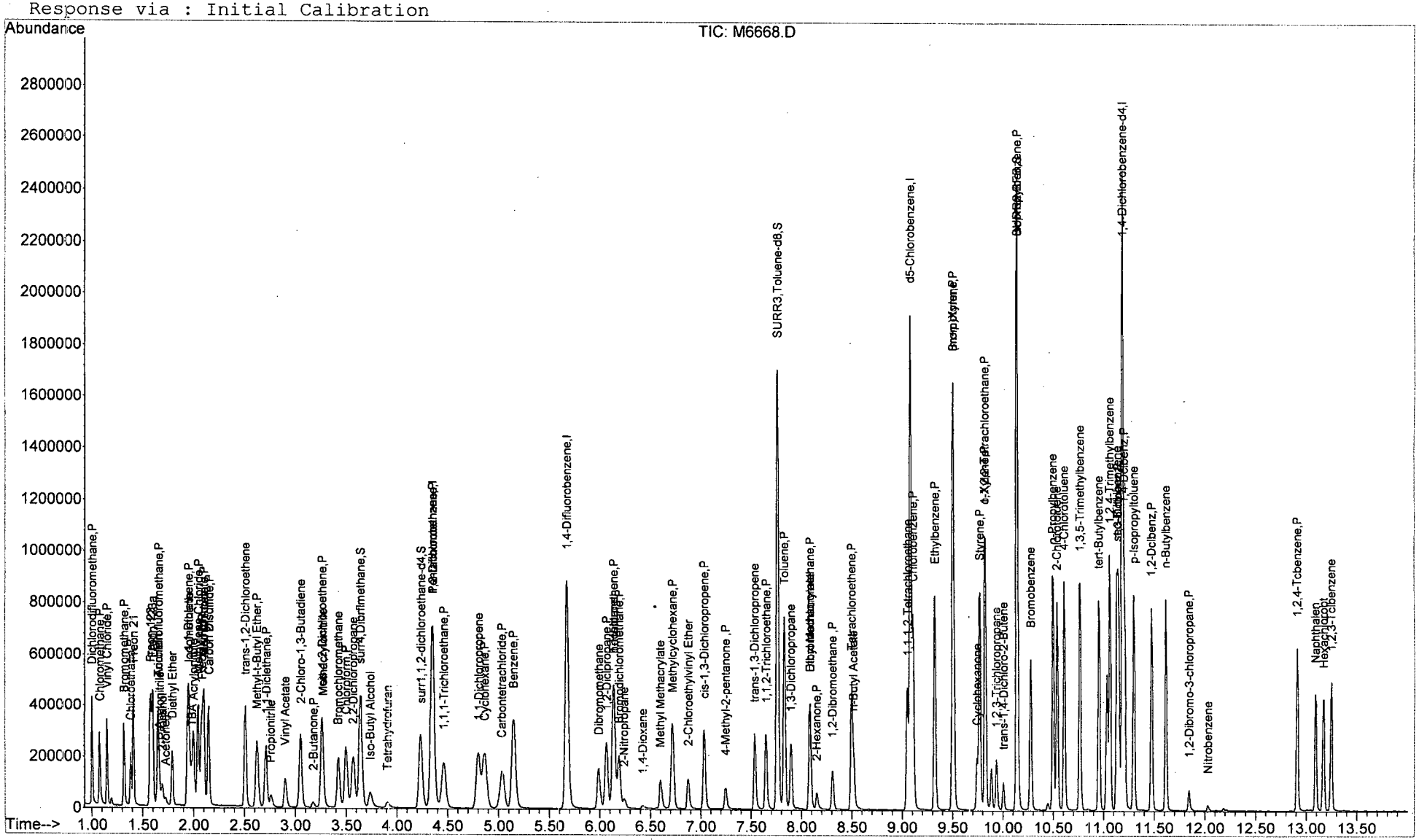
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
94)	1,3-Dclbenz	11.15	146	286484	20.86	ug/L	99
95)	1,4-Dclbenz	11.21	146	286216	20.29	ug/L	99
96)	p-Isopropyltoluene	11.30	119	399808	20.26	ug/L	99
97)	1,2-Dclbenz	11.47	146	271752	20.88	ug/L	99
98)	n-Butylbenzene	11.61	91	361770	20.79	ug/L	97
99)	1,2-Dibromo-3-chloropropan	11.84	75	14121	19.44	ug/L	95
100)	Nitrobenzene	12.03	77	8067	45.65	ug/L	78
101)	1,2,4-Tcbenzene	12.91	180	157724	20.95	ug/L	98
102)	Naphthalen	13.09	128	280914	21.24	ug/L	99
103)	Hexachlorobt	13.17	225	77554	21.54	ug/L	99
104)	1,2,3-Tclbenzene	13.25	180	129565	20.85	ug/L	99

(#) = qualifier out of range (m) = manual integration
M6668.D W113015.M Sat Dec 26 11:16:09 2015 Page 3

Quantitation Report

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6668.D Vial: 6
Acq On : 26 Dec 2015 10:59 am Operator: D.Lipani
Sample : LCS Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 26 11:16 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



M6668.D W113015.M Sat Dec 26 11:16:14 2015

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: NA
Date Received: NA

Sample Name: Lab Control Sample
Lab Code: RQ1516146-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**20.1**		5.0	1.0	0.22	1	NA	12/28/15 10:04		477784	
1,1,1-Trichloroethane (TCA)	**24.5**		5.0	1.0	0.36	1	NA	12/28/15 10:04		477784	
1,1,2,2-Tetrachloroethane	**18.6**		5.0	1.0	0.25	1	NA	12/28/15 10:04		477784	
1,1,2-Trichloroethane	**21.9**		5.0	1.0	0.34	1	NA	12/28/15 10:04		477784	
1,1-Dichloroethane (1,1-DCA)	**25.2**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
1,1-Dichloroethene (1,1-DCE)	**24.8**		5.0	1.0	0.57	1	NA	12/28/15 10:04		477784	
1,1-Dichloropropene	**23.4**		5.0	1.0	0.29	1	NA	12/28/15 10:04		477784	
1,2,3-Trichlorobenzene	**19.6**		5.0	1.0	0.82	1	NA	12/28/15 10:04		477784	
1,2,3-Trichloropropane	**18.2**		5.0	1.0	0.70	1	NA	12/28/15 10:04		477784	
1,2,4-Trichlorobenzene	**20.9**		5.0	1.0	0.23	1	NA	12/28/15 10:04		477784	
1,2,4-Trimethylbenzene	**20.6**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
1,2-Dibromo-3-chloropropane (DBCP)	**16.9**		5.0	1.0	0.74	1	NA	12/28/15 10:04		477784	
1,2-Dibromoethane	**19.1**		5.0	1.0	0.24	1	NA	12/28/15 10:04		477784	
1,2-Dichlorobenzene	**20.6**		5.0	1.0	0.21	1	NA	12/28/15 10:04		477784	
1,2-Dichloroethane	**20.3**		5.0	1.0	0.36	1	NA	12/28/15 10:04		477784	
1,2-Dichloropropane	**22.7**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
1,3,5-Trimethylbenzene	**21.2**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
1,3-Dichlorobenzene	**20.8**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
1,3-Dichloropropane	**19.8**		5.0	1.0	0.27	1	NA	12/28/15 10:04		477784	
1,4-Dichlorobenzene	**20.3**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
2,2-Dichloropropane	**24.3**		5.0	1.0	0.27	1	NA	12/28/15 10:04		477784	
2-Butanone (MEK)	**22.2**		10	1.0	0.81	1	NA	12/28/15 10:04		477784	
2-Chlorotoluene	**20.1**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
2-Hexanone	**16.8**		10	5.0	1.7	1	NA	12/28/15 10:04		477784	
tert-Butyl Alcohol	**414**		100	20	11	1	NA	12/28/15 10:04		477784	
4-Chlorotoluene	**21.0**		5.0	1.0	0.24	1	NA	12/28/15 10:04		477784	
p-Isopropyltoluene	**20.8**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
4-Methyl-2-pentanone	**18.6**		10	1.0	0.67	1	NA	12/28/15 10:04		477784	
Acetone	**27.4**		10	5.0	1.3	1	NA	12/28/15 10:04		477784	
Benzene	**22.3**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
Bromobenzene	**21.0**		5.0	1.0	0.28	1	NA	12/28/15 10:04		477784	
Bromochloromethane	**23.5**		5.0	1.0	0.32	1	NA	12/28/15 10:04		477784	
Bromodichloromethane	**23.1**		5.0	1.0	0.32	1	NA	12/28/15 10:04		477784	
Bromoform	**18.6**		5.0	1.0	0.42	1	NA	12/28/15 10:04		477784	
Bromomethane	**24.2**		5.0	1.0	0.29	1	NA	12/28/15 10:04		477784	
Carbon Tetrachloride	**22.2**		5.0	1.0	0.45	1	NA	12/28/15 10:04		477784	
Chlorobenzene	**20.0**		5.0	1.0	0.29	1	NA	12/28/15 10:04		477784	
Chloroethane	**24.6**		5.0	1.0	0.24	1	NA	12/28/15 10:04		477784	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	RQ1516146-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	**24.0**		5.0	1.0	0.25	1	NA	12/28/15 10:04		477784	
Chloromethane	**24.5**		5.0	1.0	0.21	1	NA	12/28/15 10:04		477784	
Dibromochloromethane	**19.1**		5.0	1.0	0.31	1	NA	12/28/15 10:04		477784	
Dichlorodifluoromethane (CFC 12)	**26.4**		5.0	1.0	0.46	1	NA	12/28/15 10:04		477784	
Methylene Chloride	**22.7**		5.0	1.0	0.60	1	NA	12/28/15 10:04		477784	
Ethylbenzene	**20.4**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
Hexachlorobutadiene	**23.9**		5.0	1.0	0.62	1	NA	12/28/15 10:04		477784	
Isopropylbenzene (Cumene)	**20.4**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
Methyl tert-Butyl Ether	**22.7**		5.0	1.0	0.29	1	NA	12/28/15 10:04		477784	
Naphthalene	**18.8**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
Styrene	**20.1**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
Tetrachloroethene (PCE)	**20.2**		5.0	1.0	0.30	1	NA	12/28/15 10:04		477784	
Toluene	**21.8**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
Trichloroethene (TCE)	**21.9**		5.0	1.0	0.22	1	NA	12/28/15 10:04		477784	
Trichlorofluoromethane (CFC 11)	**25.0**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
Vinyl Chloride	**23.6**		5.0	1.0	0.32	1	NA	12/28/15 10:04		477784	
cis-1,2-Dichloroethene	**24.7**		5.0	1.0	0.30	1	NA	12/28/15 10:04		477784	
cis-1,3-Dichloropropene	**22.0**		5.0	1.0	0.24	1	NA	12/28/15 10:04		477784	
m,p-Xylenes	**40.8**		5.0	2.0	0.33	1	NA	12/28/15 10:04		477784	
n-Butylbenzene	**21.4**		5.0	1.0	0.21	1	NA	12/28/15 10:04		477784	
n-Propylbenzene	**20.7**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
o-Xylene	**20.3**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
sec-Butylbenzene	**20.3**		5.0	1.0	0.27	1	NA	12/28/15 10:04		477784	
tert-Butylbenzene	**20.3**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	
trans-1,2-Dichloroethene	**24.1**		5.0	1.0	0.33	1	NA	12/28/15 10:04		477784	
trans-1,3-Dichloropropene	**21.6**		5.0	1.0	0.20	1	NA	12/28/15 10:04		477784	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	75-120	12/28/15 10:04	
Dibromofluoromethane	105	85-115	12/28/15 10:04	
Toluene-d8	109	85-120	12/28/15 10:04	

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6690.D Vial: 6
Acq On : 28 Dec 2015 10:04 am Operator: D.Lipani
Sample : LCS RQ1516146-03 Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 28 10:21 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	651251	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.67	114	970542	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	948963	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.18	152	569120	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	320021	52.57	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 105.14%			
42) surr1,1,2-dichloroethane-d	4.24	65	245785	49.50	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 99.00%			
62) SURR3,Toluene-d8	7.76	98	1098978	54.36	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 108.72%			
82) SURR2,BFB	10.14	95	454077	53.46	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 106.92%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	186085	26.39	ug/L	98
3) Chloromethane	1.07	50	183854	24.54	ug/L	97
4) Vinyl Chloride	1.15	62	185747	23.62	ug/L	95
5) Bromomethane	1.31	94	113443	24.19	ug/L	99
6) Chloroethane	1.38	64	97310	24.58	ug/L	97
7) Freon 21	1.41	67	237988	24.20	ug/L	100
8) Freon 123	1.57	83	198559	22.73	ug/L	99
9) Freon 123a	1.59	67	159505	23.73	ug/L	91
10) Acrolein	1.65	56	21450	37.25	ug/L	84
11) Trichlorofluoromethane	1.65	101	203934	24.97	ug/L	99
12) Acetonitrile	1.67	41	47496	111.81	ug/L	88
13) 2-Propanol	1.69	45	63973	401.96	ug/L	97
14) Acetone	1.72	43	21375	27.40	ug/L	87
15) Diethyl Ether	1.79	59	79893	22.85	ug/L	97
16) 1,1-Diclethene	1.94	96	132065	24.77	ug/L	99
17) Iodomethane	1.96	142	193938	24.49	ug/L	96
18) TBA	1.98	59	106324	413.53	ug/L	95
19) Acrylonitrile	2.00	53	124104	106.09	ug/L	98
20) Methylene Chloride	2.04	84	135362	22.67	ug/L	98
21) Freon 113	2.08	101	130237	24.51	ug/L	98
22) Methyl Acetate	2.09	43	48962	20.54	ug/L	97
23) Allyl Chloride	2.10	76	60001	23.69	ug/L #	85
24) Carbon Disulfide	2.15	76	400929	23.21	ug/L	100
25) trans-1,2-Dichloroethene	2.51	96	141817	24.14	ug/L	98
26) Methyl-t-Butyl Ether	2.62	73	251779	22.74	ug/L	97
27) 1,1-Diclethane	2.71	63	224371	25.15	ug/L	99
28) Propionitrile	2.76	54	44544	115.07	ug/L	95
29) Vinyl Acetate	2.90	43	160128	21.22	ug/L	99
30) 2-Chloro-1,3-Butadiene	3.05	53	174308	21.43	ug/L	99
31) 2-Butanone	3.17	43	26071	22.24	ug/L	99
32) Methacrylonitrile	3.26	67	28387	22.69	ug/L	94
33) cis-1,2-Dichloroethene	3.26	96	141410	24.69	ug/L	94
34) Bromochloromethane	3.43	128	64597	23.46	ug/L	97
35) Chloroform	3.50	83	217108	24.04	ug/L	100
36) 2,2-Dichloropropane	3.57	77	168849	24.27	ug/L	97

(#) = qualifier out of range (m) = manual integration
M6690.D W113015.M Mon Dec 28 10:21:01 2015

DL 12/28/15

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6690.D Vial: 6
Acq On : 28 Dec 2015 10:04 am Operator: D.Lipani
Sample : LCS Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 28 10:21 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	Tetrahydrofuran	3.90	42	17708	23.15	ug/L	90
38)	1,1,1-Trichloroethane	4.46	97	178127	24.47	ug/L	96
41)	Iso-Butyl Alcohol	3.73	43	43115	381.74	ug/L	86
43)	1,2-Dichloroethane	4.35	62	116593	20.34	ug/L	97
44)	1,1-Dichloropropene	4.80	75	166157	23.39	ug/L	97
45)	Cyclohexane	4.86	56	165456	19.14	ug/L	98
46)	Carbontetrachloride	5.03	119	154412	22.18	ug/L	96
47)	Benzene	5.15	78	486939	22.34	ug/L	96
48)	Dibromomethane	5.99	93	61273	20.66	ug/L	97
49)	1,2-Diclpropane	6.06	63	125683	22.73	ug/L	99
50)	n-Heptane	6.14	43	109999	23.19	ug/L	96
51)	Trichloroethene	6.13	130	141563	21.93	ug/L	98
52)	Bromodichloromethane	6.18	83	155089	23.05	ug/L	99
53)	2-Nitropropane	6.24	41	23087	38.52	ug/L	98
54)	1,4-Dioxane	6.42	88	10793	334.09	ug/L	96
55)	Methyl Methacrylate	6.60	69	45071	20.94	ug/L	96
56)	Methylcyclohexane	6.72	55	109795	19.54	ug/L	99
57)	2-Chloroethylvinyl Ether	6.87	63	52977	22.12	ug/L	94
58)	cis-1,3-Dichloropropene	7.03	75	173633	22.00	ug/L	100
59)	4-Methyl-2-pentanone	7.24	43	53569	18.56	ug/L	94
60)	trans-1,3-Dichloropropene	7.53	75	139738	21.58	ug/L	98
61)	1,1,2-Trichloroethane	7.65	97	90154	21.91	ug/L	96
63)	Toluene	7.83	91	497606	21.82	ug/L	100
65)	1,3-Dichloropropane	7.89	76	134343	19.79	ug/L	98
66)	Ethyl Methacrylate	8.08	69	90869	17.84	ug/L	98
67)	Dibromochloromethane	8.09	129	107913	19.11	ug/L	97
68)	2-Hexanone	8.15	43	36003	16.84	ug/L	98
69)	1,2-Dibromoethane	8.31	107	86436	19.10	ug/L	100
70)	n-Butyl Acetate	8.52	43	91709	16.61	ug/L	97
71)	Tetrachloroethene	8.50	164	116150	20.20	ug/L	98
72)	1,1,1,2-Tetrachloroethane	9.05	131	121894	20.09	ug/L	98
73)	Chlorobenzene	9.11	112	336469	20.03	ug/L	100
74)	Ethylbenzene	9.32	106	176048	20.36	ug/L	98
75)	Bromoform	9.50	173	66324	18.56	ug/L	98
76)	(m+p)Xylene	9.50	106	427543	40.76	ug/L	98
77)	o-Xylene	9.82	106	220797	20.28	ug/L	100
78)	Cyclohexanone	9.74	55	91555	746.05	ug/L	93
79)	Styrene	9.77	104	346731	20.09	ug/L	99
80)	trans-1,4-Dichloro-2-Buten	10.00	75	19371	11.08	ug/L	96
81)	Isopropylbenzene	10.13	105	533193	20.37	ug/L	99
84)	1,1,2,2-Tetrachloroethane	9.82	83	96757	18.59	ug/L	98
85)	1,2,3-Trichloropropane	9.93	75	64486	18.18	ug/L	98
86)	Bromobenzene	10.28	156	165168	20.95	ug/L	96
87)	n-Propylbenzene	10.49	91	628214	20.72	ug/L	98
88)	2-Chlorotoluene	10.54	91	369984	20.08	ug/L	98
89)	4-Chlorotoluene	10.61	91	407534	20.98	ug/L	99
90)	1,3,5-Trimethylbenzene	10.76	105	432696	21.15	ug/L	100
91)	tert-Butylbenzene	10.95	119	360533	20.26	ug/L	99
92)	1,2,4-Trimethylbenzene	11.06	105	448312	20.57	ug/L	98
93)	sec-Butylbenzene	11.13	105	506758	20.28	ug/L	99

(#) = qualifier out of range (m) = manual integration
M6690.D W113015.M Mon Dec 28 10:21:02 2015 Page 2

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6690.D Vial: 6
Acq On : 28 Dec 2015 10:04 am Operator: D.Lipani
Sample : LCS Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 28 10:21 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

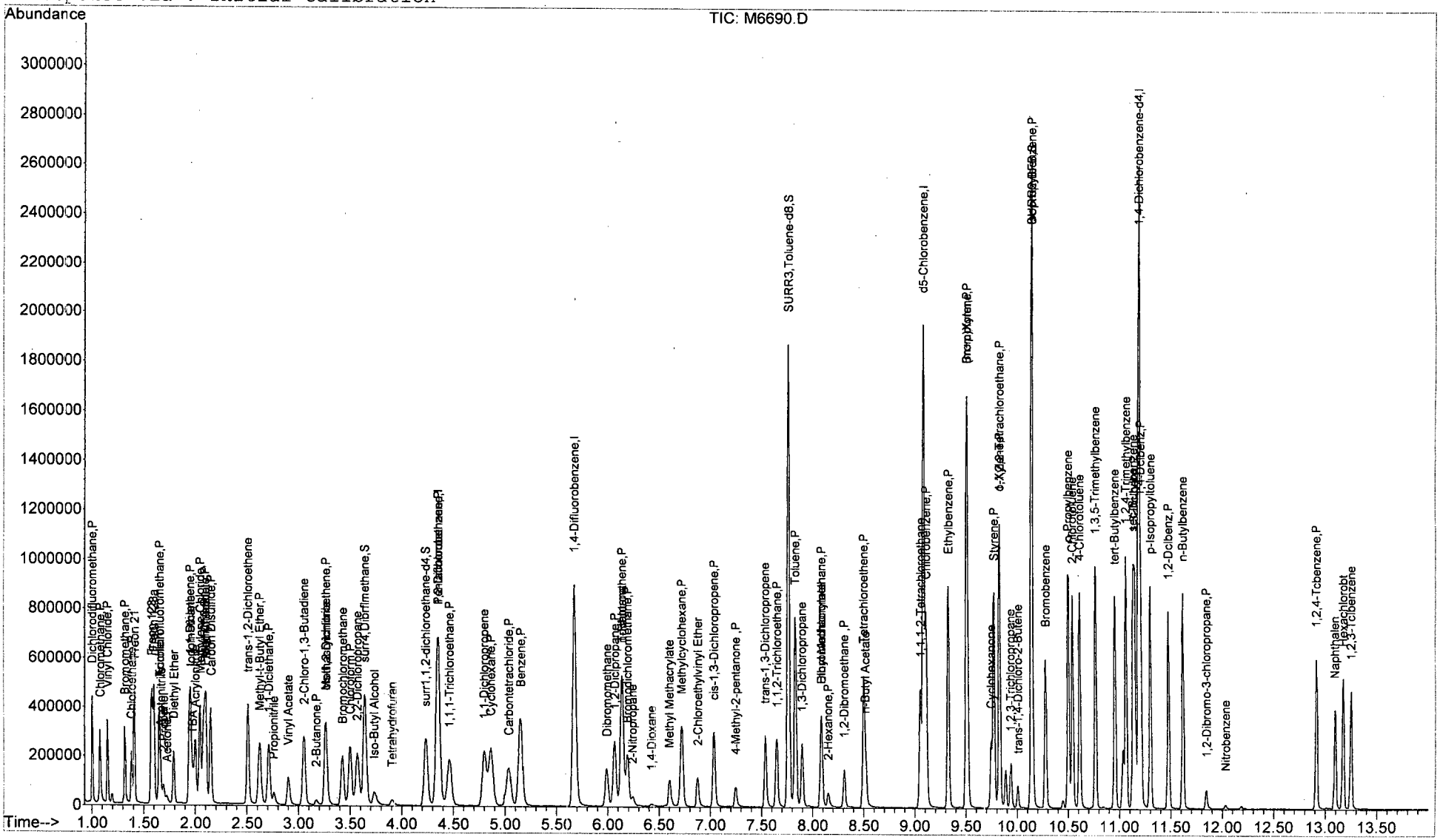
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
94)	1,3-Dclbenz	11.15	146	298463	20.77	ug/L	98
95)	1,4-Dclbenz	11.21	146	299003	20.26	ug/L	99
96)	p-Isopropyltoluene	11.30	119	429185	20.78	ug/L	100
97)	1,2-Dclbenz	11.47	146	279829	20.55	ug/L	98
98)	n-Butylbenzene	11.61	91	389095	21.37	ug/L	98
99)	1,2-Dibromo-3-chloropropan	11.84	75	12867	16.93	ug/L	96
100)	Nitrobenzene	12.03	77	6453	34.89	ug/L	95
101)	1,2,4-Tcbenzene	12.91	180	164529	20.89	ug/L	98
102)	Naphthalen	13.09	128	260299	18.81	ug/L	99
103)	Hexachlorobt	13.17	225	89972	23.88	ug/L	97
104)	1,2,3-Tclbenzene	13.25	180	127688	19.63	ug/L	99

(#) = qualifier out of range (m) = manual integration
M6690.D W113015.M Mon Dec 28 10:21:03 2015 Page 3

Quantitation Report

Data File : I:\ACQUDATA\MSVOA6\DATA\122815\M6690.D Vial: 6
Acq On : 28 Dec 2015 10:04 am Operator: D.Lipani
Sample : LCS Inst : MS#6
Misc : 8260C Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 28 10:21 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



M6690.D W113015.M Mon Dec 28 10:21:07 2015

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Q4 2015 GW Sampling/748810.03000
Sample Matrix: Water

Service Request: R1511019
Date Collected: 12/14/15 1410
Date Received: 12/16/15

Sample Name: FTMM-5-GW-M5MW11-9.46
Lab Code: RQ1516108-05
Run Type: Matrix Spike

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**50.7**		5.0	1.0	0.22	1	NA	12/26/15 20:03		477737	
1,1,1-Trichloroethane (TCA)	**60.9**		5.0	1.0	0.36	1	NA	12/26/15 20:03		477737	
1,1,2,2-Tetrachloroethane	**51.9**		5.0	1.0	0.25	1	NA	12/26/15 20:03		477737	
1,1,2-Trichloroethane	**54.3**		5.0	1.0	0.34	1	NA	12/26/15 20:03		477737	
1,1-Dichloroethane (1,1-DCA)	**59.1**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
1,1-Dichloroethene (1,1-DCE)	**60.2**		5.0	1.0	0.57	1	NA	12/26/15 20:03		477737	
1,1-Dichloropropene	**58.0**		5.0	1.0	0.29	1	NA	12/26/15 20:03		477737	
1,2,3-Trichlorobenzene	**48.1**		5.0	1.0	0.82	1	NA	12/26/15 20:03		477737	
1,2,3-Trichloropropane	**51.8**		5.0	1.0	0.70	1	NA	12/26/15 20:03		477737	
1,2,4-Trichlorobenzene	**49.0**		5.0	1.0	0.23	1	NA	12/26/15 20:03		477737	
1,2,4-Trimethylbenzene	**49.1**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
1,2-Dibromo-3-chloropropane (DBCP)	**49.7**		5.0	1.0	0.74	1	NA	12/26/15 20:03		477737	
1,2-Dibromoethane	**51.9**		5.0	1.0	0.24	1	NA	12/26/15 20:03		477737	
1,2-Dichlorobenzene	**50.6**		5.0	1.0	0.21	1	NA	12/26/15 20:03		477737	
1,2-Dichloroethane	**50.7**		5.0	1.0	0.36	1	NA	12/26/15 20:03		477737	
1,2-Dichloropropane	**54.8**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
1,3,5-Trimethylbenzene	**48.4**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
1,3-Dichlorobenzene	**50.8**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
1,3-Dichloropropane	**52.4**		5.0	1.0	0.27	1	NA	12/26/15 20:03		477737	
1,4-Dichlorobenzene	**49.7**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
2,2-Dichloropropane	**52.3**		5.0	1.0	0.27	1	NA	12/26/15 20:03		477737	
2-Butanone (MEK)	**63.6**		10	1.0	0.81	1	NA	12/26/15 20:03		477737	
2-Chlorotoluene	**51.3**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
2-Hexanone	**51.5**		10	5.0	1.7	1	NA	12/26/15 20:03		477737	
tert-Butyl Alcohol	**1120**		100	20	11	1	NA	12/26/15 20:03		477737	
4-Chlorotoluene	**49.1**		5.0	1.0	0.24	1	NA	12/26/15 20:03		477737	
p-Isopropyltoluene	**49.3**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
4-Methyl-2-pentanone	**56.8**		10	1.0	0.67	1	NA	12/26/15 20:03		477737	
Acetone	**73.0**		10	5.0	1.3	1	NA	12/26/15 20:03		477737	
Benzene	**55.3**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
Bromobenzene	**51.3**		5.0	1.0	0.28	1	NA	12/26/15 20:03		477737	
Bromochloromethane	**59.0**		5.0	1.0	0.32	1	NA	12/26/15 20:03		477737	
Bromodichloromethane	**54.8**		5.0	1.0	0.32	1	NA	12/26/15 20:03		477737	
Bromoform	**46.5**		5.0	1.0	0.42	1	NA	12/26/15 20:03		477737	
Bromomethane	**53.4**		5.0	1.0	0.29	1	NA	12/26/15 20:03		477737	
Carbon Tetrachloride	**53.6**		5.0	1.0	0.45	1	NA	12/26/15 20:03		477737	
Chlorobenzene	**50.3**		5.0	1.0	0.29	1	NA	12/26/15 20:03		477737	
Chloroethane	**57.2**		5.0	1.0	0.24	1	NA	12/26/15 20:03		477737	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1410
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW11-9.46	**Units:**	µg/L
Lab Code:	RQ1516108-05	**Basis:**	NA
Run Type:	Matrix Spike		

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	**58.2**		5.0	1.0	0.25	1	NA	12/26/15 20:03		477737	
Chloromethane	**56.3**		5.0	1.0	0.21	1	NA	12/26/15 20:03		477737	
Dibromochloromethane	**49.8**		5.0	1.0	0.31	1	NA	12/26/15 20:03		477737	
Dichlorodifluoromethane (CFC 12)	**64.5**		5.0	1.0	0.46	1	NA	12/26/15 20:03		477737	
Methylene Chloride	**55.6**		5.0	1.0	0.60	1	NA	12/26/15 20:03		477737	
Ethylbenzene	**51.2**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
Hexachlorobutadiene	**44.3**		5.0	1.0	0.62	1	NA	12/26/15 20:03		477737	
Isopropylbenzene (Cumene)	**48.6**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
Methyl tert-Butyl Ether	**57.9**		5.0	1.0	0.29	1	NA	12/26/15 20:03		477737	
Naphthalene	**49.6**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
Styrene	**48.6**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
Tetrachloroethene (PCE)	**52.5**		5.0	1.0	0.30	1	NA	12/26/15 20:03		477737	
Toluene	**51.3**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
Trichloroethene (TCE)	**53.1**		5.0	1.0	0.22	1	NA	12/26/15 20:03		477737	
Trichlorofluoromethane (CFC 11)	**60.1**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
Vinyl Chloride	**57.4**		5.0	1.0	0.32	1	NA	12/26/15 20:03		477737	
cis-1,2-Dichloroethene	**59.9**		5.0	1.0	0.30	1	NA	12/26/15 20:03		477737	
cis-1,3-Dichloropropene	**51.1**		5.0	1.0	0.24	1	NA	12/26/15 20:03		477737	
m,p-Xylenes	**103**		5.0	2.0	0.33	1	NA	12/26/15 20:03		477737	
n-Butylbenzene	**48.9**		5.0	1.0	0.21	1	NA	12/26/15 20:03		477737	
n-Propylbenzene	**48.6**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
o-Xylene	**47.9**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
sec-Butylbenzene	**48.1**		5.0	1.0	0.27	1	NA	12/26/15 20:03		477737	
tert-Butylbenzene	**48.1**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	
trans-1,2-Dichloroethene	**60.1**		5.0	1.0	0.33	1	NA	12/26/15 20:03		477737	
trans-1,3-Dichloropropene	**50.1**		5.0	1.0	0.20	1	NA	12/26/15 20:03		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	108	75-120	12/26/15 20:03	
Dibromofluoromethane	105	85-115	12/26/15 20:03	
Toluene-d8	104	85-120	12/26/15 20:03	

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6685.D Vial: 23
Acq On : 26 Dec 2015 8:03 pm RQ1516108-05 Operator: D.Lipani
Sample : R1511019-004MS|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 26 20:21 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.35	168	650586	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.68	114	972162	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	904085	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.18	152	542491	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	318932	52.30	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 104.60%			
42) surr1,1,2-dichloroethane-d	4.24	65	255127	51.30	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 102.60%			
62) SURR3,Toluene-d8	7.76	98	1054209	52.06	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 104.12%			
82) SURR2,BFB	10.14	95	439015	54.25	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 108.50%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	454274	64.49	ug/L	98
3) Chloromethane	1.07	50	421256	56.29	ug/L	99
4) Vinyl Chloride	1.15	62	450899	57.38	ug/L	100
5) Bromomethane	1.31	94	250283	53.43	ug/L	100
6) Chloroethane	1.38	64	226107	57.17	ug/L	100
7) Freon 21	1.41	67	615241	62.64	ug/L	99
8) Freon 123	1.57	83	509296	58.36	ug/L	98
9) Freon 123a	1.60	67	427964	63.75	ug/L	94
10) Acrolein	1.66	56	49108	85.36	ug/L	88
11) Trichlorofluoromethane	1.65	101	489910	60.06	ug/L	99
12) Acetonitrile	1.67	41	114460	269.72	ug/L	97
13) 2-Propanol	1.69	45	170939	1075.16	ug/L	98
14) Acetone	1.73	43	56915	73.03	ug/L	89
15) Diethyl Ether	1.79	59	210247	60.20	ug/L	97
16) 1,1-Diclethene	1.94	96	320864	60.23	ug/L	96
17) Iodomethane	1.96	142	511785	62.86	ug/L	97
18) TBA	1.98	59	286723	1116.30	ug/L	94
19) Acrylonitrile	2.00	53	310991	266.11	ug/L	100
20) Methylene Chloride	2.04	84	331620	55.61	ug/L	97
21) Freon 113	2.08	101	306229	57.69	ug/L	97
22) Methyl Acetate	2.10	43	117556	49.38	ug/L	98
23) Allyl Chloride	2.10	76	125156	49.46	ug/L	98
24) Carbon Disulfide	2.15	76	703270	40.75	ug/L	100
25) trans-1,2-Dichloroethene	2.51	96	352683	60.09	ug/L	96
26) Methyl-t-Butyl Ether	2.63	73	640673	57.93	ug/L	99
27) 1,1-Diclethane	2.71	63	526702	59.09	ug/L	97
28) Propionitrile	2.76	54	112965	292.12	ug/L	90
29) Vinyl Acetate	2.90	43	394810	52.37	ug/L	97
30) 2-Chloro-1,3-Butadiene	3.05	53	436716	53.76	ug/L	98
31) 2-Butanone	3.17	43	74516	63.62	ug/L	96
32) Methacrylonitrile	3.27	67	75541	60.43	ug/L	94
33) cis-1,2-Dichloroethene	3.26	96	342638	59.89	ug/L	97
34) Bromochloromethane	3.42	128	162377	59.03	ug/L	99
35) Chloroform	3.50	83	525309	58.22	ug/L	99
36) 2,2-Dichloropropane	3.57	77	363117	52.25	ug/L	96

DL 12/31/15

(#) = qualifier out of range (m) = manual integration
M6685.D W113015.M Sat Dec 26 20:20:42 2015

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6685.D Vial: 23
Acq On : 26 Dec 2015 8:03 pm Operator: D.Lipani
Sample : R1511019-004MS|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 26 20:21 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
37)	Tetrahydrofuran	3.90	42	45818	59.96 ug/L	96
38)	1,1,1-Trichloroethane	4.46	97	442516	60.86 ug/L	95
41)	Iso-Butyl Alcohol	3.74	43	115264	1018.85 ug/L	93
43)	1,2-Dichloroethane	4.35	62	290925	50.67 ug/L	96
44)	1,1-Dichloropropene	4.80	75	412572	57.98 ug/L	97
45)	Cyclohexane	4.87	56	448602	51.80 ug/L	94
46)	Carbontetrachloride	5.04	119	373813	53.61 ug/L	96
47)	Benzene	5.16	78	1207852	55.32 ug/L	99
48)	Dibromomethane	5.99	93	162786	54.78 ug/L	97
49)	1,2-Diclpropane	6.07	63	303281	54.76 ug/L	98
50)	n-Heptane	6.15	43	213965	45.04 ug/L	95
51)	Trichloroethene	6.13	130	343401	53.10 ug/L	99
52)	Bromodichloromethane	6.19	83	369051	54.76 ug/L	100
53)	2-Nitropropane	6.24	41	63215	105.31 ug/L	93
54)	1,4-Dioxane	6.42	88	29170	901.42 ug/L	84
55)	Methyl Methacrylate	6.60	69	127883	59.32 ug/L	96
56)	Methylcyclohexane	6.72	55	289726	51.47 ug/L	98
58)	cis-1,3-Dichloropropene	7.03	75	403588	51.05 ug/L	100
59)	4-Methyl-2-pentanone	7.24	43	164306	56.83 ug/L	99
60)	trans-1,3-Dichloropropene	7.54	75	324747	50.07 ug/L	99
61)	1,1,2-Trichloroethane	7.65	97	223871	54.31 ug/L	100
63)	Toluene	7.83	91	1171478	51.28 ug/L	99
65)	1,3-Dichloropropane	7.90	76	338920	52.39 ug/L	99
66)	Ethyl Methacrylate	8.08	69	253989	52.34 ug/L	96
67)	Dibromochloromethane	8.09	129	267768	49.77 ug/L	99
68)	2-Hexanone	8.15	43	104887	51.49 ug/L	99
69)	1,2-Dibromoethane	8.31	107	223622	51.88 ug/L	98
70)	n-Butyl Acetate	8.52	43	249540	47.43 ug/L	98
71)	Tetrachloroethene	8.50	164	287304	52.45 ug/L	98
72)	1,1,1,2-Tetrachloroethane	9.05	131	293197	50.72 ug/L	97
73)	Chlorobenzene	9.11	112	804776	50.29 ug/L	100
74)	Ethylbenzene	9.32	106	421993	51.24 ug/L	96
75)	Bromoform	9.50	173	158281	46.49 ug/L	99
76)	(m+p)Xylene	9.51	106	1029445	103.02 ug/L	97
77)	o-Xylene	9.82	106	496724	47.90 ug/L	97
78)	Cyclohexanone	9.74	55	91282	780.75 ug/L	96
79)	Styrene	9.77	104	798903	48.59 ug/L	99
80)	trans-1,4-Dichloro-2-Buten	10.00	75	34361	20.62 ug/L	95
81)	Isopropylbenzene	10.14	105	1212396	48.62 ug/L	99
84)	1,1,2,2-Tetrachloroethane	9.82	83	257763	51.94 ug/L	98
85)	1,2,3-Trichloropropane	9.93	75	175303	51.84 ug/L	97
86)	Bromobenzene	10.28	156	385227	51.27 ug/L	99
87)	n-Propylbenzene	10.50	91	1405632	48.64 ug/L	99
88)	2-Chlorotoluene	10.54	91	900221	51.25 ug/L	100
89)	4-Chlorotoluene	10.61	91	908807	49.07 ug/L	99
90)	1,3,5-Trimethylbenzene	10.77	105	943971	48.41 ug/L	99
91)	tert-Butylbenzene	10.96	119	816351	48.13 ug/L	99
92)	1,2,4-Trimethylbenzene	11.06	105	1020174	49.11 ug/L	99
93)	sec-Butylbenzene	11.13	105	1146369	48.13 ug/L	99
94)	1,3-Dclbenz	11.15	146	695597	50.78 ug/L	99

(#) = qualifier out of range (m) = manual integration
M6685.D W113015.M Sat Dec 26 20:20:43 2015

Quantitation Report (Not Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6685.D Vial: 23
Acq On : 26 Dec 2015 8:03 pm Operator: D.Lipani
Sample : R1511019-004MS|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 26 20:21 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
95)	1,4-Dclbenz	11.21	146	699171	49.70	ug/L	99
96)	p-Isopropyltoluene	11.30	119	971194	49.33	ug/L	100
97)	1,2-Dclbenz	11.47	146	656507	50.58	ug/L	99
98)	n-Butylbenzene	11.61	91	849201	48.92	ug/L	99
99)	1,2-Dibromo-3-chloropropan	11.84	75	36027	49.73	ug/L	93
100)	Nitrobenzene	12.03	77	11976	67.94	ug/L	84
101)	1,2,4-Tcbenzene	12.91	180	367705	48.98	ug/L	99
102)	Naphthalen	13.09	128	654171	49.59	ug/L	100
103)	Hexachlorobt	13.17	225	159049	44.29	ug/L	100
104)	1,2,3-Tclbenzene	13.25	180	298195	48.10	ug/L	99

(#) = qualifier out of range (m) = manual integration
M6685.D W113015.M Sat Dec 26 20:20:44 2015

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Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6685.D       Vial: 23
Acq On    : 26 Dec 2015    8:03 pm                    Operator: D.Lipani
Sample    : R1511019-004MS|1.0                        Inst    : MS#6
Misc      : Parsons 8260C 14517 *DOD*                 Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 26 20:21 2015              Quant Results File: W113015.RES

Method       : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title        : 8260C WATERS
Last Update  : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
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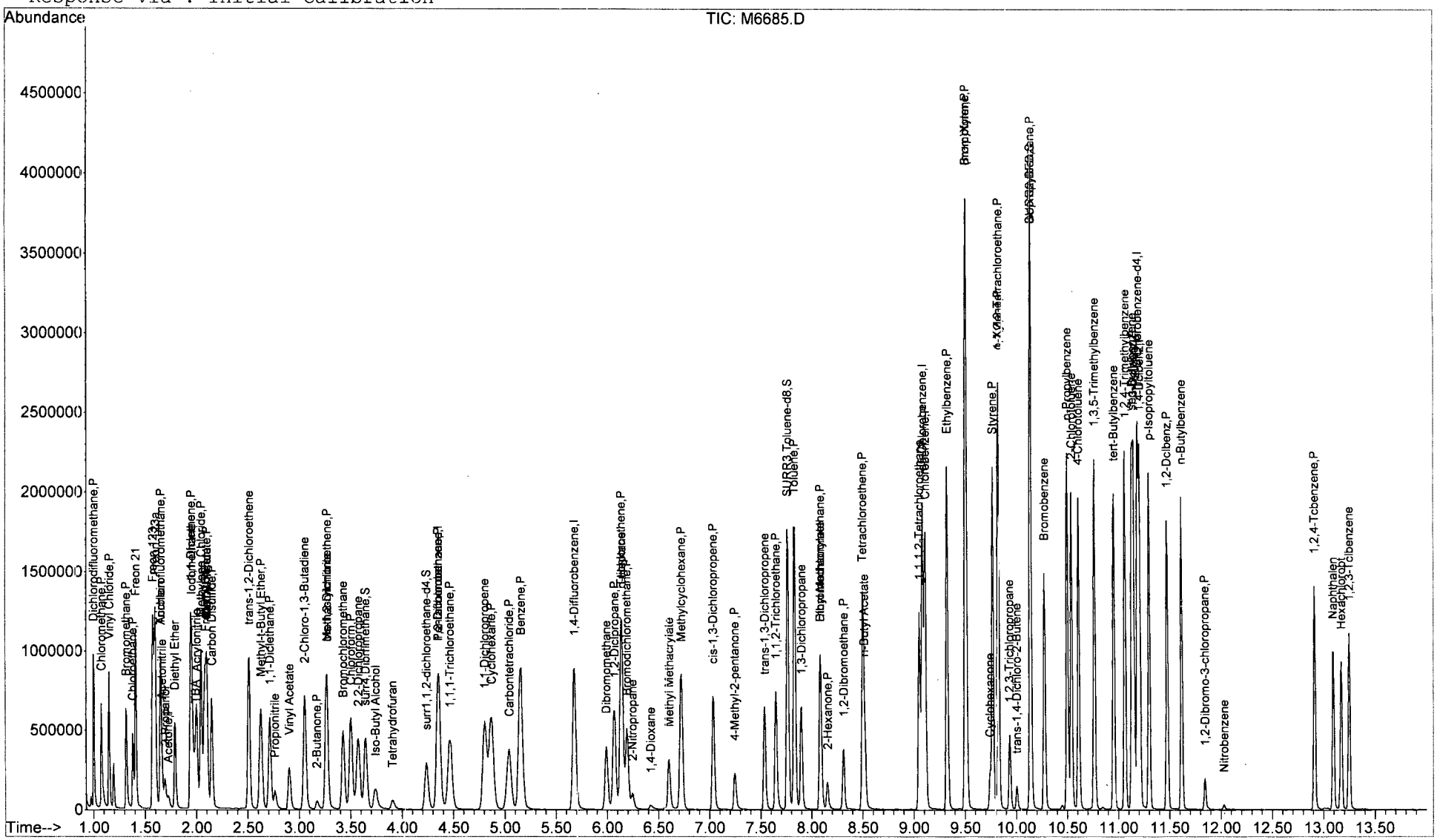


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M6685.D  W113015.M       Sat Dec 26 20:20:48 2015                    Page 4
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Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1410
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW11-9.46	**Units:**	µg/L
Lab Code:	RQ1516108-06	**Basis:**	NA
Run Type:	Duplicate Matrix Spike		

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	**53.5**		5.0	1.0	0.22	1	NA	12/26/15 20:35		477737	
1,1,1-Trichloroethane (TCA)	**61.7**		5.0	1.0	0.36	1	NA	12/26/15 20:35		477737	
1,1,2,2-Tetrachloroethane	**50.8**		5.0	1.0	0.25	1	NA	12/26/15 20:35		477737	
1,1,2-Trichloroethane	**55.3**		5.0	1.0	0.34	1	NA	12/26/15 20:35		477737	
1,1-Dichloroethane (1,1-DCA)	**60.6**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
1,1-Dichloroethene (1,1-DCE)	**60.2**		5.0	1.0	0.57	1	NA	12/26/15 20:35		477737	
1,1-Dichloropropene	**58.6**		5.0	1.0	0.29	1	NA	12/26/15 20:35		477737	
1,2,3-Trichlorobenzene	**48.7**		5.0	1.0	0.82	1	NA	12/26/15 20:35		477737	
1,2,3-Trichloropropane	**50.5**		5.0	1.0	0.70	1	NA	12/26/15 20:35		477737	
1,2,4-Trichlorobenzene	**50.1**		5.0	1.0	0.23	1	NA	12/26/15 20:35		477737	
1,2,4-Trimethylbenzene	**47.2**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
1,2-Dibromo-3-chloropropane (DBCP)	**48.8**		5.0	1.0	0.74	1	NA	12/26/15 20:35		477737	
1,2-Dibromoethane	**53.8**		5.0	1.0	0.24	1	NA	12/26/15 20:35		477737	
1,2-Dichlorobenzene	**49.3**		5.0	1.0	0.21	1	NA	12/26/15 20:35		477737	
1,2-Dichloroethane	**52.9**		5.0	1.0	0.36	1	NA	12/26/15 20:35		477737	
1,2-Dichloropropane	**57.4**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
1,3,5-Trimethylbenzene	**47.9**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
1,3-Dichlorobenzene	**48.5**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
1,3-Dichloropropane	**55.9**		5.0	1.0	0.27	1	NA	12/26/15 20:35		477737	
1,4-Dichlorobenzene	**49.0**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
2,2-Dichloropropane	**49.7**		5.0	1.0	0.27	1	NA	12/26/15 20:35		477737	
2-Butanone (MEK)	**64.7**		10	1.0	0.81	1	NA	12/26/15 20:35		477737	
2-Chlorotoluene	**49.0**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
2-Hexanone	**53.4**		10	5.0	1.7	1	NA	12/26/15 20:35		477737	
tert-Butyl Alcohol	**1210**		100	20	11	1	NA	12/26/15 20:35		477737	
4-Chlorotoluene	**49.2**		5.0	1.0	0.24	1	NA	12/26/15 20:35		477737	
p-Isopropyltoluene	**48.4**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
4-Methyl-2-pentanone	**57.5**		10	1.0	0.67	1	NA	12/26/15 20:35		477737	
Acetone	**75.5**		10	5.0	1.3	1	NA	12/26/15 20:35		477737	
Benzene	**56.0**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
Bromobenzene	**50.1**		5.0	1.0	0.28	1	NA	12/26/15 20:35		477737	
Bromochloromethane	**58.9**		5.0	1.0	0.32	1	NA	12/26/15 20:35		477737	
Bromodichloromethane	**55.2**		5.0	1.0	0.32	1	NA	12/26/15 20:35		477737	
Bromoform	**48.8**		5.0	1.0	0.42	1	NA	12/26/15 20:35		477737	
Bromomethane	**62.7**		5.0	1.0	0.29	1	NA	12/26/15 20:35		477737	
Carbon Tetrachloride	**54.3**		5.0	1.0	0.45	1	NA	12/26/15 20:35		477737	
Chlorobenzene	**51.9**		5.0	1.0	0.29	1	NA	12/26/15 20:35		477737	
Chloroethane	**58.8**		5.0	1.0	0.24	1	NA	12/26/15 20:35		477737	

Analytical Report

Client:	Parsons Engineering Science	**Service Request:**	R1511019
Project:	FTMM Q4 2015 GW Sampling/748810.03000	**Date Collected:**	12/14/15 1410
Sample Matrix:	Water	**Date Received:**	12/16/15
Sample Name:	FTMM-5-GW-M5MW11-9.46	**Units:**	µg/L
Lab Code:	RQ1516108-06	**Basis:**	NA
Run Type:	Duplicate Matrix Spike		

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloroform	**59.0**		5.0	1.0	0.25	1	NA	12/26/15 20:35		477737	
Chloromethane	**58.5**		5.0	1.0	0.21	1	NA	12/26/15 20:35		477737	
Dibromochloromethane	**52.5**		5.0	1.0	0.31	1	NA	12/26/15 20:35		477737	
Dichlorodifluoromethane (CFC 12)	**64.9**		5.0	1.0	0.46	1	NA	12/26/15 20:35		477737	
Methylene Chloride	**56.1**		5.0	1.0	0.60	1	NA	12/26/15 20:35		477737	
Ethylbenzene	**53.3**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
Hexachlorobutadiene	**45.6**		5.0	1.0	0.62	1	NA	12/26/15 20:35		477737	
Isopropylbenzene (Cumene)	**52.0**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
Methyl tert-Butyl Ether	**58.9**		5.0	1.0	0.29	1	NA	12/26/15 20:35		477737	
Naphthalene	**51.1**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
Styrene	**50.3**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
Tetrachloroethene (PCE)	**55.2**		5.0	1.0	0.30	1	NA	12/26/15 20:35		477737	
Toluene	**50.9**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
Trichloroethene (TCE)	**54.0**		5.0	1.0	0.22	1	NA	12/26/15 20:35		477737	
Trichlorofluoromethane (CFC 11)	**61.3**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
Vinyl Chloride	**57.6**		5.0	1.0	0.32	1	NA	12/26/15 20:35		477737	
cis-1,2-Dichloroethene	**59.8**		5.0	1.0	0.30	1	NA	12/26/15 20:35		477737	
cis-1,3-Dichloropropene	**53.3**		5.0	1.0	0.24	1	NA	12/26/15 20:35		477737	
m,p-Xylenes	**107**		5.0	2.0	0.33	1	NA	12/26/15 20:35		477737	
n-Butylbenzene	**48.3**		5.0	1.0	0.21	1	NA	12/26/15 20:35		477737	
n-Propylbenzene	**46.8**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
o-Xylene	**50.9**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
sec-Butylbenzene	**45.5**		5.0	1.0	0.27	1	NA	12/26/15 20:35		477737	
tert-Butylbenzene	**47.2**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	
trans-1,2-Dichloroethene	**58.6**		5.0	1.0	0.33	1	NA	12/26/15 20:35		477737	
trans-1,3-Dichloropropene	**52.0**		5.0	1.0	0.20	1	NA	12/26/15 20:35		477737	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	75-120	12/26/15 20:35	
Dibromofluoromethane	104	85-115	12/26/15 20:35	
Toluene-d8	105	85-120	12/26/15 20:35	

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6686.D Vial: 24
Acq On : 26 Dec 2015 8:35 pm Operator: D.Lipani
Sample : R1511019-004MSD|1.0 RQ1516108-06 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 9:40 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.36	168	657611	50.00	ug/L	0.00
39) 1,4-Difluorobenzene	5.67	114	974308	50.00	ug/L	0.00
64) d5-Chlorobenzene	9.08	117	877754	50.00	ug/L	0.00
83) 1,4-Dichlorobenzene-d4	11.19	152	571343	50.00	ug/L	0.00
System Monitoring Compounds						
40) surr4,Dibrflmethane	3.64	113	317208	51.91	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.82%			
42) surr1,1,2-dichloroethane-d	4.24	65	260662	52.30	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 104.60%			
62) SURR3,Toluene-d8	7.76	98	1069453	52.70	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.40%			
82) SURR2,BFB	10.14	95	447164	56.91	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 113.82%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	462353	64.93	ug/L	97
3) Chloromethane	1.08	50	442187	58.46	ug/L	98
4) Vinyl Chloride	1.15	62	457167	57.56	ug/L	100
5) Bromomethane	1.32	94	296772	62.67	ug/L	99
6) Chloroethane	1.38	64	235070	58.80	ug/L	98
7) Freon 21	1.41	67	612765	61.72	ug/L	100
8) Freon 123	1.58	83	515012	58.38	ug/L	99
9) Freon 123a	1.60	67	421850	62.16	ug/L	95
10) Acrolein	1.65	56	50184	86.30	ug/L	92
11) Trichlorofluoromethane	1.65	101	505482	61.30	ug/L	99
12) Acetonitrile	1.67	41	119629	278.88	ug/L	91
13) 2-Propanol	1.69	45	180018	1120.17	ug/L	98
14) Acetone	1.72	43	59479	75.51	ug/L	92
15) Diethyl Ether	1.79	59	220235	62.39	ug/L	97
16) 1,1-Diclethene	1.94	96	324144	60.20	ug/L	97
17) Iodomethane	1.96	142	549501	66.70	ug/L	99
18) TBA	1.98	59	315182	1213.99	ug/L	97
19) Acrylonitrile	2.00	53	338804	286.82	ug/L	100
20) Methylene Chloride	2.04	84	338091	56.09	ug/L	97
21) Freon 113	2.08	101	322255	60.06	ug/L	98
22) Methyl Acetate	2.09	43	118463	49.22	ug/L	98
23) Allyl Chloride	2.10	76	130303	50.94	ug/L	91
24) Carbon Disulfide	2.15	76	730358	41.87	ug/L	99
25) trans-1,2-Dichloroethene	2.51	96	347615	58.59	ug/L	96
26) Methyl-t-Butyl Ether	2.63	73	657807	58.85	ug/L	99
27) 1,1-Diclethane	2.71	63	545922	60.59	ug/L	99
28) Propionitrile	2.76	54	122469	313.31	ug/L	100
29) Vinyl Acetate	2.90	43	384925	50.51	ug/L	97
30) 2-Chloro-1,3-Butadiene	3.05	53	437799	53.32	ug/L	98
31) 2-Butanone	3.17	43	76649	64.74	ug/L	96
32) Methacrylonitrile	3.27	67	77663	61.46	ug/L	91
33) cis-1,2-Dichloroethene	3.26	96	345725	59.78	ug/L	99
34) Bromochloromethane	3.43	128	163864	58.94	ug/L	95
35) Chloroform	3.50	83	537870	58.98	ug/L	99
36) 2,2-Dichloropropane	3.57	77	349291	49.72	ug/L	100

(#) = qualifier out of range (m) = manual integration
M6686.D W113015.M Thu Dec 31 09:51:30 2015

DL 12/31/15

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6686.D Vial: 24
Acq On : 26 Dec 2015 8:35 pm Operator: D.Lipani
Sample : R1511019-004MSD|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 9:40 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	Tetrahydrofuran	3.91	42	49632	64.25	ug/L	99
38)	1,1,1-Trichloroethane	4.47	97	453400	61.70	ug/L	98
41)	Iso-Butyl Alcohol	3.74	43	127944	1128.44	ug/L	86
43)	1,2-Dichloroethane	4.35	62	304375	52.90	ug/L	99
44)	1,1-Dichloropropene	4.80	75	418104	58.63	ug/L	99
45)	Cyclohexane	4.86	56	456413	52.58	ug/L	96
46)	Carbontetrachloride	5.04	119	379267	54.27	ug/L	96
47)	Benzene	5.15	78	1225224	55.99	ug/L	98
48)	Dibromomethane	5.99	93	163552	54.92	ug/L	98
49)	1,2-Diclpropane	6.07	63	318467	57.37	ug/L	99
50)	n-Heptane	6.14	43	212538	44.64	ug/L	94
51)	Trichloroethene	6.14	130	349715	53.96	ug/L	99
52)	Bromodichloromethane	6.19	83	373101	55.24	ug/L	99
53)	2-Nitropropane	6.25	41	66337	110.26	ug/L	94
54)	1,4-Dioxane	6.43	88	29968	924.04	ug/L	100
55)	Methyl Methacrylate	6.60	69	128725	59.58	ug/L	98
56)	Methylcyclohexane	6.72	55	292003	51.76	ug/L	99
58)	cis-1,3-Dichloropropene	7.03	75	422077	53.27	ug/L	100
59)	4-Methyl-2-pentanone	7.25	43	166536	57.47	ug/L	98
60)	trans-1,3-Dichloropropene	7.54	75	337791m	51.97	ug/L	
61)	1,1,2-Trichloroethane	7.65	97	228357	55.27	ug/L	99
63)	Toluene	7.83	91	1164150	50.85	ug/L	99
65)	1,3-Dichloropropane	7.89	76	351077	55.90	ug/L	99
66)	Ethyl Methacrylate	8.08	69	261714	55.55	ug/L	98
67)	Dibromochloromethane	8.09	129	274064	52.47	ug/L	99
68)	2-Hexanone	8.15	43	105579	53.39	ug/L	97
69)	1,2-Dibromoethane	8.31	107	225275	53.83	ug/L	98
70)	n-Butyl Acetate	8.52	43	236840	46.37	ug/L	98
71)	Tetrachloroethene	8.50	164	293448	55.17	ug/L	100
72)	1,1,1,2-Tetrachloroethane	9.05	131	300022	53.46	ug/L	99
73)	Chlorobenzene	9.11	112	806029	51.87	ug/L	100
74)	Ethylbenzene	9.33	106	426236	53.30	ug/L	99
75)	Bromoform	9.51	173	161428	48.84	ug/L	98
76)	(m+p)Xylene	9.51	106	1035587	106.74	ug/L	98
77)	o-Xylene	9.83	106	512716	50.92	ug/L	99
78)	Cyclohexanone	9.74	55	98635	868.94	ug/L	99
79)	Styrene	9.77	104	803538	50.33	ug/L	99
80)	trans-1,4-Dichloro-2-Buten	10.01	75	38940	24.07	ug/L	98
81)	Isopropylbenzene	10.14	105	1257857	51.96	ug/L	100
84)	1,1,2,2-Tetrachloroethane	9.82	83	265383	50.78	ug/L	98
85)	1,2,3-Trichloropropane	9.93	75	179949	50.52	ug/L	97
86)	Bromobenzene	10.28	156	396172	50.06	ug/L	99
87)	n-Propylbenzene	10.50	91	1424223	46.79	ug/L	100
88)	2-Chlorotoluene	10.54	91	905983	48.97	ug/L	100
89)	4-Chlorotoluene	10.61	91	958739	49.15	ug/L	98
90)	1,3,5-Trimethylbenzene	10.76	105	984614	47.94	ug/L	100
91)	tert-Butylbenzene	10.95	119	842769	47.18	ug/L	99
92)	1,2,4-Trimethylbenzene	11.06	105	1032568	47.20	ug/L	100
93)	sec-Butylbenzene	11.13	105	1141801	45.52	ug/L	100
94)	1,3-Dclbenz	11.15	146	699893	48.52	ug/L	99

(#) = qualifier out of range (m) = manual integration
M6686.D W113015.M Thu Dec 31 09:51:31 2015

Quantitation Report (QT Reviewed)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6686.D Vial: 24
Acq On : 26 Dec 2015 8:35 pm Operator: D.Lipani
Sample : R1511019-004MSD|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 9:40 2015 Quant Results File: W113015.RES

Quant Method : I:\ACQUDATA\M...\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration
DataAcq Meth : W113015

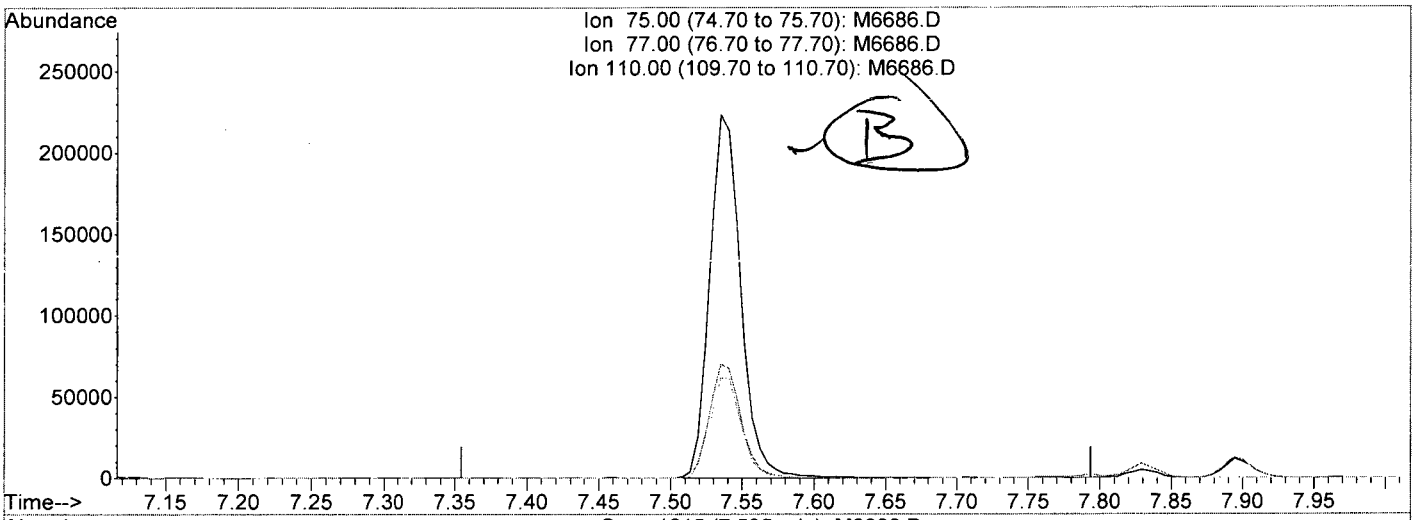
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
95)	1,4-Dclbenz	11.21	146	726228	49.02 ug/L	99
96)	p-Isopropyltoluene	11.30	119	1003091	48.38 ug/L	100
97)	1,2-Dclbenz	11.47	146	673543	49.27 ug/L	99
98)	n-Butylbenzene	11.62	91	882388	48.26 ug/L	99
99)	1,2-Dibromo-3-chloropropan	11.84	75	37203	48.76 ug/L	95
100)	Nitrobenzene	12.03	77	12452	67.07 ug/L	81
101)	1,2,4-Tcbenzene	12.91	180	396458	50.14 ug/L	99
102)	Naphthalen	13.09	128	710466	51.14 ug/L	99
103)	Hexachlorobt	13.17	225	172392	45.59 ug/L	99
104)	1,2,3-Tclbenzene	13.25	180	318144	48.73 ug/L	99

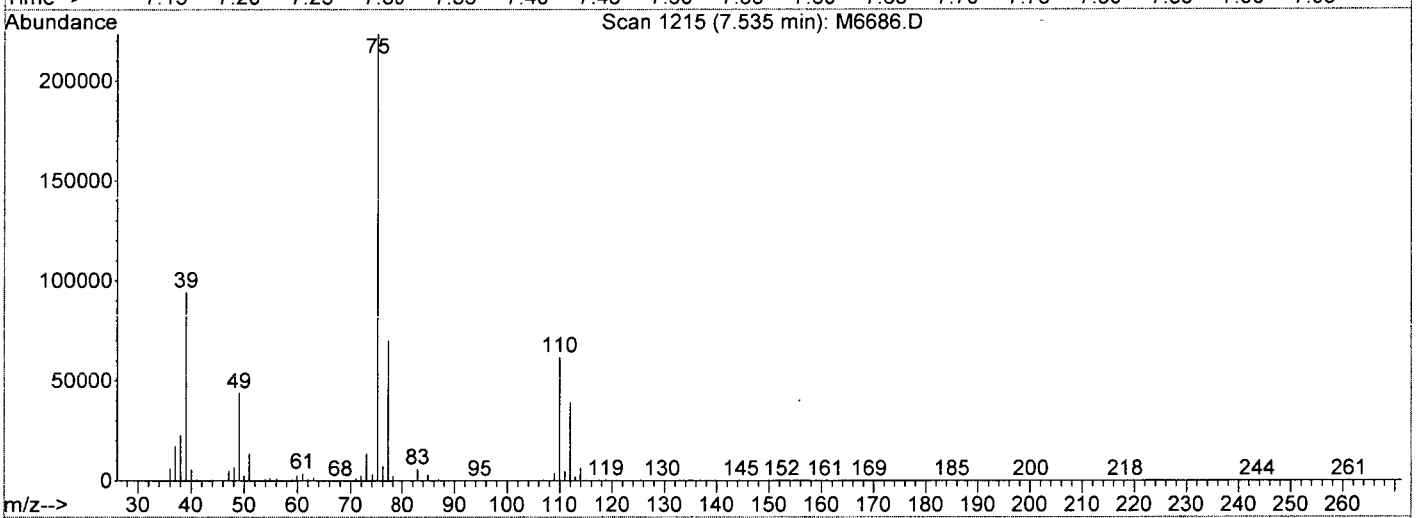
(#) = qualifier out of range (m) = manual integration
M6686.D W113015.M Thu Dec 31 09:51:32 2015 Page 3

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6686.D Vial: 24
Acq On : 26 Dec 2015 8:35 pm Operator: D.Lipani
Sample : R1511019-004MSD|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 26 20:53 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Multiple Level Calibration





TIC: M6686.D

(60) trans-1,3-Dichloropropene

7.54min 0.00ug/L

response 0

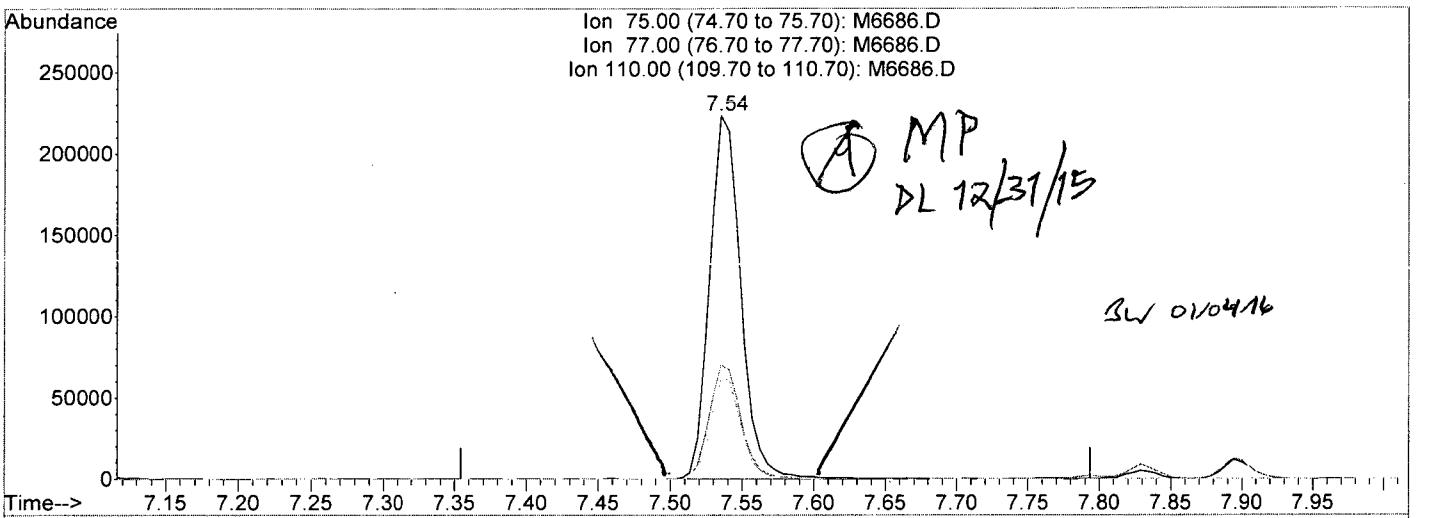
Ion	Exp%	Act%
75.00	100	0.00
77.00	32.50	0.00#
110.00	27.90	0.00#
0.00	0.00	0.00

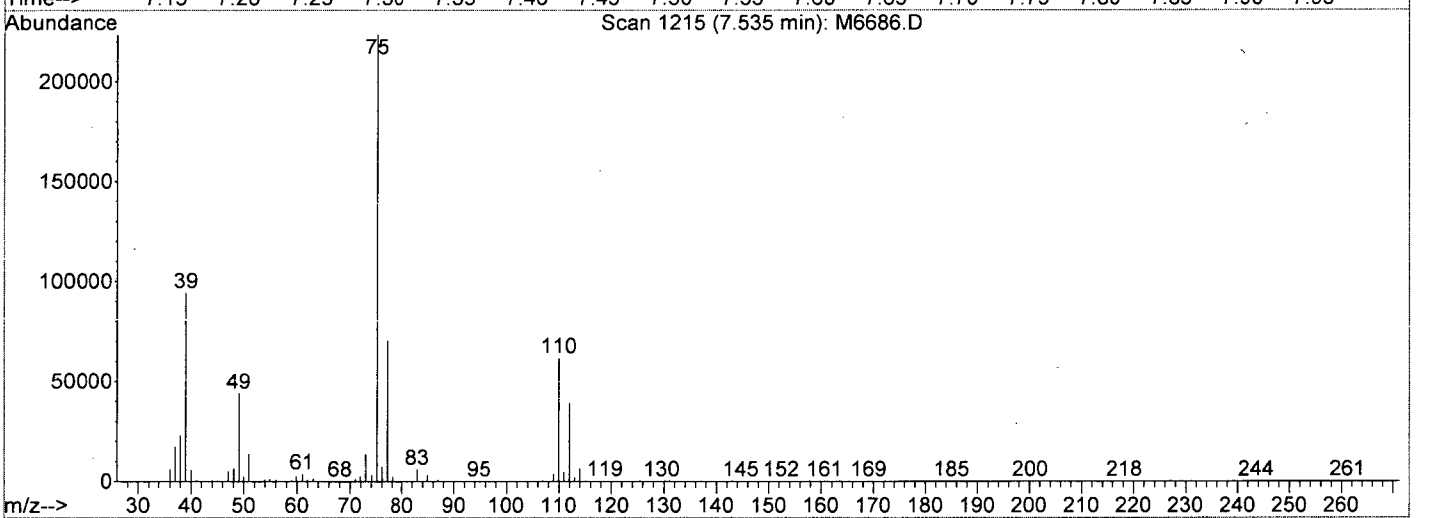
M6686.D W113015.M Thu Dec 31 09:40:02 2015

Quantitation Report (Qedit)

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6686.D Vial: 24
Acq On : 26 Dec 2015 8:35 pm Operator: D.Lipani
Sample : R1511019-004MSD|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 9:40 2015 Quant Results File: temp.res

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Multiple Level Calibration





TIC: M6686.D

(60) trans-1,3-Dichloropropene

7.54min 51.97ug/L m

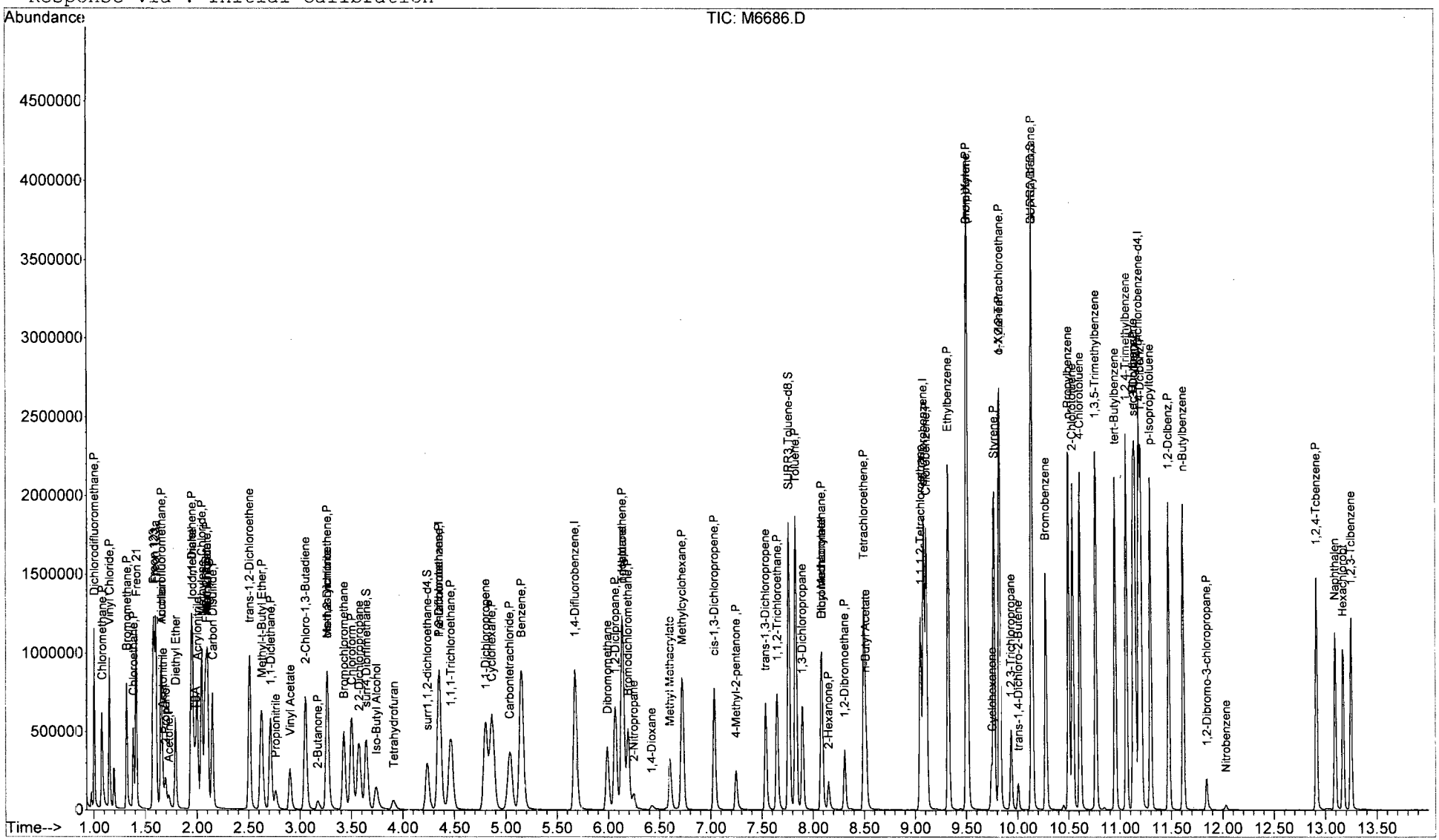
response 337791

Ion	Exp%	Act%
75.00	100	100
77.00	32.50	0.00#
110.00	27.90	0.00#
0.00	0.00	0.00

M6686.D W113015.M Thu Dec 31 09:40:13 2015

Data File : I:\ACQUDATA\MSVOA6\DATA\122615\M6686.D Vial: 24
Acq On : 26 Dec 2015 8:35 pm Operator: D.Lipani
Sample : R1511019-004MSD|1.0 Inst : MS#6
Misc : Parsons 8260C 14517 *DOD* Multiplr: 1.00
MS Integration Params: CPD4.P
Quant Time: Dec 31 9:40 2015 Quant Results File: W113015.RES

Method : I:\ACQUDATA\MSVOA6\METHODS\W113015.M (RTE Integrator)
Title : 8260C WATERS
Last Update : Wed Dec 02 11:59:38 2015
Response via : Initial Calibration



M6686.D W113015.M Thu Dec 31 09:51:36 2015 Page 4

Analysis: 8260C Analyst: D. Lipani Tune Method: W091015.M → W113015.M
Date: 11/30/15 Data Path: j:\acqudata\msvoa 6\DATA\113015\... Run Method: ↓ ↓ ↓ ↓
Instr. GCMS#6 LIMS Run#: (ICAL)

Pos.	Sample	Diln.	Diln. Prep.		Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	Blk									M6180	N	
2	Blk									81	Y	
3	Tune Check		(Run as a Blk)							↓ 82	Y	
4	CCV									83	N	gases ↑, other compounds ↓
~~5~~	DL 11/30/15	→ Will recalibrate										
5	Blk									M6184	O.K.	
6	Tune Check									85	Y	
7	Inst Blk									86	Y	
8	Inst Blk		→ Evian							↓ 87	Y	use
		Surr	1°Targ	1°Targ	1°TG	1°HSL		1°Frt		~~88~~	E	Final
		500	5.0	10	500	500		500		84	DL 11-30-15	Volume Evian
9	STD#1 - 0.5PPB	—	5.0µl	—	—	—		—		M6188	Y	50mL
10	#2 - 1.0PPB	—	—	5.0µl	—	—		—		↓ 89	Y	50mL
11	#3 - 2.0PPB	1.0µl	—	10µl	—	—		—		M6190	Y	50mL
12	#4 - 5.0PPB	8.0µl	—	↓	2.0µl				→	91	Y	200mL
13	#5 - 20PPB	5.0µl	—	—	2.0µl				→	92	Y	50mL
14	#6 - 50PPB	—	—	—	5.0µl				→	93	Y	↓
15	#7 - 100PPB	7.5µl	—	—	10µl				→	94	Y	
16	#8 - 150PPB	10µl	—	—	15µl				→	95	Y	
17	#9 - 200PPB	—	—	—	20µl				→	96	Y	
18	Blk									97	O.K.	
19	Blk									↓ 98	Y	
20	ICV 50									99	Y	1,4-Diox ↓ - repeat
21-27)	Blks									M6200 - 06	Y	
	EOD DL 11-30-15											

All samples = 10 mL + 1.0 uL combined IS/Surr. 10 mL purged

Primary TG : 85998 10µl / 1.0mL MeOH ↓ "1°Targ" 5.0
Primary HSL : 86114 ↓ / 20µl ↓ / 1.0mL MeOH ↓ "1°Targ" 10
Primary Frt : 85806 ↓
Primary :
Primary :

Secondary TG : 86000 5.0µl
Secondary HSL : 85909 5.0µl / 50mL DI = ICV 50 DL 11-30-15
Secondary Frt : 85637 12.5µl
Secondary :
Secondary :

Combined IS/Surr 500 : 86201
Surrogate 500 : 85821
Internal Std :

Runlog-MSVOAr2 9/20/13
Page 61

Analysis: 8260C
Date: 12/22/15
Instr. GCMS#6
Analyst: D. Tiffani
Data Path: j:\acqudata\msvoa6\DATA\122215\...
Tune Method: W113015.M
Run Method: ↓ ↓ ↓ (LOD/LOQ ↗)
LIMS Run#: 477453 / 477971

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	Blk								M6626		
2	Tune Check		(Run as a Blk)						21	Y	
3	CCV								22	N	
4	CCV								23	N	— make new I.S.+Surr
5	Blk - New Combined	I.S.+Surr							24	Y	
6	Tune Check								25	Y	
7	CCV								26	Y	
8	LCS								27	Y	For LOD =
9	Met Blk								28	N	(1.) 20µl each of primaries up to
10	Met Blk								29	N	1.0mL MeOH.
11	Met Blk								M6630	Y	(2.) 5.0µl mix into 50mL DI.
12	LOD = 1.0ppb		(R1510833-016)						31	Y	
13	LOQ = 5.0ppb	→	2.0µl each of primaries into 200mL DI.						32	Y	
14	R1510793-006	10	(5.0mL/50mL)	Barton-Log	8117	II	-3	<2	33	N	— weak - use prev. DL
15	R1511051-004	25	(2.0mL/50mL)	Casella	8975	IV	-1	7	34	(Y)	rpt 1/100
16	↓ -004	100	(1.0mL/100mL)	↓	↓	↓	-2	7	35	Y	= DL
17	R1511019-004	1.0		Parsons	14517	IV	-1	<2	36	N	(DOD) - poss ketone-xover?
18	-001	1.0					-1	<2	37	Y	
19	-004	1.0					-2	<2	38	Y	
20	-002	1.0					-1	<2	39	Y	
21	-003	1.0					-1	<2	M6640	Y	
22	-005	1.0					-1	<2	41	N	— Syringe not homed error - run stopped
23	-006	1.0					-1	—	42		
24	-007	1.0					-1	—	43		
25	-008	1.0					-1	—	44		
26	-009	1.0					-1	—	45		
27	-010	1.0					-1	—	46		MS/MSD =
28	↓ -004MS	1.0		↓	↓	↓	-2	—	47	↓	(4.25µl 86758 + 86718 then
29	-004MSD	1.0					-3	—	48		10.6µl 86324 into full vials sample).
30	Blk			—	—	—	—	—	49	—	
—	EOD DL 12-22-15										

All samples = 10 mL + 1.0 uL combined IS/Surr. 10 mL purged

Primary TG : 86613 5.0µl
Primary HSL : 86866 ↓ / 50mL DI = CCV.
Primary Fr+ : 86557
Primary :
Primary :

Secondary TG : 86758 2.0µl
Secondary HSL : 86718 2.0µl / 50mL DI = LCS.
Secondary Fr+ : 86324 5.0µl
Secondary :
Secondary :

Combined IS/Surr 500 : 86201 then (86875)
Surrogate :
Internal Std :

Analysis: 8260C
Date: 12/26/15
Instr. GCMS#6

Analyst: D. Tippann
Data Path: j:\acqudata\msvoa6\DATA\122615\...

Tune Method: W113015.M
Run Method: ↓ ↓ ↓
LIMS Run#: 477737

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	BLK								M6665	Y	
2	Tune Check		(Run as a BLK)						66	Y	
3	CCV								67	Y	
4	LCS								68	Y	
5	Met BLK								69	N	
6	Met BLK								M6670	N	
7	Met BLK								71	Y	
8	R1511019-005	1.0		Parsons	14517	IV	-2	<2	72	Y	
9	-006	1.0					-1	<2	73	Y	
10	-007	1.0					-1	<2	74	Y	
11	-008	1.0					-1	<2	75	Y	
12	-009	1.0					-1	<2	76	Y	
13	-010	1.0					-1	<2	77	(Y)	rpt 2.5
14	-011	1.0					-1	<2	78	(N)	poss. x-over rpt 1.0
15	-012	1.0					-1	<2	79	(N)	" " " "
16	-013	1.0					-1	<2	M6680	Y	
17	-014	1.0					-1	<2	81	Y	
18	-015	1.0					-1	<2	82	Y	
19	R1510909-001	1.0		Parsons			-1	<2	83	Y	
20	-002	1.0					-1	<2	84	Y	
21	R1511019-004MS	1.0		Parsons			-4	<2	85	Y	MS/MSD: (4.25ul each of 86758+86718
22	-004MSD	1.0					-5	<2	86	Y	then 86324 (10.6ul) into full vials sample.
23	BLK								87	O.K.	
—	EOD DL 12-26-15	—									

All samples = 10 mL + 1.0 uL combined IS/Surr. 10 mL purged

Primary TG : 86613 5.0ul
Primary HSL : 86866
Primary Fr+ : 86557
Primary :
Primary :
/ 50mL DI = CCV.

Secondary TG : 86758 2.0ul
Secondary HSL : 86718 2.0ul
Secondary Fr+ : 86324 5.0ul
Secondary :
Secondary :
/ 50mL DI = LCS.

Combined IS/Surr 500 : 86875
Surrogate :
Internal Std :

Runlog-MSVOAr2 9/20/13

Analysis: D. Lipari - 8260 C Analyst: D. Lipari Tune Method: W113015.M
Date: 12/28/15 Data Path: j:\acqudata\msvoa6\DATA\122815\... Run Method: ↓ ↓ ↓
Instr. GCMS#6 LIMS Run#: 477784

Pos.	Sample	Diln.	Diln. Prep.	Client	RL	Tier	Vial	pH	File#	OK?	Comments
1	Blk								M6687	O.K.	
2	Tune Check		(Run as a Blk)						88	Y	
3	CCV								↓ 89	Y	
4	LCS								M6690	Y	
5	Met Blk								91	N	
6	Met Blk								92	Y	
7	R1511019-011	1.0		Parsons	14517	IV	-2	<2	93	Y	
8	-012	1.0		↓	↓	↓	-2	<2	94	Y	
9	↓ -010	2.5	(20mL/50mL)	↓	↓	↓	-2	<2	95	Y	x DL
10	R1511077-001	1.0		Arcadis	13267	IV	-1	<2	96	Y	
11	-002	1.0					-1	<2	97	Y	
12	-003	1.0					-1	<2	↓ 98	Y	
13	-004	1.0					-1	<2	99	Y	
14	-005	1.0					-1	<2	M6700	Y	
15	-006	1.0					-1	<2	01	Y	
16	-007	1.0					-1	<2	02	Y	
17	-008	1.0					-1	<2	03	Y	
18	-009	1.0					-1	<2	04	Y	
19	-010	1.0					-1	<2	05	Y	
20	-011	1.0					-1	<2	06	Y	
21	-012	1.0					-1	<2	07	Y	
22	-013	1.0					-1	<2	↓ 08	Y	
23	-014	1.0					-1	<2	↓ 09	Y	MS/MSD
24	↓ -010MS	1.0		↓	↓	↓	-2	<2	M6710	Y	(4.25ul each 86758+86718 then
25	-010MSD	1.0					-3	<2	↓ 11	Y	10.6ul 86324 into full vials samp.
26	Blk			—	—	—	—	—	—		
—	EOD DL 12-28-15										

All samples = 10 mL + 1.0 uL combined IS/Surr. 10 mL purged

Primary TG : 86613 5.0ul
Primary HSL : 86866
Primary Fr+ : 86557
Primary :
Primary :
/ 50mL DI = CCV.

Secondary TG : 86758 2.0ul
Secondary HSL : 86718 2.0ul
Secondary Fr+ : 86324 5.0ul
Secondary :
Secondary :
/ 50mL DI = LCS

Combined IS/Surr 500 : 86875
Surrogate :
Internal Std :

Runlog-MSVOAr2 9/20/13

APPENDIX O

NJDEP CORRESPONDENCE

State of New Jersey

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

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BOB MARTIN
Commissioner

January 26, 2016

William R. Colvin
BRAC Environmental Coordinator
OACSIM – U.S. Army Fort Monmouth
PO Box 148
Oceanport, NJ 07757

Approval

Re: *Annual (Fourth Quarter) 2014 Groundwater Sampling Report* dated *December 2015*
Fort Monmouth
Oceanport, Monmouth County
PI G000000032

Dear Mr. Colvin:

The New Jersey Department of Environmental Protection (NJDEP) has completed review of the referenced report, received December 7, 2015, prepared by Parsons to support the Remedial Investigation (RI), Feasibility Study (FS), and Decision Documents project at Fort Monmouth. An annual ground water sampling event was conducted at fourteen (14) FTMM sites between September 29, 2014 and December 19, 2014. Sampling methodologies used included low-flow and passive diffusion bag samplers (PDBS). Comments on each FTMM site are as follows:

FTMM-02 Landfill

Historic sampling at this parcel has revealed Ground Water Quality Standard (GWQS) exceedances of VOCs. Results from the annual sampling event confirmed the exceedance of the GWQS for benzene. The report recommends one additional sampling round for wells M2MW11, M2MW21, M2MW22 and M2MW24. The report recommends continued annual VOC monitoring for M2MW03 and M2MW10. The NJDEP finds the recommendations acceptable. As indicated in the submittal, and as previously requested, as this round may be a final sampling round for select monitoring wells at FTMM-02, sampling will be conducted using low-flow purging (LFPS).

FTMM-03 Landfill

Historic sampling at this parcel revealed GWQS exceedances of vinyl chloride. Results from the annual sampling event for well 3MW02 were below GWQS. The GWQS for vinyl chloride was exceeded in well

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3MW07. The presence of vinyl chloride is attributed to leaching of PVC piping from well 3MW07 and does not represent ground water conditions at the parcel. The report recommends the abandonment of 3MW07 and discontinuing ground water sampling at FTMM-03. The NJDEP finds the recommendations acceptable.

FTMM-05 Landfill

Historic sampling at this parcel revealed GWQS exceedances of PCE, TCE and vinyl chloride. Results from the annual sampling event exceeded GWQS for PCE and TCE. The report recommends continued annual VOC sampling of wells M5MW11, M5MW16, M5MW20 and M5MW23. The NJDEP finds the recommendations acceptable. At any point where a decision is made to terminate ground water sampling at this parcel, the NJDEP will require confirmatory sampling using low-flow due to PDBS results at this parcel biased low compared to the low-flow results.

FTMM-08 Landfill

Historic sampling at this parcel revealed GWQS exceedances of pesticides, benzene, PCE and lead. Results from the annual sampling event exceeded the GWQS for PCE and pesticides. The report recommends continued annual ground water sampling of well M8MW11 for VOCs and lead, M8MW12 for VOCs and 697MW01 for pesticides and VOCs. The report recommends discontinuing the sampling of M8MW15, M8MW16, M8MW17, M8MW21 and RM8MW24. The NJDEP finds the recommendations acceptable.

FTMM-18 Landfill

Historic sampling at this parcel revealed GWQS exceedances of benzene and 1,2-DCA. Results from the annual sampling event exceeded the GWQS for benzene and 1,2-DCA. The report recommends continued annual ground water sampling of wells M18MW22, M18MW23, 296MW04 and 296MW06 for VOCs using PDBS methodology. The NJDEP finds the recommendations acceptable.

FTMM-22 Former Wastewater Treatment Lime Pit

Historic sampling at this parcel revealed GWQS exceedances of TCE. Results from the annual sampling event exceeded the GWQS for TCE and vinyl chloride. The report recommends continued quarterly VOC sampling of wells CW1MW27, CW1MW28, CW1MW29, CW1MW31, CW1MW37 and CW1MW281. The NJDEP finds the recommendation acceptable. However, due to the increase of VOC concentrations in deep well CW1MW281, the NJDEP requires the quarterly sampling of deep well CW1MW40, which is located hydraulically downgradient of CW1MW281. At any point where a decision is made to terminate ground water sampling at this parcel, the NJDEP will require confirmatory sampling using low-flow methodology due to PDBS results biasing low compared to low-flow results at the Fort Monmouth site.

FTMM-53 Former Gas Station at Building 699

Historic sampling at this parcel revealed GWQS exceedances of benzene, PCE, TCE, TBA, VOC TICs and lead. Results from the annual sampling event exceeded the GWQS for benzene, PCE, 1,2,4-Trimethylbenzene, and VOC TICs. The report recommends continued quarterly VOC sampling of wells 699MW01, 699MW04, 699MW06, 699MW09, 699MW16, 699RW03, 699RW05 and 699RW11

using PDBS. The NJDEP finds the recommendation acceptable. At any point where a decision is made to terminate ground water sampling at this parcel, the NJDEP will require confirmatory sampling using low-flow due to PDBS biasing low compared to low-flow at the Fort Monmouth site.

FTMM-57 Building 108 UST Gasoline Release

Historic sampling at this parcel revealed GWQS exceedances of lead. Results from the annual sampling event were below the GWQS for lead. The report recommends one additional annual sampling of well 108MW04 for lead. The NJDEP finds the recommendation acceptable.

FTMM-58 Building 2567 UST Gasoline

Historic sampling at this parcel revealed GWQS exceedances of TBA. Results from the annual sampling event exceeded the GWQS for TBA. The report recommends continued annual sampling events of wells 2567MW01 and 2567MW03 for TBA. The NJDEP finds the recommendation acceptable.

FTMM-59 Building 1122 Unknown Discharge

Historic sampling at this parcel revealed no GWQS exceedances for VOCs. Results from the annual sampling event were below GWQS for VOCs. The report recommends evaluating the ground water results as part of the approved RI/FS for this parcel. The NJDEP finds the recommendation acceptable.

FTMM-61 Building 283 Gasoline Storage

Historic sampling revealed GWQS exceedances of benzene and VOC TICs. Results from the 2013 and 2014 annual sampling events were below GWQS for VOCs. The report recommends discontinuing the monitoring program at this parcel. The NJDEP finds the recommendation acceptable.

FTMM-64 Building 812 UST Gasoline

Historic sampling at this parcel revealed GWQS exceedances of benzene, vinyl chloride and metals. Results from the 2014 annual sampling event exceeded the GWQS for vinyl chloride. The report recommends continued annual VOC sampling of well 812MW04. The NJDEP finds the recommendation acceptable. If a decision is made to terminate ground water sampling at this parcel, the NJDEP will require confirmatory sampling using low-flow due to PDBS biasing low compared to low-flow at the Fort Monmouth site.

FTMM-66 Building 886 Former AST

Historic sampling revealed GWQS exceedances of benzene, VOC TICs, arsenic and lead. The August 2013 sampling results from wells at this parcel showed exceedances of the GWQS for SVOC TICs. Results from the 2014 annual sampling event did not exceed the GWQS for SVOC TICs. The report recommends one additional sampling round from wells 886RW01, 886RW06 and 886RW08 to confirm that ground water is in compliance with the GWQS. The NJDEP finds the recommendation acceptable.

FTMM-68 Building 700 Former Dry Cleaners

Historic sampling results from August 2013 showed exceedances of the GWQS for PCE, TCE, cis-1,2-DCE and vinyl chloride in wells 565MW01 and 565MW01D. Results from the 2014 annual sampling event confirmed that chlorinated VOCs exceed GWQS in ground water. The report recommends continued quarterly ground water sampling for VOCs. The report also references the RI proposed for implementation in 2015 (the March '15 Revision 1 RIFS WP was approved April 27, 2015), to fully characterize the nature and extent of contamination at this parcel. The NJDEP finds the recommendation of continued quarterly sampling acceptable, and looks forward to receipt of the RI findings.

Miscellaneous

Ground water sample contaminant concentrations (exceedances) should be plotted on future submittal maps as required by the Technical Regulations for Site Remediation and guidance documents.

Finally, please ensure all reports submitted to this office are accompanied by a properly completed certification form, a copy of which is attached.

Please contact this office if you have any questions.

Sincerely,

Linda S. Range

Linda S. Range

C: James Moore, USACE
Cris Grill, Parsons
Joe Pearson, Calibre
Rick Harrison, FMERA
Joe Fallon, FMERA
Frank Barricelli, RAB
Daryl Clark, BGWPA

State of New Jersey

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BOB MARTIN
Commissioner

January 26, 2016

William R. Colvin
BRAC Environmental Coordinator
OACSIM – U.S. Army Fort Monmouth
PO Box 148
Oceanport, NJ 07757

Approval

Re: *Request to Discontinue Long Term Monitoring of Groundwater at FTMM-03 and FTMM-61* dated *November 10, 2015*
Fort Monmouth
Oceanport, Monmouth County
PI G000000032

Dear Mr. Colvin:

The New Jersey Department of Environmental Protection (Department) has completed review of the referenced report, received December 8, 2015, prepared by the Department of the Army. The subject document presents the results of ground water sampling conducted at parcels FTMM-03 and FTMM-61 in 2013 and 2014. Based upon the sampling results, Fort Monmouth is requesting cessation of long-term ground water sampling at the two areas.

FTMM-03 (Landfill)

Historic ground water sampling at FTMM-03 revealed Ground Water Quality Standard exceedances of vinyl chloride in monitor well 3MW07. The vinyl chloride was attributed to leaching of PVC piping from well 3MW07. In 2014, the DEP agreed with a proposal to abandon this well and to conduct sampling solely of 3MW02 for VOCs and metals. The 2014 ground water results for 3MW02 were non-detect for VOCs. Metal exceedances are attributed to background conditions. Based on the analytical results, the proposal to cease ground water sampling is approved.

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FTMM-61 (Building 283)

Historic ground water sampling at FTMM-61 indicated elevated levels of benzene and VOC TICs in monitor well 283MW02. The August 2013 sampling of the well using low-flow revealed no exceedances. In 2014, the DEP agreed with a a proposal to sample the well for one additional sampling round to confirm the 2013 results. The 2014 ground water results for well 283MW02 were non-detect for the contaminants of concern. Based on the analytical results, the proposal to cease ground water sampling is approved.

Please contact this office if you have any questions.

Sincerely,

Linda S. Range

Linda S. Range

C: Joe Pearson, Calibre
James Moore, USACE
Rick Harrison, FMERA
Joe Fallon, FMERA
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BOB MARTIN
Commissioner

March 16, 2016

William R. Colvin
BRAC Environmental Coordinator
OACSIM – U.S. Army Fort Monmouth
PO Box 148
Oceanport, NJ 07757

Re: *Temporary Suspension of Long Term Monitoring Program for Ground Water at Sites FTMM-22, FTMM-53, FTMM-59 and FTMM-68,* dated *February 18, 2016*
Fort Monmouth
Oceanport, Monmouth County
PI G000000032

Dear Mr. Colvin:

The New Jersey Department of Environmental Protection (NJDEP) has completed review of the referenced submittal. The Army submitted an RI/FS Work Plan for sites FTMM-22, FTMM-53, FTMM-59 and FTMM-68 in September 2013. The work plan, approved by the Department in correspondence dated January 8, 2014, proposed ground water investigations to characterize and delineate ground water contamination for each individual site. It is agreed the proposal to temporarily suspend long-term monitoring while the RI/FS work is completed is appropriate. A revised Long Term Monitoring Program is to be reinstated once the RI/FS process in completed.

Please contact this office if you have any questions.

Sincerely,

Linda S. Range

Linda S. Range

C: Joe Pearson, Calibre
Rick Harrison, FMERA
Joe Fallon, FMERA
James Moore, USACE
Cris Grill, Parsons,
Frank Barricelli, RAB
Daryl Clark, BGWPA

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DEPARTMENT OF THE ARMY

OFFICE OF ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
U.S. ARMY FORT MONMOUTH
P.O. 148
OCEANPORT, NEW JERSEY 07757

November 26, 2014

Linda S. Range
State of New Jersey
Department of Environmental Protection
Bureau of Case Management
401 East Side Street
PO Box 420/Mail Code 401-05F
Trenton, NJ 08625-0028

Subject: **State of New Jersey Department of Environmental Protection Comments on the Final Baseline Groundwater Sampling Report (August 2013) Fort Monmouth, Oceanport, Monmouth County. PI G000000032**

Attachments: A. 2009 Temporary Well Points and Analytical Data

B. Revised Table 7

Dear Ms. Range:

Fort Monmouth (FTMM) and Parsons have reviewed the New Jersey Department of Environmental Protection (NJDEP) comments on the Final Baseline Groundwater Sampling Report (August 2013) as documented in your letter dated July 3, 2014. Response to your comments are provided below in the order in which they were presented in the comment letter.

A. GENERAL COMMENT/STATEMENT:

The New Jersey Department of Environmental Protection (Department) has completed review of the referenced report, dated March 2014, received on April 7, 2014. The report was prepared by Parsons Government Services Inc. (Parsons), in support of the Remedial Investigation (RI), Feasibility Study (FS), and Decision Documents project at Fort Monmouth.

A baseline ground water sampling event was conducted at 21 "sites" at the Fort Monmouth property in August 2013. The purpose of the sampling event was to re-establish baseline conditions following suspension of ground water sampling in late 2011, as well as to evaluate Fort Monmouth's long-term ground water sampling program, and the current analytical conditions of the ground water at each site. Sampling methodologies used included low-flow and passive diffusion bag samplers (PDBS). At four sites (FTMM-14, 18, 59, 68), only PDBS sampling was conducted. At three sites (FTMM-05, 22, 58) both low-flow and PDBS samples were obtained for comparison purposes. Fourteen (14) sites were only sampled using low-flow. The report states that PDBS concentrations were consistently biased somewhat low compared to the low-flow

concentrations. The report concludes, however, that the PDBS results were still similar to the low-flow results and are considered representative of ground water conditions at the sites. Based on this conclusion, the report states that for future ground water sampling, PDBS will be used for all sites where volatile organic compounds (VOCs) are the sole contaminants of concern. Comments are presented below.

Section 3.1; Table 6; Appendices & associated Tables - *The "background concentrations" submitted in the* 1995 *Weston report were not accepted by the Department as representative of background conditions for Fort Monmouth. The study was not performed in accordance with Departmental protocol and is not a consideration in our evaluations/determinations. As indicated in Section* 3.1, *background concentrations are evaluated on a site by site basis.*

A. RESPONSE: Acknowledged,

B. FTMM-02 Landfill

B. COMMENT: *Historic sampling at this parcel indicated levels of VOCs above the Ground Water Quality Standard (GWQS); metals were previously determined to be reflective of naturally occurring conditions. The August 2013 sampling of wells using low-flow confirmed the continued exceedance of the GWQS for VOCs. The report recommends VOC sampling of wells M2MW03, M2MW11, M2MW21, M2MW22 and M2MW24 for two additional rounds using PDBS. Well M2MW10 will be monitored as a down gradient sentinel well. Although the proposal is acceptable, for wells in which the saturated screen length exceeds 10 feet, the deployment of multiple PDBS will be required. At any point where a decision is made to terminate ground water sampling at this site, confirmatory sampling using low-flow due to PDBS biasing low as compared to low-flow results at the Fort Monmouth site will be required.*

B1. RESPONSE: Agreed.

C. FTMM-03 Landfill

C. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of vinyl chloride and metals. The August 2013 sampling of wells using low-flow confirmed the continued exceedance of the GWQS for vinyl chloride in well 3MW07. Well 3MW02 was not sampled due to low water column and silty conditions; however, Table 4 of Appendix B recommends sampling of 3MW02 for VOCs and metals. The report attributes the presence of vinyl chloride to leaching of PVC piping from well 3MW07. A temporary well point investigation was conducted in 2009 to delineate the vinyl chloride, the results were non-detect, and abandonment of 3MW07 is recommended. The recommendations are acceptable. However, a figure presenting the locations and sampling results from the 2009 temporary well point investigation must be provided to the Department.*

C. RESPONSE: A figure showing the location of 2009 temporary well points and the associated groundwater analytical data are provided in **Attachment A**. Therefore, FTMM will abandon 3MW07 in accordance with NJDEP well abandonment procedures.

D. FTMM-04 Landfill

D. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of various metals. The August 2013 sampling of wells using low-flow confirmed the continued exceedance of the GWQS for metals. The metals are attributed to background conditions, and cessation of ground water sampling is recommended. The recommendation is acceptable. Monitoring wells at this*

parcel shall be properly abandoned if they are no longer subject to sampling or gaging for water elevation data.

D. RESPONSE: Agreed.

E. FTMM-05 Landfill

E. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of PCE, TCE and vinyl chloride, which the August 2013 sampling, using low-flow and PDBS, confirmed. The report recommends annual VOC sampling of wells M5MW11, M5MW16, M5MW20 and M5MW23 using PDBS. The Department finds the proposal to be acceptable. At any point where a decision is made to terminate ground water sampling at this parcel, the Department will require confirmatory sampling using low-flow due to PDBS results at this parcel biased low compared to the low-flow results.*

E. RESPONSE: Agreed.

F. FTMM-08 Landfill

F. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of pesticides, benzene, PCE and lead. The August 2013 sampling of wells using low-flow confirmed the exceedance of the GWQS for PCE and lead. The well with historic pesticide exceedances (697MW01) could not be located and was not sampled. The report recommends annual ground water sampling of well M8MW11 for VOCs and lead, M8MW12, 15, 16 and 24 for VOCs and M8MW17 and 21 for lead only. Monitoring well 697MW01 will be located and sampled for pesticides, lead and VOCs. The recommendation is acceptable.*

F. RESPONSE: Agreed.

G. FTMM-12 Landfill

G. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of various metals, including arsenic and lead. Historic exceedances of metals except for lead are attributed to background quality. The August 2013 sampling was conducted for lead analysis only. Lead was not detected. The report recommends discontinuing ground water sampling at this parcel. The Department finds the recommendation to be acceptable. Monitoring wells at this parcel shall be properly abandoned if they are no longer subject to sampling or gauging for water elevation data.*

G. RESPONSE: Agreed.

H. FTMM-14 Landfill

H. COMMENT: *Historic sampling at this parcel revealed no GWQS exceedances of VOCs. The August 2013 sampling of wells using PDBS confirmed that there was no exceedance of the GWQS. The report recommends discontinuing ground water sampling at this parcel. The Department finds the recommendation to be acceptable. Monitoring wells at this parcel shall be properly abandoned if they are no longer subject to sampling or gaging for water elevation data. The Department also notes that on Table 1, well M14MW19 is listed as having 10 feet of total screen length. However, the table also lists the saturated screen length as 13.35 feet. This discrepancy should be clarified.*

H. RESPONSE: Agreed. The saturated screen thickness for M14MW19 is 10 feet.

I. FTMM-18 Landfill

I. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of benzene and 1,2-DCA. The August 2013 sampling results of wells using PDBS showed the exceedance of the GWQS for 1,2-DCA in well M18MW22. Well M18MW23 could not be located and was not sampled. The report recommends annual ground water sampling using PDBS for M18MW22 and M18MW23 if it can be located. Every reasonable effort, such as reviewing the NJ State Plane Coordinates of the well, must be made to locate M18MW23. The use of M18MW22 as the sole monitoring well at this parcel will not be acceptable due to the vast difference in historical concentrations between M18MW22 and M18MW23. Historic 2011 benzene concentrations for M18MW23 were 775 ppb and 664 ppb while 2011 concentrations for M18MW22 were 1.81 ppb and 1.65 ppb. The Department cannot approve the use of PDBS sampling only for this parcel. Once M18MW23 is located, the Department can approve the use of both PDBS and low-flow sampling for comparison purposes.*

I. RESPONSE: M18MW23 has been located and will be sampled using PDB methodology during the 2014 annual sampling event, as the historical concentrations of benzene are appropriate for the use of PDBs. FTMM believes that there is enough low flow data (four sampling events over two years) to characterize the concentrations of the volatile constituents in M18MW23 and that a low-flow PDB comparison is not needed for this well. FTMM will vertically profile this well using PDBs should the saturated screen be greater than 10 feet. In addition to the sampling of M18MW23, M18MW22 will also be sampled using PDB methodology and analyzed for VOCs.

J. FTMM-22 Former Wastewater Treatment Lime Pit

J. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of TCE. The August 2013 sampling of wells using low-flow and PDBS confirmed the continued exceedance of the GWQS for TCE in ground water. The report recommends quarterly VOC sampling of wells CWlMW27, CWlMW29, CWlMW31 and CWlMW281 using PDBS. The Department finds the proposal to be acceptable. At any point where a decision is made to terminate ground water sampling at this parcel, the Department will require confirmatory sampling using low-flow due to PDBS results biasing low compared to low-flow results at the Fort Monmouth site.*

J. RESPONSE: Agreed.

K. FTMM-25 Landfill

K. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of various metals. The August 2013 sampling of wells using low-flow confirmed the continued exceedance of the GWQS for metals. The metals are attributed to background conditions. The report recommends discontinuing ground water sampling at this parcel. The Department finds the recommendation to be acceptable. Monitoring wells at this parcel shall be properly abandoned if they are no longer subject to sampling or gauging for water elevation data.*

K. RESPONSE: Agreed.

L. FTMM-53 Building 699

L. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of benzene, PCE, TCE, TBA, VOC TICs and lead. The August 2013 sampling of wells using low-flow showed the exceedance of the GWQS for benzene, xylenes, PCE, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene and VOC TICs. The report recommends quarterly VOC sampling of wells*

699MW01, 699MW04, 699MW06, 699MW09, 699MW16, 699RW03, 699RW05 and 699RW11 using PDBS. The Department finds the proposal to be acceptable. For wells in which the saturated screen length exceeds 10 feet, the deployment of multiple PDBS will be required. At any point where a decision is made to terminate ground water sampling at this parcel, the Department will require confirmatory sampling using low-flow due to PDBS biasing low compared to low-flow at the Fort Monmouth site.

L. RESPONSE: Agreed.

M. FTMM-54 Building 296

M. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of benzene, lead and arsenic. The metals are attributed to background conditions. The August 2013 sampling of wells using low-flow showed an exceedance of the GWQS for benzene. The report recommends annual VOC sampling of wells 269MW04 and 296MW06 using PDBS. The Department finds the proposal to be acceptable. For wells in which the saturated screen length exceeds 10 feet, the deployment of multiple PDBS will be required. At any point where a decision is made to terminate ground water sampling at this parcel, the Department will require confirmatory sampling using low-flow due to PDBS biasing low compared to low-flow at the Fort Monmouth site.*

M. RESPONSE: Agreed.

N. FTMM-55 Building 290

N. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of arsenic and lead. The August 2013 sampling of wells using low-flow confirmed the continued exceedance of the GWQS for lead. The metals are attributed to background conditions. The report recommends discontinuing ground water sampling at this parcel. The Department finds the recommendation to be acceptable. Monitoring wells at this parcel shall be properly abandoned if they are no longer subject to sampling or gauging for water elevation data.*

N. RESPONSE: Agreed.

O. FTMM-56 Building 80

O. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of chlordane, arsenic, lead and cadmium. The August 2013 sampling of wells was conducted for lead only using low-flow. There were no exceedances of lead. The report recommends one additional sampling round of well 80MW02 for chlordane and 80MW05 for lead. The Department finds the recommendation for well 80MW02 to be acceptable. The Department disagrees with the recommendation to sample well 80MW05 for lead only. The last low-flow sampling event in August 2011 had lead, arsenic and cadmium exceeding both the GWQS and background concentrations. Well 80MW05 shall be sampled during the next round for TAL metals.*

O. RESPONSE: Acknowledged. FTMM will modify the analysis method from lead only to lead, arsenic and cadmium at well 80MW05.

P. FTMM-57 Building 108

P. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of lead. In the August 2013 sampling event, there were no exceedances of lead in ground water. The report recommends two additional sampling rounds of well 108MW04 for lead. The Department finds the recommendation acceptable.*

P. RESPONSE: Agreed.

Q. FTMM-58 Building 2567

Q. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of TBA in wells 2567MW01 and 2567MW03. The August 2013 sampling results using low-flow and PDBS were below the GWQS for TBA. The report recommends two annual sampling events for TBA analyses of wells 2567MW01 and 2567MW03 using low-flow. The Department finds the proposal to be acceptable.*

Q. RESPONSE: Agreed.

R. FTMM-59 Building 1122

R. COMMENT: *Historic sampling at this parcel revealed no GWQS exceedances for VOCs. The August 2013 sampling results of wells using PDBS showed no exceedance of VOCs. The text of the report recommends VOC sampling of well 1122MW07 for one additional sampling round to confirm the 2013 results because August 2013 was the first time this well was sampled. The Department finds the proposal to be acceptable. The Department also notes that there is a discrepancy between the recommendation in the text and the recommendation in Table 7. Table 7 recommends that sampling at this parcel be discontinued. Table 7 shall be amended to indicate well 1122MW07 will be sampled for VOCs using PDBS methodology.*

R. RESPONSE: Monitoring well 1122MW07 will be sampled for one additional round during the 2014 annual sampling event using PDB methods. The sample will be analyzed for VOCs. Table 7 has been amended and provided as **Attachment B**.

S. FTMM-61 Building 283

S. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of metals, benzene and VOC TICs in 283MW02. The August 2013 sampling of wells using low-flow for VOCs and lead showed no exceedances. The report recommends VOC sampling of well 283MW02 for one additional sampling round using PDBS methodology to confirm the 2013 results. The Department finds the proposal to be conditionally acceptable. If the saturated screen length exceeds 10 feet, the deployment of multiple PDBS will be required. If a decision is made to terminate ground water sampling at this parcel based on PDBS results, the Department will require confirmatory sampling using low-flow due to PDBS biasing low compared to low-flow at the Fort Monmouth site.*

S. RESPONSE: Acknowledged. Because the next annual sampling round is intended to be the last round, FTMM will sample 283MW02 using LFPS method.

T. FTMM-64 Building 812

T. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of benzene, vinyl chloride and metals. The August 2013 sampling of wells using low-flow for VOCs and lead showed no exceedances. The report recommends VOC sampling of well 812MW04 for one additional sampling round using PDBS methodology to confirm the 2013 results (however Section 5.0 recommends sampling be continued on an annual basis). The Department finds the proposal to be conditionally acceptable. If the saturated screen length exceeds 10 feet, the deployment of multiple PDBS will be required. If a decision is made to terminate ground water sampling at this parcel based on PDBS results, the Department will require confirmatory sampling using low-flow due to PDBS biasing low compared to low-flow at the Fort Monmouth site.*

T. RESPONSE: Acknowledged. Because the next annual sampling round is intended to be the last round, FTMM will sample 812MW04 using LFPS method.

U. FTMM-66 Building 886

U. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of benzene, VOC TICs, arsenic and lead. The August 2013 sampling results from wells using low-flow showed the exceedance of the GWQS for SVOC TICs. The report recommends that sampling at this parcel be discontinued. The Department finds the recommendation unacceptable. Total SVOC TICs exceeded the GWQS of 500 ppb in wells 886RW01 and 886RW06. Ground water monitoring of wells 886RW01, 886RW06 and 886RW08 shall continue for SVOC+TICs using low-flow methodology.*

U. RESPONSE: Agreed. FTMM will continue to monitor 886RW01, 886RW06 and 886RW08 at FTMM-66 for SVOC+TICs using the LFPS method for two additional annual rounds.

V. FTMM-68 Building 700

V. COMMENT: *There are no historic sampling results for this parcel. The August 2013 sampling results of wells using PDBS showed the exceedance of the GWQS for PCE, TCE, cis-l,2-DCE and vinyl chloride in wells 565MW01 and 565MW01D. The report recommends quarterly ground water sampling for VOC+TICs using PDBS for these 2 wells. The Department agrees with the recommendation of quarterly sampling, however, has concerns regarding the use of PDBS for long-term monitoring at this parcel. Unlike the other Fort Monmouth parcels, there are no historical ground water sampling data for comparison with the PDBS results. The DEP's Field Sampling Procedures Manual states that "the intended application of Passive Diffusion Bag Samplers (PDBS) is for long-term monitoring of volatile organic compounds (VOCs) in ground water at well-characterized sites." The Department would find long-term sampling of the wells using PDBS acceptable if low-flow sampling is conducted concurrently once or twice for comparison.*

V. RESPONSE: Fort Monmouth agrees that FTMM-68 has not been fully characterized, however a remedial investigation (RI) is proposed for this site in the near future and the sampling of existing and proposed wells using the LFPS method is proposed in the RI. In the meantime Fort Monmouth proposes to continue to use PDBs to characterize the concentrations. The two existing wells are located in the potential source area and the detected VOCs have a high enough concentration that PDBs, while they tend to bias low, can effectively capture the nature of the VOC concentrations. A work plan for the RI has been submitted to NJDEP and is awaiting approval. During the RI the two existing wells along with new wells will be sampled using LFPS methods and a PDB/LFPS comparison will be made at that time. Additionally, once the RI is complete, a revised long-term monitoring plan will be submitted.

W. GENERAL COMMENT/STATEMENT:

Finally, each of the above comments speak only to the ground water findings and recommendations included in the referenced submittal, rather than to the ground water at the entire site.

W. RESPONSE: Acknowledged.

Please contact me if you have any questions.

Sincerely,

Wanda Green

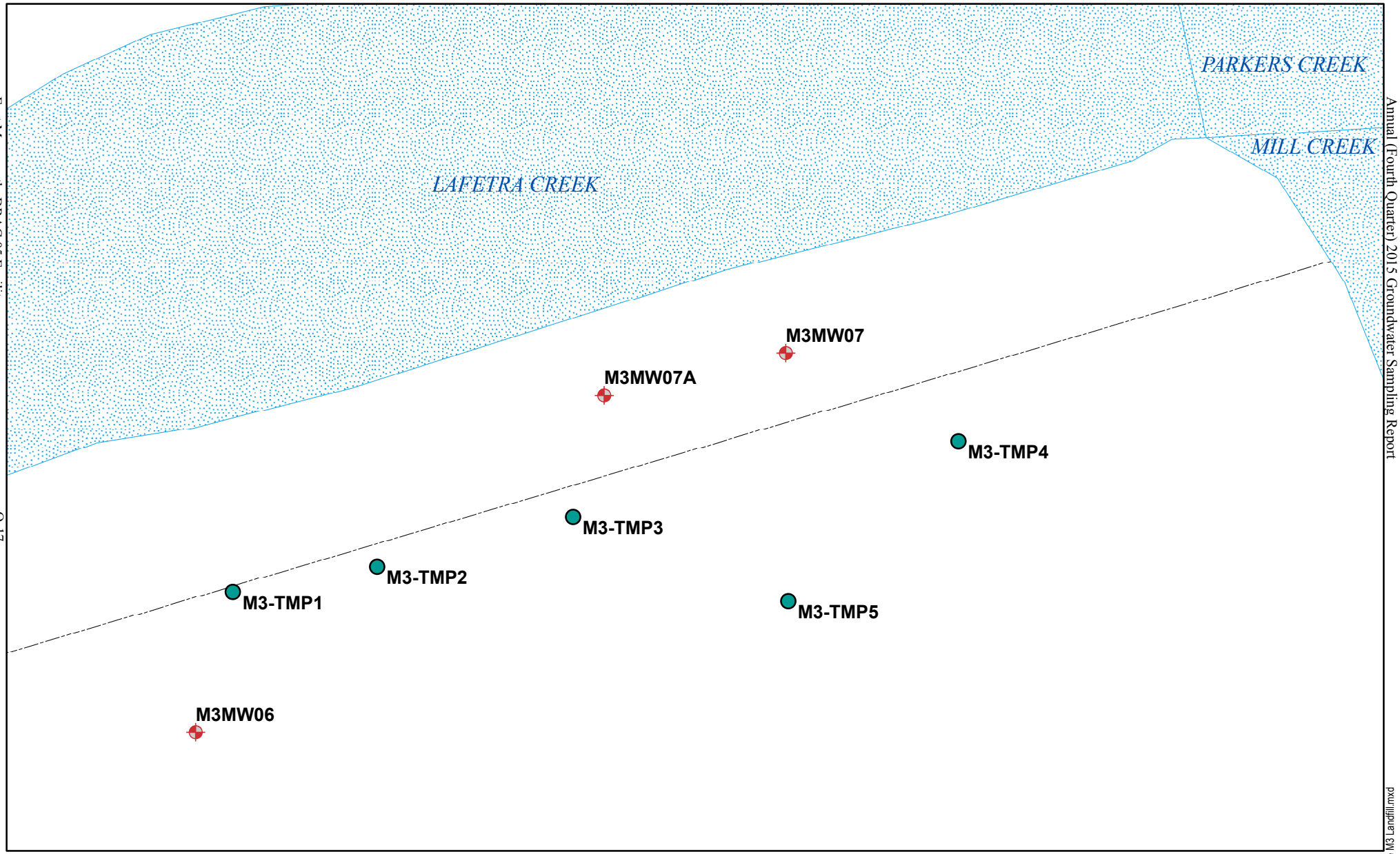
Wanda Green
BRAC Environmental Coordinator
OACSIM – U.S. Army Fort Monmouth

Cc: Parsons
USACE

Encl

ATTACHMENT A

M-3 Landfill Temporary Well Points (February 8, 2011) and Analytical Data Report (November 2, 2009)



M-3 Landfill
Temporary Well Points
Fort Monmouth, New Jersey

N
W E
S

0 10 20 40 Feet

Legend

- Monitoring Well
- Temp. Wells
- Water Body
- Post Boundaries

Map Created by:
Fort Monmouth Installation GIO, Environmental Division
Fort Monmouth, New Jersey
Date: February 8, 2011
New Jersey State Plane Feet, NAD83
All drawings must be field verified.

February 8, 2011 H:\GIS\505\Site M3 Landfill.mxd

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS
PHONE: (732) 532-6224 FAX: (732) 532-6263
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
CERTIFICATIONS: NJDEP #13461

ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: M3 Landfill

M3/Landfill

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time of Collection	Date Received
M3-TMP-01A	9043301	Aqueous	02-Nov-09 10:14	11/02/09
M3-TMP-01B	9043302	Aqueous	02-Nov-09 10:44	11/02/09
M3-TMP-02A	9043303	Aqueous	02-Nov-09 11:15	11/02/09
M3-TMP-02B	9043304	Aqueous	02-Nov-09 11:35	11/02/09
M3-TMP-03A	9043305	Aqueous	02-Nov-09 13:33	11/02/09
M3-TMP-03B	9043306	Aqueous	02-Nov-09 13:50	11/02/09
M3-TMP-04A	9043307	Aqueous	02-Nov-09 14:15	11/02/09
M3-TMP-04B	9043308	Aqueous	02-Nov-09 14:30	11/02/09
M3-FB	9043309	Aqueous	02-Nov-09 14:40	11/02/09
M3-TMP-05A	9043310	Aqueous	02-Nov-09 15:15	11/02/09
Trip Blank	9043311	Aqueous	02-Nov-09 08:25	11/02/09
M3-TMP-05B	9043312	Aqueous	02-Nov-09 13:40	11/02/09

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15

Jacqueline Hamer/Date: 11/12/09
QA/QC Supervisor

The enclosed report relates only to the items tested. The report may not be reproduced, except in full, without written approval of the U.S. Army Fort Monmouth Directorate of Public Works.

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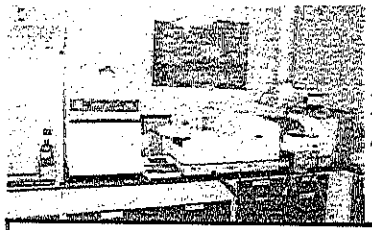
CHAIN OF CUSTODY



Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-6263 EMail:jacqueline.hamer@us.army.mil
NJDEP Certification #13461

Chain of Custody Record

Customer: Joe Fallon | **Project No:** | **Location:** M3 | **Phone #:** 732-532-6223 | ( )DERA ( )OMA ( )Other: BRAC

Samplers Name / Company: John Montgomery

LIMS/Work Order #	Sample Location	Date	Time	Sample Type	# bottles	Analysis Parameters: 1,4-D								Comments: Remarks / Preservation Method
90493 01	M3-TMP-01A	11-2-09	1014	AQ	2	X								
02	M3-TMP-02B	11-2-09	1044	AQ	2	X								
03	M3-TMP-02A	11-2-09	1115	AQ	2	X								
04	M3-TMP-02B	11-2-09	1135	AQ	2	X								
05	M3-TMP-03A	11-2-09	1333	AQ	2	X								
06	M3-TMP-03B	11-2-09	1350	AQ	2	X								
07	M3-TMP-04A	11-2-09	1415	AQ	2	X								
08	M3-TMP-04B	11-2-09	1430	AQ	2	X								
09	M3-FB	11-2-09	1440	AQ	2	X								
10	M3-TMP-05A	11-2-09	1515	AQ	2	X								
11	Trip Blank	11-2-09	825	AQ	2	X								
12	M3-TMP-05B	11-2-09	1340	AQ	2	X								

Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):
John Montgomery	11-2-09 1550				
Relinquished by (signature):	Date/Time:	Received by (signature):	Relinquished by (signature):	Date/Time:	Received by (signature):

Report Type: ( )Full, ( )Reduced, (X)Standard, ( )Screen / non-certified, ( )EDD Full X
Turnaround time: ( )Standard 3 wks, (X)Rush Wk., ( )ASAP Verbal ____Hrs.

Comments:

print legibly

new coc._1.XLS10/9/2009

SAMPLE RECEIPT FORM

Date Received: 11-2-09 Work Order ID#: 90433

Site/Proj. Name: M3/Landfill Cooler Temp (°C): ICE

Received By: J. Vergona Sign: J. Vergona
(Print name)

Check the appropriate box

1. Did the samples come in a cooler? ☑ yes ☐ no ☐ n/a
2. Were samples rec'd in good condition? ☑ yes ☐ no
3. Was the chain of custody filled out correctly and legibly? ☑ yes ☐ no
4. Was the chain of custody signed in the appropriate place? ☑ yes ☐ no
5. Did the labels agree with the chain of custody? ☑ yes ☐ no
6. Were the correct containers/preservatives used? ☑ yes ☐ no
7. Was a sufficient amount of sample supplied? ☑ yes ☐ no
8. Were air bubbles present in VOA vials? ☐ yes ☑ no ☐ n/a
9. Were samples received on ice? ☑ yes ☐ no
10. Were analyze-immediately tests perform within 15 minutes ☐ yes ☐ no ☑ n/a

Fill out the following table for each sample bottle

Lims ID	pH	Preservative	Sample ID	pH	Preservative

Comments: _____

METHOD SUMMARY

Method Summary

EPA Method 624–Aqueous
Gas Chromatographic Determination of Volatiles in Water

A 5-ml volume of sample is added to 5-ml aliquot of water. Surrogates and internal standards are added and the sample is placed on a purge and trap concentrator. The sample is purged and desorbed into a GC/MS system. Volatiles are then identified and quantitated.

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 90433 **Site:** M3/LANDFILL

	Date	Hold Time
Date Sampled	11/02/09	NA
Receipt/Refrigeration	11/02/09	NA
Analyses		
1. Volatile Organics	11/03/09	14 Days

CONFORMANCE/ NON-CONFORMANCE SUMMARY

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

	Indicate Yes, No, N/A
1. Chromatograms labeled/Compounds identified (Field samples and method blanks)	yes
2. Retention times for chromatograms provided	yes
3. GC/MS Tune Specifications	
a. BFB Meet Criteria	yes
b. DFTPP Meet Criteria	NA
4. GC/MS Tuning Frequency – Performed every 24 hours for 600 series and 12 hours for 8000 series	yes
5. GC/MS Calibration – Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series	yes
6. GC/MS Calibration requirements	
a. Calibration Check Compounds Meet Criteria	yes
b. System Performance Check Compounds Meet Criteria	yes
7. Blank Contamination – If yes, List compounds and concentrations in each blank:	NO
a. VOA Fraction	
b. B/N Fraction NA	
c. Acid Fraction NA	
8. Surrogate Recoveries Meet Criteria	yes
If not met, list those compounds and their recoveries, which fall outside the acceptable range:	
a. VOA Fraction	
b. B/N Fraction NA	
c. Acid Fraction NA	
If not met, were the calculations checked and the results qualified as "estimated"?	
9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries, which fall outside the acceptable range)	NO
a. VOA Fraction Some Compounds failed with high recoveries	
b. B/N Fraction NA	
c. Acid Fraction NA	

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT (cont.)

Indicate
Yes, No, N/A

10. Internal Standard Area/Retention Time Shift Meet Criteria (YES)
(If not met, list those compounds, which fall outside the acceptable range)

a. VOA Fraction _____
b. B/N Fraction NA
c. Acid Fraction NA

11. Extraction Holding Time Met NA

If not met, list the number of days exceeded for each sample: _____

12. Analysis Holding Time Met Yes

If not met, list the number of days exceeded for each sample: _____

Additional Comments:

Laboratory Manager: [signature] Date: 11/12/09

VOLATILE ORGANICS

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEP CERTIFICATION # 13461

Definition of Qualifiers

U: The compound was analyzed for but not detected.

B: Indicates that the compound was found in the associated method blank as well as in the sample.

J: Indicates an estimated value. This flag is used:
(1) When the mass spec and retention time data indicate the presence of a compound however the result is less than the reporting limit but greater than the MDL.
(2) When estimating the concentration of a tentatively identified compound (TIC), where a 1:1 response is assumed.

D: This flag is used to identify all compounds (target or TIC) that required a dilution.

E: Indicates the compound's concentration exceeds the calibration range of the instrument for that specific analysis.

N: This flag is only used for TICs. It indicates the presumptive evidence of a compound. For a generic characterization of a TIC, such as unknown hydrocarbon, the flag is not used.

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	VA4808.D	Sample Name	MB11030901
Operator	ROBERTS	Field ID	METHOD 624 11/3/09
Date Acquired	3 Nov 2009 3:24 pm	Sample Multiplier	1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J= Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
MB11030901

Lab Name: FMETL Contract:
Lab Code: 13461 Case No.: MW SAS No.: SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: MB11030901
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4808.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 3/90

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	VA4820.D	Sample Name	9043311
Operator	ROBERTS	Field ID	M-3 TRIP BLANK
Date Acquired	3 Nov 2009 9:35 pm	Sample Multiplier	1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J= Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
M3-TRIP BLANK

Lab Name: FMETL Contract:
Lab Code: 13461 Case No.: MW SAS No.: SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043311
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4820.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 3/90

000016

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	VA4818.D	Sample Name	9043309
Operator	ROBERTS	Field ID	M-3 FB
Date Acquired	3 Nov 2009 8:33 pm	Sample Multiplier	1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J= Estimated concentration, value falls between R.L. and M.D.L.
MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
M3-FB

Lab Name: FMETL Contract:
Lab Code: 13461 Case No.: MW SAS No.: SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043309
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4818.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 3/90

000018

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	VA4810.D	Sample Name	9043301
Operator	ROBERTS	Field ID	M-3 TMP-01A
Date Acquired	3 Nov 2009 4:26 pm	Sample Multiplier	1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J= Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
M3-TMP-01A

Lab Name: FMETL Contract:
Lab Code: 13461 Case No.: MW SAS No.: SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043301
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4810.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 3/90

000020

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	VA4811.D	Sample Name	9043302
Operator	ROBERTS	Field ID	M-3 TMP-01B
Date Acquired	3 Nov 2009 4:57 pm	Sample Multiplier	1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J= Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
M3-TMP-01B

Lab Name: FMETL Contract:
Lab Code: 13461 Case No.: MW SAS No.: SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043302
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4811.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

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000022

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	VA4812.D	Sample Name	9043303
Operator	ROBERTS	Field ID	M-3 TMP-02A
Date Acquired	3 Nov 2009 5:27 pm	Sample Multiplier	1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J= Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
M3-TMP-02A

Lab Name: FMETL Contract:
Lab Code: 13461 Case No.: MW SAS No.: SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043303
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4812.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 3/90

000024

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	VA4813.D	Sample Name	9043304
Operator	ROBERTS	Field ID	M-3 TMP-02B
Date Acquired	3 Nov 2009 5:58 pm	Sample Multiplier	1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J= Estimated concentration, value falls between R.L. and M.D.L.
MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
M3-TMP-02B

Lab Name: FMETL Contract:
Lab Code: 13461 Case No.: MW SAS No.: SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043304
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4813.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 3/90

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	VA4814.D	Sample Name	9043305
Operator	ROBERTS	Field ID	M-3 TMP-03A
Date Acquired	3 Nov 2009 6:29 pm	Sample Multiplier	1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene	15.75	7105	0.20 ug/L	50	0.15 ug/L	0.50 ug/L	J
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene	16.89	10649	0.29 ug/L	100	0.12 ug/L	0.50 ug/L	J
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J= Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
M3-TMP-03A

Lab Name: FMETL Contract:
Lab Code: 13461 Case No.: MW SAS No.: SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043305
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4814.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 3

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	Alkene: Branched	11.47	5	J
2.	Alkane: Cyclic	12.84	4	J
3.	Alkane: Cyclic	13.41	3	J

FORM I VOA-TIC 3/90

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	VA4815.D	Sample Name	9043306
Operator	ROBERTS	Field ID	M-3 TMP-03B
Date Acquired	3 Nov 2009 7:00 pm	Sample Multiplier	1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene	15.75	18444	0.48 ug/L	50	0.15 ug/L	0.50 ug/L	J
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene	16.89	16127	0.40 ug/L	100	0.12 ug/L	0.50 ug/L	J
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J= Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
M3-TMP-03B

Lab Name: FMETL Contract:
Lab Code: 13461 Case No.: MW SAS No.: SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043306
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4815.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 13

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	Alkane: Cyclic	9.14	11	J
2.	unknown hydrocarbon	10.24	4	J
3.	Alkane: Cyclic	10.39	8	J
4.	Alkane: Cyclic	10.47	9	J
5.	Alkane: Cyclic	10.55	14	J
6.	Alkane: Cyclic	11.47	32	J
7.	Alkane: Cyclic	11.78	3	J
8.	Alkane: Cyclic	11.99	4	J
9.	Alkane: Cyclic	12.83	18	J
10.	Alkane: Cyclic	13.15	6	J
11.	Alkane: Cyclic	13.41	14	J
12.	Alkane: Cyclic	13.55	7	J
13.	Alkane: Cyclic	14.24	8	J

FORM I VOA-TIC 3/90

000030

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	VA4816.D	Sample Name	9043307
Operator	ROBERTS	Field ID	M-3 TMP-04A
Date Acquired	3 Nov 2009 7:31 pm	Sample Multiplier	1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene	15.75	13791	0.39 ug/L	50	0.15 ug/L	0.50 ug/L	J
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J= Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

M3-TMP-04A

Lab Name: FMETL Contract:

Lab Code: 13461 Case No.: MW SAS No.: SDG No.: 90433

Matrix: (soil/water) WATER Lab Sample ID: 9043307

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4816.D

Level: (low/med) LOW Date Received: 11/2/2009

% Moisture: not dec. Date Analyzed: 11/3/2009

GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 3/90

000032

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	VA4817.D	Sample Name	9043308
Operator	ROBERTS	Field ID	M-3 TMP-04B
Date Acquired	3 Nov 2009 8:02 pm	Sample Multiplier	1

CAS#	Compound Name	R.T.	Response	Result		Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not	detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not	detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not	detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not	detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not	detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not	detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not	detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not	detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not	detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not	detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not	detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not	detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not	detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not	detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not	detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not	detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not	detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not	detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not	detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not	detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not	detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not	detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not	detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not	detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not	detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene	11.42	8647	0.63	ug/L	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not	detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not	detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not	detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not	detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not	detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not	detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not	detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not	detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not	detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not	detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not	detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not	detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not	detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not	detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not	detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not	detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not	detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not	detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not	detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not	detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not	detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not	detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J= Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

M3-TMP-04B

Lab Name: FMETL Contract:

Lab Code: 13461 Case No.: MW SAS No.: SDG No.: 90433

Matrix: (soil/water) WATER Lab Sample ID: 9043308

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4817.D

Level: (low/med) LOW Date Received: 11/2/2009

% Moisture: not dec. Date Analyzed: 11/3/2009

GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 3/90

000034

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	VA4819.D	Sample Name	9043310
Operator	ROBERTS	Field ID	M-3 TMP-05A
Date Acquired	3 Nov 2009 9:04 pm	Sample Multiplier	1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J= Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
M3-TMP-05A

Lab Name: FMETL Contract:

Lab Code: 13461 Case No.: MW SAS No.: SDG No.: 90433

Matrix: (soil/water) WATER Lab Sample ID: 9043310

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4819.D

Level: (low/med) LOW Date Received: 11/2/2009

% Moisture: not dec. Date Analyzed: 11/3/2009

GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 3/90

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File	VA4821.D	Sample Name	9043312
Operator	ROBERTS	Field ID	M-3 TMP-05B
Date Acquired	3 Nov 2009 10:05 pm	Sample Multiplier	1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene	9.66	13115	0.94 ug/L	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene	13.37	22984	0.46 ug/L	1000	0.15 ug/L	0.50 ug/L	J
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene	15.75	10326	0.30 ug/L	50	0.15 ug/L	0.50 ug/L	J
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J= Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
M3-TMP-05B

Lab Name: FMETL Contract:
Lab Code: 13461 Case No.: MW SAS No.: SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043312
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4821.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000496-11-7	Indane	20.42	3	JN

FORM I VOA-TIC 3/90

000038

ATTACHMENT B

Table 7 Summary of Long Term Monitoring Recommendations August 2013 Baseline Groundwater Sampling Report

Table 7
Summary of Long Term Monitoring Recommendations
August 2013 Baseline Groundwater Sampling Report
Fort Monmouth, New Jersey

Site	Historical Exceedances		August 2013 Exceedances[1]		August 2013 Sampling				Recommended Sampling in 2014[2]				Frequency		Comments
	Monitoring Wells (MWs) Exhibiting Exceedances	Analytes	MWs Exhibiting Exceedances	Analytes	Number of MWs sampled	Monitoring wells sampled	Analysis	Sampling methodology	Number of MWs to be sampled	MWs to be sampled	Analysis	Sampling Methodology	Performance Work Statement (PWS)	August 2013 recommendation	
M2	M2MW02 to M2MW13, M2MW21 to M2MW24	Metals, benzene, chlorobenzene, TBA	M2MW03	Benzene, chlorobenzene	16	M2MW02 to M2MW13, M2MW21 to M2MW24	VOCs & TICs-EPA Method 8260C Pesticides-EPA Method 8081B	LFPS	6	M2MW03, M2MW10, M2MW11, M2MW21, M2MW22, M2MW24	VOCs-EPA Method 8260C	PDB	Two rounds	Two additional rounds of sampling - PDB	Metals sampling discontinued due to background sources. Pesticides sampling is not recommended due to no detection in August 2013. Well to be retained for downgradient monitoring of benzene.
M3	M3MW02, M3MW04 to M3MW14, M3MW07A,	Metals, VC	M3MW07	VC	12	M3MW04 to M3MW14, M3MW07A,	VOCs & TICs-EPA Method 8260C Metals-EPA Method 6010C/7470A	LFPS	1	M3MW02	VOCs-EPA Method 8260C Metals-EPA Method 6010C/7470A (M3MW02)	LFPS	Annual	One additional round - LFPS	Metals sampling discontinued due to background sources. M3MW02 not sampled due to low water column and silt. Sample for VOCs and metals in next round.
M4	M4MW07 to M4MW10	Metals	None	N/A	6	M4MW05 to M4MW10	VOCs & TICs-EPA Method 8260C Metals-EPA Method 6010C/7470A	LFPS	0	N/A	N/A	N/A	Two rounds	Discontinued	Metals sampling discontinued due to background sources. No exceedances, discontinue sampling.
M5	M5MW11, M5MW16, M5MW20, M5MW23	PCE, TCE, VC	M5MW11, M5MW16, M5MW20, M5MW23	PCE, TCE, VC	10	M5MW10 to M5MW16, M5WM18 to M5MW20, M5MW23	VOCs & TICs-EPA Method 8260C	PDB	4	M5MW11, M5MW16, M5MW20, M5MW23	VOCs-EPA Method 8260C	PDB	Annual	Annual - PDB	
M8	M8MW11 to M8MW23, RM8MW24, 697MW01	Metals, benzene	M8MW12, M8MW14	Pb, PCE	13	M8MW12 to M8MW23, RM8MW24	VOCs & TICs-EPA Method 8260C Pesticides-EPA Method 8081B Lead-EPA Method 6010C	LFPS	8	M8MW11, M8MW12, M8MW15, M8MW16, M8MW17, M8MW21, M8MW24, 697MW01	Pb-EPA Method 6010C (M8MW11, M8MW17, M8MW21, and 697MW01), VOCs-EPA Method 8260C (M8MW11, M8MW12, M8MW15, and 697MW01) Pesticides-EPA Method 8081B (697MW01)	LFPS	Annual	Annual - LFPS	Metals sampling discontinued due to background sources at the exception of Pb (M8MW11, M8MW17, and M8MW21) and Mn (M8MW14). PCE was the only VOCs exceedance in August 2013. M8MW11 was not part of the Aug 2013 baseline sampling. Due to historical exceedances for Pb, reintroduced in long term monitoring sampling program. 697MW01 not sampled in August 2013. Must locate and sample for VOC, Pb, and pesticides.
M12	M12MW11 to M12MW26	Metals	None	N/A	16	M12MW11 to M12MW26	Lead-EPA Method 6010C	LFPS	0	N/A	N/A	N/A	Two rounds	Discontinued	Metals sampling discontinued due to background sources. No Pb exceedance in August 2013, discontinue sampling
M14	M14MW19 to M14MW24	Metals	None	N/A	6	M14MW19 to M14MW24	VOCs & TICs-EPA Method 8260C	PDB	0	N/A	N/A	N/A	Annual	Discontinued	Metals sampling discontinued due to background sources. No VOCs exceedance in August 2013, discontinue sampling.
M18	M18MW22, M18MW23, MP18MW24, MP18MW25	Benzene, 1,2-DCA, carbon tetrachloride, metals	M18MW22	1,2-DCA	3	M18MW22, MP18MW24, MP18MW25	VOCs & TICs-EPA Method 8260C	PDB	2	M18MW22 M18MW23	VOCs-EPA Method 8260C	PDB	Annual	Annual - PDB	Metals sampling discontinued due to background sources. M18MW23 not sampled in August 2013. Must locate M18MW23 and sample for VOCs.
M22	CW1MW25 to CW1MW33, CW1MW35 to CW1MW40, CW1MW281, CW1MW282, CW1MW291	Metals, TCE	CW1MW29	TCE	16	CW1MW26 to CW1MW40, CW1MW282, CW1MW291	VOCs & TICs-EPA Method 8260C	PDB	4	CW1MW27, CW1MW31, CW1MW29 CW1MW281	VOCs-EPA Method 8260C	PDB	Quarterly	Quarterly - PDB	Metals sampling discontinued due to background sources. CW1MW281 not sampled in August 2013 due to obstruction in the well. Obstruction removed in January 2014.
M25	CW3AMW01 to CW3AMW04	Metals	None	N/A	4	CW3AMW01 to CW3AMW04	VOCs & TICs-EPA Method 8260C Pesticides-EPA Method 8081B Metals-EPA Method 6010C/7470A	LFPS	0	N/A	N/A	N/A	Not on PWS List	Discontinued	Metals sampling discontinued due to background sources.
M53	616MW01, 699MW01 , 699MW02, 699MW04 to 699MW06, 699MW08, 699MW09, 699MW12, 699MW15, 699MW16, 699RW03, 699RW05, 699RW11	Metals, benzene, PCE, 1,2,4-TMB, 1,3,5-TMB, xylenes,TBA, TCE, TICs	699MW06, 699MW16, 699RW03, 699RW05, 699RW11	Benzene, PCE, 1,2,4-TMB, 1,3,5-TMB, xylenes	14	616MW01, 699MW01 , 699MW02, 699MW04 to 699MW06, 699MW08, 699MW09, 699MW12, 699MW15, 699MW16, 699RW03, 699RW05, 699RW11	VOCs & TICs-EPA Method 8260C	LFPS	8	699MW01, 699MW04, 699MW06, 699MW09, 699MW16, 699RW03, 699RW05, 699RW11	VOCs-EPA Method 8260C	PDB	Quarterly	Quarterly - PDB	Metals sampling discontinued due to background sources. List of MWs based on historical and August 2013 analytical results.
M54	296MW01 to 296MW04, 296MW06 to 296MW08	Metals, benzene	296MW06	Benzene	7	296MW01 to 296MW04, 296MW06 to 296MW08	VOCs & TICs-EPA Method 8260C Lead-EPA Method 6010C/7470A	LFPS	2	296MW04, 296MW06	VOC-EPA Method 8260C (296MW06)	PDB	Annual	Annual - PDB	Metals sampling discontinued due to background sources. 296MW04 used as delineation point for 296MW06
M55	290MW01	As, Pb	None	N/A	1	290MW01	Lead-EPA Method 6010C/7470A	LFPS	0	N/A	N/A	N/A	Annual	Discontinued	Metals sampling discontinued due to background sources.
M56	80MW01 to 80MW05, 166MW01	Metals, chlordane	None	N/A	6	80MW01 to 80MW05, 166MW01	Lead-EPA Method 6010C/7470A	LFPS	2	80MW05, 80MW02	Pb-EPA Method 6010C/7470A (80MW05), Pesticides-EPA Method 8081B (80MW02)	LFPS	Annual	one additional round - LFPS	Continue Pb sampling at 80MW05. Other metals considered background concentrations. 80MW02 will be analyzed for pesticides. Monitoring wells will be sampled for one additional round.
M57	108MW01 to 108MW04	Metals	108MW01, 108MW02, 108MW03	Metals	4	108MW01 to 108MW04	VOCs & TICs-EPA Method 8260C Pesticides-EPA Method 8081B Metals-EPA Method 6010C/7470A	LFPS	1	108MW04	Pb-EPA Method 6010C/7470A	LFPS	Not on PWS List	two additional rounds - LFPS	Pb will be analyzed at 108MW04 for two more rounds.
M58	2567MW01, 2567MW03	TBA	None	N/A	7	2567MW01 to 2567MW07	VOCs & TICs-EPA Method 8260C	PDB	2	2567MW01, 2567MW03	VOC-EPA Method 8260C - TBA Only	LFPS	Annual	Two additional rounds of sampling - LFPS	Wells will be analyzed for TBA only for two rounds to confirm presence or lack of contaminant.
M59	1122MW01 to 1122MW06 1122MW07 - not available	Metals	None	N/A	7	1122MW01 to 1122MW07	VOCs & TICs-EPA Method 8260C	PDB	1	1122MW07	VOC-EPA Method 8260C	PDB	Quarterly	One additonal round	One additonal round to confirm results.
M61	283MW01 to 283MW04	Metals, benzene, TICs	None	N/A	4	283MW01 to 283MW04	VOCs & TICs-EPA Method 8260C Lead-EPA Method 6010C/7470A	LFPS	1	283MW02	VOCs-EPA Method 8260C	PDB	Annual	one additional round - PDB	Continue sampling at 283MW03 because of historical benzene exceedances.
M64	812MW01, 812MW02, 812MW04 to 812MW08, 812MW14	Metals, benzene, VC	None	N/A	8	812MW01, 812MW02, 812MW04 to 812MW08, 812MW14	VOCs & TICs-EPA Method 8260C Lead-EPA Method 6010C/7470A	LFPS	1	812MW04	VOC-EPA Method 8260C	PDB	Annual	Annual - PDB	Metals analysis discontinued due to background. VOCs analyzed an annually in 812MW04.
M66	886MW01 , 886MW03, 886MW05, 886RW01 to 886RW08	Metals, bis(2-ethylhexyl)phthalate	None	N/A	13	886MW01 to 886MW05, 886RW01 to 886RW08	VOCs & TICs-EPA Method 8260C SVOCs-EPA Method 8270D Lead-EPA Method 6010C/7470A	LFPS	0	N/A	N/A	N/A	Quarterly	Discontinued	Bis(2-ethylhexyl)phthalate result is anomalous. Metals sampling discontinued due to background sources.
M68	N/A	N/A	565MW01, 565MW01D	PCE, TCE, cis-1,2-DCE, VC	2	565MW01, 565MW01D	VOCs & TICs-EPA Method 8260C	PDB	2	565MW01, 565MW01D	VOC-EPA Method 8260C	PDB	Quarterly	Quarterly - PDB	No historical data available, continue sampling.

Notes:

MWs - monitoring wells
N/A - not applicable
VOCs - volatile organics compounds
SVOCs - semivolatiles organic compounds
TMB - trimethhylbenzene
VC - vinyl chloride
TCE - tetrachloroethene
PCE - tetrachloroethene
1,1-DCA - 1,1-dichloroethane
1,2-DCA - 1,2-dichloroethane
1.1.1-TCA - 1.1.1-trichloroethane
1,2,4-TMB - 1,2,4-trimethylbenzene
1,3,5-TMB - 1,3,5-trimethylbenzene
TICs - tentatively identified compounds
TBA - tert-butyl-alcohol
LFPS - low flow purging and sampling
PDB - passive diffusion bags

1. Exceedance is defined as a parameter that was greater than NJDEP GWQS.
2. The recommendations are for sampling in 2014 to allow for the continued monitoring of groundwater conditions. Remedial investigations are ongoing at many of the sites and these recommendations may be modified based on analysis of new information and evaluation of risk.